

# Neighbourhood Area Structure Plan

# Chappelle

Heritage Valley Neighbourhood 10

November 2007

# ***Chappelle Neighbourhood Area Structure Plan***

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Office Consolidation May 2010

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*Prepared by:*

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

**Bylaw 14779 was adopted by Council in February 2008. In May 2010, this document was consolidated by virtue of the incorporation of the following bylaws:**

*Bylaw 14779* Approved February 20, 2008 (to adopt the Chappelle Neighbourhood Area Structure Plan)

*Bylaw 15295* Approved December 16, 2009 (to incorporate the Heritage Valley Town Centre in the northeastern portion of the neighbourhood)

*Bylaw 15206* Approved December 15, 2009 (to amend 7.98 ha of land from Special Study Area to ER designation, designate 2.1 ha of that ER as a SWMF, and amend 3.8 ha of land southeast of the Special Study Area from SWMF to LDR)

(\*Editor's Note: Bylaw 15206 was directed not to be in effect until City Council had given 3<sup>rd</sup> Reading to Bylaw 15295.)

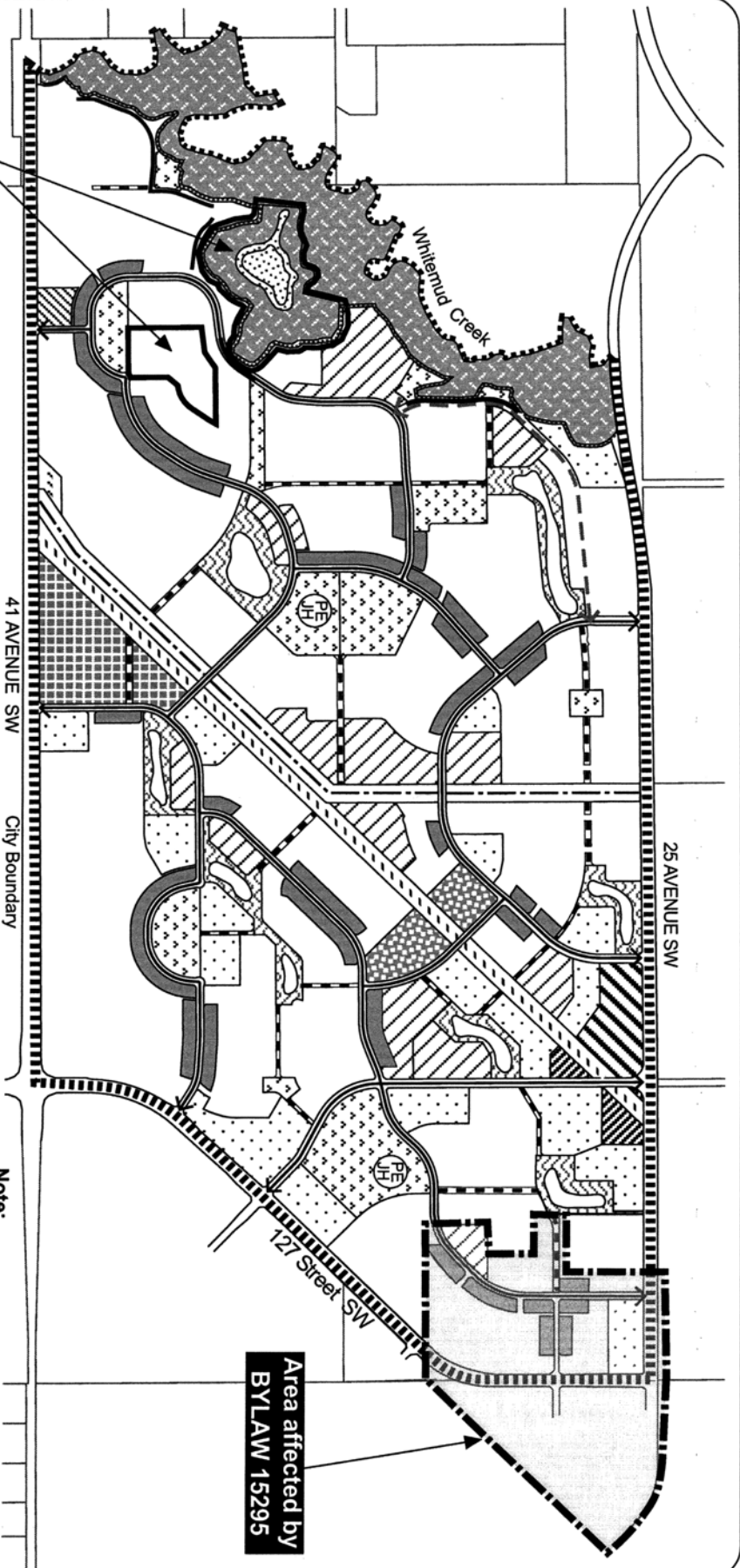
## **Editor's Note:**

This is an office consolidation edition of the Chappelle Neighbourhood Area Structure Plan, Bylaw 14779, as approved by City Council on February 20, 2008.

This edition contains all amendments and additions to Bylaw 15295. 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



**Amendment Area  
BYLAW 15206**

**Area affected by  
BYLAW 15295**

**BYLAW 15206  
AMENDMENT TO CHAPPELLE  
Neighbourhood Area Structure Plan**

- Low Density Residential
- Street Oriented Residential
- Town House
- Low Rise Apartments
- High Density Residential
- Commercial
- Neighbourhood Commercial

- School/Park
- Public Elementary Junior High
- Urban Village Park
- Environmental Reserve
- Mixed Use
- Constructed Wetland
- Stormwater Management Facility

**PLANNING AND DEVELOPMENT**

- Note:**  
Location of collector roads and configuration of stormwater management facilities are subject to minor revisions during subdivision and rezoning of the neighbourhood and may not be developed exactly as illustrated.
- Greenways / Multi-Use Trail
  - 11.5m Enhanced Local Roadway Connection
  - Top of Bank Walkway
  - Top of Bank Roadway
  - Pipeline RW
  - Electrical Transmission
  - Collector Roadway
  - NASP Boundary
  - Boundary of Amendment

## Table of Contents

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<b>1.0 ADMINISTRATION .....</b>	<b>1.1</b>
1.1 PURPOSE .....	1.1
1.2 AUTHORITY .....	1.1
1.3 TIME FRAME .....	1.1
1.4 INTERPRETATION .....	1.1
1.5 MONITORING .....	1.2
1.6 AMENDMENTS .....	1.2
1.7 ORIENTATION .....	1.2
<b>2.0 NEIGHBOURHOOD CONTEXT .....</b>	<b>1.2</b>
2.1 LOCATION .....	1.2
2.2 BACKGROUND .....	1.3
<b>3.0 LAND USE, TRANSPORTATION AND SERVICING CONCEPT ...</b>	<b>1.6</b>
3.1 VISION	1.6
3.2 GOALS AND OBJECTIVES .....	1.6
3.2.1 Neighbourhood Character .....	1.6
3.2.2 Parkland System and Open Space .....	1.6
3.2.3 Neighbourhood Movement and Circulation .....	1.7
3.2.4 Land Use .....	1.8
3.2.5 Sustainability .....	1.8
3.2.6 Servicing and Infrastructure .....	1.8
3.2.7 Environment and Ecology .....	1.8
3.2.8 Implementation .....	1.9
3.3 LAND USE CONCEPT .....	1.9
3.3.1 Sustainability .....	1.12
3.3.2 Residential .....	1.13
3.3.3 Commercial .....	1.16
3.3.4 Mixed Use Area .....	1.18
3.3.5 Parkland System and Open Space .....	1.21
3.3.6 Urban Design .....	1.29
3.3.7 Environment and Ecology .....	1.32
3.3.8 Special Study Area .....	1.33
3.3.9 Transportation .....	1.34
3.3.10 Infrastructure Servicing and Staging .....	1.43
<b>4.0 APPENDIX 1 - SITE CONTEXT .....</b>	<b>1.1</b>
4.1 LAND OWNERSHIP .....	1.1
4.2 SITE CHARACTERISTICS AND CONTEXT .....	1.3
4.2.1 Topography .....	1.3
4.2.2 Existing Land Uses .....	1.3
4.2.3 Surrounding Land Uses .....	1.3

4.2.4	Environmental Resources .....	1.3
4.2.5	Environmental Site Assessments and Historic Resources.....	1.4
4.2.6	Pipeline and Utility Corridors.....	1.9
4.2.7	Edmonton International Airport.....	1.9

**5.0 APPENDIX 2: PLANNING & POLICY CONTEXT..... 1.1**

**6.0 APPENDIX 3 - TECHNICAL STUDIES ..... 1.1**

**List of Figures**

- Figure 1.0 – Location
- Figure 2.0 – Context Plan
- Figure 3.0 – Land Use Concept
- Figure 4.0 – Trail Network
- Figure 4.0A – Extending the Whitemud Creek Ravine
- Figure 5.0 – Transportation Network
- Figure 6.0 – Servicing
- Figure 7.0 – Staging
- Figure 8.0 – Land Ownership
- Figure 9.0 – Site Contours
- Figure 10.0 – Site Features
- Figure 11.0 – Environmental Site Overview

**List of Tables**

- Table 1 – Land Use and Population Statistics
- Table 2 – Land Ownership
- Table 3 – Environmental Site Assessments and Historic Resources.

## 1.0 Administration

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### 1.1 PURPOSE

The purpose of the Chappelle Neighbourhood Area Structure Plan (NASP) is to establish a development and servicing framework for the neighbourhood. The NASP specifies the following:

- *The location, configuration, and area of residential, commercial, parks and open spaces, and public utility land uses;*
- *The density of residential development;*
- *The manner in which unique environmental areas and natural features will be incorporated with the development concept;*
- *The pattern and alignment of the collector roadway and pedestrian walkway system;*
- *A concept to provide required utility infrastructure; and*
- *The implementation and phasing of development.*

### 1.2 AUTHORITY

The Chappelle NASP was adopted by Edmonton City Council in February 2008 as Bylaw 14779 in accordance with Section 633 of the Municipal Government Act.

### 1.3 TIME FRAME

*Development of the Chappelle NASP will proceed as servicing is extended into the neighbourhood. Construction of services is expected to commence in 2010 and a full build out of the neighbourhood will depend on market conditions.*

Bylaw 15295  
December 16, 2009

### 1.4 INTERPRETATION

All symbols, locations, and boundaries shown in the NASP figures shall be interpreted as conceptual unless otherwise specified in the document, or where they coincide with clearly recognizable physical or fixed features within the plan area.

For each subsection under Land Use Concept, a description of applicable land use strategies (e.g. Urban Design) and types (e.g. Residential) is provided for the plan followed by applicable objectives, policies, implementation, rationale, and technical summary.

A policy statement(s) containing "shall" or "will" is mandatory and must be implemented. Where a policy proves impractical or impossible, an applicant may apply to amend the plan. A policy statement(s) containing "should" is an advisory statement and indicates the preferred objective, policy and/or implementation strategy.



If the “should” statement is not followed because it is impractical or impossible, the intent of the policy may be met through other agreed-upon means.

## 1.5 MONITORING

Policies, text, and mapping information contained within this document may be amended from time to time, by Council approved bylaw, in order to respond to, and remain current with, planning and development issues and trends affecting suburban development.

## 1.6 AMENDMENTS

Amendments to the Chappelle NASP document involving policies, text or mapping shall be completed in accordance with the Municipal Government Act, the Heritage Valley Servicing Concept Design Brief (SCDB), and all other applicable bylaws, policies and procedures.

## 1.7 ORIENTATION

This document contains three sections and three appendices.

- *Section 1 provides administrative information and an orientation to the plan.*
- *Section 2 describes the Chappelle Neighbourhood location.*
- *Section 3 describes the land use, transportation, and servicing concepts for the Chappelle Neighbourhood.*
- *Appendix 1 contains background information on the site such as land ownership, topography, and existing land uses at the time of Plan adoption.*
- *Appendix 2 contains information on the broader policy context to which the NASP complies with.*
- *Appendix 3 contains a listing of technical studies prepared to support and guide the preparation of the development and servicing concepts.*

## 2.0 Neighbourhood Context

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### 2.1 LOCATION

The Chappelle NASP is comprised of a number of parcels listed in *Table 2 – Land Ownership*. *The total gross area of the NASP is 462 hectares (see Figure 1.0 – Location and Figure 2.0 – Context Plan), and is defined by the following boundaries:*

Bylaw 15295  
December 16, 2009

- *Northern Boundary – 28 Avenue SW.*
- *Western Boundary – Whitemud Creek Ravine.*
- *Eastern Boundary – 135 Street SW.*
- *Southern Boundary – 41 Avenue SW (City Boundary).*

As shown in *Figure 2.0 – Context Plan*, the Heritage Valley Neighbourhood Town Centre (NBHD 5) and Desrochers (NBHD 9) are located east of 135 Street SW, adjacent to Chappelle. The future residential neighbourhood Heritage Valley Neighbourhood 11 and the Special Study Area (NBHD 12) are located to the north, across 28 Avenue SW. These lands are designated for future suburban development and are currently utilized for agricultural purposes and occupied with farmsteads. The lands immediately south of 41 Avenue SW are within Leduc County. The Chappelle NASP is a logical planning unit with respect to identifiable plan boundaries and servicing considerations.

Bylaw 15295  
December 16, 2009

## 2.2 BACKGROUND

The Chappelle NASP was prepared in response to current and anticipated market demands in the Edmonton region as well as the aspirations of the various landowners in the plan area. Further information regarding land ownership and site context is outlined in *Appendix 1* of the document (see *Table 2 – Land Ownership*, *Figure 8.0 – Land Ownership*, *Figure 9.0 – Site Contours*, *Figure 10.0 – Site Features*, *Figure 11.0 – Environmental Site Overview*).

The Preparation of the NASP has been guided by existing City of Edmonton statutory plans and policies including Plan Edmonton, the Heritage Valley Servicing Concept Design Brief (SCDB), the Suburban Neighbourhood Design Principles (SNDP), and the Urban Parks Management Plan (UPMP). Conformance to these plans and policies is referenced in *Appendix 2*.



Figure 1.0 – Location (as amended, Bylaw 15295)

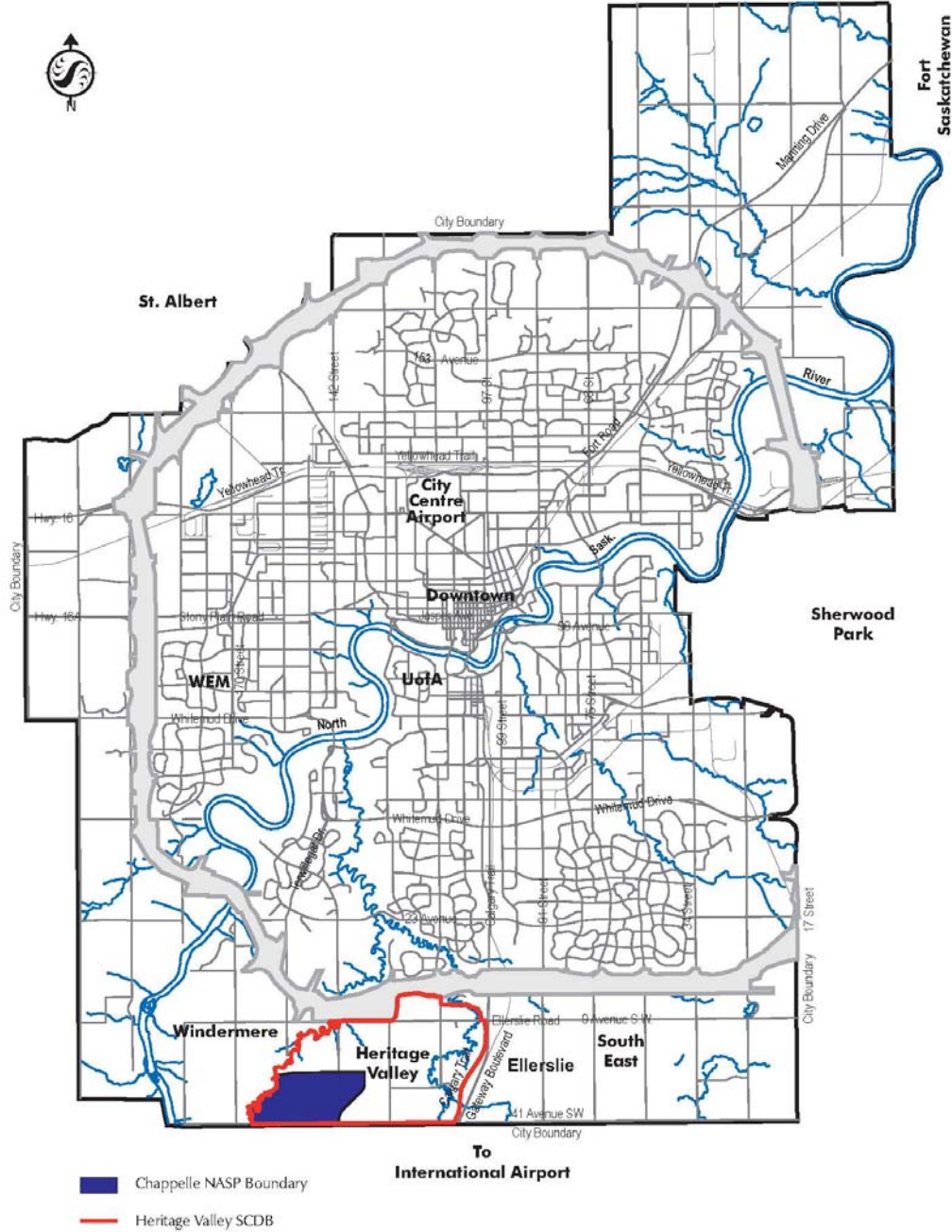
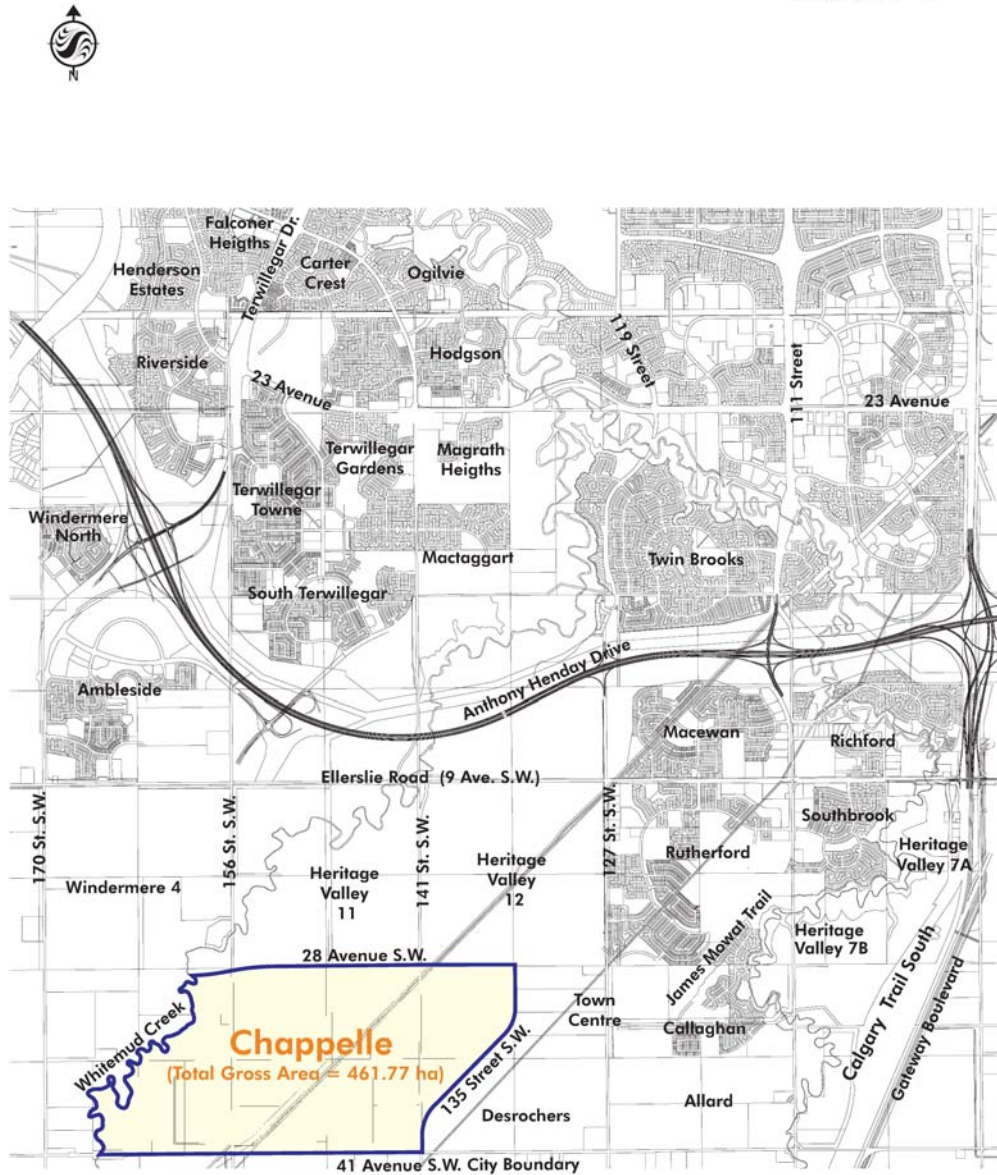


