

Charlesworth Neighbourhood Structure Plan

Office Consolidation March 2014

Prepared by:

*Planning and Policy Services Branch
Planning and Development Department
City of Edmonton*

Bylaw 14010, as amended, was adopted by Council in June 2005. In March 2014, this document was consolidated by virtue of the incorporation of the following bylaws:

<i>Bylaw 14010</i>	Approved June 30, 2005 (to adopt the Southeast Neighbourhood One Neighbourhood Structure Plan)
<i>Bylaw 14825</i>	Approved January 14, 2008 (to rename the plan from “Southeast Neighbourhood One” to “Charlesworth” ¹ , to delete an area designated Pipeline Right-of-way, replacing it with Low Density Residential and Medium Density Residential and to adjust the boundary between Low and Medium Density Residential uses)
<i>Bylaw 14980</i>	Approved September 10, 2008 (to extend the boundary of and incorporate lands into the NSP and designate them City Level Park, Institutional/City Level Park and Stormwater Management Facility)
<i>Bylaw 15177</i>	Approved May 11, 2009 (to remove a neighbourhood commercial site, decrease area designated for MDR and increase area designated for LDR)
<i>Bylaw 16427</i>	Approved September 18, 2013 (to include an additional quarter section in the neighbourhood for residential development)
<i>Bylaw 16756</i>	Approved March 24, 2014 (to remove a Special Study Area and replace it with Mixed Residential and Public Utility uses, and to update relevant figures and statistics)

Editor’s Note:

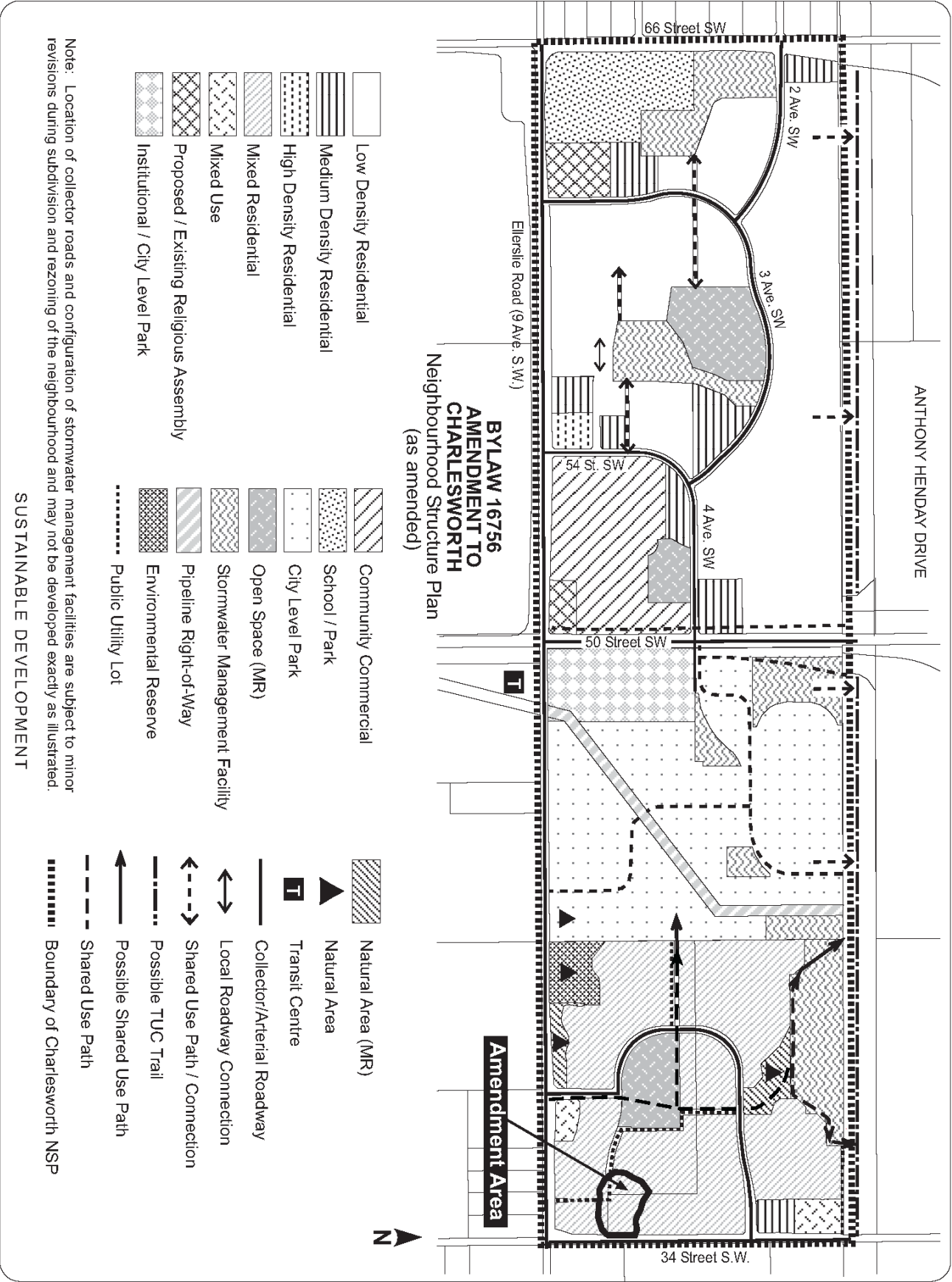
This is an office consolidation edition of the Charlesworth Neighbourhood Structure Plan, Bylaw 14010, as approved by City Council on June 30, 2005.

For the sake of clarity, new maps and a standardized format were utilized in this Plan. All names of City departments have been standardized to reflect their present titles. Private owners’ names have been removed in accordance with the Freedom of Information and Protection of Privacy Act. Furthermore, all reasonable attempts were made to accurately reflect the original Bylaws. All text changes are noted in the right margin and are italicized where applicable.

This office consolidation is intended for convenience only. In case of uncertainty, the reader is advised to consult the original Bylaws, available at the office of the City Clerk.

City of Edmonton
Planning and Development Department

¹ References to “Neighbourhood One” were also deleted and replaced with “Charlesworth”.



Charlesworth

Neighbourhood Structure Plan

Prepared for

Three Private Corporations (Amended by Editor)

Prepared by



Bylaw 14010
June 2005

Table of Contents (As Amended by Editor)

1.0	INTRODUCTION	1
1.1	Purpose	1
1.2	Definition Of Plan Area	3
1.3	Land Ownership	3
1.4	Topography and Vegetation	6
1.5	Existing Land Uses	6
1.6	Surrounding Land Uses	10
1.7	Environmental and Cultural Resources	10
1.7.1	Phase I Environmental Site Assessment	10
1.7.2	Non-Participating Land Owners	12
1.7.3	Historical Resources Overview	12
1.8	Energy & Natural Resources	13
1.8.1	Oil & Gas Well Sites	13
1.8.2	Pipeline Rights-of-Way and Facilities	14
1.9	Southeast Commercial Market Study	14
1.10	Public Consultation Process	14
2.0	POLICY AND DESIGN PRINCIPLES	16
2.1	Policy Context	16
2.2	City of Edmonton Municipal Development Plan (MDP) – Plan Edmonton	16
2.3	Smart Choices for Developing Our Community – Council Recommendations	19
2.3.1	Recommendation One: Develop a Transit-Oriented Development Strategy	20
2.3.2	Recommendation Two: Promote Walkability	20
2.3.3	Recommendation Eight: Urban Design	20
2.4	Edmonton Suburban Neighbourhood Design Principles (SNDP)	21
2.5	City of Edmonton Housing Mix Guidelines	25
2.6	Community Knowledge Campus Concept - Life Long Learning and Education	25
2.7	Airport Protection Overlay	26
2.8	Alberta Energy Utilities Board Policy and Guidelines	26
2.9	Stormwater Management Guidelines	26
2.10	Southeast Area Structure Plan (ASP)	26
3.0	CONCEPTUAL FRAMEWORK	27
3.1	Development Concept	27
3.2	Development Objectives	27
3.3	Charlesworth Design Principles	28

4.0	Development Plan	29
4.1	Residential	29
4.1.1	Intent	29
4.1.2	Land Use Concept	30
4.2	Commercial	35
4.2.1	Intent	35
4.2.2	Land Use Concept	36
4.3	Educational Facilities, Parks and Open Space	40
4.3.1	Intent	40
4.3.2	Land Use Concept	41
4.4	Institutional	44
4.5	Institutional/City Level Park	45
4.6	Stormwater Management Facilities (SWMF)	45
4.7	Transportation	47
4.7.1	Intent	47
4.7.2	Land Use Concept	47
5.0	Servicing	49
5.1	Servicing Design Concepts	49
5.2	Sanitary Drainage	49
5.3	Stormwater Drainage	49
5.4	Water Distribution	50
5.5	Shallow Utilities	50
6.0	Transportation	54
6.1	Transportation	54
6.2	Roadway Network	54
6.2.1	Arterial Roadways	56
6.2.2	Collector Roadways	56
6.2.3	Local Roadways	56
6.3	Roadway Staging	56
6.4	Transit Service	56
6.5	Neighbourhood Walkability	57
6.6	Parking	58
6.7	Truck routes	58
7.0	Implementation	59
7.1	Development Staging	59
7.2	Rezoning & Subdivision	59
8.0	Charlesworth Amendment Area Policy	61
9.0	APPENDIX – Land Use Demographic Profile	81

List of Figures

Page

1.0	Location Plan	2
2.0	Context Plan	4
3.0	Ownership Plan	5
4.0	Site Contours	8
5.0	Site Features	9
6.0	Development Concept	31
7.0	Pedestrian Network System	42
8.0	Sanitary Servicing System	51
9.0	Stormwater Servicing System	52
10.0	Water Servicing System	53
11.0	Transportation Network	55
12.0	Staging Plan	60

List of Tables

Page

1.0	Land Ownership	3
2.0	Phase I – Environmental Site Assessments	11

1.0 INTRODUCTION

1.1 Purpose

The *Charlesworth* Neighbourhood Structure Plan (NSP) seeks to establish a healthy, vibrant community in southeast Edmonton through the thoughtful integration of land uses and their connection with one another. The purpose of this NSP is therefore to describe the land use framework and development objectives for *Charlesworth*.

Bylaw 14825
January 14, 2008*

The plan area encompasses approximately 262 hectares and represents one of Three neighbourhoods as identified under the Southeast Area Structure Plan (see Figure 1.0 – Location Plan).

Bylaw 14980
September 10, 2008
Bylaw 16427
September 18, 2013

The *Charlesworth* NSP has been prepared in conformance with the City Edmonton Municipal Development Plan, Southeast Area Structure Plan (ASP) and other relevant municipal policy documents as explained in Section 2.0 of this Plan. Through the submission and approval of plans of subdivision, the detailed design of each phase of development will implement the concepts presented in this Plan.

The Neighbourhood Structure Plan will implement the general land use pattern set out in the Southeast ASP and the statutory policy used to guide neighbourhood development by identifying the following:

- Type, density and location of residential, commercial and open space land uses, including the intensity and pattern of development;
- Unique environmental areas and natural features to be retained;
- The transportation network as it relates to the Plan area and overall transportation objectives;
- Conceptual servicing schemes and provision of utility services and infrastructure; and
- Implementation and phasing of development.

In support of this NSP a number of supplementary documents have been prepared and submitted under separate cover. These include: Traffic Impact Assessment (TIA), Phase I Environmental Site Assessment (ESA), Historical Resources Overview (HRO), Stage One Natural Site Assessment (NSA), Neighbourhood Designs Report (NDR) and a Water Network Analysis (WNA). The *Charlesworth* NSP has been prepared on behalf of *three private corporations*, owners of approximately 115.6 hectares of land within the study area².

Amended by
Editor

*Note: Aside from indicating changes with italicizes, subsequent deletion of “Southeast Neighbourhood One” and replacement with “Charlesworth” are not referenced because of the numerous occurrences throughout the text

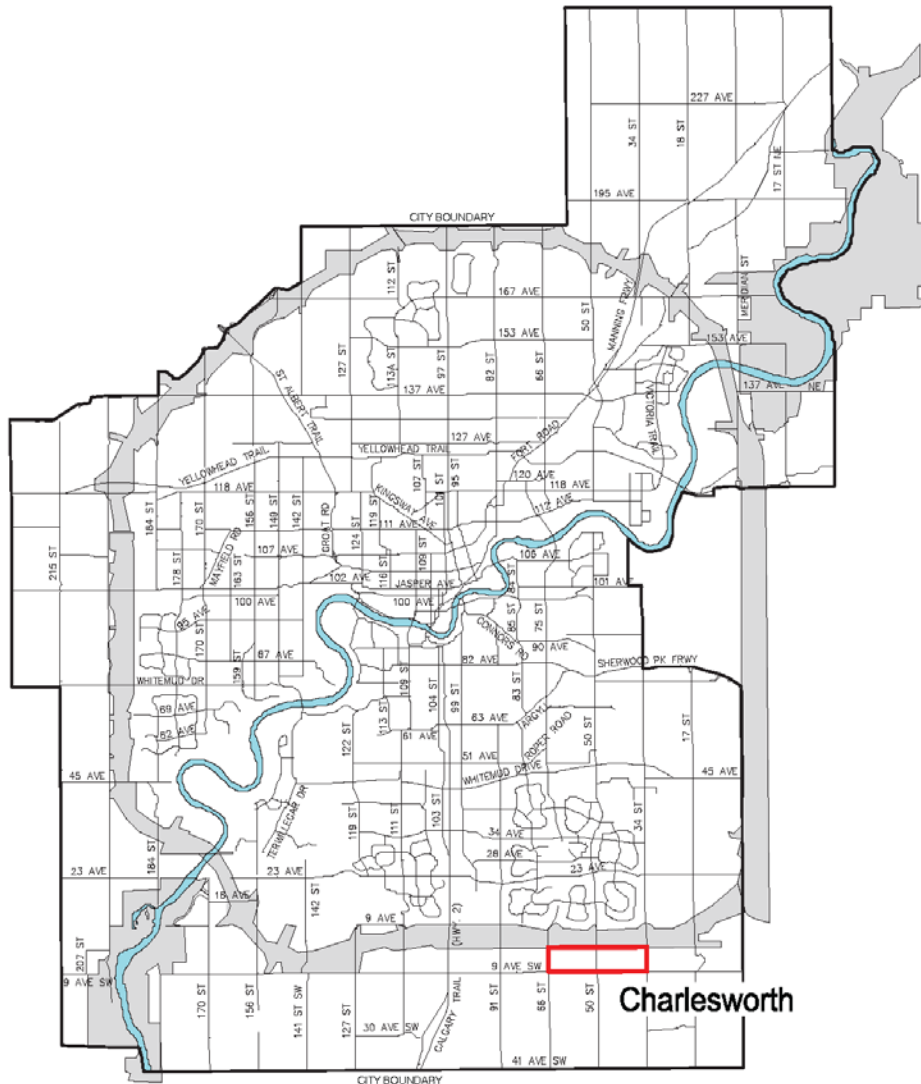
Figure 1.0 – Location Plan

(Bylaw 16427, September 18, 2013)

CHARLESWORTH NEIGHBOURHOOD STRUCTURE PLAN



Figure 1.0
Location Plan



March 2013



V:\1161\active\1161100860\drawing\NSP\NSP Charlesworth - 21jan2013.dwg

1.2 Definition Of Plan Area

*The Charlesworth NSP is comprised of a number of parcels located in four quarter sections: the southern half of sections 25-51-24-W4 and 26-51-24-W4. The total gross area for the NSP is approximately 262 hectares. As shown on **Figure 2.0 – Context Plan**, the NSP is defined by the following boundaries:*

- a. Northern Boundary – Anthony Henday Drive / Transportation Utility Corridor (TUC)*
- b. Western Boundary – 66th Street SW*
- c. Eastern Boundary – 34th Street SW*
- d. Southern Boundary – Ellerslie Road (9th Avenue SW)*

Bylaw 14980
September 10, 2008
Bylaw 16427
September 18, 2013

The *Charlesworth* NSP constitutes a logical planning unit with respect to identifiable plan boundaries and servicing considerations and is in conformance with the policies and objectives identified under the Southeast Area Structure Plan.

1.3 Land Ownership

Approximately 112 hectares (87%) of the land within the Charlesworth NSP is owned, managed or under an agreement for sale by proponents of the plan. *The City of Edmonton owns approximately 56 ha within Charlesworth.* The remaining land is held by a number of landowners supportive of this application. Current land ownership is shown on **Figure 3.0 – Ownership Plan**. A listing of the legal parcels is provided below in Table 1 – Land Ownership.

Bylaw 14980
September 10, 2008

TABLE 1 – Land Ownership Charlesworth Neighbourhood Structure Plan (As amended by Bylaw 16756, March 24, 2014)			
	Titled Owner	Legal Description	Area (ha)
1	Private Corporation	Block D, Plan 5347 RS	31.6
2	Private Corporation	Lot 2, Plan 782 2211	29.83
3	Private (Private Corporation)*	Lot 1, Plan 782 2211	28.20
4	Private Corporation	Block C, Plan 1256 MC	10.66
5	Private (Private Corporation)*	Lot 1, Plan 842 1798	10.2
6	Private (Private Corporation)*	Block E, Plan 177 TR	9.44
7	Private Institution	Lot 2, Plan 842 1798	2.91
8	Private (Private Corporation)*	Lot 3, Plan 812 0945	1.39
9	Private	Lot A, Plan 3274 KS	1.21
10	Private (Private Corporation)*	Lot 4, Plan 812 0945	1.21
11	Private Corporation	Lot 5, Plan 822 1657	1.19
12	Private Corporation	SE 1/4 25-51-24-W4	29.5
13	Private Corporation	LOT 1, PLAN 9823999	35.19
Total			191.84

*Bracketed names indicate the subject lands are under option to purchase or beneficial ownership

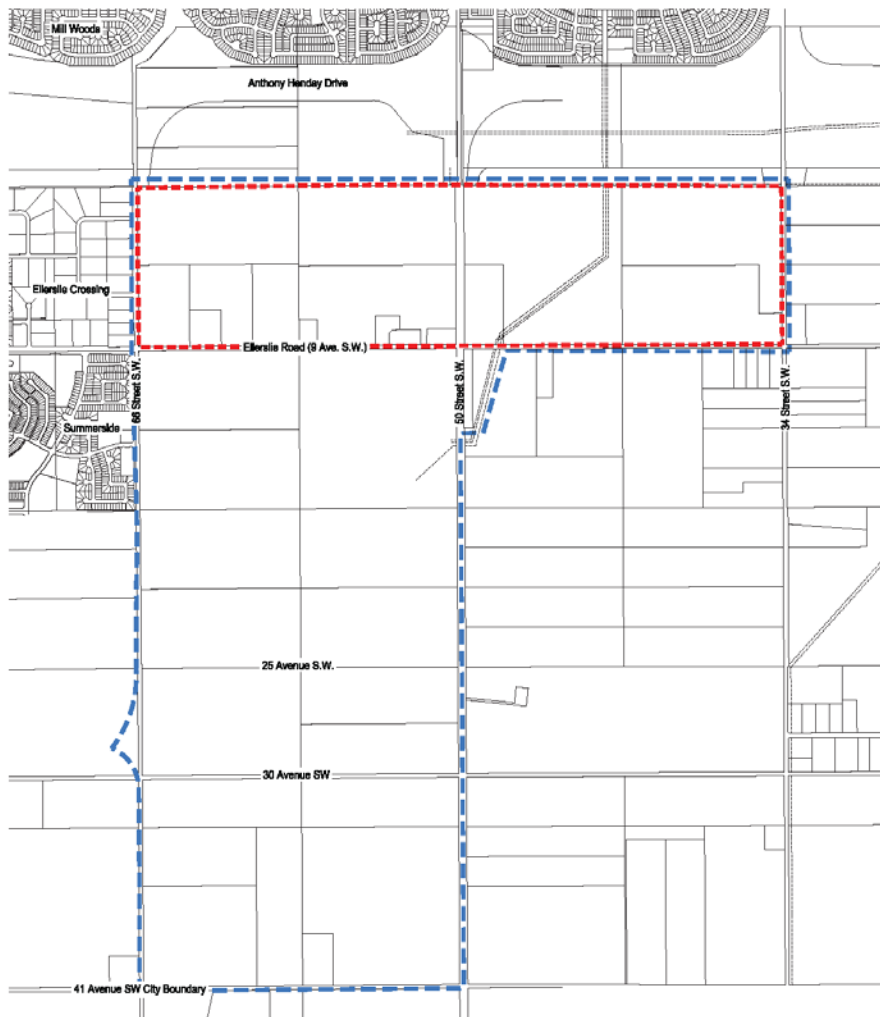
Figure 2.0 – Context Plan

(Bylaw 16427, September 18, 2013)

