

2012

Acheson Industrial Area Structure Plan DRAFT



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- Landowners and developers
- Local residents

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1. INTRODUCTION

1.1. Purpose

The Acheson Area Structure Plan (ASP) will guide the future long term industrial / commercial development of the Acheson area for the next twenty (20) to thirty (30) year timeframe. The ASP sets out the general locations for major land uses (e.g. industrial, commercial, residential, open space and parks), major roadways, trails and utility servicing. The plan also sets out the direction for planning the interface between differing land uses, and addresses future transportation and servicing issues and opportunities.

The objectives of this ASP include:

- Acknowledge Acheson as the County's pre eminent industrial and commercial area and maximize its potential benefits for Parkland residents.
- Establish policies that support future industrial and commercial "served" development in Acheson that are sensitive to non industrial uses that currently exist within the ASP area (i.e. agricultural and residential).
- Recognize and continue protecting the Wagner Natural Area as an environmental resource.
- Enhance open space opportunities by maximizing the use of Municipal and Environmental Reserve areas for community and recreational uses, and new trail networks.
- Recognize the importance of existing transportation and servicing plans and the need to phase future development orderly and efficiently.

Parkland County will endeavour to keep the Acheson Industrial Area Structure Plan up-to-date. As such, the County will review the Area Structure Plan, at minimum once every five (5) years to ensure the ASP remains current and relevant.



2. REGIONAL AND POLICY CONTEXT

The Acheson Industrial area is the largest diversified business park in the Edmonton Capital Region. Parkland County sees Acheson as the County's primary means to generate local and regional employment, and to significantly increase non-residential tax revenues that benefit all Parkland residents.

The Acheson Industrial area has several key competitive advantages which make it a preferred location for businesses including:

- Lower land costs – Acheson has been able to maintain lower land costs for the purchase of raw land when compared to other Capital Region industrial parks and the City of Edmonton.
- Lower taxes – Parkland County retains the lowest tax rates for industrial development in the Edmonton Capital Region. Acheson also retains a favourable tax environment when compared to other Western Canada municipalities.
- Potential for growth – The Acheson Area Structure Plan area (ASP area) has identified approximately sixteen (16) sections of land to support current and future industrial development.
- Transportation advantage – Acheson's location allows for quick transit times for manufacturing, oil-sands and mining related industries serving markets in northern Alberta and northeastern BC. In addition, Acheson is connected to Pacific markets by the Canadian National Rail (CNR) mainline that runs west from Edmonton to Vancouver. Acheson is also located approximately 32 kilometres from Edmonton International Airport and 8 kilometres to the east of the CNR intermodal facility in Edmonton. In addition, Highway 60 through Acheson can accommodate high load carriers without crossings the North Saskatchewan River.

Parkland County will maximize its competitive advantages by ensuring Acheson is “market ready” for development. Through this Area Structure Plan and other plans and studies, Parkland County will diversify the industrial base in Acheson by promoting development in key target sectors which include transportation logistics and distribution, the oil and gas sector, mining, warehousing and manufacturing. Business and general retail services that provide services for Acheson employees and residents will also help diversify Acheson's industrial base.

Alignment to Council Strategic Plan 2012

Continued growth and diversification in Acheson aligns with Parkland County Council's revised Strategic Plan for 2012. Through its Strategic Plan, Council recognizes the value in diversifying the County's economic base while ensuring that development is balanced with quality of life needs. Specifically, the ASP aligns with Economic Development Goal 1 of the Strategic Plan which states:

Parkland County will mitigate its revenue risk through diversification of its revenue stream.

Strategies identified under Economic Development Goal 1 further state how the County will promote itself as a place to do business and to pursue opportunities to better serve residents while generating revenue.

Benefiting Parkland residents

Continued growth in Acheson benefits Parkland residents. By ensuring the County remains “market ready” to develop Acheson, services provided to Parkland residents can be enhanced. Continued growth in non-residential assessment will allow the County to maintain a favourable residential tax environment which further benefits residents' quality of life.

2.1. Municipal Government Act

Parkland County is authorized under the Municipal Government Act (MGA) to adopt area structure plans that provide a framework for the future subdivision and development of land. Section 633 of the MGA state that an area structure plan:

- (a) must describe
 - (i) the sequence of development proposed for the area,
 - (ii) the land uses proposed for the area, either generally or with respect to specific parts of the area,
 - (iii) the density of population proposed for the area,
 - (iv) the general location of major transportation routes and public utilities; and,
- (b) may contain any other matters Council considers necessary.

The MGA also requires the ASP to conform to Municipal Development Plan (MDP) Bylaw No. 37-2007.

2.2. Municipal Development Plan

The MDP provides guidance for the County's growth management and future development. Key MDP principles include:

1. Support Environmental Sustainability
2. Support Fiscal Sustainability
3. Support Social Sustainability
4. Emphasize Economic Development
5. Respect Communities Character
6. Land Use Certainty

The Acheson Area Structure Plan also conforms to the goals, objectives and policies of the MDP. The following MDP sections have been considered in developing this plan.

- Agricultural Lands (MDP section 2)
- Residential Development (MDP section 3)
- Industrial and Commercial (MDP section 5)
- Environmental Management (MDP section 6)
- Transportation and Utilities (MDP section 10)
- Fringe Area Development (MDP section 11)

2.3. Other plans in effect

Capital Region Board Growth Plan

The Capital Region Growth Plan of March 2009:

- Provides an integration and strategic approach to planning for the future
- Identifies overall development patterns and future infrastructure and land uses
- Coordinates decisions in the Capital region to sustain economic growth

A Regional Evaluation Framework (REF) was put into place as a mechanism for the approval of statutory plans such as municipal development plans and regionally significant plans like the Acheson Area Structure Plan. The Acheson Area Structure Plan will meet the principles and policies of the Capital Region Board's Growth Plan, and be approved by the CRB.

Land Use Bylaw 20-2009

The County Land Use Bylaw (Bylaw 20-2009) establishes specific land use districts and regulations for the use of land and buildings in Acheson. While the Land Use Bylaw is implemented County wide, all areas within the Acheson Area Structure Plan have existing districting in place. Development policies and standards in this ASP may require amendments to the Land Use Bylaw. See Figure 1 for current districting in place for the Acheson plan area.

Parkland County Integrated Community Sustainability Plan (ICSP)

Parkland County's Integrated Community Sustainability Plan (ICSP) is a "long term plan which provides direction for the Community to realize sustainability objectives that it has for the environmental, social/cultural, governance and economic dimensions of its identity (*Parkland County ICSP, 2011*). The ICSP looks at sustainability based on four principles: environmental, economic development, social and cultural life and governance and outlines key goals and strategies that the County and its developers can take to ensure all principles work in balance. Where applicable, developers in Parkland County will be expected to meet all ICSP goals and strategies.

Adjacent Area Structure Plans

Approved adjacent Area Structure Plans need to be considered to minimize future land use conflicts and to ensure the logical extension of road networks and servicing between municipalities. Adjacent areas structure plans in effect include:

Big Lake Area Structure Plan (Parkland County)

This plan borders the northern limit of the Acheson ASP area with the primary land use being estate residential. The plan area has experienced substantial growth in serviced estate residential lots over the last two decades.

Pioneer Lands Area Structure Plan (City of Spruce Grove)

The area included in this ASP is a part of the land annexed from Parkland County in September 2007 and aligns with the western boundary of the Acheson ASP between Highways 16A and 16. Residential development comprises 60% of the gross developable area with a build-out of 37,000 units and a population of 10,500 residents. The concept depicts residential, neighbourhood commercial, and storm management uses adjacent to the western boundaries of Acheson.

Lewis Farms Area Structure Plan (City of Edmonton)

The Lewis Farms ASP represents the western limit of urban expansion in Edmonton and defines land uses to Hillview Road (231 Street) between Highways 16A and 628. The approved ASP reflects residential uses to the eastern perimeter of the Acheson ASP with a large commercial site proposed at the intersection of Highway 16A and Hillview Road.

Lewis Farms is on the eastern edge of the Acheson oil and gas fields. In 1988 there were 25 operating well sites in this area.

Second Neighbourhood Structure Plan (City of Edmonton)

The Second NSP represents a more detailed plan for the northwest part of Lewis Farms and is bordered by Highway 16A to the north, Hillview Road to the west, Winterburn Road to the east and 87 Avenue to the south. The land uses are low and medium density residential, with a large commercial site proposed for the corner of Hillview Road and Highway 16A.

Winterburn Area Structure Plan (City of Edmonton)

This plan originally covered eight sections of land; however, four sections lying east of Hillview Road between Highways 16 and 16A were annexed by the City of Edmonton and have been developed for industrial purposes. The plan area is complimented by a large manufactured home park.

3. PUBLIC ENGAGEMENT

The engagement activities for this ASP included:

Steering Committee Consultation

Meetings and correspondence with the Steering Committee occurred throughout the planning process. Members of the committee included four representatives from Alberta Transportation, members of the Acheson Business Association, the Osborne Acres Association, Wagner Natural Area Society, and members of County Administration.

Public Visioning Session

This input session was an opportunity for key stakeholders and the community to share their vision for the Acheson ASP. The format included a group presentation and focus group discussions facilitated by key consultants who worked on the plan.

Open House

The open house provided key stakeholders and the community with the opportunity to review and comment on the draft Acheson ASP.

Stakeholder Meetings

Parkland County Administration undertook additional consultation with stakeholder groups between March 2012 and August 2012. Feedback from stakeholder sessions assisted the County in finalizing the draft ASP.

Public Hearing

The Public Hearing represents the last opportunity for public comment on the draft Acheson ASP before it receives second and final reading by County Council.

More information on the public engagement process undertaken as part of the Acheson ASP process can be found in the Acheson Industrial Area Structure Plan – Background Consultation Document.

4. SITE DESCRIPTION

4.1. Location

The Acheson Area Structure Plan area encompasses approximately, 5,019 hectares (12,402 acres, or approximately 19 square miles) of land in Parkland County. The ASP area is located on the eastern edge of the County (See Map 1 – Acheson Industrial Area Location).

The ASP area has been expanded from the 1997 ASP to include sections west of Edmonton and east of the City of Spruce Grove corporate boundaries between Highways 16A and 16.

The ASP area is defined by Highway 16 to the north, Hillview Road and the City of Edmonton boundary to the east, Highway 628 and the Stony Plain Indian Reserve #135 to the south, and the City of Spruce Grove to the west. The ASP is composed of the following lands:

- Sections 26, 27, 28, 29 (part), 31 (north half), 32, 33, 34 and 35; Township 52, Range 26 west of the 4th Meridian;
- Part of Section 29, Township 52, Range 26 west of the 4th Meridian;
- Sections 2, 3, 4, 5, 6, 7, 8, 9, 10, and 11; Township 53, Range 26, west of the 4th Meridian; and
- East Half of Sections 1 and 12; Township 53, Range 27, west of the 4th Meridian.

Approximately 16 ha of land in NW 29-52-26-W4M is not included in the ASP area. The ASP area is shown in Figure 2 – Area Structure Plan Boundary.



4.2. Physical Conditions

4.2.1. Topography

The ASP area consists of gently rolling to rolling pitted deltaic plain, lying between 670 and 725 metres above sea level. The highest point is in the south central portion and the lowest point in the northwest corner of the ASP area.

Generally, the area is divided into two drainage areas. Areas north of Highway 16A drain towards Big Lake and areas south of the Highway have no defined natural outlet. Figure 3 provides the topography and stormwater runoff flow direction for the ASP area.

4.2.2. Subsurface and surface characteristics

The ASP area is located on the southern bank and on the plain above the Beverly Buried Valley. The Beverly Buried Valley is a pre-glacial river valley that travels from a southwest to northeast

direction and underlies most of the Town of Stony Plain and the City of Spruce Grove. A small portion of the buried valley is located near the Wagner Natural Area. The buried valley has regional significance to Parkland County and is sensitive to point and non-point sources of contamination.



Superficial Deposits

The superficial geological strata is classified as pitted deltaic deposits from the past upstream sources of glacial water from historic Lake Edmonton. These deposits are variable and consist of sands, silts and some clays with surface pits or depression resulting from large stranded ice blocks melting. The general soil stratum consists of superficial silts and clays to depths of 4 to 8 metres where silts and sands are then encountered. The bedrock surface is 30 to 40 metres below the ground surface. There are occasional small areas with depths of peat greater than 1 metre but these are generally confined to the poorly drained northwestern portion of the ASP area.

Soils

Soils within the ASP area have a moderate to good capability for agriculture. Most of the ASP area comprises a mixture of Winterburn, Rimby, and Carvel Loam with capability ratings varying from Class 1 to Class 4. Figure 4 identifies the soil capability classifications according to the Canada Land Inventory Soil Capability for Agriculture.

Class 4 in the low-lying poorly drained areas in the northwest corner of the plan area are classified as “O” Organic soils. These soils have limited agricultural value and suitability for development. However, the area sustains an ecosystem of diverse and rare plant species.

Subsurface conditions provide the foundation for any development in the ASP area. The soil conditions are considered good for roads and moderate size buildings. Large buildings or structures in organic soil areas may be difficult to locate due to lack of any capable soil bearing strata. Underground utilities may encounter variable conditions and perched water tables that may moderately increase costs.

Hydrogeology

Groundwater flows through the sandy aquifers above the bedrock in a northerly direction for most of the ASP area. The exception is the southeast corner and extreme portions of the ASP area that flow easterly. The regional groundwater table is relatively deep in the sands above the bedrock however; there are some wet soils near the surface that are probably a result of localized, perched water tables.

The major issues or constraints to developments are the ice block depressions and the need to minimize impacts on the Wagner Natural Area. The low-lying, ice block, depressions are expected to contain soft soil conditions and possibly steep or marginally stable side-slopes and should generally be avoided.

Vegetation

The ASP area is located within the Aspen Parkland Ecoregion of Alberta. This Ecoregion is distinguished by its Chernozem soils formed under the interspersed grassland and forest plant communities.

Much of the original vegetative cover has been removed through agricultural and other development. A number of forest bluffs are scattered throughout the ASP area. The largest single area of relatively undisturbed forest cover is in the northwest corner adjacent to the Wagner Natural Area.

Wagner Natural Area

Located in the northwest corner, the Wagner Natural Area comprises a rich and diverse array of fauna and flora. Its distinctiveness is due in part to the mineral springs that flow year round at a relatively constant temperature and creates a microclimate which favors plants and animals that are unique to the area. These springs are fed by the regional groundwater aquifer that is recharged by infiltration to the lands to the south of the Wagner Natural Area.



The Natural Area is one of approximately 10 peatlands found in Alberta where boreal spring fen and the marl ponds are a characteristic feature to the area. A number of orchid species are present and upland plant and animal communities add to the diversity of the natural area. These peatlands extend beyond the formally defined Natural Area, and can be impacted by development elsewhere in the ASP area.

4.2.3. Land Uses

While the majority of land in the ASP area is currently used for agricultural purposes, approximately 2,464 hectares (6,086 acres) is districted BI (Business Industrial), MI (Medium Industrial District), or IRD (Industrial Reserve District) in the Land Use Bylaw. A small portion, 12.46 hectares (30.79 acres) is districted RIC (Rural Industrial / Commercial District).

Substantial growth has occurred in recent years within the ASP area, especially north of the Canadian National Rail (CNR) line on both the east and west sides of Highway 60. The Northview Business Park on the west side of Highway 60 has a number of major industries occupying large parcels, including SMS Equipment, Suncor, Altalink, and Navistar.

Residential development in Acheson is primarily contained within Osborne Acres, a 41-lot independently serviced subdivision located south of Highway 16 and east of Spruce Valley Road. Larger farmsteads and acreages are also found in the plan area. Residential development (Osborne Acres) accounts for approximately 71.8 hectares (177.4 acres) of land in the ASP area.

Wagner Natural Area, a regionally and provincially significant natural area, is located in the northwest corner of the ASP area. The Natural Area accounts for approximately 253.7 hectares

(626.9 acres) of land. The remainder of the ASP area is interspersed with low lying areas, kettle depressions and wetland areas.

Acheson is serviced by a network of primary and secondary highways including Highways 16, 16A, 60 and 628. A series of major arterial and collector roads, coupled with a developing internal road network provides good access for industrial, commercial and residential users. Acheson is also located approximately 8 kilometres west of Canadian National Rail's Edmonton Intermodal Yard. The CNR's main line transects Acheson with several spurs providing rail access to Acheson. Acheson is located 32 kilometres from Edmonton International Airport.

Water is supplied to the Acheson area by a water supply line that is operated by the Capital Region Parkland Water Services Commission (CRPWSC). Parkland County operates a series of pipelines and two reservoir-pumphouses in the ASP area. Sanitary servicing for Acheson is provided by two main trunks. The Acheson Road Trunk runs parallel to Range Road 264, servicing lands primarily west of Highway 60. The Bevington Road Trunk services the majority of developments east of Highway 60. Both the Acheson Road and Bevington Road trunks convey sewage to the Alberta Capital Region Wastewater Commission's (ACRWC) west transmission line.

There are seven separate drainage basins in the ASP area. Most of these basins drain naturally to Atim Creek or Big Lake to the north east of the ASP area. Stormwater servicing is currently provided by several stormwater management facilities located in the ASP area.

Current open space and recreational uses in the ASP area account for a small percentage of the overall land use. Current districting in the Land Use Bylaw has not designated any lands for exclusive recreational use. That said, a number of potential sites provide the potential for recreational development including the Cholla landfill site (discussed below), expansion of the Ranch Golf Course south onto NE 27-52-26-W4M, and the portion of SW-9-53-26-W4M designated as Municipal Reserve.

The ASP contains two dry landfills. The Cholla landfill will be redeveloped for recreational purposes into a regional soccer facility for Edmonton Minor Soccer. The second landfill, located north of Highway 16A and west of Hillview Road may be contemplated for future industrial land uses once reclamation has been completed. Geotechnical and structural engineering studies to determine the range of industrial and commercial developments that are suitable for this site will need to be completed prior to development.

5. ISSUES AND OPPORTUNITIES

5.1. Industrial Development

The majority of lands in the ASP area are districted for future industrial and commercial development. As the County's largest industrial area, growth and development will proceed in this direction.

The business base in Acheson has grown substantially with total assessment values for industrial and commercial in the Acheson Industrial Area (land and buildings) increasing from approximately \$ 72,947,000 assessment in 2000 to \$ 771,158,000 assessment in 2011.



Significant development and expansions in the ASP area since 1997 include:

Existing developments	
Sysco Canada Inc.	• 350,000 sq. ft. facility
Kal Tire	• 180,000 sq. ft. expansion
Edmonton Trailer Sales & Leasing Inc.	• 120,000 sq. ft. facility
National Fast Freight	• 160,000 sq. ft. facility
Navistar inc.	• 160,000 sq. ft. facility
Manitoulin Transport Inc.	• 95,000 sq. ft. facility
SMS Equipment Inc.	• 85,000 sq. ft. facility
Leder Steel Ltd.	• 60,000 sq. ft. expansion
Standard General Inc.	• 45,000 sq. ft. facility
New / proposed developments	
Graham Construction and Engineering Inc.	• 160,000 sq. ft. facility (<i>proposed</i>)
New / proposed subdivisions	
Conсор Developers Inc.	• Subdivision of 92 acres (<i>proposed</i>)
Genesis Land Development Corporation	• Subdivision of 122 acres (<i>proposed</i>)
Remington Development Corporation	• Purchase and subdivision of 160 acres of industrial land (<i>proposed</i>)
Leder Steel Ltd.	• Subdivision of 300 acres of industrial land (<i>proposed</i>)

Acheson's competitive advantages

Planning for the ASP area needs to focus on maximizing the “competitive advantages” that Acheson has over other regional industrial parks. These include:

- Availability of developable land: Acheson has a surplus of land that can support new developments, or the expansion of existing developments within the ASP area.
- Favourable Tax environment: Acheson has the lowest industrial tax rates in the Edmonton Capital Region.
- Superior transportation network: Acheson is bordered by some of Alberta's major highways that provide direct access to provincial and national business centres. Namely, highways 16, 16A, 60 and 628. In addition, the CNR main line travels through Acheson. Linkages to markets are also facilitated due to existing infrastructure being in place on Highway 60 to support high loads with no required crossing of the North Saskatchewan River.
- Proximity to CNR Intermodal facility and Anthony Henday: Acheson is located approximately 8 kilometres west of the CNR Intermodal facility in Edmonton. Acheson is also located west of Anthony Henday Drive which provides quick access to major Alberta markets.
- Water and sanitary servicing: The majority of developments in Acheson are serviced by municipal water and sanitary services.

