TOWN OF PINCHER CREEK

HILLCREST MEADOWS
AREA STRUCTURE PLAN

- June 2017 -

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1) Purpose

Hillcrest Meadows Area Structure Plan has been produced in accordance with Section 633 of the Municipal Government Act to create a framework for the future subdivision and development of a new neighbourhood in northwestern Pincher Creek. It is thus intended that the plan identify and provide for a range of development opportunities on previously undeveloped land.

2) Location, Area & Ownership

a) Location

The site comprises a total of 17.76 ha (42.8 acres) in the northwest area of Pincher Creek. It is bound on the south by the coulees, creek, and then the Town. To the north is the existing residential development known as North Hill. The westerly boundary is adjacent to existing single family units on a large lot development with a very hilly site. The existing MR (Municipal Reserve) site is surrounded on the north and east by existing single family housing development. See Figure 1 - ASP Location.

b) Ownership

The site consists of 2 parcels of privately owned land and one MR site containing 1.75 ha (4.3 acres) that is owned by the Town of Pincher Creek. All of the privately owned parcels are owned by Beverley Holdings Ltd. and in total contain 16.01 ha (39.6 acres). Figure 2 - Land Ownership Map; illustrates the Land Ownership and Appendix 1 - Land Titles Certificates; contains copies of the relevant titles.

3) Area Structure Plan Goal

The Goal of the Hillcrest Meadows Area Structure Plan is to establish a strategic framework that will enable the development of a neighbourhood of enduring quality and will complement the existing neighbourhoods.

4) Area Structure Plan Objectives

Hillcrest Meadows Area Structure Plan will respond to the needs, issues and requirements identified by Beverly Holdings Ltd., the Town of Pincher Creek and those agencies, organizations, neighbours, and individuals having an interest in the planning of this area. The subdivision will evolve over a period of time to become a fully integrated neighbourhood within Pincher Creek.

To facilitate neighbourhood integration, this Area Structure Plan will endeavour to:

- guide the natural land to urban development transition in an orderly and economical manner;
- mesh the development pattern and circulation system with that of surrounding, existing development;
- incorporate compatible land uses;
- establish the supporting internal transportation network and public utilities; institute a storm water management system that responds to both public utility and amenity functions;
- provide a fully developed open space that will complement the new development as well as the surrounding existing development;
- create a distinctive residential neighbourhood by establishing design themes and development standards, implemented through architectural controls and the land use bylaw;
- propose a development phasing system;

5) Existing Conditions & Development Considerations

a) Site Evaluation

Currently, a majority of the site is undeveloped natural prairie and coulee land which borders existing residential communities to the North, East, and West, and Pincher Creek valley to the South. No development has occurred on the site to date. The site is presently covered with natural prairie grasses throughout the development area, with some small trees and bushes along the valley slopes.

i) Topography

The natural topography of the development area has not been altered and no previous development has occurred on the site. The development area at prairie level generally slopes from West to East at an average slope of two or three percent, and changes approximately ten metres in elevation from Geodetic Elevation 1060m to 1050m. The South boundary of the development area borders the top of bank of the Pincher Creek valley. The height of the valley bordering the development area varies from sixteen metres to twenty-three metres. The topography is illustrated in Figure 3 - Existing Contour Plan.

ii) Slope Stability

Slope Stability Assessment Reports have been completed by EBA Engineering Consultants. Ltd. (EBA) for the development area. Three Assessment Reports have been issued by EBA for the site, which include a 2004 study for the slopes, a 2013 Assessment of current conditions, and a 2016 summary letter. A Development Setback Line has been established through the recommendations of the EBA Reports. Additionally the Town of Pincher Creek has a by-law requiring a 30 metre setback for the top of bank. The ASP will further address the issue of slope stability and setbacks. Slope Stability Assessment Reports are included in Appendix 2.

iii) Irrigation Works

The existing site is a dry land natural prairie and no irrigation works exist on the site.

iv) Other Utilities

Several other public utility installations such as storm sewer, sanitary sewer, and water and other features are situated on or near the plan area that will provide service connections or otherwise influence site development.

(1) Electrical distribution

Electrical distribution in the area is supplied by Fortis Alberta Inc. with underground power constructed along the northern, eastern and western edges of the development area.

