1. CALL TO ORDER

2. ADOPTION OF AGENDA

3. ITEMS FOR DISCUSSION AND RELATED BUSINESS
   3.1 Select Items for Debate
   3.2 Vote on Items not Selected for Debate

4. ADOPTION OF PREVIOUS MINUTES
   4.1 Approval of Minutes of the Council Meeting held Monday, February 24, 2020

5. RECOGNITION ITEMS
   5.1 Leduc Achievement Award - The Melisizwe Brothers
       (Mayor B. Young)

6. PUBLIC COMMENTARY

7. PUBLIC HEARING
   7.1 Bylaw No. 1040-2019 - Amendment to Land Use Bylaw No. 809-2013

8. PRESENTATIONS

9. BUSINESS
   9.1 Parks, Open Space and Trails ("POST") Master Plan Update
       (R. Yeung)
       (Presentation Attached)
9.2 Minimum Landscape Design Construction Standards Update

(R. Yeung)

(Presentation Attached)

10. BYLAWS

10.1 Bylaw No. 1040-2019 - Amendment to Land Use Bylaw No. 809-2013 (2nd & 3rd Readings)

(D. Peck)

10.2 Bylaw No. 1048-2020 - Borrowing Bylaw for Crystal Creek Site Servicing (1st Reading)

(J. Cannon / S. Olson)

(Presentation Attached)

11. PUBLIC COMMENTARY

12. CLOSED SESSION

13. RISE AND REPORT FROM CLOSED SESSION

14. UPDATES FROM BOARDS & COMMITTEES

14.1 Council Member Updates from Boards & Committees

14.2 Council Member Updates from Commissions, Authorities, Other

15. INFORMATION REPORTS

15.1 Mayor's Report

15.2 Building Inspector's Report

15.3 Newly Issued Business Licences

16. ADJOURNMENT
MINUTES OF THE CITY OF LEDUC
COUNCIL MEETING

Monday, February 24, 2020

Present: Mayor B. Young, Councillor B. Beckett, Councillor G. Finstad, Councillor L. Hansen, Councillor T. Lazowski, Councillor L. Tillack

Absent: Councillor B. Hamilton

Also Present: Irene Sasyniuk, A/City Manager, S. Davis, City Clerk

1. CALL TO ORDER
   Mayor B. Young called the meeting to order at 7:01 pm.

2. ADOPTION OF AGENDA
   MOVED by Councillor L. Hansen
   That the agenda be adopted with the following addition:
   14. INFORMATION ITEMS
   14.5 Hens and Bees Update
   Motion Carried Unanimously

3. ITEMS FOR DISCUSSION AND RELATED BUSINESS
   3.1 Select Items for Debate
   The following items were selected for debate:
   9. BUSINESS
   9.1 Integrated Finance - HR Project Update
   9.2 Growth Study - Projections
   9.3 Technology Requirements Update
   9.4 Mature Neighbourhoods Infill Study
9.5 Regional Transit Services Commission ("RTSC") February 24, 2020

14. INFORMATION TIMES

14.5 Hens and Bees Update

3.2 Vote on Items not Selected for Debate

Votes recorded under item headings.

4. ADOPTION OF PREVIOUS MINUTES

4.1 Approval of Minutes of the Council Meeting held Monday, January 27, 2020

MOVED by Councillor B. Beckett

That the minutes of the Council Meeting held Monday, January 27, 2020, be approved as presented.

Motion Carried Unanimously

5. RECOGNITION ITEMS

There were no Recognition Items for the agenda.

6. PUBLIC COMMENTARY

S. Bissell, Executive Director, Leduc Boys and Girls Club, thanked Council for hearing the Club's concerns this week. S. Bissell expressed her gratitude to being treated with respect and consideration.

7. PUBLIC HEARING

There were no Public Hearings for the agenda.

8. PRESENTATIONS

There were no Presentations for the agenda.
9. **BUSINESS**

9.1 **Integrated Finance - HR Project Update**

J. Graham, Chief Information Officer and K. Razmahel, Principal & Managing Director, Errington Hill Consulting Inc., made a PowerPoint presentation (Attached to the Agenda).

J. Graham, K. Razmahel and J. Cannon, Director, Finance, answered Council's questions.

9.2 **Growth Study - Projections**

S. Losier, Manager, Long Range Planning and P. Shewchuk, Nichols Applied Management Inc., made a PowerPoint presentation (Attached to the Agenda).

S. Losier and P. Shewchuk answered Council's questions.

9.3 **Technology Requirements Update**

J. Graham, Chief Information Officer, made a verbal presentation and answered Council's questions.

**MOVED by** Councillor B. Beckett

That Council approve that the funds allocated for this project being $55,000 from 092.370 Meeting Management Software project and $19,600 from 092.360 IT Governance project, be carried forward into the 2020 Budget.

**Motion Carried Unanimously**

**MOVED by** Councillor L. Hansen

That Administration prepare, and issue, a Request for Proposals and return to Council with results for consideration.

**Motion Carried Unanimously**

9.4 **Mature Neighbourhoods Infill Study**

K. Fougere, Long Range Planner II, made a PowerPoint presentation (Attached to the Agenda).

9.5 Regional Transit Services Commission (RTSC) February 24, 2020

M. Pieters, General Manager, Infrastructure and Planning, made a verbal presentation and answered Council's questions.

MOVED by Councillor G. Finstad

That the Chief Administrative Officer be directed to provide notice in writing to the Deputy Ministers of Transportation and Municipal Affairs for the Province of Alberta that the City of Leduc supports enactment of a regulation under the Municipal Government Act creating a Regional Transit Services Commission for the Edmonton Metropolitan Region including the City of Leduc as a Commission member, provided that the governance, financial and operating models for the Commission are consistent with the recommendations in the Ernst & Young report, entitled “Accelerating Transit in the Edmonton Metropolitan Region: Building a Regional Transit Services Commission.”

In Favour: (5): Mayor B. Young, Councillor B. Beckett, Councillor G. Finstad, Councillor L. Hansen, and Councillor L. Tillack

Opposed: (1): Councillor T. Lazowski

Motion Carried

10. BYLAWS

There were no Bylaws for the agenda.

11. PUBLIC COMMENTARY

There was no public commentary.

12. CLOSED SESSION

There were no Closed Session items for the agenda.

13. RISE AND REPORT FROM CLOSED SESSION

14. INFORMATION REPORTS

14.1 Mayor’s Report

There was no discussion.
14.2 **Year End Building Permit Summary 2019**

There was no discussion.

14.3 **Building Inspector's Report**

There was no discussion.

14.4 **Newly Issued Business Licences**

There was no discussion.

14.5 **Hens and Bees Update**

Councillor L. Hansen advised that there will be an information session on the Hens and Bees Pilot Program on March 11, 2020, at the Leduc Public Library from 7 - 8 pm.

15. **ADJOURNMENT**

The Council meeting adjourned at 8:20 pm.

________________________________________

B. YOUNG, Mayor

________________________________________

S. DAVIS, City Clerk
NOTICE OF PUBLIC HEARING

PROPOSED AMENDMENT TO LAND USE BYLAW

The Following Information is Common to the Bylaw Presented

The City of Leduc Land Use Bylaw 809-2013 regulates and controls the use and development of land and buildings within the City of Leduc. To amend the existing regulations under the Land Use Bylaw, the proposed amendment must be published to allow citizens an opportunity to clarify what is proposed, ask questions, or present objections at a required public hearing held prior to Council approving the amendment.

Bylaw No. 1040-2019

The purpose of proposed Bylaw No. 1040-2019 is to amend Bylaw No. 809-2013, to permit “Container, Shipping Container or Sea Can” use for temporary storage purposes in the IBL – Business Light Industrial subject to prescribed siting conditions.

The proposed amendment will allow shipping containers for storage purposes on lands designated IBL that are outside the Highway 2 Corridor Design Guidelines area of interest and on sites facing or accessed by a local road.

In addition, a series of conditions are recommended to permit the siting of shipping containers for storage purposes and to provide the opportunity for the City to monitor uptake and thereby assess the impact of this opportunity. These conditions are:

- To limit to 3 the number of shipping containers per site;
- To consider the use of shipping containers as a temporary land use with 3 year limits to approvals;
- Employ Section 21.3.2 of the Land Use Bylaw to support implementation within established guidelines; and
- Restricting the use of shipping containers to designated IBL lands that do not face or have access onto an arterial road (e.g., Sparrow Drive).

A copy of the proposed Bylaw may be inspected by the public between the hours of 8:30 a.m. and 12:00 noon and 1:00 p.m. and 4:30 p.m. at the Office of the City Clerk, City Hall, Leduc Civic Centre, 1 Alexandra Park, 46th Avenue and 48A Street, Leduc, Alberta.

Inquiries respecting the proposed Bylaw may be made at this office or by contacting Dennis Peck at the Planning and Development Department at 780-980-7159. A copy of the proposed bylaw may also be viewed on the City’s website at www.leduc.ca under ‘Public hearings before City Council.’

Public Hearing – March 9, 2019

At its meeting on Monday, March 9, 2019 at 7 p.m. or as soon thereafter as may be convenient, in the Council Chambers, City Hall, Leduc Civic Centre, 1 Alexandra Park, 46th Avenue and 48A Street, Leduc, City Council will hold a public hearing on the proposed bylaw. All interested persons may be heard by Council prior to the proposed bylaws being considered for second reading.

Any person, who wishes to speak to City Council at the time of the public hearing, is requested to advise the City Clerk’s Office, at 780-980-7177 before 12:00 noon, Friday, March 6, 2018. They may also be heard by responding to the Mayor’s call for delegations at the time of the public hearing. Written submissions must be submitted to the City Clerk’s Office, City Hall, before 12:00 noon, Friday, March 6, 2018.

This notice is being advertised in the February 21 and 28, 2019 issues of this newspaper.
AMENDMENT #98 - TO BYLAW NO. 809-2013, THE LAND USE BYLAW

WHEREAS: The Municipal Government Act, R.S.A. 2000, Chapter M-26, as amended (the “Act”) grants a municipality the authority to pass a Land Use Bylaw;

AND: in accordance with the Act, the City of Leduc passed Land Use Bylaw No. 809-2013 to regulate and control the use and development of land and buildings in the City of Leduc, and the Council has deemed it expedient and necessary to amend Bylaw No. 809-2013;

AND: notice of intention to pass this bylaw has been given and a public hearing has been held in accordance with the Act;

NOW THEREFORE: the Council of the City of Leduc in the Province of Alberta duly assembled hereby enacts as follows:

Bylaw No. 809-2013, the Land Use Bylaw, is amended by this Bylaw 1040-2019, by

1. The addition of the term “Container, Shipping Container or Sea Can” to Table 33.1; as a permitted use; and
2. The addition of the following text following Section 14.9.6:
   “14.9.7. Container, Shipping Container or Sea Can developments shall be in accordance with the regulations in Sections 21.3.2.
   14.9.8. A maximum of 3 Container, Shipping Container or Sea Can uses will be permitted on a site.
   14.9.9 Container, Shipping Container or Sea Can uses will be considered as a temporary use with a maximum 3 year approval from date of development permit issuance.
   14.9.10 No site accessing or facing directly onto an arterial road may contain a Container, Shipping Container or Sea Can use.”

READ A FIRST TIME IN COUNCIL THIS _____ DAY OF ________, AD 2020.

READ A SECOND TIME IN COUNCIL THIS _____ DAY OF ________, AD 2020.

READ A THIRD TIME IN COUNCIL AND FINALLY PASSED THIS _____ DAY OF ________, AD 2020.

____________________
Robert Young
MAYOR
EXECUTIVE SUMMARY

In 2019, the City of Leduc retained IBI Group and Quantum Recreation to complete an update of the 2012 Parks, Open Space and Trails (POST) Master Plan. The updated Master Plan includes tools, a decision-making framework and strategic recommendations for the development and prioritization of the City's multiway system, parks, and open spaces. As part of the update, a new vision statement and strategy for the City's multiway system has also been developed. The updated POST plan will provide a foundation for parks and multiway service delivery for the next 10 years.

RECOMMENDATION

That Council approve the updated Parks, Open Space and Trails Master Plan.

RATIONALE

The 2012 POST Master Plan was created to provide a thorough review of the City's open spaces and parks, to complete an updated inventory of the City's parks and open spaces, provide recommendations on strategies and future plans, information on current and future trends and overall to develop a master plan. The 2012 plan provided direction for the future development of open spaces for the City. It was also the main tool used in establishing parks and open spaces policies, services, programs, guidelines and facilities over recent years.

Since the development of the POST Master Plan there has been significant changes that were not reflected or captured in the existing plan. These changes led to the review and update of the plan that is being proposed. A thorough internal and external engagement of various stakeholders was undertaken to ensure that the proposed POST Master Plan update was an accurate reflection of the City's needs including engagement session taking place at Telford House, Rock the Rails youth event, the Leduc Recreation Centre and with the Parks, Recreation and Culture Advisory Board.

Significant amendments to the POST Master Plan include:

- Alignment with the City’s environmental related initiatives (Environmentally Significant Area study, Greenhouse Gas emissions strategy, pollinator garden initiative, integrated pest management strategy, and increased tree planting);
- Inclusion of the new developments that were not captured in the existing plan;
- Clarification of multiway requirements;
- Inclusion of a “What We Heard” appendix to summarize the public engagement outcomes;
- Ensure that available resources, including open space, aligns with growth within the City;
- Ensure consistency of the Minimum Landscape and Construction Standards with the POST Master Plan;
- Ensure consistency with other relevant City plans.

The consultants will provide a more thorough presentation of the changes and process to the POST Master Plan.
COUNCIL REQUEST FOR DECISION

The POST Master Plan will guide the City’s 10-year capital and three-year operational planning.

STRATEGIC / RELEVANT PLANS ALIGNMENT

2012 Parks, Open Space and Trails Master Plan
2012 Environmental Plan Phase 1
2015 – 2025 Water Conservation, Efficiency and Productivity Plan
2017 Environmentally Significant Areas Study
2018 Transportation Master Plan
2019 Greenhouse Gas Reduction Action Plan
2019 – 2022 Strategic Plan
2020 Draft Municipal Development Plan

ORGANIZATIONAL IMPLICATIONS

ADMINISTRATION:
The drafting of the updated POST Master Plan has directly involved numerous members of Administration, Council members and community organizations. Administration will continue to review the operational impact of the updated plan and review financial and staffing implications. At this time, there are no specific administrative implications.

RISK ANALYSIS: FINANCIAL/LEGAL:
The POST Master Plan will guide the City’s 10-year capital and three-year operational planning. Section 7 (Implementation Plan) identifies recommendations to achieve the vision of POST. It is important to note that one of the recommendations 5.2.3.2.4 Sport Fields – consideration of a synthetic field at the Crystal Creek recreational facility is not currently captured in the 10-year capital budget.

At this time there are no legal implications.

IMPLEMENTATION / COMMUNICATIONS:
The concept plan for the POST Master Plan was broken out into five management areas: West, North, Central, South and East Leduc. The areas and development recommendations were identified based on input from the internal stakeholders and community engagement. Recommendations for each management area of the City can be found in section 6.2 of the POST Master Plan.

ALTERNATIVES:
That Council not approve the updated Parks, Open Space and Trails Master Plan and direct Administration to perform a further review.

ATTACHMENTS

Parks, Open Space and Trails Master Plan Update Final Report
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This report is an update to the previous 2012 Parks, Open Space and Trails (POST) Master Plan, highlights of changes included in this report include:

- an updated vision for POST in Leduc:
  
  **In Leduc, you can ‘come out and play’ in the best parks system in Alberta. When you take advantage of Leduc’s comprehensive network of parks, open space and trails, you and your family can explore your community, get to know your neighbours, experience nature and take part in a wide variety of outdoor activities throughout the year.**

  Parks, open space and trails in Leduc are well managed, ecologically and ecologically sustainable, safe, accessible, natural, beautiful and enrich the overall quality of life for everyone in the community.

- references to recently adopted City policies and plans including the revised Municipal Development Plan (MDP), Transportation Master Plan and current Environmental Policy and Plans including Environmentally Significant Areas.

- Changes to Open Space categories and subcategories:
  
  - recognition of the merging of the previous Community Passive Parks and Community Active Parks into one category: Community Parks;
  
  - removal of the neighbourhood mini-parks category and merging with the Neighbourhood Parks category to create more usable areas of parkland;
  
  - addition of the Linear/ Greenway parks category under Municipal Reserves to facilitate active recreation and connectivity within the City;
  
  - removal of berms and buffers from Open Spaces category;

- an update of current trends in recreation;

- an update of the opportunities for volunteering.

- addition of a summary inventory for Municipal Reserves and Environmental Reserves.

The strategies proposed to direct POST planning, design, and operations over the next 10 years are based on the following 7 strategies outlined in the updated version for POST:
• Access and Connectivity
  - PUL/Walkway
  - Active Transportation
  - Multiway
  - Nature Trails

• Nature and Environment
  - Environmental Reserve (ER)/Conservation Reserve
  - Environment and Landscape Naturalization

• Facilities
  - Regional Parks
  - Future Community Parks & Facilities
  - Neighbourhood Parks
  - Linear Parks
  - Stormwater Management Facilities (SWMF)

• Amenities

• Safety

• Management and Maintenance
  - Service Delivery Responsibility
  - Service Deliveries
  - Marketing & Promotions
  - Engaging and Facilitating User Groups
  - Creating Broader Volunteer Services
  - Recreation and Sport Tourism
  - Life Cycle Budgeting
  - Funding POST
  - Sponsorships
  - Partnerships
  - Land Acquisition

• Programming
The plans for management of existing parks and open spaces and creation of new parks and open spaces are based on the 5 management areas identified for the City:

- West Leduc
- North Leduc
- Central Leduc
- South Leduc and
- East Leduc

The Minimum Landscape Design and Construction Standards have also been updated to align with this document and other current City plans and policy.
1. Introduction

The City of Leduc, which covers an area of approximately 40km² is located within the Edmonton Region in central Alberta and is home to over 33,000 residents. The City has unique planning and transportation challenges and opportunities as Highway 2 splits the community in half. The Edmonton International Airport borders the community and there is a high-speed CP Railway located within the City Limits.

Land use within the City includes a mix of agricultural, residential, industrial and commercial land uses. A major industrial/business area located within Leduc County is located to the north of the City.

Parks, open spaces and trails (POST) are an important part of the urban environment of Leduc and contribute to the quality of life of its citizens as well as its environmental quality and urban character.

1.1 Purpose of the Plan

1.1.1 Parks, Open Spaces & Trail Resources in Leduc

This 2019 update to the 2012 Parks, Open Space and Trails Master Plan (POST) reflects updated community engagement, future ASPs development of the Crystal Creek site and current City strategies, policies and plans. This updated POST plan will ensure that parks in Leduc are well managed, fiscally and ecologically sustainable, safe, accessible, natural, and enrich the overall quality of life for everyone in the community.

The creation of parks, open space and trails in Leduc has not happened by chance. The City completed an Open Space Master Plan in 1983 to guide the ongoing creation, development and management of parks, open space and trails. A significant update of the Master Plan was completed and approved in 2000 with some additional planning being completed as part of a Parks, Recreation and Culture Plan in 2006 which was not officially adopted.

In addition, there have been a number of concept plans and master plans completed in support of the ongoing planning and development of specific parks within Leduc including Telford Lake, William F. Lede Regional Park, Alexandra Park and the Cultural Village. All of this work reflects the importance of POST to the community and the commitment of the City of Leduc to continually invest in the planning, development and management of POST resources.
The intent of this updated Master Plan is to help guide decision making regarding POST into the future, building upon the strengths of the existing City-wide multiway and parks system, and enhancing the positive impacts that POST have on City residents and visitors alike.

1.2 Planning Process

1.2.1 Master Plan Process

Co-created with residents, visitors, and stakeholders, the preparation of the “Updated Parks, Open Space and Trails Master Plan” was initiated in the spring of 2019. The planning process transitioned through three distinct stages.

Data Collection & Inventory

In producing the POST Plan, the team reviewed the current City of Leduc policies, plans, inventories, and maintenance standards and practices. Combining this information with the baseline engagement data from the 2018 Recreation and Culture Facility Needs Assessment, the data was synthesized and tested through a number of community engagement opportunities. Existing inventory information for Municipal and Environmental Reserves was also analyzed and summarized.

Community Engagement

A critical and ongoing part of the updated POST Master Plan is the community engagement process, which is necessary to effectively deliver a community-oriented parks system. A balanced, open and collaborative engagement process, based on the International Association for Public Participation (IAP2) principles was utilized to build community-wide trust in the plan and the process. Engaging the community ensures key stakeholders were included in the creation of the Master Plan, ensuring it will be supported by City Council, administration, stakeholder groups, and the community.

Analysis

The final process for the project was the synthesis of information, trends and public feedback gathered. Incorporating input from the Leduc Parks,
Recreation and Culture Advisory Board and administration, the analysis showcases the summary of need which helps build an action plan and ultimately, the implementation plan. The implementation plan has measurable goals that help the community act and invest in the POST system in a rational, system-wide approach that aligns with community priorities.

### 1.3 Biophysical Context of the City
The City of Leduc is located within the Central Parkland Natural Subregion and is part of the Whitemud Creek Hydrologic Unit Code 8 (HUC 8) watershed, which is part of the North Saskatchewan River Basin. The landform of the City is relatively flat. The original native landscape would have been dominated by Aspen Woodland. Telford Lake is the major natural feature within the City. Telford Lake is located along the Gwynne drainage channel, which links together several narrow and shallow lakes, and drains eastward into Saunders Lake and then through Whitemud Creek to the North Saskatchewan River.

### 1.4 Benefits of Parks, Open Spaces & Trails

#### 1.4.1 Context
Albertans view parks and open space as the most important attraction and activity contributing to their quality of life, and it could be easily argued that Leduc residents would share this view. In fact, 90% of City of Leduc residents believe that parks, open space and trails (POST) adds to their quality of life through opportunities to interact with nature, learn about the environment, take part in physical activity and participate in structured and unstructured sport.

Parks, open space and trails have positive impacts on personal health by providing both a motivation and outlet for participation in physical activity. Children with a park playground within 1 km were almost five times more likely to be classified as being of a healthy weight rather than at risk, or overweight, compared to those children without playgrounds in nearby parks. Allowing people the opportunity to exercise in the natural environment, has been proven to lead to mental and physical health improvement. POST also provide ideal environments for children to participate in unstructured play, and 97% of Albertans feel that playgrounds and play facilities are integral to children’s development and welfare.

POST help build family and community. Parks provide a place for neighbours and families to congregate. Camaraderie associated with sport and healthy lifestyles builds relationships and strengthens community connectedness. Studies show that time spent at a community playground is valuable to families, with 77% of parents agreeing that spending more time at a playground increases a family’s sense of well-being. Almost unanimously, 95% of parents agree that the more time a family spends together being active, the better their sense
of family well-being. Three-quarters also wish their family had time to visit a playground more often.

Properly planned multiway and trail systems in communities can enable and promote active transportation, reducing carbon footprint and increasing physical activity. A comprehensive multiway network like the one in Leduc is important as most trail users reported that they were exercising solely because of the presence of the trail nearby. According to Active Living Research, 43 percent of people with safe places to walk nearby met recommended activity levels, compared to 27 percent without safe trails. Further, 70 percent of respondents from five different communities said they visited their trails primarily for health and exercise. ‘Trails for Health’ is not just a trendy idea. It can be a lifeline for a community in need of improving the health and physical activity of its population.

POST also generates economic activity in communities. The enjoyment provided by nature has significant impacts on the national, provincial and territorial economies. At the national level, the $11.7 billion spent in Canada on nature-related activities by Canadians and U.S. visitors led to contributions of $17.3 billion to gross business production and $12.1 billion to Canada’s gross domestic product (GDP). These expenditures also led to contributions of $5.9 billion in personal income generated by the 215,000 jobs that were sustained by this economic activity, and $5.4 billion in government revenue from taxes.

POST have also been proven to positively impact property values - by up to 15% when found within 3 blocks of residential properties, and vistas of water bodies (including storm water retention ponds) increased property values about 10%. Further to the impacts POST have on the general economy and on property values, the potential for sport tourism associated with parks and open spaces, primarily sports fields, special events and agricultural grounds, is significant. A recent economic impact assessment conducted by the City of Leduc indicates that the Black Gold Rodeo contributed nearly $1 M to the local Leduc economy in 2010, while the SPN National Slow Pitch championships and the Black Gold Heath Foundation Dragon Boat Festival contributed over $280,000 and over $190,000 in 2010 respectively.

It is easy to understate the importance of parks, open space, and trails in comparison to other municipal infrastructure priorities such as roads, sewers, schools and fire halls, but as demonstrated by how people feel and view the provision and management of POST resources in Leduc, this would be a mistake. As the level of participation increases through changes in population and a growing awareness of the social and health benefits of physical activity, there will be continued demand for the provision of additional POST development. There will also be pressure on the City from individuals and stakeholder groups to maintain existing POST resources at the highest possible level. Clearly, both the provision of new parks and the enhancement and operation of existing parks is a challenge given changing standards, budget restrictions and evolving needs. This Parks, Open Space and Trails Master Plan has been prepared to serve as an overall guide and a day-to-day tool to ensure that the City of Leduc can continue to meet the needs and
expectations of the community by maintaining its high standards of POST development and delivery.

1.5 National Recreation Framework

Pathways to Wellbeing: A Framework for Recreation in Canada 2015 has been jointly developed by the Canadian Parks and Recreation Association and the Interprovincial Sport and Recreation Council. The document is seen by recreation professionals as the leading recreation document in Canada. It was developed through a series of forums between recreation professionals between 2011 and 2014, collaboration with provincial governments, and consultations across the nation. Resulting are five main goals or priority areas, which have been shaped by research and trends in the recreation field. The information presented in the Framework also helps shape and rationalize many of the best practices utilized by the profession.

Highlighted below are the five goal areas of the Framework for recreation and their corresponding influences on the Recreation Master Plan.

<table>
<thead>
<tr>
<th>Master Plan Response</th>
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<tbody>
<tr>
<td><strong>Goal 1: Active Living</strong></td>
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<tr>
<td><em>Foster active living through recreation.</em></td>
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<tr>
<td>- Promote active and healthy communities.</td>
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<tr>
<td>- Increase public health through recreation.</td>
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<tr>
<td>- Provide opportunities for all demographics to get active.</td>
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<tr>
<td><strong>Goal 2: Inclusion and Access</strong></td>
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<tr>
<td><em>Increase inclusion and access to recreation for populations that face constraints to participation.</em></td>
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<tr>
<td>- Require all parks facilities to be universally accessible.</td>
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<tr>
<td>- Promote accessible and affordable recreation services.</td>
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<tr>
<td><strong>Goal 3: Connecting People to Nature</strong></td>
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<tr>
<td><em>Help people connect to nature through recreation.</em></td>
</tr>
<tr>
<td>- Create opportunities for people to enjoy the outdoors close to home.</td>
</tr>
<tr>
<td>- Provide recreation opportunities that allow and promote environmental stewardship.</td>
</tr>
<tr>
<td>- Increase awareness and appreciation of local ecology.</td>
</tr>
<tr>
<td><strong>Goal 4: Supportive Environments</strong></td>
</tr>
<tr>
<td><em>Ensure the provision of supportive physical and social environments that encourage participation in recreation and build strong, caring communities.</em></td>
</tr>
<tr>
<td>- Use park facilities as community hubs and gathering points.</td>
</tr>
<tr>
<td>- Utilize park facilities and programs to foster environments that encourage participation in recreation.</td>
</tr>
<tr>
<td><strong>Goal 5: Recreation Capacity</strong></td>
</tr>
<tr>
<td><em>Ensure the continued growth and sustainability of the recreation field.</em></td>
</tr>
<tr>
<td>- Encourage community programs and events.</td>
</tr>
<tr>
<td>- Ensure that park facilities meet the current and future recreation demands.</td>
</tr>
<tr>
<td>- As tourism is promoted, ensure that there is enough capacity to meet the needs of both residents and visitors.</td>
</tr>
</tbody>
</table>

Table 1 – Master Plan Response
Presented within the Pathways document is a renewed definition and vision for recreation. Together, the vision and definition promote values of inclusion, wellbeing and respect of the environment. The City adopted this framework in 2016.

1.5.1 A Renewed Definition of Recreation

“Recreation is the experience that results from freely chosen participation in physical, social, intellectual, creative and spiritual pursuits that enhance individual and community wellbeing.”

1.5.2 A Vision for Recreation in Canada

“We envision a Canada in which everyone is engaged in meaningful, accessible recreation experiences that foster:

• individual wellbeing;
• community wellbeing; and
• the wellbeing of our natural and built environments”.

1.6 Canadian Sports Policy

This policy sets direction for governments, institutions and organizations that are committed to realizing the positive impacts of sport on individuals and communities. The Policy vision is to have, by 2022, “a dynamic and innovative culture that promotes and celebrates participation and excellence in sport.” Policy goals seek to help Canadians to:

• develop skills, knowledge and to participate in sport;
• have opportunities to participate in sport for fun, health, social interaction and relaxation;
• achieving world-class results at the highest levels of competition; and
• using sport as a tool for social and economic development.

1.7 Parks for All

Parks for All is an action plan that strategically aligns with, and complements, the five goals of the Framework for Recreation in Canada 2015 - primarily in relation to Goal 3 “Connecting People and Nature”. The plan has four strategic directions:

• Collaborate - the development of shared goals, mutual respect and collective action.
• Connect- parks result in healthy nature and healthy humans living in harmony, it is vital that connection be given strategic consideration throughout the community.
• Conserve- is the harmony between healthy humans and healthy nature, conservation is everyone’s concern.
• Lead- is the leadership that will supply staying power to the Parks for All vision for generations to come.

1.8 Need, Trends and Priorities

There are many local, provincial and national trends worthy of consideration when developing facilities and services specific to parks and recreation. Understanding trends pertaining to participation in certain activities, designing facilities and delivering programs and services will allow the City to position itself to provide needed leisure opportunities.

As the City of Leduc plans its Parks, Open Space, and Trails, it is important to identify and recognize the prominent trends influencing usage. Understanding these trends and their impacts to the development and management of the City’s Parks, Open Space, Trails enables better planning today for the needs and opportunities of tomorrow. The following trends were deemed to be most important to consider as the City plans future Parks, Open Space and Trails.

1.8.1 Key Trends in Parks & Recreation

The benefits of participating in parks and recreation activities cannot be understated. On an individual level, involvement in leisure programs and services:

• improves personal health and reduction of healthcare costs;
• promotes community social cohesion;
• increases community spirit and pride;
• improves quality of life;
• reduces anti-social behaviours;
• strengthens families and neighbourhoods;
• improves work performance and productivity;
• prolongs independent living;
• reduces stress and achieves balance in life;
• connects people with nature
• application of technology (web-based apps) to recreation.

1.8.2 Key Lifestyle Trends

• High levels of physical inactivity and obesity are being observed across the country, largely due to a lack of time and physical activity due to participation in sedentary forms of leisure (i.e. watching television, online activities, etc.).
• To facilitate healthy lifestyles, all levels of government are examining ways to increase physical activity and participation levels through the introduction of programs, funding and other initiatives.
1.8.3 General Trends in the Leisure System

- Income can be a significant barrier to participation in leisure pursuits if costs to participate are high – as such, a person’s ability to pay needs to be considered by municipalities and community organizations alike when delivering leisure services.

- Demand for unorganized and drop-in activities is on the rise, at the expense of most organized and structured programs which are inflexible to people with limited free time.

- The “multi-use” facility and park concept is being increasingly viewed as the preferred development model since it consolidates several leisure activities at a single location, thereby providing a “one-stop shopping” venue for time-pressed individuals, offering cross-programming opportunities for a wide range of ages, and reducing municipal operational costs.

- Municipalities are often entering partnerships with community and private-sector organizations to maximize efficiencies associated with capital and operational costs, so long as the municipality and the community benefit.

- Volunteerism is declining across the country, therefore, supporting local volunteers is critical to ensuring that these dedicated individuals continue to participate in civic life and that new volunteers can be recruited.

- An increase in the use of technology (internet and apps) to plan and participate in recreation is changing the way that people undertake their activities.

1.8.4 Key Trends in Sports & Recreation

- Adults and older adults are embracing the “active living” or “wellness” philosophy. Thus, municipalities are orienting their programming to respond to these demands.

- Trails (both natural and paved) continue to be one of the most demanded “facilities” as walking for leisure, cycling, jogging, dog walking, inline skating, scootering, etc. are all popular forms of leisure and active transportation activities.

- Fewer children and youth are participating in most organized sports (though soccer and female hockey are notable exceptions) in favour of casual activities that fit into their schedule.

- Sport and nature-based tourism represent a growing market, thus necessitating a focus on family recreation and “destination” facilities, as well as passive outdoor sports and activities such as golf, hiking, bird watching, marine and waterfront activities, etc.

- Increasing participation in sports such as pickle ball, frisbee golf, etc.
1.8.5  Key Trends in the Parks System

- People want to live near parks and open spaces as this proximity is associated with a higher quality of life and better aesthetics.

- Parks are increasingly viewed as an opportunity for non-programmed recreation and cultural activities and can accommodate amenities targeted for all ages.

- Demands have been observed for gathering areas such as public picnicking areas, outdoor barbeques, etc., particularly in communities with diverse ethnic populations.

- As people become increasingly aware of benefits related to environmental protection, the integration of environmental features into active parks is becoming more apparent. Education and public awareness of environmental and park-specific issues are forming components of resource management strategies.

1.8.6  Implication of the Parks, Open Space and Trails Trends for the City of Leduc

- Demand for access to high quality park experiences which connect people with nature, improve quality of life and reduce stress will continue to increase.

- Multiways throughout the City need to be planned and designed to balance a quality trail experience with the needs of alternative transportation to areas.

- Linear Parks/Greenways create more resident access to parks, higher property values, and increase potential for active transportation. When planning park spaces in new developments parks should be designed to facilitate access for the majority of residents.

- Recreation and sport tourism are economic generators for communities. Consideration of economics should be incorporated when constructing new recreation and sport facilities.

- With an increase in the use of technology (internet and apps), citizens will be requiring more technology related infrastructure in park spaces (Wi-Fi/Smart Parks/Augmented Reality)

- Multiways must be well connected to the key destinations throughout the City to encourage use of them for transportation as well as recreation.

- As more organizations (sporting, not-for-profit) are looking for more access to parks, more partnerships agreements will be required.
2. Planning Foundations

When planning the future of parks, open space and trails in the City, it is necessary to consider how the City’s population has grown and where it is anticipated to expand in the future. Furthermore, it is important that the trail plans align with the City’s land use planning policy context and future planning direction.

2.1 Population & Demographics

According to the 2019 City of Leduc Municipal Census, the population of Leduc is 33,032 people who occupy over 13,705 residences in 35 neighbourhoods.

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Five Year Rate Change (%)</th>
<th>Average Change Per Year (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>14,346</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>15,032</td>
<td>4.6</td>
<td>0.91</td>
</tr>
<tr>
<td>2006</td>
<td>16,967</td>
<td>11.4</td>
<td>2.28</td>
</tr>
<tr>
<td>2011</td>
<td>24,304</td>
<td>30.2</td>
<td>6.04</td>
</tr>
<tr>
<td>2016</td>
<td>30,498</td>
<td>20.3</td>
<td>4.06</td>
</tr>
<tr>
<td>2017</td>
<td>31,130</td>
<td></td>
<td>2.0</td>
</tr>
<tr>
<td>2018</td>
<td>32,448</td>
<td></td>
<td>4.1</td>
</tr>
<tr>
<td>2019</td>
<td>33,032</td>
<td></td>
<td>1.8</td>
</tr>
</tbody>
</table>

The population grew by 20.3% from 2011 to 2016, which is higher than both the national (5.0%) and provincial (14%) growth rates. It is important to consider how the population might change over the next twenty years. The chart on the following page describes different potential population growth patterns.

Demographic Profile

The population distribution shows growth in the age cohorts of 5-14, and 65-75. These age groups have come to represent some of our target markets for recreation. Providing parks and recreation options for the needs of children and older adults is a priority.
Low growth, Leduc will grow by 584 per year. This is what engineering stated in the meeting.

Current average growth, Leduc is growing by 991 per year.

High growth (which is based on your highest growth year), Leduc will grow by 1,652.
These demographic trends indicate what is required in programming and parks facilities for the future of the City of Leduc. With one of the largest groups being youth, programming and introduction to positive activities are key opportunities.

2.2 Related Policy, Plans & Strategies

This Master Plan needs to reflect other related City of Leduc adopted strategies plans and policies. The most relevant documents are described below.

2.2.1 Strategic Planning

- 2020 Draft Municipal Development Plan (MDP)

Of the 7 main topics addressed by the draft MDP, the 3 most relevant topics to POST include:

- Parks and Recreation – creating opportunities for active lifestyles with access to walking and biking. Providing adequate parks and open spaces for community enjoyment.
- Natural Environment – preserving and enhancing the city’s natural assets, including tree stands, water bodies, and most notably, Telford Lake.
- Mobility options – providing infrastructure for different forms of transportation, including multiway, public transit and roads. Ensuring all options are safe and convenient and reducing the distance between everyday services and neighbourhoods.

2.2.2 Transportation Planning

- Transportation Master Plan (2018)
- This Master Plan includes objectives, strategies and standards for multiways and pedestrian linkages in the City. Directly relevant components of the plan are described in the text below and the table on the following page.

- It identifies that the multiway trail network provides accessibility and accommodation of many active transportation modes and that the multiway system, and other pedestrian and bicycle facilities, are intended to increase accessibility and mode choice to existing neighbourhoods;
- Planning by external government agencies may also influence POST in Leduc. For example, the Walkable Alberta: Leduc Community Report (2012), prepared by Alberta Health Services, outlines the links between health and built environments that promote health.
2.2.3 Environmental Planning

- 2015 Water Conservation Policy:
  - This plan outlines environmental sustainability objectives including the reduction in the use of potable water: this includes potential reduced watering of landscape.

- 2019 Greenhouse Gas Reduction Policy:
  - This policy outlines goals for more sustainable practices including:
    - use of LED light fixtures in public spaces;
    - possible bike share systems;
    - management of waste in public areas, recycling, composting, etc.

- The City of Leduc Environmental Plan - Phase 1 (Urban Systems, 2012) has been prepared as a tool designed to support City Council in setting priorities, making decisions, and managing environmental programs with better predictability and consistency. The Environmental Plan takes its vision from the Municipal Development Plan’s environmental vision, which is: “our natural environment is healthy and clean.” The relationship between the Environmental Plan and the POST Master Plan is fundamentally about how land resources in the City are being used, protected and valued in the future. There are four key objectives that tie directly to POST:
  - To ensure that land resources are set aside, developed and managed to ensure that the people that live within the community have opportunities to recreate and experience nature.
  - To ensure that urban development respects the need to preserve and enhance ecological habitats.
- To recognize the need for humans to remain in close contact with the natural environment.
- To address future food security issues by providing a diversity of opportunities for local food production within the City.
- Use of drought tolerant plants to reduce the need for irrigation;
- Conservation or re-establishment of native tree stands.

- City of Leduc Environmentally Significant Areas (ESA) Study (2017)

In this plan a total of 86 natural areas were identified within the City of Leduc, covering 459 ha, or 11% of the City. Of these 86 identified areas, 10 natural areas were identified as Environmentally Significant Areas (ESA). Two ESAs (Whitemud Creek tributary and Deer Creek) are located west of Highway 2, while the remaining eight ESAs are located to the east of the Highway. The ESAs range in size from 2.7 ha to 148 ha, and collectively cover 328 ha. These include both publicly owned and privately owned lands.

The identified Environmentally Significant Areas include aquatic habitats (lake, streams, and wetlands) as well as upland tree stands. Several of the ESAs represent important wild life corridors through the City (e.g., Deer Creek and the Whitemud Creek tributary), and others such as Telford Lake are very large habitat patches that likely serve as core habitat for wildlife at both the local and regional scale.

These areas, in combination with the City’s existing parks network, create unique spaces that contribute to the high quality of life experiences by the City’s residents. As Leduc grows and expands, there is a need to better understand the ecological value of the natural areas contained within the City’s boundaries, including how these areas contribute to local and regional biodiversity.

The following is a list of general management recommendations for sustainably integrating Environmentally Significant Areas, as well as other natural areas, into land development activities in the City of Leduc:

- Buffers - Placing development setbacks on wetlands and natural area is important for maintaining the condition and health of retained natural features.
- Vegetation & Wildlife Habitat - Vegetation clearing should be minimized to the extent possible and any trails through natural areas should be located in areas that have already been disturbed. All vegetation plantings used within neighbourhoods for landscaping should be composed of native species, and should be an appropriate match for the type of habitat already present in the neighbourhood.
- Habitat Connectivity & Wildlife Movement - Provide habitat connectivity between ESAs and other natural areas by maintaining, creating, or restoring naturalized corridors.
- Hydrology - Carefully plan site drainage to ensure that any tree stand that is retained as part of the neighbourhood.
development receives adequate moisture to be sustainable post-development.

- Human Use & Safety - Hazard trees (e.g., dead and dying trees) within the park should be managed by topping the tree and leaving as much of the tree standing as possible. The portion of the tree that is removed should be retained on-site as coarse woody debris.

Stormwater management facilities were included in this study as natural areas. It should be noted that the City of Leduc is located in close proximity to the Edmonton International Airport, and as such, is subject to restrictions on stormwater pond design as outlined in the Edmonton International Airport Vicinity Protection Area Regulation, and other Transport Canada and NAV CANADA policies and regulations. Many of these policies and regulations are intended to reduce bird attractions near airports, include reducing vegetation habitat complexity and diversity within and near the pond.

In areas of the City where aviation restrictions related to the airport do not apply (e.g., the far western and south western portion of the City), consideration should be given to replacing traditional retention ponds with a naturalized or constructed wetland.

The following summarizes the 10 ESA’s identified in the study. Their location is depicted in Table 4 below.

| ESA Number 1: (Telford Lake) (including lake) | Natural Area Number: 70 | Size: 148.0 ha |
|ESA Number 2: | Natural Area Number: 52 | Size: 49.5 ha |
|ESA Number 3: (Deer Creek) | Natural Area Number: 84 | Size: 64.2 ha |
|ESA Number 4: | Natural Area Number: 31 | Size: 11.7 ha |
|ESA Number 5: | Natural Area Number: 47 | Size: 7.3 ha |
|ESA Number 6: (Whitemud Creek Tributary) | Natural Area Number: 45 | Size: 27.8 ha |
|ESA Number 7: | Natural Area Number: 66 | Size: 4.3 ha |
|ESA Number 8: | Natural Area Number: 61 | Size: 7.1 ha |
|ESA Number 9: | Natural Area Number: 6 | Size: 5.2 ha |
|ESA Number 10: | Natural Area Number: 12 | Size: 2.7 ha |

Table 4 – ESA Locations

- “Weather and Climate Readiness Plan” (2014) This plan recommends increased tree and green space watering capability in the event of a drought.
- “Integrated Pest Management Plan” (2017) This plan makes several relevant recommendations for weed and pest management in natural areas, including a reserve fund to replace trees due to pest outbreaks.
• “Leduc Wildlife Corridor Study” (2018) The City of Leduc and Leduc County engaged the project team to evaluate the feasibility of creating a wildlife corridor and trail system between the east shore of Telford Lake and the west shore of Saunders Lake. The open space allocated for the wildlife corridor has the potential to be a recreational use, allowing hikers to travel from Telford Lake to Saunders Lake.

2.2.4 Parks and Recreation Planning

• 2010 Urban Forestry Plan (AECOM)

The 2010 Urban Forestry Plan was an inventory exercise conducted and collected over 2,500 boulevard trees. The plan provided recommendations on planting techniques, species selection and management practices for boulevard trees.
• 2018 Recreation and Culture Facility Needs Assessment:
  This assessment provides information related to the City’s demographics, current recreation and leisure habits as well as the public’s opinion on the current open space and recreation infrastructure in the City.
3. Engaging Residents & Partners

A detailed summary of the engagement process and related results for this Plan update is included in Appendix A. A synopsis is included below.

3.1 What We Heard

The following graphic summarizes what was heard for the engagement for this plan update.

Summary of Results

Multiway is the most utilized park facility

Top Wants

100% OF YOUTH feel parks are important

- More amenities like benches, picnic areas, and bathrooms.
- Another off-leash dog park
- Multiway to the west
- Integrated sports facility to accommodate major sporting events
- More trees and naturalized areas
- Respondents are satisfied with current parks spaces
3.2 Participation

The table below identifies the number of people engaged for this plan update.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Seniors</td>
<td>89</td>
</tr>
<tr>
<td>Youth</td>
<td>126</td>
</tr>
<tr>
<td>Parks, Recreation and Culture Advisory Board (PRCAB)</td>
<td>6</td>
</tr>
<tr>
<td>Internal Stakeholders</td>
<td>22</td>
</tr>
<tr>
<td>User Groups</td>
<td>6</td>
</tr>
<tr>
<td>Open House and Pop-up Attendees</td>
<td>45</td>
</tr>
</tbody>
</table>

Table 5 – Engagement Participation Demographics

3.3 Opportunities to Improve

- **Access & Connectivity:**
  - Across all engagement activities, multiway was the number one POST need. It was shown that the majority of respondents love the multiway and what it provides.
  - There was a general feeling that respondents felt that Leduc had adequate POST opportunities.
  - Respondents wanted to ensure that multiway was continually being developed in the west areas.
  - The respondents are looking forward for the Crystal Creek (West Campus Lands) to be developed.

- **Nature:**
  - Respondents want to see more trees planted, both along boulevards and multiway.
  - There was a want of more naturalized areas, allowing for tree stands to be created and grow. The work of some of the groups on pollinator gardens and other naturalization activities are supported.
  - The creation of bird blinds or other types of structures to allow for residents to enjoy nature would be preferred.

- **Facilities:**
  - There are requests for more off-leash dog parks (preferably in the west) for residents to utilize.
  - With some sporting groups requesting artificial turf, due to the lack of home games for the teams. This makes the sport less accessible and reduces the amount of income the group can make on hosting and reduces the ability to host provincials or even finals.
• Amenities:
  - Residents arrive to the park system by car, which requires parking lots.
  - There were requests for more bathrooms along with the trail system, especially on the east side of Telford lake.
  - There were also requests for Picnic area which included BBQ pits. There is a want for more areas to utilize for gathering and socializing.

• Safety:
  - There were no responses regarding a lack of safety from respondents.

• Management & Maintenance:
  - The majority of seniors get information from word of mouth as opposed to one source of information.
  - Youth want to see more programming directed to them, especially using the skateboard park and mountain biking.
  - User groups would like a resource to understand the inner workings of the City. When there is a large shift in members, there is information which is lost and sometimes new user group members do not know who to contact.
4. Parks, Open Space & Trails Today

This section of the Master Plan provides an overview of the existing POST resources and sets the foundation for determining community needs and then planning for the future.

4.1 Parks, Open Space & Trails Supply

As illustrated in Figure 1, included within the over 798 ha of parks and open space in Leduc, there are 379 ha of named parks which includes naturalized areas, sport fields, passive parks and neighbourhood playgrounds. The City’s parks and open space also includes 18 ball diamonds (5 baseball, 4 multi-use diamonds and 9 softball/slow pitch), two football fields, 16 soccer fields, 2 rugby fields, 4 outdoor boarded rinks and 36 playgrounds. The City also has a number of specialty parks facilities such as a skateboard park, a spray park, community garden and two off leash dog areas.

One of the City’s major parks, William F. Leduc Regional Park serves as the home for most of Leduc’s primary sports fields. The 2009 Master Plan for this park provided direction for the long-term development of the park as a premier outdoor sports facility.

The multiway network in Leduc includes over 68.0 km of multiway complemented by pathways providing access along roads and walks to community venues, schools, the downtown, recreation and cultural facilities, and to neighbourhood and community parks. The City’s residents rank the multiway network as one of Leduc’s most important and well used open space facilities.

Although Leduc does not have extensive natural forest area or a river valley, Leduc residents do have access to Telford Lake which is a significant natural area. In 2010, the Telford Lake Master Plan was completed, outlining the long-term protection and management of Telford Lake as a natural feature of the community as a year-round outdoor recreation area. The implementation of this master plan added a multiway around the entire lake, along with the sensitive development of a large natural tree stand on the north side of the lake, thereby increasing direct access to nature in the community.

