REPORT

PREPARED FOR TOWN OF BLACK DIAMOND

KAISER AREA STRUCTURE PLAN

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1.0 INTRODUCTION

1.1 Background

The Plan area for the Kaiser Area Structure Plan (ASP) comprises approximately 42.4 ha (104.8 acres) of land at the southeastern boundary of the Town of Black Diamond. See **Figure 1 – Location Map**.

The Canadian Pacific Railway Company was the first registered owner of the subject lands. In 1912, Stephen Kaiser obtained title to the NW1/4 of 9-20-2 W5M. Stephen and Frank Kaiser constructed one of the first houses in Black Diamond. In these early days, the Kaiser house functioned not only as a home but also as a mail drop-off point for Black Diamond miners, and as an outlet for "staple" groceries.

There were a number of development proposals that precipitated the first Kaiser Area Structure Plan in 1992:

- November, 1975 – an Outline Plan and Tentative Plan of Subdivision were approved in principle. 31 lots along Parkview Crescent and Parkview Place were registered and developed;
- November, 1976 – an Outline Plan proposing the creation of 237 residential lots in the southern half of the Plan area was approved in principle;
- May, 1980 – the Town of Black Diamond adopted a General Municipal Plan which identified the future land uses for the Plan area as 'Residential' and 'Parks and Open Space;'
- May, 1980 – an Outline Plan and Tentative Plan were approved. Residential lots along Maplewood Drive and Maplewood Place were registered and developed;
- April-June, 1990 – a number of Tentative Plans of Subdivision for privately held lands located in the northern portion of the Plan area were approved. A number of large 'acreage' lots were created. Subsequently, a number of single detached dwelling units, serviced by private sewage and water systems, were developed.
- October, 1991 – the Town of Black Diamond purchased 21.72 ha (53.65 ac) of land from the Alberta Mortgage and Housing Corporation.
- May, 1992 – a Tentative Plan of Subdivision for 26 fully serviced residential lots was approved for lands located in the southwest corner of the Plan area (immediately adjacent to Maplewood Drive).

In 1992, an Area Structure Plan was completed for the subject lands. Since then, a number of new development proposals and speculation have resulted in significant amendments to the original plan. The amendments included a change to the road network to remove the laneways, increase density, and to provide commercial development. Many of these amendments significantly changed the intent and direction of the plan. As a result, it was no longer possible to selectively enforce parts of the ASP, and not others.

Therefore, the intent of the updated Kaiser ASP is to provide guiding goals and policy for future development that incorporates changing trends in planning and development. It is the objective of this plan that both the Town and future development will be able to implement the intent of the policies and land uses outlined in the plan.

1.2 Purpose and Objectives

The Kaiser Area Structure Plan (ASP) is a long-term policy document that provides land use and servicing policy direction that will guide the future development of the neighbourhood in the southeast of Black Diamond. The ASP provides guidelines for future development by outlining what types, sizes, intensity of development that can be located in the Plan area, the estimated layout of an open space network, and, importantly, outline the community's

vision for neighbourhood, environmental, and social elements of sustainability. ASP documents are important guideposts for community members to understand the types of development they can expect in their community, as well as for the municipality to set their expectations in dealing with developers and builders. Well-structured ASPs will offer coordinated phasing to maximize existing services, land uses, and resources. The servicing estimates, in particular, are important for the municipality to ensure that its investment and development of the land contributes to a strong financial future for the municipality and the community members it serves.

Municipalities derive the legal authority, right and responsibility to create Area Structure Plans from Section 633 of the Municipal Government Act (MGA). The MGA states that Area Structure Plans are developed:

"For the purpose of providing a framework for subsequent subdivision and development of an area of land, a council may by bylaw adopt an area structure plan."

An area structure plan

a. Must describe:
    i. The sequence of development proposed for the area,
    ii. The land uses proposed for the area, either generally or with respect to specific parts of the area,
    iii. The density of population proposed for the area either generally or with respect to specific parts of the area, and
    iv. The general location of major transportation routes and public utilities,
b. May contain any other matters the council considers necessary.

The Kaiser ASP sets out the land use and technical policies to regulate the detailed planning and implementation stages.

The overarching objectives of the ASP are to:

- Provide a planning and policy framework for future development of the Plan area;
- Outline development standards and requirements to ensure responsible future growth;
- Recommend a subdivision and land use concept for the Plan area;
- Recommend a transportation network for the Plan area;
- Recommend an open space network for the Plan area;
- Identify infrastructure necessary to support the Land Use Concept;
- Provide a roadmap for implementing the plan over an anticipated 20-year planning horizon, as determined by property market forces.

1.3 Interpretation

1.3.1 General Interpretation

The policies contained in the Kaiser Area Structure Plan utilize or make reference to a number of terms and phrases. The following interpretations shall be used:

"Shall" is an operative word which means mandatory compliance; the action is obligatory.

"Should" is an operative word which means compliance in principle but is subject to the discretion of the approving authority or Council in situations where compliance is impractical or undesirable. It is strongly advised, however, that the action be taken.

"May" is an operative word which means that a choice is available; no particular guidance or direction is intended.

"Plan" means the Kaiser Area Structure Plan.

"Plan area" means the area indicated in **Figure 1 – Location Map** of this Plan.

"Intermunicipal Development Plan (IMDP)" means the M.D. of Foothills, Town of Black Diamond and Town of Turner Valley Intermunicipal Plan adopted by Bylaw No. 02-05 and amendments thereto, or any succeeding Intermunicipal Development Plan adopted by the Town.

"Municipal Development Plan (MDP)" means the Town of Black Diamond Municipal Development Plan adopted by Bylaw No. 01-14 and amendments thereto, or any succeeding Municipal Development Plan adopted by the Town.

"Land Use Bylaw (LUB)" means the Town of Black Diamond Land Use Bylaw No. 98-14 and amendments thereto, or any succeeding Land Use Bylaw adopted by the Town.

1.3.2 Definitions

"Attached Housing**"** means a building designed and built to contain three or more dwelling units separated from each other by a fire rated wall, with each unit having a separate entrance from grade level. This shall include linked, row and townhouse developments.

"Clustered Small-lot Development**"** means development consisting of single-detached dwellings sited on smaller lots, located on a portion of the total available land. Typically, the remaining land is converted to open space and is shared by residents of the development.

"Duplex**"** means a building divided horizontally into two (2) dwelling units, each of which has an independent entrance, either directly or through a common vestibule.

"Fourplex" means a separate building containing only four (4) dwelling units which are divided vertically and horizontally into four parts, with each unit having direct access to the ground floor.

"Low Rise Multi-Residential Building" means a building up to 4 storeys high with multiple units stacked vertically, and shared interior corridors, vertical circulation and entrances. Typically units are located on both sides of a corridor (double-loaded) and, sometimes, only on one side of a corridor (single-loaded).

"Net Developable Acre" means the area of land available for development. This does not include environmental reserve lands or existing development that will remain.

"Row Housing" means development consisting of a building containing a row of three or more dwellings joined in whole or in part at the side only, with no dwelling being placed over another in whole or in part. Each dwelling shall be separated from the one adjoining, where they are adjoining, by a vertical party wall which is insulated against sound transmission. Each dwelling shall have separate, individual, and direct access to grade. Also defined as "attached housing".

"Semi-Detached Dwelling" means development consisting of a building containing only one dwelling unit, which is separate from any other dwelling or building. This use class does not include manufactured homes. Relocated single family dwellings are not included in this use class definition unless otherwise allowed in a district

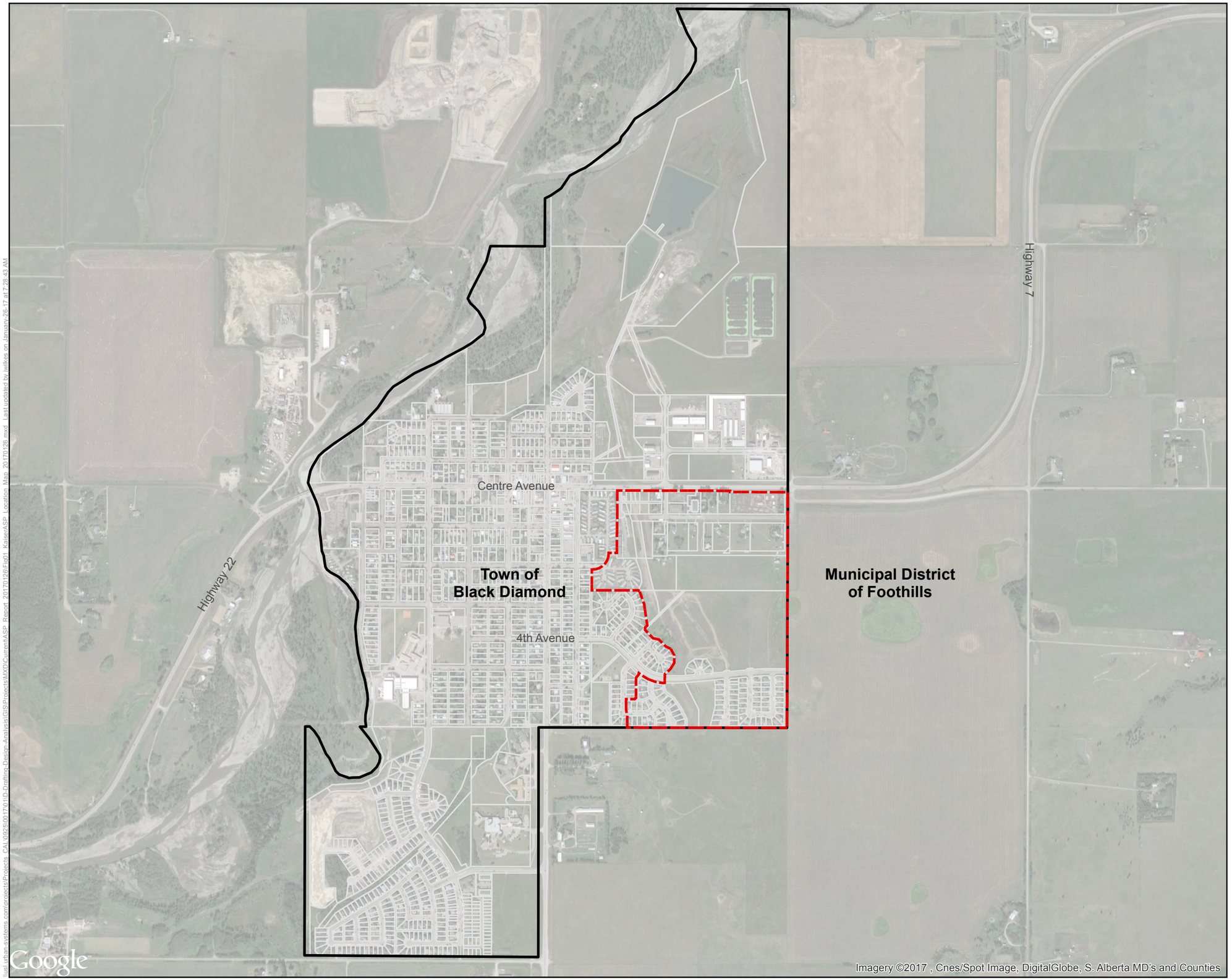
"Seniors/Assisted Living Lodges" means a development consisting of a building containing sleeping units, where lodging or sleeping accommodation with or without meals is provided for remuneration. Typical uses include housing and lodges for senior citizens. The lodging house may include lounge, dining, health care and recreation facilities and accommodation for caregivers. Seniors Lodging House, senior citizen homes, extended health care facilities for seniors, senior health care facilities have corresponding meanings.

