APPENDIX 3A
CLINICAL SPECIFICATIONS AND FUNCTIONAL SPACE REQUIREMENTS

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EXECUTIVE SUMMARY

Purpose

The primary purpose of the Functional Program is to define the scope of the Patient Care Tower at the Penticton Regional Hospital in terms of its programs and services, functionality and space requirements.

Project Scope

The Functional Program update is based on the January 2011 Functional Program for the Hospital. IBI Group has updated the Functional Program to reflect the following:

- Inclusion of the Emergency Department expansion in the Functional Program;
- Current CSA standards for healthcare facility design;
- Current population projections;
- New program information and requirements solicited through a user engagement process; and
- Changes in hospital and IHA direction, policies and services.

The functional components addressed in the Patient Care Tower project and included in this report are as follows:

A – Ambulatory Care Centre;

B – Procedural Services Centre;

C – General Medical/Surgical Inpatient Units;

D –NOT USED

E – Medical Device Reprocessing;

F – UBC FoM Distributed Medical Education Program at PRH;

G – Retail.

Building & Site Development Strategies

The Patient Care Tower (PCT), is planned for approximately 26,706 BGSM of new clinical, administrative and support spaces stacked over seven storeys. The major program components include ambulatory care clinics, surgical procedures centre and inpatient units. In order to accommodate the required number of parking stalls to support the site, a parking garage is planned for the facility.

The eastern portion of the site was chosen for the development of the new PCT due to its relatively undeveloped condition. The building is located directly east of the existing Laboratory and Emergency Department and will connect directly to the existing building. The parking garage is located to the southeast of the PCT, between the new building and the existing Hospice. The parking garage will provide direct connections to Level 0, 1 and 2 of the new building.

Programming Methodology

The Program Update was a collaborative effort involving IHA staff and the consulting team utilizing workload data prepared by IHA. The programming process included the active involvement of IHA representatives and key stakeholders from each of the components of the Patient Care Tower project.

Space Summary

The Functional Program space in component gross square metre (CGSM) is summarized as follows:

Patient Care Tower	16,098	CGSM

1. INTRODUCTION

1.1 Background

Interior Health Authority has commissioned IBI Group to prepare an Indicative Design Report and this Appendix 3A Clinical Specifications and Functional Space Requirements for the Patient Care Tower (PCT) and Emergency Department at Penticton Regional Hospital (PRH) in Penticton, BC. The purpose of these documents will be to support IHA's Business Case submission to the Ministry of Health and to facilitate a costing exercise.

The Patient Care Tower (PCT) and expansion of the existing Emergency Department have been planned to significantly improve access to services and provide quality patient care through a more streamlined process achievable through the consolidation of programs which are currently distributed throughout PRH.

The PCT is planned to contain the following services and components:

- 7 Storey Building with the following programs:
    - Level 7 – Mechanical Equipment including Chiller/Boilers & Helipad;
    - Level 6 – 28 Inpatient Bed Unit and Support;
    - Level 5 – 28 Inpatient Bed Unit and Support;
    - Level 4 – 28 Inpatient Bed Unit and Support;
    - Level 3 – Mechanical and Electrical Equipment including Air Handling Units; as well as UBC FoM Distributed Medical Education Program lounge,
    - Level 2 – Surgical Services & Minor Procedures;
    - Level 1 – Ambulatory Care Clinics including Diagnostic Imaging;
    - Level 0 – Medical Gas Storage, Emergency Generators, Medical Device Reprocessing & UBC FoM Distributed Medical Education Program at PRH.
- Parking Garage

Renovation and expansion of the existing Emergency Department is required to support the current patient volume and improve turn-around times for ED visits.

Interior Health completed a Functional Program in February 2008 and in January 2011 this program was updated to reflect changes in population and workload. IBI Group has updated the Functional Program based on current CSA standards, changes in hospital and IHA direction, policies and services, and new program information and requirements solicited through a user engagement process.

1.2 Project Scope

This Appendix 3A document represents an update the Functional Program prepared for the Penticton Regional Hospital in February 2008 and last updated in January 2011. IBI Group has prepared Appendix 3A to reflect the following:

- **Inclusion of the Emergency Department expansion in the Functional Program.** Expansion of ED is not part of Project Co scope of work and included herein for information only.

- **Consideration of the entire Penticton Regional Hospital site.** Recent planning for the Patient Care Tower has been impacted significantly by consideration of the PRH campus as a whole and the efficient flow of patients through the site. This has led to the inclusion of some priority programs in the Functional Program, including the addition of the inpatient units and the expansion of the Emergency Department, and the exclusion of other programs.

- **Current CSA standards for healthcare facility design.** The Canadian Standards Association (CSA) Z8000-11 standard was released in September 2011 (following the update to the PRH Functional Program). The standard provides requirements and guidance for the planning, design, and construction of Canadian health care facilities. As stated in the standard: "It is intended to be used by all facilities providing health care services regardless of type, size, location, or range of services." A list of the typical spaces in the Functional Program that have been standardized according to the CSA Z8000-11 standard is shown in the following table:

Size (nsm)	Space Description
4.6	Workstation
9.0	Office – no meeting space
10.0	Office – one desk, two visitor chairs
11.0	Office – one desk, small meeting area
14.0	Office – One desk, meeting area with four chairs
4.6	Washroom, Patient, Wheelchair Type
12.0	Utility room, soiled
12.0	Standard examination/treatment room, stretcher
9.5	Medication Room
65.0	Special Operating Room*
25.0	Procedure room, four-side patient access without imaging
9.5	Stretcher Recovery Area -Open
21.4	Inpatient Bedroom, Private
5.6	Inpatient Washroom, 3 piece
23.6	Inpatient Bedroom, Private (Isolation)
7.5	Anteroom for Inpatient Bedroom (Isolation)
7.5	Inpatient Washroom, (Isolation)

*Operating rooms standardized at IHA standard of 65 m^2.

- **Current population and workload projections.** An update to the analysis of the service area and population projections is provided. The analysis provided in the January 2011 Functional Program is the basis for workload projections until Year 2024/25. The current program is to provide planning for space requirements as projected until Year 2028/29.
- **New program information and requirements solicited through a user engagement process.** The update to the Functional Program was a collaborative effort involving IHA staff and the consulting team utilizing workload data prepared by IHA. The programming process included the active involvement of IHA representatives and key stakeholders from each of the components of the Patient Care Tower project.
- **Changes in hospital and IHA direction, policies and services.** The principles as stated in the January 2011 Function Program continue to guide ambulatory care service planning in the PCT. These include the following:
    - IH Capital Strategy 2013-2023;
    - The new Patient Care Tower will have the capacity to transition to a fully electronic health record (EHR);
    - Patients will generally be seen for 11 daytime hours (0700-1800) Monday through Friday with extended hours for some programs;
    - In-patient units, Emergency Department, and Surgical Services will operate 24 hours, 7 days per week. Medical Device Reprocessing will operate from 0600h to 2400h to support current volumes and types of procedures. As volumes increase, 24-hour operation will be considered;
    - Allocation of space (examination and procedure rooms) will be based on an 80% utilization rate;
    - Clinical program staff must be at least 0.75 FTE to be assigned a dedicated workspace in the PCT;
    - Programs will share common spaces (lounges, conference rooms, etc.) and patient care spaces will be pooled and centrally scheduled;
    - The PCT will ensure that wayfinding is functional for patients and staff;
    - Clinical programs will adopt “level” schedules to create a smooth flow of patients where patients are not waiting for services but rather services are pulled by the patient when required with limited waiting time. The objective is to minimize disruptions caused by sudden changes in demand levels by matching clinic schedules to the demand of services required by patients;
    - Standardized room sizes will be adopted for all room types; and
    - Non-dedicated ambulatory clinic space will be organized in the form of a generic clinic module.

    IHA has adopted guiding principles that will impact planning of the PCT including the following:

    - All inpatient rooms in the new facility will be private;
    - Patient reception is to be centralized in the PCT at the main entrance. This provides a patient-focused approach to registration and will support kiosk registration in the future;
    - Patients that do not require acute care services will receive community-based services. Community components of programs that were to be amalgamated with acute care components in the PCT will continue to be community-based or transitioned to the community;

- Adoption of priorities as recommended by the Surgical Services Review Steering Committee pertaining to Governance, Access, Efficiency and Sustainability and Quality and Patient Safety. Planning is to include provisions for centralization of all Medical Device Reprocessing in the South Okanagan Similkameen Region and the potential repatriation of regional surgical programs; and
- Adoption of technology to improve patient care and patient experience. The rapid advancement and influence of technology has created the opportunity to re-imagine the delivery of healthcare. Technology can create the environment for vastly safer practices. For example:
    - Electronic Medical Records (EMRs) can create a consistent way to document patient care and provide continuity from plan to place;
    - Computerized physician order entry eliminates errors of hand-writing interpretation and nonstandard abbreviations;
    - Bar-code medication administration creates a reliable way to make sure that the right patient receives the right drug at the right time; and
    - Pagers, voice-activated devices, and computers on wheels are all intended to streamline workload.

    There is also an opportunity to improve the patient experience by enabling technology to provide patients with connectivity, communication, and access to information. The design of the Patient Care Tower requires the infrastructure to support adoption of technology in the future. These include:

    - electronic patient information available at the bedside to assist clinical staff in performing their duties, on portable devices, run over the wired or wireless network; and
    - providing the application services, programs and electronic educational material that will be displayed via the network on televisions, video conferencing equipment, personal computers or integrated bedside terminals.

      'Smart' Patient Rooms -- Patient rooms will be equipped with a bedside nurse call console that will enable the patient to do everything from controlling the room's lighting to speaking directly with a nurse when needed. Large flat screen monitors on the wall at the foot of the bed will not only offer entertainment, but also patient education sites to learn more about a health condition or a pending procedure.
    - Streamlining Technology – The goal is to have a fully-integrated electronic medical record system. So instead of a number of different clinical systems, there will be just one large integrated platform. Physicians and clinicians will be able to access information about their patient's medical history even if they received treatments at different Interior Health institutions, enhancing quality of care and reducing duplicate tests and treatments.
    - Kiosks: Patients who arrive for an elective procedure or medical appointment will be able to register themselves at a kiosk. Patients will also receive directions to the department or procedure center they are visiting.
    - Electronic status boards: These displays in waiting areas would allow families to track when their loved one is out of the OR and in the recovery room.
    - Charging stations: From labs to lounges to waiting rooms, the increased dependence on devices will also require charging stations in multiple locations throughout the PCT.

        - Robust Wi-Fi: Today, many patients and family members sitting in waiting rooms use personal mobile devices for entertainment, to review and update personal health information, and arrange future appointments. Institutions must accommodate this constant interaction via mobile technology.
    - IHA is leveraging Lean as a patient-focused approach to map a patient's journey through the health system in order to identify activities that provide value to a patient and eliminate those that add no value (waste). Once wasteful activities are removed, remaining steps are made more efficient and integrated so that services flow smoothly. Services are "pulled" only when needed by patients. Part of the process is the pursuit of continuous improvement by repeating the cycle so that processes become more and more streamlined.

The functional components addressed in the Patient Care Tower project and included in this report, are as follows:

A – Ambulatory Care Centre;

B – Procedural Services Centre;

C – General Medical/Surgical Inpatient Units;

D – NOT USED

E – Medical Device Reprocessing;

F – UBC FoM Distributed Medical Education Program at PRH; and

G – Retail

1.3 Organization of Report

Information for each of the functional components is presented under the following headings:

- **OVERVIEW** provides a brief background statement, identifies planning parameters or key assumptions taken in planning each component, and lists selected key trends related to the specific service.
- **FUNCTIONAL DESCRIPTION** provides brief information on the general services or operations of the component under four sub-headings: Scope of Services, Client/Patient Profile, Regional Context, and Education & Research.
- **OPERATIONAL CONSIDERATIONS** provides a description of the key operations of the component under headings such as Organization & Management, Service Delivery Principles & Methods, Clinical Support Services, Support Services and Hours of Operation.
- **WORKLOADS** summarize the historical workload and estimates projected workload to the planning horizon in the future. The planning horizon for the current program (2028/29) is based on the original program (2024/25) and is used to project maximum capacity and space requirements of the component. For the information that is not applicable, a dash (-) indicates that the information is not available, does not currently exist, or is not relevant. In addition, workload projections for the Year 2019/2020 are included as per IHA request.
- **DESIGN CRITERIA** provides a description of the Special Requirements and Space Requirements of the component.
    - **External Relationships** indicates the priorities of the component for its location relative to other components.
    - **Internal Relationships** indicates the basic criteria and concepts for the organization of space within the component.

- Graphic and narrative descriptions have been provided to explain the key external relationships and internal relationships between spaces and departments. The external relationship diagrams and written descriptions indicate the priorities of the subject component for its location relative to other components. The following terms are used to describe the relationships which are defined as follows:
    - Direct Access
        - "Direct access" has the meaning set out in Schedule 3 [Design and Construction Specifications];
    - Convenient Access
        - "Convenient access" refers to components, which are located at a minimal distance from each other and linked by horizontal and/or vertical circulation, the location of these items are optimized for efficiency of flow and avoid corners, jogs or obstructions such as columns that create interference.
    - By Internal Circulation
        - "By Internal Circulation" refers to components linked internally through a horizontal connection such as a door or opening and avoid movement through other circulation systems of the facility.
    - By General or Public Circulation
        - "By General or Public Circulation" refers to components linked by horizontal and/or vertical circulation corridors, stairs or elevators to be used by public, visitors and staff.
    - By Restricted or Non-Public Circulation
        - "By Restricted or Non-Public Circulation" refers to components linked by restricted horizontal and/or vertical circulation corridors, stairs or elevators to be used by staff, registered patients and services and are not for use by the general public.
- **SCHEDULE OF ACCOMMODATION** provides a tabulated summary of the space requirements for each component. Each space listed includes the number of projected rooms or spaces (units), the net square metres per unit (nsm/unit), the total net square metres (nsm), and explanatory remarks or description (FP Comments).

1.4 References

The following documents and references provided direction to the development of this report:

1. Canadian Health Care Facilities (CSA Z8000-11). CSA Standards, September 2011.
2. British Columbia - Sub-Provincial Population Projections - P.E.O.P.L.E. 2013: http://www.bcstats.gov.bc.ca/StatisticsBySubject/Demography/PopulationProjections.aspx
3. Surgical Services Review. Sullivan Healthcare Consulting.
4. Hayward, Cynthia (2006) *SpaceMed: A Space Planning Guide for Healthcare Facilities.* Hayward & Associates LLC.

2. WORKLOAD PROJECTIONS

2.1 Service Area and Population Projections

Service Area

For ambulatory care services, the Penticton Regional Hospital (PRH) will continue to serve five Local Health Areas. This includes the Penticton Local Health Area 15 serving local residents as well as residents from four other LHAs seeking specialty ambulatory care. PRH continues to provide Regional Hospital Services for Inpatient Care.

For the purposes of projecting workload for the PRH proposed Patient Care Tower, the catchment area is assumed to include 100% of the Penticton, Summerland, Keremeos, Southern Okanagan and Princeton LHAs' and 15% of the Kettle Valley LHA. It is assumed that the remaining 85% of the Kettle Valley LHA residents are referred to Trail or other Kootenay Boundary Health Service Area facilities.

Planning Horizon

The current facility planning for the project is based on conditions estimated for the fiscal Year 2028/29 and therefore with more capacity than required on 'opening day'. As a result, not all spaces will necessarily be utilized initially as programs/services will not be initially expanded. Instead, it is expected that utilization will expand into additional building space as workload volumes grow over time.

Demographics

The following tables summarize the projected populations for the PRH catchment area to the Year 2028/29 (Table 1).

Table 1: Population Projections for LHA 13, 14, 15, 16, 17 and 77 (PEOPLE 2013 as of October 24, 2013)

		Current Year Total	Project Year					Percent Change from 2013/14 to the following years:			
	Age Group	2013/14	2014/ 2015	2019/ 2020	2024/ 2025	2028/ 2029		2014/ 2015	2019/ 2020	2024/ 2025	2028/ 2029
LHA 15 Penticton	<20	7,518	7,445	7,604	8,134	8,456		-1.0%	1.1%	8.2%	12.5%
	20 to 44	11,049	11,184	11,901	12,507	12,761		1.2%	7.7%	13.2%	15.5%
	45 to 64	12,647	12,510	12,039	11,100	10,908		-1.1%	-4.8%	-12.2%	-13.8%
	65+	10,715	10,957	12,076	13,608	14,557		2.3%	12.7%	27.0%	35.9%
	Total	**41,929**	**42,096**	**43,620**	**45,349**	**46,682**		**0.4%**	**4.0%**	**8.2%**	**11.3%**
LHA 14 Southern Okanagan	<20	2,923	2,907	2,736	2,778	2,791		-0.5%	-6.4%	-5.0%	-4.5%
	20 to 44	3,801	3,798	4,034	4,134	4,093		-0.1%	6.1%	8.8%	7.7%
	45 to 64	6,162	6,008	5,518	5,142	4,873		-2.5%	-10.5%	-16.6%	-20.9%
	65+	6,594	6,798	7,647	8,291	8,797		3.1%	16.0%	25.7%	33.4%
	Total	**19,480**	**19,511**	**19,935**	**20,345**	**20,554**		**0.2%**	**2.3%**	**4.4%**	**5.5%**
LHA 16 Keremeos	<20	944	916	843	819	856		-3.0%	-10.7%	-13.2%	-9.3%
	20 to 44	994	1,013	1,141	1,136	1,152		1.9%	14.8%	14.3%	15.9%
	45 to 64	1,728	1,689	1,435	1,365	1,275		-2.3%	-17.0%	-21.0%	-26.2%
	65+	1,634	1,688	2,002	2,187	2,255		3.3%	22.5%	33.8%	38.0%
	Total	**5,300**	**5,306**	**5,421**	**5,507**	**5,538**		**0.1%**	**2.3%**	**3.9%**	**4.5%**
LHA 17 Princeton	<20	858	850	752	711	713		-0.9%	-12.4%	-17.1%	-16.9%
	20 to 44	1,088	1,073	1,129	1,150	1,124		-1.4%	3.8%	5.7%	3.3%
	45 to 64	1,862	1,794	1,523	1,193	1,012		-3.7%	-18.2%	-35.9%	-45.6%
	65+	1,566	1,627	1,770	1,908	1,908		3.9%	13.0%	21.8%	21.8%
	Total	**5,374**	**5,344**	**5,174**	**4,962**	**4,757**		**-0.6%**	**-3.7%**	**-7.7%**	**-11.5%**
LHA 77 Summerland	<20	1,998	1,964	1,859	1,912	2,043		-1.7%	-7.0%	-4.3%	2.3%
	20 to 44	2,414	2,437	2,686	2,894	2,957		1.0%	11.3%	19.9%	22.5%
	45 to 64	3,765	3,708	3,471	3,098	2,971		-1.5%	-7.8%	-17.7%	-21.1%
	65+	3,188	3,282	3,732	4,287	4,614		2.9%	17.1%	34.5%	44.7%
	Total	**11,365**	**11,391**	**11,748**	**12,191**	**12,585**		**0.2%**	**3.4%**	**7.3%**	**10.7%**
LHA 13 Kettle Valley	<20	632	628	589	548	513		-0.6%	-6.8%	-13.3%	-18.8%
	20 to 44	710	696	740	757	831		-2.0%	4.2%	6.6%	17.0%
	45 to 64	1,361	1,325	1,157	1,085	1,070		-2.6%	-15.0%	-20.3%	-21.4%
	65+	1,027	1,072	1,284	1,412	1,436		4.4%	25.0%	37.5%	39.8%
	Total	**3,730**	**3,721**	**3,770**	**3,802**	**3,850**		**-0.2%**	**1.1%**	**1.9%**	**3.2%**

Table 2 summarizes the total projected populations for the PRH catchment area for the project to Year 2028/29.

Table 2: Total Population Projections for PRH's Catchment Area (PEOPLE 2013 as of October 24, 2013)

	Current Year Total	Project Years					Percent Change from 2013/14 to the following years:			
Age Group	2013/14	2014/ 2015	2019/ 2020	2024/ 2025	2028/ 2029		2014/ 2015	2019/ 2020	2024/ 2025	2028/ 2029
<20	14,873	14,710	14,383	14,902	15,372		-1.1%	-3.3%	0.2%	3.4%
20 to 44	20,056	20,201	21,631	22,578	22,918		0.7%	7.9%	12.6%	14.3%
45 to 64	27,525	27,034	25,143	22,983	22,109		-1.8%	-8.7%	-16.5%	-19.7%
65+	24,724	25,424	28,511	31,693	33,567		2.8%	15.3%	28.2%	35.8%
Total	**87,178**	**87,369**	**89,668**	**92,156**	**93,966**		**0.2%**	**2.9%**	**5.7%**	**7.8%**

Table 3 below shows the percentage of visits for each age category and the summary of the population growth predicted for each age category over the 15 year period from 2013/14 to 2028/29.

Table 3: Population Growth Based on Age Distribution of Visits (PEOPLE 2013 as of October 24, 2013)

	% of Visits	Population Growth from 2013/14 to the following years:			
Age Group	(from KGH Facility Program)	2014/ 2015	2019/ 2020	2024/ 2025	2028/ 2029
<20	8%	99%	97%	100%	103%
20 to 44	21%	101%	108%	113%	114%
45 to 64	32%	98%	91%	83%	80%
65+	40%	103%	115%	128%	136%
Total	**100%**	**100.2%**	**102.9%**	**105.7%**	**107.8%**

Table 4, based on current data, predicts that the PRH Catchment Area "Weighted Population Change Based on Current Age Distribution of Visits" is expected to increase by 11%.

Table 4: Weighted Population Growth Based on Age Distribution of Visits (PEOPLE 2013 as of October 24, 2013)

% of Visits (From KGH Facility Program)	**2014/ 2015**	**2019/2020**	**2024/2025**	**2028/2029**
8	7.9	7.7	8.0	8.3
20.5	20.6	22.1	23.1	23.4
31.5	30.9	28.8	26.3	25.3
40	41.1	46.1	51.3	54.3
100.0	**100.6**	**104.7**	**108.7**	**111.3**
Total % Increase	**1%**	**5%**	**9%**	**11%**

2.2 Workload Summary

The table below illustrates existing workloads (2012/13 fiscal year) for the major activities of the Patient Care Tower components being programmed and the planned future capacity to the year 2019/20 based on an increase of 5%, 2024/25 based on an increase of 9%, and to 2028/29 based on an increase of 11%. More detailed historical and projected workload analysis is included in Appendix A & B, respectively.

Workload Generators	Workload Unit	Existing 2012/13	5% Increase to 2019/2020	9% Increase to 2024/25	11% Increase to 2028/29
General Clinics					
Primary Care Maternity Clinic	Visits	**3,840**	**4,032**	**4,186**	**4,262**
Pediatric Clinic	Visits	**247**	**259**	**269**	**274**
Diagnostic Clinics					
Laboratory Specimen Collection	Procedures	**116,499**	**122,324**	**126,984**	**129,314**
Orthopaedic Clinic	Visits	**6,417**	**6,738**	**6995**	**7,123**
Neurology Diagnostics					
EEG	Procedures	**336**	**353**	**366**	**373**
EMG	Procedures	**601**	**631**	**655**	**667**
Diagnostic Imaging					
Radiology	Exams	**39,137**	**41,094**	**42,659**	**43,442**
CT	Exams	**13,077**	**13,731**	**14,254**	**14,515**
Ultrasound Exams	Exams	**10,326**	**10,842**	**11,255**	**11,462**
MRI	Exams	**1,872**	**1,966**	**2,040**	**2,078**
Bone Density	Exams	**1,125**	**1,181**	**1,226**	**1,249**
Mammogram	Exams	**2,198**	**2,308**	**2,396**	**2,440**
Nuclear Medicine	Exams	**1,000***	**1,050**	**1,090**	**1,110**
Cardiology Diagnostics & Clinics					
ECG	Procedures	**3,335**	**3,502**	**3,635**	**3,702**
Stress (GXT)	Procedures	**1,248**	**1,310**	**1,360**	**1,385**
Holter Monitor	Procedures	**2,469**	**2,592**	**2,691**	**2,741**
Cardiac Ultrasound	Exams	**2,564**	**2,692**	**2,795**	**2,846**
Pacemaker Clinic	Visits	**2,053**	**2,156**	**2,238**	**2,279**

* *Currently not performed at PRH, but projection included for planning purposes.*

Workload Generators	Workload Unit	Existing 2012/13	5% Increase to 2019/2020	9% Increase to 2024/25	11% Increase to 2028/29
Respiratory Diagnostics & Clinics					
Asthma Care Centre	Visits	**40**	**42**	**44**	**44**
Pulmonary Function	Procedures	**17,043**	**17,895**	**18,577**	**18,918**
Respiratory Therapy	Procedures	**33,745**	**35,432**	**36,782**	**37,457**
Surgical Services					
Major Procedures					
OR Surgeries	Cases	**5,921**	**6,217**	**6,454**	**6,572**
Level 1 Recovery					
PAR	Visits	**5,097**	**5,352**	**5,556**	**5,658**
ECT	Procedures	**257**	**270**	**280**	**285**
Infusions					
Intravenous/Injection	Visits	**1,079**	**1,133**	**1,176**	**1,198**
Minor Procedures					
Medical Day Care					
PICC Line Visits	Visits	**42**	**44**	**46**	**47**
Minor Procedures	Visits	**2,318**	**2,424**	**2,527**	**2,573**
Radiology	Visits	**1,000**	**1,050**	**1,090**	**1,110**
Pain Clinic	Visits	**332**	**349**	**362**	**369**
Trans-Esophageal Echocardiogram	Procedures	-	-	-	-
G.I. Endoscopy	Procedures	**3,525**	**3,701**	**3,842**	**3,913**
Bronchoscopy	Procedures	**166**	**174**	**181**	**184**
Cystoscopy	Procedures	**1,121**	**1,177**	**1,222**	**1,244**
Colposcopy	Visits	**599**	**629**	**653**	**665**
Urodynamics	Visits	**60**	**63**	**65**	**67**
Emergency Department	Visits	**32,820**	**34,461**	**35,774**	**36,430**

3. SPACE SUMMARY

In developing the space program, each component has been reviewed with the users against current standards and requirements. The CSA Standard Z8000-11 “Canadian Health Care Facilities” was consulted as were the programs of recent IHA builds including the Vernon Jubilee Hospital and the Kelowna General Hospital.

Compared with the original January 2011 Functional Program a number of the component areas have increased in size, reflecting the recommendations of the CSA standard, lessons learned from recent IHA programs and changes in program direction.

The Functional Program space requirements for the Patient Care Tower and Emergency Department are as follows:

PROGRAMMED COMPONENTS:	Zone	CGSM
AMBULATORY CARE CENTRE PROGRAMMED SPACE CGSM:	A	4,156.0
PROCEDURAL SERVICES CENTRE PROGRAMMED SPACE CGSM:	B	4,283.8
MEDICAL/SURGICAL INPATIENT UNIT PROGRAMMED SPACE CGSM:	C	5,530.4
NOT USED	D	
MEDICAL DEVICE PROCESSING PROGRAMMED SPACE CGSM:	E	1,270.9
UBC FoM DISTRIBUTED MEDICAL EDUCATION PROGRAM AT PRH PROGRAMMED SPACE CGSM:	F	644.3
RETAIL PROGRAMMED SPACE CGSM:	G	216.0
TOTAL: Component Gross Square Metres		**16,101.4**

4. FUNCTIONAL PROGRAMS

4.1 A. Ambulatory Care Centre

4.1.1 OVERVIEW

Planning Parameters & Assumptions

This component program has been developed based upon the following assumptions:

- This component accommodates the consolidation of many ambulatory care functions currently existing and scattered in the Penticton Region Hospital;
- The services offered in the Ambulatory Care Centre will provide patients with a full continuum of services to patients of all ages;
- Patients that do not require acute care services will receive community-based services. Community components of programs that were to be amalgamated with acute care components in the PCT will continue to be community-based or transitioned to the community;
- This component program is based on workload projections to the Year 2028/29 and as a consequence will have more capacity than required on 'opening day'. It is expected that utilization will expand into both extended hours of operation and into additional building space as workload volumes grow over time;
- Health promotion, disease prevention and strengthened community programs are expected to impact many health services. Many factors must be considered to determine outcomes of initiatives underway. With an eye on the future, adaptable design spaces and shared clinic areas are planned. As mentioned, only appropriate Ambulatory Care Services will be performed in hospital, such as providing anesthetic epidurals for chronic pain;
- It is assumed that the Ambulatory Care Centre will be located in an accessible location and patient registration will be centralized to assist with patient way finding. High volume diagnostic patient areas, such as those required for pre-surgical testing, will be co-located with hospital entrances to minimize patient travel;
- The Ambulatory Care Centre will be a teaching site for health sciences students and residents; and
- Examination, treatment and consultation rooms are being designed as flexible spaces with standardized layout for gases and lighting that can adapt into the future to support various programs. These rooms are being designed for general use and to support the UBC FoM Distributed Medical Education program.

Service Trends

Key service trends potentially impacting this component over time include:

- Care provided in ambulatory care clinics is becoming more intensive due to the increased acuity and complexity of patients receiving services;
- Patients requiring ambulatory care services are becoming older, are likely to have greater co-morbidities, and will require close co-ordination with community-based primary care services;
- Telemedicine is facilitating increased care and procedures in distant communities;

- Programs are being developed that enhance the continuum of care and coordinate screening, diagnosis and treatment. The direction is for interdisciplinary health care teams to provide comprehensive, accessible and coordinated services;
- There is a greater focus on the management of chronic illness, education and prevention;
- Planning for hospitals focuses on the provision of specialized acuity services (requiring specialized equipment, diagnostics, expertise, and recovery services) that are not readily available in the primary care network; and
- Ambulatory assessment and diagnostic clinics are developing to support family physicians in managing their patients in the community.

4.1.2 FUNCTIONAL DESCRIPTION

Scope of Services

The Patient Care Tower (PCT) component will provide centralized facilities for a wide range of medical, assessment / diagnostic and outpatient educational services. The primary goal is to maximize the number of clients receiving outpatient care as an alternative to hospital admission or as a follow-up after discharge. The centralization and integration of these services will be particularly accommodating to clinics and services which take a multidisciplinary approach to patient care, have special equipment requirements and / or require diagnostic / treatment services not generally found in the community. Many of the specialized treatment and diagnostic services accommodated in this component will be utilized by inpatients, as well as by outpatients.

The component provides spaces for a number of services, grouping them so as to take advantage of operational efficiencies in clinic management, staffing and space type while maintaining a high quality of patient care. Activities have been allocated to one of the following functional areas within the component:

- Patient Intake Area including:
    - Central Reception / Patient Intake Area
    - Administration Area
    - Security Services
- General Clinics Area including:
    - Shared Clinic Module
    - Maternal Child Clinic
    - Neurology Diagnostics Clinic
- Diagnostic Clinics:
    - Outpatient Lab Specimen Collection
    - Satellite Diagnostic Imaging
        - General Diagnostic Imaging
        - Mammography
        - MRI
        - Nuclear Medicine
    - Cardiology Diagnostics Clinic
    - Respiratory Diagnostics Clinic
    - Orthopaedic Clinic
    - Pre-Surgical Screening Clinic
- Meeting & Clinical Videoconference Area
- Staff Support Area
- Foundation

Client/Patient Profile

Clients of the Ambulatory Care Centre will include inpatients and outpatients as pre-surgical patients, patients requiring a specialist consultation, and patients requiring follow-up care provided by an ambulatory care clinician.

Food Services

Food Service Area Allocation located in Section G will provide access to food services for patients, staff and visitors. There will be access to vending machines in the waiting areas located on the main floor of the Patient Care Tower.

Interdisciplinary Context

A team approach will be used to deliver patient-centred care. Therefore, team work space is required to support this service delivery direction. The composition of the team will depend on the population needs and availability of health care providers. Efficient management of individuals with scarce specialized expertise will be accommodated in the Patient Care Tower with appropriate adjacencies to allow patients to benefit from their close proximity.

Education

Student Training

The Ambulatory Care Centre component will provide for the training of professional student learners in a clinical setting on a one-to-one and small group basis. A number of factors point toward an increasing need for practical experience opportunities in the ambulatory care setting including:

- General trend within health care toward ambulatory care services;
- General trend towards increasing volume of distance education;
- UBC FoM Distributed Medical Education Program at PRH; and
- Expansions in the numbers of Nursing and other health professional student placements.

Staff and Patient

Telehealth / videoconference facilities will support clinical activities, grand rounds and teaching activities related to clinical activities.

In service education and patient teaching programs will be conducted on a regular basis throughout the Ambulatory Care Centre patient / clinical care spaces as well as in staff conference / meeting rooms and patient / family teaching rooms equipped with audio/visual equipment.

Research

It is expected that the PRH Ambulatory Care Centre will continue to support research activities of PRH and IHA. Research activities may include:

- Clinical trials;
- Retrospective and concurrent analysis of patient records;
- Epidemiological and health population studies; and
- Health evaluation studies.

4.1.3 OPERATIONAL CONSIDERATIONS

Service Delivery Principles & Methods

Client/Patient Flow

The majority of clients/patients will have pre-scheduled appointments for the General Clinics and Diagnostic Clinics. All scheduling of ACC clinic appointments and procedures, and the scheduling of pre-surgical diagnostic testing will be managed through a centralized (computer-based) booking system accessible by authorized personnel inside and outside the component. Booking personnel will be centralized for routine, predictable patient visits, and decentralized for specialized services where local knowledge is important.

Inpatients will either be escorted or transported to and from the component by porters. Inpatients and outpatients may arrive walking, in a wheelchair or on a stretcher.

All outpatients will report to the main PCT reception area to confirm registration and their appointment and then will proceed to the appropriate service area of the component.

A family member or close friend will be able to accompany the patient to the service areas of the component and may be asked to meet with the professional staff regarding post-procedure protocols or other relevant subjects.

Hours of Operation

Patient activity in the Ambulatory Care Center is expected to be scheduled between 0700 and 1800 hours. Some programs and services may have operational hours that vary from the general ACC hours. The design of the Building needs accommodate independent hours of operation and provide the ability to secure those departments which are not in use.

4.1.4 DESIGN CRITERIA

Special Requirements

Infection Control

The facilities will be planned according to IHA Infection Control Policies and Procedures. Generally, guidelines will address the following:

- A hand hygiene sink will be provided in every examination room;
- Isolation protocols will apply at point-of-care for handling clean linen, clean supplies and clean equipment. Isolation protocols will also apply to the soiled holding areas and waste removal; and
- There will be a degree of separation between patients who are immune compromised and regular patients.

General Requirements

- The Ambulatory Care Centre shall be located in an accessible area for patients;
- The Ambulatory Care Centre shall provide a comfortable setting for individuals and families;
- The Ambulatory Care Centre shall separate public flows from patient / staff flow; and
- The Ambulatory Care Centre shall provide sufficient room to accommodate wheel chairs, walkers, stretchers, supply carts, etc.

Space Requirements

Examination Rooms

Standardization is a key design principle of the Patient Care Tower. Throughout the Ambulatory Care Centre, there are exam rooms programmed at 12.0 NSM which shall be standardized and follow these core design principles (some specialty exam rooms; 14.0 NSM, 16.0 NSM may vary):

- Clinical access to the right side of the patient on the stretcher, plinth or chair,
- All exam rooms shall be designed for same handedness,
- Medical gases are to be located at the patients head while position on the stretcher, plinth or chair,
- Medical gasses shall be located in the same position in each exam room,
- Patient zone never to be located between the door and the clinician or clinician to be adjacent to door at all times during examinations to allow for ease of egress in critical situations,
- Privacy curtain located around the plinth or stretcher to allow the patient to change in the room without the family member (or staff) having to leave the room for patient privacy,
- Clinical hand hygiene sink to be located directly adjacent to the door for access as you enter the room,
- Wall protection shall be provided on all walls to a minimum height of 1220 above the floor base, extend higher in other areas as required to provide protection from stretchers, chairs and equipment,
- Position of the patient and visitor chair beside the physician workstation for consultations, (physician cannot be sitting with their back to the patient or visitors while at the workstation),
- Workstation shall provide adequate space for a computer terminal and writing surface, minimum length 1200mm,
- Millwork shall be minimized; clean supplies will be located on movable carts.

