

NORTH ISLAND



COLLEGE



COMOX VALLEY CAMPUS MASTER PLAN 2013

APRIL 5, 2013



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1 PURPOSE

Since the original campus development, the master plan has evolved as planning projections and priorities have changed. A 1999 review provided a set of strategies to guide the future development of the campus with recommendations governing siting of future buildings and other improvements which were integrated into the 2001 Master Site Plan.

With the adoption of a 2011-2015 Strategic Plan, the College initiated a consultative process to review and revise the Comox Valley Master Plan to reflect the current vision for the future and incorporate the planning implications of a hospital located on a site adjoining the campus.

The Master Plan is a key planning tool to articulate the vision for North Island College campus development for the future and to provide guidance for the built environment that reflects the vision. The Master Plan indicates preferred land use patterns, circulation, open space and approximate building sites. The Master Plan is intended to inform decisions on campus development for decision makers while serving as a guide with flexibility for refinement in response to specific requirements of individual projects.



2 OVERVIEW [History & Context]

Originally constructed in 1991, the North Island College Comox Valley Campus is a “campus in the woods” with forest trees within and outside the site. From its inception the campus has been a place with compelling natural beauty. As the College grows and needs change it is important to ensure this beauty is maintained and enhanced.

The primary planning axes are at 45° to the adjacent roads, Ryan Road, which provides access to the main campus entry and Lerwick Road, which provides secondary access. The campus core, the centre of academic and student activity, is located at the geographical centre of the campus, with road access and parking located at the edges of the site within a short walking distance of the pedestrian only central portion of the campus. A key element at the heart of the campus is the large courtyard off the main entry from Ryan Road which serves as the formal College presence along Ryan Road and provides an assembly space for major gatherings. This successful open space provides an opportunity for further enhancement to accommodate a range of major events.

Originally the site was 66 acres, with approximately 560m length on each side, was thickly forested and considered quite distant from the centres of commerce. Since the original construction the College has leased a 4.39 acre portion of it's site to the Comox Valley Regional District for the Aquatic Centre and has sold 11 acres of land to the Vancouver Island Health Authority for a new hospital. The remaining North Island College Comox Valley Campus is 50.61 acres. The original four buildings were sited roughly in the centre of the site. During the original construction measures were taken to retain forest cover in all areas that were not occupied by either roads, parking or buildings. The forest fringes within the campus are one of the unique landscape features of this campus.

The Campus has experienced growth with new buildings since 1991 to include the Tye Hall, the Shadbolt Studios, Trade Centre, Beaufort Child Centre and introduction of the Village Complex portables for temporary use to accommodate growth. With the improved road, airport connections, new facilities and institutions, as

well as commercial and residential growth in the area the North Island College Comox Valley Campus has become a major focal point in a more urban setting.

Buildings on campus are generally two storeys with exterior wood finishes with the exception of the Trades Building which is concrete masonry. Sloped roofs are a predominant feature on campus buildings. The character, scale and qualities of the existing campus are seen by students, faculty and staff to be very important and to be retained as the campus is developed. The site area is limited so any future development must be efficient and compact to maintain the potential for growth into the future while preserving the forest landscape.

The 2013 master plan provides guidance for decisions on future development on the North Island College Campus. Recommended building siting, circulation, linkages, and design guidelines establish the proposed pattern for development of the campus and connection to its surroundings.





3 PLANNING PROCESS

The planning process for the Master Plan Update began in February 2012 as a consultative process with the intention of involving a broad representation of stakeholders.

The initial phase involved the North Island College Senior Leadership Team as well as members of the Senior Education Team, the Building and Space Planning Committee, and Environmental Sustainability Team and during which a visioning process produced the Planning Principles which have guided the development of the draft Master Plan and Design Guidelines.

The second phase will engaged students, faculty and staff at the campus and the Board of Governors in further consultation for input and response to the draft plan.

Concurrently, the community was given an opportunity for comment on the plan. The final draft, reflecting the outcome of the wider consultation, was presented to the Board of Govenors for approval.



