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ABSTRACT

A MULTI-FUNCTIONAL URBAN CENTER FOR INDIANAPOLIS, INDIANA
ABSTRACT

I am presenting the thesis book as a partial requirement for graduation from Ball State University's College of Architecture and planning. It contains a record of the processes I have gone through from the inception to the completion of my thesis project.

I have found the project to be very rewarding in that it has given me an opportunity to explore many areas in which I am interested. These being:

1.) The redevelopment of the downtown area of a major city.

2.) The rehabilitation of an existing structure as well as the incorporation of it into a modern functioning project.

3.) The emergence and development of the multi-function building type.

Throughout the design of this project my overall goal has been to create a single building which would reflect and communicate the nature of its diverse urban activities while combining modern function with an important example of Indianapolis' history.
INTRODUCTION

A MULTI-FUNCTIONAL URBAN CENTER
FOR INDIANAPOLIS, INDIANA
PROJECT JUSTIFICATION

If one were to explain to someone familiar with the results of the 1972 Census of Retail Trade that he was a member of a group considering the construction of a large hotel and commercial facility in the downtown area he would probably say that if you were throwing money away, you could toss a little in his direction. According to the results of this poll, retail trade in the downtown area declined from 214 million in 1967 to 179 million in 1972. However, there are a number of indicators as to why the construction of such a facility would be a good investment.

There are several factors which would lead one to consider a downtown site. The downtown area is:

1. the primary focus for major retail and commercial functions within Indianapolis.
2. the focus of major governmental, cultural and civic functions within the city.
3. a location within Indianapolis which is convenient to the area's major industrial, transportation and service functions.
4. a location which will be the focus for major revitalizations during future years.¹

To further emphasize this fact, it has been estimated that by 1985 an expected 98,107 persons will be employed in the downtown area. This represents an increase of 15.3% over 1970.²

¹ Comprehensive Continuing Planning Program for the Indianapolis-Marion County Metropolitan Area, Department of Metropolitan Planning, Marion County, Indiana, p. C-5.
Impressive figures, but where is the justification for the hotel? It might be pointed out that most economists expect that the already booming hotel-motel industry will register even larger gains in the years ahead because of our ever-increasing GNP and the higher personal incomes, increasing business activity, more widespread business and personal travel, and a growing amount of leisure time resultant from this gain.\(^3\) There are basically five categories into which all travellers can be placed: (1) commercial travellers, (2) tourists, (3) visitors to institutions, (4) people attending meetings and conventions and (5) guests of local residents. Many reasons exist to explain the presence of these groups in Indianapolis. Some of these reasons are:

1. Since its completion in late 1972, the Convention Center has experienced an increase in the use of its facilities from 621,394 in 1973 to 724,875 in 1975, and if the pace for 1976 continues in the second half of the year as it did in the first half, it will draw an estimated 900,000 persons. This attendance includes 10 national conventions and 15 state conventions.\(^4\)

2. The Indianapolis 500 draws in excess of 300,000 spectators annually.

3. The construction of the 17,000 seat Market Square Arena and its potential use by spectators of NBA basketball games, WHA

\(^3\) Ibid, p. B-6.

\(^4\) Annual Reports of the Indiana Convention and Exposition Center.
hockey games and many rock concerts will provide an influx of potential hotel guests year round.

4. The IU School of Medicine and the Med Center, located just to the northwest of the CBD, is the largest medical complex of its kind in the world.5

5. The proposed linking of the IU-PUI campus and the Eli Lilly complex with the downtown area thru the use of the WEDWAY people mover will provide a tremendous potential for increased use of the downtown area.

According to the survey taken by the firm of Larry Smith & Co., Chicago for the Indianapolis DMD, there were 2613 hotel rooms existing or under construction in the downtown area in 1970. Of this number, 2172 were considered as competitive. This study also estimated that by 1980, there would be a need for 1760 additional units in this area. The table below shows projected new unit demand thru 1990.6

<table>
<thead>
<tr>
<th></th>
<th>1980</th>
<th>1985</th>
<th>1990</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total IRTADS area H-M unit areas</td>
<td>3900</td>
<td>5670</td>
<td>7580</td>
</tr>
<tr>
<td>CBD share of above</td>
<td>1760</td>
<td>2550</td>
<td>3410</td>
</tr>
</tbody>
</table>

It is on these figures that I have based my belief that this project will be economically feasible.

5 Interview with Robert W. Palmer--Indianapolis Chamber of Commerce
6 Department of Metropolitan Development, op. cit., p. C-5.
DESIGN GOALS

My design goals are to:

- create an environment which is humanistic in scale and makes efficient use of color, materials and detail.

- develop a smooth functioning plan organization which will permit maximum efficiency of operation in the service and management areas.

- provide a varied and exciting environment in all public areas.

- introduce the capacity for flexibility to accommodate changing social standards and possible alterations at a later date thru the choice of an easily adapted structural system and planning module.

- capitalize on functional dualities.

- create a building which is readily accessible to handicapped persons.

- express internal function with external form.

- design to preserve the integrity of the Indiana Theatre which will be restored to its original condition and used in conjunction with the hotel complex.

- utilize all possible measures to reduce energy consumption in the project.

