
SQUIRREL CREEK GOLF CLUB

PORTAGE, INDIANA

An Architectural Thesis
Submitted To The Department Of Architecture
In Partial Fulfillment Of The Requirements

for the degree

Bachelor of Architecture

by
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Arch
Theory
LP
2009
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1981
2012

I dedicate this project
to my wife Kimberly:
Her love, understanding, support and
patience helped me endure.

And to my parents
who helped finance this mess.



squirrel creek golf club



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introduction 

History of Golf

The word "Golf" is derived from the Germanic word meaning "club". Except for the name, the game is entirely Scottish in origin.

Golf was so popular in the 15th century that King James II of Scotland in 1457 decreed that golf be "cryed-down" because it interfered with the practice of archery which was essential to the defense of the country.

The first rules and standards were set by The Honourable Company of Edinburgh Golfers which was formed in 1744. In 1754, in order to avoid confusion regarding the rules, the Royal and Ancient Golf Club drew up special rules which form the basis for those in use today. The rules of golf today are determined jointly by the Royal and Ancient Golf Club of St. Andrews, Scotland (1754) and the United States Golf Association formed in 1894.

The first golf club established in America was the South Carolina Golf Club, established by British planters in Charleston in 1786. The oldest golf club with permanent existence in the United States may be the Dorset Field Club in Dorset, Vermont. They claim to have had their course laid out in 1886, however their evidence is based entirely on personal recollection. The Foxburg Club of Foxburg, Pennsylvania provides strong support for the claim that it was organized in 1887, and is the oldest club in the United States.

There are presently over 20 million players throughout the world, about half of these are Americans. In America alone, there are more than 10,000 golf courses.



The Site

The Robbinhurst Golf Course was established in 1975 just outside of Portage, Indiana. The golf course is located on McCool Road, a major traffic artery in and out of town to the south. The present entrance to the golf course is from a county road (Robbins Road) that runs perpendicular to McCool Road. Across Robbins Road to the north is a large 2-1/2 story wood frame Queen Anne style home owned by the owners of the golf course.

The course is an 18 hole, par 68 course that is divided by Robbins Road with 9 holes to the north and 9 holes to the south. Squirrel Creek meanders through the site and at one spot is dammed up to create a small pond. The course is not wide open due to the trees that form many of the fairways. The owner desires to keep the course open to the public and wants to maintain a friendly open image to the public golfer.



Scope of Program

Of the three types of golfers (private, semi-private, and municipal) 45% of them are municipal golfers. This is about 5,000,000 golfers who use public courses, plus an additional 2,000,000 golfers who play less than 15 rounds of golf per year. Unfortunately, only about 13% of all courses are public. So nationally, the great need is for municipal and daily fee courses.

The National Golf Foundation recommends that a community can support one golf course for every 25,000 people it has. The area of Portage, Indiana and nearby communities have a population of about 50,000. Besides a need for golf facilities, other recreational facilities are needed. There are presently no racquetball courts open to the public in this region. There is only one swimming pool open to the public, no health spa facilities, a great shortage of banquet facilities for large groups of about 400. Many golf clubs operate in the red because the operational use is only about six months in this area of the country. Because of the additional facilities this golf clubhouse will be in operation year-round.

Because of the present and projected energy shortages, people will be staying closer to home for their recreation. The site had been selected for ease of access and close proximity for a large number of people that might otherwise not have access to a facility of this type. Passive and/or active solar energy will be utilized in an energy conscious design.

A large amount of expansion is projected for this area of Northwest Indiana, and this facility should be able to grow with the community.



Activities at the Golf Club

Social

Formal Dining
Grill
Bar & Lounge
Banquet & Reception Facilities

Athletic

Golf Pro Shop
Locker Rooms
 Golf
 Tennis (outdoor)
 Swimming (indoor-outdoor)
 Racquetball/Handball
 Health Spa
 Ice Skating (winter only)**
 Hockey (winter only)**
 Cross Country Skiing (winter only)**
Youth Area

*Besides these activities at the club, a motorized vehicle race track, motorcross course and a recreational vehicle area adjacent to the golf course.

**These activities have no extra special requirements that aren't already provided.



goals 

Goals

The goal of this program is to provide an outline necessary to design a clubhouse for Squirrel Creek Golf Club; to design a clubhouse that responsibly meets the needs of the community which it serves.

Users

To attract the golfer that otherwise might be excluded from a private club due to their occasional use of this type of facility.

To attract all age groups, from juniors just taking up the game, to seniors who get little other outdoor recreation.

To provide golf and other recreational activities to a large number of people that otherwise may not have close access to a facility of this type.

To keep people closer to home and in their communities for their recreation.

Image

To convey and maintain an image traditional to golf and the club.

To be public but comfortable.

To be a good neighbor.

To be progressive.

Community

To provide a "meeting ground" for local people.

To be able to expand and grow with the rest of the community.



space requirements



Because of the repetition of environmental requirements in different spaces in the clubhouse the following abbreviations are used to express the considerations to be made:

Lighting

- L-1 Lighting levels that may be easily controlled between 10-30 foot candles.
- L-2 Lighting level of at least 30 f.c.
- L-3 Lighting level of at least 50 f.c.
- L-4 Lighting level of at least 70 f.c.
- L-5 Lighting level of at least 150 f.c.

Ventilation

- V-1 Ventilation of 15 cfm/person plus an additional 5 cfm/person fresh air (15/5).
- V-2 Requires air conditioning.
- V-3 30/10.



Foyer & Vestibule

The function of the lobby is many-fold. First of all the lobby is the main entrance, being the first space a user would see, it should convey the image of the club. The lobby should provide an orientation to the rest of the club and be a clear starting point. This area should also be a space for people waiting to use facilities ranging from the golf course to the banquet hall. The lobby is a hub that feeds other areas of the club. Direct access should be available to the administration areas, dining areas, bar, and the locker rooms. The space should be adaptable to suit varying uses. Different types of lighting should be available. Spot lighting may be used for display areas. Mechanical systems shall be adequate for entry areas.



AREA

FOYER & VESTIBULE

TOT. SQ. FT.

2250

SPACE	ALLOCATION	EQUIP.	SQ.FT.	ENVIR. CONSID.	COMMENTS
Main Entrance	300 People		150	Provide air lock to temper air entering the lobby.	
Waiting Area	300 People	12 Lounge chairs 2 Sofas Asst'd. plants Sculptures 2 Telephones	1050	V-1 V-2 L-1 Lighting should be adaptive to set different moods if necessary for different functions.	This space should reflect the image of the club. This space will be used as a sculpture court and display area.
Coat Room	300 Coats	Hangars Hangar rods Shelves	300	10 footcandles min.	
Public Toilet (Men's)	150 Males	6 Urinals 6 W.C. 6 Lav. Mirror Towel Disp.	325	V-1 V-2 L-2 Task lighting for mirror	
Public Toilet (Women's)	150 Females	12 W.C. 6 Lav. Mirrors Powder table	325	V-1 V-2 L-2 Task lighting for women's make-up area	
Trophy Case	50 lin. feet	Tack boards Adj. shelves	100	Spot lighting	Should be placed in a prominent area but also out of main traffic area.

Administration

It can even be said in today's market that in many cases efficient operation is essential to the club's survival. As a business, it is therefore necessary that adequate space be provided for the office operations as well as the storage of records.

A club manager needs an attractive office, strategically located near the main entrance, which can serve as a base of operations. It must be adjacent to a general office with a minimal office staff including a receptionist who may serve in other capacities as well.

Preferably, the manager has access directly to the lobby-lounge in order that he may move freely about the club and invite its members into his office for private conversations without having to pass through the general office. He will need a wall or other type safe for storage of valuable items as well as the usual desk, chairs and other office furniture.

The general office, in addition to desks, will require files, counters and tables for various business machines and for the normal business office activities. It is generally preferred that storage of records be at some other location in the club in order to conserve space in the office area.



AREA

ADMINISTRATION

TOT. SQ. FT.

800

SPACE	ALLOCATION	EQUIP.	SQ.FT.	ENVIR. CONSID.	COMMENTS
Gen. Office	1 Receptionist and a waiting area	1 Desk 1 Chair 1 Switchboard 1 PA System 1 Telephone 3 Chairs 1 Coffee table 1 Safe	300	L-5 Task lighting Natural light V-1 V-2	Should be a 'bright' space and not drab. Should have views to the outdoors.
Manager's Office	1 Manager	1 Desk 1 Credenza 1 Desk chair 2 Office chairs 1 Sofa 1 Closet	150	Same as General Office	Same as Gen. Office
Meeting Room	10 Management People	1 Conference table 10 chairs Bulletin bd.	180	L-5 V-1 V-2 General lighting, should be able to vary the intensity of lighting. Should have the capability to be completely dark for movies and slide presentations.	
Record Storage	8 File cabinets	8 File cabinets	64	L-5	Fire Proof storage
Dead Storage	5 File cabinets	5 File cabinets 2 Locker cab. Shelves	100	L-3	Fire Proof storage

Dining Areas

While it may be true that most clubs lose money in their dining rooms and make money in their bars, it is a condition that should not be accepted in an existing club, and should be recognized and planned against in a new club.

There would appear to be two basic reasons for this, either of which can cause a problem. One is the quality of food served and the other is the size and quality or attractiveness of the surroundings.

The surroundings or atmosphere may well be the single, most important factor, as it has been said that people will accept food of lesser quality if the surroundings are to their liking. In this regard, the club with its limited membership is competing against commercial restaurants in the area which do not hesitate to spend large sums on furnishings and decorations to attract their clientele. Adequate money should be budgeted for the tasteful decoration and furnishings of the dining room.

