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VICTORIA HOSPITAL COST RECOVERY AND ACCOUNTING PROJECT

**Modelling of Health Care Management Initiatives
at Victoria Hospital**

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FINAL REPORT

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TABLE OF CONTENTS

- I. Executive Summary
 - A. Background
 - B. Scope of Work
 - C. Project Results
 - D. Next Steps and Implementation Schedule
- II. Development of Admissions Office and Patient Accounting Functions
- III. Cost Allocation Methodology
- IV. Clinical Protocol Development for Ob/Gyn Services
- V. Evaluation of Materials Management
- VI. Evaluation of Space Utilization Plan for New Ob/Gyn Facility

DELIVERABLES

- VII. Admissions Office
 - A. Policies and Procedures Manual for Admissions Office and Patient Accounting
 - B. Architectural Concept Plans for Admissions Area
 - 1. Plans for Interim Registration-Admissions Area
 - 2. Plans for Registration-Admissions New Pavilion
- VIII. Cost Allocation Instructions and Sample Worksheets
- IX. Draft Clinical Protocols for Common Obstetrical and Gynecological Conditions
- X. Materials Management
 - A. Job Description for Director of Materials Management
 - B. Procedures Manual for Materials Management
 - C. Architectural Renderings of Transportation Ramps and Potential Central Supply Locations
- XI. Architectural Renderings of Utilization Plan for Ob/Gyn Facility

FIGURES

- 1. The Dynamics of Victoria Hospital Cost Recovery Requirements, Page 8.
- 2. Admissions Office Principals of Practice, Page 13.
- 3. Victoria Hospital Training Agenda, Page 17.
- 4. Antepartum Management Flow Diagram, Page 167.

I. EXECUTIVE SUMMARY

A. BACKGROUND

In 1989, the Victoria Hospital Cost Recovery and Accounting Project was undertaken by John Snow Incorporated (JSI) under a limited scope grant agreement between USAID RDO/C and the Government of St. Lucia. JSI completed its work as defined by the contract and submitted a report in September 1990 which included several recommendations for further action. USAID intends to build on these efforts in a new project to be developed in FY1992. However, based on the positive response from the Prime Minister and the Ministry of Health to the study results, USAID agreed with the Government of St. Lucia to implement selected recommendations on a demonstration basis in the interim. The work would serve as a model for improving the quality and sustainability of public health services throughout the Eastern Caribbean as well as provide direct benefits to Victoria Hospital. This report and deliverables are the result of this interim work.

JSI's initial report (August, 1990) presented four possible options for cost recovery. These are:

- Option 1 New Health Insurance Scheme and Administrative Fee
- Option 2 Fee-for-Service Charge Schedule with Sliding Fee
- Option 3 Existing NIS Subvention and Administrative Fee
- Option 4 Existing NIS Subvention, Hospital Per Diem Charge, and Administrative Fee

Although the conditions for successful implementation vary for each option, there are several conditions which were consistent across all options. These include:

- establishment of an autonomous Hospital Board of Management;
- establishment of a Health and Hospitals Trust Fund;
- implementation of admissions, discharge and patient accounting systems;
- implementation of a full cost accounting system;
- improvement of services, quality of care, and facilities;
- implementation of a public relations campaign; and
- replacement of the existing hospital fee schedule.

Discussions were held with the Ministry of Health, St. Lucia, on the desirability and appropriateness of implementing some of the various recommendations made by JSI as pilot projects. These discussions resulted in the development of the scope of work, outlined in the following section. The primary purpose of the assistance was to model selected management improvements in admissions, discharge, and patient accounting functions to test their effectiveness in improving efficiency and cost recovery. This work would also help bring the Ministry of Health closer to fulfillment of the elements (outlined above) required for the successful implementation of a national cost recovery program.

Management systems regarding admissions, discharge, and patient accounting functions were designed based upon the premises of cost recovery Option 4. Based upon discussions with Ministry of Health officials this option was considered the most likely to be adopted in the near future.

B. SCOPE OF WORK

The defined scope of work for this phase of the project originally included the following activities which were consistent with the goals and objectives of a long-term cost recovery project.

- Establish an admissions area and system. This included designing a temporary admissions area within the Victoria Hospital complex, establishing a formal admissions office and function, and identifying persons to staff the admissions office.
- Establish the Admissions Office and Patient Accounting Departments. This included developing principles of practice for the departments, creating job descriptions for staff, and training staff on policies and procedures regarding admissions, discharge, charge tracking, cashiering, and patient accounting functions.
- Implement Procedures for Admissions, Discharge, and Transfer (ADT) and Patient Accounting. This included conducting on-site training, facilitating the implementation of the new forms, processes, and procedures, and the development and installation of an automated management information system for processing admissions and discharges of all patients.

At the request of the Ministry of Health and with the approval of USAID RDO/C, the scope of work was modified to eliminate the development and installation of the automated management information system. This part of the project was eliminated because Pan American Health Organization (PAHO) is planning to automate several functions within Victoria Hospital, including patient admissions, and it was felt that JSI's work might be a duplication of effort. After discussions with the St. Lucia Ministry of Health, USAID RDO/C, PAHO and JSI, the GOSL requested that JSI continue with the plans to implement a manual admissions system and thus avoid difficult logistical coordination efforts with PAHO. Moreover, once in place, the manual systems could then be used by PAHO as a template for automation.

The revised scope of work also added the following tasks deemed essential by the GOSL:

- Develop Ob/Gyn clinical protocols;
- Develop facility utilization plan for the new Ob/Gyn wing;
- Evaluate materials management policies and procedures at Victoria Hospital and provide recommendation for improvements; and

- Provide worksheet templates for cost allocation and train staff on the cost allocation methodology.

In addition to the tasks outlined above, JSI was also requested to conduct an evaluation of PAHO's automated admissions system. However, we were unable to complete this task because key PAHO staff people were not available to meet with JSI during the project period. JSI does offer the following recommendations based on our insight into Victoria Hospital and our experience with the design and implementation of information systems. These recommendations are listed under Section D. "Summary of Recommendations."

C. PROJECT RESULTS

The project met with success in all areas of implementation and exceeded cost recovery expectations during the project period. Accomplishments and project results are summarized below.

1. Admission, Discharge, and Patient Accounting.

- Developed of Admissions, Discharge and Transfer (ADT) and Patient Accounting Policies and Procedures.
- Produced a comprehensive Policies and Procedures Manual.
- Determined staffing requirements for the new system in the affected departments of Admissions, Accounting, and Medical Records. Developed job descriptions for the new positions. Selected and trained staff.
- A temporary Admissions area was designed, constructed, and is currently in use. (Phase II, the construction of a admissions pavilion will be implemented by the GOSL after 4/92 as designed by JSI.)
- Worked with nursing and medical staff to implement interim charge tracking system.
- Implemented new ADT and Patient Accounting Policies and Procedures effective January 7, 1992.

2. Cost Recovery.

The admissions and patient accounting systems developed above used the existing fee schedules and exemption policies already in place at Victoria Hospital, and part of St. Lucian law.

- In the first week of implementation, collections during the day shift doubled to EC \$2,000 per day, versus the earlier collection rate of between EC \$1,000 and EC \$1,200 per day.
- Collections during extended evenings hours and added Saturday hours averaged EC \$140 and EC \$785, respectively. Assuming the same rate of collection, JSI projects that the introduction of evening

cashiering will bring in an additional EC \$36,400 per year, and Saturday cashiering, an additional EC \$40,800 per year.

- If the new systems continue to be operational at the present rate of effectiveness, the Ministry of Health could collect over the course of the year approximately EC \$597,000, which equates to EC \$311,000 in additional patient revenues.

3. Cost Allocation System.

- Designed and programmed a pc-based cost allocation system. JSI was unable to train the designated Hospital accountant on use of cost allocation worksheets because the individual had not yet joined Victoria Hospital's staff. Although the methodology and worksheets were reviewed with Mr. Enrico Lewis, Ministry of Health Accountant, JSI recommends that the Hospital accountant receive full training at JSI's corporate offices in Boston, MA. at a later time if funding can be secured for this effort.

4. Ob/Gyn Services Consultancy.

- Developed draft clinical protocols for common Ob/Gyn services.
- Reviewed policies and procedures for the referral of services from district hospitals and health centers to Victoria Hospital.

5. Materials Management.

- Developed and documented Materials Management Policies and Procedures.
- Drafted a job description for the proposed position of Director of Materials Management.
- Provided specific recommendations regarding improvements in materials management, including acquisition of more storage space, and addition of ramps to permit wheeled transportation of food, medical supplies, and patients.

6. Ob/Gyn Facility Review.

- Evaluated the new Ob/Gyn wing on the basis how best to integrate current operations with efficient and effective utilization of the new space.
- Provided specific recommendations regarding space utilization, staffing levels, and the purchase and maintenance of key equipment required to maintain and improve use of the new facility.

In addition to these tangible accomplishments, we believe that there are other more subtle, yet very important benefits of the work done. From the patient's perspective, the hospital as a whole should appear more organized, professional, and reliable as a result of new admissions office. The admissions office is the first and most public point of contact for patients.

This first meeting point gives patients the impression that the hospital is in control of patient flow, and instills confidence in the hospital's management and personnel.

The system also institutes a structured approach and procedures on which future cost recovery methods can be based and more easily implemented. For example, the staff and the systems are now in place to more quickly accommodate any future legislated changes in exemption policies or fee schedules.

D. SUMMARY OF RECOMMENDATIONS

1. Automated Admissions and Patient Accounting Systems.

- Computer automation of admissions and accounting functions should occur only after manual procedures are working flawlessly and clear advantages for automation are identified. At present, JSI sees automation of admissions and accounting functions as potentially high risk and low return.
- If and when computer systems are contemplated, long-term maintenance costs and capabilities must be considered in addition to the costs of acquisition.
- The automated admissions and patient accounting systems should be multi-user systems, otherwise the benefits of automation are severely limited.

2. Cost Allocation System.

- The Ministry of Health should secure training funds and send the Hospital staff accountant or designated person to JSI's corporate offices in Boston, MA, for a one to two week training on cost allocation methodology and use of the worksheets.

3. Clinical Protocol Development.

- Develop clinical protocols for ob/gyn services using draft protocols provided in this report as a guide.
- Develop clinical protocols for all major services provided at Victoria Hospital.
- Maintain the current triage arrangements with the district hospitals for provision of ob/gyn services.
- Do not establish delivery capabilities at the health centers. Rather, invest resources in expanding and/or improving delivery services at the three hospitals.
- Implement current plans to equip and staff district hospitals to perform minor surgeries.

4. Materials Management.

- Create the position of Director of Materials Management and hire a qualified individual to fill this position.
- Implement formal materials management policies and procedures; a proposed materials management manual is provided in section X of this report.
- Maintain complete and accurate inventory records. Undertake regular physical inventories and reconcile counts to inventory records.
- Relocate and expand the space used for Central Supply.

5. Ob/Gyn Facility Utilization.

- Convene a space utilization committee to evaluate the space and provide recommendations for appropriate use. The committee must have representation from the nursing staff to be effective.
- Evaluate the effect of the apparent disparity between the space configuration and the hospitals's Ob operational model on patient/work flow.
- Install an automated nurse call system.
- Do not reduce nursing staff levels for ob/gyn and evaluate the need to increase nursing staff levels given the increase in the number of beds and the smaller ward configuration.

E. NEXT STEPS

JSI's IQC contract expired on January 31, 1992. It is important to note that the benefits of work completed over the past year will quickly deteriorate if hospital staff do not continue progress with these efforts. To this end, we are providing a list of recommendations and next steps that will help ensure the continued success of the project.

In addition to the short-term and medium-term tasks outlined below, we believe that a detailed on-site evaluation of the newly implemented policies and procedures should be conducted in April 1992, or approximately three months after implementation.

1. Short-Term

These tasks should be completed by May 1992.

General

- Establish an Independent Hospital Board of Management
- Establish a Health and Hospitals Trust Fund

- Negotiate an increased NIS subvention to Health and Hospitals Trust Fund
- Train Hospital Accountant on Lotus 123, if he/she is not already proficient in using automated spreadsheet, and send accountant for training on cost allocation methodology at JSI's corporate offices.

Admissions Office

- Fill the remaining staff positions: 24-hour security coverage at front gate; ward clerks; and part-time admissions clerk.
- Upgrade positions for staff who are currently filling newly created admissions office positions to reflect expanded responsibilities.
- Construct Admissions Pavilion (see concept plans in Section VII, B.2).
- Acquire from outside vendors and the GOSL Printery an annual supply of forms needed for admissions and patient accounting functions.
- Compute cost per service and develop cost-based fee schedule.

Ob/Gyn Services and Facility Utilization

- Finalize Ob/Gyn clinical protocols and implement.
- Review nursing staff levels needed with the new facility and hire additional staff as needed.
- Establish facility review committee which consists of Ob/Gyn nursing and physician staff and which meets to discuss use of new wing and revise current space utilization plan as necessary.

Materials Management

- Hire Director of Materials Management.
- Implement Materials Management Policies and Procedures.
- Assign adequate storage space to Central Stores.
- Construct transport ramps.

2. Medium Term

These tasks should be completed between May, 1992, and April, 1993.

- Design and conduct public relations campaign around the themes of hospital improvement and patient fees (see Figure 1 and recommendations outlined in JSI's report, Victoria Hospital Cost Accounting Project Final Report, August 30, 1990).
- Implement administrative fee charge for all patients.

THE DYNAMICS OF VICTORIA HOSPITAL COST RECOVERY REQUIREMENTS

EXEMPTION POLICY

CLIENT

HOSPITAL

REQUIREMENTS TO SUSTAIN IMPROVEMENTS

REQUIREMENTS TO IMPLEMENT IMPROVEMENTS

Eligibility to pay

Willingness to pay

Improved management, billing, and collecting systems

Improved support systems: food, laundry, handypersons,

Improved medical care, and cost efficiencies from medical staff

Improved facilities

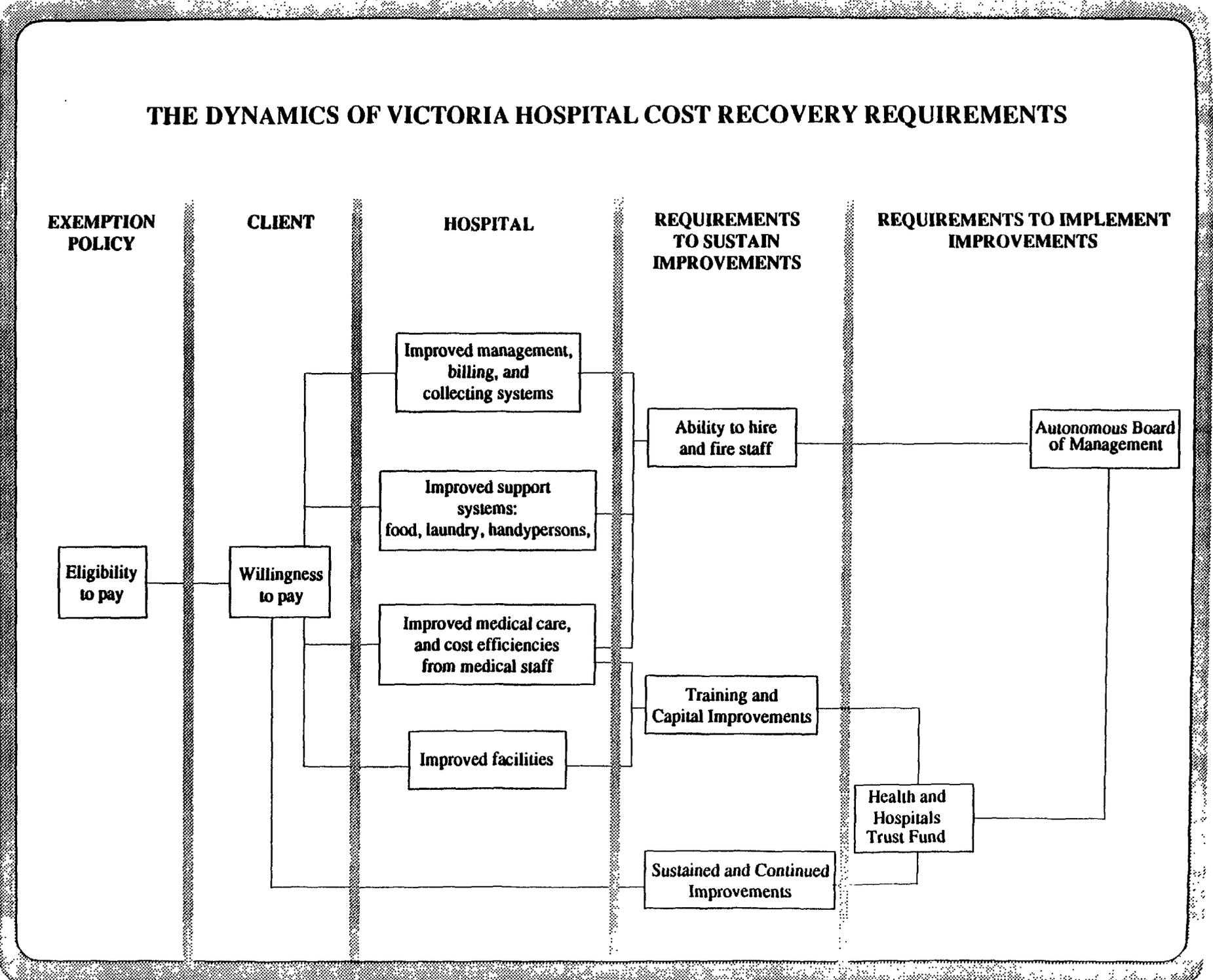
Ability to hire and fire staff

Training and Capital Improvements

Sustained and Continued Improvements

Health and Hospitals Trust Fund

Autonomous Board of Management



- Replace existing fee schedule with a ward cost-based per diem fee schedule.
- Develop and implement hospital-wide clinical protocols.
- Improve older hospital wards with paint, plumbing, sign upgrades, patient privacy screens and secure patient storage space.

E. CRITICAL ISSUES FOR SUSTAINING COST RECOVERY

The cost recovery aspects of this project are succeeding. However, our experience in other countries in similar cost recovery projects has demonstrated that it is very likely that the whole system will begin to deteriorate if direct benefits to the hospital, staff, and patients are not easily apparent. As detailed in our report dated August 30, 1990, and illustrated in Figure 1, the hospital is a dynamic system with interrelated parts. For example, increased collections benefit the hospital only if cost recovery funds are used to improve the hospital facilities, purchase needed equipment, develop the skills of existing staff, or otherwise improve the services provided to patients.

The following are critical to sustaining (and improving upon) the current cost recovery efforts:

- Establishment of the Hospital Board of Management and a Health and Hospitals Trust Fund. The Board must have autonomy, discretionary use of cost recovery funds, and control over personnel;
- Establishment of an incentive system for hospital staff which rewards individuals directly for increased responsibility and high levels of performance (e.g., a percentage of collections as a bonus, annual performance evaluations, etc.);
- On-going, strong management and control of the Admissions Office and Patient Accounting;
- On-going, strong security and control of patient access onto the hospital grounds and within the hospital; and
- An effective public relations campaign to manage the public's perception about the cost of services, the improved quality of services, and the cost recovery program.

II. DEVELOPMENT OF ADMISSIONS OFFICE AND PATIENT ACCOUNTING FUNCTIONS

A. SCOPE OF WORK

The success of the proposed cost recovery plans requires well functioning systems which support implementation and sustainability of the selected plan. During the first phase of this project it became evident that Victoria Hospital lacked standardized systems for admission, discharge, and billing which are needed to support any of the proposed cost recovery plans. Hence, before any cost recovery plan could be implemented, it was necessary to develop and implement systems for these supporting functions.

The supporting systems required to begin implementation of a cost recovery plan include:

- Inpatient Admission, Discharge and Transfer (ADT). Inpatient ADT systems are used to track patients as they move in/out and through the hospital. In addition, the admissions function is used to gather information which is subsequently used for filing insurance claims, billing patients, and collecting amounts due to the hospital, and the discharge system is used to collect amounts due at the time of discharge in accordance with the hospital's collection policy.
- Charge Tracking. Charge tracking is used to identify services which are provided to patients during their stay and the corresponding charges for services. Services include room and board, labs, radiology services, physician services, etc.
- Cashier. Cashier systems are used to collect amounts due from patients at the time of service and payments on account. In addition, the cashier system includes cash reconciliation and control functions.
- Patient Accounting. Patient accounting systems include charge entry, claims processing, billing, collection, and patient accounts management. Essentially, the patient accounting system summarizes charges, collections, and adjustments for each patient and for the Hospital in total. This information is used to identify outstanding balances for further collection and develop reports for patient accounts management.

The JSI project team worked closely with Ministry of Health and Hospital staff to successfully design, develop, and implement ADT, Charge Tracking, Cashier, and Patient Accounting systems. The following tasks and subtasks were undertaken during the systems design and development:

1. Design and construct an physical area to locate the Admissions Office.
2. Develop Principals of Practice for the Admissions Office.

3. Develop policies and procedures for each of the major functions (i.e., admitting, discharging, transferring patients, cashiering, charge tracking, charge entry, claims processing, billing, patient accounts management, and management reporting).
 - a. Define major functions.
 - b. Draft policies and procedures.
 - c. Write policies and procedures manual.
4. Design forms used for data and information flow.
5. Staff the Admissions Office and Patient Accounting Department.
 - a. Define staff positions and create job descriptions.
 - b. Determine number of full time equivalent staff needed by position.
 - c. Identify individuals to fill positions.
6. Train staff on policies and procedures.
 - a. Prepare training materials.
 - b. Conduct class room training.
7. Implement the new systems.

The ADT, Charge Tracking, Cashier, and Patient Accounting systems were designed to support future implementation of cost recovery Option 4 and, at the same time, support current charge and collection policies for the interim period. For example, the charge tracking system includes a mechanism for tracking individual charges to support the current fee schedule but a more elaborate charge tracking system (e.g., multi-part charge slips for each service area) was not developed in anticipation of implementing a per diem charge structure under Cost Recovery Option 4.

The systems were also developed to serve as the template for future automated systems. JSI focused on implementing manual systems as opposed to automated systems for three main reasons. First, it is our belief that a thorough understanding of the processes is needed before automated systems can be successfully installed. Given that Victoria Hospital staff have not been trained in formal ADT and Patient Accounting systems, automating these processes would be premature and could result in failure. Secondly, automation requires substantial investment in computer equipment as well as budgetary commitment for annual operating costs. Finally, PAHO has plans to develop and instal automated systems for hospitals throughout the Caribbean and, therefore, putting resources into development of automated systems would be an unnecessary duplication of efforts.

The following section describes in more detail the development and implementation of ADT, Charge Tracking, Cashier, and Patient Accounting systems and their effects on cost recovery.

B. SUMMARY OF WORK COMPLETED

1. Design and Construction of the Admissions Office.

The first step in establishing standardized admission and discharge functions was to construct an admissions area. Mr. Ken Hanover was engaged as the architect consultant to design the admissions area and provide construction plans.

Originally, the admissions area was to be located inside the main entrance gates adjacent to the existing outpatient waiting area (see Section VII.B. - "Concept Plans for Proposed Registration-Admissions New Pavilion"). However, time and budget constraints precluded the construction of the admissions area as originally planned. As an alternative, an temporary admissions area was designed by Mr. Ken Hanover and constructed by the Ministry of Health (see Section VII.A. - "Concept Plans for Proposed Interim Registration-Admissions Stations"). The temporary stations were designed to be constructed within budgetary limitations and in time for implementation of the new procedures schedule for early January, 1992.

The temporary Admissions Office is located in the outpatient waiting area of Victoria Hospital next to the Pharmacy and Outpatient Registration. In addition to the construction of the admissions area, the Outpatient Registration office was remodeled to place a window to the outside of the building. This change allowed for outpatients to queue to the outside to relieve congestion around the inpatient admissions area.

The admissions area will be moved to the originally designated location during fiscal year 1993 with the appropriation of necessary capital funds. Ultimately, a permanent admissions area will be constructed as part of Victoria Hospital's master renovation plans.

The temporary admission area was equipped with counter space, drawers, and electricity. A telephone will be installed in conjunction with the Hospital's new phone system scheduled for installation in early 1992. Finally, the master patient index card files were physically relocated from medical records to the admissions area.

2. Development of Principal of Practice for the Admissions Office.

The Principals of Practice define how the Admissions Office will operate (e.g., management structure, hours of operation, etc). The Principals of Practice were developed by members of the JSI project team with input from Mr. Paul Meroe, Hospital Administrator and Ms. Brunetta Willius, Medical Records Supervisor.

The Admissions Office Principals of Practice are summarize in Figure 2.

Figure 2 - Admissions Office Principals of Practice

Primary Functions: Central location for inpatient admissions and discharge and cashiering for all services.

Hours of Operation: Monday through Friday 8:30 am to 10:00 pm
Saturday 8:30 am to 4:00 pm
Sunday Closed
Holidays 8:30 am to 4:00 pm

Management: The Admissions Office is under the direction of the Medical Records Supervisor. Day-to-day operations are supervised by the Admissions Office Senior Clerk.

Staff and Work Schedules:

<u>Position</u>	<u>Hours Per Week</u>	<u>Work Schedule</u>
Admissions Office Senior Clerk	37.5	8:00 am to 4:30 pm, M-F
Inpatient Cashier	37.5	8:00 am to 4:30 pm, M-F
Admissions Clerk	37.5	4:00 pm to 10:00 pm, M-F 8:00 am to 4:30 pm, Sat
Outpatient Cashier	22.5	8:00 am to 12:30 pm, M-F

3. Development of Policies and Procedures.

Policies and procedures were developed for the following major functions:

- Admitting, transferring, and discharging patients;
- Cashiering;
- Charge tracking;
- Charge entry;
- Claims processing;
- Billing; and
- Patient accounts management and reporting.

Policies and procedures were developed based upon standard operating procedures for hospitals and observation of Victoria Hospital's current patient and information flow.

The policies and procedures are outlined in detail in an Admissions Office and Patient Accounting Procedures Manual included in Section VII.A. The Procedures Manual includes:

- Admissions Office Principals of Practice;
- Job Descriptions for each staff position; and
- Step-by-step procedures for each major function.

The manual included in this report is the master copy which was previously distributed to Mr. Percival MacDonald, Ministry of Health Permanent Secretary; Mr. John Husbands, Project Officer; Mr. Paul Meroe, Victoria Hospital Administrator and one copy was placed in the Admission Office. In addition, procedures manuals specific to each position were provided to the staff filling those positions.

As part of the development of the policies and procedures, JSI reviewed the current fee schedule as defined by St. Lucian law with Dr. James St. Catherine, Chief Medical Officer and Ms. Gustof, Associate Permanent Secretary. Issues discussed and clarified included charges for surgeon's fees versus hospital fees for surgical procedures, charges for physician consultations during the hospital stay, and payments to Victoria Hospital from private physicians for use of the operating theatre facilities.

4. Design Forms for Data and Information Flow.

Implementation of the new policies and procedures required the introduction of several new forms to support the flow of data and information to various hospital departments.

The new forms were designed or selected from vendor catalogs by members of the JSI project team in conjunction with Hospital staff. Where possible, forms were designed so that they could be produced by the Printery. However, several forms required purchase from an outside vendors because of the special processing requirements. Briggs and McBee were selected as vendors because they provide good quality forms that are also used by St. Jude Hospital. This is advantageous in that Victoria and St. Jude could enter into a joint purchasing arrangement for forms.

JSI computed the estimated annual volume of forms based upon projected volume of activity and assisted Victoria Hospital in the initial procurement process.

For forms to be produced by the Printery, JSI 1) provided templates for the new forms, and 2) provided a four to six month supply to allow for the lead time in placing and receiving an order through the Printery. For those forms to be purchased by outside vendors, JSI 1) purchased a four to six month supply on behalf of Victoria Hospital, 2) provided Victoria Hospital with catalog numbers of forms and supplies to be purchased from the outside vendors, and 3) provided instructions for purchasing supplies from outside vendors including the provision of names of representatives and invoice processing instructions.

In addition, JSI purchased general office supplies needed to successfully implement the new procedures. Office supplies includes manilla folders, pens, paper clips, in/out baskets, and various binders.

5. Determination of Staffing Requirements and Staff Selection.

The successful operation of the Admissions Office over the long term depends upon having adequate levels of skilled staff. Ms. Brunetta Willius, Medical Records Supervisor, was selected to have overall management of the Admissions Office because of her extensive knowledge and experience in medical records and hospital operations. Ms. Fortuna Remy was selected to fill the position of Admission Office Senior Clerk who is responsible for the day-to-day operations of the Admissions Office. Ms. Willius was primarily responsible for selecting the individuals to fill the various positions with input and assistance from members of the JSI project team.

The number of full time equivalents needed to adequately staff the Admissions Office was computed based upon estimated volume of activity and estimated time needed to complete the various tasks. The staff were obtained through 1) transfers from the Medical Records Department and Accounting Department and 2) new hires.

Individuals transferred from Medical Records and Accounting were those individuals who were currently performing functions which would now be performed by the Admissions Office (e.g., maintaining an admissions log and cashier). In addition, the Ministry of Health was able to obtain approval to hire two new staff despite being in the middle of the budget cycle.

The remaining unfilled positions have been included in the FY93 budget proposals and should be filled starting April 1, 1992. Moreover, the budget include increases in job classifications for those persons who have taken on greater responsibilities with the addition of the Admissions Office.

In addition to the Admissions Office staff, the positions of Ward Clerks were created. Ward Clerks are needed to coordinate admissions, transfers, and discharges between the Wards and the Admissions Office. In addition, Ward Clerks facilitate charge tracking. Ward clerk positions were originally assigned to medical record runners. However, during the initial training it became evident that ward clerk positions required significantly greater skills and knowledge than previously anticipated. Ward clerk positions were then assigned to individuals with the required skills. The Ministry of Health was able to fill two of the five ward clerk positions; the remaining positions are included in the FY93 budget proposals and will be filled starting April 1, 1992. In the interim, the two Ward Clerks were assigned to the wards with the greatest volume and nursing staff of the other wards graciously agreed to complete ward clerk duties during the interim period.

6. Train Staff.

The Admissions Office and Patient Accounting Staff as well as Ward Clerks and Ward Sisters were trained on the new policies and procedures. JSI conducted three training sessions as follows:

- One-week classroom training for all functions;

- One-day review course for admission, discharge, and cashiering just prior to full implementation; and
- On the job training for all functions during the first week of implementation.

The classroom training sessions were held at the Nurses Home located on the Victoria Hospital campus. JSI developed the training agenda and materials and used lecturing, role playing, and written exercises to complete the training. The complete training agenda is included as Figure 3.

The one-day review course was held on January 6, 1992, one day prior to full implementation. The review course concentrated on admission, discharge, and cashiering functions because these would involve direct contact with patients. The review course provided an opportunity for those who had attended the one-week training to clarify any remaining questions and renew what they had learned. In addition, the review course served as training for those individuals who had just been hired and were not present for the initial sessions.

Ms. Keehn and Ms. Chase of the JSI project team conducted on site training during the first week of implementation. The on site training proved to be very helpful since we were able to address questions and solve problems first hand.

Overall, the training sessions went very well. The Victoria Hospital staff were very attentive and eager to learn. Moreover, the investment in training proved to be essential for successful implementation.

6. Implementation

The new policies and procedures were implemented effective January 7, 1992. Overall, the new policies and procedures were well accepted by both staff and patients. There were somewhat longer queues early in the week as staff adjusted to the new forms and procedures, but they were getting shorter as the week progressed. There was substantially greater volume in the morning hours which indicated that three persons were required during this time. The additional half time position (i.e., Outpatient Cashier) is included in the staff requests in the FY93 budget.

C. INITIAL RESULTS

The new procedures resulted in greatly improved cost recovery. During the first week of implementation, collections averaged EC \$2,000 per day during the day shift which is a substantial increase from the previous average of EC \$1,000 to EC \$1,200 per day. Collections during the expanded evening hours for the Admissions Office (4:30 pm to 10 pm Monday through Friday) averaged EC \$140 per day and EC \$785 was collected on the first Saturday with the Admissions Office open; this equates to annual collections of EC \$77,200.

The increase in collections is especially significant given that the increase occurred without any increase in charges, change in the exemption

Figure 3

VICTORIA HOSPITAL TRAINING
AGENDA
November 12-14, 1991

Tuesday Afternoon Session: OVERVIEW

Attendance: Permanent Secretary (attended instead early Weds. briefing)
Health Planner (same)

Administrator
Medical Director
Matron
All involved Medical Records Staff

Goals for the Project:

increase cost recovery for the hospital
streamline admission and discharge procedures
improve service delivery

Affected Areas:

Medical Records
Admissions (new)
Wards
Patient Accounting (new)

Process under OLD method:

self directed admissions and discharges
process dispersed between departments
little control
unclear problem-solving authority/responsibility

Process under NEW method:

centralized
defined roles and responsibilities

Benefits of the NEW method:

increase revenues due to better procedures and collections
more control over patient flow
easier to track patients' location, services, charges, payment status
more patient confidence in services due to improved hospital organization
job enhancement for those involved (more defined task allocation
better procedures
clear performance expectations)

What is the NEW method?

For In-patients: admission, discharge, transfer
For Out-patients: registration and collection

Figure 3, continued.

Patient Flow for Out-Patients

Patient Flow for In-Patients

-emphasize need for physician authorization form

Information Flow

Overview of Admissions Office:

Hours (include procedures for after hours -- Emergency Admissions
Discharges w/out permission)

Staffing
Management
Location

Questions

Wednesday morning session: ROUTINE IN-PATIENT ADMISSION AND DISCHARGE
AND ROUTINE OUTPATIENT VISITS

Attendance: Sr. Admissions Clerk
Admissions Clerk (Interim)
In-patient Cashier

Detailed Patient Flow

Admissions followed by role playing
Outpatient Visits
Discharges followed by role playing
Payments on account

Detailed tasks by job description

Out-Patient Cashier
In-patient cashier
Admissions Clerk

Wednesday afternoon session: TRANSFERS AND NON-ROUTINE PROCEDURES

Attendance: Admissions Senior Clerk
Admissions Clerk (interim)
Inpatient Cashier

Detailed tasks of Admissions Senior Clerk

includes review of routine admission and discharge
introduces transfers, update of bed charts, nighttime admits

Overview of information flow

Role-playing in problem/difficult situations

Thursday morning session: ROLES AND RESPONSIBILITIES OF WARD CLERKS

Attendance: Head Nurses from Ob/Gyn and Casualty (who will train other nurses)
1 Ward Clerk
Sr. Admission Clerk

Patient flow:

in, transfer, discharge

Charge tracking

Information flow for ward alone

Night admissions

Role playing

Interaction with nurses, task allocation

Thursday afternoon session: PATIENT ACCOUNTING AND CASH CONTROL

Attendance: Patient Accounts Clerk
Admissions Senior Clerk
Inpatient Cashier
Accounting Supervisor

Handling of Cash

cash drawer preparation
checking daily cash log
deposits (should be done by someone else)

CASHIERS LEAVE

Daily Routine:

Admission slips: setting up ledger, verify insurance
Discharge folders: patient billing, processing insurance claims

Role playing (routine)

Monthly Routine:

Patient statements
Resubmission of insurance claims
Summary of charges
Reconciliation of Patient Ledger Cards

Role playing (problems)

policy, or implementation of the administrative fee. The increase in collections can be attributed to implementation of standard operating procedures and well functioning systems.

In addition to the additional cost recovery, the implementation of the new admissions and patient accounting systems had other indirect benefits. Development and implementation of the new systems were completed with significant input from the Hospital's staff. This involvement gave the staff a sense of empowerment and responsibility. Furthermore, the staff were able to better understand how they contributed to the Hospital's overall operations and they had a greater sense of organization and accomplishment.

III. COST ALLOCATION METHODOLOGY

In the original phase of the cost recovery project, JSI developed a cost analysis of Ob/Gyn services with the objective being to compute the actual full cost of providing Ob/Gyn services at Victoria Hospital.

For this phase of the project, the methodology was generalized to be used for all hospital services and worksheets were developed to implement the methodology. The cost allocation method will be useful in two respects. First, the cost allocation worksheets can be used to determine the Hospital's cost of providing specific health care services. Secondly, the cost allocation serves as the basis for computing the percentage of cost recovery by service.

The cost allocation methodology was developed based upon Cost Recovery Option 4 which includes the provision of a hospital per diem charge. Hence, the costs of administrative support departments as well as medical ancillary departments (e.g., laboratory and radiology) were allocated to three major service areas: inpatient wards, operating theatre, and outpatient services. Costs per unit of service were computed for the three major service areas.

The general steps for conducting a step down cost allocation are outlined below (detailed instructions are provided in Section VIII):

- Step 1. Obtain Victoria Hospital's (account 2725) final annual expenditures for the fiscal year.
- Step 2. List hospital departments and divide into one of two categories: 1) patient service departments or 2) support service departments.
- Step 3. Allocate direct costs to each of the defined departments.
- Step 4. Using the step down allocation worksheets, allocate costs from support service departments to patient service departments.
- Step 5. Compute total costs for each patient service department.
- Step 6. Define units of service for each patient service department (e.g., patient day, outpatient visit, etc.).
- Step 7. Input annual volume of units of service.
- Step 8. Compute cost per unit of service.

The cost allocation methodology will be implemented through the use of cost allocation and step down worksheets. The worksheets developed by JSI are:

Worksheet A: Allocation of Direct Costs
(with supporting schedules)

Worksheet B: Allocation of Indirect Costs

Worksheet B.1: Allocation Statistics

Worksheet C: Total Cost Per Unit of Service

The cost allocation worksheets were developed in Lotus 123 version 2.2 and provided to Victoria Hospital on diskette as well as hard copy. Sample worksheets are included in Section VIII.

JSI had also planned to train a designated Hospital staff accountant on using the cost allocation methodology and worksheets. However, the person designated for training was not on staff during the project period. During the last day on site, Ms. Keehn was able to review the methodology and spreadsheet with Mr. Enrico Lewis, Ministry of Health Accountant. However, JSI recommends the Ministry of Health secure training funds to send the person who will be in charge of the cost allocation system to JSI's offices in Boston, MA, USA, for a more thorough training over a one to two week period. The person sent for training should be proficient with Lotus 123 and have a strong understanding of cost accounting concepts. Alternatively, Mr. Lewis could attend the training and subsequently train the Hospital accountant on the methodology and worksheets.

IV. CLINICAL PROTOCOL DEVELOPMENT FOR OB/GYN SERVICES

Dr. Mary Gatter, an Ob/Gyn specialist conducted two site visits to Victoria Hospital to develop Ob/Gyn clinical protocols, review the relationship between the hospitals and health centers in providing Ob/Gyn services, and provide input into the facility utilization plan for the new Ob/Gyn wing.

The major findings and recommendations are outlined below. The complete report follows.

Major Findings

Protocol Development. There is no formal consensus between the Ob/Gyn physicians regarding clinical protocols. This prevents the implementation of a quality assurance programs (since there are no standards). Protocols are also valuable to new or junior staff for orientation.

Utilization of New Facility. The new Ob/Gyn facility will have an effect on nurse staffing levels, capacity, and delivery process. At 2-3 nurses per shift for 24-40 patients, staffing is already lean. The new configuration, converting an open ward to a series of smaller rooms, might necessitate an increase in staffing. The combined capacity of the Ob/Gyn floors (64 beds) should accommodate the maximum census of 58 patients and thus eliminate the necessity of "cotting" overflow Ob patients; however, occupancy rates would still be high at 90 percent. Moreover, the capacity measures assume Ob patients can be assigned to Gyn beds.

Recommendations

Protocol Development. Victoria Hospital staff physicians should develop final protocols for Ob/Gyn services using the draft developed by Dr. Gatter as a guide. Draft protocols are provided in Section IX.

Referral Policies to Victoria Hospital. Keep current triage arrangements with districts hospital, which appear to be functioning well. However, review current criteria for delivery at Victoria Hospital versus the district hospitals and revise as needed. Do not attempt to establish delivery capabilities at health centers, as these are not now appropriately staffed or equipped for deliveries. Encourage current plans to equip and staff outlying hospitals to perform minor surgery on site.

Use of New Facility. Review length of stay for Ob/Gyn services and reduce where appropriate. Establish nurse staffing levels based upon the added capacity and facility layout of the new Ob/Gyn wing; do not plan any nurse staffing reductions. Work within the current physical configuration toward an LDRP situation.

Deliverables

- Draft Protocols for Common Obstetrical and Gynecological Conditions (see Section IX)

SITE VISIT REPORT

VICTORIA HOSPITAL, CASTRIES, ST. LUCIA

October 23 - 26, 1991

December 2 - 3, 1991

Consultant: Dr. Mary Gatter, M.D.

Subjects: Clinical Protocol Development for Ob/Gyn Services
Facility Utilization of New Ob/Gyn Wing

I. INTRODUCTION

Dr. Mary Gatter, an Ob/Gyn specialist, provided consultation in three areas:

1. Develop draft clinical protocols for common ward diagnosis and ward policies in consultation with the medical staff and the Ministry of Health.
2. Review and make recommendations regarding the relationship between primary levels of care and the Victoria Hospital Ob/Gyn ward and district hospitals (Dennery and Soufriere).
3. Assist the JSI project team in developing a Facility Utilization Plan for the newly constructed Ob/Gyn wing of Victoria Hospital.

The methodology for preparing recommendations was interviews with hospital-based consultants and staff, visits to delivery sites, and reviews of manuals/protocols currently in use. A list of persons interviewed is included at the end of this section.

II. MAJOR FINDINGS AND RECOMMENDATIONS

A. Protocols for Patient Management.

A protocol is a written set of standards or guidelines outlining which activities or set of responses will occur (or should occur) in response to a given set of clinical circumstances. Examples might include "indications for

fetal-maternal transport" or "management of amniotic fluid embolus." Protocols are helpful not only to junior staff or newly arrived staff (in order to orient them to the practices of the existing group) but are also a prerequisite in establishing quality assurance programs, since deviations from the standard of care can be identified only insofar as actual standards of care have in fact been agreed upon. Additionally, the process of drafting clinical protocols serves as a useful vehicle for the staff to become explicit about differences among themselves on clinical management issues which may heretofore have been either unstated or unrecognized.

The Ob/Gyn staff at Victoria Hospital have already had some experience with protocol development, as they participated with the pediatric staff and the Ministry of Health in producing the very useful booklet "Maternal and Child Health Manual." This manual was first developed in 1985 and is currently undergoing revision. This manual is essentially "a protocol for antepartum management," as well as for other issues pertinent to maternal/child health.

Draft protocols were developed by the consultant for conditions present with the most common Ob/Gyn discharges at Victoria Hospital. The most common discharge diagnoses in Ob/Gyn at Victoria Hospital and the corresponding list of protocols developed by the consultant are listed below:

Most Common Discharge Diagnoses in Ob/Gyn at Victoria Hospital:

650	Spontaneous vaginal delivery
660-669	Complications during pregnancy
630-639	Pregnancy with abortive outcome
617-629	Disorders of the female genital tract
640-648	Complications related to pregnancy
614-616	Pelvic inflammatory disease
651-648	Other indications for care in pregnancy, L&D
610-611	Disorders of the breast
670-676	Complications of the puerperium

Draft Protocols Were Developed For:

Management of Induced Labor
Management of Breech Presentation
Management of Vaginal Delivery after Cesarean Section
Management of Ectopic Pregnancy

Management of Dysfunctional Uterine Bleeding
Management of Pelvic Pain of Adnexal Masses
Management of Pregnancy Induced Hypertension
Management of Antepartum Fetal Death
Management of Pelvic Inflammatory Disease
Management of Post-Partum Hemorrhage
Management of One-Day Surgery Unit

The draft protocols are included in Section IX as a deliverable. The draft protocols were developed based upon standard operating procedures for hospitals and other health care facilities in the United States of America (several of the protocols were developed using the University of Connecticut (UCONN) clinical protocols).

