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A STUDY OF SOME OF THE CONSUMER VALUES TO BE DERIVED FROM HOME PLANNING PROCEDURES

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This study is an attempt to determine a valid content for a non-technical one-semester consumer course in home planning for the city of San Jose, California, and vicinity. It was believed that courses in architectural drawing and home planning as now given do not reach a sufficient number of students, considering the consumer values of such a course.

A study of textbooks and other literature shows:
first, that textbooks are written for those who have had mechanical drawing; second, that literature is written for adults and not for secondary school pupils; and third, that all such information as now presented requires a technical background.

The value of incorporating such a course into the industrial arts curriculum was substantiated by a survey of school administrators. A majority of those men favor a home planning course for boys and girls in the eleventh and twelfth grades, with a further recommendation that it be offered in adult education.

An inquiry to home owners showed that, although their homes were satisfactory with regard to such essentials as adequate space and the like, there were many other features which they lacked or would change should they build again.

Opinions of contractors on similar phases of home planning were ascertained, as well as their opinions on the knowledge of home planning possessed by the average new home owner.
A survey of tax, insurance, and utility rates, as well as interviews with city officials, shows that there is an advantage in all rates for people living within the incorporated areas of San Jose. The city officials also indicated that home planning with relation to the community might be included in such a course of study.

A tentative course of study was sent to teachers of architectural drawing to determine their opinions regarding such a course and to obtain suggestions for improvement. The basic units were approved, with suggestions for minor changes.

Findings from the study indicate: that a home planning course be given in the eleventh and twelfth grades, and open to girls as well as boys; that pertinent points be used in adult education; that even though the study concerned the community of San Jose, there is a bulk of material in the findings which is applicable to many other communities; and that a study of the methods of teaching this material be made, with special emphasis on the construction and use of visual aids.
A STUDY OF SOME OF THE CONSUMER VALUES TO BE DERIVED FROM HOME PLANNING PROCEDURES
by
THAXTER NORMAN DANIELS

A THESIS submitted to the OREGON STATE COLLEGE

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INTRODUCTION
A STUDY OF SOME OF THE CONSUMER VALUES
TO BE DERIVED FROM HOME PLANNING PROCEDURES

Chapter I

INTRODUCTION

A. Reasons for and Objectives of the Study

A desire to determine some of the consumer needs in home planning in San Jose, California, and vicinity, in relation to courses in architectural drawing now being offered in recognized textbooks has determined the choice of this thesis problem.

Having purchased a lot, planned and contracted the construction of a home, landscaped the property, and having assisted friends in obtaining information on home ownership, the writer has developed a genuine interest in home planning procedures and in a study of values pertaining to the home.

While making field trips to study new construction it was discovered that mechanical drawing students did not understand the language of the builder when parts of the specifications for a job were read.

The inspection of numerous new homes built during the past ten years combined with knowledge of the shortcomings of the home now owned, led to the belief
that perhaps other recent home owners could give valuable information as to the consumer needs in education for home ownership. The home is the largest single purchase the average individual makes, and it is believed that inadequate preparation is now being offered in the form of consumer education. Educators feel that secondary and adult education curriculums should meet the needs of the people and better prepare them for present social and economic conditions.

This study should discover some logical reasons whether or not an improved method of teaching a course in non-technical architectural drawing to a greater number of secondary and adult-education students should be introduced as part of the modern curriculum practice of making a place for special subjects.

B. Terminology

For the purposes of this study, home planning and non-technical architectural drawing may be considered synonymous terms and so interpreted. As no formal drawing is proposed in this course of study, either of these terms may be used when making a study of consumer values of home ownership.
C. Methods and Procedures of the Study

In order to obtain adequate information, four letters of transmittal and their questionnaires were written and formulated. First, school administrators were reached by mail. Second, home owners were reached by means of personal interviews. Third, local contractors and teachers of architectural and mechanical drawing were mailed questionnaires. Contacts in San Jose and vicinity by personal interview include: contractors, public utility executives, city and county officials, insurance brokers, school administrators, and teachers of trade and industrial subjects.

A collection of reference materials including textbooks in architectural drawing and homemaking, books on home planning, an unpublished manuscript, periodicals, a course of study for women's clubs, advertising booklets, government bulletins, and leaflets were all a part of this investigation.

Illustrative pictures were taken in San Jose and vicinity.

A check of thesis lists of the University of California, Stanford University, and Oregon State College gave no indication that this particular problem had been investigated.
D. Limitations of the Study

This study is limited to some consumer values of home planning which might be included under the following: fundamentals, design, materials including specifications, construction, neighborhood, and land usage. Art and decoration as taught in homemaking will find no part in this problem. It is felt that home furnishing may also be a problem for girls, and as this investigation is related to the teaching of industrial arts subjects, no further mention will be made of these phases of home ownership.

E. Development of the Questionnaires

1. Development of the questionnaire for school administrators

The questionnaire designed for school administrators was for the purpose of obtaining their opinions as to whether or not a non-technical one-semester course in home planning should be taught in secondary schools and adult education. Another objective of this inquiry was to ascertain whether or not the course should be required or elective. Should it be for boys, or for girls only, or for mixed groups, and in
what particular grade or grades should it be offered? A space was provided to indicate the adoption of the course in the community. A space was also provided for suggestions. A copy of the questionnaire for school administrators will be found in the appendix.

2. Procedure of Sending Questionnaire for School Administrators

A list of names of school administrators including superintendents, principals, and directors of adult education centers was taken from a copy of the California School Directory. Care was taken to have a wide distribution throughout the state in localities where there was an indication of large daily attendance.

A letter of transmittal accompanied by one copy of the questionnaire, printed upon a return post card, was mailed to each of 100 school administrators in California schools, including superintendents, principals, and directors of adult education centers. A copy of the letter of transmittal to school administrators will be found in the appendix.
3. Development of the Questionnaire for Home Owners

For home owners a questionnaire was designed in the form of check lists covering many phases of home ownership. Provision was made for showing what the owner had included in his home, would include should be obtain another home, and a chance to show the items of which he was not sure. No attempt was made to record items the owner would not have in a new home. It is felt that the list of items would be small compared with those in the questionnaire showing the omissions. A copy of the questionnaire for home owners will be found in the appendix.

4. Procedure for Distributing the Questionnaire to Home Owners

One copy of a letter of transmittal and a five page questionnaire were stapled together. One hundred sets were distributed to home owners by means of personal interviews. Many interested friends assisted by giving out copies and being responsible for their collection. Special effort was made to place the questionnaires in fairly new homes, as the check lists
were designed for that purpose. An effort was also made to sample some homes of the lower price bracket. No effort was made to check on the more costly homes, as it was believed that those homes had architectural services in connection with their construction. A copy of the letter of transmittal to home owners will be found in the appendix.

5. Development of the Questionnaire for Contractors and Builders

A questionnaire designed to disclose the ideas and practices of the contractor and builder was read and approved by one of San Jose's reliable builders. This questionnaire recorded opinions on building trends, comparative costs, and the consumer knowledge of clients as estimated by professional builders. An effort was made to check on how much the home owner knew about some phases of consumer values, as estimated by the builders dealing with them over a period of years. A copy of the questionnaire to contractors will be found in the appendix.
6. The Method of Distributing Questionnaires to Contractors and Builders

A list of the general contractors of Santa Clara County was obtained from the Builder's Exchange in San Jose. From this list fifty names were chosen. These people were mailed a letter of transmittal, one questionnaire, and a return addressed envelope. A copy of the letter of transmittal for contractors and builders will be found in the appendix.

7. Development of the Questionnaire for Teachers of Mechanical and Architectural Drawing

When contacting teachers practically the same places were used as when interviewing school administrators.

A tentative six-unit course of study with methods of presentation was formulated to cover the proposed course in home planning. An effort was made to avoid a formal architectural drawing course of study and to devise a course including field trips, lectures and reports, moving pictures, and the like. Provision was made for suggestions. A copy of the questionnaire to
teachers of mechanical and architectural drawing will be found in the appendix.

8. Method of Sending Questionnaires to Teachers

A list of teachers of mechanical and architectural drawing was obtained. An endeavor was made to question teachers and administrators in some of the same schools. Fifty letters were sent, each containing one letter of transmittal, one tentative course of study, and one return addressed envelope. A copy of the letter of transmittal for teachers of mechanical and architectural drawing will be found in the appendix.

F. The Place of Architectural Drawing in the Industrial Arts Program

Architectural drawing is classified in the secondary schools as an industrial arts subject. Many people do not seem to understand that industrial arts is purely educational and is not intended for vocational training. A brief survey will show the trend of industrial arts in the field of secondary education. Payne, Frank A., as quoted by Weatherford (16-10) in his thesis gave some reliable information on the purpose or general
objectives of the industrial arts program. A compilation from his writings is as follows:

I. Practical Arts. - The purpose or general objectives of the practical arts is the same as of general education. The practical arts are taught for their cultural values, for appreciative values, and for their consumer values.

A compilation of general aims of industrial arts education from Payne reveals the following objectives:

1. To be a vital part of general education
2. To be non-vocational in scope
3. To develop certain interests, appreciations, attitudes, habits, knowledges, and skills
4. To educate for culture
5. To stimulate interests in avocational and leisure-time activities
6. To impart knowledge of industrial products, processes, and occupational opportunities
7. To develop creative expression and problem-solving habits
8. To assist in the exploration of individual inclinations, interests, and abilities

The industrial arts instructor undertaking the teaching of home planning as advocated in this thesis should be concerned with many of these aims in general and with the teaching of consumer values in particular.
G. Some Trends in Curriculum Construction Related to the Industrial Arts Program

The way of life in the early days of our country was easily understood by that generation. Today, our complex social order makes consumer education alone an involved and intricate study. The Oregon State Teachers Association (7-22) gives its version of these changes as follows:

When the pioneer individualist made most of the things which he used, he knew, for example, from his own experience the difference between an all-wool or a part-wool garment. He also knew pretty closely how much a suit of clothes or a bushel of potatoes cost in terms of labor and raw materials. However, his descendents who have never handled raw wool can scarcely distinguish virgin from shoddy wool. Today with suits of clothing being made in huge factories by means of power machinery and with the labor divided among hundreds of workers even a worker in the suit factory itself has little, if any, notion as to the actual cost of a suit of clothes in terms of labor and raw materials.

Many manufacturers realizing that the consumer could not judge either price or quality of the things he purchased exploited him with little mercy.

It is believed that this condition is partially true in the home planning procedures of today. The prospective purchaser of a home may know little of the materials or construction of the modern home. Before
the purchase, while inspecting, he may notice only the superficial factors, with features that make for a livable home often missing and unnoticed. Often the new owner must live in the home and discover for himself after a period of time what the deficiencies may be.

With the problem of curriculum reconstruction upon us, the meeting of consumer needs is being considered. The Oregon State Teachers' Association (7-73) with regard to the curriculum states that "the curriculum of the school should reflect, therefore, the general and particular needs of each community."

When the question arises as to whom curriculum revision should be intrusted, the Oregon State Teachers' Association (7-99) says that "the aims of education should be formulated by adults because they should be dynamic and they should grow out of the democratic society in which we live."

The Oregon State Teachers' Association (7-100) further states:

The activities carried on under dynamic educational aims must also be ever-changing. As our activities change they will in some measure change our social organizations, and as our social organization changes so must our aims of education change. Hence, educational aims never can be stated as final, but must be constantly restated to meet changing conditions and needs. Since this is true, the curriculum based upon such aims must be constantly changing.
As this thesis may advocate a change in curriculum, it is felt that the foregoing statements may assist in showing the relation of this problem to the people and to education.

H. Some Facts about San Jose, California, and Vicinity

Since home owners in San Jose, California, and vicinity, assisted with the survey on homes, some mention should be made of the type of community, its people, location, climate, and its other characteristics. An excerpt from San Jose Chamber of Commerce (leaflet) states:

The City of San Jose is located at the southern end of San Francisco Bay, 50 miles from San Francisco and 42 miles from Oakland. Elevation 100 feet. Within the official municipal lines is an area of 14.73 square miles or 9427.8 acres. The area of the built-up community is 37 square miles.

San Jose was founded as "Pueblo De San Jose De Quadalupe" under the authority of King Phillip II of Spain, November 29, 1777. The first American flag was raised above the town hall on July 14, 1846. San Jose was California's first state capital. San Jose was the first incorporated city in California, being incorporated by the State Legislature, March 27, 1850.

The average mean temperature covering a period of 32 years: January, 47.7 degrees above; February, 51.3; March, 53.9; April, 56.7; May, 59.9; June, 64.1; July, 67.0; August, 66.5; September, 64.8; October, 60.5; November, 53.9; December, 48.2. Annual mean temperature,
57.9; annual average of sunshine is 72% of total hours possible or 293 fair days per year. Only 72 days per year are recorded as cloudy; rainfall average for past 65 years, 14.38 inches, gradually increasing to 25 inches in the foothills and 40 inches in the mountains.

Within San Jose city limits, there is an estimated population of 80,250; metropolitan area, 93,750; entire county, 201,000.

City figures of January 1, 1940: Homes, 17,570; Apartment Houses, 607; Hotels, 93; Commercial Buildings, 1848; Industrial Buildings, 690.

BUILDING PERMITS: Building in San Jose has shown a steady growth during the past five years, as shown by the following figures on the yearly value of permits issued for construction inside the official municipal lines: 1935 - $1,328,360; 1936 - $1,993,855; 1937 - $2,352,360; 1938 - $2,938,239; 1939 - $3,045,725. There is actually more than one million dollars in construction in the area directly surrounding the city.

There are 15 elementary city schools, five junior high schools, 10 kindergartens, one senior high school, San Jose Technical High School, one evening high school or Adult Education Department, and a continuation school in San Jose. The total enrollment is 16,645. San Jose public schools represent an investment of $7,500,000.
REVIEW AND FINDINGS OF LITERATURE
Chapter II

REVIEW AND FINDINGS OF LITERATURE

A. Approach to the Problem

From an accumulation of source materials used for this study, including many useful texts, books, periodicals, pamphlets, and special papers, a great quantity of information has been obtained. There seem to be differences in the make-up and intended uses of these materials. First, textbooks used for architectural drawing will be reviewed.

Literature in Home Planning Prepared for School Use. Architectural drawing is offered as an experience in a special subject with the idea that few of the students will use the work in a vocational way. Ericson and Soules (1-3) express their opinion in the following:

Few of the students who enroll in the subject of architectural drawing in our high schools are destined to become draftsmen or architectural engineers. All of them, and other students who could be well encouraged to study this subject, are potentially interested in home planning; the great majority of them are progressing toward the time when they will be engaged in making plans for their own homes, whether it be simply the selection and arrangement of a few household furnishings or the construction of a pretentious dwelling.
With this thought in mind, it has seemed to the authors that, in architectural and house-planning classes, the center of interest and the vitalizing factor should be the home which is to be produced; rather than the isolated details of construction and design, or practice for fine, technical expression.

The text, according to the authors, has two distinct uses for the instructor.

1. The use of the informational side of the book for classes in home planning
2. The use of the book as a text for classes of boys in architectural drawing.

For teaching purposes, other texts give a great deal on the technical side and are also usable on the informational side. A second text by Field (5-1) gives the use of his text as follows:

Some students who have a natural gift for expression in the graphic arts, and perhaps the manual arts as well, may turn naturally to architecture as a means of satisfying their desire to create things beautiful and useful. It is an aid and possibly an inspiration to such students that this little book has been prepared.

Since architectural drawing is seldom considered by the student until after he has gained some knowledge of the principles of orthographic projection, no attempt will be made here to discuss this preliminary subject, except to remind him that orthographic projection is the graphic representation of the subject as it is rather than as it appears to the eye of the observer.
Such a text, illustrated, is just what the preface states.

