BUILDING ON VISION
UNIVERSITY OF ALBERTA

SECTOR PLANS
LONG RANGE DEVELOPMENT PLAN

SECTOR PLAN 5 AND 6

November 2005

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SECTOR PLAN 5 AND 6

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Note:
The illustrations depicted in the Sector Plans are conceptual only and are intended to graphically describe the intent of the guidelines. The actual character and details of a specific development will be determined during the design stage of that development.

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Introduction

1.0 INTRODUCTION

1.1 Background

In June 2002, the Board of Governors of the University of Alberta adopted a Long Range Development Plan (LRDP) for the University, establishing a vision for shaping and guiding future growth, development and redevelopment at the four Campus sites of the University (North Campus, South Campus, Michener Park and Faculté Saint-Jean) within the City of Edmonton to the year 2030.

The LRDP provides a flexible set of strategic planning principles that support the growth of new research, teaching and student support facilities, as well as upgrades or replacement of existing structures on University lands. The LRDP also identifies how University lands and facilities should be developed, and outlines operational planning principles, initiatives and guidelines that direct appropriate and sustainable growth for the University. The LRDP's principles, initiatives and guidelines recognize the existing unique characteristics and attributes of the University and promote future development that:

- Fosters desirable Campus life.
- Supports teaching and research.
- Uses physical and financial resources efficiently and effectively.
- Creates, preserves and enhances significant physical assets for the University.
- Provides the flexibility to respond to future trends and growth.
- Recognizes and values the planning initiatives of its neighbours and partners.

Within the Campus sites, 19 Sectors have been identified -11 Sectors within the North Campus, three Sectors within the South Campus, two Sectors in Michener Park and one Sector at each of Faculté Saint-Jean, Augustana Faculty and the Devonian Botanical Garden. The University has identified the need to establish specific Sector Plans for each of these Sectors. This document specifically addresses Sectors 5 and 6. (Refer to Figure 1). The purposes for the Sector Plans are:

- To develop a vision for development and redevelopment compatible with the principles of the LRDP.
- To identify potential development and redevelopment sites that address Faculty, University services and other expansion requirements.
- To outline guidelines for effective and compatible development and redevelopment activities within and between Sectors.
- To identify the required physical links to adjacent Sectors and the interface with adjacent neighbours and University partners.

The LRDP and Sector Plans are important components that guide future planning and development for the University. This document has been created for use by the University of Alberta and its design, planning and programming consultants and the construction industry. These plans are based on extensive public and faculty participation, and evaluation and approval by University Review Boards. The University, through Strategic Planning (SPPI - a division of the Planning and Infrastructure Department), will use the Sector Plans, in conjunction with the LRDP, to assess future planning and development initiatives within each Sector and to determine if individually proposed development or redevelopment projects comply with the directions and guidelines provided. Interpretation of these plans is the responsibility of SPPI. Refer to Figure 2 for the Strategic Planning Structure used for all proposed development or redevelopment projects.

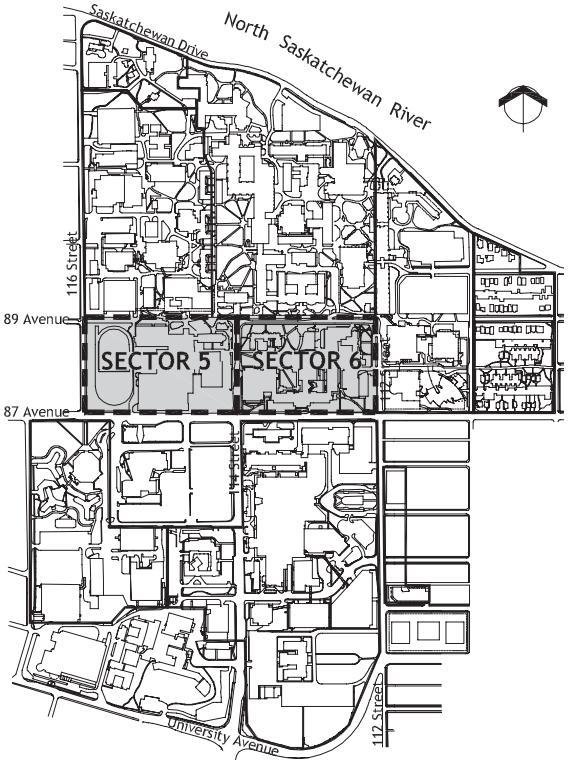

Figure 1 - Location of Sectors 5 and 6 within the University of Alberta North Campus

1.2 Sector Structure

The character and physical qualities of each of the University of Alberta Campuses are determined and influenced by various components. The visual quality or legibility of these components dictates the organization and recognition of a coherent, liveable Campus through distinct Sector 'patterns'.

Legibility is a crucial concept in the structuring of a coherent Sector 'pattern'. A legible Sector is one where districts (areas exhibiting a recognizable and common character), landmarks (reference points), nodes (focal points), edges (natural and built boundaries) and pathways (urban channels – roads, walkways, public transit, bicycle routes, etc.) are easily identified and grouped into an overall 'pattern'. (Refer to Figure 3). These pattern elements structure and harmonize the urban environment, establishing and clarifying points of entry, movement, visual reference, ambient character, and social space – in short, they create a 'sense of place'.

In order to create a distinctive 'sense of place' for each University Campus and Sector, it is important to establish comprehensive, implementable guidelines that identify, and respond to the existing and potential interaction between pattern elements. A 'sense of place' is physically and cognitively created through these pattern elements. In more detail, these are:

Districts: Areas having a typical character and/or land use based on a combination of elements such as: culture, history, built-form, natural areas or specific social activity.

Pathways: Key vehicular (public, public transit, service-oriented), pedestrian and multi-use (e.g. bicycles) routes and their spatial qualities (e.g. landscape treatment and way-finding systems).

Edges: Natural boundaries (e.g. a ravine or shelterbelt) and built form boundaries (i.e. the density, massing, setback and façade treatment of buildings; key roadway boundaries and seams; and streetscape features – treed boulevards, lighting, furnishings, etc.).

Nodes: Key vehicular and pedestrian intersections; public transit links, stations and stops; and areas with a higher concentration of activity.

Landmarks: Significant natural, built form or other urban features that act as visual references.

Working with these pattern elements to define the legibility and quality of the physical environment, as well as to ensure the compatibility of the Sector with human purposes and activity, will lead to a unique and desirable 'sense of place'.

Figure 2 - Strategic Planning Structure

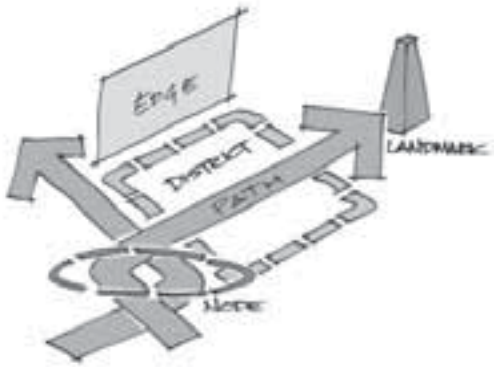

Figure 3 - Sector Pattern

1.3 Sector Plan Organization

The Sector Plan has been organized into the following seven sections:

1. Sector Characteristics & Vision

This section provides an overview of the physical context for Sectors 5 and 6, and identifies their distinctive features. This section also presents the proposed vision for the Sectors and specific development and redevelopment strategies that will aid in achieving the vision.

2. Visual and Physical Inventory

This section provides a 'snapshot' of key analysis and inventory information obtained from the LRDP, other support documentation, and a photographic inventory of each Sector. The inventory is presented and assessed based on Sector structure characteristics – Districts, Pathways, Edges, Nodes and Landmarks.

3. Sector Specific Development Guidelines

This section presents and illustrates guidelines for future Sector development and redevelopment based on Sector structure characteristics - Districts, Pathways, Edges, Nodes and Landmarks. Key items addressed include the following:

- Key elements and features that create a sense of place and continuity in the Sector.
- Development and redevelopment sites.
- Full development and redevelopment potential in the Sector.
- Acceptable uses for specific development and redevelopment sites.
- Compatibility issues with surrounding development.
- Relationship to services.
- Physical linkages to adjacent Sectors (pedestrian, bicycle, road linkages identified in the LRDP).
- Transition to/compatibility with adjacent lands.
- Required open space elements, including what should be preserved and expanded.
- Way-finding and signage.

Figures within this section provide conceptual examples of Sector Specific Development Guidelines. All conceptual sketches included in this section are for illustrative purposes only, and do not purport to indicate actual designs.

4. Site Specific Development Guidelines

This section provides site constraints, opportunities and guidelines for development and redevelopment zones within each Sector. Key items addressed include the following:

- Site dimensions and areas.
- Site coverage (%).
- Floor Area Ratio (FAR).
- Permitted building heights.
- Site specific development requirements.
- Zones of Responsibility.
- A list of related Sector Specific Guidelines.

Figures within this section provide conceptual examples of the Site Specific Guidelines.

5. Appendix A: Campus-Wide Guidelines

This appendix presents a broader based set of guidelines that should be acknowledged and integrated within each Sector of the Campus. Key items addressed include the following:

- Visual Quality and Design
- Sector Identifier and Colour(s)
- Landscape Treatment
- Natural Areas
- Screening
- Public Art
- Signing
- Lighting
- Street Amenities
- Architectural and Open Space
- Sustainability
- Utilities
- Parking, Drop-offs and Loading/Manoeuvring Areas

6. Appendix B: Sector Implementation

This section discusses principles and strategies to be observed during the development or redevelopment of the Sector, and further activities required prior to, or during, future development.

7. Glossary

This section provides a glossary of key Sector development terminology.

SECTOR PLAN 5 & 6

Sector Characteristics & Vision

2.0 SECTOR CHARACTERISTICS & VISION

2. 1 Sector Characteristics

While the Sector Plan deals with Sectors 5 and 6 as integral planning units, they are unique with respect to many characteristics as described below. (Refer to Figure 4 – Campus Structure & Development Opportunities).

Sector 5:

The Sector boundary is formed by 116 Street (west), 89 Avenue (north), 114 Street (east), and 87 Avenue (south).

Sector 5 is located in the west central area of North Campus (Refer to Figure 1). With the exception of University Hall, the buildings in the Sector are all relatively large facilities of the Faculty of Physical Education, including Universiade Pavilion--better known as the 'Butterdome'--and the Van Vliet Physical Education and Recreation Centre (comprised of Phys Ed East, Phys Ed West, and Clare Drake Arena). Approximately 30% of the Sector is occupied by a large open space on the west end, accommodating temporary parking and Varsity Field. Varsity Field used to make up this entire open space, but in recent years a significant portion of the field has been converted to parking.

The footprint of development covers approximately 23,800 m² on a land base of approximately 56,640 m², for a 42% building site coverage. The overall FAR for Sector 5 is approximately 0.53.

The area is accessed by vehicle primarily from 114 Street and 116 Street. Service access is from 87 Avenue, 89 Avenue and 114 Street.

116 Street is a gateway and boundary to the Campus that links the Campus and River Valley and provides a transitional zone between the low-density residential neighbourhood (Windsor Park) to the west and Sectors 5 and 6 to the east.

All buildings within the Sector are internally connected - University Hall and Phys Ed East are connected to the main building conglomeration via pedways.

Open space in the Sector is variable in terms of character and quality. On the west side, open space has been dedicated toward parking, athletics facilities, basketball courts and service access, with little consideration for pedestrian movement or aesthetics. On the east side of the Sector, Universiade Plaza (at the southeast corner) includes significant University entry signage, seating and mature plantings, but the plaza's design is transitional, as opposed to encouraging gathering. This transitional quality is primarily due to the plaza's openness and exposure, and over-use of highly reflective surface materials (concrete). In addition, the plaza plantings are in need of rejuvenation, as they lack diversity and are 'tired' looking. The area around University Hall and the main entry to Van Vliet are softer, more pedestrian friendly spaces that relate strongly to the 89 Avenue pedestrian mall.

Sector 6:

The Sector boundary is formed by 114 Street (west), 89 Avenue (north), 112 Street (east), and 87 Avenue (south).

Sector 6 is located in the central area of North Campus. (Refer to Figure 1). The Sector has a medium density of development which includes an LRT Station, the Education Centre (North Wing, South Wing, gym and library), Education Car Park and Environmental Engineering. Non-University buildings directly adjacent to the Sector include St. Joseph's College and grounds, the Alberta Community Development Building (Old St. Stephens College) and St. Stephens College. The total footprint of development is approximately 13,500 m² on a land base of approximately 37,400 m² (which does not include St. Joseph's College, Old St. Stephens College and St. Stephens College), for a building site coverage of 36%. The overall FAR for Sector 6 is approximately 1.5.

The Sector has vehicular access from 112 Street and 114 Street and by transit (buses) in a clockwise loop from 114 Street to 89 Avenue and 112 Street.

The University Station LRT and transit hub along 89 Avenue is a major Campus access point. Service access is from 112 Street, 114 Street, 87 Avenue and 89 Avenue. Pedestrian access and movement throughout the Sector is disjointed.

The adjacency of Sector 6 to buildings with heritage (and aesthetic) value contributes significantly to its character. The Alberta Community Development building (Old St. Stephen's College, 1911) was the first building to be occupied on Campus - both this building and St. Joseph's College are on the City of Edmonton's 'A' List of Historic Resources. The Alberta Community Development building is also designated as a provincial historic resource.

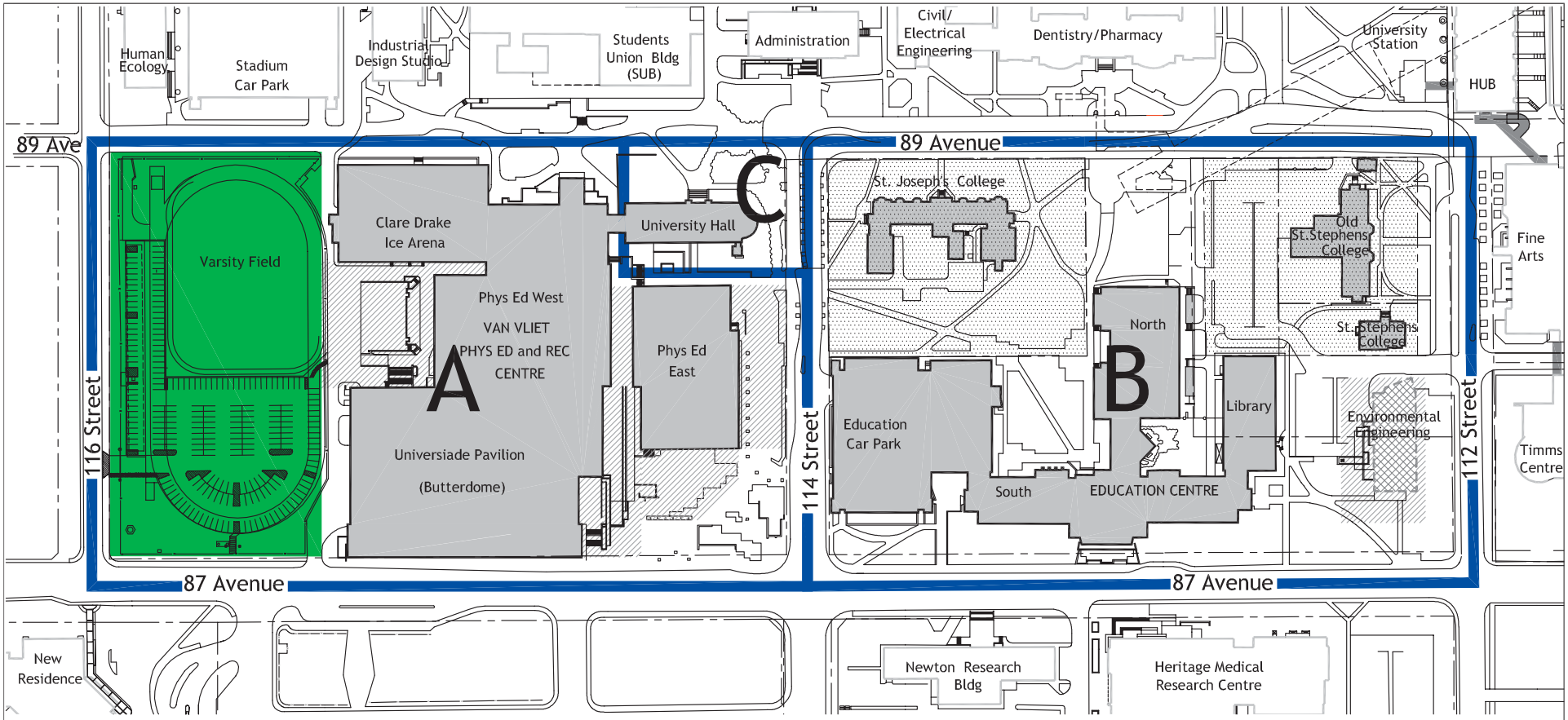

Figure 4 - CAMPUS STRUCTURE & DEVELOPMENT OPPORTUNITIES

University of Alberta - Sectors 5 & 6

This figure is illustrative and intended for guideline purposes

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2.2 Sector Vision

Sectors 5 and 6 will continue to be the 'welcome mat' into the heart of North Campus, including several key entry and circulation points into the Campus. Future development will incorporate improvements that contribute to a coherent academic and research environment, balanced through the integration of well-designed, linked buildings, open space, and pathway connections. Key development strategies include:

- Developing new, and reinforcing existing, pathways (both interior and exterior) within a hierarchy that creates: distinct zones for pedestrian and/or vehicular access and movement; ease of way-finding; desirable Campus character development; and appropriate interfaces with other University Sectors and neighbourhoods.

- Introducing new building development and/or redevelopment that sensitively integrates key pathway and open space development and that is architecturally responsive to its context within the North Campus.

- Maintaining 114 Street as a key entry into the North Campus, on axis with the North Campus Quad, and integrating improvements to the street with the enhancement/upgrading of Universiade Plaza.

- Strengthening and complementing 87 Avenue's evolution into the 'Grand Avenue' by articulating and celebrating its importance as a major entry into the North Campus.

- Celebrating entry, with a unified approach, into the heart of Campus from the 'Grand Avenue' at 116 Street, 114 Street and 112 Street.

- Rejuvenating courtyard spaces and other open spaces by introducing pedestrian pathway, node and landmark enhancements that promote interaction, animation, interpretation, accessibility, way-finding, and activity within a safe, secure, attractive and pedestrian-scaled environment, internally and externally.

- Using “broad strokes of green” (e.g. treed allées), site furnishings, lighting, appropriate and durable surfacing materials, public art and other features to define pathways and nodes and soften the scale and harshness of the open spaces between buildings.

- Introducing streetscape improvements (e.g. wider sidewalks, site furnishings, pedestrian-scaled lighting, etc.) along 116 Street to enhance its importance as a primary gateway and boundary to the North Campus, while maintaining the existing character and transitional qualities with the Windsor Park neighbourhood.

- Introducing features, internally and externally, such as public art and way-finding kiosks, to promote, interpret and celebrate the uniqueness of academic programs offered, and research being done, in the Sector.

- Improving the open space environment to respond to daily and year-round use, safety and security.

- Implementation of the principles of sustainability, wellness, flexibility, adaptability, manageability, safety, and universal accessibility (including a strategic servicing strategy) in the design and development of Sector buildings, pathways and open space.

- The enhancement, extension and clarification of a comprehensive internal pathway system.

- Development of strong and meaningful visual and physical connections between interior and exterior space that define and enrich public space, create focal and activity points, and enhance way-finding.

SECTOR PLAN 5 AND 6

Visual & Physical Inventory

3.0 VISUAL & PHYSICAL INVENTORY

The following provides a 'snapshot' of key analysis and inventory information obtained for Sectors 5 and 6. This information has been combined into one planning unit and is presented and assessed based on Sector structure characteristics – Districts, Pathways, Edges, Nodes and Landmarks. Also established in this section is a framework of nomenclature for specific Districts, Pathways, Edges, Nodes and Landmarks. This nomenclature is carried into Section 4.0 – Sector Development Guidelines.

3.1 Districts (Refer to Figure 7)

Districts – built form areas that integrate with open spaces and social patterns of life to create areas of geographic and visual reference.

District A - Phys Ed District:

The Phys Ed District encompasses all of Sector 5, with the exception of University Hall. A conglomeration of large, boxy Physical Education facilities comprised of the 'Butterdome' (Universiade Pavilion) and the Van Vliet Physical Education and Recreation Centre (Phys Ed East, Phys Ed West, and Clare Drake Arena) dominates this District. (Refer to Figure 7.) The District's west and south boundaries are clearly defined by 116 Street and 87 Avenue, respectively. (Refer to Figures 6 and 8.) To the west of the buildings, the open space is dedicated to parking and recreational activities demarcated and segmented by chain link fencing. (Refer to Figure 9.) The area lacks any considered landscaping, defined pedestrian pathways (aside from City sidewalks) or gathering areas. The west boundary, neighbouring Windsor Park, is reinforced and enhanced by a mature planting of flowering crab trees along the sidewalk. (Refer to Figure 6.) A stark courtyard area defined by Van Vliet on the north, east and south sides accommodates outdoor basketball courts and service access. (Refer to Figure 10.) The open spaces on the north side of the Phys Ed building cluster are more pedestrian-oriented, with pathway connections to 89 Avenue, site furnishings and plantings. (Refer to Figure 11.) On the east side of the District, the scale and mass of the buildings dominates and overpowers the pedestrian domain - and the same is true within most of the Universiade Plaza. (Refer to Figures 5, 12 and 13.)

District B - Education District:

Similar to the Phys Ed District, the Education District is dominated by a large complex of buildings from one faculty. (Refer to Figures 14 and 21.) In general, the buildings of the Education District are well connected to the immediate surrounding pathways - all buildings have more than one point of entry. However, these pathways (both paved and 'desire line'), especially on the north side of the District, traverse parking areas and other open space in a haphazard, ill-conceived web. (Refer to Figures 15 and 16.) The quality of the open spaces and nodes suffers from the age of the plantings, furnishings and lighting. (Refer to Figure 17).

Figure 5 - Looking north toward the pathway between the Butterdome and Phys Ed East from Universiade Plaza

Figure 6 - Looking north on the east side of 116 Street from 87 Avenue

Environmental Engineering, in the southeast corner of the District is the only non-Education faculty building. (Refer to Figure 18). All of the buildings are set back from 87 Avenue, allowing for a wide band of turf, tree/shrub plantings and mature elms along the City sidewalk - except at Education Centre where the main entry hardscaping meets the sidewalk. (Refer to Figure 19). The same setback occurs on the west side of Environmental Engineering where the area is bermed and landscaped. The west side of the Education Car Park, as well as most of the remainder of 114 Street, is enhanced by a mature planting of street elms. (Refer to Figure 20).

Two quiet courtyard spaces, nestled between the west side of the Education Centre North Wing and the Education Gym as well as the east side of the North Wing and the Library contrast with the busy open spaces on the south and east sides of the Education building cluster. Both areas are very secluded, open only on the north side. However, similar to many other areas in the Sectors 5 and 6, the hard and soft landscaping has aged to a point where rejuvenation is required. (Refer to Figures 17 and 21).

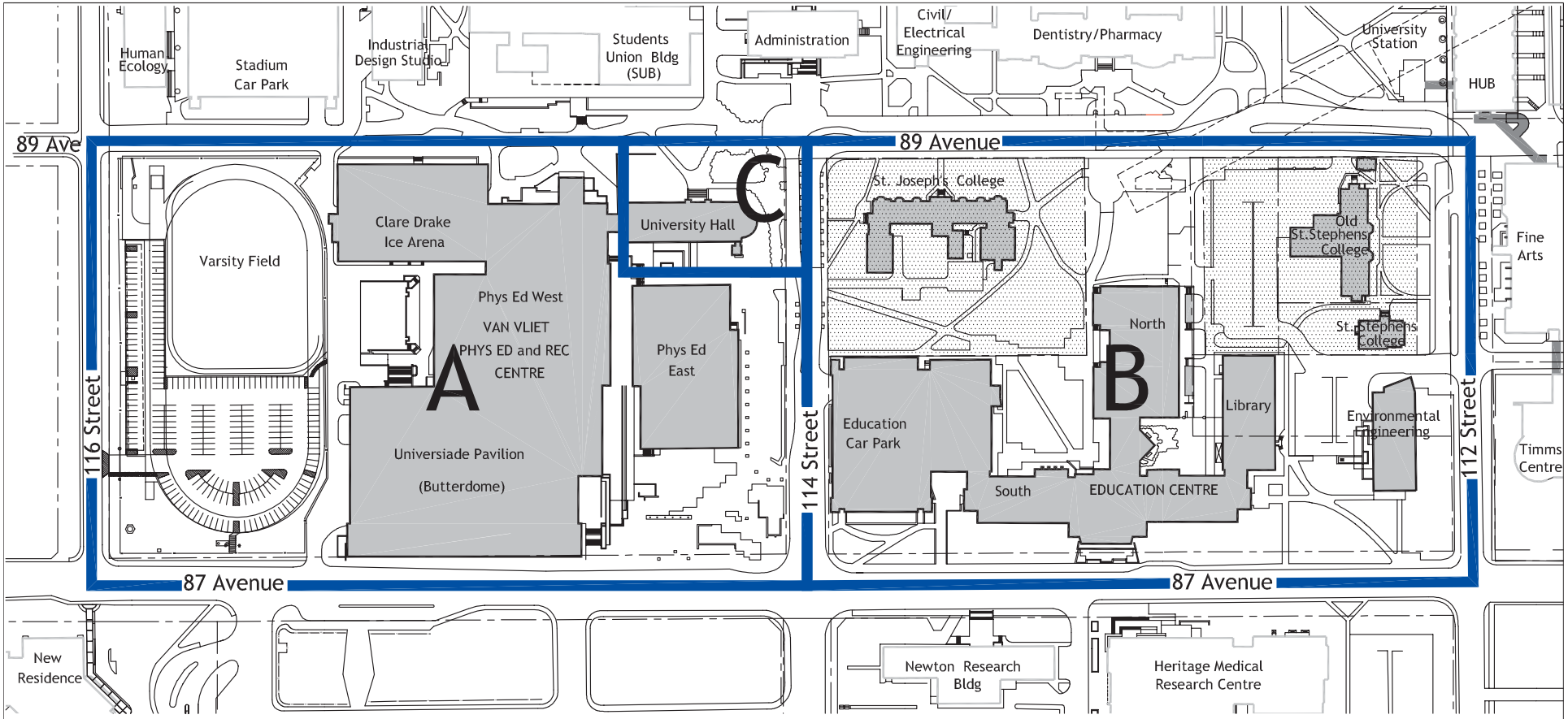

Figure 7 - EXISTING DISTRICTS

University of Alberta - Sectors 5 & 6

This figure is illustrative and intended for guideline purposes

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Figure 8 - Looking east, on south side of the Butterdome (87 Avenue) toward Universiade Plaza

Figure 9 - Panorama of the parking area south of Varsity Field and the Butterdome from the south-west.

Figure 10 - Panorama of the Van Vliet Courtyard and service road

Figure 11 - Entrance to Phys Ed West and Clare Drake Arena from 89 Avenue

To the north of the North Wing there is a heavily used LRT access building. (Refer to Figure 22). Pathways and hardscaping around the building do not fully accommodate all pedestrian traffic, as many desire lines within turf and planted areas are visible. To the east of this open space is a large parking lot. (Refer to Figure 23).

District C - University Hall District:

University Hall, due to its relatively small scale and architectural style, is an anomaly in Sector 5. It is part of the academic heart of Campus, in combination with SUB and the Administration Building to the north. University Hall has direct pathway connections to the 89 Avenue pedestrian mall. (Refer to Figure 24.) The area surrounding University Hall has extensive landscaping as well as pathways in fair condition that suffer from a patchwork of repair using various materials - asphalt, concrete and unit pavers, etc. (Refer to Figure 25).

