

WATERFRONT DEVELOPMENT PROJECT
KINGSTOWN, SAINT VINCENT, W.I

by

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requirements for the degree

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Chapter 1

INTRODUCTION: SAINT VINCENT, WINDWARD ISLANDS

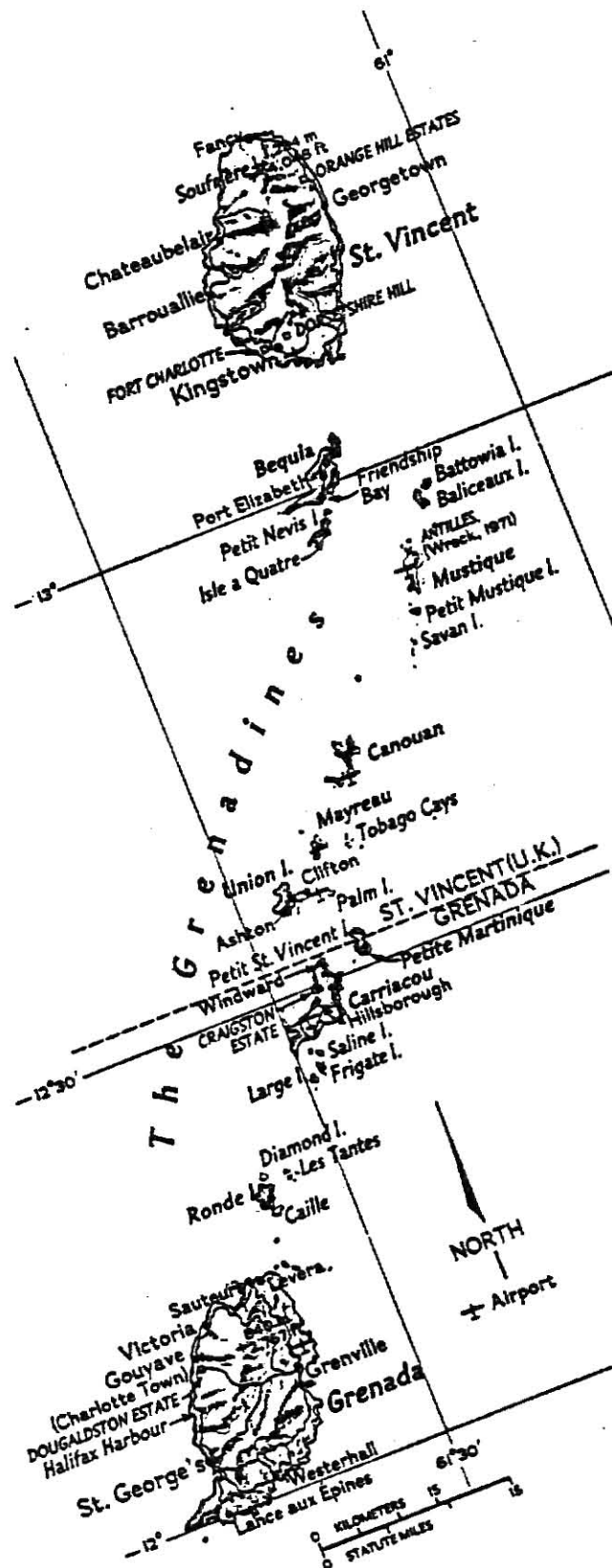
The island of St. Vincent is at the lower end of the Caribbean chain. It is about 13° - 15' north of the equator and 60° - 56' west of Greenwich. St. Vincent is 30 miles south of St. Lucia and 60 miles north of Grenada. The Grenadine Islands are between St. Vincent and Grenada. The nearest landmark on the west is the Nicaraguan coast. The island of Barbados is 100 miles to the east. St. Vincent is a small mountainous island, 18 miles long and 11 miles wide. It's total area including the Grenadines is 150 square miles. The island is intensely beautiful and has numerous sandy beaches. (See Fig. 1)

There is an old, almost impenetrable volcanic range of mountains that runs like a spine throughout it's 18 mile length. From the north shore it rises sharply to about 4,000 feet (Soufriere). Another peak almost equidistant rises to 3,253 feet (Richmond) and at the center it rises to 3,350 feet. In south at 3,253 feet is Grand Bonhomme, and at 2,483 feet is Mt. St. Andrew. The great crater of La Soufriere with it's crater lake is the only inland crater. To the east of this watershed, the land slopes gradually to the coast. Here, there are flat valleys and undulating country. To the west the land is more rugged. There are very deep ridges and many rivers with narrow alluvial plains along their courses.

The main population centers are Chateaubelair, Barroullie, Layou and Kingstown, the capital, which is the largest population center. The Grenadines are to the south of the island. Bequia, the largest, has a population of 3,500 and is 9 miles from the mainland. Mustique is 118 miles away. Canouan has a population of 600 and is 30 miles away. Union Island is 40 miles off and has 1,150 people, and Mayreau has about 200 people. Finally there is a chain of islands which includes the uninhabited islands of Baliceaux, Battawia and Isle De Quatre. Palm Island in the same islet is inhabited.

The climate of St. Vincent is tropical. The rainfall ranges from about 150 inches per year in the central mountains to about 60 inches per year in the south east coasts. The rainfall is relatively low from December to April while from May to November 70 percent of the island's rainfall occurs. From January to June the north - east tradewinds are prevalent and temperatures range from 88 degrees to 66 degrees fahrenheit. Although St. Vincent lies within the traditional hurricane belt, it has so far seldom experienced hurricane damage.

The Kingstown harbour is the island's principal port. It is served by scheduled cargo and passenger services. There are also unscheduled services provided by motor vessels and schooners which call whenever cargo is available. The deep water pier, which was constructed in 1964 is mostly used for large ships. It is 900 feet long and can accommodate up to three ocean going cruise ships at once. Other ports such as Bequia and Union Island are served by



Saint Vincent, the Grenadines and Grenada

Figure 1

motor launches and open boats. Auxillary sailing vessels call at Kingstown and ports on the Leeward coasts. The airport is located two miles from Kingstown at Arnos Vale, which is at the island's southwest corner. The airport has daily scheduled services operated by the Leeward Islands Air Transport Services, Ltd. These services initiate at Trinidad in the south to Puerto Rico in the north. The Leeward Islands Air Transport Services, Ltd. also operates daily scheduled services between Arnos Vale, Mustique and Palm Island in the Grenadines. There are presently a few hotels, clubs and guest houses in the islands, however, they do not readily meet the expectations of the international visitor.

The largest hotel features about 60 beds and is located in Bequia. The number of stay over visitors has been increasing. In 1968 there was a total of 12,472 visitors. In 1970 the figure rose to 17,586 and in 1974 a total of 20,822 visitors came to the island. (See Figure 2).

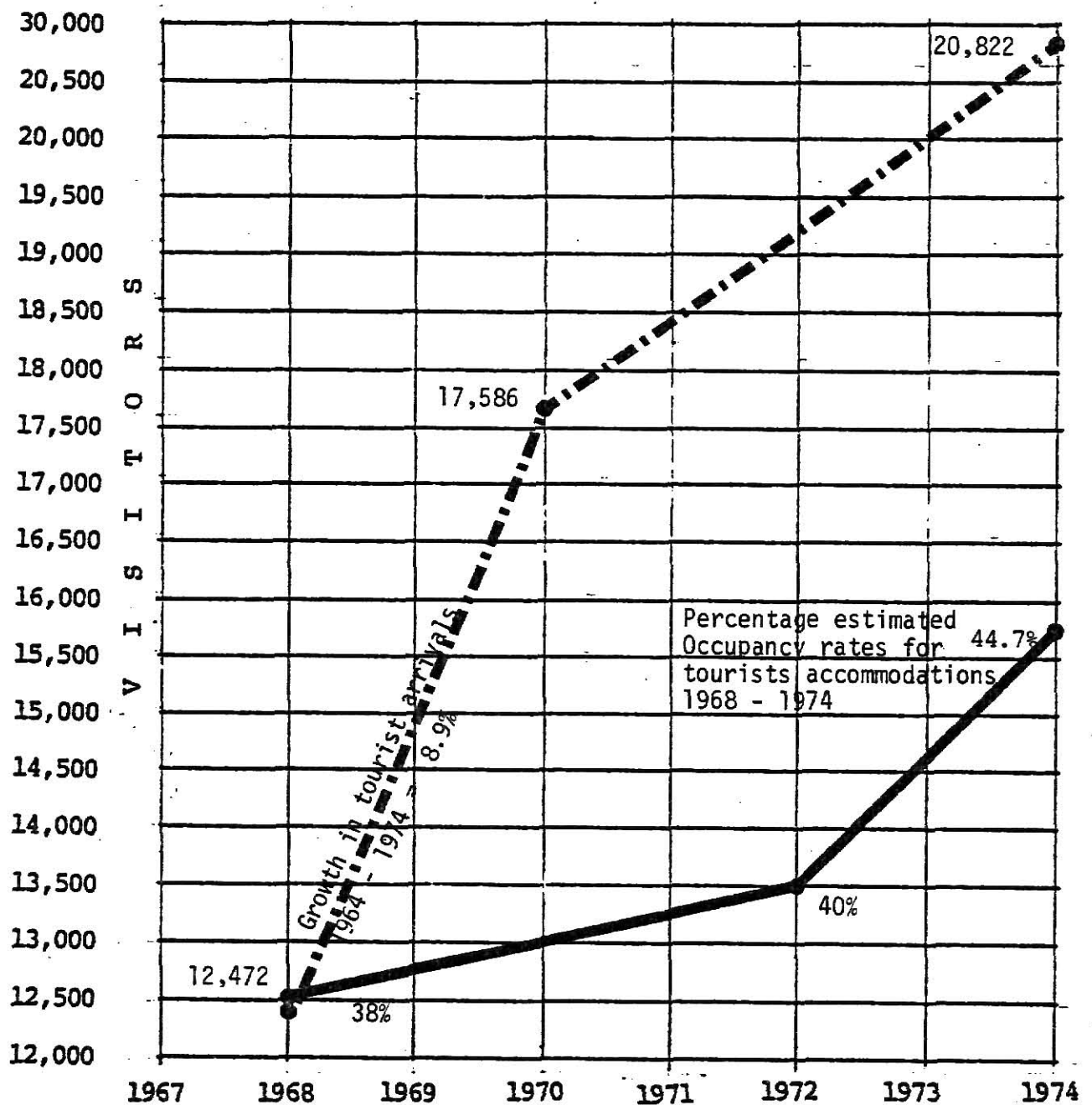
The average annual growth rate, 1968 to 1970 was 8.9 percent. As shown by Figure 2, it appears that priority should be given to providing facilities that would:

- a. Encourage tourists to visit.
- b. Encourage tourists to stay longer.
- c. Encourage tourists to return.

A project to extend the harbour, included building a sea wall and storm water drainage channels. It was completed in 1970. A total of 18 acres of land on the foreshore was reclaimed for future development. This reclaimed area is less than a mile from the present deep water pier and is adjacent to the downtown area. It's on this land that the Waterfront Development Project proposed in this report is located.

This new project could serve as the initial stage of a long range program to revitalize the Kingstown downtown area. It is hoped that an emphasis will be placed on people so as to create an environment for human interaction at all levels. The proposed complex would in turn interact with the existing community.

Kingstown is at present part residential and part retail commercial and in continuing this trend the new project will adopt this pattern. Mostly low-rise (with a hotel guestroom tower) buildings are envisaged for the project, forming a new settlement that would relate both to the harbour and the downtown area. The location and variety of this project would allow residents to find privacy or human contact, individual activity, or involvement in the community. The scheme also calls for a gradual improvement in the harbour area and to provide better facilities for visiting and local pleasure boats. To the visitor arriving by boat, the new project should present an attractive sight.



Growth in tourist arrivals and percentage of estimated occupancy rates for tourist accommodations from 1968 to 1974.

Figure 2

Chapter 2

PROBLEM STATEMENT

The object of this exercise will be to develop in an urban design context a Waterfront Development Project. The Waterfront Development Project will be located on a recently reclaimed portion of waterfront land at the southwest corner of Kingstown. The land is adjacent to the downtown area and is a prime location for a project of this nature. The estimated project area will be approximately 500,000 square feet and will consist of the following components:

1. Stores/Offices	88,000 sq. ft.
2. Shops	29,800 sq. ft.
3. Hotel with marina facilities	180,000 sq. ft.
4. Plaza	125,000 sq. ft.
5. Movie Theatre	22,000 sq. ft.
6. Parking facilities	54,000 sq. ft.
Total	498,800 sq. ft.

The hotel will cater to transient groups such as vacationers, and conventioners who will all need a place to eat, sleep, bathe, and be entertained. It is for this reason that the hotel is being built. The hotel will incorporate in it's design, areas for eating, physical recreation, leisure, and entertainment.

The shops, stores and offices will serve as another way to spur economic growth, and also to provide entertainment and convenience for visitors and local residents. They will attract people to the Waterfront Development Project area by providing goods and services.

With such capabilities and potential, a complex this size and nature can attract about 2,000 to 2,500 people daily to the area, and their shopping requirements must be met. The shops, stores and offices will create activity in and around the Waterfront Development Project and also increase the chances that people would be within walking distance of these amenities.

Since it can be expected that many of the people visiting the Waterfront Development Project area will be arriving by automobile and other vehicles such as taxis and buses it will be necessary to provide some parking spaces in the immediate area. Others would use available parking facilities in the existing downtown. A new bus terminal will be provided at the west end of the project.

