# FAIRWAYS AT DELACOUR CONCEPTUAL SCHEME





# BYLAW C-7833-2018

# A Bylaw of Rocky View County

# Known as the Fairways at Delacour Conceptual Scheme

The Council of Rocky View County enacts as follows:

# PART 1 - TITLE

This Bylaw shall be known as Bylaw C-7833-2018.

# **PART 2 – DEFINITIONS**

In this Bylaw, the definitions and terms shall have the meanings given to them in the Land Use Bylaw (C-4841-97), and the *Municipal Government Act*.

# PART 3 - EFFECT OF BYLAW

the "Fairways at Delacour Conceptual Scheme" be adopted, to provide a framework for subsequent redesignation, subdivision, and development within W ½ 19-25-27-W04M, consisting of an area of approximately ± 127.58 hectares (± 315.26 acres), as defined in Schedule 'A' which is attached to, and forming part of this Bylaw.

# **PART 4 – TRANSITIONAL**

Bylaw C-7833-2018 comes into force when it receives third reading, and is signed by the Reeve/Deputy Reeve and the CAO or Designate, as per the *Municipal Government Act*.

Division: 05

File: 05219002/003/005/006/010/011/012/013/014 / PL20150148

PUBLIC HEARING WAS HELD IN COUNCIL this

READ A FIRST TIME IN COUNCIL this

READ A SECOND TIME IN COUNCIL this

UNANIMOUS PERMISSION FOR THIRD READING

READ A THIRD TIME IN COUNCIL this

//\* day of December , 2018

//\* day of December , 2018

Reeve

Charlotte Satink

amhan

CAO or Designate

Date Bylaw Signed

Bylaw C-7833-2018 Page 1 of 2

# FAIRWAYS AT DELACOUR CONCEPTUAL SCHEME

# Within the

W ½ Sec. 19-25-27-4

**ROCKY VIEW COUNTY** 

PREPARED FOR

**MCINTOSH TREE FARMS Inc.** 

BY

Robert Wescott, B.Sc. AICP

**Wescott Consulting Group Ltd.** 

**Revised October 2018** 

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#### 1.0 INTRODUCTION

The Fairways at Delacour Conceptual Scheme is a non-statutory plan, that is being prepared in accordance with the requirements of Section 9.7 of the Rocky View County Plan (Bylaw C-7280-2013 in which 'All new commercial or industrial or multi-lot residential subdivisions proposed within the Hamlet shall require the preparation of a subordinate plan to the area structure plan or conceptual scheme'.

In addition to the requirements of the Rocky View County Plan the conceptual scheme is being prepared in accordance with guiding principles, objectives and policies as stipulated in the 'Delacour Community Area Structure Plan'.

# 1.1 Plan Location and Ownership

The subject lands (as shown in *Figure 1 Plan Area*) are situated east of Secondary Highway #791 and south of Secondary Highway #564 approximately 6 miles east of the City of Calgary and are legally described as:

- Lot 1, Block 1, Plan 0311367 containing 2.24 Hectares (5.54 Acres) More or Less. (Robert Douglas McIntosh).
- Lot 2, Block 1, Plan 0311367 containing 2.24 Hectares (5.02 Acres) More or Less. (Robert Douglas McIntosh).
- Lot 4, Block 1, Plan 0311367 containing 21.08 Hectares (52.09 Acres) More or Less. (McIntosh Tree Farms Inc.).
- Lot 6, Block 1, Plan 0311367 containing 1.96 Hectares (4.84 Acres) More or Less. (Kenneth & Kellison Tetzlaff).
- Lot 7, Block 1, Plan 0311367 containing 1.95 Hectares (4.84 Acres) More or Less. (Lawrence and Corrine McIntosh).
- Lot 8, Block 1, Plan 0613232 containing 60.61 Hectares (149.77 Acres) More or Less. (McIntosh Farms Inc.).
- Lot 9, Block 1, Plan 0613232 containing 14.41 Hectares (35.61 Acres) More or Less. (McIntosh Tree Farms Inc.).
- All that portion of the South West Quarter of Section 19, Township 25, Range 27, West of the 4<sup>th</sup> Meridian described as follows:

Commencing at the South East angle of said South West Quarter Section, thence northerly along the easterly limit of said quarter section 430.4 feet, thence westerly and parallel with the southerly limit of said quarter section 1368.1 feet more or less to the easterly limit of Canadian Pacific Railway Company's irrigation canal as said canal is shown on plan IRR336, thence in a south easterly course along said easterly limit of said canal 469.9 feet more or less to the southerly limit of said quarter section, thence easterly along said limit 1203.2 feet more or less to the point of commencement Containing 5.143 Hectares (12.7 Acres) More or Less.(Robert & Cheryl Delorme).

• Plan IRR 336 containing 18.15 Hectares (44.85 Acres) More or Less (The Board of Trustees of the Western Irrigation District).

# 1.2 History

Named after the foreman of the Grand Trunk Railway, the hamlet of Delacour was established nearly 100 years ago and served as the commercial hub for the neighbouring farm community. As in most rural western communities, the introduction of the railway, and the construction of the irrigation canal encouraged agricultural settlement in the area.

The land on which the 'Canal at Delacour' golf course is located was the original farmstead of Talmon and Lucy Cleveland and was passed on through the family until purchased by Doug and Irene McIntosh in 1998. It was Doug and Irene's intent to return to farming roots upon their retirement.

In 1999 a new home was constructed on the property for Doug and Irene and shortly thereafter 3 of their children built homes on the land as well.

While farming the land, Doug thought that his farm would be perfect for a golf course and after consulting with co-workers Bob Wylie, (who was an accomplished golfer) and Harold Pasechnik, Doug decided to move forward with design and construction of the course.

In 2003 the 'Canal at Delacour Golf Club' was approved by the Municipal District of Rocky View and the course officially opened for play in 2005.

Since that time the course has received such prestigious honours as being nominated as one of the best new golf courses in Canada and is recognized by Calgary area golfers as one of the best golf courses in the Calgary region.

Now that the vision of the golf course has been achieved, the introduction of the 'FAIRWAYS AT DELACOUR' residential development surrounding the course is the next step.

#### 1.3 Definitions

In this Conceptual Scheme, the following interpretations shall apply:

**DCASP** means, the Delacour Community Area Structure Plan Bylaw C6122-2005 on September 13, 2005.

**Conceptual Scheme Area** is the land area contained within the boundary of the Fairways at Delacour Conceptual Scheme.

**Council** means the Council of Rocky View County.

County means Rocky View County.

**Developer** means, the registered landowner or any future landowner.

**Land Use Reclassification, Tentative Plan, Subdivision Stage** means that stage of the land development process, which follows Council approval of the Conceptual Scheme. This stage is followed by a "Development Agreement" between the Developer and the County.

**May** is an operative word meaning a choice is available, with no particular direction or guidance intended.

County Plan means, The Rocky View County Plan (Bylaw C-7280-2013).

**Plan Area** is the land area contained within the boundary of the Fairways at Delacour Conceptual Scheme.

**Qualified Professional** means a professional engineer, geologist, or geophysicist licensed to practice in the Province of Alberta.

**Shall** is an operative word which means the action is obligatory.

**Should** is an operative word which means that in order to achieve local goals and objectives it is strongly advised that the action be taken.

**LEED Principles** (based on the premise of the Triple Bottom Line comprised of Social Responsibility, Environmental Stewardship and Economic Prosperity) is a framework for the identification and implementation of green building design, construction, operations and maintenance solutions which are practical and measurable.

#### 2.0 EXISTING SITE CHARACTERISTICS

The Conceptual Scheme Plan Area consists of approximately 315.26 acres of land which encompasses the golf course, irrigation canal, agricultural and country residential lands within and surrounding the Canal at Delacour Golf Course. The land use designations of the various parcels vary significantly but are generally associated to the existing use of land as shown in *Figure 2 Land Use Designation*.

Topographically, the plan area can be defined as undulating and the lands generally slope inward towards the Western Irrigation District Canal which dissects the plan area in a south to north direction. Surface run off from the majority of the plan area flows to the existing retention ponds which form an integral part of the irrigation system for the Canal at Delacour Golf Course. As shown in *Figure 3 Topographical Features*, the surface elevations range from the high point of the plan area at an elevation of 1028 metres to a low point at 1006 metres.

# 2.1 Surface Geology

The plan area is within the Tertiary Paskapoo Formation which is primarily a non-marine deposit consisting of sand stone and shale. The depth of the bedrock is generally around 15 to 25 metres.

Within the plan area the surficial geology was impacted by glacial action (Cordilleran and Laurentide) which left small lake deposits. The plan area is characterized by coarse alluvium floodplain deposits consisting primarily of gravel.

# 2.2 Adjacent Land Uses

Lands east and south of the plan area are primarily active farming operations with agricultural production and primarily cultivated soils. There is a small holding - agricultural operation, as well as the community agricultural and recreation centre located directly to the north, and a number of small holding, country residential parcels located to the west of the plan area as shown in *Figure 2 Land Use Designation*.

## 2.3 Historic Resources

An Archaeological and Historical Assessment was completed in November, 2002 and submitted to Alberta Cultural Development, Cultural Facilities and Historical Resources Division by Lifeways of Canada Limited which determined that there appears to be no known natural, paleontological, archaeological, traditional or historic sites recorded within the plan area. Alberta Culture and Tourism confirmed their previous decision in a letter dated May 25<sup>th</sup>, 2016.

#### 2.4 Gas Line and Utility Rights of Way

As indicated in *Figure 1- Plan Area*, there are two high pressure gas lines enter the plan area south of the golf course maintenance area in the central – south west corner of the plan area and vacate the plan area in the north east corner just south of the existing country residential parcels. This high pressure gas line is within Utility Right of Way plan 931-1738.

#### 2.5 Access

# **Secondary Highway 791**

At present, there are (3) three access points onto Secondary Highway 791 located to the west of the plan area. The two most northerly access points are related to the operation of the golf course while the most southerly access points provide shared access to the two country residential parcels.

## **Secondary Highway 564**

At present, there are three access points onto Secondary Highway 564 located to the north of the plan area. The most easterly access point serves the two country residential parcels located in the north east corner of the plan area. The two remaining access points are located west of the country residential parcels and provides access to the Western Irrigation District canal.

# 2.6 Soil Ratings

The soil rating, as shown in *Figure 4 – Soil Classification*, has been classified as CLI # 1, 2t, & 3t under the Canada Land Inventory rating in which the lands are generally defined as soils which have fair to moderately high agricultural productivity with some limitations relating to topographical constraints.

# 2.7 Buildings

At present, there are five (5) country residential units located within the plan area, as well as, several service buildings relating to the operation of the golf course as shown in *Figure 3 Topo Features and Site Characteristics*.

#### 3.0 PLAN PRINCIPLES AND OBJECTIVES

The purpose of the Fairways at Delacour Conceptual Scheme is to provide a comprehensive planning framework that will embrace the vision of the Delacour Community Area Structure Plan by promoting:

- Expansion of the Hamlet of Delacour;
- A residential and agricultural Community;
- Foster rural business development to serve the needs of the local community; and
- Integration of opportunities to Live, Work and Play.

#### 3.1 Delacour Area Structure Plan

The Fairways at Delacour Conceptual Plan will incorporate those principles of development derived from Section 3.3 of the Delacour Community Area Structure Plan which are:

- 1) To ensure all development is in accordance with current statutory policy, provincial and municipal standards.
- 2) To provide for mixed land use alternatives in a manner which are sensitive to the rural surroundings and the environment.
- 3) To provide a high quality for design and development for all components of the Plan Area including methods of servicing.
- 4) Address standards of servicing that in the long term are environmentally sustainable.
- 5) Encourage recreational development that is compatible with the surrounding development and takes advantage of natural physical features and large areas of land.
- 6) To provide, where appropriate, mixed land uses within the Plan Area.
- 7) To protect any significant historic sites in the Plan Area.
- 8) To allow the utilization of open space areas for public and private outdoor recreational activities such as walking, hiking, interpretive opportunities, wildlife viewing and scenic view appreciation.
- 9) To establish future highway requirements that will provide for the safe and efficient movement of traffic in accordance with the long term goals of "Alberta Transportation".

- To provide a high level of services that will not detrimentally affect adjacent and downstream communities.
- 11) To develop an efficient internal roadway system.
- 12) To address future development in a logical and efficient manner.

# 3.2 Community Engagement

The success of the Canal at Delacour Golf & Country Club can in part be attributed to continued strength and support of the Delacour community. This relationship is built on trust, communication and collaboration. In February, 2013 the Canal at Delacour Golf Course hosted a community meeting to present and discuss with the community their 'vision' for the Fairways at Delacour. Information panels were prepared which outlined:

- The purpose of the concept plan and why it was being proposed;
- The process in preparation of the concept plan and the associated timelines; and
- The goals and objectives that the concept plan hoped to achieve.

# 3.2.1 Agricultural Community Engagement

Discussions were held with the adjacent landowners located to the east of the plan to determine if there were any conflicts with the existing recreational activity (Golf Course) and to identify if future conflicts may arise between the practicing farm activity and the future residential development. The Rocky View County Agricultural Boundary Plan Guidelines were used as a reference point for discussions purposes. While there are no conflicts with the existing agricultural activities on the plan area boundary is was agreed that tools such as fencing, landscape buffers, tree planting and screening would be incorporated into an Agricultural Boundary Plan which will form part of the concept plan.

# 3.3 Concept Scheme Objectives

From the community dialogue the following collective objectives were incorporated into the conceptual scheme plan charter:

- 1) Prepare a concept plan for the plan area that provides policy direction describing the manner in which the land may be developed.
- 2) Promote a transportation network that includes multi modes of transportation including automobiles, cycling and walking.

