

Shepard Industrial Area Structure Plan



**Office Consolidation
2013 June**



THE CITY OF
CALGARY
LAND USE PLANNING & POLICY

NOTE: This office consolidation includes the following amending Bylaws.

Amendment	Bylaw	Date	Description
1	13P2013	2013 May 06	a) Replace Map 1. b) Add text to Section 3.1

Amended portions of the text are printed in italics and the specific amending Bylaw is noted.

Persons making use of this consolidation are reminded that it has no legislative sanction, and that amendments have been embodied for ease of reference only. The official Bylaw and amendments thereto are available from City Clerk and should be consulted when interpreting and applying this Bylaw.

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SHEPARD INDUSTRIAL

Area Structure Plan

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Part 1

Shepard Industrial Area Structure Plan

1.0 SCOPE OF THE AREA STRUCTURE PLAN

1.1 Preface

The Shepard Industrial Area Structure Plan (the “ASP”) comprises approximately 1,356 hectares (3,350 acres) of land located in the southeast quadrant of The City of Calgary. The area is bounded by Glenmore Trail SE to the north, the Transportation and Utility Corridor (TUC) containing the proposed East Freeway to the west, the Canadian Pacific Railways rail line to the south and Range Road 284 to the east. The ASP area also includes residual lands located north of Glenmore Trail SE, south of Peigan Trail SE, between the TUC and 84 Street SE (Section 3.0, Map 1: Plan Area). The ASP area is intended to provide a broad range of business and industrial uses and will accommodate approximately 21,000 jobs at built-out.

The Shepard Industrial Area Structure Plan supersedes both the Shepard Area Structure Plan (“The Shepard Plan” 2001), a statutory plan adopted by The City of Calgary and the Municipal District of Rocky View, and the Shepard Business Park Area Structure Plan adopted by the Municipal District of Rocky View in 1998. The Shepard Industrial Area Structure Plan provides a “blueprint” for future development and enables the implementation of The City’s broader planning objectives.

1.2 Strategic Policies

The Area Structure Plan process anticipates that over time The City of Calgary will continue to institute and incorporate policy directions that will guide future growth. In preparing this ASP, a wide range of existing Council approved plans and policies were reviewed and incorporated, including, but not limited to the Municipal Development Plan, *Triple Bottom Line Policy*, *Sustainability Principles for Land Use and Mobility*, *Wetland Conservation Plan*, *Bicycle Policy*, and *Transit Friendly Design Guidelines*.

1.3 Growth Rationale

The strategic decision to proceed with land use planning policy for this ASP was based on the following growth management rationale:

- The Shepard area has been identified through the 2007 Annexation process as an industrial growth corridor for The City of Calgary. It is located in close proximity to the important CANAMEX corridor which connects Canada, United States and Mexico through Queen Elizabeth II Highway and the East Freeway. Industrial development in this area represents logical and contiguous growth from the Southeast Industrial area located to the west of the TUC, and will contribute to the economic prosperity for The City of Calgary.
- This ASP will ensure that there is a sufficient supply of pre-planned industrial land to provide for a wide range of business and industrial uses, and to support a healthy, competitive industrial land market.
- This ASP will ensure future industrial development proceeds cohesively and compatibly with both the existing development within The City and development within the Municipal District of Rocky View.

2.0 INTRODUCTION

2.1 Purpose of the Area Structure Plan

Planning is the process of shaping the physical environment to achieve an orderly, economical and compatible pattern of urban growth.

The purpose of an Area Structure Plan is twofold. Firstly, it refines and implements The City's broader planning objectives as contained in its strategic planning documents (*Municipal Development Plan, Calgary Transportation Plan*) by promoting development that is logical, efficient and sustainable. Secondly, it guides and directs land use, subdivision and development decisions, which when taken together determine the form that the planning area will take.

To accomplish this purpose, an Area Structure Plan establishes a broad framework for future development. This framework consists of long term goals, design concepts, policy statements and implementation actions that work together to ensure achievement of the plan. The framework must provide clear direction on a variety of land use planning issues for both the public and private sector. At the same time, accommodate creativity and innovation and be responsive to ever changing demands of the market place.

2.2 Authority of the ASP

The Shepard Industrial Area Structure Plan has been adopted through a bylaw passed by Council in accordance with the *Municipal Government Act*. Section 633 of the *Municipal Government Act*, which authorizes a Council to adopt an area structure plan, states:

- (1) **For the purpose of providing a framework for subsequent subdivision and development of an area of land, a council may, by bylaw adopt an area structure plan.**
- (2) **An area structure plan**
 - (a) **must describe**
 - (i) **the sequence of development proposed for the area,**
 - (ii) **the land uses proposed for the area, either generally or with respect to specific parts of the area,**

- (iii) the density of population proposed for the area either generally or with respect to specific parts of the area, and
 - (iv) the general location of major transportation routes and public utilities,
- and
- (b) may contain any other matters the council considers necessary.

2.3 Timeframe of the ASP

The ASP is future-oriented and addresses how the Shepard Industrial ASP area is to be developed over an extended period of time through a series of public and private sector initiatives. No specific timeframe is applied to the ASP.

2.4 Interpretation of the ASP

2.4.1 Map Interpretation

Unless otherwise specified within the ASP, the boundaries or locations of any symbols or areas shown on a Map are approximate only, not absolute and should be interpreted as such. They are not intended to define exact locations except where they coincide with clearly recognizable physical features or fixed boundaries such as property lines or road and utility rights-of-ways.

2.4.2 Policy Interpretation

Where a purpose statement accompanies a policy, it is provided for information only to enhance the understanding of the policy. Should an inconsistency arise between the purpose statement and a policy, the policy will take precedence.

Where “shall” is used in a policy, the policy is considered mandatory. However, where actual quantities or numerical standards are contained within a mandatory policy, these quantities or standards do not need to be adhered to where circumstances arise that would otherwise render compliance impractical, impossible or legally impermissible, and the intent of the policy is still achieved.

Where “should” is used in a policy, the policy is intended to be complied with. However, the policy may be varied in a specific situation where the variance is

necessary to address unique circumstances that will otherwise render compliance impractical or impossible or to allow for an acceptable alternate means to achieve the general intent of the policy to be introduced.

Where a policy requires compliance at the Outline Plan/Land Use Amendment stage, that requirement may be deferred to the subdivision approval or Development Permit approval stage without requiring an amendment to the ASP.

2.4.3 Guidelines and Appendices Interpretation

The guidelines and other information contained within Appendices in this ASP are not considered mandatory, and are intended to be applied in a flexible manner at the Outline Plan/Land Use Amendment, subdivision and Development Permit stage.

Where the guidelines and appendices identify information or analysis to be submitted as part of an Outline Plan/Land Use Amendment, subdivision or Development Permit application, such requirements may be varied or expanded upon as determined necessary given the specific circumstances that exist.

Where the guidelines and appendices identify standards to be addressed within an Outline Plan/Land Use Amendment, subdivision or Development Permit application, the guidelines and appendices may be varied without an amendment to the ASP where the variance is considered necessary in order to respond to unique circumstance that would render compliance impractical or impossible or to allow for an acceptable alternate means to achieve the general intent of the guideline to be introduced.

Should an inconsistency arise between a guideline and Land Use Bylaw regulations, the Land Use Bylaw will take precedence.

2.5 Amendment of the ASP

Unless otherwise specified within the ASP, to make any change to the text or maps within the ASP, an amendment to the ASP that includes a Public Hearing of Council shall be required in accordance with the *Municipal Government Act*.

Where an amendment to the ASP is requested, the applicant shall submit the supporting information necessary to evaluate the amendment.

Appendices are not subject to the ASP amendment process.

2.6 Consistency of the ASP

Consistency between the ASP and other Council approved policy documents, should be achieved in practice. To the extent that there is any conflict between the ASP and The Shepard Plan or the Shepard Business Park Plan, the ASP will prevail.

2.7 Monitoring of the ASP

The policies within the ASP shall be monitored over time in relation to development to ensure they remain current and relevant. Where determined necessary, the policies shall be updated through the ASP amendment process either generally or in response to a specific issue.

2.8 Environmental Constraints

Area Structure Plans are long-term planning documents by nature. As such, they promote a vision for a community and put in place policies and guidelines that work toward achieving that vision over time. Policies and guidelines in an Area Structure Plan are not to be interpreted as an approval for a use on a specific site, as the policies do not address the specific situation or condition of each site within the ASP area. In that regard, no representation is made herein that any particular site is suitable for a particular purpose as site conditions or constraints, including environmental contamination, must be assessed on a case by case basis as part of an application for land use, subdivision or Development Permit approval.

3.0 PLANNING AREA

3.1 Plan Area Map

The Shepard Industrial Area Structure Plan (the “ASP”) applies to the area shown on Map 1: Plan Area. The ASP area comprises approximately 1,356 hectares (3,350 acres) of land and is located in the southeast quadrant of the City of Calgary. The ASP area is bounded by Glenmore Trail SE to the north, Transportation and Utility Corridor (TUC) containing the proposed East Freeway to the west, the Canadian Pacific Railways rail line to the south and Range Road 284 to the east. The ASP area also includes the residual lands located north of Glenmore Trail SE, south of Peigan Trail SE, between the TUC and 84 Street SE.

The boundary of the ASP area as shown on Map 1: Plan Area is considered to be fixed and precise where it coincides with permanent boundaries such as the TUC and the Canadian Pacific Railways rail line. Conversely, the boundary will be subject to interpretation where it coincides with future road alignments or other features that may be adjusted through subsequent studies.

To the extent that the policies of the ASP apply outside the boundaries of the ASP as shown on Map 1 entitled Plan Area, such policies are inoperable.

Bylaw 13P2013

3.2 Context of the ASP

The ASP area is located adjacent to the Municipal District of Rocky View to the east, and within The City of Calgary/the Municipal District of Rocky View *Intermunicipal Development Plan (IDP)* boundaries. At the time of approval of this ASP, the IDP is under review by The City of Calgary and the Municipal District of Rocky View. Adjacent to the ASP area to the north is Rocky View’s approved Shepard Area Structure Plan (2001), providing a policy framework for limited serviced industrial development.

The ASP area has been identified as Cell A within the East Regional Context Study (ERCS). The ERCS provides a planning context for the Shepard Industrial ASP as well as the growth rationale for future planning areas. The ERCS also contains background information relevant to this ASP and should be consulted as required.

4.0 VISION, PRINCIPLES AND GOALS

4.1 Vision of the Future

The ASP area will be developed as a vital and successful business and industrial area that generates employment opportunities, accommodates a wide range of industrial development, and provides goods and services not only for the City of Calgary, but also for Southern Alberta.

The area is strategically located in relation to transportation corridors. It is located in close proximity to the important CANAMEX corridor which connects Canada, United States and Mexico through Queen Elizabeth II Highway and the East Freeway. The East Freeway borders the area to the west, while Glenmore Trail SE, Range Road 284 and 114 Avenue SE provide the main access to the Shepard Industrial area. 106 Avenue SE, 84 Street SE, and 100 Street SE, all serve as major transportation routes into the area. Efficient transit bus routes connect the area with adjacent communities in the city of Calgary and the Municipal District of Rocky View.

A wide range of business and industrial development will strategically locate in the area:

- The majority of the area will be comprised of fully-serviced industrial uses. Offices and other employment-related uses will be strategically located along major streets to support public transit. Some local commercial uses, including restaurants, convenience food stores, gas bars and financial institutions, will be concentrated at intersections or along major streets to provide services for local employees and create activity nodes.*
- The area abutting Glenmore Trail will comprise business and commercial uses, including office, hotels and motels, restaurants, gas bars and retail space. This area will have a strong emphasis on high quality development along this entranceway road to The City.*
- All industrial and business developments will be compatible with and respect the existing land uses, such as the existing residential development, by providing appropriate land use and interface treatment measures.*

- *Green infrastructure, green building technologies, innovative land development and ecological design synergies are encouraged in the ASP area to achieve environmental sustainability.*
- *Pedestrian and bicycle connections in the form of sidewalks, walkways and pathways will be located throughout the area, linking major destinations and providing opportunities for employees and local residents to walk and cycle for commuting or recreational purposes. This pedestrian and bicycle system is, in turn, linked to a larger multi-use pedestrian and bicycle greenway that will provide a north/south link through all of the east annexation lands.*
- *Major wetlands will be conserved, where feasible and sustainable, to provide passive recreational opportunities for employees and the public, act as a landmark for the ASP area and an attraction to employees, and support wildlife by providing a viable and sustainable natural habitat.*
- *Innovative storm water management facilities will protect the Bow River Watershed, including source control methods, bio-swales, re-use of rain water for irrigation and other Low Impact Development measures. The existing wetlands will be protected and integrated into the storm water management system where feasible and sustainable.*

In total, industrial development in the ASP area will convey a positive image of sustainability and economic diversity.

4.2 Triple Bottom Line & Sustainability Principles

The City of Calgary *Triple Bottom Line Policy* and *Sustainability Principles for Land Use and Mobility* (Appendix H) approved by City Council, are reflected in the vision for the ASP area and refined through the goal statements below.

4.3 Triple Bottom Line Goals for the Area

SOCIAL GOALS

The ASP will help to promote a high quality of life and active living by achievement, overtime, of the following goals:

■ The Working Environment

To provide a desirable working environment through the provision of amenities, recreational facilities, open space, transit service, pathway system and services for employees.

■ Commercial Node

To encourage local commercial and service activities to concentrate in walkable nodes within the ASP area, to achieve a social gathering function and help to create a sense of place.

■ Wetlands

To preserve important wetlands as a landmark for the ASP area and an attraction to employees to strengthen the identity of this industrial area and help to create a sense of place.

■ Pedestrian and Bicycle Circulation

To provide for walking and cycling opportunities for commuting and recreational purposes through the ASP area.

■ Entranceway Design

To provide for a visually-attractive entranceway to the city through effective urban design measures introduced along the major access roads.

ENVIRONMENTAL GOALS

The ASP will protect the environment by achievement, overtime, of the following goals:

- **Green Design**

To accommodate and promote innovative methods of environmentally sustainable site layout, servicing, building design, and green technology.

- **Resource and Energy Conservation**

To encourage District Energy and other resource and energy conservation measures to achieve environmental sustainability.

- **Environmental Protection**

To provide for the conservation and enhancement of natural areas and significant habitats.

To protect environmentally significant wetlands.

- **Pedestrian and Bicycle Circulation**

To provide for walking and cycling opportunities for commuting to reduce private automobile usage.

- **Public Transit**

To provide for efficient public transit that serves as a viable alternative to private vehicles.

ECONOMIC GOALS

The ASP will help to encourage a wide range of industrial and business development to be located in a high quality environment to contribute to Calgary's long-term prosperity by achieving the following goals:

- **Business Development**

To provide for successful business and industrial development to support economic diversity and prosperity.

- **Highway Services**

To provide for service-related activities that complement and support surrounding communities and the travelling public.

- **Road Network**

To provide for a safe, effective and convenient internal and regional road network to serve the area.

- **Utility Services**

To provide for water, sanitary sewer and stormwater services and other infrastructure to meet the servicing needs of the area.

5.0 ENVIRONMENTAL SUSTAINABILITY

5.1 Purpose

The purpose of these policies is to promote environmental sustainability through water conservation, resource and energy conservation in the ASP area. The following environmentally sustainable measures are encouraged at appropriate Outline Plan/Land Use Amendment or Development Permit application stage, wherever possible and feasible.

5.2 Policies

(1) Water Conservation

- (a) Water conservation solutions, such as stormwater retention, recharge and use of wastewater effluent, are strongly encouraged to be incorporated into developments.
- (b) The City of Calgary is developing Water Conservation Policy which includes opportunities for use of wastewater effluent to offset potable water use. Developers are encouraged to work with The City for opportunities to use wastewater effluent in their facilities.
- (c) Developers and builders are encouraged to install water-saving fixtures in industrial and commercial developments to conserve water.
- (d) The use of rain garden, bio-swale, and pervious pavement on parking areas in site design are encouraged to maximize infiltration of stormwater, and minimize run-off into wetlands and the Bow River Watershed.
- (e) The inclusion of passive rainwater collection system in site and architectural design for non-potable water (grey-water) are encouraged.

(2) Resource and Energy Conservation

- (a) Builders and business owners are encouraged to design, locate, and construct buildings with the objective of reducing resource and energy consumption.

- (b) Resource and energy saving design and building techniques and standards, such as LEED (Leadership in Energy and Environmental Design) Certificate, optimizing solar exposure, utilizing natural light and ventilation, xeriscaping, reusing recycled materials, and ecological landscaping that supplements heating and cooling systems should be considered in site design, building design, and construction.
- (c) The City is committed to providing street lighting that is functional, energy efficient, aesthetic, cost effective and has minimized negative environmental impacts. In consultation with Calgary Roads, the developers are encouraged to use light fixtures that are energy efficient, minimize light pollution and address safety and security.

6.0 LAND USE CONSTRAINTS

6.1 Constraints Map

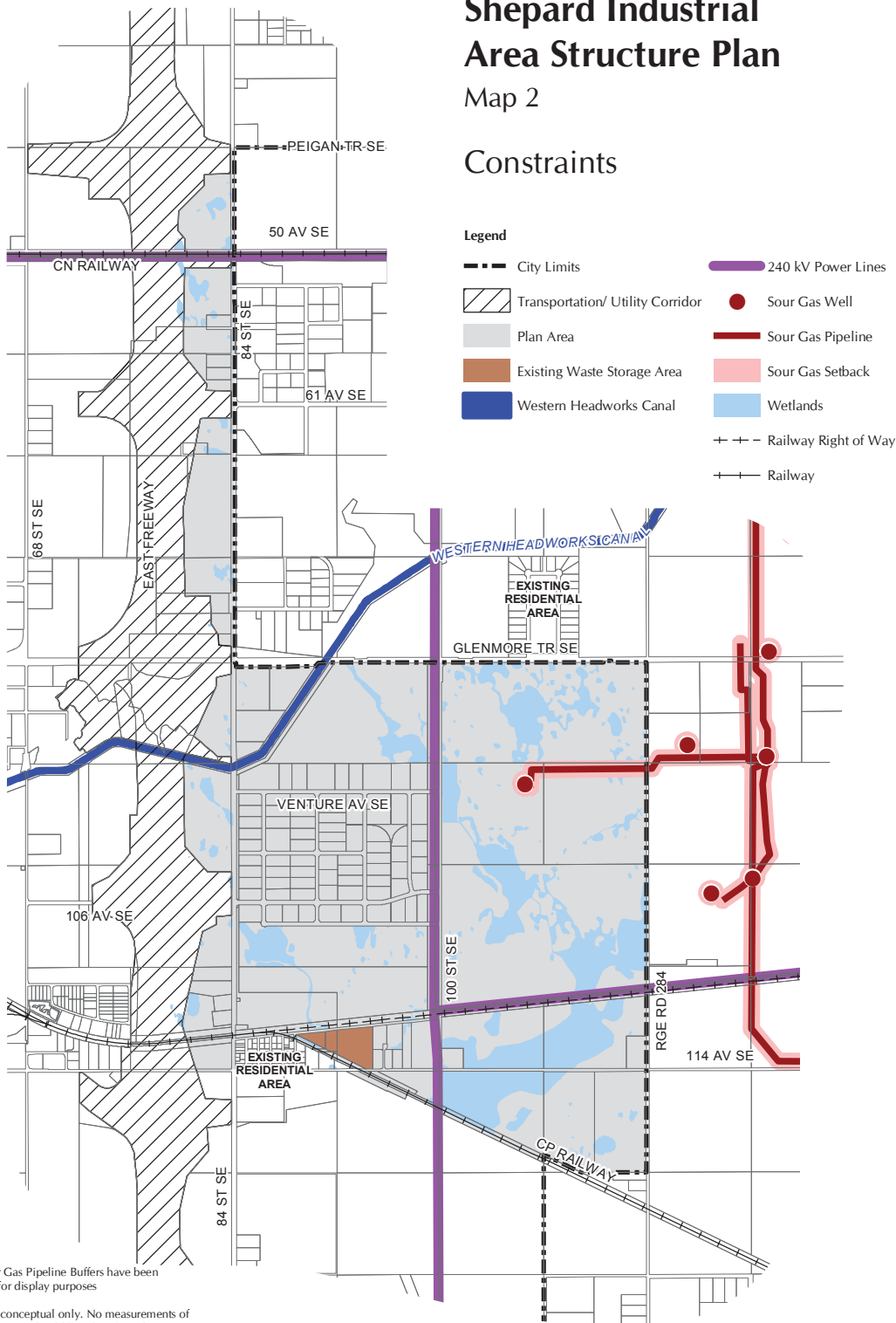
Land use constraints in the ASP area have been identified on Map 2: Constraints, including sour gas facilities and setbacks, 240 kV Power Lines, Canada Pacific (CP) Railway, the abandoned CP Railway line, the Western Headworks Canal, wetlands, and a waste storage site located in the existing industrial area north of the CP Railway. Some of the constraints are also considered as opportunities for various purposes, such as wetlands providing recreational opportunities, and the CP Railway line providing opportunities for rail-related developments. Constraints Policies are contained in the following sections. Railway and Wetlands are addressed under Section 8.7: Railway, Section 12: Wetland Complexes, and Section 13: Wetland Policies.



Shepard Industrial Area Structure Plan

Map 2

Constraints

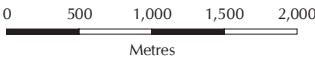


NOTE: Sour Gas Pipeline Buffers have been exaggerated for display purposes

This map is conceptual only. No measurements of distances or areas should be taken from this map.



X:\281_Shepard_Industrial_ASP\Business_Tech_Serv\GIS\Maps_Document\constraints.mxd



Approved: 11P2009
Amended:

6.2 Sour Gas

6.2.1 Purpose

The purpose of these policies is to address public health and safety setbacks imposed by the Provincial Energy Resources Conservation Board (ERCB) pertaining to the extraction and processing of sour gas within the ASP area. A level one sour gas well has been identified in the ASP area. Map 2: Constraints, identifies the portions of the ASP area affected by these setbacks. The ERCB requires appropriate urban development setbacks from sour gas wells and pipelines. These setbacks will be required to be identified and complied with at the Outline Plan/Land Use Amendment application stage.

6.2.2 Policies

(1) Public Health and Safety Setback

An Outline Plan/Land Use Amendment application shall comply with all requirements of the ERCB for urban development setbacks within the ASP area from sour gas wells and pipelines.

(2) Identification of Public Health and Safety Setback

In conjunction with an Outline Plan/Land Use Amendment application, plans and information should be submitted that

- (i) delineates the applicable sour gas well setbacks, and
- (ii) identifies the proposed longer term land use pattern within that setback area.

(3) Additional Nuisance Setbacks

Sensitive land uses, such as child care services, food establishments, custodial quarters, private schools, and emergency services, shall not be located within a minimum total setback distance of 300 meters from an operating sour gas wells, or such distance as established through City policy.

6.3 Western Headworks Canal

6.3.1 Purpose

The purpose of these policies is to protect the water quality of the Western Headworks Canal and to minimize the impact from adjacent development.

6.3.2 Policies

(1) Setback

- (i) Setbacks from the Western Headworks Canal and landscaping requirements shall comply with regulations of the City of Calgary Land Use Bylaw 1P2007.
- (ii) Wherever possible and practical, development adjacent to the Western Headworks Canal should provide pedestrian connections to the regional pathways along the Canal.

(2) Identification of Setback

In conjunction with an Outline Plan/Land Use Amendment application, plans and information should be submitted that:

- (i) delineate the applicable Western Headworks Canal setbacks, and
- (ii) provide a site plan or landscape plan to illustrate the proposed landscape design within that setback area.

(3) Stormwater

Until Regional Drainage System is available, development adjacent to the Western Headworks Canal shall include provisions to ensure that stormwater that would normally run-off to the Canal is contained on site. Stormwater run-off from future developments to the Canal is not allowed by Alberta Environment.

6.4 High Voltage Transmission Lines

6.4.1 Purpose

The purpose of these policies is to ensure that High Voltage Transmission Line infrastructure are considered as part of the Outline Plan/Land Use Amendment, or Development Permit application, or at other detailed planning stages. The ASP area is currently transected by north/south 240kV transmission lines within approximately 90 metre wide rights-of-way, and east/west 240kV transmission lines within approximately 10 metre wide rights-of-way. These transmission lines are operated by Altalink, and are illustrated on Map 2: Constraints.

The Alberta Electric System Operator (AESO) has indicated the need for additional 240kV transmission lines to meet growing demand, and is exploring opportunities to accommodate future north/south transmission line expansion within the existing rights-of-way. Additional east/west 240 kV spur transmission lines may also be required. The number of lines required will be dependant upon the amount of power generation occurring within and near the Calgary region. No exact locations or expansion scenarios have been determined at this time. All options for locating future transmission infrastructure are encouraged inside the TUC.

The responsibility for final land acquisition to implement the additional transmission lines lies with the operator. The high voltage transmission provider is required to obtain permission from the Province for any development and is required to consult the public prior to finalizing their submission. Where land abuts existing or proposed rights-of-way, land owners are encouraged to discuss their proposals with the transmission provider.

6.4.2 Policies

- (a) Where lands abut the proposed expansion of the 240kV transmission line network, the location of the required easements shall be addressed at the Outline Plan/Land Use Amendment application stage in consultation with the transmission provider.
- (b) Prior to Outline Plan/Land Use approval, a developer submitting an application adjoining the high voltage transmission rights-of-way shall take into account any safety requirements for their proposal.
- (c) Transmission lines on Map 2: Constraints are shown conceptually, adjustments to these will not require amendments to this ASP.

6.5 Existing Waste Storage Area

An existing waste storage area has been identified on Map 2: Constraints within the existing industrial area in SE 18-23-28-W4M, to the north of the CP Railway. Development within or adjacent to this area should submit a current Phase I Environmental Site Assessment at the Outline Plan/Land Use Amendment application stage to the satisfaction of the Approving Authority.