Figure 2.0 – Context Plan (as amended, Bylaw 15295)



# Chappelle

Neighbourhood Area Structure Plan



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## 3.0 Land Use, Transportation and Servicing Concept

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### 3.1 VISION

Chappelle is a vibrant residential community, developed with the theme of unfolding and emphasizing the beauty of the Whitemud Creek Ravine into the neighbourhood. The neighbourhood embraces principles of walkability through an integrated greenway and open space network and is designed to offer a diverse mix of housing types, local commercial activities, and opportunities for community interaction and recreation. The new community is based on the creation of liveable spaces, which cultivates pride and establishes a sense of place for all residents.

### 3.2 GOALS AND OBJECTIVES

The land use concept, its goals, and objectives were established on the basis of the opportunities and constraints present in the Plan area and in conformance with applicable statutory requirements, City-level strategic policies, guidelines, and procedures. These are further outlined in *Appendix 2*, and where necessary, additional objectives, policies and corresponding implementation strategies are identified in the following land use sections to address specific issues and or development matters where appropriate.

#### 3.2.1 Neighbourhood Character

- *Create a neighbourhood with an identifiable focal point(s).*
- *Plan an integrated community for a diversity of ages, incomes and needs with associated community services that are adaptable over time.*

#### 3.2.2 Parkland System and Open Space

- *Provide a simple and understandable pattern of open space nodes, greenways, school/park sites and walkway connections.*
- *Ensure that park space is accessible to all members of the community.*
- *Provide a variety of opportunities for passive and active recreation experiences, incorporating a variety of activities to encourage community interaction.*
- *Design different types of park space to meet the needs of all users within the community.*
- *Design safe park space, in accordance with the Design Guide for a Safer City and UPMP.*
- *Extend the "green" atmosphere of the Whitemud Creek Ravine into the neighbourhood.*
- *Establish a TOB line according to the requirements of the Municipal Government Act (MGA) and North Saskatchewan River Valley Area Redevelopment Plan (ARP) in order to ensure the preservation, public appreciation and protection of the Whitemud Creek Ravine.*
- *Design a connected and integrated open space system that encourages active modes of movement (e.g. pedestrians and bicycles).*
- *Plan greenways and walkway connections to complement on-street sidewalk routes and connections.*



- *Ensure that private amenity space for multi-family housing integrates well with the public open space landscape.*
- *Develop Stormwater Management Facilities (SWMF) that are visually appealing and physically accessible to residents.*
- *Encourage biological diversity and natural processes within the natural and planted landscapes in the neighbourhood.*
- *Ensure that the landscape design of the open space network, particularly the stormwater management facilities and the pathways by which they are connected, includes predominantly native plant material with the intent that over time, this vegetative network seamlessly connects with the existing mixed forest character and ecology of the Whitemud Ravine.*

### 3.2.3 Neighbourhood Movement and Circulation

- *Implement the City of Edmonton road hierarchy system of an integrated arterial, collector and local roadway network.*
- *Mitigate the impact of vehicle traffic associated with Medium Density Residential (MDR) and High Density Residential (HDR) development on Low Density Residential (LDR) areas.*
- *Discourage the development of long cul-de-sacs.*
- *Establish gateways into the neighbourhood that identify a sense of arrival.*
- *Establish locations for neighbourhood access by a variety of modes, such as automobiles, transit, bicycle and pedestrian connections.*
- *Develop 41 Avenue SW as a high standard arterial with limited access.*

#### 3.2.3.1 Pedestrians, Walkability and Cyclists

- *Integrate land use and circulation patterns considering safety of pedestrians and cyclists.*
- *Encourage inter-neighbourhood connectivity through pedestrian and bicycle access to destinations within the greater Heritage Valley area such as the town centre, district campus, business employment area or other focal points.*
- *Provide public access to Whitemud Creek Ravine.*
- *Establish integration between the street and urban form respecting human scale to achieve a more walkable neighbourhood.*
- *Define the interface between public and private property lines with plantings, pavement treatments or fencing.*

#### 3.2.3.2 Transit

- *Provide transit stops within 400m walking distance from all residences and schools.*
- *Provide the opportunity for a High Speed Transit (HST) stop along 28 Avenue SW and opportunities for increased, more transit-supportive densities surrounding the HST stop.*
- *Initiate transit service at an early stage.*
- *Provide convenient transit access to the Heritage Valley Town Centre and the business employment area located in Neighbourhoods 7 A/B from Chappelle.*

### 3.2.4 Land Use

- *Provide a variety of housing types in different physical forms to meet the needs of different age and income groups.*
- *Provide opportunities for higher density housing at accessible locations, near community focal points, open space and transit routes.*
- *Provide a transition between residential uses of significantly different densities and heights.*
- *Develop HDR to a higher aesthetic standard.*
- *Establish affordable housing opportunities in the Chappelle Neighbourhood.*
- *Establish increased residential densities in support of neighbourhood intensification.*
- *Develop a comprehensively-planned mixed use urban village with primarily residential uses complemented by commercial uses in a pedestrian friendly environment that supports compact development, higher densities and transit use.*
- *Site buildings to optimize views and vistas or enhance view potential of the Whitemud Creek valley and other neighbourhood amenities and features.*
- *Provide the opportunity for commercial needs to be met within the neighbourhood.*
- *Locate and orient commercial sites along arterial or collector roadways to ensure high visibility and convenient access opportunities.*
- *Minimize the impact of commercial development on adjacent land uses.*
- *Develop built form with a strong relationship to the street, encouraging human scale and having regard for pedestrian mobility, access and streetscaping.*

### 3.2.5 Sustainability

- *Consider sustainable development principles (e.g. compact development, green building design, etc.) in the planning and design of the development.*
- *Ensure a compact, integrated urban form that responsibly uses the land resource.*
- *Ensure sustainable and cost effective landscape development of the open space areas over the long term with the use of native plant species and the added benefit of the re-establishment of natural habitat.*

### 3.2.6 Servicing and Infrastructure

- *Ensure that Chappelle is serviced to a full urban standard.*

### 3.2.7 Environment and Ecology

- *Protect the Whitemud Creek Ravine System.*
- *Ensure that the environmental status of lands in the Chappelle NASP is suitable for residential development.*
- *Ensure that Environmental Site Assessments are complete and up-to-date.*

### 3.2.8 Implementation

- *Determine the extension and upgrading of services by responding to the market schedule for providing serviced sites.*
- *Encourage the development of community facilities (e.g. schools, community centres, shopping and services) in a timely manner that responds to the demand for these sites.*
- *Develop park facilities at the same time as new housing is developed.*
- *Provide greenways to link newly developing areas of the neighbourhood, open space, the Whitemud Creek Ravine and community facilities.*
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### 3.3 LAND USE CONCEPT

The Chappelle NASP has been prepared in response to an analysis of current and anticipated market demands in the Edmonton Region as well as the aspirations of the various landowners in the plan area.

The following section outlines the development concept for the Chappelle NASP. The plan is based on the neighbourhood design principles outlined in the previous section and encourages community connectivity, health and vibrancy through the location and integration of compatible land uses. Analysis of all of these principles and an assessment of their implications shapes the type, size and location of various land uses within the NASP.

The land use concept is shown on *Figure 3.0 – Land Use Concept* and described in *Table 1 – Land Use and Population Statistics*.



Figure 3.0 – Land Use Concept (as amended, Bylaw 15206)



**CHAPPELLE NEIGHBOURHOOD AREA STRUCTURE PLAN  
LAND USE AND POPULATION STATISTICS  
BYLAW 15206**

LAND USE	Area (ha)	% of GDA
Gross Area	461.77	
Major Arterials/Road ROW	12.21	
Pipeline Transmission ROW	10.18	
Electrical Transmission ROW	9.47	
Environmental Reserves (ER)****	38.91	
<b>Gross Developable Area</b>	<b>391.00</b>	<b>100.0%</b>
Municipal Reserve*	31.05	7.9%
East School/Park Site	6.88	1.76%
West School/Park Site	7.36	1.88%
Urban Village Park	4.44	1.14%
Pocket Parks	10.16	2.60%
Greenways	2.21	0.57%
Community Commercial	3.87	1.0%
Convenience Commercial	1.00	0.3%
Mixed Use***	3.40	0.9%
Stormwater Management	20.33	5.2%
Circulation @ 20%	78.20	20.0%
<b>Total Non-Residential Area</b>	<b>137.85</b>	<b>35.25%</b>
<b>Net Residential Area (NRA)</b>	<b>253.15</b>	<b>64.75%</b>

**Residential Land Use, Unit Count and Population**

Land Use	Area (ha)	Units/ha	Units	% of Total	People/Unit	Population
Low Density Residential	163.56	22	3,598	38%	2.80	10,075
Street-Oriented Residential	19.39	35	679	7%	1.90	1,289
Townhousing	27.08	35	948	10%	1.90	1,801
Low Rise Apartments	34.67	90	3,120	33%	1.60	4,992
High Density Residential	1.76	150	264	3%	1.50	396
Mixed Use***	5.09	150	764	8%	1.50	1,145
<b>Total</b>	<b>252</b>		<b>9,373</b>	<b>100.0%</b>		<b>19,699</b>

Population Density (GDA)	50 ppha
Population Density (NRA)	78 ppnrha
Unit Density (GDA)	24 upha
Unit Density (NRA)	37 nrupha

LDR/MDR/HDR Ratio	38.4%	50.6%**	11.0%
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**Student Generated Statistics**

Level	Public	Separate
Elementary School	782	313
Junior High School	391	156
Senior High School	391	156
<b>Total</b>	<b>1564</b>	<b>626</b>

\*Areas dedicated to Municipal Reserves and Environmental Reserves to be confirmed by legal survey.  
 \*\* MDR area includes Street Oriented Residential, Townhousing and Low Rise Apartment land use designations.  
 \*\*\* Distribution of residential and non-residential mixed use in these statistics is approximate.  
 \*\*\*\* 2.10 ha of Environmental Reserve will be developed as a SWMF (constructed wetland).

### 3.3.1 Sustainability

The three foundations of sustainability: economy, society and ecology should be considered in decision making regarding land use and building form.

Objective	NASP Policy	Implementation
<p><b>3.3.1.1</b></p> <p>Consider sustainable development principles in the planning and design of the development.</p>	<p>Consider the use of alternative energy sources such as solar heat, solar electricity and geothermal energy.</p> <p>The development should be walkable, conducive to bicycles and integrated with transit facilities, to encourage alternatives to the automobile.</p>	<p>If practicable, alternative energy sources may be implemented.</p> <p><i>Figure 4.0 – Trail Network</i> illustrates pedestrian and bicycle linkages and <i>Figure 5.0 – Transportation Network</i> establishes the location of transit routes.</p>
<p><b>3.3.1.2</b></p> <p>Plan an integrated community for a diversity of ages, incomes and needs with associated community services that are adaptable over time.</p>	<p>A mix of housing types shall be provided within the development.</p> <p>A variety of park spaces shall be provided and designed to meet different users within the community.</p>	<p><i>Figure 3.0 – Land Use Concept</i> identifies the various housing types planned within the neighbourhood.</p> <p><i>Figure 4.0 – Trail Network</i> identifies the various types of park spaces.</p>
<p><b>3.3.1.3</b></p> <p>Ensure a compact, integrated urban form that responsibly uses the land resource.</p>	<p>The development should support increased densities to make more efficient use of land.</p>	<p><i>Figure 3.0 – Land Use Concept</i> and <i>Table 1 - Land Use and Population Statistics</i> illustrate that the neighbourhood is planned with increased densities which exceed the Suburban Housing Mix Guidelines.</p>
<p><b>3.3.1.4</b></p> <p>Ensure sustainable and cost effective landscape development of the open space areas over the long term with the use of native plant species and the added benefit of the re-establishment of natural habitat.</p>	<p>Landscaping within Chappelle should incorporate the use of native plant species within all open spaces and stormwater management facilities.</p>	<p>Specific species for landscaping shall be determined between the developer and City Administration at the time of review of landscaping plans as part of Engineering Drawing or Development Permit review.</p>



### 3.3.2 Residential

*Approximately 252 hectares (ha) of the plan area is designated for residential land uses.*

*Approximately 164 ha of the plan area is designated as Low Density Residential (LDR) which will allow for the development of single detached, semi-detached and duplex housing at a density of approximately 22 units per ha.*

Bylaw 15295  
December 16, 2009

Approximately 19 ha of the plan area is designated as Street-Oriented Residential (SO). Street-Oriented Residential will typically be developed as single detached, semi-detached, duplex, row housing and stacked row housing with smaller front yard setbacks (street-oriented) and rear lanes. Street-Oriented Residential will typically be developed at an average density of 35 units per ha.

