

**BYLAW 820-P-06-21  
TOWN OF COALDALE  
PROVINCE OF ALBERTA**

**BEING A BYLAW OF THE TOWN OF COALDALE  
TO AMEND BYLAW 634-P-03-10  
BEING THE MUNICIPAL LAND USE BYLAW**

**WHEREAS** the municipal council is in receipt of an application to amend the South Coaldale Revised Area Structure Plan (Bylaw 634-P-03-10) within the municipality.

**AND WHEREAS** the purpose of the proposed amendment is to execute a number of text amendments intended to align the Area Structure Plan (ASP) more closely with current provincial legislation, such as but not limited to the South Saskatchewan Regional Plan (SSRP), and to propose a change in the neighbourhood design and dwelling types envisioned for the parcels of land legally described as Lot 1, Block B, Plan 49FJ, Lot 2, Block B, Plan 49FJ and Lot 2, Block C, Plan 49FJ.

**AND WHEREAS** the changes to the lands legally described as Lot 1, Block B, Plan 49FJ, Lot 2, Block B, Plan 49FJ and Lot 2, Block C, Plan 49FJ can be described as changing the future desired use of these lands from exclusively large lot residential properties intended for single detached dwellings, to a mix of residential development forms including a small area identified for seniors housing, single detached residential in the southern area of the three subject properties referenced above, transitioning to multi-unit residential in the central and northern parts of the three lots, including specific reference to townhouses and low-rise apartment-style development at the northernmost portion of the lots.

**AND WHEREAS** the changes to the lands legally described as Lot 1, Block B, Plan 49FJ, Lot 2, Block B, Plan 49FJ and Lot 2, Block C, Plan 49FJ also includes reference to the expansion of the transportation network by way of the introduction of new roads intended to serve the development concept identified for the three lots referenced above, as well as pathways to serve the three lots and tie into the existing pathways network in the area.

**AND WHEREAS** all changes to the ASP as generally described above are identified specifically in "Schedule A" attached hereto.

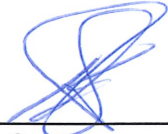
**AND WHEREAS** the municipality must prepare an amending bylaw and provide for its consideration at a public hearing.

**NOW THEREFORE**, under the authority and subject to the provisions of the *Municipal Government Act*, Revised Statutes of Alberta 2000, Chapter M-26, the Council of the Town of Coaldale, in the Province of Alberta, duly assembled does hereby enact the following:

1. The South Coaldale Revised Area Structure Plan amendments referenced above and identified specifically in "Schedule A" shall make up the amended South Coaldale Revised Area Structure Plan.

2. Bylaw 634-P-03-10, being the South Coaldale Revised Area Structure Plan, is hereby amended.
3. This bylaw comes into effect upon third and final reading hereof.

READ a FIRST time this 14<sup>th</sup> day of June, 2021 for Land Use Bylaw 820-P-06-21.



\_\_\_\_\_  
Mayor – Kim Craig  
Motion # 228-2021



\_\_\_\_\_  
CAO – Kalen Hastings

Public Hearing scheduled for July 12, 2021, at 5:20 pm.

READ a SECOND time this 12<sup>th</sup> day of July, 2021 for Land Use Bylaw 820-P-06-21.



\_\_\_\_\_  
Mayor – Kim Craig  
Motion # 273-2021

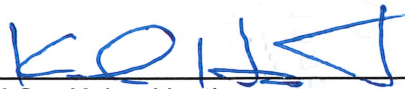


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CAO – Kalen Hastings

READ a THIRD and FINAL time this 12<sup>th</sup> day of July, 2021 for Land Use Bylaw 820-P-06-21.



\_\_\_\_\_  
Mayor – Kim Craig  
Motion # 274-2021



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CAO – Kalen Hastings

**SOUTH COALDALE  
REVISED  
AREA STRUCTURE PLAN**

**(PORTION OF AREA NORTH OF 30<sup>TH</sup> AVE)**

**Prepared by: MARTIN GEOMATIC CONSULTANTS LTD.  
Amended by: ISL Engineering and Land Services. Ltd.**

**MAY 2021**

*(Approved by Bylaw 820-P-06-21 on July 12, 2021)*

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## I. Introduction

### A. Purpose

The *South Coaldale Revised Area Structure Plan* (SCRASP) was developed in 2010 to (1) amend the existing *South Coaldale Area Structure Plan*<sup>1</sup> (hereafter the original ASP) to reflect changes to assumptions, regulations and landowners' development goals and (2) to provide a framework to allow higher density residential land use compatible with adjoining areas and consistent with an urban municipality for the land north of 30 Avenue. The original ASP is still in effect for the properties south of 30<sup>th</sup> Avenue. The SCRASP (2021) updates a portion of the lands north of 30<sup>th</sup> Avenue and replaces the previously approved SCRASP (2010).

#### 1. Legislative Framework

The SCRASP complies with the following legislative documents and statutory plans.

##### a) Municipal Government Act (Alberta)

The SCRASP was produced in accordance with Section 633 of the *Municipal Government Act (Alberta)*. The intent of an Area Structure Plan (ASP) is to create a framework for future subdivision within the "site area" (as defined in **Sub-section I.B**). In particular, this document will outline the following

- sequence of development,
- proposed land uses,
- population density,
- access and circulation,
- location and general design of public utilities and
- other related matters.

##### b) South Saskatchewan Regional Plan (SSRP)

The SSRP is a legislative document that was prepared in accordance with Section 13 of the Alberta Land Stewardship Act (ALSA). It sets objectives for the management of land and natural resources, while balancing long-term social, economic, and environmental goals of the province. All municipal statutory plans and relevant documents are required to align with the objectives and strategies of the SSRP.

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<sup>1</sup> Oldman River Intermunicipal Services Agency (now ORRSC), *South Coaldale Area Structure Plan*, 1999, Adopted as Town of Coaldale By-law #407-P-07-99 on 14 July 1999.

c) County of Lethbridge & Town of Coaldale Intermunicipal Development Plan (IDP)

The IDP<sup>2</sup> is intended to address future growth and development-related matters of joint interest between the County and Town, including future land use surrounding the Town.

d) Town Plan

- The Town's Municipal Development Plan (Town Plan, Bylaw No. 786-P-09-20)<sup>3</sup> provides strategic direction to guide future growth and development within the Town. It forecasts population growth, directs future land use, and anticipates future transportation and servicing needs within the Town. It also serves as an important decision-making tool for Council, administration, landowners, residents, and developers on matters related to community growth and development. The Town Plan was updated after the preparation of the SCRASP (2010). The Town Plan identifies the site area as an "Area of Change" which means that the area is already established, and both incremental and larger-scale development has been occurring over time. Town Plan directions for growth and change in Areas of Change that are being reflected in the 2021 revision include:
  - Maximizing the use of existing lands within the Areas of Change before developing lands within the Areas of Growth
  - Expanding housing opportunities and increasing residential density throughout Coaldale
  - Including active transportation infrastructure in new developments and promoting upgrades in older areas
  - Balancing urban development with the inclusion of naturalized areas and infrastructure that emulates and mimics natural processes
  - Ensuring development in the Area of Change is intentional and guided by comprehensive planning documents such as the Town Plan, Area Redevelopment Plans, conceptual schemes and mechanisms in the Land Use Bylaw

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<sup>2</sup> County of Lethbridge & Town of Coaldale, *Intermunicipal Development Plan*, County Bylaw 1337, as amended by Bylaw No. 20-015 and Town By-law 631-P-02-10, as amended by Bylaw No. 785-P-07-20.

<sup>3</sup> Town of Coaldale, *Town Plan*, Bylaw No. 786-P-09-20.

e) Town of Coaldale Land Use Bylaw

The Land Use Bylaw<sup>4</sup> describes the permitted land uses and land use districts in the Town of Coaldale.

## 2. Relation to Other Plans

The Oldman River Regional Services Commission (ORRSC) produced the original *South Coaldale Area Structure Plan*. This plan provided a framework for development within an area generally south of the St. Mary River Irrigation District (SMRID) Coaldale Lateral Canal, west of Highway 845, north of the present Town boundary and east of the extension of the alignment of 13 Street (this is shown on **Figure 1.0**). The SCRASP revised the framework for a specific area within the boundaries of the original ASP (this is shown on **Figure 2.0**). SCRASP supersedes the existing ASP within the “site area” (as defined in **Sub-section I.B**). The SCRASP (2021) represents an updated concept to the previously approved SCRASP (2010).

### Reason for Revision to the original ASP

#### 2010 Revision

The South Coaldale Area Structure Plan (Bylaw No. 407-P-07-99) was amended in 2010 to create the South Coaldale Revised Area Structure Plan (Portion of Area North of 30<sup>th</sup> Avenue) (Bylaw No. 634-P-03-10). Several assumptions used in preparing the original ASP were deemed invalid when the ASP was revised in 2010:

- The original ASP assumed that if density was kept to less than the maximum permitted for the country residential land use designation, there would be no requirement for specific stormwater management plans, installation of detention storage, or runoff control.<sup>5</sup> Issues surrounding the Malloy Basin and the recent Conveyance agreement executed between the Town of Coaldale and SMRID<sup>6</sup> have set specific requirements for stormwater management (see **Article IV.B.2**) which make implementation of the existing ASP untenable.
- The existing ASP assumed that only a single intersection would be permitted on Highway 845 between the Coaldale Lateral Canal and the south Town boundary – at the existing Highway 845/30 Avenue/future Cottonwood Drive junction. Alberta Transportation has since indicated that, provided traffic safety requirements (sight lines, intersection geometry, spacing etc...)

