

MASTER DEVELOPMENT AGREEMENT

THIS AGREEMENT dated for reference the 17th day of January, 2008.

AMONG:

THE CORPORATION OF THE CITY OF VICTORIA

#1 Centennial Square
Victoria, B.C. V8W 1P6

(the "City")

OF THE FIRST PART

AND:

VANCOUVER ISLAND HEALTH AUTHORITY

1952 Bay Street
Victoria, B.C. V8R 1J8

("VIHA")

OF THE SECOND PART

WHEREAS:

- A. VIHA is the registered owner in fee-simple of lands in the City of Victoria, British Columbia legally described as:
- PID 023-646-438
Lot A, Sections 25 and 76, Victoria District, Plan VIP64472, Except Part in Plan VIP69172
- B. For certainty, this Master Development Agreement applies only to those areas of the land described in paragraph A that lie within the boundaries of the City of Victoria, as shown on the site plan attached to this Agreement as Schedule "A" (the "**Site Plan**"), and for the purposes of this Agreement such portions of the land are referred to as the "**Land**";
- C. VIHA proposes to construct a new hospital facility on the Land (the "**Patient Care Centre**") and for that purpose has made an application to the City to rezone the Land to increase the permitted density and height of development upon the Land, as set out in the draft City of Victoria Zoning Regulation Bylaw, Amendment Bylaw No. 08-004, a copy of which is attached as Schedule "B" (the "**Rezoning Bylaw**");
- D. The City and VIHA wish to set out in this Agreement VIHA's obligations and commitments in relation to the following aspects of the development of the

Patient Care Centre and certain other matters relating to or connected with the Patient Care Centre:

- (a) street and sidewalk improvements;
 - (b) transportation demand management, and a neighbourhood parking management and enforcement plan;
 - (c) on-site and off-site servicing;
 - (d) public access;
 - (e) public amenities (community meeting space);
 - (f) tree protection and maintenance;
 - (g) protection of green space;
 - (h) LEED® Gold Certification for the Patient Care Centre; and
 - (i) heritage preservation.
- E. VIHA is engaged in the process of receiving and evaluating proposals from private sector entities (collectively the "**Proponents**") for the design and construction of the Patient Care Centre for the purpose of selecting Project Co (the "**Development Procurement Process**"). For the purpose of better defining VIHA's requirements for the Patient Care Centre, VIHA has consulted with the surrounding community and has produced a set of design requirements (the "**Design Requirements**"), that are attached to this Master Development Agreement as Schedule "C". VIHA has agreed to engage in a design review process with the City with respect to the design of the Patient Care Centre (as that design is to be determined through the Development Procurement Process) and the design review process that VIHA has agreed to engage in with the City is described in this Master Development Agreement.
- F. VIHA has further agreed to enter into a "Good Neighbour Agreement" with respect to its development and use of the Land, and to produce a Master Plan for the future development of the Land, all as described in this Master Development Agreement.
- G. The parties wish to set out in this Master Development Agreement the obligations of VIHA with respect to the development of the Patient Care Centre.

IN CONSIDERATION of the mutual promises exchanged herein, and for other good and valuable consideration, the sufficiency of which is hereby acknowledged, the City and VIHA agree as follows:

1.0 INTERPRETATION

1.1 In this Agreement,

- (a) **"Building Permit"** means a building permit issued by the City for or in respect of the Patient Care Centre, other than a permit that authorizes only excavation, or the construction of footings or foundations, or the construction of the structure or shell of the building;
- (b) **"Final Design"** means the final design of the Patient Care Centre, as selected by VIHA through the Design Procurement Process, and as provided to the City under section 2.4 of this Master Development Agreement;
- (c) **"Project Co"** means the person or entity that enters into a contract with VIHA following upon the Design Procurement Process, to (among other things) design and construct the Patient Care Centre.

1.2 Schedules

- Schedule "A" - Site Plan
- Schedule "B" - City of Victoria Zoning Regulation Bylaw, Amendment Bylaw No. 08-004
- Schedule "C" - Design Requirements
- Schedule "D" - Conceptual Site Servicing Plan
- Schedule "E" - Statutory Right of Way (standard form)
- Schedule "F" - Statutory Right of Way (Fort Street)
- Schedule "G" - Sewer Connection Report
- Schedule "H" - Tree Protection Plan
- Schedule "I" - Open Space Plan
- Schedule "J" - Section 219 Restrictive Covenant
- Schedule "K" - Approval Matrix

- 1.3 Unless expressly provided otherwise herein, expressions or terms in this Agreement that are defined expressions or terms under the City's Zoning Regulation Bylaw No. 80-159 (the **"Zoning Bylaw"**) shall have the same meaning as under the Zoning Bylaw.

- 1.4 The preamble hereto shall form an integral part of this Agreement.

2.0 DESIGN REVIEW

- 2.1 VIHA covenants and agrees that the Design Requirements have been incorporated as a design specification in the Development Procurement Process, and that VIHA will take account of any non-compliance with the Design Requirements in evaluating the submission of each Proponent.

- 2.2 VIHA covenants and agrees that the members of the City's Advisory Design Panel will be invited to attend a presentation by each of the Proponents participating in the Design Procurement Process concerning that Proponent's design submission on a confidential basis (which may include the requirement for execution of a confidentiality agreement by each member of the Advisory Design Panel and confirmation by each member of the Advisory Design Panel that they are not in a conflict of interest position in relation to any of the Proponents). The members of the Advisory Design Panel participating in the process referred to herein shall then be asked as a group to determine in their judgment whether each design submission complies with the Design Requirements. If the participating members of the Advisory Design Panel are of the opinion that a particular design submission does not comply with the Design Requirements, they may provide comment as to what modifications, if any, would enhance compliance with the Design Requirements. VIHA must provide the Advisory Design Panel's evaluation of each design submission to VIHA's evaluation committee. To the extent permitted under the Development Procurement Process, VIHA's evaluation committee shall take into account the Advisory Design Panel's evaluation and comments as part of that committee's assessment of each design submission.
- 2.3 For certainty, the members of the City's Advisory Design Panel who participate in the design review process referred to in section 2.2 shall not be considered to be sitting as an official meeting of the Advisory Design Panel, and the usual rules regarding quorum and procedure of the Advisory Design Panel shall not apply to their participation in the design review process contemplated herein.
- 2.4 VIHA covenants and agrees to provide the City with the Final Design of the Patient Care Centre upon VIHA's final selection of that design through the Development Procurement Process.
- 2.5 VIHA agrees that any comments provided by the Advisory Design Panel under section 2.2 are for the purpose of providing for a limited form of independent, third party review of the design submissions out of respect for the interests of the City and its residents, and in particular with regard to the design, planning and land use issues that concern the City and its residents. The members of the Advisory Design Panel shall owe no legal duty of care to VIHA in relation to their review of or comment on the design submissions, and VIHA covenants and agrees that it shall place no reliance on the comments or views of the Advisory Design Panel in determining the extent to which any design submission complies with the Design Requirements.
- 3.0 DESIGN COMMITMENT**
- 3.1 VIHA covenants and agrees that it shall not apply for a Building Permit for the Patient Care Centre, and that it shall take no legal proceedings to compel the

issuance of a Building Permit, unless the Building Permit application and all drawings and specifications in connection with that application, substantially conform to the Final Design of the Patient Care Centre as provided to the City under section 2.4 of this Master Development Agreement.

- 3.2 VIHA further covenants and agrees that it shall not make or approve any Substantial Changes to the Final Design of that Patient Care Centre, and that it shall not make or approve any Substantial Changes to the Patient Care Centre during the course of construction, unless those Substantial Changes are first approved in writing by the City's Director of Planning and Development, acting reasonably.
- 3.3 For the purpose of this Agreement, a "Substantial Change" means a change or modification to the massing, height, form, material finish or appearance, of the exterior of the Patient Care Centre, including landscaping, other than:
 - (a) an enhancement or upgrading of a component of the Patient Care Centre, the primary purpose of which is to directly improve patient health or safety;
 - (b) modifications to the Patient Care Centre that are reasonably necessary for the purpose of achieving LEED® Gold Certification.
- 3.4 Upon applying for an occupancy permit for the Patient Care Centre, VIHA covenants and agrees to provide the City with security, by way of a bond issued by a surety licensed in the Province of British Columbia, or a letter of credit issued by a chartered bank or other major financial institution, in a form approved by the Director of Planning and Development, and in an amount equivalent to one hundred (100%) percent of the estimated cost of completing any landscaping work shown in the Final Design of the Patient Care Centre that is not completed as of the date of the application. In order to obtain the release of that security by the City, VIHA must submit a letter prepared by a registered landscape architect certifying that the landscaping work has been completed in accordance with the Final Design of the Patient Care Centre. The City may utilize the security provided to complete the landscaping in the event that VIHA does not complete that work to the satisfaction of the Director of Planning and Development within six (6) months after the issuance of an occupancy permit for the Patient Care Centre.
- 3.5 For certainty, VIHA covenants and agrees that if it applies for a separate foundation or shell or structure permit for the Patient Care Centre, the foundation or shell or structure so constructed shall also conform to the Final Design.

4.0 SITE SERVICING

- 4.1 VIHA covenants and agrees that at least sixty (60) days prior to any application for a Building Permit with respect to the Land, it shall submit the following for approval of the Director of Engineering, acting reasonably:
- (a) detailed engineering plans showing all streetscape, frontage, landscaping and grade level improvements, both on-site and off-site;
 - (b) detailed engineering plans showing site servicing, and sewer main upgrade and improvements for the Land as referred to in section 7.0 of this Master Development Agreement; and
 - (c) engineering plans confirming horizontal and vertical curb alignment - existing and proposed.
- 4.2 The engineering plans referred to in section 4.1 shall be generally consistent with the Conceptual Site Servicing Plan that is attached to this Agreement as Schedule "D", and shall also include provision for a landscaped median to be constructed on that part of the Lands that is immediately to the east of the intersection of Bay and Richmond Streets, to the satisfaction of the Director of Engineering.
- 4.3 Prior to issuance of a Building Permit for any building or work on the Land, VIHA will:
- (a) provide security in the form of a certified cheque or irrevocable letter of credit in an amount that is to the satisfaction of the Director of Engineering acting reasonably, as security for VIHA's obligations to construct the works and services required under section 4.1 and section 7.0; and
 - (b) enter into a Construction Agreement with the City, in the City's standard form, respecting the construction of the works and services required under section 4.1 and section 7.0, to the satisfaction of the Director of Engineering.
- 4.4 VIHA covenants and agrees to complete all of the works and services referred to in this section 4.0, and referred to in section 7.0. to the satisfaction of the Director of Engineering, acting reasonably, prior to the applying for an occupancy certificate for the Patient Care Centre.

5.0 STATUTORY RIGHTS OF WAY

- 5.1 VIHA further covenants and agrees that upon completion of the works and services referred to in section 4.0, it shall grant to the City a Statutory Right of Way, in the City's standard form, as attached to this Agreement as Schedule "E",

securing public access to and use of the sidewalk or walkway to be constructed by VIHA on that part of the Land adjacent to the Richmond Road frontage, as generally shown on Schedule "D" hereto.

- 5.2 VIHA further covenants and agrees that within thirty (30) days of the execution of this Master Development Agreement, it shall grant to the City a statutory right of way in the form attached as Schedule "F", to permit the use of a portion of the Land fronting Fort Street as a public highway. This obligation shall survive termination of this Master Development Agreement under section 20.1.

6.0 INTERIM LANDSCAPING

- 6.1 VIHA covenants and agrees to:

- (a) install and maintain greenery, landscaping and screening on all undeveloped portions of the Land, when those areas are not actually under development, to the reasonable satisfaction of the Director of Planning and Development; and
- (b) in no circumstances, allow a portion of the Land to remain vacant for longer than twelve (12) months at a time without full and suitable landscaping and screening being installed and properly maintained on such portion.

7.0 SEWER SYSTEM UPGRADES

- 7.1 VIHA covenants and agrees that it shall not construct any building on the Land, and that it shall not take legal proceedings to compel the issuance of a Building Permit for any building on the Land, unless it first complies with the requirements of section 7.2 of this Agreement.

- 7.2 VIHA acknowledges that the proposed increase in density of development of the Land will require an increase in the capacity of the City's sanitary sewer system, and that the City's sewer system does not at present have sufficient capacity to accommodate the proposed Patient Care Centre. Accordingly, VIHA covenants and agrees:

- (a) that it shall construct at its sole cost and expense the upgrades and improvements to the City's sanitary sewer system described in the report entitled "Proposed Patient Care Centre Sanitary Sewer Connection, December 7, 2007" which is attached as Schedule "F", and which upgrades are shown generally in the Conceptual Site Servicing Plan (Focus Engineering Drawing No. 012166-20-01), which is attached to this Agreement as Schedule "D"; and

(b) that the works and services to be provided under section 7.2(a) shall be to the satisfaction of the Director of Engineering, acting reasonably.

- 7.3 Any proposed modification or change to the works and services described in section 7.2 must be approved in writing, and in advance, by the Director of Engineering.
- 7.4 VIHA covenants and agrees that the City may refuse to issue an Occupancy Certificate for the Patient Care Centre, that VIHA shall take no legal proceedings to compel the issuance of an Occupancy Certificate, and that VIHA shall not use or permit the use of the Patient Care Centre until the works and services to be provided under section 7.2(a) have been completed to the satisfaction of the Director of Engineering, acting reasonably.