Figure 12 - Phys Ed East entrance from the north-east

Figure 13 - Looking west from the 114 Street and 87 Avenue intersection toward the Butterdome and Universiade Plaza

Analysis

Phys Ed District:

The scale of the built form in the District overpowers the pedestrian. There is a need to define stronger relationships among buildings, pathways and nodes. Due to the need to control natural light levels in the Phys Ed buildings, there is an absence of windows, resulting in relatively hulking buildings of unarticulated mass. The Universiade Pavilion attempts to compensate for this with its bright colour - and succeeds somewhat. Passages between buildings to the north and west of Phys Ed East seem cavernous.

The parking area developed within the Varsity Field is a temporary measure to replace parking at Jubilee Auditorium during construction of the SLRT. When it is completed, the site will be returned to playing field. In addition, the perimeter chain link fence should be removed and the area enhanced and integrated with existing and future development along 89 Avenue, 87 Avenue and 116 Street, while still protecting the playing fields from intrusion by short-cutting pathways.

The Universiade Plaza is an important space within the University Campus at a key entrance into the core Campus - evident from the placement of major U of A electronic 'welcome' signage as well as temporary signage (refer to Figure 13). Future development of this space should focus on the rejuvenation of plantings and attention to detail at the pedestrian level to create a less exposed and harsh environment. Signage systems should be integrated with future improvements and eliminate the need for unsightly temporary signage.

Goals and objectives of future development or redevelopment within the District should be directed toward:

- introducing a more pedestrian scale and character
- improving way-finding, and
- creating more cohesive and integrated relationships between open spaces / pathways (i.e., 114 Street, 87 Avenue and the walk between Phys Ed West and East) and built form.

Figure 14 - Entry to Education Centre from 87 Avenue

Figure 15 - Open space north of Education Centre (north wing) showing desire lines toward the LRT access building

Figure 16 - Desire lines across open space to the south-east of St. Joseph's College

Figure 17 - Education Courtyard East

Education District:

This District's continuity and appeal is strongest along the south boundary (87 Avenue), breaking down in terms of the legibility of pathways and open space on the north side--the 'backside'--of the building cluster, in the interface with St. Joseph's College and the Alberta Community Development Building. With the exception of the courtyard spaces defined by the Education cluster, pedestrian pathways appear to have minor importance and priority in the landscape - especially north of the Library and the North Wing. The proximity, distinct architecture and heritage value of the St. Joseph's College and the Alberta Community Development Building (Old St. Stephen's College) lend a traditional Campus feel to the north side of the District and help to mitigate some of the disjointedness of the surrounding environment.

Goals and objectives of future development or redevelopment within the District should be directed toward:

- reinforcing the concept and built form of the 'Grand Avenue' (87 Avenue)
- complementing future improvements to the Universiade Plaza that create 'gateway' feel and ambience at 114 Street and 87 Avenue.
- re-assessing existing pathway layout in terms of actual use and desire lines.

Figure 18 - Entry to Environmental Engineering

Figure 19 - Looking west along the north side of 87 Avenue at south-east corner of Environmental Engineering

Figure 20 - Looking north on the east side of 114 Street toward the Administration Building

Figure 21 - Education Courtyard West from the north-west

Figure 22 - LRT Access Building from the north-east

Figure 23 - Panorama looking toward the north side of Education from the Old St. Stephen's parking lot

Figure 24 - Looking toward SUB from the north side of University Hall

rejuvenating and/or renovating planting layouts to better reflect and accommodate pedestrian movement and degree of use (heavy traffic vs. light).

- accommodating parking while not creating 'parking lots'; rather, integrating pedestrian movement/pathways with appropriate materials/configuration in parking areas as opposed to relegating pedestrian movement to the periphery of parking areas.
- respecting the heritage and aesthetic value of St. Joseph's College and the Alberta Community Development Building (Old st. Stephen's College).
- enhancing the two courtyard spaces on the west and east sides of the Education Centre North.

University Hall District:

This small district should be considered integral with any proposed redevelopments related to the 89 Avenue Pedestrian Mall/Celebration Plaza and/or 114 Street.

Figure 25 - Hard surfacing treatments at the north-east corner of University Hall

3.2 Pathways (Refer to Figures 31 & 32)

Pathways

Pathways – key vehicular and pedestrian routes.

Existing pathways are discussed below in terms of the following categories: vehicular/pedestrian pathways; service vehicle pathways; a hierarchy of primary, secondary, and tertiary multi-use pedestrian pathways (for bikes, joggers, walkers, in-line skaters, etc.) and interior pathways and links/ pedways. The pedestrian pathway hierarchy is based on a combination of the perceived relative amount of 'traffic' that each pathway accommodates, and its relative length. The hierarchy and terminology in this section are also used in Section 4.0.

Vehicular/Pedestrian Pathways:

- 116 Street is the major north-south vehicular route defining the west boundary of Sector 5 and the University, giving access to Varsity Field and 89 Avenue. (Refer to Figure 6). It is a significant pedestrian and bicycle pathway into the Campus, especially at 89 Avenue. 116 Street is generally successful as a pathway in the transition zone between the Campus and Windsor Park residential area. This street is an appropriate and pleasant pathway for motorists, pedestrians and neighbourhood residents alike. The quality experience on this street is further enhanced by limited on-street parking and dense tree planting along the west side of Varsity Field and parking lot.

- 114 Street is a primary entry into Sectors 5 and 6 and Campus, giving access for vehicles to the Education Car Park as well as parking to the east of Phys Ed East - but not to 89 Avenue, as this is a one-way west to east route for transit buses and service vehicles only. It is a significant pedestrian and bicycle pathway into the Campus. The street is on axis with the Administration Building (Sector 3) and provides generous sidewalks with mature elm plantings. (Refer to Figures 26 and 27).

Figure 26 - Looking north on 114 Street toward the Administration Building

Figure 27 - Looking south on 114 Street at north end of drop-off loop

Figure 28 - Looking north on 112 Street toward HUB and AB Community Development (Old St. Stephen's College)

- 112 Street is a primary route in Sectors 5 and 6, giving access to parking to the west of Environmental Engineering and the Alberta Community Development Building. It is a significant pedestrian and bicycle pathway into the Campus. The street is on axis with the HUB and is designed with a central median and sidewalks on both sides. A one-way loop on 112 Street provides for a drop-off and transit egress from the 89 avenue transit mall. (Refer to Figure 28).

- 89 Avenue is a major pedestrian and bicycle pathway to the north of the Sectors. (Refer to Figure 31). This pathway includes public and service vehicle access from 116 Street and one-way, west to east, transit/service vehicle access from 112 Street to 114 Street, including a bus terminal adjacent to the University Station. (Refer to Figure 32). The section from 114 Street to the Stadium Car Park is primarily pedestrian but also includes service vehicle access. Pedestrians arriving at University Station as well as those being dropped-off at 114 Street and 112 Street make the east section of 89 Avenue one of the most

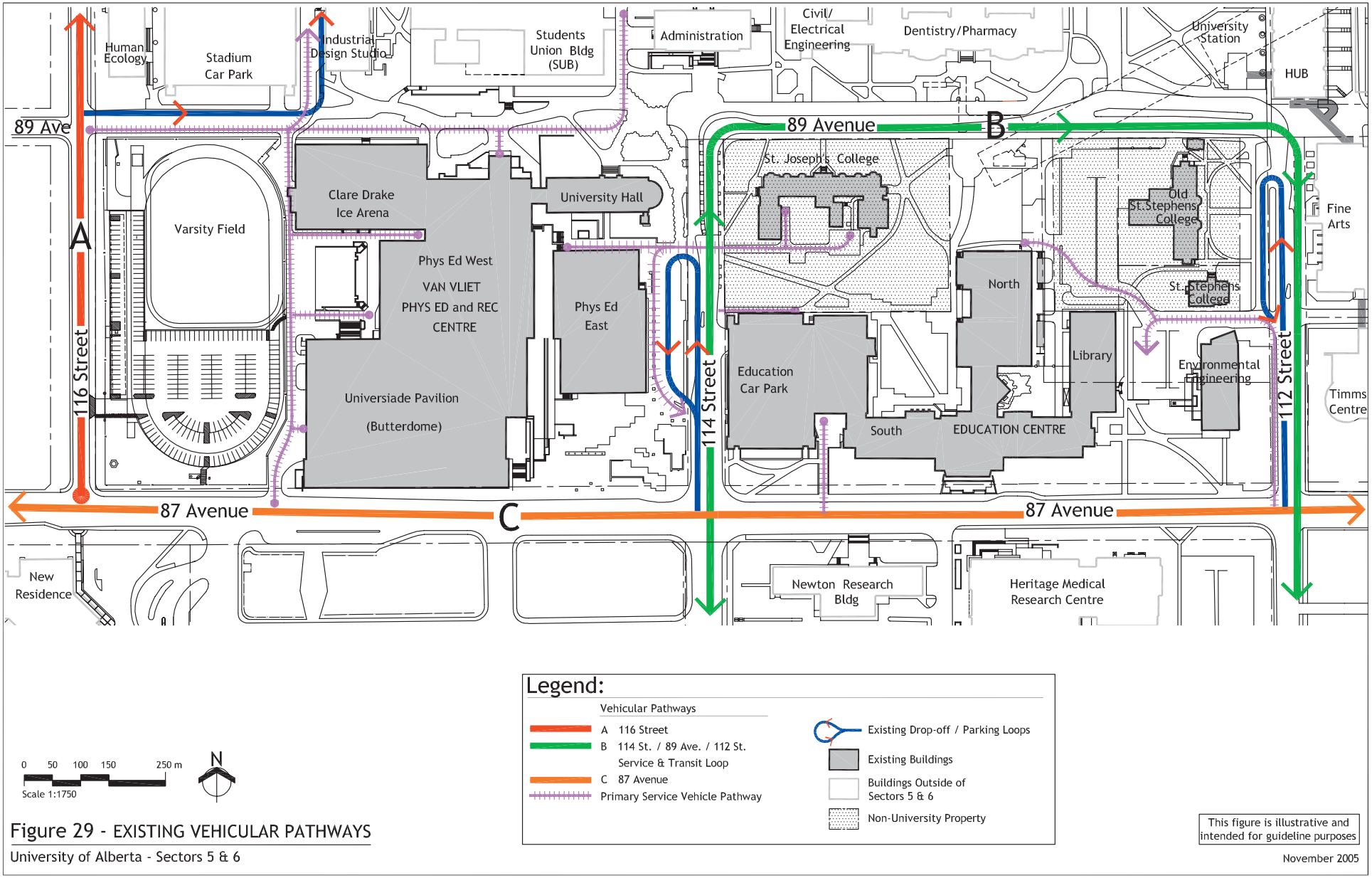

Figure 29 - EXISTING VEHICULAR PATHWAYS

University of Alberta - Sectors 5 & 6

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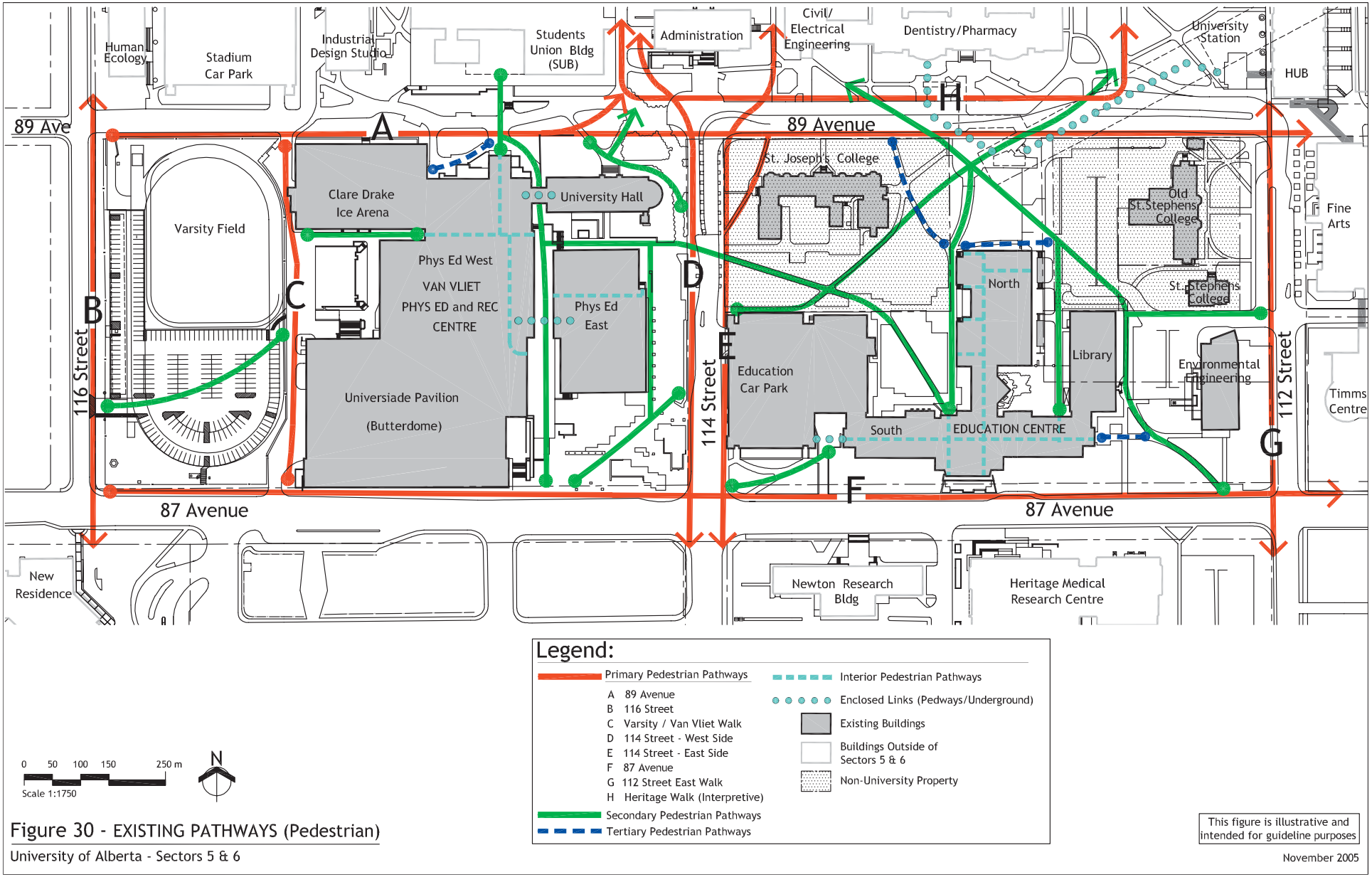


Figure 30 - EXISTING PATHWAYS (Pedestrian)

University of Alberta - Sectors 5 & 6

Figure 31 - Looking east along 89 Avenue from the north side of St. Joseph's College

Figure 32 - 89 Avenue transit terminal

intensely used pathways on Campus. The existing multi-nodal, expansive pedestrian mall between 112 Street and 114 Street sets a successful precedent for other major pedestrian areas on Campus. Decorative, durable, paved areas and an emphasis on street trees (as opposed to shrub beds) provides a clean, safe, open and sustainable landscape that comfortably accommodates both vehicular and pedestrian traffic. Celebration Plaza provides a gateway into the heart of Campus from 89 Avenue. (Refer to Figure 40). Closer to 116 Street, the quality of the pedestrian environment declines somewhat, as defined pedestrian paths give way to dominant vehicular pathways.

- 87 Avenue, is the primary east-west pathway on the North Campus. From 112 Street to 114 Street, a single monolithic sidewalk provides for pedestrian movement along 87 Avenue, with a 30 to 50 metre treed open space between the sidewalk and building edge. (Refer to Figures 14, 19 and 33). From 114 Street to 116 Street, various conditions occur: east of the Butterdome, the strong east-west orientation of the pathway is diffused by the Universiade Plaza, but is re-established along the south side of the Butterdome - where the broad, bright yellow south wall of the building meets a long foundation planter, creating a harsh pedestrian environment (although street trees and shrubs/annuals within the planter soften these conditions, to some extent, during the spring and summer - refer to Figure 8); west of the Butterdome, chain link fencing and fairly intensive, mature plantings define the south edge of the Varsity Field / parking area. (Refer to Figure 34).

Service Vehicle Pathways:

- Ample service pathways exist to all buildings in both Sectors. Service access lacking a pedestrian-oriented 'feel' and structure tends to dominate – particularly on the west side of Van Vliet/Butterdome and the north and west sides of Environmental Engineering. Generally, where service roads exist, they are not well integrated with pedestrian movement, degrading the quality and character of the pedestrian environment. (Refer to Figures 35-37).

Primary Pedestrian Pathways:

The North Campus has an extensive network of interior and exterior pedestrian pathways. The following provides an overview of existing pedestrian pathways and some differentiation of their hierarchy of use and importance:

- 116 Street, 114 Street and 112 Street, all running north-south, are primary pathways. (Refer to Figures 6, 26-28).
- The roadway running along the west side of the Universiade Pavilion, north to 89 Avenue is also a primary pedestrian pathway. (Refer to Figures 10 and 35).
- The Heritage Walk does not fall within either sector but is shown for reference - it runs along the north side of 89 Avenue.

Figure 33 - Looking west along 87 Avenue in front of the Education Centre

Figure 34- Looking east on 87 Avenue from the south side of Varsity Field and parking area

Figure 35 - Looking north on the west side of the Butterdome

Figure 36 - Service area at Education Centre

Secondary Pedestrian Pathways:

- Several secondary pathways provide the necessary connectors between primary and other pathways. Not all secondary pathways are well defined or accommodated by existing hard surfacing or furnishings, notably: the secondary pathway traversing the parking lot at Varsity Field and the 'desire line' pathways originating at the LRT Station, running southwest--through the south grounds of St. Joseph's College--to 114 Street. (Refer to Figure 16).

Tertiary Pedestrian Pathways:

- Numerous tertiary pathways exist within Sectors 5 and 6. These pathways are integral to the overall pedestrian network. These include the extensive network of paths that have been developed to accommodate the 'desire lines' of pedestrians and cyclists. The surface treatments and pathway widths vary considerably, creating a visually unappealing system of pathways.

Interior Pedestrian Pathways:

Many of the buildings are connected via interior pathways, however, neither sector has developed a comprehensive network through the buildings. The sectors do not connect to each other, nor to adjacent sectors via indoor links. The Phys Ed Centre connects to University Hall, and to all of its various parts. The Education Centre components are connected, but not with Environmental Engineering, nor with the other three buildings and LRT that are in proximity.

Figure 37 - North-west corner of the Environmental Engineering Building

Analysis

While there is adequate pedestrian access throughout both Sectors, the physical and aesthetic quality of the pedestrian environment varies greatly, is generally disjointed, and lacks legibility. Most pedestrian pathways suffer from having been determined from the spaces 'left over' after buildings have been erected, as opposed to being a planned network of pathways and circulation coinciding with building development.

Future development or redevelopment of pathways should consider the following:

- Stronger articulation of a north-south pedestrian pathway along the west side of Van Vliet and the connection from 114 Street to the University Station via the lands just south St. Joseph's College.
- Stronger articulation and/or reconfiguration of pathways--based on desire lines--originating at the LRT station and connecting to other pathways within Sector 6 and beyond.
- Creation of a defined pathway from 116 Street (Windsor-Rutherford), traversing the area south of Varsity Field to Van Vliet;
- The extension of the 89 Avenue pedestrian mall along the entire north end of Sectors 5 and 6;
- The integration of the interpretive Heritage and Alumni walks into the overall pathway system;
- The redevelopment of service/pedestrian pathways to be more pedestrian oriented/scaled and less like 'roads'.
- The redevelopment of primary, secondary and tertiary pathways to reflect the hierarchy of use.
- The improvement and extension of interior pathways.
- The improvement of universal accessibility throughout Sectors 5 and 6 and other adjacent sectors.
- The establishment of integrated service points at the Sector edges that decrease the interface between service vehicles and pedestrians.
- Potentials to link these two sectors to other sectors internally.

3.3 Edges (Refer to Figure 41)

Edges – Natural and built form boundaries that form spaces.

116 Street Edge

116 Street forms the west boundary of Sector 5 and the Campus. A well defined north-south edge is created by the consistent planting of street trees along both sides of 116 Street, as well as the linear planting of flowering crab apple trees along the west side of Varsity Field. The existing chain link fence along the Varsity Field edge is an unsightly visual and physical barrier between the street and Campus. (Refer to Figures 6, 9 and 38).

89 Avenue Edge

This edge is formed by the relatively dense spacing of built form and large canopy trees along the north side of Sectors 5 and 6 juxtaposed with the wide 89 Avenue pedestrian-vehicular corridor. (Refer to Figure 31).

112 Street /Old St. Stephen's Edge

This edge is formed by 112 Street and the relatively heavily landscaped area on the east side of Environmental Engineering in combination with the east sides of St. Stephen's College and the Alberta Community Development Building. (Refer to Figures 28 and 51).

87 Avenue Edge

87 Avenue forms the south edge of Sectors 5 and 6. The edge is well defined, reinforced by consistent street tree planting in both Sectors and the strong architectural definition and presence of the Butterdome and the South Wing of Education Centre. (Refer to Figures 8, 13,14, 19 and 33).

Analysis

The edges described above give Sectors 5 and 6 a strong sense of legibility with respect to their boundaries and make a positive contribution to their overall structure and should be reinforced and maintained. Future edge development or redevelopment should consider the following:

- Replacement of the chain link fencing along 116 Street , 89 Avenue and 87 Avenue around the Varsity Field / parking lot with a more aesthetically appealing fence type (ornamental) that meets the requirements for a recreational/athletic area.
- Extension of the 89 Avenue pedestrian mall to 116 Street.
- The enhancement of edge conditions along 112 Street, which should include: node improvements at 112 Street/87 Avenue; sidewalk widening along the west side of 112 Street ; and additional boulevard tree planting.
- Establishment of the proposed 'Grand Avenue' improvements along 87 Avenue.

Figure 38 - Looking south on 116 Street from 89 Avenue

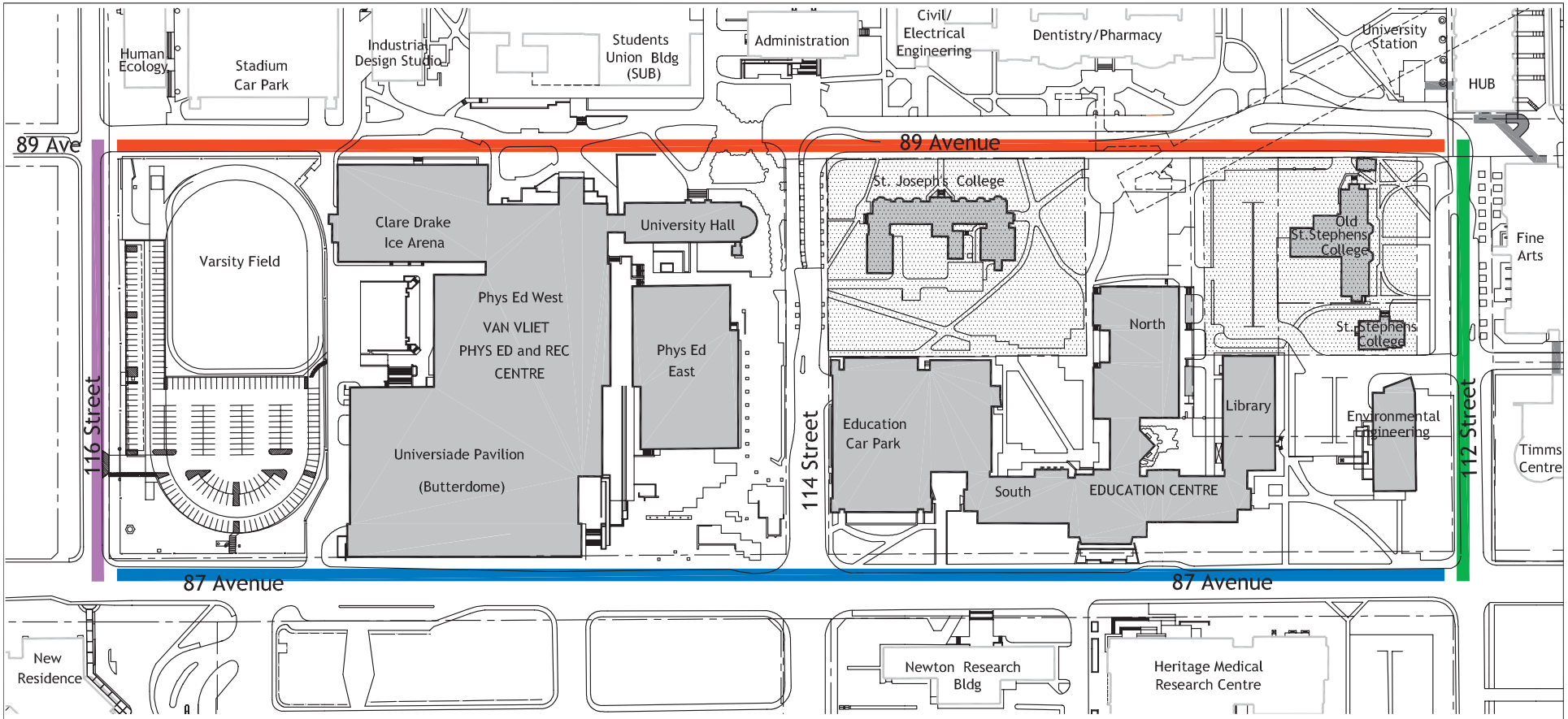


Figure 39 - EDGES

University of Alberta - Sectors 5 & 6

3.4 Nodes (Refer to Figure 46)

Nodes – Areas where pathways intersect that have a high concentration of activity and/or a high degree of importance with respect to one or a combination of the following: way-finding, social interaction and aesthetic quality.

Gateways and Nodes

University Gateways have a high degree of importance as entrances into the University. Interior and exterior nodes are discussed in terms of a hierarchy (primary, secondary and tertiary), based on their perceived relative importance and/or intensity with respect to activity, way-finding, social interaction and aesthetic quality. The hierarchy and terminology in this section are also used in Section 4.0. Several gateways and nodes establish a link between, and are shared elements of, Sectors 5/6, [1]Sectors 3/4 , [2]Sector 7 and [3]Sector 10 , and are therefore identified in both Sector Plans.

(Note: [1] *One asterisk indicates nodes that are shared elements with Sectors 3 and 4; [2] **Two asterisks indicates nodes that are shared elements with Sector 7; [3] ***Three asterisks indicates nodes that are shared elements with Sector 10.)

Figure 40 - Celebration Plaza

University Gateway

- The node in the 112 Street/89 Avenue area* is a gateway for people arriving on Campus by LRT and bus. This area anchors the east end of the 89 Avenue pedestrian mall and includes University Station (LRT) and the major entrance into the HUB. (Refer to Figure 28).

Figure 41 - Universide Plaza and east side of Butterdome

Figure 42 - Plantings and concrete treatment in Universiade Plaza

- The 'T' intersection of 87 Avenue/116 Street is a gateway into Campus from the west, delineating the complete transition from the Windsor Park neighbourhood. With the recent completion of the new residence to the south of this intersection, and the high amount of pedestrian traffic crossing 87 Avenue at this location, this corner has become even more distinct as a key entrance to the University.