Industries related to transportation distribution, logistics, oilsands development, oil and mining, warehousing and manufacturing are suited for Acheson due to their requirements for transportation networks, access to provincial and national markets, and typically large land requirements. Development in this direction will assist in diversifying the industrial base in Acheson and building the County's non-residential tax base.

The majority of development in Acheson has occurred north of Highway 16A in existing industrial parks. Development phasing has now begun to move south of Highway 16A. With expanding servicing south of Highway 16A, the expansion of the distribution and logistics sectors, as well as warehousing and manufacturing sectors can be supported. Higher end industrial and commercial uses along Highway 16A, 60, 628 will also become feasible. Proximity to residential development in Edmonton (Lewis Estates) will also lend to unique business industrial uses to be located along Highway 628 and Hillview Road. Effective land use planning will be essential to ensure that industrial uses are compatible with other uses in the ASP area. Where land use issues may arise, these issues should be minimized.

As development proceeds in the ASP area, supporting commercial and retail uses will be required to provide services for employees and residents. Hotels, restaurants and general retail would be anticipated at key strategic locations and would help further diversify Acheson's industrial base.

Market ready for development

Parkland County needs to remain “market ready” for development in Acheson. The County will need to ensure that all plans and studies needed to support development are completed and fully

implemented. Existing plans (like this ASP) will need be up regularly updated to ensure they reflect current development levels. Marketing and advertising of the ASP area should focus on Acheson's competitive advantages.

Development in the Acheson Industrial Area is typically organized into "economic zones" as shown in Map 2 - Acheson Industrial Area Zones. Zones are used for organizational and site orientation purposes only and do not reflect the development staging for Acheson. Acheson currently incorporates 8 zones which are referenced at various points throughout the Area Structure Plan.

Industrial Holdings

Transportation improvements proposed by Alberta Transportation (see Section 5.4 – Transportation) require the need for additional land for the new road alignment for Highway 628, and improvements to interchanges such as Highway 60. To anticipate the potential requirement for land, land adjacent to Highways 628, and the Highway 628 and Highway 60 intersection should be designated as a "holding district" until the actual amount of land required is known. Once land requirements have been confirmed by Alberta Transportation, excess lands identified as "holding" may be redesignated as industrial commercial in the Area Structure Plan. Lands south of the existing Ranch Golf Course (NE-27-52-26-W4M) have also been identified as "industrial holding" and are reserved for the future (potential) golf course expansion.



5.2. Servicing

Water Servicing

Water is supplied to the ASP area by a water supply pipeline operated by the Capital Region Parkland Water Services Commission (CRPWSC). The CRPWSC water supply generally runs along the north side of Highway 16A. Within Acheson, water is distributed through Parkland County operated distribution lines that

are fed by two Parkland County operated water reservoir-pumphouses. The County distribution pipe network contains pipes that range in size from 150 mm to 410 mm diameter. The Acheson Zone 3 Water Reservoir (located west of Highway 60 and south of Ellis Drive) has capacity for 5,300 cubic metres of storage. The Acheson Zone 4 Reservoir that is located east of Highway 60 and south of Acheson Road, has capacity for 4,000 cubic metres of storage. The County operates one truck fill station which is located at the Acheson Zone 3 Reservoir. There is one dedicated pump for this truck fill station. Both reservoirs comply with storage volume requirements (including fire requirements) identified in Alberta Environment Standards and Guidelines for Municipal Waterworks and Storm Drain Systems (2006).

The "Acheson and Big Lake Area Water Servicing Study 2011" (AECOM, October 2011) identified the following general issues relating to the water servicing in the ASP area:

- according to the water model performed on the existing system, approximately 15% of the existing system may not receive adequate fire flow protection, including all of Parkland Business Park (Zone 2). Also, a few localized areas exceeded a pressure of 7000 kPa during peak hour demand. The installation of the Northview Road loop line and associated Pressure Reducing Valve (PRV), which both are being constructed in 2012, will rectify these situations; and,
- to accommodate the “full build out” of Acheson (ultimate development) expansion of the current reservoirs and the construction of new reservoirs will be required in the future.

Sanitary Servicing

Sewage generated in the ASP area is directed to the Alberta Capital Region Wastewater Commission (ACRWC) sewage transmission line that is located just outside the ASP area to the north of Highway 16. To convey sewage to the ACRWC line, Parkland County operates two main sewage trunk lines in the ASP area; the Acheson Trunk and the Bevington Road Trunk.

The Acheson Trunk is a gravity sewer line that runs in the Range Road 264 road allowance. The trunk size ranges from 200 mm to 675 mm in diameter. The Acheson Trunk services all of the lands west of Hwy 60, including Acheson Zones 1, 3, 5 and 7, as well as a small portion of the land immediately east of Highway 60 in Zones 2 and 4.

The Bevington Road Trunk runs in the Range Road 262 road allowance. The trunk size ranges from 450 mm to 750 mm in diameter. The majority of the trunk is 600 mm in diameter. The Bevington Road Trunk services all of the lands east of Highway 60 – including the majority of Acheson Zones 2 and 4, as well as the entire Zones 6 and 8.

The “Acheson and Big Lake Area Sanitary Sewer Servicing Study 2011” (AECOM, February 2012) identified a number of general issues and potential upgrades for sanitary servicing including:

- the modeling that was completed by AECOM showed several areas, typically around Parkland Business Park, and northeast section of Sherwin Industrial Park that may experience higher capacity flows and higher surcharging (within 2 m of ground level) during four hour rainfall events. The existing system will require upgrades to convey high peak flows; and,
- for the near future and ultimate systems, AECOM has made several recommendations regarding at what stage improvements are required so that the near future and ultimate systems are adequately serviced by the sewer system.

Long Term (ultimate development) of the sanitary sewer system in the ASP area will require the upgrading or twinning of both the Acheson and Bevington trunks.

The construction of a third trunk line to service the lands in the west portion of the ASP area, the Atim Road Trunk, is also anticipated for long term (ultimate development). This trunk will run parallel to Range Road 270 (Atim Road) road allowance, and, once completed, service all lands west of Range Road 265 that are north of Highway 16A (except for part of SE 6-53-26-W4M that is south of the CNR mainline).

Both the water and sewer servicing studies indicated that care must be taken by developers when

installing servicing on sites within the Wagner Area Natural Recharge Zone. Developers in no way should remove water or alter subsurface drainage channels that flow into the Wagner Natural Area.

The 2011 AECOM Water Servicing and Sewer Servicing study boundaries fall within the boundaries of the ASP area except for NW and NE 31-52-26-W4M which was not contemplated in both servicing studies. The residential areas identified north of Highway 16 in both servicing studies fall outside the ASP area and are not discussed in the ASP.

Storm Servicing

In August of 2011, AECOM completed the “Acheson/Big Lake Area Master Drainage Plan – Amendment 2011” for Parkland County (AECOM, August 2011). The purpose of the plan was to apply to Alberta Environment and Sustainable Resource Development (formerly Alberta Environment) for a Water Act Approval for managing the construction, maintenance and reclaiming of stormwater management facilities in the Acheson / Big Lake Areas. On December 21, 2011, Parkland County received this approval from Alberta Environment and Sustainable Resource Development (Approval No: 00287756-00-00).

Parkland County's Water Act approval (fenceline boundary) area consists of the ASP area excepting the N ½ 31-52-26 W4M, SE 34-52-26 W4M, (the Ranch Golf Course, NW 35-52-26 W4M (Cholla landfill site), a portion of the S ½ 27-52-26 W4M, a portion of S ½ 26-52-26 W4M, as well as the Wagner Natural Area (majority of Section 7-53-26-W4M and portion of W ½ 8-53-26-W4M). The Water Act approval reduces the need for individual applications to Alberta Environment and Sustainable Resource Development for the placing, constructing and managing of stormwater facilities, and sets criteria that must be followed by developers when initiating stormwater planning, construction, operation and remediation. As the approval holder, Parkland County is responsible to ensure that all new developments in the approval area comply with the Water Act approval criteria. Developments outside of the approval area will be required to obtain a separate Water Act approval prior to stormwater related developments commencing on their site.

The Wagner Natural Area is a very sensitive natural area defined as a conservation area under the Alberta Wilderness Areas, Ecological Reserves and Natural Areas Act. The Natural Area is extremely sensitive to changes in water level; whether it is from groundwater recharge or surface runoff. Therefore, it is extremely important to properly manage stormwater in the areas to the south of Wagner Natural Area that are considered to be part of the natural area's recharge zone. The AECOM study suggests that infiltration should be used as much as possible within the area's recharge zone. Also, before development is undertaken, developers must undertake soil investigations, under the supervision of a professional experienced in hydrogeology to determine the infiltration capability of their sites. Additional stormwater management requirements relating to protecting the groundwater recharge to the Wagner Natural Area can be found in the AECOM Master Drainage Plan. Developers must also consider implementing best management practices that ensure runoff that is generated simulates pre-development conditions. This is to ensure that additional surface runoff is not directed into the Natural Area.

The AECOM Master Drainage Plan also examined the capacity of Morgan Creek, which runs through Acheson Zones 3 and 1. The study suggests that the total flow of Morgan Creek not exceed 1.4 m³/s as this has been determined to be the bank full capacity of Morgan Creek, and that lands

south of Highway 16A will not be permitted to discharge into Morgan Creek. As additional developments occur along Morgan Creek, developers will be required to assess the stability of the creek bed and may be required to provide rip rap or armouring of the banks to protect them against erosion.

The AECOM Master Drainage Plan also recommends that developers consider retaining wetlands, and design their stormwater management facilities to enhance water quality. All stormwater management facilities are required to have control structures that can completely shut off the discharge in the event of a spill to prevent contamination of downstream lands.

The Master Drainage Plan discussed how best management practices and green technologies should be encouraged to reduce the amount of storage that is required and to reduce runoff. These practices and technologies will also help promote infiltration of stormwater.

Future developments in Acheson will require the construction of multiple new stormwater management facilities (SWMF) throughout the ASP area. SWMF design and construction shall follow all the *Water Act* approval criteria, and all applicable, federal and provincial regulations, Municipal Engineering Standards, the Municipal Development Plan, Land Use Bylaw, and this Area Structure Plan.

Detailed information on the proposed locations of future stormwater management facilities and alignment for storm pipes should be obtained through Parkland County by developers prior to initiating development.

5.3. Shallow Utilities

Fortis supplies power to the ASP area with power extended to businesses along Bevington Road. The entire ASP area is serviced by Atco Gas and Telus. Telus also supplies fibre optic services to the Ellis-Sherwin Industrial Parks from its main optics cable running along Highway 16A. The extension for fibre optics into the park is made at Range Road 264. Altalink currently operates an existing sub-station located at NW 28-52-26-W4M, and is presently initiating application to build a new sub-station near Kalwin Business Park (NW 9-53-26-W4M).

Telecommunication towers are becoming more commonplace in Acheson and throughout Parkland County. Tower installations are required to be installed and operated in compliance with the Health Canada Safety Code which defines safe levels of radio frequency exposure.

5.4. Transportation

Acheson is served by four primary highways. These include: Highway 16, Highway 16A, Highway 60 and Highway 628. The Canadian National Rail (CNR) mainline runs from Edmonton to Vancouver through Acheson and has rail spurs that service businesses in Acheson.

Future transportation opportunities include:

- upgrading of the highway network and access to adjacent land uses;

- upgrading and widening of Highway 60, particularly between Highways 16 and 16A, and development of the grade separated crossing of the CNR line;
- improving access to Ellis and Sherwin Industrial Parks;
- ensuring local road network connection to external networks and surrounding areas; and,
- upgrading Highway 628 between the City of Edmonton boundaries and the Town of Stony Plain.

Capital Region Ring Road

In March 2012, the proposed Regional Ring Road design was stopped by the Minister of Transportation. As such, land requirements west of Atim Road for the potential road alignment are no longer required. The decision to cancel the Regional Ring Road will have implications on the transportation network in the ASP area by further limiting the number and location of highway access points into Acheson. Transportation planning for the ASP area will have to consider the need for additional intersection to ensure an effective transportation network for the ASP area. Lands formally reserved for the Capital Ring Road should be designated as a special study area to provide additional time to identify potential future land uses.

Highway 60 Improvements

Highway 60 is projected to be a four lane divided roadway from highway 19 to Highway 16 with both grade and grade separated interchanges. Completion to four lanes will require a 90 metre right of way which Alberta Transportation has been in the process of acquiring on the west and east sides of Highway 60 over the past few years.

Traffic congestion both north and south along Highway 60 has become a major issue due to the increasing frequency and length of trains using the CNR main line.

Alberta Transportation recently purchased a large parcel of land, the remnant of SW 3-53-26-W4M, at the intersection of Highway 60 and 16A that will provide 13.2 acres for the expanded right of way and 3.3 acres for a storm management facility.

The critical improvement to Highway 60 includes the construction of the overpass to replace the at grade CNR railway crossing. The overpass is critical to ensure the safe flow of commercial and residential traffic, and to ensure adequate response times for emergency vehicles to the southern extents of the ASP area. The overpass will necessitate the closure of the Highway at Northview Road, with existing at grade intersections at Acheson Road and Township Road 531A being retained and improved.

An at grade intersection has been approved by Alberta Transportation for Highway 60 approximately 1 kilometre south of the Highway 16A intersection to provide access to industrial lands west of Highway 60. An additional intersection approximately 1.5 kilometres south of Highway 16A is also contemplated for Highway 60 between Highway 16A and Highway 628 to support the continued development of the ASP area. This access requires final approval from Alberta Transportation (see Figure 10 – Future Transportation Improvements).

The designation of Highway 60 as a high load corridor should be explored since infrastructure (such as swivel light standards) to support high loads is currently in place along the Highway. Designation of Highway 60 as a high load corridor through Acheson would reinforce the Highway as a preferred route and further support development in Acheson.

Highway 16

The current approved interchanges along Highway 16 have been set by Order in Council. Interchanges have been allocated for Highways 44 and 60.

Highway 16A

Highway 16A will be designated freeway status westward from Anthony Henday Drive and existing local intersections in Acheson will be closed in the future. In particular, accesses onto Bevington Road Acheson Road, Pinchbeck Road, RR 264 (south of Highway 16A), Sandhills and Atim Road intersections will be closed. See Figure 10 – Future Transportation Improvements.



Alberta Transportation indicates that a future overpass may be developed at the intersection of Spruce Valley Road and Highway 16A. The extension of Acheson Drive to Spruce Valley Road will add traffic to this particular intersection and increase the need for future intersection improvements.

This intersection may be maintained in the interim as an all directional unsignalized intersection until traffic flow increases.

The on and off ramps of Highway 16A located at the historical weigh station will be removed once Highway 16A is designated as a freeway. The County encourages Alberta Transportation to keep this access to ensure traffic flow into, and out of Acheson Zone 3.

Access closures from Highway 16A necessitate the construction of at minimum three east/west arterial roads that will direct traffic to at grade intersections or interchanges. The locations and connections to these major roads are identified in Figure 10 – Future Transportation Improvements. Changes to the freeway status of Highway 16A may allow key existing accesses to remain open.

A future interchange at Hillview Road and Highway 16A is proposed for the future, however detailed planning and right of way acquisition has yet to get underway. Construction timing for this interchange will be contingent upon future residential development in the City of Edmonton.

Highway 628

The construction and realignment of Highway 628 remains a regional priority for Alberta Transportation. Along with improvements to Highway 60, the County continues to identify the Highway 628 realignment and improvements as one of their highest priorities.

The Highway 628 Function Planning Study (2008) proposes that the Highway be ultimately upgraded to a six-lane freeway extending from Anthony Henday to Highway 60 with major interchanges located at Hillview Road and Highway 60. West of Highway 60, Highway 628 is proposed to be a four-lane expressway to the Town of Stony Plain. In August 2012, Alberta Transportation confirmed an at grade split diamond interchange at Highway 60 and Highway 628, with Highway 60 ultimately travelling passing over Highway 628. The old Highway 628 alignment will be retained as a service road, and provide access to the Stony Plain Indian Reserve #135.

The recommended alignment option (Figure 10) proposes that the freeway right of way be located approximately 400 metres to the north of the existing right of way. The proposed Future Land Use Concept Map (Figure 5) recommends that the land adjacent to Highway 628 remain in an “industrial holdings” classification until the realignment of Highway 628 has been approved.

Northview Road Intersection Closure

With the development of the Fath subdivision (SE 9-53-26-W4M) and continued development in Zone 1, there is the potential for non-residential traffic travelling through Osborne Acres. With Alberta Transportation’s closing of the Northview Road intersection with Highway 60, the County should review traffic volume when needed, and explore the potential to upgrade Vanderwell Road which currently connects Township Road 531A to Northview Road. Traffic travelling through Osborne Acres should remain local residential in nature.

Township Road 531A and Highway 60 Intersection

A 2009 Traffic Impact Analysis (TIA) proposed significant changes to the intersection west of Highway 60 including the closure of the service road immediately east of the Husky Truck Stop parallel to Highway 60, and the closure of the Husky and Vision RV access points onto Township Road 531A. A new north and south access road should be considered immediately west of the Husky Truck Stop to provide new access to the Kal Tire, Husky and the Northgate sites (see Figure 11).

Kalwin Business Park Road Improvements

A number of narrow parcels exist west of KalTire between Highway 16 and Township Road 531A. It is recommended that a new east and west road be constructed from Kalwin Business Park west toward the Edmonton Truck & Trailer site. This would allow the eventual subdivision of the narrow parcels to have access off an internal road, rather than Township Road 531A (see Figure 10).

Hillview Road upgrades

The City of Edmonton expects the eventual upgrading of Hillview Road to an urban four-lane divided arterial with the ultimate development of an interchange at Hillview Road and Highway 16A. Timing for this project is unknown at this time.

The City of Edmonton recommends interim measures to reduce potential traffic conflicts due to increased traffic volumes. Improvements include restricting through movements on Hillview Road (across Highway 16A) and left turn movements from Hillview Road onto Highway 16A (westbound). Intersection movements from Highway 16A onto Hillview Road will be maintained in the interim.

5.5. Protective Services

Fire services

Fire services for the ASP area are provided through the Parkland Village Fire station operated by Parkland County. The Parkland Village station currently houses an Engine, Tanker, Rescue Unit, Bush Truck, Squad truck and Quad unit. Current staffing levels are approximately 30 volunteer firefighters. Firefighters are divided amongst 4 crews with each crew being “on call” for a one week period (*Parkland County Fire Master Plan, 2009*). The County also has mutual aid agreements for fire service in place with all adjacent municipalities and those that are bordered on all four sides by the County. In 2010, Parkland County, as a member of the Capital Region Board (CRB) entered into a joint fire and disaster agreement with all CRB members to provide assistance in emergency situations where needed.

The cities of Edmonton, Spruce Grove and St. Albert provide aerial ladder vehicles which may be required for industrial related fire incidents. As part of an Memorandum of Understanding (MOU) signed in 2012, the City of Spruce Grove, Town of Stony Plain and Parkland County are cost-sharing the purchase of three aerial ladder vehicles with each municipality coordinating the purchase of one vehicle. Parkland County will be purchasing its vehicle as part of this MOU in approximately 2014.