CHARLESWORTH NEIGHBOURHOOD STRUCTURE PLAN



Figure 2.0
Context Plan



Legend

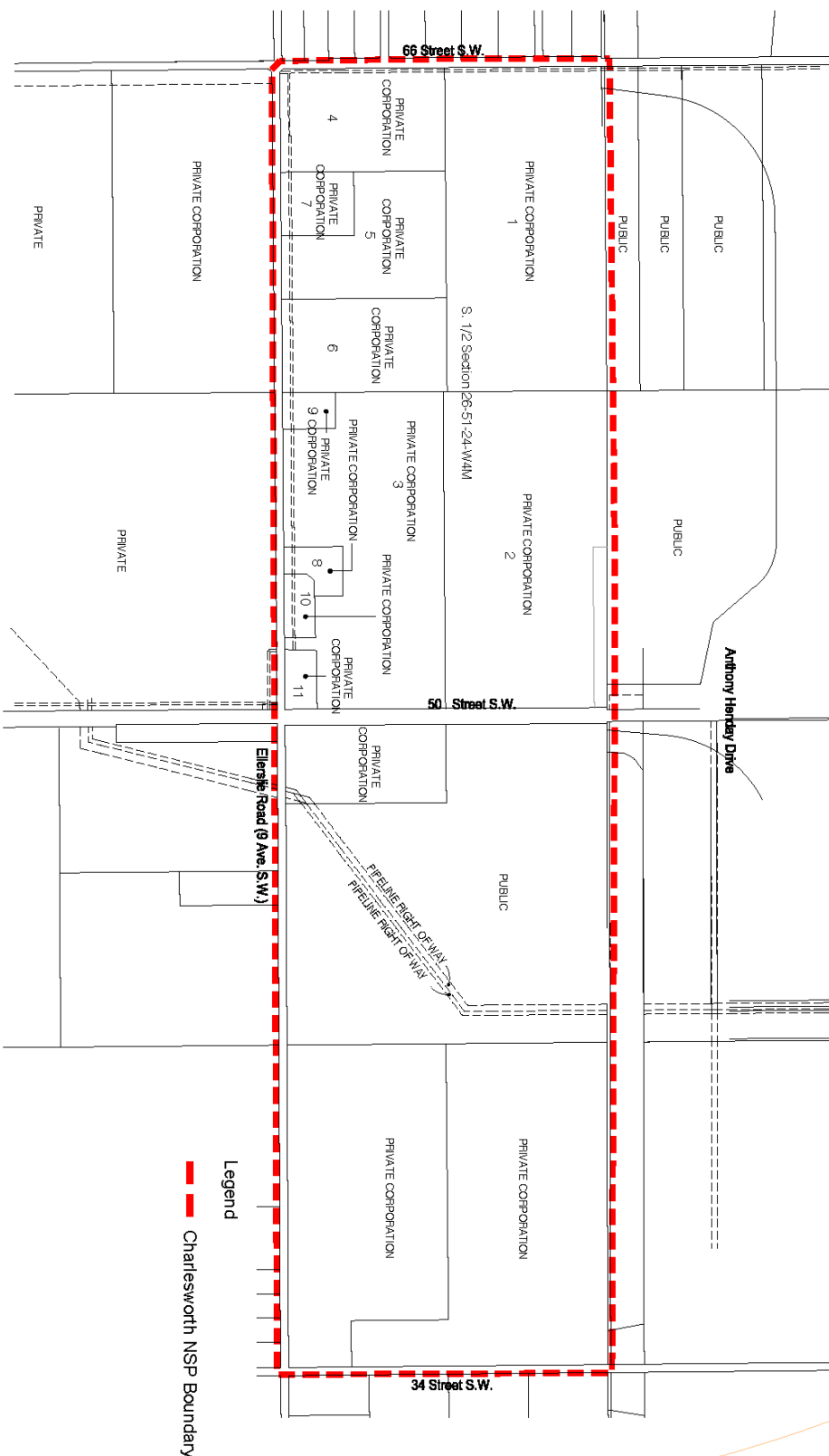
- Charlesworth NSP Boundary
- Southeast ASP Boundary



March 2013

V:\1161\active\1161100860\drawing\NSP\NSP Charlesworth - 21jan2013.dwg

Figure 3.0 – Ownership Plan
(Bylaw 16756, March 24, 2014)



* Note that numbers on figure correspond to report on Table 1.

1.4 Topography and Vegetation

The topography of the lands within the Charlesworth NSP is mainly flat throughout with slight undulations. The land gently increases in elevation towards the southeast from approximately 700 m to 720 m (see **Figure 4.0 – Site Contours**). Surface drainage generally runs towards the northwest throughout the plan area.

In general, the plan area is predominantly used for agricultural purposes with various residential dwellings and uses situated throughout. *Two large woodlots, which are identified as SE 130 and SE 133 in the City of Edmonton Inventory of Environmentally Sensitive and Significant Natural Areas, are located in the plan area. SE 130 is situated in the central portion of the plan area and SE 133 is situated in the southeast (see Figure 5.0 – Site Features). These woodlots and a second tree stand have been identified as worthy of retention and will be protected through means such as Municipal Reserve dedication.*

Bylaw 16427
September 18, 2013

1.5 Existing Land Uses



In 2005, the majority of the land within Charlesworth NSP was being used for agricultural purposes including several existing farmhouse / residential properties situated along 66 Street and Ellerslie

Road. Buildings and structures associated with this development will be removed and or integrated as required through the development of the neighbourhood.

Two school facilities are located within the boundary of the plan at a site located east of 66 Street and north of Ellerslie Road. Both schools are fully operational and accommodate students from the surrounding areas.

Located mid way between 66 and 50 Streets along the north side of Ellerslie Road is a private corporation (dog kennel). This facility can be integrated with future development at the subdivision and development stage. Opportunity exists for on-going operation of the facility as development proceeds around it. Construction of a buffer along the north side of the property via local roadway connection, transitional landscaping and setbacks under the City of Edmonton Zoning bylaw are options that may be further pursued at the development stage. At some

Amended by
Editor

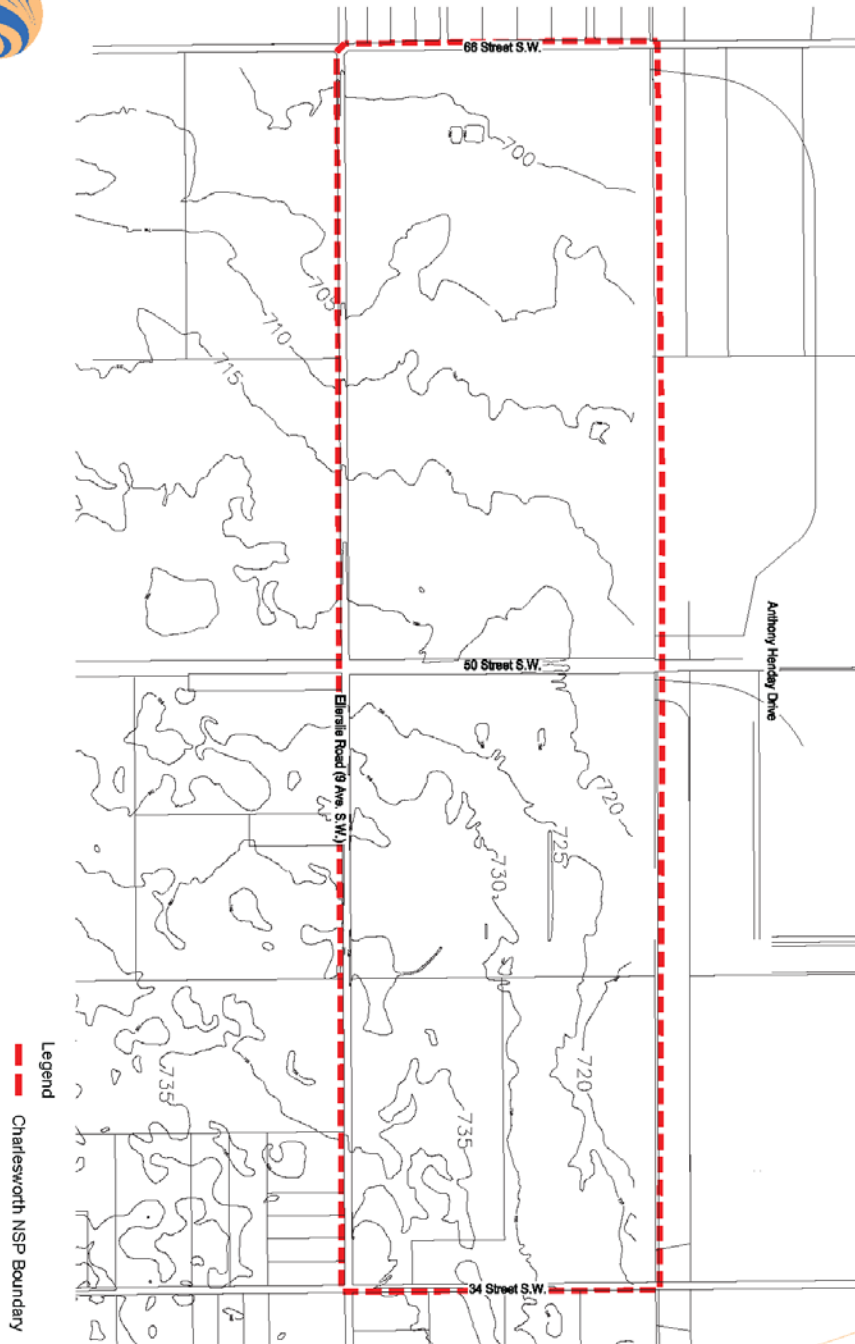
future point, these lands can be redeveloped into single-family housing uses based on a cul-de-sac design.

An existing religious assembly comprised of St. Paul's Evangelical Lutheran Church and Lutherhort Bestal Church are situated within the plan area north of Ellerslie Road west of 50 Street and are expected to remain in operation for the foreseeable future. Special attention to site planning and design will ensure a positive urban interface and transition between the Church site and future surrounding urban development in Charlesworth.

The site of the former Strathcona Shooting Range is located in the eastern portion of the plan area. Its previous use as a shooting range has resulted in soil contamination in certain portions of the site.

Bylaw 14980
September 10, 2008

Figure 4.0 – Site Contours
(Bylaw 16427, September 18, 2013)



**CHARLESWORTH
NEIGHBOURHOOD STRUCTURE PLAN**

**Figure 4.0
Site Contours**



March 2013

Figure 5.0 – Site Features
(Bylaw 16427, September 18, 2013)



CHARLESWORTH
NEIGHBOURHOOD STRUCTURE PLAN
Figure 5.0
Site Features



March 2013

1.6 Surrounding Land Uses

Immediately north of Charlesworth is the Transportation Utility Corridor (TUC). This corridor was established to provide the space required to accommodate Anthony Henday Drive (i.e. Outer Ring Road), overhead power lines, energy pipelines, and other utilities for future municipal development. Immediately north of this corridor is the Mill Woods residential area. Located immediately west of 66 Street is the country residential subdivision of Wernerville. Further west and southwest are the developing neighbourhoods of Summerside and Ellerslie located in the Ellerslie Area Structure Plan. Agricultural lands and associated farm residences characterize surrounding land uses to the south and east.

1.7 Environmental and Cultural Resources

The SE 130, SE 132, and SE 133 Natural Areas, as identified in the City of Edmonton's Inventory of Environmentally Sensitive and Significant Natural Areas (1993), are located in the central and eastern portions of the plan area respectively. The SE 130 area consists of a collection of trees and vegetation that will be preserved and further integrated with adjacent lands through Municipal Reserve dedication. The SE 132 area is a wetland. This wetland will be conserved in its pre-development state and at the time of subdivision its title will be transferred to Alberta Environment. SE 133 is a poplar woodlot that will be protected through means such as Municipal Reserve Dedication.

Bylaw 14980
September 10, 2008
Bylaw 16427
September 18, 2013

Bylaw 14980
September 10, 2008

Bylaw 14980
September 10, 2008

Bylaw 16427
September 18, 2013

An additional tree stand, not identified in the City of Edmonton Table Lands Inventory is being retained within the proposed commercial development site and is approximately 2.0 ha. *A Natural Area Management Plan will also be prepared for each Natural Area retained and will need to be submitted as development approaches the Natural Area. The Natural Area Management Plan will establish the management and conservation goals for the Natural Area.*

Bylaw 16427
September 18, 2013

1.7.1 Phase I Environmental Site Assessment

Phase I Environmental Site Assessments (ESA) have been undertaken in preparation of the Charlesworth NSP. A list of the subject parcels is provided in Table 2 – Phase I Environmental Site Assessments.

Amended by
Editor

TABLE 2		
Phase I - Environmental Site Assessments <i>(As amended by Bylaw 16427, September 18, 2013))</i>		
Land Owner	Location	Comments
Private Corporation	Lot 1, Plan 782 2211 and; Lot 3, Plan 912 0945	No further study required
Private Corporation	Block E, Plan 177TR	No further study required
Private Corporation	Lot 1, Plan 842 1798	Phase II Required
Private Corporation	Block D, Plan 5347 R.S. and; Lot 2, Plan 782 3322	Phase II Submitted
City of Edmonton	SW ¼ 25-51-24-W4	Phase I&II Completed
City of Edmonton	SW ¼ 25-51-24-W4	Phase III Completed (2008)
Private Corporation	SE ¼ 25-51-24-W4	Phase I Completed
Private Corporation	Lot 1, Plan 9823999	Phase I Completed

A Phase I Environmental Site Assessment (ESA) has been completed for Lot 1, Plan 782 2211 and Lot 3, Plan 912 0945. The objective of the ESA was to identify potential environmental concerns and/or liabilities associated with the proposed development. Based on the ESA, no areas of immediate environmental concern, notwithstanding natural area SE 130, were identified on or in the vicinity of the Subject Property. As a result, no impediment exists to future development of these lands and no further investigation is required at this time. This report has been submitted under separate cover.

Amended by
Editor

Phase I Environmental Site Assessments have been conducted for Block E, Plan 177TR; Lot 1, Plan 842 1798; Block D, Plan 5347 R.S.; Lot 2, Plan 782 3322, and have been submitted under separate cover. A Phase II Environmental Site Assessment has been conducted for Block D, Plan 5347 R.S.; Lot 2, Plan 782 3322 (private corporation) and is submitted under separate cover. As indicated in the above table, a Phase II Environmental Site Assessment will be required for a portion of Lot 1, Plan 842

Amended by
Editor

1798 (private corporation) having regard for future development of these lands prior to subdivision.

A Phase I ESA was completed for SW1/4 25-51-24-W4 and submitted under separate cover. The Phase I ESA identified several environmental concerns due to its previous use as a shooting range site. Based on the recommendations a Phase II ESA was submitted under separate cover. Consequently, a Phase III ESA was conducted to remediate soil contaminated by the former Strathcona Shooting Range, prior to the issuance of a development permit. *A Phase I ESA was completed for SE 1/4 25-51-24-W4 and submitted under separate cover.*

Bylaw 14980
September 10, 2008

Bylaw 16427
September 18, 2013

1.7.2 Non-Participating Land Owners

Based on existing information, no other Phase I or II Environmental Site Assessments have been undertaken for remaining lands within the Charlesworth NSP. In terms of future development, the City of Edmonton Planning & Development Department recommends that individual landowners provide ESAs or disclosure statements at the rezoning stage.

1.7.3 Historical Resources Overview

As part of preparation of the Southeast ASP, a Historical Resources Overview (HRO) was conducted by Stantec Consulting Ltd. (2003) for a private corporation's properties in Charlesworth legally described as a portion of N ½ of SW and N ½ of SE of Section 26-51-25-W4M. The HRO found that given the long cultivation and agricultural history of the subject lands, suburban development will not impact any significant historical resources and that no further study is recommended at this time.

Amended by
Editor

In 2004, a HRO was conducted by Stantec Consulting Ltd for two private corporations' participating lands located in the S ½ of SW and S ½ of SE Section 26-51-25-W4M. Inspection of lands in the S ½ of SE Section 26-51-25-W4M indicated that in the northeast corner of Lot 1, Plan 782 2211 moderate archaeological site potential exists and a Historical Resources Impact Assessment (HRIA) is recommended. The balance of these lands, (excepting Otokwan School, St. Paul's Evangelical Lutheran Church and Lutherhort Bestal Church which are outside of, and will not be impacted by future proposed development), Block E, Plan 177TR and Lot 1, Plan 842 1798 controlled by a private corporation are clear of historical resources requiring no further investigation. Copies of these reports have been submitted under separate cover.

Amended by
Editor

The Lutherhort Bestal Church, while not on the Inventory of Historic Resources in Edmonton, has served the Ellerslie community since early settlement, is one of the few solid civic structures in the area, and is of particular architectural note. This building along with St. Paul's Evangelical Lutheran Church, contribute to the neighbourhood's cultural history. Accordingly, future urban development north and west of these structures will be sympathetic in terms of their siting and overall visual interface.

Pursuant to Section 31 of the Historical Resources Act, development proponents and their representative will report the discovery of any archaeological, historic period or paleontological resources which may be encountered during construction.

A HRO was conducted for SW ¼ 25-51-24-W4 in April 2008. The findings of the study indicate that due to agricultural/ cultivation history and the more recent reclamation work due to its use as a shooting range, there is low potential for encountering historical resources on the subject parcel. No further study is recommended for this site.

Bylaw 14980
September 10, 2008

A Statement of Justification / Historical Resources Overview (SOJ/HRO) was conducted for SE ¼ 25-51-24-W4 in July 2012. The findings indicate that the lands are considered to have low archaeological potential for undisturbed archaeological sites. The remaining uncultivated poorly-drained lands are considered to be marginal lands which are considered to have no archaeological potential.

Bylaw 16427
September 18, 2013

Owners of Block 2, Plan 2941RS will be required to complete a HRO at the time of rezoning. A Historical Resources Impact Assessment (HRIA) may be required based on the findings of the HRO.

1.8 Energy & Natural Resources

1.8.1 Oil & Gas Well Sites

A review of information provided by the Alberta Energy & Utilities Board (AEUB) indicated that there are two abandoned oil wells located on the east side of 50 Street. As per the Phase I ESA report, reclamation certificates for these oil well sites have been issued.

Bylaw 14980
September 10, 2008

In addition, the Alberta Energy and Utilities Board identifies two abandoned test boreholes within the Southeast ASP. These are located within the southwest corner of SW ¼ 26-51-24-W4M and southeast corner of SE ¼ 26-51-24-W4M of

Bylaw 14980
September 10, 2008

Charlesworth. These are generally located within / adjacent to 66 Street – Ellerslie Road and 50 Street – Ellerslie Road right-of-ways. Reclamation certificates have not been issued for these abandoned test bore holes. Prior to subdivision of the affected lands, these sites will require identification and confirmation that they have been suitably reclaimed and decommissioned for future urban development in accordance with applicable Alberta Energy Utilities Board policies and guidelines.

1.8.2 Pipeline Rights-of-Way and Facilities

Figure 5.0 indicates the presence of two operating pipelines within a utility R-O-W running through SW ¼ 25-51-24-4. On the west side of 50 Street, there are no active pipeline transmission licenses. The exact location and alignment of these utility rights-of-way should be determined prior to the development permit stage.

A private corporation's gas right-of-way is located along the western and southern boundary of the plan area. This easement runs north-south approximately 804 m parallel to the east side of 66 Street from the southern boundary of the Transportation Utility Corridor to Ellerslie Road. This same right-of-way extends eastward approximately 1453 m from 66 Street and runs parallel along the north side of Ellerslie Road. Additional examination has determined that future development will not be restricted by the location of these right-of-ways as they will be further integrated into neighbourhood design and servicing where required.

Bylaw 14980
September 10, 2008

Amended by
Editor

1.9 Southeast Commercial Market Study

A Commercial Market Study by Urbanics Consulting Limited was submitted under separate cover in support of the approximately 14 ha Community Commercial site. *The results of this study indicate that the proposed commercial site is strongly advantaged given its superior locational attributes relative to the Anthony Henday Drive / 50 Street interchange (i.e. high visibility, access / egress), proximity to a growing high income trade area, and differentiation from other retail conglomerations nearby.*

Bylaw 16427
September 18, 2013

1.10 Public Consultation Process

In preparation of the Southeast ASP, a series of pre-plan preparation meetings and information sessions were held between various Civic Departments, Agencies and stakeholders in order to identify opportunities, constraints, and facilitate the overall planning approach. This included Ward Councillors, representatives from the City of Edmonton

Planning and Development Department, Transportation, Asset Management and Public Works, Community Services, EPCOR, Edmonton Public and Separate School Boards, County of Leduc Planning Department and local landowners.

An open house information session was held on November 26, 2003. Various landowners, stakeholders and residents (and/or their agents) attended the meeting. The purpose of the open house meeting was to provide stakeholders an opportunity to learn about the proposal and to voice their interest, comments, concerns and support regarding the ASP early in its preparation. In general no concerns were expressed with the initiation of an ASP process for the Southeast area.

A public meeting hosted by the Planning and Development Department was held to review the draft Plan on April 4, 2005. The purpose of the meeting was to provide an update on the proposed Plan and the planning process followed to date, and to hear from attendees regarding their questions, comments and concerns. Local residents, landowners, and stakeholders attended the meeting. The major points of discussion at the meeting is summarized as follows:

Several landowners were concerned that the adoption of the Plan should not prejudice the operation of existing uses (e.g., religious assembly and dog kennel – both located on Ellerslie Road). City staff responded that the existing religious assembly will be incorporated into the Plan by means of specific regulations to address the interface between it and the surrounding land uses. The adoption of the ASP will have no impact on the continued operation of the dog kennel. However, the Plan provides that the site where the dog kennel operates will eventually be developed for residential uses with the co-operation of the affected owner.

Residents of the Wernerville estate residential area (located west of 66 Street and north of Ellerslie Road) inquired as to whether development in the Plan area would facilitate the extension of municipal services (sewer and water) into Wernerville and how access onto 66 Street would be affected. Residents were advised that additional review of servicing options in relation to the Ellerslie ASP would be required prior to future urban service connection. In terms of access on to 66 Street, Transportation advised that accesses will remain as existing, and will be reviewed further in conjunction with the detailed design process of the upgrading of 66 Street.

