**D. Kofi Gamor** 1986 / 87

**A Fusion in the Roles of the Architect and the Developer.**

**Upper Canal (North), Downtown Indianapolis, IN**

**Mixed-use Development Project; Hotel, Office, & Condominium Housing.**

**Alfredo Missair & Bruce Meyer - Thesis professors.**

**Jim Segedy & Dave Schoen - Thesis advisors.**

**Bachelor of Architecture** 8/14/87
A FUSION IN THE ROLES OF THE ARCHITECT AND THE DEVELOPER

by

D. KOFI GAMOR

THESIS 1986 / 87

COLLEGE OF ARCHITECTURE AND PLANNING

BALL STATE UNIVERSITY
ACKNOWLEDGEMENT:

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THANK YOU.
FOREWORD :

The possession of a very practical constitution generated my quest for a pragmatic thesis subject. As do most architecture students, I am aspiring to become a registered architect with a very profound understanding of the subject of architecture, as well as a demonstrated contribution to the built environment. However, in conjunction with this aspiration, I am very much interested in simultaneously playing the role of a speculative developer, culminating my career by initiating and designing my own projects. This is not simply an area of interest to me but is also a very real assessment of today’s environment, with emphasis on the pragmatic issues of sustaining a standard of living comparable to our colleagues in other professional disciplines. It is very important not to view the practice of architecture as strictly one of design and design development, but rather to associate this role with all areas of the business community that are even remotely connected. Only through this very broad approach; areas that include developing, building management, corporate real estate, and construction project management, can we enhance or even possibly change the low economic status of our profession. Consequently, I want my thesis project, involving an incredible amount of research and research development, to reflect my sentiments. This will ultimately produce a methodology that will also be beneficial to the industry at large, providing an example whereby such a fusion has generated the right compromises on both parts and resulted in a major asset to the built environment.
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INTENT:

** Thesis / Procedures: **

The first objective of my thesis is to generate a thorough and detailed documentation of the step-by-step procedures that must be closely adhered to, before, during, and after the implementation of a speculative development project. It will be a chronological sequence of events and issues that inevitably must be addressed when one undertakes a venture of this nature. I will be mainly concerned with the process of the smaller scale developer. The larger companies have the financial and political clout that allows them the luxury of short-cuts, a privilege that I will not initially have. The next phase will be an evaluation of the results obtained thus far, categorizing procedures and projects (existing buildings) as successful-good, and not quite so successful-bad. I will then analyze them to determine what methods (or compromises) were implemented during the creation of this particular example, specifically trying to understand their implications on the particular characteristics of both "good design" as well as "good economic sense."

* By "good design", I mean architecture as three dimensional space with both the physical (comfort and ergonomics) and psychological (mental well-being and self-esteem) aspects of the client, (or pseudo-client) providing the frame-work for design. Space that is not solely interpreted as a two-dimensional image.

*Good economic sense is achieved when the project generates a return on the investment well within the set percentages of net profit. These studies will be culminated by an actual project that I will design. It will be based on these very tangible, marketable and economically viable considerations. I foresee the result of this duality of approach as strengthening the developers position by possibly refocusing his emphasis more toward "designed architecture," as well as enlightening the architect (ME) to the complex considerations involved in developing.

** Review of Literature: **

Sources of major significance that have been published to date are fairly minimal. The role of the developer is not an "absolute," with each participant interpreting and formulating a very individual approach. In addition, because of the very competitive atmosphere of the business, formats of practice, and methodologies are not widely publicised. The completed project is what the public has to respond to. However, one good publication is "Cultural Facilities in Mixed-Use Development," by Harold R. Shedcof. This lists specific information about several mixed-use projects, focusing on those with very unique characteristics, either design oriented, or on how the financial package was structured. Another book is on "Real Estate Developing," by Harvey Rabinowitz, a professor at the University of Wisconsin in Milwaukee. He also teaches a course on the same subject, and as far as I am aware of, in one of only a few curriculums that have attempted to structure this topic. Another interesting approach is offered by John Portman in his "Discription of Current Projects." He is a self-established expert on the design-build process, and has a multimillion, multi-national development empire to substantiate his viewpoint. Other sources were fairly current periodicals. One was a series of articles by Andrew Clarke on "The Architect as Developer." They were for the Canadian Architect magazine, and ran from July of 1982 through March of 1983. Another article was "Development Proves Attractive for Architects," by Scott Melnick, published in the July 1985 issue of the Building Design and Construction magazine. It shows an increasing number of architects are turning to development, both as a business venture and also as a marketing tool. The only other article I
could track down was by a group of writers for the Progressive Architecture magazine, July 1985 issue, and which featured "Developers and Architects". It detailed how major development companies, of the caliber of Olympia & York, Horwitz/Mathews, Trammell Crow, and architecture firms like Graham Gund Associates, are slowly branching out into situations where the developers would do the design in-house, and the architects would initiate, design and build a fair portion of their projects. ------THIS FUSION IS THE ESSENCE OF WHAT I AM ADVOCATING !!!

RESEARCH / LOCATION;

INDIANAPOLIS, INDIANA - A city Profile...
**INDIANAPOLIS**: Facts substantiating the choice as the optimal location.

- Of the country's top 100 cities, Indianapolis is the most centrally located.
- 55% of all Americans and more than 50 million households are within 600 miles (10 hour drive or 3 hour flight) of Indianapolis.
- More than 200 cities and 1.6 million businesses fall within this area.
- It is not only centrally located, but it is extremely accessible.
- Seven spokes of 4 interstate highways, (I-74, I-69, I-65, & I-70) create a web with direct routes to the major markets of Chicago, Detroit, Cincinnati, Columbus, St. Louis, Louisville and Nashville.
- The 52 mile beltway and central road network make cross-town transit possible in 30 minutes or less.
- From any point in the city, a driver can reach an interstate in no more than 8 minutes.
- There are minimal rush-hour delays and a 10 minute access time to the Indianapolis International Airport from downtown.
- Served by five major rail systems linked in the central city by the Indianapolis Union railway, city businesses have rail access to major markets, ports of the Great Lakes, in-land waterways, and deep-water sea-ports.
- The Conrail system Big Four Yard, west of Indianapolis, is one of only three metropolitan area yards in the mid-west (Detroit and Cleveland are the other two) to provide services for handling liquid and dry bulk commodities, piggyback service for truck-trailer transport, and SteelNet service with warehouse facilities and direct connections to steel markets.
- The airport, located just west of central city, is building a $72 million expansion that will add 13 new gates and larger baggage-claim, ticket and parking facilities.
- It has purchased 5000 more acres to enable it to accommodate future necessary expansion.
- Also expanding its current facilities, the Indianapolis Foreign Trade Zone will occupy approximately 14 acres at the airport to serve manufacturers and wholesalers with duty-free storage and access to commodities for repacking, assembly, and display.

**INDIANAPOLIS**: Facts about the economy.

- Population: The 1986 estimate for the Indianapolis Metropolitan Statistical Area (MSA) is 1,208,430. Indianapolis is one of only two MSAs in the Great Lake states to show a population gain since 1980 of greater than 2%.

- Cost of Living Index 1986: First Quarter 1986

100.0

250 U.S. City Average =
1=Louisville - 95.3  
4=Cincinnati - 99.7  
7=Kansas City - 103.7^  
10=Milwaukee - 105.3^  
13=Atlanta - 107.7

2=St. Louis - 98.2  
5=Cleveland - 101.6  
8=Columbus - 103.9  
11=Detroit - 105.9  
14=Philadelphia - 117.9

3=INDIANAPOLIS - 98.9  
6=Pittsburgh - 102.9^  
9=Minn/St.Paul - 105.1  
12=Chicago - 106.2^  
15=New York - 142.0

- ^: Estimates by the Indianapolis Chamber of Commerce based on prior quarterly Index reports.

- Employment: At mid-1986, establishment employment stood at 576,00, a gain of 16,000 since the same period of 1985.
- Service - 23 %
- Retail Trade - 19 %
- Manufacturing - 18 %
- Govt. - 15 %
- Fin., Ins.& R.E. - 07 %
- Wholesale Trd. - 07 %
- Transp., Communications & Utils. - 06 %
- Construction - 05 %

- By the end of 1987, established employment is projected to increase another 18,000 to a total of 594,000.
- The unemployment rate at mid-1986 was 5.2 %, a full 2 points below the national rate and the lowest of the larger Metropolitan areas in the Great Lakes States.

- Income / Payrolls: Per capita personal income for the Indianapolis Metropolitan area was $12,997 in 1984, (latest year available) about 1.8 % above the national average; total personal income was $15,527 million. Total labor income from wages to salaries totaled $11,476 million.

- Housing: The average price of all homes sold in the past year was $62,267. On average, prime location apartments are about 2 % higher than the national average, and new single family homes are about 3 % lower.

- Utility costs: Indianapolis is fortunate to have the LOWEST utility rates; residential, commercial and industrial, of any investor-owned electric utility company in the country.

- Business Growth: There are 26,400 separate business establishments in the Indianapolis metropolitan area, an increase of 3,500 in the last 3 years. The greatest portion of this increase comes from new business service and retail trade.

- hence, Construction: The value of all construction in the consolidated City of Indianapolis in
1985 was recorded at $866 million, with the non-residential portion totaling $427.5 million and involving a total of nearly 14 million square feet of space. The total permit value is projected to break the $1 billion mark soon after 1986.

- New residential construction has also remained high. Within the metropolitan area over 38,700 new housing have been built since 1980. This relates to 32 units per 1,000 population, more than any other metropolitan area in the Great Lakes States.

*** INDIANAPOLIS: Champion of Progress.***
Today Indianapolis emerges as the region's metropolitan center to be fully reckoned with, even as new energies for growth are just coming into play. Its reputation as a city on the move is attracting new businesses as well as national and international real estate investors. This year, Indianapolis will welcome hundreds of thousands of visitors to the Tenth Pan American Games, an accomplishment that will place it in the focal point of the lens of the world for 17 days. (August, 1987) No better way to showcase a champion of progress... and its remarkable achievements.

- A vibrant city center and fast-growing suburbs.

- A strikingly successful $50 million festival marketplace at Union Station, downtown.

- A $60 million canal project that will create a new environment for downtown housing.

- An all-new world class Indianapolis Zoo along the White River.

- An expanding campus and new conference center at Indiana University / Purdue University's Indianapolis complex.

- A record breaking office building boom that is making the construction crane the city's temporary trademark.

- Etc., Etc...
Office:

- More than 10 million square feet of office space is occupied in downtown Indianapolis.
- It is the work place of roughly 100,000 persons.
- By the end of 1986, it is projected that this will increase by an additional 3,429 employees.

Building Classification and 1986 Rental Rates (per Sq. Ft.)

*** Class R - $13.00 to 17.50
Downtown only.
An older building that has been completely renovated to restore its original character and exterior quality with the addition of first class interior improvements.

*** Class A - $16.00 to 18.00 (Downtown)
Top quality office space, with amenities, professionally maintained and managed. It is usually less than 20 years old.

*** Class B - $10.00 to 15.50 (Downtown)
Good quality building usually less than 40 years old, that has been well maintained, with few signs of deterioration. It is a sound, fully functional building with a high level of occupancy.

*** Class C - $7.00 to 8.75 (Downtown, very limited.)
Low quality building in need of repairs and showing poor maintenance. The building lacks amenities and has high energy costs.
- Class A:
  At year-end 1986, the Class A vacancy rate stood at 7.1%, with space availability of some 224,500 square feet after absorption which totalled 330,500 square feet.
- Class B:
  Class B office space is 93% occupied, with 125,000 square feet available at the start of 1987. Vacancies edged up to 7.3%, with absorption for the year totalling 22,000 square feet.
- Class C:
  Absorption of Class C space rose sharply in 1986 to 46,000 square feet. The inventory of this type of space has fallen dramatically as buildings have been up-graded or as space has been taken off the market. The vacancy rate stood at 18% at the end of 1986.

Downtown Office Market Composition.
*** Hotel / Motel Activity:

- Despite stiffening competition, the Indianapolis hospitality industry continues to add rooms to its inventory. Expansion goes on both in the suburbs as well as downtown.
- To an existing stock of 13,500 rooms at the start of 1986, nearly 400 more rooms came on line last year, and 823 more will come on line by the end of 1987. A total of 2,500 downtown.

*** General Information:

- Sharing a strong commitment to downtown are Eli Lilly Corp., American United Life, Indiana Bell, the head-quarters of the states three largest banks as well as State and Federal Govt.
- Indiana University-Purdue University at Indianapolis has the third largest enrollment in the state. It is located, with the nations largest Medical School campus, downtown.
- Unlike many of the nations other leading cities, the after-hour activities of the community are centered downtown:
  * The Hoosier Dome, home of the NFL Indianapolis Colts; site of the 1985 NBA All-Star Game.
  * The Indianapolis Symphony Orchestra and the Indiana Repertory Theater entertain 260,000 patrons annually in the restored Circle and Indiana Theaters downtown.
  * Market Square Arena, home of the NBA Indiana Pacers; site of numerous entertainment events.
  * As the Amateur Sports Capital of the U.S., downtown will host the 1987 Pan American Games.
  * Development of the White River State park with a world-class Zoo will draw 4 million visitors to its 267-acre site downtown.
  * Lockerbie Marketplace adds new life to the former Old Sears & Roebuck property - the first in decades, downtown.
* 25 new restaurants have opened downtown in the last 2 years.
* The biggest development was the transformation of a former railroad hub into a festival marketplace - The Union Station.
* Still on the boards is Melvin Simons grand plan for the City Center Mall, a $150 million venture targeted to get underway in earnest this year.