(2) Communications

Telephone, cable and internet utilities are provided by Shaw Cable and Telus with underground cable constructed along the northern, eastern and western edges of the development area.

(3) Natural gas

Natural gas distribution is provided by AltaGas with underground pipelines constructed along the northern, eastern and western edges of the development area.

v) Roadways and Access

Presently, Tumbleweed Avenue, a collector roadway extends east-west along the north boundary of the development.

Crocus Street runs north-south opposite the easterly boundary of Hillcrest Meadows with a Town lane directly along the easterly boundary.

Highway 507, an arterial roadway runs east-west about 200 metres north of Hillcrest Meadows, Highway 507 and its access off of the Highway provide access to the centre of Town; north to Highway 3 and to Highway 6 heading south.

b) Adjacent Residential Development

Existing houses exist along both the east and west sides of Crocus Street. Existing lots on the east side are bounded at the rear by a Town lane then the existing MR site.

Houses are also along the southern side of Tumbleweed Avenue from Crocus Street to the west end of the MR site which directly abuts the rear of these lots.

The north side of Tumbleweed Avenue has houses from Crocus Street to just past the western side of Briar Road.

The west boundary of Hillcrest Meadows is bound by a group of large lot homes built on steeper slopes.

c) Natural Features

The major natural feature affecting this site is the northern coulees of the Pincher Creek Valley and the magnificent views afforded by the Town and the mountains and foothills in the distance to the south and west.

6) Planning Context

a) Town of Pincher Creek Municipal Development Plan (MDP)

In addition to the requirements of the Municipal Government Act, this Area Structure Plan has considered the Town of Pincher Creek Municipal Development Plan and incorporated those applicable features or requirements that pertain to the long-range, detailed planning and design of the Hillcrest Meadows development area.

Among those features of the Pincher Creek MDP that have been included are the following;

- direction of community growth in accordance with Policy 4.1
- Area Structure Plan requirements in accordance with Policies 4.6, 4.7, and 4.8
- infrastructure growth in accordance with Policies 4.3 and 4.5
- impact on existing development in accordance with Policy 4.2
- compliance with existing plans and by-laws in accordance with Policy 5.1
- design diversity into subdivision in accordance with Policy 5.4
- economical extension of existing services in accordance with Policy 5.5
- infrastructure servicing by Developer in accordance with Policies 5.8 and 10.2
- well planned and developed green parks in accordance with Policy 8.1
- hierarchical road pattern in accordance with Policy 9.1
- sustainable storm water management in accordance with Policy 10.6

b) Level of Planning Detail

In the preparation of an Area Structure Plan, The Town of Pincher Creek requires a level of detail that will enable Town staff and its planning and engineering advisors to evaluate the proposal as if it were at a detailed "Outline Plan" level. At this level of planning, the transportation circulation system together with the servicing planning for storm water management, sanitary sewer collection, and water distribution is well advanced. There may be changes required in the layout or servicing that come to light during the detailed design process. This ASP permits Town staff to approve these changes without amending the ASP.

7) Land Use Concept

The Land Use Concept described below is graphically illustrated on Figure 4 - Land Use Concept.

a) Overview Of Proposed Land Uses

i) Environmental Reserve and Setbacks

There are approximately 5.64 ha (13.9 acres) of land that will be dedicated as Environmental Reserve. This land consists of the coulee slopes as well as a piece of land running along the top of the coulees. This land varies in width between 30 metres and 8 metres from the top of bank. The 30 metre setback

runs basically along the south boundary of the lots when the coulees are at their steepest. The 8 metre setback is in the NW corner of the lots where the slopes are quite shallow. These setbacks are in accordance with the recommendations of the EBA Slope Stability Report. Town bylaws require a setback of 30 metres and a Town waiver is required for the 8 metre setbacks.

As noted in the EBA Slope Stability Report; there is some slumping on the coulees in the SE portion of the development. The design and policies of the ASP are such that further sloughing will be mitigated. In the area of the sloughing there are not lots backing onto the coulees, eliminating the addition of water into the slopes by lawn watering. The roadway has been placed outside the 30 mete setback further pushing the front row of lots further from the top of bank. Any runoff from the lots will now be collected in the roadway and drained into the storm water management system. Additionally drainage pipe will be placed on both sides of the road to collect subsurface runoff that may enter the base gravel of the road.