6.6 Historical Resources Overview

A Historical Resources Overview has been undertaken for the ASP area, and has been reviewed by Alberta Culture and Community Spirit, Historic Resource Management. No further historical resources investigation is required at the Outline Plan/Land Use Amendment application stage for the ASP area. If any historical resource issues are encountered during development activities in the area, the issue should be referred to the designated provincial or municipal historical resources professional for resolution.

7.0 LAND USE CONCEPT

7.1 Land Use Concept Map

The land use concept for the Shepard Industrial ASP is shown on Map 3: Land Use Concept. This concept consists of a series of areas and symbols that define a future land use pattern for the ASP area.

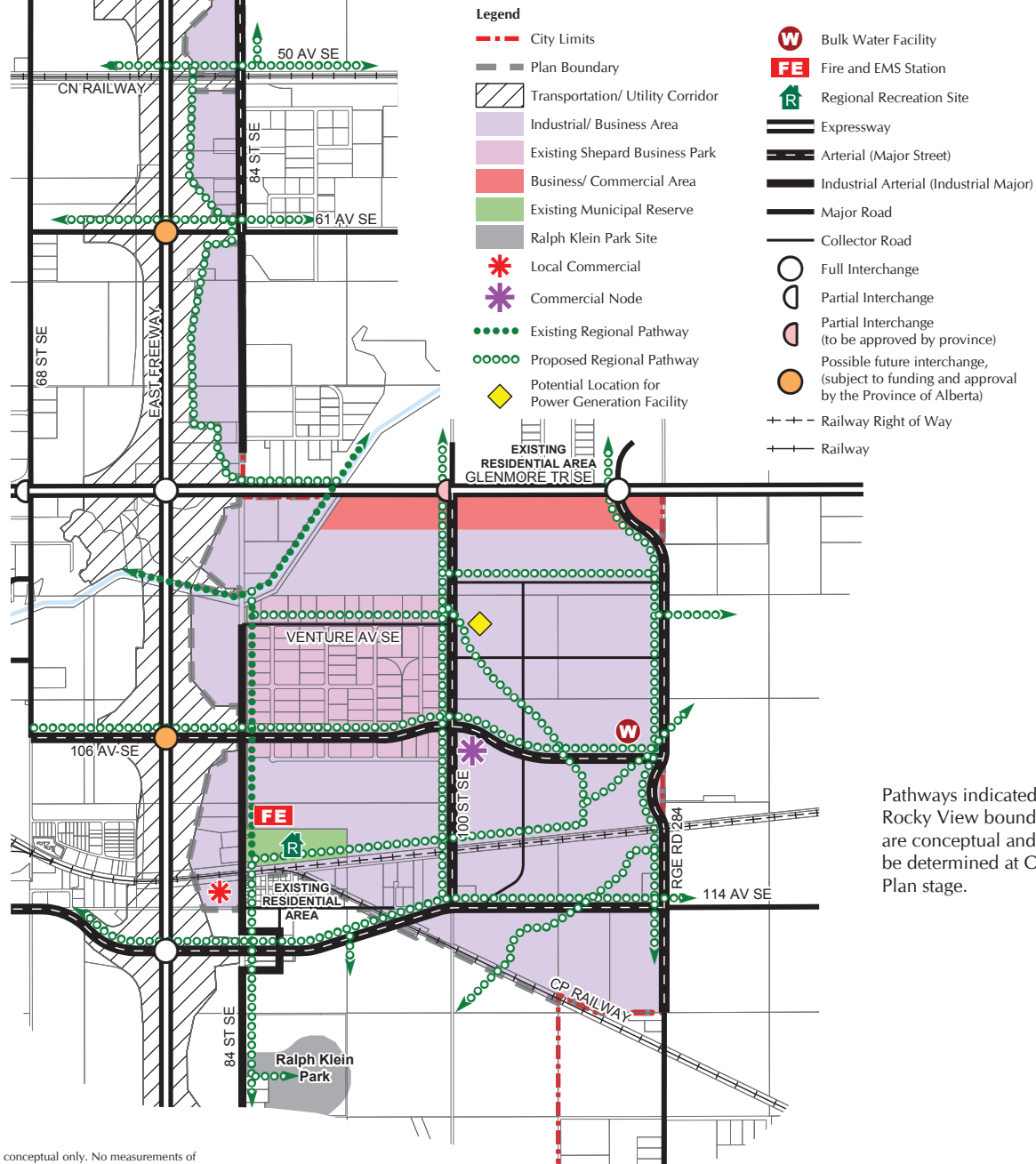
Section 8.0: Land Use Areas contains policies that apply to specific land use areas and symbols. The policies identify general categories of land uses allowed within the areas and apply development criteria to these uses.



Shepard Industrial Area Structure Plan

Map 3

Land Use Concept

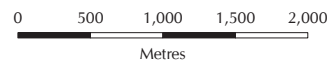


Pathways indicated within Rocky View boundaries are conceptual and will be determined at Outline Plan stage.

This map is conceptual only. No measurements of distances or areas should be taken from this map.



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Amended:

8.0 LAND USE AREAS

The purpose of this Section is to provide policies for specific land use areas and symbols. An Outline Plan/Land Use Amendment application submitted for a site should comply with the policies of the land use area or symbol in which the site is located. Appendix D: Recommended Land Use Districts provides recommended land use districts of Land Use Bylaw 1P2007 for each land use area or symbol for reference.

An Outline Plan/Land Use Amendment application should be evaluated in accordance with Section 17.0: Growth Management Policies, and should refer to Appendix E: Evaluation Guidelines for Outline Plan/Land Use Amendment Applications. Site and building design at Development Permit stage or under specific circumstances at Land Use Amendment stage should refer to Appendix B: Site and Building Design Guidelines.

8.1 Industrial/Business Area

8.1.1 Purpose

The purpose of this area is to provide a wide variety of general industrial and business uses within the context of a fully-serviced industrial/business park. A range of industrial, service commercial, local commercial, office, institutional, recreational, public and other compatible land uses may be considered appropriate.

8.1.2 Policies

(1) Composition of Industrial/Business Area

- (a) Subject to the policies of this Plan,
 - (i) a range of industrial and business uses are considered appropriate and compatible in the Industrial/Business Area. This range of uses includes general industrial and business uses, office, local commercial, service commercial, recreational, public and institutional uses, in accordance with Policy 8.1.2 (2), and
 - (ii) uses that are considered similar and/or accessory to those listed above may also be considered where determined to be compatible and appropriate by the Approving Authority.

- (b) The general categories of uses identified under Policy 8.1.2 (1) (a) above and their locations shall be refined through the land use districts applied within the Industrial/Business Area.
- (c) Developments adjacent to entranceway roads, the existing Municipal Reserve site, regional pathways and residential areas, shall comply with Section 9.0: Interface Policies and should refer to the more specific design guidelines contained within Appendix A: Interface Design Guidelines.

(2) Development within Industrial/Business Area

- (a) General industrial and business uses within the Industrial/Business Area
 - (i) shall be the predominant use of land, and
 - (ii) Employment-related uses (defined under Section 19.2: Land Use Definitions) should be located adjacent to major transit routes, arterials and/or open space amenities.
- (b) Office uses
 - (i) Stand alone office uses may be considered appropriate.
 - (ii) Stand alone office uses should be generally located as part of a comprehensive Outline Plan/Land Use Amendment application process. Where individual proposals are considered, the following location criteria shall be considered but may not be limited to:
 - (A) stand alone office uses should not be located in areas that are more appropriate for general industrial uses e.g. areas internal to the Industrial/Business area,
 - (B) stand alone office uses should be located adjacent to entranceway roads, arterials, transit routes, and/or open space amenities, and
 - (C) stand alone office uses should be located in close proximity to services and amenities (restaurants, entertainment, parks, recreational facilities, etc.).
- (c) Local commercial uses within the Industrial/Business Area should:
 - (i) generally be located at the interSection of two roads, and/or along transit routes in order to create a node of activity, and

- (ii) regional or large-scale retail commercial uses shall not be located within the Industrial/Business Area.
- (d) Service commercial uses within the Industrial/Business Area:
 - (i) should be located on a site with efficient access and visibility lying adjacent or in close proximity to an entranceway road, and
 - (ii) should not be located at locations that are more appropriate for general industrial uses such as areas internal to the ASP area.
- (e) Limited serviced industrial use
 - (i) may be considered appropriate as an interim use:
 - (A) where the use does not compromise the eventual transition of the site, and surrounding areas, to a fully serviced industrial area in the future in terms of the:
 - provision of municipal water and sewer utilities,
 - provision of roadways, and
 - ultimate development of the site and adjacent area.
 - (B) where it is compatible with the overall standard of development for general industrial areas with regard to landscaping, building design, and screening of storage.
 - (C) where it is demonstrated the road network capacity, on-site water, sanitary, and stormwater facilities are available to support the proposed development.
 - (D) on a small-scale basis as determined by the Approving Authority.
 - (ii) in conjunction with an Outline Plan/Land Use Amendment application, a Deferred Services Agreement or any other servicing agreement shall be entered into as required by the Approving Authority.
 - (iii) the subdivision of land to create unserviced or limited-serviced parcels is not permitted within the ASP area.

- (iv) notwithstanding Policy 8.1.2 (2) (e) (iii) above, the subdivision of land to create unserviced or limited serviced parcels may be considered appropriate in circumstances where the subdivision will
 - (A) be agricultural-related or necessary to resolve a unique ownership issue, and
 - (B) not compromise the eventual transition of the site to a fully-serviced subdivision.
 - (f) Uses where determined to be compatible and appropriate by the Approving Authority in relation to residential development should be located north of the existing Municipal Reserve area, and adjacent to the existing residential area. Appropriate uses include, but may not be limited to, general industrial and business uses that have minimum impact on adjacent residential development with appropriate screening, office, institutional, recreational and public uses.
 - (g) Facilities
 - (i) The following City of Calgary facilities are considered appropriate in the Industrial/Business Area:
 - (A) a Fire/EMS Station,
 - (B) Sports Fields associated with a Community Association site should be located on the existing Municipal Reserve site,
 - (C) a bulk water station, and
 - (D) other City of Calgary facilities as deemed appropriate by the Approving Authority.
 - (ii) Details of the location and size of the above facilities should refer to Appendix F: Facility Criteria. These will be further refined through Outline Plan/Land Use Amendment application process.
- (3) Application for Commercial Use within Industrial/Business Area**
 - (a) In conjunction with an Outline Plan/Land Use Amendment application for local commercial or service commercial uses within the Industrial/Business Area, a concept plan, a market analysis, a transportation

impact analysis and other supporting information may be required by the Approving Authority as deemed necessary.

- (b) Details of concept plan review, market review, and transportation review are contained in Appendix E: Evaluation Guidelines for Outline Plan/Land Use Amendment Application.
- (c) Where the commercial use is applied at small scale, complies with Policy 8.1.2. (2) (c) and (d), and does not have significant impact on adjacent uses, no amendment to Map 3: Land Use Concept is required.

8.2 The Existing Shepard Business Park

8.2.1 Purpose

This area was annexed in 2007 from the Municipal District of Rocky View as an approved and subdivided limited service industrial/business park, intended to accommodate uses requiring large parcels, with minimal servicing requirements. Land uses at the time of annexation were generally characterized by the need for outside storage or outside processing, limited building area, generation of low traffic volumes and no significant water or sanitary sewer needs.

This area is intended to continue to provide a wide variety of general industrial uses within the long term context of a fully-serviced industrial/business park. A range of general and business industrial, service commercial, local commercial, office associated with business uses, institutional, recreational, public and other compatible land uses may be considered appropriate in this area.

8.2.2 Policies

(1) Composition of the existing Shepard Business Park

- (a) Until such time that municipal water and sanitary sewer services are available, this area will continue to provide limited serviced industrial business opportunities.
- (b) When the area is serviced with municipal services, this area will provide opportunities for a wide range of general and business industrial, service commercial, local commercial, office associated with business uses, institutional, recreational, public and other compatible land uses.

(2) Development within the existing Shepard Business Park

- (a) Development adjacent to entranceway roads and regional pathways shall comply with Section 9.0: Interface Policies and should refer to the more specific design guidelines contained within Appendix A: Interface Design Guidelines.
- (b) When municipal water and sanitary sewer services are available, all policies contained in Section 8.1.2: Industrial/Business Area policies shall apply to this area

8.3 Business/Commercial Area

8.3.1 Purpose

The purpose of this area is to provide for the development of high-quality, comprehensively-planned offices, service commercial, secondary commercial, and mid-scale retail commercial uses along the south side of Glenmore Trail. The Business/Commercial Area will serve the ASP area, the surrounding communities, and the travelling public. The development of this area will be subject to further evaluation of transportation, servicing and possibly market analysis.

8.3.2 Policies

(1) Composition of Business/Commercial Area

- (a) Subject to the policies of this plan,
 - (i) office uses, service commercial, secondary commercial and mid-scale retail commercial uses shall be the predominant uses of land within the Business/Commercial Area, and
 - (ii) recreational uses, institutional uses and public uses, and similar and accessory uses to the above, may be allowed within the Business/Commercial Area where determined to be compatible and appropriate by the Approving Authority.
- (b) The general categories of uses identified under Policy 8.3.2. (1) (a) above and their locations shall be refined through the land use districts applied within the Business/Commercial Area.
- (c) Regional or large-scale retail commercial uses are not supported within the Business/Commercial area. Proposals for regional or large-scale retail commercial use will require an amendment to this Plan. Supporting information including concept plan, market analysis, Mobility Assessment & Plan, and additional analysis should be provided as required by the Approving Authority.
- (d) Guidelines to review concept plan, market analysis and Mobility Assessment & Plan are contained in Appendix E: Evaluation Guidelines for Outline Plan/Land Use Amendment Application.

(2) Development within Business/Commercial Area

- (a) Development adjacent to Glenmore Trail is contained in an established Joint Planning Area, and should provide for a compatible interface with existing development north of Glenmore Trail within the Municipal District of Rocky View (see also Section 10.0: Joint Planning Area).
- (b) In conjunction with an Outline Plan/Land Use Amendment application within the Business/Commercial Area, a concept plan and a Mobility Assessment & Plan should be submitted to identify, in a comprehensive manner, the proposed land use pattern and road network improvements for the entire Business/Commercial Area and adjacent areas as determined appropriate by the Approving Authority.
- (c) Development within the Business/Commercial Area must also refer to Section 9.0: Interface Policies and Section 18.3: Intermunicipal Coordination, and should refer to the more specific design guidelines contained within Appendix A: Interface Design Guidelines.

8.4 Commercial Node Area

8.4.1 Purpose

The purpose of this area is to provide for retail and service commercial development generally located near the intersection of 100 Street SE and 106 Avenue SE. This area will accommodate comprehensively designed local and mid-scale corridor commercial uses to serve the ASP area. This site is identified by a symbol on Map 3: Land Use Concept.

8.4.2 Policies

(1) Composition of Commercial Node Area

- (a) Subject to the policies in this plan,
 - (i) local and mid-scale retail uses and service commercial uses shall be the predominant uses of land within the Commercial Node Area,
 - (ii) office uses may be considered appropriate within the Commercial Node Area, where they support the business uses in the ASP area,
 - (iii) office uses are encouraged in a mixed-use form with commercial and other compatible uses,
 - (iv) institutional uses, recreational uses and public uses, and similar and accessory uses to the above, may be considered where determined to be compatible and appropriate by the Approving Authority, and
 - (v) regional or large-scale retail commercial uses shall not be located within the Commercial Node Area.
- (b) The general categories of uses identified under Policy 8.4.2 (1) (a) above and their locations shall be refined through the land use districts applied within the Commercial Node Area.

(2) Development within Commercial Node Area

- (a) In conjunction with an Outline Plan/Land Use Amendment application within the Commercial Node Area, a concept plan, market analysis and a Mobility Assessment & Plan may be required as determined by the Approving Authority to identify in a comprehensive manner

the proposed land use pattern, the appropriate scale of development and road network improvements for the entire Node area.

- (b) Guidelines to review concept plan, market analysis and Mobility Assessment & Plan are contained in Appendix E: Evaluation Guidelines for Outline Plan/Land Use Amendment Application.
- (c) The Commercial Node shall be serviced by public transit and contain
 - (i) one or more transit bus stop(s),
 - (ii) bicycle racks and bicycle and pedestrian connections, and
 - (iii) publicly funded transit service amenities such as an attractive shelter and seating for pedestrians, where determined appropriate by the Approving Authority. The developer is encouraged to integrate these transit service amenities into the site design and architecture design of the Commercial Node area.
- (d) Development within the Commercial Node Area should refer to the more specific design guidelines contained within Appendix B: Site and Building Design Guidelines.
- (e) The symbol of the Commercial Node on Map 3: Land Use Concept is conceptual and approximate only. The exact location and size of the Node will be refined through Outline Plan/Land Use Amendment process, and may require an amendment to this ASP at the discretion of the Approving Authority.

8.5 Local Commercial Area

8.5.1 Purpose

The purpose of this area is to accommodate a comprehensively designed local commercial area to serve the adjacent residential area and local employees of the ASP area. This site is identified by a symbol on Map 3: Land Use Concept.

8.5.2 Policies

(1) Composition of Local Commercial Area

- (a) Subject to the policies in this plan,
 - (i) local commercial uses shall be the predominant uses of land within the Local Commercial Area,
 - (ii) office uses, institutional uses, recreational uses and public uses, and similar and accessory uses to the above, may be allowed within the Local Commercial Area where determined to be compatible and appropriate by the Approving Authority, and
 - (iii) regional or large-scale retail commercial uses shall not be located within the Local Commercial Area.
- (b) The general categories of uses identified under Policy 8.5.2 (1) (a) above and their locations shall be refined through the land use districts applied within the Local Commercial Area.

(2) Development within Local Commercial Area

- (a) Development within the Local Commercial Area shall be compatible with and shall have minimal impact on the adjacent residential area. Regard should be given to landscaping, building orientation, building design and screening of loading and storage area.
- (b) Office uses
 - (i) shall be accessory to the principal use on a site, and
 - (ii) are encouraged in a mixed-use form with commercial and other compatible uses, or

- (iii) may be allowed in the form of a stand-alone office building on a site provided that the office is considered to be compatible with the character of the area.
- (c) Prominent bicycle and pedestrian connections shall be provided within the Local Commercial Area to the adjacent residential area.
- (d) In conjunction with an Outline Plan/Land Use application within the Local Commercial Area, a concept plan, market study and a Mobility Assessment & Plan may be required at the discretion of the Approving Authority to identify in a comprehensive manner the proposed land use pattern and road network improvements for the subject site and the surround areas.
- (e) Guidelines to review concept plan, market analysis and Mobility Assessment & Plan are contained in Appendix E: Evaluation Guidelines for Outline Plan/Land Use Amendment Application.
- (f) Development within the Local Commercial Area shall comply with Section 9.0: Interface Policies, and should refer to the more specific design guidelines contained within Appendix A: Interface Design Guidelines.

8.6 Power Generation Facility

8.6.1 Purpose

A need has been indicated for a power generation facility to be located near the intersection of 100 Street SE and Venture Avenue SE, as identified by a symbol on Map 3: Land Use Concept. The power generation facility will enhance local and regional power supply, and provide opportunities to implement District Energy to service the adjacent area within an approximate 2.5km radius range. The responsibility for Provincial approvals to implement the power generation facility lies with the operator.

The Alberta Utilities Commission (AUC) may consider land use issues in rendering its decision. Under Section 619 of the *Municipal Government Act*, any licence, permit or other authorization of the AUC prevails over the ASP. The City must approve a planning or development application to the extent that it complies with the licence, permit or other authorization of the AUC.

8.6.2 Policies

- (a) Opportunities to provide and use District Energy in the ASP area are encouraged.
- (b) The operator of the power generation facility shall obtain all relevant provincial approvals.
- (c) The land use designation for the power generation facility shall be refined at the Outline Plan/Land Use Amendment stage. The impact of the proposed facility shall be evaluated equivalent to a heavy industrial use under Land Use Bylaw 1P2007.
- (d) Development of the power generation facility should comply with Section 9.0: Interface Policies where feasible, and should refer to the more specific design guidelines contained within Appendix A: Interface Design Guidelines.
- (e) In conjunction with an Outline Plan/Land Use Amendment application for the power generation facility, additional technical studies and supporting information that are not identified by the Province may be required at the discretion of the Approving Authority, including but not limited to the following:

- (i) Development Impact Statement and Analysis to evaluate the impact of the proposal on adjacent sites, including but not limited to: noise, visual, lighting, odour or dust impacts,
 - (ii) Impacts and mitigation of the anticipated vapour/steam by-products,
 - (iii) Biophysical Impact Assessment, and
 - (iv) Any additional studies to identify safety, health and/or nuisance impacts.
- (f) Relative to Policy 8.6.2 (e), if any impacts within municipal jurisdiction are identified through technical studies, mitigation measures should be undertaken to the satisfaction of the Approving Authority.
- (g) The symbol of the potential power generation facility shown on Map 3: Land Use Concept is conceptual. Prior to Land Use approval, Map 3: Land Use Concept shall be amended to apply the Power Generation Facility to the subject site in an exact manner.

8.7 Railway

8.7.1 Purpose

The ASP area is bounded by the CP (Canadian Pacific) rail line to the south. An abandoned east/west rail line right-of-way transects the south portion of the area. A rail spur line west of 100 Street SE was planned under the Shepard Business Park Area Structure Plan (approved by the Municipal District of Rocky View in 1998), intended to connect from the abandoned CP rail line right-of-way, extending to the north into the existing Shepard Business Park (This area previously received land use approval by the Municipal District of Rocky View under Direct Control District Bylaw Number 56). The spur line is intended to service those industries that may require rail to import/export their products, such as distribution centres.

The purpose of these policies is to address appropriate land use and interface treatment between development and CP Railway properties, and to provide for opportunities to use the rail spur line in the future.

8.7.2 Policies

(1) Spur Line

- (a) A potential spur line location has been identified on Map 7: Transportation Network & Regional Pathways. The spur line should be further refined at the Outline Plan/Land Use Amendment application stage.
- (b) The connection of the rail spur line to the abandoned CP rail line shall be referred to Canadian Pacific Railway.
- (c) Shunting activities associated with the rail spur line should be restricted and should be sensitive to the adjacent residential development.

(2) Development adjacent to Rail Line

- (a) Rail-related land use and development to effectively utilize the existing and future rail line and spur line infrastructure are encouraged in areas adjacent to the rail line.
- (b) Sensitive land uses, including but not limited to child care services and food establishments, are discouraged where proposed to be located adjacent to the CP Railway right-of-way.
- (c) Any proposed alterations to the existing drainage pattern affecting Railway property must receive prior consent from the CP Railway.
- (d) Appropriate mitigating measures for various development proposals adjacent to the CP Railway right-of-way could include berming and/or setbacks to the satisfaction of the Approval Authority.

9.0 INTERFACE POLICIES

9.1 Purpose

The purpose of these policies is to provide for a compatible interface between development and lands immediately adjacent to:

- Entranceway roads including the East Freeway, Glenmore Trail SE, 106 Avenue SE, and 114 Avenue SE;
- Residential areas including country residential areas in the Municipal District of Rocky View, and existing residential development within the City of Calgary;
- The existing Municipal Reserve (MR) site;
- Regional pathways where feasible; and
- Any other interface areas as determined appropriate by the Approving Authority.

The policies are general in nature and have been refined through the more specific design guidelines contained within Appendix A: Interface Design Guidelines.

9.2 Policies

(1) Compatible Use

- (a) Lands that are immediately adjacent to the existing residential areas shall provide a compatible land use that does not create significant adverse off-site impacts including visual, operational, traffic and other significant off-site impacts.
- (b) Heavy industrial uses and outdoor storage uses are discouraged to be located immediately adjacent to the entranceway roads, the existing residential areas, and the existing MR site.

(2) Compatible Interface and Coordinated Design

- (a) Any development within an interface area, as identified within Section 9.1 above, should present a visually attractive image to the public by co-ordinating the elements of site design and building architecture in a suitable and appropriate manner, and should provide for a compatible and appropriate interface treatment.
- (b) Any development within an interface area should refer to the more specific design guidelines contained within Appendix A: Interface Design Guidelines.

10.0 JOINT PLANNING AREA

10.1 Purpose

The purpose of these policies is to provide a basis to review Outline Plan/Land Use Amendment, subdivision and Development Permit applications within the Joint Planning Area. Joint Planning Areas are areas that are identified as being of mutual interest to both the Municipal District of Rocky View and The City of Calgary as part of The City of Calgary/ Municipal District of Rocky View 2006 Annexation Agreement. Portions of the ASP area are located within the Joint Planning Area as shown on Map 4: Joint Planning Areas.