4 PLANNING PRINCIPLES

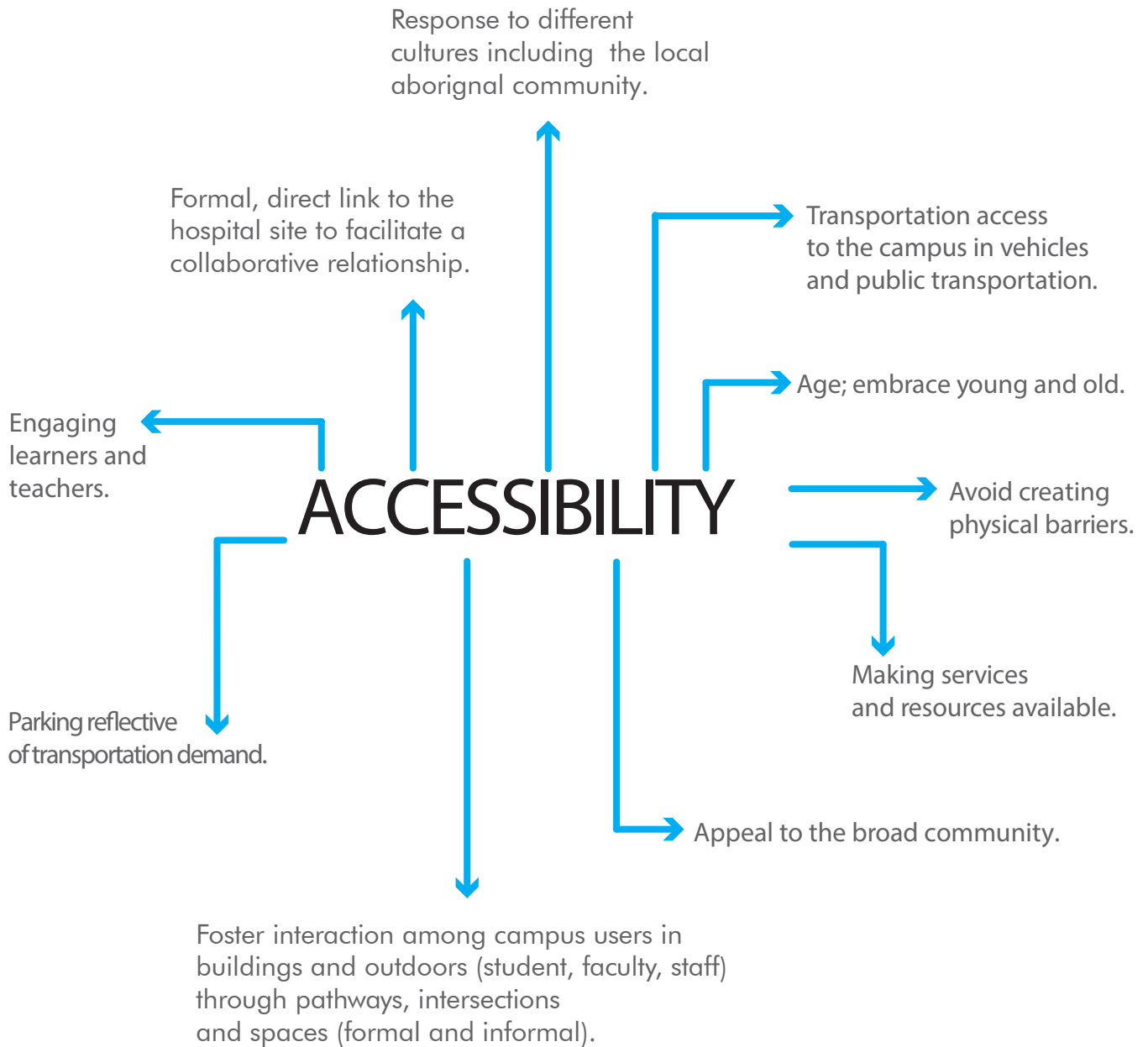
Although the North Island College Comox Valley Campus is well established with many positive aspects it was important to formulate principles that reflect current College thinking and apply them to the existing master plan to inform the updated version. The principles provide guidance in implementing a plan that addresses current needs and growth in the future.

4.1 A key quality of the Campus is its connection to the natural landscape. Planning and design for the campus should reinforce and enhance this connection to the natural environment through site landscaping, design of exterior spaces and creating strong indoor outdoor relationships for buildings. Courtyards as “outdoor rooms” and maintaining the transition forest and undergrowth on the site are a key to achieving the quality of the campus.

4.2 The College has a limited land base. In the interest of protecting the natural landscape, retaining the campus ambience and maintaining an appropriate balance between built and natural, increased density with taller structures should be considered as the student population grows.



4.3 Accessibility must be provided to include a broad interpretation to facilitate access to North Island College for all users and visitors.



- 4.4 Social and working relationships are an important aspect of campus life. The Master Plan should provide spaces for interactions and bringing people together. Planning and programming that cluster administrators with college program people and facilitate preferred proximities will promote collegiality and create efficient working relationships.



- 4.5 A college campus must have a “heart” which defines a centre of activity and focal point for gathering and group campus activities. The “heart” will be established by building configurations, open space and the activities within the buildings to create a centre of convergence for the campus. By bringing buildings close together into clusters their relationships will reinforce the centre of activity and create a “sense of place”.
- 4.6 The Campus should serve its students and the community well over the long term. Facilities over the life of a campus will need to respond to changes in teaching, learning needs, programs and space needs. A key goal must be to plan for flexibility to accommodate the inevitable change for classroom configurations, room sizes and technology advances.

- 4.7 As North Island College students move from other locations to attend the college, provision of on campus housing can provide convenient, safe accommodation and reduce dependence on transportation. A strategy should be established to provide on campus housing for students where possible.
- 4.8 The campus as a community resource and focal point will enhance opportunities to engage the community in education and college life. Activities directed at the broader community and special features such as a lecture and film series, symposia and a campus wide “living art gallery” of student work can attract the community to the campus.



- 4.9 Openness and transparency can provide a connectedness for the campus in which sight lines are created from the surrounding city streets to the campus and visual contact occurs between interior and exterior spaces on campus. Transparency creates a feeling of security through passive supervision and engages people with others around them. A visual connection to city streets brings the campus into a closer relationship with the surrounding community and will enhance North Island College’s presence.
- 4.10 Sustainability is critical for a healthy planet and NIC is committed to promoting sustainable thinking for the campus master plan. Establishing policy and introducing initiatives to achieve a practical sustainable campus is a high priority.



5 CAMPUS PLAN

5.1 Site Organization

The site plan from the initial construction established strong north-south and east west axes which define major site lines and circulation paths. This planning order creates a formal college presence that provides a strong formal entry, clear circulation routes within the campus and an efficient plan with a hierarchy of open spaces. The north-south orientation also provides optimum building siting to achieve effective solar control for sustainable building solutions.



