The City of SPRUCE GROVE

TERMS OF REFERENCE FOR AREA STRUCTURE PLANS AND NEIGHBOURHOOD PLANS

2026

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INTRODUCTION

Spruce Grove is a growing community. To accommodate this growth, new neighbourhoods are needed, which are planned for through Area Structure Plans (ASPs). Area Structure Plans (ASPs) provide a high-level framework for developing new neighbourhoods, including housing, commercial areas, schools, parks, roads, servicing as well as population projections and density. ASPs typically encompass up to four quarter sections of land and contain three or more neighbourhoods. Area Redevelopment Plans guide the redevelopment of existing areas.

To provide more detail than the overarching Area Structure Plan, more comprehensive Neighbourhood Plans (NPs) and Concept Plans (CPs) are now required to support future development. Neighbourhood and Concept Plans provide more detail than the overarching Area Structure Plan, including the proposed land uses and associated policies, housing mix, neighbourhood design, density and population projections, servicing and the local road network. Neighbourhood Plans are required to support future redistricting in undeveloped neighbourhoods that contain approximately 1 quarter section, while Concept Plans are required in areas that are partially developed and contain less than 1 quarter section of land. Both Neighbourhood and Concept Plans are directly connected to the Land Use Bylaw and play a critical role in guiding future applications for redistricting (change of district), subdivision (lot layout) and development (building sites).

As statutory planning documents, ASPs and Area Redevelopment Plans (ARPs) are adopted and amended through Council as a bylaw. Once adopted, the City is legally obligated to ensure these plans are adhered to. Neighbourhood and Concept Plans are non-statutory plans and will be approved by the General Manager.

PURPOSE

The purpose of this document is to establish the process and submission requirements for Area Structure Plans and Neighbourhood Plans and their amendments. The vision for this document is that applicants have a better understanding of the process and the information required.

Applicants are required to follow this document when preparing a new Area Structure Plan or Neighbourhood Plan or amendment, with some flexibility on requirements based on Administration's discretion. Preparing a new Area Structure Plan, Neighbourhood Plan or amendments in conformity with this Terms of Reference does not guarantee it will be supported by Administration. Please note, an application for a new Area Structure Plan and Neighbourhood Plan can be submitted together at the risk to the applicant.

PLANNING FRAMEWORK

The Municipal Government Act (MGA) provides the legal framework for governance and planning in Alberta municipalities. It enables municipalities to create statutory plans, including Intermunicipal Development Plans, Municipal Development Plans, Area Structure Plans and Area Redevelopment Plans to direct growth and redevelopment. The MGA regulates the preparation and adoption of plans, land use bylaws, and subdivision and development approval.

The *Municipal Development Plan: The Shape of Our Community* provides high level direction to guide future growth and development in Spruce Grove for the next 20 to 30 years by building on the community's core values and preferences. The Municipal Development Plan (MDP) supports the decision-making process around urban development and growth. It also supports key aspects of the community such as economic development, housing, transportation, social needs, parks and recreation, culture, and the environment. The MDP requires ASPs to support future development and Neighbourhood Plans to guide subdivision and development at the neighbourhood scale

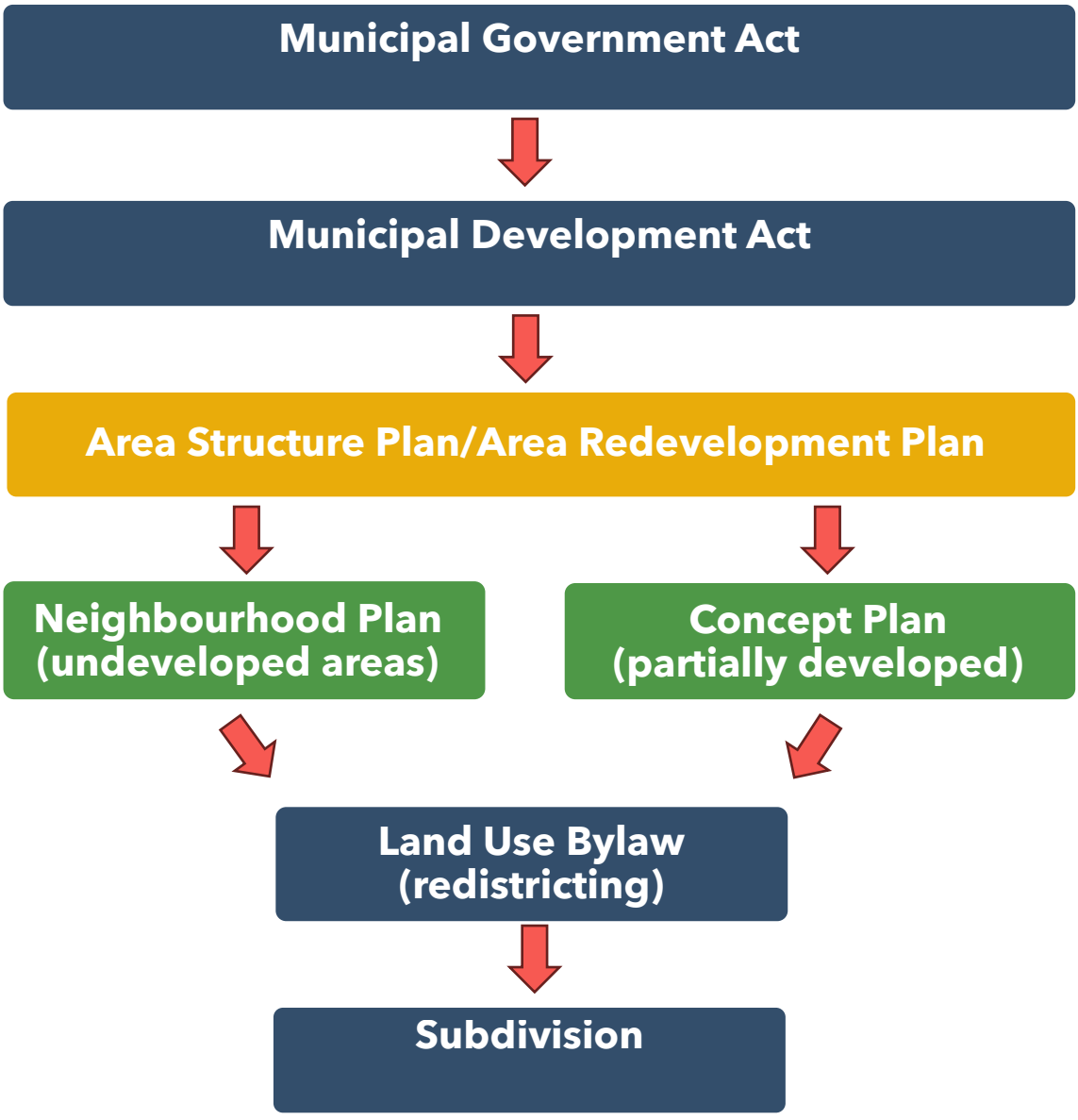
Area Structure Plans and Area Redevelopment Plans must align with and support the implementation of the Municipal Development Plan (MDP) and other master plans. ASPs and ARPs provide details on the growth and development of specific areas of the city. Area Structure Plans include information on design principles, function and land use, infrastructure, and density as well as land use statistics and concept maps. Area Redevelopment Plans provide a policy framework for guiding redevelopment and revitalization within existing developed areas through consideration of land use, mobility, urban design, building guidelines, and implementation.

Neighborhood Plans (undeveloped areas) and Concept Plans (partially developed areas) provide more detail than the overarching Area Structure Plan for approximately one quarter section of land (a neighbourhood), including the proposed land uses and associated policies, housing mix, neighbourhood design, density and population projections, servicing and the local road network.

The Land Use Bylaw regulates the use and development of all land and buildings in the City.

Subdivision is the dividing of a single parcel of land into two or more parcels, each to be given a separate title.

Figure 1 - Planning Framework



The following table demonstrates the different requirements for Area Structure Plans, Neighbourhood Plans and Concept Plans.

Table 1 - Area Structure Plan, Neighbourhood Plan and Concept Plan Requirements

	Area Structure Plan (Statutory Plan)	Neighbourhood Plan (Non-statutory Plan)	Concept Plan (Non-statutory Plan)
Area	1 to 4 quarter sections and contains multiple neighbourhoods	1 quarter section or one neighbourhood	Less than 1 quarter section or part of a neighbourhood
Regulatory Alignment	√	√	√
Site Context	√	√	√
Vision, Principles and Policies	√	√	
Public Engagement	√	√ May be required	May be required
Development Concept and Associated Policies	√	√	√ Development Concept required but associated policies are not required
Land Use Table and Population Projections	√	√	√
Figures	√	√	√ Fewer required
Engineering Design Brief	√(Tier I)	√ (Tier II)	Tier II may be required if changing servicing, density or shifting location of density from the approved ASP
Technical Studies	√	√	As required

AREA STRUCTURE PLAN AND NEIGHBOURHOOD PLAN PROCESS

The Area Structure Plan application process typically takes 1 year while the Neighbourhood Plan application process typically takes 6 months. Timelines are estimates and may vary significantly depending on application complexity and completeness. Area Structure Plan and Neighbourhood Plan applications involve the following key steps, which are described in more detail further below:

1) *Pre-Application Meeting*
2) *Application Submission and Acceptance*
3) *Application Review*
4) *Public Engagement*
5) *Decision*

PROCESS

Pre-Application Meeting

A pre-application meeting is required for the development of an Area Structure Plan and Neighbourhood Plan. Planning and Development will schedule the meeting and invite other departments as required. In advance of the meeting the applicant must provide an agenda and preliminary information about the vision for the plan and development concept to Planning and Development staff.