In general, few commercial eating establishments have the natural attractive setting that is available to most country club dining rooms. Dramatic views overlooking the golf course and terraces should be fully utilized.

One of the primary pitfalls in club dining room design in the past has been "over-design." By this is meant the creation of a large, monumental space that is successfully used only by large groups and is apt to have a cold and forbidding atmosphere for couples of small gatherings. This means that, while a large area may well be necessary for the big, all-member club function, some effective means of dividing the space must be utilized so that the smaller spaces will be attractive to smaller groups. Included in the ways that this can be done would be folding partitions for complete separation, space dividers which give effective visual but not complete separation, or an irregularly-shaped large area which in its very design creates a series of contiguous but visibly separated areas. Variations in floor level can effectively help in this regard.



Dining Areas (cont'd)

With proper planning and good food service, the club dining room should be an asset to any club. Since most members expect their club to provide this service, every effort should be made to see that it does so to the best advantage.

An essential element of many earlier clubs, the ballroom, can today only be considered for the larger, social clubs. More often it is now a dual-use function with the dining room, and this is accomplished by opening all the dining spaces into one large area. With this arrangement it is also necessary that the dining tables and chairs be removed and the floor surfaces be changed from carpet to wood. This can be done in at least two ways. One is to roll up and remove the carpeting over those areas that have a hard-wood dance floor. The other is to lay a portable wood floor on top of the carpeting. While the latter avoids the wear and tear on the carpet, a large wood portable floor requires considerable storage space and time in laying.

A stage or bandstand is in order if dances and entertainment with orchestras are to play an important part in the club life. A stage can serve a dual use as chair-table storage when an orchestra is not present.



AREA

DINING

TOT. SQ. FT.

12,200

SPACE	ALLOCATION	EQUIP.	SQ.FT.	ENVIR. CONSID.	COMMENTS
Main Dining	150 People	32 Tables/4 6 Tables/2 150 Chairs	2700	L-1 V-1 V-2 Backlighting. Should be able to set moods with lighting. Should have capabilities of being totally dark. Some natural lighting. Views out.	
Banquet Area	500 People	64 Tables/8 500 chairs	6000	Same as for Main Dining	Banquet Room shall have capability to be divided into smaller areas and be used for overflow for main dining. Band stage and dance floor will be added to banquet room.
Band Stage	Band of 6 plus all equipment	Varies	200	L-1 V-1	Shall be slightly raised above dance floor.
Grille	150 People	38 Tables/4 150 Chairs	2700	Should be a bright and active space L-3 V-1 V-2	
Chair & Table Storage	64 Tables 500 Chairs		200		Should be near Banquet Room.
Linen Storage	Linens for all dining areas	Shelves	64	Smoke Detector	
Hostess Sta. (Main Dining)	1 Hostess 1 Waitress	Cash Register Counter Menus	40	L-1 Task Lighting	Should be near exit.

AREA

DINING (cont'd)

TOT. SQ. FT.

12,200

SPACE	ALLOCATION	EQUIP.	SQ.FT.	ENVIR. CONSID.	COMMENTS
Waitress Sta.	4 Waitresses	Drink tap Counter Sink Water tap Ice Machine	64	L-1 Task Lighting	Banquet and Main Dining shall each have a waitress station.
Bar (Banquet)	2 Bartenders	Counter 4 Keg taps Shelves for Liquor Ice Machine Case Storage	240	V-1 V-2 L-1 Task lighting	

Kitchen

The kitchen generally would have two sets of doors, one to the dining room, and one to the grill (breakfast and luncheon room). The equipment has to be properly spaced to allow for waiter or waitress service to move freely to both rooms. The dishwashing pantry should be so situated so as to insure easy access from both rooms, with emphasis on the grill room which is used daily for two meals. The dishwashing machine has to be properly sized so that it can handle peak demand periods. It is necessary to provide adequate hot water heating so that tableware can be adequately sterilized to conform to the local health code.

These requirements have to be coordinated with the mechanical engineer, and integrated into the total water and heating facilities of the clubhouse.

The kitchen has to be equipped with sufficiently varied cooking equipment to assure its capability to service every type of meal, from breakfast to full course dinners, for a full range of demands on the clubhouse.

Adequate broiling, roasting, sauteing, and frying equipment properly located, with a well-designed cook's table, will insure this capability. A Garden-manager (cold pantry) area with refrigeration, cold pan, sandwich unit, dessert and ice cream cabinet, rounds out the serving equipment needed. Waiter service equipment, such as ice, water, bread, rolls and coffee, must be provided adjacent to the kitchen entry, so that the waiters can pick up these essentials with minimum delay.

Walk-in refrigeration and freezer space must be provided for the bulk storage of all of the various items the club's menu requires. Long three-day weekends, like the Fourth of July and Labor Day, when purveyors do not deliver and club activities are greatest, make the sizing of these essential units basic to the operation.

Reach-in refrigerators must be provided at the broiling station to hold steaks, chops, and short-order needs. In the pantry, the refrigerator must store all cold salad, appetizer, and dessert materials. One solution is a pass-through refrigerator with glass doors in this area, so that premade salads, appetizers and desserts, can be stored in a handy location for waiter self-service. This unit can often handle the waiters' needs for butter, cream and other essentials for speedy table setup.

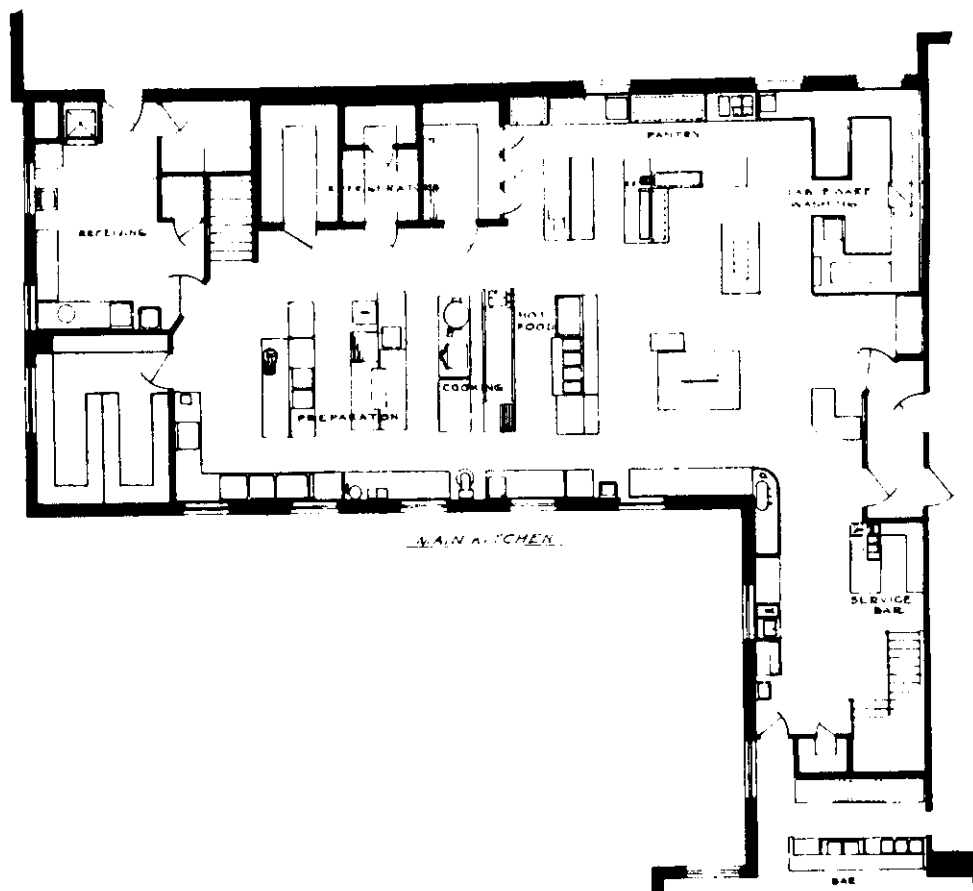


Kitchen (cont'd)

Delivery, receiving and garbage areas are also included in the total kitchen concept. These must be located in such a manner so that they will be convenient to the kitchen, and yet not be offensive to the membership's view. A raised loading dock, level with a truck's tailgate, can be a great advantage, not only in handling the various deliveries to the club, but also the pickups such as soiled linens, towels and garbage.

Proper planning and location of the food preparation and serving areas in the basic club layout will reap many dividends in reduced labor costs.





The flow of food from receiving room to storage to preparation section to cooking center to serving counter is achieved here with a minimum of steps and cross traffic. Waiter traffic is similarly controlled. Proper production line planning can make the food operation efficient.

AREA

MAIN KITCHEN

TOT. SQ. FT.

3400

SPACE	ALLOCATION	EQUIP.	SQ.FT.	ENVIR. CONSID.	COMMENTS
Meat Prep.	4% of Kitchen Area	Broiler Char. Broiler French Fryer Potato Warmer	136	L-4 V-2 V-3	Must be a bright and active space.
Vegetable Preparation	7% of Kitchen Area	Grill 6 Burner Stove Large Stove	238		
Cooking	12% of Kitchen Area	3 Work Tables Cooks Ref. Dish Cart	408		
Cold Foods	17% of Kitchen Area	Prime Rib Ma. Steam Table Cooler	578		
Serving Pantry	14% of Kitchen Area	Micro Wave Toaster Bread Warmer	476		
Dishwashing	10% of Kitchen Area	3 Hole Sink Walk-in Cooler Ice Cream Fr.	340		
Circulation	36% of Kitchen Area	D.W. Machine	1224		

AREA

KITCHEN SERVICES

TOT. SQ. FT.