*Approximately 27 ha of the plan area is designated as Town House (T). Town Houses will typically be developed as row housing or stacked row housing with or without a rear lane at an average density of 35 units per ha.*

Bylaw 15295  
December 16, 2009

*Approximately 35 ha of the plan area is designated as Low Rise Apartments (LRA). Low Rise Apartments will typically be developed as 4 storey apartments with a density of 90 units per ha.*

*Approximately 1.8 ha of the plan area is designated as High Density Residential (HDR). HDR will allow for the development of apartment buildings typically to a maximum of 15 storeys at 150 units per ha.*

Objective	NASP Policy	Implementation
<p><b>3.3.2.1</b></p> <p>Provide a variety of housing types in different physical forms to meet the needs of different age and income groups.</p>	<p>LDR, SO, T, LRA and HDR uses shall be provided to achieve a mix and variety of residential uses.</p>	<p><i>Figure 3.0 – Land Use Concept</i> illustrates the various land use designations.</p>
<p><b>3.3.2.2</b></p> <p>Provide opportunities for higher density housing at accessible locations, near community focal points, open space and transit routes.</p>	<p>HDR and LRA uses shall be placed along arterial and/or collector roadways, around the commercial and mixed use sites, transit routes and High Speed Transit stop and school/park sites.</p>	<p><i>Figure 3.0 – Land Use Concept</i> illustrates the location of HDR and LRA.</p>

Objective	NASP Policy	Implementation
<p><b>3.3.2.3</b></p> <p>To establish affordable housing opportunities in Chappelle.</p>	<p>Developments shall comply with the City's affordable housing policy.</p> <p>A wide variety of housing types— with a wide range of prices will be established.</p> <p>Expanded opportunities for secondary suites development in low density residential structures shall be pursued through the Edmonton Zoning Bylaw for the Chappelle NASP.</p>	<p>When adopted, City's affordable housing policy will be applied to Chappelle prior to rezoning.</p> <p><i>Figure 3.0 – Land Use Concept</i> will guide the different types of residential land use designations.</p> <p>The Plan proponents will initiate a text amendment to the Edmonton Zoning Bylaw to establish expanded opportunities for secondary suite development in low density residential structures in the Chappelle Neighbourhood. Notwithstanding Policy 3.3.5.2 c, should City Administration, itself, advance amendments to the Zoning Bylaw to expand opportunities for secondary suites in low density residential land use zones to City Council before 2008, then the Plan proponents will not be required to bring separate amendments forward for Council's consideration.</p>
<p><b>3.3.2.4</b></p> <p>Establish increased residential densities in support of neighbourhood intensification.</p>	<p><i>Residential densities of 38% LDR, 51% MDR and 11% HDR will exceed the approved Suburban Housing Mix ratio for new neighbourhoods.</i></p> <p>(Bylaw 15295, December 16, 2009)</p> <p>An approximate 400 m radius area surrounding the potential HST stop at 28 Avenue SW (Bylaw 15295, December 16, 2009) and 141 Street SW will provide intensified land uses in support of public transit use.</p>	<p><i>Figure 3.0 – Land Use Concept</i> will guide intensified suburban development.</p>

Objective	NASP Policy	Implementation
<p><b>3.3.2.5</b></p> <p>Establish a separation distance between Low Density Residential lots and the power line corridor.</p>	<p>Low Density Residential lots shall back onto rather than flank onto the power line corridor.</p>	<p>The Subdivision Officer will ensure that lots back onto, not flank onto the power line corridor.</p>
<p><b>3.3.2.6</b></p> <p>Establish a separation distance between Medium Density Residential lots and the power line corridor.</p>	<p>Medium Density Residential lots will be designed and developed to maximize the separation distance between the power line corridor and habitable buildings.</p>	<p>The Subdivision Officer and the Development Officer will have regard for lot and site design, ensuring that the separation distance between the power line corridor and buildings is maximized.</p>
<p><b>3.3.2.7</b></p> <p>Establish a separation distance between Low, Medium and High Density Residential lots and the pipeline corridor.</p>	<p>Low, Medium and High Density Residential lots shall comply with the City's policies in regards to pipeline corridors.</p>	<p>The Subdivision Officer shall have regard for lot and site design, ensuring that all developments comply with Subdivision Authority Bylaw 11135.</p>

## **RATIONALE**

### *Variety of Housing Types*

Providing a variety of housing types promotes the creation of a well-balanced neighbourhood; accommodating a range of income groups and market segments, various types and sizes of families and also allows families to remain within the same community throughout their life cycle.

### *Street-Oriented Residential Development*

Street-Oriented Residential will be developed to provide active and inviting streetscapes. Buildings will typically feature doorways, porches and windows at ground level, using smaller front yard setbacks to engage the pedestrian and support natural surveillance of the street. Where possible, standard zones within the Edmonton Zoning Bylaw will be applied to facilitate development of these sites. However, the use of a Direct Control Provision may be required to achieve a true street-oriented design with reduced yards. A Direct Control Provision will ensure that the development is compatible with the surrounding area and includes a higher standard of urban design and architecture.

### *Higher Density Residential Development*

Location of higher density residential development along transit routes, within walking distance of transit facilities, near community focal points and open space creates a more compact, walkable, attractive, and liveable neighbourhood.



**Affordable Housing**

Secondary suites can provide an important potential source of affordable housing for single person and other small households, and create a mortgage helper for the owner of the principle dwelling.

**Suburban Housing Mix Ratio**

The approved suburban housing mix ratio for new neighbourhoods in the City of Edmonton recommends the provision of 65% to 85% Low Density Residential development and 15% to 35% Medium Density Residential development. *The Chappelle NASP exceeds this ratio by proposing 38% Low Density Residential, 51% Medium Density Residential and 11% High Density Residential development in support of suburban intensification strategies.* Establishing higher residential densities optimizes the use of land and results in a better use of municipal infrastructure and facilities. It also supports the use of transit, innovative design and helps manage the constant demand for housing in the City's growing suburban neighbourhoods.

Bylaw 15295  
December 16, 2009

**Reverse Housing**

Reverse housing is a design concept that reduces the amount of roadway infrastructure required for residential development, and in turn, reduces the amount of impervious surfaces. In this design, homes front onto an open space area, and are accessed through a rear laneway. Reverse housing creates a unique sense of community and encourages social interaction among neighbours. Areas within the Chappelle NASP allow the flexibility for implementing a reverse housing design within designated LDR areas. The reverse housing concept will require the use of a Direct Control Provision, until such time as a conventional zone is approved.

**3.3.3 Commercial**

Chappelle includes two commercial sites, one with an approximate area of 3.8 ha located along *28 Avenue SW* between 141 Street SW and a collector roadway and the other with an approximate area of 1.0 ha located on a collector road and 41 Avenue SW. Additional commercial facilities are planned for the mixed use site and within the adjacent Heritage Valley Town Centre.

Bylaw 15295  
December 16, 2009

Objective	NASP Policy	Implementation
<p><b>3.3.3.1</b></p> <p>Provide the opportunity for commercial needs to be met within the neighbourhood.</p>	<p>Commercial development opportunities shall be provided to serve the needs of residents located within Chappelle and adjacent communities.</p>	<p><i>Figure 3.0 – Land Use Concept</i> illustrates the location of commercial areas.</p>

Objective	NASP Policy	Implementation
<p><b>3.3.3.2</b></p> <p>Locate and orient commercial sites along arterial or collector roadways to ensure high visibility and convenient access opportunities.</p>	<p>Commercial sites shall be placed along arterial and or collector roadways, transit routes and along major pedestrian corridors to ensure high visibility and accessibility.</p>	<p><i>Figure 3.0 – Land Use Concept</i> illustrates the location of commercial areas.</p>
<p><b>3.3.3.3</b></p> <p>Minimize the impact of commercial development on adjacent land uses.</p>	<p>Site planning of commercial areas shall take into consideration the layout and location of all structures, parking and loading facilities to ensure that impacts on adjacent land uses is minimized.</p>	<p>The Development Officer shall include appropriate application of setbacks, landscaping, buffering and façade treatments available under the Zoning Bylaw at the Development Permit stage.</p>

## **RATIONALE**

### *Commercial Opportunities & Location of Commercial Sites*

A commercial site located adjacent to *28 Avenue SW*, within the northern portion of the neighbourhood, is of adequate size to accommodate a range of commercial users. A neighbourhood commercial site is located along *41 Avenue SW* to allow the opportunity for convenience commercial uses in the southwest portion of the neighbourhood.

Bylaw 15295  
December 16, 2009

Prominent frontage from *28 Avenue SW*, *141 Street* and *41 Avenue SW* are important components influencing the location of the commercial sites. These sites provide opportunities for access from arterial and/or collector roadways, minimize traffic shortcutting through residential areas, and maintain appropriate traffic patterns and volumes within the neighbourhood core. The potential for a future High Speed Transit (HST) stop at the intersection of *28 Avenue SW* and *141 Street SW* in addition to the connections from the Multi-Use Trail Corridors (MUTC) will provide pedestrians and transit users with convenient shopping opportunities.

Locations of both commercial sites are within walking distance of residential areas, accessible by internal neighbourhood linkages. The larger commercial site along *28 Avenue SW* is connected with a major pedestrian linkage through the neighbourhood along the pipeline corridor and situated amongst higher density land uses, supporting the use of the commercial site. Walkability to these commercial sites reduces the number of vehicle trips required to meet the commercial needs of residents within Chappelle, and promotes healthy living.

### *Minimizing Impact on Adjacent Land Uses*

Impacts associated with commercial development should be minimized and carefully integrated with surrounding residential development. Attention to site design will separate incompatible use activities and minimize potential issues.



### 3.3.4 Mixed Use Area

The mixed use area is envisioned as a destination point within the neighbourhood. This area is proposed to provide opportunities for compatible commercial services and amenities (retail, office, civic and/or institutional) and medium or high density residential uses, integrated either horizontally or vertically. Located along 41 Avenue SW, at the central collector road entrance, the mixed-use area is highly accessible. Intensification in this location creates an identity for the southern portion of Chappelle, and a unique entrance and focal point for the neighbourhood. The height envisioned for the mixed use area is a maximum of 15 stories, with a targeted mix of approximately 60% residential and 40% non-residential uses. The height of buildings in the mixed use area shall be greatest adjacent to 41 Avenue SW and the collector roadway entrance, and transition towards the internal portions of the neighbourhood.

Objective	NASP Policy	Implementation
<p><b>3.3.4.1</b></p> <p>Develop a comprehensively-planned mixed use urban village with primarily residential uses complemented by commercial uses in a pedestrian friendly environment that supports compact development, higher densities and transit use.</p>	<p>The mixed use site shall generally provide the opportunity for retail (e.g. restaurants and cafes, food stores, financial services, dry cleaners), office, and residential uses within walking distance of each other.</p> <p>Civic, entertainment and/or institutional uses (e.g. senior's residence) are encouraged to be designed as part of the mixed use site.</p> <p>The mixed use area shall contain some buildings that are vertically and/or horizontally mixed in uses.</p> <p>The mixed use area shall encompass a complete network of paths that interconnect building entrances, parking, transit stops, public sidewalks and crossings, adjacent properties, adjoining off-street paths or pedestrian walkways and other key destinations on or adjacent to the site.</p> <p>The mixed use area shall be designed around urban open spaces (e.g. common greens, plazas, squares, courtyards, terraces) that can serve as a focal point for community activities.</p>	<p>Implementation of the Mixed Use policies shall be achieved through a Direct Control Provision of the Edmonton Zoning Bylaw.</p>

## **RATIONALE**

### *Mixed Uses*

Locating a mix of uses such as stores, offices, residences, public services, and recreation spaces within walking distance of each other promotes independence of movement, especially for the young and the elderly who can conveniently walk, cycle, or use transit. Overall, this results in a reduction in auto use, particularly for shorter trips. The mixed use area will also support those who work at home, through nearby services and amenities, and add an element of safety through around-the-clock presence of people. There is also an opportunity to include some live/work units within the mixed use area to encourage local business activity within the neighbourhood, again, supporting reduction in automobile usage. The range of housing choices planned for the mixed use area provides options for different types and sizes of households and of various income groups to live in proximity to one another and share a common pride in one's community.

### *Mixed Use Development Design Guidelines*

The Mixed Use site is in a prominent location at the edge of the neighbourhood, adjacent to 41 Avenue SW and a collector roadway. The NASP proposes the use of a Direct Control Provision of the Edmonton Zoning Bylaw for the development of this site. A Direct Control Provision will ensure that the development is transit-supportive, provides guidance on a compatible mix of uses and site planning, and creates a distinct character and built form on the basis of good urban design principles and high quality architecture. The Direct Control Provision should be based on, but not limited to, the following design guidelines:

#### **Site Planning and Design**

- *The site should be a walkable, mixed use development with opportunities to live, work, shop and recreate.*
- *Mixed use should contain vertically and/or horizontally mixed areas.*
- *Retail uses should be placed at street level, while residential or office uses should be placed at the rear or upper stories.*
- *The street should be lively, providing active streetscaping, active storefronts and multiple doorways and windows.*
- *Residential building entrances should reinforce a privacy zone at the front entrance and be distinguished from commercial uses.*

#### **Built Form**

- *Building heights should be greatest at 41 Avenue SW and the collector roadway entrance, and transition into the neighbourhood*
- *The northern portion of the mixed use site should transition into the neighbourhood, and consider the sensitivity of scale and massing internal to the neighbourhood.*
- *Each building should be designed to form part of the larger composition of the area.*
- *Adjacent buildings should relate in similarity of scale, height, and configuration.*
- *Larger buildings should be broken down in scale using proportioned articulation.*

- *Perceived height and massing should be minimized through building setback variations at the upper levels, building orientation, roof treatment and by adding interest through the choice of exterior materials and colours.*

### **Pedestrian Circulation**

- *Safe and attractive pedestrian linkages should be provided between various land uses within the site, into the neighbourhood and to transit facilities.*
- *The internal street system and pedestrian linkages should foster connectivity from various parts of the site and surrounding area.*
- *Pedestrian routes should be direct and should minimize potential conflicts with vehicles.*
- *To aid pedestrian navigation and comfort, provide the following elements along paths:*
- *Landscaping, such as rows of trees and shrubs, flower beds, and planters*
- *Pedestrian scaled lighting, such as lighted bollards*
- *Small, color-coded way-finding signs, or a directory*
- *Vertical architectural elements, such as markers or arches*
- *Seating and resting spots*
- *Special paving*

### **Roadways, Parking & Transit**

- *Locate buildings close to the street and/or pedestrian pathway, with off-street parking provided behind, beside and/or under buildings where possible and appropriate.*
- *Surface, structured and underground parking should be located behind buildings or in the interior of a block whenever possible.*
- *Shared parking is encouraged between adjacent or vertically mixed uses whose peak demand is off-set from each other (e.g. Offices and Housing).*
- *Any large surface parking areas should be visually and functionally segmented to reduce the visual mass of parking areas.*
- *Consider the feasibility of providing underground or structured parking rather than surface parking to conserve land and minimize impacts on the environment.*
- *A transit stop should be provided at the mixed use site, placed at a key node that has easy access to pedestrian linkages and the surrounding streets.*

### **Landscaping**

- *Landscaping, hard and soft should tie developments together within the mixed use area.*





- *Decorative lighting should be provided as a means of providing a safe and visible pedestrian realm as well as establishing a theme or character for the mixed use area.*
- *A lighting program should consider street lighting, pedestrian lighting at intersections and key nodes, and internal illumination from the storefronts.*
- *The corners of street intersections, particularly gateways and site entries (entries from both street and sidewalk) should be distinguished by special landscape treatments: flower displays, trees and shrubs, accent rocks, low walls, signage, decorative lighting, sculpture, architectural elements, and/or special paving.*
- *Fences should be of complimentary design, materials and construction to the architectural theme of the development. Fences should supplement the existing and/or required plantings.*
- *Property owners are encouraged to provide outdoor public art within open space and or gathering areas to enrich the pedestrian experience and create a stronger sense of place.*

### 3.3.5 Parkland System and Open Space

Approximately 31 ha of the plan area is designated for parks and open space. The NASP proposes two school sites, a community league site, one urban village park, and several pocket parks.

The west school site is approximately 7.4 ha in size, and the east school site is approximately 6.9 ha in size. Both of these sites are intended to accommodate future Public Elementary / Junior High schools with associated park space facilities. The west school site is the preferred location for the development of a future community league. The development (timing) of the schools are dependent upon available funding from the Province and demand (i.e. a threshold of school aged population being present in the neighbourhood).

The urban village park is located in the northwest portion of the plan area and is approximately 4.4 ha in size (4.9 ha including the usable portion of the pipeline corridor, but not to be dedicated as Municipal Reserve). This park is intended to accommodate sports fields, a future community league, serve as a gathering place for neighbourhood residents, and to provide opportunities for passive and active recreation.

Chappelle also includes a number of other pocket parks totaling approximately 2.2 ha. These parks provide opportunities for passive recreation and have been distributed throughout the neighbourhood to be within reasonable walking distance of the majority of residences.