Consult Rooms

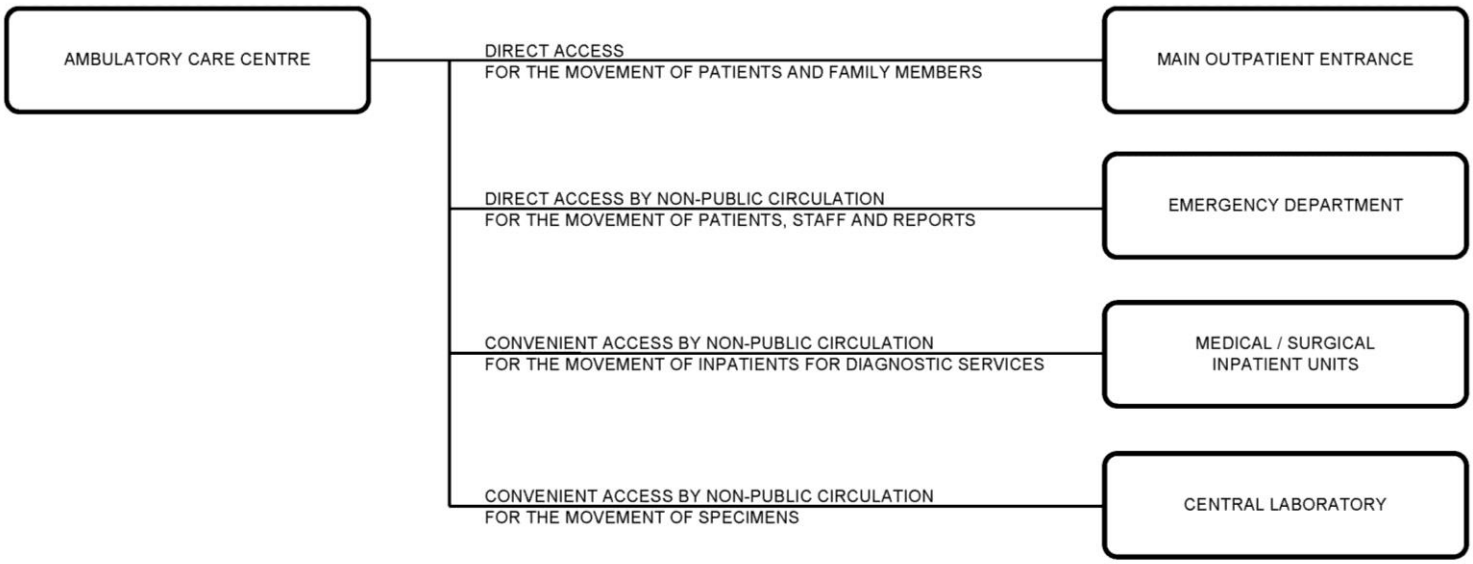
Consult rooms will be equipped with the following:

- Touch-down work station that will accommodate EMR;
- Table; and
- Task, patient, and visitor chairs.

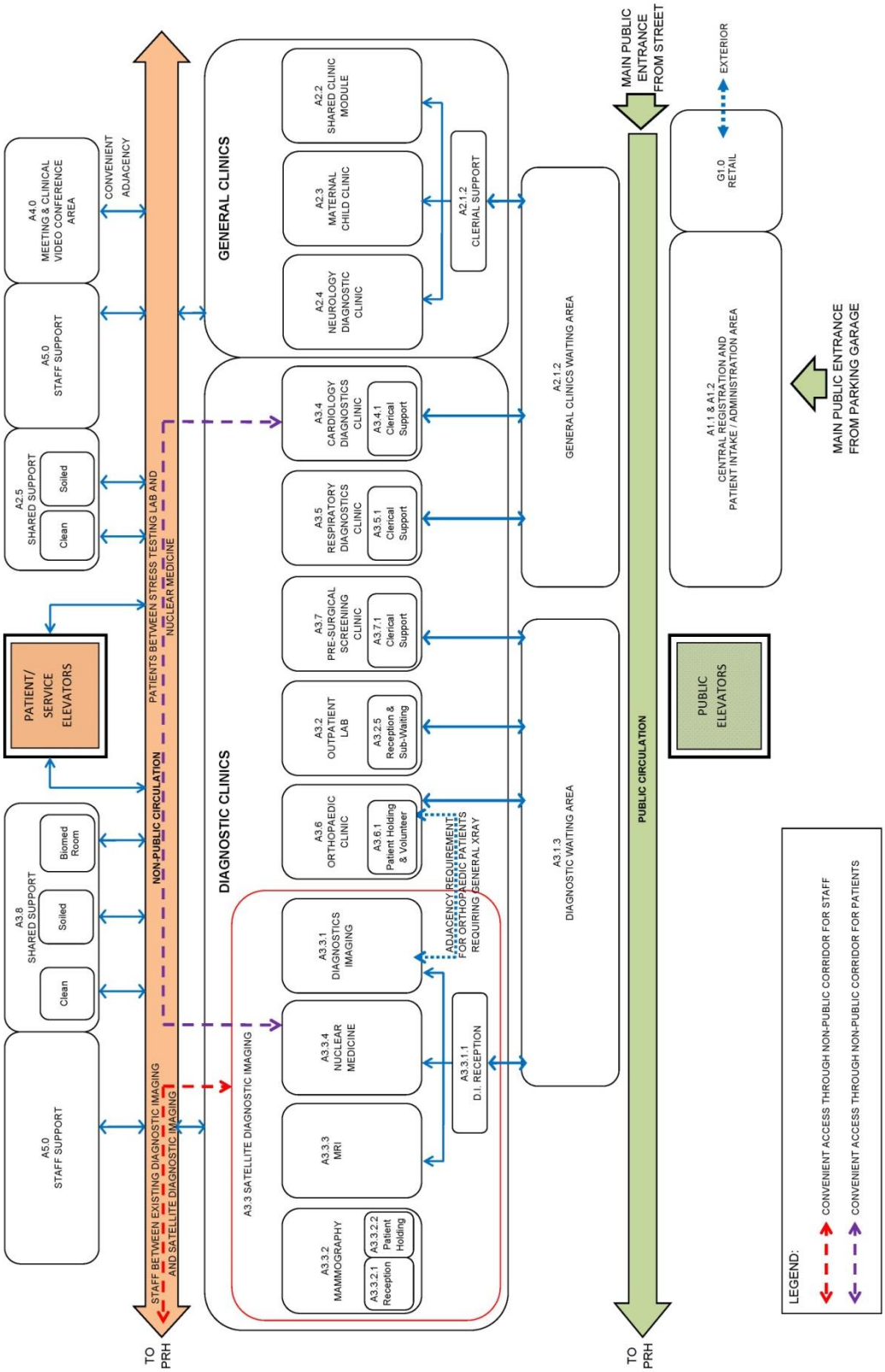
Clean & Soiled Utility Rooms

Clean supplies will be stored on carts and/or wall mounted bin systems in the clean utility room. Soiled equipment, biohazards, etc. will be deposited in the soiled utility room.

4.1.5 EXTERNAL RELATIONSHIPS



4.1.6 EXTERNAL RELATIONSHIPS DIAGRAM



4.1.7 PATIENT INTAKE AREA

It is essential that the lobby be welcoming and non-institutional in character as this is the point where visitors and patients will form their first impressions of the facility. The character of the space should be appealing to people of all ages, and the creative use of colour, lighting, and landscape will make a positive impact on patients, visitors, and health care staff alike.

Large volumes of patients will be arriving at the Ambulatory Care Center on a daily basis to attend clinics or access various services within this component. To accommodate this, the PCT central reception area will occupy a prominent location within the building with easy access from the main public / outpatient entry. It will accommodate patient reception and registration, information access and a large waiting area with public amenities such as pay phones and washrooms. Staff located at this point of entry to the component will receive all outpatients, confirm their hospital registration, and then direct them to the appropriate area of the component for their scheduled services.

This area will accommodate a range of 'front door' services and activities of the ACC, including:

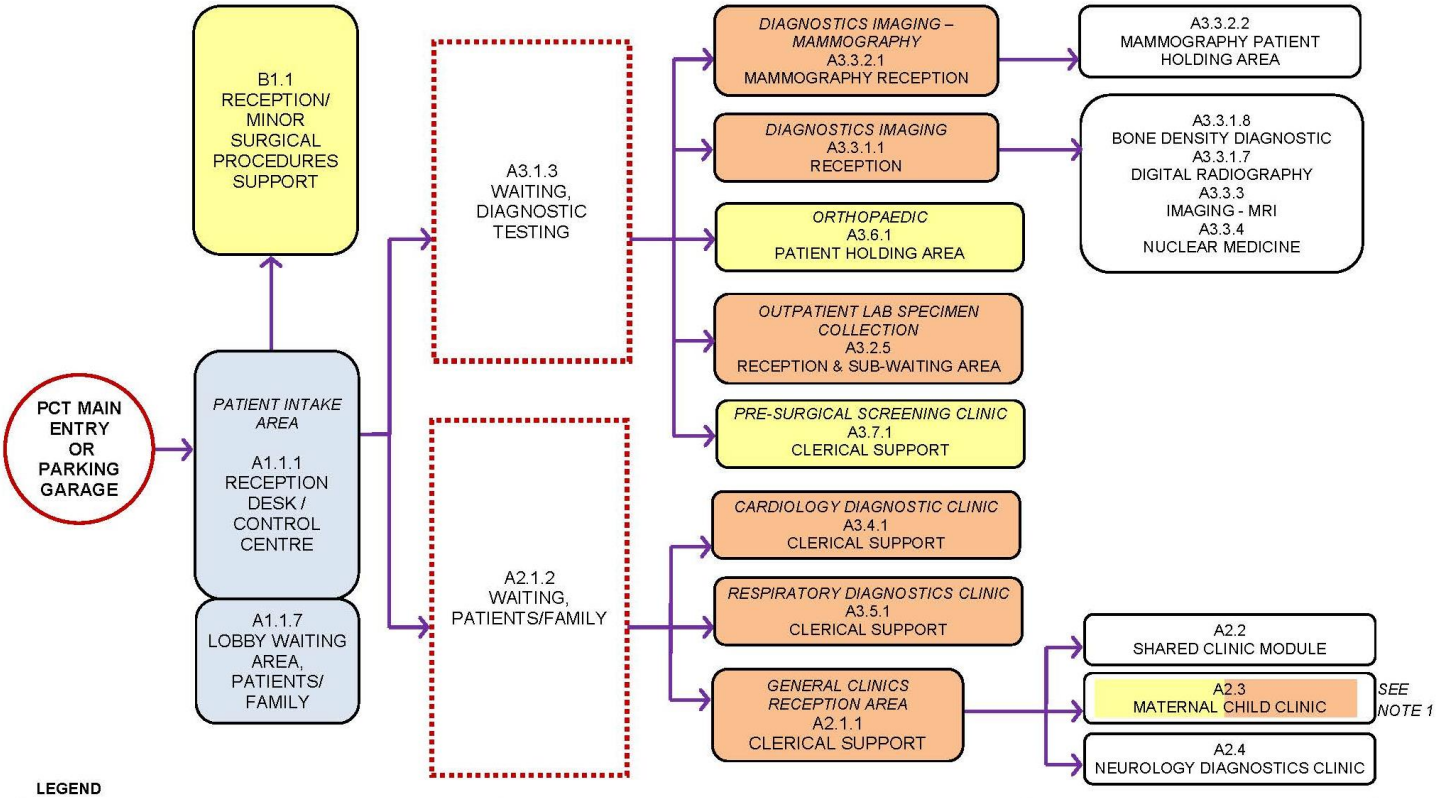
- Information and directions;
- Registration (including self-registration kiosks);
- General waiting;
- Administrative offices of the ACC; and
- Retail services.

Key Operational Processes

- The central reception area must be clearly visible from the main entrance;
- A clear and direct circulation paths are required between the New Facility and the existing hospital;
- Public elevators and washrooms are to be easily located without the need for excessive way finding information;
- Retail areas should be located to promote pedestrian activity and animation in the lobby;
- Materials and goods movement through public areas of the lobby is to be avoided;
- Waiting areas require a direct connection to natural light;
- The facility directory must be located in an open area where it can be viewed by multiple persons at the same time; and
- Retail Food Service Area shall have a connection to the outdoors and access to an exterior seating area sized to accommodate a minimum of 30 people at tables and chairs.

Security

- Security transaction glazing between staff and visitors at registration cubicles, and
- Sliding security grill located to secure reception, registration, business workroom and file holdings



LEGEND

A1.1.1 Reception Desk/Control Centre		Department		Waiting Room or Sub-Waiting
Patients are received and registered	Directed to →	Patients are acknowledged by either; Volunteer, Clerk or Receptionist	Asked to wait in either →	Waiting Room or Sub-Waiting Room, as per space requirements.
Patients are received	Directed to →	Patients are registered by either a Clerk or Receptionist	Asked to wait in either →	Waiting Room or Sub-Waiting Room, as per space requirements.

NOTE 1: A2.3 Maternal Child Clinic: patients are received and registered on their first visit at A1.1.1; for the follow up appointments, they go directly to A2.1.1 to be registered.

PCT – RECEPTION / REGISTRATION DIAGRAM

4.1.7.1 Central Reception / Patient Intake Area

Schedule of Accommodation

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
A. AMBULATORY CARE CENTRE					
A1 - PATIENT INTAKE AREA					
A1.1.1	Reception Desk/Control Centre	1	14	14	Millwork reception desk. Provide for 3 workstations. Provide locked drawer for cash storage. Secure glazing for transactions. Provide specialty doors for securing after hours. 6 purse lockers.
A1.1.2	Registration Cubicle	4	4	16	Security glazing between staff and visitor, cubicles divided for privacy. Collocate with A1.1.1 Reception Desk/Control Centre.
A1.1.3	Self-Registration Kiosk	3	1.5	4.5	Positioned for confidentiality. Near Reception Desk/Control Centre area, but not collocated with Reception Desk/Control Centre and Registration.
A1.1.4	Volunteer Desk	1	7	7	Locate adjacent to Reception. Near Reception Desk/Control Centre area, but not collocated with Reception Desk/Control Centre and Registration.
A1.1.5	Workroom, Business Machines	1	10	10	Millwork counter with upper and lower cupboards for supply storage. Direct access via internal circulation to the registration cubicles.
A1.1.6	Temp. Files/Records Holding Area	1	20	20	Millwork counter with upper and lower cupboards for supply storage.
A1.1.7	Lobby Waiting Area, Patients/Family	1	18	18	Seating for 10 including 2 in wheelchairs.
A1.1.8	Washroom, Patient/Public, Female	1	8.5	8.5	
A1.1.9	Washroom, Patient/Public, Male	1	8.5	8.5	
A1.1.10	Storage, Wheelchair	1	3	3	Wheelchair dispensing area.
A1.1.11	Security Services Kiosk	1	4	4	Near Reception Desk/Control Centre area, but not collocated with Reception Desk/Control Centre and Registration.
A1.1.12	Alcove, Hand Hygiene Sink	1	1	1	
SUBTOTAL: Central Reception/Patient Intake Area				**114.5**	
Grossing Factor				**1.4**	
SUBTOTAL CGSM: Central Reception/Patient Intake Area				**160.3**	

4.1.7.2 Administration Area

Schedule of Accommodation

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
A1.2 - ADMINISTRATION AREA					
A1.2.1	Office, Nurse Manager	1	12	12	
A1.2.2	Workstation, Admin Secretary	1	4.6	4.6	
A1.2.3	Office, Multipurpose	2	9	18	
	SUBTOTAL: Administration Area			**34.6**	
	Grossing Factor			**1.4**	
	SUBTOTAL CGSM: Administration Area			**48.44**	

4.1.7.3 Summary of Central Reception/Patient Intake Area

A1.1 - CENTRAL RECEPTION / PATIENT INTAKE AREA	**160.3**	
A1.2 - ADMINISTRATION AREA	**48.44**	
TOTAL CGSM: A1 - PATIENT INTAKE AREA	**208.74**	

4.1.8 GENERAL CLINICS AREA

The General Clinics area will provide modular, shared room concept examination, consultation, treatment and interview rooms and associated support space to accommodate the scheduled clinic activities of a variety of medical and paramedical services. These examination room-based clinics will often employ a multidisciplinary approach to patient assessment and treatment. A number of rooms are provided to accommodate meetings with family members, between team members of different professional disciplines, or with students.

4.1.8.1 General Clinics Reception Area

Schedule of Accommodation

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
A2 - GENERAL CLINICS AREA					
A2.1 - GENERAL CLINICS RECEPTION AREA					
A2.1.1	Clerical Support	1	27	27	For booking and unit clerk functions. Open workstations for 3 combined with Shared Clinic, Maternal Child and Neurology. Workstations require confidentiality for booking. Sized to accommodate to (3) 9.0sm offices, as required. 6 Purse lockers. Locate proximal to Maternal Child Clinic for staff to support clinic functions.
A2.1.2	Waiting, Patients/Family, Large	1	83	83	Seating to include 4 wheelchairs and 2 stretchers. Waiting area for ambulatory care. Provide standing height counter with stools
A2.1.3	Alcove, Storage, Wheelchair/Stretcher	1	3	3	
SUBTOTAL: General Clinics Reception Area				**113**	
Grossing Factor				**1.1**	
SUBTOTAL CGSM: General Clinics Reception Area				**124.3**	

4.1.8.2 Shared Clinic Module

The Shared Clinics area will provide generic space that will be centrally scheduled and shared by various clinics. Support spaces will include storage of clinic specific carts, educational materials and supplies. Services to be accommodated in the Shared Clinic area include Arthritis Clinic and Pediatric Rheumatology. Other potential users of this space include acute and chronic pain management (epidurals injections), wound care, minor treatment (spinals), infectious diseases, gerontology, geriatric psychiatry, dermatology, and hepatology.

Space Requirements

Space requirements for the Shared Clinic area include the following:

- 4 examination rooms. Examination rooms to include overhead procedure lights;

- 2 consult rooms;
- 1 multipurpose/interview room and
- Plasters sink in Utility Room Soiled to accommodate disposal from a cast cart.
- Storage requirements:
    - Clean utility room required for procedure carts
    - Lockable file cabinets for clinic supplies and files
    - Area to accommodate carts or moveable stands for educational materials
    - Space to accommodate equipment for physiotherapy and occupational therapy.

Schedule of Accommodation

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
A2.2 - SHARED CLINIC MODULE					
A2.2.1	Work Area, Staff	1	20	20	To include 4 workstations and filing cabinets. For maternal child clinic; 2 for physicians and 2 for mid-wives. 6 purse lockers.
A2.2.2	Physician Area/Dictation	2	4.6	9.2	Adjacent to staff work area.
A2.2.3	Interview Room	1	12	12	
A2.2.4	Alcove, Weight Scale	1	2	2	
A2.2.5	Examination Room	4	12	48	
A2.2.6	Consultation room	2	12	24	
A2.2.7	Washroom, Patient, Wheelchair Accessible	1	4.6	4.6	
A2.2.8	Clean Supplies Holding Room	1	20	20	
A2.2.9	Alcove, Linen Cart	1	1.5	1.5	
A2.2.10	Utility Room, Soiled	1	18	18	Utility sink to include plaster trap for PT and OT use.
A2.2.11	Work Area, Allied Professional	1	12	12	To include 2 workstations.
SUBTOTAL: Shared Clinic Module				**171.3**	
Grossing Factor				**1.4**	
SUBTOTAL CGSM: Shared Clinic Module				**239.82**	

4.1.8.3 Maternal Child Clinic

Pediatric outpatient services will expand and designate a family/child centred ambulatory care service area adjacent to the Maternity Clinic. Pediatric services are to be operated in concert with obstetrical and newborn services and will be consolidated into an integrated Maternal/Child Program. Current pediatric ambulatory (outpatient) services include consultations with family physicians or other specialists, and programs oriented at common chronic childhood diseases, including diabetes, asthma, rheumatic (2-days a month) and oncologic diseases.

Space Requirements

Space requirements for the Maternal Child Clinic area include the following:

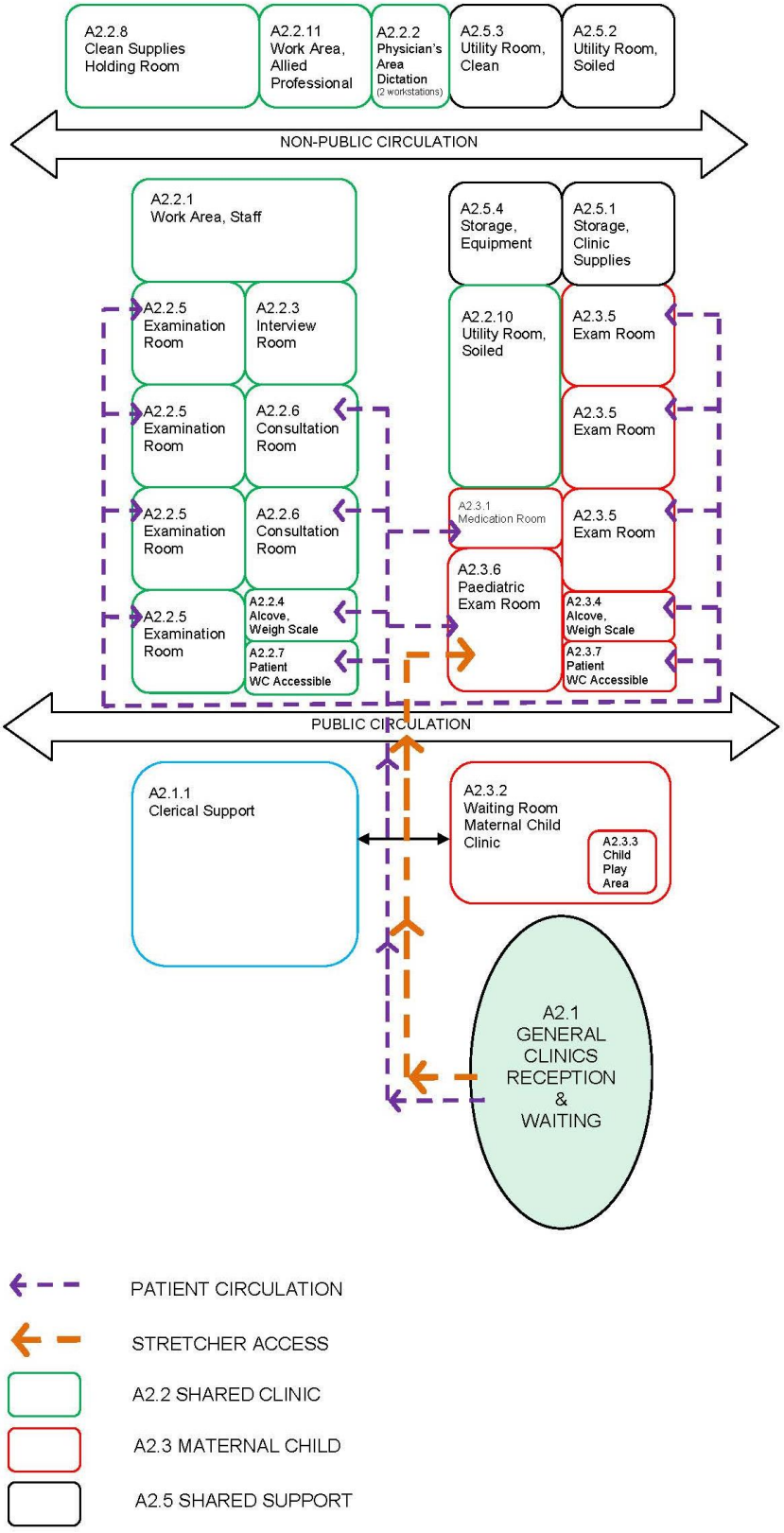
- A sub waiting area that will accommodate pediatric patients;
- 3 examination / consult rooms to include infant weigh scales and room requirements as outlined in Shared Clinic area;
- 1 examination / intervention room to accommodate the following:
    - Chemo treatment
    - NG tubes
    - I/V starts for I/V infusion
    - Catheters
    - Oral sedation
- 1 medication room;
- Filing area that will accommodate 4 – 4 drawer file cabinets (2 for physicians and 2 for midwives).

Schedule of Accommodation

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
A2.3 - MATERNAL CHILD CLINIC					
A2.3.1	Medication Room	1	9.5	9.5	Located for shared use between Shared Clinic, Maternal Child and Cardiology Diagnostic.
A2.3.2	Waiting Room	1	25	25	Seats for 12 with close proximity to Large Waiting, Patients/Family area.
A2.3.3	Waiting Room, Sub Wait Area	1	6	6	Adjacent to Gowned Waiting. To include patient entertainment.
A2.3.4	Alcove, Weight Scale	1	4.5	4.5	
A2.3.5	Exam Room	3	12	36	

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
A2.3.6	Paediatric Exam Room	1	18	18	For PICC line maintenance, paediatric infusion, chemo and procedural sedation. For appointments requiring longer treatment allowing the family members to be present.
A2.3.7	Washroom, Patient, Wheelchair Accessible	1	4.6	4.6	
SUBTOTAL: Maternal Child Clinic				**103.6**	
Grossing Factor				**1.4**	
SUBTOTAL CGSM: Maternal Child Clinic				**145.04**	

4.1.8.4 Shared Clinic Module and Maternal Child Clinic Internal Relationships



4.1.8.5 Neurology Diagnostics Clinic

Schedule of Accommodation

Neurology at PRH provides a large volume of care primarily to outpatients but also inpatient services. Inpatients can arrive by stretcher or bed. Neurology Diagnostics in the ACC will provide a range of electrodiagnostic services, including Electroencephalography (EEG) and Electromyography (EMG) and a stroke clinic.

Space Requirements

Space requirements for the Neurology Clinic area include the following:

- 1 EMG examination room
    - Clinician requires access to head of bed
    - Wall mounted eye wash required
    - During the test, there will be up to 4 family members in the room and a translator
    - 1 EEG examination room mirror the full length of the bed and a ceiling mounted camera positioned at the foot of the bed
    - Clinician requires access to head of bed
- 1 examination / consult room for Stroke/TIA clinic sized so that it can be used for electrodiagnostic services to accommodate future growth of the program
- A crash cart alcove shared with general clinics
- Processing and Monitoring Area

External Relationships

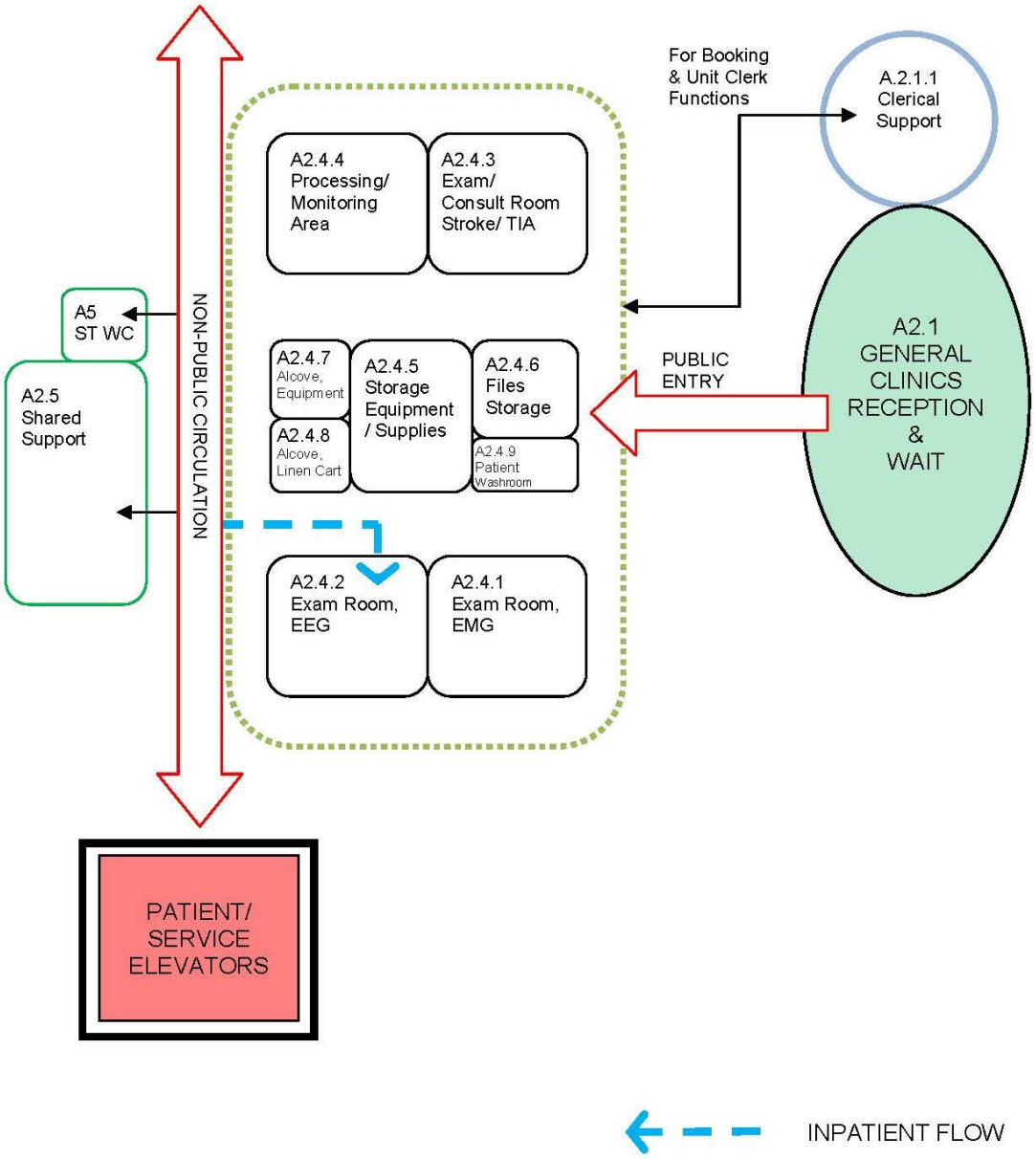
Key adjacencies are limited for the Neurology Diagnostics clinic. Convenient access from the new inpatient floors is desirable as patients will come from their bedrooms on occasion for EEG exams.

Schedule of Accommodation

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
A2.4 - NEUROLOGY DIAGNOSTICS CLINIC					
A2.4.1	Exam Room, EMG	1	16	16	
A2.4.2	Exam Room, EEG	1	16	16	
A2.4.3	Exam/Consult Room, Stroke/TIA	1	16	16	
A2.4.4	Processing/Monitoring Area	1	16	16	To include processing equipment, 3 workstations at 4.6 sm (2 technicians + 1 physician) and 1 2.5 sm touchdown workstation.
A2.4.5	Storage, Equipment/Supplies	1	6	6	Storage area for CDs, clean linen, EEG and EMG supplies
A2.4.6	Storage, Files	1	7.5	7.5	
A2.4.7	Alcove, Equipment	2	1	2	Blanket warmer and defibrillator.
A2.4.8	Alcove, Linen Cart	1	1.5	1.5	

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
A2.4.9	Washroom, Patient, Wheelchair Accessible	1	4.6	4.6	
SUBTOTAL: Neurology Diagnostics Clinic				**85.6**	
Grossing Factor				**1.4**	
SUBTOTAL CGSM: Neurology Diagnostics Clinic				**119.84**	

4.1.8.6 Internal Relationships



4.1.8.7 Shared Support Area

Schedule of Accommodation

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
A2.5 - SHARED SUPPORT AREA					
A2.5.1	Storage, Clinic Supplies	1	12	12	Centrally located to support General Clinics Area. To include storage for clinic supplies, clinic brochure stands, and lockable cabinets.
A2.5.2	Utility Room, Soiled	1	9	9	Centrally located to support General Clinics Area.
A2.5.3	Utility Room, Clean	1	12	12	Centrally located to support General Clinics Area.
A2.5.4	Storage, Equipment	1	15	15	Storage for OT and PT supplies, clinic carts and portable ultrasound equipment.
	SUBTOTAL: Shared Support Area			**48**	
	Grossing Factor			**1.4**	
	SUBTOTAL CGSM: Shared Support Area			**67.2**	

4.1.8.8 Summary of General Clinics Area

A2.1 - GENERAL CLINICS RECEPTION AREA	**124.3**
A2.2 - SHARED CLINIC MODULE	**239.82**
A2.3 - MATERNAL CHILD CLINIC	**145.04**
A2.4 - NEUROLOGY DIAGNOSTICS CLINIC	**119.84**
A2.5 - SHARED SUPPORT AREA	**67.2**
TOTAL CGSM: A2 - GENERAL CLINICS AREA	**696.2**

4.1.9 DIAGNOSTIC CLINIC AREA

The Diagnostic Clinics area will accommodate a collection of diagnostic services used predominately by outpatients. These clinics have been grouped together given their key adjacencies and to minimize travel for patients that will require multiple services during a single visit to the Ambulatory Care Centre.

4.1.9.1 Diagnostic Clinic Reception Area

The Diagnostic Clinic area will have a separate waiting area that will have key adjacencies to parking, pre-surgical screening, outpatient lab, diagnostic imaging and orthopaedic clinic. Patients attending pre-surgical screening will be “pulled” from the same waiting area by each service once the patient is available.

Schedule of Accommodation

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
A3 - DIAGNOSTIC CLINIC AREA					
A3.1 -DIAGNOSTIC CLINIC RECEPTION AREA					
A3.1.1	Waiting, Diagnostic Testing	1	37	37	Seating to include 3 wheelchairs and 1 stretcher.
A3.1.2	Washroom, Public, Wheelchair Accessible	2	4.6	9.2	
	SUBTOTAL: Diagnostic Clinic Reception Area			**46.2**	
	Grossing Factor			**1.4**	
	SUBTOTAL CGSM: Diagnostic Clinic Reception Area			**64.68**	

4.1.9.2 Outpatient Lab Specimen Collection

The Outpatient Lab will accommodate outpatient and pre-admit specimen collection. Services will include outpatient blood and urine specimen collections, initial accessioning, and transport of specimens to the Central Laboratory for processing and reporting.

