

CrossIron Common

Master Site Development Plan Cell D (Sub Cells D1 and D2)



02.02.09



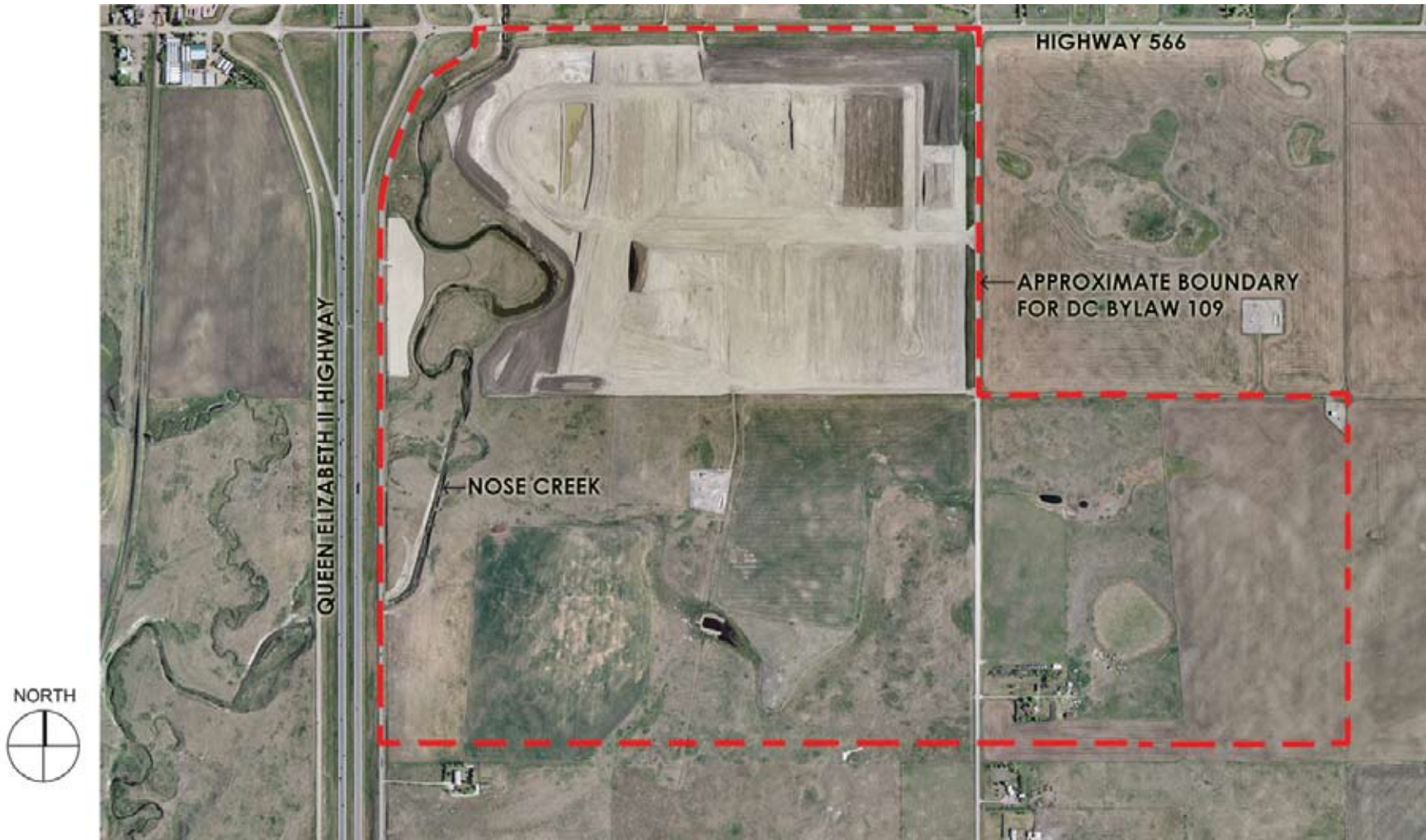
**Ivanhoe
Cambridge**
CDP group

COHOS EVAMY
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1.1 Purpose of Design Guidelines

The purpose of this document is to govern the general design principles of the project as it is developed over time. It will be used jointly by the Municipal District of Rockyview (MD) Ivanhoe Cambridge (IC) and United Horsemen of Alberta (UHA) to control all development in the common interest of achieving a high quality integrated project. A mechanism will be put in place whereby all design concepts for the shopping centre and outparcels will be fully reviewed and vetted by Ivanhoe Cambridge prior to submission to the Municipal District of Rockyview for its approval.