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<sup>4</sup> Town of Coaldale, *Land Use Bylaw*, Bylaw No. 677-P-04-13.

<sup>5</sup> Information provided by Steve Harty – ORRSC.

<sup>6</sup> Stormwater Conveyance Agreement, between St. Mary River Irrigation District and Town of Coaldale and County of Lethbridge, executed by SMRID and Town on 26 June.

can be met for the road's gazetted speed limit (50 km/h), a second access could be approved north of 30 Avenue (see **Sub-section IV.A**).

- The recent 13<sup>th</sup> Street Sanitary Sewer Twinning construction that was extended to the South side of SMRID Canal has capacity for new developments in the South Coaldale area for a maximum gross density of 30 capita per gross hectare<sup>7</sup>. This is a higher density than land use proposed in the existing ASP would allow. Presently the Town does not permit sanitary collection system extensions from the existing sanitary trunk on 30<sup>th</sup> Avenue due to capacity issues (see **Article IV.B.1**).

Additionally, a community meeting held in Coaldale on 12 November 2009 as well as prior and subsequent discussions with landowners within the “site area” indicated that a revision allowing higher density development, including re-development of existing agricultural businesses (e.g. the Coaldale Egg Farm) would be desirable. Such higher-density land use would be consistent with an urban municipality and with adjacent development to the north and west (e.g. existing Town residential areas and the proposed Cottonwood Estates development).

### **2021 Revision**

SCRASP (2010) was amended to reflect the following:

- A three-phase community engagement process to gather adjacent landowner and resident input on the proposed future residential development for the northeast portion of the site was implemented from January to April 2021. The purpose of the engagement process was to gather input on potential opportunities and concerns, review and provide input into the draft concept proposed and collect feedback to finalize the concept. Input gathered during this engagement process was used, where appropriate, to prepare the concept for the northeast portion of the site area.

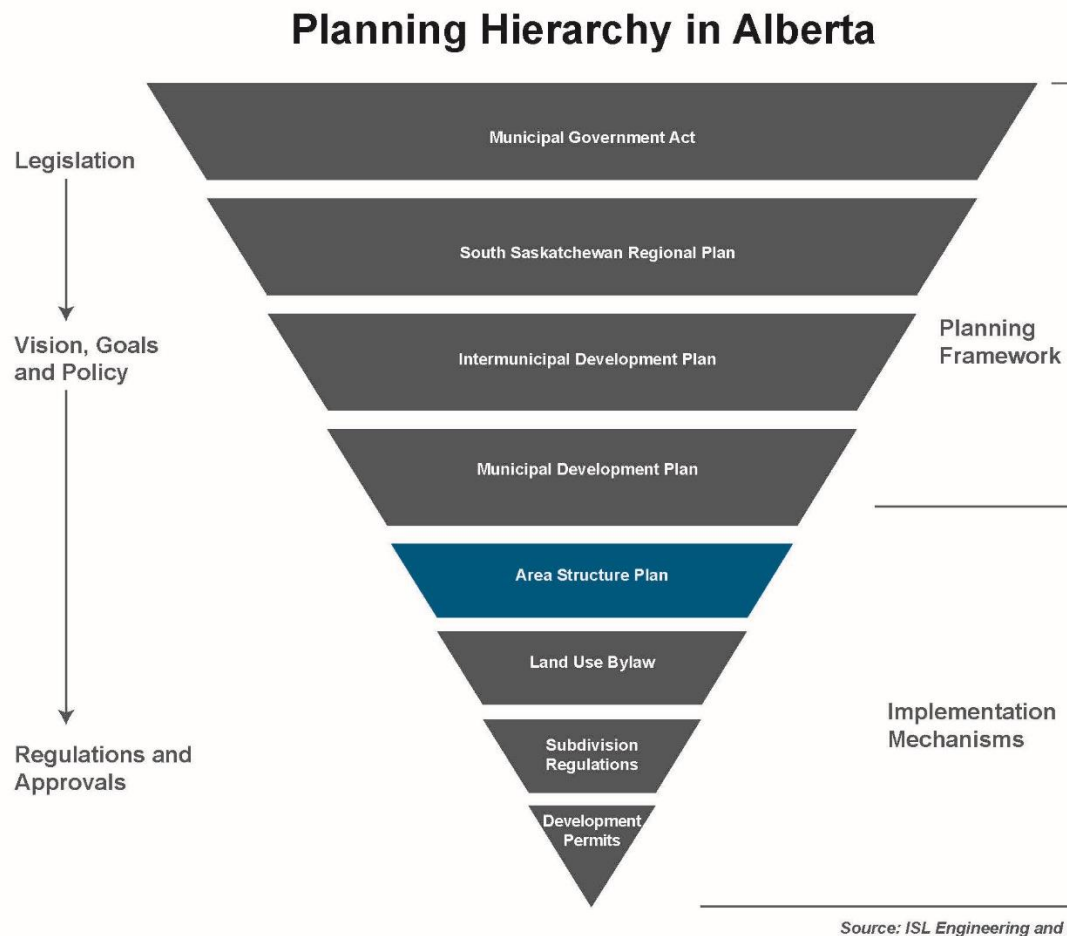
### **3. Town Planning Process**

**Figure 3.0** shows, schematically, the planning process in the Town of Coaldale with the highest-order legislation and the subsequent documents and steps in the planning process. This process represents the statutes, regulations and bylaws noted in **Article I.A**. Also, as noted in **Article I.A.1**, once adopted by Town Council as a bylaw, an ASP describes the policies to which all future land use re-designations and subdivisions within the subject area must conform.

#### **Figure 3.0 – Schematic of Coaldale’s Planning Process**

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<sup>7</sup> Information provided by Douglas Mickey – MPE Engineering Ltd.



Section 1.19 of the Town Plan also requires the preparation of an Outline Plan to be submitted at the redesignation or subdivision stage. An Outline Plan provide more detailed information for a smaller portion of the site area, confirming servicing, transportation, and environmental information to support development of the lands

## **B. General Location and Plan Area**

The plan area is located generally south of the existing residential areas of Coaldale, within the Southwest Quarter of Section 11, Township 9, Range 20 West of the 4<sup>th</sup> Meridian (SW11-9-20-4). Generally, the area affected by the SCRASP is located south of the SMRID Coaldale Lateral Canal, east of Highway 845 and the Cottonwood Estates development, north of 30 Avenue and west of 13 Street and the South Coaldale Drain. Specific lands affected by the SCRASP are as described below. **Figure 2.0** shows the SCRASP site area.

- Remainder of SW11-9-20-4,
- Lot 1, Block C, Plan 49 FJ
- 17 Street

South Coaldale Revised Area Structure Plan (Portion of Area North of 30<sup>th</sup> Avenue)  
May 2021

- Lot 1, Block B, Plan 49 FJ
- Lot 2, Block B, Plan 49 FJ
- Lot 4, Block B, Plan 49 FJ
- Lot 2, Block C, Plan 49 FJ and an unnamed road allowance to the south
- Lot 19, Block C, Plan 0213392
- Lot 8, Block C, Plan 9411128
- Lot 20, Block C, Plan 0312829
- Lot 18, Block C, Plan 0210504
- Block X, Plan 1540 GP

## II. Site Analysis

The following describes the existing condition of the “site area” defined in **Sub-section I.B. Figure 4.0** shows the existing topography, surface features and known utilities in the site area.

### A. Site Characteristics

Currently, the site area is relatively flat land (slopes are on the order of 1%). Generally, the land slopes from west to east. Physical features within the site area include:

- The SMRID South Coaldale Lateral Canal along the north boundary. An embankment separates the canal from the lands adjacent. Culverts for road crossings exist at Highway 845 and 17 Street. A pedestrian bridge crosses at the south end of 13 Street.
- The South Coaldale Drain is located along the east boundary and south of the south boundary. It is crossed by several culverts and small bridges along its length.

The low point of the site area is located near the northeast corner of Lot 1, Block B, Plan 49 FJ – adjacent the South Coaldale Drain.

### B. Soil Classification

According to the Alberta Soil Information Viewer, the following soils exist or may exist within the site area:

Miscellaneous undifferentiated mineral soils (ZUN) and disturbed land (urban, open pit mines, gravel pits) (DL).<sup>8</sup>

A Geotechnical Report will be required prior to Detailed Engineering Design stage as part of the Town of Coaldale requirements for new developments.

### C. Water and Hydrology

The site area (and Coaldale in general) is located within the catchment of the Malloy Drain. This channel was constructed to convey irrigation return water from the SMRID to Stafford Lake. Tributary to the Malloy Drain are the Coaldale Lateral Canal and the South Coaldale Drain.

- The Coaldale Lateral Canal is located in a natural draw which extends westward as far as the City of Lethbridge. This canal has its turnout from the SMRID Main Canal approximately 4.1 km east of the Lethbridge City Limit and approximately 1.2 km south of Highway 512 (Jail Road). East of

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<sup>8</sup> Alberta Soil Information Viewer, Soil Polygon #5882, URL: <http://www2.agric.gov.ab.ca/app77/imf.jsp?site=agrasid>, retrieved: 6 May 2021.

the SMRID Main Canal, the Coaldale Lateral flows east-northeast and serves numerous agricultural water users and (due to its location in a natural draw) drains upstream lands. Within the Town of Coaldale, the canal deflects to an east-west alignment immediately east of the Cottonwood Drive crossing. From this point the canal flows west-to east, passing under Highway 845. East of 17 Street, the canal flows on an embankment, above surrounding land. A spillway exists east of 13 Street which allows high flows to be diverted into the adjacent South Coaldale Drain. At the east Town boundary, the canal deflects northward, serving lands in the County of Lethbridge east of Coaldale and, eventually, discharging into the Malloy Drain.