Space Requirements

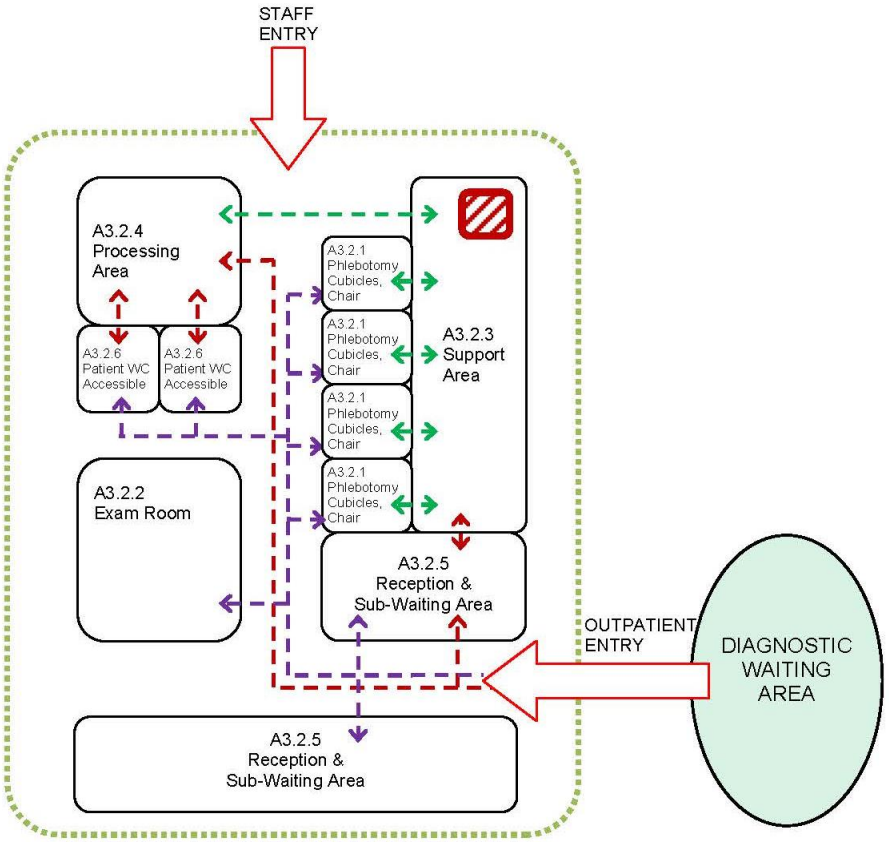
Space requirements for the Outpatient Lab area include the following:

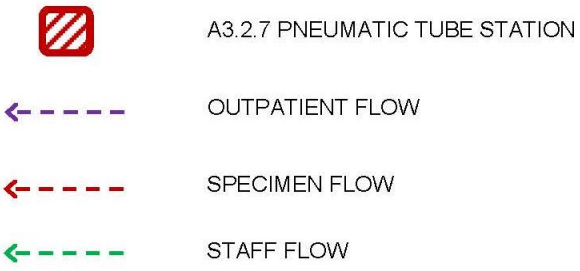
- Sub-waiting area;
- 4 Phlebotomy cubicles with chairs and two entrances, one for the patient and one for staff providing access to the staff support area. Each cubicle is to accommodate a work station;
- Wheelchair patients will be served in the Exam Room A3.2.2;
- 1 Exam room.
- Staff Support area with access to each cubicle;
    - there will be wall storage for clean top-up supplies, work counter with phones, printers, nurse call master, and millwork for pneumatic tube supplies co-located with pneumatic tube station
    - Co-located with cubicles
- Work Area/Processing Area
    - biological safety cabinet, utility sink, hand hygiene sink, pass-through from both of patient washrooms, refrigerator, centrifuge, work counters and millwork for specimen processing
- 2 Patient washrooms with pass-through for specimen collections; and
- Pneumatic tube station.

External Relationships

The most critical adjacency is to the pre-surgical screening clinic and outpatient entrance to the building. Other key adjacencies include Respiratory Diagnostics and Cardiology Diagnostics ECG.

Internal Relationships





Schedule of Accommodation

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
A3.2 - OUTPATIENT LAB SPECIMEN COLLECTION					
A3.2.1	Phlebotomy Cubicles, Chair	4	4.5	18	Each with phlebotomy chair, work counter, millwork for supply storage, and privacy curtains. Patient intake to occur at site of blood collection.
A3.2.2	Exam Room	1	12	12	
A3.2.3	Support Area	1	24	24	6 purse lockers.
A3.2.4	Processing Area	1	18	18	To include 1 workstation, supplies, specimen assembly area, millwork storage counter and cabinets, 2 small fridges, Biological Safety Cabinet, specimen sink, hand hygiene sink, centrifuge and eyewash station.
A3.2.5	Reception & Sub-Waiting Area	1	20	20	To include 1 workstation plus, sub waiting area including volunteer worker, number dispenser, 9 chairs and one wheelchair. To be co-located with Diagnostic Testing waiting area to accommodate overflow.
A3.2.6	Washroom, Patient, Wheelchair Accessible	2	4.6	9.2	To include shelf & pass-thru for specimen collections.
A3.2.7	Pneumatic Tube Station	1	0.5	0.5	Locate within the Support Area.
SUBTOTAL: Outpatient Lab Specimen Collection				**101.7**	
Grossing Factor				**1.4**	
SUBTOTAL CGSM: Outpatient Lab Specimen Collection				**142.38**	

4.1.9.3 Satellite Diagnostic Imaging

Diagnostic Imaging services at Penticton Regional Hospital currently include general radiography, barium studies, CT scanning, MRI scanning two weeks a month with a mobile unit, diagnostic mammography, screening mammography, bone densitometry, ultrasound and a range of interventional procedures. Patients requiring recovery from procedures will be accommodated in the Minor Procedures area on Level 2 upon the opening of the PCT.

The Diagnostic Imaging component of the PCT will accommodate the following services:

- Provision of a satellite imaging service which will include general radiography, ultrasound, mammography and bone densitometry;
- Provision of a new Nuclear Medicine service for the continued support of the outpatient and inpatient programs; and
- Provision of a new MRI service for the continued support of the outpatient and inpatient programs.

CT scanning and procedures requiring CT scan will continue to be conducted in the main Diagnostic Imaging area and is therefore included in this document (with no areas assigned).

Space Requirements

Space requirements for the Satellite Diagnostic Imaging include the following:

- 2 General Radiography rooms with the equipment of X-Ray Room #1 in Main Diagnostic Imaging to be moved over to PCT;
- Bone Densitometry room to be re-located from Main DI and have a convenient access to the Mammography department;
- Screening Mammography and associated support areas that meet the requirements of the Screening Mammography Program (SMP) of BC including a separate reception area, patient waiting, booking office and reading room;
- Diagnostic Mammography room with ultrasound;
- MRI and associated support areas including required patient zones; and
- Nuclear Medicine and associated support areas including provision for Hot Lab and Hot Patient Waiting.

Food Services

Patients within Nuclear Medicine treatment area will be provided with a beverage and light snack provided from a nourishment station. Patients have long wait times and may bring food such as those from long term care facilities. A common Cardiac exam requires the patient to be fasting at the start of the procedure, but patients bring food to consume half way through. These patients can be in the department for durations of 4-6 hrs.

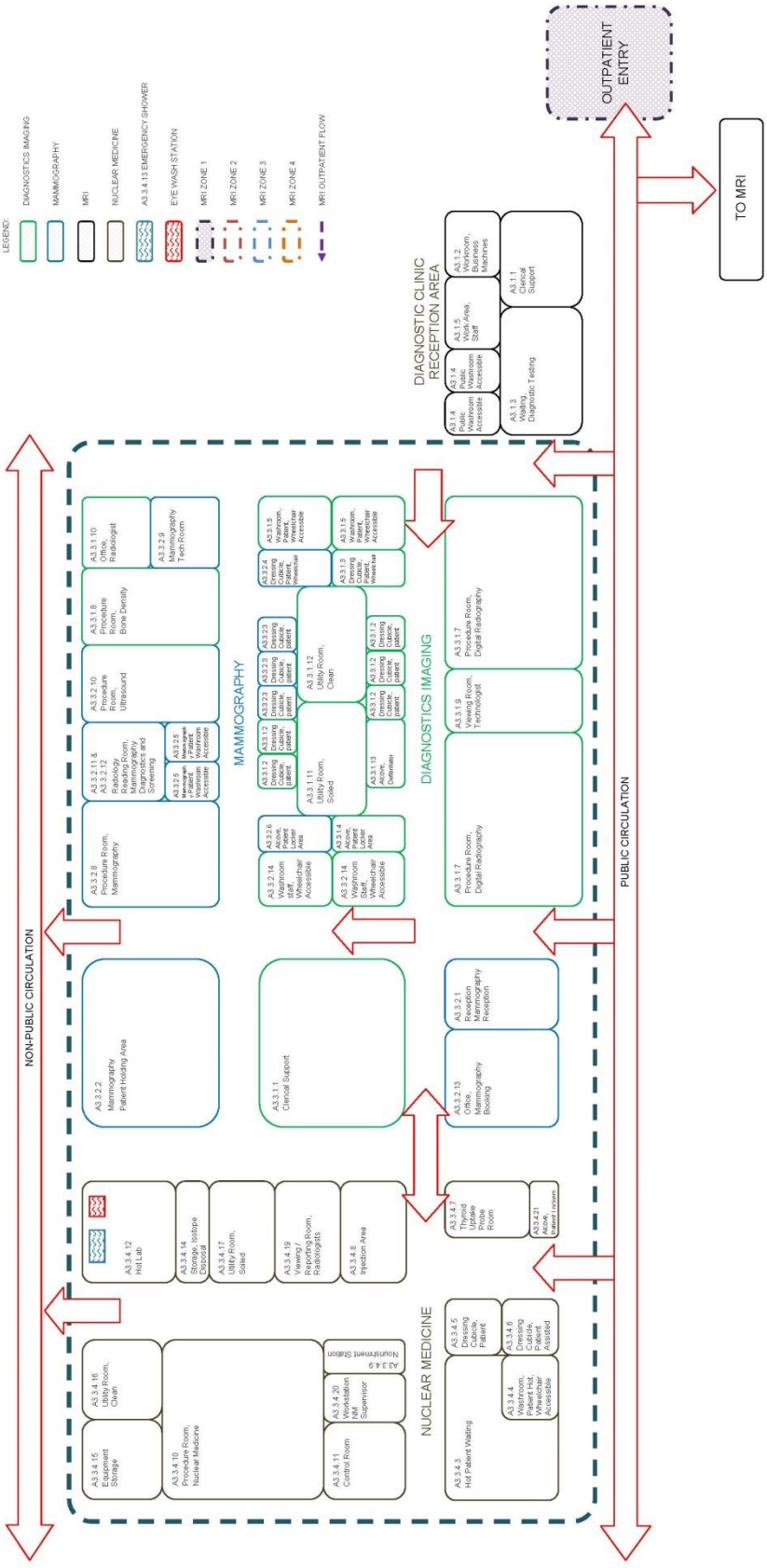
Nuclear Medicine exams requiring the patient to consume food stored in a refrigerator in the nourishment station include: Gastric Emptying Studies, Cardiac studies, Gall bladder ejection fraction studies and Diabetic patients.

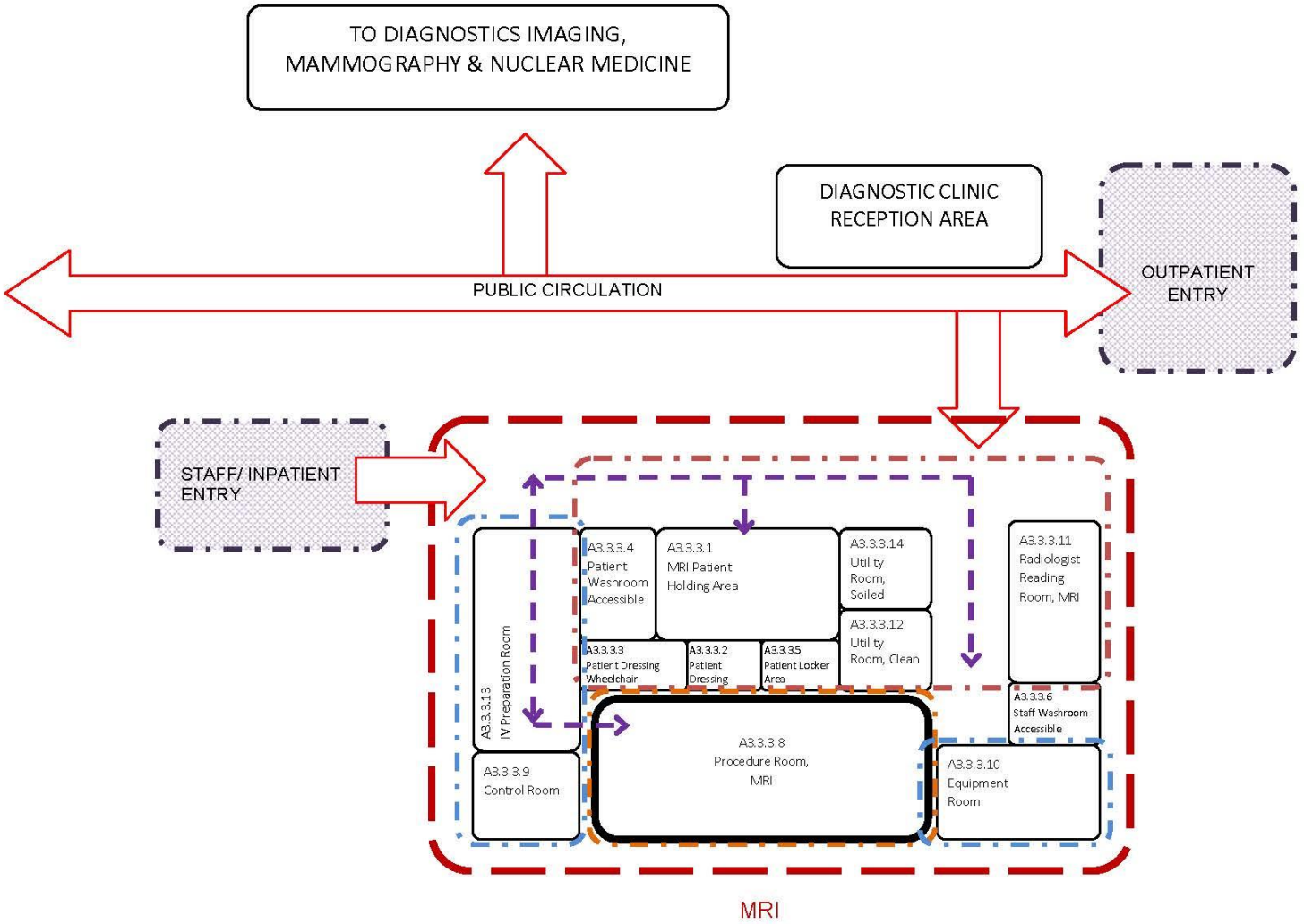
Equipment requirements include; small fridge on a counter, toaster and water dispensing machine. Storage for cases of food under the counter is required.

External Relationships

Patients can arrive by medivan and therefore adjacency to entry point needs to be considered. Accommodation of stretcher access to the clinic main entry, all procedure rooms and stretcher waiting area is required. A key adjacency is the Pre-Surgical Screening Clinic and associated clinics (Cardiology, Outpatient Lab) where a high volume of patients are seen for pre-surgical screening and require an X-ray as part of the pre-screening. Additional key adjacencies are the existing PRH diagnostic imaging department, Emergency Department, Orthopaedic Clinic, Pre Surgical Screening and Respiratory Diagnostics. The key adjacency is to the existing diagnostic imaging which is primarily for staff to move between departments through non-public corridor circulation. It is important to minimize the operational impacts created due to the two separate DI areas.

Internal Relationships




TO DIAGNOSTICS IMAGING,
MAMMOGRAPHY & NUCLEAR MEDICINE
DIAGNOSTIC CLINIC
RECEPTION AREA
OUTPATIENT
ENTRY
PUBLIC CIRCULATION
STAFF/ INPATIENT
ENTRY
A3.3.3.4
Patient
Washroom
Accessible
A3.3.3.1
MRI Patient
Holding Area
A3.3.3.14
Utility
Room,
Soiled
A3.3.3.11
Radiologist
Reading
Room, MRI
A3.3.3.12
Utility
Room, Clean
A3.3.3.3
Patient Dressing
Wheelchair
A3.3.3.2
Patient
Dressing
A3.3.3.5
Patient Locker
Area
A3.3.3.13
IV Preparation Room
A3.3.3.6
Staff Washroom
Accessible
A3.3.3.8
Procedure Room,
MRI
A3.3.3.9
Control Room
A3.3.3.10
Equipment
Room
MRI

4.1.9.3.1 Diagnostic Imaging

Schedule of Accommodation

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
A3.3 - SATELLITE DIAGNOSTICS IMAGING					
A3.3.1 - DIAGNOSTICS IMAGING					
A3.3.1.1	Reception	1	12	12	Receptionist function, to include 2 workstations. Requires a number dispensing machine.
A3.3.1.2	Dressing Cubicle, Patient	5	1.5	7.5	
A3.3.1.3	Dressing Cubicle, Patient, Wheelchair	1	2.5	2.5	
A3.3.1.4	Alcove, Patient Locker Area	1	2.4	2.4	Include 12 half lockers and soiled linen hamper adjacent to dressing cubicles.
A3.3.1.5	Washroom, Patient, Wheelchair Accessible	2	4.6	9.2	
A3.3.1.6	Alcove, Hand Hygiene Sink	3	1	3	
A3.3.1.7	Procedure Room, Digital Radiography	2	37	74	Sized to include 7.5 sm control room.
A3.3.1.8	Bone Density Diagnostic Room	1	15	15	To accommodate dual-energy xray absorptiometry (DEXA)
A3.3.1.9	Viewing Room, Technologist	1	9.2	9.2	To include 2 workstations.
A3.3.1.10	Office, Radiologist	1	9	9	
A3.3.1.11	Utility Room, Soiled	1	12	12	
A3.3.1.12	Utility Room, Clean	1	12	12	
A3.3.1.13	Alcove, defibrillator	1	1	1	
A3.3.1.14	Clerical Support	1	16	16	Booking and unit clerk functions. To include 3 open workstations. 6 purse lockers.
A3.3.1.15	Workroom, Business Machines	1	10	10	Adjacent to Clerical Support.
A3.3.1.16	Work Area, Staff	1	9	9	To include 2 workstations. Locate proximal to Clerical Support and Workroom, Business Machines.
	SUBTOTAL: Diagnostics Imaging			**203.8**	
	Grossing Factor			**1.5**	
	SUBTOTAL CGSM: Diagnostics Imaging			**305.7**	

4.1.9.3.2 Mammography

Schedule of Accommodation

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
A3.3.2 - DIAGNOSTICS IMAGING - MAMMOGRAPHY					
A3.3.2.1	Mammography Reception	1	7.5	7.5	For receptionist function. To include 1 workstation.
A3.3.2.2	Mammography Patient Holding Area	1	9	9	To include 4 seats and space for 1 wheelchair.
A3.3.2.3	Dressing Cubicle, Patient	3	1.5	4.5	Locate adjacent to Procedure Room, ensure privacy.
A3.3.2.4	Dressing Cubicle, Patient, Wheelchair	1	2.5	2.5	Locate adjacent to Procedure Room, ensure privacy.
A3.3.2.5	Washroom, Mammography Patient, Wheelchair Accessible	2	4.6	9.2	1 WC dedicated to Ultrasound Procedure Room.
A3.3.2.6	Alcove, Patient Locker Area	1	1.6	1.6	Include 8 half lockers and soiled linen hamper adjacent to dressing cubicles.
A3.3.2.7	Alcove, Hand Hygiene Sink	2	1	2	
A3.3.2.8	Procedure Room, Mammography	1	24	24	
A3.3.2.9	Mammography Tech Room	1	12	12	To include 3 workstations.
A3.3.2.10	Procedure Room, Ultrasound	1	15	15	Located near Mammography Procedure Room to support Mammography program.
A3.3.2.11	Radiology Reading Room, Mammography Diagnostics	1	9	9	To include 1 workstation.
A3.3.2.12	Radiology Reading Room, Mammography Screening	1	9	9	To include 1 workstation.
A3.3.2.13	Office, Mammography Booking	1	10	10	Located adjacent to Reception. To include 1 workstation.
A3.3.2.14	Washroom, Staff, Wheelchair Accessible	2	4.6	9.2	Distributed to serve Satellite Diagnostic program.
A3.3.2.15	Alcove, blanket warmer	1	1	1	
	SUBTOTAL: Diagnostics Imaging - Mammography			**125.5**	
	Grossing Factor			**1.5**	
	SUBTOTAL CGSM: Diagnostics Imaging - Mammography			**188.25**	

4.1.9.3.3 MRI

Schedule of Accommodation

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
A3.3.3 - DIAGNOSTICS IMAGING - MRI					
A3.3.3.1	MRI Patient Holding Area	1	14	14	Seating for 3 plus 1 wheelchair and 2 stretchers.
A3.3.3.2	Dressing Cubicle, Patient	1	1.5	1.5	
A3.3.3.3	Dressing Cubicle, Patient, Wheelchair	1	2.5	2.5	
A3.3.3.4	Washroom, Patient, Wheelchair Accessible	1	4.6	4.6	
A3.3.3.5	Alcove, Patient Locker Area	1	1	1	Include 4 half lockers and soiled linen hamper adjacent to dressing cubicles.
A3.3.3.6	Washroom, Staff, Wheelchair Accessible	1	4.6	4.6	
A3.3.3.7	Alcove, Hand Hygiene Sink	1	1	1	Locate adjacent to procedure room.
A3.3.3.8	Procedure Room, MRI	1	50	50	
A3.3.3.9	Control Room	1	14	14	
A3.3.3.10	Equipment Room	1	18	18	Based on 1.5 Tesla.
A3.3.3.11	Radiologist Reading Room, MRI	1	12	12	To include 2 workstations.
A3.3.3.12	Utility Room, Clean	1	7	7	
A3.3.3.13	IV Preparation Room	1	10	10	
A3.3.3.14	Utility Room, Soiled	1	7	7	
SUBTOTAL: Diagnostics Imaging - MRI				**147.2**	
Grossing Factor				**1.5**	
SUBTOTAL CGSM: Diagnostics Imaging - MRI				**220.8**	

4.1.9.3.4 Nuclear Medicine

Schedule of Accommodation

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
A3.3.4 - DIAGNOSTICS IMAGING - NUCLEAR MEDICINE					
A3.3.4.1	Cold Waiting Alcove	0	2.5	0	Refer to A3.1.3 Waiting, Diagnostic Testing
A3.3.4.2	Washroom, Patient Cold, Wheelchair Accessible,	0	4.6	0	Refer to A3.1.3 Waiting, Diagnostic Testing
A3.3.4.3	Hot Patient Waiting	1	9.6	9.6	
A3.3.4.4	Washroom, Patient Hot, Wheelchair Accessible	1	4.6	4.6	
A3.3.4.5	Dressing Cubicle, Patient	1	1.5	1.5	
A3.3.4.6	Dressing Cubicle, Patient Assisted	1	2.5	2.5	
A3.3.4.7	Thyroid Uptake Probe Room	1	5	5	To accommodate patient in a chair, thyroid uptake probe, and 1 staff member.
A3.3.4.8	Injection Area	1	11	11	
A3.3.4.9	Nourishment Station	1	2	2	Located adjacent to Hot Patient Waiting.
A3.3.4.10	Procedure Room, Nuclear Medicine	1	44	44	
A3.3.4.11	Control Room	1	10	10	
A3.3.4.12	Hot Lab	1	17	17	To include storage of radioactive isotopes and isotope disposal.
A3.3.4.13	Emergency Shower	1	1.5	1.5	
A3.3.4.14	Storage, Isotope Disposal	1	4	4	
A3.3.4.15	Equipment Storage	1	11	11	
A3.3.4.16	Utility Room, Clean	1	12	12	
A3.3.4.17	Utility Room, Soiled	1	12	12	
A3.3.4.18	Alcove, Linen Cart	1	1.5	1.5	
A3.3.4.19	Viewing/Reporting Room, Radiologists	1	12	12	
A3.3.4.20	Workstation, NM supervisor	1	4.6	4.6	
A3.3.4.21	Alcove, Patient Lockers	1	1.5	1.5	Include 6 half lockers and soiled linen hamper adjacent to dressing cubicles.
SUBTOTAL: Diagnostics Imaging - Nuclear Medicine				**167.3**	
Grossing Factor				**1.5**	
SUBTOTAL CGSM: Diagnostics Imaging - Nuclear Medicine				**250.95**	

4.1.9.3.5 NOT USED

4.1.9.3.6 Summary of Diagnostic Imaging

Diagnostics Imaging	**305.7**
Diagnostics Imaging - Mammography	**188.25**
Diagnostics Imaging - MRI	**220.8**
Diagnostics Imaging - Nuclear Medicine	**250.95**
SUBTOTAL CGSM: Satellite Diagnostics Imaging	**965.7**

4.1.9.4 Cardiology Diagnostics Clinic

Cardiology provides a range of inpatient, outpatient, pediatric, and inter-hospital services and community programs. Diagnostic services include trans-thoracic and trans-esophageal echocardiography (echo), ECGs, hook-up and analysis of 24-hour Holter, ambulatory Blood Pressure and 1-week Event monitors, exercise stress testing, exercise stress echo, dobutamine stress echo, exercise oximetry and contrast echo. In addition, the department participates in the BC Children's Hospital Cardiology Outreach Program, Heart Failure clinic, and a Heart Transplant Clinic in conjunction with the BC Transplant Society.

The Cardiac Device Clinic follows patients with pacemakers and ICDs (Internal Cardiac Defibrillators) at regular intervals. The clinic provides teaching in an individual or group setting. The clinic liaises with Physicians and the Emergency department pre- and post-implant of devices. Patients are also followed via remote transmission.

Cardiology and the Cardiac Device clinic work in association with the Integrated Health Clinic and the Cardiac Rehab program.

The RACE Clinic (Rapid Access to Cardiac Evaluation) provides rapid response (<72 hours) to outpatients with unstable or worrisome cardiac symptomatology with the goal of improving outcomes and reducing hospital usage.

Space Requirements

Space requirements for the Cardiology Diagnostic Clinic include the following:

- 3 Resting ECG rooms;
- 1 Holter room;
- 3 Stress Testing Labs
    - Two sized to accommodate ECHO / Metabolic testing; to include Physician Viewing area with direct visibility to treadmills and stretchers
    - Defibrillator for zone to be located here
    - Bays to be designed for same handedness
    - Stress Labs to be proximal to Nuclear Medicine Procedure room. Provide convenient access for patients through non-public circulation

- 2 Dressing cubicles with lockers in stress test lab area;
- 2 Cardiac Ultrasound Rooms;
- 1 Examination / Consult room sized to allow it to operate as an ECHO room;
- 4 Examination / Consult Rooms;
- 2 Cardiac Device Clinic Rooms, separated by a partial wall and enclosed with a privacy curtain to create two bays
    - Each bay is collocated with pacemaker charting area and shares a storage area for analyzer carts and manuals
- 1 Preparation room
    - To be located near ECG, Echo and Stress Testing lab
    - This will be used as an ECG prep area for electrode placement
    - Patients will wait here or in gowned waiting area until exam room is available
- 1 Multipurpose office;
- Office/workrooms for staff; and
- A staff lounge/respite area that is in close proximity to the unit is critical for clinic staff.

Pharmacy Services

Cardiology Diagnostics will utilize the medication rooms, stocked by the central pharmacy, located in the Maternal Child Clinic area. All meds will be ordered electronically and STAT requests will be transported by pharmacy staff.

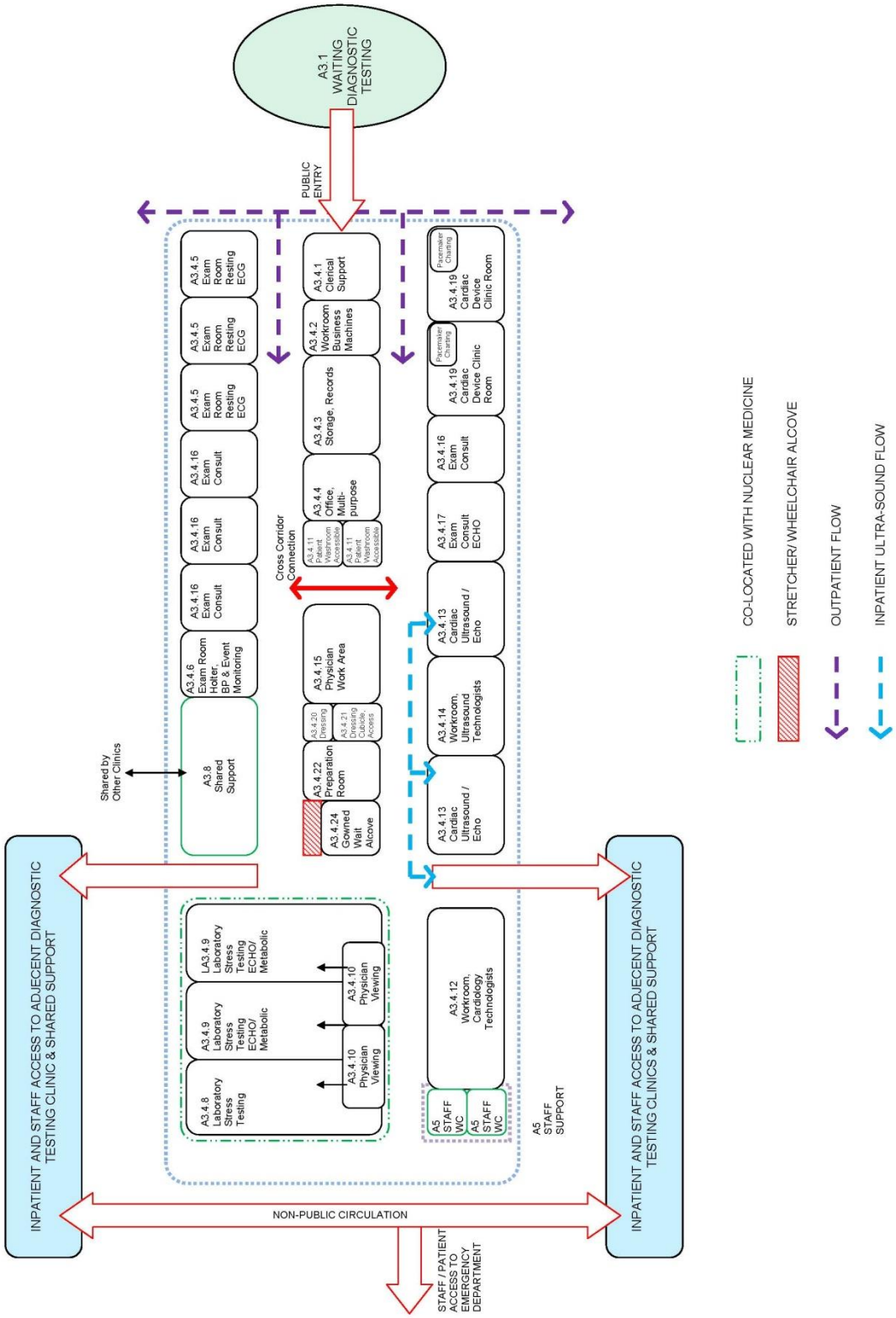
External Relationships

Patients can arrive by medivan and therefore adjacency to entry point needs to be considered. Accommodation of stretcher access to the clinic and stretcher waiting area is required. The Stress Testing Lab area is to be co-located with Nuclear Medicine. The clinic will share clean and soiled utility areas with Respiratory Diagnostics.

Key Adjacencies:

- A high volume of patients are seen for Pre-Surgical Screening and require an ECG as part of the pre-screening;
- Stress Testing Nuclear Medicine;
- Emergency Department and Respiratory Diagnostics.

Internal Relationships



Schedule of Accommodation

Ref. No.	Space/Area	Area Requirements			Remarks
		Units	nsm/unit	nsm	
A3.4 - CARDIOLOGY DIAGNOSTICS CLINIC					
A3.4.1	Clerical Support	1	12	12	Booking and Unit Clerk functions. To include 2 workstation. To be locate adjacent to Workroom and Records Storage.
A3.4.2	Workroom, Business Machines	1	10	10	To be located adjacent to Clerical Support and Storage, Records.
A3.4.3	Storage, Records	1	20	20	To include high density shelving. 6 purse lockers.
A3.4.4	Office, Multipurpose	1	12	12	To include 2 workstations.
A3.4.5	Exam Room, Resting ECG	3	12	36	To include ECG equipment, 1 workstation.
A3.4.6	Exam Room, Holter, BP and Event Monitoring	1	12	12	Room to include Holter, Blood Pressure and Event Monitoring equipment. 1 workstation.
A3.4.7	Alcove, Crash Cart	1	1	1	
A3.4.8	Laboratory, Stress Testing	1	20	20	Located for convenient access to Nuclear Medicine. To consist of full height walls on 3-sides with curtain at the end.
A3.4.9	Laboratory, Stress Testing, ECHO/Metabolic	2	24	48	Located for convenient access to Nuclear Medicine. To include water dispenser. To consist of full height walls on 3-sides with curtain at the end.
A3.4.10	Viewing Area, Physician	2	9.2	18.4	To include 2 workstations each with direct visibility over the testing stretcher bays.
A3.4.11	Washroom, Patient, Wheelchair Accessible	1	4.6	4.6	
A3.4.12	Workroom, Cardiology Technologists	1	18	18	To include 3 workstations. Provide acoustic privacy between workstations. To include reference files, supply storage, 2 Holter Analyzers, Blood Pressure and event monitoring equipment.
A3.4.13	Exam Room, Cardiac Ultrasound/ECHO	2	16	32	
A3.4.14	Workroom, Ultrasound Technologists	1	15	15	To include 3 workstations.
A3.4.15	Work Area, Physician	3	4.6	13.8	To include 1 workstation each.
A3.4.16	Exam/Consult Room	4	12	48	
A3.4.17	Exam/Consult Room/ECHO Room	1	16	16	
A3.4.18	Washroom, Patient, Wheelchair Accessible	1	4.6	4.6	To be co-located with Stress Testing Labs.

Ref. No.	Space/Area	Area Requirements			Remarks
		Units	nsm/unit	nsm	
A3.4.19	Cardiac Device Clinic Room	1	39	39	To include 2 treatment bays, solid wall between the bays with curtains at the end. Includes area for Pacemaker charting. To be configured to allow accessibility to equipment from each bay.
A3.4.20	Dressing Cubicle	1	1.5	1.5	Adjacent to Stress Testing Lab. Include half locker.
A3.4.21	Dressing cubicle, Assisted	1	2.5	2.5	Adjacent to Stress Testing Lab. Include half locker.
A3.4.22	Preparation Room	1	7.5	7.5	
A3.4.23	Alcove, Linen Cart	1	1.5	1.5	
A3.4.24	Waiting, Gowned	1	10	10	Seating for 2 plus 1 wheelchair and 1 stretcher.
SUBTOTAL: Cardiology Diagnostics Clinic				**403.4**	
Grossing Factor				**1.4**	
SUBTOTAL CGSM: Cardiology Diagnostics Clinic				**564.76**	

4.1.9.5 Respiratory Diagnostics Clinic

Respiratory Diagnostics will provide a range of diagnostic and therapeutic services to inpatients and outpatients. These services will include diagnostics, respiratory health education and counselling, urgent respiratory specialist consultations, medical pleuroscopy, fluoroscopic intervention, transtracheal oxygen insertions, negative pressure pulmonary function testing and bronchoscopic procedures including cryotherapy and endobronchial fluoroscopic stent placement. Patient support for bronchoscopy including sedation, temporary holding and recovery will occur in the Procedural Services Centre.

Space Requirements

Space requirements for the Respiratory Diagnostic Clinic include the following:

- 3 Plethysmography & Screening Labs;
- 1 Sealed Inhalation Challenge Lab;
- 4 Examination / Consult Rooms;
- 1 Asthma Care Centre, Education Room
- Access to Biomedical workroom to accommodate the cleaning of equipment used in diagnostics and use for upgrades and preventative maintenance of equipment. This room will be shared with Cardiology;
- Equipment room to include clean storage and workspace to assemble equipment. This room will require a work counter, sink medical gas outlet; and
- File storage for 15 file cabinets.

