

The City of Airdrie

Guidelines for the Preparation of Community Area Structure Plans or Neighbourhood Structure Plans

March 2024

Table of Contents

1.0 Purpo	se of th	e Guidelines	1
2.0 City o	f Airdrie	's Hierarchy of Plans	1
		ea Structure Plans ea Structure Plan Table of Contents	
3.0 Revie	w Proce	SS	9
	3.2 Tin 3.2.1 C	blic Participation neline Calgary Metropolitan Region Board (CMRB) Airdrie Mapping Deliverables Criteria:	10 11
4.0 Amen	ding Are	ea Structure Plans – When is it Required?	13
		mmunity Area Structure Plans: ighbourhood Structure Plans:	
5.0 Area	Structur	e Plans – Roles and Plan Requirements	15
	5.2. Th 5.3 Siz	ucture Plan Initiation le Role and Requirements of Community Area Structure Plans (CASP) le and Density	15 16
		SP Components nsity Location	
	5.6 Mir	himum Technical Supportive Studies Required at CASP stage: ditional Supportive Studies that may be required at CASP stage:	18
	5.9 Ne 5.10 Si 5.11 N 5.12. Si 5.13 M	e Role and Requirements of Neighbourhood Structure Plans (NSP) ighbourhood Design Criteria ize and density SP Components Shadow Plan inimum Technical Supportive Studies Required at NSP stage: dditional Supportive Studies that may be required at NSP stage:	20 22 24 24 25
6.0 Trans	portatio	n & Utility Services Planning	26
		Transportation Transit Connectivity: Servicing Water and Sanitary Infrastructure Stormwater Management Infrastructure.	26 27 28 28
7.0 Schoo	ols and (Open Spaces Planning	30
	7.1 7.2	Parks Schools	

Appendix A: Scope of Work for Technical Reports	1
Geotechnical Report	. 2
Environmental Site Assessment (ESA) Phase I	. 4
Environmental Site Assessment (ESA) Phase II	. 6
Environmental Site Assessment (ESA) Phase III	. 8
Historical Resources	
Biophysical Inventory & Biophysical Impact Assessment	12
Transportation Impact Assessment (TIA)	
Master Drainage Plan Report/Staged Master Drainage Plan Report	
Servicing Strategy	
Transit Service Statement	
Market Evaluation for Commercial Development	21
Appendix B: Public Engagement Guidelines	1
Appendix C: Statutory Plan Templates	1

1.0 Purpose of the Guidelines

This document is a guide to the preparation of Local Area Plans (or Structure Plans) in the City of Airdrie. It is a tool intended to assist landowners, industry and staff with the application process and to provide citizens with a general understanding of the process and requirements. The objectives of the Guidelines are to implement the MDP and establish a consistent understanding of the process between all stakeholders. The Guidelines also ensure consistency between applications at different scales of planning.

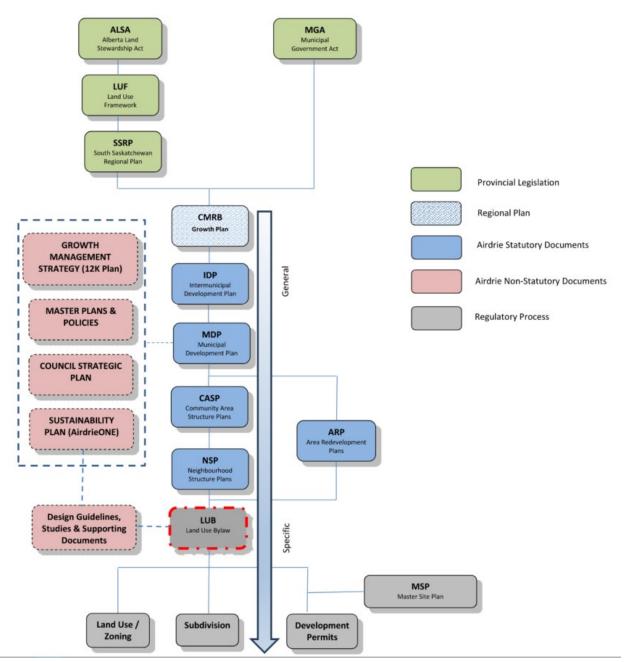
The Guideline does not introduce new policy – it provides interpretation and clarification of existing policies in the City Plan (and other key documents). As such, applicants must always read the policies contained in the actual Statutory or Non-Statutory document in conjunction with this Guide. If there is a conflict between this Guideline and the Statutory or Non-Statutory Plan, the latter will prevail.

2.0 City of Airdrie's Hierarchy of Plans

The City Plan (Municipal Development Plan) establishes the overall land use pattern and transportation network for the city. High level policies in the City Plan are implemented in Airdrie through structure plans known as Community Area Structure Plans (CASPs), Area Redevelopment Plans (ARPS), and Neighbourhood Structure Plans (NSPs). These plans are legislated under section. 633 of the Municipal Government Act. The City of Airdrie sees the purpose of structure plans to provide a progressively more detailed framework for development. An amendment to the Land Use Bylaw typically takes place at the same time as (or shortly after) the NSP approval. This is followed by the subdivision and/or development process. The relationship between the plans is shown in **Figure 1**.

Community Area Structure Plans and Neighbourhood Structure Plans are collectively referred to as structure plans throughout this document and the guidelines contained within this document shall apply to both types of structure plans unless otherwise noted.

Figure 1: City of Airdrie Planning Hierarchy



Documents within the City of Airdrie planning framework are aligned with one and other to provide predictability for the residential, business and development community. All land use planning within the City is ultimately governed by the Municipal Government Act.

All plans that may influence preparation of an Area Structure Plan in Airdrie are available on the City of Airdrie's public website, in accordance with the requirements of the Municipal Government Act."

Relevant Statutory Plans:

- The City of Airdrie / M.D. of Rocky View Intermunicipal Development Plan, 2001
- The Airdrie City Plan, 2014
- The Growth Plan, August 15, 2022 (Calgary Metropolitan Regional Board)
- Any adjacent and / or previous Community Plans, Neighbourhood Plans, and / or Area Redevelopment Plans (both within and outside of the City boundaries).

Non-statutory plans include, but are not limited to:

- AirdrieONE Plan (2012)
- Land Use Bylaw (2016)
- Ecological Inventory and Environmental Best Practices Study (2013)
- Airdrie Fire Department Master Plan (2013)
- Great Places Plan, City of Airdrie (2016)
- City of Airdrie Land Use Bylaw B-01/2016
- 12 Thousand Acres Growth Management Plan (June 2018)
- Airdrie Housing Needs Assessment and Strategy (2017)
- Growth Strategy Update (2018)
- The Nose Creek Watershed Water Management Plan (2018);
- City of Airdrie Council Strategic Plan

Infrastructure Plans:

- Master Stormwater Drainage Plan (2015)
- Utility Master Plan (UMP) (2015)
- Transit Master Plan (2016)
- The Transportation Plan, The 140K Plan (2020)
- Policies and Manuals:
 - Civic Addressing Manual (2003)
 - Street Naming Policy (2001)
 - Biophysical Inventory & Biophysical Impact Assessment Framework (2019)
 - Municipal Reserve Policy (2019)
 - Wetland Policy (2019)
 - Dedication and Use of Environmental Reserves Policy (2019)
 - Social Policy

Studies / Standards Documents

- City of Airdrie Standard Landscape & Specifications Guidelines (2014)
- General Design Standards and Construction Specifications (December 5, 2017)
- City of Airdrie Offsite Levy Bylaw Update (March 2019)
- Nose Creek Flood Risk Mapping Study City of Airdrie (Alberta Environment and Parks 2005)
- Airdrie Housing Needs Assessment and Strategy (2017)

2.1 Area Structure Plans

ASPs are mainly used to provide a land use, transportation and servicing framework for areas undergoing new development. An ASP must describe the:

- Sequence of development proposed for the area;
- Land uses proposed for the area;
- Population proposed for the area; and
- General location of major transportation routes and public utilities

The City of Airdrie uses two types of Area Structure Plans (ASP) to plan new communities; Community Area Structure Plans (CASP) and Neighbourhood Structure Plans (NSP). NSPs provide the final level of detail prior to accepting subdivision plans for a new community. Each new ASP should align with higher level Council approved plans. Concurrent amendments to higher level plans to support a new ASP is an option but it increases the amount of public engagement required and the possibility of requiring approval from the Calgary Metropolitan Region Board.

Table 1: CASP and NSP Comparison

	CASP	NSP
Size of Plan Area	More than 160 acres	160 acres (natural features, specific uses, or access conditions may require NSP boundaries to be smaller or larger than 160 acres)
Scale	Approximately 1:40,000 scale	Approximately 1:20,000
Landscape Conditions	Topography (slope), waterbodies, habitat, etc.	Slope, waterbodies, habitat, etc.
Land Use Map	General 'bubble' land use concept areas, including residential, commercial, industrial, mixed use, open space, etc.) General location of nodes, high schools, schools, regional parks, etc.	'Blocks,' land use concept areas, including low, medium, and high density residential, commercial, industrial, mixed use, open space, etc. Specific location, area, and details of nodes, high schools, elementary and/or middle schools, parks, etc.
Projections	Anticipated density, population, and jobs	Anticipated density, population, and jobs.
Street Network	Highways, arterials, collectors	Highways, arterials, collectors, and local roads, including industrial, residential, and lanes.
Water	General pressure zone(s)	General pressure zone(s) and connection(s)
Wastewater	General sanitary catchment area(s)	General sanitary catchment area(s) and connection(s)
Stormwater	General location of stormwater management facilities and catchment areas	Stormwater management facilities and connection(s)

Table 2: CASP and NSP Example Land Luse Categories and Comparison

CASP	NSP
Environmental/Conservation Reserve	Environmental/Conservation Reserve
Railway/Major Regional Corridor	Railway/Major Regional Corridor
Roads & Public Utilities (including arterial/road widening)	Arterial/Road Widening Road - Collector Road - Industrial Road - Residential Road - Lane Public Utility - Public Utility Lot (PUL) Public Utility - Storm Pond (PUL)
Open Space (including municipal reserve and school sites)	Open Space – Credit Municipal/School Reserve Open Space – Cash In-Lieu Municipal Reserve (MR) Open Space – Non-Credit Municipal Reserve (MR)
Commercial (Employment)	Neighbourhood Commercial Community Commercial Regional Commercial Service Commercial
Industrial (Employment)	Heavy Industrial General Industrial Light Industrial/Mixed
Mixed Use	Medium Density High Density
Residential	Low Density (single-detached) Medium Density (semi-detached +) High Density (attached)

Figure 2: CASP & NSP Examples



The City Plan establishes criteria for the creation and evaluation of CASPs and NSPs. A number of master plans help guide the development of a CASP, including:

- the Master Utility Plan,
- the Transportation Master Plan,
- Parks Master Plan (Great Places Plan),
- the Master Drainage Plan, and
- the Transit Master Plan.