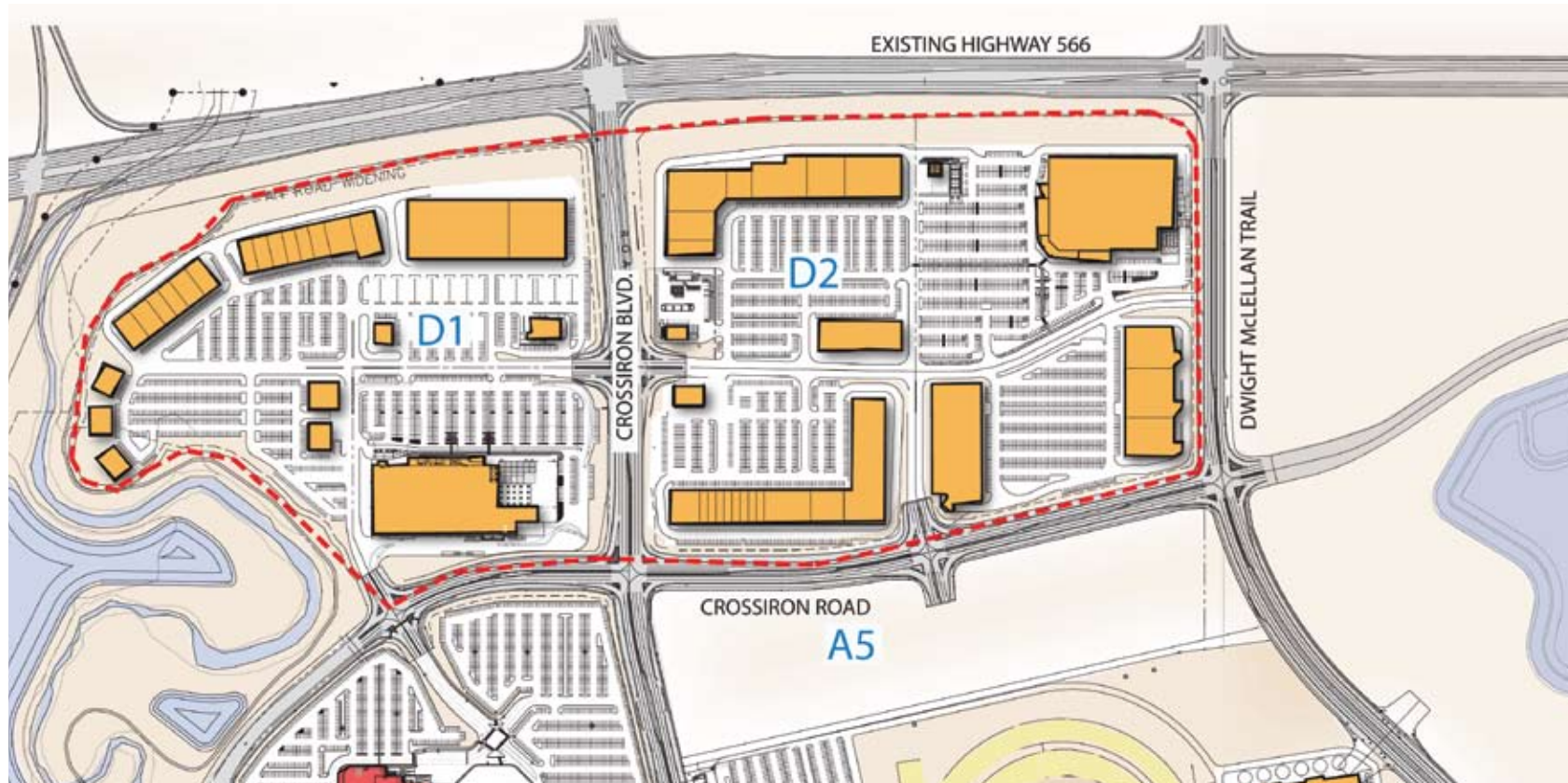
1.2 Vision

The land east of Queen Elizabeth II Highway and south of Highway 566 will be developed as a commercial zone comprised of super regional shopping centre, racing entertainment centre (REC), retail, office and light industrial uses. The land use policies are identified in the amended Balzac East ASP and DC Bylaw 109. The property is located north and east of the City of Calgary in the Municipal District of Rocky View.



1.3 Definition of the Study Area

For the purposes of the Master Site Development Plan, the study area (sub cells D1 and D2) is defined as Cell D, in Appendix A of DC Bylaw 109, located on the east side of Queen Elizabeth II Highway, south of Highway 566, north of Crossiron Road and west of Dwight McLellan Trail.



1.4 Site Opportunities and Constraints

Among the opportunities and constraints to be addressed are existing and future road networks.

Nose Creek and its surrounding setbacks provide a physical and visual buffer between the development and the Queen Elizabeth II Highway. A 30 m setback from Highway 566 also provides visual separation to the development and allows for the creation of a linear park that includes the continuation of the regional path system.

The Master Site Drainage plan prepared by Kellam Berg Engineering defines the locations of storm water retention ponds that impact the amount of developable land.

With respect to existing vegetation on site, there are no significant trees and no trees which would be suitable for transplanting to other locations. Therefore, the existing vegetation offers no constraints to development.



2.1 Master Plan

The Master Plan envisions of a variety of buildings and commercial uses within sub cells D1 and D2. Access to the site will be from the three surrounding public streets. These entrances will include landscaping and site identification signage, which leads to parking and the out parcel buildings.



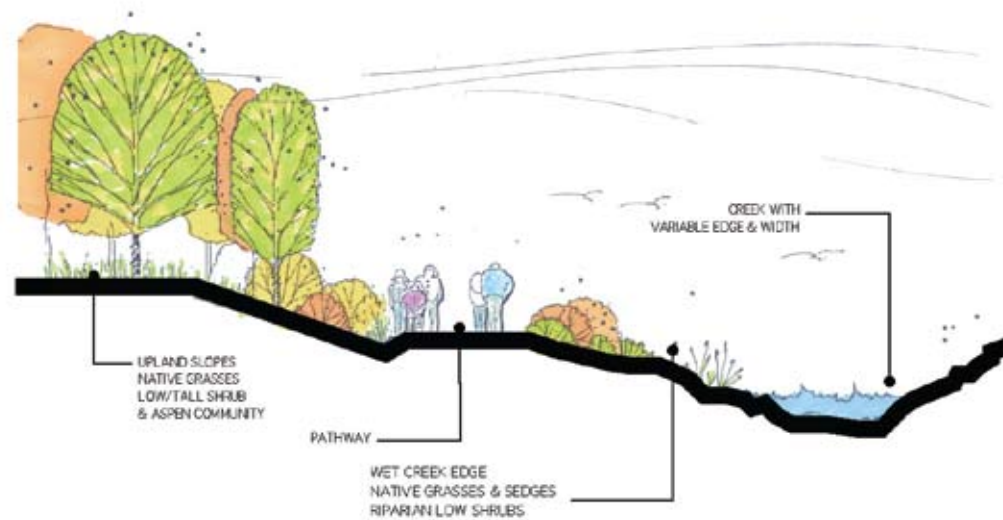
2.2 Private Realm

The private realm is defined as developments within outparcel blocks, entry magazines, building entrances and the perimeter treatment around the individual buildings. The layout and development of the outparcel blocks will evolve over time, and be subject to this MSDP as per the DC Bylaw and the Balzac East ASP. In addition, each development within the cells will require a development permit. The general massing and architectural arrangement of the private realm are described in 5.0 Architecture.

2.3 Landscaping

Landscaping of D1 and D2 will follow the requirements of the Balzac East ASP, the DC Bylaw and subsequent council policy regarding the restriction of potable water for irrigation purposes. In addition, the strategies outlined in the Comprehensive Landscape Strategy prepared by Carson McCulloch will be applied. These strategies include approaches to perimeter landscaping, parking lot treatments, building edge landscaping and plant material.

Detailed landscape plans will be submitted with the Development Permit for each parcel or building. The irrigation and landscape concepts have been modified to incorporate the MD's policy regarding no potable water for irrigation. Refer to Appendix A for additional landscape concepts.