- 3) Identify a strategy for providing open space and trails including linkage to existing open spaces and trail systems, promoting interconnected road and path way systems that may facilitate efficient provision of municipal services and maintenance.
- 4) Provide for the efficient design of water/waste water servicing and storm water drainage systems and develop strategies necessary to support development.
- 5) Identify lands suitable for recreational opportunities which may include both active and passive land based recreational opportunities.
- 6) Ensure protection of environmentally sensitive areas.
- 7) Recognize and maintain the landscape and other environmental qualities of the plan area.
- 8) Promote the continued diversification of the local economy by examining economic opportunities and economic viability.
- 9) Promote the inclusion of various energy efficiencies in the design of the community through incorporation of LEED principles such as orientation of streets and buildings to maximize solar gain and reduce northern exposures as well as the examination of such practices as geothermal heating and comprehensive solid waste management strategies.
- 10) Provide a comprehensive mix of housing, recreational and golf course business opportunities, types, densities and lot sizing to meet the needs of an inclusive community while maintaining the rural character, and where possible reducing the development footprint by minimizing site disturbance through practices such as cluster development where possible.
- 11) Promote crime deterrence through safe neighbourhood design by incorporating into the design visible public spaces, clear boundaries between private spaces and identifiable points.
- 12) The inclusion of pedestrian crossing over the Western Irrigation Canal at a strategic location to promote the principal of a walkable community.
- 13) Establish a permanent and uninterrupted source of non-potable water to sustain the continued irrigation requirements of the 'Canal at Delacour Golf Course'.

## 3.4 Further Community dialogue

Upon completion of the preliminary draft concept plan, the Fairways at Delacour sponsored a community information meeting to present the preliminary draft concept plan to residents of the Hamlet of Delacour. On October 27<sup>th</sup>, 2015 approximately 45 residents attended the information meeting to discuss, in detail, the plan alignment with the principles and objectives originally defined through community consultation. In addition, the land uses proposed with the associated densities of each land use, and the servicing options were presented for community comment.

#### 4.0 LAND USE CONCEPT

The land use pattern for the Conceptual Scheme area is illustrated in *Figure 5 – Land Use Concept*. This concept consists of prescribed future land uses, projected population densities, utility infrastructure, transportation network, and environmental protections including reserves - open space, pathways, storm water retention ponds and both constructed and natural wetlands for the plan area.

# 4.1 Plan Strategy

The following strategies relate specifically to the Fairways at Delacour Conceptual Scheme and are to be applied at the time of new subdivision and development. All existing statutory plans and policies, particularly those policies contained in the Rocky View County Plan, the Land Use Bylaw and the Delacour Community Area Structure Plan must also be applied.

The conceptual scheme incorporates specific goals and policies referenced in Section 9.0 of the County Plan which include:

- 1) Encourage a variety of housing forms to be developed in hamlets in order to provide a range of affordability and lifestyle opportunities for county residents.
- 2) Support local employment and small business opportunities in hamlets.
- 3) Encourages well designed public gathering places in hamlets that:
  - i) Are pedestrian and cyclist friendly, safe, accessible and attractive;
  - ii) Respect and enhance community identity and character;
  - iii) Encourage social interaction;
  - iv) Address the needs of residents of all ages and abilities;
  - v) Are connected by pathways and sidewalks;
  - vi) Allow for passive and active recreation and cultural activities.

In acknowledging the goals and policies of the County Plan, the conceptual scheme provides for the orderly and economic development of the plan area by facilitating the orderly transition of land from agricultural, recreational and small holding use to that of a comprehensive mixed use built environment.

# 4.2 Compatibility with existing development

From the early 1900's to present day the hamlet has served as the commerce, cultural and recreational focal point of the community. Over the years, the agricultural/non-agricultural pursuits have become deeply entwined through community gatherings, 4 H clubs, pony clubs, recreation facility construction projects, social, cultural, recreational and political events .

In a recent community engagement opportunity held to discuss the Fairways at Delacour Conceptual Plan it was suggested by a member of the community that the reason that the harmonious relationship exists between the agricultural – non-agricultural elements is that all members of the community are actively involved in decisions that affect the community. If

something is proposed or occurs that affects either the agricultural or non-agricultural elements they work collectively to resolve the issues.

The same can be said for the preparation and adoption of the Delacour Area Structure Plan that was prepared and adopted in 2005 in which members of the community, agricultural/non-agricultural alike were actively involved in defining the future of the community. From that process evolved a growth strategy which included the introduction of residential development within the golf course lands that all parties were comfortable with and supported. Because of the broad community support shown during our community engagement opportunities history tells us that the introduction and implementation of the Fairways at Delacour into the community will not result in a shift in that paradigm.

The Fairways residential development will enjoy the continued harmonious relationships of the past.

- There is a synergy or interdependence between golf course operations and residential development. This interdependency reflects an economic, recreational and social reality.
- That status of the golf course is often equated or identified by the social stratification of the residential units located on its periphery which serve as part of the golf course community.
- The proximity of the golf course to the residential units provides an aesthetics element or degree of open space environment that is not available or enjoyed in a traditional urban residential environment.
- The adjacency of the golf course to the residential units provides the potential for year round recreational activities that are not common within a traditional urban residential environment.
- Through consultation with the agricultural operations which are directly adjacent to and abut the plan area strategically located buffers, road separation which act as additional buffers, comprehensive landscaping, tree placement and chain link fencing will be constructed to provide transition space between the differing land uses.
- The introduction of residential development in close proximity to the golf course increases the economic viability of the course through increased membership and participation as well as the use of the other commerce related activities provided by the golf course.
- Capturing the economic benefits of shared operational and maintenance staff and
  equipment in performing activities such as grass cutting, snow removal, water and waste
  water management and road maintenance etc. for both the Canal at Delacour Golf Course
  and the Fairways at Delacour Condominium Association.
- It is extremely important to note that the primary goal of the Fairways at Delacour Conceptual Scheme is to provide a long term assured supply of irrigation water to the golf course by utilizing the harvested surface run off as well as the reclaimed and treated waste water for golf course irrigation purposes.

## 4.3 Land Use Overview

To achieve a primary objective of both the County Plan and the Delacour Area Structure Plan the concept plan, as shown in *Figure - 5 Land Use Concept* provides for a mixed built environment with residential communities that provide a variety of housing types, densities, sizes, widths and lot depths.

The Fairways at Delacour is proposed as a Bare land Condominium ownership structure.

				TOTAL	
LAND USE	HECTARES	ACRES	U/P/A	Units	POPULATION
Golf Course Estate Premium	8.131	20.091	6.47	130	332.5
Residential Park Estate	10.51	25.969	6.96	181	710
Estate Villas	5.97	14.738	11.46	169	267.5
Existing Country Residence	1.563	3.862	1	1	2.5
Golf Business Area	0.8497	2.099			
Golf Course	59.92	149.77			
Irrigation Canal	18.15	44.85			
Common Property					
Roads	10.37	23.91			
Pathway/Trails/Open Space	12.11	29.923			
Municipal Reserve Dedication	0	0			
Environmental Reserve					
Dedication	0	0			
Total	127.5737	315.212		481	1312.5
Certificates of Title	_				
Lot 1, Block 1, Plan 031-1367		5.54			
Lot 2, Block 1, Plan 031-13672		5.02			
Lot 4, Block 1, Plan 031-13672		52.09			
Lot 6, Block 1, Plan 031-13672		4.84			
Lot 7, Block 1, Plan 031-13672		4.84			
Lot 9, Block 1, Plan 061-3232		35.61			
Pt. SW 19-25-27-4		12.7			
Total Development Lands		120.64			
Irrigation Canal R/O/W 336		44.85			
Lot 8, Block 1, Plan 061-3232 (Gol	f Course)	149.77			
Certificates of Title	-	315.26			

# Note:

- Existing Country Residential Unit referenced above excluded from Concept Plan density count.
- Municipal Reserve (if required) is 12.06 acres.

To achieve the objective of providing a comprehensive mix of residential housing types as stated within Section 3.3.10 of the Concept Plan, Ten (10) residential building form types are proposed.

The proximity of the proposed residential units to the golf course, general geographic characteristics, access to open space, topography, the application of LEED Principles, logical building design, effective land use transitioning and aesthetics such as view or degree of privacy were a few of the attributes used to determine the number of residential unit types and there locations within the plan area.

The size of each residential unit was aligned with the type, style, size and estimated cost of residential units proposed within each residential building form type.

RESIDENTIAL HOUSING TYPE	# OF LOTS	AVG FRONTAGE	AVG DEPTH	LOT SIZE RANGE	AVG SQ. METERS	AVG SQ FT.
Golf Course Estate Premiulm	130	17.25	34.5	684-510 sq m	595.58	6409
Residential Park Estate	181	15	32.6	510-450 sq m	490	5273
Estate Villas	169	10.83	26.93	435-228 sq m	297.66	3263
TOTAL # OF LOTS	480					

- Golf Course Estate Premium These are lots which are separated from the Golf Course by a small common space area which will be utilized for pathways etc. These lots have a view amenity, low traffic area and larger is size to accommodate a large residential footprint. The lots are generally south facing with high efficiency energy saving opportunities such as solar capture.
- Residential Park Estate These lots provide a mixture of high efficiency energy capture
  opportunities. The lots do possess varied relief and may provide walk out basement and
  multi-level construction opportunities. Lots are generally based on north-south orientation to
  provide a high efficiency capture opportunity. In addition, many of the lots abut agricultural
  areas which provide a higher degree of privacy. These lots may have some walk out
  basement opportunities as well as multi-level floor construction.
- Villa The lots are designed to facilitate a duplex configuration. The lots are orientated in a north south direction to support solar capture / efficiency opportunities. In addition, the lots may be slightly oblique to create lot amenity separation. Provision has been made for the inclusion of 'aging in place' practices which have become an important element of the concept plan. Proposed within the concept plan is a senior's residential area. The opportunity presents itself to provide a built environment based on dwelling unit size which will cater to the senior. The residential area will assist seniors in providing a residential unit with a building foot print which better meets their needs by providing building foot print in the range of 600 sq. feet to 1000 sq. feet. This residential area will allow members of the farm community who are reaching their senior years to remain in the community and maintain close contact with their long established roots.

#### **TYPICAL HOUSING TYPES**

HOUSING TYPE TYPICAL PLAN HOUSING TYPE TYPICAL PLAN RESIDENTIAL PARK ESTATE GOLF COURSE ESTATE (PREMIUM) Single Family Two Storey Single Family Two Storey 15m x 30m 18m x 34m Front Attached Garage Front Attached Garage Bungalow or Two Storey GOLF COURSE ESTATE (PREMIUM) RESIDENTIAL PARK ESTATE Single Family Detached Single Family Detached 15m x 34m 15m x 34m Front Attached Garage Front Attached Garage Bungalow or Two Storey GOLF COURSE ESTATE (PREMIUM) **ESTATE VILLAS** Single Family Detached Attached Bungalow 18m x 38m 10m x 24m Front Attached Garage Front Attached Garage GOLF COURSE ESTATE (PREMIUM) **ESTATE VILLAS** Single Family Detached Attached Bungalow 18m x 38m 12.5m x 34m Front Attached Garage Front Attached Garage RESIDENTIAL PARK ESTATE **ESTATE VILLAS** Single Family Detached 4574 sq. meter (750 sq foot) minimum 15m x 34m Underground Parking 1 (Unit) Front Attached Garage One & Two Bedroom Two Storey

- 4.3.1 As a condition of future subdivision, the Developer shall be required to create a Condominium Corporation, in accordance with the requirements of the Condominium Property Act.
- 4.3.2 The Fairways at Delacour Condominium Plan shall include the proposed development as well as the existing Canal at Delacour Golf Course.
- 4.3.3 The Fairways at Delacour Condominium Corporation shall own, manage and maintain the infrastructure which includes the roads, water, waste water, and storm water within both the existing Canal at Delacour Golf Course and the proposed development.
- 4.3.4 The incorporation of LEED Principles shall be encouraged in the development and building construction of each dwelling unit.
- 4.3.5 The site development and building construction of each dwelling unit shall be subject to the requirements of the Fairways at Delacour Architectural Controls and Landscape Guidelines.
- 4.3.6 The identification of lots which have walk out basement opportunities shall be determined upon completion of the comprehensive site grading plan undertaken prior to subdivision approval.

- 4.3.7 All Bare Land Condominium Units created within the Fairways at Delacour Concept Plan shall be subject to the rules and regulations as stipulated within the Fairways at Delacour Condominium Bylaws.
- 4.3.8 All Bare Land Condominium Units created (with the exception of Golf Course Estate Premium units), shall have an attached garage located on the front face of the unit with the doors facing the street.
- 4.3.9 Golf Course Estate Premium units created within the Fairways at Delacour Concept Plan shall have an attached garage located on the front face of the unit, however, the garage doors may be orientated parallel to the street.

#### **Golf Course Business Land Use**

The concept plan provides for the expansion of the Golf Course Business use area, as defined within the Hamlet of Delacour Area Structure Plan, that will include a year round golf fitness and training centre, as well as, a multipurpose building for both winter and summer use. The summer use will provide much needed golf banquet facilities while the primary winter use of the multipurpose building would focus on the needs of the community in providing an ice surface for both ice hockey and skating.

The expanded Golf Course Business facilities will be owned and operated by the Canal at Delacour Golf Course and the introduction of these facilities will enhance and stimulate economic development by providing a broad range of recreational opportunities for both the residents of the Fairways at Delacour as well as the community at large. In addition, the expanded facilities will enhance the viability of maintaining dining facilities and provide year round employment for golf course staff.

# **Existing Dwelling Units**

All permanent buildings relating to the operation of the golf course are to remain, however, all of the Country Residences with their associated outbuildings and accessory buildings are to be relocated. The proposed relocation of the dwelling units, once determined, will be administered through the development permit process to ensure compliance with setback and site placement requirements of Rocky View County. A sixth residence located on the residual of the quarter section is to be retained in its present location.