Educational Goals

This type of project has been selected to satisfy many professional interests that have been acquired in the past year while attending Kansas State University, and also to fulfill an interest for tourism in St. Vincent, Windard Islands.

This program will be used in developing a design solution for the project. The program will be a logical sequence of analysis, problem solving and synthesis of information that will be collected so that the design process will attain the program's goals and objectives. A previously constructed program of required spaces and areas will be used and expanded into a workable design program for the project.

Time scheduling is critical to a problem of this magnitude because of the financial and construction parameters that will dictate the feasibility of the project; i.e. the preparation of design and development packages and public presentations.

The Waterfront Development Project can be classified as a large scale urban design project, and issues such as planning, aesthetics and form that can enhance the waterfront image of Kingstown will be addressed in the total design package.

The final presentation will be similar to that brought before a client for approval of the concept. It will also be one that may be used to be presented professionally when entering the field of environmental design.

Scope and Focus

In doing this project, it will be necessary to collect, and organize information into a workable design program for the Waterfront Development Project. The program will be used in a design process of master planning, schematics and presentation drawings.

The program will focus on addressing such issues as the analysis and synthesis of the site and aesthetic quality of architectural and urban design, spatial organization and graphic presentations.

Design Strategy

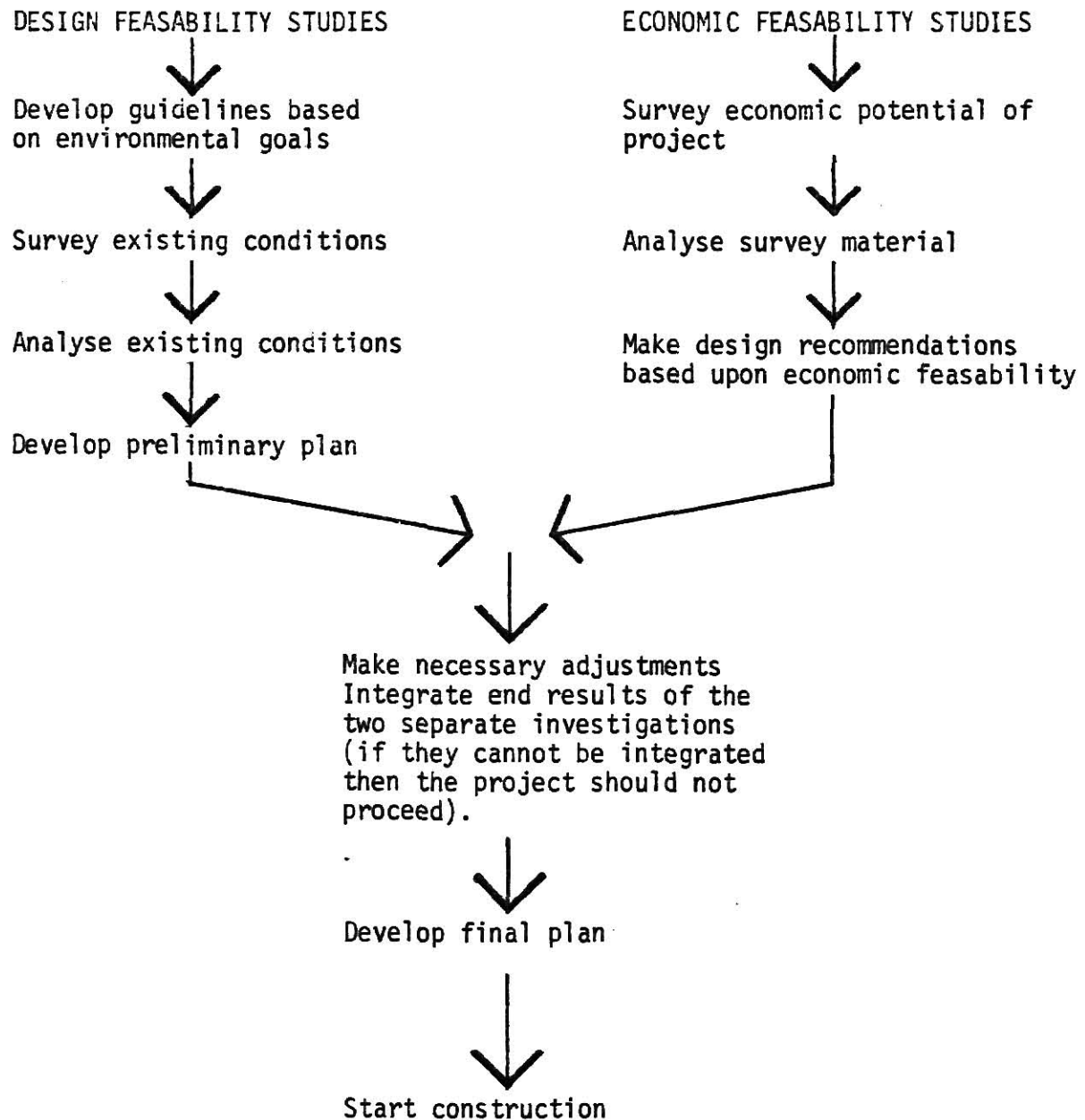
Site Analysis:	Will determine the feasibility of the site to accommodate the project. Design consideration will be presented in lieu of the actual analysis and is included in this program.
Master Planning:	At this stage a master plan will be developed. Illustrating massing, building placement, circulation schemes and gross square footage layout.
Design Development:	Schematics will be refined into a detailed working plan showing spaces, connections, circulation, exterior image and aesthetic details.
Presentation Drawings:	Drawings showing selected view plans, sections, and elevations.

Client and Feasibility

At this stage no known client exists, however; there is need for a project of this nature which can be expected to boost tourism industry and could also stimulate economic, social and cultural activities in the Kingstown downtown area by providing attractive, up to date facilities.

The Waterfront Development Project will cater to local residents as well as the regional and international tourists.

This report will be an investigation of the design feasibility of the Waterfront Development Project on the site shown. At a later stage, but not as a part of this project, the design feasibility will be compared with the economic feasibility to determine the overall feasibility and potential of the project. (See Figure 3). If both studies show that the design and the economic aspects of the project are compatible then the project can proceed. However, if they do not integrate and are not compatible with each other, it will be difficult to proceed with the project in a successful manner.



Urban Design Feasibility Process

Figure 3

Chapter 3

PROJECT IMAGE AND DESIGN PHILOSOPHY

In approaching the design of a multi-use complex of this nature, carefully prepared design and economic studies are analysed and used. The architect, in order to have an index for financial and functional feasibility must communicate with the client so that the best possible design at the most economical price can be achieved.

To the client, the Waterfront Development Project must be as economical as possible without being of inferior quality. He also desires the usage of materials and technology that would require only the necessary maintenance and upkeep under the existing circumstances. To the person on the street the complex must be a unique, interesting and attractive facility that the local person will not be intimidated by and thus would not enter. The success of the complex will depend on the patronage of local residents as well as that of the tourists.

Because of the existing low-rise building structures in the area and their present physical outlook, the new project will not attempt to dominate the existing townscape. (See Figure 4). The client views that the design of the new project must be one that is compatible with the existing surroundings but also unique in appearance.

When dealing with the actual design of the project the client also feels that his responsibility to the architect is to provide a basic use and square footage program and convey his feelings about the building's image. From there, the architect is to tell the client what is appropriate and to take charge of the physical design, while the client handles the economic considerations.

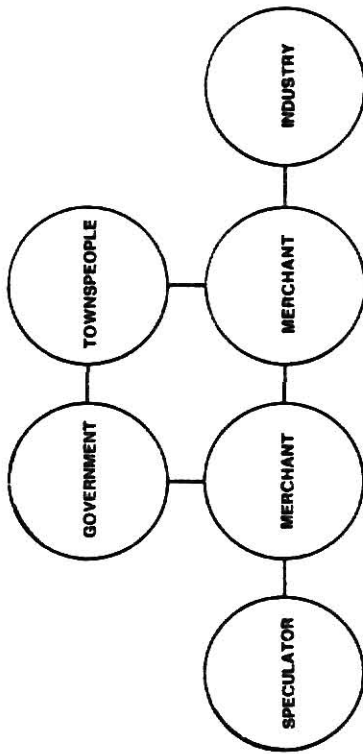
The Waterfront Development Project will consist of co-ordinated and inter-related areas that would be vital in the structure of the project itself and the existing downtown environment. Careful attention will be placed on pedestrian pathways, open space areas and also the landscaping and lighting elements of the project. Vehicular circulation systems and the location of parking spaces will be based both on the access routes and the activity centers.

Pedestrian paths will make the developed areas more usable and the landscaping and lighting will define and articulate various movement systems and elements.

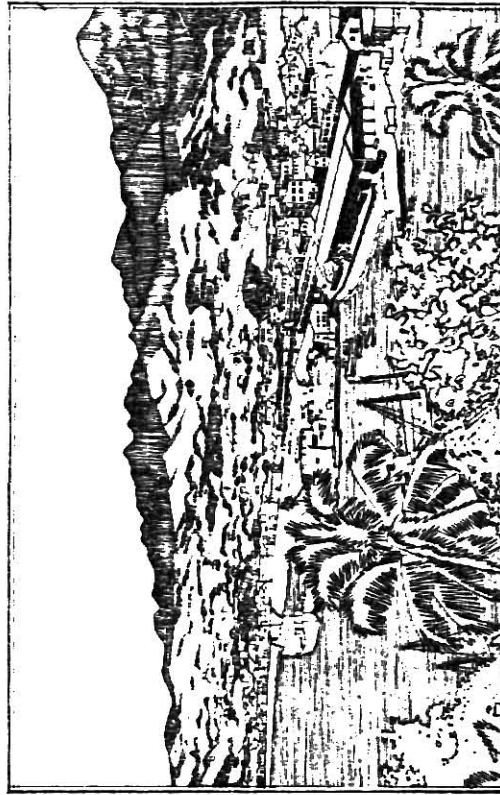
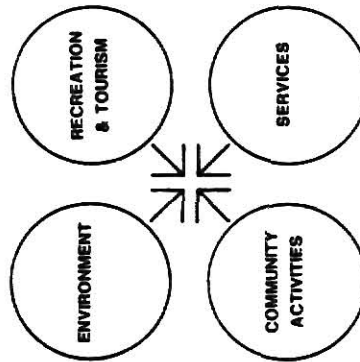
The strategy towards the design and implementation of the project will be based on the following key points:

1. The project will serve a purpose that is related to the role of the downtown area and will also function as a focal point for business, social and cultural activities.
2. It will cater for the benefit of all segments of the community and visitors alike and will therefore consist of a variety of projects.

PARTICIPANTS IN PROJECT



AREAS OF DESIGN CONCERN



●VIEW OF KINGSTOWN AND HARBOUR

WATERFRONT DEVELOPMENT PROJECT, KINGSTOWN, SAINT VINCENT, W.I.
 A MASTER OF ARCHITECTURE REPORT BY VALENTINE A LAWRENCE • KANSAS STATE UNIVERSITY, MANHATTAN, KANSAS • DECEMBER 1981

Figure 4

3. It will cater to the demand for new retail facilities in the area and would be an immediate opportunity for improvements to the existing downtown structure and the pedestrian environment in project area.
4. Careful attention will be paid to preserving the surrounding water environment without restricting the development of facilities that would fully utilize the potential of this unique and timeless feature.
5. The new project will evolve as a strong functional and visual interface between the harbour and the existing downtown and will be designed to enhance the emerging entertainment district by providing a variety of features and activities.

As an Urban Space it can be expected that many people would be attracted to the area for a variety of reasons. The hotel complex with its lodging, recreational and entertainment facilities would serve as a source to bring people there. So would activities at the plaza and the shops, stores and offices.

Primary pedestrian streets will link the major activity centers and since the project will be based strongly on a human dimension, the environment thus created will be attractive to walking which will be essential to a strong and vital future for the Waterfront Development Project. Lighting and landscaping will also play important functional roles within the project. They will define, reinforce and emphasize major approach routes, pathways, vistas and special areas of activity. These systems will also be designed to dramatize as well as increase safety and convenience for the visitors to the area.

Chapter 4

SITE ANALYSIS

Facts:

In 1970, the government of St. Vincent began and completed 2 years later a waterfront project that reclaimed a total of 18 acres of land from the Kingstown harbour. (See Figure 5).

To date the land is still vacant. It is on 5 acres, at the south east corner of the reclaimed land the proposed Waterfront Development Project will be specifically located.

The reclaimed land and also that of the surrounding areas is relatively flat. All property north of the proposed project is zoned as retail/commercial. There are however, some long established residences in the area. The reclaimed land is zoned as resort/commercial.

The complex will be frequented by three basic types of users:

1. Participatory Users - people using facilities. These people are usually transients, with a length of stay of one day minimum to over a week and also local participants at the Waterfront Development Project's activities.
2. Employees at the Waterfront Development Project.
3. Service Employees - those who deliver supplies, haul off refuse and as well as those who come in to perform maintenance.

Climate and Implications

Rainfall 60 - 70 inches per year.

Drainage: Efforts should be made to control the runoff to surrounding areas north of the complex. Water should be stored and reused whenever possible. Excess drainage will be to the harbour.

Chemistry: The salt content of the sea air gives the rain a sodium base, therefore, care must be given to the selection and use of all construction material used for this project.

Temperature: 80° - 95° Farenheit.

Efforts should be made to use energy conserving methods of design and also by the use of energy conserving materials in the construction of the project.

