INDIANAPOLIS COMMONS
An Urban Multi-use Complex
Indianapolis, Indiana

JERROLD T. PARSEY
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College of Architecture and Planning
Ball State University
Muncie, Indiana
ACKNOWLEDGEMENTS

At this time I would like to acknowledge the people who have aided and supported me during my thesis and my whole college career.

*Professor Bruce Meyer - Thesis Chairman
*Dean Robert Fisher - Thesis Critic
*Professor Rod Underwood - Outside Critic

*Mr. and Mrs. John M. Parsey

*And a special thanks to Tracy for being an inexhaustible source of inspiration, motivation and support.
PREFACE

The pages of this document contain the discourse of an architectural thesis. It has been written for the purpose of permanently recording the results of nine months of research and to aid in the investigations of future designers. The contents of this book exemplify the issues, processes, and product of the thesis effort. An expose of the results completes the dissertation.
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INTRODUCTION

The architectural entity which is exemplified in the following document is the result of nine months of intuitive research into the architectural, psychological and behavioral aspects of the visual perception of form. The design which evolved is an urban multi-use/housing complex located in downtown Indianapolis, Indiana. The intentions of the design was to create a stimulating, active and diverse environment, a small city within a city, based on inherent notations of the downtown area. It was hoped that the project would act as a catalyst for the continuing development presently occurring, and as a complementary facility for the future White River Park and Indianapolis Zoo.
ABSTRACT

The architectural project will be explained by following the design process in the order in which it was executed. Site Selection is discussed first, followed by an analysis and an inventory of the existing and proposed conditions in and around the site. Conceptual site diagrams conclude this section.

Objectives and concerns of the project are explained next, after which the problems confronting the development are stated.

The following section explains the reasoning for the selection of the project type. Once it was decided upon, an array of similar buildings were examined and documented, followed by a brief discussion of some of the concepts implemented in these buildings.

The next section deals with the architectural, psychological and behavioral aspects of visual perception of form and how it is applied to architectural elements. A set of constructs was then developed based on these notions, and woven into the design.

The ensuing section examines the design development. The philosophy of the project is further explained, then demonstrated, throughout the concepts and organization behind the design. A program describing each spatial type is then followed by a square foot summary.

The last section includes a set of presentation drawings and photographs which should give the reader a more complete understanding of the project. Conclusions drawn by the designer are the final entry.
A. SITE SELECTION/JUSTIFICATION

The downtown growth and revitalization of Indianapolis is on the move. Because of natural forces, city planning, and corporate commitment, Indianapolis has developed into one of the most livable urban centers in the nation.

Future growth will include a 267 acre state park, a world class zoo, and a fairly elaborate convention center hotel, in addition to the cultural and recreational facilities already existing.

The site is located at the intersection of Washington Street and Missouri Street in Indianapolis, Indiana. It extends southward to Maryland Street and westward to West Street. The site is one of the last blocks on the west end of Washington Street that has high development potential.

With these amenities existing, or in process all around the site, I will attempt to develop a transition between the expanding urban edge and the soft edges of the park and zoo. To create a sense of place and identity complemented by vitality and diversity of experience. Drawing attention to this transitional area will lead to more frequent use of both urban and park/zoo areas.

The facility stands to be a critical link between the downtown "Circle", the Hoosier Dome/Convention area, and the park. The facility would become an income producing structure as well as a place for social interaction. The building itself would promote a festive image and have a 24-hour life: shopping and working during the day, living and entertaining at night. Overall making it a safer, more efficient facility.
B. **SITE ANALYSIS AND INVENTORY**

An indepth site analysis and inventory was performed to determine existing and proposed conditions in and around the site. Both macro and micro aspects were studied. This section is concluded by formal concept diagrams.
Existing Circulation Plan

DOWNTOWN INDIANAPOLIS
Proposed Circulation Plan

- major links
- urban core links
- pedestrian links

DOWNTOWN INDIANAPOLIS
Land Use Plan

- Commercial
- Public
- Park/Open Space
- Industrial

DOWNTOWN INDIANAPOLIS
Downtown Assets

* Amazon Sports - track, field & facilities
* Medical Center - largest in the state
* IUPUI - a growing urban Univ.
  40,000 students
* White River - being developed as a major urban park
* Indianapolis Zoo - a world class Zoo presently under construction. At its completion it will link the West side with the downtown. Also closely linked with W.P.