#### 4.4 Phased Development

The Fairways at Delacour Conceptual Scheme is envisioned as a phased development, the timing of which is influenced by several factors notwithstanding:

- The immediate needs of the landowner;
- Market conditions and the establishment of an economic model that reflects the nature of the development and the limitations of front loading financial obligations.

- A coordinated approach in the provision and construction of the 'on site' infrastructure requirements;
- A coordinated approach in the provision and construction of the 'external' infrastructure improvements and in particular the conveyance of potable water to the development and the transportation network;
- The establishment of an economic model that reflects the nature of the development and the limitations of front loading financial obligations.

Designed as a scalable project the concept scheme is divided into a series of phases. The phasing can be advanced on a phase by phase basis or by combining a series of incremental phases into a single phase. It should be noted that, notwithstanding the above, internal and external requirements significantly impact the plan area and these factors may either expedite or defer individual phase progression.

Land Use Management within the Fairways at Delacour shall be implemented through redistricting to the 'Hamlet Residential (4) District'. This district provides for the comprehensive land use policies relating to goals and objectives of the Delacour Area Structure as well as the Fairways at Delacour Conceptual Plan and shall be applied to each phase at the time of subdivision.

## 4.4.1 Conceptual Plan and Future Phasing Strategies

- 4.4.1.1 Phasing shall include the redesignation, subdivision and development of lots identified in the Fairways at Delacour Conceptual Scheme as shown in Figure 5 Land Use Concept.
- 4.4.1.2 The redesignation of lands contained within each phase shall be obtained prior to the subdivision approval for the respective phase with the Land Uses of the Rocky View Land Use Bylaw C-4841-97 as amended forming the basis for Land Use Redesignation Applications within the plan.
- 4.4.1.3 In acknowledging the goals and policies of the County Plan, the conceptual scheme shall provide for the orderly and economic development of the plan area by facilitating the orderly transition of land from agricultural, recreational and small holding use to that of a comprehensive mixed use built environment.
- 4.4.1.4 A Condominium Board shall be established, in accordance with the Condominium Properties Act, to administer within the development all matters such as the implementation and monitoring of the Architectural Controls, the implementation and administration of all infrastructures including, roads, potable water, waste water, storm water management, solid waste management, common properties and facilities associated with these infrastructural improvements.
- 4.4.1.5 At the time of subdivision, the Developer shall be required to enter into a Development Agreement with Rocky View County for the construction of a potable water distribution system and associated storage facilities; a waste water

- treatment facility, waste water lift stations and treated waste water storage facilities, storm water facilities including drainage channels, retention and detention ponds and storm water management facilities.
- 4.4.1.6 At the time of subdivision, provision shall be made for the dedication of an access easement agreement registered in the name of Rocky View County to facilitate the provision of a potable water distribution system and associated storage facilities; a waste water treatment facility, waste water lift stations and treated waste water storage facilities, storm water facilities including drainage channels, retention and detention ponds and storm water management facilities.
- 4.4.1.7 A comprehensive Storm Water Management Plan, constructed and operated in accordance with and to the satisfaction of Alberta Environment, Western Irrigation District and Rocky View County shall be implemented in conjunction with or prior to the development of Phase I.
- 4.4.1.8 The internal road system and infrastructure improvements, as well as intersectional improvements to Secondary Highway # 564 in the north east quadrant of the plan area, shall be constructed as stipulated in the Traffic Impact Assessment prepared by D&A Paulichuk Consulting to the satisfaction of the Municipal Engineer and the Council of the Rocky View County.
- 4.4.1.9 In future phasing, the Developer shall be required to enter into a Development Agreement for the provision of a potable water distribution and storage facility; storm water management facilities; a waste water treatment facility, waste water lift stations and treated waste water storage facilities.

# 4.5 Architectural and Landscape Design Controls

The implementation of Architectural and Landscape Design standards will support the creation and maintenance of a high quality, aesthetically pleasing and harmonious community.

To achieve these objectives comprehensive architectural and landscape guidelines will be implemented upon completion of the detailed subdivision and site grading plan which will be provided at the time of subdivision approval and applied through the entire development process. These controls shall apply to all development with the plan area including the open space / pathways.

The proposed guidelines will incorporate the following principles:

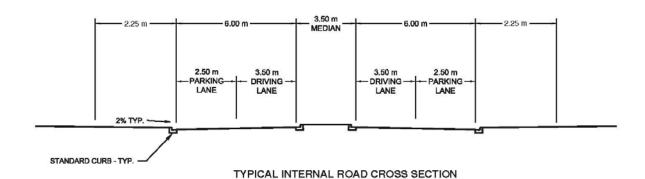
- Low Impact Landscaping
- Dark Sky Policy Provisions
- LEED Principles

4.5.1 Comprehensive Architectural Controls and Landscape Design Guidelines shall be prepared and registered against all lands in title prior to or concurrent with the registration of the final plan of survey for Phase I.

## 5.0 TRANSPORTATION NETWORK

The purpose of the transportation network strategy is to create an efficient, effective and safe road network to service the plan area. The goals and objectives outlined in Section 10 of the Delacour Community Area Structure Plan are supported in this Conceptual Scheme.

The Future Land Use Concept Plan, illustrated in *Figure 5*, identifies the existing and proposed internal roads within the Plan area, while Existing Transportation Features, illustrated in *Figure 6* – *Transportation Network*, identifies the proposed internal road network, the existing Regional Road network and the Major Road network adjacent to the plan area. The Canal at Delacour Golf Course is a nationally acclaimed and award winning golf course which golf enthusiasts acknowledge is one of the premier golf courses in Alberta. To ensure this coveted recognition is protected and to maintain the 'championship' designation the existing length of the course must be maintained.



The Tee Boxes for the #17 Fairway, (which is the shortest par 4 on the golf course) are located on the east boundary of the plan area. To provide an access road to serve Phase I land would have to be taken from the #17 Fairway and the tee boxes relocated further west making the existing par 4 hole even shorter, which is highly undesirable. This significant reduction in the playing length of the #17 hole would materially affect the quality of play and the integrity of the course as a 'championship course'.

To protect the existing course an agreement has been entered into with the adjacent landowner to acquire an additional 60 feet of land along the west boundary of the North East Quarter Section 19, Township 25, Range 27, West of the Fourth Meridian for the purposes of providing access to Phase I as shown on *Figure 6 –Transportation Network*.

In community engagement activities the general consensus of the community was that it is desirable to have an internal link between lands separated by the Western Irrigation District Canal and should include a pedestrian crossing element. In support of the integrated common property and trail system and the overall transportation network, the Developer has entered into negotiations for an access crossing agreement with the Western Irrigation District to facilitate both the vehicle and pedestrian linkage.

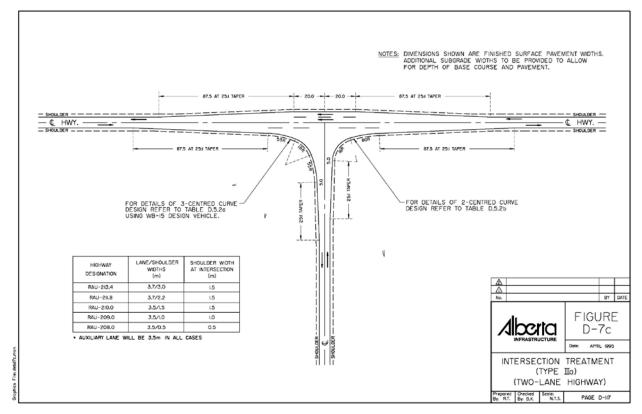
A Traffic Impact Assessment was completed by D&A Paulichuk Consulting Ltd. dated January 15<sup>th</sup>, 2016 in support of the Fairways at Delacour Conceptual Scheme. The Traffic Impact Assessment was commissioned to determine the impact of the proposed development on traffic using local road intersections and connectivity to Secondary Highway 564 and Secondary Highway 791. The scope of work included the assessment of existing roadway conditions, identifying 25 year traffic projections and determining if improvements to the existing transportation network were warranted to facilitate the Fairways at Delacour development.

Three key existing and proposed intersections were examined.

- 1) The existing access to Secondary Highway #564 which is located in the north east corner of the plan area and referenced as the North East Internal Road.
- 2) The intersection of Secondary Road # 564 and Secondary Road # 791.
- 3) The proposed new west access road to Secondary Road # 791 to serve Phases II & III of the development and referenced as the South West Road.

Utilizing data provided by Alberta Transportation supplemented by the capture of field data the Traffic Impact Assessment determined that the following improvements with associated timelines which are necessary to facilitate full build out of the concept plan.

Secondary Highway #564 and the East Quarter line Road. – Based on the analysis the report recommends construction of a Type IIA Intersection with an exclusive right turn lane as shown in 'Figure D7C' below. It is noted that this improvement is a prerequisite for Phase I development. The analysis also indicates that no illumination or signalization is warranted until 2041.



- 2) The Intersection of Secondary Highway # 564 and Secondary Highway #791- The analysis revealed that no intersectional improvements were warranted at this time however, based on trip generation projections a Type II intersectional treatment is recommended for 2031. An exclusive right turn lane is warranted in 2041. The report further noted that illumination may be required in the year 2041.
  - 3) The intersection of the proposed south west access road to Secondary Highway # 791 The analysis determined that a Type I intersection is warranted for this proposed intersection as part of the development of future phases.

# 5.1 Transportation Network Strategies

- 5.1.1 All internal roads shall be constructed at the sole cost and expense of the Developer in accordance with the requirements of the "County Servicing Standards" to the satisfaction of the Municipal Engineer and the Council of the Rocky View County.
- 5.1.2 The intersection of Hwy #564 and the existing north east internal road system, (which serves Phase i) shall be upgraded to a Type II Intersection including an exclusive right turn lane in accordance with the recommendations of the Traffic Impact Assessment, prepared by D&A Paulichuck Consulting Ltd. Date January 15<sup>th</sup>, 2016.
- 5.1.3 As a condition of subdivision, the Developer shall enter into an 'Infrastructure Cost Recovery Agreement' relating to the propionate recovery of infrastructure costs that may be a result of oversizing requirements or the identification of infrastructure cost which can be demonstrated as direct beneficial to adjacent landowners.

- 5.1.4 To ensure that the Transportation Network as envisioned in the conceptual scheme functions at a safe manner and a desired level of operation a Traffic Impact Assessment may, at the discretion of the Rocky View County, be required prior to future phase subdivision approval.
- 5.1.5 As a condition of future subdivision, the Developer shall be required to enter into a Development Agreement with the County for the construction of the internal road network including all related infrastructure (sidewalks, curb & gutters, etc.) and all offsite improvements identified in the TIA in accordance with the requirements of the County's Servicing Standards and Alberta Transportation where applicable.
- 5.1.6 The internal road system and infrastructure improvements and the upgrade of Secondary Highway # 791 along the west boundary of the Plan area, as indicated in the Traffic Impact Assessment prepared by D&A Paulichuk Consulting and dated January 15<sup>th</sup>, 2016, shall be constructed in accordance with the requirements of the "County Servicing Standards" and to the satisfaction of the Municipal Engineer, the Council of the Rocky View County and Alberta Transportation and Infrastructure where applicable.
- 5.1.7 Illumination for the intersection of Hwy. 564 and Hwy. 791 may not be warranted until 2041 as indicated in the recommendations of the Traffic Impact Assessment, prepared by D&A Paulichuck Consulting Ltd. Date January 15<sup>th</sup>, 2016.
- 5.1.8 As a condition of future subdivision, the Developer shall be required to obtain a Roadside Development Permit from Alberta Transportation for the implementation of any upgrades to the provincial highway network.
- 5.1.9 As a condition of future subdivision, the Developer shall be required to provide payment of the Transportation Off-Site Levy, in accordance with the applicable levy at time of subdivision approval, for the total gross acreage of the lands proposed to be subdivided and developed.
- 5.1.10 At the time of subdivision, and in accordance with the requirements of the Alberta Building Code, a secondary access (interim emergency access) shall be identified and provided for each phase of development.

#### 6.0 ENVIRONMENTALLY SIGNIFICANT AREAS

Section 9.0 of the Delacour Community Area Structure Plan focuses extensively on environmental considerations by clearly defining objectives of the plan relating to the natural environment, and particularly two primary components:

- Areas that qualify as Environmentally Sensitive are identified at the Concept Plan Stage and defined as Private Open Space / Pathways and protected as 'Common Property" within the condominium plan.
- Environmentally sensitive areas, natural or constructed wetlands identified within the site are located on lands utilized by the Golf Course or are lands contained within the Western Irrigation District Right of Way;

The following specific objectives were identified to enhance these particular areas of concern which have been reinforced in this Conceptual Scheme:

- To protect the environmental resources air, water, soil, vegetation, habitats of the plan area from degradation;
- To visually enhance the environment of the area by creating and maintaining a
  pleasing overall landscape that will serve as a legacy for the community to
  appreciate;
- To encourage the integration of natural features such as existing and constructed wetlands into the development;
- To retain and protect the Western Irrigation District Canal;
- To provide suitable development setbacks from the Western Irrigation District Canal system and the golf course;

The Conceptual Scheme embraces these principles and objectives and has integrated the essence of the principles into all phases of the plan as demonstrated in the expansion of the Principles and Objectives outlined in Section 3.0 of the Conceptual Scheme.

To achieve these objectives the following strategies are incorporated into the Conceptual Scheme through the full lifecycle of the development. The purpose of these strategies are to ensure existing environmentally significant areas within the Plan boundaries are protected, where possible, while also providing opportunities for the development of new environmental features.

# 6.1 Environmentally Significant Features Strategies

- 6.1.1 Existing environmental significant areas, such as the tree stands, shelter belts and the low-lying area shall be protected where possible.
- 6.1.2 Future development should provide opportunities for tree, shrubbery and foliage in landscaping plans.