Wind: Blows over the site in a north west direction.

Should be used wherever and whenever possible as a source to provide natural ventilation.

Soils:

Compacted landfill material with a compressive strength of 3,000 p.s.i. The soil of the project site has a weak compressive strength and it would be necessary to use piling for high rise structures and concentrated loads.

Water Table:

The water table level at the project site is 5'-8" (below the surface of the site). With this condition present it would be inconceivable to build underground structures except at extremely high cost.

Chapter 5

ACTIVITY GROUPINGS

Each component of the Waterfront Development project will consist of various elements which must be grouped according to function to become an activity area in the component. Each area will then operate as an efficient and individual unit. Grouping allows various activities taking place in a particular area to function independently but allows them to act collectively as an integrated component of the Waterfront Development Project.

ACTIVITY GROUPINGS - RESORT HOTEL

PUBLIC SPACE

- Control Point
- Lobby/Lounge
- Men's public restroom and toilet
- Women's public restroom and toilet
- Function rooms (Ballrooms and nightclub)
- Prefunction spaces
- Adjoining corridors

CONCESSION SPACE

- Sundries Shop

FOOD AND BEVERAGE SERVICE SPACE

- Loading dock
- Check-in-Area
- Food storage areas
 - meat freezer
 - meat refrigerator
 - walk-in vegetable cooler
 - liquor storage area
 - beverage storage area
 - dry food storage area
- Dishwashing room
- Main Kitchen
 - bake shop
 - preparation area
 - final cooking area
 - waiter pick-up
 - chef's office
- Restaurants/Nightclub
- Lobby/Cocktail Lounge
- Employee's dining room

GUEST ROOM SPACE

- Individual guest rooms
- Guest corridor area
- Stairwells (emergency exits)
- Maid's closet
- Ice machine area

ACTIVITY GROUPINGS - RECREATIONAL SPACE

Swimming Pool
Exercise Clubs
Tennis courts
Racquetball/Squash courts
Marina

ACTIVITY GROUPINGS - MOVIE THEATRE

Lobby
Circulation
Ticket sales
Light rooms
Stage
Seating
Dressing rooms
Restrooms
Storage
Concession
Projection rooms

ACTIVITY GROUPINGS - RENTABLE SPACE

PUBLIC SPACE

Stores/Offices/Shops
Rentable space

GENERAL SERVICE SPACE

Merchandise storage
Trash disposal
Mechanical support area
Parking
List of permissible activities

ACTIVITY GROUPINGS - NON-RENTABLE SPACE

Plaza
Mall

Chapter 6

ACTIVITY FLOW DIAGRAMS

The following diagrams show graphically the various elements that go together to form an activity area (Figure 7 through Figure 16). These activity areas then go together to become the building components of the project. (Figure 6). Most significantly, the diagrams show the functional relationships of each element with each other and also within that particular activity area. Each element and activity area play an equally significant role towards the successful operation and functioning of the building component.

All the elements and activity areas must relate so that different activities, separate traffic patterns and non-related operations could all function independently with no (or very little) interference from each other. The activity flow diagrams are extremely important in developing a feasible design for the Waterfront Development Project.