Other places within Leduc where residents can enjoy nature include Fred Johns Park and Deer Valley. New communities in south Leduc will include access to some small but important tree stands. Protection, access and stewardship of nature is of growing importance within the community.
4.1.1 Parks & Open Space Inventory and Assessment

An update to the original inventory and assessment of all parks and open space resources in Leduc was completed by City staff and the project team. The complete inventory and assessment document, 2019 Leduc Parks and Open Space Inventory, can be found on the City of Leduc website. See the image below which is a snapshot of the City’s GIS inventory.

The City also has an assessment inventory of parks and open space. An example from this assessment for Fred Johns Park, is depicted in the adjoining image.

Appendix B to this report includes a summary of the Municipal Reserve, Environmental Reserve, and Conservation Reserve in the City.

A spatial analysis of the City assessing the walkable catchment of existing parks and open spaces showed that all residences are within 500 m of an open space area, as the crow flies. See Figure 2.

4.1.2 Multiway Inventory & Assessment

The multiway network in Leduc includes over 49.0 km of multiway (See image on the following page). It also includes over 12 km of nature trails. The multiway network also forms part of Canada’s Trans-Canada Trail, otherwise known as The Great Trail, which is the longest network of recreational trails in the country. The 1983 Open Space Master Plan for Leduc defined three principle elements essential to ensuring a successful multiway system. These are still relevant in Leduc today:

- **access**: to provide access to major destinations, such as schools, the downtown core, recreational facilities, and parks. The multiways that are cleared to the pavement throughout the winter months used to channel pedestrians to business areas, service providers, recreational facilities and educational facilities providing for four season use;
- **safety**: Safety considerations include proper directional signage and maintenance;
- **continuity**: design of the multiway system should provide continuous routes to the major destinations in the community.

The creation of multiway has adapted with the increase of urban
development and the needs of the community. The current focus is having pathways on one side of the arterial and collector roads, creating an active transportation corridor for residents. This multiway would be constructed at the time of neighbourhood development to allow residents access while the community was being developed.

1. **Multiway**: Multiway development is the responsibility of developers and are located within the collector road right of ways or arterial road right of ways. Each subdivision should be connected east/west and north/south. Residents should be within 400m of a multiway and the multiway should be provided along 50% of the perimeter of storm ponds. They are also located within Community or Regional Parks. The development standard for the primary multiway is a 3.0 metre wide asphalt path. The construction detail is provided in the latest edition of the Minimum Engineering Design Standards. It is important to note that all of the primary multiway is cleared of snow in the winter so that it serves as a year-round amenity.

2. **Nature Trails**: Nature trails can be variable width depending on their location and type of use. The construction detail for nature trails (called gravel or granular pathways) is provided in the latest edition of the Minimum Landscape Design and Construction Standards. Approximately 1km of nature trails exist within the City. These gravel trails are located around the Leduc Reservoir and around the stormwater pond in Southfork.
Figure 1 - Existing Open Space
January 2020
Figure 2 – Catchment Analysis

January 2020

Leduc POST (Park, Open Space and Trails) Master Plan Update
4.1.3 Park Facilities

Park facilities include all of the amenities and site infrastructure such as, parking areas, utilities, recreation infrastructure, site furniture, etc. that are located in City, Community and Neighbourhood Parks. The Leduc Parks and Open Space Inventory provides an overview of parks facilities at the neighbourhood level.

As defined in the Minimum Landscape Design and Construction Standards, the following facilities shall be required in Neighbourhood Parks with the location being approved by the City of Leduc:

- playground equipment for 18 month to 5-year olds;
- sledding hill;
- park amenities; and
- site furniture.

4.1.3.1 Sportsfields

Sportsfields are a major component of the POST network. The key fields for each sport are provided below with 2011 registered user numbers provided in brackets:

- Soccer: (Youth 600) - key fields: Lede Park, Caledonia, Christ the King, Kinsmen
- Football: (Youth 150) - key field: Kinsmen/John Bole
- Rugby: (Youth 40 / Adult 60) - key field/s: William F. Lede Regional Park
- Ball Diamonds: (Youth 280 / Adult 550) - key diamonds: Lede Park, Fred Johns Park, Elks Community Park, Corinthia Park.

The City of Leduc has a very good level of outdoor sports facilities when compared to other communities in central Alberta. This can be attributed to a number of factors including the benefit of having one large park site (William F. Lede Regional Park) for the provision of sports fields, a good balance of other community park sites across the City, an active stakeholder community who have been clear about their needs and expectations, and a proactive City administration that has made the planning and development of POST a community priority.

Sports fields are a key POST resource in every municipality as they support active recreational use by groups of all ages and competitive levels. Since groups are organized and user numbers are tracked by the City, there is usually strong municipal support for sports field development and so it remains an ongoing priority. Typically, to meet all of the demand, sports fields on school sites (elementary through to high school), Community and Regional Parks, and designated sports parks are included in the bookable field resources of a municipality.

The City of Leduc provides a full range of sports fields to meet the needs of sports group in the City and region, and benefits from having the 32-hectare (80 acre) William F. Lede Regional Park as a comprehensive site for soccer, football, rugby and baseball/softball. By having this site, the City is not required to maximize the use of other
parks and schools for sports field development. The City maintains three levels of fields to meet user needs:

- **Premier Fields:** William F. Lede Regional Park; Elks Community Park; Christ the King School; Corinthia Park (soccer); Leduc Composite (high school football);
- **Major Fields:** Aileen Faller Park; Corinthia Park (diamond); Fred Johns Park; Caledonia;
- **Minor Fields:** all other sports fields on park and school sites - for informal use only.

The provision of parks facilities in Community Parks in Leduc has been, and should continue to be, based on an evaluation of the facility needs of the entire community at the time of development. In other words, there shouldn’t be standard park facilities on every site, but rather specifically selected facilities that fit the site and meet the needs of the entire community. The Minimum Landscape Design and Construction Standards includes a list of potential Community Park facilities. Recommendations for future provisions of parks facilities in Leduc can be found in Section 7.

### 4.1.3.2 Playgrounds

The City of Leduc provides quality, interesting and appropriately designed playgrounds for residents. There is a total of 28 City owned/operated playgrounds sites and an additional nine which are owned/operated by the school boards. The combination of City and school board owned/operated playgrounds allows for at least one playground per neighbourhood. Parks that include playgrounds are identified in the inventory summary in Appendix B.

### 4.1.3.3 Outdoor Fitness Parks

Outdoor fitness parks promote fitness for a community with little operational impact and cost. This type of recreational equipment attracts health-conscious people to a park space and can often influence the behaviour of non-exercisers, expanding the benefits associated with regular exercise to a greater number of people.

Outdoor fitness parks also provide the public with the ability to “workout” in park spaces without the costs of going to the Leduc Recreation Centre or other recreation centres.

After the initial capital investment, there is less operational impact than a traditional indoor workout facility. However, the biggest concern with outdoor fitness equipment is the Canadian seasons.

Outdoor fitness parks can reduce the barriers associated with fitness and living a healthy, active lifestyle. Regular physical activity is essential to health and longevity. People report preferring exercising outdoors, especially during the summer months, which may also have a greater effect on mental and physical well-being. Outdoor exercise is also more restorative compared to indoors since natural environments reduce emotional and physiological stress.
The City of Leduc currently has two outdoor fitness parks; William F. Lede Regional Park and Kinsmen Park. Both outdoor fitness parks are installed next to high use areas for sports activities, which allow for higher use for this type of equipment.

### 4.1.3.4 Convenience Amenities

The City of Leduc provides many convenience amenities for POST users including parking, multiway trailheads, toilets, garbage receptacles, seating areas/benches and directional signage.

### 4.2 Protection of Environmentally Significant Areas

Environmentally sensitive areas such as wetlands and streams are typically designated as Environmental Reserves. The primary goal of this designation is environmental protection. The provision of some recreation infrastructure, such as nature trails or interpretive signage may be appropriate for these areas. The Environmental Reserves in Leduc are listed in Appendix B.

### 4.3 Parks, Open Space & Trails Categories & Standards

The City of Leduc has a hierarchy of parks, open space and trails to guide the creation of POST resources as well as manage and define the level of service to meet community needs. These, ‘level of service standards’ and related development standards for each category are defined in the Minimum Landscape Design and Construction Standards and the Minimum Engineering Design Standards (latest edition).

This section provides an overview of how parks and open spaces in Leduc are categorized. Recommendations related to future design, development and management for some of the categories can be found in Section 7.0.

Parks, Open Space and Trails in Leduc are allocated within four Public Land Categories: Municipal Reserves, Environmental Reserve, Municipal Open Space, and Roadways. The following provides an overview of each category.
The specific parks and open space development standards, as well as the responsibility for development (i.e. City or Private Developer), are defined in the Minimum Landscape Design and Construction Standards (latest edition). Parks facilities (e.g. sports fields or playgrounds) are identified within each category. The requirements for trails (multiway) are also defined in the City’s Transportation Master Plan.

### 4.3.1 Municipal Reserves

The City of Leduc, like other municipalities in Alberta, acquires municipal reserve land primarily through the subdivision process. As defined in the City’s Municipal Development Plan (MDP), it is the policy of the City to require municipal reserve dedication at the time of subdivision of land for residential, industrial or commercial development. It is the City’s policy to take the 10% dedication as land rather than cash-in-lieu. Due to the need to meet certain standards for the provision of parks and open space at the neighbourhood level, additional lands may need to be acquired over and above the land dedicated as reserve in order to meet Community and City level park requirements. This municipal reserve ‘deficit’ can occur in a new neighbourhood because of the range of potential needs for this land: school sites, neighbourhood parks, or public frontage to SWMF. The potential reserve deficit also includes the provision of land for future Community or Regional Parks.
To meet these needs, the City may need to purchase additional lands in residential areas with funds from the disposal of reserves or money-in-lieu of reserve, or from other sources. If the City is unable to purchase additional land to meet parks and open space needs, then open space dedication priorities must include reserve land for future Community level parks. MR dedication priorities must be clearly defined, and the City must continue to guide reserve allocation at the Area Structure Plan (ASP) stage.

In terms of multiway, Municipal Reserves will generally have multiway that provides linkages into or through the parks to connect to other multiway or to parks facilities.

This category includes public land that is classified either as Regional park, Community Park, or Neighbourhood Park.

- **Regional Parks**: Regional parks are those facilities intended to meet the recreational needs for residents of the whole Regional and surrounding areas. All major tournaments, community wide league play, and special events which may draw crowds of spectators would occur in the Regional Parks. There are currently four Regional Parks in Leduc: Telford Lake, William F. Lede Regional Park, Alexandra Park and Fred Johns Park. All of these parks have been carefully planned and the future of these parks has been clearly defined through comprehensive master planned documents which have been approved by City Council. The maintenance of the athletic fields of William F. Lede Regional Park is cost shared by Leduc County.

- **Community Parks**: Community Parks are intended to meet the parks and recreation needs of the City beyond those provided at the neighbourhood level. Community Parks should be designed to serve a variety of recreational needs based on review of City-wide requirements. Community Park facilities include sports fields and active recreational features and amenities within parks such as, playgrounds, picnic shelters and outdoor rinks, and off-street parking. They can also include cultural, natural and educational facilities within parks and open spaces. Recreation facility provisions in new Community Parks should be based on an evaluation of the projected needs of the overall City at the time of development. This will create a balance of facilities across the entire City. The size (land area) of a Community Park should also respond to the recreation facility needs and can range from 3.24 to 16 ha. Most community sports, some tournaments and some special events will utilize these parks. There are currently 15 Community Parks in Leduc providing approximately 144 hectares of open space. Community Parks also provide all residents of Leduc with opportunities to enjoy passive, outdoor, day use activities in a visually pleasing and/or natural open space environment. Informal activities in these parks may include picnics, strolling, reading, relaxing and playing. Examples of community parks include:
  - Harry Bienert Park
  - Kinsmen Park
• **Neighborhood Parks:** Neighbourhood level parks are generally intended to meet the needs of a population of 2,000 to 2,500 people. The focus of these parks should be to serve both the active and passive activity needs of those living nearby. The typical Neighbourhood Park provides the level of facilities designed to meet the activity requirements of the neighbourhood. These parks typically have some active recreation areas which can include a playground for both pre-schoolers and school age children, ice surface for skating or outdoor exercise equipment. Passive recreational activities (sitting, walking, dog walking) should also be accommodated in these parks. The open space components recommended for Neighbourhood Parks include landscaped areas and ‘sufficient’ street frontage for public access and safety. Neighbourhood Parks should be a minimum 0.5 Ha in area. Example of neighbourhood parks includes:
  - Audrey Griffiths Park (West Haven)
  - Doris Smith Park (Windrose)

• **Linear Parks/Greenways:** Sites that are used for physical connection to parks, schools, SWMFs and adjacent neighbourhoods. They may also include areas of natural habitat that provide a wildlife corridor.

### 4.3.2 Natural Areas/Environmental Reserve/Conservation Reserve

Currently, there are 9 parcels of Environmental Reserve (ER) in the City, totaling 32 Ha. A summary of these parcels is in Appendix B.

### 4.3.3 Municipal Open Space

This category includes public land that is classified as Public Utility Lots, Stormwater Management Facilities, Major Utility Corridors, and Berms and Buffers. The key development objectives of each class of municipal open space is defined below:

• **Stormwater Management Facilities (SWMF):** the development of SWMF (wet and dry ponds, constructed wetlands) is typically established areas of cities in new subdivisions but can be ‘retro-fitted’ into SWMF are not eligible for municipal reserve credit in Leduc. Only Linear Parks which are developed adjacent to the SWMF in the public access portion (15% Frontage) is eligible for MR credit. The standard of 15% of the perimeter of the SWMFs ensures opportunities for sitting, viewing, gathering, strolling and access for all residents of the surrounding neighbourhood. Standards must ensure that other MR dedication priorities are met first and that development is to the benefit of the parks system, community and residents.

• **Berms and Buffers:** Buffers, planted areas and berms were intended to help reduce the impact of traffic noise in residential areas and are landscaped for aesthetic and environmental reasons. Landscaping of these areas was intended to improve the streetscape and aesthetic
qualities of the City. Berms and Buffers also provided important corridors for multiway linkages, and in most cases, multiway should be a required component of the development.

- PUL/Walkway: Many utility lots provide public access into Neighborhood Parks and provide important linkages within and between neighbourhoods. Many of the existing utility lots do not have satisfactory pathways through them.

### 4.3.4 Roadways

Roadways in the City of Leduc are classified as either arterial, collector or local road rights-of-way (ROW). The landscape of these ROWs may include the boulevard between private property and the curb, the area between the back of the sidewalk and private property, as well as medians, cul-de-sac islands, and entry feature areas. Roadway rights of way are a key component of the multiway network in Leduc as the Engineering Design Standards for Arterial and Collector roads include the provision of 3.0 metre wide asphalt trails within the road right-of-way.
5. The Future of Parks, Open Space & Trails

This section of the report provides a Vision, related principles and strategies for the future management of POST resources in Leduc during the next 10-year time frame. The strategies are based on Vision, consideration of POST development trends, results of engagement and the review of the ideas, issues and challenges that are perhaps unique to Leduc. The implementation strategy including recommendations, capital program and recommended development phasing is provided in Section 7.0.

5.1 Vision for POST

Parks, open space and trails are the foundation of a healthy, vibrant, and connected community, producing an enhanced quality of life for residents and an improved urban environment. To achieve this, a defined vision and understanding of the role the City of Leduc plays in the delivery of parks, open space and trails is needed. A clear set of principles, strategies and actions is needed as a focus for the next ten years.

An Updated Vision for POST in Leduc:

**Leduc Parks, Open Space and Trails ... Come out and Play!**

In Leduc, you can ‘come out and play’ in the best parks system in Alberta. When you take advantage of Leduc’s comprehensive network of parks, open space and trails, you and your family can explore your community, get to know your neighbours, experience nature and take part in a wide variety of outdoor activities throughout the year. Parks, open space and trails in Leduc are well managed, fiscally and ecologically sustainable, safe, accessible, natural, beautiful and enrich the overall quality of life for everyone in the community. This vision is supported by the following principles for POST development and delivery:

1. **Access & Connectivity:** POST is a network that is linked by multiway and accessible to all residents within 400 m walking distance of their homes and across the entire City.

2. **Nature and Environment:** a wide range of natural (and wild) spaces and habitats are protected and stewarded and provide people of all ages access to natural experiences and education.

3. **Facilities:** high quality parks facilities are developed and managed in all corners of the City to meet the recreational needs of individuals, families and groups.
4. **Amenities**: to ensure that user’s needs are met, a range of high quality and well maintained parks amenities are provided in all locations.

5. **Safety**: through good design and management, people feel safe when they are using POST, and this translates into more activity throughout each day and through all seasons.

6. **Management & Maintenance**: a high level of service is provided throughout POST through the management efforts of the City, the support of community groups, and the stewardship contributions of individual citizens.

7. **Programming**: the City, in partnership with community groups, facilitates and supports a complete range of structured recreational activities, sports leagues, and outdoor programs to meet the needs of the community.

### 5.2 POST Strategies – Implementing the Vision

The following strategies are proposed to implement the vision for POST in Leduc as outlined above. The proposed strategies are aligned with the 7 principles related to the Vision.

#### 5.2.1 Access & Connectivity

**5.2.1.1 Berms/Buffers & PUL/Walkway**

It is recommended that berms/buffers along arterial or other roads should not be taken as Municipal Reserve and since multiway should be accommodated in road rights of way, the berms/buffers category is no longer required.

PUL/Walkway provides corridors for multiway development and so the City must ensure that the provision of multiway on these parcels is thoroughly evaluated at the plan approval stage. **It is recommended that the City review opportunities to upgrade existing walkways in PUL/walkway corridors to multiway standards as part of an ongoing improvement program. All future PUL/walkways should include multiway as per the Minimum Landscape Design and Construction Standards.**

**5.2.1.2 Active Transportation**

The current Transportation Master Plan and City Engineering Standards designate multiway (3.0 m wide asphalt) as part of the standard for all Arterial roads (divided and undivided) and all Major Collector roads. In other locations where key multiway links are missing, **it is recommended that multiway be included as part of future road upgrading, where necessary.**

**5.2.1.3 Multiway**

The multiway system in Leduc is important to the community as a service to local residents for both transportation and recreation. It is important to ensure the system grows as the City does. It is also
important to ensure the multiways have wayfinding to make navigation of the system safe and easy. The system needs to be interconnected to destinations like schools, shops and workplaces to support its active transportation function.

5.2.1.3.1 PROPOSED MULTIWAY DEVELOPMENT

In addition to the multiway routes identified in the Transportation Master Plan and the multiway that will be constructed as part of neighbourhood development, there are significant multiway and nature trails that are already identified for development within existing approved planning documents such as the Telford Lake Master Plan, Alexandra Park Re-Development Plan and the William. F. Lede Regional Park Schematic Design Report.

The City’s Transportation Master Plan recommends the following multiway links be considered:

- The inclusion of multiway in any new or upgraded east-west crossings of the Highway 2. Measures to make the existing multiway routes underneath the Highway 2 at Black Gold Drive and 50 Avenue more inviting (e.g. improved lighting) should also be considered.
- Providing multiway connections with neighboring municipality initiatives, such as the EIA’s new retail developments.
- Providing a north-south link into Leduc’s industrial business park, north of 65th Avenue.

In locations where cyclists and pedestrians share a paved route with vehicles, the space for cyclists and pedestrians should be clearly delineated with pavement markings or other visual treatments and where necessary vertical barriers such as bollards or intermittent curbing. Signage to identify this shared corridor may also be necessary.

It is recommended that the City continue with the current capital program for the construction of multiway throughout the network.

5.2.1.3.2 ENHANCED MULTIWAY EXPERIENCE

Although the multiway is Leduc's most well used POST resource, additions or upgrades could be implemented to enhance the overall user experience. The suggested enhancements include signage (trail maps, distance and directional markers, interpretive signage), art (e.g. sculpture, murals, landscape art), fitness stations / circuit training, geocaching sites, ornamental planting or gardens, more amenities (benches, trash/recycling, water fountains, washrooms, lighting), seating areas, and viewpoints. It is recommended that the City evaluates these opportunities and develop and implement an annual (or bi-annual) capital program for enhancing the multiway experience.

5.2.1.3.3 MULTIWAY DEVELOPMENT IN NEW NEIGHBOURHOODS

A neighbourhood loop concept using road right-of-way and designated open space corridors is intended to provide multiway loops around each neighbourhood in Leduc. This loop system has proven very effective in providing access to the overall system and should be continued as new neighbourhoods develop based on the following:
• Multiway connections should be provided east/west and north/south in all new neighbourhoods.

As Area Structure Plans are submitted, it is recommended that Community Development continue to ensure that multiway loops around the neighbourhood along Arterial roads and internal to the neighbourhood along collector roads are provided as part of the neighbourhood development requirements. Each subdivision should be connected east/west and north/south. In addition, links need to be provided to neighbourhood parks and schools as part of open space links within the Development Agreement for each neighbourhood.

The City’s minimum landscape design standards require the following multiway development in new neighbourhoods:

**REQUIREMENTS FOR MUNICIPAL RESERVES (MR)**

The following requirements apply to Neighbourhood Parks and Community Parks:

Multiways are to connect parks and open spaces. These multiways shall be constructed by the Developer through Municipal Reserve as per the provisions of the latest edition of the City of Leduc’s Transportation Master Plan, Parks, Open Space and Trails Master Plan, and Outline Plans related to the neighbourhood.

**REQUIREMENTS FOR MUNICIPAL OPEN SPACE**

This section includes the requirements for all municipal open space including public utility lots (PUL), stormwater management facilities, major utility corridors, and berms and buffers.

Municipal Open Space provides corridors for multiways. Linkages to these multiways, including those in road rights of way and parks, are the responsibility of the Developer, and shall be developed to the multiway standards as per the provisions of the latest edition of the City of Leduc’s Transportation Master Plan, Parks, Open Space and Trails Master Plan, and Outline Plans related to the neighbourhood.

### 5.2.1.4 Nature Trails

Leduc has a growing number of nature trails (shale/granular pathways) within parks, Environmental Reserve and open space areas. Access to nature for passive recreation and wildlife viewing is a growing activity and the future acquisition and development of the Sawridge Lands on the north side of Telford Lake, will provide a great opportunity to increase the extent of nature trails in the City. The suggested enhancements associated with these trails include directional and interpretive signage and naturalization planting.
5.2.2 Nature and Environment

5.2.2.1 Environmental Reserve (ER)/Conservation Reserve

Given the limited opportunities that exist within the existing City boundaries, the City of Leduc should continue to strive towards protection and preservation of natural areas and tree stands. These lands can be protected through environmental reserve (ER) designation.

To address the objectives of the City of Leduc Environmental Plan - Phase 1 (Urban Systems, 2012), it is recommended that the actions defined in the Plan be implemented to strengthen a commitment to the effective management of natural areas within the City of Leduc's parks, open space and trails resource base:

- To implement the recommendations of the Telford Lake Master Plan.
- To enhance the urban tree canopy by considering the implementation of the strategies in the Urban Forestry Plan.
- Building of more pollinator gardens.
- To continue to provide and expand community gardens.
- To protect natural areas and facilitate habitat restoration.
- To complete a natural habitat inventory for the community that also addresses wildlife movement.
- To enhance efforts to connect residents with the natural environment through the provision of naturalized park areas.
- To continue to enhance the multiway system by providing educational opportunities on the natural environment - interpretive trails, viewing blinds, lookouts.

Natural areas or Environmental Reserves would not include multiway but could include nature trails if possible.

5.2.2.2 Environment and Landscape Naturalization

Parks and open space in Leduc should be designed and managed to reflect the City’s environmental policy as summarized in Section 2.3. This includes an increase in naturalized landscape and increased native tree planting.

5.2.3 Facilities

A number of changes are proposed to the high quality parks facilities categories located in all corners in the city. A summary of these changes is described in the sections below.

5.2.3.1 Regional Parks

Masterplans and capital works programs are in place for all of the Regional parks, as described in 7.1. The planned West-end integrated Recreational Facility and Crystal Creek would be a Regional park.
5.2.3.2 Community Parks & Facilities

The goal for this category of parks will be to create a balance of Community parks and facilities across the entire City. The following section provides recommendations for the enhancement of existing Community Parks and the development of future Community Parks based on input from the community, the parks and open spaces inventory and the needs assessment.

The current standards include two types of Community parks in Leduc: Community Athletic Parks and Community Passive Parks. These designations were previously defined because they represented the two distinct types of community parks that had been developed in the past. For all future Community Park development, it is recommended that the City change the current Standard so that there is only one category of Community Park.

It is recommended that a master plan based on community consultation be prepared to fully determine the re-development/development potential for Harry Bienert Park.

5.2.3.2.1 Community Park Enhancements

A number of opportunities exist for upgrading or redeveloping some Community Park sites to add new, or replace parks infrastructure and amenities, multiway linkages, landscaping or new features such as community gardens. It is recommended that the City evaluate each of these opportunities and develop and implement an annual (or bi-annual) upgrading/redevelopment capital program (See Section 7.0 for implementation recommendations).

5.2.3.2.2 Development of Future Community Parks & Facilities

The Minimum Landscape Design and Construction Standards define the various types of recreational facilities that should be considered for new Community Parks. Previously, this was very focused on sports fields and recreational types of facilities. It has served the City well in the development of existing Community Parks that have a ‘sports’ focus. There are other types of parks facilities that should be considered to ensure that new Community Parks can meet the needs of the broadest number of users. Leduc needs more of these places and a shift from being strongly recreation focused to having a good mix of cultural and educational facilities within its POST network.

Based on this, it is recommended that in developing future Community Parks that the City should include facilities from all five of the following park facility categories. As is currently the standard, the selection and provision of facilities should still be based on current needs including an evaluation of the provision of the various types of facilities across the City to ensure that the City is not just duplicating facilities in each new park.

In the planning, design and implementation of all future Community Parks, there should be a combination of facilities from each of the following five categories:
1. **Recreational Facilities:** as per existing standards - includes facilities designed to support physical activity such as playgrounds, outdoor rinks, toboggan hills, tennis courts, spray parks, and community gardens.

2. **Sports Fields:** as per existing standards - includes a range of sports fields based on current and projected needs at the time of development.

3. **Social Gathering Amenities:** provision of facilities designed to create social gathering places within the park for groups of all sizes i.e. small scale (eg. a family), to medium scale (a school group) to larger scale (e.g. company picnic). Major events such as civic gatherings, festivals and tournaments would take place in the Regional level parks, Telford Lake Park, William F. Lede Regional Park and Fred Johns, or in Alexandra Park for civic activities. Social gathering facilities should be designed to encourage and facilitate day-use, and four season activity and may include groups of benches or tables, a gazebo or larger outdoor shelter, a small amphitheatre or performance area, bookable picnic shelter(s) or picnic sites. They also need to be supported by appropriate amenities such as trash/recycling receptacles, washrooms, signage, lighting and notice boards, as well as being enhanced by suitable landscaping.

4. **Arts and Culture:** arts and culture are important in shaping the community and contributing to the quality of life, and there are recommendations for increasing outdoor art and specifically art in parks. The provision of outdoor art in public spaces is also an established trend in municipalities across Canada. **It is recommended that some component of art be included in all future Community Parks.** There are a number of forms of art that could be included to meet this requirement: murals, sculpture, pavement art, landscape as art, such a maze or labyrinth, a space for temporary art installations. It is important to note that to successfully implement an ‘art in the park’ program, **it is recommended that the City work with arts groups in the community through the Arts Selection Committee to develop a formal program that includes criteria for soliciting, evaluating, judging and selecting the art elements.** An Arts Council could also facilitate funding and implementation of public art components through partnerships.

5. **Natural Features:** this category would focus on the provision of ‘natural’ features and facilities to allow children and families a place where they can connect with, experience, and learn about nature. For some future Community Parks this may be achieved by protecting or enhancing, an existing tree stand. For sites with no existing natural features or forest it will require the creation of a ‘natural’ replica element as well as through the creation of natural landscape features (e.g. forest, meadow, dry stream). Natural playscapes or ‘discovery’ playgrounds are also a growing trend in the provision of play spaces throughout North America and are
focused on the use of natural elements as play features as a means to reconnect kids with nature. Natural playscapes are created through the provision of natural elements such as mounds, boulders, logs, trails, water, and plants.

There is also an opportunity to take advantage of the natural elements in a stormwater management pond or wetland through the provision of lookout, boardwalks, and interpretive signage. Natural features designed for outdoor education and experience could also include habitat/interpretive trails or stations, zip lines, rock climbing, orienteering, outdoor classrooms or even fire pits.

5.2.3.2.3 RECREATIONAL FACILITY PRIORITIES

In addition to the parks facilities that will be developed as part of future Community Parks it is recommended that the City plan to develop the following recreational facilities as individual stand-alone projects within existing parks or as a component of the future development of new Community Parks:

- **Playground Capital Program**: neighbourhood playgrounds continue to be a one of the most important recreation facilities and should be developed in a staged manner following completion and approval of a park site in a new neighbourhood.

- **POST for Seniors**: with the growing seniors’ population, outdoor adult and seniors exercise/leisure facilities (e.g., lawn bowling, fitness, pickle-ball, etc.) are needed. Consultation with the Leduc and District Seniors Society is recommended as an initial step in defining potential amenity needs.

- **Winter**: the City should continue to develop specific facilities to ensure winter activities such as toboggan and shared-cost cross-country skiing. Note that skating ribbons have been tried in nearby municipalities and have proven to be difficult to create and maintain.

- **Smart Parks**: recognition of the incorporation of technology into open space areas, to complement recreation and environmental monitoring.

5.2.3.2.4 SPORT FIELDS

In the 10-year time frame, additional field requirements can be primarily accommodated by the development of the proposed West End Integrated Recreational Facility; Crystal Creek. If user numbers in a particular sport were to ‘explode’ in a given year in advance of additional formal development, the City does have the benefit of utilizing existing field provisions on school and park sites by improving the maintenance level and/or by implementing minor upgrades to meet short term needs.

Like many Alberta municipalities, the City of Leduc has heard from user groups (football (2019) and soccer (2012)) that a synthetic (artificial turf) field facility is needed in Leduc. Leduc is the only large municipality in the Edmonton region that does not have any synthetic fields. Currently, some Leduc sports teams have to travel, for home games, to other municipalities to use their synthetic fields. Increasing the amount of travel required to participate in a sport creates barriers for users to
participate. The barriers could prevent users from participating in the sport which could lead to the overall decline of a sport.

Synthetic playing surfaces are becoming the standard for tournament play for rectangular field and ball diamonds as they allow for more intense use. The ability to utilize synthetic surfaces much more intensely also enables increased tournament hosting capacity. Hosting of major tournaments allows for user groups to generate more funds for their organization. Other benefits of synthetic surfaces include all-weather use, extended playing season, and ease of maintenance. The life cycle replacement costs associated with a synthetic playing surface, as well as a new cost structure/operating model for updating these kinds of facilities, is still being measured.

Based on the relatively recent development of tournament/ championship-level soccer and football fields in Leduc, as well as the fact there are also practice fields available to minimize the use of the championship fields, there is not an urgent need to develop a new field or to re-develop an existing field. Based on anticipated need and an anticipated new high school, it is recommended that the City consider the construction of a synthetic field at the Crystal Creek recreational facility.

5.2.3.2.5 OUTDOOR FITNESS PARKS

The residents in Leduc are looking for more opportunities to be in nature and participate in recreation, which are affordable. Leduc's senior population is rising, and they are looking for affordable fitness and recreation opportunities. Outdoor fitness parks provide this opportunity as they are free for people to use and have a minimal operational impact. Placing them in areas of high use, such as the Crystal Creek high school site and future recreation centre, would allow for the physical education classes and fitness instructors to train people on the equipment. An outdoor fitness park adjoining Telford House would allow seniors to use the free equipment.

Recommendation: Outdoor Fitness Parks should be installed at the new Crystal Creek Site and the new Lions Park at Telford lake. There should be a cost-share provided for the areas of Telford House and Lions Campground.

5.2.3.2.6 PLAYGROUNDS

Playgrounds provide children and families with the ability to promote physical activity and create social networks. Working with both developers and community, the goal is to ensure there are both 18 months to 5-year and 5- to 12-year playgrounds within each community.

Recommendation: The City of Leduc will continue working with developers to build playgrounds within neighbourhoods and create longer destination playgrounds (using the community to plan and potentially build) within Community and Regional parks.
5.2.3.3 Neighbourhood Parks

Each new site needs to be evaluated in the context of all parks within the neighbourhood as a balance of amenities and facilities can be provided without replicating exactly the same elements in all parks.

5.2.3.3.1 NEIGHBOURHOOD PARK ENHANCEMENTS

Through the inventory and assessment process a number of opportunities were identified for upgrading or redeveloping some existing neighbourhood park sites to add new or replace parks infrastructure and amenities, multiway linkages, landscaping or new features such as neighbourhood garden initiatives. The following table provides an overview of the potential redevelopment options. It is recommended that the City evaluate each of these opportunities and develop and implement an annual (or bi-annual) upgrading / redevelopment capital program.

<table>
<thead>
<tr>
<th>Park Number</th>
<th>Park Name</th>
<th>Potential Development/Redevelopment Opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Bridgeport 1</td>
<td>Small amenity features (eg. gazebo)</td>
</tr>
<tr>
<td>3</td>
<td>Bridgeport 2</td>
<td>Community Garden</td>
</tr>
<tr>
<td>6</td>
<td>Deer Valley</td>
<td>Interpretive signage and/or viewpoints along the trail</td>
</tr>
<tr>
<td>7</td>
<td>Deer Valley 1</td>
<td>Suitable for various park infrastructure (eg. outdoor rink; splash park)</td>
</tr>
<tr>
<td>8</td>
<td>Deer Valley 2</td>
<td>Nature trail with interpretive signage/viewpoints (extension of Deer Valley)</td>
</tr>
<tr>
<td>14</td>
<td>Leduc Common 1</td>
<td>Interpretive signage and/or viewpoints along trail</td>
</tr>
<tr>
<td>15</td>
<td>Leduc Common 2</td>
<td>Nature trail with interpretive signage/viewpoints</td>
</tr>
<tr>
<td>17</td>
<td>Southwick</td>
<td>Multiway link through park</td>
</tr>
<tr>
<td>19</td>
<td>Suntree</td>
<td>Nature trail around pond</td>
</tr>
<tr>
<td>24</td>
<td>Windrose 3</td>
<td>Multiway adjacent to golf course</td>
</tr>
<tr>
<td>29</td>
<td>East Elementary School</td>
<td>Community Garden</td>
</tr>
<tr>
<td>30</td>
<td>Edward Wolfe</td>
<td>Community Garden; multiway link through park</td>
</tr>
<tr>
<td>42</td>
<td>SWMF 3</td>
<td>Proposed dog off-leash park</td>
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<tr>
<td>51</td>
<td>Adolph Comm</td>
<td>Multiway through park</td>
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<td>54</td>
<td>Campbell</td>
<td>Sidewalk to playground</td>
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<td>56</td>
<td>Corinthia</td>
<td>Tree planting</td>
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<tr>
<td>65</td>
<td>Notre Dame</td>
<td>Multiway through park</td>
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<tr>
<td>68</td>
<td>Rainbow</td>
<td>Multiway through park</td>
</tr>
<tr>
<td>70</td>
<td>Roberts</td>
<td>Multiway through park</td>
</tr>
</tbody>
</table>

Table 7 – Neighbourhood Park Enhancements
5.2.3.4 Stormwater Management Facilities (SWMF)

SWMF (wet and dry ponds, constructed wetlands) in new subdivisions serve an important and required utility function and are developed as part of the utility infrastructure of the City with a primary function of managing stormwater. These facilities also provide an important ‘natural’ and aesthetic feature in neighbourhoods. SWMF are not eligible for municipal reserve credit in Leduc. Linear Parks/Greenways can be developed adjacent to the SWMF (beyond the Freeboard line) in the public access portion (15% Frontage). It is recommended that the City of Leduc continue to maintain its standard of providing MR credit for Linear Park development to provide neighbourhood access to the pond or wetland for sitting, viewing, gathering, and aesthetics. It is also recommended that within the pond area (within the PUL), that the City require the development of a multiway around the pond (or around 50% if there is public access on two sides), and above the 1:25 water level. The multiway will serve to increase public access to the pond, and to nature, as well as to improve neighbourhood walkability.

5.2.4 Amenities

It is recommended that the City maintain an annual budget for the replacement and installation of new park amenities to ensure that user experience and safety remains at current levels. This includes trash receptacles, benches, picnic tables, bike racks, view points, lighting at key locations, directional and entry signage.

5.2.5 Safety

Safety and security is a fundamental requirement for users of the parks and open spaces network. Elements of the creation of safe public spaces are identified in Crime Prevention Through Environmental Design (CPTED) principles. These principles are often used by local law enforcement agencies to assess risk minimization for public spaces. Common elements that can make a public space safer include wayfinding, signage that clearly identifies the acceptable uses and hours of operation of the area, consideration of visibility of the area from adjoining homes or streets and the restriction of access by public vehicles. Promotion of year around activities as well as maintenance of the space, to show that it is being cared for, are other aspects to consider. CPTED principles are referred to in the City’s minimum landscape design and construction standards.

5.2.6 Management and Maintenance

This section of the report provides an overview and recommendations for the future delivery of POST operational and support services in Leduc over the next 10-year time frame. It is clear from the recent needs assessment that the City provides a satisfactory level of services to meet the recreational needs of the user groups and the broader community, however, a number of recommendations are proposed related to improving the marketing and promotions, programming, partnering,
planning and funding of parks, open space and trails delivery.

### 5.2.6.1 Service Delivery Responsibility

To create and deliver the impressive City of Leduc POST system takes a number of departments and stakeholders. It is recommended that the City of Leduc follow the functions and responsibilities described in Table 8:

<table>
<thead>
<tr>
<th>Function</th>
<th>Environmental Reserve</th>
<th>Natural Areas</th>
<th>Parks</th>
<th>Outdoor Fitness Parks</th>
<th>Playgrounds</th>
<th>Furniture/Shelters</th>
<th>School Sites</th>
<th>Multikway</th>
<th>Boulevards – Developer</th>
<th>Boulevards – City</th>
<th>Sports Facilities</th>
<th>Trees</th>
<th>Outdoor Rinks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operations/Maintenance</td>
<td>PO</td>
<td>PO</td>
<td>PO</td>
<td>PO</td>
<td>PO</td>
<td>PO</td>
<td>PO</td>
<td>PO</td>
<td>PO</td>
<td>PO</td>
<td>PO</td>
<td>PO</td>
<td>PO</td>
</tr>
<tr>
<td>Repairs (Minor)</td>
<td>PO</td>
<td>PO</td>
<td>PO</td>
<td>PO</td>
<td>PO</td>
<td>PO</td>
<td>PO</td>
<td>PO</td>
<td>PO</td>
<td>PO</td>
<td>PO</td>
<td>PO</td>
<td>PO</td>
</tr>
<tr>
<td>Planning</td>
<td>CD/PO</td>
<td>PD/PO</td>
<td>CD/PO</td>
<td>CD/PO</td>
<td>CD/PO</td>
<td>CD/PO</td>
<td>CD/PO</td>
<td>CD/PO</td>
<td>PD/PO</td>
<td>PD/PO</td>
<td>CD/PO</td>
<td>CD/PO</td>
<td>CD/PO</td>
</tr>
<tr>
<td>Construction</td>
<td>CD/D/PO</td>
<td>CD/D/PO</td>
<td>CD/D/PO</td>
<td>CD/D/PO</td>
<td>CD/D/PO</td>
<td>N/A</td>
<td>D/E/PO/CD</td>
<td>PO/D</td>
<td>E/PO</td>
<td>CD/PO/E</td>
<td>CD/PO/E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Booking &amp; Events</td>
<td>RS</td>
<td>RS</td>
<td>RS</td>
<td>RS</td>
<td>RS</td>
<td>RS</td>
<td>RA</td>
<td>N/A</td>
<td>N/A</td>
<td>RS</td>
<td>N/A</td>
<td>RS</td>
<td>RS</td>
</tr>
<tr>
<td>Programming</td>
<td>RS</td>
<td>RS</td>
<td>RS</td>
<td>RS</td>
<td>RS</td>
<td>N/A</td>
<td>RS</td>
<td>N/A</td>
<td>N/A</td>
<td>RS</td>
<td>N/A</td>
<td>RS</td>
<td>RS</td>
</tr>
</tbody>
</table>

*Public Services does not maintain school sites but does maintain athletic fields on school sites.

*Construction in Environmental Reserve is typically limited.

More specifically, for each service area, the City of Leduc will be responsible for:

**PARKS & TRAILS**

- Planning, design, construction, maintenance and management of:
  - Regional Parks
  - Community Parks
  - Neighborhood Parks
  - Linear Parks
  - Sport fields
  - Stormwater management facilities (SWMF)
  - Open/Natural Space Parks
  - Berms/Buffers & PUL/Walkways
  - Environment Reserve
- Multiway
- City of Leduc Playgrounds

RECREATION & SPORT

• Planning, design, construction, maintenance and management of:
  - Indoor/outdoor recreation and sport facilities
• Facilitating, enabling and supporting the provision of recreation and sport programming.
• Providing leadership and support to recreation and sport clubs and organizations.

STRATEGIC PLANNING, POLICY DEVELOPMENT, BYLAWS, AND COMMUNITY ENGAGEMENT

• Plan, policy and bylaw development and enforcement relating to parks, trails and open spaces; and recreation and sport.

5.2.6.2 Marketing & Promotions

POST are provided and facilitated by the City of Leduc because these services enhance the quality of life of both residents and visitors. Ninety percent of residents agree that POST amenities add to their quality of life. The many benefits of POST are apparent to all who participate, are proven and well documented, but may not be commonly shared by the whole community. As such, the promotion of POST and justification for public support must be proven on an ongoing basis and shared with all stakeholders so that a common awareness of the importance of outdoor recreation, nature interpretation and sport are understood.

Although the City does promote POST opportunities to some degree, enhanced promotion of, and justification for, POST opportunities in the City will generate higher levels of participation is significant, with 95% of residents claiming use of POST amenities in the past twelve months. With the exception of multiways (used by 97% of residents), many of the POST amenities measured could entertain increased use/
visitation (66% of residents use playgrounds, 63% use Telford Lake, 34% use outdoor rinks, 32% use the outdoor pool, 22% use soccer fields and 14% use the tennis courts). Enhanced awareness of the benefits of POST can drive increased participation as well as interest in volunteerism or justification for sustainable funding for enhancing outdoor POST services.

First and foremost, POST promotion will increase participation by residents and visitors alike. It is not uncommon for a community’s residents to be unaware of the complete portfolio of POST opportunities available. Higher levels of participation will help the City and its residents realize even more of the many benefits physical activity and nature offer. Increased participation will also lead to greater sustainability of POST facilities and programs due to enhanced user fees. Exposure/traffic based revenue streams such as sponsorship and retailing will become healthier as well.

POST services in the City of Leduc, as is the case in many other municipalities, are just one of many municipal services offered to residents and visitors in communities. As this is the case, and due to declining support for POST services from senior levels of government (reduction of available grant programs for example), justification for sustained and increased funding for outdoor recreation provision must be compiled to further the overall agenda for POST in the City (and throughout the Province). While with good intentions, it can be relatively easy to divert significant amounts of resources from municipal POST budgets to budgets related to other issues or concerns. On a sustained basis, this can put the municipality “behind” resulting in increasingly more and more public pressure to “catch up” when meeting demands for POST servicing. This justification for resources must consider the perspective of elected officials contemplating the needs of the general public as well as potential corporate and non-profit sector service providers that may have the ability to assist in the provision of POST services.

**It is recommended that the City of Leduc develop and implement a comprehensive POST promotions strategy.** The first step in promoting POST in the City is to “tell the stories” of existing participants and outline the benefits they have realized from the participation in POST activities. These stories, and related measurable benefits, will form the key messages with the goal of increased participation and further public, non-profit and private support. Inherent in these stories is the identification of the POST opportunities available in the City of Leduc.

Key information that will build the case for both participation and support could be both local and provincial/national (depending on availability) and could include:

- Overall public support and participation demonstrated through statistically reliable public engagement activities such as telephone or mail out surveys (as has been compiled in this Master Plan process).
• Participation numbers from local programs, facility memberships and usage statistics, etc. which could equate to annually measures indices (% of population participating) or special community participation challenges.

• Recreation focused research from within the province and beyond from sources such as the Alberta Recreation and Parks Association, Alberta Centre for Active Living, and the Leisure Information Network.

• Estimates of the positive economic impact of POST (already being conducted by the City) in the community including non-local spending and estimated reduction of health and crime prevention costs (reduction of anti-social and self destructive behaviours).

• Support information/messaging from external, but related, sectors such as health services, crime prevention, education and social services.

Collecting this information will require collaboration from local users groups (annual reporting of participation numbers), stakeholders from other sectors such as health care, education, crime prevention and social services and investment in generating, and collecting public sentiment on POST in the community. Once the key messages are developed, delivering them to pertinent stakeholders (residents, potential funding, agencies, etc.) should be outlined in a detailed POST marketing and communications plan. The plan would provide an overview of message delivery media, key message development and reassessment, annual budget allotments, and an assessment tool to measure the effectiveness of promotional efforts.

Although the development of a POST marketing and communications plan would describe potential media to utilize, some mediums are local newspaper and television media, the City’s website (as well as websites of affiliate stakeholders), social media (such as Facebook or Twitter), and signage throughout the community (many of which are already utilized by the City in public POST messaging and event promotion). Determinants of media effectiveness should be collected, potentially through point of purchase/participation, random public and/or POST facility exit surveys (eg. do you know that POST is beneficial to your health?, how did you find out about this opportunity?, etc.).

5.2.6.3 Engaging and Facilitating Volunteer Groups

Those volunteer groups that offer programs and / or facilities to city residents and visitors and that need public support (non-profit) get help from the City in various forms. The City recognizes the importance of volunteer and non-profit involvement in the delivery of outdoor recreation and leisure opportunities for residents. The City also recognizes the value these contributions have on providing quality opportunities and leveraging public funds.

As such, the City’s community group support services include assistance with grant writing, strategic planning, equipment and supply capital projects, and overall activity promotion. The relationship the City has with local delivery agents (non-profit and / or volunteer groups) sometimes takes the form of formal partnership agreements, such as agreements...
with the Telford Lake Alberta Training Centre Society. These agreements vary in nature and scope and make up a sophisticated and effective approach to delivering outdoor recreation opportunities to residents that promotes quality and leverages public funds. The facilitation of open space enhancement by community organizations, public institutions, and the private sector is an important role for the City.

In some instances, direct support from the City, and the formation of partnerships with the City, is important to ensure that needed recreation services or facilities are provided. **As the nature of many of the partnership arrangements the City has with recreation delivery groups is financial, the funding thresholds and associated conditions are recommended to ensure equity and transparency in dealing with different groups be, regardless of maturity level.**

The key to successful partnerships in the provision of outdoor public recreation opportunities lies in the strength of partner non-profit volunteer groups. The evolution of non-profit groups involved in outdoor recreation service provision is explained as follows:

Through working with and assisting local community groups, the City fosters and sustains partnerships that create buy-in and engagement within the community, optimizes the use of public funds and provide a diverse spectrum of quality facilities and services for all City residents. The adoption of a “community development model would outline roles and responsibilities for the City and partner organizations and outline a transparent and equitable process on how groups can engage and partner with the City.

**It is recommended that the City continue to support and engage in formal partnerships with community groups that intend to develop, manage and/or program POST resources and services.** By communicating on a consistent basis with recreation delivery partner groups, the City will be able to identify areas where volunteer groups require support. This will afford the City the ability to assist groups regardless of their evolution, leading to sustained program provision for residents and visitors. This communication, some of which is already occurring, will also enable local groups to fully understand the resources the City is willing to provide to help them achieve their program goals.