- 6.1.3 The harvesting of rainfall for irrigation of lawns and ornamental trees and flowers shall be encouraged.
- 6.1.4 As a condition of future subdivision, the Developer may be required to conduct a Biophysical Impact Assessment (BIA), prepared by a qualified professional, providing a desktop and field assessment of the subject lands to identify any value ecosystems or areas of environmental significance in accordance with the BIA framework contained within the County Servicing Standards.
- 6.1.5 Should wetland or areas of environmental significance by identified, the Developer shall be required to obtain all necessary approvals from Alberta Environment and Parks under the Water Act prior to entering into any Development Agreement with the County.

# 6.2 Common Property - Private Open Space & Pathways

The provision of green space for integrated walking paths; enhanced landscaping, shrubbery and tree plantings and common recreation areas which promote recreational and educational opportunities are critical components of the vision of the Conceptual Scheme, as well as, objectives and principles to be achieved. The goals and objectives expressed in Section 9 of the DCASP and the RVC Park & Open Space Master Plan are supported within this Conceptual Scheme.

The open space and recreational lands concept within the Fairways at Delacour Conceptual Scheme is comprised of four key elements as shown in *Figure 5 – Land Use Concept*.

- 6.2.1 Contiguous blocks of Open Space /Pathways in conjunction with or integrated within the Storm Water retention areas and the Western Irrigation District canal system shall be provided to enhanced educational and passive recreational opportunities to compliment the open space concepts.
- 6.2.2 Cash in lieu of Municipal Reserve dedication may be required at the time of subdivision.
- 6.2.3 A regional pathway adjacent to and paralleling Secondary Highway # 791 may be considered in future phasing.
- 6.2.4 A comprehensive Landscape Plan relating to the development of the integrated Open Space/Pathways shall be provided at the time of subdivision.

# 6.3 Agricultural Boundary Protection

In recognizing the richness and diversity of the rural community it is important that future residents acknowledge that agriculture is a primary resource within Rocky View County. Considering the importance of this valued resource rural residents must strive to work in harmony with agriculture. It is important that new residents who choose to relate to the rural community acknowledge and understand that agriculture activities or practices may inconvenience or disturb others. It is these very activities which enhances the character of the rural community.

- a) Agriculture is a major part of the local economy and industry. Rocky View County has a large concentration of farms and livestock operations. Spring and summer bring calving and harvest, which may create more noise and activity (as well as odours) within the County. It is important to be aware of this and be prepared to adjust your daily activities if necessary. For example, large (and slow-moving) farming machinery will likely be on the roads during these times. Drive with caution and patience.
- b) **Herbicides are used** within Rocky View County. Controlling invasive weeds is a priority for farmers, who may apply herbicide either on the ground or from the air.
- c) **Know your property.** Certain weeds and plants are considered invasive, or are harmful (even poisonous) to other plant life and animals. Rocky View County enforces the Weed Control Act which requires landowners to control harmful weeds on their property. If you have questions about the Act or your responsibilities, please call the County's Agricultural Services Department.
- d) **Be mindful of livestock and wildlife.** All animals, whether on a farm or not, can be dangerous. Do not feed wildlife and do not approach farm animals unless you have permission to do so from the property owner.
- e) **Be a good neighbour and keep an eye on your pets**. Make sure your furry friends are allowed to roam only on your property. Many animals are injured or killed when they run onto roads, and animals found harassing livestock may be reported to Animal Control. Rocky View County also has a Dog Control Bylaw which outlines regulations residents must comply with. (Source: Lethbridge County Guide to Rural Living).
- f) Be a good neighbour and keep your garbage contained. Rural areas are often windy where garbage and recycling that is not properly contained or managed can end up in neighbouring fields. Litter can cause problems for planting, harvesting and/or be blight on the landscape. Rocky View County has a litter ByLaw (C-5754-2003) to which residents must comply.

In addition to the application of every day common sense solutions to common everyday situations it is proposed that physical constraints such as landscaping, fencing and buffers be applied as effective tools in mitigating potential conflicts within the agricultural community.

Fencing can be an effective tool in reducing the potential conflict and supports the adage that 'good fencing makes good neighbours'.

An agricultural boundary protection matrix has been completed to support the existing agricultural community and to provide direction with respect to the elimination of potential conflicts between the agricultural and non-agricultural pursuits before they arise.

- 6.3.1 Fencing of the plan area as shown in *Figure 8 Fencing* is proposed to achieve that objective:
  - 6.3.1.1 To reduce and/or mitigate any potential conflicts with the agricultural community a 6' chain link fence shall be strategically placed along the entire east boundary of the plan area.

- 6.3.1.2 To create a sense of community an aesthetically pleasing and decorative 6' solid fence shall be constructed along the west and south boundary of the plan area.
- 6.3.1.3 To provide individual lot security a 4' chain link fence shall be constructed between lot boundaries and open space /pathway areas.
- 6.3.1.4 Buffers or open space areas, (in concert with common space used for roads) shall be provided to increase the separation between agricultural and non-agricultural pursuits.
- 6.3.1.5 Where residential units directly abut the agricultural lands lying east of the plan area, (N.E. 19-25-27-4) a 3m landscape easement registered in the name of the Condominium Association shall be provided.
- 6.3.1.6 At the time of subdivision, a comprehensive landscape plan shall be prepared and shall include within its design the incorporation of features, practices, techniques to support the relationship between the agricultural and non-agricultural community.
- 6.3.1.7 An awareness caveat shall be placed against all lands within the plan area informing and advising all perspective residents of the importance of the agricultural community and the need to acknowledge prior to purchase that agricultural activities, (which are not experienced within traditional urban environments) may from time to time occur but are necessary for the continued agricultural practice.

#### 7.0 SERVICING INFRASTRUCTURE

The purpose of the servicing infrastructure strategy is to provide for the installation of appropriate utility infrastructure, as shown in *Figures- C1 thru C1d*, necessary to support the comprehensive mixed use built environment.

In addition to specific field testing completed by SD Consulting Ltd. in preparation of the servicing infrastructure strategy the Developer referenced two additional field data collection reports relating to subsoil and near surface groundwater investigations.

The initial report was prepared for the Canal at Delacour Golf Course and was prepared by Sabatini Earth Technologies prior to the construction of the Canal at Delacour Golf Course. The report was commissioned to identify the subsoil structures in the area and included the placement of several bore hole locations to identify and monitor near surface groundwater elevations that would be encountered during the construction of the golf course. This report would serve as a bench mark for further technical investigation which was commissioned by McIntosh Tree Farms Inc. (in consultation with the Engineering Department of Rocky View County) to update near surface groundwater conditions and provide additional information relating to subsurface soil structures.

The report prepared by Almor Testing Services Ltd. included the drilling and monitoring of 8 additional bore holes to a depth of 7 meters. The bore holes provided information relating to subsurface soil structure as well as current conditions relating to near surface groundwater.

The report indicated the presence of near surface groundwater in a couple of test locations and confirmed that future development and the construction of a comprehensive storm management system would address those specific anomalies. In addition, the soil analysis provided by Almor Testing confirmed that the soil structures identified would be compatible with the development anticipated.

- 7.0.1 The Developer, at the time of subdivision shall undertake a Geotechnical Investigation relating to the locations and specific nature of the proposed improvements such as internal roads, waste water and potable water lines and appurtenances as well as additional storm water facilities to the satisfaction of Rocky View County.
- 7.0.2 As a condition of future subdivision, the Developer may be required to provide an updated report or conduct further geotechnical testing within the boundaries of the proposed phase of development for incorporation into the detailed design of the development.
- 7.0.3 As a condition of future subdivision, the Developer shall be required to create a utility corporation and enter into Franchise and Infrastructure Transfer Agreements with the County for the control, operation and maintenance of the wastewater treatment and water distribution systems.
- 7.0.4 As a condition of future subdivision, the Developer shall submit to Rocky View County a Construction Management Plan addressing noise mitigation measures, traffic accommodation, sedimentation and dust control, management of storm water during construction, erosion and weed control, construction practices, waste management, firefighting procedures, evacuation plan, hazardous material containment and all other relevant construction management details.

- 7.0.5 In acknowledging that the Fairways at Delacour is a proposed a multi-phased development, the onsite and offsite infrastructure requirements shall be determined at the subdivision stage in relation to the phase proposed at that time.
- 7.0.6 As a condition of future subdivision, the Developer shall be required to provide payment of the County's Water & Wastewater Offsite Levy in accordance with the applicable levy at time of subdivision approval, for the use of the County's water distribution infrastructure.

  As the proposed development is outside of the identified services areas, the components of the levy applicable to this development shall be determined at time of subdivision

# 7.1 Community Water System

The proposed development will be provided potable water through a regional connection with Rocky View Water. The existing water line is currently located along Range Road 281 as shown in the attached drawings (*Figure - C1E*). A new potable water pipeline will be constructed from Range Road 281 and a ground storage tank to the proposed development. High service pumps will then pressurize the water distribution system. The potable water system will sized according to Rocky View County Standards and be fire rated. The system will consist of the following:

- Water main (200 mm).
- Ground Storage volume of 220,000 gallons.
- High service pumps sized at 350 gpm at 150 feet of Total Dynamic Head (65 psi).
- Pumps will be provided to ensure a fire flow of 1,000 gpm
- Fire hydrants as required by Rocky View County
- 7.1.1 All subdivisions and development shall be capable of being connected to the municipally owned and operated water supply and distribution system.
- 7.1.2 Lot levies and connection fees shall be imposed at the time of subdivision approval, however, consideration may be given to deferment subject to the approval of the Rocky View County.
- 7.1.3 Reservoirs for potable water and fire protection shall be the responsibility of the developer.
- 7.1.4 The metering of water usage at the lot level shall be incorporated into the design elements of the water distribution system.
- 7.1.5 At time of future subdivision, the Developer may be required to re-assess the available capacity at the Graham Creek Water Treatment plant and the Conrich Transmission Main to provide the necessary capacity to the proposed development taking into the consideration the build-out of the other areas within the County (East Balzac, Conrich & Omni).
- 7.1.6 At the time of subdivision should further improvements to the County's water system outside of those outlined in the County's Water and Wastewater Levy Bylaw be warranted, the Developer shall be responsible for the implementation of the said improvements.

- 7.1.7 At time of future subdivision, Developer shall be required to submit a Cost Feasibility and Sustainability Analysis estimating the life-cycle costs of the operation, maintenance and replacement of the potable water pump station and reservoir.
- 7.1.8 As a condition of future subdivision, the Developer, (in acknowledging that the development proposed is a Bare Land Condominium ownership structure) shall create a Utility Corporation and enter into a Franchise and Infrastructure Transfer Agreements with the County for the operation and maintenance of the water distribution system.
- 7.1.9 At time of subdivision, the Developer shall be required to provide engineering drawings, prepared by a qualified professional, and enter into a Development Agreement for the construction of the following infrastructure:
  - Underground storage reservoir;
  - pump station;
  - proposed 200mm service line from the Conrich Transmission Main to the proposed underground storage reservoir;
  - pump station to providing adequate pressure to supply water to the proposed underground storage reservoir (if applicable); and
  - water distribution and hydrant system;
- 7.1.10 The Developer shall design the pump station and underground storage reservoir to provide to an adequate supply potable water to the development area and meet the required volume/flow requirements in accordance with the County's Fire Hydrant Water Suppression Bylaw (C-7259-2013), Servicing Standards and all other applicable codes (ABC and NSF).

# 7.2 Community Wastewater System

The proposed development will be serviced by a scalable community wastewater treatment and disposal system designed to service a total population of 1,350 residents, or a design flow of 101,250 imperial gallons per day. The system will be modular and capable of expansion in the future should additional developments need servicing in the area.

The proposed system can be divided into three categories:

# **Wastewater Collection:**

The development will be serviced by a combination gravity/pressure sewer. Wastewater from each home will flow by gravity in 200 mm lines to community septic tanks located throughout the property as shown in the attached drawings 'C1-C1d'. Following primary treatment (solids settling) in the community septic tanks, liquid effluent will be pumped to the treatment site via liquid effluent pumps. As per requirements in County and Alberta Environment Approvals, the septic tanks will be inspected on routine basis and pumped when sludge levels exceed required standards.

# **Wastewater Treatment:**

Following primary treatment in community septic tanks, liquid effluent will be treated to secondary standards utilizing Orenco's AdvanTex Technology. Treatment in the AdvanTex unit is considered a "fixed" growth process. Unlike activated sludge (traditional package plants), which relies on bacteria "suspended" in the treatment tanks, AdvanTex units retain their bacteria on the textile filters. This allows for a much higher tolerance of operator errors and flow variation than a traditional package plant or sludge blanket technology.

The AX MAX treatment system is well suited for cold wastewater temperatures as it incorporates a 4.25 inch thick exterior wall and a bottom embedded with 4-inches of insulation to minimize heat loss. Temperatures within the treatment process are maintained by the regular input of heated wastewater and the heat generated by the biological process, while being enclosed in an insulated structure.

In addition to its technological benefits, it is a commonly installed treatment system in Alberta. To date, over 500 systems utilizing AdvanTex technology have been in installed in Alberta. In 2014, an AX MAX system was installed at the Spring Hill RV Park in Rocky View County as shown in **Figure AA.** An AdvanTex system is also currently being constructed at the Silverhorn Development in Rocky View County.

The proposed UV disinfection unit will be an at-grade stainless steel channel unit with two modules, with each module containing two lamps. A spare module would be provided to allow for replacement of a malfunctioning unit without delay. The system will be contained in a stainless steel channel that is fully accessible. The low intensity bulbs provided with the system are ideal for situations where low flows will occur initially and then increase as additional residential units are constructed in the development.

## **Wastewater Disposal:**

Following treatment and disinfection, effluent will be pumped or gravity fed to onsite storage ponds for reuse on the golf course. A new pond, sized to 7 month storage (approximately 19,000,000 imperial gallons) will be constructed on the golf course as shown in the attached drawings 'C1-C1d'. During the winter, effluent will be dosed to this pond for storage. During the summer, all effluent will be dosed to a series of constructed wetlands that will be built into the existing irrigation storage pond as shown in the attached figure. Also, during the irrigation months, the winter storage pond will be slowly drained into the existing irrigation pond for use on the golf course.