- create an environment which will be comfortable and welcoming to the users from their initial contact.

- provide a large plaza area at street level to be given over to use by the public.

- make maximum use of all existing site parameters.
PROGRAM

A MULTI-FUNCTIONAL URBAN CENTER
FOR INDIANAPOLIS, INDIANA
COMMERCIAL AREAS

objectives - By incorporating a more elite class of stores in the project, the urban shopper will be given an opportunity to shop in an environment now existing only in the suburbs. As a result of placing commercial areas in conjunction with a hotel facility, several important benefits will be realized.

- The hotel quests have the convenience of doing some shopping without having to enter the city environment.

- The people of Indianapolis would become familiar with the hotel and restaurants through their use of the commercial facilities. As a result they would tend to recommend the hotel to friends seeking overnight accommodations.

- The commercial areas will provide needed revenue to help supplement the existence of the rest of the facility. By providing this rental space, we are in effect raising the hotel's productive/non-productive area ratio.

activities - shopping

- window shopping

needs - sales counters
- garment racks
- dressing rooms
- display counters
- storage areas
- offices
RESTAURANTS

objectives - People have widely divergent preferences as to what kind and what quantity of food they eat. Whereas many people insist on a complete meal each time they sit down, others are satisfied with grabbing a hotdog and a Pepsi. Elite restaurants incorporate elaborate decor and serve fine food to those wishing a multi-course meal served at a leisurely pace. Cafeterias specialize in serving institutional type foods to a large volume of people. In response to this varying demand, a range of restaurant types and sizes are to be provided in the project. They will range from the elaborate to the hot dog stand.

activities - eating (in conjunction with)
people watching
discussing business
enjoying plaza activities
socializing

needs - tables and chairs
- booths
- food and equipment storage
- varying atmospheres and degrees of privacy
CENTRAL ATRIUM

Objectives: This area is to function for the entire project as the lobby is to function for the hotel. The atrium should stimulate the public's curiosity as well as welcoming and inviting them to explore the shops, experience the atmosphere of the restaurants and enjoy the activity of the public spaces. To emphasize the project's role as a multi-functional building the atrium will bring together all the movement pertaining to all the different activities in the project, thus creating a rich experience for the public.

Activities: people watching

- public exhibitions and demonstrations
- conversation
- circulation

Needs

- public seating so arranged as to give the users a choice as to the degree of privacy they wish.
- various excitement and activity generators.
PLAZA AREAS

objectives—There is something about a nice exterior space which causes a person to linger and perform and watch. The plaza will be an extension of the activity which occurs in the central atrium. By providing green space, sun and a degree of openness to the site the plaza will be a welcome addition to the downtown district.

activities—cafe dining

- conversation
- public displays
- artist's showings
- sitting and watching
- catching sun

needs—
- benches and seating areas
- greenies and growies
- various activity generators
- lots of people
CHILDREN'S PLAY AREA

objectives- By providing an area where the mother can leave her children while shopping, or if necessary, where the travelling couple can leave theirs while attending a convention or social activity, the parents will be freed of the burden of hiring a baby sitter and the annoyance of continually attending to a child's needs while trying to concentrate on another activity of interest. Obviously, the area would have to be located in a place of safety where parents could leave their children without undue worry. More importantly, it should be something more than a lockup for the children. The area should provide an area for active play as well as a place for individual activity.

activities- running
       jumping
       sliding
       throwing
       reading
       coloring

building
       gaming
       resting
       swinging
       imagining
       and doubtless many more

needs - a variety of objects capable of stimulating children's imaginations as well as providing an active play-ground.

- a quieter area equipped with tables for coloring and reading.

- an open area for ball playing and racing

- an office for supervisory personnel
- toilets, water fountains and clean up facilities.

- a system of separation capable of providing safety and containment without seeming to imprison the children.
NIGHT CLUB

objectives- What do you do in a strange town when your convention
is over for the day and you have already seen the movie
that’s on T. V.? What does an Indianapolis resident
do when the Racers, Pacers and Loves are out of town
and the 500 won’t happen again for 8 months? Where
do you go for an evening’s entertainment after dinner?
Answer: the Indiana Roof Nite Club and Lounge.

activities- dancing
- drinking
- conversation
- live music and entertainment
- pinball, air hockey and more

needs - tables and chairs
- bar and grill
- liquor storage
THEATRE

objectives- There is frequently the need to spend some time with an interesting diversion. Men (and women) tire of shopping with their spouses, secretaries and business-men get bored rehashing their work in the idle time following their lunches, clerks and waitresses feel a need to get away from their customers. It is for these people as well as the general public that the theatre is provided. Because of the limited amount of time available to these people, I see the theatre as a fluid arrangement of projectors, screens and circulation space. There will be a number of short films offered simultaneously. The patron has the choice of watching one to the end or sampling several.

activities- viewing of films

- possible conversion to puppet shows

needs

- screening areas
- projection areas
- storage space for films
LOBBY

objectives- The lobby is the single most important space in the hotel in terms of creating a single lasting impression. Obviously, the guest will be influenced by a lobby in which furnishings, color, lighting and finishes are combined to produce an attractive and friendly atmosphere. The most detrimental factor which could be introduced into this setting would be confusion. After a long road trip, the last thing a guest wants to do is search for the registration desk. The desk should be immediately apparent as the guests enter, and from there, the elevators should be readily accessible.

activities- guest registration and checkout. A place for luggage should be immediately available as all guests do not leave town immediately after they check out.