DOWNTOWN INDIANAPOLIS
Environmental Issues

- Excessive congestion and deteriorative problems
- Disposal of waste on vacant lots and neglected and abandoned establishments
- Traffic hazards and existing conditions that inhibit traffic
- Traffic problems due to existing land uses
- Surface parking and lack of available land use
- Visibility and aesthetic charm

- Mixed uses and neglected commercial and industrial structures
- Uneconomic use of a vitally important area

Warehousing, truck terminals, railroad yards adjacent to residential, commercial development.
View from Southwest corner looking South.
View looking North
View from Southwest corner looking East
Edges

- hard edge
- soft edge
- Green

* Soft edges due to regular street activity

* Soft edge of parking behind Green edge

* Green edges along Washington street. This edge originates at the circle and will end at W.R.P.

* Soft edges here due to the hotel and the W.R.P. as a backdrop.

* Green edges lead into W.R.P.

* Soft or green edges here due to a change in elevation along Maryland street

* Hard edge due to the adjacent parking lot and the electric plant as a backdrop.

* Small green strip along street

* Hard edge due to the condition of the abandoned buildings and the railroad track

* Hard edge due to the convention center service area

* Soft edge of the convention center due to the proximity of the exit.
* Green edges here to strengthen the city concept and to provide buffers from Northwest winds.

* Green edge here to add to the green edges, making more transitional areas to the W.R.P.

* Soft edge here to accept auto and service circulation for all of the project.

* Hard edges here in response to the existing edge.

* A small green edge here to welcome users from the convention center.
Views/Vistas:

- White River pk.
- State office Bld.
- Sport Center
- I.U.P.U.
- Grain plant
- Canal area
- State Capitol
- Circle area

- Hotel
- White River Park
- Zoo
- Sports Center

- Hyatt
- Rep. Theatre
- Wash. Street

- Union Station
- Hoosier Dome
- Convention Center
- Electric Plant
- Convention Center
- Convention Center

- White river
- Major roads
- Train tracks
- Rail road tracks
Views/Vistas

- Hotel
- White River Park
- Zoo

- Parking lot
- State office bld.

*Dominant view up & down Wash. St.*

*Railroad track creates a hard edge along east side*

- Hotel
- Washington Street
- White River Park
- Zoo

*Vacant lot
* White River

- Convention Ctr.
- Electric Plant

- Convention Dome
- Hoover Dome

*Loading dock area for convention center*

- State office bld.
- Washington St.
Positive Elements

+ I.U.P.U.I. & sports Center spectators as potential users.

+ Hotel guests as potential users.

+ W.R.P. & Zoo provide a destination for users of these places.

+ Circle area provides many potential users throughout the day and into the evening.

+ Perspective viewing up & down Washington Street.

+ State office complex provides many potential users throughout the day.

+ New construction area for the future planning.

+ Hotel guests as potential users - all times.

+ Major viewpoint southern exposure.

+ Corner access to the convention center.

+ Major panoramic view.

+ Electric plant as a backdrop.

+ One way traffic on Maryland provides for easy auto access.

+ Conventioners.

+ Hoosier Dome spectators.

+ Union Station/Holiday Inn users.

+ Perspective viewing up & down Washington Street.

+ A single row of trees an extension of downtown.

+ The site as a whole is located on major pedestrian routes.

+ White river views.
Negative Elements

- Northwest winds are funneled down Washington Street
- State office parking lot
- Heavy traffic at rush hours
- Heavy noise area at peak times
- Ground level views from north to south are of parking lots.
- Southern view of the industrial area
- Electric plant seen as a dirty factory.
- Abandoned buildings are an eye sore.
- Train tracks here are in very poor condition, not used too frequently.
- Convention Center loading dock.
Zoning [scheme 1]

*Primary entrances for the facility must be instantly recognizable and welcoming. Also must provide shelter and a major point of reference.

*Transitional areas containing places to sit, rest, window shop, wait, watch etc. May also contain small entrances to shops or retail area. Shelter from sun and rain may also serve as buffer areas from wind and street noise for retail area. Bus stop...