Parkland County is constructing a new 20,000 square foot fire station facility at the NE corner of the Municipal Reserve on SW 9-53-26-W4M. This facility will house an Engine, Tanker, Rescue vehicle, and Squad truck along with approximately 20-35 volunteer staff members. Construction of the Acheson station will be completed by Fall 2013. Continued development of the ASP area may also warrant a satellite station be established in the SE corner of the ASP area once development levels require additional service. Issues related to emergency response times and the construction of the CNR rail overpass have been discussed in Section 5.4 – Transportation

Eventual full time staffing may be required to support development in the ASP area. The County is currently reviewing servicing options to better optimize fire services until such time that full time staff is required in Acheson. Volunteers at the Acheson Hall will be properly trained in fire responses of an industrial nature which may occur in the ASP area.

Policing and Bylaw enforcement services

Policing in the ASP area is provided by K Division Stony Plain and Spruce Grove detachments. Future development in the ASP area would require Parkland County to liaise with both detachments to ensure that adequate policing services are provided to the ASP area.

Bylaw Enforcement services for the ASP area are provided by Parkland County through the County Centre Office on Highway 779. Bylaw Services enforces the County’s Bylaws, as well as significant parts of provincial statutes such as the Traffic Safety Act. Future development of the ASP area will require the County to review call volumes on a regular basis to ensure that adequate enforcement services are provided for the ASP area.

5.6. Environment

Existing and future businesses in the ASP area will be expected to conserve the natural environment and promote the use of environmentally friendly technologies. Simultaneously, policies need to be established to ensure that key environmental and natural areas in the ASP area are protected from incompatible uses. These areas shall be protected at all stages of development including construction and operation. Where required by the County, additional hydrological, geotechnical and environmental assessments may need to be prepared as part of the development process.

The ASP area contains two hundred and twenty-one (221) wetlands as described in the 2011 AECOM Acheson and Big Lake Master Drainage Plan – Amendment. Potential developments adjacent to wetlands will have to take care in ensuring that wetlands are maintained, or where wetlands are impacted or removed, compensation and remediation complies with Alberta Environment and Sustainable Resource Development requirements.

Wagner Natural Area

The Wagner Natural Area is a valuable scientific, educational and tourism resource. It also provides scientific value as a living laboratory to collect information regarding natural and human-induced change to the environment.

The Wagner Natural Area Society has leased this natural area from the Province since 1983. The lease was renewed in 2004 for another 10 years. Since 1997, another 253 acres have been added to the Natural Area and the Nature Conservancy of Canada has become involved.



The Wagner Natural Area must be protected. The Acheson/Big Lake Area Master Drainage Plan – Amendment 2011 stated that:

“.. the Area is extremely sensitive to changes in water level; whether it is from groundwater recharge or surface runoff. Development South of the Wagner Natural Area will lead to increased surface runoff that has the potential to enter the natural area. This may have a similar effect on the natural ecosystem as decreasing the groundwater recharge, as flooding of the area will disrupt the existing plant communities. Increasing the total volume of surface runoff should be avoided as much as possible. Any future developments located within the groundwater recharge zone or the natural surface drainage basin for the Wagner Natural Area must be diligent to maintain the surface and groundwater conditions that exist today.”

Threats to the Wagner Area ecosystem come from changes within its watershed and groundwater recharge area. Two distinct areas will need to be addressed with future development that occurs adjacent to the Wagner Natural Area. These include:

- ensuring that new development does not impact the groundwater recharge area through increases in surface runoff levels, fluctuations in water levels flowing into the Natural Area, or altered drainage patterns; and,
- ensuring adequate land use buffers are in place to protect the Natural Area from incompatible land uses.

The Wagner Natural Area recharge zone boundaries are identified in Figure 6.

5.7. Residential

Osborne Acres consists of approximately 41 independently serviced country residential homes on lots ranging in size from 3.7 to 5 acres. Two Municipal Reserve parcels exist in the subdivision and have been retained in their natural state.



A 200 metre wide agricultural zone on the north, east and south sides of Osborne Acres acts as a buffer between existing residential development and future industrial uses. The Acheson Industrial Commercial Area Overlay (defined in the County's Land Use Bylaw) also minimizes conflicts between land uses by outlining regulations to be followed by developers locating adjacent to Osborne Acres.

Pedestrian and local resident traffic safety concerns may increase in the Osborne Acres area with increasing industrial development. Traffic and safety issues will need to be addressed through this Area Structure Plan and through municipal standards and regulations. Extensions of water and sanitary services, and stormwater system and drainage improvements may also be addressed as development levels increase.

A 16 ha (40 acre) site south of Highway 16A and east of Spruce Valley Road has been identified for future residential uses. This area is not contained in the ASP boundary.

5.8. Recreation and Open Space

Recreational and planned open spaces are encouraged to improve the health, well being and number of amenity spaces available both workers and residents in the ASP area. Three potential areas to consider recreational and open space include:

- expansion of the existing Ranch Golf Course;
- development of the MR east of Range Road 264; and,
- the confirmed redevelopment of the Cholla landfill as a soccer facility.



The Ranch Golf Course occupies a 160-acre parcel of land adjacent to Pinchbeck Road. The most plausible direction for the golf course to expand would be to the south.

The Municipal Reserve (MR) parcel located east of Range Road 264 (part of SW-9-53-26-W4M) can be developed as a Special Purpose Park as defined in the 2009 Recreation Parks and Open Space Master Plan. The parcel size and proximate location near Osborne Acres and Wagner Natural Area may also lend to the development of additional community service uses on the parcel. Recommendations from the Master Plan should be considered when developing this parcel, and when allocating other Municipal Reserve parcels for recreational purposes.

The Cholla landfill site will be redeveloped as a minor soccer league facility for Edmonton Minor Soccer; it will consist of approximately 30 soccer fields. This redevelopment will require access from 231st Street as opposed to Highway 16A. The redevelopment of this site creates an important recreational amenity for the Capital Region.

Other recreational opportunities

Future industrial and commercial development in the ASP area will necessitate the designation of Municipal Reserve (MR) lots. MR lots may be used for the purposes of parks and public recreation areas. Where appropriate, MR lots should be linked in the ASP area through an active trail system. Lands surrounding stormwater management facilities in Acheson can also be maximized for their recreational use and developed with active trails, seating areas and other recreational (sporting and non sporting) amenities.

5.9. Agriculture



Agriculture is the most dominant land use in the ASP area. Soils have moderate to good capability for agriculture with Canada Land Inventory (CLI) ratings varying from Class 1 to Class 4.

The best rated soils in the ASP area are in the extreme southeast and southwest, with lower class soils more prevalent in the northeast sector. Soils in the northwest sector are classified as being organic and not suitable for agriculture. Fringe areas immediately east of the City of Spruce Grove and west of Spruce Valley Road continue to be farmed.

The majority of agricultural lands are characterized by grain and hay operations, however, potato farming, nursery stock and fruit crop operations are active in the area. Cattle and horse farming operations also exist in the southeast and southwest sectors of the ASP area. Lilydale Poultry, the only intensive agricultural operation located within the ASP area, is located adjacent to Highway 16A and Spruce Valley Road.

Continued industrial and residential expansion by the City of Edmonton minimizes the ability to maintain large, productive tracts of agricultural land in the eastern section of the ASP area. Several plans for transportation improvements by Alberta Transportation, including the planned expansion of Highway 628, and road widening and collector road development along Highway 60 and 16A will also make the retention of larger tracts of continuous agricultural land within the ASP area not feasible.

Existing agricultural uses in the ASP area will be allowed to continue until lands are converted for commercial and industrial purposes. Existing uses shall continue to comply with all Land Use Bylaw regulations. The timing for the conversion of agricultural lands for commercial and industrial purposes shall comply with Section 7 and Map 13 – Development Staging.

5.10. Oil and Gas

Figure 12 shows that most of the Acheson oil and gas fields are located in the eastern half of the ASP area. There are approximately 16 wells with access roads and associated flow lines and pipelines per section. The oil produced within the Acheson area contains small concentrations of sour gas. Sour gas is natural gas that contains measureable amounts of hydrogen sulphide (H₂S).

The development of gas and oil resources is the responsibility of the Energy Resources Conservation Board (ERCB). Existing easements for the infrastructure, as well as separation setbacks from public spaces or residences have been issued to avoid risk to the public health and safety from sour gas. Safety separation distances are further reinforced through Provincial Subdivision and Development Regulations which requires that all applications for subdivision and development permits within 1.5 km of a sour gas facility be submitted for comments with regard to appropriate setbacks. ERCB regulations also require the preparation and approval of an Emergency Response Plan that covers the Emergency Planning Zone that has been issued for the a significant component of the north half of the ASP area. Development constraints in the plan area include:

- separation distances from sour gas facilities and permanent residences;
- avoiding infrastructure flow lines and pipelines that can complicate or increase infrastructure spending; and,
- maintaining land reserves for service roads for the operation and maintenance of wells or batteries.

The Acheson fields will remain viable for decades with activity levels not expected to decrease in the near future. Penn West (the current major operator) is operating at 40% capacity.

Future development adjacent to the Acheson fields will need to follow existing (regulated) ERCB setbacks from well sites and from pipeline infrastructure. Simultaneously, area operators will be expected to communicate with the County on a regular basis as to the status of their operations, and on any updates to information including safety and evacuation procedures.

5.11. Special Study Areas

Parkland County has identified two locations in the ASP area for future planning consideration. These areas form a combined 721 ha (1,782 acres), or approximately 14.3% of the total ASP area. These areas are identified in Figure 13 – Future Land Use Concept. Special Study Areas require greater attention in the planning of future uses due a number of factors including:

- the proximity to of lands to adjacent municipalities (City of Spruce Grove, City of Edmonton) and the compatibility of land uses between municipalities;
- the environmental sensitivities related to developments near Environmentally Significant Areas (ESA's); and,
- landowner interests in future development.

Future development in both Special Study Areas will require joint planning endeavors with adjacent municipalities, the completion of additional ecological and land use studies, and consultation with landowners.

Special Study Area A – South and West of Wagner Natural Area

Special Study Area A encompasses 462 ha (1,142 acres) of land. Special Study Area A is bounded by Highway 16 and Wagner Natural Area to the north, the City of Spruce Grove to the west, Highway 16A and the CNR line to the south, and Spruce Valley Road to the east. Special Study Area A requires further detailed study due to its proximity to the Wagner Natural Area and proximity to the City of Spruce Grove. In addition, a portion of the Study Area falls within the Wagner Recharge Zone which feeds groundwater into the Wagner Natural Area.

Determining the future uses in Special Study Area A will be informed through independent ecological studies undertaken by Parkland County, joint planning initiatives with the City of Spruce Grove, and consultations with landowners and stakeholders.

Special Study Area B - Edmonton suburban interface

Special Study Area B (S ½ 35-52-26 W4M and N ½ 26-52-26 W4M) encompasses approximately 258 ha (638 acres) of land located on the western edge Hillview Road. Located just west of the Edmonton suburban neighbourhood of Lewis Estates, Study Area B requires further planning study to identify compatible land use between suburban residential development and industrial development, and to identify development options that are mutually beneficial to both Parkland County and the City of Edmonton.

Development timing

Timing for the development of special study area lands are contingent upon a number of factors including the completion of required planning studies, joint planning endeavours with neighbouring municipalities, the approval of Alberta Transportation plans and approved servicing agreements. Development of these lands is not anticipated in the next twenty (20) years, and is not identified in Figure 13 – Development Staging.

6. OBJECTIVES AND POLICIES

Figure 5 shows the future development concept for the ASP area.

6.1. Industrial and Commercial

6.1.1. Objectives

- 6.1.1.1. To support the economical and orderly expansion of the Acheson area for industrial and commercial development.
- 6.1.1.2. To ensure that all future industrial and commercial development in Acheson is fully serviced.
- 6.1.1.3. To ensure that Parkland County is “market ready” for development in the ASP area.
- 6.1.1.4. To ensure that industrial and commercial land uses are compatible with other land uses as prescribed in Figure 5 – Future Land Use Concept.
- 6.1.1.5. To ensure development in the Acheson area is compatible with future transportation infrastructure.
- 6.1.1.6. To promote Acheson in the Edmonton Capital Region by:
 - (a) promoting green technologies and the use of green building standards in development;
 - (b) promoting aesthetic and landscaping standards in strategic locations;
 - (c) supplying a variety of parcel lot sizes; and,
 - (d) providing business addressing for Acheson.

6.1.2. Policies

- 6.1.2.1. Direct industrial and commercial development in Acheson to lands designated for such development as prescribed in Figure 5 – Land Use Concept.
- 6.1.2.2. Industrial land uses in Acheson will be light to medium in nature. Heavy industry will not be permitted.
- 6.1.2.3. Development phasing shall take into consideration the orderly and logical extension of municipal infrastructure and road networks.
- 6.1.2.4. Developers shall be required to secure roadside development permits for new developments as required by Alberta Transportation.

- 6.1.2.5. Parkland County will conduct the necessary engineering and planning studies to prepare lands in the ASP area for future subdivision and development.
- 6.1.2.6. Upon adoption of this ASP, Parkland County will develop the Acheson Highway Frontage Overlay. Overlay boundaries include, in general, all lots with a front, side or rear yard adjacent to highways 16, 16A, 60 or 628.
- 6.1.2.7. In cases in which overlay boundaries fall within an un-subdivided quarter section or lot extending the width of a quarter section, overlay boundaries will be determined by Parkland County.
- 6.1.2.8. The Acheson Highway Frontage Overlay will address building design, landscaping, signage, parking and nuisance management for lots defined in Policy 6.1.2.6 and Policy 6.1.2.7.
- 6.1.2.9. Regulations for the Osborne Acres Commercial Industrial Overlay will prevail for all existing properties and new developments that fall within the Osborne Acres Commercial Overlay boundary.
- 6.1.2.10. Parkland County encourages the clustering of similar and compatible businesses and sectors that support the sharing of information, products and linkages to resource and transportation networks.
- 6.1.2.11. Parkland County encourages infill development on existing vacant or underutilized lots.
- 6.1.2.12. Parkland County encourages the completion of a fiscal analysis as part of the development process to ensure the economic potential of a particular site is maximized. The fiscal analysis should address:
 - (a) how site Floor Area Ratio (FAR), can be optimized;
 - (b) how site improvements improve site marketability; and,
 - (c) the net cost / benefit comparison of the development as it relates to the the total costs and net revenues that may be assumed by the County.
- 6.1.2.13. The County may require additional fiscal analysis be completed for developments that may require several planning approvals such as Land Use Bylaw amendments and subdivision and development approvals. The County may assist developers by providing base information including assessment and taxation information, and operational and capital costs.
- 6.1.2.14. Developments which do not provide a net benefit to the County will be discouraged.
- 6.1.2.15. The Lilydale confined feeding operation shall continue to comply with all Natural Resources Conservation Board (NRCB) regulations, the Agricultural Operation Practices Act (AOPA), and all other applicable federal, provincial

and municipal regulations and plans.

- 6.1.2.16. All industrial and commercial developments in the ASP shall comply with landscaping standards in the Land Use Bylaw. Landscaping shall be to the satisfaction of the Development Authority.
- 6.1.2.17. The County may require the use of buffers, screening, setbacks or other controls to mitigate nuisance impacts between adjacent properties and land uses.
- 6.1.2.18. Screening for properties facing residential uses and public roadways may be required along the length of adjacent front, side or rear yards by the Development Authority.
- 6.1.2.19. Developments with higher nuisance levels in terms of light, dust, noise and traffic will be strongly encouraged to locate away from residential uses and environmental areas to minimize the potential for land use conflicts.
- 6.1.2.20. The outdoor storage of a business' commodity or product for display purposes may be allowed at the discretion of the Development Authority in front or side yard setbacks
- 6.1.2.21. Developers will be encouraged to enhance the landscaping of parking areas that face residential uses or roadways.
- 6.1.2.22. The use of screening will be required to screen trash collection, loading and outdoor storage areas from public roadways or adjacent sites.
- 6.1.2.23. An Outline Plan shall be submitted as part of the subdivision application or redistricting process. Outline Plans shall conform to the County's Outline Plans Policy and Procedures.
- 6.1.2.24. All developments shall be serviced by water, sewer and all necessary shallow utilities. The County will not support subdivision, redistricting or development which does not provide full municipal site servicing. All site servicing shall comply with adopted engineering standards and good engineering practices.
- 6.1.2.25. The County encourages land subdivision that establishes a variety of parcel sizes to facilitate developer flexibility and to anticipate business needs. Land subdivision shall not result in lots that are not serviceable or accessible.
- 6.1.2.26. Encourage, at the development permit stage, the use of green technologies and LEED, BUILT Green or other green building standards for development. All new buildings should strive to meet green building standards from a

recognized standards program for green building technology.

- 6.1.2.27. Through the development permit process, ensure higher quality signage and landscaping on sites adjacent to Highways 16, 16A, 60 and 628. All signage and landscaping shall comply with Alberta Transportation standards, and the Parkland County Land Use Bylaw.
- 6.1.2.28. Consistent with Policy 5.10 of the Municipal Development Plan, the County will develop design guidelines for industrial / commercial properties located along Highway 16 and 60.
- 6.1.2.29. In collaboration with Canada Post, and the Acheson Business Association, implement a civic addressing system for Acheson.
- 6.1.2.30. Assist, where possible, the Acheson Business Association with developing a branding and signage program to promote the Acheson Business industrial Park in the Edmonton Capital Region.
- 6.1.2.31. Current agricultural and non industrial uses on lands designated “Industrial Holdings” shall be allowed to continue until Alberta Transportation has confirmed the design and road realignment of Highway 628.

6.2. Servicing

6.2.1. Water and Sanitary Servicing – Objectives

- 6.2.1.1. To provide a safe and secure potable water and sanitary sewer network that complies with all federal, provincial and municipal standards. Standards that must be followed include human health and environmental protection standards.
- 6.2.1.2. To provide for the full servicing of all industrial and commercial sites in Acheson through the orderly, logical, and effective extension of servicing infrastructure.
- 6.2.1.3. To locate future servicing infrastructure into regional corridors that may be identified by the Capital Region Board, and to protect such corridors from incompatible development.
- 6.2.1.4. To implement the recommendations from the Acheson and Big Lake Area Water Servicing Study and Acheson and Big Lake Area Sanitary Servicing study where applicable.
- 6.2.1.5. To investigate the extension and costing of water and sewer servicing to Osborne Acres.

6.2.2. Policies

- 6.2.2.1. All water and sewer servicing infrastructure shall be designed to conform to existing development criteria, adopted engineering standards and good engineering practices.
- 6.2.2.2. New and existing developments shall comply to all applicable federal and provincial regulations as they relate to human health and environmental protection when constructing, operating or expanding servicing systems.
- 6.2.2.3. The County requires full municipal water and sewer servicing for all developments within the ASP area.
- 6.2.2.4. All existing developments (developments with an existing development permit) shall be required to connect to the County's water and sewer system.
- 6.2.2.5. All costs associated with the construction of water and sewer infrastructure on a private site shall be borne by the landowner or developer. The landowner or developer shall install the connection to the County's water and sewer system to a point and elevation determined by Parkland County.
- 6.2.2.6. All industrial and commercial developments in the ASP area shall contribute proportionately to the installation and expansion of municipal water and sewer servicing upgrades. Exact contributions will be determined at the time of subdivision and / or re-development and as specified in the County's Offsite Levy Bylaw.
- 6.2.2.7. For developments in the Wagner Natural Area Recharge Zone, care must be taken when installing underground infrastructure to ensure the Recharge Zone and existing natural drainage channels are not damaged or altered.
- 6.2.2.8. Implement recommendations for water servicing as identified in the Acheson and Big Lake Water Servicing Study (2011) where applicable.
- 6.2.2.9. The County shall prioritize, where possible, the completion of all short term (near future) upgrades to the water distribution system for the ASP area as identified in the Acheson and Big Lake Water Servicing Study (2011). In addition to this policy, the County shall prioritize:
 - (a) improving fire flow rates by exploring water network looping options in specific locations outlined in the Water Servicing Study;
 - (b) when demand warrants, explore the potential to expand the Zone 3 and Zone 4 reservoirs; and,

- (c) when demand warrants, explore the construction of an additional reservoir in Zone 3 once expansions to the existing Zone 3 and 4 reservoirs have been upgraded.