Objective	NASP Policy	Implementation
<p><b>3.3.5.1</b></p> <p>Provide a simple and understandable pattern of open space nodes, greenways, school/park sites and walkway connections.</p>	<p>The NASP shall follow the guidelines for the hierarchy and distribution of park spaces as prescribed within UPMP. All park spaces shall be connected to the trail network system within the neighbourhood.</p>	<p>The parks and open spaces identified in <i>Figure 3.0 – Land Use Concept</i> will be dedicated to the City of Edmonton as Municipal Reserve (MR) at the time of subdivision.</p>



Objective	NASP Policy	Implementation
<p><b>3.3.5.2</b></p> <p>Ensure that park space is accessible to all members of the community.</p>	<p>Ensure a balanced spatial distribution of neighbourhood parks and open spaces. Every housing unit within the NASP boundary should be within a 500 m walking distance from a park.</p> <p>All park spaces shall be accessible by pedestrian connections, public roadways or an acceptable combination thereof.</p>	<p><i>Figure 3.0 – Land Use Concept and Figure 4.0 – Trail Network</i> will guide future application of neighbourhood parks, open spaces, and pedestrian connections.</p>
<p><b>3.3.5.3</b></p> <p>Provide a variety of opportunities for passive and active recreation experiences, incorporating a variety of activities to encourage community interaction.</p>	<p>A balanced combination of park spaces with areas developed for both active and passive recreation shall be provided within the neighbourhood.</p> <p>The design of recreational areas should consider placement of landscaping and site furniture to encourage social interaction and localized recreational opportunities.</p>	<p>Design and development of future parks and open spaces shall consider programming needs of the community and be implemented based on requirements of Asset Management and Public Works Parks Branch.</p>
<p><b>3.3.5.4</b></p> <p>Design different types of park space to meet the needs of all users within the community.</p>	<p>Park space should be designed to accommodate active and passive recreation activities for different age groups.</p> <p>With the exception of park areas adjacent to the top-of-bank where grade changes and topography pose design difficulties, all park space within the neighbourhood should be universally accessible.</p>	<p>Design and development of future parks and open spaces shall consider programming needs of the community and be implemented based on requirements of Asset Management and Public Works Parks Branch.</p>



Objective	NASP Policy	Implementation
<p><b>3.3.5.5</b></p> <p>Design safe park space, in accordance with the Design Guide for a Safer City and UPMP.</p>	<p>Park spaces should have frontage along public roadways to ensure sightlines, natural surveillance, and adequate lighting. Landscaping and design of park spaces shall take into consideration basic CPTED principles and design principles included in the Design Guide for a Safer City and UPMP.</p>	<p>Design and development of future parks and open spaces shall consider safety needs of the community and be implemented based on requirements of Asset Management and Public Works Parks Branch.</p>
<p><b>3.3.5.6</b></p> <p>Extend the “green” atmosphere of the Whitemud Creek Ravine into the neighbourhood.</p>	<p>A major greenspace circuit should be established extending from the Whitemud Creek Ravine into the neighbourhood and back.</p>	<p><i>Figure 4a – Extending the Whitemud Creek Ravine</i> into the Neighbourhood illustrates this greenspace circuit.</p>
<p><b>3.3.5.7</b></p> <p>Establish a TOB line according to the requirements of the Municipal Government Act (MGA) and North Saskatchewan River Valley ARP in order to ensure the preservation and protection of the Whitemud Creek Ravine.</p>	<p>The TOB line along the Whitemud Creek Ravine shall be surveyed in co-operation with, and endorsed by, City Departments. The agreed-upon TOB line shall be subsequently registered at Land Titles by the landowner.</p>	<p>The Top of Bank line will be surveyed and established in principle prior to rezoning, and used as a basis to determine the final provision of Environmental Reserve with subdivision approval, as per the Municipal Government Act.</p>
<p><b>3.3.5.8</b></p> <p>Design a connected and integrated open space system that encourages active modes of movement (e.g. pedestrians and bicycles).</p>	<p>Chappelle shall incorporate an array of pedestrian linkages along sidewalks, walkways, greenways and multi-use trail corridors that connect all park spaces and stormwater management facilities.</p>	<p><i>Figure 3.0 – Land Use Concept and Figure 4.0 – Trail Network</i> will guide future application of neighbourhood parks, open spaces, and pedestrian connections.</p>
<p><b>3.3.5.9</b></p> <p>Plan greenways and walkway connections to complement on-street sidewalk routes and connections.</p>	<p>The design of the trail network within the neighbourhood should avoid duplication between sidewalk connections, yet maintain off-street, connections for major linkages through the neighbourhood.</p>	<p><i>Figure 3.0 – Land Use Concept and Figure 4.0 – Trail Network</i> will guide future application of neighbourhood parks, open spaces, and pedestrian connections.</p>

Objective	NASP Policy	Implementation
<p><b>3.3.5.10</b></p> <p>Ensure that private amenity space for multi-family housing integrates well with the public open space landscape.</p>	<p>Site planning for private amenity areas should consider context and linkages within the overall neighbourhood open space network.</p>	<p>The Development Officer shall review integration of private amenity spaces with the context of the overall Chappelle open space network and implement connections and linkages.</p>

Figure 4.0 – Trail Network (as amended, Bylaw 15206)





## **RATIONALE**

### *Variety of Park Space & the Whitemud Creek Ravine*

A major feature of the Chappelle NASP is the extension of “green” atmosphere from the Whitemud Creek Ravine into the neighbourhood to create a comprehensive, linked and integrated open space concept. The top-of-bank walkway spans the entire eastern boundary of the Plan area and connects with neighbourhood pedestrian pathways which link all open space areas, commercial uses, schools and the multi-use trail corridor system (in the pipeline right-of-ways and along arterial roadways) which extend beyond Chappelle to other destinations within Heritage Valley.

Two promenades or enhanced walkways are planned as part of extending the Whitemud Creek Ravine into the neighbourhood, and creating a unique pedestrian environment that is more visually attractive through the combination of enhanced landscaping, street furniture, lighting, directional signage and choice of surface materials. These promenades are illustrated on **Figure 4 - Trail Network**.

A combination of several pocket parks and the urban village park are planned throughout the Chappelle NASP area. These parks are located to serve various residential sub-areas within the plan to provide everyday opportunities for active and passive recreation. A variety of park space configurations and uses are proposed within the neighbourhood to meet the needs of all users in this community. All parks are connected to the trail network (including sidewalks) with the NASP to ensure that they are accessible and intermixed with the residential uses in the plan area. The associated Parkland Impact Assessment (PIA) for Chappelle provides additional information on the rationale for the provision of open space within the plan area.

Stormwater management facilities (SWMF) are also considered an amenity area and part of the open space system. Besides the function of these facilities as part of the storm servicing network, additional open space is planned around the facilities. These facilities provide visual amenity for local residents adding to the neighbourhood's attractiveness, character, and image as a pedestrian-oriented community. All SWMF's are linked with the neighbourhood trail network and complement the open space system by providing additional areas for passive recreation. The extent of public open space (and private land) around the facilities will depend on City policies at the time of development.

*This concept of extending the “green” atmosphere from the Whitemud Creek Ravine into the neighbourhood is illustrated in **Figure 4a – Extending the Whitemud Creek Ravine**, which shows a complete circuit for pedestrian travel from the ravine to the eastern portion of Chappelle.*

Bylaw 15295  
December 16, 2009

### *Linkages*

Combined with an array of linkages along sidewalks, walkways, greenways and multi-use trail system, the Chappelle NASP provides an internal trail network that is highly connected, direct and convenient. This facilitates the development of a truly walkable community, encourages a healthy community lifestyle and better quality of life.

Utilizing existing pipeline and utility corridors, the multi-use trail corridor network connects residents and neighbouring communities to commercial and recreational focal points within the NASP. Multi-use trail connections may also ultimately extend beyond the boundaries of the NASP to link with existing / future neighbourhoods (including the Heritage Valley Town Centre), lands in Windermere, Transportation and Utility Corridor (TUC), North Saskatchewan River and Whitemud Creek Ravine.

*Staging Area*

A staging area is provided near Whitemud Creek, immediately south of *28 Avenue SW* as shown on *Figure 4.0 – Trail Network*. This staging area will include parking spaces and provide an opportunity for residents of Greater Edmonton to access the river valley for recreational purposes.

Bylaw 15295  
December 16, 2009



Figure 4a - Extending the Whitemud Creek Ravine (as amended, Bylaw 15206)



Figure 4a Extending the Whitemud Creek Ravine

### 3.3.6 Urban Design

The Chappelle NASP incorporates relevant principles of urban design to establish an attractive, pedestrian friendly community:

Objective	NASP Policy	Implementation
<p><b>3.3.6.1</b></p> <p>Create a neighbourhood with an identifiable focal point(s).</p>	<p>Focal points should incorporate features such as architectural and landscape features (e.g. ornamental lighting, benches, signage, etc) to create a common theme and identity.</p>	<p>Developers should work together to encourage the establishment of a consistent theme.</p>
<p><b>3.3.6.2</b></p> <p>Provide a transition between residential uses of significantly different densities.</p>	<p>LRA, T and/or SO will be placed between LDR and HDR to achieve a transition in height and density.</p>	<p><i>Figure 3.0 – Land Use Concept</i> illustrates LRA, T and/or SO will separate LDR and HDR development.</p>
<p><b>3.3.6.3</b></p> <p>Develop HDR to a higher aesthetic standard.</p>	<p>The HDR development may be regulated by a Direct Control Provision.</p>	<p>The HDR development guidelines included in the plan will guide the preparation of the proposed Provision.</p>
<p><b>3.3.6.4</b></p> <p>Develop SWMFs that are visually appealing and physically accessible to residents.</p>	<p>The SWMFs shall be designed using CPTED principles, accessible through public lands, and not land-locked by private development.</p>	<p>The location of SWMFs is established prior to Plan adoption and may be refined prior to rezoning.</p> <p>Design of future stormwater management facilities shall consider safety needs of the community, opportunities for passive recreation and development of pedestrian walkways or multi-use trails. This is to be confirmed at the subdivision stage of development in conjunction with Asset Management and Public Works Parks and Drainage Branches and the Transportation Department.</p>

Objective	NASP Policy	Implementation
<p><b>3.3.6.5</b></p> <p>Site buildings to optimize views and vistas or enhance view potential of the Whitemud Creek valley and other neighbourhood amenities and features.</p>	<p>Site planning and design should take into consideration opportunities for maximizing views and vistas of Whitemud Creek and ravine, stormwater management facilities, greenways (reverse housing) and park space.</p>	<p>The Development Officer should have regard for the placement of buildings relative to maintaining views and vistas where opportunities exist.</p>
<p><b>3.3.6.6</b></p> <p>Establish gateways into the neighbourhood that identify a sense of arrival.</p>	<p>Neighbourhood entrances should include signage and design features that distinguish entry into Chappelle.</p>	<p>Entrance features and signage shall be developed in accordance with the Zoning Bylaw and applicable policies.</p>

## **RATIONALE**

### *Focal Points*

Neighbourhood focal points are developed to create community destinations within the neighbourhood. Through careful design and site planning, the development of these focal points create active neighbourhood places which are alive and utilized and promote community interaction. Neighbourhood focal points within Chappelle are the Whitemud Creek / staging area, mixed use site, the commercial site, and school/park sites. Identity of community focal points differ, depending on the user.

### *Land Use Transition*

Provision of LRA, T and/or SO as a transitional land use will serve to moderate the use differences between LDR and HDR. Where possible, the T designation is used as a land use transition between LRA and LDR.

### *HDR Development Design Guidelines*

The HDR sites are placed in prominent locations at the edges of the neighbourhood, adjacent to 28 Avenue SW and the future High Speed Transit (HST) corridor. The NASP proposes the use of standard zoning (for example, RA8 or RA9) or Direct Control Provision of the Edmonton Zoning Bylaw for the development of the HDR sites. A Direct Control Provision will ensure that the development is transit-supportive, provides an option for establishing main floor commercial uses and creates a distinct character and built form on the basis of good urban design principles and high quality architecture. The Direct Control Provision should be based on, but not limited to, the following design guidelines. If standard zoning is applied, the Development Officer shall have regard for these design principles at the Development Permit review stage.

Bylaw 15295  
December 16, 2009

### Built Form

- *The architectural design of buildings should create local identity and character.*
- *The development should provide a transition in building height, massing, form, orientation, and landscaping in relation to the surrounding neighbourhoods and abutting medium density sites.*
- *Perceived height and massing should be minimized by utilizing variations in building setback variations at the upper levels, building orientation, roof treatment, and the choice of exterior materials and colours.*
- *All building façades should use compatible and harmonious exterior finishing materials, and building colours should provide visual interest.*
- *All building facades should incorporate treatments that ensure 360° architecture.*
- *Tall buildings should have three parts carefully integrated into one whole – a base, middle and top.*
- *Dwellings and other elements of the development should be sited and oriented to minimize their impact on other dwellings, considering such things as daylight, sunlight, ventilation, noise, visual privacy, and views.*
- *Where commercial is developed as part of the project, provide inviting streetscapes and active frontages at ground level that may feature design elements such as doorways, windows at ground level, awnings, canopies and arcades.*

### Circulation

- *Safe and attractive pedestrian linkages should be provided, establishing connections within the site and with the surrounding areas.*
- *The circulation system should foster internal site connectivity, and connectivity to the Heritage Valley Town Centre and Chappelle Transit facilities.*
- *Parking, loading, and passenger drop-off areas should be easily accessible and designed to minimize pedestrian-vehicle conflicts.*
- *Potential traffic impacts on adjacent roadways resulting from the development should be mitigated.*

Bylaw 15295  
December 16, 2009

### Amenity Space

- *Provide amenity space that is aggregated to function as useable space / common area.*
- *Crime Prevention Through Environmental Design (CPTED) should be considered in the design of amenity spaces. Pedestrian spaces should be well lit at night and designed to meet CPTED guidelines.*
- *Amenity spaces should be distinct and separate from parking areas.*

### Landscaping

- *Amenity spaces should feature high quality landscape architecture intended to create spaces that are comfortable and enjoyable, including such features as trees, abundant street furniture, public art and water features.*
- *Landscaping that enhances the character of the buildings and creates a positive relationship with the buildings should be provided.*
- *Detailed landscaping plans shall be submitted.*

*Stormwater Management Facility Design*

The location and design of the SWMFs provides vistas into the site from the abutting roadways, and thereby heightens resident awareness of these facilities. This will promote them as walking destinations, and enhance their surveillance to prevent crime. Stormwater management facilities will be designed to serve as a destination for pedestrians and cyclists and to provide passive recreation opportunities.

**3.3.7 Environment and Ecology**

The NASP ensures that the Whitemud Creek Ravine is maintained and protected as a natural area. Access to the ravine will be provided via pedestrian connections, pocket parks, and a top-of-bank (TOB) multi-use trail/roadway.

The City requires that Phase I Environmental Site Assessments (ESA) are submitted, reviewed, and endorsed prior to the rezoning stage of development, and that lands are suitable for their intended uses.

Objective	NASP Policy	Implementation
<p><b>3.3.7.1</b></p> <p>Protect the Whitemud Creek Ravine System.</p> <ul style="list-style-type: none"> <li>•</li> </ul>	<p>The lands within Whitemud Creek Ravine shall be protected from urban development through implementation of the requirements specified by the MGA and North Saskatchewan River Valley ARP.</p> <p>The Chappelle NASP shall comply with the policies and directives established under the North Saskatchewan River Valley and Ravine System Protection Overlay.</p>	<p>Whitemud Creek Ravine will be dedicated to the City of Edmonton at the time of subdivision as Environmental Reserve (ER) as per the Municipal Government Act.</p> <p>A geotechnical report and flood plain analysis, detailing the required setbacks and other recommendations, to ensure bank stability for development planned within the overlay will be submitted prior to subdivision approval.</p>
<p><b>3.3.7.2</b></p> <p>Ensure that the environmental status of lands in the Chappelle NASP is suitable for residential development</p>	<p>Determine the likelihood, types, and location of environmental concerns that may be present on the lands prior to rezoning.</p>	<p>ESAs and any follow-up will receive sign-off by City Administration prior to the rezoning stage of development.</p>



Objective	NASP Policy	Implementation
<p><b>3.3.7.2</b></p> <p>Ensure that Environmental Site Assessments are complete and up-to-date</p>	<p>Where necessary, contaminated material shall be removed and disposed off in an environmentally sensitive manner, in accordance with Federal, Provincial, and Municipal regulations.</p> <p>Environmental Site Assessments shall be submitted prior to rezoning.</p>	<p>Site remediation, where necessary, shall be conducted prior to rezoning. An environmental site assessment report verifying the remediation shall be submitted for approval by the City administration prior to the rezoning of the subject lands.</p> <p>Environmental Site Assessments will be submitted prior to rezoning.</p>

## **RATIONALE**

### *Protection of Whitemud Creek Ravine*

The Whitemud Creek Ravine comprises an important ecological system within the NASP and Heritage Valley SCDB. The ravine is protected and preserved as per the Municipal Government Act (MGA), North Saskatchewan River Valley ARP, and the MDP strategic policies and guidelines.

### *Environmental Status*

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.

### *Technical Summary*

Environmental Site Assessments (ESAs) were submitted to the City of Edmonton in 2006 to confirm the Plan area will be suitable for residential and other intended development (see *Table 3, Appendix 2, Figure 11.0 – Environmental Site Overview*). Any follow-up items identified by ESAs shall be addressed prior to the rezoning of the subject areas, as per the implementation strategy.

## **3.3.8 Special Study Area**

*A terrace area exists in the western portion of the plan area, adjacent to Whitemud Creek. This terrace area is currently developed as part of the Whitemud Creek Gold Course and RV Park with fairways and a putting green. As such, the terrace principally consists of vegetations that is unnatural to the River Valley and Ravine System, which risks invasion of this sensitive ecosystem. Moreover, it is quite likely that over the time of gold course operations that numerous pesticides and fertilizers have been used which will ultimately require removal in order for the land to become an environmentally enhanced area. As the terrace area is presently utilized as a golf course, it therefore ranks low with respect to biodiversity. The elevation of the subject area is located above the Whitemud Creek 1:100 year floodplain.*

Bylaw 15295  
December 16, 2009





*This terrace will be developed as a constructed wetland, to enhance the ecological connectivity of the area. The intent of the conversion of the existing golf course into a constructed wetland is to provide a unique feature within the North Saskatchewan River Valley and Ravine System. While the constructed wetland will serve a functional component in providing additional stormwater management capacity for the Chappelle neighbourhood, the overarching goal is to provide a transformed environmental area that improves the quality of water prior to discharge into Whitemud Creek, provides aquatic and wildlife habitat, enhances the existing ecosystem and creates a recreational feature for residents of Chappelle and Edmonton generally to enjoy. Essentially, the area, of poor habitat quality and supporting relatively few species will receive a “makeover”, kick-starting the regeneration and succession process while at the same time meeting city-wide policy goals to provide wildlife habitat, improve water quality, provide unique recreational experiences and to implement environmentally sensitive development.*

*Constructed wetland systems use soils, vegetation, and hydrology to remove pollution from storm water through increased contact time with soils and plant materials. The systems are effective in attenuating flood flows, reducing pollutant loadings, and providing wildlife habitat. As compared with conventional storm water management systems, constructed wetlands more closely mimic the natural hydrologic cycle, allowing soils and plants to filter pollutants from storm water and permitting the processes of infiltration, evaporation, and transpiration to occur. The systems create wildlife habitat, minimize erosion, and recharge local groundwater supplies. From a community design standpoint, wetland systems can create open space, offer improved aesthetics over traditional treatment systems, and provide recreational and educational opportunities.*

*The constructed wetland will mimic a wetland by incorporating an open water zone, deep marsh zone, shallow marsh zones, and an upland buffer. These zones will be designed to provide both wildlife habitat and filtration capacity for stormwater which meets criteria set forth by Alberta Environment.*

*The wetland area is proposed to be accessed from an existing open area slope used as part of the golf course, located along the south central portions of the facility. A granular pathway will be created from the primary access point at the south central portion, around the perimeter of the wetland on the western side. The pathway is proposed to connect with the proposed trail system being planned by the Parks Branch along the shorelines of the Whitemud Creek to the north of the wetland. Proposed features that add interest to the pedestrian visitor incorporate a boardwalk over the western portion of the wetland, and a viewing deck at the base of the primary entrance to this feature. The design of the wetland is also proposed to include riparian habitat around the edges as well as shallow marsh zones, deep marsh zones and open water to provide a variety of habitat for flora and fauna. Environmental design criteria outlined in Section 6.2 of Environmental Assessment: Chappelle Local Area Structure Plan, prepared by Bruce Thompson & Associates Inc. should be followed in determining the detailed design of the wetland.*

*A geotechnical investigation prepared by CT & Associates Engineering Inc., has confirmed the technical feasibility of construction a wetland within this location. In order to mitigate any negative consequences of development in this area, precautions noted within the geotechnical investigation shall be taken into consideration and adhered to in the detailed design of the wetland. These precautions include establishing set-back distances and adopting measures to ensure slope stability and erosion protection.*

### **3.3.9 Transportation**

The transportation network within the Chappelle NASP is based on both vehicular and pedestrian circulation.