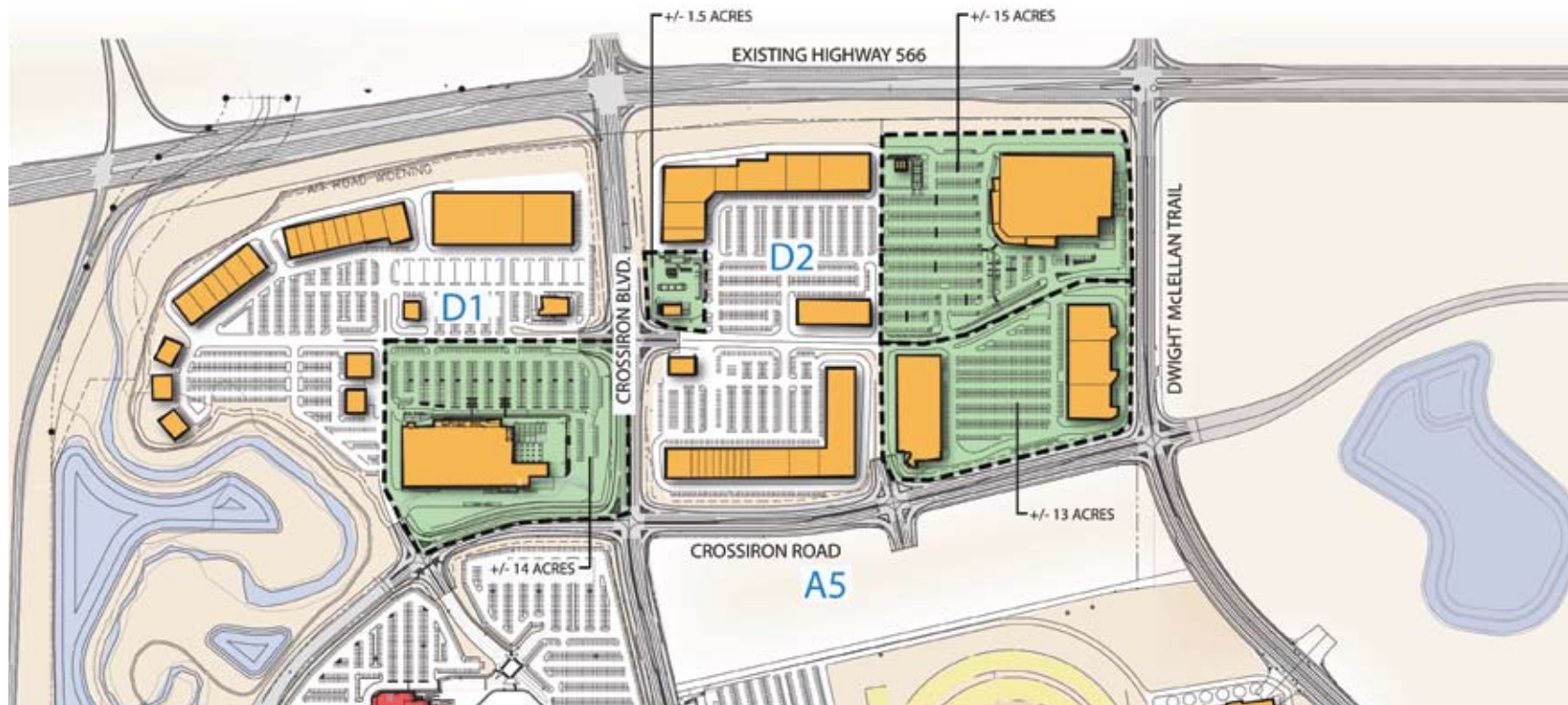


2.3.1 Site Entry Magazines

The major access points to the site are through the Entry Magazines along CrossIron Boulevard, CrossIron Road and Dwight McLellan Trail. These gateway entrances will be landscaped to include planting, lighting, and identification signage. The corners will be treated with enhanced hardscape and may include an architectural gateway element. Where a public sidewalk exists, the pedestrian links will extend to the building entrances.

2.3.2 Subdivision

Individual parcels within sub cells D1 and D2 may be subdivided into separate parcels (lots). The attached drawing indicates in general, the potential subdivisions for CrossIron Common. The individual subdivisions may be subject to minor revisions and will require a separate subdivision application. The maximum number of Accessory Buildings per lot is three (3). The maximum number of freestanding signs per lot is four (4).



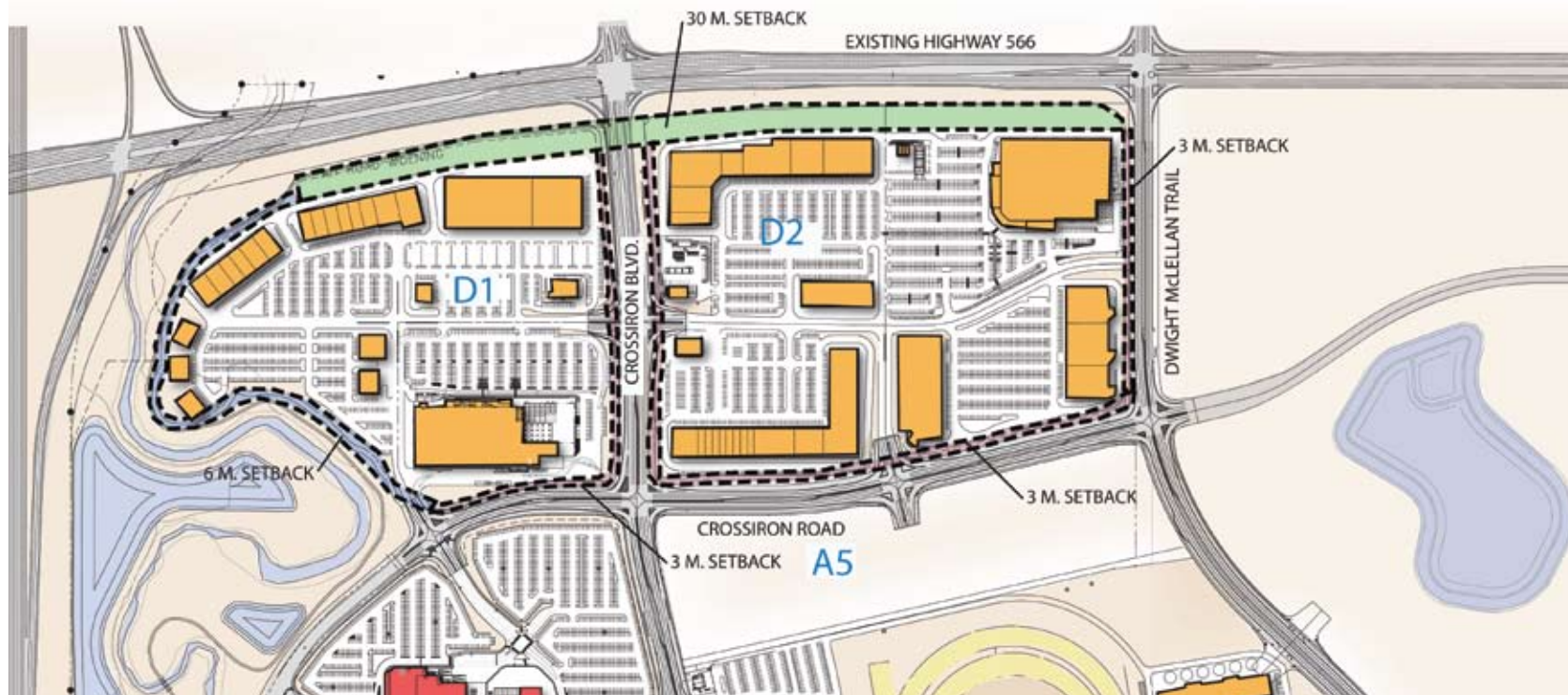
2.3.3 Setbacks

The minimum building setbacks for sub cells D1 and D2 are as follows:

Adjacent to Highway 566 30 meters from the Road Allowance Boundary
(the first 20 meters of which is dedicated Municipal Reserve for a linear park and regional pathway).

Adjacent to Nose Creek 6 meters from the easterly Boundary of Cell C.

All others A minimum of 3 meters from the Property line.



