



Sustainability Summary and Development Concept Plan

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1.0 Introduction

1.1 Purpose

A block shell Emerald Hills Stage 8 subdivision (4050-2008S006) was approved by Strathcona County on July 18, 2008 and two Direct Control Districts (69 and 72) were given third reading on June 30, 2009 (See Figure 1). DC69 (Bylaw 38-2008) and DC72 (Bylaw 35-2009) both state that upon further subdivision of these blocks, a “Development Concept Plan” will be required. According to DC69 and DC72 the Development Concept Plan is intended to *“demonstrate the consistency and compatibility of the new parcel and subsequent development within the area and site.”* Figure 1 below depicts the original overall Stage 8 site plan reviewed by Strathcona County in 2009. In addition DC69 and DC72 both state that “the submission of Development Permits within these districts shall include a completed Emerald Hills Sustainability Summary when evaluating the proposal against the sustainability goals and objectives within Emerald Hills.”

This initial Emerald Hills Centre (EHC) Sustainability Summary and Development Concept Plan (SSDCP) as approved only applied to the approximately 21.00 hectares/52.00 acres north of Emerald Drive/east of the SWMF described as Area 1. End users and site design were not confirmed for Area 2 of DC72 or DC69 at that time so they were not included in the original SSDCP. This updated version expands the boundary of the SSDCP to include the approximately 2.79 hectares/6.89 acres located south of the SWMF identified as Area 2 in DC72 and Area 1 (7.91ha./ 19.54ac) and Area 2 (2.34ha./ 5.78ac) of DC69. This Sustainability Summary and Development Concept Plan is submitted to support

subdivision file 4050-2009S023 approved on October 21, 2010, subdivision 4050-2012S018 approved on October 5, 2012 and all future subdivision applications in Emerald Hills Centre within DC69 and DC72, as well as the Development Permit process. The recently approved subdivision is the first phase of commercial development within the Emerald Hills Centre Site D, creating a parcel approximately 0.42 hectare (1.04 acres). This Emerald Hills Centre Sustainability Summary and Development Concept Plan is amended to include Area 1 and 2 of DC69 south of Emerald Hills Drive and Area 2 of DC72, located south of the stormwater management facility north of Emerald Drive.

1.2 Background

The Development Concept Plan area is located along the northern border of the Emerald Hills community and it continues south and east of Sherwood Drive. The Strathcona Community Hospital, Archbishop Jordan Catholic High School and the Emerald Hills Urban Village are completed or under construction in the immediate vicinity of the partially completed Emerald Hills Centre development. Figure 2A and 2B have been created due to the large size of the plan area. Linkages have been a priority through all the stages of planning in the Emerald Hills and Aspen Trails communities. Encouraging and supporting pedestrian activity and creating gathering places continues to be a priority in Emerald Hills Centre.

This Emerald Hills Centre Sustainability Summary and Development Concept Plan is a further evolution of an already extensive Strathcona County planning and engineering review in the Emerald Hills Area Structure Plan area. This SSDCP builds on the existing documentation of the:

- Strathcona County Municipal Development Plan
- North of Lakeland Drive Area Concept Plan
- Emerald Hills Area Structure Plan
- Emerald Hills Stage 8 Sustainability Summary and Development Concept Plan

This document provides for a more detailed level of planning, architectural and landscaping information specific to the SSDCP area and demonstrates how the Emerald Hills Centre development fits into the existing and future Emerald Hills plan area. This document will guide and support all subdivision approvals and future development permits to ensure compatibility both within DC69 and DC72 and beyond the Emerald Hills Centre site. This document also serves as the Emerald Hills Centre Sustainability Summary, by expanding on requirements under the 12 themes of sustainability.

1.3 Sustainability Guidelines

Emerald Hills Centre (EHC) has been planned using sustainability principles, which will strive to achieve effective land use by creating efficient and compact development, reducing infrastructure footprints, and promoting pedestrian activity as outlined in Strathcona County's Municipal Development Plan. Emerald Hills Centre offers a rich blend of commercial uses, alongside natural habitat, naturalized storm ponds, and institutional amenities, all integrated by a multi-modal transportation network. The 12 Themes of Sustainability have been identified as key elements by Strathcona County to guide in the evaluation of achieving sustainable design. Specific sustainability objectives for Emerald Hills Centre corresponding to these 12 themes are identified throughout this document.

1.4 Development Permits

The SSDCP will guide and inform the design and construction of all land and proposed building projects within the Emerald Hills Centre so as to create a "premiere" commercial development. In addition to the requirements of the Strathcona County Direct Control Bylaw DC69 and DC72, each separate development permit application will be guided by the following section of the EH SSDCP:

- Site and Parking Areas
- Pedestrian and Vehicular Circulation
- Site Fixtures and Furnishings
- Storage and Loading Areas
- Master Sign Plan
- Building Design and Materials
- Landscape Master Plan
- Pedestrian Linkages
- Vehicular Circulation
- Garbage and Storage Areas
- Loading Areas
- Building Design Concept
- Open Space Amenities & Public Art

This SSDCP illustrates how development of the Emerald Hills Centre responds to current Strathcona County sustainability and urban design initiatives.

Consistent with these initiatives, a combination of strategically located architectural elements, public art and landscaping detailing are proposed in Emerald Hills Centre. This Sustainability Summary and Development Concept Plan is not intended to stifle innovation and creativity in the development permit applications, but it will ensure that the effectiveness and merits of the overall intent are maintained.