- guest traffic from outside to all front of the house activities.
- impromptu gatherings.
- waiting for acquaintances.

needs - a 15' registration desk.
- a number of comfortable lounge chairs.
- an attractive welcoming atmosphere.
- a small area for display of information on local points of interest and an event calendar.
GUEST ROOMS

objectives—As a result of being the prime product any hotel has to offer, the guest room must function like, and more importantly feel like, a home to many people. To achieve this homely feeling the guest room should provide the following:

- a floor area that is larger than what is required to meet furniture requirements. Space conveys the feeling of luxury and the guests will appreciate the extra room.

- a sitting area with a table and 4 chairs. This area would ideally have a view of the exterior.

- sufficient storage space that the guest staying for several days will be able to place his clothing in drawers or hang it in closets.

- an intermediate area which serves as a transition area between the bathroom and the main portion of the room.

- two lavatories to facilitate two people without them interfering with each other.

- furnishings chosen and arranged with care so as to provide a well coordinated and functional arrangement.

- wall and floor coverings of warm color. The cold, unfeeling colors so typical of public places are especially out of place in a hotel.

- walls of sufficient acoustical value that noise is not transmitted from neighboring rooms.

activities—It should be remembered that unlike the guests’ homes where they are provided with a number of single purpose rooms, in the hotel the one room must function
In all capacities. A few examples might be:

- an office. Many businessmen use their rooms as offices. In this case, it would be convenient to have a furniture arrangement incorporating pieces which have a dual nature, specifically, a bed which when used with a wall bolster turns into a sofa.

- a dining room. Many guests eat breakfast and occasionally, other meals in their rooms. It should be noted that extra space is required to accommodate the room service cart.

- an entertainment area.

- a bed room.

- twin beds. Normally these beds will be king size, thus enabling the room to be used for various occupancies.

- a night stand. This is usually located between beds.

- two dresser units. Usually these are provided in conjunction with a desk which doubles as a place for the ladies to apply makeup.

- two comfortable chairs and at least one straight back chair.

- a cocktail table.

- luggage rack.

- television.

The bathroom should include

- a wall hung water closet.

- a tub/shower combination.

- two lavatories.

- a towel rack and garment hook.
CORRIDORS

objectives- There is a tendency for corridors of any length to become monotonous and deceiving in length. To relieve this monotony such interruptions as lighting patterns, color--in the form of wall graphics or in the carpet--recessing the room entrances and varying the ceiling height have all been used effectively. The important thing to remember is that a variety must be introduced to keep the guests from becoming bored.

activities- movement of guests from the public areas of the hotel to their rooms.

- transportation of luggage.

- movement of employees and their cleaning equipment.

- occasional conversation.

needs - ashtrays and trash containers should be provided by the elevator as well as at several points along the length of the hall.

- a full length mirror located in the elevator lobby.

- an ice machine located in the elevator lobby.

- as the lower portion of the wall takes a beating from cleaning carts and luggage trolleys, it should be designed as a dado which can be repainted or re-papercered when necessary. This is an excellent way to introduce some of the color variety talked about earlier.

- a lighting level high enough to make the corridor bright enough to see in, but lower than the level provided in the guest rooms.
USERS

Direct users

hotel guest
shoppers
restaurant diners
   formal
   Informal
convention groups
people attending sport functions
renters
hotel staff
   administrators
   security personnel
   kitchen staff
   maintenance staff
  maids & porters
  parking attendant