2.4 Parking and Loading Needs Assessment

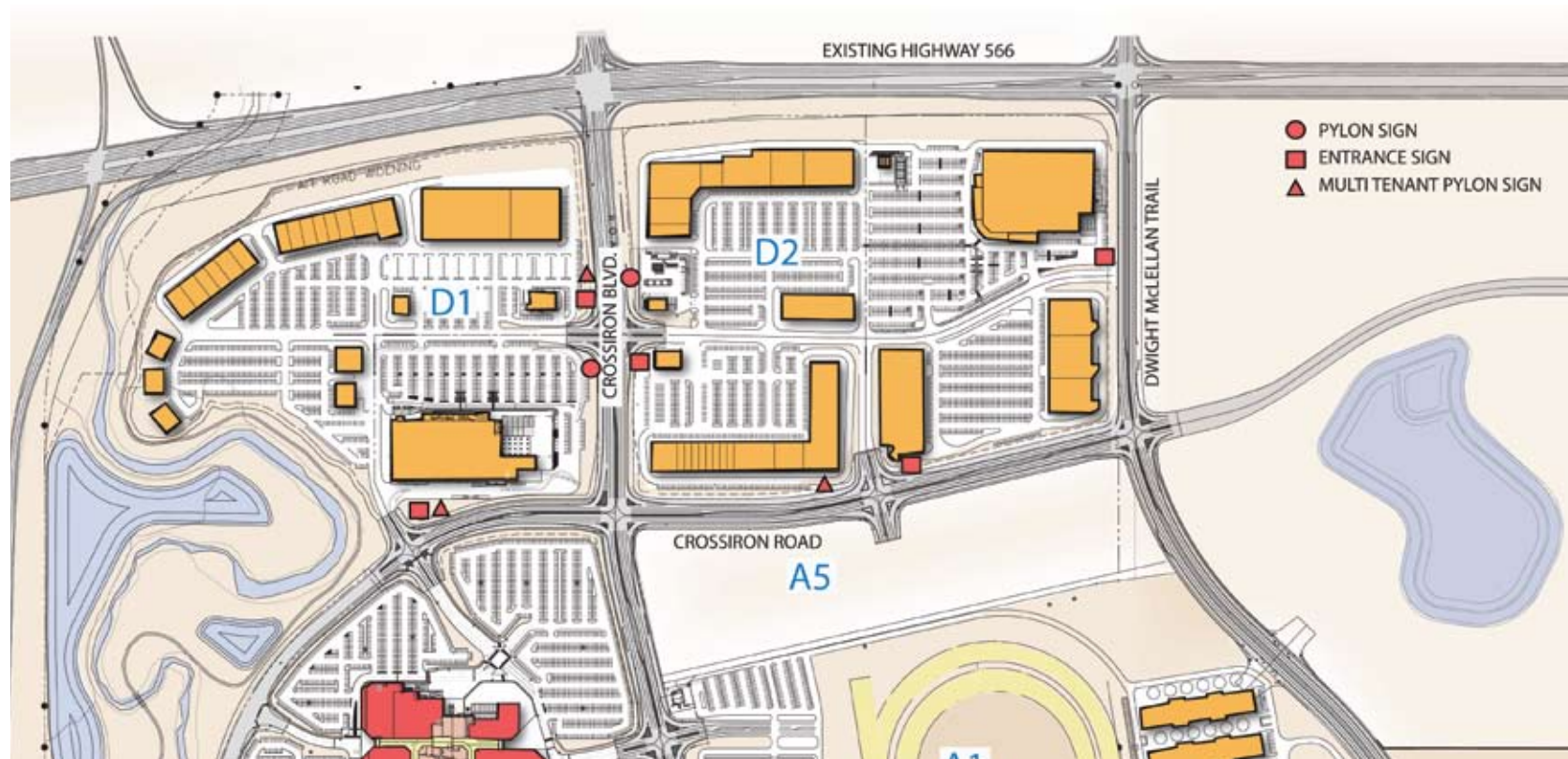
Refer to Appendix B for a Parking and Loading Needs Assessment prepared by Bunt & Associates. This assessment along with the landscape strategies and regional pedestrian circulation will guide the layout and approach to the parking design for CrossIron Common.

3.1 Signage Overview

Signage addressing the various hierarchies of orientation may be located throughout the site. The signage documentation is intended to be a Master Plan and template for future detailed signage approvals. This is a guide and the final sign locations are subject to refinement. Types of signs that may be installed include:

- entrance gateway sign
- tenant pylon signs
- multi-tenant pylon signs
- tenant identification signs located on building facades

The following plan provides general locations.



4.1 Hierarchy of Lighting

A hierarchy of lighting is established, scaled to the particular needs of the varied zones within the CrossIron project area, including both the public lighting and project site lighting.

4.2 Public Lighting

Public lighting refers primary to street lights along public streets. This street lighting shall conform to the design standards at the time of installation. Lighting along the project corridors is designed to provide a cohesive project identity.

4.3 Project Site Lighting

Site lighting refers to the illumination of on-site areas for the purpose of safety, security, and night time ambience, and includes parking areas, peripheral parcel parking areas, entries, pedestrian walkways and amenities, outparcel building entries and plazas, graphics and signage, architectural and landscape features and service areas. Within these zones, site lighting fixtures are intended to be from the same family of fixtures with respect to design, material, color and color of light.

The general parking area lighting around CrossIron consists of pole mounted fixtures located within the parking areas. The height and intensity of these fixtures is designed to provide consistent illumination while reducing the actual quantity of freestanding fixtures needed. The light source is typically designed to provide a natural color while reducing glare and light trespass and will be dark sky compliant.

Along pedestrian movement corridors and plaza areas, the use of low mounted lighting which reinforces pedestrian scale will be encouraged.

Service area lighting is to be provided with surface mounted wall fixtures with concealed lighting sources.

Materials will be metal i.e. aluminum or steel painted, colors will be to suit the theme when determined and the pole foundation shall be poured in place concrete.

All lighting will be designed to minimize light “pollution” and direct the light to the surface.

In general, the following minimum light levels will be achieved:

- Parking lot – 2 foot candles
- Entrance Magazines – 3 foot candles
- Entrances – 5 foot candles

A detailed lighting plan will be submitted with the Development Permit for each parcel and/or building.

5.1 Architecture Overview

Building elevations facing Highway 566 and/or Queen Elizabeth II Highway shall be treated as front yards and architecturally treated in a manner to break up the building mass. Treatments may include building articulation, variety of building heights, variety of building materials and integration of landscape features and berms.

Loading facilities are encouraged to be on the sides of buildings and when facing Highway 566 or QE II shall be appropriately screened in a manner that is consistent with the architectural treatment of the adjacent building elevation.

A pedestrian circulation system has been developed to provide links to the adjacent roads and regional pathway. This system allows for connectivity throughout the site and encourages pedestrian activity to the buildings.

Direct customer access is provided from the regional pathway abutting Highway 566 and is integrated into the internal pedestrian pathway system.

For buildings and sites abutting the major roads, the building elevation designs and architectural treatments shall be incorporated to enhance the appearance of all facades.

All buildings will be architecturally designed, articulated and incorporate a variety of building materials. The building materials may include: concrete masonry units, masonry, stone (natural or artificial), EIFS, prefinished metal, precast concrete, aluminum framed glazing and wood.

Wherever possible the main building façade should incorporate pedestrian oriented design elements such as wide sidewalks, articulated facades, canopies, glazing and a variety of building materials.



5.3 Outdoor Display and Sales

Exterior display areas will be properly sited and landscaped. Details will be provided at the development permit stage.

5.4 Loading Areas

Loading areas shall be screened with either landscaping or screen walls to ensure that principal view lines and vistas will focus on building entrance and major tenant areas. The treatment of screen walls shall be consistent with the adjacent architectural façade.

6.1 Utilities

Gas meters, pad mounted transformers and other physical elements affecting Urban Design shall be appropriately screened with landscaping.

