# NORTH CAMPUS NEIGHBOURHOOD PLAN

**University of British Columbia**

**June 24, 2004**

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# 1.0 INTRODUCTION

## 1.1 Overview

In July 1997, the Greater Vancouver Regional District (GVRD) adopted the Official Community Plan (OCP) Bylaw that applies to the UBC campus. The OCP, and the Memorandum of Understanding (2000) accompanying the OCP provide the overall legal framework for accomplishing land use planning and development control for the University at the Point Grey campus.

To add to the OCP framework, the University adopted the Comprehensive Community Plan (CCP) in 2000. The CCP sets overall development targets for all eight local areas identified in the OCP. The local area planning process prescribed in the MOU results in individual neighbourhood plans for each of the local areas.

These neighbourhood plans are conceived as providing the University with greater certainty and more spatial detail for the local areas to help implement the OCP. To be formally approved, each neighbourhood plan must comply with the OCP.

This neighbourhood plan applies to the North Campus local area designated in the OCP and CCP. It is that part of the University north of Marine Drive, bounded to the east, north, and west by Pacific Spirit Regional Park (See Map P1).

## 1.2 Policy Framework for the North Campus Neighbourhood Plan

The OCP for UBC applies to the entire campus and two foreshore lots in Pacific Spirit Regional Park. The OCP is a guide to the long-term evolution of UBC's Point Grey campus into a 'complete community' that balances regional growth management objectives with the University's academic mission.

The OCP sets planning objectives and development targets for campus land use, green space, community services and transportation. It has a particular focus on 'non-institutional development.'

While the CCP establishes the distribution of development targets across the local areas, the job of the neighbourhood plans is to formalize site-specific parameters for the local area. Neighbourhood plans also demonstrate the link back to the goals and objectives of the OCP.

### 1.2.1 Purpose of the Neighbourhood Plan

The purpose of a Neighbourhood Plan is to apply the OCP policies and development requirements to a particular local area as designated in Schedule C of the OCP. Neighbourhood Plans are to contain a site-by-site designation of land uses, development controls, design guidelines, and servicing and transportation strategies in compliance with the OCP.

### 1.2.2 Policy Direction from the OCP and CCP

The OCP identifies the future evolution of the Point Grey campus as an unparalleled opportunity to meet ecological, economic and community objectives. In other words, the three elements of sustainability — environmental, economic and social — are embraced by the OCP.

More specifically the OCP addresses certain aspects of the North Campus local area as follows:

OCP section 4.1.1 Pacific Spirit: The two foreshore lots in the OCP area to the west of Marine Drive within Pacific Spirit Regional Park are designated for protection for recreation and conservation in the Pacific Spirit Regional Park Management Plan approved by the GVRD. Development and servicing will

ensure maintenance of park values and objectives on these lands and other adjacent Pacific Spirit lands.

OCP section 4.1.1 (b): The planning and development of areas adjacent to Pacific Spirit Regional Park will only be done in a manner that protects the park values contained in the Pacific Spirit Regional Park Management Plan (1991).

OCP section 4.1.8 North Campus: This area contains academic buildings, the Museum of Anthropology, and Green College. There are significant constraints on development because of its relation to the cliffs. The intent of policy in this area is to control new development to minimize potential impact on the adjacent park lands and to protect UBC facilities. The following policies will apply:

a) This area will be the subject of an area planning process prior to institutional or non-institutional development.

b) Further development will not be permitted unless supported by a hydrogeological study, which sets the protection of Pacific Spirit Regional Park as a priority objective.

These provisions are restated in the CCP, where some additional local area planning principles are adduced, including the following:

- Maintain views from the Rose Garden to the North Shore mountains as given by the Main Campus Plan (1992). Siting of buildings and management of trees on UBC property should respect this objective.
- Ensure that the areas north of Marine Drive are effectively integrated with the cultural part of campus which is immediately south of Marine Drive. This would include safe and direct pedestrian access across Marine Drive.

### 1.2.3 Interpretation of the Neighbourhood Plan

In this neighbourhood plan, terms shall have the same meaning as in the Official Community Plan. If any provisions of this neighbourhood plan are found to be at

variance with the Official Community Plan, the OCP shall prevail. The OCP is an adopted bylaw of the GVRD (Bylaw No 840-1996).

### 1.3 The Process Followed in Preparing the Neighbourhood Plan

The preparation of each neighbourhood plan follows the procedure framed in Schedule 3 of the Memorandum of Understanding. The process is vetted by two committees. Technical aspects of the plan are reviewed by the Technical Advisory Committee (TAC) for Neighbourhood Plans. Public consultation is accommodated through an Advisory Planning Committee (APC) expressly formed for the North Campus local area as well as through a mandated public meeting.

The APC is appointed by the UBC-GVRD Joint Committee. The Joint Committee receives the TAC and APC recommendations about approving a neighbourhood plan. In turn, the Joint Committee forwards a proposed plan with recommendations to the UBC Board of Governors for approval-in-principle, then to the GVRD Board of Directors to confirm that the proposed neighbourhood plan complies with the OCP. The GVRD Board returns the neighbourhood plan to the UBC Board of Governors for final adoption.

In the North Campus neighbourhood, the basic process outlined in the MOU was augmented with additional open houses and meetings.

# 2.0 CONTEXT

The landscape and location of North Campus make it a distinctive area at UBC. Away from Main Campus, the 13.8-hectare (34 acre) area is a refuge from the pace of activity at the campus core. The vegetation and views contribute to the sense of arrival into a place to explore and to linger.

## 2.1 The Physical Environment at Present

Variety and contrast characterize the buildings and landscape of North Campus. The architectural styles are diverse and the buildings are dispersed, which reinforces their individuality and functions. Unstructured pedestrian trails of varying surfaces lead from one environment to the next.

The planned landscape associated with buildings is juxtaposed with uncultivated groves of vegetation, particularly, where North Campus borders the steep cliffs and treed lands of Pacific Spirit Regional Park. The landscape includes both large open green spaces - mostly lawn - and wooded areas of evergreens, bitter cherry, maple and alder. The views north to the Georgia Strait and mountains heighten the sense of proximity to nature.

*A place to linger: cliff-side park bench looks north to the Georgia Straight and mountains.*

Physical features of North Campus that are highly valued by users include the mix of formal gardens and natural landscapes, and passive recreational spaces to take in views. The area contains buildings and functions that are important to the University as receptions sites, conference venues and public amenities, such as Norman Mackenzie House, Cecil Green Park House, Green College and the Museum of Anthropology. The existing land uses have educational, heritage and ecological values that are an asset to the neighbourhood.

## 2.2 Existing Land Uses

### 2.2.1 Norman MacKenzie House *(President's Residence), 6545 Northwest Marine Drive*

MacKenzie House is named after Norman Archibald MacRae ("Larry") MacKenzie, the UBC president from 1944-1962 who the house was built for in 1950 and who lived in it from 1951-1962. The building was used as office space from 1969 to 1983, at which time it was renovated for president George Pedersen. It continues to be the private residence of the University president today. The residence is 873 m2 (9,396 sq. ft.) in gross area and in the style of a Spanish villa. The house has welcomed many important visitors including royalty and world leaders.