- The South Coaldale Drain is an open channel that provides the major drainage path for surface runoff north of Highway 512, east of Range Road 20-3 and south of the Coaldale Lateral. The drain begins south of Coaldale and follows the west ditch of Highway 845 to 30 Avenue. Here, the drain crosses under Highway 845 and follows the south ditch of 30 Avenue to 17 Street, where it crosses to the north ditch. The drain continues eastward to the end of the 30 Avenue (at the extension of the alignment of 13 Street) where it deflects northward. The drain proceeds northward to the embankment of the Coaldale Lateral Canal, where it deflects eastward. At this location, the Coaldale Lateral spillway discharges into the drain. The drain continues eastward into the County of Lethbridge, eventually discharging into the Malloy Drain.

The Malloy Drain is managed by SMRID. In recent years, landowners adjacent the Malloy Drain have experienced floods during long-duration storm events. Concerns have been expressed by SMRID with respect to development in the area. As such, obtaining licenses from Alberta Environment to construct new development, as are required under the *Water Act (Alberta)*, has become more difficult. Recently, a conveyance agreement was reached between SMRID and the Town of Coaldale detailing the requirements relating to stormwater management in Coaldale. These are discussed further in Article IV.B.2

As stated in **Sub-section II.A**, the site area drains generally west to east. Over the years, agricultural and country residential development in the area has necessitated the construction of dugouts for stock and land irrigation and ditches for drainage of runoff. The lowest point in the site area is located near the northeast corner of Lot 1, Block B, Plan 49 FJ, where a draw exists which discharges into the adjacent South Coaldale Drain.

Infiltration of water from the Coaldale Lateral has required the owners of the two adjacent parcels (Lot 1, Block B, Plan 49 FJ and Lot 1, Block C, Plan 49 FJ) to construct a piped drainage system on their land. Land in the northeast part of Lot 1, Block B, Plan 49 FJ along the canal embankment can be wet or have a seasonally high water table, likely due to infiltration from the canal.

## **D. Habitat and Vegetation**

The plan area consists mainly of mixed grasses that produce a hay crop and is also used for grazing purposes. There are mature trees scattered throughout the site, encircling many farmstead buildings. A variety of grasses and brush are intermixed with the trees, providing habitat for birds and small animals.

## **E. Environmental, Historical and Archaeological Significance**

The land has been continuously developed as agricultural and small acreages since the late 19<sup>th</sup> Century. The original ASP notes no locations of environmental, historical or archaeological significance.

## **F. Existing Land Use**

Generally, land use in the area is either agricultural (including an egg farm, cattle feed lot and pastures), single-family residential and country residential/small acreages. **Figure 5.0** shows the designations as noted in the Town of Coaldale Land Use Bylaw at the time of printing. While a portion of the lands are zoned as R-2, they are currently being used for agricultural purposes (egg farm).

## **G. Constraints**

The site area places the following constraints on development:

### **1. Stormwater Management and Drainage**

The site's location within the Malloy Basin and the Town of Coaldale places several important constraints on development:

- a) A sizable area must be set aside for stormwater detention and treatment;
- b) Overflows from the South Coaldale Drain could inundate low areas unless backwater controls are constructed;
- c) The elevation of the South Coaldale Drain dictates that no storm sewers can have inverts below 861.5 m (unless a lift station is constructed);
- d) Infiltration from the Coaldale Lateral may cause high groundwater in some areas unless acceptable interception and conveyance is constructed;
- e) Drainage routes must be defined and preserved between multiple landowners.

### **2. Sanitary Sewer Capacity**

The 13<sup>th</sup> Street Sanitary Sewer Twinning project (constructed in 2009) was extended to the South side of SMRID Canal. This sewer has capacity

to allow new development to a maximum gross density of an average of 30 people per hectare across the entire site area. At the time of the 2010 ASP revision, the Town did not permit sanitary collection system extensions from the existing sanitary trunk on 30<sup>th</sup> Avenue due to capacity issues.

### **3. Access and Circulation**

There are presently only two accesses to the area from outside:

- 30 Avenue running east-west that connects to Highway 845 and
- 17 Street running north-south that extends across the canal connecting to the downtown.

Although an additional public access from Highway 845 may be feasible, Highway 845 is a provincial highway and, as such, is controlled access. Therefore, no direct accesses to private property will be permitted from Highway 845 (existing accesses are permitted until such time as subdivision occurs). As such, all new lots will have to access an internal road network and circulation though the site area must be maintained for all landowners as the area develops.

### **4. Existing Irrigation Infrastructure**

Much irrigation infrastructure (canal, pipes, drains and dugouts) is covered by a blanket or statutory easement which does not specify the location on a given parcel of land. As subdivision takes place on land with irrigation infrastructure it would be preferable to have a separate right-of-way registered for the irrigation work or to relocate it to an existing right-of-way. Individual landowners/developers and SMRID will need to work cooperatively in this regard. In addition, when irrigation infrastructure are no longer required they should be regraded and consolidated with adjacent property where feasible.

## **H. Opportunities**

Redevelopment of South Coaldale presents the following opportunities.

### **1. Encouragement of Compatible Land-Uses**

Presently, intensive agriculture operations (an egg farm and a cattle feed lot) exist immediately adjacent existing single-family residential development. These two land uses would not generally be considered compatible. The SCRASP permits these lands to be redeveloped into residential uses. Further south and east, a mix of residential uses are envisioned, with single-family residential development immediately adjacent to existing country residential properties in the southeast of the plan area, transitioning to medium-density in the northeast of the plan area.

## **2. Permitting More Choice in Housing**

The plan allows a mix of residential land uses, including low- and medium-density and seniors housing, appropriate for families, young professionals, seniors and others who desire a variety of affordable and appropriate housing options that meet their specific needs.

## **3. Proximity to Services**

Two schools are located in close proximity to the site area:

- St Joseph's School (Holy Spirit Roman Catholic Separate Regional Division No 4.) at 1413 - 23 Avenue.
- Jennie Emery Elementary School (Palliser Regional School District) at 1101 - 22 Avenue.

Coaldale's central business area is only 10 blocks north. The Town softball fields (Quads-Baseball and Soccer Fields) are located immediately east across the South Coaldale Drain.

## **4. Additional Parks and Open Space**

The requirement for stormwater management means land will need to be set aside for public use. The design of the stormwater facilities (see **Article IV.B.2**) is intended to provide a scenic "lake" area surrounded by public pathways. It is intended that these pathways connect with existing pathways from 13 Street and along the Coaldale Lateral Canal. In addition, the stormwater facility is located immediately adjacent an existing Town park (the Quads-Baseball and Soccer Fields east of the South Coaldale Drain).

Development within the site area is intended to provide for internal pathways to allow pedestrian circulation and access to open space. An east-west pathway and open space along the southeast boundary of the plan area is to be included to support additional connectivity through the ASP area and provide a buffer between existing country residential and new single-family residential.

### III. Proposed Land Use and Design

#### A. Proposed Land Use

Land uses proposed within the site area are intended to allow a variety of choices in residential development to meet the needs of all residents and to support aging in place. Generally, the following land uses are proposed:

**Low-density residential:** much of the development will consist of low-density residential lots. Lot sizes of between 540 m<sup>2</sup> and 2104 m<sup>2</sup> (0.13 to 0.52 acre) are proposed.

**Medium-density residential:** medium-density residential development is proposed for Lot 1, Block B, Plan #49FJ and the north portion of Lot 2, Block B, Plan #49FJ. These areas are intended for a mix of low-rise apartment buildings and row housing. Lot 1, Block C; Plan #49FJ (the egg farm) development will consist of 24 units in a collection of three-plex and four-plex condominium buildings on the 1.54 ha (3.81 acre) parcel.

**Seniors housing:** a seniors housing complex is planned for the northwest portion of Lot 1, Block B, Plan #49FJ.

The proposed land uses are shown on **Figure 6.0**.

The ASP does not designate land use to a parcel. Prior to development, the subject lands will need to be re-zoned to the appropriate district, except for areas of the plan where the appropriate land use is already designated.

#### B. Population and Housing Densities

**Table 1** details the projected population within the site area, if developed according to land uses noted in **Figure 6.0**. The maximum gross density of an average of 30 persons per hectare across the entire site imposed for South Coaldale by the downstream sanitary sewer’s capacity is noted.

**Table 1.0 – Population and Housing Densities**

<b>Legal Description:</b>	<b>Area (ha)</b>	<b>Projected Lots</b>	<b>Projected Population</b>
Lot 1, Block B, Plan 49FJ	4.74	178	283
Lot 2, Block B, Plan 49FJ	4.74	50	125
Lot 2, Block C, Plan 49FJ	2.36	17	51
Parcel X, Plan 1540GP	3.24	18	54
Lot 18, Block C, Plan 021 0504	0.89	4	12
Lot 20, Block C, Plan 031 2829	0.42	2	6
Lot 8, Block C, Plan 941 1128	0.89	4	12
Lot 19, Block C, Plan 021 3392	0.51	6	18
Lot 4, Block B, Plan 49FJ	1.37	13	39
SW ¼ Sec. 11-9-20-W4M	1.20	8	24
Lot 1, Block C, Plan 49FJ	1.53	25	75
<b>Total:</b>	<b>21.89 ha</b>	<b>325</b>	<b>699</b>

## **IV. Proposed Infrastructure**

To implement the SCRASP, the following new infrastructure is proposed.