The City of Leduc can provide assistance in facilitating the human resource assistance to groups. Working with groups to coordinate assistance in preparing business plans can help groups strategically approach the future with sustainability in mind. Helping groups identify and apply for grants or solicit program sponsorship can help alleviate financial pressures faced by some groups.

### 5.2.6.4 Creating Broader Volunteer Services

Volunteers are key to the sustainability of non-profit groups and associated events and thus integral to successful partnerships in the provision of POST. The City already plays a role in attracting, retaining and rewarding volunteers through Volunteer Leduc and has adopted a corporate philosophy that suggests volunteers are a valued extension of municipal service provision. Engaged volunteers are more connected in
a community and exhibit community pride and cohesiveness.

The City can be a catalyst in connecting volunteers with volunteer opportunities associated with outdoor recreation services. **It is recommended that the City continue to develop and maintain a roster of city residents willing to volunteer for outdoor recreation opportunities (indicating their availability and interest) accompanied by a recreation volunteer opportunity roster (indicating groups seeking volunteers and the nature of the opportunity) which provides groups access to the existing volunteer community.** Although this is already occurring through Volunteer Leduc, increased emphasis could be placed on “nature-based” or parks specific volunteerism which is not currently a major focus of the program. It is also important to measure volunteer involvement and overall community impacts of volunteering which could form part of key messaging for broader communications. In engaging more residents to volunteer, key messaging in communications and formal volunteer recognition programs (currently offered by the City) can promote the merits and positive impacts of volunteering. This could be measured through a volunteer relationship database.

### 5.2.6.5 Recreation & Sport Tourism

Recreation and sport tourism are a significant contributor to overall community health through availability of outdoor recreational opportunities; through showcasing various recreational pursuits; by maximizing the use of recreation infrastructure; and by enhancing the local economy by inviting visitors to the City to participate and view the sporting and recreation events. Recreation and sport tourism events, in most cases, are a product of the involvement of local delivery groups, the City, the business community and a strong and engaged volunteer community. The City of Leduc is looked upon as a leader in embracing and promoting sport tourism, through which many of its traditional and unique POST resources are utilized.

With the quality and quantity of recreation facilities and spaces offered in the community, the City is able to host local, provincial, national and international sporting events. Recreation and sport tourism related to major provincial, national or international events can have much longer lasting impacts in communities as well as injecting non-local spending during an event. As well, the hosting of major sporting events can result in lasting legacies in the community and provide other social benefits. Major events provide an opportunity for the City and its residents to celebrate sport and recreation, cultivate sport and recreation in the community, and create an authentic and shared identity for the City. Major events also provide exciting and attractive volunteer opportunities.

Collaborative planning and facilitating sport and recreation tourism events within the community involving the public, non-profit and private sectors can lead to innovative businesses and creative partnerships in the community.

The City currently supports local groups in attracting and retaining major sporting events in many of its indoor and outdoor venues.
Not only should this approach be maintained, it is recommended that assistance to local POST groups be sustained and potentially expanded (if required) to include broader sport tourism recreation opportunities and a continued focus on outdoor events.

Collaborative event planning with recreation groups and the private sector can occur with the assistance of the City in order to ensure that event overlap is avoided where possible and that maximum positive impact is achieved. More specifically, events requiring the same facilities should be coordinated and offset while tournaments and potential complimentary events for spectators (such as trade shows, arts exhibits) could be planned to occur simultaneously.

In terms of infrastructure design, the ability to host regional, provincial or national events should be incorporated where feasible. This can include event hosting design standards such as requirements for program areas as well as spectator seating requirements and collaboration with adjoining municipalities.

5.2.6.6 Life Cycle Budgeting

Life cycle planning for POST is very important as it ensures existing services can be sustained. Proper life cycle management suggests that facilities could be offered in perpetuity as ongoing investment and upgrades would be planned for and completed, avoiding overall facility deterioration. In many cases, a percentage of overall capital replacement value is applied on an annual basis and held in a reserve for future upgrades and/or enhancements. As outdoor recreation facilities are becoming more dynamic, it is suggested that necessary repairs should be incorporated but so too should potential reprogramming of spaces and amenity refresh.

5.2.6.7 Funding POST

Municipalities bear the majority of costs related to community recreation provision. Although Provincial and Federal government grants contribute to capital upgrades and new POST development in some cases, the primary responsibility for both capital and operating recreation infrastructure and programming is born by users and local taxpayers. The leveraging of this public investment into external sources of funds is key in both sustaining and expanding recreation service provision in the future. The City already leverages public spending on POST through the collection of user fees, through partnerships with non-profit groups in providing recreation opportunities and through private sector sponsorship of recreation assets, primarily at the Leduc Recreation Centre. The City also has a Fees and Charges strategy that is updated intermittently.

Developers of new neighbourhoods plan, design, and construct and are required to temporarily maintain the landscape and required recreation infrastructure for new open space throughout the City.

The following funding opportunity spectrum is presented to guide future municipal expenditure on recreation infrastructure development. The spectrum explains that facilities for established open space that
are accessible by the entire community and that are within the City’s base level of service (such as walking trails, park furniture, etc.) should be funded solely through public taxes. As POST infrastructure becomes more specialized and less accessible by the general public (i.e. major sports field facilities, etc.) funding should come from a combination of public taxes, user fees, fundraising and private/non-profit investment.

Further leveraging of public resources in the provision of recreation services is important in order to optimize the impact of public funds in the provision of recreation facilities and services. An examination of existing revenue streams (e.g. user fees) is necessary to ensure that the fees provide an appropriate balance between revenue generation, affordability, access, and other performance indicators. Other, less traditional sources of revenue need to be considered as well.

Municipalities and other public agencies have a responsibility to relate decision-making regarding the disposition of public funds to sound, diligent protocol and processes. This means that all decisions with implications for public generated funds (namely, through taxes) should be made based on sound research, public engagement, and with the most up-to-date pertinent information as possible.

### 5.2.6.8 Sponsorships

Sponsorship opportunities provide the private sector access to asset branding with existing or new recreation facility spaces or programs. The success of sponsorship programs is dependent upon the level of private sector interest in the community and the perceived return on investment an opportunity may offer. POST should be designed, where feasible, with consideration given to maximize exposure of potential sponsors. This would entail the involvement of sponsorship expertise within the City being involved in the design process should facility upgrades or new POST development occur.

Sponsorships for POST amenities can be applied to either capital expenses, operating expenses or a combination of both. Regardless of the type of sponsorship, there are three key considerations that need to be made.

1. **Mutual benefit** is a major success factor in a successful and long-term partnership. There must be a benefit to all parties involved, either tangible or intangible, so that there is motivation to maintain and strengthen the relationship as it matures. This is important in capitalizing on the successes of a partnership arrangement but also to mitigate issues that could arise during the term of an agreement.

2. **Communication** between all partners is very important in ensuring that all parties are “on the same page” and in dealing with issues/conflicts that might surface throughout the term of an agreement.

3. **All parties must have trust** in each other to ensure that proper communication channels are utilized and to ensure that broader facility program goals can be met. This trust must exist in the individuals involved in “face to face communication” as well as in broader organization-wide ideals.
When contemplating corporate/non-profit sponsorship and POST fundraising it is important to understand the nature of the sponsorship market. Fundraising campaigns must provide access for all budgets however prominence must be given to those groups that contribute the most. Sponsorship occurs to accomplish greater good in a community and to promote/affiliate an organization with the intentions and image of a certain resource. In the case of a public POST, the case for contribution to quality of life and health lifestyles is straightforward and the affiliation is easy to make.

For any given resource, typically 1/3 of corporate fundraising comes from the top two or three sponsors, the next 1/3 comes from the next 10-15 contributors and the remaining 1/3 comes from a variety of sources including smaller corporate donations, non-profit contributions and individual donations. Using this framework and assessing appropriate value for POST resource.

5.2.6.9 Partnerships

The potential for partnerships in building and operating POST infrastructure is significant. Through partnerships the City can leverage public funds while still providing quality, diverse infrastructure. The City already partners with many delivery groups, some of which are responsible for maintaining City owned facilities, have contributed to the capital costs of infrastructure upgrades and, in a few cases, actually operate independently from the City while still providing a publicly accessible program or activity.

The City can participate in operating and/or capital partnership arrangements as the primary stakeholder developing or operating the resource and seeking assistance. Alternatively, the City could provide assistance as a secondary stakeholder to non-profit or private sector partners leading a project. Partnerships can include non-profit groups, school boards, post secondary institutes, service providers (such as minor sport organizations, the Boys and Girls Club, the Leduc Boat Club, etc.), and the private sector including developers.

Potential partnership approaches currently employed in Leduc or observed in other similar communities are explained as follows:

1. **Capital Partnerships**: these could include the City owning a facility and receiving support for recreation resource development through up-front capital injection. In many cases, especially where private sector sponsorship or regional municipal project contributions are made, ownership still resides solely with the City and funding partners are afforded naming rights or cost recognition in some form. An example of this type of partnership is employed at the Leduc Recreation Centre. In the case where significant capital investment is made from a variety of different partners, joint resource ownership models can be structured. Joint resource ownership does not currently exist in the City of Leduc.

   In some scenarios, ownership may not reside with the City. However, because of the nature of the project the City may support an independently owned recreation resource because of the service it
provides to the community. For example, if a facility is owned by a non-profit group that cannot afford necessary capital improvement, the City may offer capital support to sustain the program in the community.

2. **Operating Partnerships:** if the City is responsible for operating a facility, potential partnerships can again include private sector sponsorship for facility spaces and regional municipal operating cost sharing. Partnership for facility usage can also be struck with stakeholder groups that can guarantee use, and related revenues, of facility spaces in a season. In some cases, the City may choose to lease out the operations of a City owned facility. These arrangements can be successful but also entail less operational control by City administration. In the event that facilities are not owned by the City, it may still provide operational support to non-profit or even private operators if the facility or space justifies public investment and meets partnership criteria.

3. **Shared Park Development Program:** a Shared Park Development Program could be 85% developer funded (100% of capital construction) and 15% City funded (landscape establishment/maintenance). No Letters of Credit would be required from the developer. Projects are voluntary and are initiated by the developer. This type of program could cover recreation facilities that are above and beyond what developers of new neighbourhoods are required to provide.

4. **Partnership Funding Framework:** regardless of the ownership or operating nature of the partnership, the City’s involvement in partnerships should meet the following broad criteria.

<table>
<thead>
<tr>
<th></th>
<th>City Primary (City led Projects)</th>
<th>City Secondary (Projects proposed to the City)</th>
</tr>
</thead>
<tbody>
<tr>
<td>In line with City strategic direction</td>
<td>The project must be in line with the City’s core POST service mandate as outlined in the POST Master Plan</td>
<td>The project should be in line with the City’s core POST service mandate as outlined in the POST Master Plan</td>
</tr>
<tr>
<td>Levels of investment</td>
<td>The level of investment by other partners must be significant (see threshold considerations below).</td>
<td>If the City invests public finding in projects where it is not the primary owners/operator, specific interests should be granted to the City based on the level of investment made (see threshold considerations below).</td>
</tr>
<tr>
<td>Standards/safety compliance</td>
<td>The project must achieve City standards for safety and code compliance.</td>
<td>The project must achieve City standards for safety and code compliance.</td>
</tr>
<tr>
<td>Business planning</td>
<td>The project must have a formal business plan developed that outlines the information regarding capital and operation costs, market information and risk assessment.</td>
<td></td>
</tr>
<tr>
<td>Public Access</td>
<td>The project must allow public access (to some degree). Funding will follow “funding framework” philosophy.</td>
<td></td>
</tr>
<tr>
<td>Sustainable</td>
<td>The project must be sustainable in terms of operating revenues, expenses and required subsidy (if applicable).</td>
<td></td>
</tr>
</tbody>
</table>

Table 9 – Partnership Funding Framework
Realizing that these criteria are being met, and will be met to varying levels, the City can get involved in the planning, development and operations of recreation facilities and spaces in a variety of ways driven by the leveraging of public funds in recreation service provision. The different levels that the City can get involved in recreation resource development and operations include:

- **Level One** - The City owns, operates and is directly responsible for POST resources. An example would be the Leduc multiway system.

- **Level Two** - The City is a major ownership and operating partner in recreation resource development. The partnership model is based on the City having a significant and/or equal stake in ownership and operating responsibility with other partners.

- **Level Three** - Although the City does not directly control or have an equal stake in ownership and operations of recreation resources, City administrative representatives are involved in POST resource delivery during the needs assessment, feasibility, business planning, design and operating stages. Level three includes facilities and sites that are owned by the City and operated, through lease agreements, by delivery agencies. This also assumes the inclusion of City residents in public consultation programs and engagement strategies (and associated need is demonstrated from a City resident perspective).

- **Level Four** - The City may provide funding for capital and/or operations of POST resources with delivery agencies with no City administrative representation in recreation resource delivery during the needs assessment, feasibility, business planning, design nor operating stages. Although there is no involvement by City administration representatives, a prerequisite to collaboration at this level is that City residents are included in public consultation programs and engagement strategies (and associated need is demonstrated from a City resident perspective).

In order to further understand how these different levels of partnership collaboration are determined, a Partnership Continuum (following page) has been provided which defines funding thresholds and criteria. The amounts included in the threshold explanations are indicative of the amount of public (City) investment in any given project.

The thresholds and associated levels of involvement have been identified to help City administration manage the varying degrees of collaboration in which they are currently involved as well as new initiatives that may arise. These levels are meant to act as guidelines and although some exception may occur, this framework will ensure that public funds will be dispersed in a suitable and diligent fashion with appropriate consideration to the needs of City residents.
PARTNERSHIP CONTINUUM

<table>
<thead>
<tr>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ownership</strong></td>
<td>City owned and operated</td>
<td>Jointly owned and operated (City + Partner)</td>
<td>Partner owned and operated (Potentially on City Land)</td>
</tr>
<tr>
<td><strong>Planning &amp; Development</strong></td>
<td>Using the resource development framework</td>
<td>Using the resource development framework Full Public Engagement Process driven by the City</td>
<td>Using the resource development framework Full Public Engagement Process driven by Partnership</td>
</tr>
<tr>
<td><strong>Approximately Financial Thresholds (Capital and/or Operating)</strong></td>
<td>100% City Sponsored (Public funding)</td>
<td>50% City sponsored (Public funding)</td>
<td>25% City sponsored (Public funding)</td>
</tr>
</tbody>
</table>

Table 10 – Partnership Continuum

5.2.6.10 Land Acquisition

The City has attained its current POST assets through a combination of taking municipal reserve lands through the development subdivision process; the designation of areas as environmental reserve; and through donations of land from external individuals and organizations. William F. Lede Regional Park, the City’s largest POST resource, was the result of a land donation. In order to maintain the City’s current allocation of POST as the community grows, additional lands will have to include both allocations of municipal and environmental reserve, as well as land acquisition through purchase, donation or some form of conservation easement. The creation of larger publicly owned parcels for another Regional Park in Leduc will have to occur through land purchase and/or a combination of land purchase, the taking of public reserve, or reserve-land swapping.

As the City plans a larger parcel of land for recreation facility development in on the west side of the QEII highway, there are a number of considerations that should be made in assessing potential sites. The fundamental aspects of site selection are that the site is:

- adjacent to major collector roads;
- highly visible to attract sponsorship investment and way finding by visitors to the City;
- coordinated with pedestrian and multiway routes and existing or planned public transportation;
- sized appropriately and adaptable for a combination of indoor and outdoor functions;
- adjacent to compatible developments including retail, hospitality and higher density zones; and
- geographically located in the City with balanced access by all residents.
5.2.7 Programming

The City of Leduc works with sport associations/not-for-profits to ensure that POST programming is provided. Moving forward, emphasis will be made on ensuring decisions about programming in parks will, directly and indirectly, benefit the greatest number of residents in the following target segments:

- **Children & Youth**—we know that an early start at a healthy lifestyle is likely to last a lifetime and developing a strong repertoire at a young age is critical to enabling lifelong participation.

- **Working with current sport associations in providing affordable opportunities in sport**

- **Reducing cost barriers by providing high quality accessible parks**

- **Providing opportunities for spontaneous recreation like basketball courts, toboggan hills and playgrounds will service this group.**

- **Seniors**—we know that physical inactivity is leading to significant individual and social costs.

- **Outdoor programming for youth, promoting interaction and “building a relationship” between youth and the outdoors.**
6. Plan for Parks, Open Space & Trails

6.1 Planning POST

In the development of public POST facilities, the ideal public decision-making process has a number of steps.

The process outlined above can take between 18 and 30 months depending on the ability for decision-making to occur in a timely fashion and to engage of the general public in constructive feedback.

Planning for major development initiatives could take between two and four years recognizing the need for public engagement, concept planning, detailed planning, tendering and construction.

**It is recommended that the City adopt the following feasibility analysis guideline to ensure that the information provided to City Council is complete and appropriate for making decisions regarding public funds.**

When developing major POST resources, the following general conditions should be met throughout the resource planning process:

1. There must be public engagement in the planning process.
2. A market assessment for component service delivery functions must be completed.
3. A thorough and transparent site/location analysis must be completed.
4. There must be a biophysical/environmental impact statement.
5. There must be a concept development plan including infrastructure planning, costs and impacts of ongoing operations.
6. The project must conform to the broader regional/municipal strategic planning.
7. Business planning outlining capital partners, operating partners, sources of capital, capital amortization and projection of operating costs must be completed.

As part of the guideline, the following feasibility planning “triggers” outline when the City should initiate (or facilitate in the case of a non-profit-based project) feasibility analysis and business planning. Needs assessment and business planning could occur when one or more of the following criteria are met:

- Facility spaces currently being offered approach 90% to 100% utilization on a sustained basis.
• Proposed public investment is contained on publicly-owned or long-term lease lands (leases beyond 50 years).

• Facility or facility spaces currently being used have less than 25% remaining lifecycle as a functional resource (as determined by ongoing lifecycle planning).

• Current demands and future demands (as impacted through expression of needs, as a function of public input, trends and majority impact) and/or market growth can be proven.

• The facility in question and program services proposed provide equal access for all residents as a public service.

• Facility type and function conform to core parks service functions of the City of Leduc.

• Facility type and function are not currently and adequately provided through other agencies or private sector services in the City or broader Leduc region.

• Operational or capital partners of any development proposed are established as registered societies and collectively represent sufficient membership or market members to sustain use of the development for the life of the development (typically set at 40 years for public buildings).

The above noted process and associated planning triggers will help formalize and prioritize potential POST projects in the future.

6.2 Plans for the 5 Management areas of Leduc

For planning purposes, the City has broadly been divided into 5 management areas:

• West Leduc
• North Leduc
• Central Leduc
• South Leduc
• East Leduc
Specific plans for each of these areas is described below.

6.2.1 West Leduc (Area A)

West Leduc, the portion of the City west of the QEII highway, is an area of significant current and future growth for the City (see Figure 4). As development has occurred, POST development on the west side of the QEII highway has been primarily focused on community and neighbourhood park development, however, Fred Johns Park provides facilities for City wide use.

6.2.1.1 Existing POST Development in West Leduc

There are three significant POST features in West Leduc: Fred Johns Park, the Leduc Golf Club, and Deer Valley Park. There will always be a relative imbalance of POST facilities and parks infrastructure between the west and east sides of Leduc because the City will not be able to replicate the recreational opportunities provided by Telford Lake and William F. Lede Regional Park in the east. In addition, the City’s two high schools are also on the east side of the highway providing additional parks infrastructure.

Community parks in West Leduc also include Aileen Faller Park, Doris Smith Park, Harry Bienert Park, and Deer Valley. Both Aileen Faller and Harry Bienert parks have suitable space for the development of additional or enhanced park infrastructure features such as outdoor rinks, large scale playgrounds, community gardens, splash parks or skate parks. Aileen Faller in particular, with its central location and access via Black Gold Drive and the multiway, is well suited to be a site for a Community/City level park feature that can service all residents of Leduc. It is recommended that a master plan based on community consultation be prepared to fully determine the re-development/development potential for Aileen Faller Park and Harry Bienert Park.

6.2.1.2 West-end Integrated Recreational Facility – Crystal Creek

This site will be home to a range of civic and public use facilities in a campus setting. To meet the sports and outdoor recreation needs of the City (and the region), it is recommended that the City allocate a minimum of 16.2 ha (40 acres) but consider up to 24.3 Ha (60 acres) of the proposed site specifically to park development to cater for the range of outdoor activities that might be required. The site will likely need to accommodate up to 8 tournament level sports fields, as well as space for the provision of other regional park infrastructure (playgrounds, splash park etc.) and amenities (picnic sites, pavilion, festival space etc.). In combination with the sports fields at Fred Johns, Lede Park, and the high school sites, the City should then be well serviced beyond the next 15 years based on current participation rates.

Home to a future recreation centre, up to two high schools and associated playing fields, the Campus will constitute a social, cultural, and recreational hub the West Campus will provide opportunities for recreational and cultural uses. The site design encourages interaction...
between the schools, community, and recreation centre to maximize synergies. The sport fields, which should be used by students during school hours can be utilised by the wider community during evening and weekends. The schools can benefit from the recreation centre to enhance their curriculums. The campus will provide opportunities for both active and passive recreational activities. The multiway system will provide connections to the adjacent community.

### 6.2.1.3 Golf Course Opportunities

The City of Leduc has an opportunity with the new partnership structure with the Leduc Golf & Country Club. This recreation facility is an 18-hole golf course, driving range, clubhouse, pro shop, event barn and large parking lot.

#### CROSS COUNTRY SKIING AND OTHER WINTER TRAIL USE

There is an opportunity for the creation of classic or skate skiing trails on the golf course property. This style of the trail should be used in busy areas to allow uninterrupted classic skiing in both directions, or classic skiing beside a friend to allow for a social experience. There should be looping trails to allow for users to choose the distance in which they would like to travel. To minimize impact to the golf greens and fairways, all trails should be created the “fringe” and “rough areas.”

Trails and routes for alternative winter activities such as snowshoeing or fat bikes could be created to allow users to actively experience winter. Looping trails or routes would allow users to choose the distance in which they would like to travel. The trails should be designed in a different area than the Cross-Country Ski trails as there has been conflict of use issues in other jurisdictions.

#### SNOW GOLF TOURNAMENTS

Snow golf is played over snow instead of grass. You can use an assortment of “clubs” to place the larger rubber ball into holes that are located in areas called whites instead of greens. Participants dress up in teams of four and a round of golf.

#### SKATING

There is an opportunity to provide an informal outdoor skating opportunity by flooding a turf or paved area.

### 6.2.2 North Leduc (Area B)

North Leduc, the area of the City north of 65 Avenue, is primarily an area of industrial and commercial lands with few POST resources (see Figure 5). The planned development of POST resources in North Leduc is limited to the multiway along the 43 Street corridor to support active transportation to workplaces and will provide access to the dog park and to other future SWMF in North Leduc. This section of multiway would extend all the way south to Telford Lake. Some of these upgrades are included in the Transportation Master Plan.
Figure 5 – North Area
January 2020

Leduc POST (Park, Open Space and Trails) Master Plan Update
6.2.3 Central Leduc (Area C)

Central Leduc (Figure 6), includes most of the City level parks in Leduc including Telford Lake, William F. Lede Regional Park and Alexandra Park. It also includes the Lions Campground, the K9 off leash dog park and both Leduc Composite and Christ the King schools. Future POST development in Central Leduc is clearly defined in the following master plans.

6.2.3.1 Telford Lake

The Telford Lake Master Plan (ISL, 2010) recommended a 10-year implementation schedule for the key development priorities: the multiway around the lake, the first phase of the paddling venue and the development of the Sawridge Lands. The remaining recommended components from this Master Plan include:

- The provision of a 3 m wide asphalt multi-use trail (multiway) around the lake, including rest nodes and viewpoints.
- Access to the north shore and parking to be completed.
- Provide opportunities to develop a future trail to link Telford Lake to Saunders Lake.

The restrictions of the AVPA should be considered in the design of any components to be implemented.

The Master Plan also provides a series of design guidelines for industrial development adjacent to Telford Lake. These include, but are not limited to, building orientation, on-site stormwater management, landscaping and screening, and site design.

The Plan has been partially implemented and is reflected in the East Telford Lake Area Structure Plan.

6.2.3.2 William F. Lede Regional Park

The William F. Lede Regional Park Schematic Design Report (McElhanney, 2016), provides the long-term direction for sportsfield development, amenities and social gathering spaces, facilities and infrastructure, landscape design and multiway development within Lede Park. The following recommended development priorities from that plan that still need to be addressed include:

1. **Sports Fields** - no proposed development is recommended in the next five years: the provision of sports fields relative to use and user demand should be evaluated every three years.

2. **Compost Pile** - to be moved.
6.2.3.3 **Alexandra Park**

The Alexandra Park - Redevelopment Plan Report (EDA Collaborative Inc, 2004) outlined a number of specific Park Redevelopment Strategies. The following are the recommended development priorities from that plan that still need to be addressed as part of the overall POST development recommendations:

1. Modifications to the ponds are required.
2. Develop and promote Alexandra Park as a festival and events area for Leduc.
3. Improve site amenities and furnishings using a consistent and refined palette.
4. Improve pedestrian connections and linkages throughout the park with a focus on universal accessibility inside and outside of buildings.

An updated redevelopment plan is planned for this park.

6.2.3.4 **Downtown Leduc**

Both the 2012 Downtown Master Plan (DMP) and the City’s Municipal Development Plan (MDP) have provided direction for Downtown Leduc to become a vibrant business and cultural anchor for the City. The MDP specifically states that: “The City shall promote Downtown development and Downtown businesses to stimulate revitalization and capitalize on existing infrastructure by acting to ensure the Downtown is the location of choice for major institutional, arts, culture, and entertainment facilities and amenities”. Implementation of the approved 2012 Downtown Master Plan has included:

- A Public Square was identified as a high priority implementation project by Council and the DPA. Funding has however not yet been allocated for this project. Community Development will be requested to continue to weigh in on DMP strategies during project development stages;
- The DMP and implementation projects such as the Public Square’s location will affect capital improvements planning and recreational programming for central Leduc, especially in relation to Alexandra Park and Telford Park/Lake. Improvements, connections and programming in Alexandra Park, Telford Park and Telford Lake should be planned and integrated in tandem with the implementation of the Downtown Master Plan.

It is recommended that the design for the Public Square identified in the DMP be advanced and construction cost estimate be prepared.

6.2.4 **South Leduc (Area D)**

South Leduc (Figure 7) includes well established neighbourhoods that include park sites that may require upgrading, as well as three growth areas where new neighbourhoods are being developed with the full range of POST resources. Both Southfork and Tribute include prime examples of park sites that are being developed based on the full application of the City’s development standards. These sites will provide
good quality recreational and neighbourhood building opportunities for the residents.

### 6.2.5 East Leduc (Area E)

Planning for this area is primarily addressed by the East Telford Lake Area Structure Plan (January 2019). The Lakeside Industrial Park ASP (2014) area is also within East Leduc.

#### 6.2.5.1 East Telford Lake Area Structure Plan

The plan encompasses approximately 430 hectares (ha) (1062 acres) and is located on the east side of the city, north and south of Telford Lake. The East Telford Lake ASP area will accommodate the development of primarily industrial and commercial uses.

Environmental Reserve (ER) will be dedicated to protect the area around Telford Lake, and other natural features designated for retention. An approximately 10 m wide ER buffer will be established around Telford Lake, based on a legal survey conducted by an Alberta Land Surveyor (ALS), with the assistance of a qualified environmental scientist.

Park space, dedicated as Municipal Reserve (MR), in the East Telford Lake ASP is allocated to accommodate several purposes: protecting Telford Lake and its eastern drainage course, including a weir and associated riparian area; preserving and protecting the tree stand and wetland in the south of the plan area; providing recreation and education opportunities; and providing habitat and space to move for wildlife. A strip of land of approximately 50 m wide will be provided adjacent to the Environmental Reserve dedication surrounding Telford Lake and its easterly drainage channel. This area will be used to extend the ecological buffer surrounding the lake, and to allow for the development of limited public recreation infrastructure. Where possible, this area will remain in its natural state, and be remediated where required.

The City of Leduc may also consider the development of a staging and/or day use area within this park space, depending on requirements, and availability of land.

Tree stands within MR lands will be preserved and may be enhanced where funding is available. The City may consider the use of Municipal Reserve to acquire tree stands, to be determined at Outline Plan stage.

#### 6.2.5.2 Lakeside Industrial Park ASP

An approximately 60m wide ER / MR open space buffer adjacent to Telford Lake will retain the natural features of the Telford Lake shoreline. This buffer will also maintain ecological connectivity along the lake shore and provide opportunity for the natural features along the shoreline to mature.

#### 6.2.5.3 Telford Lake – Saunders Lake Corridor

From both an ecological and recreational perspective, the corridor between Telford Lake and Saunders Lake is recognized as an important feature. The City of Leduc and Leduc County engaged students from the University of Alberta Urban and Regional Planning program to
evaluate the feasibility of creating a wildlife corridor and trail system between the east shore of Telford Lake and the west shore of Saunders Lake (Dragon et al. 2018). This study will inform future work to select and implement the Telford Lake - Saunders Lake strategy.

Investigate opportunities to develop a future trail to link Telford Lake to Saunders Lake.
Figure 8 – East Area

January 2020
7. Implementation Plan

The following implementation plan includes recommendations to achieve the vision for POST. It is structured according to the seven strategies supporting the vision.

The following table identifies:

- The proposed strategies
- The related recommendation
- Estimated capital costs, where applicable; and
- The proposed timeframe for the implementation of the recommendations.
<table>
<thead>
<tr>
<th>Planning of POST</th>
<th>Strategy</th>
<th>Recommendation</th>
<th>Capital Costs</th>
<th>Time Frame</th>
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<tbody>
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<td>1-3 years</td>
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<tr>
<td>Access and</td>
<td>5.2.1.1 PUL/Walkway</td>
<td>Berms or buffers along arterial or other roads should not be taken as Municipal Reserve and since multiway should be accommodated in road rights of way, the berms/buffers category of open space is no longer required.</td>
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<td>Connectivity</td>
<td>5.2.1.2 Active</td>
<td>Multiway be included as part of future road upgrading, where necessary.</td>
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<td></td>
<td>Transportation</td>
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<td></td>
<td>5.2.1.3 Multiway and</td>
<td>The City should continue to interconnected to destinations like schools, shops and workplaces using multiway.</td>
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<td>Trails</td>
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<td></td>
<td>5.2.1.3.1 Proposed</td>
<td>The City continues with the current capital program for the construction of multiway through the Transportation Master Plan and identified missing links.</td>
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<td></td>
<td>Multiway Development</td>
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<td>in New Neighbourhoods</td>
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<td>5.2.1.3.2 Enhanced</td>
<td>Continue to provide wayfinding and interpretive and wildlife signage along multiway.</td>
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<td></td>
<td>Multiway Experience</td>
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<td></td>
<td>5.2.1.3.3 Multiway</td>
<td>The City should continue to work with developers to include multiway on ASP and built within the park and roadway construction.</td>
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<td></td>
<td>Development in New</td>
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<td>Neighbourhoods</td>
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<td></td>
<td>5.2.1.4 Nature Trails</td>
<td>Installation of interpretive signage and naturalization planting.</td>
<td>$25,000</td>
<td>x</td>
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<td></td>
<td>5.2.1.4.2 Multiway</td>
<td>The City should connect the following missing multiway trail linkages.</td>
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<td></td>
<td>Linkages</td>
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<td></td>
<td>Adolph Comm</td>
<td>Multiway link through park.</td>
<td>$30,000</td>
<td>x</td>
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<tr>
<td></td>
<td>Campbell</td>
<td>Multiway link to playground</td>
<td>$47,500</td>
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<td></td>
<td>Edward Wolfe</td>
<td>Multiway link through park.</td>
<td>$42,500</td>
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<td></td>
<td>Notre Dame</td>
<td>Multiway link through park</td>
<td>$112,500</td>
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<td></td>
<td>Rainbow</td>
<td>Multiway link through park</td>
<td>$70,000</td>
<td>x</td>
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<td></td>
<td>Southwick</td>
<td>Multiway link through park</td>
<td>$285,000</td>
<td>x</td>
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<tr>
<td>Nature and</td>
<td>5.2.2.1 Environmental</td>
<td>The actions defined in the City of Leduc Environmental Plan - Phase 1, be</td>
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<td>Environment</td>
<td>Reserve (ER)/</td>
<td>implemented.</td>
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<td>Conservation Reserve</td>
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<td>5.2.2.2 Environmental</td>
<td>Identify open space areas that are suitable for landscape naturalization.</td>
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<td>Reserve (ER)/</td>
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<td></td>
<td>Conservation Reserve</td>
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<tr>
<td>Facilities</td>
<td>6.2.3.1 Telford Lake</td>
<td>Continue development based on the approved masterplan and the current capital plan.</td>
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<td>6.2.3.3 Alexandra Park</td>
<td>It is recommended that the design for the Public Square identified in the DMP be advanced and a construction cost estimate be prepared.</td>
<td>$55,000</td>
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<td>6.2.5.3 Telford Lake –</td>
<td>Prepare a concept plan to develop a future trail to link from Telford Lake to Saunders Lake based on plans by Leduc County.</td>
<td>$40,000</td>
<td>x</td>
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<td></td>
<td>Saunders Lake Corridor</td>
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<td>6.2.3.3 Alexandra Park</td>
<td>Create a new masterplan when Engineering is impacting the park for the redevelopment of the Storm Water Management Pond.</td>
<td>$60,000</td>
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<td>6.2.3.4 Downtown Leduc</td>
<td></td>
<td>$55,000</td>
<td>x</td>
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<td>Planning of POST</td>
<td>Strategy</td>
<td>Recommendation</td>
<td>Capital Costs</td>
<td>Time Frame</td>
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<td>6.2.1.2</td>
<td>West-end Integrated Recreational Facility – Crystal Creek</td>
<td>It is recommended that the City allocate a minimum of 16.2 ha (40 acres) but consider up to 24.3 Ha (60 acres) of the proposed site specifically to park development to cater for the range of outdoor activities that might be required.</td>
<td>$150,000</td>
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<td>The City should complete a full masterplan for the site before development. Key developments should include synthetic football/soccer/baseball field, approximately 8 other natural surface fields, dog park, outdoor amphitheatre and destination playground.</td>
<td>$150,000</td>
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<td>$150,000</td>
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<td>NEW</td>
<td>Regional Parks</td>
<td>Continue with the cost-share agreement between the City of Leduc and Leduc County where applicable.</td>
<td>$150,000</td>
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<td>$150,000</td>
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<td>6.2.3.2</td>
<td>William F. Lede Regional Park</td>
<td>Continue developing with the currently approved masterplan.</td>
<td>$150,000</td>
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<td>$150,000</td>
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<tr>
<td>6.2.3.2</td>
<td>William F. Lede Regional Park</td>
<td>Removal of the compost pile.</td>
<td>$150,000</td>
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<td>$150,000</td>
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<tr>
<td>5.2.3.2</td>
<td>Future Community Parks &amp; Facilities</td>
<td>It is recommended that a master plan based on community consultation be prepared to determine the re-development for Harry Bienert Park.</td>
<td>$40,000</td>
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<td>$40,000</td>
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<td>5.2.3.2.1</td>
<td>Community Park Enhancements</td>
<td>It is recommended that some component of art be included in all future Community Parks.</td>
<td>$40,000</td>
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<td>$40,000</td>
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<td>4. Arts and Culture</td>
<td>When implementing the “art in the park” program, art should be reviewed by the art selection committee.</td>
<td>$40,000</td>
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<td>$40,000</td>
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<td>5.2.3.2</td>
<td>Future Community Parks &amp; Facilities</td>
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<tr>
<td>5.2.3.2.4</td>
<td>Sport Fields</td>
<td>Based on anticipated need and an anticipated new high school, it is recommended that the City consider the construction of a synthetic field at the Crystal Creek recreational facility.</td>
<td>$3,000,000</td>
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<td></td>
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<td>$3,000,000</td>
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<tr>
<td>5.2.3.3.1</td>
<td>Neighbourhood Park Enhancements</td>
<td>Leduc should have an annual redevelopment capital program for enhancement of existing parks for improvements.</td>
<td>$25,000</td>
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<td>$25,000</td>
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<tr>
<td>Bridgeport 1</td>
<td>Small amenity features (e.g. gazebo)</td>
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<td>$20,000</td>
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<td>Bridgeport 2</td>
<td>Community Garden – Neighbourhood Garden Initiative.</td>
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<td>$10,000</td>
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<td></td>
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<tr>
<td>Deer Valley</td>
<td>Interpretive Signage and/or viewpoints along the trail.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>$10,000</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>East Elementary</td>
<td>Community Garden – Neighbourhood Garden Initiative.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>$10,000</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Edward Wolfe</td>
<td>Community Garden - Neighbourhood Garden Initiative.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>$10,000</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Corinthia</td>
<td>Tree planting/Naturalization Project.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>$10,000</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>5.2.3.4</td>
<td>Stormwater Management Facilities (SWMF)</td>
<td>It is recommended that the City of Leduc continue to maintain its standard of providing MR credit to provide access from the street frontage.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Planning of POST</td>
<td>Strategy</td>
<td>Recommendation</td>
<td>Capital Costs</td>
<td>Time Frame</td>
</tr>
<tr>
<td>------------------</td>
<td>----------</td>
<td>----------------</td>
<td>---------------</td>
<td>------------</td>
</tr>
<tr>
<td>5.2.3.4</td>
<td>Stormwater Management Facilities (SWMF)</td>
<td>Recommended that within the pond area (within the PUL), that the City require the developer to build a multiway around the pond (or around 50% if there is public access on two sides), and above the 1:25 water level.</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>5.2.3.2.5</td>
<td>Outdoor Fitness Parks</td>
<td>Outdoor Fitness Parks should be installed at the new Crystal Creek Site and the new Lions Park at Telford lake. There should be a cost-share provided for the areas of Telford House and Lions Campground.</td>
<td>$75,000</td>
<td>x</td>
</tr>
<tr>
<td>5.2.3.2.5</td>
<td>Outdoor Fitness Parks</td>
<td>Partnership opportunities should be investigated for areas like Telford House and Lions Club Campground.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.2.3.2.6</td>
<td>Playgrounds</td>
<td>The City of Leduc will continue to require developers to build playgrounds within neighbourhoods.</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>5.2.3.2.6</td>
<td>Playgrounds</td>
<td>Larger destination playgrounds (using the community to plan and potentially build) within Community and Regional Parks.</td>
<td>$250,000</td>
<td>x</td>
</tr>
<tr>
<td>5.2.6.11</td>
<td>Land Acquisition</td>
<td>As the City is acquiring land for the development of the Crystal Creek site, there should be a full assessment of the site to ensure that it meets the needs of the residents.</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>5.2.4</td>
<td>Amenities</td>
<td>It is recommended that the City maintain an annual budget for the replacement and installation of new park amenities (benches, picnic tables, BBQ, etc.) to ensure that user experience and safety remain at current levels.</td>
<td>$25,000</td>
<td>x</td>
</tr>
<tr>
<td>5.2.4.1</td>
<td>Age Friendly infrastructure</td>
<td>The City should complete a mapping exercise to mapped amenities such as retirement and long term care residences, hospitals, shopping malls/grocery stores, City, and Regional parks, which would allow for the creation of bench areas at the discretion of the City.</td>
<td>$30,000</td>
<td>x</td>
</tr>
<tr>
<td>5.2.5</td>
<td>Safety</td>
<td>Future park spaces elements of the creation of safe public spaces are identified in Crime Prevention Through Environmental Design (CPTED) principles should be utilized.</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>5.2.6</td>
<td>Management and Maintenance</td>
<td>The City continues the current management and maintenance model, that matches the increases in POST services.</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>5.2.6.2</td>
<td>Marketing &amp; Promotions</td>
<td>It is recommended that the City of Leduc develop and implement a comprehensive POST promotions strategy.</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>5.2.6.3</td>
<td>Engaging and Facilitating Volunteer Groups</td>
<td>The City of Leduc should provide continued assistance in preparing business plans to help groups strategically approach the future with sustainability in mind. Helping groups identify and apply for grants or solicit program sponsorship can help alleviate financial pressures faced by some groups.</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Planning of POST</td>
<td>Strategy</td>
<td>Recommendation</td>
<td>Capital Costs</td>
<td>Time Frame</td>
</tr>
<tr>
<td>------------------</td>
<td>----------</td>
<td>----------------</td>
<td>---------------</td>
<td>------------</td>
</tr>
<tr>
<td></td>
<td>5.2.6.4</td>
<td>Creating Broader Volunteer Services</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>It is recommended that the City continue to develop and maintain a roster of city residents willing to volunteer for outdoor recreation opportunities (indicating their availability and interest) accompanied by a recreation volunteer opportunity roster (indicating groups seeking volunteers and the nature of the opportunity) which provides groups access to the existing volunteer community.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Management &amp; Maintenance</td>
<td>5.2.6.4</td>
<td>Creating Broader Volunteer Services</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>The City of Leduc should continue to promote current granting program to include Recreation Tourism Opportunities. Municipal Grant opportunities to enhance recreation opportunities.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.2.6.6</td>
<td>Life Cycle Budgeting</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The City of Leduc should continue investing in the current recreation reserve to ensure necessary repairs should be completed.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.2.6.7</td>
<td>Funding POST</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The City should continue with the annual fees and charges bylaw for the use of outdoor space.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.2.6.8</td>
<td>Sponsorships</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The City of Leduc should continue with investment in a dedicated staff in the Corporate Partnerships Coordinator.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Programming</td>
<td>6.2.1.3</td>
<td>Golf Course Opportunities</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The City of Leduc should partner with the Leduc Golf &amp; Country Club to offer new outdoor winter opportunities and family friendly summer opportunities.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.2.7</td>
<td>Programming</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The City of Leduc will increase City organized programming in POST by 15% in both seniors (pickleball, bird) and youth (skateboard camps, golf camps etc.).</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

Table 11
1. Overview

The City of Leduc is updating their 2012 Parks, Open Space and Trails Master Plan. To update the plan, Leduc is providing an opportunity for Staff, Council, Stakeholders and the public to provide input on the current plan and ideas on how the current plan should be updated to reflect the current priorities.

2. Staff & Council Meeting

The staff and council meeting was held at the City of Leduc Administration building on May 21, 2019. The agenda for the meeting was:

1. Introductions
2. Overview of scope of the project - update of current POST Master Plan and Landscape and Design and Construction Standards
3. A refreshed POST MP vision
4. What have you heard from the public about park management and development?
5. Multiway Trail System updates – what needs to be added or amended?
6. Landscape Design and Construction Standards
   o Tree requirements and species diversity
   o Topsoil standards (depths, quality, etc.)
   o Naturalized landscapes for stormwater management facilities
   o LID initiatives
   o Establishment and maintenance
   o Process for developer development of parks.
7. Draft Engagement strategy for this project
8. Next steps

2.1. Description of Activities

This session began with an overview of the scope of the project. The project team facilitated the following activities.

2.1.1. Exercise #1- Status of Recommendations from POST 2012

The group was asked, “What recommendations are relevant, need to be removed, or have been missed?” In a large group, comments were documented by facilitators.

2.1.2. Exercise #2- Visioning

The project team displayed the 2012 vision and suggested a change to update the vision.
2.1.3. Exercise #3- What have you heard from the public about park management and development?

Participants were asked to, “What have you heard from the public about park management and development?” In a large group, demands were brainstormed and documented on by facilitators.

2.1.4. Exercise #4-Discussion around future multiway developments

The current multiway map was presented, and a discussion regarding where multiway is required and the process of future multiway development in terms of the engineering standard was discussed. In a large group, notes were documented by facilitators.

2.1.5. Exercise #5-Landscape Design and Construction Standards

After a discussion on the current concerns regarding design and construction standards, hot topics were documented by facilitators.

2.2. Participants

The following individuals participated:

City of Leduc  Council
Christine Issac  Lars Hansen
Rachel Yeung
Sylvan Losier
Donna Brock
Brent Emery
Lowell Ayers
David Pierce
Kyle Van Steenoven
Megan Gergatz-McMorran

2.3. Staff & Council Meeting Results

Data received in response to each question has been analyzed, and the key themes that emerged from the input are presented below for each question.
2.3.1. Exercise #1- Status of Recommendations from POST 2012

Based on the analysis of participant input, the majority of the recommendations have been completed or need to be updated due to Airport Vicinity Protection Areas (AVPA) and budget considerations.

2.3.2. Exercise #2- Visioning

The vision was accepted as presented.

2.3.3. Exercise #3- What have you heard from the public about park management and development?

<table>
<thead>
<tr>
<th>Scheduling is an issue for field users (Primetime Vs Non-Primetime)</th>
<th>Residents have questions on who owns trees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lots of users from Edmonton using fields</td>
<td>Off-leash dog park requests</td>
</tr>
<tr>
<td>Parking issues at other parks</td>
<td>Bathrooms at parks are needed</td>
</tr>
<tr>
<td>Overview of Telford Lake needs to ensure the environment is protected</td>
<td>The community is interested in urban agriculture/community gardens</td>
</tr>
<tr>
<td>Accessibility of parks spaces including playgrounds</td>
<td>Process for new development (both developers and community users)</td>
</tr>
<tr>
<td>Look at the density of neighbourhoods and usage of the parking space</td>
<td></td>
</tr>
</tbody>
</table>

2.3.4. Exercise #4-Discussion around future multiway developments

The multiway is now being placed in Arterial and Collector Road Sections.
Review of a North/South multiway connection for the golf course.
Look at the safety of multiway (lighting)
Issues with retrofitting multiway.
The Transportation Plan focuses on multiway in roads, rather than multiway in parks.
Developers are required to build multiways along arterial and collector roads, and SWMFs in residential developments. In industrial, there are no plans for multiway on roads; however, within SWMF, it is a possibility.
2.3.5. Exercise #5-Landscape Design and Construction Standards

The following ideas were generated:

| Increase Top Soil Standards | Clean Plant Certification | Tree Requirements and species diversification |

2.4. Synthesis of Meeting Results

2.4.1. Key Learnings

The following are the key learnings and themes that came from the discussion and the syntheses of data from the meeting:

1. The 2012 POST MP provided great direction for the City of Leduc, however with new AVPA, budget many plans were not completed or have become not relevant.
2. Multiway is very important in Leduc, however retrofitting may not be an option.
3. With the addition of the golf course, the City of Leduc has new POST opportunities.
4. A review of how to look at population density and how to ensure POST isn’t impacted negatively by the potential of users.
5. Landscape design standards need to include key components like certified clean plants and increase topsoil depth.
6. Accessibility is important for playgrounds and park spaces.

3. Parks, Recreation and Culture Board (PRCB) Meeting

The Parks, Recreation and Culture Board (PRCB) meeting was held at the Leduc Recreation Centre on Thursday, Jun 20, 2019. The agenda for the meeting was:

1. Introductions
2. Update on the Post
3. Vision Statement
4. Current and Planned Multiway
5. Current and Planned Parks and Open Space
6. Next steps

3.1. Description of Activities

3.1.1. Vision Statement
The project team displayed the 2012 vision and suggested a change to update the vision.

3.1.2. Current and Planned Multiway
The team presented the current and planned multiway.
3.1.3. Current and Planned Parks and Open Space
The team presented the current and planned parks and open space.

3.2. Participants

<table>
<thead>
<tr>
<th>PRCB</th>
<th>City Staff</th>
<th>Council</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lyndon Anderson</td>
<td>Christine Issac</td>
<td>Terry Lazowski</td>
</tr>
<tr>
<td>Kirsha Campbell</td>
<td>Rachel Yeung</td>
<td></td>
</tr>
<tr>
<td>Chris Ehmann</td>
<td>Donna Brock</td>
<td></td>
</tr>
<tr>
<td>Brandon Sonnenberg</td>
<td>Jackie Kamlah</td>
<td></td>
</tr>
<tr>
<td>Dylan Ryan</td>
<td>Julie Beloin</td>
<td></td>
</tr>
</tbody>
</table>

3.3. Parks, Recreation and Culture Board Meeting Results

3.3.1. Key Learnings
The Parks, Recreation and Culture Board agreed with the updated vision.
The planned multiway, which was based on area structure plans, was accepted with a request of connecting the west side of Southfork and crossing Highway 2a, if possible.
As development moves west, the addition of the large park space/recreation area in Crystal Creek will be needed. It would be requested at the time of design, the key components requested from the community be built as the Airport Vicinity Protection Areas (AVPA) will not affect this development, unlike Wm F. Lede Park.
There was also a discussion on is there a possibility for the City of Leduc to enhance school sites, before the school board builds a school.