### 2.2.2 Museum of Anthropology, *6393 Northwest Marine Drive*

The Museum of Anthropology (MOA) houses one of the world's finest displays of Northwest Coast First Nations art in an award-winning building. Designed by Canadian architect Arthur Erickson, its concrete and glass structure is inspired by the post-and-beam construction of Northwest Coast First Nations. The Museum was constructed by UBC in 1975. The gross building area is 6,971 m2 (75,040 sq. ft.).

The Museum is integral to UBC's teaching and research mandate and is an important bridge to the community that brings together faculty, staff, students, visitors, First Nations and members of other cultural communities. The grounds surrounding the facility are characterized by an outdoor sculpture complex, including two Haida Houses and ten poles, a large berm along the northern edge of the parking area, and open space north of the building originally intended for a reflective pond.

The Museum is seeking to expand to house its growing operations and collections. The expansion will focus on advancing research, and on community by improving physical access, visible storage, programming space and visitor services.

*View to a portion of the north façade of the Museum of Anthropology.*

### 2.2.3 Institutional and Administrative Uses

The **Department of Anthropology and Sociology** (ANSO) (6303 NW Marine Drive) is located near the centre of the neighbourhood in a cluster of two-storey buildings. The Anthropology and Sociology Building (1975) provides the main entrance to the south and is flanked by three halls that were originally women's residences. The respective halls are named for important women in UBC's history. Anne Wesbrook Hall (1950) is named for the wife of the first UBC president. Isabel MacInness Hall (1950) recognizes Dr. Isabel MacInness, the first woman to be appointed to the faculty of UBC, professor and later Head of the German Department. Mary Murrin Hall (1956) commemorates the wife of W.G. Murrin who served on the UBC Board of Governors from 1940-1957. The estate of Mary Murrin provided for a $60,000 fund to provide "annual bursaries for worthy and able women students who cannot continue their university education without financial aid." The combined gross floor area of these buildings is 5,717 m2 (61,539 sq. ft.).

**Cecil Green Park House** (6251 Cecil Green Park Road) was built in 1911 by architect Samuel Maclure. In 1967, it was purchased by Dr. and Mrs. Cecil Green and generously donated to the University of British Columbia and renamed in their honour. The building is 1,913 m2 (20,590 sq. ft.) and currently houses university offices and reception space. The house is a popular setting for business meetings, retreats, weddings, and other social events.

**Mary Bollert Hall** (6253 Northwest Marine Drive) was constructed in 1950 as a women's residence. The building is named for Mary Bollert who was the first Dean of Women at UBC. In the early 1970's it was converted to university office use. The gross building area is 1,382 m2 (14,878 sq. ft.).

### 2.2.4 Green College

**Green College** (6201 – 6205 Cecil Green Park Road) is a centre for advanced interdisciplinary scholarship and graduate education opened in 1993. The gross area of residences and administration space is 5,685 m2 (61,194 sq. ft.). It includes residential accommodation for 82 graduate students, 16 postdoctoral scholars and visiting scholars, 5 short-term visitors, and the Principal. The college is organized to achieve the vision of its founder, Dr. Cecil Green, that it be an intellectual community for the generation of new ideas. Forums for intellectual exchange among graduate students, faculty, visiting scholars, researchers and people from the wider Vancouver community are provided.

The architectural style combines Contemporary Craftsman features with Gothic touches that are important to the college for creating a sense of tradition. Most dwelling units are ground-oriented and organized to foster an intimate community. Green College anticipates the need to expand its residential and lecture functions. The grass area to the northeast is an important green buffer zone between the residences and Pacific Spirit Regional Park Trail 3.

## 2.3 Vision Statement

The vision statement and goals were developed by the Advisory Planning Committee to provide a context for the policies and actions in the North Campus Neighbourhood Plan. The vision statement describes the broad characteristics to be achieved in the local area and is supported by the goals and objectives in section 2.4.

***Vision Statement:***

> *North Campus will be a safe and accessible neighbourhood with a strong connection to the west coast environment. A place characterized by its views and contrasts – where ocean meets sky, and nature meets culture. A neighbourhood rich in learning and leisure opportunities designed to create a strong sense of place. The North Campus neighbourhood will demonstrate stewardship by not only protecting the area's ecological resources but also respecting adjacent parkland.*

## 2.4 Planning Goals and Objectives

The goals represent broad, general interests identified with the Advisory Planning Committee. The objectives are components of each goal that outline specific actions that support each goal.

(a) To maintain and enhance the natural environment of the North Campus area while respecting adjacent parkland.

- i. Protect the ecological, recreational and natural resources of Pacific Spirit Park.
- ii. Balance the preservation of important views with the maintenance and enhancement of natural habitat.
- iii. Respect the greenspace.
- iv. Protect and enhance the indigenous biodiversity of the neighbourhood.
- v. Protect cliff stability through ecologically and scientifically sound land use and stormwater management in the neighbourhood.

(b) To accommodate a range of land uses.

i. Preserve the land and environment for academic, cultural, residential, natural habitat and recreational uses.

ii. Preserve the park-like environment of UBC's North Campus Neighbourhood, but steward its land for compatible development of its academic, cultural and residential needs.

(c) To support existing land uses in the neighbourhood.

i. Allow for the continuation and expansion of existing uses in the area, including the Museum of Anthropology expansion plans.

ii. Maintain MacKenzie House and its properties as the UBC President's home and an official university reception site, while limiting irrigation of the grounds that may cause erosion.

iii. Preserve the area's existing uses including Green College, Cecil Green Park House, Cecil Green Park Coach House, Mary Bollert Hall, Anthropology and Sociology buildings and the Museum of Anthropology.

iv. Protect UBC's assets in the area from cliff erosion without impacting adjacent parkland.

v. Preserve the integrity of the historic Point Grey Battery Number One Gun Emplacement located to the north of the Museum of Anthropology.

vi. Protect the ecological, recreational and natural resources of the neighbouring Pacific Spirit Regional Park.

(d) To promote a healthy public realm.

i. Ensure a visual and physical extension of the Main Mall greenway northward through prudent landscaping and building plans in ANSO Building vicinity.

ii. Work with the GVRD to define and maintain specific access routes to the beach thereby discouraging the traversing of the cliff face.

iii. Incorporate safety through design and land use.

iv. Provide outdoor areas for social needs.

v. Ensure nighttime lighting does not negatively impact star gazing opportunities or nocturnal wildlife habitat.

vi. Consider the opportunities to advance the University's education mandate.

(e) To ensure efficient transportation and infrastructure servicing in the area

i. Ensure a reasonable level of public access to, from and through the area in accordance with UBC's Strategic Transportation Plan.

ii. Promote wheelchair and other handicapped accessibility in the North Campus Neighbourhood.

iii. Improving access for buses in the area.

iv. Provide water, power, communications and information, drainage, and other services to the area in a manner that serves the area and complements the other goals of the Plan.