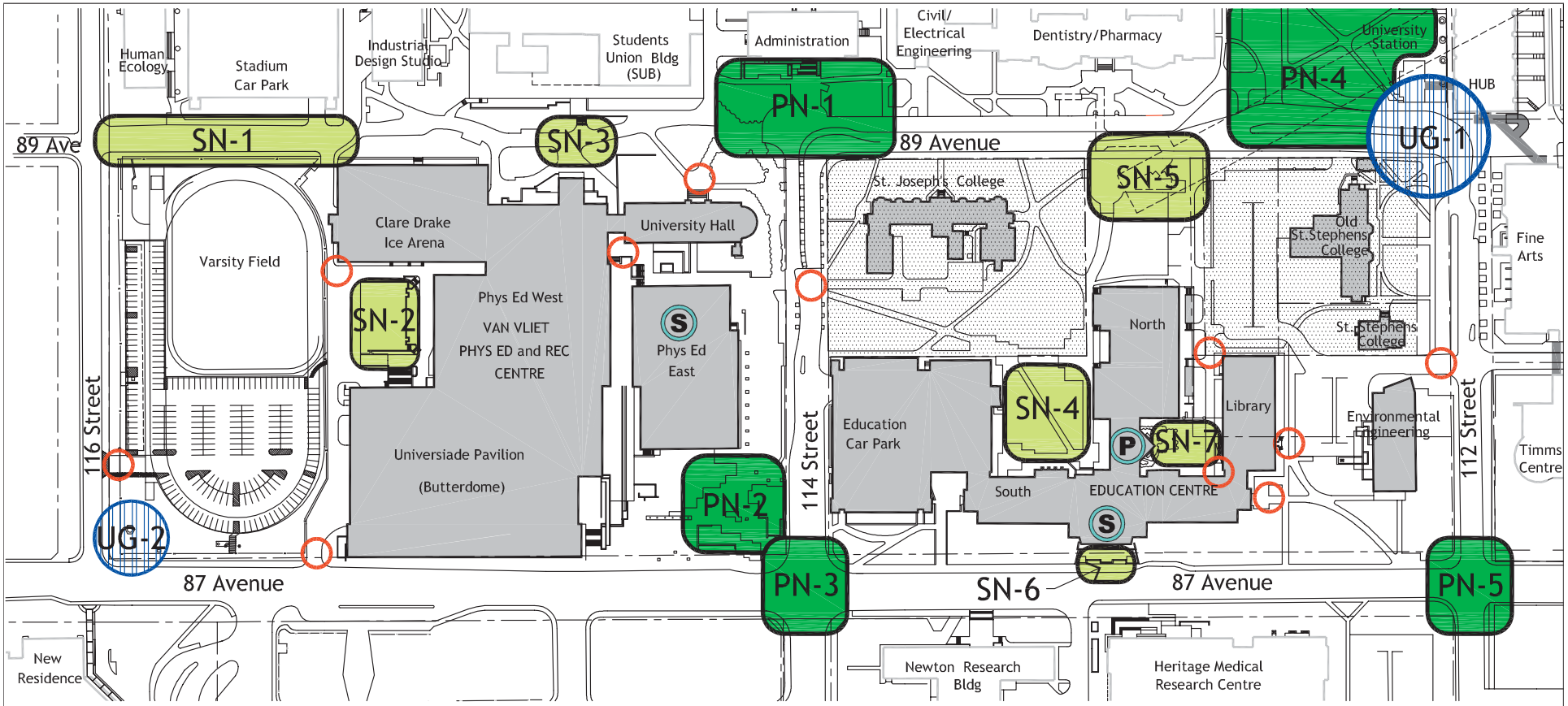
Primary Nodes

- PN-1: Celebration Plaza* includes the northeast portion of the grounds surrounding University Hall. This node is well articulated by columns, seating and decorative paving for pedestrians moving into the heart of the Campus. Presently, it terminates the west end of the 89 Avenue pedestrian mall at 114 Street. (Refer to Figure 40).

- PN-2: The Universiade Plaza is designed to accommodate pedestrian traffic during regular days, as well as space for large gatherings related to events staged in the Butterdome and/or other Phys Ed Facilities. This node includes seating integrated with permanent concrete planters and mature plantings. The node also includes major U of A welcome signage (both permanent and non-permanent). (Refer to Figures 5, 41-43).

- PN-3: The intersection of 87 Avenue and 114 Street** straddles the corners of all four blocks composing the intersection and includes the entire plaza in front of the Butterdome. This node and the node at 112 Street and 87 Avenue are the main entry points into the heart of North Campus for pedestrians and vehicular traffic. (Refer to Figures 13, 43 and 45).

Figure 43 - Looking east toward the Education Car Park from Universiade Plaza



Legend:

UG - University Gateways:
1 - University Station / Hub Gateway
2 - Varsity / Van Vliet Gateway

PN - Primary Exterior Nodes:
1 - Celebration Plaza
2 - Universiade Plaza
3 - 87 Avenue / 114 Street Intersection
4 - Rutherford Square
5 - 87 Avenue / 112 Street Intersection

SN - Secondary Exterior Nodes:
1 - West 89 Avenue Entry
2 - Van Vliet Courtyard
3 - SUB Entry
4 - Education Courtyard West
5 - Education North
6 - Education Centre Entry
7 - Education Courtyard East

- Tertiary Nodes
- Primary Interior Nodes
- Secondary Interior Nodes
- Existing Buildings
- Buildings Outside of Sectors 5 & 6
- Non-University Property

0 50 100 150 250 m
Scale 1:1750

N

This figure is illustrative and intended for guideline purposes

November 2005

Figure 44 - EXISTING NODES
University of Alberta - Sectors 5 & 6

Figure 45 - Looking south-east at the intersection of 87 Avenue and 114 Street

Figure 46 - Looking west toward the 89 Avenue drop-off (SN-1)

- PN-4: Rutherford Square*, the node south of Rutherford Library includes activity generated by University LRT Station, the bus mall and HUB. Although it is not within Sector 6, it is a major node for arrival into the University and therefore influences this sector.

- PN-5: Like the node at 114 St. and 87 Avenue, the intersection of 87 Avenue and 112 Street** ***straddles the

Figure 47 - Looking toward Environmental Engineering from the north-west corner of the 87 Avenue and 112 Street intersection

corners of the intersection and has heavy pedestrian and vehicular traffic . (Refer to Figure 47).

Secondary Nodes

- SN-1: The area including the intersection of 89 Avenue/116 Street*, extending east to include the area south of the Stadium Car Park is a major node serving as a drop-off zone and an entry point for a significant number of pedestrians and vehicles. (Refer to Figure 46).

- SN-2: The Van Vliet Courtyard node is a multi-purpose node that includes service access and pedestrian access to the Phys Ed complex and basketball courts. The entire area is hard surfaced. (Refer to Figure 10).

- SN-3: A busy node* is located between SUB and the Van Vliet Centre along 89 Avenue.

- SN-4: The Education Courtyard West provides access to/from the Education Car Park, as well as the North and South Wings of Education Centre. It has an expansive crowned central turf area surrounded by pathways and landscaping with a sculpture as a central focal point. (Refer to Figure 21).

- SN-5: The LRT Station (Education North) node intersects with the 89 Avenue pedestrian mall. This is an area of extremely heavy pedestrian movement and gathering related to transit. (Refer to Figures 22 and 49).

- SN-6: The Education Centre node is well defined by the prominent entry into the building and the surrounding hard landscaping. With the exception of nearby elm street trees, the area lacks interesting landscape design. (Refer to Figure 14).

- SN-7: The secluded Education Courtyard East provides access to the east wing of Education South and the Education Library. The area includes a playground which is to remain as long as the area is used by the faculty's Child Study Centre. The Education cafeteria looks out on to this node.

Figure 48 - Van Vliet Courtyard (SN-2)

Tertiary Nodes

- Numerous tertiary nodes exist throughout Sectors 5 and 6. (Refer to Figure 44).

Interior Nodes

- Several key interior nodes exist in Sectors 5 and 6. These nodes are closely related with food/drink and student support services. (Refer to Figure 44).

Analysis

Two University Gateways have been identified within, or on, the edge of Sectors 5/6:

- UG-1: University Station / HUB Gateway needs to be improved in conjunction with further enhancement and development of Rutherford Square.

- UG-2: Varsity / Van Vliet Gateway should celebrate entry into the North Campus with feature development on the northeast corner of the intersection.

Primary and secondary nodes (both interior and exterior) are places to pass through, as well as to pause for socializing, studying and passing the time in a pleasant environment. All future development or redevelopment should be predicated on the importance of recognizing nodes as the places where Campus life and activity is most intense, and where aesthetic, comfortable relationships between exterior and interior spaces must be defined and articulated in an enduring and sustainable manner.

Some of the existing nodes, such as Celebration Plaza work relatively well; others, such as Universiade Plaza and the Education Courtyard require rejuvenation. Generally, all nodes suffer in quality due to: hard surface treatments and site furnishings that are inconsistent and/or inappropriate, aging and/or vandalized; as well as poorly maintained planting/ sodded areas and a general lack of design quality. In addition, all nodes could be improved by the integration of a more consistent and visible interpretive program.

In general, in consideration of the long term maintenance implications, future development or redevelopment of nodes should:

- emphasize consistent, durable hard surface treatments;
- favour tree plantings (both deciduous and coniferous) over shrub plantings for their long term impact, viability and relative ease of care.

Specifically, future development or redevelopment of nodes should consider:

- the renovation and re-articulation of Universiade Plaza as the most important and largest primary 'plaza' node in Sectors 5 and 6 and the Campus core;
- the creation and/or renovation of well-defined, welcoming--'plaza-type'--secondary and primary nodes along 87 Avenue at all intersecting streets, as well as the entry to Education Centre.

Figure 49 - Panorama of the area to the south and east of the LRT access building (SN-5)

- the 'greening' of the Van Vliet courtyard;
- the rejuvenation/renovation of the Education Courtyards to include new plantings, coordinated and suitable hard surfaces; and updated and appropriate site furnishings, signage and interpretive information.
- the reconfiguration and design of the node at the LRT Station to integrate this high use area into the surrounding context.
- the enhancement of existing, and the development of new, internal nodes that integrate with existing and proposed interior pathways and exterior (primary, secondary, and tertiary) pathway and node enhancements.

Figure 50 - Looking south toward the entry to the Education Courtyard East

3.5 Landmarks (Refer to Figure 55)

Figure 51 - Alberta Community Development Building (Old St. Stephen's College)

Landmarks – Important natural, built form, and other urban features.

Listed below are buildings and places that play a significant role in: defining memorable experiences of the U of A Campus: contributing to a sense of the University's evolution and history; and providing a framework for ordering spatial experience and way-finding. Landmarks play a role in our daily lives that is different for each individual. More than any other 'pattern element' (districts, pathways, edges and nodes), the significance and/or importance of landmarks is subjective.

Existing Landmarks

- Heritage Buildings:
  - Alberta Community Development Building - Province of Alberta (Old St. Stephen's College - Figure 51)
  - St. Joseph's College (Non U of A facility - Figure 52)

- Buildings:
  - The Butterdome (Universiade Pavilion - Figures 5, 8-9,13, 34-35 and 41)

- Places / Public Art:
  - Celebration Plaza (including 'The Dove' - Figure 40)
  - 89 Avenue Mall (Figures 31-32)
  - Education Mural (Figure 54)
  - Sculpture - Education Courtyard West - (Figure 21)

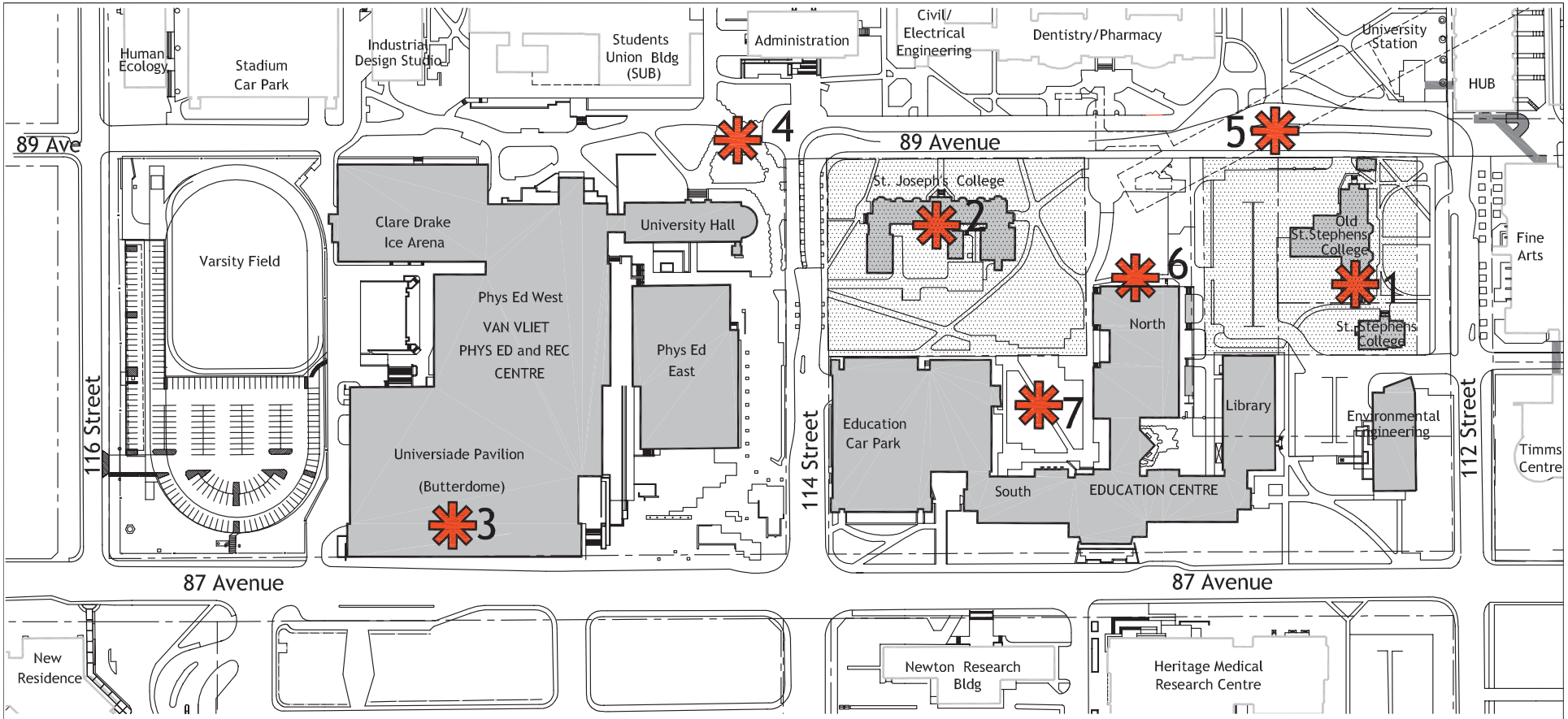
Other tertiary landmarks include numerous sculptures, trees of significance (memorial trees and rare species) and way-finding features. Currently, these are not comprehensively mapped and/or identified by the University to include in this plan.

Analysis

Heritage buildings should be significant landmarks within Sectors 5 and 6. Where they occur, these buildings impart a sense of the traditional scale, detail and feeling of traditional university architecture that is a part of Western culture. Future planning and development must recognize and capitalize upon the architectural, historical and aesthetic value of these buildings.

Many of the 'Places' listed as landmarks are well established and are significant for their role in creating a 'sense of place' on the North Campus. Future development and redevelopment should conserve and continue to enhance these places. In addition, development or redevelopment of existing and/or new nodes within Sectors 5 and 6 should emphasize the suitability and importance of these places as potential landmark opportunities.

Figure 52 - West facade of St. Joseph's College



Legend:

Existing Landmarks:

Heritage Buildings

1 - Alberta Community Development Building (Old St. Stephen's College) Province of Alberta
2 - St. Joseph's College

Buildings

3 - The Butterdome (Universiade Pavilion)

Places / Public Art

4 - Celebration Plaza
5 - 89 Avenue Mall
6 - Education Mural
7 - Sculpture

Existing Buildings

Buildings Outside of Sectors 5 & 6

Non-University Property

0 50 100 150 250 m

Scale 1:1750

N

This figure is illustrative and intended for guideline purposes

November 2005

Figure 53 - EXISTING LANDMARKS

University of Alberta - Sectors 5 & 6

With respect to tertiary landmarks, several sculptures dot the landscape of Sectors 5 and 6 but go unnoticed because of poor orientation to pathways and little, if any, interpretive information. Freestanding sculpture on Campus could potentially make a stronger statement if it were grouped and interpreted collectively. The location of public art on Campus is not well documented - a comprehensive inventory and mapping of all public art on the Campus is recommended.

Several exotic tree species and memorial trees have been planted on the Campus. Relatively few of the trees have been labelled to indicate the species, significance, etc. Consistent and comprehensive labelling/interpretive signage would better identify these trees. In some cases, future development and redevelopment may require the relocation of significant trees, but every effort should be made to preserve the trees in their existing locations to ensure their longevity, and to enhance open space and interpretive opportunities. The location of existing vegetation is not well documented - a comprehensive inventory and mapping of all significant trees and shrubs or other plant material (perennials, etc.) is recommended.

Figure 54 - Education mural from the north-east

SECTOR PLAN 5 AND 6

Sector Development Guidelines

4.1 DISTRICTS

Objectives (Refer to Figure 7)**:**

.1 To establish three integrated districts that create and define the south central portion of the North Campus::

- Phys Ed District
- Education District
- University Hall District

General Guidelines

.1 Existing and future development should be integrated with open space and (interior and exterior) pathway development with the aim of defining a more aesthetic and functional character which establishes a visually cohesive environment; enhances and better defines circulation patterns and drop-off locations, connectivity and way-finding; better defines the establishment of different multi-use open space areas; and establishes a better sense of community and character appropriate for study, work, socializing, celebration and recreation. Avoid the development of buildings with 'inward-looking' qualities.

The following are District specific guidelines. These guidelines interrelate with District and additional Pathways, Edges, Nodes and Landmark guidelines (Sections 4.2 to 4.5), as well as Appendix A – Campus-Wide Guidelines. Site specific guidelines are provided in Section 5.

4.1.1 Phys Ed District

Objective:

.1 To enhance the Phys Ed District with future potential development and existing open space and pathway improvements to: provide a more comfortable, pedestrian-scaled environment; establish engaging open spaces that accommodate multi-use (i.e., large plaza space, outdoor recreation, informal seating areas, etc); enhance and better celebrate the District's 'gateway' location; and physically enhance the linkages to other University districts and sectors.

Guidelines:

.1 Existing and future development should be better integrated with open space and multi-use pathway improvements to enhance the District's character, aesthetics and way-finding.

.2 Existing and future development should establish stronger visual and physical connections to surrounding districts and neighbourhoods.

.3 Existing and future development should resolve conflicts between pedestrian and vehicular traffic with innovative, safe, cost-effective and aesthetic solutions.

.4 A diversity of open space should be developed to enhance multi-use opportunities that are both District and University based.

.5 Existing pathways should be enhanced to: provide a more appropriate scale for pedestrians; mitigate the poor relationship between indoor and outdoor space; and improve the cavernous character and often harsh microclimate (i.e., sun/shade, wind, etc) between buildings.

.6 Site specific guidelines for the Varsity Field area should incorporate and coordinate: primary pathway enhancements (116 Street, 89 Avenue, and 87 Avenue) at the perimeter of the space; pathway development through the site – especially from Lister Hall (south of 87 Avenue) into the Campus; the re-establishment of a multi-use recreational open space; and gateway and node development on the northeast corner of 116 Street and 87 Avenue.

.7 Upgrade the Universiade Plaza with landmark development and open space enhancements to emphasize its gateway location and importance, and to establish a well articulated landscape and open space that accommodates a diversity of use in a more comfortable and seasonally responsive environment for gathering, socializing, study, interpretation, commemoration and celebration.

.8 Maintain and enhance the existing characteristics of 116 Street as an appropriate buffer and transition between the Campus and the Windsor Park neighbourhood.

4.1.2 Education District

Objective:

.1 To enhance existing Education facilities with future potential development and existing open space and pathway improvements to: provide a more comfortable and pedestrian-scaled environment; improve and integrate existing pathway and 'desire line' connections throughout the District; establish engaging open spaces that accommodate multi-use, i.e., large plaza space, education interpretation, elementary school use (Child Study Centre), informal seating areas, etc.; enhance node development; and physically enhance the linkages to other University districts and sectors.

Guidelines:

.1 Establish 87 Avenue as the "Grand Avenue." (Refer to Section 4.2)

.2 Integrate future District building, pathway and gateway/ node development to improve the District's setting and characteristics.

.3 Enhance the legibility of existing pathways and open space north of the Education Centre buildings to create a better visual and physical continuity and appeal that integrates with St. Joseph's College, St. Stephen's College, the 89 Avenue Transit Mall area and the other University Sectors. This should include the development (or redevelopment) of pathways to accommodate 'desire lines'.

.4 Existing surface parking lots should be improved or relocated in negotiation with the University's neighbours to create and integrate a safe and comfortable pedestrian environment, and establish an appropriate pedestrian scale and character.

.5 Existing planting within the District should be rejuvenated and/or renovated to better reflect maintenance capabilities and accommodate pedestrian movement and use along pathways and in nodes.

.6 Future development or redevelopment should respect the heritage and aesthetic value of St. Joseph's College and Old St. Stephen's College.

4.1.3 University Hall District

Objective:

.1 To ensure that any redevelopment retains this small District's relationship with SUB and the Administration Building--the core of Campus governance--and the importance of its connection with 89 Avenue, Celebration Plaza and 114 Street.

Note: As identified in Sectors 3 and 4, SUB and the Administration buildings are part of the West Academic District. When grouped with University Hall, these three buildings establish a sub-district that represents the administrative centre for the North Campus.

Guidelines:

.1 All future development or redevelopment should reinforce the importance of University Hall and its relationship to SUB, the Administration Building, 89 Avenue, Celebration Plaza and 114 Street.

4.2 PATHWAYS

Objectives (Refer to Figures 55 and 61)**:**

.1 Develop a hierarchy of pathways (i.e. primary, secondary, tertiary) that:
- Links key nodes, districts, and sites within each Sector to the surrounding Campus and neighbourhoods
- Improves way-finding and drop-off zones.
- Contributes to the overall quality and 'sense of place' within the North Campus
- Establishes safe, aesthetic, accessible and comfortable pathways.
- Establishes an improved and connected network of interior pedestrian pathways.

.2 Identify opportunities for the development of an integrated service point network that reduces the impact of service vehicles on the pedestrian environment.

General Guidelines

.1 The pathway hierarchy should be established as follows::

1. Vehicular Pathways:
a) 116 Street
b) 114 St./89 Ave./112 St. Transit & Service Vehicle Loop
c) 87 Avenue
2. Service Vehicle Pathways
3. Existing and Proposed Drop-off Loops
4. Exterior Primary Pedestrian Pathways
a) 89 Avenue
b) 116 Street
c) Varsity/ Van Vliet Walk
d) 114 Street (west and east side)
e) 87 Avenue
f) 112 Street
g) Heritage Walk (Interpretive)
5. Exterior Secondary Pedestrian Pathways
6. Exterior Tertiary Pedestrian Pathways
7. Interior Pedestrian Pathways
a) Existing Interior Pedestrian Pathways
b) Existing Enclosed Links (Pedways)
c) Proposed Interior Pedestrian Pathways
d) Proposed Enclosed Links (Pedways)

.2 Pathways should enhance movement, incorporate gathering spaces and successfully integrate with, and highlight, building entrances and nodes.

.3 The following considerations should be applied to pathway development:

- Vandal-proof design
- Multi-use activity (walking, biking, in-line skating)
- Physical and perceived safety, security, and comfort (CPTED)
- Visual experience and aesthetics
- Optimum operations and maintenance
- Universal accessibility
- Flexibility
- Sustainability

.4 A pathway hierarchy should be designed to define specific pedestrian versus service vehicle routes or integrate the two uses in an improved pedestrian-oriented structure and character.

.5 Design materials should complement and extend the architectural character into and along the pathway right-of-way and accommodate all potential types of vehicle use.

.6 The condition of existing shrub beds along pathways should be assessed and either rejuvenated or removed (in whole or in part) in relationship to aesthetics, operation/ maintenance capabilities, and the way in which the shrub beds contribute to (or detract from) the form and function of the space.

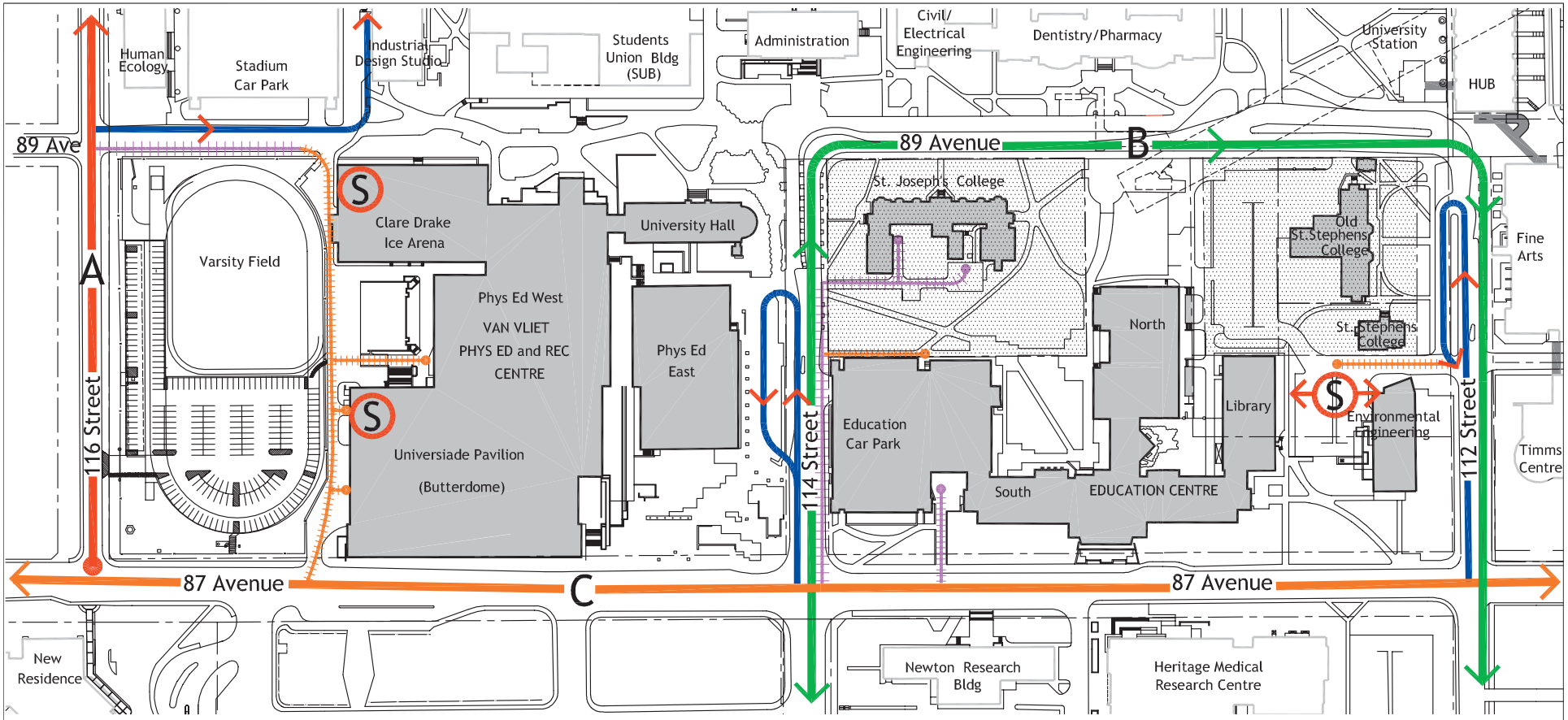


Figure 55 - PROPOSED VEHICULAR PATHWAYS

University of Alberta - Sectors 5 & 6

4.2.1 116 Street

Objective:

.1 116 Street is the major north-south route defining the west boundary of Sector 5 and should be enhanced with streetscape improvements to celebrate its importance as a major entry edge of the Campus, while maintaining those qualities that provide an appropriate transition to the Windsor Park neighbourhood.

Guidelines:

Key guidelines include:

.1 In collaboration with the City: remove the existing chain link fence and replace it with ornamental fencing; remove the monolithic sidewalk and replace with wider dual 2.5 metre boulevard sidewalks (if feasible without disturbing mature tree plantings); and incorporate additional boulevard tree plantings. (Refer to Figure 56).