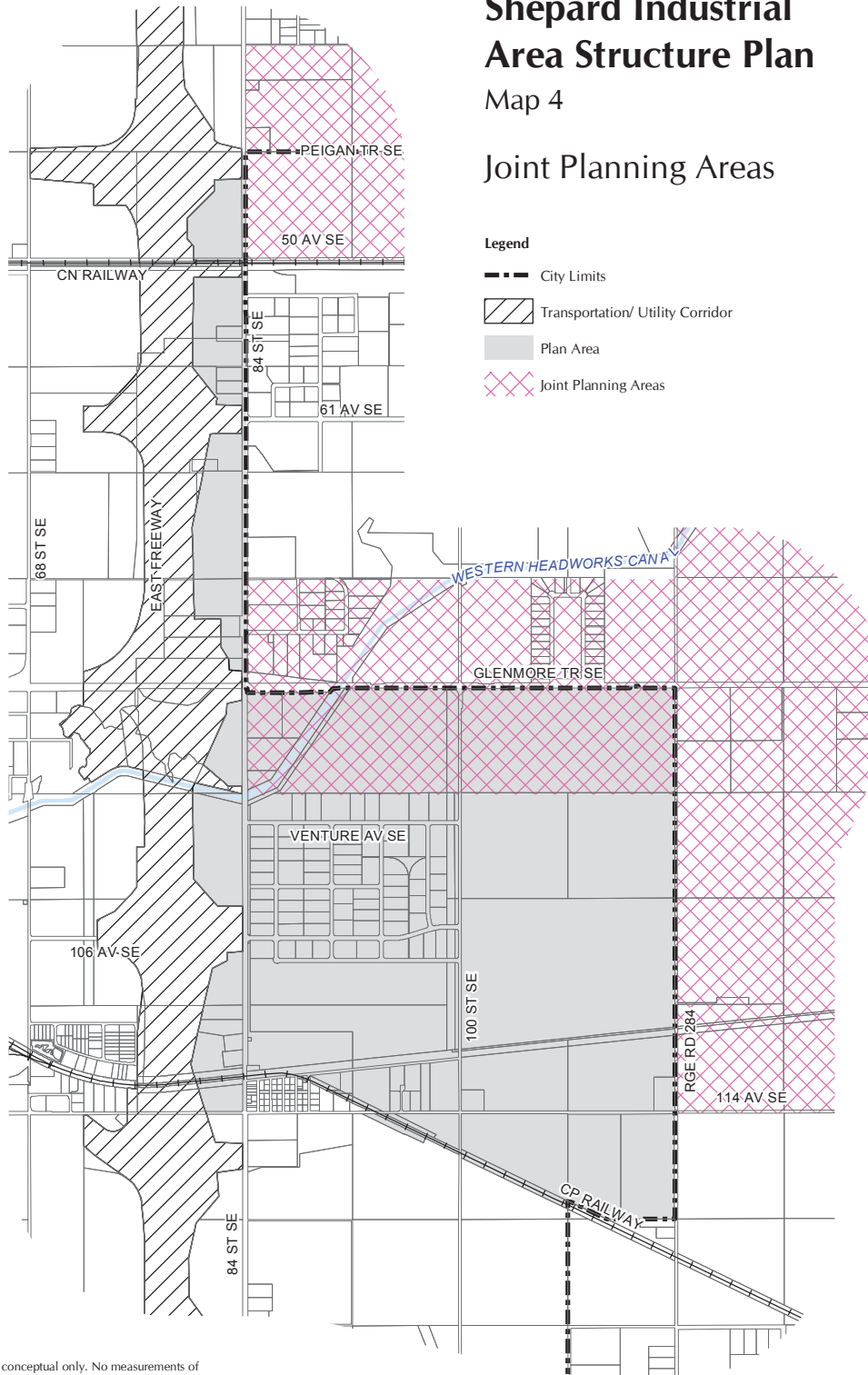
The ASP area is also located within The City of Calgary/the Municipal District of Rocky View *Intermunicipal Development Plan (IDP)* boundaries. At the time of approval of this ASP, the IDP is under review by The City and Rocky View. The IDP will further define how matters of planning and development within the Joint Planning Areas will be addressed. The ASP will be amended to reflect the Joint Planning Area policies contained in the revised IDP once the revised IDP is adopted.



Shepard Industrial Area Structure Plan

Map 4

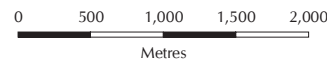
Joint Planning Areas



This map is conceptual only. No measurements of distances or areas should be taken from this map.



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Approved:
11P2009
Amended:

10.2 Policies

(1) ASP Amendment

After the revised IDP is adopted by City Council, the ASP will potentially be amended to reflect the relevant policies contained within the IDP and the policies regarding Joint Planning Areas.

(2) Development within the Joint Planning Area

(a) Development within the Joint Planning Area (Map 4: Joint Planning Areas) shall be coordinated between the City of Calgary and the Municipal District of Rocky View with regard given to the following:

- (i) land use,
- (ii) transportation,
- (iii) stormwater management,
- (iv) parks and open space,
- (v) environmentally significant areas,
- (vi) pathways, and
- (vii) other matters as determined appropriate by the Approving Authority.

(b) shall be subject to the policies of the IDP.

(3) Intermunicipal Review

- (a) Outline Plan/Land Use Amendment, subdivision and Development Permit applications comprising any lands within the Joint Planning Area shall be circulated to the Municipal District of Rocky View for review and evaluation.
- (b) Application referral to the Municipal District of Rocky View shall occur in accordance with the provisions of the IDP.
- (c) Where intermunicipal concerns are raised, the matter shall be referred to the Joint Intermunicipal Infrastructure Committee (JIIC) and where necessary, the Intermunicipal Committee (IMC).
- (d) Policies contained in Section 18.3: Intermunicipal Coordination shall also apply to the Joint Planning Area.

11.0 RESERVE POLICIES

Reserve allocation and analysis with an Outline Plan/Land Use Amendment application should also refer to the Reserve Analysis Guidelines contained within Appendix E: Evaluation Guidelines for Outline Plan/Land Use Amendment Application.

11.1 Creditable Reserve

11.1.1 Purpose

The purpose of these policies is to provide a basis for making decisions on the dedication of Municipal Reserve (MR) land within the ASP area. MR owing on a parcel of land will need to be addressed at the time of subdivision of the parcel in accordance with the provisions of the *Municipal Government Act*.

11.1.2 Policies

(1) Creditable Reserve Dedication

- (a) Subject to Policy 11.1.2. (1) (b) below, MR owing on a parcel of land shall be provided as money-in-lieu of reserve land at the time of subdivision in the entire amount owing on the parcel.
- (b) As an alternative to the provision of money-in-lieu of land, MR owing on a parcel of land may be dedicated in full or in part as reserve land to provide parks and/or community facilities that are determined to be important:
 - (i) to serve regional needs,
 - (ii) to accommodate an innovative and necessary public/ private park concept to provide amenities for local workforce,
 - (iii) to accommodate an important regional pathway system, and/or
 - (iv) to enhance the protection and viability of a natural wetland or natural feature.
- (c) Provision and allocation of MR should be determined at the time of subdivision application, at the discretion of the Approving Authority and the Director of Parks.

(2) Natural Parks

- (a) Where MR is owing on a parcel of land adjacent to Class 3 to 5 wetlands, that reserve should be dedicated as land in order to contribute to the protection of the wetland and for the purpose of providing passive recreational opportunities.
- (b) Where the ownership pattern allows for the transfer of MR from a parcel that does not lie adjacent to Class 3 to 5 wetlands, to a parcel that does, the transfer and dedication of reserve land may be required through the subdivision process where it would contribute to the natural open space system in the ASP area.

(3) Municipal Reserve Analysis

Prior to approval of an Outline Plan/Land Use Amendment application, a developer shall submit a reserve analysis identifying the amount of MR:

- (i) owing on the lands that are the subject of the application, and
- (ii) to be dedicated as land, paid as money-in-lieu of land or deferred by caveat pending future subdivision.

(4) Voluntary Municipal Reserve Dedication

MR may be allowed to be dedicated in excess of the requirements of the *Municipal Government Act* on a voluntary basis through the subdivision process subject to a site specific evaluation of the proposal by the Approving Authority.

(5) Deferral of Municipal Reserve

In accordance with the *Municipal Government Act*, the Approving Authority may register a deferred reserve caveat on a parcel of land owing MR in order to defer a decision on reserve pending the future subdivision of the parcel, provided that the parcel will retain its potential for further subdivision.

11.2 Environmental Reserve

11.2.1 Purpose

The purpose of these policies is to provide a basis for making decisions on the dedication of Environmental Reserve (ER) land within the ASP area. ER dedication is governed by the *Municipal Government Act* at the time of subdivision. Where this is not possible or feasible, other methods of acquiring or protecting that feature may be introduced.

11.2.2 Policies

(1) Dedication of Environmental Reserve

- (a) Where lands qualify as ER in accordance with the provisions of the *Municipal Government Act*, they shall be dedicated as ER or subject to compensation under Policy 13.2.2 (3).
- (b) Wetlands qualifying as ER shall be protected in accordance with the policies of the *Wetland Conservation Plan* and Section 13: Wetland Policies of this ASP.

(2) Environmental Reserve Setback

Setbacks from Stewart- Kantrud Class 3 or higher wetlands shall be applied in accordance with The City of *Calgary Environmental Reserve Setback Guidelines*.

(3) Voluntary Dedication of Environmental Reserve

ER may be allowed to be dedicated in excess of the requirements of the *Municipal Government Act* on a voluntary basis with the land owner through the subdivision process subject to a site specific evaluation of the proposal by the Approving Authority.

11.3 Stormwater Management Facilities on Reserve Land

11.3.1 Purpose

The purpose of these policies is to provide a basis for addressing the development of stormwater management facilities on reserve land.

11.3.2 Policies

(1) Stormwater Management Facilities on Reserve Land

- (a) Stormwater management facilities should typically be located on a public utility lot.
- (b) Notwithstanding Policy 11.3.2. (1)(a) above, and subject to the applicable policies, guidelines, and standards in effect addressing stormwater management facilities on reserve land:
 - (i) stormwater detention ponds may be allowed to be located on lands dedicated as MR,
 - (ii) treated stormwater may be allowed to enter into a natural wetland dedicated as ER to ensure its long term sustainability in an urban context, and
 - (iii) an engineered stormwater wetland (defined under Section 19.1: General Definitions) may be allowed to be located on lands dedicated as ER, where:
 - (A) the retention of a natural wetland is demonstrated to be not feasible or practical,
 - (B) it is part of an approved wetland compensation or mitigation in accordance with the *Wetland Conservation Plan* policies, and
 - (C) it demonstrates that its primary function is to provide viable wetland habitat and is designed to balance the functions of stormwater management with habitat creation/diversity and recreational use.

(2) Development of Engineered Stormwater Wetlands on Reserve Land

- (a) Where an engineered stormwater wetland is dedicated as ER, the wetland shall be:
 - (i) designed and managed in a manner satisfactory to the Approving Authority, and
 - (ii) developed to provide a quality wildlife habitat and balance of function towards provision of habitat.
- (b) An engineered stormwater wetland dedicated as ER shall be located and configured to enhance and support the natural open space system.
- (c) MR land may be dedicated in conjunction with ER land accommodating an engineered stormwater wetland to act as a buffer of upland area and assist in the long-term sustainability of the ER and diversity of habitat.

(3) Evaluation of Engineered Stormwater Wetlands on Reserve Land

Prior to Outline Plan/Land Use approval, where an engineered stormwater wetland is proposed to be located on reserve land, a developer should submit the following:

- (a) biophysical impact assessment report,
- (b) stormwater management report,
- (c) wetland compensation proposal,
- (d) conceptual design plan,
- (e) preliminary grading plan,
- (f) restoration/ landscape plan, and
- (g) other applicable information where determined necessary by the Approving Authority.

12.0 WETLAND COMPLEXES

12.1.1 Purpose

Wetlands in the ASP area collectively form three distinctive environmentally significant wetland complexes, as shown on Map 5: Wetland Complexes. Wetland complexes are areas of two or more permanent or intermittent wetlands, connected by narrow patches of natural vegetation and drainages. Wetland complexes in the ASP area have important ecological values, including:

- Important groundwater / surface water connection and groundwater recharge,
- Productive wildlife habitat,
- Important wildlife corridors,
- Important waterfowl breeding grounds,
- Important staging area for migrating shorebirds,
- Upland vegetated buffer provides protection of breeding and nesting habitat of waterfowl and shorebirds,
- Vegetated buffer prevent movement of salts and sediment into cropland and slow soil erosion, and
- Water storage, recharge and flood control functions.

Wetland complexes in the ASP area could form an important part of a regional greenway system which has been identified in the East Regional Context Study. Following natural features, such as wetlands and natural drainages, the greenway is intended to be a contiguous, multi-purpose system linking major natural areas and features that form part of the city-wide regional pathway and bikeway network. The greenway will be achieved through reserve dedication, use of utility corridors or other appropriate means.

The boundaries for each environmentally significant wetland complex, as shown on Map 5: Wetland Complexes, are conceptual, serving as a starting point to identify areas that require further investigation and analysis at the Outline Plan/Land Use Amendment stage. This analysis can lead to several outcomes, including protection, retention, modification, restoration, a change to the Stewart-Kantrud classification, or development of lands within the wetland complex area. Details of

these outcomes are addressed in Section 13.0: Wetland Policies. It is not intended that Map 5: Wetland Complexes be amended to reflect the outcome chosen. Accordingly, if it is determined at the Outline Plan/Land Use Amendment stage that a complex comprises developable land, or will otherwise not be protected, the base land use, as shown on Map 3: Land Use Concept will automatically apply to the site and no amendment to the Map will be required.

■ **Complex 1: The Shepard Wetland Complex**

Located in the southeast corner of the ASP area, the Shepard Wetland Complex is a regionally significant wetland in terms of water storage, groundwater recharge, particle retention and water quality protection. It is one of the most significant features in the Calgary region. The wetland complex extends from Chestermere Lake to the northeast and to Ralph Klein Park and the constructed stormwater management wetlands to the southwest. This complex is considered to be of high environmental significance. This area provides significant habitat for numerous wildlife species and is a regionally significant migratory bird habitat. The protection of the Shepard Wetland Complex is an important priority to The City to ensure the maintenance of biodiversity in the region. This complex is also the principal regional drainage course in the area, discharging overland flow into the Bow River and is predominantly a groundwater discharge region. It helps to ensure high water quality before entering the Bow River.

■ **Complex 2: The Central Wetland Complex**

Located in the centre of the ASP Area, the Central Wetland Complex is characterized by a swale-like feature running northwest-southeast with a few small to medium-sized wetlands along its length, forming a natural drainage corridor. This complex is considered to be of high environmental significance representing important waterfowl habitat. The wetlands and the natural drainage corridor function as stepping stones, offering connections to Complex 1. These wetlands also provide significant hydrological function in terms of water storage and groundwater recharge, and form part of the regional drainage corridor.

■ **Complex 3: The Hummocky Wetland Complex**

Located in the northeast corner immediately south of the Glenmore Trail, the Hummocky Wetland Complex is considered to be of high environmental significance. The high connectivity and diversity of wetland classes creates value for biodiversity even though the upland vegetation is heavily impacted by cultivation. This wetland complex provides significant particle retention, pollution control and water storage, which could be enhanced by restoring the upland grassland buffers.

12.1.2 Policies

(1) Composition of Wetland Complexes

- (a) Subject to the policies of the Plan,
 - (i) passive recreational amenities, such as pathways, nature trails, observation areas and boardwalks shall be allowed within the Wetland Complexes,
 - (ii) public uses, in the form of roads, pathways, utilities and stormwater facilities, may be allowed to be located within the Wetland Complexes if it can be demonstrated that they would not result in unacceptable environmental impacts or no net loss subject to the *Wetland Conservation Plan*,
 - (iii) the release of treated stormwater into existing wetlands may be acceptable if it can be demonstrated that it would not create a net loss of wetlands and functions, and the habitat quality is not impaired, subject to the *Wetland Conservation Plan*, and
 - (iv) other uses may be allowed where determined compatible and appropriate by the Approving Authority.
- (b) The design and function of wetland amenities should support or provide recreational and interpretive opportunities for residents and local employees.
- (c) The general categories of uses identified under Policy 12.1.2. (1)(a) above shall be refined through the Land Use Districts applied within the Wetland Complexes.

(2) Protection of Lands within the Wetland Complexes

- (a) Where lands within the Wetland Complexes qualify as ER in accordance with the *Municipal Government Act*,
 - (i) these lands should be dedicated as ER in a natural state (the state at the time of acquisition) through the subdivision process,
 - (ii) notwithstanding Policy 12.1.2 (2) (a)(i) above, where these lands are subject to a Land Use Amendment application without subdivision, they should be protected by applying the Special Purpose- Urban Nature (S-UN) District or other

applicable districts under The City of Calgary Land Use Bylaw 1P2007.

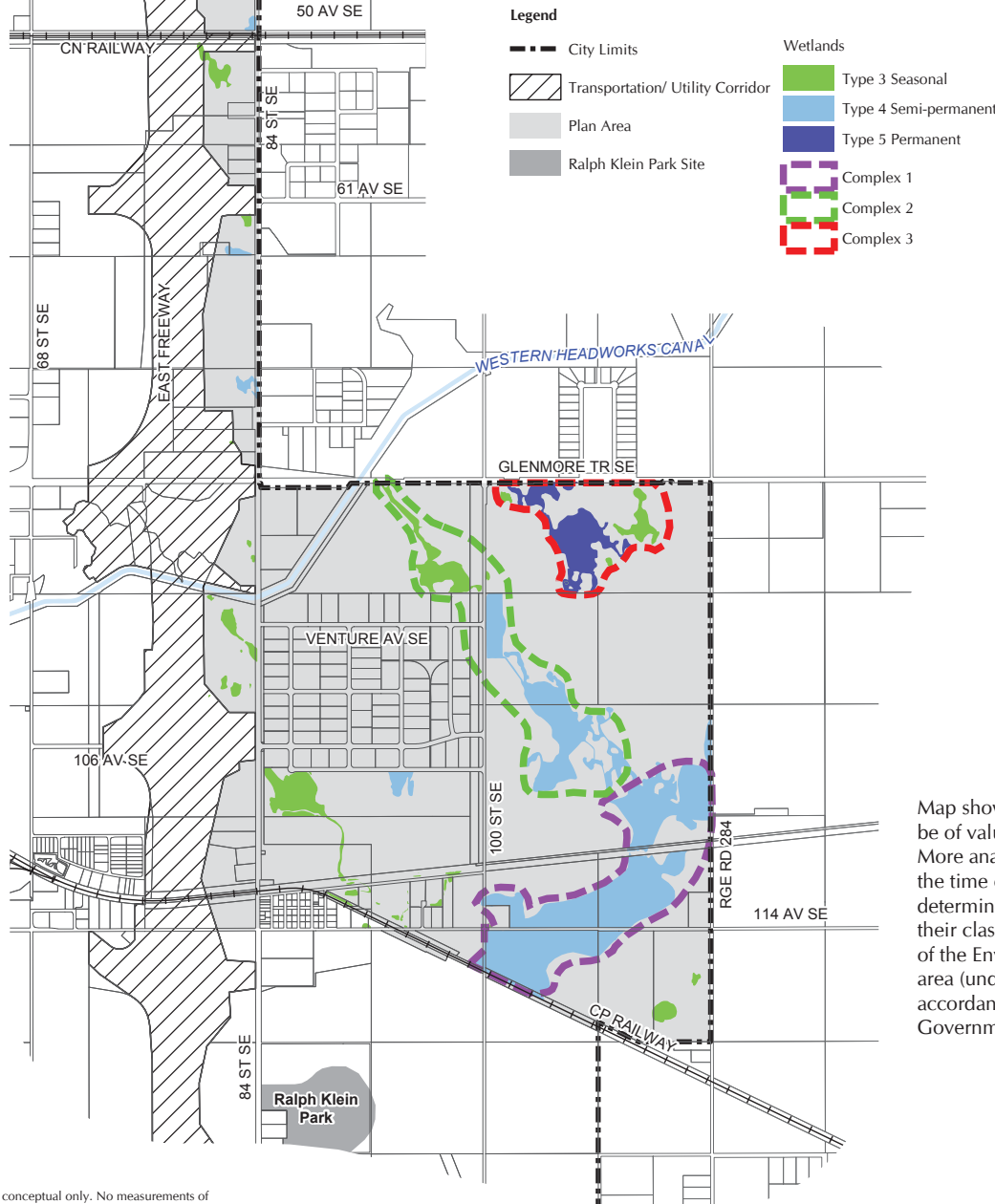
- (b) Any lands within the Wetland Complexes that are not acquired through the subdivision process as ER or land use process as S-UN District should be a priority for acquisition or protection by other means including, but not limited to, MR dedication, density bonusing/transfers, conservation easements, and voluntary dedication, subject to the *Wetland Conservation Plan*.
- (c) Notwithstanding Policy 12.1.2 (2)(a) and (b) above, where lands within the Wetland Complexes are not dedicated, acquired, purchased, or otherwise protected, the lands shall be considered to be developable. The policies of the adjacent policy area shall apply to these lands without requiring an amendment to Map 3: Land Use Concept.



Shepard Industrial Area Structure Plan

Map 5

Wetland Complexes

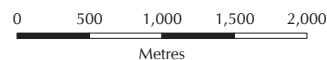


Map shows which lands may be of value for conservation. More analysis is needed at the time of subdivision to determine wetland boundary, their classification and extent of the Environmental Reserve area (undevelopable in accordance with Municipal Government Act)

This map is conceptual only. No measurements of distances or areas should be taken from this map.



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Approved:
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13.0 WETLAND POLICIES

13.1 Wetland Decisions

13.1.1 Purpose

The purpose of these policies is to provide a framework for wetland conservation through the Outline Plan/Land Use Amendment application process. Map 6: Wetlands illustrates wetlands in the ASP area, including Stewart-Kantrud Class 3 to 5 wetlands, which are considered to be of higher environmental significance under the *Wetland Conservation Plan*. The analysis of a wetland can produce several outcomes including:

- the confirmation of the wetland boundaries and classification of such areas,
- preservation of the wetland in a natural state with some engineering measures introduced to ensure its long term sustainability, where required,
- modification of the wetland to serve primarily as a stormwater facility while retaining its natural character, and
- development of the wetland where its retention is determined to be unfeasible.

In choosing these outcomes, issues concerning compensation in accordance with the “no net loss” policy contained within The City of Calgary *Wetland Conservation Plan* will also need to be addressed.

13.1.2 Policies

(1) Retention or Development of Wetlands

- (a) Where a wetland is to be retained at the Outline Plan/Land Use Amendment stage, the following issues shall be addressed:
 - (i) function of the wetland,
 - (ii) method of acquisition,
 - (iii) mitigation measures to be introduced,
 - (iv) engineering improvements to be introduced where required,

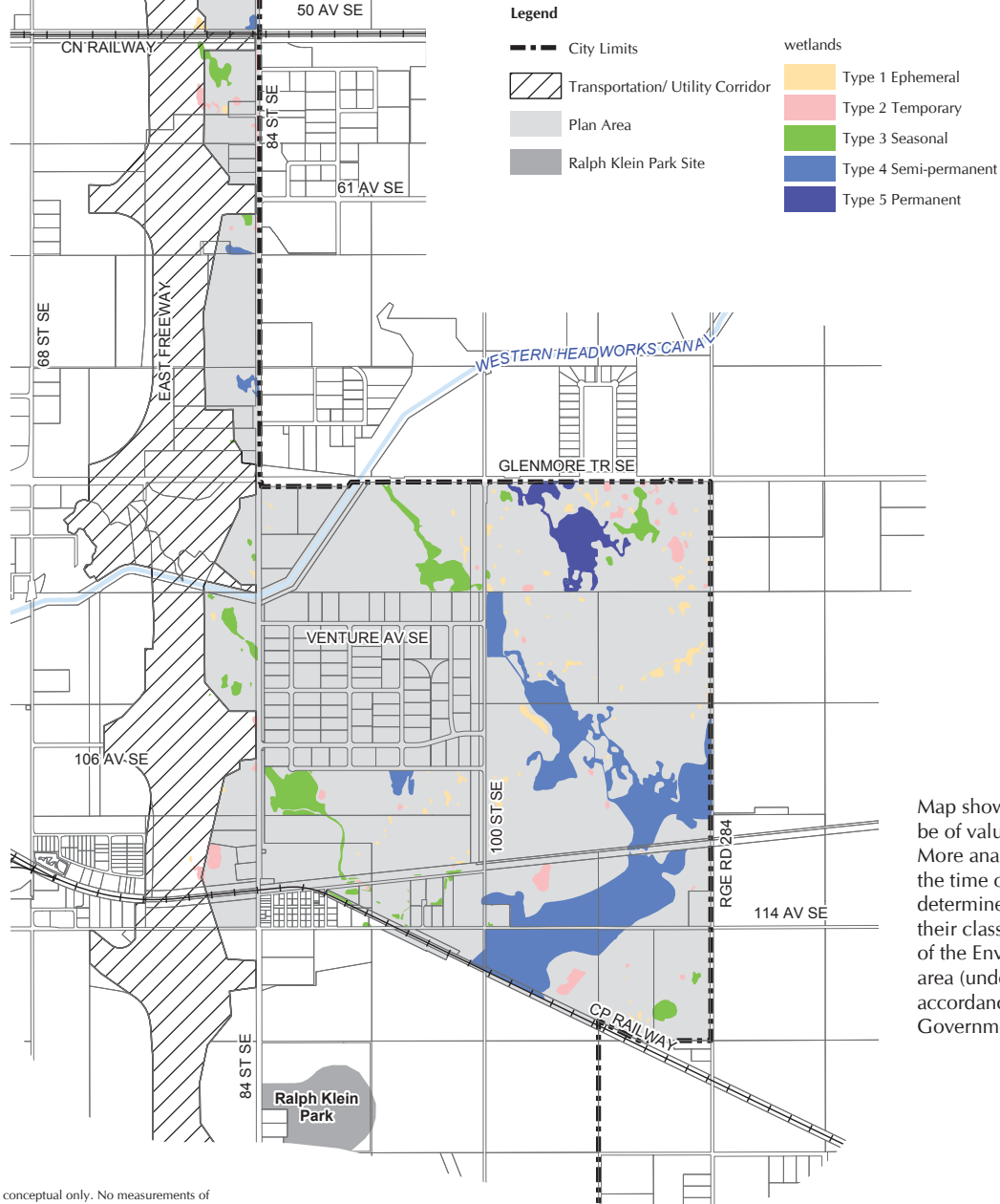
- (v) financial responsibility for the mitigation measures and engineering improvements,
 - (vi) long term operational responsibilities for The City,
 - (vii) land or monetary compensation to be provided by the developer, and
 - (viii) other matters that are determined necessary to be resolved at this stage of the planning approval process.
- (b) Where a wetland is to be developed, the Outline Plan/Land Use Amendment application shall address:
 - (i) rationale for this decision, and
 - (ii) land or monetary compensation to be provided by the developer.