# 3.0 COMPONENTS OF THE NEIGHBOURHOOD PLAN

To meet the planning objectives for the North Campus local area, several specific components are required. Each one addresses a certain dimension of the University's intent for the local area. Nevertheless, the components are inter-related as well. Together, they represent a comprehensive vehicle for shaping the future of the local area.

## 3.1 Relationship to Pacific Spirit Regional Park

North Campus connects and provides access to Pacific Spirit Regional Park and is in proximity to two major trails that lead to the foreshore. The CCP (2000) states UBC's commitment to protecting the natural integrity of the park, which is a highly valued part of the community (CCP section 3.1 Vision). The University will continue to provide access to the park consistent with GVRD policy (CCP section 3.2.1 Principles for Integration of Open Space and Circulation System).

The following principles shall guide planning as it relates to the park:

(a) Ensure a green buffer zone along the boundary of North Campus adjacent Pacific Spirit Regional Park to provide transition and show consideration for park habitat.

(b) Where UBC land abuts the Point Grey sea cliffs in North Campus, the University will deter or prevent access to the cliffs to provide safety and prevent accelerated erosion. The preferred method for achieving this is by the use of green landscaping and minimum use of barriers such as fencing.

(c) UBC, as an important stakeholder, will provide input to the GVRD on the Pacific Spirit Regional Park Management Plan (1991) when it is updated.

(d) UBC will seek an agreement with GVRD Parks for the protection of significant view corridors to the sea and mountains, particularly for the Museum of Anthropology, while ensuring privacy on the foreshore.

## 3.2 Cliff Erosion Mitigation

The natural process of erosion of the Point Grey cliffs has been a concern since the UBC campus was first established in the 1920s. The integrity of the sea cliffs is dependent on multiple factors including the geomorphology of the landform, infiltration of water to the soil structure and stability at the base of the cliffs, or toe of slope. The challenge to implementing a mitigation policy is the division of land ownership: UBC owns the top-of-bank, GVRD Parks manages the cliff slope and toe-of-slope. In the absence of municipal jurisdiction, the GVRD Board is the overseeing planning authority for the UBC Official Community Plan.

In 2002, UBC Properties commissioned a study to evaluate the hydrogeology of North Campus prior to approval of a neighbourhood plan to satisfy the requirements of the OCP and CCP. The study *(Hydrogeological and Geotechnical Assessment of Northwest Area UBC Campus, September 2002)* concluded that, provided current surface water seepage control measures are continued, development of new buildings in the neighbourhood would not contribute to cliff slope instability. In a series of technical discussions with GVRD planners, engineers, and parks administrators throughout 2003-2004 the hydrogeological study was integrated into a more comprehensive assessment entitled *"Comprehensive Hydro Geological and Cliff Erosion Assessment of Point Grey "* by Sandwell, Piteau Associates and Trow Engineering consultants in June 2004, which satisfies OCP policy 4.1.8 (b).

The study recommends a setback of 30 degrees from the horizontal, projected back from the toe-of-slope to the top-of-bank for new buildings in the North Campus Neighbourhood. The University has further documented strategies to address cliff erosion and measures that could stabilize the toe-of-slope in the *UBC-Pacific Spirit Regional Park Cliff Erosion Mitigation Plan (January 2002).*

The hydrogeological study recommendations, combined with the Cliff Erosion Mitigation Plan, provide guidance for obtaining coordinated solutions with the many interests involved in protecting UBC assets while maintaining the ecological integrity and natural amenity of the parkland and beaches below the University campus.

### 3.3 Open Space and Extension of the Main Mall Greenway

The Open Space Program for North Campus will be in accordance with the *UBC Landscape Plan (2001)*. The program will highlight the importance of the area for outdoor passive recreational use. View corridors will be outlined as well as measures to enhance and maintain them. Significant ecological attributes to protect will be identified and may require rehabilitation. Landscape planning will provide for transition, ensure the environment of North Campus functions as a connected whole and create a memorable place to visit. The Open Space Program will include a system for pedestrian circulation that links and provides access to popular vantage points, which is further defined in section 3.4.

The OCP and CCP designate Main Mall as the dominant greenway for pedestrians and cyclists on campus. The greenway will be extended into North Campus to the vacant grassy area adjacent Marine Drive north of the Rose Garden in the short term (See map P3). Options to extend the greenway further into North Campus and provision of a formal northern terminus will be identified in the Open Space Program.

*The Rose Garden, the existing northern terminus of the Main Mall Greenway.*

Principles for open space in North Campus include:

(a) Create a distinct identity through design of the landscape and circulation system.

(b) Establish and maintain a trail system to connect uses and prevent random traversing across vegetated areas and to the cliff edge.

(c) Identify and protect ecologically significant habitat and plant species.

(d) Rehabilitate degraded wooded and vacant areas.

(e) Replant with indigenous species where it is appropriate.

(f) Retain and enhance the contrast in the landscape between planned, formal grounds and “rough” habitat areas.

(g) Provide benches for viewing the scenic landscape and night sky that maintain the privacy of the foreshore below.

(h) Provide interpretive signage along pedestrian routes for cultural, heritage and environmental learning opportunities.

### 3.4 Circulation and Transportation

The OCP and CCP call for a reduction of single occupant vehicle commuting, an increase in the use of transit and a fine-grained pattern of circulation. The challenges for North Campus are high volumes of single occupant vehicle travel associated with Museum visits, conferences, business meetings, reception events, and Pacific Spirit Regional Park users, no existing direct service to the area by public transit, and an informal pathway system for circulation.

Planning documents that will inform the design of movement through the landscape in North Campus include *A Legacy and a Promise, Physical Planning at UBC* (1999), the *UBC Landscape Plan* (2001) and *Leading the Way* (2001), which is a detailed plan for wayfinding on campus. Circulation in North Campus will aim to “create a more unified, understandable landscape defined by clear routes, signs and landmarks to assist wayfinding” (UBC Landscape Plan, p 21).

The quality of the landscape experience in North Campus will be improved with the application of these principles.

*Existing walkway north of the Museum of Anthropology.*

Planning objectives are:

(a) The UBC Campus Transit Plan (June 2003) calls for community shuttles to extend transit coverage on campus, including to North Campus along Northwest Marine Drive.

(b) Ensure transit stops are accessible for all users, sheltered and appropriately lit for safety.

(c) Ensure pedestrian circulation to and from North Campus clearly and efficiently directs users to the crosswalks on Northwest Marine Drive.

(d) Establish pedestrian pathways that provide an effective fine-grained circulation pattern. Two types of paths will structure the system. In the built area closest to Northwest Marine Drive paths will be direct, definite, lit and wheelchair accessible to efficiently link uses. Paths further north and away from the built environment will cater to passive recreational use by

providing access to views and interpretive signage. This latter type of path will be more informal and meandering, unlit, have a pervious surface, and still be clearly defined and accessible.

(e) Provide signage at the Rose Garden that directs bicycles to North Campus via East Mall and West Mall.

(f) Provide sufficient and convenient bicycle storage, both short-term for visitors and long-term for people working in the neighbourhood to encourage people to bike to North Campus.

(g) Enhance the sense of entry from Northwest Marine Drive into North Campus.