Realizing that clinical protocols developed for implementation in the USA may not be directly applied in the Caribbean, an attempt was made to modify the protocols to work within the technology and other resources available in St. Lucia; however, critical components of the protocols were maintained regardless of the resources available. In addition, an attempt was made to obtain clinical protocols from hospitals operating in Barbados and Jamaica (two hospitals familiar to JSI and the St. Lucian Ministry of Health).. However, clinical protocols for Ob/Gyn were not available as they had not yet been developed by either facility. Clinical protocols for Ob/Gyn services were received from St. Jude's Hospital in View Forte, St. Lucia, but upon review it was noted that St. Jude's protocols dealt mostly with administrative, and not clinical matters.

Recommendations:

1. Review the draft clinical protocols for selected Ob/Gyn services (included in Section IX) for potential applicability to the Ob/Gyn services at Victoria Hospital. Use consensus building processes among physicians to modify the draft protocols and develop protocols which are appropriate for Victoria Hospital.
2. Develop clinical protocols for all of the major Ob/Gyn services provided at Victoria Hospital. A list of possible topics for protocol development are included in Table IV-1. Use consensus building among physicians to develop the protocols.

Table IV-1
List of Possible Topics for Protocol Development

Management of Spontaneous Labor and Delivery
Management of Fetal Distress
Management of Induced Labor**
Management of Breech Presentation**
Management of Vaginal Delivery after Cesarean Section**
Management of Spontaneous Abortion
Management of Ectopic Pregnancy**
Management of Dysfunctional Uterine Bleeding**
Management of Pelvic Pain of Adnexal Masses**
Management of Uterine Cancer
Management of Pregnancy Induced Hypertension**
Management of Premature Labor
Management of Prolonged Pregnancy
Management of Multifetal Gestation
Management of Antepartum Fetal Death**
Management of Pelvic Inflammatory Disease**
Management of Amniotic Fluid Embolus
Antepartum Care Guidelines (see "Maternal/Child Health Manual")
Management of Breast Masses
Management of Post-Partum Hemorrhage* *
Management of a One-Day Surgery Unit **

** Sample protocols are included as part of this report; see Section IX.

B. Relationship Between Primary Levels of Care and Inpatient Care for Ob/Gyn Services.

The primary objective of this part of the project was to define the relationships among Victoria Hospital, District Hospitals (Dennery and Soufriere), and the Health Centers when providing Ob care, specifically, labor and delivery.

Soufriere District Hospital contains a 10-bed labor and post-partum ward, with an attached 2-bed delivery area. It is staffed by 6 nurse midwives who rotate shifts and coverage. The nurse midwives are responsible for admissions, triage, labor, delivery, nursery and postpartum care. They also operate the out-patient clinics in family planning, prenatal care, and gyn. They supervise the workers caring for the rest of the non-maternity patients in the hospital. If a patient needs to be transferred to a tertiary care facility during labor, the nurse midwife will accompany the patient to St. Jude's or Victoria while her place in the hospital is covered by the district medical officer. The nurse midwives are currently delivering low-risk multiparous patients only. The hospital is now delivering 10-18 patients per month, with 148 deliveries in 1990. The average length of stay (ALOS) post-partum was 48 hours. Most patients leave the hospital breast-feeding. The nurse midwives participate in continuing medical education (CME) activities with regularly scheduled interactive satellite instruction from the University of the West Indies. Some antenatal care is provided by nurse midwives who staff the out-lying health centers. A Gyn consultant makes regularly scheduled visits, and is contemplating the addition of minor surgery capabilities in order to perform tubal ligations and other procedures on site.

Dennery District Hospital contains a 4-bed post-partum ward with a 1-bed delivery room. There are 4 nurse midwives who function similarly to the medical staff at Soufriere. The ALOS post-partum is 24 hours and the hospital averages 8 deliveries per month. Approximately 5-10 percent of the patients deliver at home prior to reaching the hospital, some because of transportation difficulties, and some in an attempt to avoid the EC\$25 delivery fee. Dennery's participation in CME by staff, transport criteria, provision of antenatal care, and relation to the health centers are all similar to Soufriere District Hospital.

The Castries Health Center was visited and was assumed to be prototypical of all health centers on the island. Antenatal care is provided by nurse midwives in accordance with the standards set forth in "Maternal and Child Health Manual." No deliveries are currently being done at the Health Centers.

Recommendations:

1. Maintain the current triage arrangements with the district hospitals which appear to be functioning well.
2. Maintain the current criteria for delivery at Victoria Hospital versus the two district hospitals as outlined on Table IV-2. However, the criteria should be reviewed periodically (e.g., annually) for continued appropriateness and revised as necessary.
3. Do not establish delivery capabilities at Health Centers, as these are not now appropriately staffed or equipped for deliveries; any additional resources for expanding and/or improving delivery services should be invested in the hospitals.
4. Encourage current plans to equip and staff district hospitals to perform minor surgery on site.

Table IV-2
Criteria for Delivery at Victoria Hospital versus District Hospitals

Patients meeting the following criteria may be delivered at Soufriere or Dennery Hospitals:

- Multips having gravidy 2 - 5
- Length of gestation 36 - 41 weeks
- Singleton, vertex presentations
- Spontaneous labor
- Anticipated vaginal delivery

Patients meeting the following criteria must be delivered at Victoria:

- Primips
- Patients requiring induction
- Patients requiring cesarian section
- Breech presentation
- Multifetal gestations
- Gravidy >5
- Gestation <36 or >41 weeks
- Pregnancy complications such as PIH, DM, Abruption, SLE, Previa, Asthma, Renal disease, Hemoglobinopathies,etc.
- Severe IUGR
- Trial of scar

C. Utilization of New Ob-Gyn Wing

1. Labor and Delivery Model

The new Ob/Gyn wing, which is scheduled for opening in the Spring of 1992, consists of a ground floor, now slated to house out-patient clinics and ancillary support services; a second floor of 32 beds (8 4-bed rooms), now slated to serve Gyn patients with some overflow of antenatal and post-partum patients; and a third floor, also composed of 32 beds (same 8 4-bed rooms), designed to provide labor, delivery, recovery and post-partum services. This third floor also contains 2 delivery rooms and one operating room. The second floor contains a ramp attached to the current hospital in order to facilitate transfer of post-op patients to and from the Operating Theatre (O.T.).

The current trend in designing Ob units is to combine labor, delivery, recovery and post-partum functions into one space per patient("LDRP" room). This necessitates "cross-training" of labor nurses, nursery nurses, and post-partum nurses. Fortunately, the current staff at Victoria Hospital are already cross-trained in that all Ob nurses (who are all nurse midwives) already perform all three functions. However, converting from an open ward to a series of smaller rooms might necessitate an increase in nursing and other clinical support staffing levels.

2. Capacity

The new Ob/Gyn wing with 64 beds will provide substantially greater capacity for the delivery of Ob/Gyn services. However, there remains some concern regarding high occupancy levels, especially for Ob. The Ob census ranges from 25-40 patients and the gyn census averages 18 patients. At full occupancy of both Ob and Gyn beds (i.e., 58 patients), the occupancy rate will be 90 percent. While this is higher than the desired occupancy level of 80 to 85 percent for operational efficiency, it should eliminate the necessity of "cotting" overflow patients. However, this assumes that Ob patients can be shifted to Gyn beds. Assuming this is not possible, Ob occupancy rates could be as high as 125 percent. Clearly an occupancy rate of 125 per cent is not desirable. Conversely, Gyn beds would be underutilized with an average occupancy rate of 25 percent.

The projected occupancy rates are based upon current practice patterns. If an effort were made to actually modify practice patterns by diminishing the ALOS sufficient additional space could be freed to accommodate Ob patients or to decrease waiting time for elective gyn surgery. Recommendations for

decreasing length of stay and recommended length of stay for common Ob/Gyn services were provided in JSI's final report for the first phase of this project, see Section VII, "Medical Review of Obstetrical and Gynecological Services at Victoria Hospital," Victoria Hospital Cost Recovery and Accounting Project, dated August 30, 1990.

3. Effect on Nurse Staff Levels

At 2 to 3 nurses per shift for 25-40 patients, staffing is already "lean" according to recommended staffing guidelines for perinatal care. By moving the current staffing configuration to the new 32-bed Ob ward, with its change from open wards to smaller 4-bed rooms, more nursing staff may in fact be required.

Recommendations:

1. Review recommendations for reducing length of stay for Ob/Gyn services and implement recommendations as appropriate.
2. Maintain at least existing inpatient nurse staff levels and review the need to increase nursing and other clinical support staff given the increase in number of Ob/Gyn beds and new configuration of the units.
3. Work towards an LDRP situation within the current physical configuration of the Ob unit (for further discussion see the consultant architects's report included in Section VI).

Persons Interviewed during the Site Visits:

At Ministry of Health:

Mr. Percival MacDonald

At Victoria Hospital:

Dr. Louisy
Dr. Chase
Dr. St. Rose
Dr. Marias
Mrs. Willius

At Castries Health Center:

Sister Lawrence
Sister Serieau

At Dennery District Hospital:

Midwife Lilet Wayne
Midwife Jennifer Clauzel
Midwife Djaiminie Virasawmi
District Health Officer

At Soufriere District Hospital:

Midwife Marie Nieve
Midwife Henry
Midwife June Ann Lynch
Midwife Mary Beausoleiu
Midwife Jessinta Brouet

V. EVALUATION OF MATERIALS MANAGEMENT

Two consultants studied materials management at Victoria Hospital. Paul Campbell, a health planner, spent four days on site and provided recommendations regarding the management of space, material, systems, and personnel. Ken Hanover, a health care architect-planner, spent two days on site examining the requirements and options for the physical space and intra-hospital transportation.

Major findings and recommendations are summarized below. Complete reports on materials management follow.

Major Issues

Inventory Management. There is inadequate and incomplete record keeping of supplies inventory (i.e., quantities purchased, requisitioned, used, and on hand). Medical supply usage is not tracked by ward or in total and, therefore, it is not possible to forecast needs nor budget utilization of supplies by ward. The result is supply shortages, or even outages of needed supplies.

Storage. With regards to storage: capacity is inadequate; the store room is dirty and disorganized; there is no temperature control.

Purchasing. Purchasing of supplies and equipment is not centralized. Vendors selection can vary literally with each purchase leading to little standardization of equipment. Furthermore, equipment purchases often do not consider the cost of needed supplies or maintenance costs. As a result, unusable equipment is scattered throughout the hospital and disabled machines will continue to be a problem of increasing severity.

Equipment Maintenance. There is a lack of preventive maintenance scheduling, inadequate staff training, inadequate equipment repair facilities, and a lack of sufficient spare parts.

Transportation within the Hospital. The lack of ramps to facilitate wheeled transport places unnecessary physical burdens on the staff and leads to continual inefficiencies.

Recommendations

Improvement in Record-Keeping. It is imperative that the hospital maintain adequate inventory records, on either a manual or computerized basis. The MMSU can serve as a model. Regular physical inventories should also be undertaken and the counts reconciled with inventory records.

Improvement in Central Supply. New space for Central Supply is critical. Options for where to locate Central Supply are offered. The room(s) must be clean, supervised, organized with appropriate shelving and, for those materials subject to degradation, temperature controlled.

Enhancement of Medical Supply Purchasing. Improvements in purchasing need to stem from improvements in both the financial control system of the

hospital, and inventory record-keeping (specifics are provided in the report).

Enhancement of Equipment Purchasing and Maintenance. Involve equipment maintenance staff in equipment purchasing decisions. Remove all non-functional equipment from wards. Implement a program of preventive equipment maintenance (and institute training program).

Installation of Ramps. Creation of cart accessibility for materials handling throughout the hospital is strongly recommended. The installation of four ramps, at low cost, would make nearly the entire hospital accessible to wheeled patient and material transport. The specific locations of the proposed ramps are shown in the architectural renderings provided in Section X.C.

Improvement in Organization. The most important action that the Ministry of Health can take is to appoint a person with strong organizational skills as Director of Materials Management to supervise supply operations at MOH facilities outside of Victoria Hospital, as well as at units within the Hospital (a consolidation of two currently separate units).

Deliverables (see Section X)

- A. Job Description of Director of Materials Management
- B. Procedures Manual for Materials Management
- C. Architectural Renderings for Transportation Ramps and Potential Central Supply Locations

SITE VISIT REPORT

VICTORIA HOSPITAL, CASTRIES, ST. LUCIA

December 3-6, 1991

Consultant: Paul Campbell, MPA, ScD
Consultant, JSI
Lecturer on Management, Harvard School of Public Health

Subject: Materials Management

I. INTRODUCTION:

I was asked to conduct a review of materials management activities at Victoria Hospital and to recommend policies and procedures which would lead to an upgrading of this function. Below I have listed the major issues which I uncovered during my brief December visit, along with recommendations for improvements. Enclosed with this report is a job description for a **Director of Materials Management**, and a draft **Materials Management Manual**. Both department job descriptions and the manual will require considerable development in close collaboration with the key person or people identified to take responsibility in this area. The material that I have included in these papers should only serve as a first draft, and a catalyst for the evolution of far more detailed documents by those committed to using them. I am hoping that these refinements will be completed in the coming months as there are serious problems which warrant attention at the highest level.

The issues listed below are: inventory management, storage, purchasing, equipment maintenance, and transportation within the hospital. My recommendations for the St. Lucia Ministry of Health (MOH) follow descriptions of the problems observed.

II. MAJOR ISSUES:

A. INVENTORY MANAGEMENT:

Central to a Materials Management system is a method of **record keeping** in order to control inventory. Without adequate records of additions (purchases) to and subtractions (distributions) of inventory, and therefore supplies on hand, many other important tasks become difficult or impossible. For example, a purchasing process without this kind of record keeping would either require continual physical inventories or run continual deficits. The lack of these kinds of records also makes it very difficult to detect concerns like theft.

Inventory records which are kept up to date can be checked periodically against physical inventories in order to reveal losses.

Hospitals may keep inventory records on either manual or automated systems. The current Victoria Hospital system, basic and adequate in theory is manual and utilizes a book for recording purchases and distributions. (Stock cards are more frequently and conveniently used, due to the ease of adding and subtracting individual cards, versus pages in a bound volume). The MOH Medical Supply Unit (MMSU) uses both an automated and a manual (stock card) system.

In fact, Victoria Hospital does not have current medical supply inventory records. Purchase orders are completed, and apparently processed through the MOH. But record keeping at and following the point of receipt at the hospital has not been maintained. I checked the medical supply book and found that there have been no entries since 1989. Not surprisingly, there have been serious outages of important supplies, at least once leading to the shutdown of the surgical theater due to the lack of wraps and sutures. In addition, during my visit I did hear comments regarding the possible theft of medical supplies and resale on the private market; such loss is impossible to verify without records.

B. STORAGE:

I visited both central and ward storage areas. Major problems in central storage areas included inadequate:

1. Capacity
2. Organization
3. Cleanliness
4. Temperature control

I am not aware of standards for Central Stores capacity specifically for the Caribbean area. In the U.S. a guideline accepted by many hospital planners is 10 square feet of space in Central Stores per inpatient bed. In St. Lucia, one would expect less central storage than the U.S. due to the likelihood that less material, certainly less in the way of disposable supplies, would be stored. However, there are countervailing factors. In the U.S. many medical supplies can be maintained on a "stockless" basis, meaning that the hospitals can rely on vendors storing high volume supplies, and delivering them on demand. In addition, all wards within a U.S. hospital are likely to be temperature controlled, and are therefore capable of storing more material. At Victoria Hospital, planning for storage must take into account that St. Lucia is an island, and that additional supplies are not available from conveniently located suppliers. Secondly, only the new Ob/Gyn addition is air conditioned. Supplies do deteriorate due to continued high temperatures. The suture problem mentioned above in the surgical theater was due at least in part to the deterioration of these essential supplies.

Currently the hospital has approximately 700 square feet of space in the three small rooms that constitute Central Stores. This is a far less capacity than called for in the standard mentioned above. While the norm of 10 square feet per inpatient bed (or over 2,000 total square footage) may not be appropriate for St. Lucia, more than current capacity of 700 square feet is required.

Maintaining organization in the storerooms is very important. Orderly storage facilitates efficient distribution and inventory-taking, and reduces slippage. In addition, the appearance of order has a psychological impact on the staff who come into contact with the facility. Just as the new Ob/Gyn wing enhances the feeling of professionalism for all those able to work there, the current disarray in the storerooms detracts from that sense of professionalism. It is unlikely that anyone who picks up material in the current storerooms is stimulated to maintain order on his or her own ward supply shelves.

The central storerooms are not only in disarray. They are also dirty. Boxes are half-empty and lying directly on the floor, i.e. not on platforms. The rooms themselves appear to have not had a general cleaning for a long time.

The last problem, that of temperature control, is critical for certain supplies, as evidenced by the rotting of sutures mentioned above. The current storerooms are neither air conditioned nor adequately ventilated.

The poor condition of the hospital Central Stores stands in extremely stark contrast with the excellent situation found at the MMSU. The MMSU storerooms, literally fifty yards away on the same campus, appear sufficient in capacity (over 4,000 square feet), and are clean, air conditioned and organized with adequate shelving. They are also well supervised. There is no one continually on site at the hospital Central Stores.

C. PURCHASING:

1. Medical Supplies

The problems with medical supply purchasing begin with large voids in the current hospital financial control system. While the hospital budget process ultimately constrains annual spending for the institution as a whole, this type of restraint is not extended down to ward or department operations. Annual department or ward **budgets** are prepared and approved, **requisitions** are completed, and **purchasing orders** are completed and approved, but these different activities have never been merged into a complete system of cost control. Once ward budgets have been approved, they appear to not be used as control instruments. That is, budget projections, of medical supply needs for example, are not regularly compared with actual consumption in individual wards. So the wards themselves are not held accountable for either their projections, or for their utilization rates. Purchasing orders from the various wards, in any given quarter, simply compete with other purchasing orders from other wards for a limited supply of MOH dollars, without comparison to budget projections. Those staff who voice the most convincing argument at the time are rewarded. The losers are put off until the next quarter for the next round of competition.

Medical supply use is not regularly tallied by ward, either, so that hospital administrators cannot tell if supply costs per case, or per occupied bed day, or per any measure of output, is increasing or decreasing. It is difficult to assess improvements in efficiency, to include materials management functions, without such quantitative measures as benchmarks.

Timing is another important element in purchasing, and has been alluded to above. Without adequate records purchasing managers cannot determine the appropriate ordering point. Purchases need to be timed to take the following elements into account: a) estimated future use, b) cost of ordering, c) price breaks

for volume, d) potential back-order problems with suppliers, and e) expected delivery time from order to receipt, as well as f) the actual supply on hand. Inadequate attention to timing means the hospital will run out of key supplies, as is apparently currently the case. In purchasing, as in storage conditions mentioned earlier, the lack of hospital proactive ordering can be compared to the MMSU process which has pretermimed purchase order points for each item in the inventory.

2. Equipment

Unusable equipment is scattered throughout the hospital. Some these machines are simply old and should have been discarded as obsolete long ago. Apparently a government clearance process, which should be streamlined, currently holds up this process for lengthy periods. Conversely, other equipment which is critical, relatively recently donated or purchased, and not ready for the dump, also breaks down. An inoperative autoclave, for example, has led to two or three weeks of down time for the surgical theater, sometimes twice a year. Disabled machines will become a problem of increasing severity as the hospital adds to its "high tech" array of services: the new intensive care, dialysis and Ob/Gyn units with their enhanced diagnostic and treatment machinery, are excellent examples of this trend.

Equipment purchasing which does not take into account preventive and other maintenance tasks, is of only short term value. Even apparently zero-cost donations should be steered into a more rigorous selection/approval process. Hospital administrators need to insist that donor agencies acknowledge that the costs following installation of new equipment, including maintenance, staffing and other recurrent costs are not negligible. These costs often dwarf the forgone initial purchase and installation charges.

Most importantly, those individuals who are responsible for equipment maintenance need to be directly involved in the selection process. Even if they cannot alter decisions regarding whether the equipment is purchased at all, or what manufacturer is chosen, they can raise key issues, such as: a) the historical reliability of the equipment, b) the related orientation and further training of hospital technical staff, and c) the availability of repair manuals, spare parts and expert consultation.

The hospital would gain from a move toward standardization. Multiple brands and models, beyond what is necessary, seriously encumber the maintenance process. Slight gains in price do not offset this disadvantage. At some point the MOH might contemplate modeling equipment purchasing after the Eastern Caribbean Drug Service. Standardization throughout the islands would facilitate maintenance efforts. The economies of scale gained would enable specialization; for example a single technician could concentrate on dialysis machines, enabling far more expert preventive maintenance and emergency repairs.

D. EQUIPMENT MAINTENANCE:

As discussed above, equipment maintenance is a serious challenge. The issue extends beyond purchasing to the following areas:

1. Lack of preventive maintenance scheduling
2. Inadequate staff training
3. Inadequate equipment repair facilities
4. Lack of sufficient spare parts

Staff at the hospital have recognized the need for preventive maintenance scheduling. The Hospital Engineer has cards for each piece of equipment, on which dates preventive maintenance is required and performed can be recorded. In addition some pieces of equipment have been labelled by the MOH Electrician with the date of maintenance, theoretically enabling easy inspection. At this time, the scheduling system exists largely in form only; the cards have not been set up for all appropriate pieces of equipment; the card system is not directing work schedules in a routine way, and most equipment in the hospital does not have a label with maintenance work dated. It is unlikely that a thorough preventive maintenance system will be implemented without strong pressure, assistance and oversight from above.

The hospital Engineer and the Electrician interviewed in this study expressed the need and desire for more training. Neither man has been educated specifically for his present field. In addition, I discovered that while only two men on St. Lucia are responsible for all biomedical maintenance, one at Victoria Hospital and the other at St. Jude Hospital, they have never met. These two men have the potential for a great deal of productive collaboration in this complex field.

The current biomedical repair facilities at Victoria Hospital are inadequate for the current workload, much less for the new ICU, dialysis, Ob/Gyn and other facilities which are being added. The repair shop at St. Jude, despite less sophisticated equipment in the hospital, overshadows that found at Victoria in terms of space and diagnostic tools.

E. TRANSPORTATION WITHIN THE HOSPITAL:

Several historical facts have made transportation of patients and material within the hospital difficult. First, the hospital has developed in stages, leading to multiple structures, physically linked or not to each other, and apparently not designed to incorporate wheeled transport. Second, the hospital is situated on a hill, leading to the access problems commonly created by multiple levels. Only now, with the construction of the new Ob/Gyn wing, is either a lift, or a ramp between floors, being installed.

The lack of wheeled transport places unnecessary physical burdens on the staff and leads to continual inefficiencies. It can also make the rendering of optimal patient care difficult. Consider the kitchen. First, all kitchen supplies, often heavy, must be carried by hand from the main hospital entry way, and negotiated over stairs to the dietary storerooms. From the storerooms, supplies must again be carried by hand to the kitchen. Most importantly, without the availability of carts, prepared food must be transported to the wards on heavy wooden trays. Largely as a result, individual patient meals are not prepared in the kitchen. Instead, the prepared food is distributed in large pots to the wards where the nursing staff dishes out portions. There is little control in this method, certainly

as compared to that found in most hospitals where individual patient trays are prepared by the dietary staff according to doctors' and dieticians' orders. Dietary wheeled carts with individual meals can be seen at St. Jude Hospital; their carts were made in the hospital wood shop.

Patient transport is also difficult, and in addition, potentially dangerous. I watched as a female patient was transferred from a stretcher to an ambulance, with the help of three staff persons, and was then driven around the campus to the current female ward behind the surgical theater. The use of an ambulance adds two transfers to a move that would have been far less hazardous and less demanding of staff and equipment if the patient was simply wheeled between wards.

III. RECOMMENDATIONS:

I am recommending the following actions to improve materials management within Victoria Hospital:

A. Improvement in Record-Keeping: It is imperative that the hospital maintain adequate inventory records, on either a manual or computerized basis. The MMSU can serve as a model, for either manual or automated operations. Computerization is not the essential element. More important is that there are consistent and accurate records of purchases, distributions, and current inventory levels. Regular physical inventories should then be completed in conjunction with these records.

B. Improvement in Central Supply: New space for Central Supply is critical. As important is the improvement in whatever space is designated for supply purposes. The room(s) has/have to be clean, supervised, organized with the appropriate shelving and, for those materials subject to degradation, temperature controlled. Potential space in existing facilities, listed according to perceived priority, includes the following:

1) Current Chest (TB) Unit Space: This space offers close proximity to the MMSU (downstairs), with advantages for information systems, general supervision and supply movement. The road, which is to be paved following the completion of the Ob/Gyn wing, offers superb delivery access. It is not central to the hospital for on-campus distribution, but then none of the current options offer that advantage. The upstairs rooms total approximately 4,000 square feet, roughly twice the Central Stores' basic requirement. The space could, therefore, be shared with another function, perhaps a reduced Chest Unit if patient load permits.

2) Unfinished Space Currently Promised to the P. T. Department: This space offers approximately 1,000 square feet, and so could be used together with the existing storage rooms. An advantage is that the rooms are located next to the new Ob/Gyn wing elevator, facilitating delivery through the hospital. There are many disadvantages: the need for multiple locations to achieve sufficient capacity, difficult delivery by truck, an relatively small elevator apparently designed for Ob/Gyn use only, and extremely poor access to the rest of the hospital without the elevator.

3) Current P. T. Department Space: This space will be made available by the probable move by physical therapy to the new rooms mentioned above (2). It

offers approximately 375 square feet of space, and so even when combined with the old Central Stores, still yields inadequate capacity. The disadvantages are the same as listed for the unfinished space described above: the need for multiple locations to achieve sufficient capacity, difficult delivery by truck, a relatively small elevator apparently designed for Ob/Gyn use only, and extremely poor access to the rest of the hospital without the elevator.

Additional comments regarding space for Central Stores may be found in Kenneth Hanover's Facility Utilization Review.

C. Enhancement of Medical Supply Purchasing: Improvements in purchasing need to stem from improvements in both the financial control system of the hospital, and inventory record-keeping, to include:

- 1) Keep current records of supply use by ward.
- 2) Hold the wards responsible for the accuracy of medical supply projections, probably through the use of a flexible budget format. Such a budget format projects expenses by the number of cases or patient days, and therefore automatically adjusts expected costs for any changes in volume.
- 3) Regularly review supply consumption by ward to reduce slippage, and to assure cost effectiveness.
- 4) Maintain records of current inventory levels in the Central Stores, through either manual or computerized methods.
- 5) Take regular physical inventories to assure accuracy of the written inventory records.
- 6) Implement a system to trigger supply purchases before there are serious shortages.
- 7) Use the competitive bidding process as appropriate to contain prices.
- 8) Conduct regular quality reviews of vendors.
- 9) Continue development of the ECDS to include other medical supply items.

D. Enhancement of Equipment Purchasing and Maintenance: With dramatic increases in technical sophistication at Victoria Hospital, including the new ICU, kidney dialysis unit and Ob/Gyn wing, the following points are more important than ever:

- 1) Involve equipment maintenance staff in equipment purchasing decisions, in order to standardize manufacturers and models whenever possible, to plan for the related orientation and further training of hospital technical staff, and to assure the availability of repair manuals, spare parts and expert consultation.
- 2) Remove all non-functional equipment from hospital wards.
- 3) Implement, support with adequate staffing, and oversee a program of preventive equipment maintenance.

D. Enhancement of Equipment Purchasing and Maintenance, Continued:

- 4) Maintain records of equipment down time.
- 5) Develop and implement a training plan for maintenance staff, basing training needs on the evolving technical sophistication of the hospital.
- 6) Improve equipment repair facilities to include space, tools, literature and spare parts.
- 7) Begin coordination between Victoria and St. Jude on equipment maintenance activities.
- 8) Investigate the development of the ECDS office to include equipment purchasing and training.

E. Installation of Ramps: The installation of very few ramps, at low cost, would make nearly the entire hospital accessible to wheeled patient and material transport. Only the second floor pediatric ward is difficult to make accessible. To facilitate the transport of food stuffs and meals, ramps need to be installed first from the kitchen to the ground level outside, and from the ground level to the wards opposite. A ramp/walkway should also be installed from the laundry processing room to the front entryway. Another ramp would be installed from the kitchen area to the female ward located behind the surgical theater.

Additional comments regarding the installation of ramps may be found in Kenneth Hanover's Facility Utilization Review.

F. Improvement in Organization: The most important action that the Ministry of Health (MOH) can take is to appoint a person with strong organizational skills as **Director of Materials Management**. This person can supervise supply operations at MOH facilities outside of Victoria Hospital, as well as at units within the hospital. I am recommending a consolidation of two currently separate units [a) current hospital purchasing staff and b) the MOH Medical Supply Unit (MMSU)] into the office that I have named the **Department of Materials Management**. I am proposing this reorganization in order to avoid duplication of systems and to capitalize on limited managerial expertise.

As the manager of the consolidated operation, the Director of Materials Management could use the recommendations in this report, as well as other written resources and further consultation, to make substantial and long-lasting improvements in health program management throughout the island. This report, without the appointment of a well qualified Director who will: a) decide which report recommendations to implement, b) determine an appropriate timetable for the projects undertaken, c) reorganize job responsibilities within the department, d) continue to develop the policies and procedures manual, and e) coordinate all activities with other hospital and MOH staff, is unlikely to lead to any serious or lasting corrective action.

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ARCHITECTURAL REVIEW - MATERIALS HANDLING
VICTORIA HOSPITAL
Castries, St. Lucia

INTRODUCTION / PURPOSE:

This report documents an architectural review/analysis of materials handling facilities undertaken for the Victoria Hospital, Castries, St. Lucia by the consultant, an experienced long-time health care architect-planner. The review was intended coordinate with a materials management review concurrently being conducted on-site by another consultant, Paul Campbell.

Furthermore, in accordance with the defined scope of work the consultant's attention necessarily has been directed to the more major or "macro" planning issues rather than detailed/technical architectural design, etc.

The review effort was based on observations, discussions with staff, survey/inspection of facilities, and examination of available architectural plans (new wing) during an on-site visit December 4-5, 1991. The two consultants also met and generally discussed space needs, use parameters, facility development background with Mr. Percival McDonald, Permanent Secretary / Ministry of Health (MOH), and Mr. John Husbands, MOH Health Planner.

BACKGROUND:

Victoria Hospital is currently completing Phase I of a planned comprehensive long-term development plan to replace all of its old physical plant, a complex of buildings situated on several levels around a hill-top site overlooking the harbor and city of Castries. A major portion of the main hospital as still existing today is in excess of one hundred years old (Attachment "A").

Phase I development to be completed next month, consists of a new three-story structure replacing previously demolished OB/GYN facilities. In general, it is understood that current plans for utilization of new space essentially are intended to follow final plan designations and maintain the concept, established at the inception of planning, of the OB Wing as a discrete women's center (Attachment "B").

The new wing also includes a ramp and elevator serving all three floors, two of which relate to levels of the existing

facility: the Ground Floor becoming the new main hospital entry level and the First Floor coinciding with the basic main level of the existing facility. The elevator is the first in the multi-level complex and only one available.

Additional development phases as currently outlined are planned to essentially accomplish four basic goals: replacement of all inpatient care facilities, incorporation of outpatient clinics into the main structure (from the present outlying building), creation of sufficient/appropriate support space and services infrastructure, and reorientation of hospital access to a single entry point. It is understood that the next phase of development, Phase II, will consist of a new outpatient clinical facility plus basic central supply/laundry space and is expected to be underway in two years.

EXISTING MATERIALS FACILITIES/INFRASTRUCTURE:

Past and projected future facility utilization has presupposed an ad hoc materials handling approach within the hospital complex. Multiple levels with intervening stairs have limited the use of patient stretchers and totally precluded any type of cart distribution systems requiring all food, supplies, etc. to be hand carried in an extremely inefficient manner.

Storage areas are inadequately sized, fragmented, remote, and without temperature/environmental control. With space at a premium throughout the complex, storage areas have been relegated to multiple, relatively inaccessible locations (Re: Attachment "D"). Organized systems of suitable shelving are not presently available at any of the locations.

Based on typical experience standards, the consultants estimate that available storage areas totally 700+- sq. ft., exclusive of food stores, is significantly undersized as compared with 1000-2000 sq. ft. that would be typically programmed for this size hospital. A true central supply operation/area is not, consequently, being provided at this time; nor, does new Phase I space/planned utilization address this need.

POTENTIAL IMPROVEMENTS:

The materials management consultant's report deals with materials management issues in greater detail and offers several recommendations for improvement of operations including a recommendation for organizational consolidation of materials distribution services. Per the consultants' observations and discussions with staff, as well as Mr. McDonald and Mr. Husband of the MOH, potential for corresponding improvement in materials infrastructure can be outlined/summarized as follows:

Transport Infrastructure: (Attachment "C" / []'s)

New "main ramp" structure and elevator included in new wing construction would permit use of carts between the primary levels of the hospital except pediatric ward. Elevator is not considered available for general distribution services, however, as it is intended to restrict its use to the OB/GYN Wing in keeping with the basic policy that the new unit be operated as discrete women's/maternity center.

Several potential improvements in the hospital's existing circulation facilities are readily apparent. Addition of minor ramping between the present kitchen level and the main hospital level would permit use of carts to transport food all areas except pediatric ward [B,C,E,F]. Installation of paved ramped walkway between the hospital court area and the rear outlying building would permit both food and supply cart service to new Eye Ward location [D]. Installation of a paved walkway immediately adjacent to the front of the new main ramp structure would permit linen distribution by cart via the new main ramp structure [A].

Central Supply: (Attachment "D" / []'s)

Several options appear to potentially exist at the present time for development of a central supply area. On a non-prioritized basis these are:

- * [A] Construct 1000-2000 sq. ft. addition adjacent to existing "health center supply" at the lower level of the present outlying "TB Building". This location is ideal for development of organizational relationship with the MMSU health center supply operation (Re: materials management report). Location also permits direct vehicle access for receiving but would require supply of hospital proper by carts or vehicles; if by cart, installation of new smooth paved drive would be required.
- * [B] Conversion to central supply of a portion of existing TB ward/miscellaneous and dermatology clinic space on the upper level of the "TB Building (4000-5000 gross sq./ea. of 2 floors). It is understood that the ward census is not at maximum capacity, i.e., sufficient de facto "excess" space may exist to accommodate a supply area and/or, alternatively, that the potential exists for relocating some "upper level" space, for example, the derm clinic, to vacant areas remaining in the former nurses' residence building. Again this location is convenient to existing MMSU health center supply on the floor below and could have direct vehicular access if located at the appropriate end of the

building. Supply of the hospital proper again would depend on use of carts or vehicles.

- * [C] Utilize portion of Basement Level (2 of 4 staff suites, conference rm., plus storage rm.) of new OB Wing. Would require use of elevator to access other areas; receiving would require use of Basement entry (at clinic suite) or elevator for receiving. Diversion of new space from "promised" staff use is not, however, considered to be desirable in terms of staff relations at this time.
- * [D] Utilize so-called "bonus" space on Ground Floor of OB Wing (between new construction and old hospital). Location could access hospital proper via main corridor to new main ramp or elevator; receiving likewise would be via main hospital entry or OB/Basement via the elevator. Use of this area, however, would presumably preclude use of the area by physiotherapy, recently promised this space.
- * [E] Utilize existing physiotherapy space in conjunction with adjacent existing storage areas. Location could access hospital proper through main corridor to new main ramp or elevator; would require paving of existing gravel walkway (8' x 100'+-) and ramping of existing intervening steps to permit cart access to OB Wing. Receiving could likewise be via main hospital entry or OB/Basement via the elevator but location would also have access, although over a fairly long distance, for receiving (via hand-trucks) from vehicular way at the rear of the hospital.

EVALUATION / CONCLUSIONS - RECOMMENDATIONS:

Transport infrastructure can be readily improved with a minimum expenditure of resources, easily justifiable even for a 2-year or interim period. Appropriate space for central supply is somewhat more problematical but nevertheless appears to be achievable.

Transport Infrastructure:

Creation of cart accessibility for materials handling throughout the hospital is strongly recommended. Installation of four of the six very minor facility improvements identified can provide for wheeled cart access for both food and supply distribution to all areas of the hospital except the pediatric ward:

- * Ramped concrete walkway between lowest level (laundry) of the Edinburgh Wing and new main entry to access new main ramp.
([A] / Attachment "C")

December 31, 1991

- * Concrete or wood raised platform with ramps down from kitchen entry to existing walkways.
([B] / Attachment "C")
- * Concrete or wood ramp over existing steps between court and main hospital levels. Two additional ramps at the other two court steps are desirable/recommended as well but are not required.
([C] / Attachment "C" - [E] & [F] Optional)
- * Concrete ramped walkway between courtyard at kitchen to rear outlying building (to be Eye Ward).
([D] / Attachment "C")

Only simple basic "low-tech" materials would be involved; costs should be in the category of maintenance type work.

Pediatric Ward on the second floor of the Edinburgh Wing would be the only area not directly serviceable by carts under this plan. Carts could reach the landing at the bottom of existing stairs up to this area requiring supplies to continue to be hand-carried one level up. Only the installation of an elevator in this wing would allow cart travel directly to the ward.

Central Supply:

Potential locations for central supply space within the hospital proper, i.e., OB Wing Basement, physiotherapy, "bonus" area, realistically have serious shortcomings as solution for central supply. None of these areas have sufficient space for all central supply needs; multiple/old areas would likely have to be retained. All have poor access for receiving of incoming bulk shipments of supplies and would invariably involve de facto use of the elevator. Excluding supply traffic from the elevator would in practice be extremely difficult to enforce. Moreover, dependence on a relatively high-tech component such as an elevator for movement of supplies would not be recommended in view of the very limited maintenance resources available and "remoteness" of St. Lucia from parts supply, etc.

Furthermore, OB Wing Basement appears to be unacceptable as well in terms of the commitment to utilize and maintain new space as a separate unit, i.e., either directly intruding on committed basement space. Use of "bonus" space would also of course preclude new space as currently committed for physiotherapy.

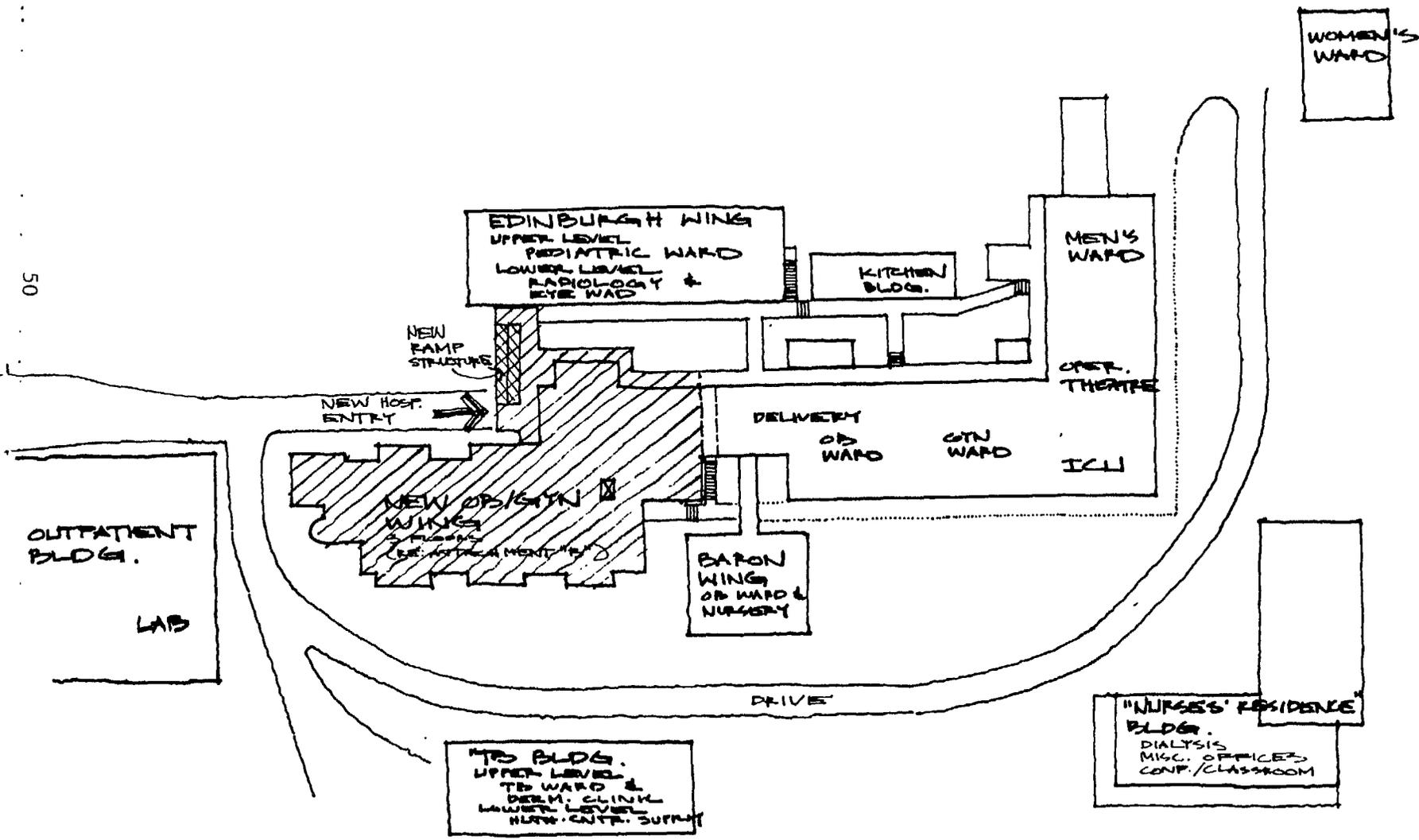
Locating of central supply in conjunction with the existing "TB" building appears to be most workable of the very limited options identified for a central supply area. Proximity to MMSU is ideal for supporting a consolidation of materials services as outlined by the materials management consultant.

Conversion of a 1000-2000 sq. ft. portion of the "TB" area proper

December 31, 1991

(upper level) would appear to be the most favorable, in terms of cost and timing, of the two possibilities identified at this location. Costs would be expected to be relatively minor. Vehicular access for receiving would be direct (from existing drive); with planned new paving of hospital drives, supply carts could be wheeled directly to the new main entry/ramp for distribution to the hospital proper.

Addition of new space to the TB Building would be equally appropriate but would of course be expected to involve a considerably greater expense and lead time involved in new construction. These factors strongly work against new construction as viable approach for acquisition of interim facilities. On the other hand, of course, the actual feasibility of conversion of ward/clinic space will need to be carefully further assessed/worked-out in detail.



50

OUTPATIENT BLDG.
LAB

EDINBURGH WING
UPPER LEVEL
PEDIATRIC WARD
LOWER LEVEL
RADIOLOGY &
EYE WARD

KITCHEN BLDG.