1700

SPACE	ALLOCATION	EQUIP.	SQ.FT.	ENVIR. CONSID.	COMMENTS
Dry Storage	15% of Kitchen Area		255		
Refrigeration	14% of Kitchen Area	Walk-in Cooler			
Receiving Area	10% of Kitchen Area	1 Truck 1 Hand Truck 1 4-Wh. cart	170	1-2 Task Lighting Air Lock	
Garbage Area	10% of Kitchen Area	10 Garbage cans Dumpster	170	Air Tight Enclosure Fire Proof Enclosure L-1 V-3	Should be near receiving and dump.
Chef's Office	7% of Kitchen Area	1 Desk 1 Chair 1 File Cabinet	120	L-5 Task Lighting V-1 V-2	Shall be able to oversee food preparation.
Circulation	44% of Kitchen Area		748		Should be simple.
Help's Dining	10 People	2 Tables 10 Chairs	160	L-1 V-1 V-2	Should be a place for employees to relax and get away for a while.
Help's Toilet and Dressing	20 People	20 Lockers Benches Mirror 1 W.C. 1 Urinal 1 Lav.	320	L-2 V-1 Acoustical Separation	

Bar & Lounge

The bar areas, also vital to club activities, must handle large weekend dinner-dances and be arranged so that, if necessary, one bartender can service mid-week activities. A well-planned bar must have sinks, drainboards and ice chest, designed to fit the area. Ample refrigeration should be included to provide for bottle goods storage, as well as the fruits and drink mixers required. A draft beer dispenser is a very desirable asset. There must be adequate glass and bottle display. All of these units must be secured after hours.

With increases in labor and food costs, every precaution must be made in the basic planning to minimize all unnecessary labor while assuring the membership the best possible food service.

As a rule, the food service at a private club is operated at a loss, or is at best a break-even operation. That may or may not be so at a public course or resort operation. Since each club has its own requirements to serve its members, every project must be individually analyzed.



AREA

BAR & LOUNGE

TOT. SQ. FT.

2,470

SPACE	ALLOCATION	EQUIP.	SQ. FT.	ENVIR. CONSID.	COMMENTS
Lounge	150 People	32 Tables/4 6 Tables/2 150 Chairs	2250	L-1 V-1 V-2	Lighting shall create a mood.
Bar	2 Bartenders	Bar Ice Machine Liq. Display Beer Tap Refrigerator Glass and Bottle Display	160		Task Lighting Back Lighting
Waitress Sta.	2 Waitresses	Water Tap Cash Register Napkin Stor.	60		Task Lighting

Golf Pro Shop

The golf professional's position in a golf club is a somewhat ambivalent one. He is both an employee and usually a private entrepreneur. He is hired to be an attraction, an asset and a service to the club. In turn, he depends upon the golfers for his livelihood through merchandise sales, lessons and other service.

Clubs need not have lavish proshop facilities to be attractive to a good golf professional, but they should provide what is reasonable and necessary to the proper conduct of the professional's business.

First among requirements of the golf department is an adequate sales shop. Too many in older clubhouses are small, poorly located, badly arranged. Adequate area alone is not enough. Location and traffic pattern are important considerations in making the golf shop a paying proposition, and a service to the members.

A majority of golf shops at clubs are attached to or integrated in the clubhouse. Most golf professionals agree that is the most workable situation. The basic reasoning is that maximum service can be rendered while encouraging maximum traffic through the shop.

A golf shop located in the clubhouse can be a service to members regardless of weather. It is also less expensive to build originally in terms of lower structural and mechanical costs, and saves on insurance and maintenance as compared to having a separate building.

From the golf shop, the pro should be able to have a commanding view of the course, especially the key tee and green locations--1st and 10th tees, 9th and 18th greens--to better control starting, bag handling and caddie and golf car arrangements.

In addition to adequate display and sales area, it is important for the pro to have a small office in which to carry on routine business matters such as placing orders, keeping records and taking care of correspondence. A space of 10 by 10 feet is usually adequate. The office should be designed and located with a window overlooking the shop sales area.



Golf Pro Shop (cont'd)

The pro is expected to carry a considerable stock of quality merchandise. Storage of these items usually cannot be taken care of in display spaces and under counters. Perhaps one-third of clubs have no extra storage space for the pro shop. This is a common omission in pro shop planning. A lockable room of 100-200 square feet is usually necessary.



AREA

PRO SHOP

TOT. SQ. FT.

3430

SPACE	ALLOCATION	EQUIP.	SQ. FT.	ENVIR. CONSID.	COMMENTS
Sales Floor	Sales of Golf Equipment 1 Pro 1 Clerk	Disp. Shelves Disp. Tables Counters	800	L-4 V-1 V-2	
Dressing Rooms	2 Areas 2 People	Mirror Clothes Hook Bench	64	L-3 V-1 V-2	Must be private
Pro's Office	1 Pro	1 Desk 1 Chair Files Credenza Trophy Case	100	L-5 V-1 V-2	Must have view of shop area and a view of the golf course
Storage Area	Merchandise Storage	Racks Shelves	200	L-2 V-1 V-2	
Club Repair & Cleaning	1 Person	Assorted Tool Rags Cleaning Chem.	64	L-4 V-1 V-2	
Golf Bag Storage	200 Bags	Racks	400	L-2 V-1	
Push Cart Storage	75 Carts		200	L-2 V-1	
Electric Cart Storage	50 Carts		1600	L-2 V-1	

Locker Rooms

Adjoining the pro shop should be the men's and women's lockers and all the related facilities that service this area. The lockers can be of many and varied sizes. Generally, a full-length locker is preferred by the average member, unless a coat closet is provided elsewhere.

The locker arrangement can be as varied as the type of locker. While the traditional row arrangement is apt to be the most efficient utilization of the space, it is also the most institutional and, for this reason, other arrangements should bear consideration. Lockers arranged from U-shaped alcoves or in "T" clusters can give pleasing variety and informality to the area.

The showers must be immediately adjacent to, and accessible from the lockers. They can be of two types: gang or individual. For men, gang showers are perfectly satisfactory, provided drainage is correctly and adequately controlled and adequate spacing of shower heads is observed. Especially for women, the individual shower affords more privacy and may or may not have a curtain or door. With walls or partitions dividing it from the next stall, it has the obvious advantages that no spray or splashoff will occur between adjacent users. All floor, wall and ceiling surfaces must be such that they will resist the heavy moisture and dirt and soap. A heavy exhaust system is necessary if the humid, damp air is to be effectively removed and a steam room effect avoided.

Immediately adjacent to the men's shower room should be a multi-purpose drying-washing-shaving area. This is a semi-wet room with shelves for clean towel storage, hampers or receptacles for used towels, optional benches, a shaving bar consisting of built-in lavatories with mirror above and shelves or cubicles for storage of shaving and shower lotions and accessories. It should be an attractive, even social, area as it is a crossroads and meeting place for the members using the facilities adjacent to it, as well as those who are drying off or shaving. The women should have a similar makeup table area for ladies in their locker room.

The toilet room is best located immediately adjacent to the shower room areas. The number of fixtures should be in direct proportion to the number of lockers.



Locker Rooms (cont'd)

The locker room attendant should be located in a central or pivotal location that will best allow him to oversee the locker room and to serve the members. In this area he or she must have adequate room to collect, clean, polish and store members' shoes, to receive and store towels and, in general, to maintain a small quantity of items and supplies that are needed by the members. It should be a well-ventilated area with a service counter and with a reasonable degree of privacy so that the normal clutter will not be an eyesore and a detriment to the overall appearance of the locker room.



AREA

MEN'S LOCKER ROOM

TOT. SQ. FT.

2700

SPACE	ALLOCATION	EQUIP.	SQ.FT.	ENVIR. CONSID.	COMMENTS
Locker Room	Space for 250 people during the day, with a peak load of 150 people	250 Lockers Benches Mirrors 2 Drink. Fount. 1 Bull. Bd.	2000	L-2	
Shower Room	10 People	10 Showers	200	L-2 V-3	3 Air Changes per hour to prevent moisture problems.
Drying Room	10 People		100	L-2 V-3	
Shaving Area	10 People	Mirrors with Shelves 10 Lav.	100	L-3 V-3	
Toilet Area	150 Person peak load	5 W.C. 5 Urinals	300	L-2 V-3	Shall be available to people outside of the Locker Area.

AREA

WOMEN'S LOCKER ROOM

TOT. SQ. FT.

2700

SPACE	ALLOCATION	EQUIP.	SQ.FT.	ENVIR. CONSID.	COMMENTS
Locker Room	Space for 250 people during the day, with a peak load of 150 people	250 Lockers Benches Mirrors 2 Drink. Fount.	2000	L-2 V-3	3 Air changes per hour to prevent moisture problems.
Shower Room	10 People	10 Showers	200	L-2 V-3	3 Air changes per hour to prevent moisture problems.
Drying Area	10 People		100	L-2 V-3	3 Air changes per hour to prevent moisture problems.
Make-up Area	10 People	Mirrors with shelves 10 Lav.	100	L-3 V-3	3 Air changes per hour to prevent moisture problems.
Toilet Area	150 Person peak load	10 W.C.	300	L-2 V-3	Shall be available to people outside of the locker area.

Health Spa Area

Other facilities which can be included to some degree in the locker room complex are quite commonly thought of as health club services. They consist of wet steam rooms, dry sauna baths, exercise and equipment room, whirlpool and other types of bath, and quiet rooms. These services are similar to those offered by health clubs throughout the country and can be incorporated to a more or less degree in areas adjacent to the locker room.

The wet steam room with its heavy moisture content atmosphere is best furnished with glazed surfaces which are resistant to this moisture. This room should be immediately adjacent to the showers and with vision panels in the door and alarm devices for control and safety purposes.