*** Ownership of the individual tracts of land that make up my site.
- This was necessary in order to assemble the composite area I needed.

PARCEL MAP, BLOCK 8.

Legend
+ - ADDRESS of PARCEL
650074538 - NUMBER of PARCEL

NORTHWEST REDEVELOPMENT PROJECT
PARCEL MAP, BLOCK 7.

Legend
1 - ADDRESS of PARCEL
0 - NUMBER of PARCEL

NORTHWEST REDEVELOPMENT PROJECT
The Zoning regulations:
- The Canal re-development project.
CHAPTER I

SECTION 1.00 ESTABLISHMENT OF CENTRAL BUSINESS ZONING DISTRICTS

The following primary CENTRAL BUSINESS ZONING DISTRICTS for Metropolitan Indianapolis, Marion County, Indiana, are hereby established, and land within Indianapolis is hereby classified, divided and zoned into said districts as designated on the CENTRAL BUSINESS DISTRICT ZONING MAPS, which Maps are attached hereto, incorporated herein by reference and made a part of this ordinance:

CENTRAL BUSINESS ZONING DISTRICTS

Symbol

CBD-1 CENTRAL BUSINESS DISTRICT ONE
CBD-2 CENTRAL BUSINESS DISTRICT TWO
CBD-3 CENTRAL BUSINESS DISTRICT THREE

CHAPTER II

SECTION 2.00 CENTRAL BUSINESS ZONING DISTRICT REGULATIONS

The following regulations shall apply to all land within the CENTRAL BUSINESS ZONING DISTRICTS. After the effective date of this ordinance:

1. With the exception of legally established nonconforming uses, no land, building, structure, premises or part thereof shall be used or occupied except in conformity with these regulations and for uses permitted by this ordinance.

2. No building, structure, premises or part thereof shall be constructed, erected, converted, enlarged, extended, reconstructed or relocated except in conformity with these regulations and for uses permitted by this ordinance.

Provided, however, legally established nonconforming uses may be reconstructed if damaged or partially destroyed by fire or other disaster when such damage or destruction does not exceed two-thirds (2/3) of the gross floor area of the structures or facilities affected.

SECTION 2.01 CENTRAL BUSINESS DISTRICT ONE (CBD-1 REGULATIONS)

A. PERMITTED CBD-1 USES

The following uses shall be permitted in the Central Business District One. All uses in the Central Business District One shall conform to the CBD-1 Development Standards (section 2.01, B hereof) and CBD-1 Performance Standards (section 2.01, C hereof).
1. RETAIL SALES AND SERVICE ESTABLISHMENTS.
2. BUSINESS, PROFESSIONAL AND CUSTOMER SERVICE OFFICES.
3. APARTMENT HOTELS, HOTELS, MOTOR HOTELS.
4. APARTMENTS.
5. TRANSPORTATION FACILITIES and accessory facilities therefore, including but not limited to, waiting rooms, loading docks, storage and associated commercial uses.
6. BANKS; SAVINGS AND LOAN OFFICES.
7. THEATRES, AUDITORIUMS AND AMUSEMENT FACILITIES.
8. PUBLIC UTILITIES.
9. PRINTING ESTABLISHMENTS.
10. SALES OF BEVERAGES, FLOWERS AND FOOD FROM CARTS ON SIDEWALKS AND PUBLIC AREAS.
11. SALES OF BEVERAGES, FLOWERS AND FOOD FROM A PORTION OF THE SIDEWALK ABUTTING THE SAME BUSINESS PREMISES.
12. OFFICES, SALES AND DISPLAY ROOMS for wholesalers, distributors, warehouses, and manufacturers' agents, including stock, accessory storage, and/or warehouse space, provided:
   a. said accessory stock, storage and warehouse space does not exceed seventy-five (75) percent of the total net floor area of the combined office, sales, display, and accessory storage and warehouse space, used in the same building by the same firm or enterprise; and
   b. in no case shall more than twenty-five (25) percent of the total net floor area in any single building be devoted to such accessory stock, storage and warehouse space.
(In the case of two or more contiguous buildings under single ownership or lease, for purposes of a and b above, such contiguous buildings shall be considered as one building).
13. PROCESSING OR MANUFACTURING OF GOODS BY RETAILERS AND WHOLESALERS, provided:
   a. the net floor area occupied by said processing or manufacturing plus storage and warehouse space does not exceed seventy-five (75) percent of the total net floor area used in the same building by the same firm of enterprise; and
   b. in no case shall more than twenty-five (25) percent of the total net floor area in any single building be devoted to such processing, manufacturing, storage and warehouse space.

CH. II, SEC. 2:01, A
(In the case of two or more contiguous buildings under single ownership or lease, for purposes of a and b above, such contiguous buildings shall be considered as one building.)

14. **PUBLIC AND SEMIPUBLIC STRUCTURES, PARKS AND OPEN SPACE.**

15. **OFF-STREET PARKING LOTS.**

16. **OFF-STREET PARKING GARAGES**, and accessory uses and facilities therefore, provided the lot obtains access only from one or more of the following streets:

   a. New York Street, Maryland Street, Capitol Avenue, Delaware Street.

   b. East Washington Street between Pennsylvania Street and Delaware Street; or West Washington Street between Illinois Street and Capitol Avenue.

   c. East Ohio Street between Pennsylvania Street and Delaware Street; or West Ohio Street between Illinois Street and Capitol Avenue.

   d. North Pennsylvania Street between Ohio Street and New York Street; or West Ohio Street between Illinois Street and Capitol Avenue.

   e. North Illinois Street between Ohio Street and New York Street; or South Illinois Street between Maryland Street and Washington Street.

   f. Virginia, Massachusetts, Kentucky and Indiana Avenues.

On lots obtaining access from any other street within the CBD-1 District (excepting Monument Circle) off-street parking garages shall be permitted by SPECIAL EXCEPTION only, upon issuance of a SPECIAL EXCEPTION PERMIT therefore by the Metropolitan Board of Zoning Appeals as set forth in section 2.05.

17. **ACCESSORY OFF-STREET PARKING WITHIN BUILDINGS**, anywhere within the CBD-1, 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 floor space of the building in which said off-street parking is located; and

   b. said off-street parking shall be incidental and accessory to the primary use or uses of the building in which said off-street parking is located.

18. **SIGNS**, (as primary or accessory uses), as regulated in section 2.04.

CH. II, SEC. 2.01. A
19. DRIVE-IN SERVICES (not including goods and food) shall be permitted in the CBD-1 by SPECIAL EXCEPTIONS only upon issuance of a SPECIAL EXCEPTION PERMIT therefore by the Metropolitan Board of Zoning Appeals as set forth in section 2.05. (Drive-in establishments offering goods or food to customers waiting in cars shall not be permitted.)

B. CBD-1 DEVELOPMENT STANDARDS

1. USE
   a. All sales, servicing, processing, manufacturing and storage shall be conducted within completely enclosed buildings, except that the display and/or sale of merchandise may be conducted on open space on the lot, if such open space is located within or in enclosed on three or more sides by the outer dimensions of the building.

   b. Retail sales of beverages, flowers and food may be carried out on a portion of the sidewalk abutting the same business premises if Regional Center approval is obtained and permission is secured from the appropriate governmental unit to use the right-of-way. A detailed site plan showing the use and location of all furniture and equipment (including tables, barriers, chairs, signs, awnings, trash receptacles and umbrellas) on the portion of the sidewalk, the color and design of such furniture and equipment and the movement of people on the portion of the sidewalk must be approved by the Administrator of the Division of Planning and Zoning.

2. BULK
   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 and alley, such setback depth shall be not less than ten (10) feet.

   b. HEIGHT LIMITATIONS - SKY EXPOSURE PLANE. (with the exceptions of the sign regulations of section 2.04, B), there shall be no height limitations in the CBD-1 District 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 (1) (as defined in section 2.06) shall be applied to all lots within the CBD-1 District abutting:
(a) New York Street  (b) Meridian Street
(b) Ohio Street      (i) Pennsylvania Street
(c) Market Street    (j) Delaware Street
(d) Washington Street (k) Indiana Avenue
(e) Maryland Street (l) Massachusetts Avenue
(f) Capitol Avenue   (m) Kentucky Avenue
(g) Illinois Street  (n) Virginia Avenue

Provided, however, the Sky Exposure Plane Three (3)
as defined in section 2.06 shall be applied to all
lots abutting Monument Circle.

(2) No part of any building, or other structure on any lot
shall penetrate the applicable Sky Exposure Plane,
except as follows:

A building or other structure may penetrate the Sky
Exposure Plane One provided that the area of all
architectural elevations facing the street, of all
buildings and other structures on the lot (including
those portions thereof violating the Sky Exposure
Plane) when projected back to the base of the Sky
Exposure Plane, establishes an area at the lot line
not in excess of the total area of the Lot Frontage
Plane (an imaginary vertical plane, having a base
coextensive with the front line and extending
vertically to its termination at the intersection of
the applicable Sky Exposure Plane).

5. OFF- STREET PARKING

a. PARKING GARAGES. Off-street parking garages shall be
subject to the following requirements:

Entrances and Exits:
(1) Vehicular entrances and exits to off-street
parking garages shall be provided only on the
following streets:

(a) East New York; West New York Street.
(b) East Maryland; West Maryland Street.
(c) North Capitol; South Capitol Avenue.
(d) North Delaware; South Delaware Street.
(e) West Washington Street between Illinois
   Street and Capitol Avenue; West Ohio between
   Illinois Street and Capitol Avenue.
(f) North Pennsylvania Street between Ohio
   Street and New York Street; South
   Pennsylvania Street between Maryland Street
   and Washington Street.
(g) North Illinois Street between Ohio Street
   and New York Street; South Illinois Street
   between Maryland Street and Washington
   Street.
(h) Indiana, Massachusetts, Kentucky and Virginia Avenues.
(i) East Washington Street between Pennsylvania Street and Delaware Street.

(2) Off-street parking entrances or exits shall be located a minimum distance of twenty-five (25) feet from the nearest point of two intersecting street right-of-way lines. Such access cuts shall further conform to all requirements of traffic engineering departments having jurisdiction thereof.

(3) Vehicular entrances and exits to off-street parking garages shall not be provided on any alley—except for emergency purposes only.

b. PARKING LOTS. Off-street parking lots shall be subject to the following requirements:

(1) The parking area shall not be used for permanent storage, or the display, advertisement, sale, repair, dismantling or wrecking of any vehicle, equipment or materials.

(2) Parking areas shall be paved with concrete or improved with a compacted macadam base, and surfaced with an asphaltic pavement to adequately provide a durable and dust-free surface. Parking areas shall be maintained in good condition and free of weeds, dirt, trash and debris.

(3) The surface shall be graded and drained in such a manner that there be no free flow of water onto either adjacent properties or sidewalks.

(4) The parking area shall be provided with bumper guards or wheel guards so located that no part of the parked vehicles will extend beyond the boundary of the established parking area.

(5) Lighting facilities used to illuminate the parking areas shall be so located, shielded and directed upon the parking area that they do not glare onto or interfere with street traffic, adjacent buildings, or adjacent uses.

4. OFF-STREET LOADING

a. LOCATION

(1) All off-street loading areas shall be located within two hundred (200) feet of the lot served.

(2) Off-street loading facilities for separate lots may be provided collectively if:
(a) such loading facilities are within two hundred (200) feet of all establishments served thereby, and

(b) the size of the collective loading area is determined (in accordance with e. below), by the sum of the total adjusted net floor area for all buildings served by said collective off-street loading facilities.

(3) East off-street loading area shall be located with direct vehicular access to an alley only, and in a manner which will least interfere 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 SPACE. An off-street loading space shall be at least five hundred (500) square feet in area, exclusive of maneuvering area.

c. SURFACING. All open off-street loading areas shall be paved with concrete, or improved with a compacted macadam base, and surfaced with an asphaltic surface to adequately provide a durable and dust-free surface which shall be maintained in good condition and free of weeds, dirt, trash and debris.

d. REPAIR AND SERVICE. No motor vehicle repair work or service of any kind shall be permitted in conjunction with loading facilities, except for emergencies developing during occupation of said facilities.

e. NUMBER OF REQUIRED OFF-STREET LOADING SPACES.

(1) The number of required off-street loading spaces is based upon the buildings total adjusted net floor area as defined in section 2.06.

(2) Off-street loading spaces shall be provided in accordance with the following minimum requirements:

<table>
<thead>
<tr>
<th>Total Adjusted Net Floor Area of Building (Square Feet)</th>
<th>No. of Loading Spaces Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>0- 10,000</td>
<td>None</td>
</tr>
<tr>
<td>10,001- 100,000</td>
<td>1</td>
</tr>
<tr>
<td>100,001- 350,000</td>
<td>2</td>
</tr>
<tr>
<td>350,001- 600,000</td>
<td>3</td>
</tr>
<tr>
<td>600,001- 850,000</td>
<td>4</td>
</tr>
<tr>
<td>850,001-1,100,000</td>
<td>5</td>
</tr>
</tbody>
</table>

For each additional 350,000 square feet of net floor area over 1,100,000 or fraction thereof, one (1) additional loading space shall be provided.

CH. II, SEC. 2.01, 3
C. CBD-1 PERFORMANCE STANDARDS

All uses established or placed into operation after the effective date of this ordinance shall comply with the following standards. No use in existence on the effective date of this ordinance shall be so altered or modified as to conflict with these standards.

1. VIBRATION
   No use shall cause earth vibrations or concussions detectable beyond the lot lines without the aid of instruments.