- 6.2.2.10. Implement, where applicable, recommendations for sanitary servicing improvements identified in the Acheson and Big Lake Sanitary Servicing Study (2011).
- 6.2.2.11. Sanitary sewer improvements for the long term (ultimate development) shall comply to Figure 8 – Existing and Proposed (Ultimate Development) Sanitary Sewer Improvements and the Acheson Area and Big Lake Sanitary Sewer Servicing Study (2011).
- 6.2.2.12. The County shall plan for the long term (ultimate development) of the sanitary system in the ASP area. Long term (ultimate development) of the sanitary system will require the expansion of the Acheson and Bevington trunks, and the construction of the Atim Road Trunk.
- 6.2.2.13. In conjunction with residents, explore potential scenarios to provide water and sewer services to Osborne Acres. Servicing scenarios shall consider cost sharing agreements to offset municipal costs for servicing. Upon full built-out of Acheson, Osborne Acres should be fully serviced by water and sewer.

6.2.3. Storm Servicing – Objectives

- 6.2.3.1. Comply with Parkland County Water Act approvals for stormwater management or with other Alberta Environment and Sustainable Resource Development Water Act approvals where lands fall outside the County's fenceline boundary.
- 6.2.3.2. Reduce overall runoff quantity, improve runoff quality and protect recharge areas from extreme fluctuations and cumulative decreases in ground water levels.
- 6.2.3.3. Reduce potential non point sources of pollution from entering existing stormwater systems, drainage courses and natural areas.
- 6.2.3.4. Pursue the implementation of the general design criteria and recommendations from the Acheson and Big Lake Area Master Drainage Plan – Amendment (2011).

6.2.4. Storm Servicing –Policies

- 6.2.4.1. Parkland County requires all developments that fall under Alberta Environment and Sustainable Resource Development Water Act approvals to comply with the approval criteria prior to commencing work related to stormwater management.
- 6.2.4.2. Developments in the ASP area that fall outside of Parkland County Water Act approval areas (fenceline boundary) shall obtain a separate Water Act approval from Alberta Environment and Sustainable Resource Development prior to commencing any work related to stormwater management on their sites.
- 6.2.4.3. All developers will be required to provide a Stormwater Management Plan as part of the development process. Stormwater Management Plans submitted to meet the requirements of any Parkland County Water Act approvals or separate Alberta Environment and Sustainable Resource Development Water Act approvals will be accepted.
- 6.2.4.4. The construction and operation of all stormwater facilities in Acheson shall comply with existing Alberta Environment and Sustainable Resource Development Water Act approval requirements.
- 6.2.4.5. All developments shall retain stormwater on site, and discharge at a post-development rate that does not exceed pre-development release rates. In cases where this policy conflicts with the Parkland County Water Act approval or other Alberta Environment and Sustainable Resource Development Water Act approvals, Water Act approval criteria for release rates will prevail.
- 6.2.4.6. Consistent with Policy 6.5.2.20, a hydrological assessment will be completed for any new development or expansion to existing developments considered significant by the Development Authority for developments in the Wagner Recharge Zone. Additional studies as outlined in Policy 6.5.2.20 may also be required by the Development Authority with all costs and remediation work identified in any assessment borne by the developer.
- 6.2.4.7. On site stormwater management systems shall comply with all applicable federal, provincial and adopted standards; systems should also follow design criteria recommendations outlined in the Acheson and Big Lake Area Master Drainage Plan – Amendment (2011).
- 6.2.4.8. All costs associated with the construction of on-site stormwater facilities on a private site shall be borne by the developer / landowner. Stormwater facilities shall be constructed to the satisfaction of Parkland County.

- 6.2.4.9. On site stormwater infrastructure that connects to municipal stormwater systems will be developed to a point and elevation determined by Parkland County.
- 6.2.4.10. All industrial and commercial developments in the ASP area shall contribute proportionately to the installation and expansion of municipal storm servicing facilities. Exact contributions will be determined at the time of subdivision and / or re-development as specified in the County's Offsite Levy Bylaw.
- 6.2.4.11. All developments in the ASP area shall follow the general design criteria and the Best Management Practices outlined in the Acheson and Big Lake Area Master Drainage Plan – Amendment (2011) when planning and constructing on-site stormwater management facilities.
- 6.2.4.12. Parkland County will review findings from the Acheson Big Lake Master Drainage Plan – Amendment (2011) to determine how to reduce surface runoff from Kalwin Pond, Ellis, West Acheson and Sherwin stormwater facilities.
- 6.2.4.13. Identify an appropriate outlet and effective discharge system for stormwater runoff for areas south of Highway 16A.
- 6.2.4.14. Develop an implementation strategy for reducing surface runoff and erosion along Morgan Creek based on the recommendations from the Acheson and Big Lake Area Master Drainage Plan – Amendment (2011).
- 6.2.4.15. Developers will be encouraged to use low-lying areas such as existing wetlands and kettle depressions for on-site stormwater management.
- 6.2.4.16. On-site stormwater facilities shall simulate the function of naturalized wetlands where possible.
- 6.2.4.17. Subsurface drainage channels that may be damaged or altered through the installation of on-site stormwater systems shall be remediated. Remediation, if required by the County, shall be undertaken with the work and costs being borne by the developer.
- 6.2.4.18. The development community will be encouraged to reduce potential non point sources of pollution from entering the stormwater system. All potential non-point sources of pollution must be managed on-site and not released into the County's stormwater system.
- 6.2.4.19. Developers are encouraged to use green infrastructure when developing their sites. Techniques include, but are not limited to, green (eco-roofs), constructed wetlands, bioswales, vegetated curb extensions, landscaped ditches, rainfall harvesting and bioretention cells to reduce the amount

of surface runoff, sedimentation, and pollution.

- 6.2.4.20. Developers will be encouraged to maximize groundwater infiltration by using permeable surfacing materials when constructing all on-site parking, outdoor storage areas, drive lanes, and loading areas.
- 6.2.4.21. Parkland County will continue to investigate suitable green technologies which can be used to reduce the amount of impervious materials used as part of the development process.
- 6.2.4.22. At the time of development permit approval, ensure stormwater servicing improvement recommendations identified in the Acheson and Big Lake Master Drainage Plan – Amendment (2011) have been considered, and where applicable, implemented.
- 6.2.4.23. In conjunction with residents, explore potential scenarios to address stormwater management issues in Osborne Acres. Any potential solutions shall consider cost sharing agreements to offset improvements.

6.2.5. Shallow Utilities –Objectives

- 6.2.5.1. To support the orderly, logical, and effective extension of all shallow utilities within the ASP area to support future development.
- 6.2.5.2. To encourage the use of alternative energy infrastructure for all developments.
- 6.2.5.3. To locate shallow utilities into existing infrastructure corridors, and Regional Corridors where they exist, and to protect such corridors from incompatible development.
- 6.2.5.4. To control the location, appearance, installation and alteration of communication towers in the ASP area.

6.2.6. Shallow Utilities –Policies

- 6.2.6.1. Promote joint partnerships between developers and utility providers to achieve cost reductions and minimize disruptions in infrastructure development.
- 6.2.6.2. Support the use of alternative energy sources, including, but not limited to, solar, wind and geothermal to minimize the dependency on existing utility infrastructure.

- 6.2.6.3. The cost of installing and providing utility infrastructure and services on-site shall be borne by the landowner / developer, and shall be addressed as part of the subdivision or development permit process.
- 6.2.6.4. Utility companies shall avoid damage to existing natural areas, wetlands and subsurface drainage channels when installing services. Remediation, if required by the County, shall be undertaken and paid for by the Utility company.
- 6.2.6.5. Utility companies will be expected to locate shallow utility infrastructure in existing infrastructure corridors where possible.
- 6.2.6.6. While Industry Canada is responsible for regulating the wireless spectrum and placement of communication towers, a development permit from Parkland County will also be required for the location, construction and modification of communication towers.
- 6.2.6.7. Work with the Acheson Business Association and Acheson businesses to implement the County's Intelligent Community Plan as it relates to the ASP area.

6.3. Transportation

6.3.1. Objectives

- 6.3.1.1. To provide for the safe and efficient movement of traffic on major highway, collector and internal (local) road networks in the ASP area.
- 6.3.1.2. To keep apprised of future highway and major road network improvements proposed by Alberta Transportation and adjacent municipalities, and to plan Acheson's transportation networks accordingly.
- 6.3.1.3. To create an internal road network that plans for optimal access management.
- 6.3.1.4. To promote and maximize access to the CNR main line.
- 6.3.1.5. To explore the potential for developing transit service in the ASP area.

6.3.2. Policies

- 6.3.2.1. Liaise with Alberta Transportation on a regular basis to ensure that the County's information on major transportation plans is relevant and up to date.

- 6.3.2.2. Review traffic or safety concerns identified by Acheson businesses or residents, and work with Alberta Transportation to address these issues where applicable.
- 6.3.2.3. Implement the construction of roadways based on the recommendations from the Parkland County Transportation Master Plan for the ASP area.
- 6.3.2.4. All industrial and commercial developments in the ASP area shall contribute proportionately to the installation and expansion of municipal road upgrades, including the expansion of existing roads and construction of new local roads. Exact contributions will be determined at the time of subdivision and / or re-development as specified in the County's Offsite Levy Bylaw.
- 6.3.2.5. Complete a Transportation Master Plan for Acheson. This Master Plan shall incorporate all proposed transportation improvements required by Alberta Transportation, and anticipate future growth needs for the Acheson area.
- 6.3.2.6. The ASP anticipates that the Acheson road network will be extended westward, and is supported in the Parkland County Transportation Master Plan (see Figure 10 – Future Transportation Improvements).
- 6.3.2.7. Assist Alberta Transportation with promised upgrades to Highways 60 and 628 by assisting with right-of-way land acquisition, and providing technical assistance where required to external agencies including the City of Edmonton and Alberta Transportation.
- 6.3.2.8. Undertake a transportation study to determine the adequate spacing and intersection improvements required for the Highway 60 and Highway 628 interchange.
- 6.3.2.9. Work with developers and landowners on the west side of Hillview Road to ensure that new development anticipates improvements to Hillview Road, and that any additional right-of-way requirements are secured at the time of subdivision.
- 6.3.2.10. Work with Alberta Transportation to designate Highway 60 as a High Load Corridor through the ASP area.
- 6.3.2.11. Confirm if an interchange at Highway 16A and Spruce Valley Road will be constructed in the future by Alberta Transportation.
- 6.3.2.12. Encourage Alberta Transportation to review the Zone 3 access (weigh scales) and keep the access open to traffic.
- 6.3.2.13. Investigate the addition of a southbound lane on Spruce Valley Road as it approaches Highway 16A from the north.

6.3.2.14. Upon closure of Northview Road at Highway 60, review traffic volumes and consider the upgrading of Range Road 263A (Vanderwell Road) between Township Road 531A and Northview Road.

6.3.2.15. Investigate the construction or expansion of existing internal roads in Acheson as identified in Figure 10 – Future Transportation Improvements:

Zone 1:

- (a) a new collector road extending west from Kalwin Business Park to the Edmonton Truck and Trailer sites located west of Range Road 264;
- (b) a new collector road from Northview Road to Spruce Valley Road, south of Osborne Acres;
- (c) extension of Acheson Road west of SW-5-53-26-W4M and west of Spruce Valley Road;

Zone 4:

- (d) extension of Acheson Road east of Highway 60 to Hillview Road;

Zones 5 and 6

- (e) a new collector road connecting Spruce Valley Road to a new intersection approximately 1 Kilometre south of Highway 60 (approved by AB Transportation) and extending east past Pinchebeck Road and connecting to Hillview Road.
- (f) a new arterial road connecting Spruce Valley Road to a new intersection approximately 1.5 Kilometres south of Highway 60 and extending east past Pinchebeck Road and connecting to Hillview Road; and,
- (g) improvements to Range Road 264 south of Highway 16A to provide access to parcels in SE 29-52-26-4 and SW 28-52-26-W4M, and to connect proposed new roads identified in Figure 10 – Future Transportation Improvements to Spruce Valley Road.

6.3.2.16. The construction of new internal roads in Acheson shall comply to the County's Municipal Engineering standards. The locations of all internal collectors and arterials shall generally comply with the locations as outlined in the Parkland Transportation Master Plan and this ASP.

6.3.2.17. New internal (local) roads in Acheson should be designed to minimize surface runoff from entering the stormwater system. Techniques such as landscaped ditches, bioswales and landscaped shoulders may be utilized to reduce surface runoff.

- 6.3.2.18. When determined necessary by Parkland County, the amount of traffic volumes on Northview Road will be reviewed to ensure that engineering safety standards are maintained.
- 6.3.2.19. Upon the closure of Northview Road at Highway 60, Parkland County will review the intersection at Northview Road and Range Road 263A to ensure engineering standards are maintained.
- 6.3.2.20. The County will ensure that appropriate traffic control devices are in place along Northview Road to manage non-local / residential traffic travelling through Osborne Acres. Potential traffic control devices include, but are not limited to advisory, regulatory and directional signage and road marking.
- 6.3.2.21. Parkland County will review the possible extension of Range Road 264 to the intersection of Range Road 263A (south of Northview Road) and the installation of directional signage to redirect westbound non-residential traffic away from Osborne Acres.
- 6.3.2.22. Encourage the creation of potential future spur lines in Acheson by promoting businesses that require rail transport to be located adjacent to the CNR main line.
- 6.3.2.23. Incorporate roadside pullouts for signage, mailboxes and transit stops into the right-of-way design for all subdivisions.
- 6.3.2.24. Undertake a transit feasibility study to explore the potential to develop a future transit network for Acheson. The study shall identify potential ridership numbers, transit network staging and potential transit stops, routes and stations.
- 6.3.2.25. With completion of the Parkland County Transportation Master Plan, undertake a Traffic Impact Assessment (TIA) for each zone. Exact contributions to complete TIA's will be recovered from developers through the Offsite Levy Bylaw.

6.4. Protective Services

6.4.1. Objectives

- 6.4.1.1. Ensure the provision of safe, reliable and efficient fire services in the ASP area.
- 6.4.1.2. Ensure the provision of reliable and efficient policing and bylaw enforcement serves in the ASP area.

- 6.4.1.3. Encourage onsite surveillance in the ASP area and support the use of Crime Prevention through Environmental Design (CPTED) design principles as part of the development process.

6.4.2. Policies

- 6.4.2.1. Parkland County will ensure volunteer fire services staff are adequately trained and equipped to address fire incidents as they arise in the ASP area.
- 6.4.2.2. Parkland County shall maintain all existing mutual aid agreements with adjacent municipalities to maintain fire protection coverage in the ASP area.
- 6.4.2.3. Parkland County will continue to review different servicing options to optimize fire suppression services in the ASP area. The County shall look at options such as hybrid (volunteer / full time) staff servicing until such time that full time staff is required at the Acheson station.
- 6.4.2.4. The County shall review the Fire Services Master Plan prior to the next major update of this ASP to ensure the Master Plan accurately reflects the service demands, development levels and call volumes in the ASP area.
- 6.4.2.5. The NE corner of the Municipal Reserve located at SW 9-53-26-W4M has been approved for construction of a new fire hall.
- 6.4.2.6. A future satellite fire hall may be considered for the SE corner of the ASP area in Special Study Area B. Location and construction timing of the hall would be contingent upon the type of future land uses proposed in Special Study Area B and future development levels within the ASP area.
- 6.4.2.7. Liaise on a regular basis with the RCMP detachments in Spruce Grove and Stony Plain to ensure police servicing levels are maintained in the ASP area.
- 6.4.2.8. Parkland County will continue to monitor bylaw enforcement call volumes and call types to determine service demand changes. Additional enforcement resources may be required as development levels increase in the ASP area.
- 6.4.2.9. Onsite security surveillance for industrial and commercial developments in the ASP area will be encouraged.
- 6.4.2.10. Parkland County encourages developers to consider Crime Prevention through Environmental Design (CPTED) principles to support on-site security. Principles that may be used include increasing natural surveillance through strategically placed glazing, reducing “blind spots”, lighting, and the use of appropriately sized landscaping and ground cover.

- 6.4.2.11. The completion of the Highway 60 overpass is critical to ensure adequate response times for the south end of the ASP area. The overpass is required to eliminate waiting times for the CNR train crossing on Highway 60.

6.5. Environment

6.5.1. Objectives

- 6.5.1.1. Encourage energy efficiency and green building practices in building and site design to minimize negative environmental impacts.
- 6.5.1.2. Explore alternative energy sources and innovative water conservation measures for all forms of development.
- 6.5.1.3. Minimize negative environmental impacts including air, water and surface pollution and nuisances including light, noise and sound pollution associated with industrial and commercial development.
- 6.5.1.4. Protect the Wagner Natural Area from development, and the recharge zone from development impacts including surface and subsurface infrastructure that disrupts the natural surface and underground water balance.
- 6.5.1.5. Retain existing municipal and environmental reserve parcels as buffers between incompatible land uses.

6.5.2. Policies

- 6.5.2.1. Promote the use of green building materials and energy efficient technologies to reduce environmental impacts and promote energy consumption. All developers should consider the following in their developments:
- (a) using non-toxic, biodegradable and recycled building materials;
 - (b) using energy efficient devices and building materials during construction;
 - (c) orientating buildings to maximize solar gains and minimizes weather impacts; and,
 - (d) building to LEED, BUILT Green or other green standards for building technology.
- 6.5.2.2. Initiatives to reduce overall energy consumption including, but not limited to cogeneration, district energy sharing systems, and the use of biomass energy sources for onsite or district heating is strongly encouraged.
- 6.5.2.3. Developers are encouraged to examine the potential recycling of by-products between compatible sectors in the ASP area.

- 6.5.2.4. Individual and joint partnerships between developers that promote eco-industrial development and eco-industrial parks will be strongly encouraged.
- 6.5.2.5. Promote water conservation and water recycling measures for all developments. All developments shall consider on site applications such as rain water harvesting and xeriscaping for landscaping.
- 6.5.2.6. Developers should explore the use of alternative energy sources including solar, wind and geothermal energy sources to reduce their overall energy consumption.
- 6.5.2.7. Where applicable, developers shall meet the goals and strategies outlined in Parkland County's Integrated Community Sustainability Plan (ICSP). The County, as part of the development process may request information showing how ICSP goals and strategies were met.
- 6.5.2.8. Protect the environment at all stages of development including construction, operation and site reclamation.
- 6.5.2.9. Manage all environmental nuisances including light, sound, dust and noise pollution on-site. All developments shall adhere to federal and provincial policies related to air and water pollution standards.
- 6.5.2.10. Developments shall minimize on site light pollution through the use of lighting fixtures that direct the light beam downward and away from adjacent properties, roads and highways. Lighting fixtures that result in beams being directed upward shall be avoided.
- 6.5.2.11. Where applicable, developers should reduce the overall number of outdoor lights, or use less intensive lighting for areas that require less illumination or that are adjacent to incompatible uses.
- 6.5.2.12. Environmentally significant areas (Wagner Natural Area), kettle depressions, drainage courses, wetlands and recharge zones shall be identified at the Outline Plan stage for all future subdivision applications. Developers shall identify how the natural habitat, vegetation, soil and water (quality and quantity) of these areas will be protected and negative impacts minimized. Existing wetlands shall be identified and classified by a qualified aquatic biologist.
- 6.5.2.13. Costs associated with remediating or compensating any impacted or removed wetland shall be borne by the developer. Remediation and compensation shall comply with Alberta Environment and Sustainable Resource Development Wetland Restoration / Compensation regulations.

