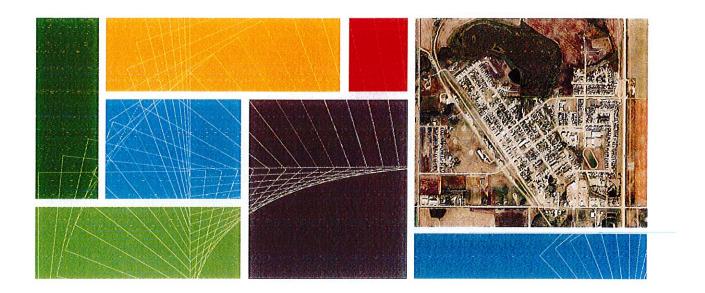


Inspiring sustainable thinking



Town of Sexsmith

Final Report

Annexation Area Structure Plan

April 2012



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1.0 Introduction

1.1 Purpose of Plan

The Town of Sexsmith Annexation Area Structure Plan (ASP) has been prepared to provide a framework for future development of the lands that were annexed into the Town of Sexsmith from the County of Grande Prairie No. 1 in January 2008. The Town initiated the preparation of this Plan as a means of providing a proactive and coordinated approach to the planning of this area. It contains a general land use concept that is integrated with overall servicing concepts, and serves as a guideline for more detailed subdivision planning by individual landowners or developers. The primary intent of this Plan, in addition to illustrating future development concepts, is to demonstrate how new development will tie-in to the Town's established urban fabric.

The Annexation ASP has been prepared in accordance with the provisions of Section 633 of the Municipal Government Act (MGA).

1.2 Plan Area Location

As shown on Map 1, this ASP applies to 14.75 quarter sections of land that surrounds the built up area of the Town on all sides. All of the lands in question were annexed into the Town from the County of Grande Prairie No. 1.

The Plan area is composed of three distinct sub-areas as illustrated in Map 1. Area 1 consists of 5.5 quarter sections located in the northwest portion of the Plan area, north of 95th Avenue and west of Highway 2. Area 2 consists of a block of 5 quarters located to the east of Highway 2. Area 3 consists of a block of 4.25 quarters located in the southerly portion of the Plan area, west of Highway 2.

The Plan area totals 946 ha on 23 separate parcels and including road plans and rail right-of-way as outlined in Table 1. Location references are provided on Map 2.

1.3 Policy Context

There are numerous Town plans and policy documents currently in force that provide a broader policy context for ASP preparation. These plans, both statutory and non-statutory, are outlined below.

1.3.1 Municipal Development Plan

The Municipal Development Plan (MDP) is the Town's primary land use policy document. Originally adopted in 1991, it has been amended on several occasions since that time to address the changing needs of the community.

The Municipal Government Act requires that all statutory plans be consistent with one another. As all the lands within the ASP area were recently annexed into the Town, they are not addressed in the current MDP. Therefore, upon adoption of this ASP, the MDP will be amended concurrently to reflect the land use concept contained in this ASP.