"Single-Detached Dwelling" means a building designed and built to contain two side by side dwelling units, of which the common wall is separated by a fire rated party wall extending from the foundation to the roof and a length of not less than 6 metres (20 ft.). With attached garages, the common wall between the living space and the individual unit's garage space must be no less than 50 % of the common wall.

"Street-Oriented Row Housing" means a townhouse designed with direct access to the street, without a front-drive garage.

"Triplex" means a separate building containing only three (3) dwelling units, each of which has direct access to the ground floor.

Figure 1 – Location Map



Town of Black Diamond

Kaiser ASP

Location Map

Legend

- Legal/Cadastral
- Kaiser ASP Boundary
- Town of Black Diamond

200 100 0 200 400

Metres

Coordinate System:
NAD 1983 3TM 114

Scale:
1:12,500

Data Sources:
- Data provided by the Town of Black Diamond

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FIGURE 1

2.0 COMMUNITY CONTEXT

2.1 Location and Land Ownership

The Plan area is located in southeast Black Diamond, as highlighted in **Figure *1* – Location Map**.

The Kaiser ASP lands consist of 42.4 ha (104.8 ac.) of land. The Plan area is bound by Highway 7/Centre Avenue to the north, existing residential development to the west, existing residential development and the Town boundary to the south and east as the edges of the quarter section.

The Plan and the majority of parcels within the Plan area are privately held, with a portion of lands at the western edge of the Plan area owned by the Town of Black Diamond. In the northern half of the Plan areas, ownership is fractured and distributed amongst a number of landowners. These parcels consist of large acreages or vacant undeveloped lands. In the southern half of the Plan area, one landowner controls the balance of the lands. The Plan area hosts community members recreating on the walking paths provided

As one of the last remaining large, partially undeveloped land within the Town of Black Diamond, and with adjacency and access to Highway 7 to the north, the Kaiser lands are attractive for development/redevelopment. However, due to the small size of the Town, and the traditionally moderate pace of new development/growth, the Kaiser lands represent a significant portion of land for the Town. Developing the Kaiser area as suggested in the ASP has the potential to significantly change the character of Black Diamond. Thus all involved need to be mindful of ensuring that future development is of a high quality, follows the goals outlined in the Plan, and enhances the existing character and community oriented services that exist in the Town currently.

2.2 Existing Development and Uses

The majority of the Plan area (as shown in Figure 1), is vacant open space that is designated as Urban Reserve (UR) District. This land use designation signals a municipality's intent to develop the lands in the future. Existing development consists primarily of some higher density residential and commercial uses in the north adjacent to Highway 7/Centre Avenue, acreage residential development in the remaining northern portion, and a modern subdivision at the south end of the Plan.

The existing development adjacent to Highway 7/Centre Avenue consists of several 4-5 storey apartment units, as well as a commercial lot that hosts a fire wood and raw lumber business. There is an affordable housing complex in the northwest part of the Plan area. Several properties along Highway 7 currently have a single detached dwelling but are designated for higher density 4 storey development. This diversity of land uses reflects the access provided by Highway 7, but poses planning challenges related to ensuring that transportation, pedestrian and servicing infrastructure is provided to meet community member standards.

Along 1st Avenue SE and to the south there are large residential parcels on which 25 year old houses are situated. These properties are not serviced, and range in size from 1-3 acres. In general, residents are elderly, express desire to stay in Black Diamond, but many are also open to either selling or subdividing their property. This interest in development and its adjacency to existing higher density development to the north contributed to the land use designation and residential vision for this part of the Plan area. Because of the fragmented nature of the ownership in this area of the Plan, phasing and adherence to the future land use goals in the Plan area will be essential.

The western edge of the site consists of open space and some recreational trails adjacent to the natural ravine and watercourse. At the south of the Plan area south of 4th Avenue SE there are two existing residential subdivisions with average sided houses built in the 1990s. These lands are designated Single Detached Residential (R-1) and Restricted Low Density Residential (R-1A).

2.3 Topography

The Plan area lands are gently sloping from the northeast to southwest. Spot elevations vary from 1192 m in the northeast corner to 1179.3 m at the western Plan boundary – just south of 2nd Ave. SE. The most significant natural feature is a watercourse which runs in a northerly direction, close to the western boundary of the Plan area (see Figure 2 – Site Conditions). Significant slopes exist on the east side of the watercourse in the north half of the Plan area.

2.4 Soil Classification

Some parcels within the Plan area that were developed prior to water servicing may have buried cisterns and/or septic tanks and fields and some parcels, such as those in the northeast portion of the Plan area, may still rely on such systems, representing underground hazards. Septic systems may have long term impacts to soil, potentially increasing salinity and introducing metal contaminants.

In July 1992 a shallow subsoil investigation was conducted in the area south of 4th Avenue SE, east of Maplewood Drive and west of the drainage channel. The results of this investigation indicated that in this location of the Plan area, a high plastic clay soil was present between the depths of 0.5 m to 2.8 m. This soil type was noted as having a high swelling pressure potential. It was also noted that standard spread footings, commonly used as part of building foundations, could not be expected to function properly when constructed on such soils. The likely cause of swelling is the interaction of hydrated sodium with the type of clays in Alberta when they become saturated.

2.5 Utilities/Road Allowances

A 150 mm (6") natural gas line, operated by Canadian Western Natural Gas, runs diagonally across the northwest portion of the Town owned lands, and then runs due east along the northern boundary of the Town owned parcel, as indicated in **Figure *2* – Site Conditions**. This pipeline is located approximately 1 m (3') below grade.

Sanitary underground infrastructure in the Plan area consists of two gravity main alignments running north through the Plan area, as shown on **Figure *2* – Site Conditions**. There are existing sanitary and water utilities within portions of 1st Avenue and 3rd Street SE for servicing of the properties, west of 3rd Street SE and the property in the NW corner of 1 Avenue and 3rd Street SE.

There are also some existing road allowances that were registered for future road extensions. These road allowances were taken into consideration when preparing a revised plan for the Kaiser Area.

2.6 Environmental Site Assessment – Phase 1

A Phase 1 Environmental Site Assessment was conducted on behalf of the Town of Black Diamond of a portion of the quarter section, NW-9-20-2-W5, Black Diamond, AB. This portion covers an area of 42.4 ha and consisted of approximately 127 parcels plus numerous road plans. The 2016 Phase 1 ESA Report outlines the detailed analysis

and recommendations. Areas of potential environmental concern are classified with low risk and include the following:

- septic tanks or fields;
- waterwells (24 in the Plan area);
- previous cultivated open fields;
- parcels with old buildings and structures built prior to 1980;
- Canadian Western Natural Gas Company Ltd. pipeline right of way;
- piles on margins of open fields.

Based on the review of information collected for the Phase 1 ESA, no additional investigation is recommended for the short-term but will be required at land use re-designation and when noted elements of concern are encountered. This may take the form of surficial sampling of soils for salinity and metals where septic fields may have been used. Salinity problems and expanding-type clay soils in the long-time agricultural area can also be determined through surficial soil sampling and testing; their presence may have implications for construction. Properties with older buildings and structures may require hazardous materials survey and testing of building construction materials and items.

2.7 Wetland Assessment

The desktop wetland inventory was conducted using available data from Alberta Environment and Parks (AEP), Ducks Unlimited Canada, and other free sources. The constraints analysis takes into consideration the 2001 Town of Black Diamond Municipal Development Plan (MDP; Bylaw Number 01-14), the 2002 MD of Foothills/Town of Black Diamond/Town of Turner Valley Intermunicipal Development Plan (IDP; Bylaw Number 02-05), the 2014 Alberta Wetland Policy, and the provincial *Water Act.*

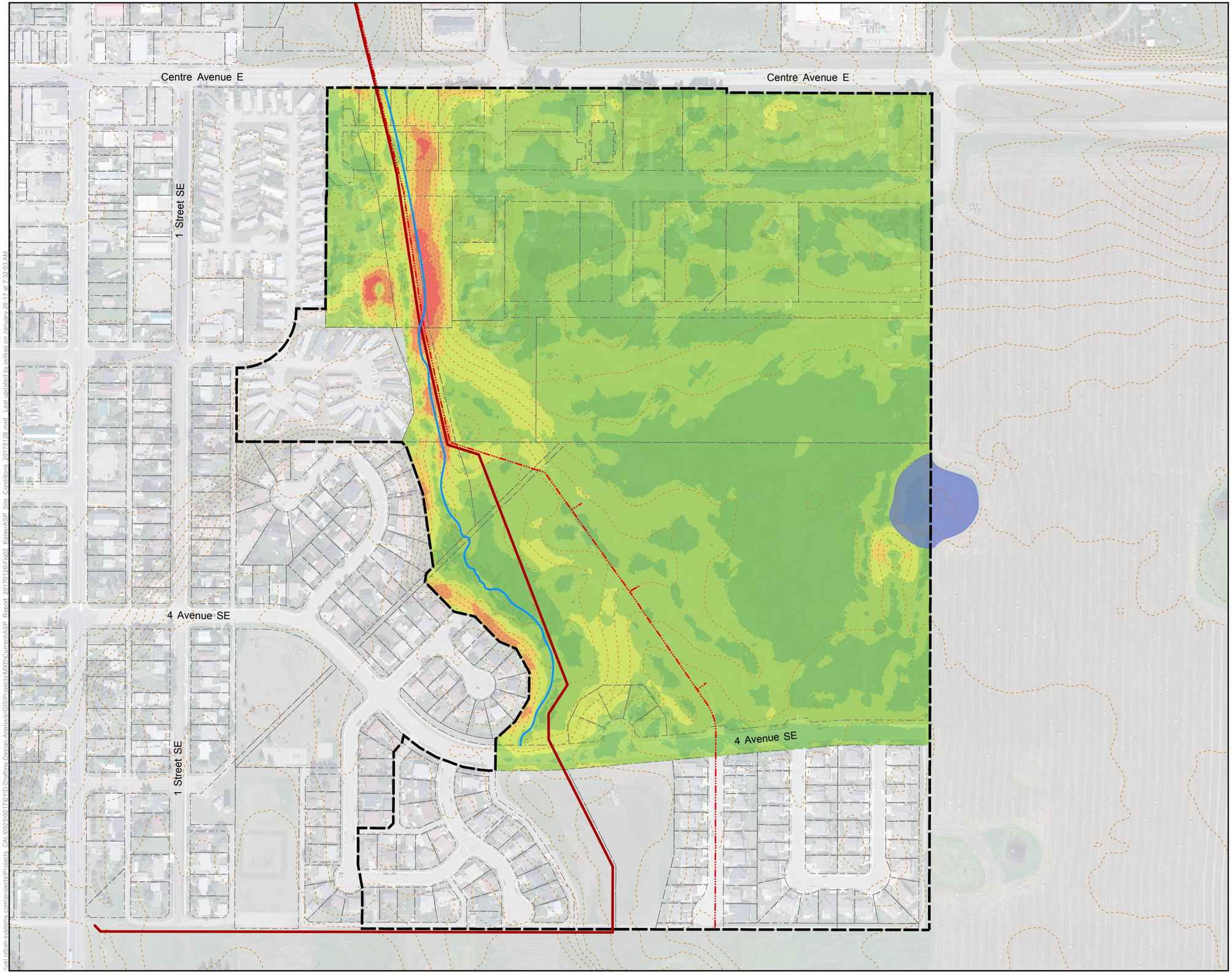
Figure *2* – Site Conditions illustrates the results of the desktop wetland inventory work. One wetland is identified on the east boundary of the ASP area. This wetland is classified as a temporary graminoid marsh (AWCS) or Class II (S&K) wetland with a total surface area estimated at 0.52 ha. Approximately 0.26 ha of the wetland occurs within the ASP area with the remainder occurring on the neighbouring property to the east. This wetland is to be protected.