### 3.5 Sustainable Community Strategies

This neighbourhood will respect local ecology and work to enhance the social and economic health of the community. Green building concepts will be applied to all building and redevelopment. Effective access to North Campus and outstanding public amenities will foster social and economic sustainability.

(a) The following social sustainability strategies will guide planning:

- i. Retention of open space is an asset to the University by providing a high ratio of greenspace to community members.
- ii. The public realm will have spaces and places that foster a sense of community and social interaction.
- iii. Encourage cultural education with public art in addition to existing Northwest Coast First Nations monuments associated with the Museum. Consider a public art program that creates opportunities for making new places that have meaning.
- iv. Incorporate interpretive signage into the design of pedestrian circulation routes for people to learn about the culture, heritage and habitat in North Campus.
- v. Maximize the quality of pedestrian and bicycle environments.

(b) The following economic sustainability strategies will guide planning:

i. Ensure straightforward, well-defined and safe access, including for persons with disabilities.

Ii Strengthen existing public amenities and create additional ones to attract people to the area.

iii. Ensure sustainability measures are economically viable.

(c) The following environmental sustainability strategies will guide planning:

i. Preserve existing habitat and restore and enhance areas of degraded habitat.

ii. Implement stormwater management techniques that best support the objectives for groundwater recharge or retention, which directly affect cliff erosion.

iii. Consider green roofs for new buildings and community gardens at Green College to assist in rain and stormwater collection and dissipation. Green roofs provide habitat for bird species, but attention to the proximity of windows must be given.

iv. Minimize use of potable water for the outdoor landscape.

v. In coordination with the GVRD, implement cliff erosion mitigation measures that are ecologically sound and recognize the social aspects of the foreshore below.

vi. Use native and climate-appropriate plant species in new landscape works.

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iv. Minimize use of potable water for the outdoor landscape.

v. In coordination with the GVRD, implement cliff erosion mitigation measures that are ecologically sound and recognize the social aspects of the foreshore below.

vi. Use native and climate-appropriate plant species in new landscape works.

### 3.6 Future Land Use and Development Potential

The Official Community Plan acknowledges UBC's academic mission and guides use of its land resource consistent with regional growth objectives. The plan establishes eight local areas for neighbourhood planning. The intent is to encourage more housing near concentrations of daytime population, as well as encourage more clusters of daytime destinations where there is a surplus of housing to help achieve a better distribution of commuting patterns in Greater Vancouver.

The OCP provides guidance on limits to future campus development by expressing development ceilings. Generally, the floor-space-ratio (FSR) is a measure of building floor space in relation to the area of the building site.

The OCP, and the more detailed Comprehensive Community Plan (CCP), establish development distributions for future non-institutional development and housing to create vibrant neighbourhoods. Given the special circumstances of the North of Marine local area the CCP did not present a development density plan for this neighbourhood.

Development in the North Campus neighbourhood will be institutional, meaning that future additions to the building stock will support the University's academic mission for teaching and research or accommodate institutional activities in support of the University's mission. Supporting Land Uses would include office

and administration, assembly space and housing for students, faculty and staff (e.g. Green College).

Table 1 below presents a statistical portrait of the 5 distinct sites (NC 1 through NC 5) within the North Campus, showing the land area, floor space inventory of current development, and resulting FSR. Table 1 also presents a calculation of maximum floorspace by site based upon site coverage and building height criteria cited in the table. The maximum building height of 3 storeys is applied to all sites. The resulting maximum FSR by site is also shown in Table 1.

**TABLE 1: Land Use & Development Potential**

| Site Description | Site Area (ha) | Existing Floorspace ($m^2$) | Existing Floor-Space-Ratio (FSR) | Maximum Site Coverage | Maximum Height | Maximum Development Potential | Maximum Floor-Space-Ratio (FSR) |
|---|---|---|---|---|---|---|---|
| NC 1 Green College (10 Structures) | 1.69 | 7,598 | 0.450 | 50% | 3 storeys | 25,350 | 1.50 |
| NC 2 Mary Bollert | 0.67 | 1,382 | 0.206 | 35% | 3 storeys | 7,035 | 1.05 |
| NC 3 ANSO (4 structures on Anne Wesbrook site) | 1.49 | 5,717 | 0.384 | 50% | 3 storeys | 22,350 | 1.50 |
| NC 4 Museum of Anthropology | 3.98 | 7,653 | 0.192 | 50% | 3 storeys | 59,700 | 1.50 |
| NC 5 Mackenzie House | 1.51 | 962 | 0.064 | 15% | 3 storeys | 6,795 | 0.45 |
| Open space, parks and trails | 3.57 | - | - | - | - | - | - |
| Greenway | 0.70 | 246 | - | - | - | - | - |
| Roads: Cecil Green Park Road | 0.20 | - | - | - | - | - | - |
| **TOTAL** | **13.81** | **23,558** | **-** | **-** | **-** | **121,230** | **-** |

The location of sites NC1 through NC5 is depicted on Map P5.

### 3.7 Interim No-Build Zone

The development site boundaries for NC 1, NC 3, NC 4, and NC 5 utilize the 30 degree angle from the toe-of-slope to determine the cliff-side limit of those sites. While the acceptance of the 30 degree criterion is not in question, the permanence of the toe-of-slope has not yet been accepted. At issue is the effectiveness and acceptability of measures to stem shoreline erosion and an acceptable interval of monitoring to provide evidence that the toe-of-slope is stable.

Given the uncertainty of a permanent reference point for calculating a cliff setback, specifically a secure toe-of-slope, the North Campus Neighbourhood Plan contains an additional precautionary measure to obtain greater certainty and policy acceptance of the toe-of-slope. The precautionary measure is the "Interim No-Build Zone", which is an 8 metre corridor imposing an additional setback from the cliff-edge.

Based upon estimates of the average annual erosion of the toe-of-slope at 7.5 cm (3 inches), the 8 metres Interim No-Build Zone would provide over 100 years to reach policy acceptance on the effectiveness of measures to stabilize the toe-of-slope. The effect on the development potential for the four North Campus development sites affected by the Interim No-Build Zone is demonstrated in Table 2 below:

**TABLE 2 Interim No-Build Zone and Net Potential for Institutional Development**

| Site Description | Site Area (ha) | Maximum Development Potential $m^2$ | INTERIM NO-BUILD ZONE (ha) | NET Remaining Site area (ha) | NET INTERIM Maximum Development Potential $m^2$ |
|---|---|---|---|---|---|
| NC 1 Green College (10 Structures) | 1.69 | 25,350 | 0.05 | 1.64 | 24,600 |
| NC 2 Mary Bollert | 0.67 | 7,035 | 0 | 0.67 | 7,035 |
| NC 3 ANSO (4 structures on Anne Wesbrook site) | 1.49 | 22,350 | 0.11 | 1.38 | 20,700 |
| NC 4 Museum of Anthropology | 3.98 | 59,700 | 0.21 | 3.77 | 56,550 |
| NC 5 Mackenzie House | 1.51 | 6,950 | 0.13 | 1.38 | 6,210 |
| **SUB TOTAL** | **9.34** | **121,385** | **0.50** | **8.84** | **115,095** |
| Open space, parks and trails | 3.57 | | | | |
| Greenway | 0.70 | | | | |
| Roads: Cecil Green Park Road | 0.20 | | | | |
| **TOTAL** | **13.81** | **121,385** | **0.50** | **8.84** | **115,095** |

The Interim No-Build Zone will be reviewed only after a period of at least five years (in 2009) of monitoring toe-of-slope stability in conjunction with monitoring reports from other aspects of cliff erosion, including seepage management, storm water management, and top-of-bank stability.