4. Seniors Survey

City of Leduc staff and project team members attended the seniors pancake breakfast at the Telford House, June 7, 2019. Each senior who attended was given a written survey, which, when they returned a completed survey, they were placed into a draw to win a gift certificate.

4.1. Description of Activities

4.1.1. Survey

1. Postal Code:______
2. Age range reflects you:
3. Gender identity:
a. Male  

b. Female

4. What park-based activities do you participate in regularly? (at least twice a month) Check all that apply
   a. Walking on the Multiway  
   b. Running/Jogging on the Multiway  
   c. Biking on the Multiway  
   d. Bird Watching  
   e. Rowing on Telford Lake  
   f. Kayaking/Canoeing on Telford Lake or Fred Johns Park  
   g. Nature Photography  
   h. Botany  
   i. Picnicking/Barbeques  
   j. Cross Country Skiing  
   k. Sports  
   l. Outdoor Fitness Class  
   m. Outdoor Fitness Equipment  
   n. Outdoor Concerts  
   o. Dog walking/Dog Park  
   p. Playgrounds  
   q. Relaxation/reading  
   r. Other

5. How do you typically arrive to parks and trails?
   a. Walk  
   b. Bicycle  
   c. Vehicle  
   d. Other:

6. How do you find out information about the parks you use in the City?
   a. Websites  
   b. Books  
   c. Paper Maps  
   d. Smart-phone Applications  
   e. Word of Mouth  
   f. Signage  
   g. Other:

7. What is the name of website/book/map/phone application?

Multiway Trail Network

8. Please identify how often you use the Multiway trail network within the City of Leduc during each season (select the option that most closely reflects your use)

<table>
<thead>
<tr>
<th></th>
<th>Daily</th>
<th>Weekly</th>
<th>Monthly</th>
<th>Less than once per month</th>
<th>Don’t use the Multiway trail network in this season</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
9. When do you typically use the Multiway trail network in the City of Leduc?

<table>
<thead>
<tr>
<th>Weekdays</th>
<th>Weekends</th>
<th>Both</th>
</tr>
</thead>
</table>

10. How long were your typical outings on multiway trail network in the City of Leduc?

<table>
<thead>
<tr>
<th>30min or less</th>
<th>An hour or two</th>
<th>Half-day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-day</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

11. Which areas of Leduc would you like to be accessible by the multiway system?
   a. North
   b. East
   c. South
   d. West
   e. Industrial Area
   f. Airport
   g. Saunders Lake

12. Please identify how often you use the parks within the City of Leduc during each season (select the option that most closely reflects your use)

<table>
<thead>
<tr>
<th>Daily</th>
<th>Weekly</th>
<th>Monthly</th>
<th>Less than once per month</th>
<th>Don't use the Parks in this season</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winter (Dec, Jan, Feb)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spring (Mar, Apr, May)</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Summer (Jun, Jul, Aug)</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Fall (Sept, Oct, Nov)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
13. When do you typically use the parks in the City of Leduc?

<table>
<thead>
<tr>
<th></th>
<th>Weekdays</th>
<th>Weekends</th>
<th>Both</th>
</tr>
</thead>
</table>

14. How long were your typical outings in the parks in the City of Leduc?

<table>
<thead>
<tr>
<th></th>
<th>30min or less</th>
<th>An hour or two</th>
<th>Half-day</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

15. How satisfied are you with the following parks?

<table>
<thead>
<tr>
<th></th>
<th>Very satisfied</th>
<th>Somewhat satisfied</th>
<th>Somewhat unsatisfied</th>
<th>Very unsatisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fred Johns Park</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alexandra Park</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Telford Lake</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>William F. Lede Park</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stone Barn Garden/Cultural Village</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aileen Faller Park</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>John Bole Athletic Park</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corinthia Park</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elks Community Park</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

16. How satisfied are you with each of the following park and multiway trail related amenities and services provided?

<table>
<thead>
<tr>
<th></th>
<th>Very satisfied</th>
<th>Somewhat satisfied</th>
<th>Somewhat unsatisfied</th>
<th>Very unsatisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trail Heads / Staging Areas</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parking</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Signage &amp; Wayfinding</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benches and Rest Spots</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Restrooms</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Garbage / recycling containers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Interpretive signage

<table>
<thead>
<tr>
<th>Lighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outdoor Park BBQ Grills</td>
</tr>
<tr>
<td>Accessible Picnic Tables</td>
</tr>
<tr>
<td>Shelter/Pavilion</td>
</tr>
<tr>
<td>Programming</td>
</tr>
<tr>
<td>Events</td>
</tr>
</tbody>
</table>

17. What would you like to see for programming in Parks?

18. Do the parks and Multiway trail network meet your needs for accessibility?
   - a. Yes
   - b. No
   - c. If not, what areas need improvement?

### 4.2. Survey Results

Question 1:

**Which age range best reflects you?**
Question 2:

<table>
<thead>
<tr>
<th>Gender</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>60%</td>
</tr>
<tr>
<td>Male</td>
<td>40%</td>
</tr>
</tbody>
</table>

Question 3:

How do you find out information about the parks you use in the City?

- Websites: 10%
- Books: 0%
- Paper Maps: 10%
- Smartphone Applications: 10%
- Word of Mouth: 70%
- Signage: 0%
- Other (please specify): 10%
Question 4:

What is the name of website/book/map/phone application?

- Facebook
- Leduc Rep
- LRC
- Google
- City Hall

Question 5:

How do you typically arrive to parks and Multiway trails?

- Walk
- Bicycle
- Vehicle
- Other (please specify)
Question 6:

Which park-based activities do you participate in regularly? (at least twice a month) Check all the apply

<table>
<thead>
<tr>
<th>Park Activity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walking on the Multiway</td>
<td>70.00%</td>
</tr>
<tr>
<td>Running/jogging on the Multiway</td>
<td>60.00%</td>
</tr>
<tr>
<td>Biking on the Multiway</td>
<td>50.00%</td>
</tr>
<tr>
<td>Rowing on Telford Lake</td>
<td>40.00%</td>
</tr>
<tr>
<td>Kayaking/Canoes on Telford Lake</td>
<td>30.00%</td>
</tr>
<tr>
<td>Nature Photography</td>
<td>20.00%</td>
</tr>
<tr>
<td>Picnicking/Barbecues</td>
<td>10.00%</td>
</tr>
<tr>
<td>Botany</td>
<td>0.00%</td>
</tr>
<tr>
<td>Cross Country Skiing</td>
<td>0.00%</td>
</tr>
<tr>
<td>Outdoor Fitness Class</td>
<td>0.00%</td>
</tr>
<tr>
<td>Outdoor Fitness...</td>
<td>0.00%</td>
</tr>
<tr>
<td>Dog walking/Dog Park</td>
<td>0.00%</td>
</tr>
<tr>
<td>Relaxation/Reading</td>
<td>0.00%</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>0.00%</td>
</tr>
</tbody>
</table>

Question 7:

When do you typically use the parks in the City of Leduc?

<table>
<thead>
<tr>
<th>Time of Use</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekdays</td>
<td>50.00%</td>
</tr>
<tr>
<td>Both</td>
<td>60.00%</td>
</tr>
<tr>
<td>Weekends</td>
<td>10.00%</td>
</tr>
</tbody>
</table>
Question 8:

How long were your typical outings in the parks in the City of Leduc?

- I do not use parks: 0.00%
- 30 min or less: 10.00%
- An hour or two: 30.00%
- Half-day: 10.00%
- Full-day: 0.00%

Question 9:

How satisfied are you with the following parks?

- Very satisfied
- Somewhat satisfied
- Somewhat unsatisfied
- Very unsatisfied

Fred Johns Park: Very satisfied
Alexandra Park: Somewhat satisfied
Telford Lake: Somewhat unsatisfied
William F. Lede Park: Very satisfied
Stone Barn: Somewhat unsatisfied
Aileen Faller Park: Somewhat satisfied
John Bole Athletic Park: Very satisfied
Corintha Park: Very satisfied
Elks Community Park: Somewhat satisfied
Question 10:

How satisfied are you with each of the following park and Multiway trail related amenities and services provided?

4.2.1. Key Learnings

The following are the key learnings and themes that came from the senior’s survey:

1. Information regarding the City of Leduc Parks events and parks are spread by word of mouth. Verbatim results confirmed that seniors are still learning information from City Hall or the LRC.
2. The activity that most seniors participate in is walking on the multiway and secondly, was reading.
3. We learned that most seniors arrive at park spaces using vehicles.
4. Seniors utilize the parks and multiway on both weekends and weekends for an hour or two.
5. Most seniors are satisfied with the community and city parks in Leduc. Seniors are less satisfied with the parks that have more sport focus.
6. Seniors would like to see additional restrooms and shelters on the multiway system.
City of Leduc staff and project team members attended a youth program on July 22, 2019, and at the annual Rock the Rails Event, August 10, 2019, at the skateboard park.

5. Youth Survey

5.1. Description of Activities

5.1.1. Survey Questions
1. What Grade are you in? _____
2. Do you think outdoor spaces/parks are important?
3. What is the most important thing that outdoor spaces/parks provide? 1. ______________
4. What is your favourite activity to do in a park?

<table>
<thead>
<tr>
<th>Participated in the past 12 months</th>
<th>Would like to do more</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mountain biking (unpaved dirt surfaces on trails)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Walking on the Multiway</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jogging or running on the Multiway</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skateboarding at the skateboard park</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In-line skating or rollerblading</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Picnicking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Swimming in a pool</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Playing in a park (games, kite flying, catch with a ball, Frisbee etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bird Watching</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attending outdoor events (festivals, fairs, concerts, outdoor theatre)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cross-country skiing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Snowshoeing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team sports (baseball, soccer, softball, football, basketball, volleyball, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tennis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Golf</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bicycling on the Multiway</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Playground, swing set</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outdoor Fitness Equipment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. Who do you do activities in parks with? (please fill in one or more circles)
   a. Alone (yourself)
   b. Immediate family (parents, brothers, sisters)
   c. Extended family (grandparents, aunts, uncles, cousins)
   d. Friends
6. What could be done that would help you to participate in park activities more often? Please select ONE of the following actions:
   a. Provide areas for these activities that are just for kids my age
   b. Provide equipment (like sports equipment, playground equipment)
   c. Provide more recreation areas closer to my home (sports fields, skateboard parks, open space areas, trails)
   d. Provide safer ways to get to recreation areas close to my home
   e. Provide transportation to recreation areas and activities
   f. Provide instruction or lessons
   g. Improve the feeling of safety in parks I’d like to use
   h. Provide more afterschool programs or community programs in my area that offer these activities.
   i. Other

7. Do the reasons below keep you from using parks? Please fill in a circle for yes, no, or sometimes for each reason

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Sometimes</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>too busy (with homework, after-school activities, chores, work)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>I’d rather be on the Internet (Facebook, surfing the web) or playing video games</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>I’d rather be watching TV</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Activities are too expensive</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>A recreation area or park is too far away to walk, drive or ride my bike</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>My parents or guardians think the activities are too dangerous (I might hurt myself)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>My friends don’t want to do the outdoor activities that I want to do</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>No one in my family does these activities</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>I don’t know what to do</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>I don’t know where to go to do activities in parks</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>I don’t know how to do activities in parks</td>
</tr>
</tbody>
</table>

8. What new programs or activities do you think would help improve youth recreational programming in the City of Leduc?
   1. ____________________ 2. ____________________ 3. ____________________
5.2. Survey Results

Question 1:

What Grade are you in?

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 and below</td>
<td>25.00%</td>
</tr>
<tr>
<td>6</td>
<td>30.00%</td>
</tr>
<tr>
<td>7</td>
<td>15.00%</td>
</tr>
<tr>
<td>8</td>
<td>10.00%</td>
</tr>
<tr>
<td>9</td>
<td>5.00%</td>
</tr>
<tr>
<td>10</td>
<td>0.00%</td>
</tr>
<tr>
<td>11</td>
<td>0.00%</td>
</tr>
<tr>
<td>12</td>
<td>0.00%</td>
</tr>
</tbody>
</table>

Question 2:

Do you think outdoor spaces/parks are important?

<table>
<thead>
<tr>
<th>Response</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>110.00%</td>
</tr>
<tr>
<td>No</td>
<td>0.00%</td>
</tr>
</tbody>
</table>
Question 3:

Make new friends, skating, enjoy, trees, place, space, Activities, Air, Fun, place, people, play, Running, Exercise, Fitness, Environment

Number of mentions:
- Fewer
- More

Question 4a:

PARTICIPATED IN THE PAST 12 MONTHS

- Attending outdoor events (festivals, fairs, concerts, outdoor theatre)
- Golf
- Team sports (baseball, soccer, softball, football, basketball, volleyball, etc.)
- Mountain biking (unpaved dirt surfaces on trails)
- Walking on the Multiway
- Jogging or running on the Multiway
- Scooterising at the skate park
- BMXing at the skate park
- In-line skating or rollerblading
- Picnicking
- Swimming in a pool
- Skateboarding at the skate park

2% 1% 2% 26% 26% 14% 4% 3% 6% 2%
Question 4b:

ACTIVITY YOU WOULD LIKE TO DO MORE IN A PARK?

- Playing in a park (games, kite flying, catch with a ball, Frisbee etc.)
- BMXing at the skateboard park
- Scooter at the skateboard park
- Golf
- Snowshoeing
- Picnicking
- In-line skating or rollerblading
- Cross-country skiing
- Mountain biking (unpaved dirt surfaces on trails)
- Skateboarding at the skateboard park
- Jogging or running on the Multiway
- Walking on the Multiway
- Friends
- Other (please specify)

Question 5:

Who do you do activities in parks with?
(please fill in one or more circles)
Question 6:

What could be done that would help you to participate in park activities more often? Please select ONE of the following actions:

- Provide areas for these activities that are just for kids my age
- Provide equipment (like sports equipment, playground equipment)
- Provide more park areas closer to my home (sports fields, skateboard parks, open space areas, trails)
- Provide safer ways to get to park areas close to my home
- Provide transportation to park areas and activities
- Provide instruction or lessons
- Improve the feeling of safety in parks I’d like to use
- Provide more afterschool programs or community programs in my area that offer these activities

Question 7:

REASON KEEPING YOU FROM USING PARKS?

- My friends don't want to do the outdoor activities that I want to do
- My parents or guardians think the activities are too dangerous (I might hurt myself)
- A recreation area or park is too far away to walk, drive or ride my bike
- Activities are too expensive
- I’d rather be watching TV
- I’d rather be on the Internet (Facebook, surfing the web) or playing video games
- Too busy (with homework, after-school activities, chores, work)
- No one in my family does these activities
- I don't know what to do
Question 8:

What new programs or activities do you think would help improve youth recreational programming in the City of Leduc?

Lots of programming suggestions like camps and instructional activities around the skateboard park.

5.2.1. Key Learnings

The following are the key learnings and themes that came from the youth survey:

1. The youth 100% feel that outdoor space/parks and important.
2. Outdoor space provides an area to experience environment, play, fitness and fun.
3. In the past 12 months, youth respondents (71%) have participated most on the multiway, whether it is jogging, biking or walking. They have also visited (15%) or used the skateboard park.
4. The activities that they would like to do more of mirror what they currently do. Golf is something that had the highest gain in support for something the youth would like to do.
5. The youth normally experience outdoors with friends, followed by family.
6. Youth would like to experience more programming with youth their age. Also, provide equipment to participate in some of the activities in parks.
7. Time is an issue for youth as they have household duties and homework, which takes priority to participate in parks. However, having 29% of respondents wanting to screen time over being outside.
8. Youth have a great want for more multiway connecting them to the north and west as opposed to connecting the Airport or Saunders lake.
9. There were lots of programming ideas like camps and instructional activities for activities.

6. User Group Survey

An online survey was conducted using survey monkey between September 1-24. The online link was emailed out to 14 parks, open space and trails user groups. The group consisted of both organized sport and other recognized users provided by the City of Leduc staff. From the 14 invites, eight groups responded to the 21-question survey.

6.1. Survey Questions

1. Your name:
2. What is the name of your organization?
3. Position with the organization:
4. Your Phone number:
5. Your Email:
6. Select one category that best describes your organization.
   - Organized sport organization
   - School/educational institution
   - Environmental/outdoor organization
   - Agriculture society or affiliated organization
   - Community organization
   - Faith-based organization
   - Service club
   - Arts, Culture and Heritage organization
   - Other (please specify)

7. What are the age groups that your organization serves? Check all that apply.
   - All ages
   - Preschool (0-4)
   - Children (5-14)
   - Youth (15-19)
   - Adult (20 - 54)
   - Older Adult (55 plus)
8. How many people participated in your organization's programs and services in the past year?

9. Check the types of programs that you offer for each age group. Please check all that apply
   Family (all ages)    Preschool(0-4)    Children (5-14)    Youth (15-19)    Adults (20-54)    Senior (55 plus)

Program - Sport    Program - Sport Family (all ages)    Program - Sport Preschool(0-4)
Program - Sport Children (5-14)    Program - Sport Youth (15-19)    Program - Sport Adults (20-54)
Program - Sport Senior (55 plus)

Program – Arts & Culture    Program - Arts, Culture & Heritage Family (all ages)    Program - Arts, Culture & Heritage Preschool(0-4)
Program - Arts, Culture & Heritage Children (5-14)    Program - Arts, Culture & Heritage Youth (15-19)    Program - Arts, Culture & Heritage Adults (20-54)
Program - Arts, Culture & Heritage Senior (55 plus)

Program - Environment & Parks    Program - Environment & Parks Family (all ages)
Program - Environment & Parks Preschool(0-4)    Program - Environment & Parks Children (5-14)
Program - Environment & Parks Youth (15-19)    Program - Environment & Parks Adults (20-54)
Program - Environment & Parks Senior (55 plus)

Special Events    Special Events Family (all ages)    Special Events Preschool(0-4)    Special Events Children (5-14)    Special Events Youth (15-19)    Special Events Adults (20-54)    Special Events Senior (55 plus)

Other (please specify)

10. What best describes how your organization is able to meet the demand for programs and services?

   Over-subscribed with a waiting list
   Able to meet the demand
   Minimum registration (under-subscribed)
   Had to cancel or adjust a program due to low registration

Comments

11. What three challenges does your organization face in providing programs and services?

   1.
   2.
   3.
12. Are there any programs and services that you would like to provide but are currently unable to? This may include age groups that you are currently not able to serve or offering new programs for existing participants.

13. Do you anticipate any shifts or trends that may impact your programming over the next 5 years?

Yes
No
Not Sure

14. Describe the anticipated shift or trend.

15. How does your organization plan to deal with these shifts or trends?

16. A vision statement is an aspirational description of what an organization would like to achieve or accomplish in the mid-term or long-term future. To what extent do you agree with the following vision statement for the City of Leduc’s parks, open spaces and trails:

In Leduc, you can ‘come out and play’ in the best parks system in Alberta. When you take advantage of Leduc’s comprehensive network of parks, open space and trails, you and your family can explore your community, get to know your neighbours, experience nature and take part in a wide variety of outdoor activities throughout the year. Parks, open space and trails in Leduc are well managed, fiscally and ecologically sustainable, safe, accessible, natural, beautiful and enrich the overall quality of life for everyone in the community.

Agree Somewhat Agree Neutral Somewhat Disagree Disagree

What edits would you make to the draft vision statement?

17. In addition to the role that City of Leduc will assume in the delivery of its core services, it is also important to decide what “level of play” City of Leduc will focus on. The Sport for Life Long-Term Athlete Development Model (http://sportforlife.ca/qualitysport/long-term-athlete-development), though sport focused, provides a reasonable framework to help City of Leduc decide and clearly communicate what level of play will be the priority.

To what extent do you agree that the City of Leduc will prioritize its resource on the following stages of the Athlete Development Model:

Agree Somewhat Agree Neutral Somewhat Disagree Disagree

a) Awareness & First Involvement
b) Active Start
c) FUNdamentals
d) Learn to Train

e) Train to Train

f) Active for Life

18. To what extent do you agree that it is NOT the City of Leduc’s priority to prioritize its resources on the following stages of the Athlete Development Model though the City will, as feasible, partner with recreation and sport organizations:

<table>
<thead>
<tr>
<th>Agree</th>
<th>Somewhat Agree</th>
<th>Neutral</th>
<th>Somewhat Disagree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Train to compete</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Train to win</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

19. Do you encourage your users to use the multiway or other forms of transportation (non vehicular) to attend your programming?

(Yes/no)

20. If you have any other comments that you feel are relevant to the future of parks and open space in Leduc, please record them here

### 6.2. Survey Results

Question 1:

OMIT

Question 2:

**What is the name of your organization**

- Leduc District Minor Football Association
- LA Crude sports club
- Leduc beach volleyball
- SPN Alberta / AMP’T Host Events Group
- Leduc Cycling Association
- Leduc Wildlife Conservation Society
- Leduc Track Club
- City of Leduc
- Leduc Ball (Baseball)

Question 3-5:

OMIT
Question 6:

Select one category that best describes your organization

- Organized sport organization
- School/educational institution
- Environmental/Outdoor organization
- Agriculture society or affiliated
- Community organization
- Faith-based organization
- Arts, Culture and Heritage organization
- Service club
- Other (please specify)

Question 7:

What are the age groups that your organization serves? Check all that apply

- All ages
- Preschool (0-4)
- Children (5-14)
- Youth (15-19)
- Adult (20-54)
- Older Adult (55 plus)
Question 8:

How many people participated in your organization's programs and services in the past year

<table>
<thead>
<tr>
<th>Organization</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leduc District Minor Football Association</td>
<td>100</td>
</tr>
<tr>
<td>LA Crude sports club</td>
<td>200</td>
</tr>
<tr>
<td>Leduc beach volleyball</td>
<td>100+</td>
</tr>
<tr>
<td>SPN Alberta / AMP'T Host Events Group</td>
<td>3,000</td>
</tr>
<tr>
<td>Leduc Cycling Association</td>
<td>40</td>
</tr>
<tr>
<td>Leduc Wildlife Conservation Society</td>
<td>100+</td>
</tr>
<tr>
<td>Leduc Track Club</td>
<td>75</td>
</tr>
<tr>
<td>City of Leduc</td>
<td>N/A</td>
</tr>
<tr>
<td>Leduc Baseball</td>
<td>495</td>
</tr>
</tbody>
</table>

Question 9:

Check the types of programs that you offer for each age group. Please check all that apply

![Program Types Chart]
Question 10:

What best describes how your organization is able to meet the demand for programs and services

<table>
<thead>
<tr>
<th>Over-subscribed with a waiting list</th>
<th>Able to meet the demand</th>
<th>Minimum registration (under-subscribed)</th>
<th>Had to cancel or adjust a program due to low registration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

Question 11:

What three challenges does your organization face in providing programs and services?

<table>
<thead>
<tr>
<th>Challenge 1</th>
<th>Challenge 2</th>
<th>Challenge 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>No access to turf fields, we keep fighting but the league is going to mandate turf very soon. (Football)</td>
<td>Bad Press about Concussions</td>
<td>Conflicting sports Reducing numbers</td>
</tr>
<tr>
<td>Cost (revenue and expenses)</td>
<td>Rugby related problems schedule.</td>
<td>Resources for promoting our club</td>
</tr>
<tr>
<td>Not able to accommodate the increase in registration</td>
<td>Can not run too late into the season due to the lack of day light and the lack of lighting around the courts</td>
<td></td>
</tr>
<tr>
<td>Weather dependent</td>
<td>Adequate camping</td>
<td>Daylight hours</td>
</tr>
<tr>
<td>A home base to run seminars, training, children's program.</td>
<td>Proper, safe mountain bike trails</td>
<td>Training</td>
</tr>
<tr>
<td>The benefits of nature are only recently being realized</td>
<td>Educating the community about wildlife</td>
<td>The loss of wildlife habitat</td>
</tr>
<tr>
<td>Retaining/attracting trained and dedicated coaching staff</td>
<td>Keeping up with increasing costs for equipment and venue improvements</td>
<td>Keeping registration rates low due to increasing competition costs</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Providing enough facilities (baseball diamonds) for user groups demands</td>
<td>Having enough staff and equipment to keep up with growing demand. Massive increases in parks and multiways to maintain and little to no growth of the fleet of equipment and staff to do the work.</td>
<td></td>
</tr>
</tbody>
</table>

Question 12:

**Are there any programs and services that you would like to provide but are currently unable to? This may include age groups that you are currently not able to serve or offering new programs for existing participants**

- We would love to host playoffs, and/or provincials although due to lack of turf Leduc is not considered.
- We would like to get our under 17-19-21 programs up and going again. Also filling out the age grades we currently have.
- We would like to offer more space for co-ed, however due to the space restriction, we are limited to 16 teams a night.
- Late evening play, restricted to certain hours.
- Leduc would benefit from having a nature centre at Telford Lake to support education and enhance the enjoyment of nature for visitors.
- We have been asked to offer dryland training for local hockey, lacrosse and football teams. We are not able to accommodate this service (even with payment) due to our limited number of coaches.

Question 13:

**Do you anticipate any shifts or trends that may impact your programming over the next 5 years?**

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Not Sure</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

---

**POST-UPDATE**

City of Leduc
### Question 14:

**Describe the anticipated shift or trend**

<table>
<thead>
<tr>
<th>Change of direction within the club.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase in demand. Our league has grown every year since we started 4 years ago.</td>
</tr>
<tr>
<td>Growth, previous 5 year trend has shown a 200% growth in registrations.</td>
</tr>
<tr>
<td>I think our growth will explode once we are up and running and having some programming.</td>
</tr>
<tr>
<td>Community wellness, access to nature, climate resilience, mental health strategies</td>
</tr>
<tr>
<td>Most capital region clubs have difficult with retaining coach unless they move to a full-paid staffing position. While our coaches earn an honorarium, we would have to increase registration rates dramatically to offset the cost of a fully paid coaching position(s).</td>
</tr>
<tr>
<td>Drastic increase in multiways to maintain and clear snow from. Constant increase (annually) of park space including playgrounds to maintain. Potential doubling of community gardens to maintain and supervise. All with no increase in resources to perform additional work.</td>
</tr>
</tbody>
</table>

### Question 15:

**How does your organization plan to deal with these shifts or trends**

<table>
<thead>
<tr>
<th>Executive meetings and communication to members.</th>
</tr>
</thead>
<tbody>
<tr>
<td>We will try and offer league more nights of the week but we are limited to a certain number of teams per night.</td>
</tr>
<tr>
<td>Restructuring schedules, draw times. Make of use of more local facilities.</td>
</tr>
<tr>
<td>Our organization can easily adjust up with more numbers.</td>
</tr>
<tr>
<td>Construct a nature centre, re-wild areas around Telford Lake and wildlife corridor to Saunders Lake, expand the tree canopy around the entire city, improve stormwater management</td>
</tr>
<tr>
<td>We active search for independent coaches and approach our parent contingent if someone shows interest and can make time. We will cover the cost of NCCP training programs.</td>
</tr>
<tr>
<td>Scrape by until we can have resources increased through annual budget requests.</td>
</tr>
</tbody>
</table>
Question 16:

A vision statement is an aspirational description of what an organization would like to achieve or accomplish in the mid-term or long-term future. To what extent do you agree with the following vision statement for the City of Leduc's parks, open spaces?

<table>
<thead>
<tr>
<th>Agree</th>
<th>Somewhat Agree</th>
<th>Neutral</th>
<th>Somewhat Disagree</th>
<th>Disagree</th>
</tr>
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<tbody>
<tr>
<td>0.00%</td>
<td>5.00%</td>
<td>10.00%</td>
<td>15.00%</td>
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<tr>
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<tr>
<td>50.00%</td>
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</tbody>
</table>

Question 17:

What edits would you make to the draft vision statement?

"Play" would be best replaced with "experience".

There is no mention of natural wildlife habitat

There is no recognition that the multi-way around Telford Lake should be preserved as a wildlife space/buffer

Education is not mentioned as an outcome

Wellness/mental health is not mentioned as an outcome

The creation of additional wildlife habitat on all trails, parks and open spaces is not identified

An increase in tree canopy for environmental resilience and for a nature highway is not promoted

I would make it shorter and use words that evoke emotion. I want to feel emotionally connected, but these words are really clinical.

The use of the word "natural" I don't feel like we have a lot to offer in the way of "natural" areas. We just finished paving a highway through the only natural area we had left.
Question 18:

To what extent do you agree that it is NOT the City of Leduc’s priority to prioritize its resources on the following stages of the Athlete Development Model though the City will, as feasible, partner with recreation and sports organizations:

- [ ] Agree
- [ ] Somewhat Agree
- [ ] Neutral
- [ ] Somewhat Disagree
- [ ] Disagree

Question 19:

Do you encourage your users to use the multiway or other forms of transportation (non-vehicular) to attend your programming?

- [ ] Yes
- [ ] No
Question 20:

| If you have any other comments that you feel are relevant to the future of parks and open space in Leduc, please record them here |

Leduc has the best ball facilities and grounds crew in the Province. If we were able to improve the concession area and perhaps add additional lighting to another diamond or two - we could increase even more with the economic impact we already bring.

If the community and council are not actively expanding and preserving our wildlife spaces, these spaces will either become degraded or disappear.

Question 21:

6.2.1. Key Learnings

The following are the key learnings and themes that came from the user group survey:

1. The majority of user groups service sport for all ages, but there is a lack of preschool programming.
2. Majority of the user groups in Leduc can meet the demand of providing programs and services.
3. The lighting of facilities will be required to increase the current supply of facilities.
4. Providing upgraded/new facilities to increase programming and provide opportunities for sport and recreation tourism.
5. The majority of user groups encourage multiway use.
6. User groups agree that the City of Leduc should not be providing elite training facilities for specified groups.

7. User Group Interviews

Phone interviews were requested from some of the user groups to probe further into survey results and gain a better understanding of the organization and where the City of Leduc could assist in their growth. Of the six groups contacted only three provided comments.

7.1. Interview Questions

1. What does oversubscribed mean to you? Is it all prime time spots? Do you need more time at different times of the week?

2. Probe each of the challenges for the organization

3. Probe the shift and what that means

4. Ask how they find the current support from the City of Leduc. How can it improve?

7.1.1. Key Learnings

The following are the key learnings and themes that came from the user group interviews:

1. The City of Leduc maintains the parks and sport fields to a great level.
2. New pressures from the region are preventing the amount of “home game” opportunities and the ability to host provincials, nationals or international competition.
3. Trees and naturalized areas are important to sport users as well as the community at large.
4. The City of Leduc could help the volunteer organizations with yearly round tables for users, a guide for user groups, and the development of coaches.
5. Groups understand the value of sport and recreation tourism and would like to partner to provide more opportunities

8. Pop-up Event

The POST consulting team and the City of Leduc Staff joined the Municipal Development Plan (MDP) pop-up event at the Leduc Recreation Centre from 4:00 pm -7:00 pm on October 4, 2019. This joint effort provided an opportunity for residents to review the MDP and how the POST update correlates. There were over 25 people who attended the pop-up event.
8.1. Copy of Display Boards

8.1.1. Key Learnings

The following are the key learnings and themes that came from the MDP Pop-up event:

1. Most of the attendees agreed with the vision statement and the overall POST plan.
2. The top three Parks, Open Space and Trail development were:

<table>
<thead>
<tr>
<th>Rank</th>
<th>Item</th>
<th>Votes</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Multiway Connection to the West</td>
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<tr>
<td>2</td>
<td>New Off-Leash Dog Park</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>More Naturalized Lands</td>
<td>8</td>
</tr>
<tr>
<td>3</td>
<td>Picnic Areas with BBQ pits</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>Toboggan Hills</td>
<td>6</td>
</tr>
</tbody>
</table>

9. Open House

The POST consulting team and the City of Leduc Staff provided an opportunity for the public to view the outcome of the 2019 Updated Parks, Open Space and Trails. The open house was held at the Leduc Recreation Centre from 5:30 pm -8:00 pm on October 22, 2019. There were over 25 people who attended the open house event.

9.1. Copy of Display Boards
9.1.1. Key Learnings

The following are the key learnings and themes that came from the open house event:

1. Respondents were excited for new multiway as presented
2. Like the idea of more trees in Leduc
3. Want to see the idea of snow golf and the use of the golf course for all seasons
10. Synthesis of Engagement Results

1. **Access & Connectivity:**
   a. Across all engagement activities, Multiway was the number one POST need. It was shown that the majority of respondents love the multiway and what it provides.
   b. There was a general feeling that respondents felt that Leduc had adequate POST opportunities.
   c. Respondents wanted to ensure that multiway was continually being developed in the west areas.
   d. The respondents are looking forward for the Crystal Creek (West Campus Lands) to be developed.

2. **Nature:**
   a. Respondents want to see more trees planted, both along boulevards and multiway.
   b. There was a want of more naturalized areas, allowing for tree stands to be created and grow. The work of some of the groups on pollinator gardens and other naturalization activities are supported.
   c. The creation of bird blinds or other types of structures to allow for residents to enjoy nature would be preferred.

3. **Facilities:**
   a. There are requests for more off-leash dog parks (preferably in the west) for residents to utilize.
   b. With some sporting groups requesting artificial turf, due to the lack of home games for the teams. This makes the sport less accessible and reduces the amount of income the group can make on hosting and reduces the ability to host provincials or even finals.

4. **Amenities:**
   a. Residents arrive to the park system by car, which requires parking lots.
   b. There were requests for more bathrooms along with the trail system, especially on the east side of Telford lake.
   c. There were also requests for picnic area which included BBQ pits. There is a want for more areas to utilize for gathering and socializing.

5. **Safety:**
   a. There were no responses regarding a lack of safety from respondents.

6. **Management & Maintenance:**
   a. The majority of seniors get information from word of mouth as opposed to one source of information.
   b. Youth want to see more programming directed to them, especially using the skateboard park and mountain biking.
   c. User groups would like a resource to understand the inner workings of the City. When there is a large shift in members, there is information that is lost, and sometimes new user group members do not know who to contact.
# City of Leduc Park & Environmental Reserve Inventory

## Regional Park

<table>
<thead>
<tr>
<th>#</th>
<th>Park Classification</th>
<th>Park Name</th>
<th>Short Legal</th>
<th>Neighborhood</th>
<th>Physical Address</th>
<th>Existing Amenities</th>
<th>Site Area (Ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regional Park</td>
<td>Alexandra Park</td>
<td>T4;13:1,2</td>
<td>Alexandra</td>
<td>50 Street 47 Ave</td>
<td>Spray Park</td>
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<td></td>
<td></td>
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<td>T4;12;12</td>
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<td></td>
<td>Outdoor Pool</td>
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<td>T4;13:5</td>
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<td></td>
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</table>

| 2  | Regional Park       | Fred Johns Park | 7822276;12;25MR | Leduc Estates | Blackgold Dr | Disc Golf       | 1.52           |
|    |                     |                 | 7822278;12;2MR |              |              | Baseball        | 0.22           |
|    |                     |                 | 8222480;1;18MR |              |              | Playground       | 0.23           |
|    |                     |                 | 8222480;1;19MR |              |              |                   | 0.21           |
|    |                     |                 | 7822276;12;37PUL |            |              |                   | 0.02           |
|    |                     |                 | 1041KS;OT     |              |              |                   | 8.19           |
|    |                     |                 | 2821LZ;OT     |              |              |                   | 1.06           |
|    |                     |                 | 7521413;12;R1 |              |              |                   | 0.08           |
|    |                     |                 | 4;25;49,27;NE |              |              |                   | 8.64           |
|    | Total Area:         |                 |             |              |              |                   | 20.17          |

<p>| 3  | Regional Park       | Telford Lake Park | 1322735;2;2MR | NE 25         | Surrounding Telford Lake | Trails | 2.10           |
|    |                     |                 | 1322735;2;1ER |              |                   |                   | 2.43           |
|    | Total Area:         |                 |             |              |                   |                   | 4.53           |</p>
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<th>Neighborhood</th>
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<th>Existing Amenities</th>
<th>Site Area (Ha)</th>
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<td>4</td>
<td>Regional Park</td>
<td>Telford Lake Park</td>
<td>8920278;20;21MR 8421201;20;19MR 8820234;21;13MR 8820234;20;20MR 9021653;20;22MR 9221683;20;23MR</td>
<td>Sawridge Business Park</td>
<td>North of Telford Lake</td>
<td>Trails Skating</td>
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Regional Park Total Area (Ha): 94.00
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<tbody>
<tr>
<td>1</td>
<td>Community Park</td>
<td>Aileen Faller Park</td>
<td>7521413;14;R2</td>
<td>Leduc Estates</td>
<td>Black Gold Dr &amp; Alton Dr</td>
<td>Playground Baseball Hockey</td>
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<tr>
<td>2</td>
<td>Community Park</td>
<td>Barclay Park</td>
<td>0524392;8;33MR</td>
<td>Leduc Business Park</td>
<td>42 Street 77 Ave</td>
<td>Dog Park SWMF</td>
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<td>3</td>
<td>Community Park</td>
<td>Christ The King</td>
<td>8921815;11;41</td>
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<td>3511 Rollyview Road</td>
<td>Baseball Track &amp; Field Soccer</td>
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Total Area: 6.17 (Community Park Aileen Faller Park)  
Total Area: 6.33 (Community Park Barclay Park)  
Total Area: 8.70 (Community Park Christ The King)  
Total Area: 8.11 (Community Park Deer Valley Park)  
Total Area: 7.16 (Community Park Deer Valley 2)  
Total Area: 2.91 (Community Park Elks Community)  
Total Area: 4.48 (Community Park Harry Bienert Park)
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<th>Existing Amenities</th>
<th>Site Area (Ha)</th>
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<td>Community Park</td>
<td>Leduc Lions Park</td>
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<tbody>
<tr>
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Page 10 of 12
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<th>Site Area (Ha)</th>
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*Please note the Environmental Reserve Areas calculated below are also included in the Park areas above.*

**Environmental Reserve**

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<th>#</th>
<th>Park Classification</th>
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<th>Short Legal</th>
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<td>9223144;5ER</td>
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</table>

**Environmental Reserve Total Area (Ha):** 31.79
The objectives of the update to the POST Master Plan included:

• Updating the vision, inventory and strategies for POST with reference to recently adopted City plans and policies.

Summary of the Main Changes to the POST Master Plan

• An updated vision for POST – includes reference to sustainability
• Changes to Parks and Open Space categories and subcategories
• References to recently adopted City policies and plans
• Increased focus on environmental sustainability
• An update of current trends in recreation
• An update of the opportunities for volunteering
• Update to mapping of multiway and open space and addition of a summary inventory for Municipal Reserves and Environmental Reserves
Summary of the Main Changes Requested by Executive & Committee

- Clarification of the area of land required for the Crystal Creek/West End Integrated Recreational Facility.
- Clarification of the need and related cost for an artificial turf field/facility.
- Clarification of the criteria (spacing) for recommended additional benches – at the discretion of the City.
- Clarification that potential trail/multiway links to Saunders Lake are subject to discussions with Leduc County and the timing of redevelopment of this area east of Telford Lake.
- Removal of the recommendation for a POST Foundation (not for profit).
## Summary of the Financial Impacts to the POST Master Plan

### Potential additional costs for the City

<table>
<thead>
<tr>
<th>Section</th>
<th>Item/Recommendation</th>
<th>Financial Implication</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.2.3.2.4</td>
<td>Potential artificial turf facility at Crystal Creek.</td>
<td>An artificial turf facility would be a substantial capital investment. Leduc is currently one of the only regional municipalities without an artificial turf field.</td>
</tr>
<tr>
<td>6.2.1.2</td>
<td>Recommendation for dedication of parkland in Crystal Creek/West Campus.</td>
<td>40 acres of parkland was identified in the 2012 POST Master Plan for the West Campus site. This is required to accommodate active and passive recreation facilities. An additional 18-20 acres is required to accommodate a recreation centre and 2 high schools and associated parking. The cost associated with this additional area will include tax revenue lost from potential alternative land uses. (residential, commercial, etc.)</td>
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</table>

### Potential cost savings for the City

<table>
<thead>
<tr>
<th>Section</th>
<th>Item/Recommendation</th>
<th>Financial Implication</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.2.1.3 and Standards</td>
<td>Implementation of multiways at the development stage by developers.</td>
<td>This will reduce capital costs to the City. It will increased construction costs for developers, but is in line with the requirements of regional municipalities.</td>
</tr>
<tr>
<td>5.2.1.3</td>
<td>Requirement of 50% connectivity around storm water management facilities (swmfs).</td>
<td>This formalizes a practice that has been in place for a number of years. Developers have typically provided multiways in swmfs. This is also in line with the requirements of regional municipalities.</td>
</tr>
</tbody>
</table>
Project Process Timeline

**Major tasks including engagement events**

**Familiarization and Analysis**
- Review & analysis of existing plans, policies and current trends.
- Review & analyze existing parks, open space and trails inventory & analysis
- Internal stakeholder engagement

**Draft Strategies & Public Engagement**
- Assess park & open space categorization
- External stakeholder engagements
- Revised MDP – October 4, 2019
- Prepare draft revised parks & open space inventory, mapping, multi-way plan & recommendations
- Presentation to Urban Development Institute (UDI), Edmonton
- Public open house

**Finalization of Plan**
- Presentation to the Executive Team
- Presentation to Committee of the Whole
- Presentation to Council
An updated vision for POST in Leduc:

In Leduc, you can ‘come out and play’ in the best parks system in Alberta. When you take advantage of Leduc’s comprehensive network of parks, open space and trails, you and your family can explore your community, get to know your neighbours, experience nature and take part in a wide variety of outdoor activities throughout the year.

Parks, open space and trails in Leduc are well managed, **fiscally and ecologically sustainable**, safe, accessible, natural, beautiful and enrich the overall quality of life for everyone in the community.
Overview - POST Master Plan Update

Changes to Parks and Open Space categories and subcategories

<table>
<thead>
<tr>
<th>Parks and Open Spaces Classification</th>
<th>Natural Areas/Environmental Reserves/Conservation Reserves</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Municipal Open Space</td>
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<tr>
<td></td>
<td>Stormwater Management Facilities (SWMFs)</td>
</tr>
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<td></td>
<td>PUL/Walkways</td>
</tr>
<tr>
<td></td>
<td>Roadways/Landscape and Multiways</td>
</tr>
</tbody>
</table>

Municipal Reserves
Regional Parks
Community Parks
Neighbourhood Parks
Linear Parks/Greenways

IBI Group
City of Leduc

Parks, Open Space and Trails (POST) Master Plan Update
March 2020
What We Heard

Summary of Results

Multiway is the most utilized park facility

100% OF YOUTH feel parks are important

Top Wants

- More amenities like benches, picnic areas, and bathrooms.
- Another off-leash dog park
- Multiway to the west
- Integrated sports facility to accommodate major sporting events
- More trees and naturalized areas

Respondents are satisfied with current parks spaces
Summary of Responses from Engagement - Opportunities to Improve

Access & Connectivity
• Multiway was the number one item of POST interest and focus for growth areas.
• Respondents felt Leduc is developing POST Opportunities adequately with growth.
• Want multiway continually developed in west.
• Looking forward to Crystal Creek (West Campus Lands) development.

Nature
• More trees planted.
• More naturalized areas and tree stands.

Facilities
• More off-leash dog parks (preferably in the west).
• Some sporting groups requesting artificial turf – Tournament use and injury reduction

Amenities
• More bathrooms along multiway system
• Requests for Picnic areas with BBQ pits

Safety
• No responses regarding a lack of safety.

Management & Maintenance
• Youth want to see more programming directed to them – example, learn to skateboard and running clubs.

These responses were reflected in the revised strategies and recommendations for POST.
Questions?
EXECUTIVE SUMMARY

In 2019, the City of Leduc retained IBI Group and Quantum Recreation to complete an update of the Minimum Landscape Design and Construction Standards. The updated standards will provide a foundation for parks and multiway service delivery for the next 10 years.

RECOMMENDATION

That Council approve the updated Minimum Landscape Design and Construction Standards as presented.

RATIONALE

The purpose of the Minimum Landscape Design and Construction Standards is to provide Developers and Landscape Architectural Consultants with an outline for the minimum requirements for:

- the design of public landscapes and recreational infrastructure/amenities;
- the preparation of submissions to the City of Leduc;
- the implementation of landscape construction; and
- the processes and procedures to obtain approvals from the City of Leduc.

Since the development of the 2010 Minimum Landscape Design and Construction Standards there has been significant changes that were not reflected within the existing standards. These changes led to the review and update of the standards that is being proposed. A thorough internal and external engagement of various stakeholders was undertaken to ensure that the proposed Minimum Landscape Design and Construction Standards was an accurate reflection of the City’s needs.

Significant amendments to the Minimum Landscape and Construction Standards include:

- Clarification that all multiways in new neighbourhoods are the responsibility of the developer;
- Sod versus seed use in Municipal Reserves to be at the discretion of the City;
- Removal of allowance of trees or shrubs in Public Utility Lots/walkways, to simplify maintenance;
- Increased topsoil depth for grassed areas, to increase potential infiltration;
- Changes to shrub beds to have aluminum edger, to simplify maintenance;
- Low impact development (LID), to increase potential infiltration;
- Increased naturalization, to improve the environmental qualities of the landscape;
- Ensure alignment and consistency with the Parks, Open Space and Trails Master Plan.
COUNCIL REQUEST FOR DECISION

STRATEGIC / RELEVANT PLANS ALIGNMENT

2010 Minimum Landscape Design and Construction Standards

ORGANIZATIONAL IMPLICATIONS

ADMINISTRATION:
The drafting of the updated Minimum Landscape Design and Construction Standards has directly involved numerous members of Administration, Council members and community organizations. Administration will continue to review the operational impact of the updated standards and review financial and staffing implications. At this time, there are no specific administrative implications.

RISK ANALYSIS: FINANCIAL / LEGAL:
The Minimum Landscape Design and Construction Standards provides the minimum requirements for Developers and Consultants and the proposed changes will provide cost savings for the City with the improved standards as previously identified in the significant amendments. These financial implications will affect developers at the construction stage but provide cost savings at the operational stage. The significant amendments have been reviewed with and accepted by the Urban Development Institute – Edmonton Region.

At this time, there are no specific legal implications.

IMPLEMENTATION / COMMUNICATIONS:
At this time, there are no specific implementation or communication implications.

ALTERNATIVES:
That Council not approve the updated Minimum Landscape and Design Construction Standards and direct Administration to perform a further review.

ATTACHMENTS

Minimum Landscape and Design and Construction Standards Final Report
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Table 5 - Required and Recommended Recreation Facilities for Neighborhood & Community Parks
Table 6 - Required Setbacks from Roads, Sidewalks & Multiways
1.0 OBJECTIVES & DESIGN PRINCIPLES

1.1 Introduction
The purpose of the Minimum Landscape Design and Construction Standards is to provide Developers and Landscape Architectural Consultants with an outline for:

- the minimum requirements for the design of public landscapes and recreational infrastructure/amenities;
- the preparation of submissions to the City of Leduc;
- the implementation of landscape construction; and
- the processes and procedures to obtain approvals from the City of Leduc.

1.2 Objectives
The City of Leduc’s objectives for its public landscapes are:

- to strive to create innovative and functional park spaces which facilitate a wide range of recreation activities;
- to provide outdoor spaces that contribute to the reduction of environmental stress, maintenance requirements and increase green infrastructure;
- to create attractive streetscapes using street trees that will enhance the urban forest while increasing shade cover over paved areas and pedestrians’ sidewalks, reducing the urban heat island effect, etc.
- to ensure the City’s park spaces are accessible to all residents of the City of Leduc; and
- to recognize and preserve heritage and significant cultural landscapes that are valuable to the history and character of the community.