8.0 PUBLIC MEETING SPACE

- 8.1 VIHA covenants and agrees that from and after the date of this Agreement, it will provide to the North Jubilee Neighbourhood Association, or such other community or neighbourhood group as the City designates from time to time (the "**Designated Community Association**"), access to and use of a community meeting room of at least thirty (30m²) square metres on the Land, suitably furnished with tables and chairs sufficient to accommodate up to twenty (20) persons at one time (the "**Community Meeting Room**"). The Community Meeting Room shall be made available to the North Jubilee Neighbourhood Association or the Designated Community Association, as the case may be, for at least twelve (12) hours per month, the schedule of such use to be determined between VIHA and the North Jubilee Neighbourhood Association or Designated Community Association, each acting reasonably. VIHA agrees that once a schedule for the use of the Community Meeting Room has been agreed to, it shall provide at least thirty (30) days advance notice of any change in the schedule, and in that event VIHA shall, as much as is reasonably possible, accommodate the schedule or requests of the North Jubilee Neighbourhood Association (or Designated Community Association) when rescheduling the use of the Community Meeting Room.
- 8.2 VIHA shall also provide to the North Jubilee Neighbourhood Association (or Designated Community Association) the use of and access to office space that is in reasonable proximity to the Community Meeting Room, and that is equipped with a lockable filing cabinet, telephone and wiring for a computer. Such office space shall be made available to the North Jubilee Neighbourhood Association (or Designated Community Association) at least thirty-two (32) hours per month, the schedule of such use be determined between VIHA and the North Jubilee Neighbourhood Association or Designated Community Association, each acting reasonably. VIHA agrees that once a schedule for the use of the office space has been agreed to, it shall provide at least thirty (30) days advance notice of any

change in the schedule, and in that event VIHA shall, as much as is reasonably possible, accommodate the schedule or requests of the North Jubilee Neighbourhood Association (or Designated Community Association) when rescheduling the use of the office space.

- 8.3 VIHA shall provide the use of the Community Meeting Room and office space without charge, and shall work cooperatively and reasonably with the North Jubilee Neighbourhood Association, or other Designated Community Association, to develop, and to amend from time to time as necessary, a schedule for the use of the Community Meeting Room and office space.
- 8.4 The use of the Community Meeting Room and office space must be consistent with VIHA's reasonable rules for use of its facilities, including but not limited to rules respecting safety, security, protection of property, and hours and days of operation.
- 8.5 In the event any disputes arise between VIHA and the North Jubilee Neighbourhood Association, or other Designated Community Association as to the scheduling of use of the Community Meeting Room or office space, VIHA must notify the City's Director of Planning of the substance of the dispute, and must comply with any directions given by the Director, acting reasonably, for the purpose of resolving the dispute.
- 8.6 VIHA shall ensure that the Patient Care Centre includes a Community Meeting Room and office space that is easily accessible by members of the public, and that otherwise meet the requirements of section 8.1 and 8.2 of this Agreement. Upon the issuance of an occupancy permit for the Patient Care Centre, the Community Meeting Room and the office space within the Patient Care Centre shall for all purposes be the Community Meeting Room and office space under sections 8.1 to 8.5 of this Master Development Agreement.

9.0 NOISE ATTENUATION

- 9.1 VIHA covenants and agrees that all construction activities on the Land, in connection with the construction of the Patient Care Centre, shall be carried out in compliance with the City's Noise Bylaw No. 03-12, as it may be amended or replaced from time to time.

10.0 TREE PROTECTION AND MAINTENANCE

- 10.1 VIHA covenants and agrees that it shall undertake the construction of the Patient Care Centre and other related development activities on the Land strictly in accordance with the terms of the approved Tree Protection Plan that is attached to this Master Development Agreement as Schedule "H".

- 10.2 VIHA further covenants and agrees that following the issuance of an occupancy permit for the Patient Care Centre it shall preserve and protect any and all trees identified in the Tree Protection Plan as requiring ongoing protective measures, in accordance with the recommendations set out in the Tree Protection Plan.
- 10.3 For certainty, nothing in this Master Development Agreement shall relieve VIHA from any requirement arising under the City's Tree Preservation Bylaw No.05-106, as it may be amended or replaced from time to time.

11.0 PROTECTION OF GREEN SPACE

- 11.1 VIHA covenants and agrees that it shall not construct any buildings or structures on that area of the Land outlined on the Open Space Plan that attached to this Agreement as Schedule "I" (the "**Open Space Plan**"), and that it shall maintain the said area as open green space, pending completion of the Master Plan for the Land and its approval by Council for the City, as referred to in section 16.0 of this Master Development Agreement.

12.0 HERITAGE PRESERVATION

- 12.1 VIHA covenants and agrees that it shall require each of the private sector entities participating in the Development Procurement Process to retain a heritage consultant who is a member of the Canadian Association of Heritage Professionals, to provide advice to VIHA for the purpose of ensuring that the design of the Patient Care Centre respects the historic character of the adjacent heritage buildings known as the Pemberton Operating Theatre and the Pemberton Memorial Chapel, which have been designated as heritage sites by the City of Victoria.

13.0 TRANSPORTATION DEMAND MANAGEMENT

- 13.1 In this section 13.0:
- (a) "**Baseline**" means the estimated number of daily Royal Jubilee Hospital employee SOV trips to the Land in 2007, which the parties both agree has been reasonably and fairly determined as being two thousand, six hundred and eighty-one (2,681);
 - (b) "**SOV**" means a motor vehicle occupied by a single person; and
 - (c) "**TDM**" means transportation demand management.
- 13.2 VIHA covenants and agrees to develop and implement a Transportation Demand Management Program, so that by the end of the year 2010, the total daily SOV trips of all full-time, part-time and casual Royal Jubilee Hospital employees together to the Land are reduced to no more than 2,413 trips (a reduction equal

to at least ten (10%) percent of the Baseline) and thereafter do not increase. For the purpose of determining compliance with this provision, the formula used to determine the total daily SOV trips shall be:

the percentage of daily SOV trips [as determined through the survey conducted in accordance with section 13.4(a)] multiplied by the total number of all full-time, part-time and casual Royal Jubilee Hospital employees.

- 13.3 VIHA covenants and agrees that its TDM Program shall include (but shall not be limited to) an increase in VIHA's transit pass subsidy for Royal Jubilee Hospital employees, to FOURTEEN DOLLARS, TWO CENTS (\$14.02) per participating employee per pay period.
- 13.4 VIHA covenants and agrees to hire or retain a TDM Coordinator to coordinate and oversee VIHA's TDM Program for the Royal Jubilee Hospital. The TDM Coordinator must be required by VIHA to do the following:
 - (a) conduct a travel survey of employees of Royal Jubilee Hospital at least once every two (2) years, to determine VIHA's progress towards reaching the SOV trip reduction requirement set out in section 13.2 - such surveys to be conducted in a manner that is generally consistent with the January 8, 2008 letter of Joe Murphy as provided by VIHA to the City;
 - (b) commencing March 31, 2010, submit a formal report to the City's Director of Engineering on a biannual basis describing VIHA's progress towards meeting and maintaining the SOV trip reduction requirement of this Master Development Agreement, over the immediately preceding twenty-four (24) month period, and describing additional strategies to be incorporated into VIHA's TDM Program if the trip reduction requirement has not been met initially, or has not been maintained.
- 13.5 In the event VIHA fails to meet the trip reduction requirement of section 13.2 by the end of the year 2010, VIHA must submit the report described in section 13.4(b) on an annual basis, commencing March 31, 2011, until such time as VIHA has met the trip reduction requirement.
- 13.6 Further, in the event that VIHA does not meet the trip reduction requirement of section 13.2, by the end of the year 2010, VIHA covenants and agrees to adjust its employee transit pass subsidy in accordance with the following table, wherein the amount of the subsidy required to be made is set out opposite the actual trip reduction achieved by VIHA by the end of the year 2010:

SOV reduction achieved	VIHA-funded transit subsidy	SOV reduction achieved	VIHA-funded transit subsidy
10%	14.02 (no change from 2008)	4%	18.52
9%	14.77	3%	19.27
8%	15.52	2%	20.02
7%	16.27	1%	20.77
6%	17.02	0%	21.52
5%	17.77		

- 13.7 VIHA and the City agree to re-examine in the year 2015 the required frequency of VIHA's reporting under section 13.4 , to determine if bi-annual reporting is still necessary in view of the evolving nature and requirements of TDM.

14.0 NEIGHBOURHOOD PARKING MANAGEMENT AND ENFORCEMENT PLAN

- 14.1 In consultation with representatives of the neighbourhood surrounding the Land, the City may elect to develop and implement a "Neighbourhood Parking Management and Enforcement Plan", the purpose of which shall be to discourage Royal Jubilee Hospital staff, contractors and construction workers from parking on those City streets in the neighbourhood surrounding the Land that are designated as "Residential Parking Only".
- 14.2 VIHA agrees to contribute FIFTY THOUSAND (\$50,000.00) DOLLARS to the City towards implementation of the Neighbourhood Parking Management and Enforcement Plan, and shall pay one-half (1/2) of such amount to the City prior to the issuance of an excavation permit for the Patient Care Centre, the balance to be secured by a Letter of Credit or other form of security satisfactory to the Director of Engineering.

15.0 GOOD NEIGHBOUR AGREEMENT AND PERFORMANCE CONTRACT

- 15.1 VIHA covenants and agrees that in consultation with the City, members of the neighbourhoods surrounding the Patient Care Centre, and community organizations including the North Jubilee Neighbourhood Association, it shall develop and enter into a Good Neighbour Agreement and Performance Contract that shall include the following:
- (a) protocols for ongoing communication between VIHA and the surrounding neighbourhood on issues of concern to the neighbourhood that relate to the operation of the hospital on the Land;

(b) participation at joint meetings; and

(c) mechanisms for addressing neighbourhood concerns related to construction or hospital operations, as those activities impact the surrounding neighbourhood, including but not limited to a means of contacting a VIHA representative twenty-four (24) hours per day, seven (7) days per week.

15.2 Prior to the issuance of a structure permit for the Patient Care Centre, VIHA shall provide to the Director of Planning and Development a copy of the Good Neighbour Agreement, executed by VIHA, in terms that are satisfactory to the Director, acting reasonably.

16.0 DEVELOPMENT OF MASTER PLAN

16.1 VIHA covenants and agrees to undertake the development of a comprehensive master plan for the Land, at VIHA's sole cost, and to present that comprehensive master plan to the City within thirty (30) months of the date that Council for the City gives final adoption to the Rezoning Bylaw. VIHA shall retain the services of a competent professionals, such as professional architects, planners and landscape architects, to assist in preparation of the comprehensive master plan.

16.2 In preparing the comprehensive master plan, VIHA shall provide for a reasonable degree of consultation with the City and the residents of the surrounding neighbourhood, to the satisfaction of the City's Director of Planning and Development.

16.3 The comprehensive planning study must address (but is not to be limited to) the following issues to the satisfaction of the City's Director of Planning and Development:

- (a) use and density;
- (b) site planning;
- (c) building massing;
- (d) landscaping;
- (e) site open space;
- (f) tree protection;
- (g) Bowker Creek;
- (h) parking;

- (i) transportation demand management;
- (j) access to and from the Land;
- (k) off-site servicing and improvements;
- (l) site servicing;
- (m) storm water management; and
- (n) heritage issues.

16.4 VIHA covenants and agrees that it shall undertake no further development on the Land, other than the Patient Care Centre, power plant addition, links from the Diagnostic and Treatment Centre to the Patient Care Centre and various surface parking lot works, and that, for certainty, it shall not construct any new buildings, until completion of the comprehensive master plan in accordance with this Master Development Agreement, and until Council for the City has approved that comprehensive master plan and considered that plan for inclusion in the City's Official Community Plan or other City policies and regulations.

17.0 LEED® GOLD CERTIFICATION

17.1 VIHA covenants and agrees that the Patient Care Centre shall be designed and constructed so as to achieve LEED® Gold Certification from the Canada Green Building Council.

17.2 VIHA covenants and agrees to provide the City with evidence of registration of the Patient Care Centre for certification with the Canada Green Building Council prior to the issuance of a Building Permit for the Patient Care Centre.

17.3 VIHA further covenants and agrees to provide the City with evidence of LEED® Gold Certification of the Patient Care Centre upon receipt of that certification from the Canada Green Building Council.

In the event that VIHA fails to provide the City with the certification required under section 17.3 within eighteen (18) months after the issuance of an occupancy permit for the Patient Care Centre, VIHA shall make such improvements or modifications to the Patient Care Centre as are necessary to achieve LEED® Gold Certification, provided that VIHA shall not be required to expend any more on such improvements or modifications than it is lawfully entitled to receive from Project Co by way of contractual penalties imposed due to Project Co's failure to achieve LEED® Gold Certification. In that respect, VIHA covenants that its contract with Project Co shall require Project Co to pay VIHA the amount of ONE HUNDRED THOUSAND (\$100,000.00) DOLLARS for each LEED® credit less than thirty-nine (39) achieved, to a maximum payment amount

of ONE MILLION (\$1,000,000.00) DOLLARS. In the alternative, and with the City's written approval, VIHA may expend the amount it is entitled to recover from the Project Co (as referred to herein) on additional landscaping improvements to the Land, as approved by the City.

18.0 RESTRICTIVE COVENANT

- 18.1 Prior to the Public Hearing to be held by Council for the City in respect of the Rezoning Bylaw, VIHA shall provide an executed restrictive covenant to be registered against title to the Land, pursuant to section 219 of the *Land Title Act*, which incorporates the terms of this Master Development Agreement and is in the form attached as Schedule "J" to this Agreement (the "**MDA Restrictive Covenant**").
- 18.2 The MDA Restrictive Covenant shall also oblige VIHA to demolish, by no later than eighteen (18) months following issuance of an Occupancy Permit for the Patient Care Centre, sufficient buildings on the Land or portions thereof so that the Land is in compliance with the floor space rate and floor area calculation provisions of the Rezoning Bylaw.

19.0 ASSIGNMENT

- 19.1 Upon any transfer of the Land or portion thereof (the "**Transferred Property**"):
- (a) VIHA, the purchaser of the Transferred Property and the City will enter into an assumption agreement, satisfactory to the City, under which the purchaser shall assume all of VIHA's obligations outstanding under this Master Development Agreement with respect to the Transferred Property;
 - (b) subject to receipt of such assumption agreement, the City shall release VIHA from the obligations so assumed; and
 - (c) if the purchaser replaces any existing security relating to the Transferred Property, to the City's satisfaction, the City shall release a comparable portion of the security provided by VIHA.

20.0 TERMINATION

- 20.1 If the City does not approve and pass the Rezoning Bylaw, the City covenants and agrees to discharge this Agreement from title to the Land and except where expressly provided otherwise, this Agreement shall be terminated.

21.0 ACKNOWLEDGMENT

- 21.1 VIHA acknowledges that the City, its officials, employees and agents, have not stated, held out or implied any expectation or requirement that this Agreement must be executed in order for VIHA's rezoning application to be approved.