MEN'S WARD

WOMEN'S WARD

NEW RAMP STRUCTURE
NEW HOOP ENTRY

DELIVERY WARD

GEN WARD

OPER. THEATRE

ICU

NEW OP/SYN WINGS
3 FLOORS
(SEE ARCHITECTURAL PLAN)

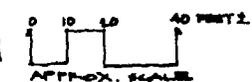
BARON WING
OP WARD &
NURSERY

DRIVE

"NURSES' RESIDENCE"
BLDG.
DIALYSIS
MISC. OFFICES
CONF./CLASSROOM

TB BLDG.
UPPER LEVEL
TB WARD &
DERM. CLINIC
LOWER LEVEL
NURSE CONTR. SUPPLY

EXISTING FACILITIES 12/01

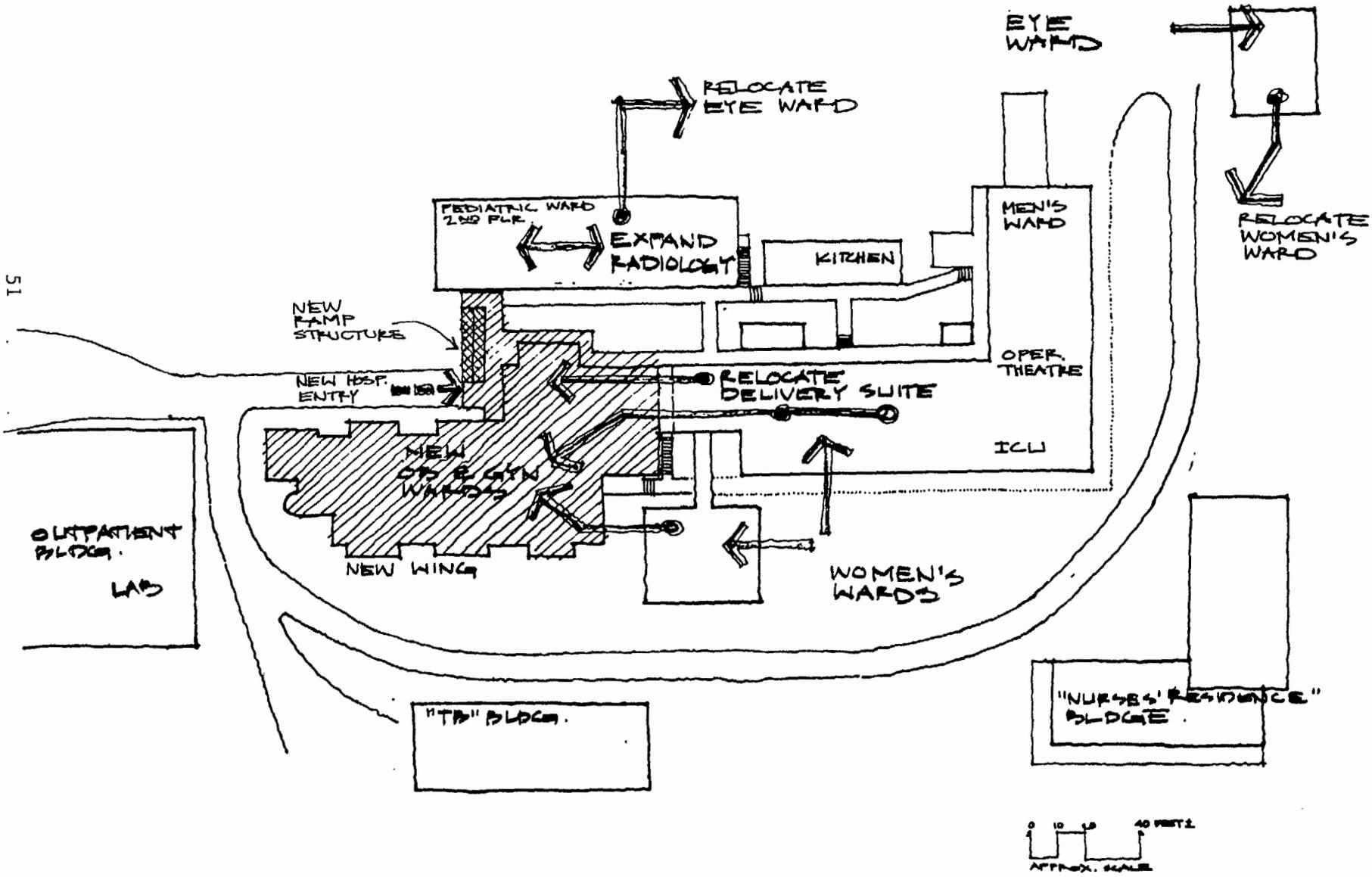


CAMPUS PLAN
AS OF 12/01

VICTORIA HOSPITAL
CASTRIES, ST. LUCIA

12/31/01
/K. HANOVER - CONSULTANT

ATTACHMENT A

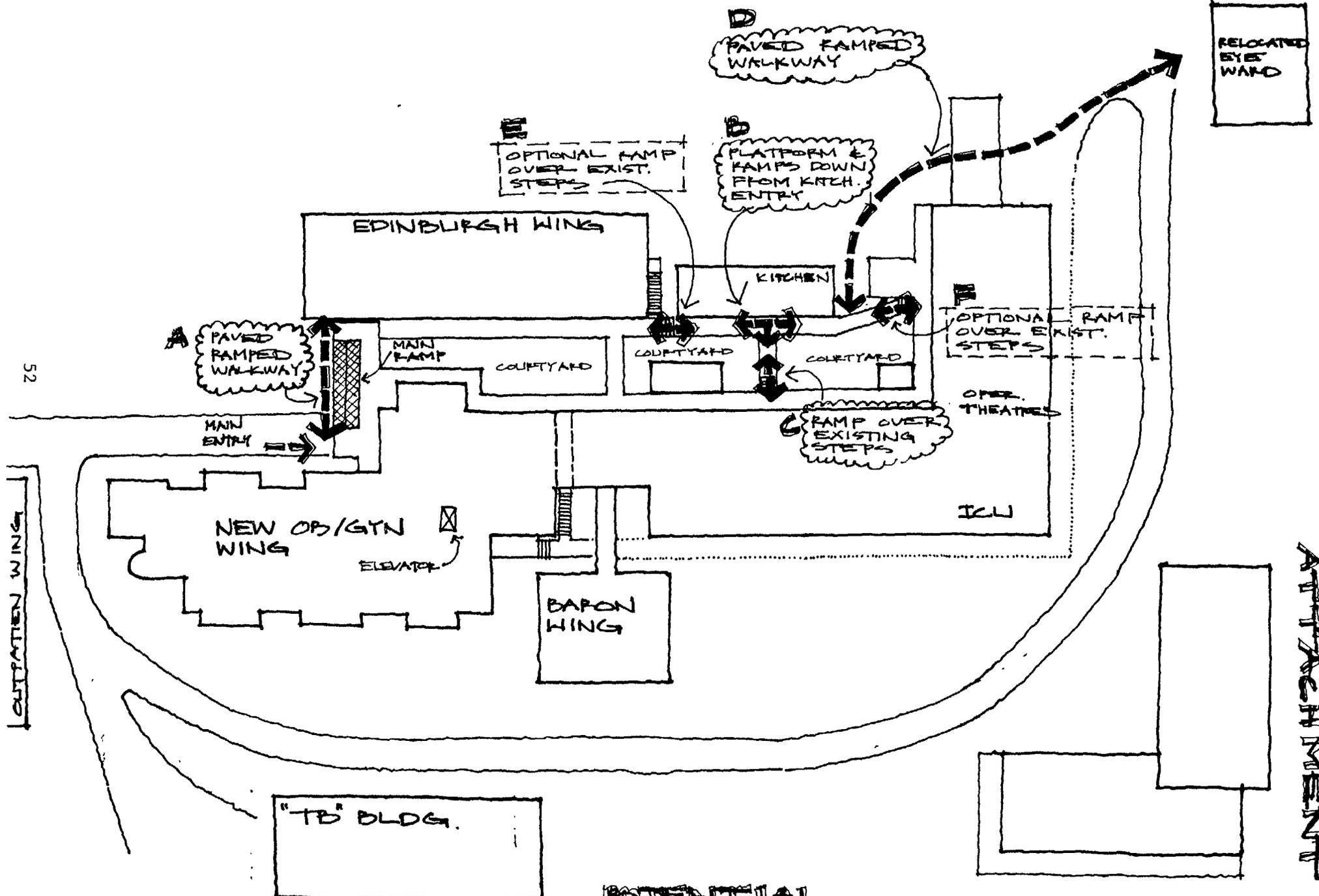


ATTACHMENT B

PROJECTED UTILIZATION POST COMPLETION / NEW OB/GYN WING

NEW WING CAMPUS VICTORIA HOSPITAL

12/31/01
/ K. HANDOVER-CONSULTANT



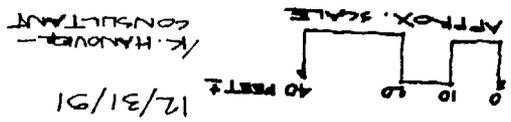
TRANSPORT INFRASTRUCTURE

POTENTIAL IMPROVEMENTS VICTORIA HOSPITAL

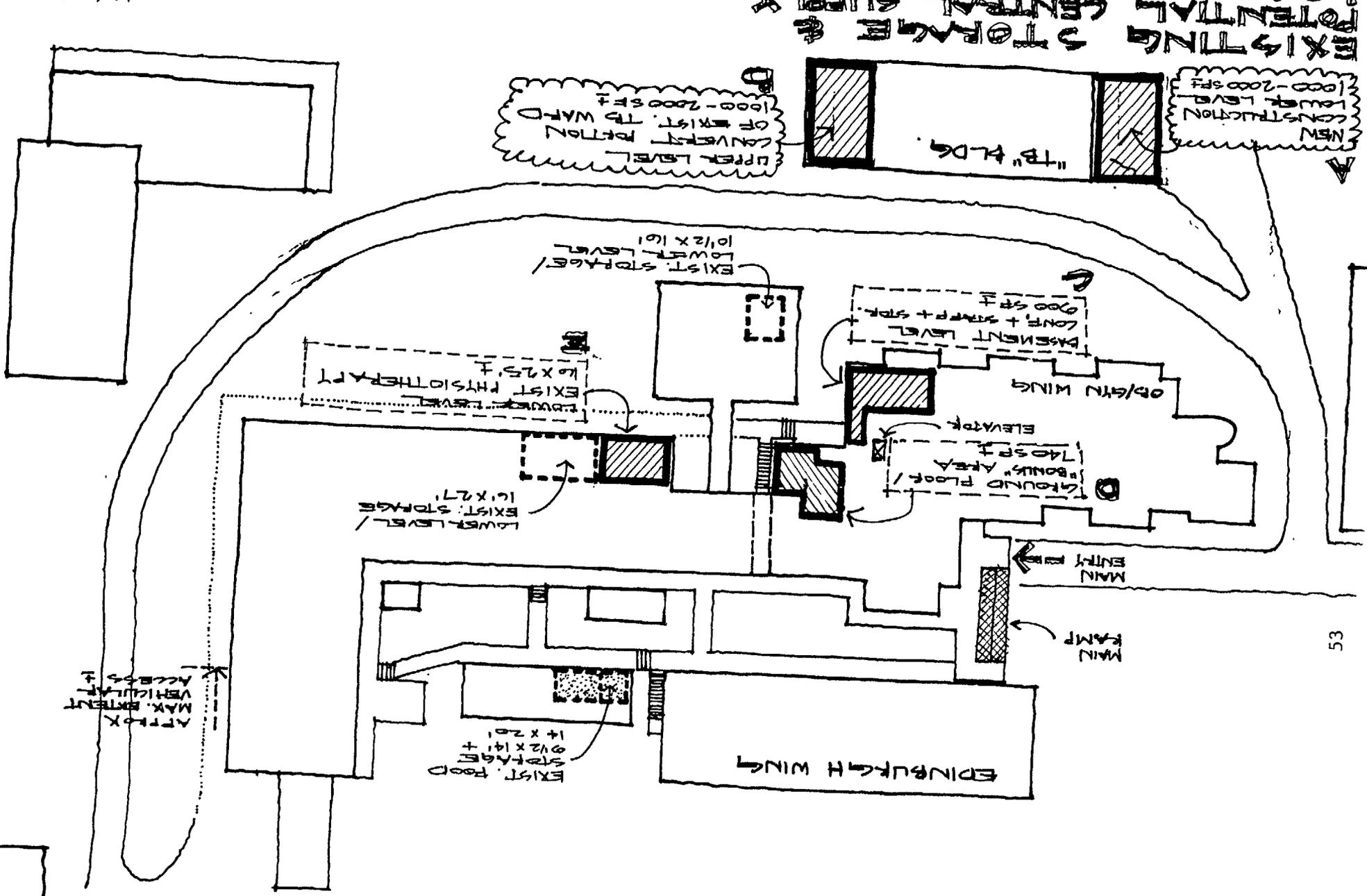
12/31/01
 0 10 20 40 FEET ±
 APPROX. SCALE
 K. HANOVER - CONSULTANT

EXISTING STORAGE & POTENTIAL CENTRAL SUPPLY LOCATIONS

VICTORIA HOSPITAL
WESTRICK, ST. LUCA



12/31/91



ATTACHMENT D

VI. EVALUATION OF SPACE UTILIZATION PLAN FOR NEW OB/GYN FACILITY

Ken Hanover, health care architect planner, reviewed the new Ob/Gyn wing at Victoria Hospital to determine the implications of the new facilities on operations. His consultancy included a two day site visit, observations and discussion with staff, and survey/inspection of the facilities. Mr. Hanover collaborated with Dr. Mary Gatter. Dr. Gatter's findings and recommendations regarding Ob/Gyn facility utilization can be found in Section IV of this report. In general, Dr. Gatter's findings and recommendations are consistent with those of Mr. Hanover.

The major findings and recommendations are summarized below. The complete report follows.

Major Findings

A major concern in utilization of the new facilities is the apparent disparity between Ob space configuration as constructed and the Hospital's Ob operation model. Obstetric labor and delivery services at Victoria can be characterized as high-volume with the vast majority of cases involving extremely short length of stay (24 to 48 hours) and deliveries handled for the most part by nurse midwives. Although traditional at Victoria Hospital, this operational scenario would be considered quite progressive among Ob approaches utilized today in birthing centers.

The new delivery suite, however, is a conventional-type Ob facility apparently designed for a peak demand of perhaps four patients rather than the seven to twelve patient demand experienced historically. Delivery rooms, nurse stations, nursery, and patient beds are relatively remote from one another rather than in close proximity as would be found in the most efficient birthing facilities today. Increases in nursing staff would normally be expected for this type change from an open, compact unit to larger, multiple unit areas.

Recommendations

The consultant strongly recommends that a committee of nursing supervisors be established to carefully review patient care/work flow issues in more detail.

Specific recommendations are made about how to best use the space. A general concern involves the relative dependence on the new elevators to move patients between floors in the new building. Limited maintenance resources available do not bode well for avoiding significant interruptions in elevator service. A program of elevator maintenance and stocking of critical parts appears to be essential for efficient operation of new areas.

It is recommended that an automated nurse call system be installed. The call system should have a planned maintenance program as well as a manual back up system.

Deliverables

- Architectural Rendering for Proposed Utilization of the New Ob/Gyn Wing.

Site Visit Report
FACILITY UTILIZATION REVIEW

VICTORIA HOSPITAL 1
December 31, 1991

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FACILITY UTILIZATION REVIEW
VICTORIA HOSPITAL
Castries, St. Lucia

INTRODUCTION / PURPOSE:

This report documents a review/analysis of facility utilization undertaken for the Victoria Hospital, Castries, St. Lucia by the consultant, an experienced long-time health care architect-planner. It was intended that the consultant's primary focus concentrate on the implications of major new facilities, an "OB/GYN Wing", to be completed and activated in January of 1992.

Furthermore, in accordance with the defined scope of work the consultant's attention necessarily has been directed to the more major or "macro" planning issues rather than detailed/technical architectural design, etc.

The review effort was based on observations, discussions with staff, survey/inspection of facilities, and examination of currently available architectural plans during an on-site visit December 4-5, 1991. The consultant also met and in general discussed space needs, use parameters, facility development background with Mr. Percival McDonald, Permanent Secretary / Ministry of Health (MOH), and Mr. John Husbands, MOH Health Planner.

BACKGROUND:

Victoria Hospital is currently completing Phase I of a comprehensive long-term development plan to replace all of its old physical plant, a complex of buildings situated on several levels around a hill-top site overlooking the harbor and city of Castries. A major portion of the main hospital as still existing today is in excess of one hundred years old (Attachment "A").

Phase I development to be completed next month, consists of a new three-story structure replacing previously demolished OB/GYN facilities. Additional development phases as currently outlined are planned to essentially accomplish four basic goals: replacement of all inpatient care facilities, incorporation of outpatient clinics into the main structure (from the present outlying building), creation of sufficient/appropriate support space and services infrastructure, and reorientation of hospital access to a single entry point. It is understood that the next phase of

development, Phase II, will consist of a new outpatient clinical facilities plus basic supply/laundry space and is expected to be underway in two years.

The new OB/GYN Wing, designed and constructed by a consortium of French firms, consists 22,000+- gross sq. ft. of space on three levels. Main spaces/components as designed/designated on final plans are (Attachment "B"):

Basement Level:

OB/GYN outpatient clinic (3 exam rms plus MD office).
Ultrasound procedure room and toilet.
Staff toilet change/locker suites (4).
Conference/classrooms (2) Medical storage room.

Ground Floor:

32 patient beds / GYN (8 x 4-bed patient rooms).
3-bed "isolation/special" care suite. Patient dining room with serving kitchen.
Exam suite (waiting, exam rm., and MD office).
Nurses' station/office.
Central "reception/control" station.

First Floor: (correlates with main level / hospital)

32 patient beds / OB (8 x 4-bed patient rooms).
3-bed "isolation/special" care suite.
Patient dining room with serving kitchen.
Exam suite (exam rm. and MD office).
Nurses' station/office.
Delivery Suite including 3 delivery rooms plus family waiting and utility rooms.
C-Section Surgical Suite including scrub, patient prep, and recovery rooms.
Nursery Suite including 2 nurseries and pediatric exam room.

This new wing also includes a ramp and elevator serving all three floors, two of which relate to levels of the existing facility: the Ground Floor becoming the new main hospital entry level and the First Floor coinciding with the basic main level of the existing facility. The elevator is the first in the multi-level complex and only available.

CURRENT PLANNED UTILIZATION:

Utilization of the new wing plus its consequent effect on existing hospital areas was discussed with medical, nursing, and administrative staff as well as briefly reviewed with Mr. McDonald, and Mr. Husbands. New facilities were inspected on a room-by-room basis together with key OB nursing personnel. Existing OB, GYN, and nursery areas in the old buildings were briefly visited.

In general, it is understood that the hospital's current intention and plans are that utilization of new space essentially follow final design/drawing designations and maintain the concept, established at the inception of planning, of the OB Wing as a discrete women's center. To this end, basic anticipated actions for both occupying new space and making necessary related changes in old space are as follows:

New Space (OB/GYN Wing):

Locate OB Nursing Unit, Delivery Suite, and Nurseries on 1st Floor. Sub-exam "mini" suite to be utilized for inpatient examinations.

Utilize Nursery Suite for "sick" infants only, i.e., up to 6+- babies on average. "Rooming-in" to be continued for all well babies.

Locate GYN Nursing Unit on Ground Floor. Sub-exam "mini" suite to be utilized for inpatient examinations.

Establish OB/GYN clinic in Basement clinical suite including relocated colposcopy unit/exam. MD OB/GYN consultants to use area on scheduled/rotating basis sharing as well with guest GYN specialist on-site for the next year to establish ultrasound service and provide training.

Activate ultrasound suite at Basement.

Utilize conference/classroom adjacent to ultrasound suite for ultra-sound training and perinatal patient education.

Locate physiotherapy in new wing on an interim basis until completion of Phase II development. Use "bonus" area at the rear of the Ground Floor.

Old Facilities:

Move Female Ward from rear outlying building to former OB/GYN Wards.

Subsequently move Eye Ward to former Female Ward (outlying building).

Renovate former Eye Ward area on main level of Edinburgh for expansion of Radiology.

In reviewing these plans with staff several questions and concerns emerged:

- * Design of new nursing units with multiple patient rooms plus remote/discrete "special care" and nursery suite reflects a conventional hospital concept vastly different from the open ward arrangement presently used at Victoria. Although offering significant improvement in patient privacy and convenience, use of multiple rooms are typically predicated on higher nurse to patient ratios than needed for open type wards.
- * Present OB bed census often significantly exceeds present 29-bed capacity calling into question total 35-bed (32 + 3 special care) capacity of new OB nursing unit. At the same time, GYN floor at 32+3 beds exceeds current GYN bed capacity of 18 beds.
- * Conventional layout of new delivery suite is not "design-specific" for basic birthing center type operation being utilized, i.e., 90% of all births are delivered by nurse midwives. Continuation of current "LDR" delivery concept is anticipated, with use of three "delivery rooms" for two-patients each at peak periods if necessary. This may be sufficient for average load of 7-8 patients per day but is likely to be tight for peak periods of up to 12 patients.
- * Sub-clinic "mini" exam suites (Ground & First Floors), although planned for inpatient exams in lieu of open bedrooms, and do not appear readily accessible to stretcher traffic due poor arrangement and narrow door widths? Inclusion of waiting area in GYN unit suggests that "queuing" (batching) of ambulatory patients for exam sessions was intended; paradoxically, no similar waiting area is included at the OB suite. Also, access to the single exam "cubicle" through the MD Office/Consult room would seem extremely inefficient if patients are to be handled in batches.
- * Need/location for an "intensive care" nursery is not clear. Although only 1-2 IC bassinets, maximum, are believed to be necessary, a location separate/remote from the nursery suite is currently considered to be a possibility, i.e., use of one "special" care suite.
- * New nurses' stations constructed as closed rooms restrict physical access to patient corridors as well as verbal communication with staff traffic. Further, nurse call system between patient rooms and nurse station appears to lack voice communication mode. Although not yet fully installed, it is understood that nurse call system will have visual indicators at nurse stations in addition to corridor lights currently in place. Visual indicators are important as corridor lights are

not fully visible from nurses' stations.

- * Availability, number, and location of housekeeping service closets is not readily apparent in new areas. It is understood, of course, that construction is not complete, however, no evidence of this support element was noted.
- * Similarly, except for a possible "dump" type plumbing fixture in the delivery suite, specific facilities for dumping and sanitizing of bedpans were not readily apparent. (Presently in OB for example, bedpans are dumped in a large service type sink and then boiled in a large tank immediately adjacent.)
- * Staff is unclear as to function and manning of main reception/control at the Ground Floor - there are currently no ward clerks. It is presently assumed by staff that one or more clerks will be necessary at this point to receive both OB and GYN patients and that OB/GYN outpatients will present here first before proceeding to the Basement clinic area. Further, although virtually all patients and visitors to all areas of the hospital will "enter" at this point, the potential consequences for this station have not yet been considered. Nor are staff yet of the implications for this space of the new central admitting function currently being implemented.

Moreover, it was of particular concern that the nursing staff supervisors were not yet aware of the specific space layout, patient/staff flow patterns incorporated in the new facility nor, apparently, previously involved to a great degree in the design process. As suggested by the above, several areas of operation as outlined by the nursing staff are a some variance with the configuration of facilities as actually in place.

EVALUATION / CONCLUSIONS - RECOMMENDATIONS:

A major concern in utilization of the new facilities is, in the consultant's view, the apparent disparity between OB space configuration as constructed and the hospital's OB operational model. OB at Victoria is high-volume with vast majority of care involving extremely short-stay (24 hrs.+/-) patients whose deliveries are handled by Nurse Midwives. Although, "traditional" at Victoria this operational scenario would be considered quite "progressive" among OB approaches utilized today in "birthing" centers.

The new delivery suite, however, is a conventional-type OB facility apparently designed for a peak demand of perhaps four or so patients rather than 7-12 patients. Delivery, nurses, nursery, and patient bed are relatively remote from one another rather than in close proximity as would be found in the most efficient "birthing" facilities today.

December 31, 1991

In planning for utilization of space the staff is obviously struggling somewhat with the lack of direct fit between available specific spaces and current numbers of staff and desired work flow. At the same time, it is understood that there is no desire or valid reasons to radically change current operations to fit space. Planned utilization as outlined to and discussed with the consultant by the staff attempts to adapt to space available and in general appears reasonably workable without major building modifications.

Concerns and questions noted will require serious further consideration but would not appear at this point to pose major impediments to reasonably adapting to new space configuration. In particular, the implications of multi-room wards and separation of functional areas on staffing levels should be carefully considered. Increases in nursing staff would normally be expected for this type change from an open, compact unit to larger multiple areas. Additional input of nursing staff in this regard is important and should be obtained; the consultant would strongly recommend that a committee of nursing supervisors be established to further carefully review patient care/work flow issues in more detail.

Subsequent general changes/reuses, etc. proposed for old areas appear most appropriate in consolidating inpatient care in the main facility, i.e., only 3-4 eye beds and 10 TB beds will remain in outlying units. A general concern, however, involves the relative dependence on the new elevator to move patients between floors in the new building, for example, GYN patients to the new "theatre". Limited maintenance resources available and "remoteness" of St. Lucia from parts supply, do not bode well for avoiding significant interruptions in elevator service; a program of elevator maintenance and stocking of critical parts appears to be essential for efficient operation of the new areas. The main ramp is of course available as a back-up but would be a very undesirable (circuitous and inefficient) option for continuous wheeled patient transport for long periods.

Similarly, the nurse call system is a potential weak link in providing adequate communication with patient rooms. Again, a planned maintenance program for this system should be given a high-priority and/or installation of some type of "low-tech" back-up system considered such as a "flip-flags", etc.

Attachment "C" attempts to graphically summarize utilization and note questions/issues as currently perceived by the consultant. Comments and recommendations below are also offered as basis for additional review.

New Wing:OB/GYN Nursing Units/Wards:

Total of 70 beds should be sufficient for both OB and GYN services; obviously, however, current peak OB loads (40+ pats.) if continuing, will require use of beds on GYN unit with potentially some loss of nursing efficiency. Overall, larger amount of space and more dispersed "conventional" configuration should be expected to but pressure on current nursing staffing levels.

Nurses' Stations / Nurse Call System:

More open type stations are recommended for better access to patients and staff communication. Stations could be relatively easily modified with, as a minimum, removal of glazing and installation of simple countertops.

Verify availability of visual annunciator device/s at nurses' stations. Plus, audio nurse call speakers are recommended to minimize nurse trips to patient rooms.

Delivery Suite:

This area, in particular, incorporates basically a "conventional" physical design configuration for a what is essentially an all "birthing" approach. C-section Suite with single "theatre" appears adequate to accommodate projected 1+ patients/day (300+ C's/yr.) plus GYN surgical load. Three "delivery" rooms will need to be adapted, as proposed, for double (2 cubicles each) Labor/Delivery/Recovery rooms to handle "average" patient load of 7-8. Peak loads running up to 12 patients will require provision for probably at least 4 labor beds. Patient "changing" room in delivery area could probably serve also as an labor lounge to provide one position. Additional labor beds would require use of 3-bed special care suite or one 4-bed patient room, in either case reducing capacity of OB and probably necessitating greater use of GYN beds for OB spill-over.

Nursery Suite:

New Nursery Suite should be more than adequate for infants not rooming-in, i.e., anticipated 6+- "sick" babies. Larger nursery should be able to accommodate anticipated maximum of 6+- "sick" babies with smaller nursery easily able to handle projected 1-2 intensive care bassinets. With the space available, another separate or remote intensive care nursery would not seem necessary and is certainly not recommended from the standpoint of staff efficiency.

"Mini" Exam Suites / Nursing Units:

Verify accessibility to inpatients/stretchers, i.e., door widths,

and/or clarify use. Location suggests this suites may have been included for examination of patients upon entering ward? On OB floor suite might logically also serve as early labor lounge.

Reception-Control / Ground Floor:

All patients are to be received and admitted at the new central admitting center being implemented within the Outpatient Building. Ward clerks will not be required at this location; only staffing necessary here will be a person to give information and direct patient and visitor traffic.

OB/GYN Outpatient Clinic:

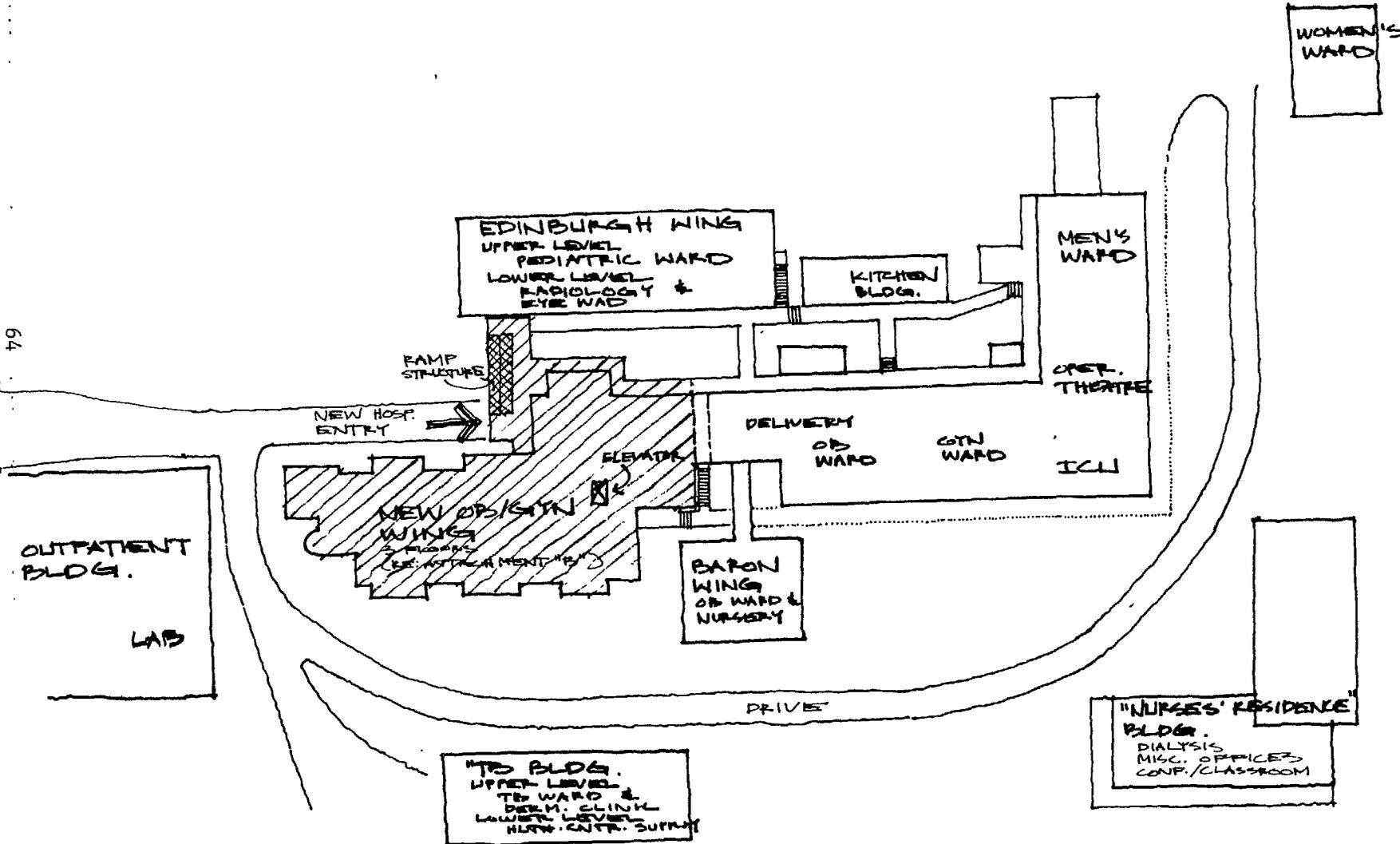
With three exam rooms this unit would logically support only two MD's per clinical sessions; presumably clinic is to be utilized on a scheduled basis to support four OB/GYN physicians. Further, it is assumed that "quest" physician will "home base" in office available and share with "scheduled-in" consulting MD's.

Patient access to this clinic should logically be limited only to adjacent Basement entry. Receiving outpatients through new main Ground Floor entry is inappropriate and would require outpatient flow through inpatient areas to reach the clinic area. In any case, again, all outpatients are to be received at the new central admissions center with the Outpatient Building; Basement entry is most appropriate and convenient to flow of patients from this function.

Utility Support - OB/GYN:

Clarify/verify availability of adequate housekeeping closets/rooms with service-type sinks. A minimum of one such area per floor of the new wing is recommended if the new space is to be efficiently and properly maintained/cleaned.

Clarify/verify availability of suitable bedpan disposal/sanitizing equipment or facilities. Although pans can be dumped at any water closet, no specific devices for rinsing were in evidence on fixtures already installed, nor, were any sanitizing or sterilizing equipment noted. As a minimum, sanitizing devices/stations one each on both OB and GYN floor are essential.

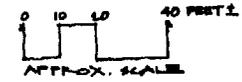


79

CAMPUS PLAN
AS OF 12/91

PLAN

EXISTING FACILITIES 12/91

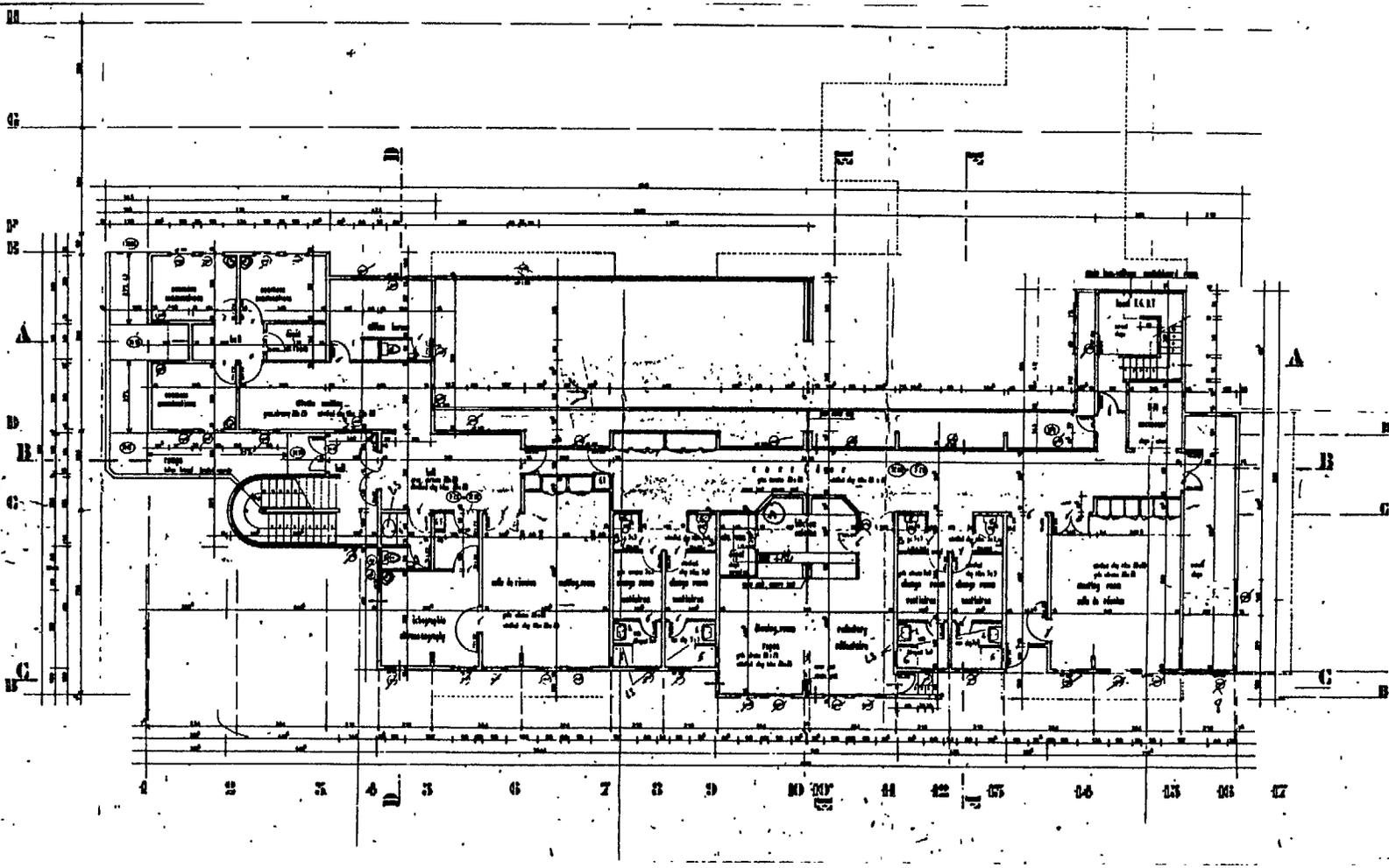


VICTORIA HOSPITAL
CASTRIES, ST. LUCIA

12/31/91
/K. HANOVER-CONSULTANT

ATTACHMENT A

65



SAINT- LUCIE CASTRIES	
Project Name: _____ Client: _____ Date: _____ Scale: _____ Drawing No: _____	Drawing Title: _____ Designer: _____ Checker: _____ Date: _____
MATHURON HOSPITAL, VICTORIA	
OB/GYN - 500L	
BASMENT	
Date: _____ Scale: _____ Drawing No: _____ Project No: _____	Date: _____ Scale: _____ Drawing No: _____ Project No: _____
09/07/04	

BASEMENT LEVEL

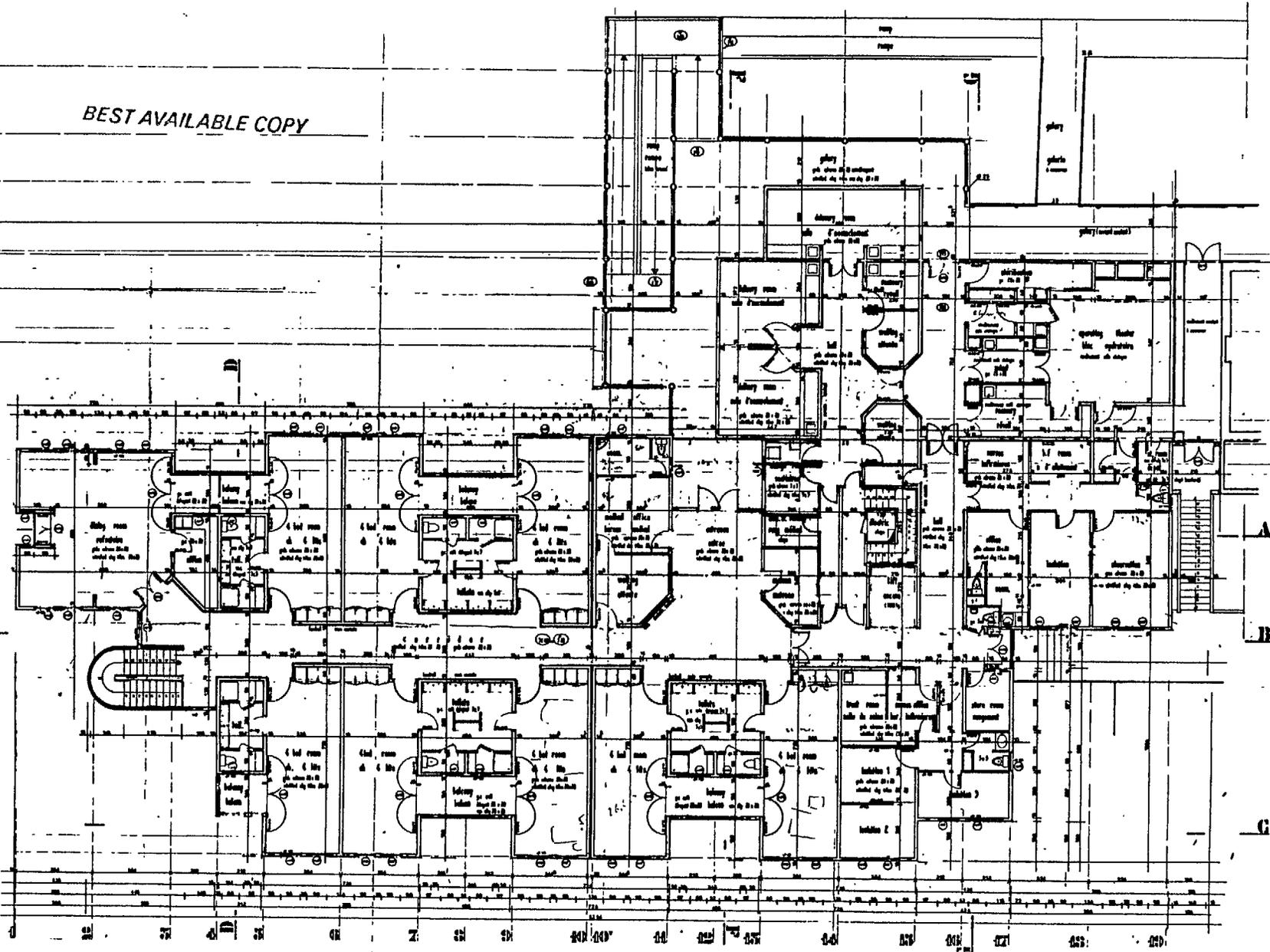
OB / GYN WING

**VICTORIA HOSPITAL
CASTRIES, ST. LUCIA**

NOT TO SCALE
12/31/01
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ATTACHMENT B-3