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Table 1 - Land Ownership

| Ref | Sub-Area | Legal Description | Owner | Net Area (ha) |
|-----------------------|---|------------------------------|---------------------------|---------------|
| 1 | 1 | SE 35-73-6-6 | L. and V. Anderson | 64.3 |
| 2 | 1 | SW 36-73-6-6 | L. and V. Anderson | 61.1 |
| 3 | 1 | Block W, Plan 5417HW | B. Waite & P. Sirockman | 0.6 |
| 2 3 4 5 6 | 1 | SE 36-73-6-6 | Morbank Financial Inc. | 63.3 |
| 5 | 2 2 | SW 31-73-5-6 | W. and M. Hovdebo | 60.0 |
| 6 | 2 | NW 30-73-5-6 | R. and K. Hovdebo | 56.0 |
| 7 | 1 | NW 25-73-6-6 | W. Sharko | 31.0 |
| 8 | 1 | NE 26-73-6-6 | D. Warkentin | 53.5 |
| 9 | 1 | Pt. NE 26-73-6-6 | D. and W. Quist | 0.5 |
| 10 | 1 | Lot A, Plan 7621747 | Town of Sexsmith | 6.7 |
| 11 | 1 | Lot A, Plan 8322098 | N. and D. Pimm | 3.5 |
| 12 | 3 2 2 2 2 2 3 3 3 3 2 2 2 3 3 | SE 26-73-6-6 | F. Moller | 64.7 |
| 13 | 2 | SW 30-73-5-6 | W. Paszkowski | 58.3 |
| 14 | 2 | NW 19-73-5-6 | W. Paszkowski | 49.1 |
| 15 | 2 | Lot 1, Block 1, Plan 0525500 | W. Paszkowski | 3.1 |
| 16 | 2 | Lot 2, Block 1, Plan 0525500 | W. Paszkowski | 3.7 |
| 17 | 3 | NE 24-73-6-6 | 1131156 Alberta Inc. | 8.6 |
| 18 | 3 | SE 23-73-6-6 | C. Balderston et. al. | 64.7 |
| 19 | 3 | SW 24-73-6-6 | D. and L. Paziuk | 64.7 |
| 20 | 3 | SE 24-73-6-6 | Corkum, Harris & Co. Ltd. | 41.5 |
| 21 | 2 | Pt. SE 24-73-6-6 | Alberta Infrastructure | 13.4 |
| 22 | 2 | SW 19-73-5-6 | Corkum, Harris & Co. Ltd. | 62.0 |
| 23 | 3 | NE 14-73-6-6 | R. and T. Dueck | 64.7 |
| | | Road Plans | | 40.4 |
| | | Railway | | 6.6 |
| | | Total | | 946.0 |

1.3.2 Existing Area Structure Plans

There are no other area structure plans currently in effect within the ASP area. There are, however, two older plans in force that abut the ASP area.

The West Sexsmith and Northeast Sexsmith ASP were approved in 1982. The West Sexsmith ASP applies to 145 ha of land west of the CN rail line, on both sides of 95th Avenue. This plan abuts Areas 1 and 3. The northerly portion of this plan has been largely built out with the development of Rycroft Ridge. The portion south of 95th Avenue is currently being developed as the Painted Sky neighbourhood.

The Northeast Sexsmith ASP applies to 54 ha of land and is largely built out with the development of the Forest Grove neighbourhood.

These plans provide future land use and servicing patterns for neighbouring lands that this ASP, upon completion, will be consistent with to ensure a smooth transition between development areas and/or neighbourhoods.

1.3.3 Zoning

The vast majority of the land in the Plan area is zoned as "Agriculture" under the County of Grande Prairie Land Use Bylaw. The exception is four acreages that are zoned as "Country Residential 5". This reflects the zoning status of the ASP lands at the time of annexation. Under the terms of the annexation agreement, the County zoning remains in



place until such time as equivalent zoning is applied under the Town's Land Use Bylaw (LUB).

It would be appropriate at the time of adoption of this ASP to rezone the lands as "Urban Reserve" under the Town's LUB. More site specific zoning would then be applied at such time as subdivision proposals are brought forward by individual landowners.

1.3.4 Utility Master Plans

There are master plans in place for the long term development of the Town's sanitary sewer, storm drainage and water distribution systems. These master plans address all of the lands that are the subject of this ASP, and the servicing concepts provided in this Plan conform to those master plans.

1.3.5 Sexsmith Sustainability Plan

The Sexsmith Sustainability Plan was approved in 2009. It identifies a number of initiatives that are associated with the Town's five dimensions of governance, environment, economy, culture, and social development. This ASP can assist in the implementation of the Sustainability Plan by contributing to the applicable visions, goals, and actions as outlined in Table 2 through neighbourhood design elements.