Indirect users

delivery men
   garbage pick up
   laundry pick up
taxi drivers
   equipment maintenance men
   emergency personnel
<table>
<thead>
<tr>
<th>SPACE</th>
<th>EST. SQ. FT.</th>
<th>USERS</th>
<th>EQUIPMENT</th>
<th>SPECIAL CONSIDERATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front office &amp; lobby</td>
<td>1100</td>
<td>hotel guests</td>
<td>reserv. desk</td>
<td>some control must be exercised over the key rack area.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>reserv. clerks</td>
<td>slip file</td>
<td></td>
</tr>
<tr>
<td>Mail room</td>
<td>40</td>
<td>guests</td>
<td>key rack</td>
<td></td>
</tr>
<tr>
<td>Cashier</td>
<td>120</td>
<td>cashiers</td>
<td>mail slots</td>
<td>mail slot for out-going mail</td>
</tr>
<tr>
<td></td>
<td></td>
<td>reserv. clerks</td>
<td>cash registers desks</td>
<td>guests should be able to step</td>
</tr>
<tr>
<td>Manager's office</td>
<td>140</td>
<td></td>
<td>vault w/ safe deposit boxes</td>
<td>from view as they transfer</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>desk and chair other seating</td>
<td>valuables to the deposit box.</td>
</tr>
<tr>
<td>Asst. Manager</td>
<td>120</td>
<td></td>
<td>other seating desk and chair</td>
<td></td>
</tr>
<tr>
<td>Sec./Recpt.</td>
<td>100</td>
<td>visitors</td>
<td>files</td>
<td>must function as a secretary to</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>typewriter</td>
<td>both manager and assistant as</td>
</tr>
<tr>
<td>Accounting</td>
<td>150</td>
<td>inc. admin. staff</td>
<td>desks and chairs</td>
<td>well as receptionist. public</td>
</tr>
<tr>
<td>Conference</td>
<td>inc. reserv. clerks</td>
<td>conference table</td>
<td>files</td>
<td>accessibility is important.</td>
</tr>
<tr>
<td>Reservations</td>
<td></td>
<td>inc. admin. staff</td>
<td>reservation file</td>
<td>desks and chairs</td>
</tr>
<tr>
<td>Lobby</td>
<td></td>
<td>inc. hotel guests</td>
<td>and chairs</td>
<td>must be located as close to the</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>reservation file</td>
<td>reservation desk as possible</td>
</tr>
<tr>
<td>Lobby</td>
<td></td>
<td></td>
<td>desk and chair</td>
<td>this area must create a good</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>seating</td>
<td>impression as it will influence</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>news stand</td>
<td>all incoming guests.</td>
</tr>
<tr>
<td>Lounge</td>
<td>400</td>
<td>hotel guests</td>
<td>comfortable seating</td>
<td></td>
</tr>
<tr>
<td>Adjoining corridors</td>
<td>200</td>
<td>hotel guests</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men's Toilet</td>
<td>120</td>
<td>hotel guests</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women's toilet &amp; powder room</td>
<td>160</td>
<td>hotel guests</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bellman's checkroom</td>
<td>40</td>
<td>hotel guests</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barber</td>
<td>180</td>
<td>hotel guests</td>
<td>berber chairs</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>lavatories</td>
<td></td>
</tr>
<tr>
<td>SPACE</td>
<td>EST. SQ. FT.</td>
<td>USERS</td>
<td>EQUIPMENT</td>
<td>SPECIAL CONSIDERATIONS</td>
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<td>---------------------------</td>
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<td>--------------------------------------------------------------------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>Guest Rooms</td>
<td>28000</td>
<td></td>
<td>2 king sized twin beds, desk and chair, 2 dressers, 2 comfortable chairs, cocktail table, night stand, luggage rack</td>
<td></td>
</tr>
<tr>
<td>Auxillary space</td>
<td>11200</td>
<td>maids, porters, hotel guests</td>
<td></td>
<td></td>
</tr>
<tr>
<td>corridors, walls</td>
<td>15720</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>stairs, elevators</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>maid's closets</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>@40% of above</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>GENERAL SERVICE SPACES</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Linen room</td>
<td>350</td>
<td>housekeeper, maids, porters</td>
<td>sewing area, located adjacent to the laundry</td>
<td></td>
</tr>
<tr>
<td>Laundry</td>
<td>1500</td>
<td>housekeeper, laundry staff</td>
<td>36x21 in. washer, 42x28 in. washer, 30 in. extractor, 37x30 in. tumbler, 100 in. 2 roll ironer, 451 apparel press, 222 &quot; &quot; &quot; shirt press, 15 gal. starch cooker, ironing board, 2 cfm capacity air compressor, laundry tub, 300 gal. hot water storage</td>
<td></td>
</tr>
<tr>
<td>SPACE</td>
<td>EST. SQ. FT.</td>
<td>USERS</td>
<td>EQUIPMENT</td>
<td>SPECIAL CONSIDERATIONS</td>
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<td>--------------------------------</td>
<td>-------------------------------------------------</td>
</tr>
<tr>
<td>Men's toilet and lockers</td>
<td>360</td>
<td>hotel staff</td>
<td>lockers</td>
<td>close to staff entrance and uniform supply</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>benches</td>
<td></td>
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<td></td>
<td></td>
<td>water closet</td>
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<td>urinals</td>
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<td></td>
<td>showers</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>lockers</td>
<td>as above</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>benches</td>
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<td></td>
<td></td>
<td></td>
<td>water closets</td>
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<td></td>
<td></td>
<td>showers</td>
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<td></td>
<td>work benches</td>
<td></td>
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<td></td>
<td></td>
<td>tool storage</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>paint storage</td>
<td></td>
</tr>
<tr>
<td>Women's toilet and lockers</td>
<td>360</td>
<td>hotel staff</td>
<td>files</td>
<td>locked</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>shelving</td>
<td>locked</td>
</tr>
<tr>
<td>Maintenance shops</td>
<td>400</td>
<td>maintenance staff</td>
<td>shelving</td>
<td>located close to housekeeping</td>
</tr>
<tr>
<td>Furniture storage</td>
<td>300</td>
<td>porters</td>
<td>shelving</td>
<td></td>
</tr>
<tr>
<td>Record storage</td>
<td>350</td>
<td>admin. staff</td>
<td>shelving</td>
<td>locked</td>
</tr>
<tr>
<td>General storage</td>
<td>200</td>
<td>maids</td>
<td>shelving</td>
<td>located close to loading dock refrigerated</td>
</tr>
<tr>
<td></td>
<td></td>
<td>porters</td>
<td></td>
<td></td>