1.3 Design Principles
The following design principles shall be considered by Landscape Architectural Consultants when designing landscape, open space and recreation infrastructure in the City of Leduc. Designs shall:

- aim to ensure the security, safety, and accessibility of the public;
- consider the protection of valuable cultural features;
- ensure the preservation of significant natural landscapes;
- aim to introduce unique and decorative design features within the landscape; and
- employ sustainable design practices in all aspects of the project.
The following are important topics and guidelines which shall be considered in the design process:

1.3.1 LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN (LEED) – LEED FOR NEIGHBORHOOD DEVELOPMENT

Sustainable landscape and urban design practices are outlined in the LEED design assessment criteria. Specific landscape related LEED topics include:

- **Heat Island Reduction**
  
The urban heat island effect can be reduced with increased tree planting and solid surfacing with a high reflectivity or open grid pavement.

- **Water Efficiency**
  
The collection and reuse of rainwater onsite to water plants and turf is a sustainable practice that is covered under the LEED criteria.
  
The LEED rating system is a valuable guide for the design of sustainable development.

1.3.2 UNIVERSALLY ACCESSIBLE DESIGN

The mobility needs of all individuals in any public space shall be considered. The Americans with Disabilities Act Standards for Accessible Design “sets guidelines for accessibility to places of public accommodation (and open space) by individuals with disabilities. These guidelines are to be applied during the design, construction, and alteration of such...facilities to the extent required by regulations issued by Federal agencies, including the Department of Justice, under the Americans with Disabilities Act in its latest edition.

1.3.3 CPTED (CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN)

Safety and security must be a high priority for any public space. CPTED guidelines have gained wide international acceptance as design criteria for the built environment with a goal of reducing the potential for crime.

1.3.4 ALBERTA BUILDING CODE FOR STRUCTURES

This building code is relevant for buildings and structures such as recreational facilities and public washrooms. The 2019 Alberta Building Code (ABC) “sets out technical provisions for the design and construction of new buildings. It also applies to the alteration, change of use and demolition of existing buildings. The ABC complements the 2019 Alberta Fire Code in its latest edition, and both are indispensable for building officials, educators and professionals in the construction industry.”

1.3.5 DESIGN FOR WINTER CITIES

- **Wind**: Incorporate landscape design strategies to block wind, particularly prevailing winds and downdrafts.

- **Sunshine**: For gathering or seating areas maximize exposure to sunshine through orientation and design.

- **Colour**: Use colour on site features and amenities to enliven the winterscape.

- **Lighting**: Create visual interest with lighting, while being mindful of obtrusive or unsafe intensity, spread, contrast and colours.

- **Winter Infrastructure**: Design and incorporate infrastructure and amenities that supports desirable outdoor winter activities and improves comfort and access in cold weather.
2.0 PUBLIC LANDS TO WHICH THE MINIMUM LANDSCAPE DESIGN STANDARDS APPLY

2.1 Public Land Categories

The City of Leduc categorized public lands and open space in its Park, Open Space and Trails Master Plan in its latest edition. These categories include:

2.1.1 MUNICIPAL RESERVE

This category includes public land that is classified as Neighborhood Park, Community Park, Regional Park, and Linear Parks/Greenway. These various types of parks are further defined in the City of Leduc Parks, Open Space and Trails Master Plan in its latest edition.

2.1.2 ENVIRONMENTAL RESERVE

Environmental reserves should be conserved in its natural state and protected from disturbance.

2.1.3 MUNICIPAL OPEN SPACE

This category includes public land that is classified as Public Utility Lots, Stormwater Management Facilities and Major Utility Corridors.

2.1.4 ROADWAYS

These are classified as arterial, collector and local road Rights-of-Way (ROW). The landscape of these ROWs may include the boulevard between private property and the curb, medians, cul-de-sac islands, and entry feature areas.

2.2 Summary of Developer Responsibility

The table below outlines responsibilities and partnership opportunities for Developers of public open space. The table also describes the standards or guidelines that apply to each land category and classification. Where developer responsibility is indicated, the developer must meet the minimum landscape requirements.
### Table 1 – Developer Responsibility & Associated Guidelines for Development

<table>
<thead>
<tr>
<th>Land Category</th>
<th>Park and Open Space Classification</th>
<th>Developer Responsibility</th>
<th>* Partnership Opportunities</th>
<th>Applicable City of Leduc Guidelines &amp; Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipal Reserve</td>
<td>Regional Park</td>
<td></td>
<td>✓</td>
<td>Park, Open Space &amp; Trails Master Plan &amp; Minimum Landscape Design Standards</td>
</tr>
<tr>
<td></td>
<td>Community Park</td>
<td>✓</td>
<td>✓</td>
<td>Minimum Landscape Design Standards</td>
</tr>
<tr>
<td></td>
<td>Neighborhood Park</td>
<td>✓</td>
<td>✓</td>
<td>Minimum Landscape Design Standards</td>
</tr>
<tr>
<td></td>
<td>Linear Parks/ Greenways</td>
<td>✓</td>
<td>✓</td>
<td>Minimum Landscape Design Standards &amp; Minimum Landscape Design Standards</td>
</tr>
<tr>
<td>Environmental Reserve</td>
<td>Natural Areas/Environmental Reserves/Conservation Reserves</td>
<td></td>
<td>✓</td>
<td>Park, Open Space &amp; Trails Master Plan</td>
</tr>
<tr>
<td>Municipal Open Space</td>
<td>Stormwater Management Facilities (SWMFs)</td>
<td></td>
<td>✓</td>
<td>Minimum Landscape Design Standards</td>
</tr>
<tr>
<td></td>
<td>Public Utility Lot (PUL)/ Walkways</td>
<td></td>
<td>✓</td>
<td>Minimum Landscape Design Standards</td>
</tr>
<tr>
<td>Multiway**</td>
<td></td>
<td></td>
<td>✓</td>
<td>City of Leduc Eng. Standards and Multiway Trail Detail</td>
</tr>
<tr>
<td>Roadways</td>
<td>Arterial, Collector, Local Roads – Medians &amp; Boulevards</td>
<td></td>
<td>✓</td>
<td>Minimum Landscape Design Standards</td>
</tr>
</tbody>
</table>

* Where partnership opportunities are indicated, developers to collaborate with the City of Leduc to provide amenities and enhancements beyond the standards specified in this document.

** The Developer is responsible for the construction of the multiways.
### 3.0 DESIGN STANDARDS

#### 3.1 General Requirements

The following general landscape requirements apply to all public open space noted in Section 2.0. These standards establish the minimum requirements for landscape development. Please refer to the following sections for detailed standards.

**Table 2 - Minimum Landscape Requirements Summary**

<table>
<thead>
<tr>
<th>Landscape Requirement</th>
<th>Planting ***</th>
<th>Topsoil &amp; Sod</th>
<th>Fencing</th>
<th>Park Facilities</th>
<th>Trails &amp; Multiway Linkages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional Park</td>
<td></td>
<td></td>
<td>Minimum 1.2m Height Uniform Fence at all boundaries between public and private property</td>
<td>Facilities will be required at the discretion of the City of Leduc - See Table 5 for requirements</td>
<td>Trail linkages to be developed to Multiway standards</td>
</tr>
<tr>
<td>Community Park</td>
<td>75 Trees per hectare excluding areas do sportfields, courts, sledding hill, recreation building etc.</td>
<td>✓ γ</td>
<td>Minimum 1.2m Height Uniform Fence at all boundaries between public and private property</td>
<td>Bollards</td>
<td>Trash Receptacles, Bench</td>
</tr>
<tr>
<td>Neighbourhood Park</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Linear Parks/ Greenways</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PUL/Walkway</td>
<td>No trees permitted</td>
<td>✓ γ</td>
<td>Minimum 1.2m Height Uniform Fence at all boundaries between public and private property</td>
<td>Bollards</td>
<td>Trash Receptacles, Bench</td>
</tr>
<tr>
<td>Stormwater Management Facility</td>
<td>75 Trees per hectare above N.W.L.</td>
<td>✓ γ</td>
<td>Top soil &amp; seed</td>
<td>Minimum 1.2m Height Uniform Fence at all boundaries between public and private property</td>
<td>Bollards</td>
</tr>
<tr>
<td>Major Utility Corridor</td>
<td>Within limitations of utility company</td>
<td>✓ γ</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural Areas/ Environmental Reserves/ Conservation Reserves</td>
<td>Shall be conserved in its natural state &amp; protected from disturbance</td>
<td>✓ γ</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arterial</td>
<td>See Table 6 Tree Spacing on Boulevards/ Medians</td>
<td>✓</td>
<td>1.8m Height Uniform Fence for Flankages and Backs of Lots (at the discretion of the City of Leduc)****</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Collector</td>
<td>See Table 6 Tree Spacing on Boulevards/ Medians</td>
<td>✓</td>
<td></td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Roadways with separate walk</td>
<td>See Table 6 Tree Spacing on Boulevards/ Medians</td>
<td>✓</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>

* Tree planting requirements to be evaluated for rural and industrial cross-sections.
** See Table 5 for recommended facilities for Neighborhood and Community Parks
*** Substitution rate: 1 tree = 5 shrubs
**** Noise attenuation fencing as required in the Development Agreement.
 γ Seed at the discretion of the City of Leduc see section 3.1.2.
3.1.1 LANDSCAPING – GENERAL

These general minimum landscape design standards apply to all public lands and open space as outlined in this document. Please refer to specific land category sections for more detailed requirements.

.1 All trees and shrubs shall be planted as per the Tree Planting Detail and Shrub Planting Detail included in Section 6.0 and be sourced from a Clean Plants Certified Nursery certified by the Canadian Nursery Certification Institute (CNCI). Some exemptions may apply at the City’s discretion.

.2 The existing landscape must be considered in the design of any project. Existing healthy native tree stands, wetlands, and other natural features shall be considered in the planning and design of the project and preserved where possible to reduce the impact on the local environment and habitats. An undisturbed offset buffer of a minimum of 5m from private property to existing tree stands are to be provided. Retained landscapes must be protected during construction.

.3 Naturalized landscape plans can be submitted and shall be approved by the City of Leduc. The plans must include native plant species that are hardy to the existing soil conditions and climate will reduce the long-term maintenance requirements and resources.

.4 All sites shall be finished with topsoil and sod. At the discretion of the City of Leduc, seed may be approved with suitable access controls (fencing) to ensure establishment. Sod is still required in areas of intensive recreation use or for erosion control.

.5 All tree planting shall be a minimum 50 mm caliper for deciduous and 2.0 m height for coniferous unless approved by the City of Leduc. There is no maximum size limit for trees but may be subject to a long maintenance/establishment period. A tree mix of deciduous and coniferous is generally desired.

.6 Minimum shrub spacing shall be based on spread at maturity as recommended in the Alberta Yards & Gardens Manual. Minimum shrub size at planting, with the exception of naturalization areas, shall be 300 mm height for deciduous shrubs and 450 mm spread for coniferous shrubs. See specifications for Trees, Shrubs and Groundcover for more detailed requirements.

.7 Plant materials and their arrangement shall be selected to suit soil characteristics, drainage, micro-climate, aspect and the site’s intended use.

.8 Shrubs shall be massed within planting beds and planted at minimum spacing of 80% maturity size. The intent is to achieve a balance between shrub health and maintenance concerns with close planting, and the desire to achieve a visually full coverage that reduces weed growth. Plant symbols on all drawings shall be drawn at mature size. Ornamental shrub beds to have aluminum edger, at the discretion of the City of Leduc.

.9 Shrubs at mature size shall be completely contained within the planting bed.

.10 Tree planting shall be in groupings or mulched beds to encourage improved growth and survivability.

.11 Planting bed layouts shall be designed to facilitate the maneuverability of large turf maintenance and cutting equipment. A minimum of 2.2 m is required between the edge of a bed and all other vertical elements such as fencing, furniture and buildings.

.12 A minimum distance of 2.2 m shall be provided between free-standing vertical decorative features such as signs and sculptures.

.13 No other groundcovers or shrubs shall be planted in the same planting bed as aggressive groundcovers, (i.e., gout weed) and the requirement for mulch shall be deleted.
.14 Annual plantings shall be approved and planted as temporary landscaping, however, all annuals must be maintained until the end of the maintenance period, and must be removed prior to FAC approval. The annual bed must be rehabilitated to match the surrounding landscaping, as per approved drawings.

.15 Low maintenance, hardy perennials are acceptable in planting beds. Species selection is subject to review by the City of Leduc.

.16 Design shall exhibit diversity of tree species hardy to the Leduc area in order to reduce the spread of disease and to mitigate the potential visual impact of losing one particular species in an area.

.17 Noxious weeds shall be controlled according to the Provincial Weed Control Act in its latest edition.

.18 All areas shall be kept free from weeds from construction commencement until issuance of Final Acceptance Certificate (FAC). Failure to do so will result in weed removal by the City, and all costs shall be borne by the Developer/Contractor.

.19 The site shall be designed to permit access of maintenance vehicles including water and pruning lift trucks.

.20 Fire Smart: All existing vegetation to remain inside or within 100m of the development shall receive treatment and consideration in accordance with the Wildfire Risk Assessment prepared for the development and/or the Fire Smart – Protecting Your Community Form Wildfire (Fire Smart Canada).

- Priority Zone 1 (Fuel Removal) – Remove all highly flammable vegetation as outlined by Fire Smart Canada’s “Fire Smart Guide to Landscaping”, within 10m of any permanent structure. This defensible zone is to help prevent a fire from being carries towards or away from the building.
  - This area is to be graded, top-soiled and seeded or sodded at the discretion of the City of Leduc. Seed mix well depend on the application.
  - Additional tree clearing may be required, as directed by the Municipality, to accommodate drainage.

- Priority Zone 2 (Fuel Reduction) – This area between the property line up to a minimum of 30m is to be developed to reduce the wildfire threat. Topographical considerations can be made upon approval of Parks representative.
  - Thin coniferous trees to a minimum of 3.0 m crown spacing.
  - Remove all dead standing and fallen trees.
  - Prune all ladder fuels (low branches up to a minimum of 2.0m above ground level at the lowest point.

- Priority Zone 3 (Fuel Management) – This area extends beyond 30m to 100m from a structure. Vegetation management in this area may only be necessary where interface hazard is extreme due to fuel type and/or slope. In those instances, apply fuel reduction as outlined for Zone 2.

  Clean-up: Chip the material to be removed back onto the forest floor, no greater than 50 mm thickness.

All Fire Smart protection clearing is to be approved by Parks prior to commencement.

.21 When existing boulevard trees are within or adjoining new construction tree protection is required. Reference detail 1.4.
.22 Only low maintenance, non-invasive and hardy perennials will be accepted.

.23 The use of artificial turf in public landscapes is prohibited unless specifically approved for special locations where it would improve accessibility or have other proven benefits.

3.1.1.1 Tree Planting Setbacks for Utilities & Infrastructure

1. Trees shall be set back a minimum distance, as measured from the center of the tree trunk, from utilities and infrastructure as per Table 3.

Table 3 - Required Setbacks from Utilities & Infrastructure

<table>
<thead>
<tr>
<th>Type of Utility or Utility Structure</th>
<th>Minimum Setback Distance in Metres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light Piles</td>
<td>3.5 m</td>
</tr>
<tr>
<td>Fire Hydrants</td>
<td>3.5 m</td>
</tr>
<tr>
<td>Stop &amp; Yield Signs</td>
<td>2.0 m</td>
</tr>
<tr>
<td>Other Signs</td>
<td>2.0 m</td>
</tr>
<tr>
<td>Underground Power lines</td>
<td>1.0 m</td>
</tr>
<tr>
<td>Power Hardware (Pedestals, transformers, etc.)</td>
<td>3.5 m</td>
</tr>
<tr>
<td>Gas &amp; All other Services</td>
<td>1.5 m</td>
</tr>
<tr>
<td>Shallow Underground Utilities (Cables, Telephone)</td>
<td>1.0 m</td>
</tr>
<tr>
<td>Sanitary &amp; Storm Sewer Mains, Manholes &amp; Services</td>
<td>1.8 m</td>
</tr>
<tr>
<td>Watermains, Water Services &amp; Water Valves</td>
<td>1.8 m</td>
</tr>
</tbody>
</table>

2. If a minimum utility clearance of 1.0 m may not be maintained from the edge of the tree spade excavation, the involved utility company must be contacted for approval and/or safe planting procedures, (i.e. by hand digging), at the expense of the contractor. Drawings are to indicate that approval for such plantings has been received from the utility company and are to identify the plantings affected.

3. Planting distances from intermediate and high-pressure gas pipelines shall be adhered to as required by pipeline authority crossing or ground disturbance agreements.

4. Setback distances apply to all tree and tree form shrub species (such as Amur Maple). In certain instances, species with suckering type root systems or large hanging canopies shall require increased setbacks, (i.e. poplars and willows).

5. The minimum setback for *Populus spp.* from private property lines and paved areas shall be 10 m due to their invasive and shallow root structure. Planting locations for columnar varieties are acceptable along arterial and other road ROW fence lines as there are few species suitable for narrow spaces.
### 3.1.1.2 Acceptable Tree Species

1. Species of trees and shrubs shall be selected to suit the site’s planting conditions and microclimate. Please refer to *Alberta Yards and Gardens* (Government of Alberta) in its current edition for appropriate species.

2. Special consideration shall be given to the suitability of a species (including size, growth habit, hardiness, and maintenance requirements) for boulevard and median plantings.

3. For Municipal Reserve and Municipal Open Space, diversity of species, aesthetics, hardiness, disease resistance, natural occurrence, rate of growth and growth habit shall be considered when selecting varieties.

4. Municipal Reserve and Municipal Open Space planting may allow for tree spacing at 75% of mature tree size to increase landscape density.

**Table 4 - Acceptable Boulevard and Park Tree Species**

*S* = Street: This species has been determined to perform well in roadway planting situations.

*P* = Park: This species has been determined to perform well in a variety of open space situations.

<table>
<thead>
<tr>
<th>Deciduous Trees</th>
<th>Common Name</th>
<th>Recommended Spacing</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Acer ginnala</em></td>
<td>Amur Maple</td>
<td>8 m</td>
<td>S P</td>
</tr>
<tr>
<td><em>Acer negundo</em></td>
<td>Manitoba Maple</td>
<td>4 m</td>
<td>S P</td>
</tr>
<tr>
<td><em>Acer saccharinum</em></td>
<td>Silver Maple</td>
<td>10 m</td>
<td>P</td>
</tr>
<tr>
<td><em>Aesculus glabra</em></td>
<td>Ohio Buckeye</td>
<td>5 m</td>
<td>S P</td>
</tr>
<tr>
<td><em>Amelanchier alnifolia</em></td>
<td>Saskatoon</td>
<td>3 m</td>
<td>P</td>
</tr>
<tr>
<td><em>Crataegus x mordenensis 'Toba'</em></td>
<td>Toba Hawthorn</td>
<td>5 m</td>
<td>S P</td>
</tr>
<tr>
<td><em>Crataegus x mordenensis 'Snowbird'</em></td>
<td>Snowbird Hawthorn</td>
<td>5 m</td>
<td>S P</td>
</tr>
<tr>
<td><em>Crataegus succulenta</em></td>
<td>Fleshy Hawthorn</td>
<td>5 m</td>
<td>P</td>
</tr>
<tr>
<td><em>Crataegus cerronis</em></td>
<td>Chocolate Hawthorn</td>
<td>5 m</td>
<td>S P</td>
</tr>
<tr>
<td><em>Eleagnus angustifolia</em></td>
<td>Russian Olive</td>
<td>8 m</td>
<td>S P</td>
</tr>
<tr>
<td><em>Fraxinus pennsylvanica 'Patmore'</em></td>
<td>Patmore Ash</td>
<td>8 m</td>
<td>S P</td>
</tr>
<tr>
<td><em>Fraxinus pennsylvanica 'Prairie Spire'</em></td>
<td>Prairie Spire Green Ash</td>
<td>8 m</td>
<td>S P</td>
</tr>
<tr>
<td><em>Fraxinus pennsylvanica</em> (seedless variety)</td>
<td>Green Ash</td>
<td>8 m</td>
<td>S P</td>
</tr>
<tr>
<td><em>Hippophae rhamnoides</em></td>
<td>Sea Buckthorn</td>
<td>1 m</td>
<td>P</td>
</tr>
<tr>
<td><em>Malus x 'Spring Snow'</em></td>
<td>Spring Snow Flowering Crab</td>
<td>5 m</td>
<td>S P</td>
</tr>
<tr>
<td><em>Populus balsamifera</em></td>
<td>Balsam Poplar</td>
<td>10 m</td>
<td>P</td>
</tr>
<tr>
<td><em>Populus tremula Erecta</em></td>
<td>Swedish Columnar Aspen</td>
<td>2 m</td>
<td>S P</td>
</tr>
<tr>
<td><em>Populus tremuloides</em></td>
<td>Trembling Aspen</td>
<td>5 m</td>
<td>S P</td>
</tr>
<tr>
<td><em>Populus x canadensis 'Tower'</em></td>
<td>Tower Poplar</td>
<td>2 m</td>
<td>P</td>
</tr>
</tbody>
</table>
### Poplar Species

<table>
<thead>
<tr>
<th>Botanical Name</th>
<th>Common Name</th>
<th>Recommended Spacing</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Populus x Jackii</td>
<td>Northwest Poplar</td>
<td>10 m</td>
<td>S P</td>
</tr>
<tr>
<td>Prunus cerasus</td>
<td>Sour Cherry</td>
<td>8 m</td>
<td>P</td>
</tr>
<tr>
<td>Prunus maackii</td>
<td>Amur Cherry</td>
<td>6 m</td>
<td>S P</td>
</tr>
<tr>
<td>Pyrus ussuriensis</td>
<td>Ussurian Pear</td>
<td>3 m</td>
<td>P</td>
</tr>
<tr>
<td>Quercus macrocarpa</td>
<td>Bur Oak</td>
<td>8 m</td>
<td>S P</td>
</tr>
<tr>
<td>Salix alba</td>
<td>White Willow</td>
<td>3 m</td>
<td>P</td>
</tr>
<tr>
<td>Salix alba var. vitelline</td>
<td>Golden Willow</td>
<td>10 m</td>
<td>P</td>
</tr>
<tr>
<td>Salix discolor</td>
<td>Pussy Willow</td>
<td>2.5 m</td>
<td>P</td>
</tr>
<tr>
<td>Salix pentandra</td>
<td>Laurel Leaf Willow</td>
<td>10 m</td>
<td>P</td>
</tr>
<tr>
<td>Shepherdia argentina</td>
<td>Buffaloberry</td>
<td>2 m</td>
<td>P</td>
</tr>
<tr>
<td>Sorbus americana</td>
<td>American Mountain Ash</td>
<td>6 m</td>
<td>S P</td>
</tr>
<tr>
<td>Sorbus aucuparia</td>
<td>European Mountain Ash</td>
<td>4 m</td>
<td>S P</td>
</tr>
<tr>
<td>Sorbus decora</td>
<td>Showy Mountain Ash</td>
<td>5 m</td>
<td>S P</td>
</tr>
<tr>
<td>Syringa prestoniae</td>
<td>Preston Lilac</td>
<td>3 m</td>
<td>P</td>
</tr>
<tr>
<td>Syringa reticulata 'Ivory Silk'</td>
<td>Japanese Tree Lilac</td>
<td>6 m</td>
<td>P</td>
</tr>
<tr>
<td>Tilia americana</td>
<td>American Linden</td>
<td>8 m</td>
<td>S P</td>
</tr>
<tr>
<td>Tilia cordata</td>
<td>Little Leaf Linden</td>
<td>8 m</td>
<td>S P</td>
</tr>
<tr>
<td>Tilia x flavescens 'Dropmore'</td>
<td>Dropmore Linden</td>
<td>8 m</td>
<td>S P</td>
</tr>
<tr>
<td>Tilia cordata 'Ronald'</td>
<td>Norlin Linden</td>
<td>8 m</td>
<td>S P</td>
</tr>
<tr>
<td>Ulmus americana</td>
<td>American Elm</td>
<td>10 m</td>
<td>S P</td>
</tr>
<tr>
<td>Ulmus americana 'Brandon'</td>
<td>Brandon Elm</td>
<td>8 m</td>
<td>S P</td>
</tr>
<tr>
<td>Ulmus davidiana var. japonica 'Discovery'</td>
<td>Discovery Elm</td>
<td>8 m</td>
<td>S P</td>
</tr>
<tr>
<td>Ulmus pumila</td>
<td>Siberian/Manchurian Elm</td>
<td>8 m</td>
<td>S P</td>
</tr>
</tbody>
</table>

### Coniferous Trees

<table>
<thead>
<tr>
<th>Botanical Name</th>
<th>Common Name</th>
<th>Recommended Spacing</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abies balsamea</td>
<td>Balsam Fir</td>
<td>4 m</td>
<td>P</td>
</tr>
<tr>
<td>Juniperus scopulorum</td>
<td>Rocky Mountain Juniper</td>
<td>4 m</td>
<td>P</td>
</tr>
<tr>
<td>Larix sibirica</td>
<td>Siberian Larch</td>
<td>8 m</td>
<td>P</td>
</tr>
<tr>
<td>Picea abies</td>
<td>Norway Spruce</td>
<td>8 m</td>
<td>P</td>
</tr>
<tr>
<td>Picea glauca</td>
<td>White Spruce</td>
<td>8 m</td>
<td>P</td>
</tr>
<tr>
<td>Picea pungens</td>
<td>Colorado Blue Spruce</td>
<td>8 m</td>
<td>P</td>
</tr>
<tr>
<td>Pinus aristata</td>
<td>Bristlecone Pine</td>
<td>4 m</td>
<td>P</td>
</tr>
<tr>
<td>Pinus banksiana</td>
<td>Jack Pine</td>
<td>4 m</td>
<td>P</td>
</tr>
<tr>
<td>Pinus cembra</td>
<td>Swiss Stone Pine</td>
<td>4 m</td>
<td>P</td>
</tr>
<tr>
<td>Pinus contorta var. latifolia</td>
<td>Lodgepole Pine</td>
<td>4 m</td>
<td>P</td>
</tr>
<tr>
<td>Pinus flexilis</td>
<td>Limber Pine</td>
<td>4 m</td>
<td>P</td>
</tr>
</tbody>
</table>

Note: Codes S and P indicate spacing requirements for S (single) and P (pair) plantings.
### 3.1.1.3 Tree & Shrub Equivalency

Shrubs can be substituted for trees in Municipal Reserve and Municipal Open Space areas at a rate of 5 shrubs being equal to 1 tree up to 1/3 of the required tree quantity. This substitution rate is not applicable to Roadway landscaping.

### 3.1.1.4 Soil Volume

Enhanced soil volumes are required to increase critical rooting space. Soil volumes should be designed not deeper than 1m with increased area to achieve the minimum soil volume requirement. Based on tree size to soil volume relationships the list below is recommended:

- **Large Canopy trees** are defined as trees that under normal conditions can support canopies of 74m² or spread over 5 m and require a minimum soil volume of 17m³.
- **Small canopy trees** are defined as trees that under normal conditions have a spread of 5m and require a minimum 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 Parks for recommendations.
- Minimum topsoil depth for all tree planting shall be 500mm.

### 3.1.2 TOPSOIL & TURF

1. Topsoil shall be graded and levelled as required for all sites and then sodded (or seeded at the discretion of the City of Leduc, with a grass seed appropriate for the landscape type).
2. All disturbed areas (other than planting beds, infrastructure, etc.) shall be stabilized with turf.
3. Sodding shall be required instead of seed in all areas of intensive use, grass swales, and for repair of existing turf as follows:
   - extend sod 4.5 m beyond intensive use areas (playground, tot lots);
   - extend sod 1.5 m beyond edge of all multiways;
   - extend sod 2.0 m from each side of center line of grass swales.
4. Seeding may be acceptable beyond areas outlined above at the discretion of the City of Leduc at drawing review.
5. For areas such as creeks, ponds, riparian zones, a suitable seed mix shall be approved by the City of Leduc prior to installation.
3.1.3  **FENCING**

.1 All fences shall be designed and constructed according to the minimum standard depicted in the fence details included in Section 6.0. Alternative fence designs may be acceptable upon review by the City of Leduc.

.2 All fencing shall meet the requirements set out in the Development Agreement for the subdivision.

.3 All fence styles shall be designed to complement other proposed architectural and urban amenities and match existing fence where adjacent.

.4 All fences shall be built a minimum of 150 mm within private property.

.5 Uniform fencing shall be provided between all private property and public property. Uniform fencing shall be constructed adjacent to Municipal Reserve, Municipal Open Space and Collector and Arterial Roadways. Fencing along private properties fronting onto local roads is not required.

.6 All noise attenuation fencing required as stated in the Development Agreement will be reviewed and inspected by the City of Leduc Engineering Department. See the Minimum Engineering Design Standards for construction requirements and details of noise attenuation fencing. The inclusion of gates between private and public property shall be at the discretion of the City of Leduc.

3.1.4  **SITE FURNITURE**

.1 Provision of site furniture shall be required to enhance public open space in all seasons (i.e. be comfortable, durable and attractive). Proposed site furniture shall be arranged in accordance with CEPTD (Crime Prevention Through Environmental Design).

.2 Proposed site furniture shall be submitted to the City of Leduc for review.

.3 The following setbacks shall be required:
   - Benches - 2.0 m minimum from edge of walkway or multiway;
   - Waste Receptacles - 2.0 m min. from walkway or multiway, and minimum 2.0 m from benches or picnic tables (due to odors, wasps, etc.);
   - Picnic Tables - 1.0 m minimum from edge of walkway or multiway;
   - Ensure a minimum 300 mm hard surface mowing strip from furniture to mown grass areas.

.4 Refer to Section 6.0 for detailed construction drawings of site furniture and technical requirements.

.5 All trash receptacles to be Haul-All Hide-A Bag and to be the garbage and recycling duplex units. Colour may vary for trash receptacles.

.6 T-bollards to be installed at walkway or multiway connection to road right of ways.

.7 Bench spacing along multiways and trails at the discretion of the City. Environmentally sensitive areas should be assessed on an individual basis.

3.1.5  **MULTIWAYS & LINKAGES TO MULTIWAYS**

.1 Multiways are required to be built by developers in areas designated as Municipal Reserve and Municipal Open Space to provide linkages to and between primary multiways routes and tertiary multiways (sidewalks) routes.

.2 Refer to City of Leduc Minimum Engineering Standards for detailed design requirements and specifications for multiways.
3.1.6 NATURALIZATION

.1 Grass slopes 3:1 or greater to be naturalized and not mown regularly. Newly constructed slopes should be seeded with a naturalized or native seed mix.

.2 Bioswales are encouraged and when implemented should include grasses and/or other vegetation, enhanced topsoil at least 450mm depth, and an underlying infiltration layer.

.3 Where naturalization planting is used, plant material may be substituted as per the following:

<table>
<thead>
<tr>
<th>Full Size Tree</th>
<th>Potted Tree</th>
<th>Potted Tree</th>
<th>Shrubs</th>
<th>Trees or Shrubs – Whips &amp; Plugs</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) 60mm Cal.</td>
<td>(2) 40mm Cal.</td>
<td>(5) 20mm Cal.</td>
<td>(5) 5 Gallon Pot</td>
<td>(25) minimum 100mm Pot</td>
</tr>
</tbody>
</table>

- A maximum of 10% of the required 60mm caliper trees on a site may be substituted for smaller material.
- Shrub size requirement can be substituted at a rate of 5 shrub plugs for 1 full size shrub.

.4 Naturalized areas must be set back 30m from playgrounds.

3.1.7 LOW IMPACT DEVELOPMENT (LID)

.1 Bioswales and bioretention gardens are encouraged and when implemented should include grasses and/or other vegetation, enhanced topsoil at least 450mm depth, and may include an underlying infiltration layer.

.2 Vegetation selections for LID facilities should consider the following 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.

.3 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; and,
- Resistance to pests.

3.2 Requirements for Municipal Reserves (MR)

The following requirements apply to Neighborhood Parks and Community Parks:

3.2.1 PLANTING

.1 All municipal reserves must be planted at the rate of 75 trees per one hectare of land. Five (5) shrubs shall be substituted for one tree, up to 1/3 of the total required tree quantity. Sports fields, courts, sledding hills, buildings, infrastructure, and other recreation facilities such as playgrounds are not included in the area of required planting.

.2 All landscaping shall conform to required setbacks as described in Tables 3 and 6.
.3 All trees and shrubs shall be planted as per the Tree Planting Detail and Shrub Planting Detail included in Section 6.0.

.4 Acceptable tree species and recommended spacing is outlined in Table 4, however tighter tree spacing at 75% of mature tree size shall be approved by the City of Leduc.

.5 Alternative tree and shrub species for MR planting shall be considered and are subject to approval by the City of Leduc or designate.

.6 Municipal Reserves shall be graded, leveled, or contoured to drain freely.

.7 Topsoil and sod (or seed at the discretion of the City of Leduc) shall be installed and established as specified in Section 5.0.

### 3.2.2 FENCING

.1 All fencing shall meet the requirements set out in the Development Agreement for the subdivision.

.2 Lands designated as Municipal Reserve shall be separated from private property by permanent fencing. Fence must be built a minimum of 150 mm within private property.

.3 Fencing shall be a minimum 1.2 metres in height.

.4 Fencing adjacent to parkland that contains, or will contain, sports fields shall be a minimum 1.5 m height and prevent penetration of sports balls such as those used for soccer or baseball.

.5 Gates are required where private property backs onto open spaces and Municipal Reserve lands. Gates are to be a maximum of 1.0 metres in width and must swing open to private property. Gate design and location on lot to be reviewed by the City of Leduc.

### 3.2.3 TRAIL LINKAGES

Multiways are to connect various open spaces. These multiways shall be constructed by the Developer and included through Municipal Reserve and Municipal Open Space as per the provisions of the City of Leduc’s Parks, Open Space and Trails Master Plan in its latest edition.

### 3.2.4 FACILITIES

The following facilities shall be required in neighborhood parks with the location being approved by the City of Leduc:

- Playground equipment for 18 month to 5-year olds;
- Sledding Hill;
- Park Amenities; and
- Furniture.
Table 5 – Required and Recommended Recreation Facilities for Neighborhood & Community Parks

<table>
<thead>
<tr>
<th>Park Classification</th>
<th>Neighborhood Park</th>
<th>Community Park</th>
</tr>
</thead>
<tbody>
<tr>
<td>Park Size</td>
<td>Greater than 0.5 ha</td>
<td>Facility Dependent</td>
</tr>
<tr>
<td>Minimum Landscape Design Standards</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

### Facilities

<table>
<thead>
<tr>
<th>Facility</th>
<th>Neighborhood Park</th>
<th>Community Park</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multi-use Ball Diamond</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Senior Baseball</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Junior Soccer Field</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Senior Soccer/Football</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Rugby Field</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>400m Track &amp; Field</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Multi-use Field</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Tennis Courts</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Outdoor Rink</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Pre-school Age Playground</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>School Age Playground</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Sledding Hill</td>
<td>✓ (one per neighborhood)</td>
<td></td>
</tr>
<tr>
<td>Park Amenities &amp; Furniture</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Washrooms or Porta Potty’s</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Passive Area</td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>

✓ Required Facilities  ◇ Recommended Facilities

#### 3.2.4.1 Playgrounds

.1 A playground for children age 18 month to 5 years is required. Natural playgrounds are acceptable, and all playground designs will be reviewed by the City of Leduc. Seating area shall be provided and arranged accordingly for parental viewing.

.2 Playground design should consider year-round use and be durable, safe, comfortable and attractive in all seasons. All equipment shall comply with relevant CSA standards and supported by a letter of compliance (CSA Z614-07 including Annex H recommendations).

.3 Equipment shall be of excellent quality and be free of structural faults and defects.

.4 Installation shall be done by an approved Canadian Playground Safety Institute (CPSI) installer.

.5 Playground components shall include, as a minimum, a composite play structure and a two (2) bay swing set with two (2) belt seats and two (2) bucket seats. All swings shall be anti-wrap swings.

.6 Playground surfacing shall be CSA approved and only engineered wood fiber or poured-in-place rubber are acceptable. Engineered wood fiber surfacing permits universal access. Rubberized pellets and playground sand are not permitted.
.7 Playground edging may be concrete curbing with rounded edges, flat topped boulders or CCA treated wood. See the City of Leduc Minimum Engineering Design Standards for concrete mix specifications.

.8 A bench shall be provided for parental viewing.

.9 Playgrounds and seating areas shall be placed in locations to maximize sunlight and avoid shadows from nearby buildings and schools.

3.2.4.2 Sledding Hill

.1 A natural or manmade hill for sledding shall be provided. The hill shall be sodded on sledding side of hill and may be seeded with grass seed (to the discretion of the City of Leduc) on other sides of hill. A sledding hill must be safe for use by all ages.

.2 A level staging area shall be established at the top of the hill for participants to prepare for their ride.

.3 The average slope of the hill shall be no more than 1:3 slope for the length of the run.

.4 The orientation of the hill shall direct sledders away from any obstacles and roadways.

.5 A run-out area at the bottom of the hill shall be long enough to allow sledders to slow down to a safe and obstructed stop. The run-out area may be inclined to bring sledders to a stop.

.6 A walkway area off to the side of the sledding area shall be provided to allow participants to return to the top of the hill safely.

.7 A sign shall be placed near the staging area at the top of the hill with the following information (see standard detail provided):

- Danger – use hill at your own risk;
- Users assume full responsibility for determining if conditions are safe for sledding;
- No supervision is provided by the City;
- Use caution when sledding and be considerate to others;
- Sledding can be a hazardous activity and presents substantial risk; and
- Makeshift ramps and jumps are prohibited.

![Sledding Hill Cross Section](image-url)
3.2.4.4 Sports Fields
.
.1 All sports fields shall have a minimum 10m buffer from edge of sports fields and between sports fields.
.
.2 Drainage swales or any other obstruction are not to be within sports field buffers or between sports fields.

3.2.4.5 School Park Development
School Park sites are to be at a minimum topsoiled and sodded [or seeded at the discretion of the City of Leduc with suitable access controls (fencing) to ensure establishment] and the minimum required trees provided depending on the timing of the school site development in relation to the subdivision development timing.

3.2.5 PARK AMENITIES & FURNITURE
Furniture such as benches, picnic tables and waste receptacles shall be provided in all Municipal Reserve land as per Table 5.

3.2.6 TOPSOIL & TURF
.
.1 Area designated as Municipal Reserve must be graded, leveled, or contoured to drain freely, topsoiled and sodded (or seeded at the discretion of the City of Leduc see section 3.1.2).
.
.2 Sod used on sport fields shall have all netting removed prior to installing sod.

3.3 Requirements for Municipal Open Space
This section includes the requirements for all municipal open space including public utility lots (PUL), stormwater management facilities, and major utility corridors.

3.3.1 PUBLIC UTILITY LOTS (PUL’s) & WALKWAYS
.
.1 PUL’s or walkways shall not include trees. Shrubs may be approved if a minimum of 2m offset from edge of walk to the mature spread of the specified shrubs.
.
.2 PUL and walkway areas shall be graded, topsoiled and sodded at the discretion of the City of Leduc at drawing review.
.
.3 Furniture shall be provided by the Developer and placed at strategic locations within a walkway.
.
.4 Bollards shall be the T- or L- swing type as per standard detail included.
.
.5 Where a walkway is designated as an emergency access route, adequate clearance shall be provided for vehicular access.

3.3.2 STORMWATER MANAGEMENT FACILITIES (SWMF)
.
.1 Constructed wetlands, dry ponds, wet ponds and areas surrounding new stormwater management facilities must be graded, topsoiled, and seeded and trees installed at a rate of 75 trees per hectare by the Developer to the satisfaction of the City of Leduc. The area below the Normal Water Line (NWL) shall not be included in the hectare measurement.
.
.2 The minimum setbacks for tree planting shall be as outlined in Tables 3 and 6.
.3 In dry ponds, the area for the tree planting requirement shall be calculated above the 1 in 5 year water level.

.4 Plant material appropriate to withstand flooding conditions, shall be located below the 1 in 5 flood line. Species planted below the 1 in 5 year flood level shall be approved by the City of Leduc.

.5 Shrubs shall be massed within large mulched planting beds above the 1 in 5 year flood level to create major focal areas on the slopes of the pond. It is suggested that trees be positioned within mulched planting beds. When used boulders shall be located within mulched areas.

.6 Wood chip mulch shall not be used in planting beds below the 1 in 25 flood line. Biodegradable erosion blankets or rock mulch are permitted.

.7 Above the 1 in 25 year flood level, all planting beds are to have a minimum depth of 100 mm deciduous wood chip mulch or approved alternate.

.8 All planting below the 1 in 25 year water line shall be naturalized.

.9 These areas shall be weed and erosion free at CCC and FAC inspections and for the duration of the maintenance period;

.10 A siltation barrier shall be installed around the periphery of the water area and any eroded material is to be removed and/or relocated to its original position on a monthly basis between CCC and FAC;

.11 Fast growing shrubs and trees shall be planted to aid in erosion control.

.12 Major storm sewer outlets and inlets should be landscaped with plants and large rocks to provide visual screening.

.13 All naturalized shrub beds shall include appropriate mulch or groundcover as approved by the City of Leduc.

.14 Live soils sourced from local source to be installed 1m above and 1m below normal water level.

.15 It should be noted that the City of Leduc is located in close proximity to the Edmonton International Airport, and as such, is subject to restrictions on stormwater pond design as outlined in the Edmonton International Airport Vicinity Protection Area Regulation, and other Transport Canada and NAV CANADA policies and regulations. Many of these policies and regulations are intended to reduce bird attractants near airports. To follow these policies and regulations reducing vegetation habitat complexity and diversity within and near the pond is required.

In areas of the City where aviation restrictions related to the airport do not apply (for example, the far western and south western portion of the City), consideration should be given to replacing traditional retention ponds with a naturalized or constructed wetland. General considerations for design standards include (but are not limited to the following):

- The shoreline and slopes of naturalized stormwater facilities should vary in consistency, size, and configuration to create distinct habitat zones that reflect the potential frequency of flooding.

- Habitat zones within the facility should include the following:
  
  a. Deep marsh: these areas should have standing water depths that range between 15 and 90 cm (Shaw and Fredine 1971). Common vegetation in this zone includes herbaceous emergent, floating, floating-leaved, and submersgent vegetation, with the major dominance by cattails and bulrushes.

  b. Shallow marsh: this habitat zone should have soils that are saturated or inundated by standing water, with water depths ranging between 5 and 15 cm (Shaw and Fredine
1971). Herbaceous emergent vegetation, such as bulrushes and sedges, and floating vegetation are common in this vegetation zone.

c. Wet meadow: this zone is permanently saturated and seasonally flooded, with water depths ranging between 0 and 5 cm. Common vegetation in this zone includes sedges and water-loving grasses and forbs.

d. Riparian zone: the shores adjacent to the naturalised facility should include vegetation such as shrubs (e.g. willows), that can function to filter nutrients and sediments from surface water runoff.

- Vegetation should be interspersed throughout the facility to improve water quality, create habitat for insects and amphibians, and discourage use by species such as Canada goose. This can be achieved through placement of floating islands, or through the creation of vegetation benches that are placed at the appropriate height to encourage establishment of deep marsh emergent vegetation.

.16 Vegetated floating islands may be incorporated in storm water management facilities. Floating islands are to be anchored in place in a location that is approved by the City of Leduc. Special formulated planting mixes designed specifically to floating islands are to be used. The size and quantity of floating islands are subject to the discretion of the City. Floating islands must be vegetated and only low maintenance, non-invasive and hardy vegetation will be accepted for floating islands.

.17 One aerator/fountain shall be installed at each residential neighbourhood storm water management facility (SWMF). The aerator/fountain is to be installed and functional for CCC approval. After CCC the City will take over maintenance and operation of the aerator/fountain and FAC will not be required. All aerator/fountains are to be as follows (or approved equal):

| Supplier: Otterbine Barebo, Inc. | Model #: Tri-Star |
| Horsepower: 3 | Voltage: 208-230 |
| Phase: Single | Hertz: 60 |
| Cord Gauge & Length: 10/3 300' | Unit Serial #: D3-0714-10498 |
| PCC Serial #: PSW3-0714-10443 |

3.3.3 MAJOR UTILITY CORRIDORS

.1 These guidelines shall provide for some limited development without compromising the safety and/or integrity of high-pressure natural gas facilities or power utilities.

.2 The Landscape Architect shall contact the appropriate utility authority regarding acceptable tree species, sizes and locations on utility ROWs.

.3 The Landscape Architect shall submit landscape drawings to the utility companies for approval for all development on ROWs.

.4 In the event that the Utility Authority will not allow landscaping in the ROW, the requirement for all or a portion of the landscaping will be waived.

.5 The Landscape Architect shall provide to the City of Leduc written confirmation from the Utility Authority when landscaping in utility corridors is not approved.

.6 The Landscape Architect shall contact the Utility Authority to review designs and achieve permission in the form of a Crossing Agreement. The Crossing Agreement is to be submitted with any landscape plans submitted to the City for review.
Utility corridors where landscaping is permitted shall be planted with a minimum of 75 trees per hectare designed and massed into major groupings in mulched tree beds. Minimum deciduous tree caliper shall be 60 mm. Minimum coniferous tree height shall be 2.5 m.

All tree planting shall adhere to the required setbacks outlined in Tables 3 and 6 and those that are required by the utility companies.

Shrubs shall be massed within planting beds.

Naturalized planting shall be approved by the City of Leduc as an alternative to manicured landscapes in utility corridors.

Developments within high pressure natural gas ROWs shall be approved by the appropriate utility authority. Issues affecting the scope of landscape areas in these locations include:

- Restricted grade modifications over the pipeline;
- Walkway alignment along the ROW may not be located over the pipeline;
- Planting may be permitted in the ROW; however, location and species may be restricted.

Existing developments along utility ROWs that do not comply with these standards shall remain until redevelopment occurs.

3.3.4 **TOPSOIL & TURF**

Topsoil shall be graded and levelled as required for all open space sites and then sodded (or seeded at the discretion of the City of Leduc with a grass seed appropriate for the landscape type see section 3.1.2).

3.3.5 **FENCING**

- Uniform fencing shall be provided adjacent to a PUL, Walkway, or Major Utility Corridor and must be a minimum of 1.5 metres in height.
- 1.2 metres high uniform fence shall be provided between a SWMF and private residential property.
- All noise attenuation fencing required as stated in the Development Agreement shall be reviewed and inspected by the City of Leduc Engineering Department. See City of Leduc Minimum Engineering Standards for construction requirements and details of noise attenuation fencing.
- Gates are required where private property backs onto Municipal Open Space lands. Gates are to be a maximum of 1.0 metres in width and must swing open to private property. Gate design and location on lot to be reviewed by the City of Leduc.
- Fence shall be built a minimum of 150 mm within private property.

3.3.6 **TRAIL LINKAGES**

Municipal Open Space provides corridors for multiways. Linkages to these multiways are the responsibility of the Developer and shall be developed to the multiway standards and as per the provisions of the City of Leduc’s Parks, Open Space and Trails Master Plan in its latest edition.
3.4 Requirements for Roadways

This section includes the requirements for landscape and fencing of boulevards, medians, and road islands for Arterial, Collector, and Local Roadways.

3.4.1 PLANTING - GENERAL

.1 Trees shall be provided to enhance the urban forest environment. Trees are to be located as per recommended spacing and required setbacks (measured from centre of the tree trunk) along all road ROW boulevards as described in Tables 3 and 6.

Table 6 - Required Setbacks from Roads, Sidewalks & Multiways

<table>
<thead>
<tr>
<th>Type of Roadway or Walkway</th>
<th>Minimum Setback Distance in Metres*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arterial Roadways</td>
<td></td>
</tr>
<tr>
<td>Median Curb face</td>
<td>2.0 m</td>
</tr>
<tr>
<td>with 1.5m sidewalk</td>
<td>2.5 m</td>
</tr>
<tr>
<td>with multiway</td>
<td>2.0 m</td>
</tr>
<tr>
<td>Collector Roadways</td>
<td></td>
</tr>
<tr>
<td>Median Curb face</td>
<td>2.0 m</td>
</tr>
<tr>
<td>Boulevard curb face with Multiway</td>
<td>1.7 m</td>
</tr>
<tr>
<td>Boulevard Curb face</td>
<td>1.9 m</td>
</tr>
<tr>
<td>Local Roadways</td>
<td></td>
</tr>
<tr>
<td>Median Curb face</td>
<td>2.0 m</td>
</tr>
<tr>
<td>Boulevard Curb face</td>
<td>1.2 m</td>
</tr>
<tr>
<td>Driveways</td>
<td>1.5 m</td>
</tr>
<tr>
<td>Multiways</td>
<td>2.0 m</td>
</tr>
<tr>
<td>Sidewalks</td>
<td>1.0 m</td>
</tr>
</tbody>
</table>

*Any proposed distances less than this are at the discretion of the City of Leduc.