Shepard Industrial Area Structure Plan

Map 6

Wetlands



Map shows which lands may be of value for conservation. More analysis is needed at the time of subdivision to determine wetland boundary, their classification and extent of the Environmental Reserve area (undevelopable in accordance with Municipal Government Act)

This map is conceptual only. No measurements of distances or areas should be taken from this map.



THE CITY OF
CALGARY
LAND USE PLANNING & POLICY

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13.2 Wetland Acquisition

13.2.1 Purpose

The purpose of these policies is to provide for the protection of wetlands and their related upland and native grasslands, where determined practical and appropriate. Map 5: Wetland Complexes and Map 6: Wetlands illustrate environmentally significant areas that will be subject to further analysis at the Outline Plan/Land Use Amendment application stage.

Protection will typically occur through the dedication of ER in accordance with the provisions of the *Municipal Government Act*. Where dedication of ER is not possible, other methods of acquiring or protecting wetlands and their related upland and native grasslands should be investigated. The policies also address the potential to allow development of certain wetlands within the ASP area in accordance with the “no net loss” policies of The City of Calgary *Wetland Conservation Plan* that addresses compensation for significant wetlands that are filled to accommodate development.

13.2.2 Policies

(1) Environmental Reserve Dedication

- (a) Where wetlands qualify as ER in accordance with the provisions of the *Municipal Government Act*, the lands should be dedicated as ER through the subdivision process.
- (b) Wetlands qualifying as ER shall be protected in accordance with the policies of the *Wetland Conservation Plan*.

(2) Alternative Acquisition of Wetlands

- (a) Where determined practical and feasible, where wetlands, or their related upland or native grassland habitat do not qualify as ER, the lands may be acquired and protected through alternative means as determined appropriate by Council or an Approving Authority including, but not limited to:
 - (i) a land transfer or exchange undertaken in accordance with the “no net loss” policy approved within The City of Calgary *Wetland Conservation Plan*,
 - (ii) dedication of the lands as MR,

- (iii) registration of a conservation easement on title as per the provisions of the Environmental Protection and Enhancement Act,
 - (iv) purchase of the lands,
 - (v) application of development controls to achieve mandatory protection of the lands, or
 - (vi) introduction of development incentives to encourage voluntary conservation of the lands.
- (b) Development controls and incentives introduced under Policy 13.2.2 (2) (a) (v) and (vi) may include, but are not limited to:
 - (i) density bonusing systems,
 - (ii) amended building setbacks,
 - (iii) site grading restrictions, and
 - (iv) enhanced landscaping treatments.

(3) Compensation for Wetlands

Where wetlands or their related upland may qualify as ER, all or a portion of the lands may be developed provided that:

- (a) it is determined by The City that the lands are of lower environmental significance,
- (b) the loss of the wetland is acceptable to the Approving Authority,
- (c) all other mitigation options have been exhausted,
- (d) it can be demonstrated that there are no geotechnical or engineering constraints that would prevent the proposed development,
- (e) the developer has obtained the requisite provincial approvals, and
- (f) the developer, on a voluntary basis, provides to The City as compensation for the ER being developed, either an appropriate amount of:
 - (i) land in another location that is determined to be of higher environmental significance and greater public benefit, or
 - (ii) money-in-place of the land in an amount to be determined to the satisfaction of The City, with the land or money-in-place of

land to be applied to the acquisition, protection or improvement of other wetlands in accordance with the policies of The City of Calgary *Wetland Conservation Plan*.

(4) Development of Wetlands

Notwithstanding policy 13.2.2 (1) and (2), where lands do not qualify as ER, in accordance with the provisions of the *Municipal Government Act*, and are not otherwise acquired or protected, the lands shall be considered to be suitable for urban development under the policies of this ASP.

13.3 Wetland Protection

13.3.1 Purpose

The purpose of these policies is to provide for the retention of wetlands within the ASP area in a sustainable state. The policies address the conservation, engineering and integration of wetlands within the ASP area. These policies are intended to augment and clarify the provisions of The City of Calgary *Wetland Conservation Plan* insofar as the existing wetlands within the ASP area are concerned. As such, the *Wetland Conservation Plan* will continue to apply and should also be consulted on wetland conservation matters.

13.3.2 Policies

(1) Retention of Wetlands

Wetlands that are dedicated as ER, or otherwise acquired or protected, shall be retained in a natural state (the state at the time of acquisition) except for:

- (i) the addition of passive recreational amenities such as pathways, benches, viewing areas, and interpretive areas considered necessary to enhance public engagement within or access to the area,
- (ii) naturalized planting or landscaping considered necessary to restore the wetland and its immediate shoreline, and
- (iii) engineering improvements considered necessary to integrate the area with surrounding development and ensure its sustainability within an urban context.

(2) Grading of Wetlands

- (a) Grading or other disturbance of protected wetlands may be allowed where it is determined that such grading or disturbance is considered essential to improve, retain or enhance the function, sustainability and viability of wetland in the context of urban development.
- (b) The grading of land for urban development adjacent to wetlands that are dedicated as ER, or otherwise acquired or protected, shall:
 - (i) not allow drainage flows from public roads to enter this wetland, and

- (ii) except for approved (sheet flow) drainage from portions of the interfacing lots, or other approved methods, avoid non-treated drainage flows from private lands being directed toward this wetland.
- (c) Guidelines for a site Grading Plan is contained within Appendix E: Evaluation Guidelines for Outline Plan/Land Use Amendment Applications.

(3) Engineering of Wetlands

Wetlands that are dedicated as ER, or otherwise acquired or protected, shall be engineered as necessary to:

- (i) remain sustainable and viable over the longer term such that they continue to provide viable habitat, and
- (ii) ensure that drainage flows to a wetland:
 - (A) can be retained over time to approximate natural conditions, and
 - (B) are managed through appropriate drainage flow control mechanisms.

(4) Integration of Wetlands

- (a) Urban development adjacent to a wetland that is dedicated as ER, or otherwise acquired or protected, shall be integrated and designed through the use of native plants species and building setbacks to:
 - (i) create a compatible interface with the lands, and
 - (ii) retain the natural function of the lands.
- (b) The developer(s) of lands adjacent to an ER dedicated wetland, and any associated area, shall be required to:
 - (i) restore any setbacks dedicated as ER, and
 - (ii) encourage the use of native species in the landscaping of adjacent yards.
- (c) Insofar as practical and possible, natural buffers, adjoining a wetland that is dedicated as ER, or otherwise acquired or protected, should be provided in the form of public or private open space in order to protect and enhance the function of the wetland.

(5) Restoration of Wetlands

- (a) Where determined practical and appropriate, wetland restoration to a natural state is required for:
 - (i) wetlands dedicated as reserve or acquired, and
 - (ii) wetlands already protected that have been or will be disturbed due to land use practices
- (b) The level of wetland restoration will be determined at the Outline Plan/Land Use Amendment application stage and subject to the applicable policies, guidelines and standards in effect to address wetland restoration.

14.0 TRANSPORTATION, PATHWAY AND TRANSIT POLICIES

14.1 Road Network

14.1.1 Purpose

The purpose of these policies is to provide for a transportation network that is safe and efficient for trucks, private vehicles and alternative transportation options. The road network minimizes impacts on major wetlands and natural features, integrates development within the ASP area and accommodates walking, cycling and public transit.

The road network within the ASP area consists of regional roads (East Freeway, Glenmore Trail, Peigan Trail, and Range Road 284), which provide critical links for traffic to and through the area, and internal roads (arterials, and industrial roads classifications), which accommodate local traffic. The general alignment of the regional and internal roads is shown on Map 3: Land Use Concept and Map 7: Transportation Network & Regional Pathways.

As street standards are changing with the proposed Calgary Transportation Plan (CTP), new classifications will be referenced. However, if development occurs prior to Council approval of the CTP, standards of the day shall be used. An arterial equivalent is a major street; an industrial arterial equivalent is an industrial street.

Funding for transportation infrastructure should refer to Section 17.0: Growth Management Policies.

14.1.2 Policies

(1) Transportation and Utility Corridor

- (a) The East Freeway is located within the Transportation and Utility Corridor (TUC), classified as a freeway and is under the jurisdiction of the Province of Alberta. Interchanges are planned at Peigan Trail, Glenmore Trail and 114 Avenue SE.
- (b) Interchanges at 61 Ave SE and 106 Ave SE, identified on Map 7: Transportation Network & Regional Pathways, are subject to financing and approval by the Province of Alberta. Where financing

or Provincial approval are not available, overpasses in these locations are planned.

- (c) The TUC and the East Freeway alignment as shown both on Map 3: Land Use Concept and Map 7: Transportation Network & Regional Pathways may be subject to refinement by the Province of Alberta.
- (d) Any surplus TUC lands should, where possible, be incorporated into the design of the adjacent lands.
- (e) No development, including berming, grading or other land disturbance, shall be allowed within the TUC without permission being granted by the Province of Alberta.
- (f) Proposed pathway routes in the TUC lands require permission from the Province of Alberta.

(2) Glenmore Trail SE

- (a) Glenmore Trail SE is classified as a freeway and is under the jurisdiction of the Province of Alberta.
- (b) No development, including berming, grading or other land disturbances, shall be allowed within the Glenmore Trail SE right-of-way without permission being granted by the Province of Alberta.
- (c) The partial interchange at Glenmore Trail SE and 100 Street SE shown on Map 7: Transportation Network & Regional Pathways is subject to approval by the Province of Alberta.
- (d) The full interchange at Range Road 284 was established and located by the Province as part of the Highway 560 Functional Planning Study.

(3) Peigan Trail

- (a) Peigan Trail is under joint jurisdiction of The City of Calgary and the Municipal District of Rocky View. Peigan Trail is classified as an Arterial and shall be characterized by:
 - (i) 2.0m sidewalks on both sides of the road (a regional pathway may be implemented in place of a sidewalk on one side),
 - (ii) appropriate cycle tracks (defined under Section 19.1: General Definitions) for off-street cycling or bike lanes or wide curb lanes for on-street cycling. Off-street cycling through regional

pathways or cycle tracks is preferred along arterials in the ASP area,

- (iii) tree-lined boulevards that respect clear zone standards,
- (iv) uniform fencing and entrance signage,
- (v) bus transit routes,
- (vi) minimum interSection spacing at 500m. Access to the roadway from the south shall be granted by the Municipal District of Rocky View,
- (vii) transit facilities and clearly delineated pedestrian crossings through the application of upgraded materials, and
- (viii) such other amenities determined appropriate by Transportation Planning and/or Roads to reinforce the unique function of these roads and transportation corridors serving the ASP area.

(4) Range Road 284

- (a) Range Road 284 is within the jurisdiction of the Municipal District of Rocky View. Authority to grant access to roadway is facilitated through the Municipal District of Rocky View and shall be subject to any future Access Management Agreement between The City and Rocky View.
- (b) Range Road 284 shall be classified as an Arterial and shall be characterized by:
 - (i) proposed minimum interSection spacing at 500 metres. However, access to roadway shall be granted by the Municipal District of Rocky View,
 - (ii) transit service shall be allowed,
 - (iii) 2.0m sidewalks on both sides of the road (a regional pathway may be implemented in place of a sidewalk on one side),
 - (iv) appropriate cycle tracks (defined under Section 19.1: General Definitions) for off-street cycling or bike lanes or wide curb lanes for on-street cycling. Off-street cycling through regional pathways or cycle tracks is preferred along arterials in the ASP area, and
 - (v) tree-lined boulevards and medians.

(5) Regional Road Network

- (a) Regional Roads within the ASP area include East Freeway, Glenmore Trail SE, Peigan Trail SE, and Range Road 284.
- (b) The regional road rights-of-way shall be generally located as shown on Map 3: Land Use Concept, and Map 7: Transportation Network & Regional Pathways.
- (c) Where intermunicipal concerns are raised regarding the regional roads, the issues should be referred to the Joint Intermunicipal Infrastructure Committee (JIIC).
- (d) The final alignment and rights-of-way requirements of all regional roads and their related interchanges and intersections shall be determined through a Functional Study and/or a Mobility Assessment & Plan.
- (e) Prior to completion of the Functional Study or Design Analysis, land use or subdivision approval on lands adjacent to a regional road should be withheld where such approval would compromise the final alignment of this roadway.
- (f) The design and alignment of the regional road network shown on Map 3: Land Use Concept and Map 7: Transportation Network & Regional Pathways shall be re-evaluated and revised as necessary through the Outline Plan/Land Use Amendment application process.
- (g) Mobility Assessment & Plan may be required at various development stages.
- (h) Information to prepare a Mobility Assessment & Plan is addressed under Section E.4: Transportation Review within Appendix E: Evaluation Guidelines for Outline Plan/ Land Use Amendment Applications.

(6) Internal Road Network

- (a) The standards and alignment of the internal road network shown on Map 3: Land Use Concept and Map 7: Transportation Network & Regional Pathways shall be re-evaluated and revised as necessary through the Outline Plan/Land Use Amendment application process without requiring an amendment to the map.

- (b) Internal roads that are considered to be minor in nature may be allowed to be approved through the Outline Plan/Land Use Amendment application process without having to be identified on Map 3: Land Use Concept and Map 7: Transportation Network & Regional Pathways. Mobility Assessment & Plan may also be required at various development stages.
- (c) Information to prepare a Mobility Assessment & Plan is addressed under Section E.4: Transportation Review within Appendix E: Evaluation Guidelines for Outline Plan/ Land Use Amendment Applications.
- (d) The internal road network should provide for:
 - (i) direct connections to origin and destination points,
 - (ii) safe and efficient traffic flows,
 - (iii) efficient bus transit routing,
 - (iv) convenient pedestrian and bicycle routing, and
 - (v) minimized impacts to wetlands.
- (e) 106 Avenue SE, 114 Avenue SE, 84 Street (from Peigan Trail to 61 Avenue) and 100 Street are classified as Arterials as part of the internal road network and shall be characterised by:
 - (i) minimum interSection spacing at 300 metres,
 - (ii) 2.0m sidewalks on both sides of the road (a regional pathway may be implemented in place of a sidewalk on one side),
 - (iii) appropriate cycle tracks for off-street cycling or bike lanes or wide curb lanes for on-street cycling. Off-street cycling through regional pathways or cycle tracks is preferred along arterials in the ASP area,
 - (iv) tree-lined boulevards,
 - (v) bus transit routes,
 - (vi) transit facilities, and
 - (vii) such other amenities determined appropriate by Transportation Planning and/or Roads to reinforce the unique function of these roads and transportation corridors serving the ASP area.

- (f) 84 Street SE (between 61 Avenue and Glenmore Trail; and south of Venture Avenue) is classified as Industrial Arterials as part of the internal road network and shall be characterised by:
 - (i) minimum interSection spacing at 300 metres,
 - (ii) standard sidewalks on both sides of the road (a regional pathway may be implemented in place of a sidewalk on one side),
 - (iii) appropriate cycle tracks for off-street cycling or bike lanes or wide curb lanes for on-street cycling. Off-street cycling through regional pathways or cycle tracks is preferred,
 - (iv) bus transit routes,
 - (v) transit facilities, and
 - (vi) such other amenities determined appropriate by Transportation Planning and/or Roads to reinforce the unique function of these roads and transportation corridors serving the ASP area.
- (g) 84 Street SE shall be discontinuous at Glenmore Trail, however the 84 Street SE road right-of-way shall be protected for possible pedestrian and bicycle crossings.

(7) Dangerous Goods and Truck Routes

- (a) The movement of dangerous goods is controlled by the *Transportation of Dangerous Goods Act*. The dangerous goods routes are part of the truck route system and include Glenmore Trail.
- (b) The City of Calgary has designated certain roads or areas for use by trucks and has also put certain restrictions on trucks. Under the City of Calgary Truck Routes Bylaw, the Shepard Industrial ASP area is an unrestricted truck zone.
- (c) Glenmore Trail is currently a high load route in the ASP area. Additional high load routes may be identified in the ASP area in the future.

(8) Environmentally Significant Areas and Roads

- (a) The transportation network should be designed to minimize its impact on environmentally significant areas and wetlands.

- (b) A Biophysical Impact Assessment may be required to assess the impacts of roadways on environmentally significant areas and identify appropriate measures for mitigation.

(9) Intermunicipal and Regional Jurisdiction

The alignment of regional roads and associated interchanges and intersections, where those roadways cross jurisdictional boundaries, shall be co-ordinated with the Municipal District of Rocky View and the Province of Alberta.

(10) Emergency Access

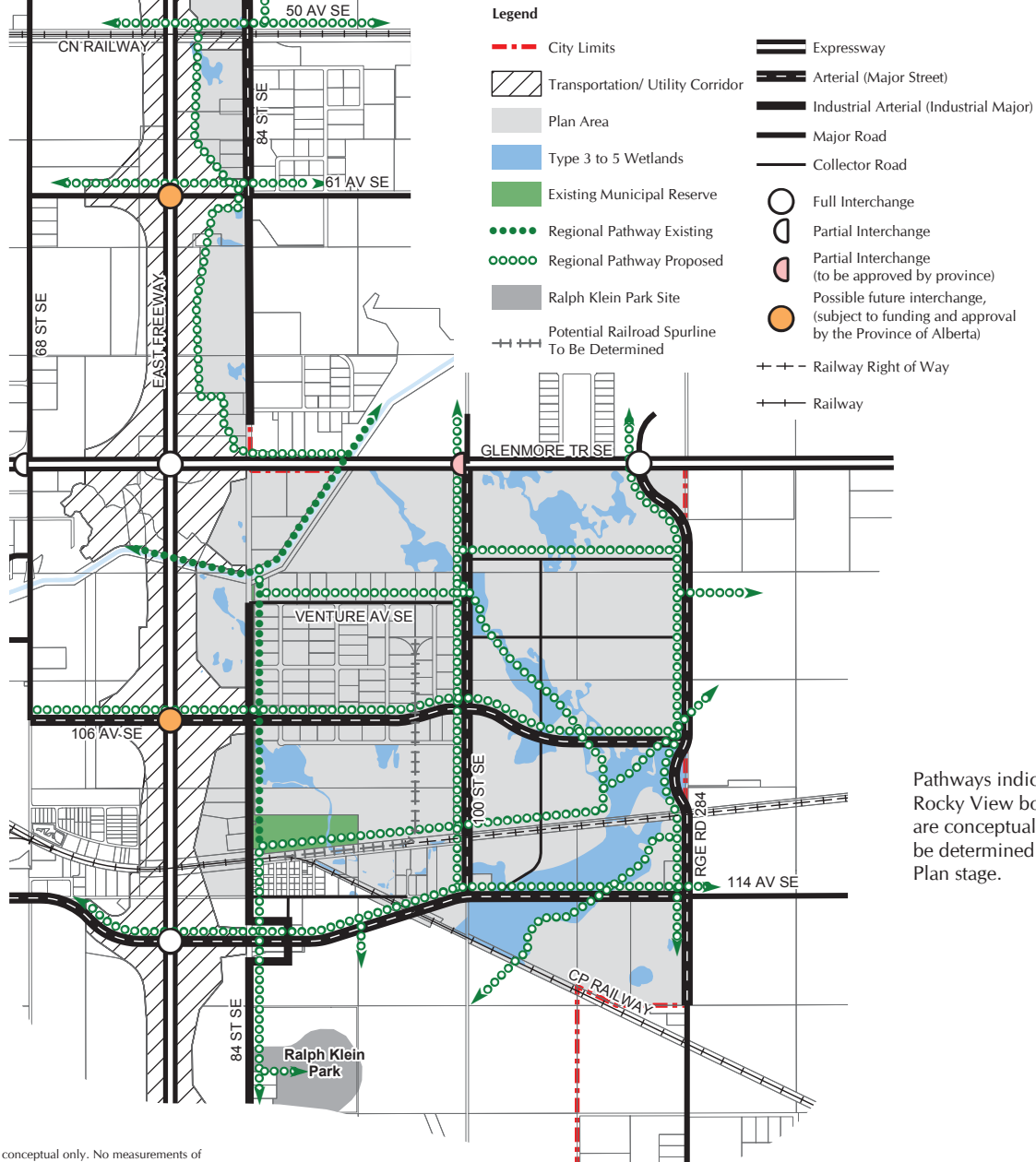
As required, emergency access to the developing portion of the ASP area shall be identified at the Outline Plan/Land Use Amendment stage and maintained in a manner satisfactory to the Approving Authority.



Shepard Industrial Area Structure Plan

Map 7

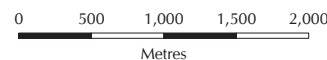
Transportation Network & Regional Pathways



This map is conceptual only. No measurements of distances or areas should be taken from this map.



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14.2 Pedestrian and Bicycle Circulation

14.2.1 Purpose

The purpose of these policies is to provide for direct and convenient pedestrian and bicycle circulation to promote walkability and connectivity within the ASP area by means of regional and local pathways, sidewalks, walkways and other features which include off-street cycle tracks and on-street bicycle treatments in the form of signage and pavement marking. The preference is for off-street bicycle treatments along arterials due to traffic volumes and speed.

Regional pathways are intended to create connections through the area and within corridors such as wetlands and transmission line rights-of-way. The regional pathway network will form part of a larger regional active travel (pedestrian and bicycle) greenway as identified within the East Regional Context Study. Local pathways, sidewalks and walkways, should combine to form an interconnected system throughout the area that is pedestrian, bicycle and transit supportive.

Cycling will be accommodated within road rights-of-way through a combination of off-street bicycle facilities (such as pathways and cycle tracks) along arterials, and on-street treatments (such as bicycle pavement markings) on collector or local streets where feasible. At the time of adoption of this ASP, the City of Calgary does not have an approved cross-Section that includes cycle track infrastructure. This cross-Section is anticipated within the time horizon of the Shepard Industrial ASP.

Bicycle connections will be made to the regional pathway system, providing crossings of major barriers such as high-volume roadways and the Western Headworks Canal.

14.2.2 Policies

(1) Regional Pathways

- (a) The regional pathway should:
 - (i) generally be aligned as shown on Map 3: Land Use Concept and Map 7: Transportation Network & Regional Pathways,
 - (ii) provide connections to the Commercial Node, Local Commercial Area, transit bus stops, major wetlands, and other pedestrian destinations, where practical and appropriate,
 - (iii) where appropriate, be located within reserve land, and

- (iv) wherever possible, be aligned adjacent to natural features and corridors.
- (b) Where the regional pathway cannot be located within reserve land, it may locate within transmission line rights-of-way, out-of-service rail line right-of-way, or road rights-of-way.
- (c) The prededication of land for, and the construction of the regional pathway in a timely manner are strongly encouraged and supported in order to achieve the completion of the comprehensive pathway system.
- (d) Regional pathways should cross barriers such as rail tracks, water bodies, and high-speed roads on road structures so as to avoid the need for separate pedestrian/bicycle overpasses or underpasses.
- (e) A pathway alignment along the north side of the out-of-service CP rail right-of-way should be provided if a safe crossing of a potential north-south spur line can be achieved.

(2) Local Pathways

- (a) Local pathways should provide connections to the regional pathways, local amenities and natural features.
- (b) Local pathways should create a looped pedestrian and bicycle amenity area around stormwater ponds.
- (c) The location of local pathways should be determined at the Outline Plan/Land Use Amendment stage.

(3) Sidewalks, Walkways and Bicycle Routes

- (a) The preference for cycling in the ASP area is off-street bicycle facilities including regional pathways and cycle tracks.
- (b) All roads with arterial classification should include off-street bicycle facilities.
- (c) On-street bicycle lanes could be accommodated on collector or local streets, where feasible and safe.
- (d) The alignment of sidewalks, walkways and on-street bicycle routes should be determined at the Outline Plan/Land Use Amendment stage.
- (e) Sidewalks, walkways and bicycle routes should be located to:

- (i) accommodate short, safe, convenient and direct pedestrian and bicycle connections to local commercial, office, higher intensity development, reserve land, the regional pathway system and transit bus stops,
 - (ii) promote walking, cycling and transit use, and
 - (iii) minimize the conflicts with loading areas and truck traffic wherever possible.
- (f) Road standards that incorporate:
 - (i) sidewalks on both sides of roads accommodating potential public transit bus routes shall be provided, and
 - (ii) signage and/or pavement markings for on-street bicycle routes on collector or local streets are encouraged and should be determined at the Outline Plan/Land Use Amendment stage.

(4) Building and Site Design

- (a) Sites should be situated and designed to provide direct pedestrian and cycle connections to building entrances and outdoor amenity areas from employee parking areas, regional pathways, walkways, sidewalks and transit stops.
- (b) Sites should be designed to minimize conflicts of pedestrian and bicycle circulation from loading areas and truck routes wherever possible and feasible.
- (c) To increase the attractiveness of running, cycling and other active travel for employee commuting or recreation:
 - (i) Developers are strongly encouraged to provide secure and short-stay bicycle parking as specified in the Land Use Bylaw, and
 - (ii) Developers are strongly encouraged to provide locker rooms, change rooms and shower facilities on site and/or within buildings.

(5) Transportation Demand Management

- (a) Developers are strongly encouraged to develop Transportation Demand Management (TDM) programs to:

- (i) increase the attractiveness and convenience of employee commuting by public transit, carpooling, cycling, walking, telecommuting and other appropriate methods,
 - (ii) reduce the use of personal motor vehicles for commuting by employees,
 - (iii) reduce the peak-period demands on the transportation system, and
 - (iv) reduce the need for existing rates of on-site employee parking.
- (b) The TDM programs should include initiatives such as a universal type transit pass or transit subsidies for employees, facilitating ride-matching, promoting carpooling, parking management, and car-sharing.
- (c) The developer and future site managers should provide a written commitment to promote and monitor the TDM program to reduce peak hour site-generated vehicular traffic and report on the TDM program to the Director of Transportation on an annual basis.
- (d) The developer should integrate TDM program infrastructure (e.g. bicycle parking, shower/locker facilities, carpool parking and pathway/sidewalk connections) into the development plans at the Development Permit stage.
- (e) Incentives such as reducing the on-site parking requirements may be considered appropriate when components of TDM program and infrastructure have been provided to the satisfaction of the Approving Authority.