The pre-application meeting will address:

- *Planning process, requirements and timelines;*
- *Identification of any known or potential engineering constraints regarding servicing, transportation, grading, etc.*

- *Notification and engagement with other landowners;*
- *Preliminary discussion of the vision, principles, policies and development concept;*
- *Public engagement requirements; and*
- *Technical study requirements and level of detail.*

The applicant is required to distribute the meeting notes to all attendees for review. Planning and Development will provide clarification or revisions to the applicants meeting notes.

Application Submission and Acceptance

Applications are submitted through the Spruce Grove CityView portal. Application requirements include, but are not limited to:

1) *Cover letter*
2) *Certificate of title and all instruments registered on title (within 30 days) including a letter detailing the purpose of all instruments on title*
3) *Owner (s) Authorization from all landowners, including identification of all non-participating landowners and the rationale for not participating*
4) *Right of Entry form*
5) *Draft Area Structure Plan or Neighbourhood Plan document or Amendment Document (PDF and word format that can be edited, and all images must be provided to City standards).*
6) *Redline version of the Area Structure Plan or Neighbourhood Plan amendment document*
7) *PDF and AutoCAD/and GIS (if available) version of the development concept and all figures per City standards.*
8) *Required Technical Studies and Reports*
9) *Engineering Design Brief*
10) *Public Engagement Plan (if required)*

A complete application includes all required forms, fees, technical studies and supporting documentation. Incomplete applications will not be processed. Planning and Development will send a notice of complete or incomplete application to the applicant.

Application Review

When the application is deemed complete, the Planning and Development Department will circulate the application to internal and external agencies for review. Following the internal and external referral period, the City's internal Technical Review Committee will review and confirm the circulation comments. The Technical Review Committee meets every two weeks. After the Technical Review Committee, the Planner will compile all the comments and send them to the applicant. The applicant must address any comments received to the satisfaction of the Planning and

Development Department. Sometimes this may require additional meetings with the applicable referral agencies. Please note that the technical studies may require a longer review timeframe. At the discretion of the Planning and Development Department, a revised application and re-circulation may be required.

Public Engagement

Public engagement is required for all new Area Structure Plans and amendments with the timing and requirements confirmed by Administration. Public engagement may be required for new Neighbourhood Plans and some amendments at the discretion of Administration in compliance with any applicable policies. If there are significant changes to the Area Structure Plan or Neighbourhood Plan from the initial public engagement, additional public engagement may be required.

As per Policy CP-1068-26 Land Use and Development Notification Signs Policy, on-site notification signs are required for new Area Structure Plans and Neighbourhood Plans and amendments.

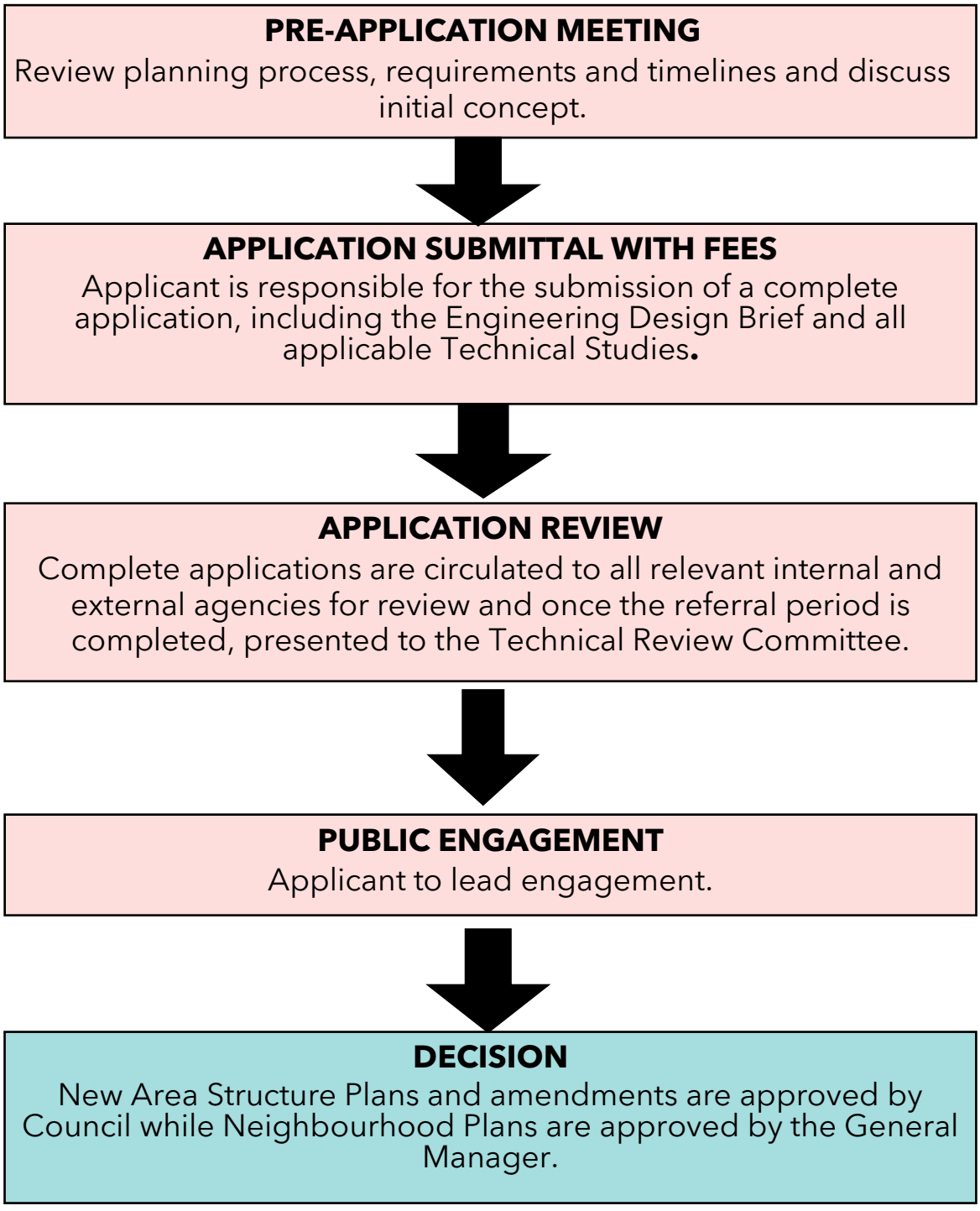
Decision

New Area Structure Plans and amendments are approved by Council by Bylaw.

When the Neighbourhood Plan is prepared to the satisfaction of the Director of the Planning and Development Department and Director of Engineering, it will be referred to the General Manager. Neighbourhood Plans are non-statutory and approved by the General Manager. Once Area Structure Plans and Neighbourhood Plans are approved, they are posted on the City's website.

Figure 1 describes the application and approval process for Area Structure Plans, Neighbourhood Structure Plans, and their amendments at a high level.

Figure 2 – Process for New Area Structure Plans and Neighbourhood Plans and Amendments



AREA STRUCTURE PLAN AND NEIGHBOURHOOD PLAN AMENDMENTS

The City will determine if an Area Structure Plan (ASP) or Neighbourhood Plan (NP) amendment is required on a case-by-case basis through the pre-application meeting. Generally, an amendment to the Area Structure Plan and/or Neighbourhood Plan is required for the following reasons:

- *Adoption of a new Neighbourhood Plan or Concept Plan;*
- *Changes to land uses including from residential to commercial;*
- *Significant changes to residential densities, for example from low density residential to high density residential;*
- *Changes to servicing including sanitary, storm, and sewer or the road network;*
- *Major changes to the size or location of a park or school site.*

The City recognizes that Area Structure Plans and Neighbourhood Plans are somewhat conceptual in nature, and minor adjustments (i.e. road or land use shifts a meter or at the discretion of the planning and development authority) may not require an amendment.