Fig.1: Existing Plan

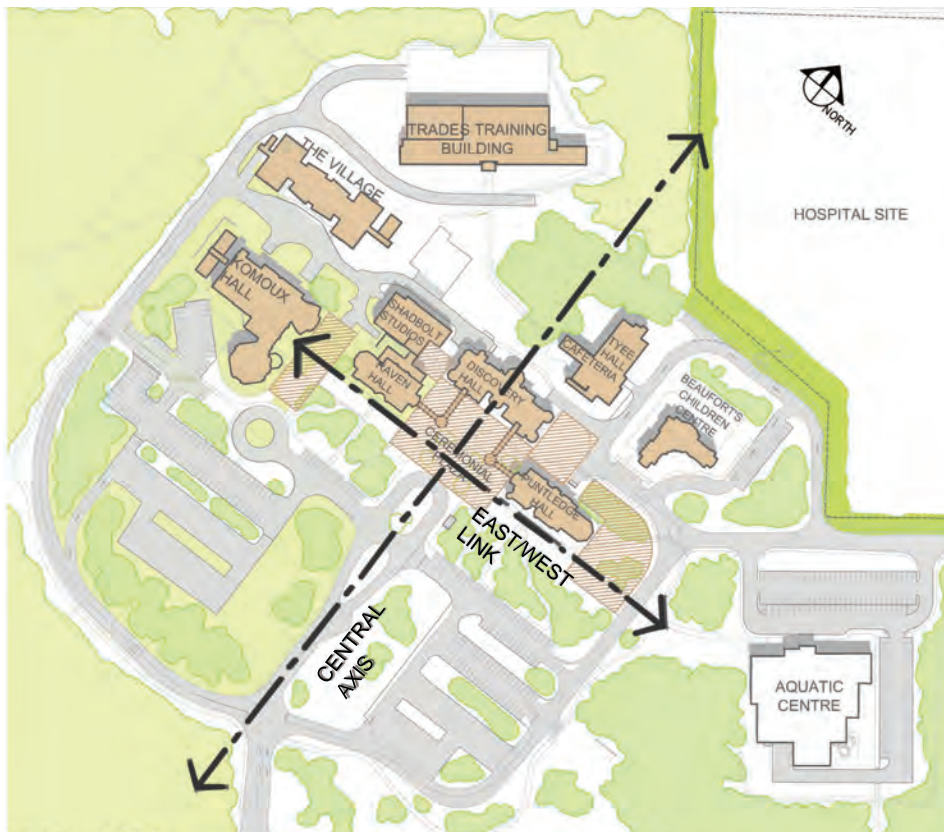


Fig.2: Axes Diagram

5.2 Site Services

Site services are generally configured in conformity with the existing campus grid pattern which will facilitate future growth with new buildings that are not in conflict with major services routes.

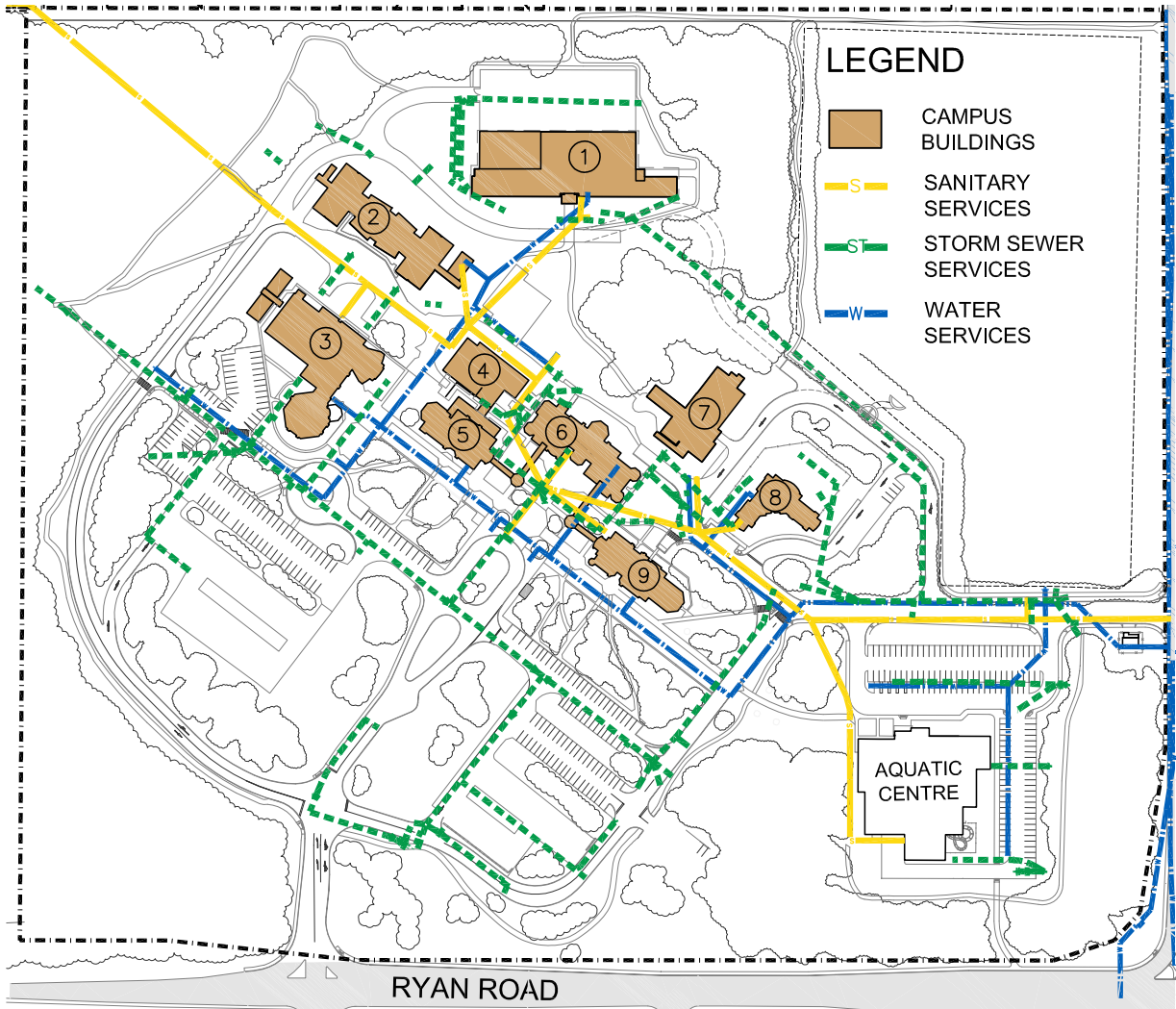
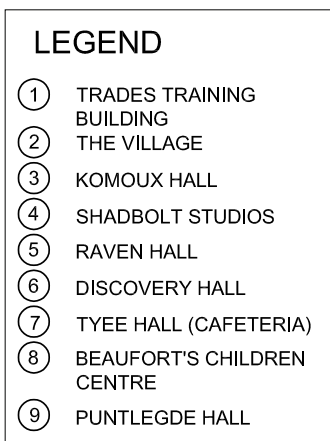