Table 2 - Sustainability Plan Excerpts

| Sustainability Plan Element | Potential ASP Contribution | | |
|---|--|--|--|
| "The Town of Sexsmith is committed to reducing our carbon footprint, educating our community and planning for a greener future." (Environment - Vision) | Integration of natural open space into new neighbourhoods. Development of neighbourhood patterns that promote sustainable community development. | | |
| "Extension to existing path" (Environment - Goals and Actions) | Inclusion of a comprehensive trail network as part of recreation and open space component of new neighbourhoods. | | |
| "Development of land in town for commercial purposes - specifically along the highway - will enable more businesses to be feasible as they would be strategically located on a major transportation corridor with high visibility and easy access. This will expand services for existing residents, create jobs and enhance the town's appeal to potential residents." (Economy - Preferred Future) | Make provision for highway commercial development along Highway 2. Include local commercial development sites at strategic neighbourhood locations. Opportunity to significantly expand the Town's industrial land base. | | |



2.0 Plan Objectives

The Sexsmith Annexation ASP is intended to achieve the following objectives:

- 1. To provide an overall framework for the future development of the Plan area.
- 2. To integrate future development with the Town's existing urban fabric and approved plans for adjacent lands.
- To support sustainable neighbourhood and community development that encourages housing diversity, environmental stewardship, economic development, and fiscally responsible development.
- To identify locations for community service facilities including schools and major parks.
- 5. To provide for future industrial and commercial development at appropriate locations.
- 6. To identify an efficient collector road system that facilitates access between neighbourhoods.
- To provide a servicing system based on the economical and efficient extension of municipal infrastructure and utilities in accordance with the Town's approved master plans.
- 8. To utilize stormwater management facilities, whenever possible, as amenity features.
- 9. To integrate natural features into future urban development where feasible to do so.



3.0 Plan Area

3.1 Topography and Natural Features

As indicated in Map 3, topography and drainage in the Plan area varies considerably in each sub-area.

The portion of Area 1 located west of 106th Street slopes from west to east, draining to a central location adjacent to 106th Street. This portion of the Plan area is mostly cleared of natural vegetation, consisting of mainly cropland and fields. Concentrations of trees in Area 1 are confined to a few stands. The easterly portion of Area 1 is contained in a separate drainage basin and drains from north to south into a large wetland area at the north end of the built-up portion of the Town. A significant portion of this area consists of forested and wetland areas. The balance is in agricultural production.

Area 2 is divided into three separate drainage basins due to its irregular topography. The northerly three quarter sections drain north to south, while the remaining two quarters drain to the north and south respectively. This portion of the Plan area is mostly cleared of natural vegetation. The most significant natural area is a large wetland located at the south end of Area 2.

Area 3 is also divided into three drainage basins. The lands west of 106th Street drain north to south, while the remaining area is split by a ridge that runs east-west through the subject lands, splitting the drainage to the north and south.

3.2 Existing Land Use

Agricultural uses are predominant in the Plan area, as all three sub-areas are under cultivation.

Existing residential development is limited to four farm sites - located in Area 1 adjacent to the CN Rail line, at two locations in the northerly portion of Area 2, and in the southwest portion of Area 3; and three country residential acreages in Area 1 in proximity to 106 Street. Two undeveloped acreages are located adjacent to Township Road 734 in Area 2.

Other development in the Plan area consists of the Town's landfill site located on the west side of Area 1, and all three sub-areas are significantly affected by well sites and pipeline facilities as illustrated on Map 4. The Town's sewage treatment facilities are located adjacent to Area 2 to the southeast.

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4.0 Proposed Development Concept

Arterial Commercial

Industrial Business

General Industrial

Industrial

Roadways

Arterials

Locals

Utilities

Corridors

Other

Storm Ponds

School Sites

Municipal Reserve

Neighbourhood Parks

Collectors

4.1 Introduction

- The overall land use concept proposed for the ASP area is illustrated in Map 5, while specific plans for each sub-area are provided in Maps 6 through 8. The intent of this ASP is to provide a generalized land use plan that will be the subject of further refinement through more detailed planning by individual landowners in advance of subdivision.
- 2. It is proposed that Area 1 be developed primarily for low density residential use. Commercial and industrial use is proposed for Area 2. Area 3 is intended for low density residential use for the portion west of 106th Street, while the remainder is split between residential, commercial and industrial use. Pockets of multi-family residential development are also proposed at several locations in both Areas 1 and 3, and neighbourhood commercial development is identified at strategic locations.
- 3. Neighbourhood development is also supported by school sites and other open space, including neighbourhood parks, preserved natural areas and trail corridors. Land use summaries are detailed in Tables 3 and 4.