SAINTE - LUCIE CASTRIES	
SAINT PIERRE INDUSTRIAL, VICTORIA	
ETAGE	
APR	APR
PC	DCI
NOV	
09.197/AP.06	

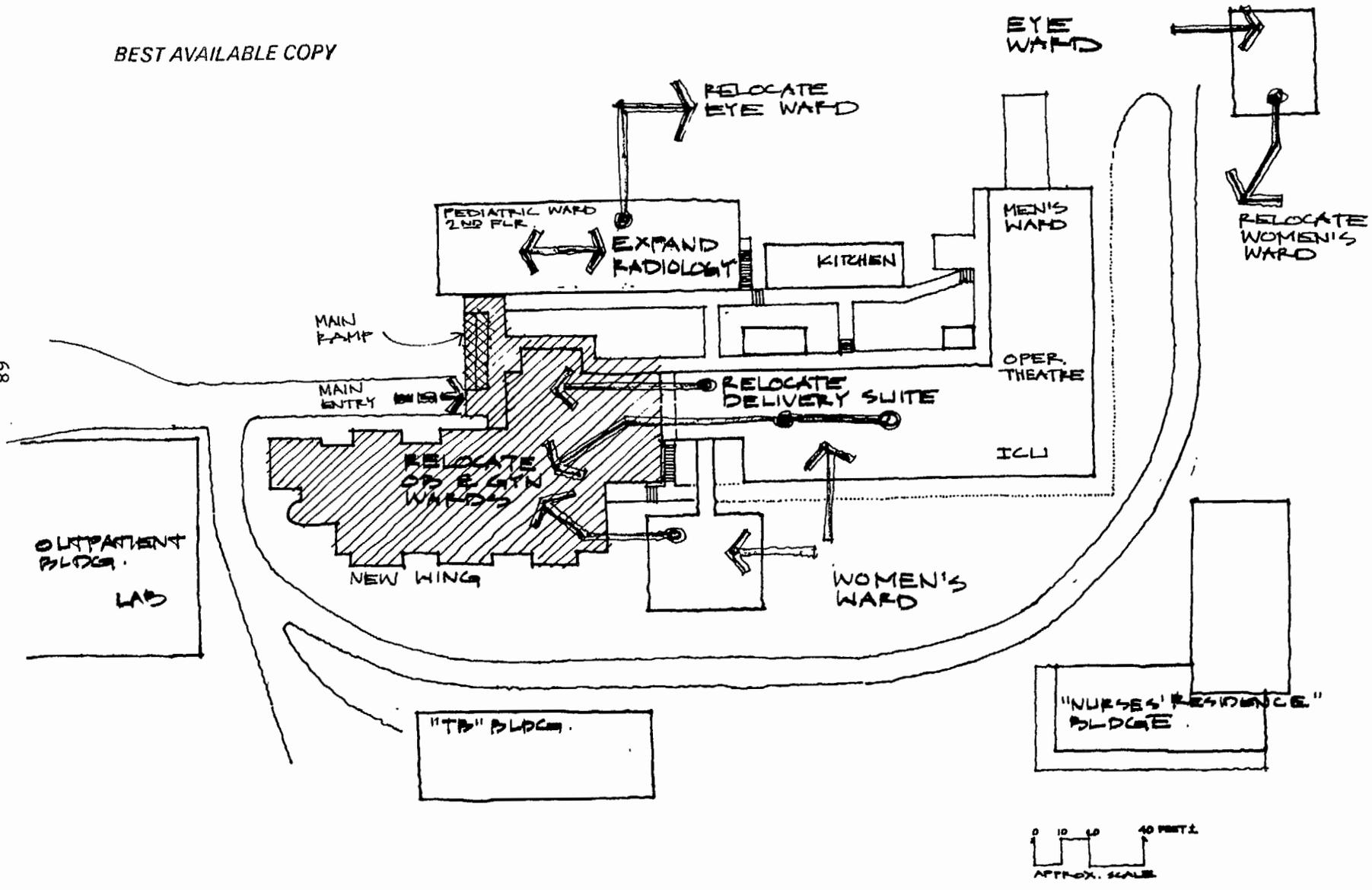
FIRST FLOOR

OP/GYN WING

VICTORIA HOSPITAL
CASTRIES, ST. LUCIA

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ATTACHMENT C-11

SUMMARY ANALYSIS
PROJECTED UTILIZATION
 POST COMPLETION / NEW OB/GYN WING

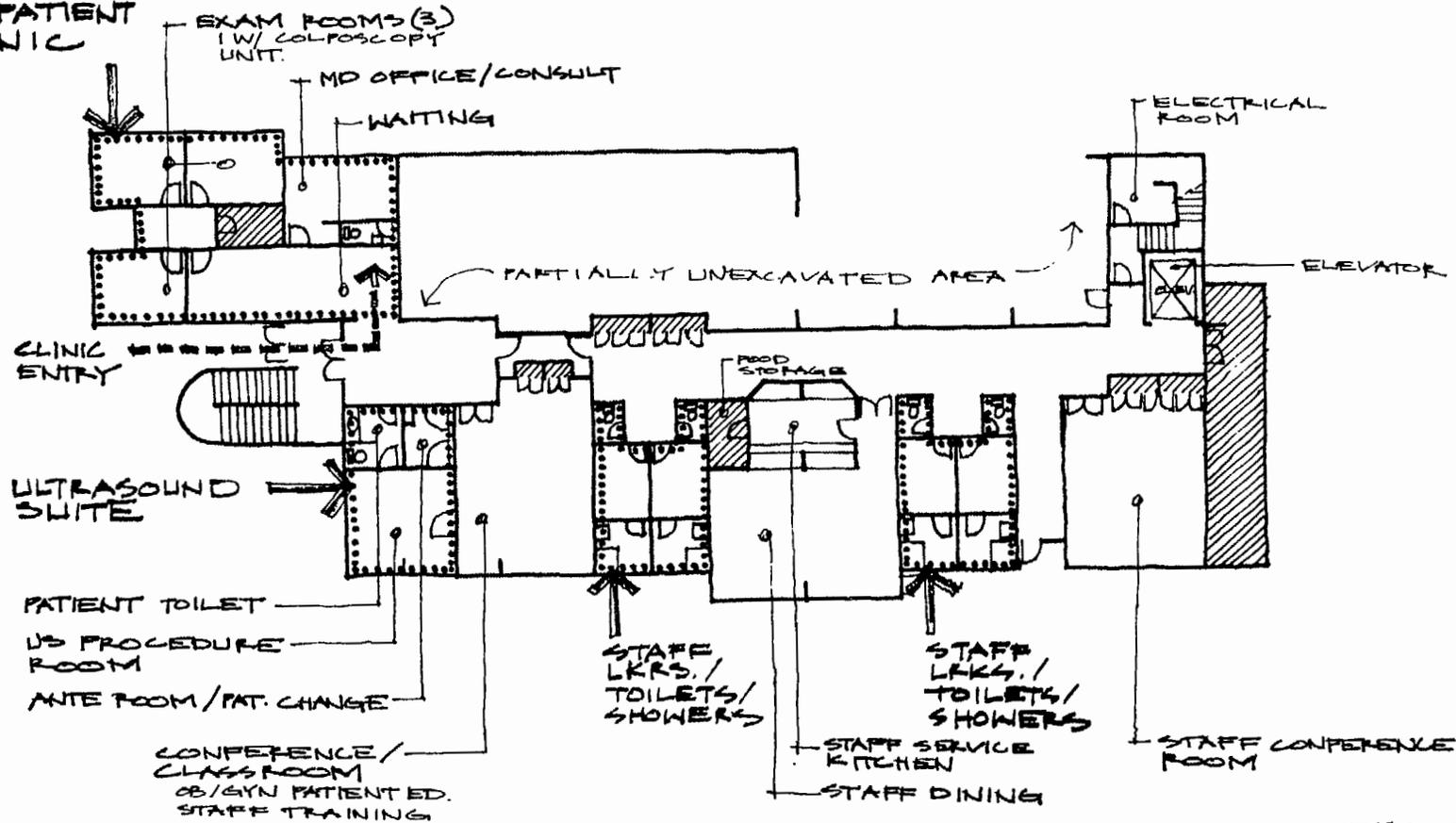
NEW WING CAMPUS
VICTORIA HOSPITAL
 CASTRIES, ST. LUCIA

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68

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OB/GYN
OUTPATIENT
CLINIC



PROJECTED UTILIZATION
SUMMARY ANALYSIS

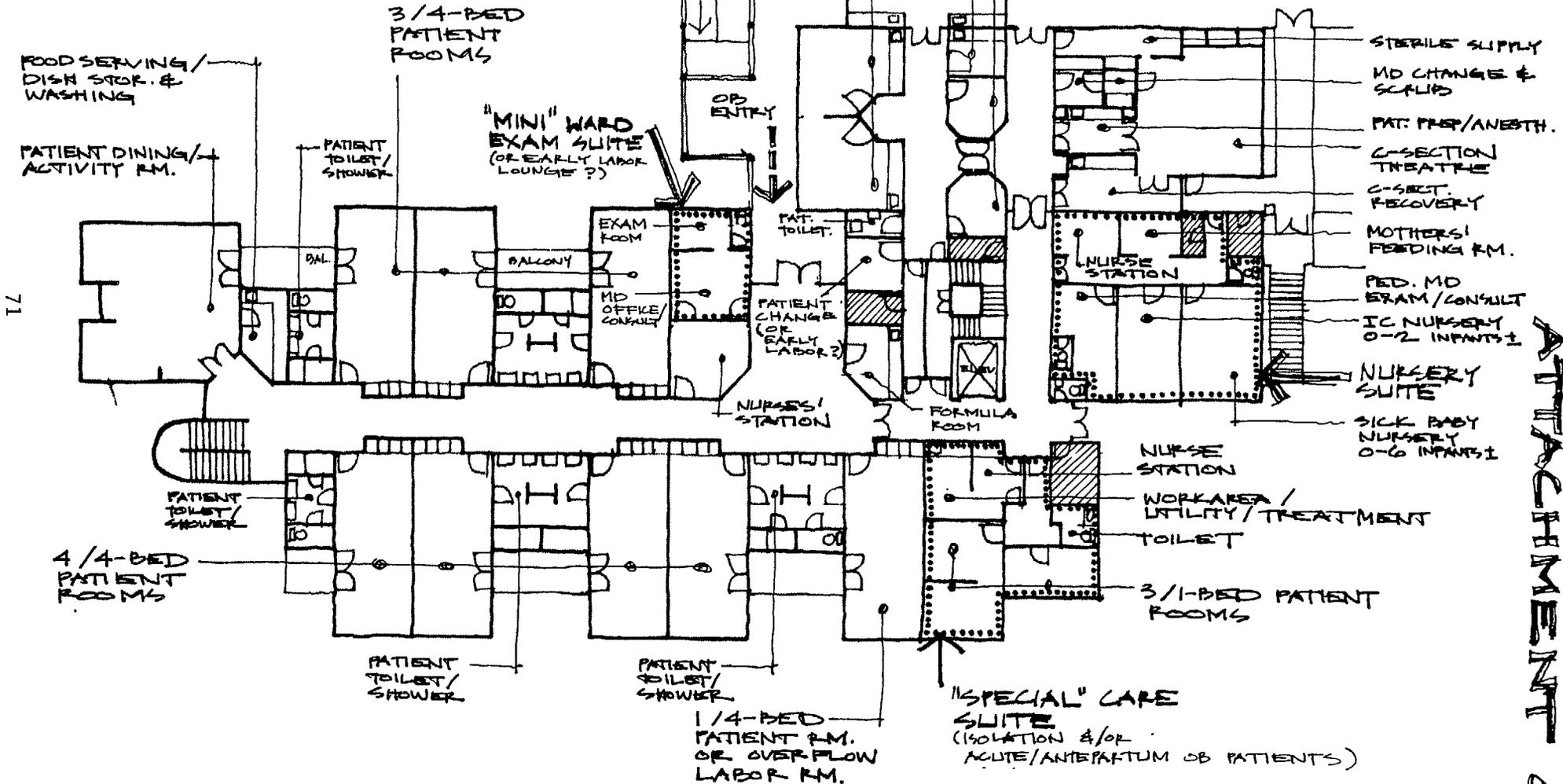
NEW WING BASEMENT
VICTORIA HOSPITAL
CASTRIES, ST. LUCIA

STORAGE
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ATTACHMENT 0-2

69

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71

PROJECTED UTILIZATION SUMMARY ANALYSIS

NEW WING/OB 1ST FLR.

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ATTACHMENT C-4

VICTORIA HOSPITAL ADMISSIONS OFFICE

PRINCIPLES OF PRACTICE

Function

The Admissions Office is the central location for inpatient admission and discharge. More specifically, the Admissions Office is responsible for the following functional areas:

- o Inpatient Admission, Discharge, Transfer (ADT) and
- o Cashier.

Location

The Admissions Office is located in the outpatient clinic area directly across from Outpatient Registration.

Hours of Operation

Hours of Operation are as follows:

Monday through Friday	8:30 am to 10:00 pm
Saturday	8:30 am to 4:00 pm
Sunday	Closed
Holidays	8:30 am to 4:00 pm

The Admissions Office staff will arrive at 8:00 am; however, one-half hour is needed to prepare paperwork prior to opening.

After hours admissions and discharges will be processed by the Casualty Nurse except for obstetrical admissions; after hours obstetrical admissions will be processed by the charge nurse on the Obstetrical Ward.

Departmental Management and Staff

The Admissions Office is under the direction of the Medical Records Supervisor. Day-to-day operations are supervised by the Admissions Office Senior Clerk. The Admissions Office Senior Clerk is a working supervisory position. The Senior Clerk is assisted by an Inpatient Cashier, Evening Admissions Clerk, and Outpatient Cashier. Brief job descriptions are provided below.

Admissions Office Senior Clerk. The Admissions Office Senior Clerk is responsible for supervising daily operations of the admissions area. This includes scheduling staff, ensuring that policies and procedures are

adhered to, and coordinating admission/discharge functions with other hospital departments. In addition, the Admission Office Senior Clerk is responsible for admitting patients.

Inpatient Cashier. The Inpatient Cashier is responsible for collecting fees from patients upon discharge as well as performing general cashier functions (e.g., collect pharmacy fees, collect payments on account from patients, etc). The Inpatient Cashier will also collect fees for outpatient and casualty visits when the Outpatient Cashier is off duty.

Evening Admissions Clerk. The Evening Admission Clerk is responsible for all admitting and discharge activities during the evening shift.

Outpatient Cashier. The Outpatient Cashier is responsible for collecting fees for outpatient visits.

Staffing and Work Schedules

The Admission Office is staffed as follows:

<u>Position</u>	<u>Hours per Week</u>	<u>Work Schedule</u>
Admissions Senior Clerk	37.5	8am-4:30pm, M-F
Inpatient Cashier	37.5	8am-4:30pm, M-F
Evening Admissions Clerk	37.5	4pm-10, M-F 8am-4:30pm, Saturday
Outpatient Cashier	22.5	8am-12:30pm, M-F

The work schedules allow for the Admissions Office to be staffed with at least one person during the scheduled hours of operation. The day shift staff are scheduled to arrive one-half hour prior to opening to allow time to complete their paper work (e.g., summarizing Daily Census, updating bed availability, processing night admissions, etc). The evening shift will arrive one-half hour prior to the end of the day shift. This should create a smooth transition as well as allow sufficient time for the day shift to balance their cash drawers and finalize paperwork.

The Admissions Office is staffed with one person on holidays. Staff will rotate to cover holidays, vacations, sick leave, and maternity leave. In addition, Medical Records staff will fill in when needed.

Forms and Supplies

Specific forms and supplies are necessary to successfully perform the various functions related to admissions, discharge, and collections. The needed forms are listed below:

<u>Description</u>	<u>Source</u>	<u>Estimated Annual Volume</u>
Daily Ward Census	Printery	3,000
Admission Summary Sheet	Briggs	9,000
Charge Tracking Sheet	Printery	9,000
Cash Receipts Ledger	McBee	100
Receipts	McBee	1,500
Patient Ledger Cards	Printery*	650
Patient Statements	Printery*	1,000
Receivables Ledger	McBee	400
Daily Cash Report	Printery	750

Supplies needed are as follows:

<u>Description</u>	<u>Source</u>	<u>Volume</u>
10-Key Adding Machines with tape	Ministry	3
Paper Tape (rolls)	Ministry	50/year
Binder for holding Cash Receipts Log/Receipts	McBee	3
Cash Drawers	Ministry	2

* or McBee

Interaction with Other Hospital Departments

Successful Admission Office functions are dependent upon cooperation from other departments within the hospital as well as the physician staff. The respective roles other hospital departments and physicians in the admission, discharge, and cashier activities are outlined in the following paragraphs.

Medical Records

Medical Records provides the Admissions Office with the appropriate Hospital Identification Number for new patients. The Admissions Office in turn notifies Medical Records when a patient is admitted so that medical notes can be forwarded to the appropriate ward.

Wards

Ward Clerks and Ward Sisters are essential to the successful admissions, discharges, and collections. Ward Clerks and Ward Sisters are responsible for controlling admissions onto and discharges from the Wards; recording patient admissions, transfers, and discharges; and recording services provided to patients during their hospital stay.

Patient Accounting Department

The Patient Accounting Department works closely with the Admissions Office to ensure that charges and payments for services provided are recorded accurately and on a timely basis. The Admissions Office notifies Patient Accounting when a patients are admitted and discharged. Upon discharge, Patient Accounting processes claims to insurance carriers and employers and invoices patients for outstanding amounts owed.

Physicians

Physicians also play an important role in the admissions/discharge function as outlined below:

- Physicians are requested to perform all elective admissions during the Admissions Office's normal business hours which are:

Monday - Friday 8:30 am to 4:30 pm

Saturday 8:30 am to 4:30 pm

If necessary, admissions can be performed during the Admissions Office's extended business hours which are Monday - Friday, 4:30 pm to 10:00 pm.

If avoidable, elective admissions should not take place on Sundays when the Admissions Office is closed. However, priority consideration should be given to appropriate length of stay and quality of care.

- Physicians are requested to discharge patients during normal business hours noted above.
- Physicians are requested to provide to patients information regarding their admission to Victoria Hospital including general information about the hospital, admitting procedures, and payment policy. This will allow patients sufficient time to plan for their admission and settlement of account. The information can be provided verbally but is best provided in written format.

Absent of any written material, physicians are requested to instruct patients regarding Victoria Hospital's admission procedures and payment policy as outlined below:

Admission Procedures

- Advise patients of the new Admissions Office and its location within the hospital facility.

- Advise patients of the Admissions Office's business hours:

Monday - Friday 8:30am to 4:30pm

Saturday 8:30am to 4:30pm

- Instruct patients to go to the Admissions Office upon arrival at the hospital before proceeding to the Ward.

Payment Policy

- Advise patients who are self pay that it is the hospital's policy to collect 50 percent of estimated charges upon admission and the remaining balance upon discharge. If patients believe they will be unable to pay the full amount, instruct them to see the Head Accountant, Administration Office, prior to admission.
- Instruct patients with private insurance coverage to bring insurance forms to the Admissions Office.
- Advise those patients who are exempt from payment to bring proof of exemption status.

ADMISSIONS OFFICE SENIOR CLERK

Position Summary	Responsible for the day to day operations of the Admissions Office
Responsibility and Tasks	<ul style="list-style-type: none"> • Admits patients for inpatient stay. • Summarizes Daily Ward Census and reconciles any discrepancies • Updates bed availability • Supervises Admission Office Staff <ul style="list-style-type: none"> - Prepares work schedules - Ensures policies and procedures are adhered to - Assists in solving problems • Maintains Admission Log and Patient Index File • Coordinates Admission office activities with other departments, i.e., Wards, Medical Records, Patient Accounting • Conducts other duties as requested by the Medical Records Supervisor
Reports to	Medical Records Supervisor
Hours	37 1/2 hours per week, 8 - 4:30 p.m. M - F
Grade	Senior Clerk
Skills and Experience	Ability to manage staff. Excellent people skills. High level of accuracy and proficiency with figures.
Education	Secondary, or one year of experience with continued education in related areas.

INPATIENT CASHIER

Position Summary	Collects amount due upon discharge and performs other cashier functions
Responsibility and Tasks	<ul style="list-style-type: none"> • Discharges patients • Computes total charges for ward, operations/ procedures, and ancillary services • Determines amount due from patients and collects amounts due, as appropriate. • Obtains insurance forms and signatures, as appropriate • Records payments • Collects and records payments for: pharmacy, payments on account, and other payments • Reconcile cash drawer <ul style="list-style-type: none"> - Summarize Cash Receipts Log - Prepare Cash Summary
Reports to	Admission Office Senior Clerk
Hours	37 1/2 hours per week, 8 - 4 p.m. M - F
Grade	Junior Clerk
Skills and Experience	Excellent people skills. Able to collect from patients. Proficiency with figures and handling cash. Honest and trustworthy.
Education	Secondary

EVENING ADMISSIONS CLERK

Position Summary	Responsible for admission, discharge and cashier functions during evening shift
Responsibility and Tasks	<ul style="list-style-type: none"> ● Admits patients <ul style="list-style-type: none"> - Complete Admissions Summary Sheet - Prepare top portion of Charge Tracking Sheet - Assign Hospital ID Number - Assign Bed - Update Admission Log ● Collects Administrative Fee (not yet in effect, effective upon direction of Ministry of Health) ● Discharges patients <ul style="list-style-type: none"> - Compute total charges - Determine amount due from patient & collect amount due - Record payments - Obtain insurance forms and signatures, as appropriate ● Reconciles cash drawer <ul style="list-style-type: none"> - Summarize cash receipts - Prepare Cash Summary ● Performs other tasks as assigned by Admissions Office Senior Clerk
Reports to	Admissions Office Senior Clerk
Hours	37 1/2 hours per week, 4 p.m. - 10 p.m. M - F 8 a.m. - 4:30 p.m. Saturday
Grade	Junior Clerk
Skills and Experience	Self Motivated. Ability to work with figures and handle money. Excellent people skills. Trustworthy and honest.
Education	Secondary

OUTPATIENT CASHIER

Position Summary	Responsible for collecting administration fee (not yet in effect, effective upon direction of Ministry of Health) and clinic charges for outpatient visits, both appointed and casulty
Responsibility and Tasks	<ul style="list-style-type: none"> ● Collects administration fee for all outpatient visits ● Collects clinic fee from patients who are not exempt ● Reconciles Cash Drawer <ul style="list-style-type: none"> - Summarize cash receipts - Prepare Cash Summary
Reports to	Admission Office Senior Clerk
Hours	22 1/2 hours per week, 8 a.m to 12:30 p.m. M-F
Grade	Junior Clerk
Skills and Experience	Excellent people skills. Ability to work with figures and handle cash. Able to collect from patients. Honest and trustworthy.
Education	Secondary or one year of related experience

OUTPATIENT APPOINTMENT CLERK

Position
Summary

Responsible for scheduling appointments for specialty clinics and eye clinic.

Responsibility
and Tasks

- Schedules appointments
 - Specialty
- Checks patients in as they arrive
 - Specialty
 - Eye
 - Casualty
- Summarizes kept and missed appointments

Reports to

Medical Record Supervisor

Grade

Junior Clerk

Skills and
Experience

Excellent verbal communication skills. Good people skills. Organized.

Education

Secondary

WARD CLERK

Position Summary	Responsible for coordinating and recording ward activity.
Responsibility and Tasks	<ul style="list-style-type: none"> • Records ancillary service requisitions and procedures onto Charge Tracking Sheet • Records transfers into and out of the ward • Prepares medical charts (notes) for discharge • Checks for discharge discrepancies on Daily Ward Census from Disclosure Slips. • Delivers and Picks-up Medical Notes three times per day • Handles telephone calls to the Ward • Maintains supplies inventory on the Ward
Report to	Ward Sister
Grade	Junior Clerk
Skills and Experience	Ability to read and write. Ability to learn medical terminology.
Education	Secondary

PATIENT ACCOUNTS CLERK

Position Summary	Responsible for managing patient accounts
Responsibility and Tasks	<ul style="list-style-type: none"> • Maintains Patient Ledger Cards • Records charges, payments and adjustments to Patient Ledger Cards • Submits insurance claims, record remittances and follow-up on denied claims • Sends patient statements • Identifys patients with outstanding balances for Admissions Office • Prepares monthly and year to date summaries of charges, payments and adjustments
Reports to	Account Supervisor
Grade	Account Clerk II
Skills and Experience	Ability to work with figures. Good analytical skills
Education	Secondary, training in accounting preferred

DEFINITION OF TERMS

Admission File, Active Accounts File and Inactive Accounts File

Patient Ledger Cards are held in one of three files: Admission File, Active Accounts File, or Inactive Accounts File. The **Admission File** is the file used to hold Patient Ledger Cards for those patients currently admitted in the hospital. The **Active Accounts File** is used to hold Patient Ledger Cards for those patients with outstanding balances due the hospital. The **Inactive Accounts File** is used to hold Patient Ledger Cards for those patient with zero balances.

Admissions Log Book

The Admission Log Book is used to record all admissions and discharges. The Admission Log Book is maintained by the Admissions Office. The Admission Log Book is maintained in addition to the Medical Records Admission Log kept by Medical Records which is used to collect statistics.

Admission Summary Sheet

The Admission Summary Sheet is used to process an inpatient admission into the hospital. The Admission Summary Sheet includes patient demographic information, financial status information, and an authorization for release of information needed for third party billing.

Cash Receipts Ledger

The Cash Receipts Ledger is maintained by the Cashier and is used to record all cash receipts including: administrative fees, payments on account, remittances from private insurance companies, and miscellaneous cash receipts.

Charge Tracking Sheet

The Charge Tracking Sheet is used to record services provided to the patient during an inpatient stay and their corresponding charges.

Daily Cash Summary

The Daily Cash Summary is used by to reconcile cash at the end of each day. Completed Daily Cash Summary is then used by the Accounting Office for preparation of bank deposits and cash control.

Daily Ward Census

The Daily Ward Census is used by each Ward to record patients admitted, discharged and transferred to/from the Ward. The Daily Midnight Census is used by the Business Office for charge entry and patient tracking.

Discharge Slip

The Discharge Slip is the Medical Record (Pink) copy of the Admission Summary Sheet which has been updated with discharge information. The Discharge Slip is presented to the Admissions Office upon discharge from the hospital.

Hospital Identification Number

The Hospital Identification Number is a unique identifier for patients seen at Victoria Hospital.

Master File Index

The Master File Index is the control file of all patient who have been admitted to Victoria Hospital within the last three years.

Patient Admission jacket

The Admission jacket is used to hold the Admission Summary Sheet, insurance claims forms, and other documents regarding a patient's inpatient stay. The Admission jacket is transferred from Admissions Office to Patient Accounting upon the patient's discharge.

Patient Ledger Cards

Patient Ledger Cards are used to record activity to a patient's account (e.g. charges, payments, and adjustments) and to maintain an accounting of the balance due. A Patient Ledger Card is maintained for each patient.

Patient Statements

Patient statements are a summary of charges, payments, adjustments, and balance due. A statement is given to each patient upon discharge. In addition, statements are sent to patients with outstanding balances at regular intervals.

Receipt

Receipts are given to patients as their record of payment for inpatient services.

Receivables Ledger

The Receivables Ledger is maintained by the Patient Accounting Clerk and is used to record charges, payments and adjustments for inpatient services.

Resident Patient File

The Resident Patient File is the file used to hold Admission jackets for all patients admitted to the hospital at any given time.

MAJOR PROCEDURE: **INPATIENT ADMISSION**
PERFORMED BY: **ADMISSIONS OFFICE**

- Step 1. Obtain admission authorization form from the patient for all elective admissions. Casualty and obstetrical admissions are the only two admissions types which are not elective.
- Step 2. Obtain or assign the patient's **Hospital Identification Number**.
- Step 2a. For new patients: assign to the patient the next available Hospital Identification Number and create new card for Master File Index. A list of Hospital ID Numbers available will be generated by Medical Records.
- Step 2b. For existing patients, obtain patient's Hospital Identification Number from the patient's Master File Index card.
- Step 3. Record admission in the **Admissions Log Book**.
- Step 4. Complete **Admission Summary Sheet** and obtain patient's or responsible party's signature for release of information. For new patients, write "- NEW" after the Hospital ID Number so that Medical Records knows to create a new folder. For example, 02-22-63-NEW. See Forms Section for sample Admissions Summary Sheet.
- Step 5. Determine and verify the patient's financial classification as follows:
- Step 5a. For patient's exempt under St. Lucian law, observe the appropriate documentation to verify exempt status, i.e., Ministry of Community Development card, birth certificate, or NIS card.
- When NIS names are delivered every month, verify that person is on the list.
- If patient does not have proof of exemption status, request that the patient obtain the necessary proof prior to admission or discharge.
- Step 5b. For patient's covered by private insurance, obtain name of insurance company, policy number, and name of subscriber. In addition, obtain an insurance claim form and have patient sign the release for assignment of benefits. Note: Insurance claim forms for major insurers will be maintained on file in the Admissions Office. If a form cannot be obtained during admission, request that the patient or family member bring a form upon discharge.
- Step 5c. For patient's covered by a self-insured employer, obtain a letter or other written documentation which authorizes delivery of services.

- Step 6. Assign bed according to admission type, e.g., Pediatric Ward.
- Step 6a. Call Ward Clerk or Head Nurse to verify availability of bed.
- Step 6b. Update bed chart.
- Step 7. Collect payments from patient as follows:
- Step 7a. **(Effective upon direction of the Ministry of Health)** Collect Administrative Fee from all patients.
- Step 7b. For self pay patients, collect a deposit equal to 50% of estimated total charges. Record receipt of deposit on Charge Tracking Sheet. If the patient is unable or unwilling to pay the deposit, request that the patient speak with the Head Accountant except in cases of emergency.
- Step 8. Record collections in **Cash Receipts Ledger**.
- Step 9. Give **Receipt** to patient.
- Step 10. Stamp and initial Admission Summary Sheet (each copy).
- Step 11. Complete top portion of **Charge Tracking Sheet**.
- Step 12. Distribute Admission Summary Sheet as follows:
- White- Ward (-W) (This is the full length Admission Summary Sheet which includes (original) space for medical notes. The patient proceeds to the ward with this copy of the Admission Summary Sheet, Charge Tracking Sheet, and physician authorization for admission.
 - Pink- Medical Records (-MR) (this eventually becomes the discharge slip) This will be picked up three times a day by the ward clerk and delivered to Medical Records.
 - Blue- Admissions Office (-A) File in the **Patient Admission jacket**.
 - Yellow- Patient Accounting (-PA) These will be delivered every morning by the Admissions Senior Clerk to the Patient Accounting Clerk for the previous day's admissions. Have patient or responsible party sign bottom of form to agree to be held responsible for payment.
- Step 13. File **Patient Admissions Jacket** in the **Resident Patient File**.

MAJOR PROCEDURE: INPATIENT ADMISSION
PERFORMED BY: MEDICAL RECORDS

- Step 1. Receive Admissions Summary Sheet-MR (original) from Admissions Office three times a day as delivered by the ward clerks.
- Step 2. Obtain patient's medical notes.
- Step 2a. For existing patients, pull medical notes from file.
- Step 2b. For new patients (noted because Medical Number will end with "- NEW"), create folder for medical notes. Write the name of the patient and Hospital Identification Number (assigned by Admissions Office) on the outside of the folder.
- Step 3. Update Medical Record's Admission Log.
- Step 4. Place Admission Summary Sheets in medical notes.
- Step 5. Put medical notes in area for delivery to appropriate Wards by Ward Clerks. Delivery of medical notes will occur three times per day, as follows:

Morning Delivery: 8:30 am
Midmoring Delivery: 11:00 am
Afternoon Delivery: 3:30 pm

Ward Clerks are assigned the duty of delivering medical notes on a rotation basis.

MAJOR PROCEDURE: INPATIENT ADMISSION

PERFORMED BY: WARD

- Step 1. Receive Admission Summary Sheet (Copy 3), Charge Tracking Sheet, and physician's authorization for admission from patient. If the patient does not have an Admission Summary Sheet, send the patient back to the Admissions Office except in the case of emergency admissions. In this case, request that the patient's family member or friend accompanying the patient go to the Admissions Office and complete the admission process.
- Step 2. Verify that Admission Summary Sheet is complete and has been signed by the Admissions Office staff.
- Step 3. Place Admission Summary Sheet and Charge Tracking Sheet in medical notes. Medical notes will be delivered from Medical Records to the respective Wards three times per day by Ward Clerks.

MAJOR PROCEDURE: INPATIENT ADMISSION

PERFORMED BY: PATIENT ACCOUNTING

- Step 1. Receive Admission Summary Sheet (Copy 2) from Admissions Senior Clerk first thing every morning.
- Step 2. Obtain **Patient Ledger Card**.
- Step 2a. For existing patients, pull Patient Ledger Card from file. If patient has an outstanding balance, notify Admissions office immediately.
- Step 2b. For new patients, create Patient Ledger Card.
- Step 3. For self pay patients, create **Patient Statement** for current charges.
- Step 4. Place Patient Ledger Card and Statement in **Admissions File**.
- Step 5. For patients with private insurance, verify by telephone with the insurance company to determine if the patient is covered, and the terms of coverage **prior to discharge** (i.e., covered services, dollar amount of coverage, persons covered). Notify Admissions Office if patient is **not** covered for inpatient services.

MAJOR PROCEDURE: PATIENT TRANSFER

PERFORMED BY: WARD CLERK or WARD SISTER

For transfers into the ward:

- Step 1. Document transfer on **Daily Ward Census**.
- Step 2. Document transfer on **Charge Tracking Sheet**
- Step 3. Transfer medical notes to Ward to which the patient is being transferred.

MAJOR PROCEDURE: PATIENT TRANSFER

PERFORMED BY: ADMISSIONS OFFICE SENIOR CLERK

For each Ward:

- Step 1. Obtain Daily Ward Census as delivered each morning by Night Maid.
- Step 2. Pull Patient Admission jacket of patient transferred from Resident Patient File.
- Step 3. Record date of transfer and Ward transferred to.
- Step 4. Update bed chart.
- Step 5. Return Patient Admission jacket to Resident Patient File.
- Step 6. Continue until all patient transfers have been recorded.

MAJOR PROCEDURE: RECONCILIATION OF DAILY WARD CENSUS
PERFORMED BY: ADMISSIONS OFFICE SENIOR CLERK

- Step 1. Night Maid will deliver the Daily Ward Census from all Wards to Admissions Office.
- Step 2. Summarize all admissions, discharges, and transfers for all Wards and ensure accuracy.
- Step 3. Collect from Casualty and Maternity Ward Admission Summary Sheets for all night admissions and process admission (see INPATIENT ADMISSIONS - ADMISSIONS OFFICE).
- Step 4. Match admissions recorded on Daily Ward Census to the Resident Patient File. If a patient has been admitted without going through the Admissions Office, complete the admission process (see INPATIENT ADMISSIONS - ADMISSIONS OFFICE). Repeat for all patients admitted without going through the Admissions Office.
- Step 5. If necessary, obtain insurance information and signature for release of information from patient on the Ward.
- Step 6. Match discharges recorded on Daily Ward Census to Resident Patient File. If a patient has been discharged without going through the Admissions Office, then complete the discharge process (see INPATIENT DISCHARGE - ADMISSIONS OFFICE) and indicate on the Admissions jacket that the patient left without going through the cashier.

MAJOR PROCEDURE: CHARGE TRACKING

PERFORMED BY: WARD CLERK or WARD SISTER

- Step 1. Prepare requisition for procedure or ancillary service per physician's orders.
- Step 2. Record services requisitioned on Charge Tracking Sheet including complete description and date ordered.
- Step 3. Send requisition to respective department.
- Step 4. Upon receipt of results or completion of procedure, record date received on Charge Tracking Sheet.

MAJOR PROCEDURE: INPATIENT DISCHARGE

PERFORMED BY: INPATIENT CASHIER or ADMISSIONS CLERK

- Step 1. Receive from Ward Clerk, one time a day, Charge Tracking Sheets for all patients to be discharged.
- Step 2. Compute total charges for Ward and record on Charge Tracking Sheet.
Ward Charge = **Number of Days in Ward x Charge per Ward Day.**
- Step 3. Record the appropriate charge for each procedure and ancillary service indicated on the Charge Tracking Sheet. Charges are obtained from the Fee Schedule in St. Lucian Law.
- Step 4. Record other charges as noted, e.g.,
 - Consultant fees
 - Confinement fee for OB deliveries
- Step 5. Total all charges and record on Charge Tracking Sheet, place in Admission jacket and move jacket to back of Patient Resident File (to be discharged).
- Step 6. Obtain **Discharge Slip** (the Discharge Slip is the MR copy of the Admission Summary Sheet updated with discharge information). This information should be presented to the Cashier by a friend or family member of the patient.
- Step 7. Pull Charge Tracking Sheet and review charges with patient, family member, or friend.
- Step 8. Collect appropriate amount due, as follows:
 - Step 8a. For exempt patients, collect no fees.
 - Step 8b. For patients with private insurance, collect no fees. If not already done, obtain an insurance claim form with the patient's signature assigning benefits to Victoria Hospital.
 - Step 8c. For self pay patients, collect total charges less deposit made upon admission. If patient is unable or unwilling to pay, refer him or her to the Head Accountant.
- Step 9. Record payments on Cash Receipts Ledger.
- Step 10. Give Receipt to patient.
- Step 11. Stamp and sign Discharge Slip.

- Step 12. Give the approved Discharge Slip to the patient's friend or family member and instruct them to return to the Ward.
- Step 13. Update the Admission Log.
- Step 14. Update the bed chart.
- Step 15. File the Charge Tracking Sheet along with any insurance claim forms or other relevant documents in Patient Admission jacket.
- Step 16. At the beginning of the morning shift, Patient Accounts Clerk will pick up Admission jackets from Admissions Office for all previous day's discharges. Admission jacket should include Charge Tracking Slip, insurance forms, payment agreements, and other information needed for billing and patient accounting.

MAJOR PROCEDURE: INPATIENT DISCHARGE

PERFORMED BY: WARD CLERK or WARD SISTER

- Step 1. Obtain physician orders to discharge patient.
- Step 2. Pull patient's medical notes.
- Step 3. Review Charge Tracking Sheet to ensure that all services provided have been recorded and place in "to be discharged" basket. One time per day (approximately 11 am) a designated Ward Clerk will pick up Charge Tracking Sheets for those patients to be discharged and hand carry Charge Tracking Sheets to the Admissions Office.
- Step 4. Record on original copy of Admission Summary Sheet (Medical Records copy) the date and time of discharge. The Admission Summary Sheet then becomes the Discharge Slip.
- Step 5. Give to patient's friend or family member the Discharge Slip to take to Admissions Office. Discharge Slip must be taken to cashier by a Ward Clerk if family member or friend is unavailable.
- Step 6. Obtain Discharge Slip with stamp and initial of Admissions Office staff.
- Step 7. Discharge patient.
- Step 8. File Discharge slip in medical notes.
- Step 9. Place file in "Discharged Basket". These files will be picked up by the Ward Clerks and delivered to Medical Records once a day.

MAJOR PROCEDURE: INPATIENT DISCHARGE

PERFORMED BY: PATIENT ACCOUNTING

- Step 1. Each morning pick up Admissions jackets from Admissions Office for patients who have been discharged.
- Step 2. Pull Patient Ledger Card (for self pay and commercial insured patients only) from Admission File.
- Step 3. Post total charges from Charge Tracking Sheet(s).

See Charge Entry - Patient Accounts Clerk

MAJOR PROCEDURE: COLLECTION OF CHARGES FOR OUTPATIENT VISITS

PERFORMED BY: OUTPATIENT CASHIER

- Step 1. Obtain from the patient appointment card for outpatient visit.
- Step 2. **(Effective upon direction of Ministry of Health)** For all patients, collect the administrative fee of EC\$10.
- Step 3. For self pay patients, collect fee for outpatient visit per schedule of charges.
- Step 4. Record collection in the Cash Receipts Ledger.
- Step 5. Give to the patient a receipt of payment.

MAJOR PROCEDURE: CASH RECONCILIATION

**PERFORMED BY: INPATIENT CASHIER, OUTPATIENT CASHIER,
ADMISSIONS CLERK**

(Steps are performed at the end of each shift for each cash drawer)

- Step 1. Total columns on Cash Receipts Log(s) and crossfoot totals.
- Step 2. Take out from the cash drawer the established cash on hand.
- Step 3. Sort remaining cash by denomination.
- Step 4. Count cash and record on **Daily Cash Summary**.
- Step 5. Total cheques and rechart on Daily Cash Summary.
- Step 6. Total Daily Cash Summary and agree to totals from Cash Receipts Ledger(s). Reconcile any differences.
- Step 7. Hand carry Daily Cash Summary, cash and cheques to General Accounting Clerk. The Admissions Clerk, at the end of the night shift, will put cash and report in the safe upstairs for reconciliation by General Accounting Clerk.

MAJOR PROCEDURE: CASH RECONCILIATION

PERFORMED BY: GENERAL ACCOUNTING CLERK

- Step 1. Receive cash, cheques, and Daily Cash Report from the Admissions Office.
- Step 2. Verify that the Daily Cash Report is correct.
- Step 3. Prepare bank deposit.

MAJOR PROCEDURE: PROCESSING INSURANCE RECEIPTS

PERFORMED BY: GENERAL ACCOUNTING CLERK

- Step 1. Obtain remittance advice and cheque from insurance carrier.
- Step 2. Verify that total on remittance advice equals check total.
- Step 3. Separate check from remittance advice.
- Step 4. Prepare check for deposit and make deposit.
- Step 5. Forward remittance advice to Patient Accounting.

MAJOR PROCEDURE: CHARGE ENTRY

PERFORMED BY: PATIENT ACCOUNTS CLERK

- Step 1. Each morning, pick up Admission jackets from Admissions Office for those patients discharged. Admission jackets should include Charge Tracking Sheet, Blue Copy of Discharge Slip and insurance forms, if applicable.
- Step 2. Pull the respective Patient Ledger Card and Statement (applies to self pay and commercial insured patients only) and Admission Summary Sheet - PA Copy from Admission File.
- Step 3. Total each category of charges and confirm that statement total is correctly added. Record total charges from Charge Tracking Sheet to Patient Ledger Card, Patient Statement, and Receivables Register.
- Step 4. Distribute charges on Receivables Register by payor source (i.e., NIS, Exempt, Insurance, and Self Pay) and by charge category (i.e., Wards, Procedures, Ancillary, Consultant Fees, and other).
- Step 5. Record adjustments. For exempt patients, adjustments equal total charges so that the amount due from the patient is zero.
- Step 6. If balance due is zero, file Patient Ledger Card in Inactive Accounts File.
If balance due is greater than zero, file Patient Ledger Card in Active Accounts File.
- Step 7. Discard Blue Copy of Admission Summary Sheet.
- Step 8. File Charge Tracking Sheet by date of discharge. Retain for one year and then discard or archive.
- Step 9. Record date of discharge on yellow copy (PA) of Admission Summary Form and file in Old Admission Summary Sheet file. Retain for one year and then discard.

MAJOR PROCEDURE: POSTING PATIENT PAYMENTS

PERFORMED BY: PATIENT ACCOUNTS CLERK

- Step 1. Receive the Cash Receipts Ledger(s) from the General Accounting Clerk.
- Step 2. Record receipts. **Note: Receipts are recorded for Inpatient Services only. Charges and receipts for outpatient visits and outpatient pharmacy are not recorded on the Patient Ledger Card; payment for these services should be paid in full at the time of service.**
- Step 2a. Pull the Patient Ledger Card and corresponding Patient Statement (for commercial insurance and self pay patients only).
- Step 2b. Record receipts on the Patient Ledger Card, Patient Statement, and the Receivables Ledger.
- Step 2c. If the patient's balance is zero, file Patient Ledger Card in the Inactive Accounts File.
If the patient's balance is greater than zero, file Patient Ledger Card in the Active Accounts File.
- Step 3. Repeat Steps 2a-c until all payments have been posted.

MAJOR PROCEDURE: SUBMITTING INSURANCE CLAIM FORMS

PERFORMED BY: PATIENT ACCOUNTS CLERK

- Step 1. Obtain the appropriate insurance claim form. Insurance claim forms are obtained from the patient or from the stock of claim forms maintained by Victoria Hospital. Victoria Hospital will maintain a stock of claim forms from the major insurers operating in St. Lucia.
- Step 2. Complete insurance claim forms.
- Step 3. Sort claim forms by carrier.
- Step 4. Mail original claim form to insurance company.
- Step 5. File hospital copy in a tickler file by month of discharge.

MAJOR PROCEDURE: PROCESSING INSURANCE RECEIPTS

PERFORMED BY: GENERAL ACCOUNTING CLERK

- Step 1. Obtain remittance advice and cheque from insurance carrier.
- Step 2. Verify that total on remittance advice equals check total.
- Step 3. Separate check from remittance advice.
- Step 4. Prepare check for deposit and make deposit.
- Step 5. Forward remittance advice to Patient Accounting.

MAJOR PROCEDURE: PROCESSING INSURANCE RECEIPTS

PERFORMED BY: PATIENT ACCOUNTS CLERK

- Step 1. Obtain remittance advice(s) from General Accounting.
- Step 2. Pull Patient Ledger Card and Patient Statement.
- Step 3. Pull insurance claim from tickler file.
- Step 4. Record insurance receipt on Patient Ledger Card, Patient Statement, and Services Register.
- Step 5. If patient's account is paid in full (i.e., balance due is zero), then file the Patient Ledger Card in the Inactive Accounts File, otherwise, file it in Active Accounts File.
- Step 6. Repeat Steps 2, 3, 4, and 5 for all remittances.