2. SMOKE
   No use shall emit smoke of a density equal to or greater than No. 2 according to the Ringlemann Scale, as now published and used by the U.S. Bureau of Mines, which scale is on file in the office of the Metropolitan Planning Department of Marion County, Indiana, and is hereby incorporated by reference and made a part hereof.

3. DUST
   No use shall cause dust, dirt or fly-ash of any kind to escape beyond the lot lines in a manner detrimental to or endangering the public health, safety or welfare or causing injury to property.

4. NOXIOUS MATTER
   No use shall discharge across the lot lines noxious, toxic or corrosive matter, fumes or gases, in such concentration as to be detrimental to or endanger the public health, safety or welfare or cause injury to property.

5. ODOR
   No use shall emit across the lot lines odor in such quantities as to be readily detectable at any point along the lot lines and as to be detrimental to or endanger the public health, safety or welfare or cause injury to property.

6. SOUND
   No use shall produce sound in such a manner as to endanger the public health, safety or welfare or cause injury to property. Sound shall be muffled so as not to become detrimental due to intermittance, beat frequency, shrillness or vibration.

7. HEAT AND GLARE
   No use shall produce heat or glare creating a hazard perceptible from any point beyond the lot lines.

8. WASTE MATTER
   No use shall accumulate within the lot or discharge beyond the lot lines any waste matter, whether liquid or solid, in violation of the applicable standards and regulations of the Division of Public Health of the Health and Hospital Corporation of Marion County, Indiana, the Indiana State Board of Health, and the Stream Pollution Control Board of the State of Indiana or in such a manner as to endanger the public health, safety or welfare or cause injury to property.

CH. II, SEC. 2.01, C
CHAPTER II

DWELLING DISTRICT REGULATIONS

SECTION 2.00

The following regulations shall apply to all land within the DWELLING DISTRICTS.

A. After the effective date of this ordinance:

1. With the exception of legally established nonconforming uses, no land, building, structure, premises or part thereof shall be used or occupied except in conformity with these regulations and for uses permitted by this ordinance.

2. No building, structure, premises or part thereof shall be constructed, erected, converted, enlarged, extended, reconstructed or relocated except in conformity with these regulations and for uses permitted by this ordinance.

Provided, however, legally established nonconforming uses may be reconstructed if damaged or partially destroyed by fire or other disaster when such damage or destruction does not exceed two-thirds (2/3) of the gross floor area of the structure or facilities affected.

Provided further, however, any previously officially recorded, platted lot having less than the minimum lot area and/or minimum lot width required by the applicable DWELLING DISTRICT regulations of this ordinance for a one-family dwelling, shall be deemed an exception to such minimum lot area requirement, and a one-family dwelling may be constructed thereon provided all other requirements of this ordinance, including minimum yard and setback requirements, shall be met.

Provided further, however, any legally established nonconforming use public elementary, junior high or high school (including any structures, facilities and parking areas accessory thereto) may be constructed, erected, converted, enlarged, extended, reconstructed or relocated for such public elementary, junior high or high school use on the same lot or parcel, provided such school building, structure, facilities and parking area shall conform to the minimum yard and setback requirements of the applicable DWELLING DISTRICT.

3. The front setback and minimum front yard requirements of all Zoning Districts shall be subject to the following exception, which shall be applied to all land within the town of Meridian Hills, Indiana:
EXCEPTION TO
ZONING DISTRICTS'
SETBACK STANDARDS
---LAND WITHIN
TOWN OF MERIDIAN
HILLS

Except, however, the required front setback and
minimum yard requirements applicable to
all land within the Town of Meridian Hills,
Indiana, however presently zoned, shall be not
less than the standards of the Class R-1, R-2
and R-3 area Districts, respectively,
previously applicable thereto as said land was
formerly zoned, in accordance with the
Meridian Hills Zone Map and section 12 of the
Zoning Ordinance of the Town of Meridian
Hills, Indiana, General Ordinance No. 1, 1946,
prior to the effective date of the
comprehensive Dwelling Districts Zoning
Ordinance of Marion County, Indiana, Ordinance
66-A0-2, which rezoned and reclassified said
land. (Said Zoning Ordinance of the Town of
Meridian Hills, Indiana, section 12 and
Meridian Hills Zone Map, adopted by the Marion
County Council March 28, 1957, as part of
Marion County Council Ordinance No. 8-1957,
are hereby incorporated herein by reference).

B. All uses established or placed into operation after the effective
date of this ordinance shall comply with the following performance
standards. No use in existence on the effective date of this
ordinance shall be so altered or modified as to conflict with
these standards.

1. VIBRATION
No use shall cause earth vibrations or
concussions detectable beyond the lot lines
without the aid of instruments.

2. SMOKE
No use shall emit smoke of a density equal to
or greater than No. 2 according to the
Ringelmann Scale, as now published and used by
the U.S. Bureau of Mines, which scale is on
file in the office of the Metropolitan
Planning Department of Marion County, Indiana,
and is hereby incorporated by reference and
made a part hereof.

3. DUST
No use shall cause dust, dirt or fly-ash of
any kind to escape beyond the lot lines in a
manner detrimental to or endangering the
public health, safety or welfare or causing
injury to property.

4. NOXIOUS MATTER
No use shall discharge across the lot lines
noxious, toxic or corrosive matter, fumes or
gases in such concentration as to be
detrimental to or endanger the public health,
safety or welfare or cause injury to property.

5. ODOR
No use shall emit across the lot lines odor in
such quantity as to be readily detectable at
any point along the lot lines and as to be
detrimental to or endanger the public health,
safety or welfare or cause injury to property.
6. SOUND
No use shall produce sound in such a manner as to endanger the public health, safety or welfare or cause injury to property. Sound shall be muffled so as not to become detrimental due to intermittence, beat frequency, shrillness or vibration.

7. HEAT AND GLARE
No use shall produce heat or glare creating a hazard perceptible from any point beyond the lot lines.

8. WASTE MATTER
No use shall accumulate within the lot or discharge beyond the lot lines any waste matter, whether liquid or solid, in violation of the applicable standards and regulations of the Division of Public Health of the Health and Hospital Corporation of Marion County, Indiana; the Indiana State Board of Health; and the Stream Pollution Control Board of the State of Indiana, or in such a manner as to endanger the public health, safety or welfare; or cause injury to property.
SECTION 2.01  D-S DWELLING SUBURBAN DISTRICT REGULATIONS

A. PERMITTED D-S USES

The following uses shall be permitted in the D-S DISTRICT. All uses in the D-S DISTRICT shall conform to the D-S Development Standards (section 2.01, B) and the Dwelling District Regulations of section 2.00.

1. ONE-FAMILY DWELLING, including Manufactured Homes as regulated in section 2.175.

2. GROUP HOMES, as regulated in section 2.18.

3. TEMPORARY USES, as regulated in section 2.14.

4. ACCESSORY USES, as regulated in section 2.15.

5. HOME OCCUPATIONS, as regulated in section 2.16.

B. D-S DEVELOPMENT STANDARDS

1. MINIMUM LOT AREA

   Minimum lot area: 1 acre

   Provided, however:
   Any plat of subdivision consisting of 5 lots or more submitted for plat approval in accordance with the Subdivision Control Ordinance of Marion County, Indiana, subsequent to the effective date of this ordinance, may reduce said minimum lot area of 20 percent of the total number of lots within said plat, to the extent of 20 percent below such 1-acre requirement, provided the average size of all lots within said approved plat shall then be at least 1 acre.

2. MINIMUM LOT WIDTH AND STREET FRONTAGE

   Minimum lot width at the setback line: 150 feet

   Provided, however:
   Any plat of a subdivision consisting of 5 lots or more submitted for plat approval in accordance with the Subdivision Control Ordinance of Marion County, Indiana, subsequent to the effective date of this ordinance, may reduce said minimum width of 20 percent of the total number of lots within said plat, to the extent of 20 percent below such 150-foot requirement.

   Each lot shall have at least 75 feet of frontage on a public street, and shall gain access from said street.

   - 7 -

   CH. II, SEC. 2.01, B
3. SETBACK LINES AND MINIMUM YARDS
   a. SETBACK LINE AND MINIMUM FRONT YARD:
      Yards having a minimum depth in accordance with the setback requirements of section 2.17, A, shall be provided along all public street right-of-way lines.

   b. MINIMUM REAR YARD: 25 feet

   c. MINIMUM SIDE YARD: Aggregate: 35 feet
      Provided, however, no side yard shall be less than 15 feet.

4. MINIMUM OPEN SPACE
   Open space (as defined in section 2.19) shall comprise at least 85 percent of the lot area.

5. MAXIMUM HEIGHT
   a. Primary buildings: 35 feet

   b. Accessory buildings: 20 feet

6. MINIMUM FLOOR AREA
   Minimum main floor area of the primary building, exclusive of garage, carports, and open porches:
   - One-story building: 1,200 sq. ft.
   - Building higher than one story: 800 sq. ft.

7. OFF-STREET PARKING AND PUBLIC STREETS
   Off-street parking areas and public streets shall be provided in accordance with section 2.17, E and C.
SECTION 2.02   D-1 DWELLING DISTRICT ONE REGULATIONS

A.    PERMITTED D-1 USES

The following uses shall be permitted in the D-1 DISTRICT. All uses in the D-1 DISTRICT shall conform to the D-1 Development Standards (section 2.02, B) and the Dwelling District Regulations of section 2.00.

1.  ONE-FAMILY DWELLING, including Manufactured Homes as regulated in section 2.175.

2.  GROUP HOMES, as regulated in section 2.18.

3.  TEMPORARY USES, as regulated in section 2.14.

4.  ACCESSORY USES, as regulated in section 2.15.

5.  HOME OCCUPATIONS, as regulated in section 2.16.

B.   D-1 DEVELOPMENT STANDARDS

1.  MINIMUM LOT AREA

   Minimum lot area: 24,000 sq. ft.

   Provided, however:
   Any plat of a subdivision consisting of 5 lots or more submitted for plat approval in accordance with the Subdivision Control Ordinance of Marion County, Indiana, subsequent to the effective date of this ordinance may reduce said minimum lot area of 20 percent of the total number of lots within said plat, to the extent of 20 percent below such 24,000 sq. ft. requirements, provided the average size of all lots within said approved plat shall then be at least 24,000 sq. ft.

2.  MINIMUM LOT WIDTH AND STREET FRONTAGE

   Minimum lot width at the setback line: 90 feet

   Provided, however:
   Any plat of a subdivision consisting of 5 lots or more submitted for plat approval in accordance with the Subdivision Control Ordinance of Marion County, Indiana, subsequent to the effective date of this ordinance, may reduce said minimum width of 20 percent of the total number of lots within said plat, to the extent of 20 percent below such 90-foot requirement.

   Each lot shall have at least 45 feet of frontage on a public street, and shall gain access from said street.
(D-1 REGULATIONS)

3. SETBACK LINES AND MINIMUM YARDS

a. SETBACK LINE AND MINIMUM FRONT YARD:
Yards, having a minimum depth in accordance with the setback requirements of section 2.17, A, shall be provided along all public street right-of-way lines.

b. MINIMUM REAR YARD: 25 feet

c. MINIMUM SIDE YARDS: Aggregate: 22 feet.
Provided, however, no side yard shall be less than 8 feet.

4. MINIMUM OPEN SPACE
Open space (as defined in section 2.19) shall comprise at least 60 percent of the lot area.

5. MAXIMUM HEIGHT

a. Primary building: 35 feet

b. Accessory building: 20 feet

6. MINIMUM FLOOR AREA
Minimum main floor area of the primary building, exclusive of garages, carports and open porches:

One-story building: 1,200 sq. ft.
Building higher than one story: 800 sq. ft.

7. OFF-STREET PARKING AND PUBLIC STREETS
Off-street parking areas and public streets shall be provided in accordance with section 2.17, E and G.

CH. II, SEC. 2.02.B - 10 -
*** NOTE: Resource material for this study was obtained from:

*** The Indianapolis Chamber of Commerce.
*** The 15th. Annual Real Estate Market Study by the F. C. Tucker Co.
*** The Metropolitan Indianapolis Board of Realtors.

*** RESEARCH / PROCESS:

   --- Mark Rougeux,
*** TYPE: Development Corporation.
*** SIZE:
*** PRINCIPLE INTERESTS: Const., Development & Property Mgmt.

*** PROCESS:
   -- Presentation of idea. (conception)
   -- The land owner is approached. (In the case of property owned by
     the city, the Metropolitan Development Board is presented with a
     proposal)
   -- Inhouse Market Research and Feasability Studies.
   -- Inhouse Architecture Dept. (conceptual drawings - plans,
     elevations and sketches)
   -- A Civil Engineering firm will conduct specific site studies and
     analysis.
   -- All Zoning requirements are researched and criteria established.
   -- Inhouse Legal staff is extremely busy. (intricate legalities involved
     with acquisition and funding)
   -- Presentation of design package to a Banking institution for
     funding. (Commercial Real Estate)
   -- A complete design package is produced by an Architecture firm. (this
     is monitored closely by the inhouse Architecture Dept.)
   -- Inhouse Construction Mgmt. Dept. guides the project to fruition.
   -- Inhouse Public Relations staff is also busy. (working like crazy
     preparing for opening day ceremonies and festivities.)
   -- Official Opening Day!! (ALL LEASES BEGIN)
   -- Tenant coordinators are now charged with maintaining open
     channels of communication and dialogue.

*** NAME: Michael Browning Investments.
   --- Dick Pollack, Vice President for Architecture and Planning.
*** TYPE: Investment and Holding Corporation.
**SIZE**: 90 - 100 people. A mid-sized company with strong growth potential.