There is a small area in the centre of the property that shows a change in vegetation due to either the presence of water (wetland) or anthropogenic ground disturbance. Future wetland work including field surveys will confirm wetland presence.

A mapped watercourse flows generally south to north for approximately 1 km along the west boundary of the Kaiser area. The watercourse is identified in previous iterations of the Kaiser ASP and development setbacks are incorporated into the concept and associated policy.

The 2001 MDP and 2002 IDP encourage identifying and evaluating the ecological significance of natural features such as low lying wetland areas and waterbodies and discourage the grading or alteration of unique landscape areas. The Kaiser concept and policy upholds and seeks to implement these ecological goals.

Figure 2 – Site Conditions



TOWN OF BLACK DIAMOND

Town of Black Diamond

Kaiser ASP

Site Conditions

Legend

- Contours
- Watercourse
- Sanitary Main
- Sanitary West End Trunkmain
- Wetland
- Legal/Cadastral
- Kaiser ASP Boundary

Slope (% Rise)

0 - 2	15 - 22
2 - 7	22 - 30
7 - 15	> 30

50 25 0 50 100

Metres

N

Coordinate System: NAD 1983 3TM 114

Scale: 1:3,500

Data Sources:

- Data provided by the Town of Black Diamond

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FIGURE 2

3.0 GOALS

3.1 Residential Goals

- Provide a long term plan for a coordinated and integrated approach to residential development on the site area.
- Meet the needs of a variety of incomes, ages, and lifestyles by providing a range of housing types and forms.
- Provide a high quality community design that adds and enhances amenities for existing and new residents or visitors to Black Diamond.
- Be sensitive to existing development within and surrounding the site through considered size and massing of proposed development.
- Recognize the western boomtown aesthetic, environmental, and natural features that make Black Diamond a desirable place to live.

3.2 Commercial Goals

- Contribute to a high quality gateway and entrance to the Town from the east.
- Provide services appropriate for the traveling public and residents of the Kaiser neighbourhood.
- Recognize the downtown commercial area as the dominant area for retail and commercial uses.
- Contribute to an enhanced main street along Centre Avenue.

3.3 Parks, Open Space and Environmental Goals

- Integrate important natural features such as the watercourse and wetlands into the overall open space and park design.
- Provide variety in open spaces and park functions.
- Utilize the transportation network to provide a ‘green linkage’ from the watercourse east to the wetland.
- Develop interconnected pathways, sidewalks and greenspaces within and into existing areas of Black Diamond to foster a walkable, connected community.
- Preserve natural environmental features.

4.0 LAND USE CONCEPT

Figure 3 – Land Use Concept, shows the future land use pattern for the Plan area through a series of areas and symbols. The approximate areas of these land uses are tabulated below.

KAISER ASP AREA	HA	AC
Kaiser ASP Total Area	42.4	104.8
Less:		
Existing Development Area	13.8	34.1
Environmental Reserve/Wetland	2.7	6.8
NET DEVELOPABLE AREA	**25.9**	**63.9**
Low Density Residential	6.8	16.8
Medium Density Residential	9.4	23.0
High Density Residential	0.8	2.0
Commercial	1.4	3.5
Municipal Reserve	1.4	3.5
Stormwater Management	1.6	4.0
Roads	4.5	11.1

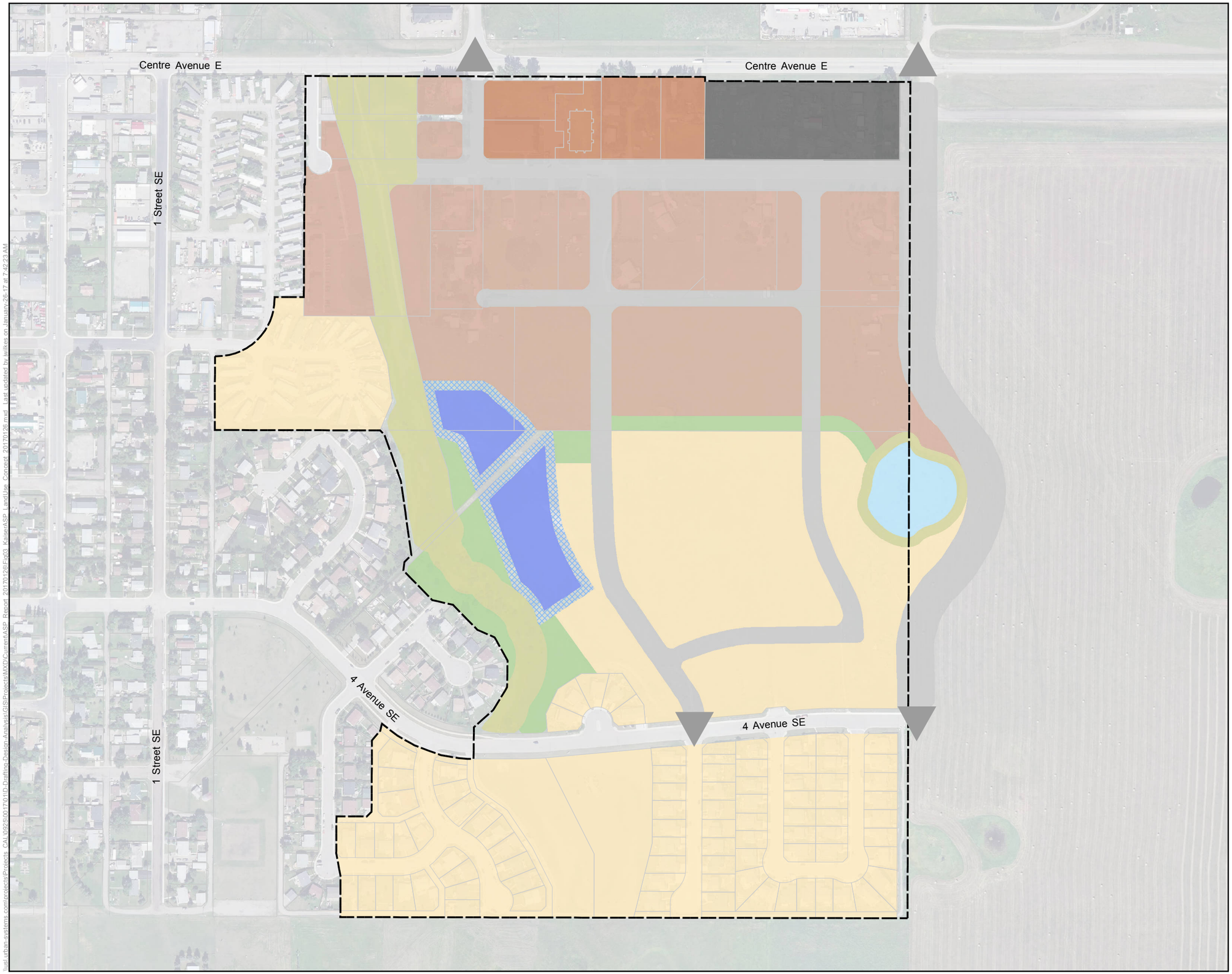
The Land Use concept for the Kaiser area aims to integrate context sensitive density and housing forms that considers the existing development in the area. In practice, this will mean that allowable densities are higher in the north (in keeping with existing high density development adjacent to Highway 7) and decrease gradually towards the south to mirror the low density subdivision south of 4th Avenue.

The Town encourages detailed design that supports a grid network and block layout to promote vehicle and pedestrian connectivity as well as a diversity of lot sizes and housing forms. This type of design encourages a variety of affordability levels and accommodates aesthetic interest within the neighbourhood. The land use concept features a mix of lots with front and rear lane access, which will help to ensure a variety of housing product in the residential area, and can offer the opportunity for developers/builders to introduce unconventional products over time that remain consistent with the form of a low density area – such as laneway homes, tiny houses, or carriage houses.

Natural and built features are incorporated throughout the Plan area including the watercourse, wetland, and storm pond. An east west linear park and pathway system reinforces the connections between the open and green spaces, and will add to the natural and open features of the neighbourhood.

Finally, a commercial hub at the north east of the Plan area adjacent to Highway 7 will offer services for the travelling public while offering unique gateway opportunities at the entrance to the Town.

Figure 3 – Land Use Concept



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TOWN OF BLACK DIAMOND

Town of Black Diamond

Kaiser ASP

Land Use Concept

Legend

- Low Density Residential
- Medium Density Residential
- High Density Residential
- Commercial
- Environmental Reserve
- Municipal Reserve
- Pond Area
- High Water Level
- Wetland
- Road
- Access Points
- Kaiser ASP Boundary

50 25 0 50 100

Metres

N

Coordinate System: NAD 1983 3TM 114

Scale: 1:3,500

Data Sources:

- Data provided by the Town of Black Diamond

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FIGURE 3

5.0 LAND USE POLICY

5.1 Residential Policies

5.1.1 PURPOSE

The purpose of the residential area is to provide a diverse range of housing opportunities to address the needs of various ages, incomes and lifestyles – from single detached to higher density apartments in a comprehensively designed neighbourhood. The residential area comprises the majority of the land uses within the ASP. One commercial area services the growing neighbourhood and travelling public. Public parks and pathway connections are interspersed through the Plan area to service a range of needs and interests.