.2 Establish a comprehensive street furnishing and lighting design (refer to Campus-Wide Guidelines) to create a distinct pedestrian-scaled environment.

.3 Introduce intersection enhancements (e.g. special surface treatments) and node development at the intersection of 116 Street and 87 Avenue to enhance gateway development into the Campus.

.4 Incorporate intersection and tertiary node development opportunities with the future proposed enhancements to the West 89 Avenue Entry (refer to 89 Avenue information in this Sector Plan and Sectors 3 and 4).

.5 Preserve mature, healthy trees of good form.

116 Street - 'Before'

Figure 56 - Conceptual sketch of 116 Street Enhancements

4.2.2 114 St. / 89 Ave. / 112 St. Service & Transit Loop

Note: Although 114 Street, 112 Street and 89 Avenue are all discussed separately in 4.2.3 - 4.2.5, collectively they form a an important and distinct service and transit loop into the North Campus.

Objectives:

.1 Maintain and enhance the existing service and transit loop as the most important vehicular route into the heart of North Campus.

.2 Create a cohesive sense of arrival for both transit riders and pedestrians.

.3 Seamlessly integrate transit and service vehicle access with pedestrian pathways and the surrounding built environment.

Guidelines:

.1 Follow all objectives and guidelines for 114 Street, 112 Street and 89 Avenue while respecting and acknowledging the integrated functional and aesthetic requirements of the service and transit loop.

4.2.3 114 Street

Objective:

.1 114 Street is the primary south entry into Sectors 5 and 6 and the Campus, and should be enhanced with streetscape improvements and tree plantings to celebrate its importance as the central north-south axis and drop-off/entranceway into the North Campus.

Guidelines:

.1 Existing streetscape features should be enhanced with additional furnishings (benches, waste receptacles, etc), banners, and interpretive features that relate to the Campus and Heritage Walk.

.2 The center median should be replanted with appropriate tree species (e.g., Columnar Poplars/Aspen, American Elm, Linden, Bur Oak, etc.).

.3 Preserve mature, healthy trees of good form.

4.2.4 112 Street

Objective:

.1 112th Street is one of the main north-south arteries into the North Campus and should be enhanced. Improvements should be extended to include both the west and east sides of the street from 89 Avenue to 87 Avenue.

Guidelines:

.1 Future enhancements to the west side of 112 Street should include wider decorative sidewalk development; additional boulevard tree plantings/ tree grates; seating areas; pedestrian scaled lighting and banners; public art; and drop-off improvements (i.e., sheltered seating, textured surfacing; tree/shrub plantings; raised seating wall/planting areas; foundation plantings; etc). (Refer to Figure 57; see Sector 7 for the east side guidelines).

.2 Implement previously proposed redevelopment features as presented and illustrated in the University's 'Reconstruction of 89th Avenue - Development Plan' (February 1992). These features include: a new entrance at the northwest corner into the Fine Arts building, which is oriented toward the main LRT station to create an outdoor gallery space. This feature would include the removal of the stairway under the HUB/ FAB elevated walkway; the widening of the walkway between the two buildings; and the development of a formal plaza area and focal point at the intersection with 89 Avenue. (Note: Any future revisions to the pedway link should be assessed in relationship to future building redevelopment strategies.)

.3 A landmark should be introduced on the northwest corner of 112 Street and 87 Avenue, replacing the ineffective raised "U of A" floral bed.

.4 Preserve mature, healthy trees of good form.

North-west corner of 87 Avenue and 112 Street - 'Before'

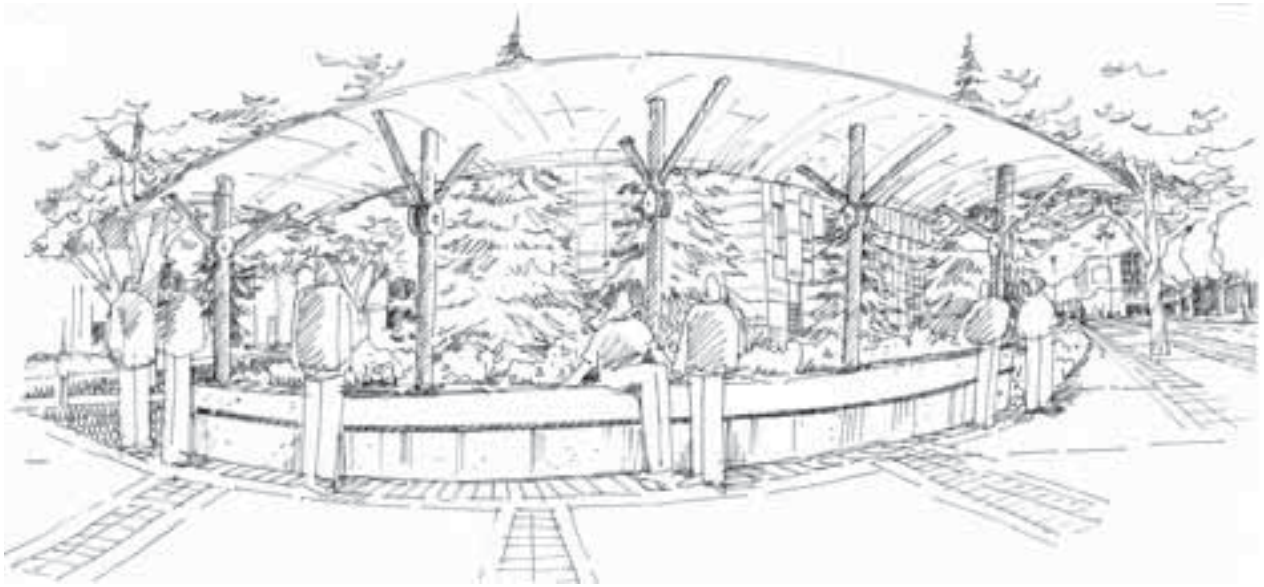


Figure 57 - Conceptual sketch of north-west corner of 87 Avenue and 112 Street

4.2.5 89 Avenue

Objective:

.1 Create a more unified pathway along the north edge of Sectors 5 and 6 that extends the existing promenade characteristics of 89 Avenue (between 112 Street and 114 Street) from 114 Street to 116 Street while retaining service vehicle access and the parking loop between 115 Street and 116 Street.

Guidelines:

.1 Modify the existing asphalt roadway cross-section, between Celebration Plaza and 116 Street, to incorporate patterned/textured surfacing, streetscape features and lighting consistent with the materials and features in the transit hub section of 89 Avenue. (Refer to Figure 58).

.2 Restrict service vehicle access along 89 Avenue from the south-east corner of Stadium Car Park to Celebration Plaza. Pedestrians are the primary users of this pathway; service vehicles have secondary access."

.3 The intersection of 112 Street and 89 Avenue - at the entrance/exit from University Station (LRT) - should be developed as a University Gateway. A formal plaza and landmark component should be developed to highlight and reinforce the importance of this area as an entry into the University from the LRT and transit (bus) system. (Refer to Section 4.2.3 – 112 Street).

.4 Future pathway enhancements should incorporate the hierarchy of existing and proposed nodes along the length of 89 Avenue (Refer to Section 4.4 - Nodes).

4.2.6 87 Avenue

Objective:

.1 Enhance this portion of 87 Avenue within Sectors 5 and 6 as part of the 'Grand Avenue', celebrating the vitality of the North Campus and encouraging activity, liveliness, gathering features and social contact to energize the urban environment.

Guidelines:

.1 Existing monolithic walkways should be removed and replaced with the proposed primary walkway development illustrated in Figure 59. This approach should extend the entire length of 87 Avenue through the University North Campus and include an integrated furnishings approach (i.e. benches, waste receptacles, bus shelters & transit stops/stations, bicycle racks, tree grates and guards, Campus/ emergency telephone stations, etc.); a “Grand Avenue” identifier and colour scheme to create an integrated, unified visual character for signage, kiosks, directories and way-finding devices; pedestrian-scaled lighting; and public art.

.2 Intersection/crossing and node enhancements should be implemented (i.e., special surface treatments, visible public art, landmarks, etc.) along 87 Avenue at 112 Street and 114 Street, in collaboration with the City of Edmonton, while maintaining clear sight lines for drivers and pedestrians.

.3 Preserve mature tree plantings and supplement with additional new succession tree plantings. Suggested boulevard trees species include, but are not limited to: American Elm, Bur Oak, and Green Ash (spp.).

.4 The development of a plaza/forecourt space along 87 Avenue at the Education Centre and improvements to the Universiade Pavilion Plaza should be made to enhance and promote gathering and social activity.

.5 A gateway landmark feature should be established on the northeast corner of 87 Avenue and 116 Street to demark entry into the Campus. This feature should also foster improved linkage from the student residence into the Campus.

Figure 58- Conceptual sketch of 89 Avenue looking east towards Van Vliet and SUB

Looking west along 87 Avenue near 112 Street - 'Before'

Figure 59 - Conceptual sketch of 87 Avenue Enhancements

4.2.7 Service Vehicle Pathways

Objective:

.1 Define primary vehicle pathways into Sectors 5 and 6 with the goal of establishing strategic service points related to a network of future interior service pathways and a potential system of small service vehicle shuttles. (Refer to Figure 55).

Guidelines:

.1 In the short term, define primary service vehicle pathways and pedestrian pathways with service vehicle access as shown in Figure 29.

.2 Over the long term, reduce service vehicle penetration into Sectors 5 and 6 by introducing strategic service points and integrated, accessible interior service pathways. Future proposed service vehicle route closures should include 89 Avenue from the southeast corner of the Stadium Car Park to SUB and the north side of Phys Ed East. (Refer to Sectors 3 and 4 for other incorporated service point links that relate to Sector 5 and 6 closures).

.3 The development of strategic service points should consider, yet not be limited to, the following:

- Easy access to all types of service/delivery vehicles.
- Secure storage enclosures incorporated within existing facilities or an architecturally integrated structure.
- Service point locations should be selected to maximize existing service facilities and capabilities and connect to interior pathways.
- Service points should be integrated to minimize direct impact on pedestrian pathways.
- Service points should be well landscaped, complete with decorative screening and architectural features.

.4 Pedestrian intersections along primary service vehicle pathways should be raised and textured paving should be used to create a visual and physical separation and demarcate their importance. These intersections should also include way-finding kiosks and/or markers, signage, bollards, seating areas, and tree/shrub plantings. (Refer to Figure 60).

.5 Existing trees should be preserved; additional trees should be introduced.

.6 Maintain a safe and secure environment along all service vehicle pathways, following the design principles of CPTED (Crime Prevention Through Environmental Design).

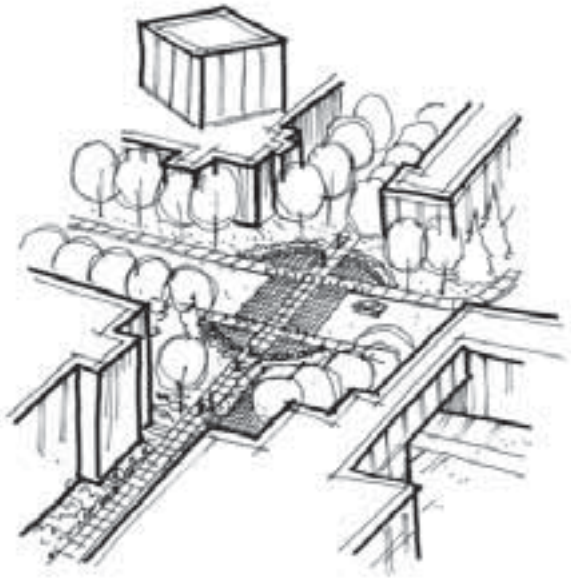


Figure 60 - Conceptual sketch of a service/ pedestrian Intersection

4.2.8 Pedestrian Pathways with Service Vehicle Access

Objective:

.1 Identify, consolidate and retrofit existing service vehicle pathways (i.e., asphalt roads, concrete curbs, service areas, etc.) with pedestrian-oriented pathway improvements (e.g., decorative surface treatments, tree plantings, raised planters, furnishings, decorative light standards, banners, rolled curbs, bollards, screened service/storage areas, etc.).

Guidelines:

.1 Over the long term, identify, consolidate and retrofit existing service vehicle pathways as either primary or secondary pedestrian pathways.

.2 Existing trees should be preserved; additional trees should be introduced.

.3 Maintain a safe and secure environment along all service vehicle pathways, following the design principles of CPTED (Crime Prevention Through Environmental Design).

4.2.9 Existing and Proposed Drop-off Loops

4.2.8 Existing and Proposed Drop-off Loops

Objective:

.1 Enhance existing drop-off loops in Sectors 5 and 6 to better accommodate access to, and traffic flow within, the Campus.

Guidelines:

.1 The existing 114 Street and 112 Street drop-offs should be enhanced with streetscape improvements (sidewalk widening, tree planting, site furnishings, etc).

.2 Enhancements to the existing drop-off area should appropriately incorporate and coordinate with: future potential Phys Ed building expansion; Universiade Plaza improvements; and general streetscape/ drop-off components (i.e., sheltered-seating, textured surfacing, tree/shrub plantings, raised seating wall/planting areas, foundation plantings, etc).

Note: Refer to proposed drop-off loop modifications in Section 4.2.2 and 4.2.3 for proposed enhancements to 114 and 112 Street, and to Sector 3 and 4 for the west entry along 89 Avenue. The 89 Avenue drop-off loop is an important access and drop-off point to the University. It should be enhanced with streetscape improvements

4.2.10 Exterior Primary Pedestrian Pathways

Objectives (Refer to Figure 61)**:**

.1 Create a more unified pathway along the north edge of Sectors 5 and 6 that extends the existing promenade characteristics of 89 Avenue (between 112 Street and 114 Street) from 114 Street to 116 Street.

.2 In collaboration with the City, extend and enhance primary pedestrian movement along 116 Street from 89 Avenue to 87 Avenue to include, yet not be limited to: the removal and replacement of the existing chain link fence with ornamental fencing; the replacement of monolithic sidewalks with wider boulevard sidewalks; incorporating a comprehensive street furnishing and lighting design to create a distinct pedestrian-scaled environment; introducing intersection enhancements (e.g. special surface treatments, landmark features, etc.) with tertiary node development (i.e. seating, way-finding features, public art, etc.) along 116 Street.

.3 Redevelop the service road on the west side of the Butterdome/ Van Vliet as a primary pedestrian pathway with service access. (Refer to Section 4.2.7).

.4 Enhance primary pathway conditions along 114 Street with streetscape improvements and tree plantings to celebrate its importance as the central north-south access to the Campus.

.5 Redevelop 87 Avenue as the “Grand Avenue”, complete with, yet not limited to: dual boulevard walk development; intersection and mid-block crossing enhancements; new boulevard tree plantings (inter-planted with existing trees); the development of plaza/forecourt spaces and nodes; pedestrian-scaled lighting; streetscape additions (i.e., identifier and colour scheme, signage, furnishings, kiosks, directories and way-finding devices) to create an integrated and unified visual character; public art; and gateway landmark features at 116, 114 and 112 Streets.

.6 Enhance primary pathway conditions along 112 Street with wider or double sidewalk development (e.g., two separate sidewalks planted with street trees between), additional boulevard tree plantings, seating areas, patterned walkways and tree grates, pedestrian scaled lighting and banners, public art, plaza and outdoor gallery space additions adjacent to Fine Arts and the HUB, and landmark development on the northwest corner of 87 Avenue.

.7 As identified in the LRDP (Section 7.7.1), The “Heritage Walk” should be integrated with the pedestrian system and be used to guide students, alumni, and visitors on an interpretive heritage tour of the University.

Guidelines:

.1 Exterior primary pedestrian pathways should be developed with a 4 metre width hard-surfaced walkway, pedestrian-scale lighting, shade trees, benches, waste receptacles and signage. (Refer to Figure 62). Exterior primary pathways should be distinct from, but complement and be compatible with, the design of secondary and tertiary pedestrian pathways.

.2 Exterior primary pedestrian pathway enhancement and development should preserve all mature trees and be integrated into existing and proposed nodes and landscape design.

.3 A consistent sequence of markers should be established for each exterior primary pedestrian pathway to define its alignment and aid in way-finding.

.4 All proposed improvements should incorporate façade and foundation enhancements to improve pedestrian-oriented use.

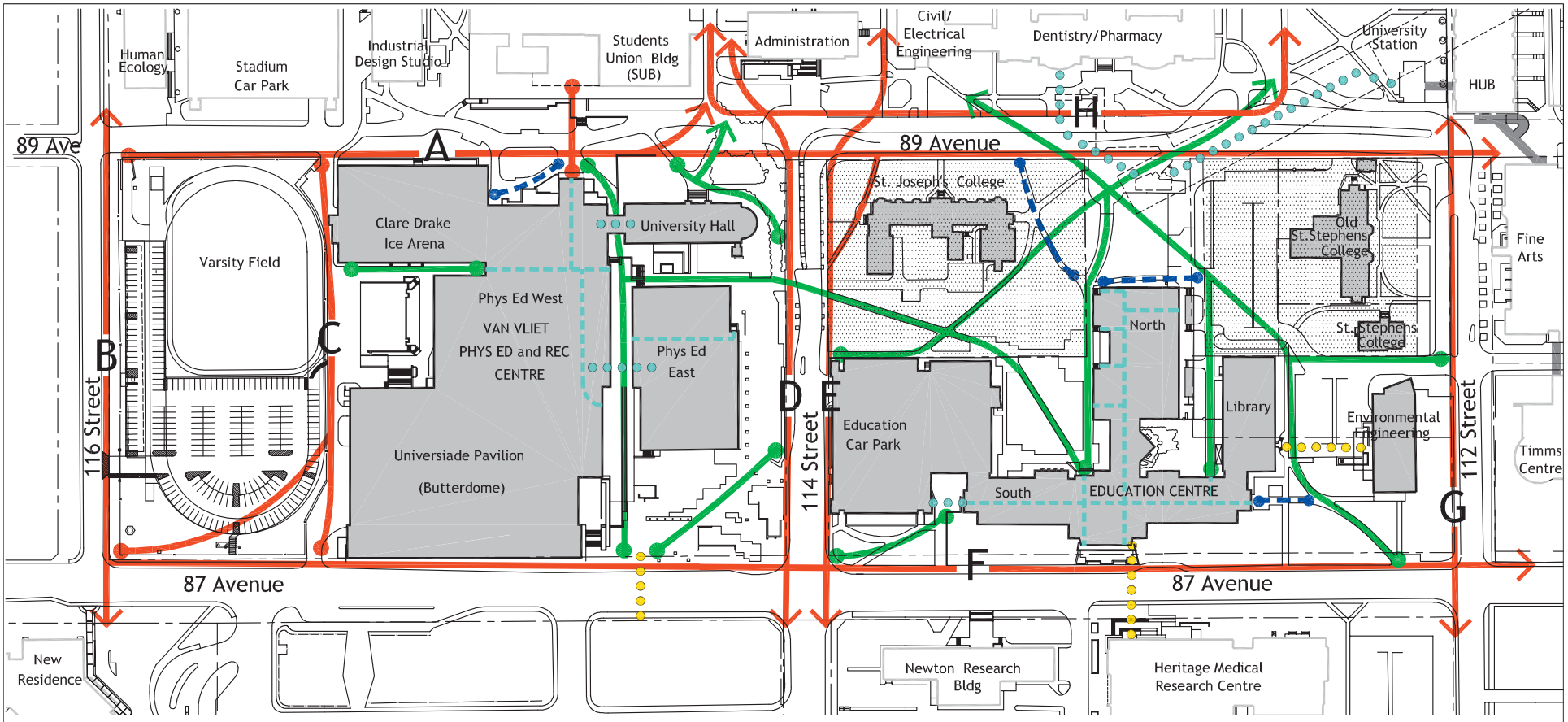


Figure 61 - PROPOSED PEDESTRIAN PATHWAYS

University of Alberta - Sectors 5 & 6

This figure is illustrative and intended for guideline purposes

November 2005

.5 The Heritage Walk should be of distinctive character and incorporate site furnishings, signage, public art, lighting, and interpretive information on University history, points of interest, as well as notable alumni, staff, research and achievements.

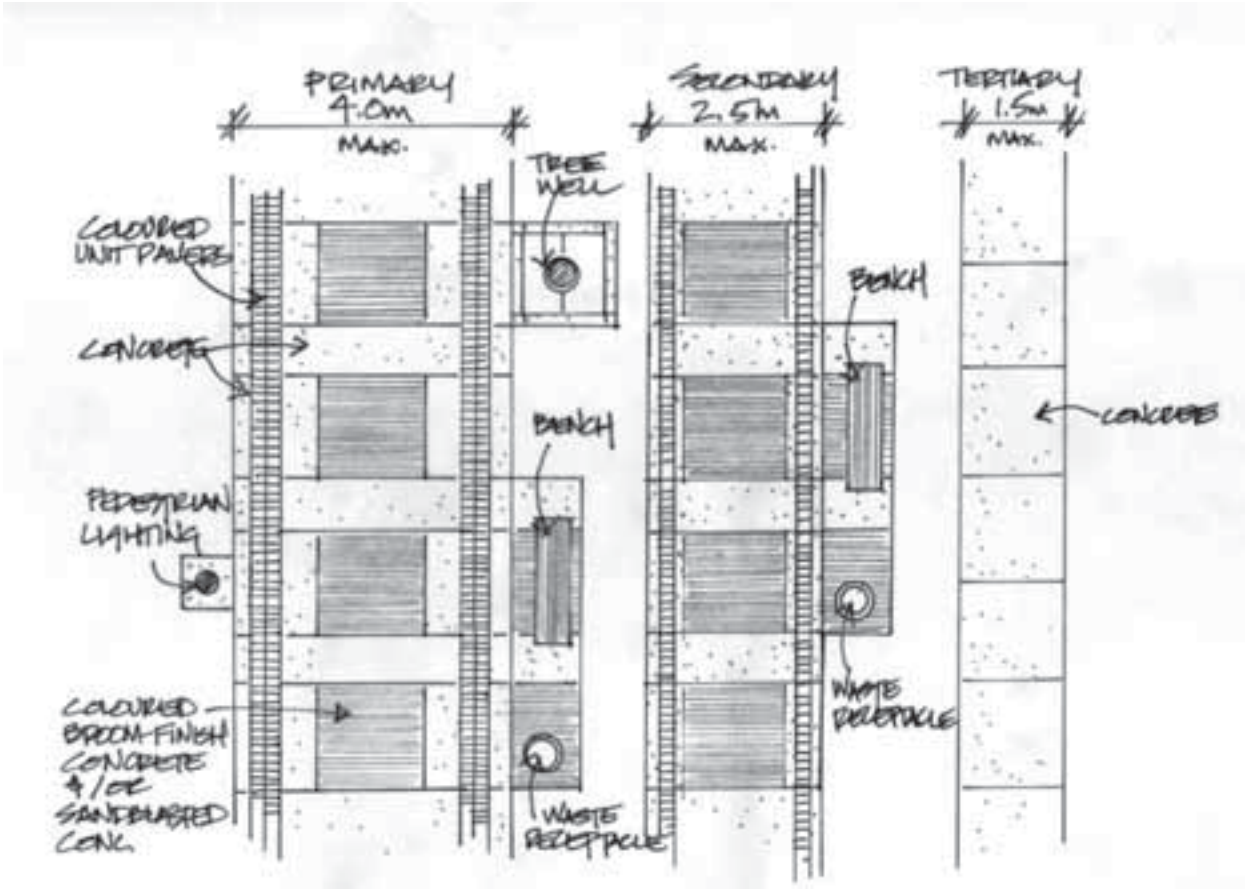


Figure 62 - Conceptual sketch of pathway hierarchy, layout and materials

4.2.11 Exterior Secondary Pedestrian Pathways

Objective:

.1 Establish exterior secondary pedestrian pathways for multi-use (e.g. pedestrian, bicycles, joggers, etc.) that effectively mesh together Sectors 5 and 6, enhancing way-finding, connectivity and the overall pedestrian domain.

Guidelines:

.1 All exterior secondary pedestrian pathways should be developed with a 2.5 metre width hard-surfaced walkway, pedestrian-scale lighting, shade trees, benches, waste receptacles and signage. (Refer to Figure 62).

.2 All exterior secondary pedestrian pathways should be integrated into other pathway systems with a visually consistent sequence of markers and node development to define their alignment and aid in way-finding.

.3 All proposed improvements to secondary pedestrian pathways should preserve mature, healthy trees with good form.

4.2.12 Exterior Tertiary Pedestrian Pathways

Objective:

.1 Establish and define a tertiary level of pathways to improve way-finding, connectivity and the pedestrian domain.

Guidelines:

.1 All exterior tertiary pedestrian pathways are integral to the cohesiveness of each Sector and interconnection of building entrances. All existing and future tertiary pathways should serve to connect, without compromising the integrity and character of open spaces.

.2 All exterior tertiary pedestrian pathways should be developed with a consistent 1.5 metre width hard-surfaced walkway. (Refer to Figure 62).

.3 All exterior tertiary pedestrian pathways should preserve mature trees and be incorporated into existing and proposed district pathways, nodes, and landscapes.

.4 All exterior tertiary pedestrian pathway rights-of-way should incorporate a consistent format of site furnishings, signage and lighting consistent with the district they traverse.

4.2.13 Interior Pedestrian Pathways & Pedways (Covered, Uncovered, Underground and Above Ground Connectors)

Objectives:

.1 Maintain, enhance, and expand internal building pathways and pedway connections to provide safe, weather-protected, efficient and convenient links between buildings within the Sector.

.2 Establish a comprehensive system of universally accessible internal pathways with the aim of providing dual pedestrian and service access.

.3 Develop clearly identifiable systems for way-finding and self-location within facilities.

Guidelines:

.1 Where appropriate and desirable, existing internal pathways should be retained and enhanced to provide direct, spacious, day-lit pathways within, and between, buildings. They should be supported by a series of various gathering areas, complete with staff, student and visitor services (i.e., coffee shops, vending areas, etc).

.2 Internal pathways should be established with universal accessibility. These could potentially accommodate the movement of goods and services from strategic exterior service points.

.3 Internal pathways should be easy to navigate and provide clarity in way-finding with well-placed landmarks that help the user to way-find. Internal pathways should be a minimum width of 3.0 m.

.4 Internal pathways should link seamlessly to the exterior at key nodes and pathways. These links should be developed to enhance and define building entrances and should utilize transparency (glazing) to create a strong visual relationship between interior and exterior space.

.5 Wherever possible, internal pathways should provide transparent views to the exterior to assist in way-finding.

.6 Future pedways may consider the potential of providing additional rooms or spaces (interior and exterior) to buildings, for reading, gathering, commercial/food services and other support opportunities.

.7 Pedways (above grade) should be designed to minimize their visual and microclimatic impact. This can be achieved by a combination of design elements (e.g. transparency, orientation/relationship to the circulation routes below, compatibility with existing architectural materials and form, etc.).

.8 A maximum of one pedway (above grade) crossing should be permitted between nodes (major intersections of the Sector framework) to minimize visual disruption and create a favourable micro-climate.

.9 Pedway and underground pathways should be safe, efficient and provide convenient pedestrian circulation and integration with building function.

4.3 EDGES

Objectives (Refer to Figure 39)**:**

.1 To promote edge development or enhancements that establish appropriate transitions to surrounding Campus Sectors and the Windsor Park neighbourhood.

.2 Maintain an intensity of development within the Sector that reduces edge impacts – i.e. the impact on neighbouring residential areas.

Guidelines:

.1 The existing edge conditions along 116 Street should be enhanced with the removal and replacement of the existing chain link fencing with ornamental fencing and the addition of boulevard sidewalk improvements, a comprehensive street furnishing and lighting approach, and node and intersection development. Future building development and/or enhancements should respect the existing quality and character of edge conditions established by mature tree plantings, building setbacks and resulting open space between 116 Street and University buildings.