6.2 Stormwater Management

A Master Storm Water Management study has been established for the entire area. Stormwater management for the individual sites will conform to the overall study.

6.3 Overhead Power Lines

Whereas there may be overhead power lines in the road, all power lines within the site will be buried.

6.4 Transit

Allowances have been made in the Municipal Road network for the provision of bus laybys to accommodate future public transit to the area.

6.5 Pedestrian Linkage

An internal pedestrian system will link the regional pathway system, perimeter sidewalks and future transit nodes to CrossIron Common and the individual buildings. The system is conceptually illustrated in Appendix A.

6.6 Environmental Stewardship

Where ever practical and feasible, building methods and systems may be implemented to minimize the impact of CrossIron Common on the environment. The landscape strategy encourages a landscape methodology that eliminates irrigation water. In addition the principles of LEED (Leadership in Environmental and Energy Design) developed by the United States Green Building Council, and other environmentally friendly strategies may be implemented where feasible.

Landscape



APPENDIX A - LANDSCAPE STRATEGY PLAN FOR:

CROSSIRON COMMON

PREPARED FOR:



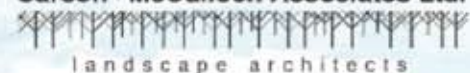
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landscape architects





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INTRODUCTION

The Landscape Strategy for the CrossIron Common development in Balzac has been prepared in preparation for submission for a Master Site Development Plan (MSDP) on behalf of Ivanhoe Cambridge. This report provides a framework for the preparation and review of later Development Permit applications.

LANDSCAPE VISION

The landscape presentation at CrossIron Common will be a function of context, utility and aesthetics, consistent with the objective of creating high quality, well-planned developments. CrossIron Common will employ landscaping to delineate the public realm, enhance the pedestrian experience and define vehicular circulation. Notwithstanding this, landscape installations must be sustainable in the sense of utilizing contextually appropriate materials with positive aesthetics that can be maintained in a viable, healthy condition for the life of the development.

LANDSCAPE FOCUS

The focus along the perimeter roads and primary internal east-west 'spine' will draw design influence from the prairie shelter belts, with design form expressed as single or double linear tree rows.

The setback zone along Highway 566 will accommodate a meandering regional pathway link; landscape treatments here will emphasize large blocks of native trees and shrub groupings rather than individually planted trees. In addition, land forms will be manipulated with the introduction of berms and native grass swaths. Particular emphasis should be placed on the entries to the site at Dwight McLellan Trail and CrossIron Boulevard as a means of defining circulation routes and enhancing the visual experience.

Landscape treatments within internal parking areas should focus on locating plant material in areas with the best opportunity for long-term viability. This will mean foregoing the traditional 'small parking island' planting approach in favour of consolidating the spaces into larger, more contiguous areas.



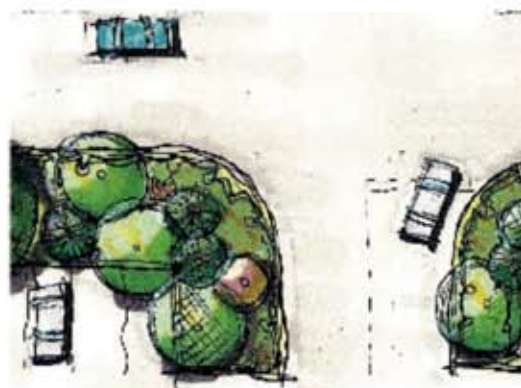
WATER AVAILABILITY INFLUENCE ON LANDSCAPE DESIGN

On sites with multiple buildings of varying size (like CrossIron Common) the landscape concept approach needs to be carefully considered relative to landscape design and resultant landscape irrigation demands. Appropriate solutions need be employed during the planning process to ensure the built form, circulation and landscape elements maximize functionality and aesthetics given the constraints due to the lack in availability of water.

The M.D. of Rocky View policy for East Balzac precludes the use of potable water for landscape irrigation purposes. As such, predecessor projects such as CrossIron Mills (the shopping centre) have relied on the collection of rainwater from the building roof to provide landscape irrigation water. The very large, contiguous roof area of the shopping centre facilitated a logical collection system to provide water to underground cisterns for storage and redistribution to specific areas of the landscape. The Racing and Entertainment Centre (horse track) proposed an irrigation system largely reliant on the flow of surface runoff to the large infield pond for landscape irrigation purposes. 444

CrossIron Common is largely comprised of numerous separate structures of varying sizes, including many stand-alone 'pod' type buildings. Large contiguous roof expanses (like represented at the shopping centre) are not articulated in the built form at CrossIron Common. As such, these building configurations are less reasonably adaptable to the collection of water from roof areas for landscape irrigation purposes.

It may be appropriate for the CrossIron Common project to articulate a landscape design approach that is as exclusively independent as possible from the requirement to irrigate landscape installations with an underground automated system. This is not inconsistent with the 'Comprehensive Landscape Strategy for the Retail and Racing Entertainment Centre', but will require some innovations in landscape design and possible modifications in plant material requirements by the M.D. of Rocky View.