A third text available is Waffle (14-V) who writes:

This book is intended for the beginning classes in architectural drawing in the senior high school, after the students have had the foundation and tryout courses of mechanical drawing. Architectural drawing is considered an elective course with a vocational trend, but it has its tryout value since most of the students selecting the course are doing so because; (a) They believe they are interested in that particular type of drafting; (b) they possess an interest in the building field; and (c) they realize the practical value of the course in the building field. Because of its tryout value, as many as possible of the practical applications of the vocation should be included so that the student acquires a well-founded experience.

This course is based upon a series of problems encountered in the four leading types of house construction; frame, stucco, brick, and stone. The drawings are supplemented by explanations and discussions of some of the fundamental principles of residence planning and construction. Effort has been made to teach the better principles of house design, and also to develop some original student work along this line. The problems given are those which allow for any amount of variation and originality, as well as those common to the student's experience.

The text is informational and illustrated.

A fourth text, written for home economics students, by Waugh (15-VII-VIII-XIII) states:
The course for which this book was written is devoted to the study of the small house. The subject matter covered may be divided into four major parts: the use of space, good taste in exterior design, the historic background of the American house of today, and its construction and equipment.

Although the construction, materials, and equipment of a house are highly specialized fields requiring the services of experts, a general knowledge of these subjects will help the layman understand the work of the builder, plumber, heating engineer, and electrician.

Emphasis upon the importance of finer family relationship in human development is a recognized part in all areas of modern education. A house that is well built and well planned in accordance with family needs makes a definite contribution to the ease, comfort, and happiness of daily living. Answering the demand for a book on house planning, Miss Waugh has in this text presented the fundamental principles for guidance in a non-technical study of small homes.

The majority of home economics students are potential homemakers. As such, they need to be able to interpret blueprints of house plans and to design small houses of moderate cost, so that they may more clearly visualize the problems involved in house design and better able to cope with them.

Planning the Little House is illustrated and informational.

A fifth book, an unpublished, unillustrated manuscript, the ABC's of Home Ownership, recommended and made available by Good Housekeeping through the Educational Division of the Federal Housing Administration (2 - Chapter Heading) has chapter headings as
follows:

Introduction
To Rent or Own? Remodel or Move
How Much Should You Pay for a Home
Selecting a Neighborhood
Selecting and Purchasing a Lot
To Plan or Not to Plan
Interior Plan
Exterior Plan
Structural Details
Financial Arrangements
Interior Finishing and Furnishing
Placement of Major Pieces of Furniture
Exterior Finishing and Landscaping

Literature Prepared for the Layman on Home Planning. Books written for general informational reading purposes will next be considered. Sooy and Woodbridge (10-1-2) explain when they write:

The articles you buy are conscious choices. As such they create a picture of your culture. So does a home. The development of a project so important to you calls for definite conception of your own individual way of living as well as fine aesthetic judgment and logical, practical thinking.

Every woman's ideal is an inviting home contributing to the harmony of family life. It is far more than a good color scheme or a selection of the furniture; its function, its atmosphere, the very existence of each object within it, must be questioned, studied, and approved in its bearing upon the ideal life for the family concerned.

In regard to their book, The Stanford Press says:

Plan Your Own Home takes into consideration the points a person need consider before he purchases property or builds or furnishes a
house. It admits that there are many differences in personal taste - that is, one person may want a grand house, another a simple one. It includes the garden, the exterior architecture, as well as the interior, and considers many types of homes - modern and period, expensive and modest. Above all, every suggested idea is practical.

The book is illustrated and written on the theme of home planning.

A second book, recently published, has a different trend of thought. Field (4-5) in her descriptive book has written:

Every woman plans houses, and most of them feel that when their turn comes they could build a better house than any architect. Unfortunately, when the real test comes and they get a chance to build, all their knowledge dissolves into mists of the things they want, but can't have with the money they have to spend.

And yet every woman who has kept house and managed a family for a number of years and every man who has done odds and ends of jobs around rented houses, every child who has been bunted from pillar to post with his box of toys, is bound to know a great deal more about rights and wrongs of house arrangement than most architects and builders are willing to believe.

The publishers, Houghton Mifflin Company, say:

A house for people to live in, with their peculiarities, their faults, and their temperaments - that is the Human House. With design for living, with their own special plan, they can make their house a dynamic tool in the building of family harmony and happiness.
Mrs. Field shows how, whether you are building, renting, remodeling, or simply rearranging the house you live in, you can turn your dwelling into a home where the children want to stay, where guests like to come, where husband and wife can be companions, and a home, above all, where conflict of wills and interests has been eliminated.

Charts, sketches, plans, and photographs illustrate the author's system of segregating activities of small children, mother, adolescent yearning for privacy, girl with her beau, student. Suggestions help the reader to organize his own house - actual or imagined - along the same lines. This is not a book of pictures of other people's houses. It is an invaluable, detailed, practical guide to your house.

A third book, which is informational and illustrated, is explained thus by Gordon and Ducas (6-XII-XIII):

This book is the first to put under one cover the facts about how to build, how to get what you want for what you can pay. There are scattered volumes on separate phases, but they are in no form to be digested by laymen. Architectural textbooks, government bulletins, carpenters' manuals and manufacturers' literature do not make the most interesting reading in the world, since most of them presuppose a technical background. Even if they were readable, it would be a task to find the right book for every problem.

We believe it is possible for people to plan their houses more wisely, both for economy and comfort, when they know a few simple fundamentals of construction. We have presupposed our readers know nothing, and if we seem elementary to you then you may put yourself down as one with more building knowledge than average. We have seen too many householders drive picture nails into plaster at random, without sounding around for the additional
support of a stud, to think that the average person has any conception of what lies inside his walls.

More House for Your Money gives technical information for the prospective home owner.

The last book to be considered has, among other things, a survey on, What the Public Says It Wants. Some 11,207 replies to the questionnaire were received and carefully tabulated. In regard to their book, the editors of the Architectural Forum (13-IV) say:

They sought and cheerfully got the collaboration of high authorities in each of the several fields which compose the basic elements of home building, each to discuss the subject which he, better than any other, could treat with finality. To these distinguished contributors go thanks and a well deserved salute.

It is hoped that the 1938 Book of Small Homes will definitely and specifically help those who study its pages. Whatever degree of success it achieves is a direct measure of the superlatively good domestic work which architects are today producing in all parts of the country. With a diminishing number of adequate houses available in most communities, with building costs inevitably going higher, with mortgage money abundant on favorable terms, and with the innumerable architectural and technological advances which have been gained in the past few years, this is a good time to undertake the best of all adventures - building a home of your own.

The book is illustrated with pictures of homes and their floor plans.
In regard to their Sunset House, the author (12-38-41) has written:

This is Sunset House planned by 300 women to meet a definite pattern in living.

We present in these four pages the conclusion and climax of the story of Sunset House. Here the 300 women, members of the Berkeley Women's city club, California, who "multi-planned" the house, restate the problems they faced and illustrated the solution.

Sunset House is not a model house. It is a sincere study of the tastes and pattern of living of an average family - father, mother, college-age daughter and frequently-visiting mother-in-law. As a visualized report on the "must haves" and "don't wants" of a representative group of women, it is a contribution, we believe, to home building.

Sunset readers were admitted by invitation. Other contributions of Sunset include articles on gardening, house planning, outdoor living, and home ideas. Other periodicals to give home planning ideas include:

American Home  House and Garden
Architectural Forum  Ladies Home Journal
Architectural Record  Pencil Points
Arts and Decoration  Small Homes (yearbook)
Better Homes and Gardens
Good Housekeeping

Technical bulletins issued by the Federal Housing Administration, pamphlets, advertising booklets, leaflets, and public utility information are available, but to repeat what Gordon and Ducas (6-XII-XIII) say:
There are scattered volumes on separate phases, but they are in no form to be digested by laymen. Architectural textbooks, government bulletins, carpenter's manuals and manufacturers' literature do not make the most interesting reading in the world, since most of them presuppose a technical background. Even if they were readable it would be a task to find the right book for every problem.

B. Literature on the Principle Phases of Home Planning

Before the questionnaire was formulated for home owners, an extensive survey of the literature was made. From a list of items derived from this survey, a questionnaire was completed which covered the following phases of home planning: fundamentals, including economic and financial considerations; design; materials, including specifications; construction; neighborhood; and land usage.

Financing the Home. There seems to be no hard and set rule by which any one family may make up its mind on where and how to live, but there are volumes of information on the subject. Each family must decide for itself whether it will pay rent, purchase a home, build, remodel, or move. The temperament, security of employment, stability of the family, and present world conditions are all vital factors when deciding on the housing problem. Purchasing a home is often a final transaction covering payments over a period of years.
and can be neither lightly considered nor hastily decided.

Gordon and Ducas (6-65) have this to say regarding the purchase of a home:

We should say don't buy, if you come under any of the following headings:

1. If the breadwinner of your family is not sure of continuing to work in the same city in the not-so-distant future.
2. If the money you put into your house will be needed in cash at any given time.
3. If you expect to get full value for your house, including the money spent for modernization and repairs, when you may sell the house.
4. If you plan to make money on a rise in land values.
5. If you are unwilling or unable to pay a certain amount over a period of ten, fifteen or twenty years for the cost of shelter.

For the home you live in is not an investment of the usual sort; it is your shelter from the elements, your haven from the woes of daily life, the scene of your children's beginning. Few people buy a home as a sheer business venture.

Then, too, some families are willing to sacrifice, while the monthly payments over a period of years are more than others could endure. What amount to pay for housing is another consideration.

How much to pay for the home is a problem. Some authorities advocate that as much as three times the yearly income of the average family be invested. Others
consider this amount too much of a burden on most incomes. It is important that the cost be in accordance with the scale of living of the family concerned. One principle for guidance is proposed by the Federal Housing Administration (2-Chapt. III-2) as follows:

It is popular theory that no more than twice, or at least two and one-half times the annual income should be spent for a home. According to this theory the average-size family with an income of $2000 a year, might safely invest in a $4000 house. To put this theory another way, the family would be justified in spending from one-fourth to one-fifth of the monthly income for housing expenses. Thus, with a $200 income, $50 might be used for payments, light, heat, taxes and other housing expenses. The amount the family can afford for shelter will vary with the size of the family as well as the income. The more children there are to feed, clothe, and educate, the greater will be the amount needed for food and clothing, thus leaving less for shelter.

A family of four with an income of $3000 might safely invest $6000, or even a slightly greater amount in a home, providing the income is relatively certain. This is true for higher incomes because after the necessary amount for shelter has been deducted, a relatively larger percentage of the income remains for other needs.

Authorities say, that should there be a small additional outside source of regular income or should there be more than one person with a regular income in the home it is an advantage to those concerned.

Assessments. Regarding future assessments,
Gordon and Ducas (6-41) write:

Don't buy a house without knowing something about future assessments. Perhaps your land is in a beautiful section where the roads are nicely graveled and the absence of sidewalks lends a rural touch to the beauty. But after you build your house, the Town Council may vote to give you a pavement and new cement sidewalks and you and your neighbors will pay a large share of the cost. The same is true of sewers, gas mains, electric lights, establishing new parks, cutting new boulevards. Such things are desirable, but you should know about them in advance - or they'll throw your budget off.

Authorities state that tax and insurance rates should be investigated. Considerable saving may be made by choosing a home where the tax rate is low. One incorporated area may have several tax rates, and a choice of a district to fit the income is a consideration. Adequate fire protection provides for lower insurance rates and is a factor in deciding whether to live in the city or the country.

Financing. Some information on home financing is summed by Waffle (14-194) in the following:

A man owning and living in his own home must pay all expenses connected with its upkeep, and to himself, as rent, the interest on the capital invested in the house. The owner of a house must figure as his cost of shelter the following items:

1. Interest on the money he has invested
2. Interest on the mortgage on the property
3. Taxes on the property
4. Insurance
5. Repairs, replacements, decorations, and painting
6. Depreciation

Value of Lot. The value of a lot on which the house is built should be one-fifth the value of the house. Other factors, such as a desirable neighborhood, may justify a greater proportionate investment.

Design. Some publishers advocate that a good builder can draw plans and construct a fairly good home, but the layman employing such a person must become thoroughly acquainted with his work before he is justified in permitting him to bid on the contract. However, most authors advocate the use of a reliable architect. With regard to the architect, Gordon and Ducas (6-50-51) say:

It is wisdom to use an architect who has plenty of good home-building to his credit. Don't be impressed by the palatial post offices an architect has designed. They do not mean he can build a six-room bungalow. The difference in liveability between a plan developed by a good home architect and one less expertly conceived by a man who, however good at edifices, is unfamiliar with homes, is immeasurable. The experienced-in-homes architect wastes little space; provides closets and conveniences where blank walls might have been; makes economical provision for concealing piping and ducts. The small-house architect will even think of where your grand piano should go, and set aside a place that is out of drafts for the davenport.
These are problems which never arise in the planning of a public building.

Go to see some of the houses the man you are thinking of engaging has done; get the feeling of his work. Talk with him. Get some idea of his personality. Discover if you speak the same language. These things are important, more important than you realize until you are hopelessly bogged in a morass of misunderstanding all because your objectives and his are at variance.

The Federal Housing Administration (3-Chapt. VI-1) gives its opinion on house plans as follows:

Wherever possible an architect should be employed to design the house. He can often effect real savings in construction costs, as well as in the use of space. He can suit the house to the needs of the family. He is acquainted with new materials, new methods of applying them, new types of equipment. He can plan for the most economical use of structural materials. He can suggest the elimination of certain elements from the house which are expensive in proportion to their actual use. Because of his knowledge of planning he may be able to save the family from making costly additions and changes to the house during construction.

While it is universally admitted that most houses planned by architects are better designed than houses built from stock plans, the latter will continue to be used by many families who are building small homes and feel they cannot afford the services of an architect. Good stock plans may be obtained from builders, contractors, supply dealers and others who maintain libraries of plans which they have used in the construction of other homes. Magazines also publish booklets of plans drawn by good architects, any one of which can be purchased for a small amount.
Regarding plans, Gordon and Ducas (6-55) say:

The difference between buying your plans from a magazine and buying them from your contractor is simply this: the magazine probably will have made up its plans after inspecting the work of hundreds of architects, and its plans will represent the considered judgment of the editors of the magazine as to architectural worth. The contractor's catalogue of plans comes from a commercial source and while the designs were, of course, made originally by architects, their selection has been on the basis of easy workmanship and low cost. You can get an artistically designed and soundly engineered house from contractor's plans but you are taking a much bigger chance when you trust them.

Architecture. Modern, modernistic, Spanish, Monterey, and American stucco are the most common styles of homes in and around San Jose. It is believed by California authorities that these could all be given one name, California homes.

Home Values. Concerning that part of home planning known as "home values," Gordon and Ducas (6-59-60) say:

We have in the interests, once again, of practicability prepared some questions which should serve to turn your eyes inward on yourself and on your family. When you know the answers, then you are ready to take the initial step in home-building: getting your plans.

1. How many people are going to occupy your house, both now and in the future? Will they live there permanently? Summers? Winters?
2. What sort of transportation is available? How much will it cost? What are traffic conditions in the neighborhood?
3. What are the hobbies and active sports engaged in by members of your family?
4. Do you prefer sun for awakening or for cheering you while you dress for dinner?
5. Do you read in bed?
6. Do you use the telephone frequently?
7. Is there any member in the family who is very tall? Very short?
8. Do you have an extensive wardrobe? Many hats? Shoes?
10. Does anyone bring home office work to do at night?
11. Do the children have special equipment like bicycles, model boats, planes, etc.? Do they like to sleep outdoors?
12. Does anyone in the family travel frequently? Have much luggage?
13. Do you have many guests? Afternoons? Evening? Over night?
15. Do you have many books in your library? Use them much? When?
16. Where do you do your reading?
17. Have you a phonograph? How many records?
18. Have you any special sculpture, paintings or draperies for which you want special places?
19. Have you servants? How many? Does a maid serve the food or is it served at the table?
20. Have you much linen and silverware? Mechanical dishwasher? Other bulky household equipment?
21. Is your laundry done at home?
22. Is any dressmaking done at home?
23. Is any canning or preserving done at home?