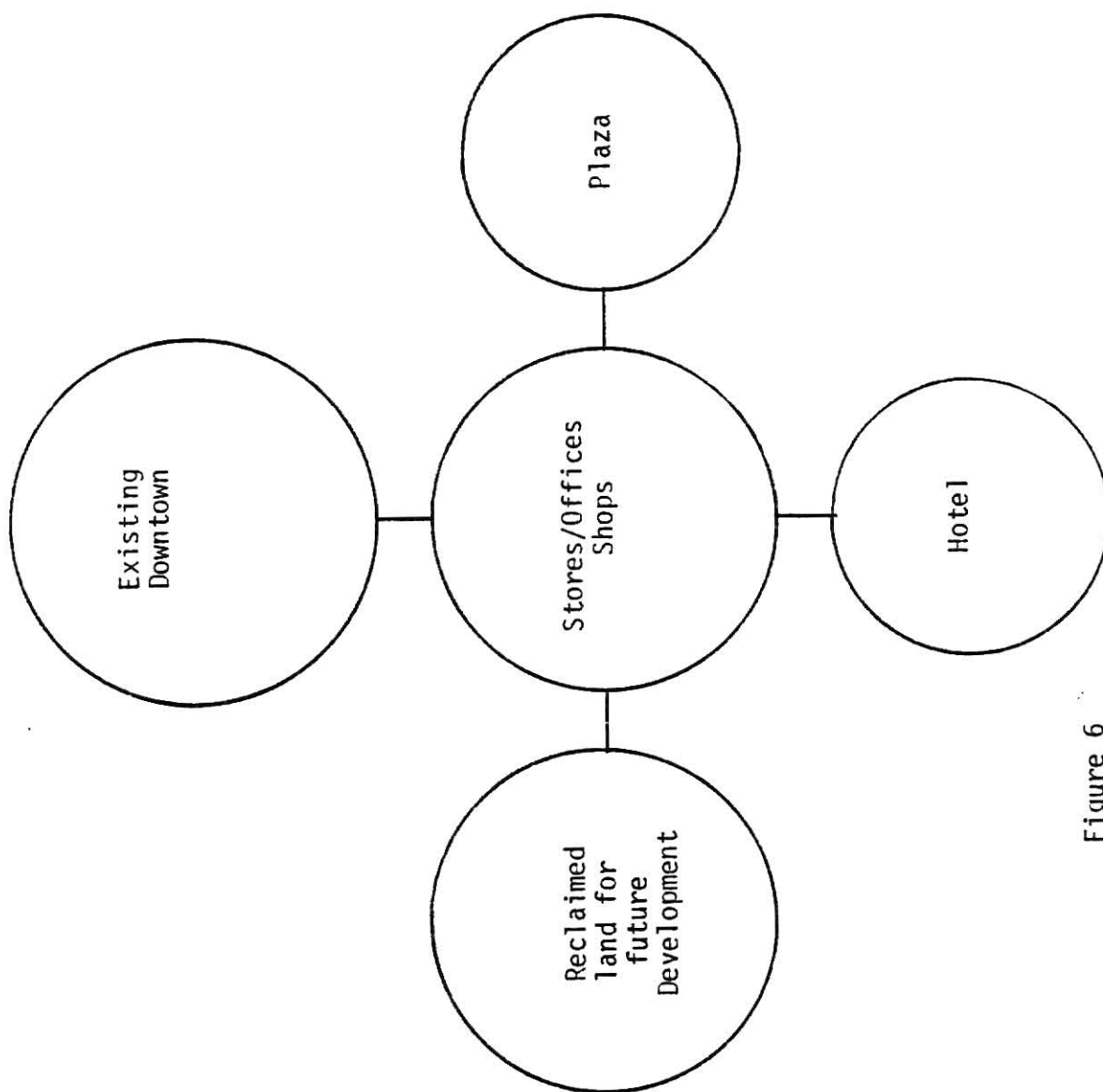


Figure 6

Bubble Diagram:
Waterfront Development Project

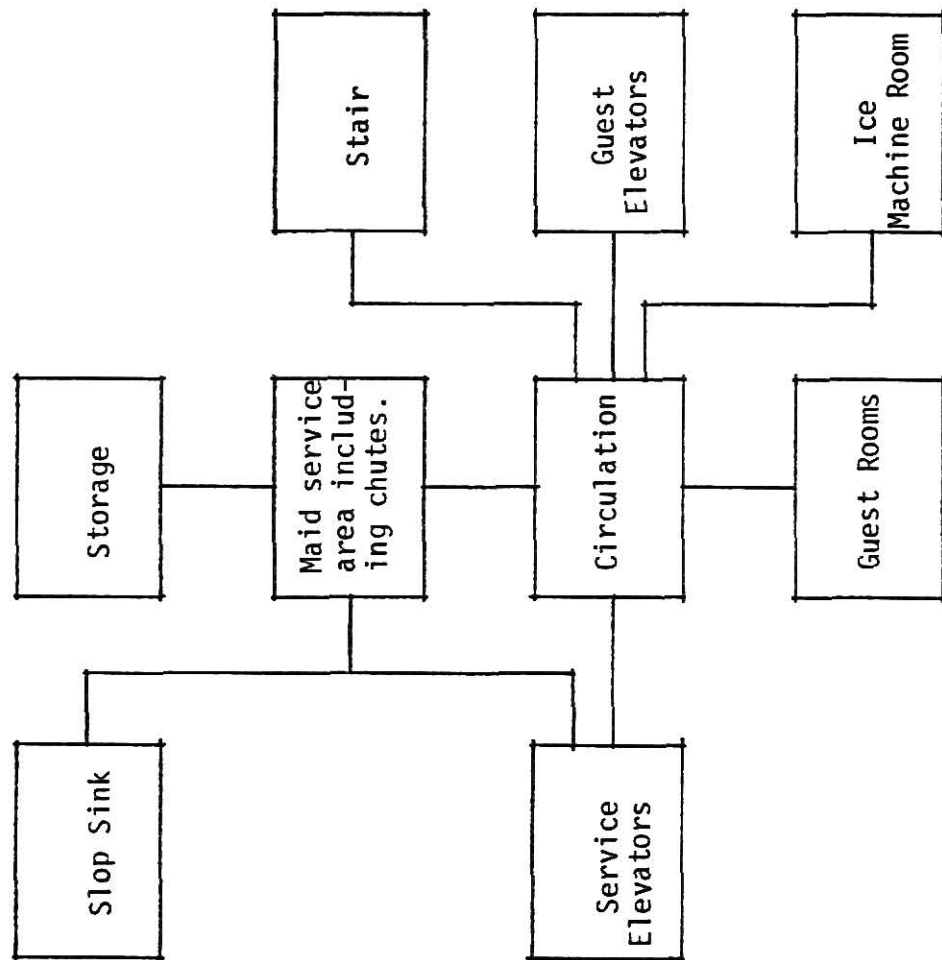


Fig. 7, Typical Guestroom Floor

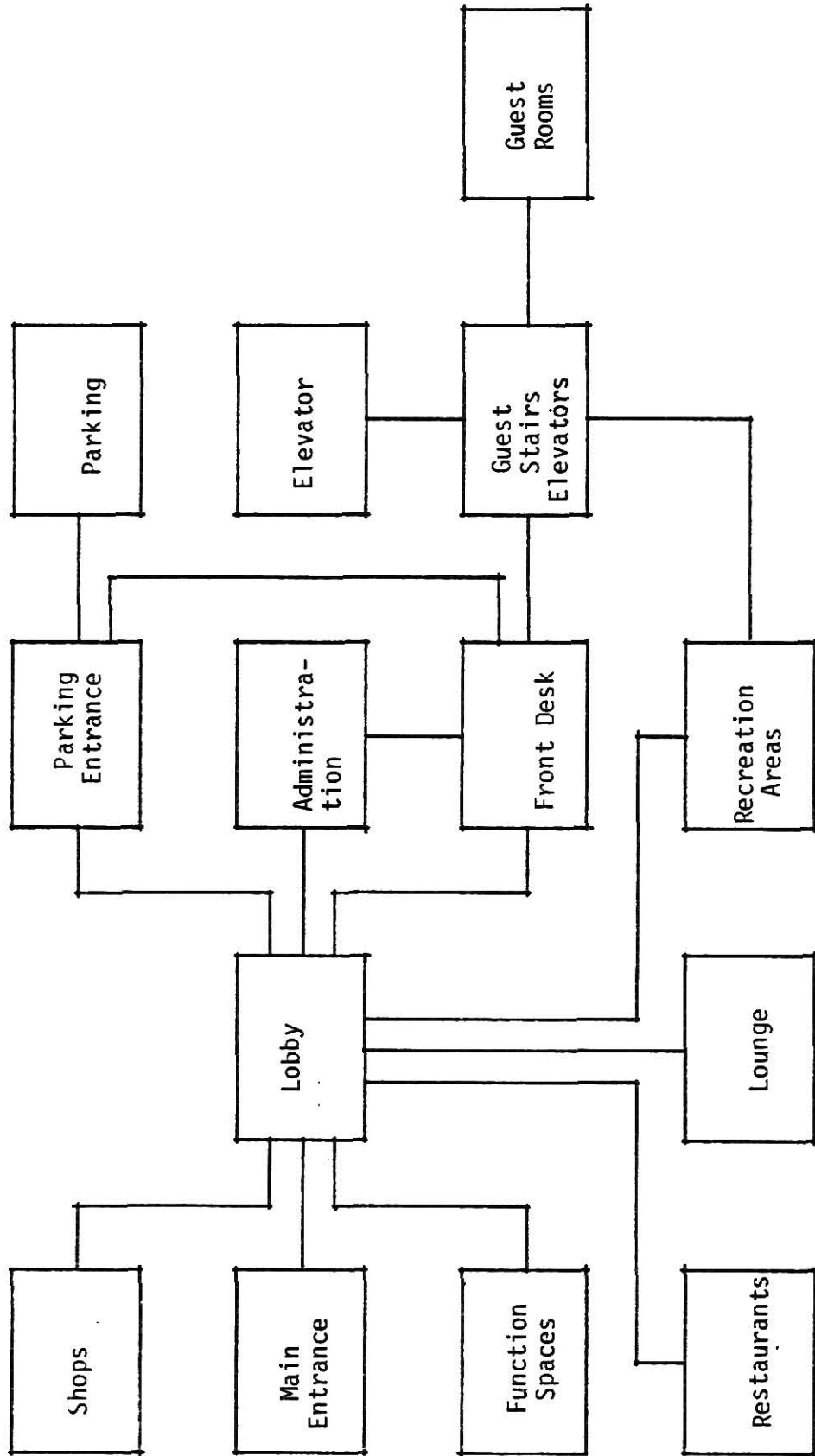