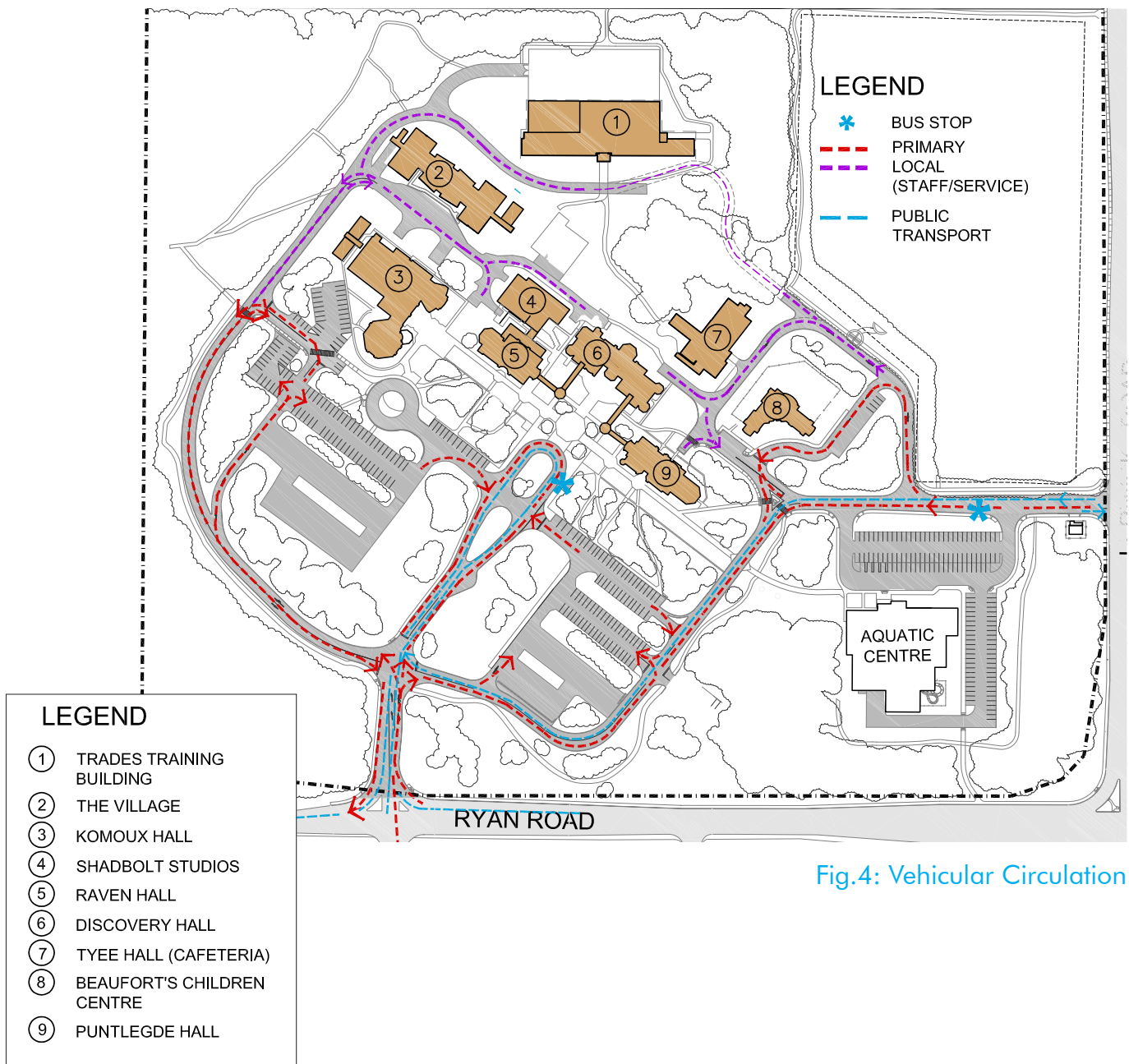
Fig.3: Site Services



5.3 Site Circulation

Access to and from the North Island College Campus with main entry from Ryan Road and secondary entry from Lerwick Road provides two routes for vehicles entering and leaving the campus. As the campus grows with increased traffic volume the Lerwick Road entrance may increase in importance for access to the campus. Vehicular circulation is separated from the main pedestrian circulation at the campus core with parking located on the perimeter of the campus.

There is opportunity to add new buildings while preserving a majority of existing parking. Alternate methods of parking management and transportation options such as car pooling, bicycles, pay parking and enhanced transit to reduce parking pressure and demand that offsets impact of the increased population as the campus grows are being explored by the college.





Parking for persons with disabilities is an essential component of the circulation strategy. Available parking spaces near buildings should be increased and improved with campus growth to ensure convenient access to buildings throughout the campus.

The perimeter road provides vehicular access at the edge of the campus and is currently not continuous around the site. The Master Plan proposes completion of the road to form a ring around the campus but to restrict access at the north end to service and emergency vehicles only, while preserving pedestrian only access in the core.

With vehicular circulation and parking limited to the NIC campus perimeter, pedestrian movement enjoys separated circulation through the site and among campus buildings. The main concourse provides a major east-west axis across the campus and provides an important opportunity for interaction among campus users and visitors. Existing and future circulation is illustrated in Figure 5,6 which include pathways that provide a walking route around the campus and connect with adjacent lands as part of the neighbourhood network.