The dry sauna bath is basically a room with all interior surfaces, including benches, ceilings and supports, of wood. These rooms have various sizes and shapes for various capacities and complete with all equipment, are fabricated today by several manufacturers. Once again, they should be immediately adjacent to the showers, should have standards and rules.

An exercise room would include riding machines, weights and other exercise devices and equipment for member use. This equipment as found in health clubs is generally in sumptuous surroundings which may include carpeted floors, acoustic tile ceilings and paneled and papered wall surfaces. To remain competitive it may be well for the clubs that are planning the inclusion of such equipment to follow suit.

In close proximity to both the exercise room would be whirlpool and other type baths. They may be built-in or stainless steel metal portable units.



AREA

HEALTH SPA

TOT. SQ. FT.

1100

SPACE	ALLOCATION	EQUIP.	SQ.FT.	ENVIR. CONSID.	COMMENTS
Steam Room	1 Room	Seating Area Drains	120	Glazed ceramic surfaces to resist high moisture levels. L-1	All these spaces listed below are for men and women.
Sauna Room	1 Room	Wood benches	120	All wood interior const. L-1	
Whirlpool Bath	2 Baths	2 Stainless Steel units	64	Glazed ceramic surfaces-- especially floor	
Exercise Room		2 Universal weight machines 1 Treadmill 2 Riding machines 1 Vibrator	800	L-3 V-3 Will be nicely decorated	Must be a comfortable space.

Racquetball/Handball Courts

Because of the popularity of Racquetball/Handball, facilities should be included in any clubhouse with multiple use. At least two courts should be provided with the possibilities of adding more courts at a later time. These court activities would be directed more toward the adults. Lockers for the courts will be the same as the ones used for golf. Some considerations for Racquetball/Handball courts are being near the central locker room and placing them on the outside of the building to allow expansion in the future.



AREA

RACQUETBALL/HANDBALL

TOT. SQ. FT. 2116

SPACE	ALLOCATION	EQUIP.	SQ.FT.	ENVIR. CONSID.	COMMENTS
Indoor Racquetball/ Handball Courts	2 Courts		2116	L-5 V-3	Should have close proximity to locker area.

Tennis

The growing interest in tennis makes it desirable for a club to plan for at least four outdoor courts initially and to provide space to expand in the future. Just how many courts could be useful in the future will depend to a large extent upon whether or not the club hires a full-time tennis pro. If this happens, as many as 10 or 12 courts could be used at some future time.

Special consideration for tennis courts include adequate subsurface drainage under and around all courts, plus some landscape planting to soften the expanses of wire fencing.



AREA

TENNIS

TOT. SQ. FT.

28,800

SPACE	ALLOCATION	EQUIP.	SQ.FT.	ENVIR. CONSID.	COMMENTS
Outdoor Tennis Courts	4 Tennis Courts	4 Nets Lighting Wire fencing	7200 per court	L-5 (for night play only)	Courts shall be out- doors with close proximity to locker areas. Shall be lit for night-time play Space shall be provided for 6-8 additional courts in the future.

Swimming

At clubs there are many successful swimming pools adjoining their clubhouses, often with the lockers and showers doing double duty for golfers and swimmers. Usually, separate showers and lockers are provided for children under this arrangement.

Many clubs feel that large numbers of children using the pool are extremely noisy, so the pool and bathhouse are built at some little distance away. This distance must not be so great, however, that the swimmers cannot easily use the same parking space.

Because swimmers and golfers will be using the parking space at the same time during the day, however, some increase in the number of parking spaces should be made.



AREA

SWIMMING

TOT. SQ. FT.

5375

SPACE	ALLOCATION	EQUIP.	SQ.FT.	ENVIR. CONSID.	COMMENTS
Swimming Pool	Competition size	2 Diving Boards Gutters Skimmer 2 filters Underwater lighting Asst'd. cleaning tools	3375	Outdoors--should be in an area that receives much sun.	Should have close proximity to the locker area.
Lounge Area	100 People	Lounge chairs Lounge tables and chairs Sun umbrellas	2000		

Youth Area

Similar considerations must be given to space allocations for junior members or children of members.

Many clubs today are in areas where the "family style club" is important and the club will consist of members with many children who form an important part of club activities. Special facilities are often provided for the children so that they do not either mix with the adults or get in the way of the adults. Fortunately, the children are satisfied with less spacious and less elaborate surroundings, and the same design criteria for the adults do not apply.



AREA

YOUTH AREA

TOT. SQ. FT.

2000

SPACE	ALLOCATION	EQUIP.	SQ.FT.	ENVIR. CONSID.	COMMENTS
Recreation	For children of adult members	2 Pool tables 1 Air Hockey table 1 Foosball table 2 Ping Pong tables 4 Card tables 32 chairs Asst'd. table games	2000	L-3 V-1 V-2	

Mechanical Room

As smooth day-to-day operation and maintenance are essential to the function of the clubhouse, adequate areas must be provided to house the janitorial and mechanical equipment.

The delivery of the janitorial supplies can be to a receiving area that is common to food and drink deliveries. In general, bulk storage in this immediate area or in an area near the utility room is highly desirable. The supplies should then be broken down into smaller lots and distributed to small storage closets immediately adjacent to the point of usage. Again, this points out the necessity of having adequate storage when and where needed throughout the clubhouse. Lack of same clutters up the clubhouse and inevitably increases labor costs.

Boiler, utility or fan rooms are necessary to house the mechanical equipment which provided the effective heating and cooling for the clubhouse. Such areas are generally in below-grade or out-of-the-way locations that consist of the least desirable and usable areas of the clubhouse.



AREA

MECHANICAL ROOM

TOT. SQ. FT.

3000

SPACE	ALLOCATION	EQUIP.	SQ.FT.	ENVIR. CONSID.	COMMENTS
Mechanical Room	Equipment necessary for HVAC, water and electricity services to the club.	Hot water heaters Condensers Evaporators Air Handlers Boilers Elect. panels Telephone panels Alarm system	3000	L-2 V-1	This space may be in basement or in a secluded part of the clubhouse. This 3000 s.f. can also be split into multiple smaller areas.

Maintenance

The maintenance building is often located far away from the clubhouse site. Sometimes it seems best to locate it closer to the clubhouse, and it then becomes a very great concern. A heated and air conditioned office space for the golf course superintendent and a heated workshop area are needed while the larger part of this building can remain unheated, or with minimal heat. There should be a concrete floor for the entire building, and a work storage yard outside the building should be at least 1/2 acre in size. This space will also park the workers' automobiles. It should be thoroughly screened from view from the clubhouse and golf course by means of thick plantings of trees and shrubs.



AREA

MAINTENANCE

TOT. SQ. FT.

2000

SPACE	ALLOCATION	EQUIP.	SQ. FT.	ENVIR. CONSID.	COMMENTS
Maintenance Building	Space for the storage of equipment & materials necessary for course and building upkeep.	SEE APPENDIX	2000	L-2	May be a separate building.

Parking Areas

Parking areas are a necessary evil. It is not easy to build a parking area that will be attractive visually, although landscape plantings interspersed with the cars are very worthwhile. Unbroken expanses of asphalt or concrete should be avoided.

Considerations for parking areas involve location, size, arrangement, safety, storm water control, lighting and landscaping.

Most clubs want the parking space close to the clubhouse front door. Some non-parking space should be designed for landscape beautification around the building itself and the approach to the building. A traffic pattern with one entrance, one exit, clearly marked, is desirable. Ideally, the entrance drive is arranged to bring people all the way to the building, with only views of the golf course and beautiful landscaped grounds, and the parked cars screened by landscaped plantings. The parking area can be divided into two or more areas, and the smaller size of each makes them less obtrusive. Asphalt bumps help keep speeds in safe ranges.

Fairly heavy golf play for almost any course would be 300 players for one day. If half played in the morning and went home, the parking area would be comfortable with spaces for approximately 150 cars since some golfers would arrive with more than one man per car.



AREA

PARKING

TOT. SQ. FT.

90,000

SPACE	ALLOCATION	EQUIP.	SQ.FT.	ENVIR. CONSID.	COMMENTS
Parking Area	300 Autos	Autos Lighting Drainage	90,000	L-1 Night security Water drainage	Parking area may be broken up into smaller lots to break up large expanses of paving.