**PRINCIPLE INTERESTS**: Office Building Development & Mgmt.

**PROCESS**:
-- Birth of Concept.
-- Presentation of idea.
-- The land owner is approached. (In the case of property owned by the city, the Metropolitan Development Board is presented with a proposal.)
-- Inhouse Legal staff is extremely busy. (intricate legalities involved with acquisition and funding)
-- Inhouse Market Research and Feasibility Studies.
-- Inhouse Architecture Dept. (conceptual drawings- plans, elevations and sketches) Very schematic.
-- A Civil Engineering firm will conduct specific site studies and analysis.
-- Presentation of design package to a Banking institution for funding. (Commercial Real Estate)
-- Issues concerning Zoning.
-- Inhouse Public Relations staff is also busy. (major publicity blitz)
-- Leasing exhibits are prepared. (8x10 format for proposals to tenants.
-- A complete A/E package is produced by an Architecture firm. (this is monitored closely by the inhouse Architecture Dept.) Contract documents on Fast Track.
-- Inhouse Construction Mgmt. Dept. guides the project to fruition.
-- Public Relations and Leasing is working like crazy preparing for opening day ceremonies and festivities.
-- Official Opening Day!! (ALL LEASES BEGIN)
-- Tenant coordinators (leasing agents) are now charged with maintaining open channels of communication and dialogue.
-- Property Mgmt. begins with first tenants.

**NAME**: The Mansur Group.
**Affiliate companies**: XILA Communications, Lange Realty, HDG Architects.
-- Larry A. Roan, Director of Operations.

**TYPE**: Development Corporation.

**SIZE**: 70 people; 40 professionals and 30 staff members.

**PRINCIPLE INTERESTS**: Commercial Development and Property Mgmt.

**PROCESS**:
-- Development of idea. (conception; use, location, size, scope, etc.)
-- The land owner is approached.
-- Inhouse Market Research and Feasibility Studies. (may also include out of house services like Commercial appraiser's, Marketing services etc.)
-- Inhouse Architecture Dept. (conceptual drawings- plans,
-- In the case of property owned by the city, the Metropolitan Development Board is presented with a proposal.
-- Presentation of design package to a Banking institution for funding. (Commercial Real Estate) Also presented to other financial partners.
-- A Civil Engineering and Landscape Architecture firm will conduct specific site studies and analysis.
-- Inhouse Legal staff is extremely busy. (intricate legalities involved with acquisition and funding) There is also outside legal council involved.
-- Inhouse Public Relations staff is also busy. (major publicity blitz) They have been involved since schematic designs were completed. Marketing and Leasing included.
-- A complete design package is produced by an Architecture firm. (mostly done by affiliated firm; HDG.
-- Ground breaking ceremonies.
-- Inhouse Construction Mgmt. Dept. guides the project to fruition.
-- Public Relations is working like crazy preparing for opening day ceremonies and festivities.
-- Official Opening Day!! (ALL LEASES BEGIN)
-- Tenant coordinators and Property Mgmt. are now charged with maintaining open channels of communication and dialogue.

NOTE: The process is not always in this specific sequence. There is sometimes an overlap of activities.

*** THE PROCESS MODIFIED TO ADAPT TO THE SITUATION OF A SMALL SCALE DEVELOPER... ME !!!

*** NAME:

*** TYPE:

*** SIZE: "A smaller-scale Developer."

*** PRINCIPLE INTEREST: Architecture/Commercial development.

*** PROCESS: -- AN IDEA... More often than not, a niche that needs to be filled, possibly as a result of a future projected or speculated growth.
-- Presentation of idea. (conception)
-- Research is conducted into the demographics of the area to determine
the feasibility of the notion.
- A specific site is determined within that general locality, and the

land owner is approached. An option to buy is negotiated with the help of Legal council or a Realty company.
- If the land is owned by the city, the Metropolitan Development Board, Division of Planning must be contacted. They will request a formal proposal.
- A Civil Engineering firm is hired to conduct specific site studies and analysis.
- Inhouse Architecture Dept., namely myself, will generate conceptual drawings - plans, elevations and sketches
- Presentation of design package to a Banking institution for funding. (Commercial Real Estate Dept.) Presentation to, possibly, other financial partners.

- Outside Legal council is involved from the start.

- It is also paramount that, once the project is fairly concrete, the quest for future tenants is begun. Publicity is a must!!

( Some times, your financial backing or funding by a lending institution is contingent on providing a certain percentage of the project preleased, or at least some proof of future commitments.)

- I will then put together a complete design package. Engineers are contracted if necessary.
- Ground breaking ceremonies.
- I act as my own general contractor, (a saved expence if one has the time to do it) hiring, and monitoring the sub-contractors until the job is completed.
- Official Opening Day!! ( ALL LEASES BEGIN )
- By that time a Realtor would have been hired to manage the property and provide most of the tenant - landlord dialogue. I will arrange it so a tenant will contact the specific sub-contractor the problem requires. If it is a plumbing problem, the sub-contractor who installed the plumbing will be contacted.

*** NOTE : This sequence is not cast in stone. There are going to be many of the steps done simultaneously and possibly a slight variation of a few, depending on the specific situation. The key is to be flexible !!!
** Research / Project:

** The Consumer !!!!

** The median price range in which shoppers would seriously consider purchasing a new home is $36,000.

<table>
<thead>
<tr>
<th>Average price consumer would pay is $102,000.</th>
<th>Home price range</th>
<th>All consumers</th>
</tr>
</thead>
<tbody>
<tr>
<td>The median price of builders' best selling models is $106,000. The median home price varies widely among buyer types: $66,000 for first-time buyers, $91,000 for move-ups, $80,000 for empty nesters and $92,000 for retirees.</td>
<td>Less than $55,000</td>
<td>15.4%</td>
</tr>
<tr>
<td>$55,000-64,999</td>
<td>15.2</td>
<td></td>
</tr>
<tr>
<td>$65,000-84,999</td>
<td>19.6</td>
<td></td>
</tr>
<tr>
<td>$85,000-99,999</td>
<td>14.4</td>
<td></td>
</tr>
<tr>
<td>$100,000-149,999</td>
<td>20.0</td>
<td></td>
</tr>
<tr>
<td>$150,000-199,999</td>
<td>8.4</td>
<td></td>
</tr>
<tr>
<td>$200,000-300,000</td>
<td>5.6</td>
<td></td>
</tr>
<tr>
<td>$300,000+</td>
<td>1.5</td>
<td></td>
</tr>
</tbody>
</table>

** About 42% of all consumers plan to spend less than $11,000 for a down-payment.

Median down payment among all consumers is $15,000. National average is $26,733. 21.4% could pay less than $6,000, 21.1% could pay $6,000-$10,999, 18.2% could afford $11,000-$20,999, 13.7% could spend $21,000-$30,999, 14% could pay $31,000-$50,999.

Median down payment by home price range.

<table>
<thead>
<tr>
<th>Downpayment</th>
<th>Price range</th>
</tr>
</thead>
<tbody>
<tr>
<td>$8,000</td>
<td>less than $85,000</td>
</tr>
<tr>
<td>$15,000</td>
<td>$85,000-99,000</td>
</tr>
<tr>
<td>$30,000</td>
<td>$100,000-149,000</td>
</tr>
<tr>
<td>$48,000</td>
<td>$150,000-199,000</td>
</tr>
<tr>
<td>$70,000</td>
<td>$200,000-300,000</td>
</tr>
<tr>
<td>$100,000</td>
<td>more than $300,000</td>
</tr>
</tbody>
</table>

** The maximum monthly payment which consumers say they can afford varies by home price range.

Median monthly payment is $660; average is $688. 33.2% could afford a monthly payment between $500-749, 19.9% $750-1000 and 18.1% could afford a payment exceeding $1,000. Maximum monthly payment averaged $581 for empty nesters up to $740 for move ups.
Average affordable monthly payment by home price.

<table>
<thead>
<tr>
<th>Price Range</th>
<th>Average Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>$504</td>
<td>less than $85,000</td>
</tr>
<tr>
<td>$724</td>
<td>$85,000-99,000</td>
</tr>
<tr>
<td>$892</td>
<td>$100,000-149,000</td>
</tr>
<tr>
<td>$929</td>
<td>$150,000-199,000</td>
</tr>
<tr>
<td>$1048</td>
<td>$200,000-300,000</td>
</tr>
<tr>
<td>$1125</td>
<td>more than $300,000</td>
</tr>
</tbody>
</table>

** Almost two-thirds of households with incomes exceeding $50,000 rely on two wage earners.**

Among all consumers, about half are two-paycheck households. The higher the income, the more likely that both spouses are wage earners. Among buyer types, 58.4% of move-ups have dual incomes, while 59.5% of empty nesters, 50.3% of first-time buyers and 56.9 of retirees have one wage earners.

Annual household income

<table>
<thead>
<tr>
<th>Income Range</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>less than $20,000</td>
<td>57.1%</td>
</tr>
<tr>
<td>$20,000-34,000</td>
<td>39.7%</td>
</tr>
<tr>
<td>$35,000-49,000</td>
<td>51.8%</td>
</tr>
<tr>
<td>more than $50,000</td>
<td>47.8%</td>
</tr>
</tbody>
</table>

Number of wage earners: * = one, + = two

** Three quarters of consumers consider home ownership as their most important investment.**

Most homeowners prefer spending money on their home than any other investment. It is often the most significant investment that most buyers will ever make. Among buyer types, 83.8% of first-time buyers put their home as their top investment and financial priority.

78.8% YES  24.2% NO
** Owning a home rather than renting is the most influential factor in the buying decision.**

One of the most basic motivations in buying a home is to invest one's money each month rather than paying a landlord. That is the most important factor in the buying decision to 80% of first time buyers. Creating a savings nest egg by building equity and achieving a tax shelter also are important.

Financial reasons for buying a home

<table>
<thead>
<tr>
<th>Reason</th>
<th>All consumers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owning rather than renting</td>
<td>55.6%</td>
</tr>
<tr>
<td>Building equity</td>
<td>40.4%</td>
</tr>
<tr>
<td>Achieve tax shelter</td>
<td>39.8%</td>
</tr>
<tr>
<td>Avoid future higher prices</td>
<td>29.2%</td>
</tr>
<tr>
<td>Have a hedge against inflation</td>
<td>15.9%</td>
</tr>
</tbody>
</table>

** Privacy and security are key lifestyle factors which encourage ownership among all buyers.**

Most consumers want a home that is secure nest. That desire for security and privacy is noted across home price range, buyer type, income and age. First-time consumers are most sensitive to it. Home ownership is a lifestyle in itself. And almost half of move-ups say it’s essential for raising family.

Lifestyle factors

<table>
<thead>
<tr>
<th>Factor</th>
<th>Detached shoppers</th>
<th>Attached shoppers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provides security/privacy</td>
<td>69.5%</td>
<td>76.1%</td>
</tr>
<tr>
<td>Conforms to lifestyle</td>
<td>49.4%</td>
<td>61.5%</td>
</tr>
<tr>
<td>Essential for raising family</td>
<td>38.9%</td>
<td>17.1%</td>
</tr>
<tr>
<td>Establishes community roots</td>
<td>15.6%</td>
<td>8.6%</td>
</tr>
<tr>
<td>Avoids dealing with landlords</td>
<td>11.8%</td>
<td>17.1%</td>
</tr>
<tr>
<td>Sheer prestige of home ownership</td>
<td>5.5%</td>
<td>5.1%</td>
</tr>
</tbody>
</table>

** Consumers seek new housing to accommodate changing needs for space, amenities and location.**

In looking for a new home, many consumers are simply looking for something different - a new location, more amenities, better spaces. Other shoppers also are looking for something new: their first home, cited by 26.1% of those seeking attached units and 28.2% wanting a home less than $85,000.

Reasons to buy

<table>
<thead>
<tr>
<th>Reason</th>
<th>Detached shoppers</th>
<th>Attached shoppers</th>
</tr>
</thead>
<tbody>
<tr>
<td>More space, amenities, new location</td>
<td>54.7%</td>
<td>26.1%</td>
</tr>
<tr>
<td>Buying for first time</td>
<td>19.8%</td>
<td>26.1%</td>
</tr>
<tr>
<td>Less space, less maintenance, changing needs</td>
<td>9.0%</td>
<td>21.7%</td>
</tr>
<tr>
<td>Must move due to job of family reasons</td>
<td>8.7%</td>
<td>7.8%</td>
</tr>
</tbody>
</table>
** Top consideration in whether or not to buy are monthly payment and the price of the house.  

Buyers are most concerned about the overall cost of the house an how much that house is going to cost. More than half of first-time buyers and move-up buyers are concerned about monthly payments. Price is most important to 56.5% of empty nesters and 64.3% of retirees.

<table>
<thead>
<tr>
<th>Most important considerations</th>
<th>All consumers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly payment</td>
<td>48.0%</td>
</tr>
<tr>
<td>Price of house</td>
<td>44.2</td>
</tr>
<tr>
<td>Mortgage interest rate</td>
<td>21.5</td>
</tr>
<tr>
<td>Downpayment</td>
<td>6.8</td>
</tr>
</tbody>
</table>

** Good investment value, house size are consumers' most important factors in selecting home.  

Good investment value takes precedence over everything else. But obviously there are also many other factors which are important to consumers in choosing the right home. The list notes these factors and the degree of importance buyers attach to them. Some priorities vary by buyer type.