The CASP should be prepared with input from City staff and affected interests (such as school districts, landowners, utility providers, etc.).

2.2 Area Structure Plan Table of Contents

For both Community Area Structure Plans and Neighbourhood Structure Plans, the order of topics discussed should be as follows:

- 1. Vision and Key Goals
- This section provides the vision and primary land use concept and key land use stats (table) followed by references to the overarching documents that informed the land use concept (IDP, MDP, CASP if applicable)
- 2. Supporting Growth Physical, Social and Environmental Services for the Area
- This section describes: the existing conditions and how that influenced design of the physical services; planned provision of physical services (schools, parks, streets, infrastructure etc.) any area specific social or environmental considerations; and the anticipated phasing plan
- 3. Realizing Growth The Development Plan
- This section describes development opportunities afforded lands intended to be privately owned e.g. residential, commercial, industrial sites
- 4. Implementation and Monitoring
- This section describes in more detail: population and land use targets (in more detail than Section 1); when amendments to the plan should be made; and any other factors to measure success/failure of the Plan's goals.
- 5. Appendices (if necessary)

3.0 Review Process

3.1 Public Participation

The City recognizes two components to the public participation process required as part of the Plan review and approval process.

3.1.1 Statutory Requirements

As the first public participation component, the statutory requirements for advertising and public participation apply to the plan development process for all City plans that are adopted by bylaw. For details on the statutory requirements for advertising and public participation, please see the relevant sections of the Municipal Government Act, namely section 636 (1). Notification of the initiation of a new a CASP/NSP will be provided to schools boards, any affected members of the public, Alberta Transportation (if within 1.6 km), and Rocky View County (if applicable).

It is the City's responsibility, under the provisions of the MGA, to ensure all statutory notification and public participation components are met. While landowners, developers and their planning consultants are not generally involved in the public participation components required by law, they must be aware of the requirements since they may have impacts on their internal timelines and the ability to meet particular MPC and Council dates. The City will publish a notice regarding the initiation of the Plan and mail a notice to adjacent landowners. The City may also post a notice of the plan preparation on the City's new Engage Page at https://involve.airdrie.ca/.

The City also must follow the requirements of the City of Airdrie's Public Notification Bylaw (as amended), which is supplementary to notification requirements of the MGA.

3.1.2 Non-Statutory Requirements

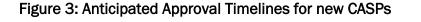
As the second public participation component, the City requires that the applicant prepare a public participation plan and that it is submitted for review and sign off by the City of Airdrie.

Consulting with stakeholders affected by a plan benefits the plan development and the approval process. Designing an effective public engagement strategy depends on the context of the plan. For this reason, the City requires the applicant to prepare a public participation plan that clearly identifies the level of engagement, the affected stakeholders, the proposed tools and the timeline in relation to the preparation of the plan itself. The applicants may refer to IAP2 or a P2 practitioner for further guidance in the preparation of the public participation plan.

As a general guideline, the applicant should provide the general public with the opportunity to review and comment on plans through the staging of at least one open house. Please see **Appendix B Public Engagement Guidelines** for further guidance on open houses.

3.2 Timeline

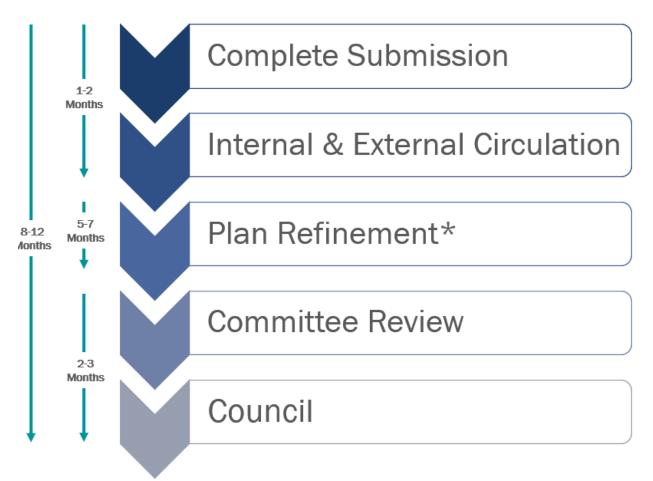
The overall timeline for a statutory plan process from submission to approval ranges from 8-12 months depending on the complexity of the application. The following chart illustrates the anticipated timeline.





*The timeline for the Plan Refinement stage can vary widely depending on the number of resubmissions required and the length of time it takes for the applicant to prepare and resubmit drafts.

Figure 3a: Anticipated Approval Timelines for new NSPs



*The timeline for the Plan Refinement stage can vary widely depending on the number of resubmissions required and the length of time it takes for the applicant to prepare and resubmit drafts.

3.2.1 Calgary Metropolitan Region Board (CMRB)

The Calgary Metropolitan Region Board (CMRB) is a regional approving jurisdiction established under the Municipal Government Act. All statutory plans in Airdrie must be reviewed by the CMRB and evaluated against the policies of the Growth Plan. After the Plan has had a public hearing and received first and second reading from the City of Airdrie Council, the Plan must then be submitted to the CMRB.

City of Airdrie staff will prepare the CMRB cover letter and the corridor maps. The corridor maps will be prepared from **the GIS map dataset provided by the applicant**. At a minimum, the dataset must include the boundary of the new statutory plan, its land-use concept, and its transportation and servicing concepts, including land use statistics and residential density. The spatial reference both the City and CMRB uses is NAD 1983 3TM 114. From the files provided by the applicant, the City then prepares the package and submits to the CMRB the shape files for the following:

- Plan Boundary
- Land Use Concept
- Transportation Network
- Underground Utilities (Water, Storm/Drainage & Sanitary)

The City provides these to the CMRB in a GIS Format (file geodatabase). The City's GIS department can assist with any conversion from CAD to GIS format.

If plan area is within 1.6km of the regional significant mobility and transmission corridors included in the Growth Plan (GP), a map showing the plan area relative to each corridor must be included in the CASP or NSP.

- If the plan area contains a transmission line the plan should speak to how the facility will be treated.

The applicant is responsible for preparing the **Policy Alignment Statement** (see Guidelines below). This is a summary report (in the form of a table) which compares the statutory plan or amendment to the relevant Growth Plan Policies. Applicants can refer to the CMRB website for examples of previous applications. Staff will then review the table, revise as necessary and add the evaluation regarding collaboration with Rocky View County. Staff will then submit the cover letter, corridor map (s) and Policy Alignment Statement along with the plan and any other specific requirements to the CMRB.

Alignment Statement Guidelines:	Responsibility of:
• Alignment statement table should reference specific policies in the GP and then point to specific policies in the proposed statutory plan to show how the two documents and their policies align. This table must be submitted to the file manager in a word document so it can be edited. Please note that the applicant does not have to address intermunicipal collaboration. This will be done by the File Manager.	Applicant
• File Manager will review and revise the table as needed and add how collaboration with Rocky View County (RVC) was addressed.	(City) File Manager

The application will then undergo the CMRB's Regional Evaluation Framework Application Review Process. The document, the review process and CMRB contact information can be accessed at: www.calgarymetroregion.ca.

The CMRB approval process is 58-days from submission to decision. This timeframe consists of:

- 5 working days to review and determine the application is complete.
- 25 working days for the 3rd party consultant review and preparation of a recommendation of approval/refusal

- 28 working days for board members to review CMRB administration's recommendation and to vote to approve or reject the application.

If an application receives approval from the CMRB, then City of Airdrie Council may then give third reading to the Plan. This may take 3-4 weeks from notice of approval from the CMRB.

Once a CASP/NSP plan is approved, the landowner/developer shall provide five (5) final copies together with a PDF file for posting on the website and reproduction purposes. Maximum file size is 30 MB.

City of Airdrie Mapping Deliverables Criteria:

1.) The required projection is: NAD 1983 3TM 114

2.) Consultant to provide clean CAD/GIS files, which means:

If the CASP has various features such as water, roads, or polygons of industrial vs residential spaces, these features are to be separable from other features contained within the file.

In the case of a CAD file:

- all roads would be put as 1,

- all water feature outlines would be 2 in the Layer field.

If these are in a GIS format, a feature type field designating each layer to a specific feature (e.g., road, water, residential area, industrial area, JUS area, etc.) would be sufficient.

3.) If there is more than one map, the City must be provided with a DWG or GIS format file for each. The files are to be named to reflect what they were given in the CASP document (e.g.: if in the CASP document the map is referred to as Map 1, the map file must be named Map 1). This helps us to know which file goes with what map.

4.) If specific colors must be displayed in their maps for the CASP submission, the consultant will send a layer file that assigns the appropriate colour to each feature. This prevents the GIS department from having to try to replicate the consultant's colours in GIS.

5.) GIS prefers GIS formats (e.g., a map package, shapefile, etc.) for the map submissions as these are much easier for us to manipulate and display.

4.0 Amending Area Structure Plans – When is it Required?

Structure plan amendments may be initiated by City Council, the Planning Department, the public, developers, landowners, or school boards. Generally, amendments to structure plans are required in the following circumstances:

4.1 Community Area Structure Plans:

- Where major changes to primary road networks are proposed and/or;

- Where major changes in infrastructure such as roads and sanitary and storm services are proposed and / or;
- When shifts in land use categories, such as from residential to industrial, are proposed, and / or;
- At the discretion of the City of Airdrie, where the interests of the public necessitate that formal amendments occur.

Where a landowner is not participating in a CASP, policy is required to be added to the CASP identifying the area as a Special/Future Study Area (on the land use concept) stating that the subject lands requires an amendment to the CASP along with all the required supportive studies and reports.

4.2 Neighbourhood Structure Plans:

- Where major shifts in the location of community facilities such as parks or schools are proposed and / or;
- When shifts in land use categories, such as from residential to industrial are proposed and / or;
- Where major shifts in the design or layout of infrastructure such as roads and sanitary and storm services are proposed (and / or;
- Where shifts within a land use category that result in changes to density, such as from a single family designation to a multi-family designation, are proposed and / or;
- At the discretion of the City of Airdrie, where the interests of the public necessitate that formal amendments occur.