(6) Pedestrian/Bicycle Routing Plan

- (a) As part of an Outline Plan/Land Use Amendment application, a Pedestrian/Bicycle Routing Plan should be provided to the satisfaction of the Approving Authority.
- (b) Guidelines for a Pedestrian/Bicycle Routing Plan are addressed under Section E.11: Pedestrian and Bicycle Circulation Review within Appendix E: Evaluation Guidelines for Outline Plan/Land Use Amendment Applications.

14.3 Public Transit

14.3.1 Purpose

The transit routing and bus service from the 52 Street SE corridor and/or the Douglasglen BRT/ LRT station area to the Shepard Industrial ASP area will be provided via 114 Avenue SE, and 94 Avenue SE from the west, cross-town service parallel to the TUC on 84 Street SE from the south and 100 Street SE from the north. The transit service will facilitate access from major transit corridors serving commuters living in the surrounding communities. The proposed transit routes are identified on Map 8: Transit. The transit routes are conceptual, and will be determined with the alignment of local road network at the Outline Plan/Land Use Amendment stage.

14.3.2 Policies

(1) Transit Service

- (a) Transit service requirements shall be achieved through the provision of:
 - (i) direct roadway connections that facilitate the efficient operation of transit bus service,
 - (ii) sidewalks along both sides of roads that are identified for transit bus service,
 - (iii) sidewalks along one side of roads that provide connections to roads with transit bus service, and
 - (iv) walkway connections that allow pedestrians to access bus service from areas not directly serviced by transit.
- (b) Buildings and parking areas shall be located and oriented to minimize the walking distance to transit bus zones.

(2) Transit Stop Distribution

Transit bus zones shall be located to:

- (i) minimize walking distances from business development,
- (ii) serve higher density commercial and business-related development directly,
- (iii) facilitate convenient transit service,
- (iv) provide safe waiting locations and access points, and
- (v) be provided in accordance with the *Transit Friendly Design Guidelines*.

(3) Transit Routes

The transit routes shall:

- (i) be identified at the Outline Plan/Land Use Amendment stage, and
- (ii) provide direct service to commercial and higher density business-related development.

(4) Transit Shelters

- (a) Transit shelters shall be located at key transit stops, particularly at those stops serving commercial and higher intensity business-related development.
- (b) Transit shelters shall be identified at the Development Permit stage and shall be required where ridership exceeds minimum standard volumes.
- (c) Transit shelters should be located where:
 - (i) weather exposure is evident,
 - (ii) higher passenger volumes are expected to be generated,
 - (iii) exposure to traffic volumes are expected to be heavy, and
 - (iv) other environmental effects may trigger the need for shelters.
- (d) Bicycle racks should be provided at transit shelters.

(5) Transit Impact Analysis

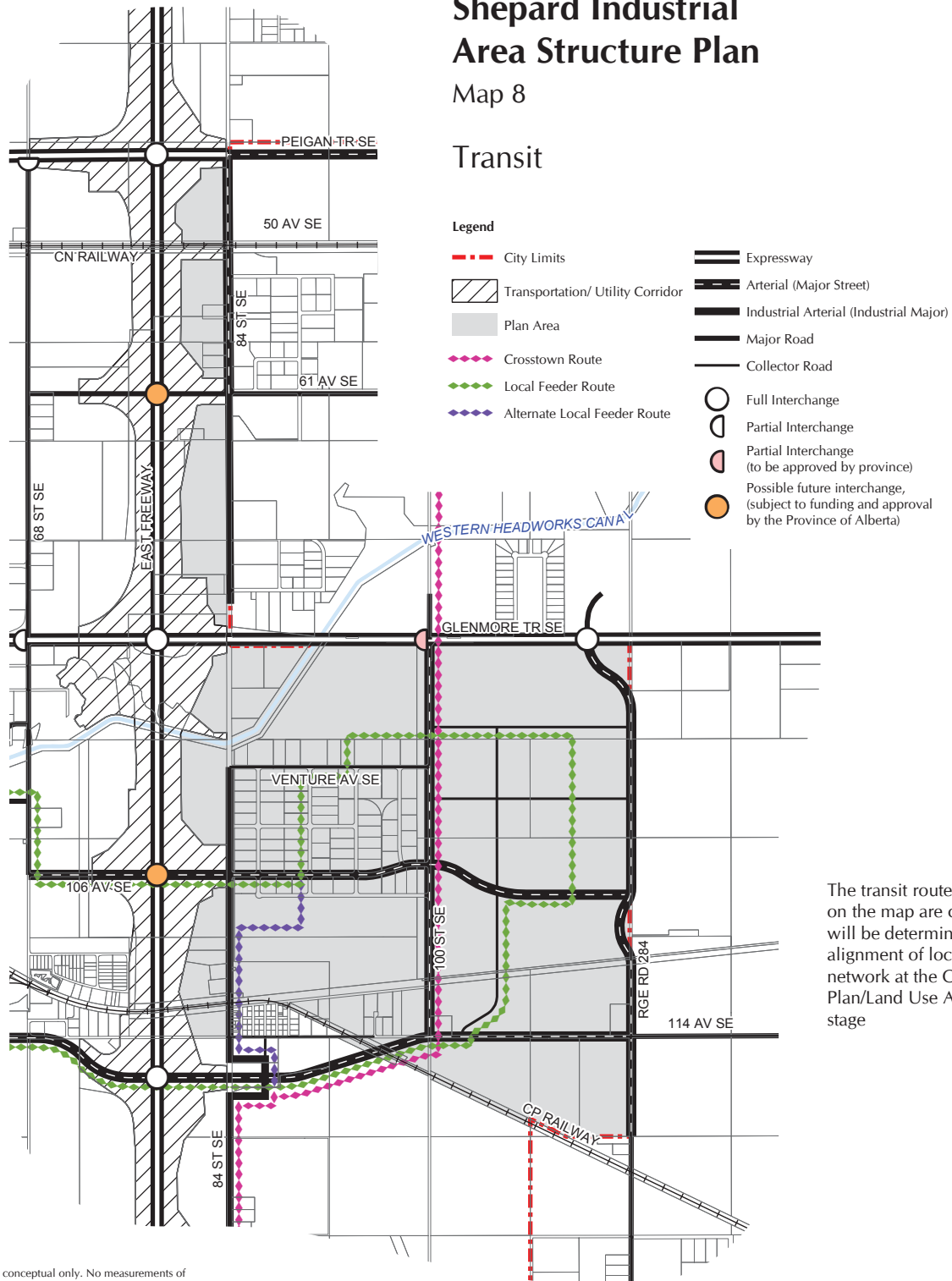
- (a) A Transit Impact Analysis should be provided as part of an Outline Plan/Land Use Amendment application to the satisfaction of the Approving Authority.
- (b) Guidelines for a Transit Impact Analysis are addressed under Section E.10: Transit Review within Appendix E: Evaluation Guidelines for Outline Plan/Land Use Amendment Applications.



Shepard Industrial Area Structure Plan

Map 8

Transit



The transit routes identified on the map are conceptual, will be determined with the alignment of local road network at the Outline Plan/Land Use Amendment stage

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15.0 SERVICING POLICIES

The following servicing policies provide for the ultimate planned built out of the Shepard Industrial ASP area. At the time of approval of this ASP, funding for the identified municipal infrastructure has not been included in City Council's capital budget (2009-2011). Funding for water, sanitary sewer, and stormwater infrastructure should refer to Section 17.0: Growth Management Policies.

15.1 Utility Services

15.1.1 Purpose

The purpose of these policies is to provide for a suitable level of utility services within the ASP area. New subdivisions and development within the area will require full servicing with municipal utilities (water, sanitary sewer and stormwater) as well as shallow utilities (gas, electrical, telecommunications). Utilities will need to be constructed in sequence as development proceeds, and rights-of-way and easements will need to be acquired to accommodate the extension of utility services through a site. Utility alignments will be identified at the Outline Plan/Land Use Amendment stage. Except for areas with pre-existing approvals, new limited-serviced subdivisions will not be allowed within the ASP area.

15.1.2 Policies

(1) Municipal Utilities

- (a) Development within the ASP area shall be serviced with municipal water, sanitary sewer and stormwater system.
- (b) The alignment and capacity of water distribution and feeder mains, sanitary sewer trunks and mains and storm sewer trunks and mains should be to the satisfaction of The City.
- (c) Utility rights-of-way and easements shall be required to accommodate municipal utilities within a site as determined necessary.

(2) Shallow Utilities

- (a) Development within the ASP area shall be serviced with shallow utilities.

- (b) The location of shallow utilities and the provision of related line assignments, easements and rights-of-way, should be addressed to the satisfaction of the utility companies.
- (c) Utility rights-of-way and easements shall be provided to accommodate shallow utilities within a site as determined necessary.

(3) Utility Alignments

- (a) Prior to Outline Plan/Land Use approval, a developer shall submit studies and information determined necessary to identify the location and alignment requirements for municipal utilities within a site.
- (b) Where it is determined that utilities are required to be aligned across the Western Headworks Canal or a wetland, the utilities should be, wherever possible, located within a road right-of-way.
- (c) A developer may be required to provide, or enter into an agreement to provide utility rights-of-way or easements necessary to accommodate the extension of municipal utilities in advance of development to allow for the servicing of an adjacent site.
- (d) Amendment of the ASP
 - (i) Utilities shown on Map 9: Water Services, Map 10: Sanitary Services, Map 11: Storm Services and Map 12: Shallow Utilities are conceptual. Utility alignments will be refined through Outline Plan/Land Use Amendment application process without the amendment of the ASP.
 - (ii) Where an adjustment of utilities is considered to be significant, an ASP amendment may be required as determined necessary by the Approving Authority.

15.2 Water Distribution

15.2.1 Purpose

The purpose of these policies is to provide for a suitably designed water distribution system to serve development within the ASP area. The area encompasses two water pressure zones: The Foothills Pressure Zone and the Ogden Pressure Zone (See Map 9: Water Services).

The majority of the ASP area is within Foothills Pressure Zone and can be serviced by a feeder main extending from 52 Street SE and Glenmore Trail SE. A second feeder main will come from the planned feeder main along 130 Avenue SE and north along the east side of the Transportation and Utility Corridor (TUC).

The southeast corner of the ASP area is located within the Ogden Pressure Zone, and is likely to be serviced by extending the existing distribution mains in this zone, or pressure reduced from Foothills Pressure Zone.

Residual cells north of Glenmore Trail SE, are located in the Foothills Pressure Zone and can be serviced by extending the existing distribution network west of the TUC, and tying to the feeder main along 50 Avenue SE west of TUC (before the Chestermere/Strathmore meter) to form a loop system. Another option is to tie in to the proposed feeder main along 106 Ave and then get a second tie to the feeder main on the east side of TUC.

15.2.2 Policies

(1) Design of Water Distribution System

The water distribution system for the ASP area shall be designed to adequately and efficiently serve the ultimate development of the area.

(2) Location of Water Distribution System

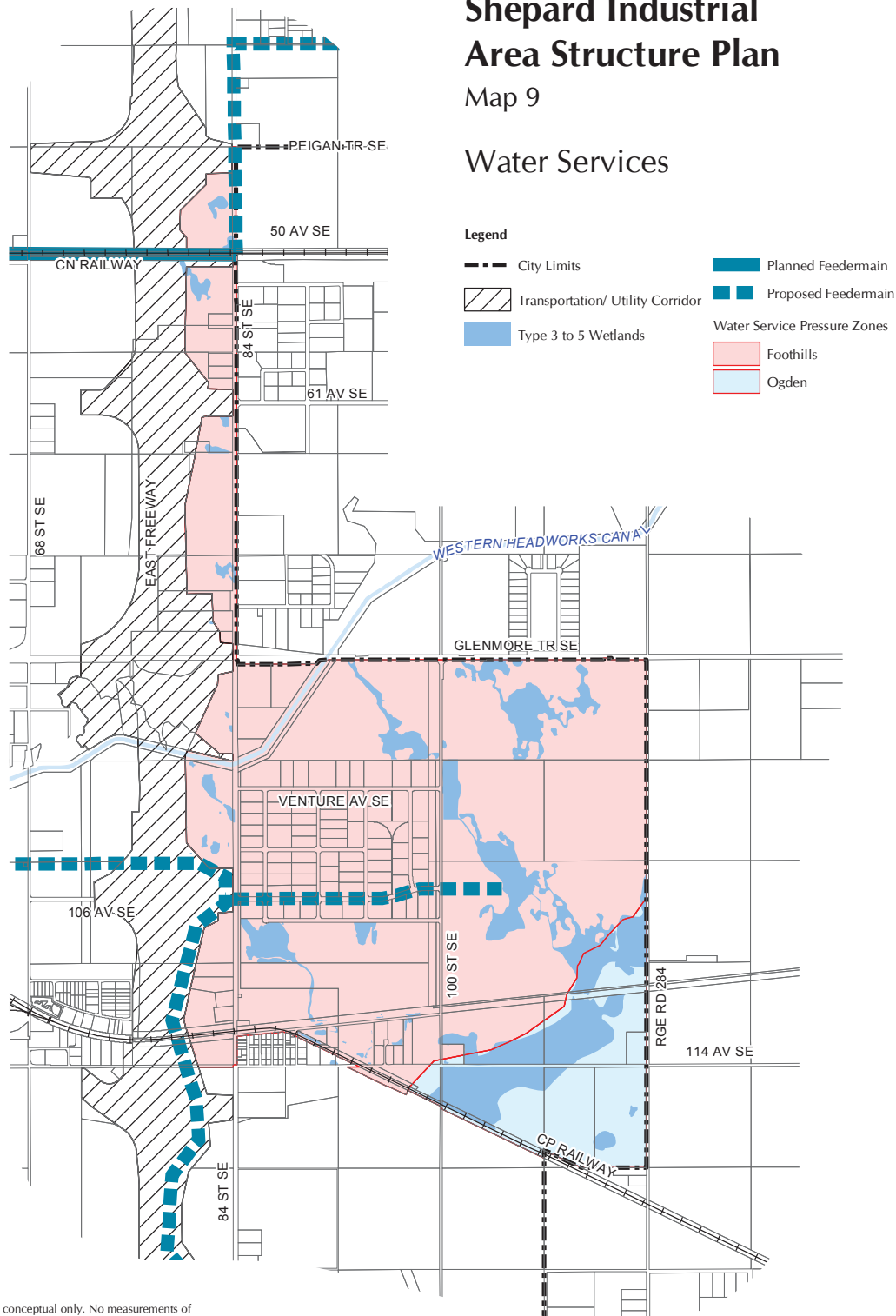
The water distribution system should be aligned to minimize its impact on natural features.



Shepard Industrial Area Structure Plan

Map 9

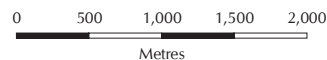
Water Services



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15.3 Sanitary Sewers

15.3.1 Purpose

The purpose of these policies is to provide for a suitably designed sanitary sewer system to service the ASP area. The majority of the ASP area can be serviced by a lift station located in the southwest part of the ASP area. Three main sanitary trunks will be required within this area and will connect directly to the lift station (See Map 10: Sanitary Services). A siphon crossing of the Western Headworks Canal will be required to service the relatively small parcel northwest of the Canal. The lift station will discharge into a 750mm diameter forcemain that will cross the TUC and terminate at 52 Street SE and 114 Avenue SE where it will connect to the existing sanitary trunk system. The existing sanitary trunk from 52 Street SE and 114 Avenue SE to the Fish Creek wastewater treatment plant will require upgrading, approximately 5-10 years from the time of approval of this ASP.

The residual cells north of Glenmore Trail SE and east of the TUC can be serviced by tying into the Great Plains trunk located west of the TUC.

The extreme southeast part of the ASP area will be serviced by a gravity trunk discharging to the future collection system to the south.

Additional pipes will be required within the ASP area to tie into the main trunks.

15.3.2 Policies

(1) Design of Sanitary Sewer System

The sanitary sewage system for the ASP area shall be designed to adequately and efficiently serve the ultimate development of the area.

(2) Location of Sanitary Sewer System

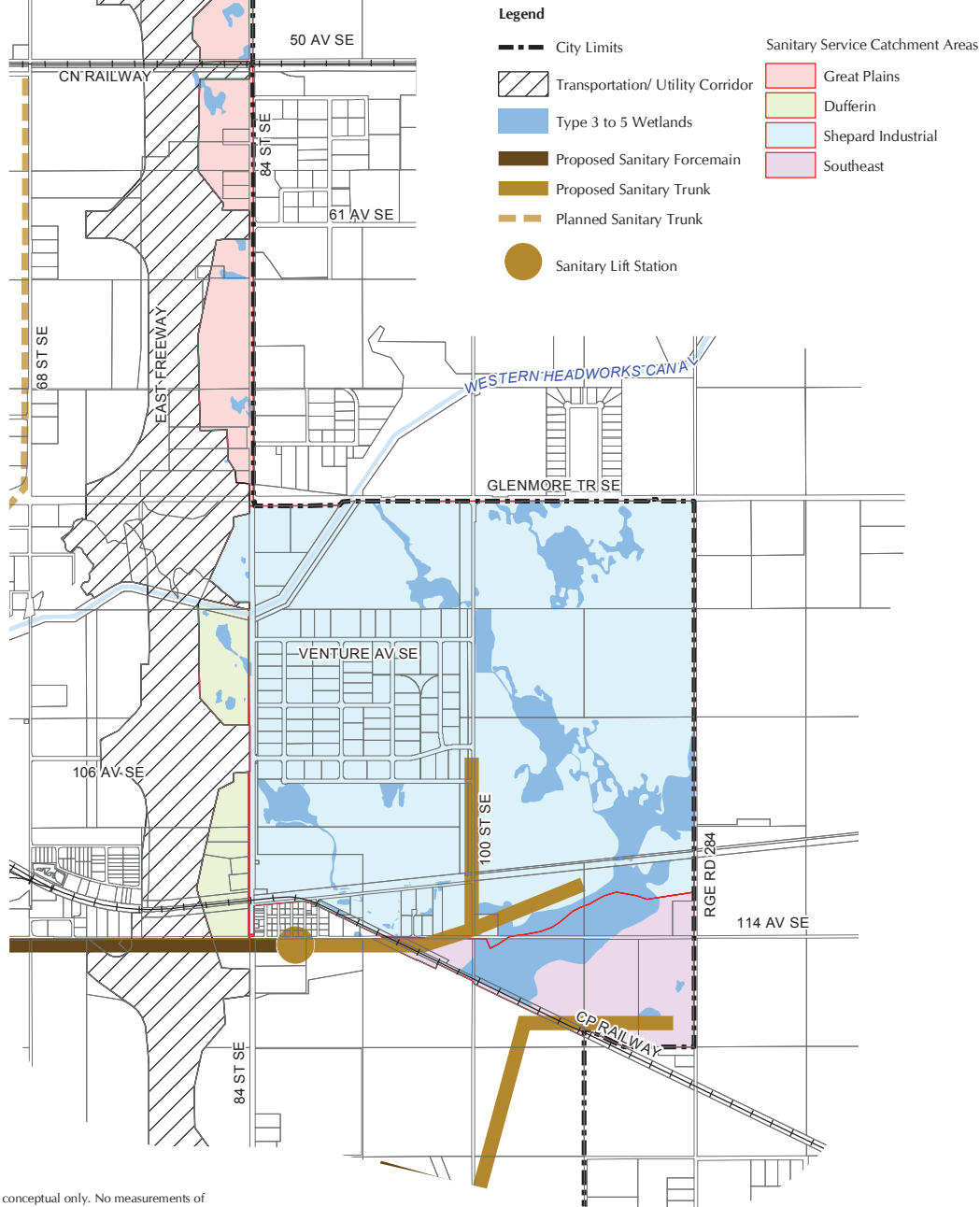
The sanitary sewage system should be aligned to minimize its impact on natural features.



Shepard Industrial Area Structure Plan

Map 10

Sanitary Services

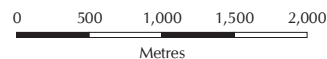


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15.4 Stormwater Management

15.4.1 Purpose

At the time of approval of this ASP, a Master Drainage Plan (MDP) has not been prepared for the Shepard Industrial ASP area. The Shepard Regional Drainage Committee (SRDC) was created in June 2008 to provide recommendations for drainage in the region, and is working towards developing a Regional Drainage Plan (RDP) for the Shepard Drainage Corridor. No timelines have been established for producing the RDP. The SRDC consists of representatives from The City of Calgary, Municipal District of Rocky View and Town of Chestermere. A Terms of Reference for a Master Drainage Plan and Stormwater Management Plan has been developed by Water Resources.

Within the ASP area, a Revised Master Drainage Plan for Shepard Business Park (as shown on Map 11: Storm Services) was approved by the Municipal District of Rocky View in 2002 for interim conditions. Interim conditions allow for evaporation ponds only until a storm system is connected to the Shepard Ditch via the Shepard Bypass. Stormwater runoff from the existing limited serviced Shepard Business Park is stored in several existing evaporation ponds (Ponds A & B, temporary Low Areas 1 & 2 at zero discharge, see Map 11: Storm Services). Pond C was approved in June 2007 prior to annexation, and is currently under construction. No approval for discharge from any ponds in Shepard Business Park has been granted by the Municipal District of Rocky View or The City of Calgary. Once connections to the Shepard Ditch have been established for Ponds A, B and C, temporary Low Areas 1 and 2 will be decommissioned.

15.4.2 Policies

(1) Stormwater Management

- (a) The stormwater management system for the Shepard Industrial ASP area must comply with both The City of Calgary Stormwater Management Strategy and Bow Basin Watershed Management Plan.
- (b) The stormwater management system shall be designed to adequately and efficiently serve the ultimate development of the area.
- (c) A Master Drainage Plan (MDP) is required at the Outline Plan/Land Use Amendment application stage for areas beyond the approved Shepard Business Park.

- (d) A stormwater management plan is required at Outline Plan/Land Use Amendment application stage for areas beyond Shepard Business Park Phases 1, 2 & 3, but within the boundary of the approved (2002 Revised MDP) Shepard Business Park (Map 11: Storm Services):
 - (i) In the absence of a storm connection to the Shepard Ditch, the stormwater management plan must meet the interim conditions of zero discharge (evaporation ponds). The plan must also provide the required rights-of-way (within Shepard Business Park) for a future stormwater conveyance to drain lands north of the Western Headworks Canal. The conveyance system should be based on one of two options: open channel with natural parkland setting or an underground pipe system to the satisfaction of the Approving Authority.
 - (ii) Connections from the Shepard Business Park to the Shepard Ditch shall be determined in consultation with Water Resources.
- (e) Areas within the City of Calgary located north of the Western Headworks Canal, south of Peigan Trail, east of the Transportation Utility Corridor (TUC) are to be excluded from the MDP for Shepard Industrial ASP. The Forest Lawn Study will include these areas (see Map 11: Storm Services) and is expected to be completed in 2009.

(2) Location of Stormwater Management Facilities

- (a) Stormwater facilities shall be generally located as shown on Map 11: Storm Services, with the location subject to refinement at the Outline Plan/Land Use Amendment application stage through the submission of a MDP and RDP.
- (b) Where a stormwater facility is required to serve a catchment area under multiple landownership, the various landowners involved are encouraged to co-operate in the location, design, timing and financing of the facility with the resolution of these matters to the satisfaction of the Approving Authority.
- (c) Where landowners cannot reach a consensus on matters under Policy 15.4.2 (2) (b) above, the land requirements for stormwater facilities should be determined at Outline Plan/Land Use Amendment application stage to the satisfaction of the Approving Authority.

- (d) Where, due to the landownership pattern, the construction of a stormwater facility necessary to serve a stormwater catchment area will be delayed, an interim stormwater management solution can be introduced as a requirement of Outline Plan/Land Use Amendment application within the stormwater catchment area.