### **A. Access and Circulation**

#### **1. Highway 845 Access**

To provide access to all existing and proposed properties, given the restriction on private access to Highway 845, an internal road network is proposed. This is shown on **Figure 7.0**. As noted, a new all-turns intersection is proposed for Highway 845 approximately 180 m north of the existing Highway 845/30 Avenue intersection. Ongoing discussion with Alberta Transportation will determine the specific intersection treatment required at this location. The gazetted speed limit along this section of Highway 845 is 50 km/h. Access to Highway 845 requires approval of Alberta Transportation.

#### **2. Other Connections**

Additional existing accesses to the site area from 30 Avenue and the 17 Street/Coaldale Lateral Canal crossing appear adequate for the proposed population density noted in the SCRASP. A Transportation Impact Assessment<sup>9</sup>, completed in 2021 for the South Coaldale area, confirmed that additional traffic anticipated to be generated by the proposed development can be accommodated by the existing road network over the next 20 years.

To further support connectivity within and to the northeast portion of the site area, including the Quads-Baseball and Soccer Fields, and support implementation of recommendations from the Town's Transportation Master Plan<sup>10</sup>, 13 Street is to be extended north from 30 Avenue to connect to proposed 28 Avenue, with a second access to the Quads provided, as shown in **Figure 7.0**.

#### **3. Internal Roads**

Roadways will be developed to Town of Coaldale standards.

#### **4. Pathway Connections**

As noted, there are numerous opportunities to provide a new comprehensive public pathway network within the site area itself and provide connections to existing pathways. Pathway Plan will be outlined in Development Agreement.

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<sup>9</sup> Town of Coaldale, *South Coaldale Transportation Impact Assessment*, 2021

<sup>10</sup> Town of Coaldale, *Transportation Master Plan*, 2021

## B. Public Utilities and Servicing

### 1. Sanitary Sewers

The sanitary servicing scheme is shown on **Figure 8.0**. The ultimate connection point is a manhole on the east side of the South Coaldale Drain, approximately 100 m south of the south end of 13 Street. This manhole is at the present high end of a 375-mm diameter trunk sewer. Its invert elevation is 857.84 m.<sup>11</sup> As stated earlier, this trunk sewer is meant to serve the South Coaldale area (both north and south of 30 Avenue) to a maximum average population density of 30 people per gross hectare across the site. In 2021, a study<sup>12</sup>, that reviewed sanitary capacity in South Coaldale, found that development proposed within the SCRASP site area, plus approved development in the Seasons, Fieldstone Meadows and the last phase of Cottownwood, can be accommodated by the existing sanitary system before any major sanitary upgrades will be required. **Table 2.0** shows an initial design for the sanitary sewers serving the site area. This is provided to confirm the following:

- That there is adequate downstream capacity in the existing trunk sewer to serve the proposed development,
- That adequate grade exists within the site and the existing sanitary trunk sewer to provide gravity sanitary sewers to serve the proposed development.

It must be noted that conservative assumptions were used in **Table 2.0**. Design of sanitary sewers will be done at the development permit/detail design stage.

### 2. Drainage and Stormwater Management

Proposed drainage and stormwater management for the SCRASP is shown on **Figure 9.0**.

#### a) Stormwater Detention

As stated, the subject area is surface-drained. Much of the land is tributary to the South Coaldale Drain (a small area drains directly to the Coaldale Lateral Canal). As the area (same with all of Coaldale) is part of the Malloy Basin, certain special standards apply to new drainage works. As part of these conditions, the Town has entered into an agreement with SMRID to convey stormwater to Stafford Lake. It is understood that SMRID specifically requires the following:

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<sup>11</sup> Based on topographic and utility survey by MGCL, March 2010.

<sup>12</sup> Town of Coaldale, *Infrastructure Master Plan*, 2021

- that detention storage be provided on-site to detain all runoff resulting from a 100-year design storm,
- that controls be provided on the discharge from detention facilities such that flow from these facilities can be stopped until such time as conveyances downstream to Stafford Lake can accommodate this flow.

Given this, a preliminary plan was made with respect to sizing a storm detention facility within the plan area. A catchment boundary was drawn to include the plan area as well as adjacent rear yards and part of the Highway 845 right-of-way. This area was assumed to drain to a new storm detention facility located in the east portion of the plan area, immediately adjacent the South Coaldale Drain. This drainage area was estimated at approximately 27 ha (21.9 ha within SCRASP, 6.1 ha of offsite area). The 100-year storm event (109 mm of rainfall in 24 hours) generated 24,500 m<sup>3</sup> (approximately 90 mm) of runoff. This was assumed to be the volume that must be detained by the storm detention facility. As can be seen, the existing ground contours indicate that, in general, runoff will flow toward the proposed pond location.

#### b) Runoff Conveyance

Due to the topography and density of development proposed in the SCRASP, a dual drainage system is proposed for the plan area – as opposed to the previously proposed surface drainage system. The dual drainage system will be designed as follows:

- The major or overland drainage system will be designed to catch runoff from the buildings and streets and convey it to the nearest minor system (storm sewer) inlet or catch basin. Elements of the major system include roof leaders, grassed areas, swales, lanes, road gutters, pathways and other open channels. This system is designed to safely convey peak runoff resulting from a 100-year return period design storm event. Depths and velocities of runoff in major system conveyances (particularly streets, lanes and pathways) are checked against Provincial and Town guidelines to ensure the protection of the public safety, the environment and property – as well as roadway level-of-service criteria.
- The minor or storm sewer system is designed to drain low areas of roads (trapped lows) and other areas where runoff may pond, spread unacceptably or otherwise create a nuisance. Elements of the minor system consist of drainage inlets (headwalls, catch basins, street grates), subdrains (weeping tile, French drains), pipes and manholes. This system is designed to convey runoff

resulting from a 5-year storm event without surcharging (e.g. water levels in pipes do not exceed the pipe's depth/diameter).

- The minor system is also often used to convey drainage from building foundations. Present practice in greater Lethbridge discourages the use of inlet control devices (ICDs) in street catch basins to prevent surcharges as they cause maintenance problems. As such, storm sewers are subject to surcharge in events more frequent than the 100-year storm; therefore, no building foundation drainage system should be directly connected to the storm sewers except by means of a sump and pump with a check valve consistent with City of Lethbridge standards.<sup>13</sup> An alternative to the storm sewer connection is to pump from the sump to a splash pad located as per City of Lethbridge standards.<sup>14</sup>

#### c) Low-impact Development (LID)

In an effort to reduce the impact of development on surrounding lands and the downstream drainage system, developers within the SCRASP are strongly encouraged to implement low-impact development best management practices (LID BMP). These can take many forms. The Alberta Low-Impact Development Partnership (ALIDP) is a resource that should be consulted as part of planning LID. Proposed LID features and their effects on the storm drainage system should be addressed in consultation with the Town at the detail design stage. LID BMPs may become a mandatory requirement in the Town of Coaldale.

### 3. Potable Water

The conceptual potable water servicing scheme is shown on **Figure 10.0**.

#### a) Connection Points

Proposed connections for the potable water system at the following locations:

- i. To the existing 300-mm diameter trunk water main in 30 Avenue at the intersection of 30 Avenue and 17 Street,
- ii. Extension of the existing 150-mm diameter watermain in 17 Street south under the Coaldale Lateral Canal

These will be confirmed with the Town's water distribution system model to ensure an adequate level of service is achieved.

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<sup>13</sup> City of Lethbridge, *Design Standards*, 2009, §9.1.4.2

<sup>14</sup> *Ibid.*

b) **Internal Looping**

The main looping will be provided by the connection of the 30 Avenue trunk watermain to the existing watermain in 17 Street. Internal looping and valves will be constructed such that a main shut-down will not affect more than 30 homes.

c) **Predicted Demand**

Given the proposed population of 492 people, average daily demand for the subject area at full buildout is predicted to be 204 m<sup>3</sup> (based on City of Lethbridge 2009 Design Standards).

d) **Design Standards**

All new watermains within the site area will be 200-mm diameter or larger. Hydrants will be located as required to ensure a clear travel distance to all lots does not exceed 90 m. The proposed distribution system will be confirmed with the Town's water distribution system model to ensure an adequate level of service is achieved.

Any required canal under-crossings will be constructed as per SMRID's requirements.

#### **4. Community Irrigation System**

Given the subject area's proximity to the Coaldale Lateral Canal, the opportunity exists for a community irrigation system to be designed to serve this area. Indeed, several landowners within the SCRASP boundary are served by SMRID. A community irrigation system may provide a significant long-term benefit to the Town by decreasing the demand for potable water for uses such as yard and park irrigation. Such a system exists in the adjacent Cottonwood Estates subdivision.

A community irrigation system would use water from the storm pond as its primary source. SMRID would be the secondary source. The Town encourages the developers in the area to form a water co-operative to provide this service.