*<u>Changes to Phasing Plans</u>: Please consult with staff prior to proceeding with development that is out of alignment with the original phasing plan. If an accepted phasing change triggers a major change to the City's near-term Capital Construction Plans, an update to the phasing plan in the associated ASP(s) should be completed to reflect the new phasing plan. This will more easily help to explain future Capital Construction Plans.

As part of the structure plan amendment process, the City may require supplemental technical information in support of structure plan amendments particularly where an adopted structure plan is being significantly changed. The applicant may be requested to prepare graphics and supplementary information to assist in processing the amending Bylaw. The bylaw amending the document will be attached to the original adopted CASP or NSP.

The actual structure plan amending bylaw will be prepared by City Staff and circulated with supporting technical data to all relevant parties prior to Council presentation.

5.0 Area Structure Plans – Roles and Plan Requirements

A Community Area Structure Plan is required prior to the redesignation of rural, greenfield and/or urban holding lands for large-scale urban development. Area Structure Plans, which are statutory plans defined by the Municipal Government Act that direct the future land use patterns, transportation and utility networks and sequence of development in new communities. Within the City of Airdrie, there are two types of statutory area structure plans; the Community Area Structure Plan (CASP) and the Neighbourhood Structure Plan (NSP).

The following sections describes the general requirement of structure plans in the City of Airdrie starting with the document highest in the Planning hierarchy, namely the CASP then the NSP To proceed with a CASP, the preparation and approval of a Justification Report must take place first.

5.1 Structure Plan Initiation

- 5.1.1 Where the City is initiating a Community Area Structure Plan, Council shall approve the terms of reference prior to initiating the Plan. The terms of reference shall include a strategy for community notification and stakeholder consultation.
- 5.1.2 The City Plan requires the approval of a Justification Report before allowing a development proponent to proceed with a CASP. This allows Council to have control on the sequencing and timing of new growth areas. As per Policy 2.9 of the City Plan, the report must addresses the relationship between the proposed CASP and the growth study elements contained in Policy 2.14 of same. Often technical servicing and transportation support is required at this stage in support of the rational for proceeding with growth. The report is evaluated by City staff based on City Plan criteria and presented to Council with a recommendation.

5.2. The Role and Requirements of Community Area Structure Plans (CASP)

Key Policy Resources:

- 12 Thousand Acres Growth Management Plan (June 2018)
- The Airdrie City Plan, 2014
- The City of Airdrie / M.D. of Rocky View Intermunicipal Development Plan, 2001
- Growth Strategy Update (2018)
- The Growth Plan, 2022 (Calgary Metropolitan Regional Board)

The Community Area Structure Plan (CASP) provides the link between the Airdrie City Plan and the ultimate design of neighbourhoods in the City. It shows, in conceptual form, the general layout of major sectors of the City by locating roads and other servicing corridors, open spaces, and general categories of land use. It details how general policy considerations within the Airdrie City Plan will be implemented within the plan area and provides a point of departure for Neighbourhood Structure Plan development.

At their outset, CASPs must identify all important constraints to development, as well as all features of the Plan area that may present opportunities for excellence in urban design, and they will generally describe how these features will be addressed in the overall design. CASPs must also outline the stages of development to be addressed in more detailed Neighbourhood Plans and must ensure that the City's policy framework for that next level of planning is clear and complete.

5.2.1 All Future residential development areas shall be identified as part of a Community Area Structure Plan (CASP) when deemed appropriate, based on Council strategic priorities, growth analysis and land supply considerations.

Indicating a Neighbourhood Residential Area as a land use at the CASP level along with symbols for higher density residential areas can be considered along with wording indicating the parameters for when an amendment would or would not be required.

- 5.2.2 A Community Area Structure Plan (CASP) must address the matters listed in Section 633 (2) of the Municipal Government Act including:
 - Land uses and Density
 - High School Location and Policy
 - Comprehensive servicing concepts addressing transportation, traffic impacts, connections to existing road networks, transit and pathways, stormwater, water and sewer servicing;
 - Analysis of development opportunities and constraints including flood and erosion-prone lands, proximity of railways and highways, oil and gas facilities and confined feeding operations;
 - Land use impacts and interface areas (within the site and with adjacent areas)
 - Policy alignment (including with AirdrieOne);
 - Phasing
 - Parks and open space concepts.

5.3 Size and Density

- 5.3.1 The Community Area Structure Plan (CASP) covers a large planning area exceeding more than one quarter section.
- 5.3.2 The average residential density level, established at the Community Area Structure Plan level, shall be a minimum of eight (8) units per gross residential acre, subject to meeting the established community design and development principles of the Airdrie City Plan.

5.4 CASP Components

Key Policy Resources:		
-	Dedication and Use of Environmental Reserves Policy (2019)	
-	City Plan	
-	Airdrie Reserve Land Agreement	

- Ecological Inventory Expansion and Environmental Best Practices Report
- Great Places Plan (2016)
- Transit Master Plan (2016)
- 5.4.1 Future growth planning should result in communities that are walkable, well-connected to pathways, parks and transit, and contain a range of complementary uses, and a meaningful choice of housing.
- 5.4.2 Residential land areas shown on the Land Use Concept Map illustrate the location of existing and future neighbourhoods.
- 5.4.3 Community Activity Centres: These are intended to serve residential developments and accommodate an appropriately scaled mix of commercial, recreational and civic uses. Community Activity Centres are identified as a symbol on the Land Use Concept map (Map 2 of The City Plan).
- 5.4.4 Through the Community Area Structure Plan process, the City shall require that lands considered unsuitable for development because they are subject to flooding, contain steep slopes or consist of a natural drainage course or wetland be identified conceptually as environmental reserve. The areas will be dedicated as environmental reserve through the subdivision process in accordance with the provisions of the Municipal Government Act.
- 5.4.5 Through the Community Area Structure Plan process, the City shall determine the location(s) for regional active transportation and potential transit routes and stops.
- 5.4.6 Housing Mix

Key Policy Resources:

- Airdrie Housing Needs Assessment and Strategy (2017)
- City Plan
- 5.4.6.1 The variety in housing mix and lot size should meet the needs of different demographic groups and lifestyle needs.

5.5 Density Location

Definitions per the City Plan:

Definitions per	r the City Plan:
-	Low Density Residential - conventional single-detached dwellings, small-lot
	single-detached dwellings, semi-detached and duplex buildings.

- Medium Density Residential street-fronting townhouses, stacked, and lowrise apartment buildings and other attached housing forms.
- High Density Residential large multi-unit and apartment-type developments.
- 5.5.1 Medium and higher density development and mixed-use developments should be adjacent to transit-serving corridors or locations that can be easily served with transit.
 - Medium and higher density development including mixed use should be located adjacent to 24 Street (Higher Order Transit Corridor).
- 5.5.2 Medium and higher density developments should be located in areas well-served by public amenities, including parks and pathways systems.
- 5.5.3 The highest densities shall be located in, or adjacent to, mixed use nodes located at arterial and/or collector road intersections.

5.6 Minimum Technical Supportive Studies Required at CASP stage:

Baseline Conditions

- Historical Resources Overview (HRO) / Historical Resource Impact Assessment (HRIA)
- Preliminary Geotechnical Evaluation Report
- Environmental Site Assessment (ESA) Phase I
- Biophysical Inventory (BI)

Technical

- Transportation Impact Assessment (TIA) including Transit Statement
- Servicing Strategy (SS)
- Master Drainage Plan (MDP)

See Appendix A for Scope of Work.

5.7 Additional Supportive Studies that may be required at CASP stage:

Depending on the conclusions of the above required studies, additional studies may be required to support the proposed land use concept of a new CASP.

- Preliminary Slope Stability and/or Preliminary Hydrogeological Report
- Environmental Site Assessment (ESA) Phase II

See Appendix A for Scope of Work.

5.8 The Role and Requirements of Neighbourhood Structure Plans (NSP)

The Neighbourhood Structure Plan (NSP) is important as this document guides all subsequent land use and subdivision decisions.

- 5.8.1 All lands within a CASP should be identified as part of a Neighbourhood Structure Plan.
- 5.8.2 The NSP addresses similar elements as the CASP (as per Section 633 (2) of the Municipal Government Act) but in greater detail. In addition, the neighbourhood structure plan will include:
 - A detailed land use and development concept which identifies the neighbourhood nodes, school site and park configurations, proposed land use mix and general housing mix;
 - The proposed arrangement of density to support housing choice, walkability and transit use;
 - A connectivity analysis which includes street connections and active modes;
 - Anticipated development phasing;
 - A Preliminary Grading Plan;
 - A Park Concept Plan that:
 - shows all planned parks for the application area; and
 - identifies and describes all park features, equipment and structures

*The NSP document must identify in the administrative section which part(s) of the document are the statutory portions. Appendices are non-binding. The document must also specify that an area, symbol or figure shown on a map in the adopted NSP shall be interpreted as approximate only and not absolute, except where the area or symbol coincides with a fixed and clearly defined physical or legal boundary such as a property line or road or utility right-of-way.

**The anticipated land uses districts should be included in the appendix portion of the document. The statutory portion of the document should reference low, medium and high density and have a breakdown of the number of small/narrow lots.

5.9 Neighbourhood Design Criteria

Neighbourhood design should be guided by the following criteria:

- 5.9.1 Both local streets and collector roads should utilize as much housing frontage as possible to eliminate excessive back and side yard fences. "Capping" the end of residential blocks can achieve this.
- 5.9.2 Alley-loaded housing types are more suitable for homes fronting onto collector roads. Private driveways onto collectors are strongly discouraged. There should be no front driveways facing schools.
- 5.9.3 A central node should be established in the core of the neighbourhood. This may consist of a park, a school, a commercial area, or high density housing. Subsequently, smaller nodes should also be established (usually in the form of a pocket park or monument) to promote identity, and community organization.
- 5.9.4 Collector roads within the neighbourhood should either terminate onto or by-pass the central node.
- 5.9.5 Provide housing variety/diversity to allow for a range of affordability, and to promote community character by the use of different housing prototypes, and architectural styles.
- 5.9.6 Housing density patterns should have a thoughtful pattern incorporated into the neighbourhood design. For example, higher density housing may be more appropriate along collector roads, while lower density housing may be more suitable along the neighbourhood edges.
- 5.9.7 Ecological and historical significant areas and heritage sites must be preserved.
- 5.9.8 Natural features, such as topography, streams and wetlands, tree groves, etc. should be considered in the planning of the urban form and integrated into the overall neighbourhood design.
- 5.9.9Provide/plan for future connections to adjacent developments.
- 5.9.10 It is generally more desirable that housing types should be situated so that they face same or similar housing types. There should be a smooth transition in density gradients.