.2 Existing edge conditions along 89 Avenue should be enhanced with modifications to the alignment between Celebration Plaza and 116 Street. Future building development and/or redevelopment along this edge should: define the public realm and respect the surrounding context; create a pedestrian-scaled environment; and provide a balance of mixed-use (e.g. ground level public facilities – upper level academic/ support services) that supports a dynamic and engaging pedestrian-oriented environment.

.3 Existing edge conditions along 112 Street should be enhanced with wider sidewalk development, additional boulevard tree plantings, seating areas, patterned walkways and tree grates, pedestrian scaled lighting and banners, public art, and landmark development on the northwest corner of 87 Avenue.

.4 Existing edge conditions along 87 Avenue should be enhanced with boulevard walk development; intersection and mid-block crossing enhancements; new boulevard tree plantings (while preserving existing trees); the development of plaza/forecourt spaces and nodes; pedestrian-scaled lighting; streetscape additions (i.e., identifier and colour scheme, signage, furnishings, kiosks, directories and way-finding devices) to create an integrated and unified visual character; public art; a gateway feature at 116 Street, and landmark features at 114 and 112 Streets.

4.4 NODES

Objectives (Refer to Figure 63)**:**

.1 Create a hierarchy, both internally and externally, of primary, secondary, and tertiary nodes to define entry, enhance way-finding, create gathering and activity areas, and reinforce the overall pedestrian-oriented character envisioned for the Sector.

.2 Define existing gateways, and incorporate and develop new gateways at key locations, demarcating and celebrating entry into the University's North Campus.

General Guidelines:

.1 Define and physically articulate existing, large and highly visible open spaces to accommodate a range of activities, amenities, features and information. Primary nodes should include places for major gatherings and celebration, study, recreation and interpretation.

.2 Primary nodes are to include, or have the potential to include, sites integrated with the Heritage Walk and other primary pathways for the recognition, commemoration and celebration of the University's history and development.

.3 Whether nodes are internal or external, tertiary nodes should be well articulated, providing visual reference and physical connection between districts (sub-districts), pathways and other primary and secondary nodes. The nodes should be functional and well defined through the incorporation of architectural and way-finding devices, furnishings, lighting, signage, interpretive information and public art.

.4 Features that should be considered in relation to node development include:

- Pedestrian-scaled lighting.
- Barrier-free design.
- Emergency phones.
- The use of a consistent identifier and colour scheme through natural (trees) and built-form elements to create a distinct visual quality within each District.
- Banners and integrated signage.
- Kiosks, directories and way-finding devices.
- Site furnishings (e.g. benches, receptacles, bus shelters, transit stops/stations, bicycle racks, tree grates/guards, bollards, etc.).
- Public art.
- 'Gateway' devices (e.g. pavilions, colonnades, arbours, monoliths, trellises, formal tree plantings, monuments, etc.).
- Intersection treatments to identify nodes (e.g. decorative hard surface treatments, dedication plaques, public art, landmarks, etc.).

.5 A hierarchy of nodes should be established as follows (Refer to Figure 63 – please note that several of the gateways and nodes overlap with adjacent Sectors, including Sectors 3, 4, 7 and 10):

University Gateways:
- UG1: University Station / HUB Gateway
- UG2: Varsity/ Van Vliet Gateway

Primary Nodes:
- PN1: Celebration Plaza
- PN2: Universiade Plaza
- PN3: 87 Avenue/ 114 Street Intersection
- PN4: Rutherford Square
- PN5: 87 Avenue/ 112 Street Intersection

Secondary Nodes:
- SN1: West 89 Avenue Entry
- SN2: Van Vliet Courtyard (if not developed for facilities)
- SN3: SUB Entry
- SN4: Education Courtyard West
- SN5: Education North
- SN6: Education Centre Entry
- SN7: Education Courtyard East

Tertiary Nodes:
- At key gathering and activity areas.

Primary Interior Nodes:
- Education Centre (cafeteria)
- Phys Ed West

Secondary Interior Nodes:
- Phys Ed East
- Education Centre Entry

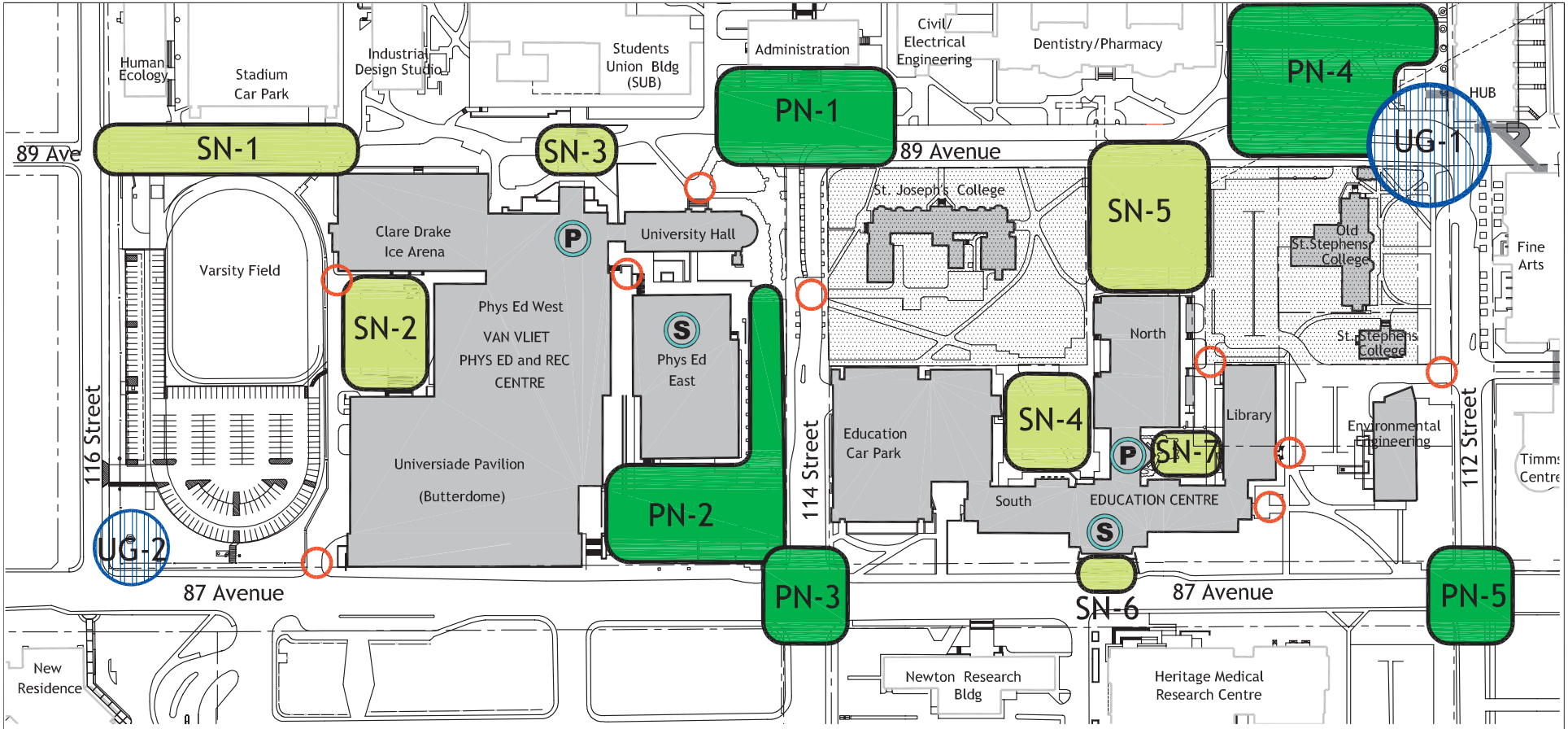


Figure 63 - PROPOSED NODES

University of Alberta - Sectors 5 & 6

4.4.1 Gateways

Objective:

.1 Improve key gateway locations to celebrate entry into Sectors 5 and 6 and the University's North Campus.

General Guidelines:

.1 All 'gateway' locations should be enhanced to incorporate and consider all existing and future building and pathway development.

.2 Gateway design should project a presence and image appropriate to their role as major entries into the North Campus, while reflective of the context and scale of the district and sector.

Guidelines:

.1 The University Station / HUB Gateway is a prominent entry point into the North Campus and a major multi-use zone for public transit/LRT and pedestrian movement. The area should be colourful and vibrant, and enhanced to celebrate its prominence, articulate a sense of arrival, and provide visual reference and direction. Rutherford Square and the FAB Courtyard are key areas that should be incorporated and/or integrated into gateway enhancements. (Refer to Figure 65). Other improvements identified in Sectors 3, 4 and 7 that influence gateway development in this area include:

- Implement the previously proposed Fine Arts entrance at the north-west corner, oriented toward the main LRT station, including the creation of an outdoor exhibition space.
- Remove the stairway under the HUB/FAB elevated walkway to enlarge the width of the walkway between the two buildings. Note: any future revisions to the pedway link should be assessed in relation to future building redevelopment strategies.
- Proposed streetscape enhancements along 112 Street from 87 Avenue to 89 Avenue, including the existing drop-off area. (Refer to Sections 4.1, 4.2 and 4.3, and Sector 7).

.2 The 87 Avenue and 116 Street corner is a prominent entry point into the North Campus and a primary pathway link from the student residence on the south side of 87 Avenue into the main heart of the Campus. This corner should be enhanced to celebrate entry into the Campus and promote clear and well defined pathway development for pedestrians into the Campus along the west side of Van Vliet and Phys Ed Rec Centre and the Butterdome. Key components that should be considered in enhancing gateway development in this area include:

- A visual landmark feature.
- Small plaza area and the replacement of the existing chain link fencing with an ornamental fence around the old Varsity Field site, including sidewalk/ streetscape enhancements along 116 Street and 87 Avenue.
- Primary pathway development (Varsity/Van Vliet Walk – refer to Section 4.2) that links the existing cross walk at 116 Street and 87 Avenue to the heart of the North Campus.
- Incorporate gateway development with future recreational/ open space redevelopment of the old Varsity Field/ parking lot area.
- Provide directory and way-finding components.

Figure 64 - Conceptual sketch of Gateway (UG-2) at 87 Avenue and 116 Street

Figure 65 - Design concept for Rutherford Square and University Station/ HUB Gateway area (UG-1) (February 1992)

4.4.2 Primary Exterior Nodes

Guidelines:

.1 Articulate primary node development in the following locations:

- Celebration Plaza
- Universiade Plaza
- 87 Avenue/ 114 Street Intersection
- Rutherford Square
- 87 Avenue/ 112 Street Intersection

.2 Celebration Plaza (PN1)

Celebration Plaza should be maintained and incorporated into future pathway enhancements along 89 Avenue and 114 Street, and the redevelopment of the Administration Building site (refer to Sectors 3 and 4). The condition of existing shrub beds should be assessed and either rejuvenated or removed in relationship to aesthetics, operation/maintenance capabilities, and the form and function of the space. Median tree plantings along 114 Street--on approach to Celebration Plaza--should be replaced with new boulevard trees. Given the commemorative importance of this node, it is appropriate that the space be defined with the development of a well-conceived garden that could provide year-round vibrancy, colour and interest.

.3 Universiade Plaza (PN2)

Universiade Plaza should be enhanced to provide a less exposed, reflective (light) and harsh environment. Key enhancements include: better spatial definition and pathway connections; incorporating textured/ patterned and/or coloured surfacing and foundation plantings; creating a more comfortable year-round micro-climate; and incorporating architectural/ streetscape features, interpretive signage/features, tree plantings, intersection/ cross walk improvements, drop-off area/features (i.e. seating, shelter, directory/signage, bicycle parking, etc.) and landmark features that relate to 87 Avenue ("Grand Avenue" development) and the extension of the plaza north to include the drop-off area east of Phys Ed East.

.4 87 Avenue/ 114 Street Intersection (PN3)

This intersection should incorporate and enhance all four corners to reflect its importance as a primary node within Sectors 5, 6 and 10 and the North Campus. Key enhancements could include, but are not limited to:

- Enhancement of the existing Universiade Plaza space on the northwest corner. See above.
- Establishing smaller nodes on the southeast and northeast (also see Sector 10) corners of the intersection, incorporating seating, planting and public art/ landmark features that promote better pedestrian movement and views into, and through, the intersection.
- Intersection/ cross walk enhancements (i.e., decorative hard surface treatments, public art/ landmarks, etc) while maintaining clear sight lines for drivers and pedestrians.

.5 Rutherford Square (PN4)

This node should be formally redeveloped to amalgamate with proposed primary pathway (89 Avenue / Heritage Walk / University Station/HUB Gateway) development and complement and contrast with the proposed enhancement of the North-East Academic Quad, East Academic Quad, and Power Plant Precinct (Refer to Sectors 3 and 4). Key design considerations include the development of a hard surfaced plaza articulated by grade change and formal tree and arcade development. (Refer to Figure 65).

.6 87 Avenue/ 112 Street Intersection (PN5)

This intersection should incorporate and enhance all four corners to maintain and better articulate its importance as a primary node within Sectors 6, 7 and 10, and the North Campus. Key enhancements could include, but are not limited to:

- The existing plaza/frontage at the Timms Centre should be enhanced to soften prominence of concrete and the hard-edged quality of the space. Refer to Sector 7.
- Establishing smaller nodes on the southwest and northwest corners (also refer to Sector 10) of the intersection, incorporating seating, planting and public art/ landmark features, consistent with proposed future enhancements along 87 Avenue.
- Intersection/ cross walk enhancements (i.e., decorative hard surface treatments, public art/ landmarks, etc), that promote pedestrian movement into and through the intersection, while maintaining clear sight lines for drivers and pedestrians.
- A landmark should be introduced on the northwest corner of the intersection, replacing the "U of A" floral bed. This should be incorporated with proposed enhancements to 112 Street, which include wider sidewalk development, additional boulevard tree plantings, seating areas, patterned walkways and tree grates, pedestrian scaled lighting and banners, and public art. (Refer to Sector 7 for the east side guidelines).

4.4.3 Secondary Exterior Nodes

Guidelines:

.1 Articulate secondary node developments in the following locations:

- West 89 Avenue Entry
- Van Vliet Courtyard (if not developed for facilities)
- SUB Entry
- The Education Courtyard
- Education North
- Education Library Courtyard
- Education Centre Entry

.2 West 89 Avenue Entry (SN1)

The West 89 Avenue Entry should be better articulated to create a sense of arrival for students, staff and visitors at the west terminus of 89 Avenue. Key design considerations should include pedestrian-scaled improvements such as surface treatments, decorative lighting, sidewalk widening (south side) and bulbing, textured crosswalks, gateway arches, intensification of tree plantings, directory/signage, shelters, bicycle parking, seating and other decorative furnishings. (Refer to Figure 66).

.3 Van Vliet Courtyard (SN2)

If not developed for facilities expansion, the Van Vliet Courtyard should retain the existing basketball courts and the space enhanced with additional tree plantings and seating areas. These enhancements should be integrated with the future recreational/open space redevelopment of the Varsity Field area, primary pathway (116 Street, 89 Avenue, and 87 Avenue) additions, and enhanced gateway and node development.

.4 SUB Entry (SN3)
This active node is the main access point into SUB and Van Vliet, and should be better defined through the addition of a seating area that integrates with proposed pathway enhancements along 89 Avenue. This node offers a prime opportunity for public art and/or an interpretive feature along the 89 Avenue axis.

.5 Education Courtyard West (SN4)

The existing Education Courtyard should be rejuvenated and renovated with soft and hard landscape components, site furnishings and interpretive opportunities that coordinate with, and complement, surrounding architectural and site features and 'Education District' theme opportunities.

.6 Education North (SN5)

The Education North node should be redeveloped to respond to the high level of pedestrian movement and opportunities for informal gathering in front of the Education mural and around the LRT Station. Redevelopment should include: hard and soft landscape development of the area between Education and the LRT Station and sheltered seating, informal/formal gathering spaces, performance/ exhibit space, etc; additional hard surfacing in worn landscape areas; shrub bed rejuvenation; pathway development along worn/ trodden desire lines; additional site furnishings and other decorative additions (i.e., banners, interpretive information, etc); and architecturally designed sheltered seating and amenities for transit users.

.7 Education Courtyard East (SN7)

This courtyard area is presently used by the Child Study Centre within Faculty of Education. If, in the future, the Child Study Centre program should be relocated from the building, then this node should be renovated and rejuvenated to include new plantings, hard surface improvements and education program development opportunities (e.g., 'naturescape' additions).

.8 Education Centre Entry (SN6)

This entrance should be enhanced to provide opportunities for gathering and interpretation. Key enhancements should include architectural/ streetscape features and seating areas; bicycle parking improvements; interpretive signage/features (related to 'Education'); and tree and shrub plantings to better define the surrounding open space. Future enhancements should also be coordinated with future potential pedway development from HRIF to the south. (Refer to Sector 10).

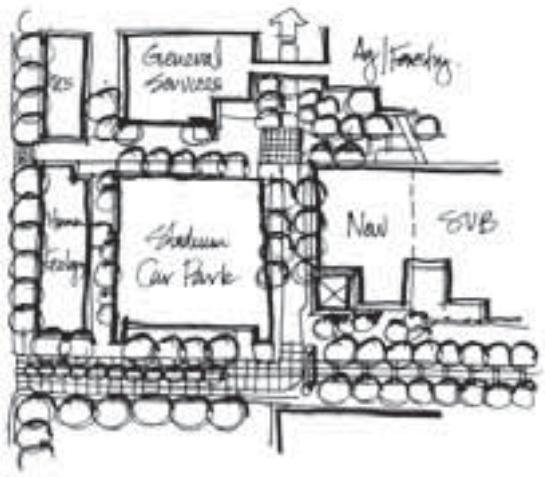


Figure 66 - Conceptual sketch of the West 89 Avenue Entry (SN-1)

4.4.4 Tertiary Nodes

Guidelines:

.1 Recognize and accentuate tertiary nodes at key gathering and activity areas. The nodes should be functional and incorporated into surrounding building and site development to promote indoor/outdoor integration and provide opportunities for passive recreational activity. (Refer to Figure 67). The nodes should be well defined through the incorporation of architectural devices, furnishings, lighting, signage, interpretive information (especially along the Heritage Walk) and public art.

.2 Pedestrian intersections along service corridors should be raised to create a visual and physical separation, and should include way-finding kiosks and/or markers, bollards, seating areas, and tree/shrub plantings.

4.4.5 Interior Nodes

Guideline:

.1 Recognize existing primary and secondary interior nodes and incorporate new nodes with future building and interior pathway development that offers a diversity of student, staff and visitor services, as well as information, way-finding and gathering opportunities. Refer to Section 4.2.12 Interior Pedestrian Pathways and Pedways.

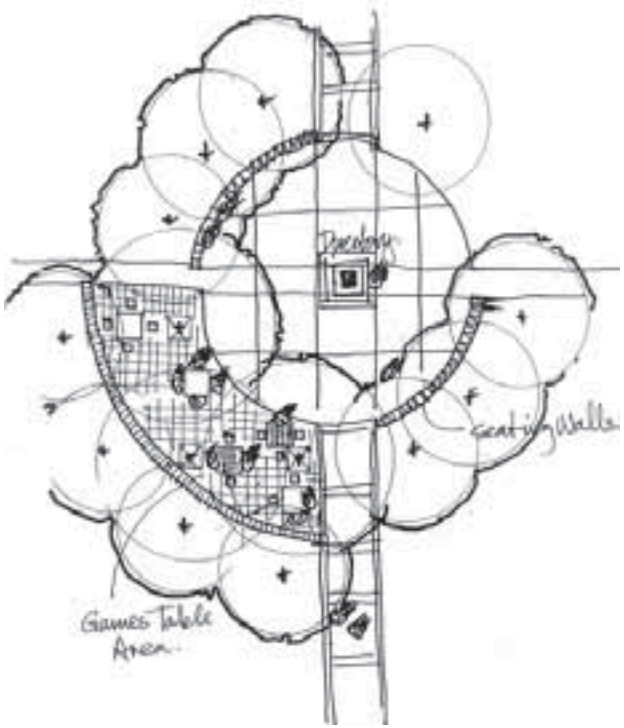


Figure 67- Conceptual sketch of a tertiary node

4.5 LANDMARKS

Listed below are buildings and places that play a significant role in: defining memorable experiences of the U of A Campus: contributing to a sense of the University's evolution and history; and providing a framework for way-finding. Landmarks play a role in our daily lives that is different for each individual. More than any other 'pattern element' (districts, pathways, edges and nodes), the significance and/or importance of landmarks is subjective.

Objectives (Refer to Figure 68)**:**

.1 To recognize and celebrate the University's history and heritage sites.

.2 To recognize and celebrate landmarks which contribute to creating a 'sense of place'; promote a sense of movement and connection; and emphasize and enhance nodes within the Sectors.

Note: The inclusion of any given feature as a 'landmark' in these guidelines does not imply that it is to be preserved or protected beyond normal expectations for the built and/or natural environment on the University Campus. Rather, in the context of development or redevelopment, landmarks should be carefully considered and taken into account with respect to their roles as described above.

Guidelines:

.1 Primary landmarks should be recognized, celebrated and respected for their role in creating memorable experiences and legibility within the Campus. Their importance should be highlighted in future proposed pathway, node, and building development throughout Sectors 5 and 6. Primary landmarks are defined in three major categories – 'Heritage Buildings', 'Buildings' and 'Places/ Public Art'.

These include:

<u>Heritage Buildings:</u>
- Old St. Stephen's College.
- St. Joseph's College

<u>Buildings:</u>
- The Butterdome

<u>Places/ Public Art:</u>
- Celebration Plaza
- 89 Avenue Mall
- Education Mural
- Sculpture - Education Courtyard West

Opportunities exist in key locations to establish landmarks which, in addition to improving way-finding, could play a significant role in enhancing and defining special places, and in interpreting, commemorating and celebrating the history and growth of the University of Alberta. They include (Refer to Figure 68):

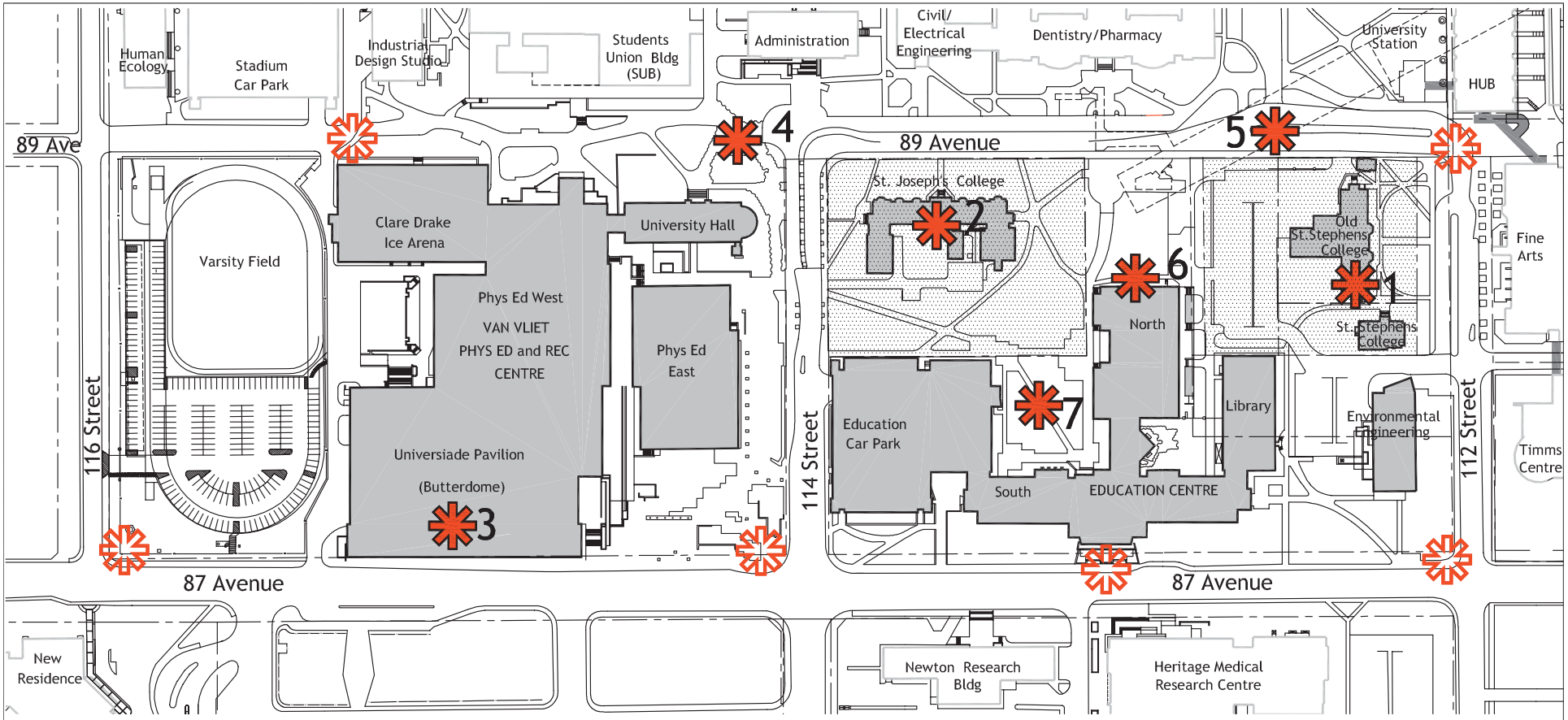
<u>Places/ Public Art:</u>
- The northeast corner of 116 Street and 87 Avenue – a landmark opportunity that demarks entry into the Campus and incorporates proposed pathway and node enhancements.
- The northwest corner of 114 Street and 87 Avenue - a landmark opportunity could be developed in conjunction with Universiade Plaza improvements.
- The front of the Education building along 87 Avenue – a landmark opportunity that better defines the front of the building and Education District, and enhances "Grand Avenue" development along 87 Avenue.
- The northwest corner of 112 Street and 87 Avenue - a landmark opportunity that demarks this important corner of the Campus and incorporates proposed pathway and node enhancements.
- The terminus of 112 Street at the HUB - a landmark opportunity that acts as an anchor to the east end of the 89 Avenue Mall, as well as a welcoming feature from 112 Street (and complements FAB and the Timms Centre for the Arts).

Landmark opportunities could be fulfilled by integrating public art and/or commemorative features into new node and building (re)development, or by creating signature architecture and landscape architecture.

These opportunities should be recognized and incorporated into future Pathway, Node and building development throughout Sectors 5 and 6.

.2 A tree inventory and interpretive program should be established to identify unique and exotic tree species.

.3 The existing siting and interpretation of public art should be inventoried and assessed to determine how these features contribute or detract from the fabric of districts, pathways, and nodes, so that they may be better utilized in conjunction with future development.



Legend:

Existing Landmarks:

Heritage Buildings

1 - Alberta Community Development Building (Old St. Stephen's College) Province of Alberta
2 - St. Joseph's College

Buildings

3 - The Butterdome (Universiade Pavilion)

Places / Public Art

4 - Celebration Plaza
5 - 89 Avenue Mall
6 - Education Mural
7 - Sculpture

Opportunities for Landmarks

Existing Buildings

Buildings Outside of Sectors 5 & 6

Non-University Property

0 50 100 150 250 m

Scale 1:1750

N

This figure is illustrative and intended for guideline purposes

November 2005

Figure 68 - PROPOSED LANDMARKS

University of Alberta - Sectors 5 & 6

SECTOR PLAN 5 AND 6

Site Specific Guidelines

5.0 SITE SPECIFIC GUIDELINES

The following section identifies those facilities or lands in Sectors 5 and 6 that could potentially be developed or redeveloped during the next 30 years as well as existing facilities and their property lines, Zones of Responsibility and related Sector Guidelines that should apply to any future renovations or additions. Each future development or redevelopment site is described as follows:

- Site Constraints.
- Site Opportunities.
- Site Specific Guidelines.
- Related Sector Guidelines.