Land Use Area (ha) Percent 946.0 Plan Area Total Less Road Plans 40.4 Less Railway Right-of-Way 6.6 899.0 **Gross Developable Area** Less Environmental Reserve 61.5 Net Developable Area 837.5 100.0 Residential 322.4 38.5 Low Density 317.5 37.9 Multi-Family 4.9 0.6 Commercial 30.8 3.7 Neighbourhood Commercial 2.4 0.3

Table 3 - Land Use Summary

28.4

233.5

18.2

215.3

154.2

4.5

77.4

72.3

45.4

31.0

14.4

51.2

3.4

27.9

2.2

25.7

18.4

0.5

9.2

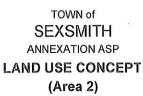
8.6

5.4

3.7

1.7

6.1





Scale 1:17,000

0 100 200 300 400 500 m

LEGEND

Commercial

Environmental Reserve

Industrial - Light

Industrial - General

Recreational and Open Space

Residential - Low Density Residential - Multi-Family

Storm Water Management

School

Arterial Road / Highway

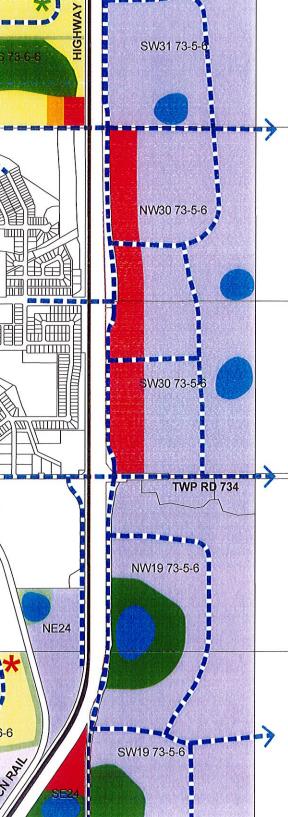
Collector Road

Well Site (To be Reclaimed)

Neighbourhood Park



February 2012



MAP 7

ISL Engineering

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| Land Use Category | Area 1 | Area 2 | Area 3 | Total (ha) |
|--------------------------------------|-------------------|--------|--------|------------|
| Total Area | 355.1 | 333.9 | 257.0 | 946.0 |
| Les Existing Road Plans | 1.9 | 34.6 | 3.9 | 40.4 |
| Less Railway | 4.0 | 0.0 | 2.6 | 6.6 |
| Gross Developable Area | 349.2 | 299.3 | 250.5 | 899.0 |
| Less Environmental Reserve | 39.1 | 20.2 | 2.2 | 61.5 |
| Net Developable Area | 310.1 | 279.1 | 248.3 | 837.5 |
| Residential | 200.7 | 0.0 | 121.7 | 322.4 |
| Low Density | 197.2 | 0.0 | 120.3 | 317.5 |
| Multi-Family | 3.5 | 0.0 | 1.4 | 4.9 |
| Commercial | 2.4 | 24.9 | 3.5 | 30.8 |
| Neighbourhood Commercial | 2.4 | 0.0 | 0.0 | 2.4 |
| Arterial Commercial | 0.0 | 24.9 | 3.5 | 28.4 |
| Industrial | 0.0 | 192.4 | 41.1 | 233.5 |
| Industrial Business/Light Industrial | 0.0 | 0.0 | 18.2 | 18.2 |
| General Industrial | 0.0 | 192.4 | 22.9 | 215.3 |
| Roadways | 58.7 | 49.2 | 46.3 | 154.2 |
| Arterials | 2.7 | 0.0 | 1.8 | 4.5 |
| Collectors | 35.9 | 21.8 | 19.7 | 77.4 |
| Locals | 20.1 | 27.4 | 24.8 | 72.3 |
| Utilities | 20.8 | 12.7 | 11.9 | 45.4 |
| Storm Ponds | 9.0 | 12.7 | 9.3 | 31.0 |
| Corridors | 11.8 ¹ | 0.0 | 2.6 | 14.4 |
| Municipal Reserve | 27.6 | 0.0 | 23.6 | 51.2 |
| School Sites | 11.6 | 0.0 | 4.3 | 13.7 |
| Neighbourhood Parks | 11.1 | 0.0 | 9.2 | 22.4 |
| Other | 5.0 | 0.0 | 10.1 | 15.1 |