Currently, the golf course has an irrigation water demand of 38,000,000 imperial gallons per year, all of which is supplied from the Canal and the Western Irrigation District. However, this water supply is relatively unstable and in dry years, the course can be completely cut-off from an irrigation source. At full build-out, the effluent will provide up to 32,000,000 gallons of water for use on the course. This reduces the burden on the irrigation district and provides the Owners with a much more stable water supply.



Figure AA: Installed AX MAX System at Spring Hill RV Park

## Similar Approvals in Alberta:

In addition to a number of projects utilizing soil disposal, many utilizing secondary treatment and irrigation disposal have recently been approved by Alberta Environment as summarized below:

- Coal Creek Golf Course (Toefield, AB): Approval #291262-00-00
- Priddis Greens (Priddis, AB): Approval # 196369-00-00
- Bingham Crossing (Rocky View County): Approval # 333897-00-00

# Rocky View County and Alberta Environment Treatment Standards

Based on discussions with Rocky View County, it is our understanding that the effluent limits for golf course irrigation must meet the standards of Alberta Environment and Parks. In addition, Rocky View County recommends the use of a Membrane Bioreactor to meet these standards. However, the project team for the Canal at Delacour would like to request approval to meet these standards using Orenco's Advantex Treatment and UV disinfection. The following sections provide an overview of AEP's requirements, similar approvals and a comparison of the two technologies.

It should be noted that treated water at the Canal at Delacour will receive further treatment in a constructed wetland designed and constructed according to Alberta Environment's "Guidelines for the Approval and Design of Natural and Constructed Treatment Wetlands for Water Quality Improvement".

# Alberta Environment and Parks Standards for Golf Course Irrigation

At the time of discharge to the treatment wetland, effluent quality will be disinfected and will meet secondary standards (25 mg/l BOD and TSS) for wastewater treatment. In the constructed wetland, effluent will be further treated to lower levels of BOD/TSS and receive treatment for nutrients such as nitrogen and phosphorus. In addition to the AdvanTex system, disinfection and wetland treatment, effluent will be stored in an onsite irrigation pond sized to seven months of storage.

Alberta Environment requirements for irrigation systems are summarized in their "Guidelines for Municipal Wastewater Irrigation (April 2000)". Within this document, the following standards are presented for golf course irrigation:

Total Coliform: <1000/100 ml</li>Fecal Coliform:<200/100 ml</li>

CBOD: <100 mg/l</li>
COD: <150 mg/l</li>
TSS: <100 mg/l</li>
Ph: 6.5 - 8.

As mentioned previously, the proposed wastewater treatment system for the Canal at Delacour will exceed these treatment standards. Following disinfection, the constructed wetland and storage pond will provide further treatment to ensure that high quality water is applied to the golf course. It is in the Owner's best interest to supply a high quality water to the course since a poor quality water can result in salinization, odours or cause other negative impacts to the turf that are potentially harmful to the business.

#### Similar Approvals

Orenco's treatment technology has been approved on previous golf course irrigation projects in Alberta. Approval #292262-00-00 was issued to the Coal Creek Golf Course near Toefield for the treatment and disposal of domestic wastewater onto the golf course. It should also be noted that Priddis Greens (Approval# 196369-00-00) and Bingham Crossing (Approval #333897-00-00) have also been approved for wastewater irrigation in Alberta. The permit limits in these approvals are for secondary standards, or 25 mg/l BOD and TSS, which is similar to the proposal for the Canal at Delacour.

# Comparison of Advantex and MBR Wastewater Treatment Systems

The AdvanTex treatment system utilizes a synthetic media to provide an attached growth wastewater treatment system. The aeration system required for the AdvanTex system only needs to provide adequate aeration for the biology of the system, so smaller horsepower fans can be utilized. The Membrane Bioreactor (MBR) utilizes conventional activated sludge treatment with a membrane system for separation of the solids and the liquid effluent.

The MBR requires the aeration system to be sized to provide mixing of the mixed liquid, which results in higher power requirements and higher operating costs. The MBR also requires a larger number of operator hours to maintain the activated sludge and membranes, relative to the AdvanTex system. Finally, the AdvanTex system is a much simpler system overall, and this is reflected in the amount of

operation and maintenance required to produce secondary treated wastewater quality. A comparison between the two technologies is provided below:

AdvanTex Treatment	MBR Technology
<ul> <li>Provides passive biological treatment – minimal power requirements</li> </ul>	Large power requirements for blowers, pumps and mixing
Lower construction and operating costs	Higher construction and operating costs
Weekly and monthly operator tasks	Daily operator tasks
<ul> <li>Modular treatment technology – additional treatment units can be added to serve additional homes</li> </ul>	<ul> <li>Can be installed modularly, but at a higher cost and potentially, additional buildings</li> </ul>
Can be installed below grade or in a building	Must be installed in a building
<ul> <li>Provides better than secondary treatment allowing nutrients to pass through where they can be utilized in the turf management</li> </ul>	Provides a high quality tertiary treated effluent

# **Summary**

As discussed previously, the current proposal is to allow Orenco's AdvanTex treatment technology at the proposed Canal at Delacour development. This technology has been approved previously in Rocky View County (Silverhorn Development, Spring Hill RV Park) and many other places in Alberta.

Generally, it is selected due to the high quality treatment provided, low cost of operations, customer support and track record of success. For the Canal at Delacour, it is also recommended due to the modular nature of the development, the end use of the water on the golf course and its ease of operations that will be a benefit to both the Owner and Rocky View County.

## 7.2.1. Waste Water System Strategies

- 7.2.1.1 All subdivisions and development shall be capable of being serviced by the gravity/forced main communal sewage collection system.
- 7.2.1.2 As a condition of future subdivision, the Developer shall be required to create a Utility Corporation and enter into a Franchise and Infrastructure Transfer Agreements with the County for the operation and maintenance of the collection, treatment and disposal systems.
- 7.2.1.3 As a condition of subdivision, the Developer shall be required to obtain all required permits and licenses from Alberta Environment and Parks for the design, construction and operation of the Waste Water Treatment Plant.
- 7.2.1.4 As a condition of future subdivision, the Developer shall be required to provide engineering drawings, prepared by a qualified professional, for the proposed wastewater collection, treatment and disposal systems and enter into a Special Improvements Development Agreement with the County for the construction of the said infrastructure. It is to be noted that Developer shall be responsible to secure all ROWs and easements to service the proposed development.

- 7.2.1.5 As a condition of future subdivision, the Developer shall be required to submit a Cost Feasibility and Sustainability Analysis estimating the life-cycle costs of construction, operations, maintenance and replacement of the wastewater treatment plant and effluent disposal systems.
- 7.2.1.6 Rocky View County shall provide the necessary proximity waiver to Alberta Environment with respect to the proximity of the waste water treatment plant to residential development as shown in Drawing C-1 'Overall Waste Water and Water Servicing System' as provided by SD Consulting Group.
- 7.2.1.7 At time of subdivision, the Developer shall be required to register restrictive covenants over the proposed irrigation areas (golf course) to ensure these areas are not redeveloped as they are integral to the function of the effluent disposal system.

### 7.3 Storm Water Management

In addition to meeting the requirements of Alberta Environment and Parks with respect to surface drainage, the primary purposes in managing storm water are two fold.

- 1) The provision of an assured supply of water for golf course irrigation purposes; and
- 2) The 'zero release' or discharge of storm water and waste water into the Western Irrigation District canal system.

The storm water management plan is intended to:

- prevent soil erosion or wash out conditions on neighbouring agricultural lands which could negatively affect crop production;
- Reduce or eliminate property damage.

In 2016, Westhoff Engineering Resources Ltd. was commissioned to prepare a Storm Water Management Strategy (SWMS) referenced as 'Sub Catchment Drainage Plan for Fairways at Delacour prepared by Westhoff Engineering Resources Ltd. dated March 2017' that would incorporate the Western Irrigation District standards, as well as the treated effluent from the waste water treatment system into a comprehensive management strategy. A component of the SWMS was the incorporation of a 'back to back' 1:100 year event analysis and the preparation of a continuous flow modelling simulation to ensure that the goal of 'Zero Discharge' to the Western Irrigation District canal system could be achieved.

An extensive consultation process was commenced with the Western Irrigation District to ensure that the Western Irrigation Districts' ability to continue operation in an unfettered manner and to ensure that the integrity of the existing canal infrastructure was maintained.

Through that consultative process a series of core requirements were identified:

- Maintaining an ongoing agreement with adjacent lands to provide a secondary outlet to ensure no discharge to WID canal (Pg. 2 Westhoff Engineering Resources, March 14th, 2017).
- 2) Construct berms on the WID right-of-way boundary to ensure no discharge to WID canal (Pg. 26 Westhoff Engineering Resources, January 6th, 2017).
- 3) Detailed landscaping plan be submitted to the WID for approval prior to construction of area noted as "Pathway/Trails/Open Space (Wescott Consulting Group, March 9th, 2017).
- 4) Maintenance of a minimum of 15 m setback from canal right-of-way for fencing and a minimum of 21m setback for structures and buildings.

### 7.3 Storm Water Management Strategies

- 7.3.1 The comprehensive storm water management plan shall be provided for the Plan Area to accommodate all storm water and waste water on-site ensuring that at no time shall storm water or waste water be permitted to discharge into the Western Irrigation District canal system.
- 7.3.2 Utilizing best management practices, an overland drainage system, utilizing the existing topography when possible shall be used for storm water management and accomplished by using piping, roadway ditches, culverts and drainage swales along lot lines and within the green space areas.
- 7.3.3 Prior to subdivision and development, the Developer shall provide a detailed and comprehensive storm water management plan for the Plan Area to the satisfaction of Alberta Environment, Western Irrigation District and Rocky View County.
- 7.3.4 Storm water management facilities shall incorporate existing and constructed wetlands to assist in the improvement of water quality.
- 7.3.5 A detailed and comprehensive Storm Water Management Plan shall be prepared and implemented as part of the subdivision implementation phase which is coordinated and administered through the development agreement process.
- 7.3.6 As a condition of future subdivision, the Developer shall be required to create a Utility Corporation and enter into a Franchise and Infrastructure Transfer Agreements with the County for the operation and maintenance of the storm water management system.
- 7.3.7 At the time of subdivision an access easement agreement shall be granted and registered in the name of Rocky View County to facilitate the monitoring of construction, continued operation, oversight and required maintenance (if necessary) of the integrated waste water/storm water systems.

- 7.3.8 Individual lots will be encouraged to harvest surface runoff for their individual use such as watering lawns and gardens.
- 7.3.9 The use of potable water for such practices as watering lawns/gardens or irrigation purposes shall be discouraged.
- 7.3.10 When harvesting practices at the individual lot level are not practiced, individual lots shall be graded to direct runoff water to the drainage swales or ditches which will convey water from the lots to the storm ponds.
- 7.3.11 To ensure that the 'Zero Discharge' into the canal is achieved, an irrigation outflow line shall be constructed to provide irrigation water in excess of the golf course needs to the N.E. ¼ 19-25-27-4 as a secondary outlet.
- 7.3.12 Prior to subdivision and development, the Developer shall provide a detailed and comprehensive Landscape Plan to the Western Irrigation District and Rocky View County for consideration and approval.
- 7.3.13 As a condition of Subdivision Approval, the Developer shall maintain a minimum 15 m setback from the canal right of way for fencing, and a minimum of 21m setback for structures and buildings.
- 7.3.14 As a condition of future subdivision, the Developer shall be required provide a detailed stormwater management plan (SWMP) and design drawings for the proposed ponds including all related stormwater infrastructure in accordance with all applicable watershed management plans, the County's Servicing Standards, Alberta Environment regulations and best practices.
- 7.3.15 As a condition of future subdivision, the Developer shall be required to provide verification of registration from Alberta Environment and Parks under EPEA for the proposed stormwater management system.
- 7.3.16 As a condition of future subdivision, the Developer shall be required to prepare, in accordance with the County's Servicing Standards, an Erosion and Sediment control plan, prepared by a qualified professional, identifying ESC measures to be taken during construction and to protect the onsite wetlands.

### 7.4 Solid Waste Management

As stated in Section 3.3.10, an objective of the concept plan is 'The inclusion of various energy efficiencies in the design of the community through incorporation of LEED principles such as orientation of streets and buildings to maximize solar gain and reduce northern exposures as well as the examination of such practices as geothermal heating and comprehensive solid waste management strategies'.

As indicated previously, LEED principles are based on the premise of Social Responsibility, Environmental Stewardship and Economic Prosperity. It is envisioned that the Solid Waste and Recycle Management strategy incorporating LEED Principles shall be prepared by the

Developer and operated and administered by the Condominium Board as outlined in Section 4.4.1.9.

7.4.1 At the time of subdivision, the Developer shall, to the satisfaction of the County, prepare a comprehensive Solid Waste and Recycling Management strategy addressing construction, commercial and residential needs which may include the feasibility of composting capabilities.

### 7.5 Emergency Services

The design of a safe neighbourhood has been identified as a key objective in the preparation of this concept plan. While crime deterrence can be promoted through safe neighbourhood design using various design techniques such as visible public or open spaces and clear boundaries between open spaces and identifiable points it is still imperative that a relationship with the Emergency Services of Rocky View County be established. This relationship should be developed as an integral component of the initial design and matured through the development of strong communication and community participation.

7.5.1 At the time of subdivision, the Developer, through direct consultation with the Emergency Services of Rocky View County, shall prepare a safe neighbourhood strategy for implementation within the Fairways at Delacour Conceptual Scheme area.