In the current natural state of the properties approximately 68,800 square metres of land drain directly to the coulee at the point where the slumping is occurring. The grading design and storm water management system has eliminated much of this flow such that only the 30 metre setback is draining over the coulee edge at the location of the slump. This amounts to about 16,900 square metres of land. In other areas there will be swales constructed to divert water away from the coulees. See Figure 13 - Drainage Patterns. Some lots will have a small portion of their back yards draining over the coulees, which will not have a negative effect as it will be less water than is naturally flowing into the coulees and the locations are where the slopes are less steep. This plan does not envision any grading or planting along the slope in the area of the sloughing as it is felt this will not reduce the sloughing but may increase it by disturbing the existing surface and vegetation.

The Environmental Easement that is placed against the title of this land will protect the slopes and vegetation therein for many, many years to come.

In order that lot purchasers are aware that they are building adjacent to the slopes and to make them aware that there is a slope stability assessment completed that addresses issues related to the slopes, caveats will be place on titles of all lots directly adjacent to the slopes.

ii) Residential Development

(1) Housing demand

We have been unable to obtain accurate figures for annual housing construction in Pincher Creek. Based on discussions with various people; we estimate that there are between 10 and 20 dwelling units constructed per year. Within the development area, Hillcrest Meadows has the land base to help satisfy housing needs in Pincher Creek. Future new home construction will be subject to a variety of factors. Demographic change will influence both the number of dwelling units and the number of persons per dwelling unit as the seniors' population increases, for example. Low interest rates and other economic factors including new job creation, in and around the community, can be expected to continue to influence the residential market in Pincher Creek. Marketing of the Town as the centre of outdoor recreational activity for the region should also increase the housing demand for people from Calgary.

Hillcrest Meadows will be designed to respond to the housing needs of both current and future Pincher Creek citizens. Other than one small mutli-family site, single detached dwellings will be the only housing type in Hillcrest Meadows. Based on potential subdivision layouts, Hillcrest Meadows would create about 78 dwelling units. The gross housing density of the development area would thus be approximately 4.4 units per hectare or about 1.8 units per acre. Based on an average of 3.0 persons per dwelling unit, the population that could be accommodated in the development area would be in the range of 234 people. Once Environmental Reserve, Area B, and open space are factored in, the net density would be about 34 people per ha. (14 people per acre) and 11.4 units per ha. (4.5 units per acre).

The development potential for Area B has not been proved yet and for this reason Area B has been excluded from lot counts and density calculations.

(2) Neighbourhood Character

Low density, single dwelling unit development will predominate within the development area. Provision has been made for future, possible large lots on the westerly 3.36 ha (8.3 acres) of the plan area, identified as Area B. The centrally developed park has easy access from all new homes in the neighbourhood as well as existing neighbours.

(3) Lot Types

The relatively small size of the plan area and the roadway layout restricts our ability to have a larger variety of housing types. The fantastic view and the presence of the park provide an

opportunity to have some variety in lot types, as does Area B where it may be possible to include very large lots. See Figure 5 - Lot Layout.

(a) View Lots

Lot sizes are larger than normal thus allowing for larger homes. Lot depths will be in the range about 40 metres while widths will be about 16 to 18 metres. The Architectural Controls will require building types, sizes, and materials to ensure the advantage of the lots are maximized. These lots are along the south and west of Ken Thornton Boulevard and backing onto the west and south boundary of the park.

(b) Standard Lots

Standard lots would fall into the Residential R1 District of the Town's Land Use Bylaw. Within the development area, these lots are intended to be about 37 metres deep and between 15 and 19 metres wide. Lot size waivers may be required for some cul-de-sac lots and the lot on Ken Thornton Boulevard on the east side of the new lane (Lot 1, Block 17).