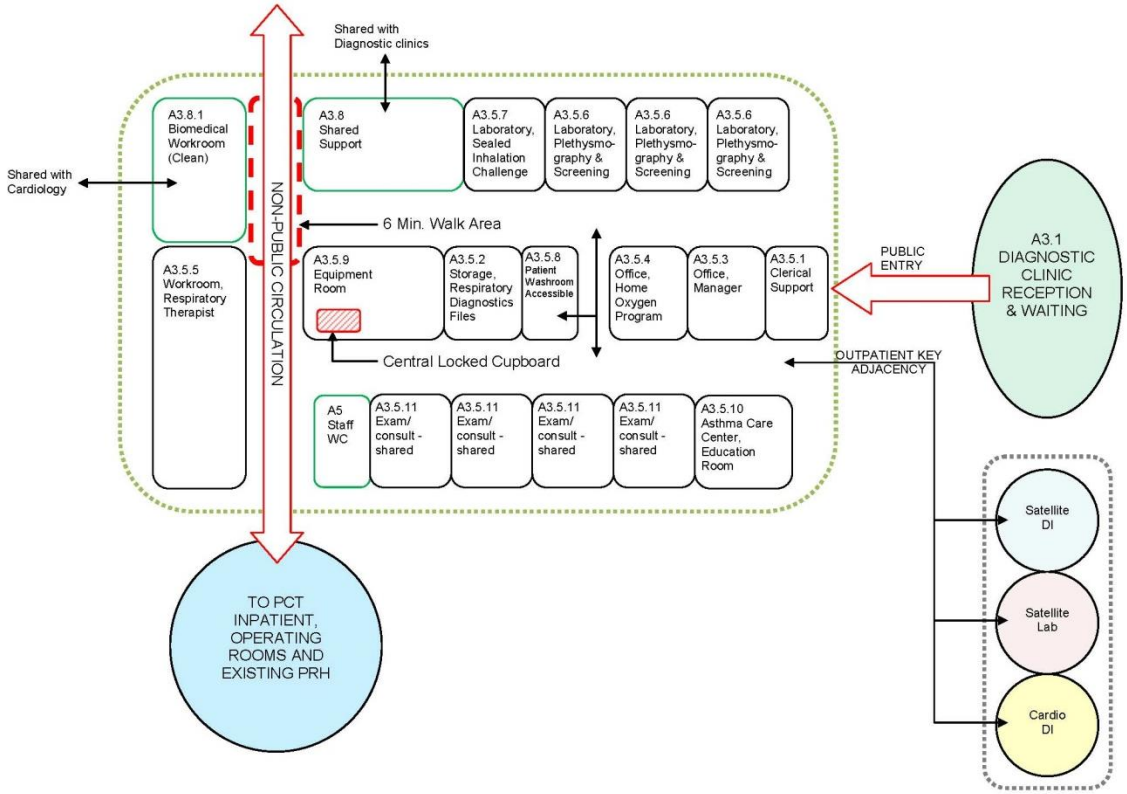
External Relationships

Key adjacencies include Inpatient Units, Operating Rooms, Cardiology Diagnostics, Satellite Lab and Diagnostic Imaging. The clinic will share a Biomedical workroom and clean and soiled utility areas with Cardiology Diagnostics.

Schedule of Accommodation

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
A3.5 - RESPIRATORY DIAGNOSTICS CLINIC					
A3.5.1	Clerical Support	1	12	12	To include 2 workstations.
A3.5.2	Storage, Respiratory Diagnostics Files	1	13.5	13.5	6 purse lockers.
A3.5.3	Office, Manager	1	11	11	
A3.5.4	Office, Home Oxygen Program	1	11	11	
A3.5.5	Workroom, Respiratory Therapist	1	34.5	34.5	To include 4 workstations for 1 Inpatient RT, 2 Diagnostic RT, 1 Community RT. Space for files, reference information and manuals. Breath Well Program RT to utilize a dedicated exam room.
A3.5.6	Lab, Plethysmography & Screening	3	14	42	
A3.5.7	Lab, Sealed Inhalation Challenge	1	8	8	
A3.5.8	Washroom, Patient, Wheelchair Accessible	1	4.6	4.6	
A3.5.9	Equipment Room	1	20	20	Clean storage and workspace to assemble equipment. Room requires work surface counter top.
A3.5.10	Asthma Care Centre, Education Room	1	15	15	To include 1 workstation, seating for 4.
A3.5.11	Exam/Consult – Shared	4	12	48	One to be dedicated to Breath Well RT.
A3.5.12	Alcove, Linen Cart	1	1.5	1.5	
SUBTOTAL: Respiratory Diagnostics Clinic				**221.1**	
Grossing Factor				**1.4**	
SUBTOTAL CGSM: Respiratory Diagnostics Clinic				**309.54**	

Internal Relationships



4.1.9.6 Orthopaedic Clinic

The Orthopaedic Clinic provides multidisciplinary care and treatment for orthopaedic (bone/joint) problems, e.g. applying and removing casts, shoulder braces, crutches, etc. The clinic operates by scheduled appointments for selected patients referred to an orthopaedic surgeon (e.g. from the Emergency), or for follow-up with the surgeon after surgery (e.g. requiring stitches and/or cast removal). Orthopaedic cast technologist services include removal of a cast with follow-up x-ray, application of a cast for un-displaced fracture, or changing of a deteriorating cast, as well as after-care patient education.

Space Requirements

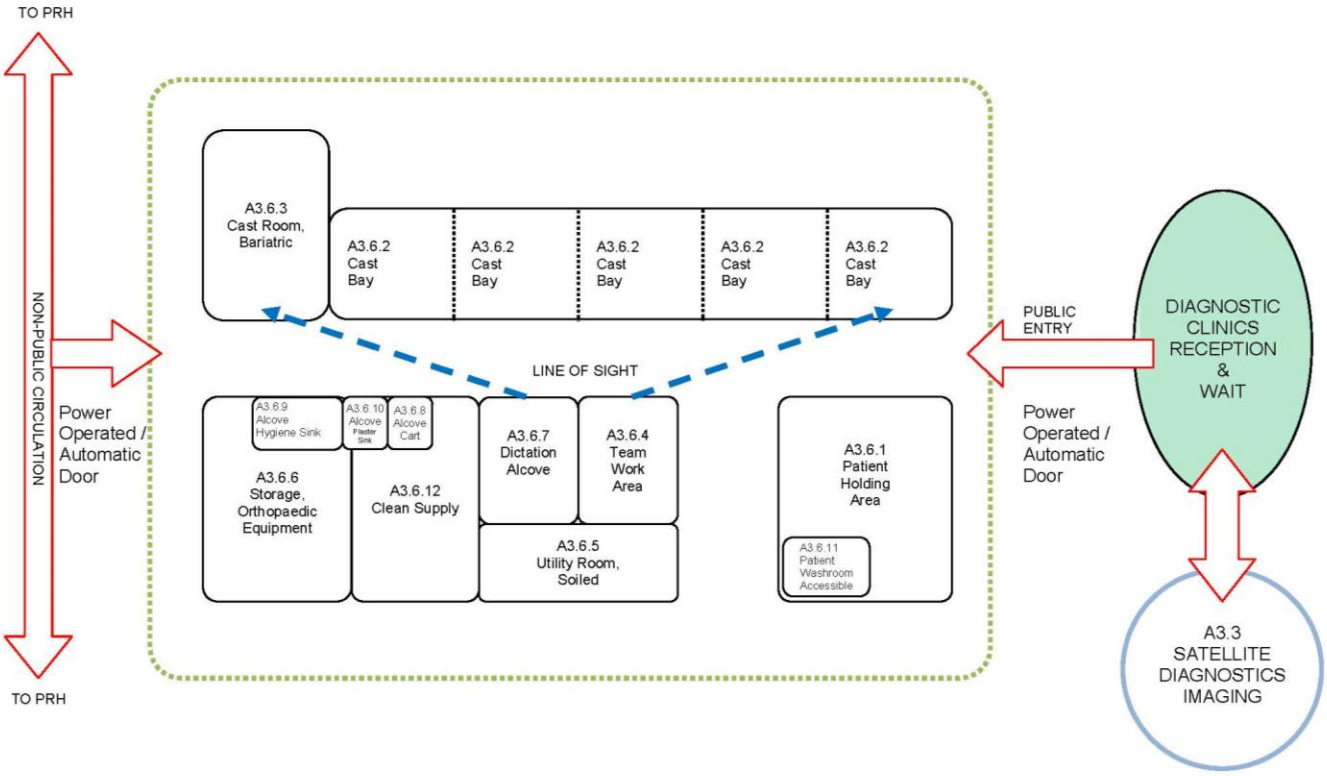
The Orthopaedic Clinic has the following space requirements:

- A patient holding area that will accommodate chairs and stretchers;
- Cast Room that is open for maximum visibility and observation with 5 stretcher bays;
- A private treatment room that will accommodate bariatric patients; and
- A PACs alcove that will allow physicians to counsel patients and family while maintaining patient confidentiality.

External Relationships

Patients can arrive by medivan and therefore adjacency to the main entry point and diagnostic waiting area is critical. Accommodation of stretcher access to the clinic and stretcher waiting area is required. Key adjacencies for Orthopaedic Clinic are Diagnostic Imaging and the Emergency Department. Other important connections that must be considered are to Day Surgery and Inpatient Units.

Internal Relationships



Schedule of Accommodation

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
A3.6 - ORTHOPAEDIC CLINIC					
A3.6.1	Patient Holding Area	1	24	24	Seating for 10 include 2 stretchers.
A3.6.2	Cast Room	5	9.5	47.5	Bays to consist of full height walls on 3-sides with curtain at the end.
A3.6.3	Cast Room, Bariatric	1	16.5	16.5	
A3.6.4	Team Work Area	1	7.5	7.5	Millwork to accommodate 2 workstations. Visibility into stretcher bays. Direct access by internal circulation to Dictation Alcove.
A3.6.5	Utility Room, Soiled	1	9	9	
A3.6.6	Storage, Orthopaedic Equipment	1	14	14	Centrally located. 6 purse lockers.
A3.6.7	Dictation Alcove	1	9	9	To include 2 workstations.
A3.6.8	Alcove, Cart	1	1	1	
A3.6.9	Alcove, Hand Hygiene Sink	2	1	2	
A3.6.10	Alcove, Plaster Sink	1	2	2	
A3.6.11	Washroom, Patient, Wheelchair Accessible	1	4.6	4.6	
A3.6.12	Clean Supply	1	12	12	
	SUBTOTAL: Orthopaedic Clinic			**149.1**	
	Grossing Factor			**1.4**	
	SUBTOTAL CGSM: Orthopaedic Clinic			**208.74**	

4.1.9.7 Pre-Surgical Screening Clinic

The Pre-Surgical Screening Clinic will accommodate the pre-admission activities for acute care patients and will include pre-procedure nursing care, orientation, anesthetic consultations, physiotherapy teaching, general health education and the coordination of scheduled diagnostic procedures. All elective surgical patients will be screened in this clinic. Some patients may require tests at the time of their visit including laboratory, diagnostic imaging, cardiology, and respiratory.

- Nurses will interview patients booked for surgical procedures in person and over the phone
- Patient education will take the form of video, internet and one-on-one
- Nurse provides final contact with patients and reviews their chart to ensure everything is complete and ready for day surgery

- The anaesthetist provides pre-surgical consults and examinations
- The unit clerk assembles and provides charts for the section
- The OR booking clerk books and schedules procedures, prepares the daily OR slate and schedules the pre-surgical screening clinic

An office for OR Booking will be adjacent to this area and charts will be shared between the clinic staff and booking.

Space Requirements

The Pre-Surgical Clinic has the following space requirements:

- A clerical control area for scheduling and unit clerk functions. This space is to be located at the back of house to support serving the nursing staff. Area requires a Pneumatic Tube Station.
- Nursing Interview Rooms with workstations along with two visitor chairs for patients and visitor, the doors shall be sized to accommodate bariatric wheelchairs.
- OR Booking Office and Business Machine Workroom,

External Relationships

- Key adjacencies are to the outpatient entrance, satellite laboratory, diagnostic imaging and cardiology diagnostic imaging (ECG) area and education room.

Schedule of Accommodation

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
A3.7 - PRE-SURGICAL SCREENING CLINIC					
A3.7.1	Clerical Support	1	12	12	To include 2 workstations. For scheduling and unit clerk functions. 6 purse lockers.
A3.7.2	Interview Room, Nursing	2	12	24	To include 4.6 sm workstation. Two chairs, one for visitor and patient, desk chair, electronic scale, non-Invasion Blood Pressure monitor.
A3.7.3	Exam Room	3	12	36	
A3.7.4	Washroom, Patient, Wheelchair Accessible	1	5.6	5.6	
A3.7.5	Pneumatic Tube Station	1	0.5	0.5	Adjacent to Clerical Support Area.
A3.7.6	Office, OR Booking	1	16	16	To include 2 workstations.
A3.7.7	Workroom, Business Machine	1	10	10	Located adjacent to Clerical Support
SUBTOTAL: Pre-Surgical Screening Clinic				**104.1**	
Grossing Factor				**1.4**	
SUBTOTAL CGSM: Pre-Surgical Screening Clinic				**145.74**	

4.1.9.8 Shared Support Area

Schedule of Accommodation

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
A3.8 - SHARED SUPPORT AREA					
A3.8.1	Biomedical Workroom (Clean)	1	20	20	Shared between Cardiac Diagnostics and Respiratory. To perform upgrades and preventative maintenance on respiratory equipment.
A3.8.2	Biomedical Workroom (Soiled)	1	9	9	Locate adjacent to Respiratory. To accommodate soiled equipment.
A3.8.3	Storage, Equipment	2	12.5	25	Shared between Ambulatory Clinics, distributed to serve the floor area. 6 purse lockers.
A3.8.4	Clean Supply	2	12	24	To be shared between Satellite Lab, Cardiology, and Respiratory Diagnostics clinics. Room to include Med/surg supplies, fridge, millwork counter, and supply carts.
A3.8.5	Utility Room, Soiled	2	9	18	To be shared between Satellite Lab, Cardiology and Respiratory Diagnostics clinics. Critical adjacencies are Respiratory and Cardiology.
A3.8.6	Central Housekeeping Room, Clean	1	12	12	Located adjacent to service elevators.
A3.8.7	Central Housekeeping Room, Soiled	1	12	12	Located adjacent to service elevators.
	SUBTOTAL: Shared Support Area			**120**	
	Grossing Factor			**1.4**	
	SUBTOTAL CGSM: Shared Support Area			**168**	

4.1.9.9 Summary of Diagnostic Clinics Area

A3.1 -DIAGNOSTIC CLINIC RECEPTION AREA	**113.68**
A3.2 - OUTPATIENT LAB SPECIMEN COLLECTION	**142.38**
A3.3 - SATELLITE DIAGNOSTICS IMAGING	**913.2**
A3.4 - CARDIOLOGY DIAGNOSTICS CLINIC	**564.76**
A3.5 - RESPIRATORY DIAGNOSTICS CLINIC	**309.54**
A3.6 - ORTHOPAEDIC CLINIC	**208.74**
A3.7 - PRE-SURGICAL SCREENING CLINIC	**145.74**
A3.8 - SHARED SUPPORT AREA	**168**
TOTAL CGSM: A3 - DIAGNOSTIC CLINIC AREA	**2566**

4.1.10 MEETING & CLINICAL VIDEO CONFERENCE AREA

A team approach will be used to deliver patient-centred care in the PCT. Therefore, team work spaces are required to support this service delivery direction. Telehealth/videoconference facilities will support clinical activities, grand rounds and teaching activities related to clinical activities. In service education and patient teaching programs will be conducted on a regular basis throughout the Patient Care Tower in patient/clinical care spaces as well as in staff conference/meeting room and patient/family teaching rooms equipped with audio-visual equipment.

External Relationships

Meeting and Clinical video conference areas should be located for convenient access to the service elevator core. Provide natural daylight in large conference rooms and the library where possible.

Schedule of Accommodation

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
A4 - MEETING & CLINICAL VIDEOCONFERENCE AREA					
A4.1	Office, Clinician Instructor	1	9	9	
A4.2	Trainee Workstation	1	5	5	
A4.3	Large Conference Room	1	90	90	Emergency Operations Centre ("EOC") during an emergency.
A4.4	PRH Medical Library	0	0	0	Refer to FoM UBC section.
A4.5	Medium Meeting Room	1	40	40	
A4.6	Clinical Videoconference Room, Remote Patient	2	9	18	
A4.7	Clinical Videoconference Room, Remote/Local Patient	1	16	16	
A4.8	Washroom, Wheelchair Accessible	2	4.6	9.2	
A4.9	Research Room	1	18	18	
A4.10	Housekeeping Room, Clean	1	7	7	
	TOTAL: Meeting & Clinical Videoconference Area			**212.2**	
	Grossing Factor			**1.4**	
	SUBTOTAL CGSM: Meeting & Clinical Videoconf. Area			**297.08**	

4.1.11 STAFF SUPPORT AREA

Schedule of Accommodation

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
A5 - STAFF SUPPORT AREA					
A5.1	Lounge, Staff	3	22	66	Decentralized and shared between ambulatory clinics.
A5.2	Staff Washroom, Wheelchair Accessible	1	4.6	4.6	
A5.3	Staff Washroom	4	3.5	14	
A5.4	Staff Lockers, Male	1	20	20	15 half lockers. Benches.
A5.5	Staff Change Area, Male	1	4	4	
A5.6	Staff Shower Area, Male	2	1.5	3	
A5.7	Staff Shower, Wheelchair Accessible, Male	1	4	4	
A5.8	Staff Washroom, Male	1	7	7	
A5.9	Staff Lockers, Female	1	44	44	30 half lockers. Benches.
A5.10	Staff Change Area, Female	2	4	8	
A5.11	Staff Shower Area, Female	4	1.5	6	
A5.12	Staff Shower, Female, Wheelchair Accessible	1	4	4	
A5.13	Staff Washroom, Female	1	14	14	
	TOTAL: Staff Support Area			**198.6**	
	Grossing Factor			**1.4**	
	SUBTOTAL CGSM: Staff Support Area			**278.04**	

4.1.12 FOUNDATION

The Penticton Regional Hospital Foundation raises funds to support five key areas within the Penticton Regional Hospital including:

- Enhanced family care;
- Support of further innovation;
- Support of site improvements;
- Purchase of leading edge medical equipment; and
- On-site and community education.

In order to support these activities the Foundation requires visibility to the public and therefore the office must be co-located with the main public entrance of the hospital.

Schedule of Accommodation

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
A6 - FOUNDATION					
A6.1	Workroom, Business Machines	1	15	15	
A6.2	Waiting /Reception Area	1	15	15	Reception desk for 1 workstation and seating for visitors.
A6.3	Office	3	10	30	Locate adjacent to the main entrance.
A6.4	Meeting Room	1	16	16	
	TOTAL: Foundation			**76**	
	Grossing Factor			**1.4**	
	SUBTOTAL CGSM: Foundation			**106.4**	

4.1.13 SUMMARY OF AMBULATORY CARE CENTRE

A1 - PATIENT INTAKE AREA	**208.7**
A2 - GENERAL CLINICS AREA	**696.2**
A3 - DIAGNOSTIC CLINIC AREA	**2566**
A4 - MEETING & CLINICAL VIDEOCONFERENCE AREA	**297.1**
A5 - STAFF SUPPORT AREA	**278.0**
A6 - FOUNDATION	**106.4**
AMBULATORY CARE CENTRE PROGRAMMED SPACE CGSM:	**4152.5**

4.2 B. Procedural Services Centre

4.2.1 OVERVIEW

Planning Parameters & Assumptions

This component program has been developed based upon the following assumptions:

- The Procedural Services Centre component focuses on combining all Procedural Services Centre including inpatient surgery and recovery, day surgery, medical day care, endoscopies, cystoscopy, colposcopy, urodynamics, infusion therapy, minor surgical procedures and recovery. This allows for resources to be shared among the various Procedural Services Centre;
- By consolidating flows and integrating the administration of clinical processes, there are fewer handoffs, significantly less unnecessary variability in the care model, and less opportunities for negative consequences such as patient handling accidents. This also simplifies information flow, auxiliary clinical services and service logistics, which also add significantly to the saving potential for this concept;
- Increased capacity in Minor Procedures area will allow surgical procedures requiring no anesthesia service to be moved out of the main OR suite to the Minor Procedures area;
- Minor Procedure rooms will accommodate complex procedures that require sterile supplies and instruments processed in Medical Device Reprocessing. These procedures often require support from a nurse.
- The launch of the province's new Colon Screening Program will increase the need for colonoscopy capacity. The launch of the program follows the successful Colon Check pilot, a population-based screening program for colorectal cancer, launched in 2009, of which Penticton was a pilot community;
- The promotion of minimally invasive surgeries will increase day surgery workloads;
- The designation as a site for bariatric surgery will increase the need to provide infrastructure and equipment for the care of the bariatric patient.
- The Day Surgery Unit and Post Anaesthetic Recovery Room (PARR) will be collocated to support variability in patient capacity requirements while maintaining standards of patient care and privacy;
- As this component is based on workload projections to the year 2028/29 and includes capacity should services be centralized in the region, there is more capacity than required on 'opening day'. It is expected that increased demand will be accommodated by expansion into additional building space as workload volumes grow over time; and
- Continued limitations on inpatient care resources will require maximum use of day care and outpatient services in the future.

Service Trends

Key trends considered in the planning of this component include the following:

- Medical day care and short stay care is being provided for a greater range of procedures, both invasive and non-invasive;
- Enhanced outpatient post-operative follow-up programs and expanded home care programs may enable more procedures to be done on a day care basis;

- In the future, emerging techniques and advances in technology will include an increase in interventional radiology procedures, minimally invasive surgeries, and telesurgery, leading to the requirement for larger operating rooms; The trend to perform more procedures on an outpatient/day care surgery basis is complimented by the corollary to this trend in that more day surgery cases will move to conscious sedation or minor surgery procedure rooms;
- The use of peri-operative imaging is expected to increase significantly.
- It is anticipated that in the future, as surgical cases become more complicated and the patient is at a higher level of risk, that PARRs will have to provide more sophisticated monitoring techniques and nursing care, while at the same time deal with a relatively high turnover of uncomplicated day surgery patients;
- General anesthesia will continue to improve the short acting fast emergence (SAFE) agents that will allow healthy patients to bypass first-stage recovery after general anesthesia care; and
- There are continued developments in pain management that involve theatre time and clinical support from anesthetists and specialist nurses.

4.2.2 FUNCTIONAL DESCRIPTION

Scope of Services

This component provides facilities for a number of services:

Pre-Op Prep/Post-Op Level II Recovery/Surgical Daycare (SDC)

This area will contain the centralized facilities for the preparation and recovery of outpatients and same day admit patients for various medical and surgical treatment procedures. Short-term nursing observation of scheduled outpatients with unresolved conditions will also be accommodated here pending decisions to admit or discharge. Any required pre-anesthetic consultations and examinations relating to procedures supported by this component that are required the day of surgery will occur on admission to the unit.

Minor Procedures Area

This area will accommodate patients who are undergoing scheduled diagnostic procedures and treatments requiring some form of preparation pre-procedure, and/or nursing care post- procedure, and/or specialized equipment or staff resources for the procedures. Outpatients and inpatients may utilize this area. Services accommodated in this area will include:

- High acuity/conscious sedation procedures and procedures requiring recovery stretchers;
- Endoscopy;
- Infusions including blood infusions, IVIG infusions, and IV therapy; and
- Other minor surgical procedures including vasectomies, oral surgeries, biopsies, carpal tunnel, etc. under local anaesthetics or blocks

Surgical Services Area

The Surgical Services area will provide facilities for the performance and support of all scheduled inpatient, outpatient (day surgery), Same Day Admit and unscheduled emergency surgical procedures. All procedures requiring general and regional anesthetic will be performed in this area, including certain emergency and special radiology procedures.

Procedures performed in the Surgical Services area will be classified as either General Procedures or Special Procedures. General procedures will use basic operating room configurations with specialized equipment incorporated for specific users. Special procedures will be provided with dedicated operating rooms, equipment, environmental controls and support facilities necessary for the performance of a definitive range of types of procedures included in that specialty.

With the exception of the Urology Interventional OR all Operating Rooms will be standardized to allow any surgical specialty to operate in any room.

Post-Operative (Post-Op) Level 1 Recovery Area / Post Anesthesia Recovery (PAR)

The Post-Op Level 1 Recovery Area will provide for immediate post-operative care of all anesthetised patients. It is anticipated that in the future, as surgical cases become more complicated and the patient is at a higher level of risk, that the Level 1 recovery area will have to provide more sophisticated central monitoring techniques and nursing care, while at the same time deal with a relatively high turnover of uncomplicated day surgery patients. Increased involvement of family will occur in select cases such as in paediatric surgery and deliveries.

Client Profile

Surgical patients will include inpatients, same day admit, day surgery patients and emergency patients.

Regional Context

Surgical services at the Penticton Regional Hospital will be an integrated part of the IHA Surgical Program.

Education It is expected that the Penticton Regional Hospital Procedural Services Centre will continue to support education activities of PRH and IHA. Other educational activities will include:

- Patient and family teaching, on both a pre-operative and post-operative basis, including the use of pre-admission clinics, one-on-one consultations, scheduled group classes, and/or via Telehealth;
- Staff continuing education and professional development;
- Staff orientation;
- Students include but are not limited to nursing, respiratory, EMT, and medicine.

4.2.3 OPERATIONAL CONSIDERATIONS

Service Delivery Principles & Methods

Patient Management

All elective surgical patients will be pre-screened prior to surgery – either by telephone or clinic visit. The pre-admission clinic will provide physician and nursing assessments, blood work and other tests such as ECG's, pre-op teaching and orientation.

Outpatient reception and admitting will occur on Level 1 with patients being directed to the Procedural Services Centre. Infusion patients have regular appointments and will be received and registered at Central Reception and Registration on their first visit. Subsequent visits patients will proceed directly to the Infusion Team Care Station (B4.18).

Patients will proceed to the Pre-Op area, change to the proper clothing for surgery and may be examined by an anesthetist and/or a surgeon. Premedication may be given at this time. Patients will walk into the procedural area or be transferred by stretcher.

Inpatients and emergency patients are transported on a stretcher by an Operating Room (OR) porter, to the Procedural Services Centre open stretcher bays by near OR Control.

When the OR is ready the patient is transferred to the theatre and the anaesthetist then administers anesthesia and the patient is prepped and undergoes the required surgical procedure.

Post-operatively patients that require Level 1 Recovery are transferred by stretcher to the Post-Op Level 1 Recovery Area (PARR) via the patient/staff corridor.

Upon meeting post-operative discharge criteria in the Post-Op Level 1 Recovery Area, day surgery patients will be moved to a stretcher-bed cubicle in the Pre-Op Prep/Post-Op Level II Recovery Support Area. Some SDC patients may move directly to the Pre-Op Prep/Post-Op Level II Recovery Support Area bypassing the Post-Op Level 1 Recovery Area altogether. They will continue their recovery in stretcher-beds under the observation and monitoring of nursing staff until such time as they can be safely discharged to the care of family members or other designated persons.

Following an inpatient's recovery from anesthesia, the patient is transferred to either an Inpatient Unit, to the Intensive Care Unit for further observation and care or returns homes after recovery from post-operative Level II recovery bay.

Visitor Management

In selected instances, a family member will be able to accompany the patient throughout the component, and may be asked to meet with the professional staff regarding post-procedure protocols or other care subjects.

Information Management

In the future, patients will have only one identification number and one health record, which will contain all information on inpatient and outpatient encounters in the system. While these records will be mostly digital, the component will have to accommodate hard copy records for a period of time until the digital systems are fully in place.

Clinical Support Services

Diagnostic Imaging

DI may be accessed by patients who require diagnostic procedures immediately prior to surgery.

DI equipment such as mobile and fixed radiographic and fluoroscopic units will be used in the procedure rooms and stored in alcoves in close proximity. Digital image review capabilities will be accommodated in the procedure rooms, and prep / recovery spaces.

A portering system will be used when required to transfer patients on a stretcher or in wheelchairs to Diagnostic Imaging.

Laboratory

Some patients may require tests prior to surgery. In these cases the patient will go to the lab first, or a lab tech will come to the unit to draw the blood samples required; samples will be taken to the lab by

the appropriate staff person; and results will be available electronically. Laboratory support will be required for specimen analysis intra-operatively and post-operatively.

Pharmacy Services

Four medication rooms/areas, stocked by the central pharmacy, will be located in the Procedural Services Centre. All meds will be ordered electronically and STAT requests will be transported by pharmacy staff.

Respiratory Therapy (RT)

RT work and storage space will be provided in the Surgical Services area in conjunction with the Anaesthesia work area. RT requires access to a deep sink, a work area and storage space for reuseables.

Biomedical Engineering

Biomedical Engineering will access space in the Surgical Services area in conjunction with the Anaesthesia workroom. Biomedical Engineering requires access to a counter work space with lower drawers. Biomedical Engineering will require access to other work spaces to service equipment that is outside of the Surgical Services area.

Respiratory and biomedical areas will be co-located and shared.

Support Services

Medical-Surgical Supplies and Instruments

In order to optimize materiel flow and reduce the need for storing supplies within the Procedural Services Centre, a case cart system will be utilized for the ORs, with one or more case-specific cart(s) containing all of the necessary surgical supplies and instruments for the procedure.

Other back-up medical-surgical supplies including reprocessed and disposable sterile supplies will be maintained in the sterile core utilizing a top-up system.

Direct access between the Medical Device Reprocessing Department (MDRD) component and the Surgical Services area is required for the movement of clean/sterile supplies and soiled materials. Since instruments and equipment need to travel vertically to and from the MDR, a dedicated elevator for soiled devices and a dedicated elevator for clean devices are required.

GI Endoscopic equipment will be cleaned and sterilized in reprocessing rooms adjacent to the endoscopy rooms and stored in secure scope cabinets also adjacent to the Endoscopy Rooms.

Cystoscopy instruments will be cleaned, sterilized and stored in MDR and transported in batches to minor procedures on Cystoscopy.

Linen Services/Clean Supplies

Clean linen will be transported to each functional area of the Procedural Services Centre using a scheduled exchange cart system.

Material Services/Logistics

Inventories of consumable supplies required by the procedural services centre for day-to-day operations are generally maintained close to point of use, using a combination of top-up cart system

and fixed shelving. Medical surgical supplies will be topped up by Logistics staff and held in a clean supply room within the designated area.

Sterile supplies will be provided by exchange or case cart in accordance with schedule procedure needs.

Soiled Holding

Soiled holding areas will be included for dirty laundry, garbage and biohazard materials within the Procedural Services Centre.

Housekeeping Services

Housekeeping staff will provide cleaning services on a regular and as-needed basis. A housekeeping room for the storage of equipment and supplies will be located within the Surgical Services area. A centralized housekeeping room will service the remainder of the Procedural Services Centre.

Food Services

Most patients will be provided with a beverage and light snack service provided from a nourishment centre within the component and, on an occasional basis, full meal services will also be provided within the component and delivered by dietary staff. Family/support persons will have access to vending machines in general waiting and retail areas on level one of the new facility.

Equipment Management

Equipment storage space will be provided within the Procedural Services Centre for frequent use (at least once a month) items (e.g., stretcher, wheelchairs, IV carts and poles). Some soiled and/or contaminated reusable equipment will be cleaned and/or decontaminated in the MDR. Others will be cleaned within the department.

Staff Facilities

Staff changing rooms and lockers will be planned integrally within the component to allow for the opportunity of maintaining a high degree of sterile discipline. Students and volunteers will also have space for coat storage in the coat closets. Purse lockers will be provided and located near staff zones for personal valuables and will be shared across shifts.

A staff break room will be provided for the use of surgeons and other medical staff, who may want to interact with the surgeons, and for nursing and support staff.

Surgeons from outside of the component should be able to communicate with other staff in the component without gowning. Access to Changing and Lounge Facilities by staff must avoid circulation through the Operating Theatre area but in close proximity to ensure staff may be recalled if required.

Public Facilities

A waiting area for relatives of surgical patients will be provided.

Information Management/Health Records

Patient rooms and patient care stations will be planned to accommodate both paper and electronic ‘paperless’ patient information systems. Space will be provided during the transition period over the next 15 years from a conventional ‘paper’ chart system to a digital patient information systems with automated access to information by means of computer terminals located at all staff work areas. In the

future, computer charting will occur at the patient bedside, likely through the use of hand-held wireless computers. Point-of-care technology, including testing, will be utilized.

Information Technology & Communication Systems

The Procedural Services Centre will require a communications infrastructure to support a full range of digital information technology including:

- Instrument Management and Tracking of reusable medical device inventories.
- Voice, video and data communications;
- Wireless communications within the Procedural Services Centre and potentially to other selected locations;
- Technological support for a Level 3 Surgical Suite, i.e. requires remote audio-visual access to the suite;
- Picture archiving and communication systems (PACS) including one per OR, at each physician workstation, in Pre-Op/ Pre-Op Prep/Post-Op Level II Recovery and in PARR as per CSA;
- Dictation outlets (dial-in access);
- Emergency call system;
- Access to perioperative documentation and electronic health records for the surgical team (e.g. surgeons, anaesthesia, nursing) in the ORs and PARR; and
- Remote physiological monitoring.

Hours of Operation

It is expected that this component will be operational between 0700 and 2300 hours on weekdays. Routine hours of operation for sections of this component will be as follows:

- Pre-Op Prep/Post-Op Level II Recovery Support: 0630 – 1830h Monday to Friday;
- Minor Procedures Area: 0730 – 1530h Monday to Friday for elective surgery;
- Surgical Services Area & Post-Op Level 1 Recovery Area (PAR):
    - 0730 – 1500h Monday to Friday for elective surgery;
    - Staff for weekday evenings and weekend days; and
    - Staff, including anesthetists and additional staff, will be on-call for emergency procedures 24-hours/day, 7-days/ week.

4.2.4 WORKLOADS

Based on the workload analysis, 5 OR spaces would be required at the time of opening.

Similarly, 2 Endoscopy rooms, 1 Cystoscopy room, and 3 Minor Procedure rooms be functional at opening. One additional Endoscopy room will be finished but un-equipped.

4.2.5 DESIGN CRITERIA

Special Requirements

Overall Layout

Functions must be organized within the Procedural Services Centre to minimize travel distances and potential conflicts between patient, staff and material travel. Patients, staff and supplies need to be

moved efficiently from pre-operative to operative to post-operative spaces while maintaining aseptic control in the surgical areas.

Surgical Suites typically are planned according to three zones of activity and protocol:

- An unrestricted area with unlimited access to all personnel, street clothes are permitted; includes control desk to monitor and direct further access; and depending on facility environment, may also include pre-op holding area, staff lounge and administrative offices
- A semi-restricted zone area limited to authorized personnel who are required to wear appropriate surgical attire including hair covers; and for storage, scrub sink areas and corridors leading to restricted areas.
- The restricted areas where surgical attire and facemasks are required include any areas where scrub personnel are present such as operating rooms and /or any areas where sterile supplies are opened.

Infection Control

Infection control in the Procedural Services Centre is achieved through:

- Zoning the space as noted above;
- The use of impervious, durable and easily cleaned surfaces and easily cleaned equipment that tolerates IHA approved disinfectants;
- The use of hand hygiene sinks, scrub sinks, hand hygiene products, and other fixtures and equipment in conformance with CSA and IHA standards;
- Specially designed HVAC systems in conformance with the CSA standard for Health facilities, including HEPA filtered supply air system;
- Provision of an airborne isolation room in each component of the procedural services area.

Security

Public access to the Procedural Services Centre shall be limited to its main entrance that must be controlled. Access between the Surgical Services area and Medical Device Processing will be via dedicated elevators.

4.2.6 SPACE REQUIREMENTS

Surgical Services Area

Control Desk/Reception:

- All visitors and staff shall report to or communicate with this desk to receive authorization and directions on traffic flow and dress protocol.

- This desk will have overviews of the patient holding/waiting room and stretcher holding bays where patients are held prior to going into the operating room. The waiting area will have interview rooms collocated for confidential interviews with staff pre op.

Operating Rooms

- Five ORs are included, sized at 65 m2 each as per IHA standard and to ensure that they are all large enough to accommodate special procedures for maximum flexibility. All ORs are to be designed same handed. One of the 5 ORs will be configured as an Interventional Urology room

and be lead-lined. The ORs will be designated as Level 3 suites meaning that each suite will have digital technology allowing remote viewing of the suite.

- The surgical cart exchange system will be located in the remaining space that will be designed to accommodate OR expansion in the future.
- ORs will have a double door for patient and surgical team access plus a single large door connecting to the adjacent sterile supply area.

Scrub Stations

- One scrub station containing a double, hands-free OR scrub sink and stainless steel shelves for supplies is required at the entrance to each OR, and with a window to the OR.

