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# Conceptual Scheme

## SW 28-54-20-W4

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## February 2007

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PDRS Admin.90029  
Created: February 14, 2007

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# Conceptual Scheme

## SW 28-54-20-W4

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### 1. PURPOSE

**1.1** The purpose of a Conceptual Scheme (CS) is to provide supporting rationale for the potential subdivision of this land to accommodate rural residential/agricultural development and to coordinate development planning of adjoining lands. The CS, as stated in Council Policy statement SER-008-019, is required:

- a)** To provide a framework for the subsequent subdivision and/or development of land within the Country Residential Policy Area and the Agricultural/Large Rural Residential Policy Area of the Municipal Development Plan;
- b)** To establish a potential plan of future subdivision or development that applies to a specific parcel of land;
- c)** To ensure that the subdivision under review does not prohibit the ability of remnant parcels, or adjacent parcels, to be further subdivided in the future. This can be achieved through improved subdivision design and the protection of land for future road dedication to provide access to remnant lands owned by the applicant or adjoining lands.

**1.2** Furthermore, as per Council Policy statement SER-008-019, the proposed Conceptual Scheme is essential for the following reasons:

- a)** The land being proposed for redistricting or subdivision is within the Agricultural/Large Rural Residential Policy Area of the MDP and is 16 ha (40 ac) or more in size; or
- b)** The land being proposed for redistricting or subdivision has the potential to be further subdivided; or
- c)** The proposed subdivision would result in more than two parcels on the quarter section; or
- d)** There is a need to coordinate development planning or servicing of adjoining lands.

### 2. OVERVIEW

**2.1** The proposed Conceptual Scheme has been prepared by Strathcona County Planning and Development Services in support of a Land Use Bylaw Amendment application and future proposed subdivision. Kimberly and Kent Hull have submitted an application to rezone a 65.14 hectare (160.96 acres) parcel from AG Agriculture: General District to a DC Direct Control District in order to allow the future subdivision of four (4) parcels ranging in size from approximately 6.3 ha (15.6 ac) to 19.6 ha (48.4 ac).

### 3. CONCEPTUAL SCHEME (DESIGN CONCEPT)

**3.1** The proposed Conceptual Scheme encompasses the entire SW ¼ of Section 28, Township 54, Range 20, West of the 4 Meridian (Figure 2) and has been prepared in consultation with the affected and adjacent landowners of the quarter section. The goal of the Conceptual Scheme is to establish a framework for the potential future subdivision and development of the land while ensuring that the policies and guidelines within the applicable statutory plans and bylaws are adhered to. The objectives of the Conceptual Scheme are to illustrate the potential developable area(s), potential lot yield, potential access locations and potential reserve land (Environmental Reserve, Municipal Reserve and Conservation Lot).

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### 4. BACKGROUND INFORMATION

4.1 Legal Description: SW 28-54-20-W4

4.2 Canada Land Inventory Rating: Classes 5 & 6

4.3 Adjacent Land Uses:

a) North: NW 28-54-20-W4 consisting of four (4) AG Agriculture General parcels of 16.2 ha (40 acres)

b) South: Township Road 544

c) East: SE 28-54-20-W4 consisting of one AG Agriculture General parcel consisting of 65.1 ha (160.97 acres),

d) West: Range Road 204

### 5. MUNICIPAL DEVELOPMENT PLAN

5.1 The subject land is located within the Beaver Hills Moraine Policy Area and the conceptual scheme and Land Use Bylaw Amendment was accepted as complete under the previous Municipal Development Plan 38-98 within the Agriculture/Large Rural Residential Policy Area. The current Municipal Development Plan 1-2007 was adopted on May 22, 2007.

5.2 The application is consistent with section 17.11 of the Municipal Development Plan which states that where a conceptual scheme/Land Use Bylaw amendment application has been submitted and is deemed complete, prior to the date on which this Municipal Development Plan is adopted; Council may proceed with adoption of the conceptual scheme and Land Use Bylaw amendment, provided that adoption of the conceptual scheme by resolution and final reading of the Land Use Bylaw amendment occurs no later than two (2) years from the date on which this Municipal Development Plan is adopted.

5.3 The Conceptual Scheme illustrates the proposed land use bylaw amendment application and future proposed subdivision for the balance of the quarter section (Figure 2). The maximum lot yield (maximum parcel density for the quarter section) shall not exceed five (5) parcels for the entire quarter section. **Please note that the developable areas are approximate and may change at the subdivision stage.**

### 6. LAND USE BYLAW

6.1 Pursuant to the Land Use Bylaw 8-2001, the subject lands are proposed to be redistricted to DC Direct Control District. The purpose of the Direct Control District of this district is to establish a site-specific Direct Control District that fosters a rural residential lifestyle on properties smaller than rural residential/agriculture parcels that provides for the preservation and protection of environmentally sensitive lands and habitat that are of significant ecological value to the community.