Table 4 - Land Use Summary by Sub-Area

4.2 Residential Development

- It is the intent of this Plan to promote the development of a diversity of low density housing types and lot sizes. Although single-family residential development will be the predominant use in Areas 1 and 3, semi-detached and multi-family development is also encouraged.
- 2. The proposed residential density for Areas 1 and 3 is approximately 16 units per net residential hectare. This results in a total population of approximately 16,250 people being accommodated in the ASP area at full build-out, with approximately 3,380 of those residents being of school age, as illustrated in Table 5. Future development in these areas will be accommodated in the Single Family Residential (R1) and General Residential (R2) Districts of the Town's LUB.
- 3. It is proposed that nodes of multi-family residential development, consisting of such housing types as row housing and low-rise apartment complexes, be integrated into Plan area neighbourhoods at strategic locations. These sites are located in proximity to school sites and neighbourhood parks, have access to collector roads, and serve as buffers between low-density residential areas and potentially incompatible uses.

¹ This includes 6.1 ha of land occupied by the Town's landfill site in the NE 26, which is proposed for future recreational use upon closure and reclamation, but is not included in the municipal reserve allocation for the subject quarter section.



| Table 5: Population and Student (| Generation Estimates |
|-----------------------------------|----------------------|
|-----------------------------------|----------------------|

| | Area 1 | Area 3 | Total |
|------------------------------|----------|----------|----------|
| Developable Residential Area | 200.7 ha | 121.7 ha | 322.4 ha |
| Low Density | 197.2 ha | 120.3 ha | 317.5 ha |
| Multi-Family | 3.5 ha | 1.4 ha | 4.9 ha |
| Total Residential Units | 3,365 | 2,009 | 5,374 |
| Low Density (@ 16 u/ net ha) | 3,155 | 1,925 | 5,080 |
| Multi-Family (@ 60 u/net ha) | 210 | 84 | 294 |
| Total Population | 10,138 | 6,111 | 16,249 |
| Low Density (@ 3.1 ppu) | 9,781 | 5,968 | 15,749 |
| Multi-Family (@ 1.7 ppu) | 357 | 143 | 500 |

| Total Students | 2,180 | 1,314 | 3,494 |
|--------------------------|-------|-------|-------|
| Public School Students | 1,722 | 1,038 | 2,760 |
| Catholic School Students | 458 | 276 | 734 |

Notes: Total Students² = 21.5% of Total Population Public School Students³ = 79% of Total Students

Separate School Students = 21% of Total Students

- 4. Residential densities in areas identified as Multi-Family in this ASP should average approximately 60 units per net hectare. These sites are to be developed in accordance with the Multi-Family Residential (R3) District of the Town's LUB.
- 5. Public uses such as churches and community halls that are compatible with residential development may be incorporated into neighbourhoods in the Plan area without an amendment to this Plan. If such facilities are to develop, it is preferred that they be located along collector roadways to facilitate access.
- 6. In areas where residential development is located adjacent to commercial sites, suitable landscaped buffers and/or screening shall be provided in accordance with Town requirements.

Commercial Development 4.3

- 1. Arterial (highway) commercial development is proposed at four locations in the ASP area:
 - (a) A site located on the east side of Area 1, adjacent to the existing service road at Highway 2 and 105 Avenue;
 - (b) That portion of Area 2, fronting Highway 2 between 95 Avenue (Township Road 734) and 105 Avenue;
 - (c) A site located at the south end of Area 2 between Highway 2 and Range Road
 - (d) A site in Area 3 fronting on 106 Street (Range Road 61).

² Total school enrolment as of January 2012 in 3 schools is 1,403, of which 50% are County residents. Ratios are therefore based on a total local enrolment of 520 and a Town population of 2,418 (2011 Federal Census).

³ Based on current enrolment ratios.



- It is intended that these sites be developed in accordance with the Highway Commercial (C2) District of the Town's LUB.
- 2. Two neighbourhood commercial sites, developed in accordance with the Town's Commercial Light (CL) District, are proposed for Area 1 along 106 Street, at 100 and 102 Avenues.