<table>
<thead>
<tr>
<th>Good investment value</th>
<th>Consumers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>44.4</td>
</tr>
<tr>
<td>Style/Appearance</td>
<td>36.9</td>
</tr>
<tr>
<td>School quality</td>
<td>23.6</td>
</tr>
<tr>
<td>Close to work</td>
<td>15.3</td>
</tr>
<tr>
<td>Prestigious neighborhood</td>
<td>10.3</td>
</tr>
<tr>
<td>Warranties</td>
<td>10.1</td>
</tr>
<tr>
<td>Close to shopping</td>
<td>4.1</td>
</tr>
<tr>
<td>Public transportation</td>
<td>3.0</td>
</tr>
<tr>
<td>Brand names</td>
<td>2.6</td>
</tr>
</tbody>
</table>

** Of current owners, detached-home shoppers seek larger homes, attached home shoppers want profit.  

Shoppers of detached homes want more space and a better location; shoppers of attached units want to profit on the increased value of their present home and also want a smaller home with less maintenance. Among buyer types, 63.8% of move-ups wanted larger homes.
** Why move?**

<table>
<thead>
<tr>
<th></th>
<th>Detached</th>
<th>Attached</th>
</tr>
</thead>
<tbody>
<tr>
<td>Larger</td>
<td>45.9%</td>
<td>18.2%</td>
</tr>
<tr>
<td>Better location</td>
<td>24.5</td>
<td>19.7</td>
</tr>
<tr>
<td>Make a profit</td>
<td>11.6</td>
<td>22.7</td>
</tr>
<tr>
<td>Newer home</td>
<td>10.2</td>
<td>9.1</td>
</tr>
<tr>
<td>More amenities</td>
<td>9.7</td>
<td>7.6</td>
</tr>
<tr>
<td>Smaller home</td>
<td>7.6</td>
<td>21.2</td>
</tr>
<tr>
<td>Energy efficient</td>
<td>7.6</td>
<td>3.0</td>
</tr>
<tr>
<td>Less maintenance</td>
<td>4.7</td>
<td>21.2</td>
</tr>
<tr>
<td>Better neighborhood</td>
<td>4.0</td>
<td>-</td>
</tr>
<tr>
<td>Community features</td>
<td>2.1</td>
<td>4.6</td>
</tr>
</tbody>
</table>

** Almost half of consumers would not consider a home without an insured warranty.**

About 47% of all consumers and almost 70% of retirees would not consider buying a home without one. An insured warranty can determine the buying decision. As noted, more than half say that an insured warranty is very important.

*Importance of insured warranty in the decision of buying.*

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Very important</td>
<td>52.7%</td>
<td></td>
</tr>
<tr>
<td>Somewhat important</td>
<td>40.0%</td>
<td></td>
</tr>
<tr>
<td>Not important</td>
<td>7.3%</td>
<td></td>
</tr>
</tbody>
</table>

** Quality and value are what shoppers consider most important in a new home.**

Buyers were asked to rate various home attributes on a five-point scale from most to least important. They want their homes to be the best and they want to build profit through the purchase of a new home. Only the extremes of most and least important are shown.

* Most important
  + Least important

** Value **

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>**********</td>
<td>37.2%</td>
<td></td>
</tr>
<tr>
<td>++++++++</td>
<td>7.5%</td>
<td></td>
</tr>
</tbody>
</table>

** Quality **

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>**********</td>
<td>35.6%</td>
<td></td>
</tr>
<tr>
<td>++++++++++</td>
<td>13.2%</td>
<td></td>
</tr>
</tbody>
</table>

** Neighborhood **

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>**********</td>
<td>30.3%</td>
<td></td>
</tr>
<tr>
<td>++++++++++</td>
<td>12.1%</td>
<td></td>
</tr>
</tbody>
</table>

** Security **

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>**********</td>
<td>29.1%</td>
<td></td>
</tr>
</tbody>
</table>

37
**Important merchandising rooms are expanding, 32% of builders say house is increasing in size.**

Builders are rearranging the square footage of their best selling model homes to accommodate consumers’ preferences and maximize every inch of the hottest merchandising rooms: the master bath, master suite and kitchen.

<table>
<thead>
<tr>
<th>Size</th>
<th>Increased</th>
<th>Decreased</th>
<th>Same</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total house</td>
<td>31.8%</td>
<td>18.8%</td>
<td>49.4%</td>
</tr>
<tr>
<td>Master bath</td>
<td>59.7</td>
<td>4.2</td>
<td>36.1</td>
</tr>
<tr>
<td>Master suite</td>
<td>58.7</td>
<td>5.1</td>
<td>36.2</td>
</tr>
<tr>
<td>Kitchen</td>
<td>45.8</td>
<td>8.6</td>
<td>45.6</td>
</tr>
<tr>
<td>Family room</td>
<td>30.3</td>
<td>16.3</td>
<td>53.4</td>
</tr>
<tr>
<td>Dining room</td>
<td>12.5</td>
<td>29.0</td>
<td>58.5</td>
</tr>
<tr>
<td>Formal living room</td>
<td>10.5</td>
<td>43.2</td>
<td>46.3</td>
</tr>
</tbody>
</table>

**Credibility of construction quality and energy-savings claims is based on seeing is believing and getting it in writing.**

More than two-thirds of builders depend on sales presentation to market construction quality and energy-saving features. And yet, only about 12% of consumers are willing to take a builder’s word for it when it comes to the builder’s claims. Buyers want to get a written guarantee.

<table>
<thead>
<tr>
<th>How consumers rate credibility</th>
<th>Construction quality</th>
<th>Energy savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>By visual inspection</td>
<td>68.3%</td>
<td>45.5%</td>
</tr>
<tr>
<td>Get guarantee/warranty</td>
<td>45.5</td>
<td>52.0</td>
</tr>
<tr>
<td>Ask others who bought</td>
<td>48.9</td>
<td>29.3</td>
</tr>
<tr>
<td>Get outside evaluation</td>
<td>42.0</td>
<td>28.4</td>
</tr>
<tr>
<td>Compare with other homes</td>
<td>42.0</td>
<td>25.5</td>
</tr>
<tr>
<td>Ask for literature</td>
<td>19.3</td>
<td>38.1</td>
</tr>
<tr>
<td>Look for brand names</td>
<td>21.0</td>
<td>29.6</td>
</tr>
<tr>
<td>Take builder’s word for it</td>
<td>12.5</td>
<td>12.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How builders merchandise</th>
<th>Construction</th>
<th>Energy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

38
<table>
<thead>
<tr>
<th></th>
<th>Quality</th>
<th>Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales presentation</td>
<td>69.0%</td>
<td>65.4%</td>
</tr>
<tr>
<td>Written guarantee/warranty</td>
<td>60.5</td>
<td>30.8</td>
</tr>
<tr>
<td>Literature/brochures</td>
<td>57.3</td>
<td>57.5</td>
</tr>
<tr>
<td>Supplier promotion/literature</td>
<td>36.6</td>
<td>43.2</td>
</tr>
<tr>
<td>Sales center displays</td>
<td>33.7</td>
<td>25.7</td>
</tr>
<tr>
<td>Outside evaluations/testimonials</td>
<td>28.7</td>
<td>27.0</td>
</tr>
<tr>
<td>Signage/model home stickers</td>
<td>28.4</td>
<td>23.5</td>
</tr>
<tr>
<td>Cutaway exhibits</td>
<td>9.0</td>
<td>18.7</td>
</tr>
</tbody>
</table>

** About four in 10 consumers would be willing to pay monthly fees for exterior or yard maintenance.**

Most consumers do not want to pay a monthly assessment for the of their yard or exterior of their home. Among older buyers, 57.3% of empty nesters and 55.1% of retirees would consider paying a monthly maintenance fee. The higher the price of the house, the more acceptable a fee.

*Willing to pay monthly fees

<table>
<thead>
<tr>
<th></th>
<th>Exterior maintenance</th>
<th>Yard Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>59.9</td>
<td>57.3%</td>
</tr>
<tr>
<td>Yes</td>
<td>14.1</td>
<td>20.7</td>
</tr>
<tr>
<td>Maybe</td>
<td>26.0</td>
<td>22.0</td>
</tr>
</tbody>
</table>

** Consumers want decorating to be fashionable, practical and express their own personality.**

Decorating and design can make a vital marketing statement. Comfort comes first, even before being fashionable. And almost three-quarters of buyers say that they are not at all nervous about making decorating decisions.

<table>
<thead>
<tr>
<th>Decorating preferences</th>
<th>Consumers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comfort and practicality</td>
<td>98.5%</td>
</tr>
<tr>
<td>Warm color</td>
<td>89.0</td>
</tr>
<tr>
<td>Earth tones</td>
<td>86.1</td>
</tr>
<tr>
<td>Neutral color schemes</td>
<td>68.6</td>
</tr>
<tr>
<td>Fashionable, not just pretty</td>
<td>60.7</td>
</tr>
<tr>
<td>Unique tastes</td>
<td>57.3</td>
</tr>
</tbody>
</table>

** About half of sales centers are located inside one of the model homes.**
Model homes are a marketing and sales tool. More than 80% of the time, the sales center is located in a model (49.3%) or the garage of a model (32.6%). Builders spend an average of $48,395 building and decorating a sales center.

<table>
<thead>
<tr>
<th>Information included in sales center</th>
<th>Builders including</th>
</tr>
</thead>
<tbody>
<tr>
<td>Floor plan</td>
<td>73.4%</td>
</tr>
<tr>
<td>Material colors</td>
<td>64.2</td>
</tr>
<tr>
<td>Land plans</td>
<td>58.1</td>
</tr>
<tr>
<td>Price lists</td>
<td>57.9</td>
</tr>
<tr>
<td>Optional features</td>
<td>54.6</td>
</tr>
<tr>
<td>Standard features</td>
<td>49.0</td>
</tr>
<tr>
<td>Financial info</td>
<td>48.2</td>
</tr>
<tr>
<td>Homeowner costs</td>
<td>43.7</td>
</tr>
<tr>
<td>Area maps</td>
<td>35.8</td>
</tr>
<tr>
<td>scale models/drawings</td>
<td>33.0</td>
</tr>
<tr>
<td>Project amenities</td>
<td>24.6</td>
</tr>
<tr>
<td>Home operating costs</td>
<td>22.1</td>
</tr>
<tr>
<td>No sales center</td>
<td>19.0</td>
</tr>
<tr>
<td>Energy savings displays</td>
<td>18.8</td>
</tr>
</tbody>
</table>

** More than half of builders use model homes to promote sales.

More than half of all builders, and a much higher percentage among large builders, use models. And for attached units, 68.9% of builders use model homes. Builders average about two model homes per location. More than two-thirds of models are introduces in the spring.

* Builders using model homes
  Yes : 52.4%
  No : 47.6%

** Model homes, whether furnished or decorated a significant influence.

Interior design does play an important part in the buying (25.4%) decision–noticeably among 41% of buyers. 71.9% of detached builders and 82.3% of attached builders furnish model. Average cost of furnishing and decorating is $20,331.

* Builders furnishing model interiors
  YES : 74.6%
  NO : 25.4%

** Potential buyers impressed by model homes, but turned off by selling tactics, unit cost.
Getting potential buyers to check out your models is half the marketing battle. And almost 70% of shoppers were turned on by the condition of the models or sales office. But sales tactics and the attitude and approach of the sales staff can send potential buyers out the door.

<table>
<thead>
<tr>
<th></th>
<th>Turned on</th>
<th>Turned off</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit size</td>
<td>34.6%</td>
<td>65.4%</td>
</tr>
<tr>
<td>Unit cost</td>
<td>15.5</td>
<td>84.5</td>
</tr>
<tr>
<td>Workmanship</td>
<td>19.5</td>
<td>80.5</td>
</tr>
<tr>
<td>Selling tactics</td>
<td>12.7</td>
<td>87.3</td>
</tr>
<tr>
<td>Sales attitude/approach</td>
<td>23.9</td>
<td>76.1</td>
</tr>
<tr>
<td>Model homes/ sales center</td>
<td>69.4</td>
<td>30.6</td>
</tr>
</tbody>
</table>

** Land use restrictions and smaller lots offer the greatest potential to reduce the cost of new houses, builders say.

The housing industry is continually faced with the challenge of keeping down the cost of new housing. Greatest potential in reducing the cost of housing would be relaxing of land use restrictions. Smaller lots and standard designs are other cost-saving methods.

*Greatest potential for reducing housing price

- Relax land use restrictions 44.7%
- Improve building techniques 40.9
- Increased density 39.8
- Decreased construction time 34.1
- Downsizing of units 32.5
- Reduce labor costs 31.2
- Innovative financing 25.9

*How builders can help reduce housing costs

- Use smaller lots 47.4%
- Use standard designs 47.2
- Build smaller homes 33.6
- Design expandable homes 31.0
- Build attached units 26.9
- Erect prefab homes 9.5

** Detached shoppers prefer single-story living; attached shoppers like two floors.

Single-story living is preferred by shoppers of detached homes. Geographically, the strongest preference for single-story home is found in the West South Central and mountain regions, 71.7% of retirees and 65.7% of empty nesters liked homes with one floor.

Style preference shopper for detached shopper for attached
** Consumers prefer a full basement and a two car garage.**

Full basements are sought by 67% of move-up and first-time owners. Only 29% of all consumers do not want a basement. As for garages, 63.3% of all consumers prefer a 2-car garage.

<table>
<thead>
<tr>
<th>Item</th>
<th>Consumers want</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full basement</td>
<td>64.8%</td>
</tr>
<tr>
<td>no basement</td>
<td>29.2</td>
</tr>
<tr>
<td>1/2 basement crawl space</td>
<td>6.0</td>
</tr>
<tr>
<td>1-car garage</td>
<td>12.2</td>
</tr>
<tr>
<td>1 1/2 car garage</td>
<td>5.0</td>
</tr>
<tr>
<td>2-car garage</td>
<td>63.3</td>
</tr>
<tr>
<td>3 + car garage</td>
<td>7.4</td>
</tr>
<tr>
<td>Carport</td>
<td>4.8</td>
</tr>
<tr>
<td>Parking lot</td>
<td>1.8</td>
</tr>
<tr>
<td>None</td>
<td>5.5</td>
</tr>
</tbody>
</table>

** Traditional architectural styles stay in the lead in most regions and home price ranges.**

Consumers prefer traditional architectural styles. As noted, traditional Victorian, Colonial and Tudor style homes were preferred by 59.2% of the buyers, compared to 30.1% of buyers who prefered contemporary. Among buyers of attached units, almost 40% selected contemporary.