After the initial five-year review, the removal of the Interim No-Build Zone would require the confirmation by the UBC Board of Governors and the GVRD Board of Directors that all three of the following 'prior to' conditions have been fulfilled:

1. The toe-of-slope, from Graham's Gully to Point Grey, is secure and documented by a five-year monitoring program;
2. The University's seepage control measures have stabilized the cliff face as documented by a five-year monitoring program; and,
3. The design standard for storm water infrastructure for the North Campus Neighbourhood has been upgraded from the present capacity for a one-in-seventy year storm event to a one-in-two-hundred year storm event.

The UBC-GVRD Joint Committee, which has a responsible role for overseeing neighbourhood planning, would determine whether or not the above 'prior to' conditions have been met before recommending removal of the Interim No-Build Zone to the University Board of Governors and the GVRD Board of Directors.

### 3.8 Staging of Development

The first phase of development will be the expansion of the Museum of Anthropology. The Museum's need for more space prompted the initiative to design an addition to the existing structure and to secure funding to make the expansion a reality. Expansion can proceed upon the adoption of the North Campus Neighbourhood Plan under the local area planning provisions of the OCP.

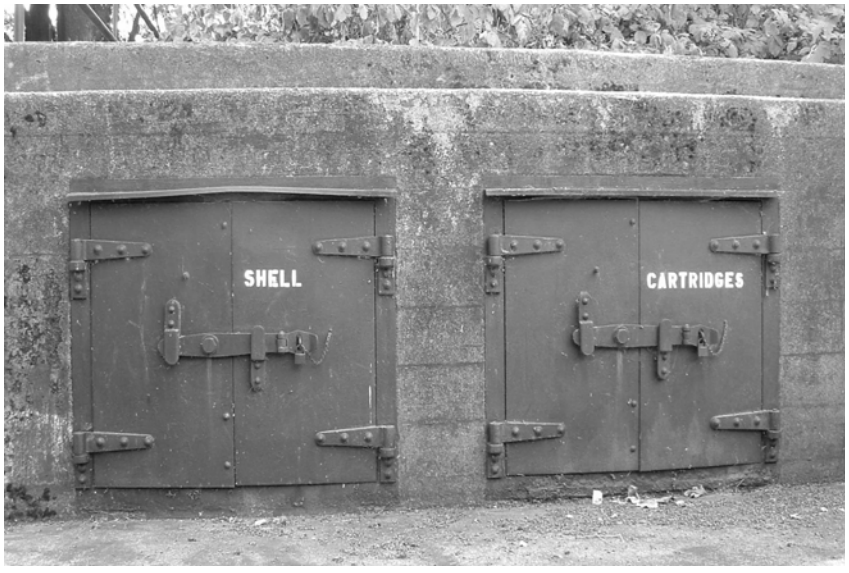
The second phase of development in the North Campus will proceed with the variety of projects in the public realm. Improvements to the pedestrian system can follow the expansion to the Museum of Anthropology. Infrastructure projects,

such as enhancements to the drainage and storm water sewerage, could also be incorporated in the second phase of North Campus neighbourhood development.

Subsequent phases could involve the potential re-development of the ANSO complex of buildings and the site occupied by Mary Bollert Hall. While the low profile of the current four structure ANSO complex is conducive to the maintenance of a view corridor north from the Rose Garden aligned with Main Mall, when the buildings outlive their life cycle, the complex should be replaced on the site now occupied by the Anne Wesbrook building to the west of the existing ANSO complex. Any incremental expansion to Green College can be accomplished on an as-needed basis.

### 3.9 Heritage: The Point Grey Battery

The No. 1 Gun Emplacement of the Point Grey Battery represents a significant part of UBC's role in Canada's wartime heritage. Throughout the years, the Battery has been subjected to weather, vandalism and encroaching buildings. To preserve the No. 1 Gun Emplacement for future generations, consideration could be given to register it with Canada Parks' new Historic Places Initiative.



Other important heritage assets in the North Campus Neighbourhood include Cecil Green Park House, the Coach House and Norman MacKenzie House, all of which are affected by the Interim No-Build Zone. The University will maintain these assets as legal non-conforming structures.

# 4.0 DESIGN GUIDELINES FOR NORTH CAMPUS

## 4.1 Supporting UBC's Planning Principles

All new development and construction in North Campus will support the campus-wide principles prescribed in *A Legacy and a Promise, Physical Planning at UBC* (1999). As set forth in the *UBC-GVRD Memorandum of Understanding*, designs for all buildings and spaces will be evaluated by the University against the objectives stated in the eight physical planning principles.

## 4.2 General Character and Intent

The North Campus neighbourhood will be planned, designed, constructed and inhabited with respect for the land and its patterns – natural, cultural and historical (OCP section 3.1 Vision, 1997). The development objectives are expected to improve cohesiveness, add value to existing buildings, harmonize with the setting and connect to the Main Campus. Pockets of unstructured environments will be retained to connect to surrounding park and as sanctuaries with views of mountains, sea and sky. There will not be a road through the neighbourhood. Local roads and pedestrian pathways will be improved to support community and ecological sustainability objectives.

## 4.3 Roadway and On-Street Parking

Cecil Green Park Road is the only local road in North Campus and it includes on-street perpendicular parking at its terminus northeast of the Museum. The road provides access to driveways leading to small parking areas convenient to the entrances of ANSO buildings. Parking is restricted to area faculty and staff and short-term visitors. Long-term visitor parking is located across NW Marine Drive in the Rose Garden parkade.

The width of the travel surface on roads in North Campus is sufficient for local vehicular traffic and emergency services, and will not be increased. Driving aisle

surfaces may be upgraded in some areas in a manner that is consistent with storm water objectives for the area.

The parking area adjacent the main entrance to the Museum of Anthropology will include designated bus parking stalls after its expansion. Parking spaces for buses should be 3 m wide and 12 m to 15 m in length. The number of spaces will be determined by the needs of the Museum based on visitor services requirements upon expansion. If the configuration does not provide a through-access route via the entrances to the parking area, a minimum turning radius of 12 m shall be provided for bus turn-around. Motorcycle and bicycle parking areas will be worked into the redesign of the Museum entrance and associated parking area.

### 4.4 Pedestrian Crossings and Walkways

The intent of this section is to provide for safe and convenient movement of bicycles and pedestrians within the local area and to and from the Main Campus. Design of sidewalks, paths and open spaces will enhance the quality of the landscape.