- 6.5.2.14. Developments shall be constructed in such a way as to protect existing wetlands on site and to minimize negative impacts on water quality, quantity and local wetland habitat and vegetation.
- 6.5.2.15. Consistent with Policy 6.2.4.5, stormwater for developments in the Wagner Recharge zone shall be retained on site with post-development release rates not exceeding that of pre-development flow rates.
- 6.5.2.16. Parkland County shall undertake an ecological assessment of Special Study Area A. The assessment shall determine an appropriate buffer and transition of land uses from the Wagner Natural Area.
- 6.5.2.17. Consistent with the Municipal Development Plan, a biophysical assessment may be required for any new development which falls within 0.8 km of the Wagner Natural Area. Work and costs of the biophysical assessment shall be borne by the developer.
- 6.5.2.18. Consistent with the Municipal Development Plan, the Development Authority may require an additional development line setback from the top of bank for Morgan Creek.
- 6.5.2.19. Onsite containment systems shall be used by all developments to minimize seepage of oil, gas and other materials into the groundwater. Containment systems shall allow for water infiltration, yet block oil, gas and other hazardous products from filtering into the groundwater system. Installation and maintenance costs for all containment systems shall be borne entirely by the developer.
- 6.5.2.20. The Development Authority shall, as part of the development process, require a hydrological assessment be completed for any new development or expansion to an existing development deemed significant by the Development Authority for developments in the Wagner Recharge Zone. In addition, the Authority may require hydrogeological, geological and / or environmental assessments to be completed for any developments on, or adjacent to environmentally significant areas identified in Policy 6.5.2.12.
- 6.5.2.21. Assessments identified in policies 6.5.2.17 and 6.5.2.20 shall identify remediation measures required to repair or replace damaged natural conditions. Work and costs associated with remediation shall be borne by the developer.
- 6.5.2.22. All assessments as identified in policies 6.5.2.17 and 6.5.2.20 shall be undertaken by a qualified hydrologist, biologist, geological or environmental specialist. Parkland County may require proof of credentials as part of the development approval process.

- 6.5.2.23. Any future development in the Wagner Natural Area Recharge Zone shall not, during construction, operation or reclamation, remove water from the subsurface drainage system, or alter subsurface water drainage channels.
- 6.5.2.24. Any future development in the Wagner Recharge Zone shall be designed to reduce surface runoff and promote infiltration of clean groundwater. Developments in these areas shall consider maximizing landscaping, using permeable surface and paving materials, and other green technologies where applicable.
- 6.5.2.25. All types of industrial, commercial and residential development shall be prohibited within the Wagner Natural Area.
- 6.5.2.26. Natural areas may be protected through Municipal Reserve or Environmental Reserve designation at the time of subdivision development. Existing municipal and environmental reserve parcels shall be maintained and continued to be used as separation buffers between incompatible land uses.
- 6.5.2.27. The County shall investigate the potential to establish conservation easements to protect areas deemed to have environmental significance. Potential areas include, but are not limited to those defined in Policy 6.5.2.12.

6.6. Residential

6.6.1. Objectives

- 6.6.1.1. To allow existing residential land uses within the ASP area to continue and prohibit new multi lot residential development.
- 6.6.1.2. To maintain appropriate separation buffers between residential and industrial/commercial uses, and to minimize conflicts between land uses.
- 6.6.1.3. To reduce nuisance impacts between residential and industrial uses by maintaining the Acheson Industrial Commercial Overlay in the Land Use Bylaw and reinforcing landscaping standards and controls for developments,
- 6.6.1.4. To minimize industrial/commercial traffic impacts on Osborne Acres.

6.6.2. Policies

- 6.6.2.1. Allow for continued residential use in Osborne Acres. Residential development in Osborne Acres will be limited to development on pre existing lots.
- 6.6.2.2. No new multi lot residential subdivision shall occur in the ASP area.
- 6.6.2.3. Maintain the 200 metre wide agricultural open space districting on the north, east, and south sides of the Osborne Acres subdivision as identified in the Land Use Bylaw.
- 6.6.2.4. Consistent with policies 6.1.2.17 and 6.1.2.18, ensure buffering to protect future residential use on NW 29-52-26-W4M and Milham Gardens from future industrial development. Future development on NW-29-52-26-W4M shall comply with Policy 6.1.2.19 where applicable.
- 6.6.2.5. New developments that fall within the Acheson Industrial Commercial Area Overlay boundaries shall comply with all applicable regulations outlined in the Land Use Bylaw.
- 6.6.2.6. Where applicable, Parkland County may undertake enforcement actions on developments that do not comply with the Land Use Bylaw, or with individual development permit conditions.
- 6.6.2.7. Industrial and commercial lots backing onto separation buffers shall incorporate on-site buffering which may include, but is not limited to fencing, landscaping and berms adjacent to the separation buffer and along

the property line. All buffering shall be to the satisfaction of the Development Authority.

- 6.6.2.8. Developers within the Acheson Industrial Commercial Overlay area may be subject to additional requirements and should consult with the Development Authority prior to initiating the development process.
- 6.6.2.9. Consistent with Policy 6.1.2.18, properties adjacent to Northview Road are encouraged to provide screening along the property line. The requirement for screening shall be determined by the Development Authority.
- 6.6.2.10. Developments adjacent to Osborne Acres and other residential areas are encouraged to locate outdoor storage areas away from residential uses. The Development Authority may require screening for front, side or rear yards facing residential uses.
- 6.6.2.11. Parkland County will undertake amendments to the Land Use Bylaw to limit the development potential in separation buffers identified in policies 6.6.2.3 and 6.10.2.11. Only uses identified in Policy 6.7.2.6 will be encouraged in separation buffers.
- 6.6.2.12. Encourage implementation of wildfire mitigation measures as per the Fire Smart Policies of the MDP.
- 6.6.2.13. Explore potential traffic safety improvements in Osborne Acres. Improvements should only proceed if traffic safety issues have been identified through a review of traffic volumes for Northview Road as outlined in Policy 6.3.2.16.
- 6.6.2.14. In conjunction with residents, explore potential scenarios to provide water and sewer services to Osborne Acres. Servicing scenarios shall consider cost sharing agreements to offset municipal costs for servicing. Upon full built-out of Acheson, Osborne Acres should be fully serviced by water and sewer.

6.7. Recreation and Open Space

6.7.1. Objectives

- 6.7.1.1. To develop recreational facilities and park areas in Acheson that offers a diversity of leisure opportunities.
- 6.7.1.2. To develop a trail network that links natural areas, Municipal Reserve parcels and storm management facilities in the ASP area.
- 6.7.1.3. To incorporate findings from the 2009 Recreation, Parks & Open Space Master Plan for Acheson where applicable.

6.7.2. Policies

- 6.7.2.1. Encourage the expansion of existing recreational facilities in Acheson including indoor, outdoor and publically and privately owned facilities.
- 6.7.2.2. Promote the continued redevelopment of the Cholla landfill (NE 35-52-26-W4M) into a regional soccer facility for Edmonton Minor Soccer, and work with Engineering Services and the City of Edmonton to determine site accessibility, servicing, project timelines and potential funding partnerships.
- 6.7.2.3. Explore potential opportunities to develop the Municipal Reserve located at SW 9-53-26-W4M as a “Special Purpose Park” Potential site amenities may include, but are not limited to, an arena, swimming pools, multi use sport fields, trail systems, off leash dog areas, picnic facilities and parking areas. Park development shall follow recommendations outlined in the 2009 Recreation, Parks and Open Space Master Plan.
- 6.7.2.4. Parkland County will continue to explore potential development opportunities for outdoor and indoor recreational facilities on municipal reserve parcels in the ASP area as they arise.
- 6.7.2.5. Retain the Municipal Reserve parcels in Osborne Acres as naturalized open space.
- 6.7.2.6. The County may consider, where appropriate, developing uses in separation buffers. Appropriate uses include Municipal Reserve lots, stormwater management facilities, recreational trails, recreational trail systems and trail amenities such as seating areas.
- 6.7.2.7. Explore, in partnership with landowners / developers, opportunities to establish a regional trail network in the ASP area that links naturalized areas to existing Municipal Reserve parcels, recreation and open spaces and

stormwater management facilities.

- 6.7.2.8. Incorporate the development of trails in the construction of new stormwater management facilities. Trail construction should comply with all applicable Municipal Engineering standards and recommendations outlined in the 2009 Recreation, Parks and Open Space Master Plan.
- 6.7.2.9. Parkland County, where applicable, will incorporate recommendations from the 2009 Recreation, Parks & Open Space Master Plan to support recreational uses in the ASP area.
- 6.7.2.10. Investigate the potential of entering into capital contribution agreements with landowners / developers to offset costs for the expansion and maintenance of public recreational amenities in the ASP area.

6.8. Agriculture

6.8.1. Objectives

- 6.8.1.1. To allow continued agricultural uses in the ASP area until the phasing of development requires land to be converted for industrial or commercial uses.
- 6.8.1.2. To encourage sustainable and environmentally responsible agricultural practices.

6.8.2. Policies

- 6.8.2.1. Allow existing agricultural uses in the ASP area to continue until the phasing of industrial development requires the land to be converted for industrial or commercial uses.
- 6.8.2.2. New agricultural uses proposed in the ASP area shall comply with the Land Use Bylaw and policies outlined in this Area Structure Plan where applicable.

6.9. Oil and Gas Development

6.9.1. Objectives

- 6.9.1.1. To promote continued public health and safety of oil and gas infrastructure and to avoid incompatible adjacent development until production is completed.
- 6.9.1.2. To protect the oil and gas infrastructure from encroachment by abutting uses.

6.9.2. Policies

- 6.9.2.1. Manage encroachment relative to oil and gas infrastructure through the use of easements or separately titled parcels that shall protect land within the setback area from future development. Restrictive covenants shall also be used to protect oil and gas infrastructure from incompatible development and land uses.
- 6.9.2.2. Establish a communication protocol for how the County communicates with oil and gas representatives. The protocol shall address how safety and evacuation procedures are communicated to the County and to the public.
- 6.9.2.3. All Oil and Gas and pipeline operators in the ASP area will be expected to keep their Emergency Response Plans current, and to forward the County any updated copies of the plan and any other important information related to emergency response planning in the ASP area.

6.10. Special Study Areas

6.10.1. Objectives

- 6.10.1.1. Undertake additional planning, environmental (ecological) studies and consultations with landowners and stakeholders to determine future land uses for special study lands.
- 6.10.1.2. Undertake consultation with the City of Spruce Grove and the City of Edmonton to address land use, servicing and access issues related to future development on special study lands.
- 6.10.1.3. Comply with the Capital Region Land Use Plan requirements related to conservation buffers for lands adjacent to Wagner Natural Areas.

6.10.2. Policies

General Policies – all areas

- 6.10.2.1 Parkland County shall consult with neighbouring municipalities, landowners and relevant stakeholders prior to any decision being made on future land use designations in special study area lands.
- 6.10.2.2 Planning and environmental (ecological studies) used to inform future land use planning on special study lands shall comply with all relevant requirements outlined in the Capital Region Land Use Plan and all other relevant federal or provincial plans, standards and regulations.
- 6.10.2.3 Existing, non intensive land uses on special study lands shall be allowed to continue until future land uses have been designated and all required statutory and regulatory plan amendments have been approved.
- 6.10.2.4 Notwithstanding policy 6.10.2.3, discretionary uses allowed under the Land Use Bylaw shall be subject to the completion of studies identified under this, or any other section of the ASP and any additional consultation determined necessary by the County.

Additional policies - Special Study Area A – South and west of Wagner Natural Area

- 6.10.2.5 Undertake an independent ecological assessment of the lands south and west of Wagner Natural Area to identify the appropriate setback and transition of land uses from the Wagner Natural Area.
- 6.10.2.6 Where required, the County may undertake additional planning, environmental, or biophysical studies to determine appropriate future land uses for lands in Special Study Area A.

- 6.10.2.7 Further to policies 6.10.2.5 and 6.10.2.6, Parkland County will explore the potential cost sharing of studies which would benefit both the County and City of Spruce Grove.
- 6.10.2.8 Parkland County will consult with the City of Spruce Grove to identify potential land uses for lands immediately adjacent to Spruce Grove. These lands are located in the E ½ of 12-53-27-W4M, and the E ½ of 1-53-27-W4M.
- 6.10.2.9 Maintain the AGG – Agricultural General and AGR – Agricultural Restricted land use districting in the Land Use Bylaw to allow landowners the ability to continue existing agricultural uses on lands south and west of Wagner Natural Area.
- 6.10.2.10 Developments that are proposed in Special Study Area A that are located within the Wagner Natural Area Recharge Zone shall comply with all policies in this ASP related to environmental and stormwater management, and other ASP policies where required.
- 6.10.2.11 A separation buffer of 200 metres, as identified in Figure 5 – Future Land Use, shall be established on the west side of Spruce Valley Road. The 200 metre separation buffer shall be measured from the west edge of the right-of-way for Spruce Valley Road.
- 6.10.2.12 Long term planning of lands in Special Study Area A shall consider the development of recreational trails between the ASP area and the City of Spruce Grove. The development of recreational trails is contingent upon the timing of joint planning initiatives with the City of Spruce Grove.

Additional policies - Special Study Area B – Edmonton suburban interface

- 6.10.2.13 Parkland County will consult with the City of Edmonton to identify potential future land uses for lands located in Special Study Area B.
- 6.10.2.14 The timing of development of lands in Special Study Area B will be contingent upon the approval of any additional Alberta Transportation plans and servicing agreements between Parkland County and the City of Edmonton.
- 6.10.2.15 Maintain the AGR – Agricultural Restricted land use districting in the Land Use Bylaw to allow landowners the ability to continue existing uses on lands located in the S ½ 35-52-26 W4M and N ½ 26-52-26 W4M.
- 6.10.2.16 Parkland County will explore the potential cost sharing of studies with the City of Edmonton in planning future land uses for Special Study Area B. Potential studies include, but are not limited to, planning studies, traffic impact assessments and servicing studies.

7. DEVELOPMENT STAGING

The ASP area shall be developed in an orderly and logical manner based on a number of factors including:

1. existing (and planned) infrastructure servicing and timelines;
2. approved Alberta Transportation plans;
3. proximity to existing (already developed) parcels; and,
4. projected (future) development activity

Development shall generally follow the staging concept identified in Figure 13 – Development Staging. All developments shall comply to policies outlined in this Area Structure Plan and any other applicable municipal, provincial and federal policies, standards and legislation.

7.1.1 Objectives

- 7.1.1.1 Establish an orderly and logical development pattern for the ASP area that takes into consideration existing (and planned) infrastructure servicing, approved Transportation plans, proximity to existing developments and existing and future development activity.

7.1.2 Policies

- 7.1.2.1 Development of Acheson shall follow an orderly and logical development pattern as identified in Figure 13 – Development Staging. Development shall follow the hierarchy of staging with:
- (a) Stage 1 – Immediate Development preceding before Stage 2 – Near Development;
 - (b) Stage 2 – Near Development preceding before Stage 3 – Mid to Long Term Development; and,
 - (c) Stage 3 – Mid to Long Term Development preceding before Stage 4 – Long Term Development.
- 7.1.2.2 Development should not proceed to the next stage of development until 80% of total lands within the current stage have been subdivided or developed.
- 7.1.2.3 Immediate development shall be focused in Stage 1 – Immediate Development. Development shall contemplate, where applicable, the redevelopment of existing parcels and infill development on vacant parcels or underutilized parcels.
- 7.1.2.4 Upon build out of Stage 1 – Immediate Development, development shall then proceed to Stage 2 – Near Development. Development timing for Stage 2 will be contingent upon the extension of servicing from Stage 1, as well as approved Alberta Transportation plans.

- 7.1.2.5 Upon build out of Stage 2 – Near Development, development shall then proceed to Stage 3 – Mid to Long Term development. Development timing for Stage 3 will be contingent upon the extension of servicing from stages 1 and 2, as well as approved Alberta Transportation plans.
- 7.1.2.6 In addition to adhering to the general development pattern outlined in Figure 13 – Development Staging:
- (a) development of S2 lands on NW 11-53-26-W4M, will be contingent upon the decommissioning of existing oil and gas wells and land reclamation;
 - (b) development of S3 lands on NE 11-53-26- W4M, will be contingent upon the decommissioning of existing oil and gas wells and land reclamation;
 - (c) development of S3 lands on SE 2-53-26-W4M will be contingent upon reclamation of the current landfill; and,
 - (d) development of the S3 lands on NE 35-52-26-W4M will be contingent upon obtaining appropriate municipal servicing to support development.
- 7.1.2.7 Development of Stage 4 – Long Term Development lands in the north east corner of the ASP area will be contingent upon the decommissioning of existing oil and gas wells and land reclamation, as well as approved Alberta Transportation plans.
- 7.1.2.8 Timelines for Stage S5 development will be determined once Alberta Transportation has confirmed the design and road realignment of Highway 628. Timeline for the development of NE 27-52-26-W4M will be contingent upon the proposed expansion of the Range Golf and Country Club.
- 7.1.2.9 Development of the recreational area on NE 35-52-26-W4M (Cholla landfill) will be contingent upon finalizing land reclamation activities and obtaining all appropriate County and Alberta Transportation approvals.
- 7.1.2.10 Notwithstanding policies 7.1.2.1 - 7.1.2.7, development may occur outside of the development staging in which it is located as long as the following conditions are met:
- (a) the landowner / developer has provided full municipal servicing (water and sanitary) on their site;
 - (b) the landowner / developer has retained all applicable Alberta Transportation approvals, and complies with all applicable Alberta Transportation plans;
 - (c) all on-site decommissioning or land reclamation that is required on a particular site (if applicable) has been completed and the appropriate certificates from Alberta Environment or other agencies have been obtained; and,

(d) the landowner / developer has complied with the policies in this Area Structure Plan and with all other applicable municipal, provincial and federal policies, standards, legislation and agreements.

7.1.2.11 Further to Policy 7.1.2.10 (a) to (d), the Development Authority may require proof of compliance at the time of subdivision or development permit application that all conditions have been met..

7.1.2.12 The County reserves the right to delay development staging for the ASP area where municipal services cannot be adequately provided.

8 NEXT STEPS AND IMPLEMENTATION

8.1 Next Steps

Capital Regional Board

Due to the regional significance of the Acheson Industrial Area Structure Plan, the Plan will be referred to the Capital Region Board (CRB) as part of the Regional Evaluation Framework (REF) after first reading by Parkland County Council. After comments have been received by the CRB, Council will then proceed with public hearing and final adoption of the Acheson Area Structure Plan.

8.2 Implementation

Land Use Bylaw amendments

Amendments to the Land Use Bylaw (LUB) will be required to ensure consistency between statutory plans as required under Section 633 of the Municipal Government Act. LUB amendments will provide landowners and developers with a degree of certainty as to the standards and regulations for land use in the ASP area.

Amendments may include changes to existing regulations (i.e. amending general development regulations and specific land use district regulations), and establishing new regulations where direction is provided in this ASP. Mapping changes to existing LUB maps will also be required as part of the proposed LUB amendments.

Implementation Matrix

Once Land Use Bylaw amendments have been completed, County administration will develop an Implementation Matrix identifying how policies in the Area Structure Plan will be implemented. The matrix will identify items including (but not limited to) lead and secondary organizations, potential (broad) timelines and additional resources required for implementation.

Review of Acheson Industrial Area Structure Plan

Parkland County endeavours to keep the Acheson Industrial Area Structure Plan up to date and relevant. As such, the County will review the Area Structure Plan, at minimum, once every five (5) years to ensure the plan reflects development in the ASP area, and remains compliant with municipal, provincial and federal statutory plans, policies and standards.

9 APPENDIX ONE: PLAN STATISTICS

9.1 Land Use Statistics

The following table outlines the proposed land use statistics for the ASP area. Statistics have been broken down by land uses within the ASP area. No residential development is proposed in the ASP area at this time, and therefore no statistics related to density is provided.