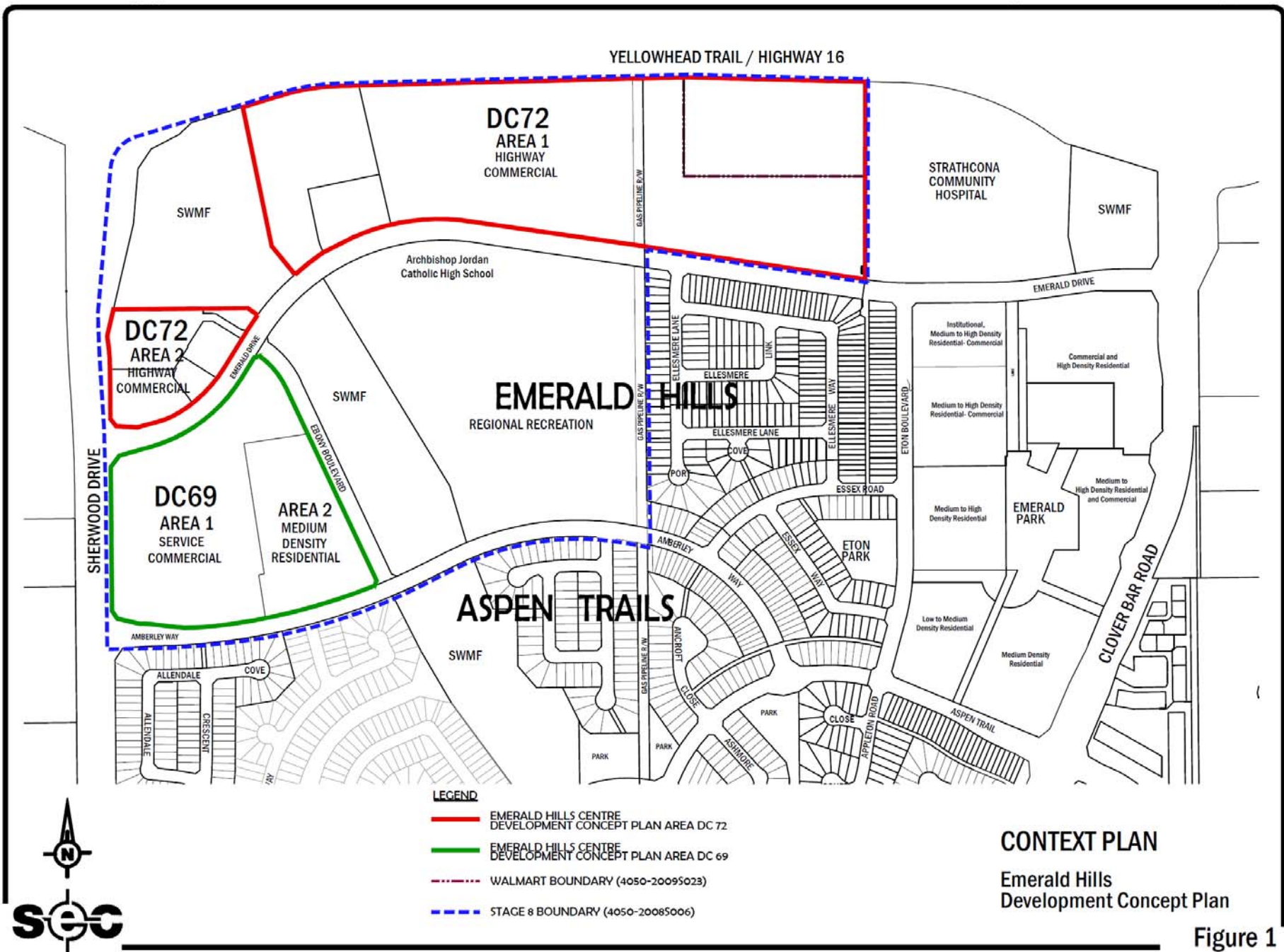


Figure 1

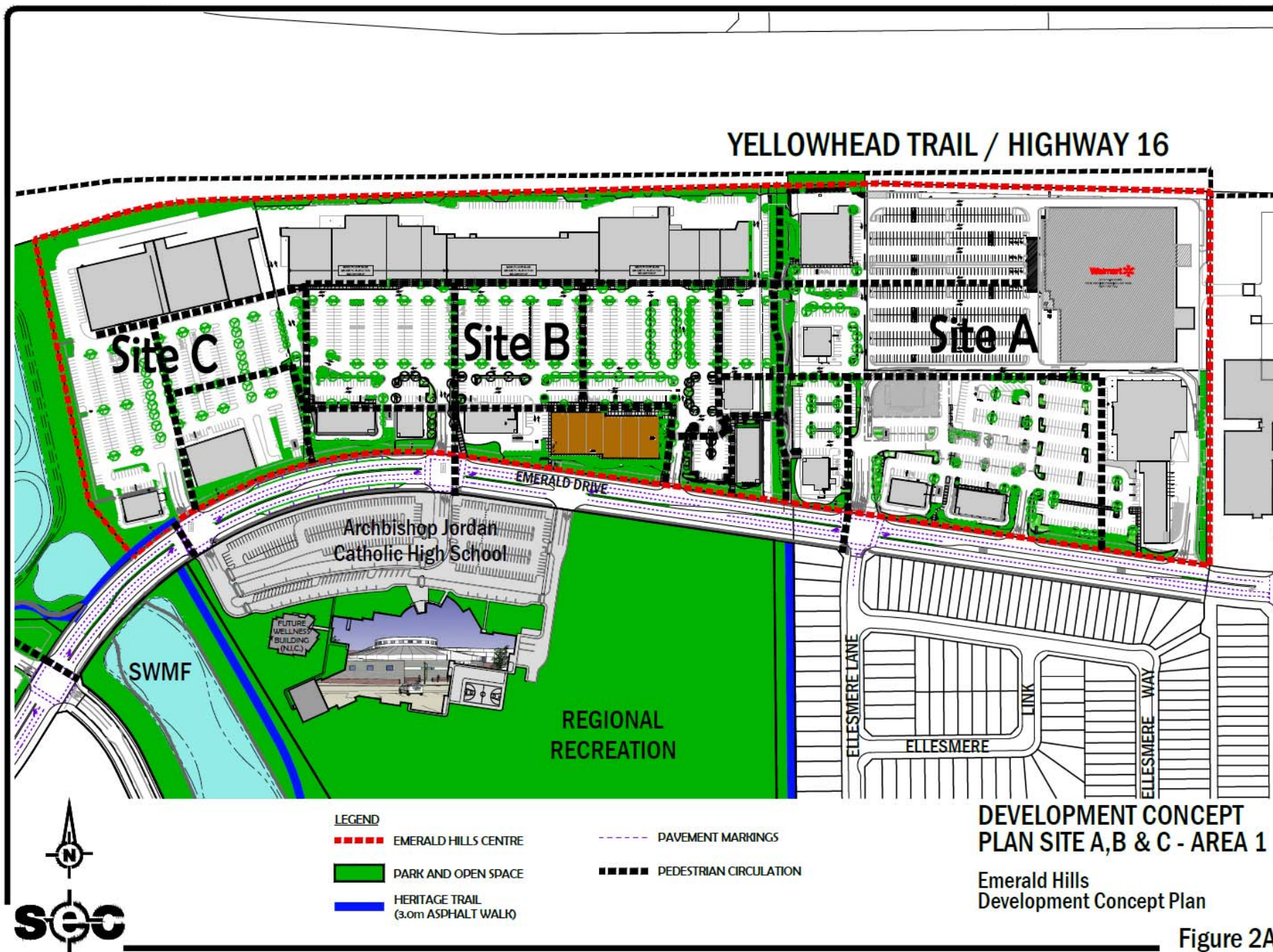
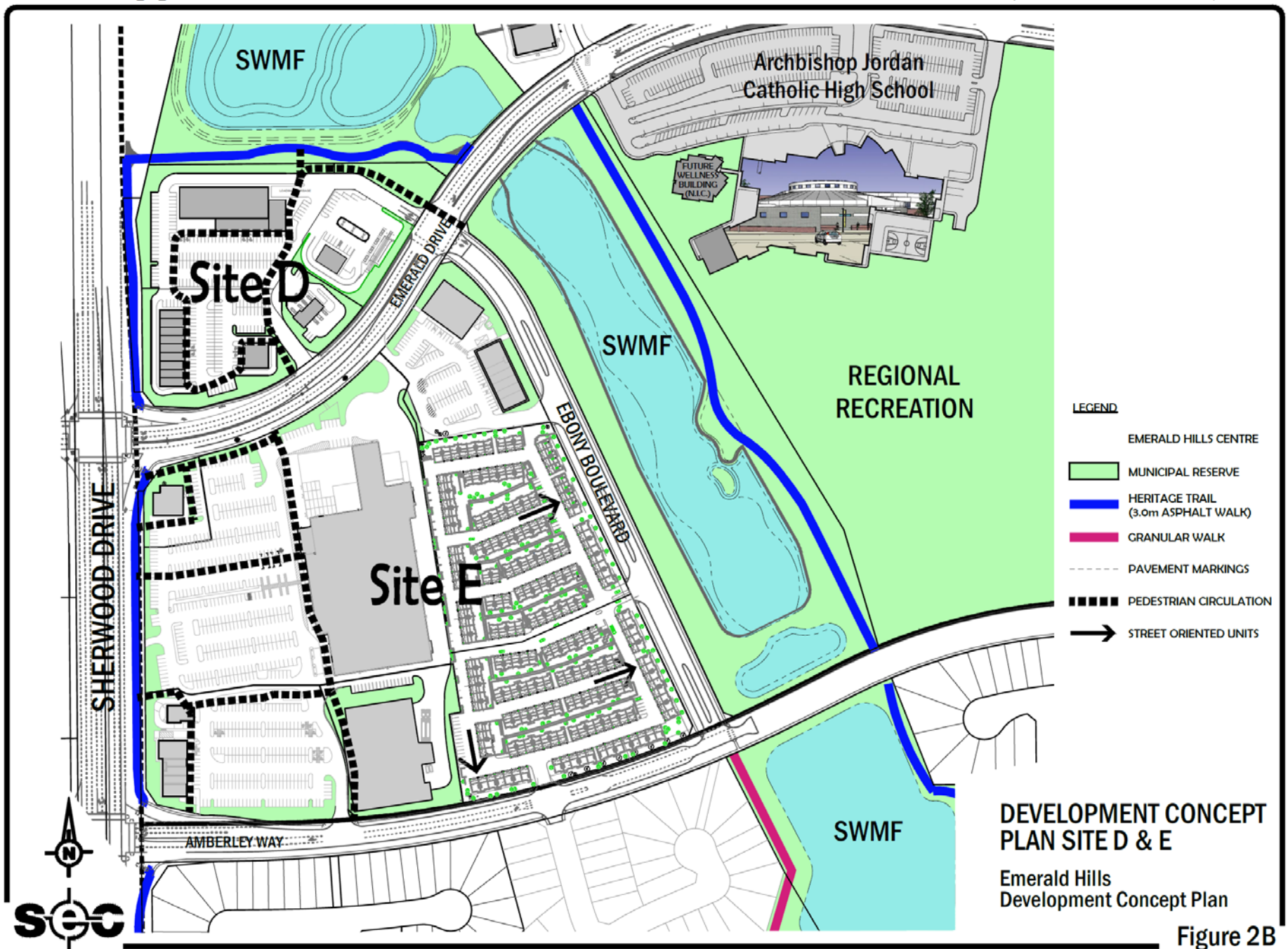


Figure 2A



1.5 Proposed Phasing

The Development Concept Plan area is divided into five phases, Sites 'A' through 'E'. (See Figure 3) Each phase has been designed to function independently and has direct access to Emerald Drive. This phasing allows for flexible site development sequencing. Within each site, building phasing is envisioned to be completed separately with each building or group of buildings moving forward under its' own Development Permit application. The proposed phasing and site designations do not indicate or imply order of construction as the proposed construction sequence will occur based on leasing and /or sales activity. The site area, proposed building area and site coverage are listed below.

Site A

Site Area: +/- 22.951 acres (+/- 999,782 sq. ft.)
Total Proposed Building Area: +/- 261,748 sq. ft.
Target Site Coverage: 0.261 FAR

Site B

Site Area: +/- 20.386 acres (+/- 888,037 sq. ft.)
Total Proposed Building Area: +/- 220,581 sq. ft.
Target Site Coverage: 0.248 FAR

Site C

Site Area: +/- 10.407 acres (+/- 453,336 sq. ft.)
Total Proposed Building Area: +/- 121,265 sq. ft.
Site Coverage: 0.267 FAR

Site D

Site Area: +/- 6.895 acres (+/- 300,344 sq. ft.)
Total Proposed Building Area: +/- 76,940 sq. ft.
Site Coverage: 0.256 FAR

Site E

Area I:

Site Area: +/- 17.075 acres (+/- 743,786 sq. ft.)
Total Proposed Building Area: +/- 197,105 sq. ft.