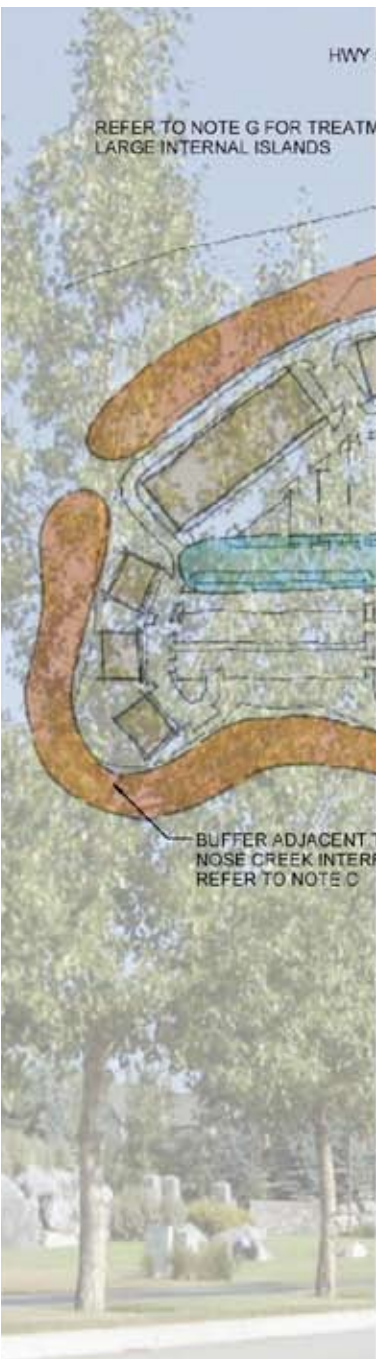
LANDSCAPE TECHNIQUES

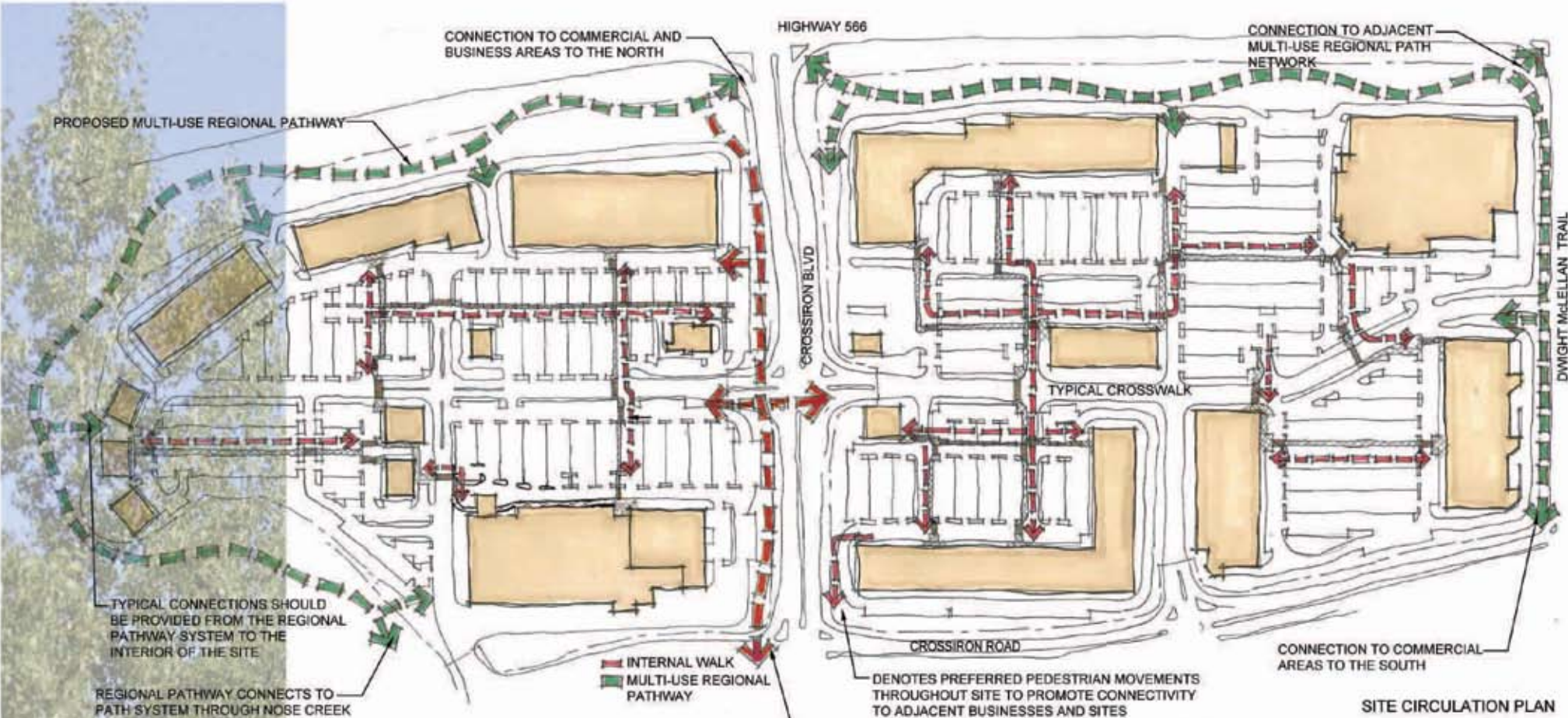
The largest irrigation water demand items are irrigated turf (Bluegrass/Fescue), sod and trees. Of tree types, the least adaptable to extended drought in the Balzac area are conifers (Spruce, etc.). In the broadest sense, a 'non-irrigated' landscape design would focus on eliminating irrigated turf, minimizing the number of conifers and selecting drought tolerant deciduous species.

In addition, general landscape techniques suggested for CrossIron Common that would be adaptable to a 'non-irrigated' approach could include but are not limited to:

- No irrigated turf areas provided (could be native and dryland grasses and/or non-irrigated sod).
- Include 'feature' areas of gravels, cobbles, rocks and boulders with ornamental grasses and low-water demand shrubs.
- Mirror geographic and environmental conditions in plant groupings in the surrounding areas.
- Concentrating tree plantings in consolidated rows and/or large groupings and clusters with organic mulches to retain soil moisture.
- Mimic LID (low-impact development) design strategies by including gravels/rocks and hardy oversize drought/salt resistant plants (caragana, potentilla, wolf willow, sea buckthorn).
- Manipulate the terrain (where space permits) through grading design to direct water to landscape plantings to 'extend' the benefit of naturally occurring rainfall.
- Stipulate watering (especially for conifer areas) by water truck (with non-potable water) during extended drought events (those lasting longer than 10 days without measurable rainfall).
- Incorporate water retaining elements (hydrogels) in planting soil mixes.







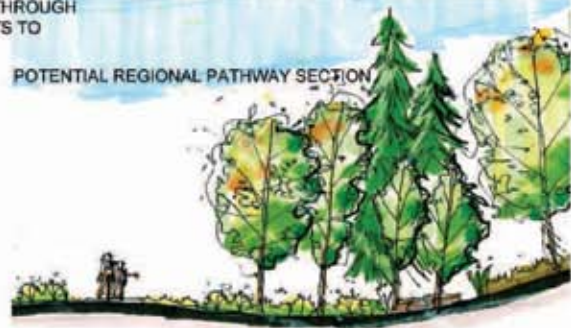
SITE CIRCULATION PLAN



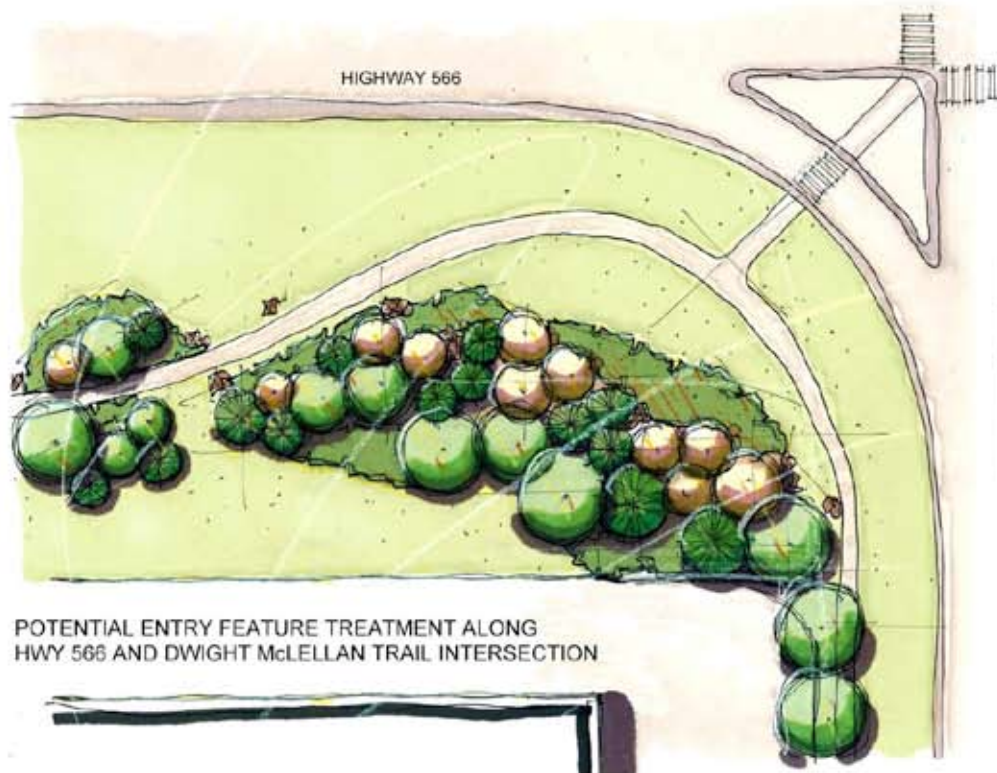
POTENTIAL REGIONAL PATHWAY IMAGE

GENERAL NOTES:

Pedestrian circulation at Crossiron Common should be given a high priority to promote connectivity throughout the site and to adjacent sites. Pedestrian road crossings may feature clearly discernable pavement treatments and/or markings. The pedestrian experience should be enhanced by incorporating main walkways within large landscape islands and boulevards featuring row tree plantings and/or pedestrian scaled light fixtures. Signage and pagentry elements may be incorporated on the light fixtures. Appropriately scaled walk treatments may also be incorporated to provide a positive aesthetic to the pedestrian experience.

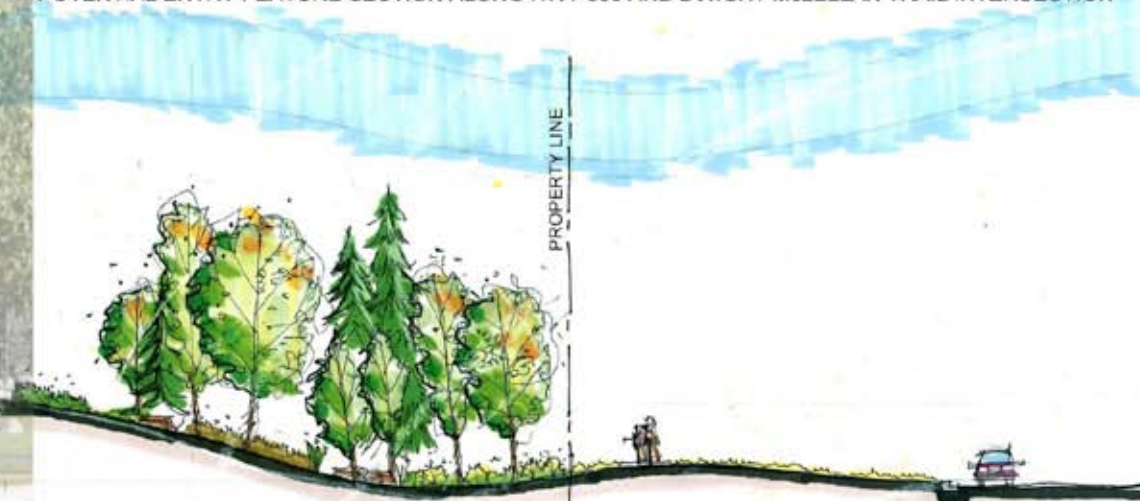


POTENTIAL REGIONAL PATHWAY SECTION



POTENTIAL ENTRY FEATURE TREATMENT ALONG HWY 566 AND DWIGHT McLELLAN TRAIL INTERSECTION

POTENTIAL ENTRY FEATURE SECTION ALONG HWY 566 AND DWIGHT McLELLAN TRAIL INTERSECTION



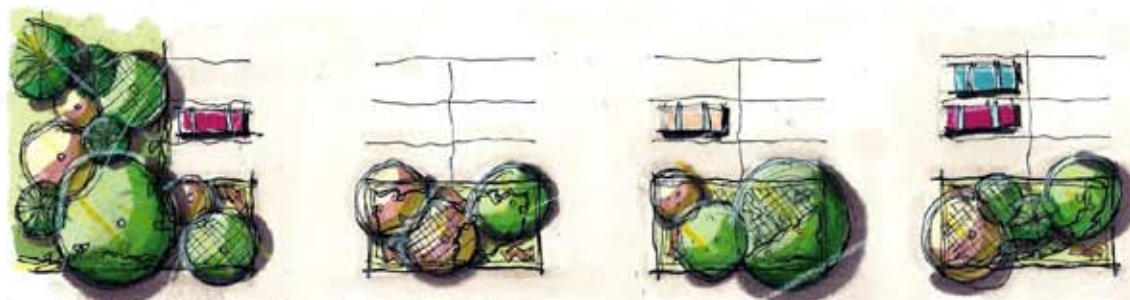
The following graphics and images illustrate the concepts and principles as outlined and described on the priority landscape areas page for the main entries to the site and to a certain extent the buffers that should appear along Highway 566. In this instance the intersection of Highway 566 and Dwight McLellan Trail is illustrated.

Plantings should occur in large masses with material of varying size. Planting should also be clustered together in random patterns as opposed to linear or ordered relationships that one may find in a more urban context. Plantings can start and stop in different beds, however careful attention should be placed to the mass and scale of the groupings given the context of the buildings and the road R.O.W.

From a visual standpoint, the clusters while dense, should still provide a level of porosity to maintain sightlines to and from the site. There should also be enough visibility to ensure public safety along the adjacent path.

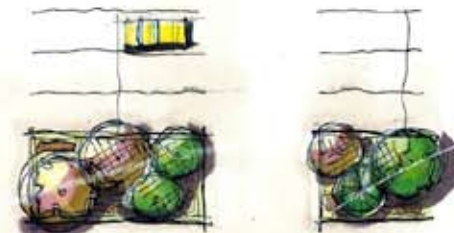
POTENTIAL PLANTING CLUSTER IMAGE





Along the main interior road, where large continuous islands separate parking areas from the main roads, trees should be planted in a continuous colonnade. In addition to contributing to way-finding and in defining vehicular circulation, the trees will serve to screen views to the large parking areas and help relieve the heat island effect of the hard surface areas.

TYPICAL MAIN INTERIOR ROAD PLAN



Where large separate islands occur along the main road in lieu of continuous ones, plantings should incorporate trees and shrubs of varying width and height. Boulders and rocks combined with organic mulches should be incorporated.



Where entrances to the parking areas occur, the row plantings should be held back in favour of cluster plantings of varying sized trees and shrubs. In addition, boulders, rocks, stones and organic mulches may be incorporated to define the entries.

