ROYAL REDWATER DEVELOPMENT REDWATER, AB

PROJECT Nº 141-14436-00

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1 INTRODUCTION

1.1 PURPOSE

This Outline Plan encompasses approximately 18.8 ha (46.43 ac) of land within the Town of Redwater on the parcel legally described as Plan 7822921 Lot C. This Outline Plan has been prepared on behalf of 1701917 Alberta Ltd and is intended to guide the future subdivision and development of this site. The Outline Plan identifies development opportunities and restriction on the site, and how the project meets the Town's development objectives.

1.2 BACKGROUND

In 2008 the subject site was redistricted to R1 Single Family Residential with the intent of developing approximately 210 lots for single family dwellings. The previous development project, identified as Heartland Ridge, received conditional subdivision approval from the Town on May 12, 2008. The previous development involved in the project went into receivership and in 2009 the conditional approval on the subdivision expired. Prior to abandoning the project the developer had completed a significant portion of the underground and surface infrastructure was developed on the site. Underground utilities, sidewalks and roads were all constructed based on the conditionally approved subdivision plan.

Recently the lands were passed on to the investors who have formed a company named 1701917 Alberta Ltd. with the goal of completing the project. Increased economic activity in the area has boosted demand for housing in the Town of Redwater and regenerated interest to complete the development of this site. In order to utilize the infrastructure constructed in 2008/2009, the development proposed in this Outline Plan is very similar to the Heartland Ridge subdivision approved in 2008, with some minor modifications to meet current regulations and standards. It should be noted that since 2008 the Town has adopted a new Municipal Development Plan (2009) and a new Land Use Bylaw (2013). Wherever possible the proposed development aims to meet the new municipal policies and regulations, however in order to utilize the existing infrastructure some of these new policies and regulation may require minor relaxations. The proposed development now consists of 199 residential lots for single family dwellings as a result of changing the stormwater management pond design.

2 EXISTING CONDITIONS

2.1 LOCATION AND AREA CONTEXT

The site is located in the southwest corner of the Town of Redwater, Alberta on the parcel legally known as Plan 7822921 Lot C. The parcel area is approximately 18.8 ha (46.43 ac) with access to the site from 58 Street to the east of the property. The site is relatively flat with no significant contours. The subject parcel is bounded by the CN Rail line to the north, agricultural land uses to the south and west and an industrial site to the east. The industrial site is screened from the proposed residential development by a large, dense tree stand. This tree stand provides an adequate separation and buffering between the industrial use and the residential use, with no land use conflicts are anticipated between these two sites.

Map 1 - Site Location



2.2 PHYSICAL ENVIRONMENT

In 2008 a Geotechnical Site Assessment was submitted to the Town of Redwater. This report was accepted and no geotechnical constraints were noted on the property. A Phase I Environmental Site Assessment (ESA) was prepared in May 2014. A review of the records for the site, and interviews with landowners revealed no evidence of actual or potential environmental concern at the Property, however a site inspection revealed evidence of potential contaminants. White surface staining observed in areas where no vegetation was growing along the south edge of the property. The source of the potential contaminants is unknown, and a subsurface investigation is recommended where the surface staining was observed to confirm and characterize any impacts by this potential contaminant.

A full copy of the Phase I ESA can be found in Appendix A.

2.3 EXISTING LAND USES

The subject site was redistricted to R-1 Single Family Residential in 2008 and is deemed suitable for residential development. The site is surrounded by predominantly agricultural land uses, with the exception of one industrial site located just to the east of the proposed development. This industrial development is buffered from the proposed development by a large, dense tree stand located on the industrial site. There are some commercial developments located along 48 Avenue, less than 800 m from the access road to the subject site.

2.4 MAN MADE CONSTRAINTS

There are several pipelines located in proximity to the proposed development. An oil pipeline (2042 HW) runs along the northern boundary of the site within the subject parcel, and two pipelines, an oil pipeline (772 2971) and a gas pipeline (832 1375) are located south of the proposed development, on the adjacent parcel. None of these pipelines contain sour gas. As per the development setback requirements identified by the Alberta Energy Regulator (AER), development is not permitted within the pipeline right-of-way. There are no additional setback requirements beyond the right-of-way for any of these pipelines.