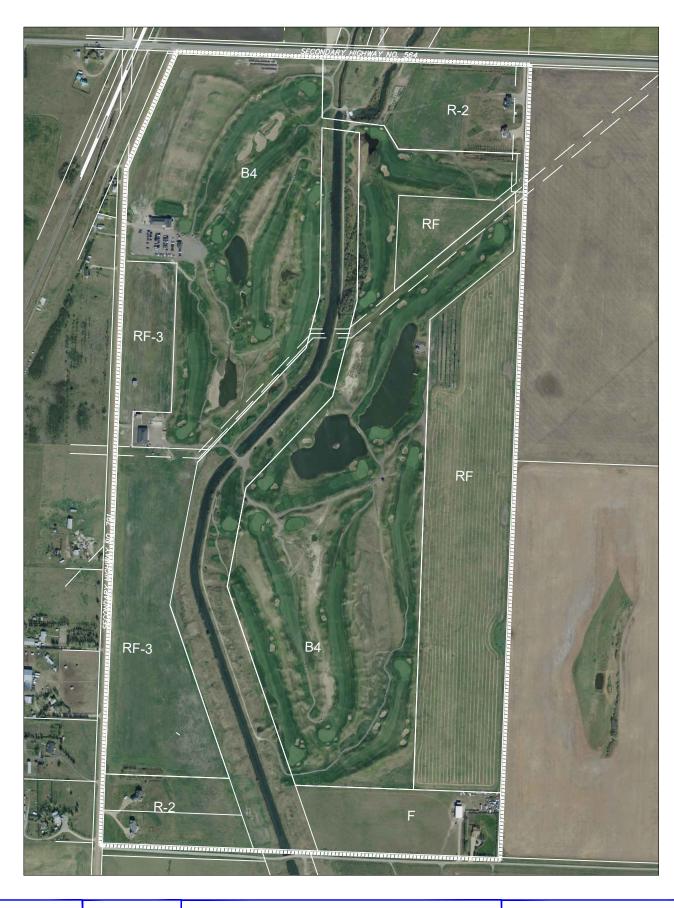
Fire Protection Services will be provided by the Fire Services of Rocky View County and the recommendations previously provided by the Fire Services have been incorporated into the plan.

- 7.5.2 At the time of subdivision, the Developer, through direct consultation with the Fire Services of Rocky View County may prepare and implement a fire smart strategy to the satisfaction of the Fire Services.
- 7.5.3 As a condition of future subdivision, the Developer shall provide a Construction Emergency Response Plan to the satisfaction of the Fire Services of Rocky View County.



DATE: JULY 2018





DATE: JULY 2018

SCALE: 1: 1000

FIGURE 2 LAND USE DESIGNATION

FAIRWAYS AT DELACOUR

WESCOTT CONSULTING GROUP

28 Cougarstone Common S.W. Calgary, Alberta T3H 5P5
Phone 403-981-7566 Cell 403-882-9323
bob\_wescott@shaw.ca



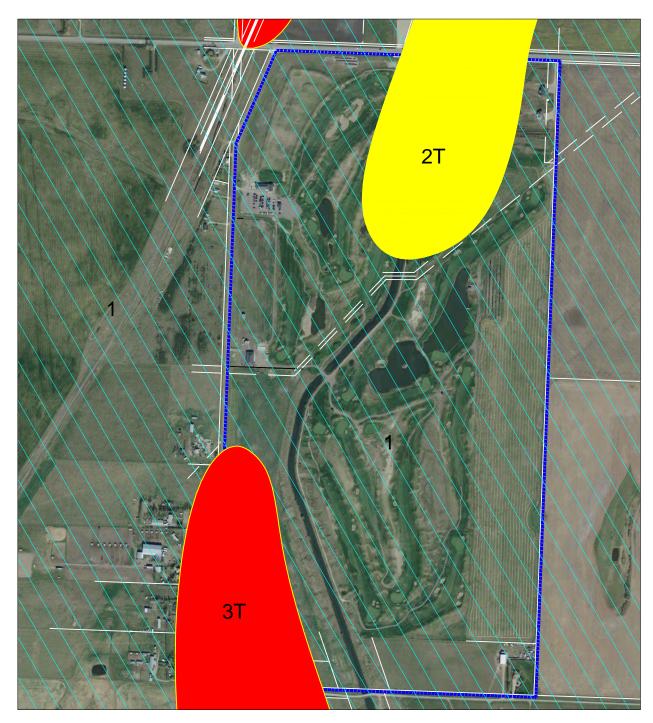
DATE: JULY 2018 SCALE: 1: 1000

FIGURE 3 TOPOGRAPHICAL FEATURES

FAIRWAYS AT DELACOUR

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28 Cougarstone Common S.W. Calgary, Alberta 13H 5P5
Phone 403-981-7566 Cell 403-862-9323
bob\_wescott@shaw.ca



SOIL CLASSIFICATION 1 CLI

Soils are deep, are well to imperfectly drained hold moisture well, and in the virgin state were well supplied with plan nutrients. They can be managed and cropped without difficulty. Under good management they are moderately high to high in productivity.

SOIL CLASSIFICATION 2 CLI

Soils are deep and hold moisture well. The limitations are moderate and the soils can be managed and cropped with little difficulty. Under good management they are moderately high to high in productivity.

SOIL CLASSIFICATION 3 CLI

The limitations are more severe that for Class 2 soils. They affect one or more of the following: timing and ease of tillage; planting and harvesting; choice of crops; methods of conservation. Under good management they are fair to moderately high in productivity.

 ${\tt SUBCLASS\,T:}\ \, {\tt Adverse}\ \, {\tt topography}\ \, {\tt -}\ \, {\tt Either}\ \, {\tt steepness}\ \, {\tt or}\ \, {\tt athe}\ \, {\tt pattern}\ \, {\tt of}\ \, {\tt slopes}\ \, {\tt limits}\ \, {\tt agricultural}\ \, {\tt use}.$ 

PLAN AREA SHOWN AS:

SOURCE: CLI\_250k\_agr\_82p

FILE #RTW107

DATE: JULY 2018

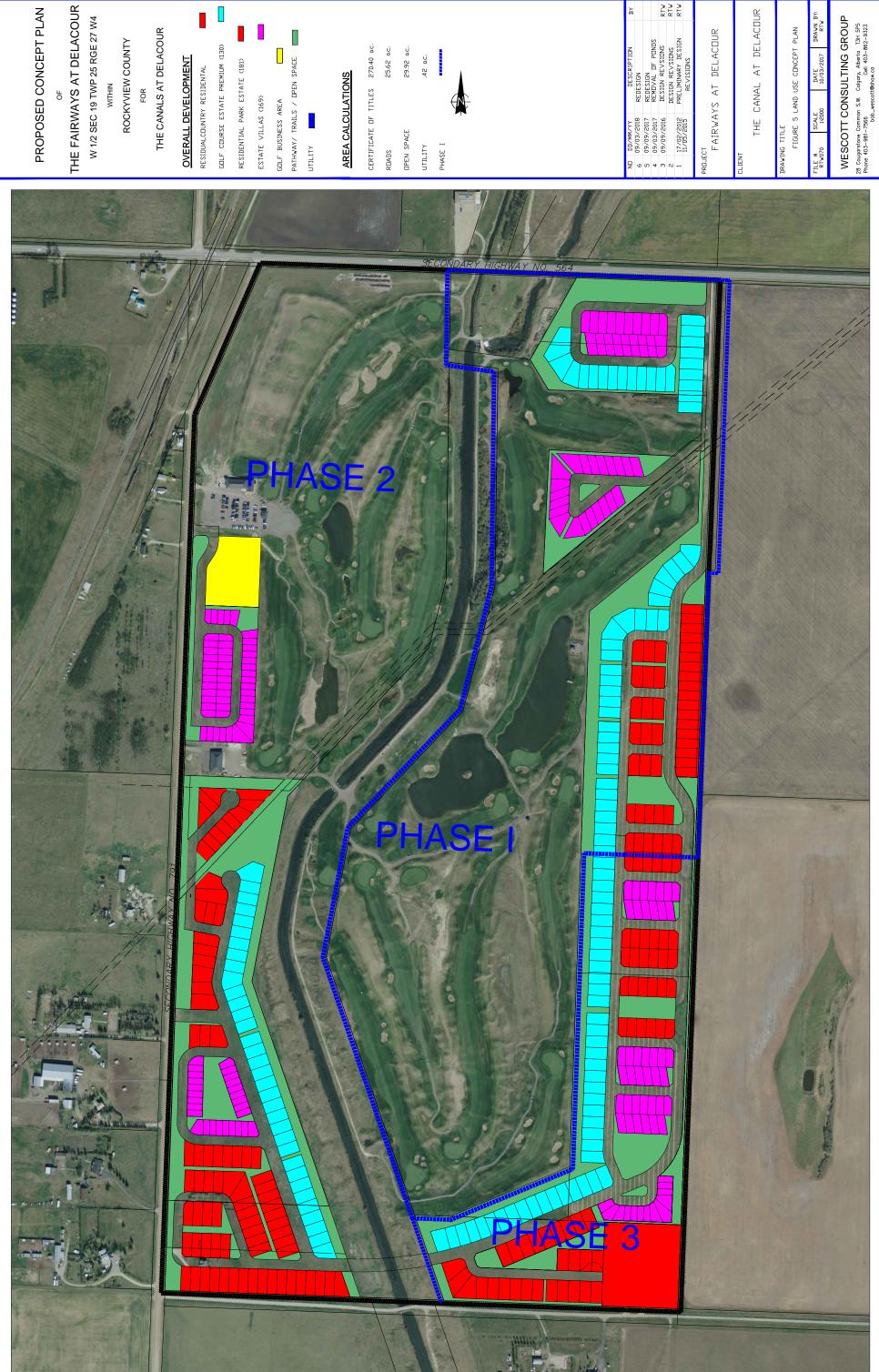
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FIGURE 4 SOIL CLASSIFICATION CANADA LAND INVENTORY

FAIRWAYS AT DELACOUR

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# PROPOSED CONCEPT PLAN

ROCKYVIEW COUNTY

OVERALL DEVELOPMENT

GOLF COURSE ESTATE PREMIUM (130) ESTATE VILLAS (169)

PATHWAY/ TRAILS / OPEN SPACE

AREA CALCULATIONS

CERTIFICATE DF TITLES 270.40 ac.

29.92 ac. .42 ac.

PRDJECT FAIRWAYS AT DELACOUR

FIGURE 5 LAND USE CONCEPT PLAN

WESCOTT CONSULTING GROUP

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### LEGEND

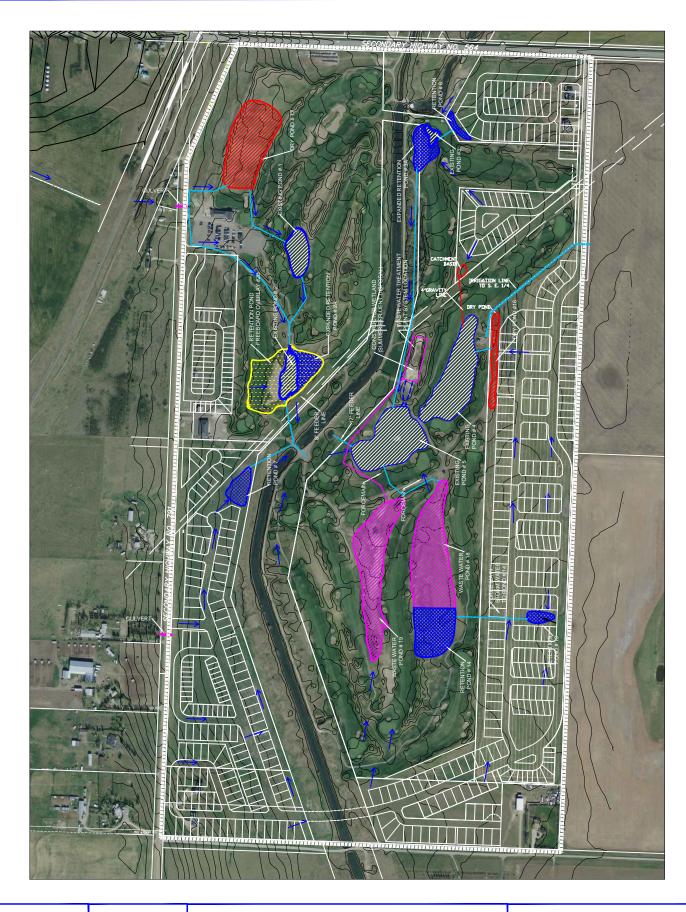
ROAD R/O/W 15m

ROAD R/O/W 20m

### FIGURE 6 TRANSPORTATION NETWORK

FAIRWAYS AT DELACOUR ROCKYVIEW COUNTY

### WESCOTT CONSULTING GROUP



DATE: SEPT 2018

SCALE: 1: 1000

FIGURE 7 STORM MANAGEMENT

FAIRWAYS AT DELACOUR

WESCOTT CONSULTING GROUP

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Phone 403-981-7566 Cell 403-862-9323
bob\_wescott@shaw.ca

### THE CANAL AT DELACOUR THE CANALS AT DELACOUR SCALE DATE 1:2000 10/03/2017 PROJECT FAIRWAYS AT DELACOUR OVERALL DEVELOPMENT 6' BLACK CHAIN LINK FENCE PEDESTRIAN BRIDGE 10/10/2017 09/09/2016 RETENTION POND 17/02/2012 11/05/2015 DRAWING TITLE

## COMMON PROPERTIES

THE FAIRWAYS AT DELACOUR W 1/2 SEC 19 TWP 25 RGE 27 W4 WITHIN ROCKYVIEW COUNTY

4' BLACK CHAIN LINK FENCE 6' SOLID MASONARY FENCE

RTV RTV RTV

FIGURE 8 COMMON PROPERTY (OPEN SPACE / PATHWAYS / FENCING)

WESCOTT CONSULTING GROUP 28 Cougarstone Common S.W. Calgary, Alberta T3H 5P5 Phone 403–981–7856 Phone 403–981–7856