Fig. 8, Guest Flow

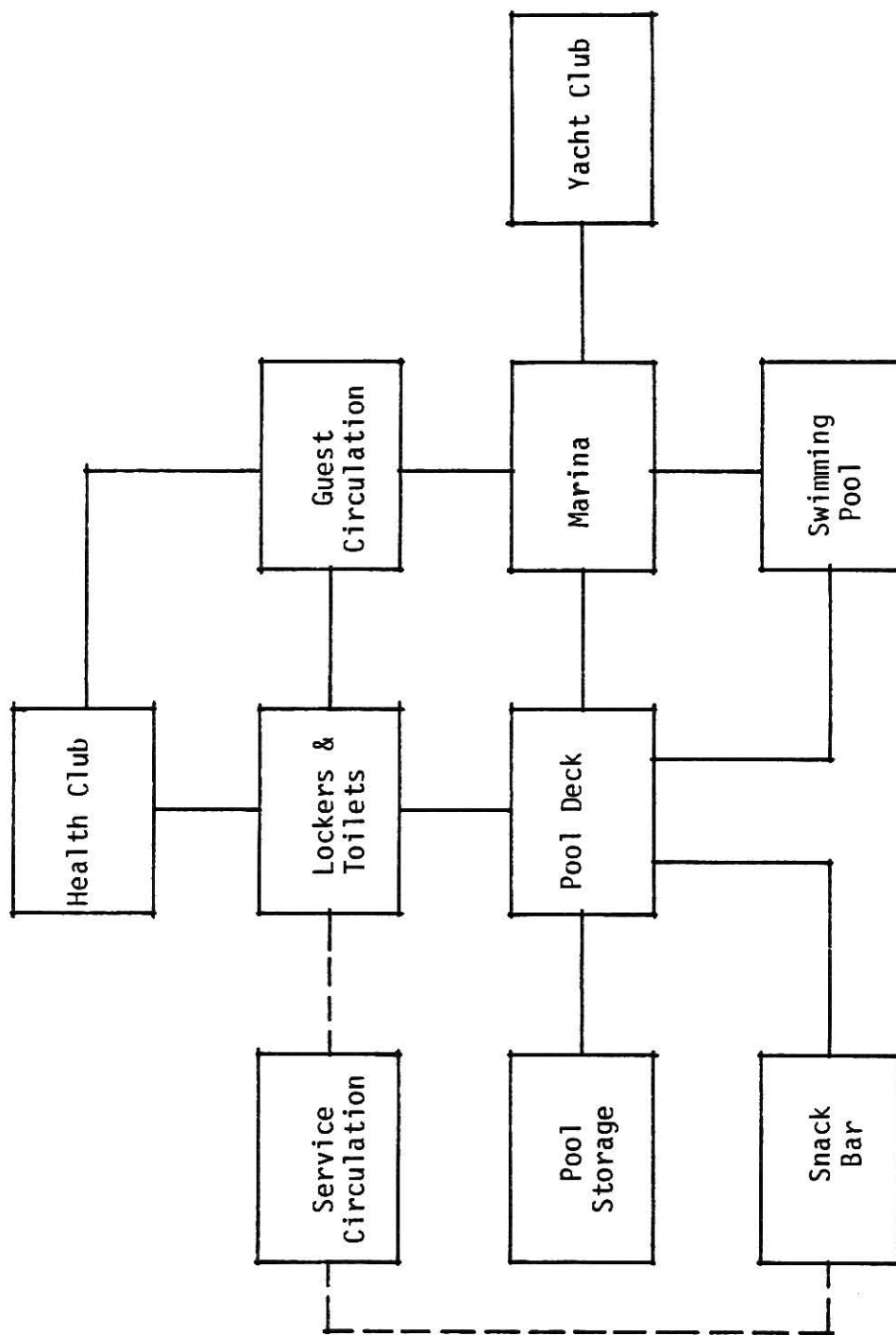


Fig. 9, Recreation

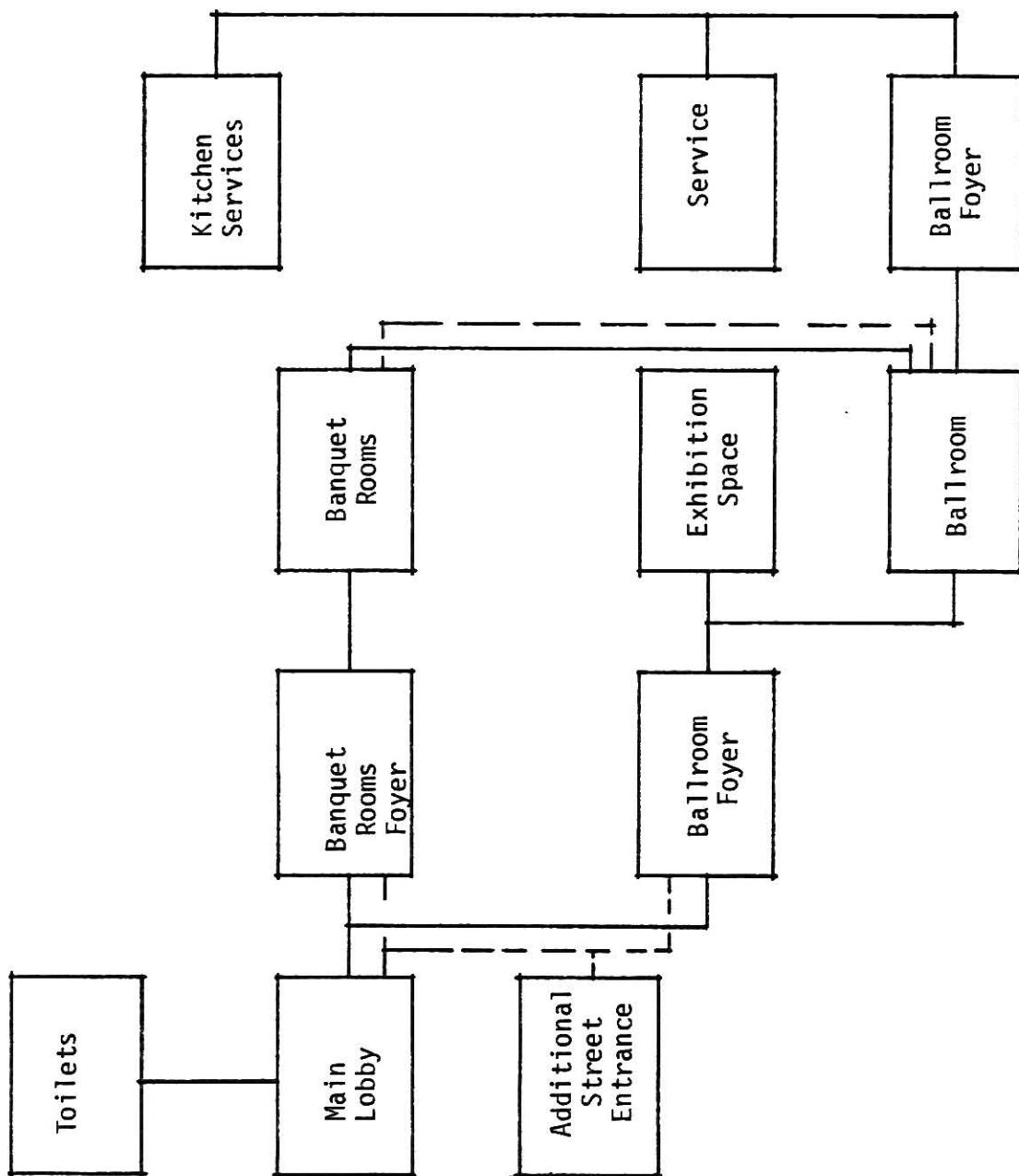


Fig. 10, Function Areas

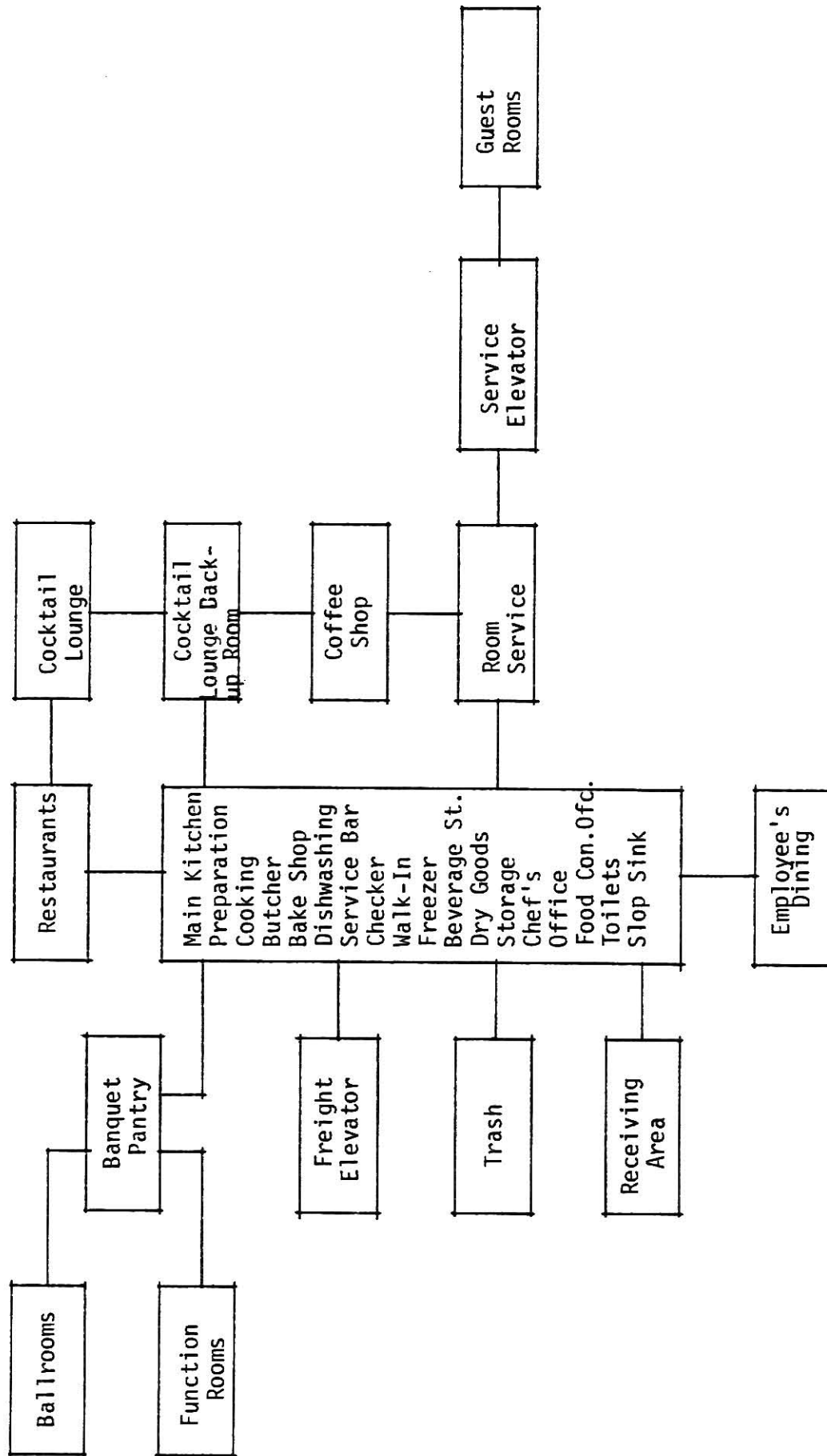
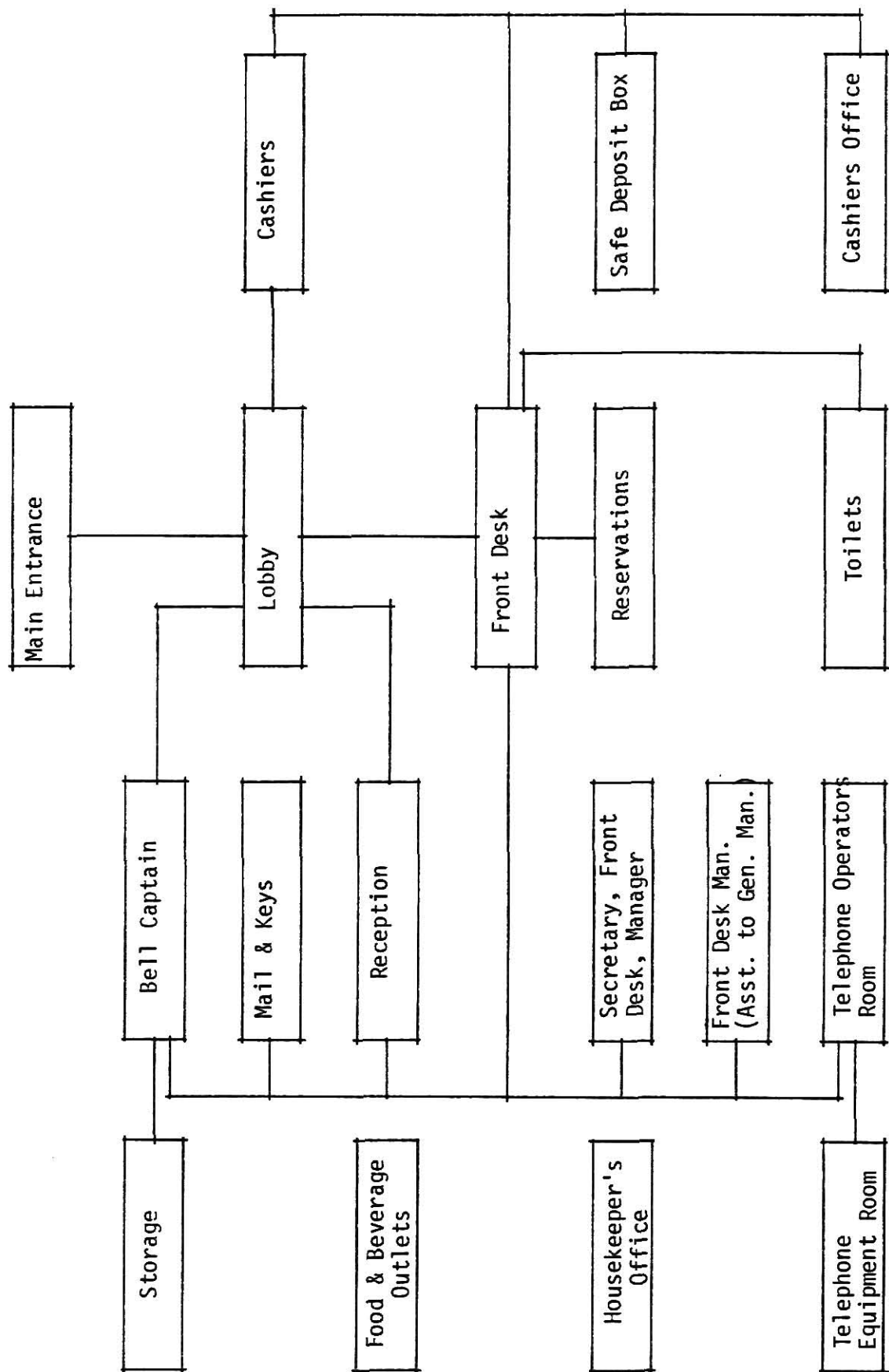