#### **5. Shallow Utilities**

a) **Natural Gas**

ATCO Gas will be provided to all newly developed lots as part of a 4-party shallow utility servicing within the front-yard utility right-of-way.

b) Electrical

FORTIS Alberta underground electric power service will be provided as part of 4-party shallow utility servicing within the front-yard utility right-of-way. Street lighting will be provided consistent with the Town's agreement with FORTIS.

c) Telephone

Telus underground telecommunications cable will be provided as part of 4-party shallow utility servicing within the front-yard utility right-of-way.

d) Cable Television

Shaw Cable television (CATV, internet, etc...) will be provided as part of 4-party shallow utility servicing within the front-yard utility right-of-way.

### **C. Solid Waste**

Solid waste pickup will be provided by the Town of Coaldale.

**Table 2.0 – Preliminary Sanitary Sewer Design**

## **V. Subdivision and Development Staging**

Development will be staged based on individual landowners' subdivision plans. The plan provided in the ASP allows owners to develop while still ensuring servicing and access to adjacent owners is preserved. Minor modifications to lot sizes shall be allowed without requiring an amendment to the ASP.

## **VI. Development Control**

Purchasers must apply for development approval according to the process in effect for the appropriate Land Use District in the Town of Coaldale Land Use Bylaw in effect at the time of application.

## **VII. Development Agreements**

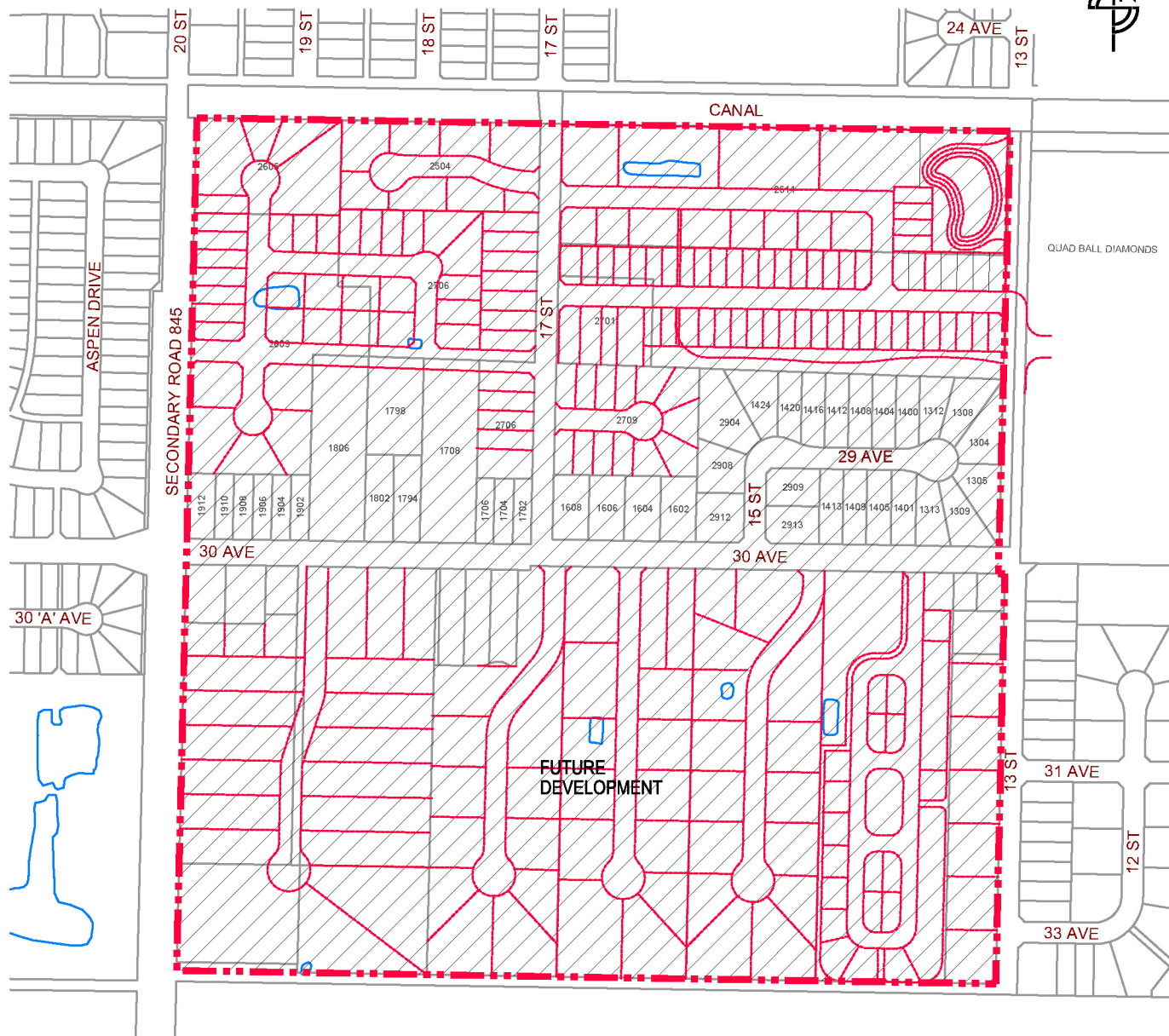
At the time of subdivision, the Developer will be required to enter into a Development Agreement with the Town of Coaldale.

## **VIII. Architectural Control Guidelines**

The developer will be required to submit Architectural Control Guidelines to the Town of Coaldale for approval.

## **Appendix A – Included Figures**

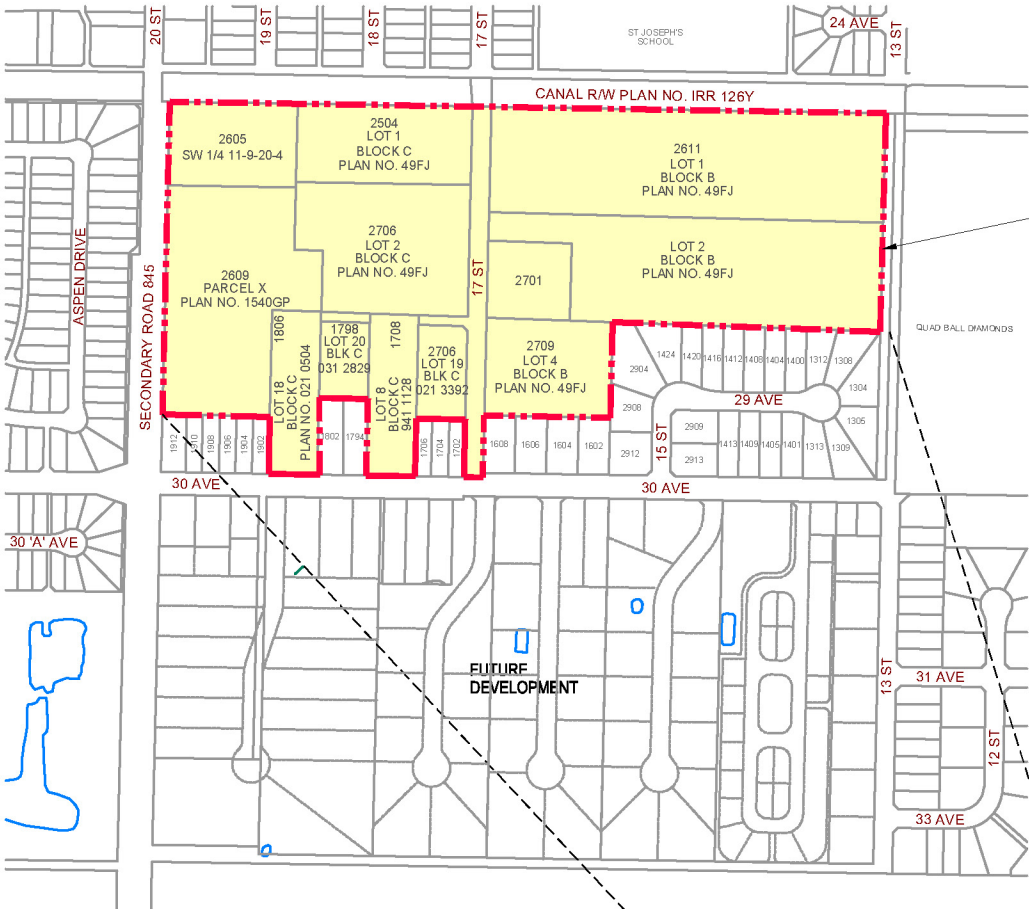
The following figures are referenced in the text.