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<tr>
<td></td>
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<td>housekeeping</td>
<td></td>
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<td>maintenance</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanical room</td>
<td>2800</td>
<td>to be deter-</td>
<td>trash cans</td>
<td>located close to staff entrance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>mined later</td>
<td>compactor</td>
<td></td>
</tr>
<tr>
<td>Garbage room</td>
<td>200</td>
<td>receiving</td>
<td>floor scales</td>
<td>located close to receiving office</td>
</tr>
<tr>
<td></td>
<td></td>
<td>agent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Receiving room</td>
<td>250</td>
<td>timekeeper</td>
<td>time clock</td>
<td>located close to staff entrance</td>
</tr>
<tr>
<td>Timekeepers office</td>
<td>80</td>
<td></td>
<td>card rack</td>
<td>locked and located close to receiving office</td>
</tr>
<tr>
<td>Dry goods stores</td>
<td>600</td>
<td>kitchen staff</td>
<td>shelving</td>
<td>as above</td>
</tr>
<tr>
<td>Beverage storage</td>
<td>250</td>
<td>kitchen staff</td>
<td>shelving</td>
<td>as above</td>
</tr>
<tr>
<td>Glass, china &amp; silver stores</td>
<td>200</td>
<td>kitchen staff</td>
<td>walk in cooler</td>
<td>as above</td>
</tr>
<tr>
<td>Freezers</td>
<td>240</td>
<td>kitchen staff</td>
<td>tables and chairsslab sinkage</td>
<td></td>
</tr>
<tr>
<td>Employee's dining</td>
<td>280</td>
<td>hotel and kitchen staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Circulation for above</td>
<td>1180</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>@20%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPACE</td>
<td>EST. SQ. FT.</td>
<td>USERS</td>
<td>EQUIPMENT</td>
<td>SPECIAL CONSIDERATIONS</td>
</tr>
<tr>
<td>------------------------------</td>
<td>-------------</td>
<td>--------------------------------------------</td>
<td>------------------------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Popular priced rest.</td>
<td>1500</td>
<td>hotel guests, business people, shoppers,</td>
<td>tables and seating located adjacent to main</td>
<td>will serve all restaurants thru a series of</td>
</tr>
<tr>
<td></td>
<td></td>
<td>kitchen staff, waiters</td>
<td>kitchen and within hotel</td>
<td>ancillary kitchens</td>
</tr>
<tr>
<td>Main kitchen and bakeshop</td>
<td>1300</td>
<td></td>
<td>to be determined later</td>
<td></td>
</tr>
<tr>
<td>Delux restaurant</td>
<td>2200</td>
<td>hotel guests, business people, convention</td>
<td>tables and seating elaborate decor</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>goers, others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aux. kitchen</td>
<td>400</td>
<td>kitchen staff, waiters</td>
<td>bains-marie</td>
<td></td>
</tr>
<tr>
<td>Cafeteria</td>
<td>2450</td>
<td>hotel guests, shoppers, workers on lunch</td>
<td>tables and seating</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>break</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aux. kitchen and serving</td>
<td>750</td>
<td>cafeteria staff</td>
<td>refrigerated counter</td>
<td></td>
</tr>
<tr>
<td>Coffee shop</td>
<td>720</td>
<td>shoppers, workers on lunch break</td>
<td>tables and seating</td>
<td></td>
</tr>
<tr>
<td>Aux. kitchen</td>
<td>200</td>
<td>shoppers, workers</td>
<td>grill</td>
<td></td>
</tr>
<tr>
<td>Hotdog/hamburger stand</td>
<td>200</td>
<td>people enjoying plaza atmosphere</td>
<td>grill, hotdog boiler, drink dispenser</td>
<td></td>
</tr>
<tr>
<td>SPACE</td>
<td>EST. SQ. FT.</td>
<td>USERS</td>
<td>EQUIPMENT</td>
<td>SPECIAL CONSIDERATIONS</td>
</tr>
<tr>
<td>---------------------</td>
<td>--------------</td>
<td>-------------------------</td>
<td>------------------------------------------------</td>
<td>-------------------------------------------------------------</td>
</tr>
<tr>
<td>Retail Areas</td>
<td>7200</td>
<td>shoppers</td>
<td>dressing rooms, garment racks, display cases, offices w/ desks and chairs</td>
<td>Exact equipment to be determined as spaces are rented. Preferred clients would be better women’s wear and men’s wear stores.</td>
</tr>
<tr>
<td>4 sm. retail stores</td>
<td>3200</td>
<td>shoppers</td>
<td>office w/ desk and chair</td>
<td>Preferred renters would be card and gift shops, jewelers and florists.</td>
</tr>
<tr>
<td>Branch bank</td>
<td>400</td>
<td>shoppers, hotel guests, convention goers</td>
<td>tellers station, office w/ desk, chair and conf. area, safe</td>
<td></td>
</tr>
<tr>
<td>Theatre</td>
<td>1500</td>
<td>shoppers, hotel guests, plaza users</td>
<td>projectors, screening areas, film storage, ticket sales</td>
<td>Must have a good circulation pattern to permit moving and viewing simultaneously.</td>
</tr>
<tr>
<td>Day care area</td>
<td>1500</td>
<td>children of hotel guests &amp; shoppers</td>
<td>play objects, equip. storage, boys &amp; girls, toilet w/ clean up area, office w/ first aid kit, bed, desk and chair, child sized tables and chairs</td>
<td>Must create a fun environment with a high degree of safety</td>
</tr>
<tr>
<td>Central atrium</td>
<td>3000</td>
<td>shoppers, hotel guests, workers on lunch break, convention users</td>
<td>planters, benches, activity generators</td>
<td>Provide users with varying degrees of privacy in seating.</td>
</tr>
<tr>
<td>SPACE</td>
<td>EST. SQ. FT.</td>
<td>USERS</td>
<td>EQUIPMENT</td>
<td>SPECIAL CONSIDERATIONS</td>
</tr>
<tr>
<td>---------------------------</td>
<td>--------------</td>
<td>------------------------------------</td>
<td>-------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Men's toilet</td>
<td>200</td>
<td>shoppers</td>
<td>water closets</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>hotel guests</td>
<td>urinals</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>convention goers</td>
<td>lavatories</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>plaza users</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women's toilet and</td>
<td>240</td>
<td>as above</td>
<td>water closets</td>
<td>see zoning</td>
</tr>
<tr>
<td>restroom</td>
<td></td>
<td></td>
<td>lavatories</td>
<td></td>
</tr>
<tr>
<td>Janitor's closet</td>
<td>40</td>
<td></td>
<td>sink</td>
<td></td>
</tr>
<tr>
<td>Total of above</td>
<td>78970</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanical @ 12% of above</td>
<td>9470</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parking garage</td>
<td>29830</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100 spaces @ 1 per hotel room</td>
<td>29830</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total estimated sq. ft. in project</td>
<td>869735</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## ESTIMATED COSTS