Site Coverage: 0.265 FAR

Area II:

Site Area: +/- 8.278 acres (+/- 360,590 sq. ft.)
Site Coverage: Maximum 60%

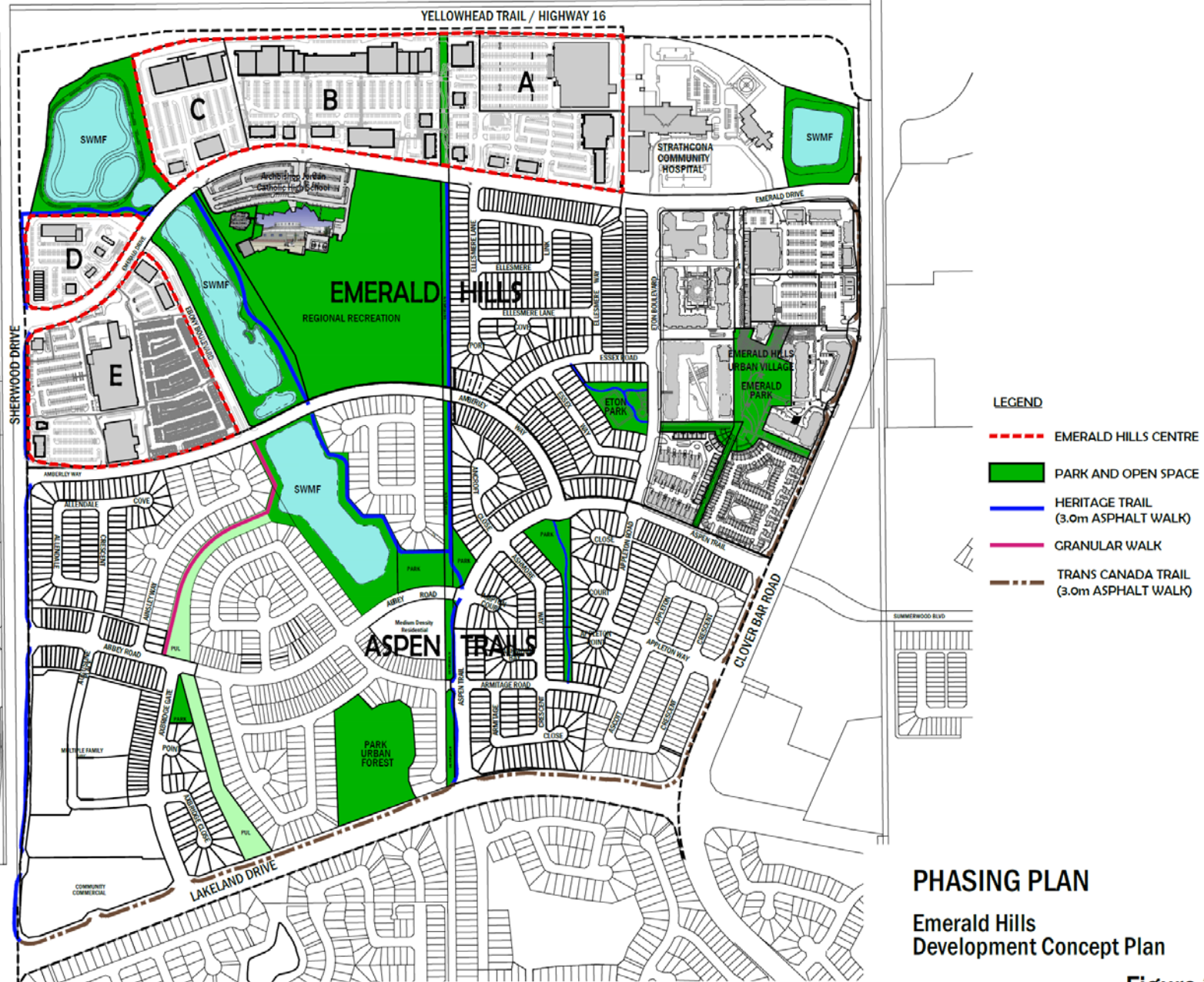


Figure 3

2.0 Access and Transportation

2.1 Local and Regional Access

Patrons coming from the south will utilize Sherwood Drive and Clover Bar Road to connect to Emerald Drive. From the north, east, and west patrons will access Emerald Drive via Highway 16/ Yellowhead Trail and connect to Sherwood Drive and Clover Bar Road. Primary access to Emerald Hills Centre is provided from Emerald Drive. Additional access will be provided north from Amberley Way and west from Ebony Boulevard. Site D and Site E have a particularly prominent location within the Sustainability Summary area as it forms the entrance focal point to Emerald Hills from Sherwood Drive. Through orientation and massing, buildings in Site D and E must create a strong urban “first impression” for the development. Exact access locations and signalization status have been established through a series of Transportation Impact Assessments (TIA) reviewed by Strathcona County over an extended period of time. The TIA for Emerald Hills Centre states that Emerald Drive, Amberley Way and Ebony Boulevard are designed to support the commercial development proposed in Emerald Hills and the intersections will operate at a high level of service. All directional access is differentiated from right in/right out access on Figure 4. The proposed consumer base will primarily be coming from the surrounding adjacent subdivisions in Sherwood Park as well as the regions to the north, west and east in the City of Edmonton, Strathcona County and Fort Saskatchewan (See Figure 5).

2.2 Internal Vehicular Circulation and Parking

Safe and convenient vehicle access and circulation onsite is critical to the success of Emerald Hills Centre. Vehicular circulation for the north site originates from Emerald Drive and circulates through the sites A, B and C through parking fields on a series of internal road networks. Because of Site D’s more isolated area its access and circulation pattern is exclusive to its site. (See Figure 6) Site E will have access from Emerald Drive, Amberley Way and Ebony Boulevard. The internal bay length details and turning radii on site have all been confirmed through the TIA. As part of the on-site design of Emerald Hills Centre a formal internal traffic circulation study was conducted. This study coordinates traffic movement with pedestrian linkages to ensure safety and efficiency of movement and facilitate way finding within the shopping centre.

Signalized, all directional accesses are presently designated at four intersections along Emerald Drive. Four right in and right out accesses are also designated to maximize traffic movement.

2.3 Pedestrian Circulation

The Trans Canada Trail, Heritage Trail and a series of more natural granular walkways are already designated within the Emerald Hills neighbourhood (See Figure 3). These walkways provide a variety of active and passive walkway experiences in Emerald Hills. The pedestrian network proposed in Emerald Hills Centre (Site A, B, C, D and E) should build on that system but provide an alternative more diverse and appropriate “window shopping” experience.

The building placement in Emerald Hills Centre has been set to create a logical walking route, provide a strong building interface along Emerald Drive and screen parking fields from both Emerald Drive and Highway 16 (See Figure 6). Creating a pleasant more diverse shopping experience will be a key factor in making Emerald Hills Centre a preferred “destination” in the Sherwood Park region.

Pedestrian movement is a prime consideration in Emerald Hills Centre. The urban nature of the sidewalk should encourage and direct pedestrian movement around and through the internal pedestrian network. The internal pedestrian network may range in widths from 2.0 to 8.0 meters and should include a variety of interesting focal points, public art and landscape features along the way. The internal walkway system connects adjacent parking fields to the buildings, as well as inter-connection between sites through use of pavement markings and signage.

Landscape design along the ATCO gas Right-of-Way should integrate with the design for the rest of the site to the greatest extent possible while respecting ATCO’s easement rights. The pedestrian movement should also connect buildings with the preliminary transit routing along Emerald Drive.

The entrance location of Site D via Highway 16 and Sherwood Drive make it suitable for vehicle service type commercial. Site E also has a high visibility location but its larger size also makes it suitable for larger commercial development. Pedestrian circulation within the Site D and E will be provided through a series of parking fields and internal sidewalks associated with the future businesses. Internal sidewalks will be connected to sidewalks along Emerald Drive, Amberley Way and Ebony Boulevard.

The Heritage Trail is constructed in the southern portion of the stormwater management facility immediately north of Site D. It continues west to Sherwood Drive and then south along Sherwood Drive. As more detailed site design is completed at the Development Permit stage, opportunities to tie pedestrian circulation from Site D to the Heritage Trail, the amenity provided by the stormwater management facility to the north and Emerald Drive will be explored with Strathcona County. (See Figure 6) Amenity area will be provided in accordance with DC69 and DC72 to enhance pedestrian circulation as further described in Section 5.10 – Well-Being. Images representative of the design theme for amenity are provided on pages 25 and 26.