24. Is yours a group family, or made up of individuals who prefer to be alone much of the time?

This may sound like an old-fashioned game of "Questions and Answers," but every bit of it, and a lot more, if there were space, is pertinent to the design of a well fitting house.

Some individual demands are given by Field

(4-11-12) in the following:

Two or more people dwelling together demand of their home different things. In the case of the normal family the demands are likely to run as follows:

Father's point of view:
- a place to rest up after work
- a place to entertain
- a workshop for a hobby
- a private study
- a store place for valuables - guns, fishing rods, collections, etc.

Mother's point of view:
- a place to work in and to show
- a work place for cooking, sewing, washing, and ironing
- nursery space for teaching walking, talking, eating, climbing, hanging up clothes, dressing and undressing
- a habit-training center for school and adolescent children
- a family community center for fun
- a place for entertaining guests at meals - at games - conversation
- office space for correspondence, ordering, planning, accounts, equipment for care of family's health
- storage space for family property
- storage space for personal property
Children:
Infants:
space for quiet and isolation space
and equipment for special infant
care

Toddlers:
space for experimenting and learning
by trial and error - free from
nagging
play space - running

School children:
play space for jumping, tumbling, play-
84 square feet per child
place for equipment - hobbies
place for storage of treasure

Adolescents:
a place to retire for privacy
a place to entertain friends
a place to hide things from the
family

These are the things we seek in a home,
and if we don't find them there we go elsewhere
to satisfy our needs - family interests are
dissipated among various outside interests and
the family pulled apart until we wake up some
day to wonder why the children won't stay home,
why mother spends all her time at bridge and
study clubs, why father is a golf and bridge
fiend and too busy to help with the children's
upbringing. They lead to divorce, delinquency,
and all sorts of family ills.

Materials. Writers say that the home should be
designed to use the most up-to-date materials and equip-
ment if it is to fulfill all the requirements of the
modern home.

Materials and specifications will now be con-
sidered.
Some information on lumber is given by Waugh (15-207-8) in the following:

The lumber used in house construction is generally soft wood. It is roughly divided as to quality into two groups, select and common. Grading is done according to the number and size of knots, cracks, decay, and other blemishes. Select lumber contains only a few small, tight knots, and is suitable for interior trim, cabinets, and other built-in furniture. Number one common lumber is ordinarily used for girders, joists, and rafters; while numbers two and three common are used for rough coverings, such as sheathing and sub-flooring. The principal lumber manufacturers stamp every piece with a mark indicating the grade and the mill from which it came.

Authoritative opinion on materials are summarized in the following paragraphs.

Finish flooring is usually of two kinds, soft pine being used for floors that are to be covered with linoleum, and oak or maple floors for the major rooms of the house. It is not suggested that pine floors be used for other purposes, as they splinter and "rough up" from constant use unless protected with paint or some other surface covering.

Siding used for exterior finish is now being produced in wider dimensions than formerly, to give a pleasing effect. When using wood for siding purposes, it is best not to have a patch of brick, or other contrasting materials as part of the decorative design. A
uniformity of materials around the entire house gives a pleasing effect.

Many new materials are also being used for the interior. Besides the traditional wet plaster method of finishing, dry construction with the use of wall board is now a practice. Knotty pine and linoleum are often used in place of plaster and tile as a wall covering. One may best study these materials by obtaining information from the manufacturers of the products, the builder, or the architect.

Insulation materials make for cooler homes in summer and warmer, less expensively heated homes in winter. It is said that 80 per cent of the summer heat comes in through the ceiling, with a comparable amount of heat loss in winter.

Millwork and cabinet work make up a good part of the interior finish of the home. There is a difference in the two which many do not understand.

With regard to material items, Gordon and Ducas (6-230-31-32) write:

The finishes which cover rough openings and joinings are lumped under the trade name of "millwork," and are actually wood trim for covering the edges of walls and wall openings. And very important they are in guaranteeing wear as well as in setting the tone of the interior decoration.
Millwork is woodwork that is made in the mill. This is a trade word, but used so much that, if you don't already know it, you had better adopt it as part of your working vocabulary. You will have occasion to use it whenever you talk about entrance frames, both inside and outside the house, doors, window frames, dining alcoves, stairways, stair rails, porches, mantels, panels for walls, inter-room openings of all kinds, moldings, trim and jams. In fact, the only wood for building which is not millwork is framing lumber, flooring, siding and furring.

Millwork is different from cabinet work in that it is made of machined parts which also are put together by machines. Cabinet work involves a good deal of handwork; even if the parts are machined the final form will be the result of handwork. Whatever handwork there might be in millwork is incidental. If you are planning on built-in equipment, such as bookcases, cupboards, china closets, broom closets, kitchen cabinets, ironing boards, linen cupboards or telephone cabinets, then you might have occasion to use cabinet work. To make it quite confusing, millwork companies also sell cabinet work.

For the small home, stock or standard cabinets are suggested, as they are made in quantity and are less expensive than special sizes.

**Painting.** There is a great deal of evidence that painting of the new home should be intrusted to a master craftsman. Since 75 per cent of the cost of painting is labor, the best of materials should be used in every case. The average store brand of paint sold to laymen is not what is used by the master painter. Gloss enamel is most easily to be kept clean but has the disadvantage
of being glary. A semi-gloss enamel is now being used that is easily cleaned and not so reflective. Poor exterior paint may be detected by its "chalking" or peeling under severe weather conditions. A good grade of paint properly applied should last a long time and more than make up for the extra cost of materials.

Plumbing. Regarding types of plumbing, there are two trends of thought. The Federal Housing Administration (2-Chapt. IX-3) says:

It is not necessary to install expensive bathroom equipment of the latest design. There are many good, inexpensive types of bathroom units of a more conservative design and coloring which are durable and economical. In the kitchen, it is not necessary to install the most elaborate stove that can be bought, nor, for that matter, is it necessary to buy the largest and most expensive type of refrigerator.

Gordon and Ducas (6-274-5) say:

We are a plumbing-conscious nation. Whatever else we will sacrifice in the house of our dreams, we must have a perfect kitchen and perfect bathrooms. Note we use the plural when it comes to bathrooms. This is because, in recent years, the demand for at least two bathrooms for a family of three or more has grown so enormously that building developers declare it is easy to sell an expensive house with two bathrooms, even if some of the rooms are small.

The true American is unwilling to reconcile himself to inconvenience in the performance of those daily tasks which bring him next to godliness. And with convenience happily, has
come attractiveness. American kitchens and bathrooms give an illusion of luxury which seems to compensate for the grind of daily workaday life.

Speaking generally, your plumbing should cost about 10% of the total cost of the house, or $1,000 for a $10,000 house. Don't try to economize here. Plumbing, perhaps more than any other feature of a house, sets it apart from homes built some years ago, for the advance in the last decade has been enormous. As a horse's teeth betray his age, so does plumbing date a house. It will pay to put in the latest thing, for plumbing is always a factor in resale of the house. Though you are not planning to sell your house at a later date, it is always something to keep in mind in case your living conditions change. But even if you never have occasion to sell it, cheap plumbing won't pay.

Heating. Homes in San Jose are heated by either floor or wall furnaces; gravity furnaces in the basement with warm air ducts piped to each room; or the blower type with forced circulation installations. All of these burn natural gas. The advantages and disadvantages of these are given by Waugh (15-240-41) who writes:

The pipeless furnace set in the basement, with one large register in the floor directly above it, is better than a stove; but, unless there are large openings between rooms, it will not heat the entire first floor. The effectiveness of a pipeless furnace may be increased by the addition of cold-air return ducts from opposite ends of the house. The pipeless furnace, however, is old-fashioned, and unsatisfactory for houses containing more than three or four rooms.
The commonest and least expensive form of central heating is the gravity warm-air system. The heated air rises from the furnace through ducts to the rooms above. Cool air is drawn off the floor at various points in the house (sometimes with the addition of air from the outdoors) and returned to the furnace for heating.

The circulation of heat depends upon the fact that warm air rises and cold air falls. The gravity warm-air system is satisfactory in small houses of compact plan and uncomplicated structure, although rooms on the windward side may be hard to heat. The furnace must be located near the center of the house, so that horizontal warm-air pipes may be as short as possible.

The most important recent development in warm-air heating is the addition of a fan to force the air through the system. Various improvements are made possible by the fan; the air may be forced through a filter to remove dust, large houses and houses of rambling plan may be uniformly heated, and the furnace need not be in the center of the basement - in fact, it need not be in the basement at all, but may be installed in a small room on the first floor. The forced air system may be readily adapted to summer air cooling. The additional cost of fan and filter is not out of proportion in houses costing between $5,000 and $10,000. It is claimed that forced-air heating makes for greater economy in fuel consumption.

Authorities agree that experienced heating contractor should install the furnace. The ducts should be of the right size, the registers large enough with the proper slope and insulation.

Electricity. There is an official prediction that ten times more electricity will be used in our
homes in the next twenty years. The average family using about seven hundred kilowatt hours of electricity a year will be using some seven thousand hours more. New equipment, not yet on the market, will come to overload the present wire capacity of the home unless the future is provided for.

A compilation of information from the Pacific Gas and Electric Company (8-11-12) shows the following:

Good wiring has aptly been described as a system of boulevards and streets over which electricity travels on its way to work. Practically speaking, it consists of six different elements - appliance outlets, lighting outlets, switches, wire capacity, reserve capacity and enough of each.

The first requisite of a good wiring system, aside from safety, is an adequate number of outlets.

Enough regular, baseboard outlets so that each floor lamp and each table lamp can have a short cord.

Enough "spares," particularly in the living room, so the furniture can be changed around.

Separate outlets for the every day appliances - refrigerators, washing machine, ironing machine, dishwasher, food mixer, etc.

Special outlets wherever needed - on the terrace, in the garden, over the work-bench, on top of the mantel, behind the clocks.

Needless to say, good wiring should provide for good lighting.

With a carefully thought out system of switches, you can center the house and travel
from room to room always with a path of light protecting your steps. Remember, particularly, to have "step-saver" switches (3-way and 4-way as required) for the basement light and garage light, so you can control them from the house; also in the upper and lower halls, and in each room having two principal entrances.

Reliable electricians are careful to use the proper gauge of wire, but sometimes there is an attempt to "cut corners" by using smaller wire. What happens?

The load gradually increases as new lamps and appliances are acquired and soon you have a serious voltage drop. The only safe rule (and one which is being commonly followed) is to have nothing less than #12 wire anywhere in the house.

See that the metal conduit which carries the entrance wires into the meter box is fully 1\(\frac{1}{4}\) inches in diameter. It may be necessary at some future date to run in larger wires.

Check the measurements of the meter box to be sure it will accommodate a 100-ampere switch, extensive carpentry work is necessary just because the meter box is a few inches too small.

Specify that the distribution panel have at least two fuses or circuit breakers above present requirements. This will permit the installation of additional circuits at minimum cost.

Miscellaneous Features. Home owners desire additional features such as door mirrors, more switches, lights in closets, better hardware, milk receivers, paved driveways, and numerous additional features. Authorities say the payment for these items over a period of years is not considerable in view of the
utilitarian values received in the form of services.
In general, one hundred dollars added to the price of the home will cost one dollar per month over a period of ten years.

Miscellaneous Construction Details. How to make savings without reducing quality of construction is suggested by the Federal Housing Administration (2-Chapt. IX-2) in the following:

In planning the house and making up specifications, the builder or architect can make a number of savings without sacrificing the quality of construction. He can, for example, reduce costs by eliminating the basement. In the past, many houses have been built with foundations which were strong enough to carry a much larger structure. There are new and simplified methods of foundation construction which give a sound and durable foundation for the house at a much lower cost. The foundation must, of course, be strong enough to carry the weight of the walls, but it does not need to be heavy enough to carry a skyscraper. The Federal Housing Administration booklet, "Principles of Planning Small Houses," analyzes the three possible types of foundation. The choice of the type will depend in large part on the climatic conditions;—the severity of the winters — and the conformation of the lot.

In designing the house the architect can plan the size of the rooms to allow the use of standard materials on the site. He can plan openings so that standard millwork can be used, thus effecting a great additional saving. It is also possible, without reducing the efficiency of the interior plan to concentrate the plumbing lines by placing the kitchen and bathrooms contiguous to each other. Heating layouts can be so simplified as to effect a substantial saving
in the cost of installation of pipe and duct work.

The architect can, and probably will, suggest a number of savings in finishing, equipping and trimming the house. On the other hand, his advice on using good equipment may necessitate a slight additional original cost, but following his advice will probably mean a saving in repair bills and upkeep during the course of a number of years.

When planning the home, design and materials are closely related to construction. The Federal Housing Administration has assisted in raising standards, and F.H.A. built homes are usually quite well protected from poor construction.

The Federal Housing Administration (3-3) says:

Obviously, the production of a minimum accommodation at a minimum cost the choice of materials must be carefully considered. The house must first of all be soundly and durably constructed. Sound houses may, however, be erected from a variety of materials, while durability is a matter of relativity, in a measure resultant from the care with which a property is maintained. Durability must be looked upon from the point of view of a balance of initial cost as against the continuing costs of maintenance. How this balance will be struck will depend greatly upon personal preference, and ability to pay larger initial costs. Again, the kinds of material chosen will be affected by the availability of materials, so that extravagance in one locality may be economy in another.

The Federal Housing Administration has issued a bulletin on, "Minimum Construction Requirements for New
Dwellings." The requirements are applied to all new construction where an F.H.A. insured loan is given. The requirements are changed according to the locality to meet local conditions. Some values as given by the Small Homes Year Book (11-30-33) are:

Wood is by far the most important building material used in house construction today. Upon its proper use depends to a large extent the quality, durability, fire-safety and market value of a house.

Every prospective home owner, whether he intends to buy or build, will find it helpful to know how to distinguish good design and workmanship from poor, for only with such knowledge can he appraise the soundness of his investment. Fortunately it is not necessary to become an expert to tell the good from the bad.

Fortunately, too, wise selection of your architect and your building material dealer is in itself assurance of good construction. The builder is particularly important. His standing in your community is based on his knowledge of adequate construction and quality materials - not low estimates. By and large, the day of the jerry-builder is past, but it's fun, just the same, to know the important requirements of good construction.

In every house there are a few "key" points that are important. If these are properly handled, it may be safely assumed that the quality of the rest of the contractor's work is equally sound. These "key" points are described and (illustrated) below.

1. **FOOTINGS** are the solid concrete base on which the walls of the foundation rest. They should be at least 8" wider than the wall, and 8" or more deep - wider and deeper if the soil is soft. Footings
should always be flat bottomed, so as to offer even support for the wall itself.

2. BASEMENT WALLS AND THE GIRDER support the partitions and the center of the house. Basement walls should be 8" thick at least, preferably more, and should be waterproofed on the outside. Girders must be supported by solid posts, set on thick footings of their own.

3. THE SILL, or wood base of the frame, should be firmly bolted to the basement wall with bolts set deeply into the wall masonry. Between the sill and the masonry wall, a termite shield of rust-resistant metal should be placed.

4. FIRST FLOOR JOISTS should measure no less than 2" by 8", and should be no more than 16" apart. They should run only from one wall to the girder, and where the two sets from opposite walls meet on the girder, should overlap.

