CONSUMER NEEDS AND WANTS IN CONDOMINIUM/TOWNHOUSE DESIGN: A COMPARISON OF SHOPPER AND DEVELOPER PERCEPTIONS

by

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I. INTRODUCTION

> The knowledge of the house is not limited to the builder alone. The user or master of the house will even be a better judge than the builder . . .
>
> Aristotle

To provide effective and enjoyable environments, designers and developers of the built environment must know and understand as much as possible about user expectations or requirements. Designers and developers must recognize clients' needs in order to be professionally effective and financially successful. Important in the design process is the study of human factors and the application of their principles and techniques. The humanistic critics of architecture also believe that people need to participate in the planning stages of their environment. Through participation, user needs and values can really be taken into account (Harrigan and Harrigan, 1976).

Michelson (1977, p. 20) defined user needs as "physical attributes of housing that people want or need for the housing to be optimal." He reported that designers have expressed a desire for social scientists to provide a standard checklist of user needs in housing to aid in creating suitable designs. Some architects have used Maslow's theory of the hierarchy of needs in an attempt to establish a universal basis for accommodating user needs. Difficulties have arisen in the use of general theories of user needs as a result of diverse cultures and groups within the same culture (Michelson, 1977). In addition, user needs are not constant--they change in time along with living standards and changing social, economic, and political contexts. Many factors "manipulate" user needs: advertising, mass-media, education, mobility, and availability of choices influence the user's demands (Urban Design Studio, 1971).

User needs have been sought by several means. Some needs are determined by studying people's experiences with their environment. Designers hope to use the suggestions gained from these personal experiences to incorporate new ideas into new buildings. The information is gathered by observation, photography, interviews, and tests. People are not always exposed to optimum elements of an environment; therefore, they may not be able to provide the information from experience. In situations such as this, researchers are able to ascertain public opinion about certain design elements (new or existing) and to compare the importance of elements to each other (Michelson, 1977).

Evaluating the built environment from the perspective of the user has become increasingly important in recent years. Evaluation was encouraged when several examples of classrooms, offices, shopping malls, and housing developments failed to function as originally intended by the designers and administrators. Problems were identified as the spaces were evaluated based on the expectations of the users and their experiences in similar spaces in the past (Farbstein and Kantrowitz, 1978).

Designers have come to realize that dependence on their own values and experiences and the direct contact with just a few clients of the project (such as a committee of realtors) and not the "rank-and-file" users (residents), resulted in design decisions that did not benefit the majority of users. Therefore, it is important for the architect to obtain some type of representative sample with which to develop an understanding of the people who will use the design--the "real clients" (Becker, 1977, p. 81). The user has emerged as someone "who is quite distinct and separate from the client and the architect and who should participate in the determination of the environment built for them" (Moleski, 1978, p. 108). Sanoff (1977, p. 37) stated:

> It is time for the architect to conduct his own surveys into how people use their environment, what they like and dislike about it, how well behavior patterms of users fit the way architects organized the spaces, and what kind of environment users would prefer.

The same argument applies to the developer of a housing complex. Holeman (1980, p. 326) suggested that: "Any developer who wishes to build a condominium should first live in one for a year . . . in order to qualify." The developer, a businessman concerned with budget constraints, energy conservation, and up-to-date building and land use techniques, must also consider factors of livability and may conduct a survey of his own to discover information about tenants/owners for successful marketing (Engstrom and Putman, 1979). It is difficult to understand how projects that affect the user's values and lifestyle can be planned and developed without some participation or input from the user during the design process (Becker, 1977).

It is the builders' job to listen to what the people want. Economist Alfred Gobar (Housing, 1982) reported that builders cannot operate in the 1980's the way they used to. In the past, builders focused on homes for the move-up buyer, trying to find features that would make him want to move up. Today, however, few homeowners will give up their low mortgage rate for a higher rate on a new home. Gobar stated that now builders are going to have to focus on the "must buyer" and respond to his needs. Builders will have to determine what features and products will be acceptable and what trade-offs people are willing to make.

Pando (1982) concluded that perhaps there does exist an inconsistency in values between those who authorize and design buildings and those who live in and use them. One method of eliminating this discrepancy is by user participation throughout the design process. User participation can increase satisfaction in the built product for several reasons: Participation increases the user's feelings of control of the environment, it implies, to the user, a a greater degree of concern on the part of the "management," and it allows the user to help develop an environment that is closely suited to his needs and values (Becker, 1977, p. 80).

Purpose of Study

The purpose of this study is to identify and compare shoppers' preferences and developers' perceptions of those preferences for design features in condominium/townhouse units by:

1. Identifying shoppers' preferences for and expectations of selected design features in condominium/townhouse units in the Tuscaloosa area market.
2. Identifying developers' perceptions of shoppers' preferences for selected design features in condominium/townhouse units in the Tuscaloosa area market.
3. Comparing the shoppers' preferences to the developers' perceptions of those preferences for selected design features in condominium/townhouse units in the Tuscaloosa area market.

Objective of Study

The primary objective of this study is to provide information to developers and designers which may enable them to better understand the expectations of potential clients. With this information, developers may provide housing which successfully meets consumers' requirements.

Hypotheses

The study is designed to test hypotheses based on the stated purpose. The hypotheses, stated in null form, are as follows:

1. There is no significant difference between shoppers' preferences and developers' perceptions of those preferences for allocation and arrangement of spaces in condominium/townhouse units.
2. There is no significant difference between shoppers' preferences and developers' perceptions of those preferences for product options and features in condominium/townhouse units.

Definition of Terms

Values - "What people believe is good" (Sommer, 1972, p. 129)

User needs - "Physical attributes of housing that people want or need for the housing to be optimal" (Michelson, 1977, p. 20)

Condominium - "A form of real property ownership that combines private ownership of a dwelling unit and joint ownership with all other units of common areas" (Holeman, 1980, p. 339)

Condominium unit - "The individual spaces within a condominium project owned as individual estates" (Department of Housing and Urban Development, 1977, p. 153)

Condominium, High-rise - A condominium development in which the structure is more than three stories high

Condominium, Low-rise or Garden - "A condominium project in which the structure is three stories or less, and in which individual units are attached vertically" (Department of Housing and Urban Development, 1977, p. 153)

Condominium Townhouse - A condominium project in which two story units are attached, side-by-side

Townhouse (not condominium) - "A project in which units are attached, and in which ownership of common walls is covered by a 'party wall agreement,' and in which ownership in the underlying land for each unit is owned as an individual estate by the individual unit owners" (Department of Housing and Urban Development, 1977, p. 153)

Fee Simple Ownership - Complete or absolute ownership subject only to government or other contractual limitations

Declaration or Master Deed - "A document which contains conditions, covenants, and restrictions governing the sale, ownership, use, and disposition of a property within the framework of applicable state condominium laws" (Fletcher, 1982, p. 219)

Association - The governing body responsible for the operation of a condominium. The individual unit owners are members of the association.

Developer - "One who creates a condominium and offers condominium units for sale in the ordinary course of business" (Holeman, 1980, p. 340)

<u>Empty-nesters</u> - "Couples whose children have grown and left home, prompting the parents to look for a smaller home" (Ek, 1982, p. 170)

II. REVIEW OF LITERATURE

Today more and more homes are townhouses or condominiums, a trend that does not reflect the traditional American dream of owning a detached home on a private lot (Engstrom and Putman, 1979). According to Holeman (1980, p. x): "It is predicted that before the year 2000 the majority of Americans will live in condominium type communities."

History of Condominiums and Townhouses

The term "condominium" may be a relatively new one to the United States, but has existed as a legal term meaning "joint ownership" from ancient Roman law (Karr, 1973, p. 16). Other evidence indicates that individual ownership of stories of buildings developed as a Germanic-Franco concept, possibly due to the search for living space in crowded walled cities with a growing population (Clurman and Hebard, 1970).

Although this individual ownership of floors in multi-storied buildings declined for a time, the condominium concept returned to use in Western Europe during the first half of the twentieth century. Countries such as Spain, Italy, Germany, Belgium, and France provided for the rights and obligations of condominium ownership in their statutes--long before the United States adopted the condominium form (Clurman and Hebard, 1970).

The condominium was not really utilized extensively in this country until the early 1960's. The United States federal government passed legislation in 1961 allowing the use of condominium ownership. The legislation was a significant step in the condominium's history in the United States, indicating confidence by Congress and housing officials in this form of home ownership (Clurman and Hebard, 1970).

Condominium ownership was further encouraged in 1963 when the government amended the National Housing Act to extend government mortgages to condominiums. State legislatures were thus given stimulus to enact laws enabling condominium formation. Each of the fifty states has since passed some type of condominium law (Fletcher, 1982).

Condominiums and Townhouses: Forms and Boundaries

The present use of the word "condominium" is a Latin word combining two elements: to have "control" (dominium) over a piece of property jointly "with" (con) other individuals (Clurman and Hebard, 1970). Condominiums are sometimes confused with other forms of housing in which there is shared control over any element of the property. A study of condominiums and cooperatives by the Department of Housing and Urban Development defined condominium ownership as "a single deed, fee simple ownership of an individual unit and an individual interest in a fee representing the common elements" (Department of Housing and Urban Development, 1977, p. 153). Common elements might be parking areas, private roads, recreational facilities, swimming pools, elevators, hallways, and so forth, which are maintained by a homeowners' association (Clurman and Hebard, 1970). The condominium unit is defined as "the individual spaces within a condominium project owned as individual estates" (Department of Housing and Urban Development, 1977, p. 153). A condominium home may be one of several physical types: high-rise, low-rise, townhouse, or garden home. Ownership of a unit in each of the types falls under the HUD description quoted above.

Other forms of housing often confused with condominiums are townhouses and planned unit developments. The HUD study defined townhouse as "a project in which units are attached, and in which ownership of common walls is covered by a 'party wall agreement,' and in which ownership in the underlying land for each unit is owned as an individual estate by the individual unit owners" (Department of Housing and Urban Development, 1977, p. 153). A planned unit development is described as "a single deed ownership in fee simple of individual home and real property extending to boundary of property" (Department of Housing and Urban Development, 1977, p. 153).