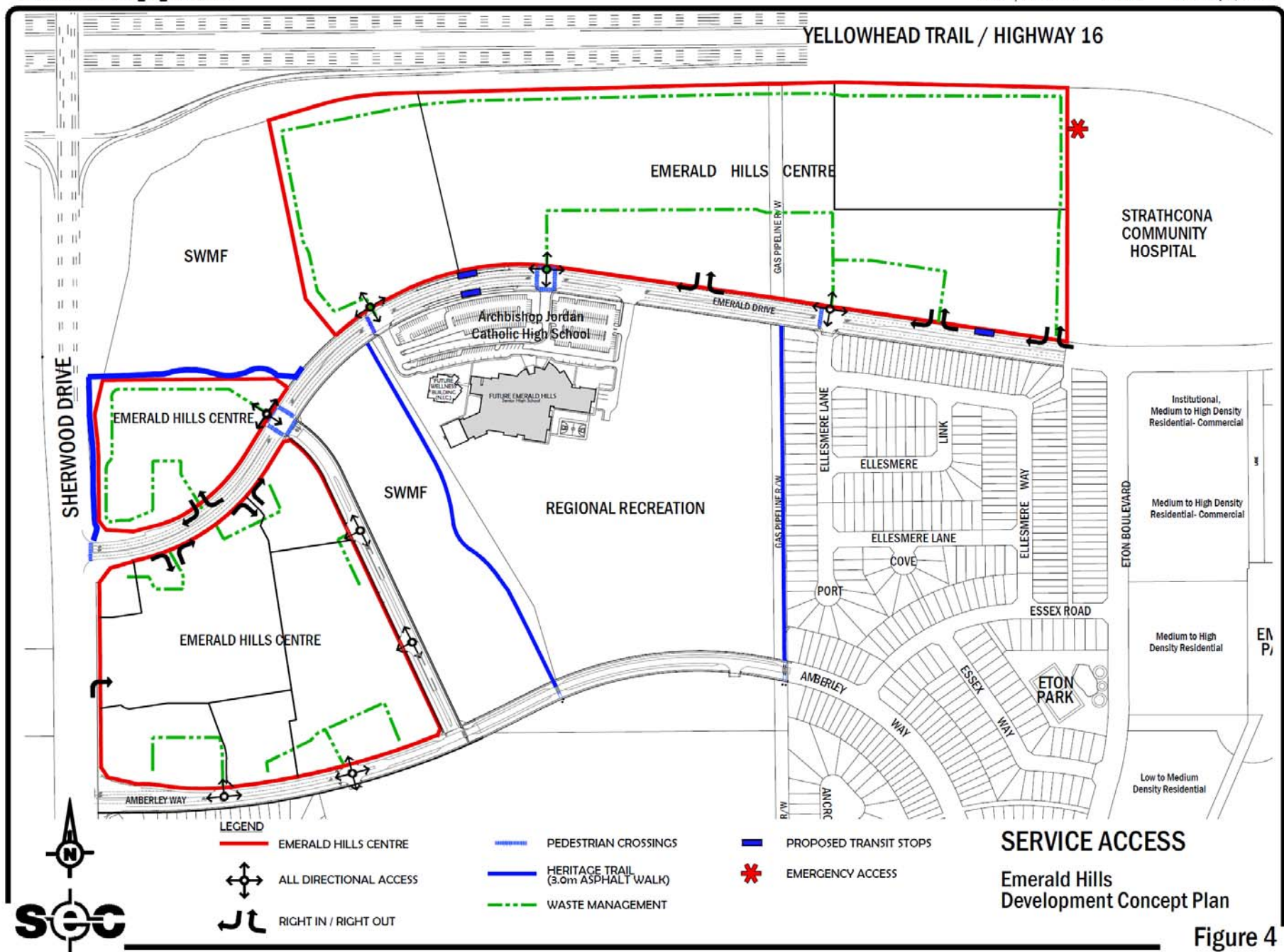
2.4 Transit Service

The combination of the Emerald Hills Centre, Archbishop Jordan High School, Strathcona Community Hospital and the high density of the Urban Village all support transit. Emerald Hills Centre will ultimately be serviced with full peak and off peak hour transit service. Exact transit locations will be determined with the County as site development proceeds along Emerald Drive. A Strathcona Transit route is already established on Emerald Drive and that route has been extended west along Emerald Drive to service the new Archbishop Jordan Catholic High School which opened south of Emerald Drive in the fall of 2012. (See Figure 7) Proposed transit stops are identified on the plan. The exact location and type of stops will be confirmed with Strathcona County as development proceeds. Development will integrate transit stops into the site design according to the following principles:

- Transit stops should be adjacent to a public walkway, and connected to the pedestrian network internal to the site.
- Transit stops will be in highly visible locations.

2.5 Merchandise Delivery / Waste Management Access

Building access for merchandise delivery as well as waste management vehicles will generally be accommodated separately from the normal circulation patterns to minimize interaction with pedestrian movements and parking fields as much as possible (See Figure 4).