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost per Sq. Ft.</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>68040 sq. ft. hotel</td>
<td>$48.05/sq. ft.</td>
<td>$3269320</td>
</tr>
<tr>
<td>2910 sq. ft. delux rest.</td>
<td>51.69/sq. ft.</td>
<td>150420</td>
</tr>
<tr>
<td>6720 sq. ft. cafeteria/med. priced rest.</td>
<td>46.25/sq. ft.</td>
<td>310800</td>
</tr>
<tr>
<td>1250 sq. ft. coffee shop/hotdog stand</td>
<td>35.81/sq. ft.</td>
<td>44760</td>
</tr>
<tr>
<td>30000 sq. ft. retail/daycare</td>
<td>44.67/sq. ft.</td>
<td>1340100</td>
</tr>
<tr>
<td>4500 sq. ft. central atrium</td>
<td>3.11/cu. ft.</td>
<td>1259550</td>
</tr>
<tr>
<td>assuming a height of 90'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>65000 sq. ft. parking garage</td>
<td>22.46/sq. ft.</td>
<td>1459900</td>
</tr>
<tr>
<td>underground</td>
<td></td>
<td></td>
</tr>
<tr>
<td>62625 sq. ft. office</td>
<td>49.12/sq. ft.</td>
<td>3076140</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Total</strong> 10910990</td>
</tr>
</tbody>
</table>

Square footage costs estimates were taken from the 1976 Marshall Valuation service and do not include land costs, permit fees and architect's fees.
CONTEXT

A MULTI-FUNCTIONAL URBAN CENTER
FOR INDIANAPOLIS, INDIANA
SITE—CONTEXT

The proposed site is in the south-east corner of square 54 in what is considered to be the central business district of Indianapolis. Square 54 is bounded on the east by Illinois St., on the south by Washington St., on the west by Capitol Avenue and on the north by Market St. The east-west property line is 203' long and the north-south line is 195' in length. This gives an area of 39,585 sq. ft.

The neighborhood is one which while once an elite area, had degenerated until the construction of the Indianapolis Convention-Exposition Center and Merchants Plaza and the proposed renovation of Union Station gave the area new life. The area is urban in nature. Predominately commercial turn of the century structures give the area an air of distinction. The Wm. H. Block store to the north is 8 stories in height, while right across the street is the 20 story Merchants Plaza.

The pedestrian count in this area is second only to the circle and is predicted to increase by nearly 50% by 1990. (see maps following)

The most important feature of the area is the Indiana Theatre. Designed in 1927 by the firm of Rubush and Hunter, the Indiana is the city's most lavish "movie palace" with an ornately carved terra cotta facade. Inside the design shows Indian and Egyptian influences. It is now in a state of disrepair and in danger of demolition as a result of United Artists withdrawing their support.
SITE--MARKET

This site was picked because of the tremendous potential it has by virtue of its almost ideal location. Among the reasons for its choice are:

- It is located 2 blocks from the convention center
- " " " " 2 " " " " circle
- " " " " 4 " " " " Market Square Arena
- " " " " 3 " " " " the City-County Building
- " " " " 2 " " " " State office Building
- " " " " 2 " " " " Greyhound Bus Terminal
- " " " " ½ " " " " Statehouse
- " " " " on the bus routes to Indianapolis International Airport
- It is located on bus routes to virtually all major retail centers in the city
PHIL CARTWRIGHT
ARCHITECTURAL THESIS '76-'77

LOCATION MAP -- STATE

A MULTI-FUNCTIONAL URBAN CENTER FOR INDIANAPOLIS, INDIANA
A MULTI-FUNCTIONAL URBAN CENTER FOR INDIANAPOLIS, INDIANA
VICINITY MAP