22.0 PUBLIC BODY

- 22.1 Nothing contained or implied within this Master Development Agreement shall prejudice or affect the duties, rights and powers of the City in the exercise of its functions under any public or private statutes, bylaws, orders or regulations, all of which may be fully and effectively exercised in relation to the Land as if this Master Development Agreement had not been executed and delivered. Without limiting the generality of the foregoing, nothing in this Master Development Agreement shall be construed as affecting or influencing in any way the decision of Council for the City with respect to the adoption of the Rezoning Bylaw.
- 22.2 Nothing in this Agreement shall relieve VIHA from any obligation or requirement arising under any applicable statute, bylaw or regulation in respect of the development of the Land and of which VIHA is the owner at the relevant time. Without limiting the generality of the foregoing, VIHA shall remain fully responsible to ensure that the development of the Land is in full compliance with all requirements of the Bylaws of the City of Victoria respecting land development, zoning, heritage, subdivision and building construction.
- 22.3 Issuance of a Development Permit, Building Permit or Occupancy Certificate does not warrant or guarantee satisfaction of these conditions in the Agreement.

23.0 APPROVAL MATRIX

- 23.1 The "Approval Matrix" attached as Schedule "K" is provided for information purposes only and does not create additional obligations on VIHA or the City. Where there is a conflict between Schedule "K" and other Schedules or sections of this Master Development Agreement, the other Schedules and sections shall prevail.

24.0 GENERAL PROVISIONS

- 24.1 In this Agreement:
- (a) the headings and captions are for convenience only and do not form a part of this Agreement and will not be used to interpret, define or limit the scope, extent or intent of this Agreement or any of its provisions;
 - (b) the word "including" when following any general term or statement is not to be construed as limiting the general term or statement to the specific

items or matters set forth or to similar terms or matters but rather as permitting it to refer to other items or matters that could reasonably fall within its scope;

- (c) a reference to currency means Canadian currency;
- (d) a reference to a statute includes every regulation made pursuant thereto, all amendments to the statute or to any such regulation in force from time to time and any statute or regulation that supplements or supersedes such statute or any such regulation;
- (e) a reference to time or date is to the local time or date in Victoria, British Columbia;
- (f) a word importing the masculine gender includes the feminine or neuter, and a word importing the singular includes the plural and vice versa;
- (g) a reference to approval, authorization, consent, designation, waiver or notice means written approval, authorization, consent, designation, waiver or notice; and
- (h) a reference to Part means a Part of this Agreement and the word Section means a separately enumerated provision within a Part, and the words Section or Part followed by a number or some combination of numbers and letters refers to a Section or Part of this Agreement.

24.2 Notice

If sent as follows, notice under this Agreement is considered to be received:

- (a) seventy-two (72) hours after the time of its mailing (by registered mail) or faxing, and
- (b) on the date of delivery if it is hand-delivered,

if to the City:

#1 Centennial Square
Victoria, B.C. V8W 1P6

Attention: Director or Planning and Development
Fax: 250-361-0386

if to VIHA:

1952 Bay Street
Victoria, B.C. V8R 1J8

If a party identifies alternate contact information in writing, notice is to be given to that alternate address.

If normal mail service or facsimile service is interrupted by strike, work slow-down, force majeure, or other cause.

- (a) a notice sent by the impaired service is considered to be received on the date of delivery, and
- (b) the sending party must use its best efforts to ensure prompt receipt of a notice by using other uninterrupted services, or by hand-delivering the notice.

24.3 Time

Time is to be the essence of this Agreement.

24.4 Binding Effect

This Agreement will enure to the benefit of and be binding upon the parties hereto and their respective heirs, administrators, executors, successors, and permitted assignees.

24.5 Waiver

The waiver by a party of any failure on the part of the other party to perform in accordance with any of the terms or conditions of this Agreement is not to be construed as a waiver of any future or continuing failure, whether similar or dissimilar.

24.6 Cumulative Remedies

No remedy under this Agreement is to be deemed exclusive but will, where possible, be cumulative with all other remedies at law or in equity.

24.7 Entire Agreement

This Agreement when executed will set forth the entire agreement and understanding of the parties as at the date hereof with respect to the subject matter hereof and supersede all prior agreements and understandings among the parties with respect to the subject matter hereof and there are no oral or written agreements, promises, warranties, terms, conditions, representations or collateral agreements whatsoever, express or implied, other than those contained in this Agreement.

24.8 Further Assurances

Each of the parties will do, execute or deliver or cause to be done, executed and delivered all such further acts, documents and things as may be reasonably required from time to time to give effect to this Agreement.

24.9 Amendment

No amendment, waiver, termination or variation of the terms, conditions, warranties, covenants, agreements and undertakings set out herein will be of any force or effect unless they are reduced to in writing and duly executed by all parties to this Agreement.

24.10 Law Applicable


This Agreement is to be construed in accordance with and governed by the laws applicable in the Province of British Columbia.

24.11 Counterpart

This Agreement may be executed in counterpart with the same effect as if both parties had signed the same document. Each counterpart shall be deemed to be an original. All counterparts shall be construed together and shall constitute one and the same Agreement.

IN WITNESS WHEREOF the parties hereto have set their hands and seals as of the day and year first above written.

THE CORPORATION OF THE CITY OF)
VICTORIA by its authorized signatories)

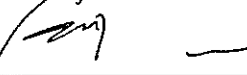


Mayor Alan Lowe)



Corporate Administrator Robert Woodland)

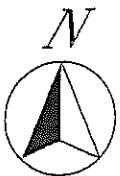
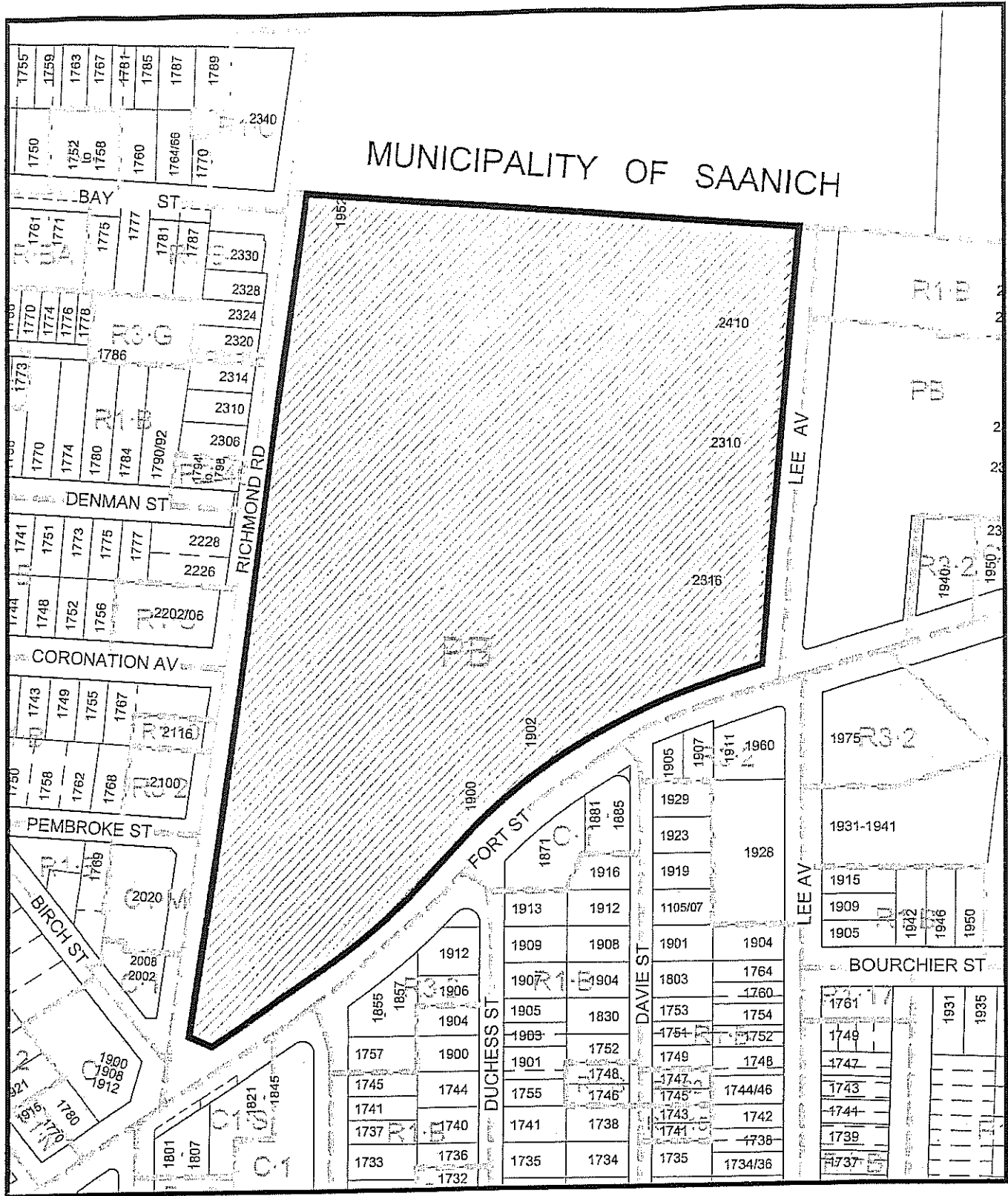
VANCOUVER ISLAND HEALTH)
AUTHORITY by its authorized signatories)



Print Name: Mihe Conroy for Howard Waldner)

Print Name:)

SCHEDULE "A"



1952 Bay Street
Rezoning #00146
Site Plan



[illegible][illegible]

Abstract

Abstract

Abstract

-

Schedule 1

PART 12.11

CD-11 ZONE, RJH DISTRICT

Purpose

- 1 The purpose of this Zone is to permit a patient care centre at Royal Jubilee Hospital.

Development Areas

- 2 This Zone is divided into Development Areas 1, 2, and 3 shown on the map attached as Appendix 1.

Uses

- 3 Permitted uses:
- (a) all of the uses permitted under Part 8.10 for the PB Zone, Public Buildings District;
 - (b) commercial;

Definition of Height

- 4 For the purposes of this Zone,

"height"

when used in reference to a building means the distance measured in a straight line vertically between the highest point on the highest part of the building and the point that is at grade directly below that highest point, and for this purpose

- (a) the highest point excludes a point on a mast, antenna or similar communication device used exclusively for hospital operations, and a solar heating panel, if any of them project above the surface of the roof,
- (b) the highest point includes a point on a structure, not mentioned in clause (a) of this definition, that projects above the surface of the roof,
- (c) for a building with a pitched roof, the ridge of which is the highest part of the building, the highest point is considered to be 1/2 of the vertical measurement between the ridge and the eaves, and
- (d) for a building with a roof that changes pitch, the ridge of which is the highest part of the building, the highest point is considered to be 1/2 of the vertical measurement between the ridge and the point, immediately below the ridge, where the pitch changes;

Parking

- 5 (a) Despite section 16 of Schedule C to Bylaw 80-159, the Zoning Regulation Bylaw, the parking space requirement for the combined area of Development Areas 1 and 2 (the "Combined Area") in this Zone is calculated as 1 space per 50 m² of total floor area.
- (b) A minimum of 1,390 parking spaces is required for the Combined Area.
- (c) Any or all of the required parking spaces may be located in Development Area 1 or Development Area 2 or on the part of the Royal Jubilee Hospital lands located in Saanich.

Development Area 1

Regulations Table Development Area 1

- 6 The regulations set out in the following Table apply in Development Area 1:

<i>Category of regulation</i>	<i>Requirements</i>	
site area (min.)	10,400 m ²	
height (max.)	50 m; 10 storeys	
total floor area (max.)	45,000 m ² , including 2,000 m ² commercial use	
floor space ratio (max.)	4.33 to 1	
site coverage (max.)	65%	
open site space (min.)	20%	
setbacks (min.)	<i>Boundary of lot</i>	<i>Minimum setback (m)</i>
	Bay Street	not required
	South	not required
	Richmond Road	7.5
	East	not required

Development Area 2

Regulations Table Development Area 2

- 7 The regulations set out in the following Table apply in Development Area 2:

<i>Category of regulation</i>	<i>Requirements</i>	
site area (min.)	67,100 m ²	
height (max.)	22 m; 6 storeys	
total floor area (max.)	65,133 m ² , including 394 m ² commercial use	
floor space ratio (max.)	0.97 to 1	
site coverage (max.)	30%	
open site space (min.)	12%	
setbacks (min.)	<i>Boundary of lot</i>	<i>Minimum setback (m)</i>
	Bay Street	not required
	Fort Street	52
	Richmond Road	7.5
	Lee Avenue	6.2

Development Area 3

Regulations Table Development Area 3

8 The regulations set out in the following Table apply in Development Area 3:

<i>Category of regulation</i>	<i>Requirements</i>
<u>site area</u> (min.)	6,600 m ²
<u>open site space</u> (min.)	100%

Appendix 1

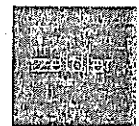
Map of Development Areas 1, 2, and 3
CD-11 Zone, RJH District

SCHEDULE "C"



Royal Jubilee Hospital
Patient Care Centre
Design Requirements

December 18, 2007



Preamble

The Design Requirements were developed in cooperation with the community associations that are neighbours with the Royal Jubilee Campus (North and South Jubilee and Camosun). Their intention is to document areas of significant interest to the community in the design and construction of the Patient Care Centre. These Design Requirements contribute to creating a new, exemplary model for inpatient accommodation in a public health facility.

The Design Requirements should be considered as additional requirements to the output specifications contained within the Request for Proposals documentation.

1.0 Vision

1.1 Project Vision

The project vision is:

- To design a state of the art facility that supports best practices, provides optimum health care in an effective, efficient way, and attracts the best health care professionals to care for Vancouver Island residents;
- To create an innovative and healing environment both inside and out, that inspires caring and the pursuit of excellence in healthcare; and
- To create a community facility that reflects the values of the users and neighbours and enhances the daily experience of all.