*Retail to be wrapped by its support spaces. But don't shut the city out.

*Housing should have views down into the retail area.

*Small entrance here to complete the four corner diagonal circulation. Also can serve housing.

*Parking garage entrance and exit here. It may also function as secondary service for the retail and housing.

*Primary service for housing and retail. Future development must be considered along this edge.

*Housing lobby and administrative offices with access to service areas. Buffeted from retail.

*Secondary entrance to service users from C.C. and Union Station area.

MARYLAND

WASHING
Zoning [scheme 2]

* Transitional area pushed up to continue the urban fabric. Also contains showcases and places to wait, watch, bus, cab.

* Primary entrances are recessed to obscure instant recognition and to buffer wind, noise.

* Retail area to be wrapped by its support spaces but not to inward focusing. Natural light and openness are important.

* Housing lobby and admin offices with access to service and parking. Private entrance separates housing as an entity but should still have a buffered access to retail.

* Parking entrance and exit and primary service for the housing.

* Views down into the retail area.

* Transitional areas for resting, watching, shelter. May contain showcases.

* Primary service for the retail. Consideration for future development.

* Secondary entrance for the retail area.
Create a gateway to the west. Create prominent view down Washington Street.

Present an image to create orientation and a place of reference from the west.
* Massing slopes toward the west and south for views and ventilation.

* Gradual build-up of the mass.

* Try to frame western view with out a symmetrical mass.
**Development Attitudes**

- *North-* Continue the urban fabric by pushing a majority of the building mass toward the street.
  - Emphasize entrances and points of interest.
  - Washing street corridor.

- *East-* Continue urban fabric if possible and designed sympathetically.
  - Provide additional parking.
  - Parallel street to provide visual and physical separation.
  - Emphasize entrances of facilities.
  - Continue development of sports complex.

- *South-* Create an industrial image to reflect the southern industrial areas.
  - Propose that any development on the site directly south be limited to 30 units.

- *West-* Provide pedestrian entrances and or housing.
  - Use the housing mass to create an image to be recognized by E. T.
  - Landscaping and design.

*North Eaves:

- Washington park entrance.
- Continue street along.
- Continue street along.

*South Eaves:

- Continue street along.
- Continue street along.

*East Eaves:

- Continue street along.
- Continue street along.

*West Eaves:

- Continue street along.
- Continue street along.

*Maryland:

- Continue street along.
- Continue street along.

*Missouri:

- Continue street along.
- Continue street along.
Site Circulation Concepts

* Nodal - circulation is guided towards specific areas providing concentrations of spaces at each destination.

* Loop - spaces provided on both sides of a ring of circulation. Spaces open and close changing visual perception along the path.

* Clustered - no inherent place of importance, therefore any significance of space must be articulated by its size and form.
Site Concept

* All corners are important places for entry and orientation.

* Wind and noise are problems at entrances on Washington Street. Corners need for filters, buffers, diffusers but keep as open and inviting as possible.

* Opportunity to create a image to be seen from the park and Zoo.

* Plantings to extend city.

* See circulation concepts.

* Major Views to the West.

* Development of this green strip that's existing to compliment the housing zone area.

* Panoramic Southern exposure.

* Rough edge, abandoned buildings, rail road tracks. Need for filters or buffers to soften it up.

* Future development should be considered.

* Address convention center at entrance.

MARYLAND
C. OBJECTIVES

A) FUNCTIONAL

1. Provide a concentration of commercial and retail activity along the Washington Street corridor.
2. Provide a wide variety of social and cultural amenities.
3. Diversify functions and activities.
4. All building parts shall be differentiated.
5. Simple massing emphasising function and separations.
6. Provide increased automobile parking.

B) CONCEPTUAL

1. Respect the city grid.
2. Layering of geometries, bisected to create public and private zones.
4. Massing weaves in and out exposing structure for better understanding.
5. Penetrations through whole facility to create a sequence of zones.

C) PHYSICAL

1. Create a recognizable entity.
2. Enhance the visual image.
3. Reinforce existing developments.
4. Enhance future developments.