(a) Provide an attractive, distinguishing point of access where the crosswalk at the Rose Garden parkade leads into North Campus. This can improve safety by encouraging use of the crosswalk to cross Northwest Marine by providing a visual and functional primary point of access into the neighbourhood for pedestrians between Cecil Green Park Road and the controlled intersection at the Museum entrance.

(b) Pedestrian walkways from principle roads shall be a minimum of 1.25 m in width, unobstructed and clearly demarcated. Pedestrian paving techniques will be applied to ensure surfaces are accessible and in compliance with stormwater objectives.

(c) Pedestrian walkways shall be provided from all street sidewalks to the principal entrance(s) of buildings.

(d) All buildings within the neighbourhood shall be connected to each other with pedestrian walkways.

(e) Parking areas shall be linked to the main pedestrian walkway leading to the main entrance of the building by means of pedestrian walkways.

(f) Pedestrian paths for circulation apart from the built environment will be meandering and rustic in character, and sensitive to the local ecology. These trails will be surfaced with natural materials that provide an acceptable degree of accessibility for wheelchair use.

### 4.5 Outdoor Lighting Standards

North Campus is valued as a location for night sky viewing in proximity to a major urban centre. The surrounding park provides habitat for nocturnal owls, birds and bats. These factors support outdoor lighting that minimizes obtrusive effects, while providing security and the perception of safety.

The Lighting Master Plan (1991) for the University identifies design criteria to achieve a list of lighting goals that include safety and security, creating a sense of place and character, and preserving views. For North Campus, a set of standards will be developed by Campus & Community Planning in coordination with the Campus Sustainability Office and UBC Plant Operations that will incorporate the latest guidelines of the Illuminating Engineering Society of North America (IESNA). The outcome will be a special set of lighting standards specific to the conditions and values in North Campus.

In combination with a special lighting initiative, the following principles will ensure a safe and secure area where the value of the night time environment is preserved:

(a) The Open Space Program and circulation system developed for North Campus will be supported by appropriate lighting.

(b) For optimum night vision lighting will be uniform, low-level and use white light. The street landscape will have lower wattage lights and more narrowly spaced lamp standards to achieve this.

(c) Lighting fixtures should be shielded to prevent uplighting and direct light down.

(d) The focus of lighting should be pedestrians and illuminate sidewalks, primary walkways and only the immediate adjacent landscape.

(e) Crime Prevention through Environmental Design (CPTED) principles will be used to inform lighting design.

### 4.6 Green Space

Green space includes the landscape between buildings the future land use areas, UBC Park, and the Main Mall greenway (see map P3). Programmed green space will respect natural patterns and show consideration for neighbouring uses. The natural integrity of Pacific Spirit Regional Park will be a highly valued part of the community (OCP, 3.1 Vision, 1997). Design will demonstrate stewardship for the environment and encourage community interaction.

In addition to the principles for open space identified in section 3.3, the following shall apply:

(a) The vacant open space across from the Rose Garden parkade will be designed as an extension of the Main Mall greenway in the short term.

(b) The sense of serendipity in the landscape where pockets of wild vegetation coexist with formal gardens will be retained.

(c) The space around Green College and Cecil Green Park House should not become formalized and, beyond existing gardens, should retain its natural character.

(d) Clearly define public versus private green space for UBC Park associated with Mackenzie House.

## 4.7 Design Guidelines for Buildings

### 4.7.1 General Character and Intent

(a) North Campus presents an opportunity to create a “University Town” neighbourhood integrating cultural heritage with the academic, college residential and recreational fabric of the campus.

(b) North Campus will feel connected to both the site and the mission of the University. The open space and cliff edge setting is a strong element in creating a sense of place; building design shall respond to this distinctive environment.

(c) North Campus is home to the Museum of Anthropology, which is recognized for its iconic architecture, open space and views. Other buildings should respect the distinctive form of the museum and not compete with the style and proportion of the structure.

(d) Green College exhibits an architectural style that complements key heritage structures nearby.

### 4.7.2 Siting, Orientation and Massing

(a) Building design shall fit with the natural topography of the land, and to the extent possible, shall accommodate retention of existing significant trees.

(b) Buildings shall be designed, through setbacks and orientation, to preserve the dominant presence of the Museum of Anthropology.

(c) The relationship of pedestrian and cyclist paths to buildings is a primary consideration in the design of the landscape associated with buildings.

(d) Within the overall building sites shown in this plan, consideration should be given to setbacks, orientation, and other techniques to minimize overshadowing onto neighbouring site and developments.

### 4.7.3 Architectural Style and Materials

(a) No specific design theme is envisioned for the neighbourhood, however building style and architecture must evoke a sense of permanence, durability, high quality and should incorporate elements of style which complement the west coast setting and climate.

(b) Buildings shall be designed to address the potential technical and physical issues particular to west coast climatic conditions, in order to ensure durable structures.

(c) Consideration should be given to incorporating appropriate flexibility and adaptability to facilitate future changes in use and technology.

(d) Exterior finishes and detailing on all buildings shall be of durable quality suitable to our west coast climatic conditions.

(e) Building materials with low environmental impacts shall be considered if economically feasible. This could include recyclable materials, locally sourced products, materials with recycled content and materials with low embodied energy (i.e. materials with low requirements for energy use in their manufacture and transport).

### 4.7.4 Parking

(a) Any off-street surface parking shall incorporate landscaping to minimize the visual impact of hard surface and to screen parking areas.

### 4.7.5 Building Signage

(a) Building signage must be properly integrated within the building design or landscape design. For the provisions of emergency safety services, signage should be easily viewable by pedestrians

and motorists. Signage illumination shall be front-mounted, warm lamp sources projected onto the sign face.

### 4.7.6 On-Site Landscaping

(a) The landscape character of new developments shall respect and be responsive to existing adjacent landscape.

(b) Landscape design should consider views. Low level planting adjacent to public pedestrian areas in conjunction with proper lighting will enhance a comfortable, and safe public environment.

(c) Landscape features shall mark entry points and special places.

(d) The landscape shall be suited for west coast climatic conditions and designed for low requirements for watering, maintenance, and herbicide and pesticide use.

(e) Existing healthy tree specimens shall be retained. Fences shall be minimized and when used, shall be in small sections to provide privacy and screening. The use of hedges and shrubs to define pathways and edges should be considered.

### 4.7.7 Lighting for Buildings

(a) Design guidelines for lighting associated with buildings will follow the lighting standards developed for outdoor lighting identified in section 4.5 above.

(b) Lighting associated with buildings in North Campus will be for wayfinding purposes and not to enhance architecture.

### 4.7.8 Safety and Security

Crime Prevention through Environmental Design (CPTED) principles shall be used when designing buildings, and landscapes where appropriate.

### 4.7.9 Green Building Guidelines

(a) A goal of this Neighbourhood Plan is to encourage and promote innovation in the design and construction of buildings, in order to achieve the following objectives:

- Reduce energy consumption
- Ensure long life for buildings
- Ensure high indoor air quality
- Use resource efficient materials
- Conserve water
- Reduce waste

(b) Green building design is an evolving science, and new technologies and materials are regularly introduced. Programs to promote green buildings should also be flexible and evolve over time, in order to implement the sustainability objectives of this plan.