The Area Structure Plan (ASP) and Neighbourhood Plan (NP) amendment application follows the same process as new ASP and NP applications. ASP and NP amendment applications are required to provide a plan amendment document that includes:

- *An introduction that describes the proposed amendment, including location within the approved plan.*

- *Brief description of when the ASP or NP was adopted and any subsequent amendments, including dates.*
- *A description and rationale for the plan amendment, including:*
    - *Alignment with the Municipal Development Plan – The Shape of Our Community, Area Structure Plan in effect, Land Use Bylaw C-824-12 as amended, and Integrated Transportation, Storm, Water and Sanitary Master Plans.*
    - *Identification of the area (s) and size (s) of the proposed amendment.*
    - *Impacts of the proposed amendment to land areas (residential, commercial, institutional, industrial, parks and Municipal Reserve, Environmental Reserve, open spaces), density, and population statistics.*
    - *Description of any proposed amendments to policies and associated rationale.*
    - *Impacts of the proposed amendment to servicing (sanitary, storm, water) and the road network.*
    - *Impacts of the proposed amendment to staging.*
- *Updated land use tables for the entire Area Structure Plan and/or Neighbourhood Plan, including land use statistics and projected residential land use (low, medium and high-density residential land uses), dwelling unit count and population.*
- *Development concept maps for the entire Area Structure Plan and Neighbourhood Plan, clearly showing all changes to the current and proposed land uses (including low, medium and high-density residential land uses) and road network.*
- *All figures with the existing and proposed changes (highlighted with a box) and a clean final version.*
- *Updated staging plan if changes are proposed.*
- *A redline version of the ASP or NP showing the specific, proposed amendments.*
- *Updated servicing information may be requested.*
- *New or updated technical studies may be requested.*
- *If public engagement is held, the details and feedback should be summarized.*

AREA STRUCTURE PLAN REQUIREMENTS

INTRODUCTION

This section of the Area Structure Plan should describe the vision, purpose, objectives and timeframe for the implementation of the plan. Neighbourhood boundaries should be identified. An estimated timeframe for build out for the neighbourhoods within the ASP should be provided, including a description of any factors that may speed up or slow down the build out. This section should describe the plan area in relation to the City, and surrounding areas including adjacent municipalities if applicable (i.e. future land use).

SITE CONTEXT

This section should provide a description of the plan area including existing conditions, opportunities and constraints. It should incorporate a summary of the findings from each technical study required as well. A site contours map (5m intervals) identifying topography and drainage patterns within the plan area and recent aerial photo should be provided. The site contours map must be no older than 5 years old.

This section should include a description of:

1) ***Physical features***, *including the general topography of the area, natural drainage, and local topographic features (eskers, creeks etc.) Areas with steep slopes (15% or greater) must also be identified. A general description of soil conditions should be provided.*

2) ***Existing vegetation and natural areas, wetlands and waterbodies***, *including the current site vegetation and any existing treed areas, shelter belts, wetlands, riparian areas, and other environmental features should be identified and described. This section should summarize the results of the Biophysical Inventory. This includes any waterbodies that will be claimed or have been claimed as crown*

land and indication that confirmation from the province has been received. The general location of top of bank should be identified on the aerial map.

3) ***Pre-existing, existing and adjacent land uses**, including abandoned, suspended, existing and proposed petroleum and gas well-sites (type, location, status and access requirements), pipelines, storage, extraction, processing or operation facilities, lease areas and access roads, rights-of-way, homesteads, rail lines, cellular communication towers, etc. on the subject or adjacent lands. Historical resources should be identified within the plan area and indication if Historical Resource Act Clearance has been granted. Setback requirements around wells shall be shown as per Alberta Energy Regulator's requirements.*

4) ***Potential areas of contamination**, based on an Environmental Site Assessment, including pipelines and wells (active and abandoned), active or inactive landfill sites, and waste management facilities.*

LAND OWNERSHIP

This section should identify all parcels within the Area Structure Plan area and whether they are active participants in the ASP. A table must be provided that contains the legal description, ownership, area(s) in hectares, and percentage of the total land areas. It should also identify if any landowners choose not to participate in the Plan area. Administration encourages lands to be included in the Plan area even if the landowner is not ready to develop their land. The names of the landowners will not be published in the Area Structure Plan document and referred to as private owner or private corporate owner, in conformance with the current Alberta Provincial regulations on privacy and information. The exception to this is if the land is owned by the City of Spruce Grove, a school board or the Province of Alberta.

REGULATORY ALIGNMENT

This section should describe how the Area Structure Plan complies with the following plans, policies and bylaws. Please note Administration may add additional plans, policies or bylaws to this list:

- *Municipal Development Plan*
- *Parks and Open Space Master Plan if park proposed*
- *Land Use Bylaw as amended*
- *Storm, Water and Sanitary Master Plans*
- *Integrated Transportation Master Plan*

If the proposed new ASP is not in conformity with any of the identified bylaws, associated amendments to those plans must be made (under separate application) or the proposed ASP must be revised in order to conform to existing policy. Justification for any amendments must be given.

VISION AND PRINCIPLES

A brief description of the vision and principles for the plan area is required. The vision could relate to the unique natural, cultural, and or historical features in the plan area or proposed design elements that create an identity for the plan area. The vision and principles should be connected to the *Municipal Development Plan – The Shape of Our Community*.

AREA WIDE POLICIES

This section should describe policies that apply to the entire plan area and should be connected to the plan's vision and principles, and the *Municipal Development Plan – The Shape of Our Community's* Planning Principles including:

- *Reflecting on urban form*
- *Establishing connectivity*
- *Creating community spaces*
- *Adapting to uncertainty*
- *Ensuring community viability*

PROPOSED DEVELOPMENT CONCEPT AND ASSOCIATED POLICIES

The following section should describe future land uses and associated policies. The description of each land use should include:

- *Area of land*
- *Type of land use*
- *Range of built forms for each land use*
- *Number of dwelling units for low, medium, high-density sites, and mixed-use sites*
- *Density ranges for residential land uses*

The policies should be framed around each land use and describe how development will occur. The policies should be action oriented and relate to the plan's vision and principles. All policies must contain one of the following action items:

- *Require/Shall - these policies are compulsory and must be met o be supported by Administration.*
- *Encourage/May – these policies are expected and if they are not addressed, they must provide justification to the satisfaction of Administration for why they are not being met.*

Table 2 – Land Use and Policy Details

Land Use	Policy should address	Type
Residential	• *Minimum and maximum densities for Low, Medium and High Density Residential. Low density is considered 25 to 35 dwelling units/net residential hectare (du/nrha), Medium density is considered 35 to 80 du/nrha and High Density is considered 80 to 150 du/nrha.* • *Required housing mix* • *Location of density*	Low Density Residential (single detached, zero lot line and semi detached/duplex) Medium Density Residential (row housing) High Density Residential (apartments)
Mixed Use and Commercial Areas	• *Location of commercial and mixed-use areas* • *Location of mixed-use in relation to transit and major transportation corridors*	Neighbourhood and large-scale commercial, and mixed use (vertical and horizontal)
Industrial	• *Location of light and medium industrial*	Medium and Light Industrial/Business Park
Institutional	• *Placement in relation to other land uses*	Hospitals, Emergency services, Schools, Religious Assemblies
Municipal Reserve (MR) and Parks	• *How MR lands are to be dedicated (land, or cash)* • *Distribution of parks* • *Anticipated park sizes and road frontage percentage*	Park sizes, potential school sites and major recreational facilities. Ensure compliance with the updated POSMP
Open Spaces	• *How open spaces are to be dedicated (i.e. PULs)* • *Purpose of open spaces (i.e. SWMF)* • *Connectivity with parks* • *Naturalization of open spaces* • *Opportunities for open spaces to function as an amenity (Municipal Reserve credit will not be provided for storm water management facilities).* • *Anticipated road frontage percentage for storm water management facilities*	Public utility lots (PUL) and stormwater management facilities (SWMF)
Environmental Reserve (ER)/ Natural Areas	• *Areas to be retained and how they will be dedicated (i.e. Environmental Reserve or Conservation Reserve)* • *Areas to be removed including potential challenges with removal.*	• *Wetlands (classification, impacts, and compensation statement)*

	• *Buffers from other land uses* • *Connectivity requirements for natural areas* • *How the interface/buffer with Environmental Reserve, Natural areas will be determined and at what stage in the planning process.* • *How setbacks from slopes (Top of Bank/waterbodies/riparian areas) will be determined and at what planning stage.* • *This information should be based on a Biophysical Inventory.*	• *Tree stands* • *Steep slopes* • *Natural areas/features*
Transportation Network	• *Road connectivity, access points, intersections and round abouts.* • *Accommodation of a variety of modes of transportation.* • *Potential traffic numbers, volumes and routing information based on a Transportation Impact Assessment. Identify major trip generators (schools, major commercial developments) and any applicable traffic calming infrastructure.* • *Transit routes and accommodations.*	• *Arterials and collectors*
Active Transportation (non-automotive)	• *Connections to parks, open spaces, commercial and amenities.* • *Integration with road network (arterial and collector roads) and open space network.* • *Connectivity to adjacent neighbourhoods.*	• *Multi-use trails and sidewalks*
Right-of-Ways	• *How lands will be dedicated (i.e. PULs)* • *Buffers from other land uses.* • *Where feasible opportunities to be incorporated into walkways.*	• *Major utility corridors, power lines, gas and oil transmission lines*

LAND USE TABLE AND DEVELOPMENT STATISTICS

The Land Use Table and Development Statistics should be provided in the format below.