MAJOR PROCEDURE: MONTH END PROCEDURES

PERFORMED BY: PATIENT ACCOUNTS CLERK

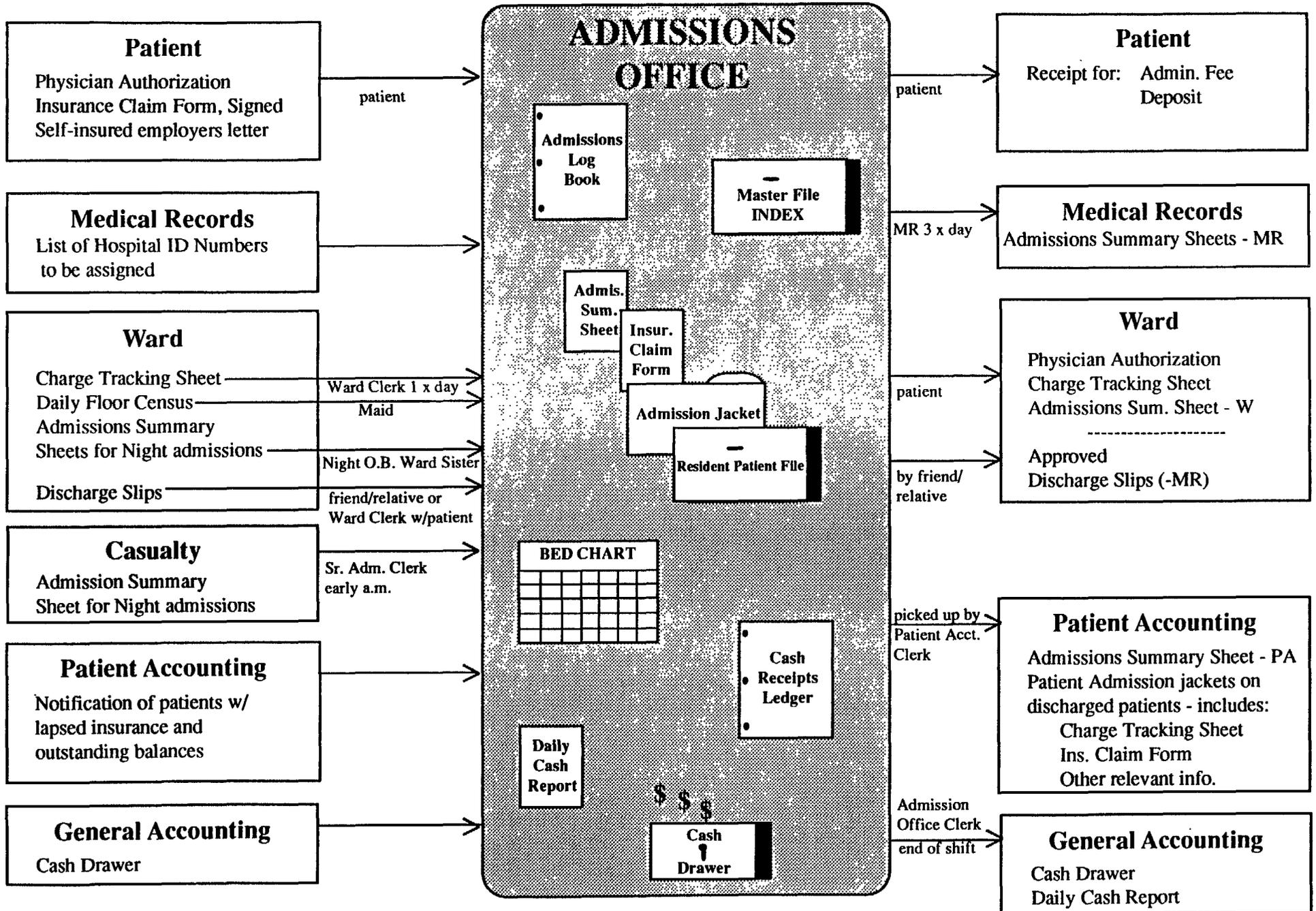
Patient Accounts Management

- Step 1. Review all Patient Ledger Cards in the Active Accounts File and all outstanding insurance claim forms in tickler file.
- Step 2. For self pay accounts which are more than 30 days past due:
 - Step 2.a Send a Patient Statement to the patient or responsible party requesting immediate payment. Indicate on the Patient Statement the total amount due and the number of days past due.
 - Step 2.b Indicate on the Patient Ledger Card that a Patient Statement has been sent.
- Step 3. For self pay patients who are on a regular payment plan:
 - Step 3.a Prepare Patient Statement for amount due and deliver to patient or responsible party.
- Step 4. For outstanding insurance claims in the tickler file:
 - Step 4.a Pull all unpaid claims submitted more than 90 days (3 months) prior.
 - Step 4.b Photocopy claim form and write "Resubmitted" across the top of the claim form. Post or otherwise deliver copy of claim form(s) to the appropriate insurance carriers.
 - Step 4.c Record date of resubmission on the file copy of the claim form and refile by date of discharge.

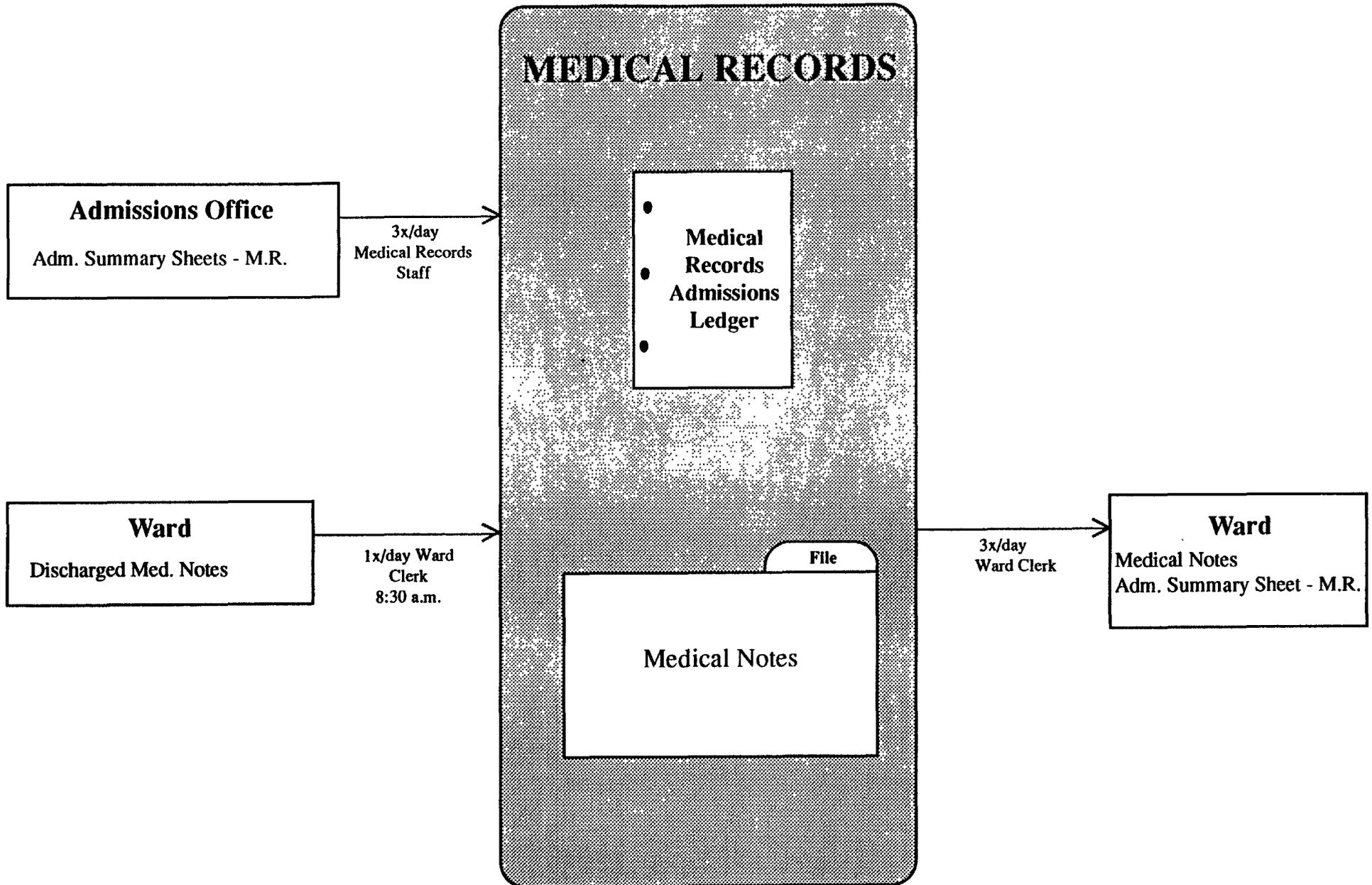
Reconciliation of Receivables

- Step 5. Total and crossfoot columns on Receivables Ledger for the month. Reconcile any differences.
- Step 6. Total balances due for all Patient Ledger Cards in Active Accounts File.
- Step 7. Agree total obtained in Step 6 to total Balance Due on the Receivables Ledger.

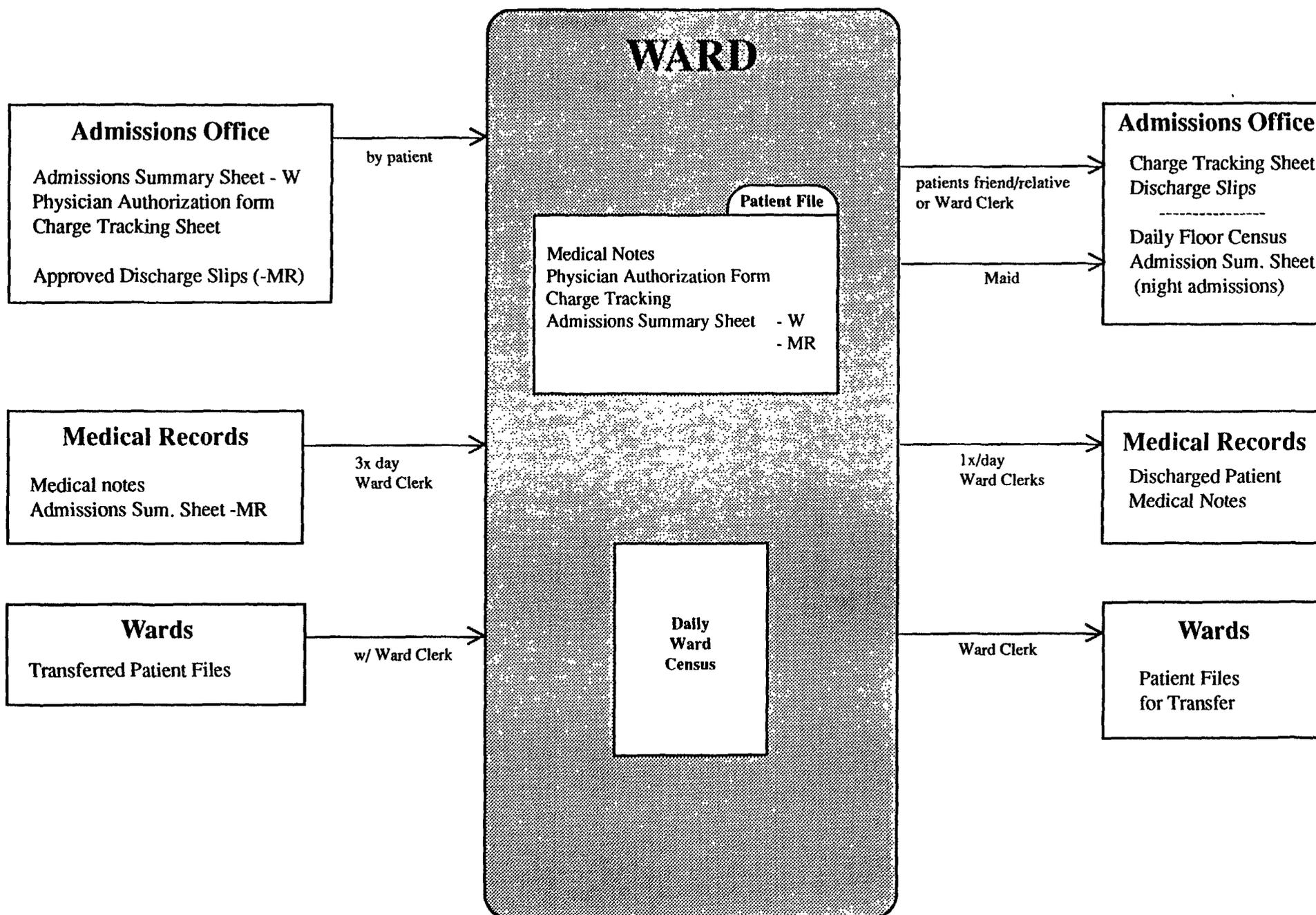
Flow of Information



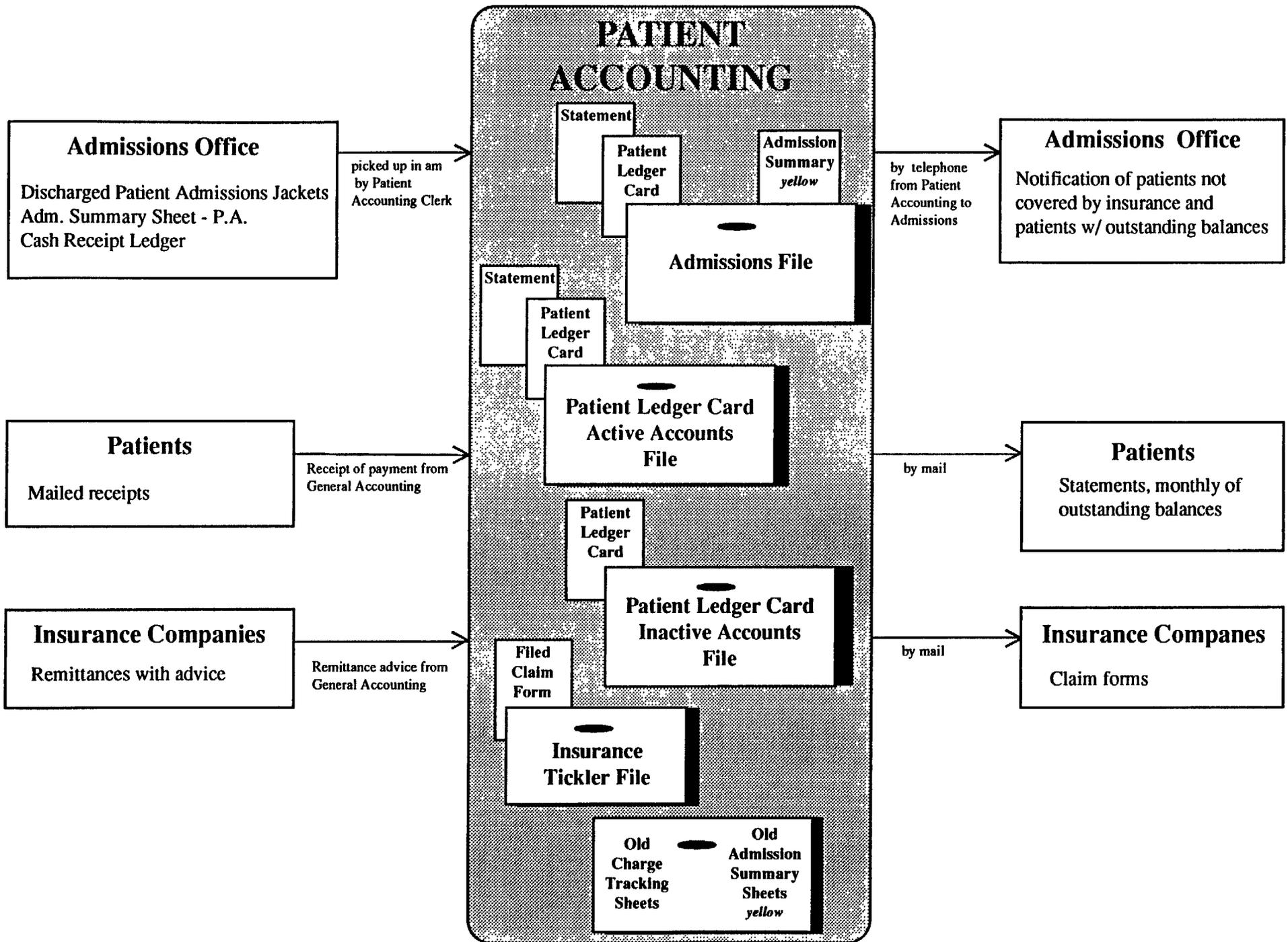
Flow of Information



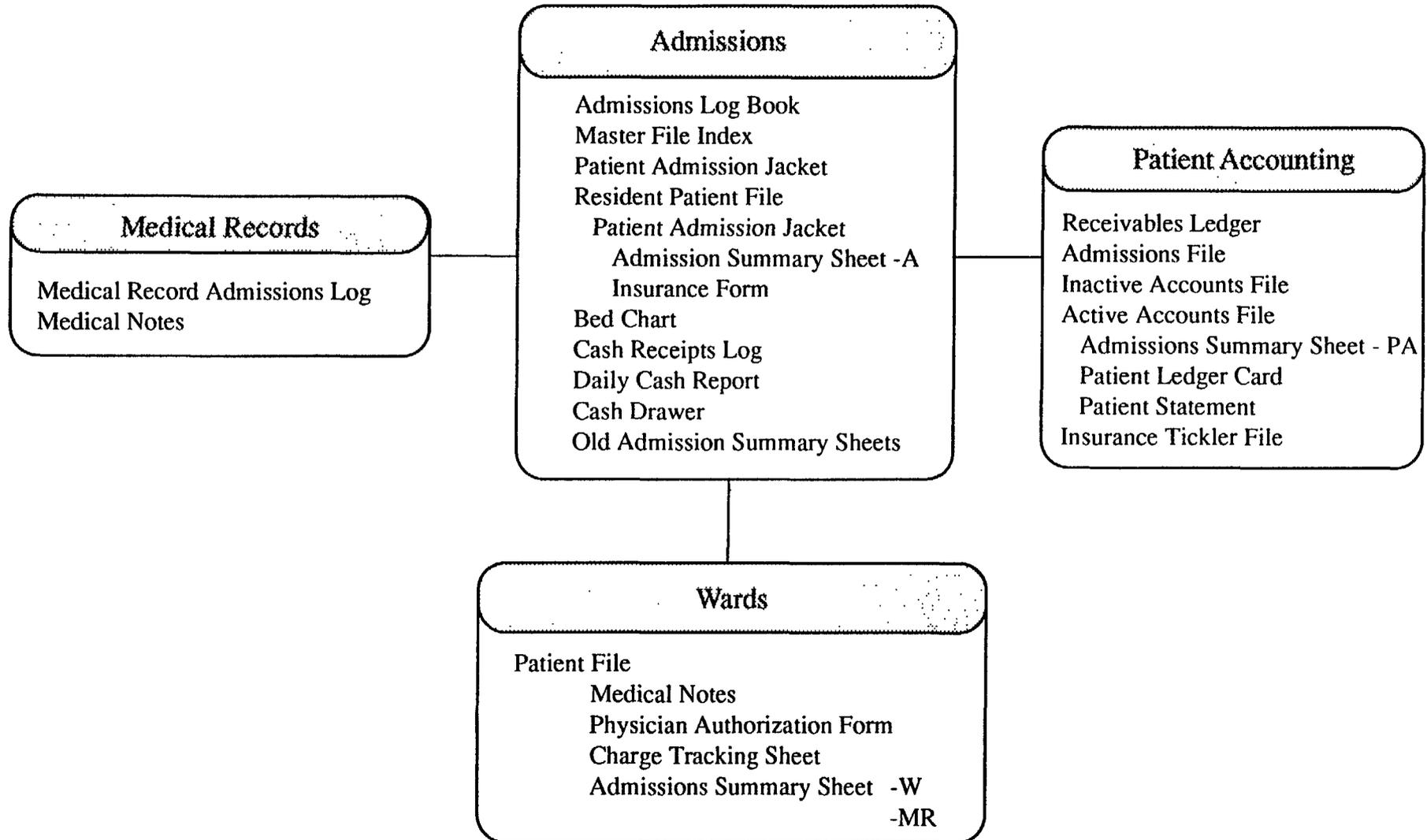
Flow of Information



Flow of Information



ADMISSIONS FORMS & FILES



ADMINISTRATIVE: CASH RECEIPTS LOG
 CASH RECEIPTS JOURNAL

CHECKS	CASH	NET PAYMENT	DATE	NAME	DESCRIPTION	REC'D BY	RECEIPT NUMBER	1	2	3	4	5
							1					
							2					
							3					
							4					
							5					
							6					
							7					
							8					
							9					
							10					
							11					
							12					
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							22					
							23					
							24					
							25					
							26					
							27					
							28					
							29					
							30					

SUB TOTALS →	CHECKS ONLY	SUBTRACT ENCIRCLED ITEMS
	TOTALS THIS SHEET ONLY →	
	GRAND TOTAL →	

OR _____ SHEETS →

CASH CONTROL	
BEGINNING CASH ON HAND	\$
PLUS CHECKS AND CASH REC'D	\$
SUB TOTAL	\$
LESS BANK DEPOSIT	\$
CLOSING CASH ON HAND	\$

TOTALS THIS PAGE →	1	2	3	4	5
TOTALS PREVIOUS PAGE →					
TOTALS TO DATE →					

IF A ORDER FROM LOCAL M-REC OFFICE IS UNKNOWN CALL 1-800-4-1-1

CHECKS	CASH	NET PAYMENT	DATE	NAME	DESCRIPTION	BY
--------	------	-------------	------	------	-------------	----

(CIRCLED) AMOUNT
IS CASH
PAID TO YOU

VICTORIA HOSPITAL
CASTRIES
ST. LUCIA, WEST INDIES
TEL. 22421

RETAIN THIS RECEIPT
FOR YOUR RECORDS

Thank You

026	ADMISSIONS: PATIENT RECEIPT
027	
028	
029	
030	
031	
032	
033	
034	
035	
036	
037	
038	
039	
040	
041	
042	
043	
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047	
048	
049	
050	

VICTORIA HOSPITAL CHARGE TRACKING SHEET

Patient Name			Date of Admission		
Hospital ID No.			Date of Discharge		
WARD CHARGES:	Ward	Date	Number of Days	Daily Rate	Charge (Entered by Cashier)
Admitted to					
Transferred to					
Transferred to					
Transferred to					
TOTAL WARD CHARGES					
PROCEDURE CHARGES: (specify)			Date Ordered	Date Received	Charge (Entered by Cashier)
TOTAL PROCEDURE CHARGES					
ANCILLARY CHARGES: (Lab, Xray, Etc)			Date Ordered	Date Received	Charge (Entered by Cashier)
TOTAL ANCILLARY CHARGES					
OTHER CHARGES:					
Consultant Physician (Schedule V)					
Delivery Fee					
TOTAL OTHER CHARGES					
TOTAL ALL CHARGES					

VICTORIA HOSPITAL
DAILY CASH REPORT

DATE _____

CHEQUES	
List:	\$ _____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
TOTAL CHEQUES	\$ _____
CASH	
x 100	\$ _____
x 20	_____
x 10	_____
x 5	_____
x1	_____
Coins	_____
TOTAL CASH	_____

TOTAL REVENUE SUBMITTED \$ _____

DAILY LOG TOTAL _____

CASH OVER/SHORT _____

SIGNED _____

FORWARD TO: GENERAL ACCOUNTING DEPARTMENT

Revised 1/92

VICTORIA HOSPITAL
DAILY CASH REPORT

DATE _____

CHEQUES	
List:	\$ _____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
TOTAL CHEQUES	\$ _____
CASH	
x 100	\$ _____
x 20	_____
x 10	_____
x 5	_____
x1	_____
Coins	_____
TOTAL CASH	_____

TOTAL REVENUE SUBMITTED \$ _____

DAILY LOG TOTAL _____

CASH OVER/SHORT _____

SIGNED _____

FORWARD TO: GENERAL ACCOUNTING DEPARTMENT

Revised 1/92

120

VICTORIA HOSPITAL
CASTRIES
ST. LUCIA, WEST INDIES
TEL. 22421

AMOUNT OF
REMITTANCE
\$

P068220 503

PLEASE TEAR OFF AND MAIL TOP PORTION WITH REMITTANCE

	DATE	PATIENT	SERVICE CODE	FEES CHARGED	CREDITS		BALANCE DUE	CR.
					PAID	ADJ		
FWD.	PREVIOUS BALANCE							
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								

FORM NO FP16005

McBee ATHENS OHIO

PLEASE PAY LAST AMOUNT SHOWN IN THIS COLUMN

BEST AVAILABLE COPY

PROMISSORY NOTE

I, _____, agree to pay to Victoria Hospital the amount of \$ _____ on the _____ day of each month until the total amount due of \$ _____ is paid in full.

Agreement made this _____ day of _____, 19__.

Signed by:

Patient or Responsible Person

Hospital Representative

=====

PROMISSORY NOTE

I, _____, agree to pay to Victoria Hospital the amount of \$ _____ on the _____ day of each month until the total amount due of \$ _____ is paid in full.

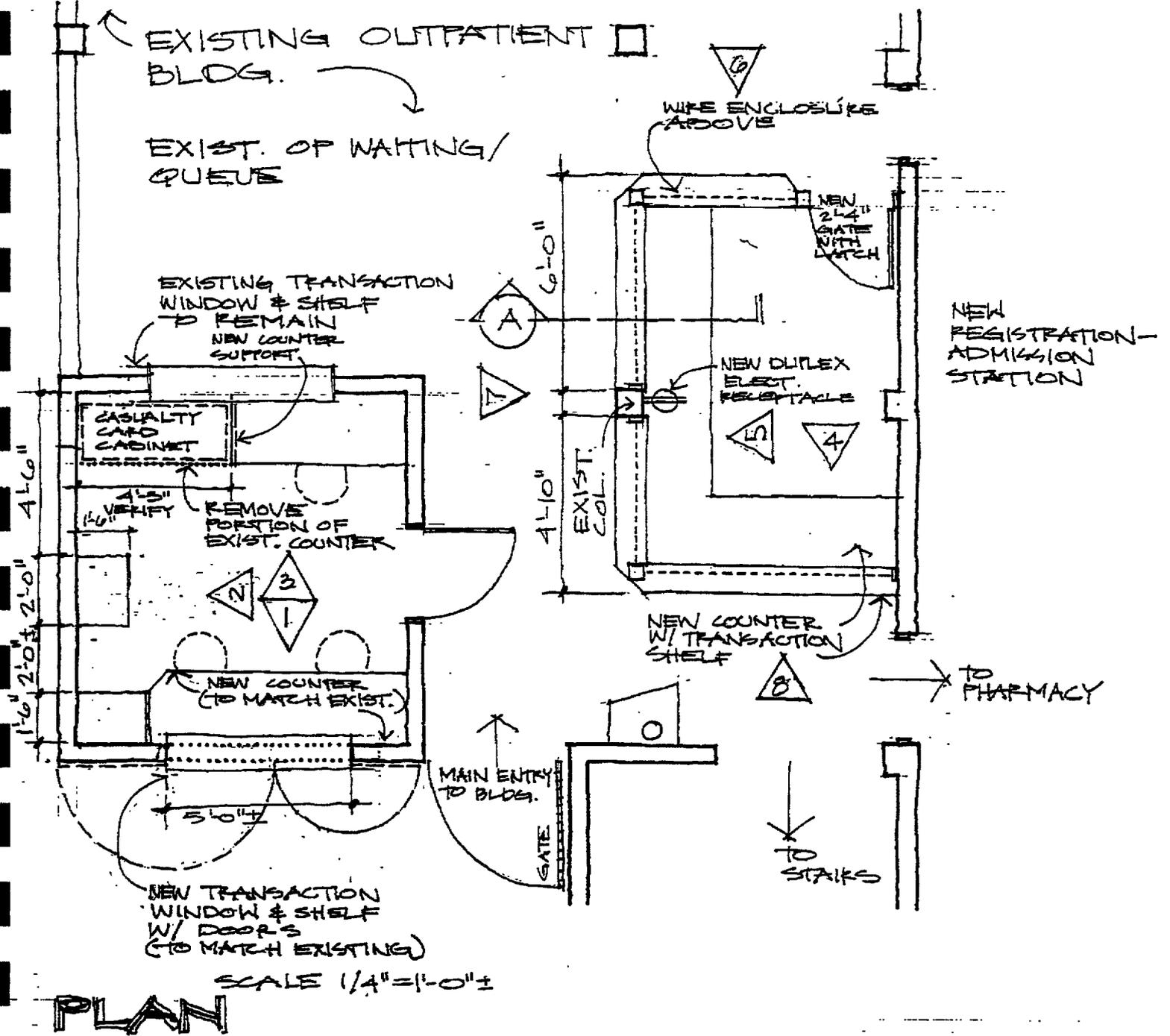
Agreement made this _____ day of _____, 19__.

Signed by:

Patient or Responsible Person

Hospital Representative

BEST AVAILABLE COPY



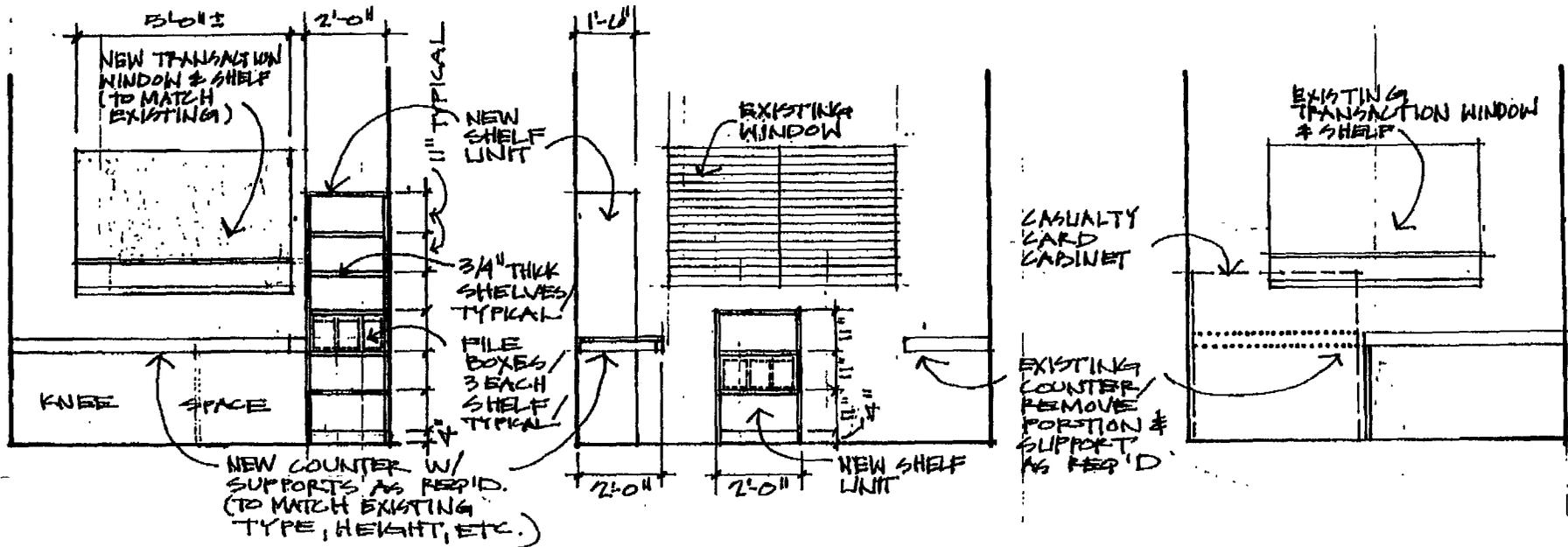
PLAN

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BEST AVAILABLE COPY

SHEET
1 OF 3

**INTERM REGISTRATION-ADMISSION STATIONS
VICTORIA HOSPITAL/CASTRIES, ST. LUCIA
10-04-91 / K. HANOVER - CONSULTANT/ISI**



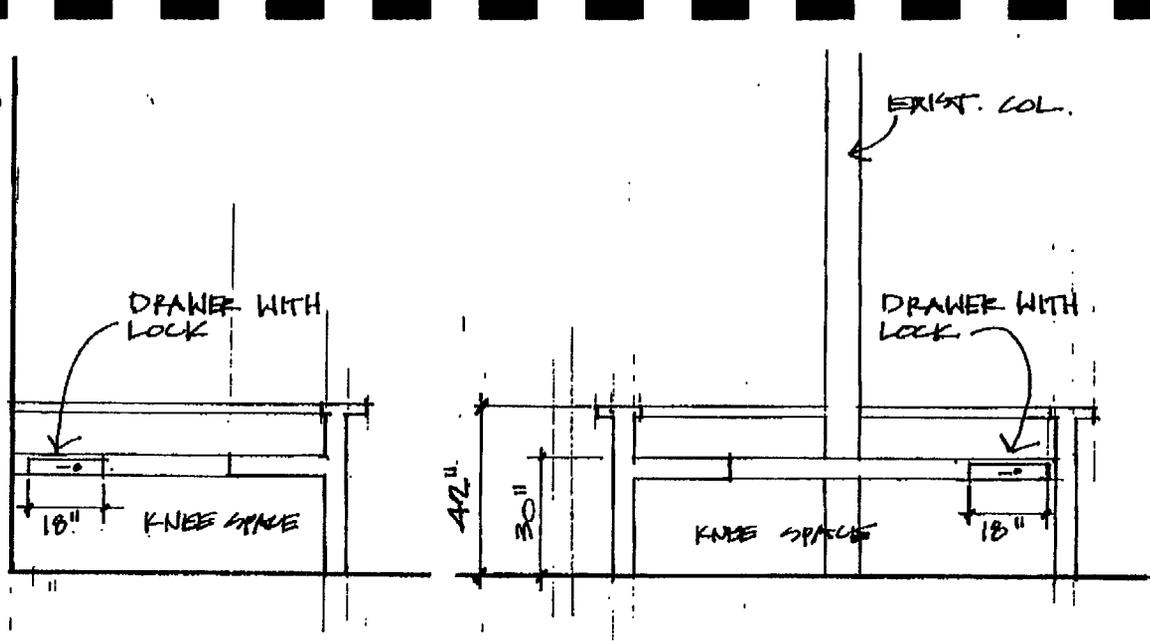
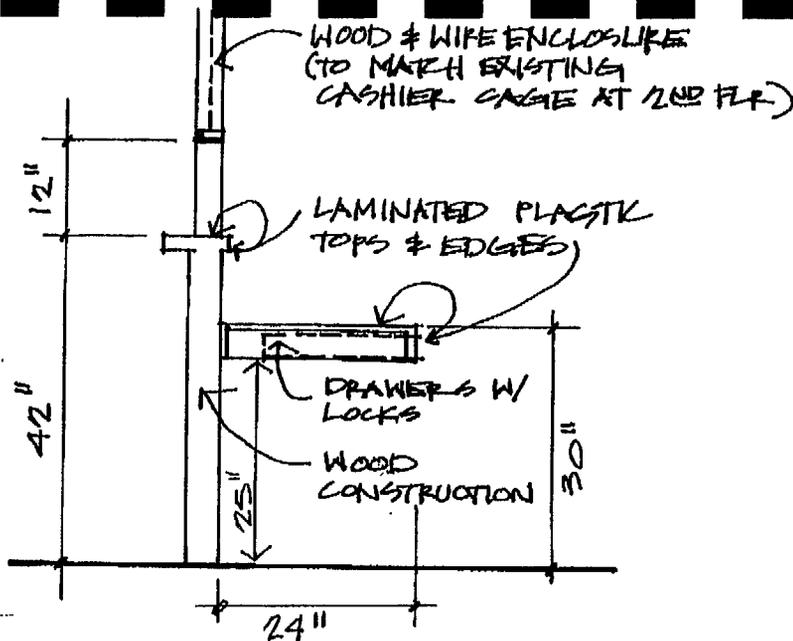
1
2
3

ELEVATIONS SCALE 1/4" = 1'-0"

128

SHEET
2 OF 3

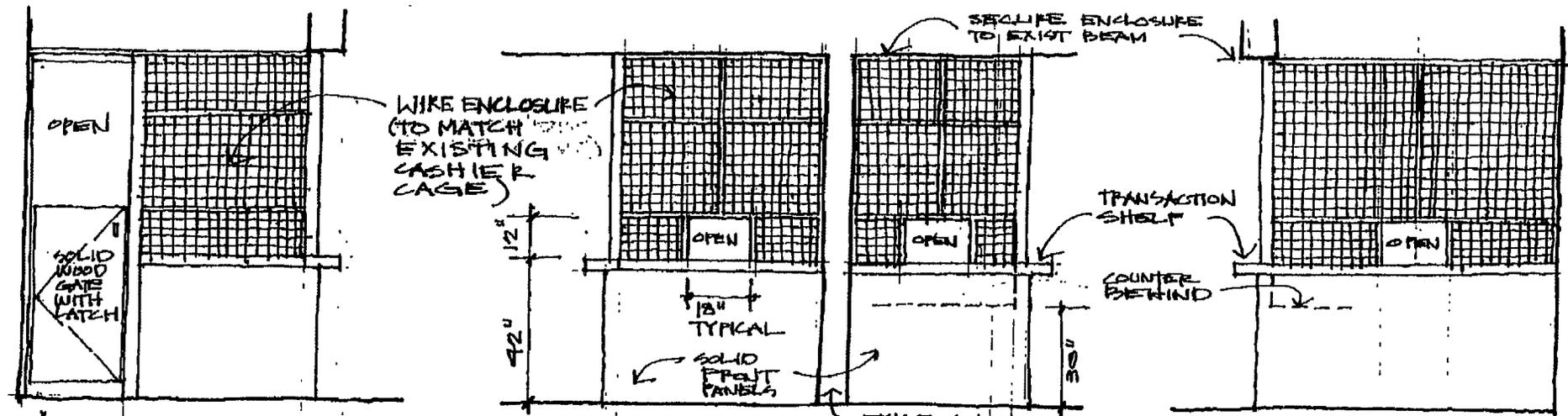
INTERIM REGISTRATION - ADMISSION STATIONS
VICTORIA HOSPITAL / CASTRIES, ST. LUCIA
 10-04-01 / K. HANOVER - CONSULTANT / JSE



A SECTION-PROFILE $1/2" = 1'-0" \pm$

4 ELEVATIONS $1/4" = 1'-0"$ **5**

129

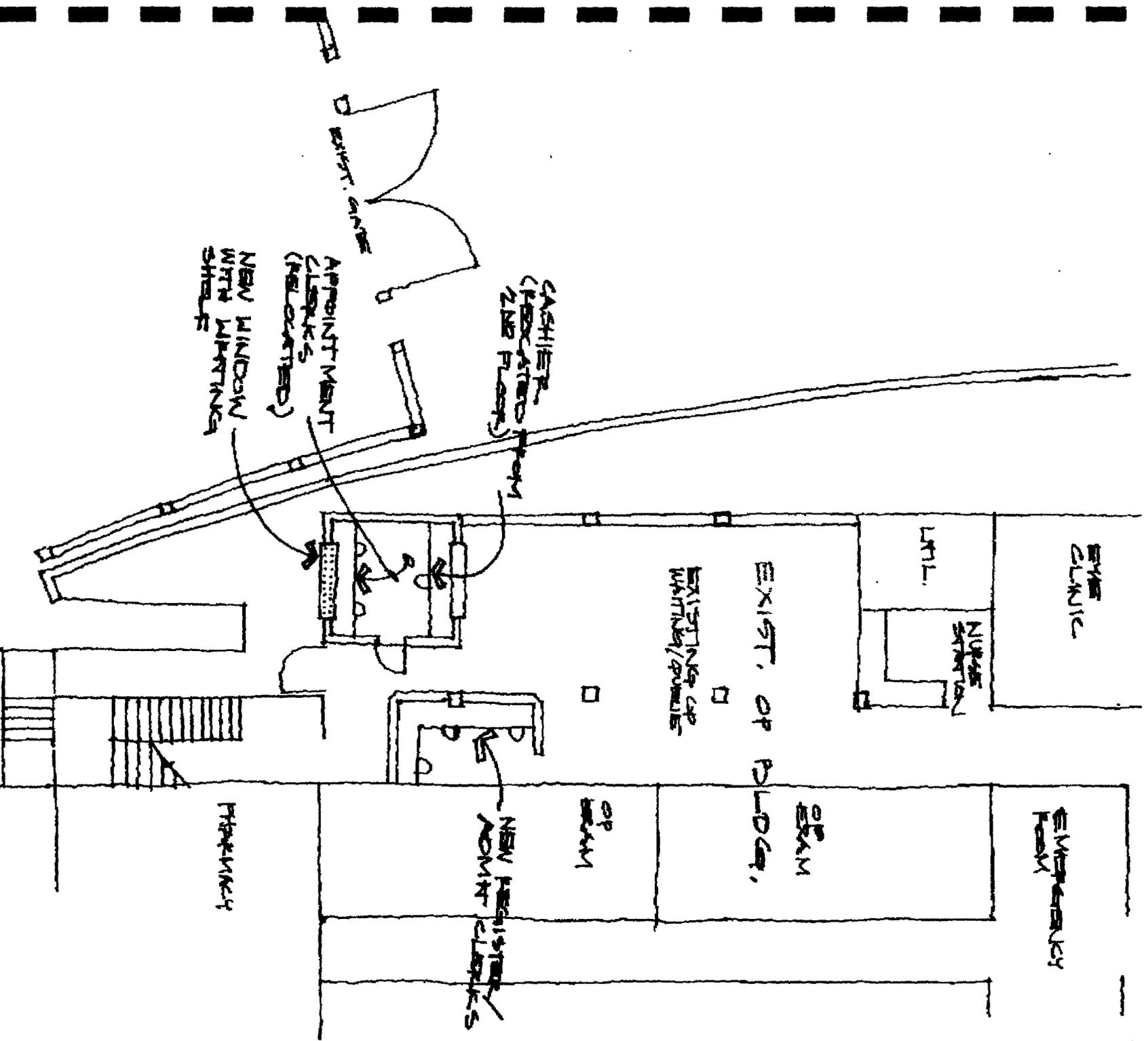


6 ELEVATIONS $1/4" = 1'-0" \pm$

7 **8**

SHEET 3
3 OF 3

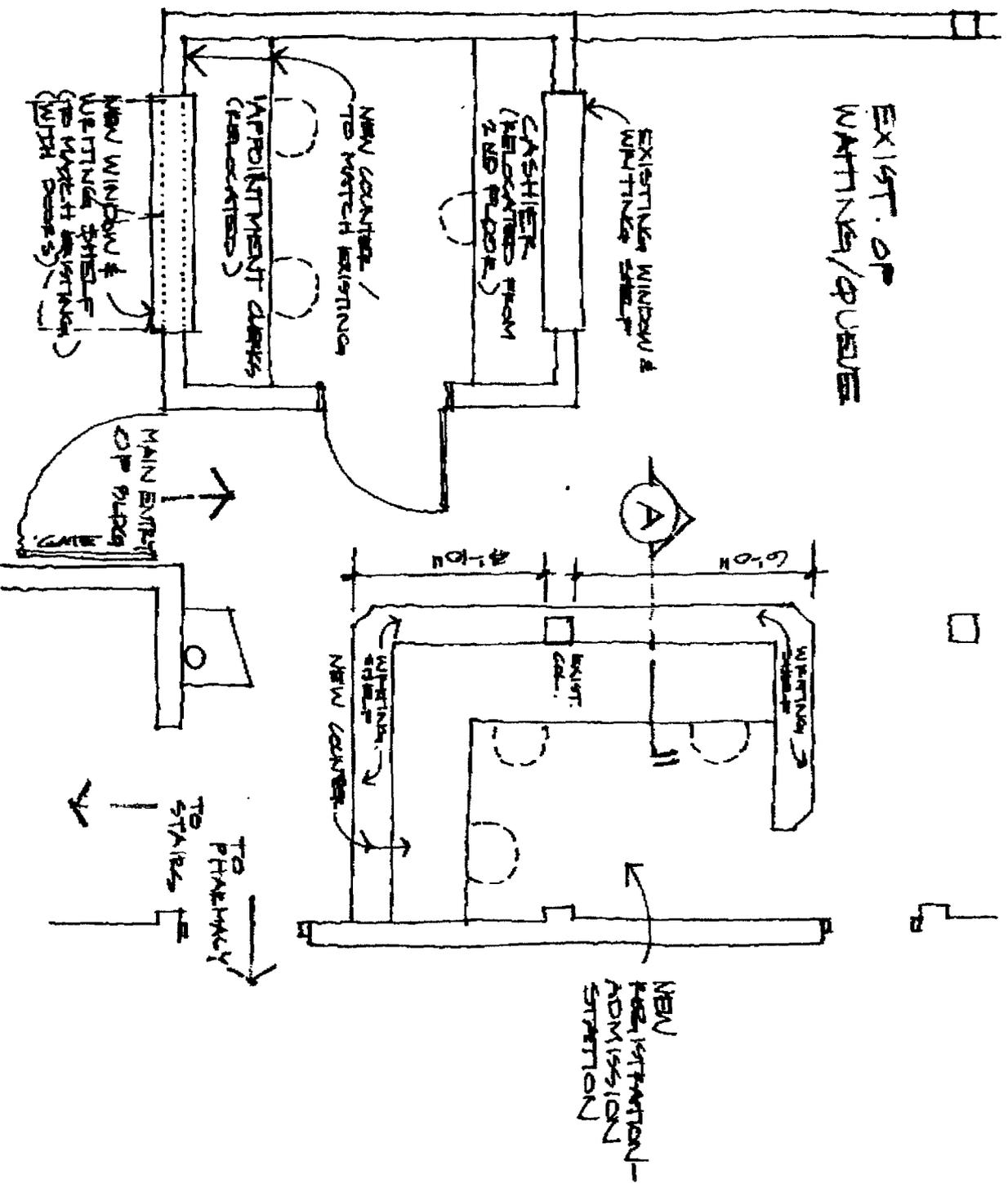
INTERIM REGISTRATION - ADMISSION STATIONS
VICTORIA HOSPITAL / CASTRES, ST. LUCIA
 10-04-01 / K. HANOVER - CONSULTANT / JSI