<table>
<thead>
<tr>
<th>Style</th>
<th>Consumers prefer</th>
<th>Builders best sellers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional</td>
<td>35.0%</td>
<td>46.4%</td>
</tr>
<tr>
<td>Contemporary</td>
<td>30.0</td>
<td>28.1</td>
</tr>
<tr>
<td>Colonial</td>
<td>14.8</td>
<td>16.2</td>
</tr>
<tr>
<td>Victorian</td>
<td>6.3</td>
<td>3.3</td>
</tr>
<tr>
<td>Spanish</td>
<td>4.1</td>
<td>8.4</td>
</tr>
<tr>
<td>Tudor</td>
<td>3.1</td>
<td>2.8</td>
</tr>
<tr>
<td>Other</td>
<td>6.6</td>
<td>3.5</td>
</tr>
</tbody>
</table>

** A clear majority of consumers prefer two bathrooms in the house they buy.**

Consumers, on average want 2.1 baths. More than half of first-time shoppers want 2 bathrooms in the homes they buy; 37.6% of move-ups want 2 baths and 30.4 % want 2 1/2 baths. Slightly more than half of shoppers looking at homes prices less than $100,000 want 2 bathrooms.

<table>
<thead>
<tr>
<th>Number of bathrooms</th>
<th>Consumers want</th>
<th>Builders offer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of bedrooms</td>
<td>Detached</td>
<td>Attached</td>
</tr>
<tr>
<td>--------------------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>1</td>
<td>6.8%</td>
<td>3.7%</td>
</tr>
<tr>
<td>1 1/2</td>
<td>17.3</td>
<td>10.5</td>
</tr>
<tr>
<td>2</td>
<td>42.9</td>
<td>41.6</td>
</tr>
<tr>
<td>2 1/2</td>
<td>24.3</td>
<td>34.1</td>
</tr>
<tr>
<td>3 or more</td>
<td>8.6</td>
<td>10.1</td>
</tr>
</tbody>
</table>

**Dream house has 3.1 bedrooms; privacy and storage rate high in master suite.**

On average, all consumers want 3.1 bedrooms. Consumers shopping for a detached house prefer a 3-bedroom home (53.7%). Among all shoppers, 60.2% want master suite on the first floor. Privacy is a key element in the design and marketing of the master suite.

<table>
<thead>
<tr>
<th>Desired elements in master suite</th>
<th>Detached</th>
<th>Attached</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private bath</td>
<td>75.1%</td>
<td></td>
</tr>
<tr>
<td>Walk-in closet</td>
<td>73.1</td>
<td></td>
</tr>
<tr>
<td>Separate from the other bedrooms</td>
<td></td>
<td>12.5</td>
</tr>
<tr>
<td>Dressing/make-up area</td>
<td>5.1</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>4.2</td>
<td></td>
</tr>
<tr>
<td>Balcony/patio</td>
<td>3.3</td>
<td></td>
</tr>
<tr>
<td>Sitting area</td>
<td>2.6</td>
<td></td>
</tr>
<tr>
<td>Mirrored doors</td>
<td>2.1</td>
<td></td>
</tr>
<tr>
<td>Fireplace</td>
<td></td>
<td>1.1</td>
</tr>
</tbody>
</table>

**Best-selling detached model homes have large rear yards and attached units feature courtyards.**

Private rear yards for detached houses and private courtyard for attached units are generally included with builders' best sellers. Average lot size for detached homes has stayed the same over the past year, say 62.9% of builders.

<table>
<thead>
<tr>
<th>Size of lot</th>
<th>Detached</th>
<th>Attached</th>
</tr>
</thead>
<tbody>
<tr>
<td>Narrow frontage/deep rear yard</td>
<td>43.3%</td>
<td>15.0%</td>
</tr>
<tr>
<td>Half acre or more</td>
<td>40.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Minimum yard/private patio/court</td>
<td>16.7</td>
<td>45.0</td>
</tr>
<tr>
<td>Only common open spa</td>
<td>3.0</td>
<td>38.8</td>
</tr>
<tr>
<td>Narrow frontage/deep front yard</td>
<td>2.0</td>
<td>1.3</td>
</tr>
</tbody>
</table>
** Family living and owner comfort come first in space planning.**

Informal family entertaining and living areas are a clear favorite among most consumers. Spacious master bathrooms also are gaining rapidly in popularity. Many buyers also want a separate space to work at home on hobbies or other interests.

<table>
<thead>
<tr>
<th>Space allocations</th>
<th>Definitely needed</th>
<th>Would like</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family entertainment</td>
<td>50.1%</td>
<td>40.0%</td>
</tr>
<tr>
<td>Oversized master bath</td>
<td>23.2%</td>
<td>43.9%</td>
</tr>
<tr>
<td>Part-time office/hobby room</td>
<td>15.8%</td>
<td>48.9%</td>
</tr>
<tr>
<td>Full time home office</td>
<td>11.6%</td>
<td>22.4%</td>
</tr>
<tr>
<td>Formal entertaining</td>
<td>9.7%</td>
<td>33.5%</td>
</tr>
<tr>
<td>Live-in space for re</td>
<td>6.2%</td>
<td>19.8%</td>
</tr>
</tbody>
</table>

** Quality, not quantity, means the best to most consumers.**

Most consumers would rather pay more for a few items of good quality rather than buy more items of a lesser quality. This demand for quality was consistent among all types of shoppers, income level and home price range. Quality products can help sell new homes.

Would you rather pay more for a few items of good quality than buy more items of lesser quality?  
YES - 94%  
NO - 6%

** If faced with a trade-off, buyers would prefer a larger house, more amenities and smaller yard.**

For most consumers, buying a new house involves a series of trade-offs. As noted, when home size and amenities are at stake, almost 60% of buyers would go for a larger house now and add amenities later. About the same percentage would take a smaller yard in order to upgrade house design and amenities.

*Trade-offs*

| Bigger house                      | 59.2%             |
| Small house with amenities        | 40.9%             |
| Upgrade amenities and small yard  | 61.7%             |
| Big yard and fewer amenities      | 38.3%             |

** Consumers say build in lots of storage, practicality and visual appeal.**

The right design elements help sell the home. Shown is region where element is most desired, although numbers reflect national trend. Among buyer types, empty nesters show the highest preference for storage, almost 40% of move-up buyers want dramatic window treatments.

<table>
<thead>
<tr>
<th>Design element</th>
<th>Most desirable</th>
<th>Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lots of storage space</td>
<td>87.0%</td>
<td>E. S. Central</td>
</tr>
</tbody>
</table>
** Regardless of lifestyle, most consumers are spending more evenings at home.**

Consumers were asked if they are spending more time at home or if home is just a place to sleep. They are home more, suggesting that home entertainment centers and informal living areas are important. But of those shopping for attached housing, 35.6% say most activities take place away from home.

Spending more time at home more evenings at home
First-time owner 76.3%
Move-up owner 89.3%
Empty nester 72.4%
Retiree 85.9%

** Consumers are willing to pay for optional products and services from convenience items to luxury amenities.**

Options are what customize a new home to the lifestyle needs of each household. Convenience items, money, and time-saving products and luxury amenities are worth paying more for, consumers indicated when surveyed. The following list shows the percentage of consumers that would definitely select these optional products, listed by cost, in the next home they buy.

$100 to $300 options $300 to $500 options

<table>
<thead>
<tr>
<th>Option</th>
<th>Percentage</th>
<th>Option</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoke/fire alarm system</td>
<td>70.0%</td>
<td>Additional cabinets</td>
<td>27.3%</td>
</tr>
<tr>
<td>Energy-saving water heater</td>
<td>63.3%</td>
<td>Automatic humidifier</td>
<td>26.3%</td>
</tr>
<tr>
<td>Self-cleaning oven</td>
<td>56.7%</td>
<td>Greenhouse/planter window</td>
<td>23.3%</td>
</tr>
<tr>
<td>Outdoor lighting</td>
<td>48.8%</td>
<td>Wood sliding/patio door</td>
<td>20.6%</td>
</tr>
<tr>
<td>Built-in tv antenna/wall jack</td>
<td>47.6%</td>
<td>Patio privacy fence</td>
<td>16.3%</td>
</tr>
<tr>
<td>Dimmer Switches</td>
<td>39.4%</td>
<td>Electronic air filter</td>
<td>14.9%</td>
</tr>
<tr>
<td>Water-saving showerheads</td>
<td>36.1%</td>
<td>Garage door opener</td>
<td>47.0%</td>
</tr>
<tr>
<td>Water-saving faucets</td>
<td>34.1%</td>
<td>Storm door</td>
<td>44.2%</td>
</tr>
<tr>
<td>Clock-controlled thermostat</td>
<td>28.5%</td>
<td>Ceramic tile walls in bath</td>
<td>38.3%</td>
</tr>
<tr>
<td>Decorative exterior door</td>
<td>21.8%</td>
<td>Lawn sprinkling system</td>
<td>36.2%</td>
</tr>
<tr>
<td>Exterior shutters</td>
<td>20.8%</td>
<td>Microwave oven</td>
<td>34.9%</td>
</tr>
<tr>
<td>Sump pump</td>
<td>18.6%</td>
<td>Power attic ventilator</td>
<td>30.5%</td>
</tr>
<tr>
<td>Gas fireplace outlet</td>
<td>17.5%</td>
<td>Ceramic tile entry</td>
<td>29.3%</td>
</tr>
<tr>
<td>Patio grill</td>
<td>16.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mirrored doors</td>
<td>12.6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interior shutters</td>
<td>7.8%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
$500 to $800 options

- Paved driveway: 69.8
- Refrigerator: 56.1
- Decking on patio: 36.9
- Skylights: 30.5
- Concrete patio: 26.4
- Extra large tub: 25.5

$800 to $1000 options

- Upgraded carpeting: 63.4
- Double-glazed windows: 50.2
- Closet shelf systems: 38.1
- Water softener: 21.2
- Patio roof: 18.1
- Intercom system: 14.9

$1000 to $1200 options

- Laundry appliances: 60.4
- Zoned heating/cooling: 56.7
- Central vacuum system: 23.4
- Wet bar: 16.9
- European-style cabinets: 8.0

$1200 to $1500 options

- Yard fencing: 52.2
- Hardwood floors: 42.8
- Tub and separate shower: 39.7
- Solar water heating: 24.4
- Kitchen grill top: 15.9

$1600 to $2000 options

- Air conditioning: 80.5
- Storm windows: 65.6
- Insulated basement walls: 32.9
- Burglar/security system: 28.6
- Whirlpool bath: 14.6
- Sauna: 5.4
- Bidet: 1.7

$3000 to $6000 options

- Fireplace: 86.9
- Hot tub: 24.1
- Basement powder room: 13.8

$6000 to $12,000 options

- Screened porch/Florida room: 60.4
- Complete landscaping: 59.0

** Of "intelligent house" features, energy and security management systems are most desired.

Home sweet home is becoming a lot more sophisticated through the use of advanced technology, designed to manage and control various functions within the home. As indicated, consumers are willing to pay extra for "intelligent house" features. Retirees are willing to pay the most for energy management.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Want</th>
<th>Don't want</th>
<th>Median price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy management</td>
<td>71.0%</td>
<td>29.0%</td>
<td>$885</td>
</tr>
<tr>
<td>Security/safety</td>
<td>69.9</td>
<td>30.1</td>
<td>875</td>
</tr>
<tr>
<td>Entertainment</td>
<td>31.3</td>
<td>68.7</td>
<td>450</td>
</tr>
<tr>
<td>Communications</td>
<td>18.6</td>
<td>81.4</td>
<td>355</td>
</tr>
</tbody>
</table>

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** Low maintenance and energy efficiency are worth paying more in upfront costs, consumers say.

Buyers are willing to spend an extra $1500 for low-maintenance materials at the time of construction in order to save $200 a year in upkeep. They also are willing to spend an extra $1000 for energy-efficient products at the time of construction to save $100 a year in energy costs.

* Energy-efficient products
  Yes 56.5%
  Yes, and even more to save more 17.6
  No, savings take too long to recover 25.9

* Low-Maintenance products
  Yes 60.7%
  Yes, and even more to save more 15.2
  No, savings take too long to recover 24.1

** Amenities in the kitchen and bathrooms add practicality and marketing appeal.

Buyers of both single-family detached and attached housing units prefer having an eating area in the kitchen plus a full dining room. A small eating area in the kitchen was not favored in any price range. Kitchen and family room combinations decrease in popularity as price range increases.