(c) This neighbourhood is part of a campus community that is committed to effective and practical sustainability initiatives. The OCP and CCP call for a community where the urban form, transportation choices and social fabric are inherently sustainable. This foundation of a sustainable community provides unique opportunities for green building initiatives.

(d) The University location fosters research and innovation. Academic and industry research conducted on campus has long been a source of new technology. The University will continue to encourage technological innovation and promote the use of sustainable building practices in the development industry.

(e) The University has a policy of designing current academic buildings to a LEED (Leadership in Energy and Environmental Design) standard.

### 4.7.10 Sustainable Building Rating System

The University is developing a sustainable building rating system for application within the neighbourhood. The rating system is based upon the "LEED" (Leadership in Energy and Environmental Design) system, customized for local conditions and the University situation.

Characteristics of the rating system are:

- Ratings will be based upon a point system.
- In order to qualify, projects must meet some initial criteria and other measures are optional (with points assigned).
- A minimum standard is being considered with rating levels that approximate those of "LEED."

The University is committeed to achieving building designs that reduce energy and water consumption and other aspects of refducing operating expenses over the life cycle of the building.

# 5.0 DEVELOPMENT CONTROLS

As described in section 1.2.1, the Neighbourhood Plan establishes a detailed land use plan for the North Campus Neighbourhood and contains criteria for evaluating all new development. The development controls described in this section give the general controls determined for this neighbourhood. Development Permits will be processed through the Institutional Development Process outlined in Chart 2 of Schedule 3 of the Memorandum of Understanding between the GVRD and UBC dated December 18, 2000.

## 5.1 Building Envelopes

Site boundaries for the North Campus are indicated on Plan P5.
Buildings currently located in the open space will be permitted to remain as 'legal non-conforming' structures. Structures below grade in the area designated Greenway would be permitted provided that this is consistent with cliff erosion mitigation principles. The table below shows the sites where future development can take place:

**TABLE 3: Net Site Area, Site Coverage, Building Height, INTERIM Net and Unused Development Potential**

| Site Description | NET INTERIM Site Area (ha) | Existing Floorspace ($m^2$) | Maximum Site Coverage | Maximum Height | NET INTERIM Maximum Development Potential $m^2$ | Unused Development Potential $m^2$ |
|---|---|---|---|---|---|---|
| NC 1 Green College (10 Structures) | 1.64 | 7,598 | 50% | 3 storeys | 24,600 | 17,002 |
| NC 2 Mary Bollert | 0.67 | 1,382 | 35% | 3 storeys | 7,035 | 5,653 |
| NC 3 ANSO (4 structures on Anne Wesbrook site) | 1.38 | 5,717 | 50% | 3 storeys | 20,700 | 14,983 |
| NC 4 Museum of Anthropology | 3.77 | 7,653 | 50% | 3 storeys | 56,550 | 48,897 |
| NC 5 Mackenzie House | 1.38 | 962 | 15% | 3 storeys | 6,210 | 5,248 |
| **TOTAL** | | **23,312** | **-** | **-** | **115,095** | **91,783** |

The overall height for sites NC 1, NC 2 and NC 3 in the North Campus neighbourhood will respect the findings of a view corridor study to be reviewed by Campus & Community Planning, the University Architect and University Landscape Architect as part of the Open Space Program. The height maximums

shall consider views from the Main Campus across NW Marine Drive to the north and will respect users of the neighbouring Pacific Spirit Regional Park.

## 5.2 Setbacks

The general cliff edge setback is established in policy by the Cliff Erosion Mitigation Plan together with the hydrogeological, geotechnical and cliff erosion assessment study. This cliff edge setback has been determined by an angle of 30 degrees from the horizontal, projected back from the toe-of-slope to the top-of-bank for new buildings. Specific setbacks for any given site will be established through the Development Permit process.

The cliff side setback has been augmented with an additional 8 metre Interim No-Build Zone, which is established under section 3.7.

# 6.0 INFRASTRUCTURE AND SERVICING

## 6.1 Overview

All services for North Campus neighbourhood are being designed in accordance with a campus-wide Master Servicing Plan (MSP), prepared in conjunction with UBC Utilities. The goal of the servicing plan is not only to service newly developing areas, but to rectify deficiencies and limitations of the current systems.

An additional consideration for the North Campus is the drainage management measures required to ensure cliff slope stability and protection of Pacific Spirit Regional Park.

## 6.2 Drainage

The North Campus local area is wholly within the north catchment drainage area. The north catchment area flows to the GVRD's spiral drain located near Cecil Green Park. A second outfall may be added to the north catchment area to alleviate current capacity problems. The Advisory Planning Committee is aware that a second outfall is proposed, which the University must seek full public input to site.

The North Campus local area is in the "no till" area defined in Figure 7 of the *Hydrogeological and Geotechnical Assessment of the Northwest Area UBC Campus* by Piteau Associates.

The following principles for onsite drainage works shall be followed in the North Campus local area:

- Infiltration will not be appropriate due to the water management measures required for cliff slope stability.

- All building foundation trenches in the North Campus neighbourhood shall be sealed and perimeter drainage directed to piped storm drains.
- Seepage control measures, including the installation of barriers to all new service trenches in the “no till” area are required.
- The onsite system within North Campus will be designed for a future recommended upgrade to accommodate the 200 year peak storm event.

Any works proposed within Pacific Spirit Regional Park must be approved by the GVRD Parks Committee and the GVRD Board. All works affecting the Burrard Inlet shoreline will be reviewed by the Burrard Inlet Environmental Action Program (BIEAP) through their coordinated environmental review process.

### 6.3 Sanitary Sewer

The onsite sanitary sewers to serve new buildings within North Campus will be connected to the existing discharge on Northwest Marine. Ultimately the sanitary system connects to the GVS&DD regional sewage facility on Iona Island.

A comprehensive strategy for upgrading of sanitary sewer mains has been prepared by consultants in conjunction with UBC Utilities, and is included in the MSP. Upgrades are required as development of CCP areas proceeds.

The proposed development in North Campus is not anticipated to trigger any upgrade requirements to either the GVS&DD interceptor sewers or within the City of Vancouver.

### 6.4 Water

The water distribution system for North Campus is being designed within the context of a campus-wide strategy for water distribution, included in the MSP. Water demands for all uses on the campus have been projected and a computer model analysis performed. A comprehensive program of water network

improvements is being implemented, but no particular upgrading is triggered by development of the North Campus neighbourhood.