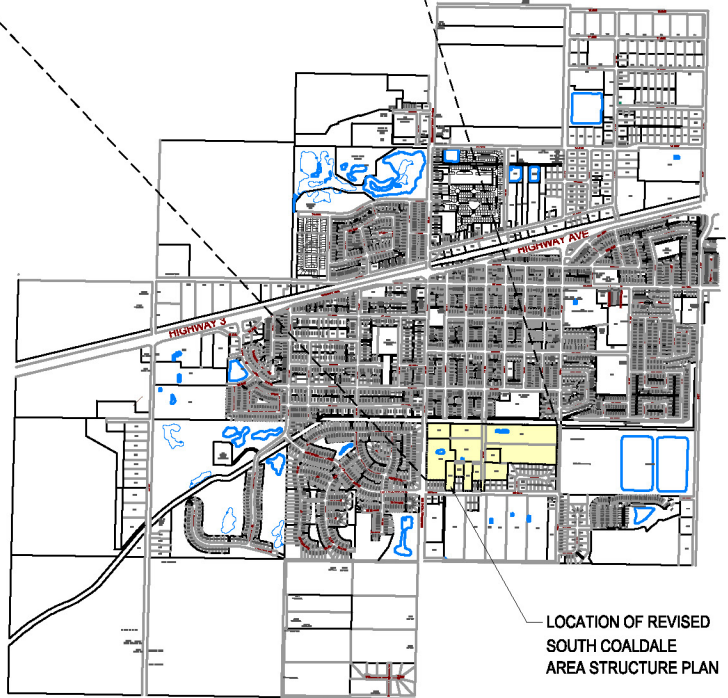
**LEGEND**

- - - - - ASP AREA  
(MARCH 1999 - SOUTH COALDALE  
AREA STRUCTURE PLAN BOUNDARY)

DATE	MAY 2021	PROJECT	SOUTH COALDALE AREA STRUCTURE PLAN	FIGURE
SCALE	1:6000	TITLE		
DRAWN	CMP			1.0
JOB	1120			
CADD	FIGURES.DWG			




REVISED AREA STRUCTURE PLAN  
BOUNDARY ENCOMPASSES  
30.13 HA (74.4 AC.)

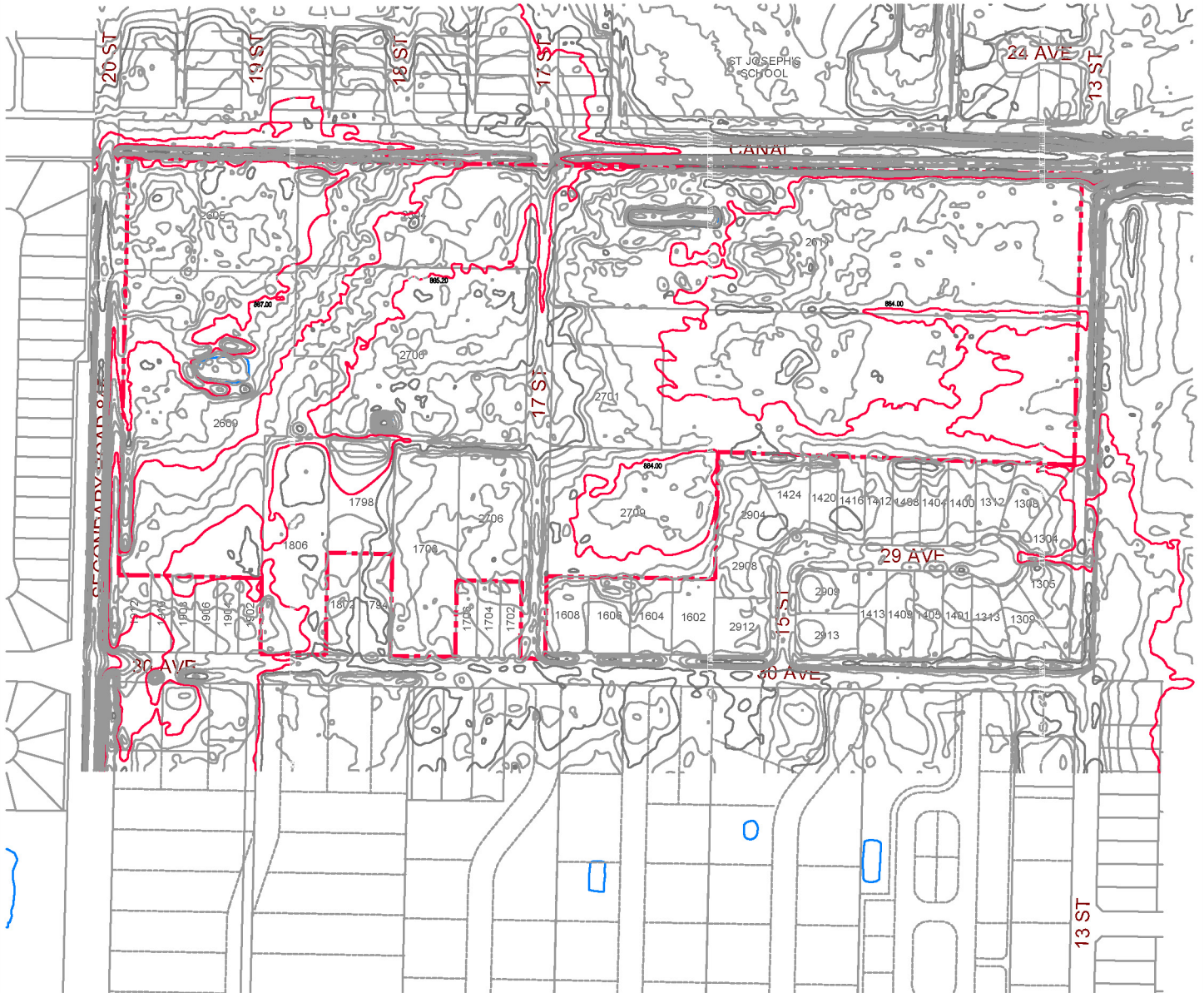


LOCATION OF REVISED  
SOUTH COALDALE  
AREA STRUCTURE PLAN



**LEGEND**

 S.C.R.A.S.P.  
(REVISED SOUTH COALDALE  
AREA STRUCTURE PLAN)  
BOUNDARY

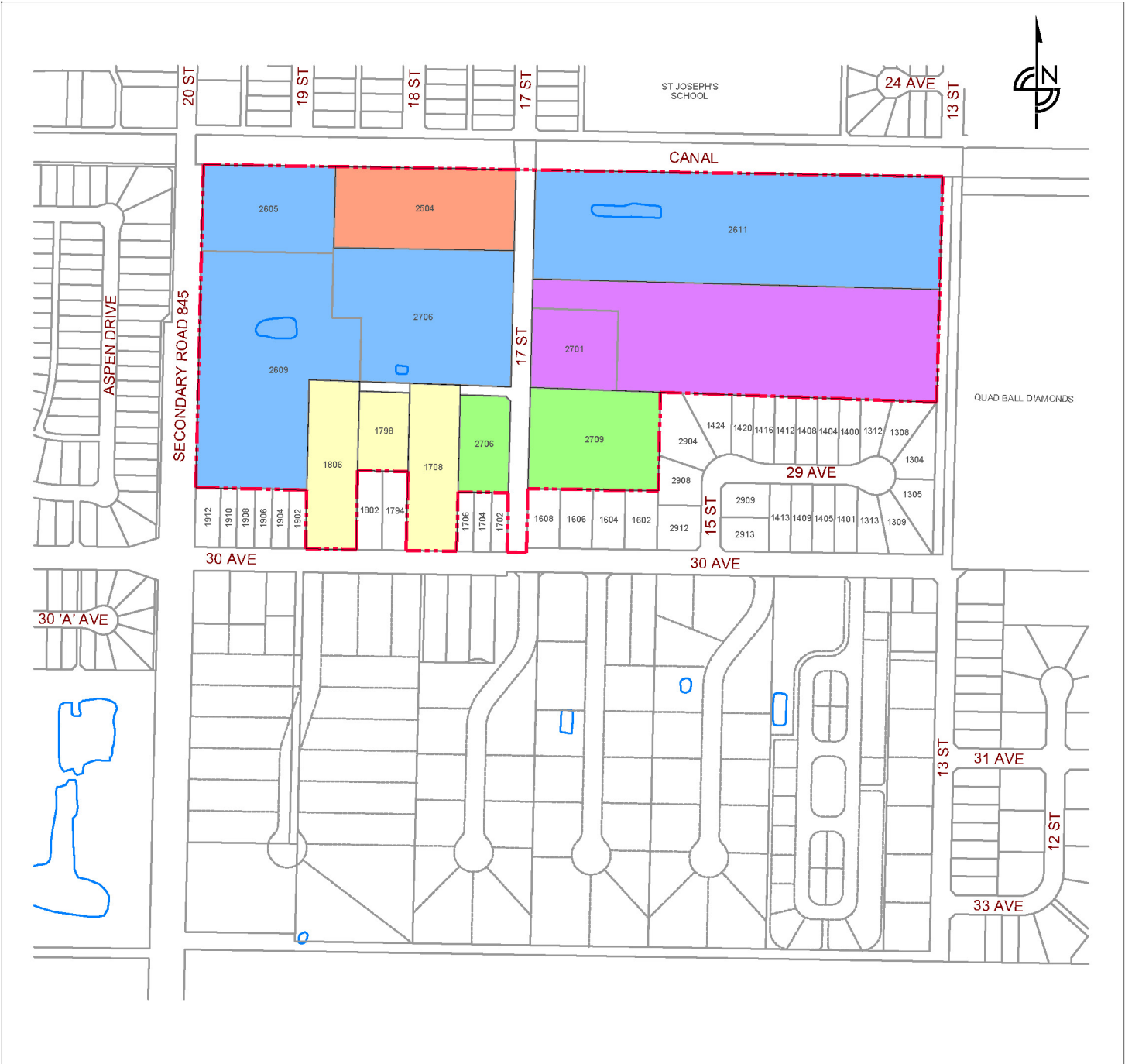
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JOB	1120			
CADD	FIGURES.DWG			



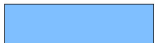
**LEGEND**

-  S.C.R.A.S.P.  
(REVISED SOUTH COALDALE AREA  
STRUCTURE PLAN) BOUNDARY
-  EXISTING CONTOUR LINE

DATE	MAY 2021	PROJECT	SOUTH COALDALE AREA STRUCTURE PLAN	FIGURE
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DRAWN	CMP			4.0
JOB	1120			
CADD	FIGURES.DWG			