Table 3 - Land Use Statistics

	Area (ha)	Area (ac)	% of Gross Developable Area
Gross Plan Area			
Environmental Reserve			
Conservation Reserve			
Gross Developable Area			

Municipal Reserve including park breakdown and schools			
Non-credit Municipal Reserve (if applicable)			
Roads including arterial and collector roadway dedication and percentage dedicated for circulation			
Storm Water Management Facilities			
Major Right of Ways			
Total Residential Area			
Low Density Residential (single detached and semi detached/duplex)			
Medium Density Residential (row housing)			
High Density Residential (apartments)			
Commercial Area			
Mixed-Use Area			
Industrial Area			
Institutional Area			

Projected Residential Land Use, Dwelling Unit Count, and Population

The projected residential land use, dwelling unit count, and population statistics should be provided in the format below, using the following density ranges:

- *Low density: 25 to 35 du/nrha*
- *Medium density: 35 to 80 du/nrha*
- *High density: 80 to 150 du/nrha*

Table 4 - Projected Residential Land Use, Dwelling Units, and Population Statistics

Land Use	Area (ha)	Percentage of Net Residential Area	Units/ha	Units	People/Unit	Population
Low Density Residential						
Medium Density Residential						

High Density Residential						
Mixed Use Residential if applicable						
Total Residential						

Student Generation

The projected student population should be provided in the format below.

Table 5 – Student Population Projections

Land Use	Elementary/Junior High	Senior High	Total
Public			
Separate			
Total Anticipated Students			

INFRASTRUCTURE AND SERVICING

This section should identify and summarize the Engineering Design Brief (Tier I) (provided in appendix 2) and provide a description and associated policies for:

- *water system including servicing connections and alignment;*
- *storm water management system, the location and size of stormwater management facilities;*
- *sanitary systems including servicing connections, and alignment; and*
- *existing and planned road network, including arterial and collector roads and connections to regional roadways. Please note the Transportation Impact Assessment is to be provided as a separate document.*

STAGING

A brief description of the staging, including arrows showing the general staging direction, and subsequent planning approval required.

MAPS

The following maps are required to be provided with the Area Structure Plan:

- *Site Location Map*
- *Ownership Map*

- *Development Constraints Map including topography/contours*
- *Development Concept showing arterial and collector roads*
- *Neighbourhood boundaries and staging*
- *Parks, Open Spaces and Natural Areas Map (including lands to be dedicated as Municipal Reserve, Environmental Reserve, and Stormwater Management Facilities if trails are provided) including Active Transportation Network*
- *Servicing Concept – stormwater, sanitary and water servicing*
- *Transportation Network*

SUMMARY OF PUBLIC ENGAGEMENT

The public engagement event (s) should be summarized in this section.

REQUIRED TECHNICAL STUDIES

The following technical studies will be required:

- *Biophysical Inventory*
- *Area Structure Plan Geotechnical Investigation*
- *Phase 1- Environmental Site Assessment*
- *Traffic Impact Assessment (Tier 1) as per Municipal Development Standards*

NEIGHBOURHOOD PLAN CONTENT REQUIREMENTS

INTRODUCTION

This section of the Neighbourhood Plan should describe the purpose of the plan, and timeframe for implementation. It should describe the plan area in relation to the City, surrounding areas and the approved Area Structure Plan.

SITE CONTEXT

A site contours map identifying topography (at minimum of 2m intervals) and drainage patterns within the plan area should be provided. This section should include a description of all existing land uses for the plan area and adjacent land uses. This section should also describe development opportunities constraints within and adjacent to the plan area, including but not limited to:

- *Existing vegetation, natural areas, wetlands (including type and classification) and waterbodies*
- *Existing and proposed infrastructure (road network, storm, drainage, water and sanitary)*
- *Potential areas of contamination including pipelines and wells (active and abandoned) including type, location, status and access requirements*
- *Areas with steep slopes (15% or greater)*
- *Conceptual location of top of bank*
- *Rail lines*
- *Major right of ways*
- *Surrounding land uses and boundary conditions (topography and grading) within 100 m of the parcel*

This section should summarize the findings from the associated required technical studies including the Biophysical Impact Assessment Report, Traffic Impact Assessment, and Environmental Site Assessment.

LAND OWNERSHIP

This section should include a table of all registered and assessed landowners/parcels and legal addresses in the plan area, and a map showing all legal addresses of landowners. Non-participating landowners should be identified. The names of the landowners will not be published in the Neighbourhood Plan document and referred to as private owner or private corporate owner, in conformance with the current Alberta Provincial regulations on privacy and information. The exception to this is if the land is owned by the City of Spruce Grove, a school board or the Province of Alberta.

REGULATORY ALIGNMENT

This section should describe how the Neighbourhood Plan complies with the following plans and bylaws. Please note Administration may add additional plans, policies or bylaws to this list:

- *Municipal Development Plan – The Shape of Our Community*
- *Parks and Open Space Master Plan (POSMP)*
- *Area Structure Plan in effect*
- *Land Use Bylaw C-824-12, as amended*
- *Integrated Transportation, Storm, Water and Sanitary Master Plans*

VISION AND PRINCIPLES

This section should provide a brief description of the Neighbourhood Plan's long-term vision for the neighbourhood, and ultimately what the plan area will achieve once it is built out.

This section should also identify principles for the Neighbourhood Plan, which includes key themes that form the plan's foundation, and align with the Plan's vision. The principles should be framed around the Municipal Development Plan's Planning Principles, including:

- *Reflecting on urban form*
- *Establishing connectivity*
- *Creating community spaces*
- *Adapting to uncertainty*
- *Ensuring community viability*

PROPOSED DEVELOPMENT CONCEPT AND ASSOCIATED POLICIES

The following section should describe future land uses and associated policies. The policies should be framed around each land use and describe how development will occur. The policies should be action oriented and relate to the plan's vision and principles. All policies must contain one of the following action items:

- *Require/Shall - these policies are compulsory and must be met to be supported by Administration.*

- *Encourage/May – these policies are expected and if they are not addressed, they must provide justification to the satisfaction of Administration for why they are not being met.*

Table 6 – Land Use and Policy Details

Land Use	Policy should address	Type	Details
Residential	• *Minimum and maximum densities for Low, Medium and High Density Residential* • *Required housing mix* • *Location of density*	Low Density Residential (single detached, zero lot line and semi detached/duplex) Medium Density Residential (row housing, street oriented and row housing developments) High Density Residential (apartments)	• *Densities and housing mix* • *Lots with front and rear drive access* • *Lots fronting and flanking onto collectors* • *Low, medium and high density residential on collectors*
Mixed Use and Commercial Areas	• *Location of neighbourhood and small-scale commercial, major commercial and mixed-use areas (vertical or horizontal and percentage of residential and commercial split)* • *Separation distances or buffers from residential areas* • *Location of mixed-use in relation to transit and major transportation corridors.*	Neighbourhood and large-scale commercial, and mixed use	• *Access strategy for mixed use and commercial developments* • *Design considerations (i.e. active street frontage, location of parking)*
Industrial	• *Separation distances or buffers from other land uses*	Medium and Light Industrial/Business Park	• *Mix of industrial uses* • *Design considerations*

	• *Location of light and medium industrial* • *High level site design*		
Institutional	• *Separation distances or buffers from other land uses* • *Placement in relation to roads*	Hospitals, Emergency Services, Religious Assemblies, Educational Facilities, Libraries	• *Placement along arterials, collectors or local roads.* • *Parking placement*
Municipal Reserve (MR) and Parks	• *How MR lands are to be dedicated (land, or cash) and non-credit MR* • *Accommodation for different users and activities* • *Distribution of parks and open spaces* • *Walking distance requirements to parks* • *Park and school frontages and walkability*	Park sizes and potential school site area assumptions.	• *Park sizes and configurations* • *Proposed programming for parks* • *Proposed road frontage (also shown and measured on maps)* • *Potential school sites (elementary, junior high and high schools).*
Open Spaces	• *How open spaces are to be dedicated (i.e. PULs)* • *Connectivity with parks* • *Opportunities for open spaces to function as an amenity (Municipal Reserve credit will not be provided for storm water management facilities).*	Public utility lots (PUL) and stormwater management facilities (SWMF)	• *Sizes, shapes and road frontages*
Environmental Reserve (ER)/ Natural Areas	• *How lands will be dedicated (i.e.*	• *Wetlands* • *Tree stands* • *Steep slopes*	• *Wetland identification, classification,*