# TABLE A

## *OVERALL FUTURE LAND USE and DENSITY CALCULATIONS*

### FOR THE NORTH CAMPUS NEIGHBOURHOOD LOCAL AREA

**Future Land Use**

| Institutional Development Area ($m^2$) | UBC Park and Trails ($m^2$) | Greenway ($m^2$) |
|---|---|---|
| **93,400** | **35,700** | **7,000** |
| Institutional Buildable Area (gross building area $m^2$) | | |
| **121,385** | | |

**NET Future Land Use with Interim No-Build Zone**

| Institutional Development Area[1] ($m^2$) | UBC Park and Trails ($m^2$) | Greenway ($m^2$) |
|---|---|---|
| **88,400** | **35,700** | **7,000** |
| Institutional Buildable Area ( gross building area $m^2$) | | |
| **115,095** | | |

## REFERENCES

**Reference materials for the North Campus Neighbourhood Plan:**

The following documents are available for viewing / download on the Internet:

*Hydrogeological and Geotechnical Assessment of the Northwest Area UBC Campus (Sept 2002)*
http://www.planning.ubc.ca/corebus/pdfs/pdf-infrastructure/HydroGeoStudy.pdf

*The Memorandum of Understanding between GVRD and UBC (December 2000)*
http://www.planning.ubc.ca/corebus/mou.html and
http://www.planning.ubc.ca/pdfs/New_Final_MOU.pdf

*Official Community Plan for Part of Electoral Area 'A'*
http://www.planning.ubc.ca/corebus/ocp.html and
http://www.planning.ubc.ca/corebus/pdfs/pdf-landuse/OCP_UBC_Jan03.pdf

*UBC Comprehensive Community Plan*
http://www.planning.ubc.ca/corebus/ccp.html

*UBC Landscape Plan*
http://www.uala.ubc.ca/urbdesign.html

The following documents are presently available as C&CP reference copies only:

*Master Servicing Plan (MSP)*

*Comprehensive Hydrogeological and Cliff Erosion Assessment of Point Grey (June 2004)*

*UBC/Pacific Spirit Regional Park Cliff Erosion Mitigation Plan (Jan 9, 2002)*

## APPENDIX A

## GLOSSARY for the North Campus Neighbourhood Plan

**Accessible**

Planning and design of the built environment that removes barriers for persons with disabilities.

**Complete community**

Urban development that is fiscally, environmentally and socially responsible by meeting the needs of people to live, work and play in place.

**Comprehensive Community Plan (October 2000)**

An ancillary document to the OCP that interprets the policies and objectives of the OCP as a framework for development approval for all eight local areas identified in the OCP.

**Comprehensive Hydrogeological and Cliff Erosion Assessment of Point Grey (June 2004)**

A study by Sandwell, Piteau Associates and Trow Engineering consultants augmenting the Hydrogeological and Geothechnical Assessment (Sept 2002) to secure compliance with OCP Policy 4.1.8 (b) for a hydrogeological study.

**Crime Prevention through Environmental Design (CPTED)**

A set of design principles that aim to reduce the opportunity for specific crimes to occur by changing and managing the physical environment to produce desired behavioural effects.

**Faculty/Staff Rental Housing**

Non-institutional rental housing for full-time, permanent faculty and staff members within the eight local areas.

**Green roofs**

Roof systems that provide access and enable plant propagation to achieve environmental objectives and provide community social space.

**Greenway**

A component of the campus street grid that provides meaningful greenspace in addition to being a pedestrian and bicycle corridor.

**Hydrogeological and Geotechnical Assessment of the Northwest Area UBC Campus (September 2002)**

A study by Piteau Associates consultants that assessed the development potential of the northwest area of UBC, including North Campus, based on

scientifically based information with minimal risk of exacerbating the existing nearby cliff slope instability due to hydrogeological conditions and seismic disturbance.

**Institutional development**

Development initiated by academic faculties, departments and schools, ancillaries, and other third party groups associated with UBC on its academic mission.

**Interim No-Build Zone**

A precautionary 8 metre corridor to increase the cliff edge setback calculated on the 30 degree angle of repose to allow monitoring of the permanence of the toe-of-slope. Removal of the Interim No-Build zone is subject to three prior to conditions.

**Leadership in Energy and Environmental Design (LEED)**

A green building rating system developed by the U.S. Green Building Council that is a voluntary, consensus-based U.S. standard for developing high-performance, sustainable buildings.

**Master Servicing Plan (MSP)**

Storm water and sanitary sewer servicing documents for the University lands. The University of British Columbia owns and operates its own water distribution system and UBC Utilities is primarily responsible for operation, maintenance, and overall stewardship of the water distribution system

**Memorandum of Understanding (MOU)**

2000 agreement between UBC and the GVRD that documents the arrangements for the conduct of relations between the parties generally and in connection with the OCP, the CCP, and the Neighbourhood Plans. The MOU identifies processes and structures for neighbourhood planning and development review.

**Neighbourhood Plan**

A detailed land use plan, development controls, design guidelines, and servicing and transportation strategies, consistent with applicable portions of the OCP and CCP for one of the eight specific plan areas identified in the OCP.

**Non-institutional development**

Development other than that for the main academic mission of UBC (teaching, research, cultural expression, support facilities). Non-institutional development includes market housing, non-market housing other than student housing, and commercial developments generally intended for non-university users.

**Official Community Plan (July 1997)**

The Bylaw No. 840–1996 enacted by the Greater Vancouver Regional District (GVRD) sets objectives for land use and transportation, particularly in relation to non-institutional development. It is intended to achieve the common objectives of GVRD and UBC to implement the Livable Region strategic Plan and to sustain UBC's main mission and responsibility as a leading educational institution. The OCP will guide future decision-making towards creation of a unique university community.

**Open Space**

Land or water area that remains in its natural state or is otherwise essentially undeveloped. Open space provides protection for areas of particular scenic beauty, promotes the natural ecology of the area and can enhances public safety through the minimization of flood erosion, landslide and earthquake hazards.

**Open Space Program**

To protect, enhance, appreciate and enjoy the open space in North Campus, Campus & Community Planning, the University Architect and University Landscape Architect will undertake an open space program. This will be a document that makes recommendations to protect and restore the natural environment, and provide opportunities for ecologically sensitive public enjoyment and education based on identification of significant features, opportunities and constraints.

**Passive Recreation**

Activities such as walking, resting and observing nature that are not organized and do not require pre-determined recreational infrastructure.

**Public Realm**

Places and spaces with unrestricted access to people for passage and interaction that, ideally, are designed to facilitate a broader understanding between individuals.

**Storm Drain**

Underground pipes that convey surface drainage from areas where water cannot penetrate through the soil, such as areas with paved surfaces, off site usually to a river or reservoir. Storm drains form a subterranean network with attributes based on the attributes of a catchment area.

**UBC Landscape Plan (September 2001)**

The document to guide and direct the stewardship of the University landscape – its integrative planning, design, development, renovation and maintenance – in keeping with, and in fulfilment of, UBC's primary visions, principles and strategies.

**UBC/Pacific Spirit Regional Park Cliff Erosion Mitigation Plan (Jan. 9, 2002)**

The document that sets out a comprehensive program of action to address the erosion of the Point Grey cliffs, which affect University assets. The cliffs are located in Pacific Spirit Regional Park and the cliff edge generally coincides with the north and western boundary of the North Campus local area. Adopted by the UBC Board of Governors in November 2003 and by the GVRD Board of Directors in May 2004.

**View Corridor**

The line of sight (identified as to height, width and distance) of an observer looking toward an object of significance to the community (e.g. mountainscape, ocean view, historic building, etc.)

## LIST OF PLANS