- 5.9.11 Main entries into neighbourhoods and villages should allow for extra landscaping easements and, where appropriate, monumentation and signage to promote neighbourhood identity and character.
- 5.9.12 There should be strong pedestrian connectivity to external communities, and between internal greenspaces and neighbourhood amenities.
- 5.9.13 If commercial nodes are present, higher density housing should surround it more so than lower density housing.
- 5.9.14 The distribution and shape of parks is just as important (if not more so) as supplying the required acreage. They should be formed to be usable for a range of activities and facilities, and they should be distributed equally throughout the neighbourhood to be accessible to all residents (five-minute walk radius). Establishing ½ acre pocket parks central to each village can achieve this.
- 5.9.15 Cul-du-sacs should only be used as a design solution, rather than as common practice. If they are used, they should "daylight" if possible (especially when next to open space) for better pedestrian connectivity.
- 5.9.16 Alternative housing prototypes (such as alley-loaded greencourts, for example) should be considered for design /site planning solutions and innovation.
- 5.9.17 Regardless of the number of different landowners within a project area, the overall design integrity of the neighbourhood should remain intact. There should be strong connectivity throughout and not planned as "piece meal" as other landowners release their land for development over time.
- 5.9.18 Use traffic-calming devices such as traffic circles, road-narrowing at intersections, and raised crosswalks throughout a neighbourhood but especially around schools.
- 5.9.19 Utilize existing or planned utility easements that run through the project area as opportunities to incorporate into the trail system.
- 5.9.20 "Eyes on the park" as much as possible.
- 5.9.21 Left-over residual land in awkwardly shaped areas can become interesting greenspaces and opportunities to create small community garden plots, sculpture art or signature monumentation.
- 5.9.22 Allow for roads to by-pass open space areas to increase viewshed opportunities and public accessibility.

5.10 Size and density

- 5.10.1 The Neighbourhood Structure Plan (NSP) usually applies to an area between 80 acres and 160 acres within a CASP area, and contains more detail and policy refinement from the CASP.
- 5.10.2 The actual densities and development form, approved in new communities through the Neighbourhood Structure Plan, shall reflect the following:
 - The ability to facilitate and support mixed use and transit-supportive development;
 - The proximity to the Downtown and community and regional commercial developments;
 - The servicing capacities associated with the development areas; and
 - The form and design of the proposed development.

The method for calculating density is shown in Appendix One of The Airdrie City Plan:

To ensure consistency in the application and implementation of density targets supported by the Calgary Regional Partnership, the City will measure residential density based on gross residential area.

This is calculated as outlined in the following table:

Determining Residential Densities	Area	Elements
Start with total plan area	Gross Total Area(GTA)	Include all lands within the physical boundary of the plan area or total area.
Calculate the non-developable areas	Non-Developable Areas (NDA)	 Delete from GTA: Environmental Reserve from GTA ROW of Major expressways (Highways and Highway arterials) ROW of railways & major regional utility corridors
Subtract the non-developable from gross total area to get "Gross Developable"	Gross Developable Area (GDA)	
Calculate the "regional" or major city-wide uses	Regional Land Uses (RLU)	Regional land uses include: Regional Parks Commercial areas larger than 10 acres (4.0ha) Senior High Schools Industrial areas
Subtract the regional land uses from Gross Developable Area to get "Gross Residential Area"	Gross Residential Area (GRA)	Gross residential area includes a range of land uses: Single And Multi-Unit Residential Neighbourhood Commercial Local Parks & Pathways Elementary & Middle Schools Local Roads, Lanes & Collector Roads Place Of Worship Sites Daycare Facilities Community Centres Emergency Service Stations Wet/Dry Ponds & PUL Others Determined By Development Authority

5.11 NSP Components

Key Policy Resources:			
-	Dedication and Use of Environmental Reserves Policy (2019)		
-	City Plan		
-	Airdrie Reserve Land Agreement		
-	Ecological Inventory Expansion and Environmental Best Practices Report		
-	Great Places Plan (2016)		
-	Airdrie Housing Needs Assessment and Strategy (2017)		
-	Transit Master Plan (2016)		

- 5.11.1 <u>Residential</u>: The Neighbourhood Structure Plan process and the Land Use Bylaw will provide more refinement on what the range of housing types and densities will be in specific areas.
- 5.11.1.1 At least 30% of the housing stock within a Neighbourhood Structure Plan (NSP) area should be comprised of a mix of duplex, semi-detached, townhome, apartment and other attached housing styles (Policy 6.15 of the City Plan).
- 5.11.1.2 Small and narrow lot single-detached development, as defined in the Land Use Bylaw, should not exceed 35% of the housing stock within a Neighbourhood Structure Plan area (Policy 6.16 of the City Plan). Small and narrow lot is defined as a lot 10.36 m and smaller (does not include semi-detached dwellings)
- 5.11.1.3 NSPs that propose residential development for R1-U districts may consider preparing design criteria or architectural controls as per Section 8.5.5 Development Standard 10 of the Land Use Bylaw.
- 5.11.2 <u>Ecological Lands:</u> must be preserved pursuant to Dedication and Use of Environmental Reserves Policy. The NSP shall incorporate the boundaries of lands considered unsuitable for development because they are subject to flooding, contain steep slopes or contain a natural drainage course or wetland.
- 5.11.3 <u>Community Nodes/ Activity Centres</u>: New communities should be focused around a neighbourhood node or activity centre that creates a vibrant, walkable gathering place for residents and provides opportunities for services and activities.

5.12. Shadow Plan

5.12.1 If an NSP application is only for a portion of an ownership area, then a shadow plan (concept plan) shall be provided for the remainder of the ownership area.

5.13 Minimum Technical Supportive Studies Required at NSP stage:

Baseline Conditions:

- Geotechnical Evaluation Report (Detailed)
- Biophysical Impact Assessment (BIA)
- Environmental Site Assessment (ESA) Phase II (if required)
- Historical Resource Act Clearance

Technical:

- Transportation Impact Assessment (TIA) including Transit Service Statement
- Staged Servicing Report (SSR) including water network modelling
- Staged Master Drainage Plan (SMDP)

See Appendix A for Scope of Work.

5.14 Additional Supportive Studies that may be required at NSP stage:

Depending on the conclusions of the above required studies, additional studies may be required to support the proposed land use concept of a new NSP.

- Environmental Site Assessment (ESA) Phase III
- Hydrogeological and slope stability reports
- Market Evaluation for Commercial Development

See Appendix A for Scope of Work.

6.0 Transportation & Utility Services Planning

6.1. Transportation

Key Policy Resources:

- The Transportation Plan, The 140K Plan (2020)
- Transit Master Plan (2016)
- Great Places Plan, City of Airdrie (2016)
- General Design Standards and Construction Specifications (December 5, 2017)
- City of Airdrie Standard Landscape & Specifications Guidelines (2014)
- 2014 Complete Streets Toolbox

CASP areas shall be well connected to adjacent communities via the City's existing road network, which must be demonstrated through a Transportation Impact Assessment. The CASP will refer to the City's Transportation Master Plan for road classifications, capacities and targeted improvements.

The internal road network in a CASP will generally consist of collector roads. Local residential roads will be identified at the NSP stage(s) and will provide strong neighbourhood scale connections. Community designs at the NSP stage will consider topography constraints when placing residential roads, slope adaptive housing, parks, schools, etc.

- 6.1.1 Utilization of standard road cross sections is preferred, however modified cross sections may be proposed throughout the NSP areas to accommodate existing topography or other matters.
- 6.1.2 Emergency access shall be considered and implemented in the design of neighbourhoods. Generally, if an access route is 200 m or longer, two public accesses are required. If the access route contains more than 600 units, three accesses are required.

6.2 Transit

Access points to the CASP area and the internal collector road network shall be planned to accommodate transit service when provided by the City. In general, the collector road network will provide approximate 400 metre walking coverage for future transit access. Future transit routes and timing will be determined by the City of Airdrie.

- 6.2.1 Transit figures featuring transit stops and/or routes shall be included in the appendix of the NSP document.
- 6.2.2 A Transit Statement shall be submitted as part of the Neighbourhood Structure Plan submission.

6.3 Connectivity:

For the minimum requirements for regional and local pathway, see the City of Airdrie Standard Landscape Guidelines and Specifications (2014).

The **regional pathway** system is a city-wide linear network that facilitates non-motorized movements for recreational and transportation purposes. The regional pathway is typically 2.5m-3m wide and is asphalt and used as a multi-use amenity. It connects within and to adjacent communities.

A **local pathway** is typically asphalt and 2m wide, providing secondary routes within communities, linking residential areas to facilities such as neighbourhood parks, schools, and other local community designations.

- The neighbourhood shall have at least one north-south and one east west regional pathway connection to adjacent lands.
- Local pedestrian connectivity may be achieved through a combination of continuous sidewalk connections, pathways, and linear parks, where appropriate.
- A grid system should be used to optimize connectivity.
- 6.3.1 Neighbourhoods should be based on a grid that connects nodes of activities via multiple points of access and maximize walking access.
- 6.3.2 Direct pedestrian connections shall be provided between open spaces and school sites.
- 6.3.3 Local pathway systems may be determined at Neighbourhood Structure Plan stage
- 6.3.4 Regional pathways should not be oriented along the front of laneless residential lots.
- 6.3.5 Improving connectivity involves increasing the density of the street networks and providing more alternative transportation mode connections within and between neighbourhoods. The following are recommended to create high connectivity (from the 2014 Complete Streets Toolbox):
 - Minimum street connectivity index of 1.4 and active mode connectivity index of 1.6 for new neighbourhoods
 - Multiple connections (street and active mode) between neighbourhoods, with spacing of approximately 200 metres between street connections (including connections to arterial streets)
 - Provide active mode connections into a neighbourhood at approximately 100 metre spacing
 - Where significant constraints (such as the railway, Highway 2) exist, attempt to provide active mode crossings at a spacing of 500 to 1000 metres
 - Encourage intersection spacing on local streets of 70 150 metres, and a maximum of 600 metres

- Establish a maximum perimeter for a block of 500 lineal metres.
- Plan future networks with a maximum spacing of 400 metres between arterials
- Establish a maximum length for a cul-de-sac of 200 metres, with an active mode connection at the end of the cul-de-sac
- 6.3.6 The exact road and street pattern shall include detailed design, classification, street sizing and intersection/access spacing shall be determined at the NSP stage.