	Environmental Reserve) • *Buffers from other land uses* • *Connectivity requirements for natural areas* • *Road frontage requirements* • *General location of top of bank (confirmed location of top of bank and recommended appropriate development setback will be identified through a slope stability assessment at the subdivision or development permit stage).* • *Must identify Biophysical Impact Assessment Report recommendations and address associated engineering requirements (i.e. grading, setback distances from ER, highwater tables).*	• *Interface/buffer with Environmental Reserve, Natural areas (tree lines)*	*impacts, and compensation* • *Natural areas to be retained and proposed to be removed.* • *Description of the interface with Environmental Reserve and Natural Areas including grading interface between built and retained environments*
Transportation Network	• *Road connectivity and access points* • *Accommodation of a variety of modes of transportation.* • *Front drive access restrictions* • *Traffic calming measures*	• *Arterial, collector and local roads and alleys*	• *Block lengths* • *Intersections* • *Roundabouts* • *Access to the area* • *Identification of any variance from the approved road cross sections or standards*

			that are being proposed for the plan area • *Roads (arterials, collectors, locals and alleys) with adjacent/fronting/flanking land uses* • *Staging of roadways* • *Summarize Engineering Design Brief (Tier II) related to transportation network.*
Active Transportation	• *Connections to parks, open spaces, commercial and amenities, and other neighbourhoods* • *Integration with road network*	• *Multi-use trails and sidewalks*	• *Location and connectivity to amenities.* • *Integration with road network.*
Right-of-Ways	• *How lands will be dedicated (i.e. PULs)* • *Buffers from other land uses* • *Where feasible opportunities to be incorporated into walkways.*	• *Utility corridors, power lines, gas and oil transmission lines*	• *Location* • *Incorporation with walkways and multi-use trails*

LAND USE TABLE AND DEVELOPMENT STATISTICS

The Land Use Table and Development Statistics should be provided in the format below.

Table 7 – Land Use Statistics

	Area (ha)	Area (ac)	% of Gross Developable Area
Gross Plan Area			
Environmental Reserve			
Conservation Reserve			
Gross Developable Area			
Municipal Reserve including park type breakdown and schools			
Non-credit Municipal Reserve (if proposed)			
Arterial Roads			
Collectors Roads			
Local Roads			
Alleys			
Public Utility Lots			
Storm Water Management Facilities			
Total Residential Area			
Low Density Residential (single detached, zero-lot line, and semi detached/duplex)			
Medium Density Residential (row housing, street oriented and row housing, developments)			
High Density Residential (apartments)			
Commercial Area			
Mixed-Use Area			
Total Industrial Area			
Light Industrial/Business Park			
Medium Industrial			
Institutional Area			

Projected Residential Land Use, Dwelling Unit Count and Population

The projected residential land use, dwelling unit count and population statistics should be provided in the format below, using the following density ranges:

- *Low density: 25 to 35 du/nrha*
- *Medium density: 35 to 80 du/nrha*
- *High density: 80 to 150 du/nrha*

Table 8 - Projected Residential Land Use, Dwelling Units, and Population Statistics

Land Use	Area (ha)	Percentage of Net Residential Area	Units/ha	Units	People/Unit	Population
Low Density Residential						
Medium Density Residential						
High Density Residential						
Mixed Use Residential if applicable						
Total Residential						

INFRASTRUCTURE AND SERVICING

This section should provide a brief summary of the attached Engineering Design Brief that includes a description of:

- *water system including servicing connections and alignment;*
- *storm water management system, the location and size of stormwater management facilities;*
- *sanitary systems including servicing connections, and alignment; and*
- *existing and planned road network, including arterial, collector and local roads.*

It should also describe any changes to servicing, density or location of density from the approved Area Structure Plan and its impact on servicing.

STAGING

A description of the staging and identifications of specific staging areas (i.e. 1-4) and subsequent planning and development approvals should be provided. This section should also identify major infrastructure requirements for triggering stages.

MAPS

The following maps are required to be provided with the Neighbourhood Plan:

- *Site Location Map*
- *Ownership Map*

- *Development Constraints Map including topography/contour*
- *Development Concept showing arterial, collector and local road network (including lanes)*
- *Parks, Open Spaces and Natural Areas Map (including lands to be dedicated as Municipal Reserve, Environmental Reserve and Public Utility Lots)*
- *Stormwater Servicing*
- *Water Servicing*
- *Sanitary Servicing*
- *Transportation Network including trails.*
- *Staging Plan (boundaries must be provided for stages)*

SUMMARY OF PUBLIC ENGAGEMENT

If public engagement is required, the applicant is required to summarize the public engagement event (s) and provide a *What We Heard Report* to the Planning and Development Department.

ENGINEERING DESIGN BRIEF (TIER II)

The requirements for the Engineering Design Brief (Tier II) will be confirmed by Engineering.

TECHNICAL STUDIES

The following technical studies are required:

- *Neighbourhood Plan Geotechnical Investigation*
- *Traffic Impact Assessment Tier 2 as per the Municipal Development Standards*

At the discretion of Administration, the following technical studies may be required:

- *Biophysical Impact Assessment Report*
- *Wetland Impact Assessment Report*
- *Phase 1 - Environmental Site Assessment or Phase 2 – Environmental Site Assessment where required*
- *Noise Impact Assessment*

APPENDIX 1 – TECHNICAL STUDY DETAILS

The required technical reports should be confirmed with the City of Spruce Grove Administration during the pre-application meeting and circulation process. Additional technical reports could also be identified through the circulation process.

It is expected that higher level studies will be prepared at the Area Structure Plan (ASP) level and more detailed studies will be prepared to support a Neighbourhood Plan or Concept Plan. Once a technical study has been accepted, the City will initiate a review and circulate it to the appropriate departments. In addition, the City may at their discretion, engage a third part to conduct a comprehensive review. Fees are associated with this third-party review, in accordance with the Development Fees Bylaw.

Applicants may be required to provide other technical studies not identified below to support their application.

Type of Study	Timing of Study	Details
<u>Land Use Planning & Environment</u>		
Type of Study	**Planning Process**	**Study Description and Details**
Environmental Site Assessment	A Phase I Environmental Site Assessment (ESA) is required to support new ASPs and/or NPs. However, where a Phase I ESA has been previously completed for participating lands more than one year but less than five years before the	**<u>Study Description</u>** *A* Phase I Environmental Site Assessment is an investigation to determine if a site is, or may be, contaminated. All Phase I ESA must meet standards set by the Canadian Standards Safety Association *CSA Z768-01 (R2022)-Phase I Environmental Site Assessment* and the Government of Alberta GoA *2016*

	application submission date of the Area Structure Plan or Neighbourhood Plan, an updated ESA may be required depending on activities during that time at the discretion of the City. Phase 1 ESAs completed more than five years before the date of submission will require updates unless exempted in writing by the City. If an ESA has not been previously provided, it may be required with an ASP or NP amendments. All Phase I ESA recommendation for further assessment recommendations must be completed and reported in a Phase 2 ESA prior to any soil disturbance or development within the area of potential concern (APEC). Any contamination identified in during a Phase II ESA will be reported immediately to Alberta Environment and Protected Areas (APEA) in accordance with environmental regulations. All contaminated sites must be remediated or obtain approved risk management plans by APEA prior to development.	*Environmental Site Assessment Standard*. A Phase II is an intrusive investigation and confirmation of APECS through characterization and laboratory analysis of soil and groundwater. All Phase II ESAs submitted to the City should be completed in accordance with Z769-00 (R2018)-Phase II Environmental Site Assessment. Following the results of the Phase 2 ESA, remedial or risk management may be requested prior to proceeding with development. **Study Details** The Phase I ESA must provide concise conclusions and recommendations which should indicate whether additional investigation is required and clearly outline any APECs that are associated with the site. The conclusion of a Phase 2 ESA should include sufficient information to support either: that there is no reasonable basis to suspect a substance release OR confirmation that a substance release has occurred and remedial measures and/or risks management should be taken.