**LEGEND**



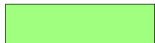
UR URBAN RESERVE



R-1A RESIDENTIAL



CR-2 COUNTRY RESIDENTIAL 2



CR-1 COUNTRY RESIDENTIAL 1



R-2 RESIDENTIAL MULT-UNIT

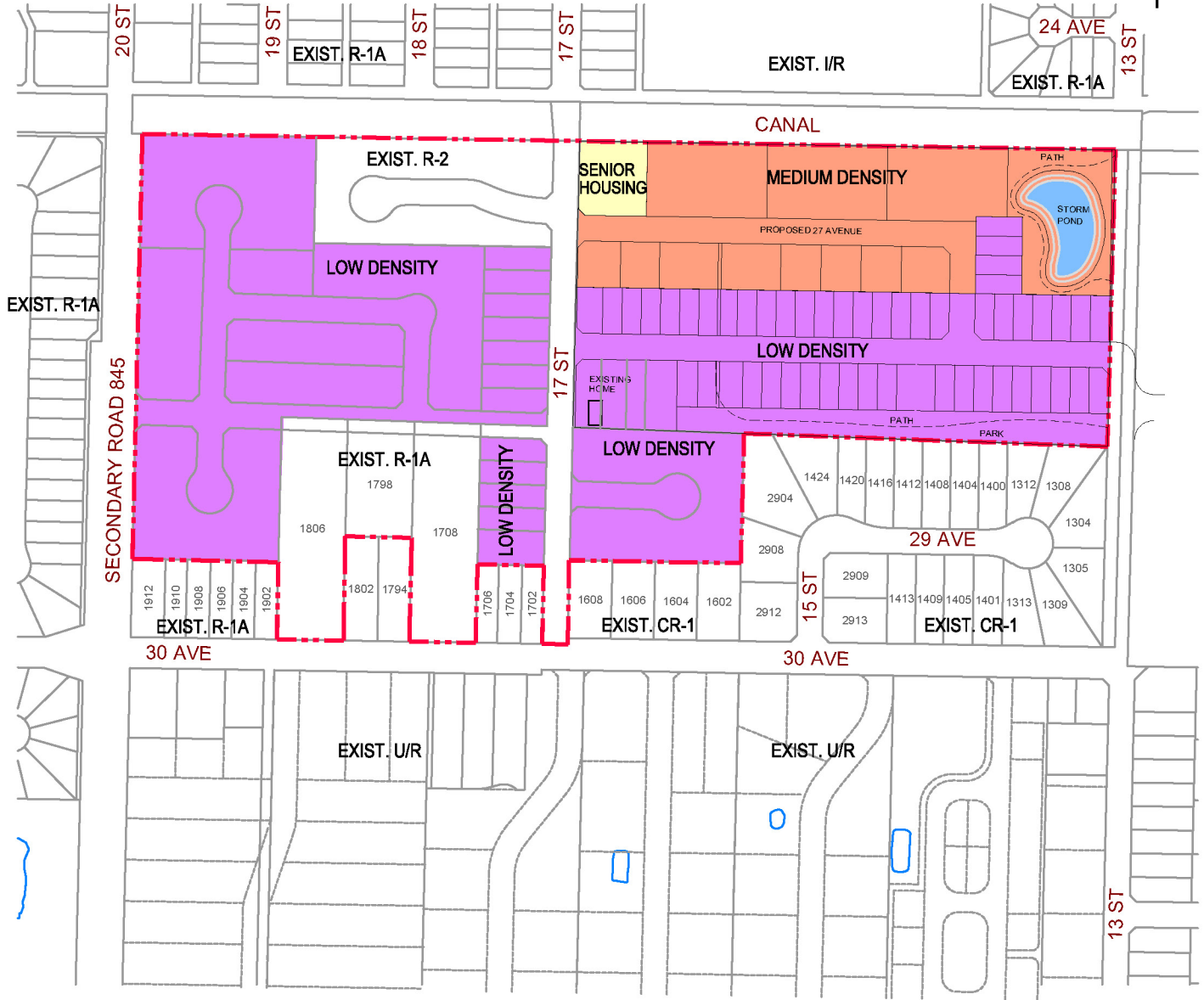


S.C.R.A.S.P.  
(REVISED SOUTH COALDALE AREA STRUCTURE PLAN ) BOUNDARY

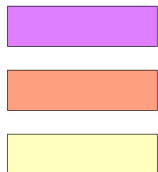
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DRAWN	CMP
JOB	1120
CADD	FIGURES.DWG

PROJECT	<b>SOUTH COALDALE AREA STRUCTURE PLAN</b>
TITLE	

FIGURE	<b>5.0</b>
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**LEGEND**



LOW DENSITY

MEDIUM DENSITY

SENIOR HOUSING



S.C.R.A.S.P.  
(REVISED SOUTH COALDALE  
AREA STRUCTURE PLAN)  
BOUNDARY

DATE	MAY 2021	PROJECT	SOUTH COALDALE AREA STRUCTURE PLAN	FIGURE
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CADD	FIGURES.DWG			



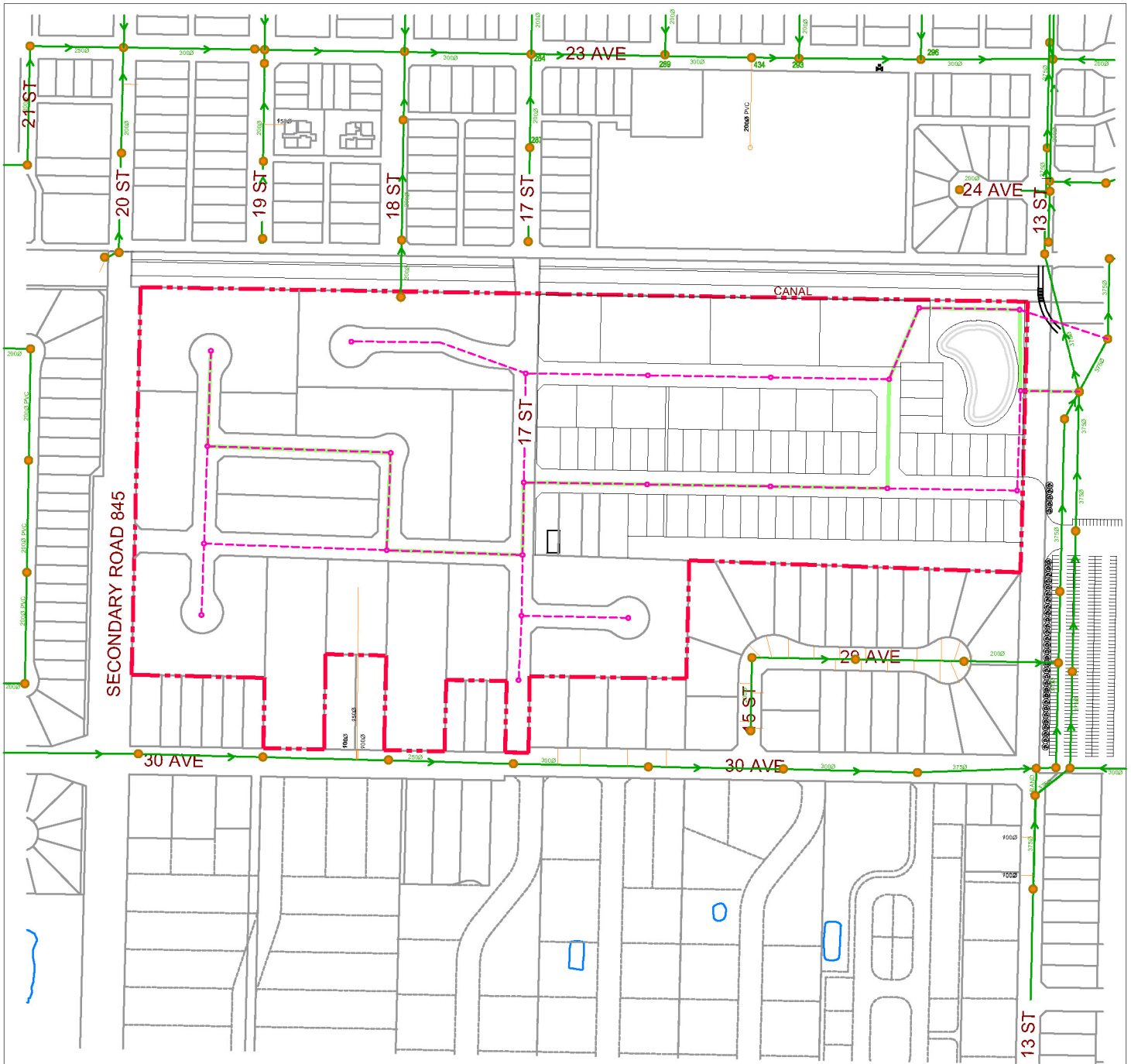
**LEGEND**

- PROPOSED PATH
- SUBDIVISION ACCESS
- - - - - S.C.R.A.S.P.  
(REVISED SOUTH COALDALE AREA STRUCTURE PLAN) BOUNDARY

DATE	MAY 2021
SCALE	1:5000
DRAWN	CMP
JOB	1120
CADD	FIGURES.DWG

PROJECT	<b>SOUTH COALDALE AREA STRUCTURE PLAN</b>
TITLE	

FIGURE	<b>7.0</b>
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**LEGEND**