2.0 POLICY AND DESIGN PRINCIPLES

2.1 Policy Context

The Charlesworth NSP has been prepared in the context of development principles and objectives drawn from a number of City of Edmonton municipal plans and policy statements. These land use documents have been identified along with their policies and guidelines used in preparation of this NSP. As these documents may be amended or added to over time, landowners and developers should contact the respective civic departments and agencies for current information on applicable policies, guidelines and or requirements. The following is a list of policy documents, relevant objectives and principles used in preparation of this NSP.

2.2 City of Edmonton Municipal Development Plan (MDP) – Plan Edmonton

Plan Edmonton establishes a number of policies and strategies to help guide municipal growth and development in Edmonton over a 10-year horizon. Adopted in 1998, the MDP provides an overall policy framework for future land use planning and development within the City as a whole and the Southeast ASP of which Charlesworth is a component part.

A number of strategies are identified in the MDP that encourage: orderly and cost-effective growth; efficient use of land and provision of services through contiguous development; provision of varied housing types and densities; functional and aesthetically pleasing residential and business land uses; accessible recreational and open space opportunities; and, protection of the natural environment. The Charlesworth NSP was prepared with respect to the following strategies.

Strategy 1.1.1 - Provide for choices regarding the types of developments in which people want to live and do business.

Charlesworth proposes a range of low, medium and high residential development along with commercial, institutional, and open space land uses. Located in a highly visible, accessible and rapidly developing sector of Edmonton, Charlesworth encourages a compact, contiguous, and sustainable housing mix.

Strategy 1.1.2 – Address compatibility of land use in the development and review of land use plans and development proposals.

Charlesworth has been planned to ensure compatibility between existing and proposed land uses. Low density residential has been oriented internal to the plan area in walking distance of neighbourhood focal points (e.g. natural and open space areas, existing school sites via multi-use trail / walkways). Higher residential densities have been located at access points (e.g. 66 Street, 50 Street, Ellerslie Road) to the neighbourhood, along collector roadways, and adjacent to service areas (e.g. Neighbourhood / Community Commercial, Church, School / Park site).

Specific consideration has been given to further integration of nearby residential communities (Ellerslie neighbourhoods, Wernerville), the existing public school K-4 and 5-9 sites located on 66 Street, Anthony Henday Drive, the future Transit Centre in Neighbourhood Two, and utility / pipeline corridors.

Amended by
Editor

Bylaw 16427
September 18, 2013

Strategy 1.1.12 – Place a high priority on the effective and efficient use of land.

Charlesworth plans for a balanced mix of residential, commercial, institutional and recreational land uses. Organized into an efficient land use pattern, lands may be serviced and developed in a cost-effective and staged manner in accordance with market demands.

Strategy 1.1.13 – Plan for urban development which is environmentally friendly and fiscally sustainable in the long term, based on the City's financing, infrastructure and environmental strategies.

The Southeast ASP responds to this strategy by establishing a development concept that:

includes transit supportive design (the clustering of commercial and higher density residential land uses around and adjacent to a transit centre) which promotes an alternative to private automobile use;

promotes walkability, cycling (as an alternative to motorized transport) and a healthy lifestyle through the inclusion of many linked destination points throughout the plan area and beyond the plan area;

includes a commercial node that is planned to function as a major focal point for the community and that is accessible by both transit and pedestrians;

retains two natural areas; and

Bylaw 16427
September 18, 2013

Bylaw 16427
September 18, 2013

incorporates two existing schools that will provide immediate and local educational opportunities.

To meet their responsibility in protecting the fiscal sustainability of the City, the Alberta Municipal Government Act empowers the City, and the City requires that land developers will, at their own cost:

dedicate the land required for, and construct all hard infrastructure (e.g. Sidewalks, multi-use trails, local and collector roads, storm and sanitary sewers and other facilities, water mains, and shallow utilities) necessary to service the lands within the plan area;

construct two lanes of the arterial roadway system;

dedicate land required for school and park purposes; and

improve (e.g., install street lighting, landscaping, fences, bollards, signage, etc) the surface area of public land.

Strategy 1.1.14 – Maintain the integrity of pipelines and utility corridors while planning for growth and development.

Existing pipeline and utility corridors within the Plan area will be protected from encroachment by urban uses.

Strategy 1.3.3 – Support contiguous development that is adjacent to existing development in order to accommodate growth in an orderly and economical fashion.

Charlesworth abuts the Ellerslie ASP and the Wernerville Country Residential subdivision on the west and the TUC on the north. The infrastructure necessary to service Charlesworth will be extended from the Ellerslie ASP and the TUC.

Strategy 1.3.4 – Promote intensification of development around transportation corridors and employment areas.

The development concept established in the Plan locates a Community Commercial node and transit stop along Ellerslie Road, a future six lane divided roadway. The Plan also facilitates the future development of higher density residential uses around this commercial node.

Bylaw 16427
September 18, 2013

Strategy 1.6.1 – Develop a comprehensive, integrated plan for the river valley, natural areas and open space lands that encourages the conservation and integration of natural areas that are sustainable and feasible.

Two Natural Areas (SE 130 and SE 132) are identified under the City of Edmonton Table Lands Inventory of Environmentally Sensitive and Significant Natural Areas (1993) and are located within the central and eastern portions of the plan area. SE 130 will be retained and combined with a stormwater management facility to create

Bylaw 14980
September 10, 2008

a central neighbourhood focal point accessed by a multi-use trail and street sidewalks. *Appropriate measures will be taken to conserve SE 132 in its pre-development state. SE 132 will be transferred to Alberta Environment at the time of subdivision.* A second tree stand in the eastern portion of neighbourhood, not identified in the City's Inventory, will also be retained and incorporated as an amenity feature. The existing Public School site lands will also be combined with stormwater management facility to establish a focal point in the western portion of the neighbourhood.

Strategy 1.7.1 – Accommodate growth in an orderly, serviced and cost-effective manner.

Charlesworth represents the next logical location for urban development in southeast Edmonton. Charlesworth has been planned and designed to provide contiguous, staged development, utilize existing and planned infrastructure and services, promote more intensive land use patterns (e.g. higher residential densities, commercial / retail), transportation options (neighbourhood walkability, cycling, transit access), and conservation of environmental features.

Strategy 1.7.2 – Provide for a range of housing types and densities in each residential neighbourhood.

Charlesworth provides a range of low, medium and high residential development opportunities. Innovative housing types, site designs and building sites will be encouraged to develop a compact, affordable, and pedestrian friendly neighbourhood.

Strategy 1.7.4 – Ensure availability and access to recreational opportunities and open spaces.

A number of multi-use trails and linkages are designed into the NSP to ensure residents are well connected to passive and active recreational opportunities afforded by neighbourhood focal points (e.g. school / park site, natural area / central open space).

2.3 Smart Choices for Developing Our Community – Council Recommendations

The Smart Choices Recommendations were approved by City Council on March 23, 2004 to promote urban sustainability. Three of these recommendations apply to Charlesworth.

Amended by
Editor

2.3.1 Recommendation One: Develop a Transit-Oriented Development Strategy

The focus of this recommendation is to encourage/promote residential/commercial intensification around LRT stations and bus transit centre areas in order to capitalize on the efficiencies gained through synergistic land uses, and shared infrastructure, resources, community facilities and services.

Charlesworth is comprehensively planned and designed in support of transit and mixed-use development. *Focusing on local development intensification, the NSP combines complementary medium and high density residential uses with commercial / retail, institutional and open space opportunities in proximity to transit service.*

Bylaw 16427
September 18, 2013

2.3.2 Recommendation Two: Promote Walkability

This recommendation is intended to establish a coordinated approach to making walkability a prime consideration in Plan making and the delivery of infrastructure fundamental to Charlesworth is its walkable design. Emphasis is on pedestrian connectivity along with mixed uses that encourage choice among places of work, residence, recreation, and transportation modes that increase pathway / trail use. Residential, natural and open space, commercial and institutional land uses have been designed to function harmoniously and efficiently. Direct pedestrian linkages via multi-use trails will encourage walking and cycling as viable alternatives to local automobile use in addition to attractive and active streetscapes. Residents will enjoy enhanced access to neighbourhood services and amenities, pedestrian routes, and transit service contributing to higher quality of life, greater public transit use; cleaner environment, improved personal health and economic cost savings.

2.3.3 Recommendation Eight: Urban Design

This recommendation promotes the development of urban design principles, guidelines and regulations through community consultation to apply to all public and private spaces and built forms associated with the land use planning for redevelopment, and new development. The intent is to create, maintain and enhance meaningful public and private places through effective place-making (i.e. consultation, communication, and implementation).

The Southeast ASP promotes high quality urban design in support of a vibrant and sustainable community in Charlesworth NSP *Office Consolidation*

southeast Edmonton that is safe, convenient and attractive. Development principles and overall concept for the ASP emphasizes urban design through appropriate land use interface, creation of vibrant focal and destination points within the community (e.g. Community Commercial node, school sites, open spaces), attractive streetscaping, landscaping, and pedestrian-friendly environments, a range of park / open spaces, and integration of natural landscape features.

2.4 Edmonton Suburban Neighbourhood Design Principles (SNDP)

The City of Edmonton's Suburban Neighbourhood Design Principles report describes a variety of design principles intended to encourage flexibility and innovation in the design and servicing of new neighbourhoods. Relevant principles include:

Design Principle 1 – Design neighbourhoods with the intent of sharing common infrastructure facilities among neighbourhoods.

Charlesworth is somewhat separated from the surrounding because it is bounded by the TUC and two arterial roadways. However, the existing Ellerslie Campus at the southwest corner of the neighbourhood will be utilized by children from the surrounding communities. *In addition, the proposed City Level Park to be developed as a multi-sport tournament and recreation site (MTRS) is intended to be used by people from the surrounding neighbourhoods and areas beyond.* Further, the stormwater management facilities, the conserved tree stands and the major commercial node are all destinations/features/amenities that can be accessed by neighbourhood residents and visitors via the planned multi-use trails and pedestrian walkways within Charlesworth.

Design Principle 2 – Design and locate school and community facilities to provide inter-neighbourhood focal points.

Although its location was established long before the adoption of this Plan, the existing Ellerslie Campus located in the southwest corner of Charlesworth is well placed to served as an inter neighbourhood focal point. The Campus is located between the Wernerville County Residential subdivision to the west, the Summerside Neighbourhood to the southwest, and the Southeast Neighbourhood Two to the south. *The proposed City Level Park located east of 50*

Bylaw 14980
September 10, 2008

Bylaw 14980
September 10, 2008

Street will also serve as an inter-neighbourhood focal point.

Design Principle 3 - Design the arterial and collector roads along a grid pattern, peripheral to the neighbourhoods. Use local roadways to distribute neighbourhood traffic from/to these arterial and collector roadways.

Anthony Henday Drive, 66 Street, Ellerslie Road (9 Avenue SW) and 50 Street constitute the major arterial roadways that are generally aligned in a one mile (1.6 km) grid. The neighbourhood collector roadways are generally aligned in a grid pattern (east-west, north-south) and intersect the abutting arterial roadways at right angles. The local roadways within the neighbourhood connect to the collectors and ensure connectivity between various sub-areas within the neighbourhood.

Design Principle 4 – Design neighbourhood streets (both neighbourhood design and cross section of roadway) with standards that cater to the main intended use of the road.

Roadways within the Neighbourhood will be sized (cross section) in direct relationship to their function. Collector roadways are the primary roadway (and sidewalk) link throughout the neighbourhood and will be aligned and sized to accommodate higher traffic volumes and perhaps transit service. Local roadways are intended to serve lower volumes of traffic and will be sized accordingly. The local roadway pattern will be designed to discourage shortcutting without isolating sub areas within the neighbourhood. The multi-use trail and other walkway connections will provide alternate travel routes (to street sidewalks) for pedestrians throughout the neighbourhood.

Design Principle 5 - Provide convenient pedestrian and bicycle access throughout the neighbourhood and especially between destination points within and outside the neighbourhood.

A combination of multi-use trails and other linkages internal and peripheral to the NSP will be provided. These linkages have been designed in support of a walkable community concept. A comprehensive internal multi-use trail network provides pedestrian and bicycle access at the local level, connects residents to neighbourhood amenities, focal points and destinations (school sites, parks/ open spaces, commercial areas), and public transit facilities (e.g., bus stops, parking lots), and reduces potential pedestrian and vehicular conflict.

Design Principle 7 - At the area and neighbourhood planning stage, plan the location of the school/park facilities relative to

neighbourhood staging such that they can be consolidated, serviced and available early in the development of a neighbourhood or catchment area.

Integration of the existing school / park site has been planned in consultation with Community Services and Public School Board. This site is located adjacent to the early stages of planned residential development and is intended to remain fully operational accommodating the educational needs of the surrounding area.

Design Principle 8 – Design park and institutional sites and buildings within the neighbourhood and community focal points to be adaptable to other uses or levels of education over time.

The existing Ellerslie Campus school/park site is of sufficient size to accommodate other uses for all or a portion of the site. Located at the southwest periphery of the neighbourhood, this site provides a highly visible and accessible inter-neighbourhood focal point capable of adapting to future community uses if and when the need arises.

Design Principle 9 – Explore opportunities to provide smaller, dispersed open space and parks in a neighbourhood to provide for localized needs while meeting the recreational needs of residents of the catchment area.

Charlesworth encourages the provision of smaller disbursed park sites to serve the local needs of residents while supporting the requirements of the broader neighbourhood. Opportunity exists at the subdivision stage to create smaller dispersed park spaces through Municipal Reserve dedication such as parkettes or non-programmed open spaces.

Design Principle 10 – Optimize the use of land and capital requirements for facilities such as churches, schools, community leagues and storm water management.

The location and site design of the existing Ellerslie Campus was determined before this Plan was adopted and a Community League facility is not planned for Charlesworth. However, the Plan will provide opportunity for shared parking between the existing private institution (church) and the major commercial site that it abuts.

Amended by
Editor

Design Principle 11 - Create a linked open space system through open spaces created by stormwater management facilities, some utility rights-of-way, preservation of appropriate natural areas and drainage courses, and school and park open spaces.

Charlesworth establishes a comprehensively designed multi-use trail network system in support of a compact, walkable community. This is achieved by linking a number of neighbourhood destinations/amenities/features (e.g., school/park site, stormwater management facilities, conserved tree stands, major commercial site).

Design Principle 12 - Locate multi-family uses toward the edge of new neighbourhoods and close to the community and neighbourhood focal points.

One high density and several medium density residential sites of varying sizes and configurations are located at the edges of the neighbourhood, on collector roadways, and with proximity to neighbourhood focal points and amenities. Two medium density sites in the western portion of the neighbourhood are located abutting collector roadways and near the school/park and stormwater management facility sites. A single high density and several medium density residential sites in the eastern portion of the neighbourhood are located abutting collector roadways and near either a stormwater management facility, two conserved tree stands, or the major commercial node.

Design Principle 13 - Use stormwater management techniques which provide an alternative(s) to the man made lakes and dry ponds typical to Edmonton.

Stormwater management facilities in the Charlesworth NSP may be constructed as wetlands or naturalized stormwater facilities developed to the satisfaction of the Drainage Branch.

Design Principle 15 - Provide opportunity through the residential districts of the Land Use Bylaw for the intensification of housing forms and for alternative site design and building siting.

Charlesworth provides a variety of residential housing forms and densities within the plan area. It is intended that low, medium and high density housing will be developed and that innovative site design and building siting can be pursued through the redistricting and subdivision process.

The density of residential development in Charlesworth exceeds the 1991 City of Edmonton Housing Mix Guidelines which seek to establish a balance of dwelling types and densities in new suburban neighbourhoods. *The transit route along Ellerslie Road and related facilities (i.e., transit center and station stops) have created an opportunity to establish transit supportive development in*

Bylaw 16427
September 18, 2013

Charlesworth. Accordingly, higher residential densities are planned around the major commercial site and within walking distance to a future transit centre located on Ellerslie Road.

Bylaw 16427
September 18, 2013

Design Principle 16 - Use current population and student generation formulas when planning facilities for a neighbourhood. Take into account the life cycle of the neighbourhood.

Current population and student generation formulas were used to prepare the Southeast Area Structure Plan, of which Charlesworth is a component part. This resulted in the ASP containing fewer school sites than are present in the abutting Ellerslie ASP. Charlesworth contains the existing Ellerslie Campus schools and Walker and Neighbourhood Three in the Southeast ASP each contain one school site.

Amended by
Editor

2.5 City of Edmonton Housing Mix Guidelines

Council approved (1991) guidelines recommend that the ratio of dwelling types in new suburban neighbourhoods be based on a mix of 65% to 85% low density residential (LDR) units and 15% to 35% medium density residential (MDR) units. These guidelines encourage a mix of housing types, a range of choice in housing, and a measure of intensification.

Charlesworth includes one high density residential site immediately west of the Community Commercial site. The resulting overall housing mix for the NSP is 60%, 25% MDR, 15% HDR. While the housing mix ratio for Charlesworth does not conform to Council's guidelines, it is in keeping with more recent Council direction on urban sustainability to create a more compact city form and transit supportive development.

Bylaw 16427
September 18, 2013

Bylaw 15177
May 11, 2009

2.6 Community Knowledge Campus Concept - Life Long Learning and Education

The community knowledge campus concept (CKCC) holds that a school/park site can be a focal point to a cluster of neighbourhoods and should be located, sized and configured to be readily available early in the development of an area, accessible to residents, and adaptable to other uses over time.

The location, size and configuration of the existing Ellerslie Campus school site was determined prior to this Plan being approved. However, the Ellerslie Campus is located

and sized to become a focal point to the surrounding residential areas and be adaptable to other uses over time.

2.7 Airport Protection Overlay

The Charlesworth NSP area is situated entirely outside the Edmonton International Airport Vicinity Protection Area boundary. As a result, there are no restrictions on residential development within the plan area.

2.8 Alberta Energy Utilities Board Policy and Guidelines

Charlesworth will implement the City of Edmonton's Policy Guidelines for the Integration of Transmission Pipelines and Urban Development (1985), Planning for the Interface of Pipeline Right-of-ways and the Subdivision of Land (2003), Alberta Energy and Utilities Board policies and any other relevant policies to be employed in consideration of urban development within and or adjacent to well sites, pipeline or facility right-of-ways.

2.9 Stormwater Management Guidelines

The location, design and construction of stormwater management facilities will conform to the City of Edmonton's Stormwater Management Facilities Guidelines.

2.10 Southeast Area Structure Plan (ASP)

The Southeast ASP provides the general policies and guidelines to facilitate the orderly development of Charlesworth in terms of proposed land uses, density of development, transportation facilities, infrastructure and servicing and staging of development. This includes:

- A variety of housing options to accommodate a range of income levels.

- Design and develop commercial sites to be vibrant and desirable destinations inclusive of active and attractive streets to encourage walking.

- Pedestrian-friendly communities.

- A range of transportation options including walkways and corridor connections.

- Life long learning and employment opportunities.

- Efficient, contiguous and staged urban infrastructure.

- Preservation and enhancement of natural areas and open spaces.

3.0 CONCEPTUAL FRAMEWORK

3.1 Development Concept

The following section outlines the development concept for the Charlesworth NSP based on urban planning best practice principles and strategies identified in the previous section. It has been prepared in response to current and anticipated commercial and residential market demand in southeast Edmonton based upon historical and contemporary growth trends and aspirations of the various landowners in the plan area.

Charlesworth seeks to establish a healthy, vibrant community in southeast Edmonton. This is to be achieved through the thoughtful integration of complimentary land uses and their connection with one another resulting in a comprehensive community concept. Grounded in the principles of Smart Growth and Smart Choices, Charlesworth will provide housing, business, employment and transportation options in support of creating sustained local activity, vitality and access opportunities for future residents.

Principles of walkability, transit supportive development, mixed land uses and opportunities to seamlessly integrate pedestrian linkages, trails, and local environmental learning will be incorporated within the NSP reflecting urban planning best practices. The effect will be a neighbourhood with a range of higher density land uses in proximity to commercial services and employment opportunities connected by transit service and multi-use trails to local schools, places of worship, natural areas and open spaces.

3.2 Development Objectives

The Charlesworth NSP has been prepared as a comprehensively planned residential neighbourhood taking advantage of the natural topography, existing and planned transportation facilities and locational attributes of the area. The main development objectives of the Charlesworth NSP are to:

- Develop the Plan area in a manner consistent with the direction of Plan Edmonton, the Southeast ASP and other applicable City of Edmonton policies and guidelines.

- Incorporate viable existing land uses within the Plan area over the short or long term as appropriate.

Incorporate existing natural features and sites where possible.

Establish residential dwelling and population densities reflective of a more compact city form and a range of choice in housing types.

Establish transit supportive development to the extent possible with the planned development of a transit centre within the Plan area.

Bylaw 16427
September 18, 2013

Establish a Community Commercial node that serves as a destination and focal point for the community and for visitors alike.

Establish an integrated and walkable suburban residential community.

Ensure servicing and development in the Plan area proceeds in a logical and contiguous manner and on an orderly and staged basis.

3.3 Charlesworth Design Principles

The Charlesworth NSP incorporates a number of key urban planning principles in the design and development of the plan area. These serve to provide a policy framework and guide for future neighbourhood development and include the following:

Contiguous, orderly, and efficient neighbourhood growth.

Community design that is pedestrian-oriented and walkable.

Commercial development that forms an attractive, vibrant destination.

Provision of housing options that accommodate a range of income levels.

Provision of life long learning and employment opportunities.

Provision of alternative transportation options.

Sustainable urban infrastructure that is orderly, efficient and cost-effective.

Preservation and enhancement of natural areas and open spaces.