The legal boundary description of a private unit is usually contained in the master deed or declaration document of the condominium development. The physical boundaries are established in conformity with the jurisdiction where the project is located or the state condominium laws (Fletcher, 1982).

Availability of Condominiums and Townhouses in Tuscaloosa

The 1980 Census of Population and Housing reports that, in the state of Alabama, 5754 condominium units are available, with 2023 units occupied by owners. The mean value or price asked for the owner occupied units is $51,100. A reported 347 units are vacant (for sale) with a mean value or asking price of $56,400. In Tuscaloosa County, a total of 290 condominium units are present. Owner occupied units account for 104 of the total, with a mean value or asking price of $55,100. Twenty-nine units are vacant (for sale) priced or valued at a mean of $82,700.

In Tuscaloosa, the condominium/townhouse type of shelter has grown in popularity, as seen by the construction of four developments in the last three years. As a result, Tuscaloosa now offers the condominium/townhouse shopper six developments from which to select a home. However, three of the six developments are fully occupied and only resales would be possible. Three "new" developments are in competition for sales to the condominium/ townhouse shopper in Tuscaloosa.

Reston Place is a planned community of condominium townhouses and garden homes begun in 1981. Nestled on a forty-five acre site are thirty townhouses and fifteen garden homes, ranging in size from 1240-1732 square feet. The two-level townhouses have covered parking in the rear, while the single-level garden homes have an enclosed garage. Four choices of plans are available for the garden homes, with two options for townhouses. Prices start at $59,800. Reston Place offers the shopper home ownership with the amenities of resort living. A pond and adjoining nature area provide a visual amenity in the center of the development, along with other amenities such as a gazebo, sun deck, swimming pool, and two lighted tennis courts. The homeowners' association provides for the maintenance of exterior areas and amenities.

Fairfax Village is a planned unit development, consisting of eighty-four townhomes and flats on individually owned lots. Begun in 1981, there are to be fourteen separate buildings of five to eight attached units. Each unit--land and building--is owned in fee simple with no association fees (there are no common grounds or amenities). Six floor plans are offered, ranging from 1250-1750 square feet. Each unit has its own parking space in front. Prices start as low as $47,900.

Begun in 1981, The Staffords townhouses offer seven complete units, with a total of thirty-two proposed for development. The townhouses and flats are individually owned, with no development amenities, thereby avoiding association fees.

Two "older," completed developments in Tuscaloosa are Bedford Place (completed in 1981) and Fox Run (completed in 1978). Both offer double- and single-level townhomes. Neither Fox Run or Bedford Place has recreational amenities.

The sixth condominium/townhouse development offered to shoppers is Rose Condominiums, the only condominium conversion. The original structure was built as apartments in 1914. When the building was purchased by the developer in 1979, it was in poor structural condition. The city had condemned it and was in the process of emptying three occupied apartments. The developer reworked the interior structure in 1981 to provide five townhomes--all with different floor plans--and two identical flats. Units range in size from 1000-1700 square feet (Stewart, 1982).

Why People Buy Condominiums and Townhouses

The popularity of condominiums and townhouses as options on the housing market is traced to basic demographic and housing market trends. The number of new households has increased in recent years due to the arrival of the baby-boom generation at the household-forming age. In addition, the size of the average household has decreased. Both factors have resulted in an increased demand for housing (Dinkelspiel, Uchenick, and Selesnick, 1981).

The rapid increase in housing costs has affected the housing market in several ways. The demand for ownership (as compared to demand for renting) has increased due to the expectations for property appreciation. The rising cost of obtaining housing has made the purchase of single-family detached homes more difficult for first-time home buyers. Condominiums and townhouses can provide single-family homeowners the convenience and amenities of rental living with some of the preferred ownership qualities such as tax benefits and equity build-up (Department of Housing and Urban Development, 1977).

In a study by Dinkelspiel, Uchenick, and Selesnick (1981) of condominium purchases in one city, the most commonly mentioned reason for purchasing a condominium was that it was a good investment--a good way to obtain the financial security of home ownership in the early years of a household. The simple desire to own a home, as opposed to renting, was the second most frequently mentioned reason for purchasing a condominium. This reason was listed among all age and income groups. Stated as the third most frequently mentioned reason for purchase was that a condominium was a tax shelter: ownership of a condominium would shelter a portion of one's housing costs from income taxes.

Other reasons discovered by Dinkelspiel, Uchenick, and Selesnick for purchasing condominiums included the following: it was less expensive than renting, it was a better place to live than before, no maintenance, and it was in a good location (Dinkelspiel, Uchenick, and Selesnick, 1981).

The market trends of the 1970's also led to the conversion of rental buildings to condominiums. In 1980, 38 percent of the condominiums in the United States were conversions. This figure represents an increase from 45,000 conversions in 1977 to 160,000 conversions in 1980. As people move back into the cities to be closer to their work, leisure amenities, and the lifestyle that urban centers offer, the condominium conversion concept is being employed and is revitalizing cities across America (Gouletas, 1982)

Profile of the Condominium/Townhouse Market

The condominium concept is growing and will continue to grow. Today condominiums and townhouses are purchased by every age group. This housing form is a practical solution for first-time buyers in the housing market, including singles. Condominiums are an ideal "move-down home" for empty-nesters looking for smaller space with low maintenance (Simemion and Ek, 1980). Further, the condominium/townhouse type shelter provides independence, yet with security, for retirees (Karr, 1980).

The two largest growth markets for condominium/townhouses are expected to be the 25-34 age group and the empty-nesters (45 and up). Satisfying these groups will be the housing challenge of the 1980's. The two groups are both identified as "sophisticated and discriminating shoppers" (McLeister, 1980, p. 224). The size and life-style characteristics of these households mean that they will be shopping for something other than the traditional suburban detached home.

Singles buy condominium/townhouses because they are good investments and have the potential for large investment returns. According to Fletcher (1982, p. 22), "rising rents, flexible loan programs, and the awakening desire to invest in something that appreciates at a rate equal to or faster than inflation have combined to make home ownership highly attractive to a segment of the population usually associated with a more transient lifestyle." In addition, single women tend to purchase in a condominium/townhouse development because of the security that is available as compared to the single-family home (Fletcher, 1982).

A national survey of home buyer preferences in Builder magazine reports that, of low-end shoppers (those who would pay up to $81,830 for a new home), 72 percent of the singles and 60 percent of single parents would consider purchasing a townhouse or condominium. This trend was paralleled by high-end shoppers (those who would pay up to $119,270 for a new home), with 66 percent of the singles and 58 percent of single parents considering a condominium/townhouse type home (Gers, 1983).

Young-marrieds shop for a home in which they can raise a family. They need a two or three bedroom unit with a place where children can play. The townhouse is popular with this group, offering an upstairs/downstairs separation, enough room to raise a family, and a small yard area for play (Fletcher, 1982).

Empty-nester buyers are not motivated by need; for the most part, they are motivated by want. This group is looking for smaller homes which will enhance their new, carefree lifestyle. Empty-nesters that prefer attached housing cite more efficient use of space and less maintenance as the reasons. Open floor plans, combining the functions of several rooms into one, fit the anticipated new lifestyle of empty-nesters (Ek, 1982).

Builder's survey of home buyers reports that (of low-end shoppers) 46 percent of couples over thirty-five will consider a townhouse or condominium. The percentage is somewhat lower for families (head of household over thirty-five), with only 28 percent considering a condominium/townhouse. High-end couples rate townhouses and condominiums 43 percent, while 22 percent of families are willing to consider this type (Gers, 1983).

User Expectations and Preferences in Housing Design

Information about user preferences and expectations is provided to builders, developers, and designers through trade journals. Annual surveys are conducted by the journals to determine the current housing market status: who's buying, what they are shopping for, and how much they want to spend. Other user needs resources are individual studies or several studies compiled into one comprehensive report.

John Zeisel and Polly Welch (1981) have analyzed much of the available research and design guidelines for family housing, taking excerpts, from each study, of research items and specific design guidelines reflecting the research. Their report is organized based on a "zone system" of the housing environment. Zeisel and Welch (1981) state that residents designate some places for formal behavior, such as entertaining, with other places for informal behavior, such as eating breakfast and children playing. Formal spaces are part of the "front-stage" zone, where residents present their "best side" to guests. Informal areas are in the "back-stage" zone (Zeisel and Welch, 1981. p. 93).

According to Zeisel and Welch (1981), a formal entry door opening into a hall or foyer serves as a buffer zone between the private areas of the home and the public exterior. An informal entry is also needed to privately provide access between the exterior and the informal interior areas. Eighty-two percent of respondents in a survey by Zeisel and Griffin (1975) chose entry into a foyer, 11 percent, entry into the kitchen. The general preference is for an entry that provides "a neutral space in which to deal with visitors whom one wished neither to leave on the step nor to invite to meet the family" (Department of the Environment, 1961, p. 9).

The "Formal Living Room" is described by Zeisel and Welch (1981, p. 95) as "the showcase living room." In a study by Zeisel and Griffin (1975, p. 113) residents were asked what room they would most want to "show off" to others. Sixty-four respondents said the "living room." In further study, Saulter (1969, appendix) found that a traffic path through the living room leads the list of dislikes about the house layout. Therefore, research indicates need for multiple living areas: an informal livable area and a formal showcase area (Zeisel and Welch, 1981).

Design suggestions for the kitchen were directed to dining area in the kitchen. Cooper (1970) found that one-fourth of the residents involved in her study would trade the enjoyable balcony for a larger kitchen or separate dining area. The dining room table was located in the living room and invaded the formal space with informal eating and children's mess. In other examples, residents with combined kitchen/dining areas preferred an open plan to two separate rooms. The combinations that were most satisfactory were those with a fairly distinctive division between the kitchen and dining area. A hatch or pass-through was a feature that was acceptable as a divider (Department of the Environment, 1972).

Resident satisfaction was significantly increased when appropriate storage areas were provided throughout the home.