6.4. Servicing

Key Policy Resources:		
-	Master Stormwater Drainage Plan (2015)	
-	The Nose Creek Watershed Water Management Plan (2018)	
-	Utility Master Plan (UMP) (2015)	
-	General Design Standards and Construction Specifications (December 5, 2017)	

Utility rights-of-way, easements and public utility lots shall be provided to accommodate the development or the extension of municipal utilities necessary for development.

6.4.1. Water and Sanitary Infrastructure

- 6.4.1.1 A Water and Sanitary Servicing Study will be required to demonstrate that the subject site at full build out can be serviced in accordance with the overall design of the water and sanitary sewer system for the area. Please see the appendix for further direction.
- 6.4.1.2 Any proposed land use or transportation network changes to the approved CASP may require a re-evaluation of the water and sanitary infrastructure.
- 6.4.1.3 The CASP/NSP shall identify the location of proposed infrastructure utility rightsof-way.

6.4.2. Stormwater Management Infrastructure

Key Policy Res -	sources: City Plan
-	Master Stormwater Drainage Plan (2015)
-	The Nose Creek Watershed Water Management Plan (2018)
-	Utility Master Plan (UMP) (2015)
-	General Design Standards and Construction Specifications (December 5, 2017)

- 6.4.2.1 Stormwater management facilities shall be designed to reflect the allowable release rate and the runoff volume control targets to Nose Creek set by the City of Airdrie Master Stormwater Drainage Plan and the Nose Creek Watershed Water Management Plan or as amended to the satisfaction of the City of Airdrie.
- 6.4.2.2 No direct stormwater runoff into Nose Creek is permitted from new development.

7.0 Schools and Open Spaces Planning

Key Policy Resources:

- City of Airdrie Standard Landscape & Specifications Guidelines (2014)
- Great Places Plan, City of Airdrie (2016)
- The Nose Creek Watershed Water Management Plan (2018);
- Ecological Inventory and Environmental Best Practices Study (2013)
- Biophysical Inventory & Biophysical Impact Assessment Framework (2019)
- Municipal Reserve Policy (2019)
- Wetland Policy (2019)
- Dedication and Use of Environmental Reserves Policy (2019)

7.1 Parks

Community and neighbourhood scale parks will be provided throughout the CASP areas. Detailed programming and final sizes will be determined at the time of NSP and/or subdivision.

Municipal Reserves equivalent to 10% of the net developable area are owing for all lands within a CASP area. The concept should contain a variety of open spaces in accordance with the Great Places Plan.

Elementary and Middle School sites will be comprised of Municipal School Reserve (MSR) sites for the building envelope, parking and programmed spaces, as well as Municipal Reserve (MR) for associated playfields.

- 7.1.1 As per the City Plan, the City has a target to achieve 10 acres of public open space per 1,000 residents.
- 7.1.2 Public open space connections will be provided throughout a CASP area to meet active and passive recreational needs of the community. Exact park locations, sizes, configurations and programming will be determined at the NSP stage
- 7.1.3 The network of pathways is a basic design feature in the creation of Neighbourhood Structure Plans and should link schools, housing, retail facilities, community buildings, open spaces, transit facilities.
- 7.1.4 An "Open Space Preliminary Concept Plan" shall be provided at the NSP stage in accordance with Appendix "D" of the City of Airdrie Standard Landscape & Specifications Guidelines (2014).
- 7.1.5 A Municipal Reserve analysis and summary table shall be provided at the CASP stage and refined at the NSP stage (See Appendix C for Table).

7.2 Schools

Key Policy Resources:		
-	Airdrie Reserve Land Agreement	
-	High School Land Assembly Memorandum Of Understanding (MOU)	
-	Municipal Reserves Policy (2019)	

Elementary and middle school sites will be identified as Municipal Reserve/School Municipal Reserve at the CASP stage. High Schools will also be identified at the CASP stage in accordance with the Airdrie Reserve Land Agreement.

- 7.2.1 The calculation of the number of required high schools within a CASP area shall be made by Land Allocation Committee (LAC) in accordance with the Reserve Agreement and shall be identified to the landowners during the review of the CASP application. Acquisition of the land for these High Schools sites will be in keeping with the MOU endorsed by Council. It is anticipated that at each NSP within a CASP shall accommodate a school site.
- 7.2.2 Phasing of school sites shall be determined at NSP, school sites will be in earlier phases of NSP development, where possible.
- 7.2.3 School sites will be located on a minimum of two public roads.



Appendix A: Scope of Work for Technical Reports

As part of the review, the City of Airdrie may recommend that a third-party review of the report(s) be completed by an independent third-party consultant. The City will coordinate the resolution of differences between the Consultant report(s) and the third-party reviewer's report to ensure all substantial issues are addressed to satisfaction of the City. Third-party reviews are conducted at the expense of the Applicant.

*Please note that the Scope of Work for Technical Reports throughout Appendix A are intended to serve as a **general guideline only**. Specific requirements for individual applications may vary and will be determined in consultation with the City of Airdrie.

- Geotechnical Report
- Environmental Site Assessment (ESA) Phase I, II, III
- Historical Resources Overview (HRO) / Historical Resource Impact Assessment (HRIA)
- Biophysical Inventory & Biophysical Impact Assessment
- Transportation Impact Assessment (TIA) & Transit Service Statement
- Master Drainage Plan Report/Staged Master Drainage Plan Report
- Servicing Strategy
- Market Evaluation for Commercial Development



Geotechnical Report

City of Airdrie Department: Engineering

Planning Stage Required: Preliminary Geotechnical Evaluation at the Community Area Structure Plan Stage/Detailed Geotechnical Evaluation at the Neighbourhood Structure Plan stage.

Scope and Purpose: To investigate existing subsurface conditions and assess risks posed by site conditions.

Jurisdictional Requirement/Enabling Legislation: N/A

Expiry: For Geotechnical Reports older than two years from the date of issuance, the City will require written confirmation from the Geotechnical Engineering Consultant indicating that the report adequately addresses the geotechnical requirements for the Application and is therefore suitable for submission to the City.

Professional Qualifications to Prepare Document: a qualified professional accredited by the Association of Professional Engineers and Geoscientists of Alberta (APEGA).

Requirements:

This report shall be prepared by a qualified professional accredited by APEGA, identifying and assessing the subsurface soil, slope and groundwater conditions liable to affect suitability of the lands to support the proposed development.

The Report(s) shall be in accordance with the City of Calgary's Geotechnical Report Guidelines for Land Development Applications (current). References within the City of Calgary's Guidelines to Area Structure Plans are be substituted with CASPs in the City of Airdrie and Outline Plans are to be substituted with Neighbourhood Structure Plans in the City of Airdrie.

There are several types of Geotechnical Reports:

- Preliminary Geotechnical Evaluation Report CASP
- Preliminary Slope Stability Report
- Preliminary Hydrogeological Report
- Geotechnical Evaluation Report (Detailed) NSP
- Hydrogeological Report (if required to address concerns regarding groundwater supply)
- Slope Stability Report (Preliminary and Post Grading)

A Preliminary Geotechnical Evaluation Report is required at the CASP stage. The reports shall provide conclusions and recommendations to guide the design and construction of the proposed development and associated improvements including both Municipal infrastructure and/or private improvements proposed on the subject property inclusive of buildings, structures and/or private



services. The Preliminary Geotechnical Evaluation Report may contain a Preliminary Slope Stability and/or Preliminary Hydrogeological Report, if there are potential concerns regarding slope or high groundwater. The Report must contain recommendations for any further studies or investigation at later stages in order to deem the lands suitable for development. This will be prepared at the CASP stage to determine the boundaries of any undevelopable land.

Hydrogeological Reports may also be requested in support of a drainage report (Master Drainage Plan or Staged Master Drainage Plan or a Pond Report).

For school sites, the geotechnical report and field work must meet the minimum requirements of the Alberta Education Site Readiness Checklist.

Where required, the findings of this report shall be incorporated within the servicing strategy in support of the proposed development. Where required, the considerations of the Report should be incorporated within the Plan.



Environmental Site Assessment (ESA) Phase I

City of Airdrie Department: Engineering

Planning Stage Required: Community Area Structure Plan Neighbourhood Area Structure Plan/ Land Use Amendment and/or Subdivision

 "A phase 1 ESA shall be submitted at the CASP stage. At the NSP stage, a new phase 1 ESA report shall be prepared and submitted. If the phase 1 ESA is resubmitted with the NSP application and a year or more has passed since it's preparation, a letter is required from a qualified professional stating the Phase 1 ESA submitted is still valid for the purposes of the NSP application."

Scope and Purpose: A process concerned with identifying the characteristic of and managing site contamination. The Phase I ESA describes the surface and subsurface site conditions based on available data and records. Considering the observations and findings, if contamination is suspected, a Phase II, Phase III Risk Management Plan or similar may be required.

Jurisdictional Requirement/Enabling Legislation: Environmental Protection and Enhancement Act (Alberta)

Expiry: One year.

Professional Qualifications to Prepare Document: a qualified professional in the environmental industry.

Requirements:

The Report shall be in accordance with the City of Calgary's Phase I Environmental Site Assessment Terms of Reference (current). References within the City of Calgary's Terms of Reference to Area Structure Plans are be substituted with CASPs in the City of Airdrie and Outline Plans are to be substituted with Neighbourhood Structure Plans in the City of Airdrie.

The Phase I Environmental Site Assessment shall be conducted in accordance with the requirements of CSA-Z768-01 (the Canadian Standards Association and the Alberta Environment and Parks AEP 2016 Alberta Environmental Site Assessment Standard (ESA Standard).

This assessment shall determine whether any past or present land use, either off or on-site, may have potential to cause contamination related to the plan area. The report should meet City of Calgary requirements including the following:

- Record of the review of aerial photographs, historical land uses and regulatory records
- Site visit to examine for evidence of site contamination
- Interviews of site personnel, relevant government officials, neighbours, former employees of the landowner and/or tenant concerning past activities on the site



- Evaluation of information and reporting including:
- distinguishing fact from opinion
- clearly identified areas of actual or potential contamination and
- the basis for all findings and
- an indication of the relative degree of uncertainty associated with evidence of potential contamination
- Evaluation and consideration of:
- wellheads and sour gas wells on lands within a specific distance identified by the City of Airdrie
- chemicals used on the site, spills (chemical, oil, etc.)
- farming practices
- railway ties, asbestos
- lead paint
- land fills
- storage sites (snow, salt, sand etc.)
- pipelines
- power lines
- underground tanks (gas, septic, etc.) and
- any other matter that impacts land, air, and water).

Where required, the findings of the report shall be incorporated within the servicing strategy in support of the proposed development. Where required, the considerations of the Report should be incorporated within the Plan.