## ROADWAY NETWORK

The transportation network has been designed to meet both, the internal and external traffic flow requirements generated by the neighbourhood in accordance with City of Edmonton's guidelines and standards. A hierarchy of collector and local roadways are intended to facilitate the efficient movement of vehicular traffic (see *Figure 5.0 Transportation Network*). Vehicular access to the surrounding arterial roadways will be provided via nine neighbourhood entrance/exits.

### *Regional Network Accessibility*

Development within the Chappelle NASP will benefit from a high level of accessibility to the metropolitan Edmonton area, the City and County of Leduc by virtue of its close proximity to a number of major existing and proposed arterial roadways (see *Figure 5.0 – Transportation Network*). These include:

- *28 Avenue SW*
- *135 Street SW*
- *141 Street SW (north of 28 Avenue)*
- *41 Avenue SW (City Boundary)*
- *Calgary Trail / Gateway Boulevard*
- *Anthony Henday Drive*

Bylaw 15295  
December 16, 2009

Future completion of *28 Avenue SW* and *135 Street SW* arterials will provide excellent access opportunities from the plan area to major external destinations in conjunction with 41 Avenue SW. In time, the 41 Avenue SW corridor will be upgraded to a high standard arterial with limited access to ensure provision of a major east-west corridor and the planned interchange at Calgary Trail. This, in combination with the proximity of the neighbourhood to regional transportation routes such as Calgary Trail/ Gateway Boulevard and Anthony Henday Drive will further accommodate longer distance regional and provincial trips, in addition to providing efficient vehicular access to the development area.

Bylaw 15295  
December 16, 2009

### *Internal Roadway System*

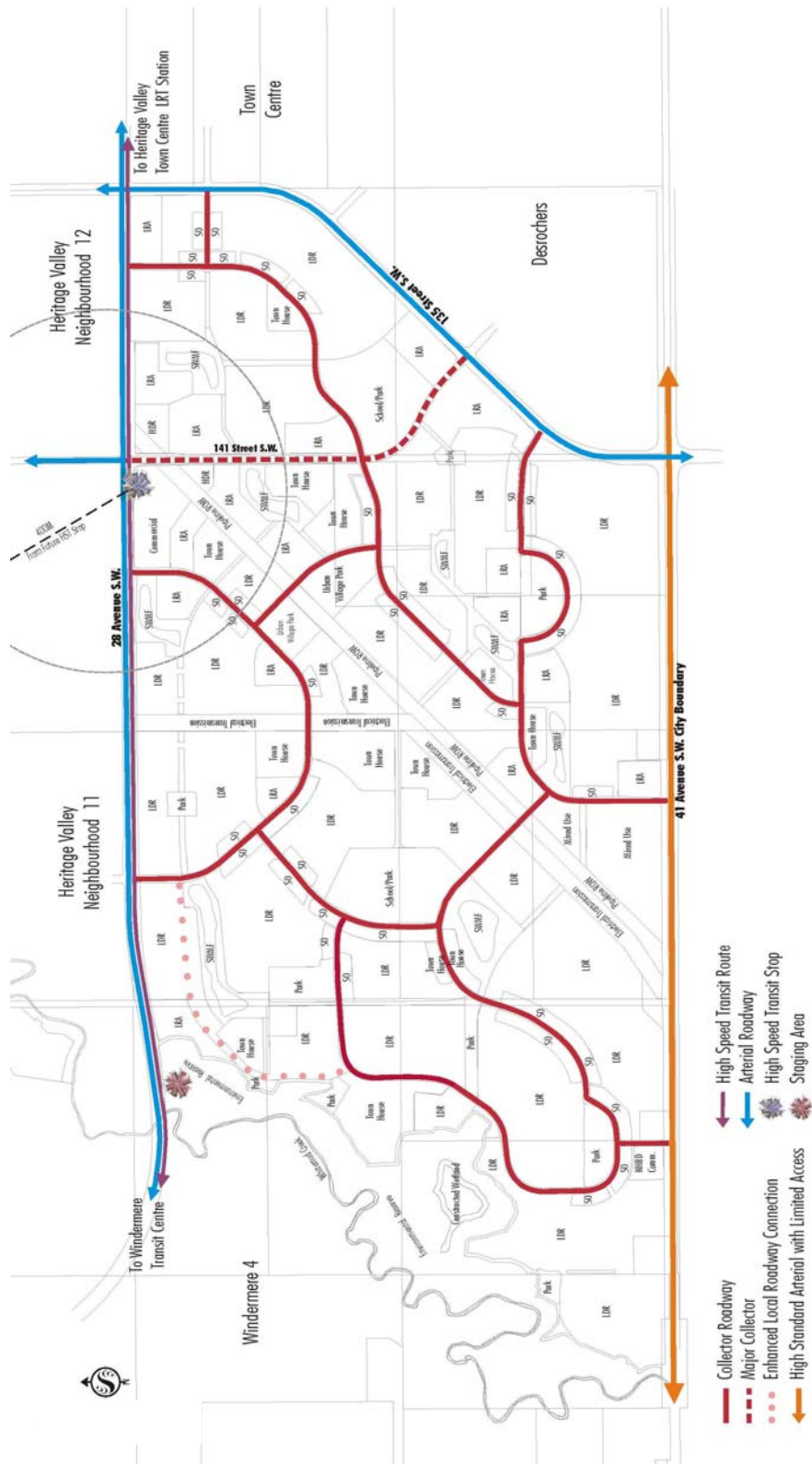
A hierarchy of roadways will provide the necessary inter-connections appropriate to efficiently accommodate traffic at the local, collector and arterial levels. The Chappelle NASP transportation network has therefore been developed to accommodate external / internal traffic flow demands in both a north-south (i.e. *135 Street SW*) and east-west (i.e. *28 Avenue SW* and 41 Avenue SW) direction. Arterial roadways bound the neighbourhood at approximately one-mile intervals along the north (*28 Avenue SW*), south (41 Avenue SW) and east (*135 Street SW*) periphery. These serve to accommodate the NASP's major internal / external traffic flows.

Bylaw 15295  
December 16, 2009

Access to the arterial grid system will be provided by a series of collector roadways within the neighbourhood. Collector roadways which provide internal / external access are spaced at appropriate intervals to facilitate traffic progression (if traffic signals are required), and to ensure that sufficient distance is available to allow for right and left turn-bay development.

The collector roadway system accesses facilities that are planned for the Chappelle NASP. The system will connect the neighbourhood sub-areas and provides residential areas with convenient access / egress within the neighbourhood as well as to the arterial roadways. These connections provide efficient and convenient access to residential areas, prevent traffic shortcutting through the neighbourhood, facilitate pedestrian movement along sidewalks to transit facilities, commercial, residential and school / park land uses. This serves to further reinforce a local sense of place among residential sub-areas, reduce traffic volume and speeds, and establish a pedestrian-oriented streetscape (i.e. walkable environment).

Figure 5.0 – Transportation Network (as amended, Bylaw 15206)



Chappelle Neighbourhood Area Structure Plan

Stantec

11.61.601.08

Heritage Valley NASP

Figure 5.0 Transportation Network



### *Roadway Staging*

A roadway staging plan will be prepared as part of the review and approval process to service lands in this area of southwest Edmonton. Upgrades to *135 Street SW*, *28 Avenue SW* and *41 Avenue SW* and any other further improvements will be necessary as development proceeds in the Chappelle NASP.

### *Public Transit and High Speed Transit / Bus Rapid Transit Corridor*

Public transit services will be extended into the NASP area in accordance with City of Edmonton Transit System Guidelines and demands. The neighbourhood has been designed to a human scale whereby a majority of the residential areas will be within 400 m walking distance from transit service. Both School/Park sites within the NASP have been designed to ensure adequate school transit service by their locations at collector roadway intersections. This service will be accommodated within the neighbourhood as demand warrants. Internal collector roadways will be developed to a suitable standard to accommodate transit service and provide readily accessible service to all areas of the neighbourhood.

With the adoption of the Windermere ASP in 2004, City Council approved a High Speed Transit (HST) corridor along *28 Avenue SW* to facilitate High Speed Transit (HST) between the Heritage Valley Town Centre Light Rail Transit (LRT) Station / Transit Centre (located at James Mowatt Trail and *28 Avenue SW*) and the Windermere Transit Centre (located at 170 Street SW and *28 Avenue* in the Ambleside Neighbourhood). A potential HST stop is identified on *Figure 5.0 – Transportation Network* along *28 Avenue SW* at 141 Street SW. Higher density land uses have been situated in this location in support of public transit use.

Bylaw 15295  
December 16, 2009

## **TRAIL NETWORK**

An efficient and continuous walkway network connecting key nodes within the NASP will provide pedestrian circulation throughout the neighbourhood. All local and collector roadways in the Chappelle NASP will be developed with sidewalks.

### *Walkways*

A number of walkways are proposed in the plan area, which serve as minor pedestrian connections. These walkways enhance pedestrian connectivity in the LDR areas by establishing pedestrian connections to open spaces.

### *Greenways*

A number of Greenways are identified on *Figure 4.0 – Trail Network*. In accordance with the guidelines established under the UPMP, only 0.5% of the gross developable area (GDA) shall be credited as Municipal Reserve Greenways. MR credit for these Greenways shall be proportionately distributed among landowners within the plan area. The purpose of Greenways is to link parks and other public open spaces together. As such, Greenways identified on *Figure 4.0 – Trail Network* that most fit this criteria and purpose will be given preference for MR credit. The remainder of the identified Greenways shall be dedicated as road right-of-way (ROW). The Greenways are intended to be at least 10 m wide, and accommodate a 3 m wide multi-use trail. In addition to the multi-use trail, the greenways will include grassed or naturalized planting, park furniture (e.g. benches, garbage receptacles), trees and shrub beds, and directional and interpretive signage.



### *Multi-Use Trails*

Arterial roadways along the periphery of the plan area, and the pipeline and electrical transmission corridors will also contain multi-use trails to facilitate active modes of movement within Chappelle, connecting to the surrounding areas of Heritage Valley.

### *Bicycle Circulation*

Bicycle circulation within the NASP is designed to follow collector and local roadways within the neighbourhood area. Bicycle routes will be integrated with MUT corridors and walkways connecting internal and adjacent residential areas and amenities. Routes will be clearly marked using appropriate signage and markings in order to minimize potential conflicts between vehicles, cyclists, and pedestrians in the neighbourhood.

### *Top-of-Bank*

A top-of-bank (TOB) roadway, shall be established along portions of the Whitemud Creek Ravine to facilitate automobile access, environmental protection and to establish the Ravine as the public realm as shown on Figure 3 – Land Use Concept. In consideration of geotechnical setbacks, engineering information and providing public access and vistas, TOB roadway shall be strategically located to make efficient use of developable land adjacent to the Whitemud Creek Ravine.

The top-of-bank walkway shall provide a continuous linkage along the top-of-bank. Multiple access points shall be incorporated from residential areas to the TOB walkway, and in accordance with the requirements of the City Administration. It is intended to accommodate pedestrian and bicycle access along the ravine edge, and provide vistas of the Ravine through viewpoint parks.

## **NOISE ATTENUATION**

In areas where residential uses are constructed along designated truck routes, the City of Edmonton requires the developers to address noise concerns. Therefore, a noise attenuation needs assessment will be carried out in accordance with City of Edmonton's Urban Traffic Noise Policy. This policy requires that the noise levels in the outdoor amenity areas do not exceed 60 dBA. Noise level evaluations will be carried out by the developers prior to subdivision application at the design phase of the project. Based on the results of the study, noise attenuation devices may be required and approved prior to subdivision application. At a minimum, the Transportation Department will require that a 1 m high berm (for truck routes only) and a double board, no-gap fence with a minimum density of 20 kg/m<sup>3</sup> be incorporated in the design of arterial roadways bordering the neighbourhood, or acceptable combination thereof. 41 Avenue SW is currently designated as a Truck Route. Refer to the Transportation Master Plan for the identification of Truck Routes.

Objective	NASP Policy	Implementation
<p><b>3.3.9.1</b></p> <p>Implement the City of Edmonton road hierarchy system of an integrated arterial, collector and local roadway network.</p>	<p>A well-integrated system of arterial, collectors and local roadways shall be established for vehicular and pedestrian circulation within the NASP boundaries, connected to and beyond the Heritage Valley Area.</p>	<p>Road ROW and Arterial Road Widening shall be dedicated to the City of Edmonton in accordance with the NASP at the subdivision stage of development.</p>
<p><b>3.3.9.2</b></p> <p>Mitigate the impact of vehicle traffic associated with MDR and HDR development on LDR areas.</p>	<p>Locate HDR and LRA parcels to facilitate access from arterial or collector roadways to the greatest extent possible.</p>	<p>The subdivision process will address the review of tentative plans to ensure HDR and LRA development is accessed via abutting collector and arterial roadways to the greatest extent possible.</p>
<p><b>3.3.9.3</b></p> <p>Avoid the development of long cul-de-sacs.</p>	<p>Ensure that the maximum length of cul-de-sac in residential settings does not compromise City emergency response plans, operations or maintenance and the Compact Lot Action Policy.</p>	<p>The length of cul-de-sac in residential settings will be determined prior to subdivision approval.</p>
<p><b>3.3.9.4</b></p> <p>Establish sufficient locations for neighbourhood access by a variety of modes, such as automobiles, transit, bicycle and pedestrian connections.</p>	<p>Ensure that collector roadways have sufficient access to arterial roadways in order to maintain appropriate traffic flow in and out of the neighbourhood.</p> <p>Ensure that internal roadways have ample vehicular and pedestrian connections to maintain accessibility to individual residential cells.</p>	<p>Collector roadway accesses to arterials are illustrated on <b>Figure 5.0 – Transportation Network</b>.</p> <p>Subdivision design in residential settings will be determined prior to subdivision approval.</p>
<p><b>3.3.9.5</b></p> <p>Integrate land use and circulation patterns considering safety of pedestrians and cyclists.</p>	<p>Ensure pedestrian crossings are safe, convenient and developed at visible locations.</p>	<p>Pedestrian crossings shall be identified at the subdivision approval and/or development permit stages.</p>

Objective	NASP Policy	Implementation
<p><b>3.3.9.6</b></p> <p>Encourage inter-neighbourhood connectivity through pedestrian and bicycle access to destinations within the greater Heritage Valley area such as the town centre, district campus, business employment area or other focal points.</p>	<p>Ensure the Multi-Use Trail (MUT) Corridors within Chappelle are connected to transit facilities and MUT Corridors in adjacent neighbourhoods, including the TOB MUT along portions of the Whitemud Creek.</p>	<p>Transit stops shall be identified through at the subdivision approval and/or development permit stages.</p> <p>Specific locations for linkages of MUT Corridors within Chappelle and adjacent neighbourhoods shall be identified through at the subdivision approval and/or development permit stages.</p>
<p><b>3.3.9.7</b></p> <p>Provide public access to the Whitemud Creek Ravine.</p>	<p>Access to Whitemud Creek Ravine shall be provided through an acceptable combination of top-of-bank multi-use trail (MUT), top-of-bank roadway, pedestrian access points, parks and staging areas.</p>	<p>The TOB roadway and/or MUT will be established once the TOB line is confirmed and at the rezoning and subdivision stages of applicable lands. The top-of-bank roadway/MUT will be dedicated to the City of Edmonton as roadway right-of-way at the time of subdivision.</p>
<p><b>3.3.9.8</b></p> <ul style="list-style-type: none"> <li>• <i>Provide transit stops within 400 m walking distance from all residences and schools.</i></li> </ul>	<p>Ensure the location of all residential land uses are within 400 m of a transit route.</p>	<p><i>Figure 3.0 – Land Use Concept</i> illustrates the location of residential areas relative to collector roadways which are planned as transit routes.</p>
<p><b>3.3.9.9</b></p> <p>Initiate transit service at an early stage.</p>	<p>Encourage landowners to provide developer funded transit at the initial stages of development.</p>	<p>Developers to discuss with the Transportation Department opportunities to provide developer funded transit at the initial stages of development.</p>

Objective	NASP Policy	Implementation
<p><b>3.3.9.10</b></p> <p>Provide convenient transit access to the Heritage Valley Town Centre and the business employment area in Neighbourhoods 7A/B from Chappelle.</p>	<p>The potential HST stop located at <i>28 Avenue SW</i> (Bylaw 15295, December 16, 2009) and 141 Street SW will provide direct and convenient transit access to the Heritage Valley Town Centre LRT Station / Transit Centre.</p> <p>Ensure direct pedestrian connections to eastbound transit routes within the neighbourhood to encourage transit use to access the Heritage Valley Town Centre and Neighbourhood 7A/B.</p>	<p><i>Figure 5.0 – Transportation Network</i> identifies the potential HST stop and HST route.</p> <p><i>Figure 4.0 – Trail Network</i> will guide future application of pedestrian connections.</p>

## **RATIONALE**

### *Vehicle Circulation*

The Chappelle NASP provides a balanced transportation system within the plan area that mitigates associated land use traffic, minimizes potential use conflicts and internal roadway congestion. In addition, high quality public transit design, service, and integration within the neighbourhood should be a high priority.