Residents preferred to have some storage space located near the entry/entries, both formal and informal. The entry storage areas "cut down on the mess created by tracking through" the space to hang up and store garments (Zeisel and Welch, 1981, p. 109). Bulk storage was desired to keep seasonal items (clothes, holiday decorations, sports equipment) and often-used items, such as a vacumm cleaner, mop, and broom. Becker (1974) surveyed residents who were not satisfied with bulk storage less than twenty square feet. Lack of adequate indoor storage areas may cause residents to use balconies to store items such as brooms, mops, and pails (Cooper, 1970). In a study of condominium residents, Cooper and Sims (1978) discovered that the highest ranked asset at the condominium complex was having a convenient location for a washer and dryer. Residents rated both basement and kitchen washer/dryer hookups as "very convenient" (Cooper and Sims, 1978, p. 39).

Zeisel and Welch (1981) found that research emphasizes the need for flexibility in the design of a home so that there is the opportunity to rearrange furniture in any room in several ways. In addition, to meet changing family needs, rooms should be furnishable for different uses than were initially intended.

Professional Builder is one trade magazine which annually publishes a consumer/builder survey comparing buyer expectations with what builders offer in their best-selling model homes. The survey deals with both detached and attached housing concerning four categories: design, motivation, money, and products/features. In the two categories of most interest to the investigator (design and products/features), it was found that the builders are, for the most part, supplying the products and features consumers want (Diez, McNeilly, and Carper, 1982).

Results of the Professional Builder survey for 1983 indicated a gain in popularity of attached housing. Builders reported that 28 percent of their best-selling homes were attached units (duplex, townhouse, or condominium). Shoppers continue to scale down their expectations about square footage in the attached home, accepting an average of 1574 square feet of living space.

In house design, most buyers want three bedrooms, but many young, empty-nester, or retirement buyers will settle for less. In the 25-34 age group, 59 percent want three, with 14 percent satisfied with one or two bedrooms. Empty-nesters also want three bedrooms (54 percent), but 24 percent will take one or two bedrooms. Of all buyers, one-third want two bathrooms and one-third demand more than two. However, among attached buyers, 48 percent seek one or 1½ baths. Two-thirds of buyers want a master bedroom with a private bath and a walk-in closet.

For dining, preference varies mostly by household size. In the smaller, attached households, the top choice is a small sit-down eating area. Ranked second is a combined kitchen/family room dining area. In contrast, most builders provide a full dining area (42 percent).

Home builders can clinch a sale when the models they display include the products, features, and amenities that match consumer expectations. In most instances, a high percentage of builders include as standard the products and features consumers want in kitchens. However, discrepancies exist where consumers expect fluorescent lighting, two-handled faucets, enamel/porcelain sinks, and ceramic tile counters; these features are less commonly provided by builders.

Builders and consumers greatly differ on some bathroom features, also. Eighty-eight percent of consumers expect a medicine cabinet, while only 72 percent of builders provide it as standard. Other features expected by consumers, yet not provided by builders (at a similar percentage rate), are linen storage cabinets, ceramic tile walls and floors, and a bathroom heater.

Shoppers are willing to pay extra for many options and features. Sixty-six percent will pay extra for a fireplace, 45 percent for extra cabinetry, 32 percent for book shelves, and 28 percent for a closet shelf system. Other extras consumers want are smoke/fire alarms (54 percent), security system (25 percent), and garage door opener (38 percent). Shoppers show interest in energy related features by offering to pay extra for storm windows (48 percent), storm doors (46 percent), and energy-saving water heater (62 percent) (Diez, McNeilly, and Carper, 1982).

Another source of literature cited a similar survey--Housing magazine's "Home Shopper Survey." The survey results were used by one developer to establish project specifics for a residential community. The developer, Walter Zaremba, first chose a target market based on his geographic location, Miami. Zaremba found that 62 percent of the attached home shoppers polled were thirty-five and under, and 60 percent of shoppers were members of a one- or two-person household.

The developer then looked at the new housing on the market and found that Miami offered mostly single family detached homes and condominium flats in mid- or high-rise buildings--both products geared toward the second-home buyer and retiree. Zaremba decided to target the product to the young market of small households to help balance out the existing product geared to an older, more established group of buyers. Specific targets were singles, young childless couples, and empty-nesters (while in the 45-55 age group, their needs were closer to young couples than to retirees). Needs and wants of these groups were determined, as well as the price ranges they would consider.

The next step was to select a site plan that appealed to the target market, yet met the size, character, and construction requirements of the developer. Zaremba chose to offer the buyers attached townhouses and flats. Five plans were designed--two townhouses and three flats, from 1134-1578 square feet. One townhouse and one flat were directed specifically toward empty-nesters in price, space arrangement, and features. One flat was targeted at singles. A flat and a townhouse were left which would offer something for all markets.

As a final step, the product was advertised, with half the two hundred townhouses and flats sold before the construction ended--the rest shortly after. Zaremba's project showed an example of how to turn market research from a housing survey into an effective, successful development for both developer and consumer (Updegrave, 1980).

III. METHODS AND PROCEDURES

This study was to identify and compare shoppers' preferences and developers' perceptions of those preferences for design features in condominium/townhouse units in the Tuscaloosa area market. The design features investigated in this study were space allocation, arrangement of spaces, and product options and features. Checklists of specific design features were developed for mailed survey-questionnaires. Responses to the questionnaire were calculated in percentages as a basis for comparisons between the shoppers and developers.

Selection of Population

The two populations chosen were condominium/townhouse shoppers and housing developers in Tuscaloosa, Alabama. The sample of shoppers was chosen by the method of accidental sampling from a guest book in a condominium model in Tuscaloosa. The questionnaire was sent to persons identified by United States Postal Zip Codes to be residents of Tuscaloosa County. The sample consisted of a total of 147 subjects who had visited the condominium model during 1982 (January-October). Only one questionnaire was sent to those subjects whose name appeared more than once in the guest book.

The sample of developers was selected by accidental sampling from a membership list of the Home Builders Association of Tuscaloosa. The developers chosen were Active Members of the Home Builders Association roster dated November, 1982. In addition, questionnaires were mailed to condominium/townhouse developers who were not members of the Home Builders Association. The sample contained a total of twenty-three subjects, all from Tuscaloosa County.

Method of Data Collection

Questionnaire Design: Shoppers

A questionnaire, "Consumer Expectations in Condominium/Townhouse Design," was developed by the investigator as the means of collecting data to determine the desired design features in a condominium/townhouse unit as perceived by shoppers. This questionnaire is shown in the appendix. The instrument employed a checklist format for ease of response by shoppers. Items for the questionnaire were derived from similar studies, Curran's (1979) book focusing on priority requirements in a home, and a home checklist established by Dunning and Robin (1966).

The following demographic data were requested: type of current residence, length of time at current residence, marital/family status, age of head of household, sex of respondent, buying intentions, and price range considered. Each respondent was requested to respond to items on the checklist for one selected price range.

The questionnaire contained seventy-seven items addressing space allocation, space arrangement, product options, and features. Thirty-nine of the items focused on design features that the shoppers expected in condominium/townhouse units. The remaining thirty-five items listed design features in condominium/townhouse units for which the shoppers would pay an additional amount.

For the thirty-nine items concerning shopper expectations, the subjects were asked to respond to a specific design feature based on one of the three following responses: 1) "Yes, I expect this feature and would not purchase a unit without it"; 2) "I expect this feature, but would purchase a unit without it"; 3) "No, I would not expect this feature in a unit in the price range selected.

Subjects were asked to respond to the thirty-five items, concerned with design features that consumers would pay extra for, with one of the three following responses: 1) "Yes, I would pay extra for this feature"; 2) "I expect this as a standard feature and would not pay extra"; 3) "No, I do not care for this feature and would not pay extra for it."

A cover letter of introduction explaining the purpose and advantages of the project was included with each questionnaire.

Questionnaire Administration: Shoppers

Questionnaires were mailed to 147 subjects in

November, 1982. Stamped, self-addressed envelopes were included to encourage the return of the completed questionnaires. Two weeks after mailing the questionnaires, postcards were mailed to subjects to remind them of the importance of their participation and response.

Questionnaire Design:
Housing Developers

The investigator composed a questionnaire, "Designs for Tuscaloosa Homes: A Survey of Developers," as the means of collecting data to determine the desired design features of consumers as perceived by developers. A checklist format was utilized for the questionnaire for ease of response by developers. Items for the questionnaire were identical to those used on the questionnaire for shoppers. The questionnaire is shown in the appendix.

The following demographic data were requested: Length of time developer has been in business, type of development most involved in (detached or attached), price range most representative of work done by developer, most important source of obtaining information for jobs, and if architects or interior designers were contracted for jobs. One price range, selected by the developer, was the primary reference for making decisions on specific design features to be provided in condominium/townhouse units.

The questionnaire contained sixty-two items concerned with space allocation, space arrangement, and product options and features. Whereas the consumer questionnaire was divided into two parts (what shoppers expect and what they would pay extra for), all items were combined to form one checklist for developers.

The subjects were requested to identify the design features that would be provided to consumers as standard features in condominium/townhouse units (in a specific price range) based on the following responses: 1) "Yes, I would provide this as a standard feature in this price range"; 2) "No, I would not provide this as a standard feature in this price range."

To explain the purpose and advantages of the project, a letter of introduction was included with each questionnaire.

Questionnaire Administration: Housing Developers

Questionnaires were mailed to twenty-three subjects in January, 1983. To encourage the return of the completed questionnaires, self-addressed, stamped envelopes were included. "Reminder" post cards were sent to the subjects ten days after mailing the questionnaires to further encourage their participation and response.

Analysis of Data

To determine similarities and differences between the sample groups, the responses by shoppers and developers to the questionnaires were compared using percentage distributions and frequencies for each item on the questionnaire. Five groups were investigated: one group consisting of the total responses by the shoppers and developers, and four groups based on the four price ranges utilized in the questionnaire.

To test the null hypotheses, a sign test for two correlated samples was used to determine if a significant difference existed between shoppers and developers in two categories: space allocation and arrangement and product options and features. The sign test was applied to paired responses by shoppers and developers for all questionnaire items. The responses (in the form of percentages) were grouped for two tests. One sign test compared shoppers' and developers' responses to items concerning space allocation and arrangement. The second sign test consisted of paired responses to items addressing product options and features.