(c) Multi-family

One multi-family site of 0.35 ha. (0.9 acres) is proposed south of the church in the SE corner of ASP. Due to the size and configuration of the lot it is planned to extend the lot boundary about 3 metres into the setback zone with no building allowed in this 3 metre area. This would allow the actual building to be constructed up to the 30 metre setback line. The density of the site will be determined at the time of zoning since the size and shape of the parcel requires some pre-design to determine the footprint of the building that will fit on the site. Lot dimensions are provided on Figure 5 – Lot Layout.

(d) Area B – Large Lots

The potential for future subdivision into 0.25 ha and larger lots exists in what we call Area B. These lots are proposed on the steeper slopes at the west end of the ASP area. These lots would be similar to the existing lots developed further west on the steeper slopes.

A detailed study of slope stability and serviceability with water, storm, and sanitary has not been undertaken at this time. Thus a requirement prior to consideration of any development in Area B would be a detailed slope stability study and a detailed servicing plan satisfactory to

the Town of Pincher Creek. If development is not feasible on this site it is recommended that it revert to Environmental Easement.

We have made allowance for possible access through Area B and have shown a potential future roadway connecting to the existing subdivision west of Area B.

The development potential for Area B has not been proved at this time and for this reason Area B has been excluded from lot counts and density calculations.

(4) Parks and Walkways

The existing MR parcel containing 1.75 ha. (4.3 acres) is owned by the Town and currently lies in its natural state. The land will remain as parkland together with walkways and other extensions to the parcel resulting in a total park area of 1.92 ha. (4.7 acres). This parkland will serve as a dry storage pond for storm water and as a developed park. The details of the storm water storage are contained within Appendix 3 in the Storm Water Management report. From the park perspective it is designed such that there are numerous walkways leading into the park enabling easy access for residents of this development as well as the existing housing in the area. The park will contain irrigated turf grass, trees, and shrubs as well as a paved pathway through the park. Although the park has not yet been designed, a concept plan is included as Figure 14 - Park Concept.

Due to phasing of the development it is envisioned that the park will be constructed in two or three phases depending on the rate of lot sales and development.

The Developer of the property is required to either provide 10% of the land as park or pay 10% of the value of the land to the Town for future use in parks. In lieu of either of the above; the Developer will pay the full cost of developing the park as described.

iii) Architectural Control

Architectural controls that are intended to provide a set of rules to ensure a reasonably high quality development will be utilized in the Hillcrest Meadows development area and to ensure an appropriate level of housing design compatibility. Architectural controls may vary to some extent depending on the location within the development area and will be registered on lot land titles by the Developer. Architectural control will be administered by the developer or his designate.

Typically the controls that will be in effect within Hillcrest Meadows include the following:

- Minimum dwelling unit area and site coverage (building footprint)
- Diversity in home design
- Incorporation of energy efficiency features
- Roof pitch & materials
- Exterior finishing materials
- Fencing materials
- Minimum landscaping requirements

The developer may undertake construction of certain stretches of fencing or installation of certain aspects of landscaping to establish the character of the development.

b) General Servicing Concept & Phasing

i) Transportation

Access in to the proposed development area will be on Crocus Street and Tumbleweed Ave. The extension of Crocus Street will extend westerly and northerly to the intersection of Livingston Way and Tumbleweed Avenue. Two cul-de-sacs will connect to the extension of Crocus Street. Roads will be built to local standards with sidewalks on both sides. Refer to Figure 6 - Road Layout.

ii) Sanitary Sewage Collection

The following section is a general description of the sanitary sewage collection system. The system is illustrated in Figure 8 - Sanitary Sewer System.

Sewage generated within the development area will be collected in pipelines that will connect with the existing 200 mm sanitary sewers along Tumbleweed Ave. and Crocus St.. Sewer lines will normally be 200 mm in diameter. This collection system will follow the road network and rely on gravity flow, and has been sized to accommodate the levels of service required within the development area to the Alberta Environment and the Town of Pincher Creek standards.

Foundation drainage connections to the sanitary sewer are prohibited by the Town of Pincher Creek.

iii) Water Supply And Distribution System

The following section is a general description of the water supply and distribution system. This system is illustrated on Figure 7 - Water Distribution.