4.4 Industrial Development

- Approximately 28% of the ASP area is to be developed for industrial purposes. A
 mixture of light and general industrial is proposed
- 2. Light industrial development is proposed for a portion of Area 3 east of 106 Street (Range Road 61). The intent of light industrial at this location is to provide for a transition between proposed residential development to the north, and general industrial development to the south that is proposed in the Emerson Trail ASP (County of Grande Prairie). In the absence of other applicable zoning, it is proposed that the General Industrial Limited (M1A) District of the Town's LUB apply to this area. Alternatively, the preparation of a new industrial district focusing on ecoindustrial or business park development may be considered for this area.
- 3. General industrial development, consistent with the Town's General Industrial (M1) District, is proposed for the majority of Area 2. This designation reflects the Town's original rationale for the annexation of these lands as a means of developing a greater industrial assessment base. These lands are also suited to long term industrial development as they are separated from the balance of the Town by Highway 2. General industrial development is also proposed for a remnant portion of Area 3 located between Highway 2 and the rail line.
- 4. As previously noted in Section 3.2, there are several well and battery sites located in the ASP area. These sites will be subject to reclamation at such time as production ceases, at which time the subject lands will be integrated into future neighbourhood or industrial park development.

4.5 Parks and Open Space

- At the time of subdivision, ten percent (10%) of the developable land shall be dedicated as Municipal Reserve (MR) in accordance with the MGA and the Town's Municipal Development Plan. Unless otherwise indicated in this ASP, all MR owing is to be dedicated in parcel form (ie. land) for parks, school sites and buffers between incompatible uses.
- 2. Any land deemed to be unsuitable for development during the subdivision process shall be dedicated as Environmental Reserve (ER). These areas are identified in general terms in Maps 5-8, and include potentially significant wetlands and major forest stands. The specific areas to be protected from development shall be determined in more detail at the time of development in consultation with Alberta Environment. The Town may require developers to prepare geophysical and/or biophysical assessments in order to more closely define these areas prior to subdivision. ER areas may be dedicated either in parcel form or as easements in accordance with the MGA.



- 3. As indicated in Table 5, it is estimated that the Plan area will ultimately generate approximately 3,500 students. In order to accommodate this projected enrolment growth, three school sites are proposed within the Plan area as follows:
 - (a) A site of approximately 3.4 ha in size in the northerly portion of Area 1;
 - (b) A site of approximately 6.0 ha is to be located in the west portion of Area 1, adjacent to the existing landfill site which is to be reclaimed and developed as a major recreation site. The resulting combined area of this site will be approximately 12.1 ha; and
 - (c) A site of approximately 4.3 ha located in the west portion of Area 3.
- 4. Neighbourhood parks will be distributed at strategic locations throughout each residential neighbourhood in Areas 1 and 3. The specific number and location will be further defined at the time of more detailed planning by individual developers, and will be coordinated with school site development where feasible.
- Lands located adjacent to ER areas and stormwater ponds may be dedicated as MR to facilitate public access to these areas.
- As a result of previous subdivision activity, a deferred reserve caveat totalling 6.5 ha
 has been registered against the NE 26 in Area 1. It is intended that this reserve land
 be applied against future school sites and neighbourhood parks at the time such sites
 are required.
- 7. As there are no parks or school sites proposed for Area 2 due to proposed industrial and commercial development, MR in this area shall be provided as money-in-lieu in accordance with the MGA. However, MR may be considered in land form adjacent to storm ponds at the discretion of the Town.
- As previously noted in Section 3.2, there are several pipeline rights-of-way that traverse Areas 1 and 3. These rights-of-way will be subject to reclamation at such time as production ceases, at which time it is proposed that they be utilized for multiuse trail corridors.