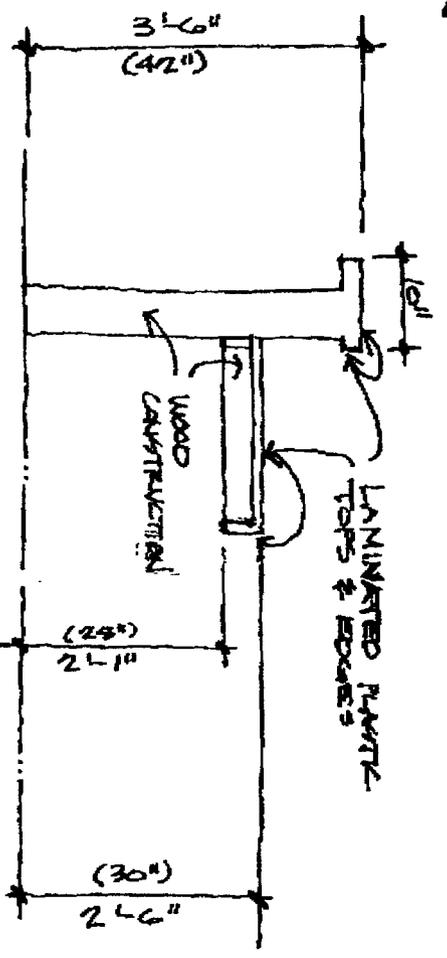
CONCEPT PLAN

SCALE 1/2" = 10'

**PROPOSED
INTERIM REGISTRATION-ADMISSION STATIONS**
VICTORIA HOSPITAL / CASHEL, ST. LUCIA
 9-12-91 / K. HANOVER - CONSULTANT 130

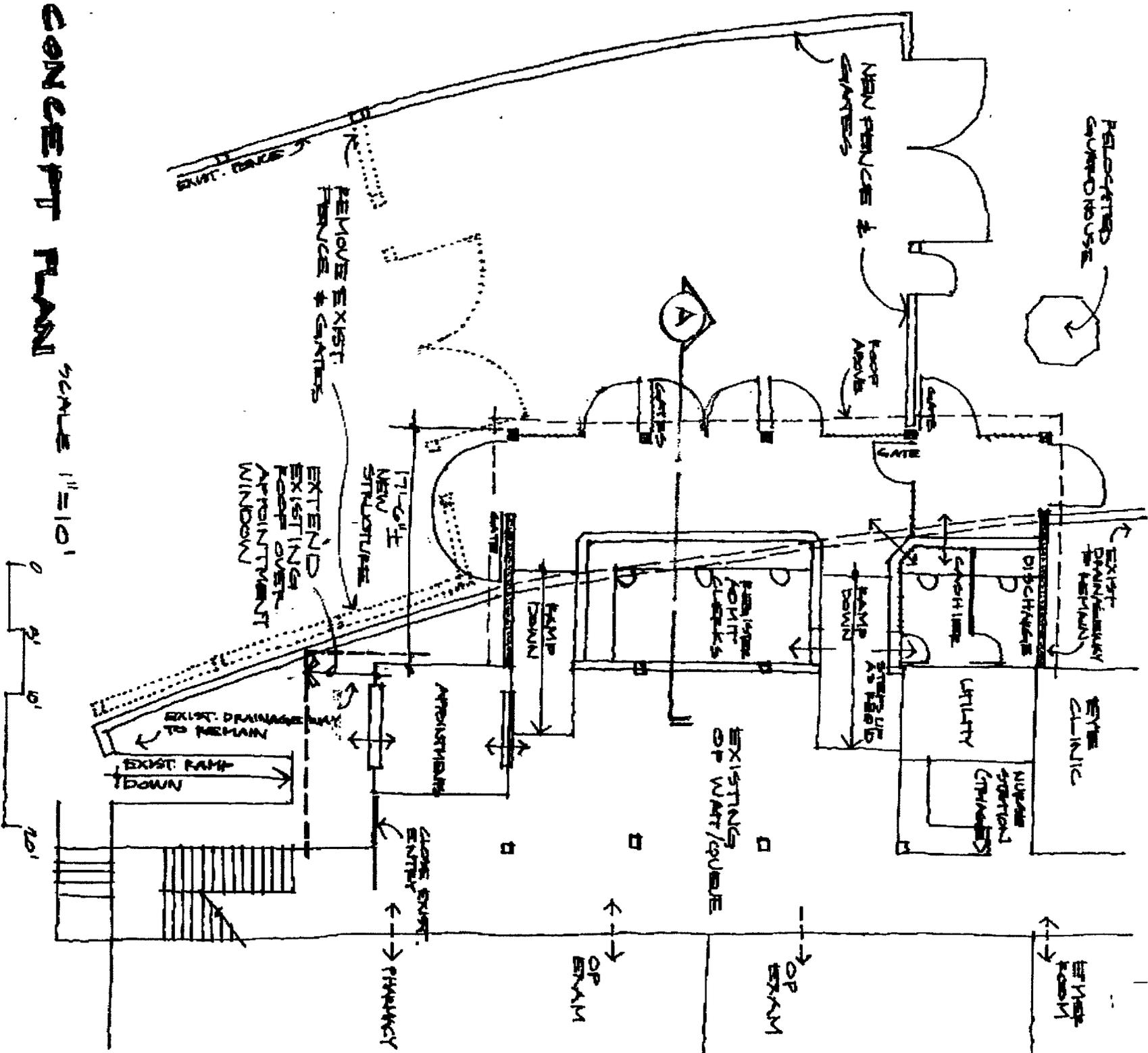


PLAN SCALE 1/4" = 1'-0"



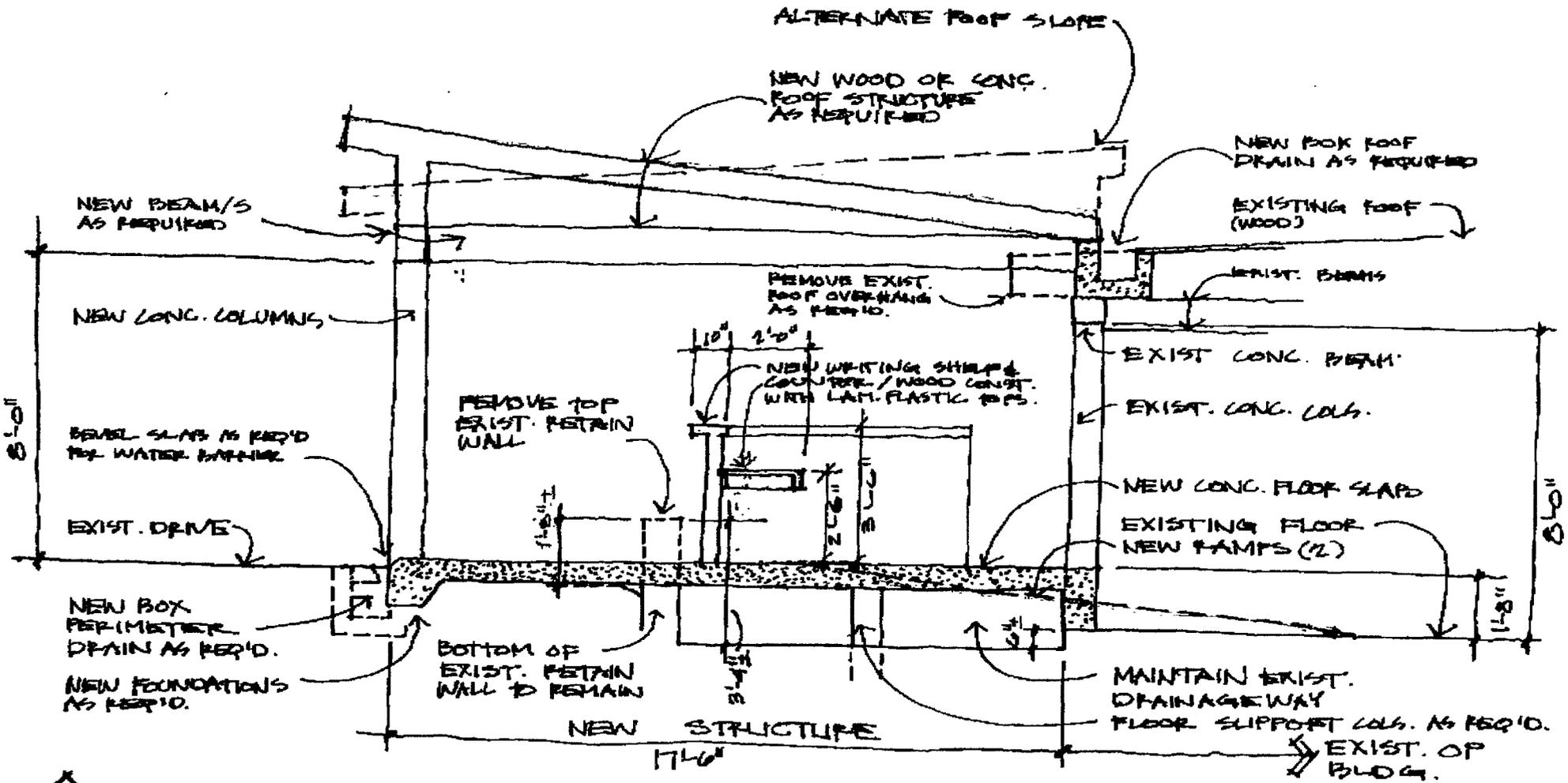
SECTION / PROFILE - NEW COUNTER SCALE 1/2" = 1'-0"

PROPOSED INTERIM RECEPTION-ADMISSION STATIONS
 VICTORIA HOSPITAL / CASTLES, ST. JULIA
 9-12-91 / K. HANOVER CONSULTANT 131



CONCEPT PLAN SCALE 1" = 10'

PROPOSED PHASE III REGISTRATION-ADMISSIONS
 VICTORIA HOSPITAL / NEW PAVILION
 9-12-91 / K. WANDER-CONSULTANT



A CONCEPT PROFILE / SECTION 1/4" = 1'-0"

**PROPOSED PHASE II REGISTRATION - ADMISSIONS
NEW PAVILION**

VICTORIA HOSPITAL / CASTRIES, ST. LUCIA
9-12-91 / K. HANOVER - CONSULTANT

Victoria Hospital
 Cost Allocation
 For Fiscal Year _____

Worksheet A: Allocation of Direct Expenses

LINE ITEM EXPENSE CATEGORY

		01	02	05	09	10	13
		Personnel	Wages	Travel and	Office and	Supplies and	Utilities
		Emoluments		Subsistence	General	Materials	
DEPARTMENT		(1)	(2)	(3)	(4)	(5)	(6)
-----		-----	-----	-----	-----	-----	-----
A	Indirect Cost Departments						

A0	Depreciation and Amortization						
A1	Administration						
A2	Maintenance						
A3	Domestic						
A4	Hospital Stores						
A5	Nursing Administration						
A6	Laundry						
A7	Seastress						
A8	Catering/Kitchen						
A9	Medical Records						
A10	Handymen						
A11	Mortuary						
B	Ancillary Departments						

B1	Laboratory						
B2	Radiology						
B3	Physiotherapy						
B4	Pharmacy						

Victoria Hospital
 Cost Allocation
 For Fiscal Year _____

Worksheet A: Allocation of Direct Expenses

LINE ITEM EXPENSE CATEGORY

DEPARTMENT	01 Personnel Emoluments (1)	02 Wages (2)	05 Travel and Subsistence (3)	09 Office and General (4)	10 Supplies and Materials (5)	13 Utilities (6)
C Inpatient Departments						
C1 Maternity Ward						
C2 Gynaecology Ward						
C3 Baron (Private) Wing						
C4 Medical Wards (4,6)						
C5 Surgical Wards						
C6 Paediatric Wards						
C7 Ophthalmology Ward						
C8 Operating Theatre						
D Outpatient Departments						
D1 Casulty & Specialty Clinics						
D2 Medical Clinic						
D3 Psychiatric Clinic						
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL PER ESTIMATES						

Victoria Hospital
 Cost Allocation
 For Fiscal Year _____

Worksheet A: Allocation of Direct Expense

DEPARTMENT	14 Tools and Instruments (7)	16 Operating & Maintenance (8)	Total Before Adjustments (9)	Adjustments (10)	TOTAL DIRECT COSTS (11)
A Indirect Cost Departments					
A0 Depreciation and Amortization			\$0		\$0
A1 Administration			0		0
A2 Maintenance			0		0
A3 Domestic			0		0
A4 Hospital Stores			0		0
A5 Nursing Administration			0		0
A6 Laundry			0		0
A7 Seastress			0		0
A8 Catering/Kitchen			0		0
A9 Medical Records			0		0
A10 Handymen			0		0
A11 Mortuary			0		0
B Ancillary Departments					
B1 Laboratory			0		0
B2 Radiology			0		0
B3 Physiotherapy			0		0
B4 Pharmacy			0		0

Victoria Hospital
 Cost Allocation
 For Fiscal Year _____

Worksheet A: Allocation of Direct Expense

DEPARTMENT	14 Tools and Instruments (7)	16 Operating & Maintenance (8)	Total Before Adjustments (9)	Adjustments (10)	TOTAL DIRECT COSTS (11)
C Inpatient Departments					
C1 Maternity Ward			0		0
C2 Gynaecology Ward			0		0
C3 Baron (Private) Wing			0		0
C4 Medical Wards (4,6)			0		0
C5 Surgical Wards			0		0
C6 Paediatric Wards			0		0
C7 Ophthalmology Ward			0		0
C8 Operating Theatre			0		0
D Outpatient Departments					
D1 Casulty & Specialty Clinics			0		0
D2 Medical Clinic			0		0
D3 Psychiatric Clinic			0		0
TOTAL	\$0	\$0	\$0	\$0	\$0
TOTAL PER ESTIMATES					

Victoria Hospital
 Cost Allocation
 For Fiscal Year _____

Worksheet B: Allocation of Indirect Costs

DEPARTMENTS	Total Direct Expenses	Depreciation and Amort.		Administration		Maintenance	
		Allocation Statistic ----- Square Footage	Stepdown Allocation ----- of Expenses	Allocation Statistic ----- Total Direct Exp	Stepdown Allocation ----- of Expenses	Allocation Statistic ----- Square Footage	Stepdown Allocation ----- of Expenses
A0 Depreciation and Amortization	\$0		\$0				
A1 Administration	\$0	0	ERR		ERR		
A2 Maintenance	\$0	0	ERR	\$0	ERR		ERR
A3 Domestic	\$0	0	ERR	\$0	ERR	0	ERR
A4 Hospital Stores	\$0	0	ERR	\$0	ERR	0	ERR
A5 Nursing Administration	\$0	0	ERR	\$0	ERR	0	ERR
A6 Laundry	\$0	0	ERR	\$0	ERR	0	ERR
A7 Seastress	\$0	0	ERR	\$0	ERR	0	ERR
A8 Catering/Kitchen	\$0	0	ERR	\$0	ERR	0	ERR
A9 Medical Records	\$0	0	ERR	\$0	ERR	0	ERR
A10 Handymen	\$0	0	ERR	\$0	ERR	0	ERR
A11 Mortuary	\$0	0	ERR	\$0	ERR	0	ERR
B Ancillary Departments							
B1 Laboratory	\$0	0	ERR	\$0	ERR	0	ERR
B2 Radiology	\$0	0	ERR	\$0	ERR	0	ERR
B3 Physiotherapy	\$0	0	ERR	\$0	ERR	0	ERR
B4 Pharmacy	\$0	0	ERR	\$0	ERR	0	ERR

Victoria Hospital
 Cost Allocation
 For Fiscal Year _____

Worksheet B: Allocation of Indirect Costs

DEPARTMENTS	Total Direct Expenses	Depreciation and Amort.		Administration		Maintenance	
		Allocation Statistic Square Footage	Stepdown Allocation of Expenses	Allocation Statistic Total Direct Exp	Stepdown Allocation of Expenses	Allocation Statistic Square Footage	Stepdown Allocation of Expenses
C Inpatient Departments							
C1 Maternity Ward	\$0	0	ERR	\$0	ERR	0	ERR
C2 Gynaecology Ward	\$0	0	ERR	\$0	ERR	0	ERR
C3 Baron (Private) Wing	\$0	0	ERR	\$0	ERR	0	ERR
C4 Medical Wards (4,6)	\$0	0	ERR	\$0	ERR	0	ERR
C5 Surgical Wards	\$0	0	ERR	\$0	ERR	0	ERR
C6 Paediatric Wards	\$0	0	ERR	\$0	ERR	0	ERR
C7 Ophthalmology Ward	\$0	0	ERR	\$0	ERR	0	ERR
C8 Operating Theatre	\$0	0	ERR	\$0	ERR	0	ERR
D Outpatient Departments							
D1 Casulty and Specialty Clinics	\$0	0	ERR	\$0	ERR	0	ERR
D2 Medical Clinic	\$0	0	ERR	\$0	ERR	0	ERR
D3 Psychiatric Clinic	\$0	0	ERR	\$0	ERR	0	ERR
TOTAL	\$0	0	ERR	\$0	ERR	0	ERR

Victoria Hospital
 Cost Allocation
 For Fiscal Year _____

Worksheet B: Allocation of Indirect Costs

		Domestic		Hospital Stores		Nursing Administration		Laundry
		Allocation	Stepdown	Allocation	Stepdown	Allocation	Stepdown	Allocation
		Statistic	Allocation	Statistic	Allocation	Statistic	Allocation	Statistic
		-----	-----	-----	-----	-----	-----	-----
DEPARTMENTS		Square	of	Square	of	Nursing	of	Patient
		Footage	Expenses	Footage	Expenses	Staff	Expenses	Days
		-----	-----	-----	-----	-----	-----	-----
A0	Depreciation and Amortization							
A1	Administration							
A2	Maintenance							
A3	Domestic		ERR					
A4	Hospital Stores	0	ERR		ERR			
A5	Nursing Administration	0	ERR	0	ERR		ERR	
A6	Laundry	0	ERR	0	ERR -		ERR	
A7	Seastress	0	ERR	0	ERR -		ERR -	
A8	Catering/Kitchen	0	ERR	0	ERR -		ERR -	
A9	Medical Records	0	ERR	0	ERR -		ERR -	
A10	Handymen	0	ERR	0	ERR -		ERR -	
A11	Mortuary	0	ERR	0	ERR -		ERR -	
B	Ancillary Departments							
B1	Laboratory	0	ERR	0	ERR	0	ERR -	
B2	Radiology	0	ERR	0	ERR	0	ERR -	
B3	Physiotherapy	0	ERR	0	ERR	0	ERR -	
B4	Pharmacy	0	ERR	0	ERR	0	ERR -	

140

Victoria Hospital
 Cost Allocation
 For Fiscal Year _____

Worksheet B: Allocation of Indirect Costs

		Domestic		Hospital Stores		Nursing Administration		Laundry
DEPARTMENTS		Allocation Statistic ----- Square Footage	Stepdown Allocation of Expenses	Allocation Statistic ----- Square Footage	Stepdown Allocation of Expenses	Allocation Statistic ----- Nursing Staff	Stepdown Allocation of Expenses	Allocation Statistic ----- Patient Days
C Inpatient Departments								
C1	Maternity Ward	0	ERR	0	ERR	0	ERR	0
C2	Gynaecology Ward	0	ERR	0	ERR	0	ERR	0
C3	Baron (Private) Wing	0	ERR	0	ERR	0	ERR	0
C4	Medical Wards (4,6)	0	ERR	0	ERR	0	ERR	0
C5	Surgical Wards	0	ERR	0	ERR	0	ERR	0
C6	Paediatric Wards	0	ERR	0	ERR	0	ERR	0
C7	Ophthalmology Ward	0	ERR	0	ERR	0	ERR	0
C8	Operating Theatre	0	ERR	0	ERR	0	ERR	0
D Outpatient Departments								
D1	Casulty and Specialty Clinics	0	ERR	0	ERR	0	ERR	-
D2	Medical Clinic	0	ERR	0	ERR	0	ERR	-
D3	Psychiatric Clinic	0	ERR	0	ERR	0	ERR	-
TOTAL		0	ERR	0	ERR	0	ERR	0

Victoria Hospital
 Cost Allocation
 For Fiscal Year _____

Worksheet B: Allocation of Indirect Costs

DEPARTMENTS	Seamstress		Catering/Kitchen		Medical Records		
	Stepdown Allocation of Expenses	Allocation Statistic of Nursing Staff	Stepdown Allocation of Expenses	Allocation Statistic of Patient Days	Stepdown Allocation of Expenses	Allocation Statistic of Adjusted Admissions	Stepdown Allocation of Expenses
A0 Depreciation and Amortization							
A1 Administration							
A2 Maintenance							
A3 Domestic							
A4 Hospital Stores							
A5 Nursing Administration							
A6 Laundry	ERR						
A7 Seamstress	ERR		ERR				
A8 Catering/Kitchen	ERR -		ERR		ERR		
A9 Medical Records	ERR -		ERR -		ERR		ERR
A10 Handymen	ERR -		ERR -		ERR -		ERR
A11 Mortuary	ERR -		ERR -		ERR -		ERR
B Ancillary Departments							
B1 Laboratory	ERR	0	ERR -		ERR -		ERR
B2 Radiology	ERR	0	ERR -		ERR -		ERR
B3 Physiotherapy	ERR	0	ERR -		ERR -		ERR
B4 Pharmacy	ERR	0	ERR -		ERR -		ERR

Victoria Hospital
 Cost Allocation
 For Fiscal Year _____

Worksheet B: Allocation of Indirect Costs

DEPARTMENTS	Seamstress		Catering/Kitchen		Medical Records		
	Stepdown Allocation of Expenses	Allocation Statistic Nursing Staff	Stepdown Allocation of Expenses	Allocation Statistic Patient Days	Stepdown Allocation of Expenses	Allocation Statistic Adjusted Admissions	Stepdown Allocation of Expenses
C Inpatient Departments							
C1 Maternity Ward	ERR	0	ERR	0	ERR	0	ERR
C2 Gynaecology Ward	ERR	0	ERR	0	ERR	0	ERR
C3 Baron (Private) Wing	ERR	0	ERR	0	ERR	0	ERR
C4 Medical Wards (4,6)	ERR	0	ERR	0	ERR	0	ERR
C5 Surgical Wards	ERR	0	ERR	0	ERR	0	ERR
C6 Paediatric Wards	ERR	0	ERR	0	ERR	0	ERR
C7 Ophthalmology Ward	ERR	0	ERR	0	ERR	0	ERR
C8 Operating Theatre	ERR	0	ERR	0	ERR	0	ERR
D Outpatient Departments							
D1 Casulty and Specialty Clinics	ERR	0	ERR -		ERR	0	ERR
D2 Medical Clinic	ERR	0	ERR -		ERR	0	ERR
D3 Psychiatric Clinic	ERR	0	ERR -		ERR	0	ERR
TOTAL	ERR	0	ERR	0	ERR	0	ERR

143

Victoria Hospital
 Cost Allocation
 For Fiscal Year _____

Worksheet B: Allocation of Indirect Costs

DEPARTMENTS	Handymen		Mortuary		Laboratory		Radiology
	Allocation Statistic ----- Patient Days	Stepdown Allocation of Expenses	Allocation Statistic ----- Admissions	Stepdown Allocation of Expenses	Allocation Statistic ----- Patient Days	Stepdown Allocation of Expenses	Allocation Statistic ----- Patient Days
A0 Depreciation and Amortization							
A1 Administration							
A2 Maintenance							
A3 Domestic							
A4 Hospital Stores							
A5 Nursing Administration							
A6 Laundry							
A7 Seastress							
A8 Catering/Kitchen							
A9 Medical Records							
A10 Handymen	-	ERR					
A11 Mortuary	-	ERR		ERR			
B Ancillary Departments							
B1 Laboratory	-	ERR -		ERR		ERR	
B2 Radiology	-	ERR -		ERR -		ERR	
B3 Physiotherapy	-	ERR -		ERR -		ERR -	
B4 Pharmacy	-	ERR -		ERR -		ERR -	

Victoria Hospital
 Cost Allocation
 For Fiscal Year _____

Worksheet B: Allocation of Indirect Costs

DEPARTMENTS	Handymen		Mortuary		Laboratory		Radiology
	Allocation Statistic ----- Patient Days	Stepdown Allocation of Expenses	Allocation Statistic ----- Admissions	Stepdown Allocation of Expenses	Allocation Statistic ----- Patient Days	Stepdown Allocation of Expenses	Allocation Statistic ----- Patient Days
C Inpatient Departments							
C1 Maternity Ward	0	ERR	0	ERR	0	ERR	0
C2 Gynaecology Ward	0	ERR	0	ERR	0	ERR	0
C3 Baron (Private) Wing	0	ERR	0	ERR	0	ERR	0
C4 Medical Wards (4,6)	0	ERR	0	ERR	0	ERR	0
C5 Surgical Wards	0	ERR	0	ERR	0	ERR	0
C6 Paediatric Wards	0	ERR	0	ERR	0	ERR	0
C7 Ophthalmology Ward	0	ERR	0	ERR	0	ERR	0
C8 Operating Theatre	0	ERR	0	ERR	0	ERR	0
D Outpatient Departments							
D1 Casulty and Specialty Clinics	-	ERR -	-	ERR -	-	ERR -	-
D2 Medical Clinic	-	ERR -	-	ERR -	-	ERR -	-
D3 Psychiatric Clinic	-	ERR -	-	ERR -	-	ERR -	-
TOTAL	0	ERR	0	ERR	0	ERR	0

145

Victoria Hospital
 Cost Allocation
 For Fiscal Year _____

Worksheet B: Allocation of Indirect Costs

DEPARTMENTS	Physiotherapy		Pharmacy		TOTAL COSTS
	Stepdown Allocation of Expenses	Allocation Statistic of Patient Days	Stepdown Allocation of Expenses	Allocation Statistic of Patient Days	
A0 Depreciation and Amortization					
A1 Administration					
A2 Maintenance					
A3 Domestic					
A4 Hospital Stores					
A5 Nursing Administration					
A6 Laundry					
A7 Seastress					
A8 Catering/Kitchen					
A9 Medical Records					
A10 Handymen					
A11 Mortuary					
B Ancillary Departments					
B1 Laboratory					
B2 Radiology	ERR				
B3 Physiotherapy	ERR		ERR		
B4 Pharmacy	ERR -		ERR		ERR

Victoria Hospital
 Cost Allocation
 For Fiscal Year _____

Worksheet B: Allocation of Indirect Costs

DEPARTMENTS	Physiotherapy		Pharmacy		TOTAL COSTS
	Stepdown Allocation of Expenses	Allocation Statistic of Patient Days	Stepdown Allocation of Expenses	Allocation Statistic of Patient Days	
C Inpatient Departments					
C1 Maternity Ward	ERR	0	ERR	0	ERR
C2 Gynaecology Ward	ERR	0	ERR	0	ERR
C3 Baron (Private) Wing	ERR	0	ERR	0	ERR
C4 Medical Wards (4,6)	ERR	0	ERR	0	ERR
C5 Surgical Wards	ERR	0	ERR	0	ERR
C6 Paediatric Wards	ERR	0	ERR	0	ERR
C7 Ophthalmology Ward	ERR	0	ERR	0	ERR
C8 Operating Theatre	ERR	0	ERR	0	ERR
D Outpatient Departments					
D1 Casulty and Specialty Clinics	ERR -		ERR -		ERR
D2 Medical Clinic	ERR -		ERR -		ERR
D3 Psychiatric Clinic	ERR -		ERR -		ERR
TOTAL	ERR	0	ERR	0	ERR

147

Victoria Hospital
 Cost Allocation
 For Fiscal Year _____

Worksheet B.1: Allocation Statistics

		Depreciation & Amort.	Administration	Maintenance	Domestic
		-----	-----	-----	-----
DEPARTMENTS		Square Feet	Direct Expense	Square Feet	Square Feet
-----		-----	-----	-----	-----
A1	Administration		0	0	0
A2	Maintenance		0	0	0
A3	Domestic		0	0	0
A4	Hospital Stores		0	0	0
A5	Nursing Administration		0	0	0
A6	Laundry		0	0	0
A7	Seastress		0	0	0
A8	Catering/Kitchen		0	0	0
A9	Medical Records		0	0	0
A10	Handymen		0	0	0
A11	Mortuary		0	0	0
B Ancillary Departments					

B1	Laboratory		0	0	0
B2	Radiology		0	0	0
B3	Physiotherapy		0	0	0
B4	Pharmacy		0	0	0

Victoria Hospital
 Cost Allocation
 For Fiscal Year _____

Worksheet B.1: Allocation Statistics

		Depreciation & Amort.	Administration	Maintenance	Domestic
DEPARTMENTS		Square Feet	Direct Expense	Square Feet	Square Feet
C Inpatient Departments					
C1	Maternity Ward		0	0	0
C2	Gynaecology Ward		0	0	0
C3	Baron (Private) Wing		0	0	0
C4	Medical Wards		0	0	0
C5	Surgical Wards		0	0	0
C6	Paediatric Wards		0	0	0
C7	Ophthalmology Ward		0	0	0
C8	Operating Theatre		0	0	0
D Outpatient Departments					
D1	Casualty and Specialty Clinics		0	0	0
D2	Medical Clinic		0	0	0
D3	Psychiatric Clinic		0	0	0
TOTAL		0	0	0	0

Victoria Hospital
 Cost Allocation
 For Fiscal Year _____

Worksheet B.1: Allocation Statistics

DEPARTMENTS	Hospital Stores	Nursing Administration	Laundry
	Direct Supplies and Materials	Nursing Staff FTEs	Patient Days
A1 Administration	\$0	-	-
A2 Maintenance	\$0	-	-
A3 Domestic	\$0	-	-
A4 Hospital Stores	\$0	-	-
A5 Nursing Administration	\$0	-	-
A6 Laundry	\$0	-	-
A7 Seastress	\$0	-	-
A8 Catering/Kitchen	\$0	-	-
A9 Medical Records	\$0	-	-
A10 Handymen	\$0	-	-
A11 Mortuary	\$0	-	-
B Ancillary Departments			
B1 Laboratory	\$0		-
B2 Radiology	\$0		-
B3 Physiotherapy	\$0		-
B4 Pharmacy	\$0		-

150

Victoria Hospital
 Cost Allocation
 For Fiscal Year _____

Worksheet B.1: Allocation Statistics

DEPARTMENTS		Hospital Stores	Nursing Administration	Laundry
		Direct Supplies and Materials	Nursing Staff FTEs	Patient Days
C Inpatient Departments				
C1	Maternity Ward	\$0		
C2	Gynaecology Ward	\$0		
C3	Baron (Private) Wing	\$0		
C4	Medical Wards	\$0		
C5	Surgical Wards	\$0		
C6	Paediatric Wards	\$0		
C7	Ophthalmology Ward	\$0		
C8	Operating Theatre	\$0		
D Outpatient Departments				
D1	Casualty and Specialty Clinics	\$0		-
D2	Medical Clinic	\$0		-
D3	Psychiatric Clinic	\$0		-
TOTAL		\$0	0	0

Victoria Hospital
 Cost Allocation
 For Fiscal Year _____

Worksheet B.1: Allocation Statistics

DEPARTMENTS	Seamstress	Catering/Kitchen	Medical Records		Handymen
	Nursing Staff FTEs	Patient Days	Adjusted Admissions	Admissions/ OP Visits	Patient Days
A1 Administration	-	-	-	-	-
A2 Maintenance	-	-	-	-	-
A3 Domestic	-	-	-	-	-
A4 Hospital Stores	-	-	-	-	-
A5 Nursing Administration	-	-	-	-	-
A6 Laundry	-	-	-	-	-
A7 Seamstress	-	-	-	-	-
A8 Catering/Kitchen	-	-	-	-	-
A9 Medical Records	-	-	-	-	-
A10 Handymen	-	-	-	-	-
A11 Mortuary	-	-	-	-	-
B Ancillary Departments					
B1 Laboratory	0	-	-	-	-
B2 Radiology	0	-	-	-	-
B3 Physiotherapy	0	-	-	-	-
B4 Pharmacy	0	-	-	-	-

Victoria Hospital
 Cost Allocation
 For Fiscal Year _____

Worksheet B.1: Allocation Statistics

		Seamstress	Catering/Kitchen	Medical Records		Handymen
DEPARTMENTS		Nursing Staff FTEs	Patient Days	Adjusted Admissions	Admissions/ OP Visits	Patient Days
C Inpatient Departments						
C1	Maternity Ward	0	0	0		0
C2	Gynaecology Ward	0	0	0		0
C3	Baron (Private) Wing	0	0	0		0
C4	Medical Wards	0	0	0		0
C5	Surgical Wards	0	0	0		0
C6	Paediatric Wards	0	0	0		0
C7	Ophthalmology Ward	0	0	0		0
C8	Operating Theatre	0	0	0		0
D Outpatient Departments						
D1	Casulty and Specialty Clinics	0	-	0		-
D2	Medical Clinic	0	-	0		-
D3	Psychiatric Clinic	0	-	0		-
TOTAL		0	0	0	-	0

Victoria Hospital
 Cost Allocation
 For Fiscal Year _____

Worksheet B.1: Allocation Statistics

DEPARTMENTS		Mortuary	Laboratory	Radiology
		Inpatient Admissions	Patient Days	Patient Days
A1	Administration	-	-	-
A2	Maintenance	-	-	-
A3	Domestic	-	-	-
A4	Hospital Stores	-	-	-
A5	Nursing Administration	-	-	-
A6	Laundry	-	-	-
A7	Seastress	-	-	-
A8	Catering/Kitchen	-	-	-
A9	Medical Records	-	-	-
A10	Handymen	-	-	-
A11	Mortuary	-	-	-
B Ancillary Departments				
B1	Laboratory	-	-	-
B2	Radiology	-	-	-
B3	Physiotherapy	-	-	-
B4	Pharmacy	-	-	-

154

Victoria Hospital
 Cost Allocation
 For Fiscal Year _____

Worksheet B.1: Allocation Statistics

DEPARTMENTS		Mortuary	Laboratory	Radiology
		Inpatient Admissions	Patient Days	Patient Days
C Inpatient Departments				
C1	Maternity Ward	0	0	0
C2	Gynaecology Ward	0	0	0
C3	Baron (Private) Wing	0	0	0
C4	Medical Wards	0	0	0
C5	Surgical Wards	0	0	0
C6	Paediatric Wards	0	0	0
C7	Ophthalmology Ward	0	0	0
C8	Operating Theatre	0	0	0
D Outpatient Departments				
D1	Casualty and Specialty Clinics	-	-	-
D2	Medical Clinic	-	-	-
D3	Psychiatric Clinic	-	-	-
TOTAL		0	0	0

155

Victoria Hospital
 Cost Allocation
 For Fiscal Year _____

Worksheet B.1: Allocation Statistics

DEPARTMENTS	Physiotherapy	Pharmacy
	Patient Days	Patient Days
A1 Administration	-	-
A2 Maintenance	-	-
A3 Domestic	-	-
A4 Hospital Stores	-	-
A5 Nursing Administration	-	-
A6 Laundry	-	-
A7 Seastress	-	-
A8 Catering/Kitchen	-	-
A9 Medical Records	-	-
A10 Handyman	-	-
A11 Mortuary	-	-
B Ancillary Departments		
B1 Laboratory	-	-
B2 Radiology	-	-
B3 Physiotherapy	-	-
B4 Pharmacy	-	-

Victoria Hospital
 Cost Allocation
 For Fiscal Year _____

Worksheet B.1: Allocation Statistics

DEPARTMENTS	Physiotherapy	Pharmacy
	Patient Days	Patient Days
C Inpatient Departments		
C1 Maternity Ward	0	0
C2 Gynaecology Ward	0	0
C3 Baron (Private) Wing	0	0
C4 Medical Wards	0	0
C5 Surgical Wards	0	0
C6 Paediatric Wards	0	0
C7 Ophthalmology Ward	0	0
C8 Operating Theatre	0	0
D Outpatient Departments		
D1 Casulty and Specialty Clinics	-	-
D2 Medical Clinic	-	-
D3 Psychiatric Clinic	-	-
TOTAL	0	0

Victoria Hospital
 Cost Allocation
 For Fiscal Year _____

Worksheet C: Total Cost Per Unit of Service

	SERVICE	TOTAL COSTS PER SERVICE	VOLUME	UNIT	COST PER UNIT
	-----	-----	-----	-----	-----
C	Inpatient Departments	(1)	(2)	(3)	(4)

C1	Maternity Ward	ERR		Patient Day	ERR
C2	Gynaecology Ward	ERR		Patient Day	ERR
C3	Baron (Private) Wing	ERR		Patient Day	ERR
C4	Medical Wards (4,6)	ERR		Patient Day	ERR
C5	Surgical Wards	ERR		Patient Day	ERR
C6	Paediatric Wards	ERR		Patient Day	ERR
C7	Ophthalmology Ward	ERR		Patient Day	ERR
C8	Operating Theatre	ERR		Operation	ERR
D	Outpatient Departments				

D1	Casulty and Specialty Clinic	ERR		Visit	ERR
D2	Medical Clinic	ERR		Visit	ERR
D3	Psychiatric Clinic	ERR		Visit	ERR
	TOTAL	----- ERR -----		-	-



45-606 Eye-Ease®
45-706 20/20 Buff
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Victoria Hospital

Cost Allocation of Direct Expenditures

Worksheet A Supporting Schedule

Fiscal Year:

Line Number	Vote Book Reference	Expenditure Amount	Department:		Annual Total
			1	2	
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Management of Pelvic Inflammatory Disease (P.I.D.)

Pelvic Inflammatory Disease may be defined as infection of the pelvic organs, usually by organisms ascending from the lower genital tract.

Diagnosis: The patient must meet all the criteria from group A and at least one of the criteria from group B:

Group A

- Abdominal tenderness with or without rebound
- Cervical motion tenderness and uterine tenderness
- Adnexal tenderness

Group B

- Temp >38 C
- WBC > 10,000
- Pelvic abscess or inflammatory mass on U/S
- Purulent material on culdocentesis
- Gram Negative Diplococci on endocervical gram stain

Criteria for out-patient management: Reliable patient with mild-to-moderate symptoms who can be re-examined in 36-48 hours

Criteria for in-patient management:

- Tubo-ovarian Abscess
- Temp > 38C
- Pregnant
- I.U.D.in place (must be removed)
- Adolescent
- Fails to respond to out-patient management in 48 hours
- Surgical Abdomen

Treatment:

Outpatient:

Cefoxitin (2.0 grams I.M.)

OR

Amoxicillin (3.0 G P.O.)

OR

Ampicillin (3.5 g P.O.)

OR

Aqueous procaine penicillin G(4.8 million units I.M. at two sites)

OR

Ceftriaxone (250 mgs. I.M.)

Followed by:

Doxycycline (100 mgs P.O. B.I.D. for 10-14 d)

OR

Tetracycline (500 mgs Q.I.D. for 10-14 days)

nb. Amoxicillin, ampicillin and pen G should be accompanied by probenecid (1 gm P.O.)

Inpatient:

Doxycycline (100 mgs I.V. B.I.D.)

plus

Cefoxitin (2 gms. I.V. Q.I.D.)

OR

Clindamycin (600 mg I.V. Q.I.D.)

plus

Gentamycin (2 mgs/kg I.V., followed by 1.5 mg/kg I.V. T.I.D. in patients with normal renal function)

nb. Continue drugs I.V. for at least 4 days and 48 hours after improvement in symptoms. Then continue Doxycycline or Cindamycin P.O. to complete a 10-14 day course of therapy.

Management of AntePartum Fetal Demise

Definition: Intrauterine fetal death (IUFD) at any time after 20 weeks of gestation

Etiology: Unknown in 50% of cases. Associated conditions include hypertensive diseases of pregnancy, diabetes mellitus, erythroblastosis fetalis, fetal congenital anomalies, chromosomal abnormalities, umbilical cord complications, placental insufficiency, and fetal or maternal infection.

Diagnosis: Real-time ultrasound is the definitive method for diagnosing IUFD, by demonstrating lack of cardiac activity. When the fetus has been dead for 2 or more days, scalp edema and overlap of cranial bones are seen.

Natural History: The time from fetal death in utero until the onset of labor depends both on the cause of the fetal death and on the length of gestation. 80% of women will go into labor within 2 weeks, and only 10% will be undelivered more than 3 weeks from the time of demise. Prolonged retention of the dead fetus in utero may result in maternal clotting abnormalities.