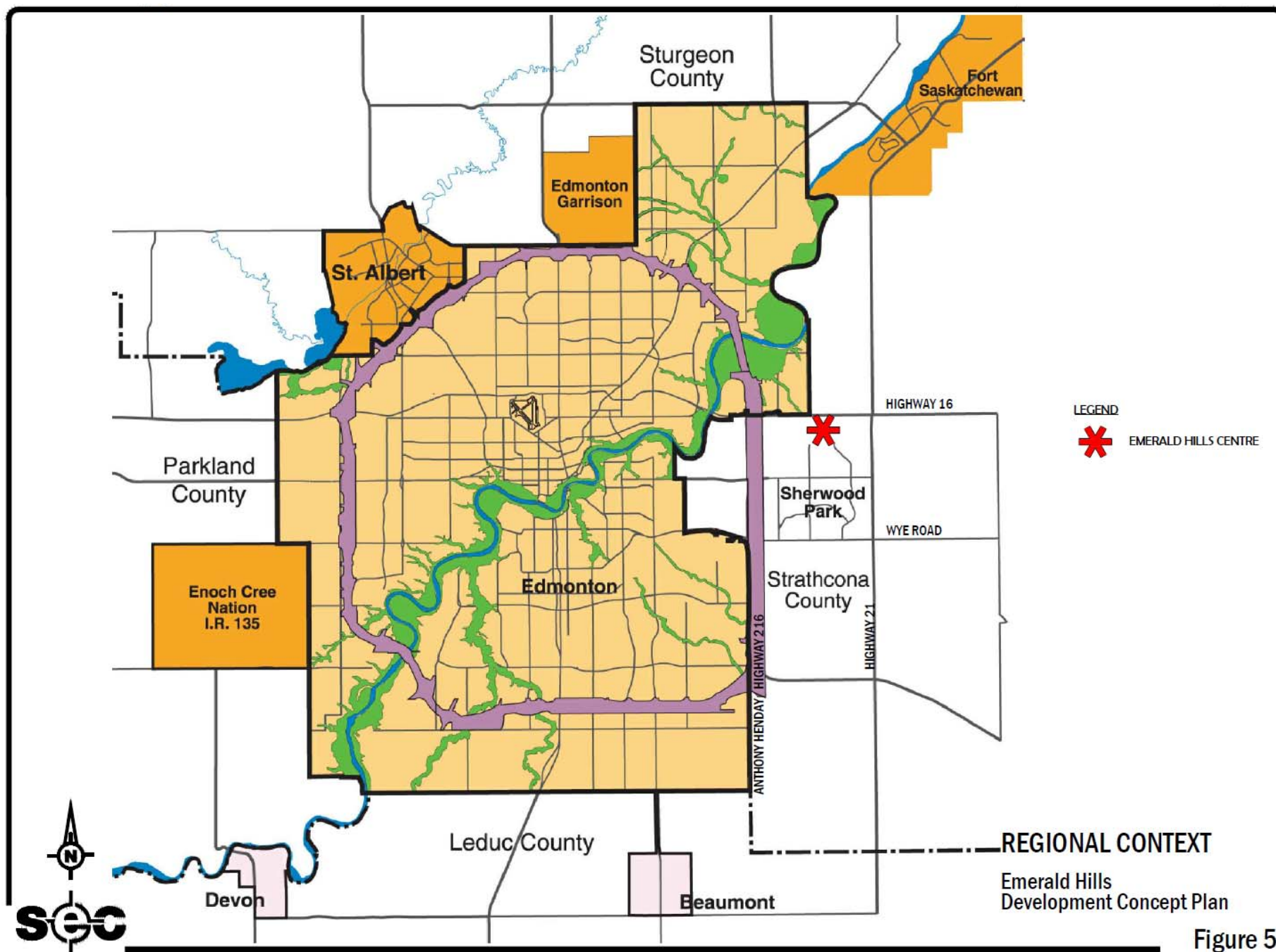


Figure 5

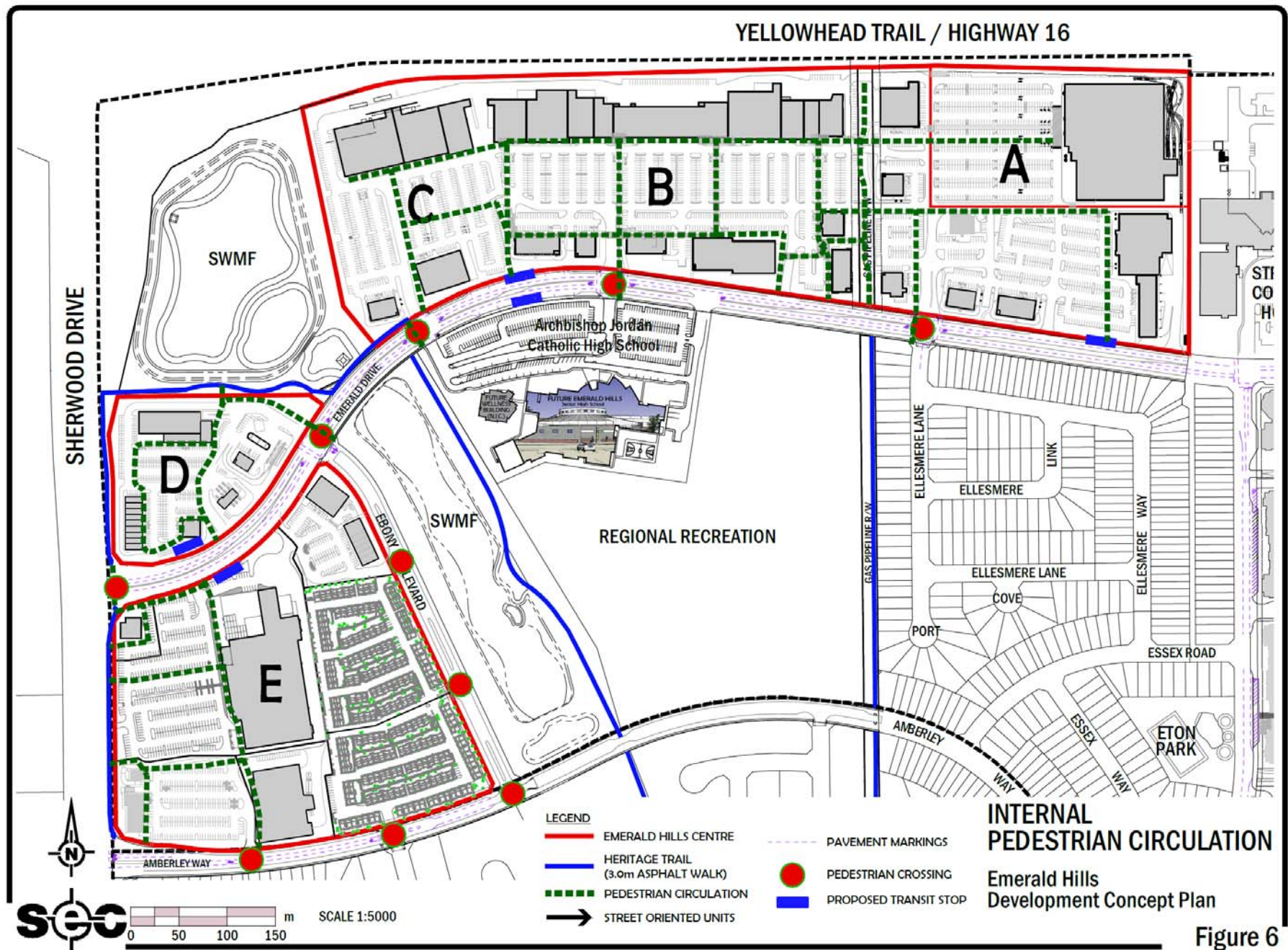
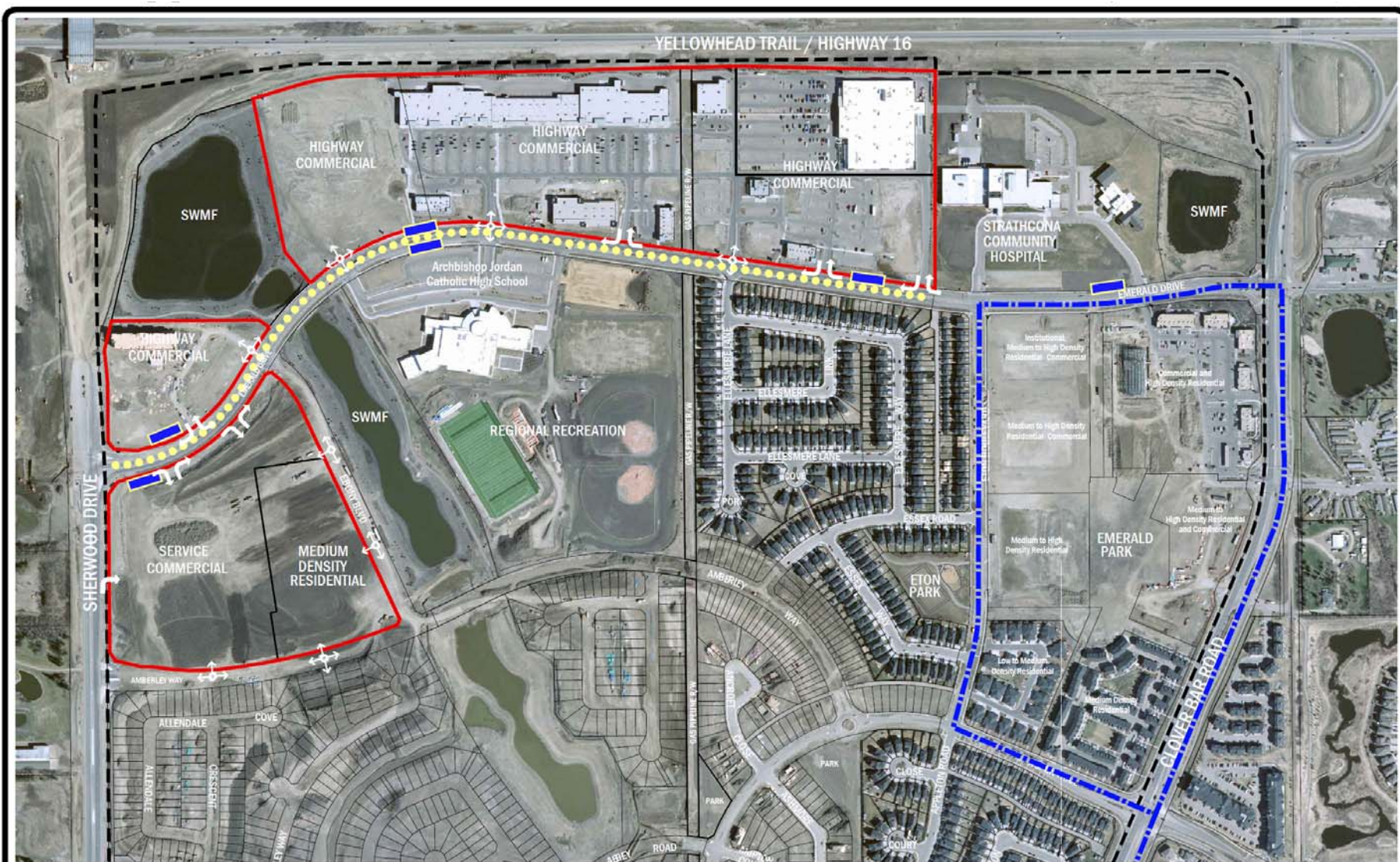


Figure 6



LEGEND

- EMERALD HILLS CENTRE
- ALL DIRECTIONAL ACCESS
- RIGHT IN / RIGHT OUT

- TRANSIT ROUTE
- TRANSIT ROUTE
- TRANSIT STOP

TRANSPORTATION AND TRANSIT

Emerald Hills
Development Concept Plan

Figure 7

3.0 Urban Design

3.1 Influences on the Design

The development of Emerald Hills Centre sets a new standard of urban design for commercial development in Sherwood Park. The design objectives presented in this Sustainability Summary and Development Concept Plan have been influenced by existing criteria established through the approval of the *Sustainable Urban Neighbourhood Guidelines* and the *Architectural and Open Space Design Guidelines* prepared for the Emerald Hills Urban Village in 2008. The combination of small, medium and large scale “big box” development in Emerald Hills Centre along with medium density residential opportunities in Site E Area II requires a more diverse and varied mix of urban design elements than the more residential Urban Village.

The perceived negative impacts of large scale anchor buildings shall be mitigated by:

- Incorporating architectural variety
- Incorporating a range of aesthetically pleasing design details
- Managing building scale
- Establishing safe and interesting pedestrian connectivity
- In addition to building form, individual site design must remain consistent with the rest of the project.
- Creative use of landscaping

The “prairie inspired” architectural and landscaping theme proposed for Emerald Hills Centre is very compatible with the overall “heritage” theme developed for the Emerald Hills neighbourhood.

The theme is communicated through the coordination of architectural detailing, massing and color palettes that create a variety of visual experiences while maintaining the essence of the prairie setting, a contrast in color, vertical and horizontal juxtaposition and textures.

Combined with a landscape strategy using primarily plants that are indigenous to the region, the overall development will be reflective of the region in and around Sherwood Park. Through effective implementation of this strategy, the ‘Prairie Theme’ will provide an experience that evokes the following:

- ‘casual’ rather than ‘formal’
- ‘unstructured’ rather than ‘manicured’
- ‘rural/suburban’ rather than ‘urban’
- ‘comfortable’ rather than ‘constrained’
- ‘layered’ rather than ‘sleek’

The medium density residential (apartments and / or townhousing) architecture and landscaping shall be reflective of the Emerald Hills ‘heritage’ architectural theme while ensuring reasonable integration with the commercial area’s ‘prairie’ theme.

3.1.1 Design Objectives

Popular and successful retail centres currently recognized in contemporary marketing literature have a high standard of architectural and landscape elements artfully arranged in a manner that creates a sense of place.



Image 1:
Example of gathering places



Image 2:
Example of prairie themed landscape design

Strengthening that architectural and landscaping relationship is a major objective of this Sustainability Summary and Development Concept Plan. Another important objective of Emerald Hills Centre is encouraging walking. Designing a more pedestrian oriented retail center means embracing a more human scale over vehicle convenience while still accommodating the realities of vehicle traffic and parking. To encourage and facilitate pedestrian activity in Emerald Hill Center a number of elements should be considered in the design:

- There must be destinations that draw people.
- Buildings must be built to a more pedestrian scale, meaning that distances are short enough to walk and that buildings are close to the sidewalk.
- Destinations must be reachable and interconnected by a continuous network of safe, convenient, comfortable and interesting sidewalks and paths. These pathways must be landscaped with sufficient tree canopy to provide shade to pedestrians.
- Amenity areas must create a welcoming atmosphere through integrated landscape design and provision of seating areas.
- Pedestrians must feel safe from crime, traffic and weather conditions. Achieving this perception of safety requires careful design including “eyes on the street”, safe traffic speeds and shelters at frequent intervals

The sense of place envisioned for Emerald Hills Centre will be enhanced by signage distributed throughout the site with a greater emphasis at gateways or entry points.

3.1.2 Building Layout and Design

Building form in Emerald Hills Centre will incorporate the following principles.