.2 Acceptable tree species and recommended spacing is outlined in Table 4. These trees have been selected for their high canopy and low maintenance qualities.

.3 Special consideration shall be given to the suitability of a species (including size, growth habit, hardiness, and maintenance requirements) for boulevard and median plantings.

.4 Alternative tree and shrub species for roadway planting shall be considered and are subject to approval by the City of Leduc.

.5 When lots back onto an existing roadway the area between the back of walk and the back of lot fence shall be graded, topsoiled and sodded.

.6 Traffic and pedestrian site lines in road ROW’s must be respected as per the guidelines set out in the Transportation Association of Canada Manual.

.7 Tree trenching is encouraged in boulevards and medians. Continuous trenching is to follow Detail 1.4 Typical Tree Root Trench to encourage improved growth and survivability.
All tree planting shall be a minimum 60 mm caliper for deciduous and 2.5 m height for coniferous unless approved by the City of Leduc. A tree mix of deciduous and coniferous is generally desired.

All boulevards, road islands, medians and entry feature designs must be low maintenance. Designs shall include, where appropriate, trees, shrubs, groundcovers, mulch and/or sod to the satisfaction of the City of Leduc.

The required cross slope shall not be less than 2% from center of island to curb.

A minimum depth of 200 mm topsoil and sod is required for all boulevard landscaping between uniform fence along a flankage lot and the sidewalk, and between curb and sidewalk.

### 3.4.2 FENCING (ADJACENT TO ROADWAYS)

- All fencing shall meet the requirements set out in the Development Agreement for the subdivision.
- Noise attenuation fencing shall be included as required by Development Agreement for the subdivision along arterial or other major roads. All noise attenuation fencing will be reviewed and inspected by the City of Leduc Engineering Department. See Engineering Design Standards for construction requirements and details of noise attenuation fencing.
- Uniform fencing shall be constructed between private and public property along back of lots and flankages of residential lots when adjacent to collector roads.
- Step-down uniform fence, or approved alternative, shall be provided for all residential side yards, abutting collector and arterial roads.
- Fencing is not required between private property and local roads.

### 3.4.3 ARTERIAL ROADS

- The design intention of this standard is to provide shading and low sun blocking for roadways and sidewalks for the purpose of screening between the arterial roadway and adjacent properties. The standard does not dictate that there must be rows of trees or shrubs, only an equivalent amount of plant material. Designs unique to each roadway are encouraged.
- Arterial rights-of-way shall be graded, topsoiled and sodded and landscaped to the satisfaction of the City of Leduc. Seed may be acceptable at the discretion of the City of Leduc at drawing review.
- There shall be the equivalent of a row of trees in the boulevards and medians at the recommended spacing noted in Table 4. Where appropriate, boulevards and medians shall be designed to include continuous large planting beds with trees, shrubs and groundcovers.
- Planting requirements on arterial roadways adjoining natural areas shall be reviewed on an individual basis and a relaxing of the planting standard for areas behind sidewalks would be considered.
- Naturalization design of arterial boulevards shall be considered in appropriate locations.

### 3.4.4 COLLECTOR ROADS

- Planting beds are encouraged along collector boulevards and medians, however, shrubs must be low growing, with a maximum 500 mm mature height.
.2 Boulevards shall be graded, topsoiled and sodded between the back of curb and the sidewalk or fence by the Developer to the satisfaction of the City of Leduc. The minimum cross-fall for boulevards is 2%.

.3 Shrubs and trees may be planted between back of lot or flankage fencing and the sidewalk if approved by the City of Leduc.

.4 Trees shall be planted on collector roads at a spacing recommended in Table 4.

3.4.5 LOCAL ROADS

.1 The City requires the equivalent of 1 street tree per lot for local roads. If the tree cannot be accommodated within the area between the front property line and the curb, the developer must commit to an equivalent tree being planted in the front 5m of the lot. Any landscaping included on local roads shall be reviewed by the City of Leduc.

.2 Boulevards shall be graded, topsoiled and sodded where separate sidewalk is provided by the Developer, to the satisfaction of the City of Leduc. The minimum cross-fall for boulevards is 2%.

.3 Flankage boulevards shall be graded, topsoiled and sodded between the property line and the back of curb.

.4 Where local roads can accommodate at least two or more trees in a row, trees shall be planted at a spacing recommended in Table 4.

3.4.6 ROAD ISLAND, MEDIAN & ENTRY FEATURES

.1 Medians shall be 4.0 m or wider for tree planting. Shrub planting is not acceptable in narrow medians.

.2 Turf areas within road islands and medians shall be allowed only at the discretion of the City of Leduc.

.3 All paving stone and paving stone headers, concrete or other special hard surfaces shall be to the satisfaction of the City of Leduc.

.4 Cross-section details of road islands and medians are to be drawn at an appropriate scale showing all underground utilities within 3.0 m of planting root zones. Cross-sections shall illustrate a suitable rooting zone for proposed planting, indicating the width, soil depth, mulch and plant form (tree or shrub).

.5 Planting cross-sections and planting plan details shall be cross-referenced to engineering and landscape plans.

.6 The required cross slope shall not be less than 2% from centre of island/median to curb.

.7 On existing arterial roadways this planting standard shall be applied when the arterial is substantially upgraded. Allowance shall be made to avoid conflicts with existing utilities.

.8 When roadway construction is staged, trees and shrubs are required only on the portion being developed.
### 4.0 SUBMISSION REQUIREMENTS, DESIGN APPROVAL PROCESS & CONSTRUCTION INSPECTION

#### 4.1 Drawing Submission Requirements

Plans for the landscaping of all public lands as outlined in Section 2.0 must be submitted to the City of Leduc for review. All landscape plans shall comply with this and all relevant City of Leduc planning and policy documents.

<table>
<thead>
<tr>
<th>Design Approval Process</th>
<th>Construction</th>
<th>Construction Approval Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Submit three (3) sets of landscape plans for review.</td>
<td>1. Coordinate all utility locates including Alberta First Call and other appropriate authorities.</td>
<td>Construction Completion Certificate (CCC)</td>
</tr>
<tr>
<td>2. City of Leduc will circulate the plans internally and inform the developer of any comments.</td>
<td>2. Ensure that contractors review and approve all below grade utilities flagged before construction commences.</td>
<td>1. Submit written request for inspection when works are complete.</td>
</tr>
<tr>
<td>3. Resubmit the landscape plans if required by the City of Leduc.</td>
<td>3. Protect exiting landscape area including sod, tree and shrub planning as per section 3.1.1.</td>
<td>2. Inspections are done between June 1 and October 15.</td>
</tr>
</tbody>
</table>

**Construction**

1. Approve rough grading, topsoil spreading, new seeding and sodding, new tree locations.
2. Approve plant material prior to installation.
3. Coordinate review of topsoil and recommend amendments as needed.
4. Direct the review and inspection of all construction and installation while in progress.
5. Ensure that works reflect approved design. If changes are necessary, contact the City of Leduc.

**Construction Approval Process**

1. Submit written request for inspection when works are complete.
2. Inspections are done between June 1 and October 15.
3. Plan of record drawings must be submitted as per section 4.1.4 six (6) months prior to FAC inspection.

#### 4.1.1 DESIGN APPROVAL PROCESS

1. The design approval process includes the following procedures:
   - The Landscape Architect must stamp and submit three (3) sets of landscape plans for review by the City of Leduc;
   - The City of Leduc will circulate the plans internally and inform the Landscape Architect of any required drawing revisions, comments, or clarification;
   - The Landscape Architect shall resubmit the landscape plans, if required, to the City of Leduc for approval.
2. The City shall endeavor to review the plans and specifications promptly. However, the Developer shall schedule their submission of plans and specifications such as to allow the City not less than three (3) weeks for review of the documents.

4.1.2 LANDSCAPE DRAWING REQUIREMENTS

.1 Planting plans shall be drawn to a scale of 1:500, or larger if necessary. Location and fencing plans may be drawn at a smaller scale. Detail drawings should be drawn at an adequate scale to clearly explain design intent.

.2 The landscape drawing set shall include key/context plans, grading plans, demolition plans, existing conditions, planting plans and construction detail drawings.

.3 The landscape plans shall include the following information:

- Developer's Name;
- Subdivision/neighborhood name;
- Project name;
- Project stage or phase;
- North arrow, drawing scale, date of drawing submission;
- Lot, block and plan numbers;
- All applicable property lines;
- Adjoining street names;
- Limit of construction;
- Legend;
- Existing vegetation, fencing, structures, and features; all to be labelled and shown to represent approximate extent or canopy size;
- Proposed landscape planting, fencing, furniture, pathways, structures, and features;
- all to be labelled and shown at mature size;
- All Environmental Reserves, Municipal Reserves, Conservation Easements, existing vegetation and other natural features to remain and/or be removed, as applicable;
- Areas of Municipal Reserves and SWMF in table format;
- Alignments and locations of all utilities and associated furniture including, but not limited to, power, storm, sanitary, water, gas and telecommunications;
- Rights-of-ways, pipeline crossing agreement numbers and easements;
- Location of all street lighting and fire hydrants;
- Location of all proposed driveways;
- Alignments of immediately adjacent existing and proposed streets, walks, roads and ditches;
- The Landscape Architect's stamp, signed and dated. The Landscape Architect must be registered in the Province of Alberta;
Other professional stamps as required, and signed, sealed and dated (i.e. architectural, electrical, mechanical, structural).

.4 Planting plans shall include:

- Botanical and common name of all proposed plants;
- Total quantity of each plant;
- Notes including root ball size and type (e.g. b & b, bare root, potted), tree branching heights for boulevard trees, special conditions, or unique installation criteria;
- Height and/or spread of each plant at time of installation;
- Minimum caliper size of each plant at time of installation;
- Minimum plant spacing for each plant;
- Proposed seed mix and sod specifications.

.5 Grading Plans shall show proposed finished contours or spot elevations, top and toe of berm elevations, swales, corners and center of sports fields, corners of retained play areas and ditches as required.

.6 Key or context plans shall outline the phasing or staging and all street names in the immediate context.

.7 Construction details of all proposed planting, hard surfaces, fencing, structures, furniture and other features shall be included where necessary. Architectural, structural, mechanical and/or electrical plans must be included as required. Testing of asphalt and concrete will be required. Consult the City of Leduc Engineering Standards for guidelines and requirements.

.8 All relevant plans are to be submitted to all utility companies, and high- and intermediate-pressure gas line providers for their review. The City of Leduc requires one copy of any relevant utility crossing/ground disturbance agreements or other legal instrument as may be deemed appropriate. Where the Consultant’s work includes landscape construction within railway, pipeline crossing or other major utility corridors, the landscape plans shall be submitted in accordance with these standards with final approval being subject to the approval of the utility or authority as evidenced by signed approved drawings. One copy of the Crossing Agreement must be submitted to the City prior to commencement of construction of the landscape improvements.

4.1.3 REDLINE DRAWINGS

1. Where a modification to the information on the landscape drawings is required, redline drawings must be submitted to the City of Leduc for review. Redline drawings shall be completed by the Developer’s Landscape Architect showing any and all changes made to the approved design drawings before construction begins. Once the redline drawings are approved, they become the drawing set used for the landscape construction and construction inspection approvals at CCC and FAC.

4.1.4 PLAN OF RECORD DRAWINGS

1. Plan of record drawings are those that record all built conditions of the site once construction has been completed. Included shall be the actual location, length, size, capacity, materials, gradient and year of construction of the municipal improvement constructed within the subdivision area.

2. Plan of record drawing submissions shall be in digital format and include an unlocked AutoCAD file and a PDF drawing at full drawing size. These files shall be submitted on a compact disc to the City of Leduc approximately 6 months prior to FAC inspection.
4.2 Construction Procedures

.1 The Developer’s Landscape Architect shall ensure that the contractors(s) shall adhere to the following procedures through the construction process:

- Ensure that utility locates are performed prior to any construction, including Alberta First Call and other appropriate authorities;
- Review and approve all below grade utilities flagged before construction commences;
- Protect existing landscaped areas including natural areas, sod, tree and shrub planting;
- Approve rough grading, topsoil spreading, new seeding and sodding, new tree locations;
- Approve plant material prior to installation;
- Coordinate review of topsoil and recommend amendments as needed;
- Direct the review and inspection of all construction and installation while in progress.

.2 The failure of construction to comply with approved plans and specifications will be considered sufficient cause to stop work or invoke the security clauses of the Development Agreement. Construction deficiencies shall be rectified to meet the approved plans and specifications, at the Developer’s expense.

.3 The Developer’s Landscape Architect shall submit a request to the City in writing for plant material substitutions. If approved, the Developer’s Landscape Architect shall identify the approved changes on the Redline or Plan of Record drawing, as appropriate.

.4 The Developer’s Landscape Architect shall submit to the City a request in writing for permission to use collected plant material.

.5 Every precaution shall be taken to not damage, injure or mark existing structures or landscaping on city owned property. Should the Developer, his consultants, employees or equipment incur any damage, it shall be restored at the developer’s expense and to the satisfaction of the City of Leduc. If remediation work is not done by the developer, the work will be completed by the appropriate city department or delegate at the Developer’s expense.

.6 The Developer shall ensure that adjacent property is protected from dust, sand, and wet soil during construction. It is the Developer’s responsibility to ensure all debris is removed from adjacent lands, and construction damage is repaired to its original condition.

.7 Landscaped areas must be kept free from weeds between construction commencement and issuance of FAC. Failure to do so will result in control action by the City, and all costs shall be borne by the Developer/Contractor.

4.3 Landscape Construction Approval Processes

4.3.1 CONSTRUCTION COMPLETION CERTIFICATE (CCC)

.1 When landscape construction work is satisfactorily complete, the Developer’s Landscape Architect shall submit a written request for a CCC inspection of the works. The request shall include three (3) copies of the City of Leduc CCC form completed with the required project information, and two (2) copies of the approved or redline drawing at an 11” x 17” size.
.2 CCCs are to be attained for the following improvements (and any others listed in the subdivision conditions):

- CCC Turf and Planting for Boulevards;
- CCC Turf and Planting for MR, ER, SWMF, Arterial Road;
- CCC Park Amenities and Playground Equipment;
- CCC Fence.

.3 In preparation for acceptance of the development by the City, a Construction Completion Certificate (CCC) shall be issued subject to the following conditions and procedures:

a. The Developer’s Landscape Architect, Contractor(s), and City Representatives shall attend the CCC inspections. Attendees shall be requested to sign the CCC form to show agreement with any noted deficiencies.

b. Following the CCC inspection, the City will forward a copy of the inspection report listing all deficiencies to the Landscape Architect or delegate, and the Contractor.

c. All deficiencies identified during the CCC inspection shall be repaired or corrected within 15 business days of the inspection. Upon the correction of all listed deficiencies, the Landscape Architect or delegate will request a re-inspection. If all deficiencies are corrected, the City of Leduc will approve the CCC. If deficiencies are not corrected by the agreed date, the Developer’s Landscape Architect must request a new CCC inspection. The maintenance period will commence from the CCC approval date.

d. The Developer shall maintain all work before the CCC and during the maintenance period after the CCC approval date.

.4 CCC inspections may be requested between June 1st and October 15th, weather permitting, at the discretion of the City of Leduc.

.5 The Developer will maintain residential boulevards for which a CCC is required until FAC is obtained, unless stated otherwise in the Development Agreement.

.6 80% germination is required at the time of CCC inspection for seeded areas that will be mown.

### 4.3.2 FINAL ACCEPTANCE CERTIFICATE (FAC)

.1 After the required maintenance period has come to an end, the Developer’s Landscape Architect shall submit a written request for a FAC inspection. The request shall include three (3) copies of the City of Leduc FAC form completed with the required project information, 1 copy of the approved CCC, and two (2) copies of the approved or plan of record landscape drawings at an 11” x 17” size.

.2 FACs are to be attained for the following improvements (and any others listed in the subdivision conditions):

- FAC Turf and Planting for Boulevards;
- FAC Turf and Planting for MR, ER, SWMF Arterial Road;
- FAC Park Amenities and Playground Equipment.

.3 Plan of record drawings shall be submitted on a compact disc to the City of Leduc approximately 6 months prior to FAC inspection, and shall include an unlocked AutoCAD file and a PDF drawing at full drawing size.
.4 In preparation for acceptance of the development by the City, an FAC shall be issued subject to the following conditions and procedures:

a. The Developer’s Landscape Architect, Contractor(s), and City Representatives shall attend the FAC inspection. Attendees shall be requested to sign the FAC form to show agreement with any written deficiencies.

b. Following the FAC inspection, the City will forward a copy of the inspection report listing all deficiencies to the Landscape Architect or delegate.

c. All deficiencies identified during the FAC inspection shall be repaired or corrected within 15 business days of the inspection. Upon correction of all listed deficiencies the Landscape Architect or delegate will request a re-inspection. If all deficiencies are corrected, the City of Leduc will approve the FAC. If deficiencies are not corrected by agreed date, the Developer’s Landscape Architect’s must request a new FAC inspection. The maintenance period expires upon FAC approval.

.5 FAC inspections may be requested between June 1st and September 15th, weather permitting, at the discretion of the City of Leduc. The exceptions are fencing (excluding noise attenuation fence) and site amenities which can be inspected year round, provided snow cover, temperature, etc. does not prevent the ability to perform a thorough inspection.

.6 If tree and shrub replacement are required at FAC, a maximum of 25% of the plant material can be replaced during the deficiency correction period. Quantities exceeding 25% of replaced plant material will result in an FAC rejection. The application can be submitted for inspection the following growing season. This ensures the plant material has grown over a winter season.

4.3.3 MAINTENANCE PERIOD

The maintenance period on all landscape works is two years from the date of CCC approval until FAC approval. During this maintenance period, the Developer is responsible for maintaining all plant material, turf, site amenities, and repairing any damage to these items.
## 5.0 SPECIFICATIONS

<table>
<thead>
<tr>
<th>Specification No.</th>
<th>Specification Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>32 31 00</td>
<td>Fences</td>
</tr>
<tr>
<td>32 92 00</td>
<td>Turf and Grasses</td>
</tr>
<tr>
<td>32 93 00</td>
<td>Trees, Shrubs and Groundcovers</td>
</tr>
<tr>
<td>32 91 00</td>
<td>Topsoil and Subgrade Preparation</td>
</tr>
<tr>
<td>32 91 13</td>
<td>Mulches</td>
</tr>
</tbody>
</table>
1. GENERAL

1.1 SCOPE
Supply and installation of chain link and wood screen fencing.

1.2 RELATED SECTIONS
City of Leduc Schedule 'E1' – Part 1: Minimum Engineering Design Standards, 4.0 Concrete Work.

1.3 EXAMINATION
1.3.1 Report to the City of Leduc, in writing, any conditions or defects encountered on the site before or during any construction upon which the work of this section depends and which may adversely affect its performance.

1.3.2 Do not commence work until those conditions or defects have been investigated and corrected.

1.3.3 Commencement of work shall imply acceptance of existing surfaces and conditions and no claims for damages or extras resulting from such conditions or defects will be accepted later, except in cases where such conditions could not have been known prior to commencing work.

1.4 QUALIFICATIONS
1.4.1 All work shall be done by experienced, qualified personnel, under the direction and supervision of a foreman with at least 5 years of experience.

1.5 PRODUCT DELIVERY, HANDLING AND STORAGE
1.5.1 Prior to the commencement of installation all materials may be inspected and approved on site at the discretion of the City of Leduc. Any rejected fence components will be noted on a site instruction form and presented to the contractor for follow-up.

1.5.2 Give timely notice, in writing, to the Developer’s Landscape Architect when materials are available for inspection.

1.5.3 Remove all rejected materials from site immediately.

2. PRODUCTS

2.1 CHAIN LINK
2.1.1 Pipe material shall be hot-dipped, zinc-coated, butt-welded, Schedule 40 seamless steel pipe fabricated in conformance with ASTM A120, and zinc coating shall be not less than 0.61 kg per square metre of total surface area.
2.1.2 Line posts shall support fencing in wet areas and shall be a minimum of 3,600 mm in length and capped with galvanized steel or aluminum caps.

2.1.3 Posts and rails: hot-dip galvanized welded steel pipe, standard weight (schedule 40, ASTM A120), zinc-coated at minimum 550 g/m² and with the following minimum dimensions:

<table>
<thead>
<tr>
<th>Fabric Height (Metres)</th>
<th>1.2</th>
<th>1.5</th>
<th>1.8</th>
<th>2.1</th>
<th>2.4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line post outside diameter (mm)</td>
<td>48.3</td>
<td>48.3</td>
<td>60.3</td>
<td>60.3</td>
<td>60.3</td>
</tr>
<tr>
<td>Length (metres)</td>
<td>2.0</td>
<td>2.3</td>
<td>2.6</td>
<td>2.9</td>
<td>3.2</td>
</tr>
<tr>
<td>Terminal post (end, gate, corner, straining) (mm)</td>
<td>73.0</td>
<td>73.0</td>
<td>88.9</td>
<td>88.9</td>
<td>88.9</td>
</tr>
<tr>
<td>Length (metres)</td>
<td>2.3</td>
<td>2.6</td>
<td>2.9</td>
<td>3.2</td>
<td>3.5</td>
</tr>
<tr>
<td>Rail and brace outside diameter (mm)</td>
<td>-</td>
<td>-</td>
<td>42.2</td>
<td>42.2</td>
<td>42.2</td>
</tr>
</tbody>
</table>

2.1.4 Fittings shall conform to the ASTM F626 as follows:

<table>
<thead>
<tr>
<th></th>
<th>Minimum Dimension (mm)</th>
<th>Min Zinc Coating g/m²</th>
<th>Fabricated from:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post cap and rail end</td>
<td>varies</td>
<td>366</td>
<td>Pressed steel or cast iron</td>
</tr>
<tr>
<td>Top rail sleeve</td>
<td>2.0 thick x 175 long</td>
<td>366</td>
<td>Round steel tubing</td>
</tr>
<tr>
<td>Tie wire and clip</td>
<td>3.5 diameter</td>
<td>122</td>
<td>Round steel tubing</td>
</tr>
<tr>
<td></td>
<td>(9 gauge aluminum)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tension and brace bands</td>
<td>2.0 thick x 19.0 wide</td>
<td>366</td>
<td>Pressed steel</td>
</tr>
<tr>
<td>Tension bar</td>
<td>2.0 thick x 16.0 wide</td>
<td>366</td>
<td>Steel strip</td>
</tr>
<tr>
<td>Turnbuckle</td>
<td>varies</td>
<td>366</td>
<td>Steel</td>
</tr>
<tr>
<td>Barb arm</td>
<td>2.0 tick (14 – gauge)</td>
<td>366</td>
<td>Pressed steel</td>
</tr>
</tbody>
</table>

2.1.5 Wire shall be not less than 4.8 mm diameter, single strand, electro-galvanized wire that will withstand at least 6 dips in conformance with ASTM A239. Wire shall have an ultimate tensile strength at least equal to that specified for wire for chain link fabric, and shall have a corrosion protection system equal to that specified for fabric.

2.1.6 Fabric shall be Type I steel fabric, mesh size 50mm, medium style; class A zinc-coated, grade 1 at minimum 490 g/m².

2.1.7 Nominal wire diameter of fabric shall be 3.5mm (9-gauge).

2.1.8 Fabric selvage shall have twisted top and knuckled bottom.

2.1.9 Fabric height: 1.2, 1.5, 1.8, 2.1 or 2.4 m as specified.

2.2 WOOD SCREEN FENCE

2.2.1 Pressure treated timber and lumber shall be #1 construction grade.

2.2.2 Spruce, Western Pine, Cedar, or Douglas Fir, dressed and conforming to C.S.A. standards.
2.2.3 Posts shall be:
- Graded by an agency certified by the Canadian Lumber Standards Administration Board and marked with a recognized and visible grade stamp;
- Graded in accordance with National Lumber Grades Authority for Canadian Lumber and CSA 0141-1970;
- Minimum cross-sectional dimension to be 150 mm x 100 mm;
- Pressure treated and stained, prior to installation of stringers or fence boards, and may be touched up after construction where stain has been removed;
- Free of knots, bark and contain no cracks more than 50% of the depth or exceed 25% of width of posts.

2.2.4 Stringers, fascia and boards shall be:
- Graded by an agency certified by the Canadian Lumber Standards Administration Board and marked with a recognized and visible grade stamp;
- Graded in accordance with National Lumber Grades Authority for Canadian Lumber and CSA 0141-1970;
- Free of loose knots, bark and have straight edges. Re-sawn lumber will not be accepted;
- Pre-stained with two coats of stain and maybe touched up after construction where stain has been removed.

2.3 CONCRETE

2.3.1 Concrete for piles to conform to City of Leduc Schedule ‘E1’ – Part 1. Minimum Engineering Design Standards, 4.0 Concrete Work with the following modified criteria:
- Minimum compressive strength: 20.0 MPa at 28 days;
- Maximum aggregate size: 25mm.

2.3.2 As a minimum, footing and post depth shall be sufficient to reach undisturbed material.

2.4 FASTENERS

2.4.1 Nails, spikes, bolts and lag screws to be hot dipped galvanized in accordance with C.S.A.

3. EXECUTION

3.1 GRADING

3.1.1 The fence contractor shall do minor levelling of the ground where necessary.

3.1.2 Remove debris and correct ground undulations along fence line to obtain smooth uniform gradient between posts. Provide clearance between bottom of fence and ground surface as per relevant detail.
3.2  **ERECTION OF FENCE**

3.2.1 Stake out fence lines and locations of end and corner posts. Pay attention to grades as marked on site.

3.2.2 All fencing shall be parallel with the property line and located inside private property where the outermost portion of the fence post is 150 mm from property line.

3.2.3 All fences shall be a minimum of 1.2 m high with posts set into concrete. The exception is stepdown fencing with a minimum height of 1.0 metres.

3.3  **CHAIN LINK FENCE CONSTRUCTION**

3.3.1 Chain link fence construction shall be executed as per Detail 2.3.

3.3.2 Place concrete in post hole and embed post to a minimum depth below ground of 900 mm. Extend concrete 50 mm above ground level and crown to drain away from post. Brace post in plumb position and true to alignment and elevation until the concrete has set. Let concrete footing cure for a minimum 5 days before proceeding with further work.

3.3.3 Spaces between line posts shall be uniform and shall not exceed 3.0 metres measured parallel to ground surface.

3.3.4 Set corner post where change in alignment exceeds 20°.

3.3.5 Dig or drill post holes to the following minimum diameters and depths that will allow at least 150 mm of footing below bottom of post:

<table>
<thead>
<tr>
<th>Fabric height (metres)</th>
<th>1.2</th>
<th>1.5</th>
<th>1.8</th>
<th>2.1</th>
<th>2.4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line post hole diameter (mm)</td>
<td>200</td>
<td>200</td>
<td>250</td>
<td>250</td>
<td>250</td>
</tr>
<tr>
<td>Depth (mm)</td>
<td>900</td>
<td>900</td>
<td>900</td>
<td>900</td>
<td>900</td>
</tr>
<tr>
<td>Terminal post hole diameter (mm)</td>
<td>300</td>
<td>300</td>
<td>360</td>
<td>360</td>
<td>360</td>
</tr>
<tr>
<td>Depth (mm)</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
</tbody>
</table>

3.3.6 Set end post at termination of fence.

3.3.7 Where end or corner posts are more than 150 m apart over reasonably smooth grade, set strainingy posts at equal intervals not exceeding 150 m on a straight continuous stretch of fence. Set additional straining posts at sharp changes in grade.

3.3.8 In poor soil conditions, set post into concrete footing of such diameter and depth as will provide adequate stability to the fence, subject to acceptance by the City of Leduc.

3.3.9 Support top rail at each line post with a line post cap so that a continuous brace is formed between terminal posts. Join rails with sleeves to allow for expansion and contraction.

3.3.10 Securely fasten top rail to terminal posts using rail ends and brace bands.

3.3.11 Fabric shall be suitably tensioned and attached to terminal posts using tension bars and bands.

3.3.12 Tension bars shall be threaded through fabric mesh and shall be connected to terminal posts by means of tension bands spaced not more than 375 mm apart.
3.3.13 Fabric shall be placed facing public property.

3.3.14 Fabric shall be fastened with tie wire to line posts at approximately 300 mm o/c, and to top rails, braces, and tension wire at approximately 450 mm o/c. Give tie wires a minimum of 2 twists. Tie wires are to be folded inwards to prevent injury.

3.3.15 Installed fabric shall have a smooth uniform appearance free of sag, dent and bulge.

3.3.16 Bottom of fabric and bottom tension wire shall be 50 mm above finished grade.

3.3.17 Bottom tension wire shall be strung along the bottom selvage of the fabric, pulled taut, and firmly attached to end, corner, and straining posts with tension bands and turnbuckles.

3.3.18 Clean damaged surfaces with wire brush to remove loose and cracked spelter coatings. Then apply 2 coats of approved zinc pigmented paint.

3.4 WOOD SCREEN FENCE CONSTRUCTION

3.4.1 Post installation shall be set in concrete as per Detail 2.1.

3.4.2 Spaces between line posts shall be uniform and shall not exceed 3.0 metres measured parallel to ground surface.

3.4.3 Cracks in posts or boards 6 - 12mm in width are to be re-stained with fence stain ensuring stain penetrates core wood.

3.4.4 Board spacing shall be tight ensuring spacing between boards does not exceed 10 mm when boards are dry.

3.4.5 Posts and any wood in contact with the ground to be pressure treated as per 2.3.1.

3.4.6 Fence posts to be stained prior to installation of stringers and fence boards.

3.4.7 Touch up stain to be applied after construction to any boards where stain as been removed, i.e. nail holes, faded, see through, etc.

3.4.8 Nailier strips to be fastened to post.

3.4.9 Bottom stringer shall be 50-100mm above finished grade and no turf may contact the stringer.

3.5 CLEAN-UP

3.5.1 Remove all excess materials and debris from the site and repair any damage to surroundings.

3.6 CONSTRUCTION COMPLETION INSPECTION (CCC)

3.6.1 Fencing shall be constructed as per detail and as outlined on the landscape plan. All wood components must be stained and no bare wood shall be showing on either posts or boards.

END OF SECTION
1. GENERAL

1.1 SCOPE
The supply and installation of materials for seeding, sodding, fertilizing, watering, maintenance and inspection of turf grasses. The creation of naturalized grass areas is included.

1.2 RELATED SECTIONS
Topsoil, Subgrade Preparation; Section 32 91 00;
Trees, Shrubs, and Groundcovers, Section 32 93 00,
Mulches; Section 32 91 13.

1.3 EXAMINATION
1.3.1 Report to the City of Leduc, in writing, any conditions or defects encountered on the site before or during any construction upon which the work of this section depends and which may adversely affect its performance.

1.3.2 Do not commence work until those conditions or defects have been investigated and corrected.

1.3.3 Commencement of work shall imply acceptance of existing surfaces and conditions and no claims for damages or extras resulting from such conditions or defects will be accepted later, except in cases where such conditions could not have been known prior to commencing work.

1.4 QUALIFICATIONS
1.4.1 All work shall be done by experienced, qualified personnel, under the direction and supervision of a foreman with at least 5 years of horticultural experience.

1.4.2 The work shall be done to conform to best horticultural practice and the specifications, in accordance with the Canadian Nursery Landscape Association (C.N.L.A) standards.

1.5 PRODUCT DELIVERY, HANDLING AND STORAGE
1.5.1 Supply grass seed in standard containers, tagged with identification as to the analysis of seed species mixture, percentages of seed, year of seed production, net weight and date.

1.5.2 Deliver seed to site only when required or in a weatherproof place on site and in such a manner that its effectiveness is not impaired.

1.5.3 Protect sod during transportation with tarpaulin to prevent sun scalding and drying out and to ensure its healthy condition upon arrival at the site.

1.5.4 Sod must be installed on the day of arrival at site. If delays in installation occur due to weather, protect sod on site from sun, keep sod moist and store in a cool place until installation. Sod that is dried out and not in a healthy growing condition will be rejected.
1.6 **SAMPLES**
1.6.1 Samples of grass seed may be requested for approval by the City of Leduc.
1.6.2 Retain approved samples on site until work has been inspected.
1.6.3 All work shall conform to approved samples.

1.7 **SUBSTITUTION**
1.7.1 All requests for substitutions of seed mixes shall be vetted through the Consultant responsible for preparing the contract drawings. Such requests shall be forwarded to the City of Leduc for approval prior to installation.

1.8 **INSPECTION**
1.8.1 The City of Leduc will inspect all seed and sod installations.
1.8.2 Prior to the commencement of installation, all materials may be inspected and approved either at the source of local supply or on site at the discretion of the City of Leduc. Previous approval will not impair the right of the City of Leduc during the course of construction to reject sod which has been damaged or which, in any way, does not conform to the specifications. Any rejected seeding or sodding will be noted on a site instruction form and presented to the contractor for follow-up.
1.8.3 Give timely notice, in writing, to the Consultant when materials are available for inspection.
1.8.4 At the time of inspection, all turf shall be alive and in a healthy, satisfactory growing condition.
1.8.5 Remove all rejected materials from site immediately.

### 2. PRODUCTS

#### 2.1 SEED MIXTURE
2.1.1 Grass seed shall be Canada #1 certified seed meeting the most current requirements of the "Canadian Seeds Act."

2.1.2 The mixture shall comply with Federal and Provincial seed laws, be free of disease, weed seeds, and foreign matter, and have a minimum germination of 75% and a minimum purity of 97%. Bags containing the seed mixture shall be clearly tagged, showing the name of the supplier, the contents, the date and location of bagging, and the year of seed production.

2.1.3 Seed varieties shall be mixed, and application rate set to suit the conditions and location. Acceptable seed mixes and application rates for dry seeding are:

<table>
<thead>
<tr>
<th>Seed mix name / locations for use</th>
<th>Application Rate</th>
<th>Species / Variety Mix</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Parks Mix – for parks, SWMFs (mown areas), (Substitutions may be acceptable).</td>
<td>125kg per hectare</td>
<td>30% Bedazzled Kentucky Bluegrass</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20% Midnight Kentucky Bluegrass</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20% Bonaire Kentucky Bluegrass</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20% Aberdeen Creeping Red Fescue</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10% Dominator Perennial Ryegrass</td>
</tr>
<tr>
<td>Seed mix name / locations for use</td>
<td>Application Rate</td>
<td>Species / Variety Mix</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-----------------</td>
<td>----------------------</td>
</tr>
</tbody>
</table>
| Sports Turf – for sports fields. (Irrigated & non-irrigated substitutions may be acceptable). | 125kg per hectare | 25% Jump Start – Kentucky Bluegrass  
25% Bedazzled – Kentucky Bluegrass  
25% Bewitched - Kentucky Bluegrass  
25% Water Works – Kentucky Bluegrass |
| Boulevard Mix – for roadways, PULs, medians, and walkways | 125kg per hectare | 30% Turf-type Tall Fescue – single variety  
20% Hard Fescue – single variety  
20% Domeotic Wheatgrass – single variety  
20% Creeping Red Fescue – minimum 2 varieties  
10% Perennial Ryegrass – single |
| Naturalization Mix – for non-mown naturalized areas | 150kg per hectare | 30% Slender / Awned / Bearded Wheatgrass  
25% Mountain Brome  
25% Sheep Fescue  
5% Green Needle Grass  
5% Western Wheatgrass  
5% Northern/Stream bank Wheatgrass  
5% Fringed/Nodding Brome |

2.1.4 See section 3.4 for application rates for hydroseeding.

2.1.5 The Landscape Architect may recommend alternatives to the above seed mixes. These shall be identified on the landscape plans prior to review and approval of drawings by the City of Leduc.

2.1.6 All seed and sod shall conform to horticultural standards of, and comply with, all sections of the latest edition of C.N.L.A. standards for the Leduc area.

2.2 SOD

2.2.1 Sod shall be certified No. 1 cultivated turf grass sod of the type as specified on the approved landscape plans, grown and sold in accordance with the classification of the Nursery Sod Growers Association of Alberta and Western Turfgrass Association Standards.

2.2.2 At time of delivery to site, it shall have a strong, fibrous root system with thick and healthy growth and delivered within 24 hours of the time of cutting. Sod showing signs of deterioration due to age or lack of moisture will be rejected.

2.2.3 Sod shall be free from stones, tears, and burned or bare spots and delivered moist, cut in strips of uniform width and thickness.
2.3 BINDER FOR HYDROSEEDING

2.3.1 Use Turfmaster Hydro Seal or equivalent compatible binder additive at the manufacturer’s recommended rate, sufficient to mix a consistent slurry.

2.3.2 Binder shall be mixed and supplied by a recognized supplier and shall have tested rates of purity.

2.4 HYDROSEED MULCH

2.4.1 Material shall be wood cellulose fibre containing no contaminants.

2.4.2 Fibre shall be supplied by a recognized supplier and shall have a certified weight and composition.

2.4.3 Minimum application rate is 16.0 kg of air dry fibre per 100m².

2.4.4 Fibre shall be measured as it is fed into the seeder.

2.5 FERTILIZER

2.5.1 Fertilizers shall be clearly labelled and supplied in unopened moisture-proof containers.

2.5.2 Use standard commercial fertilizers, with guaranteed chemical analysis.

2.5.3 All inorganic fertilizers shall be complete, commercial fertilizers of an approved manufacturer. They shall contain not less than 60% urea-formaldehyde and contain the specified percentages of weight.

2.5.4 Supply and deliver fertilizers in bags, clearly marked with the name of the manufacturer, contents, weight and analysis.

2.5.5 At time of turf installation, fertilizer shall be slow release formulated 16-32-0 or 11-54-0 or approved equivalent by the City of Leduc.

2.5.6 Fertilize three times per growing season:

- Spring - Apply 12-51-0 fertilizer (or approved equal) before May 31st,
- Summer - Apply 27-14-0 fertilizer (or approved equal) during the first two weeks of July,
- Fall - Apply 16-20-0 fertilizer (or approved equal) during the last two weeks of August.

2.5.7 Fertilizer shall be granular water-soluble type.

2.6 EQUIPMENT

2.6.1 Cultivators capable of scarifying, discing or harrowing.

2.6.2 Dry seeders of the "Brillion" type or approved equal, capable of rolling and covering the seed with 3 mm to 6 mm of soil; or of the cyclone type, with flexible wire mat drag, and rolled with a light turf roller weighing between 90 and 114 kg into the prepared seedbed in two directions in equal amounts. Equipment must roll and cover the seed with 3 mm to 6 mm of soil.

2.6.3 Hydro seeders that are capable of thoroughly mixing water, seed, fertilizer and pulverized wood fibre and of uniformly spraying the mix at designated rate.

2.6.4 Rollers must be of suitable size and mass.

2.6.5 Wooden pegs, to be used for pegging sod on slopes steeper than 1:3, shall be approved hardwood pegs, 230 mm long minimum and approximately 25 mm x 25 mm square, or approved equal. Pegs shall be of sufficient length to ensure satisfactory anchorage of sod.
3. EXECUTION

3.1 PLANTING SEASON
3.1.1 Installation of grass seed is recommended between May 1 to September 15.
3.1.2 Installation of sod is recommended between May 1 and September 30.

3.2 SITE PREPARATION
3.2.1 Existing subgrade shall be 250 mm below finished grades shown on drawings for all seeded areas and 200mm depth for sod.
3.2.2 Verify existing subgrade on site and report discrepancies immediately to the Consultant.
3.2.3 Remove all fill, which has been temporarily placed against the back face of curbs and structures and adjacent to walks and pavements. Excavate such fill to 250 mm below finished grade.
3.2.4 Remove excavated material, stones, roots, and debris, lumps and sod pieces from site and dispose of, unless directed otherwise.
3.2.5 Where necessary, regrade subgrade, until it conforms to the drawings and Consultant’s approval.
3.2.6 Scarify existing subgrade to a minimum depth of 75 mm and remove all stones 50 mm in diameter and larger and all live weeds from the surface.
3.2.7 Obtain approval of finished subgrade from Consultant before proceeding with the work.
3.2.8 Spread topsoil over area and grade evenly. Float the surface until smooth and fine grade to eliminate rough or low areas. The minimum depth of topsoil under all sodded areas is 200mm and seeded areas shall be 250 mm.
3.2.9 Apply fertilizers within 48 hours before laying sod, and work well into the topsoil by diskng, raking or harrowing.
3.2.10 Firm sod-bed by rolling before application.
3.2.11 Apply fertilizer according to manufacturer’s instructions or as directed by the City of Leduc.
3.2.12 Apply fertilizer with spreader at designated rate and mix thoroughly into the upper portions of topsoil.
3.2.13 Final grade shall be flush with adjacent surfaces for seeded areas and shall be 25 mm below finished grade of adjacent work for sodded areas.
3.2.14 Fine-grade area and roll with a 66 kg to 90 kg roller to make finished surface smooth and firm against footprints, and apply roller in two directions perpendicular to each other
3.2.15 After rolling, check finished surface for depressions, lumps and other irregularities and correct same by re-rolling where necessary.

3.3 SEEDING
3.3.1 Do not seed when prepared topsoil is covered with frost, snow or standing water. Proceed with seeding operations only during favorable weather conditions in accordance with sound horticultural practices. Seeding shall not occur if the soil temperature is below 13 °C.
3.3.2 Seeding shall not be carried out when wind velocities are above 8 km/h.
3.3.3 For slopes 3 horizontal to 1 vertical or less, grass seed shall be sown at a rate (kg / 100 m²) as per product recommendation in two passes of a mechanical spreader at 90° to each other.

3.3.4 For slopes greater than 3 horizontal to 1 vertical, a hydro-seeder of approved design capable of thoroughly mixing water, grass seed, fertilizer and pulverized wood fibre shall be used.

3.3.5 Hand broadcast seeding is unacceptable under any conditions except for site specific repair work and pre-approved work in naturalization areas.

3.4 HYDROSEEDING

3.4.1 Use a hydro seeder to seed slopes 3 horizontal to 1 vertical or steeper with Naturalization Mix as noted in 2.1.3. In other flatter areas, use General Park Mix as in 2.1.3.

3.4.2 Mix seed with water, mulch and fertilizer in the following suggested quantities:

- Grass Seed 24 kg/1000 m²
- Water 486 L/1000 m²
- Mulch 170 kg/1000 m²
- Fertilizer 50 kg/1000 m²

3.4.3 Hydroseeding should not be carried out in wind velocities which cause seed mix to be blown and shall not be carried out when wind velocities are above 8 km/h.

3.4.4 Measure quantities of materials to be fed into the seeder, either by weight or by using another approved system.

3.4.5 Application rates:

- Grass seed at 2.0 kg per 100 m² or as specified for the seed type;
- Water 105 L / 100 m²;
- Mulch 16 kg / 100 m² or sufficient to apply the specified amount of seed and fertilizer per 100m².

3.4.6 Thoroughly mix seed, fertilizer, mulch, binder (if specified) and water in a slurry and uniformly apply in one operation of apply seed and fertilizer mixture then cover with an approved mulch.

3.5 SEED GERMINATION USING DRY SEED, AND HYDROSEED APPLICATIONS

3.5.1 If seed fails to germinate within four growing months, re-cultivate and re-seed until germination takes place.

3.5.2 Approximately six weeks after germination, there should be a supplementary fertilizer treatment 27-14-0, at a rate determined by topsoil analysis or such other fertilizer as may be deemed appropriate by the City of Leduc.

3.6 SOD HARVESTING REQUIREMENTS

3.6.1 Sod shall be cut by approved methods in accordance with the recommendations of the Landscape Alberta Nursery Trades Association (LANTA) and shall be:

- a minimum of eighteen months old;
- of a quality that satisfies weed tolerance rates as outlined by the LANTA;
- 20 - 25 mm in uniform thickness;
- cut in strips of uniform width;
- sufficiently moist so that no burning of the edges has occurred;
- harvested at 12 mm soil depth, cut uniform free of any holes and tears.

3.6.2 Handle sod carefully when loading and installing to prevent tearing or breaking.
3.7  **SODDING**

3.7.1  Sodding is required where specified by the City of Leduc.

3.7.2  Sod shall be laid evenly with staggered joints closely butted together and matched to the existing grades or surrounding areas.

3.7.3  Lay sod as soon as possible upon arrival on the site but within 48 hours.

3.7.4  Blend sod smoothly and uniformly and flush to adjoining grass areas and/or paving and top surface of curbs, unless shown otherwise on drawings.

3.7.5  Sod shall be laid at right angles to the slope along the contours of the slope. If sodding occurs on any slope steeper than 3 Horizontal to 1 Vertical, sod may be pegged, 25 per 10m², with short wooden pegs to prevent sod from slipping. Pegs to be pounded flush with ground.

3.7.6  Top dress seams as required with Class 'B' topsoil.

3.7.7  All areas shall be rolled with a medium roller (90 to 114 kg) to provide close contact between sod and topsoil and to produce a smooth and even surface.

3.7.8  Let sod and soil dry out sufficiently to prevent damage, then roll sod with a roller to ensure good bond between sod and soil and to smooth out humps and depressions.

3.7.9  Immediately after rolling, saturate sod and upper 100 mm of soil with fine spray. Do not cause erosion. To prevent grass and soil from drying out, continue adequate watering for 21 days after laying or until roots are well established.

3.7.10 Four weeks after laying and following initial cutting apply organic supplementary fertilizer 27-14-0, at a rate determined by topsoil analysis or such other fertilizer as may be determined by the City of Leduc.

3.7.11 On slopes steeper than 2:1, lay sod perpendicular to slope and peg every row with wooden pegs at intervals not exceeding .6 m.

3.7.12 Drive pegs flush with sod, so as not to interfere with moving operations.

3.7.13 Upon completion of all sodding work, arrange for inspection by the Consultant. Give timely notice for such inspection.

3.7.14 Approval of work at such inspection will establish completion or work. Partial completion does not relinquish maintenance responsibilities by the Contractor.

3.8  **CLEAN-UP**

3.8.1  Immediately after installation, remove all debris and excess material from the roadways, walkways and surrounding areas, leaving the area neat and tidy. Clean all areas, which are contaminated as a result of landscape construction operations.

3.8.2  Maintain all areas neat and tidy at all times until acceptance.

3.9  **CONSTRUCTION COMPLETION INSPECTION (CCC)**

3.9.1  At time of the construction completion inspection, all sodded areas shall have a healthy, even stand of grass, free of diseases, weeds, thin, burned-out patches or non-flush joints and shall be not more than 65 mm in height.

3.9.2  At time of the construction completion inspection, all areas to have been seeded must have evenly spread topsoil, and seed evenly spread as per 2.1.3.
3.10  WARRANTY

3.10.1  The Contractor is fully responsible for the general health and quality of all sodded and seeded areas from CCC approval until FAC approval.

3.10.2  Areas showing deterioration, bare spots or thin areas shall be re-seeded or re-sodded at the Contractor’s expense.

3.11  MAINTENANCE

3.11.1  Maintenance shall include all measures necessary to establish and maintain seeded and sodded areas in an acceptable, vigorous and healthy growing condition for a period of at least two years from the issuance of a Construction Completion Certificate and until the issuance of the Final Acceptance Certificate. Maintenance shall include:

- Mowing at regular intervals to maintain a minimum height of 60mm and a maximum height of 75mm. Mowing is required for establishment of naturalized seed areas. Do not cut more than 1/3 of blade height at any one mowing. Remove heavy clippings immediately;
- Replacing areas that show root growth failure, deterioration, bare or thin spots or which have been damaged by any means;
- Removing and replacing dead sod;
- Top dressing and rolling to repair ruts or erosion.

3.11.2  The City of Leduc may direct the use of herbicides for weed control and chemicals and pesticides as control measures for disease and insects. They shall be applied in accordance with manufacturer’s recommendations by a licensed applicator. Damage resulting from the Contractor’s improper use of herbicides shall be remedied at the Contractor’s own expense.