A MULTI-FUNCTIONAL URBAN CENTER
FOR INDIANAPOLIS, INDIANA
<table>
<thead>
<tr>
<th>Percent IFR</th>
<th>Fog</th>
<th>Thunder</th>
<th>Snow</th>
<th>Rain</th>
<th>City</th>
<th>P. C.</th>
<th>CIR</th>
<th>CIT</th>
<th>% Poss. Sunshine</th>
<th>Direction</th>
<th>Speed</th>
<th>Show Total</th>
<th>Total</th>
<th>1:00 P.M.</th>
<th>Cooling</th>
<th>Heating</th>
<th>Lowest</th>
<th>Highest</th>
<th>Monthly</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>
PROJECT DETERMINANTS--CODES

The following quotation from the 1973 Uniform Building Code as adopted by the State of Indiana explains restrictions placed on buildings located in Fire Zone No. 1. In Indianapolis, Fire Zone No. 1 includes all of the mile square.

"Section 1602 (a) Buildings or structures hereafter erected, constructed, moved within or into Fire Zone No. 1 will be only of Type I, II, III H. T., I, III one-hour, or IV one-hour construction and shall meet the requirements of this section."

Referring to Tables 5-A and 5-B of the 1973 UBC the occupancy classifications and their respective areas and required separations can be determined as follows:

<table>
<thead>
<tr>
<th>USE</th>
<th>OCCUPANCY</th>
<th>AREA</th>
<th>REQUIRED SEPARATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Garage</td>
<td>F-1</td>
<td>29830</td>
<td>B-3 N 3 N 1</td>
</tr>
<tr>
<td>Restaurants w/ seating for less than 100 and retail</td>
<td>F-2</td>
<td>23750</td>
<td>F-1 N 1 3</td>
</tr>
<tr>
<td>Hotel</td>
<td>H</td>
<td>57930</td>
<td>F-2 N 1</td>
</tr>
<tr>
<td>Restaurants w/ seating for more than 100</td>
<td>B-3</td>
<td>6500</td>
<td>H N</td>
</tr>
</tbody>
</table>

Again referring to the Uniform Building Code, Chapter 5, Section 503, Mixed Occupancy, the maximum allowable area of the building can be determined. This section states that the maximum area of a mixed use building will be determined by the addition of the ratios of the actual areas divided by the maximum allowable areas found in Table 5-C. This sum must not exceed one. Checking Type I construction first, I found that even when taking the maximum area permitted in section 506, I greatly exceed one. As a result, the project must be constructed in conformity with the requirements for Type I construction.

The requirements for Type I construction are found in Chapters 17 and 18 of the 1973 UBC. As a brief overview, in referring to Table 17-A we can determine that the fire resistive requirements for the major building components are as follows:

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>FIRE RESISTIVE REQUIREMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exterior bearing walls</td>
<td>4 hr.</td>
</tr>
<tr>
<td>Interior &quot; &quot;</td>
<td>3 hr.</td>
</tr>
<tr>
<td>Exterior non-bearing walls</td>
<td>4 hr.</td>
</tr>
<tr>
<td>Structural frame</td>
<td>3 hr.</td>
</tr>
<tr>
<td>Partitions-permanent</td>
<td>1 hr.</td>
</tr>
<tr>
<td>Shaft enclosures</td>
<td>2 hr.</td>
</tr>
<tr>
<td>Floors</td>
<td>2 hr.</td>
</tr>
<tr>
<td>Roofs</td>
<td>2 hr.</td>
</tr>
</tbody>
</table>
PROJECT DETERMINANTS--ZONING

When checking with the Indianapolis Planning and Zoning Board, I found that my site was zoned CBD-1. The following are excerpts from the Central Business District Zoning Ordinance of Marion County that are particularly influential in shaping the form and layout of the project.

A. PERMITTED CBD-1 USES
   1. Retail sales and service establishments
   2. Apartment hotels, hotels and motor hotels
   3. Theatres, auditoriums and amusement facilities
   4. Public and semi-public structures, parks and open space
   5. Off-street parking garages, provided the lot obtain access only from the following streets:
      a. ...W. Washington St. between Illinois and Capitol.
   6. Off-street parking within buildings, provided:
      a. the gross floor area devoted to off-street parking, including access drives and maneuvering space, does not exceed twenty-five (25) percent of the total gross area floor space of the building in which said off-street parking is located. --my estimated sq. ft. gives this percentage as 25.2%.

B. CBD-1 DEVELOPMENT STANDARDS
   2. Bulk control
      a. Maximum lot coverage and minimum setback: one hundred (100) percent lot coverage shall be permitted, and no front, side or rear setbacks shall be required. Provided, however, if a rear or side setback is provided along any rear or side lot line not abutting an alley, such setback depth shall be not less than ten (10) feet.
      b. Height limitations-sky exposure plane: there shall be no height limitations in CBD-1 other than the following sky exposure plane controls which shall apply to the erection, expansion and alteration of all buildings or other structures in the CBD-1 district.
         (1.) The sky exposure plane one shall be applied to all lots within CBD-1 abutting:
            (d) Washington St.
            (g) Illinois St.