Biophysical Inventory (BI)	A preliminary, desktop-based Biophysical Inventory is required to support new ASPs, with site reconnaissance where appropriate. If a Biophysical Inventory or Assessment Report was not provided with an ASP, or deemed insufficient or not updated appropriately with subsequent amendments, one may be required at the discretion of the City. **Note:** Environmental features identified at the ASP stage are conceptual and subject to confirmation through detailed, field-verified study at the NP stage. Final potential Environmental Reserve, Environmental Reserve Easement, and/or Conservation Reserve boundaries, buffers, and development layout must be informed by the findings of a subsequent Biophysical Impact Assessment.	**Study Description** A Biophysical Inventory is a preliminary, desktop-based study to inform land use planning by identifying ecologically significant features, key physical and biological characteristics, and potential reserve lands. This inventory ensures the land use concept considers environmental constraints and opportunities without requiring detailed field delineation before the overall development pattern is confirmed. This report shall be completed by qualified professionals. **Study Details** The Biophysical Inventory must include: **Introduction** includes a description of the study area and surrounding context, the purpose of the desktop review, and its role in informing early land use planning and potential reserve lands. **Methodology and qualifications** describes the approach used to compile existing data and information, including aerial imagery, mapping, municipal and provincial datasets, literature, and any site reconnaissance where appropriate. Notes assumptions, data limitations, and any areas where further field verification will be required at the NP stage. This study shall be completed by qualified professionals. **Inventory** identifies, describes, and maps existing biophysical conditions within the study area and adjacent lands potentially impacted by the proposed development, including, but not limited to: • *Physical environment: topography, geology, hydrology, soils.*

		• *Biological environment: wetlands, vegetation communities, wildlife habitat, aquatic resources.* • *Sensitive and constrained lands: Environmental Reserve, Environmental Reserve Easement, Conservation Reserve, hazard lands, Crown claimable lands.* **Limitations** highlights that this is a desktop-based study and may not capture all field conditions. Identifies that features will require confirmation and potential refinement during the NP stage Biophysical Impact Assessment.
Biophysical Impact Assessment Report	At the Neighborhood Plan (NP) stage, a field-verified Biophysical Impact Assessment (BIA) Report is required. If a Biophysical Inventory (BI) or Biophysical Impact Assessment Report was not provided with an ASP, deemed insufficient or not updated appropriately with subsequent amendments, one may be required at the discretion of the City. **Note:** Environmental features identified through the BI or BIA may trigger additional studies, approvals, or reporting requirements under provincial or federal legislation (i.e. Water Act Wetland Assessment and Impact Report, Species at Risk considerations, or other regulatory requirements). Where applicable, the	**Study Description** A Biophysical Impact Assessment is a field-verified study to confirm and delineate feature boundaries as identified in the Biophysical Inventory, assess potential development impacts, and recommend mitigation measures. This assessment informs detailed neighbourhood design, infrastructure layout, and reserve land dedication. This report shall be completed by qualified professionals. **Study Details** **Biophysical Impact Assessment Report** must include: **Introduction** includes a description of the proposed development and its purpose, the study area and surrounding context, and identification of applicable legislation (federal, provincial, and municipal). **Methodology and qualifications** describes methods used to collect and analyze data, sources of information, assumptions and study limitations, and recommendations for additional studies

	municipality may require confirmation of such approvals and submission of supporting documentation prior to further consideration of the application	where required. Includes qualifications and credentials of the project team.
		
		Inventory and assessment provides a comprehensive, field-verified characterization of the existing biophysical conditions within the study area and adjacent lands potentially impacted by the proposed development. Confirms and delineates features identified in the Biophysical Inventory. Includes, but is not limited to:
		
		• *Physical environment identifies, describes, and maps key physical characteristics, such as:*
		  ○ *Topography (landforms, slopes, elevation patterns)*
		  ○ *Geology (surficial and bedrock geology)*
		  ○ *Hydrology (surface and groundwater features, flow patterns, connectivity)*
		  ○ *Soils (types, properties, distribution)*
		• *Biological environment identifies, describes, and maps important biological features, such as:*
		  ○ *Wetlands (location, classification, boundaries)*
		  ○ *Vegetation (composition, extent, condition)*
		  ○ *Wildlife (significant habitat features, movement corridors)*
		  ○ *Aquatic resources (location, fisheries where applicable)*
		
		Sensitive and constrained lands identifies lands that may qualify as Environmental Reserve, Environmental Reserve Easement, or Conservation Reserve, as well as lands subject to constraints such as hazard lands or Crown claimable lands.
		
		Impact assessment includes identification and evaluation of potential

		positive and negative impacts of the proposed development on the biophysical environment, such as drainage alterations, habitat loss, slope stability impacts. Captures the nature and extent of anticipated impacts, criteria used to predict impacts, as well as direct, indirect, and cumulative effects where applicable. **Consultation** identifies agencies, stakeholders, and other interests consulted during report, with a summary of key input received, where applicable. **Mitigation measures** recommends measures to avoid, minimize, or mitigate identified negative effects, which may include dedication of lands as Environmental Reserve, Environmental Reserve Easement, or Conservation Reserve; design considerations and buffers; construction and operational mitigation measures; and interface management (i.e. Natural Area Interface Study). **Reporting framework** present results in a clear framework to support decision makers in determining appropriate land use, reserve dedication, and development conditions. **Viability and sustainability** assesses the long-term viability and ecological sustainability of natural areas within the context of the proposed development or redevelopment and surrounding land use. The applicant is responsible for obtaining and providing all provincial approvals as required as part of the plan development process.
Wetland Assessment	May be required at the Neighbourhood Plan stage, or future	**Study Description** A Wetland Assessment identifies and classifies wetlands through field surveys.

	subdivision of lands, at the discretion of the City. Please note the City requires Water Act approval for wetlands to support redistricting applications.	**Study Details** Wetlands are to be assessed under snow free conditions when an appropriate amount of vegetation is present. Field data undertaken for a Wetland Assessment is typically valid for three years, therefore, it should be completed if development is foreseeable within three (3) years from the completion of the Wetland Assessment. The Wetland Assessment must include a report and spatial file that addresses the following: • *Project boundary* • *The ecological boundaries of wetlands delineated according to the Alberta Wetland Identification and Delineation Directive* • *Determination of all wetland classes in the wetland as per the Alberta Wetland Classification System.* • *A relative wetland value assessment for each wetland using the actual Alberta Wetland Rapid Evaluation Tool.* • *The area of proposed wetland impacts per wetland (e.g. point or linear disturbances, increase in wetland size or permanence)* • *The area of proposed wetland loss per wetland.* • *Water quality and quantity assessment if a proposed activity could alter the water chemistry discharging into or out of a wetland.* • *Appropriate and sufficient assessments on local hydrology, hydrogeology, geology and/or soils information when a proposed activity is likely to result in changes to the amplitude, timing, frequency, or*

		duration of water discharging into or out of a wetland.
Historical Resources	Required for any development, including new ASPs within the annexed lands, where the City has not obtained Historic Resource Clearance. The applicant is responsible for applying to the Province for Historical Resource Act Clearance.	**Study Description** A Historical Resource Overview identifies development that may impact Alberta's historic resources based on historical records. If a historical resource may be located within the site, a Historical Resource Impact Assessment is typically required. The Historic Resource Impact Assessment assists in the protection and understanding of historic resources on affected lands. **Study Details** To see if there are any lands within the Plan area that are within the Listing of Historic Resource map, visit https://www.alberta.ca/listing-historic-resources.aspx. **Historical Resources Overview (HRO)** The HRO must be completed by a qualified professional, and provide an overview of potential historic resources in the plan area and evaluate any potential impacts. If it is determined that historic resources may be located on site, a Historic Resource Impact Assessment will be required. Findings shall be reflected in the ASP and NP. **Historic Resource Impact Assessment (Depends on results of HRO)** A Historic Resource Impact Assessment (HRIA) may be required before development activity depending on the results of the Historical Resources Overview and if the project could impact historic resources. The HRIA describes the proposed project and adverse impacts it could have on historical resources. Findings shall be reflected in the ASP and NP.

<table>
<tr><th colspan="3">Engineering</th></tr>
<tr>
<td>Geotechnical Report
(Preliminary at ASP Stage and NP Stage)

A slope stability assessment will be necessary at the time of subdivision and/or development permit to confirm the top of bank and determine appropriate development setbacks.</td>
<td>The ASP Geotechnical Investigation is required to support new Area Structure Plans. This investigation is intended to identify geotechnical constraints and confirm general development feasibility.

The NP Geotechnical Investigation is required to support new Neighbourhood Plans and must include subsurface and hydrogeological investigation.

If a geotechnical investigation was not completed at the ASP stage, or if the information is considered outdated or insufficient due to plan amendments or new information, additional ASP-level investigation requirements may be needed at the discretion of the City.

Note: Geotechnical conditions identified at the ASP stage are conceptual and must be confirmed through a preliminary subsurface investigation at the NP stage. Final development layout, grading, and infrastructure design must be informed by the findings of the NP</td>
<td><u>Study Description</u>

A Geotechnical Investigation is required to evaluate soil, groundwater, and slope conditions for the study area to determine the suitability of lands for future development, and to identify geotechnical constraints that may influence land use planning, infrastructure alignment, and future engineering design.

Geotechnical investigations are required at two stages of the planning process:

• Area Structure Plan Geotechnical Investigation, which provides a high-level assessment of site conditions and development feasibility, and
• Neighbourhood Plan Geotechnical Investigation, which provides a preliminary investigation to support neighbourhood planning and infrastructure design.

All geotechnical investigations must be completed by a qualified professional registered with the Association of Professional Engineers and Geoscientists of Alberta APEGA.