D) SOCIAL/CULTURAL

1. Strengthen the sense of community.
2. Create a positive, festive image unique to Indianapolis.
3. Create notions of individual and group identities.
4. Create notions of individual and group territories.
5. Create a place; a people environment for seasonal day and night activities.
D. CONCERNS

In today's world the architect is wanted more for his organizational and planning capabilities rather than his visual design talents. The developer is concerned mainly with the economics and the efficiency of the project, with image only recently becoming an issue. Due to these factors, the architect is forced to change his responsibilities to the potential users and the build environment when in fact this is not an effective approach.

Other problems born into architecture because of these issues can seriously effect the building and its users. Due to economic issues today, many subconscious feelings and emotions of the user go unaddressed. The end result being textureless, uniform architecture providing easy comprehension, thus routine and boredom. (This can also occur in overly complex compositions). Tests on animals show that if no physical reactions occur in response to visual stimulation, apathy and stunting of physical growth will occur. This can then be applied to the human condition which surfaces in alienation and isolation which can lead to a lack of group identity resulting in the lack of formation of group territories or place.

It is my intent to show the designer that the potentials for creating fulfilling, meaningful architecture are inherent within the solutions to these problems, and cost effective solutions can be derived with common materials and simple techniques.
E. PROJECT SELECTION

Architecture is about people. Without people architecture would have no purpose. Therefore the needs of potential users should be exemplified in the architectural expression. Because of this premise, my interest has been drawn toward a building type that contains a variety of human, social and cultural activities - a multi-use facility. The facility will contain:

- rentable apartment-type housing,
- retail/commercial space,
- two major department stores,
- a variety of food service spaces,
- two Cinemas,
- several nightclubs and lounges,
- and many areas to sit and watch and spend some time.

The facility is lastly complimented by an exclusive restaurant atop the housing tower.

A major objective was to bring more people to the west side of the city. The way to accomplish this goal is by creating housing. Permanent residents insure people's presence, and people attract more people, all leading to an abundance of activity and movement.

Retail and commercial spaces were used for their appeal to people. Street level retail and commercial space was of prime importance because of this. A department store is the ultimate in retail enticement, therefore, two were included to complete and act as the major draw.

A private park was chosen as the separation element between the retail and housing areas. The park shall create both horizontal and vertical separation between the two and function as a secure area for children and adult tenants to enjoy.

A diverse array of social and cultural elements will also be included to achieve constant activity and movement. A few examples would be:

- food concessions,
- stages for entertainers, kiosk shops,
- interactive fountains, green areas, restaurants, and nightclubs.
A. BUILDING TYPE ANALYSIS

The building type analysis was used to determine and single out good and bad solutions for each individual problem. The building concept was researched and a single notion was extracted from each project to be used later in the formation of a pool of constructs. (See Section IV CONSTRUCTS).
- The Cloisters
  Cincinnati, Ohio.
  Hardy, Holzman, Pfeiffer

* The Cloisters offers tenants unobstructed views and a delightful variety created through repetition

- Variety and flexibility are the results of formal collisions
Galleria
N.Y. N.Y.
David Kenth Spector

The 58th Street entrance (rear of photo) will permit direct access to office elevators. A café is planned for skylit section of public space with retail shops along the sides.
*Articulation of edges, corners, planes and surfaces define form, provide scale references, identify circulation, path and add character and diversity to a space.
The Cannery
San Francisco, Calif.
Joseph Esherick
- Obvious circulation path with options to wander away both horizontally and vertically.
Mall
Columbia, Md.
Cope, Under & Walmsley
Movement becomes an event.
Crystal Court
I.D.S. Center Minneapolis, Minn.
Johnson/Burgee
Manipulation of ceiling planes with natural light can create changing patterns of shade and shadow in addition to articulating the form, surfaces, and surface textures of the space.
Ghirardelli Square
Leeke & Ehrenkrantz, Architects
Ghirardelli square take people out of their cars and places them in the middle of the block surrounded by a diverse group of shops and restaurants stepping down to the bay.
CONSTRUCTS

The basis for my thesis was developed from my concern with what a piece of architecture really means to the architecturally unenlightened and the problems associated with this understanding.

i.e. alienation
    isolation
    boredom
    routine
    lack of individual and group identity
    lack of individual and group territories

all leading to the lack of formation of place.

This concern lead me to orient my investigations toward the experiential aspects of visual perception of form focusing on the psychological and behavioral aspects reinforced by building type studies identifying good and bad parts of each solution.