6.2 The DC Direct Control District requires lots to be a minimum of 200 meters in width.

6.3 A Land Use Bylaw Amendment has been submitted concurrently to rezone approximately 65.14 hectare (160.96 acres) of the SW 28-54-20-W4 from AG Agriculture General to DC Direct Control District.

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### 7. CURRENT SITE USES

**7.1** The quarter section consists of two AG: Agriculture General parcels, a 0.827 ha (2.04 acre) parcel and a the remnant quarter of 65.14 ha (160.96 acre).

**7.2** The quarter contains one established residence and accessory building within the south west corner contained within the 0.827 ha parcel otherwise known as Lot A, Plan 8621417. The remnant parcel is undeveloped and currently used for livestock and cultivation uses.

**The Conceptual Scheme proposes an Environmental Reserve (ER) dedication of 6.8 ha +/- (16.8 ac +/-), proposed Municipal Reserve (MR) dedication of 5.8 ha +/- (14.3 ac +/-) as required under section 661(a) and (b) of the MGA and a proposed Conservation Easement area of 11.9 ha +/- (29.4 ac +/-). The proposed reserve areas are subject to change based on the completed Biophysical Assessment and subject to final calculation upon subdivision.**

### 8. SITE CONSIDERATIONS & PROPERTY INFORMATION

**8.1** The general topographic relief of the quarter section is characterized as gently rolling with scattered shallow depressions supporting a system of ephemeral wet areas. The southwest wetland likely supports a small amount of standing water, but the vegetation indicates that it is not a permanent wetland in the landscape. The drainage swales that extend from east to west are not important habitat features as they are routinely cultivated and do not support wetland vegetation. The remainder of the subject property has been cultivated for years and the drainage swales, while providing short term drainage, do not persist on the landscape throughout the season.

### 9. ENVIRONMENTAL CONSIDERATIONS

**9.1** In 1996, Strathcona County identified the need for a comprehensive identification of natural features and wildlife habitats that can be applied consistently across the County landscape. The overall goal of the landscape ecology study was to complete a prioritized landscape and wildlife habitat inventory to be incorporated into the County's planning process. The resulting Prioritized Landscape Ecology Assessment (Geowest Environmental Consultants Ltd. 1997) is used to guide new development and subdivisions and to direct future habitat and landscape restoration projects.

**9.2** The Prioritized Landscape Ecology Assessment identifies the SW 28-54-20 W4M site to have upland and wetland habitat. The value of the habitat is in the complex of wetlands and uplands, as well as the connectivity across the landscape, specifically to the north and northeast.

**9.3** Pursuant to the MDP, Section 4 — Environmental Management, “in areas where native vegetation is important for soil conservation, water resource protection or wildlife habitat, Strathcona County will discourage further clearing or development, unless it is demonstrated to the County's satisfaction that these resources will not be negatively affected.”

**9.4** Subject to the MGA Section 664(1), the owner of the parcel of land that is the subject of a proposed subdivision may be required to provide part of that parcel of land as Environmental Reserve if it consists of: a swamp, gully, ravine, coulee, natural drainage course, land that is

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subject to flooding or is unstable, a strip of land, not less than 6 meters in width abutting the bed and shore of any lake, river, stream or other body of water for the purpose of preventing pollution or providing public access to and beside the bed and shore. In addition, the applicant will be required to provide Municipal Reserve.

### **9.5 A Biophysical Assessment was conducted on the subject parcel October 11, 2006.**

The purpose of the site assessment was to determine the potential for lands to be claimed by Strathcona County as reserves and/or for the conservation of environmentally significant areas during the subdivision process as provided under the Municipal Government Act and Municipal Development Plan.

**9.6** The site assessment consisted of an onsite survey of vegetation communities, topographical features, and wildlife on the subject property. An assessment was needed to determine wetlands and watercourses subject to claim as Environmental Reserve. Other environmental features important for conservation, such as potential wildlife corridors, Species at Risk, unique landforms, etc., can be protected through the dedication of Municipal Reserves and/or other conservation mechanisms. An air photo evaluation and literature search were initially undertaken to identify potential areas of interest within the subject property and its relationship to adjacent properties. Wildlife trails, cleared areas, wetland margins and watercourses were traveled in order to assess and observe the subject property firsthand.