Densities are highest in the north, and gradually decrease moving south. The central part of the Plan area incorporates a mix of housing types, from townhome and low profile condominium opportunities, down to single and semi-detached areas. In the south part of the Plan area, a twist on the traditional single family neighbourhood is encouraged by incorporating street oriented row houses on the same block as single and semi-detached housing. This ensures diversity, allows for smaller, more affordable housing, and encourages an interesting streetscape. Throughout the community it is expected that there will be a mix of laned and front drive product.

Residential land uses in the Plan area should achieve a gross density between the range of 4 – 7 units per acre. The approximate residential unit yields are tabulated below.

PROPOSED DEVELOPMENT DENSITY	HA	AC	UNITS	DENSITY RANGE
Existing Residential Development	12.4	30.6	175	5 UPA
Low Density Residential	6.8	16.8	50-135	3-8 UPA
Medium Density Residential	9.4	23.2	185-345	8-15 UPA
High Density Residential	0.8	2.0	30-50	15-25 UPA
GROSS ASP AREA	**42.4**	**104.8**	**440-705**	**4-7 UPA**

5.1.2 POLICIES OF THE RESIDENTIAL AREA

Composition & Density of Residential Area

1. The residential area is comprised of three general land use classifications that are primarily based on density and type of housing:
    a. High density residential land use area should consist of low-rise multi-residential buildings, attached housing or seniors/assisted living lodges. Building height should be a maximum of four stories.
        i. High density residential development should achieve between a range of 15 – 25 units per net developable acre.
    b. Medium density residential land use area should consist of a mix of housing forms such as row housing, triplex and fourplex housing, street oriented row housing, low rise multi-residential buildings, clustered small lot development, or seniors/assisted living lodges. Consideration should be given to other forms of housing not listed but achieving similar intent of the goals and policies in this Plan.

i. Medium density residential development should achieve between a range of 8 – 15 units per net developable acre.

c. Low density residential land use area should consist of single detached, semi-detached, duplex, or street-oriented row housing. A mix of different types of houses accommodated on varying lot sizes is encouraged on each block. Consideration shall be given to unconventional forms of housing that remain consistent with the form and character of the low density area. Examples may include laneway homes, tiny houses, or carriage houses.

i. Low density residential land use areas should achieve between a range of 3 – 8 units per net developable area.

2. Affordable housing is encouraged through the Plan area. Developers are encouraged to liaise with the Westwinds Communities Housing Management Body.

3. The general categories of residential land uses identified shall be refined through the Land Use Districts applied within the residential area.

Design of the Residential Area

1. Residential development shall be generally consistent with the land use concept, shown in ***Figure 3 – Land Use Concept***. This Plan is intended to show the general nature of neighbourhood design and is subject to refinements at the Land Use Re-designation or Tentative Plan stage without the need for Council to amend ***Figure 3 – Land Use Concept***.

a. A concept plan may be required to support re-designation applications.

2. Lanes shall be incorporated into the overall design of residential development to support street parking, continuous sidewalks, and consistent frontage with a strong relationship between the house/porch, walkway, front yard, and sidewalk. However, lanes may not be required where lots abut open space areas or are not practical due to design considerations.

3. Residential development that has a laneway in the rear should have vehicle access and garage space at the rear of the property.

4. Consideration shall be given to reducing block lengths and avoiding cul-de sacs to provide pedestrian connectivity and movement. Any proposed cul-de-sacs and long blocks shall provide pedestrian walkways.

5. The developer should prepare and implement design guidelines and architectural controls on all residential development that reflect Black Diamond's historic character and ensures an aesthetically coordinated appearance of development from the street and from public areas.

6. Development within the Kaiser ASP shall be designed in accordance with Crime Prevention through Environmental Design (CPTED) principles.

7. Where possible, building orientation should be optimized to facilitate passive energy savings due to the environment, including for prevailing winds and solar potential.

8. Development shall incorporate high quality landscape design including street trees, boulevard landscaping, and integration of natural vegetation where appropriate. Landscaping shall form part of the development agreement between the Town and developer.

9. Connectivity shall be incorporated through the continuity of streets and multiple points of access to support safe and convenient pedestrian, bike and vehicular movements.

10. Sidewalks should be provided on both sides of the street to ensure access to, and the continuity of pedestrian and open space circulation systems.

11. All residences in the Plan area should be located within 400 metres radius of some form of open space.

12. In order to achieve compatibility in terms of size and overall massing, proposed buildings should be sensitive to the scale of adjacent development.

13. Grading shall recognize the natural topography of the land and shall occur only where overall subdivision design considerations warrant.

14. Residential development within the Plan area shall be fully serviced with the municipal water, sanitary sewer, and storm sewer systems.

15. High and medium density residential land use developments that consist of multi-family units shall be encouraged to:

    a. Be adjacent, or in close proximity to, the Plan area's major roadways and transit routes;
    b. Be located in areas that would take advantage of views, vistas or other environmental features;
    c. Provide safe pedestrian access to the adjoining street;
    d. Be in proximity and provide connections to the parks and pathway system;
    e. Provide common amenity areas such as playgrounds and community gardens where feasible;
    f. Provide suitable interface treatment with existing residential areas; and,
    g. Have varied architectural detailing that breaks up the massing and size of larger buildings.

5.2 Commercial Policies

5.2.1 PURPOSE

The Land Use Concept shows a neighbourhood commercial area along the eastern Town boundary south of Highway 7. The intent of the commercial area is to contribute to a high quality gateway and entrance to the Town from the east, while providing services appropriate for the traveling public and residents of the Kaiser neighbourhood without negatively impacting the downtown commercial area.

5.2.2 POLICIES OF THE COMMERCIAL AREA

1. Commercial development should provide complimentary uses to those in the Central Business District so as not to provide undue competition to the vibrancy of the Town's major commercial area.

2. Recognizing that the commercial area will contribute to first impressions for visitors and residents entering the Town from the east, it shall be developed with a high quality physical appearance through the use of landscaping, quality signage, and architectural features.

3. Commercial development shall be physically compatible in size and scale with adjacent residential development.

4. Parking shall not be located between Highway 7 and a commercial structure, but instead be screened to the side or rear of buildings.

5. Consideration should be given to designing parking areas that are screened from adjacent uses with trees, landscaping, and design elements.

6. Commercial loading, servicing and/or outside storage areas should not be directly visible from residential development. These facilities shall be screened from adjacent buildings, parking and roads with trees, landscaping, fencing, or building partitions.

7. Commercial development shall be of a high quality, both in terms of visual appearance and building materials, as well as quality of workmanship. Commercial development shall not be detrimental to adjacent residential development.

8. Buildings adjacent to Highway 7 form part of the gateway to the Town and shall be designed to reduce building bulk and generate visual variety. Strategies to achieve this could include offsetting walls, reducing the building footprint, shifting rooflines to vary height and articulating building elevations.

9. Emphasis shall be placed on the relationship of the buildings to the street to create a development that services both pedestrian and vehicular travel.

10. Vehicular access to commercial development along Centre Ave. shall be from the 1st Avenue SE.

11. Uses in the commercial area shall be generally in line with services appropriate for the traveling public or residents of Black Diamond, and could include the following:

    - Gas station;
    - Convenience store;
    - Grocery Store;
    - Hotel/motel;
    - Small service retail or personal services.

5.3 Parks, Open Space and Environmental Area Policies

5.3.1 PURPOSE

Figure 4 – Open Space Concept shows the proposed Open Space Concept. The Kaiser area includes a number of public parks and pathway connections throughout the Plan area intended to service a range of needs and interests. The open space design utilizes the watercourse, wetland, and the storm pond as the main nodes. The watercourse acts as a green spine and is augmented with a linear east-west park and pathway system that provides a connection between the natural wetland and the watercourse, while also capturing the view corridor. The open space network facilitates pedestrian connections linking the existing pathway along the watercourse with the wetland. Within the community, a series of pathways, sidewalks, and greenspaces will ensure a walkable connected community. A natural park adjacent to the watercourse and surrounding the proposed stormwater pond provides an actively planned play area. Smaller active parks are planned for throughout the residential area.

The open space design is constrained by the amount of expected municipal reserve dedication available. In the north half of the Plan area many of the parcels have already dedicated their municipal reserve via cash-in-lieu during the original subdivision. Therefore, there will be little to no opportunity for the Town to obtain reserve dedication through subsequent subdivision on these lands. Although this means that there is less available park space for a high density area, the open space design has attempted to mitigate this by ensuring adequate park connections to the watercourse as well as park areas in the central portion of the Plan area.

A combination of municipal and environmental reserve will be provided to meet the recreational needs of the community. Municipal reserves will be used to create a variety of parks. Specific decisions on allocation of reserve dedication will be made at the Land Use Amendment/Tentative Plan stage.

5.3.2 PARKS AND OPEN SPACE POLICIES

1. Open spaces and parks shall be established throughout the Plan area and shall provide a variety of passive and active recreational opportunities for residents of all ages.

2. The dedication of reserve lands shall be encouraged at the time of subdivision; cash in lieu of reserve lands shall be discouraged.

3. Developers should be encouraged to incorporate into parks and open spaces natural and local vegetation, and natural/alternative play structures that draw on or reflect Black Diamond's ecological heritage.

4. A pedestrian pathway system consisting of sidewalks and pathways shall connect residential areas with the wetland, watercourse, and commercial site in the Kaiser area, and shall provide opportunities for linkages to the existing pedestrian network throughout Black Diamond.

5. Stormwater management facilities shall enhance the quality of the open space system. The open space system design, including trails, planting, and site furniture, shall interface appropriately with the stormwater utility while ensuring the safety of the public. Fencing of the stormwater management facilities will not be permitted.