<table>
<thead>
<tr>
<th>Kitchen features</th>
<th>Consumers Want</th>
<th>Builders offer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range/oven</td>
<td>90.2%</td>
<td>90.2</td>
</tr>
<tr>
<td>Dishwasher</td>
<td>77.2</td>
<td>91.7</td>
</tr>
<tr>
<td>Vinyl floor</td>
<td>73.3</td>
<td>84.1</td>
</tr>
<tr>
<td>Stainless steel sink</td>
<td>67.9</td>
<td>68.5</td>
</tr>
<tr>
<td>Garbage disposal</td>
<td>65.2</td>
<td>77.0</td>
</tr>
<tr>
<td>Refrigerator</td>
<td>60.8</td>
<td>36.7</td>
</tr>
<tr>
<td>Fluorescent lighting</td>
<td>57.2</td>
<td>49.9</td>
</tr>
<tr>
<td>Single-handle faucet</td>
<td>55.9</td>
<td>83.9</td>
</tr>
<tr>
<td>Laminate countertop</td>
<td>53.0</td>
<td>75.4</td>
</tr>
<tr>
<td>2-handle faucet</td>
<td>36.1</td>
<td>11.3</td>
</tr>
<tr>
<td>Ceramic tile counter</td>
<td>33.1</td>
<td>15.9</td>
</tr>
<tr>
<td>Microwave oven</td>
<td>33.1</td>
<td>38.0</td>
</tr>
</tbody>
</table>

** Bathroom features

<table>
<thead>
<tr>
<th>Consumers want</th>
<th>Builders offered</th>
</tr>
</thead>
</table>
Medicine cabinet 90.6% 62.1%
Exhaust fan 81.5 91.4
Linen cabinet 80.7 52.1
Tub/shower door 69.7 60.0
Single-bowl vanity 58.3 51.5
Ceramic tile floor 53.6 35.2
Ceramic tile walls 51.0 30.1
Colored fixtures 41.2 56.5
Safety features 39.2 29.5
Bathroom heater 38.4 20.9
Double-bowl vanity 33.4 44.8
White fixtures 32.8 40.6

*** KEY BUYER TYPES:

** A Master Segmentation System For New Home Buyers PB has broken the home-buying market into 10 key buyer types based on lifestyle and neighborhood origin as determined by the following Census Department variables:

- Average household size and household density of the area;
- Predominate area type, whether city, suburb, town or farm;
- The area's ethnic character and ethnic diversity;
- Family makeup (whether singles, married couples or families);
- Age distribution and makeup;
- Education level;
- Occupation and employment level (white color, blue color)
- Housing make-up of the area (whether predominately detached or attached, owner-occupied or renter-occupied)
- The social rank of the area based on a weighted composite of socio-economic variables, including household income.

** S1: Affluent Executives In Elite Suburbs.

Educated, affluent executives and professionals in elite suburbs of metropolitan areas. Usually married couples in the 35- to 54-year-old age group with children. About half are college graduates. Professional/managerial jobs comprise most occupations, but other white-collar jobs, blue collar and service jobs represent about half. Likely to be living in a detached home at present but includes some couples and singles living in luxury attached units and rentals. Highest income with many at $50,000+ level (but also sizable minority with incomes below $25,000).

These home shoppers prefer detached housing. Average price sought: $146,000 (median price: $131,000). Average home size sought: 2057 square feet (median size: 2020 square feet). Desire 3.1 bedrooms, 2.25 bathrooms, full basement, two-car or more garage. Most (73.2%) currently own home; higher than average (21.1%) own attached unit. Purchased present home 7.6 years ago for average of $87,734; expect to sell it now for $164,940. Could afford down payment averaging $39,147 (median of $25,000) and maximum monthly payment (PITI) averaging $850.

** S2: Pre-And Post-child Families In Upscale Suburbs.
Mostly post-child families but also prechild families and singles in upscale white-collar suburbs. Many with grown, single children younger than 25 years old. About 70% hold white-collar, professional and managerial positions. Balance in blue-collar or service jobs. Younger sophisticates highly educated but even among older families about 28% have college degrees. Substantial segment now reside in multifamily 30%-50% rent. More than 30% have $25,000-$50,000 incomes.

-Detached homes preferred by 80%. Average price range of $127,000 (median price: $107,000). Seeking average size of 1982 square feet (median size: 1860 square feet). Prefer 3 bedrooms, 2.16 bathrooms, full basement and two-car garage. Could pay average down payment of $36,814 (median down payment: $20,000). Can afford average maximum monthly payment of $835 (median: $850). Bought present home 8.2 years ago for an average $76,684 and expect to sell is for an average $142,233. Most who own (84.6%) presently own single-family detached.

** S3: Upper-Middle Class In Outlying Suburbs.**

Market segment with largest number of active home shoppers. Upper-middle class, child-raising families in outlying, owner-occupied suburbs. Usually couples in the 35- too 44-year-old age group. Mix of white-collar and blue-collar jobs. Most own and live in single-family home. For more detailed analysis, category was divided into two subgroups. Subgroup A: families headed by college graduates in white-collar jobs. Subgroup B: families headed by high-school graduates in blue-collar jobs.

-Seeking single-level detached houses. Average price $107,000 (median price: $91,000). Average home size: 1953 square feet (median size: 1884 square feet). Want more than average number of bedrooms (3.2), 2.17 bathrooms, full basement, two-car garage. Down payment averages $29,550 (median: $25,000). Can afford average maximum monthly payment of $751 (median payment: $725). Most who own (84%) now own detached homes. Have previously owned 1.6 homes. Present home owned for 7.2 years, purchased for average $66,002. Plan to sell it for $106,990. One wage earner is present in 52.7% of household.

** UI: Singles In Upscale Urban Area.**

Educated white-collarr singles and couples in upscale urban areas. Includes many singles in the under-35-years-old age group who have had at least some college education. Many divorced and separated. Ethnic mix.

White-collar occupations comprise 57% to 85% of jobs. Cosmopolitan lifestyles. Primarily city dwellers. Diverse group includes wide variety from mostly renters in mid- to high-rise multifamily housing in some areas to over 60% owner-occupied, single-family homes.

-Detached home, though still top choice, is sought by fewer U1 buyers (68.1%) than average. Seeking average price of $155,000 (median price: $94,000). Expect new home to average 1829 square feet (median size: 1740 square feet). Prefer 2.9 bedrooms, 2.02 bathrooms, full basement, two-car garage. Average down payment possible is $23,534 (median down payment: $17,500). Can afford on average a maximum monthly payment of $734 (median: $708). Of those who own homes, 71.8% presently have a single-family detached home. Owned present home 7.3 years, purchased for average of $54,982 (median: $42,000). Expect to sell present home for average $94,607 (median selling price: $79,000).
* What Makes U1 Buyers Significantly Different?
-Big market for first-time buyers (30.4%). Of those who currently rent, more than average (46.9%) reside in apartments in larger buildings and fewer live in single-family detached homes. These buyers have visited detached model homes less than average (58.3%) and fewer than average (44.3%) are opposed to purchasing as attached home or condo.
-In rating home attributes, U1 shoppers place heavy emphasis on security and desire to feel safe and show lesser interest in building equity and future profit.
-Strong preference for brick/masonry exterior finish (63.4%). Good demand for split-level homes. (32.2%).
-In allocating space in new homes, fewer than normal (41.2%) definitely need family entertaining space and more than average (25%) definitely want space for a part-time home office or room for adult hobbies.
-Special interest in cathedral vaulted ceilings in major living area and lofts and balconies but less demand for raised, flat ceilings. Strong preference for multipurpose rooms. Some demand for home entertainment center, and better-than-average interest in home fitness center for exercise equipment.
-Optional features that have significant appeal: Burglar/security system (44.8%), whirlpool bath (25.4%), skylight (41.3%), automatic humidifier (35.5%), patio privacy fence (27.4%) and built-in TV antenna and wall jacks (56.1%). Less-than-average interest in storm windows (56.7%), zoned heating/cooling system (48.1%), upgraded carpeting (50%), double-glazed windows (35.4%), wood sliding/patio door (11.3%), Energy-saving water heater (53%) and water-saving faucets (22.7%).
-U1 buyers show higher-than-average interest in such intelligent home features as entertainment and communication systems; less-than-average interest in energy management. Willing to pay average of $865 for entertainment feature, $1379 for security/safety, $1147 for energy management, $710 for communications, $622 for service/data. High percentage also willing to pay a monthly fee for exterior home maintenance (52.9% yes or maybe) and for yard maintenance (64.3%).
-In determining the credibility of builders’ energy-saving claims, these buyers rely more than average on getting independent evaluations (41.4%) and less than average on visual inspection (31.4%). In evaluating claims of construction quality, more than average (55.1%) get independent evaluations.
-Word-of-mouth advertising is relied on more than usual (35.3%) and newspaper or classified ads less than usual (50%) as information sources in looking for new homes. Higher-than-average percentage (64.3%) rate an insured warranty as very important to their buying decision.
-Price is not foremost in minds of these buyers. Fewer than average watch ads for coming sales and fewer consider themselves as economy-minded.
-Largely persuasive group. Rates higher than any other segment on emotions influencing their decisions.
-Individuality is the basis for decorating. U1 consumers rate low on neutral color schemes and earth tones. Rate high on unique tastes and being stylish. Rate higher than any other group on being sophisticated, indulging oneself, being a "with it" or "up-to-date" person and lowest on being old fashioned.
-Group is active and energetic and exercises regularly more than average. They do not expect to live in their next house for a long time. Have strong desire for being where lots of things are going on.

* Lifestyles Factors Influential In the Buying Decisions

<table>
<thead>
<tr>
<th>Factor</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provides security and privacy</td>
<td>81.7%</td>
</tr>
<tr>
<td>Conforms best to lifestyle</td>
<td>39.4%</td>
</tr>
<tr>
<td>Essential to raising a family</td>
<td>31.0%</td>
</tr>
<tr>
<td>Establishes roots in the community</td>
<td>12.7%</td>
</tr>
<tr>
<td>Avoids dealing with landlord</td>
<td>14.1%</td>
</tr>
<tr>
<td>Sheer prestige of owning</td>
<td>4.2%</td>
</tr>
</tbody>
</table>
** T1: Mobile Families In Exurbs/Boom Towns. **

Educated, young, mobile families living in small towns beyond the suburbs or in boom towns. Some of nation’s fastest growing areas. Consists mainly of families under 35 years old with some college education. Most work at white-collar jobs. Variety includes well-educated frontier types who want country living, peak concentrations of military personnel and college towns with high education levels, modest incomes. Many own detached homes. Also includes substantial numbers in 35- to 54-year-old age group and a segment who live in mountain and coastal areas.

-Detached home preferred. Average price considered: $97,000 (median price: $77,000). Expects new house to be average 1916 square feet (median size: 1800 square feet). Wants 3.1 bedrooms, 2.09 bathrooms, full basement, two-car garage. Average down payment is $30,676 (median down payment: $12,000). Can currently afford on average maximum monthly payment of $617 (median: $568). Of those who own homes, most (82.6%) presently have a single-family detached home. Have previously owned 1.9 homes with 1.1 homes purchased new. Owned present home 7.4 years, purchased for average of $64,747 (median: $51,000). Expect to sell present home for average $105,696 (median selling price: $80,000). One wage earner is present in 53% of households.

** S4: Middle-Class And Seniors In Aging Suburbs. **

Middle-class, post-child families in older suburbs or retirement areas. Mainly older couples more than 55 years old with high school or some college education. Mostly white collar, but 36% to 52% have blue-collar or service jobs. Most live in owner-occupied single-family homes, although 22% to 30% live in attached units. Varied group includes empty nesters with double incomes, affluent senior citizens living on non-salaried incomes and blue-collar empty nester.

-Like detached housing with an average price of $99,000 (median price: $85,000). Expected average size of new home is 1716 square feet (median size: 1574 square feet). Prefers 3 bedrooms, 1.88 bathrooms, full basement, two-car garage, single-level living. Could pay an average maximum monthly payment of $694 (median: $655). Of those who own, most (81%) presently own single-family detached. Purchased present home 7.7 years ago for an average $73,528 and expect to sell it for an average of #118,827. Has previously owned an average of 1.7 homes with an average of 0.8 homes purchased new.

** T2: Families In Remote Suburbs And Towns. **
Middle-class, child-raising blue-collar families living in remote suburbs or towns. Mainly large families headed by those older than age 35 who own or rent single-family homes in small towns, but includes some young couples and families, too. Most have a high-school education and are employed in blue-collar jobs. But 42% to 47% have white-collar occupations. Well-paid and stable segment. Includes craftsmen and other blue-collar occupations in small industrial cities. Includes mid-size satellite suburbs and towns.

-Strong detached home market (92.4% prefer). Would consider average price of $73,000 (median: $66,000). Expect size of new home to average 1703 square feet (Median: 1692 square feet). Prefer 3.1 bedrooms and 1.92 bathrooms. Could afford average down payment of $19,627 (median: $10,000). Willing to pay maximum monthly payment averaging $546 (median: $528). Have previously owned 1.7 homes. Bought present home 7.9 years ago for average $40,693 (median: 36,500). Expect to sell present home for average $61,427 (median: $57,000). Two wage earners in 54.4% of households.

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** U2: Mid-Scale Mix In Dense Urban Areas.

Middle-class families, singles and elders living in densely populated urban row house and high-rise areas. Some families, some single. Some more than 65 years old, some under 25. Good mix of blue- and white-collar workers. Most common characteristic is residing in densely populated city apartments. Overall, group includes many foreign-born, working women, clerical and service occupations. Includes new immigrant populations, emergent minorities, downscale singles and urban middle-class.

-Single-familily detached housing preferred by 71.7% (Lower than average). Seeking average price of $106,000 (median: $94,000). Average size of new home expected is 1948 square feet (median size: 1186 square feet). Prefers 3 bedrooms, 1.97 bathrooms, full basement, two-car garage. Could afford average down payment of $24,789 (median: $18,000). Maximum monthly payment averages $688 (median $673). Home-owners have owned present home average of 12.9 years (longer than any other segment). Originally paid average of $53,829 (median: $40,000) and expect to sell it for average of $149,263 (median: $95,000). Equal number of one- and two-income households.

*What makes U2 Buyers Significantly Different?