Fig. 11, Kitchen and Food Outlets



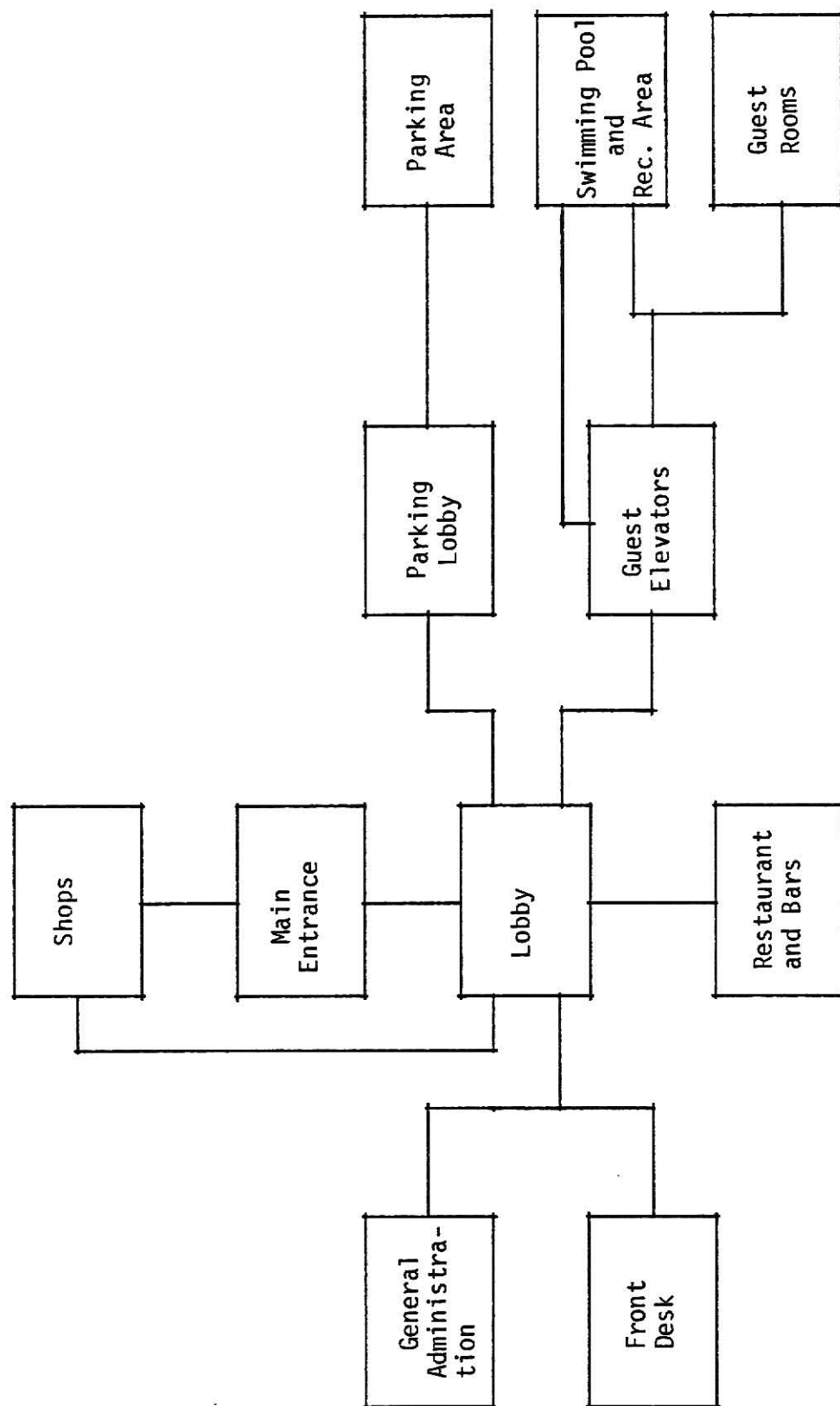


Fig. 13, Lobby

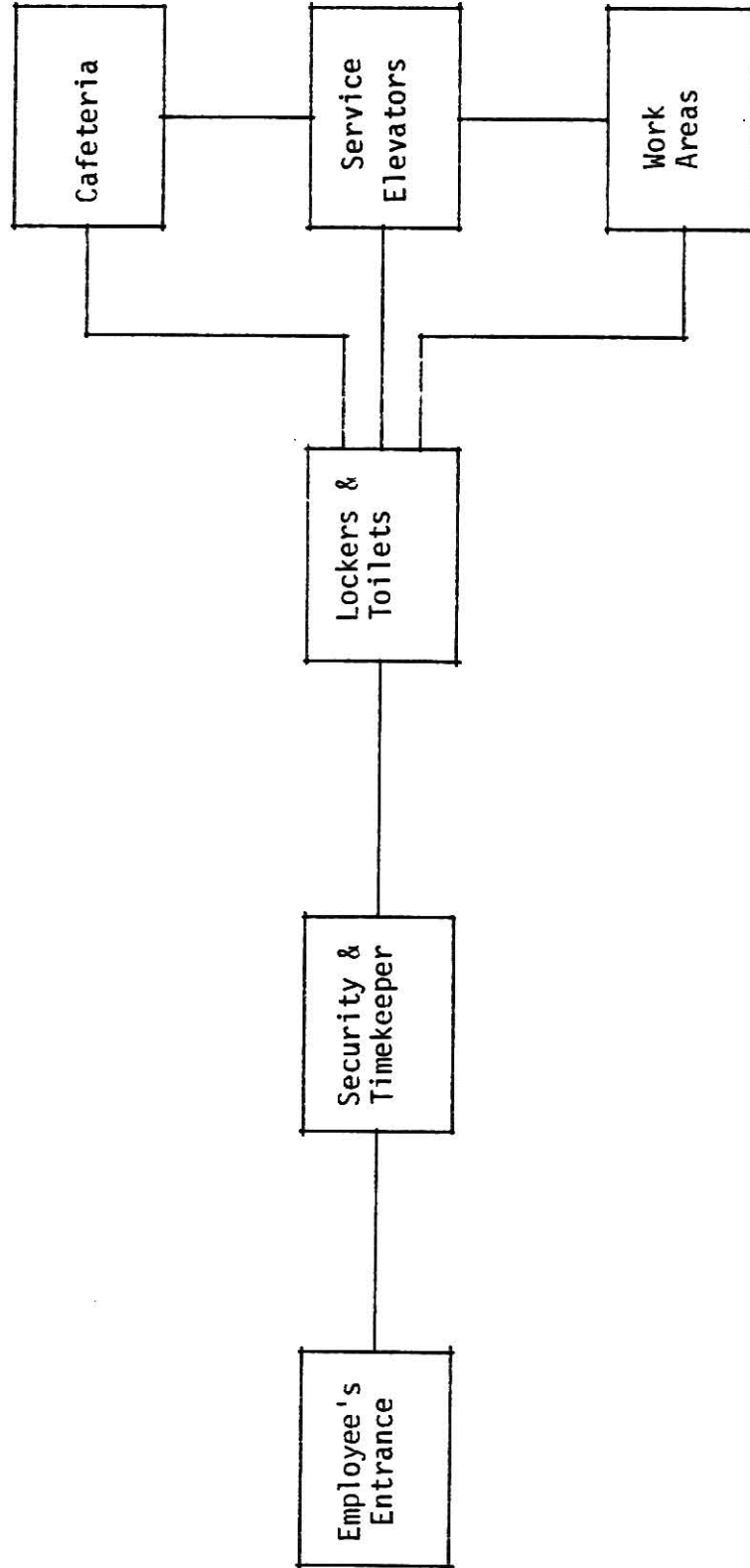


Fig. 14, Employee Flow

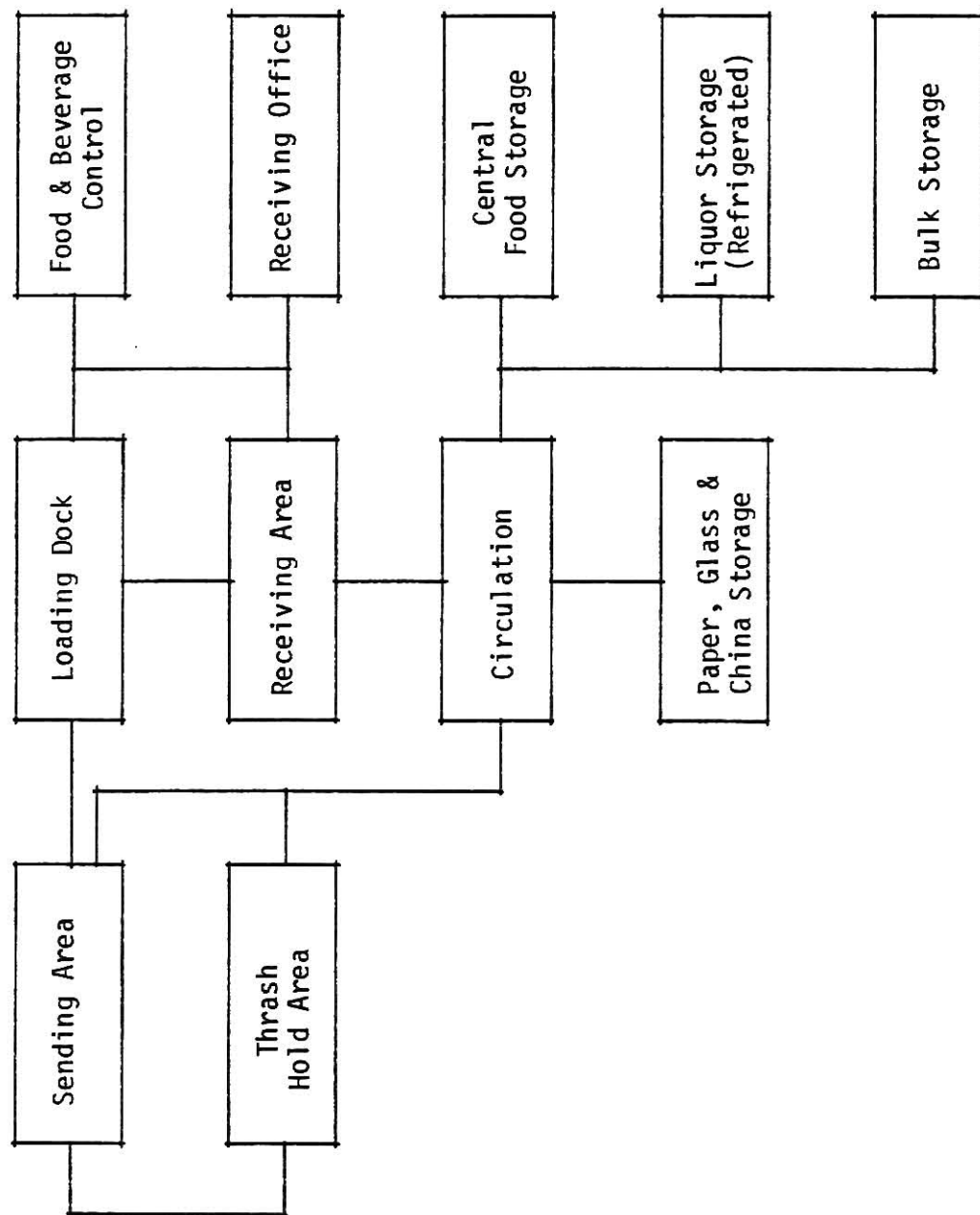


Fig. 15, Receiving and Storage

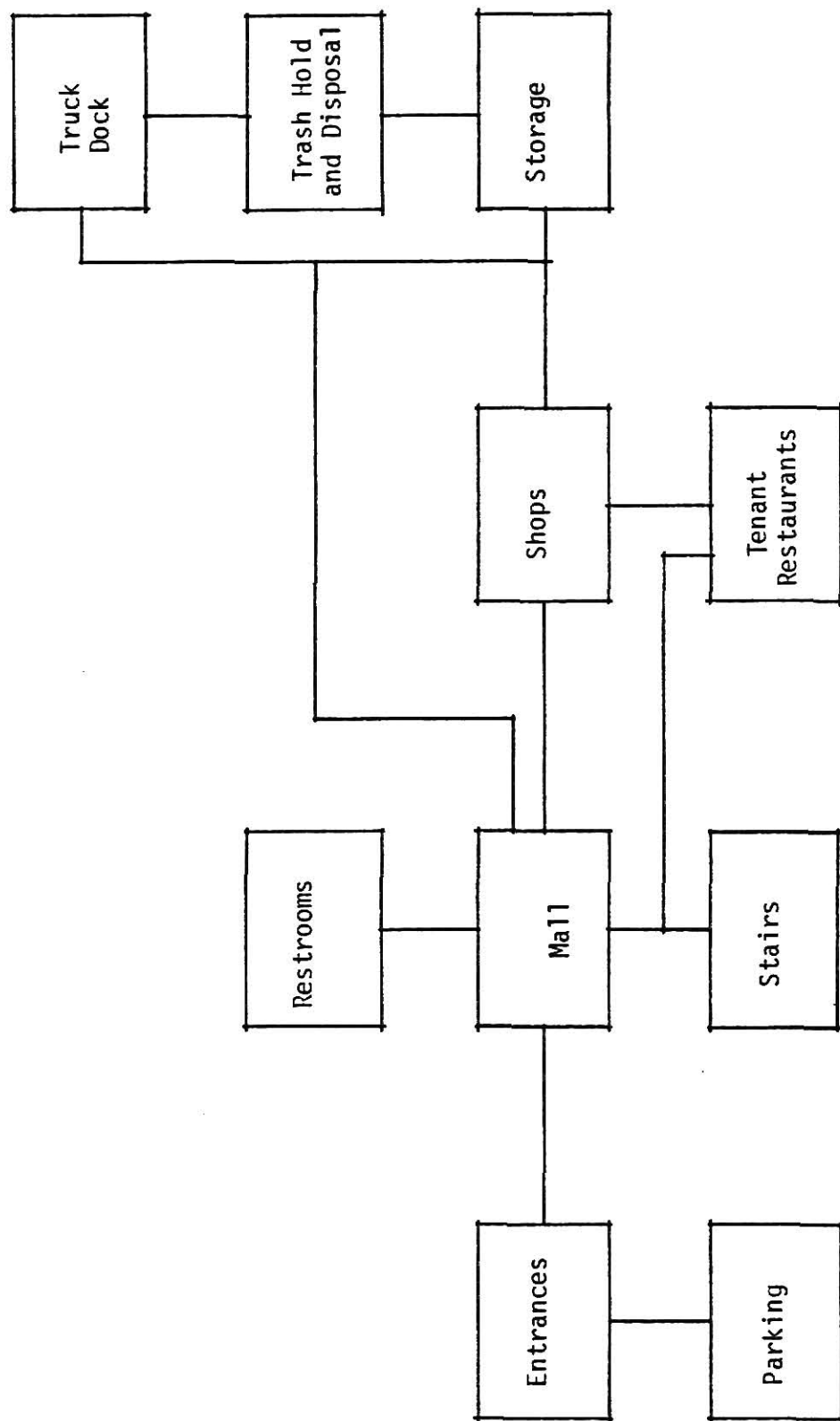


Fig. 16, Shopping Areas

Chapter 7

DESIGN SPECIFICATIONS

In order to develop well designed spaces to serve the users and occupants at the Waterfront Development Project, certain standards and criteria must be established and followed. These are called Design Specifications and serve as guidelines during all phases of the project. The Design Specifications will describe the function and physical aspects of the area and the qualities that are necessary in order for the area to operate effectively.

PUBLIC SPACE

Control Point (front desk)

The front desk will be an extremely important element of the hotel lobby. It will accommodate a registration clerk station which will be immediately visible upon entering. The front desk will serve as the public part of the administration area and will provide areas for the cashier's guest safes, switchboard, keyracks, security monitoring systems and mailboxes.

Lobby/Lounge

This area will be a combined space in function as well as the design. It will create the initial impression to the first-time guest as to the quality and atmosphere that is a reflection of the hotel. In this area, there will be numerous mixed activities as a result of guests entering, registering, checking luggage etc. Not only will the lobby provide entry to the hotel, it will also function as a lounge to harbour activity.

Men's public restroom and toilet

This facility will be located for the convenience of guests entering the hotel lobby/lounge and for restaurant patrons. It will be made so that it will not be easily accessible to the person off the streets. This facility will be adequate in size and capacity to serve at least six men at the same time.

Women's public restroom and toilet

This facility will be similar in function to that of the men's facility.

Function Rooms (ballrooms)

The ballrooms for this project will house lectures, social events, large dinners and exhibitions. Folding partitions will be provided so that the area can be divided into smaller spaces if necessary. Seating and table storage spaces will be designed into this area. It is important that suitable access will be provided for food service from the main kitchen. This will be organized by horizontal means. A warming station to keep foods being served at correct temperatures will be provided if the distance between the service area and the kitchen is too great for immediate service.

Pre-Function Space

The pre-function space will serve as a lobby for all function rooms and the theatre. When a convention is being held the pre-function space will be used for registration, congregation and impromptu interviews. This space will be common to all function rooms and public restrooms and lobbies via corridors or vertical transportation. This area should not be directly accessible from the street and will not be visible from the lobby/lounge area.

Facility	CAPACITY	TOTAL SQ. FT	TOTAL SQ. FT.	PRE-FUNCTION
Ballroom				
A; 2 @ 2,000 # ea.	180 ea.	360	4,000	1,600
B; s @ 600 # ea.	50 ea.	100	1,200	480
Night club	2,500	2,500	37,500	15,000

Adjoining Corridors

All adjoining corridors are for connection of public spaces. These will be used where continuous planning is not possible. Adjoining corridor space can be used for major public stairways.

CONCESSION SPACE

Sundries Shop

This space will be for the sale and purchase of such items as confections, toiletries, magazines and small gifts. The sundries shop will be controlled by the hotel management.

FOOD AND BEVERAGE SERVICE SPACE

Loading Dock

The loading dock designated to serve the hotel will be part of the truck dock for the whole complex. It will be connected with the storage areas for the kitchens.

Check-in-area

Delivered goods will be temporarily placed in this area until they can be properly counted, weighed and stored.

Food and Storage Area

- Meat freezer
- Meat refrigerator
- Vegetable cooler
- Beverage storage
- Dry food storage

Dishwashing Room

This room will have the equipment to handle dirty dishes from the restaurant, coffee shop and the ballroom. Here dishes will be washed and stored. The dishwashing room will be close to the areas it will be serving but will not interfere with the circulation through other areas. The dishwashing room will be within the general confines of the main kitchen.

Main Kitchen

Bake Shop:

The bake shop will provide baked foods for the entire hotel.

Preparation area:

Food will be readied to be cooked by being chopped, grinded, sliced, marinated and assembled.

Final cooking area:

Here food will be broiled, boiled and cooked.

Waiter pick-up:

This area will be used by the waiters for picking-up orders and dispensing soft drinks.

Chef's Office:

Here the chef will prepare menus, check prices, order foods and also observe activity in the kitchen.

Restaurants

There will be three types of restaurants serving the hotel. Restaurant (1) will be located within the recreation areas and will cater for the preparation of snacks, fast foods and will also include a coffee shop and bar.

Restaurant (2) like restaurant (1) will be located on the main floor of the hotel and will be used intensively for morning, midday and evening meals. It will be convenient and easily accessible. This restaurant will provide a variety of meals and will have facilities for dispensing alcoholic and soft drinks in a pleasant but lively atmosphere. Restaurant (2) will have a flexible layout so as to display different groupings of tables and chairs. Bright and exaggerated decor which emphasizes a local character will be used. Easily cleaned and easily maintained materials will be used in Restaurant (2).

Restaurant (3) will be located at the second-roof level and will have direct elevator/stair service from the lobby. It will offer an atmosphere of sophisticated decor and an emphasis on the quality of food, service and both the aesthetic and environmental surroundings. Wine service facilities and specifically designed rotisserie and charcoal grill equipment will be displayed and used. Restaurant (3) will mostly be used on evenings but also occasionally for lunch during conventions and business meetings.

Both restaurants (2) and (3) will be partial open air/plaza types. Their indoor sections will have strong visual access to the outdoor section. An interesting outdoor view is desired therefore, full advantage will be taken of the view that is provided by the ocean.

Lobby Cocktail Lounge

The lobby cocktail lounge will be accessible from the lobby/lounge but will be inconspicuously located. From there, the public restrooms and toilets must be easily reached. Indirect access to the main kitchen will be provided in order to obtain supplies. The cocktail lounge should also be adjacent to the restaurant so that both facilities could be patronized simultaneously.

Employee's Dining Room

This area will be secluded from the public space. It will be accessible from the employee's entrance and locker rooms. Meals served here will be quick and efficient since employee's lunch periods will be timed. This dining room will thus be accessible to the main kitchen. Non-managerial positioned employees such as maids, dishwashers, custodians etc. will use this room. The front office employees will use the restaurants for their meals.

Guestroom Space

Individual guestrooms

The guestrooms will be one of the most important elements of the hotel. They will be functional and well designed so that the hotel will maintain a reputation of being an elegant and comfortable lodging facility. They would also be categorically designed in four sizes to serve four levels of guests.

	<u>Quantity</u>	<u>Dimensions</u>	<u>Sq. Ft.</u>	<u>Total Sq. Ft.</u>
Type 1 (economy)	160	14' X 25'	350	56,000
Type 2 (standard)	75	16' X 25'	400	30,000
Type 3 (executive)	24	18' X 25'	450	11,250
Type 4 (presidential)	1	20' X 25'	500	500
Total	260			97,750

There will be a total of 260 guestrooms totalling 97,750 square feet. Each guestroom area will have a bathroom and an entry corridor. The smaller rooms will contain a double bed and the larger rooms will contain two double beds. They will all have accompanying furniture for clothing storage, seating and lighting.

Environmental requirements are critical to the guestroom space and would be given careful consideration. The rooms will be expected to meet all the guest's personal needs for comfort and satisfaction.

The guestroom will provide:

- *An inconspicuous entry.
- *Connection to adjacent rooms if desired, via a doorway.
- *Strict sound control between rooms.
- *Adequate space for storage and maneuvering after furniture is planned.
- *Comfortable furnishings.
- *Efficient bathroom layout.
- *Telephone and/or intercom, radio and television.
- *Controlled and ample lighting.
- *An unrestricted view of Kingstown, and the mountains to the north, or the ocean view to the south.
- *Balcony

Guest Corridors Area

When the guests step out of the elevator car, there should be a space so that it is possible to make a transition from elevator to room corridors. The corridor would be adjacent to this space so that the circulation pattern could be easily perceived. Individual room entrances will be obscured from the view of a person walking through the corridor. Adequate signage and directional aids will be provided in the appropriate locations.

Stairwells (emergency exits)

Stairwells will be provided to satisfy all existing building and fire code requirements.

Elevators (2 guest cars, 1 service car)

The elevators will be electric type elevators. A machine room will be located at the top of the building. The cars will be guided by a vertical rail guide system. They will be constructed with supporting ceilings, walls, floors and doors. Lighting, ventilation and elevator signage equipment will also be provided. Each lobby will have a waiting area to allow the circulation of passengers, so that they could have rapid access to the elevator's cars and clear visibility of the elevators signals.

Maid's Closets

The maid's closets will accommodate the maids carts, storage and cleaning supplies, also linens and a slop sink. They will be placed inconspicuously so that there would be very little contact with the guests while the closets are in use. They must also be near to the service elevator.

Ice Machine Area

This area will be a defined area with provisions made from noise control. The machine will be centrally located so it would be convenient to all the guestrooms.

RECREATIONAL SPACE

All recreational space would be situated away from the lobby and function rooms circulation systems but served by the guest elevators.

Swimming Pool

The swimming pool will have a pool deck space included in it's general area. It will be approximately 40' X 50' in dimensions.

Clubs

The club will be two locker rooms with separate exercise facilities for men and women. There would be access to the racquetball/squash courts.

Tennis (outdoor)

The tennis courts will be on the pool deck level and will use the same access as the pool.

Racquetball/Squash Courts

These facilities will also use the same access as the pool, and like the tennis courts must be serviced by the club.

Marina

The marina will be designed in capacity to accommodate 40 - 50 boats, up to a maximum of 45 feet in length. It will be located at the water's edge as a physical part of the hotel and also be under the hotel's management. There the boat owner will be in touch with others, in his medium for relaxation. Parking spaces for up to 30 cars will be provided.

The marina will be a significant feature at the Waterfront Development Project. Therefore, full consideration must be given to it's design and the materials that are used in its construction.