Because visual perception has such a vast body of research and knowledge connected to it, I was forced to concentrate and develop my investigations toward specific constructs of my own personal choosing, each dealing with psychological, behavioral, and architectural issues.

Because of the size of the project these investigations were then further broken down into pieces of the whole directly relating back to the constructs.
• places are revealed by movement along path.
  • path is revealed by movement through places.
  • number and type of places can affect the quality.

Architectural

• path will include places to rest and socialize.
• path design should never be predictable.
• open and closed areas along the way.
• integration not application.

Behavioral

• manipulation of people for their own good along path.
curiosity and discovery are inherent in all people.

- the experience left in the user's conscious and sub-conscious will lead to the formation of group territories

Architectural

- create curiosity and discovery through manipulation of forms, planes, spaces, opening and volumes.
- program interesting displays, performances or attractions too start this curiosity.
- diversity of experiences - shops etc. people attractions
Psi

- need for both small and large group territories

Architectural

- change in massing, let spaces be formed rather than the formal creation of cold blocks of space.
- spaces for entertainers and performers.
- ambiguity between inside and out.

Behavioral

- create opportunities for large scale, slow moving musical chairs.
SHAPE

- the visual field never appears as an undifferentiated pattern of light, shade and shadow. It is broken up into discrete entities or shapes.

- these become classified as objects whenever possible. when this becomes impossible, they are classified in terms of their shape, form or outline.

Architectural

- any 2-dimensional pattern is a shape.
- any 3-dimensional volume is a form.
<table>
<thead>
<tr>
<th>TIME</th>
<th>Architectural Notice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time of day and sun position create a continuous play of light, shade, and shadow, altering our perception of volume, shape, texture, and color.</td>
<td></td>
</tr>
<tr>
<td>Time of day and related activity play an important role in the formation of group territories.</td>
<td></td>
</tr>
</tbody>
</table>
MATERIALS

The working of materials is evidence of the hand of man.

- This gives materials more conscious meaning.
- Also gives scale. (intimate & public)
- Also gives identification.

Architectural

- Supply some sort of uniformity in material use throughout the design.
the introduction of redundancy may facilitate or hinder pattern recognition. It depends on how it is introduced.

- pattern defined as:
  - symmetry of a figure
  - limiting the sampling process used by our minds to generate form.
  - the number of discriminable features on a form

Architectural

- pattern can carry people from the street through the whole complex.
SPACIAL ORIENTATION

Ψ - a person not only orients himself in gravitational space, but he is also continuously aware of his relationship to objects in the 3-dimensional space, and the relationships between the object's themselves.

- a person further relates not only to static positions but also to the direction and speed of movement of him self and the external objects.

- thus orientation is maintained.

Architectural

Behavioral

- disorientation within the internal layout will make it easier to move around inside than to leave.
PLACE

- need for a sense of place molded by the formation of a total destination or total group territory.

- need for major and minor destinations within.

- need for community identity through community events.

ARCHITECTURAL

programming and specifying the events to take place.

provide provocative, attractive spaces for events.

provide for individual and group territories.

establish retail needs and desires.

BEHAVIORAL

in our minds, places are transformed into or reinvented as the way we wish they had been.
PHILOSOPHICAL GOALS AND INTENTIONS
PHILOSOPHICAL GOALS

Formal complexity in architecture has the opportunity to enhance all levels of perceptual stimulation. At its central core, design is mainly concerned with the manipulation of form and space. Composition is understood as the putting together of two dimensional and three dimensional components, defining spaces with material elements in arrangements or configurations. The integration and composition of forms that fit the problem requirements have the greatest potential for creating fulfilling, meaningful architecture.

Form can be approached from an intellectual or experiential aspect. Since the vast majority of a buildings users are architecturally unenlightened (laypublic), it would be a wasted effort to orient this thesis toward an esoteric solution. The highest impact would be derived from a experiential approach to the problem. By the integration of different areas of study in an attempt to define form, my intent is to help the designer realize the potentials for creating fulfilling, meaningful architecture.

My goal is to address the need for perceptual stimulation at all levels of visual interaction with a building through the manipulation of form. To address behavioral goals set by human social, cultural, and psychological needs. And to define the design means through form and space constructs.