5. SUBFLOORING should always be laid on the joists before a finish floor is laid. Subflooring should be laid diagonally rather than straight across the house, since diagonal subflooring serves to add rigidity to the building.

6. STUDS, which make up the skeleton of the walls of your house, should be no more than 16" apart, and should be nailed at the bottom to bottom plates. Ceiling joists should rest on double top plates or on a ribband cut into the studs.

7. RAFTERS must be firmly secured at the bottoms to double top plates on top of the stud sections, forming a firm base for the roof skeleton. At the peak of the roof, these rafters should be reinforced by a rigid board which will hold them firmly.

8. THE CHIMNEY should always be framed away from the wood parts of the house so that no wood will be in contact with it.
correct draft, a chimney should always be at least two feet higher than the peak of the roof.

9. WALL SHEATHING, which is the first layer of "skin," covering the frame of the house, should be made of sound boards without knot-holes, and should be nailed diagonally. Diagonal sheathing adds greatly to the strength of the walls.

10. EXTERIOR WALL FINISH, the outside covering of the house, is applied after the window and door frames have been set. Exterior finishes include wood siding, as here, or perhaps shingles, or brick veneer (a single layer of brick over wood sheathing) or stucco.

11. SOLID ROOF SHEATHING is required in all cases where composition shingles are used for the roof. When wood shingles are called for, shingle lath may be used - narrow strips of wood spaced about two inches apart instead of being laid solid.

12. FLASHING, GUTTERS AND DOWN-SPOUTS, made out of strips of rust-resistant metal, should be nailed over all parts of the roof where leakage might occur - as where the chimney comes through the roof, along the valley caused by a gable in the roof; around dormers, etc.

13. ROOFING SHINGLES, whether of wood or of composition, should always be laid so that they overlap several inches, thus protecting the roof from possible leakage. Composition shingles should be laid over a layer of strong waterproof paper, nailed to the sheathing.

14. ROUGH PLUMBING should be installed by experts only, with all horizontal drain pipes slanted slightly away from the fixtures, and each joint in a drain pipe first caulked with oakum, and then filled with melted lead to make an odor-proof and leakproof joint.
15. ELECTRIC WIRING should never be placed in notches in joists or studs, nor should plumbing pipes. Pipes and cables should be strung through holes bored through the center of the joists, since such holes do not weaken them.

16. HEATING DUCTS for warm air systems must always be led so that they will not protrude too much into the cellar headroom, but at the same time they must never run through the joists. Rather, they must go around them when it is necessary to cross over joist areas.

17. INSULATION, discussed more fully in the article on page 41, is required for heating and cooling efficiency in modern homes. A type of wool-like insulation may be applied between the studs and in the ceiling of a house. Full insulation requires storm sash and weather stripping.

18. LATH is the general name for the base for a plaster wall. Lath may be of wood, gypsum board or fiber, insulation board; metal wire or a structural insulation which both laths and insulates may be used. Instead of lath and plaster, many people specify dry wall construction such as plywood, finish wallboard or other finish requiring no plaster coating.

19. PLASTER is a popular method of interior wall finishing. It should consist of at least two, and preferably three, coats - scratch, brown, and white.

20. PLUMBING FIXTURES must be installed correctly or trouble will ensue. When a bathtub is being put in the wood strips at the back, to which it is anchored, should be spaced 16" apart, and should run the height of the wall, otherwise the tub may later pull away from the wall.

21. INTERIOR TRIM, the wood finish for cabinets, stairs, doors, baseboards and the like, should be made out of well-seasoned wood.
Nails should be driven slightly below the surface and puttied before the paint, stain and varnish or enamel is applied.

22. THE DOOR HARDWARE should be installed only by trained men. Installation of hardware is one of the most important operations in carpentry. Exceptional care must be taken not to split the wood or the door in gauging out the space in which the lock mechanism will go.

23. PAINT, both exterior and interior, should be applied in at least two, and preferably three, coats, each one allowed to dry well before the next is applied. It is false economy to try to save money by buying cheap paint.

24. FLOOR FINISH, the final step in building a house, should be done by experts. Floors should be laid with nails driven at an angle into edges of the flooring so they will not show; the wood should always be scraped or sanded in order to remove surface unevenness.

Neighborhood. Obviously, choosing a place to live is of vital importance to the family.

About the choice of a site, Gordon and Ducas (6-20) write:

Social values also influence choice of sites. If one can ignore his neighbors, he may go into a poorer neighborhood and seclude himself behind a high hedge, or into a cheaper section and keep the neighbors at a distance by having an acre of ground; but since social contacts are important in the scheme of life, he may decide it is best to sacrifice pictorial and emotional values for the sake of those contacts to be made in the more exclusive and conventional sections of the city.
A good neighborhood, according to good authority, is one in which one may depend upon a strong, healthy present and future growth. City zoning restrictions affecting the location of good shopping centers, recreational areas, apartments, and other buildings that may not conform to the neighborhood if improperly placed are some factors in the selection of a lot.

A few of the items to check, when purchasing a lot, or a home, summarized from the literature, are as follows:

1. See that all buildings conform in age, style, and price.
2. Find out if the community has the essential public utilities such as city water, electricity and gas, and telephone.
3. Is there a sewer system and is there a means of disposing of garbage?
4. Will there be friends with which children might play?
5. Are the schools, churches and other character building agencies adequate?
6. Are there recreations in the neighborhood you are interested in?
7. Will the contemplated home fit in with the others?
8. Is adequate transportation available?
9. Are the streets paved, sidewalks, and curbs finished?
10. Can one take advantage of scenes and prevailing winds?

These important items of choosing the neighborhood are closely associated with the lot on which to build.

**Land Usage.** When selecting a lot, writers state, one should first consider the place in the block where the lot is located. An inside lot is less often over-taxed for street improvements. One must also decide the preferred exposure. Present-day writers emphasize the need for a cool well-ventilated kitchen.

The traditional type of home is one in which the living room faces the street, and the garage is reached by means of a long driveway. With this type, the house is not centered on the lot, there is the additional expense of paving the long driveway, and the garage is in the garden area of the lot.

In contrast to this the new trend of housing is described by Sooy and Woodbridge (10-29) when they write:

> In modern planning the garage is related to the house, convenient to the principal or a side entrance; or the automobile is housed under the same roof as the house, with a direct entrance from a hall into the garage. This is
certainly practical and reasonable. With such a shifting of the garage, the grounds at the rear become a protected, private, and useful garden; here are located terraces, sunrooms, patios, arbors, and grills, lawn, shade trees, shrubs, and flowers; the house itself faces about to enjoy this spot. The living rooms open out into these terraces and porches, leaving the service wing to front the public thoroughfare.

All this is part of the change in house planning following the shift from the neighborly life of the small town to the impersonal life of the city, where seclusion from neighbors and protection from the sound and smell of traffic are first considerations.

Authorities say that landscape architecture should become part of the home planning procedures of today. A sum of money should be set aside for the improving of the site. Low-growing compact shrubs should be placed under the windows, and taller ones of the slow-growing variety should be placed near the corners of the house. Some parts of the foundation should be allowed to show, in order to have the home appear to be anchored to the ground. It is the practice of some operative builders and some home owners to purchase some "gallon can nursery stock" and place it around the house for effect. More harm is done than good, as a good neighborhood may be unsightly in a short time if improperly landscaped.

Uniform plantings of native, hardy, slow growing, light-feeding trees should be placed in the tree strip in the community. These uniform plantings break the
rays of the hot noon-day sun and allow the light to filter into the home. Shade and fruit trees may be used in the garden area of the home, thus combining beauty and utility as part of the landscaping. With present-day leisure, there is greater freedom for out-of-door activities, and a well developed out-door living room and a play yard is an asset. Writers say that landscape architectural plans should be used when developing the site.
THE STUDY

Letters received from the respondents closely associated with the localities at which certain phases of this study are occurring will be quoted in the appendix. Each letter was written either in answer to the questionnaire or voluntarily by having seen some of the stimuli. Pictures and data are

The following action and suggestions have been compiled from the data gathered from interviews and questionnaires. Based upon the questionnaires an
school administrators are shown in Table 1, as follows:

### Table 1
The Opinions of Administrators Concerning a Course in Home Planning

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>Choice</th>
<th>f</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>A one-semester required course taught to eleventh or twelfth grade pupils.</td>
<td>first</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>second</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>third</td>
<td>1</td>
</tr>
<tr>
<td>2.</td>
<td>A one-semester elective course taught to eleventh or twelfth grade pupils.</td>
<td>first</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td></td>
<td>second</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>third</td>
<td>3</td>
</tr>
<tr>
<td>3.</td>
<td>A one-semester required course taught to eleventh or twelfth grade boys.</td>
<td>first</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>second</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>third</td>
<td>7</td>
</tr>
<tr>
<td>4.</td>
<td>A one-semester elective course taught to eleventh or twelfth grade boys.</td>
<td>first</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>second</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>third</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>A one-semester required course taught to eleventh or twelfth grade girls.</td>
<td>first</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>second</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>third</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>A one-semester elective course taught to eleventh or twelfth grade girls.</td>
<td>first</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>second</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>third</td>
<td>10</td>
</tr>
<tr>
<td>7.</td>
<td>An adult education course</td>
<td>first</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td></td>
<td>second</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>third</td>
<td>5</td>
</tr>
<tr>
<td>8.</td>
<td>The course not recommended for my locality</td>
<td>first</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>second</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>third</td>
<td>1</td>
</tr>
</tbody>
</table>

100 questionnaires sent, 56 returned, one not marked.
Table 2
Opinions of Administrators Concerning a Secondary School Course in Home Planning
Condensed from Table 1

<table>
<thead>
<tr>
<th>A one-semester course taught to eleventh or twelfth grade pupils.</th>
<th>First choice</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Required</td>
</tr>
<tr>
<td></td>
<td>No.  f</td>
</tr>
<tr>
<td>All pupils</td>
<td>2  5.7%</td>
</tr>
<tr>
<td>Boys only</td>
<td>1  2.9%</td>
</tr>
<tr>
<td>Girls only</td>
<td>2  5.7%</td>
</tr>
</tbody>
</table>

Table 2 is graphically illustrated in Figure 1 to show that school administrators were overwhelmingly in favor of such a course for both boys and girls. Only 8.6% of them desired that it be given to boys alone, as is now the practice in the related course of architectural drawing. Less than 15 per cent of the administrators believed the course should be required of all junior-senior pupils.
Opinions of Administrators Concerning a Proposed Course in Home Planning in the Secondary Schools Taken from Table 2

* 77.1% of the first choices preferred the course be given as an elective subject and to boys and girls.
Figure 2

Opinions of School Administrators Concerning the Value of a Home Planning Course as a Phase of Adult Education

Compiled from Table 1

| 26.2% Favorable * | 73.8% Unfavorable |

* Read: Of the 118 expressions of choice, 31, or 26.2 per cent, favored such a course for adult education.

Figure 3

Opinion of Administrators as to Value of the Course to the Community

Compiled from Table 1

| 95.8% * | Recommended for the Community |
|---------|

4.2% unfavorable

* Read: 95.8% of the choices recommended a home planning course for the communities in which the administrators lived.

The value of a consumers' course in home planning was well established if the favorable reaction of 95.8 per cent of the administrators surveyed may be accepted as authoritative.
Suggestions from Administrators with Regard to the Proposed Course of Study in Home Planning

Many administrators commented upon the course. A few of these comments are as follows:

We are now planning a low-twelfth, high-twelfth grade senior problems course, including a selected emphasis on home planning.

The course should be required if it is included in a basic course in social living.

The course is now included in our home economics, mechanical drawing, and manual arts courses.

The course should be elective for those going to college, but required for those not going to college.

The course would be a fine junior college elective.

B. Results of the Questionnaire to Home Owners

The following tables in this section show results of the questionnaire to home owners who had built or bought the home within the preceding five years.
### Fundamentals

#### Table 3
Comparison of Fundamental Items of Home Ownership

1. The family living in the home consists of

<table>
<thead>
<tr>
<th>No.</th>
<th>Family</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>One adult</td>
<td>5</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td>Two adults</td>
<td>37</td>
<td>87%</td>
</tr>
<tr>
<td></td>
<td>Three or more adults</td>
<td>8</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td>Boys in the home</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Girls in the home</td>
<td>44</td>
<td></td>
</tr>
</tbody>
</table>

2. How long has the home been owned?

<table>
<thead>
<tr>
<th>f</th>
<th>mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>95</td>
</tr>
<tr>
<td></td>
<td>56</td>
</tr>
<tr>
<td>months</td>
<td></td>
</tr>
</tbody>
</table>

3. The estimated value of the house and lot is

<table>
<thead>
<tr>
<th>Value</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>From $2,000 to $4,000</td>
<td>25</td>
<td>25%</td>
</tr>
<tr>
<td>From $4,000 to $6,000</td>
<td>75</td>
<td>75%</td>
</tr>
</tbody>
</table>

4. The estimated value of the lot compared with the house

<table>
<thead>
<tr>
<th>Proportion</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>A fifth of the value</td>
<td>75</td>
<td>79%</td>
</tr>
<tr>
<td>Greater than a fifth</td>
<td>20</td>
<td>21%</td>
</tr>
</tbody>
</table>

5. The monthly payment on the home in relation to the rent previously paid is

<table>
<thead>
<tr>
<th>Proportion of Payment to Rent</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than rent</td>
<td>17</td>
<td>18%</td>
</tr>
<tr>
<td>Same as rent</td>
<td>27</td>
<td>30%</td>
</tr>
<tr>
<td>More than rent</td>
<td>47</td>
<td>52%</td>
</tr>
</tbody>
</table>
6. The per cent of monthly income spent for home payments including insurance and taxes is

<table>
<thead>
<tr>
<th>No.</th>
<th>Proportion</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Less than 25 per cent</td>
<td>44</td>
<td>51%</td>
</tr>
<tr>
<td></td>
<td>Twenty-five per cent</td>
<td>28</td>
<td>33%</td>
</tr>
<tr>
<td></td>
<td>More than 25 per cent</td>
<td>14</td>
<td>16%</td>
</tr>
</tbody>
</table>

7. The cost of the home in relation to the total yearly income is:

<table>
<thead>
<tr>
<th>No.</th>
<th>Proportion</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Less than twice</td>
<td>25</td>
<td>28%</td>
</tr>
<tr>
<td></td>
<td>Twice the income</td>
<td>25</td>
<td>40%</td>
</tr>
<tr>
<td></td>
<td>2½ times the income</td>
<td>28</td>
<td>32%</td>
</tr>
</tbody>
</table>

8. Did home ownership prove more expensive than had been anticipated?
   - Yes 37 37%
   - No 62 63%

9. Were there unexpected extra fees connected with home financing?
   - Yes 36 39%
   - No 59 61%

10. Were the tax and insurance rates investigated before obtaining the home?
    - Yes 68 69%
    - No 30 31%

11. At the time of purchasing the home was there a need for spending considerable for a new automobile within five years?
    - Yes 52 53%
    - No 47 47%

12. Is there more than one person with a regular income living with the family?
    - Yes 20 20%
    - No 80 80%
From Table 3, 87 per cent of the homes had two adults and approximately one child residing in them with the number of boys and girls about evenly distributed.

Item 2 gives the mean length of time the homes were owned, as 56 months or 4 years and 8 months.

Some advantages to the home owner, as shown by Table 3, follow: In items 4, 6, 12, and 13 it was found that over three-fourths of the home owners valued their lots at one-fifth that of the house; that one-half the owners spent less than 25 per cent of the monthly income for home payments; that in one-fifth of the homes more
than one person had a regular income; and that one-third of the homes had an income other than wages.