While most of the people at the marina will be visitors, strong and sincere efforts must be made to encourage the local residents to participate in boating and other activities sponsored by the Hotel/Marina management.

The marina will consist of the following areas:

- *Parking facilities for 30 cars
- *Docking facilities for 50 boats
- *Office
- *Snack bar
- *Accessories/Parts and engine sales
- *Packaged food storage and sales
- *Hull repair shop
- *Outboard/inboard engine repair shop
- *Paint shop/paint storage
- *Laundry
- *Men's restroom/Women's restroom
- *Gear storage

GENERAL SERVICE SPACE

Administration Area (including circulation)

The administration area will be at the rear of the front desk, within the lobby area. It will not be accessible to the guests but will be to all the hotel employees.

accounting office	300 sq. ft.
manager's office	200 sq. ft.
secretary's office	300 sq. ft.
sales and reservation office	200 sq. ft.
copy room	150 sq. ft.

Employee's Area

Employee's entrance and time clock area:

This entry will be used by maids, bellmen, launderers, custodians, cooks, waiters, etc. so that they will not be in contact with the guests in the public spaces.

Housekeeping manager's office:

This space is for the housekeeping manager to organize the housekeeping duties. It will be accessible from the employee's locker rooms, laundry and employee's entrance.

Laundry:

The laundry will have adjacent access to the linen storage room. The linen chute will empty into a temporary storage bin. The laundry will have indirect access to other employee areas.

Linen supply and storage rooms:

This room will be accessible from both the laundry and the service elevators that serve the guestroom space. It will have the capacity of storing sufficient linen to outfit the hotel at least two times.

Mechanical Support Area

Engineer's office:

The engineer's office would be located near the major mechanical equipment areas and repair shops. A service elevator would be easily accessible from all mechanical support areas for transporting equipment.

Plumbing and electrical shop:

The plumbing and electrical shop would be adjacent to the AC rooms, transformer vault and compressor room for easy repair access and should also be adjacent to the service elevators.

Air Conditioning Areas

The air conditioning areas are broken up according to mechanical system requirements. Large areas up to 6,000 sq. ft. will be needed for huge plenums and fans. Space for the cooling towers and compressors will be needed with access to outside air. Marginal space must be allotted for major piping networks and access space. Vertical verification duct space is also included into the general mechanical area although it requires no floor space.

Refrigeration compressor room:

This room is designed to accommodate all other freezers or refrigerator units.

Transformer Vault:

All transformer units that provide electrical supply will be located in this room. Because of the huge amounts of power required, there are always risks of fire and explosion, therefore, the transformer vault must be heavily constructed. The vault will be located near the air conditioning areas and repair shops, but must also have outside access in case of transformer replacement.

Parking

Guest and employee parking:

There will be a total of 118 compact auto spaces. Eighteen of these will be designated for use by hotel patrons and one hundred will be for use by hotel employee's. Stalls will be 8'-0" X 20'-0". Easy access from the parking lot to the entrance and lobby/lounge area and then to the elevators is essential. Employees will be required to use a service or employee entrance from the parking lot to maintain separation.

Short term parking for taxis will be provided at the northern end of the hotel for passenger pick-up.

MOVIE THEATRE

The movie theatre will be designed to accommodate 1,500 people. It will have the flexibility to be converted from a movie theatre to an area capable of being a live entertainment theatre and other uses.

The movie theatre will comprise of the following areas:

Lobby	1,800 sq. ft.
Circulation	2,400 sq. ft.
Ticket sales	80 sq. ft.
Light rooms	250 sq. ft.
Stage	2,200 sq. ft.
Seating (500 @ 7 sq. ft. each)	10,500 sq. ft.
Dressing rooms	1,000 sq. ft.
Restrooms	800 sq. ft.
Storage	1,000 sq. ft.
Concession	200 sq. ft.
Projection rooms (2 @ 400 sq. ft.)	800 sq. ft.
Total	21,030 sq. ft.

RENTABLE SPACE

Stores/Offices/Shops

The shops and offices are to be located at the northern end of the site. Maximum merchandising potential will be given to each tenant so they may have a reasonably equal opportunity to capture a portion of the customers trade. These spaces need a minimum width of 10'-0", and a minimum depth of 25'-0". The offices will occupy the upper levels of the building wherever this is possible.

All shops must have front entrances onto the street and have at least an additional exit for fire safety that are in compliance with existing building codes. Only the larger stores with a high volume turnover are required to have rear delivery. A truck entrance, easily accessible from the street and with suitable turn around will be provided.

Merchandise Storage

The amount of and layout of storage or "backroom" space will depend upon the type of store, shop or office that will be operating. Each business will allot either portions of it's retail area or have storage above it's retail area.

Trash Disposal

Each shop will be required to control it's collection and disposition of trash into canisters at the rear of the business where specific locations will be designated for this purpose. Central collection will be arranged.

Mechanical Support Area

The mechanical areas will be included into the spaces serving the hotel.

Parking

A total of 90 compact auto spaces will be designated for use by patrons of the various businesses. These spaces will be used in conjunction with existing parking spaces which are located at various locations in the downtown area.

Since each business is allowed to select the amount of square footage required by contract, specific square footages will not be given at this point. Areas will be blocked off and labelled retail/office. Concepts of store design and type of store will be analyzed not the size of the store.

The following is a list of activities that could be allowed as stores or shops. This list fills a wide range but is not inclusive.

List of permissible activities:

Executive offices	Barber and Beauty Shops
Drug stores	Clothing stores
Optical goods	Motor Vehicle Rental Agencies
Blue printing and photocopying	Medical offices
Employment agencies	Optometrists offices
Engineering offices	Advertising Agencies
Real Estate offices	Office Supply store
Banks	Architectural offices
Credit Union offices	Legal Offices
Insurance offices	Accounting offices
Savings and Loans	Pawn Shop
Florist Shops	Pet Shops
Bakeries (non-manufacturing)	Dairy Products
Grocery stores	Fruit and Vegetable stores
Fish stores	Catering facilities
Delicatessens	Outdoor Restaurants
Jewelry stores	Leather shops
Newspaper and Advertising	Record shops
Shoe stores	Tobacco shops
Toy stores	Travel agencies
Tailoring shops	Handicraft shops

NON-RENTABLE SPACE

Mall Areas/Plaza Areas

The mall will consist of a major pedestrian shopping street and six subsidiary approach malls connecting the main mall with the adjacent streets and parking areas. The mall will be at the ground level.

Each store will have their principal entrance on either the main mall or the approach mall.

There would be many landscaping features in the mall and plaza areas. And, in addition to this there would be:

- *Trash and ash receptacles as aids to prevent littering.
- *Directories to facilitate the finding of stores and other areas.
- *Public telephone installations.
- *Group seating and individual benches for resting (by patrons and visitors).
- *Fountains
- *Kiosks of various sizes and shapes (maximum 144 sq. ft.)
- *Major design features such as sculptures or other art forms.
- *Miscellaneous items to catch the public's attention such as fashion mirrors, closed circuit T.V.'s, clocks, continuous music, fashion platforms and exhibit areas.

Mall and plaza lighting will be incandescent and subdued but must be able to lend interest to dark and monotonous areas. The store fronts in the case of the mall should be the main attraction in all cases.

The materials used in the project are important and in the mall and plaza areas they should reflect the quality of the project. They must be strong enough to resist vandalism and should require little maintenance and upkeep. Yet they should be attractive. Except in extreme cases, the use of materials for store signs, store frontages and interior designs will be left up to the imagination of the tenants. This would give glamour, interest, and appeal not only to the individual store but to the entire mall.

The mall will be serviced through the alleys and at the rear of the stores. This servicing includes the removal of trash, garbage and maintenance.

The plaza will be an expansive area, managed by a plaza committee and designed to accommodate and promote activities such as:

- *Carnival Shows
- *Ceremonial Parades
- *Open air theatres
- *Live bands

Chapter 8

URBAN DESIGN PROPOSAL

The following design proposal is a result of carefully selecting analysing and synthesizing the data and information that was previously presented in this report.

In an "urban context", the design proposal will reflect and combine the skills and resources of the architect, the landscape architect and the city planner. It will blend these qualities into the single prescriptive discipline of Urban Design. One of the major goals of this Urban Design Proposal is to improve the quality of the physical environment of the Kingstown downtown area by understanding the interactions among the social, economic, ecological, political and esthetic forces that are responsible for shaping the city.

This Urban Design proposal also presents a dynamic system of human activities at various levels that will take place downtown in an evolved setting of roads, pedestrian paths, buildings, open spaces and the sea.