For each test, the difference between each pair of responses was obtained and recorded as a positive(+) or negative(-) difference. A zero difference was discarded. To calculate the test value, the following formula was used:

$$z = \frac{|D| - 1}{\sqrt{N}}$$

The variable "D" equals the difference between the number of positive(+) and negative(-) signs and "N" equals the total number of positive(+) and negative(-) signs. The formula incorporated a continuity correction, with a value of 1.96 required for significance at the .05 level (Steel and Torrie, 1960).

IV. RESEARCH FINDINGS

The purpose of this study was to identify and compare shoppers' preferences and developers' perceptions of those preferences for design features in condominium/townhouse units in the Tuscaloosa area market.

Questionnaires were designed and distributed to the two groups: shoppers and developers of condominium/townhouse units. Both questionnaires were composed of items concerned with space allocation and arrangement and product options and features. Returns of 49 percent (63 questionnaires) from the shoppers and 56 percent (13 questionnaires) from the developers were recorded.

The data were calculated into percentages based on responses to each questionnaire item in order to determine specific similarities and differences of the two sample groups in the four price ranges. In addition, the total group responses of shoppers were compared to the total group responses of developers. A sign test for two correlated samples was used to determine if a significant difference existed between shoppers and developers in two categories: space allocation and arrangement and product options and features.

Demographic data were gathered to establish a profile of respondents. Characteristics of consumers were desired so that a target market for condominiums and townhouses could be determined for developers. Information on developers was obtained to determine a general background of their construction/development firm.

Consumer Characteristics

Demographic data recorded on the questionnaires indicated a wide distribution of age groups in the housing market. The largest number of shoppers (27 percent) was in the twenty-six to thirty-five age group, with 22 percent in the forty-six to fifty-five age group, and 17.5 percent in the fifty-six to sixty-five group. This information reinforces the national trend in housing market statistics of age groups reported by McLeister (1980).

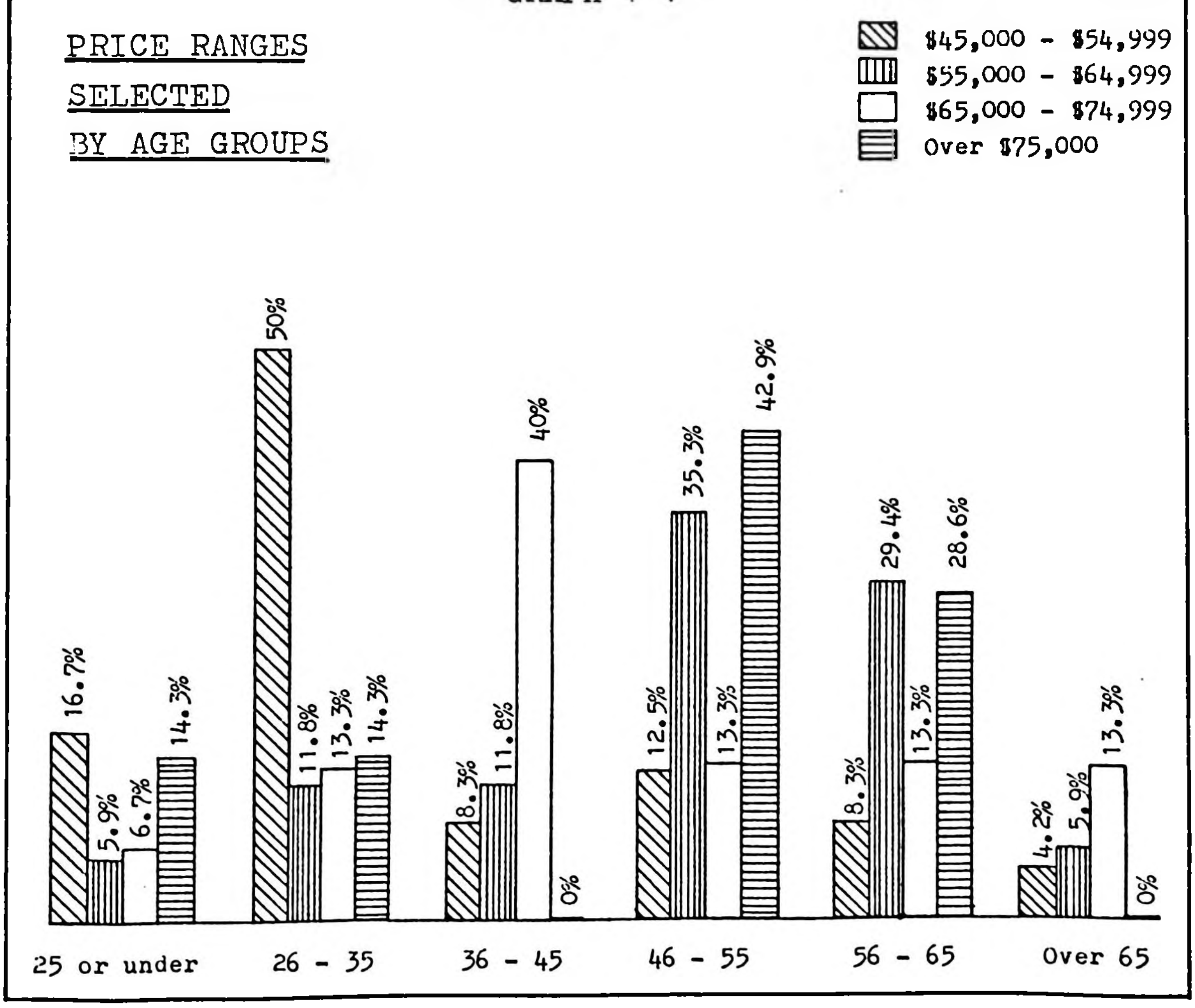
Thirty-eight percent of respondents were married with a child or children in residence, with another 31.7 percent classified as single (includes divorced, widowed, or separated). Fourteen percent of shoppers were married with no children in residence.

The majority of shoppers (71.4 percent) reported their current residence to be a single-family detached house, followed by 20.6 percent in rented townhouses or apartments. Over one-third of the shoppers (36.5 percent) have lived at their current residence more than ten years. Another 36.5 percent have lived in their home more than two years.

Shoppers were most interested in the $45,000-$54,999 price range (38.1 percent) followed by the $55,000-$64,999 range (27 percent) and the $65,000-$74,999 range (23.8 percent). Only 11 percent considered a condominium/ townhouse unit over $75,000. Graph-1 illustrates the price ranges selected by the different age groups.

In design, shoppers preferred a single-story unit (58.7 percent) over a two-story unit (38.1 percent). They selected the kitchen, master bedroom, and living/ family room as the most important rooms in their unit. Over one-half of the respondents want the master bedroom (65.1 percent) and kitchen (57.1 percent) to face the back yard. The majority of shoppers (74.6 percent) also

GRAPH - 1



prefer parking to the rear of the unit.

Characteristics of Developers

It was determined that the developers have been in the construction/development business for an average of ten years. Job experience was listed by all respondents as the most important source of information for a project. Other sources utilized by developers were trade journals (33.3 percent) and market studies (33.3 percent). Ninety-one percent of the developers had contracted architects or interior designers for their jobs. Architects were most often used (83.3 percent), but followed closely by interior designers, with 75 percent of developers utilizing their services.

Development of single-family attached homes (condominium/townhouses) accounts for 25 percent of the business done by developers, with the majority of housing being single-family detached homes.

Two price ranges were selected as most representative of work done by developers, as seen in Table-1. The \$55,000-\$64,999 price range was chosen by 41.7 percent,

TABLE - 1

	Shoppers' Price Range	Price Most Representative of Builders' Work
\$45,000 - \$54,999	38.1%	8.3%
\$54,999 - \$65,000	27.0%	41.7%
\$65,000 - \$74,000	23.8%	41.7%
Over \$75,000	11.1%	8.3%

with an equal 41.7 percent selecting the $65,000-$74,999 range.

Null Hypotheses

1. There is no significant difference between shoppers' preferences and developers' perceptions of those preferences for allocation and arrangement of spaces in a condominium/townhouse unit.

A sign test was administered to determine if there was a significant difference ($p < .05$) between the percentage of shoppers that expected specific items (concerning space allocation and arrangement) and the percentage of developers that provided the items as standard features in their homes.

The analysis indicated that there was no significant difference between the two groups. The results are shown in Table-2. A value of 1.25 was calculated for the total group responses of shoppers and developers. The test value falls short of the 1.96 value required for significance at the .05 level. The values determined for each

TABLE - 2

Sign-Test Results

SPACE ALLOCATION & ARRANGEMENT		
Required for significant difference ($p < .05$)		1.96
TOTAL RESPONSES		1.25
$45,000 - $54,999	.213	
$55,000 - $64,999	1.06	
$65,000 - $74,999	.670	
Over $75,000	.971	

price range were also computed to be far below the level of significance. Therefore, the null hypothesis could not be rejected.

Responses to questionnaire items dealing with space allocation and arrangement showed that the developers were, to a great extent, satisfying the spatial needs of the shoppers. The developers unanimously provided three bedrooms as standard in all price ranges, matching the number that was favored by shoppers. As seen in Table-3, only two bedrooms were expected by many shoppers in the two lower price ranges. Dining arrangements provided by developers successfully met the expectations of shoppers, with the majority of developers incorporating both a kitchen breakfast nook and a separate dining room. However, Graph-2 shows a contrast was present in the $45,000-$54,999 range, where developers did not provide a separate dining room in the unit. Further correlations in expectation and provision of spaces were found and presented in Table-4. Every developer provided some type of utility room or closet located near the kitchen or bedroom.