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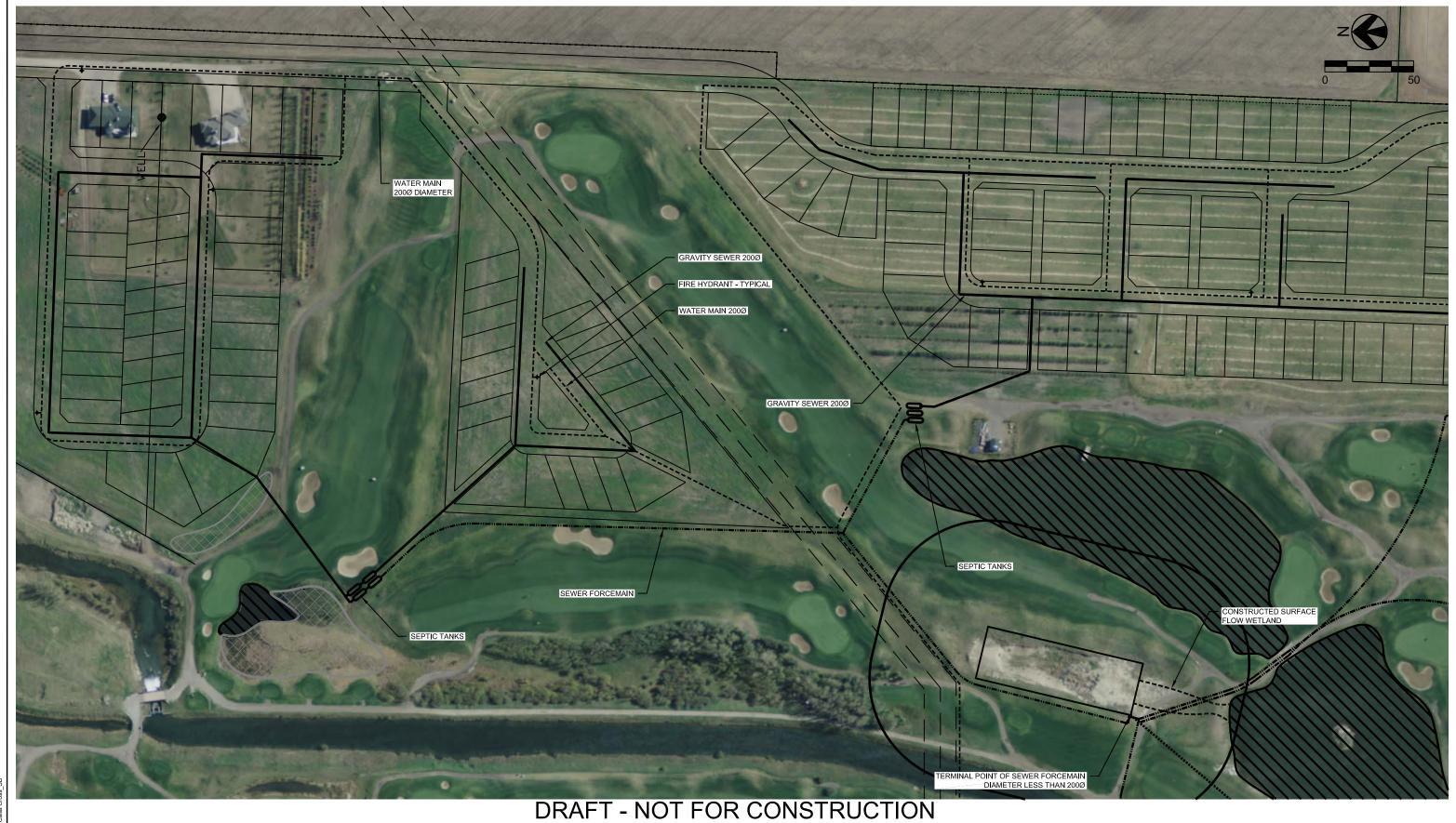
SD CONSULTING
SHERWOOD PARK, AB
SAINT PAUL, MN
TEL. 612-280-9128
TEL. 612-209-7366

THE CANAL AT DELACOUR

OVERALL WATER & SEWER SYSTEM LAYOUT

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THE CANAL AT DELACOUR

SEWER LAYOUT 1

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**SEWER LAYOUT 2** 

THE CANAL

AT DELACOUR

DRAFT - NOT FOR CONSTRUCTION THE CANAL **SEWER LAYOUT 3** C1c SD CONSULTING SHERWOOD PARK, AB SAINT PAUL, MN TEL. 612-280-9128 TEL. 612-209-7366 AT DELACOUR 1/2018 ISSUE FOR REVIEW REV DATE DESCRIPTION COPYRIGHT© 2018 SD CONSULTING GROUP - CANADA INC.

SEWER FORCEMAIN CANAL CROSSING 1

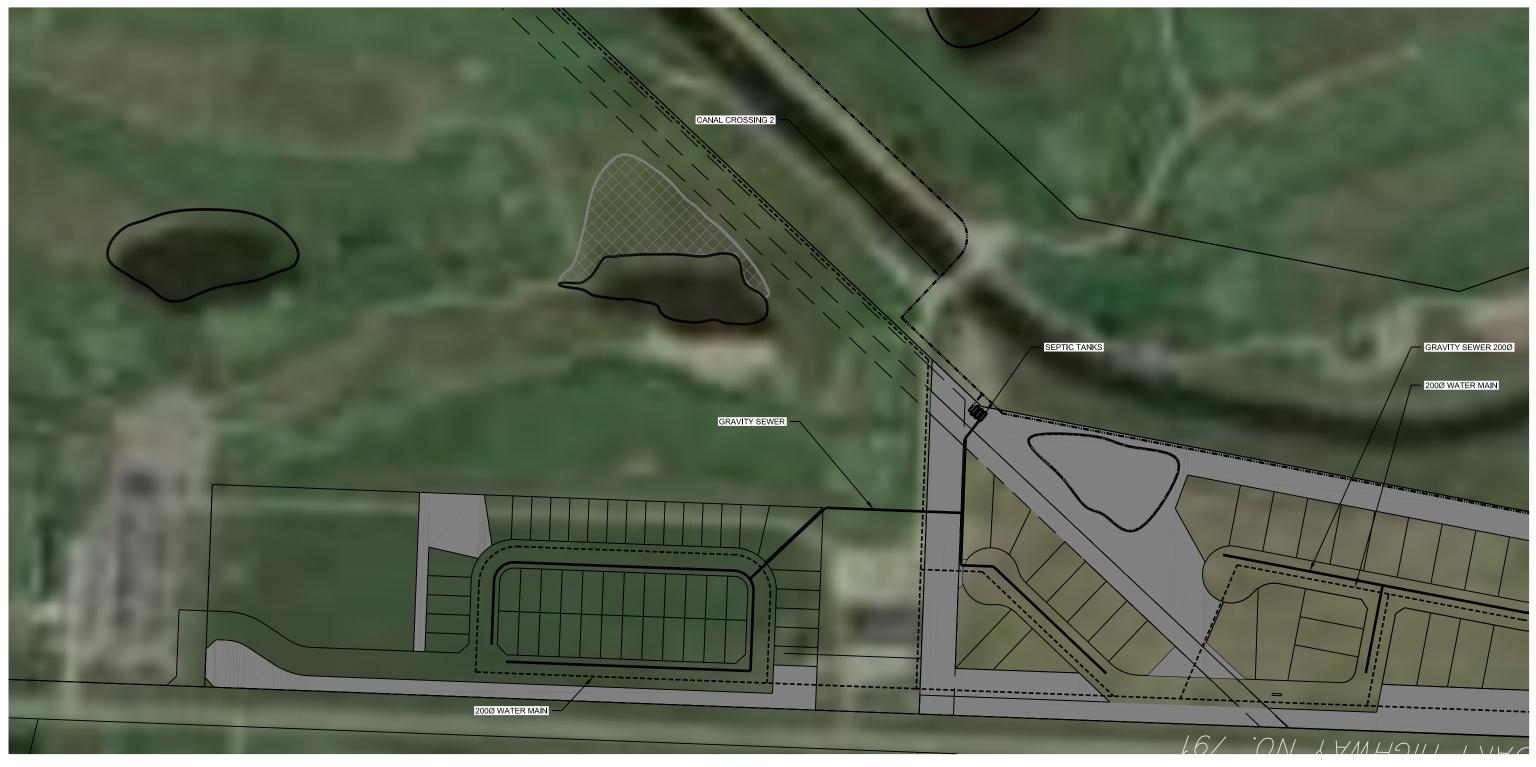
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GRAVITY SEWER 200Ø

SEPTIC TANKS

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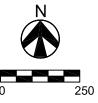
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THE CANAL AT DELACOUR

SEWER LAYOUT 4

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THE CANAL AT DELACOUR

WATER SYSTEM

C1e

### 8.0 PLAN STRATEGIES SUMMARY

### 4.3 Land Use Overview

- 4.3.1 As a condition of future subdivision, the Developer shall be required to create a Condominium Corporation, in accordance with the requirements of the Condominium Property Act.
- 4.3.2 The Fairways at Delacour Condominium Plan shall include the proposed development as well as the existing Canal at Delacour Golf Course.
- 4.3.3 The Fairways at Delacour Condominium Corporation shall own, manage and maintain the infrastructure which includes the roads, water, waste water, and storm water within both the existing Canal at Delacour Golf Course and the proposed development.
- 4.3.4 The incorporation of LEED Principles shall be encouraged in the development and building construction of each dwelling unit.
- 4.3.5 The site development and building construction of each dwelling unit shall be subject to the requirements of the Fairways at Delacour Architectural Controls and Landscape Guidelines.
- 4.3.6 The identification of lots which have walk out basement opportunities shall be determined upon completion of the comprehensive site grading plan undertaken prior to subdivision approval.
- 4.3.7 All Bare Land Condominium Units created within the Fairways at Delacour Concept Plan shall be subject to the rules and regulations as stipulated within the Fairways at Delacour Condominium Bylaws.
- 4.3.8 All Bare Land Condominium Units created (with the exception of Golf Course Estate Premium units), shall have an attached garage located on the front face of the unit with the doors facing the street.
- 4.3.9 Golf Course Estate Premium units created within the Fairways at Delacour Concept Plan shall have an attached garage located on the front face of the unit, however, the garage doors may be orientated parallel to the street.

### 4.4.1 Conceptual Plan and Future Phasing Strategies

- 4.4.1.1 Phasing shall include the redesignation, subdivision and development of lots identified in the Fairways at Delacour Conceptual Scheme as shown in Figure 5 Land Use Concept.
- 4.4.1.2 The redesignation of lands contained within each phase shall be obtained prior to the subdivision approval for the respective phase with the Land Uses of the Rocky View Land Use Bylaw C-4841-97 as amended forming the basis for Land Use Redesignation Applications within the plan.

- 4.4.1.3 In acknowledging the goals and policies of the County Plan, the conceptual scheme shall provide for the orderly and economic development of the plan area by facilitating the orderly transition of land from agricultural, recreational and small holding use to that of a comprehensive mixed use built environment.
- 4.4.1.4 A Condominium Board shall be established, in accordance with the Condominium Properties Act, to administer within the development all matters such as the implementation and monitoring of the Architectural Controls, the implementation and administration of all infrastructures including, roads, potable water, waste water, storm water management, solid waste management, common properties and facilities associated with these infrastructural improvements.
- 4.4.1.5 At the time of subdivision, the Developer shall be required to enter into a Development Agreement with Rocky View County for the construction of a potable water distribution system and associated storage facilities; a waste water treatment facility, waste water lift stations and treated waste water storage facilities, storm water facilities including drainage channels, retention and detention ponds and storm water management facilities.
- 4.4.1.6 At the time of subdivision, provision shall be made for the dedication of an access easement agreement registered in the name of Rocky View County to facilitate the provision of a potable water distribution system and associated storage facilities; a waste water treatment facility, waste water lift stations and treated waste water storage facilities, storm water facilities including drainage channels, retention and detention ponds and storm water management facilities.
- 4.4.1.7 A comprehensive Storm Water Management Plan, constructed and operated in accordance with and to the satisfaction of Alberta Environment, Western Irrigation District and Rocky View County shall be implemented in conjunction with or prior to the development of Phase I.
- 4.4.1.8 The internal road system and infrastructure improvements, as well as intersectional improvements to Secondary Highway # 564 in the north east quadrant of the plan area, shall be constructed as stipulated in the Traffic Impact Assessment prepared by D&A Paulichuk Consulting to the satisfaction of the Municipal Engineer and the Council of the Rocky View County.
- 4.4.1.9 In future phasing, the Developer shall be required to enter into a Development Agreement for the provision of a potable water distribution and storage facility; storm water management facilities; a waste water treatment facility, waste water lift stations and treated waste water storage facilities.

### 4.5 Architectural and Landscape Design Controls

4.5.1 Comprehensive Architectural Controls and Landscape Design Guidelines shall be

prepared and registered against all lands in title prior to or concurrent with the registration of the final plan of survey for Phase I.