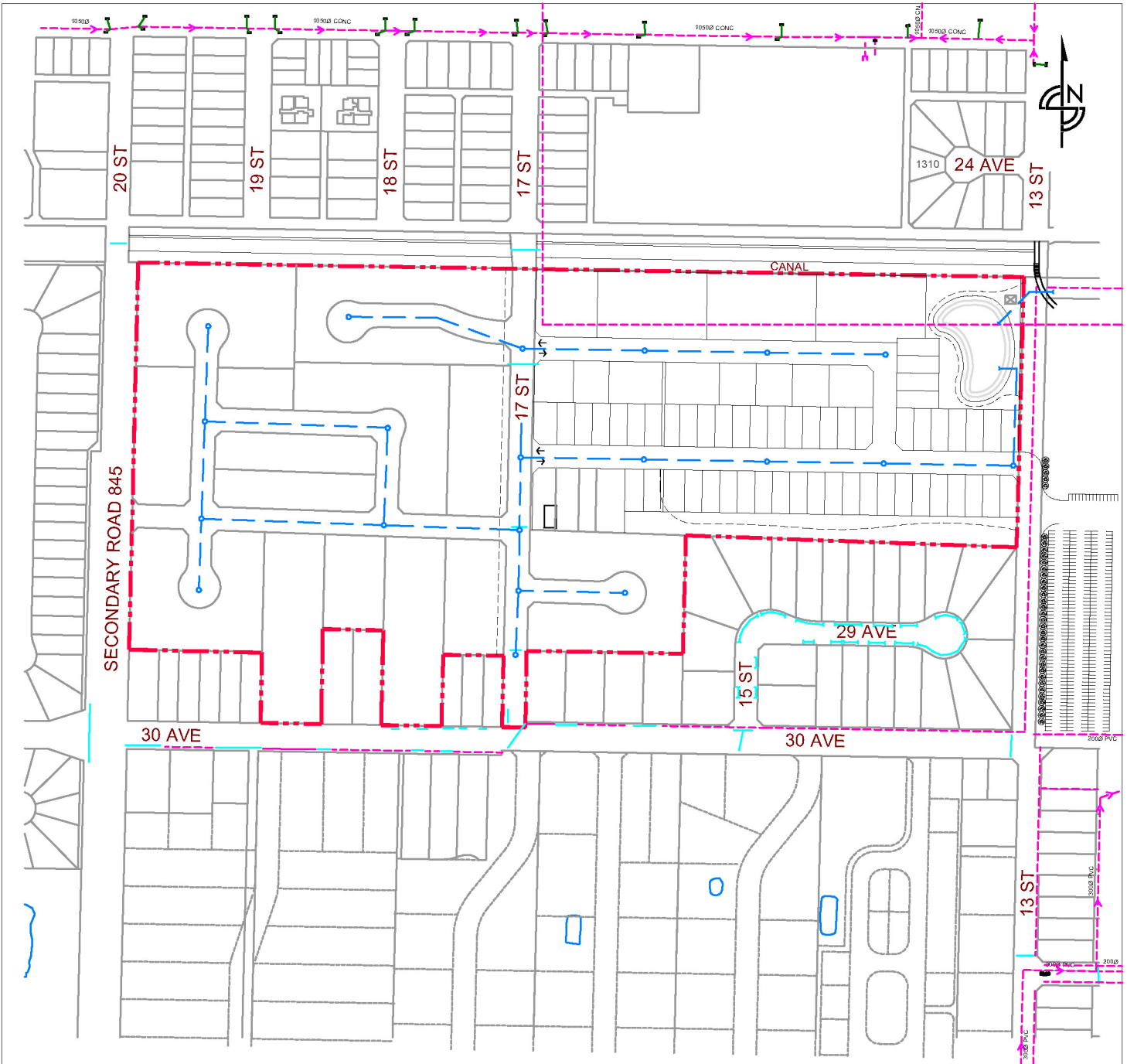
- EXISTING SANITARY PIPELINE
- - - PROPOSED SANITARY PIPELINE
- SANITARY PROFILE ROUTE FOR TABLE "3"
- - - S.C.R.A.S.P.  
(REVISED SOUTH COALDALE AREA  
STRUCTURE PLAN) BOUNDARY

DATE	MAY 2021
SCALE	1:5000
DRAWN	CMP
JOB	1120
CADD	FIGURES.DWG

PROJECT	<b>SOUTH COALDALE AREA STRUCTURE PLAN</b>
TITLE	

FIGURE

**8.0**

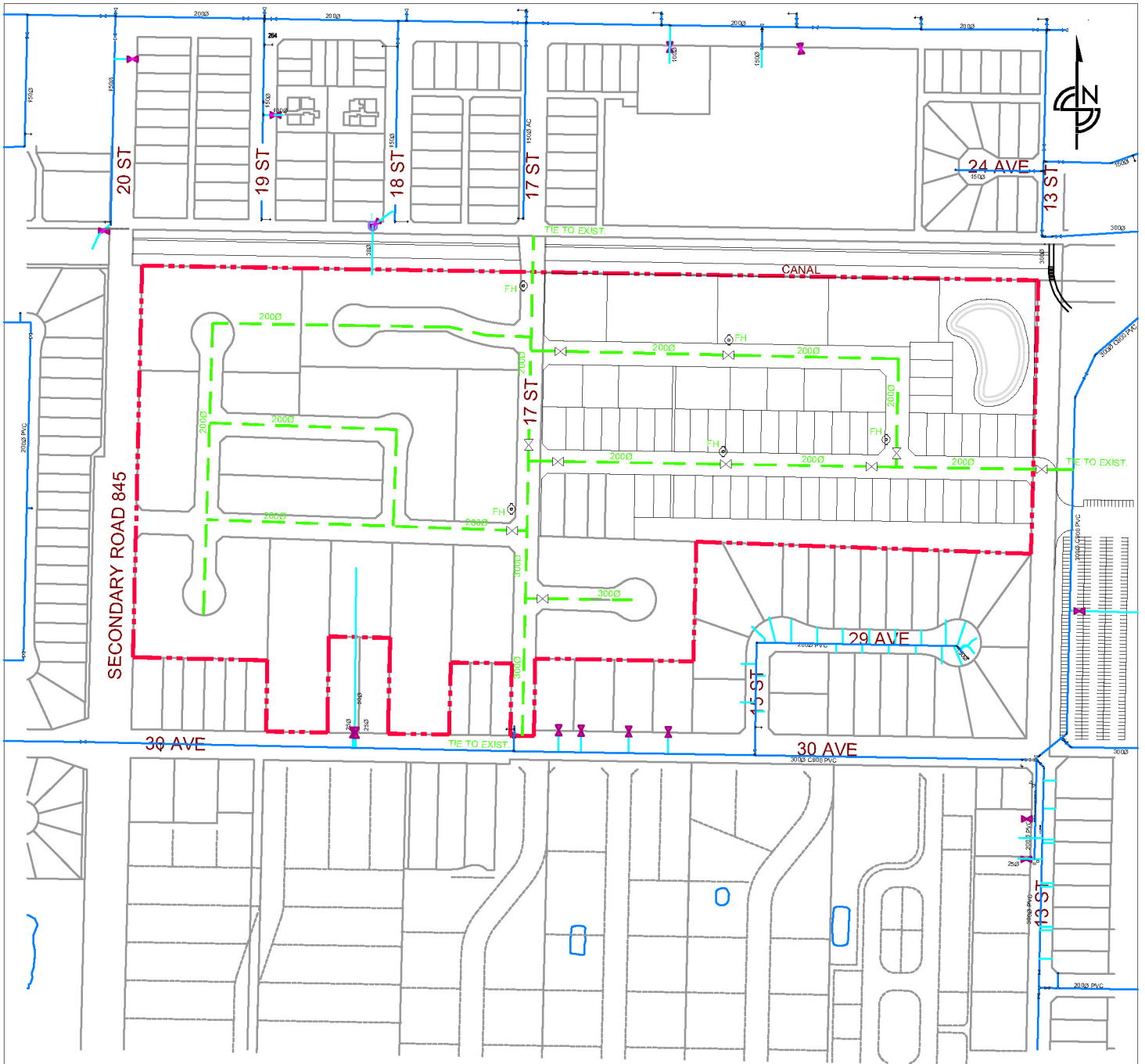


LEGEND	
	EXISTING STORM PIPELINE
	PROPOSED STORM PIPELINE
	S.C.R.A.S.P. (REVISED SOUTH COALDALE AREA STRUCTURE PLAN) BOUNDARY

DATE	MAY 2021
SCALE	1:5000
DRAWN	CMP
JOB	1120
CADD	FIGURES.DWG

PROJECT	<b>SOUTH COALDALE AREA STRUCTURE PLAN</b>
TITLE	

FIGURE	<b>9.0</b>
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LEGEND	
	PROPOSED WATER HYDRANT
	EXISTING WATER PIPELINE
	PROPOSED WATER PIPELINE
	S.C.R.A.S.P. (REVISED SOUTH COALDALE AREA STRUCTURE PLAN) BOUNDARY

DATE	MAY 2021	PROJECT	SOUTH COALDALE AREA STRUCTURE PLAN	FIGURE
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DRAWN	CMP	TITLE	PROPOSED WATER SYSTEM	10.0
JOB	1120			
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