- * BUS STOP
- PEDESTRIAN WALKWAYS/ SIDEWALKS BETWEEN BUILDINGS PARKING LOTS CONSISTING OF CONCRETE OR ASPHALT
- RECREATION OR PERIMETER PATHWAYS BARRIER FREE HARD SURFACE
- INFORMAL RECREATION OR PERIMETER PATHWAYS GRAVEL OR SOIL

LEGEND	
①	TRADES TRAINING BUILDING
②	THE VILLAGE
③	KOMOUX HALL
④	SHADBOLT STUDIOS
⑤	RAVEN HALL
⑥	DISCOVERY HALL
⑦	TYEE HALL (CAFETERIA)
⑧	BEAUFORT'S CHILDREN CENTRE
⑨	PUNTLEGDE HALL

Fig. 5: Existing Pedestrian Circulation



Fig.6: Future Pedestrian Circulation

5.4 Land Use Zones

The overall area of the campus is not large and the College's desire is to maintain an integrated teaching and learning zone that fosters interaction within the college community. The Land Use Zone diagram does not subdivide the teaching and learning zone into disciplines. The concept of multidisciplinary use, collaboration and shared teaching and learning space is emphasized by identifying a single teaching and learning zone.

Outside the teaching and learning zone other zones with related but distinct functions are identified to present a conceptual vision of organization of uses proposed on the site. Although support services are indicated on the location plan for Komoux Hall, some components will be located in other campus buildings to achieve proximities that best serve the College's need for communication and working relationships.

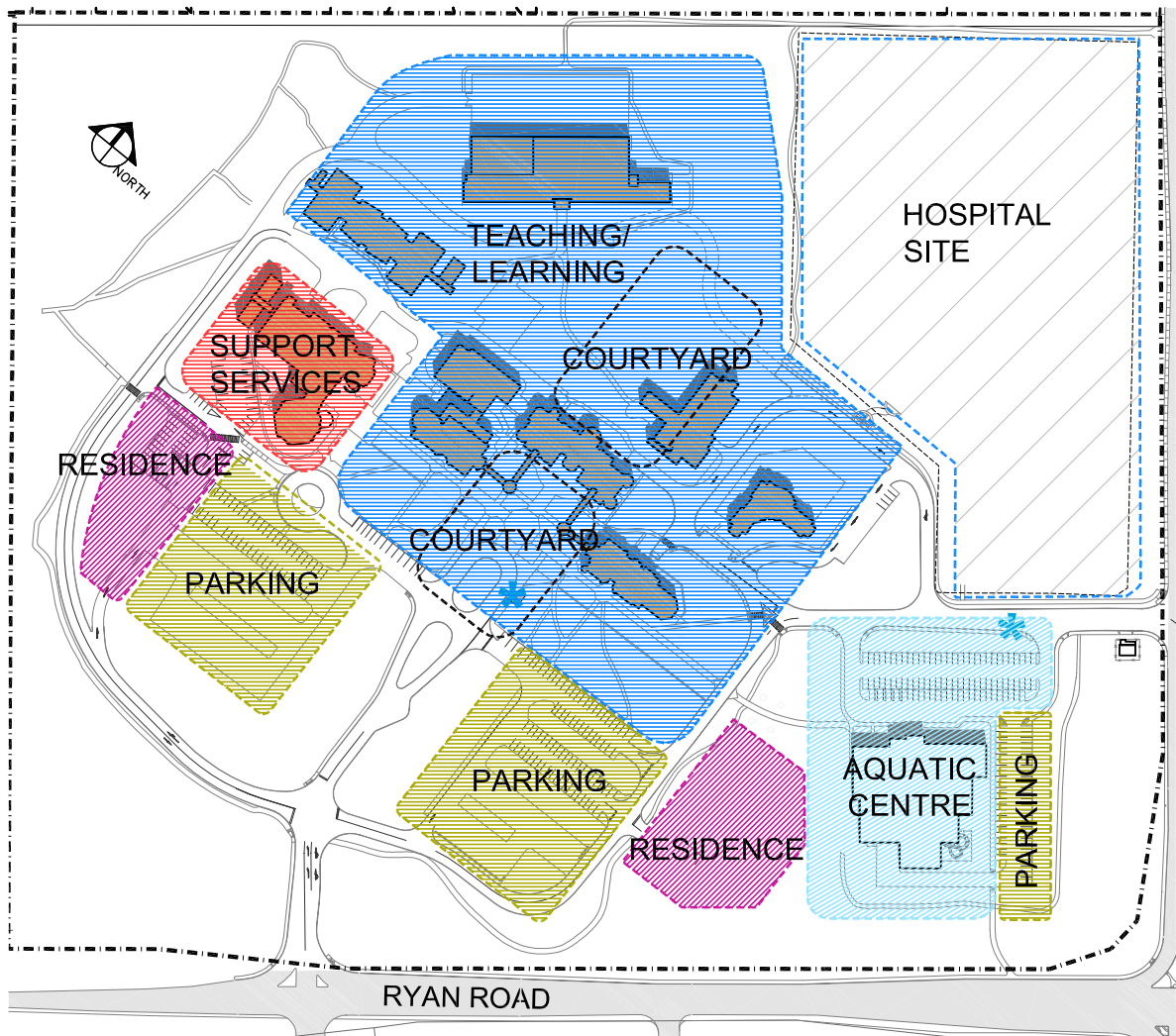


Fig.7: Land Use Zones

5.5 Plan for the Future

Most existing campus buildings are in close proximity to one another creating a concentration of activities which contribute to the vitality of the campus. Future growth will require new buildings. The Campus Plan builds on the existing relationships by locating future buildings on the original campus axes and in close proximity to the existing buildings further strengthening the centre of activity. The south Teaching/Learning buildings will reinforce the main east-west pedestrian mall and establish enclosure on the east and west sides of the entry courtyard. This space will provide a venue for large outdoor events and will provide a forecourt for the main entries to the buildings located on the edge of the courtyard.