<u>Study Details</u>

Area Structure Plan Geotechnical Investigation

The ASP Geotechnical Investigation is intended to answer the following:</td>
</tr>
</table>

	Geotechnical Investigation and complemented by a subsequent detailed geotechnical investigation.	• *Whether soils within the plan area are generally suitable for future development.* • *Whether significant geotechnical or hydrogeological constraints exist within the study area.* • *Whether specific areas should be avoided or will require special design considerations.* The ASP investigation should primarily consist of a desktop review supported by site reconnaissance. The ASP Geotechnical Investigation must include: **Introduction** Description of the study area, surrounding context, and purpose of the investigation in supporting land use planning. **Methodology and Data Sources** Summary of the information sources and methods used to evaluate geotechnical conditions, including review of available data and site reconnaissance. Any assumptions, limitations, or data gaps must be identified. **Desktop Review** Review of available information related to the site and to adjacent lands, which may include: • *Regional geology and soils mapping* • *Existing geotechnical investigations within or adjacent to the study area* • *Available groundwater information* • *Topography and drainage patterns*

		• *Review of available air photography and LIDAR* • *Relevant municipal or provincial datasets* **Site Reconnaissance** A site visit by a qualified professional to observe existing conditions, including surface soils, slopes, drainage features, evidence of instability or erosion, and potential groundwater indicators. **Environmental Site Assessment** Completion of a Phase I Environmental Site assessment to identify potential contamination concerns. **Findings** A comprehensive outline of the findings of the desktop review, site reconnaissance, and ESA Phase I, which should include but is not limited to: • *Identification of potential geotechnical constraints or hazards* • *Conceptual recommendations regarding development suitability and planning considerations* • *Confirmation that the ASP investigation is preliminary and that detailed subsurface investigations will be required at the NP stage.* **Neighbourhood Plan Geotechnical Investigation** The NP Geotechnical Investigation is a preliminary geotechnical study that includes subsurface exploration to

		characterize soil and groundwater conditions across the study area. The Investigation builds upon the ASP investigation and provides information necessary to support neighbourhood layout, infrastructure alignment, and future detailed engineering design. The NP Geotechnical Investigation must include: **Introduction** Description of the study area, surrounding context, purpose of the investigation in supporting land use planning, and summary of relevant findings from the ASP Geotechnical Investigation, when available. **Subsurface Investigation** A program of borehole drilling or other subsurface exploration distributed throughout the study area at a depth and frequency sufficient to characterize soil conditions as determined by a qualified Geotechnical Engineer. The investigation must include: • *Borehole drilling and soil sampling, including laboratory testing of representative soil samples* • *Documentation of soil stratigraphy and subsurface profiles* • *Identification of groundwater encountered during drilling* **Hydrogeological Investigation** At a frequency sufficient to evaluate groundwater depth, seasonal fluctuations, and implications for development and infrastructure:

		• *Piezometers must be installed in selected boreholes to monitor groundwater conditions* • *Groundwater monitoring must occur for a minimum period of one year* • *Quarterly groundwater level measurements must be recorded for a minimum of four readings during the monitoring period.* • *If the study area considers the use of a water well, each piezometer must be sampled at least once for inorganic groundwater chemistry including pH, alkalinity, and electrical conductivity.* **Environmental Site Assessment** Where potential contamination concerns are identified through the ASP Geotechnical Investigation's Phase I ESA, a Phase II ESA must be completed. If a Phase I ESA was not completed alongside the Area Structure Plan, a Phase I ESA, and where concerns are identified, Phase II ESA, is required. **Analysis and Interpretation** Interpretation of subsurface conditions, including soil characteristics, groundwater conditions, and identification of geotechnical hazards. **Preliminary Engineering Recommendations** Preliminary geotechnical recommendations to inform development within the study area, including considerations for: • *Road and infrastructure subgrades* • *Deep utility installations*

		• *Building foundations* • *Groundwater management and geotechnical recommendations for stormwater ponds, if required* • *Earthworks* • *Mitigation of geotechnical hazards* **Documentation** The report must include borehole logs, soil test results, groundwater monitoring data, subsurface interpretations, and recommendations for any additional investigations during detailed design.
Engineering Design Brief		Please see the Engineering Design Brief Guidelines.
Traffic Impact Assessment (TIA)		Follow the City's Municipal Development Standards, which identify requirements for Transportation Impact Assessments. Generally, the TIA will: • *Review existing road network and volumes;* • *Describe additional roadway infrastructure to be built including travel lanes, turning lanes and signals;* • *Project traffic generated by development and* • *Assess the anticipated performance of the road network under future conditions.* The applicant may also be required to consult with Alberta Transportation.
Discretionary Technical Reports		
Report of Activities Registered with Alberta	As required by Administration	**<u>Study Description</u>** Identifies the location and status of all facilities, wells, pipelines and abandoned

Energy Regulators		wells, within the plan area. This includes all licence numbers and status, as well as inactive and reclaimed licenses.
Noise Impact Assessment	As required by Administration	**Study Description** A Noise Impact Assessment identifies and assesses noise sources, and determines appropriate control measures for mitigating noise impacts. A Noise Impact Study is required for all proposed developments with or near a noise sensitive land use.
Agricultural Impact Assessment	As required by Administration	**Study Description** An Agricultural Impact Assessment provides a description of the proposed development proposal, applicable policies and regulations, and provides an assessment on the viability of agriculture. This study also discusses impacts from the development proposal on agriculture, alternatives and mitigation measures.

APPENDIX 2 - ENGINEERING DESIGN BRIEF

OVERVIEW

All planning level estimates (flows, demands, trip generation, servicing assumptions) must be provided in a format compatible with the City's master models. Applicants must:

- *Use the same units, parameters, and contributing basin definitions as outlined in the relevant Master Plans.*
- *Provide tabular data (e.g., ADD, MDD, PHD, fire flows; stormwater peak flows; sanitary flows; trip generation estimates) in a structured format suitable for input into City models.*
- *Clearly state assumptions (population densities, inflow/infiltration ranges, peaking factors, trip rates) so they can be crosschecked against City standards.*
- *The City requires all servicing demand calculations to use the upper limit of the density thresholds defined in the projected residential land use, dwelling unit count and population statistics table.*
- *Identify any deviations from master plan assumptions and justify them at a conceptual level.*
- *Ensure spatial data (conceptual alignments, basins, corridors, PULs) is mapped in a way that can be overlaid with City GIS and model layers.*

TIER I – ENGINEERING DESIGN BRIEF

The Tier I Engineering Design Brief at the Area Structure Plan stage shall provide a conceptual level servicing plan to demonstrate that the proposed ASP area can be supported by municipal infrastructure systems.

The submission should include:

- *Overall servicing feasibility of the ASP area.*
- *Integration with existing and planned municipal infrastructure.*
- *Major infrastructure requirements and system dependencies, both onsite and offsite.*
- *Alignment with Master Plans and Municipal Design Standards.*

The Tier I Engineering Design Brief is a high-level servicing overview only. Detailed engineering design is not required.

Sanitary Sewer System

The Tier I Engineering Design Brief should summarize the sanitary servicing strategy for the ASP area.

The intent of the submission is to confirm:

- *How sanitary flows will be conveyed to the existing municipal system.*
- *Major trunk connections, general alignment, and general capacity considerations required to service the ASP area.*
- *The general servicing concept (gravity preferred).*
- *Integration with planned regional sanitary infrastructure and future trunk extensions.*
- *Capacity of existing downstream systems and high-level confirmation of integration with the proposed ASP servicing plan.*
- *Any necessary lift stations and required upgrades or extensions to municipal infrastructure.*
- *Major constraints affecting sanitary servicing feasibility.*
- *Offsite sanitary servicing dependencies.*
- *General staging considerations for development.*
- *A summary map that reflects the Area Structure Plan phasing and general sanitary servicing direction.*

Stormwater System

The submission should summarize the stormwater management strategy based on watershed concepts.

The submission shall identify:

- *Overall drainage concept for the ASP area.*
- *Major trunks, drainage pathways, and watershed context.*
- *Conceptual stormwater management facility requirements.*
- *General location of stormwater outfalls.*
- *Integration with existing stormwater systems.*
- *Downstream capacity considerations.*
- *Requirement for system upgrades or extensions, for both onsite and offsite infrastructure.*
- *Interim drainage considerations for undeveloped upstream lands.*
- *Major constraints affecting stormwater servicing feasibility.*
- *Integration with natural drainage features and environmental systems.*
- *A summary map that reflects the watershed context and general drainage direction.*

Water System

The submission should summarize the water servicing strategy for the ASP area.

The submission shall identify:

- *Overall system integration strategy.*
- *Connection points to the existing water infrastructure system.*
- *Pressure zone considerations.*
- *Major water servicing requirements, including system capacity considerations.*
- *Need for upgrades or extensions to municipal infrastructure.*
- *General servicing constraints affecting feasibility.*
- *General looping considerations to support long term system connectivity.*
- *A summary map that reflects the Area Structure Plan phasing and general servicing direction.*

Transportation Network

The submission should summarize the transportation network required to support the ASP area.