There is another pipeline right-of-way which appears on the legal survey (1407 NY). This pipeline was removed from the land title as part of the previous development application and does not impact the proposed development.

Location and information on the existing pipelines and wells within the area can be found in Figure 1.

2.5 HISTORICAL RESOURCES

There are no known or anticipated historical resources within the development area. As such a historical resource impact assessment is not required for the subject site.

3 MUNICIPAL OBJECTIVES AND POLICIES

The Town of Redwater has a Municipal Development Plan and a Land Use Bylaw which govern the development of the subject site. Outlined below are the applicable municipal policies and regulations that govern the development of this site including comments on how the proposed development complies with these objectives.

3.1 MUNICIPAL DEVELOPMENT PLAN

The Municipal Development Plan (MDP) is intended to guide future development within the Town of Redwater. The previous Heartland Ridge subdivision was conditionally approved in 2008 and the current Municipal Development Plan was approved in December of 2009. The proposed development generally conforms to the policies within the MDP and, wherever possible, the site plan has been revised to meet the new policies and standards in the Town. It should be noted that, in order to utilize the existing infrastructure developed on the site, the developer's ability to revise the site plan and development concept is somewhat limited.

The subject area is located within the Residential Phase I of the Future Land Use Map of the Town's Municipal Development Plan. The adjacent industrial site is identified as Residential Phase II on the Future Land Use Map, indicating that the Town intends for the future redevelopment of this site for residential use. Listed below are the MDP Policies applicable to the subject site and how the proposed development meets the intent of these policies. In some cases the development will require a relaxation of the policy as these polices were not considered in the original design of the site in 2008.

5.3.1 To ensure an adequate supply of residential land and provide a suitable mix of housing to meet people's varying space requirements, economic circumstances and aspirations.

The development is to be entirely comprised of single family detached dwellings as per the 2008 plan. In the underlying land use district, Single Family Residential (R-1) District, single family dwellings are the only form of residential development that is a permitted use. While there are some restrictions on housing size, including minimum size requirements, there is an opportunity for the development of an assortment of housing sizes within the neighbourhood to provide housing mix. Secondary suites are permitted in this district, which may provide some additional opportunities to develop affordable housing in this neighbourhood.

5.3.2 To ensure the development of a residential environment which enhances the quality of life of the Town's residents.

There is significant park space and pedestrian linkages proposed throughout the development providing good connectivity and recreational opportunities for residents in this neighbourhood. These parks and linkages help to enhance the quality of life for the residents of the community and the Town.

5.5.1 To ensure the development of a safe, economic, aesthetic and efficient transportation system.

The local road network within the proposed development includes sidewalks on both sides of the street to provide pedestrian linkages throughout the development and active transportation connections, enhancing the overall transportation network. This pedestrian network is enhanced by pathways providing connections to amenity areas within the development and to other pedestrian connections beyond the subject site.

The primary access to the subject site is from 58 Street. A second, emergency access is proposed out to 58 Street to provide a greater measure of safety for residents in the development.

The secondary/emergency access into the site is along the southern boundary of the pond. It will be a gravelled road used for emergency access in instances where the main entrance is not accessible. The road will be wide enough to manage emergency vehicles. The slopes into the pond are at 7:1 slopes, but the access road itself has a 2% cross-slope. If there is a concern of safety, guardrails along the pond can be placed along the emergency access.

As the surrounding land is developed, additional connections will provide alternative access points to the development.

5.5.2 To ensure the development of an economical, efficient and environmentally sustainable municipal servicing system which will serve both the existing community and also future growth areas within the Town.

To service the proposed development, services will need to be extended from the Town, down 58 Street and connected into the proposed development. On-site, the municipal services have been sized and developed to allow for future connection to the adjacent parcels. Additional information on municipal services can be found in Section 6: Utilities.