space summary 

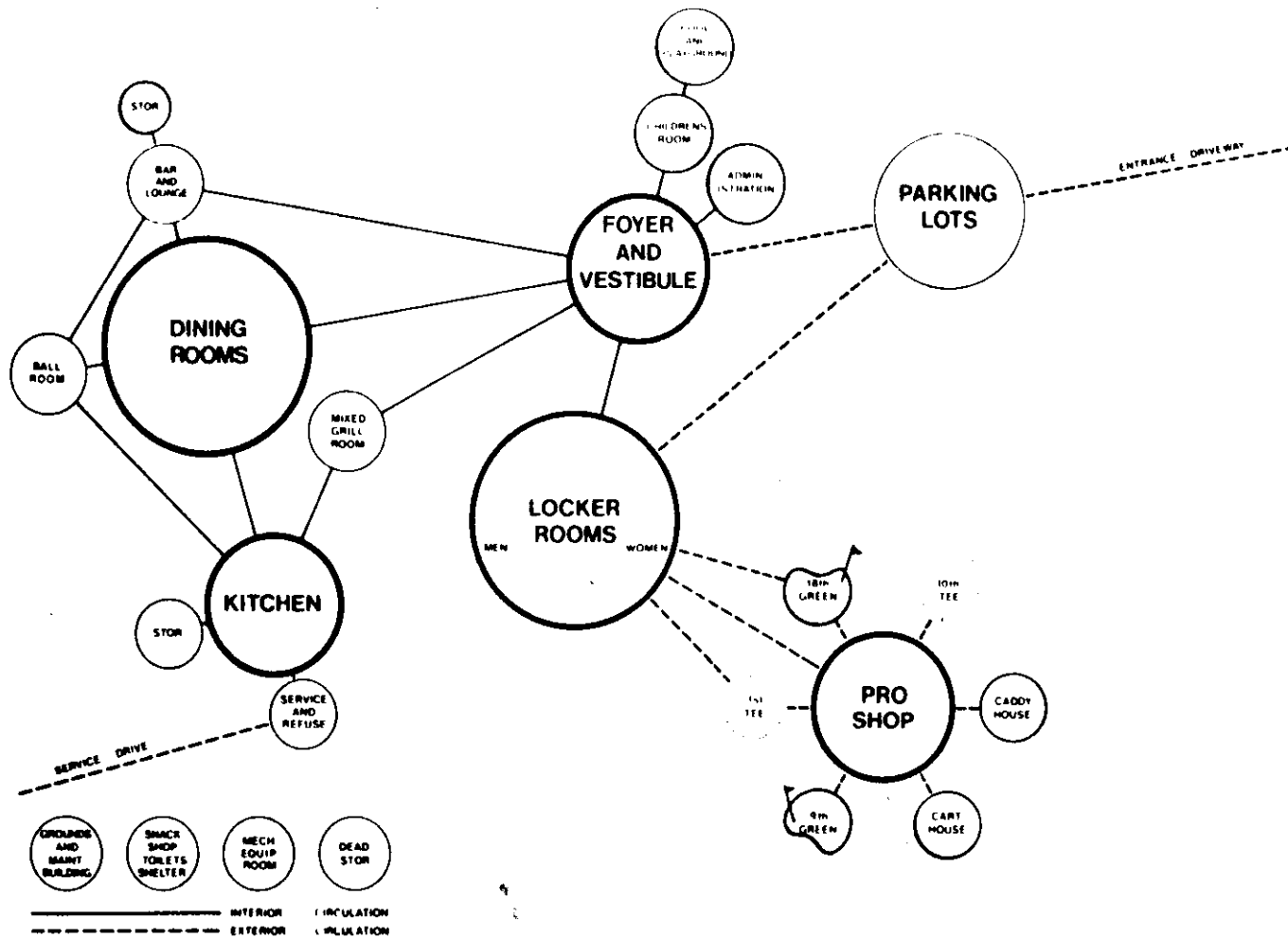
Space Summary

Lobby Area	2,250 s.f.
Administration Area	800 s.f.
Dining Areas	12,200 s.f.
Main Kitchen	3,400 s.f.
Kitchen Services	1,700 s.f.
Bar and Lounge	2,470 s.f.
Pro Shop	3,430 s.f.
Locker Room (men's and women's)	5,400 s.f.
Health Spa	1,100 s.f.
Racquetball/Handball	2,116 s.f.
Tennis*	28,800 s.f.
Swimming*	5,375 s.f.
Youth Area	2,000 s.f.
Mechanical Room	3,000 s.f.
CLUBHOUSE TOTAL ASSIGNABLE	44,650 s.f.
UNASSIGNABLE (circ., etc.) 12%	4,784 s.f.
CLUBHOUSE TOTAL	49,866 s.f.
OUTDOOR RECREATION*	34,175 s.f.
MAINTENANCE BUILDING*	2,000 s.f.
PARKING AREA*	90,000 s.f.

*Not included in clubhouse s.f.



space relationships 



building criteria 

Building Criteria

Functionally, the clubhouse has two distinct areas; the social and the athletic. The two areas should both be served by a common entrance (the main lobby) as well as separate entrance for the strictly athletic functions. A view of the golf course is an important issue to deal with. The beautiful landscape shall be well capitalized on.

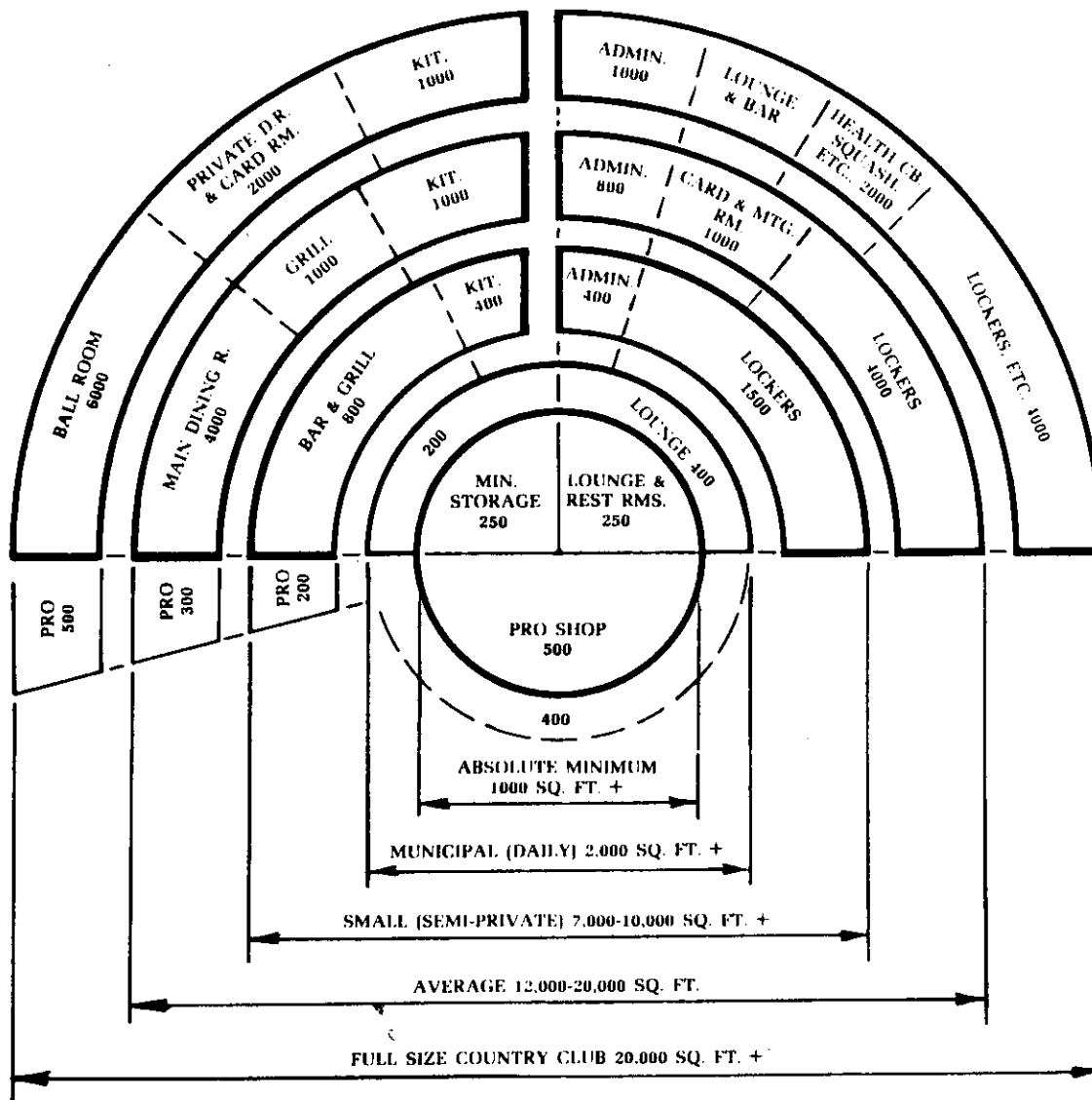
Interior flexibility differs greatly from the social to the athletic functions. The athletic functions will change very little except for the growth of membership that may occur over a period of time. On the other hand, activities that occur in the social areas may require changes in space needs from one night to the next.

Interior circulation must be simple due to the fact that a large amount of people may be scattered throughout the building and may be participating in a dozen different activities. Circulation as well as spaces should be laid out as efficiently as possible due to the fact that a golf club is also a business. And a business requires an efficient operation if it is to operate at a profit.

Energy conservation is an important issue in these times. Again due to the business-like nature of a club, efficiency is of the utmost importance. Image and setting an example are important also to community recreation area.



The Growth of a Clubhouse



exterior criteria



Exterior Criteria

The sequence of arrival is an important issue in the design of a clubhouse. Though not all possibilities could be recorded at this time (or are necessary) the following sequences are important to deal with.

Social Areas

Parking --- Lobby --- Banquet
 Parking --- Lobby --- Dining
 Parking --- Lobby --- Lounge
 Parking --- Lobby --- Administration

Athletic Areas

Parking --- Pro Shop --- Lockers --- 1st Tee
 Parking --- Pro Shop --- 1st Tee
 Parking --- Lockers --- Pro Shop --- 1st Tee
 Parking --- Lockers --- Pro Shop --- Lounge --- 1st Tee

Parking and related circulation should again be as simple as possible to avoid congestion. Because of the limited amount of space on the site, the parking will be close to the road so it should be treated with care that the parking lot will not become a dominating element in the landscape.

Although it is impossible to completely hide the service entry and dock, it is not necessary to do so. By nature, the golf club has a tendency to desire views almost 360°. This is a common tendency sometimes referred to as the "country club syndrome." The service area is desperately important to an efficient operating of a club, and should be treated as such. The service area should be located near the main entrance to the club and be located in the social area of the club.

In terms of landscaping, a golf club does have fantastic natural attributes. Landscaping should reflect the natural characteristics of the golf course and should help soften the expanses of paving the parking area.



building types analysis 

Building Types Analysis - Summary

In doing this Building Types Analysis, I have found certain trends developing in these examples. I have divided these trends into two groups: Building Criteria and Building Concept.