Each site is illustrated with a site boundary, a proposed development zone (for future redevelopment/ development areas identified within Sectors 5 and 6), and support dimensions.

The LRDP defines the targets for North Campus at:

- 50% site coverage
- FAR (floor/ area ratio) 1.5; Refer to LRDP Section 7.5

Heritage

Consistent with the LRDP, the University should develop criteria to assess and establish heritage buildings and sites. Several buildings widely valued for their aesthetic and historical values are listed as 'heritage buildings' in the Sector Plans. It is recommended that no development or redevelopment of these sites take place without a complete evaluation of each to determine its long term disposition, using developed criteria by a qualified consultant. This plan has identified the following buildings as having heritage value: Old St. Stephen's College and St. Joseph's College. Neither of these building are owned and operated by the University of Alberta. As a result, no buildings within Sectors 5 and 6 have been identified as Heritage buildings.

Building Life Cycle

Where the expected life cycle of a given building exceeds 30 years, no redevelopment or expansion is anticipated and therefore no site specific guidelines are provided. If determined through an audit that a given building has reached its life expectancy and should be replaced, the Sector Plan guidelines apply. At that time, before detailed planning and programming commences, specific guidelines will be developed.

Car Parks

All existing car park facilities are maximized. No expansion of existing facilities will be permitted.

Refer to Appendix A: Campus-Wide Guidelines for general development and redevelopment guidelines that apply to all existing and future facilities.

Sectors 5 & 6 Facilities and Lands

The following existing facilities/lands are defined for future redevelopment/ development. On the following graphics the current building names are retained for ease of reference within the text. However, this does not imply that new facilities at these locations will be created for current occupancies. Use of these facilities is discretionary, within the requirements of each specific development guideline.

5.1 Phys Ed District (entire Phys Ed complex)
5.1a Varsity Field
5.1b Van Vliet Phys Ed and Rec Centre, Universiade Pavilion
5.1c Phys Ed East
5.2 Environmental Engineering

Existing Facilities – where life expectancy exceeds 30 years or is a potential heritage site requiring evaluation:

5.3 University Hall
5.4 Education Car Park
5.5 Education Centre

Definitions:

1. **Site Constraints:** the existing context of surrounding buildings and landform that negatively influence development or redevelopment of the site.

2. **Site Opportunities:** site and surrounding context additions that could positively influence site redevelopment or development and the Campus.

3. **Site Specific Guidelines:** guidelines that relate to the LRDP and the envisioned FAR, site coverage, building height, and design of future site/ building redevelopment and/or development.

4. **Zone of Responsibility (ZOR)** the area that each facility is responsible to develop*

5. **Site Coverage:** Building Footprint Area/Site Area

6. **FAR (Floor Area Ratio):** Total Floor Area : Site Area

Site boundaries or property lines have been developed to demarcate a site and ZOR. They do not represent actual titled properties. In most cases, the site lines and ZOR's have been established using distances from existing facilities.

5.1 Phys Ed District

Refer to Figure 5.1.

Note: University Hall is not part of the Phys Ed District, but is included in the ZOR. The Phys Ed District includes potential development in three areas: site specific guidelines for these areas follow in sections 5.1a, 5.1b and 5.1c.

Site Constraints

.1 The Butterdome creates an inhospitable edge and a pedestrian "pinch-point" along 87 Avenue.

.2 The scale and footprint of the building conglomeration is massive, with very little open space, tunnel-like passageways, poorly defined entrances, excessive hard surfacing and a harsh/cold microclimate.

.3 Pathways and building entrances need to be designed to comfortably and aesthetically support both a low and high intensity of use.

Site Specific Guidelines

.1 As per the LRDP, the FAR may not exceed 1.5; site coverage may not exceed 50%. Existing FAR = 0.46; existing site coverage is 40%.

.2 No expansion of or on this site should be permitted except in those areas as shown and discussed in sections/figures 5.1a, 5.1b and 5.1c.

.3 The site should respect and complement the guidelines for the 116 Street, 89 Avenue, 114 Street and 87 Avenue corridors.

.4 Entrances to all buildings should be enhanced and potentially covered to better define entry, way-finding and

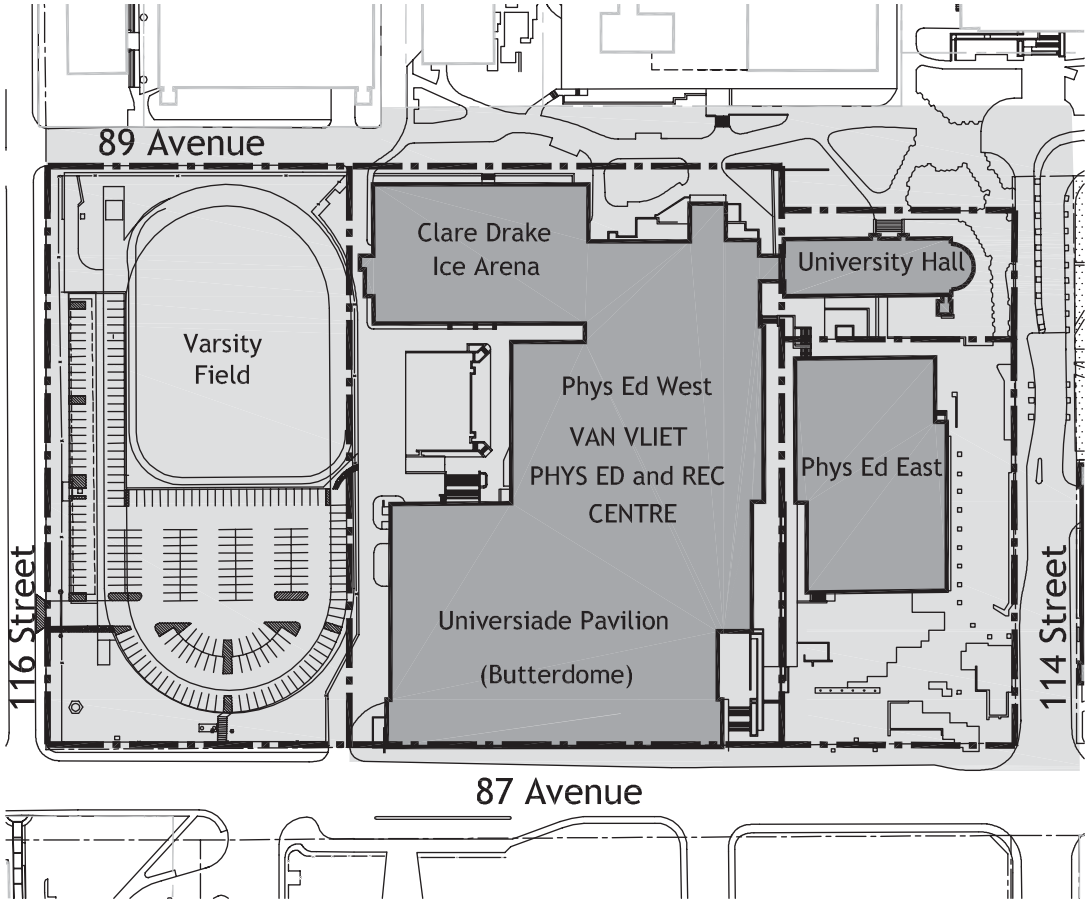


Figure 5.1 Phys Ed District

pedestrian use.

.5 Create the opportunity to break down the visual mass of the buildings with murals, graphic art, digital art/ lighting, etc.

The Zone of Responsibility includes the following Sector guideline requirements:

4.1 Districts
4.1.1 Phys Ed District
4.1.3 University Hall District
4.2 Pathways
4.2.1 116 Street
4.2.2 114 Street
4.2.4 89 Avenue
4.2.5 87 Avenue
4.2.6 Service Vehicle Pathways
4.2.7 Pedestrian Pathways with Service Vehicle Access
4.2.8 Existing and Proposed Drop-off Loops
4.2.9 Exterior Primary Pedestrian Pathways
4.2.10 Exterior Secondary Pedestrian Pathways
4.2.11 Exterior Tertiary Pedestrian Pathways
4.2.12 Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors)
4.3 Edges
4.4 Nodes
4.4.1 Gateways
4.4.2 Primary Exterior Nodes
4.4.3 Secondary Exterior Nodes
4.4.4 Tertiary Nodes
4.4.5 Interior Nodes
4.5 Landmarks
APPENDIX A Campus-Wide Guidelines

5.1a Varsity Field

Refer to Figure 5.1a.

Site Constraints

.1 Currently, this site is being operated as both a recreational/open space and parking lot area, which creates an incompatible use of the site. This is exacerbated by the high number of students and staff using the site as a primary pathway connection from Lister Hall to the heart of the North Campus.

.2 The service road along the east edge of the site has a high amount of pedestrian traffic. Although service to the rear of the Van Vliet Phys Ed and Rec Centre can not be compromised, it is important to improve pedestrian movement through the site in a safe and secure manner.

.3 This site is along 116 Street - the transitional zone between the Windsor Park neighbourhood and North Campus. It is important to maintain and enhance the existing characteristics of 116 Street as an appropriate buffer and transition between the Campus and the Windsor Park neighbourhood.

.4 To the north of the site, 89 Avenue provides a key drop-off/ pedestrian link into the Campus and an access route for service vehicles from 116 Street to Celebration Plaza. The pathway is more visually and physically oriented to vehicle use than pedestrians.

.5 The use of chain link fencing around the perimeter of the site is not aesthetically appealing, nor welcoming, given its important location at an entry to the North Campus.

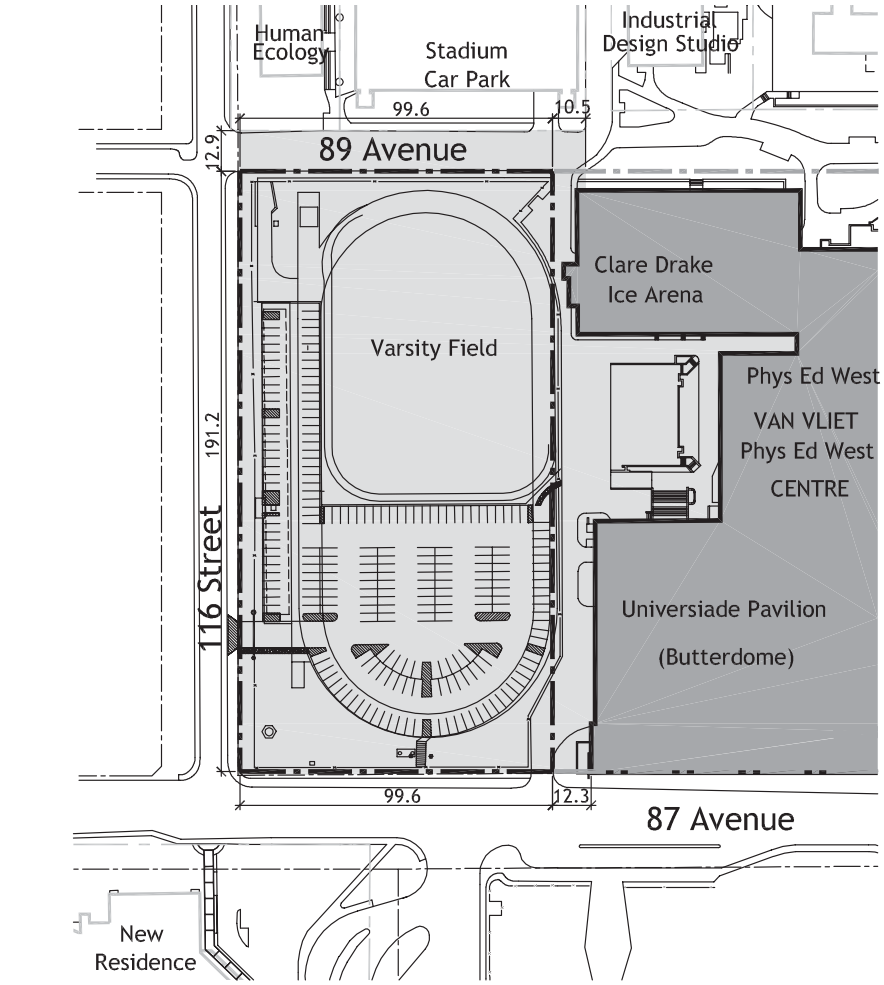


Figure 5.1a Varsity Field

Site Opportunities

.1 This site was the original Varsity Field site and has been used for several years as both a recreational open space and parking lot. It is anticipated that within the year (2006), Varsity Field will be restored as a recreational/ open space.

.2 Consideration should be given to the development of a barrier-free primary pedestrian pathway with service vehicle access along the west side of the Butterdome/Van Vliet Phys Ed and Rec Centre.

.3 This site is a gateway to the North Campus. Gateway features should be explored and developed to provide a landmark quality to those entering Campus from the west along 87 Avenue and 89 Avenue.

Site Specific Guidelines

.1 Site specific guidelines for the Varsity Field area should incorporate and coordinate: primary pathway enhancements (116 Street, 89 Avenue, and 87 Avenue) at the perimeter of the space; pathway development through the site – especially from Lister Hall (south of 87 Avenue) into the Campus; the re-establishment of recreational and athletic open space with the most appropriate uses and layout; and gateway and node development on the northeast corner of 116 Street and 87 Avenue. Building expansion may be considered in this area, but only as a minor intrusion into this very important activity/open/green space of Campus.

.2 Enhancements could be incorporated along the south, west and north edges of the site to improve the pedestrian experience and transition from 87 Avenue and the Windsor Park neighbourhood into the heart of the North Campus.

.3 In collaboration with the City: the existing chain link fence along 116 Street and 89 Avenue should be replaced with ornamental fencing. Along 116 Street the monolithic sidewalk should be replaced with wider 2.5 metre boulevard sidewalks (if feasible without disturbing mature tree plantings) and additional boulevard tree plantings. Along 89 Avenue, the existing asphalt roadway cross-section should be modified between Celebration Plaza and 116 Street to incorporate patterned/textured surfacing, streetscape features and lighting consistent with the materials and features in the transit hub section of 89 Avenue.

The Zone of Responsibility includes the following Sector guideline requirements:

4.1 Districts
4.1.1 Phys Ed District
4.2 Pathways
4.2.1 116 Street
4.2.2 114 Street
4.2.4 89 Avenue
4.2.5 87 Avenue
4.2.6 Service Vehicle Pathways
4.2.7 Pedestrian Pathways with Service Vehicle Access
4.2.8 Existing and Proposed Drop-off Loops
4.2.9 Exterior Primary Pedestrian Pathways
4.2.10 Exterior Secondary Pedestrian Pathways
4.2.11 Exterior Tertiary Pedestrian Pathways
4.2.12 Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors)
4.3 Edges
4.4 Nodes
4.4.1 Gateways
4.4.2 Primary Exterior Nodes
4.4.3 Secondary Exterior Nodes
4.4.4 Tertiary Nodes
4.4.5 Interior Nodes
4.5 Landmarks
APPENDIX A Campus-Wide Guidelines

5.1b Van Vliet Phys Ed and Rec Centre & Universiade Pavilion

Refer to Figure 5.1b

Site Constraints

.1 The Butterdome creates an inhospitable edge and a pedestrian "pinch-point" along 87 Avenue.

.2 The scale and footprint of the building conglomeration is massive, with very little open space, tunnel-like passageways, poorly defined entrances, excessive hard surfacing and a harsh/cold microclimate.

.3 Pathways and building entrances need to be designed to comfortably and aesthetically support both a low and high intensity of use.

Site Specific Guidelines

.1 If redevelopment of the site is considered, it must respect the intents of the Long Range Development Plan pertaining to Floor-Area-Ratio (FAR) and site coverage. Above-grade FAR should be no more than 1.5, and site coverage should be no more than 50% as applied to the entire Phys Ed District..

.2 The site should respect and complement the guidelines for the 116 Street, 89 Avenue, 114 Street and 87 Avenue corridors.

.3 Entrances to the complex should be enhanced.

.4 Create the opportunity to break down the visual mass of the buildings with murals, graphic art, digital art/ lighting, etc.

.5 Expansion to Van Vliet Centre may occur in the area shown in Figure 5.1b. Above-grade building height should respect the surrounding building, and should be no more

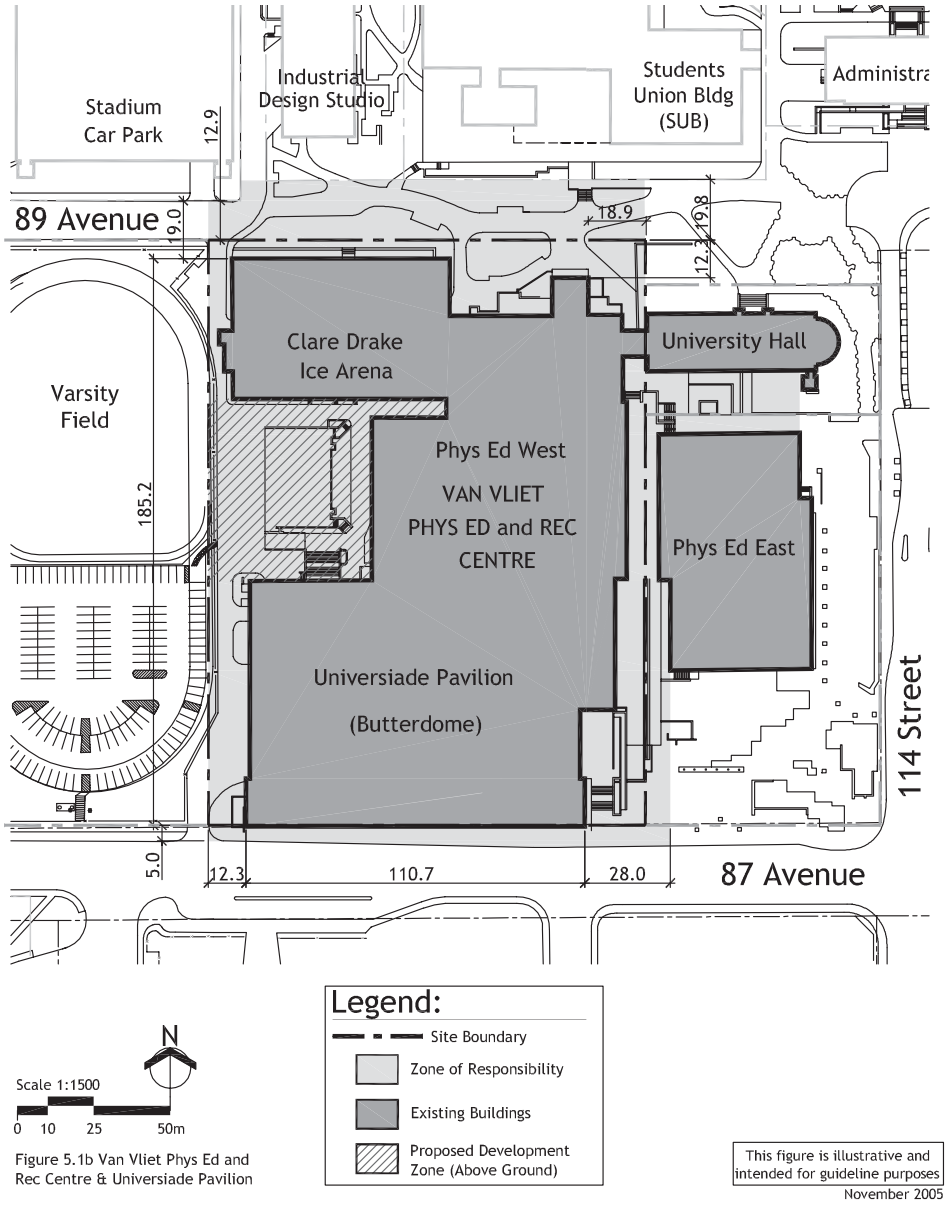


Figure 5.1b Van Vliet Phys Ed and Rec Centre & Universiade Pavilion

than 4 storeys. A larger building footprint, and additional building height may be considered by SPPI and the University Architect, depending upon the uses proposed at the time of conceptual planning, and the implications for the open space to the west. Open dialogue is recommended in the early pre-design/scope confirmation phase of the design project.

.6 The site should be used for expansion of the athletic and recreational facilities of the Van Vliet Centre. Discretionary uses include faculty academic and support space, and minor commercial service.

.7 Any development should be responsive architecturally to the site and to the need for creating a comfortable pedestrian scale within this environment.

.8 The building should articulate and address the importance of Varsity Field and the edge of Campus. The westerly edges should be sensitive to the field transitioning to this green space, permitting a sense of conjunction of indoor and outdoor activity spaces.

.9 Consideration should be given to upper floor setbacks from the base to control scale and massing.

.10 The treatment of the west facade is important. It should provide strong aesthetic appeal that interrupts the brutality of the existing west elevations of the arena wing and Universiade Pavilion. In any new development, views should be uninterrupted to and from the west face.

.11 Development should incorporate the application of all guidelines for all key pathways and nodes within the Zone of Responsibility.

.12 Consideration should be given to orienting an entry to the north-south pedestrian walkway along the west edge of the existing building. Internally, consideration should be given to developing a pedway connection through the building toward the core of North Campus.

.13 If expansion does not occur as shown, the Van Vliet Courtyard (between the Butterdome and Care Drake arena – west of Van Vliet/ Phys Ed and Rec Centre) should retain the existing basketball courts and the space should be enhanced with additional tree plantings and seating areas. These enhancements should be integrated with the future recreational/open space redevelopment of the Varsity Field area, primary pathway (116 Street, 89 Avenue, and 87 Avenue) additions, and enhanced gateway and node development.

The Zone of Responsibility includes the following Sector guideline requirements:

4.1 Districts
4.1.1 Phys Ed District
4.1.3 University Hall District
4.2 Pathways
4.2.1 116 Street
4.2.2 114 Street
4.2.4 89 Avenue
4.2.5 87 Avenue
4.2.6 Service Vehicle Pathways
4.2.7 Pedestrian Pathways with Service Vehicle Access
4.2.8 Existing and Proposed Drop-off Loops
4.2.9 Exterior Primary Pedestrian Pathways
4.2.10 Exterior Secondary Pedestrian Pathways
4.2.11 Exterior Tertiary Pedestrian Pathways
4.2.12 Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors)
4.3 Edges
4.4 Nodes
4.4.1 Gateways
4.4.2 Primary Exterior Nodes
4.4.3 Secondary Exterior Nodes
4.4.4 Tertiary Nodes
4.4.5 Interior Nodes
4.5 Landmarks
APPENDIX A Campus-Wide Guidelines

5.1c Phys Ed East

Refer to Figure 5.1c

Site Constraints

.1 This site and building are located along 114 Street and includes the Universiade Plaza and a primary drop-off along 112 Street for students, staff and visitors to the North Campus. It is anticipated that within the 30 year period of the LRDP none of the surrounding sites are likely to be redeveloped.

.2 The site can is accessed from 114 Street--a primary vehicular, pedestrian and central drop-off area--or through Van Vliet Centre to the west. Future building redevelopment and/or upgrading cannot compromise these key components.

.3 The Universiade Plaza is an important Campus open space, for which the existing Phys Ed East building provides a backdrop. Future building redevelopment and/or upgrading should complement or enhance the existing and/or future character and environment of the plaza space.

.4 A well-used secondary exterior pedestrian pathway extends along the west edge of the site, connecting to the Van Vliet Phys Ed and Rec Centre and through to 89 Avenue pathways. Future building redevelopment and/or upgrading should retain and enclose this pathway access and consider additions that create a less exposed, reflective (light) and harsh environment.

.5 There are several mature tree plantings throughout the site. These should be retained and supplemented with additional new succession tree plantings.

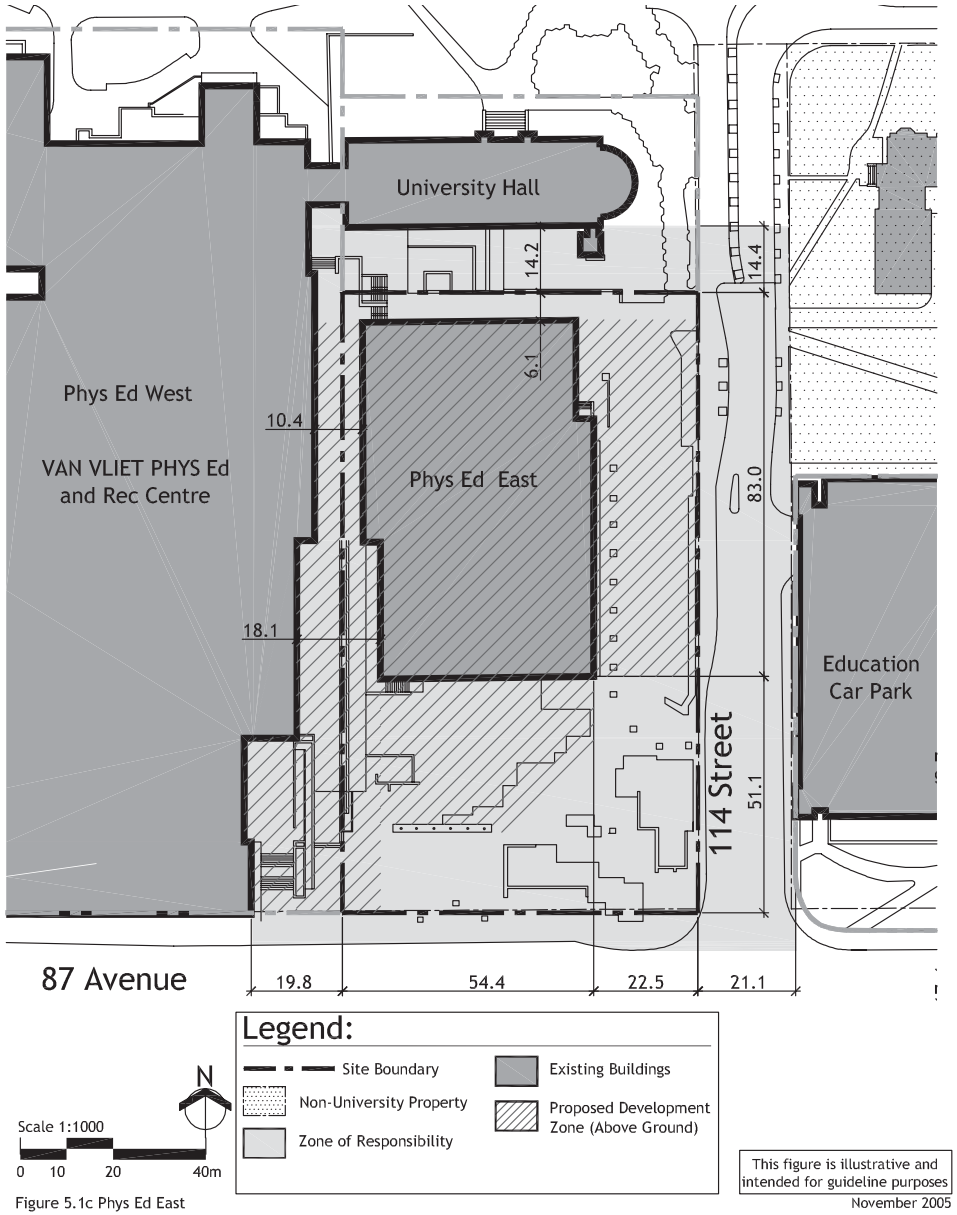


Figure 5.1c Phys Ed East

Site Opportunities

.1 Future redevelopment and/or addition to the Phys Ed East building could improve the backdrop to Universiade Plaza and the drop-off area.

.2 Universiade Plaza should be enhanced with soft and hard landscape additions to provide a less exposed, reflective (light) and harsh environment.

.3 The corner of 114 Street and 87 Avenue provides an opportunity for landmark development.

Site Specific Guidelines

.1 If redevelopment of the site is considered, it must respect the intents of the Long Range Development Plan pertaining to Floor-Area-Ratio (FAR) and site coverage. Above-grade FAR should be no more than 1.5, and site coverage should be no more than 50% as applied to the entire Phys Ed District. Proposed building height should be no more than 5 storeys, although more storeys may be considered by SPPI and the University Architect. Open dialogue is recommended in the early pre-design/ scope confirmation phase of the design project.