The greatest discrepancy in shoppers' preferences and developers' perceptions of the preferences existed in the space allocated for bathrooms, as seen in Table-5. The majority of shoppers in each price range expected a half-bath near entertainment areas for guests, yet the shoppers' expectations were met only in the price range over $75,000. Developers did provide the desired master bathroom (in all

TABLE - 3

IMPORTANT ELEMENTS OF THE BEDROOM AND MASTER BEDROOM	All Shoppers All Builders		$45,000 - $54,999		$55,000 - $64,999		$65,000 - $74,999		Over $75,000	
	Shoppers expect	Standard w/ Builders	Shoppers expect	Standard w/ Builders	Shoppers expect	Standard w/ Builders	Shoppers expect	Standard w/ Builders	Shoppers expect	Standard w/ Builders
SPACE ALLOCATION & ARRANGEMENT:										
2 Bedrooms	61.9%	25.0%	70.9%	0.0%	70.6%	40.0%	46.7%	20.0%	42.9%	0.0%
3 Bedrooms	74.6	100.0	75.0	100.0	58.9	100.0	80.0	100.0	100.0	100.0
4 Bedrooms	27.0	16.7	20.9	100.0	29.4	0.0	33.3	20.0	28.6	No Response
Bedrooms located away from living/dining area	88.9	83.3	91.7	100.0	88.2	80.0	86.7	80.0	85.7	100.0
PRODUCT OPTIONS AND FEATURES:										
Walk-in closet	87.3	91.7	83.3	100.0	88.2	100.0	100.0	80.0	71.4	100.0
MASTER BEDROOM										
SPACE ALLOCATION & ARRANGEMENT:										
Door opening to patio/deck	50.8	33.3	50.0	0.0	41.1	20.0	46.7	40.0	85.7	100.0
Separate dressing area/alcove	73.0	91.7	66.6	0.0	76.4	100.0	73.3	100.0	85.7	100.0
PRODUCT OPTIONS & FEATURES:										
Fireplace	12.7	0.0	16.7	0.0	11.8	0.0	13.3	0.0	0.0	0.0
Walk-in closet	93.7	100.0	87.5	100.0	94.1	100.0	100.0	100.0	100.0	100.0

GRAPH - 2

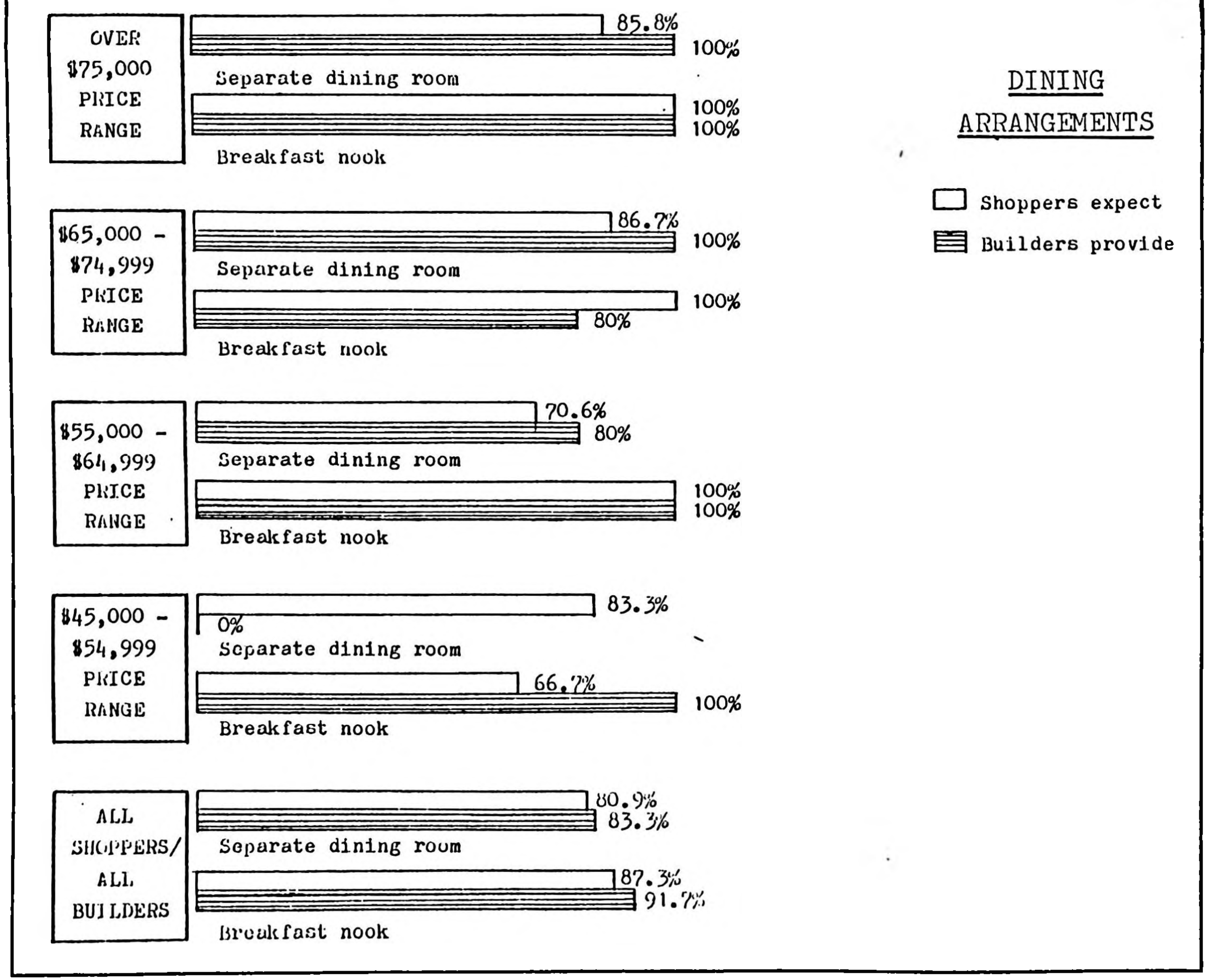

OVER $75,000 PRICE RANGE
85.8%
100%
Separate dining room
100%
100%
Breakfast nook
$65,000 - $74,999 PRICE RANGE
86.7%
100%
Separate dining room
100%
80%
Breakfast nook
$55,000 - $64,999 PRICE RANGE
70.6%
80%
Separate dining room
100%
100%
Breakfast nook
$45,000 - $54,999 PRICE RANGE
83.3%
0%
Separate dining room
66.7%
100%
Breakfast nook
ALL SHOPPERS/ ALL BUILDERS
80.9%
83.3%
Separate dining room
87.3%
91.7%
Breakfast nook
DINING ARRANGEMENTS
Shoppers expect
Builders provide

TABLE - 4

IMPORTANT ELEMENTS OF THE LAUNDRY/UTILITY AREA	All Shoppers All Builders		$45,000 - $54,999		$55,000 - $64,999		$65,000 - $74,999		Over $75,000	
	Shoppers expect	Standard w/ Builders	Shoppers expect	Standard w/ Builders	Shoppers expect	Standard w/ Builders	Shoppers expect	Standard w/ Builders	Shoppers expect	Standard w/ Builders
SPACE ALLOCATION & ARRANGEMENT:										
Separate utility room	82.6%	83.3%	79.2%	100.0%	76.5%	80.0%	86.6%	100.0%	100.0%	0.0%
Separate utility closet	87.3	58.3	87.5	100.0	88.2	60.0	86.6	40.0	85.7	100.0
Located near kitchen	81.0	75.0	91.7	100.0	88.2	80.0	60.0	60.0	71.4	100.0
Located near bedrooms	46.0	25.0	33.3	100.0	53.0	20.0	53.3	20.0	57.2	0.0
PRODUCT OPTIONS & FEATURES:										
Counter space for folding, sorting, storage	74.6	25.0	62.5	0.0	82.4	0.0	73.3	40.0	100.0	100.0
Hanging space for clothes	73.1	41.7	66.7	100.0	88.2	20.0	60.0	40.0	85.7	100.0
Sink	42.9	33.3	41.7	100.0	23.5	0.0	53.3	40.0	71.4	100.0
Built-in ironing board	15.9	8.3	12.5	0.0	23.5	20.0	13.3	0.0	14.3	0.0

TABLE - 5

IMPORTANT ELEMENTS OF THE BATHROOM	All Shoppers All Builders		$45,000 - $54,999		$55,000 - $64,999		$65,000 - $74,999		Over $75,000	
	Shoppers expect	Standard w/ Builders	Shoppers expect	Standard w/ Builders	Shoppers expect	Standard w/ Builders	Shoppers expect	Standard w/ Builders	Shoppers expect	Standard w/ Builders
SPACE ALLOCATION & ARRANGEMENT:										
A master bath (in addition to a main bathroom)	85.7%	91.7%	82.8%	0.0%	76.5%	100.0%	93.4%	100.0%	100.0%	100.0%
1/2 bath near entertainment areas (for guests)	73.0	25.0	75.0	0.0	70.6	20.0	60.0	20.0	100.0	100.0
1 1/2 bathrooms (total)	63.4	25.0	70.8	100.0	64.7	20.0	53.4	20.0	57.2	0.0
2 bathrooms (total)	68.2	75.0	62.5	0.0	64.7	100.0	86.7	80.0	57.2	0.0
2 1/2 bathrooms (total)	35.0	25.0	25.0	0.0	29.4	20.0	33.3	20.0	85.8	100.0
Divided bathrooms (separate vanity from shower and toilet)	77.8	75.0	75.0	100.0	70.5	60.0	80.0	80.0	71.5	100.0
PRODUCT OPTIONS & FEATURES:										
Built-in clothes hamper	39.7	0.0	37.5	0.0	41.1	0.0	26.7	0.0	71.4	0.0
Window	69.8	66.7	70.8	100.0	64.7	40.0	73.3	80.0	71.5	100.0
Two sinks	31.7	25.0	33.3	0.0	23.5	20.0	26.7	20.0	57.1	100.0
Colored fixtures	46.0	8.3	29.2	0.0	64.7	0.0	46.7	20.0	57.1	0.0
Ceramic tile walls and countertop	60.3	25.0	66.7	0.0	58.8	20.0	46.7	40.0	71.4	0.0

but the lowest price range) and the divided bathrooms.

The allocation of space for a separate entry hall was expected by a high percentage of shoppers in all price ranges. Developers in the two higher ranges satisfied the expectations, but the developers in the $45,000-$54,999 price range did not provide a separate entry hall. Table-6 shows that a half-bath in this area was expected and provided.