### *Connectivity*

Neighbourhood connectivity contributes to the development of a compact, integrated community with a balanced transportation network. Neighbourhoods that have a high degree of connectivity encourage residents to walk to places, reduce the number of trips made by vehicles and promote health and neighbour interaction. Connectivity is characterized by a logical network for movement that links destinations, provides accesses and is integrated with its environment.

### *Pedestrian Circulation*

The Chappelle NASP should support a walkable community. This includes provision of alternative transportation modes that support a range of users and user abilities to access focal points, amenities and services within the neighbourhood.

### *Dedication of Minor Walkways*

While all local and collector roadways will include a sidewalk, there may be situations where the pattern of roadways will not facilitate a direct route to an amenity space or a transit facility. In this circumstance, the NASP dedicates minor walkways to ensure walkability and appropriate access to transit facilities.

### *Greenways*

Greenways establish part of the larger Trail network in a neighbourhood, provide for a range of modes / users, and should be included in the Chappelle NASP in support of a more walkable community.

### *Top-of-Bank Multi-Use Trail*

As per 'Map 8: Development Concept' of the Heritage Valley SCDB, the Chappelle NASP identifies a TOB multi-use trail (MUT) along the eastern bank of the Whitemud Creek Ravine. Access to the TOB MUT is proposed via area parks, pedestrian connections, the staging area and TOB roadway. The TOB MUT will provide inter-neighbourhood linkages and access to future multi-use trails along *28 Avenue SW* and *41 Avenue SW*.

Bylaw 15295  
December 16, 2009

### *Top-of-Bank Public Roadway*

A top-of-bank (TOB) roadway shall be established along portions of the Whitemud Creek Ravine, as illustrated conceptually in the Land Use Concept, Figure 3.0. The intention is to prevent encroachment by urban development into the Ravine, facilitate environmental protection and to provide an area of public lands for public access along and into the Ravine consistent with the TOB Public Roadway Policy and the North Saskatchewan River Valley Area Redevelopment Plan. Construction of a TOB roadway, running parallel to the Ravine, is the preferred mode of development by City Departments. Construction of a TOB multi-use trail (MUT) is also an important feature along the Ravine. Where a TOB Roadway is not provided, a TOB MUT shall be developed. **Figure 3.0 – Land Use Concept** represents the TOB roadways and MUTs in the Plan, subject to detailed design, planning and development. Final alignment and extent of the TOB roadway and/or multi-use trail will be established once the TOB line is confirmed and prior to the rezoning of applicable lands, as per implementation strategy 3.3.9.7. Contingent on the final locations of the TOB roadway and multi-use trail, neighbouring land-uses, such as municipal reserve, may be adjusted to accommodate circulation design.

### *Technical Summary*

The transportation network for the NASP will be provided in accordance with the requirements of the City of Edmonton's Transportation and Streets Department. A Transportation Impact Assessment (TIA) was submitted under separate cover, and reviewed and approved by the Transportation Department.

## **3.3.10 Infrastructure Servicing and Staging**

As shown on **Figure 6.0 – Servicing**, nine stormwater management facilities are designated within the NASP.

Bylaw 15295  
December 16, 2009

## **SANITARY SERVICING**

Sanitary services for the Chappelle NASP will ultimately connect into the South Edmonton Sanitary Sewer (SESS) system. Sewage will be conveyed to the existing SESS terminus at *135 / 141 Street SW* (see **Figure 6.0 - Servicing**). Sanitary servicing will be developed utilizing conventional gravity systems as per detailed engineering. Further details regarding the sanitary drainage schemes for the Chappelle NASP are provided in the associated Neighbourhood Design Report to be submitted under separate cover.



## STORMWATER SERVICING

As shown on *Figure 6.0 - Servicing*, ten stormwater management facilities are designated within the NASP. These have been located based on natural drainage patterns and pre-development sub-basin drainage boundaries in southwest Heritage Valley.

Further details regarding the stormwater drainage schemes for Chappelle NASP are provided in the associated Neighbourhood Design Report to be submitted under separate cover.

*A constructed wetland will be located on a terrace above the Whitemud Creek, as shown in Figure 3.0 – Land Use Concept. The design of the wetland is also proposed to include riparian habitat around the edges as well as shallow marsh zones, deep marsh zones and open water to provide a variety of habitat for flora and fauna. Environmental design criteria outlined in Section 6.2 of Environmental Assessment: Chappelle Local Area Structure Plan, prepared by Bruce Thompson & Associates should be followed in determining the detailed design of the wetland.*

Bylaw 15295  
December 16, 2009

## WATER SERVICING

*Water servicing for the NASP will be extended from the existing 600 mm transmission main on 111 Street through Heritage Valley Town Centre. Future extensions along 28 Avenue SW and throughout the neighbourhood will be required as illustrated on Figure 6.0 – Servicing. Routing of the future 600 mm transmission main connection to Windermere may be required along all or a portion of 28 Avenue SW.*

Bylaw 15295  
December 16, 2009

Water servicing within the neighbourhood will be designed to provide peak hour flows and fire flows for various forms of residential development. As the NASP develops towards the southeast, a booster station may be required due to lower water pressures within this area. *Water looping will be provided in accordance with the requirements of a Private Water Company along with submission of a Water Network Analysis (WNA) for review and approval. An updated WNA will be submitted at the rezoning stage of development.*

Bylaw 15295  
December 16, 2009  
Amended by Editor

As development proceeds and permanent municipal water services are extended into the neighbourhood, proper abandonment and reconnection of water service associated with *a different Private Water Company* with permanent municipal services will be required. Coordination of extension of water service will also require protection of *a different Private Water Company* services to areas outside Chappelle until such time as permanent services are available for extension to these areas, which is outside the scope of development for this neighbourhood. Location of *a different Private Water Company* lines is shown on *Figure 10.0 – Site Features*.

Amended by Editor

## SHALLOW UTILITIES

Shallow utilities including power, gas and telecommunication services are all located within close proximity to the NASP and will be extended as required.

## DEVELOPMENT STAGING

*Figure 7.0 – Staging*, shows the anticipated direction of development for Chappelle NASP.

Bylaw 15295  
December 16, 2009

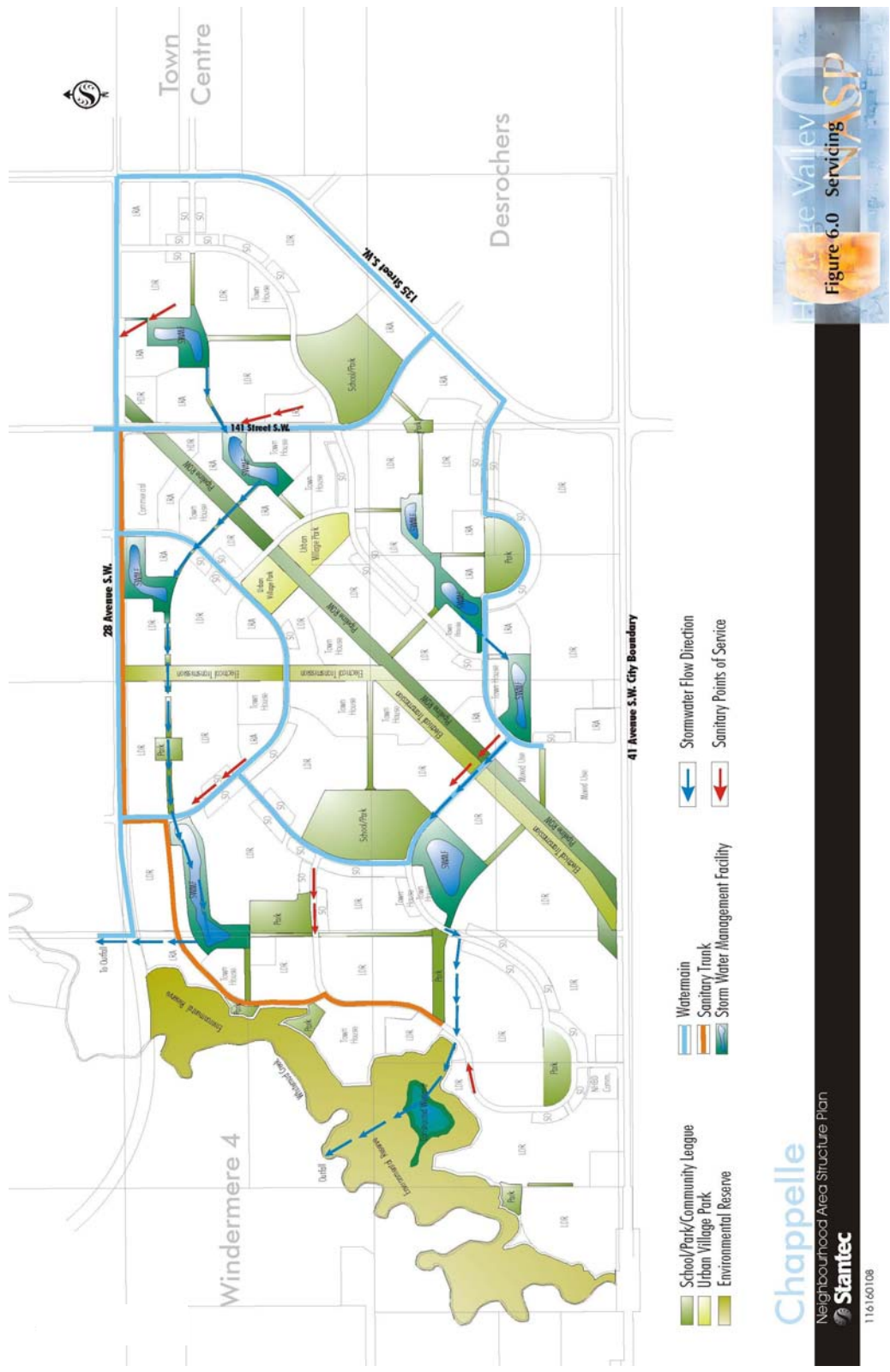
Infrastructure to service the initial stages of the NASP will be extended west-southwest into the plan area from 135/141 Street SW and 28 Avenue SW. As shown on Figure 11.0, the initial stages of commercial and

residential development are intended to begin immediately south of *28 Avenue SW* and west of *135 / 141 Street SW*.

In general, development will proceed from *141 Street SW* and *28 Avenue SW* in a west--southwesterly manner that is contiguous, logical and economical with respect to municipal servicing. Development of individual phases may vary from the actual zoning and subdivision applications depending on contemporary market demands and aspirations of the respective landowners. Should sufficient demand warrant or engineering design be made more efficient, portions of separate phases may be developed concurrently.

Bylaw 15295  
December 16, 2009

Figure 6.0 – Servicing (as amended, Bylaw 15206)





Objective	NASP Policy	Implementation
<p><b>3.3.10.1</b></p> <p>Ensure that Chappelle is serviced to a full urban standard.</p>	<p>Sanitary and stormwater servicing will be provided in accordance with the approved Neighbourhood Design Report (NDR) for the Chappelle NASP.</p> <p>Water servicing to the NASP area will be provided in accordance with the approved Water Network Analysis (WNA).</p> <p>Shallow utilities will be extended into the plan area as required.</p>	<p>Approval of engineering drawings and servicing agreements will be required for installation of sanitary and stormwater servicing.</p> <p>Approval of engineering drawings and servicing agreements will be required for installation of water servicing.</p> <p>Installation of shallow utilities will be executed through servicing agreements.</p>

**RATIONALE**

The Chappelle NASP will be designed in accordance with City of Edmonton servicing standards. Development staging and extension of infrastructure will be contiguous, efficient, and economical while having regard for potential environmental and ecological impacts.

*Technical Summary*

Details regarding stormwater drainage and sanitary service schemes for the Chappelle NASP are provided in the associated Neighbourhood Designs Report (NDR) submitted under separate cover by Stantec Consulting Ltd.

Water looping will be provided in accordance with the requirements of EPCOR Water Services Inc. A Water Network Analysis is being prepared for review and approval from EPCOR.



## 4.0 Appendix 1 – Site Context

### 4.1 LAND OWNERSHIP

The Chappelle NASP was prepared on behalf of two private developers who own approximately 402 hectares (87%) of the land within the Plan area. The remaining lands are held by a number of other owners. Current (2007) land ownership is described in *Table 2* below and shown in *Figure 8.0 – Land Ownership*.

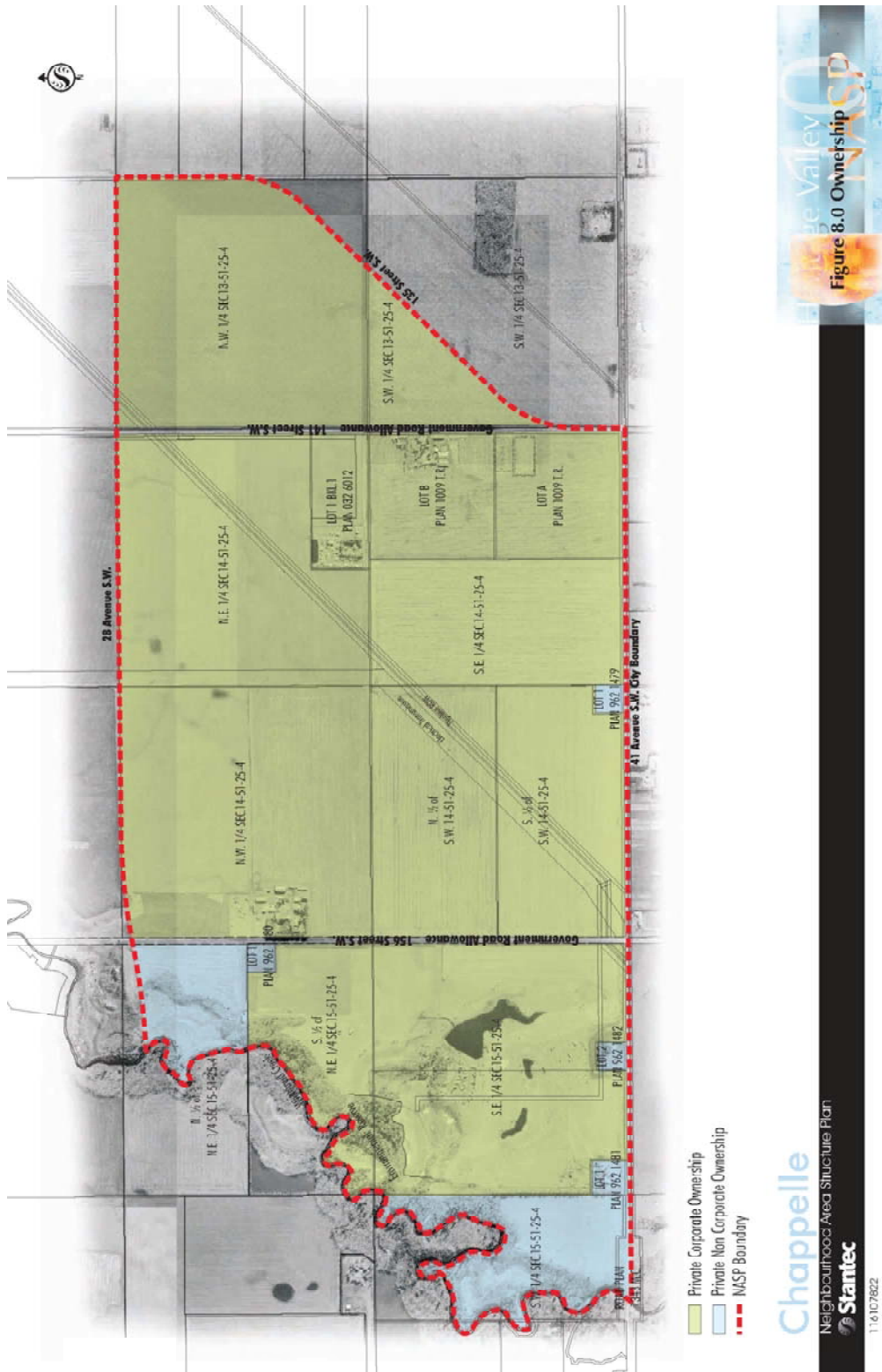
Bylaw 15295  
December 16, 2009

Table 2: Land Ownership\* (as amended, Bylaw 15295)

Property	Owner	Size (ha) in Plan Area
NW 14-51-25-4	Private Corporate	62.90
NE 14-51-25-4	Private Corporate	56.60
SW 14-51-25-4 (North ½)	Private Corporate	32.68
SW 14-51-25-4 (South ½)	Private Corporate	31.95
SE 14-51-25-4	Private Corporate	32.40
Plan 9621479, Lot 1	Private Non-Corporate	0.81
Plan 1009TR, Lot A	Private Corporate	16.40
Plan 1009TR, Lot B	Private Corporate	16.40
Plan 0326012, Block 1, Lot 2	Private Corporate	8.09
NW 13-51-25-4	Private Corporate	60.64
SW 13-51-25-4	Private Corporate	13.16
NE 15-51-25-4 (North ½)	Private Non-Corporate	10.88
NE 15-51-25-4 (South ½)	Private Corporate	20.94
Plan 9621480, Lot 1	Private Non-Corporate	0.81
SE 15-51-25-4 (East ½)	Private Corporate	31.99
SE 15-51-25-4 (West ½)	Private Corporate	31.13
Plan 9621482, Lot 2	Private Non-Corporate	0.81
Plan 9621481, Lot 1	Private Non-Corporate	1.28
SW 15-51-25-4	Private Non-Corporate	19.2
156 Street Government Road Allowance	Government	3.18
141 Street Government Road Allowance	Government	3.05
41 Avenue SW	Government	3.50
<b>TOTAL</b>		<b>458.80</b>

\*amended by Editor

Figure 8.0 – Land Ownership (as amended, Bylaw 15295)



## 4.2 SITE CHARACTERISTICS AND CONTEXT

### 4.2.1 Topography

The topography of the lands within the NASP is generally flat throughout with slight undulations (see *Figure 9.0 – Site Contours*). Elevations throughout the Chappelle NASP generally vary from approximately 695 m in the north-northeast to approximately 705 m in the southeast of the plan boundary. Surface drainage throughout the plan area generally flows westward towards Whitemud Creek and is divided among three pre-development sub-basin boundaries.