.2 This site should be used for expansion of the Phys Ed East building and program. Discretionary uses include physical education academic and support space, student services, athletics/recreational space and commercial uses that serve the Physical Education Department and Campus population.

.3 Universiade Plaza should be enhanced with soft and hard landscape additions to provide a less exposed, reflective (light) and harsh environment. Key enhancements include: better spatial definition and pathway connections; incorporating textured/ patterned and/or coloured surfacing and foundation plantings; creating a more comfortable year-round micro-climate; and incorporating architectural/ streetscape features, interpretive signage/ features, tree plantings, intersection/ cross walk improvements, drop-off area/features (i.e. seating, shelter, directory/signage, bicycle parking, etc.) and landmark features that relate to 87 Avenue ("Grand Avenue" development) and the extension of the plaza north to include the drop-off area east of Phys Ed East.

.4 Future building redevelopment should consider enhancements to the east side drop-off area (i.e., general streetscape/ drop-off components - sheltered-seating, textured surfacing, tree/shrub plantings, raised seating wall/planting areas, foundation plantings, etc.) and the west secondary pedestrian pathway (e.g. landscape development and/or enclosure).

.5 Any building redevelopment should be architecturally responsive to the site. Consideration should be given to scale, massing, aesthetics, and light penetration to surrounding sites, and to establish a comfortable pedestrian scale and microclimate along 114 Street and within the Universiade Plaza.

.6 All entrances should be clearly visible and ground floor development should create a pedstrian-scaled and oriented environment, promoting gathering, social interaction and transparency to internal activities.

The Zone of Responsibility includes the following Sector guideline requirements:

5.2 Environmental Engineering

Refer to Figure 5.2.

Site Constraints

.1 This site occupies an important location on Campus at the intersection of 87 Avenue and 112 Street. 87 Avenue is considered the main east-west connector through the Campus, while 112 Street provides north-south access into the heart of the Campus and the University LRT/ Transit Station. Development on this site should respect and enhance the importance of these components.

.2 There are several mature tree plantings throughout the site. These should be retained and supplemented with additional new succession tree plantings.

.3 The existing road to the north of the site provides the only public vehicular and service access to Environmental Engineering, Old St. Stephens College and the Education Centre. This service access road may need to be retained with any future building and site development.

.4 The existing surface parking to the west of the site is well-used, however it is a hindrance for pedestrians that cross the site from 112 Street and 87 Avenue into the heart of the North Campus.

.5 The area north of the site, along 112 Street, is a central drop-off location for the Campus. Future site and building development cannot compromise these key components.

Site Opportunities

.1 This site is on an important corner of the Campus. Any future development should have architectural and landmark qualities. The 87 Avenue edge of the site should be enhanced as part of the "Grand Avenue", celebrating the vitality of the North Campus and

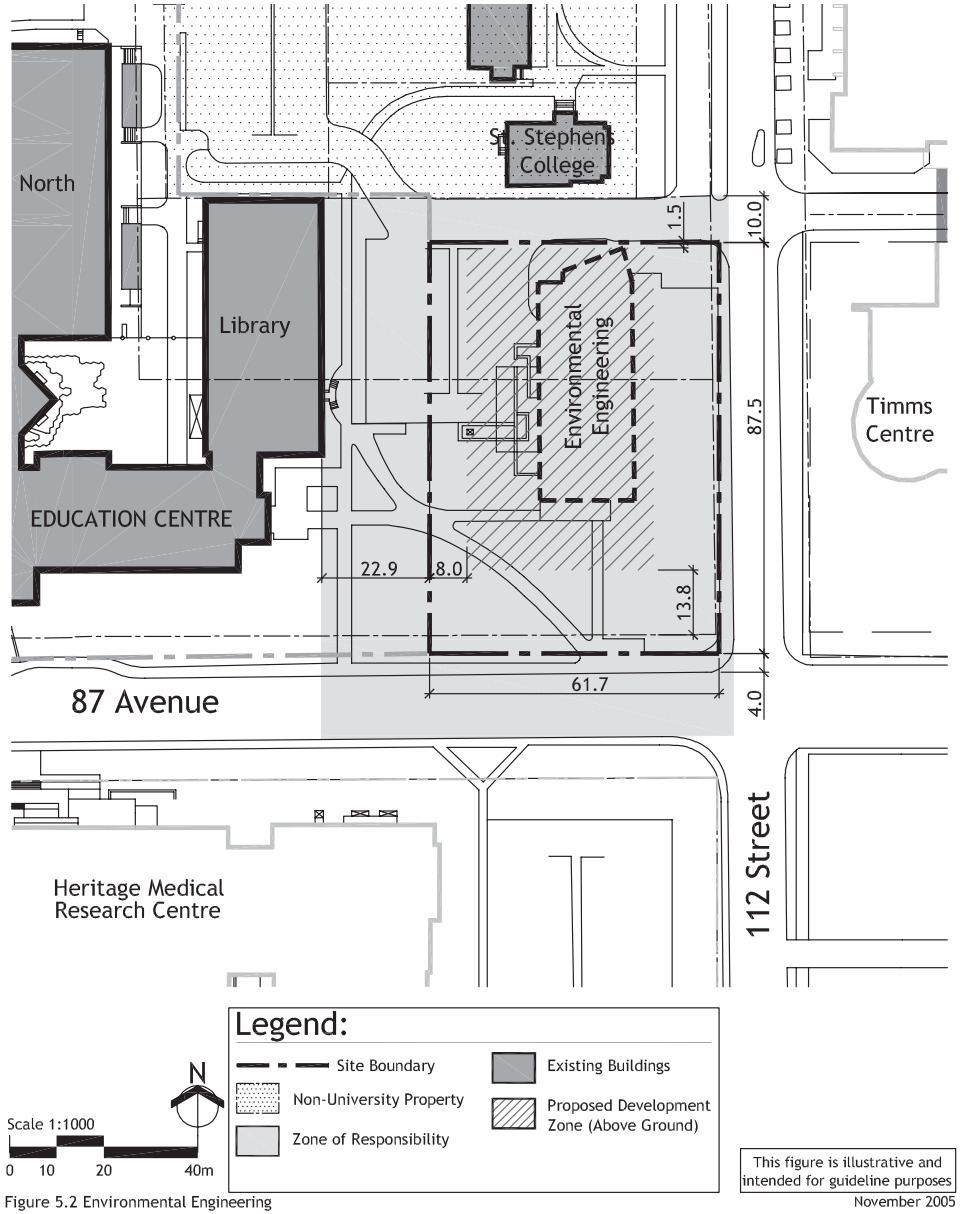


Figure 5.2 Environmental Engineering

encouraging activity, liveliness, gathering features and social contact to energize the urban environment.

.2 There is the potential to increase building density on the site.

Site Specific Guidelines

.1 If redevelopment of the site is considered it must respect the intents of the Long Range Development Plan pertaining to Floor-Area-Ratio (FAR), and site coverage. Above-grade FAR should be no more than 1.5, and site coverage should be no more than 50%. Proposed building height should be no more than 5 to 6 storeys, although more storeys may be considered by SPPI and the University Architect. Open dialogue is recommended in the early pre-design/ scope confirmation phase of the design project.

.2 Discretionary uses for the site should include academic support space, student services, and the potential for street level commercial/retail uses.

.3 Enhance pedestrian pathway links diagonally through the site connecting 112 Street and 87 Avenue to the heart of the Campus. This could include the elimination of existing surface parking with the development of underground or parkade development

.4 The building should articulate and address its important location within the Campus, integrate with the existing setbacks and heights of surrounding buildings, and have architectural landmark qualities.

.5 All entrances should be clearly visible. Ground floor development should have a high degree of transparency and relate to the pedestrian scale.

.6 The facility must have no 'front' or 'back' facades to it. All sides of the facility are significant to the Campus.

.7 The existing primary diagonal access across the site should be respected and included in any development. Pedestrian access between Education and this site must be retained, and should be enhanced significantly to create a node of activity.

.8 The existing parking lot to the west of the building should be removed and replaced with underground parking development. The surface parking area should be redeveloped to better accommodate pedestrian movement from 112 Street and 87 Avenue into the heart of the Campus, and include outdoor open space that integrates with pathways and nodes.

The Zone of Responsibility includes the following Sector guideline requirements:

4.1 Districts
4.1.2 Education District
4.2 Pathways
4.2.3 112 Street
4.2.5 87 Avenue
4.2.6 Service Vehicle Pathways
4.2.7 Pedestrian Pathways with Service Vehicle Access
4.2.8 Existing and Proposed Drop-off Loops
4.2.9 Exterior Primary Pedestrian Pathways
4.2.10 Exterior Secondary Pedestrian Pathways
4.2.11 Exterior Tertiary Pedestrian Pathways
4.2.12 Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors)
4.3 Edges
4.4 Nodes
4.4.1 Gateways
4.4.2 Primary Exterior Nodes
4.4.3 Secondary Exterior Nodes
4.4.4 Tertiary Nodes
4.4.5 Interior Nodes
4.5 Landmarks
APPENDIX A Campus-Wide Guidelines

5.3 University Hall

Refer to Figure 5.3.

Site Constraints

.1 This building is completely internal to the Campus with service vehicle access provided from 114 Street.

.2 The building is a corner-piece and its role within the Campus relates to the adjacent SUB and Administrative building. This building may have some heritage value to the Campus, given its long history of diverse uses and occupants. Review is required prior to any (re)development.

.3 The 89 Avenue major pedestrian spine of North Campus bounds the site to the north. This pathway should engender a sense of continuity, anticipation, and integrity, without further encroachment or constraint from facilities.

Site Specific Guidelines

.1 The FAR and site coverage for this site may not increase - remaining at the current FAR of 1.1 and site coverage of 39%.

.2 No expansion of or on this site should be permitted.

.3 The site should respect and complement the guidelines for 114 Street and 89 Avenue corridors.

.4 The site should respect and complement the primary node – Celebration Plaza.

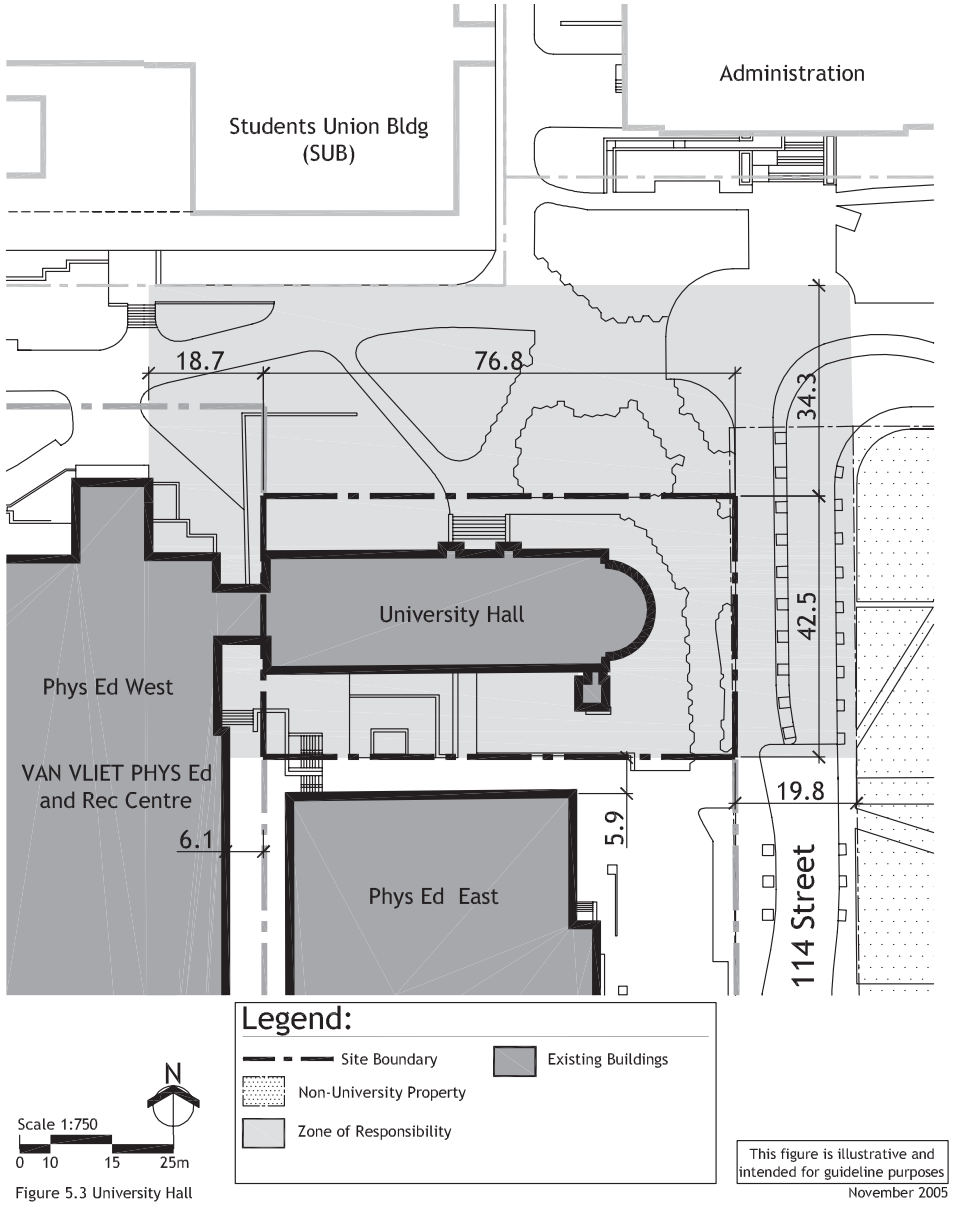


Figure 5.3 University Hall

The Zone of Responsibility includes the following Sector guideline requirements:

4.1 Districts
4.1.1 Phys Ed District
4.1.3 University Hall District
4.2 Pathways
4.2.2 114 Street
4.2.4 89 Avenue
4.2.5 87 Avenue
4.2.6 Service Vehicle Pathways
4.2.7 Pedestrian Pathways with Service Vehicle Access
4.2.8 Existing and Proposed Drop-off Loops
4.2.9 Exterior Primary Pedestrian Pathways
4.2.10 Exterior Secondary Pedestrian Pathways
4.2.11 Exterior Tertiary Pedestrian Pathways
4.2.12 Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors)
4.3 Edges
4.4 Nodes
4.4.1 Gateways
4.4.2 Primary Exterior Nodes
4.4.3 Secondary Exterior Nodes
4.4.4 Tertiary Nodes
4.4.5 Interior Nodes
4.5 Landmarks
APPENDIX A Campus-Wide Guidelines

5.4 Education Car Park

Refer to Figure 5.4.

Site Constraints

.1 Existing snow clearing is accessed from 87 Avenue.

.2 Constructed with no setbacks along 114 Street and the St. Joseph's College property to the north.

.3 The footprint is maximized.

.4 Inability to improve pedestrian walk along the 114 Street edge.

.5 Mature trees to be preserved are located on the south side of the Car Park.

Site Opportunities

.1 The Car Park is located in a high profile location.

Site Specific Guidelines

.1 The FAR and site coverage for this site may not increase - remaining at the current FAR of 2.17 and site coverage of 80%.

.2 No expansion of or on this site should be permitted. Site development has been maximized.

.3 The site should respect and complement the guidelines for 114 Street and 87 Avenue corridors. Consideration should be given to whether there are any potentials to improve the stairwell entrances and their relationship to the sidewalk. There is a potential for conflict in each location.

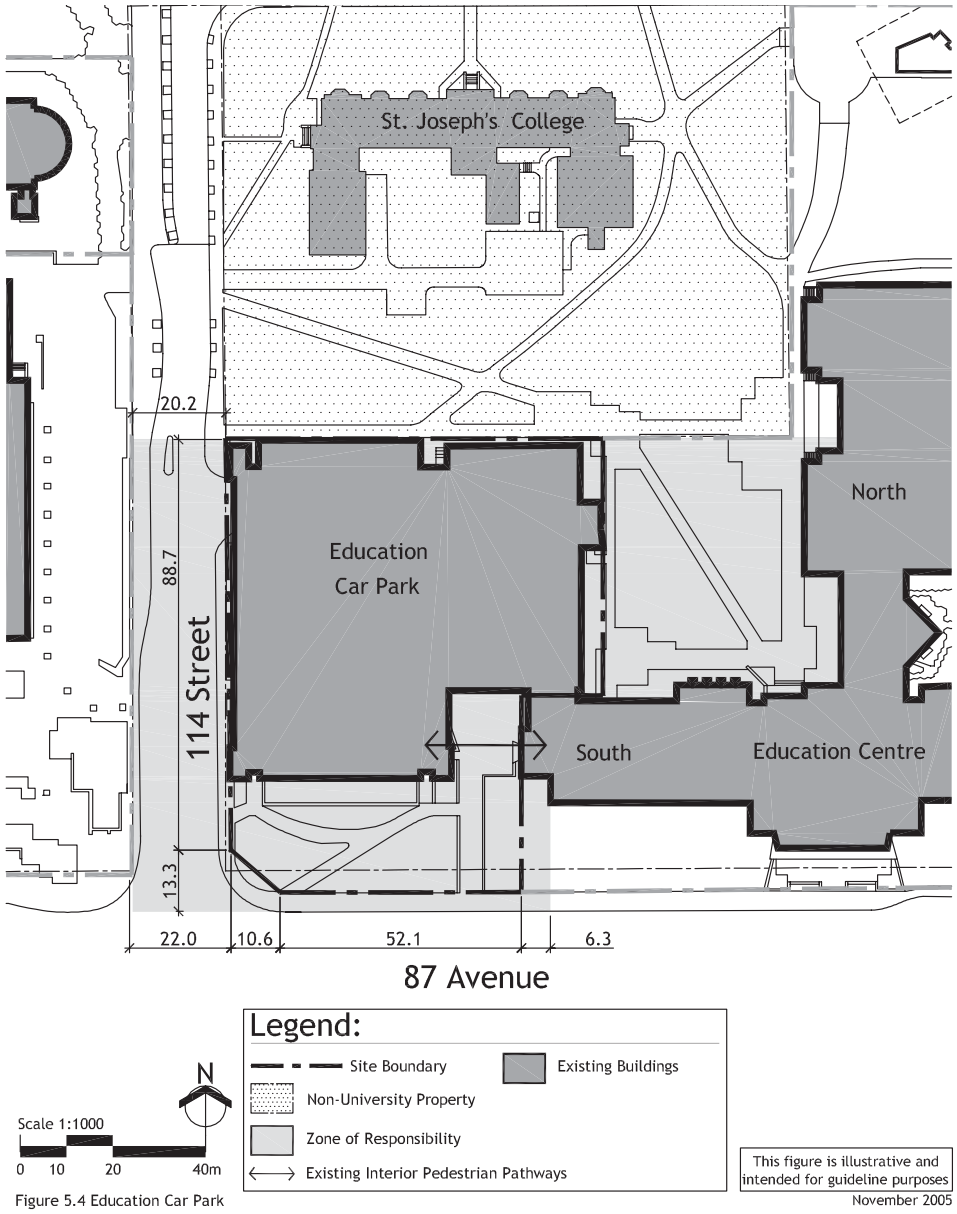


Figure 5.4 Education Car Park

.4 Existing landscape development on the south side of the Car Park should be rejuvenated.

.5 The large sunken “window well” on the south side of the building should be enhanced and incorporated with future proposed 87 Avenue upgrades.

.6 Introduce banners and other art to the Car Park façade.

The Zone of Responsibility includes the following Sector guideline requirements:

4.1 Districts
4.1.1 Phys Ed District
4.1.2 Education District
4.2 Pathways
4.2.2 114 Street
4.2.5 87 Avenue
4.2.8 Existing and Proposed Drop-off Loops
4.2.9 Exterior Primary Pedestrian Pathways
4.2.10 Exterior Secondary Pedestrian Pathways
4.2.11 Exterior Tertiary Pedestrian Pathways
4.2.12 Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors)
4.3 Edges
4.4 Nodes
4.4.1 Gateways
4.4.2 Primary Exterior Nodes
4.5 Landmarks
APPENDIX A Campus-Wide Guidelines

5.5 Education Centre

Refer to Figure 5.5.

Site Constraints

.1 This site is serviced from a single access point that extends through the existing St. Stephen's parking lot, from 114 Street, and through a significant pedestrian circulation system.

.2 All courtyard/ outdoor pedestrian space is on the north side of the building.

.3 The facility lies along the 87 Avenue 'Grand Avenue' and should not encroach any further into the setback.

.4 The site contains a significant number of pedestrian movement patterns that should not be interrupted.

.5 The existing Education North has many entrances on its west facade, making a cohesive sense of entry and arrival difficult.

Site Opportunities

.1 Develop a pedway from Education to the HRIF buildings to the south over 87 Avenue.

.2 Potential to link Education North, from the basement, to the LRT station.

Site Specific Guidelines

.1 The FAR and site coverage for this site may not increase - remaining at the current FAR of 1.8 and site coverage of 44%.

.2 No expansion of or on this site should be permitted.

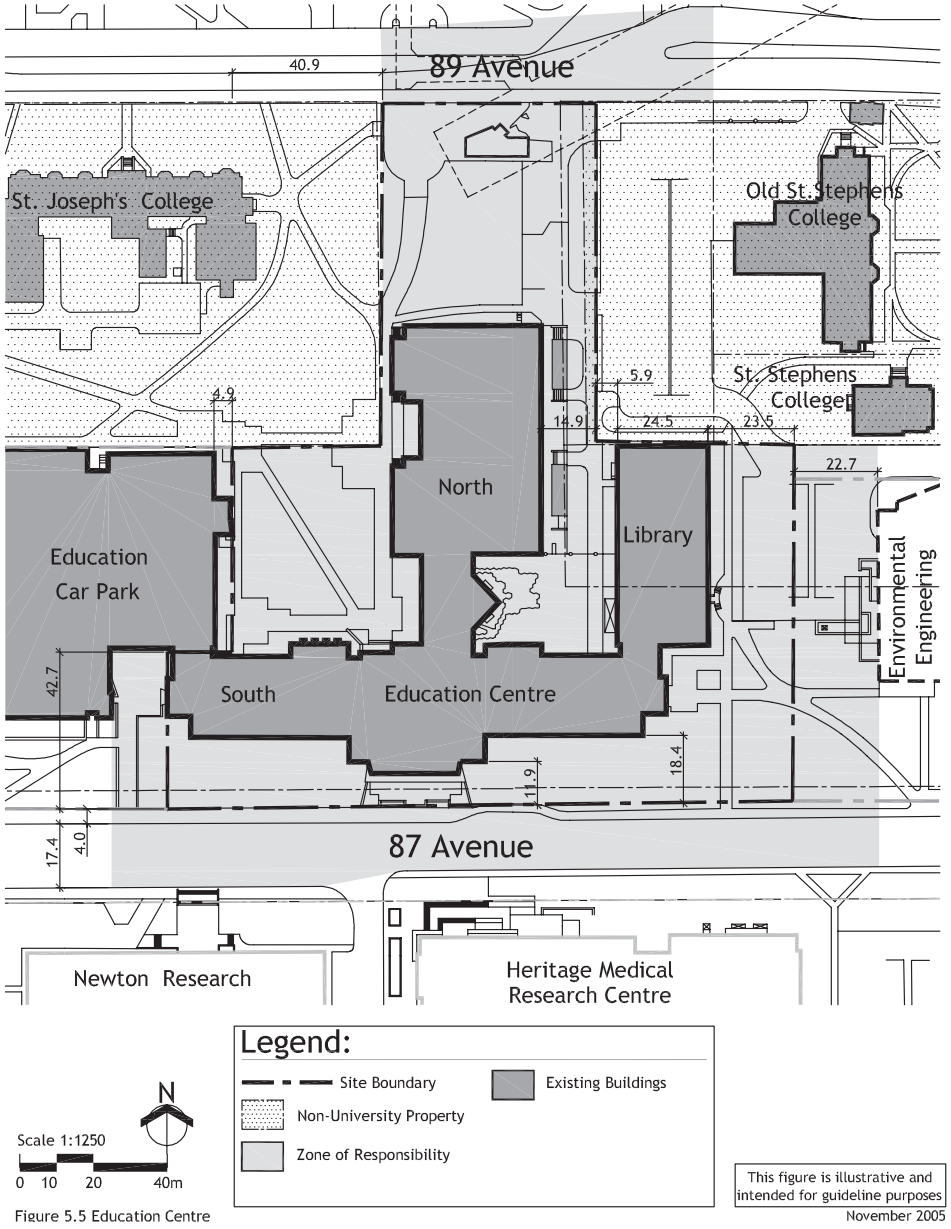


Figure 5.5 Education Centre

.3 The site should respect and complement the guidelines for district and edge development; 87 and 89 Avenue enhancements; potential pedway development over 87 Avenue; and primary and secondary node development.

.4 Enhance existing courtyard spaces to include: outdoor teaching, programs and interpretation; pathway enhancements (texture, materials, etc); landscape/ foundation planting improvements; public art; grade modifications; etc.

.5 Incorporate proposed 87 Avenue improvements, including node development at the main entry to Education Centre.

.6 Develop the Education North node to respond to the high level of pedestrian movement and opportunities for informal gathering in front of the Education mural and around the LRT Station.

The Zone of Responsibility includes the following Sector guideline requirements:

4.1 Districts
4.1.2 Education District
4.2 Pathways
4.2.4 89 Avenue
4.2.5 87 Avenue
4.2.6 Service Vehicle Pathways
4.2.7 Pedestrian Pathways with Service Vehicle Access
4.2.9 Exterior Primary Pedestrian Pathways
4.2.10 Exterior Secondary Pedestrian Pathways
4.2.11 Exterior Tertiary Pedestrian Pathways
4.2.12 Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors)
4.3 Edges
4.4 Nodes
4.4.2 Primary Exterior Nodes
4.4.3 Secondary Exterior Nodes
4.4.4 Tertiary Nodes
4.4.5 Interior Nodes
4.5 Landmarks
APPENDIX A Campus-Wide Guidelines

SECTOR PLAN 5 AND 6

Appendix A Campus-Wide Guidelines

APPENDIX A - CAMPUS-WIDE GUIDELINES

Appendix A

Campus-Wide Guidelines

1.0 Visual Quality and Design

Objective:

.1 Utilize the Districts, Pathways, Edges, Nodes and Landmarks to create a coherent and unified Campus character.

Guidelines:

.1 Incorporate appropriate building development and natural features to create distinct District characteristics, social life and experiences.

.2 Use existing and future landmark development to provide a sense of movement and connectivity.

.3 Enhance the overall Campus, integrating Sectors, Districts, and surrounding neighbourhoods through careful planning of edge development.

.4 Use existing and future visual features to emphasize and define primary, secondary, and tertiary nodes within the Sector.

.5 Develop a hierarchy of vehicular and pedestrian pathways that physically and visually link key Nodes and Districts within the Sector and surrounding Campus, as well as the surrounding neighbourhood and natural areas.

2.0 Sector Identifier & Colour(s)

Objective:

.1 Create a strong and unified character through the use of a Sector identifier and colour scheme.

Guidelines:

.1 Coordinate and develop an identifier program for each Sector and its Districts to enhance recognition and way-finding.

.2 Coordinate and adopt a colour program to demarcate the Sector and provide year-round colour to key nodes, pathways, edges, landmarks and Districts.

.3 Utilize the identifier and colour(s) in features, such as:

- Banners (pole and wall mounted)
- Pedestrian scale lighting
- Fences and screens
- Street signing (pole-mounted sign blade and decorative surface plaques)
- Streetscape features and amenities (e.g. kiosks, benches, waste receptacles, bicycle racks, tree grates/guards, etc.)

3.0 Landscape Treatment

Objective:

.1 Conserve, preserve and enhance the Campus landscape to define and create a distinct, safe and secure Campus environment.