1.2 Health Care Pillars

The Patient Care Centre will be incorporating the three pillars of excellence in the design, construction, maintenance and operation and will aim for excellence in all; environment, staff and patients. The PCC will be '*Pacific Green*' (environmentally friendly), a *magnet hospital* for attracting and retaining health care professionals and *elder friendly*. For more information on this initiative please refer to the VIHA website.

2.0 Introduction

These Design Requirements serve as an illustrated document that will guide the design of the Royal Jubilee Hospital Patient Care Centre. They form the fundamental design framework, identified by the neighbourhoods, for the project, as well as specific requirements for identified components of the design.

All Design Requirements must be considered in the context of the existing residential neighbourhood surrounding the RJH site. All planning and design related decisions must be not only compatible with the adjacent neighbourhoods but enhance their unique characteristics.

2.1 Companion Documents

The following City of Victoria Policy Documents will support these guidelines:

- Official Community Plan; and
- Crime Prevention Through Environmental Design (CPTED).

2.2 Relevant Agreements

During the process of developing the Design Requirements for the new Patient Care Centre (PCC), several broader concerns were raised. These site-wide issues include, but are not limited to, circulation, long-term master planning and campus landscaping. In order to effectively address these wider issues the Vancouver Island Health Authority has committed to undertake three separate processes with a group of community representatives. They include:

- A Master Development Agreement between VIHA and the City. This document is registered on the title of the property and will include other aspects of the project not included in these Design Requirements. Items include, (but are not limited to): community amenities, offsite services and Transportation Demand Management programs;
- The establishment of a long term community liaison committee to provide input and feedback on the Master Plan for the Royal Jubilee Hospital campus and
- A 'Good Neighbour Agreement' between VIHA and the community at large. This agreement would include areas of concern: noise abatement, landscape maintenance, lighting, construction parking, traffic and parking.

The establishment of these working committees will occur in a timely fashion that is agreeable to both parties.

2.3 Heritage Considerations

The design of the Patient Care Centre must be done in consultation with an accredited heritage consultant, registered with the Canadian Association of Professional Heritage Consultants, in order to ensure respect for the scale and heritage character of the neighbouring Pemberton Operatory building.



Pemberton Operatory

2.4 Figures and Illustrations

Graphic materials support the description of the requirements contained within this document. The illustrations and photographs are representational only, with the intent to describe the design requirements herein. All graphics are intended for illustrative purposes only, as the final design the building and public open space will be further refined, while meeting the requirements as defined within this document.

2.5 Must, Will, Shall

Throughout these design requirements the terms 'must, will, and shall' have been used to describe the fundamental guidelines that are mandatory. These requirements must be met and there is no recourse for negotiation for as long as they remain in the Design Requirements.

The remaining provisions are intended to guide proposals to ensure the overarching design concept is realized, while allowing flexibility and encouraging creativity.

4.0 Project Specific Design Requirements

Introduction

The primary objective is to develop a necessary care facility within an existing health campus that is compatible with its neighbourhood context.

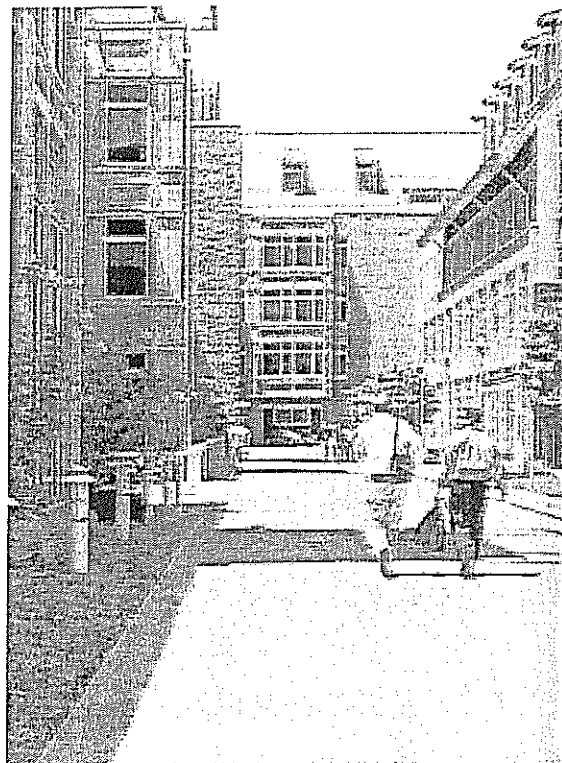
4.2 Building Massing and Street Edge

Principle: At the street environment, the building must enhance the pedestrian experience.

The design of the Patient Care Centre must be sensitive to the neighbouring community and land uses. The building design must reflect a human scale at the street level, providing an environment that is comfortable and attractive for both the building users and the public. The design must include a well developed and maintained high quality landscape treatment between the building base and the property line.

The design will mitigate the scale and building massing at the street level by employing one of more of the following design solutions. These include but are not limited to:

- step back the building massing from the street as the height of the building increases; and/or
- provide a well articulated, high quality material façade (vertically or horizontally) especially within the lower two storeys of the building; and/or
- Setback the building in line with the existing RJH buildings along Richmond Road, not less than 7.5m from the property line.



4.3 Building Height

Principle: The height and massing of the building should be designed in a manner that has the least impact on the adjacent neighbours and in a way that is compatible with the fabric of the immediate community.

The community is sensitive to the precedent setting possibility of a structure of this height. While the prescribed uses of the building have been predetermined, the height of the building shall be no more than 50m (164 feet) measured from grade to the top of structure. It would be preferred that the structure not exceed 44m (145 feet) unless an alternate, higher design is so compelling to warrant the trade-off in height.

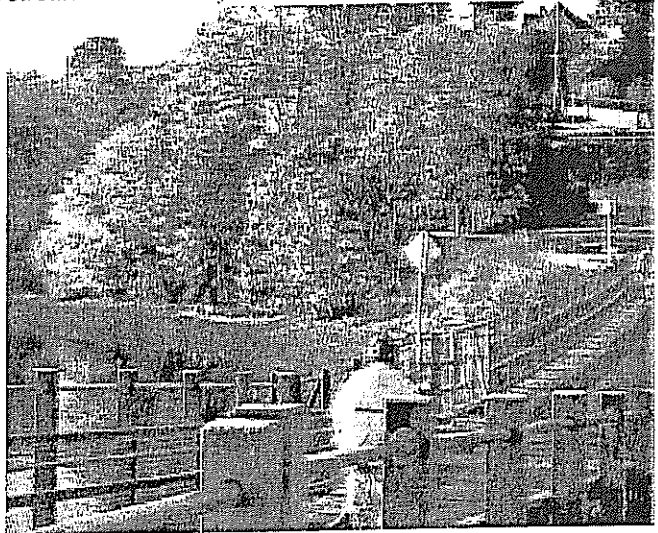
Set back from Richmond Road the enclosed mechanical penthouse within the overall height requirement in order to reduce the apparent height at the street. It must be designed as an architectural element in conjunction with the rest of the building.

4.4 Circulation

Principle: Minimize the amount of traffic and its impact on the adjacent neighbourhood. Encourage pedestrian and cycle access to the site and circulation to other facilities on campus.

4.4.1 Vehicular

The PCC will accommodate pickup/drop off and valet parking. The design of this function must be compatible with the existing circulation on site. A separate Parking Study and Transportation Demand Management Program have been undertaken to make recommendations regarding this subject. Ongoing concerns will be addressed as part of the Good Neighbour Agreement and/or Master Site Plan process. All service and loading for the PCC facility will be accommodated off Lee Road through the service tunnel in the Diagnostic and Treatment Centre, as it currently functions.



4.4.2 Pedestrian

Primary pedestrian access to the Patient Care Centre will occur through the main entrance of the Diagnostic and Treatment Centre. Secondary access will occur off the Bay Street entrance to the Patient Care Centre. Controlled access may also be provided off Richmond Road. Smoke-free, inclement weather coverage will be provided near entrance points. Access to the Heritage Garden will occur through the Patient Care Centre which will be interconnected via pedestrian routes through the Royal Jubilee Hospital site. All site circulation must take into consideration links to existing buildings and desired links to future facilities.

4.5 Appropriate exterior elements and materials

Principle: Use materials that are compatible with the character of the adjacent neighbourhood and island context.

A variety of exterior materials will be appropriate, however the context of the surrounding residential community must be considered. Materials should be natural, indigenous, durable and appropriate to the character of the area.

The design must incorporate living plants on the building walls, decks or roofs through a green roof or planters.

Tactile materials that avoid an oppressive 'clinical' atmosphere must be used, such as wood and brick, creating a residential feel, where the facility interacts with pedestrians along Richmond Street.



The design should incorporate on-site storm water management where practical. Where hard surfaces are required, they must contribute to storm water management through, for example, the use of suitable materials such as permeable paving.

Preferred materials are:

- wood accents,
- stone or masonry cladding,
- brick,
- metal,
- glass.

Materials should be selected with a consideration toward relevant LEED implications.

Architectural elements and materials unacceptable:

- vinyl siding
- stucco
- large expanses of grey concrete
- mirrored glass
- neon lighting

4.6 Minimize noise impact

Principle: Minimize the noise pollution affecting the adjacent neighbourhood.

The applicants must employ all design criteria necessary to ensure the noise transfer from the building is kept and maintained at a minimum. Ambient noise quality standards with respect to noise will improve upon the City of Victoria Noise Bylaw. For example, the noise associated with the Diagnostic and Treatment Centre is unacceptable.

In addition to meeting the BC Building Code to address the issue of noise emitting from the building, the design of the Patient Care Centre building must demonstrate methods of noise transfer reduction.

The design and landscaping must incorporate features that reduce sound reflection off the hard surfaces of the Patient Care Centre to the neighbourhood.

4.7 Minimize light spillage

Principle: Minimize the light pollution affecting the adjacent neighbourhood and larger skies.

The applicants will ensure that the design adheres to the Royal Astronomical Society of Canada Light Pollution Abatement Program. Lighting of interior and exterior areas must provide adequate public safety. Limit sight spillage, light pollution and maximize energy conservation. Bollard, building and pole-mounted down lighting must be utilized. Adequate lighting must be provided for all walkways, paths, plazas and building entrances.

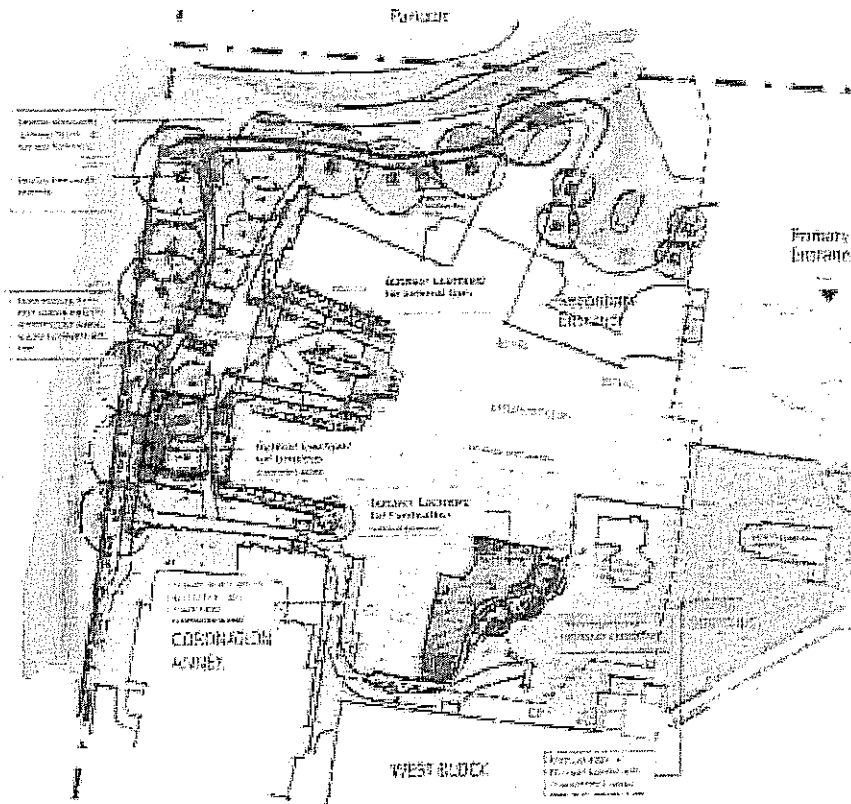
4.8 Maximize quality green space

Principle: Develop a high quality series of open spaces appropriate for both hospital and community year round enjoyment.

A consistently creative design approach for the open spaces must be employed to ensure continuity with the adjacent neighbourhood. Public art will be incorporated into the building and site plan.. The quality of design and finishes will be a paramount selection criterion for applicant proposals. The intent of the City of Victoria and VIHA is to provide the public with the highest quality open green space possible.

The provision of high quality, sustainable public spaces is a priority. It must be landscaped and maintained for the duration of the contract. Consistent with an urban park approach, the site must provide the following public open spaces:

- Focal points/plaza,
- Pedestrian pathways,
- Boulevard and streetscapes,
- Pedestrian (and service vehicle) link into Heritage Courtyard,
- Secured outdoor spaces for patients and visitors,
- Maximize quality green space similar to the Fort Street frontage, Heritage Garden or around the Cancer Centre
- Covered outdoor seating amenity for non-smokers.



Indicative landscape concept

4.8.1 Landscape Materials

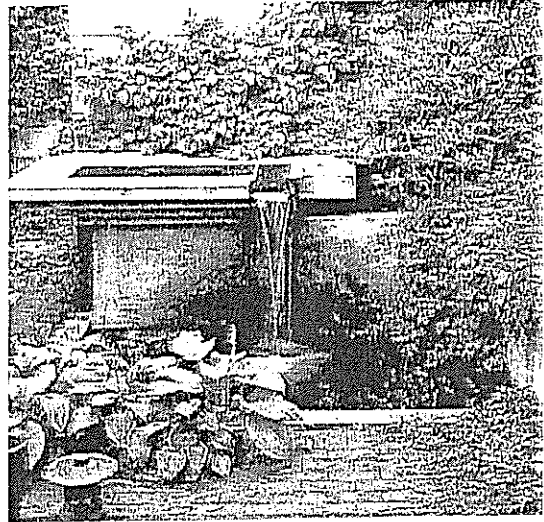
All landscape materials will be of the highest quality. The public sidewalk parallel to Richmond Road shall be broom finished concrete.