	Area (ha)	% of Gross area
Gross Area	5,019 ha	100 %
Wagner Natural Area	253.7	5.1 %
Osborne Acres	71.8	1.4 %
Osborne Acres Buffer	69.8	1.4 %
Existing Development Area (Stage 1)	683.8	13.6 %
Road right of ways (includes highways)	335.9	6.7 %
Existing CNR Right-of-way	40.7	0.8 %
Existing Public Utility (PUL) lots	30.1	0.6 %
Existing Reserve and County lands (includes existing MR, ER parcels and other County owned lands) Does not include part SW 9-53-26-W4M	13.4	0.3 %
Total	1,499.2	29.9 %
Gross Development Area (GDA)	3,519.8	70.1 %
Future MR designation	279.2	5.6 %
Future roads	837.5	16.7 %
Total removed from GDA	1,116.7	22.2 %
Net Development Area	2,403.1	47.9 %
Future Industrial Commercial designation (future MR and roads removed at 10% and 30%)	1,245.7	24.7 %
Future Recreational designation (future MR and roads removed at 10% and 30%)	85.9	1.7 %
Proposed Buffer – adjacent Special Study Area A	11.6	0.2 %
Special Study Area – A	462.7	9.2 %
Special Study Area – B	257.6	5.1 %
Future Industrial Holdings (future MR and roads removed at 10% and 30%)	341.1	6.8 %
TOTAL		100.0 %

Notes:

1. Numbers reported above are approximate. Specific land use numbers should be confirmed at the time of subdivision.
2. Future MR dedication was calculated by removing 10% of land from gross industrial commercial designation, industrial holdings and future recreational designations.
3. Future roads dedication was calculated by removing 30% of land from gross industrial commercial designation, industrial holdings and future recreational designation.

Disclaimer:

Net development calculations may be lower than reported due to using a maximum of 10% and 30% amounts to calculate MR and road allowance percentages outlined in the *Municipal Government Act*.

9.2 Employment statistics

9.2.1 Capital Region Board Employment projections – Parkland County

Future employment estimates for Parkland County were prepared by the Capital Region Board (CRB) as part of the Capital Region Growth Plan. As part of the *Capital Region Population & Employment Projections Report (March 2009)*, employment growth in Parkland County is expected to increase with continued development in the ASP area. Specifically, growth will be concentrated in the areas of manufacturing, primary industries and commercial services (*Population & Employment Projections Report, 2009*).

Using the 2.6 % (alternate) growth rate scenario supported by the Capital Region Board, the following employment generation is expected for Parkland County.

Parkland County employment generation (using 2.6 % employment growth rate)			
2012	2017	2022	2027
7,874	8,953	10,179	11,572
Note: 1. Values are derived from a starting value of 7,106 employment positions as estimated by the Capital Region Board in the <i>Population & Employment Projections Report</i> . 2. Values are estimated on a five year basis consistent with a typical update period for an area structure plan (ASP).			

9.2.2 Parkland County – ASP area employment projections

Approximate employment projections have been completed for full – build of all S2, S3 and S4 lands in the ASP area. The approximate gross and net hectares (ha) for the following areas are as follows:

DEVELOPMENT STAGE	GROSS HECTARES	NET HECTARES
S2 – Near Development	772.1 ha	463.3
S3 – Mid-long Term Development	1,055.9 ha	633.6
S4 – Long Term Development	243.5 ha	146.1
TOTAL		1243.0 *
Note: 1. Net hectares (ha) includes the removal of 10% Municipal Reserve (MR) and 30 % for future roads for each development stage. 2. Net hectares (ha) for S2 - S4 lands does not include six (6) separate industrial and commercial lots located in the S5 lands along Highway 628. This accounts for the difference of approximately three (3) ha reported in the Land Use Statistics table.		

In 2012, the County estimates that 4,320 full time positions (FTP) and 1,080 part time or seasonal positions (PT/S) existed in the ASP area (5,400 jobs total).

Employment positions in the ASP area were located in the S1 – Immediate Development Area (683.8 net hectares). This constitutes an approximate employment / net ha ratio of **8 jobs / net ha**.

The approximate employment (job) generation for each development stage at full build out is as follows:

Estimated ASP area employment generation: S2 – S4 designated lands (utilizing a 8.8 jobs / net ha factor)		
	Net hectares (ha) at full build-out	Estimated jobs
Stage 2	463.3	3,706 jobs
Stage 3	633.6	5,068 jobs
Stage 4	146.1	1,169 jobs
Total net lands	1,243.0	
Total increase in jobs		9,943 jobs
Note: 1. Lands designated S5 – Industrial Holdings were not included in employment projection calculations since Alberta Transportation land requirements for the realignment of Highway 628 are unknown at this time. 2. Study Area A and Study Area B were not included in employment projection calculations since land uses for these areas are unknown at this time.		

The estimated Full Time (FTP) and Part time / seasonal (PT/S) jobs estimated for S1, S2, S3 and S4 lands at full build out are as follows:

Total estimated ASP employment generation: S1 – S4 lands at full build out (FTP positions calculated at 80% of total jobs)			
	Total jobs	FTP	PTP / S
Stage 1 (existing development)	5,400	4,320	1,080
Stage 2	3,706	2,965	741
Stage 3	5,068	4,055	1,013
Stage 4	1,169	935	234
Total by type		12,275	3,068
Total employment generation: S1 – S4 lands at full build-out.	15,343		
Disclaimer: 1. Total employment generation numbers reported are lower than anticipated for the entire ASP area due to the non factoring in of the S5 – Industrial Holding lands, Special Study Area A and Special Study Area B lands. Total employment generation numbers will be updated once developable hectares and land uses for all outstanding lands have been determined.			

Future Trends

Parkland County expects the jobs / ha ratio to increase in the medium – long term as development in the ASP area continues. Base data outlined in this ASP, along with other economic development data prepared by the County and Capital Region Board will be used to continue to track trends in employment generation for the ASP area.

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MAP 1 –ACHESON INDUSTRIAL AREA LOCATION (OCTOBER 2012)

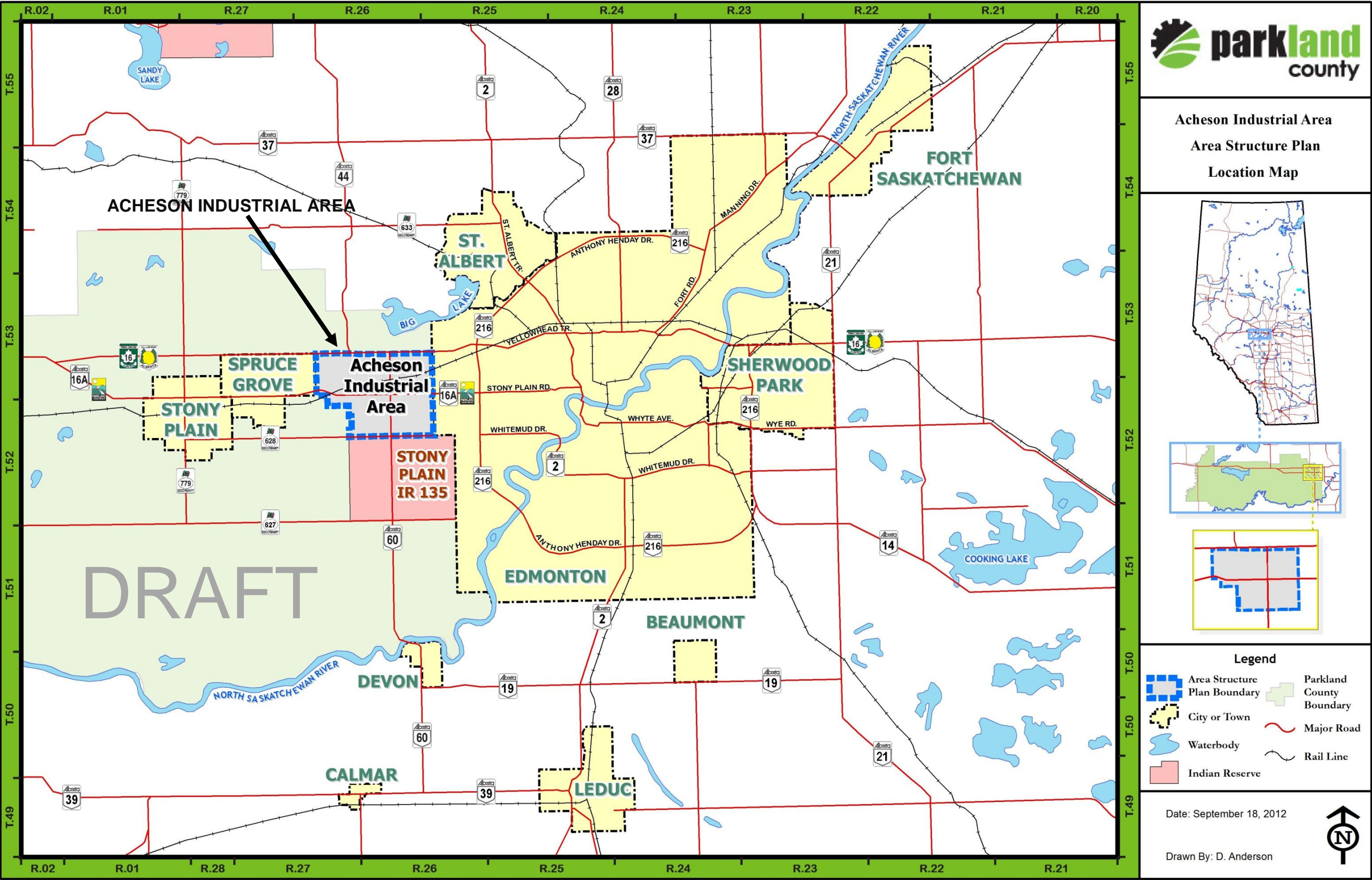


FIGURE 1 –EXISTING LAND USE (OCTOBER 2012)

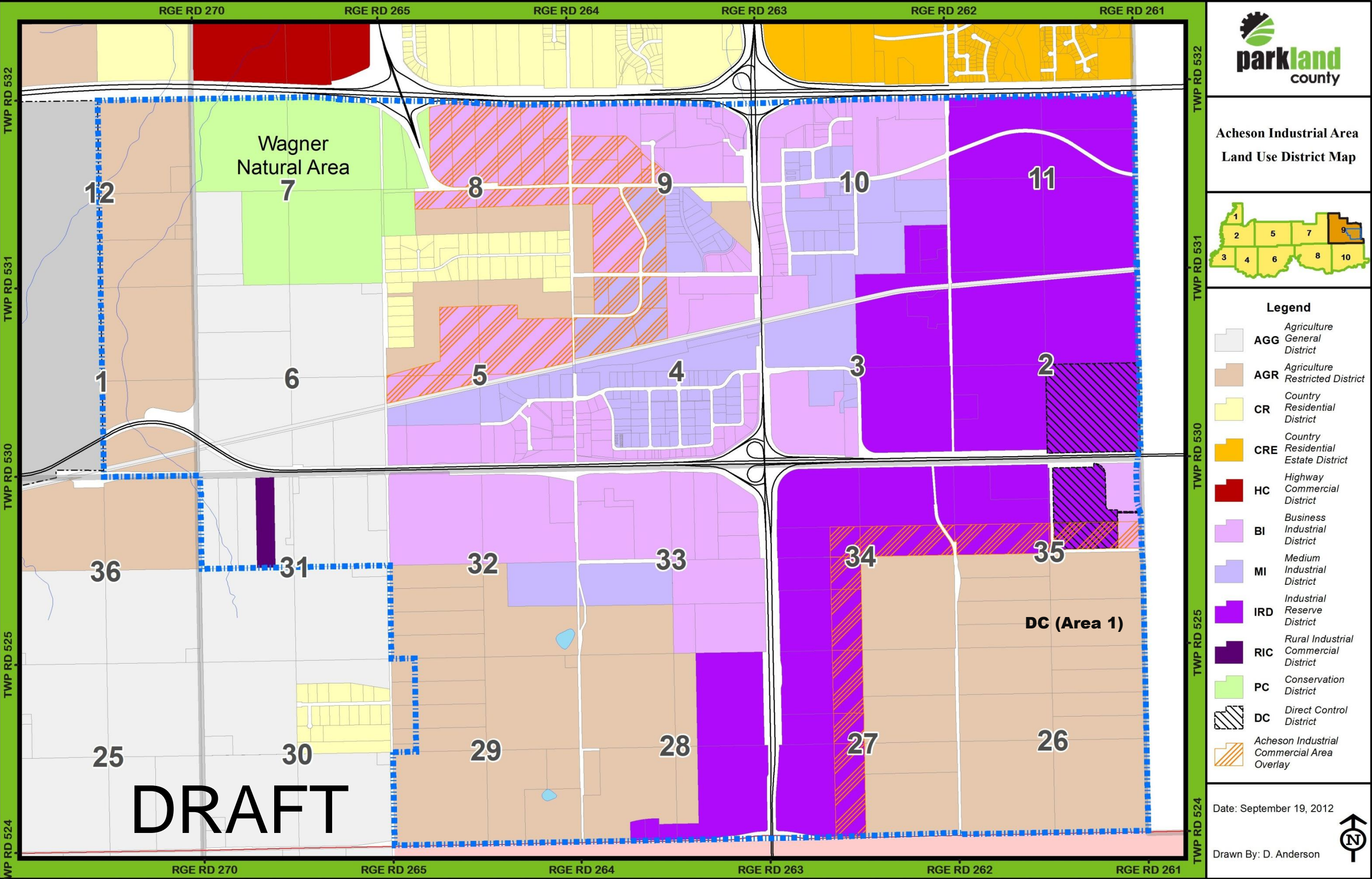


FIGURE 2 –AREA STRUCTURE PLAN BOUNDARY (OCTOBER 2012)

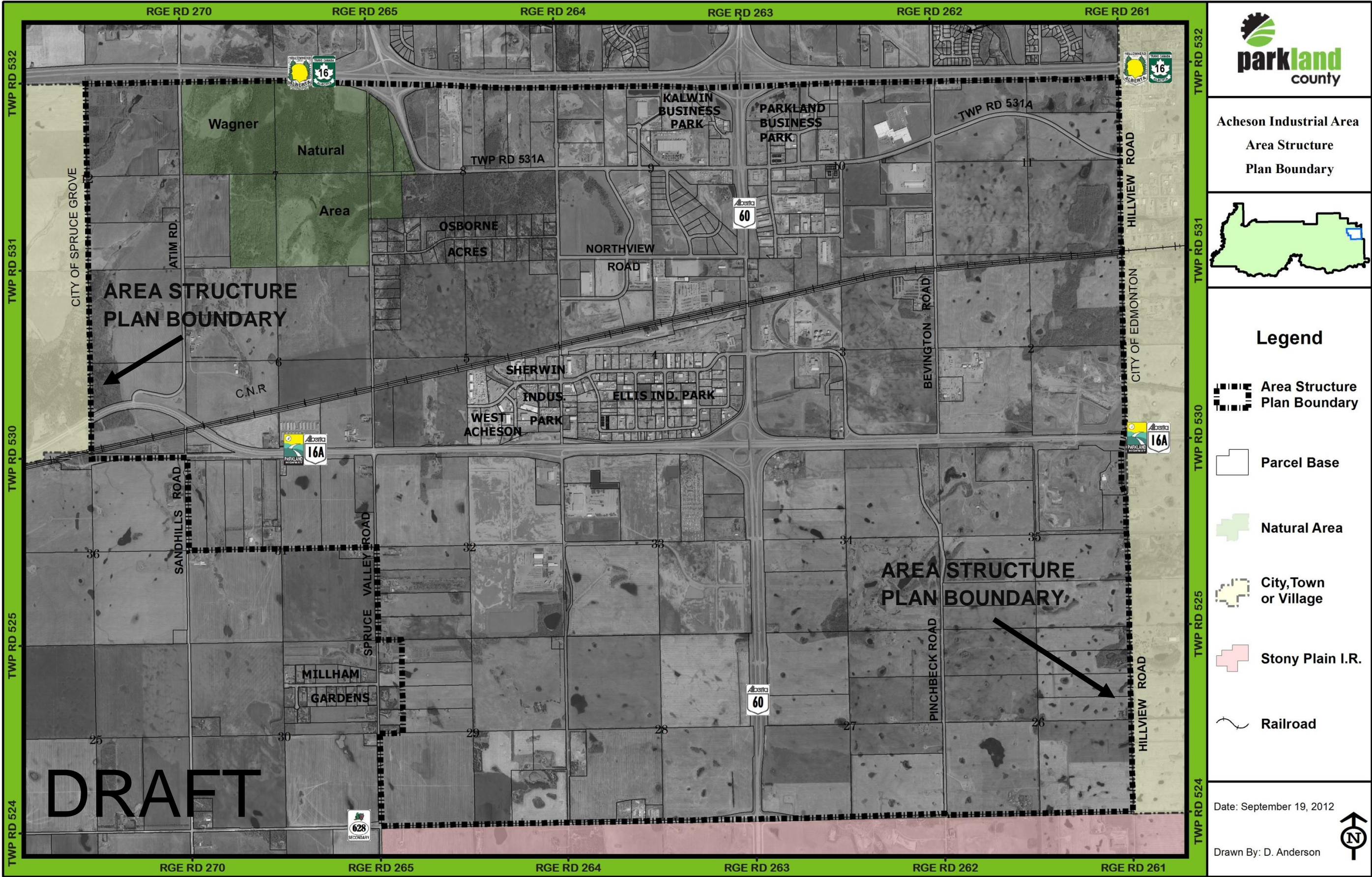


FIGURE 3 –TOPOGRAPHY MAP (OCTOBER 2012)