5.3.3 ENVIRONMENTAL POLICIES

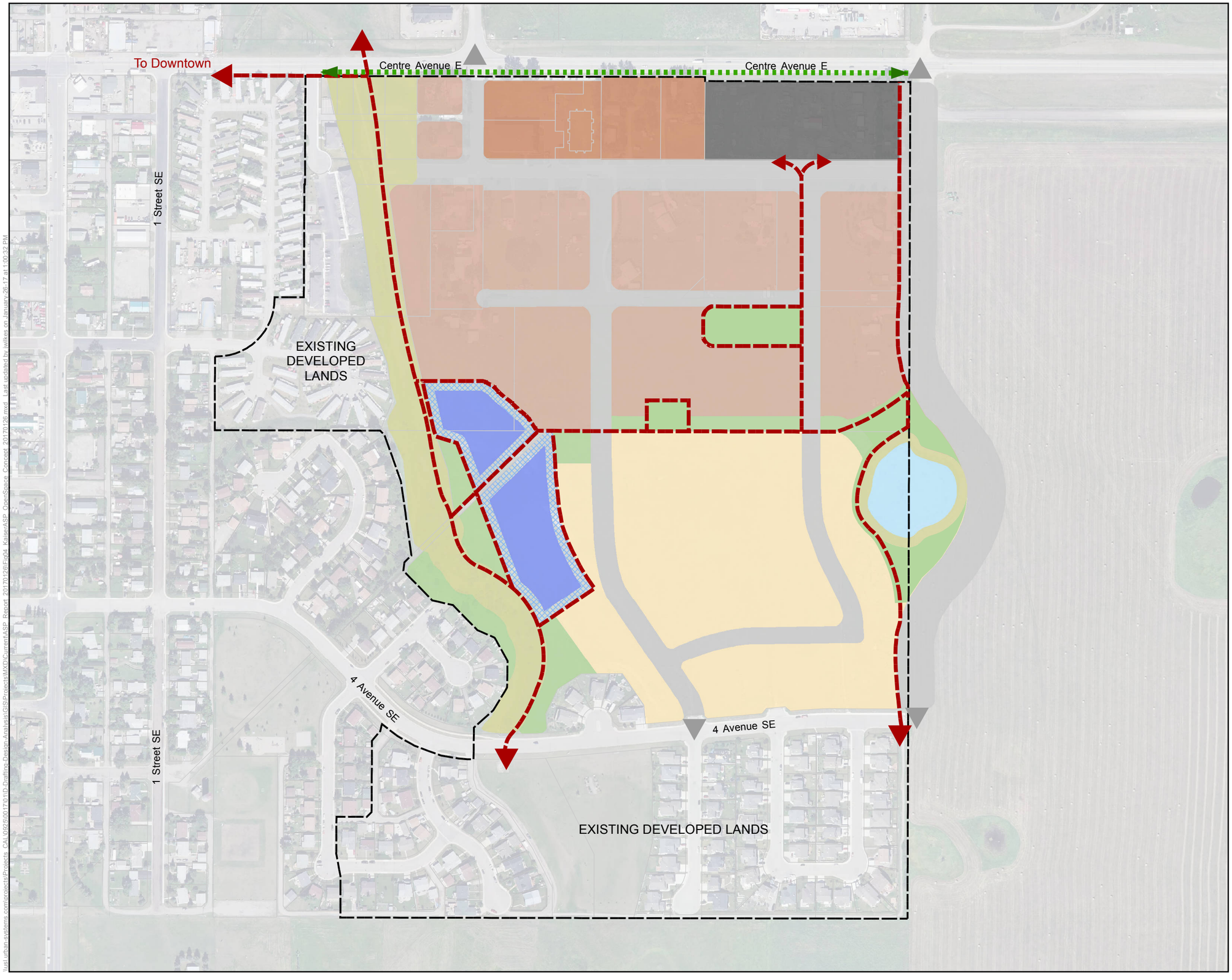
1. Environmental Reserve shall be dedicated on both sides of the watercourse and the wetland to the satisfaction of the Town of Black Diamond and Alberta Environment and Parks in accordance with the MDP, IMDP, and the MGA. The extent of environmental reserve should be determined by a Municipal Environmental Impact Statement (MEIS) to determine the significance of habitat, ecology, geo-technical stability, floodplain, and open space/trail system requirements.

2. Requirements for applications for land use re-designation or subdivision approval should include but not be limited to detailed biophysical impact assessment and/or wetland impact assessment, stormwater/watershed management plans, provision of wetland replacement funds (i.e., monetary compensation), wetland consent from neighbouring landowners that share the wetland boundary, and public notice/consultation.

3. A Municipal Environmental Impact Statement (MEIS) should be submitted with all development and subdivision applications in accordance with the MDP and IMDP, and/or

4. Recognizing the environmental and social importance of the natural wetland, wetland hydrology should be analysed in a MEIS, and engineering design should be required to maintain the overland flow and hydrology of the wetland.

Figure 4 – Open Space Concept



TOWN OF BLACK DIAMOND

Town of Black Diamond

Kaiser ASP

Open Space Concept

Legend

- Proposed Pathways
- Proposed Walkway Improvments
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Commercial
- Environmental Reserve
- Municipal Reserve
- Pond Area
- High Water Level
- Wetland
- Road
- Access Points
- Kaiser ASP Boundary

50 25 0 50 100

Metres

N

Coordinate System: NAD 1983 3TM 114

Scale: 1:3,500

Data Sources:

- Data provided by the Town of Black Diamond

Project #:	0925.0017.01
Author:	JW
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URBAN systems

FIGURE 4

5.4 Transportation Policies

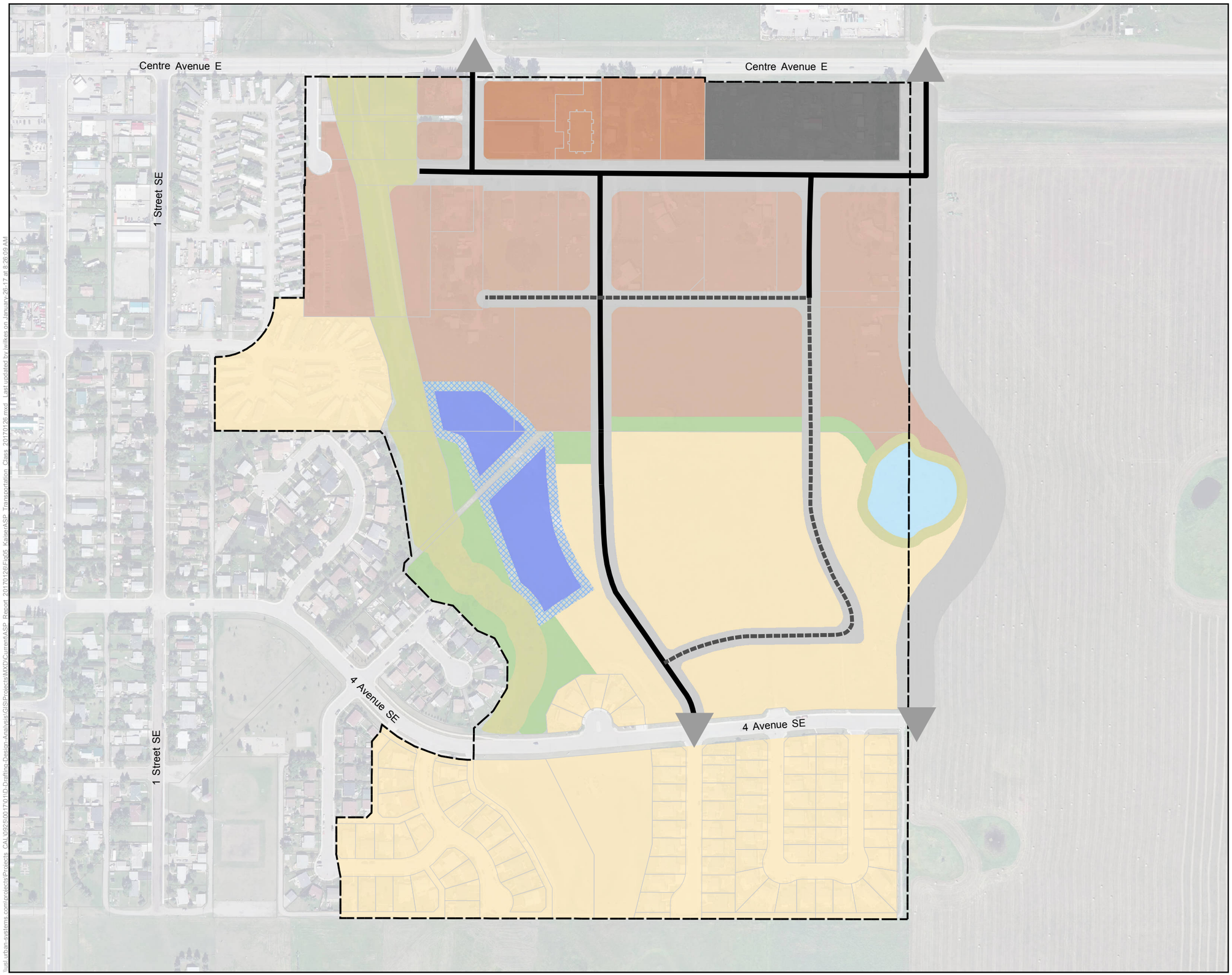
5.4.1 External Road Network/Classification

The proposed development is bounded by Highway 7 to the north and 4 Avenue SW to the south. In the future, it is anticipated that 6th Street will be extended south of 1st Avenue SE, to connect to 4 Avenue SE and will border the Kaiser Area on the east side. The extension of 6th Street SE, is not required for the development of the Kaiser Area.

5.4.2 Internal Road Classification

Kaiser will consist of collector corridors, measuring 22.5m to 25.2m. These roads provide connections to the regional road network, as well as to key internal focal points. The remaining road network will be a residential 16.0m corridor providing direct and laneway access to the residential units

Figure 5 - Proposed Road Classification



Town of Black Diamond

Kaiser ASP

Transportation Road Classification

Legend

- Collector Street
- Local Road
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Commercial
- Environmental Reserve
- Municipal Reserve
- Pond Area
- High Water Level
- Wetland
- Road
- Access Points
- Kaiser ASP Boundary

The accuracy & completeness of information shown on this drawing is not guaranteed. It will be the responsibility of the user of the information shown on this drawing to locate & establish the precise location of all existing information whether shown or not.

50 25 0 50 100
Metres

N

Coordinate System:
NAD 1983 3TM 114

Scale:
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Data Sources:
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URBAN systems

FIGURE 5

5.4.3 PROPOSED ROAD CROSS SECTION

Figures 6 to 8 illustrate the collector and residential road cross section for the Kaiser study area that address the Town's preference for multiple modes of transportation.

Figure 6 - Collector Street Parking Both Sides (25.2m)

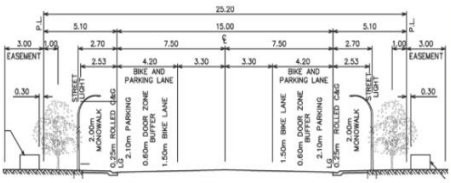


Figure 7 – Collector Street Parking One Side (22.5m)

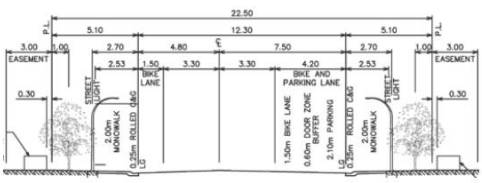
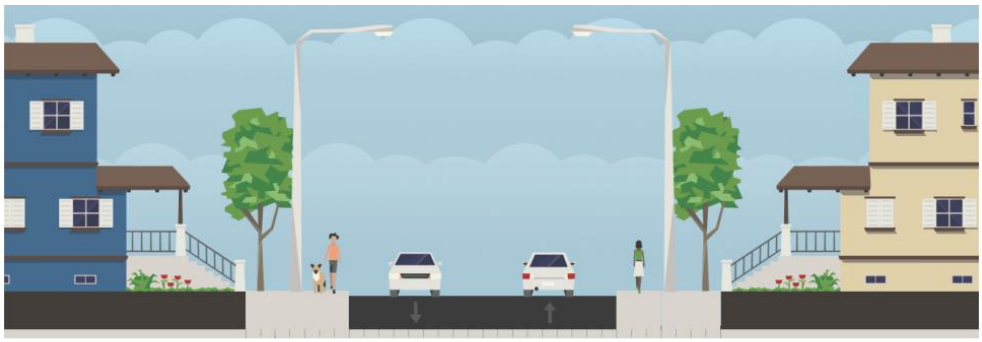
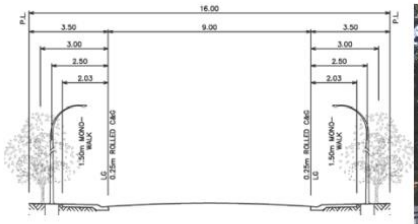


Figure 8– Residential Street (16.0m)





5.5 Multi-Modal Considerations

5.5.1 Transit Service

A walkable catchment is typically a five minute commute from one location to next. The five minute walking duration translates to an approximate 400m walking distance. To be considered a transit friendly community, 95% of the residents must have a walking distance to a transit stop of less than 400m. Transit stop locations should also be placed every 100m to 200m.