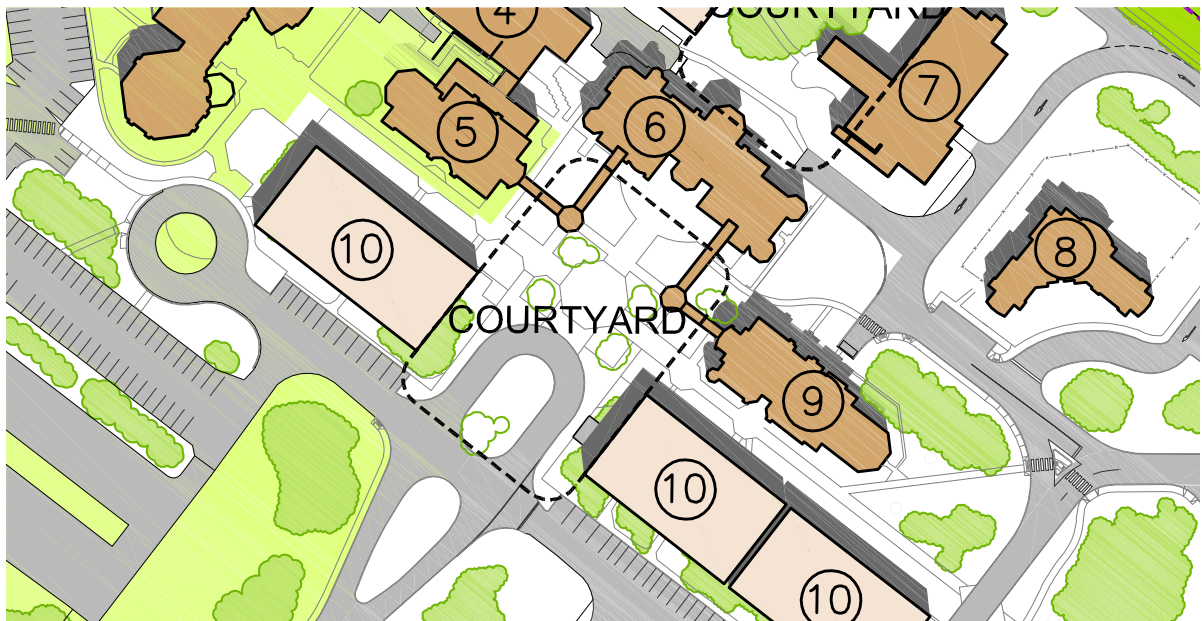


Fig.8

New buildings for Teaching and Learning will also be located to the north between Discovery Hall and the Trades Training Building. These buildings will form the edge of a large north informal courtyard and should provide transparent exterior walls and access into the courtyard to animate the space as well as create strong visual and physical indoor-outdoor relationships.





The cafeteria will have direct access and sightlines into the north courtyard which will encourage casual, informal interaction among campus users. A permanent replacement building for the Village portables complex will ideally be located adjacent to the courtyard with the vacated site being reserved for future needs. In the event the College proceeds with the student residences the plan identifies potential preferred locations that are within a short walking distance of the core and have easy access to the perimeter road.

At the present time the College does not have a gymnasium space. NIC is exploring the potential for gym related teaching programs and locating other complimentary programs in a future building.



Fig.9: Campus Plan

LEGEND	
①	TRADES TRAINING FACILITY
②	THE VILLAGE (REPLACED)
③	KOMOUX HALL
④	SHADBOLT STUDIOS
⑤	RAVEN HALL
⑥	DISCOVERY HALL
⑦	TYEE HALL (CAFETERIA)
⑧	BEAUFORT'S CHILDREN CENTRE
⑨	PUNTLEGDE HALL
⑩	FUTURE TEACHING/LEARNING
⑪	POTENTIAL RESIDENCES

	EXISTING CAMPUS BUILDINGS
	PROPOSED CAMPUS BUILDINGS
	TREE CANOPY
	HOSPITAL DEVELOPMENT

6 LANDSCAPE & OPEN SPACE

In 2006 a Campus Landscape review was prepared by Outlook Land Design Inc. The report makes reference to the importance of a quality landscape on a college campus. "The appearance of the landscape can directly affect how the campus and institution are perceived and that student decisions to attend a college can be influenced by the quality and appearance of the landscape."

Originally the site was thickly forested and retention has ensured forest fringes within the campus contributing a unique landscape feature that is a major element defining the campus experience.

The report identified several objectives for the campus:

- Retaining forested areas wherever possible and reforesting where appropriate and in particular preserving the campus' evergreen backdrop;
- Designating and protecting wildlife corridors;
- Preserving bird habitat;
- Featuring native plants wherever suitable;
- Practicing stormwater quality and quantity management;
- Encouraging alternative transportation modes by improving facilities for transit riders, walkers and bicyclists;
- Actively managing the forest resource to create and maintain desirable views, openings and sunny areas;
- Reducing air conditioning requirements by utilizing shade casting from trees (without impairing other functions of the building design).



Another recommendation was to reinforce the concept of a central common along the east-west axis from the west side of the campus to the Aquatic Centre which is an already established pedestrian corridor across the campus.

The suggested improvements included:

- Extension of central concourse extended to Aquatic Centre
- Incorporating and improving the treed fringe into the common by formalizing walkways and providing various aesthetic and functional improvements
- Creation of a courtyard meeting area adjacent the bus stop
- Providing for art installations, garden sculpture and short term displays
- Inclusion of miscellaneous improvements such as benches, directional signage, lighting and soft landscaping
- Provisions of a permanent gathering place/outdoor events area

The Master Plan supports the central commons concept as part of the planning strategy.

Further to the central commons the Master Plan includes an overall concept for open spaces and courtyards that are linked by the pedestrian circulation. These spaces are to be specifically designed as places that relate to the immediate context to provide outdoor spaces for people to enjoy from inside and outside buildings and are not “leftover” spaces between buildings.

A trail system was proposed in the Landscape report. The system is envisioned as a combination of paved walkways and loose surfaced trails connecting all the major points on and off campus. A trail system of 1500m or 1 mile is indicated in the drawings. The trail system will foster community interaction and will provide an outdoor recreational resource for the community. Good walking and cycling opportunities decrease reliance on automobiles reducing congestion and the need for parking. Refer to Figure 5.

Significant parking will be necessary for the foreseeable future. As the campus grows it will be important to study parking requirements with intention of reducing, where possible, as alternatives become available and if student housing is provided on the campus. Where parking is needed, initiatives to reduce large areas of parking into clusters with enhanced landscaping will contribute to a welcoming green campus setting.