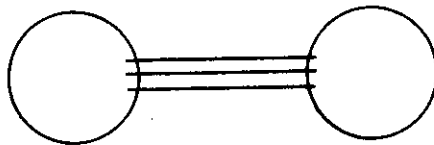
Building Criteria:

- 1) There is a strong tradition of how a golf club is designed. Whether or not the designer knows it, golf and the golf club is full of precedent and tradition.
- 2) There is a very strong tendency to separate the social and athletic functions of a club. This can be done in a variety of ways, thus resulting in different building concepts.
- 3) It is common for the clubhouse design to try to fit well and harmonize with the environment.
- 4) There is a tendency to capitalize on the natural setting and take advantage of the great views.
- 5) Building forms are many times derived from natural landscape forms.
- 6) Building materials and forms may come from local farm and rural characteristics.
- 7) Golf Clubs often like to convey a romantic and surreal image because of the tradition and nature of the rural setting.
- 8) Building forms - even the 2 and 3 story buildings are low-lying as not to interrupt the natural setting.
- 9) Lines of movement for users are short and simple.
- 10) A tendency to create an outward thrust from the interior spaces.



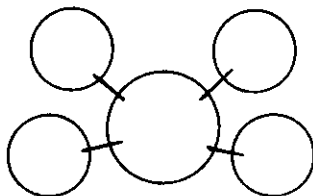
Building Concepts:

Bi-nuclear



This concept is a 2-node scheme where one node is the social area and the other node is the athletic area. The two nodes are completely separated from each other and are connected by some sort of bridge. This concept is usually one floor.

Centroidal



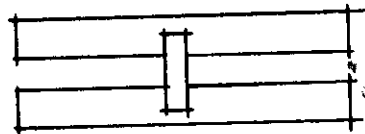
This concept compacts all or most of the functions into one space or one area. The concept usually results in an open plan and/or a simple footprint of the building.

Linear



This scheme utilizes a long linear circulation pattern and stretches the building out resulting in a long building. This concept is more suitable on a flat and open site, and is usually one-floor.

2-floor



This concept is used more commonly where building area is restricted. Usually the upper level is the social zone and the lower level is the athletic zone.



Country Club by Alper & Alper, Architects

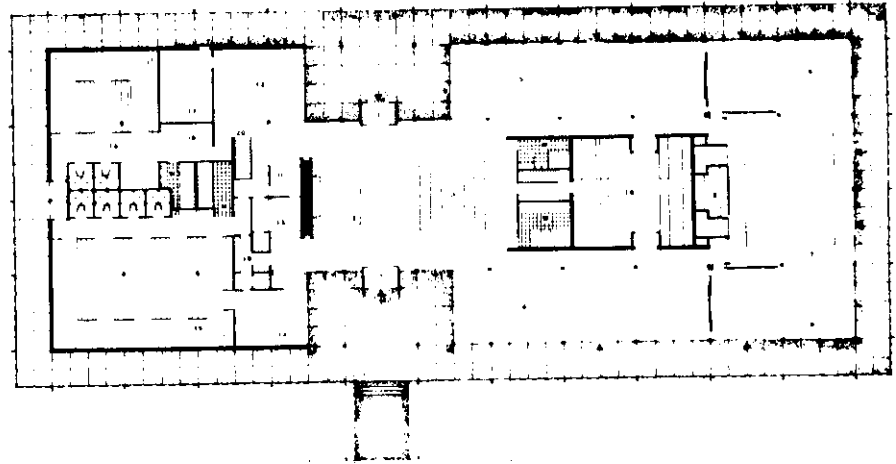
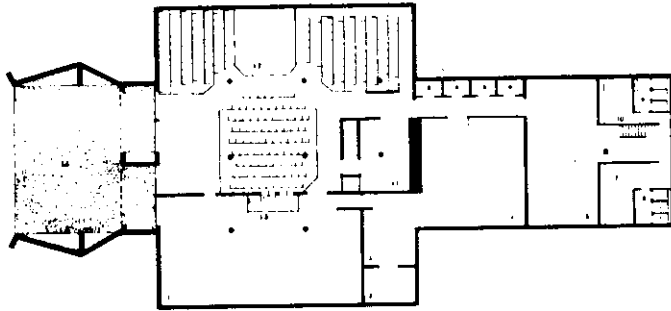
Critical Issues:

- 1) Restaurant and banquet facilities are to be open to the public.
- 2) The building is to be open and light, to visually become part of the site.
- 3) Separate entrances for the athletic and social functions.
- 4) Centralized kitchen.
- 5) Structural module - 20 foot bay.
- 6) Simple geometry.
- 7) Provide an arcade around the building.

Building Analysis:

- 1) Low profile.
- 2) Steel frame.
- 3) Much glass.
- 4) Brick exterior walls.
- 5) Entire building, excluding the locker rooms, is ventilated through the kitchen.
- 6) Two nodes.



SpaceStructure

- 1) 20-foot module - very simple.
- 2) Steel frame structure with a brick wall infill.

Circulation

Very simple and straight-forward linear scheme.



Boulder Country Club Boulder, Colorado

Critical Issues:

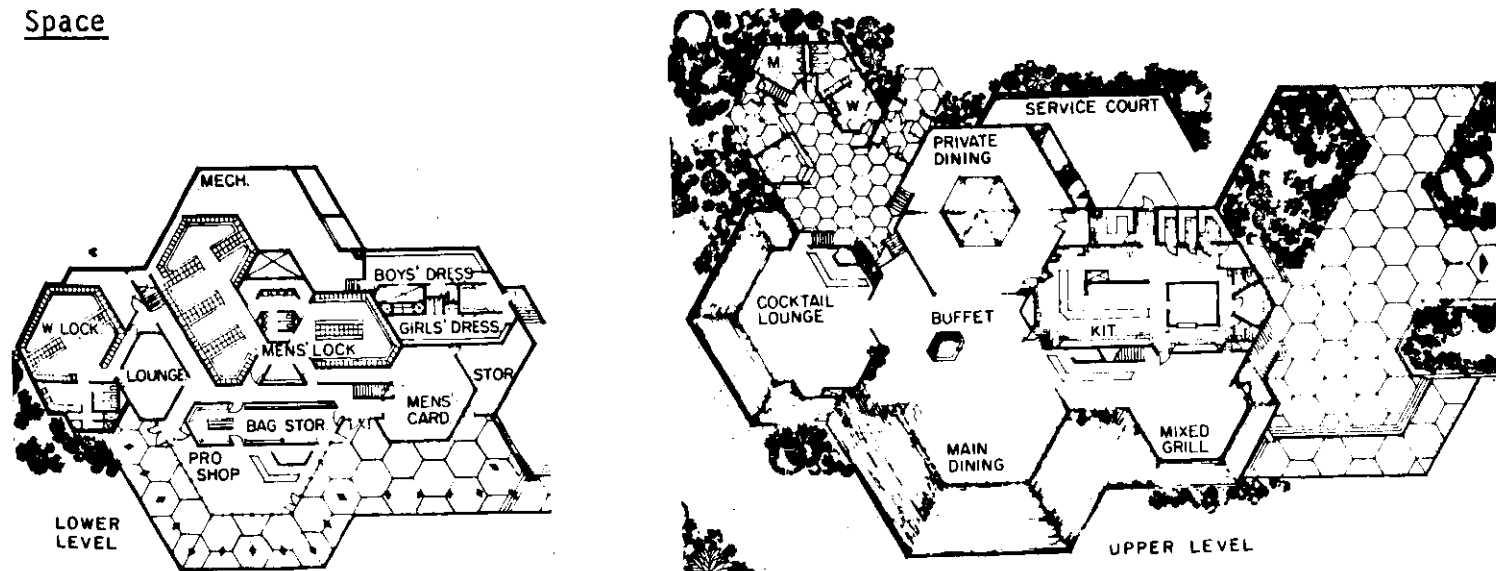
- 1) Growth and Expansion.
- 2) Separate functions for each structural unit.
- 3) Separate entrances for Social and athletic functions.
- 4) Separate social areas from athletic areas.
- 5) Siting - View of the course and the mountains.
- 6) Every room has its own outdoor space.

Building Analysis:

- 1) A cluster of hexagons are used connected by three-foot skylights. This allows for more units to be added as the club grows in size and allows some interesting illumination.
- 2) Each unit contains its own distinct function.
- 3) Entry for the social area is on the upper level, while the entry for the athletic area is in the lower level.
- 4) Social and athletic areas are on different floors.
- 5) The clubhouse is sited on a knoll overlooking the golf course and providing a view of the Rocky Mountains.
- 6) Balconies and decks surround the social areas to provide outdoor spaces with good views.



Space



Structure

- 1) Wood structure - exposed roof frame.
- 2) Hip roof forms - laminated beams.
- 3) Wood and stone are used throughout for texture and warmth.
- 4) Each hexagon is a separate structural unit.

Circulation

Upstairs is very clear and precise, a centroidal circulation scheme. The lower level is not as clear and clean as the upper level circulation.