Management:

- A) Baseline clotting studies - CBC, platelets, PT, PTT, fibrinogen, fibrin split products.
- B) If lab values suggest a coagulopathy, deliver promptly
- C) If clotting studies are normal, management may be either expectant or expeditious, depending on the wishes of the patient and physician.
- D) If expectant management is elected, clotting studies should be repeated weekly

Expectant Management: Expectant management has the advantage of being "natural" and should result in spontaneous labor in the majority of patients within 3 weeks. However it has two disadvantages: first is the possibility of developing hypofibrinogenemia, and second is the emotional burden to a woman and her family in having to continue to carry a dead fetus. Most patients will elect to terminate the pregnancy shortly after the diagnosis is made.

Methods of Delivery:

A) Operative: depending on the skill and experience of the operator, if the uterus is smaller than 15 weeks, suction curettage or dilatation and evacuation are reasonable choices.

B) I.V. Pitocin: I.V. Oxytocin is safe, effective and has the advantage of familiarity. Amniotomy should be performed as soon as possible. Uterine rupture is a risk of oxytocin administration, as it is with any uterotonic agent.

C) Intravaginal Prostaglandin: For pregnancies < 28 weeks, PGE vaginal suppositories, are commonly used to empty the uterus. Generally this is safe and effective. However, occasional severe reactions including myocardial infarction and uterine rupture have been reported. Associated gastrointestinal side effects can be treated with antiemetic and antidiarrheal agents. Caution should be used in patients with previous vertical cesarean sections, myomectomy, or hysterotomy, as well as in patients with abnormal fetal lie, i.e., transverse. Bronchospasm may be induced in the asthmatic patient. PG may also be delivered via intrauterine instillation within a catheter threaded through the cervix.

Diagnostic evaluation:

A) Amniocentesis for chromosomes if available, especially if fetal death within past week.

B) Evaluation of mother for diabetes and collagen vascular disease.

C) Kleinhauer-Betke stain (obtained before delivery) to R/O fetomaternal hemorrhage

D) After delivery, tissue from fetus should be sent for chromosomal analysis (if available) and culturing.

E) The placenta should be sent for pathologic exam and cultures.

F) An autopsy should be performed by an experienced pathologist, with parental consent.

Summary: Fetal death is an emotional issue for both the patient and the physician, and may result in significant complications. The most serious of these is hypofibrinogenemia, which may lead to lifethreatening coagulopathy.

Ultrasound provides the most reliable method of confirming the diagnosis. Once the diagnosis is established, the timing and method of termination of the pregnancy is dependent upon both the experience of the physician and the emotional needs of the patient. Prolonged post-partum emotional support to the mother should be provided.

Management of Pregnancy Induced Hypertension

Definition: A clinical syndrome presenting after 20 weeks gestation. Patients must demonstrate sustained hypertension and either edema and/or proteinuria.

Hypertension is defined as blood pressure > 140/90, or incremental rise >30 mm Hg systolic or 2 15mm Hg diastolic over first trimester blood pressures. The blood pressure elevation must be present at two measurements taken over 6 hours apart.

Edema is defined as generalized (face and extremities) and excessive (> 1+ pitting) tissue fluid accumulation (especially after bed rest of 12 hours). May be accompanied by weight gain of > 5 pounds in one week.

Proteinuria: a 24 hour urine collection with >300 mg/24 hours, or > 1+ protein on random dipstick analysis(in the absence of U.T.I.)

Eclampsia: seizures in the presence of the above findings.

Antepartum:

A. Assessment: Any patient who presents with acute onset of hypertension (or exacerbation of pre-existing hypertension) after 20 weeks gestation, should be evaluated for P.I.H.. The patient should be admitted to the hospital for bed rest (in the lateral recumbent position) and blood pressures taken every four hours while the patient is awake. On admission, the following lab values should be obtained: CBC with platelet count, PT, PTT, fibrinogen, fibrin split products, BUN, Creatinine, uric acid, SGOT, SGPT, LDH, Alk Phos, total bilirubin, urinalysis, urine culture, and 24 hour urine collection for creatinine clearance and quantitative protein. The fetus should be assessed with Ultrasound for measurement of growth and amniotic fluid volume, and either a NST or CST performed. The mother should have fundoscopic evaluation. Daily weights should be obtained, with assessment of deep tendon reflexes. If preeclampsia is ruled out, the patient may be discharged with plans for close follow-up in the office or clinic. If the diagnosis is confirmed, management follows the guidelines in Antepartum Management Flow Diagram.

B. Management: see Antepartum Management Flow Diagram (Figure IX-1).

Intrapartum:

Measure and record B.P. every hour

Evaluate and record reflexes every hour

Insert Foley catheter to measure hourly urine output

Start Magnesium Sulfate:

 Bolus of 4 grams(20% solution) I.V. over a 20 minute period

 Maintenance dose 2 grams/hour I.V.

Physician should evaluate patient at least every two hours.

Continuous electronic fetal monitoring

Follow oxytocin guidelines for induction or augmentation.

Use antihypertensives (Apresoline) for blood pressure >160 systolic or >110 diastolic. Do not decrease blood pressures to lower than 140/90 mm Hg.

Postpartum Management:

After delivery, continue MgSO₄ for at least 24 hours. If the patient's blood pressures are persistently elevated to >170/100 more than 48 hours after delivery, consider initiating antihypertensive medication prior to discharge. If such medication is instituted, see the patient one week after delivery to evaluate response. Counsel the patient that if she has severe preeclampsia or eclampsia, there is a 25% chance of developing recurrences in subsequent pregnancies.

Eclampsia(seizures):

If seizures develop before MgSO₄ has been started, then treat with MgSO₄ as above. If convulsions persist within 15 minutes after starting maintenance dose, then give an additional 2 grams(of a 20% solution) slow I.V.; this dose may be repeated once. If seizures are still uncontrolled, then administer sodium amobarbital (250 mg I.V.). Assure that there are appropriate instruments available for intubation of the patient if respiratory depression or arrest occurs. Also have calcium gluconate 1 gram available for I.V. administration if magnesium toxicity is suspected.

Figure 4

Antepartum Management Flow Diagram

Term



Mild or Severe



Deliver

Preterm (< 37 weeks)



Severe



Deliver



Mild



Admit to hospital
Bed Rest
Serial Maternal &
fetal evaluation



a) If condition improves or is stable, continue observation

b) If condition worsens, deliver

Management of Ectopic Pregnancy

Patient unstable (surgical abdomen, shock) -----> Operate

Patient stable:

- 1) Document history consistent with diagnosis of ectopic pregnancy, such as pelvic pain, abnormal uterine bleeding, history of previous ectopic, P.I.D., tubal surgery or I.U.D use, or characteristic menstrual history .
- 2) Document physical findings suggestive of ectopic pregnancy, such as pelvic tenderness, pelvic mass, or uterine characteristics consistent with pregnancy.
- 3) Document lab findings consistent with the diagnosis of ectopic pregnancy, such as positive pregnancy test in absence of intrauterine gestation on Ultrasound. An intrauterine pregnancy should show up on an abdominal Ultrasound if the patient has a BSU >6000, and on a vaginal probe Ultrasound if the patient's BSU is > 1500. While the presence of an intrauterine pregnancy does not absolutely exclude ectopic gestation (ie, heterotopic pregnancy is possible), it makes it much less likely.
- 4) If no gestational sac is visualized on Ultrasound, follow serial quantitative BSU's, looking for doubling every 48-72 hours.
- 5) Place the patient on ectopic warnings while awaiting test results.
- 6) If the BSU value doubles as expected, perform US until intrauterine gestation is confirmed.
- 7) If the value falls, and the patient remains clinically stable, expectant management is acceptable. Follow BSU values weekly until negative (should occur within 8 weeks).
- 8) If the value plateaus or rises suboptimally, consider laparoscopy for diagnosis.
- 9) Laparoscopy should also be considered if symptoms increase, a mass develops, or suggestive Ultrasound is obtained.
- 10) If ectopic gestation is confirmed on laparoscopy, laporoscopic salpingostomy may be performed, depending on the skill and experience

of the operator, if the gestational sac is <4cms. Alternatively, prostaglandin or methotrexate may be injected directly into the sac. If the operator is uncomfortable with these alternatives, laparotomy for salpingectomy or salpingostomy should be performed.

11) If an abdominal or ovarian pregnancy is encountered, the products of conception should be removed. Controversy surrounds the issue of whether or not to attempt removal of placental tissues embedded into bowel or vascular structures. This is a decision best left to the surgeon as he or she surveys the placental attachments. Postoperative methotrexate has been helpful in these circumstances.

Management of Postpartum Hemorrhage

Postpartum hemorrhage is the most common cause of serious blood loss in obstetrics. As a direct factor in maternal mortality, it is the cause of about 25% of the deaths from obstetric hemorrhage. The most common causes include uterine atony, retained placenta, and laceration of the vagina and cervix. The blood flow to the pregnant uterus represents one-fifth of the maternal cardiac output at term, and procrastination in dealing with pelvic hemorrhage only accentuates the problem.

Etiology:

- A) Uterine atony from overdistended uterus, high parity, multiple gestation, prolonged or rapid labor, or prolonged doses of oxytocin or magnesium sulfate during labor.
- B) Birth canal lacerations
- C) Retained products of conception.
- D) Uterine inversion
- E) Abnormal placentation
- F) Uterine rupture
- G) Medical illnesses such as DIC, Coagulation defects, ITP

Management:

- A) Ascertain that the placenta and membranes have been completely delivered
- B) Gentle uterine massage with oxytocin infusion (up to 40 units of oxytocin per liter of solute)
- C) Place a large bore intravenous line and replace volume with lactated ringers solution. Notify anesthesia.
- D) Have blood cross-matched and obtain clotting studies (CBC with platelets, PT, PTT, fibrinogen, fibrin split products). Obtain an extra red-topped tube for rapid assessment of bleeding time (normal clotting time should be 7-10 minutes).

E) If bleeding continues and uterus remains soft, administer Prostaglandin. Prostin 1 5/M (Upjohn Company) is 1 5-methyl prostaglandin carboprost tramethamine, which can be administered I.M. or intramyometrially in a dose of 0.25 mg, which can be repeated q 15 minutes if needed up to a maximum dose of 1.25 mg.

F) If the uterus is firm, but bleeding continues, seek other causes. Exploration of the vagina, cervix and uterus should be performed under adequate anesthesia. Lacerations of the cervix and vagina should be repaired, and retained tissue should be removed from the uterus manually or by gentle curettage. Note: Do not delay blood transfusions. In an emergency, type-specific uncross-matched blood can be used.

G) If bleeding persists despite medical therapy and uterine curettage, laparotomy for surgical management of hemorrhage is required. Do not procrastinate. Mortality and morbidity are directly proportional to delay in definitive therapy.

H) Surgical methods include bilateral hypogastric artery ligation, bilateral uterine artery ligation and hysterectomy. The choice of procedure will depend on the surgeon's experience, the patients' parity and the clinical circumstances. In the setting of placenta accreta, increta or percreta, hysterectomy is the treatment of choice. Total hysterectomy is preferable to subtotal; however, in the unstable patient with many adhesions involving the bladder and lower uterine segment, a subtotal hysterectomy is not only acceptable, but may be preferable.

I) If the patient becomes hemodynamically unstable, invasive monitoring, CVP or Swan-Ganz should be considered with appropriate consultation. Urinary output should be maintained at >30cc/hour by Foley catheter.

Management of Breech Delivery

When a fetus presents for delivery in a breech presentation, three alternatives are available:

1. External Cephalic Version;
2. Vaginal Breech Delivery; or
3. Cesarean Section.

1. External Cephalic Version

A number of recent studies have demonstrated that external cephalic version is a safe and reasonably successful procedure (50%-80%). It should be performed after 37 weeks, as many fetuses who are breech before that time will turn spontaneously by then. Fetuses who are still breech-presenting by 37 weeks are unlikely to turn spontaneously thereafter. The following are prerequisites for this procedure:

Ultrasound showing single fetus in breech presentation with adequate volume of amniotic fluid.

Procedure performed near Labor and Delivery suite in case fetal distress is encountered (particularly in the setting of placental shearing).

Patient to receive pre-procedure intravenous tocolytic therapy.

NST to be performed afterward.

RH negative patients to receive Rhogam.

2. Vaginal Breech Delivery

If certain criteria are fulfilled, vaginal delivery of the breech fetus is a reasonably safe procedure. The patient should be aware, however, that even if all criteria are met, bad outcomes are still possible. If the patient and her husband want the safest possible delivery for their infant, without consideration of maternal benefits of vaginal delivery, cesarean section should be offered.

Selection criteria include:

Term fetus of between 2.5 and 4 kilograms

Frank breech presentation

Adequate pelvis by X-ray pelvimetry or clinically
Unextended fetal head

Electronic fetal monitoring during labor

Adequate progress in labor (Oxytocin stimulation is acceptable for
the usual indications)

Anesthesia availability (Epidural anesthesia is acceptable if
desired by the patient)

One assistant to help with delivery

Neonatal support available

C/S room and crew available

No distinction need be made between primips and multips, as there is no
difference between them in outcome.

Delivery:

Watchful waiting and gentle manipulation

Allow spontaneous delivery to umbilicus, then assisted breech

Apply gentle suprapubic pressure to the aftercoming head to
maintain flexion and engage the head in the pelvis. This procedure
usually results in spontaneous delivery of the head

If delivery does not occur, use the Mauriceau-Smellie-Veit
procedure. It is important to support the fetal body and not elevate
it above the horizontal plane. Failure to do so may damage the
fetal neck

Piper forceps should be available for use if needed. Their
application requires an assistant.

3. Cesarean Section

Cesarean section should be offered for the usual obstetric indications,

such as fetal distress or failure to progress in labor. Additionally, the following circumstances call for Cesarean section in the setting of a breech presentation:

Hyperextension of the fetal vertex

Prolapsed cord

Very premature breech of < 1500 grams

Footling breech

Estimated fetal weight > 9 lbs or 4000 grams

Contracted pelvis

Physicians inability to do a C/S within 30 minutes

Physicians inexperience in breech vaginal deliveries

Management of Dysfunctional Uterine Bleeding

Definition:

Dysfunctional Uterine Bleeding refers to excessive vaginal bleeding in a woman of reproductive years. It is most frequently anovulatory in nature, and specifically excludes bleeding due to pregnancy, uterine lesions or disorders of coagulation. The bleeding may be excessive in frequency, duration, or amount.

Evaluation in the adolescent:

Laboratory:

- check hematocrit
- check pregnancy test
- check clotting studies
- check for systemic disease (renal,thyroid,liver)

Physical Exam:

- R/O vaginal or cervical source
- R/O uterine enlargement (pregnancy, fibroids)
- R/O adnexal enlargement (PCO, ectopic, estrogen-dependent ovarian tumor)

Therapy in the adolescent:

Therapy in the adolescent will depend on the hematocrit, the degree of bleeding, the pattern of bleeding, and the presence or absence of non-gynecologic disease.

If symptomatic anemia with hypotension is present, transfuse

If the patient is symptomatic but not hypotensive, use p.o. Iron

If bleeding is active and heavy, use oral contraceptives (2 50 g pills every day for 4 days, then 1 pill P.O. for 20 days, then 3 cycles of 35 g pills: some prefer to start with a higher dose of estrogen i.e. 4 50 g pills a day for several days with tapering through 3 pills a day for several days and 2 pills a day for several days)

If the bleeding is profuse, consider treatment with I.V. Premarin (25 mgs

on admission, repeat every 2-4 hours for a total of 3-4 injections. Once bleeding stops, use OCP regime as above)

If the bleeding is irregular but not profuse, use regular OCP's

If the bleeding continues on OCP's, do a D&C or hysteroscopy to R/O intrauterine lesion.

D.U.B. in the post-adolescent:

- R/O pregnancy complications(Ectopic, abortion, mole)
- R/O neoplastic disorders (polyps, fibroids, ovarian tumors)
- R/O blood dyscrasia(Von Willibrands, ITP, leukemia)
- R/O inflammatory conditions (cervicitis, endometritis)
- R/O medicine-induced (OCP' s,, anti-coagulants, steroids)

Evaluation: Same as in the adolescent, PLUS:

- Confirm anovulation (BBT, serum progesterone, luteal phase bx.)
- R/O PCO (FSH, LH, Testosterone, DHEAS, ultrasound ovaries)
- R/O Ovarian failure (Estradial, FSH, LH)
- D&C or endometrial sampling mandatory to R/O cancer or pre-malignant condition

Therapy: Same as in the adolescent. However, be sure to assess any contraindications to estrogen therapy before beginning it: i.e. liver disease, history of thrombophlebitis, migraines, hypertension etc.

D.U.B in the perimenopausal patient: Irregular bleeding in this age group most likely represents incipient ovarian failure. However, D&C, endometrial sampling or hysteroscopy will be necessary in order to exclude any intrauterine lesion. Treatment consists of either oral contraceptives, (if no contraindications exist) or cyclic progesterone therapy.

Management of the Adnexal Mass

If an adnexal mass is appreciated on physical exam, the first diagnostic step is Ultrasound. If the mass is cystic, has no solid components, is < 6cm., and is asymptomatic, expectant management is appropriate. Many clinicians will attempt to suppress the cyst with birth control pills for three months, and then re-scan.

Surgical intervention for the unilateral adnexal cyst is indicated if:

- the patient is pre-menarcheal or post-menopausal
- the "cyst" has a solid component
- the cyst fails to regress after three months
- the cyst is > 6 cm.
- signs and symptoms of a surgical abdomen are present

Laparoscopy is the initial surgical procedure of choice unless the patient has unstable vital signs, or any indicators suggesting malignancy. If a simple cyst is adequately visualized, aspiration should be performed and the fluid sent for cytology.

Laparotomy is indicated if:

- the patient has an acute abdomen with hemodynamic instability.
- the patient has intra-abdominal bleeding without clear source on laparoscopy.
- aspiration of the fluid-filled cyst fails to relieve symptoms, or the fluid re-accumulates
- Ca 125 is elevated
- laparoscopy reveals a solid component. Many gyn oncologists feel strongly that solid tumors should not be approached laparoscopically. Despite this caveat, more and more of these tumors, particularly those which appear benign (i.e. dermoids, endometriomas) are now being removed through the laparoscope.

Management of Vaginal Delivery after Cesarean Section

Traditionally, patients who have undergone Cesarean Section for one delivery have had subsequent deliveries managed by Cesarean also. Recently collected data from several large series indicates that these patients can be delivered vaginally with no increase in maternal or perinatal morbidity, and with a large savings from decreased operative time and decreased hospital stay. 50% to 80% of those attempting trial of scar will be successful.

Antepartum Management

A) Patient selection: One previous low transverse cesarean section with a non-recurrent indication (i.e., CPD). Patients should be considered for exclusion when they have had more than one cesarean, have a history of a myomectomy with entrance into the uterine cavity, or there is a multifetal gestation. Absolute contraindications include previous vertical scar, or obvious CPD on clinical exam.

B) Patient Counseling: Inform the patient of the chance for a successful vaginal delivery (50-80%). Tell her that the chance of a uterine rupture is 0.7% (range 0-2.6%), and that the risk of perinatal mortality is 0.09%. Tell her that labor will be allowed at term if: there is a singleton pregnancy with vertex presentation, the estimated fetal weight is <4000 grams, electronic fetal monitoring is available, and appropriate medical personnel are available. Tell her that complications of bleeding or infection are possible, and that a hysterectomy may be necessary depending on which complications occur.

C) Necessary Hospital Services:

- Full blood banking facilities(24 hour coverage);
- In-house anesthesia coverage;
- Experienced obstetric nursing staff;
- Personnel experienced in neonatal resuscitation;
- Electronic fetal monitors;
- Cesarean section start-up time of <30 minutes; and
- Obstetrician immediately available.

Intrapartum Management

A) Admission: Admit patient at earliest sign of labor. Have an obstetrician in-house. Reassess for any contraindications to planned trial of scar. Obtain routine admission labs. Type and crossmatch for 2 units of blood. Notify anesthesia and pediatrics of the patient's admission.

B) Labor and Delivery: Use electronic fetal monitoring throughout labor. Augment labor with oxytocin as clinically indicated. Use analgesia, including epidural, as usually indicated. Avoid operative delivery, except for low outlet forceps or vacuum. Perform C/S for the usual obstetric indications.

Postpartum Management

A) Vaginally explore the lower uterine segment for any evidence of wound dehiscence after the placenta has been delivered.

B) Observe for postpartum bleeding.

Induction of Labor

Labor may be induced for either elective reasons or indicated conditions. Indicated conditions include pregnancy-related hypertension, diabetes mellitus, erythroblastosis fetalis, amnionitis, abruption, fetal distress, post-maturity or anticipated macrosomia. Elective inductions have fallen out of favor, but may still be a reasonable alternative in some situations; i.e., multip with a history of rapid labors who lives far from the hospital.

Before induction, certain criteria must be met:

- Fetal maturity (mature L/S ratio, or good dates with early U/S)
- Favorable Bishop score
- Acceptable fetal presentation Adequate pelvis

Relative contraindications include:

- Previous C/S scar
- History of CPD
- Uterine overdistension

Absolute contraindications include:

- Malpresentation
- Absolute CPD
- Fetal distress
- Myomectomy scar or previous uterine rupture

Prerequisites:

- Personnel and facility suitability
- Patient's acceptance
- Physician presence

Amniotomy will often initiate labor within 6 hours with a high Bishop score. If successful induction is in doubt or if the indications are too weak to warrant Cesarean Section in the event that the induction fails, the membranes should be left intact. If the fetus is at risk, electronic fetal monitoring is advised.

Oxytocin is administered in dilute solutions (10 IU in 1000 ml 5% aqueous dextrose) by carefully titrated infusion until strong clinical labor is produced. Use of an infusion pump is preferable. Frequent monitoring of uterine contractions, vital signs and fetal status is essential until they are stabilized and then at intervals of 15 minutes. Reduce the drip rate if contractions become excessive or an adverse reaction develops.

Weighing possible benefits against risk is critical if the Bishop score is low, because the chance of failure is then correspondingly high. If the indication is strong, one can proceed with both amniotomy and oxytocin infusion, recognizing that Cesarean Section will be needed if the induction fails. If the indication is weak, consider giving a trial of oxytocin only.

"Priming" the unfavorable cervix with either PG gel, estrogen gel or laminaria is being done at some centers, but has not yet achieved widespread use.

Cesarean section is done for failed induction if the maternal or fetal condition warrants, or if the membranes have been ruptured for an unduly long period of time and vaginal delivery does not appear imminent.

Clinical Management of a One-Day Surgery Unit

Gyn operations suitable for one-day surgery:

- D&C
- Laparoscopy
- Cone Biopsy
- Bartholins cyst marsupialization
- Cervical, Vaginal or Vulvar biopsy
- Hysteroscopy

Conditions which must be met for one-day surgery suite to function:

- Staff supportive, including nursing, physician and administrative

- Designated space for admission, O.R. and recovery functions

- Designated personnel to staff unit (including anesthesia)

- Laboratory capable of one hour turnaround time on pre-op labs

- Maintenance capable of insuring proper functioning of all equipment

- Staff assigned to patient education after scheduling and before admission (i.e. instructions regarding NPO, post-op transport, etc.)

- Back-up nursing available, so that no down-time is experienced secondary to staff shortages

JOB DESCRIPTION

JOB TITLE: Director of Materials Management

HOURS OF WORK: 8.00am - 4.30pm (Monday - Friday)

RESPONSIBLE TO: Hospital Administrator

RESPONSIBILITIES: This individual is responsible for the management of materials (drugs, medical and office supplies, foodstuffs, linen and equipment), to include purchasing, storage, receiving, inspection, inventory control, processing, traffic movement to and from departments, planning, budgeting, and research.

DUTIES WILL INCLUDE:

- Develop and maintain the materials management manual, and assure that all materials management activities within the hospital follow established procedures;
- Select, hire and orient department employees;
- Develop department staff through ongoing coaching, inservice education, on-the-job training and evaluation;
- Develop sources of supply, negotiate and conduct competitive bidding on a periodic, annual, or as needed basis;
- Engage in purchasing investigation and research, and serve as Chair of the Product Evaluation Committee;
- Perform or supervise the performance of quality control and inspection;
- Establish and maintain an inventory control system;
- Dispose of scrap and surplus materials;
- Supervise central stores and in-hospital distribution activities;
- Coordinate pharmaceutical and dietary purchasing;
- Assist the Hospital Administrator in budgeting and capital equipment acquisitions;

DUTIES, CONTINUED:

- Oversee equipment maintenance activities in coordination with Hospital Engineer;
- Act as a member of the hospital budget committee; and,
- Represent the institution in vendor visits, and for group purchasing programs such as the Eastern Caribbean Drug Service.

REQUIRED QUALIFICATIONS:

- Two years college level education;
- Two years experience in purchasing; and,
- Demonstrated ability to organize complex activities.

DESIRED QUALIFICATIONS:

- Related experience in health care organization, in the Caribbean region;
- College degree in business, public or health care administration;
- Demonstrated ability to work well with subordinates, peers and superiors;
- Ability to grow with the expanding duties of the position; and,
- Willingness to pursue related training in health care materials management.

MATERIALS MANAGEMENT MANUAL

VICTORIA HOSPITAL

AUTHORIZATION:

The Administration of Victoria Hospital hereby authorizes and supports the policies and procedures described in the Materials Management Manual. This Manual has been reviewed and approved by the Hospital Administrator and the Ministry of Health, in order to maintain efficient, effective and ethical standards for the institution.

The objective of the Materials Management Department (Department) is to provide the right item, to the right place, at the right time, for the lowest total cost. The Department's responsibilities, to achieve that objective, include:

1. Buying the best product possible for the most reasonable price.
2. Maintaining adequate stock levels.
3. Obtaining new sources where indicated to obtain better quality, price or delivery.
4. Conducting purchasing research.
5. Maintaining budgets and forecasts.
6. Maintaining inventory controls.
7. Coordinating material processing, distribution and maintenance within the hospital campus.
8. Coordinating purchasing activities with department supervisors and Hospital Administration
9. Issuing status reports of the operations of the Department.

We welcome comments and suggestions for improvement and updating as needed, in order for these policies to function as an operational working document of interest to vendors, hospital and other Ministry of Health staff, and all personnel interested in the handling of supplies and equipment in Victoria Hospital.

We support continuing efforts by the Materials Management Department, by other hospital staff, and by vendor representatives, to maintain a high quality of product and equipment use in patient care, and in the operations of the institution for the good of the health and welfare of the community.

Administrator
Victoria Hospital

Date

VICTORIA HOSPITAL

ADMINISTRATION

STANDARD OPERATING POLICIES AND PROCEDURES

SUBJECT	DATE EFFECTIVE	REVISION DATE
Materials Management		
PURCHASING	DATE ISSUED	PAGE 2 OF

1. The Department will establish and maintain purchasing policies and procedures in keeping with the overall goals and objectives of the hospital
2. The Department will consider bid solicitation on annual requirement contracts with high volume, and for major equipment purchases, wherever feasible.
3. Other things being equal, where specifications are issued, and bids taken, the lowest qualified bidder will be awarded the contract.
4. Negotiations with vendors regarding price, terms, quality and delivery, should be initiated and conducted by the Department, with Administration approval.
5. All purchases, to be authorized, must be signed by the Director of Materials Management.
6. Local purchases shall be encouraged, if prices are reasonable.
7. All visiting supplier representatives should, as a courtesy, clear with and through the Materials Management Department before visiting any other staff in the hospital.
8. Supervisors are encouraged to coordinate with Materials Management Department staff in all purchasing and storage activities.
9. Final approval for all non-budgeted purchases over \$300 EC shall be made by the Hospital Administrator, unless delegated.

VICTORIA HOSPITAL

ADMINISTRATION

STANDARD OPERATING POLICIES AND PROCEDURES

SUBJECT	DATE EFFECTIVE	REVISION DATE
Materials Management		
VENDOR RELATIONSHIPS	DATE ISSUED	PAGE 3 OF

1. Purchases shall be made from qualified vendors. Vendors will be evaluated on the following:

- Responsiveness to emergencies
- Creativity (Helping the hospital improve quality and reduce costs)
- Adherence to hospital policies
- Back orders
- Invoice discrepancies
- Committed pricing
- Price increases
- Order errors
- Delivery lead times
- Product support
- Product packaging

2. Vendors shall present products or demonstrate equipment to supervisors, technicians or physicians following clearance and approval from the Director of Materials Management.

3. The Approved Vendor List shall be maintained in the Department, and shall be used for sources on a preferable basis, wherever possible, based on prior negotiation, bidding or continued successful supplier-buyer relationships. This list shall be reviewed and revised periodically as new vendors are added, others deleted, or other revisions made to keep the list current.

4. Interviews with supplier representatives shall be held on Tuesday and Thursday afternoons.

5. Competitive bidding shall be encouraged to result in three or more bidders, based on released specifications and requests for quotations by the Department, and with proper negotiation between supplier representative, the Materials Management Department and the using department involved.

6. Solicitation for bids shall be through the approved vendor list, or by mailing of specifications or "Requests for Quotations" to qualified bidders, including those on the Approved Vendor List.

7. The Director of Pharmacy will coordinate all drug purchases with the Materials Management Department.

VICTORIA HOSPITAL

ADMINISTRATION

STANDARD OPERATING POLICIES AND PROCEDURES

SUBJECT	DATE EFFECTIVE	REVISION DATE
Materials Management		
VENDOR RELATIONSHIPS	DATE ISSUED	PAGE 4 OF

8. Procurement of perishables and canned goods for the kitchen shall be coordinated by the Kitchen staff and the Materials Management Department.

9. Hospital employees will not accept gifts, entertainment or favors (other than promotional or advertising items of nominal value) from potential or current suppliers, of more than \$25 EC in value. The Code of Ethics should be consulted for more details.

VICTORIA HOSPITAL

ADMINISTRATION

STANDARD OPERATING POLICIES AND PROCEDURES

SUBJECT Materials Management	DATE EFFECTIVE	REVISION DATE
PRODUCT EVALUATION	DATE ISSUED	PAGE 5 OF

Victoria Hospital has implemented a product evaluation program to: a) identify and select products and equipment used throughout the institution that provide acceptable levels of quality at the lowest possible cost, through a value analysis process, and b) achieve standardization that will reduce recurrent costs and improve the reliability of services.

1. The Product Evaluation Committee (Committee) has the responsibility and authority to make product selection and use decisions after a thorough analysis. Appeals of decisions may be taken to the hospital management team.

2. The Committee will include the following members:

- Director of Materials Management (Chair)
- Hospital Administrator
- Engineer
- Electrician
- Pharmacist
- Matron
- Medical Superintendent
- Surgical Theater Supervisor
- One Ward Supervisor (Rotating)

3. The Committee will form subcommittees to work on specific issues as the need arises. The subcommittees will conduct evaluations, recommend decisions to the full Committee, and complete follow-up research on Committee decisions and actions.

4. The full Committee meets at least quarterly.

5. Vendor representatives are not allowed to make presentations at Committee meetings.

6. Hospital staff seeking evaluation of a product will obtain a request for product evaluation form from the Materials Management Department. The form must be completed and returned to the Chair of the Committee, who will review the information presented, and place the item on the agenda for the next Committee meeting.

VICTORIA HOSPITAL

ADMINISTRATION

STANDARD OPERATING POLICIES AND PROCEDURES

SUBJECT	DATE EFFECTIVE	REVISION DATE
Materials Management		
RECEIVING	DATE ISSUED	PAGE 6 OF

1. The Receiving Office is open Monday through Friday from 8:00am to 4:00pm. Emergency or badly needed supplies will be received by Department staff after those hours and on weekends. Whenever possible deliveries from vendors should be made on an appointment basis between 8:30am and 12:30pm.
2. The Receiving Office is responsible for all incoming goods for the entire hospital. Pharmacy and dietary products are processed through the receiving unit, but those respective departments will carry out actual verification, inspection, and documentation of receipt of those items.
3. When goods are delivered to the user department the receiving report will be signed by authorized personnel to indicate delivery and acceptance.
4. All receipts will be recorded for inventory purposes, with the receiving documents sent on to accounting for payment.

VICTORIA HOSPITAL

ADMINISTRATION

STANDARD OPERATING POLICIES AND PROCEDURES

SUBJECT	DATE EFFECTIVE	REVISION DATE
Materials Management		
GENERAL STORES	DATE ISSUED	PAGE 7 OF

1. The Central Stores will act as the storage facility for all hospital units except the hospital kitchen.
2. Requests to stock items will be made to the Director of Materials Management by all supervisors, using a Purchasing Requisition for the initial order, with an indication of the request to permanently stock the item.
3. An approved Stores Catalog will be maintained by the Department, indicating nomenclature of all stocked items for ordering purposes. The catalog will be distributed and maintained in each using department by cooperation between the Materials Management and using departments.
4. Requisitions for items in the General Stores shall be made on Department Requisition forms. Requisitions for non-stocked items shall be obtained through the Materials Management Department, which will obtain a source satisfactory to the using department.
5. All items will be maintained in a clean, neat and orderly manner that maximizes space and staff productivity and facilitates maintaining accurate inventory records and filling orders.
6. Storerooms must be kept clean. The floors should be swept daily and scrubbed/mopped as scheduled.
7. The shelves, bins, etc. that contain supplies must be kept clean, free of dust, dirt particles, and paper trash. The floors should be free of trash.
8. All aisles should be kept clear. Empty boxes should be removed immediately.
9. All cartons with "UP" side marked should be stored accordingly. All items should be stored with labels facing front and stacked evenly.
10. All items should be stored 6 inches off the floor, especially disposable and sterile medical and surgical supplies.
11. To prevent stock deterioration or expiration of sterile products, the oldest products are to be issued first. The formula "first in, first out" contributes to better patient care and saves money. All goods should have the date of receipt stamped on them by staff upon arrival.

VICTORIA HOSPITAL

ADMINISTRATION

STANDARD OPERATING POLICIES AND PROCEDURES

SUBJECT	DATE EFFECTIVE	REVISION DATE
Materials Management		
INVENTORIES	DATE ISSUED	PAGE 8 OF

1. Records will be kept current of all inventory, through either manual or automated systems. At a minimum, stockcards for each item should note receipts, distributions to user departments, returns for credit, and material disposed of as outdated or unsatisfactory for use, and the current quantity.
2. Physical inventories will be taken periodically to verify that the quantity on hand matches the quantity stated in all records.
3. If the quantity on hand does not match that in the records, a correction or adjustment must be made to produce an accurate record. The reason for the inaccuracy must be determined so that a concentrated effort can be made to correct the situation.
4. One portion of the total inventory will be counted each month. The portion is determined by the Director of Materials Management. The taking of inventory will be timed so as to not interfere with activities necessary to support patient care.
5. The full inventory will be counted at the end of each fiscal year. The complete inventory will include all "material" (significant) stores, to include pharmacy, dietary, laundry and department level storage areas.
6. Department inventories will be conducted as needed to determine if departments are accumulating excessive inventories and to evaluate the effectiveness of the distribution system and the hospital-wide inventory management efforts.

VICTORIA HOSPITAL

ADMINISTRATION

STANDARD OPERATING POLICIES AND PROCEDURES

SUBJECT	DATE EFFECTIVE	REVISION DATE
Materials Management		
REQUISITIONING	DATE ISSUED	PAGE 9 OF

1. Traveling Requisitions shall be used weekly, by distribution to each using department, for regular, routine reorders.
2. Departmental Requisitions shall be used for nonroutine, periodic or single time used orders for supplies, as needed. The Inventory Catalog shall be used as a identification catalog in listing all orders, except when items have not previously been listed.
3. Purchase Orders shall be used in processing all purchase requisitions and orders from all departments of the hospital, signed by the Director of Materials Management.
4. For "back-up" orders, the Department shall inform the requisitioning department of the status of delayed orders, every three days, or every twenty-four hours whichever is practical based on the degree of urgency.
5. Emergency Orders shall be designated as such, using Departmental Requisitions, and these orders shall be clearly labelled by the "Emergency Order" stamp, and complete with regard to the reason for such emergency designation.

VICTORIA HOSPITAL

ADMINISTRATION

STANDARD OPERATING POLICIES AND PROCEDURES

SUBJECT	DATE EFFECTIVE	REVISION DATE
Materials Management		
MISC. ADMIN. PROCEDURES	DATE ISSUED	PAGE 10 OF

1. All invoices must be approved for payment by a representative of the using department, and the Materials Management Department to assure: a) proper delivery with inspection approval, b) proper operational use, and c) adequate repair and warranty procedures.
2. All repairs of equipment will be requested through the Department through the Departmental Requisition form.
3. All departments will review contracts applicable to their functions and activities annually with the Director of Materials Management, prior to renewal of approval of a new contract. All contracts shall be authorized by the Hospital Administrator, or if delegated by him, the Director of Materials Management.
4. The Department encourages the use of "blanket orders" in order to reduce unnecessarily high inventory levels. Through this procedure an order is placed at the beginning of the year, and delivered in drop shipments following a telephone call to the company after the stock of material runs low.
5. The Department will participate in group purchasing programs, such as the Eastern Caribbean Drug Service, wherever feasible, practical and economical, and approved by the Hospital Administrator.

VICTORIA HOSPITAL

ADMINISTRATION

STANDARD OPERATING POLICIES AND PROCEDURES

SUBJECT	DATE EFFECTIVE	REVISION DATE
Materials Management		
SECURITY	DATE ISSUED	PAGE 11 OF

1. The Materials Management Department is staffed 24 hours a day, 7 days a week.
2. Materials management areas are off-limits to everyone but Department personnel, except in the case of official business.
3. Visitors are not allowed into Department areas without an escort from Department staff, or a security guard.
4. The following doors are kept locked at or during the times listed:

The Department office staff must make certain that the above schedule is followed.

5. The Department is responsible for the keys to the following areas:
 6. Keys are located in the Department office on the key ring. Anyone requesting to use the keys must sign them out in the key log (notebook), kept in the dispatch office, and sign them in again on return.
 7. Keys may be given only to members of the Department or Hospital Administrative staff. Other personnel will be escorted through Materials Management areas by Department staff.
 8. The Central Stores will be staffed during the following times:
 9. Personnel seeking access to Materials Management areas during any staff absences may page Department staff and wait for their return.
 10. Any unusual occurrences should be reported immediately to the Director of Materials Management, and during his absence, the Hospital Administrator.

VICTORIA HOSPITAL

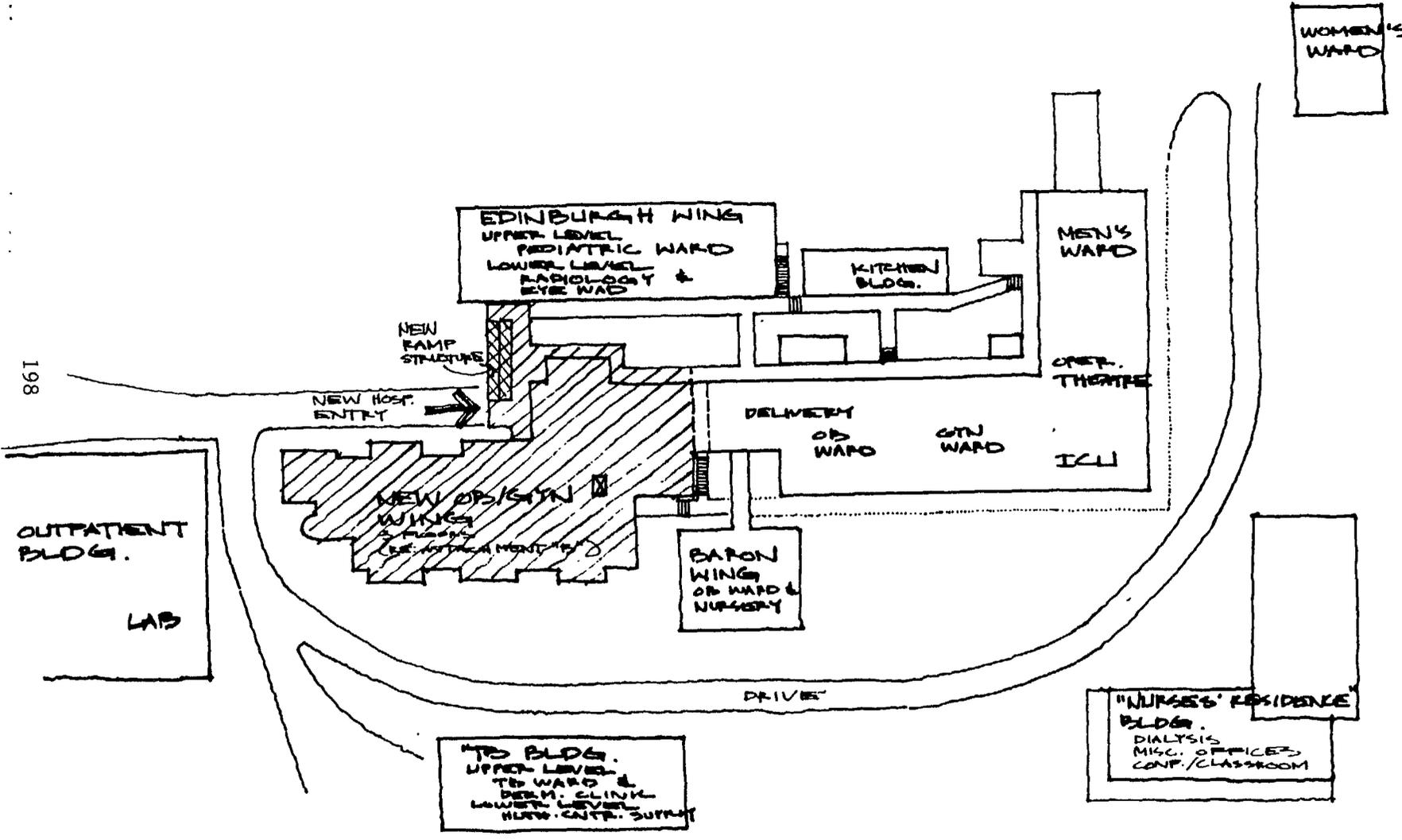
ADMINISTRATION

STANDARD OPERATING POLICIES AND PROCEDURES

SUBJECT	DATE EFFECTIVE	REVISION DATE
Materials Management		
LAUNDRY	DATE ISSUED	PAGE 12 OF

The objective of the Laundry is to provide adequate amounts of clean linen to user departments on a scheduled basis and as needed.

1. The Laundry is staffed from 8:00am to 4:00pm 7 days a week. Back-up is provided by other Materials Management staff after routine hours.
2. The Laundry is responsible for the following activities:
 - Washing linen
 - Ensuring the quality of clean linen processed
 - Sorting and distributing all clean linen
 - Controlling linen inventory
 - Distributing linen throughout the hospital
 - Repairing linen
3. There will be a strict separation of clean and soiled linen.
4. All soiled linen will be contained so that staff can handle it without risking contamination.
5. Surgery, Isolation and Precaution linen will be handled separately, through washing.
6. The Laundry will be inspected regularly by the hospital's infection control officer.
7. Scrub clothing will be worn by all Laundry staff, and changed daily. Proper hand-washing technique will be followed by all Laundry staff.
8. Clean linen will be inspected on a sample basis to assure that it is clean, pressed and free from tears, holes, etc.
9. Items that are not clean or pressed properly will be returned to the Laundry for re-processing.
10. Torn items will be repaired by hospital staff. Linen that is beyond repair or has more than four repair patches is taken out of circulation and used for rags or other purposes.
11. Linen will be delivered to each user department automatically every 24 hours.
12. Inventories will be taken each Monday, to assure that all linen in circulation is accounted for.



861

OUTPATIENT BLDG.
LAB

EDINBURGH WING
UPPER LEVEL
PEDIATRIC WARD
LOWER LEVEL
RADIOLOGY &
EYE WARD

KITCHEN BLDG.