Environmental Site Assessment (ESA) Phase II

City of Airdrie Department: Engineering

Planning Stage Required: Community Area Structure Plan / Neighbourhood Structure Plan

Scope and Purpose: A process concerned with identifying the characteristic of and managing site contamination

Jurisdictional Requirement/Enabling Legislation: Environmental Protection and Enhancement Act (Alberta)

Expiry: 1 year (or more at the discretion of Engineering)

Professional Qualifications to Prepare Document: a qualified professional in the environmental industry.

Requirements:

The Report shall be in accordance with the City of Calgary's Phase II Environmental Site Assessment Terms of Reference (current). References within the City of Calgary's Terms of Reference to Area Structure Plans are be substituted with CASPs in the City of Airdrie and Outline Plans are to be substituted with Neighbourhood Structure Plans in the City of Airdrie.

The Phase II Environmental Site Assessment shall be conducted in accordance with the requirements of CSA-Z769-00 (the Canadian Standards Association and the Alberta Environment and Parks AEP March 2016 Alberta Environmental Site Assessment Standard (ESA Standard). The Phase II Environmental Site Assessment may be initiated by requirement of the Phase I ESA or if the proponent has reasonable suspicion of contamination. The Phase II is a field based program and report that determines contaminates, media (i.e., water, soil) that is contaminated and delineates the extent of contamination.

Through intrusive sampling, the Phase II ESA determines the presence of contaminants and the general extent and approximate volume of contamination. The consultant collects soil samples to screen for chemical or metal contamination. This sampling is conducted by drill rig, hydraulic push, hand auger or backhoe, depending on site specific conditions. The report may also include sampling of groundwater and surface water. Based on the results of the Phase II, a Phase III (remediation/confirmatory sampling) will be required.

The ESA shall be submitted at the Community Area Structure Plan (CASP) stage. Where the ESA suggests a Phase II ESA report is required, this shall be completed at the CASP stage as well. Where special circumstances are present, the Phase II ESA may be submitted as part of the Neighbourhood Plan application. In both cases, the Plan must detail how any such constraints will be dealt with in advance of development.



Where required, the findings of the report shall be incorporated within the servicing strategy in support of the proposed development. Where required, the considerations of the Report should be incorporated within the Plan.



Environmental Site Assessment (ESA) Phase III

City of Airdrie Department: Engineering

Planning Stage Required: Community Area Structure Plan/Neighbourhood Structure Plan

Scope and Purpose: A process concerned with identifying the characteristic of and managing site contamination.

Jurisdictional Requirement/Enabling Legislation: Environmental Protection and Enhancement Act (Alberta)

Expiry: 1 year (or more at the discretion of Engineering)

Professional Qualifications to Prepare Document: a qualified professional in the environmental industry.

Requirements:

Initiated following the results and recommendations of the Phase II. The Phase III involves remediation of the site and confirmatory sampling noting the site is been successfully remediated. Provincial confirmation that onsite and offsite contamination has been remediated is provided in the form of a Site-based Remediation Certificate or a Limited Remediation Certificate.

Phase III ESA (Remediation/Confirmatory Sampling)

All Phase III Environmental Site Assessments (ESAs) undertaken for or submitted to the City of Airdrie shall be completed in accordance with:

- Alberta Tier 1 and Tier 2 Soil and Groundwater Remediation Guidelines (as amended);
- Government of Alberta's Phase II Environmental Site Assessment Checklist (as amended); and
- Government of Alberta's Albert Environmental Site Assessment Standard (as amended).

Following the Phase II and remediation of the site, the satisfactory completion of remediation work must be supported by verification data, such as confirmatory sampling of soils and groundwater. Documentation must be sufficient to demonstrate that the remediation objectives were achieved.

At the completion of a remediation stage, the Phase III demonstrates the success of remediation and acceptability of the site for a given land use must be conducted and reported. The purpose of confirmatory sampling is to ensure that potential human health and ecological endpoints have been successfully met. Investigation using confirmatory sampling is similar to that described for a Phase II ESA.



A report describing the site remediation activities must be prepared on completion of the site remediation where the Phase II Environmental Site Assessment Checklist, is used as a reference guide for remediation report content. The remediation report must include a summary of this information that allows the reader to quickly understand the findings in previous investigations and how this was addressed in the remedial phase. The date to which the conclusions relate shall be specified in the report. Following the completion and Phase III, the City of Airdrie requires a Remediation Certificate or a Tier 2 Compliance Letter from AEP confirming the site and offsite liabilities have been adequately remediated.

The following shall be provided:

- Administrative information
- Regional and Site Characteristics
- Identification of the remedial objective achieved or clean-up level achieved
- Summary of remedial actions taken for the APECs onsite and offsite
- Summary of sampling and analysis
- Results and discussions that include:
- Laboratory results, highlighting values that are greater than baseline or guideline values
- Rationale for selection of sampling locations
- Detailed site plan, with sampling locations
- Detailed site plan cross section view depicting all relevant conceptual site model data including excavation limits, confirmatory data, lateral and vertical delineation points and groundwater wells
- Discussion on the hydrogeology and geology of the site and within appropriate vicinity of the site
- A discussion of the analytical results as compared to those of valid background samples and applicable guidelines.
- Remediation system design and operation
- Quantity and volume of contaminated soil and other media, if taken from the site
- Quantity, volume and source of soil brought to the site for use as fill as well as laboratory analytical results conforming that any soil imported to the site meets applicable guidelines.
- Conclusion that confirms all contamination has been identified and removed or remediated and that the site now meets all specific applicable environmental guidelines or provides a summary and maps that identify areas that still require further assessment, remediation and/or management as identified through this or previous investigations.



A **Risk Management Plan (RMP)** shall be prepared by the qualified environmental professional in accordance with the Alberta Risk Management Plan Guide ("RMP Guide") when managing risk from a contaminated site is considered an acceptable option. The applicant shall provide the City with documentation confirming acceptance of the plan by the regulatory authority.

The Phase III ESA, and RMP if required, shall be submitted at or before the Neighbourhood Structure Plan (NSP) stage. The Plan must detail how any such constraints will be dealt with in advance of development.

Where required, the findings of the ESA and RMP shall be incorporated within the servicing strategy in support of the proposed development. Where required, the considerations of the ESA and RMP should be incorporated within the Plan.



Historical Resources

City of Airdrie Department: Community Development

Planning Stage Required: Community Area Structure Plan

Scope and Purpose: A process for determining the effects of a proposed operation or activity on historic resources.

Jurisdictional Requirement/Enabling Legislation: Historical Resources Act

Expiry: 5 years (or more at the discretion of Community Development)

Professional Qualifications to Prepare Document: Professional historians, archaeologists and paleontologists as determined by the Historic Resources Management Branch (HRMB).

Requirements:

Historical Resources Overview (HRO)

This evaluation, completed by a qualified professional, as determined by the Historic Resources Management Branch (HRMB), shall provide an overview of potential historic resources within the study area and evaluate the potential impact of the project on any historic resources as defined by the Historical Resources Act. The HRO will recommend either 1) Historical Resources Act Approval or 2) that an Historical Resource Impact Assessment (HRIA) be conducted. The HRO shall be submitted at the Community Area Structure Plan stage.

Historical Resource Impact Assessment (HRIA)

This assessment, completed by a qualified professional, as determined by the Historic Resources Management Branch (HRMB), shall provide an overview of the historic resources within the study area stating their importance and historical significance. The HRIA shall describe the proposed project and the adverse impact it is predicted to have on the historical resources. The document shall recommend either 1) Historical Resources Act Approval or 2) a mitigation strategy to manage the impact of the project on the historical resource (s). The HRIA, if required, shall be submitted at the Community Area Structure Plan stage.

Where the HRIA recommends development constraints or other considerations, they shall be addressed within the plan.



Biophysical Inventory & Biophysical Impact Assessment

City of Airdrie Department: See <u>Biophysical Inventory & Biophysical Impact Assessment</u> <u>Framework (2019)</u>

Planning Stage Required: See Framework

Scope and Purpose: See Framework

Jurisdictional Requirement/Enabling Legislation: See Framework

Expiry: See Framework. Note: expiry of a Biophysical Inventory is at the discretion of the City.

Professional Qualifications to Prepare Document: See Framework

Requirements: See Framework



Transportation Impact Assessment (TIA)

City of Airdrie Department: Engineering

Planning Stage Required: Community Area Structure Plan/Neighbourhood Structure Plan

Scope and Purpose: To assess the flow and movement of traffic as a result of the proposed development.

Jurisdictional Requirement/Enabling Legislation: N/A

Expiry: For a TIA older than two years from the date of issuance (or older at the discretion of the Engineering Department), the City will require written confirmation from the Engineering Consultant indicating that the report adequately addresses the transportation requirements for the Application and is therefore suitable for submission to the City.

Professional Qualifications to Prepare Document: a qualified professional transportation engineer accredited by the Association of Professional Engineers and Geoscientists of Alberta (APEGA).

Requirements:

Transportation Impact Assessment - CASP

The CASP TIA is a high level evaluation of the potential effects of traffic generated by the proposed development on the regional and local transportation network and includes active modes (pedestrians, cycling and transit). The consultant preparing the TIA must contact the City of Airdrie to confirm the scope of study.

Generally, the TIA shall identify and define the study area, the existing road characteristics and traffic patterns as well as planned transportation network improvements. The TIA shall include a review of the City of Airdrie's existing and future transportation plans as input into the transportation model. The TIA must identify the major on-site and off-site transportation improvements and facilities necessary to serve the subject site The TIA must identify the planning horizon and analysis period. Future background volumes and the estimated trip generation (including internal trips/modal split assumptions) must be prepared. The assessment must include an analysis of post development volumes, the regional and community road system, access and post development network improvements. The TIA will also provide the estimated timing and cost of transit service provision in terms of percentage of community build-out

The assessment shall also identify mitigation measures of adverse impacts and provide overall recommendations for addressing local and regional traffic impacts. The TIA shall show the conceptual alignment of the proposed collector roads and where they tie to the arterial network.



Where required, the findings of this report shall be incorporated within the servicing strategy in support of the proposed development. The TIA shall be submitted at the Community Area Structure Plan stage. Where required, the considerations of the TIA should be incorporated within the Plan.