Some disadvantages to the home owner are shown in Table 3. Items number 5, 7, 9, 10, 11 show that one-half the owners made house payments greater than previous rent paid; that the cost of the home was two and one-half times the income in 32 per cent of the cases; that over one-third had to pay extra fees not anticipated; that one-third failed to investigate tax and insurance rates; and that over one-half the owners had the prospective additional burden of purchasing a new automobile within five years.

**Design**

Tables 4, 5 and 6 show responses to items that have to do with home design as a check on the knowledge of the owners about home planning.

Table 4, which follows, was constructed for the purpose of checking some essentials of the home relative to design.
Table 4
A Comparison of Items of Design

The following instructions were given for filling out the questionnaire.

1. For each item you have in the home check (H)
2. For each item you would have in the home should you build again, check (WH)
3. For each item of which you are not sure check (NS)

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>Responses</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Did you have architectural services in connection with your plans?</td>
<td>Yes</td>
<td>45</td>
<td>52%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(WH)</td>
<td>14</td>
<td>16%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(NS)</td>
<td>28</td>
<td>32%</td>
</tr>
<tr>
<td>2.</td>
<td>Are the owners able to read and understand house plans and specifications?</td>
<td>Yes</td>
<td>83</td>
<td>83%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>6</td>
<td>6%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(NS)</td>
<td>11</td>
<td>11%</td>
</tr>
<tr>
<td>3.</td>
<td>Do you have adequate wall and floor space for properly arranging furniture?</td>
<td>Yes</td>
<td>88</td>
<td>88%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(WH)</td>
<td>12</td>
<td>12%</td>
</tr>
<tr>
<td>4.</td>
<td>Are the bedrooms removed from noises?</td>
<td>Yes</td>
<td>83</td>
<td>85%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(WH)</td>
<td>15</td>
<td>15%</td>
</tr>
<tr>
<td>5.</td>
<td>May one go from the kitchen, dining room or living room direct to the bedrooms by means of a pass hall?</td>
<td>Yes</td>
<td>79</td>
<td>81%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(WH)</td>
<td>18</td>
<td>19%</td>
</tr>
<tr>
<td>6.</td>
<td>Do the kitchen and bedrooms receive the benefits of the prevailing winds?</td>
<td>Yes</td>
<td>93</td>
<td>95%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(WH)</td>
<td>5</td>
<td>5%</td>
</tr>
<tr>
<td>7.</td>
<td>Do the kitchen windows have protection from the afternoon sun?</td>
<td>Yes</td>
<td>81</td>
<td>84%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(WH)</td>
<td>16</td>
<td>16%</td>
</tr>
</tbody>
</table>


Table 4 continued

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>Responses</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td>The home has heating equipment as follows:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Gas floor furnace</td>
<td>(H)</td>
<td>55</td>
<td>60%</td>
</tr>
<tr>
<td></td>
<td>(WH)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Gas gravity furnace</td>
<td>(H)</td>
<td>26</td>
<td>29%</td>
</tr>
<tr>
<td></td>
<td>in the basement</td>
<td>(WH)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. Gas forced circulation furnace in the basement</td>
<td>(H)</td>
<td>6</td>
<td>7%</td>
</tr>
<tr>
<td></td>
<td>(WH)</td>
<td></td>
<td>8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>d. Gas forced circulation furnace on the first floor</td>
<td>(H)</td>
<td>4</td>
<td>4%</td>
</tr>
<tr>
<td></td>
<td>(WH)</td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>e. The gas furnace has thermostatic control</td>
<td>(H)</td>
<td>29</td>
<td>41%</td>
</tr>
<tr>
<td></td>
<td>(WH)</td>
<td></td>
<td>42</td>
<td>59%</td>
</tr>
</tbody>
</table>

In Table 4, the present advantages in the homes as shown in items 3, 4, 5, 6, and 7 are: that adequate floor-space has been provided; that they have quiet bedrooms; that the main rooms are accessible; that the rooms have natural ventilation; and that the kitchen windows are protected from the sun.

Some disadvantages appear in items 8 and 9 where 60 per cent of the home owners have only a gas floor furnace, and 59 per cent would have thermostatic controlled heating.
Homes should also have such essentials as cabinet work and service areas.

Table 5 was designed to obtain information about some additional requirements of home construction.

### Table 5

**A Comparison of Items in the Home**

<table>
<thead>
<tr>
<th>No.</th>
<th>Feature</th>
<th>Have</th>
<th>Would Have</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><em>f</em></td>
<td><em>%</em></td>
</tr>
<tr>
<td>1</td>
<td>Entrance hall</td>
<td>45</td>
<td>58%</td>
</tr>
<tr>
<td>2</td>
<td>Living room</td>
<td>98</td>
<td>99%</td>
</tr>
<tr>
<td>3</td>
<td>Dining room</td>
<td>92</td>
<td>95%</td>
</tr>
<tr>
<td>4</td>
<td>Kitchen</td>
<td>97</td>
<td>99%</td>
</tr>
<tr>
<td>5</td>
<td>Breakfast room or nook</td>
<td>50</td>
<td>67%</td>
</tr>
<tr>
<td>6</td>
<td>State number of bedrooms</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 rooms</td>
<td>72</td>
<td>72%</td>
</tr>
<tr>
<td></td>
<td>3 rooms</td>
<td>26</td>
<td>26%</td>
</tr>
<tr>
<td></td>
<td>4 rooms</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>7</td>
<td>Service room or laundry</td>
<td>81</td>
<td>86%</td>
</tr>
<tr>
<td>8</td>
<td>Library or den</td>
<td>19</td>
<td>35%</td>
</tr>
<tr>
<td>9</td>
<td>Sewing room</td>
<td>7</td>
<td>22%</td>
</tr>
<tr>
<td>10</td>
<td>Game room</td>
<td>6</td>
<td>16%</td>
</tr>
<tr>
<td>11</td>
<td>Craft shop</td>
<td>15</td>
<td>44%</td>
</tr>
<tr>
<td>12</td>
<td>Bathroom</td>
<td>98</td>
<td>98%</td>
</tr>
<tr>
<td>13</td>
<td>Separate shower</td>
<td>60</td>
<td>76%</td>
</tr>
<tr>
<td>14</td>
<td>Second toilet and lavatory</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>26</td>
<td>35%</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td>44</td>
<td>55%</td>
<td>36</td>
</tr>
<tr>
<td>15</td>
<td>Bathroom storage cabinet</td>
<td>95</td>
<td>95%</td>
</tr>
<tr>
<td>16</td>
<td>Linen closets</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>95</td>
<td>95%</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Moth-proof clothes closet</td>
<td>15</td>
<td>22%</td>
</tr>
<tr>
<td>18</td>
<td>Kitchen cabinets</td>
<td>90</td>
<td>99%</td>
</tr>
<tr>
<td>19</td>
<td>Case goods cabinet</td>
<td>68</td>
<td>82%</td>
</tr>
<tr>
<td>20</td>
<td>Fresh vegetable cabinet</td>
<td>42</td>
<td>64%</td>
</tr>
<tr>
<td>21</td>
<td>Breakfast room corner</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>cabinets</td>
<td>25</td>
<td>55%</td>
</tr>
<tr>
<td>22</td>
<td>Double garage</td>
<td>83</td>
<td>91%</td>
</tr>
<tr>
<td>23</td>
<td>Outdoor living room</td>
<td>30</td>
<td>53%</td>
</tr>
<tr>
<td>24</td>
<td>Covered front entrance</td>
<td>80</td>
<td>90%</td>
</tr>
<tr>
<td>25</td>
<td>Covered rear entrance</td>
<td>40</td>
<td>55%</td>
</tr>
</tbody>
</table>
Table 5 continued

<table>
<thead>
<tr>
<th>No.</th>
<th>Feature</th>
<th>Have</th>
<th>Would Have</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>26.</td>
<td>Cement service walks</td>
<td>70</td>
<td>82%</td>
</tr>
<tr>
<td>27.</td>
<td>Basement</td>
<td>55</td>
<td>61%</td>
</tr>
<tr>
<td>28.</td>
<td>Paved driveway</td>
<td>27</td>
<td>40%</td>
</tr>
<tr>
<td>29.</td>
<td>Clothes drying yard</td>
<td>76</td>
<td>92%</td>
</tr>
<tr>
<td>30.</td>
<td>Play yard</td>
<td>62</td>
<td>85%</td>
</tr>
</tbody>
</table>

From Table 5, items 2, 3, 4, 12, 16, 18, 22, and 24 show that more than 90 per cent of the homes have adequate living rooms, dining rooms, kitchens, bathrooms, linen closets, kitchen cabinets, double garages, and covered front entrances.

Items 8, 9, 11, 14, 15, 17, 23, 25, and 28 indicate that over three-fourths of the owners would prefer to have sewing rooms and moth-proof closets should they build or buy again. About two-thirds would have a second toilet and lavatory. Approximately one-half would have a craft shop, a bathroom storage cabinet, an outdoor living room, and a covered rear entrance.
Table 6 shows the data concerning various types of storage space. Home owners were again requested to check with an (H) the items fully provided for, and to check with (WH) the items that they would have should they build another home.

Table 6
A Comparison of Some Storage Items in the Home

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>Have</th>
<th>Would have</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>1.</td>
<td>Household cleaning appliances</td>
<td>89</td>
<td>92%</td>
</tr>
<tr>
<td>2.</td>
<td>Linen and bedding</td>
<td>95</td>
<td>96%</td>
</tr>
<tr>
<td>3.</td>
<td>Bathroom towels</td>
<td>85</td>
<td>89%</td>
</tr>
<tr>
<td>4.</td>
<td>Medicines</td>
<td>97</td>
<td>98%</td>
</tr>
<tr>
<td>5.</td>
<td>Card tables and game boards</td>
<td>62</td>
<td>73%</td>
</tr>
<tr>
<td>6.</td>
<td>Soiled linen</td>
<td>46</td>
<td>67%</td>
</tr>
<tr>
<td>7.</td>
<td>Laundry appliances</td>
<td>85</td>
<td>90%</td>
</tr>
<tr>
<td>8.</td>
<td>Seasonal clothes</td>
<td>59</td>
<td>75%</td>
</tr>
<tr>
<td>9.</td>
<td>Books and magazines</td>
<td>60</td>
<td>77%</td>
</tr>
<tr>
<td>10.</td>
<td>Extra dishes</td>
<td>84</td>
<td>88%</td>
</tr>
<tr>
<td>11.</td>
<td>Kitchen utensils and tools not in use</td>
<td>77</td>
<td>88%</td>
</tr>
<tr>
<td>12.</td>
<td>Fireplace wood</td>
<td>54</td>
<td>71%</td>
</tr>
<tr>
<td>13.</td>
<td>Garden furniture</td>
<td>49</td>
<td>71%</td>
</tr>
<tr>
<td>14.</td>
<td>Garden tools</td>
<td>77</td>
<td>90%</td>
</tr>
</tbody>
</table>

Items 1, 2, 3, 4, 5, 7, 10, 11, and 14 pertaining to storage space show approximately a 90 per cent provision for storing household cleaning appliances, linen and bedding, bathroom towels, medicines, laundry appliances, extra dishes, kitchen utensils, tools, and
garden tools.

There seemed to be about a 25 per cent shortage in storage space for items 5, 6, 8, 9, 12, and 13, covering card tables and game boards, soiled linen, seasonal clothing, books and magazines, fireplace wood, and garden tools.

Materials

Constructional materials and equipment of various kinds and qualities in the homes were also studied. Tables 7 and 8 are from the questionnaire data showing types of materials or equipment in the homes studied.

A series of question and response tabulations compose Table 7, which follows.

Table 7

A Comparison of Some Materials in the Home

Instructions for filling out the questionnaire.

For the items in the home check (H)
Check the items of which you are not sure (NS)
For the items you would have, check (WH)
For some items you have check Yes
For some items you do not have check No
<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>Response</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Has the kitchen, bathroom, and service room been finished with dull enamel, gloss enamel, or varnish?</td>
<td>dull enamel</td>
<td>36</td>
<td>39%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>gloss enamel</td>
<td>54</td>
<td>59%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>varnish</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>2.</td>
<td>Has the quality of the interior paint been satisfactory?</td>
<td>Yes</td>
<td>86</td>
<td>89%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>11</td>
<td>11%</td>
</tr>
<tr>
<td>3.</td>
<td>Have the oak floors been satisfactorily finished?</td>
<td>Yes</td>
<td>89</td>
<td>91%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>9</td>
<td>9%</td>
</tr>
<tr>
<td>4.</td>
<td>Has the quality of the outside paint been satisfactory?</td>
<td>Yes</td>
<td>63</td>
<td>69%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>31</td>
<td>31%</td>
</tr>
<tr>
<td>5.</td>
<td>Has all exposed plumbing in the house nickel-chromium finish?</td>
<td>Yes</td>
<td>90</td>
<td>94%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(WH)</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(NS)</td>
<td>4</td>
<td>4%</td>
</tr>
<tr>
<td>6.</td>
<td>The capacity of the automatic hot water heater is as follows:</td>
<td>20 gal.</td>
<td>67</td>
<td>69%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>30 gal.</td>
<td>27</td>
<td>28%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Larger</td>
<td>3</td>
<td>3%</td>
</tr>
<tr>
<td>7.</td>
<td>Have you hose connections on all four sides of the house and one in the rear of the lot?</td>
<td>(H)</td>
<td>37</td>
<td>40%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(WH)</td>
<td>56</td>
<td>60%</td>
</tr>
<tr>
<td>8.</td>
<td>Have you the best grade of shingles on your roof?</td>
<td>(H)</td>
<td>71</td>
<td>78%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(WH)</td>
<td>6</td>
<td>7%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(NS)</td>
<td>14</td>
<td>15%</td>
</tr>
<tr>
<td>9.</td>
<td>Have you a copper flue connecting the furnace and hot water heater to the main chimney?</td>
<td>(H)</td>
<td>40</td>
<td>44%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(WH)</td>
<td>17</td>
<td>21%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(NS)</td>
<td>25</td>
<td>34%</td>
</tr>
</tbody>
</table>
Satisfactory materials in the homes are shown in Table 7, items, 2, 3, and 5. Better than a 90 per cent average of good quality interior paint had been used; the oak floors were finished satisfactorily; and the plumbing had a nickel-chromium finish where necessary.

Unsatisfactory conditions are shown in items 1, 4, 6, 7, and 9. Less gloss enamel should have been used; the quality of outside paint should have been of better grade; the hot water heater should have been of greater capacity in 70 per cent of the homes; in 60 per cent of the homes extra hose connections should have been installed; and a copper flue connecting the furnace and hot water heater to the main chimney should have been furnished in more than 44 per cent of the homes.

Table 8, which follows, contains names of additional materials used in construction of the homes studied. Although a place was left in the questionnaire for indicating inferior materials, no record was provided in the Table, as the data indicated only a two or three per cent reply, and for many items there was no check.
**Table 8**

A Comparison of Materials Used in House Construction

Key for checking Table 8.