Sterile Supply / Sterile Core Area

- Case carts and back-up supply carts will be held in this area. Each OR will typically use 1 to 2 case carts per procedure, additional carts are required for more complicated procedures. Soiled carts will be returned to Medical Device Reprocessing (MDR).
- The sterile supply area needs to have a large doorway into each OR, as well as a direct link (vertical) to the sterile supply in the MDR component.

Medication Area

- There will be a centrally located medication alcove in the sterile core that accommodates an automated drug dispensing machine and refrigerator.
- The area will accommodate a cart with supplies within the space.

Specimen Fixation Room

- This area will be a separate closed room. Room is required to have a specimen pass-thru from the restricted access surgical corridor.
- Requirements include a biological safety cabinet, area for gross dissection, microscope, and Cryostat.
- Technology needs to be integrated into the room to allow for results to be sent directly to the OR.

Flash Sterile Area

This area will be used for the emergency sterilization of surgical goods when routine sterilization cannot be done. This area will be a separate closed room accessible from both the restricted access corridor and the sterile core and be immediately adjacent to the OR theaters.

Anaesthetic & RT Supplies & Equipment

- This space is required to support the anaesthetists and respiratory technicians working in the ORs.
- It will accommodate activities such as the cleaning, maintenance and storage of anaesthetic equipment, IV pumps, respiratory supplies, gas bottles and equipment used in the ORs.
- In addition to a stainless steel work counter with sink and supply racks/carts, it requires adequate power outlets for charging pumps and other battery operated equipment.

Workroom and Storage for Biomedical Engineering, Anaesthesia and Respiratory Therapy

- The main function is to accommodate the cleaning and maintenance of equipment used in the ORs. A work counter is required.

- Medical gases are required including oxygen, medical air, vacuum, nitrous-oxide, and scavenging.

Equipment Storage

- Multiple areas are required for the storage of equipment in the Surgical Services area.

- The areas in B9.8 should be a combination of decentralized alcoves and rooms in close proximity to point of use.

Decontamination Room/Soiled Returns

- This includes space for a hopper/flush rim sink, high volume fluid waste disposal systems, a stainless steel work counter with sinks for processing equipment that must remain in the Surgical Services area and instruments required for immediate use during off MDR hours. The area will contain a dedicated soiled elevator to the MDR decontamination area.

- This area will also hold soiled linen and garbage, collection of biomedical waste and sharps.

PARR

- Each patient recovery bay shall include: medical gas, power and communication outlets, physiological monitoring, emergency call system, telephone, intercom/nurse call, plus adequate space for a mobile computer charting station, IV pump, ventilator and a code team.
- There will be one private room and one negative airborne isolation room that will be used to isolate a patient as required. The isolation room is collocated and shared with day surgery.
- The area will contain the following:
    - Team Care Station;
    - Medication Alcove – To accommodate an automated drug dispensing machine and refrigerator;
    - Clean Supply Holding Alcove;
    - Soiled Utility Room;
    - Equipment Storage; and
    - Staff Washroom.

- When transporting patients from the operating room and PARR, the route must be as short, direct and straight as possible (minimize corners).
- All components of the area must be accessible to staff while still maintaining visual contact with the recovery bays.

Staff Change Rooms

- Dedicated male and female change rooms are required to support the Surgical Services activities.
- The change rooms require a washroom with shower together with the lockers.

- The change rooms need to be accessible from general circulation outside of the Surgical Services and to the semi-restricted corridor within the Surgical Services.
- Provide purse lockers in decentralized areas adjacent to nursing stations.

Staff Break Room

- The Surgical Services break room shall to be large enough to accommodate all Surgical Services staff and physicians taking their break at the same time, and shall be located adjacent to the surgical staff change rooms, accessible from the semi-restricted corridor.
- It requires a nutrition station kitchenette, table for dining with seating and a separate section of groupings of soft seating. There shall be a separate computer workstation area with a PACs/computer station that staff can use for collaboration with colleagues and individual research. It shall also provide mail slots for non-hospital based surgical staff.

Pre-op and Level II Recovery

- Beds in this area will serve as both pre-op and Level II recovery areas for patients. This means that patients will receive their pre-op care in the same area in which they will recover from surgery following a stay in PARR as required.
- This area can flex with PARR at high peak times.
- The area will have one isolation room with negative pressure with associated ante room and washroom. This room is shared with Level 1 recovery and should be adjacent to both areas.
- The following support areas are required in pre-op and Level II recovery.
    - Team Care Station;
    - Equipment Storage Room;
    - Nourishment Station;
    - Clean Supply Holding Room;
    - Soiled Utility;
    - Clerical Workstation;
    - Conference Teaching/Meeting Room; and
    - Medication Room
- Design shall be such that Level II and PARR are separated by internal doors which define them as two distinct units. Visitors coming to either Level II or PARR from the waiting area shall not pass through the other unit on their way to the recovery bay.
- Travel route for patients proceeding into surgery from Level II shall not pass in front of any PARR recovery bays. Patients returning to PARR recovery bays post op shall not travel through Level II recovery area. Patients returning to Level II recovery bays post op shall not travel through PARR recovery area.

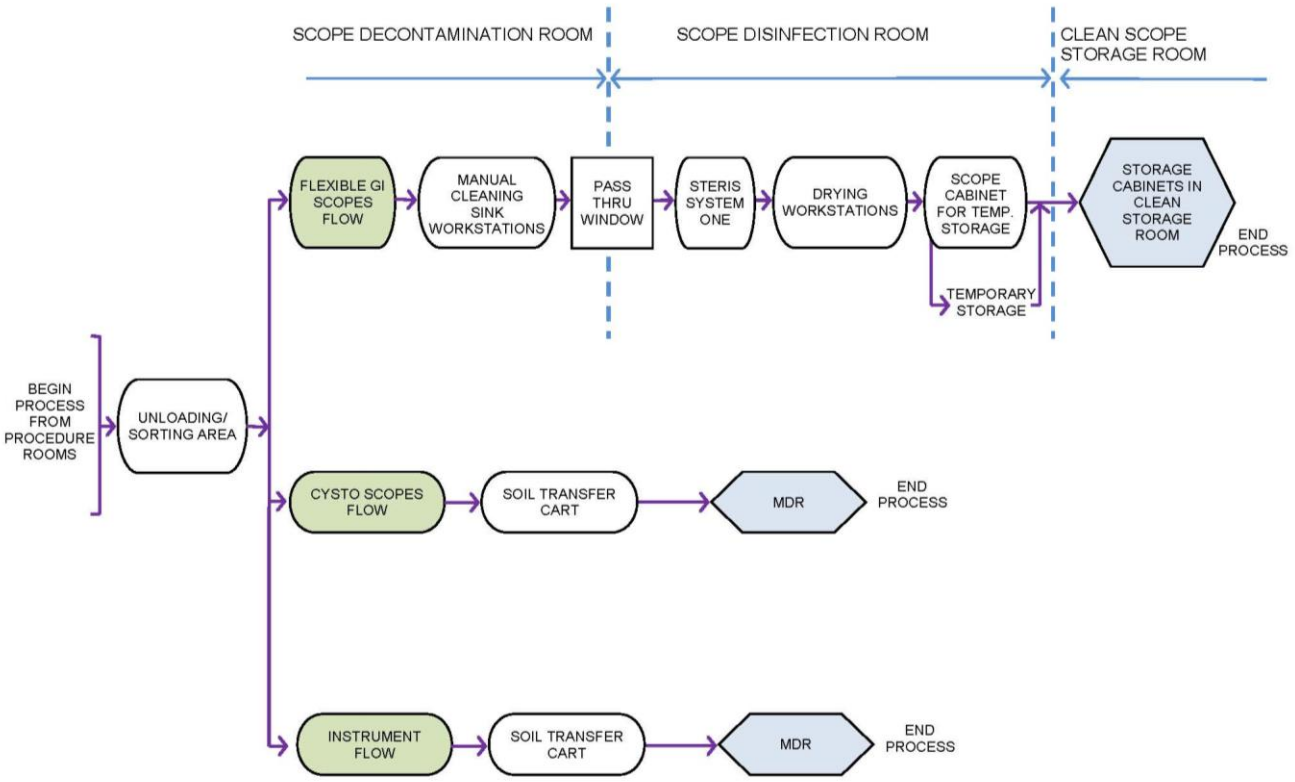
Minor Procedures Area

Each of the procedure rooms in the minor procedures area will include equipment booms to accommodate procedural and nursing equipment. Monitors will be ceiling mounted on articulating arms.

Endoscopy

- Three Endoscopy suites are within the Minor Procedures area. Two will be functional at opening and a third finished but not equipped. A secure storage area in each of the rooms will be required to stock the medication inventory for the day's procedures.
- Endoscopy will require the following support areas:

- Scope Decontamination Room and Scope Disinfection Room which are to be located close to the endoscopy procedure rooms. GI scopes will be manually cleaned in the Scope Decontamination Room with two double sink, height adjustable workstations with automated detergent dispensing and water pistols, and passed through into the adjacent Scope Disinfection Room. Scope Disinfection Room is required to include a long counter with instrument air outlets, six scope reprocessing machines, storage for reprocessing accessories and disinfection chemicals and a scope storage cabinet.
- Once sterilization is complete, scopes are dried and then taken to the Endoscopy Clean Scope Storage Room;
- Endoscopy Clean Scope Storage Room. This room is to be equipped with vertical scope storage cabinets. Scope storage room is to be accessible from all endoscopy and cystoscopy/colposcopy rooms, but staff should not have to travel through a procedure room to access storage;
- Endoscopy Clean Supply Room;
- Endo Physician Reporting/Viewing Room;
- Patient washroom; and
- Staff washroom.



ENDOSCOPY WORK FLOW MAP #1
FLEXIBLE GI /CYSTOSCOPY SCOPE AND INSTRUMENT FLOW

Cystoscopy/Colposcopy

- One Cystoscopy/Colposcopy procedure suite with scrub station is required,
- One patient washroom is required to support this room, and
- Locate directly adjacent to the patient waiting area due to high turn-over of room. Room will be connected with Clean Scope Storage Room. Colposcopy equipment will remain in the room. Provide a flush floor drain coordinated with the Hospital's equipment and infection control requirements.

Minor Procedures

- Three minor procedures rooms with scrub stations are required. Each to be sized at 25 m^2.
- A secure storage area in each of the rooms will be required to stock the medication inventory for the day's procedures. Ideally, this would take the form of a Automated Medication Management System machine but may be a locked narcotic cabinet located in locked millwork cabinet.

Level II Recovery for Minor Procedures and Endoscopy

- PRH has indicated that recovery from conscious sedation will take place in the minor procedures area.
- 10 Level II recovery beds are required for this area.
    - At opening:
        - 3 beds per 2 Endoscopy suites = 6
        - 3 beds for Diagnostic Imaging recovery
        - 1 bed for minor procedure recovery
    - In the Future:
        - 3 beds per 3 Endoscopy suites = 9
        - DI recovery beds to move down to Level 1
        - 1 bed for minor procedure recovery
- The following support areas are required in pre-op and Level II recovery.
    - Dressing cubicles;
    - Patient Locker Area;
    - Team Care Station;
    - Equipment Storage Room;
    - Nourishment Station;
    - Clean Supply Holding Room;
    - Soiled Utility;
    - Medication Area/IV Prep Room;
    - Gowned waiting area;
    - Consult rooms.

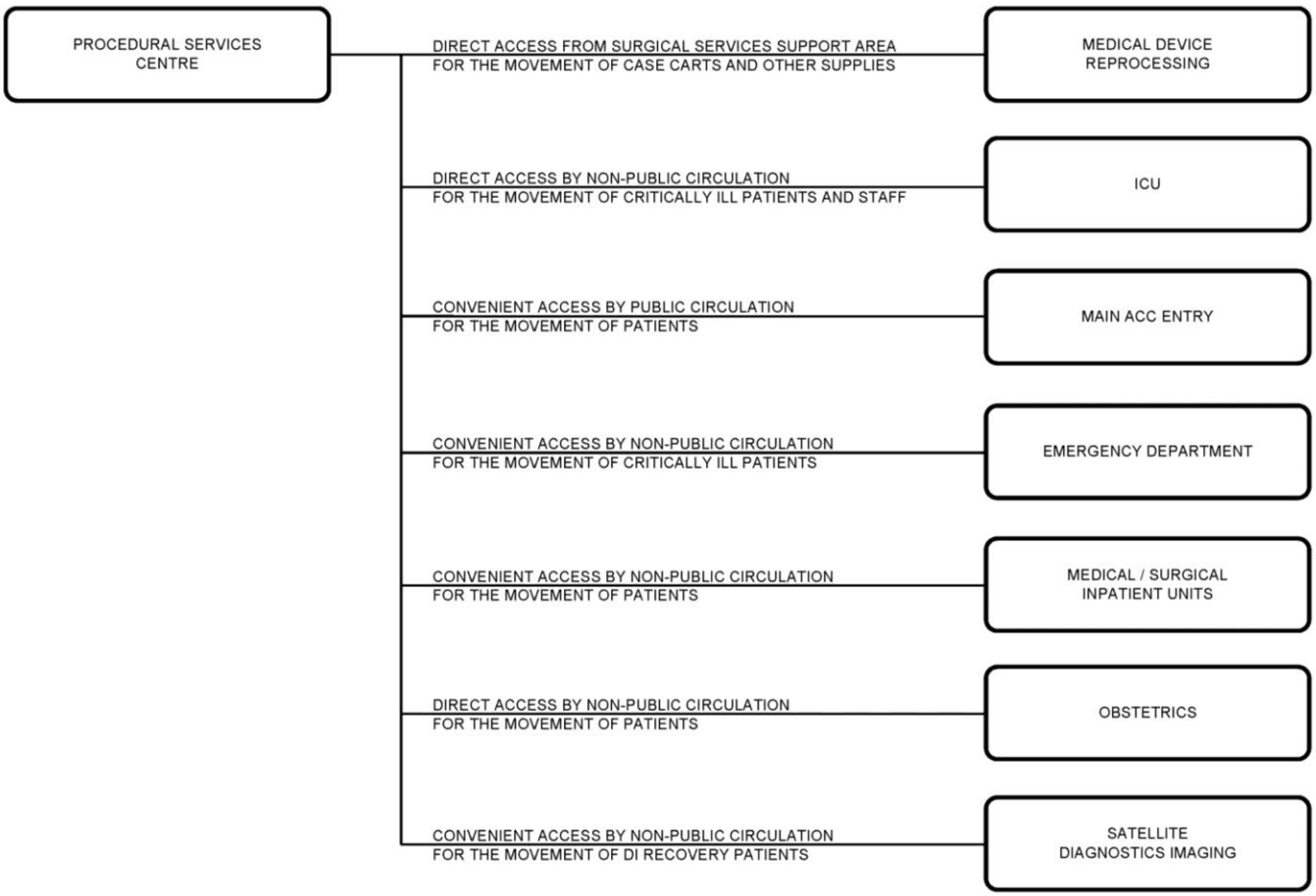
Education and Research Area

- The following areas are required to support this function:
    - Dictation Work Areas;
    - Conference/Education Room.

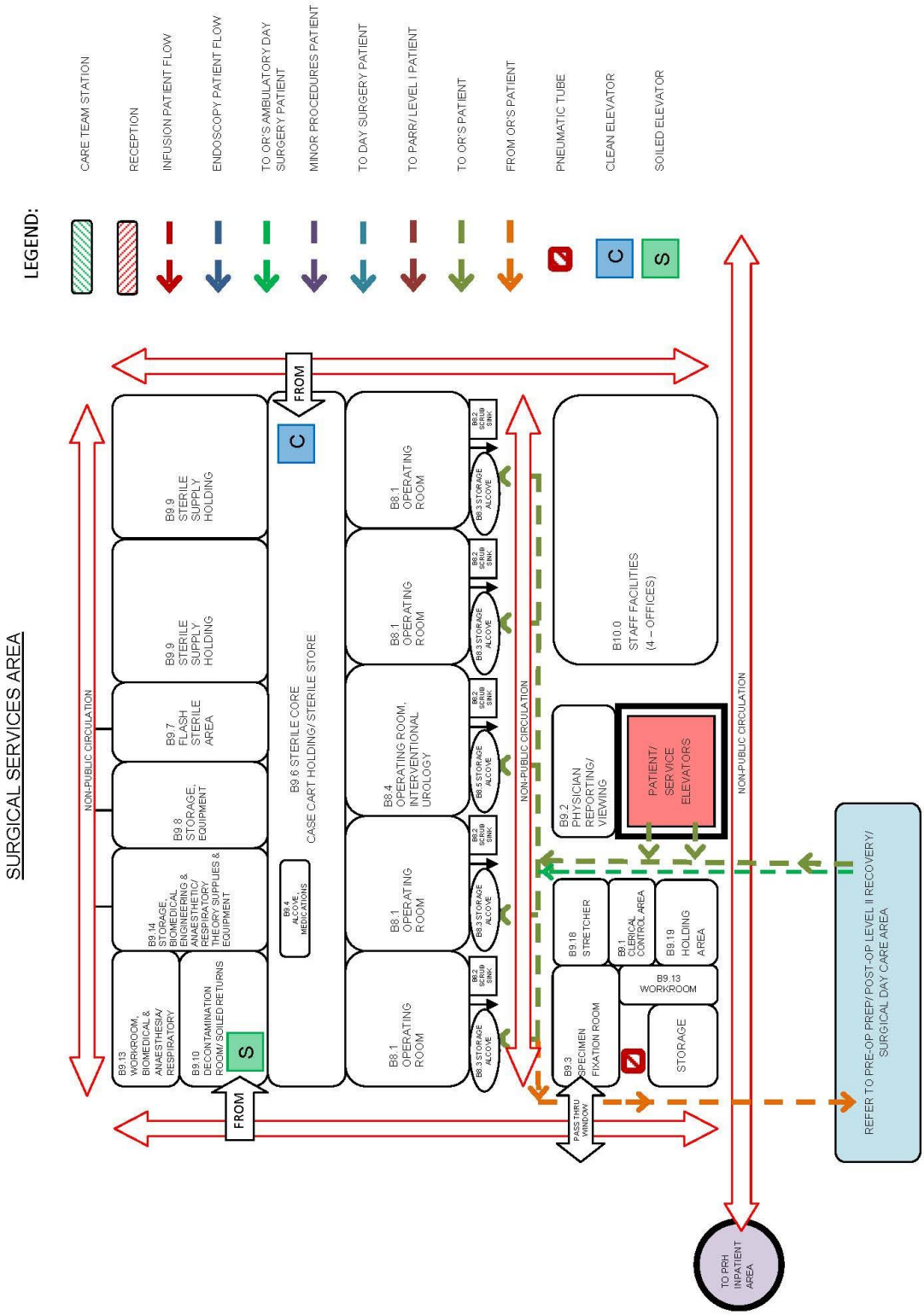
Staff Break Room and Lockers

- The Minor Procedural staff lounge needs to be large enough to accommodate about 10 persons with a kitchenette, seating and table for dining and separate soft seating area as well as a computer workstation, television etc.
- It also requires a segregated area with lockers for all staff and a closet for outer clothing and boots and shelving to keep duty shoes.

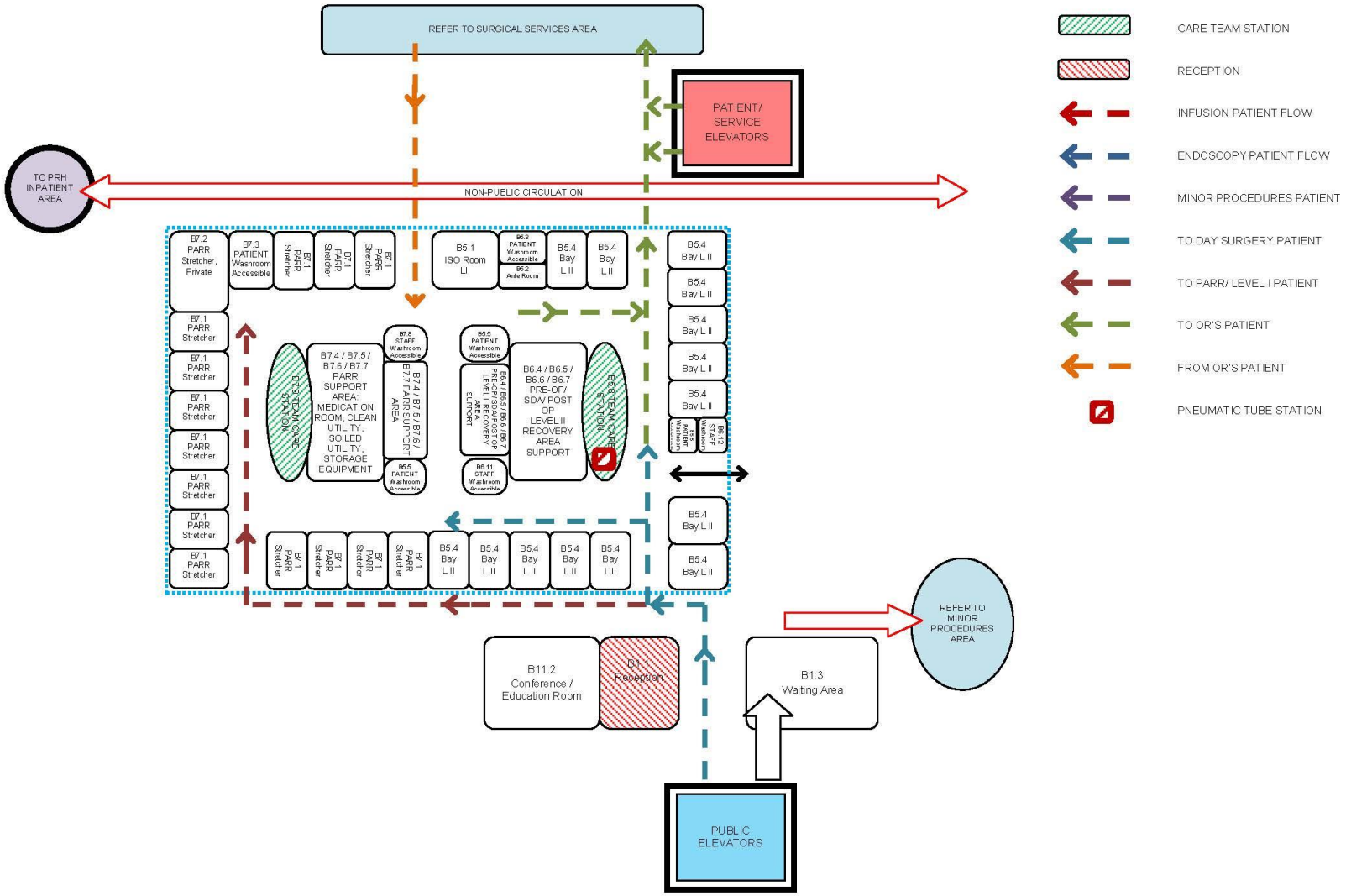
4.2.7 EXTERNAL RELATIONSHIPS



4.2.8 INTERNAL RELATIONSHIPS

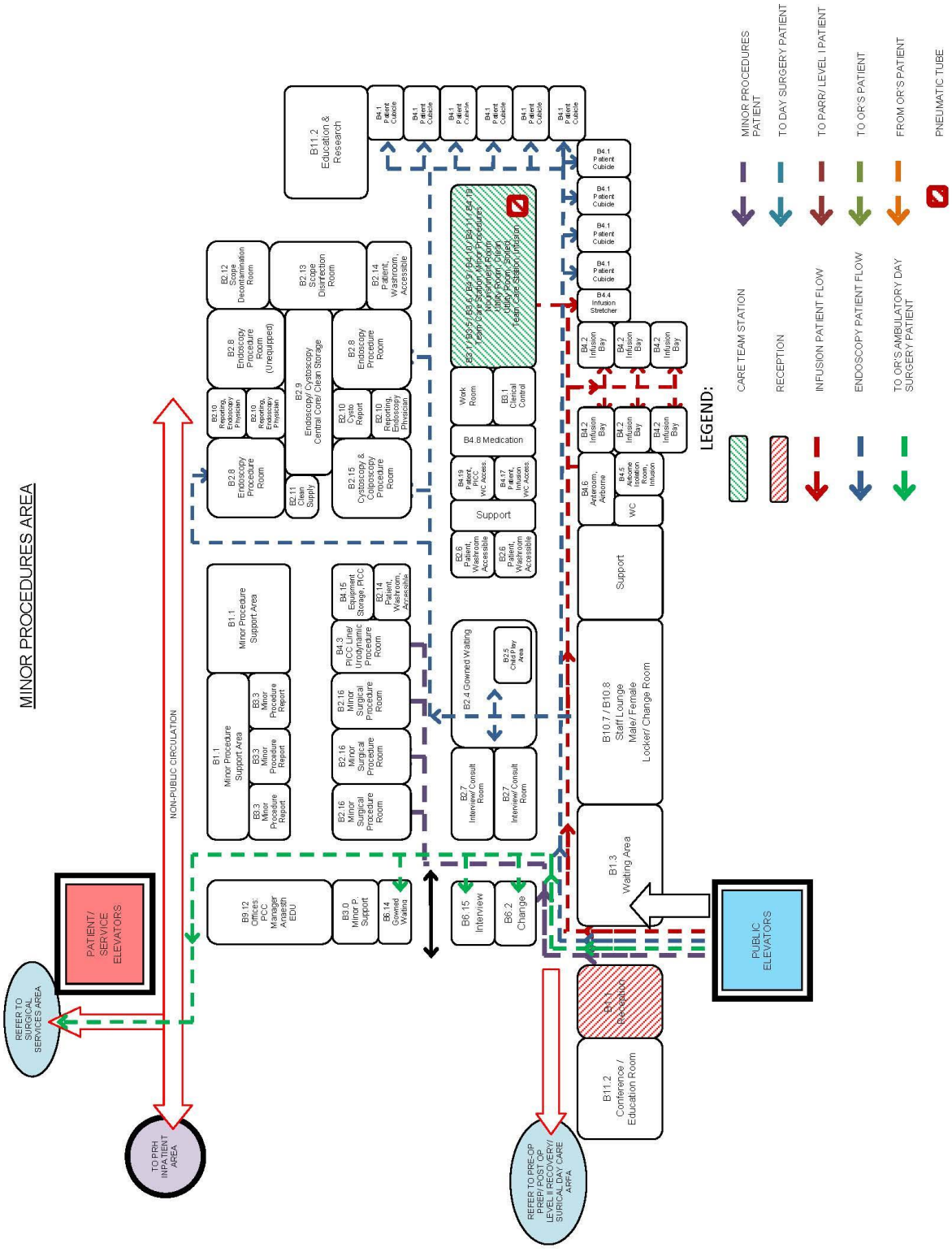


PRE-OP PREPT/ POST OP LEVEL II
RECOVERY/ SURGICAL DAY CARE AREA



LEGEND:

- CARE TEAM STATION
- RECEPTION
- INFUSION PATIENT FLOW
- ENDOSCOPY PATIENT FLOW
- MINOR PROCEDURES PATIENT
- TO DAY SURGERY PATIENT
- TO PARR/ LEVEL I PATIENT
- TO OR'S PATIENT
- FROM OR'S PATIENT
- PNEUMATIC TUBE STATION


MINOR PROCEDURES AREA
NON-PUBLIC CIRCULATION
PATIENT/ SERVICE ELEVATORS
REFER TO SURGICAL SERVICES AREA
TO PRH INPATIENT AREA
REFER TO PRE-OP PREP/ POST OP LEVEL II RECOVERY/ SURICAL DAY CARE APPA
PUBLIC ELEVATORS
B1.1 Minor Procedure Support Area
B1.1 Minor Procedure Support Area
B1.1 Minor Procedure Support Area
B1.3 Waiting Area
B2.4 Gowned Waiting
B2.5 Child Play Area
B2.6 Patient Washroom Accessible
B2.6 Patient Washroom Accessible
B2.7 Interview/ Consult Room
B2.7 Interview/ Consult Room
B2.8 Endoscopy Procedure Room
B2.8 Endoscopy Procedure Room (Unequipped)
B2.8 Endoscopy Procedure Room
B2.8 Endoscopy Procedure Room
B2.9 Endoscopy/ Cystoscopy Central Core/ Clean Storage
B2.10 Reporting, Endoscopy, Physician
B2.10 Reporting, Endoscopy, Physician
B2.10 Charting Report
B2.10 Reporting, Endoscopy, Physician
B2.11 Clean Supply
B2.12 Scope Decontamination Room
B2.13 Scope Disinfection Room
B2.14 Patient Washroom, Accessible
B2.15 Cystoscopy & Colposcopy Procedure Room
B3.0 Minor P. Support
B3.3 Minor Procedure Report
B3.3 Minor Procedure Report
B3.3 Minor Procedure Report
B3.12 Offices: PCC Manager Assistant EDU
B3.14 Gowned Waiting
B4.1 Patient Cubicle
B4.2 Infusion Bay
B4.3 PICC Line/ Urodynamic Procedure Room
B4.4 Infusion Stretcher
B4.5 Airborne Precaution Room, Infusion
B4.6 Anteroom, Airborne
B4.8 Medication
B4.15 Equipment Storage, PICC
B4.16 Minor Surgical Procedure Room
B4.16 Minor Surgical Procedure Room
B4.16 Minor Surgical Procedure Room
B4.17 Patient Washroom Infusion W/C Access
B4.19 Patient Washroom W/C Access
B5.1 Clerical Control
B6.2 Change
B6.15 Interview
B7.1 Pre-Admission
B9.14 Patient Washroom, Accessible
B10.7 / B10.8 Staff Lounge Male/ Female Locker/ Change Room
B11.2 Conference / Education Room
B11.2 Education & Research
Support
Support
Work Room
W/C
LEGEND:
CARE TEAM STATION
RECEPTION
INFUSION PATIENT FLOW
ENDOSCOPY PATIENT FLOW
TO OR'S AMBULATORY DAY SURGERY PATIENT
FROM OR'S PATIENT
TO PARR/ LEVEL I PATIENT
TO DAY SURGERY PATIENT
MINOR PROCEDURES PATIENT
PNEUMATIC TUBE

4.2.9 SCHEDULE OF ACCOMMODATION

4.2.9.1 Reception & Discharge Lounge Area

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
B. PROCEDURAL SERVICES CENTRE					
B1 - RECEPTION & DISCHARGE LOUNGE AREA					
B1.1	Reception/Minor Surgical Procedures Support	1	20	20	Millwork reception desk. To include 4 workstations for reception/unit clerk and 3 nursing staff. Receiving for all ambulatory procedural services patients, and provides clerical support for minor surgical procedures and cystoscopy (excluding Endo and Infusions). Provide specialty doors for securing after hours.
B1.2	Storage Alcove, Wheelchair/Stretcher	1	5	5	
B1.3	Family / Discharge Waiting	1	20	20	Seating for 12 plus wheelchair.
B1.4	Volunteer Desk Area	1	4.6	4.6	Located adjacent to Reception/Minor Surgical Procedures Support
B1.5	Washroom, Patient, Wheelchair Accessible	2	4.6	9.2	
B1.6	Self-Registration Kiosk	3	1.5	4.5	
TOTAL: Reception/Discharge Lounge Area				**63.3**	
Grossing Factor				**1.5**	
TOTAL CGSM: Reception/Discharge Lounge Area				**94.95**	

4.2.9.2 Minor Procedures Area

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
B2 – ENDOSCOPY / MINOR PROCEDURES AREA					
B2.1	Dressing Cubicle	5	1.5	7.5	
B2.2	Dressing Cubicle, Assisted	2	2.5	5	
B2.3	Lockers	1	8	8	Located adjacent to dressing cubicles and patient washrooms. 20 half height lockers.
B2.4	Gowned Waiting	1	30	30	Seating for 20. Primarily for Cysto/Colopo patients. Majority of patients for minor procedures will change in the minor procedure room.
B2.5	Gowned Waiting, Sub-Wait Area	1	9.5	9.5	Adjacent to Gowned Waiting. To include patient entertainment.
B2.6	Washroom, Patient, Wheelchair Accessible	2	4.6	9.2	
B2.7	Interview, Consult Room	2	11	22	To include 1 workstation.
B2.8	Procedure Room, Endoscopy	3	25	75	
B2.9	Clean Scope Storage	1	20	20	To include sterile storage cabinet for supplies. Endoscopy scope storage room to be accessible from all endoscopy rooms. Staff shall not have to travel through a procedure room to access storage.
B2.10	Reporting Room, Physicians	4	4.6	18.4	Adjacent to Endoscopy and Cystoscopy/Colposcopy procedure rooms. 3 stations to be combined and adjacent to Endoscopy Procedure Room, 1 to be separate and co-located with Cystoscopy Procedure Room.
B2.11	Clean Supply Room	1	12	12	For Endoscopy clean supplies.
B2.12	Scope Decontamination Room	1	20	20	
B2.13	Scope Disinfection Room	1	30	30	
B2.14	Washroom, Patient, Wheelchair Accessible	2	4.6	9.2	One directly adjacent to the Cystoscopy Room.
B2.15	Procedure Room, Cystoscopy/Colposcopy	1	30	30	
B2.16	Procedure Room, Minor Surgical	3	25	75	
B2.17	Scrub Area	3	2	6	Shared between two procedure rooms, Cysto/Colpo and Minor Procedures.
	TOTAL: Minor Procedures Area			**386.8**	
	Grossing Factor			**1.5**	
	TOTAL CGSM: Minor Procedures Area			**580.2**	

4.2.9.3 Minor Procedures Support Area

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
B3 – ENDOSCOPY/MINOR PROCEDURES SUPPORT AREA					
B3.1	Clerical/Control Area	1	12	12	Located adjacent to Endoscopy Team Care Station and Business Machine workroom. To include 2 workstations, 1 with acoustic privacy, booking and unit clerk. Provides clerical support for Endoscopy and Infusion. Booking workstation to be acoustically private.
B3.2	Workroom, Business Machine	1	10	10	Collocate with B3.1
B3.3	Reporting Room, Physicians	3	4.6	13.8	Adjacent to Minor Procedure rooms, can be combined and shared.
B3.4	Storage, Equipment	3	20	60	Decentralized to service Cysto, Colpo, and Endoscopy. 6 purse lockers.
B3.5	Utility Room, Soiled	1	12	12	
B3.6	Utility Room, Clean	1	12	12	Clean storage for Cystoscopy and Minor Procedures
B3.7	Alcove, Linen Cart	1	1.5	1.5	
B3.8	Housekeeping Room, Soiled	1	12	12	Located to serve Minor Procedures and Endoscopy.
B3.9	Office, Multipurpose	1	9	9	
B3.10	Office, Patient Care Coordinator	1	10	10	Adjacent to Endoscopy / Procedural area.
B3.11	Washroom, Staff	2	4.6	9.2	
B3.12	Alcove, defibrillator	1	1	1	
	TOTAL: Minor Procedures Support Area			**162.5**	
	Grossing Factor			**1.5**	
	TOTAL CGSM: Minor Procedures Support Area			**243.75**	