(3) Best Management Practices for Stormwater Management

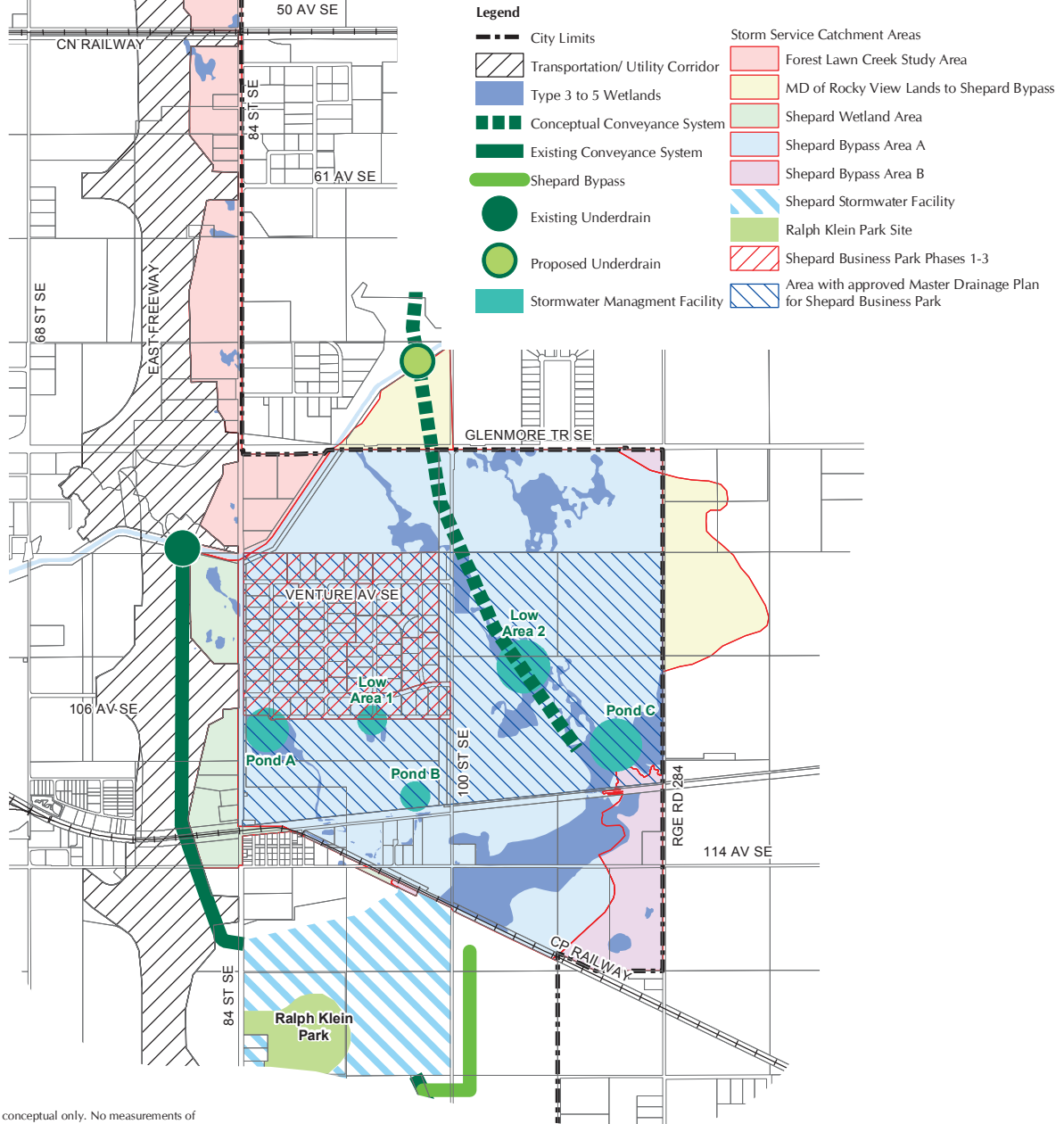
- (a) As part of the preparation of a Stormwater Management Plan or Master Drainage Plan, “Best Management Practices” and alternatives for stormwater quality and quantity enhancement shall be assessed with regard to the following:
 - (i) developing stormwater facilities with a preference for source controls as opposed to end-of-pipe solutions, and
 - (ii) introducing naturalized methods, such as wetlands, to mitigate the effects of stormwater run-off on Bow River as opposed to hard engineering measures.
- (b) The stormwater management system should introduce mitigation measures where determined appropriate to address the potential impact on the water quality of existing wetlands and Bow River.
- (c) Low Impact Development measures are strongly encouraged to be incorporated into site design. Low Impact Development guidelines are contained within Appendix B: Site and Building Design Guidelines.



Shepard Industrial Area Structure Plan

Map 11

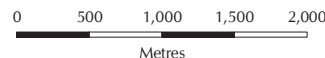
Storm Services



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15.5 Shallow Utilities

15.5.1 Purpose

The purpose of these policies is to ensure that adequate shallow utility infrastructure is provided to serve urban development throughout the ASP area. Shallow utilities should be constructed prior to, or in conjunction with development. Rights-of-way and easements are required to accommodate the extension of utility services through the ASP area. Utility alignments will be identified at the Outline Plan stage and confirmed prior to or during the Tentative Plan/Construction Drawing Approval stage. Map 12: Shallow Utilities illustrates the general layout of feeder mains within the ASP area.

15.5.2 Service Providers

(1) Telephone / Cable Service

TELUS Communications Inc. will provide services for business customers in the ASP area. Map 12: Shallow Utilities shows the existing TELUS Feeder Routes.

(2) Natural Gas

Atco Gas will provide the natural gas distribution service for all customers within the ASP area. Map 12: Shallow Utilities shows the Atco Gas feedermain within the ASP area.

(3) Electrical Service

ENMAX Corporation will provide electrical utilities to the ASP area and will distribute electricity to all customers and design the distribution systems for street and park lighting.

15.5.3 Policies

- (1) Urban development within the ASP area shall be serviced with shallow utilities (i.e., gas, cable, electricity, and telephone).
- (2) The location of all shallow utilities and the provision of rights-of-way and easements and related line assignments should be addressed to the mutual satisfaction of The City, the landowner and the utility companies.
- (3) Utility rights-of-way and easements shall be provided to accommodate shallow utilities as determined necessary.

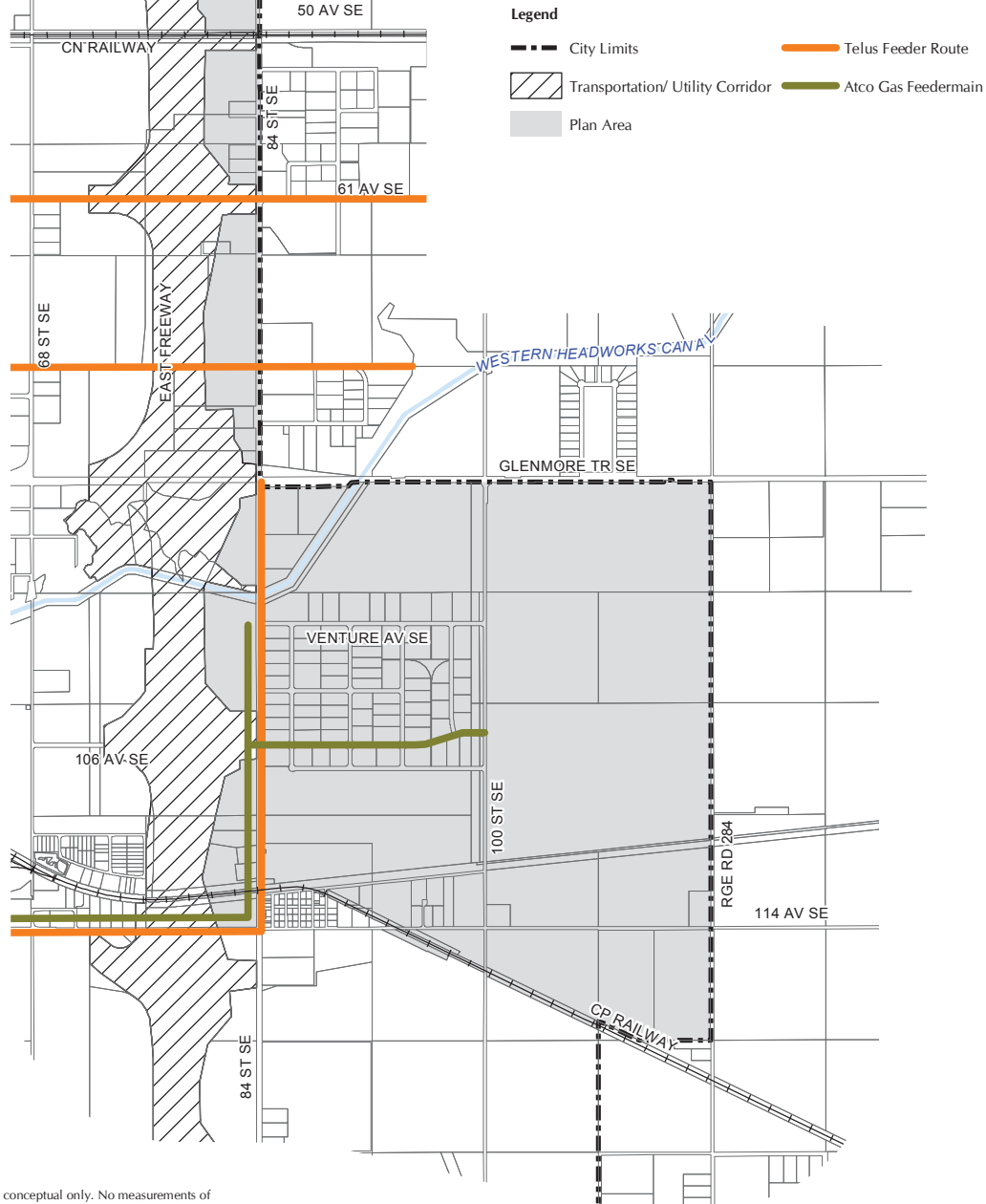
- (4) The location of required easements and exact alignment of utilities will be determined at the Outline Plan/Land Use Amendment and subdivision stage.
- (5) Prior to Outline Plan/Land Use approval, a developer shall submit studies and information determined necessary to identify the location and alignment requirements for utilities within the development.
- (6) Utility feeder mains on Map 12: Shallow Utilities are shown conceptually, adjustments to these will not require amendments to this ASP.
- (7) Utilities to be located within or across the TUC require permission from the Province of Alberta.



Shepard Industrial Area Structure Plan

Map 12

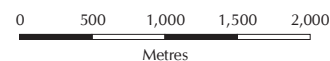
Shallow Utilities



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16.0 DESIGN INNOVATION

16.1 Purpose

The purpose of these policies is to provide a means to address and promote design innovation within the ASP area. Design innovation, while necessary to achieve sustainable development, necessitates the application of new standards that may introduce new rewards and risks for The City, require comprehensive review by the Administration, and set potential precedent for The City, other municipalities and other developers.

To address this situation a new approach is needed, which includes:

- Identification of the area that is the subject of the innovation as a Design Innovation Area where new standards can be applied on a test basis without setting precedent for other areas and developers in the city.

16.2 Policies

(1) Promoting Design Innovation

- (a) Design innovation should be encouraged within the ASP area provided that the innovation:
 - (i) promotes sustainability or provides other public benefits, and
 - (ii) can be developed in a safe, cost-effective and practical manner.
- (b) Based on the policies within the ASP, candidates for design innovation within the ASP area include, but are not limited to, the introduction of:
 - (i) revised street standards for providing tree-lined streets, accommodating walking and cycling, and facilitating Low Impact Development,
 - (ii) best management practices for stormwater control,
 - (iii) creditable reserve dedication to augment the protection of natural features, and

- (iv) new policies addressing appropriate land uses under specific circumstances.
- (c) Where an Outline Plan/Land Use Amendment application is proposing sustainable development innovations, the following components may be required by the Approving Authority:
 - (i) Design Development Guidelines,
 - (ii) Cross-sections of the proposed new street standard, and
 - (iii) other information as determined necessary by the Approving Authority

(2) Designating a “Design Innovation Area”

- (a) Where innovations involving the introduction of new standards for public improvements (i.e., utilities, parks, streets, etc.) or private development are proposed within the ASP area that are determined to provide sustainable development benefits, the developer and/or the Approving Authority may request that Council identify the area that is the subject of the innovation as a “Design Innovation Area”.
- (b) Where a “Design Innovation Area” is identified:
 - (i) new standards for public improvements or private development may be applied within that area that are not available city-wide where the standards are determined to be practically, financially, and legally acceptable,
 - (ii) new public or private sector financing methods for dealing with the maintenance or operational costs of the innovations may be introduced,
 - (iii) a process for evaluating innovations proposed by a developer in an efficient and timely manner, that includes a review of the risks and benefits to The City should be provided, and
 - (iv) the “Design Innovation Area” should be identified on Map 13: Design Innovation Area through ASP amendment process.
- (c) Where a “Design Innovation Area” is indicated, Administration shall provide a report to Calgary Planning Commission (CPC) respecting impact on costs of implementing, processing times and approvals.

(3) Design Innovation Area

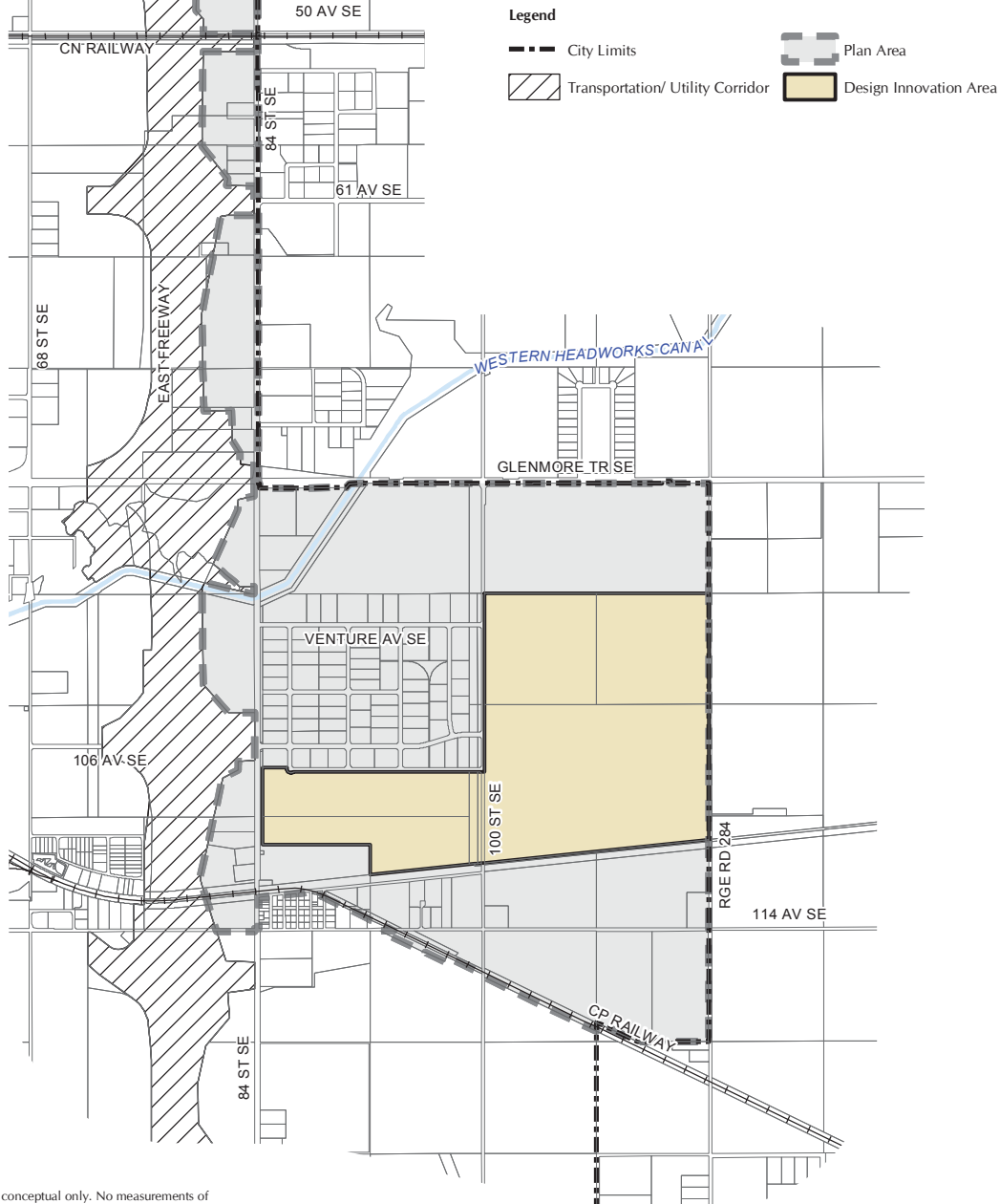
At the time of the approval of this ASP, a Design Innovation Area has been identified on Map 13: Design Innovation Area to encourage sustainable development innovations. Policies under Section 16.2 (1) and (2) should be applied within this area.



Shepard Industrial Area Structure Plan

Map 13

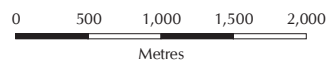
Design Innovation Area



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17.0 GROWTH MANAGEMENT POLICIES

17.1 Staging of Growth

17.1.1 Purpose

The purpose of these policies is to ensure that urban growth within the ASP area proceeds in an efficient and economical manner through the Outline Plan/Land Use Amendment application process.

An Outline Plan/Land Use Amendment application needs to comprise a logical development and servicing area. The ASP area is currently not serviced by municipal water, sanitary sewer and stormwater utilities, and the extension of municipal services to the ASP area is currently not included in The City's 2009-2011 capital budget. Therefore, infrastructure costs require resolution prior to approval of the application. Where servicing or transportation capacity constraints arise due to the timing of municipal infrastructure construction, development may need to be staged in response to these constraints.

Capital costs of core infrastructure and facilities to service the ASP area are identified in Appendix G: Shepard Industrial ASP Cost of Growth.

17.1.2 Policies

(1) Timing of Service Extension

The provision of municipal services to the ASP area:

- (i) shall be comprehensively evaluated to demonstrate that urban growth proceeds in a logical, feasible, and economic efficient manner,
- (ii) shall be subject to The City's capital budgeting priorities and approval process, and
- (iii) may be financed by a developer subject to Policy 17.3.2 (3) (c).

(2) Timing of Development

Development shall demonstrate that the required level of services be provided, including but not limited to:

- (i) transportation network capacity,
- (ii) water service capacity,
- (iii) sanitary service capacity,
- (iv) stormwater service capacity, and
- (v) phasing plan for development within the application area.

(3) Evaluation of Outline Plan/Land Use Amendment application

- (a) An Outline Plan/Land Use Amendment application must include a capital cost analysis (defined under Section 19.1: General Definitions) and resolve outstanding municipal infrastructure financing issues and requirements for the proposed application.
- (b) In evaluating an Outline Plan/Land Use Amendment application in regard to Policy 17.1.2 (2), the following factors shall be considered:
 - (i) identification of required on-site and downstream servicing infrastructure improvements and resolution of public and private financing responsibilities for these improvements, and
 - (ii) identification of required on-site and downstream transportation infrastructure improvements, and resolution of public and private financial responsibilities for these improvements.

(4) Staging of Development

As part of the approval of an Outline Plan/Land Use Amendment, a method of co-ordinating the rate of development with the capacity of the publicly financed core infrastructure (defined under Section 19.1: General Definitions) should be implemented as appropriate through the Outline Plan/Land Use Amendment application process.

17.2 Servicing of Growth

17.2.1 Purpose

The purpose of these policies is to ensure that core infrastructure improvements required to service development within the ASP area are identified prior to approval of an Outline Plan/Land Use Amendment application. This includes both on-site and off-site infrastructure improvements and facilities. This information is required as part of the decision-making process on an Outline Plan/Land Use Amendment application.

17.2.2 Policies

(1) Identification of Core Infrastructure

As part of an Outline Plan/Land Use Amendment application, a developer shall submit information identifying:

- (i) the major on-site and off-site infrastructure improvements and facilities necessary to serve the subject lands,
- (ii) Provincial, municipal and developer financial obligations for these infrastructure improvements and facilities,
- (iii) the projected phasing (rate) of growth,
- (iv) the timing of construction or development thresholds for provincially and municipally financed infrastructure improvements and facilities, relative to projected land absorption rates, and
- (v) as determined appropriate, the timing of any downstream infrastructure improvements and facilities required as it relates to the subject lands.

(2) Public Infrastructure Improvements in Relation to Budgeting Priorities

As part of the growth management analysis, Administration shall address the budgeting priorities of The City in relation to municipally financed on-site or off-site core infrastructure improvements and facilities necessary to serve the subject site.

(3) Report to Council

The report to Council accompanying an Outline Plan/Land Use Amendment application should address the proposal in the context of Policy 17.2.2 (1) and (2).

17.3 Financing of Growth

17.3.1 Purpose

The purpose of these policies is to address the timing (rate) of urban growth through the Outline Plan/Land Use Amendment application process relative to the financing of infrastructure improvements and other facilities necessary to serve such growth. Infrastructure improvements may be funded by both The City and the developer. A developer's requirement to finance infrastructure improvements would typically be addressed through the Standard Development Agreement or, through any other agreement as determined by the Approving Authority. The City's infrastructure and facilities financing is ultimately subject to and approved through the municipal budgeting process of The City of Calgary.

17.3.2 Policies

(1) Financing of Development

Subject to policy 17.4.2 (1):Co-ordination Options or as agreed between The City and the developer, any expenditure for studies, facilities or improvements proposed within the ASP shall be funded to the satisfaction of the Approving Authority.

(2) Financing by The City

- (a) Any expenditure funded by The City for improvements, facilities or municipal programs proposed within this ASP shall be:
 - (i) subject to The City's capital budgeting priorities and approval process, and
 - (ii) evaluated in relation to the needs of other areas and city-wide spending priorities.

(3) Financing by Developer

- (a) In accordance with the Standard Development Agreement in place at the time, the landowner shall pay required development cost charges.
- (b) Where a developer finances the cost of extending infrastructure that would normally be financed by an adjacent developer, cost-recovery requirements shall apply to the benefiting developer in accordance with the Standard Development Agreement.

- (c) Where a developer finances the cost of extending infrastructure that would normally be financed by The City, The City may, subject to policy 17.3.2 (2), enter into a servicing and financing agreement with the developer that details the facilities to be constructed and the method and timing of cost-recovery to the developer.
- (d) The decision to enter into, or not, the financing agreement identified in policy 17.3.2 (3) (c) above, shall be determined by City Council.

17.4 Co-ordination of Growth

17.4.1 Purpose

The purpose of these policies is to provide for co-ordination between the Land Use Amendment approval process and the budgeting process. The policies identify the basic options that Council may exercise where co-ordination issues arise. These options would typically need to be exercised at the Outline Plan/Land Use Amendment application stage.

17.4.2 Policies

(1) Co-ordination Options

Prior to an Outline Plan/Land Use Amendment approval, where major on-site or off-site infrastructure improvements and facilities are required to be financed by The City or the Province to serve the proposed development:

- (a) a commitment from The City or the Province to undertake the financing of the infrastructure improvements and facilities shall be received, or
- (b) the matter may be addressed in some other manner satisfactory to Council, including but not restricted to:
 - (i) imposing an off-site levy by bylaw or other mechanisms as considered appropriate by the Approving Authority to fund off-site improvements,
 - (ii) granting Land Use approval to enable development to proceed and realigning budgetary priorities accordingly,
 - (iii) granting Land Use approval to enable development to proceed and continuing to monitor the staging of development in relation to budgeting priorities, or
 - (iv) withholding Land Use approval or otherwise placing limitations on subdivision or development until such time as the funding for the required infrastructure improvements is resolved.

17.5 Decisions on Growth

17.5.1 Purpose

The intent of these policies are to address fundamental infrastructure financing issues early on in the process, recognizing that such issues may significantly affect a decision on an Outline Plan/Land Use Amendment application, and to provide a decision-making process to resolve growth management issues in advance of an Outline Plan/Land Use Amendment application proceeding to the Calgary Planning Commission or Council. The process will involve identifying major issues at the Pre-Application stage of the Outline Plan/Land Use Amendment application and where appropriate, referring these issues to the Infrastructure Coordinating Committee Growth Sub-Committee and, if necessary, Calgary Planning Commission and Council for a decision.

17.5.2 Policies

(1) Resolution of Growth Management Issues

- (a) Prior to submission of an Outline Plan/Land Use Amendment application, a developer should:
 - (i) meet with Administration to review the proposal with respect to its conformity with Growth Management policies contained in Section 17.0 of the ASP, and
 - (ii) provide preliminary analysis of the Outline Plan/Land Use Amendment application in terms of its conformity with the Growth Management policies contained in Section 17.0 of the ASP.
- (b) Developers are encouraged and given the opportunity to address and resolve those issues at the Pre-Application stage of the Outline Plan/Land Use Amendment application, recognizing that such issues may be fundamental to the support and approval of an application.

(2) Council Appointed Body

Where determined necessary by Administration, a pending or outstanding Outline Plan/Land Use Amendment application that presents staging or other growth management issues relative to the timing and delivery of necessary municipal capital projects (infrastructure, servicing, or facilities) will be referred by the Administration to the Infrastructure Coordinating Committee Growth Sub-Committee or other Council appointed body for a recommendation.

18.0 IMPLEMENTATION POLICIES

18.1 Approval Process

18.1.1 Purpose

The purpose of these policies is to provide for the implementation of this ASP. The principle means of implementation will occur through the Outline Plan/Land Use Amendment process.

18.1.2 Policies

(1) Land Use Approval

- (a) The timing, direction and extent of urban growth within the ASP area shall be determined primarily through the Outline Plan/Land Use Amendment process that establishes the land use pattern for a site and enables urban level subdivision and development of the land to proceed.
- (b) Until it is determined appropriate by Council for urban level subdivision and development to proceed, lands shall be retained within a “holding district”, such as the Special Purpose- Future Urban Development (S-FUD) District.
- (c) The land use designations in effect at the time of approval of the Shepard Industrial Area Structure Plan shall:
 - (i) continue to apply in accordance with the provisions of the *Municipal Government Act*, and
 - (ii) remain in effect until it is determined appropriate to redesignate the lands to appropriate districts in accordance with the policies of the ASP.

(2) Outline Plan Approval

Except in unique circumstances, or where the future subdivision of a site is intended, Land Use approval under Policy 18.1.2 (1) above should not be given unless an Outline Plan for the site is first approved by Calgary Planning Commission.

(3) Transitional Uses

- (a) A transitional use may be allowed on a site provided that the use does not compromise future subdivision or development of the site.
- (b) A transitional use may include, but is not limited to:
 - (i) an extensive agricultural use,
 - (ii) a crop-based intensive agricultural use, and
 - (iii) a resource extraction use.

(4) Fire Protection

Proposed development within the ASP area will be reviewed by the Fire Department and the Approving Authority to ensure appropriate Fire Protection measures are incorporated.

(5) Land Use Redesignation for Shepard Business Park

The existing Shepard Business Park should be comprehensively redesignated from its existing land use designation Direct Control District Bylaw Number 56 (Municipal District of Rocky View) to an appropriate land use district of The City of Calgary. This is considered important in order to ensure administrative efficiency and facilitate future business development in the area.