2. There is no significant difference between shoppers' preferences and developers' perceptions of those preferences for product options and features in condominium/townhouse units.

A sign test was administered to determine if there was a significant difference ($p < .05$) between the percentage of shoppers that expected specific products or features and the percentage of developers that provided the products or features in their homes.

The analysis indicated that there was a significant difference between the two groups. The results are shown in Table-7. A value of 2.5 was computed for the total group responses of shoppers and developers. The test value exceeds the 1.96 value indicating significance at the .05 level. While the values determined for two of the price ranges were below the required 1.96 value, the remaining two values were quite high. Therefore, the null hypothesis was rejected.

Results indicate that developers did not perceive the

TABLE - 6

IMPORTANT ELEMENTS OF THE FRONT ENTRY	All Shoppers All Builders		$45,000 - $54,999		$55,000 - $64,999		$65,000 - $74,999		Over $75,000	
	Shoppers expect	Standard w/ Builders	Shoppers expect	Standard w/ Builders	Shoppers expect	Standard w/ Builders	Shoppers expect	Standard w/ Builders	Shoppers expect	Standard w/ Builders
SPACE ALLOCATION & ARRANGEMENT:										
Separate entry hall/area	90.5%	75.0%	83.3%	0.0%	100.0%	60.0%	86.7%	100.0%	100.0%	100.0%
1/2 bath	46.0	41.7	45.8	100.0	35.3	40.0	40.0	40.0	85.7	100.0
PRODUCT OPTIONS & FEATURES:										
Sidelight (window) at front door	57.2	58.3	50.0	0.0	58.8	60.0	53.3	80.0	85.8	0.0
Genuine tile/wood parquet flooring	41.3	41.7	33.3	0.0	41.2	20.0	53.3	60.0	42.9	100.0

TABLE - 7

Sign-Test Results

PRODUCT OPTIONS & FEATURES

Required for significant difference ($p < .05$)		1.96
TOTAL RESPONSES		2.50
$45,000 - $54,999	2.50	
$55,000 - $64,999	3.38	
$65,000 - $74,999	1.01	
Over $75,000	1.76	

shoppers' preferences for products and features in the kitchen--a room selected as a favorite by shoppers. The most noticeable contrast of the two groups existed in the $45,000-$54,999 price range, but discrepancies occured in all categories, as seen in Table-8. Differing opinions were indicated by the responses to items such as a built-in desk, trash compactor, ceramic tile countertop, and a food pass-through to the dining area. The developers and shoppers did agree on the desire for a broom closet/pantry and a garbage disposal.

Shoppers and developers also differed on product options and features desired in the bathroom and master bathroom, shown in Tables-5 and -9. Many shoppers expected ceramic tile walls and countertops, but only a few developers matched their expectations. Other products and features, such as a separate shower stall and colored fixtures, were expected by a small percentage of shoppers, but provided by an even smaller percentage of developers. The two groups did agree on the preference for a window in the bathroom.

TABLE - 8

IMPORTANT ELEMENTS OF THE KITCHEN	All Shoppers All Builders		$45,000 - $54,999		$55,000 - $64,999		$65,000 - $74,999		Over $75,000	
	Shoppers expect	Standard w/ Builders	Shoppers expect	Standard w/ Builders	Shoppers expect	Standard w/ Builders	Shoppers expect	Standard w/ Builders	Shoppers expect	Standard w/ Builders
SPACE ALLOCATION & ARRANGEMENT:										
Direct access from garage/entry	92.1%	83.3%	100.0%	100.0%	87.6%	80.0%	86.7%	80.0%	85.7%	100.0%
Access to patio/deck/balcony	65.1	50.0	70.8	0.0	70.6	40.0	46.7	60.0	71.5	100.0
PRODUCT OPTIONS & FEATURES:										
Food pass-through to dining	68.2	16.7	75.0	0.0	58.8	20.0	53.3	0.0	100.0	100.0
Built-in desk area	44.4	25.0	25.0	0.0	41.2	40.0	53.4	20.0	100.0	0.0
Trash compactor	54.0	25.0	37.5	0.0	58.8	20.0	60.0	40.0	85.8	0.0
Garbage disposal	76.1	83.0	75.0	0.0	64.7	80.0	80.0	100.0	100.0	100.0
Broom closet/pantry	93.6	100.0	91.7	100.0	100.0	100.0	93.3	100.0	100.0	100.0
Butcher block countertop area	30.2	8.3	25.0	0.0	29.4	20.0	33.3	0.0	42.9	0.0
Ceramic tile countertop	28.6	0.0	25.0	0.0	29.4	0.0	13.3	0.0	71.4	0.0
Oven with separate cooktop	54.0	33.3	50.0	0.0	47.1	20.0	46.7	40.0	100.0	100.0

TABLE - 9

IMPORTANT ELEMENTS OF THE MASTER BATHROOM	All Shoppers All Builders		$45,000 - $54,999		$55,000 - $64,999		$65,000 - $74,999		Over $75,000	
	Shoppers expect	Standard w/ Builders	Shoppers expect	Standard w/ Builders	Shoppers expect	Standard w/ Builders	Shoppers expect	Standard w/ Builders	Shoppers expect	Standard w/ Builders
PRODUCT OPTIONS & FEATURES;										
Oversized/walk-in tub	20.6%	8.3%	25.0%	0.0%	17.6%	0.0%	6.7%	20.0%	42.9%	0.0%
Whirlpool tub	9.5	8.3	4.2	0.0	11.8	0.0	6.7	20.0	28.6	0.0
Skylight	12.7	16.7	8.3	0.0	17.6	20.0	13.3	20.0	14.3	0.0
Two sinks	42.9	33.3	41.7	0.0	23.5	0.0	46.7	60.0	85.7	100.0
Built-in clothes hamper	14.3	0.0	12.5	0.0	23.5	0.0	6.7	0.0	14.3	0.0
Separate shower stall	36.5	16.7	29.2	0.0	23.5	20.0	53.3	20.0	57.1	0.0
Colored fixtures	46.0	8.3	29.2	0.0	64.7	0.0	40.0	20.0	71.4	0.0
Ceramic tile walls and countertop	52.4	25.0	50.0	0.0	64.7	20.0	33.3	40.0	71.4	0.0

In the laundry/utility area, high percentages of shoppers in each price range expected counter space for folding, sorting, and storage and hanging space for clothes. Developers in the price range over $75,000 correctly perceived the preference; however, in other price ranges, developers were not as successful, as seen in Table-4. In the $55,000-$64,999 range, 82.4 percent of the shoppers expected counter space, but no developers provided this feature.

Another favorite room of shoppers, the living/family room, had fewer inconsistencies in the expectations of shoppers and provisions by developers. In each price range, developers provided a fireplace, meeting the high percentage expectations of shoppers. Table-10 shows that developers were somewhat successful in satisfying shopper preferences for built-in shelving and storage and a high, sloped ceiling.

Other Items Expected by Shoppers Or Provided by Developers

Shoppers listed many other items, not included on the questionnaire checklist, that they expected in a condominium/townhouse unit. Several respondents emphasized the desire to have their choice of color scheme in the unit or an ample allowance for decorating with good carpet and tile and wallpaper. Good lighting was another item frequently mentioned by shoppers, who stated they wanted adequate kitchen lighting, attractive light fixtures, and

TABLE - 10

IMPORTANT ELEMENTS OF THE LIVING/FAMILY ROOM	All Shoppers All Builders		$45,000 - $54,999		$55,000 - $64,999		$65,000 - $74,999		Over $75,000	
	Shoppers expect	Standard w/ Builders	Shoppers expect	Standard w/ Builders	Shoppers expect	Standard w/ Builders	Shoppers expect	Standard w/ Builders	Shoppers expect	Standard w/ Builders
SPACE ALLOCATION & ARRANGEMENT:										
Access to patio, deck, balcony	87.3%	100.0%	79.2%	100.0%	94.1%	100.0%	86.6%	100.0%	100.0%	100.0%
PRODUCT OPTIONS & FEATURES:										
Fireplace	85.7	100.0	70.8	100.0	94.1	100.0	93.4	100.0	100.0	100.0
Built-in shelving & storage	92.0	66.7	95.8	100.0	82.4	60.0	93.3	60.0	100.0	100.0
Built-in beverage bar	47.6	25.0	50.0	0.0	35.3	20.0	53.3	20.0	57.2	100.0
High sloped ceiling	44.4	66.7	45.8	100.0	47.1	60.0	40.0	80.0	42.9	0.0
Mirrored wall	14.3	16.7	8.3	0.0	23.5	20.0	6.7	20.0	28.6	0.0

decorative, as well as overhead lighting. Shoppers also expected appliances to be provided as a part of the condominium/townhouse unit package.

Other features and products preferred by shoppers were soundproof walls, solid wood doors, smoke alarms, dead bolt locks, a porch at the entrance, open space in the unit, and plenty of storage space.

Developers also listed additional items to be provided as standard features: ceiling fans, glass fireplace doors, wallpaper, crown molding and chair rails, and recessed lighting.

Items For Which Shoppers Would Pay an Additional Amount

Shoppers surveyed indicated that they would be willing to pay extra for some products and features they really wanted. Table-11 compares the percentage of buyers who would be willing to pay the additional cost for an item to the percentage of builders who offer that feature as a standard item in their homes.

The kitchen and master bathroom were two rooms where shoppers wanted extra features. Almost one-third of the shoppers (30.2 percent) would pay for an oversized/walk-in tub, while the same number wanted a separate shower stall. Thirty-one percent were willing to pay for a whirlpool tub. In the kitchen shoppers were interested in ceramic tile countertops, with a butcher block countertop area for chopping.

Other features desired by condominium/townhouse shoppers were a bay window in the dining area and genuine quarry tile or wood parquet flooring at the front entry.