- All visible sides of the building in Emerald Hills Centre should have a high level of quality and architectural presence that is attractive both from within the site and from external roadways.
- Massing of building walls greater than 50 feet in length shall be reduced through the use of architectural elements such as columns, ribs, pilasters or piers, changes in plane (e.g., recesses and projections), changes in building finishes, materials and textures, or other features that create an identifiable pattern and sense of human scale.
- Landscaping along large format buildings shall be arranged in a manner that reduces and softens the building edge and creates visual relief.
- No walls that face Highway 16, a public street, private internal roadways or connecting pedestrian walkway shall have a blank uninterrupted length exceeding 50 feet.
- Buildings adjacent to Emerald Drive and Amberley Way should include architectural articulation on the building corners, in order to frame these entrances. See section 4.4.1 of DC72 for further details of requirements.
- Elevations of buildings along Emerald Drive and Amberley Way should be softened through the provision of enhanced landscaping between the building and the public walkway.
- Variations in building massing or changes in parapet heights are highly encouraged and are required to avoid monolithic shapes and surfaces.
- Massing elements such as major entries, windows, shifts in wall planes, trellises, roof elements, cupolas, gazebos, terracing, arcades or other similar elements should be incorporated to add visual interest to the basic massing.

3.1.3 Storefront Elevations

Storefront elevations should be designed to have the greatest amount of architectural interest and detail in response to the pedestrian scale, visibility and exposure. Major entries should have a strong focus along the storefront elevation and be clearly recognizable. All other elevations must be of a high standard and adhere to the design standards within this document. Detailing and texturing strategies should be used to provide the appropriate scale on each of the individual building elevations. Storefront elevations should reflect an intimate pedestrian scale. Large windows should be incorporated to create window dressing opportunities along the core that will change with the seasons. In keeping with the heritage elements of Emerald Hills, bolder color should be introduced into the storefront facades and signage.

The following images illustrate conceptual elevation design for a commercial retail unit based on these guidelines:

All buildings within DC69 and DC72 District shall maintain the same character.

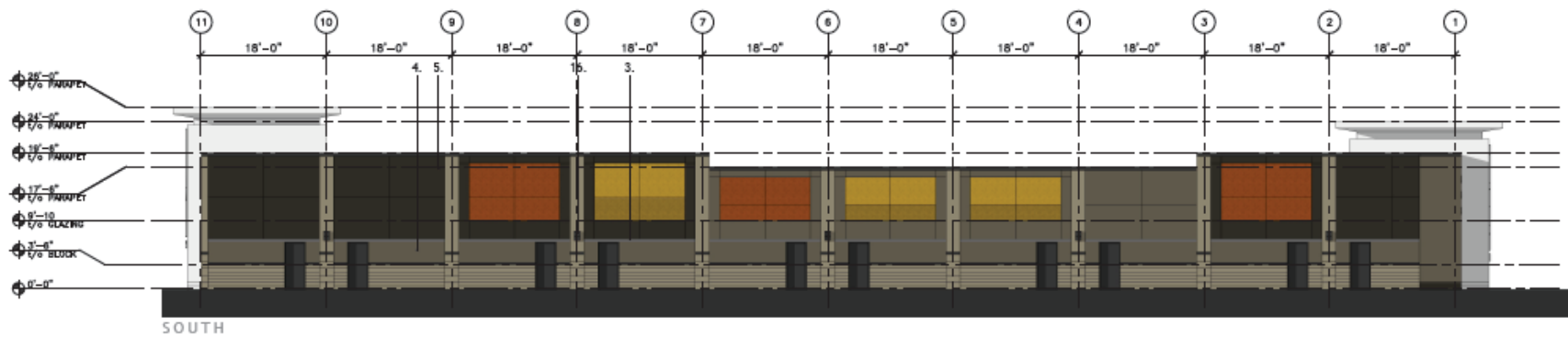


Typical commercial retail unit front elevation.

Typical commercial retail unit front elevation, side angle.



Typical commercial retail unit rear elevation.



3.1.4 Architectural Details & Materials

Material selection should be based on the following criteria and shall be designed to provide:

- Clearly identifiable primary entrance through the use of architectural design elements.
- Coloured awnings which support the prairie theme and architectural components will enhance the overall texture of the building, provide a level of consistency with respect to form and diversity of color and will provide screening from climatic conditions (i.e. sun, wind, precipitation).
- Accent materials used on the elevations such as painted metalwork, masonry, painted flashing, tile work, glass, wood or decorative ironwork are encouraged.
- Reveals, patterns, grids or textural changes must be used to minimize wall scale.
- Materials and colours to consider the character of the built environment in Sherwood Park and the northern Alberta Region. Materials foreign to our environment, in character and/or performance are to be avoided.
- Materials which are locally available or manufactured within the region.
- Utilization of durable building materials which will retain their performance and appearance characteristics over time.
- The material palette composed for a building or cluster of buildings must visually anchor the building(s) to the site and provide a sense of stability, permanence and congruity with the surrounding region in a spirit of longevity.

3.1.5 Visual Composition of Building Elements / Forms

Building design should be based on the following criteria:

- Varied building forms / proportion / heights
- Layered architectural forms
- Canopies should provide a level of texture/colour to the façade of the building. In certain instances they may add weather protection for pedestrians and/or support the identification of entries to the commercial retail units. Again, a consistent approach should assist in uniformity such that it does not detract one from the other.
- Interesting / Visually interactive pedestrian storefronts

3.1.6 Contemporary Retail Imagery Concept

A successful retail development incorporates and celebrates the diversity that a mix of international, national, and regional retailers brings to a major commercial development. That diversity of architectural style and colour complements the variety of building and tenancy sizes ranging from anchor tenants to individual small-bay tenancies. This diversity will be tied together with a cohesive architectural vocabulary that forms the framework and consistency among the various buildings.

3.1.7 Materials

Proposed materials shall provide a:

- Visual anchor to site
- Sense of stability/permanence
- Sense of enhancement and congruity with the surrounding region

Suitable building materials include:

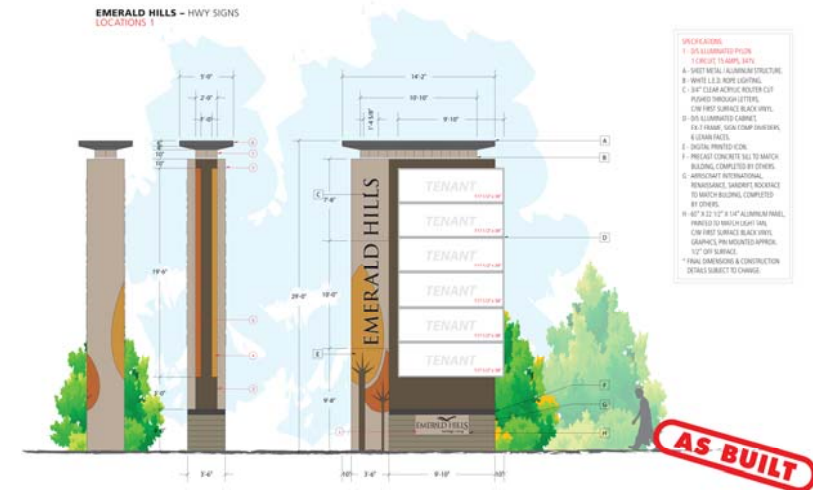
- Stone, masonry, EIFS (Exterior Insulation Finishing System), metal, wood, glass
- Stone, either natural or manufactured.
- Architectural Concrete Masonry Units (split faced) as wall or accent features, limited to the rear and/or sides of the building.
- Architectural pre-cast feature elements.
- Metal paneling.
- Hardiboard Cementitious panels.
- Performance Glazing such as low E coatings with increased thermal and solar characteristics.
- Concrete (sandblasted and broom finished) in walkways.
- Wood in appropriate areas as features and architectural details.

Unacceptable primary finish materials are: cement stucco, corrugated steel, plywood, shingle materials, featureless concrete block and unfinished concrete.

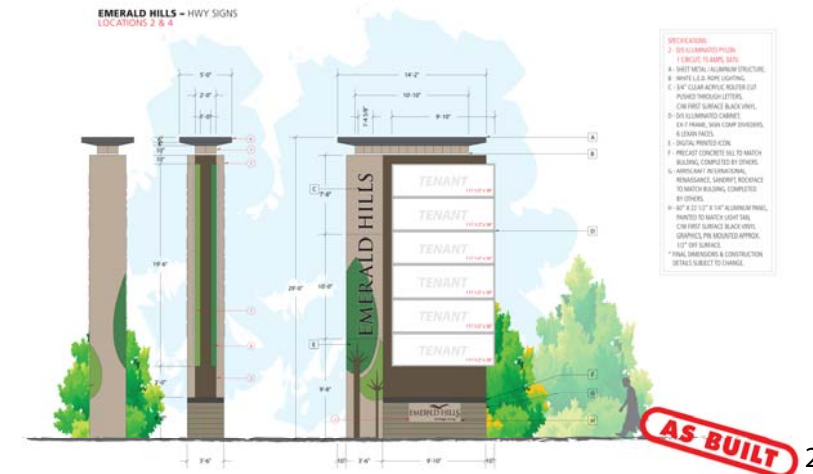
Site D contemplates the construction of a gas bar, car wash and lube facility. These structures typically use architectural metal panels and architectural split face block on their exterior elevations for durability and branding purposes.