10.2.1 The Town will require the provision, throughout the Town, of a reliable water supply and distribution system in terms of capacity and supply rate, an environmentally acceptable sanitary sewage collection and treatment system, and an efficient stormwater collection and management system. The provision of these systems will be funded either by senior levels of government or by new development.

The proposed development is to be municipally serviced with water and sanitary services. Stormwater is to be collected and detained on site in a stormwater management pond and released at pre-development rates by use of store water lift station. The infrastructure associated with these services is to be developed by the developer and turned over to the Town once approved. Additional information can be found in Section 6, Utilities.

10.3.1 Any new subdivision near a pipeline right-of-way shall be designed in such a manner that a 15.2 m (50 ft.) setback from the nearest edge of any pipeline right-of-way to any permanent structure, may be provided on all lots adjacent to the right-of-way.

The subject site has an oil pipeline right-of-way running along the northern boundary of the site and a gas pipeline right-of-way along the southern boundary of the site. In the 2008 subdivision design these pipeline right-of-ways were maintained as open space and none of the residential lots or any development were proposed within the pipeline right-of-way. The proposed development includes the same development restrictions in and around these pipelines, which would restrict development within the pipeline right-of-way but not adjacent to it.

This policy in the MDP indicates that the setback "may be provided on all lots". The "may" in this statement implies that there is some discretion in the enforcement of this rule. The additional setback in this policy is not required by the pipeline owner. Therefore this setback has not been incorporated into the site plan as it would result in several lots not being able to be developed when all other controls are applied.

For development adjacent to the Pembina Pipeline Right of Way along the northern boundary of the site there should be no setback relaxations permitted. Rear yard setbacks for development backing onto the pipeline should be a minimum of 7.5 m as per the Land Use Bylaw regulations. For the two proposed lots in the northeast corner with side yards abutting the pipeline right of way, the side yard setback abutting the right of way should be increased from 1.5 m to 4.5 m.

3.2 LAND USE BYLAW

The Town of Redwater's Land Use Bylaw (LUB) defines the entire site as Single Family Residential (R-1) District. The LUB identifies the purpose of this District "to allow provide for residential development in the form of low density single family housing on a variety of lot sizes."

The district regulations require a minimum lot size of 15.2 m wide and 33.5 m deep for subdivisions that do not have rear lanes. This depth may be reduced to 30.5 m where a lane is provided. The typical lot in the proposed development is 15.25 m wide and 30.5 m deep. There are no rear lanes proposed in this development.

As noted previously, as significant amount of the infrastructure required for the development was constructed in 2008 and 2009. This included the municipal services, roads and sidewalks. The proposed development will require a relaxation of the minimum lot depth district regulation in order to use this infrastructure. The developer will be requesting a variance on the site depth regulation as part of the subdivision application. The lot dimensions for the proposed development have not changed from those proposed in the 2008 conditionally approved subdivision plan and the conditional approval did not include any variances to the lot dimension regulations. It is likely that in the 2013 update to the Town's Land Use Bylaw the lot dimension regulations were revised.

4 PLAN CONCEPT

Development of the subject land is proposed to be fully serviced, single family detached residential lots. The plan has been revised from the original plan in 2008 to accommodate a larger stormwater management pond and now includes approximately 199 lots. Typical lot sizes will be 15.25 m wide by 30.5 m deep. The proposed development concept is illustrated in Figure 2.

Currently, the land use district for the entire parcel is Single Family Residential (R-1) District. The development on this site will include residential uses, park/open space and a stormwater management pond. Approximately 14.1% of the land, consisting of the municipal reserve dedication and the existing pipeline right of way, will be developed as open space and trail connections for residents of the development.

4.1 LAND USE STATISTICS

Table 1: Land Use Statistics

	Area (ha)	% of GDA	
Gross Developable Area	18.80	100.0%	
Municipal Reserve	1.74	9.3%	
Public Utility (Stormwater Pond)	1.80	9.7%	
Public Utility (pipeline right of way)	1.06	5.6%	
Circulation (roads)	4.39	23.3%	
Net Developable Area	9.77	47.9%	

Proposed number of lots: 199

4.2 RAILWAY SETBACK AND BERM

In 2013 guidelines were released which identified preferred development setbacks for permanent structure in proximity to railway lines. These guidelines propose setbacks, barriers and screening to provide a buffer for new development from the potential impacts of rail traffic.