TABLE - 11

Features For Which Shoppers Will Pay Extra/ Provided As Standard By Builders

	ALL CONSUMERS	STANDARD WITH BUILDERS
FRONT ENTRY:		
1/2 Bath ($1365)	11.1%	41.7%
Genuine tile/wood parquet flooring ($225)	33.3	41.7
LIVING/FAMILY ROOM:		
Built-in beverage bar ($440)	14.3	25.0
Fireplace ($2000 - $2700)	33.3	100.0
Mirrored wall ($900)	7.9	16.7
High sloped ceiling ($800)	20.6	66.7
DINING:		
Bay window ($790)	36.5	66.7
Separate dining room ($3700)	12.7	83.3
KITCHEN:		
Built-in desk area ($165)	22.2	25.0
Butcher block countertop area ($100)	31.7	8.3
Food pass-through to dining area ($400)	7.9	16.7
Trash compactor ($550)	12.7	25.0
Oven with separate cooktop ($590)	22.7	33.3
Ceramic tile countertop ($400)	23.8	0
LAUNDRY/UTILITY AREA:		
Separate utility room ($1250)	20.6	33.3
Counter space ($300)	12.7	25.0
Sink ($125)	20.6	33.3
Built-in ironing board ($160)	17.5	8.3
BATHROOMS:		
Divided bathrooms (separate vanity from tub/shower and toilet) ($130)	34.9	75.0
Two sinks ($325)	20.6	33.3
Built-in clothes hamper ($75)	22.2	0
Colored fixtures ($540)	11.1	8.3
Ceramic tile walls and countertop ($850)	15.9	25.0
MASTER BATHROOM:		
Oversized/walk-in tub ($450)	30.2	8.3
Whirlpool tub ($1200)	31.7	8.3
Skylight ($150)	30.2	16.7
Two sinks ($325)	22.2	33.3
Built-in clothes hamper ($75)	25.4	0
Separate shower stall ($460)	30.2	16.7
Colored fixtures ($540)	9.5	8.3
Ceramic tile walls and countertop ($850)	20.6	25.0
MASTER BEDROOM:		
Fireplace ($2000 - $2700)	23.8	0
Door opening to patio/deck ($200)	27.0	33.3

V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of this study was to identify and compare shoppers' preferences and developers' perceptions of those preferences for design features in condominium/townhouse units. The design features investigated were concerned with space allocation, arrangement of spaces, and product options and features. The study was undertaken with the objective of providing information to developers and designers that would enable them to better understand the expectations of potential clients and thereby provide housing which would effectively meet their needs and wants.

A checklist questionnaire of specific design features was mailed to shoppers and developers. Responses to items on the questionnaire were calculated into percentages as a basis for comparisons between the two sample groups. The groups were investigated for similarities and differences in each of four price ranges utilized in the questionnaire.

To test the null hypotheses, a sign test for two correlated samples was used to determine if a significant difference existed between shoppers and developers in two categories: space allocation and arrangement and product options and features.

1. There is no significant difference between shoppers' preferences and developers' perceptions of those preferences for allocation and arrangement of spaces in condominium/townhouse units.

The null hypothesis was retained. The analysis indicated that there was no significant difference at the .05 level between the developers' total group response and the shoppers' total group response; nor was a difference present in the shoppers' and developers' responses in each of the four price ranges.

2. There is no significant difference between shoppers' preferences and developers' perceptions of those preferences for product options and features in condominium/townhouse units.

The null hypothesis was rejected. A significant difference at the .05 level was found to exist between the total group responses of developers and the total group responses of shoppers. A significant difference was also found between shoppers and developers in two of the price ranges: $45,000-$54,999 range and $55,000-$64,999 range.

Conclusions

Based on results of this study, the following conclusions were drawn:

1. Developers are, for the most part, satisfying the spatial needs of the shoppers of condominium/townhouse units. Shoppers have specific expectations concerning

the type of rooms, number of rooms, and arrangement of the rooms or spaces in the unit. Developers apparently recognize these expectations and provide for them.

2. Developers unsuccessfully perceive shoppers' preferences for product options and features in condominium/townhouse units. Many features that shoppers expect are not provided as standard features by developers, possibly due, in part, to a lack of knowledge about what shoppers really want in a home.
3. Shoppers for condominium/townhouse units in Tuscaloosa tend to be young consumers, often with children, or empty-nesters. A single-level unit in the $45,000-$54,999 range is desired, with special attention to the layout and furnishing of the kitchen, master bedroom, and living/family room.
4. A need for further market studies of housing consumers is indicated by the lack of information found concerning the present Tuscaloosa market.

Recommendations

Possible topics for further research are as follows:

1. This study could be conducted using a specific demographic sample, such as one price range, age group, or marital/family status, or a combination of samples, such as young singles, empty-nesters, or young-marrieds.
2. A study of shoppers who currently reside in rented

apartments or townhouses and shoppers who live in detached homes to determine similarities and differences in their expectations of design features in condominium/townhouse units.

3. An extension of this study with refinement of the questionnaire. The following additions are suggested:

   (a) Surface treatments, building materials, lighting

   (b) Exterior features: amenities, security, garages/parking, common areas

4. A study to identify the overall interest in and desirability of marketing condominium/townhouse units to Tuscaloosa area shoppers.

APPENDIX

QUESTIONNAIRE FOR SHOPPERS

CONSUMER EXPECTATIONS IN CONDOMINIUM/ TOWNHOUSE DESIGN

November 17, 1982

To Condominium/Townhouse Shoppers in Tuscaloosa:

Every year housing and building magazines publish results of consumer opinion surveys reporting housing preferences, including size, style, price, financing, fuel savers, and specific features of the individual rooms. The advice of housing shoppers and owners has helped many builder/developers, architects and interior designers, and planners in their efforts to build satisfactory housing communities.

I feel that it is time to conduct such a survey in the Tuscaloosa market. As a graduate student in interior design at The University of Alabama, my thesis project investigates the features that shoppers desire in a condominium/townhouse unit and compares them to developers' perceptions of desired design features. Agreement of shopper and developer perceptions of desired design features will help to insure more efficient and enjoyable housing.

Your name has been chosen from guest lists of realtors representing condominiums and townhouses in Tuscaloosa. By taking a few minutes of your time to fill out this questionnaire, you will help influence those who will design and build condominium/townhouse developments in the future. Please answer carefully and completely. Use the return envelope enclosed for your reply. Do not include your name.

Please do not wait to fill out the questionnaire. In order to graduate, I must complete this survey by December 6, 1982.

With many thanks,

Nancy Griffin

Nancy Griffin

QUESTIONNAIRE FOR SHOPPERS (continued)

Characteristics of Consumers:

PLEASE CHECK THE APPROPRIATE RESPONSES:

Type of current residence
___Single-family detached house
___Townhouse or apartment (rented)
___Condominium or townhouse
___Mobile or manufactured home
___Other

How long have you held your current residence?
___0 - 6 months
___6 months - 1 year
___1 - 2 years
___more than 2 years
___more than 10 years

Marital/family status
___Single (includes divorced, widowed, separated)
___Single, with child/children in residence
___Married, with no children
___Married, with no children in residence
___Married, with child/children in residence

Age group of head of household
___25 or under
___26 - 35
___36 - 45
___46 - 55
___56 - 65
___over 65

Sex of person filling out this questionnaire
___male ___female ___couple jointly filling out

How would you describe your buying intentions?
___Seriously plan to buy condominium/townhouse
___Exploring different housing possibilities
___No plans to buy; just looking

QUESTIONNAIRE FOR SHOPPERS (continued)

If you were to consider purchasing a condominium, which price range would you consider?

___$45,000 - $54,999
___$55,000 - $64,999
___$65,000 - $74,999
___over $75,000

Which floorplan type would you most prefer?

___Single-story
___Two-story

With the high cost of housing today, many people will have to set priorities for the types of rooms they want in their homes. Please rank these areas (from 1 to 10) according to their importance to you.

___Breakfast nook
___Garage
___Dining room/area
___Extra bedroom(s)
___Extra bathroom(s)
___Master bathroom
___Storage space
___Living/family room
___Master bedroom
___Kitchen

Which rooms would you want to face the back yard?

___Living/family room
___Dining room/area
___Master bedroom
___Master bathroom
___Kitchen
___Breakfast nook
___Other bedrooms

Which of these parking locations do you prefer?

___Parking in front of unit ___Parking in back of unit

QUESTIONNAIRE FOR SHOPPERS (continued)

In order to help developers produce homes that best suit your needs, please choose those features that you would EXPECT in a condominium/ townhouse unit IN THE PRICE RANGE YOU SELECTED on the previous page.

CHOOSE FROM THE FOLLOWING RESPONSES:

Y = YES, I EXPECT this feature and WOULD NOT PURCHASE a unit WITHOUT IT.

X = I EXPECT this feature, but WOULD PURCHASE a unit WITHOUT IT.

N = NO, I WOULD NOT EXPECT this feature in a unit in the price range selected.

PLEASE CIRCLE YOUR RESPONSES:

FRONT ENTRY:			
Separate entry hall/area	Y	X	N
Sidelight (window) at front door	Y	X	N
LIVING/FAMILY ROOM:			
Access to patio, deck, balcony	Y	X	N
Fireplace	Y	X	N
Built-in shelving and storage	Y	X	N
Built-in beverage bar	Y	X	N
High sloped ceiling	Y	X	N
DINING:			
Separate dining room (from kitchen or living room)	Y	X	N
Breakfast nook in kitchen	Y	X	N
Large picture windows or bay window in dining area	Y	X	N
KITCHEN:			
Direct access from garage/parking/entry	Y	X	N
Access to patio/deck/balcony	Y	X	N
Food pass-through to dining area	Y	X	N
Built-in desk area	Y	X	N
Trash compactor	Y	X	N
Garbage disposal	Y	X	N
Broom closet/pantry	Y	X	N

QUESTIONNAIRE FOR SHOPPERS (continued)

LAUNDRY/UTILITY AREA:			
Separate utility room	Y	X	N
Separate utility closet	Y	X	N
Located near kitchen	Y	X	N
Located near bedrooms	Y	X	N
Counter space for folding, sorting, storage	Y	X	N
Hanging space for clothes	Y	X	N
BATHROOM:			
A master bath (in addition to a main bathroom)	Y	X	N
1 1/2 bathrooms	Y	X	N
2 bathrooms	Y	X	N
2 1/2 bathrooms	Y	X	N
1/2 bath near entertainment areas (for guests)	Y	X	N
Divided bathrooms (separate vanity from tub/ shower and toilet	Y	X	N
Built-in clothes hamper	Y	X	N
Window	Y	X	N
MASTER BEDROOM:			
Separate dressing area/alcove	Y	X	N
Door opening to patio/balcony/deck	Y	X	N
Walk-in closet	Y	X	N
BEDROOMS:			
2 bedrooms	Y	X	N
3 bedrooms	Y	X	N
4 bedrooms	Y	X	N
Bedrooms located away from living/dining area	Y	X	N
Walk-in closet	Y	X	N

QUESTIONNAIRE FOR SHOPPERS (continued)

Please choose those features that you would PAY EXTRA for in a condominium/townhouse unit (if not provided as standard by the developer).