5.0 Proposed Servicing Concept

5.1 Transportation Network

- As illustrated in Map 9, primary access to the ASP area is provided by two major roadways:
 - (a) Highway 2, which serves as the primary link from the Town to the balance of the provincial highway system. It is currently developed to its ultimate standard and a four-lane divided highway; and
 - (b) 106 Street (Range Road 61), currently a two-lane, gravelled rural road which is to be ultimately developed to an urban arterial standard.
- In order to ensure that 106 Street can be developed to its ultimate standard, land required to accommodate sufficient right-of-way shall be secured through the subdivision and development process.
- Collector road alignments are to generally follow the alignments illustrated in this ASP. The specific location of collectors and internal roads are the responsibility of individual developers through detailed engineering design.
- 4. Collector road access to the ASP area is to be provided as follows:
 - (a) Area 1 via 106 Street at seven locations between 95 and (approximately) 108 Avenues; from Highway 2 at 105 Avenue; and through the extension of existing streets in Forest Grove and the Town's central commercial area.
 - (b) Area 2 at approved access points from Highway 2 at 95 (Township Road 734), 100 and 105 Avenues. Lands located south of 95 Avenue are also intended to be served by the existing Range Road 60, which will be extended north of 95 Avenue in the form of highway frontage service roads.
 - (c) Area 3 via 106 Street at three locations at (approximately) 83, 86 and 88 Avenues; and through the extension of existing streets in Painted Sky.
- 5. The transportation concept for Area 1 makes provision for an additional rail crossing at approximately 108 Avenue. This possibility is provided in order to optimize connectivity between future neighbourhoods at the north end of the ASP area. This potential crossing would require the approval of CN Rail as part of the detailed design process.
- 6. The ASP development concept includes a comprehensive trail network that links open space, recreation and school facilities, natural areas and stormwater ponds to one another. The trail system is also linked to the Town's existing trail and sidewalk systems. The proposed trail network is illustrated in Map 9, but will be further refined in more detailed neighbourhood plans.
- 7. The provision of all roadways, trails, and related neighbourhood infrastructure shall be responsibility of individual developers.



5.2 Water Distribution

There are no municipal water services currently in the ASP area. The Town's 2007 Water Master Plan (Aquatera Utilities) recommends that the future water distribution network focus on servicing up to a 20-year development envelope. However this scenario does not cover the entire ASP area. The Master Plan does not define any future interim servicing plans between the 20-year and the Ultimate Development Phase, which is projected to occur in 2108. The information presented in the Ultimate Development Phase, should be considered as information only as it is too long of a horizon for infrastructure planning purposes. As a result, more extensive work is required to clearly define the water distribution network for the ASP area, but for the purposes of this plan the proposed water supply and distribution network considers the information presented in both the 20-year and Ultimate development phase for servicing the annexed lands.

In order to meet future water demands in the ASP area and to fully utilize existing reservoir capacity, new pressure zones have been proposed. Under this approach, the Town's existing distribution network will be an independent pressure zone (Zone 6) as it is supplied by the existing pump station and reservoir system. For the ASP area, new pressure Zones 7 and 8 will need to be created. Zone 7 will utilize the existing reservoir and pump station by installing new pumps with a separate discharge header. This Zone would serve the Town up to the 20-year demand, utilizing the full capacity of the existing reservoir. Beyond the 20-year demand, Zone 8 should be created with a new reservoir and pump station. As the elevation changes significantly within the annexed area, it is beneficial to divide Zone 8 into two pressure zones by using pressure reducing valves (PRV).

The proposed water supply and distribution network for the ASP area is shown in Map 10. Internal looping will be accomplished through the installation of an internal network, the alignment and pipe sizes of which will be identified through detailed engineering design prior to subdivision.

5.3 Sanitary Sewer

All existing development in the ASP area is serviced by on-site sewage disposal systems. As with the water distribution network, the 2007 Wastewater Master Plan recommends that the wastewater servicing focus on the 20-year development envelope as the Ultimate Development Phase is too long of a horizon for planning purposes. Thus, further work is required to clearly define the wastewater servicing of the ASP lands. For the purposes of this plan, the proposed wastewater servicing considers the information presented in both the 20-year and Ultimate development phase for servicing the annexed lands.

The proposed sanitary servicing concept, illustrated in Map 11, is designed to accommodate the entire ASP area. Four new pump stations are also proposed to transport sewage from the annexed lands to the existing lagoon. Most of the sewers will flow by gravity with the exception of a few forcemains being required.

The alignment and pipe sizes of the future internal network will be identified through detailed engineering design prior to subdivision.