Domestic water supply will be supplied by the Town of Pincher Creek with a distribution pipe network located in the roadways. Water distribution pipes will be 200mm and connect to the existing 200mm waterlines at Tumbleweed Ave. and Crocus St.. The water distribution system will accommodate the levels of service required with Alberta Environment and the Town of Pincher Creek standards.

iv) Storm Water Management System

The following section is a general description of the storm water management system. The system is illustrated in Figure 9 and Figure 10. The Grading Plan shows overland drainage paths and surface slopes as shown in Figure 11 – Site Grading Plan. The Storm Water Management Plan, prepared by Martin Geomatic Consultants Ltd. (June, 2017) is attached in Appendix 3.

The Hillcrest Meadows subdivision will include a multi-use dry pond / park located in the MR land which will detain the runoff on-site and release to the Town system as downstream conditions allow. The function of the dry pond is to temporarily store stormwater and provide flow attenuation by restricting the discharge. A gravity outlet pipe will drain the pond northeasterly through the lane and connect to the existing Town storm sewer at Crocus Street and Tumbleweed Avenue. From this connection point, the Town's existing storm system flows north and east via underground pipes and ditches to the Pincher Creek Northeast wetlands SWMF and ultimately discharges to the Pincher Creek.

Foundation drains will be provided for each lot and connected to the storm sewers in the roadways, to allow for sump pumps in the basements of the new houses. The stormwater management system will accommodate the levels of service required with Alberta Environment and the Town of Pincher Creek standards.

v) Shallow Utilities

Shallow utilities, including electrical services, natural gas, telephone and cable required to service Hillcrest Meadows will be extended into the development area in consultation with the respective utility companies. These utility rights-of-way will be required for all shallow utilities and will not be within road rights-of-way. Details will be determined at the subdivision stage.

c) Sidewalks, Street Lighting and Road Standards

Together with street lighting, sidewalks are intended to be provided throughout Hillcrest Meadows. Cross-sections that indicate locations, widths, depths of the appropriate features are to follow the applicable Municipal and Provincial Standards.

d) Potential Staging

The following section is a general description of the development staging plan. This staging plan is illustrated in Figure 12 – Development Phasing.

Hillcrest Meadows will be staged in a series of subdivisions in response to market conditions. Since build-out is expected to take several years, the timing and phasing of development will be very important so as to be as economical as possible. From an infrastructure servicing perspective the following sequence of development is anticipated, with the final number of lots in each phase to be adjusted for market conditions.

The first phase includes an extension to the Crocus Street roadway and utilities to allow for servicing of 2 lots (one single family and one multi family) to address current market demands. Development has already commenced in the vicinity of the north half of the development area in the North Hill subdivision. Lots facing Tumbleweed Ave. in Hillcrest Meadows could be serviced with minimal effort and will be the second phase of development. The third phase includes a cul-de-sac and partial construction of the pond. The fourth phase will include the Crocus St. connection at the east end of the site, and completion of the dry pond. The fifth and sixth phases will complete the development with joining both ends of Corcus Street and building the second cul-de-sac.

e) Community Mailbox Locations

Community mailboxes will be distributed throughout the development area as required by and in consultation with Canada Post.

f) Consultation Process

i) Public Open House

An open house will be held with immediate neighbors after first reading and prior to the public open house in order to inform the neighbors about the plan and to answer any questions that they may have.

ii) Town Council Meeting

An in camera Council meeting with the Committee of the Whole was held at the Pincher Creek Town Hall on the morning of July 06, 2016. As part of an ongoing planning process, this meeting was an opportunity for Martin Geomatic Consultants Ltd. (on behalf of Mr. Thornton) to seek input from Town Council. MGCL presented concept plans to Council which included proposed lot layout, countour and air photo maps, and existing and proposed drainage conditions. The Oldman River Regional Services Commission (ORRSC) was also in attendance and the overall impression of the plan was positive.

iii) Town Administration, Planning and Engineering Advisors

Several meetings were held with Town of Pincher Creek administration together with staff from the Oldman River Regional Service Commission, the Town's planning advisors. These meetings were productive and greatly enhanced the context and content of the area structure plan.

Appendix 1

LAND TITLE CERTIFICATES

Appendix 2

GEOTECHNICAL REPORTS

Appendix 3

STORMWATER MANAGEMENT PLAN

Maps