Check the items the home has (H)
Check the items you would have should you ever build (WH)

<table>
<thead>
<tr>
<th>No.</th>
<th>Feature</th>
<th>Have</th>
<th>Would Have</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>1.</td>
<td>Interior tile</td>
<td>92</td>
<td>97%</td>
</tr>
<tr>
<td>2.</td>
<td>Insulation board</td>
<td>33</td>
<td>65%</td>
</tr>
<tr>
<td>3.</td>
<td>Wood lath</td>
<td>68</td>
<td>97%</td>
</tr>
<tr>
<td>4.</td>
<td>Rock lath</td>
<td>9</td>
<td>50%</td>
</tr>
<tr>
<td>5.</td>
<td>Wall board</td>
<td>10</td>
<td>59%</td>
</tr>
<tr>
<td>6.</td>
<td>Window glass</td>
<td>66</td>
<td>96%</td>
</tr>
<tr>
<td>7.</td>
<td>Door mirror</td>
<td>19</td>
<td>32%</td>
</tr>
<tr>
<td>8.</td>
<td>Hardware</td>
<td>92</td>
<td>98%</td>
</tr>
<tr>
<td>9.</td>
<td>Door bell</td>
<td>54</td>
<td>98%</td>
</tr>
<tr>
<td>10.</td>
<td>Door chimes</td>
<td>52</td>
<td>75%</td>
</tr>
<tr>
<td>11.</td>
<td>Steel window frames</td>
<td>18</td>
<td>40%</td>
</tr>
<tr>
<td>12.</td>
<td>Double hung windows</td>
<td>61</td>
<td>90%</td>
</tr>
<tr>
<td>13.</td>
<td>Casement windows</td>
<td>53</td>
<td>91%</td>
</tr>
<tr>
<td>14.</td>
<td>Doors</td>
<td>90</td>
<td>100%</td>
</tr>
<tr>
<td>15.</td>
<td>Finish lumber</td>
<td>86</td>
<td>100%</td>
</tr>
<tr>
<td>16.</td>
<td>Window shades</td>
<td>81</td>
<td>100%</td>
</tr>
<tr>
<td>17.</td>
<td>Venetian shades</td>
<td>63</td>
<td>85%</td>
</tr>
<tr>
<td>18.</td>
<td>Linoleum</td>
<td>99</td>
<td>100%</td>
</tr>
<tr>
<td>19.</td>
<td>Oak floors</td>
<td>96</td>
<td>100%</td>
</tr>
<tr>
<td>20.</td>
<td>Pine floors</td>
<td>30</td>
<td>94%</td>
</tr>
<tr>
<td>21.</td>
<td>Plaster</td>
<td>90</td>
<td>100%</td>
</tr>
<tr>
<td>22.</td>
<td>Built-in cabinets</td>
<td>97</td>
<td>99%</td>
</tr>
<tr>
<td>23.</td>
<td>Electric fixtures</td>
<td>97</td>
<td>99%</td>
</tr>
<tr>
<td>24.</td>
<td>Electric switches</td>
<td>97</td>
<td>99%</td>
</tr>
<tr>
<td>25.</td>
<td>Plumbing fixtures</td>
<td>97</td>
<td>100%</td>
</tr>
<tr>
<td>26.</td>
<td>Ant proof cooler</td>
<td>38</td>
<td>57%</td>
</tr>
<tr>
<td>27.</td>
<td>Roof tile</td>
<td>15</td>
<td>71%</td>
</tr>
<tr>
<td>28.</td>
<td>Stucco cement</td>
<td>66</td>
<td>100%</td>
</tr>
<tr>
<td>29.</td>
<td>Driveway materials</td>
<td>69</td>
<td>88%</td>
</tr>
<tr>
<td>30.</td>
<td>Cement walks</td>
<td>70</td>
<td>93%</td>
</tr>
<tr>
<td>31.</td>
<td>Louvers for attic vent-</td>
<td>83</td>
<td>95%</td>
</tr>
<tr>
<td></td>
<td>lation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>32.</td>
<td>Milk receiver</td>
<td>31</td>
<td>57%</td>
</tr>
</tbody>
</table>
Table 8 continued

<table>
<thead>
<tr>
<th>No.</th>
<th>Feature</th>
<th>Have f</th>
<th>%</th>
<th>Would Have f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>33</td>
<td>Lawn sprinkler system</td>
<td>30</td>
<td>43%</td>
<td>40</td>
<td>57%</td>
</tr>
<tr>
<td>34</td>
<td>Wooden fence</td>
<td>58</td>
<td>79%</td>
<td>15</td>
<td>21%</td>
</tr>
<tr>
<td>35</td>
<td>Brick wall</td>
<td>57</td>
<td>73%</td>
<td>19</td>
<td>27%</td>
</tr>
</tbody>
</table>

The following list of items taken from the data in Table 8 was satisfactory in 97 per cent or more of the homes.

Item

1. Interior tile
2. Wood lath
3. Hardware
4. Doors
5. Finish lumber
6. Window shades
7. Linoleum
8. Oak floors
9. Plaster
10. Built-in cabinets
11. Electric fixtures
12. Electric switches
13. Stucco cement
14. Louvers for attic ventilation

Shortages in the homes indicated by 43 per cent of the home owners were ant-proof coolers and milk receivers; nearly 60 per cent would prefer steel window frames and lawn sprinkler systems; and about 70 per cent expressed a desire for one door mirror.

Table 9 shows the home owners' opinions as to the quality of construction in their homes.
Construction

The following Table lists the data regarding selected construction items in the home.

Table 9

A Comparison of Construction Items in the Home

<table>
<thead>
<tr>
<th>No.</th>
<th>Feature</th>
<th>Expression</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>May the lights in rooms that have more than one door be controlled with more than one switch?</td>
<td>Yes (WH)</td>
<td>46</td>
<td>50%</td>
</tr>
<tr>
<td>2.</td>
<td>May the lights nearest the door or entrance to the living room be turned on by a tumbler switch?</td>
<td>Yes (WH)</td>
<td>76</td>
<td>84%</td>
</tr>
<tr>
<td>3.</td>
<td>The closets and storage rooms are fitted with which of the following?</td>
<td>No lights Pull chain Wall switch</td>
<td>33</td>
<td>33%</td>
</tr>
<tr>
<td>4.</td>
<td>Have any weather proof convenience outlets been placed for out-of-door use?</td>
<td>Have (WH)</td>
<td>33</td>
<td>42%</td>
</tr>
<tr>
<td>5.</td>
<td>Have sufficient double convenience outlets been placed near corners and under windows for use without moving furniture?</td>
<td>Have (WH)</td>
<td>78</td>
<td>81%</td>
</tr>
<tr>
<td>6.</td>
<td>Have the breaker switches or fuse boxes been placed within the house?</td>
<td>Have (WH)</td>
<td>31</td>
<td>41%</td>
</tr>
<tr>
<td>7.</td>
<td>Have the door locks and other hardware been satisfactory?</td>
<td>Have (WH)</td>
<td>78</td>
<td>80%</td>
</tr>
<tr>
<td>8.</td>
<td>Have you ceiling insulation installed below the attic or between the ceiling joists?</td>
<td>Have (WH) (NS)</td>
<td>22</td>
<td>27%</td>
</tr>
</tbody>
</table>
Table 9 continued

<table>
<thead>
<tr>
<th>No.</th>
<th>Feature</th>
<th>Expression</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.</td>
<td>Has the plumbing required excessive services, and would you desire some permanent changes?</td>
<td>Yes</td>
<td>16</td>
<td>17%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>78</td>
<td>83%</td>
</tr>
<tr>
<td>10.</td>
<td>Do wet places show in the plaster during hard rain storms?</td>
<td>Yes</td>
<td>26</td>
<td>28%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>68</td>
<td>72%</td>
</tr>
<tr>
<td>11.</td>
<td>Have excessive plaster cracks shown in the home?</td>
<td>Yes</td>
<td>38</td>
<td>41%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>55</td>
<td>59%</td>
</tr>
<tr>
<td>12.</td>
<td>Have excessive cracks shown between the fireplace and the outer walls of the house?</td>
<td>Yes</td>
<td>12</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>81</td>
<td>87%</td>
</tr>
<tr>
<td>13.</td>
<td>Have excessive cracks shown in the cement work?</td>
<td>Yes</td>
<td>17</td>
<td>19%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>74</td>
<td>81%</td>
</tr>
<tr>
<td>14.</td>
<td>If you have cement service walks check the width</td>
<td>2 feet</td>
<td>17</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 feet</td>
<td>49</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>None</td>
<td>17</td>
<td>20%</td>
</tr>
<tr>
<td>15.</td>
<td>Has the home been constructed termite proof?</td>
<td>Yes</td>
<td>72</td>
<td>77%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(WH)</td>
<td>21</td>
<td>23%</td>
</tr>
<tr>
<td>16.</td>
<td>Have gutters and downspouts been placed on the entire house and garage?</td>
<td>Yes</td>
<td>62</td>
<td>65%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(WH)</td>
<td>34</td>
<td>35%</td>
</tr>
<tr>
<td>17.</td>
<td>If there is a cesspool or septic tank, has it been placed in the front of the lot?</td>
<td>Yes</td>
<td>20</td>
<td>67%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(WH)</td>
<td>10</td>
<td>33%</td>
</tr>
</tbody>
</table>

Table 9 shows that items which are judged satisfactory according to authorities are tabulated with a range from 27 per cent to 87 per cent with a mean of
67 per cent. Those judged unsatisfactory range from 13 per cent to 73 per cent, with a mean of 33 per cent.

Items 1, 3, 6, 8, 10, 14 and 16 show: that 50 per cent of the homes would have 3-way switches; that about one-third would have closet lights; that 59 per cent would have fuse boxes or breaker switches within the house; and that 32 per cent would have ceiling insulation. About 28 per cent complained of wet plaster during hard rain storms; 41 per cent claim excessive plaster cracks; 20 per cent have no cement service walks, with another 20 per cent having walks only two feet wide; and 35 per cent of the homes lack gutters and down-spouts on the entire house and garage.

**Neighborhood**

Tables 10 and 11 show data from the questionnaire to home owners regarding their experience concerning essentials pertaining to the neighborhood in which they live.
<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>Expression</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Was a qualified real estate dealer who was thoroughly familiar with the various sections of the community consulted before the home was decided upon?</td>
<td>Yes</td>
<td>46</td>
<td>47%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>52</td>
<td>53%</td>
</tr>
<tr>
<td>2</td>
<td>Are some houses in the community not in keeping with others in age, style, and price?</td>
<td>Yes</td>
<td>20</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>74</td>
<td>74%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(NS)</td>
<td>6</td>
<td>6%</td>
</tr>
<tr>
<td>3</td>
<td>Are there any two-family dwellings in the same block?</td>
<td>Yes</td>
<td>10</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>85</td>
<td>86%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(NS)</td>
<td>4</td>
<td>4%</td>
</tr>
<tr>
<td>4</td>
<td>Does the lot have any natural hazards, such as the danger of poor drainage, floods, or made land?</td>
<td>Yes</td>
<td>4</td>
<td>4%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>91</td>
<td>91%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(NS)</td>
<td>5</td>
<td>5%</td>
</tr>
<tr>
<td>5</td>
<td>Have any lots been re-subdivided in the neighborhood?</td>
<td>Yes</td>
<td>11</td>
<td>11%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>74</td>
<td>76%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(NS)</td>
<td>12</td>
<td>13%</td>
</tr>
<tr>
<td>6</td>
<td>Does the lot in size, shape, and present treatment assure privacy?</td>
<td>Yes</td>
<td>81</td>
<td>83%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>15</td>
<td>15%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(NS)</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>7</td>
<td>Must school children cross dangerous streets on the way to and from school?</td>
<td>Yes</td>
<td>49</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>44</td>
<td>45%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(NS)</td>
<td>5</td>
<td>5%</td>
</tr>
<tr>
<td>8</td>
<td>Have uniform plantings of hardy native trees been planted in the tree strip of the community?</td>
<td>Yes</td>
<td>33</td>
<td>36%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>57</td>
<td>61%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(NS)</td>
<td>3</td>
<td>3%</td>
</tr>
<tr>
<td>9</td>
<td>Have other varieties been substituted in some places for the original plantings?</td>
<td>Yes</td>
<td>26</td>
<td>33%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>42</td>
<td>54%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(NS)</td>
<td>10</td>
<td>13%</td>
</tr>
</tbody>
</table>
Table 10, items 3, 4, and 6, show: that over 80 per cent of the home owners live in blocks where there are no two-family dwellings; that 91 per cent of the homes are free from natural hazards; and that 81 per cent of the lots provide privacy.

Items 1, 2, 5, 7, 8, and 9 reveal certain disadvantages. Over 50 per cent of the home owners failed to consult a qualified real estate dealer before purchasing a home; 20 per cent found that some houses in the community are not in keeping with others; 11 per cent state that some lots have been re-subdivided, with an additional 13 per cent not investigating; and 50 per cent found dangerous street crossing between home and school. Sixty one per cent say no uniform plantings of hardy native trees have been placed in the tree strip, and 33 per cent of the home owners proclaim a substitution of original plantings for other varieties has been made.
Table 11
A Comparison of Some Additional Items about the Neighborhood

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>Have</th>
<th>Would Have</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>1.</td>
<td>Good building restrictions</td>
<td>82</td>
<td>89%</td>
</tr>
<tr>
<td>2.</td>
<td>Marketing centers</td>
<td>82</td>
<td>89%</td>
</tr>
<tr>
<td>3.</td>
<td>Religious institutions</td>
<td>65</td>
<td>73%</td>
</tr>
<tr>
<td>4.</td>
<td>Schools</td>
<td>92</td>
<td>99%</td>
</tr>
<tr>
<td>5.</td>
<td>Fully paved streets</td>
<td>81</td>
<td>90%</td>
</tr>
<tr>
<td>6.</td>
<td>Friends with whom children might play</td>
<td>77</td>
<td>93%</td>
</tr>
<tr>
<td>7.</td>
<td>Sufficient street lights</td>
<td>62</td>
<td>67%</td>
</tr>
<tr>
<td>8.</td>
<td>Convenient transportation</td>
<td>80</td>
<td>89%</td>
</tr>
<tr>
<td>9.</td>
<td>Recreations you are interested in</td>
<td>43</td>
<td>62%</td>
</tr>
<tr>
<td>10.</td>
<td>City parks and playgrounds</td>
<td>31</td>
<td>44%</td>
</tr>
<tr>
<td>11.</td>
<td>Swimming pools</td>
<td>19</td>
<td>30%</td>
</tr>
<tr>
<td>12.</td>
<td>City police protection</td>
<td>66</td>
<td>87%</td>
</tr>
<tr>
<td>13.</td>
<td>City fire protection</td>
<td>80</td>
<td>88%</td>
</tr>
<tr>
<td>14.</td>
<td>City mail service</td>
<td>99</td>
<td>98%</td>
</tr>
<tr>
<td>15.</td>
<td>City sewage</td>
<td>75</td>
<td>82%</td>
</tr>
<tr>
<td>16.</td>
<td>City water</td>
<td>91</td>
<td>98%</td>
</tr>
<tr>
<td>17.</td>
<td>Telephone service</td>
<td>93</td>
<td>98%</td>
</tr>
<tr>
<td>18.</td>
<td>Gas and electric service</td>
<td>97</td>
<td>98%</td>
</tr>
</tbody>
</table>

Table 11 shows that 85 per cent of the home owners have the following conveniences.

Item

1. Adequate building restrictions
2. Marketing centers
3. Schools
4. Fully paved streets
5. Friends with whom children might play
Items 7, 9, 10, and 11 indicate that: 33 per cent of the home owners desired street lights; 38 per cent desired recreational facilities matching their interest; 56 per cent would like more parks and playgrounds; and 70 per cent desire more convenient swimming pools.

**Land Usage**

The term land usage embraces such items as the lot plan, the landscaping, and the general usability of the site upon which the home is located.