5.5.2 Pedestrian and Cyclist Facilities

Additional considerations should be made to provide attractive and convenient access to active transportation infrastructure. The Kaiser development should provide a more refined/dense network for pedestrians and cyclists to ensure walking and cycling remains safe and attractive. The proposed collector cross section from the City of Calgary Design Guidelines for Subdivision Servicing illustrates on-street cycling lanes.

5.6 Transportation Recommendations

The transportation evaluation for the Kaiser study explored potential roundabout and signalization treatments at intersections along provincial highways to improve the operational performance. Understanding the context of Highway 22 and Highway 7, both corridor currently provide regional and local connectivity and includes existing commercial, retail, institution and residential uses fronting onto the highway.

Future improvements should take into consideration the importance of the existing businesses for the economy of Black Diamond and require parking to ensure viability of these businesses.

The long term vision that was outlined in the 2016 Joint Growth Strategy for Turner Valley and Black Diamond, showed the potential for traffic to be redistributed to future corridors. This long term vision must be considered during the immediate horizon as Kaiser develops.

5.6.1 Background 25 Year – Intersection Improvements

3 Street SW and Highway 22 will require improvements to support the forecasted traffic growth along the highway. Alberta Transportation previously evaluated this location and recommended a traffic signal to improve the operational requirements. East-west traffic is the dominant movement along the highway corridor with residential traffic entering the highway corridor.

Understanding the considerations involved with intersection treatment, a roundabout is recommended in lieu of the signal to preserve existing development and minimize impacts to the approach, as lane configuration and geometrics are determined. It should be understood that the main function of Highway 22 is providing “through” connections. A roundabout can typically accommodate larger design vehicles as specified by the Province. Assuming redevelopment on this area will be limited, a roundabout is more than capable of handing the peak hour flows based on the existing land uses.

5.6.2 FUTURE 25 YEAR WITH DEVELOPMENT – INTERSECTION IMPROVEMENTS

Assuming the improvements from the background scenario are completed – the analysis that included the Kaiser development triggered a required upgrade at 3 Street SE and Highway 7. A traffic signal is recommended at this location understanding the recent and future developments adjacent to this location.

A Tim Hortons and a potential gas bar with car wash were recently constructed adjacent to the intersection of 3 Street SE and Highway 7. Based on the proposed retail/commercial and future Kaiser development, a signalized treatment is expected to provide a better long term solution understanding the capacity requirements and peak hour demand flows. The table below shows the Assumed Approved Baseline Intersection Configurations.

Intersection	Background 25 Year	Future 25 Years
3 Street SW and Highway 22	Roundabout	NIL
3 Street SE and Highway 7	NIL	Signal

Policies

1. Access to the Kaiser ASP area shall be in accordance with plans agreed by the Town of Black Diamond and Alberta Transportation.
2. The design of intersections at Highway 7 providing access to the Kaiser ASP area shall be approved by the Town of Black Diamond and the Province of Alberta.
3. At Land Use Re-designation or subdivision, a Transportation Impact Assessment associated with the development shall be provided at the developer's cost to the Town, and where applicable, Alberta Transportation's satisfaction.
4. The internal road network shown on the Land Use Concept is preliminary and shall be refined at the Land Use Re-designation stage.
5. The design of the road network shall provide the following:
    a. Describe connections
    b. Interconnected pedestrian system
6. Lanes for rear lot access shall be provided for residential development that occurs on high volume roadways.
7. Any requirements for sound attenuation shall be determined at subsequent planning or subdivision stages

5.7 Servicing Policies

5.7.1 GENERAL SERVICING POLICIES

1. Urban development within the Plan area shall be serviced with Town water, sanitary, sewer and stormwater systems, as well as gas, cable, telephone, and electricity.
2. Easements and rights of way shall be provided to accommodate Town utilities as necessary.

3. Easements, rights of way, public utility lots and road right of ways may be required, at the discretion of the Development Authority, to be dedicated or registered across undeveloped land to ensure orderly and sequential development.
4. The water, sanitary sewer and storm sewer systems shall be designed to serve the ultimate development of the Plan area as well as any external connections.
5. Appropriate servicing agreements, Right-of-Ways, easement agreements and approval from the MD of Foothill's Public Works department shall be in place prior to the release of any Development Permits that facilitate the installation of infrastructure shown within the MD of Foothills lands. The MD of Foothills will not be responsible for any survey, construction and/or maintenance costs associated with the infrastructure shown within the Kaiser ASP.

5.7.2 WATER SERVICING

Existing Water Infrastructure and Connections

The current water supply from Turner Valley is designed to accommodate a population of 3,986 from Black Diamond (MPE Engineering Ltd. 2015). The current population of Black Diamond is estimated at 2,373, thereby allowing a population growth of 1,613 within Black Diamond.

The existing distribution system is comprised of a 1.0 million gallon treated reservoir, pump station, and watermains. There are existing water stubs for tying into the south developed portion of the study area, one 200mm stub is available in the north area for tying-in for new development. There also exists a 250mm distribution main to the north, across Highway 7, which may be used for looping of the water system.

According to the Fire Underwriters Survey Report (2013), required fire flow is 56 L/s for residential development and 150 L/s for commercial and industrial. Under the current conditions the existing system cannot provide the required fire flow for commercial development.

Proposed Water Infrastructure and Connections

In order to strengthen the system, the watermain will need to be looped through the study area as shown in **Figure 9 – Proposed Water System**. A 250 mm water main will be installed through the center of the Kaiser area, combined with a secondary 200 mm main along the east road. Due to the additional fire flow required for the industrial area north of the highway, it is proposed to oversize these mains. The cost sharing requirements for the oversizing and looping will be outlined in an update to the Town's Offsite Levy Bylaw.

The Kaiser area is split into two separate pressure zones, as shown on **Figure 9 – Proposed Water System**. A pressure-reducing valve (PRV) would be required should any looping be recommended. If either of the recommended options for strengthening the existing industrial area are undertaken, this PRV would need to be moved to the connection north of the highway in order to move the industrial area to pressure zone 2.

Policies

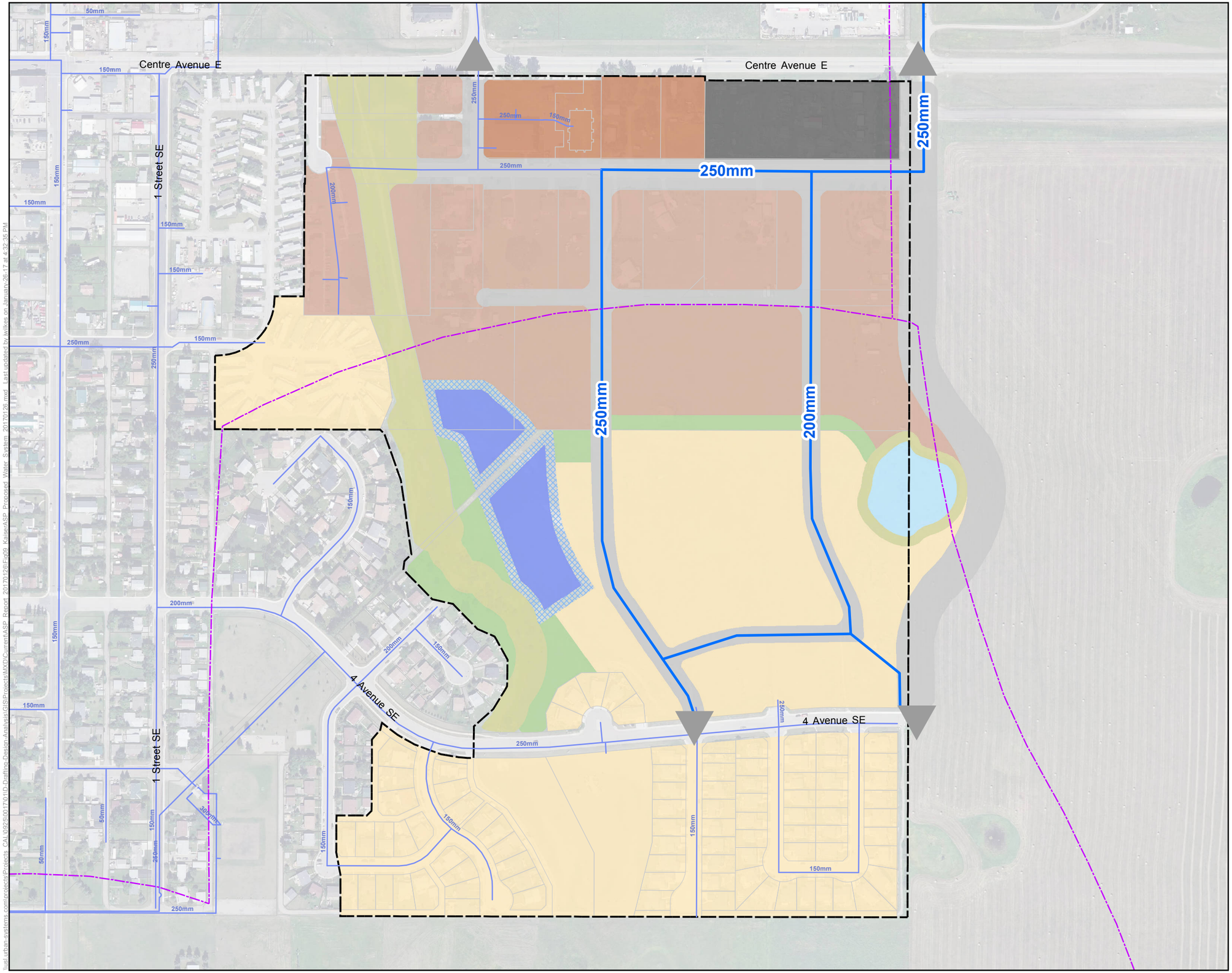
1. Alberta Environment and Parks approval will be required prior to the extension of the water system.
2. A servicing agreement and any necessary Right of Way and easement agreements will need to be in place prior to DP release for the installation of any utilities within the MD of Foothills boundaries.