3.1.8 Sign Guidelines

Signage will be one of the most important features in the Development Concept Plan area. As required under DC69 and DC72 of Strathcona County's Land Use Bylaw, a Comprehensive Sign Design Plan will be submitted and approved by a Development Officer of Strathcona County. This Plan should reflect a hierarchy of signs, required to create the strong sense of place that Emerald Hills Centre should strive to achieve.



The Plan should also encourage the use of innovative signage, through the use of decorative letter styles, coordinated colours and high quality materials.



Tenant signage shall be limited to:

- One main sign per tenant above their entrance, on the sign band, or as designated by the landlord based on the signage area designated in the Development Permit.
- Fascia signs are also permitted on a wall that is not the business frontage (along Highway 16), in accordance with Strathcona County's Land Use Bylaw.

The following sign types will not be permitted:

- Flashing, blinking, animated, audible, motion picture or video display signs
- Internally illuminated rectangular box signs (except as listed below).
- Internally illuminated box signs with articulated edges and raised front face graphics
- Portable temporary free-standing signs of any type
- Illuminated window box advertising
- Metal or plastic letters adhered to the building surface with glue or construction mastic – all signs must be pin mounted, prone from the surface of the exterior finish of the building.
- Plywood signs
- Flashing neon signs
- Inflatable signs

3.1.9 Residential Uses

Urban design for the medium density residential parts in Emerald Hills Centre Site E – Area II shall be consistent and compatible in architectural and material with the area's commercial uses to support achieving the overall design objectives, including street oriented development and any specific design requirements in DC 69 (Area II).

4.0 Landscape Design

The 'prairie' theme established in the architecture will be carried on through the landscape by conveying the prairie feel through the use of plant material types and configurations – this means creating 'prairie in microcosm'. Emerald Hills Centre will strive to coordinate a hardy and zone specific landscape compatible with the architecture to reduce the impact of the large scale built environment while adding to the aesthetic quality of the development. In a large urban development like Emerald Hills Centre this should include:

- Ornamental and native grasses suggestive of a prairie wheat field;
- Tree rows, where appropriate suggestive of shelterbelts (the type of tree is important as certain trees have forms that are more 'urban');
- Native grass communities at certain appropriate locations
- Use of 'evocative' plants such as native rose, lilac, potentilla, aspen and snowberry;



Image 6: Prairie aesthetic



Image 7: Landscape design should provide a shelterbelt effect

- Utilization of a limited, but not 'limiting' palette of plants to create continuity without conformity;
- Use groupings of plants (where space permits) to replicate 'native tree stands', with conifers as secondary materials for contrast;
- Use of boulders and rock within the landscape to reinforce the site imagery;
- Include, where appropriate, architectural landscape elements at key locations – pergolas and plazas, etc. to anchor gathering and rest nodes for users;
- Select site furnishings that convey warmth through materials – designs should be contemporary, but not 'minimalist';



Images 8, 9 & 10:
Proposed benches, trash receptacles and bicycle parking

- Lighting will be provided only where needed to define primary pedestrian routes, animate streetscapes and define entries. All lighting will be pedestrian scaled, dark sky friendly and full cut off lighting.
- Include elements that help animate walkways, create interest to pedestrians, provide colour and interest and theme continuity;
- Generally this type of rural prairie landscape is typified by;
 - Strong verticality in contrast to horizontal landscape;
 - Inclusion of architectural icons/ markers;
 - Sense of place / location marker;
 - Natural layout versus ordered assembly;
 - Layered assembly from trees to under storey vegetation;
 - Prairie grasses versus manicured grasses (Indigenous/local plant species); and
 - Bold natural colors (sky blue/ sunset red/ green grass)/ Bold contrast.
- Introduction of public art as focal points of landscaped pedestrian walkways.



Images indicate potential landscape design, materials and species options.

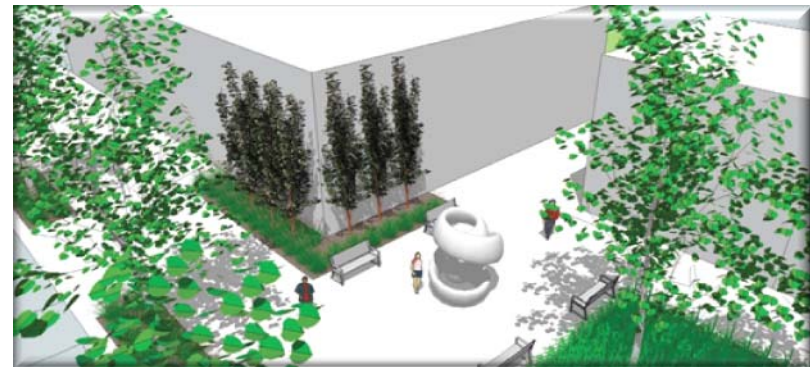


Landscaping Elements

Landscaping in Emerald Hills Centre will be required to abide by Section 7: Landscaping and Screening of the Land Use Bylaw, DC69 and DC72 which also requires additional landscaping and screening specific to Highway 16 and provides specific guidelines for amenity areas. Due to the urban nature of Emerald Hills Centre landscaping elements generally relate to four areas.

1. Public Plazas (A,B,C and D)

Larger plazas with opportunities to display public art are created amongst the buildings of the interior core area. A series of walkable pedestrian links within the development culminate in these plazas which are intended to be passive gathering and meeting places.



2. Walkways adjacent to CRU's & Non CRU Locations(C,D,F,G)

The walkway plan should include a variation of widths and materials and a variety of landscaping elements to encourage pedestrian activity within the Emerald Hills Centre development. Wider walks should be included adjacent to the large windows of the central CRU's to create a very urban energy in the area. Window dressing in the large windows of the CRU's should also contribute to the pedestrian experience in Emerald Hills Centre in all seasons. These pedestrian walkways shall be continued across parking areas and internal roads between building through a combination of pavement markings and signage.



3. Parking Lot Promenades (D,E)

Enhanced parking lot promenades should be strategically designated within the development to provide safe and convenient links north and south between the CRU's. These promenades should be enhanced through larger than required widths and landscaping that provides visual appeal and

shading to pedestrians. These promenades should be located approximately every 60 m through the primary central core area in order to connect and support the shopping and restaurant experience.



4. Emerald Drive/ Highway 16 Interface

Building pad sites should be oriented fairly tightly along Emerald Drive, Amberley Way and Sherwood Drive to create the urban streetscape that Emerald Hills Centre wants to project. Landscape drawings presently approved by Strathcona County for the Emerald Drive arterial already contain boulevard planting. This arterial planting should be complemented and enhanced by additional landscaping proposed on private property within Emerald Hills Centre. This private landscaping should provide a buffer between the sidewalk on Emerald Drive and the rear of the commercial buildings. Pad sites should have safe and convenient access to Emerald Drive, Amberley Way and Ebony Boulevard.



Image 11: Landscape design that provides a buffer between commercial development and streetscape

The significant exposure of Emerald Hills Centre toward Highway 16 requires that enhanced landscaping standards be applied along the north boundary of Area 1 in the DC72 district. DC-72 states that the required yard adjacent to the north boundary of Area I shall be landscaped as follows:

- A minimum of one tree and one shrub shall be planted for every 10 linear metres of yard adjacent to the north boundary of Area I;
- Deciduous trees shall be at least 90 mm in calliper;
- Coniferous trees shall be at least 3 m in height;
- Tree species at maturity shall have a minimum crown of 4m;

- Trees may be grouped to screen parking and loading areas that are visible from Highway 16;
- Landscape drawings for Area I shall include the landscape plan from the storm water management facility on the western boundary and demonstrate the compatibility of the landscaping between the two sites; and
- The pipeline right-of-way within Area I shall be given special landscape treatment, including but not limited to an extension of the pedestrian trail located south of Emerald Drive.

DC72's requirement for taller and larger calliper planting with the development of Emerald Hills will create a more mature and visually interesting landscape along Highway 16 immediately. This landscaping on the north boundary of Emerald Hills Centre must be strategically placed to screen loading and delivery areas and still not obstruct views from Highway 16 to the commercial signage at the rear of buildings.



4.1 Landscape continuity

By the nature of the development, Emerald Hills Centre will be made up of a series of separate and distinctly individual developments. It is imperative that each development contribute to the overall goal of creating a high quality, aesthetically pleasing urban design where continuity and legibility is reinforced through the landscape design. Some of the proposed initiatives that will be imposed to ensure this cohesiveness will include:

- Coniferous trees should be used where possible to provide a presence of “greenery” during seasons when deciduous plants have no foliage.



Image 13: Use of coniferous trees

- Islands located opposite building entrances/ exits may be treated with low shrubs or similar soft landscaping rather than trees. (If the development requirement for trees has been met).
- Trees and shrubs to be planted in groupings where appropriate.



Image 14: Grouping of trees and shrubs

- Large planting beds instead of a number of smaller beds are encouraged within larger landscaped areas.
- Landscape berms and plantings shall be used along Highway 16/Yellowhead Trail to assist in screening the “back of shop” built environment and specifically servicing/loading areas.
- Landscaping shall be used around all site perimeters to mitigate the view of the parking fields from the adjacent primary roadways to the discretion of the Owner.
- Landscaped islands are required at the ends of parking modules. The minimum width of landscaped islands shall be 2.0 meters. Trees shall be planted as appropriate on islands at the rate of 1 tree per 15 square meters and 1 shrub per 10 square meters of required parking island area. The mix of tree species along internal driveways and site access points may be distinct to each parcel but will be part of the overall plant material palette.
- The maximum length of a parking module should be 70.0 metres (maximum 26 parking stalls). A relaxation for this requirement may be considered where the site plan design and landscaping clearly demonstrates that several larger planting areas are more appropriate within the parking area.