18.2 Supporting Information

18.2.1 Purpose

The purpose of these policies is to require the submission of supporting information by a developer in order to assist the Approving Authorities and Council in evaluating a proposal in terms of its conformity with this ASP. While the implementation of this ASP will be achieved through a variety of planning initiatives (subdivision plan, development permits, road closures, development agreements, etc.), the principle means of implementation will occur through the Outline Plan/Land Use Amendment approval process. As such, comprehensive land use, servicing and transportation studies and analysis will be requested in conjunction with the Outline Plan/Land Use Amendment application.

18.2.2 Policies

(1) Comprehensive Studies

Prior to Outline Plan/Land Use approval, supporting information, above the normal application requirements, may be required as determined by the Approving Authority to be submitted in order to assist Council and Calgary Planning Commission in evaluating a proposal in terms of its conformity with this ASP.

18.3 Intermunicipal Coordination

18.3.1 Purpose

The purpose of these policies is to provide for the circulation and evaluation of Outline Plan/Land Use Amendment applications by the Municipal District of Rocky View in relation to the provisions of the *Intermunicipal Development Plan (IDP)*. The IDP, approved by the Councils of the Municipal District of Rocky View and The City of Calgary, identifies areas of mutual interest within both municipalities and establishes policies and processes for dealing with issues that may arise. The Shepard Industrial ASP area falls within the IDP boundary.

18.3.2 Policies

(1) Intermunicipal Review

- (a) An Outline Plan/Land Use Amendment, or a subdivision or a Development Permit application comprising any lands within the IDP area, or any lands within the Joint Planning Area shall be referred to the Municipal District of Rocky View for review and evaluation in relation to the policies of the IDP.
- (b) All proposed amendments to this ASP within the IDP boundaries shall be referred to the Municipal District of Rocky View and be subject to the provision of the IDP.
- (c) The referral of an Outline Plan/Land Use Amendment application to the Municipal District of Rocky View shall occur in accordance with the provisions of the IDP.

(2) Intermunicipal Consultation

- (a) The City shall endeavour to consult and co-operate with the Municipal District of Rocky View on planning, transportation and servicing matters that may arise within the ASP area that are intermunicipal in nature.
- (b) Matters affecting lands within the boundaries of the IDP will be addressed and be resolved through appropriate intermunicipal coordination, including but not limited to the administrative review of circulations and the referral of applications, plans or issues to the Joint Intermunicipal Infrastructure Committee (JIIC) and where necessary, the Intermunicipal Committee (IMC).

18.4 Previous Planning Approvals

18.4.1 Purpose

The purpose of these policies is to recognize land use and development permit decisions that have previously occurred within the ASP area.

18.4.2 Policies

(1) Existing Development

- (a) An approved use that existed on a site at the time of adoption of this ASP:
 - (i) shall be considered to be in compliance with the policies of this Plan, and
 - (ii) may be allowed to undergo improvements or compatible, minor expansion subject to a specific evaluation of the proposal.
- (b) Uses allowed by the City of Calgary Land Use Bylaw 1P2007 under the Special Purpose- Future Urban Development (S-FUD) District, or any other district in effect at the time of approval of this ASP, shall be considered to be in compliance with the policies with this ASP.
- (c) As determined appropriate by the Approving Authority, temporary uses that do not compromise the ultimate land use pattern identified for a site may be allowed.

19.0 INTERPRETATION

19.1 General Definitions

The following general definitions shall apply:

- (1) **Approving Authority** means the Subdivision Authority, Development Authority or Subdivision and Development Appeal Board of The City of Calgary, as the context implies;
- (2) **Boundary Road** means a major road, expressway or freeway that borders the Shepard Industrial ASP area, including Glenmore Trail SE, Range Road 284, and 84 Street SE between Peigan Trail SE and Glenmore Trail SE.;
- (3) **Calgary Planning Commission** means the Calgary Municipal Planning Commission constituted pursuant to the Municipal Planning Commission Bylaw;
- (4) **Capital Cost Analysis** is a summary of the necessary infrastructure and services to support development in the ASP area relative to the status of that said infrastructure in The City of Calgary's Capital Planning and Capital Budgeting processes;
- (5) **Core Infrastructure** means water utilities, transportation and fire facilities regard to accommodate subdivision and development activity in the ASP area;
- (6) **Council** means the Council of The City of Calgary;
- (7) **Creditable Reserve Land** means the reserve owing on a parcel of land that is to be dedicated as Municipal Reserve (MR), school reserve (SR) or municipal and school reserve (MSR) through the subdivision approval process in accordance with the *Municipal Government Act*;
- (8) **Cycle Track** is an off-street one-way bicycle lane next to the sidewalk. It is designated for cyclists with a width of 1.5m. to 2.0m. They provide clear separation between moving vehicles and cyclists, as well as between pedestrians and cyclists;
- (9) **District Energy** means the distribution of thermal energy using a pipeline distribution system (*Canadian District Energy Association*). District Energy systems produce steam, hot water or chilled water at a central plant and then pipe that energy out to buildings in the district for space heating, domestic hot water heating and air conditioning (*International District Energy Association*);

- (10) **Engineered Stormwater Wetland** means a constructed and/or modified waterbody that fluctuates with water drainage peaks but holds water at all times. The wetland is used to improve stormwater runoff quality through nutrient and sediment removal using vegetation, detention, settlement and other best management practices. The wetland is also used to manage the volume of runoff through storage and restricted pipe outlets. Engineered Stormwater Wetlands have a habitat function with existing or constructed riparian and upland vegetation communities. The boundary of the wetland will be dedicated as Environmental Reserve in accordance with the *Municipal Government Act*, and the adjacent buffer or riparian and upland vegetation will be dedicated as MR,...and all forebays shall be dedicated as Public Utility Lots (The City of Calgary *Wetland Conservation Plan*);
- (11) **Entranceway Road** means a major, expressway or freeway standard road that provides access and egress to and from the Shepard Industrial ASP area, including East Freeway, Glenmore Trail SE, 106 Avenue SE, and 114 Avenue SE;
- (12) **Environmentally Significant Area** means a natural area which, because of its features or characteristics, is significant from an environmental perspective in the City, and has the potential to remain viable within an urban context;
- (13) **Gross Developable Area** means the area of a site being subdivided, excluding Environmental Reserve, expressways, freeways and interchange lands, and any lands purchased by The City;
- (14) **Holding District** means the Special Purpose- Future Urban Development District within the Land Use Bylaw 1P2007, that retains land at a low intensity of development pending redesignation to a land use district that will allow urban level subdivision and development to occur;
- (15) **Internal Road** means an industrial major road, standard road, or other type of road that provides internal access to sites within the Shepard Industrial ASP area and connections to the regional road network;
- (16) **Joint Intermunicipal Infrastructure Committee (JIIC)** means a committee established for the purpose of overseeing the implementation and operational requirements of the 2006 Annexation Agreement between the Municipal District of Rocky View and The City of Calgary through recommendations to the Inter Municipal Committee (IMC), including management of all technical planning and infrastructure-related issues between The City and the Rocky View;
- (17) **Net Developable Area** means the area of site that is being developed;
- (18) **Regional Road** means a major road, expressway or freeway that accommodates traffic flows to or through the Shepard Industrial ASP area, including Glenmore Trail SE, East Freeway SE, 114 Avenue SE and Range Road 284;

- (19) **Shadow Plan** means a Plan submitted at the Outline Plan/Land Use Amendment application stage at the discretion of the Approving Authority, showing the relationship of the design of the subject site with adjoining parcels, the possible development of adjoining parcels, and/or the next phases of development. A Shadow Plan may include, but not limited to land use patterns, environmental features, road network and pathway connections.

19.2 Land Use Definitions

The following land use definitions shall apply:

- (1) **Accessory Use** means the use of land, buildings or structures for a purpose that is incidental or subordinate to the principle use of the site;
- (2) **Employment Related Use** means a use, other than an office, that by its nature is employment intensive and determined to be compatible and appropriate in the context of a higher quality, fully-serviced industrial/business park and may include, but is not limited to, such uses as manufacturing plants, colleges and laboratories;
- (3) **Extensive Agricultural Use** means the use of land, buildings or structures for the purpose of the raising of crops or rearing of livestock either separately or in conjunction with one another in a unified operation but does not include an intensive agricultural use;
- (4) **General Industrial Use** means the use of land, buildings or structures for the purpose of producing, manufacturing, processing, fabricating, assembly, warehousing, storage and distribution of goods or materials that does not have significant external nuisance impact or are dangerous beyond the boundaries of the site by way of noise, odours, airborne emissions, outdoor lighting or vibration. It includes a wide range of industrial uses, excluding heavy industrial uses and uses that generate extensive outdoor activity or outdoor storage;
- (5) **Heavy Industrial Use** means the use of land, buildings or structures for the purpose of manufacturing, extracting, processing, fabricating or distributing goods or materials that creates conditions that are objectionable or dangerous beyond the boundaries of the site by way of noise, odours, airborne emissions or vibration, or other adverse impacts and may include but is not limited to, resource extraction and processing operations, manufacturing plants, feedlots, oil refineries and rendering plants. Heavy Industrial Use generally refers to the uses under Industrial-Heavy (H-I) District of Land Use Bylaw 1P2007, it may also include Direct Control District under certain circumstances;
- (6) **Institutional Use** means the use of land, buildings or structures for the purpose of religious, charitable, educational, health, welfare or correctional activities and may include, but is not limited to, places of worship, public or private schools, post-secondary institutions, hospitals, reformatory or correctional facilities, medical clinics, cemeteries, and day-care centres;
- (7) **Local Commercial Use** means the use of land, buildings or structures for the purpose of providing retail goods and services on a limited scale to primarily local employees or patrons in the area and may include, but is not limited to, restaurants, convenience food stores, gas bars, and financial institutions;

- (8) **Mid-scale Retail Commercial Use** in this ASP means the retail commercial development with medium parcel size (generally below 3.2 hectares) and mid-sized buildings in the context of an industrial area, intended to serve local employees, the adjacent communities, and the travelling public from adjacent highways. Large parcel areas with large-scale uses, such as big-box retail stores and major vehicle sales are not considered appropriate.
- (9) **Office Use** means the use of land, buildings or structures for the purpose of conducting executive, professional, research, administrative or similar affairs of business including ancillary services for office workers, and may include but is not limited to, administrative offices, consultants offices and research offices;
- (10) **Public Use** means the use of land, buildings or structures for the purpose of accommodating public or quasi-public services, utilities or facilities and may include, but is not limited to, essential public services, municipal utilities, and public facilities;
- (11) **Recreational Use** means the use of land, buildings or structures for the purpose of active or passive leisure pursuits, sporting activities and other customary and usual recreational pursuits and may include, but is not limited to, golf courses and driving ranges, ice skating rinks, sport fields, recreational centres, and parks and playgrounds;
- (12) **Retail Commercial Use** means the use of land, buildings or structures for the purpose of selling retail goods and services to the final consumer, and includes the storage of merchandise on or about the premises in quantities sufficient to supply the establishment, but does not include secondary commercial uses as defined herein, and may include, but is not limited to convenience food stores, supermarkets, restaurants, auto service centres, theatres, and financial institutions;
- (13) **Secondary Commercial Use** means the use of land, buildings or structures for the purpose of providing retail goods, services or entertainment to the final consumer that by its nature requires extensive indoor or outdoor areas for storage or display or carrying out the activity, entertainment or service and may include, but is not limited to, retail stores, vehicle sales and rentals and gaming establishment;
- (14) **Service Commercial Use** means the use of land, buildings or structures for the purpose of providing goods and services to the travelling public on sites dependent upon exposure and efficient access from roads carrying higher volumes of traffic and may include, but is not limited to, hotels, motels, restaurants, gas bars, and convenience food stores;
- (15) **Similar Use** means the use of land, buildings or structures for a purpose that is similar in form or function to a use identified within a land use area shown on the Land Use Concept Map within the Plan but does not meet the definition of that use in all respects;

- (16) **Limited Serviced Industrial Use** means the low intensity and interim use of land, buildings or structures, until full urban services are provided to a site, whereby the servicing of the site is provided by limited, or no municipal services, with the provision of services being the responsibility of the landowner(s) and includes on-site septic, on-site water provision and onsite stormwater management;
- (17) **Stand Alone Office Use means** the office use is independent from other uses of the site, and the building and structure for the office use is separated from other uses;
- (18) **Temporary Use** means a use of land that involves low capital investment in buildings or structures, can be readily removed once urban development is imminent, can be regulated through pre-established timelines under the land use controls in effect and will not, in anyway, compromise the ultimate planned use for the site.



Part 2

APPENDICES

Appendix A – INTERFACE DESIGN GUIDELINES

A.1 Application

These Design Guidelines apply to lands immediately adjacent to:

- Entranceway roads including the East Freeway, Glenmore Trail SE, 106 Avenue SE, and 114 Avenue SE;
- Residential areas including country residential areas in the Municipal District of Rocky View, and existing residential development within the City of Calgary;
- The Existing Municipal Reserve (MR) site;
- Regional pathways where feasible; and
- Any other interface areas as determined appropriate by the Approving Authority.

These areas will accommodate development that is highly visible to motorists and the general public. As such, it is necessary to introduce design measures to ensure that the development is visually attractive and creates an appropriate public image. These Guidelines should be reviewed along with Section 9.0: Interface Policies, and should be interpreted and applied in accordance with Appendix C: Design Review & Application of Design Guidelines.

A.2 Interface Design Guidelines

A.2.1 Setbacks

- (1) Setbacks from the East Freeway, an entranceway road, the existing MR site, and the residential areas should comply with regulations under The City of Calgary Land Use Bylaw 1P2007.
- (2) Outdoor storage of goods or materials should not be located on a front setback area adjacent to an entranceway road, and a setback area adjacent to the residential areas.

A.2.2 Visual Screening

- (1) Screening should:
 - (a) enhance the visual appearance of a site, and
 - (b) minimize the visual impact of parking, loading and other outdoor activities.
- (2) All parking, loading areas, outdoor storage areas, service areas (including outdoor sales lots), at-grade mechanical equipment and areas with high levels of truck activity should be suitably screened from an entranceway road, the existing MR site, and the residential areas.
- (3) Screening may comprise of a solid fence, wall, berm or landscaping, or some combination, that limits visibility into a site when viewed from an entranceway road, the existing MR site, or the residential areas.
- (4) Where landscaping or tree planting is used to provide screening, its composition should ensure adequate screening year-round from an entranceway road and the existing residential areas.
- (5) Screening requirements should take into account any topography and elevation differences that exist.

A.2.3 Exterior Fencing

- (1) Fencing should:
 - (a) enhance the interface treatment of a site, and
 - (b) define the boundary between public and private lands.
- (2) Fencing should comply with regulations under The City of Calgary Land Use Bylaw 1P2007.
- (3) The fencing on a lot immediately adjacent to an entranceway road, or a service road adjacent to an entranceway road, the existing MR site, and the residential areas should be compatible and appropriate in term of its quality and design.
- (4) Fences and walls should be constructed of durable materials complementary to the exterior building materials.
- (5) Barbed wire should not be allowed in conjunction with any fence.

A.2.4 Outdoor Storage

- (1) Outdoor storage areas should:
 - (a) be appropriately located and screened to minimize their visual impact from public lands and adjacent residential areas, and
 - (b) be oriented and designed in a compatible manner to minimize the traffic conflicts between vehicular and pedestrian movements.
- (2) Outside storage of goods or materials, and outdoor display areas should not be located on a front setback area adjacent to an entranceway road, and a setback area adjacent to the residential areas.
- (3) Service and outdoor storage enclosures should be constructed of materials that match and complement building materials.

A.2.5 Landscaping Treatment

- (1) Wherever possible, landscaping treatment should:
 - (a) encourage on-site pedestrian circulation,
 - (b) connect to the regional open space system,
 - (c) enhance the regional pathways,
 - (d) compliment the built form, and
 - (e) provide effective year-round screening.
- (2) High quality landscaping treatment is encouraged where immediately adjacent to a regional pathway.
- (3) Whenever possible, xeriscaping should be encouraged as an alternative to standard landscaping within an industrial site.

A.2.6 Architecture

(1) Entranceway Roads

- (a) Building materials adjacent to an entranceway road should:
 - (i) be durable and permanent in quality and composition, and
 - (ii) require low maintenance.
- (b) Building facades
 - (i) front facades should incorporate architectural details that add visual interest and reduce the appearance of the building mass and scale,
 - (ii) all façades visible from an entranceway road should be architecturally treated to a similar standard as the front façade, and
 - (iii) loading areas, ancillary storage, utility meter, garbage collection and compaction, or other such services should be incorporated into the overall design of the building(s) and landscaping where practical and feasible, so that the visual impacts are screened and minimized.
- (c) Architectural elements under A.2.6 (1)(b) may include but not limited to:
 - (i) facade modulation (i.e. building intervals that are stepped forward or back),
 - (ii) facade enhancement (i.e. vivid colours, distinctive roof forms, innovative architectural features), and
 - (iii) facade articulation (i.e. horizontal articulation of buildings greater than 7.0 metres in height to reduce visual massing).

(2) Residential Areas

The guidelines contained in A.2.6 (1) above should also apply to building architecture on sites adjacent to the existing residential areas.



Figure 1: *Example of encouraged screening and landscaping treatments*



Figure 2: *Landscaping to enhance open space system and regional pathways*



Figure 3: *Example of architectural facade enhancement*

Appendix B – SITE AND BUILDING DESIGN GUIDELINES

B.1 Application

The purpose of the guidelines is to provide for a suitable and compatible site and building design within the ASP area in addition to Appendix A: Interface Design Guidelines. These Guidelines should be interpreted and applied in accordance with Appendix C: Design Review & Application of Design Guidelines.

B.2 Guidelines

(1) Site Design and Building Design

- (a) The design, layout and relationship of a site should be compatible, functional and appropriate, and
- (b) Green building technology including but not limited to energy, and stormwater best management practices should be encouraged within the ASP area in accordance with evolving technologies and practices, and supporting City policies and principles.

(2) Landscaping

- (a) In addition to the landscaping requirement applied to the land use district under *The City of Calgary Land Use Bylaw 1P2007*, a developer is encouraged to provide additional landscaping to reduce the visual impact of hard pavement area and to provide outdoor public amenities,
- (b) Landscaping areas should connect to the open space system in the Shepard Industrial ASP area whenever possible,
- (c) Landscaping areas should be incorporated with the pedestrian routes and transit stops,
- (d) Parking lot landscaping should conform to *The City of Calgary Land Use Bylaw 1P2007*. Additional landscaping is encouraged to reduce the visual impact of the large parking areas. Parking lot landscaping should be designed to accommodate the most convenient pedestrian connection from the parking lot to the building entrance,

- (e) High quality landscaping should be provided for sites adjacent to regional pathways,
- (f) Whenever possible, xeriscaping should be encouraged as an alternative to standard landscaping within an industrial site.

(3) Pedestrian Connections

- (a) Walking distances from transit stops and other destinations should be minimized where possible, and should be incorporated with landscaping areas,
- (b) a continuous pedestrian route between buildings in commercial areas should be achieved through the use of sidewalks or clearly defined walkways,
- (c) pedestrian routes should be separated from truck routes and loading areas.

(4) Development within the Commercial Node Area

- (a) the design of the Commercial Node Area should enhance its role as an activity centre and a landmark for the ASP area,
- (b) The Commercial Node should be designed:
 - (i) to demonstrate a strong relationship between built form, streets and other public spaces to ensure a pedestrian-oriented and positive public realm is achieved,
 - (ii) to include strong, clearly-delineated pedestrian connections with upgraded sidewalk/walkway materials where possible and feasible, and,
 - (iii) to display a varied, creative and innovative built form.
- (c) Buildings in the Commercial Node Area should:
 - (i) be oriented to the street, facing the sidewalk, with pedestrian access to the building provided at street level, to create a pedestrian oriented streetscape,
 - (ii) active building frontages, pedestrian oriented entrances and the placement of glazing, and other visual interest, is encourage to contribute to a safe and active environment,

- (iii) where appropriate, provide breaks in the building frontage in order to create publicly accessible plazas, court yards, and other public gathering areas,
 - (iv) buildings should be designed to step back away from street corners.
- (d) Bike racks should be provided in the Commercial Node Area.

(5) Low Impact Development

Low Impact Development (LID) is an ecologically friendly approach to site development and storm water management that aims to mitigate development impacts to land, water, and air. This approach emphasizes the integration of site design and planning techniques that conserve natural drainage systems and hydrologic functions on a site.

- (a) site design and landscaping design is encouraged to incorporate low impact development measures for stormwater management, including, but not limited to:
- (i) bio-swale,
 - (ii) absorbent landscaping,
 - (iii) bio-retention areas,
 - (iv) porous pavement,
 - (v) stormwater reuse, and
 - (vi) green roofs.
- (b) options for Low Impact Development measures and detailed guidelines are provided under The City of Calgary *Stormwater Source Control Practices Handbook*.

Appendix C – DESIGN REVIEW & APPLICATION OF DESIGN GUIDELINES

C.1 Application

These guidelines are to provide for a process for reviewing the design of development projects located within the ASP area. The design may be reviewed at either the Land Use Amendment stage (in the case of a proposed site specific redesignation) or the Development Permit approval stage. In either case, a developer may be required to provide plans and other supporting information to demonstrate that the layout of the site and the architecture of the buildings are appropriate.

Site and building design will be evaluated in either the context of the design guidelines contained within Appendix A: Interface Design Guidelines and Appendix B: Site and Building Design Guidelines.

Unlike policies, the design guidelines are intended to be flexible, and can be varied or revised as determined appropriate. Alternative design solutions that create a suitable and compatible interface treatment will also be encouraged and considered. Where a modification to a guideline is desired, plans and other supporting information showing the alternative design solution may be required.

C.2 Design Review

- (1) In conjunction with a Development Permit application, or an Outline Plan/Land Use Amendment application as determined necessary by the Approving Authority, plans and supporting information, including, but not necessarily limited to, landscape plans, cross-sections, architectural renderings and building elevations, may be required as determined appropriate by the Approving Authority.
- (2) With each tentative plan and Development Permit application, a site concept plan should be submitted which should identify:
 - (i) anticipated building use,
 - (ii) building footprints, orientation and all setback requirements,
 - (iii) parking areas,
 - (iv) vehicle access / egress,

- (v) internal roads,
 - (vi) servicing between parcels,
 - (vii) outside storage,
 - (viii) open space and any public amenity space,
 - (ix) landscaping,
 - (x) pedestrian circulation to / from within the site, and
 - (xi) any additional information determined necessary by the Approving Authority.
- (3) The required concept plan in C.2 (2) above should be resubmitted and updated, as required by the Approving Authority, with each subsequent Development Permit application.

C.3 Compliance with Design Guidelines

- (1) Subject to Guideline C.4 and C.5 below, an Outline Plan/Land Use Amendment and Development Permit application should demonstrate how the Design Guidelines are being addressed.
- (2) Compliance to the design guidelines contained within Appendix A: Interface Design Guidelines and Appendix B: Site and Building Design Guidelines should not be interpreted as having an exemption from:
 - (a) compliance with any other design related policies, standards or requirements applicable to the proposal, and
 - (b) application of additional design guidelines or standards to the site.

C.4 Interpretation of Design Guidelines

- (1) As determined appropriate, the design guidelines should be applied by the Approving Authority at the Outline Plan and/or the development approval stage.
- (2) The land use controls or outline plan conditions applied to a site in accordance with Guideline C.4 (1) above need not necessarily contain the exact wording as the design guideline but may be revised as determined necessary provided the general intent of the guideline is achieved.

C.5 Application of Design Guidelines

- (1) Design Guidelines may be modified where the alternative design proposal:
 - (a) represents an equivalent or improved solution, and
 - (b) complies with the policies of Section 9.0: Interface Policies.
- (2) Design Guidelines should be approved in a uniform and consistent manner on a series of sites at the Outline Plan/Land Use Amendment application stage as opposed to an individual site, or
- (3) Where C.5 (2) cannot be achieved, modification to the Design Guidelines to accommodate an individual site may be appropriate if the Approving Authority determines it is a compatible and co-ordinated development in relation to adjacent sites.
- (4) Alternative design solutions in the application of the Design Guidelines will not require an amendment to this ASP.
- (5) Should an inconsistency arise between a guideline and Land Use Bylaw regulation, the Land Use Bylaw will take precedence.

Appendix D – RECOMMENDED LAND USE DISTRICTS

The following table provides recommended land use districts under The City of Calgary Land Use Bylaw 1P2007 for each land use policy area of the ASP. It is intended to provide a reference for applicants to consider appropriate land use districts within the ASP area. A Land Use Amendment application should meet the intention of the ASP and should comply with land use policies, interface policies and any other related policies of the ASP. A land use district that is not listed in the following table may be considered appropriate as determined by the Approving Authority.

Recommended Land Use Districts			
Land Use Policy Area	Recommended Land Use Districts	Could Have	Should Avoid
Industrial/Business	I-G, I-B	I-C, C-N1, C-N2,	<ul style="list-style-type: none"> All Commercial Districts except C-N1 and C-N2.
Existing Shepard Business Park	I-G	I-B, I-C, C-N1, C-N2,	<ul style="list-style-type: none"> All Commercial Districts except C-N1 and C-N2.
Business/Commercial	I-B, C-O, C-COR3	C-C1, C-COR1, C-COR2	<ul style="list-style-type: none"> C-R1, C-R2, C-R3; All Industrial Districts except I-B
Commercial Node	I-C, C-C1, C-COR1, C-COR2, C-COR3, C-O		<ul style="list-style-type: none"> C-R1, C-R2, C-R3; All Industrial Districts except I-C
Local Commercial	I-C, C-C1, C-COR1	C-N1, C-N2, C-COR2	<ul style="list-style-type: none"> C-R1, C-R2, C-R3; All Industrial Districts except I-C
Interface Area	I-B, I-C, Discretionary Use of I-G	I-G	<ul style="list-style-type: none"> All Industrial Districts except I-B, I-C and I-G
Note: <ol style="list-style-type: none"> 1. Residential Districts are not considered appropriate in the ASP area. 2. I-B, I-C, and C-O Districts should be located adjacent to or in close proximity to Arterial roads, transit routes and services, and on sites that have high visibility from the public. 3. Recreational, institutional, and public uses may be allowed within the ASP area where determined appropriate and compatible by the Approving Authority. 			