TYPICAL MAIN INTERIOR ROAD SECTION



POTENTIAL ROW TREE IMAGE



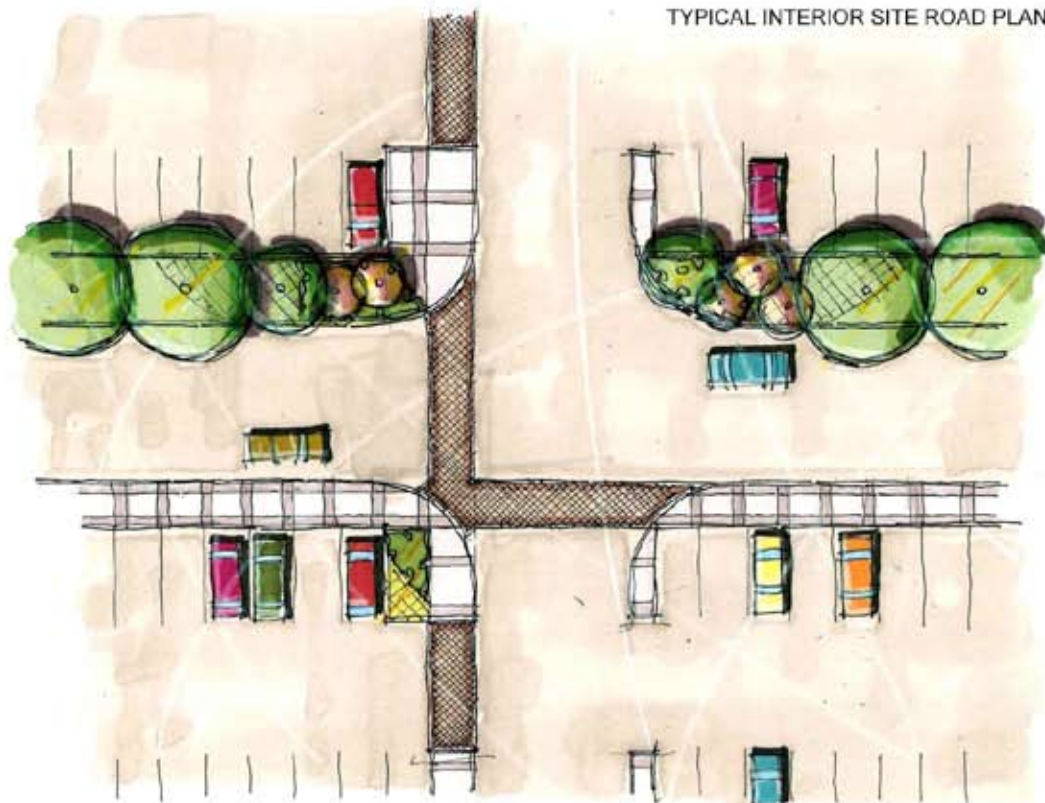
POTENTIAL WALK CONFIGURATION IMAGE

Pedestrian circulation and connectivity should be given a high priority throughout the sites at CrossIron Common. With the transfer of landscape area from small islands to larger ones, the islands which define the parking areas should be incorporated into the overall pedestrian circulation scheme. Site amenities such as benches may be incorporated where space provides, as well as other feature elements. Cross walks may feature clearly discernable pavement treatments and/or markings. Pagenry items may also be incorporated on light fixtures as banners or signs to contribute to the quality of the experience in the public realm.

POTENTIAL INTERIOR SITE ROAD SECTION



TYPICAL INTERIOR SITE ROAD PLAN



POTENTIAL ROW TREE IMAGE

REFERENCE IMAGES:



LANDSCAPE GUIDELINES

The landscape requirements described herein are supplementary to the requirements stated in the Balzac East Area Structure Plan. The requirements of the BEASP will not be restated here, merely the plant material quantity requirements of that document will be highlighted:

Trees/shrubs shall be planted and maintained in the overall minimum ratio of one tree/shrub per 45 square meters of soft landscaped area identified in the Landscape Plan. Trees shall comprise at least 50% of the tree/shrub mixture used to satisfy this requirement. Coniferous trees shall comprise a minimum portion of one-third (1/3) of all trees planted, and where feasible, trees should be planted in clusters or landscape groupings. The minimum size for deciduous trees shall be 50 mm (2.0 inches) caliper. The minimum size for small coniferous trees shall be a height of 2 meters (6.5 feet) and for large coniferous trees, a height of 3 meters (9.8 feet). Shrubs shall be a minimum height or spread of 600 mm at the time of planting.

Given the water constraints, it may be appropriate to amend the requirements by reducing the number of coniferous trees in lieu of deciduous trees and reducing the required tree totals in lieu of more drought tolerant shrub massings where appropriate. The following guidelines are supplementary to the BEASP requirements.

- An average landscaped setback of 6.0 metres, more or less, shall be provided from the property line on all frontages; the setback shall be reserved for landscape purposes, but may contain signage, and other appropriate elements.
- Parking islands located opposite building entrances/ exits may be treated with low shrubs, or decorative feature hard surface and vertical landscape elements including lighting and pageantry items as an alternative to trees.
- The minimum width for planted parking islands shall be 2.0 metres measured from face of curb to face of curb.
- Large raised planting beds instead of a number of smaller beds are encouraged.
- Shrubs shall be planted in masses, and these groups shall consist of no fewer than 15 shrubs with at least 5 plants of each species used; the minimum size for shrubs is a #5 container size.
- Non-irrigated grassed areas are to be seeded with an appropriate native and / or dry land grass seed mix.
- Where required, retaining walls shall be constructed of materials that are an integral part of the landscape design, or are those which primarily define the appearance of the principal building. Suggested materials would include local hard, durable sandstone, rundlestone, fieldstone or limestone boulders. Wood or timber retaining walls are not permitted.
- Low, flowing landscape berms (approximately 0.5 to 1.2 metres in height) shall be incorporated in the perimeter landscaped setback areas, where grades permit.
- All plants and planting shall be Chinook Region hardy, nursery-grown material, supplied by a full member in good standing of the Landscape Alberta Nursery Trades Association (LANTA) - Nursery Grower designation.
- The Landscape Contractor engaged shall be a full member in good standing of the Landscape Alberta Nursery Trades Association (LANTA) - Commercial designation.
- A landscape plan prepared by a Landscape Architect who is a full member of the Alberta Association of Landscape Architects shall be submitted with each development permit application.

RECOMMENDED PLANT LISTS

TREES

Trembling Aspen
Balsam Poplar
Plains Cottonwood

SHRUBS

Silver Buffaloberry
Saskatoon
Red Osier Dogwood
Wolf Willow
Prickly Wild Rose
Common Wild Rose
Gooseberry
Buckbrush
Common Potentilla
Russet Buffaloberry

Parking Analysis



October 28, 2008

Refer to File: 1038-09

Cohos Evamy
#200, 902 - 11th Avenue SW
Calgary, AB T2R 0E7

Attention: Mr. David Miner

Dear Dave:

Re: CrossIron North Outparcel Site Plan – Summary of General Layout and Parking Supply

As requested, we have reviewed the most recent CrossIron site plan for the north outparcels as it relates to parking layout, traffic circulation and parking supply. This plan is dated September 9th, 2008 and was received by Bunt & Associates on October 15th, 2008. We understand that it shows 5065 stalls for the 1,015,500 sqft. GFA development floor area (5.0 stalls per 1000 sqft. GFA).

Based on our review of the aforementioned plan, we are satisfied that it will be sufficient to adequately accommodate on-site parking demand, traffic circulation, expected loading activity and pedestrian flows provided the main east/west drive aisle between the east side of Pad A6 and the east side of Pad B7 is widened from two to three lanes to accommodate left turn storage as and when required.

It is understood that additional minor modifications may be forthcoming as the design matures and more specific information becomes available regarding tenants and other factors affecting the precise placement of circulation roadways and internal intersections. However, there are no major aspects of the plan that require further attention at this time. Should additional support for the proposed parking ratio be required, please refer to our review dated June 15th, 2006.

We trust that this letter is sufficient for your needs. Please call if you have any questions or wish to discuss any issue in further detail.

Sincerely,

BUNT & ASSOCIATES

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