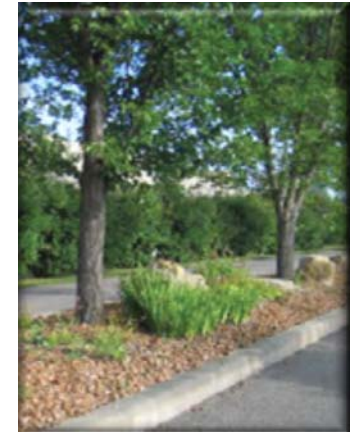


Image 15: Example of a large planting bed

4.2 Sustainable landscape design

Landscape in EHC shall be designed with a sustainable design approach focused on reducing water consumption and conserving water quality. This will be accomplished through the following techniques:

- Landscape design will be utilized to break up continuous paved surfaces to allow water to infiltrate where it falls.
- Landscape design will maximize permeable surfaces.
- Natural water filtration techniques will be incorporated to ensure water quality.
- Landscape design will consider site orientation and microclimates.
- Landscape design will incorporate plantings to shield users from the wind, where necessary.
- Application of the principles of xeriscaping:
 - Design: Base the landscape design on zones of different water demand.
 - Irrigation: Water according to the different water demand zones. This allows for a maximization of non-irrigated areas.
 - Mulch: Use of organic mulches to reduce evaporation, soil temperature and erosion.
 - Soil preparation: Soil testing to determine which plants are best suited to the site, and providing appropriate soil preparation and amendments for the chosen plantings.
 - Appropriate use of turf: Use turf grasses in appropriate locations based on amount and type of use required. Native grasses should be used over turf grasses to the extent possible.

- Low water use plants: Use native, hardy and/or drought-resistant plantings.
- Maintenance: Ensure the design matches the desired level of maintenance requirements.

4.3 Residential landscaping design

Landscaping design for the medium density residential lands in Emerald Hills Centre Site E – Area II shall be consistent and compatible with the overall goals and design of the adjacent commercial areas and any specific requirements in DC 69 (Area II).

5.0 Sustainability Summary

The 12 Theme's of Sustainability have been outlined in this Sustainability Summary and Development Concept Plan as follows:

5.1 Land:

Future local and regional scale retail, service and commercial development in Emerald Hills Centre (DC69 and DC72) will enhance and complement the mix of public and private uses already approved and constructed in Emerald Hills. In providing focal points, plazas and pedestrian linkages both within the site and to adjacent public and private land uses, EHC contributes to the accessibility of access to a mix of services and amenities at the scale of the Area Structure Plan. Focal points, plazas and linkages will be established internally to direct pedestrian activity and connect to the public and private land use in the surrounding area. In providing a continuous landscaped pedestrian network, the landscape plan for Emerald Hills Centre will reduce the heat island effect typically associated with this form of development.

5.2 Natural Habitat:

No natural habitat exists in the EHC. A hardy and zone specific "prairie in microcosm" landscape design will convey a natural landscape on the site.

An erosion and sediment control plan specific to the site development will be provided for development adjacent to the storm water management facility. This plan shall meet the following objectives;

- Prevent loss of soil during construction,
- Prevent sedimentation of storm sewer, and
- Prevent the pollution of air with dust and particulate matter.

This Erosion and Sediment Control Plan will identify strategies to be implemented during construction such as silt fencing, sediment traps and sediment basins as required.

5.3 Water:

Strategies to reduce both indoor and outdoor water consumption throughout this development will be achieved through the following techniques.

Tenant Improvement Guidelines will provide recommendations for incorporating water conservation techniques such as WaterSense toilets, waterless urinals and hands free sensor products.

Landscaping will be utilized to break up continuous paved surfaces within the parking areas to allow water to infiltrate where it falls and will include but not be limited to:

- Maximizing non-irrigated areas;
- Applying minimal maintenance techniques;
- Using of organic and rock mulches;
- Incorporating natural water filtration techniques to ensure water quality;
- Considering site orientation and micro-climates in landscape design;
- Using native grasses that are non-irrigated at appropriate locations; and
- Using low-water demand and hardy plantings.

5.4 Carbon:

Building construction in EHC shall incorporate energy efficient technology and design. The use of green building practices for the envelope and mechanical design should be utilized, including energy efficiency targets. Specific green practices to be used in envelop and mechanical design includes:

- High R-value on wall and roof systems
- Water efficient plumbing fixtures
- Zero use of CFC refrigerants
- Economizers on rooftop air handling equipment
- Recycled materials content in steel and concrete
- Regionally available materials where practical
- Reduced light pollution through selection of appropriate outdoor light fixtures
- East/West orientation of buildings to maximize day lighting

Tenant Improvements will require tenant fit-ups to achieve a LEED-CI standard or equivalent, including associated energy credits.

Site Lighting Design criteria will be used to maintain safe light levels while avoiding off-site lighting and night sky pollution. Strategies to reduce light pollution should include full cut-off luminaries, low reflectance surfaces and low angle spotlights. Development should also consider the use of LED lighting technology.



Image 3: Proposed site lighting fixtures using full cut-off technology

5.5 Transportation:

The proximity of EHC to Highway 16 provides an opportunity for highway transport traffic to avoid travel through the core of Sherwood Park, thereby reducing travel distances and associated impacts on urban air quality.

Transit services will be provided on Emerald Drive. The majority of the on-site development will be located within 200 metres of public bus lines offering frequent service. Transit stop locations should be highly visible and integrated with the internal pedestrian network. The distance and design of pedestrian corridors within EHC should promote walkability. A series of pedestrian corridors will be provided internally both in front of buildings and across parking fields in order to promote pedestrian access between buildings. These corridors consist of continuous landscaped walkways, and where internal walkways cross internal roadways, crossings will be marked with a combination of pavement markings and signage.

An adequate supply of secure and convenient on-site bike racks will be strategically located throughout the site to work harmoniously with the walkable pathway concept, thereby encouraging use of active modes of transportation.

5.6 Food:

Local area dining establishments will be promoted within Emerald Hills Centre. A range of establishments will be provided from National Franchises to include both convenience food and high-end restaurants.

5.7 Materials:

Buildings and infrastructure will utilize green building practices for envelope and mechanical design, and Tenant Improvement Guidelines will request commercial fit-ups to meet a LEED-CI standard.

Both site and building construction should maximize the use of recycled materials, including recycled content in steel structure, use of fly ash in concrete and use of recycled aggregates in asphalt. A number of site furnishings proposed throughout the development site may also be derived from recycled products.

Building construction should also use paint, sealant, adhesive and carpet materials with low VOC (volatile organic compound) content.

Tenant Improvement Guidelines will encourage fit-up to a LEED-CI standard, including associated targets for use of reused, recycled and regional materials.

5.8 Waste:

EHC will strive to attain a target of 75% of construction waste diversion to the landfill.

Recycle bins will be provided on site in easily-accessible locations to encourage businesses to maximize their waste reduction efforts. Indoor and outdoor waste collection spaces will be designed to accommodate two-stream collection at a minimum (commingled recycling and waste). The developer will work with waste management companies to investigate the feasibility of 3-stream collection (organics, recycling and waste) for food-service related uses. In all cases, provision of two-stream or three-stream collection will apply to both publicly accessible waste receptacles (i.e. adjacent to building entrances or in parking lots) and private waste management areas (i.e. tenant collection bins).

All tenants will be requested by the developer to use environmentally friendly maintenance and housekeeping product though distribution of 'Tenant Improvement Guidelines' provided to each tenant. In addition, these tenant guidelines will require tenants to set targets for diverting waste from landfill in their operations.

5.9 Economy:

Emerald Hills Centre will contain a strategic combination of international, national, and regional retailers providing a wide variety of products and services. The range of businesses will also provide a diverse mix of economic opportunities for both local and regional businesses that employ a range of skills and income levels. Business development and employment opportunities extend from entrepreneur to professionals to retail and part-time employment. Development of the Emerald Hills Centre will create approximately 1500 new jobs for Strathcona County.

5.10 Well-Being:

The on-site development will provide access to sufficient public gathering spaces and will create a vibrant public realm that promotes social interaction. This will be achieved through the provision of outdoor amenities areas and street furniture. In accordance with DC69 and DC72, each retail development, hotel and commercial use of over 100,000 square feet shall provide an outdoor community amenity area, such as a patio, outdoor seating area, outdoor café or dining area. Each amenity area shall be a contiguous area with a minimum size of 1000 square feet and shall include seating and a central focal feature (clock tower) that reflects the 'prairie inspired' theme of the development. In addition to these internal amenity areas, landscaped pedestrian linkages to the surrounding Regional Park and Stormwater Management Facility will enable these locations to serve as gathering places for employees, visitors and residents.

5.11 Equity:

EHC will enable people from a range of economic levels, ages and abilities to access a variety of daily services and shopping needs. EHC will be barrier-free and utilize CPTED principles to create safe and functional gathering spaces and pedestrian corridors.

5.12 Culture:

The design principles utilized throughout Emerald Hills Centre will celebrate local culture, natural identity and heritage of Strathcona County. Internal focal points, plazas and linkages will be established to direct pedestrian activity and connect the commercial uses. The Prairie theme will incorporate the natural materials and includes the opportunity for local art displays.