Westwood Country Club Austin, Texas

Critical Issues:

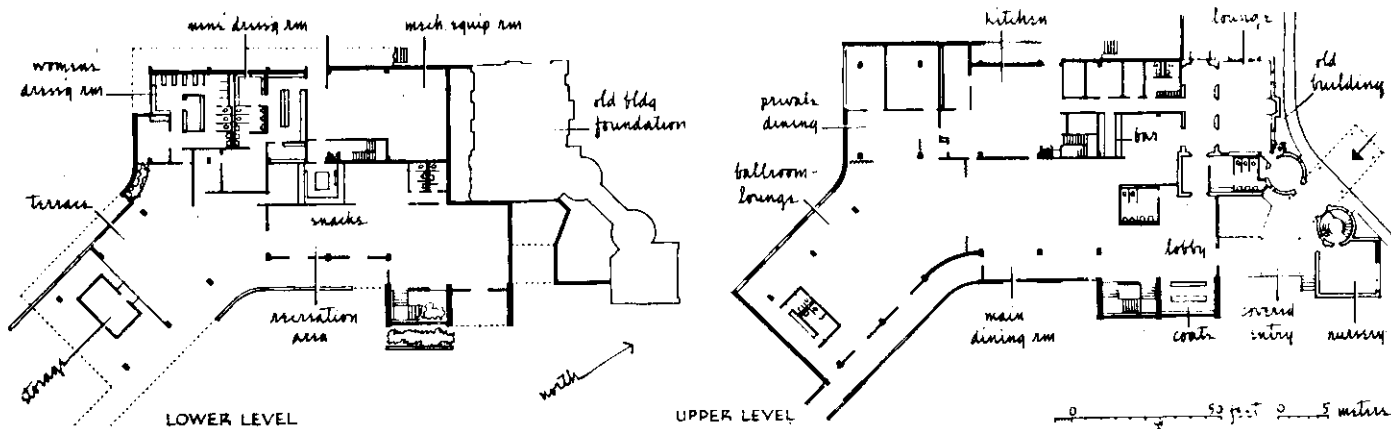
- 1) Addition to an existing high style mansion.
- 2) A variety of functions had to be served.
- 3) Limited budget - flexibility within the building.
- 4) Limited budget - structure.

Building Analysis:

- 1) A covered bridge walkway joins the new structure to the existing stone mansion. Similar materials were used.
- 2) The upper floor mainly serves activity for adults, while the lower floor is chiefly for the younger members.
- 3) The building utilizes an open plan with movable divider partitions.
- 4) The structure is a one-way concrete slab on exposed concrete columns. Other materials include painted concrete, native stone, aluminum sash, terrazzo, marble chips and ceramic tile.



Space



Structure

- 1) One way slab-and-beam system supported on exposed concrete columns spaced at 32'-0" on center.
- 2) Exterior wall materials combine painted concrete block and native stone.

Circulation

This is an example of an open plan with linear circulation.



Jacaranda Country Club Plantation, Florida

Critical Issues:

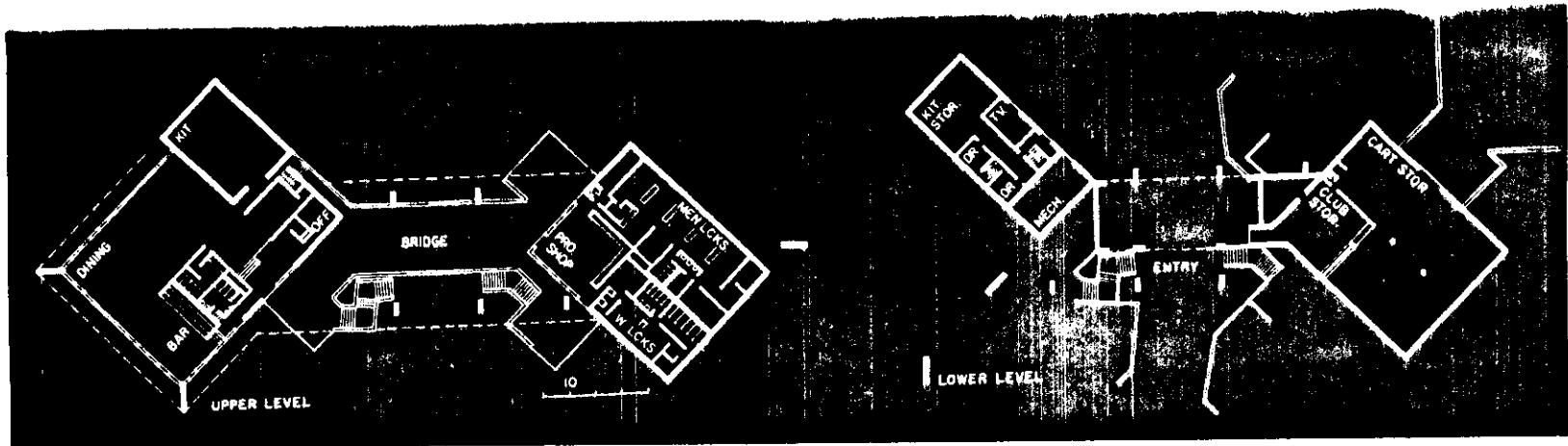
- 1) To depart from the local tradition of "ship's wheel and stuffed sailfish" design motif.
- 2) Polarize the clubs recreational and social functions.
- 3) A feeling of repose and harmony with the landscape.
- 4) Elevations that are handled with appealing simplicity.
- 5) Interior materials reflect the same consistency in material and detail.

Building Analysis:

- 1) The building is a forceful bi-nuclear plan with a social nucleus, an athletic nucleus that are connected with a bridge that spans the access road and creates a natural point of arrival.
- 2) Two different nuclei on either side of the street.
- 3) Building mass is kept very low and destination points are strung out horizontally for maximum "stretch".
- 4) Concrete and glass simple elevations with a smooth roof line.
- 5) A sequence of elegant spaces, carefully appointed.



Space



Structure

- 1) Concrete bearing walls.
- 2) Glass used profusely.
- 3) Roof framed in steel.
- 4) Concrete retaining walls.

Circulation

Linear circulation with major thrust through the bridge.



Kashikojima Country Clubhouse Shima, Japan

Critical Issues:

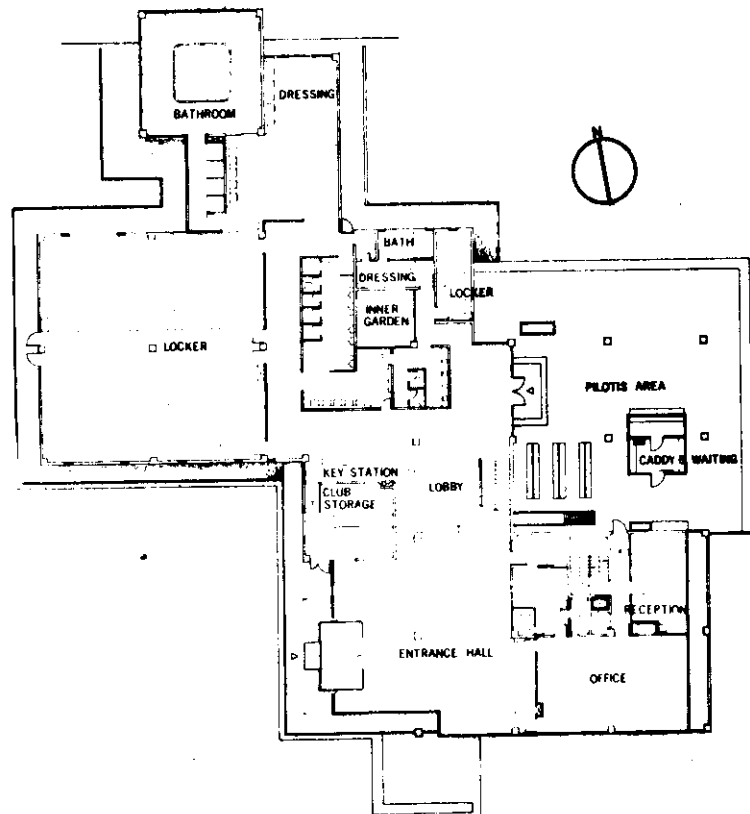
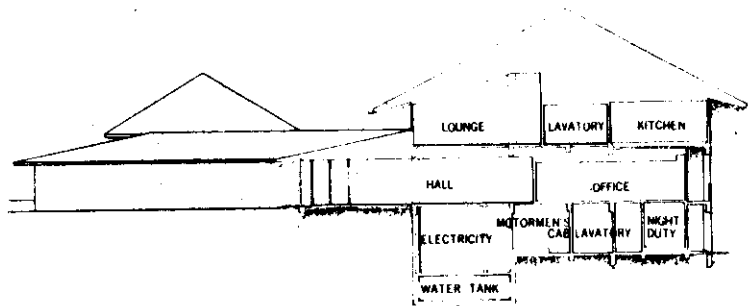
- 1) Attractiveness of the building to lure more people to this recreational park.
- 2) Preservation of the natural landscape.
- 3) The building should be in context with the natural setting.
- 4) Separate social functions from athletic functions.

Building Analysis:

- 1) The exterior forms create a romantic image in the landscape.
- 2) In this park setting the landscape was left intact as much as possible and the building forms compliment the natural landscaping forms.
- 3) The Social and athletic functions were separated by floors in this multi-floor scheme.



Space



First-floor plan. Scale: 1/500.

Structure

- 1) Reinforced concrete wall and slab design.
- 2) Roof structure is of naturally finished wood.

Circulation

The circulation starts at a center lobby area which creates a centroid. From this point, the circulation spider-webs out into linear paths.