My intent is to create a multi-use facility that would act as a catalyst for the movement and growth of the city toward the west (White River Park). The final design will increase the pedestrian movement toward White River Park by creating a specific image and a variety of interior spaces and places that will draw activity from the surrounding amenities. The impact of this facility would be to attract even more interaction from the surrounding districts and suburbs.
ORGANIZATION OF PARTS

The overriding objectives behind the organization of the project is that it be understood by its user. It should allow for the integration of a mixture of uses and provide flexibility.

The major ordering element of the design is the central common space. It should provide a central gathering space, points of orientation, points of intersection, place to shop and rest, as well as natural elements.

Retail space will enhance the streetscape while reinforcing the activities within. Retail areas are sprinkled throughout but cater specifically to the second level. The department stores will act as anchors to draw people through to the other retail areas.

Restaurants are included to increase activity levels at peak periods. A speciality restaurant, located atop the housing tower, will act as a draw to bring a special image to the whole complex. The movement to the restaurant become the major attracting event.

Residential units are situated above the department store levels. The major considerations in the placement of them were view, privacy, and sense of identity. The housing form provides a full southern exposure as well as minimal northwest exposure. The apartments are each two stories fed by a skip-stop elevator system. The vacant corridor on the even floors will be used as a mechanical chase for each two floors.

Parking facilities and service are located beneath the whole complex. Both auto and service entrances and exits are along Maryland Street. Maryland Street, being one way, provides easy in/out circulation even during peak periods. Vehicle circulation is made more understandable by pulling the building footprints down to these levels and circulating through it.

CIRCULATION - vertical circulation is located at four major points within the retail complex. The specially restaurant features an exposed elevator system with entrance at the center of the atrium. Other firestairs are located throughout the complex within fire safety regulations.

STRUCTURAL - The retail complex is designed on a 30' grid of structural steel clad in concrete. Roofing will be supported by steel trusses. Residential and department store space are designed in a radial system. The overlapping of these two systems helped to create an interesting and provocative solution.
### SPACE SUMMARY

#### I. High Rise Space Summary

<table>
<thead>
<tr>
<th>Section</th>
<th>Square Footage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Department Store (Total)</strong></td>
<td>63,000</td>
</tr>
<tr>
<td>1. Level One</td>
<td>21,000</td>
</tr>
<tr>
<td>2. Level Two</td>
<td>21,000</td>
</tr>
<tr>
<td>3. Administration/Mechanical Level</td>
<td>21,000</td>
</tr>
<tr>
<td><strong>B. Housing (Total)</strong></td>
<td>429,600</td>
</tr>
<tr>
<td>1. One bedroom studio (96)</td>
<td>840</td>
</tr>
<tr>
<td>2. One bedroom loft (24)</td>
<td>600</td>
</tr>
<tr>
<td>3. Two bedroom unit (96)</td>
<td>1,000</td>
</tr>
<tr>
<td>4. Three bedroom Unit (64)</td>
<td>2,300</td>
</tr>
<tr>
<td>5. Three bedroom unit with den (32)</td>
<td>2,550</td>
</tr>
<tr>
<td>6. Laundry room (2 per floor) (48)</td>
<td>150</td>
</tr>
<tr>
<td>7. Common space (12)</td>
<td>1,300</td>
</tr>
<tr>
<td><strong>C. Health Club (Total)</strong></td>
<td>10,000</td>
</tr>
<tr>
<td>1. Locker rooms</td>
<td>4,000</td>
</tr>
<tr>
<td>2. Saunas</td>
<td>350</td>
</tr>
<tr>
<td>3. Office</td>
<td>250</td>
</tr>
<tr>
<td>4. Weight/exercise room</td>
<td>3,500</td>
</tr>
<tr>
<td>5. Pool area</td>
<td>1,900</td>
</tr>
<tr>
<td><strong>D. Restaurant Level (Total)</strong></td>
<td>10,600</td>
</tr>
<tr>
<td>1. Dining area</td>
<td>7,200</td>
</tr>
<tr>
<td>2. Kitchen</td>
<td>2,100</td>
</tr>
<tr>
<td>3. Restrooms</td>
<td>300</td>
</tr>
<tr>
<td>4. Lobby</td>
<td>1,000</td>
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II. Retail Space Summary