4.0 Development Plan

*The following sections describe the development concept for the Charlesworth NSP. The Charlesworth NSP is comprised of 262 hectares and is bound by Anthony Henday Drive (i.e. Transportation Utility Corridor) to the north, 34th Street SW to the east, Ellerslie Road (9 Avenue SW) to the south and 66 Street to the west. These boundaries establish a logical planning unit as shown on **Figure 6.0 – Development Concept**.*

Bylaw 14980
September 10, 2008
Bylaw 16427
September 18, 2013

Main components of the plan (e.g. Residential, Commercial, *Institutional/City Level Park*, *City Level Park*, Institutional, School / Park and Open Space) are described in the following sections along with prospective objectives and or principle outcomes. Information regarding engineering servicing and transportation are presented in separate chapters, 5.0 and 6.0 respectively. The area, number of dwelling units and population attributed to the various land uses is shown in Appendix – Land Use and Demographic Profile.

Bylaw 14980
September 10, 2008

4.1 Residential



The majority of the land uses within Charlesworth are designated for residential development. This includes low, medium and high density residential housing forms that will appeal to a range of income

levels.

4.1.1 Intent

Provide for residential development within the *Charlesworth* NSP to allow for a variety of housing forms and options consistent with consumer preferences and in conformance with municipal standards and policies.

Establish sufficient overall residential densities to help support the efficient provision of neighboring educational facilities, recreational facilities and municipal services such as public transit in a timely fashion.

Employ applicable design principles from the Suburban Neighbourhood Design Principles report within the plan area.

Locate residential development so as to take advantage of natural and man-made features such as SWM facilities, park/open space and utility/pipeline corridors.

Orient larger parcels of medium and high density residential development toward the collector and/or arterial road system to provide easy access and, where appropriate, to provide a transitional land use between adjacent low density residential development, commercial areas and major transportation facilities.

Integrate smaller parcels of medium density residential development within the neighbourhood adjacent to low density residential development to provide alternative housing options within the community.

Accommodate the continuing use of existing neighboring facilities and residential development while allowing for future re-development of these lands if and when the owners choose to pursue that opportunity.

4.1.2 Land Use Concept

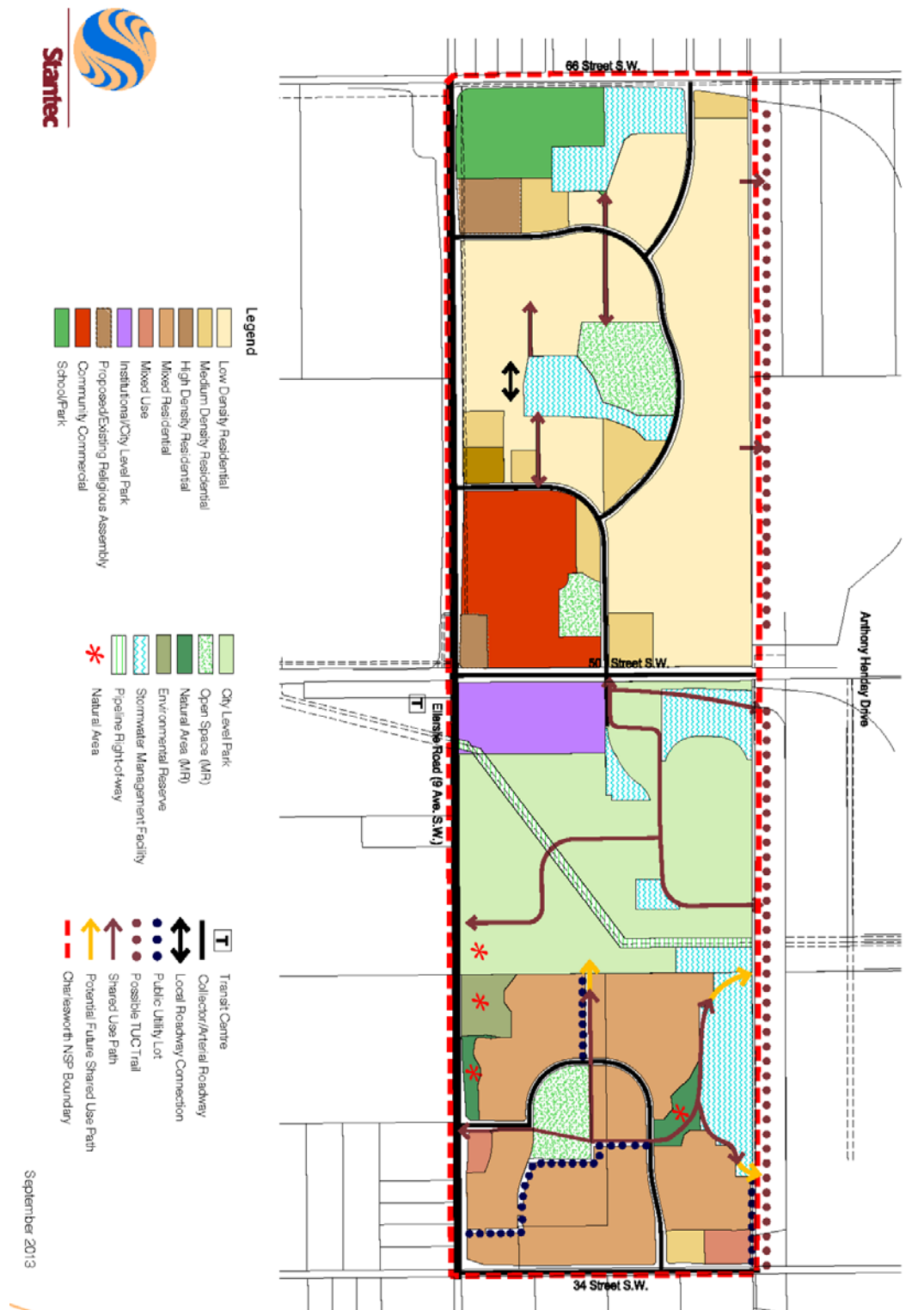
Residents will enjoy a variety of housing options contributing to Charlesworth's enhanced affordability and lifestyle. Future housing development will be in response to market conditions and consumer demands.

Proposed residential densities in Charlesworth NSP result in a net population density of approximately 89 people per net residential hectare. This higher development intensity results in more effective, higher land use efficiency in Charlesworth and is necessary to establish a more compact, walkable community in southeast Edmonton.

Bylaw 16427
September 18, 2013

Figure 6.0 – Development Concept

(Bylaw 16756, March 24, 2014)



Low Density Residential (LDR)



Low density residential development has been located to take advantage of amenities offered by stormwater management facilities, walkways, open space and topographical features. Housing forms

within LDR areas will be predominantly single and semi-detached residential units accommodating a variety of lot and housing sizes providing housing choice and options.

Low density residential will be developed in clusters or cells to provide a greater sense of local identity, stewardship and pedestrian safety. Appropriate vehicular and pedestrian linkages will provide inter-connectivity within the various sub-areas of the plan. Furthermore, the design and development of LDR will support a range of housing choices, site and building design options, and pedestrian circulation identified under Edmonton's Suburban Neighbourhood Design Principles report. The area, number of dwelling units and population attributed to LDR development is shown in the Appendix – Land Use and Demographic Profile.

Medium Density Residential (MDR)



The Charlesworth NSP designates a number of areas for Medium Density Residential (MDR) housing (see Figure 6.0). These sites may accommodate a range of medium density housing forms and

densities including townhouses, stacked townhouses and low-rise apartment buildings. Future market demands will determine the type of MDR pursued in each particular circumstance.

Medium density residential has been placed within the NSP utilizing principles of Smart Growth (e.g. housing and transportation choices, efficient use of land and infrastructure) and Smart Choices (e.g. walkable community, Transit-Oriented Development) identified through the Southeast ASP. MDR has been primarily located toward the central and eastern portion of the plan in order to utilize key transportation access points, land use transitioning and buffering, open space amenities and

commercial focal points within the neighbourhood. This design will provide a strong foundation for a walkable community in terms of provision of critical people capacity and associated daily activities. *Future residents will be within easy walking distance of commercial and retail services, natural open spaces, recreation and education facilities connected by pedestrian connections, and Transit service.*

Bylaw 16427
September 18, 2013

In accordance with the Southeast ASP development concept, MDR has been designed and configured in relation to key transportation focal points and to provide transition to lower density residential areas. Medium density residential sites are sited along arterial and internal collector roadways within the northwest, central and eastern portion of the plan. Parcels of MDR will have superior vehicle and transit access via 50 and 60 Street, Ellerslie Road, and arterial and collector roadways where applicable.

In addition, MDR has been aligned alongside Municipal Reserve, SWMF, and / or pedestrian linkages providing immediate natural and open space amenity and access opportunities. Parcels directly connected or within immediate walking distance of multi-use trails / linkages and transit service are connected to a host of neighbourhood focal points, facilities and services. These include existing school site, integrated SWMF environmental education site, *city level park*, religious assembly, commercial / retail services, and employment opportunities. In optimizing arterial and collector access / egress, transit and pedestrian circulation, this design will provide a broader range of housing options and affordability given these sites proximity to transit service, community and commercial services (e.g. school / park sites, local shopping, groceries).

Bylaw 14980
September 10, 2008

Medium density residential grouped along 50 and 66 Street, Ellerslie Road and southern boundary of the plan provides a transition and buffer between LDR and commercial activity. This is reinforced through the separation of MDR from LDR by internal collector roadways, and natural and Municipal Reserve areas. Organized in clusters and planned parcel sizes, the location of MDR will strengthen community image and identity at key entrance points and intersections in the southeast portion of the plan. More specifically, MDR has been designed within the plan to establish a positive urban interface among neighbourhood focal points. This includes

the integration of adjacent stormwater management facilities, institutional, school, open space, internal pedestrian linkages, commercial and employment opportunities.

While parcels of MDR are likely to be developed on a self-contained basis, opportunity exists to develop street-oriented townhousing designs alongside LDR housing through sensitive streetscape design, attention to transition and landscaping. Medium density residential areas are intended to be developed under the applicable uses and densities in the Land Use Bylaw including RF5, RF6 or RA7. Incorporation of MDR within the plan area will provide alternative housing options and choices for residents throughout the lifecycle of the neighbourhood and are located in proximity to community services, focal points, transit service, and open space. The area, number of dwelling units and population attributed to MDR development is shown in the Appendix – Land Use and Demographic Profile.

High Density Residential (HDR)



Charlesworth contains one High Density Residential (HDR) parcel located in the southern portion of the plan area (see Figure 6.0). This parcel is located immediately north of

a neighbourhood entrance. This site is bounded to the north and west by MDR and is located directly across from the major commercial site in the southeast portion of the plan.

The introduction of HDR within the plan will increase neighbourhood residential densities and strengthen the efficient and effective provision of municipal facilities and commercial services in a timely manner. *Building on the locational strengths of this site, HDR has been strategically designed and located having regard for neighbourhood walkability and access to open spaces, community facilities, commercial services, employment opportunities and transit facilities.*

Separated from LDR within the neighbourhood, this site is within 200 m of the transit centre, the immediate vicinity of pedestrian walkways, central SWMF and natural area amenities. A number of pedestrian linkages and walkways

Bylaw 16427
September 18, 2013

Bylaw 16427
September 18, 2013

will provide safe and convenient access to school / park facilities and open spaces. Ellerslie Road and internal collector roadways will provide residents convenient vehicle and transit access internally, to 50 and 60 Street, Ellerslie Road and Anthony Henday Drive. Transit stop connections and attention to land use transitioning, landscaping and building setbacks at the development permit stage will integrate MDR located to the north and west and establish a positive interface with commercial to the east.

The location of HDR directly west from the Community Commercial site is highly advantageous from a transportation and service perspective. Residents are within walking distance of, and will have immediate transit access to both Neighbourhood and Community Commercial sites. This presents residents with greater transportation options in terms of meeting their daily (e.g. groceries, pharmacy, dentist) and or specialty (e.g. electronics, home ware) shopping needs at the local level. Given the proximity of HDR to commercial, significant opportunity exists to create local employment and investment in Charlesworth. The area, number of dwelling units and population attributed to HDR development is shown in the Appendix.

4.2 Commercial



Charlesworth NSP establishes a Community Commercial site in the southeast portion of the plan area that will add to the vibrancy, image and overall sustainability of the

community. Development objectives for commercial areas are guided by the Southeast ASP and market demand for commercial in southeast Edmonton.

4.2.1 Intent

Provide commercial development to serve the needs of residents located within *Charlesworth* and adjacent communities.

Provide opportunity for mixed use (office and residential) development through the zoning process.

Locate and orient commercial sites along arterial and/or collector roadways to ensure high visibility and to provide convenient access opportunities at key focal points within the community.

Promote a vibrant, walkable commercial site through attractive streetscaping and pedestrian design. Site layout and building façade treatment will avoid exposed 'dead' frontages along major circulation corridors and where buildings abut a major corridor, appropriate architectural articulation will be employed.

Ensure that the impact of commercial development on adjacent land uses is minimized through the orientation of land uses, site layout and building design. This includes the appropriate application of buffering, setbacks, landscaping and façade treatments available under the City of Edmonton Land Use Bylaw.

Arrange higher residential densities around commercial and transit service areas to provide an effective transition to less intensive uses.

Provide convenient shared use paths and routes either dedicated or along (private or public) boulevards to commercial areas and Transit service.

Provide shared access (via public easement) and parking opportunities for the adjacent *private institution (church)* on Ellerslie Road.

Bylaw 16427
September 18, 2013

Amended by
Editor

4.2.2 Land Use Concept

Commercial within Charlesworth has been strategically located west along 50 Street and north of Ellerslie Road in southeast portion of the plan. *The design and site locations for Major Commercial each provide superior site visibility, vehicle access / egress and proximity to local transit service.*

Bylaw 15177
May 11, 2009

In order to ensure that an adequate supply of retail space is provided to meet the demands of future residents in southeast Edmonton a Commercial Needs Assessment was conducted by Urbanics Consultants Limited. *This commercial area is considered integral to the development of the community given its proximity (i.e. walking distance) to medium and high density residential, standard and transit service, integrated Transit Stops, and vehicle access to Ellerslie Road, 50 Street and Anthony Henday Drive.*

Bylaw 16427
September 18, 2013

Community Commercial



Community Commercial is located in the southeastern portion of the neighbourhood. This area is intended to be developed offering a variety of retail and commercial opportunities that strive to

deliver goods and services to the surrounding area. The site is of sufficient size to accommodate a range of commercial uses from large format retailers (e.g. grocery stores, fitness center, home improvement retailer, etc.) to free-standing retailers (e.g. family dining, restaurants, fashion outlets, etc.). High exposure and strong access / egress opportunities from Ellerslie Road, 50 Street, and Anthony Henday Drive (expected in 2007) are important aspects influencing the deliberate location of this land use.

Oriented toward Ellerslie Road and 50 Street, Community Commercial will be highly visible and accessible making it a major focal point within the southeastern portion of the plan. The site will be accessed by vehicles from Ellerslie Road, 50 Street and a collector roadway internal to the neighbourhood. *A future transit centre along Ellerslie Road to the south and pedestrian connection to the east of the commercial site will provide local residents convenient accessibility options.* Design of arterial and collector roadway access points into the site will minimize traffic short-cutting through the western portion of the plan and maintain appropriate traffic patterns and volumes within the neighbourhood core.

The Community Commercial site in Charlesworth will be integrated with surrounding land uses and facilities to create a positive land use interface. This includes the establishment of a unique neighbourhood identity and sense of place in support of a walkable community. Implementation of this direction will require the adoption of a Direct Development Control Provision (DC1) for the Community Commercial site. The Direct Control Provision will address the site development objectives noted below to achieve a higher level of urban design and create a successful commercial development.

Community Commercial Site Development Objectives:

General:

Establish the site and on-site development as an attractive, walkable, focal point for area residents and visitors alike.

Integrate the site and on-site development with the surrounding facilities, functions, and activities.

Establish use opportunities generally based on the CSC Zone of the Edmonton Zoning Bylaw.

Establish building heights compatible with the surrounding development.

Bylaw 16427
September 18, 2013

Establish a Floor Area Ratio (FAR) that does not exceed 0.4.

Establish an appropriate transition/interface with abutting uses by means of integration/separation, landscaping, building orientation, and the control of compatible and incompatible activities.

Building Placement:

Generally orient buildings parallel to external and internal roadways to define and enliven the street edge.

Place development to create a positive functional relationship between buildings by clustering buildings to achieve a “human scale” and to create opportunities for plazas and pedestrian areas.

Place buildings (in combination with aligning on-site private roads) to optimize off-site and on-site views.

Building Design:

Develop buildings that respect surrounding existing development, functions and activities.

Develop a consistent and harmonious architectural building theme throughout the site inclusive of structures housing businesses with “franchise” or corporate building and signage standards. Consistency and harmony between buildings may be achieved through the use of compatible architectural design, treatments and details, colours, and materials.

Develop buildings that are of high quality, aesthetically pleasing and have architectural and visual interest.

Incorporate building façade treatments and wall articulations that create interesting and enlivened streetscapes external and internal to the site.

Avoid exposed “dead” frontages along major circulation corridors.

Avoid square, box like structures by promoting buildings with an identifiable base, mid section and top or roofline.

Emphasize and develop main building entry points to be clearly identifiable.

Where possible, orient building entrances to Transit along Ellerslie Road.

Screen loading and service areas from abutting public roadways and abutting uses.

Parking and Circulation:

Create an appropriate balance between pedestrian and vehicular circulation.

Bylaw 16427
September 18, 2013

Create pedestrian linkages that accommodate and encourage pedestrian movement between buildings within the site as well as between the site and the surrounding community and Transit.

Create a structured internal vehicular circulation system by means of private internal roadways complete with appropriate streetscaping.

Where possible, align the site entrances and the on-site private roads to appear as extensions of the surrounding road network.

Where possible, locate parking interior to the site and away from the abutting public roadways.

Divide or “break up” large parking areas into smaller areas by means of on-site private roads and landscaped islands.

Landscaping and Site Amenities:

Provide appropriate landscaping to enhance the overall appearance of, and experience within, the site.

Ensure the site exterior is well landscaped.

Create a central amenity area that is a focal point for the site.

Create an appropriate interface and linkages between the activity areas and buildings on the site and the abutting conserved natural area.

Interface with Existing Historical Religious Assembly:

Create an appropriate interface / integration between the site and the existing religious assembly property by:

Providing appropriate on-site landscaping and separation space;

Prohibiting alcohol sales, nightclubs, bars and neighbourhood pubs, and drive in food services within 15 m of the existing church property; and

Avoiding placement of noise, traffic or odour generating activities adjacent to the existing religious assembly property.

Provide shared access (via public easement) and parking opportunities with the existing religious assembly.

Ensure required access through the commercial site between the existing religious assembly and the abutting public roadways, is as direct as possible.

Community Commercial will provide a range of services and amenities within easy walking distance of medium and high density residential areas and transit service. Compact development around this major activity node supports contiguous growth, efficient infrastructure, and effective provision of facilities and services over the course of neighbourhood development and lifecycle. The area

attributed to the Community Commercial site is shown in the Appendix.

Neighbourhood Commercial section deleted

Bylaw 15177
May 11, 2009

4.3 Educational Facilities, Parks and Open Space



Schools, community facilities and services, parks, open space, pedestrian linkages and walkways are all important components in creating a walkable community in Charlesworth offering

unique learning, lifestyle and recreational opportunities.

4.3.1 Intent

Provide school / park sites within *Charlesworth* through the dedication of municipal reserves.

Provide dispersed open park space within the plan area to provide localized recreational opportunities for residents. In consultation with Community Services, these sites will be determined and will bring the total MR dedicated in the ASP area to 10%;

Preserve and enhance natural areas, where feasible, by integrating them with urban development and open spaces.

Incorporate natural areas with compatible land uses such as naturalized storm ponds, park sites or adjacent housing where possible.

Encourage naturalized landscaping on public and private lands to minimize environmental and economic costs associated with their maintenance.

Accommodate the safe and nuisance-free operation of existing utility rights-of-way and integrate pipeline corridors into the development concept as walkways and open space linkages where feasible.

Facilitate the integration of existing and proposed religious assembly developments within the Plan area.

Allow for the development of a multi-sport tournament and recreation site (MTRS) within the NSP area through provision of an appropriate open space.

Bylaw 14980
September 10, 2008

4.3.2 Land Use Concept

As shown on **Figure 7.0 – Pedestrian Network System**, a series of pedestrian walkways, linkages and roadway facilities connect residential areas, education and

Bylaw 14980
September 10, 2008

community facilities, natural and open space areas, commercial services, and adjacent neighbourhoods. In connecting key destinations within the NSP, the pedestrian network system will enhance the community's local image, identity and sense of place in southeast Edmonton.

Educational Facilities

Amended by
Editor

An existing public school site is located in the southwest portion of the plan. Bound by 66 Street on the west and Ellerslie Road to the south, two Public school facilities, Ellerslie South (K-4) and Ellerslie North (5-9), are fully operational and will continue to accommodate students within plan area (see Figure 6.0 – Development Concept). Through on-going collaborative planning between the local schools, the City of Edmonton Community Services Department, two private corporations, environmental learning opportunities (e.g. outdoor classroom) will be combined with the SWMF in the western portion of the plan. Further details are provided in Section 4.5 of this plan.

School site transit and vehicle access is currently provided from 66 Street and Ellerslie Road. At the time of writing this document, the Edmonton Public School Board and the City of Edmonton were working to identify future access and drop-off area in order to accommodate expected roadway changes in the area. Alternative access (i.e. walking, cycling) is provided by internal dedicated multi-use trails and connections linking the school site with residential areas in the north and east.