Transportation Impact Assessment - NSP:

This assessment outlines local road networks in the NSP area and verifies and updates the TIA work undertaken for the CASP. The consultant preparing the TIA must contact the City of Airdrie to confirm the scope of study. The following is to be included as part of the NSP TIA:

- internal road network, including the design, capacity and timing of the network improvements and transportation policy/service changes necessary to serve the subject site;
- perimeter road network, including the design, capacity and timing of network improvements and transportation policy/service changes required to serve the subject site
- Street Connectivity and Active mode indices shall be assessed
- coordination of the development of the subject site with timing of construction and capacity of any transportation improvements, or necessary transportation policy/service changes that need to be implemented

A more detailed analysis is required including roadway classifications, number of lanes, parking and ROW requirements. Figures showing the transportation network layout and the preliminary road classification are required (include a dwg file for the 10 minute fire response modeling).

The TIA shall also consider lands adjacent to the NSP area and how the roads will connect with existing and future neighbourhoods. The TIA may indicate off-site improvements. An NSP boundary does not constitute the study boundary.

Where required, the findings of this report shall be incorporated within the staged servicing plan in support of the proposed development. The TIA shall be submitted at the Neighbourhood Structure Plan stage. Where required, the findings of this report should be incorporated within the Plan.



Master Drainage Plan Report/Staged Master Drainage Plan Report

City of Airdrie Department: Engineering

Planning Stage Required: Community Area Structure Plan/Neighbourhood Structure Plan

Scope and Purpose: This plan shall address current and future drainage requirements of the proposed development while addressing constraints imposed by topography, existing and proposed land uses, land ownership, and other local considerations.

Jurisdictional Requirement/Enabling Legislation: N/A

Expiry: For a Drainage Plan Report older than one year from the date of issuance, the City will require written confirmation from the Engineering Consultant indicating that the report adequately addresses the requirements for the Application and is therefore suitable for submission to the City.

Professional Qualifications to Prepare Document: a qualified professional engineer accredited by the Association of Professional Engineers and Geoscientists of Alberta (APEGA).

Requirements:

Master Drainage Plan (MDP) - CASP:

This report shall establish the stormwater management infrastructure requirements to service the proposed development. The MDP will, at minimum, interpret the recommendations established in the City of Airdrie Master Drainage Plan, confirm catchment boundaries and locations of stormwater management storage facilities.

The plan shall include a pre-development catchment delineation of the study area and an evaluation of any existing wetlands, drainage courses, and other relevant natural features. The plan shall identify regional planning strategies, off-site stormwater infrastructure, stormwater targets as well as service delivery goals for the proposed development.

As a note, the City of Airdrie adheres to the Nose Creek Watershed Management Plan (NCWMP) for release rate and volume control. (There are some exceptions in the NCWMP for Calgary that do not apply in Airdrie).

The plan shall identify stormwater servicing concepts for the proposed development based on the allowable release rate and volume control. Stormwater modelling, using software approved by the City of Airdrie, shall be used to size the proposed stormwater infrastructure and determine the system effectiveness in meeting volume targets. Furthermore, the plan shall indicate the location and land requirements for the infrastructure as well as a discussion of required upgrades, direction of flow, pipe sizes, and capacity in existing systems.



A storm drainage network map should be included that identifies drainage catchment basin(s), lowlying sub-basins requiring special servicing considerations, and conceptual location of any major utility installation (i.e. storm water management facilities, storm trunks flow direction, drainage outfall(s)) with wider / external system connections required to serve the area. For further details please refer to the City of Calgary guidelines (current).

The plan shall also summarize the engagement outcomes with project stakeholders regarding the proposed stormwater management concept.

Where required, the findings of this report should be incorporated within the servicing strategy in support of the proposed development. The Master Drainage Plan shall be submitted at the Community Area Structure Plan stage. Where required, the considerations and components of this document should be incorporated within the Plan.

Staged Master Drainage Plan (SMDP), Pond Report and Master Irrigation Report - NSP:

This assessment outlines local storm water concepts in the NSP area and verifies and updates the storm water management work undertaken for the CASP. A Pond Report (including an Irrigation Master Plan) may be integrated into the SMDP or submitted separately following NSP approval by Council. The SMDP shall also consider lands adjacent to the NSP area and how infrastructure will integrate with existing and future neighbourhoods. For further details please refer to the City of Calgary guidelines (current).

Where required, the findings of this report shall be incorporated within the staged servicing plan in support of the proposed development. The SMDP shall be submitted at the Neighbourhood Structure Plan stage. Where required, the findings of this report should be incorporated within the Plan.



Servicing Strategy

City of Airdrie Department: Engineering

Planning Stage Required: Community Area Structure Plan/Neighbourhood Structure Plan

Scope and Purpose: To ensure that a proposed development can be adequately serviced by urban water and sewer.

Jurisdictional Requirement/Enabling Legislation: N/A

Expiry: For a Plan older than one year from the date of issuance, the City will require written confirmation from the Engineering Consultant indicating that the report adequately addresses the servicing requirements for the Application and is therefore suitable for submission to the City.

Professional Qualifications to Prepare Document: a qualified professional engineer accredited by the Association of Professional Engineers and Geoscientists of Alberta (APEGA)

Requirements:

Servicing Strategy (CASP):

This report shall establish the technical engineering requirements to service the proposed development. The report should compile and summarize relevant information with respect to:

- water supply and distribution
- wastewater collection system (Sanitary)
- stormwater management system
- public roadways.

The report shall:

-identify the major on-site and off- utility infrastructure

Water - demonstrate that the subject site can be serviced in accordance with the overall design of the water distribution system for the area

Wastewater - demonstrate that the subject site can be serviced in accordance with the overall design of the sanitary sewage system for the area

The document should include discussion pertaining to the:

- capacity in trunk water and sewer system
- capacity in water reservoirs/pump stations and wastewater lift stations
- modeling completed



- development draws on water and sewer system
- estimated reserve capacity in water and sewer system

The Strategy shall provide an overview of how the development will be serviced including maps and a discussion of any required road widening and right of ways, upgrades, extensions, and new infrastructure required. The conceptual location of the major stormwater facilities (ie. ponds) shall be provided on a plan. The Strategy must identify staging of development for servicing needs including any off-site projects required. Financing of infrastructure shall be addressed. The consultant preparing the Servicing Strategy should contact the City of Airdrie to confirm the scope of the study.

The studies that may be required in addition to the servicing strategy (i.e. geotechnical, biophysical impact assessment, traffic, stormwater management) may be contained in separate reports but should be referenced and summarized in the servicing strategy.

The Servicing Strategy shall be submitted at the Community Area Structure Plan stage. Where required, the considerations and components of this Strategy should be incorporated within the Plan.

Staged Servicing Report (NSP):

This report ensures that a proposed development can be adequately serviced by urban water and sewer at the neighbourhood or subdivision scale. The report shall produce drawings that show road widening and right of ways, water, sanitary and storm main sizes throughout the entire NSP area. The proposed water network shall be computer modelled, using software acceptable to the Engineering Department, and results reflected in the report and drawings. The location of the major stormwater facilities (i.e. ponds) and outfall locations shall be provided in detail on a plan. The document must align with the CASP Servicing Strategy and include discussion at the NSP level regarding:

- capacity in the water distribution system and sewer system
- capacity in water reservoirs/pump stations and wastewater lift stations
- modeling completed,
- development draws on water and sewer system
- estimated reserve capacity in water and sewer system

The report must include water network modelling.

The report should compile and summarize relevant information with respect to:



- the location of and requirements for shallow utilities and/or facilities,
- major storm water facilities (ponds, storm sewer lines),
- sanitary sewer facilities (sewer lines and lift stations),
- water facilities (water lines, pump stations and reservoirs) and size requirements,
- public roadway infrastructure
- address any off site funded requirements,

The servicing network shall also consider lands adjacent to the NSP area and how the servicing will interface with existing and future neighbourhoods in regards to the transition between areas, boundary conditions and the design of required systems. The consultant preparing the Servicing Strategy Report should contact the City of Airdrie to confirm the scope of the report.

The Staged Servicing Report shall be submitted at the Neighbourhood Structure Plan stage. Where required, the findings of this report should be incorporated within the Plan.



Transit Service Statement

City of Airdrie Department: Transit

Planning Stage Required: Neighbourhood Structure Plan

Scope and Purpose: To ensure the proposed development aligns with the service standards and desired outcomes of the Transit Master Plan.

Professional Qualifications to Prepare Statement: Transportation Planner; Transit Planner

Statement must:

- identify how the development can be serviced by public transit
- identify the location of transit routes and stops
- describe the pedestrian access environment and the provision of transit amenities
- provide a walking distance map from proposed doors to transit stops (as the crow flies)
- provide cost of transit service provision in terms of percentage of community build-out
- demonstrate that the internal road network will accommodate transit service



Market Evaluation for Commercial Development

City of Airdrie Department: Planning and Economic Development

Planning Stage Required: Neighbourhood Structure Plan (NSP)

Scope and Purpose: The purpose of the report is to evaluate the market for proposed commercial development.

Jurisdictional Requirement/Enabling Legislation: N/A

Expiry: For Reports older than one year from the date of issuance, the City will require written confirmation from the Consultant indicating that the evaluation is still current and therefore suitable for submission to the City.

Professional Qualifications to Prepare Statement: A qualified professional specializing in commercial market evaluations.

Requirements:

The report shall consist of an evaluation of the market for proposed commercial development (s) in the Plan. The study shall: (a) address the sustainability of any commercial sites, and (b) establishes that the size of the site will not be detrimental to the vitality and success of the downtown. The evaluation shall also include location and site suitability, market demand, trends, etc. The market evaluation should be submitted at the NSP stage.



Appendix B: Public Engagement Guidelines



CASP & NSP Application Submission **Public Engagement Guidelines** City of Airdrie

Planning & Development

The following list is provided as a guide and intended to be used by CASP, NSP, and/or ARP proponents to ensure that minimum requirements for meaningful public engagement are met. The proponent is responsible for completing all items on this list before the File Manager can bring the draft plan before the Community Infrastructure and Strategic Growth Committee (CISGC) and Council for a decision.

The applicant shall submit a Public Engagement Strategy for review a minimum of three (3) weeks in advance of the open house. The public engagement strategy shall identify the following:

- Level of public participation (applicants may refer to the IAP2 spectrum).
- Method of soliciting feedback on the project there should be more than one method for the public to provide feedback.
- Virtual open house and other mediums (stakeholder meetings, questionnaire, comment forms etc.)
- There is to be a minimum of one (1) interactive engagement opportunity (may be a virtual open house). Please consult with your file manager before setting a date for your open house.
- Stakeholder Identification
- Public engagement material including display boards, handouts, exit survey, comment form.
- Process for evaluating public feedback (e.g. What We Heard Report)

Please note, that applicants are free (and encouraged) to do as much public engagement (including open houses) as they would like throughout the process at any stage. Developers commonly host a project website and post information as they deem appropriate. The City only needs to be involved with the *final open house* (if there is more than one open house). This final open house is the one that is to be scheduled to be as close to the Council meeting as possible. The intent is to ensure the version that is presented to the public (at the final open house) is the same or as close to possible to the version that will be presented to Council for decision.