Guidelines:

.1 General landscape treatments:

- Enhance and improve the existing Sector landscape by employing/considering:
  - Existing and future boulevard trees, plantings, and shrub/flower beds to enhance and maintain Sector edge continuity, accent and rhythm.
  - Qualities and forms that reflect the character of the Sector.
  - Plant materials that are hardy and provide seasonal variation.
  - Plant materials that enhance visual experiences and establish clear sight lines for motorists and pedestrians.
  - Plant materials that promote the development of a safe, sustainable, and manageable environment based on maintenance efficiency and cost-effectiveness.
  - Planting design that creates a safe and secure environment for pedestrians, following the guidelines of Crime Prevention Through Environmental Design (CPTED).
  - Rooftop gardens—"green roofs"--that provide aesthetic interest as well as help to decrease stormwater run-off, thereby lowering infrastructure costs.

.2 Tree plantings:

a) Design tree plantings in linear and continuous blocks parallel to key Sector pathways, creating strong allées and formal edge character where identified.

b) Conserve, preserve and enhance existing boulevard tree species. Species selection should consider the Sector, District and nature of existing tree plantings within the area, their seasonal variation, and the desired visual experience and sight lines.

c) Complete allée and edge character sections within the Sector and each District in coordination with any future proposed roadway rehabilitation work or building development.

d) Tree inventory and interpretive program should be established to identify unique and exotic species.

.3 Trees should be set back the following minimum distance from the components listed below:

Component: (measured from the centre of the tree trunk)	Minimum Distance (m)
Shallow underground utilities	1.5
Deep underground utilities (sanitary sewer, storm sewer and water mains)	1.8
Underground power cable	1.0
Surface power hardware	3.5
Light poles	3.5
Fire hydrants	3.5
Stop signs	3.5
Yield signs	3.5
Other signs	2.0
Transit zones	3.5
Private property boundary	3.0
Edge of driveway	1.5
Edge of sidewalk	0.5

Note: Do not plant trees within easements.

.4 Tree, Shrub & Herbaceous Plantings

a) Utilize tree, shrub, perennial (including grasses) and annual plantings prudently in open space areas to enhance gateway, node, pathway, edge, landmark and District development. All proposed shrub beds should be carefully assessed with respect to their operations/maintenance implications and the way in which the shrub bed detracts from, or adds to, the aesthetics, form and function of the space.

b) To determine if they should be rejuvenated/enlarged or decreased/removed, etc., existing shrub beds should be assessed as to their physical condition, operations/maintenance implications and the way in which the shrub bed detracts from, or adds to, the aesthetics, form and function of the space.

c) In key, highly visible gathering areas, consideration should be given to creating intensely planted, colourful and detailed “garden” spaces that contrast with the relatively simpler plantings of trees, shrubs and turfgrass that predominate on Campus.

4.0 Natural Areas

Objective:

.1 Conserve, preserve, and enhance all natural areas diversity and the mature characteristics of the Campus or Sector.

5.0 Screening

Objective:

.1 Provide fencing, screens or other artistic treatments, in combination with plantings, adjacent to open surface parking lots, service areas and similar land uses, to reduce the visual impact and enhance edge development within the Sector.

Guideline:

.1 Where necessary, utilize fencing, screens or other artistic/interpretive treatments, in combination with plantings, to provide a consistent, permanent, and aesthetic interface between the development and adjacent land uses.

6.0 Public Art

Objective:

.1 To coordinate, through the Department of Museums and Collections Services, the development, placement and promotion of public art within each Sector, raising the profile and liveability of the Sector and its distinct Districts.

Guidelines:

.1 Adhere to policy, guidelines and best practices regarding the acquisition, use and maintenance of art as approved by the University and associated organizations.

.2 Ensure all public art acquisitions are coordinated and approved through the University of Alberta Art Acquisitions Committee.

.3 Incorporate the principles of the Works of Art Funding for Capital Projects Policy into all new construction projects and all renovation projects.

.4 Ensure coordination and communication related to the placement of works of art within Sectors involves Museums and Collections Services and the Sector community.

.5 Works of art should be moved only after consultation with, and directly calling, the Museums and Collections Services (for copyright and risk management reasons).

.6 Coordinate and utilize temporary exhibit spaces within the Sector to provide art 'events' and exhibits.

.7 Incorporate public art and design into various Sector areas, such as:

- Node and pathway areas
- Campus boundary
- Pedestrian bridge structures
- Building walls
- Signing
- Lighting
- Public streetscape features (e.g. benches, waste receptacles, bus shelters, telephone booths, news stands, tree grates, kiosks, etc.).

7.0 Signing

Objective:

.1 Create a hierarchy of signing that:

- Reduces unnecessary signing within the Sector.
- Improves orientation, clarity, and safety, as well as vehicular and pedestrian movement.
- Combines a format for directional and traffic signing.
- Explores new signing technology to improve signing clarity and Sector aesthetics.

Guidelines:

.1 Utilize banner poles, pedway structures, fences and screens, street blade signing, streetscape features and amenities (e.g. kiosks, benches, waste receptacles, bicycle racks, tree grates/guards, etc.) and public art within the Sector to improve orientation, clarity, as well as District consolidation and definition.

.2 Implement a common signing nomenclature for the Sector that enhances way-finding and identifies University buildings and key pathways, nodes and open space.

8.0 Lighting

Objective:

.1 Utilize existing street lighting within the Sector to maintain traffic safety and enhance theme and character development.

.2 Introduce pedestrian-scale lighting.

.3 Utilize the "Guidelines for Design and Installation of Street, Sidewalk, and Area Lighting at the University of Alberta" in the assessment and implementation of lighting on Campus.

Guidelines:

.1 Paint all existing and future street lighting and traffic poles a unified colour and apply Sector identifier, or

.2 Introduce special light poles to define the Sector or Districts within the Sector. These could be supplemented with Sector specific features (e.g. sign blades, engravings, banners, etc.) and Sector specific identifiers/colour.

.3 Assess and review opportunities for incorporating tree lighting within existing and future boulevard areas. Tree light colour should be consistent.

.4 Assess and implement lighting based on the function of the area being developed or enhanced. Refer to classifications and details listed in the University lighting guidelines.

.5 Refer to City of Edmonton's lighting design and layout for city streets within the University of Alberta.

.6 Refer to Section 3 of the University's lighting guidelines for

power feeds and controls.

.7 Refer to Section 4 of the University's lighting guidelines for design element requirements.

.8 Variances in lighting design (e.g. decorative lighting) in specialized districts or pathways must be assessed and approved by the University of Alberta.

.9 All lighting design should encourage the reduction/ mitigation of light pollution through the use of sustainable and downward focussed equipment.

9.0 Street Amenities

Objective:

.1 Implement a common streetscape language for the Sector through the development of a 'Streetscape Furnishings Program', possibly incorporating a Public Art Program (refer to Section 5.0).

Guideline:

.1 Prepare and implement a 'Streetscape Furnishings Program' for the North Campus or each Sector and assess and coordinate the program with those areas that have a current furnishing program. Key furnishing components should include:

a) Kiosks
b) Benches
c) Waste receptacles
d) Bus shelters and transit stops/stations
e) Campus/ emergency telephone stations
f) Telephone booths
g) Parking meters
h) Newspaper boxes
i) Bicycle racks
j) Tree grates and guards
k) Drinking fountains

10.0 Architectural and Open Space

Objective:

.1 The LRDP states that the maximum site coverage for buildings in the North Campus should not exceed 50% (item 7.8.2 open space in development projects). The Sector Plans for North Campus have identified Site Specific Development Guidelines for *select* existing and proposed building development within each Sector. The Site Specific Development Guidelines clearly identify the limitations in the building footprint area, site area, setbacks, and Zones of Responsibility for each site. These guidelines are to be the template used in assessing any future development or redevelopment within the Sector and the maximum area for site coverage.

.2 The LRDP states that the maximum site coverage for a building in the South Campus should not exceed 30% (Item 7.8.2 Open Space in Development Projects). The Sector Plans have identified guidelines for each proposed District within the Sector. The District guidelines clearly identify the development limitations and Zone of Responsibility for each site. These guidelines are to be the template used in assessing any future development within the Sector and the maximum site coverage area.

Guidelines:

.1 All new development should be architecturally integrated into the Sector, respecting and addressing the surrounding pathway networks and existing buildings.

.2 Unless specifically noted in the Sector Specific Development Guidelines, the massing of all buildings should adhere to the following principles:

b) To create a comfortable pedestrian environment, a maximum three (13.8m maximum) storeys should be developed along the Pathway right-of-way and subsequent higher storeys set back (5 metres minimum to 7 metre maximum) and massed to reduce microclimatic impacts, and to provide an appropriate scale and visual relationship between the building and the pathway.

c) Upper storeys should enhance and complement the surrounding skyline through their articulation and massing. Unique architectural/sculptural forms, as well as various materials and lighting should be utilized to screen HVAC and other building systems/services.

d) Materials and detailing should be articulated to distinguish upper storeys (3+) from the first three storeys. Upper storeys (3+) should be massed and oriented to enhance microclimatic conditions for pedestrians.

e) As identified in Section 7.5.4 of the LRDP, environmental studies will be required to assess environmental impacts of all development and redevelopment. Tree inventories, geotechnical testing, as well as wind, sun, snow and light pollution studies and any other site-specific assessments identified, will be included. The development or redevelopment must respond accordingly to the results of these assessments.

.3 Encourage harmonious variety in building form and heights, massing, and siting to create visual interest consistent with the building envelopes specified.

.4 Develop architectural landmarks which:

a) Correspond with the specific character of the Sector (e.g. academic, residential, student services, etc.).

b) Provide an aesthetic edge condition, and

c) Provide major focal points and create areas of activity.

.5 Building entrances should:

a) Be clearly visible to create a sense of occupancy, activity and gathering to the street or greenway/open space, and should be accessible.

b) Be highlighted and defined through the use of architectural and streetscape devices (e.g. lighting, benches, planting, etc.).

c) Be visible, safe and inviting.

d) Incorporate canopies, arcades, colonnades, awnings, pergolas, porticos, etc. to create a comfortable and seasonal pedestrian environment in any season.

.6 Building corners should address and enhance Pathway and Node intersection development.

.7 The ground level should be designed to create the feeling of extending the outdoors indoor, and vice versa.

.8 Ensure that vehicle entrances and exits, as well as on-site traffic and pedestrian routes, are located and designed in a manner that provides a clearly-defined, safe, and efficient circulation pattern for traffic movements.

.9 Key building development features should include:

a) The integration of existing mature trees with new tree plantings.

b) A seamless transition between pathways and building edge that promotes gathering and activity.

c) Pedestrian-scaled lighting (e.g. building or street-based).

d) Banners and integrated signing.

e) Kiosks, directories and way-finding devices.

f) Integrated furnishings approach (e.g. benches, waste receptacles, telephone booths, newspaper boxes, bicycle racks, tree grates/guards, Campus/ emergency telephone stations, etc.).

g) Public art.

.10 All pathways should provide safe, secure, strong links between adjacent façades, preserving existing mature trees (if feasible) and incorporating additional tree and shrub plantings, public gathering areas, site furnishings, way-finding/interpretive signage, Campus/ emergency telephone stations and public art areas.

.11 Bicycle storage should be accommodated at each building. The location of bicycle racks should be in a safe and secure location, without conflicting with movement around key building entrances. Bicycle storage should be aesthetically pleasing, practical and integrated with the architecture of the building.

11.0 Sustainability

Objective:

.1 Design and develop both buildings and sites in an environmentally responsible manner that incorporates 'green' technology in conjunction with the University Design and Construction Guidelines. Sustainability, safety, security, manageability, and universal design are all key development requirements in the design and development of buildings and sites.

Guidelines:

.1 Set performance targets in the following areas:

- Energy - energy use, energy source, clean energy transport
- Water - water use, water filtration, ground water recharge, human waste, green roofs
- Landscape - integrated pest management (IPM), green space, native plantings and wildlife habitat
- Materials - materials that are: recycled, efficient, salvaged, local, durable and low maintenance
- Waste - recycling and composting facilities
- Construction Practices - construction waste, re-use of topsoil, vegetation and watercourse protection
- Indoor Environmental Quality - air pollutant emission, ventilation effectiveness and air filtration, system commissioning and cleaning, day lighting
- Economic Performance - Life-Cycle Assessment, Capital Cost Accounting

.2 Energy

a) Consider the use of passive and active renewable energy sources (e.g. solar heat and light, wind, and air resources).

.1 Water

.1 Naturalized stormwater management facilities:
- Introduce aquatic vegetation
- Designed ecosystems

.2 Water Conservation Plan and Audit:
- Conserve water during construction development and operational phases
- Rainwater collection systems
- Use of drought resistant plants (Xeriscaping)
- Grey water systems

.2 Landscape

.1 Protect or enhance the site's ecological integrity and biodiversity
.2 Ensure protection of site ecosystem
.3 Reduce or eliminate disturbance to water system

.3 Waste

.1 Reduce disposal of waste materials to landfills
.2 Recycle
.3 Use composting facilities

.4 Construction Practices

.1 Prevent erosion during construction
.2 Minimize the disposal of construction waste
.3 Protect and conserve topsoil

.5 Indoor Environmental Quality

.1 Ensure indoor air quality
.2 Indoor Air Quality Construction Plan

12.0 Utilities (South Campus Academic Sector only)

Objective:

.1 Coordinate the alignment, phasing, and installation of utilities to promote appropriate, affordable and sustainable Sector growth.

Guidelines:

.1 Utility alignments and phasing should be coordinated based on the radial framework established, using Pathway rights-of-way and open space for underground servicing.

.2 Primary and secondary utility infrastructure expansion costs should be borne by development applicants. This servicing approach promotes an orderly and cohesive phased development approach for the Academic Sector (Refer to Appendix B).

.3 Incorporate sustainable utility development and stormwater management strategies and technologies (i.e. ditches, percolation areas, decentralization of stormwater management ponding areas into functional/ aesthetic features, pervious pavement use, narrower roads, etc.) throughout the Sector in primary and secondary locations, where feasible.

.4 Provide a safe, adequate and reliable utility system to meet future Sector development sites, while exploring environmentally sound alternatives (i.e. reduce, reuse and recycle).

.5 As part of the overall development and servicing for the Sector, a stormwater management facility strategy must be developed. Presently, there are two larger stormwater management facilities that have been identified in

the LRDP. These areas should be incorporated with future Sector development and secondary stormwater management facilities throughout the Sector. Stormwater management facilities should be landscaped at a rate of 75 trees per hectare with a 50% minimum coniferous composition. All trees should be a minimum size of 60mm calliper for deciduous trees and 2.8m height for coniferous trees.

13.0 Parking, Access and Loading/Manoeuvring Areas

Guidelines:

.1 All loading/manoeuvring areas should be:

- Screened with landscaping or shall be fully enclosed in a manner compatible with the character of the development and should not be visible from adjacent streets or buildings.
- Sited such that all materials handling can be efficiently managed.
- Designed such that turning vehicles do not interfere with traffic on adjacent circulation routes.
- Designed with adequate area to accommodate all anticipated vehicle types.

.2 Trash collection, open storage, outdoor service, vehicular service and loading/manoeuvring areas which are visible from an adjoining site or public roadway should have screen planting. The location, size and height of the planting should, in conjunction with a change in grade or other natural or man-made features, be maintained to provide effective screening from the ground to height of 1.85m.

SECTOR PLAN 5 AND 6

Appendix B
Sector Implementation

APPENDIX B - SECTOR IMPLEMENTATION

Appendix B – Sector Implementation

The Sector Plan is an administrative document to be used as one of several documents that provide direction in planning and developing a capital project.

The Sector Plan is used in conjunction with:

- University of Alberta Long Range Development Plan (LRDP)
- University of Alberta Design and Construction Standards and Guidelines (under review)
- North and South Campus Utilities Master Plans (under review)
- North and South Campus Drainage Master Plans (under review)
- Heritage buildings inventory of the University (underway)
- City of Edmonton plans and initiatives (where applicable)

The Sector Plan takes into account the plans and initiatives of adjacent neighbours.

Sector Plan Administration

The Sector Plan is administered through the portfolio of the Vice President, Facilities and Operations (F & O) by the Director of Strategic Planning – Planning and Infrastructure Department (SPPI).

It is the responsibility of SPPI to make all proponents of capital projects occurring on University lands aware of the existence of Sector Plans as well as all other documentation that guides the planning and development of capital projects.

SPPI will periodically update the Sector Plan as conditions warrant.

Sector Plan Interpretation

SPPI is responsible for providing interpretation of the guidelines when asked by the proponent or the proponent's representative. Sector Plan guidelines may be interpreted or relaxed to provide design and development flexibility to a capital project when required, as long as the interpretation or relaxation benefits the quality of the development and the University without negatively affecting the Sector Plan.

Sector Plan queries will be submitted to SPPI directly, or depending on the capital project structure, to SPPI through the Project Manager's Office (PMO).

SPPI will review all capital project planning and design submissions with regard to their conformance to the Sector Plan and other planning documentation prior to making a recommendation on the submission to the Facilities Development Committee (FDC) of the University.

Sector Plan Compliance Checklist

All capital projects will be required to complete and submit the Sector Plan Compliance Checklist (Exhibit B.1). Where a submission does not conform, a detailed explanation must be provided.

Sector Plan Distribution and Access

Sector Plans and the Compliance Checklist will be made available through the SPPI web-site (www.uofaweb.ualberta.ca/pi) or in hard copy if requested.

Sector Plan Implementation

A Sector Plan Implementation Schedule (Exhibit B.2) is provided, outlining a preliminary list of short-term implementation activities, responsibilities and timelines which inform, complement and support the guidelines and are necessary for Sector Plan actualization.

Exhibit B.1 - Sector Plan Compliance Checklist*

	Directly Conforms	Indirectly Conforms	Does Not Conform	N/A
District				
1) *The development achieves the District objectives of the Sector Plan.* Comments:	☐	☐	☐	☐
2) *The development conforms with the District guidelines of the Sector Plan.* Comments:	☐	☐	☐	☐
Pathways				
1) *The development achieves the pedestrian Pathway objectives of the Sector Plan.* Comments:	☐	☐	☐	☐
2) *The development conforms with the pedestrian Pathway guidelines of the Sector Plan.* Comments:	☐	☐	☐	☐
3) *The development achieves the vehicular/service Pathway objectives of the Sector Plan.* Comments:	☐	☐	☐	☐
4) *The development conforms with the vehicular/service Pathway guidelines of the Sector Plan.* Comments:	☐	☐	☐	☐
Edges				
1) *The development achieves the Edge objectives of the Sector Plan.* Comments:	☐	☐	☐	☐
2) *The development conforms with the Edge guidelines of the Sector Plan.* Comments:	☐	☐	☐	☐
Nodes				
1) *The development achieves the Node objectives of the Sector Plan.* Comments:	☐	☐	☐	☐
2) *The development conforms with the Node guidelines of the Sector Plan.* Comments:	☐	☐	☐	☐
Landmarks				
1) *The development achieves the Landmarks objectives of the Sector Plan.* Comments:	☐	☐	☐	☐
2) *The development conforms with the Landmarks guidelines of the Sector Plan* . Comments:	☐	☐	☐	☐
Site Specific				
1) *The project conforms with site dimensions.* Comments:	☐	☐	☐	☐
2) *The project conforms and responds to the obligations associated with the Zone of Responsibility (ZOR).* Comments:	☐	☐	☐	☐
3) *The project conforms with site coverage guidelines.* Comments:	☐	☐	☐	☐
4) *The project conforms with site height guidelines.* Comments:	☐	☐	☐	☐
5) *The project conforms with site Floor Area Ratio (FAR) guidelines.* Comments:	☐	☐	☐	☐
6) *The project conforms with setback requirements.* Comments:	☐	☐	☐	☐
7) *Building massing is compatible with adjacent existing and planned development.* Comments:	☐	☐	☐	☐

Exhibit B.1 - Sector Plan Compliance Checklist*

	Directly Conforms	Indirectly Conforms	Does Not Conform	N/A
District				
1) *The development achieves the District objectives of the Sector Plan.* Comments:	☐	☐	☐	☐
2) *The development conforms with the District guidelines of the Sector Plan.* Comments:	☐	☐	☐	☐
Pathways				
1) *The development achieves the pedestrian Pathway objectives of the Sector Plan.* Comments:	☐	☐	☐	☐
2) *The development conforms with the pedestrian Pathway guidelines of the Sector Plan.* Comments:	☐	☐	☐	☐
3) *The development achieves the vehicular/service Pathway objectives of the Sector Plan.* Comments:	☐	☐	☐	☐
4) *The development conforms with the vehicular/service Pathway guidelines of the Sector Plan.* Comments:	☐	☐	☐	☐
Edges				
1) *The development achieves the Edge objectives of the Sector Plan.* Comments:	☐	☐	☐	☐
2) *The development conforms with the Edge guidelines of the Sector Plan.* Comments:	☐	☐	☐	☐
Nodes				
1) *The development achieves the Node objectives of the Sector Plan.* Comments:	☐	☐	☐	☐
2) *The development conforms with the Node guidelines of the Sector Plan.* Comments:	☐	☐	☐	☐
Landmarks				
1) *The development achieves the Landmarks objectives of the Sector Plan.* Comments:	☐	☐	☐	☐
2) *The development conforms with the Landmarks guidelines of the Sector Plan* . Comments:	☐	☐	☐	☐
Site Specific				
1) *The project conforms with site dimensions.* Comments:	☐	☐	☐	☐
2) *The project conforms and responds to the obligations associated with the Zone of Responsibility (ZOR).* Comments:	☐	☐	☐	☐
3) *The project conforms with site coverage guidelines.* Comments:	☐	☐	☐	☐
4) *The project conforms with site height guidelines.* Comments:	☐	☐	☐	☐
5) *The project conforms with site Floor Area Ratio (FAR) guidelines.* Comments:	☐	☐	☐	☐
6) *The project conforms with setback requirements.* Comments:	☐	☐	☐	☐
7) *Building massing is compatible with adjacent existing and planned development.* Comments:	☐	☐	☐	☐

Exhibit B.2: Sectors 5 and 6 - Implementation Activities, Responsibilities, Time Lines

	Task	Purpose	Resp.	Start	Complete
1	Heritage Assessment.	To identify heritage resources and plan appropriate direction.	P&I		
2	Design and construct pedway between Education Centre and HMRC.	To improve internal linkages.	P&I		
3	Design/Construct/Complete North Campus Gateways at 116 St. and SLRT station.	To support Sector Plan.	P&I		
4	Review recreational and athletic needs at Varsity Field.	To inform the re-design of the open space.	P&I		
5	Determine feasibility of consolidated service points.	To improve the pedestrian environment and limit conflicts.	P&I		
6	Investigate the potential for underground link from Lister Hall to Van Vliet Centre.	To improve internal linkages.	P&I		
7	University and City walkway theme co-ordination.	To establish process and parameters for 'Grand Avenue' theme on 87 Avenue.	P&I		
8	Partners co-ordination (City of Edmonton, St. Joseph's College, St. Stephen's College, Alberta Community Development).	To establish process and parameters for pedestrian linkages/movements; compatible design/landscape guidelines; service access; parking; etc.	P&I		
9	Complete North Campus Transportation Study.	To support Sector Plan including parking generation estimates associated with new development sites and redevelopment.	P&I		
10	Consider potential locations for DATS access to Phys Ed to reduce conflict with pedestrian traffic along 89 Ave.	To support Sector Plan.	P&I		
11	Undertake North Campus Way-finding Study	To support Sector Plan (including service vehicles).	P&I		
12	Develop cost estimates and development pro forma.	Develop overall cost to develop including all new/extended services; roads and pathways; parking; common green space etc. so that proponents can be charged their share.	P&I		
13	Establish shared contribution account structure supported by UA policy.	To establish a mechanism whereby capital projects are charged for services and obligations (e.g. green space). To set up the structure to hold and spend the money.	P&I		
14	Establish development component standards.	To allow uniformity where required in order to minimize cost to the University (e.g. lamp posts).	P&I/Utilities		
15	Development Monitoring.	To track development against a Campus target Far of 1.5 maximum.	P&I		
16	Identify key thresholds for utilization, building condition, etc.	To deliver a clear message on when redevelopment may occur.	P&I		
17	Complete significant landscape features study.	To support Sector Plan.	P&I		
18	Liaise with Alumni Association on further development of Alumni/Heritage Walks	To support Sector Plan.	P&I		
19	Informatics Master Plan.	To layout where fibre optics, etc. to be located to complement Sector Plan.	CNS/Utilities/P&I		
20	Detailed Utilities/IT Infrastructure Assessment.	To confirm capacities of all existing services and upgrades required to meet development of 'new' and redevelopment sites.	Utilities		

Appendix C
Glossary

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Glossary

Building Footprint Area
Main floor area of a building (at grade).

Celebration Plaza
A meeting place (Primary Node) built to recognize and celebrate the contributions of donors to the University of Alberta.

CSPS – Capital & Strategic Planning Services
The former name of the department of the University of Alberta—now called Planning and Infrastructure (P & I)--that oversees the planning and implementation of building development for the entire Campus

CPTED – Crime Prevention Through Environmental Design
Principles and strategies for the proper design and effective use of the built environment which can lead to a reduction in the fear and incidence of crime and an improvement in the quality of life.

Desire Line
An informal pedestrian pathway that is created as a result of being the shortest distance, or most convenient route, between two points. Desire lines often degrade the visual quality of the landscape as they damage soft landscape areas (i.e., shrub beds, turf, etc).

Districts
Built form areas within each Campus Sector that integrate with natural features and social patterns of life to create areas of geographic and visual reference.

Edges
Linear elements not considered as paths such as natural boundaries and built form boundaries.

FAR – Floor Area Ratio
Total Floor Area: Site Area.

Gateway
A major entrance into the Sector.

Heritage Walk
An interpretive walk on the North Campus, identified in the Long Range Development Plan.

HUB
HUB International or Housing Union Building – a large building on the extreme east side of Sector 3 with approximately 50 commercial tenants and 850 student residents.

Land Use
The main functions or type of development within a given district.

Landmarks
Physical elements such as natural features, built form and other significant urban features that act as point references external to the observer.

LRDP – Long Range Development Plan
A key document for the University of Alberta (2002) that provides a vision for shaping and guiding future growth, development and redevelopment at the four Campus sites.

Multi-use
A pathway (or other designed element) that is designed to accommodate multiple uses – e.g., walking, cycling, in-line skating, etc.

Municipal Government Act
An act of the Government of Alberta governing the roles and responsibilities of municipalities and municipal officials.

Naturescape
Project areas or activities that are directed towards the planting of native and/or ornamental plants, providing habitat for a diversity of animals or plant species, and educational activities that contirbute to building and sustaining a healthier environment and quality of life.

Nodes
Areas with a high concentration of activity such as actively used open spaces, vehicular and pedestrian intersections, as well as public transit links, stations and stops.

Pathways
Key vehicular and pedestrian routes as identified in the Sector framework.

Pedway
Interior/sheltered pedestrian passageways—underground, at grade, or overhead—that provide connections between buildings.

Sector
One of 17 distinct development areas (identified by the Long range Development Plan) within the four Campus sites of the University of Alberta.

Service Roads
Pathways which accommodate service vehicles, DATS, and emergency vehicles.

Site Area
The site area for a building, used in calculating Site Coverage and Floor Area Ratio (based upon information provided by P & I).

Site Coverage
Building Footprint Area divided by Site Area, expressed as a percentage.

SPPI
Strategic Planning – Planning and Infrastructure Department: the name of the department of the University of Alberta that oversees the planning and implementation of building development for the entire Campus.

SUB
Students' Union Building

Total Floor Area
The combined area of all floors, excluding basement and penthouse levels (based upon information provided by P & I).

University Core Use
Research, teaching and support services development.

Zone of Responsibility
The area that each facility is responsible to develop either in whole or in part.