3. Off-street parking
   a. Off-street parking entrances or exits shall be located a minimum of twenty-five (25) feet from the nearest point of two intersecting street right-of-way lines.
4. Off-street loading
   a. Location
      (3). Each off-street loading area shall be located with direct vehicular access to an alley only, and in a manner which will least interfer with traffic movements and such that no vehicle or part thereof will protrude into an alley, street or public right-of-way.
   b. Size of off-street loading area: An off-street loading area shall be at least five hundred (500) square feet in area, exclusive of manuvering area.
A MULTI-FUNCTIONAL URBAN CENTER
FOR INDIANAPOLIS, INDIANA
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FOR INDIANAPOLIS, INDIANA
A MULTI-FUNCTIONAL URBAN CENTER
FOR INDIANAPOLIS, INDIANA
A MULTI-FUNCTIONAL URBAN CENTER
FOR INDIANAPOLIS, INDIANA
A MULTI-FUNCTIONAL URBAN CENTER
FOR INDIANAPOLIS, INDIANA
SIMULATED PEDESTRIAN FLOW (24 HOUR PERIOD)

These pedestrian counts are shown graphically. Bold lines indicate heavy pedestrian count.
CALCULATED 1990 PEDESTRIAN COUNTS

A MULTI-FUNCTIONAL URBAN CENTER FOR INDIANAPOLIS, INDIANA
Missing Page 57
ANALYSIS

A MULTI-FUNCTIONAL URBAN CENTER
FOR INDIANAPOLIS, INDIANA
A multi-functional urban center for Indianapolis, Indiana
popular priced rest.
delux restaurant
cafeteria
coffee shop
sandwich stand
main kitchen and bakeshop
auxiliary kitchen
food storage areas
employee's lockers
garbage room
nightclub
restrooms
auxiliary storage areas
employee's dining

UNDISIRABLE
FAR
NEAR
ADJACENT
CO-EXIST

A MULTI-FUNCTIONAL URBAN CENTER FOR INDIANAPOLIS, INDIANA
A MULTI-Functional URBAN CENTER
FOR INDIANAPOLIS, INDIANA
GUESTS

A MULTI-FUNCTIONAL URBAN CENTER FOR INDIANAPOLIS, INDIANA
SCHEMATICS

A MULTI-FUNCTIONAL URBAN CENTER
FOR INDIANAPOLIS, INDIANA
Jurors present: Profs. Meyer, Rosenman, Adams, Cascio and Costello

In general, it was felt that although I had a good start on the project, there were several areas which could still be expanded on. These areas were as follows:

1.) A site model showing existing context and details such as fenestration and cornice heights of adjacent buildings was desirable.

2.) My site analysis should be expanded to include vehicular and pedestrian traffic patterns, magnet areas and off site relationships.

3.) There was too much concentration on spacial areas. It was suggested that I might look at flow diagrams and then put the building envelope around them.

4.) Graphics should be improved upon for clarity and impact.
DESIGN DEVELOPMENT

A MULTI-FUNCTIONAL URBAN CENTER FOR INDIANAPOLIS, INDIANA
End of quarter 1

Jurors present: Profs. Meyer, Rosenman, Turnipseed, Cascio and Adams

I felt the design was progressing well at this time. It was beginning to reflect the scale of the project as well as the relationships of the various parts. The major points brought out in the jury were:

1.) General agreement with the idea to use the facade of Claypool Place as a backdrop for the facade of the Indiana Theatre.

2.) The Project still does not respond well to existing elements such as Merchants Plaza, the Capitol grounds and pedestrian ways.

3.) Interior is too rigid. Must open up and give views from one section of the building to another.

4.) The basic elements are present, but, the location and relationship of one to another must be reconsidered.

5.) Make more use of the Indiana Theatre.
End of Quarter 2

Jurors Present: Profs. Wyman, Cascio and Adams

The design is progressing well. The elements are now all in proper relationship to each other, but refinements are needed. To be considered:

1.) Continue to open up the interior for variety of spatial experiences.
2.) Work out hotel room plan to give choice of interior and exterior facing rooms.
3.) Work with transition areas.
4.) Work with large scale sections to refine interior relationships.
5.) Review a. spacial system
   b. circulation systems
c. structural systems
FINAL PRESENTATION

A MULTI-FUNCTIONAL URBAN CENTER
FOR INDIANAPOLIS, INDIANA
While I am satisfied with the way the design has progressed there are still areas which could require extra work. These are:

1.) Retail/pedestrian interface relationships

2.) HVAC distribution

3.) Food service organization

4.) Further development of exterior form and detail.
MULTI-FUNCTIONAL URBAN CENTER
FOR INDIANAPOLIS, INDIANA
MULTI-FUNCTIONAL URBAN CENTER FOR INDIANAPOLIS, INDIANA
MULTI-FUNCTIONAL URBAN CENTER
FOR INDIANAPOLIS, INDIANA
MULTI-FUNCTIONAL URBAN CENTER
FOR INDIANAPOLIS, INDIANA
MULTI-FUNCTIONAL URBAN CENTER
FOR INDIANAPOLIS, INDIANA
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Principles of Hotel Design


Time Saver Standards