Suitable materials include:

- Concrete, or concrete unit pavers
- Stone and masonry (suitable texture for walking and wheeled use)
- Wood (furnishings and structures only)
- Metal (furnishings and structures)
- Mature Plant materials

Unsuitable materials:

- Asphalt or crushed rock surfaces
- Stacked rock for retaining
- 'Allenblock' or equivalent retaining walls



4.8.2 Cell towers

While emergency antennae for the uses required to hospital functions are permitted, no cell phone towers will be permitted.

4.9 Private outdoor spaces

Principle: Patient oriented outdoor spaces should be secure, easily accessible from adjacent indoor spaces and provide separation and privacy from other outdoor spaces.

Wherever possible, patient oriented outdoor spaces (including mental health) should be accommodated on the building levels above grade. Activity space for mental health should be above grade.

Proponents may consider creating a design which provides a stepped approach to the levels of the building, utilizing the exterior steps as outdoor spaces to provide garden rooms for patient and visitor use.



4.10 Wayfinding, Signage and Access

Wayfinding will provide a simple configuration of the building's circulation systems and functions that enables users to easily identify where they are and where they need to go.

Signage must be clear, concise and well differentiated from surrounding information, notices and advertising.

5.0 Companion Documents

- Zoning Bylaw
- Canada Green Building Council (CaGBC) LEED New Construction Credit Checklist
- City of Victoria Noise Bylaw
- Crime Prevention Through Environmental Design Guidelines
- Royal Astronomical Society of Canada Light Pollution Abatement Program
- Royal Jubilee Hospital Traffic Demand Study

TERMS OF INSTRUMENT – PART 2

W H E R E A S:

- A. The Grantor is the registered owner of an estate in fee-simple of the following land in the Province of British Columbia:

PID XXX-XXX-XXX

Parcel XXX
X

(the "Grantor's Lands");

- B. The Grantee is The Corporation of the City of Victoria;
- C. This Right of Way is necessary for the operation and maintenance of the Grantee's undertaking and the Grantor has agreed to permit the construction by the Grantee of the works on a portion of the Grantor's Lands and to grant for that purpose the right of way in this Agreement;

NOW THEREFORE, in consideration of the covenants and conditions agreed to be observed and performed by the parties and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the Grantor;

1. The Grantee, its officers, servants, agents, licensees and invitees, including the general public, may use:

X
X
X
X
X

as a public highway.

2. Without limiting the generality of this grant, the Grantee may:

(a) construct, erect, maintain, repair and replace pavements, sidewalks, boulevards, curbs, gutters, drains, sewers, utility poles, wires, fences, overhead and underground cables and traffic signals; and

(b) plant, sow, maintain and replace trees, shrubs, flowers and grass;

(collectively the "Works")

over, under and on the Right of Way Area without interference or obstruction from the Grantor.

3. The Grantor covenants not to erect any building, structure or obstruction on the Right of Way Area, without the prior written consent of the Director of Engineering for the Grantee.
4. Where the Grantor, in the breach of this covenant, erects any building, structure or obstruction without the prior written consent of the Director of Engineering for the Grantee, the Grantee shall be at liberty to remove it at the expense of the Grantor.
5. The Grantee agrees from time to time upon the reasonable request and at the cost of the Grantee to do and execute or cause to be made, done or executed, any further and other lawful acts, deeds, things, devices, conveyances and assurances in law required to ensure the Grantee of its rights under this Agreement.
6. In spite of any rule of law or equity to the contrary, the Works brought onto, set, constructed, laid, erected in, upon, over or under the Right of Way by the Grantee shall at all times remain the property of the Grantee, even if the Works are annexed or affixed to the freehold, and the Works shall at any time and from time to time be removable in whole or in part by the Grantee.
7. The covenants contained in this grant bind the Grantor and his successor in title to the Grantor's Lands comprising the Right of Way Area.

IN WITNESS WHEREOF the Grantor and Grantee acknowledge that this Agreement has been duly executed and delivered by the parties executing Forms C and D (pages 1 and 2) attached hereto.

SCHEDULE "F"
Statutory Right of Way (Fort Street)

Page 3

TERMS OF INSTRUMENT – PART 2

W H E R E A S:

- A. The Grantor, Vancouver Island Health Authority, is the registered owner of an estate in fee-simple of the following land in the Province of British Columbia:

PID 023-646-438

LOT A, SECTIONS 25 AND 76, VICTORIA DISTRICT, PLAN VIP64472, EXCEPT PART IN PLAN VIP69172

(the "Grantor's Lands");

- B. The Grantee is The Corporation of the City of Victoria;
- C. This Right of Way is necessary for the operation and maintenance of the Grantee's undertaking and the Grantor has agreed to permit the construction by the Grantee of the works on a portion of the Grantor's Lands and to grant for that purpose the right of way in this Agreement;

NOW THEREFORE, in consideration of the covenants and conditions agreed to be observed and performed by the parties and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the Grantor;

1. The Grantee, its officers, servants, agents, licensees and invitees, including the general public, may use as a public highway all of that part of the Grantor's Lands outlined in bold on the reference plan prepared by PETER I.M. BROEREN, BCLS and registered in the Victoria Land Title Office under Plan No. VIP_____ (the "Right of Way Area").
2. Without limiting the generality of this grant, the Grantee may:
 - (a) construct, erect, maintain, repair and replace pavements, sidewalks, boulevards, curbs, gutters, drains, sewers, utility poles, wires, fences, overhead and underground cables and traffic signals; and
 - (b) plant, sow, maintain and replace trees, shrubs, flowers and grass;

(collectively the "Works") over, under and on the Right of Way Area without interference of obstruction from the Grantor.
3. The Grantor covenants not to erect any building, structure or obstruction on the Right of Way Area, without the prior written consent of the Director of Engineering for the Grantee.
4. Where the Grantor, in the breach of this covenant, erects any building, structure or obstruction without the prior written consent of the Director of Engineering for the Grantee, the Grantee shall be at liberty to remove it at the expense of the Grantor.

5. The Grantor agrees from time to time upon the reasonable request and at the cost of the Grantee to do and execute or cause to be made, done or executed, any further and other lawful acts, deeds, things, devices, conveyances and assurances in law required to ensure the Grantee of its rights under this Agreement.
6. In spite of any rule of law or equity to the contrary, the Works brought onto, set, constructed, laid, erected in, upon, over or under the Right of Way by the Grantee shall at all times remain the property of the Grantee, even if the Works are annexed or affixed to the freehold, and the Works shall at any time and from time to time be removable in whole or in part by the Grantee.
7. The covenants contained in this grant bind the Grantor and his successor in title to the Grantor's Lands comprising the Right of Way Area.
8. Before constructing any of the Works the Grantee must submit to the Grantor scale drawings of the proposed Works. The Grantee may only commence construction of the Works upon the earlier of:
 - (a) the Grantor's approval of the drawings, which approval may only be withheld if, acting reasonably, the Grantor determines that the proposed Works will unreasonably interfere with the present or future parking requirements of the Royal Jubilee Hospital;
 - (b) the expiry of thirty (30) days after delivery of the said drawings to the Grantor, in the event the Grantor has failed to approve or disapprove of the drawings within thirty (30) days of such delivery.
9. The Grantee covenants and agrees to provide the Grantor with a discharge of this Right of Way in registrable form in the event that:
 - (a) within five (5) years of the registration of this instrument the Grantee does not construct any of the Works within the Right of Way Area, or
 - (b) prior to the construction of any of the Works, the Grantee's Zoning Regulation Bylaw is amended such that:
 - i. a building setback under that Bylaw is required to be measured from or determined in relation to the interior boundary of the Right of Way Area (the boundary that is not immediately adjacent to and is furthest from Fort Street), and
 - ii. the Grantor's potential building envelope on the Grantor's Lands is reduced as a result.
10. Nothing in this Agreement shall make the Grantor responsible for the construction or maintenance of any of the Works.

IN WITNESS WHEREOF the Grantor and Grantee acknowledge that this Agreement has been duly executed and delivered by the parties executing Forms C and D (pages 1 and 2) attached hereto.

v:\trans\con\con\terms of instrument.rtf for smv

Partnerships BC

Proposed Patient Care Centre Sanitary Sewer Connection

Prepared for:

Partnerships BC
3rd Floor, 707 Fort Street
Victoria, BC V8W 3G3

Prepared by:

Focus Corporation
57 Cadillac Avenue
Victoria, BC V8Z 1T3

File No. 012166-20 (05)

December 7, 2007



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Figures

Figure 1 Site Sewer Connectivity Plan

Figure 2 Patient Care Centre Conceptual Site Servicing Plan (Dwg No. 012166-20-01)

Appendices

Appendix A Water Usage Records

Appendix B Sanitary Sewer Flow Calculations

EXECUTIVE SUMMARY

The City of Victoria has indicated that connection of the proposed 500 bed Patient Care Centre to the Richmond Road sewer would require sewage storage and attenuation to reduce peak flows due to downstream system capacities. This report was undertaken to assess the feasibility of connecting the 500 bed Patient Care Centre to the City of Victoria/CRD sewage collection system located at Lee Avenue thus avoiding the need for peak flow attenuation.

Alignment

- Based on the conceptual alignment and grades, a gravity connection from the Patient Care Centre to the Lee Avenue sewer appears to be feasible. Sewers located below the connection elevation of approximately 22.6 m at the Patient Care Centre will be required to be pumped.
- The conceptual sewer connection alignment to Lee Avenue is shown on **Figure 1**. The alignment will extend through an existing utility corridor in the Diagnostic and Treatment Centre. The pipe size will be 300 mm diameter through the building and 250 mm diameter from the outside of the building to the City of Victoria system on Lee Avenue.

Downstream System Capacity

- The estimated peak sewage flow for the Patient Care Centre is 20 L/s. The resulting conservative total peak flow estimate for all buildings discharging to SMH S2010 is 32 L/s.
- Our assessment indicates that upgrading of the 200 mm AC City main on Lee Avenue from the proposed new connection to manhole S2010 will be required. The required upgrade will be 250 mm diameter PVC.
- The existing 300 mm diameter HDPE and 250 mm diameter PVC City of Victoria mains from MH S2010 to S2356 are adequately sized for the estimated future flow rates.
- Flow monitoring should be conducted at SMH S2010 prior to construction and connection of the proposed Patient Care Centre to confirm the available capacity in the existing system.

1.0 INTRODUCTION

A new 500 bed Patient Care Centre is proposed on the Royal Jubilee Hospital grounds at the corner of Richmond Road and Bay Street. This report outlines the servicing strategy for a sanitary main from the Patient Care Centre to the City of Victoria sewer system at the end of Lee Avenue.

Preliminary discussions with the City of Victoria ("the City"), with regard to connection of the proposed Patient Care Centre to the City sanitary sewer system have revealed that the City's sanitary sewer network is nearing or is at capacity. As a result, the City requested that on-site storage and detention of flows be provided prior to connecting to the City sanitary sewer on Richmond Road.

Onsite detention of wastewater discharges from an institution such as a hospital could result in significant operation and maintenance costs. Onsite detention systems may consist of a holding tank with either a restricted gravity outlet and a high level outlet or a restricted outlet and a pump system. The use of restricted outlets and pumps could result in higher maintenance costs due to an increased potential of clogging. In addition, during natural disasters, such as major earthquakes, the hospital would be required to maintain an operational system despite possible power failures. Therefore, onsite detention of sewage flows is not desirable and a direct gravity connection is recommended.

An alternative gravity connection point to the City of Victoria system is available via Lee Avenue. This section of the City's sewage collection system connects directly to the CRD trunk sewer on Trent Street. The CRD has indicated that capacity is available at this point. A review of the City system capacity between Lee Avenue and Trent Street is necessary. Partnerships BC and VIHA have indicated that connection to the Lee Avenue sewer is the preferred alternative.

2.0 PROPOSED SEWER CONNECTION

The alignment of the sanitary sewer connection for the proposed Patient Care Centre follows the existing utility corridor in the Diagnostic and Treatment Centre as follows:

- The sanitary connection will be at the west end of the existing corridor near Gridline Q of the Patient Care Centre design plans at an elevation of approximately 22.6 m. Sewers in the Patient Care Centre located below this elevation will require pumping.

- The pipe will be either supported or suspended through the utility corridor, electrical sub-distribution room, and the soiled linen room of the Diagnostic and Treatment Centre.
- Based on the estimated fixture unit count of 5000 and a slope of 1.0%, the pipe size through the utility corridor will be 300 mm diameter.
- Pipe material and supports within the utility corridor and the Diagnostic and Treatment Centre will be based on various design requirements including loading, possible earthquake requirements, fire rating requirements, etc. Typical pipe materials are cast iron, PVC, and CPVC.
- The pipe will then drop down the east wall of the Diagnostic and Treatment Centre into a new sanitary manhole located outside the building near the loading bays. From this manhole a new connection and manhole will be installed on the existing City of Victoria system on Lee Avenue. The connection will be 250 mm diameter PVC.

3.0 EXISTING SEWER SYSTEM AND CAPACITY

The north east section of the RJH site is serviced by the City sewage collection system along Lee Avenue. The City system extends to the east, crossing the St. Patrick's School grounds, and connects to the CRD system at the end of Trent Street. The piping consists of a 200 mm diameter AC main along Lee Avenue (MH S2013 to S2010), a 300 mm diameter HDPE main through the school grounds (MH S2010 to MH S2004), and a 250 mm diameter PVC main connecting into the CRD system (MH S2004 to MH S5236). Refer to **Figure 1** for a general site plan. The following RJH buildings are connected to the City system at MH S2010:

- | | | |
|-----------------------------------|-----------------|--------------------|
| • Cancer Centre | • Wilson Block | • South Block |
| • Diagnostic and Treatment Centre | • Central Block | • Plant Services |
| • Rickford Services | • East Block | • Storage Building |
| • Food Services | | |

3.1 Existing System Capacity

Based on Manning's formula, MMCD requirements for sanitary sewer pipe design, manhole invert information and lengths provided by the City, the available gravity flow pipe capacities are presented in **Table 1**.