7 IMAGE & COMMUNITY PRESENCE

A key principle in the College's strategic plan and confirmed during the visioning process was the College's relationship with the community as a resource, a focal point and place of interest. The strategic plan identifies specific directions focused on community engagement:

- "North Island College will work with our communities as an active partner, to increase opportunities for involvement and participation, and for proactively sharing resources for mutual benefit"
- "North Island College will strengthen and expand partnership opportunities with aboriginal and business communities and educational organizations locally and internationally to deliver outstanding results."
- "Working with our communities North Island College will explore new and innovative ways to effectively promote post secondary education throughout our region.

There is a strong desire to connect to the community by attracting people from the community to further their education and visit the campus as place to enjoy.

In addition to relevant course programming that meets community needs the College can increase its community presence through initiatives such as landscape enhancements, special events, display of student work.



8 DESIGN GUIDELINES

The planning principles provide guidance in formulating the overall site development strategy as illustrated in the master plan. The next step in implementing the principles is in the design guidelines that provide specific recommendations for North Island College and their designers to use in creating a campus environment reflecting these principles.

The following is a list of Design Guidelines related to size, shape and character:

8.1 Building Siting, Size, Shape and Character

A. SITE RESPONSES

Objective: Siting of buildings can contribute significantly to the College's ability to grow through efficient land use, to create desirable open space, to have year round access to precious sunlight for campus users.

- Buildings must be designed to consider future expansion.
- Building massing must consider solar orientation, and important indoor and outdoor public space to maximize solar exposure and view sight lines.
- Building massing must consider low winter sun angles and prevailing winter winds.
- Building and planting materials suited to Comox Valley climatic conditions should be used.
- Indoor activity spaces should be supported by adjacent outdoor spaces and allow for immediate connection and accessibility.
- Special buildings may act as landmarks to emphasize their relative importance and to provide points of orientation. Their architectural expression should reinforce this role.

B. MASSING: FORM, PROPORTION AND SCALE

Objective: The architecture of the Comox Valley Campus is unique and special. Through design initiatives incorporating interesting visual elements and use of varied massing, the campus will maintain its family of buildings, while creating identity for each building. Emphasis on the roof form expression conveys a comfortable scale and character on the campus.

- Articulation of exterior elements can contribute to the existing scale of the campus.
- A human architectural scale should be established by use of window patterns, recessed windows, changing materials and textures.
- Building forms should be an expression appropriate to their siting and function but also integrate into the aesthetic of the existing campus buildings.
- Building façades should be detailed to present a front of buildings appearance on all sides including windows, cladding and roof elements.

C. CIRCULATION



Objective: An essential component on the campus is its interconnectedness through the circulation system. Pathways should bring people together and promote interaction. Where possible, weather protection should be provided.

- Building design should reinforce pedestrian routes, both through buildings or adjacent to buildings, and should provide protection from the weather wherever possible through the use of canopies, colonnades, or pergolas.
- Connections to buildings should present a direct, “front door” entry experience.
- As the college grows, a focus on establishing pathways where people cross paths will enhance connectedness and interaction in the university community as a whole.

D. UNIVERSAL ACCESSIBILITY

Objective: Universal access on the Campus is a fundamental requirement to achieve equality for all users.

- All buildings and associated public spaces should provide universal and non-segregated access for the physically challenged, and those with other special needs.

E. ENTRANCES

Objective: Well designed entrances provide orientation and enhance wayfinding for users. Entrances should also establish an indoor-outdoor relationship engaging the building with its surroundings and providing identity for each building.

- Building entrances should be transparent and multi-storied where possible, encouraging entry and creating an inviting entry experience.
- All major building entrances should be well defined, prominent, and should relate directly to major open spaces and circulation routes.
- Entrances should establish identity for each building.
- Building entrances should celebrate the transition from exterior space to interior space both spatially and symbolically.



F. SIGNAGE

Objective: Buildings and entrances should have well positioned and lit signs that provide orientation for users.

- Signage should use local and natural materials and College colours.

G. Building Height

Objective: The existing campus enjoys abundant sunlight penetration and a desirable human scale between buildings. Appropriate consideration of building heights will preserve existing daylighting and scale while introducing up to 4 storeys on the campus to optimize land use density.

- Building height should be limited to 4 maximum storeys on the north campus side and 2 maximum storeys on the south campus side.

H. ROOF FORMS

Objective: Roof forms can establish identity for a building, provide visual interest and afford weather protection. Roof forms and lines should visually and physically relate to existing campus buildings.

- Roof forms should be considered an important element in the composition of a building form. Roof elements such as vertical roof shafts, skylights, elevators, stairwells and mechanical penthouses can figure as important elements in the rhythmic composition of the roof surfaces.
- Eave and cornice lines should relate to those of adjacent buildings.
- Roof forms and shapes should be expressive, but also responsive to climatic conditions of snow accumulation, freezing and thawing cycles. Overhanging pitched roofs are an important element of the Campus architectural expression and inclusion of these elements is encouraged for new buildings.



I. WINDOWS/TRANSPARENCY

Objective: Windows provide the opportunity to capture views from inside but also should establish visual transparency to not only have sight lines to the outside, but also to engage those looking in with the activities and people in the buildings.

- The use of glass should optimize views, natural light, comfort, energy efficiency and cost.
- Windows and openings should relate directly to outdoor open space and maximize short, middle and long-range views and vistas.
- At the base level, windows and doors should be recessed to express the depth of the wall material as well as for a climatic response.
- At the base level, glass should be clear to create transparency for building occupants viewing to the outside and for those viewing from outside to inside, but should be sensitive to solar heat gain concerns. Glass above the base may be clear or tinted.



J. NIGHTTIME ILLUMINATION

Objective: Careful use of lighting can enhance the perception of the Campus at night by highlighting special elements and providing visual access to interior public areas. Illumination for safety indoors and outdoors should be a high priority. Energy conservation must be a key consideration in the selection of lighting.