4.2.9.4 Infusion/Minor Procedures Recovery Area

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
B4 - INFUSION/MINOR PROCEDURES RECOVERY AREA					
B4.1	Stretcher Bay, Private	10	13	130	Endoscopy patients will change & prep in the recovery bay. Return to the same bay post-procedure for recovery. To consist of full height walls on 3-sides with curtain at the end.
B4.2	Infusion Bays, Open	6	9.5	57	Open bays, curtains 3-sides.
B4.3	PICC Line & Urodynamics Room	1	25	25	Adjacent to minor procedure area. To include equipment alcove sized to accommodate stretcher and ultrasound.
B4.4	Stretcher Bay, Infusion	1	9.5	9.5	Enclosed room.
B4.5	Airborne Isolation Room, Infusion	1	12	12	
B4.6	Anteroom, Airborne Isolation Room	1	7	7	
B4.7	Team Care Station, Endoscopy	1	12	12	2 workstations. Direct access to Team Care Station, Infusion through internal circulation.
B4.8	Medication Room	1	12	12	Shared with Infusion and Endoscopy, locate adjacent to Team Care Stations
B4.9	Nourishment Room	1	4.5	4.5	To include small fridge, millwork counter, stainless steel sink, filtered water, microwave, hot water tap, coffeemaker, ice and machine.
B4.10	Utility Room, Clean	1	12	12	
B4.11	Utility Room, Soiled	1	12	12	
B4.12	Alcove, Equipment Storage	3	1.5	4.5	6 Purse Lockers.
B4.13	Alcove, Linen Cart	2	1.5	3	
B4.14	Alcove, Hand Hygiene Sink	3	1	3	
B4.15	Equipment Storage, PICC Line & Urodynamics	1	16	16	Adjacent to PICC Line & Urodynamics procedure room.
B4.16	Washroom, Endo Patient, Wheelchair Accessible	2	4.6	9.2	Dedicated washroom for Endoscopy patients.
B4.17	Washroom, Infusion Patient, Wheelchair Accessible	1	4.6	4.6	Dedicated washroom for Infusion patients.
B4.18	Team Care Station, Infusion	1	14	14	To include 3 workstations, adjacent to Team Care Station, Endoscopy.
B4.19	Washroom, PICC Line & Urodynamic Patient, Wheelchair Accessible	1	4.6	4.6	Dedicated washroom for PICC Line & Urodynamics Procedure Room. Direct access to the Procedure room through internal circulation.
B4.20	Pneumatic tube station	1	0.5	0.5	Located within Team Care Station, Endoscopy
SUBTOTAL: Infusion/Minor Procedures Recovery Area				**352.4**	
Grossing Factor				**1.5**	
SUBTOTAL CGSM: Infusion/Minor Procedures Recovery				**528.6**	

4.2.9.5 Pre-Op Prep/Post-Op Level II Recovery/Surgical Daycare Area

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
B5 - PRE-OP PREP/SDA/POST-OP & LEVEL II RECOVERY AREA					
B5.1	Patient Room, Private, Isolation	1	14	14	Located to serve PARR and Day Surgery.
B5.2	Anteroom	1	5	5	
B5.3	Washroom, Patient, Wheelchair Accessible, Isolation	1	5.6	5.6	
B5.4	Stretcher Bay, Private	14	13	182	Level II – To consist of full height walls on 3-sides with curtain at the end.
B5.5	Washroom, Patient, Wheelchair Accessible	3	4.6	13.8	
B5.6	Patient Lockers	1	6	6	20 half size height lockers. To include clothes closet for outer winter wear.
B5.7	Alcove, Weight Scale	1	2.5	2.5	
B5.8	Team Care Station	1	18	18	To include 3 workstations.
B5.9	Pneumatic Tube Station	1	0.5	0.5	Located within Team Care Station
TOTAL: Pre-Op Prep/SDA/Post-Op Level II Recovery Area				**247.4**	
Grossing Factor				**1.5**	
TOTAL CGSM: Pre-Op Prep/SDA/Post-Op Level II Recovery				**371.1**	

4.2.9.6 Pre-Op Prep/Post-Op Level II Recovery/Surgical Daycare Area Support

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
B6 - PRE-OP PREP/SDA/POST-OP & LEVEL II RECOVERY AREA SUPPORT					
B6.1	Nourishment Room	1	7.5	7.5	
B6.2	Dressing Cubicle, Patient	2	1.5	3	Day Surgery patients. Collocate with gowned waiting and lockers
B6.3	Alcove, Linen Cart	2	1.5	3	
B6.4	Utility Room, Clean	1	12	12	
B6.5	Utility Room, Soiled	1	9.0	9.0	
B6.6	Medication Room	1	9.5	9.5	
B6.7	Storage, Equipment	1	18	18	
B6.8	Office, Manager	1	11	11	
B6.9	Alcoves, Equipment Storage	8	1.5	12	6 purse lockers.
B6.10	Workstation, Clerical	2	4.6	9.2	To include 1 workstation.
B6.11	Washroom, Staff, Wheelchair Accessible	1	4.6	4.6	
B6.12	Washroom, Staff	1	3.5	3.5	
B6.13	Conference Teaching/Meeting Room	1	20	20	Located for shared use with other departments.
B6.14	Gowned Waiting	1	10	10	Day Surgery patients.
B6.15	Interview Room	2	5	10	Day Surgery patients. Located adjacent to Dressing Cubicle. For Pre-Operative consultations.
TOTAL: Pre-Op Prep/Post-Op Level II Recovery Supp.				**142.3**	
Grossing Factor				**1.5**	
TOTAL CGSM: Pre-Op Prep/Post-Op Level II Recovery Supp.				**213.45**	

4.2.9.7 Post-Op Level 1 Recovery Area (PARR)

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
B7 - POST-OP LEVEL I RECOVERY AREA (PARR)					
B7.1	Stretcher Bay, Private	14	9.5	133	Level I – Open bays, curtains 3-sides.
B7.2	Stretcher Room, Private room	1	14	14	Full width breakaway sliding glass doors.
B7.3	Washroom, Patient, Wheelchair Accessible	1	4.6	4.6	
B7.4	Medication Area	1	9.5	9.5	Open area. Provide millwork counter. Lower cupboards below with pull out drawers. Tilt bin storage above the counter. Direct access to Utility Room, Soiled and Alcove, Clean Supply.
B7.5	Alcove, Clean Supply	1	12	12	Co-locate with Medication Area.
B7.6	Utility Room, Soiled	1	12	12	
B7.7	Storage, Equipment	1	12	12	
B7.8	Washroom, Staff, Wheelchair Accessible	1	4.6	4.6	
B7.9	Team Care Station	1	18	18	To include 3 workstations.
B7.10	Alcove, Defibrillator	1	1	1	Located to serve PARR and Level II Recovery.
TOTAL: Post-Op Level I Recovery Area (PARR)				**220.7**	
Grossing Factor				**1.5**	
TOTAL CGSM: Post-Op Level I Recovery Area (PARR)				**331.05**	

4.2.9.8 Surgical Services Area

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
B8 - SURGICAL SERVICES AREA					
B8.1	Operating Room	4	65	260	
B8.2	Scrub Sink	5	2	10	
B8.3	Alcove, Wheelchair/Stretcher	4	1	4	
B8.4	Operating Room, Interventional Urology	1	70	70	Area includes control room.
B8.5	Alcove, Wheelchair/Stretcher	1	1	1	
TOTAL: Surgical Services Area				**345**	
Grossing Factor				**1.5**	
TOTAL CGSM: Surgical Services Area				**517.5**	

4.2.9.9 Surgical Services Support Area

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
B9 - SURGICAL SERVICES SUPPORT AREA					
B9.1	Clerical/Control Area	1	12	12	To include 2 workstations. Close proximity to PCC Office. Overview to stretcher holding and patient Holding
B9.2	Reporting Room, Physicians	5	4.6	23	To include 5 workstations with 1 physician and 1 student.
B9.3	Specimen Fixation Room	1	15	15	Pass-thru window to restricted access corridor for specimens. To include biological safety cabinet, gross dissection, microscopes and Cryostat.
B9.4	Alcove, Medications	1	5	5	To be located in sterile core, sliding glass doors, millwork counter with locking upper cabinet for emergency stock supplies.
B9.5	Pneumatic Tube Station	1	0.5	0.5	To be located accessible from the restricted area.
B9.6	Case Cart Holding/Sterile Store	1	150	150	Sterile Core Area
B9.7	Flash Sterile Area	1	15	15	
B9.8	Storage, Equipment	3	30	90	Combination of decentralized alcoves and rooms in close proximity to point of use.
B9.9	Sterile Supply Holding	2	65	130	
B9.10	Decontamination Room/Soiled Returns	1	30	30	
B9.11	Alcove, X-Ray Equipment, Mobile	1	8	8	
B9.12	Office	4	10	40	To be located near pre-op/Level II recovery area. For OR Patient Care Coordinator, Manager, Anaesthesia and Educator. Located OR PCC adjacent to control room.
B9.13	Workroom, Biomedical Engineering & Anaesthesia/ Respiratory	1	18	18	To be adjacent to Storage B9.14.
B9.14	Storage, Biomedical Engineering & Anaesthetic/Respiratory Therapy Supplies & Equipment	1	30	30	To be adjacent to Workroom B9.13. Sterile supplies to be located in B9.9.
B9.15	Housekeeping Room, Clean	1	12	12	Supports cleaning of the surgical services area.
B9.16	Alcove, Lab Station	1	1	1	Adjacent to Pneumatic Tube Station and Specimen Fixation Room.
B9.17	Workroom, Business Machine	1	10	10	Located adjacent to Clerical/Control Area. Can be combined with Clerical Control

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
B9.18	Stretcher Area, Open	2	9.5	19	To provide overview from Clerical Control
B9.19	Holding Area, Patient & Family	1	10	10	To provide overview from Clerical Control
B9.20	Interview Room	5	5	25	Collocated with Holding Area
B9.21	Washroom, Patient, Wheelchair Accessible	1	4.6	4.6	Collocated with Holding Area
TOTAL: Surgical Services Support Area				**648.1**	
Grossing Factor				**1.5**	
TOTAL CGSM: Surgical Services Support Area				**972.15**	

4.2.9.10 Staff Facilities

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
B10 - STAFF FACILITIES					
B10.1	Staff Lounge, Surgical	1	50	50	Provide areas for smaller breakout groups.
B10.2	Servery Area	1	4	4	
B10.3	Change Room, Male, Surgical Services	1	48	48	31 full height lockers and 20 half lockers. Benches.
B10.4	Washroom, Male, Surgical Services	1	18	18	
B10.5	Change Room, Female, Surgical Services	1	55	55	84 half lockers. Benches.
B10.6	Washroom, Female, Surgical Services	1	24	24	
B10.7	Staff Lounge, Minor Procedures	1	25	25	Provide a separation between Lockers, Kitchenette and seating areas. 6 half lockers. Benches.
B10.8	Washroom, Minor Procedures Staff, Wheelchair Accessible	1	4.6	4.6	Direct access to Minor Procedures Staff Lounge.
B10.9	Alcove, Scrub Dispensers	3	2	6	
B10.10	Central Housekeeping Room, Clean	1	12	12	Located adjacent to service elevators.
B10.11	Central Housekeeping Room, Soiled	1	12	12	Located adjacent to service elevators.
TOTAL: Staff Facilities				**258.6**	
Grossing Factor				**1.5**	
TOTAL CGSM: Staff Facilities				**387.9**	

4.2.9.11 Education & Research Area

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
B11 - EDUCATION & RESEARCH AREA					
B11.1	Work Areas, Dictation	2	4.6	9.2	
B11.2	Conference/Education Room	1	30	30	
	TOTAL: Education & Research Area			**39.2**	
	Grossing Factor			**1.1**	
	TOTAL CGSM: Education & Research Area			**43.12**	

4.2.9.12 Summary of Procedural Services Centre

B1 - RECEPTION & DISCHARGE LOUNGE AREA	**94.95**
B2 - MINOR PROCEDURES AREA	**580.2**
B3 - MINOR PROCEDURES SUPPORT AREA	**243.75**
B4 - INFUSION/MINOR PROCEDURES RECOVERY AREA	**528.6**
B5 - PRE-OP PREP/SDA/POST-OP & LEVEL II RECOVERY AREA	**364.35**
B6 - PRE-OP PREP/SDA/POST-OP & LEVEL II RECOVERY AREA SUPPORT	**217.95**
B7 - POST-OP LEVEL I RECOVERY AREA (PARR)	**331.05**
B8 - SURGICAL SERVICES AREA	**510**
B9 - SURGICAL SERVICES SUPPORT AREA	**981.15**
B10 - STAFF FACILITIES	**397.5**
B11 - EDUCATION & RESEARCH AREA	**43.12**
PROCEDURAL SERVICES CENTRE PROGRAMMED SPACE CGSM:	**4292.6**

4.3 C. Medical/Surgical Inpatient Units

4.3.1 OVERVIEW

Planning Parameters & Assumptions

This document has been developed based on the following key assumptions:

- There will be three Medical/Surgical Inpatient Units of 28 beds each including 4 isolation rooms per unit;
- All patient rooms will be private and will include a washroom with shower;
- A specific focus on interdisciplinary team management, including students;
- Inclusion of special provisions for bariatric patients;
- All rooms will be equipped with ceiling mounted patient lifts;
- An increased focus on care of elderly patients and persons with disabilities and these facilities will reflect this in appropriate design;
- The new facilities will provide for an enhanced focus on ergonomic design both for patients and staff;
- An increased emphasis will be placed on family-involved care in support of holistic patient focus care; and
- The Medical Inpatient Units will provide facilities for the treatment of infectious disease, and chronic ventilator patients.

Service Trends

The following service directions and needs are expected to influence this component:

- Inpatient units will treat patients having increasingly complex multi-system needs, including those with antibiotic resistant infectious diseases requiring contact and airborne isolation precaution;
- There is an increase in infectious, transmittable and resistant diseases, resulting in a greater need to isolate patients;
- Patients requiring inpatient care are becoming older and are often more dependent. They are likely to have greater co-morbidities and will require close coordination with primary care and community care for discharge arrangements;
- Surgery continues to become more specialist oriented, and more complex surgery will continue to develop;
- The parallel development of day and short-stay care for a greater range of procedures, both invasive and non-invasive, will accentuate the trend in changes in inpatient care;
- Increasing acuity of care in the hospital;

- This program includes provisions for bariatric patients. This site will be doing bariatric surgery;
- Ceiling mounted patient lifts will be available for use in all inpatient rooms;
- The use of robotics and automation for the delivery and assistance of care is increasing;
- New models of care delivery are evolving and there is an increasing focus on inter-professional practice models in clinical areas and inter-portfolio care planning; and
- There is an increasing focus on the integration of care along the care continuum (i.e., much tighter linkages between inpatient, outpatient and community care).

Multidisciplinary Context

A multidisciplinary integrated service delivery model will provide care in the inpatient units and adequate space will be allocated in order for that model to function, e.g. inpatient rooms, team member work areas and meeting space.

4.3.2 FUNCTIONAL DESCRIPTION

Scope of Services

The three units in this component will provide facilities for the delivery of secondary and specialized acute care service to medical and surgical adult inpatients within a total of 84 beds. This component will also contain interdisciplinary patient care, staff support, and visitor support facilities.

Care services in the Inpatient Units (IPUs) will include, among others:

- Facilitation of patient and family centred care;
- Receiving, assessing and monitoring patients' holistic needs;
- Routine and emergency nursing care including examinations and treatments;
- Administering medications, consulting with physicians, pharmacists and other interdisciplinary team members;
- Preparing patients for diagnostic and treatment services;
- Facilitating patient comfort and relaxation, recreation and activation;
- Providing family/visitor support, consultation and counselling;
- Educating patients, family, staff and students;
- Documenting patients' progress and maintaining patient paper/electronic charts/records;
- Conducting shift reports and participating in interdisciplinary patient conferences; and
- Coordinating, implementing, communicating, administering, scheduling, and evaluating the overall operations of the unit.

Medical services in the unit will include, among others:

- Documenting historical medical information;
- Participating in the overall program development for their respective areas;
- Admitting patients directly or via the emergency areas;
- Ordering medical diagnostic and treatment procedures;
- Providing physical examinations and some medical procedures;
- Prescribing medications, consulting with nursing staff and pharmacists;
- Providing emergency medical examination and treatment;
- Educating patients, family, staff, students, and residents;
- Documenting patients' medical progress on patient paper/electronic charts; and
- Participating in interdisciplinary patient conferences.

Clinical professional service team members (e.g., physiotherapy, occupational therapy, dietitians, respiratory care, laboratory, pharmacy, community liaison, education, spiritual care, etc.) will travel to the Inpatient Units (IPU) from their central components, as required. Selected team member will have permanent or shared workspace within the IPU support areas.

Client Profile

Patients will be admitted to the inpatient units for:

- Observation and monitoring;
- Medical treatment and medical post procedure care;
- Diagnosis and assessment;
- Anaesthesia and pain management;
- Surgical post-operative and rehabilitative care;
- Isolation of infectious diseases; and
- Chronic disease management.

Regional Context

The inpatient beds will be regional resource.

Education

The Medical/Surgical IPUs will provide clinical resources in support of teaching programs for the following types and numbers of students:

- Medical students, up to 20 at a time;

- Nursing (diploma, undergraduate and graduate); students, up to eight at a time per IPU (on one shift); and

- Other students, up to three at a time.

Clinical teaching programs will be accommodated in patient care areas. Formal lectures or continuing education will not be accommodated in the clinical areas where direct inpatient care is provided.

In-service education, rounds, and patient teaching programs will be conducted on a regular basis throughout the Unit's patient/clinical care spaces as well as in staff conference/meeting room(s) and patient/family teaching rooms equipped with audiovisual equipment.

Research

Research activities, including clinical trials, epidemiological studies, and quality improvement initiatives, may occur within the component but will not require unique staff or facility resources. Office/work space may/will be provided in the Inpatient Unit Floor Support Areas for use by clinical researchers.

4.3.3 OPERATIONAL CONSIDERATIONS

Service Delivery Principles & Methods

All patients on a unit will be under direct care of a physician. The inpatient service will be led by a Nurse Manager and Patient Care Coordinator with a team of Registered Nurses, Licensed Practical Nurses, Nurse Practitioners, Nursing Attendants, Unit Clerks, Unit Aides and Support Clerks. Other health care professionals that provide care to the inpatient service will be managed through their respective departments.

Flexibility to accommodate different care concepts must be provided including primary care, team nursing, patient centred care, etc. Care will be planned and provided by a multidisciplinary team of health care professionals including community services and residential care for discharge planning purposes. Patient and family education will be emphasized to meet the increased need for information regarding self-care and health promotion.

Staff Organization

A primary care nursing model will be applied in the IPU's whereby the majority of patient care and follow up documentation will be completed at the patient bedside. A central Care Station will support all staff including nurses, unit clerks, physicians, allied health providers, consultants, and community professionals and encourage staff-to-staff communication and collaboration.

Patient Admission/Discharge

Admission to and discharge from an inpatient unit will be based on specific criteria. A discharge plan will be developed by the team in conjunction with the patient and family and community services when appropriate to ensure seamless re-entry to the community.

Clinical Support Services

Clinical Nutrition Services

A clinical dietician will screen, assess and monitor patients who are high to moderate nutrition risk. The clinical dietician will have access to a shared work area on each unit.

Diagnostic Imaging

The PACS system will use computer workstations to view digital images.

Food Services

Food service will be provided from a fully equipped Food Service Galley on each28 Bed unit supported by the existing hospital kitchen and food service workers. The room will have a selection of small appliances to allow for some minor food preparation with the ability to heat prepared food products that are delivered from the main kitchen. A delivery cart with hot and cold holding ability will be provided in each room to assist with the delivery of food and beverage products room to room. Suitable refrigerated storage equipment will be included in the room to maintain a supply of products sent from the main kitchen. A food services worker will remain on the unit to offer meals and snacks throughout the day. Patients will be offered a choice of popular items best suited to their medical condition, likes and dislikes, served to them when they are able to eat during the day. Patient's diet restrictions will be followed and their meals/ snacks will be consumed in their rooms. These on the unit Food Service Galleys will be restricted to food service personnel to comply with safe food handling regulations. Nourishments and beverages will be delivered to the patients by dietary aides.

Two nourishment stations stocked by dietary aides and equipped with fridge/microwave, hot water tap, coffee maker, ice chip machine, will be provided for each 28-bed unit. Nurses, patients and family will access and serve themselves at these stations.

Laboratory

Laboratory staff members will come to each unit to collect specimens as required. A pneumatic tube system may be used to transport specimens to the laboratory.

Pharmacy Services

Each 28-bed unit will have two medication rooms for preparation of medications. Pharmacy staff will have access to a work area on the unit.

Pharmaceutical supply to the IPUs will utilize a computerized, individual prescription, unit-dose system. Medications will be prepared in the central Pharmacy, delivered by pharmacy staff to the IPUs and placed in automated dispenser units (e.g., Automated Medication Management System) sized to suit the number of patients served on the Unit or cluster. Narcotics will be accommodated within each medication cabinet.

A very limited supply of pharmaceuticals (e.g., IV solutions) will be distributed using a ward stock system and stored in the clean supply room.

All medications will be ordered electronically and STAT requests will be transported manually.

The pharmacist will perform pharmaceutical care activities on the unit utilizing a shared workstation.

Rehabilitation

Rehabilitation services will be provided to patients both in their room and in common areas. Rehabilitation staff will require access to a workstation on each unit. Each 28-bed inpatient areas will be supported by a satellite rehabilitation area co-located with the unit.

Respiratory Therapy (RT)

Point-of-care testing of blood gases (in Emergency) will be available through Respiratory Service. RT staff will require access to a shared work area on each unit.

Social Work

Social Work will provide services to both patients and their families. The Social Work staff will require access to a quiet space on each unit.

Support Services

Information Management

Patient rooms and patient care stations will be planned to function with an electronic ‘paperless’ patient information system as well as a conventional ‘paper’ chart system.

Patient information systems will be automated with access to information by means of computer terminals located at all staff work areas distributed throughout each Unit. In the future, computer charting will occur at the patient bedside, likely through the use of hand-held wireless devices. Ordering and scheduling of tests, procedures, and medications will be managed through the same terminals in the staff work areas or through the hand-held devices.

Material Services

Fast-turnover supplies, including general medical/surgical and sterile supplies, will be transported by materials services staff to the IPUs and to each 14-bed cluster using a scheduled top-up cart system.

Mail and other small materials and STAT medications, will be circulated manually or by pneumatic tube. These materials will be received and distributed from the Care Team Centre within each IPU.

Patient portering services will be provided.

Clean Supply & Linen Services

Clean linen will be transported to each grouping of 14-beds using a scheduled exchange cart system. Clean linen on linen carts will be decentralized in linen alcoves or other designated areas within each unit.

Medical/surgical supplies will be supplied on a top-up basis and held in a clean supply room. Top up carts or wall mounted bin system will be available in Clean Supply in each 14-bed cluster. Space at each bedside will be required for daily patient clean supplies.

Equipment Management

Alcoves will be located along corridors to prevent clutter and required for medication carts, isolation carts, crash carts, wheelchairs, stretchers, etc. that are frequently used and numerous.

Equipment management will be centralized in Material Services.

Decentralized equipment storage will only be provided on the units for those items used relatively frequently. All other equipment used less frequently will be stored centrally in Material Services. Materials Services will manage transfers of equipment to and from the IPUs as required.

Soiled and/or contaminated reusable equipment will be cleaned and/or decontaminated either in the soiled utilities on the Unit or in Medical Device Reprocessing.

Housekeeping

Housekeeping staff will provide services to the unit on a continuing basis. Garbage and soiled linen will be collected, bagged, and coded as necessary by Housekeeping staff and held in bins and carts in soiled housekeeping rooms within each 28 bed support area soiled holding areas within each functional area. Housekeeping staff will transport soiled linen and garbage to a centralized soiled holding room for pick-up.

Housekeeping will require a Clean Supply and Soiled Holding closet on each 28-bed unit. These will be placed strategically in each Unit and will have restricted access. Housekeeping will provide general cleaning services on a regular basis. A week's supply of housekeeping products will be stored in each closet plus space for a housekeeping cart, floor sink, floor machine, ladder, etc.

Recycling bins and a confidential paper-recycling bin will be located in an alcove in each Unit. Housekeeping services will collect from all the recycling stations and the confidential paper contractor will pick up paper from the all collection containers throughout the building weekly.

Hours of Operation

Patient care will be provided continuously 24 hours per day, 7 days per week.

4.3.4 DESIGN CRITERIA

General Requirements

The Inpatient Units will be organized to provide for current medical/surgical patient groupings as well as for maximum future flexibility. The organization, implied in the space requirements list, indicates certain patient care and staff support facilities central to each grouping of 14-beds, 28-beds, plus a shared support area for up to 84-beds.

Visibility/Patient Sub Groups

The design of IPUs will provide the following:

- A compactness of inpatient unit layout, which enables visual supervision of and direct access to patient bedrooms from the staff work areas;
- Maximum visibility of staff work areas from the individual patient beds in order to reassure patients that nursing care is close at hand; and
- Minimize nurse "in-flight time" and maximize nurse-patient visibility by locating frequently utilized staff work areas and support spaces close to the patient bed spaces.
- Cross-Corridor connections at regular intervals for staff to access either side of the unit. Locate support spaces such as medication rooms directly off the cross-corridors for convenient access for either direction.

Zones of Activity

Only essential patient care support areas will be maintained within the 14 bed unit space. All other support areas will be centralized for sharing between two or more inpatient units ("Shared Support Areas"). Within the Unit, spaces will be located close to patient bedrooms in the following order of priority: care station(s), medication dispensing area, utility rooms, staff conference area, dictation area, and office areas.

Universal Room

The design of Patient Bedrooms will provide the following:

- Fully accessible, inboard ensuite patient washrooms with dual sided access to the toilet for staff to assist the patient.
- Observation of the patient by staff members from the corridor, through a window or glazing within the door with an integral blind.
- Designated family/visitor zone towards the exterior wall and staff work zone closest to the entry door.
- Maximize views to the exterior and access to direct natural daylight.

Patient Environment/Activities

Private inpatient rooms respect patient privacy, dignity, confidentiality and provide a quiet care environment. Patients will be provided with exterior views from their beds. Window sill heights will enable visibility of ground level activity and/or views. Shelf space for patient's personal items, flowers, etc., will be provided behind the bed and if possible at the window (deep window sill).

Attractive options to encourage patient activation and promote patient independence will be included wherever possible. A seating area near the window for patient and visitor/family should be provided.

Special Requirements

Room Isolation Capability/Infection Control

On each IPU, all airborne isolation bedrooms should be provided with negative pressure ventilation for patients with infectious disease. Each isolation room will require an enclosed anteroom containing a hand hygiene sink and a storage area for supplies. Hand hygiene facilities will also be provided in each room and anteroom.

Each 14-bed cluster will have the capability of being an isolated area for lock down of a unit to prevent spread of infection.

One 14 bed inpatient unit and all support spaces on each inpatient floor will be an airborne outbreak control zone: Outbreak control zones will be bounded by construction that allows the mechanical ventilation systems to create negative pressure within a zone relative to adjacent floor areas;

Outbreak Control Zones will contain space that can be converted into an anteroom adjacent to the entrance to the pod with a hand hygiene sink (for example a meeting room).

Safety in the Workplace

Design of staff workstations, especially those used by staff at night, should ensure the maximum safety of staff by means of glass walls for visibility and/or staff emergency call system access.

Security

The security of both patients and staff must be assured. In particular, the use of a patient wandering monitoring system may be implemented (when appropriate). Staff may use personal alarm devices or carry wireless communications devices. Details of security requirements will be developed during the design stage. Consideration should be given to the use of swipe identity cards for employee access to areas where family and patient access is restricted.

Staff Privacy

Nurses, physicians, therapists, etc. will require an area where they can privately discuss or document a patient's condition/information. As part of the Interdisciplinary Care Team Centre an acoustically private staff conference/charting area will be provided. This area should be glass-fronted so that staff within the care team centre can observe patients. This room could have sliding glass doors to the Care Team Station to facilitate frequent access and observation between the two spaces.

Interdisciplinary conversations should be private and not overheard by patients. Activities in the Care Team Station should not disturb sleeping patients; therefore, the station should be designed with as many sound control measures as possible.

Patient Walking Loop

Provide a designated patient walking loop around the entire 28 Bed Unit along a corridor. This loop will have way finding signage. This loop will have floor and wall finishes designating its intent. Provide built-in corridor seating in an alcove along the path of the loop at two locations at opposite ends of the loop. Provide a wall handrail at every available location along this loop. Floor colour and pattern changes and transitions into each 14 Bed Unit and more public areas within the Units will help Patients' orientation and will prevent confusion and wondering off the Unit and into Stairwells and Elevators. Patients will be controlled with a wander guard system at all elevators and stairwells.

Elderly Friendly Design

Incorporating features for patients with compromised mobility and/or cognitive functioning. These features will include, but are not limited to:

1) Lights placed "off centre" relative to circulation corridors,

2) Wander guard type protection being incorporated into each access/exit point specified for the Unit,

3) Minimal design of "blind corners" where the cognitively impaired can become confused and distressed,

4) Extensive use of visual stimulation that enables easy identification of different areas on each 14 Bed Unit.

5) Features that diminish the visual identification of exit doorways, enabling patients to remain within their designated inpatient unit.

Public Family/Space

Reception

The reception function will be located at the Care Team Centre. The unit clerk workstation is located here with direct overview of the unit entrance.

Public Washrooms/Hand Washing

Public washrooms will be located on the unit. Hand hygiene facilities will be provided at the entrance of the unit and in each patient room and in alcoves dispersed in the corridors.

Patient/Family/Visitor Lounge

A patient/family/visitor lounge will be provided. The room will have a hand hygiene sink at the entry, a phone and computer alcove.

Patient Care Area

Private Patient Bed Area

Each Inpatient Unit will consist of 28 private patient rooms. This includes 4 isolation rooms, 2 of which are sized for bariatric patients. Patient bed areas should have access to natural light and views. Patient rooms will have a washroom for patient use, as well as a hand hygiene sink for staff. Hand hygiene sinks will be conveniently located at the room entry to allow for acceptable infection prevention measures.

Multimedia technology is required at the patient bedside. All rooms will include a ceiling mounted patient lift.

Patient Service Modules (Headwalls)

Patient care service modules will be located in and distributed from service walls/modules. This allows physicians and staff free access to the patient on his or her right hand side as well as minimal obstruction at the patient's head so that lifesaving/emergency procedures can occur as easily as possible. The location of the patient care service modules will be reviewed during design. The patient service module should contain the following medical gas services:

- Oxygen – 2 (2 required for support of ventilator patients)
- Suction – 2; and
- Medical Air - 2

The service modules should also contain electrical outlets, emergency power, data, monitoring capability, telephone, nurse call, and code alarms. There will be the capability for computer stations at each patient bedside. Storage will be provided for a small quantity of medical surgical supplies.

Interdisciplinary Team Care Center

A central station is required for the unit clerk, nursing staff, and other healthcare providers and will include electronic patient monitoring display boards, computers, telephones, storage area for patient charts, charting/documentation area, PACs, dictation equipment, and electronic patient board.

Staff Support Areas

Staff Spaces

Staff washrooms are required on the unit. The staff locker area should contain purse lockers, coat closet, duty shoe storage and a designated area for wet winter boots. One staff lounge will be provided per 28 bed unit.

Medication Room

Accreditation requires all medications to be locked and away from public areas. In addition, medication preparation must be conducted in a room free from distractions. Each 14-bed cluster requires a room for preparation of medications. It should contain hand hygiene and utility sink, a full height refrigerator, IV supplies cart, 3 tower Automated Medication Management System with refrigerator or similar automated medication dispensing unit, and a counter for med preparation, stand-up computer workstation, and telephone.

Rehabilitation

Rehabilitation services will be provided in the unit for patients when required. A dedicated rehabilitation space co-located with each 28-bed unit will be provided. The space will include parallel bars and other rehabilitation equipment. Patients benefit from time outside their room and the rehabilitation space supports this concept. A storage room for frequently used rehabilitation equipment will also be provided. Other rehabilitation equipment will be stored in decentralized storage.

Other Support Services

Medical-Surgical Supplies (includes Linen)

Space at each bedside will be required for daily patient supplies. Medical/ Surgical supplies will be provided on a “top up” basis and stored in a clean supply room. Medical/Surgical supplies will be stored in a Clean Supply Room. Linen carts will be decentralized in alcoves.

Equipment Storage

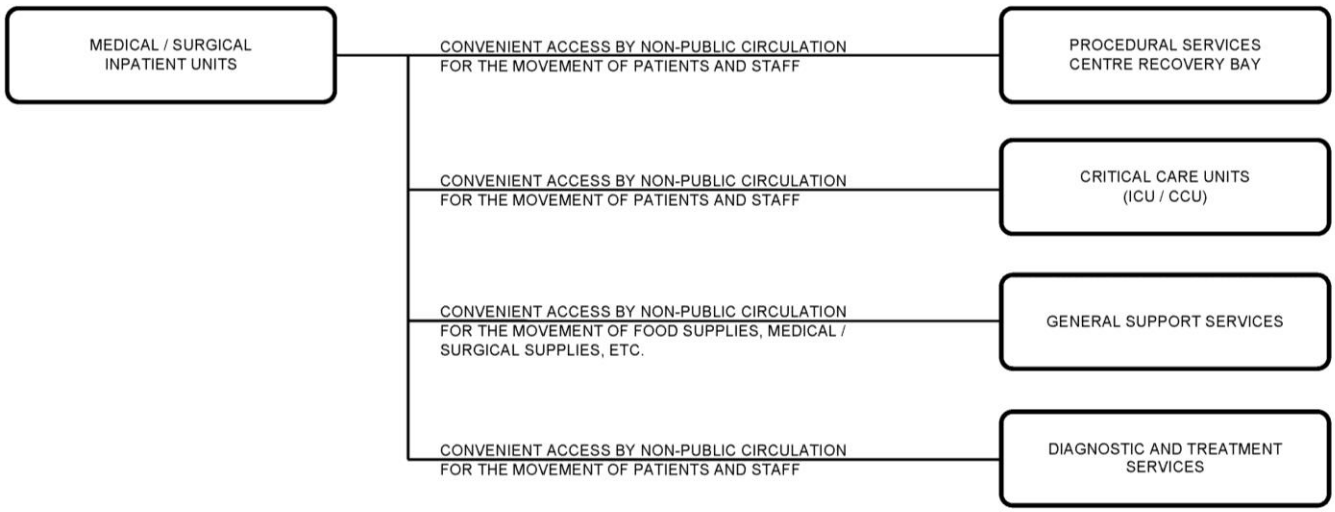
Equipment storage is required for equipment that must be immediately accessible and stored on the unit. Electrical outlets will be required to plug equipment in for recharging while it is being stored.

Equipment storage alcoves are required for equipment such as stretchers, wheelchairs, procedure, isolation, medication, and defibrillator carts, traction equipment, wheelchairs, procedure carts, transport monitors, rapid infusers and patient lifts.