Lands within the plan area are predominantly agricultural in addition to existing dwellings and farming type-uses. As shown on *Figure 10.0 – Site Features*, little treed vegetation exists in this agriculturally dominant landscape.

The underlying regional geology in the area of the Chappelle NASP consists of glaciolacustrine deposits (i.e. bedded sands, silts and clays) underlain by glacial till and bedrock. Soil conditions do not present any impediment to urban development.

### 4.2.2 Existing Land Uses

Most lands within the Chappelle NASP are currently used for agricultural purposes. There are four existing farmhouse / residential properties located within the plan area. The Whitemud Creek Golf Course and RV Resort is located in the southwest portion of the neighbourhood. None of these uses pose any particular constraints to future urban development. However, future development of any and all properties within the neighbourhood is the option of the respective landowners.

Water lines associated with the Whitemud Water Co-op are also located within the neighbourhood boundaries. The approximate location of these water lines is shown on *Figure 10.0 – Site Features*.

### 4.2.3 Surrounding Land Uses

The Chappelle NASP is bound by *28 Avenue SW* to the north, *135 Street SW* to the east, *41 Avenue SW* to the south and Whitemud Creek Ravine to the west. North of *28 Avenue SW* are future Neighbourhoods 11 and 12 of the Heritage Valley SCDB which include Rosehill Cemetery and the University of Alberta Farm Lands. *Northeast of Chappelle are the planned (or undergoing planning) communities in Heritage Valley (Callaghan, Allard and Desrochers neighbourhoods) including the Heritage Valley Town Centre and Business Employment Area (Heritage Valley Neighbourhoods 7 A/B)*. Further north is the Jagare Ridge Golf Course, and further northeast, are the developing residential neighbourhoods of Rutherford, MacEwan, Richford and Blackmud Creek. West of the Whitemud Creek ravine is the Windermere Area Structure Plan with ongoing planning and development of residential neighbourhoods. The area south of *41 Avenue SW* (City boundary) in Leduc County is composed primarily of cultivated agricultural land and farm residences.

Bylaw 15295  
December 16, 2009

### 4.2.4 Environmental Resources

The City of Edmonton's Inventory of Environmentally Sensitive and Significant Natural Areas (Geowest, 1993) does not identify any Natural, Sensitive or Environmentally Significant Areas within the Chappelle NASP boundaries.

#### **4.2.5 Environmental Site Assessments and Historic Resources**

As part of the land development process, landowners and their representatives are required to conduct Phase 1 ESAs for their respective lands. Properties for which Phase I Environmental Site Assessments have been completed



Figure 9.0 – Site Contours (as amended, Bylaw 15295)

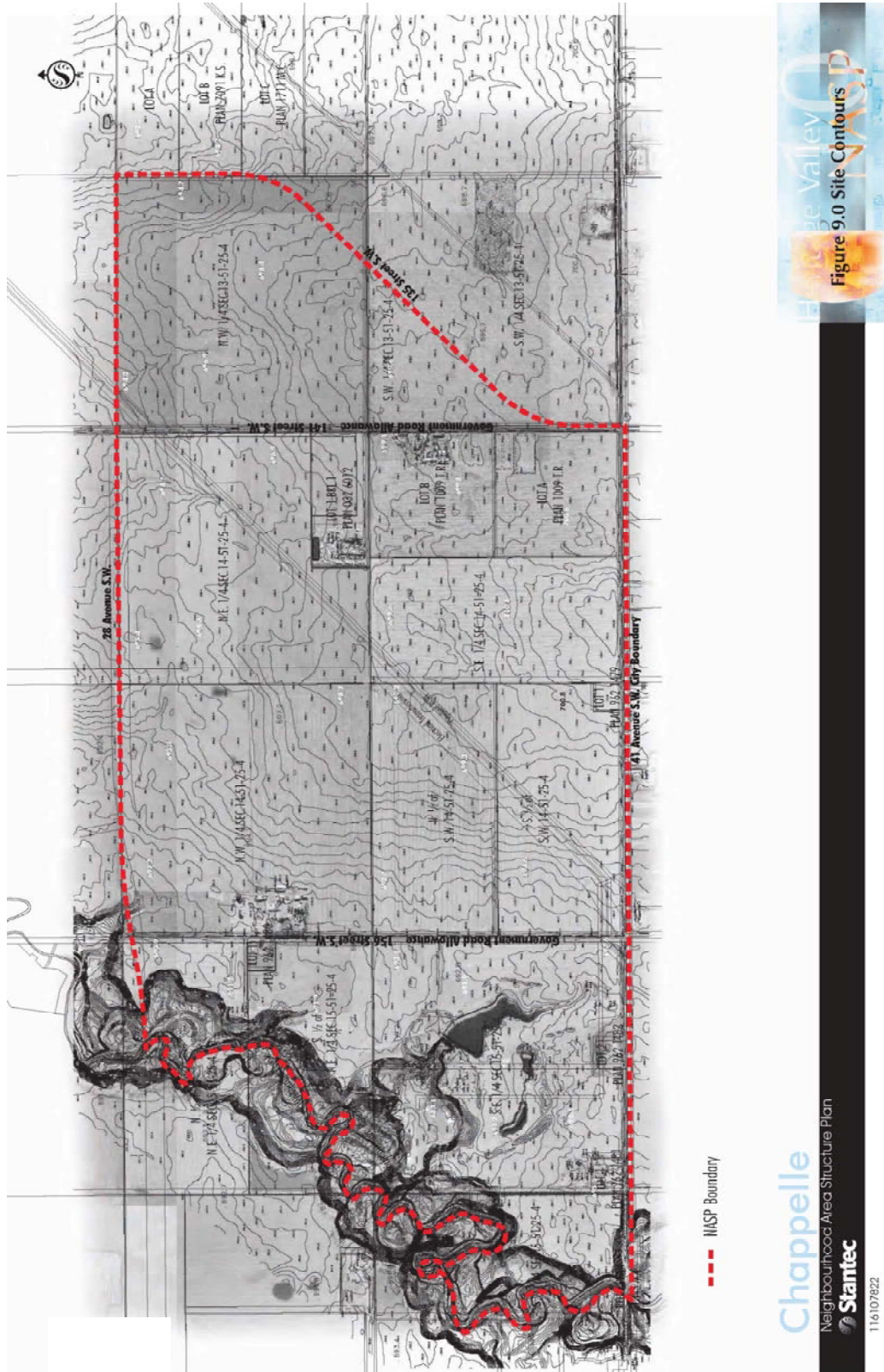
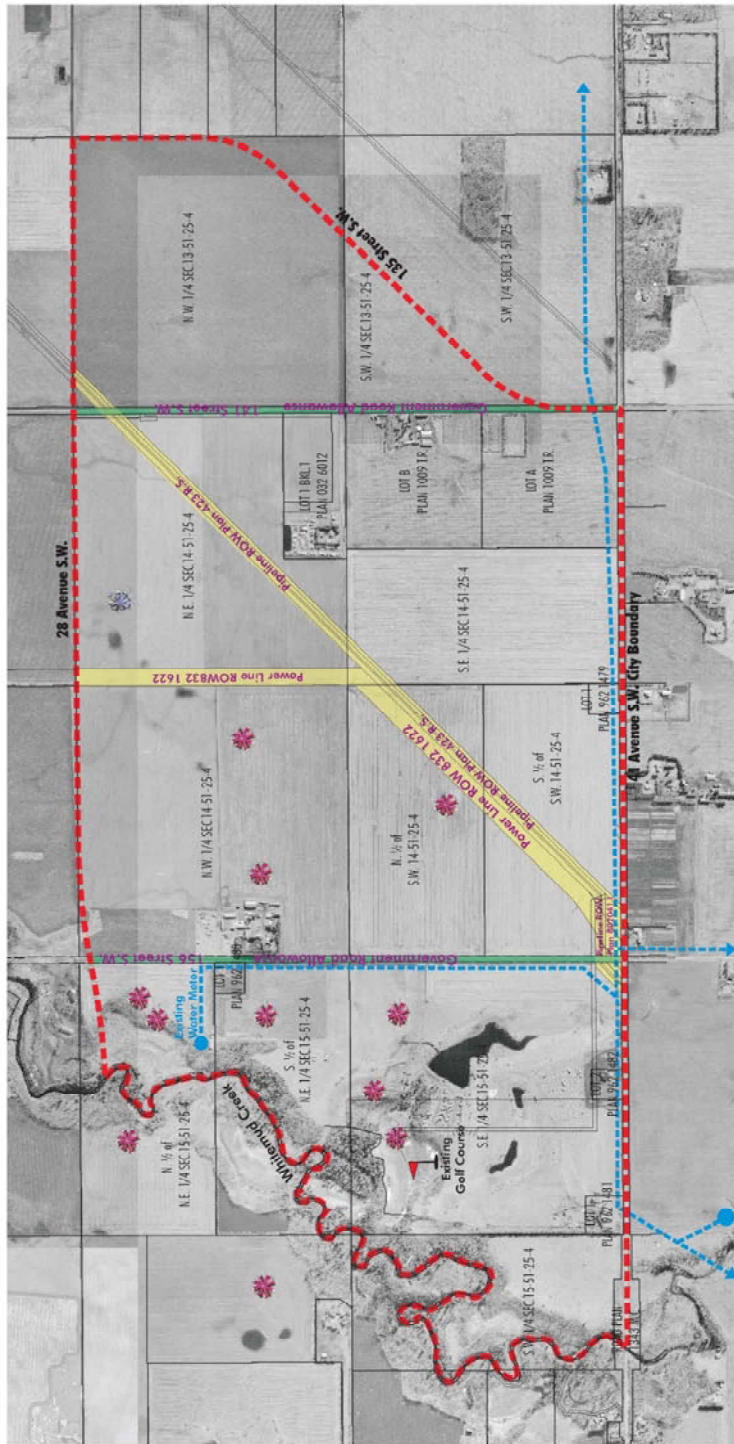




Figure 10.0 – Site Features (as amended, Bylaw 15295)



- - - - Whitemud Water Co-op Line
- Existing Water Meter
- ✿ Abandoned Oil Well
- ✿ Abandoned Water Well
- - - - Existing Golf Course
- - - - NASP Boundary

Chappelle  
 Neighbourhood Area Structure Plan  
 Stantec  
 116107822

Heritage Valley  
 Figure 10.0 Site Features



and submitted under separate cover are shown on **Table 3 – Environmental Site Assessments and Historic Resources**. Table 3 also identifies properties for which Environmental Site Assessments will be required for review by the Planning and Development Department prior to rezoning. **Figure 11.0 – Environmental Site Overview** denotes the legal properties that have prepared and submitted ESA's.

During the preparation of the Heritage Valley SCDB for the Planning and Development Department, known Heritage Resources were reviewed under the Westworth Associates Environmental Ltd. report entitled “A Conservation-Based Approach to Urban Development in the Heritage Valley Area” in June 2000. No known archaeological or historic sites are identified within the NASP plan boundaries.

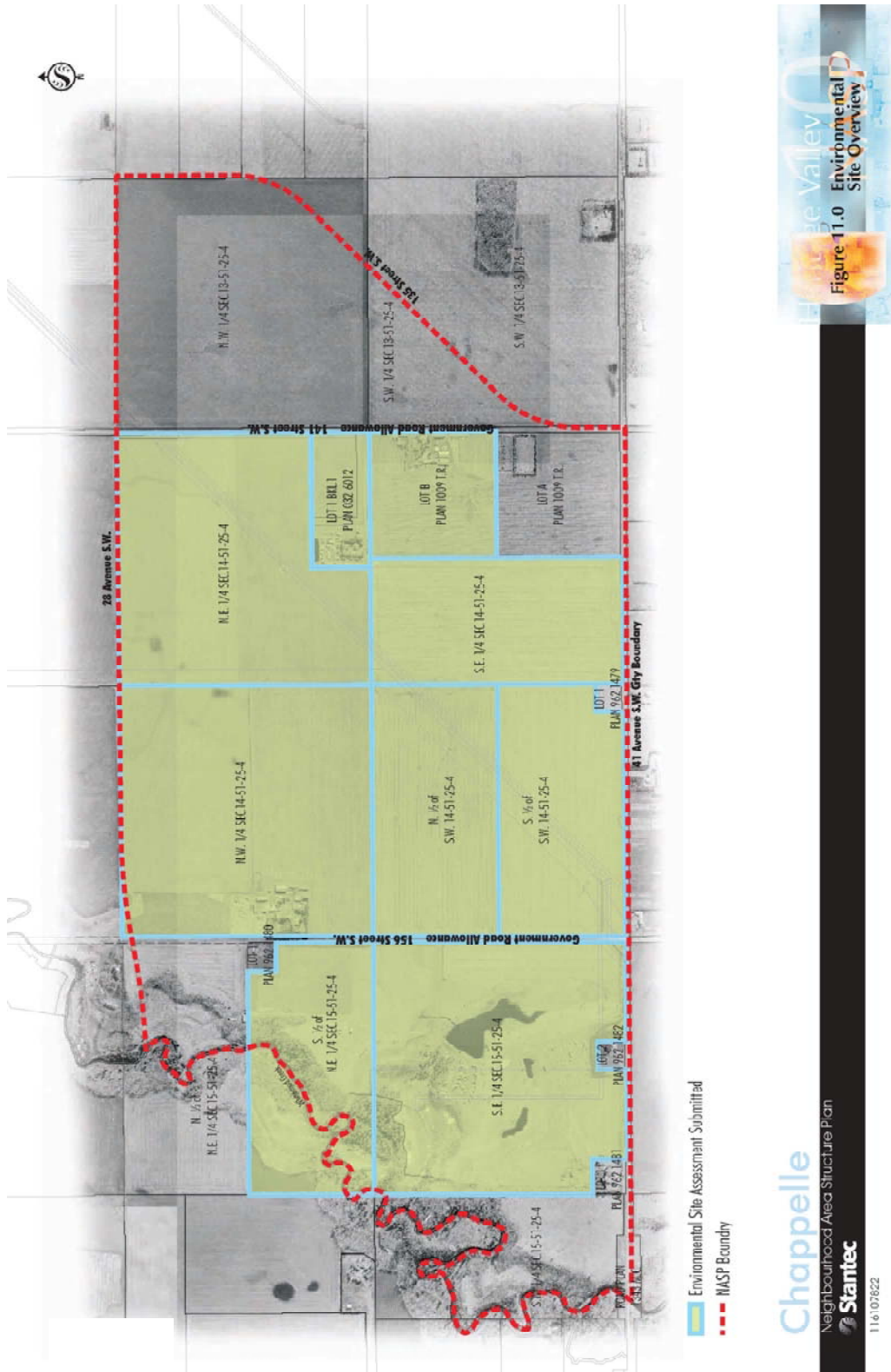
However, as part of the NASP submission, proponents of participating lands have submitted a Historic Resources Overview of the plan area for consideration by Alberta Community Development, as shown on **Table 3 – Environmental Site Assessments and Historic Resources**. Table 3 also outlines properties of non-participating landowners for which a Historic Resources Overview will be required prior to development. Pursuant to Section 31 of the Historical Resources Act, development proponents and their representative(s) are required to report the discovery of any archaeological, historic period or paleontological resources, which may be encountered during construction.

**TABLE 3: Environmental Site Assessments and Historic Resources\* (as amended, Bylaw 15295)**

Property	ESA	HRO/HRIA
NW 14-51-25-4	Phase I ESA submitted	HRO/HRIA submitted ~ HRIA Follow-up required
NE 14-51-25-4	Phase I ESA submitted	HRO/HRIA submitted
SW 14-51-25-4 (North ½)	Phase I ESA submitted	HRO/HRIA submitted
SW 14-51-25-4 (South ½)	Phase I ESA submitted	HRO/HRIA submitted
SE 14-51-25-4	Phase I ESA submitted	HRO/HRIA submitted
Plan 9621479, Lot 1	Phase I ESA submitted	HRO/HRIA submitted
*Plan 1009TR, Lot A	Required	Required
Plan 1009TR, Lot B	Phase I ESA submitted	HRO/HRIA submitted
Plan 0326012, Block 1, Lot 2	Phase I ESA submitted	HRO/HRIA submitted
*NW 13-51-25-4	Required	Required
*SW 13-51-25-4	Required	Required
*NE 15-51-25-4 (North ½)	Required	Required
NE 15-51-25-4 (South ½)	Phase I ESA submitted	HRO/HRIA submitted
*Plan 9621480, Lot 1	Required	Required
SE 15-51-25-4 (East ½)	Phase I ESA submitted	HRO/HRIA submitted
SE 15-51-25-4 (West ½)	Phase I ESA submitted	HRO/HRIA submitted
*Plan 9621482, Lot 2	Required	Required
*Plan 9621481, Lot 1	Required	Required
*SW 15-51-25-4	Required	Required

\*amended by Editor

Figure 11.0 – Environmental Site Overview (as amended, Bylaw 15295)





## 4.2.6 Pipeline and Utility Corridors

### 4.2.6.1 Pipelines and Oil Well Sites

A review of information provided by the Alberta Energy & Utilities Board (AEUB) has identified one pipeline transmission corridor within the NASP boundary. This license includes ten separate pipelines carrying oil, natural gas, low and high vapour pressure liquids. The corridor runs through the northeast corner of the NASP and exits at the southwest tip. Since this pipeline corridor travels northeast-southwest within the boundaries of the NASP area, any future development will have to be accommodated.