Implementation – timeline for public engagement

- The open house date should be set in consultation with the File Manager at the City. At this point the File Manager will upload the draft plan (if there is no developer project page) and open house details to the project page on the City's



website. The applicant must submit the most up-to-date PDF draft plan (Max 30MB) via Large File Transfer to the File Manager.

- The File Manager will share the event details (provided by the applicant) with Council. Applicant to provide the file manager details of the event a minimum of three weeks in advance to allow for adequate notification time.
- The purpose of this first open house is to introduce the plan to the community at large, as well to any community members that may be more directly affected by the plan.
- Schedule the event for a time when most people can attend weekday evenings often work.
- Notification of the open house shall be done by the applicant via Canada Post mail drop a minimum of 14 days in advance of the open house and shall consist of the following:
- All landowners within plan area;
- Landowners within 1/4 mile in annexed area and 100m within built up areas;
- Subsurface/mineral rights owners within plan area;
- any oil and gas facilities;
- any communication towers.
- (City may be able to send notification letter but will bill applicant for cost+ admin fee. If city is asked to send notice we will need a minimum of 2 weeks lead time)
- Applicant to have signage erected on property informing passersby of upcoming public of engagement a minimum of 2 weeks prior to the event.
- A photo of the sign clearly showing it is on the property must be sent to the File Manager to verify.
- Applicant is responsible for ensuring that notice of public engagement is advertised in local newspaper a minimum of 2 weeks prior to the event.
- A copy of the advertisement with the date(s) must be sent to the File Manager.
- If the open house is part of the applicant's voluntary public relations, they can invite the Mayor and Council by filling out this <u>online form</u>.
- Applicant to provide copies of materials i.e. display boards, brochures prior to event (if the material was provided in the engagement plan then skip this step).
- The venue must be appropriate for the event:
- Neutral location such as a school, golf club, church etc.
- Accessible to the local population.
- Barrier free parking provided.
- Large enough to host the event.



- A sign-in sheet should be placed at the entrance of the open house to record the names of participants, the number of participants and the community in which they live.
- Allow two to three hours for the public to come and go as they please.
- A presentation and question/answer session as part of the open house is optional. If there is a presentation, provide the time on the open house notice and ensure speakers have appropriate tools such as a microphone, power point, etc. if necessary.
- Suggest having Subject Matter Experts (e.g. consultant engineers) available at the virtual open house this may be present the opportunity for breakout rooms.
- City staff will be attendance at the open house.
- A handout sheet with a summary and description of the proposed development should be provided for the public to take home.
- Solicit feedback on the open house and on the proposed development through exit survey/comment form. Contact information must be provided on the exit survey/comment form and a drop box should be made available to collect completed forms.
- Stakeholders should be given several weeks (minimum 2 weeks) after being informed of engagement opportunity to provide feedback

Depending on the number of issues identified through the initial review processes, a second open house may be required by the City.

The purpose of the second open house is to re-present the plan and any changes that have been made since its initial submission. This open house is envisioned to occur as close as possible to the date when the plan will be presented to the Committee Review and therefore, the plan presented at this open house should be as close to final form as possible.

A What We Heard report must be prepared by the applicant that captures comments received and any changes made based on the comments received. The report must be provided to the City before or with the final submission (before proceeding to CISGC and Council).



Appendix C: Statutory Plan Templates

LAND USE CONCEPT STATISTICS				
	Hectares	Acres	Percentage	
GROSS TOTAL AREA (GTA)	XX_XX	XXX_XXX	XX_XX%	
Non-Developable Area	X.XX	XXX_XXX	<u>xx.xx</u> %	
Less Environmental Reserve				
Less Conservation Reserve				
Less Highway/Highway Arterial/Road Widening				
Less Railway/Major Regional Corridor				
GROSS DEVELOPABLE AREA (GDA)	XX_XX	XXX_XX	<u>xx.xx</u> %	
Roads and Public Utilities	X_XX	XXX_XX	<u>xx.xx</u> %	
Roads				
Public Utility Lot				
Storm Pond				
Open Space Land Uses	X.XX	XXX_XX	<u>xx.xx</u> %	
Credit Municipal Reserve (Land)				
Credit Municipal Reserve (Cash in Lieu)				
Non-Credit Municipal Reserve				
Non-Residential Land Uses	X_XX	XXX_XX	<u>xx.xx</u> %	
Commercial				
Industrial				
Residential Land Uses	X_XX	XXX_XXX	<u>xx.xx</u> %	
Low				
Mediu				
High				
Other Land Uses	X.XX	XXX.XXX	<u>xx.xx</u> %	
Mixed Use				

Reserve Dedications in a CASP, NSP, and ARP are not binding or final. Final reserve calculations are determined at the subdivision approval stage. Any deferred reserves will also be noted in the summary under the respective area.



	ISITY CAL		Aaraa	Doroont	
		Hectares	Acres	Percentage	
GROSS TOTAL AREA (GTA)		XXXXXX	XXXXXXXX	100%	
Non-Developable Area Less Environmental Reserve		XXX	XXXXXX	XX.XX%	
Less Conservation Reserve					
Less Highway/Highway Arterial/Road Widening					
Less Railway/Major Regional Corridor					
Gross Developable Area (GDA)			XXXXXXX	XXCXX%	
Regional Land Uses		XXXX	XXXXXXX	0000%	
Less Regional Park					
Less Commercial Area (> 4 ha)					
Less High School Site					
Less Industrial Area					
Gross Residential Area (GRA)		XXXXXX	XXXXXXX	<u>xxx%</u>	
Roads and Public Utilities					
Open Space					
Commercial (≤ 4 ha)					
Residential	Anticipated # of Units				
Low					
Medium					
High					
City Plan Policy 6.16 - Single Dwelling Narrow and Small Lot					
(<=10.36 m)					
Attached Units (see City Plan Policy 6.15)					
Mixed Use	Anticipated # of Units				
Neighbourhood					
Community					
Downtown Core					
OVERALL DENSITY					
			Anticipated		
Total Number of Units		XXXX units			
Population			xxxx residents		
Residential Density			x.xx.uph x.xx.upa		

Reserve Dedications in a CASP, NSP, and ARP are not binding or final. Final reserve calculations are determined at the subdivision approval stage.



MUNICIPAL RESERVE CALCULATION				
	Hectares	Acres	Percentage	
GROSS TOTAL AREA (GTA)	XXLXX	XXXXXXX	XXLXX	
Non-Developable Area	XXX	XXXXXXX	XCXX%	
Less Environmental Reserve				
Less Conservation Reserve				
Less Highway/Highway Arterial/Road Widening				
Less Railway/Major Regional Corridor				
Gross Developable Area (GDA)	X.XX	XXXXXXX	XXXXX%	
Credit Municipal Reserve				
School Site				
Joint Use School Site				
Parks				
Pathways (≥ 12m)				
Credit Municipal Reserve (Cash in Lieu)				
Non-Credit Municipal Reserve				
Parks				
Pathways (<12 m)				

Reserve Dedications in a CASP, NSP, and ARP are not binding or final. Final reserve calculations are determined at the subdivision approval stage.



DE	TAILED I	AND US	E PLAN S	TATISTICS	5	
				Hectares	Acres	Percentage
ROSS TOTAL AREA (GTA)			XXXXX	XXXXXXX	XXX.XXX%	
Incos Total Area			XXX.XXX	X0XX0X	XXXXX%	
Reserve Dedication				Vinhoink	- Arinhardada	- Winnhon
Less Environmental Reserve						
Less Conservation Reserve						
Other				XXXXXXX	XXXXXXX	XXCXX%
Less Highway/Highway Arterial/Road Wideni	ng			100000000	20000000	2000000
Less Railway/Major Regional Corridor						
GROSS DEVELOPABLE AREA (GDA)				XXXXX	XXXXXXX	<u>xxxxx</u> %
Roads and Public Utilities				XXXXXXX	XXXXXXX	XXXXX%
Roads						
Collector (x.xx m)						
Industrial (<u>x.xx</u> m)						
Residential (XXX m)						
Lane (x, xx, m)						
Public Utility Lot Dedication (PUL)						
P1 Public Utility Lot						
P1 Storm Pond				1007.00	1001.101	100000
Open Space Land Uses	2)			XXXXXXX	XXXXXXX	00000
Credit Municipal Reserve Dedication (MR	7)			XXX.XX	XXXXXX	<u>XX.XX</u> %
P2 School						
P1 Parks & Pathways (≥ 12 m)	A (MD)					
Non-Credit Municipal Reserve Dedication	n (MR)			XXX.XX	XXX.XX	<u>XX.XX</u> %
P1 Parks & Pathways (<12 m)		lobo por	lobo por			
Non-Residential Land Uses		Jobs per Hectare	Jobs per Acre	XXXXXXX	XXXXXXX	200200%
Commercial						
C1 Neighbourhood						
C2 Community						
C3 Regional						
CS Service						
Industrial						
IB-1 Mixed Business / Employment						
IB-0 Office Park / Employment IB-2 Industrial Employment						
IB-2 Industrial Employment IB-3 Heavy Industrial Employment						
2 12						
Residential Land Uses			Anticipated # of Units	XXXXXXX	XXXXXXX	200200%
Low						
R1 Single Detached						
R1-E Single Detached Estate						
R1-V Single Detached Village						
R1-W Single Detached Wide Shallow						
R1-U Urban Standard						
R1-L Narrow Lot Laned						
R1-L0 Laned Zero Lot Line						
R2 Low Density Medium						
R2-T Townhouse R2-A Front-Attached Garage Townhouse						
2-A Front-Attached Garage Townhouse -BTB Back-to-Back Townhouse						
3 Low-Rise Multifamily						
R4 Mid-Rise Multifamily						
High						
R5 High Density						
Other Land Uses	Jobs per Hectare	Jobs per	Anticipated # of Units	XXX.XXX	XXXXXX	XXXXX%
Mixed Use	Hectare	Acre	# of Units			000000
Mixed 056						
M1 Neighbourhood						
M2 Community						
M3 Downtown Core						
Deserve Dedications is a CASE NED and ADE	and a set of the set	in a section of F				1 P. 19 P. 19

Reserve Dedications in a CASP, NSP, and ARP are not binding or final. Final reserve calculations are determined at the subdivision approval stage.

*+/- 5% expected

*population should be calculated using current census data on ppl per household