Table 12 lists the data from home owners showing their knowledge of some phases of developing the lot.
Table 12
A Comparison of Some Items Concerning Land Usage

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>Expression</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Has the garage been built on the rear of the lot with a long driveway built along one side of the house?</td>
<td>Yes</td>
<td>83</td>
<td>84%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>16</td>
<td>16%</td>
</tr>
<tr>
<td>2.</td>
<td>Has the garage been attached to the house with a direct access to the street from the front?</td>
<td>Yes</td>
<td>8</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>76</td>
<td>90%</td>
</tr>
<tr>
<td>3.</td>
<td>Is there a play space at the rear of the lot that may easily be seen from some vantage place within the house?</td>
<td>Yes</td>
<td>85</td>
<td>90%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>9</td>
<td>10%</td>
</tr>
<tr>
<td>4.</td>
<td>Is the garden area directly connected with the service portion of the house?</td>
<td>Yes</td>
<td>63</td>
<td>70%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>27</td>
<td>30%</td>
</tr>
<tr>
<td>5.</td>
<td>Are the kitchen and service rooms of the house at the front of the lot?</td>
<td>Yes</td>
<td>16</td>
<td>17%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>80</td>
<td>83%</td>
</tr>
<tr>
<td>6.</td>
<td>Have low growing shrubs been planted under the windows?</td>
<td>Yes</td>
<td>85</td>
<td>88%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>12</td>
<td>12%</td>
</tr>
<tr>
<td>7.</td>
<td>Have slow growing compact shrubs been planted around the house?</td>
<td>Yes</td>
<td>77</td>
<td>82%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>17</td>
<td>18%</td>
</tr>
<tr>
<td>8.</td>
<td>Have shade trees been so placed as to provide shade from the hot afternoon sun and to frame the house?</td>
<td>Yes</td>
<td>46</td>
<td>47%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>49</td>
<td>53%</td>
</tr>
<tr>
<td>9.</td>
<td>Have the plantings been planned as part of the architectural design even if part of it must be added from time to time?</td>
<td>Yes</td>
<td>52</td>
<td>56%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>40</td>
<td>44%</td>
</tr>
</tbody>
</table>
Indications from items 3 and 6 in Table 12 show that over 85 per cent of the homes have a play space for children, and shrubs have been planted under the windows satisfactory to their owners.

Items 1, 8, and 9 pertaining to conditions unsatisfactory to the owners show; that over 80 per cent of the garages have been built on the rear of the lots; that some 70 per cent have the garden areas directly connected with the service portion of the houses; that 53 per cent have not provided shade trees; and that 44 per cent of the home owners are not developing the lot according to a permanent plan.

**Periodicals**

The data in Table 13 indicate the periodicals concerning the home preferred by the home owners surveyed.
### Table 13

A Comparison of Periodicals Used by Home Owners

<table>
<thead>
<tr>
<th>No.</th>
<th>Feature</th>
<th>Expression</th>
<th>F</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>American Home</td>
<td>Subscribed</td>
<td>16</td>
<td>26%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Purchased</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Better Homes and Gardens</td>
<td>Subscribed</td>
<td>31</td>
<td>54%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Purchased</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Good Housekeeping</td>
<td>Subscribed</td>
<td>25</td>
<td>47%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Purchased</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>House Beautiful</td>
<td>Subscribed</td>
<td>7</td>
<td>16%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Purchased</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>House and Garden</td>
<td>Subscribed</td>
<td>5</td>
<td>21%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Purchased</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Sunset</td>
<td>Subscribed</td>
<td>42</td>
<td>53%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Purchased</td>
<td>11</td>
<td></td>
</tr>
</tbody>
</table>

Base: 100 home owners

Approximately one-half the home owners received the Better Homes and Gardens, Sunset, and Good Housekeeping magazines.

The American Home and House and Garden were next in popularity.
C. **Examples of Trends in and near San Jose, California**

After examination of the data obtained from the 100 home owners near and in San Jose, California, it was believed pictures could show, better than any other aid, home planning as related to the community.
The new trend of housing illustrated here shows the double garage located in the front of the lot. The plans for this modern home were taken from *Life*.

Another modern home shows the double garage at the front of the lot with a short driveway approach from the street, and the home centered on the lot.
A picture of the rear of the house above showing covered rear entrances and the outdoor living room adjacent to the garden.

This picture, another view of the garden shown above, shows an outdoor barbecue and craft shop replacing the traditional garage at the rear of the lot.
In these new modern homes, in an especially low-priced housing district, the sidewalk is adjacent to the curb, with no provision for a tree strip. Therefore, trees should be planted four feet within the property line and spaced forty feet apart.

The rear view of these homes shows the garages constructed in the traditional manner, with a long driveway along one side of the house.
This is an F.H.A. insured house showing good construction including diagonal sheathing, mill-made window casings, terra cotta chimney lining, reinforced fireplace, and the foundation constructed well above the finish grade level.

An older home of the traditional style shows the long cement driveway along one side of the house, with the double garage in the rear of the lot, good louvers for attic ventilation, and comparatively good landscaping. Notice the small louvers on the home to the right in the picture.
This picture shows the rear of the home shown above. The owners lack a covered rear entrance. Uniform plantings of trees in the tree strip may be seen in the background.

Another view of the rear of the lot shows the double garage in the garden area, adjacent to the service portion of the house. A play area for children is provided for on the lawn and at the rear of the lot.
"The well to do usually get more of the things they desire in the way of housing."
Good landscaping is here shown, with low-growing compact shrubs under the windows and taller ones of similar type near the corners of the house.

Fast-growing shrubs soon obscure the light unless controlled by constant pruning.
A new modern home depicting a wide gravely driveway along one side of the house. The owner contemplates narrowing the driveway and providing shrubs on the driveway side.

Some operative builders make a practice of placing "gallon stock" nursery plantings in front of the house.
This new modern home shows landscaping, preferable to that above, by an operative builder. The effect of uniform plantings of shade trees in the tree strip is pictured here.

This uniform planting of shade trees has had proper care, as the trees are pruned for street clearance and view.
Another row of uniform plantings shows trees needing professional care.

This picture is in sequence with the one above, showing how the uniform plantings have been removed by one home owner while smaller ones of a different variety have been planted instead.
Property in the country does not usually have adequate fire protection.

Base fire insurance rates

Inside city limits—$3.50 per year per $1,000

District rates for "on hydrant" but out of the city—$3.75 per year per $1,000

District rates for "off hydrant" and out of the city—$3.85 per year per $1,000

Unprotected areas—$5.00 per year per $1,000

This picture shows homes not in keeping in age, style and price.
A portion of the San Jose Rose Gardens shows the advantages of neighborhood parks and playgrounds.

This pictures a private swimming pool and outdoor living room in San Jose, California. Many home owners expressed a desire for public pools in their neighborhoods.
D. Opinions of Contractors and Builders on Home Planning

A questionnaire to contractors was written and mailed to fifty local contractors and builders for the purpose of obtaining certain information on the new trend of housing, and discover if there was agreement between home owners and contractors on certain phases of home planning. The results are shown in Table 14, which follows.
Table 14

A Survey of the Opinion of Contractors on Phases of Home Planning

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>Responses</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>The new trend in housing is to place the garage and service portion of the home on the front of the lot with the living room adjacent to the garden in the rear.</td>
<td>Few</td>
<td>30</td>
<td>68%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Many</td>
<td>14</td>
<td>32%</td>
</tr>
<tr>
<td>2.</td>
<td>(A lesser amount of) (The same amount of) (More) money must be spent when building the home with the detached garage at the rear of the lot and the service rooms adjacent to the garden?</td>
<td>Lesser</td>
<td>10</td>
<td>24%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Same</td>
<td>20</td>
<td>48%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>More</td>
<td>12</td>
<td>28%</td>
</tr>
<tr>
<td>3.</td>
<td>(A little) or (A great deal of) competition is a factor in not allowing sufficient time for the builder in assisting the consumer in home planning?</td>
<td>Little</td>
<td>18</td>
<td>43%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A great</td>
<td>24</td>
<td>57%</td>
</tr>
<tr>
<td>4.</td>
<td>(No better) (Somewhat better) (Greatly improved) plans and specifications would be produced by the builder if assurance was given of obtaining either adequate compensation for the services or the final contract?</td>
<td>No better</td>
<td>2</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Somewhat</td>
<td>8</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Greatly</td>
<td>16</td>
<td>75%</td>
</tr>
</tbody>
</table>
Table 14 continued

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>Responses</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.</td>
<td>(A few of the) or (Many) consumers plan with you 30, 60, or 90 days before the contract is let?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. A few of the consumers planned 90 days</td>
<td>8</td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Many of the consumers planned 30 to 60 days</td>
<td>48</td>
<td>85%</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>(Little) (A great deal of) time is available for helping the consumer with whom you are not sure of a final contract?</td>
<td>Little</td>
<td>32</td>
<td>84%</td>
</tr>
<tr>
<td></td>
<td>A great deal of</td>
<td>6</td>
<td>16%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>Response</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.</td>
<td>(A few of the) or (Many) consumers know that a good small house is better than a larger one less expensively built?</td>
<td>Few</td>
<td>36</td>
<td>95%</td>
</tr>
<tr>
<td></td>
<td>(Many) consumers</td>
<td>Many</td>
<td>2</td>
<td>5%</td>
</tr>
<tr>
<td>8.</td>
<td>(A few of the) or (Many) consumers have difficulties with home financing?</td>
<td>Few</td>
<td>6</td>
<td>16%</td>
</tr>
<tr>
<td></td>
<td>(Many) consumers</td>
<td>Many</td>
<td>32</td>
<td>84%</td>
</tr>
<tr>
<td>9.</td>
<td>(A few of the) or (Many) consumers give the final contract to the contractor who helped them plan the home?</td>
<td>Few</td>
<td>8</td>
<td>21%</td>
</tr>
<tr>
<td></td>
<td>(Many) consumers</td>
<td>Many</td>
<td>30</td>
<td>79%</td>
</tr>
<tr>
<td>10.</td>
<td>(A few of the) or (Many) consumers can read blue prints?</td>
<td>Few</td>
<td>34</td>
<td>89%</td>
</tr>
<tr>
<td></td>
<td>(Many) consumers</td>
<td>Many</td>
<td>4</td>
<td>11%</td>
</tr>
<tr>
<td>11.</td>
<td>(A few of the) or (Many) consumers can read and understand specifications?</td>
<td>Few</td>
<td>32</td>
<td>89%</td>
</tr>
<tr>
<td></td>
<td>(Many) consumers</td>
<td>Many</td>
<td>6</td>
<td>11%</td>
</tr>
<tr>
<td>No.</td>
<td>Question</td>
<td>Response</td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>-----</td>
<td>---------------------------------------------------------------------------</td>
<td>----------</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>12.</td>
<td>(A few of the) or (Many) consumers plan their home for future use?</td>
<td>Few</td>
<td>32</td>
<td>84%</td>
</tr>
<tr>
<td>13.</td>
<td>(A few of the) or (Many) consumers know of the new materials available for house construction?</td>
<td>Few</td>
<td>46</td>
<td>95%</td>
</tr>
<tr>
<td>14.</td>
<td>(A few of the) or (Many) consumers know good construction?</td>
<td>Few</td>
<td>36</td>
<td>95%</td>
</tr>
<tr>
<td>15.</td>
<td>(Little) or (A great deal) is known about building restrictions by the consumer?</td>
<td>Little</td>
<td>40</td>
<td>100%</td>
</tr>
<tr>
<td>16.</td>
<td>(A few of the) or (Many) consumers purchase a site for good land usage?</td>
<td>Few</td>
<td>34</td>
<td>90%</td>
</tr>
</tbody>
</table>

50 questionnaires sent, 23 or 46 per cent returned.
A summary of Table 14 showing the responses of fifty contractors on questions concerning vital problems of home planning are briefly interpreted as follows:

More than two-thirds (68 per cent) of the contractors responding believed that only a few consumers are willing to accept the trend of placing the garage and service portions of the home on the front of the lot, with the living room adjacent to the garden in the rear.

About half (48 per cent) of them believed that a home with the above arrangement costs the same as the conventional arrangement with the garage unattached to the home; one-fourth estimated that the arrangement would cost less, and the remaining one-fourth, more.

Three-fourths of the contractors believed that they could produce better plans and specifications if assurance were given for adequate compensation.

Eighty-five per cent of the contractors reported that a 30 to 60 day planning period with the consumer was customary before the contract was awarded, while 15 per cent reported a 90 day period.

Ninety-five per cent expressed the opinion that only a few consumers know that a good small home
is better than a larger one less expensively built.

Nearly seven-eighths (84 per cent) said that many consumers had difficulty with home financing. Seventy nine per cent received the contracts from the home owners whom they had helped make the plans.

Nearly nine-tenths (89 per cent) of the contractors indicated consumers could not read blue prints and specifications.

Nearly seven-eighths (84 per cent) of the contractors believe that only a few laymen plan homes for future use.

Ninety five per cent of the contractors estimate that home planners know little of the new materials available for house construction or that they have knowledge of good building construction.

Contractors are unanimous in the belief that the layman knows little about building restrictions and nine-tenths of the contractors believe that few home owners purchase a site for good land usage.

The contractors were also asked to comment on other phases of consumer planning, and a brief resume of these opinions follows.

It is the belief of some contractors that no matter how long they planned with a few prospective
home owners the results would be no better, because these home owners have such unreasonable ideas of housing. Consumers are also inclined to purchase a very inexpensive lot upon which they desire an expensive house.

According to builders, consumers do not realize that good construction is best and that the consumer must pay for everything that goes into the home. Contractors recommend that home planners should select only two or three reliable builders and not obtain too many bids on the specifications.

The contractor's greatest problem is presented after the prospective home owner decides upon the floor plan. Consumers visiting advertisement and display homes obtain many ideas of useful things which they wish to incorporate in the new home. Contractors claim that it is difficult to provide these conveniences, especially in low priced homes, and meet the financial limitations of the consumer.

E. Tax Insurance and Utility Rates

An investigation into tax, insurance, and utility rates for home owners in San Jose and vicinity was made, because of the value of such information to prospective home owners.
Investigation of tax rates in San Jose and vicinity show rates are applied according to past obligations. A compilation of these rates taken from Santa Clara County Tax Rates and Information for fiscal year 1939-1940 shows:

Table 15

<table>
<thead>
<tr>
<th>Tax District or City</th>
<th>Code</th>
<th>County Rate</th>
<th>Special District Rate</th>
<th>School District Rate</th>
<th>Total Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Jose, Orig. City</td>
<td>8-1-1</td>
<td>1.5239 city</td>
<td>1.450</td>
<td>1.489</td>
<td>4.46689</td>
</tr>
<tr>
<td>San Jose, East, Annex 1</td>
<td>8-2-1</td>
<td>1.5239 city</td>
<td>1.450</td>
<td>1.467</td>
<td>4.4409</td>
</tr>
<tr>
<td>San Jose, West, Annex 2</td>
<td>8-3-1</td>
<td>1.5239 city</td>
<td>1.440</td>
<td>1.467</td>
<td>4.4309</td>
</tr>
<tr>
<td>San Jose, North, Annex 3</td>
<td>8-4-1</td>
<td>1.5239 city</td>
<td>1.399</td>
<td>1.467</td>
<td>4.3899</td>
</tr>
<tr>
<td>San Jose, Palm Haven, Annex 4</td>
<td>8-5-1</td>
<td>1.5239 city</td>
<td>1.399</td>
<td>1.366</td>
<td>4.2889</td>
</tr>
<tr>
<td>San Jose, Burbank college park, Sunol, Annex 5</td>
<td>8-6-1</td>
<td>1.5239 city</td>
<td>1.323</td>
<td>1.263</td>
<td>4.1099</td>
</tr>
<tr>
<td>San Jose, Hester, Annex 7</td>
<td>8-8-1</td>
<td>1.5239 city</td>
<td>1.323</td>
<td>1.310</td>
<td>4.1569</td>
</tr>
<tr>
<td>San Jose, Will. Glen, Annex 9</td>
<td>8-10-1</td>
<td>1.5239 city</td>
<td>1.323</td>
<td>1.369</td>
<td>4.2159</td>
</tr>
<tr>
<td>San Jose, Cot. Grove, Annex 10</td>
<td>8-11-1</td>
<td>1.5239 city</td>
<td>1.289</td>
<td>1.489</td>
<td>4.3019</td>
</tr>
<tr>
<td>San Jose, Will. Glen, Annex 11</td>
<td>8-12-1</td>
<td>1.5239 city</td>
<td>1.240</td>
<td>1.248</td>
<td>4.0119</td>
</tr>
<tr>
<td>Burbank 4</td>
<td>58-0-1</td>
<td>1.5539 fire</td>
<td>.075</td>
<td>2.986</td>
<td>4.6149</td>
</tr>
</tbody>
</table>

* Burbank, adjacent to, but not a part of San Jose.
The city of San Jose, according to Table 15, has ten district tax rates. The highest rate for 1939-1940 was $4.4629 per $100 assessed valuation, the lowest, $4.0119, with a mean of $4.2954.