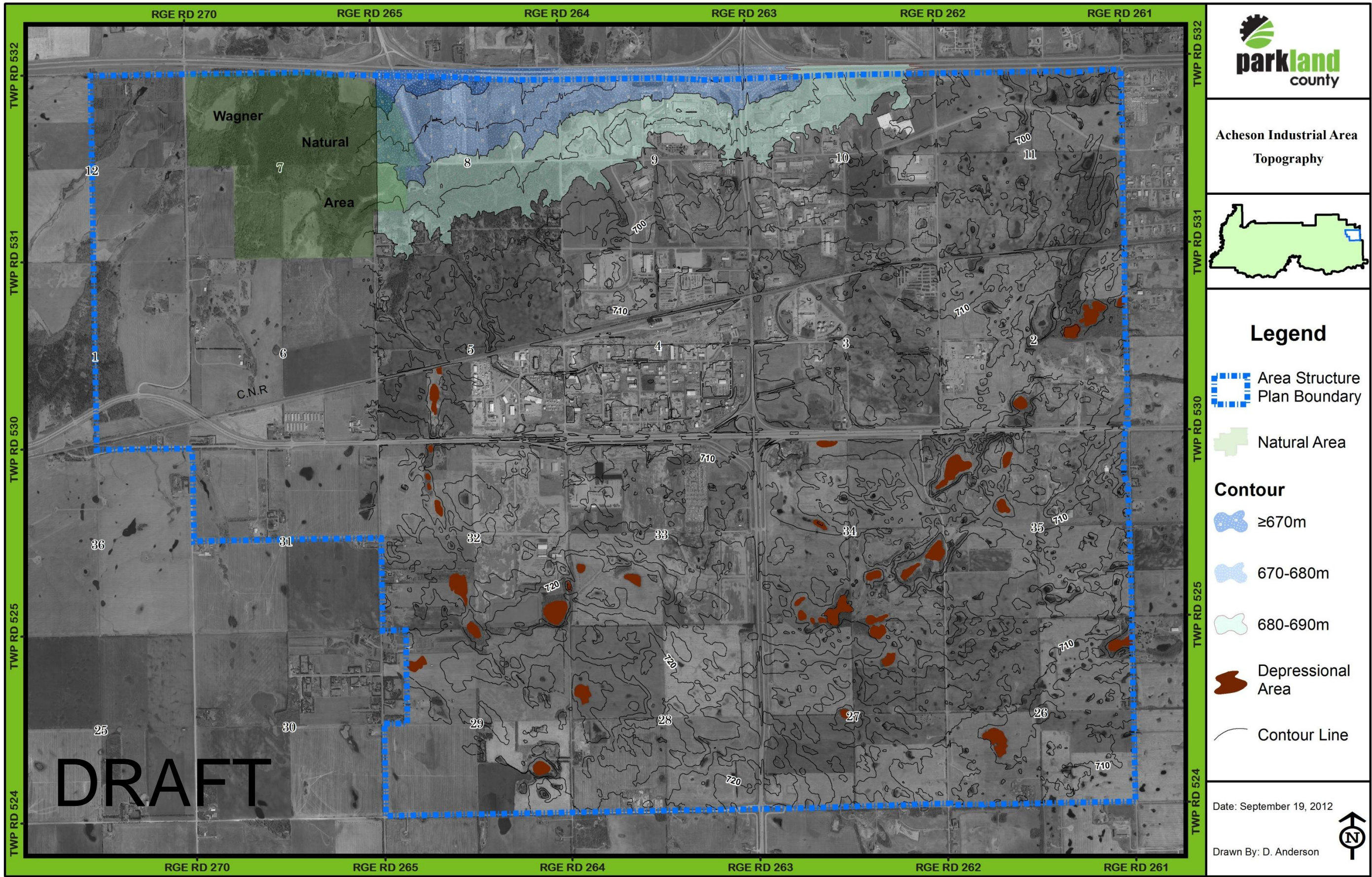
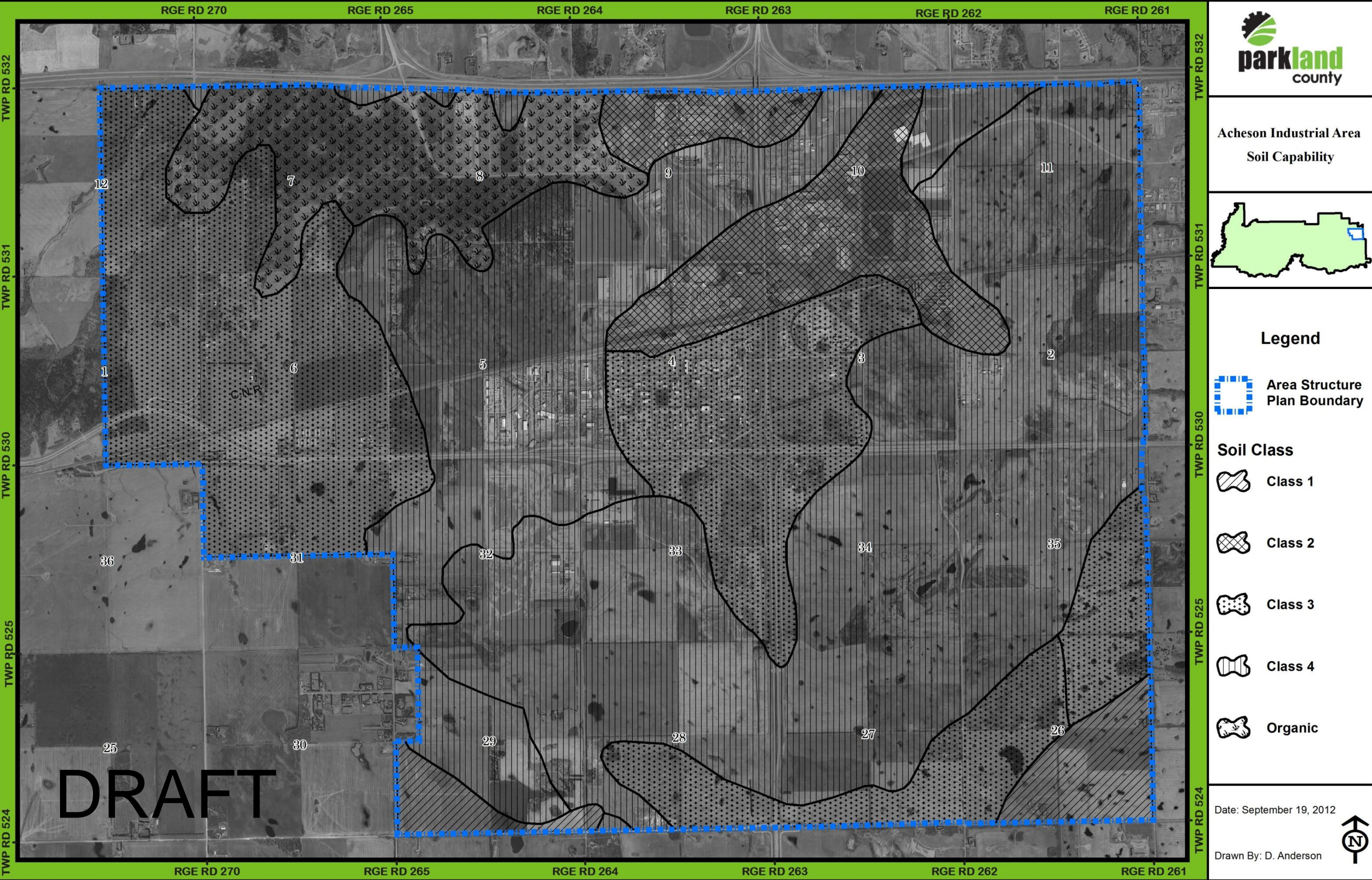


FIGURE 4 –SOIL CAPABILITY MAP (OCTOBER 2012)



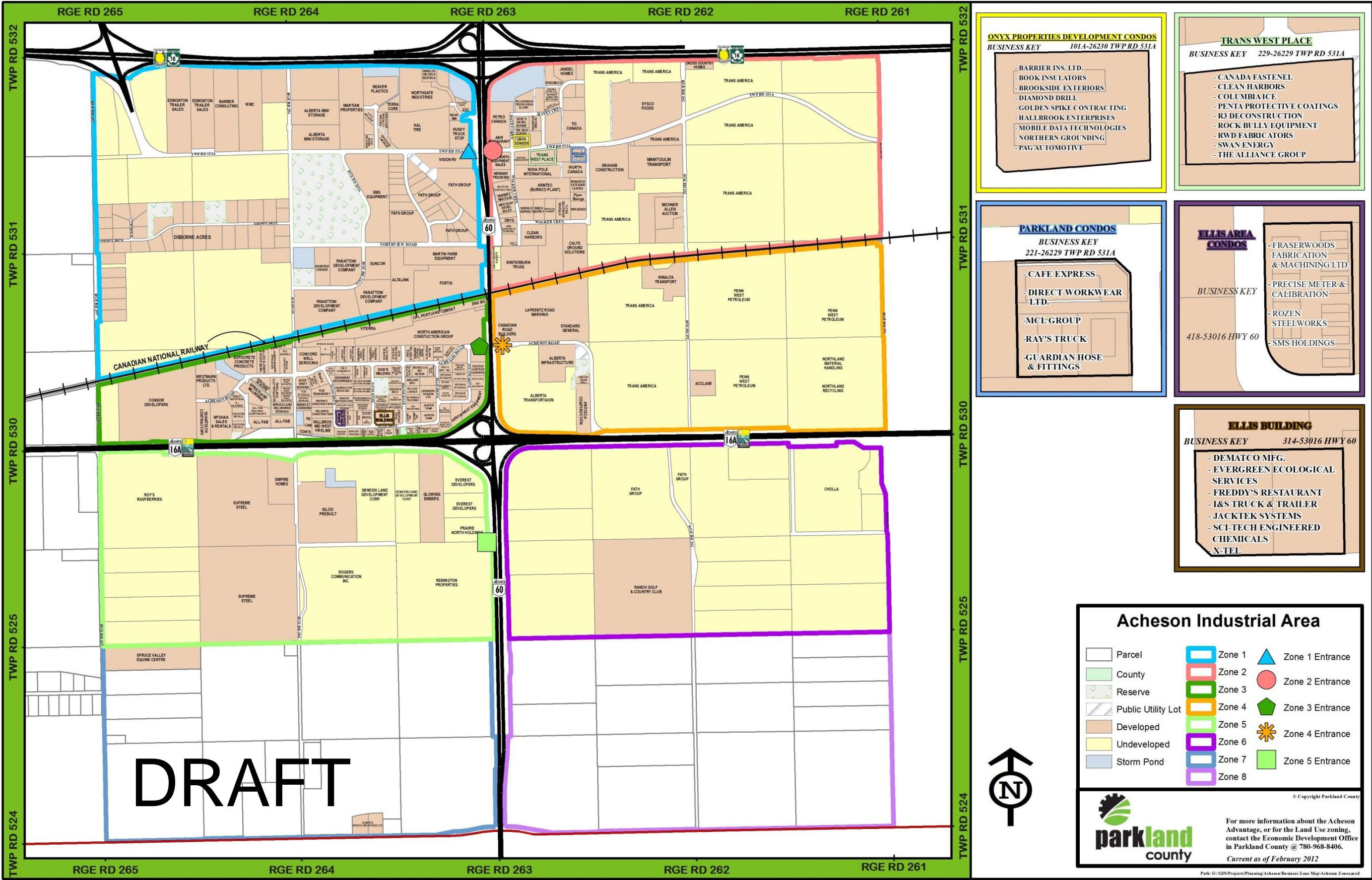


FIGURE 5 -FUTURE LAND USE CONCEPT MAP (OCTOBER 2012)

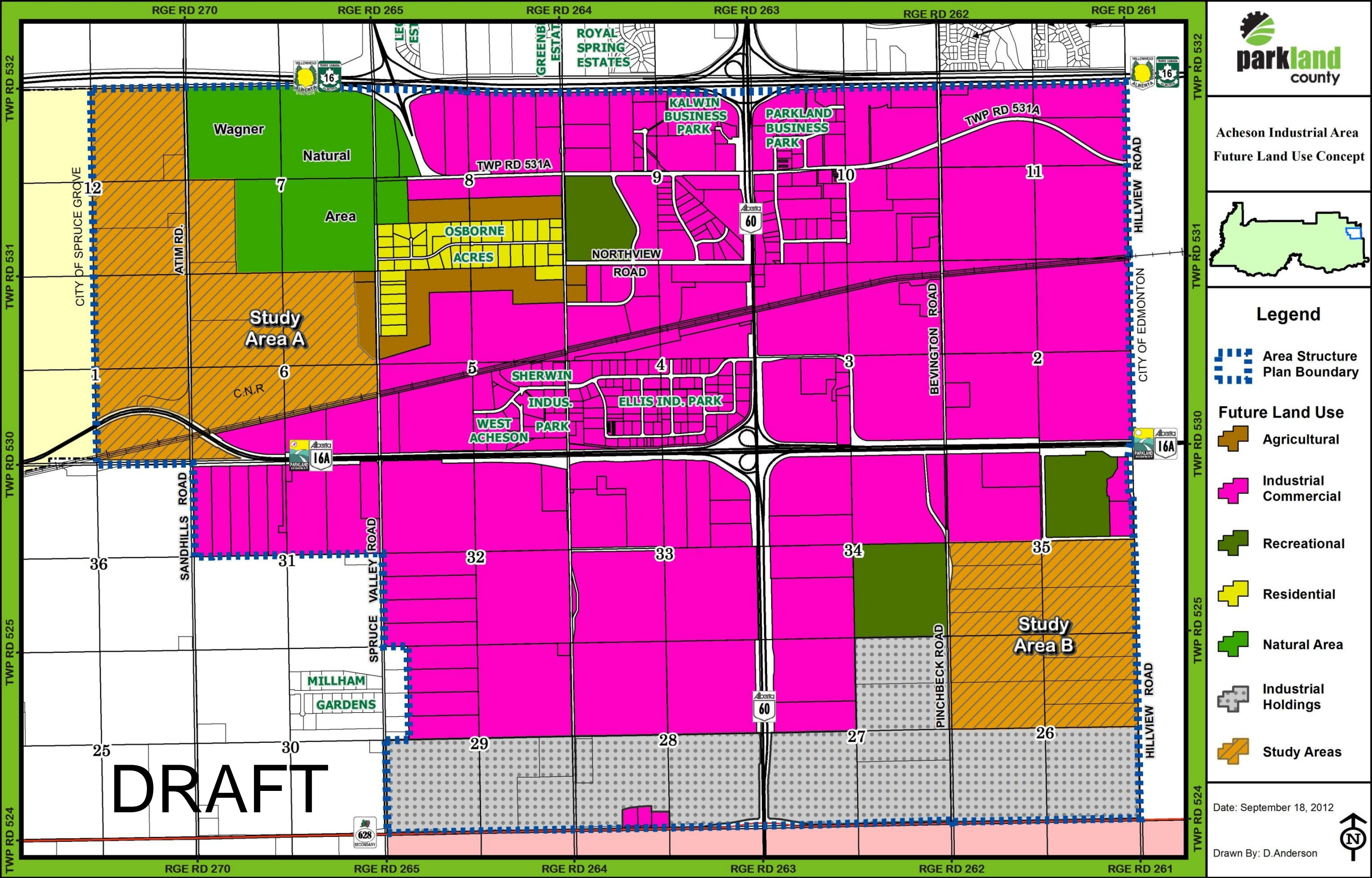


FIGURE 6 –WAGNER NATURAL AREA AND RECHARGE ZONE (OCTOBER 2012)

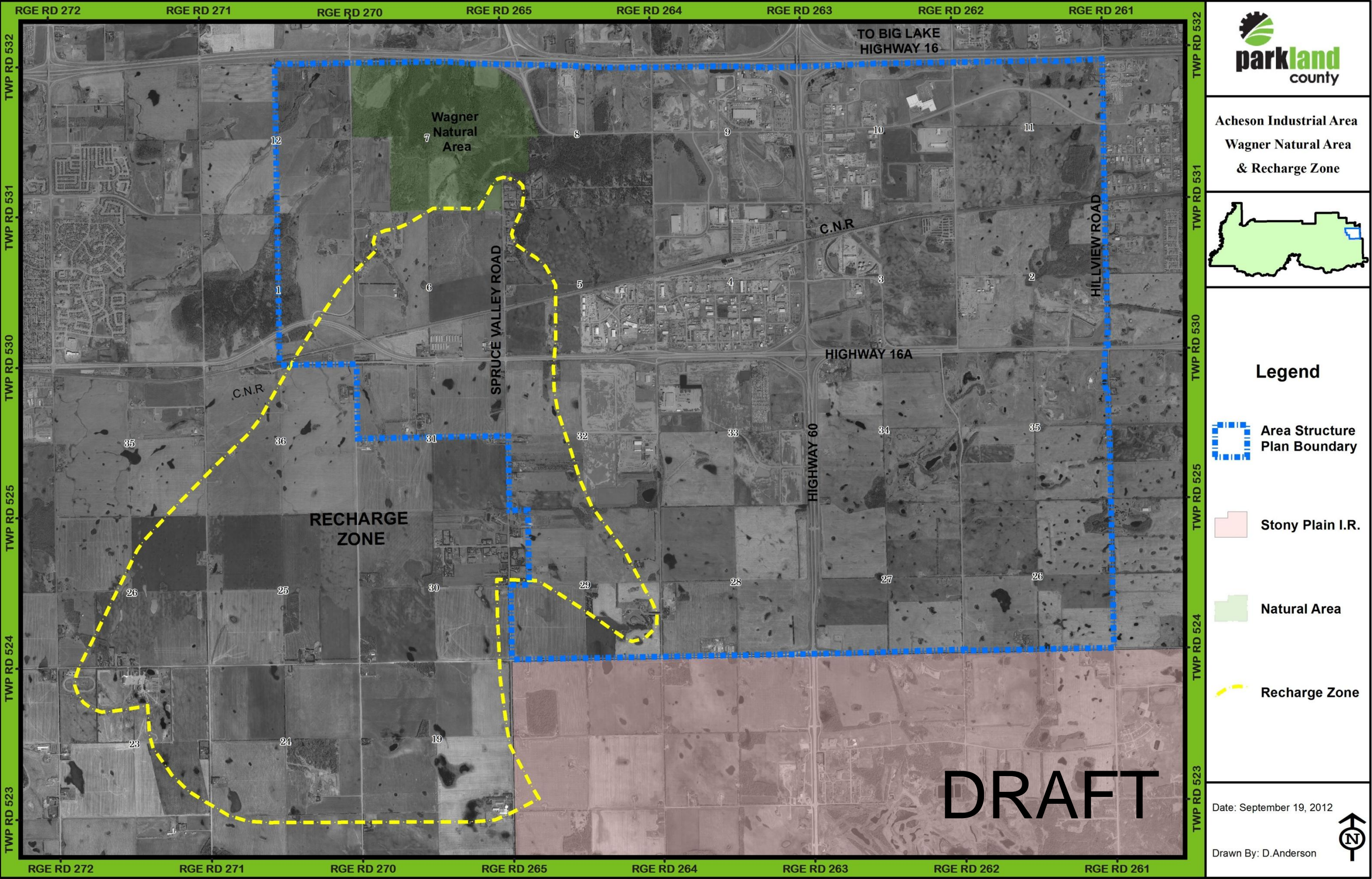


FIGURE 7 –EXISTING AND PROPOSED (ULTIMATE DEVELOPMENT) WATER NETWORK (OCTOBER 2012)

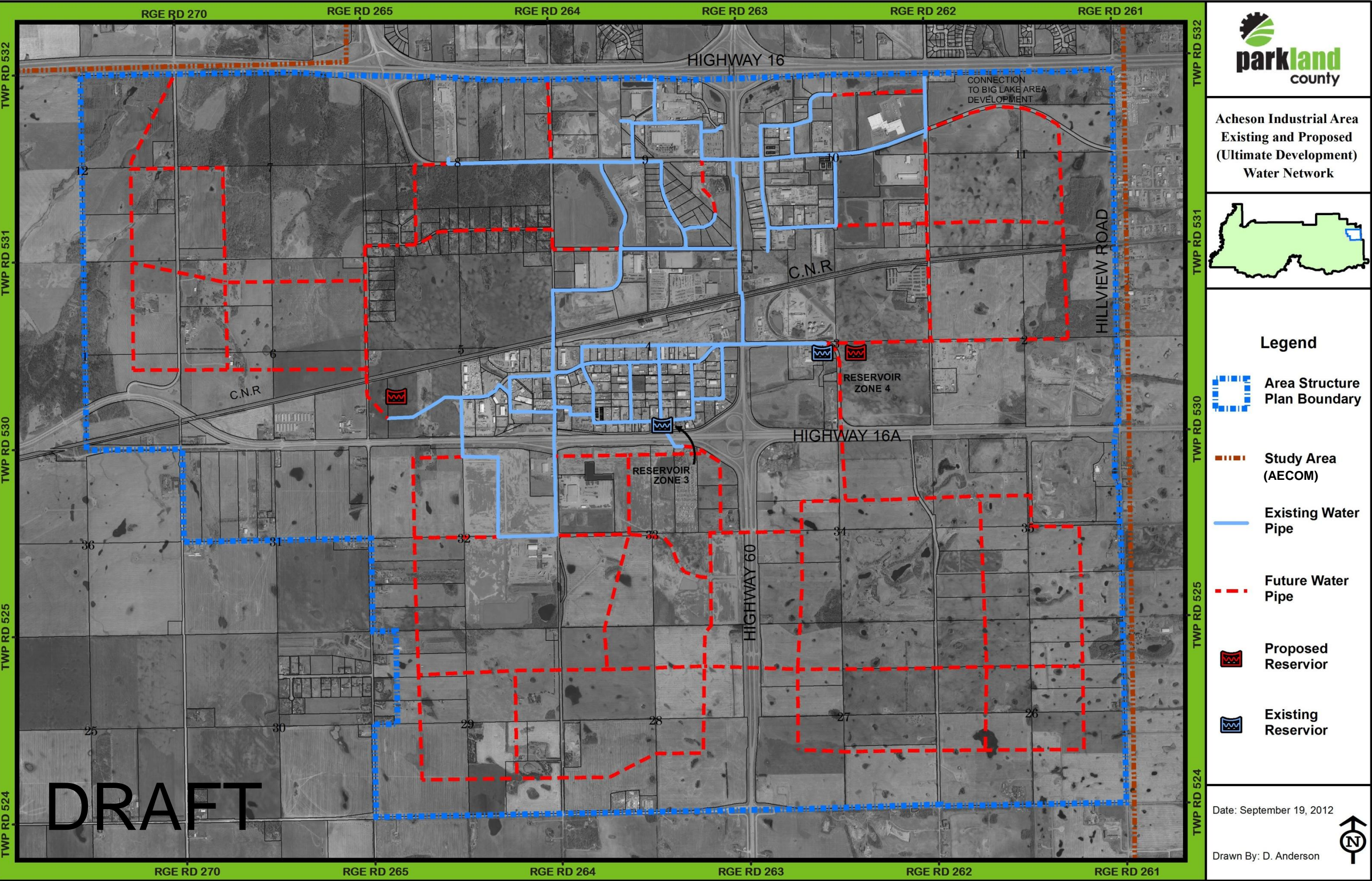


FIGURE 8 –EXISTING AND PROPOSED (ULTIMATE DEVELOPMENT) SANITARY SEWER IMPROVEMENTS (OCTOBER 2012)