3. The water distribution system shall be designed to deliver water in adequate quantities at adequate pressure for both peak consumption conditions and fire flows.
4. Looping shall be provided for redundancy.

4. A Hydraulic Network Analysis Report will need to be submitted to the Town prior to development approval. This report shall contain information on operating pressures under peak hourly demand conditions, fire flow availability during Maximum Day Demand conditions, as well as, information on nodal demands and boundary conditions. Note that the Town will need to provide boundary conditions in order for this analysis to be conducted.
5. Pressure reducing valves shall be required.

6. For residential areas, demand should be 315 L/cap/day, Maximum Daily Demand Ratio to Average Daily Demand should be 2:2:1 and Peak Hour Ratio to Average Daily Demand should be 4:1.
7. The Town reserves the right to request oversizing and discuss compensation.

Figure 9 – Proposed Water System



Town of Black Diamond

Kaiser ASP

Proposed Water System

Legend

- Watermain - Proposed
- Pressure Zone Boundary
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Commercial
- Environmental Reserve
- Municipal Reserve
- Pond Area
- High Water Level
- Wetland
- Road
- Access Points
- Kaiser ASP Boundary

50 25 0 50 100

Metres

Coordinate System: NAD 1983 3TM 114

Scale: 1:3,500

Data Sources:

- Data provided by the Town of Black Diamond

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URBAN systems

FIGURE 9

5.7.3 SANITARY SERVICING

Existing Sanitary Infrastructure and Connections

As outlined in the 2016 Joint Growth Strategy report for Turner Valley and Black Diamond, it is our understanding that the Westend Regional Wastewater Commission Lagoon system will be upgraded to a mechanical tertiary treatment plant in order to meet high quality effluent standards currently being reviewed as part of the Foothills Regional Wastewater Collaborative Study, and that full build out of the Westend Wastewater Commission lagoon system will include the development within the Kaiser area.

Sanitary underground infrastructure in the Kaiser area consists of two gravity main alignments running through the middle of the Kaiser area. According to the WRSSC Westend Sanitary Trunkmain Relocation Conceptual Servicing Report (Urban Systems, 2014), the existing 250mm main has spare capacity of 14 L/s, while the Westend trunkmain has spare capacity of 235 L/s.

Proposed Sanitary Infrastructure and Connections

To increase the amount of developable area, a portion of the existing 250mm gravity main in the middle of the Kaiser area will be removed, this is not expected to have an impact to the upstream and downstream system.

Kaiser area sanitary flow will be conveyed to both the existing 250mm gravity main that will remain within the Kaiser area and the 450 mm Westend trunkmain. This is in line with the WRSSC report, which states that "the growth attributed to Black Diamond is proposed to be serviced by utilizing remaining capacity within the existing sanitary sewer line and then directing the remainder into the gravity portion of the Westend trunkmain." The Kaiser area is anticipated to contribute net 9.7 L/s to the existing 250mm gravity main (reducing capacity from 14.0 L/s to 4.3 L/s), and 20.2 L/s to the Westend trunkmain (reducing capacity from 235.0 L/s to 214.8 L/s).

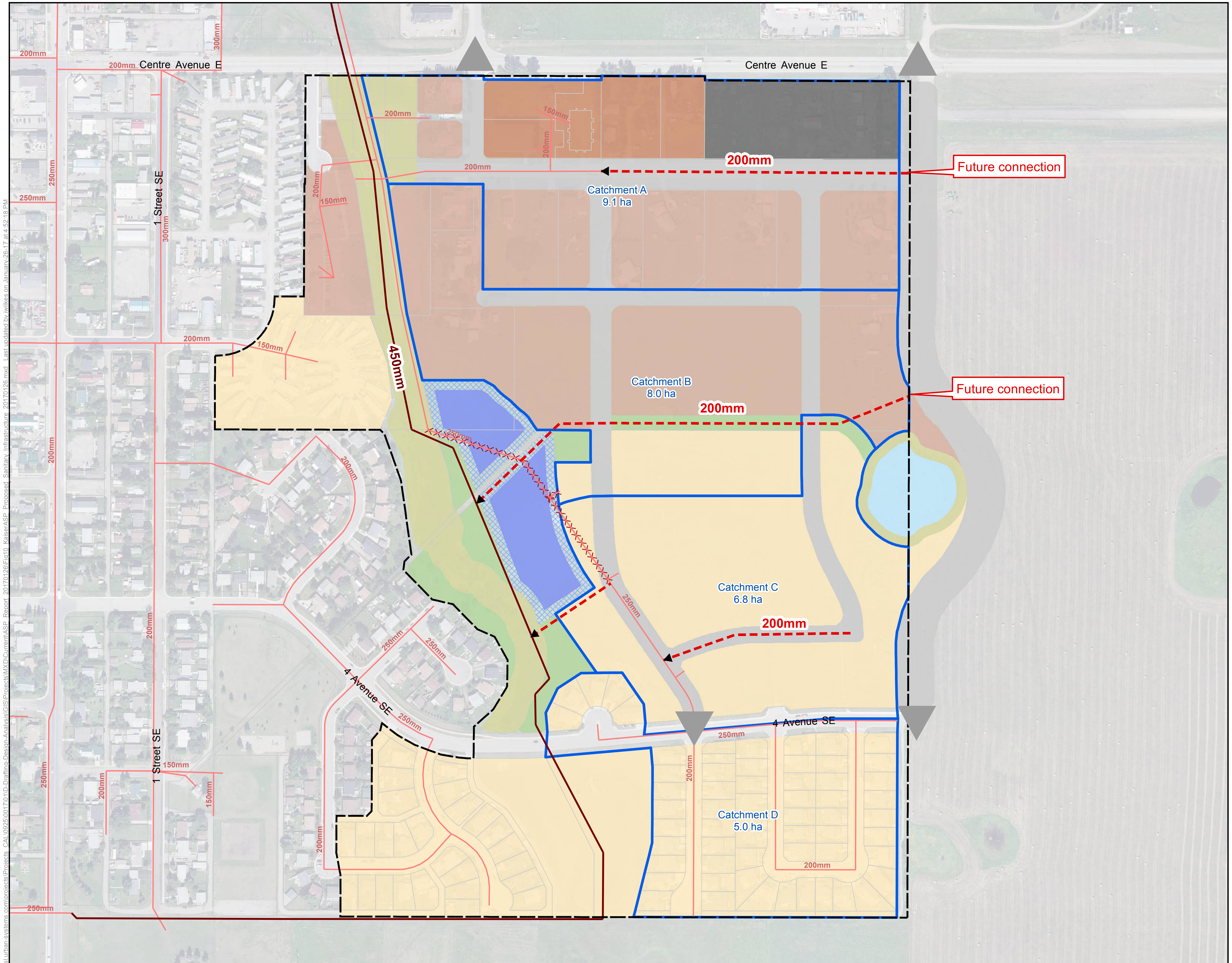
The Kaiser area may be split into four catchments. Each catchment will connect into either the existing 250mm sanitary main or the sanitary trunk. These connections will be as per **Figure 10 – Sanitary Infrastructure**. Minimum upstream connection capacities were determined based on minimum slope per City of Calgary design guidelines, a Manning's n of 0.012, 86% pipe capacity, and minimum size of main required. It was identified in the 2016 Joint Growth Strategy for Black Diamond and Turner Valley, that there is a potential for additional growth directly to the east and northeast of the Kaiser area. Therefore, there is a potential for future developments in these areas to tie to the proposed Kaiser infrastructure. The anticipated locations for the tie-in for future growth is shown **Figure 10 - Sanitary Infrastructure** However, the associated oversizing required to accommodate this additional growth within the Kaiser area was not calculated. This will need to be determined once more detailed information is obtained for these growth areas in the future. For now, sanitary infrastructure within the Kaiser Area has only been sized for the Kaiser Area development.

Policies

1. Alberta Environment and Parks approval will be required prior to the extension of the sanitary system.
2. The sanitary sewer design system should be based on an average daily dry weather flow of 264 L/d/c with a Maximum Daily Flow ratio of 2.2 and a Peak Hour Flow ratio of 5.0, plus inflow and infiltration of 0.28 L/s/ha.
3. A sanitary report and calculations will need to be submitted to the Town of Black Diamond and the Westend Regional Sewer Services Commission prior to land use re-designation or subdivision will include all sanitary flow calculations.

4. The Town reserves the right to request oversizing and discuss compensation.

Figure 10 – Sanitary Infrastructure



\\us\urban-systems.com\projects\Projects_CAL\0925\0017\01\D-Drafting-Design-Analysis\GIS\Projects\MXD\Current\ASP_Report_20170126\Fig10_KaiserASP_Proposed_Sanitary_Infrastructure_20170126.mxd Last updated by jwilkes on January-26-17 at 4:52:18 PM

Town of Black Diamond

Kaiser ASP

Sanitary Infrastructure

Legend

- Gravity Main - Proposed
- Gravity Main - Existing
- Gravity Main - Existing (To be removed)
- Westend Sanitary Trunk
- Catchments
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Commercial
- Environmental Reserve
- Municipal Reserve
- Pond Area
- High Water Level
- Wetland
- Road
- Access Points
- Kaiser ASP Boundary