MEN'S WARD

WOMEN'S WARD

NEW RAMP STRUCTURE

NEW HOSP. ENTRY

OPER. THEATRE

DELIVERY OR WARD

GYN WARD

ICU

NEW OPS/GYN WING
(3 FLOORS)

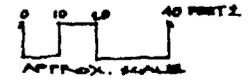
BARON WING
OR WARD &
NURSERY

DRIVE

MTB BLDG.
UPPER LEVEL
TB WARD &
DERM. CLINIC
LOWER LEVEL
HXRV. ENTR. SUPPLY

NURSES' RESIDENCE BLDG.
DIALYSIS
MISC. OFFICES
CONF./CLASSROOM

EXISTING FACILITIES 12/51



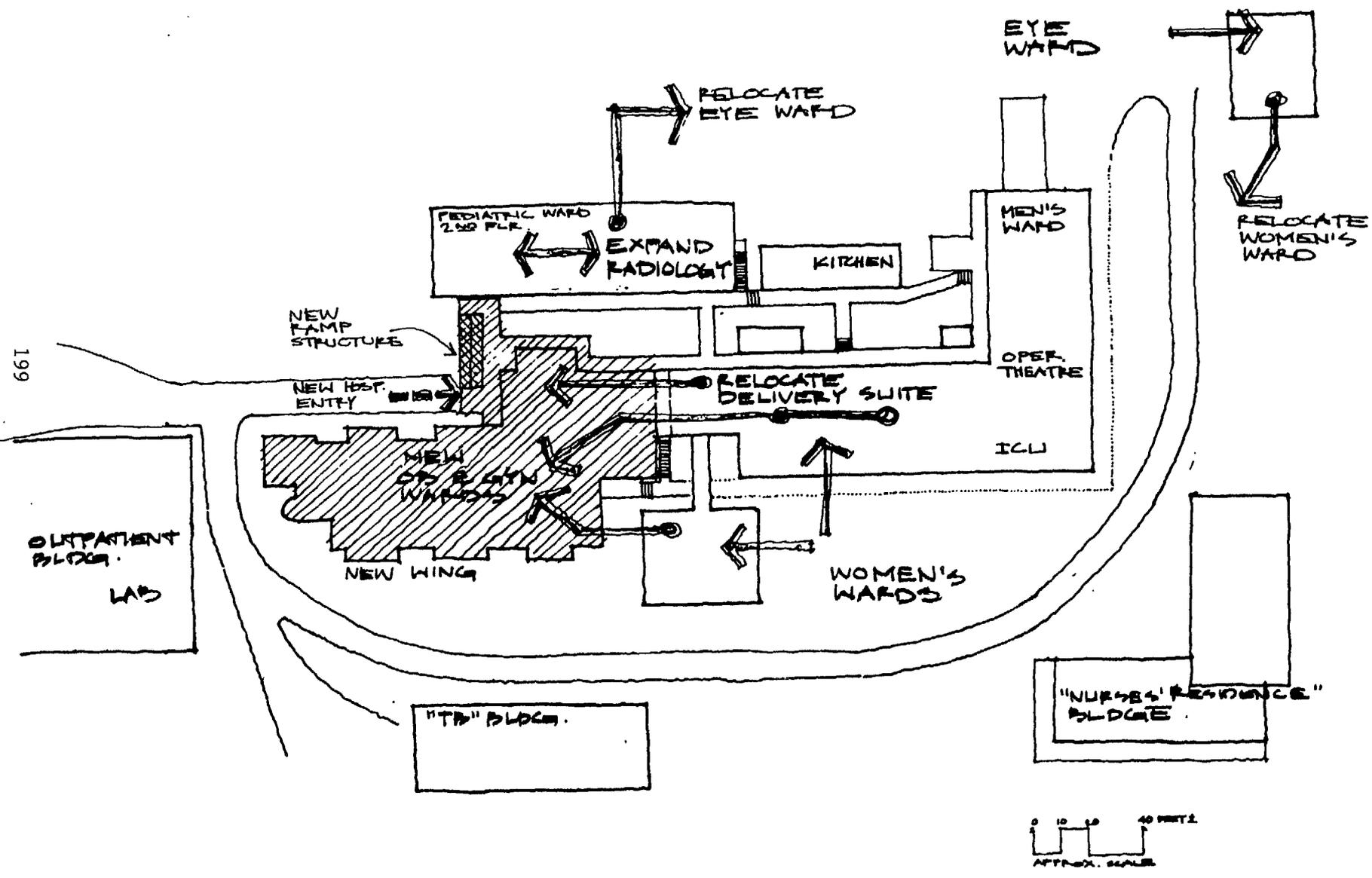
CAMPUS PLAN
AS OF 12/51

12/31/51
/K. HANOVER - CONSULTANT

VICTORIA HOSPITAL
CASTRIES, ST. LUCIA

ATTACHMENT A

199



ATTACHMENT B

PROJECTED UTILIZATION
POST COMPLETION / NEW OB/GYN WING

NEW WING CAMPUS
VICTORIA HOSPITAL

12/31/01
/ K. HANOVER - CONSULTANT

200

CLINTON WING

ATTACHMENT

RELOCATED EYE WARD

D PAVED RAMPED WALKWAY

B PLATFORM & RAMPS DOWN FROM KITCH. ENTRY

E OPTIONAL RAMP OVER EXIST. STEPS

A PAVED RAMPED WALKWAY

F OPTIONAL RAMP OVER EXIST. STEPS

C RAMP OVER EXISTING STEPS

EDINBURGH WING

KITCHEN

MAIN RAMP

COURTYARD

COURTYARD

COURTYARD

OPR. THEATRE

ICU

NEW OB/GYN WING

ELEVATOR

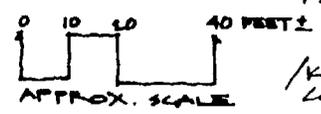
BARON WING

"TB" BLDG.

TRANSPORT INFRASTRUCTURE

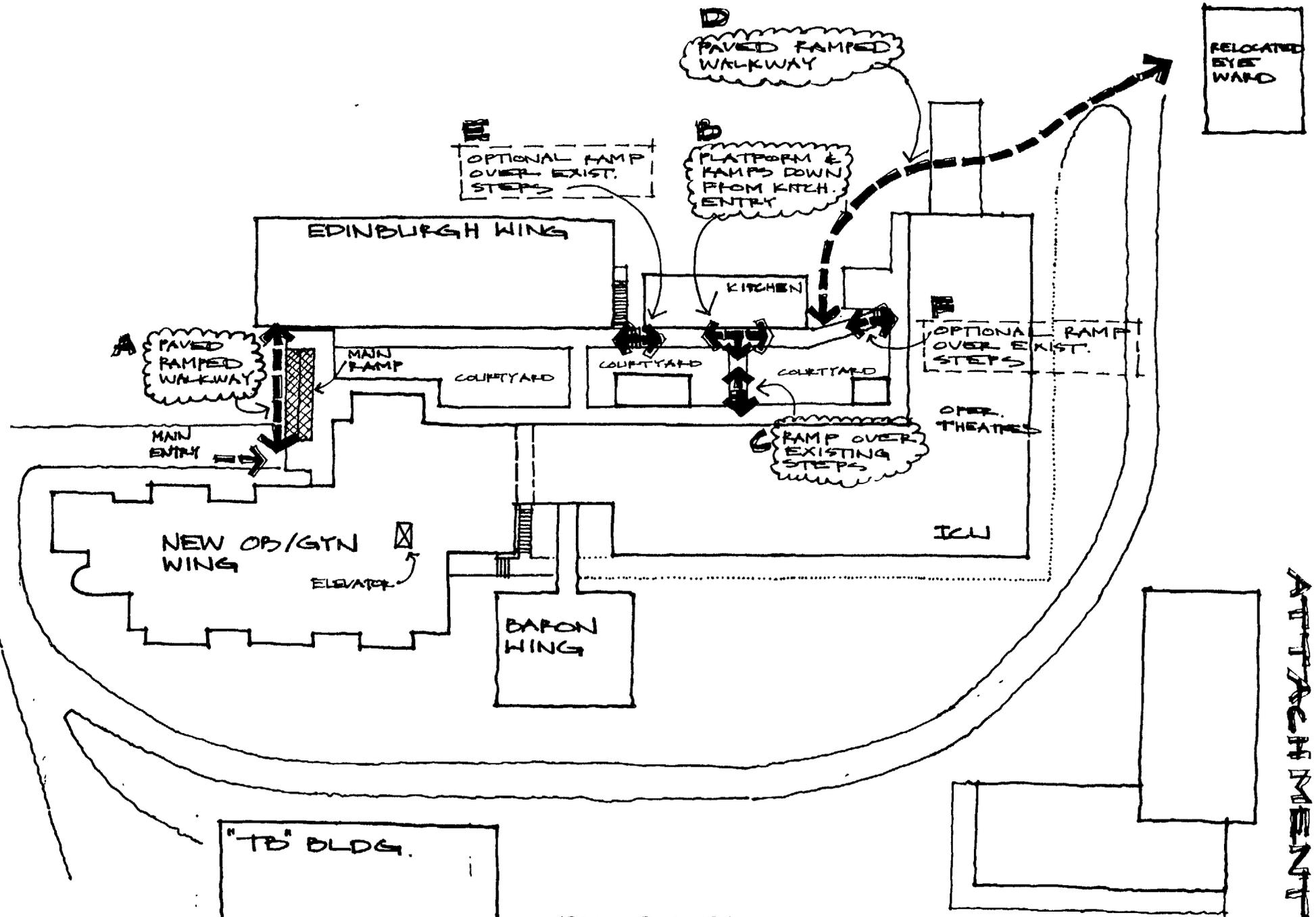
POTENTIAL IMPROVEMENTS

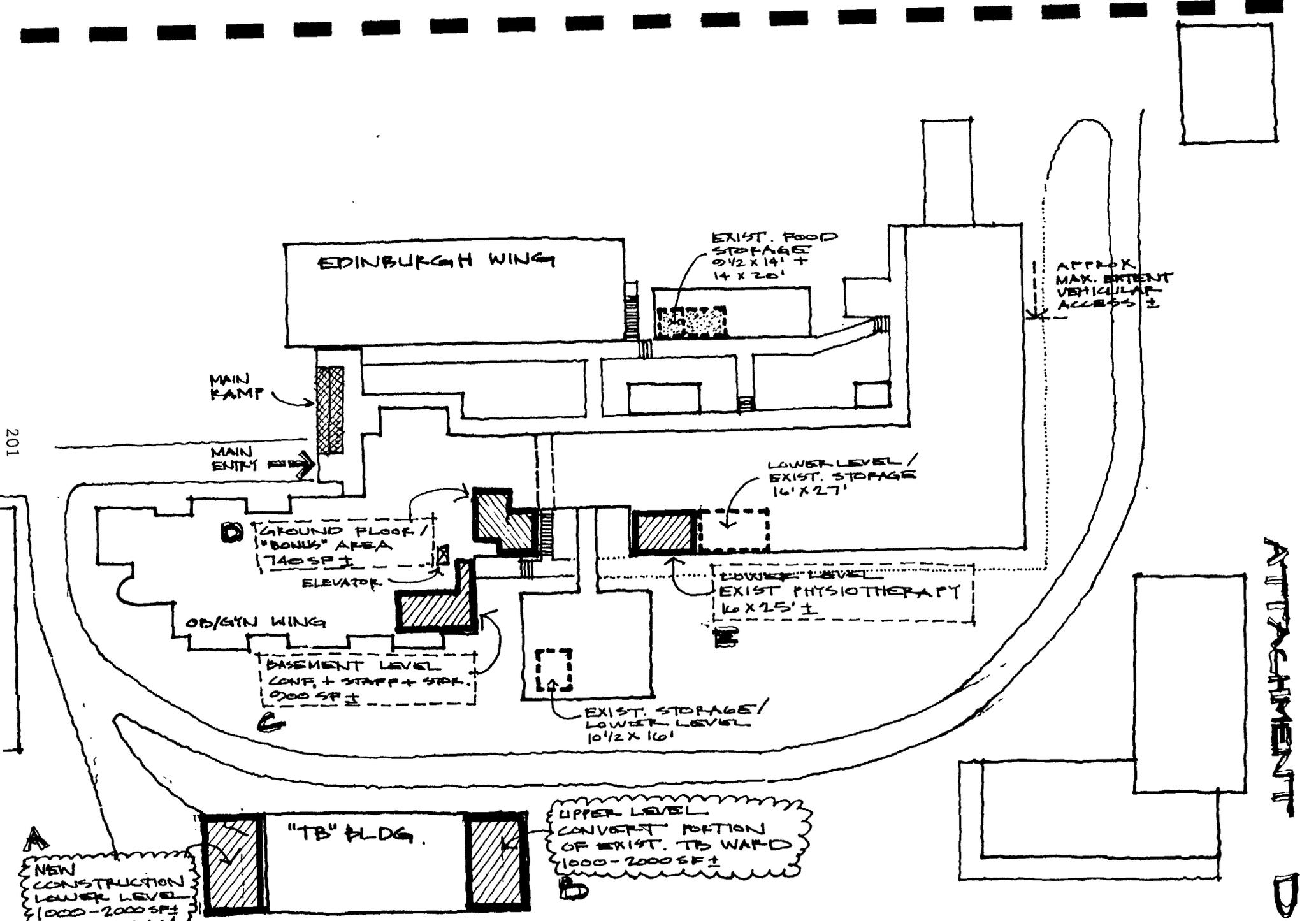
VICTORIA HOSPITAL



12/31/01

/K HANDOVER - CONSULTANT

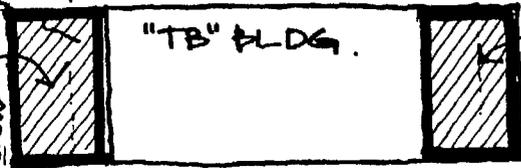




201

ATTACHMENT D

A
 NEW CONSTRUCTION
 LOWER LEVEL
 1000-2000 SF ±



B
 UPPER LEVEL
 CONVERT PORTION
 OF EXIST. TB WARD
 1000-2000 SF ±

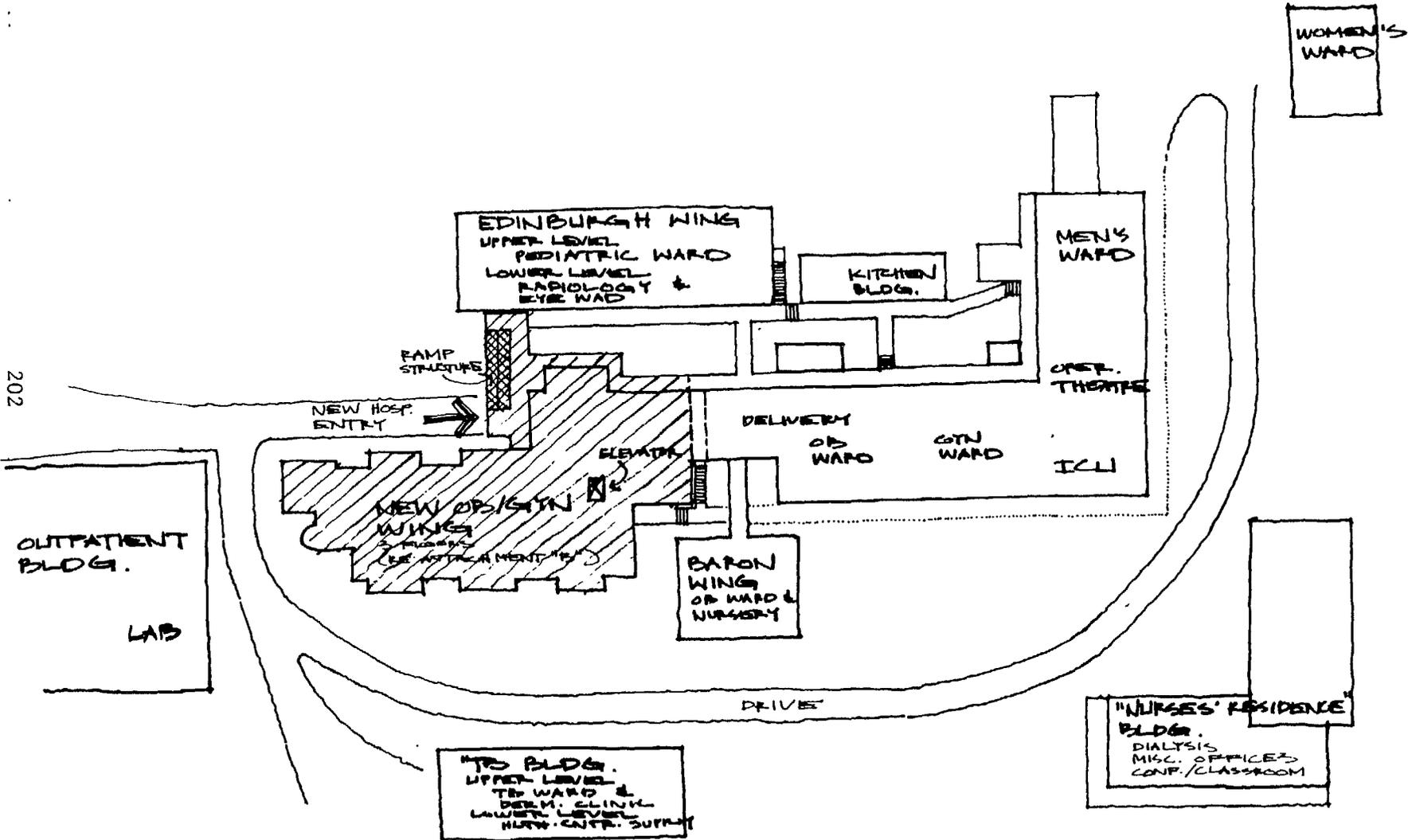
EXISTING STORAGE & POTENTIAL CENTRAL SUPPLY LOCATIONS

VICTORIA HOSPITAL
 CASTRIES, ST. LUCIA



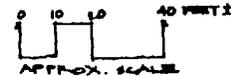
12/31/01
 K. HANOVER - CONSULTANT

202



ATTACHMENT A

EXISTING FACILITIES 12/91



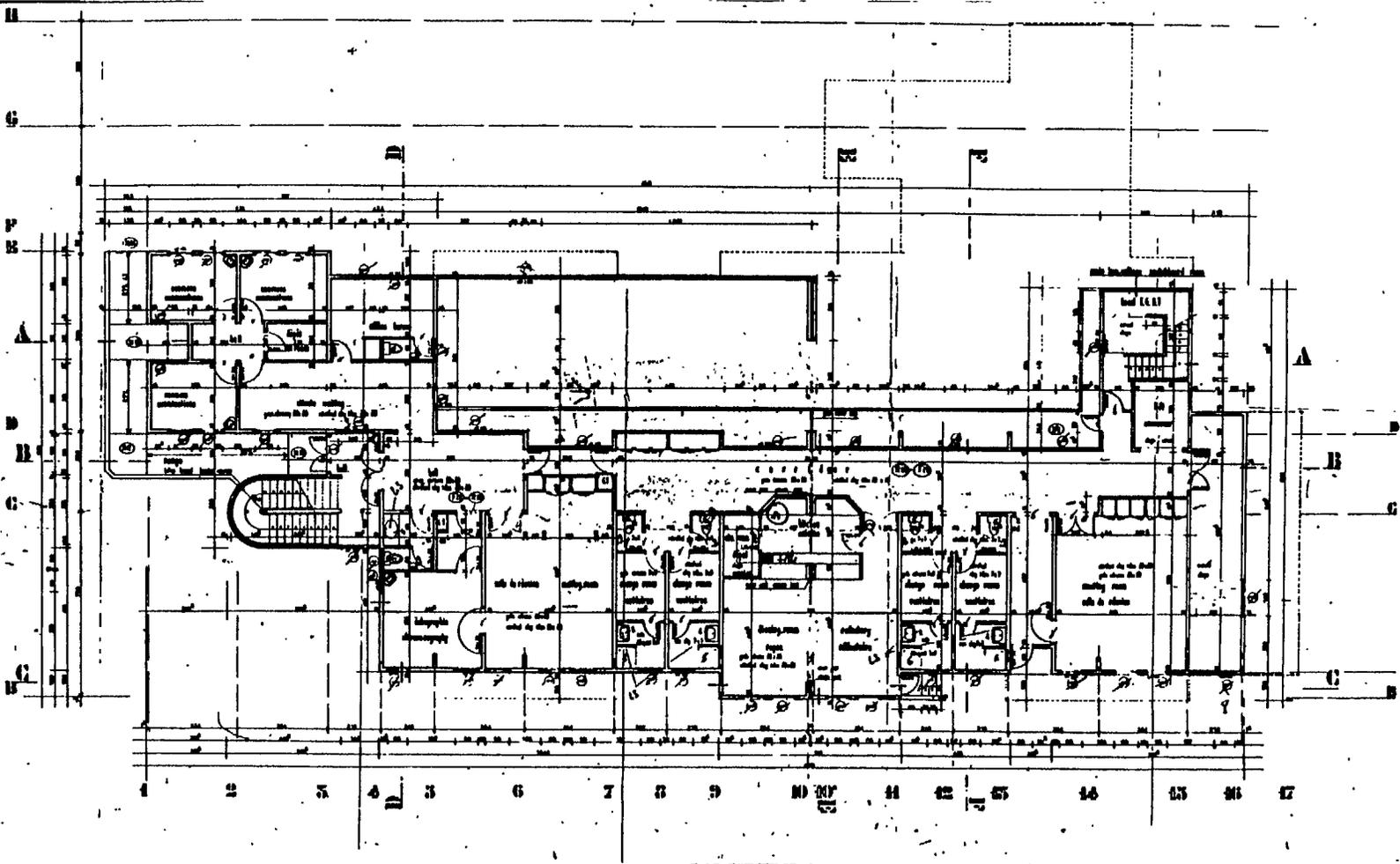
CAMPUS PLAN

AS OF 12/91

VICTORIA HOSPITAL
 CASTRIES, ST. LUCIA

12/31/91
 /K. HANOVER-CONSULTANT

ATTACHMENT B-1



SAINTE - LUCIE CASTRIES	
Project No. 12/31/01 Date of Issue 12/31/01 Scale 1/8" = 1'-0" Drawing No. 09-197 A.P.04	Client Architect Engineer
MCMHUNTER ARCHITECTS VICTORIA PROJECT BY ARCHITECTS AT 100 BROADWAY ST. GEORGE'S, GUYANA	
OB/GYN. BASEMENT	
APR 1997 12/31/01 09-197 A.P.04	09-197 A.P.04

BASEMENT LEVEL

OB / GYN WING

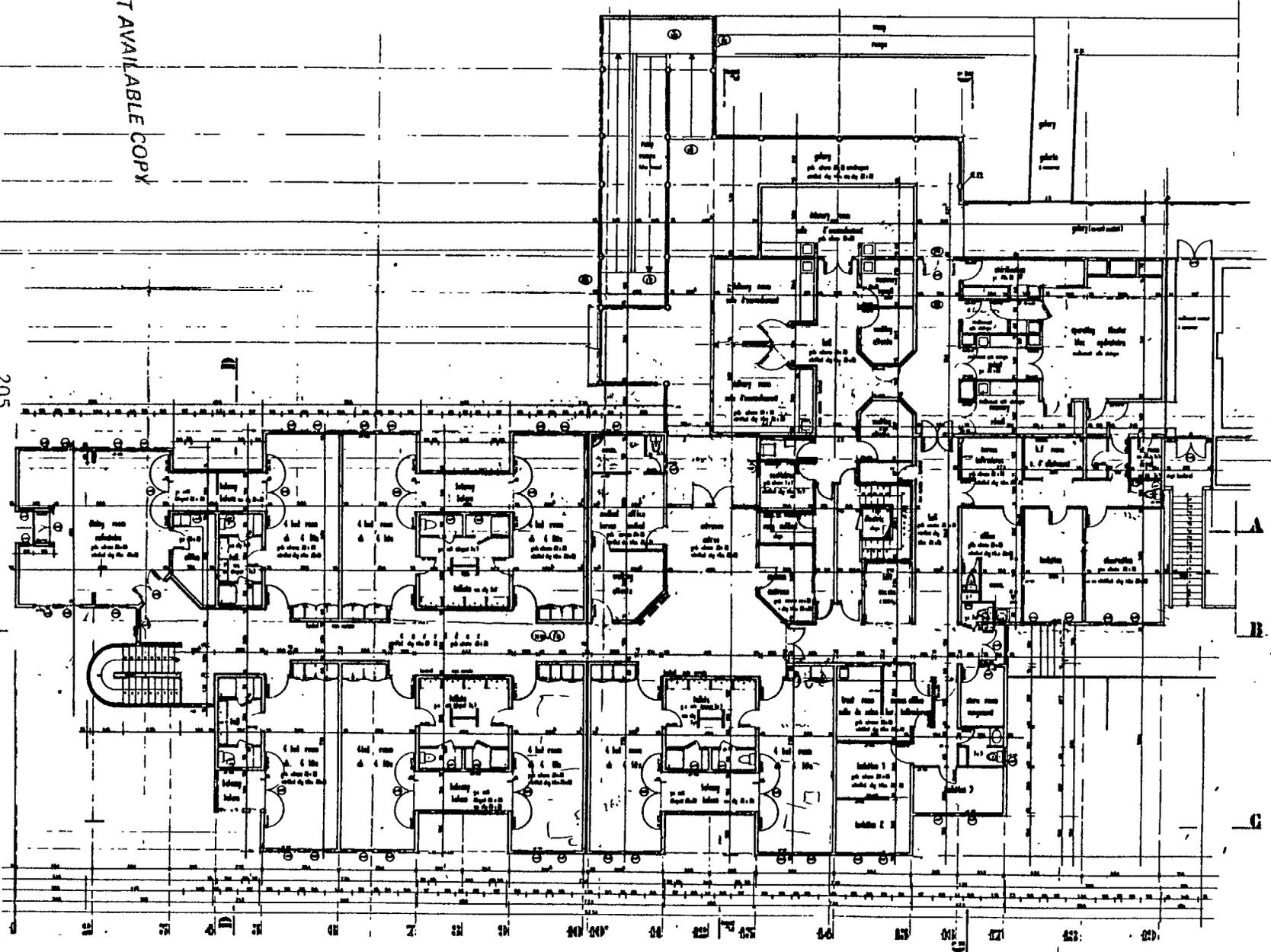
**VICTORIA HOSPITAL
CASTRIES, ST. LUCIA**

NOT TO SCALE
12/31/01
/K. HANOVER - CONSULTANT

203

BEST AVAILABLE COPY

ATTACHMENT B-3



SAINTE - LUCIE CASTRIES	
Project Name	Project No.
Client	Architect
Site	Date
Scale	Sheet No.
MATHWINER INDUSTRIAL VENTURE PROJECT THE RECONSTRUCTION OF THE INFIRMARY	
STAGE	
APR	MAY
JUN	JUL
AUG	SEP
OCT	NOV
DEC	
REVISIONS NO. DATE BY	
1	89-197/12.06

FIRST FLOOR

NOT TO SCALE
12/31/91
/K HANOVER - CONSULTANT -

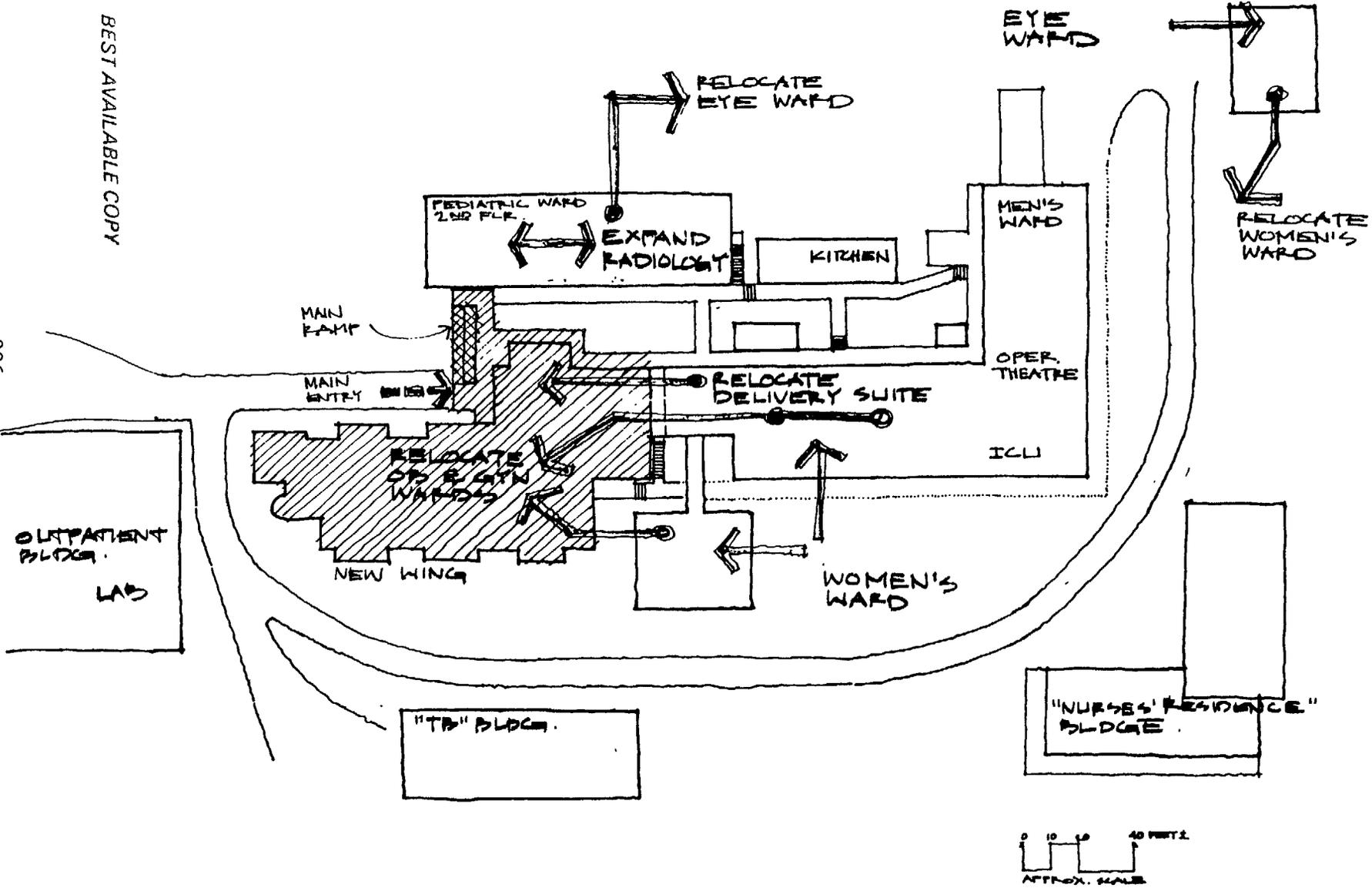
OB/GYN WING

VICTORIA HOSPITAL
CASTRIES, ST. LUCIA

205

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206



SUMMARY ANALYSIS
PROJECTED UTILIZATION
 POST COMPLETION / NEW OB-GYN WING

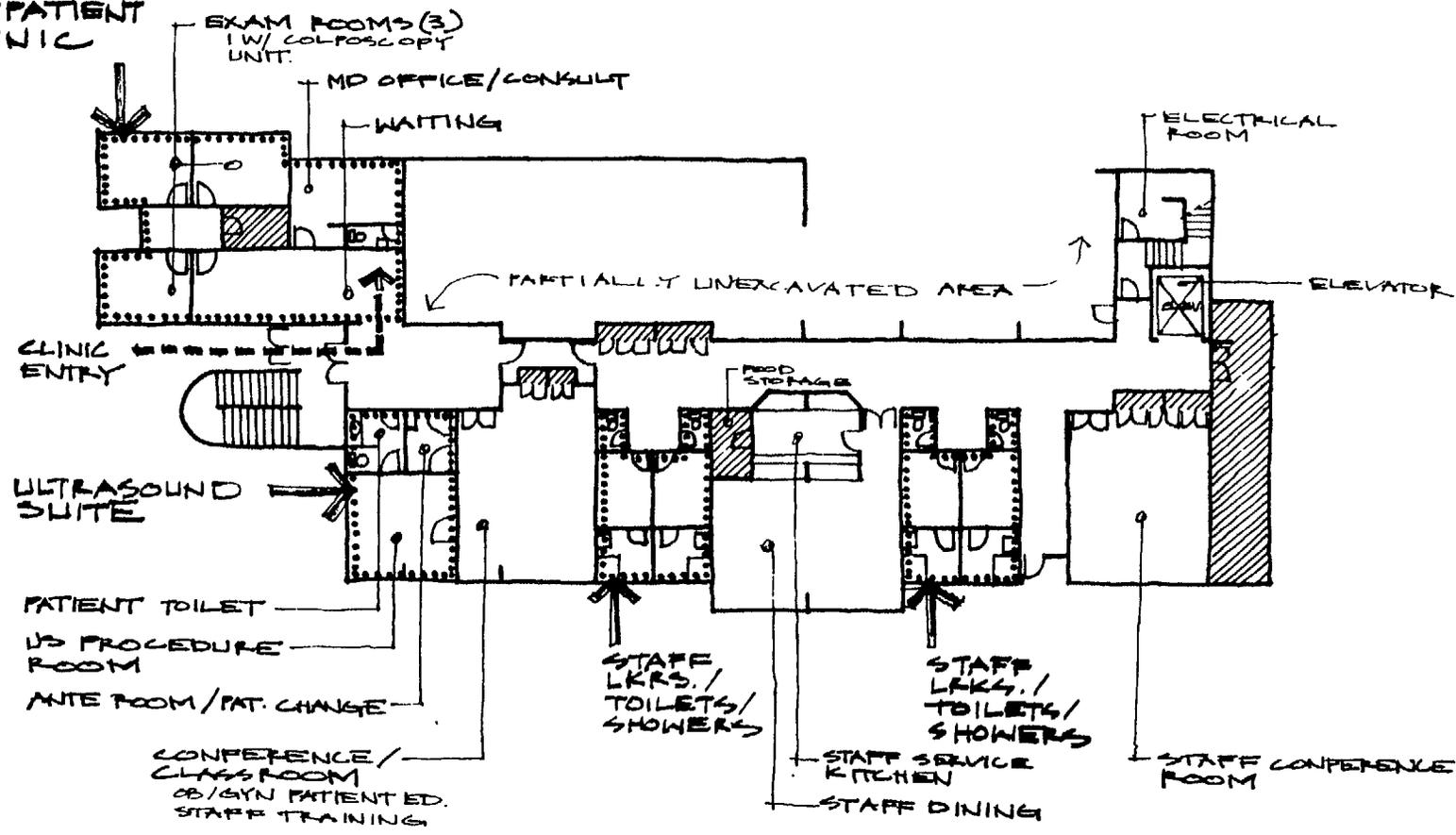
NEW WING CAMPUS
VICTORIA HOSPITAL
 CASTRIES, ST. LUCIA

12/31/01
 /K. HANDOVER-CONSULTANT

ATTACHMENT C-11

207

OB/GYN OUTPATIENT CLINIC



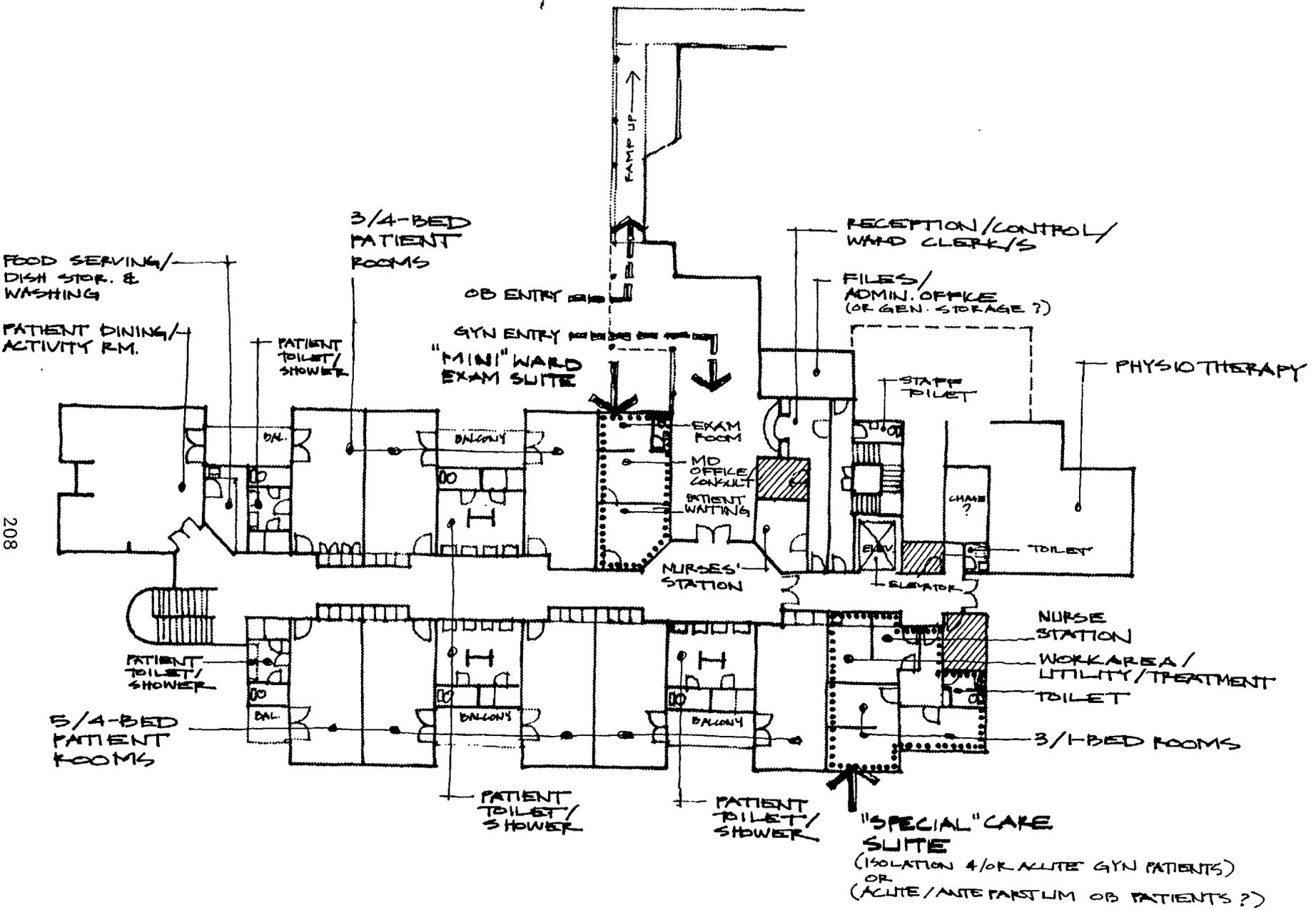
PROJECTED UTILIZATION SUMMARY ANALYSIS

NEW WING BASEMENT
VICTORIA HOSPITAL
 CASTRIES, ST. LUCIA

STORAGE
 12/31/91
 / K HANOVER-CONSULTANT

ATTACHMENT 0-2

208



PROJECTED UTILIZATION
SUMMARY ANALYSIS

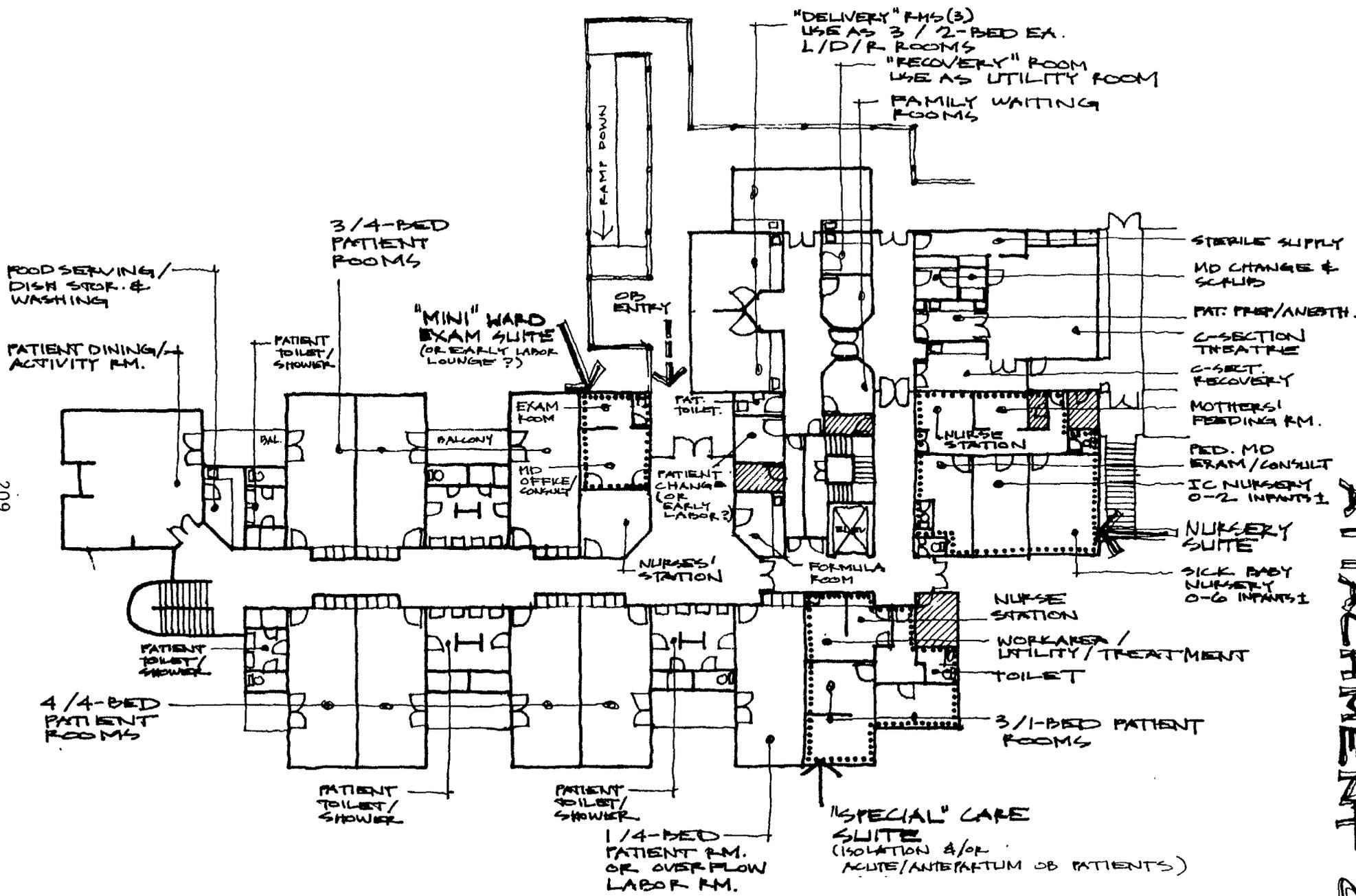
NEW WING/GYN
GROUND FLR.

VICTORIA HOSPITAL
CASTRIES, ST. LUCIA

▨ STORAGE
12/31/91
/K. HANOVER-CONSULTANT

ATTACHMENT 2-3

209



PROJECTED UTILIZATION
SUMMARY ANALYSIS

NEW WING / OB
VICTORIA HOSPITAL
CASTRIES, ST. LUCIA

121 FLR. STORAGE
12/31/01
/ K. HANOVER - CONSULTANT

ATTACHMENT C-4