A preliminary search indicates 12 abandoned oil wells exist within the Chappelle NASP area. The location of these abandoned wells are shown on *Figure 10.0 – Site Features*.

A Phase I ESA and (potential) Phase II ESA will be required in order to confirm well location, status and potential impact on future development prior to rezoning lands within the Chappelle NASP. Future development surrounding the abandoned oil well sites will adhere to the policies and requirements established by the Alberta Energy and Utilities Board.

### 4.2.6.2 Electrical Transmission Utility Corridor

An electrical transmission corridor passes centrally through the northern boundary of the plan area exiting the neighbourhood southwest alongside the pipeline corridor. This corridor contains 500 kW transmission towers, and since it rests within the boundaries of the NASP, future development will have to be accommodated.

## 4.2.7 Edmonton International Airport

The Chappelle NASP area is located outside the City of Edmonton Airport Vicinity Protection Overlay (AVPO). As a result, AVPO regulations do not apply to lands within the NASP.

## 5.0 Appendix 2: Planning & Policy Context

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The Chappelle NASP is supported by a number of policies and guidelines identified in the Municipal Development Plan, The Heritage Valley Servicing Concept Design Brief, Smart Choices, Suburban Neighbourhood Design Principles, Crime Prevention Through Environmental Design and other relevant policy / statutory documents. This section of the Plan describes the relevant policies from these documents and illustrates the design principles and rationale within the Chappelle NASP that implements these policies.

**Municipal Development Plan (MDP)** - The MDP is a document that provides the policies and strategies to help guide growth and development in Edmonton over a 10-year horizon. The City of Edmonton's MDP designates the land within the Chappelle NASP area as a Suburban Area, which permits the development of residential housing and ancillary uses.

**Heritage Valley Servicing Concept Design Brief (SCDB)** - The SCDB provides the general policies and guidelines to facilitate the orderly development of the plan area in terms of proposed land uses, density of development, transportation facilities, infrastructure, servicing and staging of development.

**Suburban Neighbourhood Design Principles (SNDP)** - The City of Edmonton's Suburban Neighbourhood Design Principles describes a variety of design principles intended to encourage flexibility and innovation in the design and servicing of new neighbourhoods.

**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.

**Crime Prevention Through Environmental Design (CPTED)** – These guidelines are based upon the theory that the proper design and effective use of the built environment can reduce crime, the fear of crime and improve the quality of life.

**Urban Parks Management Plan (UPMP)** – These guidelines provide strategic direction for the acquisition, design, construction, maintenance, preservation and animation (or use) of parks.

The following table summarizes key objectives from the above-noted policy documents applicable to the design of the Chappelle NASP, and illustrates the rationale that has been incorporated in the NASP to achieve these objectives.





OBJECTIVES	RATIONALE
<p><i>Provide development opportunity and choice</i></p> <p><i>MDP Strategy 1.1.1 - Provide for choices regarding the types of developments in which people want to live and do business</i></p> <p><i>MDP Strategy 1.7.2 - Provide for a range of housing types and densities in each residential neighbourhood</i></p> <p><i>SNDP 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</i></p> <p><i>HV SCDB</i></p> <p><i>3.1 (6) - Provide for a broad mix of land uses</i></p> <p><i>3.2 (5) - Provide a diversity of housing types in each neighbourhood</i></p> <p><i>3.2(6) Support housing at increased densities in support of the City's intensification strategies and to encourage the use of transit.</i></p> <p><i>5.5 – Provide the opportunity for a diversity of housing types to accommodate various income levels, market preferences and City intensification policies.</i></p>	<ul style="list-style-type: none"> <li>▪ The Chappelle NASP provides a range of Suburban Area development opportunities outlined under the City of Edmonton MDP including low and medium density residential uses, urban service uses and commercial development.</li> <li>▪ Both low, medium and high density residential uses are provided in the NASP, allowing consumer choice, a range of affordability options and higher neighbourhood densities at key focal points.</li> <li>▪ Opportunities for innovative site design, building siting and compact development that support a more walkable community can be pursued through the rezoning and subdivision process in accordance with contemporary market demands.</li> </ul>



OBJECTIVES	RATIONALE
<p><b>Smart Growth</b></p> <p><i>MDP Strategy 1.7.1 - Accommodate growth in an orderly, serviced and cost-effective manner</i></p> <p><i>MDP 1.3.4 - Promote intensification of development around transportation corridors and employment areas</i></p> <p><i>SNDP 12 - Locate multi-family uses toward the edge of new neighbourhoods and close to the community and neighbourhood focal points</i></p> <p><i>HV SCDB 5.1 – Establish a strong pedestrian-oriented street network that offers a variety of mobility options to, from and within the neighbourhood.</i></p>	<ul style="list-style-type: none"> <li>▪ The Chappelle NASP is located in proximity to existing and future planned neighbourhoods in Heritage Valley, and represents a logical extension of infrastructure, services and neighbourhood development.</li> <li>▪ Development within the Chappelle NASP will utilize staged servicing in support of contiguous, orderly and economical development within southwest Edmonton. As servicing capacity continues to increase in southwest Edmonton (and nearby plan area), additional infrastructure servicing can be extended into this area in a cost effective manner.</li> <li>▪ Careful attention has been given to locating higher residential densities near key transportation and pedestrian corridors within the NASP or at strategic nodes near or adjacent to schools, open spaces and commercial uses and focal points (Whitemud Creek Ravine). This supports a balance of uses, intensification of development at key points within the neighbourhood, access to neighbourhood focal points and takes into consideration neighbourhood traffic patterns. The result is residential development easily accessed by a pedestrian, bicycle, transit and automobile traffic.</li> <li>▪ Commercial uses are located at key transportation and pedestrian corridor intersections and promote intensification in the surrounding area.</li> <li>▪ Medium density residential sites have been integrated with school / park sites, internal pedestrian corridors, commercial facilities and neighbourhood entrances (i.e. focal points).</li> </ul>
<p><b>Urban interface and land use compatibility</b></p> <p><i>MDP Strategy 1.1.2 - Address compatibility of land use in the development and review of land use plans and development proposals</i></p>	<ul style="list-style-type: none"> <li>▪ The Chappelle NASP proposes the development and thoughtful integration of low, medium and high density housing near existing urban services and developing residential communities.</li> <li>▪ Careful attention has been paid to addressing the interface and compatibility of land uses including major arterial roadways, electrical and pipeline transmission right-of-way corridors through the plan area.</li> </ul>



OBJECTIVES	RATIONALE
<p><i>Sustainable Development – Efficient and Effective land use</i></p> <p><i>MDP Strategy 1.1.12 - Place a high priority on the effective and efficient use of land</i></p> <p><i>SNDP 3 - Design the arterial and collector roads along a grid pattern, peripheral to the neighbourhoods</i></p> <p><i>SNDP 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</i></p> <p><i>SNDP 10 - Optimize the use of land and capital requirements for facilities such as churches, schools, community leagues and storm water management</i></p>	<ul style="list-style-type: none"> <li>▪ The Chappelle NASP contemplates an integrated mix of residential, school / park open space and commercial land uses that contribute to an efficient land use pattern while respecting ownership boundaries, natural features and other development constraints.</li> <li>▪ Residential areas have been designed to encourage a walkable pedestrian-oriented environment well served by transit facilities, commercial services, and open space opportunities.</li> <li>▪ The Chappelle NASP supports Plan Edmonton’s broader intensification strategy by integrating existing electrical and pipeline transmission right-of-ways in a manner that supports the sustainable use of land, infrastructure, and services.</li> <li>▪ The boundaries of the Chappelle NASP are defined by 25 Avenue SW, Whitemud Creek Ravine, 127 / 141 Street SW and 41 Avenue SW (City Boundary). Future arterial roads are aligned in a grid pattern peripheral to the plan area.</li> <li>▪ The collector roadway pattern is derived from the design of the surrounding arterial roadway network which, when coupled with transit routes and the walkway system results in a highly connected neighbourhood. This is achieved without dominating the area or providing shortcutting routes from 25 Avenue SW, 127 / 141 Street SW or 41 Avenue SW.</li> <li>▪ Medium and high density residential, open space, multi-use trail connections, commercial and transit nodes have been located along collector and arterial roadways to ensure efficient pedestrian, vehicle and transit movement and access. Focal points within the neighbourhood are connected through a network of sidewalks, linkages, walkways and multi-use trails providing alternative transportation choices and forms of circulation (walking, cycling) within and outside the plan area.</li> <li>▪ The proposed school / park sites are of sufficient size to accommodate a school and additional programming space as per the UPMP. Should the requirements of the site change over time, these parcels are of sufficient size to accommodate other land uses on all or a portion of the land. Both sites are located as key focal points and central to the community, linked to central open space, and connected by a multi-use trail corridor network maximizing accessibility and use potential.</li> <li>▪ Site areas for schools, park space and flex-space (e.g. community league) building envelopes are considered with respect to 10% municipal reserves allocation set out under the Municipal Government Act.</li> <li>▪ Facilities may be conceptualized as joint-use sites at the subdivision and development stage whereby land is optimally assembled for efficient, flexible, and adaptable uses over time reducing capital maintenance and expenditure.</li> </ul>





OBJECTIVES	RATIONALE
<p><b>Environmentally Sustainable Infrastructure</b>  <i>MDP 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</i>  <i>SNDP 1 – Design neighbourhoods with the intent of sharing common infrastructure facilities among neighbourhoods</i>  <i>SNDP 4 – Design neighbourhood streets (both neighbourhood design and cross section of roadway) with standards that cater to the main intended use of the road</i>  <i>MDP Strategy 1.1.14 – Maintain the integrity of pipelines and utility corridors while planning for growth and development</i></p>	<ul style="list-style-type: none"> <li>▪ The Chappelle NASP will be developed in an environmentally responsible manner. Residential densities will be relatively high in strategic locations, maximizing land use efficiency and shared infrastructure through compact development.</li> <li>▪ The Chappelle NASP provides for the efficient, cost effective and coordinated delivery of engineering services. Future water services are to be extended and constructed at developer cost pending detailed engineering. Stormwater is to be detained onsite and discharged at predevelopment rates via series of stormwater management facilities.</li> <li>▪ Stormwater management (SWM) facilities will incorporate design elements to enhance the quality of stormwater runoff thereby reducing potential environmental impacts and water treatment costs. Thoughtful design of SWM facilities will further contribute to available visual and passive recreational amenities for residents.</li> <li>▪ Future costs associated with both interim sanitary service and SESS system will be recovered from new developments on a per hectare assessment basis on all benefiting areas. The developers will pay for the full construction cost of collector and local roadways within the neighbourhood.</li> <li>▪ The Chappelle NASP provides opportunity to share both neighbourhood facilities and infrastructure given its proximity to surrounding neighbourhoods under the Heritage Valley SCDB. Infrastructure to service the NASP is part of a larger system to service lands south of Anthony Henday Drive in southwest Edmonton. Existing roadways such as 127 / 141 Street SW, 25 and 41 Avenue SW will be upgraded and widened as required with the overall pace of development.</li> <li>▪ Roadways within the neighbourhood are intended to be developed as a mixture of arterial, collector and local roadways. Adjacent land uses will assist in the determination of appropriate road right-of-way widths and cross sections.</li> <li>▪ Park and other open spaces have been linked within the multi-use trail corridor network. This will enable greater accessibility and efficient use of open space over time while encouraging alternative transportation options locally. Auto dependency and demand for roadway infrastructure may be lessened through walking, cycling, or transit services as a result of pedestrian-oriented design for a walkable community.</li> <li>▪ The NASP proposes smaller dispersed open spaces that could be created from municipal reserves at the subdivision stage. These areas are to provide local residents a range of open space opportunities and, in conjunction with the multi-use trail corridor network, additional recreational options within the greater catchment area.</li> <li>▪ The Chappelle NASP maintains the integrity of both electrical and pipeline corridor right-of-ways within the plan boundary. These have been deliberately included within the NASP as multi-use trail corridors and integrated within the local street pattern to form the basic infrastructure necessary for a walkable, pedestrian-oriented community. This design will not disrupt the functioning of either corridor.</li> </ul>



OBJECTIVES	RATIONALE
<p><i>Alternative Transportation Options</i></p> <p><i>SNDP 5 - Provide convenient pedestrian and bicycle access throughout the neighbourhood and especially between destination points within and outside the neighbourhood</i></p> <p><i>SNDP 6 - Provide Transit Services to the edges of new neighbourhoods using the arterial and collector roadways in conjunction with appropriately designed, strategically located and conveniently accessed transit waiting zones</i></p> <p><i>SNDP 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</i></p> <p><b>HV SCDB</b></p> <p><i>3.2(4) Establish a linked system of public open spaces</i></p> <p><i>3.5(1) Provide a balanced network for movement</i></p> <p><i>3.5(2) Provide a transportation system that reflects the character of the intended development and meets the unique demand of each neighbourhood, as well as the City's wider transportation objectives.</i></p> <p><i>3.5(3) Improve connectivity</i></p> <p><i>3.5(4) Locate as many activities as possible within easy walking distance to transit stops</i></p> <p><i>3.5(5) Streets, pedestrian paths and bike paths should contribute to a system of fully connected and interesting routes to all destinations</i></p>	<ul style="list-style-type: none"> <li>▪ The NASP provides greenways for pedestrian and bicycle movement throughout the plan area in addition to inter-neighbourhood destinations located within the greater Heritage Valley area (such as the Heritage Valley Town Centre or Business Employment Area). Access is intended to follow the local, collector and arterial roadway network in addition to these walkways and multi-use trail corridors.</li> <li>▪ Future transit service is appropriate along the arterial and collector roadway network. Alignment of collector roadways and the strategic location of walkways are designed so that all areas of the neighbourhood are accessible to transit stops within a 400 m walking distance.</li> <li>▪ The Chappelle NASP provides excellent opportunities for linkages throughout and beyond the plan area to connect residents with amenities, commercial services and business employment areas. An integrated open space system and multi-use trail corridor network provide linkages between SWM facilities, school/ park sites as well as access to visual amenities, passive and active recreation opportunities, and alternative transit modes (e.g. pedestrian, in-line skating, cycling).</li> </ul>





OBJECTIVES	RATIONALE
<p><i>Environmental Protection</i>  <i>HV SCDB</i>                      3.7(1) Support and restore the unique urban ecology of the area                      3.7(2) Protect and enhance the natural features of the community when designing and planning neighbourhoods, facilities and services                      SNDP 13 - Use stormwater management techniques which provide an alternative(s) to the man made lakes and dry ponds typical to Edmonton</p>	<ul style="list-style-type: none"> <li>▪ The plan encourages use of native plant material to complement the ecology and preserve Whitemud Creek.</li> <li>▪ Areas dedicated for Environmental Reserve adjacent to the Whitemud Creek ravine shall be considered as required under Section 664 of the Municipal Government Act.</li> <li>▪ Areas dedicated for neighbourhood parks, Greenways, open spaces, and community league facilities are considered with respect to 10% Municipal Reserves allocation set out under Section 666 of the Municipal Government Act.</li> <li>▪ Alternative SWM techniques may be considered, such as constructed wetlands or greenway watercourses where appropriate, and will be pursued at the subdivision stage to the satisfaction of the Drainage Branch.</li> </ul>



OBJECTIVES	RATIONALE
<p><i>Parkland Use and Design</i></p> <p><i>UPMP 2a - Ensure parks serve all members of the community</i></p> <p><i>UPMP 2b – Ensure parkland accessibility</i></p> <p><i>UPMP 4b – Ensure parks integrate into the daily lives of Edmontonians</i></p> <p><i>SNDP 2 - Design and locate school and community facilities to provide inter-neighbourhood focal points</i></p> <p><i>UPMP 4c – Ensure the provision of active and passive recreation experiences</i></p> <p><i>SNDP 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</i></p> <p><i>UPMP 5a – Ensure parkland is safe for public use</i></p> <p><i>UPMP 7a – Provide land for school facilities</i></p> <p><i>UPMP 8d - Facilitate timely base level park development</i></p> <p><i>SNDP 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</i></p>	<ul style="list-style-type: none"> <li>▪ The school/park sites and parks within the Chappelle NASP are located throughout the plan area to serve as open space for all residents within a 400m or less walking distance. These eight school/park sites and parks are integrated and connected by a comprehensive neighbourhood open space and walkway system that also provides linkages to other neighbourhoods in Heritage Valley. These numerous opportunities for recreation ensure that Edmontonians can integrate park use into their daily lives.</li> <li>▪ A combination of School and Community Parks, Urban Village Park, Pocket Parks and Greenways sized in accordance with the UPMP provides the opportunity for development of these areas for both passive and active recreation. Landscaped amenity areas surrounding stormwater management facilities also provide additional opportunities for passive recreation.</li> <li>▪ Open space (including stormwater management facilities) within the NASP is designed to have good visibility and natural surveillance. Future landscaping and design of these areas must take into consideration Crime Prevention Through Environmental Design (CPTED) principles as specified in the City of Edmonton Design Guide for a Safer City.</li> <li>▪ Two school park sites (two public elementary / junior high) are located within the Chappelle NASP to serve the residents of this area.</li> <li>▪ The Chappelle NASP designates two school / park sites located with collector roadway access. These facilities provide a focal point for a range of educational and recreational opportunities along with convenient access to students, residents, and neighbouring communities.</li> <li>▪ The school / park sites located within the NASP are comprised of multiple land ownership property boundaries, which will require consolidation in order to assemble these lands prior to development. The distribution of park sites throughout the neighbourhood ensures that parkland will be developed on a timely basis, following the Staging Concept.</li> </ul>

## 6.0 Appendix 3 – Technical Studies

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Development of the Chappelle NASP is supported by the following technical studies, endorsing the suitability of this area for urban development and introducing the framework for the future infrastructure and servicing of this neighbourhood.

- Neighbourhood Design Report
- Traffic Impact Analysis
- Hydraulic Network Analysis
- Historical Resources Overview
- Environmental Site Assessments
- Geotechnical Studies