CHOOSE FROM THE FOLLOWING RESPONSES:

Y = YES, I WOULD PAY EXTRA for this feature.

X = I EXPECT this as a standard feature and WOULD NOT PAY EXTRA

N = NO, I do not care for this feature and WOULD NOT PAY EXTRA for it.

PLEASE CIRCLE YOUR RESPONSES:

FRONT ENTRY:			
1/2 bath ($1365)	Y	X	N
Genuine tile/wood parquet flooring ($225)	Y	X	N
LIVING/FAMILY ROOM:			
Built-in beverage bar ($440)	Y	X	N
Fireplace ($2000 - $2700)	Y	X	N
Mirrored wall ($900)	Y	X	N
High sloped ceiling ($800)	Y	X	N
DINING:			
Bay window ($790)	Y	X	N
Separate dining room ($3700)	Y	X	N
KITCHEN:			
Built-in desk area ($165)	Y	X	N
Butcher block countertop area (for chopping) ($100)	Y	X	N
Food pass-through to dining area ($100)	Y	X	N
Ceramic tile countertop ($400)	Y	X	N
Trash compactor ($550)	Y	X	N
Oven with separate cooktop ($590)	Y	X	N
Microwave oven ($400)	Y	X	N
LAUNDRY/UTILITY AREA:			
Separate utility room ($1260)	Y	X	N
Counter space ($300)	Y	X	N
Sink ($125)	Y	X	N
Built-in ironing board ($160)	Y	X	N

QUESTIONNAIRE FOR SHOPPERS (continued)

BATHROOMS:

Divided bathrooms (separate vanity from tub/ shower and toilet ($130)	Y	X	N
Two sinks ($325)	Y	X	N
Built-in clothes hamper ($75)	Y	X	N
Colored fixtures ($540)	Y	X	N
Ceramic tile walls and countertop ($850)	Y	X	N

MASTER BATHROOM:

Oversized/walk-in tub ($450)	Y	X	N
Whirlpool tub ($1200)	Y	X	N
Skylight ($150)	Y	X	N
Two sinks ($325)	Y	X	N
Built-in clothes hamper ($75)	Y	X	N
Separate shower stall ($460)	Y	X	N
Colored fixtures ($540)	Y	X	N
Ceramic tile walls and countertop ($850)	Y	X	N

MASTER BEDROOM:

Fireplace ($2000 - $2700)	Y	X	N
Door opening to patio/deck ($200)	Y	X	N

ENERGY SAVINGS PACKAGE:

Would you pay extra for an energy package that would lower your utilities 30 to 40 percent?	Y	X	N

Package includes: (Total cost $1500)

Double-pane windows

Ridge ventilation

Insulated sheathing

Steel insulated doors

R-22 attic insulation

QUESTIONNAIRE FOR SHOPPERS (continued)

OTHER FEATURES THAT YOU WOULD EXPECT:

OTHER FEATURES THAT YOU WOULD PAY EXTRA FOR:

QUESTIONNAIRE FOR DEVELOPERS

DESIGNS FOR TUSCALOOSA HOMES: A SURVEY OF DEVELOPERS

January 17, 1983

To Builder/Developers in Tuscaloosa:

Each year housing and building magazines publish results of surveys reporting consumer preferences for housing, including size, style, price, financing, fuel savers, and specific features of the individual rooms. The advice of housing shoppers and owners has helped many designers and developers to provide successful housing communities. It is time to conduct such a survey in the Tuscaloosa market.

As a graduate student in interior design at The University of Alabama, my thesis project investigates the features that shoppers desire in a condominium/townhouse unit and compares them to the standard features provided by builder/developers. Agreement of shopper and builder/developer perceptions of desired design features will help to insure more efficient and enjoyable housing.

Your name has been selected from membership lists of the Home Builders Association of Tuscaloosa and the Tuscaloosa Board of Realtors. Although you may not have built condominiums or townhouses, you can still help me! As a builder/developer, you are very knowledgeable about the standard design features porvided in various price ranges, whether it is a detached or attached single-family home.

You are my most important resource for this information. Please take a few minutes of your time to answer this questionnaire. Use the return envelope enclosed for your reply.

In appreciation of your help in answering this survey, I will be glad to send you a report of the findings of my study.

With many thanks,

Nancy Griffin

Nancy Griffin

QUESTIONNAIRE FOR DEVELOPERS (continued)

PLEASE ANSWER THE FOLLOWING QUESTIONS:

How long has your firm been in the construction/development business?

____

What type of development is your firm MOST involved in?

___Single-family detached homes

___Single-family attached homes (Condominiums/Townhouses)

___Other

What ONE price range is most representative of the work done by your firm?

___$45,000 - $54,999

___$55,000 - $64,999

___$65,000 - $74,999

___over $75,000

What is your most important source(s) of obtaining information for your jobs?

___Experience

___Trade journals

___Professional journals

___Professional association meetings

___Market studies

___Other ______________________

Have you ever contracted architects or interior designers for your jobs?

___Yes ___No

If "Yes", check those you have contracted:

___Architect

___Interior Designer

___Others ________________

QUESTIONNAIRE FOR DEVELOPERS (continued)

Please choose the features that you would provide as STANDARD features to consumers of condominium/townhouse type homes. Make your decisions on features according to the PRICE RANGE MOST REPRESENTATIVE OF YOUR FIRM'S WORK (selected on the previous page).

CHOOSE FROM THE FOLLOWING RESPONSES:

Y = YES, I WOULD PROVIDE this as a standard feature IN THIS PRICE RANGE.

N = NO, I WOULD NOT PROVIDE this as a standard feature IN THIS PRICE RANGE.

PLEASE CIRCLE YOUR RESPONSES:

FRONT ENTRY:		
Separate entry hall/area	Y	N
Sidelight (window) at front door	Y	N
1/2 bath	Y	N
Genuine tile/wood parquet flooring	Y	N
LIVING/FAMILY ROOM:		
Access to patio, deck, balcony	Y	N
Fireplace	Y	N
Built-in shelving and storage	Y	N
Built-in beverage bar	Y	N
High sloped ceiling	Y	N
Mirrored wall	Y	N
DINING:		
Separate dining room (from kitchen or living room)	Y	N
Breakfast nook in kitchen	Y	N
Large picture windows or bay window in dining area	Y	N
KITCHEN:		
Direct access from garage/parking/entry	Y	N
Access to patio/deck/balcony	Y	N
Food pass-through to dining area	Y	N
Built-in desk area	Y	N
Trash compactor	Y	N
Garbage disposal	Y	N
Broom closet/pantry	Y	N
Butcher block countertop area (for chopping)	Y	N
Ceramic tile countertop	Y	N
Oven with separate cooktop	Y	N

QUESTIONNAIRE FOR DEVELOPERS (continued)

LAUNDRY/UTILITY AREA:		
Separate utility room	Y	N
Separate utility closet	Y	N
Located near kitchen	Y	N
Located near bedrooms	Y	N
Counter space for folding, sorting, storage	Y	N
Hanging space for clothes	Y	N
Sink	Y	N
Built-in ironing board	Y	N
BATHROOM:		
A master bath (in addition to a main bathroom)	Y	N
1 1/2 bathrooms	Y	N
2 bathrooms	Y	N
2 1/2 bathrooms	Y	N
1/2 bathroom near entertainment areas (for guests)	Y	N
Divided bathroom (separate vanity from tub/shower and toilet)	Y	N
Built-in clothes hamper	Y	N
Window	Y	N
Two sinks	Y	N
Colored fixtures	Y	N
Ceramic tile walls and countertop	Y	N
MASTER BATHROOM:		
Oversized tub	Y	N
Whirlpool tub	Y	N
Skylight	Y	N
Two sinks	Y	N
Built-in clothes hamper	Y	N
Separate shower stall	Y	N

QUESTIONNAIRE FOR DEVELOPERS (continued)

BEDROOMS:

2 bedrooms	Y	N
3 bedrooms	Y	N
4 bedrooms	Y	N
Bedrooms located away from living/dining area	Y	N
Walk-in closet	Y	N

MASTER BEDROOM:

Separate dressing area/alcove	Y	N
Door opening to patio/balcony/deck	Y	N
Walk-in closet	Y	N
Fireplace	Y	N

ENERGY SAVINGS PACKAGE:

Double-pane windows	Y	N
Ridge ventilation	Y	N
Insulated sheathing	Y	N
Steel insulated doors	Y	N
R-22 attic insulation	Y	N

OTHER FEATURES YOU WOULD PROVIDE AS STANDARD:

POST CARDS TO SHOPPERS AND DEVELOPERS

A friendly reminder. . .

I have not had a complete return of the questionnaires that I mailed to you and other condominium/townhouse shoppers. Your responses are important! If you have not had the opportunity to complete your questionnaire, please take just a few minutes of your time to help me. If you have misplaced your copy of the questionnaire, I will be glad to send you another - just call me at 752-7007.

Thank you for your help!

Please help!

NANCY GRIFFIN

A friendly reminder. . .

I have not had a complete return of the questionnaires that I mailed to you and other builder/developers. Your responses are so important! If you have not had the opportunity to complete your questionnaire on standard design features provided in Tuscaloosa homes, please take just a few minutes of your time to help me. In order to graduate, I must complete this survey by January 28, 1983.

Thank you for your help!

Please help!

NANCY GRIFFIN

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