Montauk Golf and Racquet Club Long Island, New York

Critical Issues:

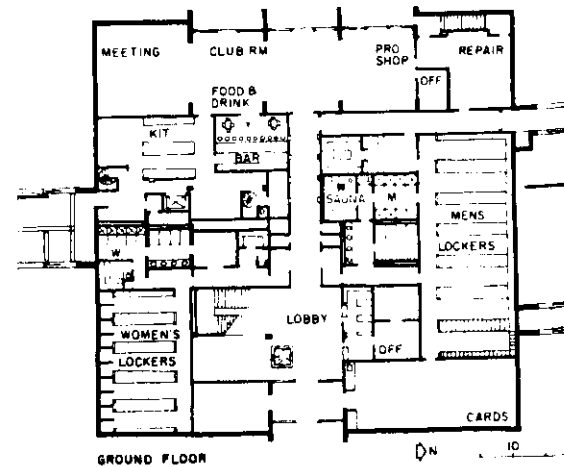
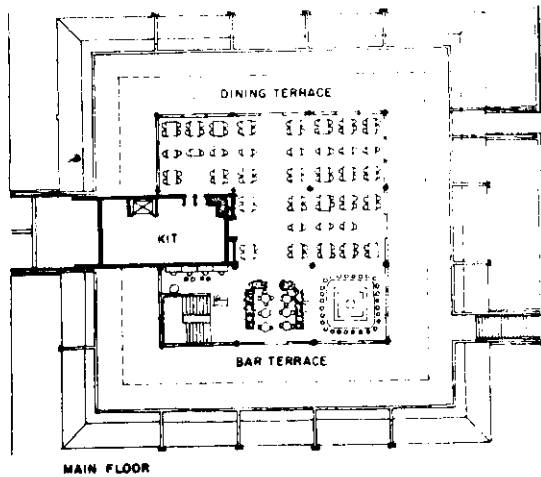
- 1) Building form must emphasize the characteristics of the natural setting.
- 2) Division of athletic and social functions.
- 3) A 360 degree view of Montauk Bay and Suffolk County.
- 4) Simple materials.

Building Analysis:

- 1) The pyramidal roof form emphasizes the slope of the dune hill (which is the highest in the area) and recalls farm building forms of the locality.
- 2) The building is divided vertically by function with utility areas on ground level and entertainment areas on the upper level.
- 3) Large glass walls and a low parapet around the terrace permits a clear framed view.
- 4) Decks and lower floors are of ironspot brick pavers, walls are rough sawn red cedar and plank, exposed concrete surfaces are sandblasted or hand hammered. Exterior roof is covered with hand-split cedar shakes.



Space



Structure

- 1) Concrete walls and columns.
- 2) Floor is a concrete coffered system integrated with mechanical systems.
- 3) Ceiling is exposed concrete.

Circulation

One major circulation path is vertical. The circulation scheme is strongly centroidal.



Japan Ace Golf Clubhouse Japan

Critical Issues:

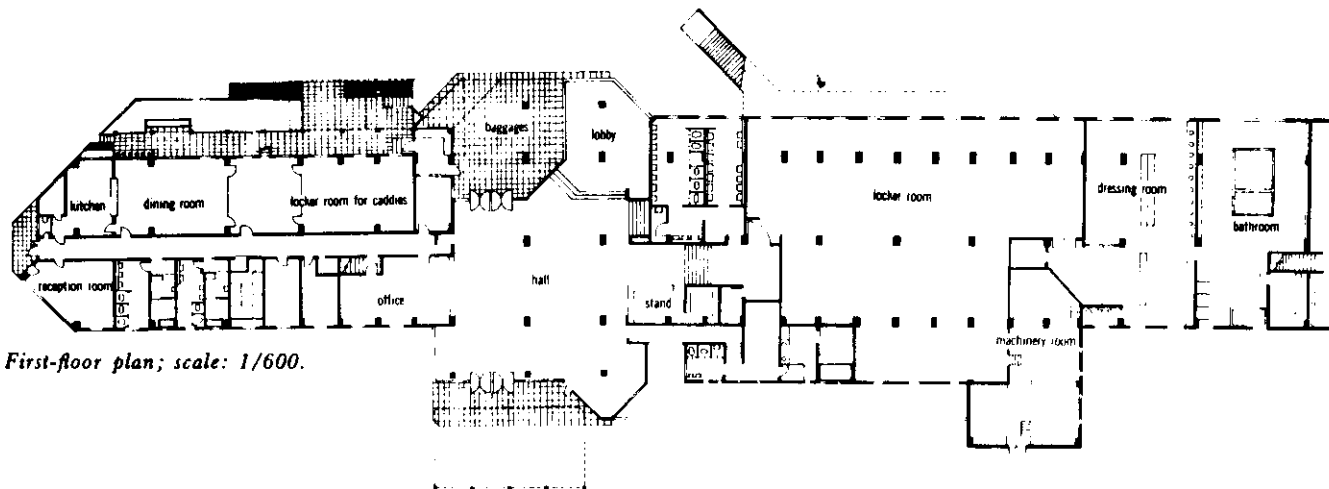
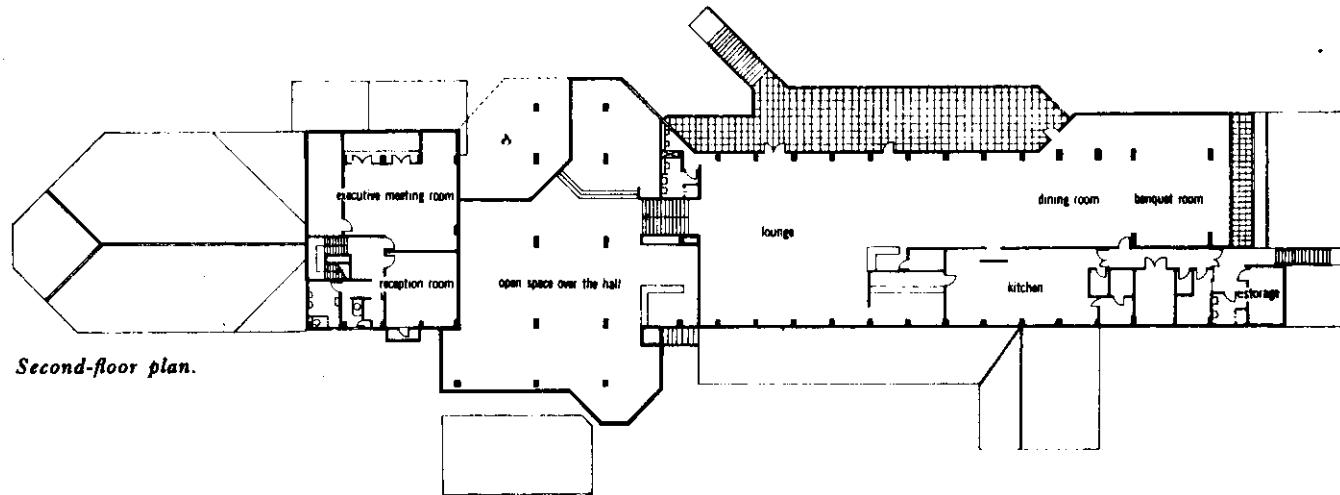
- 1) Harmonize the clubhouse with the environment by calling upon traditional methods.
- 2) To preserve a sense of modernity and dignity.
- 3) Keep the lines of movement as simple as possible.
- 4) To include the natural world in each space.

Building Analysis:

- 1) The selection of materials and forms were used to produce a sense of sharpness and comfort and create lingering memories of the past (for example: the use of traditional Japanese tiles).
- 2) Because of the nature of a clubhouse for sportsmen, the movement lines are straight and simple. A minimum of floor level changes were used.
- 3) Each room is directed outward so as to include light, greenery, and breezes.



Space



Structure

- 1) Concrete and steel columns and walls.
- 2) Floors and roof structure are of concrete slab.
- 3) Roof and ceilings are covered with more traditional materials.

Circulation

The circulation is strongly linear with a major thrust outwards.



The Guam Club Guam

Critical Issues:

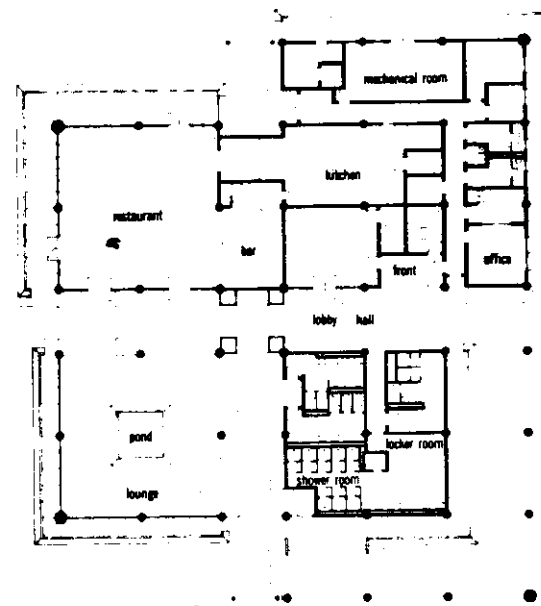
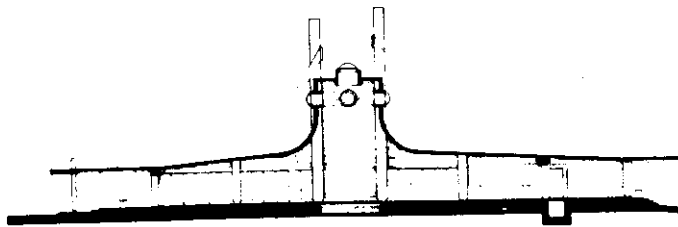
- 1) The design should be devised in conjunction with the golfer's lines of movement.
- 2) Must be unity between differing functions.
- 3) Guam produces almost no building materials, they must be shipped in.

Building Analysis:

- 1) A kind of street leads through the building. Along this street are the administration office, restaurant, lounge, and locker rooms.
- 2) Each individual room is covered by an individual roof. The street is contained under still another roof that gives unity to the overall building.
- 3) The steel frame and reinforcement were processed in Japan and erected on the site. The wood facings were made in the Phillipines.



Space



Structure

The structure is steel frame and reinforced concrete on a very regular structural grid. All of the walls fall on this grid.

Circulation

Consists of a short simple linear path.