Table 1 – Existing Pipe Capacities

Pipe Section	Pipe Size & Material	MMCD Sanitary Sewer Design ¹		100% Pipe Diameter Capacity (L/s)
		Allowable Percentage of Pipe Diameter for Flow	Pipe Capacity (L/s)	
S2010 to S2004	300 mm HDPE	70	71	85
S2004 to S5236	250 mm PVC	60	54	80
S2013 to S2010	200 mm (AC assumed)	50	18	36

¹ As per MMCD Design Guidelines Manual, Section 3.6

4.0 EXISTING AND ESTIMATED SEWAGE FLOWS

An estimate of the existing and proposed sewage flow rates to MH S2010 was prepared to review the remaining system capacity and to determine what improvements (if any) will be required.

4.1 Existing Sewage Flow Rates

A review of as-built information for the site was conducted to determine which of the hospital buildings contribute to the City system at Lee Avenue. Hirschfield Williams Timmins Ltd. prepared a plan of the sewage collection system for the RJH site in 2004 (refer to **Figure 1**), which was used for this purpose.

- VIHA is currently monitoring flows discharging from the Diagnostic and Treatment Centre at a manhole upstream of the City manhole S2010. Flow monitoring results were not available during this analysis.
- Sewage flows being discharged by RJH into the City system are not metered.

Existing Sewage Flow Estimate – from water meter records

- Potable water usage for the RJH site is metered through 17 individual meters. A review of water usage from January 2007 to September 2007 was conducted to estimate the existing sewage flows for those buildings directing wastewater to Lee Avenue. Water use records have been included in **Appendix A** for reference.
- Harmon peaking factors were applied based on a population equivalent calculated using a water usage of 150 L/capita/day. An allowance for inflow and infiltration (I&I) was applied at a rate of 130,000 L/ha/day. Based on the water use records, peaking factor and I&I allowance, the existing sewage flows for each of the buildings connecting upstream of manhole S2010 are presented in **Table 2**.

Table 2 – Existing System Flow Rates – Water Meter Records

Building	Metered Peak Potable Water Usage (L/day)	Estimated Peak Sewage Flow Based on Water Usage (L/s)*
Cancer Centre (Fixture units = 550)	26,360	3.0
Diagnostic and Treatment Centre + Rickford Services + Wilson / Central / East / South Blocks	5,650	4.5
Food Services	78,200	4.4
Plant Services	610	0.2
Storage Building	270	0.2
TOTAL FLOW	111,090	12.3

* Detailed peak sewage flow estimates are presented in **Appendix B**.

Sewage Flow Estimate – from field verification

- A site inspection was conducted on November 28, 2007 at 2 pm. Flow rates in manholes S2010, S2004 and S5236 were estimated based on a visual inspection. The estimated observed flow being discharged from manhole S2010 was 10 L/s. A peaking factor of 2 to 3 was assumed to be occurring during the time of the inspection.

- An estimation of the I&I component at the time of observation is based on 20,000 L/ha/day or approximately 1 L/s. The sewage flow at the time of observation without I&I is therefore 9 L/s. The design peaking factor based on population estimates is 4, or 1.3 to 2.0 times that which was likely occurring at the time of observation. Thus the estimated peak flow is approximately 13 to 19 L/s, which is reasonably consistent for a casual observation with the water meter analysis (peak estimate of 12.3 L/s).

4.2 Estimated Sewage Flow Rate for the Patient Care Centre

An estimate of 5,000 fixture units for the new Patient Care Centre has been provided by AME Consulting Group. BC Building Code Appendix A clause 7.4.10 describes the basis for converting fixture units to peak flow rates; however, the values derived from the graph in the code are believed to be overly conservative for estimation of flows for municipal sewer sizing. A comparison of the estimated peak flow rate based on water usage to the estimated peak flows derived from the conversion chart in the BC Building code for the Cancer Centre was conducted as follows:

- Estimated Cancer Centre flow based on water usage records – 3.0 L/s
- Estimated Cancer Centre flow based on BC Building Code – 12.0 L/s

The flows from the BC Building Code are 4 times the estimates based on water usage. Based on this, using the BC Building Code conversion to determine flow rates is not believed to be representative of actual site conditions.

Therefore, for the Patient Care Centre, we have estimated the average daily water consumption to be 2.8 L/s using the ratio of fixture units of the two buildings. Conversion to sewage flow with I&I produces a peak of 12.1 L/s. Detailed calculations are presented in **Appendix B**.

As further information, typical values for water usage for hospitals, based on occupancy, are in the range of 700 to 1500 L/bed/day¹. Using the low end of the range for new buildings, the estimated peak rate would be in the range of 15 L/s, assuming approximately 500 beds and a peaking factor of 3.7.

Due to uncertainties in the design information and in the interest of selecting a conservative value, a peak sanitary sewer flow of 20 L/s was chosen for the Patient Care

¹ Wastewater Engineering Treatment and Reuse, Metcalf and Eddy, Fourth Edition 2003, pg 158.

PROPOSED PATIENT CARE CENTRE SANITARY SEWER CONNECTION

Centre. The combined peak flow estimate from the hospital grounds at Lee Avenue is 32 L/s.

5.0 SEWER SYSTEM UPGRADES

A review of existing pipe capacities versus existing and future estimated flow rates was conducted to determine if any systems required upgrading. A summary of the flow rates and pipe capacities are presented in **Table 3**.

Table 3 –Pipe Capacities & Flow Rate Comparison

Pipe Section	Pipe Size & Material	MMCD Sewer Design		100% Pipe Diameter Capacity (L/s)	Existing Estimated Peak Sewage Flow Rate (L/s)	Future Estimated Peak Sewage Flow Rate (L/s)
		Allowable Percentage of Pipe Diameter for Flow	Pipe Capacity (L/s)			
S2010 to S2004	300 mm HDPE	70	71	85	12.3	32
S2004 to S5236	250 mm PVC	60	54	80	12.3	32
S2013 to S2010	200 mm (AC assumed)	50	18	36	4.8 ¹	25

¹ Due to Food Services, Plant Services and Storage Building. See Appendix B.

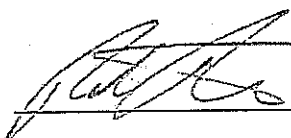
Based on the above MMCD criteria, the section of sewer between the new connection point on Lee Avenue and manhole S2010 is undersized. An upgrade of the pipe will be required to convey the estimated flows from the Patient Care Centre. The proposed pipe is a 250 mm diameter PVC pipe with a capacity of 44 L/s (at 60% of pipe diameter).

The systems downstream of manhole S2010 are sized adequately to convey the estimated future flows.

6.0 CONCLUSIONS AND RECOMMENDATIONS

- Based on proposed alignment and grades, a gravity connection of the Patient Care Centre to the Lee Avenue sewer appears to be feasible. Sewers located below the connection elevation of 22.6 m at the Patient Care Centre will be required to be pumped.
- The estimated existing system flow rate at S2010 is 12.3 L/s.
- The estimate of peak flow from the proposed Patient Care Centre is 20 L/s.
- The estimated combined future flow rate is 32 L/s.
- Flow monitoring should be conducted at SMH S2010 prior to construction and connection of the proposed Patient Care Centre to confirm the available capacity in the system.
- The preliminary pipe size through the utility corridor will be 300 mm diameter. Pipe material selection will be determined during detailed design.
- Upgrading of approximately 45 m of 200 mm diameter AC City main from the new connection point to manhole S2010 is required. The proposed pipe should be 250 mm diameter PVC.
- Our assessment indicates that the existing 300 mm diameter HDPE and 250 mm diameter PVC City mains from manhole S2010 to S5236 are adequately sized for the additional flows.
- This report should be submitted to the City of Victoria for review and approval, and to the CRD for information, prior to being included in addendum to prospective design/build teams.

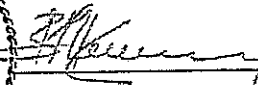
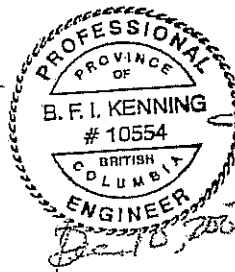
This report was prepared by:



Rob Rutherford, ASCT
Senior Engineering Technologist

FOCUS CORPORATION

Reviewed by:



Bruce Kenning, P.Eng.
Senior Water Resources Engineer

FOCUS CORPORATION

Figures

Appendix A

Libilee Hospital - City Water - Meter Readings - 2007

Location #	Main Supply to:	Meter Reading - cu/ft 24-Jan-07	Use over (Baseline) Period - Days	Meter Reading - cu/ft 31-Jan-07	Use over 7 Days	ft3/day
1	Begbie	103714	-	103732	18	2.571428571
2	Richmond Pav	95351	-	95396	45	6.428571429
3	Royal	455122	-	455249	127	18.14285714
4	Coronation	662302	-	663864	1562	223.1428571
5	Bay Pav	128382	-	128383	1	0.142857143
6	Parkade	58640	-	58798	158	22.57142857
7	Memorial Pav	673264	-	684624	11360	1622.857143
8	Adanac	226148	-	226432	284	40.57142857
9	VICC	130819	-	133725	2906	415.1428571
10	DT/Rixford	230557	-	231145	588	84
11	Food Services	567930	-	586949	19019	2717
12	EMP	160240	-	160324	84	12
13	Storage	11727	-	11745	18	2.571428571
14	Plant House	15026	-	15122	96	13.71428571
15	Blenheim	127749	-	127768	19	2.714285714
16	TB Clinic	89952	-	90073	121	17.28571429
	Ambulance					
Year-to-date		762157 cu/ft		Total	36406	
Avg Day		15554 cu/ft		Avg/Day	5201	

100

Water Units 364.06
Per Unit Cost \$ 1.48
\$ 538.81

	Meter Reading - cu/ft 7-Feb-07	Use over 7 Days	Meter Reading - cu/ft 14-Feb-07	Use over 7 Days	Meter Reading - cu/ft 21-Feb-07	Use over 7 Days	Meter Reading - cu/ 28-Feb-07
2763	103747	15	103763	16	103778	15	1037
908	95437	41	95477	40	95520	43	955
6163	455322	73	455515	193	455646	131	4557
3126	665379	1515	666905	1526	668267	1362	6696
305	128399	16	128719	320	128722	3	1287
17589	58958	160	59126	168	59281	155	594
7277	696051	11427	706768	10717	715387	8619	7231
332	226738	306	226964	226	227239	275	2275
9451	136343	2618	139003	2660	141654	2651	1443
10268	231664	519	232188	524	232689	501	2332
3	605251	18302	623646	18395	642975	19329	6619
12395	160408	84	160490	82	160574	84	1606
2763	11788	43	11808	20	11825	17	118
1738	15239	117	15366	127	15482	116	156
13583	127788	20	127917	129	127929	12	1279
15242	90199	126	90314	115	90421	107	905
	11926	-	11941	15	11956	15	119
	Total Avg/Day	35382 5055	Total Avg/Day	35273 5039	Total Avg/Day	33435 4776	Total Avg/Day

	Meter Reading - cu/ft 7-Mar-07	Use over 7 Days	Meter Reading - cu/ft 14-Mar-07	Use over 7 Days	Meter Reading - cu/ft 21-Mar-07	Use over 7 Days	Meter Reading - cu/ft 28-Mar-07
17	103809	14	103825	16	103841	16	103841
43	95615	52	95660	45	95704	44	95704
133	455910	131	456045	135	456180	135	456315
1426	677045	7352	678719	1674	680394	1675	681309
5	128731	4	128731	0	128731	0	128731
161	59608	166	59755	147	59917	162	60000
7765	731195	8043	739119	7924	747280	8161	755341
267	227739	233	227983	244	228220	237	228400
2679	148021	3688	150700	2679	153572	2872	156100
501	234017	737	234915	898	235850	935	236700
	666424	4446	666424	0	666424	0	666424
76	160753	103	160834	81	160923	89	161000
26	11856	5	11856	0	11897	41	119000
124	15736	130	15886	150	16004	118	161000
11	127944	4	127951	7	127957	6	127900
129	90658	108	90768	110	90893	125	91000
16	11988	16	12006	18	12010	4	12000
2472	Total	25232	Total	14128	Total	14620	Total
139	Avg/Day	3605	Avg/Day	2018	Avg/Day	2089	Avg/Day

r	Meter Reading - cu/ft 25-Apr-07	Use over 28 Days	Meter Reading - cu/ft 7-Jun-07	Use over 43 Days	Meter Reading - cu/ft 24-Jul-07	Use over 47 Days	Meter Reading - cu/ft 27-Aug-07
15	103921	65	104033	112	104354	321	10441
46	95931	181	96175	244	96500	325	9651
146	0		1094	1094	2202	1108	271
996	685428	4038	690071	4643	695715	5644	69841
0	0		0				
146	60650	587	61459	809	62399	940	6281
2034	790387	35073	850011	59624	921329	71318	95621
248	229405	937	230864	1459	233328	2464	23451
2603	167348	11173	193196	25848	228818	35622	24611
260	240301	3591	245942	5641	251999	6057	25491
0	666437	13	666539	102	728455	61916	72841
82	161365	360	162669	1304	163566	897	16391
8	11970	65	12380	410	12421	41	1241
101	16491	386	17085	594	17696	611	1791
23	128002	22	128063	61	128094	31	12811
131	91480	456	92135	655	92883	748	9321
27	12148	111	12271	123	12421	150	1241
3466	Total	57058	Total	102723	Total	188193	Total
324	Avg/Day	2038	Avg/Day	2389	Avg/Day	4004	Avg/Day

Tr	Meter Reading - cu/ft 21-Sep-07	Use over 25 Days	Meter Reading - cu/ft 23-Oct-07	Use over 32 Days
46	104440	40	105007	567
83	96659	76	97072	413
500	3194	492	4860	1666
2752	701197	2730	709448	8251
464	63316	453	64716	1400
14928	991383	35126	357778	turned over
262	235868	1278	237046	1178
7288	263050	16944	292841	29791
2008	257886	2889	264281	6395
	728492	0	729460	968
426	164390	398	164865	475
15	12450	14	0	
298	18277	283	0	
12	128106	0	0	
362	93593	348	0	
68	12544	55	0	
1539	Total	61126	Total	51104
310	Avg/Day	2445	Avg/Day	1597

Appendix B

PEAK SEWAGE FLOW RATES BASED ON WATER USAGE RECORDS

	Fixture Units	Peak 7-day Average Day Water Use (L/day)	Average Day Water Use (L/s)	Population based on 150 L/capita/day	Peaking Factor (Harmon)	Peak Flow (L/s)	Building Area (m2)	I&I ¹ (L/s)
	550	26,360	0.3	176	4.2	1.3	11,360	1.7
Wastewater Treatment Services	2,000	5,650	0.1	38	4.3	0.3	27,635	4.2
		78,200	0.9	521	4.0	3.6	5,300	0.8
		610	0.0	4	4.4	0.0	1,250	0.2
		270	0.0	2	4.5	0.0	1,400	0.2
		111,090	1.3	741				

/ha/day (based on City of Victoria sewage collection system average I&I rate)

	Fixture Units	Comparison Building	Average Day Water Use * (L/s)	Population based on 150 L/capita/day	Peaking Factor (Harmon)	Peak Flow (L/s)	Building Area (m2)	I&I ² (L/s)
Example	5,000	Cancer Centre	2.8	1,600	3.7	10.4	11,000	1.7

* Average daily water usage to fixture units

SCHEDULE "H"
Tree Protection Plan

Gye and Associates Ltd.