Figure 7.0 – Pedestrian Network System

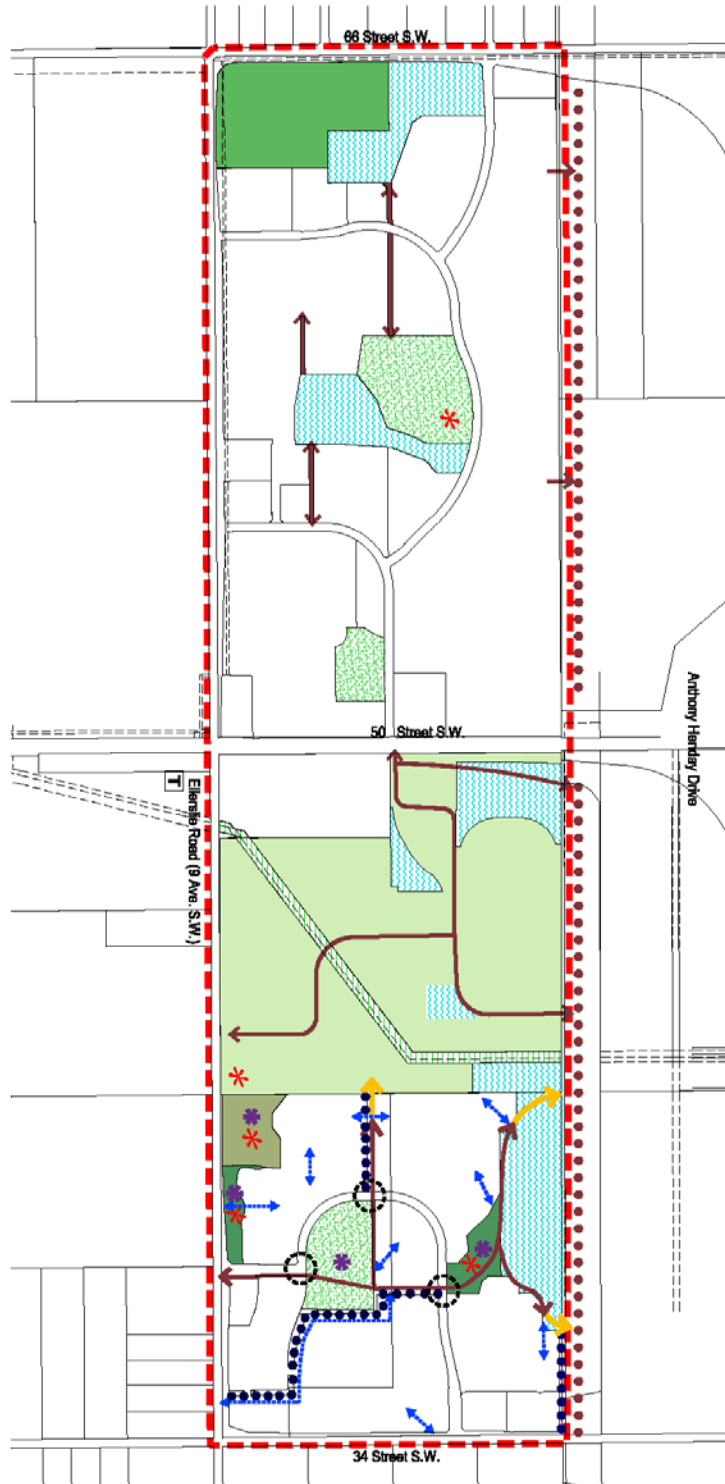
Bylaw 16427, September 18, 2013



- Legend**
- School/Park
 - City Level Park
 - Open Space (MR)
 - Natural Area (MR)
 - Environmental Reserve
 - Stormwater Management Facility

- Pipeline Right-of-way
- Natural Area
- Focal Point
- Key Pedestrian Crossing
- Transit Centre

- Public Utility Lot
- Possible TUC Trail
- Pedestrian Linkage
- Shared Use Path
- Potential Future Shared Use Path
- Charlesworth NSP Boundary



CHARLESWORTH
NEIGHBOURHOOD STRUCTURE PLAN

Figure 7.0
Pedestrian Network System



May 2013

Parks and Open Space



The Charlesworth NSP contains a number of parks and open space areas and opportunities. These opportunities have been carefully integrated within neighbourhood school park sites, SWMFs, conserved

natural areas, commercial, low and medium density residential land uses. Connected through a network of pedestrian linkages and walkways, these open spaces will provide residents a wide range of recreational, leisure, exercise, and public gathering opportunities.

A mature tree stand identified as Natural Area SE 130 is located in the central part of the neighbourhood. This natural area will be preserved and integrated with Municipal Reserve lands, SWMF, low and medium density residential uses nearby. This preserved tree stand will serve as an amenity area and focal point within Charlesworth. Future consideration may be given to the accommodation of a community league on this site pending further discussion with the City of Edmonton Community Services Department.

In the eastern portion of the plan area, a private corporation will dedicate a tree stand located next to commercial lands within SE ¼ 26-51-24-4. This natural feature will enhance this area's attractiveness as a focal point while providing an additional land use buffer and transition between residential and commercial development.

Amended by
Editor

A wetland identified as Natural Area SE 132 is located in the eastern portion of the neighbourhood. This wetland will be conserved in its pre-development state through integration of adjacent land uses and appropriate management actions, identified in the Natural Site Assessment and Natural Area Management Plan.

Bylaw 14980
September 10, 2008

A remnant woodlot, identified as Natural Area SE 133 in located in southeast portion of the neighbourhood. This poplar woodlot has been assessed as healthy and sustainable and will be protected through means such as Municipal Reserve Dedication.

Bylaw 16427
September 18, 2013

City Level Park

The site of the former Strathcona Shooting Range located in the eastern portion of the Plan area is designated as City Level Park. The Asset Management and Public Works (AMPW) department intends to redevelop the site into a multi-sport tournament and recreation site (MTRS). Once developed, this site will serve as a major focal point and a regional amenity for active community recreation.

Its previous land use as a shooting range has resulted in soil contamination in certain portions of the site. Therefore, the site is intended to be developed under the DC2 (Site Specific Development Control) provision. The DC2 provision will ensure remediation of the contaminated portions of the site prior to the issuance of a development permit while allowing development to proceed in the clean portions of the site.

4.4 Institutional

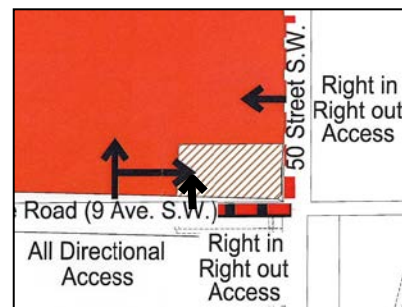


Two Institutional sites are planned for the Charlesworth NSP. The first site is a future church facility located north of Ellerslie Road immediately west of the internal looping collector roadway east of 66 Street. This site is bounded by LDR to the north and an existing school site to the west. Opportunity exists to develop this institutional site with pedestrian

linkages and open space connections as an integrated activity node within the western portion of Charlesworth.

The second institutional site includes St. Paul's Evangelical and Lutheran church buildings located on Lot 5, Plan 822 1657 north of Ellerslie Road abutting the west side of 50 Street. The existing use and structures are expected to remain in place for the foreseeable future.

Accordingly, opportunity exists to integrate commercial development with the church site in a sensitive manner having regard for urban interface and building siting. Special consideration will be given to site treatments (e.g. setbacks, landscaping, screening) that afford visual transitioning to, and enhancement of the church site within the Community



Commercial area. Connection to the church site will be maintained through dedication of an internal roadway (via public easement) within the Community Commercial site to ensure continued vehicle access and egress.

Each of these institutional sites has high visibility, transit and vehicular access to Ellerslie Road and key intersections. This design promotes development intensification at key neighbourhood focal points providing both land use transition and local place-making opportunities (e.g. community gathering place). The design, location and integration of institutional land uses within the NSP help support community sustainability in terms of the services and amenity opportunities provided and adapted over time.

4.5 Institutional/City Level Park

The site located immediately north of Ellerslie Road and east of 50 Street SW is designated as Institutional/City Level Park. This land use designation will allow for the development of primarily institutional uses such as churches and schools or alternatively, the expansion of the City Level Park, the MTRS, onto this site. In addition, uses ancillary to the primary institutional uses such as seniors housing, funeral home/crematorium and a limited opportunity for commercial development may be allowed through a Direct Control Provision.

Bylaw 14980
September 10, 2008

4.6 Stormwater Management Facilities (SWMF)



Seven stormwater management facilities will be located in the Neighbourhood; two larger facilities are located in the central-west portion of the NSP and one in the northeast. The smaller four

facilities are proposed in the eastern portion of the NSP, within the MTRS. The primary function of these facilities is to facilitate stormwater drainage within the neighbourhood. Secondary functions of SWMFs are to provide secondary and passive recreation opportunities, destination points and linkages to abutting pedestrian facilities. Both SWMFs have been placed on a “best fit” basis relative to the natural drainage patterns within the Plan area, and on the basis of being a desirable amenity/feature relative to the surrounding uses. These facilities will be integrated with

Bylaw 16427
September 18, 2013

surrounding land uses, notably the central conserved tree stand and the Ellerslie Campus school / park site.

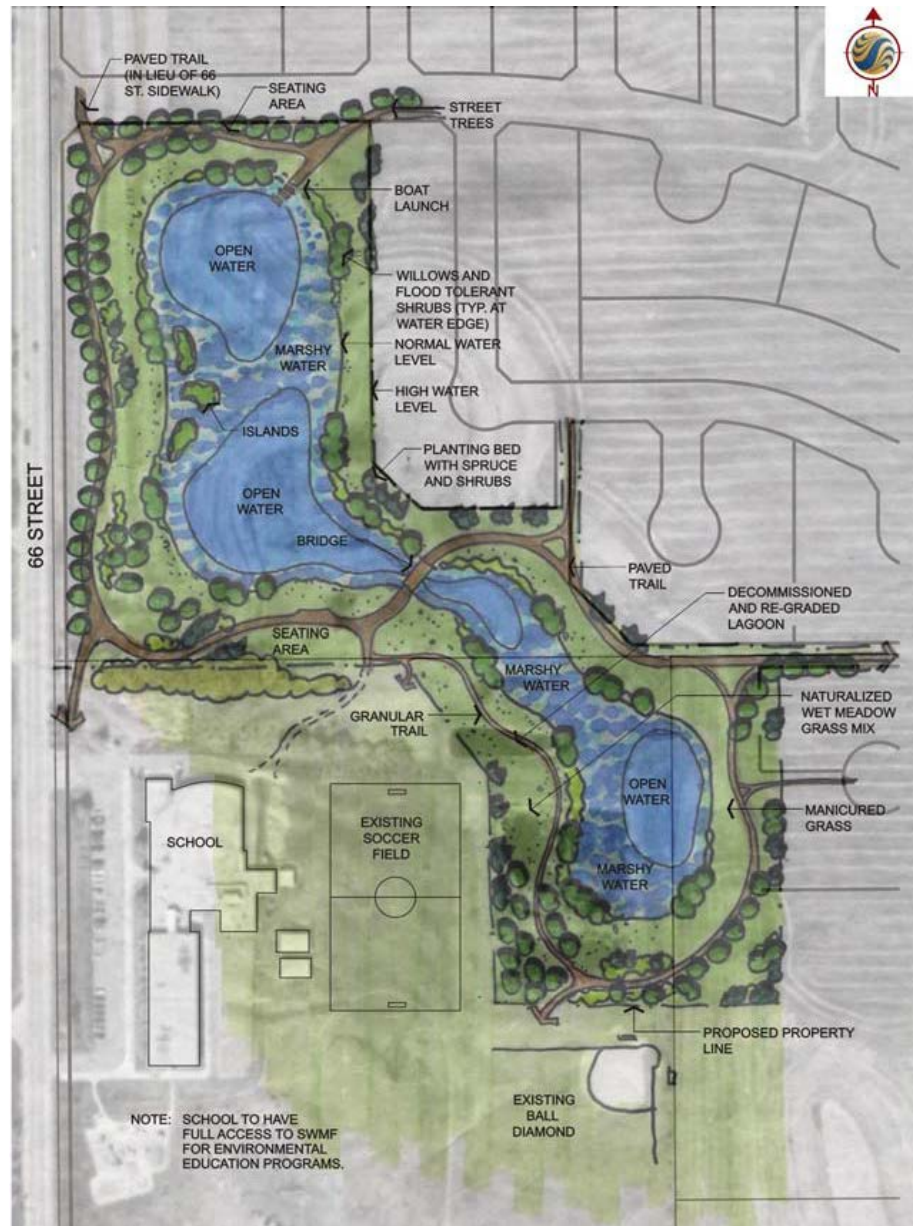
The SWMF located in the central-west portion of the NSP has been configured in relation to the abutting collector roadway, the abutting conserved mature tree stand (i.e. Natural Area SE 130), an east-west multi-use trail corridor, and abutting low and medium density residential land uses. In addition to its primary function of stormwater retention, this facility will serve as an important ecological focal point within the community.

The western SWMF will be located on the site of an existing grey water sewage lagoon that serves North and South Ellerslie Campus site. This lagoon will be reclaimed and replaced by a SWMF with the agreement of the Edmonton Public School Board, the City of Edmonton Community Services Department, and the abutting landowners. The proximity of the SWMF to the school is deliberate as the facility will serve as an educational resource and study habitat.

The four SWMFs in the eastern portion of the NSP have been located on the basis of the natural drainage patterns of the park site. In addition to its primary function of stormwater retention, these facilities will provide passive recreation opportunities, complementing the surrounding active recreation uses.

The SWMF in the northeast portion of the neighbourhood has been designed around the existing site contours that historically allowed drainage through the site.

Bylaw 14980
September 10, 2008



Bylaw 14980
September 10, 2008

Bylaw 16427
September 18, 2013

4.7 Transportation



The Charlesworth NSP provides a range of transportation opportunities to efficiently and effectively manage the movements of vehicles, pedestrians and public transit.

4.7.1 Intent

Provide a safe and efficient transportation system within the plan area to accommodate the pedestrian, bicycle and vehicular transportation demands of residents moving to, from and within the *Charlesworth NSP*.

Integrate transportation and utility corridors into the neighbourhood making use of their walkway and linkage potential having regard for the safe, ongoing operation of these transmission facilities.

Encourage neighbourhood walkability by minimizing walking distances, providing pedestrian en-route / destination amenities, and connection of users with local services through the creation of an interconnected street system and multi-use trail network.

4.7.2 Land Use Concept

The arterial and collector transportation network has been developed to accommodate external / internal neighbourhood traffic flow demands in both a north-south (34, 50 and 66 Street) and east-west direction (Ellerslie Road) in accordance with City of Edmonton guidelines and standards. The two collector roadway systems will provide direct access to Ellerslie Road, 50 Street (highway connector) and 66 Street and will accommodate a substantial portion of the internal traffic volume being the main thoroughfare within the neighbourhood.

Bylaw 16427
September 18, 2013

Public Transportation

Public transit services will be extended into the Charlesworth in accordance with City of Edmonton Transit System Guidelines and demands. *Access to transit services will be provided. In addition, a transit centre will be located in southeast portion of the neighbourhood and will complement the Community Commercial development. A combined Park and Ride and transit centre is planned for a location east of 50 Street and south of Ellerslie Road.* These facilities will enable residents of Charlesworth excellent transportation options.

Appropriate screen fencing / berming and other noise attenuation measures may be implemented for residential areas backing onto major roadway facilities (e.g. Anthony Henday Drive / Transportation Utility Corridor, Ellerslie Road, 66 Street, 50 Street, and 34 Street).

Pedestrian Linkages

A comprehensive multi-use trail system connects community amenities and focal points within Charlesworth. A series of linear trails provide east-west access through the neighbourhood (See Figure 7.0). Along these pedestrian corridors north-south access points will be provided where practical. Designated as multi-use trails or public utility rights-of-way, these corridors and linkages will connect residential sub-areas located throughout the plan directly to neighbourhood amenities and services.

Future opportunities to connect multi-use trails into the TUC may be pursued where feasible and practical. Additional pedestrian linkages will be made available along local and collector roadways promoting neighbourhood walkability among residential, commercial, school / park and open space land uses.



Bylaw 16427
September 18, 2013

Bylaw 16427
September
18, 2013

5.0 Servicing

5.1 Servicing Design Concepts

The following sections provide an overview of the engineering service design concepts proposed for the Charlesworth Neighbourhood Structure Plan. A more detailed analysis is provided in the Neighbourhood Designs Report (NDR) submitted under separate cover.

5.2 Sanitary Drainage

As illustrated on **Figure 8.0 – Sanitary Service System**, the on-site sanitary network will follow the internal roadway alignments and associated public utility lots. Sanitary sewage will be piped to 66 Street right-of-way and then northwards to the Transportation and Utility Corridor and westward within the TUC. An interim pump will move sewage from the plan area eventually connecting to the South Edmonton Sanitary Sewer (SESS) lift station location at Ellerslie Road and Parsons Road.

The sanitary trunk within the TUC will eventually be extended eastwards from 66 Street to service the areas on the east side of 50 Street. The timing of the trunk extension is not certain and depends on the development of the areas east of 50 Street. Until the sanitary trunk is extended up to 50 Street, parcels on the east side of 50 Street will adopt an interim on-site servicing option, for example, installation of holding tanks with truck access for servicing and pump-out.

Once municipal sanitary services are available to a site with a temporary on-site servicing option, this option shall be discontinued and a connection shall be made to the municipal system.

Bylaw 14980
September 10, 2008

5.3 Stormwater Drainage

Two large stormwater management facilities (SWMF) are proposed for the portions of Charlesworth NSP, west of 50 Street. *Five SWMFs are proposed on the east side of 50 Street, four to service the MTRS and one to service the residential development immediately east of the MTRS (see **Figure 9.0 – Stormwater Servicing System**).* These facilities have been strategically positioned to take advantage of the plan areas natural site topography and drainage patterns. In the portions west of 50 Street, stormwater will be conveyed using a system of

Bylaw 14980
September 10, 2008

Bylaw 16427
September 18, 2013

Bylaw 14980
September 10, 2008

interconnecting pipes directed toward storm outfall situated within Ellerslie Road and ultimately discharged to Blackmud Creek. Stormwater for the MTRS will be conveyed using a combination of interconnecting pipes and swales.

Bylaw 14980
September 10, 2008

Stormwater management within Block 2 Plan 2941RS shall be determined through the preparation of a Neighbourhood Design Report as part of the rezoning process. The same drainage system as that of the MTRS should be considered with the intent of integration into the municipal system.

Bylaw 14980
September 10, 2008

5.4 Water Distribution

Water service will be provided via a future watermain located at Ellerslie Road and Sunset Boulevard (approximately 66 Street) as shown on **Figure 10.0 – Water Service System**. A booster station will be constructed at approximately 66 Street and Ellerslie Road. Water servicing will be designed to provide peak hour flows and fire flows for residential and commercial uses. Water looping will be provided in accordance with the requirements of EPCOR. A Water Network Analysis has been submitted under separate cover to EPCOR for review and approval.

The portions of the plan area on the east side of 50 Street will be serviced through a future quaternary system transmission main along Ellerslie Road. The timeframe for the installation of this watermain is not determined and is dependent on development of the areas east of 50 Street. As an interim scenario, “trickle fill” / cistern systems are recommended for the portions of the plan area east of 50 Street. Temporary on-site servicing shall be discontinued once municipal water service connections are available.