50 25 0 50 100
Metres

N

Coordinate System: NAD 1983 3TM 114

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FIGURE 10

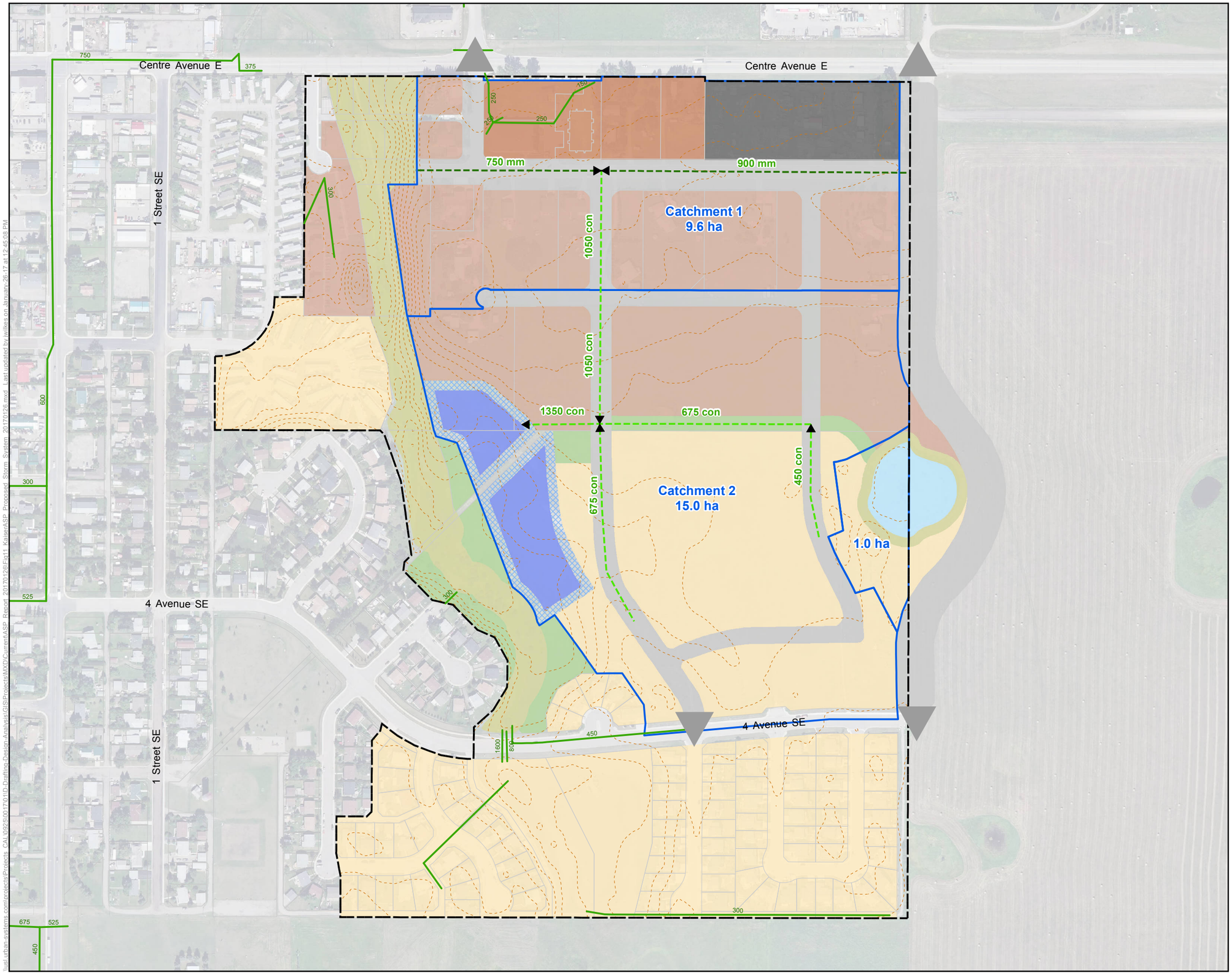
5.7.4 STORMWATER MANAGEMENT

The Kaiser area generally slopes from southeast to northwest. Stormwater drainage for the lands is currently provided by a dry watercourse (ditch) that is located along the west edge of the proposed development. This ditch is identified by the Province of Alberta as a mapped watercourse. There is a wetland that is to be preserved on the east edge of the Plan area. The north half of the Plan area is currently developed with commercial, high density residential, and low density country residential. The south half is mostly cultivated agricultural land with some existing residential development. Stormwater from the Plan area will be managed in a stormwater facility shown in **Figure 11 - Storm Infrastructure**, which will discharge into the watercourse.

Policies:

1. All stormwater outfalls to the watercourse shall conform to federal and provincial regulations including the Code of Practice as established by the Alberta Water Act.
2. A catchment area and capacity analysis of the watercourse shall be conducted prior to detailed design of outfalls. The stormwater management facility shall not be subject to backwater in the event of a 1 in 100 year flood.
3. Post-development stormwater flows from the Kaiser area are limited to a pre-development flow rates of 4 l/s/ha.
4. The location and catchment area of the stormwater facility is shown conceptually on **Figure 11 – Storm Infrastructure**. Alternate and more cost effective alignments may be considered. Impact to the watercourse and natural open space shall be minimized.
5. The wetland on the east edge of the Kaiser area shall be left undisturbed. The wetland shall be fully protected in its natural state and will not be a part of post-development stormwater system. To maintain the hydrologic cycle of the wetland, pre and post-development hydro-periods for the wetland shall be maintained.
6. All development in this area is encouraged to promote infiltration and evaporation of stormwater prior to entering the minor system by incorporating elements of low impact development and stormwater best management practices. At a minimum, downspouts from roof leaders should be disconnected from the underground stormwater network, and 300 mm of topsoil should be placed on lawns, greenspaces, and other permeable areas.
7. Other low impact development methods to promote infiltration and evaporation of stormwater are encouraged, such as rain gardens, bioswales, and green roofs.
8. The water quality of stormwater runoff that is discharged to both the watercourse and the wetland shall meet Alberta Environment's water quality standards.
9. As part of any future development applications, the Applicant shall submit a Stormwater Management Plan consistent with the overall design of the stormwater management system for the area.
10. Maintenance of all stormwater infrastructure over the life cycle of the design shall be discussed with the Town of Black Diamond's Public Works department and approved prior to implementation. These measures should be summarized in an operations and maintenance manual.
11. The Town reserves the right to request oversizing and discuss compensation.

Figure 11 – Storm Infrastructure



Town of Black Diamond

Kaiser ASP

Storm Infrastructure

Legend

- Local Storm Mains - Proposed
- Storm Trunk Mains - Proposed
- Storm Main - Existing
- Catchments
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Commercial
- Environmental Reserve
- Municipal Reserve
- Pond Area
- High Water Level
- Wetland
- Road
- Access Points
- Kaiser ASP Boundary

50 25 0 50 100

Metres

Coordinate System: NAD 1983 3TM 114

Scale: 1:3,500

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FIGURE 11

5.7.5 SHALLOW UTILITIES

1. All cable, telephone and electricity for servicing development shall be underground.

6.0 IMPLEMENTATION AND PHASING

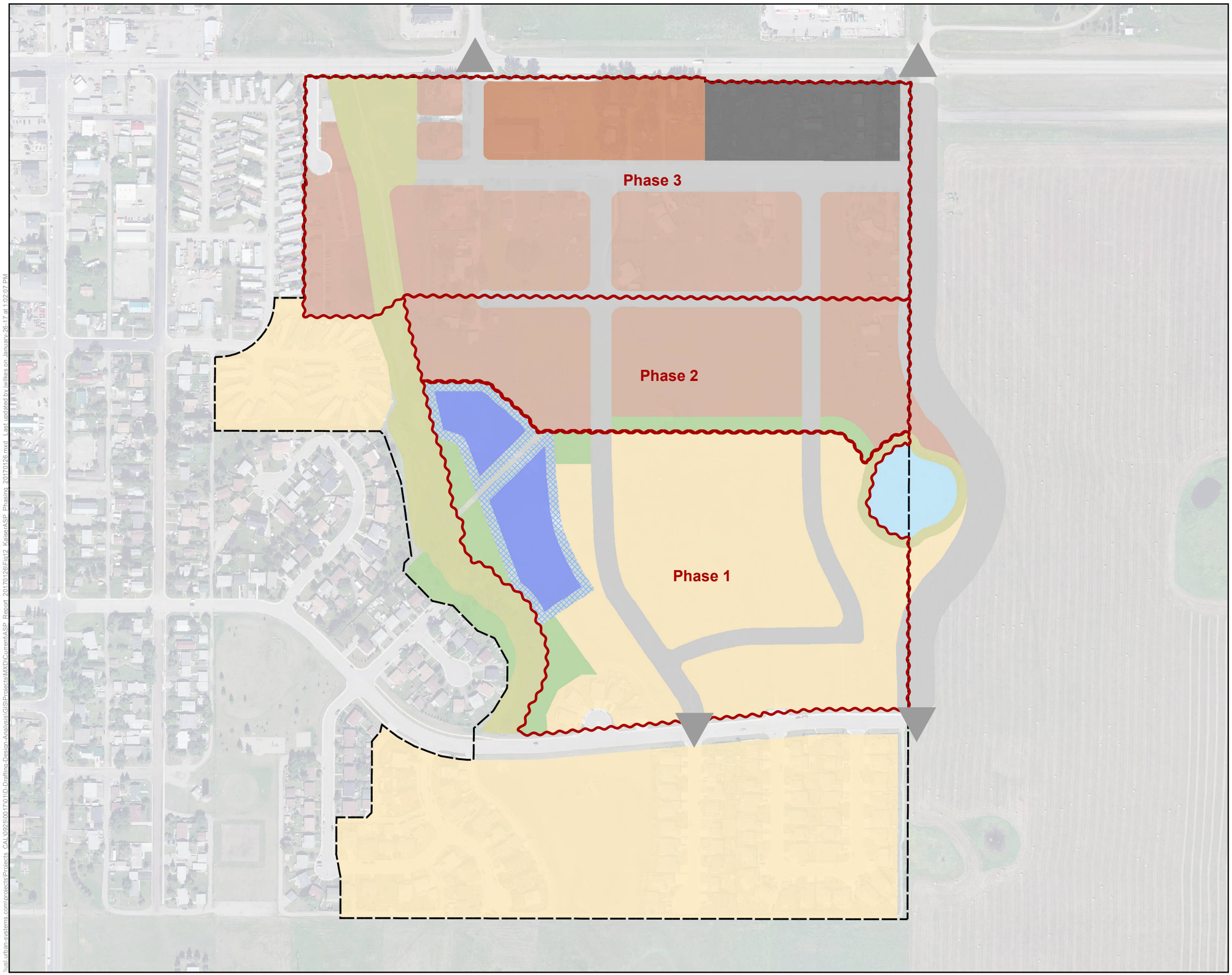
Development phasing boundaries are based on existing development conditions, and infrastructure considerations. **Figure 12 - Land Use Concept Phasing** indicates the development phasing. Phasing will generally occur from south to north within the ASP area.

Phase 1 lands are located directly north of 4 Avenue SE and are currently undeveloped. The stormwater facility in this phase will need to be constructed prior to any future development within the Kaiser Area. The looping of the watermain from the industrial area, south to 4 Avenue and installation of a PRV will also need to be constructed in concurrence or prior to the build out of Phase 1. A temporary secondary access will be required to meet the Fire Access Standards.

Phase 2 lands are located east of 2 Avenue SE and are undeveloped. Development of the Phase 2 lands will involve the logical extension of the roads and utilities that were constructed as part of Phase 1.

Phase 3 lands are located directly south of Highway 7, the existing areas consists primarily of some higher density residential and commercial uses in the adjacent to Highway 7/Centre Avenue and acreage residential development in the remaining portion of Phase 3. This phase will include the logical extension of the services that were installed as part of Phases 1 and 2 and connection to the existing services in 1 Avenue.

Figure 12 – Land Use Concept Phasing



TOWN OF BLACK DIAMOND

Town of Black Diamond

Kaiser ASP

Phasing

Legend

- Low Density Residential
- Medium Density Residential
- High Density Residential
- Commercial
- Environmental Reserve
- Municipal Reserve
- Pond Area
- High Water Level
- Wetland
- Road
- Access Points
- Kaiser ASP Boundary

50 25 0 50 100

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FIGURE 12