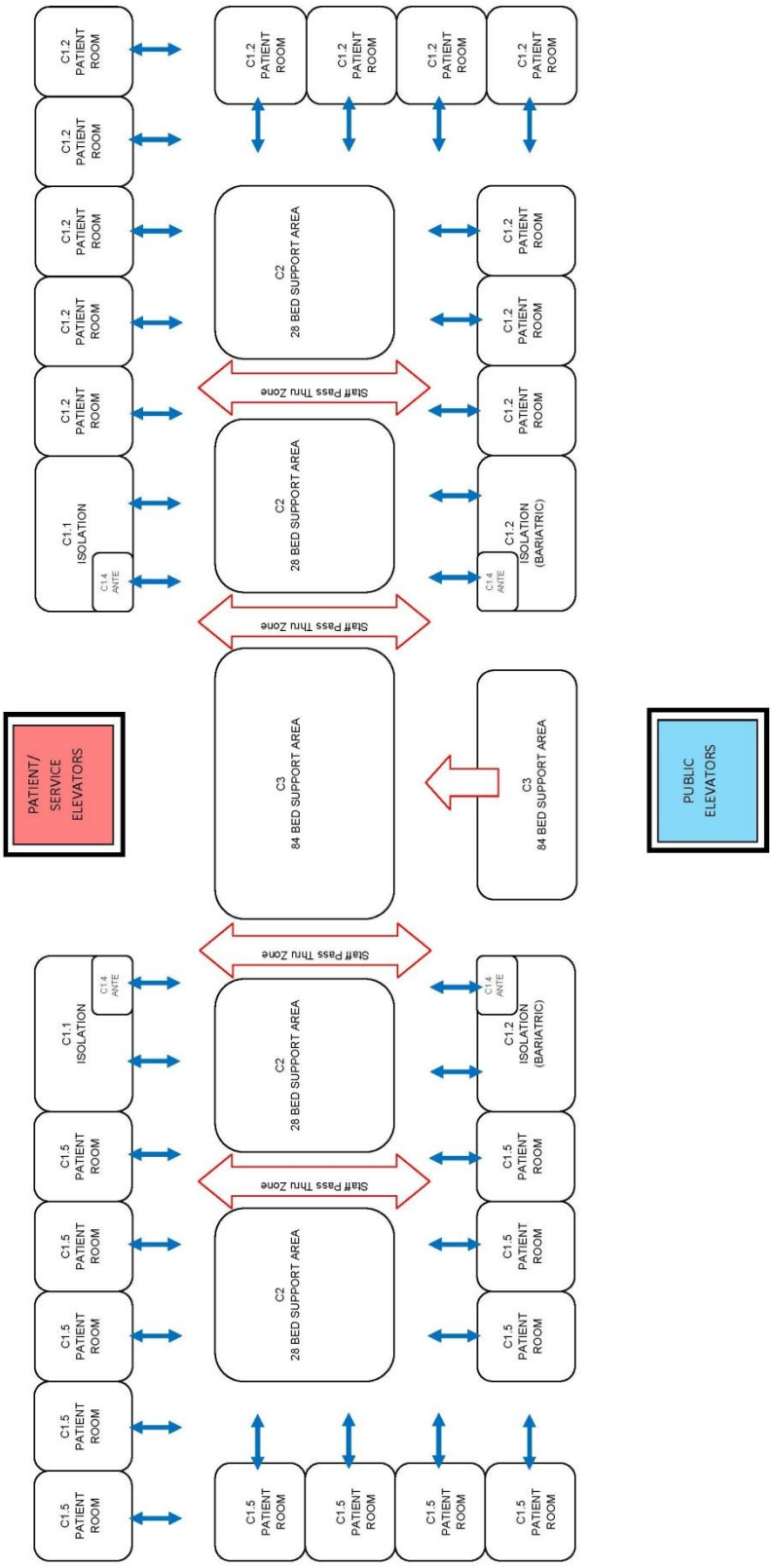
Housekeeping

Housekeeping will require a Clean Supply and Soiled Holding closet on each 28-bed unit. These will be placed strategically in each Unit and will have restricted access. A week’s supply of housekeeping products will be stored in each closet plus space for a housekeeping cart, floor sink, floor machine, ladder, etc.

4.3.5 EXTERNAL RELATIONSHIPS



4.3.6 INTERNAL RELATIONSHIPS



4.3.7 SCHEDULE OF ACCOMMODATION

4.3.7.1 14 Bed Care Cluster

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
C. MEDICAL / SURGICAL INPATIENT UNITS					
C1 - 14 BED CARE CLUSTER					
C1.1	Bedroom, Private (Isolation)	1	23.6	23.6	
C1.2	Bedroom, Private, Bariatric (Isolation)	1	31	31	
C1.3	Washroom, Patient	2	7.5	15	
C1.4	Ante Room	2	7.5	15	
C1.5	Bedroom, Private	12	21.4	256.8	
C1.6	Washroom, Patient	12	5.6	67.2	
C1.7	Alcove, Nurse Observation	0	3.2	0	Not applicable for inboard washrooms.
C1.8	Medication Room	1	16	16	
C1.9	Storage Room, Equipment	1	15	15	Storage for items such as; wheelchairs, stretcher, commodes, raised toilet seats, IV poles, IVACs, bedpans, lifts, carts, crutches and walkers.
C1.10	Clean Supply Room	1	12	12	To include shelving, clean supply cart and med/surg cart. Room to be accessible from both sides of the 14 bed unit via pass-through corridor.
C1.11	Utility Room, Soiled	1	14	14	
C1.12	Alcove, Stretchers/Wheelchairs/Carts	3	3	9	
C1.13	Alcove, Hand Hygiene Sink	4	1	4	
C1.14	Alcove, Linen Cart	2	1.5	3	One linen cart to be located on each side of the unit.
C1.15	Alcove, Equipment	8	1	8	
SUBTOTAL: One 14 Bed Care Cluster				**489.6**	
TOTAL: Six 14 Bed Care Clusters		6	**489.6**	**2937.6**	
Grossing Factor				**1.45**	
TOTAL CGSM: Six 14 Bed Care Clusters				**4259.5**	

4.3.7.2 28 Bed Support Area

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
C2 - 28 BED SUPPORT AREA					
C2.1	Lounge, Patient/Family/Visitor	1	18	18	Seating for 10 people. Locate proximal to Care Team Centre, Interdisciplinary with line of sight for observation by staff.
C2.2	Alcove, Visitor Hand Hygiene Sink	1	1	1	Located at entrance to patient unit from public elevator.
C2.3	Workroom, Business Machine	1	10	10	Locate adjacent to Interdisciplinary Team Care Center.
C2.4	Conference Room, Interdisciplinary Team	1	20	20	To include shelving for reference materials. Seating for 12 at a single table
C2.5	Alcove, Crash Cart	1	1.2	1.2	
C2.6	Alcove, Docking Station	1	3	3	For wireless device recharging.
C2.7	Team Care Center, Interdisciplinary	1	29.5	29.5	To include 10 workstations and Pneumatic Tube C2.22.
C2.8	Nourishment Station	2	4.5	9	
C2.9	Food Service Galley	1	20	20	To include millwork counter, 1 double sink, induction stove, fridge, microwave, hot water tap, coffee machine and tray storage. Shall be accessible from either side of the unit.
C2.10	Housekeeping Room, Clean	1	18	18	
C2.11	Housekeeping Room, Soiled	1	9	9	
C2.12	Office, Patient Care Coordinator	1	10	10	
C2.13	Interview Room	1	14	14	To include 1 workstation, family interview area with 4 chairs.
C2.14	Storage, Rehab Medicine	1	12	12	For OT/PT supply and equipment storage.
C2.15	Break Room, Staff	1	19	19	Seating for 8 staff.
C2.16	Staff Locker Area	1	6	6	40 half lockers.
C2.17	Washroom, Public, Wheelchair Accessible	2	4.6	9.2	
C2.18	Washroom, Staff, Wheelchair Accessible	1	4.6	4.6	
C2.19	Washroom, Staff	1	3.5	3.5	
C2.20	Rehab Medicine Room	1	45	45	To include OT/PT functions.
C2.21	Alcove, Stretcher and Wheelchair Storage	1	3	3	Located near Patient/Service Elevators.
C2.22	Pneumatic tube station	1	0.5	0.5	Located within Team Care Station, Interdisciplinary
	SUBTOTAL: One 28 Bed Support Area			**265.5**	
	TOTAL: Three 28 Bed Support Areas	3	**265.5**	**796.5**	
	Grossing Factor			**1.45**	
	TOTAL CGSM: Three 28 Bed Support Areas			**1154.9**	

4.3.7.3 84 Bed Support Area

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
C3 - 84 BED SUPPORT AREA					
C3.1	Quiet Room	3	11	33	One per inpatient floor.
C3.2	Alcove, Public Telephone	3	1	3	One per inpatient floor. Centrally located.
C3.3	Office, Nurse Manager	3	11	33	One per inpatient floor. To include 1 workstation.
C3.4	Office, Confidential Patient/Staff Coordination	1	11	11	
C3.5	Trainee Workstations	0	3	0	Refer to FoM UBC section.
C3.6	Team Conference Room, Shared	0	10	0	Refer to FoM UBC section.
	TOTAL: One 84 Bed Support Area			**80**	
	Grossing Factor			**1.45**	
	TOTAL CGSM: One 84 Bed Support Areas			**116**	

4.3.7.4 Summary of Medical/Surgical Inpatient Units

C1 - 14 BED CARE CLUSTER	**4259.5**
C2 - 28 BED SUPPORT AREA	**1154.9**
C3 - 84 BED SUPPORT AREA	**116**
MEDICAL/SURGICAL INPATIENT UNIT PROGRAMMED SPACE CGSM:	**5530.4**

4.4 D. Emergency Department (NOT USED)

4.5 E. Medical Device Reprocessing

4.5.1 OVERVIEW

Planning Parameters & Assumptions

Medical Device Reprocessing (MDR) is responsible for the decontamination, inspection, assembly and terminal sterilization of surgical packs and procedural instruments for all hospital departments. MDR personnel follow strict standards when processing medical devices with the objective to:

- minimize the risk of exposure or injury and prevent transmission of microorganisms to patients, personnel, the public and the environment;
- contain contaminated materials to protect patients, personnel, the public and the environment;
- minimize damage to Medical Devices from foreign material or inappropriate handling; and
- minimize the time from the point-of-use to reprocessing of the medical device.

This component program has been developed based upon the following assumptions:

- MDR provides medical device reprocessing services for the following areas in the South Okanagan region:
    - Penticton;
    - Princeton;
    - Keremeos;
    - Oliver;
    - Osoyoos; and
    - Summerland.
- The MDR Department is to be sized to accommodate future levels of service by Year 2028/29 at PRH and offsite facilities. The level of service at PRH includes support of:
    - 5 Operating Rooms with future growth;
    - 175 Inpatient beds;
    - 3 LDR/LDRP Rooms;
    - 4 Minor Surgical Procedure Rooms;
    - 3 Endoscopy Procedure Rooms (Endoscopy scope cleaning room to be decentralized and co-located with Endoscopy room); and
    - Expanded Emergency Department.
- PRH is planning to implement a case cart system to service all surgical services which will significantly increase the space requirements for sterile storage.
- Electronic instrument management and tracking has been implemented and will be expanded.
- A decreased use of disposable items will increase workload in MDR.
- PRH receives loaner medical instruments from outside facilities on a regular basis for speciality surgeries (i.e. orthopedics). MDR takes receipt of the shipment, prepares the instruments for the OR, reprocesses the instruments and arranges shipment out of PRH.

- There will be dedicated clean and soiled elevator access from MDR to the operating room area of the Surgical Services area. Elevators are to be passenger sized.
- All soiled materials from the OR area will be transported down the soiled elevator. Soiled linens and medical waste will be stored in an MDR holding area until removed by hospital personnel. MDR will store a “just-in-time” supply of empty bins to be returned to the OR soiled room as loads are brought down to MDR.

Service Trends

Important service trends to consider in the planning of the new MDR include the following:

- Increased centralization of Medical Device Reprocessing within geographic areas to prevent errors;
- Increased decontamination of inpatient unit equipment within MDR to reduce infections;
- Increased complexity of clinical cases and increased sensitivity of clinical equipment;
- The capability of functionality testing of equipment prior to distribution;
- Electronic instrument management and tracking has been implemented and will be expanded, and,
- Increased recycling and reduced use of disposable items.

4.5.2 FUNCTIONAL DESCRIPTION

Scope of Services

Medical Device Reprocessing (MDR) is currently responsible for the decontamination, inspection, assembly and terminal sterilization of surgical packs and procedural instruments for all hospital departments. MDR services the entire facility with sterile sets and decontaminated medical devices , most of which is used in the Surgical Services area of the Procedural Services Centre. In addition to the Procedural Services Centre, MDR also serves Labour/Delivery, the Emergency Department, Respiratory Therapy, Laboratory, Diagnostic Imaging, Ambulatory Clinics, and Inpatient units.

MDR is also responsible for providing sterile products to other South Okanagan acute care facilities located in Keremeos, Princeton, Oliver and Summerland.

Additional activities include washing surgical case carts, cleaning mobile patient medical devices, flexible endoscope processing, replacing damaged procedure instruments, and stocking case carts. MDR has a satellite location within minor procedures for the reprocessing of Endoscopy scopes.

Services include:

- Decontamination of surgical instruments, mobile hospital equipment, flexible endoscopes and video cameras;
- Soiled case cart processing;
- Steris System 1 and Sterrad sterilization of flexible scopes;
- Inspection, assembly and function testing of surgical instruments;
- Sterilization of surgical instrument trays and separately wrapped instruments, basin sets and pre-packaged towel/gown packs;

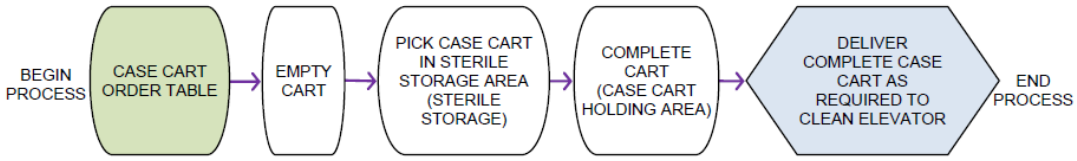
- Case picking for procedure sites;
- Storage of sterile supplies and packs;
- Delivery, pick-up, and return of case carts; and
- PAR delivery, restocking of floor stock.

4.5.3 OPERATIONAL CONSIDERATIONS

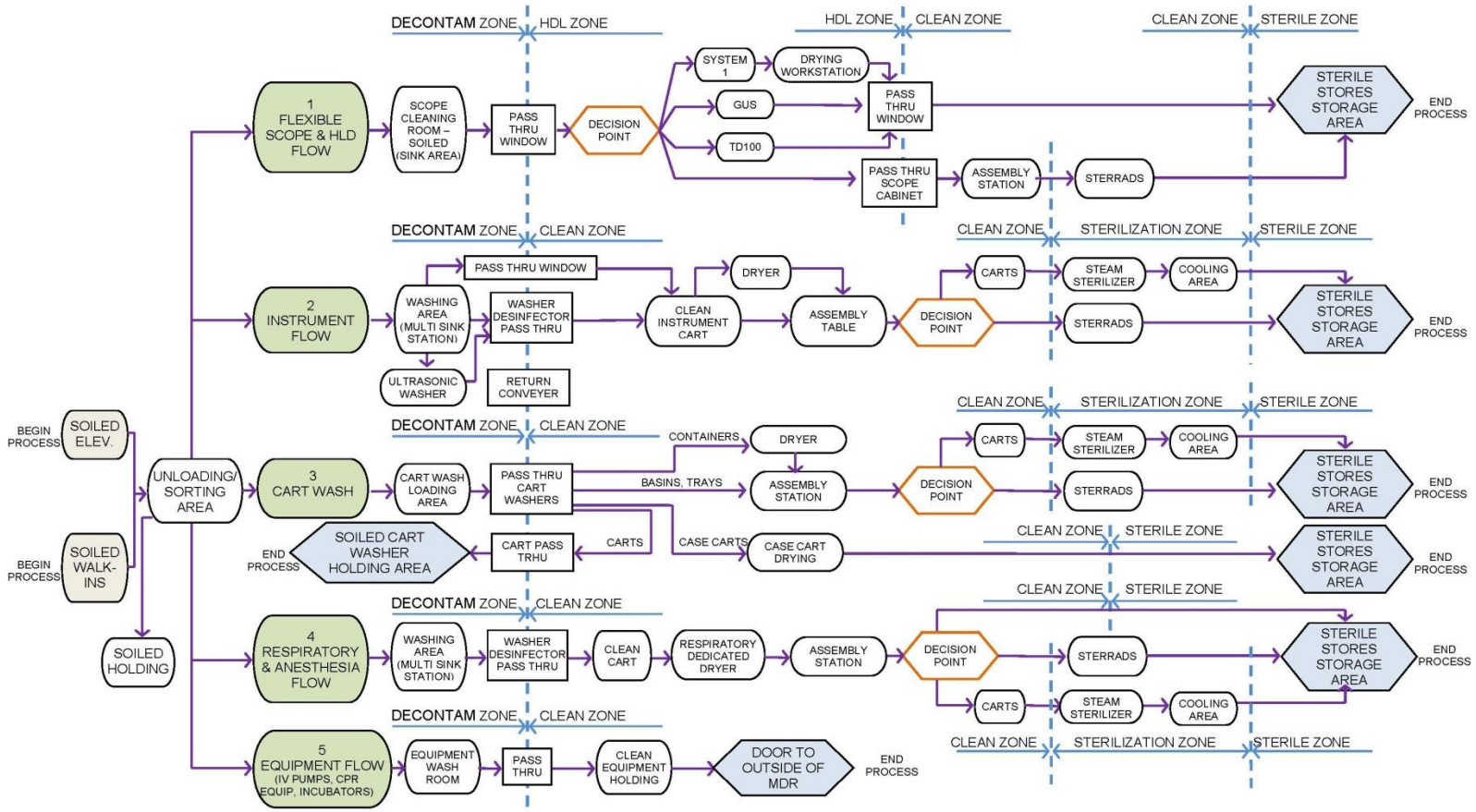
Service Delivery Principles & Methods

Workflow

The processing and movement of instruments and medical devices through the MDR are depicted in the following workflow diagrams.



MDR WORKFLOW DIAGRAM 1
CASE CART FLOW



MDR WORKFLOW DIAGRAM 2

FLEXIBLE SCOPE AND HLD, INSTRUMENT, CART WASH, RESPIRATORY AND ANESTHESIA AND EQUIPMENT FLOWS

PRH is planning to implement a case cart system. The system involves picking the case specific sterile supplies and instruments and assembling on the case cart. The prepared cart is then stored in sterile storage until required by the OR. It is then delivered to the Surgical Services area in "just-in-time" fashion prior to the scheduled surgical case with the exception of some emergency case carts that will be stored in the OR Sterile Core for rapid access.

After the case is completed, the soiled instruments are returned to the case cart, the soiled linen, trash and medical waste are deposited in the appropriate bins in the OR decontamination room/soiled returns and then the case cart is sent to MDR Decontamination on the dedicated soiled elevator. When the bins are full they are sent to MDR via the soiled elevator and held for pick up in Decontamination. Empty bins are sent to OR Decontamination Room from MDR via the soiled elevator.

Hours of Operation

Medical Device Reprocessing Department will operate 24 hours a day to support the volumes and types of procedures.

4.5.4 WORKLOADS

According to the CSA Z8000-11 standard, sizing of a Medical Device Reprocessing area is based on the average number of procedures per day for which trays and instruments are being processed in the MDR. The new standard assumes a case cart system and the recommended sizes of MDRs have increased significantly since the introduction of the standard.

Space Requirements Based on Number of Procedures

Data was made available from IHA regarding the number of procedures performed per year by PRH (Appendix A) and also those performed in Summerland (Appendix C) for the past three fiscal years.

- PRH OR Procedures:
    - With a total of 4 ORs currently functioning, an average of 6065 surgeries take place in PRH per year with approximately 63% being Day Care Surgeries and 37% being IP surgeries.
    - The number of surgeries was adjusted to remove those occurring over the weekends resulting in approximately 5,797 surgeries per year.
    - Assuming the average number of operating days is 250 days per year, it is expected that an average of 23.2 surgeries occur per operating day.
- PRH Minor Procedures:
    - An average of 4150 minor procedures take place in PRH per year; excluding endoscopy procedures for which scopes will not be processed by the central MDR.
    - An average of 3,525 Endoscopies are performed at PRH per year. The scopes will be processed in the Scope Decontamination and Disinfection rooms in Minor Procedures and staffed by MDR.
    - Assuming the average number of operating days is 250 days per year, it is expected that an average of 16.6 surgeries occur per operating day.
- Summerland Procedures:
    - An average of 2034 procedures takes place in Summerland per year.
    - Assuming the average number of operating days is 250 days per year, it is expected that an average of 8.1 procedures occur per operating day.

- Total Procedures for PRH and Summerland:
    - Adding together the PRH and Summerland surgeries and minor procedures (23.2 + 16.6 + 8.1) results in a total number of procedures per day of 48 at the current time.
- Trays and instruments are also received and processed from other areas of the hospital including the Emergency Department, Inpatient Units and Labour and Delivery and other South Okanagan facilities.

Space Requirements Based on Audit of MDR Processing

At the time of planning, MDR had not yet implemented an instrument tracking system so a manual audit for a period of a week was conducted to determine the representative number of procedure trays being processed in MDR per day.

- Data provided by IHA indicated that a total of 300 procedure trays were processed in 7 days including minor instrument sets, major instrument sets, joint pans, complex sets, and power sets.
- With an estimated 5% of the procedures occurring on the weekend, it can be assumed that 285 procedure trays were processed during work days for a total of 57 per day.
- In order to determine whether the audit week was typical of a given week, the number of sterilization loads were also audited and compared to the average number of loads per week over a six month period. The total number of sterilization loads was 83 during the audit week while the average number of over a 6 month period was 75. This would suggest that the workload during the audit was approximately 110% of typical weeks. Therefore, the estimated number of sets processed by MDR is 52 procedure trays per day.

4.5.5 DESIGN CRITERIA

General Requirements

The primary design consideration for medical device reprocessing is the unidirectional flow of instruments and medical devices from the soiled to the clean/sterile area incorporating LEAN work flows.

This layout is to consist of physically separate zones.

Since instruments and medical devices need to travel vertically to the Surgical Services area, a dedicated elevator for soiled devices and a dedicated elevator for clean devices are required. The elevator for soiled devices must be contained within the decontamination area. The elevator for clean and sterile devices must be contained within the sterile storage/cart picking area.

Computer terminals located at strategic workstations within all MDR areas support the electronic instrument management and tracking of medical device inventories.

Each entrance into the MDR needs an anteroom with a clinical hand hygiene sink, a gowning zone, storage for PPE and a mirror.

Layout of each zone should align workflow with travel distances and movement of material while incorporating ergonomic designs.

Additional requirements include; convenient location for administrative areas, provisions for future flexibility and natural daylight (or Virtual Luminous Windows when natural is not feasible).

Accommodations for visitors shall include space in the anterooms to each entry point to temporarily and securely store personal belongings such as outerwear and briefcases/purses.

Decontamination Area

The receiving area for soiled goods requires a soiled elevator which is connected directly to the OR's decontamination room/soiled return, sufficient floor area to receive case carts and carts from the patient areas in the hospital (anticipate 6 larger carts and 10 case carts at a minimum) and hold empty bins (garbage, linen, etc.) waiting to be moved up to soiled utility in the OR. The majority of the case carts and bins will come from the Surgical Services area..

The area requires a soiled processing area that includes 4 height adjustable triple-sink areas with ultrasonics at the clean end of the sink areas. The washer/disinfectors must be adjacent to the sink area. Three instrument washers are required. Space for instrument washer racks must be included next to the washer/disinfectors and the sink area.

A separate scope cleaning area with 2 stainless steel double sink banks is required. This area will have a pass through to the High Level Disinfection zone on the clean side.

A separate medical device wash area is required with 1 stainless steel double sink bank. This room will have a pass through to the clean equipment holding area.

These sink areas are to be designed in consultation with the user groups.

The cart washing area must have sufficient storage space adjacent to the cart washers to hold soiled carts. It must be located to facilitate LEAN process flow of work from the decontamination stations (i.e. after the last decontamination sink workstation).

A hand hygiene sink is to be located at a convenient location.

The cleaning chemicals must be in a separate enclosed space in the decontamination zone.

A dedicated housekeeping room is required in this zone.

A staff gowning area with Personal Protective Equipment (PPE) storage and hand hygiene sink will be located at the entry to the Decontamination area.

Clean/Assembly Area

The assembly area will be located proximal to the clean side of the instrument washers. Six assembly stations are required with two roughed in for future additional capacity. These assembly stations are to be designed in consultation with the users.

The assembly area will have direct access with the Sterile storage area for the return of empty sterilizer carts.

This area will also contain the clean equipment holding area and the clean side of the scope cleaning room or High Level Disinfection (HLD) Zone and pass through drier(s).

LEAN processes for the flow of cart washer carts, clean case carts and loaded instrument carts to accommodate main circulation paths are critical.

The cart drying area is to be proximal to the clean side of the cart washers and is to be partially walled off from the rest of the main area and is to include a floor drain.

A staff gowning area with Personal Protective Equipment (PPE) storage and hand hygiene sink will be located at the entry to the Clean Assembly Area.

Sterilization Area

The sterilization area will be equipped with 3 steam sterilizers and 2 low temperature sterilizers with room for an additional unit in the future. Pass through sterilizer units are required. A designated space is required proximal to the unload side of the sterilizers for cooling carts. The cooling area should be differentiated from the general circulation and should not have direct airflow above the cart cooling area to prevent condensation.

A workstation for biological incubators and other sterility tests is required adjacent to both the loading side of the sterilizers and the unloading side in the cool down room.

Access to the steam sterilizers for maintenance shall be configured to minimize the need to travel through the Clean, Sterilization and Supply areas.

Sterile Storage / Case Cart Assembly

Floor space is also required to hold clean case carts before the cases are picked. This space should be adjacent to the sterile supply storage and picking area. As per the CSA guidelines, the sterile storage and case picking area must be an enclosed space with the clean elevator to the Surgical Services area in this zone. It is anticipated that the sterile instrument packs and other sterile medical devices will be stored on moveable, wire shelving. The sterile storage/picking area must also have sufficient floor space for case carts.

Also required is an area for clean/sterile ward supplies that is easily accessible for the porter picking up the cart to transport to a patient care area.

A staff gowning area with Personal Protective Equipment (PPE) storage and hand hygiene sink will be located at the entry to the Sterile Storage/Case Cart Assembly area.

The area also requires a housekeeping room dedicated for cleaning the assembly and sterile areas. Access to this housekeeping room is to be from the exterior corridor.

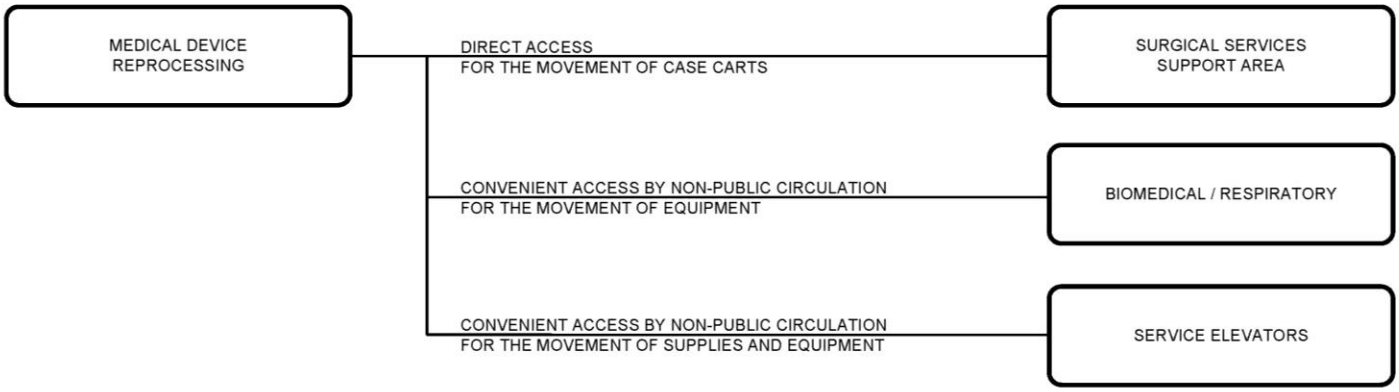
A pneumatic tube station is required in the Sterile Storage area.

Staff Area

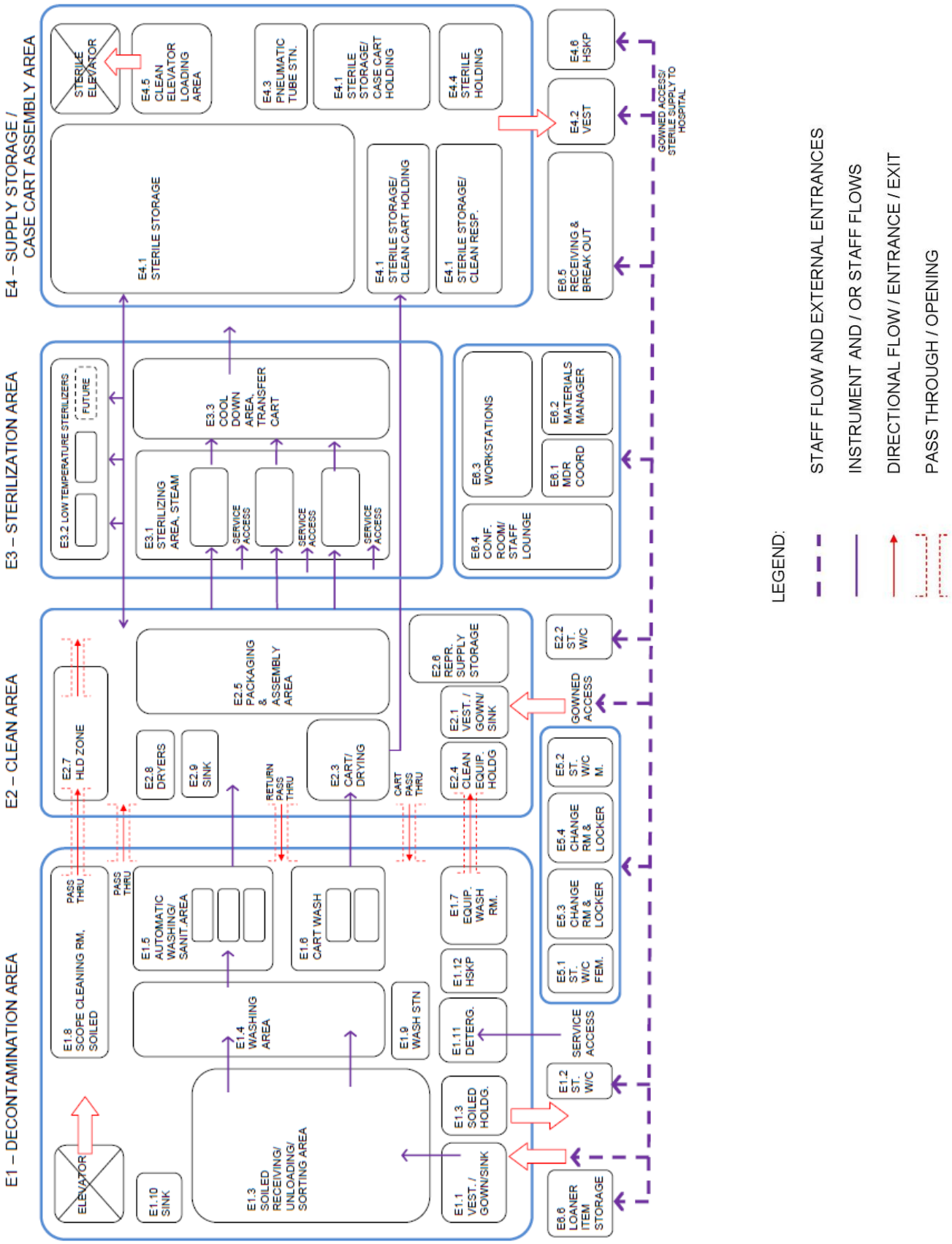
A conference room/staff lounge is required within the MDR zone as well as male and female staff locker/change room areas that each includes a washroom, shower, areas to store winter coats and boots that are too large or wet to place in lockers and duty shoe shelves. Administrative offices are to be conveniently located and the Coordinator's office is to have direct visual and auditory oversight of the main Clean/Assembly areas.

The Receiving and Break out room are to be proximal to the sterile storage/picking area and be equipped with a hand hygiene sink.

4.5.6 EXTERNAL RELATIONSHIPS



4.5.7 INTERNAL RELATIONSHIPS



4.5.8 SCHEDULE OF ACCOMMODATION

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
E. MEDICAL DEVICE REPROCESSING					
E1 - DECONTAMINATION AREA					
E1.1	Vestibule/Gowning Room/Sink	1	5	5	
E1.2	Washroom, Staff, Wheelchair Accessible	1	4.6	4.6	Located adjacent to Vestibule/Gowning Room/ Sink
E1.3	Soiled Receiving/Unloading/Sorting Area and Soiled Holding Area	1	33	33	Provide clear space for soiled elevator unloading.
E1.4	Washing Area	1	70	70	
E1.5	Automatic Washing/Sanitizing Area	1	60	60	
E1.6	Cart Wash Area	1	20	20	2 cart washer units.
E1.7	Equipment Wash Room	1	15	15	
E1.8	Scope Cleaning Room, Soiled	1	10	10	Can be a separate room adjacent to decontamination area.
E1.9	Wash Station, Emergency	1	0.5	0.5	Located adjacent to Detergent Dispensing Room.
E1.10	Hand Hygiene Sink	1	1	1	
E1.11	Detergent Dispensing Room	1	9	9	
E1.12	Housekeeping Room, Dirty	1	4	4	
	TOTAL: Decontamination Area			**232.1**	
	Grossing Factor			**1.25**	
	TOTAL CGSM: Decontamination Area			**290.13**	

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
E2 - CLEAN/ASSEMBLY AREA					
E2.1	Vestibule / Gowning Room/Sink	1	5	5	Serves as an Anteroom into the Clean Area from outside the department.
E2.2	Washroom, Staff, Wheelchair Accessible	1	4.6	4.6	
E2.3	Cart/Equipment Wipe down/Drying Area	1	15	15	
E2.4	Clean Equipment Holding Area	1	15	15	
E2.5	Packaging & Assembly Area	1	160	160	
E2.6	Reprocessing Supply Storage	1	21	21	
E2.7	HLD Zone	1	17	17	Separate room collocated with Clean Assembly and includes a pass through window.
E2.8	Dryers	2	2.5	5	
E2.9	Hand Hygiene Sink	1	1	1	
	TOTAL: Clean/Assembly Area			**243.6**	
	Grossing Factor			**1.25**	
	TOTAL CGSM: Clean/Assembly Area			**304.5**	

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
E3 - STERILIZATION AREA					
E3.1	Sterilizing Area, Steam	3	17	51	
E3.2	Low Temperature Sterilizers	1	18	18	
E3.3	Cool Down, Transfer Cart	1	15	15	Provide automatic sliding glass doors to differentiate the area. Clear width of the doors to be determined based on cart size during the user consultation process.
	TOTAL: Sterilization Area			**84**	
	Grossing Factor			**1.25**	
	TOTAL CGSM: Sterilization Area			**105**	

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
E4 - STERILE STORAGE/CASE CART ASSEMBLY AREA					
E4.1	Sterile Storage	1	276	276	To include an Anteroom into the Sterile Area from outside the department.
E4.2	Vestibule / Gowning Room/Sink	1	5	5	Located adjacent to Sterile Storage main entrance.
E4.3	Pneumatic Tube Station	1	0.5	0.5	
E4.4	Sterile Holding	1	20	20	Clean/sterile materials which will be picked-up by a courier to go off-site. For both off-site sterile supplies/sets as well as ward stock that is delivered to the rest of the hospital departments other than the OR. Locate adjacent to E4.1 Sterile Storage and accessible from the service corridor. Locate in close proximity to the service elevators. E4.4 can be an area within E4.1.
E4.5	Clean Elevator Loading Area	1	5	5	Provide clear space for clean elevator loading.
E4.6	Housekeeping Room, Clean	1	7.5	7.5	
TOTAL: Supply Storage/Case Cart Assembly Area				**314**	
Grossing Factor				**1.25**	
TOTAL CGSM: Supply Storage/Case Cart Assembly Area				**392.5**	

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
E5 - STAFF FACILITIES					
E5.1	Washroom and shower, Staff, Female	1	7	7	
E5.2	Washroom and shower, Staff, Male	1	7	7	
E5.3	Change Room and Lockers, Staff, Female	1	12	12	30 half lockers.
E5.4	Change Room and Lockers, Staff, Male	1	7.5	7.5	10 half lockers.
E5.5	Alcove, Uniform Dispensing Exchange	1	2.5	2.5	
TOTAL: Staff Facilities				**36**	
Grossing Factor				**1.25**	
TOTAL CGSM: Staff Facilities				**45**	

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
E6. - ADMINISTRATIVE AREA					
E6.1	Office, MDR Coordinator	1	11	11	Direct visual and auditory oversight of the main Clean/Assembly areas.
E6.2	Office, Materials Manager / OR Liaison Clerk	1	11	11	
E6.3	Workstations	1	30	30	To include 4 workstations.
E6.4	Conference Room/Staff Lounge	1	25	25	
E6.5	Receiving and Break Out Room	1	20	20	To include a hand hygiene sink before entry to sterile stores
E6.6	Loaner Item Storage Room	1	10	10	
	TOTAL: Administrative Area			**107**	
	Grossing Factor			**1.25**	
	TOTAL CGSM: Administrative Area			**133.75**	

E1 - DECONTAMINATION AREA	**290.13**
E2 - CLEAN/ASSEMBLY AREA	**304.5**
E3 - STERILIZATION AREA	**105**
E4 - STERILE STORAGE/CASE CART ASSEMBLY AREA	**392.5**
E5 - STAFF FACILITIES	**45**
E6. - ADMINISTRATIVE AREA	**133.75**
MEDICAL DEVICE PROCESSING PROGRAMMED SPACE CGSM:	**1270.9**

4.6 F. UBC FoM Distributed Medical Education Program at PRH

4.6.1 FUNCTIONAL PROGRAM: PARAMETERS UPDATE, JUNE 2013

The following description of the UBC FoM Distributed Medical Education Program at PRH is an excerpt directly from the following reference:

> Distributed Medical Education Program, Interior Health Affiliated: Regional Centre "Cluster", Penticton Regional Hospital, Functional Program: Parameters Update, June 2013 by Resource Planning Group Inc. (24 June, 2013)

The entire document can be found attached in Appendix E.