Consultants in Urban Forestry and Arboriculture



December 21, 2007

City of Victoria
Parks, Recreation and Community Development

Attention: Mr. Cory Manton
Parks Arborist
cmanton@victoria.ca

Reference: 1952 Bay Street
Royal Jubilee Hospital Rezoning Application
Tree Protection Plan for Parking Area at south end of Campus

Dear Cory:

Please find below an addendum to our report of November 13th, 2007, in support of the above application. This addendum addresses planning for the protection of trees located in the proposed parking area that are subject to the City's Tree Preservation Bylaw.

Background:

The Royal Jubilee Hospital is in the process of applying for a rezoning of the campus. A campus-wide tree survey and assessment was completed and submitted as part of our November 13th, 2007 submission in support of this application.

An RFP process is currently underway for the design of a new Patient Care Centre on the west side of the site, south of Bay Street. As part of the parking management associated with this new Centre, changes to the south end of the site are proposed. The recent demolition of the Chest Clinic and other buildings at the south-east corner of the site has made way for additional parking that will be needed to accommodate car parking that will be displaced when construction for the new Patient Care Centre begins (tentatively scheduled for July of 2008).

Proposed Parking Plan:

The proposed parking plan is divided into four discrete areas, two of which are proposed for immediate redevelopment. (These two areas are designated "Phase 1 – East" and "Phase 1 – West" on the Parking Plan drawing attached as Appendix—4.)

Victoria Office: 5955 Wallace Drive, Victoria, BC V8E 2G7
Phone: (250) 544-1700 Fax: (250) 544-2558 Toll Free: (800) 567-2677
jgye@shaw.ca

The area designated "Phase 1a" has been split off as a separate area for two reasons. Due to planning and permitting complexities associated with the closure of the Davis Street entrance, the permitting for this component may take longer to finalize. VIHA does not want this process to delay the commencement of work on Phase 1 - East and West. The second reason for treating this component of the parking redevelopment separately is that it will need to continue functioning in its existing format to manage traffic and parking while Phase 1 - East and West are being redeveloped.

The broader area to the west designated as "Phase 2" is not being considered for immediate redevelopment at this time.

Protected Tree Resource:

There are 22 trees of protected size or species that are implicated in the current parking plan, all of which are located in the areas identified as "Phase 1—East" and "Phase 1a".¹ These trees, most of which are Garry Oaks, are described in detail in the Tree Inventory Table attached as Appendix—1. These trees are identified in the Tree Protection Plan drawing (attached as Appendix—5) by a solid fill and include one or more off-site trees.

Anticipated Tree Impacts:

Gye & Associates Ltd have worked closely with the proponent and other design consultants in developing this plan, which has incorporated 21 of the 22 protected trees in question into the final parking design. Only one protected tree is recommended for removal: tree # 002, a 73cm d.b.h. Garry Oak, is located on a difficult cross-slope and in the middle of a proposed drive-aisle, making successful retention impossible, even with careful grading.

The major threats to effective tree retention arising from conventional site preparation and parking/roadway construction include the following:

1. *Root, stem or branch trauma* arising from excavation of rootable soils or contact between heavy machinery and the above-ground portion of the tree.
2. *Fine root damage* arising from uncombusted blasting gases or the displacement of rootable soils from excessive blasting particle velocities.
3. *The displacement, compaction or re-moulding of rootable soils* arising from uncontrolled use of heavy machinery within the critical root area of protected trees, resulting in lowered gaseous exchange and hydraulic conductivity.
4. *Reduced hydration and oxygenation of rootable soils* due to the placement of fill soils or impervious surfacing (e.g. pavement) above the critical root area.

Tree Protection Measures:

To minimize adverse impacts to the trees proposed for retention, the following measures are proposed:

1. Design/Planning

The first step in minimizing impacts to protected trees is to develop a site plan that will accommodate as many trees as possible. In this case, a site plan has been developed in consultation with the project arborist that retains all but one of

¹ One of these trees, a Horse Chestnut with a 70cm stem diameter, is technically under-size, but we have elected to include it, due to its excellent form and placement as a companion tree to the protected Horse Chestnut # 674 on the opposite side of the Davis Street entrance.

the twenty-two protected trees present. A minimum offset of 2m has been provided between all internal roadway or parking stall curbs and the base of protected trees. This degree of encroachment over the critical root area of the tree requires special measures, such as careful grading, modified base preparation and materials and porous surfacing.

2. Tree Protection Fencing

Well-constructed and clearly signed Tree Protection Fencing is required in all areas where parking construction will interface with protected trees. Typically, the alignment of the proposed fencing follows a .5m offset from the edge of curb. Fencing must be in place to the satisfaction of the project arborist prior to other site work commencing. A fencing detail is attached to this document as Appendix—2.

3. Grading

Finished grades have been set to avoid excessive cuts or fills adjacent to protected tree root zones. Based upon an examination of the soil and root profiles in the area, a 3 – 400mm cut is sustainable, where necessary, beyond the 2m offset threshold, providing such a cut is made under the supervision of the project arborist. Hydraulic excavation will be used where considered appropriate by the project arborist.

4. Blasting

Exposed bed-rock can be observed throughout the site and blasting is likely in order to achieve the preferred grades for the new parking areas. A blasting "best practice" is attached as Appendix—3. The project arborist will ensure the following:

- tender documents will include an appropriate blasting specification
- the arborist will meet with the blasting sub-contractor prior to blast-work commencing to ensure that tree protection goals are well understood
- the arborist will oversee blasting adjacent to protected tree areas.

5. Base Preparation

Careful grading and road-base preparation ensure that trauma to tree roots growing beneath these areas is minimized. Base elevations should not exceed 400mm below existing grade. The project arborist will supervise all excavations adjacent to protected tree areas. Hydraulic excavation techniques will be used where necessary. No fills will be permitted to be stored within the tree protection areas.

6. Porous Pavers

Porous surfacing and gap-graded road-base materials adjacent to protected trees will be used to ensure that adequate infiltration of rainwater and gaseous exchange to the roots will continue overtime.

7. Section Profiles

Typical section profiles of the road-base and surfacing adjacent to protected tree areas are attached as Appendix—6.

GYE AND ASSOCIATES – URBAN FORESTRY CONSULTANTS LTD.

8. Arborist Supervision

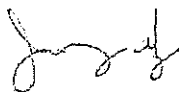
The project arborist will be responsible for the following:

- Attend all project meetings during the planning and construction period;
- review and contribute as necessary to the preparation of tender and contract documents;
- meet with the successful contractor to review tree protection measures;
- inspect the tree protection fencing and notify the City that it meets the standard set forth in this report, prior to other work commencing on site;
- Supervise all site preparation work occurring immediately adjacent to tree protection areas;
- Monitor the site for compliance with mandatory tree protection measures on a regular (weekly) basis;
- Be available to the contractor or City Parks staff for meetings to resolve any tree conflicts that may arise.

END REPORT

Certification:

This report and the opinions expressed within it have been prepared in good faith and to accepted arboricultural standards within the scope afforded by its terms of reference and the resources made available to the consultant.



For Gye and Associates Ltd.:
Jeremy Gye – Consulting Arborist
I.S.A. Certification # PN-0144

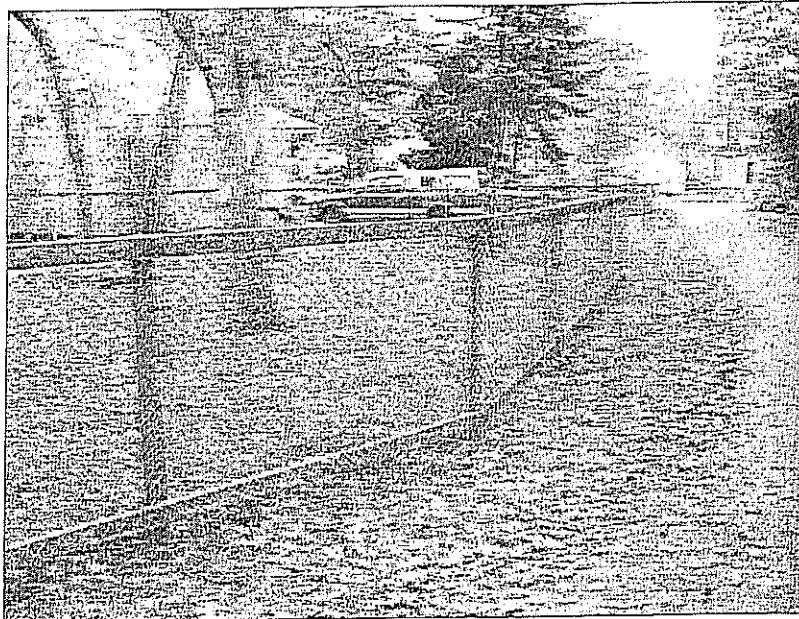
Dated: November 13, 2007

APPENDIX—1
PROTECTED TREE INVENTORY TABLE

Tree #	Common Name	Stem Dia. (cm)	Canopy (m)	Health	Structure	CRZ(m)
2	Garry Oak	73	9	Poor-Fair	Fair	
4	Garry Oak	47	5	Poor	Fair	7
5	Garry Oak	75	8	Good	Good	11
6	Garry Oak	60	9	Poor	Fair	9
7	Garry Oak	70	9	Fair	Fair	11
8	Garry Oak	48	8	Good	Good	7
9	Garry Oak	50	10	Good	Fair	8
10	Garry Oak	45	8	Fair	Fair	7
11	Garry Oak	30	6	Poor	Fair	5
12	Garry Oak	36	4	Poor	Fair	5
13	Garry Oak	45	5	Poor	Fair	7
14	Garry Oak	65	8	Fair	Good	10
15	Garry Oak	35	4	Fair	Fair	5
16	Garry Oak	20	4	Poor	Poor	3
17	Garry Oak	70	6	Fair	Good	11
18	Horse Chestnut	70	8	Good	Fair	11
666	Garry oak	49	5	Good	Good	7
667	Garry oak	56	7.875	Good	Good	8
668	Garry oak	63	6.25	Good	Good	9
669	Garry oak	59	6.25	Good	Good	9
671	Garry oak	87.4		Good	Good	13
674	Horsechestnut	86	8.5	Good	Good	13

APPENDIX—2
TREE PROTECTION FENCING DETAIL

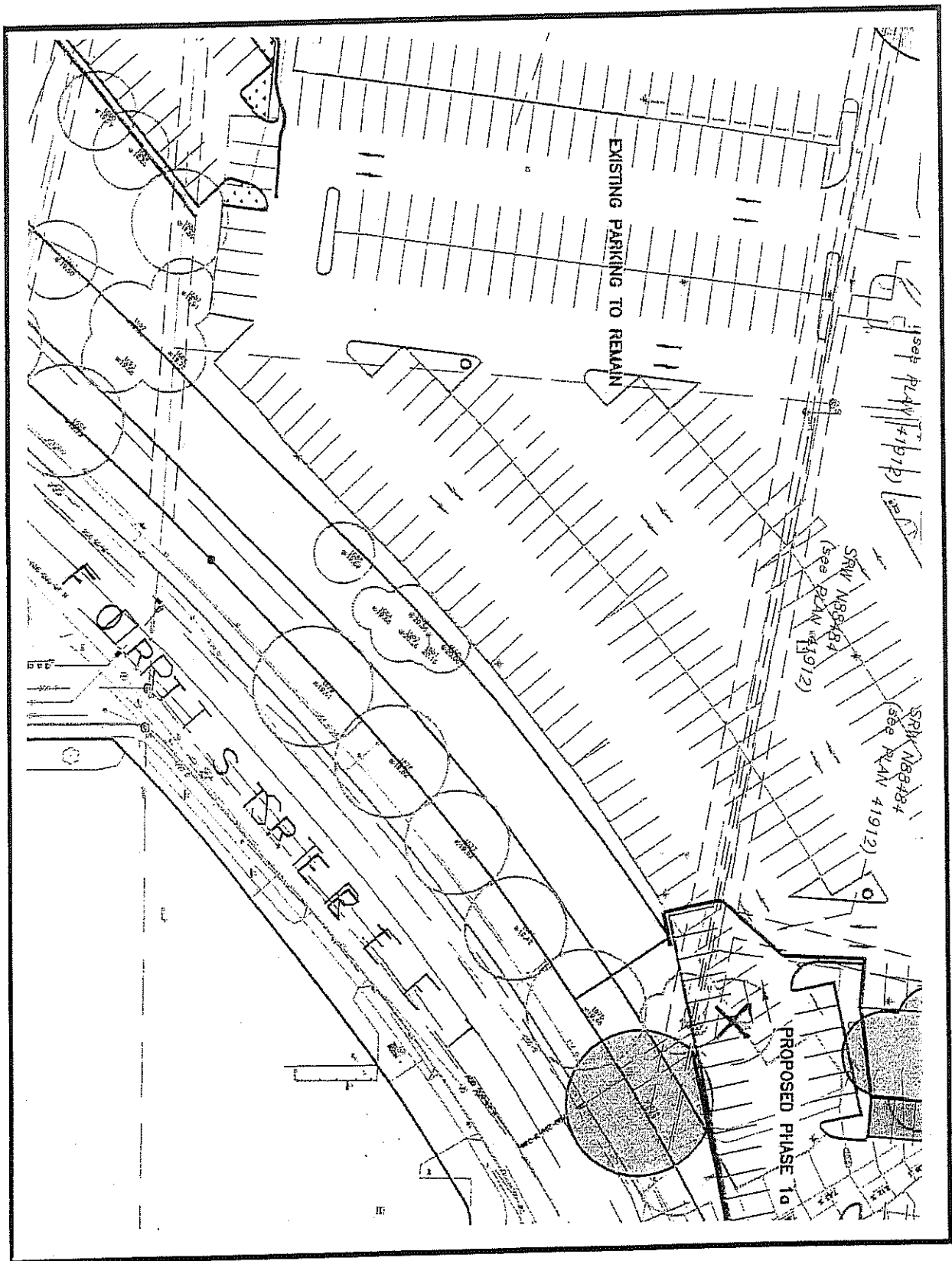
Robust Tree Protection Fencing shall be constructed with a 2x4 frame and supports. (See photo below.) Snow-fencing will then be affixed to the frame using zip-ties, staples wire or nails. All-weather signage will be attached, clearly designating the area within as a TREE PROTECTION AREA - NO TRESPASSING.