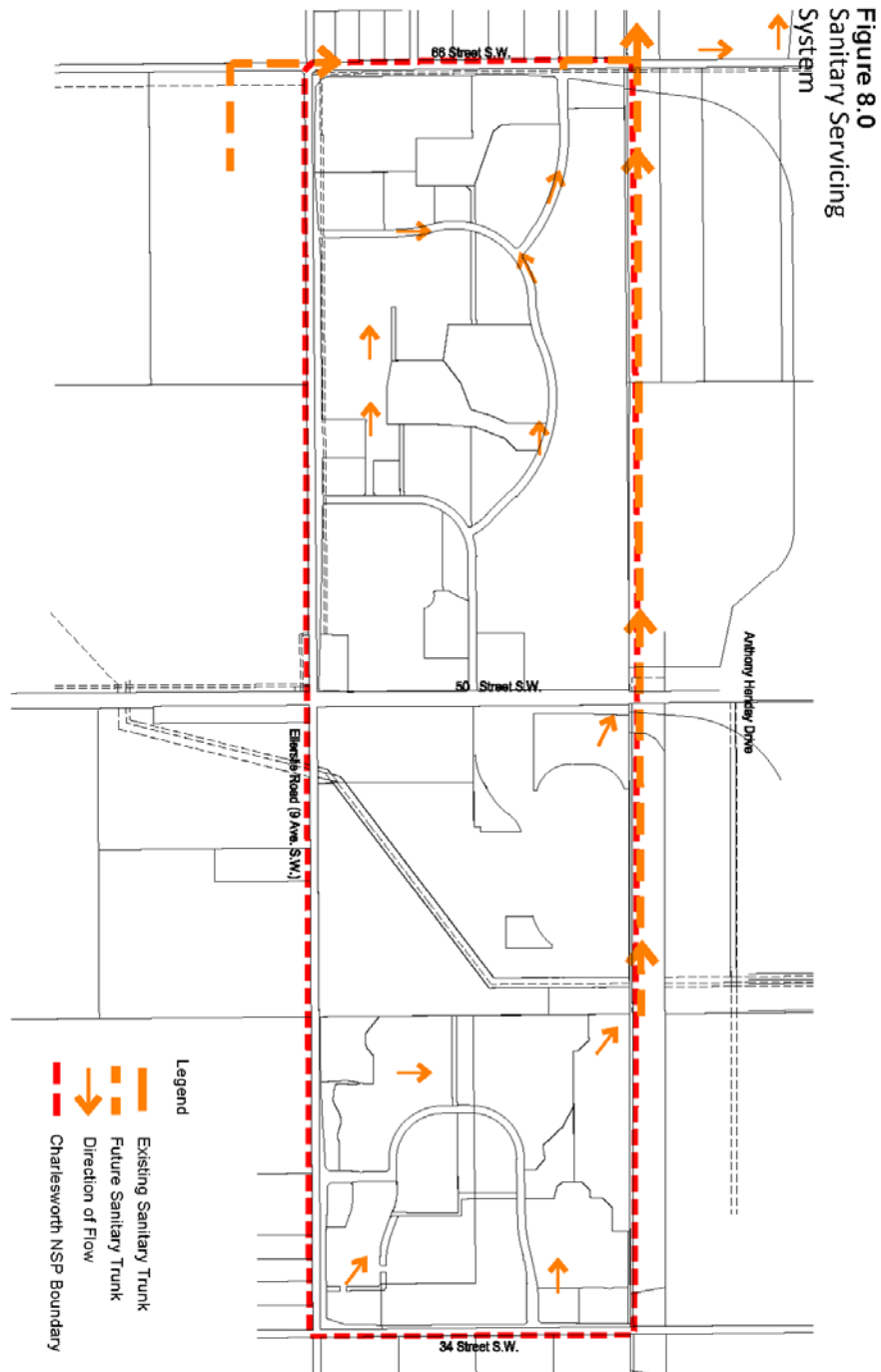
Bylaw 14980
September 10, 2008

5.5 Shallow Utilities

Power, gas and telecommunication services are located within proximity to the Charlesworth plan area, and will be provided by the respective utility operators concurrently with development.

Figure 8.0 – Sanitary Servicing System

Bylaw 16427, September 18, 2013



CHARLESWORTH
NEIGHBOURHOOD STRUCTURE PLAN



Figure 9.0 – Stormwater Servicing System

Bylaw 16427, September 18, 2013

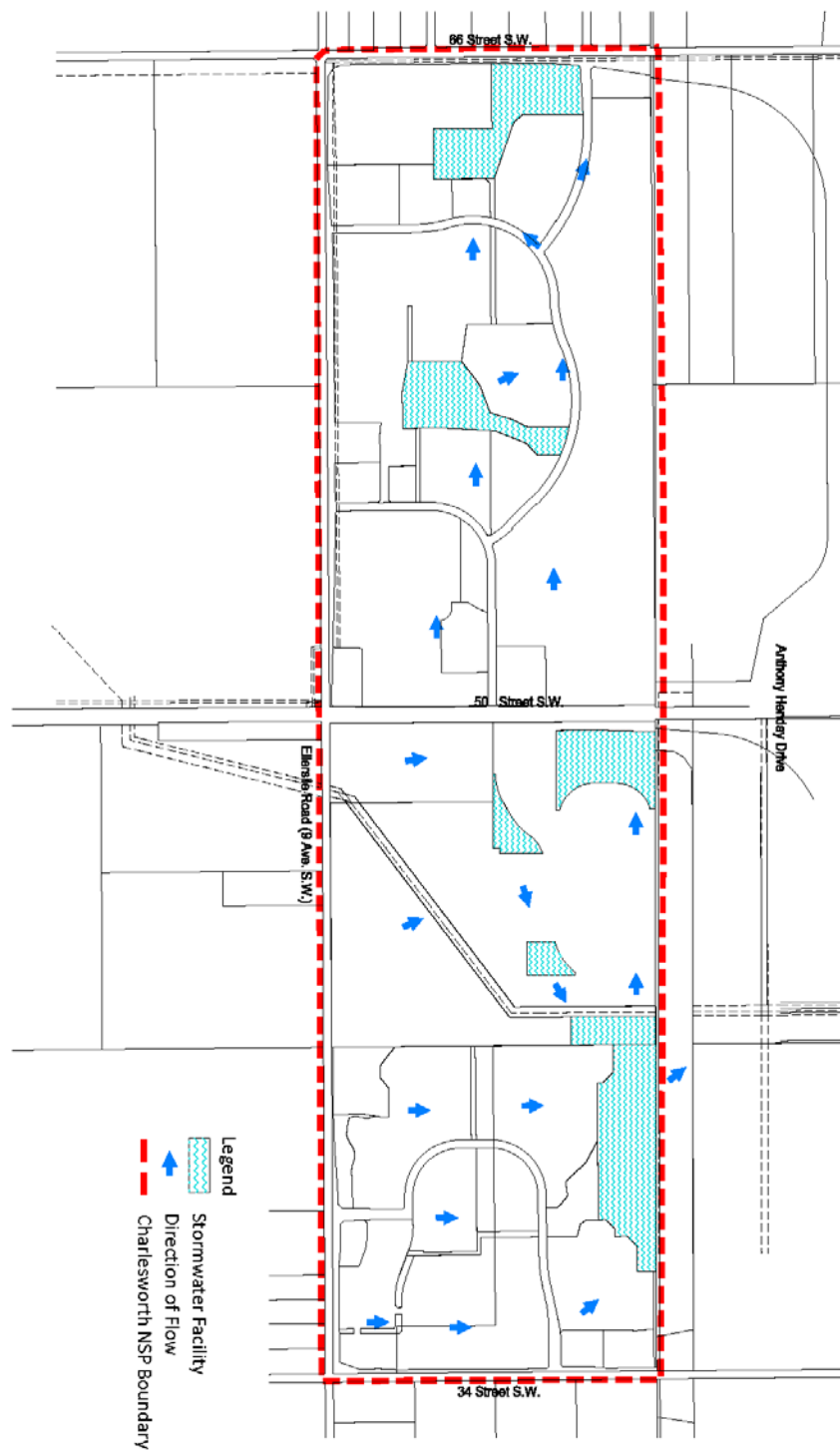
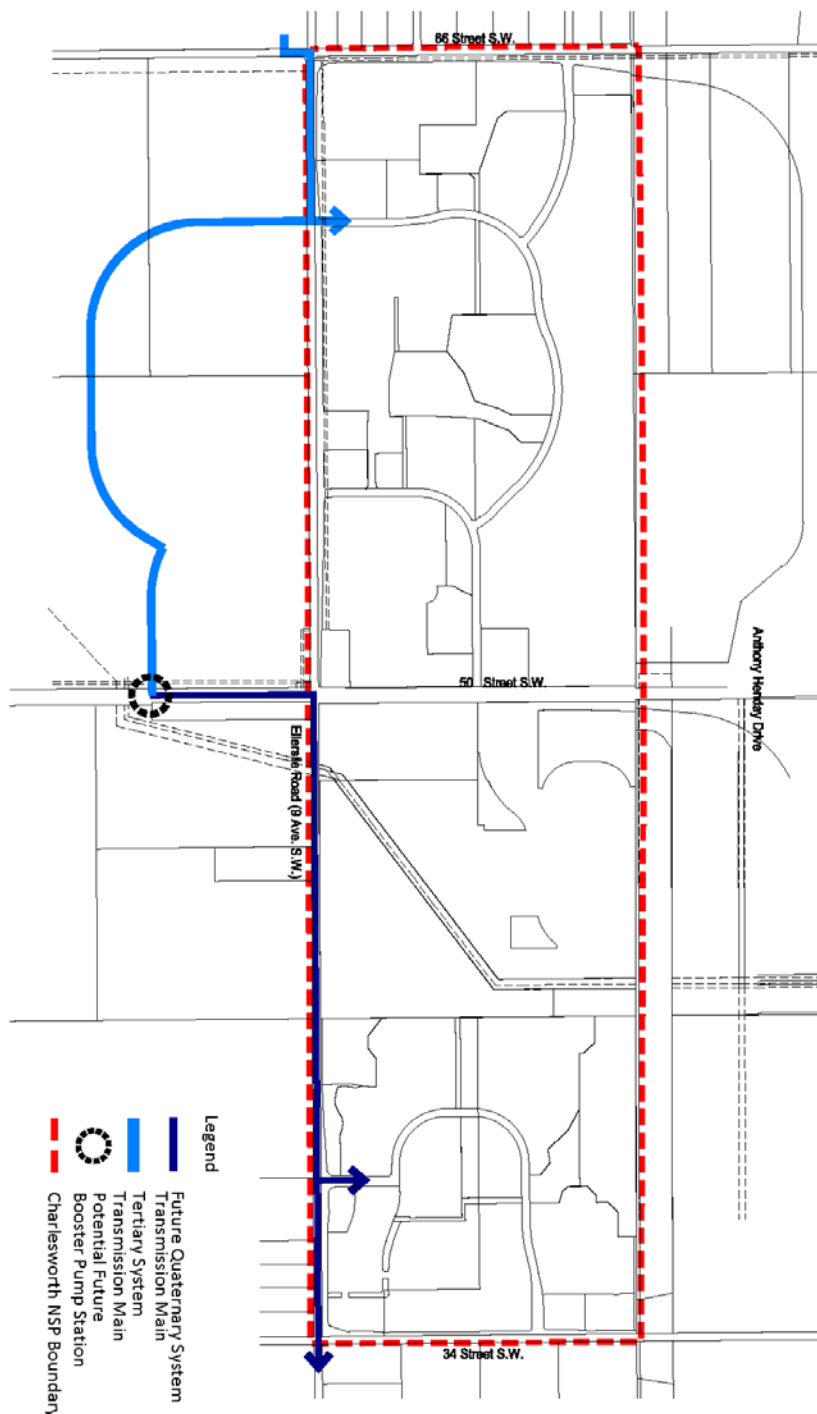


Figure 9.0
Stormwater Servicing System

CHARLESWORTH
NEIGHBOURHOOD STRUCTURE PLAN

Figure 10.0 – Water Servicing System

Bylaw 16427, September 18, 2013



CHARLESWORTH
NEIGHBOURHOOD STRUCTURE PLAN

Figure 10.0
Water Servicing System



6.0 Transportation

6.1 Transportation

The Charlesworth NSP is served by a system of arterial, collector and local roadways and multi-use trails that accommodate the movement of motor vehicles, bicycles and pedestrians (see **Figure 11.0 – Transportation Network**). This hierarchy of roads will provide the necessary interconnections appropriate to efficiently and effectively accommodate traffic flows. As well, the system of roads designed within the NSP will provide residents and the traveling public with safe and efficient access for this area. The exact location of local roadways will be decided at the time of subdivision.

6.2 Roadway Network

*As shown on **Figure 8.0 – Transportation Network**, the Charlesworth NSP maintains a high level of accessibility with proximity to Ellerslie Road, 34 Street, 50 Street, 66 Street and Anthony Henday Drive.*

Bylaw 16427
September 18, 2013

In areas where a residential subdivision is constructed adjacent to a designated highway that has not been constructed, Alberta Transportation requires that the development proponent address future noise concerns. *A noise attenuation needs assessment for residential development adjacent to Anthony Henday Drive, Ellerslie Road, 66 Street and 50 Street is required in accordance with the City's of Edmonton's Urban Traffic Noise Policy.* This policy requires that the developer either proves that projected noise levels in the outdoor amenity area will not exceed 60 dBA, or construct any noise attenuation measures necessary to achieve this threshold.

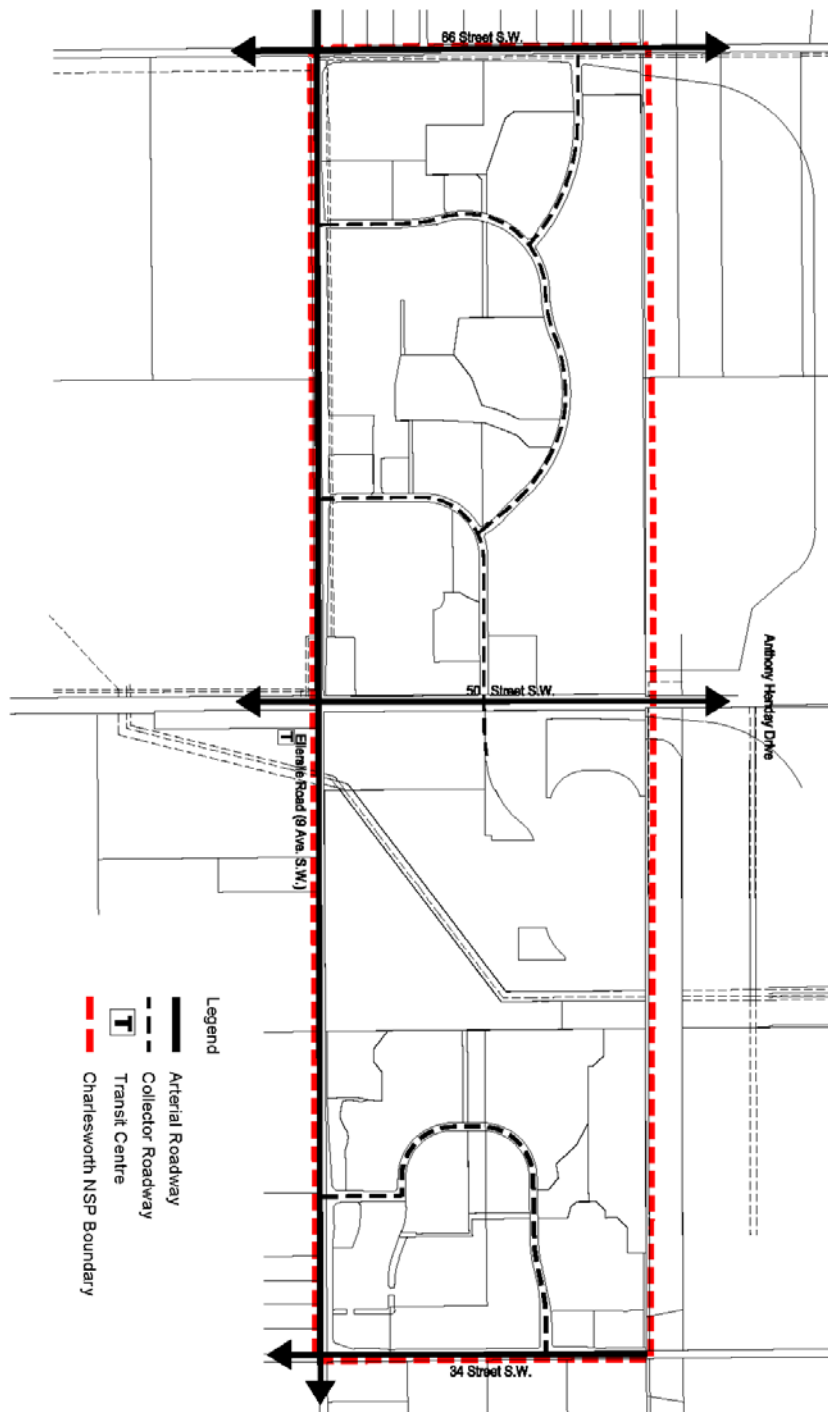
Bylaw 16427
September 18, 2013

Noise level evaluations will be carried out prior to subdivision application at the design phase of the project to verify that future noise levels meet the 60 dBA objective. If the evaluation confirms that the 60 dBA objective will be exceeded, noise attenuation will be provided at these locations by the developer.

At a minimum, the City's Transportation and Streets Department will require that a 1.0 m berm and solid screen fence be incorporated in the design of Ellerslie Road and 50 Street, which are truck routes.

Figure 11.0 – Transportation Network

Bylaw 16427, September 18, 2013



CHARLESWORTH
NEIGHBOURHOOD STRUCTURE PLAN

Figure 11.0
Transportation Network

May 2013



6.2.1 Arterial Roadways

Arterial roadways accommodate the movement of traffic to and from the neighbourhood and region connecting people to facilities, services and amenities. *Ellerslie Road, 66 Street, 50 Street, and 34 Street are the designated arterial roadways serving the Charlesworth plan area. These roadways accommodate traffic in a north-south (66 Street, 50 Street, and 34 Street) and east-west (Ellerslie Road) direction providing the necessary access to adjacent transportation routes (Anthony Henday, Highway 2).*

Appropriate intersection spacing and access/egress requirements are respected along these arterial roadways.

Bylaw 16427
September 18, 2013

6.2.2 Collector Roadways

Collector roadways serve to “collect” traffic from local roadways and direct it to arterial roadways and provide access to adjacent properties. *The west portion of Charlesworth provides a looping collector roadway to accommodate internal traffic demands. Two additional collectors provide an east-west linkage from 66 Street and 50 Streets to the looping internal collector and Ellerslie Road, and a third collector connects 34 Street with Ellerslie Road in the east portion of the neighbourhood.* Collector roadways within the plan area can accommodate two-lane traffic and on-street parking. Appropriate turning lanes will be provided where required.

Bylaw 16427
September 18, 2013

6.2.3 Local Roadways

The local roadways in Charlesworth are intended to accommodate lower vehicle speeds and traffic volumes than collectors and have a more limited a limited role in the overall movement of traffic within the Charlesworth NSP.

6.3 Roadway Staging

A roadway staging plan will be prepared as part of the review and approval process to service lands in this area of southeast Edmonton. *Upgrades to 34 Street, 50 Street, 66 Street, and Ellerslie Road and any other further improvements will be necessary as development proceeds and traffic demands increase in the Charlesworth NSP.*

Bylaw 16427
September 18, 2013

6.4 Transit Service

Public transit services will be extended into Charlesworth in accordance with City of Edmonton Transit System



Guidelines and demands. Standard transit service will be provided along arterial and collector roadways connecting residents to key neighbourhood focal points (e.g. commercial centre, school / park site, natural open space).

The design of the arterial / collector roadway system will provide excellent roadway infrastructure to facilitate effective transit service within the neighbourhood and to other surrounding communities. Accordingly, the majority of land within the Charlesworth NSP is within 400 m walking distance of transit service or less. Future transit routes will follow the internal collector roadway system with initial service to be encouraged through the provision of attractive, comfortable and convenient transit shelter stops. Combined with multi-use trails, linkages and connections, the NSP provides convenient, accessible transit service.

Immediately southeast of Charlesworth at 50 Street and Ellerslie Road a Park and Ride transit centre is planned. Attention to the future design of this facility will increase the probability of community usage and encourage alternative transportation options as part of the broader walkable community concept.

Bylaw 16427
September 18, 2013

6.5 Neighbourhood Walkability



Charlesworth incorporates Council Recommendation Two (Walkability) through the design of a series of walkways, multi-use trails, and connections in support of vision of a healthy,

vibrant community in southeast Edmonton. Direct connections are provided to major focal points within the community (e.g. school / park site, central natural area, commercial area, *city level park*) resulting in more transportation options and routes for residents, associated economic cost savings, improved personal health, cleaner environment, and enhanced service and amenity accessibility.

Bylaw 14980
September 10, 2008

Accordingly, the design of Charlesworth emphasizes a walkable community concept through:

Neighbourhood Planning – Charlesworth provides a mix of land uses, transit service options, interconnected pedestrian routes and access points, and opportunities for social interaction and experiencing nature (i.e. neighbourhood commercial – restaurants, shops; integrated School / SWMF Environmental Education Centre)

Streetscapes – The NSP encourages high quality pedestrian designed environments including clear signage, provision of universal access (i.e. barrier free design), adequate landscaping and where feasible, public art.

Site and Building Design – *Charlesworth* encourages innovative and attractive building siting and design having regard for fronting on-street orientations, screened storage areas, rear parking (where feasible), and extended uses throughout the day.

Pathway Network Planning and Design – The *Charlesworth* NSP encourages high quality walking facilities, pedestrian access between parking lots and buildings, well designed sidewalks, lighting, and appropriate crosswalk treatment or protection where practical and feasible.

Associated Pedestrian Facilities – Through community enhancements, *Charlesworth* may include transit user protection from the elements, gathering spaces / seating nodes along pedestrian routes, and interpretive signage.

6.6 Parking

Parking for vehicles will generally be provided off-street in conjunction with residential, commercial and institutional development. However, on street parking generally will be available throughout the neighbourhood.

6.7 Truck routes

Existing 24 hour truck routes will be maintained along Ellerslie Road and 50 Street. 50 Street is a restricted truck route north of Ellerslie Road permitting truck traffic between 07:00 - 22:00 Hours Monday to Saturday. Appropriate treatments to screen (e.g., berming and fencing) truck traffic will be required as necessary for these routes.