INTRODUCTION AND SPACE SUMMARY

INTRODUCTION

This document includes parameters update information for the UBC FoM Distributed Medical Education programs at the Penticton Regional Hospital (PRH) component of the original "Penticton/Vernon Affiliated Regional Centre "Cluster" Functional Program dated February 18, 2008.

The Functional Program describes the UBC FoM Distributed Medical Education programs academic teaching facilities required to support the MD Undergraduate Programs, as well as Royal College components and Family Practice resident trainee programs. Updated information was developed at the request of the UBC Faculty of Medicine (FoM) and is intended to replace the original 2008 Functional Program. Updated information is based on revised assumptions and new information provided by UBC FoM Distributed Medical Education programs representatives and meetings with representatives of Interior Health.

Table 1: Undergraduates and Post-Graduates [1, 2]

These estimates will be utilized for estimating space requirements in this document. In addition, there should be consideration for opportunities for additional transfers of other students subject to available medical clerkships, funding and space.

In the following table, the milestone year 2016/17 (or within a few years after that date) summarizes the estimated potential expansion numbers of undergraduates and post-graduates expected to be on site at PRH at any one time. This year is assumed to reflect potential full expansion, with figures increasing progressively from the 2011/12 reference year.

In the following table, the milestone year 2016/17 (or within a few years after that date) summarizes the estimated potential expansion numbers of undergraduates and post-graduates expected to be on site at PRH at any one time. These figures exclude the other ARC Cluster sites. This year is assumed to reflect potential full expansion, with figures increasing progressively from the 2011/12 reference year.

		June 2013 Parameters Update: Projected Numbers of Trainees (at any one	
Site	Trainee	2011/12	2016/17
Penticton	3rd Yr UGrad Clinical Clerks	3	4
Regional	4th Yr UGrad Clinical Clerks	2	4
Hospital	Subtotal	5	8
	Post-Grad Trainees (PGY2-5)	2	3
	Post-Grad Trainees (PGY1)	3	6
	Family Practice (FP1)	2	4
	Subtotal	7	13
	Total	**12**	**21**

1 *Provided by UBC FoM Distributed Medical Education progams representatives.*

2 *UGrad Year 4 numbers are estimated numbers of Year 4 students potentially on site at any given time, based on elective/ selective offerings.*

All figures in the previous table were provided by UBC FoM Distributed Medical Education programs representatives, and are working assumptions for this document only, and are subject to review by the UBC Faculty of Medicine. It should be noted that though the aggregate number of trainees is expected to be 21, the mix may vary somewhat depending on how the site develops.

Projected numbers of trainees are considered conservative gross planning estimates.

It should be noted that there is an expectation that there will be an increase in the number of Nursing and other Health Professional students and related academic activities at PRH, in addition to what is proposed herein for the Distributed Medical Education Program. As a result, the number of Distributed Medical Education Program trainees described herein is not a reflection of total academic space and activity requirements.

Though outside the scope of this document, it is understood that additional planning for research space that may be required as a consequence of the Distributed Medical Education Program will also be required.

SPACE REQUIREMENTS SUMMARY

The following table summarizes projected academic teaching space requirements for the Distributed Medical Education Program at PRH. Details are included in the Component Planning Criteria - Space Requirements section of this document.

Teaching and learning space will include Multipurpose/ Clinical Skills Room and Small Videoconference/ Seminar Rooms, along with related support areas.

A Locker, On-Call, Lounge area will support undergraduate students and post-graduate resident trainees that are at the site.

An Administration Support area will accommodate 1 to 2 on site Program Directors as well as 1 to 2 administrative/ clerical support positions necessary to the Distributed Medical Education Program.

Team conference/meeting rooms and trainee workstations are included and to be located in the inpatient areas.

Table 2: Space Requirements Summary

Expansion related academic space requirements for the 2016/17 milestone year are summarized in the table below in terms of net square metres (NSM) and component gross square metres (CGSM).[3]

	Yr 2016/17, Estimated Space Requirements	
	NSM	CGSM
Teaching and Learning	115.0	
Locker, On-Call, Lounge	79.7	
Administration	50.3	
Library and Study	15.9	
Subtotal (Square Metres)	260.9	352
Inpatient Areas	27.5	37
Total (Square Metres)	288.4	389

[3] *NSM (Net Square Metres) – the actual "occupiable" area of each room or space as measured to the interior finished surfaces of all walls, partitions, or mechanical enclosures.*

CGSM (Component Gross Square Metres) – that portion of the building assigned to a specific component (a cohesive group of activities or spaces related by service or physical arrangement), including net areas, internal circulation, partitions, building structure and small mechanical shafts/areas as measured from the inside fact of exterior walls and to the centre line of partitions adjoining other components or general circulation space.

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COMPONENT PLANNING CRITERIA

FUNCTIONAL DESCRIPTION

Updated information was developed at the request of the UBC Faculty of Medicine during September 2010, and is intended to supplement the original 2008 Functional Program. Updated information was based on revised assumptions and new information provided by the Faculty of Medicine and meetings with representatives of Interior Health.

This document includes parameters update information for the UBC FoM Distributed Medical Education programs at the Penticton Regional Hospital (PRH) component of the original "Penticton/Vernon Affiliated Regional Centre "Cluster" Functional Program dated February 18, 2008.

The Functional Program describes the UBC FoM Distributed Medical Education programs academic teaching facilities required to support the MD Undergraduate Programs, as well as Royal College components and Family Practice resident trainee programs. Updated information was developed at the request of the UBC Faculty of Medicine (FoM) and is intended to replace the original 2008 Functional Program. Updated information is based on revised assumptions and new information provided by UBC FoM Distributed Medical Education programs representatives and meetings with representatives of Interior Health.

Table 3: Undergraduates and Post-Graduates (same as Table 1 in Summary section) [4, 5]

For reference, the milestone years in the adjacent table summarize the estimated numbers of undergraduates and post-graduates expected to be on site at any one time.

It should be emphasized that the projected numbers of learners are considered conservative gross planning estimates.

The following table, also included in the Summary section, summarizes the numbers of undergraduates and post-graduates on site at any one time. It should be emphasized that the projected numbers of learners are considered conservative. The expansion estimates will be utilized for estimating space requirements in this document. In addition, there should be consideration for opportunities for additional transfers of other students subject to available medical clerkships, funding and space.

		June 2013 Parameters Update: Projected Numbers of Trainees (at any one	
Site	Trainee	2011/12	2016/17
Penticton	3rd Yr UGrad Clinical Clerks	3	4
Regional	4th Yr UGrad Clinical Clerks	2	4
Hospital	Subtotal	5	8
	Post-Grad Trainees (PGY2-5)	2	3
	Post-Grad Trainees (PGY1)	3	6
	Family Practice (FP1)	2	4
	Subtotal	7	13
	Total	**12**	**21**

The milestone year 2016/17 (or within a few years after that date) is assumed to reflect potential full expansion, with figures increasing progressively from the current 2011/12 reference year. It should be noted that though the aggregate number of learners is expected to be 21, the mix may vary somewhat depending on how the site develops.

4 *Provided by UBC FoM Distributed Medical Education programs representatives.*

5 *UGrad Year 4 numbers are estimated numbers of Year 4 students potentially on site at any given time, based on elective/selective offerings.*

Projected numbers of trainees are considered conservative gross planning estimates.

It should be noted that there is an expectation that there will be an increase in the number of Nursing and other Health Professional students and related academic activities at PRH, in addition to what is proposed herein for the Distributed Medical Education Program. As a result, the number of Distributed Medical Education Program trainees described herein is not a reflection of total academic space and activity requirements.

Though outside the scope of this document, it is understood that additional planning for research space that may be required as a consequence of the Distributed Medical Education Program, will also be required.

Table 4: Key Activities

For reference, key activities for the 3rd and 4th Years Undergraduates as well as for Post-Graduate/ Resident Trainees are as follows:

	Undergraduates		**Post- Graduate/ Resident Trainee**
	3rd Year	4th Year	
Key Activity	- Integrated Clinical Clerkships (ICC) & Rural Family Practice - Academic Half-Days [6] - Bedside Teaching - On-Call - Study - Clinical Skills - Family Practice Continuum	- Electives - On-Call - Study	- Residency Rotations - Teaching [7] - Academic Half-Days - On-Call - Study

Medical School Expansion

For the purposes of this document, academic activities of the Distributed Medical Education Program and post-graduate resident trainee programs at PRH have been categorized as follows:

- Administration;
- Teaching and learning (video conferenced lectures, problem based learning, clinical skills, enhanced clinical skills, clinic instruction);
- Lockers, on-call, lounge;
- Library and study.

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[6] *Academic Half-Days: weekly departmental/discipline sessions taken by both undergraduates and post-graduate resident trainees. Though AHDs are not currently part of 4th Yr curriculum, they may be in the future. Though AHDs are currently scheduled only on Tuesdays, Wednesdays and Thursdays, often with different disciplines scheduling at the same time, it is expected that this schedule will change in the future to improve utilization and flexibility.*

[7] *Typically, post-graduate resident trainees meet with their teams, including undergraduates, once to twice daily for 1 to 2 hours.*

Administration

An administrative presence is required at PRH to support the Distributed Medical Education Program. A particular staffing model and responsibilities for administering the clinical oriented portions of the Distributed Medical Education Program are currently under discussion. However, key administrative activities that may need to be accommodated within this component include:

- Program administration and coordination:
  - 1st and 2nd Year clinical skills program activities, administration and coordination;
  - 3rd and 4th Year undergraduate clinical activities;
  - post-graduate resident trainees program expansion coordination and administration;
  - undergraduate and post-graduate resident trainee education leadership;
  - faculty development;
  - curriculum management;
  - undergraduate and post-graduate resident trainee orientation and advising.
- Liaison (e.g., telcons, correspondence, video-conferencing):
  - PRH clinical units, undergraduates, post-graduate resident trainees;
  - other Health Authorities and clinical units;
  - Affiliated Regional Centres (ARCs) and Clinical Academic Campuses (CACs) and/or communities that may accommodate rotation trainees;
  - DHCC (Diamond Health Care Centre, VGH Site);
  - UBCV, UBCO, UVic, UNBC.
- General office:
  - reception, waiting and meetings;
  - mail handling and deliveries;
  - general office support (records and files storage, photocopying, fax and office supplies storage).

For the purposes of this document, Distributed Medical Education Program administrative positions that will need to be accommodated at PRH will provide undergraduate and post-graduate resident trainee education leadership, professional staff support for clinical programs and advanced electives, and coordination of post-graduate resident expansion, curriculum management and faculty development.

Academic and administrative liaison activities will require access to videoconference facilities. These facilities may be shared with tele-health and tele-education activities.

Teaching & Learning

Teaching and learning will include centralized, decentralized and tele-learning activities in order to support the required undergraduate, post-graduate resident trainee and distributed elements of the Distributed Medical Education Program. These activities will occur in centralized Distributed Medical Education Program academic space as well as in clinical settings combined with patient care. The majority of these activities will take place in multipurpose seminar/ video-conference rooms.

In summary, key activities include:

- Video-conference, teaching and learning activities (e.g. clinic instruction, lectures, demonstrations, presentations to other sites, grand rounds and including 2-way/ real-time distributed learning for academic half-days, academic rounds, case studies, etc.).
- Informal seminars, discussions and team meetings in a flexible, multipurpose environment.
- Clinical skills:
  - instructor and/or student driven clinical skills exercises, up to 8 students and typically 2 to 4 students, 1 instructor/clinician and 1 volunteer patient in an exam type room environment;[8]
  - unobtrusive video recording of selected sessions (e.g., interview/communications skills training, diagnostics, group interaction) w/playback to review and analyze results;
  - one-way mirror observation of clinical skills activities;
  - clinical skills drop-in and scheduled practice activities in specific areas such as breast or pelvic examinations (e.g., viewing of video media, practical hand skills, use of models, discussion, internet access);
  - volunteer/simulated patient support (e.g., waiting, provision of tea and snacks);
  - storage (e.g., AV equipment, references, consumables).
- General student examinations (e.g., individual or small group; may include general electronic/on-line and/or written exams), typically taking place within the study area/ library.
- Teaching/ Conferences within Inpatient Units:
  - team meetings/conferences (up to 12 undergraduates, post-graduate resident trainees & others to review, discuss and present patient cases);
  - student meetings w/post-graduate resident trainees;
  - presentations and teleconferencing;

8 *Simulated/ volunteer patients are typically actors that have been recruited and trained for specific patient/case roles; more informal volunteer patients require minimal training. Simulated patient training can occur in clinical skills rooms or in other areas such as the PBL rooms if access is available.*

- patient interviews and history taking;
- internet access and reference storage,
- digital radiology image receipt and display,
- bedside teaching rounds (occurring in existing inpatient rooms, typical maximum of 4 undergraduates/post-graduate resident trainees + tutor);
- audio-visual and teaching equipment storage.

- Clinic Instruction:
  - clinical teaching w/clinicians and their patients in a real "clinic-like" setting (minimum of 8 examination/ consult rooms, with at least 1 of these rooms equipped with video conference infrastructure).

Videoconference and clinical skills/simulation rooms must be booked through the UBC FoM Centralized scheduling system (Resource Scheduler).

Lockers, On-Call Support, Lounge

Distributed Medical Education Program undergraduates and post-graduate resident trainees require support space for lockers (e.g., street clothes, books, stethoscope), relaxation and networking, and on-call activities. Each student and resident trainee will require a locker. Integrating these functions is essential for interaction, learning experience and to minimize duplication of resources. As a result, these resources should be organized in the form of a centralized suite, ideally proximate to the medical staff lounge area.

Students utilizing wheelchairs will be accommodated in existing facilities as required.

Anticipating full expansion by the Year 2016/17 (or within a few years after), the estimated workload for on-call rooms at PRH assumes 1 to 2 post-graduates (Family Practice FP1, occasional access by UBC and visiting PGY2-5) plus 1 to 2 undergraduate trainees requiring access to on-call rooms at any one time, resulting in a maximum need of up to 4 on call rooms. These rooms will be shared between the rotations and disciplines expected to require access.

On-call rooms must be booked through the UBC FoM Centralized scheduling system (Resource Scheduler).

Library and Study

An equivalent to the existing PRH Library area will be required, including a mix of study tables and chairs, comfortable furniture, collections space and librarian office and work space. Subject to further review at the time of design or commissioning, it is expected that the existing collection area can be reduced and the existing seating area increased.

In addition, 5 study/ computer stations are required for use by

undergraduates and post-graduates. For acoustic control, occasional group study and to support occasional library instruction of on-line resource and research techniques, these stations should be in a small enclosed meeting room. Each station will require power and data access, a PC and may also be used for limited videoconferencing if this capacity is required.

One shelving bay for additional Medical Program related collection materials and 1 workstation for Librarian support should be provided.

Though outside the scope of this document, it should be noted that there is additional need for access to selected electronic databases for all learners, with these databases typically copied to PDAs. These databases require annual updating to remain current and typically include "clinical pocket book" and pharmacopeia type information (e.g. Hippocrates Software™, UpToDate™).

For reference, a key principal for the Distributed Medical Education Program is that core undergraduate instruction, objectives and exams will be equivalent for students at all sites in the Province and therefore, equitable access to required print and online library resources is necessary.[9]

Family Practice

Family Practice post-graduate resident trainee programs are expected to have an administrative presence at PRH in the form of Program Director and support. Activities will include support of student assessment, curriculum management, site direction and related clerical activities. In addition, a Medical Program Librarian, based in Kelowna or Vancouver, will periodically visit the PRH library to provide supporting librarian functions.

Given the expanding teaching role of the PRH component of the ARC "Cluster" and its distance from the Kelowna and Vancouver campuses, on-site clinical academic appointments are expected. For educational administrative purposes, some of these individuals may require access to the shared office and video-conference/meeting space in order to fulfill the requirements of their appointments.

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9 *Though not intended to be comprehensive, the following points summarize some key operational criteria related to library and study resources:*

- *UBC will provide interlibrary loan/ document delivery.*
- *On-line journal access via UBC will reduce the need for some ILL/document deliveries, but the various Distributed Medical Education Program sites will nevertheless need to coordinate their systems.*
- *Undergraduates, post-graduate resident trainees and related faculty and health professionals at the Distributed Medical Education Program sites, participating Health Authorities, and rural and community facilities participating in the Distributed Medical Education Program will have access to a core suite of online resources.*
- *UBC will provide online reserve collection access to support clerkships and clinical skills based curricula.*
- *To the extent required, given increasing access to on-line resources, PRH library print resources will be augmented and updated w/ appropriate clinical titles and references to support its expanded academic role in support of the undergraduate program plus additional titles as appropriate. The print journal collection is expected to remain at its current number of titles/ size.*
- *Individual student and group web-enabled learning may take place at study stations and group study tables.*

In addition, the presence of these programs will require access to shared video-conference and meeting room resources to support Academic-Half-Days. For reference, it is assumed that Academic Half-Days occur weekly and involve up to 2 groups including residents, the presenter and a faculty member for each group; both groups meet at the same time and may occasionally all meet together. It is assumed that these activities could take place in shared video conference rooms located with the Distributed Medical Education Program areas.

Royal College of Physicians and Surgeons of Canada

The number of PGY2-5 Royal College residents is expected to grow by the year 2016/17. However, the Royal College is not expected to require an administrative presence at PRH.

Research

It is expected that there will be additional requirements for research facilities at PRH in the future. However, a separate process and analysis will be required to describe these needs, outside the scope of this document.

STAFFING ESTIMATES

The following table summarizes estimated staff headcounts and related workstation requirements for this component, subject to further refinement of the academic program. For reference, in the table, "private" refers to a desk/workstation within an enclosed office and "open" refers to an open area/ systems furniture type desk/ workstation. In each case, the workstation may be shared among a number of individuals, depending on how the academic program is ultimately administered.

Table 6: Staffing Estimates

	Headcount		Year 2016/17 Projected Number of Required Workstations	
	Existing	Future		
Director, ICC and FP/Royal College	-	2	2	private
Faculty "Swing"	-	1	1	open
Administrative Support [10, 11]	-	2	2	open
Total	-	5	5	

[10] *The Administrator position may also incorporate IT Support due to the limited staffing of the component.*

[11] *It is expected that the Librarian from one of the other UBC sites will travel to PRH as required.*

DESIGN CRITERIA

General

All UBC Academic Facilities to be designed and equipped with accordance to "UBC - FoM - Specifications and Requirements for Clinical Education Facilities" as prepared by UBC Faculty of Medicine.

Functional Zones

For the purposes of access, functional relationships and security, this component has organized space into the following zones:

- Distributed Medical Education Program:
  - Teaching and Learning,
  - Locker, On-Call, Lounge,
  - Administration,
  - Library and Study.
- Inpatient Areas (trainee workstations, team conference rooms).

Although a centralized location for Distributed Medical Education Program functions noted above and detailed in the space requirements list is preferable in order to optimize shared use of all spaces and to support program identity, it is not required to have all areas in contiguous space. For example:

- Team Conference Rooms and Trainee Workstations: must be located within PRH inpatient units.
- On-Call, Lounge and Locker: must be located within a 5 minute walk of PRH inpatient units.
- Library and Study: can be located anywhere on the site.
- Administration Offices: may be located anywhere on the site.

Access

General

All areas within this component must meet all *Building Code*, UBC and IHA guidelines regarding accessibility.

UBC Faculty of Medicine requires ubiquitous wireless (Wi-Fi) internet access at all sites of instruction, including clinical education and training sites. This wireless internet access requires full Hospital coverage and will have sufficient bandwidth and coverage density for the entire clinical site and accommodate all potential educational users at a given site, all types of legitimate online resources including rich media, all commonly used devices, and multiple devices per user. The wireless service will allow access to commonly-used educational content and should have industry standard uptime, be appropriately supported, and meet privacy and security requirements for medical education. The current solution for meeting these needs is known as "eduroam". See http://medit.med.ubc.ca/initiatives/eduroam/ for details.

On-Call Suite

This area requires secure, 24/7 access via swipe or proximity card system for on-call post-graduate resident trainees and undergraduates. The location of the On-Call suite should be carefully considered so that the route between this area and inpatient units and the Emergency Department is safe, particularly after hours, and within a 5 minute walking time.

Library and Lounge

Post-graduate resident trainees and undergraduates require secure, 24/7 access to the library and lounge areas via swipe or proximity card system.

The study space should be integrated with any existing PRH library space, if practical. To support extended hours access, design should consider locating the study and existing library spaces in adjacent areas, with a partially glazed demising partition as a separation and with a door in the partition that is lockable from the library side. During library hours, the primary access to the study area could then be via the library, with no direct access corridor access from or to the study area; after hours, the internal demising doorway could be locked with separate and secure access to each area from the corridor, if appropriate.

Administration Offices

This area must be lockable/ securable as it will contain evaluations and personal records. The area does not require a public profile, and should be reasonably close to but separate from and not adjacent to the main student areas. Undergraduate, post-graduate resident trainee mail slots can be located along one wall of an adjacent general corridor.

Multipurpose/Clinical Skills Room

This room will require access by, respectively, standardized/ volunteer patients and actual patients. Reception and waiting space is required.

Multipurpose Video Conference/ Seminar Rooms

All Meeting/Videoconference Rooms must be designed and equipped to comply with the "Design Guidelines for Learning Space AV systems & Associated Infrastructure for Seminar Rooms" document developed by the UBC Faculty of Medicine. Notwithstanding this requirement, general criteria are summarized below:

- These rooms will be developed to similar IT and design standards as those developed for other Distributed Medical Education Program components located in other health authorities.
- Video conference/ seminar rooms will support "Academic Half-Days" (1/2 to 1 day per week for each of 3rd and potentially 4th Year), other academic units as well as other activities. In total, there is a requirement for 2 shared, teaching/ learning oriented multipurpose

video conference/ seminar rooms (8 seat, 16 seat). These rooms will also support any administrative VC requirements.

- All rooms require whiteboards (electronic or standard, subject to further review).
- All VC enabled rooms require appropriately sized and positioned displays (monitors and/or projection) and required VC equipment. The size, number and type of displays will be a function of the technology available at the time of procurement, as well as viewing aspect ratios and distances.
- All VC enabled rooms require access to power for laptops at all seats.
- The VC rooms require fixed or moveable tables and moveable chairs.
- A central VC Operator/ Rack Room and Central AV Equipment Storage Room will support the VC enabled rooms.

Multipurpose/ Clinical Skills Rooms

The Clinical Skills Rooms must be designed and equipped to comply with "Design Guidelines for Learning Space AV Systems & Associated Infrastructure Clinical Skills Rooms" and "UBC FoM - Specifications and Requirements for Clinical Education Facilities" documents prepared by UBC FoM. Additional criteria include:

- Upper and lower lockable cabinet for consumable supplies, 10 chairs in a close circle (stackable exam chairs on wheels), securable AV cabinet for media equipment (e.g. monitor, DVD).
- Equipment including exam bed.
- Wall mounted/fixed equipment including ophthalmoscope/ otoscope, blood pressure cuff, otoscope (with tip dispenser) ophthalmoscope and wall mounted thermometer, digital wall clock, phone, hand wash sink, whiteboard.
- Capacity for a discrete, built-in video camera for recording activities (e.g., mock interviews/communications skills, patient diagnostics, case studies, etc.) as required and for playback to review and analyze results.
- Corridor phone(s) should be provided near to these rooms for clinical instructors who are paged.
- Consideration, if practical, for 1-way mirror between 1 or 2 pairs of rooms.
- 1 of the 2 required rooms should be oversized to accommodate bariatric equipment and wheelchair access.

Ambulatory Clinic Instruction Rooms

If practical, access to a teaching clinic type environment with learner oriented exam and consult rooms, in an ambulatory setting should be provided, particularly in support of Family Practice accreditation

requirements and increased primary care accreditation training requirements.[12] This area would provide an opportunity for students to view and interact with clinicians seeing patients, and for instructors to view students. This area would require up to 3 clusters of rooms, with each cluster typically including 2 "learner" oriented exam rooms plus a consult room, for 9 rooms in total. Access to a common waiting and reception desk would also be required.

Inpatient Areas

Team Conference Areas

Access to unit-based team conference rooms should be provided near to the inpatient areas, and will be used by both undergraduates and post-graduate resident trainees. These conference rooms should each accommodate up to 12 people around a central table.

Formal Distributed Medical Education Program team conferences will typically occur 1 to 2 hours per day, 5 days per week. These areas will also be used for a range of *ad hoc* and informal activities and will be available for other programs/activities when not in use by the Distributed Medical Education Program.

Though unit-based team conference areas are described below and defined in the space requirements list that follows, these resources must not displace the aggregate requirements for patient care beds in PRH. If such displacements would result from development of these areas, then the requirements for these rooms should be modified or additional discussion should take place.

Additional criteria for these rooms include:

- High acoustical separation for patient confidentiality.
- Up-to-date clinical imaging display equipment.
- Large wall mounted flat panel display with audio capabilities for local presentations. The size of the monitor and the choice of plasma or LCD technology is a function of the room size, viewing angles and available technology.
- Teleconferencing and videoconferencing capacity, subject to further review.
- Hospital dictation system capable.
- Whiteboard (electronic or standard, subject to further review) and flip chart.
- Video recording equipment or one-way mirror to adjacent patient interview space, to record and observe patient:physician:trainee interactions for viewing elsewhere or later playback/viewing within the room (e.g. Psychiatry, Pediatrics inpatient areas).

[12] *The CFPC accreditation requirement for primary care training is increasing to at least 12 months, double the current UBC requirement of 6 – 8 months. This means an increase in the amount of required training in ambulatory settings.*

Trainee Workstations

One to two student/trainee workstations per inpatient unit floor are required. These small, sit-down stations require a PC or terminal and writing surface. The PC or terminal requires internet, patient records, and appropriate library data-base and hospital systems access. Additional power above desk is required to connect electrical devices.

Locker Area

A central, secure common locker area is required for undergraduates and post-graduate resident trainees in order to secure coats, books and personal items. A central, common facility will optimize flexibility in locker assignments. Each 3rd/4th year undergraduate student and all post-graduate resident trainees will be assigned one full-height locker.

Male and female change areas may also be required in the locker area. However, if the locker area is adjacent to washrooms, these washrooms may be sufficient for changing – otherwise, small change rooms will be required, ideally, each with a single shower area.

Lounge

As part of the on-call suite, access to relaxation/ networking space will be required for undergraduates and post-graduate resident trainees, including those on-call. Additional criteria include:

- Compliance with any existing Collective Agreement(s) and any hospital standards that may be applicable[13].
- Sufficient comfortable seating for conversation and TV watching;
- Work table w/computer, 2 duplex power and 2 internet data ports.
- Kitchenette for snack preparation w/fridge, microwave, coffee maker, sink, dishwasher, durable and easily cleaned surface cabinets and countertop.
- Capacity for vending machines.
- Natural light and windows.

On-Call Support

On-call rooms should be organized into a suite. The rooms within the suite will not necessarily be dedicated to a particular department or service but will have flexible assignment to those house staff required to be on-call at any particular point in time. Design should consider the following criteria:

- Compliance with any existing Collective Agreement(s), hospital standards and any other regulatory frameworks that may be applicable.[14]

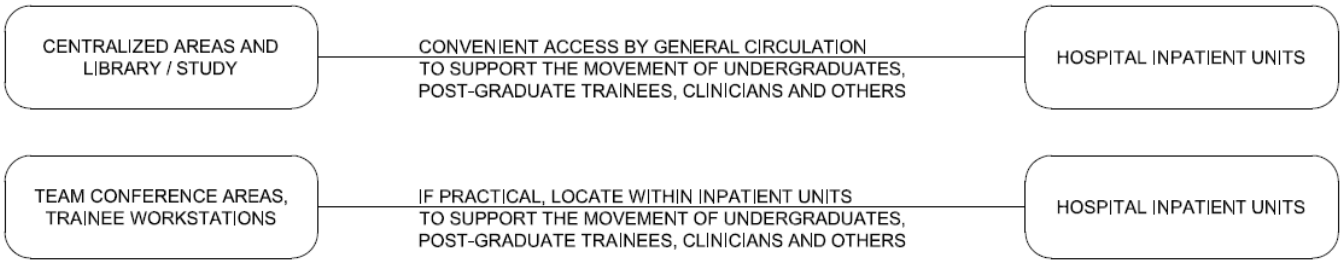
[13] *E.g. "Memorandum of Understanding Between Health Employers Association and Professional Association of Residents of British Columbia".*

- On-call rooms should be private bedrooms with locking doors in order to optimize opportunities for rest and study, and should be provided with the following:
  - clean sheets and towels changed on a 24-hour basis;
  - light over bed or bedside lamp;
  - lockable cupboard for personal belongings;
  - telephone in room, voice and data capabilities;
  - small desk with lamp, 2 data ports and power above desk height and lamp;
  - room should be wheelchair accessible;
  - dead bolt on inside with "available/occupied" indicator from the outside that is connected to the deadbolt;
  - red flashing light located outside of room, above the door with the operating button located on the inside of the room.
- Access to non-public showers and washrooms:
  - shower/washroom facilities will be shared by on-call post-graduate resident trainees and undergraduate students;
  - washrooms and showers should be wheelchair accessible.
- Acoustic separation between on-call rooms and between on-call rooms and adjacent spaces.

[14] *E.g. "Memorandum of Understanding Between Health Employers Association and Professional Association of Residents of British Columbia".*

4.6.2 EXTERNAL RELATIONSHIPS

MEDICAL SCHOOL EXTERNAL RELATIONSHIPS DIAGRAM



4.6.3 SCHEDULE OF ACCOMMODATION

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
F. UBC FoM DISTRIBUTED MEDICAL EDUCATION PROGRAM AT PRH					
F1 - CENTRALIZED AREAS					
F1.1	UBC Small Videoconf. Room (8 - 12 seats)	1	26	26	Shared administrative and teaching role; minimum required seating capacity and room area provided by UBC FoM AV Guidelines.
F1.2	UBC Small Videoconf. Room (16 - 22 seats)	1	44	44	Shared administrative and teaching role; minimum required seating capacity and room area provided by UBC FoM AV Guidelines.
F.1.3	AV Storage Closet	1	9	9	Millwork shelves for storage.
F1.4	On-call Room, PGrad Trainee/UGrad Student	4	7	28	1 full height locker per room.
F1.5	Locker Area	1	14.7	14.7	21 full height lockers with digital locks. Movable benches.
F1.6	Washroom, Unisex, Wheelchair Type	2	4.5	9	
F1.7	Shower Area, Unisex	2	2	4	
F1.8	Lounge	1	24	24	
F1.9	Clinical Skills Room, Single Bed	2	20	40	
F1.10	Enhanced Clinical Skills Room (Simulation Room), Single Bed	1	30	30	
F1.11	Enhanced Clinical Skills Control Room	1	10	10	
F1.12	Storage Room	1	12	12	
F1.13	Central Housekeeping Room	1	12	12	
	TOTAL: Centralized Areas			**262.7**	
	Grossing Factor			**1.4**	
	TOTAL CGSM: Centralized Areas			**367.78**	

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
F2 - LIBRARY AND STUDY					
F2.1	Collection	1	0.9	0.9	1 bay for Medical Program related collection materials.
F2.2	PRH Medical Library	1	82	82	Requires 2 separate entrances. One for PRH staff to enter from outside the UBC department, and one from the UBC department. All entrances into the UBC space shall be secured.
F2.3	Study Stations	1	15	15	5 stations (2 w/ PCs, all w/ power and data port for laptops, WiFi available), may be used for limited individual videoconferencing if it is determined that additional capacity is required. If practical, these stations should be organized as a small enclosed meeting room for acoustic control and confidentiality.
	TOTAL: Library and Study			**97.9**	
	Grossing Factor			**1.4**	
	TOTAL CGSM: Library and Study			**137.06**	

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
F3 - ADMINISTRATION OFFICES					
F3.1	Office, Faculty	2	11	22	1 workstation per office, may be shared among a number of individuals.
F3.2	Workstation, Administrative Support/Reception	2	6.5	13	1 workstation configured as reception type w/ service counter.
F3.3	Workstation, Swing	1	6.5	6.5	1 workstation
F3.4	Waiting	1	3	3	2 seats
F3.5	Storage, Files	1	3	3	Lockable, secure, 2 lateral files
F3.6	Work Area, Copier/Fax/Supplies	1	2.5	2.5	Small counter top photocopier, counter w/ cabinets over and under, recycling bins.
F3.7	Washroom, Unisex, Wheelchair Type	1	4.6	4.6	
	TOTAL: Administration Offices			**54.6**	
	Grossing Factor			**1.4**	
	TOTAL CGSM: Administration Offices			**76.44**	

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
F4 - INPATIENT AREAS					
F4.1	Trainees Workstations	6	2.5	15	
F4.2	Team Conference Room (Small Meeting Room) for Alcove (3-4 Seats)	3	10	30	
	TOTAL: Inpatient Areas			**45**	
	Grossing Factor			**1.4**	
	TOTAL CGSM: Inpatient Areas			**63**	

F1 - CENTRALIZED AREAS	**367.78**
F2 - LIBRARY AND STUDY	**137.06**
F3 - ADMINISTRATION OFFICES	**76.4**
F4 - INPATIENT AREAS	**63**
UBC FoM DISTRIBUTED MEDICAL EDUCATION PROGRAM AT PRH PROGRAMMED SPACE CGSM:	**644.3**

4.7 G. Retail

4.7.1 OVERVIEW

Planning Parameters & Assumptions

This component program has been developed based upon the following assumptions:

- Large volumes of patients will be arriving at the Patient Care Tower on a daily basis to attend clinics or access various services. The central reception area of the Patient Care Tower will occupy a prominent location within the building with easy access from the main public/outpatient entry. It will accommodate patient reception and registration, information access and a large waiting area with public amenities such as pay phones, washrooms, kiosk retail and food functions.
- The PCT will provide a familiar, non-institutional area by making it a lively destination for visitors and patients.

4.7.2 FUNCTIONAL DESCRIPTION

Scope of Services

The PCT may accommodate several retail and/or lease tenants such as:

- Retail pharmacy which will provide prescription-filling services to outpatients. IHA is currently assessing the business model for retail pharmacy space allocation;
- Gift shop; and
- Food and coffee kiosk to provide food services to patients and visitors.

4.7.3 SCHEDULE OF ACCOMMODATION

Ref. No.	Space/Area	Area Requirements			Remarks
		units	nsm/unit	nsm	
G. RETAIL					
G1 - RETAIL AREA					
G1.1	Food Service Area Allocation	1	80	80	
G1.2	Retail Pharmacy Allocation	1	50	50	
G1.3	Gift Shop	1	80	80	
G1.4	Storage, Supplies	1	6	6	
	SUBTOTAL: Retail Area			**216**	
	Grossing Factor			**1**	
	SUBTOTAL CGSM: Retail Area			**216**	
RETAIL PROGRAMMED SPACE CGSM:				**216**	