APPENDIX—3
RECOMMENDED BLASTING PROCEDURE

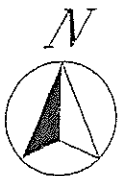
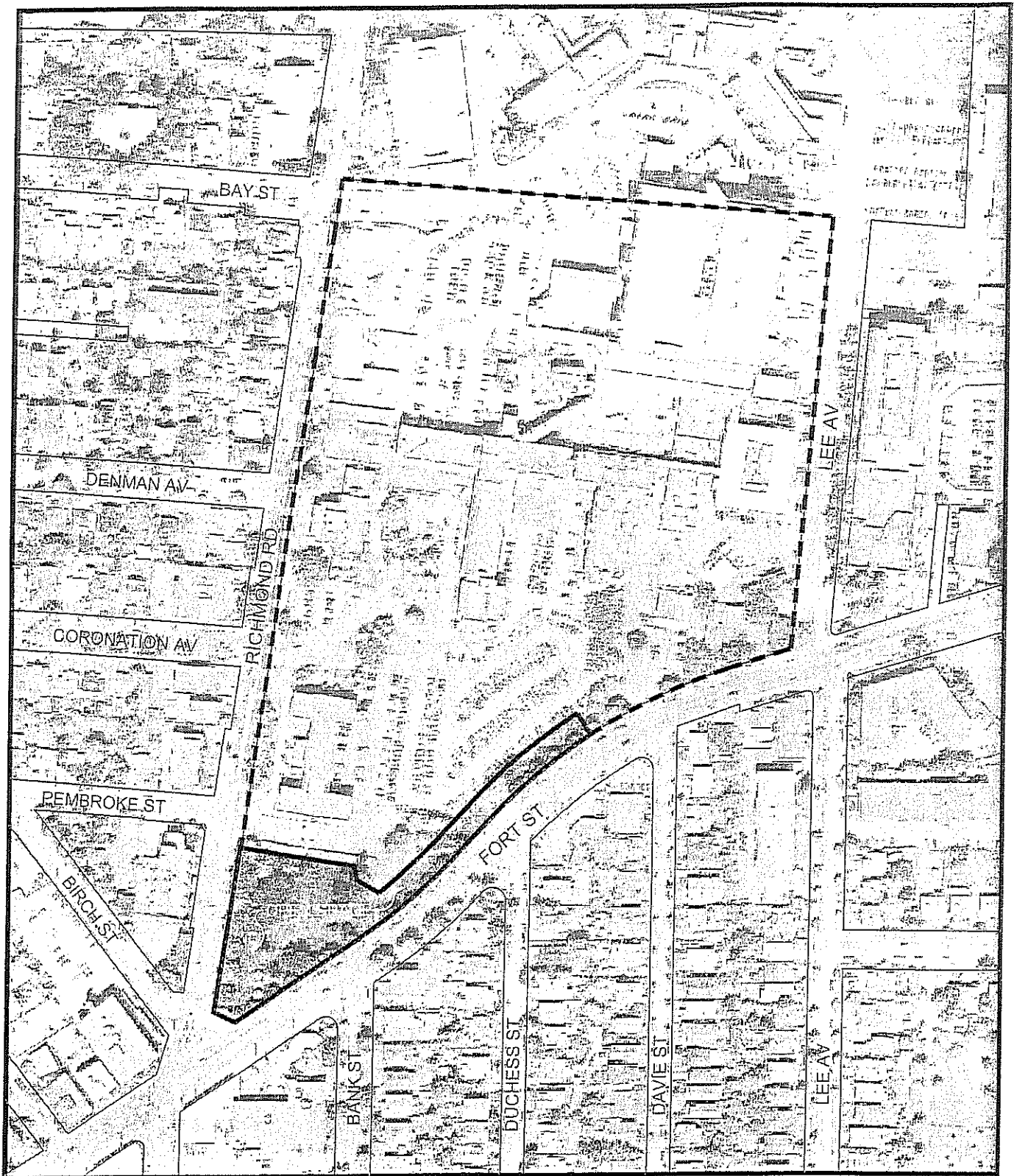
Execution:

1. Blasting vibrations in the vicinity of the Tree Protection Areas are not to exceed a peak particle velocity of 25 mm./sec. The General Contractor is responsible for ensuring that blast monitoring devices are placed at the leading edge of tree protection areas during blasting activity and a written record of the blast velocity for each blast episode is forwarded to the Consulting Arborist on a daily basis.
2. When blasting is required immediately adjacent to a Tree Protection Area, the blasting contractor must pre-shear the area between the blasting work and the Tree Protection Area. Drill closely spaced holes and use PRIMEAFLEX as the explosive product. (This will reduce the likelihood of fractures traveling into the CRZ).
3. The blasting contractor must use dynamite only. (It is waterproof, oxygen balanced, and burns cleanly leaving few unburnt gases, which are otherwise toxic to tree roots).
4. The project arborist must be in attendance when blasting is occurring immediately adjacent to Tree Protection Areas.
5. The contractor will prevent rock debris from the blast site from entering the Tree Protection Area.



Appendix 2L - Master Development Agreement
EXECUTION COPY

SCHEDULE "I"



Royal Jubilee Hospital Open Space Plan



SCHEDULE "J"

Section 219 Restrictive Covenant

TERMS OF INSTRUMENT - PART 2

W H E R E A S:

- A. The Grantor is the registered owner in fee simple of:
- PID 023-646-438
Lot A, Sections 25 and 76, Victoria District, Plan VIP64472, Except Part in Plan VIP69172
- (the "Land");
- B. The Grantee is The Corporation of the City of Victoria;
- C. The Grantor has made application to the City to rezone the Land to increase the permitted density and height of development upon the Land, as set out in City of Victoria Zoning Regulation Bylaw, Amendment Bylaw (No. _____) No. _____ (the "Rezoning Bylaw");
- D. The Grantor and the Grantee are parties to a Master Development Agreement made as of the ____ day of January, 2008 (the "MDA") respecting the Land, a copy of which is attached as Schedule "A";
- E. Under the terms of the MDA, the use and development of the Land is restricted in the public interest, and the Grantor has undertaken to provide certain services, agreements, amenities and benefits in respect of the Land, and the Grantor has agreed to provide the Grantee with a restrictive covenant and indemnity pursuant to section 219 of the *Land Title Act* to secure the restrictions and obligations of the Grantor.

NOW THEREFORE in consideration of the payment of the sum of TEN (\$10.00) DOLLARS by the Grantee to the Grantor and the premises and covenants herein contained and for other valuable consideration, receipt and sufficiency of which is hereby acknowledged by the parties, the parties hereto covenant and agree each with the other as follows:

1.0 Development in Accordance with Master Development Agreement.

- 1.1 The Grantor covenants and agrees that any development of the Land shall occur in accordance with the terms and conditions of the MDA, which terms and conditions are incorporated into and form part of this Agreement.
- 1.2 Without limiting the generality of section 1.1, the Grantor covenants and agrees that:
- (a) the Grantor shall not, nor shall it permit, any improvement, development, building or facility to be made, placed, erected or constructed upon the Land;
 - (b) the Grantor shall not make any application to subdivide the Land, except consolidation;
 - (c) the Grantee shall be under no obligation to issue a new Building Permit for any proposed improvement, development or facility that is proposed to be made, placed, erected or constructed upon the Land;
 - (d) the Grantee shall be under no obligation to issue an occupancy certificate for any building constructed upon the Land;
 - (e) the Approving Officer for the Grantee shall be under no obligation to approve any application for subdivision of the Land; and
 - (f) the Grantor shall take no action, directly or indirectly, to compel the approval of any subdivision plan or to compel the issuance of any building or development permit or occupancy certificate in respect of any improvement, development, building or facility upon the Land,

unless in respect of such improvement, development, building, facility, subdivision application, building or development permit, occupancy certificate or subdivision approval, the Grantor fully complies with the requirements of the MDA concerning:

- design commitment (Part 3.0 of the MDA),
- site servicing (Part 4.0 of the MDA),
- provision of Statutory Rights of Way (Part 5.0 of the MDA),
- interim landscaping (Part 6.0 of the MDA),
- sewer system upgrades (Part 7.0 of the MDA),
- tree protection and maintenance (section 10.1 of the MDA),
- LEED® Certification (Part 17 of the MDA),

that are applicable to the improvement, development, building, facility, subdivision application, building permit or development permit, occupancy certificate or subdivision approval, as the case may be.

- 1.3 The Grantor further covenants and agrees that the following provisions of the MDA shall bind and restrict the Grantor in relation to its use and development of the Land in perpetuity, as covenants pursuant to section 219 of the *Land Title Act*:

- public meeting space (Part 8.0 of the MDA),
- tree protection and maintenance (section 10.2 of the MDA),
- protection of green space (Part 11.0 of the MDA),
- transportation demand management (Part 13.0 of the MDA),
- development of master plan (Part 16.0 of the MDA),
- demolition of buildings in excess of floor space ratio/floor area calculated provisions of the Rezoning Bylaw)

2.0 General Provisions

- 2.1 If for any reason the Rezoning Bylaw is not approved by the City within six (6) months after the date of execution of this Agreement by both parties, the City shall execute and deliver to the Grantor a discharge of this Agreement as it relates to the Land within nine (9) months of the date of registration hereof provided the Grantor has abandoned in writing its intent to pursue the Rezoning Bylaw.
- 2.2 Nothing herein contained or implied shall prejudice or affect the rights and powers of the Grantee and the exercise of its functions under any public and private statutes, bylaws, orders and regulations, all of which may be fully and effectively exercised in relation to the Land as if this Agreement had not been executed and delivered by the Grantor.
- 2.3 The Grantor and the Grantee agree that the enforcement of this Agreement shall be entirely within the discretion of the Grantee and that the execution and registration of this covenant against the title to the Land shall not be interpreted as creating any duty on the part of the Grantee to the Grantor or to any other person to enforce any provision or the breach of any provision of this Agreement.
- 2.4 The Grantor acknowledges that the Grantee, or its officials, employees or agents, has not stated, held out or implied any expectation or requirement that the covenants must be provided in order for the Grantor's rezoning application to be approved, but rather the Grantor hereby expresses its intention to voluntarily donate the covenants in this Agreement to the Grantee, and be bound by them, without any expectation of payment or reward of any kind.

- 2.5 The Grantor hereby releases and forever discharges the Grantee of and from any claim, cause of action, suit, demand, expenses, costs and legal fees whatsoever which the Grantor can or may have against the said Grantee for any loss, damage, deprivation or injury, in law or equity, that the Grantor may sustain or suffer that arises out of any restriction on the use or development of the Land under this Agreement (whether of a positive or negative nature) or a breach of this Agreement by the Grantor.
- 2.6 The Grantor covenants and agrees to indemnify and save harmless the Grantee from any and all claims, causes of action, suits, demands, expenses, enrichment, costs and legal fees whatsoever that anyone might have as owner, occupier or user of the Land or by a person who has an interest in or comes onto the Land or by anyone who suffers loss of life or injury to his person or property, that arises out of any restriction on the use or development of the Land under this Agreement (whether of a positive or negative nature) or a breach of this Agreement by the Grantor.
- 2.7 It is mutually understood, acknowledged and agreed by the parties hereto that the Grantee has made no representations, covenants, warranties, guarantees, promises or agreements (oral or otherwise) with the Grantors other than those contained in this Agreement.
- 2.8 The Grantor agrees to execute all other documents and provide all other assurances necessary to give effect to the covenants contained in this Agreement.
- 2.9 The Grantor shall pay the registration costs of the Grantee in connection with the registration of this Agreement. This is a personal obligation only.
- 2.10 The Grantor covenants and agrees for itself, its successors and assigns, that it will at all times perform and observe the requirements and restrictions hereinbefore set out and they shall be binding upon the Grantor as personal covenants only during the period of its ownership of any interest in the Land.
- 2.11 The restrictions and covenants herein contained shall be covenants running with the Land and shall be perpetual (subject to the provisions of the MDA contemplating the discharge of this Agreement upon certain conditions), and shall continue to bind all of the Land when subdivided, and shall be registered in the Victoria Land Title Office pursuant to section 219 of the *Land Title Act* as covenants in favour of the Grantee as a first charge against the Lands

2.12 This Agreement shall enure to the benefit of the Grantee and shall be binding upon the parties hereto and their respective heirs, executors, successors and assigns.

2.13 Wherever the expressions "Grantors" and "Grantee" are used herein, they shall be construed as meaning the singular, plural, feminine or body corporate or politic where the context or the parties so require.

IN WITNESS WHEREOF the parties hereto hereby acknowledge that this Agreement has been duly executed and delivered by the parties executing Forms C (pages 1 to 3) attached hereto.

SCHEDULE A to Restrictive Covenant
Master Development Agreement

(not reproduced for convenience - to be inserted before execution)

SCHEDULE "K"

Approval Matrix
(to be inserted before registration of MDA Covenant)