Appendix E – EVALUATION GUIDELINES FOR OUTLINE PLAN / LAND USE AMENDMENT APPLICATIONS

E.1 Overview

The evaluation of an Outline Plan/Land Use Amendment application requires the submission of transportation, servicing, environmental, market and land use studies. These guidelines identify the specific technical studies required to be submitted with an application.

E.2 Concept Plan Review

E.2.1 Purpose

The purpose of these guidelines is to provide for the submission of Concept Plans at the Outline Plan/Land Use Amendment stage. Concept Plans will be required to demonstrate that a site will be suitable in terms of its size and configuration to accommodate the intended future development or to ensure that a subdivision design will be appropriately integrated with adjacent areas. A concept or shadow plan is provided for information purposes as required by the Approving Authority to assist to evaluate the application.

E.2.2 Guidelines

(1) Concept Plans

- (a) Prior to Outline Plan/Land Use approval, and as determined necessary, a developer may be required to submit a Concept Plan in order to assist Council or the Calgary Planning Commission in evaluating a proposal in terms of its conformity with the Shepard Industrial ASP.

- (b) Where a Concept Plan is required either through a policy in this Plan, or as part of the Outline Plan/Land Use review process, the Concept Plan:
 - (i) may be shown on the Outline Plan, and
 - (ii) should show the proposed:
 - (A) land use areas,
 - (B) building locations,
 - (C) vehicular access/egress routes,
 - (D) parking areas,
 - (E) public roads,
 - (F) transit stops,
 - (G) pedestrian connections,
 - (H) regional pathways,
 - (I) bikeways,
 - (J) utility alignments,
 - (K) public parks,
 - (L) stormwater ponds, and
 - (M) adjacent roads and development.
- (c) The above requirements may be relaxed or modified by the Approving Authority as determined necessary in response to a specific proposal.

(2) Adjacent Shadow Planning

Prior to Outline Plan/Land Use approval, and as determined necessary, a Shadow Plan for an adjacent future development area within the ASP area may be required showing the relationship of the design for the subject site with the future development area.

E.3 Reserve Analysis

E.3.1 Purpose

The purpose of these guidelines is to provide for the review of the allocation of creditable and Environmental Reserve (ER) within a site.

E.3.2 Guidelines

(1) Creditable Reserve Analysis

Prior to approval of an Outline Plan/Land Use Amendment application, a Reserve Analysis should be submitted by a developer identifying:

- (i) the amount of creditable reserve owing on an ownership basis within the ASP area and the subject site, and

(2) ER Analysis

In conjunction with the Outline Plan/Land Use Amendment application, the following should be submitted when ER is to be dedicated:

- (i) a field surveyed boundary of any ER lands with the boundary shown on the Outline Plan,
- (ii) a Biophysical Impact Assessment report prepared by a qualified professional,
- (iii) a Preliminary Grading Plan showing the extent of any grading or disturbance proposed on reserve lands, including grading for roads, pathways and stormwater management facilities,
- (iv) a Restoration Plan showing the proposed landscape and method of restoration for any ER lands that have been or are to be graded or disturbed,
- (v) a Concept Plan showing the design of the stormwater facility and any related recreational amenities,
- (vi) a Stormwater Management Report consistent with the Master Stormwater Drainage Plan, and
- (vii) any other analysis or information considered necessary to evaluate the proposal.

E.4 Transportation Review

In conjunction with an Outline Plan/Land Use Amendment application, a Mobility Assessment & Plan (MAP) should be submitted to address the transportation improvements required to serve a proposed development. The Mobility Assessment & Plan (MAP) will need to address both the local and regional transportation network improvements for all transportation modes required to serve the subject site and the adjacent areas. Transportation Planning- Development Services should be contacted prior to commencing the study to assist in scoping and to provide more information on the content of the Mobility Assessment & Plan.

E.5 Market Review

E.5.1 Purpose

The purpose of these guidelines is to provide for the analysis of a commercial proposal from a market perspective. The analysis will be required in conjunction with an Outline Plan/Land Use Amendment application to assist in evaluating the merits of the commercial proposal and the potential positive or detrimental impacts the project may have on the retail hierarchy in the southeast sector of the City. The analysis will also help to demonstrate the appropriate scale of the proposed commercial development to be compatible with other uses in the ASP area. The analysis will take the form of a market demand and impact study submitted by a professional market analyst.

E.5.2 Guidelines

(1) Planned Function of Commercial Development

- (a) A proposed commercial development should support other uses in the ASP area,
- (b) A proposed commercial development should complement and support the existing and planned retail hierarchy in the surrounding area and within the southeast sector of the City.
- (c) Further to D.5.2 (1) (a), a proposed commercial development should be analyzed in terms of the:
 - (i) market demand for additional commercial development needed to serve the ASP area and the surrounding area, and

- (ii) market impact on existing or planned commercial development in the surrounding area and in the southeast sector of the City.

(2) Submission of Market Demand and Impact Analysis

- (a) Prior to Outline Plan/Land Use approval, a developer should submit a market demand analysis and a market impact analysis to demonstrate compliance with D.5.2 (1) above.
- (b) Notwithstanding D.5.2 (2)(a), a market demand analysis and market impact analysis may not be required where a proposed commercial development is not considered by the Approving Authority to be significant due to its location, size or function.
- (c) A market demand analysis and market impact analysis should be prepared by a professional market analyst in accordance with any guidelines or requirements established by Council or an Approving Authority.

(3) Review of Market Demand and Impact Analysis

A market demand analysis or a market impact analysis may be required to be evaluated by an independent consultant as part of the review process with the cost of this evaluation to be borne by the developer.

E.6 Development Impact Review

E.6.1 Purpose

The purpose of these guidelines is to provide for compatible development within the ASP area. The policies establish compatibility criteria that development should achieve and a review process that development should undergo. The review process may require the submission of a development impact statement at either the Outline Plan/Land Use Amendment approval or Development Permit approval stages, and the corresponding imposition of mitigation measures to address any impacts where determined appropriate.

E.6.2 Guidelines

(1) Development Impact

A proposed development should not have a significant adverse impact on an adjacent site.

(2) Development Impact Statement

In conjunction with an Outline Plan/Land Use Amendment application or a Development Permit application, Council or an Approving Authority may require a developer to submit a Development Impact Statement to identify and evaluate the impact of the proposal and demonstrate compliance with Guideline E.6.2 (1).

(3) Mitigation Measures

Mitigation measures may be required to be introduced as part of the approval of a proposed Outline Plan/Land Use Amendment application, in order to ensure compliance with Guideline E.6.2 (1).

E.7 Environmental Review

E.7.1 Purpose

The purpose of these guidelines is to provide for the evaluation of the impact of an Outline Plan/Land Use Amendment application within the ASP area from an environmental perspective. This evaluation will involve circulation of a proposal to the appropriate external agencies for review and comment; and, the submission of the appropriate environmental, biophysical, archeological and grading information necessary to undertake this review.

E.7.2 Guidelines

(1) Environmental Site Assessment (ESA)

- (a) Prior to an Outline Plan/Land Use approval, a developer should:
 - (i) submit a current Phase 1 Environmental Site Assessment for the subject site that identifies any actual or potential soil and groundwater contamination and determines if the site is suitable for the intended use,
 - (ii) if the Phase 1 ESA identifies any actual or potential site contamination, submit a Phase 2 ESA to determine if there is a requirement for remediation or risk management on the site, and
 - (iii) if the Phase 2 ESA determines a need for site remediation or risk management, submit a Remedial Action Plan or Risk Management Plan to address the manner and extent that the site will be remediated or managed to render it suitable for the intended use.
- (b) An ESA should be prepared by a qualified professional, reviewed to the satisfaction of Environmental Development Review, and circulated to the appropriate regulatory agencies for review, as required by the Approving Authority.
- (c) Where required by the Approving Authority, a developer should undertake those mitigation measures identified by the ESA report for the subject site.

- (d) Prior to an Outline Plan/Land Use approval, a developer should submit an assessment of the environmental impact of any operating or abandoned oil or gas wells that may affect the site.

(2) Biophysical Impact Assessment (BIA)

- (a) Prior to an Outline Plan/Land Use approval, where the proposal may have an impact on wetlands or another environmentally significant area, the developer should submit a Biophysical Impact Assessment prepared by a qualified consultant to evaluate the impact and identify any mitigation measures to be introduced.
- (b) Where required by the Approving Authority, the developer should undertake those mitigation measures for the subject site identified in the Biophysical Impact Assessment.

(3) Site Grading Plan

- (a) A Site Grading Plan should not be approved in proximity to a natural wetland until such time as an Outline Plan/Land Use Amendment application for the site has been approved.
- (b) Where grading occurs in proximity to a natural wetland:
 - (i) detailed information showing the extent and impact of the grading on the wetland should be provided, and
 - (ii) the conservation measures to be introduced to address any grading impacts on the wetland.

E.8 Financial Review

E.8.1 Purpose

The purpose of these guidelines is to ensure that major infrastructure improvements required to serve development within the ASP area are identified prior to an Outline Plan/Land Use approval. This infrastructure would include both on-site and off-site roadway and utility improvements. It is intended that the information would form part of the decision-making process on an Outline Plan/Land Use proposal.

E.8.2 Guidelines

(1) Infrastructure Improvement Analysis

As part of an Outline Plan/Land Use Amendment application, a developer should identify:

- (i) the major on-site transportation and utility infrastructure improvements necessary to serve the subject site,
- (ii) the financing obligations for these improvements,
- (iii) the anticipated timing of construction of the improvements relative to projected land absorption rates,
- (iv) the development thresholds or timing of any provincially or municipally-financed infrastructure improvements, and
- (v) as determined appropriate, the timing of any downstream transportation and utility infrastructure improvements.

(2) Public Infrastructure Improvements in Relation to Budgeting Priorities

The Administration should identify the budgeting priorities of The City and the Province in relation to any major provincially or municipally-financed transportation or utility infrastructure improvements necessary to serve the subject site identified under Guideline E.8.2 (1).

(3) Report to Council

The report to Council accompanying a Land Use Amendment application should address the proposal in the context of E.8.2. (1) and (2).

E.9 Servicing Review

E.9.1 Purpose

The purpose of these guidelines is to provide for the submission of servicing studies considered necessary to evaluate a proposal. This information would relate to municipal utilities including the water distribution system, the sanitary sewage system and the stormwater management system. The various servicing studies would be required at the Outline Plan/Land Use Amendment stage.

E.9.2 Guidelines

(1) Water Distribution System

In conjunction with an Outline Plan/Land Use Amendment application, information should be submitted to demonstrate that the subject site development can be serviced in accordance with the overall design of the water distribution system for the area.

(2) Sanitary Sewage System

In conjunction with an Outline Plan/Land Use Amendment application, a sanitary sewer servicing analysis should be submitted to demonstrate that:

- (i) the subject site can be serviced in accordance with the overall design of the sanitary sewage system for the area, and
- (ii) the sanitary sewage system will be designed to accommodate off-site sanitary drainage as determined appropriate.

(3) Stormwater Management System

In conjunction with an Outline Plan/Land Use Amendment application, a Stormwater Management Plan should be submitted to demonstrate the consistency with policies in Section 15.4: Stormwater Management.

E.10 Transit Review

E.10.1 Purpose

The purpose of these guidelines is to provide for a Transit Impact Analysis to coordinate the design of a project with the public transit service for the area. The Transit Impact Analysis will be needed to address the transit routing options and coverage in relation to a site, the pedestrian connections to transit stops from the site and any enhanced transit service facilities to be provided. The analysis should be submitted as part of an Outline Plan/Land Use Amendment application.

E.10.2 Guidelines

(1) Transit Service Coordination

In conjunction with an Outline Plan/Land Use Amendment application, a Transit Impact Analysis should be submitted to evaluate the level of coordination between public transit service and the proposed development.

(2) Transit Impact Analysis

A Transit Impact Analysis should address:

- (i) proposed and existing public transit routes, and transit stops in relation to the site,
- (ii) transit coverage areas and walking distances in relation to parcels or building locations,
- (iii) pedestrian connections from the site to transit stops,
- (iv) any enhanced transit facilities to be included in the development, and
- (v) any other matters determined by the Approving Authority necessary to achieve the long term co-ordination with public transit service in the area.

E.11 Pedestrian and Bicycle Circulation Review

E.11.1 Purpose

The purpose of these guidelines is to provide for convenient, direct and accessible pedestrian and bicycle routes throughout the ASP area. In this regard, a Pedestrian/Bicycle Routing Plan will need to be provided as part of an Outline Plan/Land Use Amendment application. This plan will need to identify both regional and local pedestrian routes in relation to the site as well as the connections to the regional pathway system, transit stops and local service commercial facilities.

E.11.2 Guidelines

(1) Pedestrian/Bicycle Routing Efficiency

In conjunction with an Outline Plan/Land Use Amendment application, a Pedestrian/Bicycle Routing Plan should be submitted to demonstrate that a co-ordinated, direct and efficient routing network is provided for local and commuter pedestrian and bicycle trips in relation to the site and the surrounding area.

(2) Pedestrian/Bicycle Routing Plan

A Pedestrian/Bicycle Routing Plan should address:

- (i) the regional pathway system in relation to the site,
- (ii) the local pathway system, sidewalks and walkways in relation to the site,
- (iii) the connections from the site to the environmentally significant wetlands and open space, transit stops, local service commercial sites and other amenities within the area,
- (iv) any enhanced pedestrian or bicycle facilities to be provided on the site, and
- (v) a consideration of the development of an enhanced connective pedestrian/bicycle pathways to the adjacent regional pathway system.

Appendix F – FACILITY CRITERIA

FIRE STATION & FIRE/EMS STATION	SITE DETAILS	COMMENTS
Site Size / Site Considerations	Fire only or Fire / EMS 0.8 ha (2 acres)	Rectangular Lot, wide frontage Building 743 to 1114 m ² (8,000 – 12,000 ft ²) Preferably situated on highest elevation in district
Access	High Importance	Minimum of two vehicular access points (one for public, one for apparatus) Dedicated, all turns direct access to major roadway for apparatus Control of signals if required
Response Time	Within 6 minutes 90% of the time	Minimize response times to all areas within service district

REGIONAL RECREATION FACILITIES LEVEL 2 (REGIONAL)	SITE DETAILS	COMMENTS
Site	2.4 – 4 ha (6 – 10 ac)	
Service Level Population		Potential partnerships within surrounding communities may influence the size, design and available amenities of the centre.
Access	10 – 30 minutes via walking, biking or public transit. To support access by a range of travel modes, facilities should be located on major transit routes and must connect geographic hubs and other recreation and community facilities by natural and hard surface pathways, including the regional pathway system.	The provision of regional recreation facilities should be considered in conjunction with the provision of facilities (i.e. gymnasiums) within senior high schools.

REGIONAL RECREATION FACILITIES LEVEL 3 (CITY-WIDE)	SITE DETAILS	COMMENTS
Site	1 – 20 ha (50 acres)	
Access	Highly Important	Collector or arterial road access.
Connectivity	Highly Important	Connections to the regional pathway system, and transit, to provide access to non-vehicular users are very important.

BULK WATER LIFT STATION	SITE DETAILS	COMMENTS
Site Size / Site Considerations	0.4 ha (1 acre)	<p>Must be located at the end of a dead end water main.</p> <p>Optimal location is adjacent to the City limits in order to serve both the urban and rural customers.</p> <p>Ideally to be located on City-owned lands.</p> <p>Prefer co-location with other municipal services, and to be located in a commercial/ industrial area.</p> <p>Queuing should be on-site rather than on the street.</p>
Access	High importance	<p>Dedicated direct access to major roadway, all turns and control of signals if required.</p> <p>Drive-thru is ideal, as the traffic can range from personal pick-up trucks to semi-trailers.</p>

Appendix G – SHEPARD INDUSTRIAL ASP COST OF DEVELOPMENT

Core Infrastructure

Required Infrastructure	Tracked in 10-year Capital Plan	Proposed in 3-year Capital Budget	Estimated Cost ¹ (2008)
Utility Servicing			
Water	√		\$28 M
Sanitary	√		\$35 M
Storm			\$24 M
Transportation			\$50 M
Fire			\$17 M
Total²			\$154 M

The purpose of the costing information is to provide an approximation of the magnitude of the investments. It is recognized that acreage assessments will offset some of the costs incurred by development of lands within the ASP area.

The figures contained in this table can be refined at the Outline Plan/Land Use Amendment stage without requiring an amendment to this plan.

Notes:

- Above are costs for infrastructure inside and outside the ASP area that are required to service the study area.
- Wastewater Treatment Plant and Water Treatment Plant costs have been excluded. It is assumed that plant upgrades will be required with increased population in spite of geographical area of development.

Assumptions:

Water

- Water reservoir storage is required for the ASP area. The cost of the reservoirs and pump stations is distributed to Cells A, B, E, and F within the East Regional Context Study area by area ratio.

Sanitary

- The costs include downstream sanitary system upgrades (Douglasdale system).

Storm

- The storm servicing costs are based on "Natural Channel" type conveyance. The Shepard Drainage Committee has not finalized the drainage option (work in progress), therefore, these costs may change if different option is chosen.
- Wetland compensation costs are not included.
- Shepard ditch and bypass upgrade costs are not included (could be an additional \$12M).
- Land cost of \$75K/ha is assumed for additional storage in Upper Shepard Storage Complex and for conveyance.
- Costs based on \$18,000/ha servicing cost (conveyance system and storage in Upper Shepard Slough Complex).

¹ All dollar amounts in millions. All costs are preliminary estimates only and are subject to change.

² Numbers may not add up due to rounding

Complete Community Infrastructure

Required Infrastructure	Tracked in 10-year Capital Plan	Proposed in 3-year Capital Budget	Estimated Cost ¹ (2008)
Utility Servicing			
Water	√		\$28 M
Sanitary	√		\$35 M
Storm			\$24 M
Transportation			\$50 M
Transit			\$1.8 M
Fire			\$17 M
Level 2 or 3 Regional Recreational Site			\$12-80M
Bulk Water Station	√		\$0.5 M
Total²			\$176-244 M

The purpose of the costing information is to provide an approximation of the magnitude of the investments. It is recognized that acreage assessments will offset some of the costs incurred by development of lands within the ASP area.

The figures contained in this table can be refined at the Outline Plan/Land Use Amendment stage without requiring an amendment to this plan.

Notes:

- Above are costs for infrastructure inside and outside the ASP area that are required to service the study area.
- Wastewater Treatment Plant and Water Treatment Plant costs have been excluded. It is assumed that plant upgrades will be required with increased population in spite of geographical area of development.

Assumptions:

Water

- Water reservoir storage is required for the ASP area. The cost of the reservoirs and pump stations is distributed to Cells A, B, E, and F within the East Regional Context Study area by area ratio.

Sanitary

- The costs include downstream sanitary system upgrades (Douglasdale system).

Storm

- The storm servicing costs are based on "Natural Channel" type conveyance. The Shepard Drainage Committee has not finalized the drainage option (work in progress), therefore, these costs may change if different option is chosen.
- Wetland compensation costs are not included.
- Shepard ditch and bypass upgrade costs are not included (could be an additional \$12M).
- Land cost of \$75K/ha is assumed for additional storage in Upper Shepard Storage Complex and for conveyance.
- Costs based on \$18,000/ha servicing cost (conveyance system and storage in Upper Shepard Slough Complex).

¹ All dollar amounts in millions. All costs are preliminary estimates only and are subject to change.

² Numbers may not add up due to rounding

Appendix H – SUSTAINABILITY PRINCIPLES

In January 2007, Calgary City Council approved the following Sustainability Principles to provide direction and create a “made-in-Calgary” approach to the broadly recognized Smart Growth principles. These principles have been included in the Plan and create the basis for the vision, goals and policy direction for this Area Structure Plan.

Sustainability Principles

Principle 1: Create a range of housing opportunities and choices

Provide a mix of housing types and ownerships, in the same neighbourhood, to allow residents to live affordably in the same community throughout their lives. A mix of housing creates a more adaptable and resilient community fabric as it is able to respond to demographic changes such as aging populations, empty nesters and smaller households.

This principle is not addressed by the ASP as the entire ASP area is The City’s industrial growth corridor.

Principle 2: Create walkable environments

Create pedestrian-friendly environments with an interconnected street network to ensure walkable access to commercial and public services and amenities. Streets and arterials are designed for walking, cycling, transit access and cars. Neighbourhoods are sufficiently compact with mixed uses to provide sustained transit service.

This principle is specifically addressed by the following sections of this ASP:

- (a) Section 4.0: Vision, Principles and Goals
- (b) Section 8.0: Land Use Areas
- (c) Section 9.0: Interface Policies
- (d) Section 14.0: Transportation, Pathway and Transit Policies
- (e) Appendix A: Interface Design Guidelines
- (f) Appendix B: Site and Building Design Guidelines

Principle 3: Foster distinctive, attractive communities with a strong sense of place

Create distinctive, high quality communities designed with architectural and natural elements that reflect local conditions and the values of the residents.

This principle is specifically addressed by the following sections of this ASP:

- (a) Section 4.0: Vision, Principles and Goals
- (b) Section 8.0: Land Use Areas
- (c) Section 9.0: Interface Policies
- (d) Section 11.0: Reserve Policies
- (e) Section 12.0: Wetland Complexes
- (f) Section 13.0: Wetland Policies
- (g) Appendix A: Interface Design Guidelines
- (h) Appendix B: Site and Building Design Guidelines

Principle 4: Provide a variety of transportation options

Couple a multi-modal approach to transportation with supportive development patterns to create a variety of transportation options. This includes: increasing the availability of high quality transit service, creating resiliency and connectivity within the road networks and ensuring connectivity between pedestrian, bike, transit and road facilities.

This principle is specifically addressed by the following sections of this ASP:

- (a) Section 4.0: Vision, Principles and Goals
- (b) Section 8.0: Land Use Areas
- (c) Section 14.0: Transportation, Pathway and Transit Policies
- (d) Appendix A: Interface Design Guidelines
- (e) Appendix B: Site and Building Design Guidelines

Principle 5: Preserve open space, agricultural land, natural beauty and critical environmental areas

Maintain and restore ecosystem functions. Respect the natural functions of the landscape, particularly working agricultural land, watersheds and aquatic habitats. Design communities to integrate natural systems with human activities, placing high value on community access to natural systems and parks.

This principle is specifically addressed by the following sections of this ASP:

- (a) Section 4.0: Vision, Principles and Goals
- (b) Section 11.0: Reserve Policies
- (c) Section 12.0: Wetland Complexes
- (d) Section 13.0: Wetland Policies

Principle 6: Mix land uses

Mix land use by having homes, businesses, schools and recreational opportunities in closer proximity. This will provide the opportunity for alternatives to driving such as walking and biking while increasing transit viability. This can also enhance the vitality and perceived security of an area by increasing the number of people on the street. Mixed land use is key to achieving more complete communities.

This principle is specifically addressed by the following sections of this ASP:

- (a) Section 4.0: Vision, Principles and Goals
- (b) Section 8.0: Land Use Areas

Principle 7: Strategically direct and manage redevelopment opportunities within existing areas

Direct redevelopment towards and within existing areas to create and enhance places in existing communities, while preserving stable areas and valuing existing community context. Strategic intensification makes more efficient use of existing infrastructure and increases transit efficiency.

This principle is specifically addressed by the following sections of this ASP:

- (a) Section 8.2: the Existing Shepard Business Park

Principle 8: Support compact development

Compact development supports transit viability and modes of travel other than the automobile. It also allows for the preservation of open space and more efficient use of infrastructure.

This principle is specifically addressed by the following sections of this ASP:

- (a) Section 8.0: Land Use Areas
- (b) Section 14.2: Pedestrian and Bicycle Circulation
- (c) Appendix B: Site and Building Design Guidelines

Principle 9: Connect people, goods and services locally, regionally and globally

Connectivity of all modes of transportation locally, regionally and globally, ensures a more effective and efficient transportation system for people, goods and services.

This principle is specifically addressed by the following sections of this ASP:

- (a) Section 4.0: Vision, Principles and Goals
- (b) Section 8.0: Land Use Areas
- (c) Section 14.0: Transportation, Pathway and Transit Policies

Principle 10: Provide transportation services in a safe, effective, affordable and efficient manner that ensures reasonable accessibility to all areas of the city for all citizens

Transportation services and infrastructure should be delivered in a cost-effective and energy efficient manner. The transportation system should provide citizens with safe, barrier-free access to services that supply reasonable access to all areas of the city. Optimally designed and operated transportation systems help to improve the quality of life for citizens, support economic development and protect environmental health.

This principle is specifically addressed by the following sections of this ASP:

- (a) Section 4.0: Vision, Principles and Goals
- (b) Section 14.0: Transportation, Pathway and Transit Policies

Principle 11: Utilize green infrastructure and buildings

Utilizing the ecological services provided by the environment will reduce community and environmental impacts as well as private, public, and taxpayer costs of development and infrastructure. Green infrastructure can include energy solutions such as co-generation or renewable energy and water solutions such as stormwater retention and recharge. Green buildings including but not limited to externally certified standards such as LEED (Leading in Energy and Environmental Design), BOMA Go Green for commercial buildings and Built Green™ for residential applications.

This principle is specifically addressed by the following sections of this ASP:

- (a) Section 4.0: Vision, Principles and Goals
- (b) Section 5.0: Environmental Sustainability
- (c) Section 15.4: Stormwater Management
- (d) Appendix B: Site and Building Design Guidelines