A CN Railway line runs along the northern boundary of the subject site, with a pipeline right-of-way is located between the CN property and the lot lines of the proposed development. With this pipeline, and the minimum setback requirements in this document or the Town's Land Use Bylaw, there is approximately 23-26 m between the CN Rail right-of-way and any of the proposed permanent dwellings. In addition, a berm and fence will also be constructed on the site to further mitigate the impacts of the CN Railway. The berm height is approximately 1 m above the adjacent CN rail line (top of rails) and a 2 m high fence has been constructed along the rear property lines of the proposed lots. Both the fence and the berm have been partially completed as part of the previous development that occurred on this site. The final construction of this fence and berm will be completed at time of subdivision.

5 ROADS AND TRANSPORTATION

5.1 ROAD NETWORK

The local road network was constructed in 2008/2009 as part of the original development application for the site. The majority of the local roads were developed within an 18 m road right of way which included a 10 m road pavement surface and 1.25 m mono sidewalk on either side of the road. The main access road was developed within a 20 m right of way with an 11.5 m road pavements surface and sidewalks developed on both sides of the road (see Figure 2). MDP policy 10.1.7 indicates that The Town will endeavor to enhance the appearance of roadways. Developers will be required to provide landscaping, including trees, along the medians and boulevards of roadways. Boulevards, street trees and other such landscaping were not required as part of the approved 2008 subdivision plan. The original design, which has now been constructed, did not accounted for the provision of trees within the road right-of-way. At this stage it is not anticipated that these will be included in the final development.

Primary vehicular access to the proposed development will be obtained via Highway 38 and 58 Street. The proposed site access is located on 58 Street, approximately 700 m south of Highway 38 and 400 m south of the existing CN Railway. A traffic impact assessment was prepared by WSP in June 2014 to study the current and projected traffic at key intersections that may experience traffic impacts associated with the proposed development. Two key intersections were evaluated based on the forecasted traffic volumes which include both the background traffic (non-site traffic) and the traffic that results from the proposed development.

According to the traffic impact assessment, improvements are warranted at the intersection of Highway 38 and 58 Street, including possible signalization. The intersection on 58 Street that provides access to the site is able to accommodate the forecasted traffic volumes at the 20 year design horizon. Signals are not warranted at this intersection. Lastly, the traffic impact assessment looked at the railway crossing on 58 Street and determined that a grade crossing warning system with flashing lights will be warranted at this intersection. Based on Alberta Transportation's Road/Railway Grade Crossing Guidelines, this grade crossing warning system will be warranted when approximately ten (10) houses within the development are built and occupied. Railway crossing gates will not be warranted even under the forecasted 20 year horizon traffic.

The report also noted that, should the number of trains or traffic volumes on 58 Street increase significantly, further analysis of this crossing may be required. The complete traffic impact assessment can be found in Appendix B of this report.

A secondary / emergency access into the site is along the southern boundary of the pond. It will be a gravelled road used for emergency access in instances where the main entrance is not accessible. The road will be wide enough to manage emergency vehicles. The slopes into the pond are at 7:1 slopes, but the access road itself has a 2% cross-slope. If there is a concern of safety, quardrails along the pond can be placed along the emergency access.

5.2 PEDESTRIAN CIRCULATION AND ACTIVE TRANSPORTATION

10.1.8 The Town will require the development of multi-ways, coordinated walkway and bikeway systems adjacent to collector roads in new residential areas, linking them to recreation areas and facilities. The rights-of-way for these multi-ways shall be provided at the time of subdivision.