Bylaw 16427
September 18, 2013

7.0 Implementation

7.1 Development Staging

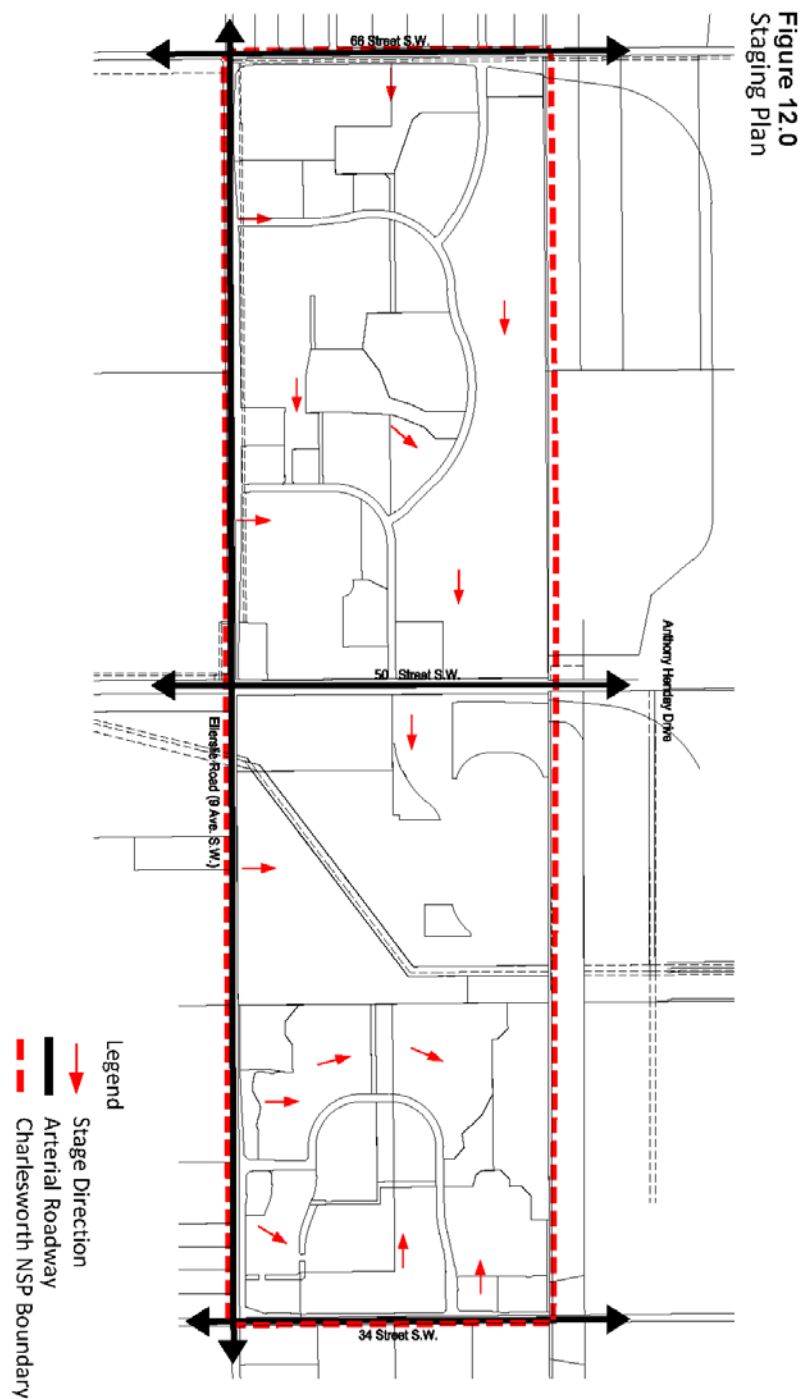
Development is anticipated to commence in the western portion of the plan area and progress in an east to southeast manner that is contiguous and efficient.

The timing and scale of each successive development stage will be directly influenced by market demands, future infrastructure and servicing extensions and aspirations of the respective landowners (see **Figure 12.0 – Staging Plan**). Transportation infrastructure to service the initial stages of the neighbourhood area will be extended into the neighbourhood from 66 Street and Ellerslie Road. Initial stormwater servicing will have an ultimate outfall to Blackmud Creek. Water infrastructure and servicing will be extended from Ellerslie Road and 66 Street along with sanitary infrastructure as part of SESS expansion along 66 Street.

7.2 Rezoning & Subdivision

Lands within the Charlesworth NSP are currently zoned as Agricultural (AG). Rezoning and subdivision applications for LDR, MDR and HDR within the plan area will be undertaken as necessary and conform to the land use designations described in the NSP. Zoning and subdivision applications will be guided by applicable City statutes and policies, including this plan, and informational requirements necessary for each application.

Figure 12.0 – Staging Plan
 Bylaw 16427, September 18, 2013



CHARLESWORTH
 NEIGHBOURHOOD STRUCTURE PLAN



May 2013

8.0 Charlesworth Amendment Area Policy

This policy is to apply specifically and solely to the amendment area, referred to throughout this section as the 'Charlesworth amendment area.' This area includes SE 5-51-24-W4— and described as the quarter section east of the Ivor Dent Sports Park, west of 34 Street SW, and north of Ellerslie Road SW.

The policy statements and implementation strategies are intended to supplement existing objectives and policy statements in the approved Charlesworth NSP and strengthen the quality of development in the amendment area.

8.1.1 Green Development

One of the overall objectives of the Charlesworth amendment area is the development of a sustainable community through the promotion of green building techniques and the preservation of natural ecological features.

Objective 1	NSP Amendment Area Policy	Implementation
Promote sustainable development principles in the planning and design of the Charlesworth amendment area.	Homes and public spaces in the amendment area should incorporate alternative energy and energy efficiency standards to serve as a showcase for sustainable development in Edmonton and the Capital Region.	<p>i) Homebuilders in the amendment area will adhere to a Construction Waste Management Program.</p> <p>The goal of the Construction Waste Management Program is to divert solid waste from the landfill to the greatest extent possible. A designated area of the neighbourhood would contain a variety of bins for recyclable materials. Builders would be required to separate construction waste and deposit it in the respective bins.</p> <p>ii) Homebuilders in the amendment area will adhere to a Green Building Rating System developed and administered by the developer.</p> <p>The green rating system would provide a checklist for builders to incorporate green building principles and energy efficient features into every home. Builders would be required to achieve at least the minimum level of green building.</p> <p>iii) Allow flexibility between the developer, homebuilders and the</p>

		City Administration in regulating the introduction and implementation of alternative designs, techniques and technologies that support ecological processes, cost effectiveness and environmental stewardship in the development of the neighbourhood.
--	--	--

Rationale:

The use of alternative development standards will be addressed within the design of the neighbourhood and at the site-specific building level. The plan encourages consultation with the City and affected agencies to explore the use of alternative development standards (i.e. consideration of alternative design and servicing techniques, roadway cross sections or infrastructure provisions that differs from the City of Edmonton standards) as a way of achieving sustainability.

Construction waste constitutes a large portion of municipal waste streams. Managing waste on a construction site is a vital component of sustainable building. Specific strategies may include onsite recycling for product packaging and excess materials, and donating excess materials to the ReUse Centre and the Habitat for Humanity ReStore.

The actual design and operation of a home can provide many opportunities to make a neighbourhood more energy efficient. The establishment of standards, scales, and scoring for greener developments creates awareness and pride for builders and residents.

Objective 2	NSP Amendment Area Policy	Implementation
Ensure a compact urban form that uses land responsibly and efficiently.	The neighbourhood shall incorporate and support higher residential densities	Figure 6 – Development Concept and Land Use and Population Statistics illustrate the planned overall density for the NSP that exceeds the minimum density target for Priority Growth Area B of the Capital Region Growth Plan.

Rationale:

Compact development increases residential densities, and contributes to increased efficiency in the provision of municipal services, public transit, schools and nearby commercial developments and neighbourhood amenities.

Objective 3	NSP Amendment Area Policy	Implementation
Encourage naturalized landscaping on public and private lands and low impact development principles in public spaces.	<p>i) Landscaping of parks and open spaces should incorporate native and / or edible plant species where appropriate.</p> <p>ii) Bioswales shall be used to convey stormwater in appropriate areas.</p>	i) Specific species for landscaping on public properties shall be determined between the developer and City Administration at the time of review of landscaping plans and as part of the engineering drawing

	<p>iii) Where appropriate, permeable trails shall be considered for shared use paths to minimize the amount of impervious surfaces. Sections of the Shared Use Path adjacent to Greenway Housing will be hard surface.</p> <p>iv) The constructed wetland stormwater management facility shall restore natural vegetation to provide additional natural animal habitat and promote natural infiltration of groundwater.</p>	<p>review.</p> <p>ii) Figure 6 – Development Concept identifies the location of Public Utility Lots, which will be used to accommodate bioswales. The intention is that low impact development strategies are not duplicated with traditional pipe systems.</p> <p>iii) Many of the Shared Use Paths in the plan area are identified within Public Utility Lots, which are also proposed to accommodate a bioswale.</p> <p>It is anticipated that alternate surface treatments, such as permeable pavements or gravel trails, will be investigated for the shared use paths within the natural areas and along the public utility lots as part of the overall low impact development strategy for the neighbourhood.</p> <p>Details of the shared use paths will be designed at zoning or subdivision. Possible alternative standards will require approval from Transportation Services.</p> <p>iv) Detailed design of the constructed wetland stormwater management facility will be reviewed by Drainage Services and Office of Biodiversity.</p>
--	---	---

Rationale:

Native plant species are those which are naturalized to a given area and vary by region and local area. The use of native or adapted plant species generally requires less irrigation and maintenance than non-native species, which serves to minimize costs associated with development and maintenance. Naturalized landscaping within open spaces provides opportunities to create wildlife habitats, and strengthens the ecological network within the neighbourhood. Non-native species, on the other hand, require more maintenance and weaken an ecosystem's biodiversity and ecological network.

Bioswales (conceptually illustrated below) are vegetated open channels specifically designed to attenuate and treat stormwater runoff for a defined water volume. Similar to open ditches, bioswales convey stormwater volumes from a source point (where rain falls) to a discharge point. Unlike an open ditch, they are designed to intentionally slow down the velocity of stormwater, provide opportunities for infiltration, and facilitate water quality improvement through special vegetation and plantings that remove pollutants from stormwater.



Conceptual Bioswale Cross-Section

Minimizing the amount of impervious surfaces supports natural infiltration of stormwater, improving water quality and minimizing the amount of pollutants entering the groundwater.

Objective 4	NSP Amendment Area Policy	Implementation
Promote renewable energy and energy efficient uses in Charlesworth	<ul style="list-style-type: none">i) Explore opportunities to incorporate solar and wind power applications into a prominent location in the neighbourhood.ii) All homes should be encouraged to be constructed as “solar ready”iii) Homes should be constructed to	<ul style="list-style-type: none">i) The location of solar and wind power applications will be determined through consultation with EPCOR Power and various City of Edmonton departments.ii) The proponent will work with the home builders to encourage homes to be built ready for the future

	<p>a high standard of environmental efficiency.</p> <p>iv) Explore opportunities for LED streetlighting system in the neighbourhood.</p> <p>v) Promote reduced lighting levels in Charlesworth.</p>	<p>installation of roof-mounted solar domestic hot water and photovoltaic (PV) systems.</p> <p>iii) The proponent will design and implement a green building rating system for all homes in the area.</p> <p>iv) Work with City of Edmonton to implement LED pedestrian and street lighting system into the neighbourhood</p> <p>v) Explore opportunities to reduce pedestrian and street light levels in the neighbourhood through the application of timers (e.g. reducing light levels between the hours of 11:00 PM and 5:00 AM for example) and motion sensors to trigger full light levels.</p>
--	---	---

Rationale:

The majority of the energy produced in Alberta is derived from non-renewable sources, such as coal. Renewable energy is energy obtained from natural resources that can be naturally replenished or renewed within a relatively short period. Generating energy from these sources is a cleaner alternative to traditional energy sources.

Renewable energy applications, such as solar and wind, can be implemented at the neighbourhood scale in public spaces to provide clean energy for street and walkway lights. These applications can also serve as interpretive public art and educate residents about the benefits of solar and wind power.

A solar ready home is one that has been designed and built to facilitate the future installation of solar domestic hot water and photovoltaic (PV) systems at a later date. For a minimal investment, installing appropriate conduits, plumbing, and electrical outlets during construction can save consumers thousands of dollars if and when homeowners decide to install solar panels or a domestic hot water system at a later date.

Conventional street lights consume a great deal of energy, much of it through waste heat. LEDs produce more light per watt than other types of light bulbs, making them an environmental smart solution for reducing energy costs and use. LED lighting systems reduce electricity usage and light pollution, lower lumen levels, and enable more directed light patterns without sacrificing the safety, security, and functionality of public spaces.

The reduction of light levels, or the “dark sky” concept, contributes to the protection and restoration of the natural outdoor night environment while reducing the adverse effects of light pollution (including sky glow, light trespass, light clutter, decreased visibility at night, and energy waste). Artificial light at night has been shown to affect the mating, migration, and predation behaviours of many different species and, consequently, the ecological community as a whole. Specified periods of light and dark, known as circadian rhythms are essential for good health and wellness. Light levels should be designed to match activity on the street and site. Moreover, LEDs can be gradually dimmed during off-peak hours (and raised again to full levels when motion is detected) to save energy and promote a ‘dark sky’ concept.

8.1.2 Urban Design

The Charlesworth amendment area incorporates relevant principles of urban design to establish an appealing, pedestrian-friendly, and sustainable community.

Objective 5	NSP Amendment Area Policy	Implementation
Develop mixed residential uses in the form of single/semi-detached housing and rowhousing, and medium density residential uses in the form of low-rise/medium density housing to a high urban design standard.	Low Density (single/semi-detached) and Medium Density (row housing and low-rise/medium density housing) residential uses shall be appropriately designed to ensure a diversity of the built form, unit siting, use of architectural elements, and transitioning.	<p>i) The Mixed Residential land uses shall be implemented through a combination of the Residential Mixed Dwelling (RMD) zone and Direct Development Control Provision (DC1). The intent of the RMD zone is to accommodate a range of dwelling types and densities and provide flexibility in the design and development of the neighbourhood. Mixed Residential areas intended for Greenway Housing will be implemented through a DC1 zone.</p> <p>ii) Medium Density Residential development shall be implemented through Sections 100 and 200 of the Edmonton Zoning Bylaw, or through a Direct Development Control Provision as warranted. In addition to the use of standard zones, the character of the Medium Density Residential areas will be enhanced through regulation of the built form by means of architectural controls.</p> <p>iii) The developer/landowner will develop and implement specific architectural controls to be adhered to at the time of development in the neighbourhood.</p>

Rationale:

Through the implementation of the Residential Mixed Dwelling (RMD) and Direct Development Control Provision zones, the neighbourhood will promote the mixing of low density residential (single/semi-detached, rowhousing, etc.) land uses along many streets in the neighbourhood to create a unique and varied streetscape (conceptually illustrated below). Due to the compact nature of the neighbourhood, low-rise/medium density housing will be developed in close proximity to single/semi-detached uses to integrate the uses. As a result, attention to detail with respect to urban design is required by means of appropriate transitioning and landscaping.



Conceptual Mixed Streetscape Elevation

Objective 6	NSP Amendment Area Policy	Implementation
Ensure neighbourhood infrastructure and design elements address year round weather conditions.	<p>i) The neighbourhood shall be designed to accommodate infrastructure programming requirements in the public realm including snow clearing and landscaping maintenance.</p> <p>ii) Tree species which are salt tolerant shall be included in the detailed landscape design of boulevards and street areas.</p>	<p>Boulevards shall be used to accommodate snow removal and year round service vehicles.</p> <p>Alternative development standards shall meet infrastructure programming needs for all seasons.</p>

Rationale:

Winter is a dominant season in Edmonton and paying close attention to winter design issues (such as providing space for snow clearing and considering boulevard landscaping) will help to alleviate the negative attitudes towards the cold climate.

Objective 7	NSP Amendment Area Policy	Implementation
Create identifiable focal points that are integrated with the open space system of the neighbourhood.	<p>i) Focal points (Urban Village Park, natural areas and the stormwater management facility) shall function as amenity space for residents and may include public art, seating area, plaza, street furniture, gazebo, fountain/water feature, or other architectural elements to create a sense of place.</p> <p>ii) Natural areas and the wetland shall be accessible to neighbourhood residents to provide a natural amenity space for passive recreation and interpretive uses.</p> <p>iii) Convenient, safe and efficient shared use paths for the neighbourhood into and through open spaces/focal points and the mixed use sites shall be provided.</p>	<p>i) Figure 7 – Pedestrian Network System identifies the proposed shared use paths and crossings and illustrates connections between key focal points in the Charlesworth amendment area and the rest of the Charlesworth neighbourhood.</p> <p>ii) Details regarding the provision and placement of architectural elements within focal points shall be determined at the detailed design stage of development.</p> <p>iii) Details regarding the placement of shared use paths and crossings shall be determined at the subdivision approval or development stage in partnership with the City of Edmonton.</p>

Rationale:

Neighbourhood focal points create community destinations within the neighbourhood. Through careful design and site planning, the development of these focal points creates active neighbourhood places which are alive and utilized and promote community interaction. Neighbourhood focal points in the Charlesworth amendment area include the Urban Village Park, natural areas, and the stormwater management facility. These provide key amenity spaces for local residents and add to the neighbourhood's attractiveness, character and image as a pedestrian-oriented community and promote social interaction between residents.

Objective 8	NSP Amendment Area Policy	Implementation
Provide signage complementary to the theme of the neighbourhood.	<p>i) Way finding signage shall be provided along pedestrian and cycling routes to encourage safe and efficient movement.</p> <p>ii) Signs should be designed in an aesthetically pleasing manner and in</p>	<p>i) ii) Signage and wayfinding details will be determined at the detailed design stage.</p>

	harmony with the architecture theme of the neighbourhood.	
Rationale: Signage plays an important role in way-finding and creating an identity for the neighbourhood. Ensuring signage is complementary to the theme of the neighbourhood will complement the overall design of the neighbourhood while aiding residents. When appropriately designed and located, signage can improve navigability of the neighbourhood without creating visual clutter.		

8.1.3 Ecology

The Charlesworth amendment area land use concept ensures that the natural areas and wetland are conserved and protected. Consideration is given to ecological linkages between the natural areas, parks, stormwater management facility, and the wetland. Public access to the wetland and natural areas will be provided.

Objective 9	NSP Amendment Area Policy	Implementation
Strengthen Edmonton's ecological network	i) The land use concept shall provide connections and linkages between neighbourhood amenity spaces (i.e. SE 133 and SE 132 , natural areas, SWMF, Urban Village Park, and shared use path) to provide habitat and encourage ecological connectivity. ii) Plantings of native species should be utilized to add to the habitat value of the green network within the neighbourhood.	i) Figure 6 - Development Concept illustrates the natural areas and environmental reserve area in the Charlesworth amendment area. Compensation for the loss of wetlands shall be provided in the plan area or within the the City. ii) Relevant City of Edmonton conservation planning and policy shall be adhered to (e.g. Policy C531). The recommendations and regulations of the City and Provincial environmental agencies shall be followed.
Rationale: Remnant woodlots, wetlands, and other natural features form an ecological network in the area. Maintaining these features promotes biodiversity among plant and animal species. Enhancing the existing ecological network with plantings of native species creates connectivity and habitat value within the Charlesworth amendment area and NSP area, and the surrounding landscape		

Objective 10	NSP Amendment Area Policy	Implementation
Conserve the area's natural features.	The ecologically significant natural area (SE 133), wetland, and remnant woodlot shall be retained within the Charlesworth amendment area.	Figure 6 – Development Concept illustrates the natural areas and environmental reserve area in the Charlesworth amendment area.

Rationale:

The Ecological Network Report (ENR) for the amendment area identifies several natural features within the plan area: Environmentally Sensitive Area (SE 133), a natural deciduous woodlot, a wetland, and the constructed wetland stormwater management facility. Based on the recommendations of the ENR, the proposed amendment to the Charlesworth NSP conserves and integrates these areas of ecological significance within the land use concept.

Objective 11	NSP Amendment Area Policy	Implementation
Enhance the ecological value of the existing golf course ponds in the northern portion of the plan area.	The ponds shall be enhanced and used as a constructed wetland stormwater management facility (SWMF).	Figure 6 – Development Concept identifies the constructed wetland stormwater management facility in the Charlesworth amendment area. Crown ownership and treatment of this feature will be confirmed prior to subdivision. In the event that the Crown does not lay claim to this feature, it will be incorporated into the storm water management design for the site. An enhanced ecological design will be utilized which includes but is not limited to: shallow pond slopes, an undulating shoreline, a natural upland vegetation component, seasonal fluctuations and an extensive shrubby shoreline that includes a meadow marsh community.

Rationale:

With the development of the Pioneer Meadows golf course, the naturally low lying areas were modified to be used as a series of water features for the course. Using the existing golf course ponds as a constructed wetland stormwater management facility will accommodate the stormwater storage requirements for the neighbourhood. Developing the facility as a constructed wetland will strengthen the ecological network in the area.

Technical Summary

An Ecological Network Report (ENR) was prepared for the Charlesworth amendment area and submitted under separate cover in support of the NSP amendment. The ENR identifies natural features and provides an assessment of the existing ecological network as well as provides recommendations on how to conserve and protect the natural areas.

A Wetland Assessment was prepared by Spencer Environmental on behalf of the City of Edmonton. The Wetland Assessment identifies any potential wetlands, determines potential sustainability of wetlands in the context of future development, and outlines required regulatory approvals.

A Natural Area Management Plan will also be prepared for each Natural Area retained and will need to be submitted as development approaches the Natural Area. The Natural Area Management Plan will establish the management and conservation goals for the Natural Area.

8.1.4 Environment

In order to ensure that the lands within the NSP area are suitable for development, the environmental status of the land must be evaluated. The City requires that Phase I Environmental Site Assessments (ESA) be submitted, reviewed, and endorsed prior to the rezoning stage of development.