<table>
<thead>
<tr>
<th>Section</th>
<th>Square Footage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. General Commercial/Retail</td>
<td>96,800</td>
</tr>
<tr>
<td>(Total)</td>
<td></td>
</tr>
<tr>
<td>1. Level One (Total)</td>
<td>47,300</td>
</tr>
<tr>
<td>a. Retail</td>
<td>12,400</td>
</tr>
<tr>
<td>b. Commercial (3)</td>
<td>12,000</td>
</tr>
<tr>
<td>c. Concession (10)</td>
<td>1,000</td>
</tr>
<tr>
<td>d. Theatre (2)</td>
<td>7,200</td>
</tr>
<tr>
<td>e. Stage</td>
<td>700</td>
</tr>
<tr>
<td>f. Plaza Areas</td>
<td>14,000</td>
</tr>
<tr>
<td>2. Level Two (Total)</td>
<td>22,100</td>
</tr>
<tr>
<td>a. Retail (10)</td>
<td>10,400</td>
</tr>
<tr>
<td>b. Restaurant (1)</td>
<td>2,700</td>
</tr>
<tr>
<td>c. Concession (10)</td>
<td>1,000</td>
</tr>
<tr>
<td>d. Bar/lounge</td>
<td>8,000</td>
</tr>
<tr>
<td>3. Level Three (Total)</td>
<td>27,400</td>
</tr>
<tr>
<td>a. Restaurant</td>
<td>9,000</td>
</tr>
<tr>
<td>b. Nightclub</td>
<td>9,000</td>
</tr>
<tr>
<td>c. Bar (2)</td>
<td>7,800</td>
</tr>
<tr>
<td>d. Lounge</td>
<td>800</td>
</tr>
<tr>
<td>4. Restrooms (Public) (Total)</td>
<td>5,400</td>
</tr>
<tr>
<td>a. Level One</td>
<td>1,800</td>
</tr>
<tr>
<td>b. Level Two</td>
<td>1,800</td>
</tr>
<tr>
<td>c. Level Three</td>
<td>1,800</td>
</tr>
</tbody>
</table>
### III. Circulation

<table>
<thead>
<tr>
<th>Description</th>
<th>Square Footage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Highrise (Total)</td>
<td>50,400</td>
</tr>
<tr>
<td>1. Department Store</td>
<td>8,400</td>
</tr>
<tr>
<td>2. Housing</td>
<td>42,000</td>
</tr>
<tr>
<td>B. Retail/Commercial (Total)</td>
<td>145,000</td>
</tr>
<tr>
<td>1. Level One</td>
<td>64,400</td>
</tr>
<tr>
<td>2. Level Two</td>
<td>49,000</td>
</tr>
<tr>
<td>3. Level Three</td>
<td>32,000</td>
</tr>
</tbody>
</table>

### IV. Park Area (Total) | 6,000

### V. Service Level (Total) | 211,500

<table>
<thead>
<tr>
<th>Description</th>
<th>Square Footage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Department Store</td>
<td>60,500</td>
</tr>
<tr>
<td>B. Housing Storage</td>
<td>30,000</td>
</tr>
<tr>
<td>C. Retail/Commercial</td>
<td>86,000</td>
</tr>
<tr>
<td>D. Mechanical</td>
<td>35,000</td>
</tr>
</tbody>
</table>

### VI. Parking (Total) | 414,000

<table>
<thead>
<tr>
<th>Description</th>
<th>Square Footage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Level One</td>
<td>138,000</td>
</tr>
<tr>
<td>B. Level Two</td>
<td>138,000</td>
</tr>
<tr>
<td>C. Level Three</td>
<td>138,000</td>
</tr>
</tbody>
</table>

### VII. TOTAL FOR PROJECT | 1,442,000
CONCLUSION

In conclusion, I feel that my thesis project was a very large challenge. It was understood at the beginning that perception is a vast topic to try and comprehend, but although there are still weaknesses in my design, I believe I have successfully incorporated many important perceptual facts in the creation of a multi-use urban building.
BIBLIOGRAPHY
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24. Regional Center General Plan, Indiana Department of Transportation and Zoning, 1981.