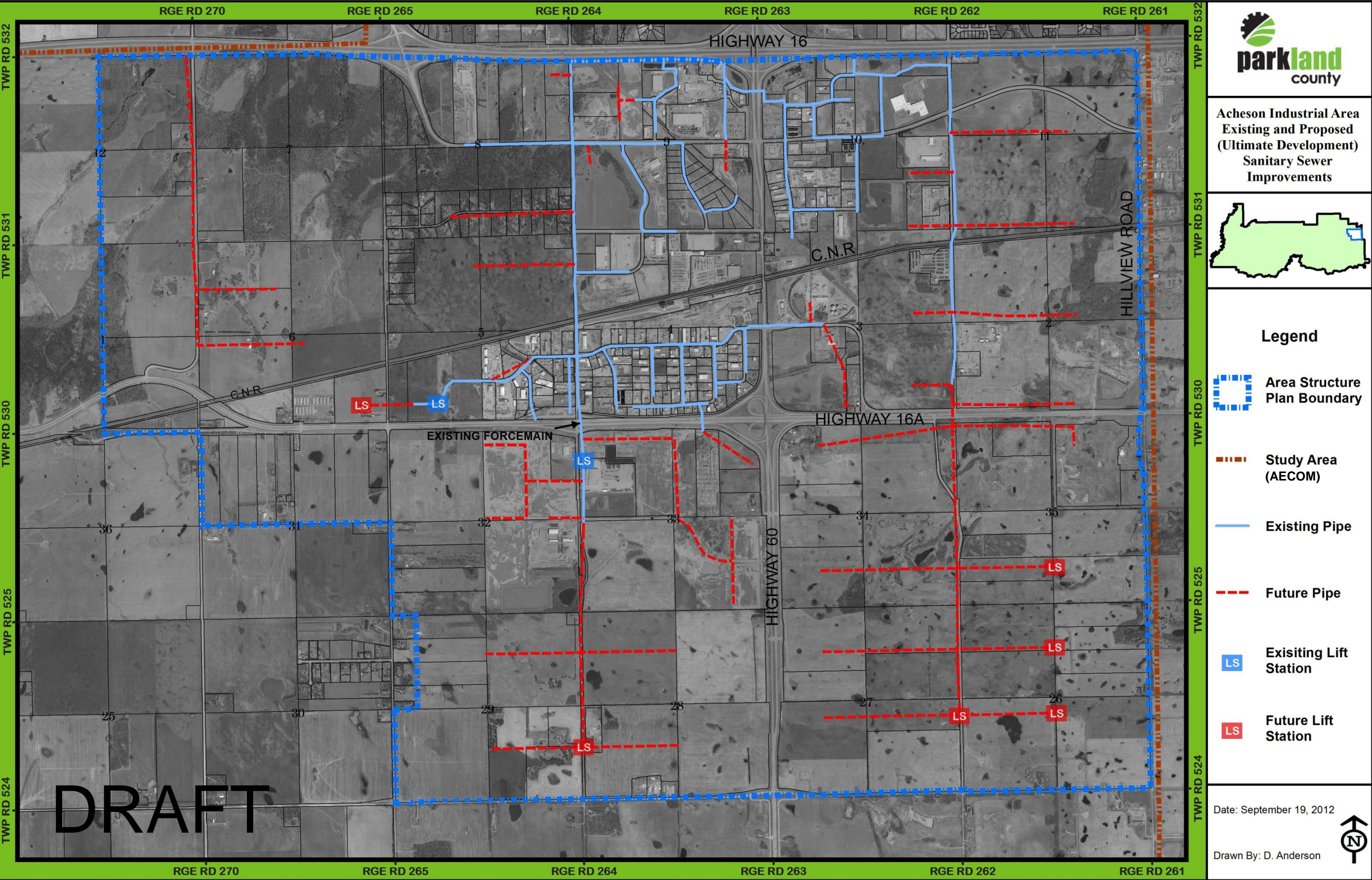


FIGURE 9 –EXISTING STORMWATER MANAGEMENT FACILITIES AND DRAINAGE PATHS (OCTOBER 2012)



FIGURE 10 FUTURE TRANSPORTATION IMPROVEMENTS

(OCTOBER 2012)

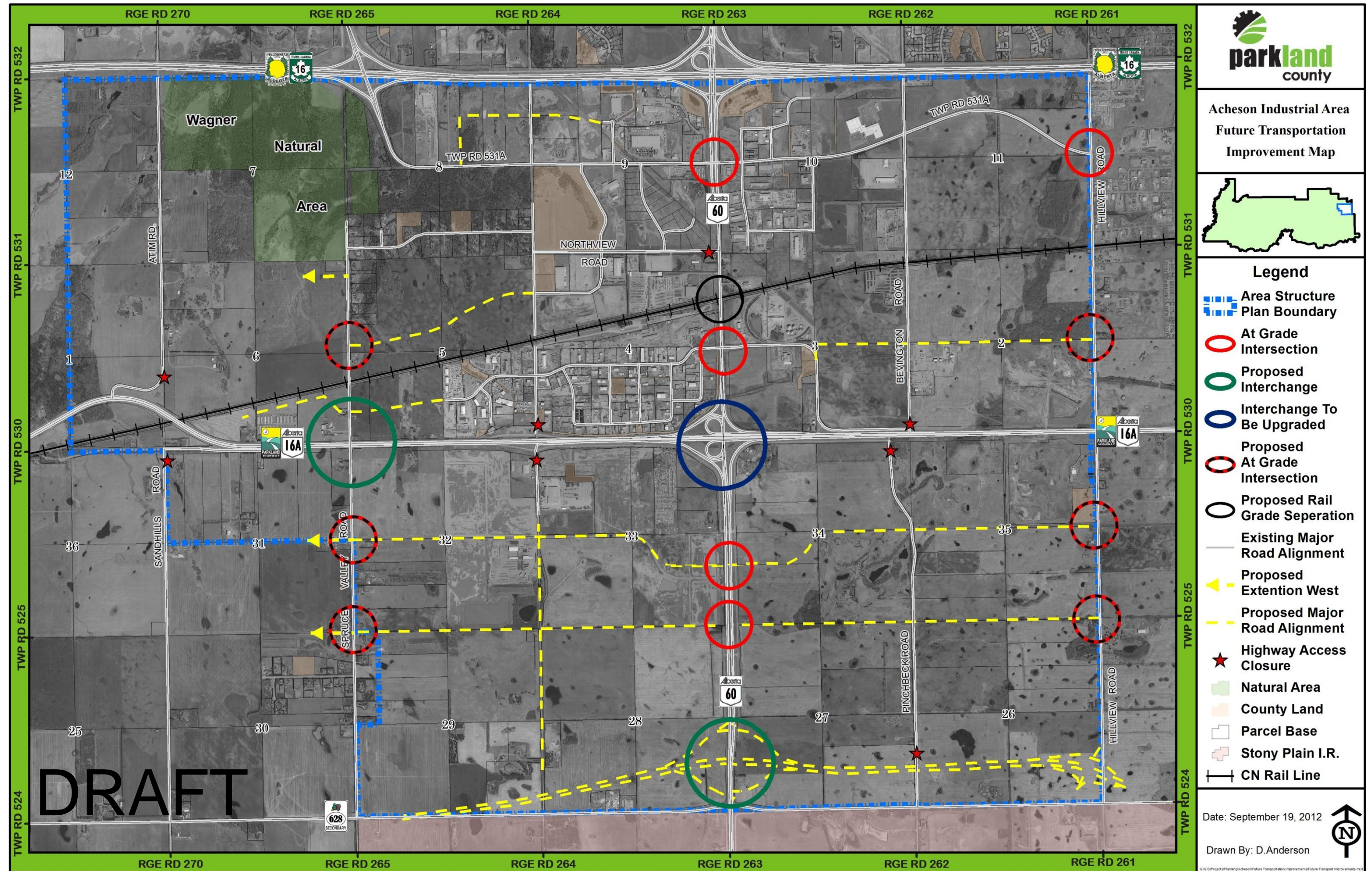


FIGURE 11 SERVICE ROAD ALTERNATIVE FROM TIA (OCTOBER 2012)

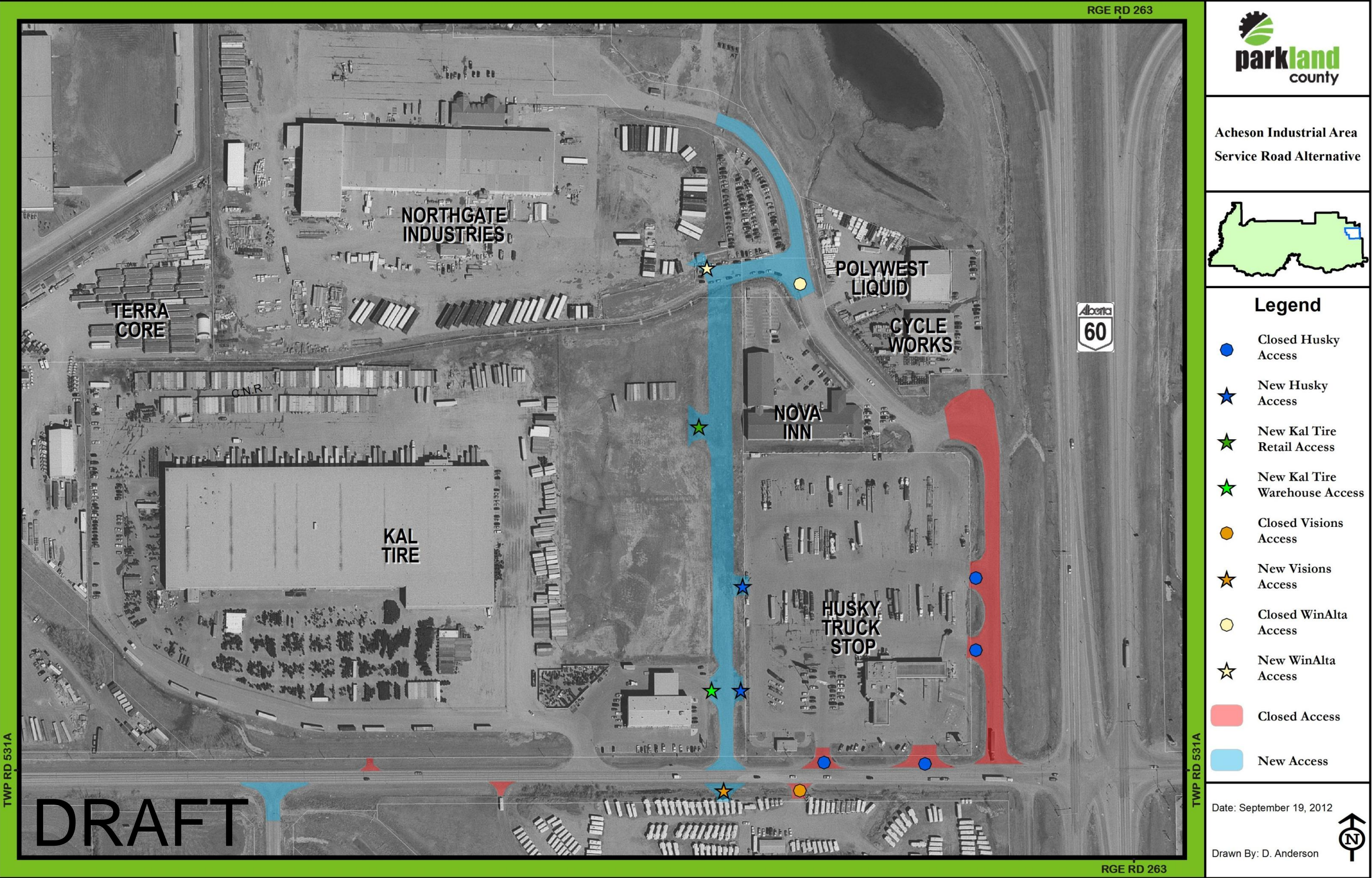


FIGURE 12 EXISTING OIL AND GAS FIELDS (OCTOBER 2012)

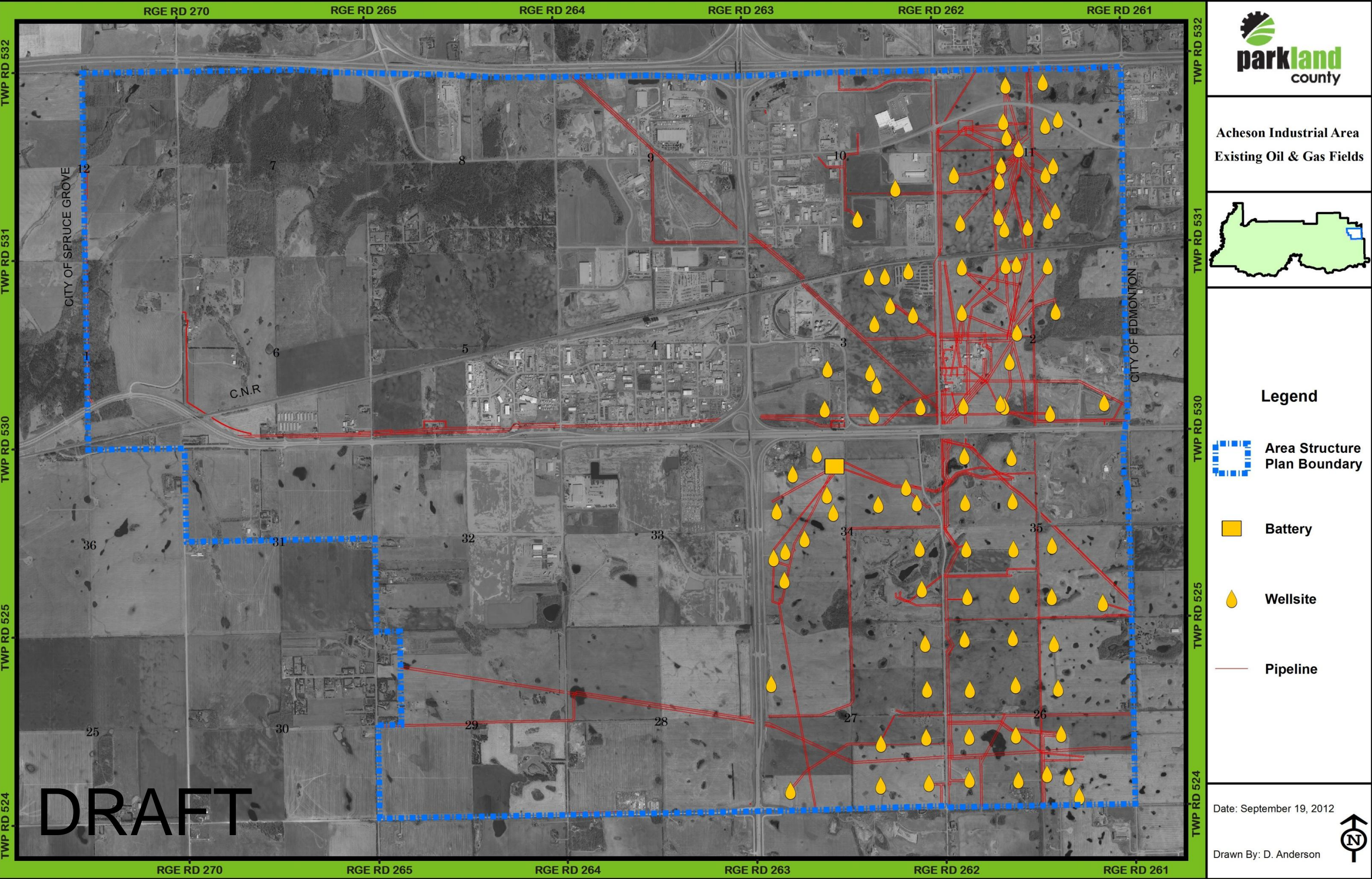
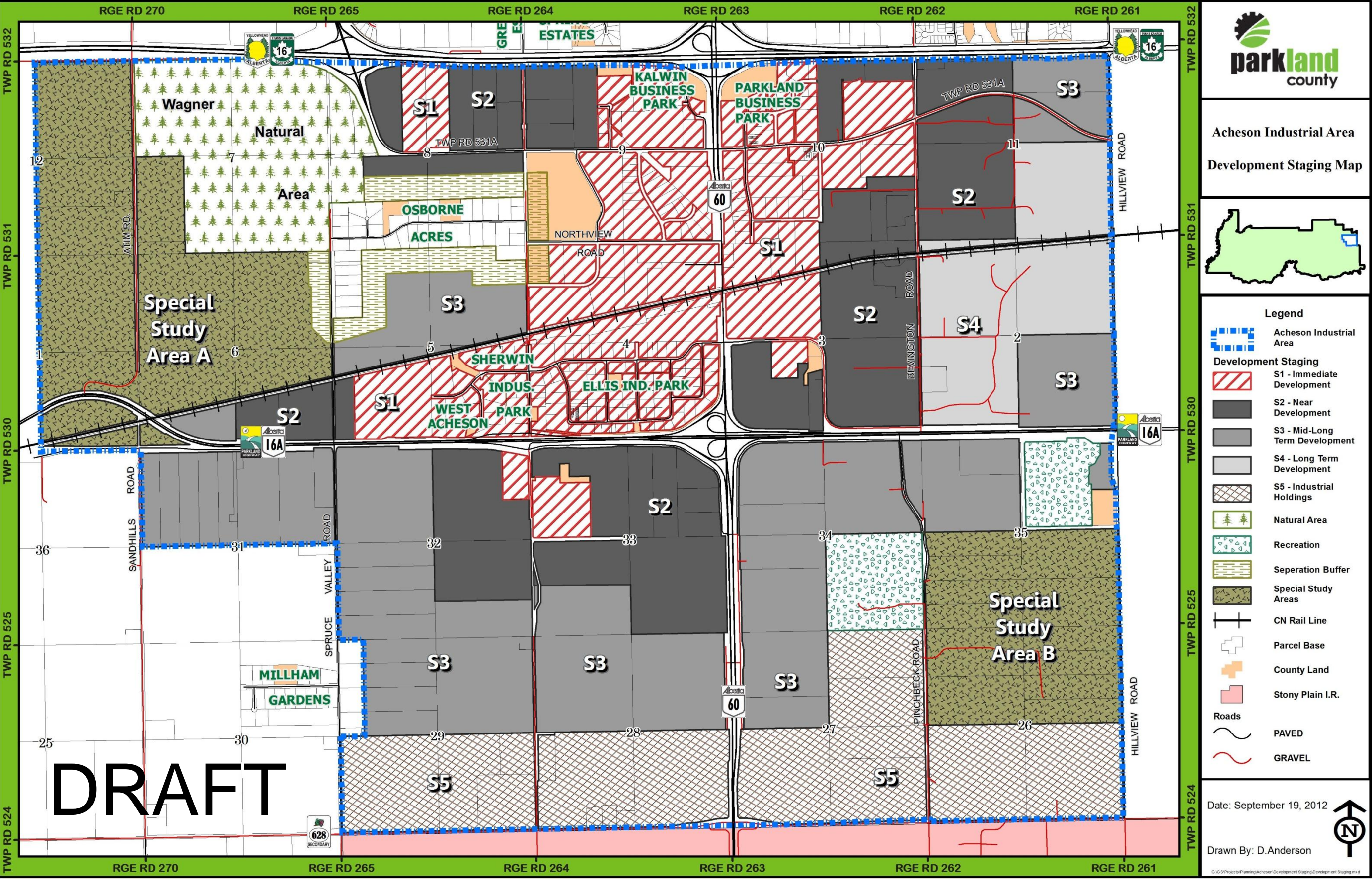


FIGURE 13 DEVELOPMENT STAGING (OCTOBER 2012)



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