Sidewalks have been provided throughout the development to provide pedestrian circulation and active transportation opportunities in the development. This sidewalk extends to the site boundary at 58 Street and will connect with any future sidewalks and pedestrian paths along this roadway. Throughout the development additional connections have been provide for pedestrian, cyclists and other non-vehicular traffic to easily move through the development and access the amenity park spaces provided.

6 UTILITIES

6.1 WATER SERVICING

A 300 mm Polyvinyl Chloride (PVC) water line is to be extended down 58 Street to provide water service to the proposed development. Within the site, waterlines varying in size from 200 mm - 250 mm have already been constructed within the proposed local road allowance to provide municipal water to the development. Plans for future extensions to this water line have been incorporated into this development. The water line will be extended north along the western boundary of the site to provide future looping as per the Town's master plan and stubs have been provided within the road right-of-way to provide connections to the vacant parcels to the west and south of the subject site.

Figure 3: Water Services show the existing and proposed water lines servicing the development. Full detailed design, including as-builts of the existing development, will be provided during the engineering review and approval stage.

6.2 SANITARY SERVICING

The subject site will be serviced by gravity sewers that will connect to a new lift station and sanitary forced main proposed along 58 Street. In reviewing the capacities of the existing sanitary sewer system outlined in table 4.2 from the MPS, we believe that upgrading the sewer from MH 179 to MH 171 to 375 mm diameter would provide sufficient capacity to alleviate the requirement for on-site storage and off-peak discharging from this development. The sewer line will be upgraded to provide sufficient capacity to alleviate the requirement for on-site storage and off-peak discharging from this development.

All sanitary lines within the site have been constructed within the proposed local road allowance. Off-site improvements, including the lift station and extension of the sanitary main down 58 Street, are still required to service the development. Further discussions between the Town and the developer regarding off-site improvements and any related costs will be undertaken during preparation of the Development Agreement. A crossing agreement will be required from CN Rail to extend the sanitary forced main across the railway tracks.

Figure 4: Sanitary Services show the existing and proposed sanitary lines servicing the development. Full detailed design, including as-builts of the existing development, will be provided during the engineering review and approval stage.

6.3 STORMWATER MANAGEMENT

Stormwater will be collected and piped to the stormwater management pond. *Figure 5: Stormwater Services* shows the stormwater management services. At the time this Outline Plan was developed, the majority of the stormwater management system had been developed including grading, catchment basins and pipes to the stormwater pond. Revisions to the configuration of the stormwater management pond have been proposed as part of this Outline Plan to improve the aesthetics of the stormwater pond and bring the design of the pond closer in line with Town standards. A lift station is proposed to pump storm water out of the pond at allowable pre-development rates, maintaining downstream conditions in their current state which in turn would not adversely affect anything downstream any more than it does pre-development. Full information on the stormwater management pond is to be confirmed at the detailed design stage. As-builts of the existing development, will be provided during the engineering review and approval stage.

6.4 SHALLOW UTILITIES

Shallow utility servicing in the form of electricity, gas, cable and telephone will follow the Town of Redwater standards including shallow bury within easements paralleling the road rights-of-way. Service providers are anticipated to be those currently servicing the Town of Redwater.

7 IMPLEMENTATION

7.1 PHASING

8.4.2 A stage of subdivision should provide a supply of lots that could reasonably be expected to be fully developed within a two-year time frame. The size of each stage should be large enough to offer a variety of housing types and to meet anticipated residential demands. All amenities such as parks, landscaping or recreational facilities should be phased along with the construction of the dwelling units.

A significant portion of the infrastructure required for the development was constructed during the first attempt to develop the site in 2008/2009. With the majority of the infrastructure in place, a phasing plan is not required as part of the development. Landscaping and development of the open space will be required as development of this site continues. The implementation process will consist of further planning approvals, including subdivision, development permits and building permit applications. At this time, no redistricting will be pursued on the subject site.

8 OTHER REQUIREMENTS

8.1 ARCHITECTURAL CONTROLS

8.3.5 The town may use architectural control of major developments so as to create an aesthetically pleasing residential environment.

The developer is preparing architectural design guidelines for the proposed development which will be registered on each of the property titles.