3.11.3  The City of Leduc must be advised 48 hours prior to the spraying of any chemicals, herbicides or pesticides.

3.11.4  The Contractor is responsible for supplying, loading, hauling and distributing water and fertilizer for maintenance purposes.

3.12  PROTECTION AFTER COMPLETION

3.12.1  Assume full responsibility for protection of all seeded and sodded areas until all project work has been completed, approved and accepted.

3.12.2  Erect protective fencing and post signs where necessary and maintain such works until acceptance and remove same after acceptance of work, unless directed otherwise.

3.13  FINAL INSPECTION & ACCEPTANCE (FAC)

3.13.1  At time of the final inspection, all grassed areas shall have a healthy, even stand of grass, free of diseases, weeds, thin, burned-out patches or non-flush joints and shall be not more than 65 mm in height.

3.13.2  At time of final inspection all turf shall be alive and in a healthy satisfactory growing condition, free from weeds.

3.13.3  Final inspection of seeded or sodded areas will be made prior to the end of the warranty period.

END OF SECTION
1. GENERAL

1.1 SCOPE
Supplying trees, shrubs, groundcovers and other associated materials; planting, transplanting, plant maintenance and inspections.

1.2 RELATED SECTIONS
Topsoil, Subgrade Preparation; Section 32 91 00;
Lawn & Grasses; Section 32 92 00;
Mulches; Section 32 91 13.

1.3 EXAMINATION
1.3.1 Report to the City of Leduc, in writing, any conditions or defects encountered on the site before or during any construction upon which the work of this section depends and which may adversely affect its performance.
1.3.2 Do not commence work until those conditions or defects have been investigated and corrected.
1.3.3 Commencement of work shall imply acceptance of existing surfaces and conditions and no claims for damages or extras resulting from such conditions or defects will be accepted later, except in cases where such conditions could not have been known prior to commencing work.

1.4 QUALIFICATIONS
1.4.1 All planting and related work shall be done by experienced, qualified personnel, under the direction and supervision of a foreman with at least 5 years of horticultural and planting experience.
1.4.2 The work shall be done to conform with best horticultural practice and the specifications, in accordance with the Canadian Nursery Landscape Association (C.N.L.A) standards.

1.5 PRODUCT DELIVERY, HANDLING AND STORAGE
1.5.1 Supply manufactured items such as fertilizer, in standard containers, clearly indicating contents, weight, component analysis and the name of the manufacturer.
1.5.2 Store manufactured materials susceptible to deterioration, in a weatherproof place on site and in such a manner that their effectiveness is not impaired.
1.5.3 Supply plant material as specified on the plant list on the approved landscape drawings.
1.5.4 Handle plant material with reasonable care and skill to prevent injuries to trunk, branches, roots, root balls and containers.
1.5.5 Protect plants during shipment with tarpaulin or other suitable covering and carefully tie in all branches before transporting to prevent excessive drying from sun and wind or breakage from wind and equipment. Pad all points of contact between plant material and equipment.
1.5.6 For trees dug by tree spade, the root ball shall be placed in burlap and a wire basket. Wire baskets shall be laced at the top and of sufficient strength to withstand lifting the tree by the top loops of the basket at a minimum of two points.

1.5.7 Trees in foliage are moved by the basket method or “balled and burlapped” method, the foliage and root ball must be covered by a tarp.

1.5.8 Container stock should be handled as much as possible by the pot only, in order to reduce breakage.

1.5.9 All plants should be unloaded and checked immediately upon arrival and watered as required. Trees with cracked or broken root balls will not be accepted.

1.5.10 Trees with broken, deformed, dead, co-dominant or missing leaders will not be accepted.

1.5.11 All plant material that cannot be planted during the current day’s operations shall be heeled in with topsoil or mulch and watered. All plant material should be planted within 24 hours of delivery to site.

1.5.12 Root balls, roots, trunks, branches and leaves shall be protected on site from drying, frost, construction equipment, or other damage and be kept moist until planted.

1.5.13 Replacement of all damaged stock is at the Contractor’s expense.

1.5.14 Subgrade material from the digging of tree pits by a tree spade is to be removed from the site at the Contractor’s expense if it cannot be utilized on site.

1.6 SAMPLES

1.6.1 Samples of mulch and accessories for tree guying and staking may be requested for approval by the City of Leduc.

1.6.2 Retain approved samples on site until work has been inspected.

1.6.3 All work shall conform to approved samples.

1.7 SUBSTITUTION

1.7.1 All substitutions shall be made through a change order to the contract.

1.7.2 All requests for substitutions shall be vetted through the Landscape Architect responsible for preparing the contract drawings. Such requests shall be forwarded to the City of Leduc for approval.

1.8 INSPECTION

1.8.1 Prior to the commencement of installation all materials may be inspected and approved either at the source of local supply or on site at the discretion of the City of Leduc. Previous approval will not impair the right of the City of Leduc during the course of construction to reject plants which have been damaged or which, in any way, do not conform to the specifications. Any rejected plant materials will be noted on a site instruction form and presented to the contractor for follow-up.

1.8.2 Give timely notice, in writing, to the Consultant when materials are available for inspection.

1.8.3 Planting of plant materials, prior to inspection by the Consultant, will be Contractor’s responsibility. The Consultant reserves the right to reject any plants, whether planted or not, which do not conform to the specifications and/or drawings. Remove all rejected materials from the site immediately.
1.8.4 Do not remove any labels from plants until CCC has been approved by the City of Leduc.

1.8.5 Partial acceptance will be given when planting work has been delayed due to circumstances beyond the control of the Contractor or where planting would be in discordance with good horticultural practices and would jeopardize the performance of the work and plants.

1.8.6 Final Inspection of all planting will be made at the end of the specified warranty period.

1.8.7 At the time of inspection, all plants shall be alive and in a healthy, satisfactory growing condition.

2. PRODUCTS

2.1 PLANT MATERIAL

2.1.1 All plant materials shall conform to horticultural standards of, and comply with, all sections of the latest edition of C.N.L.A. standards for the Leduc area.

2.1.2 They shall be nursery grown in Alberta, under proper cultural practices as recommended by the C.N.L.A., unless approved otherwise of sound stock, typical of species or variety.

2.1.3 All plant materials shall be clearly labelled as to variety, size and source of supply. Do not remove labels until after final inspection.

2.1.4 Any plants dug from native stands, wood lots, orchards, or neglected nurseries and have not received proper cultural maintenance as advocated by the C.N.L.A, shall be designated as “collected” plants. The City will not permit the use of “collected” plants unless previously inspected and approved in writing.

2.1.5 Plants shall be true to type and structurally sound, well branched, healthy and vigorous and free of disease, insect infestations, insect eggs, rodent damage, sunscald and frost cracks. They shall be densely foliated when in leaf and have a healthy, well-developed fibrous root system. Pruning wounds shall show vigorous bark on all edges and all parts shall be moist and show live, green cambium tissue when cut.

2.1.6 Container-grown material is acceptable providing plants have been grown in the container for at least one growing season, but not longer than two. Containers must be large enough to permit proper root development.

2.1.7 Trees shall have a straight well developed single leader unless that would be uncharacteristic to the tree species. Clump or multi-stem trees shall have three or more stems originating from a common base.

2.1.8 Shrubs shall have natural form typical of the species with a minimum of four canes.

2.1.9 Vines shall have at least four runners, each of a minimum length of 300mm.

2.1.10 Groundcovers shall have well-developed tops, size proportionate to the developed roots typical of the species.

2.1.11 Annual plants to be of vigorous growth with healthy leaf and stem tissue and without sign of wilting. All plants to be full-form without missing or broken branches and of a shape typical of the particular species.

2.1.12 Plants that have been top-worked, sheared, or colour treated are not acceptable.
2.1.13 All plant materials shall conform to the measurements specified on the plant list on the approved landscape drawings except that plants larger than specified may be used if approved by the City of Leduc. If larger plants are used, the root ball shall be increased in proportion to the size of the plant as per Clause 2.1.17. Groundcover plants shall have healthy tops to a size proportionate to the above root requirements typical of the species.

2.1.14 Plants shall be freshly dug and shall be in a healthy, vigorous condition at arrival on the site. Heeled-in plants or plants from cold storage will not be accepted. Whenever practical trees shall be supplied from nurseries located within the same plant hardiness zone and having the same conditions and types of soils as the area of the project site. Plants specified as “B&R,” shall be moved with bare roots, while in a dormant condition. Plants, specified “B&B”, shall be moved with solid balls, wrapped in burlap, or approved equal. Root balls shall not be cracked or broken at time of planting.

2.1.15 All plants shall be measured when the branches are in their normal position. Height and spread dimensions specified refer to the main body of the plant and not from branch tip to root base or from branch tip to branch tip. Where trees are measured by caliper (cal) reference is made to the diameter of the trunk measured 150 mm above ground for trees up to 100 mm cal.; for trees larger than 100 mm, caliper to be measured 300 mm above ground.

2.1.16 The size of root balls for trees shall be as specified below. Ball sizes are minimums and shall be adjusted according to growth habits of plants. Ball sizes shall be sufficiently large to contain a least 75% of the fibrous root system.

<table>
<thead>
<tr>
<th>Caliper</th>
<th>Root Ball Diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Deciduous Trees</strong></td>
<td></td>
</tr>
<tr>
<td>25 – 50 mm (1-2&quot;)</td>
<td>0.6 m (2'-0&quot;)</td>
</tr>
<tr>
<td>50 mm (2&quot;)</td>
<td>0.8 m (2'-6&quot;)</td>
</tr>
<tr>
<td>76 mm (3&quot;)</td>
<td>0.9 m (3'-0&quot;)</td>
</tr>
<tr>
<td>101 mm (4&quot;)</td>
<td>1.1 m (3'-6&quot;)</td>
</tr>
<tr>
<td>125 mm (5&quot;)</td>
<td>1.37 m (4'-6&quot;)</td>
</tr>
<tr>
<td>150 mm (6&quot;)</td>
<td>1.5 m (5'-0&quot;)</td>
</tr>
</tbody>
</table>

| **Coniferous Trees** | |
| 1.8 m – 2.4 m (6'-8") | 0.8 m (2'-6") |
| 2.4 m - 3.0 m (8'-10") | 0.9 m (3'-0") |
| 3.0 m - 3.6 m (10'-12") | 1.0 m (3'-6") |
| 3.6 m - 4.2 m (12'-14") | 1.2 m (4'-0") |
| 4.2 m - 4.8 m (14'-16") | 1.3 m (4'-6") |
2.1.17 The ball depth-ratio for “B&B” deciduous and coniferous trees shall be not less than as follows:

<table>
<thead>
<tr>
<th>Root Ball Diameter</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>up to 0.6 m (2'-0'')</td>
<td>not less than 0.45 m (1'-6'')</td>
</tr>
<tr>
<td>0.6 m to 1.4 m (2'-0'&quot; to 4'-6'&quot;)</td>
<td>not less than 0.45 m (1'-6'&quot;) to .76 m respectively (2'-6'&quot;)</td>
</tr>
<tr>
<td>1.4 m and over (4'-6'&quot;)</td>
<td>not less than 50% of ball diameter</td>
</tr>
</tbody>
</table>

2.1.18 All root balls less than 460 mm in diameter shall be wrapped with 5 oz. hessian burlap or approved equal. Balls from 460 mm to 760 mm in diameter shall be double burlapped. Balls of 1 m and larger in diameter shall be double burlapped and drum laced with 6 mm rope at 200 mm spacing.

2.2 CONIFEROUS

2.2.1 All trees shall be suitable for immediate planting and be of normal shape and quality for the species.

2.2.2 Spruce varieties shall have uniform branching which starts no higher than 300mm from the root collar. On Pine varieties, branching shall be no higher than 600mm from the root collar.

2.2.3 The root balls shall contain all the original soil in which the tree has grown and shall be free of all weeds. It shall be firmly wrapped in burlap and secured to prevent any soil from spilling or drying out. Any increase or decrease in tree size shall require a corresponding adjustment to the root ball size to conform to C.N.L.A. standards.

2.3 DECIDUOUS TREES

2.3.1 All trees are to be suitable for planting as street trees and are to be free of branches to a point not below sixty percent of their height.

2.3.2 All bare root trees shall have a heavy fibrous root system that has been developed by proper cultural treatment, such as transplanting or root pruning and shall have a spread not less than specified.

2.3.3 The root ball shall contain all the original soil in which the tree has grown and shall be free of all weeds. It shall be firmly wrapped in burlap and secured to prevent any soil from spilling or drying out. Any increase or decrease in tree size shall require a corresponding adjustment to the root ball size to conform to C.N.L.A. standards.

2.3.4 Trees collected from native stands or established plantings must be so designated. Root balls shall be at least ten percent larger in diameter than nursery grown stock.

2.3.5 All trunks shall be straight, clean and free from stubs and portions of decay, splits, or other damage.
3. EXECUTION

3.1 PLANTING SEASON
3.1.1 Plant trees, shrubs and groundcovers only during periods that are normal for such work (i.e. spring planting, April 15 - June 15; fall planting August 15 – October 15). It is recommended that coniferous material should be planted in the spring season only.

3.2 SITE PREPARATION
3.2.1 All rough grading, excavating work for planting beds and the preparation of subgrades, which are to receive planting soil mixture shall be as described below.
3.2.2 Dig out the tree holes or pits, planting beds and shrub holes to required depth and remove excess soil off site or as directed by the City of Leduc.

3.3 PLANTING SOILS
3.3.1 Soil mixes shall be as shown on standard details and as specified by Section 32.91.00 – Topsoil, Subgrade Preparation.

3.4 HYDROSEEDING
3.4.1 Immediately after digging all plants, the root system shall be kept moist to prevent drying out until planted.
3.4.2 Plants specified “bare root” shall be dug and moved while dormant, with the major portion of the fibrous root system provided.
3.4.3 All plants specified as “balled and burlapped” shall be dug and moved while dormant unless directed otherwise by the City of Leduc; with the major portion of the fibrous root system provided.
3.4.4 Wrap root balls as per C.N.L.A. standards.
3.4.5 All plants specified may be moved with a mechanical tree spade providing adequate roots are kept as specified and provided that no excavation shall occur within 1m, or as otherwise specified, of utility trench alignments.
3.4.6 Minimum utility clearances must be maintained from the edge of the excavation by the tree spade of the Contractor’s equipment. The involved utility must be contacted for approval and for any required safety procedures, for example, hand digging.
3.4.7 Before removing plants from containers for planting, the plants shall be well watered to reduce injury.
3.4.8 In many plants, roots have a tendency to circle the container. When this is apparent, outside roots should be gently loosened.
3.5 PLANTING BED PREPARATION

3.5.1 Stake out all tree locations and planting beds and obtain approval from the City of Leduc or designated representative before excavating. The location of trees and planting areas, where shown on drawings, is approximate only and may require adjustment due to site conditions.

3.5.2 The outline of all planting beds shall be staked out on site and finalized to the approval of the City of Leduc or designated representative.

3.5.3 Planting beds shall be prepared to a minimum excavation depth of 650 mm below finished grade, filling with minimum 500 mm depth topsoil.

3.5.4 Construct watering swales using topsoil from around the base of the plant. The use of watering swales may be required by the City of Leduc and shall be at the Contractor’s expense.

3.5.5 Install aluminum landscape edger’s, around perimeter of planting shrub beds. Landscape edging to be a maximum 12 mm higher than existing surrounding grades.

3.5.6 Install 100 mm depth of shredded deciduous or cedar coniferous woodchip mulch or other approved mulch as specified on the landscape drawings. Finished grade of mulch to match adjacent turf grades or top of landscaping edging upon final settlement.

3.5.7 Mulch shall be a clean, deciduous woodchip mulch, free of materials listed in section 2.1., and ranging between 50 mm to 100 mm in diameter. Contractor to provide sample for approval.

3.6 TREE AND SHRUB PLANTING OUTSIDE PREPARED PLANTING BEDS

3.6.1 Locations of all trees and shrubs to be marked and approved by the Landscape Architect or designated representative prior to installation.

3.6.2 All trees shall have topsoil surrounding the sides of the root ball as per Section 32 91 00 – Topsoil, Subgrade Preparation.

3.6.3 All shrubs shall have topsoil surrounding the sides of the containerized roots or exposed bare roots as detailed.

3.6.4 If soil conditions warrant (e.g. clay soils) and as directed by the City of Leduc, root holes dug by mechanical equipment shall be scarified to ensure that are no glazed walls.

3.6.5 For tree root holes dug by a tree spade, provide root ball support of compacted native soil in the base of the root hole as detailed.

3.6.6 Tree root holes shall be excavated 400 mm (16 inches) greater in diameter than the root ball or spread of roots and deep enough to allow for a 150 mm layer of topsoil mixture beneath the ball or roots.

3.6.7 Trees and shrubs shall be set in the centre of the root holes and positioned such that, following settlement, the crown of the plant should be level with the surrounding finished grade. For trees, the trunk flare of the plant shall be higher than the surrounding finished grade.

3.6.8 Trees and shrubs shall be faced to give the best appearance or relationship to adjacent structures, walkways or park features. When planting continuous rows of trees (i.e. boulevard planting), all stems must be aligned in a straight line.

3.6.9 Planting topsoil shall be firmly tamped in place in such a manner that the plant retains its vertical position. Particular care shall be taken to ensure that no air pockets remain under or around the roots. The planting topsoil shall be thoroughly watered immediately after tamping. All non-porous or non-biodegradable containers shall be completely removed. Any settling of planting topsoil shall be brought up to the intended grade after settlement and prior to issuance of the Final Acceptance Certificate (FAC).
3.6.10 When planting topsoil is installed up to about one half of the root ball height, ties shall be cut and the top portion of the burlap on balled and burlapped plants shall be cut back carefully so as not to disturb the root ball.

3.6.11 Top 1/3 of wire baskets to be folded back or removed and the top 1/3 of the burlap to be cut back and removed from root ball hole.

3.6.12 Damaged or broken roots of bare root stock should be cut back with a sharp knife to living parts remaining. Spread roots out gently and evenly in the root hole and complete installation of topsoil.

3.6.13 The planting topsoil shall not be placed while frozen or muddy.

3.6.14 Add 100mm of shredded wood chip mulch over exposed portion of tree root ball and extend mulch 100mm beyond edge of root hole.

3.6.15 Watering in of tree and shrub root holes: all planting beds shall be filled to grade with planting topsoil and watered in immediately after planting. The use of a water probe to ensure the removal of all air spaces in the topsoil surrounding the plant’s root ball is an acceptable method of watering in. The use of a water probe will be used to water in all tree spade transplanted trees.

### 3.7 STAKING AND GUYING

3.7.1 Install staking as detailed or specified immediately after installation.

3.7.2 Trees shall be braced upright in position by guy wire or stakes in accordance with the following:

<table>
<thead>
<tr>
<th>Coniferous:</th>
<th>Tree Height</th>
<th>Tree Support Method</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Up to 1.5m</td>
<td>1 stake with 1 tie (optional)</td>
</tr>
<tr>
<td></td>
<td>1.5m - 3.0m</td>
<td>2 stakes with 2 ties (optional)</td>
</tr>
<tr>
<td></td>
<td>3.0m - 3.5m</td>
<td>3 guy wires with 3 anchors</td>
</tr>
<tr>
<td></td>
<td>3.5m and over</td>
<td>4 guy wires with 4 anchors</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Deciduous:</th>
<th>Tree Caliper</th>
<th>Tree Support Method</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Up to 30mm</td>
<td>1 stake with 1 tie</td>
</tr>
<tr>
<td></td>
<td>30mm - 100mm</td>
<td>2 stakes with 2 ties</td>
</tr>
<tr>
<td></td>
<td>100mm - 150mm</td>
<td>3 guy wires with 3 anchors</td>
</tr>
<tr>
<td></td>
<td>150mm and over</td>
<td>4 guy wires with 4 anchors</td>
</tr>
</tbody>
</table>

3.7.3 Wire for trees requiring guys shall be looped around the tree and anchored in such a manner that looped wire will not interfere with normal growth. Guys shall be placed around the trunk at a point to ensure adequate support of the tree and in such a manner that the tree stem or branches will not be subjected to undue strain or injury. Anchors shall be equally spaced around the tree pit.

3.7.4 Anchors required for the support of guyed trees shall be painted metal “T” bars 40mm x 40mm x 5mm thick and 700mm to 750mm long. Wires for fastening to anchors shall be pliable #12, factory galvanized and of sufficient strength to withstand any wind pressure.

3.7.5 Anchors shall be left 150mm above grade unless otherwise directed by the City of Leduc and colour coded according to 3.7.9.

3.7.6 Stakes: - “T” bar steel stakes 40mm x 40mm x 5mm thick x 2.0-2.5m length, U-bar stakes will be approved as a substitute, primed with one coat of zinc-rich paint to CGSB 1-GP-1816. Colour to be approved by the City of Leduc. The top 300mm of the tree stake to be colour coded as per Clause 3.7.9. Ties shall be placed around the trunk to provide adequate support and to prevent damage.
3.7.7 Guys shall be taped with fluorescent orange coloured tape in intensively trafficked areas. All guy wires to be folded or bent in such a fashion so as not to be exposed outwardly. New black rubber hose, two-ply, reinforced and 12mm diameter, or approved equal, shall be used to encase wires where they circle the trunk or branch.

3.7.8 The Contractor shall be responsible for keeping guys taut at all times and replacing broken guys in accordance with the specified maintenance period and to ensure that the guys do not damage the tree trunk during growth.

3.7.9 Staking colours:
- 2020- Blue;
- 2021- White;
- 2022- Yellow;
- 2023- Green;
- 2024- Blue;
- 2025- White.

3.8 TRANSPLANTING EXISTING TREES
3.8.1 Size of root ball: 12 times the tree caliper measured at 300mm above grade and deep enough to enclose 75% of the existing root depth. All stock greater than 100mm will be measured 1500mm above ground level.

3.8.2 Basket, double burlap and drum lace, or wire basket root ball before moving, or dig and transport by tree space.

3.8.3 Place excavated tree spade root plugs in former tree locations where possible.

3.8.4 Size of new tree root hole is to be in accordance with standard details.

3.8.5 Plant, guy or stake, and maintain as outlined herein.

3.8.6 Maintenance and warranty period for transplanted plants as follows:
   a) All stock 0 -100mm cal. shall be 2 year;
   b) All stock 100 - 150mm cal. shall be 3 years;
   c) All stock 150 - 200mm cal. shall be 5 years;
   d) No materials above 200mm cal. will be accepted.

3.9 TREE WRAPPING
3.9.1 Promptly after planting, wrap all deciduous tree trunks with ½” x ½” sq. galvanized page wire attaching wire to itself with a min. of four 12” zip ties, or white plastic expandable tubing, with overlap and extending from ground level to just below branches. This wrapping prevents rodent damage to the trunk and bark of the tree.

3.10 CLEAN-UP
3.10.1 Immediately after planting, remove all debris and excess material from the site, leaving the area neat and tidy. Clean all areas, which are contaminated as a result of planting operations.

3.10.2 Do not burn debris and rubbish unless approved by the City of Leduc.

3.10.3 Maintain all areas neat and tidy at all times until acceptance.
3.11 CONSTRUCTION COMPLETION INSPECTION (CCC)

3.11.1 Plant pits and tree and shrub beds shall be freshly cultivated, free of weeds, building materials, clay clumps, broken branches and rubbish and left in a neat and tidy condition.

3.11.2 All plant material and trees shall be alive and in a healthy, satisfactory growing condition, and pruned as required to remove deadwood and promote healthy form.

3.12 WARRANTY

3.12.1 The Contractor is fully responsible for the general health and quality of all plant material delivered and installed.

3.12.2 All plant material shall be maintained and warranted for a period of two years, unless otherwise stated within the project scope of work/specifications, from the date of issuance of the Construction Completion Certificate. There is no warranty requirement on annuals, unless further noted.

3.12.3 During the warranty period, make periodic inspections and all plant materials found dead or not in a healthy, satisfactory growing condition or which, in any other way, does not meet the requirements of the specifications, shall be replaced immediately by the Contractor at the Contractor's own expense and do all maintenance.

3.12.4 Tag or mark, in a permanently visible manner, all replacement trees and notify the City of Leduc, in writing, of the date on which replacements were planted. Include a sketch showing location of replaced plants. Plant replacements at a time which is in accordance with practices recommended by the C.N.L.A.

3.12.5 Notify the City of Leduc, in writing, of any corrective or preventative measures necessary to safeguard plants.

3.13 MAINTENANCE

3.13.1 Maintenance shall include all measures necessary to establish and maintain all plants in an acceptable, vigorous and healthy growing condition for a period of at least two years from the issuance of a Construction Completion Certificate and until the issuance of the FAC.

3.13.2 Cultivation and weeding of planting beds and tree pits is the responsibility of the Contractor. The City of Leduc may direct the use of herbicides for weed control; they shall be applied in accordance with manufacturer’s recommendations by a licensed applicator. Damage resulting from the Contractor’s use of herbicides shall be remedied at the Contractor’s own expense.

3.13.3 The City of Leduc may direct the use of chemicals and pesticides as control measures for disease and insects. If used, they shall be applied in accordance with the manufacturer’s recommendations by a licensed applicator. Damage resulting from the Contractor’s use of chemicals and pesticides shall be remedied at the Contractor’s own expense.

3.13.4 The City of Leduc must be advised 48 hours prior to the spraying of any chemicals, herbicides or pesticides.

3.13.5 Pruning, including the removal of dead, broken and diseased branches, shall be undertaken immediately upon installation and in accordance with approved International Society of Arboriculture pruning methods.

3.13.6 Maintain all accessories in good conditions such as tree guys and tree stakes. The City of Leduc will direct the repair or replacement of all such accessories when required.

3.13.7 Water trees and shrubs in sufficient quantities to meet the plants' requirements.
3.13.8 The Contractor is responsible for supplying, loading, hauling and distributing water and fertilizer for maintenance purposes.

3.13.9 Newly planted trees may require the application of a completely water-soluble high phosphorous fertilizer (i.e. 10-52-10). No fertilizer should be applied during July and August. The Landscape Architect may recommend other fertilizers for trees, shrubs and groundcovers as required. The Contractor will provide written confirmation of the dates for water and fertilizer applications prior to the issuance of the FAC.

3.13.10 Straighten all plants, which lean or sag during the maintenance period.

3.13.11 At the time of inspection for FAC and at the conclusion of the maintenance period, all non-mulched planting beds and tree pits shall be freshly cultivated. All planting beds shall be free of weeds, leaves and debris and shall be in a tidy condition.

3.13.12 All tree stakes are required to be removed after issuance of the FAC by the City of Leduc.

3.14 PRUNING

3.14.1 All deciduous plants shall be pruned immediately after planting and as required during the maintenance period according to International Society of Arboriculture standards. The amount of pruning shall be limited to the minimum necessary to remove dead or injured branches. Pruning shall be done in such a manner as to preserve the natural character and shape of the plants. Only clean, sharp tools shall be used. All cuts shall be clean and cut to the branch collar, leaving no stubs. Cuts, bruises, or scars on the bark shall be tracked back to living tissue and removed. The affected areas shall be shaped so as not to retain water.

3.14.2 Pruning for selected species as follows:
- Elm October 1 to March 31; or as approved by the Project Manager.

3.15 REPLACEMENTS

3.15.1 The cost of replacements resulting from carelessness or neglect on the part of the Contractor shall be borne by the Contractor before the issuance of the FAC.

3.15.2 The cost of replacements resulting from theft, vandalism, carelessness or neglect on the part of others, or any causes due to circumstances beyond the control of the Contractor, shall be borne by the City of Leduc.

3.15.3 All required replacements shall be by plants of the same size and species as specified on the plant list and shall be supplied and planted in accordance with the landscape drawings and specifications.

3.15.4 Dead plant material, or missing plant material due to the Contractor's negligence, shall be replaced as soon as conditions permit, but during the normal planting season as outlined in 3.1.1.

3.16 PROTECTION AFTER COMPLETION

3.16.1 Assume full responsibility for protection of all planted areas until all project work has been completed, approved and accepted.

3.16.2 Erect protective fencing and post signs where necessary and maintain such works until acceptance and remove same after acceptance of work, unless directed otherwise.
3.17 PROTECTION OF EXISTING TREES

3.17.1 Establish suitable barriers around existing trees and shrubs to be saved to minimize damage during construction.

3.17.2 For minimum distance from existing trees to excavate, see Tree Protection Zone Calculation Table on detail 1.3 Tree Protection Zone.

3.17.3 Prune any broken branches.

3.17.4 If soil disturbance affects stability, install stakes as per 32.95.00.

3.18 RESTORATION

3.18.1 Restore pavement, grassed areas, planted areas, and structures damaged or disturbed during execution of work, to City of Leduc standards.

3.19 FINAL INSPECTION & ACCEPTANCE (FAC)

3.19.1 At time of final inspection all plants shall be in a healthy, vigorous growing condition, planted in full accordance with drawings, specifications, and conditions. Trees and shrubs shall be pruned as required to remove deadwood and promote healthy form.

3.19.2 Planting beds and tree saucers shall be freshly cultivated and free of all weeds and debris.

END OF SECTION
1. GENERAL

1.1 SCOPE
The work shall include the fine grading and subgrade preparation, as well as the supply and installation of topsoil for grassed areas and tree and shrub planting.

1.2 RELATED SECTIONS
Trees, Shrubs, and Groundcovers; Section 32.93.00;
Turf and Grasses; Section 32.92.00;
Mulches; Section 32.91.50.

1.3 EXAMINATION
1.3.1 Report to the City of Leduc, in writing, any conditions or defects encountered on the site before or during any construction upon which the work of this section depends and which may adversely affect its performance.
1.3.2 Do not commence work until those conditions or defects have been investigated and corrected.
1.3.3 Commencement of work shall imply acceptance of existing surfaces and conditions and no claims for damages or extras resulting from such conditions or defects will be accepted later, except in cases where such conditions could not have been known prior to commencing work.

1.4 QUALIFICATIONS
1.4.1 All installation of topsoil shall be done by experienced, qualified personnel of the trade under the direction and supervision of a qualified foreman/ supervisor with at least 5 years of horticultural experience.
1.4.2 The work shall be done to conform with best horticultural practice and the specifications, in accordance with the Canadian Nursery Landscape Association (C.N.L.A) standards.

1.5 PRODUCT DELIVERY, HANDLING AND STORAGE
1.5.1 Supply manufactured items such as fertilizer, in standard containers, clearly indicating contents, weight, component analysis and the name of the manufacturer.
1.5.2 Store manufactured materials susceptible to deterioration, in a weatherproof place on site and in such a manner that their effectiveness is not impaired.

1.6 SAMPLES
1.6.1 The contractor shall submit to the City of Leduc a sample and an independent laboratory analysis of topsoil from each source to be used in the performance of this work seven calendar days in advance of delivery to the site. The laboratory analysis shall include tests for N, P, K, minor element values, soluble salt content, electrical conductivity, pH and physical values (sand, clay and organic material). If necessary, correct additions, e.g. bonemeal, limestone, pesticides, phosphates, sulfates shall be added as approved by the City.
1.6.2 Retain approved samples on site until work has been inspected.

1.6.3 Additional samples and testing may be required by the City of Leduc during the construction period.

1.6.4 All topsoil used on site shall conform to approved samples.

1.7 INSPECTION

1.7.1 Prior to the commencement of installation all materials may be inspected and approved either at the source of local supply or on site at the discretion of the City of Leduc.

1.7.2 Give timely notice, in writing, to the Consultant when materials are available for inspection.

1.7.3 Remove all rejected materials immediately from the site.

2. PRODUCTS

2.1 TOPSOIL COMPOSITION

2.1.1 Topsoil may be sourced from a local site within the City of Leduc as long as soil is suitable for plant growth.

2.1.2 Topsoil to be used to specified depths for all grassed areas, tree planting, shrub beds, perennial and annual planting, unless otherwise noted.

2.1.3 Topsoil shall be of a natural, fertile agricultural soil of the "A" horizon layer capable of sustaining vigorous plant growth. It shall be the best of quality and screened.

2.1.4 Topsoil shall be free of subsoil, clay lumps, stones, live plants and other roots, sticks or other extraneous matter over 50 mm in diameter.

2.1.5 Topsoil shall be a Class B type - 35% Sand; 30% Clay; 35% Silt. These values are approximate, and a 5% variation from these values for each component is permissible.

2.1.6 An increase in the percentage content of sand may be considered to improve drainage and shall require review and approval by the City of Leduc.
2.1.7 Topsoil values are to conform to the following:

- Organic matter - 5 – 10% by dry mass
- Toxic chemicals - None
- Electrical conductivity - Max. 1.5 ohms per cm2
- pH value - 6.0 – 7.5
- Sodium absorption - 6

2.2 TOPSOIL ADDITIVES

2.2.1 Compost may be used to amend the topsoil to meet minimum requirements as noted in Section 2.1.6. The compost must be well decomposed, stable, weed-free and containing no substances noxious to plants. It may be derived from biosolids or municipal solid waste. It is to be screened and pass through a specified screen as approved by the City of Leduc and will meet the foreign matter requirements of the Canadian Council of Ministers of the Environment (CCME). When tested by an accredited testing laboratory, it shall meet the following criteria:

- Biosolids Compost: CCME – category A or B, pH 6.0-8.0 (TMECC 1.5 dilution), conductivity maximum 15 dS/m (TMECC 1.5 dilution), organic matter – minimum 30% dry weight, screen size 1/4, 3/8 or 1/2”.
- MSW Compost: CCME – category A or B, pH 5.0-7.5 (TMECC 1.5 dilution), conductivity maximum 8 dS/m (TMECC 1.5 dilution), organic matter – minimum 30% dry weight, screen size 3/8” min.

2.2.2 All compost shall be analyzed for total nitrogen, P2O5, and K2O expressed on a dead weight basis however no minimum nutrient content is required.

2.2.3 Sand: When tested by means of laboratory sieves, the sand shall meet the following grading requirements and be uniformly graded between the limits given:

<table>
<thead>
<tr>
<th>Passing</th>
<th>Cumulative % by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5mm (No. 8)</td>
<td>100</td>
</tr>
<tr>
<td>1.25mm (No.16)</td>
<td>90 – 100</td>
</tr>
<tr>
<td>0.8mm (No. 20)</td>
<td>80 – 90</td>
</tr>
<tr>
<td>1.315mm (No. 50)</td>
<td>30 – 60</td>
</tr>
<tr>
<td>10.16mm (No. 100)</td>
<td>2 – 10</td>
</tr>
<tr>
<td>0.063mm (No. 200)</td>
<td>1% maximum</td>
</tr>
</tbody>
</table>

2.2.4 Sand shall be natural and coarse, except for the removal of very fine particles and gravel, and conform to the above specifications. Sand shall be free from vegetation, clay balls, or other extraneous material. Reasonable care in the selection of material in a pit shall be used to produce a uniform product.
3. EXECUTION

3.1 PRODUCT DELIVERY, HANDLING AND STORAGE

3.1.1 If topsoil is to be stockpiled on public lands, locations must be designated by the City of Leduc.

3.1.2 No soil stockpiling by the Contractor on future Municipal Reserve lands is allowed unless written permission is granted by the City of Leduc. Such permission will not be unreasonably withheld for short term temporary stockpiling on the understanding that the contractor is responsible for subsequent removal of all materials not desired by the City of Leduc, and the required rehabilitation of the site.

3.2 SUBGRADE

3.2.1 Preferred subgrade material is clean clay. Marginal clay fills containing a small percentage of topsoil are acceptable under certain conditions as outlined below. More porous subgrades may be considered for locations where infiltration is suitable.

3.2.2 Subgrade materials are to provide sufficient bearing strength for the intended surfacing whether hard surface or grass. Grass areas must be of sufficient strength to support vehicles such as tree mowers and mowing machinery without rutting during dry periods.

3.2.3 A clean clay subgrade is required for future hard surface areas. Clay must be compacted to the required S.P.D. as per relevant paving detail and approved by a geotechnical engineer.

3.2.4 All subgrade material is to be free of weeds, rock, wood, debris and areas of soft soils.

3.2.5 Berms and toboggan hills may be constructed with topsoil. The topsoil is to be placed in maximum 150mm depth lifts and machine compacted to the satisfaction of the City of Leduc. Larger lifts may be allowed at the discretion of the City of Leduc.

3.2.6 Subgrade material is to be placed in maximum 150mm depth lifts and machine compacted to the satisfaction of the City of Leduc or as directed by the geotechnical engineering report.

3.2.7 Adjustments to design grades must be submitted by the Landscape Architect in writing and must be agreed to by the City of Leduc.

3.2.8 Subgrade surface shall be approximately 250mm below finished grade to accommodate topsoil and turf or mulch. A tolerance of 50 mm is permitted. It is to be free of noticeable dips and bumps and must have positive drainage. Ponding is not permitted.

3.2.9 Subgrade material from the digging of tree pits by a tree spade is to be removed from the site at the Contractor’s expense if it cannot be utilized on site.

3.3 SITE PREPARATION

3.3.1 All rough grading, excavating work for planting beds and the preparation of subgrades, which are to receive planting soil mixture shall be as described below.

3.4 PLACING TOPSOIL

3.4.1 The City of Leduc shall approve the subgrade prior to placing topsoil and approve finished grade before the Contractor proceeds with the next phase of work. This approval procedure is mandatory.
3.4.2 Do not place topsoil when either the topsoil or subgrade is frozen, excessively wet, extremely dry or otherwise in a condition detrimental to proper grading, compaction or cultivation.

3.4.3 Topsoil is to be spread uniformly on prepared subsoil to achieve a minimum compacted or settled depth of 200mm for sodded areas and 250mm for seeded areas unless otherwise stated. Topsoil may be placed up to 250mm depth under seeded and sodded areas. Deeper profiles of topsoil are to be approved by the City of Leduc prior to installation.

3.4.4 Compost or other amendments are to be spread evenly and worked into the topsoil.

3.4.5 Topsoil shall be thoroughly disced, harrowed and floated to a minimum depth of 75 mm.

3.4.6 Cultivate topsoil to a depth of 50mm, breaking down lumps. Remove stones larger than 50mm, weeds, roots and other foreign matter.

3.4.7 Manually spread topsoil around trees and plants to prevent damage by grading and levelling equipment.

3.4.8 Float the area until surface is smooth. Cut smooth and flush areas adjacent to pavement and catch basin rims. Remove all lumps, rocks, roots and other debris from the finished material and from the site.

3.4.9 Place erosion control devices around all catch basins and manholes.

3.4.10 Final topsoil grade is to be within 25mm of design grade and must be free of dips and bumps and exhibit positive drainage. Ponding is not permitted unless it is a component of the approved design. The minimum required depth of topsoil must be maintained.

3.4.11 Compact topsoil to the satisfaction of the City of Leduc.

3.4.12 Final topsoil grades for seeded areas shall be level with finished grade at surface structures (i.e. manholes, sidewalks and curbs).

3.4.13 For sodding, the final grade of topsoil shall be 25mm below finished grade at surface structures (i.e. manholes, sidewalks and curbs).

3.4.14 When abutting an existing turfed area, the existing turf shall be cut so as to form a straight joint with the new seeded or sodded area.

3.5 CLEAN-UP

3.5.1 Immediately after construction, remove all soil, debris and excess material from the site, leaving the area neat and tidy. Clean all areas, which are contaminated as a result of planting operations.

3.5.2 Do not burn debris and rubbish unless approved by the City of Leduc.

3.5.3 Maintain all areas neat and tidy at all times until acceptance.

END OF SECTION
1. **GENERAL**

1.1 **SCOPE**

The supply and installation of organic mulches for planting beds and tree wells.

1.2 **RELATED SECTIONS**

Topsoil, Subgrade Preparation; Section 32 91 00;
Trees, Shrubs, and Groundcovers; Section 32 93 00.

1.3 **EXAMINATION**

1.3.1 Report to the City of Leduc, in writing, any conditions or defects encountered on the site before or during any construction upon which the work of this section depends and which may adversely affect its performance.

1.3.2 Do not commence work until those conditions or defects have been investigated and corrected.

1.3.3 Commencement of work shall imply acceptance of existing surfaces and conditions and no claims for damages or extras resulting from such conditions or defects will be accepted later, except in cases where such conditions could not have been known prior to commencing work.

1.4 **QUALIFICATIONS**

1.4.1 All planting and related work shall be done by experienced, qualified personnel, under the direction and supervision of a foreman with at least 5 years of horticultural and planting experience.

1.4.2 The work shall be done to conform to best horticultural practice and the specifications, in accordance with the Canadian Nursery Landscape Association (C.N.L.A) standards.

1.5 **PRODUCT DELIVERY, HANDLING AND STORAGE**

1.5.1 Supply mulch as specified on approved landscape drawings and specifications.

1.5.2 Protect mulch stockpile on site from contamination of airborne herbicides, pesticides, fertilizers and other hazardous chemicals.

1.5.3 Avoid the placement of mulches in excessively wet conditions or when frozen.

1.5.4 All organic mulches shall be generally free of diseases, molds, fungi and insect infestations.

1.5.5 All organic mulches shall be free of inorganic materials such as metal, glass, rock and other foreign materials.

1.6 **SUBSTITUTION**

1.6.1 All mulches shall be supplied and installed as specified. Substitutions will not be allowed unless approved by the City of Leduc.
1.7 INSPECTION
1.7.1 Samples of mulch shall be approved by the City of Leduc prior to installation.
1.7.2 Retain approved samples on site until work has been inspected.
1.7.3 All work shall conform to approved samples.
1.7.4 Give timely notice, in writing, to the Consultant when materials are available for inspection.
1.7.5 Remove all rejected materials from site immediately.

2. PRODUCTS

2.1 DECIDUOUS WOOD CHIP MULCH
2.1.1 Mulch shall be approved shredded deciduous or coniferous wood mulch.
2.1.2 Material shall be from chipped ash, elm, maple, poplar, birch, cedar and other approved trees. Mulch may contain bark and wood chipped to sizes ranging from 50 mm to 100 mm. Mulch shall be free of bark, stringy twigs, seed, non-organic material, wood preservatives or diseased wood. There shall be no more than 5% of the following materials in total: soil, sawdust, peat moss, coniferous wood and needles.

2.2 PROHIBITED MULCHES
2.2.1 The following mulches are prohibited: inorganic, sawdust and shavings, peat moss, manures or raw composts, paper products, plastics, rubbers, aluminum foils, gelatinous sprays, plywood and other lumbers containing chemical adhesives or wood preservatives.

3. EXECUTION

3.1 INSTALLATION
3.1.1 Plants must be watered before mulch is installed.
3.1.2 During application all mulches shall be kept at least 50 mm away from tree trunks and bases of shrubs.
3.1.3 Apply mulches in areas as per drawings and spread by hand rake to a settled depth of 100 mm.

3.2 PREPARATION
3.2.1 Tree wells and planting beds shall be free of weeds prior to mulch installation.

3.3 CLEAN-UP
3.3.1 Immediately after installation, remove all mulches and other debris from the roadways, walkways and surrounding areas, leaving the area neat and tidy. Clean all areas, which are contaminated as a result of landscape construction operations.
3.3.2 Maintain all areas neat and tidy at all times until acceptance.
3.4 MAINTENANCE

3.4.1 All mulched areas shall be weed free during Construction Completion Certificate and Final Acceptance Certificate inspections. Spot control of weed growth shall be carried out as necessary.

3.4.2 During the period between CCC and FAC inspections, the landscape contractor is to top up mulch applications to retain minimum required depth of 100 mm.

3.4.3 Following FAC approval, the City of Leduc will be responsible for maintaining mulch applications to the specified depth and quality.

END OF SECTION
### 6.0 DESIGN DETAIL DRAWINGS

<table>
<thead>
<tr>
<th>Detail No.</th>
<th>Detail Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Typical Tree Installation</td>
</tr>
<tr>
<td>1.2</td>
<td>Typical Shrub Planting Detail</td>
</tr>
<tr>
<td>1.3</td>
<td>Tree Protection Zone Detail</td>
</tr>
<tr>
<td>1.4</td>
<td>Typical Tree Root Trench Detail</td>
</tr>
<tr>
<td>2.1</td>
<td>Wood Screen Fence Detail</td>
</tr>
<tr>
<td>2.2</td>
<td>Wood Screen Fence Step Down Detail</td>
</tr>
<tr>
<td>2.3</td>
<td>Chain Link Fence Details</td>
</tr>
<tr>
<td>3.1</td>
<td>Gravel Pathway Detail</td>
</tr>
<tr>
<td>4.1</td>
<td>T-Bollard Layout</td>
</tr>
<tr>
<td>4.2</td>
<td>HID-A-BAG II Combo Waste &amp; Recycle Container</td>
</tr>
</tbody>
</table>

* Noise attenuation fence: See City of Leduc Minimum Engineering Standards for construction requirements and details.
CONIFEROUS
Less than 3.0m ht.

DECIDUOUS
Less than 100mm caliper

WRAP GUY WIRE END BACK ON ITSELF

NOTES:
• IF MINIMUM UTILITY SETBACKS PERMIT POSITION TREE STAKES INTO DIRECTION OF PREVAILING WINDS OR IF IN THE BOULEVARD THE STAKES SHOULD BE IN LINE WITH THE DIRECTION OF TRAFFIC.
• ALL TREE STAKES TO MAINTAIN MINIMUM 1.0m CLEARANCE FROM ALL U/G POWER, TELEPHONE AND GAS ALIGNMENTS.
• DIG ALL ROOT HOLES BY HAND WHEN CLOSER THAN 1.0m TO U/G POWER, TELEPHONE AND GAS ALIGNMENTS (REFER TO SECTION 7.6.2 AND 7.6.3 WHEN CLEARANCE CANNOT BE MAINTAINED FOR ANY EXCAVATIONS).
• ALL DIMENSIONS IN MILLIMETERS.

PRUNE DEAD, BROKEN, STUBS & DISEASED TREE LIMBS.

RUBBER HOSE — 12mm OR APPROVED EQUAL. POSITION AT APPROX. 3/5 HT. FOR ALL TREES.

FLUORESCENT ORANGE FLAGGING ON ALL GUY WIRES.

GALVANIZED GUY WIRE No. 12 (MIN. SIZE)

2 VERTICAL STAKES PER TREE:
• TREE STAKES MIN. 2.0m LENGTH
• PLAIN T-POSTS (1.33LB/FT) C/W 7 PUNCHED HOLES (1 1/2" X 1 3/8" X 7") OR TEETH / NOTCHES
• ALL EXPOSED PORTIONS OF TREE STAKES FREE OF RUST, SCALED, PRIMED, & PAINTED.
• TREE STAKES SET MIN. 600mm INTO UNDISTURBED SOIL.
• TOP 300mm OF ALL TREE STAKES TO PAINTED TO MATCH ANNUAL COLOUR CODES.
• LARGE TREES TO HAVE 3-4 STAKES.

200 TYP.

TOP OF ROOT BALL & ROOT FLARE TO BE 40mm ABOVE FINISHED GRADE.

100mm MIN. DECIDUOUS OR CONIFEROUS WOOD MULCH — OVER EXPOSED ROOT BALL.

TAPER MULCH TO BASE OF TREE MULCH TO EXTEND 150mm BEYOND EDGE OF WELL BUMP.

RE-ESTABLISH ANY DAMAGED SEED/SOD TO CITY OF LEDUC STANDARDS.

254mm WIDE X 51mm HIGH TOPSOIL BUMP TO HOLD IN WATER (CENTRE LINE OF BUMP ON EDGE OF WELL).

CLASS B TOPSOIL, MODERATELY COMPACTED (ENSURE STABILITY OF ROOT BALL).

SCARIFY WALL OF TREE WELL

FOLD 1/3 (OR REMOVE) WIRE BASKET & BURLAP FROM TOP OF ROOT FLARE.
• POSITION TOP OF ROOT BALL 40mm ABOVE FINISHED GRADE.
• BURLAP TO BE TREATED NATURAL FIBRE.
• ROOT BALL MIN. SIZE AS PER SPECIFICATIONS.

UNDISTURBED NATIVE SOIL
NOTES:
• PRUNE ONLY DEAD, BROKEN OR DISEASED BRANCHES TO MAINTAIN PROPER SHRUB FORM (DECIDUOUS ONLY).
• DO NOT ROTOTILL WITHIN 1.0m OF U/G POWER, TELEPHONE AND GAS ALIGNMENTS.
• DIG ALL ROOT HOLES BY HAND WHEN CLOSER THAN 1.0m TO U/G POWER, TELEPHONE AND GAS ALIGNMENTS.