### **9.7 Landscape**

Overall, the landscape was gently rolling with scattered shallow depressions supporting a system of ephemeral wet areas as well as more permanent wetlands, drainage corridors and remnant upland forest stands. No permanent creeks were observed on the site, however, a significant intermittent drainage corridor was observed in the south portion of the subject property.

The most significant landscape feature is the large permanent freshwater marsh wetland that occupies the central portion and the associated upland forest that dominated the northeast corner of the subject property.

The remainder of the subject property is under pasture.

### **9.8 Vegetation**

Approximately 75% of the subject property has been cleared of forest vegetation and has been under agricultural management for decades. The priority habitat occurs largely within the northeast corner.

The uncleared upland portions of the subject property along the south boundary and within the northeast corner are covered by a mosaic of aspen, balsam poplar, and paper birch and associated small localized wetlands and drainage swales. The well developed forest structure includes diverse herbaceous ground cover, low shrub and tall shrub layers. The age class of this forest is estimated to be between 40 and 70 years. The majority of this area is fenced, therefore livestock damage has not been an issue. Based on the lesser degree of impact from residential use and its connectivity to the large wetland, the upland forest stand within the northeast corner is more ecologically significant for conservation.

The large significant wetland located in the central portion of the subject property adjacent to the block of upland forest is characterized by typical zones of vegetation (cattails, sedges, rushes, grasses and willows). The vegetation species and soils indicated that this was a significant

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permanent wetland. The grasses, sedges, rushes and willows provide significant wildlife habitat that differs from the uplands.

An intermittent drainage corridor dominated the landscape in the southeast corner of the subject property. This area is characterized by classic wetland vegetation with a narrow upland buffer of poplar. Although intermittent in nature, this area is significant in providing a connection to adjacent habitats. The wetlands and drainage features is important to maintain the hydrology of the subject property.

Overall, the diversity of landscape and plant communities across the subject property should be conserved. Environmental and Municipal Reserves should be dedicated in such a way to conserve representative lands across the subject property that have not been previously cleared for agriculture.

### **9.9 Wildlife**

Direct observations of wildlife in the area were typical of the timing of the assessment. Ungulates were noted through indirect observations, such as browse, scat and trails. Moose were directly observed on the subject property. Ruffed grouse were prevalent throughout the upland forest understory.

### **9.10 Conservation Recommendation**

Environmental Reserve (ER) be dedicated for the permanent wetlands and intermittent drainage channels to the full extent described under the Municipal Government Act. It is recommended that a minimum 7.5 m buffer adjacent to all ER areas be taken for access purposes.

Municipal Reserve (MR) be dedicated to the full extent owing for the maintenance of forested habitat based on 10% of the land area less that area owing as ER. The northeast forest stand should be conserved, as it provides a buffer to the large wetland and a connection to the lforested areas to the north.

Conservation Easement Agreements between the landowner and Strathcona County would also be beneficial in habitat conservation. The agreement would be registered against the title of each lot. Depending on the layout of the conceptual scheme, a Conservation Easement may be appropriate to conserve upland habitat along the south boundary of the subject property.

The following recommendations refer to activities that should be undertaken to facilitate development of a rural residential area in a way that incorporates, and therefore conserves, the biophysical resources.

- retain the significant wetland features, including a minimum buffer of 7.5 m, to maintain the hydrological functions (surface water storage, water quality improvement, wildlife habitat, recreation potential, aesthetics) as ER
- retain upland forest stands, to maintain habitat diversity and connectivity, as MR
- work with the existing topography to the maximum extent as a means of conserving the existing drainage features and landscape character

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- consult with Alberta Environment and Strathcona County regarding any changes to topography which may influence drainage
- remove fencing to facilitate wildlife movement

### 10. TRANSPORTATION

**10.1** A 5 meter road widening will be required adjacent to Range Road 204 and 10 meter road widening along Township Road 544 at the time of future subdivision.

**10.2** At the time of future subdivision, all existing and proposed access locations and proposed internal roadways will be identified and must be to the satisfaction of Strathcona County's Engineering Servicing Standards.

### 11. SERVICING

**11.1** The appropriate servicing for water and sewer will be determined at the time of subdivision to the satisfaction of Strathcona County.

### 12. DEVELOPMENT CRITERIA

To assist in the preparation of future redistricting and subdivision applications the following list of Development Criteria have been developed for reference. The criteria was developed from policies, standards and regulations within the various applicable bylaws and statutory plans and from information gathered at meetings with landowners within the SW 28-54-20-W4 and the surrounding area. Additional development criteria may be identified at a more detailed subdivision stage.