### 5.1 Transportation Network Strategies

- 5.1.1 All internal roads shall be constructed at the sole cost and expense of the Developer in accordance with the requirements of the "County Servicing Standards" to the satisfaction of the Municipal Engineer and the Council of the Rocky View County.
- 5.1.2 The intersection of Hwy #564 and the existing north east internal road system, (which serves Phase i) shall be upgraded to a Type II Intersection including an exclusive right turn lane in accordance with the recommendations of the Traffic Impact Assessment, prepared by D&A Paulichuck Consulting Ltd. Date January 15<sup>th</sup>, 2016.
- 5.1.3 As a condition of subdivision, the Developer shall enter into an 'Infrastructure Cost Recovery Agreement' relating to the propionate recovery of infrastructure costs that may be a result of oversizing requirements or the identification of infrastructure cost which can be demonstrated as direct beneficial to adjacent landowners.
- 5.1.4 To ensure that the Transportation Network as envisioned in the conceptual scheme functions at a safe manner and a desired level of operation a Traffic Impact Assessment may, at the discretion of the Rocky View County, be required prior to future phase subdivision approval.
- 5.1.5 As a condition of future subdivision, the Developer shall be required to enter into a Development Agreement with the County for the construction of the internal road network including all related infrastructure (sidewalks, curb & gutters, etc.) and all offsite improvements identified in the TIA in accordance with the requirements of the County's Servicing Standards and Alberta Transportation where applicable.
- 5.1.6 The internal road system and infrastructure improvements and the upgrade of Secondary Highway # 791 along the west boundary of the Plan area, as indicated in the Traffic Impact Assessment prepared by D&A Paulichuk Consulting and dated January 15<sup>th</sup>, 2016, shall be constructed in accordance with the requirements of the "County Servicing Standards" and to the satisfaction of the Municipal Engineer, the Council of the Rocky View County and Alberta Transportation and Infrastructure where applicable.
- 5.1.7 Illumination for the intersection of Hwy. 564 and Hwy. 791 may not be warranted until 2041 as indicated in the recommendations of the Traffic Impact Assessment, prepared by D&A Paulichuck Consulting Ltd. Date January 15<sup>th</sup>, 2016.
- 5.1.8 As a condition of future subdivision, the Developer shall be required to obtain a Roadside Development Permit from Alberta Transportation for the implementation of any upgrades to the provincial highway network.

- 5.1.9 As a condition of future subdivision, the Developer shall be required to provide payment of the Transportation Off-Site Levy, in accordance with the applicable levy at time of subdivision approval, for the total gross acreage of the lands proposed to be subdivided and developed.
- 5.1.10 At the time of subdivision, and in accordance with the requirements of the Alberta Building Code, a secondary access (interim emergency access) shall be identified and provided for each phase of development.

### 6.1 Environmentally Significant Features Strategies

- 6.1.1 Existing environmental significant areas, such as the tree stands, shelter belts and the low-lying area shall be protected where possible.
- 6.1.2 Future development should provide opportunities for tree, shrubbery and foliage in landscaping plans.
- 6.1.3 The harvesting of rainfall for irrigation of lawns and ornamental trees and flowers shall be encouraged.
- 6.1.4 As a condition of future subdivision, the Developer may be required to conduct a Biophysical Impact Assessment (BIA), prepared by a qualified professional, providing a desktop and field assessment of the subject lands to identify any value ecosystems or areas of environmental significance in accordance with the BIA framework contained within the County Servicing Standards.
- 6.1.5 Should wetland or areas of environmental significance by identified, the Developer shall be required to obtain all necessary approvals from Alberta Environment and Parks under the Water Act prior to entering into any Development Agreement with the County.

### 6.2 Common Property - Private Open Space & Pathways

- 6.2.1 Contiguous blocks of Open Space /Pathways in conjunction with or integrated within the Storm Water retention areas and the Western Irrigation District canal system shall be provided to enhanced educational and passive recreational opportunities to compliment the open space concepts.
- 6.2.2 Cash in lieu of Municipal Reserve dedication may be required at the time of subdivision.
- 6.2.3 A regional pathway adjacent to and paralleling Secondary Highway # 791 may be considered in future phasing.
- 6.2.4 A comprehensive Landscape Plan relating to the development of the integrated Open Space/Pathways shall be provided at the time of subdivision.

### 6.3 Agricultural Boundary Protection

- 6.3.1.1 To reduce and/or mitigate any potential conflicts with the agricultural community a 6' chain link fence shall be strategically placed along the entire east boundary of the plan area.
- 6.3.1.2 To create a sense of community an aesthetically pleasing and decorative 6' solid fence shall be constructed along the west and south boundary of the plan area.
- 6.3.1.3 To provide individual lot security a 4' chain link fence shall be constructed between lot boundaries and open space /pathway areas.

- 6.3.1.4 Buffers or open space areas, (in concert with common space used for roads) shall be provided to increase the separation between agricultural and nonagricultural pursuits.
- 6.3.1.5 Where residential units directly abut the agricultural lands lying east of the plan area, (N.E. 19-25-27-4) a 3m landscape easement registered in the name of the Condominium Association shall be provided.
- 6.3.1.6 At the time of subdivision, a comprehensive landscape plan shall be prepared and shall include within its design the incorporation of features, practices, techniques to support the relationship between the agricultural and nonagricultural community.
- 6.3.1.7 An awareness caveat shall be placed against all lands within the plan area informing and advising all perspective residents of the importance of the agricultural community and the need to acknowledge prior to purchase that agricultural activities, (which are not experienced within traditional urban environments) may from time to time occur but are necessary for the continued agricultural practice.

### 7.0 SERVICING INFRASTRUCTURE

- 7.0.1 The Developer, at the time of subdivision shall undertake a Geotechnical Investigation relating to the locations and specific nature of the proposed improvements such as internal roads, waste water and potable water lines and appurtenances as well as additional storm water facilities to the satisfaction of Rocky View County.
- 7.0.2 As a condition of future subdivision, the Developer may be required to provide an updated report or conduct further geotechnical testing within the boundaries of the proposed phase of development for incorporation into the detailed design of the development.
- 7.0.3 As a condition of future subdivision, the Developer shall be required to create a utility corporation and enter into Franchise and Infrastructure Transfer Agreements with the County for the control, operation and maintenance of the wastewater treatment and water distribution systems.
- 7.0.4 As a condition of future subdivision, the Developer shall submit to Rocky View County a Construction Management Plan addressing noise mitigation measures, traffic accommodation, sedimentation and dust control, management of storm water during construction, erosion and weed control, construction practices, waste management, firefighting procedures, evacuation plan, hazardous material containment and all other relevant construction management details.
- 7.0.5 In acknowledging that the Fairways at Delacour is a proposed a multi-phased development, the onsite and offsite infrastructure requirements shall be determined at the subdivision stage in relation to the phase proposed at that time.

7.0.6 As a condition of future subdivision, the Developer shall be required to provide payment of the County's Water & Wastewater Offsite Levy in accordance with the applicable levy at time of subdivision approval, for the use of the County's water distribution infrastructure.

As the proposed development is outside of the identified services areas, the components of the levy applicable to this development shall be determined at time of subdivision

### 7.1 Community Water System

- 7.1.1 All subdivisions and development shall be capable of being connected to the municipally owned and operated water supply and distribution system.
- 7.1.2 Lot levies and connection fees shall be imposed at the time of subdivision approval, however, consideration may be given to deferment subject to the approval of the Rocky View County.
- 7.1.3 Reservoirs for potable water and fire protection shall be the responsibility of the developer.
- 7.1.4 The metering of water usage at the lot level shall be incorporated into the design elements of the water distribution system.
- 7.1.5 At time of future subdivision, the Developer may be required to re-assess the available capacity at the Graham Creek Water Treatment plant and the Conrich Transmission Main to provide the necessary capacity to the proposed development taking into the consideration the build-out of the other areas within the County (East Balzac, Conrich & Omni).
- 7.1.6 At the time of subdivision should further improvements to the County's water system outside of those outlined in the County's Water and Wastewater Levy Bylaw be warranted, the Developer shall be responsible for the implementation of the said improvements.
- 7.1.7 At time of future subdivision, Developer shall be required to submit a Cost Feasibility and Sustainability Analysis estimating the life-cycle costs of the operation, maintenance and replacement of the potable water pump station and reservoir.
- 7.1.8 As a condition of future subdivision, the Developer, (in acknowledging that the development proposed is a Bare Land Condominium ownership structure) shall create a Utility Corporation and enter into a Franchise and Infrastructure Transfer Agreements with the County for the operation and maintenance of the water distribution system.
- 7.1.9 At time of subdivision, the Developer shall be required to provide engineering drawings, prepared by a qualified professional, and enter into a Development Agreement for the construction of the following infrastructure:
  - Underground storage reservoir;
  - pump station;

- proposed 200mm service line from the Conrich Transmission Main to the proposed underground storage reservoir;
- pump station to providing adequate pressure to supply water to the proposed underground storage reservoir (if applicable); and
- water distribution and hydrant system;
- 7.1.10 The Developer shall design the pump station and underground storage reservoir to provide to an adequate supply potable water to the development area and meet the required volume/flow requirements in accordance with the County's Fire Hydrant Water Suppression Bylaw (C-7259-2013), Servicing Standards and all other applicable codes (ABC and NSF).

### 7.2.1. Waste Water System Strategies

- 7.2.1.1 All subdivisions and development shall be capable of being serviced by the gravity/forced main communal sewage collection system.
- 7.2.1.2 As a condition of future subdivision, the Developer shall be required to create a Utility Corporation and enter into a Franchise and Infrastructure Transfer Agreements with the County for the operation and maintenance of the collection, treatment and disposal systems.
- 7.2.1.3 As a condition of subdivision, the Developer shall be required to obtain all required permits and licenses from Alberta Environment and Parks for the design, construction and operation of the Waste Water Treatment Plant.
- 7.2.1.4 As a condition of future subdivision, the Developer shall be required to provide engineering drawings, prepared by a qualified professional, for the proposed wastewater collection, treatment and disposal systems and enter into a Special Improvements Development Agreement with the County for the construction of the said infrastructure. It is to be noted that Developer shall be responsible to secure all ROWs and easements to service the proposed development.
- 7.2.1.5 As a condition of future subdivision, the Developer shall be required to submit a Cost Feasibility and Sustainability Analysis estimating the life-cycle costs of construction, operations, maintenance and replacement of the wastewater treatment plant and effluent disposal systems.
- 7.2.1.6 Rocky View County shall provide the necessary proximity waiver to Alberta Environment with respect to the proximity of the waste water treatment plant to residential development as shown in Drawing C-1 'Overall Waste Water and Water Servicing System' as provided by SD Consulting Group.
- 7.2.1.7 At time of subdivision, the Developer shall be required to register restrictive covenants over the proposed irrigation areas (golf course) to ensure these areas are not redeveloped as they are integral to the function of the effluent disposal system.

### 7.3 Storm Water Management Strategies

- 7.3.1 The comprehensive storm water management plan shall be provided for the Plan Area to accommodate all storm water and waste water on-site ensuring that at no time shall storm water or waste water be permitted to discharge into the Western Irrigation District canal system.
- 7.3.2 Utilizing best management practices, an overland drainage system, utilizing the existing topography when possible shall be used for storm water management and accomplished by using piping, roadway ditches, culverts and drainage swales along lot lines and within the green space areas.
- 7.3.3 Prior to subdivision and development, the Developer shall provide a detailed and comprehensive storm water management plan for the Plan Area to the satisfaction of Alberta Environment, Western Irrigation District and Rocky View County.
- 7.3.4 Storm water management facilities shall incorporate existing and constructed wetlands to assist in the improvement of water quality.
- 7.3.5 A detailed and comprehensive Storm Water Management Plan shall be prepared and implemented as part of the subdivision implementation phase which is coordinated and administered through the development agreement process.
- 7.3.6 As a condition of future subdivision, the Developer shall be required to create a Utility Corporation and enter into a Franchise and Infrastructure Transfer Agreements with the County for the operation and maintenance of the storm water management system.
- 7.3.7 At the time of subdivision an access easement agreement shall be granted and registered in the name of Rocky View County to facilitate the monitoring of construction, continued operation, oversight and required maintenance (if necessary) of the integrated waste water/storm water systems.
- 7.3.8 Individual lots will be encouraged to harvest surface runoff for their individual use such as watering lawns and gardens.
- 7.3.9 The use of potable water for such practices as watering lawns/gardens or irrigation purposes shall be discouraged.
- 7.3.10 When harvesting practices at the individual lot level are not practiced, individual lots shall be graded to direct runoff water to the drainage swales or ditches which will convey water from the lots to the storm ponds.
- 7.3.11 To ensure that the 'Zero Discharge' into the canal is achieved, an irrigation outflow line shall be constructed to provide irrigation water in excess of the golf course needs to the N.E. ¼ 19-25-27-4 as a secondary outlet.

- 7.3.12 Prior to subdivision and development, the Developer shall provide a detailed and comprehensive Landscape Plan to the Western Irrigation District and Rocky View County for consideration and approval.
- 7.3.13 As a condition of Subdivision Approval, the Developer shall maintain a minimum 15 m setback from the canal right of way for fencing, and a minimum of 21m setback for structures and buildings.
- 7.3.14 As a condition of future subdivision, the Developer shall be required provide a detailed stormwater management plan (SWMP) and design drawings for the proposed ponds including all related stormwater infrastructure in accordance with all applicable watershed management plans, the County's Servicing Standards, Alberta Environment regulations and best practices.
- 7.3.15 As a condition of future subdivision, the Developer shall be required to provide verification of registration from Alberta Environment and Parks under EPEA for the proposed stormwater management system.
- 7.3.16 As a condition of future subdivision, the Developer shall be required to prepare, in accordance with the County's Servicing Standards, an Erosion and Sediment control plan, prepared by a qualified professional, identifying ESC measures to be taken during construction and to protect the onsite wetlands.

### 7.4 Solid Waste Management

7.4.1 At the time of subdivision, the Developer shall, to the satisfaction of the County, prepare a comprehensive Solid Waste and Recycling Management strategy addressing construction, commercial and residential needs which may include the feasibility of composting capabilities.

### 7.5 Emergency Services

- 7.5.1 At the time of subdivision, the Developer, through direct consultation with the Emergency Services of Rocky View County, shall prepare a safe neighbourhood strategy for implementation within the Fairways at Delacour Conceptual Scheme area.
- 7.5.2 At the time of subdivision, the Developer, through direct consultation with the Fire Services of Rocky View County may prepare and implement a fire smart strategy to the satisfaction of the Fire Services.
- 7.5.3 As a condition of future subdivision, the Developer shall provide a Construction Emergency Response Plan to the satisfaction of the Fire Services of Rocky View County.