- Night Aspect-general illumination should be planned for aesthetic effect as well as to facilitate nighttime way finding and security. Pools of light at entries can be created using downlights under overhangs. In addition, interiors can be lit at night expressing transparency, and spilling light to illuminate walkways and entries.
- General nighttime illumination should also contribute to the definition of open spaces and complement both the architectural and landscaping concept of the campus.
- Avoid creating glare or spillage of light to surrounding areas and the night sky.



8.2 Exterior and Interior Materials and Colour

A. MATERIALS

Objective: Materials and colours are key elements that distinguish the Comox Valley Campus. Emphasis on local and natural materials contributes to the North Island College image and references to local colour further unify the campus with its context. Consistency of materials and how they are used in buildings contribute to the continuity and unique feel of the Campus.

- Building materials should reflect a sense of permanence and quality. They should reinforce the desired cohesive nature of the campus.
- The use of indigenous materials such as wood is encouraged.
- The expression of wood is appropriate both structurally, and in heavy timber post and beam, and through the use of interior finishes and components. Wood use in an exterior exposure should be sensitive to long term maintenance and durability concerns.
- Preferred exterior applications should be in protected and covered areas.
- Limited use of masonry, metal panels, glass, steel and aluminum are acceptable but must be complementary with other campus buildings and their design vocabulary.
- Thermal bridging is to be avoided to reduce heat loss and improve energy performance.



B. COLOUR

Objective: Colour plays an important role in architectural expression and can be used symbolically to suggest a building's function as well as for community image.

- Incorporate the college's official colours where appropriate to reinforce the NIC identity.
- The choice of colour should be expressive of the colour found in the flora of the region and in the quality of the sky and forest during different times of the day and different times of the year.
- Colours that create a warm ambiance should be considered for use as accents.
- Colour may be used to accent windows and door entries, skylights and glass wall framing systems, spandrel panels, metal columns, building fixtures such as railings.

8.3 Interaction Spaces

North Island College is a place for teaching and learning which occurs formally and informally throughout the campus. Planning and design can facilitate spontaneous interaction among faculty, students and staff to promote a creative teaching and learning environment. The College is committed to fostering interaction through provision of interior and outdoor spaces of varied sizes, from smaller alcoves to larger gathering areas, to create a spirit of interaction of people on the campus.

At the time functional space programs are developed, interaction spaces should be included as essential teaching and support space where booked and spontaneous meetings can occur.

It is natural and beneficial for enclaves of similar interest to emerge as the college grows. Both within enclaves and on a campus wide basis, a priority must be placed on design that promotes opportunities for interaction.



9 SUSTAINABLE PRACTICES

The College is committed to sustainable practices in the development and operation of its campuses through environmental, economic and social best practices. Although specific guidelines are provided, it is expected that creative and practical approaches reflecting the current “state of the art” and the circumstances of a particular project will be considered. Individual projects will present special opportunities that should be explored.

All design and development proposals require a sustainability report to be submitted outlining proposed sustainable measures.

9.1 Environmental

Objective: Minimize the impact of campus facilities on the environment through creative solutions that do not compromise the functionality of those facilities.

A. SITE

- Buildings and structures should be sited to provide optimum orientation for solar control and gaining benefit from solar energy where possible.
- Design of buildings should strive for efficient land use through efficient planning and minimizing the building footprint.
- Erosion and sediment control should be implemented to avoid siltation of storm sewers and to reduce disturbance to the campus.
- Minimize “heat island” surfaces on grade and on roofs of structures.
- Landscape material should be indigenous drought tolerant varieties to avoid invasive plants and high maintenance.

B. WATER

- Implement design solutions that conserve water, through plumbing fixture selection and in providing water conserving methods for process requirements.
- Explore opportunities for water reuse (eg. rainwater, research programs that use large quantities of water and other grey water options).
- Incorporate storm water management strategies that complement the Campus Storm Water Management Plan.



C. ENERGY AND ATMOSPHERE

- Concepts and systems should strive to achieve a high level of energy efficiency and performance through choices in HVAC systems and lighting equipment. Heat recovery systems should be considered for all projects.
- Incorporate opportunities for implementation of passive approaches to energy efficient design.
- Incorporate renewable energy opportunities that minimize greenhouse gases.
- Select equipment and processes that minimize emissions harmful to the atmosphere.
- Provide bicycle parking and shower/change facilities for all new buildings and consider retrofitting old buildings.
- Exterior exposed building perimeters should be carefully considered to minimize energy impacts.
- An integrated approach with all disciplines should be used to achieve holistic design solutions.
- Implement a “less is more” approach to buildings and their systems where consideration is given to exploring options for reducing to what is required to provide a quality, functional building.
- Design solutions should consider long term operating impact on energy and atmosphere and provision of metering to report regular operational.

D. MATERIALS AND RESOURCES

- All construction projects should employ a construction waste management program including waste separation and recycling.
- Incorporate opportunities for recycled materials and recycled content in construction projects.
- Select materials and products from within the region where practical.
- Incorporate natural materials such as wood, stone and masonry where appropriate.
- Durability and maintenance considerations of products and materials should be a high priority in the manner they are used and the actual products.
- Design of facilities should include provision for the College's waste management system.
- When considering space needs, the College should explore opportunities for renovation and reuse in lieu of new construction.

E. INDOOR ENVIRONMENT

- Incorporate low emitting materials for adhesives, sealants, paints, flooring and manufactured wood products.
- Provide monitoring of carbon dioxide and indoor airflow.
- Strive to achieve an even distribution of temperature within rooms and hallways.
- Make provision for maximizing access to natural light for users and depth of light penetration into the interior spaces.
- Design space for comfort and spatial quality that avoids trendy materials and colours. Enduring solutions will result in space that is suitable for long life usability.
- Space planning and building design should strive to achieve maximum flexibility over the life of a building, thus minimizing cost, disruption and potential for waste and extensive construction from change.