PLANTING BED WIDTH VARIES

MIN. 500mm FROM WALK TO MATURE SHRUB

CONIFEROUS OR DECIDUOUS SHRUB

100mm MIN. DECIDUOUS OR CONIFEROUS WOOD MULCH OR APPROVED EQUAL TAPER MULCH TO BASE OF SHRUB.

SPREAD ROOTS EVENLY THROUGHOUT TOPSOIL, PRUNE ALL DAMAGED ROOTS.

RE-ESTABLISH ANY DAMAGED SEED/SOIL TO CITY OF LEDUC STANDARDS.

POTTED ROOT

BARE ROOT

METAL EDGER AT THE DISCRETION OF THE CITY OF LEDUC – INSTALLED AS PER MANUFACTURER’S INSTALLATION GUIDELINES

500mm MIN. DEPTH ‘CLASS ‘B’ TOPSOIL, MODERATELY COMPACTED. ENSURE STABILITY OF ROOT BALL.

ROTOTILL 150mm NATIVE SOIL.

UNDISTURBED NATIVE SUBSOIL
### Tree Protection Zone Calculation Table

<table>
<thead>
<tr>
<th>Trunk Diameter (DBH)</th>
<th>Minimum Protection Distance Required (Measure from the outside edge of tree trunk)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 cm &amp; under</td>
<td>1.2 meters</td>
</tr>
<tr>
<td>11 – 30 cm</td>
<td>1.8 meters</td>
</tr>
<tr>
<td>31 – 40 cm</td>
<td>2.4 meters</td>
</tr>
<tr>
<td>41 – 50 cm</td>
<td>3.0 meters</td>
</tr>
<tr>
<td>51 – 60 cm</td>
<td>3.6 meters</td>
</tr>
<tr>
<td>61 – 70 cm</td>
<td>4.2 meters</td>
</tr>
<tr>
<td>71 – 80 cm</td>
<td>4.8 meters</td>
</tr>
<tr>
<td>&gt;80 cm</td>
<td>5.0 meters</td>
</tr>
</tbody>
</table>

Notes:
- Wood post: (min. 76mm width) installed to a depth of 500mm (Alberta first call required)
- Top and bottom rail: (min. 38 x 89mm construction, max. span 2.5m), cross bracing as required
- Height of the fence: min. 1.2 meters
- No ground disturbance within 1.2 meter of the tree trunk (i.e. post installation)
- Posts set back from sidewalk and curb: min 300mm
- Fence material: minimum orange barrier fence or metal chain link fence
- Attach a sign on two sides of the tree protection barrier, signage to read "Tree Protection Zone - Do not remove fence during construction"

**Plan:**
- Orange barrier fencing attached to perimeter
- Wooden post: 76 x 76 mm min. (brace as required)
- Top and bottom rail: 38 x 89 mm min.
- Existing grade
- Wood or metal post below grade, if metal is specified, the wood post must be bolted to the metal post.
NOTES:

• ALL COMPONENTS AND WORKMANSHIP TO CONFORM TO SPECIFICATION SECTION 0931.
  NATURALIZATION AS WELL AS THE RELATED SECTIONS.
• ALL TREE STAKES TO MAINTAIN MINIMUM 1.0m CLEARANCE FROM ALL U/G POWER, TELEPHONE
  AND GAS ALIGNMENTS.
• IF MINIMUM UTILITY SETBACKS PERMIT POSITION TREE STAKES INTO DIRECTION OF PREVAILING
  WINDS OR IF IN THE BOULEVARD THE STAKES SHOULD BE IN LINE WITH THE DIRECTION OF
  TRAFFIC.
• DIG ALL ROOT HOLES BY HAND WHEN CLOSER THAN 1.0m TO U/G POWER, TELEPHONE AND GAS
  ALIGNMENTS
• ALL DIMENSIONS IN MILLIMETERS.
NOTES:
1. POSTS:
   100mm x 150mm x 3000mm long, rough cut SPF pressure treated timber.

2. STRINGERS:
   2 – 50mm x 150mm S4S SPF pressure treated stringers, fastened with
   2 – 75mm #10 zinc screws per connection. Mount stringers facing private property.
   Where fence terminates, angle cut stringer end at 45 degrees.
   1 – 50mm x 100mm S4S SPF pressure treated stringers, fastened with
   2 – 75mm #10 zinc screws per connection. Mount stringers facing private property.
   Where fence terminates, angle cut stringer end at 45 degrees.

3. FASCIA:
   2 – 25mm x 150mm S4S fascia fastened with 2 – 63mm #8 zinc screws per connection
   spaced at 600mm.

4. FENCE BOARDS:
   25mm x 150mm x 1750mm long S4S SPF fence boards fastened with 2 – 50mm long galvanized
   staples per connection.

5. FINISH:
   Paint or stain to be approved by the city of Leduc prior to construction.

6. HARDWARE:
   All hardware to be galvanized, unless otherwise noted.

7. ALL COMMON FENCING TO BE INSTALLED 150mm INSIDE PRIVATE PROPERTY.

8. FENCING SHALL NOT ENCROACH ON GAS EASEMENTS.
NOTE:
1. SEE WOOD SCREEN FENCE DETAIL 2.1 FOR ADDITIONAL INFORMATION.
FENCE DETAIL

NOTES:
1. POSTS, BRACES AND RAILS — HOT DIPPED GALVANIZED WELDED STEEL PIPE, STANDARD WEIGHT (SCHEDULE 40, ASTM A120), ZINC COATED AT MINIMUM 366 g/m²
2. CHAINLINK, 50mm MESH, 3.5m THICK WIRE, CLASS A ZINC COATED, GRADE 1 AT MINIMUM 490 g/m²
3. PIPE BRACES:
   GATE UP TO 1.8m WIDE — HORIZONTAL BRACE ONLY

SCALE: N.T.S.
DATE: DEC 2009
DRAWN: O.P.
APPROVED: M.D.N.
*REPAIR DISTURBED LANDSCAPE TO ORIGINAL CONDITION

SOD ON 200mm TOPSOIL OR SEED ON 250mm TOPSOIL OR MULCH

150mm - 20mm DIA. CRUSHED GRAVEL COMPACTED TO MIN. 95% S.P.D.
CROSS FALL AT MIN. 2%

NON WOVEN GEOTEXTILE PROPEX 4551 SUPPLIED BY NILEX, OR APPROVED EQUAL.

2% MIN.

SUBGRADE COMPACTED TO 95%
S.P.D. GRUBBED FREE OF STUMPS,
ROOTS, LARGE ROCKS AND DEBRIS

NOTES:
1. TRAIL WIDTH MAY VARY WITH LOCATION.
2. HORIZONTAL CLEARANCE MIN. WIDTH OF 500mm FROM EDGE OF TRAIL TO STRUCTURES OR TREES/SHRUBS.
3. VERTICAL CLEARANCE MIN. HEIGHT OF 2500mm ABOVE TRAIL SURFACE.

CITY OF Leduc

GRAVEL PATHWAY DETAIL

SCALE: N.T.S. DATE: SEP 2019
DRAWN: M.G. APPROVED: M.D.N.

LANDSCAPE DETAIL 3.1
Plan

Elevation

Notes:
1. Ensure that bollard arms are even with existing structures.
2. Footing locations may vary based on trail width.
3. T-bollards supplied by child/space or approved equal.
4. Install as per manufacturer’s specs.
5. All metal to be galvanized. Powder coating optional.

City of Leduc

T-Bollard Layout

4.1
NOTE:
- SUPPLIED BY HAUL-ALL
- INSTALL AS PER MANUFACTURERS INSTALLATION INSTRUCTIONS.
- ALL DIMENSIONS IN MILLIMETERS
### 7.0 DEFINITIONS

The following definitions are used throughout the text of this document.

<table>
<thead>
<tr>
<th><strong>Authority</strong></th>
<th>is any outside agency with jurisdiction over development approval on lands not controlled by the City of Leduc. (i.e. gas or electrical companies)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Boulevard Planting</strong></td>
<td>refers to all trees, shrub beds, groundcover, and turf planted within the road right-of-way within the City of Leduc. This includes planting adjacent to sidewalks and in medians.</td>
</tr>
<tr>
<td><strong>Community Park</strong></td>
<td>provides opportunities for active and passive recreation at the community level. These parks provide recreational facilities for community sports, tournaments, special events and passive activities. Provisions of recreation facilities in these parks should be based on an evaluation of the projected needs of the overall City at the time of development. The size of the park is dependent upon the recreational facility needs of the City.</td>
</tr>
<tr>
<td><strong>Construction Completion Certificate (CCC)</strong></td>
<td>is the written acceptance certificate issued by the City of Leduc acknowledging the completion of construction of a municipal improvement. Once the CCC is issued, the maintenance period commences.</td>
</tr>
<tr>
<td><strong>Developer’s Contractor</strong></td>
<td>are the accredited professionals retained by the Developer including, but not be limited to, landscaping, fencing, and masonry contractors, and any other trade required to complete landscape development.</td>
</tr>
<tr>
<td><strong>Developer’s Consultant</strong></td>
<td>are the accredited consulting professionals retained by the Developer including but not be limited to Landscape Architects, Land Use Planners, Architects, Engineers, and Land Surveyors.</td>
</tr>
<tr>
<td><strong>Director, Community, Development and Service Planning</strong></td>
<td>is the management position within the City of Leduc responsible for the development, implementation and enforcement of the Landscape Design and Construction Standards, 2010. The Director, Community Development and Service Planning may designate a representative to approve any and all improvements proposed by the Developer including reviewing drawings and carry out inspections.</td>
</tr>
</tbody>
</table>
| **Environmental Reserve (ER)** | Subject to 664(1) section 663 of the Municipal Government Act, a subdivision authority may require the owner of a parcel of land that is the subject of a proposed subdivision to provide part of that parcel of land as environmental reserve if it consists of

(a) a swamp, gully, ravine, coulee or natural drainage course;

(b) land that is subject to flooding or is, in the opinion of the subdivision authority, unstable, or

(c) a strip of land, not less than 6 metres in width, abutting the bed and shore of any lake, river, stream or other body of water for the... |
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>purpose of preventing pollution, or providing public access to and beside the bed and shore.</td>
<td>Final Acceptance Certificate (FAC) is the written acceptance certificate issued by the City of Leduc for the municipal improvements, once any and all repairs, defects, and deficiencies have been completed and the Maintenance Period has expired. This certificate releases any further guarantee or maintenance responsibilities by the Developer for the local improvements specified in the certificate.</td>
</tr>
<tr>
<td>Final Acceptance Certificate (FAC)</td>
<td></td>
</tr>
<tr>
<td>Landscaping</td>
<td>is the preservation of natural features and the enhancement of public property within subdivision areas including but not limited to: grading, the planting of any plant material, the construction of fencing, walkways, multiways, storm water management facilities, driveways and other site features as designed by a registered Landscape Architect, and approved by the City of Leduc.</td>
</tr>
<tr>
<td>Landscape Architect</td>
<td>a professional who is a registered member in good standing with the Alberta Association of Landscape Architects, and is currently licensed to practice in Alberta.</td>
</tr>
<tr>
<td>Landscape Plans</td>
<td>are the drawings and specifications prepared by the Landscape Architect on behalf of the Developer which include the design, installation and construction methods of all municipal landscape improvements.</td>
</tr>
<tr>
<td>Letter In Lieu</td>
<td>a letter provided by the Landscape Architect to the City of Leduc in lieu of Plan of record Drawings. This letter states that no substantial changes to the landscaping have occurred on site and thus, is an acceptable substitute to the set of Plan of record drawings.</td>
</tr>
<tr>
<td>Maintenance Period</td>
<td>is the minimum two (2) year period which is required, after a CCC, during which the Developer and their contractor are responsible for maintaining all municipal improvements, and repairing any and all damage that occurs. The maintenance period is considered complete with the issuance of the Final Acceptance Certificate signed by the City of Leduc.</td>
</tr>
<tr>
<td>Municipal Reserve (MR)</td>
<td>According to the Municipal Government Act, Section 666(1) subject to section 663, a subdivision authority may require the owner of a parcel of land that is the subject of a proposed subdivision: (a) to provide part of that parcel of land as municipal reserve, school reserve, or municipal and school reserve, (b) to provide money in place of municipal reserve, school reserve, or municipal and school reserve, or to provide any combination of land or money referred to in clauses (a) and (b).</td>
</tr>
<tr>
<td>Multiway Trail System</td>
<td>is a system of multiways through the City of Leduc. The multiways are intended to be used for cycling, walking, running and inline skating. The intent is to link parks, recreation facilities, shopping areas, and city</td>
</tr>
<tr>
<td><strong>neighborhoods.</strong> Multiways are to be 3.0m width asphalt trails. Nature trails are to be 1.5 – 2.5 m width granular or mulch material.</td>
<td></td>
</tr>
<tr>
<td><strong>Neighborhood Park</strong></td>
<td>is a parcel of Municipal Reserve that may contain various recreational facilities to accommodate the activity requirements of various user groups including elementary school children. This park type is usually surrounded by residential lots with public access from a road frontage and may include access through utility lots.</td>
</tr>
<tr>
<td><strong>Plan Approval</strong></td>
<td>approval of plans shall be in principle only and if unforeseen conditions arise which may adversely affect the development, the design may be subject to review by the City of Leduc and revision by the Consultant in accordance with generally accepted engineering and Landscape Architecture construction practices.</td>
</tr>
<tr>
<td><strong>Plan of Record Drawings</strong></td>
<td>are the drawings that records all built conditions of the site once construction has been completed. Included shall be the actual location, length, size, capacity, materials, gradient and year of construction of the municipal improvements constructed within the subdivision area. These must be submitted to the City of Leduc 6 months prior to the anticipated FAC inspection date. The submission shall be in the form of a compact disc with an unlocked AutoCAD file and a full-size PDF file of the drawings.</td>
</tr>
<tr>
<td><strong>Public Property</strong></td>
<td>refers to all properties, easements and rights-of-way within and adjacent to the subdivision area which are to be owned or administered by the City of Leduc following the registration of a plan of subdivision for the subdivision area.</td>
</tr>
<tr>
<td><strong>Public Utility Lot</strong></td>
<td>according to the Municipal Government Act, Public Utility Lot or PUL refers to a parcel of land required to be given to the City under part 17 Division 8 for public utilities. Public utilities are defined as a system or works used to provide one or more of the following for public consumption, benefit, convenience or use and include water or stream, sewage disposal, public transportation operated by or on behalf of the municipality, irrigation, drainage, fuel, electric power, heat, waste management, telecommunications, and those things provided for public consumption, benefit, convenience or use.</td>
</tr>
<tr>
<td><strong>Red Line Drawings</strong></td>
<td>a set of drawings completed by the Landscape Architect showing any and all changes made to the approved design drawings before construction begins. Redline drawings are to be submitted to the City of Leduc for approval, and once approved, become the drawing set used for construction of improvements and approvals.</td>
</tr>
<tr>
<td><strong>Shall</strong></td>
<td>the word ‘shall’ denote a mandatory requirement.</td>
</tr>
<tr>
<td><strong>Should</strong></td>
<td>the word ‘should’ or ‘may’ denotes an optional or suggested recommendation.</td>
</tr>
</tbody>
</table>
The objectives of the update to the Landscape Standards included:

- Update the standards to clarify the developer responsibilities for multiway, consider requirements of other regional municipalities and best practices.
- Reflect the updated POST Master Plan and other City standards.

Summary of the Main Changes to the Landscape Standards

- Clarification that all multiways in new neighbourhoods are the responsibility of the developer.
- Only primary multiway – no secondary multiway.
- No trees or shrubs in PUL/walkways, to simplify maintenance.
- Shrub beds to have aluminum edger, (at the discretion of the City) to simplify maintenance.
- Sod for all intensive use areas in park sites (not SWMFs): seed acceptable at the discretion of the City
Summary of the Main Changes to the Landscape Standards (Continued)

- One fountain to be provided for each SWMF
- Increased topsoil depth for new landscape areas and other low impact development initiatives, to increase potential rainwater infiltration. Reflects environmental policy and the trend in other regional municipalities.
- More landscape naturalization, to improve the environmental qualities of the landscape and reduce mechanical maintenance. Reflects environmental policy.
- Local Road Trees: If the tree cannot be accommodated within the area between the front property line and the curb, the developer must commit to an equivalent tree being planted in the front 5m of the lot.
Summary of the Main Changes Requested by Executive & Committee

• Clarified why multi-purpose hard surface pads are no longer ‘required’ to be built by developers. Other municipalities do not include this requirement. Similar park infrastructure can be addressed through partnerships and can include amenities like outdoor rinks or multi use sites.

• Clarified that tot lot playgrounds are still ‘required’ to be built by developers in Neighbourhood Parks.
Items Clarified with Input from Urban Development Institute (UDI)

- One aerator/fountain in each SWMF
- Tree trenching for street trees (optional; not required)
- Sod instead of seed for intensive use areas and for erosion control in certain park and open space sites
- Increased topsoil depth
- Aluminum edging for shrub beds (emphasis on ornamental beds)
### Summary of the Financial Impacts to the Landscape Standards

#### Potential additional costs for the City

<table>
<thead>
<tr>
<th>Section</th>
<th>Item</th>
<th>Financial Implication</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>Incremental increase in maintenance costs for parks and open space.</td>
<td>This increase is related to the growth in parks and open space inventory as new neighbourhoods are developed and handed over to the City as new assets.</td>
</tr>
<tr>
<td>3.3.7</td>
<td>One fountain to be provided by developers for each SWMF.</td>
<td>This will increase the operation cost for the City and also increase the construction costs for the developer. Fountains in SWMFs seem to be something that Leduc residents highly value.</td>
</tr>
</tbody>
</table>

#### Potential cost savings for the City

<table>
<thead>
<tr>
<th>Section</th>
<th>Item</th>
<th>Financial Implication</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2</td>
<td>Clarification that all multiways in new neighbourhoods are the responsibility of the developer.</td>
<td>This reflects the requirements of regional municipalities.</td>
</tr>
<tr>
<td>2.2</td>
<td>Partnership opportunities with developers for recommended park infrastructure.</td>
<td>Potential partnership opportunities for sharing construction or establishments costs benefit both the City and developers who volunteer to participate. It also provides recreation infrastructure early in a neighbourhoods life cycle when the demographic needs it.</td>
</tr>
<tr>
<td>3.1</td>
<td>Sod for all intensive use areas in park sites (not SWMFs): seed acceptable at the discretion of the City</td>
<td>This change should result in less turf establishment costs for the City. It will however increase construction costs for developers but could be offset by a quicker handover to the City.</td>
</tr>
</tbody>
</table>
### Summary of the Financial Impacts to the Landscape Standards

#### Potential cost savings for the City

<table>
<thead>
<tr>
<th>Item #</th>
<th>Item</th>
<th>Financial Implication</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1.8</td>
<td>More landscape naturalization</td>
<td>This should reduce maintenance costs for City staff due to the reduction in grass mowing, although this will be partially offset by other required tasks to manage naturalized landscapes. There can be significant environmental benefits related to naturalized landscape areas. Construction costs for naturalized landscapes are comparable to those for ornamental landscapes.</td>
</tr>
<tr>
<td>3.3.1</td>
<td>No trees or shrubs in PUL/walkways.</td>
<td>This change should result in less time intensive maintenance for City staff. It will also reduce construction costs for developers.</td>
</tr>
<tr>
<td>3.5</td>
<td>Ornamental shrub beds to have aluminum edger.</td>
<td>This change should result in less time intensive maintenance for City staff. It will however increase construction costs for developers.</td>
</tr>
<tr>
<td>Spec #329100</td>
<td>Increased topsoil depth for grassed areas, to increase potential rainfall infiltration and other LID initiatives.</td>
<td>This change will increase construction costs for developers but will be partially offset by the probable reduction in them having to dispose of excess topsoil from new neighbourhoods. Trees, shrubs, and turf should grow better with deeper topsoil, resulting in reduced maintenance and replacement costs to the City.</td>
</tr>
</tbody>
</table>
Design Principles

The following design principles shall be considered by the Landscape Architectural Consultants when designing landscape, open space and recreation infrastructure in the City of Leduc. Designs shall:

• Aim to ensure the security, safety, and accessibility of the public;
• Consider the protection of valuable cultural features;
• Ensure the preservation of significant natural landscapes;
• Aim to introduce unique and decorative design features within the landscape; and
• Employ sustainable design practices in all aspects of the project.

The following are important topics and guidelines which shall be considered in the design process:

• Leadership in energy and environmental design (LEED) – site & building design & LEED for neighbourhood development
• Universally accessible design
• CPTED (Crime Prevention through Environmental Design)
• Alberta Building Code for Structures
• Design for Winter Cities
Project Process Timeline

Major tasks including engagement events

- Project start-up meeting – April 25, 2019
- Review & analysis of existing plans & policies
- Review of the existing standards
- Comparison/benchmarking with standards of similar regional municipalities

- Meeting with internal stakeholders
- Draft revised landscape standards document

- Presentation to Urban Development Institute (UDI), Edmonton Region
- Presentation to Executive
- Presentation to Committee
- Updated meeting with UDI, Edmonton Region
- Presentation to Council
### Summary of Developer Responsibility

<table>
<thead>
<tr>
<th>Land Category</th>
<th>Park and Open Space Classification</th>
<th>Developer Responsibility</th>
<th>* Partnership Opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipal Reserve</td>
<td>Regional Park</td>
<td>City</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Community Park</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Neighbourhood Park</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Linear Parks/Greenway</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Environmental Reserve</td>
<td>Natural Areas/Environmental Reserves/Conservation Reserves</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Municipal Open Space</td>
<td>Stormwater Management Facilities (SWMFs)</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Public Utility Lot (PUL)/Walkways</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Multiway**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roadways</td>
<td>Arterial, Collector, Local Roads – Medians &amp; boulevards</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>

* Where partnership opportunities are indicated, developers to collaborate with the City of Leduc to provide amenities and enhancements beyond the standards specified in this document.

** The Developer is responsible for the construction of multiways.
### Landscape Standards Changes

- Multi-purpose hard-surface pad no longer required.
- City is negotiating with developers to share costs for construction of recommended park infrastructure like the outdoor rink in the Robinson neighbourhood.

#### Table 5 – Required and Recommended Recreation Facilities for Neighborhood & Community Parks

<table>
<thead>
<tr>
<th>Park Classification</th>
<th>Neighborhood Park</th>
<th>Community Park</th>
</tr>
</thead>
<tbody>
<tr>
<td>Park Size</td>
<td>Greater than 0.5 ha</td>
<td>Facility Dependent</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Facilities</th>
<th>Neighborhood Park</th>
<th>Community Park</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multi-use Ball Diamond</td>
<td>⊗</td>
<td>⊗</td>
</tr>
<tr>
<td>Senior Baseball</td>
<td>⊗</td>
<td>⊗</td>
</tr>
<tr>
<td>Junior Soccer Field</td>
<td>⊗</td>
<td></td>
</tr>
<tr>
<td>Senior Soccer/Football</td>
<td></td>
<td>⊗</td>
</tr>
<tr>
<td>Rugby Field</td>
<td></td>
<td>⊗</td>
</tr>
<tr>
<td>400m Track &amp; Field</td>
<td></td>
<td>⊗</td>
</tr>
<tr>
<td>Multi-use Field</td>
<td>⊗</td>
<td></td>
</tr>
<tr>
<td>Tennis Courts</td>
<td></td>
<td>⊗</td>
</tr>
<tr>
<td>Outdoor Rink</td>
<td>⊗</td>
<td>⊗</td>
</tr>
<tr>
<td>Pre-school Age Playground</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>School Age Playground</td>
<td>⊗</td>
<td></td>
</tr>
<tr>
<td>Sledding Hill</td>
<td>✓ (one per neighborhood)</td>
<td></td>
</tr>
<tr>
<td>Park Amenities &amp; Furniture</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Washrooms or Porta Potty's</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Passive Area</td>
<td>⊗</td>
<td>⊗</td>
</tr>
</tbody>
</table>

- ⊗ Recommended Facilities
- ✓ Required Facilities
Questions?
COUNCIL REQUEST FOR DECISION

MEETING DATE: March 9, 2020

SUBMITTED BY: Ken Woitt – Director, Planning & Development

PREPARED BY: Dennis Peck – Manager, Current Planning

REPORT TITLE: Bylaw No. 1040-2019 (Land Use Bylaw Text Amendments) (2nd and 3rd Reading)

EXECUTIVE SUMMARY

Bylaw 1040-2019 will amend Land Use Bylaw 809-2013 to permit “Container, Shipping Container or Sea Can” use for temporary storage purposes in the IBL – Business Light Industrial subject to prescribed siting conditions.

RECOMMENDATION

That Council give Bylaw No. 1040-2019 Second Reading.

That Council give Bylaw No. 1040-2019 Third Reading.

RATIONALE

Land use bylaws are living documents that are constantly under review by administration and stakeholder partners. To be effective, land use bylaw regulations need to:

- Be clear, concise and consistent in their requirements;
- Evolve to address the changing needs of the community; and
- Ensure development meets expected standards.

The City of Leduc has received a verbal request to use shipping containers for temporary onsite storage on land zoned IBL – Business Light Industrial.

The use of shipping containers for storage purposes has increased in popularity. They can be found on many sites within the general industrial areas of Leduc. Defined as “Container, Shipping Container or Sea Can” within the Land Use Bylaw No. 809-2013 (the LUB), they are now a Permitted Use in three zones, being:

- **IL** – Light Industrial;
- **IM** – Medium Industrial; and
- **IS** – Special Industrial.

All three industrial zones reference Section 21.3.2 of the LUB’s “Specific Use Regulations” which prescribe detailed regulations guiding the use and siting of shipping containers (Attachment 4).

Within the City, there is an area designated **IBL** – Business Light Industrial where the use of shipping containers as a permitted use is a reasonable land use opportunity. This being those lands on 46A Street between 61 and 62 Avenue. Therefore, it is recommended that the term “Container, Shipping Container or Sea Can” be added as a permitted use for this zone and, at the same time, be restricted to these specific lands.

It is important to be careful when introducing on a permanent basis uses typically intended for a standard district into a specially designed district. The **IBL** zone was created to provide for a selection of light industrial and commercial land uses that are readily evacuated, that do not encourage large gatherings of people and do not adversely affect adjacent land use by allowing uses where there are significant, external, objectionable or dangerous conditions of any building on the site.
COUNCIL REQUEST FOR DECISION

The district is intended to serve as a buffer to more impactful industrial land uses. In addition, a majority of the land designated IBL are high profile sites facing Highway 2 and/or significant arterial roads where a high design standard of development is reasonably expected. As articulated in the Highway 2 Corridor Design Guidelines, municipal approvals should consider architectural treatment, design and density of buildings, minimum building setbacks, location and screening of open storage areas and mechanical equipment, access and egress, site planning and parking, yard and storage areas, landscaping, signage, lighting, and preservation of attractive natural areas. A very wide list of considerations corresponds to potential development of these areas along the Highway. Similar considerations are not unreasonable for any development facing or accessing onto an arterial road.

For all these reasons, the proposed amendment to allow shipping containers for storage purposes is limited to the area designated IBL that is outside the Highway 2 Corridor Design Guidelines area of interest and on sites facing or accessed by a local road.

Finally, recognizing that this is a new, and untested, opportunity on these lands, a series of conditions are recommended to permit the siting of shipping containers for storage purposes and to provide the opportunity for the City to monitor uptake and thereby assess the impact of this opportunity. These conditions are:

- To limit to 3 the number of shipping containers per site;
- To consider the use of shipping containers as a temporary land use with 3 year limits to approvals;
- Employ Section 21.3.2 (Attachment 4) of the Land Use Bylaw to support implementation within established guidelines; and
- Restricting the use of shipping containers to designated IBL lands that do not face or have access onto an arterial road (e.g., Sparrow Drive).

In summary: the proposed amendment will not affect the IBL zone’s original intent of providing buffering land uses between industrial and commercial areas; and, at the same time, as the impacted lands are outside the Highway 2 Corridor area of interest, not conflict with expected higher development standards along the Highway.

STRATEGIC / RELEVANT PLANS ALIGNMENT

1. Municipal Government Act, RSA 2000, Chapter M-26 as amended
   - S. 640(4) outlines all matters a land use bylaw may regulate.
   - S. 606 and S. 692 govern the requirements for advertising a public hearing for a bylaw.
2. Land Use Bylaw 809-2013, as amended
3. Highway 2 Corridor – Design Guidelines

ORGANIZATIONAL IMPLICATIONS

ADMINISTRATION:
There are no organizational implications.

RISK ANALYSIS: FINANCIAL / LEGAL:
There are no financial nor legal implications.

IMPLEMENTATION / COMMUNICATIONS:
The Public Hearing was held earlier at this meeting of Council. The Hearing was advertised in the February 14 and 21, 2020 issues of “The Representative.”

ALTERNATIVES:
1. That Council amends Bylaw 1040-2019; or

ATTACHMENTS

Attachment 1 - Key Plan
Attachment 2 - Zoning Map
Attachment 3 - Amending Bylaw
Attachment 4 - Special Use Regulations
Area Zoned IBL - Business Light Industrial that will permit "Container, Shipping Container or Sea Can" for temporary storage purposes
WHEREAS: The Municipal Government Act, R.S.A. 2000, Chapter M-26, as amended (the “Act”) grants a municipality the authority to pass a Land Use Bylaw;

AND: in accordance with the Act, the City of Leduc passed Land Use Bylaw No. 809-2013 to regulate and control the use and development of land and buildings in the City of Leduc, and the Council has deemed it expedient and necessary to amend Bylaw No. 809-2013;

AND: notice of intention to pass this bylaw has been given and a public hearing has been held in accordance with the Act;

NOW THEREFORE: the Council of the City of Leduc in the Province of Alberta duly assembled hereby enacts as follows:

Bylaw No. 809-2013, the Land Use Bylaw, is amended by this Bylaw 1040-2019, by
1. The addition of the term “Container, Shipping Container or Sea Can” to Table 33.1; as a permitted use; and
2. The addition of the following text following Section 14.9.6:
   “14.9.7. Container, Shipping Container or Sea Can developments shall be in accordance with the regulations in Section 21.3.2.
   14.9.8. A maximum of 3 Container, Shipping Container or Sea Can uses will be permitted on a site.
   14.9.9 Container, Shipping Container or Sea Can uses will be considered as a temporary use with a maximum 3 year approval from date of development permit issuance.
   14.9.10 No site accessing or facing directly onto an arterial road may contain a Container, Shipping Container or Sea Can use.”

READ A FIRST TIME IN COUNCIL THIS _____ DAY OF __________, AD 2020.

READ A SECOND TIME IN COUNCIL THIS _____ DAY OF __________, AD 2020.

READ A THIRD TIME IN COUNCIL AND FINALLY PASSED THIS _____ DAY OF __________, AD 2020.

____________________
Robert Young
MAYOR
Attachment 4

Land Use Bylaw 809-2013

Section 21.0 Specific Use Regulations

PREAMBLE: This Section of the Land Use Bylaw contains specific use regulations that outline additional controls for particular uses that may occur in various districts. The uses contained in this Section require additional regulations to the ones contained in the districts. They are consolidated here to avoid repetition in the districts under which they are a permitted or Discretionary Use.

Section: 21.3. Accessory Developments in Industrial Land Uses

21.3.2. Shipping Containers

21.3.2.1. Shipping Containers shall:

1) be considered an Accessory Development to the principal Building;

2) be developed in industrial Land Use districts;

3) not be allowed to be stacked;

4) be used for storage purposes only, excluding any dangerous or hazardous materials or containers;

5) have an exterior finish that matches or compliments the exterior finish of the principal Building; and

6) be screened from view, to the satisfaction of the Development Authority.
EXECUTIVE SUMMARY

In order to have a site ready for a high school in Crystal Creek, servicing needs to be extended to the property and grading needs to be completed, at an estimated total cost of $5,000,000. The City of Leduc is proposing to borrow up to $5,000,000 over a term of 30 years to fund this project. Administration is seeking approval through this borrowing bylaw to have this project accelerated and funded in 2020 operating and capital budgets.

RECOMMENDATION

That Council approve the Crystal Creek Servicing capital project in the 2020 Capital Program in the amount of $5,000,000 to be funded through a debenture.

That Council approve the annual repayment in the 2020 operating budget in the amount of $240,000 starting in 2020, based on a 30-year payback period.

That Council give Bylaw No. 1048-2020 first reading.

RATIONALE

In 2019 the provincial government announced funding for the design of a public high school in the City of Leduc. In discussions with the province and the school board, construction is anticipated to start on the high school in the summer of 2021 or earlier. In order to have the Crystal Creek site ready for high school construction, servicing and grading need to be started as soon as possible in 2020. Servicing for the first phase of Crystal Creek will require water and sewer lines from the Woodbend development to be extended to the high school site; in addition to site grading and improvements to 69th street and the onsite storm water management facility. Servicing details are still being refined and drawings will be shared during future Council updates. Please note that interim servicing for the school site will not negate the need to contribute to overall site servicing in Crystal Creek when the site starts to develop; as per cost contribution agreements between the City of Leduc and the co-owner of the site.

In addition to servicing the site, finalization of the subdivision and transfer of the site is required along with amendments to the West Area Structure Plan. The City is also examining the possibilities of partnerships with Alberta Infrastructure and the Black Gold School Board as per previous Council direction. Due to the compressed timeline to have a site ready, these activities will occur concurrently with this borrowing bylaw for site servicing.

The aforementioned actions are anticipated to be completed between the first reading of this bylaw and the start of site servicing construction. During this time, Administration will also seek confirmation that the province intends to fund construction of this high school in 2021. Additional updates will be forthcoming to Council as more information becomes available.

STRATEGIC / RELEVANT PLANS ALIGNMENT

A city with a plan for the future.
COUNCIL REQUEST FOR DECISION

ORGANIZATIONAL IMPLICATIONS

ADMINISTRATION:

There are no administrative implications at this time.

RISK ANALYSIS: FINANCIAL / LEGAL:

Currently the Crystal Creek Site Servicing project is unfunded in 2025 and 2026 in the 10-year capital plan. As a result of the announcement of the high school construction in 2021 by the provincial government, Crystal Creek site servicing needs to be expedited and started in 2020 at an estimated total cost of $5,000,000. Financial considerations include additions to long term debt through a new debenture with the Alberta Capital Finance Authority (ACFA) or other similar financial institution. The debt repayments are based on a borrowing period of 30 years and are anticipated to create an annual operational impact of $240,000, which is currently not in the 2020 operating budget. As actual growth revenue exceeded forecasted growth revenue in 2020 there is an opportunity to use this additional revenue to offset the debenture payments.

Due to timing constraints, administration recommends initiating the process of a borrowing bylaw to ensure compliance with Section 254 of the Municipal Government Act which states a borrowing bylaw must be passed prior to the start of any capital project. It is important to note that the City of Leduc will only take out a debenture under this borrowing bylaw once commitment by the Province of Alberta for funding the construction of the high school in 2021 is received. Should the province not commence with the project, Administration will not draw funds through this bylaw.

The City of Leduc will initiate the borrowing process ensuring that the requirements set forth in the MGA are adhered to. Specifically, Section 251 of the MGA sets the guidelines for municipal borrowing. This section states that:

- Municipal borrowing is only eligible if a borrowing bylaw is passed;
- This bylaw must state:
  - The purpose and amount of the borrowing;
  - As well as the term length of the loan and the repayment terms;
  - The sources of money to be used to pay the principal and interest owing under the borrowing.
- A borrowing bylaw must be advertised.

The City of Leduc will enter into a promissory note agreement with the ACFA or other similar financial institution. The City will have to abide to all the terms and conditions within the agreement.

IMPLEMENTATION / COMMUNICATIONS:

1. After first reading of the bylaw the municipality must publish a notice of the proposed bylaw in the manner prescribed by the Municipal Government Act or in accordance with an advertising bylaw authorized thereunder. If tendered costs are more than 15% higher than advertised costs, re-advertising may be required. (This notice conforms to Section 606 – requirements for advertising of the MGA)

2. The electors may, within 15 days from the date of the last publication of the notice, petition Council for a vote on the money bylaw (Refer to Section 223 of the Municipal Government Act regarding the percentage of electors that must sign the petition).
3. If a valid petition is presented to Council within the specified time period, Council may abandon the project or, if it decides to proceed with the bylaw, shall first submit the bylaw to a vote of the electors, and if assented to by the vote, may proceed.

4. If no petition for a vote is presented, the municipality may pass the borrowing bylaw.

ALTERNATIVES:

That Council defeats Bylaw No. 1048-2020

ATTACHMENTS

1. Bylaw No. 1048-2020
WHEREAS the Municipal Government Act, R.S.A. 2000, Chapter M-26, as amended, grants a municipality the authority to enact a bylaw to authorize the borrowing of money for the purpose of financing capital improvements;

AND the City of Leduc plans to undertake a project for the Crystal Creek Site Servicing (the “Project”);

AND the estimated total cost of the Project is $5,000,000 (Five Million dollars);

AND in order to construct and complete the Project, it will be necessary for the City of Leduc to borrow up to the sum of $5,000,000 (the “Indebtedness”) by the issuance of a debenture on the terms and conditions referred to in this Bylaw;

AND the amount of the existing debenture debt of the City of Leduc as at December 31, 2018 is $61,685,928, no part of which is in arrears;

AND the estimated lifetime of the project is thirty (30) years; and all required approvals for the Project have been obtained and the project is in compliance with all acts and regulations of the Province of Alberta;

THEREFORE, the Council of the City of Leduc in the Province of Alberta duly assembled, hereby enacts as follows:

PART I: APPLICATION

1. For the purpose of undertaking and completing the Project, the sum of up to Five Million dollars ($5,000,000) be borrowed from the Alberta Capital Finance Authority (“ACFA”) or other financial institution by way of debenture on the credit and security of the City of Leduc at large, of which the full amount borrowed is to be paid by the City of Leduc at large.
2. The debentures to be issued under this bylaw shall be in any denomination not exceeding the amount authorized by this bylaw and shall be dated having regard to the date of the borrowing.

3. The debentures shall bear interest during the currency of the debentures, at the interest rate fixed from time to time by the ACFA or other financial institution at a rate not exceeding five per cent (5%) per annum, payable semi-annually.

4. The debentures shall be issued in such manner that the principal and interest will be combined and be made payable in, as nearly as possible, equal semi-annual installments over a period of up to thirty (30) years, in accordance with the schedule attached and forming a part of each debenture.

5. The debentures shall be payable in lawful money of Canada at the Bank of Montreal in the City of Leduc or at such other bank or financial institution as Council may authorize as its banking agency during the currency of the debenture.

6. The Mayor and a Designated Officer of the City of Leduc shall authorize such bank or financial institution to make payments to the holder of the debentures, on such date and in such amounts as specified in the repayment schedule forming part of each debenture, and shall affix the corporate seal of the City of Leduc to the debenture documents.

7. There shall be levied and raised in each year of the currency of the debentures a rate or rates on the assessed value of all lands and improvements shown on the assessment roll, sufficient to provide an annual tax adequate to pay the principal and interest falling due in such year on such debentures. The said rates and taxes are collectible at the same time and in the same manner as other rates and taxes.

8. The Indebtedness is contracted on the credit and security of the City of Leduc at large.

9. The net amount realized by the issue and sale of debentures authorized under this bylaw shall be applied only for the purposes of undertaking and completing energy efficiency project.
PART II: ENACTMENT

10. This Bylaw shall come into force and effect when passed.

READ A FIRST TIME IN COUNCIL THIS ___ DAY OF ______________, AD 2020.

READ A SECOND TIME IN COUNCIL THIS ___ DAY OF ______________, AD 2020.

READ A THIRD TIME IN COUNCIL THIS ___ DAY OF ______________, AD 2020.

________________________________
Bob Young
MAYOR

________________________________
Sandra Davies
CITY CLERK

Date Signed
Crystal Creek Site Servicing
Bylaw 1048-2020
First Reading

Presented by:
Jennifer Cannon, Director, Finance
Shawn Olson, Director, Engineering
Crystal Creek Site Servicing

$5M servicing budget includes:

- Sanitary trunk extension (drill) under 50th Ave
- Sanitary service for school site
- Water looping from Woodbend to West Haven
- Water service for school site
- 50th Avenue and 69th Street upgrades
- Expansion of existing temporary storm system
- Site grading and landscaping (seeding)
Crystal Creek Site Servicing

- Project is currently unfunded in the 2025/26 Capital Plan, necessary to accelerate the project into 2020 due to high school announcement

- Proposed Borrowing Amount: $5,000,000

- Proposed Term: Maximum of 30 Years

- Proposed Annual Payment: Approximately $240,000
February 18
- Regional Transit Service Commission Discussion, Nisku

February 19
- Meeting with Mayor, Councillor Finstad, Laurie Scott and Bill Blais
- Steering Committee meeting
- EIA tour with Minister Ric McIver and MLA Brad Rutherford

February 20
- Strategic Planning Committee meeting
- Kinsmen 100th Anniversary – flag raising

February 21
- Leduc Chamber Luncheon – Business of the Arts

February 23
- Ride along with Community Peace Officer, Bradley Agotnes

February 24
- Meeting on Best Western 50th Street Digital Sign
- Council and Committee of the Whole agenda review
- International Women’s Day, Council video
- Committee of the Whole Meeting
- Council Meeting

February 25
- 93.1 The One Radio interview
- EBA Premier’s Luncheon, Edmonton

February 26
- Ribbon Cutting for Newly Renovated City Life Church
- Lunch meeting with Mayor John Stewart
- BGRS Stakeholder Engagement Evening – Council of School Communities

February 27
- Traffic Advisory Committee Meeting
- Budget 2020 Speech w/MLA Brad Rutherford, Edmonton Legislature
- Employee Awards Event

February 28
- Mock Council - Ecole Notre Dame School

February 29
- Rise Up Fundraiser

Approved by Mayor Bob Young

R. Y.
# Building Permit Detail Summary

**February 1, 2020-February 29, 2020** (inclusive)

<table>
<thead>
<tr>
<th>Commercial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permit</td>
</tr>
<tr>
<td>PRBD2020094211</td>
</tr>
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**Subtotal** 3  
$147,028.00

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<tr>
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<tr>
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**Subtotal** 6  
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<td>PRBD202000230</td>
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<tr>
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**Subtotal** 2  
$404,000.00

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<tr>
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<tr>
<td>PRBD202000308</td>
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### Building Permit Detail Summary
February 1, 2020-February 29, 2020 (inclusive)

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<th>Type of Work</th>
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<th>Units</th>
<th>Area</th>
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<td>Accessory Structure - Detached Garage</td>
<td>The Premier Construction Group Inc/ Premier Built Garages</td>
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Subtotal: 23

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<td>HOMES BY SHER-BILT INC</td>
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<td>1 Southfork</td>
<td>$464,023.28</td>
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Subtotal 4

Total: $556,909.05
## Building Permit Detail Summary

**February 1, 2020-February 29, 2020 (inclusive)**

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<tr>
<th>Permit Number</th>
<th>Description</th>
<th>Company</th>
<th>Address</th>
<th>Price</th>
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<td>PRBD202000475</td>
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<p>| Subtotal             | 7                                     | 7                      | $3,012,023.28   |
| Total                | 41                                    | 17                     | $5,878,960.33   |</p>
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<th>Residential Permits</th>
<th>Commercial Permits</th>
<th>Institutional Permits</th>
<th>Industrial Permits</th>
<th>Total of all Building Permits</th>
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<table>
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<th>Year 2019</th>
<th>Residential Permits</th>
<th>Commercial Permits</th>
<th>Institutional Permits</th>
<th>Industrial Permits</th>
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BUILDING PERMIT SUMMARY FOR MONTH OF FEBRUARY 2020
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<th>YEAR 2020</th>
<th>Single Family</th>
<th>Duplex (side by side and up &amp; down)</th>
<th>Multi Family (3-plex, 4-plex, townhouse, rowhousing and apartments)</th>
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<th>Multi Family (3-plex, 4-plex, townhouse, rowhousing and apartments)</th>
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<td>LCB201901650</td>
<td>THE BEAUTY STUDIO</td>
<td>5201 50 ST, Leduc, AB</td>
<td>ESTHETICS - SKINCARE, LASHES, NAILS</td>
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<td>LCB202000053</td>
<td>Brenntag Canada Inc.</td>
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<tr>
<td>LCB202000056</td>
<td>Brenntag Canada Inc.</td>
<td>4702 59 AVE, Unit:201, Leduc, AB</td>
<td>DISTRIBUTION</td>
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<td>LCB202000143</td>
<td>Leduc Arts Foundry</td>
<td>4514 54 AVE, Leduc, AB</td>
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<td>LCB202000177</td>
<td>UTV CANADA</td>
<td>6051 47 ST, Leduc, AB</td>
<td>WAREHOUSE/WHOLESALE &amp; RETAIL ATV PARTS</td>
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<td>LCB202000188</td>
<td>Lion's Light Wellness</td>
<td>212 SIMPKINS BEND, Leduc, AB</td>
<td>Safety inspections &amp; operations on work sites</td>
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<tr>
<td>LCB202000210</td>
<td>WSMS-Workplace Safety Management</td>
<td>101 DEER VALLEY DR, Unit:156, Leduc</td>
<td>Safety inspections &amp; operations on work sites</td>
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<tr>
<td>LCB202000213</td>
<td>JACKY’S</td>
<td>70 LEDUC TOWNE CENTRE , Leduc</td>
<td>PERMANENT MAKEUP</td>
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<td>LCB202000214</td>
<td>Blackbird Knitting &amp; Embroidery</td>
<td>4724 50 AVE, Leduc, AB</td>
<td>Retail yarn sales &amp; machine embroidery services</td>
<td>7807394500</td>
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<tr>
<td>LCB202000233</td>
<td>1469580 Ltd</td>
<td>613 SONGHURST WYND, Leduc, AB</td>
<td>Online Life/Business Coaching &amp; Spiritual</td>
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<tr>
<td>LCB202000235</td>
<td>Jack’d Mercantile Inc.</td>
<td>4911 50 AVE, Unit:102, Leduc, AB</td>
<td>Retail store for bulk food &amp; home goods.</td>
<td>7802960561</td>
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<tr>
<td>LCB202000240</td>
<td>Hertz Canada Ltd.</td>
<td>712O SPARROW DR, Leduc, AB</td>
<td>Short-term car and truck rentals</td>
<td>7808904561</td>
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<tr>
<td>LCB202000241</td>
<td>SMARTSTYLE</td>
<td>5302 DISCOVERY WAY, Leduc, AB</td>
<td>HAIR SALON</td>
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<td>LCC202000243</td>
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<td>LCC202000244</td>
<td>1S81694 Alberta Inc.</td>
<td>3812 37 AVE, Leduc, AB</td>
<td>Residential Construction</td>
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<td>LCB202000246</td>
<td>Spence Corrosion Services Ltd.</td>
<td>3902 82 AVE, Leduc, AB</td>
<td>Rubber linings and specialized coatings</td>
<td>7809553039</td>
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<td>LCB202000254</td>
<td>Medicine Point Pharmacy #102</td>
<td>200 AWENTIA DR, Unit:103, Leduc</td>
<td>PHARMACY &amp; RETAIL</td>
<td>5879857872</td>
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<td>DOMINION LENDING GOTOBROKERS</td>
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<td>LCB202000306</td>
<td>BASHA DONAIR</td>
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<td>411 SHEPPARD BLVD, Leduc, AB</td>
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Newly Issued Business Licences
Comparison by Year

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Total: 665 585 491 457
## Current Licence Types

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<th>Resident (Home Occ)</th>
<th>Non-Res.</th>
<th>Mobile</th>
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### Licence Types as of Feb. 29, 2020

- **General**: 53%
- **Resident (Home Occ)**: 1%
- **Non-Res.**: 27%
- **Mobile**: 19%
- **Non-Profit**: 0%

### 2016 Year End for Comparison

<table>
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<th>Resident (Home Occ)</th>
<th>Non-Res.</th>
<th>Mobile</th>
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<th>Total</th>
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### 2017 Year End for Comparison

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### 2019 Year End for Comparison

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