-Great market for first-time buyers with one-fourth of one-third not having owned a home previously. Of those who rent, more than average reside in apartments in larger buildings (37.5%). Fewer than average rent (12.5%) or now own (58.8%) single-family detached homes. More than average own attached units (41.2%).

-Could afford relatively high down payment. More than average (26.3%) would fall in %31,000-$50,999 down payment range; fewer (7.9%) in $11,000-$20,999 range.

-Strong preference for brick/masonry exterior finish (66.7%) and colonial styling (22.9%). Large demand for location of master bedroom on the second floor (54.2%). Less need for two-car garage (54.2%).

-In allocating space, market is divided 55.5% for and 44.7% colud live without formal entertaining space. Greater demand than any other segment for definitely needing space for a full-time office (21.3%), private space for a live-in relative (17%) and oversized master bath (34.8%). Regarding kitchen eating arrangements, many just want small table for sit-down eating (27.1%).

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Desirable design amenities include multipurpose rooms, built-in furniture, home entertainment center, "garden" bathroom, interior lofts and balconies.

Strong interest in optional equipment, including: basement rec room (73.7%), burglar/security system (44.4%), hardwood floors (59.5%), kitchen grill top (26.2%), laundry appliances (78.8%), zoned heating/cooling system (69.7%), double-glazed windows (61.1%), closet shelf systems (47.2%), intercom system (25%), refrigerator (76.2%), ceramic tile bathroom walls (50%), greenhouse planter window (36.8%) and patio grill (28.6%).

Extra savings are important. 26.1% would spend more than $1000 on energy efficiency to save more than $100 a year and 23.4% would spend $1500-plus on low-maintenance materials to save more than $200 annually. Also willing to pay monthly fees for maintenance of exteriors (26.1% yes, 28.3% maybe) and yard maintenance (33.3% yes, 22.9% maybe).

As standard equipment in kitchens, more than average want refrigerator (77.1%), tow-handled faucet (45.8%), and ceramic tile counter top (41.7%). In bathrooms, string preference for ceramic tile floors (64.6%) and bathroom heater (52.11%) as standard items.

Stronger-than-average preference for security/safety. Average want energy management, service data features and communications as intelligent home feature.

In shopping new model homes, higher than average were turned on by unit size (48.7%) and fewer than average liked condition of model homes or sales center (56.3%).

In selecting a home, only 36.8% consider investment value as important and only 28.6% are concerned with style and appearance. Yet, there is strong interest in building equity (51%) and having a hedge against inflation (24.5%). Market also attaches significant importance to quality and low maintenance. Only 16.7% see a home as essential to raising a family.

In searching for a new home, fewer than average (17%) consider the advice of friends as an information source. Most (66%) consider an insured warranty very important in the buying decision.

Strong interest in attached homes or condos: 56.8% would consider purchasing one. More than average (85.1%) feel that local government should take primary responsibility for roads and utilities.

Majority (61.7%) possess a cautious point of view. More than any other segment, market is more likely to be economy-minded and less likely to exercise regularly or be active and energetic. Securly, 26.1% would like too be a top executive. There is a strong preference for baseball (27.1%)

Personal preferences lean more to neutral and warm colors as well as earth tones. More than average consider themselves stylish, up-to-date, having unique tastes and nervously about decorating decisions. Strong feelings about living in their next home for a long time and spending money on their home rather than other investments.

** R1: Families In Rural Towns/Villages.

Most families living in small rural towns and villages amid farms and ranches in agricultural areas of mid-America. Many older families who are involved in some farm-related occupations. High percentage own single-family homes, although 20% to 25% rent. Maximum stability. Low incidence of college educations. Variety includes blue-collar craftsmen, operatives and transport workers, outsidemen, prosperous ranchers, rural poor, working farm owner and tenant farmers.

Prefer single-family detached housing with an average price of $69,000 (median: $62,000). Average size of new home expected to be 1736 square feet (median: 1650 square feet). Wants 3 bedrooms, 1.94 bathrooms, full basement. Willing to pay average down payment of $14,392 (median: $10,000). Could afford maximum monthly down payment averaging $552 (median: $467). Of those who own, most (77.1%) currently own single-family detached. Purchased present home 5.1 years ago for average $46,618 (median: $28,800) and expect to sell it for $59,446 (median: $50,000). Half of households have one wage earner.
Primarily lower-income families, mixed gentry and blue-collar labor in low-to mid- rustice, mill and factory towns. Includes areas above average in population age 55 and over, other areas with large number under 18. Covers a host of white-collar and predominantly blue-collar occupations. Few college-educated. Majority own or live in single-family homes, although about 30% to 40% rent. Broad variety from rustic coastal villages to industrial and factory towns. Composed of independent retirees, blue-collar industrial workers and skilled immigrant labor.

- Prefer single-family detached housing (96.9%), more than any other market segment. Seeking average price of $64,000 (median: $59,000). Expected size of new home averages 1662 square feet (median Size: 1575 square feet). Prefers 2.9 bedrooms and 1.91 bathrooms. Can pay down payment averaging $11,962 (median: $8,000). Can afford maximum monthly payment average $496 (median: $480). Have owned present home average 6.1 years, purchased for $39,163 (median: $38,500). Expect to sell present house for average $59,755 (median: $55,000).

*** EVALUATION OF EXISTING PROJECTS:

(Similar to an analysis by Roger H. Clark and Michael Pause in "Precedents in Architecture").
CIRCULATION TO USE
UNIT TO WHOLE

ADDITION AND SUBTRACTION

REPETITIVE TO UNIQUE
HIERARCHY
**** CONCEPT PROGRAM:

**** TENTATIVE PROGRAM: Mixed-use Development Project.

** OFFICE COMPLEX: Lower class A space. Not premium. The need is for upper class B or lower class A. There will be a substantial amount of premium space available in a couple years. Possibly a glut, unless there is a radical increase in demand. I am proposing an environment, possibly "incubator" in nature, with a shared space and major facilities concept. There is the need for quality space, with a favorable address for smaller companies who are not in the position yet to lease premium space, as well as temporary facilities for companies not yet sure of making a major commitment in the Indianapolis market. The emphasis will be on quality, flexible space.

-- Major selling points: - Possibility of incorporating free parking space. Lots owned by the city adjacent to site.
-- Downtown address.
-- Access to major interstate highways.

** HOTEL COMPLEX: Mid-priced, no extra amenities. Similar to the Signature Inn concept. Allow other companies to provide support amenities. A Bob Evans restaurant will usually always follow a Signature Inn.

-- Major selling points: - Excellent location. Directly off exit ramp from Highway 65. (traffic to and from Chicago.)
-- Adequate parking.
-- View of Downtown.
-- Possibility of a direct water link (canal) with Downtown.
-- Access to Downtown cultural, entertainment, and shopping amenities. (especially after the City-center shopping complex, proposed by the Simons, is developed.

** RESIDENTIAL FACILITIES: Condominium or Zero-lot type housing. This will be the most marketable feature, with emphasis on the urban professional; Government workers, Attorneys, Downtown business people, Lawyers, Nurses and Doctors that work at Methodist Hospital, Faculty and staff from the nearby IUPUI campus, etc.

-- Major selling points. - Excellent market conditions, High demand with Low supply.
-- Close proximity to Downtown, Methodist Hospital, and IUPUI campus.

**** PROGRAMMING: Specific Housing solution.

* Major design considerations:

- Privacy, both visual and acoustic.
- Security, both perceived and actual.
- Acknowledging the urban grid of the city fabric.
- Acknowledging the rotated geometry of the canal juxtaposed against the parallel streets.
- A medium-dense solution that creates a luxurious and natural oasis within the density of the city proper.
- A high standard of the quality of construction and construction materials.

*** Solution:

- The Complex (cluster units) comprise of two specific models. However, I have also worked out the possibility of a third type.

**Type: 1**
9 clusters of 4 luxury units, each 3 floors per unit, 3 floors total, with each unit roughly 2,700 square feet. A total of 36 units at between $150,000 and $200,000 each.

- Besides the living, dining and kitchen areas, each unit includes a den/office, fire-place lounge, audio/video lounge, game/play room, storage/pantry, laundry/mud room, a balcony with a bar-b-que pit and 2 1/2 baths with a master-bathroom that features a sunken bath-tub and a sauna. Each unit has the option of either 2 or 3 bedrooms with a master-bedroom that features walk-in closets.

**Type: 2**
14 clusters of 8 units, each 2 floors per unit, 4 floors total, with each unit roughly 1,800 square feet. A total of 112 units at between $85,000 and $105,000 each.

- Besides the living, dining and kitchen areas, each unit includes a den/office, storage/pantry, laundry/mud room, balcony with bar-b-que pit, and 2 baths with a master-bathroom that features a sunken bath-tub. Each unit has the option of either 1 or 2 bedrooms, with a master-bedroom that features walk-in closets.

**Type 3:**
The possibility of several clusters of 2 units, each 2 floors per unit, 2 floors total, with each unit roughly 1,200 square feet. Duplex units at between $50,000 and $75,000 each. Depending on the specific demand, these would replace a few of the Type 2 units.

- Besides the living, dining and kitchen areas, each unit includes a den/office, storage/pantry, laundry/mud room, and a half bath with a master bath-room. Each unit includes a master-bedroom with options of a walk-in closet.

- The Type 2 units are located on the periphery of the site, bordering the streets, to serve as a buffer for the luxury Type 2 units that are more centrally located, therefore more private.

- The estimated square footage of the individual units does not include garage facilities for 2 cars, as well as space for 2 guest cars per unit. In the case of Types 1 and 2, the parking is underground, naturally lighted from sky lights above. This feature, as well as the masking sound of a near-by brook, the wooded site and the bermed topography, all work to create a natural setting.
- A pleasant contrast to the urban density.

- Each cluster is serviced by 2 small, external passenger elevators. In the case of Type 1, 1 elevator per 2 units, and 1 per 4 units in Type 2. Each unit also has a central, internal staircase. Type 3 only needs a central staircase.

*** DESIGN DEVELOPMENT: Overall planning.***
CONCEPT: EXPLOSION - FORMAL TO PENDOTA.

(Feb Jan 1974) PARKER CORRIDOR STUDY - SAN ANTONIO, TEXAS.

CENTRAL STRUCTURE - ALSO ENTREPRENEUR.

- Hotel - Specifically computer/scientific in nature.
  - to opportunities.
  - to internal forces.
  - view from the highway.
  - public.
- Office - Tower Class A
  - shared space.
  - buffer zone.
  - retail - private.
- Residential - Containment/Town House - High Density
  - cluster homes.
  - fitted density.
  - private.
A topic: Alternative Urban Contexts with the City Grid (urban grid) A direct contact with the canals. A direct contact with the water. A direct contact with the sea.

The shape of the city: grid (urban grid) A direct contact with the canals. A direct contact with the water. A direct contact with the sea.

A topic: Alternative Urban Contexts with the City Grid (urban grid) A direct contact with the canals. A direct contact with the water. A direct contact with the sea.
**SITE CONDITIONS / CHARACTER**

- There is virtually no pre-existing context... possibly only
  delapidation!!

**9th Street**
- Traffic: 35 mph both directions.
  - East/West: Fairly heavy; I am proposing that it be lowered.
  - Pedestrian Traffic: Quite light, only picking up in the mornings, at lunch and at the end of the day.
  - There is new established businesses on the south of the street, but the north side is vacant.

**10th Street**
- Traffic is one way headed East. 35 mph.
  - East/West: It is also fairly heavy, but is sufficient for one way traffic.
  - Pedestrian Traffic: Almost non-existent because of the lack of businesses along it. Once in a while, it might be used by one of the local residents.
  - Most of the blocks and the street are vacant and the land has already been cleared.

**11th Street**
- Traffic is one way headed West. 35 mph.
  - East/West: It is more than enough, but as with all the others, the streets, I am proposing that they be repaired.
  - There is some pedestrian traffic from parking spaces to side of the superannuated businesses, also from the local residents.
  - The residences that are still occupied are in a very dilapidated condition.

**Senate**
- Heavy traffic volumes both directions. 40 mph.
  - Traffic: 35 mph downtown.
  - Traffic: A row of businesses along the east face, with parking and vacant land on the west.
  - Fairly high density with the facades of the buildings down to the street face.
  - From heavy pedestrian traffic during business hours.

**West Street**
- Very heavy, very fast traffic. 55 mph.
  - East/South: Low density buildings along both sides.
  - Pedestrian Traffic: High density, business hours, there are sidewalks.
  - It was as much of a barrier as it to do.
  - That particular side of my site will have to be located with in order to give it some sense as part of the city urban fabric. Possibly build up a high density environment to connect the fire and content.
1 acre = 43,560 ft²

A] 7.5' x 12' = 1' = 42'
315 x 504 = 158,760 ft² = 3.64 acres.
C. Roughly 16 units per acre (medium density)
   1 acre = 42 units total.
   With present scheme, I have 2 units.

B] 10' x 10' = 1' = 42'
420 x 420 = 176,400 ft² = 4 acres
C. Roughly 16 units per acre (medium density)
   1 acre = 64 units total.
   With present scheme, I have 52 units.

B. Units - (4 units per cluster)
84' x 84' = 9926 ft²
⇒ max 164 ft² ground cover per unit.

C] 5' x 4' = 1' = 42'
20 x 16 = 320 ft² = 4 acres
C. Roughly 16 units per acre (medium density)
   1 acre = 64 units total
   Home = 23 units.

D] 10' x 10' = 1' = 42'
420 x 420 = 176,400 ft² = 4 acres
C. Roughly 16 units per acre (medium density)
   1 acre = 64 units total
   Home = 127 units
   Total 127,000.