The submission shall identify:

- *Integration with adjacent and future transportation networks.*
- *General alignment throughout the ASP area.*
- *Multimodal connectivity considerations at a conceptual level.*
- *Major constraints affecting transportation feasibility.*
- *A summary map that reflects the Area Structure Plan phasing and network structure.*

TIER II – ENGINEERING DESIGN BRIEF

The Tier II Engineering Design Brief at the Neighbourhood Plan stage shall provide the preliminary engineering servicing details required to demonstrate how the proposed neighbourhood can be serviced and integrated within the existing infrastructure network.

The intent of the submission is to confirm:

- *The proposed neighbourhood servicing concept and infrastructure layout.*
- *Integration with the applicable Area Structure Plan, existing infrastructure, and planned infrastructure projects, both onsite and offsite.*
- *The feasibility of sanitary, stormwater, water, and transportation systems to support the proposed land use concept and staging strategy.*
- *Major infrastructure requirements, servicing constraints, and offsite dependencies affecting neighbourhood development.*
- *Alignment with applicable Master Plans, Municipal Development Standards, and the approved Area Structure Plan.*
- *Identification of potential oversizing or boundary conditions from adjacent land.*

The Tier II Engineering Design Brief is intended to support coordinated infrastructure planning, development staging, and system integration. Detailed construction design is not required.

Sanitary Sewer System

Adhering to the current City of Spruce Grove Sanitary Sewer Master Plan and Municipal Development Standards (MDS), sanitary planning is required to identify the practical conditions for sanitary serviceability, limiting factors in terms of capacities and elevations and the strategy for implementation of the necessary additions or extensions to the sewer network including staging, oversizing, off-site development, etc. Capacity requirements must be defined that address inflow/infiltration contributions. Sanitary planning is formulated on the contributing basin concept. The system shall be designed to provide gravity flow throughout the network. If required, permanent or temporary lift stations are to be identified and explained.

Sanitary Requirements:

- *Describe the overall servicing concept – gravity preferred*
- *Confirm consistency with the City's Sanitary Sewer Master Plan and MDS*
- *Define the contributing basins within the study area.*
- *Illustrate how flows from each basin will be conveyed to the downstream system*
- *Show approximate alignments of major sanitary trunks and service areas.*
- *Identify practical conditions for serviceability, including elevations and slope feasibility*
- *Demonstrate integration with existing and planned City-wide infrastructure.*

- *Provide planning level estimates of sanitary demand based on land use and density assumptions*
- *Address inflow/infiltrations (I/I) contributions*
- *Highlight potential capacity constraints and areas where oversizing may be required to accommodate ultimate development or offsite flows*
- *Outline how sanitary servicing will be staged to support development build-out*
- *Identify any interim connections and ultimate solutions*
- *Highlight offsite infrastructure dependencies (i.e., regional connections)*
- *Note potential constraints (topography, geotechnical conditions, downstream capacity) that may impact feasibility*
- *Identify potential PULs required for sanitary infrastructure. Where utilities are proposed to run through Municipal Reserve (MR) Lands, these locations must be identified. MR function cannot be compromised by utility placement.*
- *Summary Map(s) that reflects the Area Structure Plan or Neighbourhood Plan and Phasing Plan.*

Stormwater System

Adhering to the current City of Spruce Grove Stormwater Master Plan and Municipal Development Standards, stormwater drainage planning at this level is based on the watershed concept and will be and will identify the pre-development conditions of drainage. These planning efforts should include proposals for handling offsite storm drainage from undeveloped areas in the interim period until developments gradually substitute storm sewer networks in these areas, and the strategy for implementation of the necessary additions or extensions to the sewer network including staging, oversizing, off-site development, etc. The system shall be designed to provide gravity flow throughout the system. If required, permanent or temporary lift stations are to be identified and explained.

Locations of Stormwater Management Facilities (SWMF) will be identified at this level.

Stormwater Requirements:

- *Describe the Watershed context and pre-development drainage patterns*
- *Confirm consistency with the Stormwater Master Plan and MDS*
- *Show conceptual level locations and sizes of SWMFs and outfall points*
- *Illustrate conceptual level overland flow routes and integration with the open space network*
- *Provide planning level estimates of peak flows (5yr and 100yr events)*
- *Identify interim servicing strategies for undeveloped upstream lands*
- *Highlight potential constraints or oversizing needs for ultimate development*
- *Outline a phasing strategy for stormwater servicing*
- *Identify potential PULs required for storm infrastructure. Where utilities are proposed to run through Municipal Reserve Lands, these locations must be identified. MR function cannot be compromised by utility placement.*

- *Summary Map(s) that reflects the Area Structure Plan or Neighbourhood Plan and Phasing Plan.*

Water System

Adhering to the current City of Spruce Grove Water Master Plan and Municipal Development Standards, hydraulic network planning at this level is required to identify the practical conditions for water serviceability and the strategy for implementation of the necessary additions or extensions to the water network including staging, oversizing, off- site development, etc.

Water System Requirements:

- *Describe the overall servicing concept in alignment with the City's Water Master Plan*
- *Show approximate alignments of major watermains and pressure zones*
- *Provide planning level estimates of demand (ADD, MDD, PHD, fire flow)*
- *Identify boundary conditions and integrations with existing/planned city-wide infrastructure*
- *Outline a phasing strategy for water servicing, including interim and ultimate solutions. All interim phases shall meet the minimum design requirements described in the City's Municipal Development Standards*
- *Highlight potential constraints, oversizing, or looping needs*
- *Identify potential PULs required for water infrastructure. Where utilities are proposed to run through Municipal Reserve Lands, these locations must be identified. MR function cannot be compromised by utility placement*
- *Summary Map(s) that reflects the Area Structure Plan or Neighbourhood Plan and Phasing Plan.*

Transportation Network

Adhering to the current City of Spruce Grove integrated Transportation Master Plan and Municipal Development Standards, transportation network planning at this level is required to identify the practical transportation opportunities to accommodate the movement of vehicles, pedestrians, and public transit.

Transportation Requirements:

- *Describe the overall road hierarchy*
- *Show conceptual alignments of arterial, collector, local roads, and laneways*
- *Show the location of major intersections and indicate anticipated type of control (signal/roundabout/stop) at a conceptual level*
- *Show detailed access point tie-ins and ensure minimum number of neighborhood accesses are provided*
- *Analysis should accommodate a safe and efficient transportation system within the Engineering Design Brief study area to accommodate pedestrian, bicycle,*

and vehicular transportation demands within the Engineering Design Brief study area.

- *Integrate transportation and utility corridors into the neighborhood, making use of their walkway and linkage potential.*
- *Demonstrate coordination with any adjacent areas including but not limited to provincial lands, municipal jurisdictions, or rail corridors.*
- *Encourage neighborhood walkability by identifying pedestrian destinations, minimizing walking distances, providing enroute and destination amenities, and connection of users with local services through interconnected street and multi-use trail corridor networks.*
- *Identify traffic calming methods at intersections, pedestrian crossings, or any other location as required*
- *Roundabouts are the preferred option of traffic control on arterials and collectors in all new development areas where an intersection is planned that warrants or may warrant a future traffic signal or all way stops.*
- *Summary Map(s) that reflects the Area Structure Plan or Neighbourhood Plan and Phasing Plan.*

APPENDIX 3 - DOCUMENTS AND MAPPING STANDARDS

Digital plans in Microsoft Word and PDF format are required as part of any new Area Structure Plan (ASP) and Neighbourhood Plan (NP) applications and amendments. Text must be provided in black.

DIGITAL PLAN STANDARDS

- *All digital drawings must be in AutoCAD dwg format, in their true scale. In addition to the AutoCAD dwg file, an accompanying pdf or tiff, of the plan is required.*
- *All plans submitted must be spatially referenced in 3TM NAD83 degrees West longitude, Meridian 114, bearings grid.*
- *AutoCAD layers must be logically named.*
- *Linework must be clean (GIS ready) using Drawing Clean Up tools or equivalent within AutoCAD (no duplicates, gaps, overshoots or undershoots).*
- *All required maps formally submitted with appropriate title, plan boundaries, north arrow, scale, legend, known street names and qualifications as required.*
- *All Autocad linework must be delineated by layers to clearly define the following:*
    - *Boundary (Area Structure Plan or Neighbourhood Plan)*
    - *Parks*
    - *Environmental Reserve*
    - *Municipal Reserve*
    - *Public Utility Lots (Neighbourhood Plan)*
    - *School Sites*
    - *Servicing*
    - *Stormwater Management Facilities*
    - *Trails*
    - *Roads (including local in Neighbourhood Plans)*

- *Existing base/parcel linework*
- *Future land use categories*

Land Use Colour Table

Land Use	Colour
Low Density Residential	Yellow
Medium Density Residential	Orange
High Density Residential	Brown
Mixed-Use/Mixed-Use Node	Pink
Commercial	Red
Park	Green
Institutional	Dark Blue
Stormwater Management Facility	Light Blue
Light Industrial and Medium Industrial	Dark Purple for medium industrial and light purple for light industrial