**12.1** The proposed Conceptual Scheme (Figure 2) illustrates the proposed land use bylaw amendment that has been applied for and the future proposed subdivision. The Conceptual Scheme identifies the potential developable areas on the balance of the quarter section, taking into consideration undevelopable areas such as environmental reserve, municipal reserve and conservation easement.

**12.2** The developer (applicant) will, through the subdivision application process be required to address servicing for water and sewer, access locations, internal road layout, municipal reserve, environmental reserve, environmental reserve easements and potential conservation easement requirements, geo-technical considerations/constraints, approval fees, rural road levies and any other requirements deemed appropriate by Strathcona County at that time

**12.3** Technical considerations including a biophysical assessment or stormwater management report and any other studies deemed appropriate by Strathcona County to be addressed, if required, to the satisfaction of Strathcona County at the time of subdivision. At all times County standards shall be maintained.

**12.4** Development within the quarter section will maintain a rural residential lifestyle on properties of approximately 6.0 hectares (14.8 acres) or larger

**12.5** Development within the quarter will be subject to road dedication according to Policy SER-012-004 and a 5 meter road widening will be required adjacent to Range Road 204 and 10 meter road widening along Township Road 544 at the time of future subdivision.

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### DEVELOPMENT CRITERIA CONT'D

**12.6** For development to proceed to the level outlined on Figure 2, environmental reserve must be dedicated for wetland areas and watercourses to the full extent described under the Municipal Government Act at the time of subdivision.

**12.7** For development to proceed to the level outlined on Figure 2, municipal reserve must be dedicated to the full extent owing for the maintenance of upland habitat, based on 10% of the land area less that area owing as environmental reserve at the time of subdivision.

**12.8** Development adjacent to slopes, wetlands and water courses shall conform with environmental setbacks contained within the Land Use Bylaw 8-2001.

**12.9** Prior to development, percolation and water table testing will be conducted on the proposed lots by a qualified professional so that suitable locations can be chosen for building sites and for on-site private sewage disposal systems.

**12.10** At all times all lots shall comply with the requirements of the appropriate land use district.

**12.11** Conservation Easements between the landowner and Strathcona County would be entered into for conserving the significant tree stand in the north east of the quarter section.

**12.12** The approximate base developable area is 39.5 hectares +/- (97.6 acres +/-). Based on the developable and undevelopable areas illustrated in Figure 2, 5 lots are proposed for the entire quarter section, including the existing 0.827hectare (2.04 acre) acre parcel in the south west corner. **Please note that the development concept shown on Figure 2 is conceptual and may change at the time of future subdivision. Further investigation of the quarter section may identify constraints to development on the quarter section.**

### 13. SUBDIVISION APPROVAL

**13.1** Notwithstanding any other issues that may arise through the subdivision review process, the following will be addressed as conditions of subdivision:

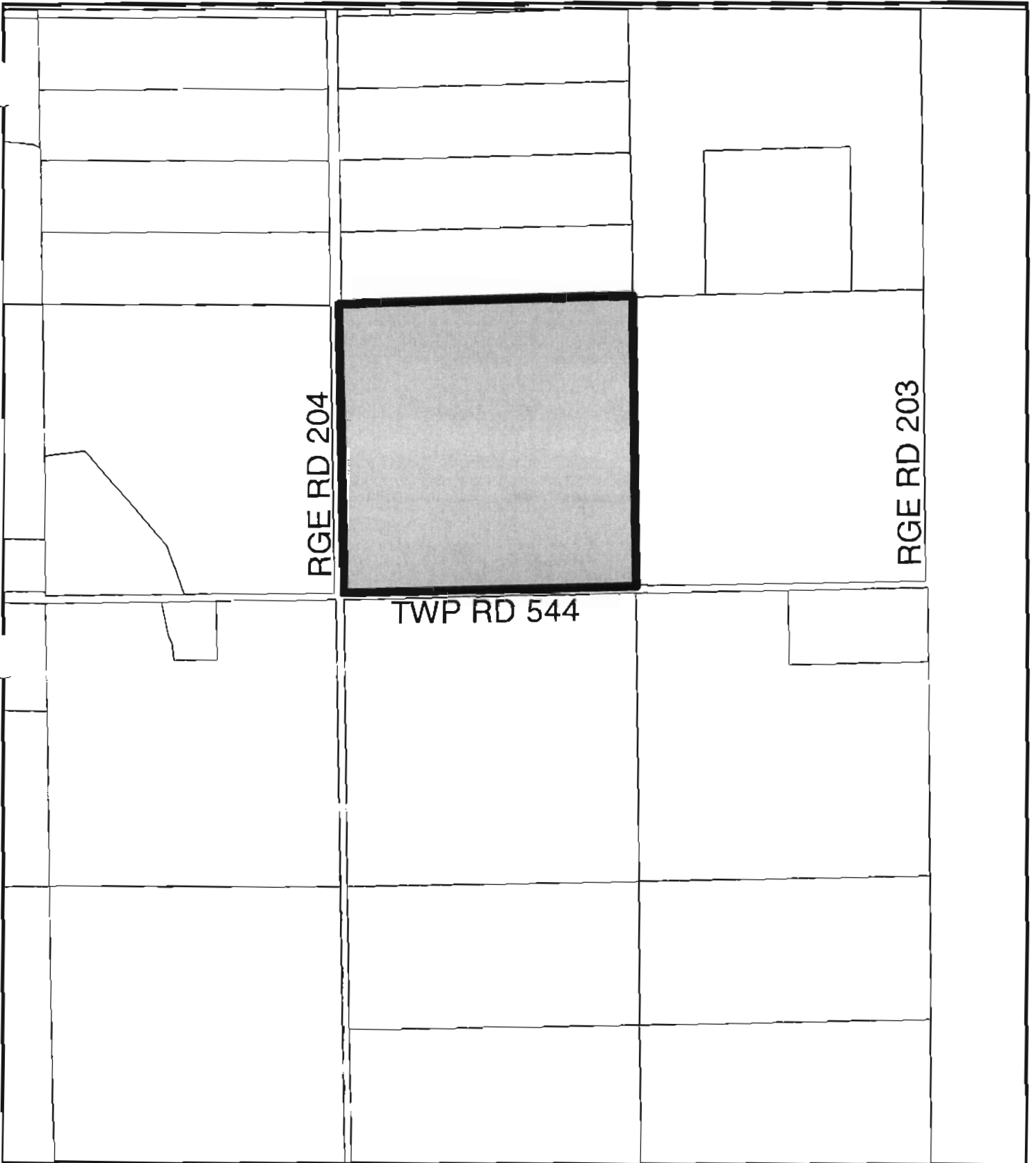
**a)** Final location of property lines and parcel areas may be adjusted at the time of subdivision, however, shall comply with the maximum density and minimum lot areas of the Land Use Bylaw District for the lands.

**b)** Any other conditions which may be applicable.

### 14. COMPLIANCE WITH OTHER LEGISLATION

**14.1** Nothing in this Conceptual Scheme shall be interpreted as relieving a person from complying with Federal, Provincial or Municipal statutes or bylaws. In the event of a conflict between any of the provisions of this Conceptual Scheme and the provisions of any statute or bylaw, the provisions of the statute or bylaw shall prevail.





**FIGURE 1  
KEY PLAN  
SW 28-54-20-W4**



**PLANNING & DEVELOPMENT SERVICES**

**Strathcona**  
County

|                                    |  |
|------------------------------------|--|
| <b>Drawn By:</b> G. Davis          | <b>File No.:</b> P40M0001  |
| <b>Date Drawn:</b> Oct 11, 2006    | Dwg No.:<br>NAPDS Admin\Arcview Projects\Conceptual Schemes\40\<br>P40M0001 Key Plan.mxd |
| <b>Revision Date:</b> mmm dd, year |  |
| <b>Scale:</b> Not to scale         |  |

# CONCEPTUAL SCHEME SW 28-54-20-W4



### Legend

- Proposed Subdivision =
- Lot 1 - 6.3 ha (15.6 ac) ±
- Lot 2 - 16.0 ha (39.5 ac) ±
- Lot 3 - 9.5 ha (23.5 ac) ±
- Lot 4 - 19.6 ha (48.4 ac) ±
- Potential Access Location
- Existing Dwellings
- \* Existing ACCESS

- Developable Area (excepting out DE & CE) =  
Approx. 39.5 ha (97.6 ac) ±
- Municipal Reserve =  
Approx. 5.8 ha (14.3 ac) ±
- Environmental Reserve =  
Approx. 6.8 ha (16.8 ac) ±
- Conservation Easement =  
Approx. 11.9 ha (29.4 ac) ±

**FIGURE 2  
CONCEPTUAL SCHEME SW 28-54-20-W4**

|                        |                              |
|------------------------|------------------------------|
| Drawn by: G. Davis     | Dwg No.: P40M0001            |
| Date Drawn: 10/11/2006 | Adopted: Scale: NOT TO SCALE |

PLANNING & DEVELOPMENT SERVICES

**Strathcona**