5.4 Stormwater Management

Storm water management shall be required for quantity and quality control. Quantity control is required to reduce the potential impacts of urban storm water run-off on drainage ditches and watercourses (i.e. higher rates of erosion), and limit the potential for

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flooding on developed lands during major storm events. Quality control is required to mitigate any potential for environmental contamination of nearby bodies of water.

Stormwater management shall be provided in accordance with Alberta Environment guidelines and the Town's 2008 Storm Drainage Study. Any activity impacting seasonal ponds or intermittent watercourses shall require Alberta Environment approval under the Water Act.

All surface runoff in the ASP area will be stored in approved storm pond facilities with discharge to the Town's storm sewer system being restricted to pre-development flows. The proposed storm water management system is illustrated in Map 12. The exact size, location, and configuration of all storm facilities will be determined at the time of detailed engineering design.

Area 1 is split into two potential drainage basins by 106 Street. The lands west of 106 Street generally drain from west to east, with drainage being captured by three pond facilities adjacent to 106 Street. The lands east of 106 Street generally drain north to south. Storm facilities in this area are to be constructed in the vicinity of existing wetland areas adjacent to the existing Forest Grove neighbourhood.

Area 2 consists of three drainage basins. The northerly three quarter sections generally drain from north to south, while the NW 19 drains from east to west and the SW 19 flows from east to west and shares a drainage basin with lands in Area 3. The latter two subareas drain into large wetlands, which are proposed for use as stormwater management facilities subject to Alberta Environment approval. In these cases, the construction of forebays will be required in order to assure that water quality is maintained. In addition, as Area 2 is proposed for predominantly industrial use, the construction of internal roads to a gravelled rural standard is proposed. This will allow for reduced runoff through the provision of permeable road surfaces, as well as the design of roadside ditches for the containment and conveyance of stormwater prior to discharge into storm ponds. Further, it is proposed that individual industrial sites be developed with consideration for on-site stormwater containment.

Area 3 is split into three potential drainage basins. The lands west of 106 Street drain from north to south into two pond facilities. The lands to the east of 106 Street are split by a ridge running east-west through the subject lands.

In order to reduce the overall environmental impact of development, the stormwater management strategy as outlined above should also be supplemented by low-impact development (LID) measures where possible. For example, the construction of vegetated swales and/or naturalized drainage ways is encouraged as part of detailed neighbourhood design. In addition, opportunities to implement rainwater harvesting may be explored for individual developments.

5.5 Shallow Utilities

All shallow utilities (natural gas, power, cable, telephone) are to be extended into the Plan area by the individual franchise holders as required to service new developments.

All overhead power lines that are located in those parts of the Plan area designated for residential or related uses, as well as those located in arterial commercial areas may be installed underground at the time of development.



6.0 Implementation

6.1 Subdivision and Development

- In compliance with Town requirements more detailed planning and engineering
 design reports will be prepared by individual landowners in advance of subdivision
 approval. In the process of more detailed plan preparation, developers shall be
 required to provide for linkages to adjacent lands and transition between land uses to
 the satisfaction of the Town.
- Detailed design reports for transportation, water, sanitary sewer, and storm drainage shall be prepared by the developer and approved by the Town prior to rezoning or subdivision proceeding on the subject lands.
- 3. The phasing of future development in the Plan area is to be determined by market conditions, and the willingness of individual landowners to proceed.

6.2 Plan Amendments

- An amendment to this ASP shall be required if, in the opinion of the Town, a
 proposed outline plan or subdivision plan results in one or more of the following
 changes to the Plan:
 - (a) a significant change in the general land use pattern of an area or site except as provided in this Plan;
 - (b) a change in location of a school site or major park;
 - (c) the elimination, reclassification, or significant realignment of proposed arterial roads, or the relocation of intersections with major collector roads; or
 - (d) significant changes to the location of major utility networks or storm water management facilities.
- In order to ensure that this ASP is consistent with other statutory plans, the Town's Municipal Development Plan (MDP) has been amended to incorporate the ASP area into the MDP's Future Land Use Map. It is proposed that this amendment be made concurrently with adoption of this ASP.