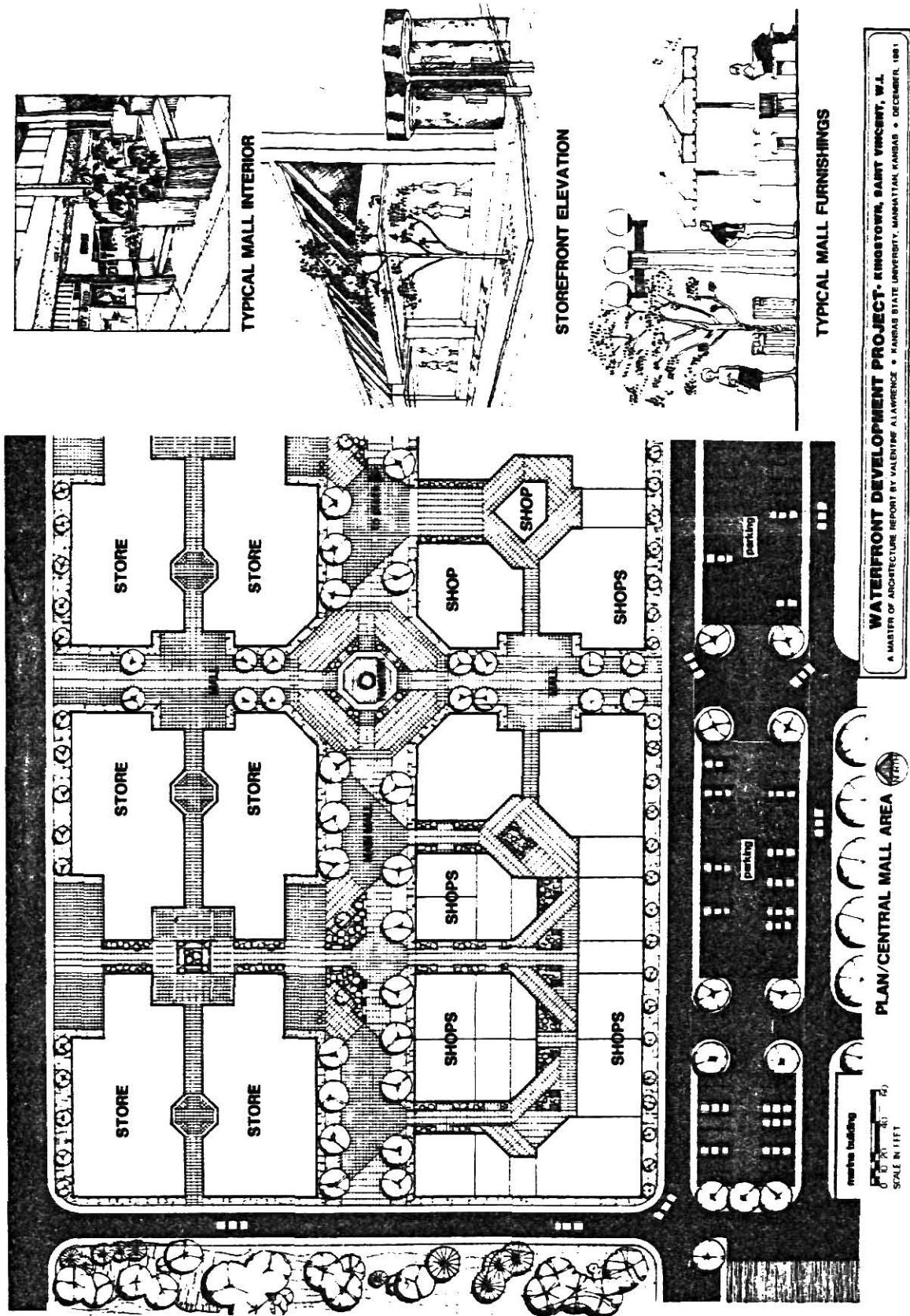


Figure 18

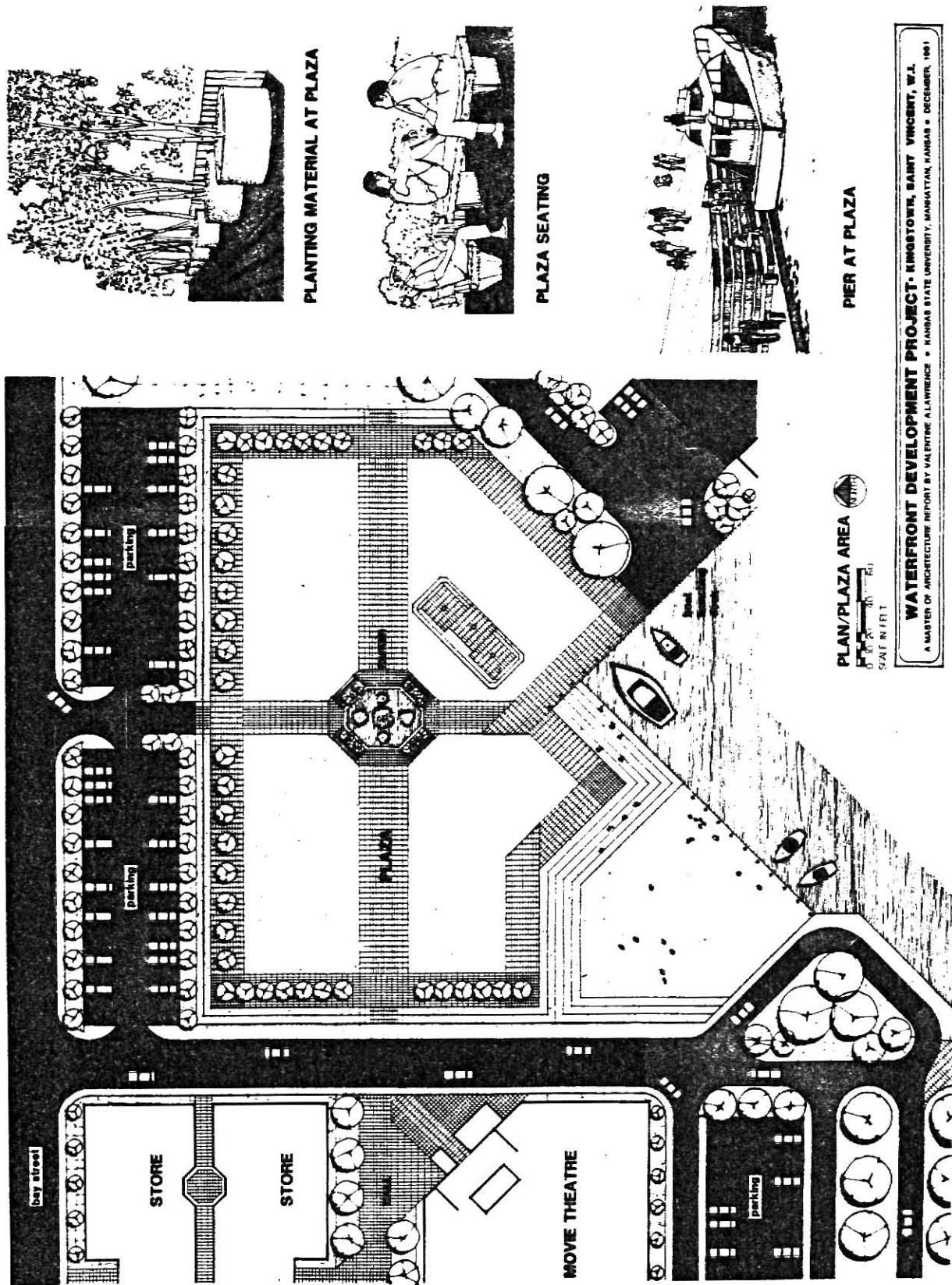
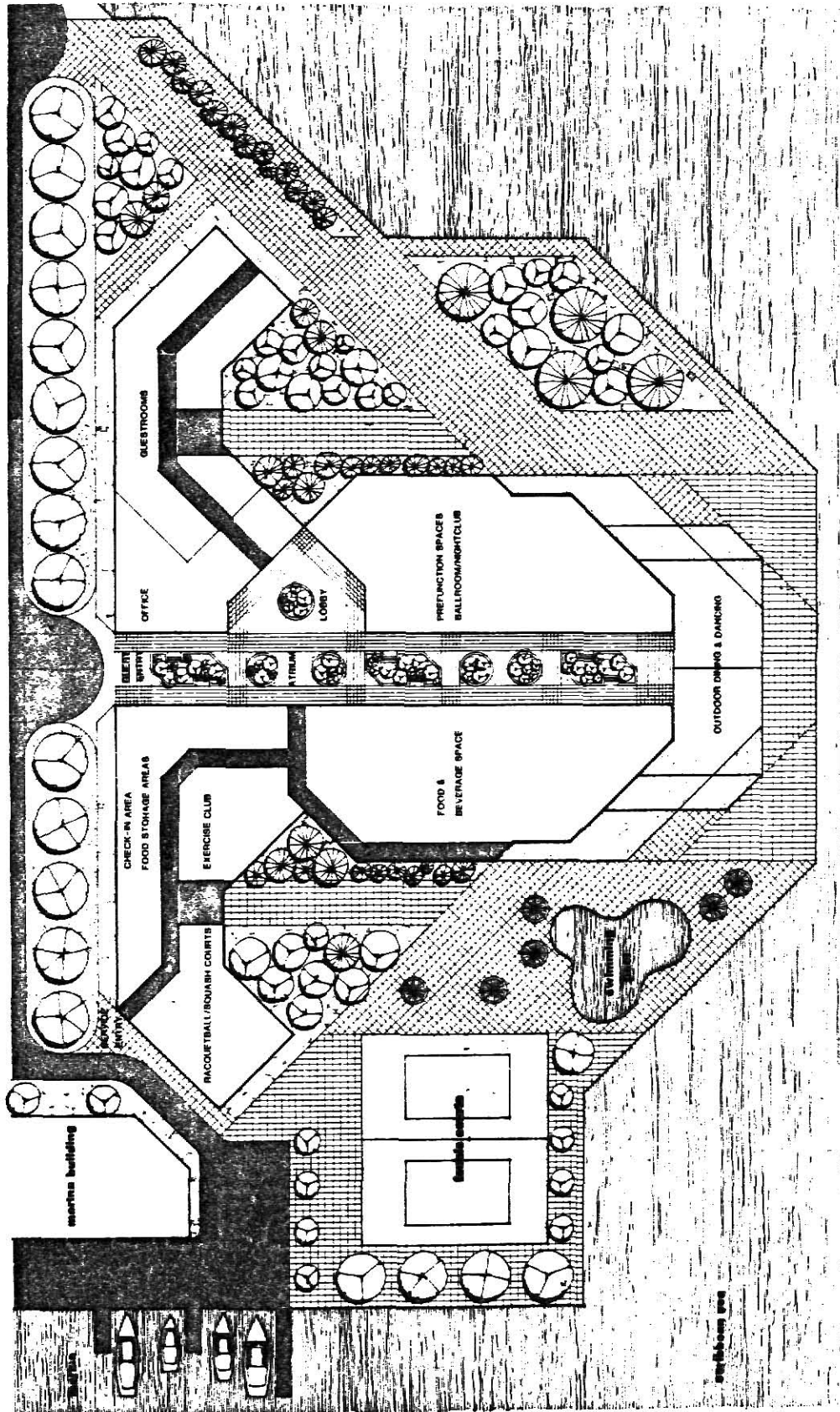


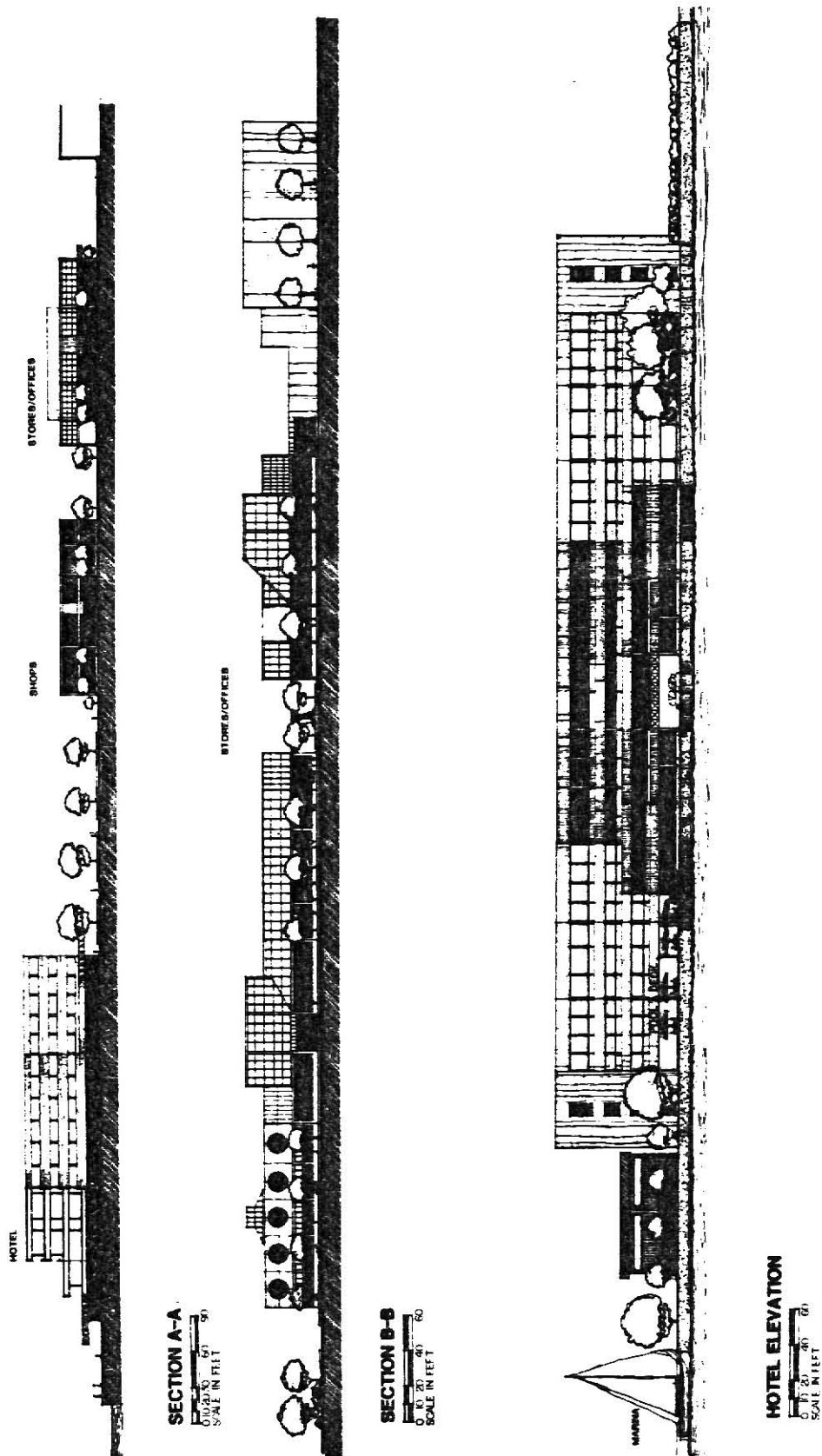
Figure 19



PLAN/HOTEL AREA
 1" = 20' - 0"
 SCALE IN FEET

WATERFRONT DEVELOPMENT PROJECT-KINGSTOWN, SAINT VINCENT, W.I.
 A MASTER OF ARCHITECTURE REPORT BY VALENTINE ALAVALANCE • KANSAS STATE UNIVERSITY, MANHATTAN, KANSAS • DECEMBER, 1981

Figure 20



WATERFRONT DEVELOPMENT PROJECT - KINGSTOWN, SAINT VINCENT, W.I.
 A MASTER OF ARCHITECTURE REPORT BY VALENTINE LAWRENCE - KANSAS STATE UNIVERSITY, MANHATTAN, KANSAS • DECEMBER 1981

Figure 21

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In preparing this report, many books, articles and periodicals were reviewed. However, only those that have provided information that was directly used in this report will be noted.

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WATERFRONT DEVELOPMENT PROJECT
KINGSTOWN SAINT VINCENT W. I.

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B.Sc. Construction Engineering, Lincoln University, 1975

AN ABSTRACT OF A MASTER'S REPORT

submitted in partial fulfillment of the

requirements for the degree

MASTER OF ARCHITECTURE

Department of Architecture

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1982

WATERFRONT DEVELOPMENT PROJECT, KINGSTOWN SAINT VINCENT, WINDWARD ISLANDS

Description:

The project is located in Kingstown, the capital of Saint Vincent on a previously reclaimed parcel of waterfront land and an adjoining portion, specifically reclaimed to accommodate the project. The project area is boundaried at the north by Bay street, to the south by the Carribean Sea, on the east by Customs Warehouses and the banana depot facilities, and to the west by the remaining portion of reclaimed land that would be used for future development.

The Waterfront Development Project will consist of the following building components:

- Stores/Offices
- Shops
- Hotel
- Plaza
- Movie Theatre
- Parking Facilities

Development Strategy:

A project of this nature can be expected to boost Saint Vincent's tourist trade providing it is developed in conjunction with strategic planning and organization, management and effective promotional techniques. This project could also serve as the initial stage to rejuvenate the entire downtown area through the redevelopment and rehabilitation of substandard buildings, and the modification of the street system. Traffic free pedestrain precincts will also be created. Private investments into the project would also be encouraged thus protecting the existing economic base and also provide an increase in taxes to the country.

Social, Economic and Environmental considerations:

The physical form of the waterfront development project will evolve from the following objectives:

1. To provide a design that is attractive and unique to Saint Vincent's.
2. To provide a diversified and competitive market for goods and services.
3. The separation of pedestrian and vehicular traffic and also the elimination of non-essential vehicular traffic where possible.
4. To provide a lively atmosphere and a variety of activities in an environment that allows a place of contact for groups at all levels.

Design Features:

There would be a variety of plant materials in the mall and plaza areas. These would serve to develop and accent spaces and also provide screening. Tree grates and guards would also be used around some trees for protection and also to create more interesting details. Lawn panels and grid paving patterns of brick and concrete will be used in the mall and plaza areas. Lighting will be provided by pole mounted lamps so as to make the entire area a warm, pleasant and inviting place to be.