Objective 12	NSP Amendment Area Policy	Implementation
Ensure that the environmental status of the lands are suitable for development and that Environmental Site Assessments (ESAs) are complete and up-to-date at the time of rezoning.	<ul style="list-style-type: none"> i) Determine the likelihood, types, and location of environmental concerns that may be present on the lands prior to rezoning. ii) Phase I ESA reports older than 1 year from the date of rezoning application shall be updated, and any Phase I ESA report older than 5 years from the date of rezoning application shall be redone. iii) Where necessary, contaminated material shall be removed and disposed of in an environmentally sensitive manner, in accordance with Federal, Provincial, and Municipal regulations. 	<ul style="list-style-type: none"> i) ii) ESAs and any follow-up shall receive sign-off by City administration prior to the rezoning stage of development. iii) Site remediation, where necessary, shall be conducted prior to rezoning. An environmental site assessment report verifying the remediation shall be submitted for approval by City administration prior to rezoning of the subject lands.
Rationale: Lands within the neighbourhood boundary will be suitable for development and their environmental status confirmed prior to rezoning. Those lands identified as contaminated must undergo remediation according to Federal, Provincial, and Municipal standards.		

Objective 13	NSP Amendment Area Policy	Implementation
Minimize amount of topsoil to be removed from site.	i) Where feasible, replace stripped topsoil in greater depths than regularly specified.	<p>Topsoil will be stripped and stockpiled in small piles in the neighbourhood. It could then be used public and private landscape areas where structural soils are not required</p> <p>Topsoils could be installed at depths of up to one meter, depending on the location, above current</p>

		standards.
<p>Rationale:</p> <p>Topsoil is the key growing medium of trees and plants. Topsoil needs to be stripped from new development areas to allow for the construction of roadways and building sites. Stripped topsoil is usually stockpiled on or near the site and is used for the landscaping of public parks, ponds and roadways as well as for private lots. In most parts of the Edmonton region, the deep natural topsoils mean that there is a surplus of stockpiled topsoil after the development of the neighbourhood is completed.</p>		

Technical Summary

A Phase I Environmental Site Assessment has been completed and signed off by the subject lands. The Phase I ESA for SE ¼ 24-51-24-W4 confirms that the majority of the area is free of contamination and therefore suitable for development. Follow-up items identified within the respective ESA shall be addressed prior to the rezoning of the subject areas, as per the implementation strategy.

8.1.5 Residential

Approximately 32 hectares of the amendment area is designated for residential land uses. The land use concept for the Charlesworth amendment area proposes an overall residential density of approximately 48 persons per net hectare and 34 units per net residential hectare, compared with 35 persons per net hectare and 35 units per net residential hectare in the remainder of the Charlesworth area.

The area, number of dwelling units, and population attributed to each form of residential development in the Charlesworth amendment area is shown in **Table 3 – Land Use and Population Statistics**.

The Charlesworth amendment area uses two residential land use designations, which will guide residential development:

Mixed Residential: refers specifically to single detached, semi-detached, greenway housing, zero lot line single detached, and street- and project-oriented rowhousing residential units.

Medium Density Residential: refers to low-rise/medium density residential units such as, stacked rowhousing and low-rise apartments.

Mixed Residential (Single/Semi-detached housing) will be developed on approximately 30 ha of land within the plan area and will facilitate the development of a variety of housing forms at heights up to 2 ½ storeys and densities generally up to 30 units per net residential hectare.

Medium Density Residential (Low-Rise/Medium Density Housing) will be developed on approximately 0.91 ha within the plan area, at a maximum height of 4 storeys, and at an average density of 90 units per ha. Residential uses anticipated would be stacked row housing or low rise apartments consistent with the (RF6) Medium Density Multiple Family Zone and (RA7) Low Rise Apartment Zone under the City of Edmonton Zoning Bylaw.

Residential Mixed Dwelling

The Residential mixed dwelling (RMD) zone includes provisions for single detached, semi-detached, greenway housing, zero lot line single detached, street- and project-oriented rowhousing, or other unique housing forms which will serve as the mechanism to achieve the landowners' vision in providing new housing products which are

distinct, diverse and affordable. It also provides an exclusive opportunity and the flexibility to integrate a mixture of housing types along the block faces– such as single detached, semi-detached or street-oriented row housing adjacent to each other in a block face – creating a special and unique urban streetscape with a mix of housing types.

Direct Development Control Provision

A Direct Development Control Provision (DC1) has been prepared for a portion of the amendment area intended for the development of Greenway Housing. A DC1 provides the opportunity to regulate the use, design, and extent of development within specific geographic areas of the City in order to achieve the planning objective of a Neighbourhood Structure Plan for those areas with special or unique attributes which cannot be satisfactorily addressed through conventional land use districting or statutory plan overlays.

Objective 14	NSP Amendment Area Policy	Implementation
Provide a variety of housing types that serve a range of age groups, income levels and needs.	<p>i) A mixture of residential dwelling types including single/semi-detached, row housing and low-rise/medium density housing shall be provided, allowing consumer choice, and a range of affordability options.</p> <p>ii) Mixed residential areas shall provide opportunity for a mixture of single or semi-detached housing, and street-oriented row housing along individual block faces and/or from block face to block face.</p> <p>iii) The NSP shall allow for more intensive and/or innovative forms of low density residential housing through the use of various development regulations (i.e. smaller minimum site area and depth; reduced lot width, reduced yard requirements, higher site coverage, etc.).</p>	<p>i) Figure 6 – Development Concept illustrates the general location of residential land use designations.</p> <p>ii) iii) Mixed Residential development shall be implemented through a combination of the Residential mixed dwelling (RMD) and Direct Development Control Provision (DC1) zones.</p>

Rationale:

Providing a variety of housing types promotes the creation of a well-balanced neighbourhood, one which can accommodate a range of income groups and market segments, and various types and sizes of households. A variety of housing types also allows families to remain within the same community throughout their life-cycle. The ability to mix housing forms along a block face will create visual interest, variety and market appeal, while discouraging monotonous streetscapes by mixing compatible housing forms (single detached, semi-detached, and Row housing).

Within the area designated Mixed Residential, a variety of innovative housing forms such as single detached, semi-detached, greenway housing, zero lot line single detached, street- and project-oriented rowhousing, or other innovative housing forms will be developed through implementation of a the Residential Mixed Dwelling (RMD) zone and a Direct Development Control Provision (DC1).

Objective 15	NSP Amendment Area Policy	Implementation
Locate Low-Rise/Medium Density Housing development to facilitate pedestrian access to arterial and/or collector roadways, public transit service and/or in proximity to park spaces.	Low-Rise/Medium Density Housing development should be located abutting collector and/or arterial roadways and along transit routes.	Figure 6 – Development Concept illustrates the location of Low-Rise/Medium Density Housing development along collector and arterial roadways.
Rationale: Location of Low-Rise/Medium Density Housing along transit routes and within walking distance of parks and natural areas, creates a more compact, walkable and liveable neighbourhood.		

8.1.6 Parkland, Recreation, and Schools

The land use concept provides parks, open spaces, and natural areas throughout the neighbourhood to meet the recreational needs of all residents. The plan seeks to integrate parks, natural areas, environmental reserve, and stormwater management facilities through a system of shared use paths, walkways, and sidewalks.

Objective 16	NSP Amendment Area Policy	Implementation
Enhance walkability both within the amendment area and to the City level park through the provision of pedestrian connections.	i) The land use concept shall incorporate an array of pedestrian connections that connect parks, open spaces, natural areas, and the stormwater management facility to increase walkability within the amendment area. ii) The pedestrian connections should allow residents to access the City Level Park.	i) and ii) Figure 7 identifies the pedestrian connections between recreation amenities in the plan area. These connections are established by a network of shared use paths and pedestrian linkages. Figure 7 – Pedestrian Network System identifies three Potential Future Shared Use Path connections. One of the potential connections provides access into

		<p>the Ivor Dent Sports Park and two connections provides access to the Possible TUC Trail.</p> <p>Development of the Potential Future Shared Use Path into Ivor Dent Sports Park will be addressed through future discussions with the Park's management and the Potential Future Shared Use Paths to the Possible TUC Trail will be required if the TUC Trail is constructed. Details of the Potential Future Shared Use Path to be extended into the Ivor Dent Sports Park will be determined at subdivision.</p> <p>In cases where Potential Future Shared Use Path connections are not constructed, the Shared Use Path will be extended through a Pedestrian Linkage to provide a looping shared use facility and ensure the Shared Use Paths do not dead end.</p>
--	--	--

Rationale:

Access to parks, open spaces, and natural areas are important in creating vibrant and livable communities. The Urban Village Park, and natural areas provide public space for active and passive recreation uses while shared use paths and walkways facilitate pedestrian connectivity between park spaces and across the neighbourhood.

Objective 17	NSP Amendment Area Policy	Implementation
To consider winter issues in the landscaping and programming of public parks and open spaces.	<p>(i) Tree species shall be included in the detailed landscape design of public parks, plazas and open spaces such that they provide wind shelter and enable solar penetration.</p> <p>ii) Neighbourhood entrances and outdoor gathering spaces/focal points shall be designed to accommodate year round activity, such as skating, cross country skiing, and tobogganing.</p>	<p>Landscape design for public land will be developed in conjunction with relevant City departments, such as Transportation Services and Parks Planning and incorporate design elements from the City of Edmonton's Winter City Strategy.</p> <p>The design of outdoor spaces for neighbourhood activities shall consider incorporating design elements that respond to all seasons, through such measures as</p>

		the creative use of light, colour, and ways to provide breaks from wind and extreme temperatures.
<p>Rationale:</p> <p>Edmonton is a winter city and the design of all communities needs to take winter issues into consideration. Winter conditions, and accommodating and encouraging winter activities, should be given full consideration in the development of the neighbourhood, thereby creating an urbanism that celebrates winter climate. Effective landscaping and wind control measures in parks and public plazas (such as natural and constructed wind barriers and park orientation) can enliven public spaces even on the coldest days.</p>		

8.1.7 Mixed Use

Opportunities for mixed use developments are provided within the Charlesworth amendment area. Mixed Use sites are to be located in areas where there is excellent accessibility and visibility (i.e. along arterial and collector roadways).

Objective 18	NSP Amendment Area Policy	Implementation
To encourage a variety of different types of mixed use development in appropriate locations.	Mixed use sites shall be located in areas which are transit supportive and provide excellent accessibility and visibility. Mixed use developments shall include a variety of uses including different housing forms and commercial uses.	<p>Figure 6 – Development Concept illustrates the location of mixed use sites in the Charlesworth neighbourhood. Mixed use areas shall be developed under a Direct Development Control Provision.</p> <p>Access locations for the mixed use sites will be reviewed at zoning or subdivision.</p>
<p>Rationale:</p> <p>Mixed use sites promote compact, walkable areas which also promote independence of movement, especially for the young and elderly who have convenient access to transit or can easily walk or cycle to the various amenities nearby. Mixed use sites also often include higher densities as well as assisted living opportunities which allow individuals to remain in the same neighbourhood as they age.</p> <p>Use of a Direct Development Control Provision will ensure developments are transit supportive, uses are compatible, and a high level of urban design guidelines are followed to ensure a distinct and unique area.</p>		

8.1.8 Transportation

The transportation goal of the neighbourhood is to establish a neighbourhood that provides a well-connected transportation system within and outside the plan area, and maximizes opportunities for multiple modes of transport for residents. This goal is conceptually illustrated in Figure 11 – Transportation Network and Figure 7 – Pedestrian Network, which identifies the roadway network that accommodates the movement of automobiles, transit, bicycles and pedestrians within the neighbourhood and the connections to adjacent communities.

Objective 19	NSP Amendment Area Policy	Implementation
Encourage innovation in transportation systems design.	New and innovative facilities and roadway cross-sections should be explored to improve cost-effectiveness and to ensure that form follows intended function.	Roadway proposals will be reviewed and approved by Transportation Services in consultation with Sustainable Development at the subdivision stage. Possible alternative cross-sections will be reviewed by Transportation Services in consultation with Sustainable Development at the zoning or subdivision stage and will require the approval from Transportation Services.
Rationale: The neighbourhood has been designed, in part, with a goal of minimizing roadway infrastructure through narrower roadways, innovative housing forms, and dispersal of vehicular traffic flow throughout the neighbourhood. To achieve this goal, less land for internal roadways is anticipated. These factors will facilitate a compact, walkable and connected community with a balanced transportation system. Where possible, a reduced or alternate standard may be used which may reduce the width of the carriageway, provide sidewalks on both sides and parking on one side.		

Objective 20	NSP Amendment Area Policy	Implementation
To facilitate snow removal and storage within the Charlesworth amendment area.	Incorporate boulevards into the design of the collector roadway.	Detailed roadway cross sections will be developed at the subdivision stage. Possible alternative cross-sections will require the approval from Transportation Services.
Rationale: Edmonton is a winter city and the design of all communities needs to take winter issues into consideration. Roads and road right of ways should be designed to effectively and efficiently accommodate snow removal in the neighbourhood.		

Objective 21	NSP Amendment Area Policy	Implementation
Minimize traffic congestion and enhance safety on internal collector roadways.	a) The number of residential lots fronting onto and having direct access to a collector road should be in accordance with the applicable City Policies.	a) The Subdivision Authority, in consultation with Transportation Services shall have regard for the number of lots having direct access onto a collector roadway. The

	<p>b) Traffic calming should be employed to reduce automobile speeds, increase pedestrian safety and improve the streetscape.</p>	<p>number of lots having direct access onto a collector roadway shall be determined at the subdivision stage and shall not exceed 30%.</p> <p>b) Traffic calming measures such as roundabouts, raised intersections or curb extensions may be incorporated along roadways. Details will be confirmed with Transportation Services prior to development.</p>
<p>Rationale:</p> <p>Along collector roadways with high traffic volumes, front drive access will be restricted in order to promote a safe and pedestrian-friendly streetscape and to reduce vehicular conflicts. The provision of front drive access within the overall plan area will be consistent with applicable City of Edmonton policies and will be determined prior to rezoning and subdivision approval.</p>		

Technical Summary

The transportation network for the ASP will be provided in accordance with the requirements of the City of Edmonton's Transportation Services. A Transportation Impact Assessment (TIA) has been submitted under separate cover for review and approval by Transportation Services.

8.1.9 Infrastructure, Servicing, and Staging

Objective 22	NSP Amendment Area Policy	Implementation
To ensure that Charlesworth is serviced to a full urban standard	<ul style="list-style-type: none"> i) Sanitary and stormwater servicing should be provided in accordance with the amended Area Master Plan. ii) Water servicing to the neighbourhood should be provided in accordance with the approved Hydraulic Network Analysis. iii) Shallow utilities will be extended into the plan area as required. iv) Support innovative and alternative service delivery, where feasible and practical. 	<ul style="list-style-type: none"> i) A Neighbourhood Design Report will be completed for the plan area. ii) Approval of engineering drawings and servicing agreements will be required prior to installation of water servicing. iii) Installation of shallow utilities will be executed through servicing agreements. iv) Opportunities for innovative and alternative servicing options will be identified and the developer will work closely with the City to incorporate alternative development standards.
<p>Rationale:</p> <p>The neighbourhood will be designed in accordance with City of Edmonton servicing standards and best practices in low impact development and sustainable development. Development staging and extension of infrastructure will be contiguous, efficient, and economical while mitigating potential environmental and ecological impacts. Opportunities for research and innovation should be supported in order to discover efficient, low cost or low environmental impact servicing options.</p>		

8.1.10 Agriculture

The Charlesworth amendment area supports urban agriculture opportunities, promoting community gardens and local food production. The amendment to the Charlesworth NSP encourages the use of portions of park space for community gardens to support local food production and additional recreational activities.

Objective 23	NSP Amendment Area Policy	Implementation
To promote sustainable practices and low impact development strategies for public parks and community gardens.	Explore opportunities to utilize harvested rainwater for irrigation of parks and community gardens	Detailed design of community gardens should incorporate low impact development strategies.
<p>Rationale:</p> <p>Including low impact development practices in central spaces—such as parks and community garden—can serve an interpretive purpose and provide education for neighbourhood residents about natural processes and</p>		

ecological systems.

Objective 24	NSP Amendment Area Policy	Implementation
To promote local food production in the Charlesworth amendment area.	<p>i) The Charlesworth NSP shall provide opportunities for local food production and community garden plots in the Urban Village Park.</p> <p>ii) Community gardening should be considered a recreational activity and included in program development for community parks in balance with other park programming needs.</p> <p>iii) Landscaping of public parks and open spaces should consider planting of edible fruit and vegetable plants where appropriate.</p> <p>iv) Low-rise multi-family developments should provide 0.25 m² of growing space per multi-family dwelling unit within the amenity area.</p>	Implementation of community gardens will be explored at the detailed landscape design stage in consultation with the Parks Planning Department and multi-family residential builders.
<p>Rationale:</p> <p>Access to healthy food choices is important to any community. Locally produced fruits and vegetables means shorter transportation distances and, in turn, fewer greenhouse gas emissions. Incorporating appropriate local food production in the form of community gardening can be a showpiece for local sustainability.</p>		

Section 8.1.11 was deleted by Bylaw 16756, March 24, 2014.

8.0 APPENDIX – Land Use and Demographic Profile

CHARLESWORTH NEIGHBOURHOOD STRUCTURE PLAN LAND USE AND POPULATION STATISTICS BYLAW 16756, March 24, 2014

	Area (ha)	% of GA
Gross Area	261.83	100%
Environmental Reserve	2.21	0.8%
Major Arterials / Road ROW	9.77	3.7%
Pipeline and Utility ROW	3.09	1.2%
Ellerslie School	8.78	3.4%
		% of GDA
Gross Developable Area	237.98	100%
Community Commercial	13.97	5.9%
Existing Religious Assembly	3.64	1.5%
City Level Park	46.61	19.6%
Institutional / City Level Park	7.95	3.3%
Municipal Reserve Parks	13.50	5.7%
Circulation	29.24	12.3%
Infrastructure / Services	24.20	10.2%
Stormwater Management Facilities		22.93
Public Utility Lot		1.27
Mixed Business Employment (1.87 * 0.25)	0.47	0.2%
Total Non-Residential Area	139.58	58.7%
Net Residential Area (NRA)	98.40	41.3%

RESIDENTIAL, LAND USE, DWELLING UNIT COUNT AND POPULATION						
Land Use	Area (ha)	Units(ha)	Units	% of NRA	People/ Unit	Population
Single / Semi-Detached	55.08	25	1,377	56.0%	2.80	3,856
Mixed Residential	31.60	30	948	32.1%	2.80	2,654
Row Housing	1.07	45	48	1.1%	2.80	134
Mixed Use (1.87 * .75)	1.40	90	126	1.4%	1.80	227
Low-Rise / Medium Density Housing	8.16	90	734	8.3%	1.80	1,321
Medium to High Rise Units	1.09	225	245	1.1%	1.50	368
Total	98.40		3,478	100%		8,560

SUSTAINABILITY MEASURES	
Population Per Net Residential Hectare (p/nha)	87.0
Dwelling Units Per Net Residential Hectare (du/nrha)	35.3
[Single/Semi-detached] / [Row Housing; Low-rise/Medium Density; Medium to High Rise] Unit Ratio	67%/33%
Population (%) within 500m of Parkland	100%
Population (%) within 400m of Transit Service	100%
Population (%) within 600m of Commercial Service	0.0

Presence/Loss of Natural Areas	Land	Water
Protected as Environmental Reserve	2.2	0.0
Conserved as Naturalized Municipal Reserve (ha)	2.5	0.0
Protected through other means (ha)	0.0	0.0
Lost to Development (ha)	0.0	0.0

STUDENT GENERATION STATISTICS

Level	Public	Separate
Elementary	476	238
Junior High School	238	119
Senior High	238	119
Total	952	476

CHARLESWORTH AMENDMENT AREAS LAND USE AND POPULATION STATISTICS

	Area (ha)	% of GA
Gross Area	64.67	100%
Environmental Reserve	2.21	3.4%
Arterial Road ROW	1.71	2.6%
Gross Developable Area	60.75	% of GDA
Municipal Reserve	6.10	10.0%
Urban Village Park		3.60
Natural Area		2.50
Circulation	12.15	20.0%
Infrastructure / Services	8.09	13.3%
Stormwater Management Facilities		6.82
Public Utility Lot		1.27
Mixed Business Employment (1.87 * 0.25)	0.47	0.8%
Total Non-Residential Area	26.81	44.1%
Net Residential Area (NRA)	33.94	55.9%

RESIDENTIAL, LAND USE, DWELLING UNIT COUNT AND POPULATION						
Land Use	Area (ha)	Units(ha)	Units	% of NRA	People/ Unit	Population
Mixed Residential	31.60	30	948	93%	2.80	2,654
Mixed Use (@ 75%)	1.40	90	126	4%	1.80	227
Low-Rise / Multi / Medium Units	0.94	90	85	3%	1.80	153
Total	33.94		1,159	100%		3,034

SUSTAINABILITY MEASURES	
Population Per Net Residential Hectare (p/nha)	89.4
Dwelling Units Per Net Residential Hectare (du/nrha)	34.1
[Single/Semi-detached] / [Row Housing; Low-rise/Medium Density; Medium to High Rise] Unit Ratio	82% / 18%
Population (%) within 500m of Parkland	100%
Population (%) within 400m of Transit Service	100%
Population (%) within 600m of Commercial Service	0.0

Presence/Loss of Natural Areas	Land	Water
Protected as Environmental Reserve	2.2	0.0
Conserved as Naturalized Municipal Reserve (ha)	2.5	0.0
Protected through other means (ha)	0.0	0.0
Lost to Development (ha)	0.0	0.0

STUDENT GENERATION STATISTICS		
Level	Public	Separate
Elementary	122	61
Junior High School	61	30
Senior High	61	30
Total	244	121

* Charlesworth Amendment Area refers to the parcel of land added to the Charlesworth NSP as amended by Bylaw 16427 (September, 2013).

Amended by Editor, 2014