Burbank, a suburb, having a population of several thousand people, had a tax rate of $4.6149 per $100 assessed valuation, the highest in the metropolitan area.

The board rates for fire insurance in San Jose and vicinity are as follows:
Table 16

A Compilation of Fire Insurance Rates
for San Jose and Vicinity

<table>
<thead>
<tr>
<th>City of San Jose - Base Rates</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>On Hydrant</td>
<td>$.35 per $100 per year</td>
</tr>
<tr>
<td>Off Hydrant</td>
<td>$.40 per $100 per year</td>
</tr>
<tr>
<td>On Hydrant</td>
<td>$3.50 per $1,000 per year</td>
</tr>
<tr>
<td>Off Hydrant</td>
<td>$4.00 per $1,000 per year</td>
</tr>
</tbody>
</table>

Rates for Santa Clara Valley fire district #1, including Burbank, Sunol, Pinard's Island, and Cottage Grove fire district are:

<table>
<thead>
<tr>
<th>Base Rates -</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>On hydrant</td>
<td>$.375 per $100 per year</td>
</tr>
<tr>
<td>Off hydrant</td>
<td>$.475 per $100 per year</td>
</tr>
<tr>
<td>On hydrant</td>
<td>$3.75 per $1,000 per year</td>
</tr>
<tr>
<td>Off hydrant</td>
<td>$4.75 per $1,000 per year</td>
</tr>
</tbody>
</table>

Unprotected Areas:

<table>
<thead>
<tr>
<th>Base Rates</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$.50 per $100 per year</td>
</tr>
<tr>
<td></td>
<td>$5.00 per $1,000 per year</td>
</tr>
</tbody>
</table>

The rate per year is doubled for a three-year policy and trebled for a five-year policy.

A comparison of insurance rates may be found in the condensed rates for a three-year policy.

<table>
<thead>
<tr>
<th>Base Rates for a Three-Year Policy</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>City of San Jose On hydrant</td>
<td>$3.50</td>
</tr>
<tr>
<td>City of San Jose Off hydrant</td>
<td>$4.00</td>
</tr>
<tr>
<td>District #1, On hydrant</td>
<td>$3.75</td>
</tr>
<tr>
<td>District #1, Off hydrant</td>
<td>$4.75</td>
</tr>
<tr>
<td>Unprotected areas</td>
<td>$5.00</td>
</tr>
</tbody>
</table>

There is a saving of $1.50 per $1,000 for a three-year policy for homes in the city of San Jose, as compared
with homes in unprotected areas.

The natural gas rate for San Jose and contiguous suburbs of each and supplied from local distribution system in each community and intervening territory are:

**Table 17**

<table>
<thead>
<tr>
<th>A Compilation of Natural Gas and Electric Rates for San Jose and Vicinity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rate:</strong></td>
</tr>
<tr>
<td>First 200 cubic feet or less per meter per month -</td>
</tr>
<tr>
<td>Incorporated territory</td>
</tr>
<tr>
<td>Unincorporated territory</td>
</tr>
</tbody>
</table>

Home owners in San Jose save $ .20 a month on natural gas service charges.

Electric rates compiled from Schedules D-2, D-5, and D-6 show the following:

1. **Territory within the incorporated limits of San Jose**
   - **Rate:**
     - **Service Charge:**
       - Per meter per month: $ .50  
       - First 35 Kwh. per month: 3.3% per Kwh.  
       - Next 165 Kwh. per month: 2.2% per Kwh.

2. **Territory within the boundaries of unincorporated known as San Jose, Suburban:**
   - **Rate:**
     - **Service charge:** per meter per month: $ .60  
     - **Energy charge:** (to be added to service charge)
       - First 35 Kwh. per month: 4.1% per Kwh.  
       - Next 165 Kwh. per month: 2.7% per Kwh.  
       - All excess Kwh. per month: 1.2% per Kwh.
5. The entire territory served outside of the limits of incorporated cities and town to which Schedule D-5 is applicable.

Rate:

- Service charge: per meter per month $ .60
- Energy charge (to be added to service charge)
  - First 40 Kwh per month 5.0¢ per Kwh.
  - Next 160 Kwh per month 3.0¢ per Kwh.
  - All excess Kwh. per month 1.2¢ per Kwh.

Compiled from Schedule G-2 - General Service - Natural Gas

Home owners of San Jose save 10¢ per month service charge and have an advantage of lower rates, up to 165 Kwh., over those living in the country.

F. Opinions of City Officials and Utility Experts on Home Planning

Many homes in the city built ten or twelve years ago have inadequate outlets for present day electrical conveniences. The present Building Inspector's Bureau considered this one major problem. The Bureau also hoped that some educational program would assist home owners in understanding that the building and zoning laws are for their own benefit and protection.

Another personal interview with a city planning engineer about problems of the community resulted in the following written reply by a city engineer:
Mr. T. N. Daniels
Oregon State College
Corvallis, Oregon

Dear Sir:

San Jose has had a number of ordinances on Street Tree Planting, but their effect was purely advisory and educational in character. A definite and well conceived plan for uniform Street Tree Planting was never developed until recently. During the past several years the following steps have been accomplished:

1. A complete survey of all existing street trees was completed. This included the type and number of trees existing at the curb.

2. Conferences were held every week for several months with experts on horticulture, entomology, and with nurserymen and park men in order to establish a list of desirable trees which would suit the various conditions existing in San Jose.

3. An up-to-date ordinance was written, presented to the Planning Commission, the Parks Committee of the City Council, the Ordinance and Franchise Committee of the City Council and finally adopted by the City Council. This ordinance established better control of the trees on our streets than had formerly existed under previous ordinances.

4. A plan was developed after inspection in the field of every street and block in the City of San Jose, indicating the desirable tree which should be planted on each street in order to develop uniformity. This plan was presented to the City Planning Commission, and approved
by the Commission. During last Fall and the early part of this year a total of about 800 trees were planted on the streets of San Jose in conformity with this plan. This indicates a definite forward step.

I naturally realize that we can not keep pace with the wonderful progress in many cities of this State until Street Tree Planting becomes a civic function. In the meantime, as indicated above, more definite progress has been made during the last year or so than in our previous history.

I am

Very sincerely yours,

(Signed) Michael H. Antonacci

Michael H. Antonacci
City Planning Engineer

MHA:FS
As the result of a personal interview with an executive of the Pacific Gas and Electric Company, this letter was received from the manager of the division.
Mr. T. N. Daniels  
Oregon State College  
Corvallis, Oregon  

Dear Mr. Daniels:

I am very much interested in your thesis on Housing, and in the proposal that a course on the subject be included in our public school curricula.

In view of the fact that a great deal of our service is used in homes, we have been interested in this subject for a long time.

It is a sad fact - but true - that a great majority of the homes now being built are inadequately wired. There are too few convenience outlets and switches, and too little capacity in service wires and circuits to permit the home owner to realize the full benefit of electrical appliances which he will want to use in his home. The result is the failure on the part of the home owner and his family to utilize all the comforts and convenience which it is possible for them to have.

The addition of a ridiculously small increment of cost when the house is being built will eliminate this lack, and the necessity of a much more expensive job of re-wiring later on.

This condition is due to a lack of understanding on the part of the public of the importance of building these features into the home at the time the house is built. Speculative builders, naturally, are not inclined to spend any more money for equipment in the houses they sell than is demanded by the public. The result is, in a large majority of cases, that the new home owner wakes up realizing, shortly after he has moved into his new house, that it is obsolete from the very moment he moves in.
Mr. T. N. Daniels - 2

Your suggestion to perfect a course on the subject of housing in the schools is excellent. Courses of this kind which prepare young people for the practical aspects of life should certainly be included in our school curricula. We heartily endorse your project.

Very truly yours,

(Signed) John S. C. Ross

JOHN S. C. ROSS
DIVISION SALES MANAGER

JSCR: AFC
G. A Survey of the Opinions of Teachers of Mechanical and Architectural Drawing

A one-semester non-technical course of study in home planning, together with suggested methods of presentation, was sent to fifty California teachers of mechanical and architectural drawing to determine their opinions about the value of such a course. Twenty-four per cent of the teachers replied and returned an almost unanimous approval of such a course.

An excellent suggestion was made that the order of units be rearranged as shown below:

<table>
<thead>
<tr>
<th>Tentative Course of Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit One</td>
</tr>
<tr>
<td>Unit Two</td>
</tr>
<tr>
<td>Unit Three</td>
</tr>
<tr>
<td>Unit Four</td>
</tr>
<tr>
<td>Unit Five</td>
</tr>
<tr>
<td>Unit Six</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Proposed Rearrangement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit One</td>
</tr>
<tr>
<td>Unit Two</td>
</tr>
<tr>
<td>Unit Three</td>
</tr>
<tr>
<td>Unit Four</td>
</tr>
<tr>
<td>Unit Five</td>
</tr>
<tr>
<td>Unit Six</td>
</tr>
</tbody>
</table>
SUMMARY AND RECOMMENDATIONS
CHAPTER IV

SUMMARY AND RECOMMENDATIONS

The purpose of this study is to select valid instructional material for a course of study in home planning of special significance for consumers. It is based upon a survey of the problems of home owners and contractors in recently constructed homes in San Jose, California, and vicinity.

One of the first procedures was to devise a tentative course on home planning, designed for consumer education, which was submitted to school administrators for their opinion of its value and place in the curriculum. One hundred administrators, superintendents, principals and directors of adult education received the outline and a questionnaire concerning a point of application of the course in secondary education. The results were gratifying and offered encouragement for continuation of the problem.

The next procedure was to survey textbooks and literature on the teaching of architectural drawing. It was concluded that such information was insufficient to meet the needs for consumer education in San Jose, and vicinity. School texts seemed to require the knowledge of other mechanical drawing subjects as a
prerequisite. A great deal of good literature is available on home planning, most of it suited only to adults and of no great value to those without a technical background. Such paucity of appropriate literature and evident diversity of opinions on home planning created a desire to discover valid phases of home planning in the writer's own locality.

Questionnaires were distributed by personal interview to home owners who had recently bought or built a new home. The findings and summary reported in Chapter 3 of the thesis brought out a great deal of information seemingly valuable for the course. But further information seemed necessary, especially regarding the trends in housing. It was decided to obtain opinions of various local contractors on phases of home planning, and also to ascertain their views of the present consumer knowledge of such planning. The findings from these are also reported and evidenced further information especially in regard to trends.

To illustrate trends and other findings from the previous two questionnaires pictures were taken in San Jose and vicinity. The prints are included with the findings. These show present conditions, community needs, and other phases of consumer value in home planning.
Additional information, suggested by returns from the questionnaire to home owners, relative to utilities, insurance, and tax rates were obtained and reported as additional pertinent instructional material.

The results from returns of the combined investigations were then used to revise the original tentative course of study. Proposed methods of teaching were included with this and sent to teachers of mechanical and architectural drawing for the purpose of obtaining their opinions and suggestions on such a course. Almost unanimous approval of the course was expressed by teachers responding and many valuable suggestions were received.

If the results of this study are valid, the instructional material on home planning obtained through this investigation will be valuable for final construction of a complete course of study for an industrial arts course in the secondary schools of San Jose.

From the findings of the survey it is recommended:

1. That a functional course of study in home planning be given in the eleventh and twelfth grades, open to girls as well as boys.

2. That pertinent points uncovered be used in adult education courses.
3. That, even though made for the community of San Jose, there is a bulk of material in the study which is applicable to many other communities.

4. That, a study of the methods of teaching this material be made, with special emphasis on the construction and use of visual aids.
BIBLIOGRAPHY


12. Sunset. This is Sunset House. Land Publishing Company, San Francisco. Vol. 84 - No. 5


APPENDIX A

Letter and Questionnaire
to
School Administrators
Dear Sir:

Modern curriculum practice makes provisions for individual needs, a more vital type of education, and an outlet for special subjects. Perhaps this trend may assist in presenting facts to help future home owners, for there is a time in the lives of most people when consideration is given to home planning, either in the form of purchasing or building.

Formerly little thought was given to vital phases of home ownership, but now, home planning is no longer a simple procedure. Urban living, new building materials, building trade conditions, city inspection, and building permits, make home planning seemingly complicated. Today there is a great deal of information showing that home planning has several distinct phases, but it is felt that this information is not reaching the majority of prospective home owners.

As a remedy a suggested course of study for a non-technical, one-semester course on home planning, built around a five-point plan of accomplishment, is to be presented with the aim of improving the home planning picture of today.

In order to present home planning with some uniformity the five phases proposed as a foundation for this course of study are:

1. Good Design.
2. Good Materials.
3. Good Construction.
4. Good Neighborhood.
5. Good Land Usage.

This course, taught with the aid of visual materials, field trips, lectures and reports, the use of scrap books, non-technical drawing, and extra
curricular activities including photography and miniature house construction, would be alive and functional, with provision for individual and group participation.

Such a course should be of definite value to all pupils from the general educational objective standpoint in understanding their environment. All pupils live in homes of some type and a knowledge of the fundamental principles of home planning is as valuable from the appreciative side alone as is the appreciation of music or other forms of art.

It is believed this course should be taught in the eleventh and twelfth grades and perhaps in adult education. It will be helpful if you will please give your opinion by checking the inclosed return post card that we may have the benefit of a broader cross-section of opinion as to the possible place and values of such a course.

Respectfully yours,
Please mark preference with an X
Please mark choice: 1st. 2nd. 3rd. 4th. 5th.

<table>
<thead>
<tr>
<th>Preference</th>
<th>Home Planning Course</th>
<th>Choice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required</td>
<td>A one semester course taught to eleventh or twelfth grade pupils.</td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Required</td>
<td>A one semester course taught to eleventh or twelfth grade boys.</td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Required</td>
<td>A one semester course taught to eleventh or twelfth grade girls</td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The course taught in adult education

The course not recommended for my locality.

Suggestions:
APPENDIX B

Letter and Questionnaire
to
Home Owners
To own a home or pay rent is quite a problem with many families. The largest single investment of the average American family is in the home. Home ownership is a means of obtaining comfortable, convenient and permanent living quarters.

It is said that human beings learn only from their own experience, and that humans are inclined to infringe upon ignorance. Thus, obtaining a home either by purchase or by building is an educational experience of great value to the investor in a home.

With these things in mind it is the desire of the writer to endeavor to find out if there are sufficient consumer values in home planning experiences of families to justify the introduction of courses of study in senior high schools and adult education that will better prepare future and present prospective home owners for home ownership.

It is believed that by questioning home owners on some factors of home ownership sufficient facts will reveal foundations for recommending education for home ownership to more pupils in schools.

Any information derived from this investigation is to be considered confidential and will be used for educational purposes only. The hearty cooperation of present home owners in answering any questions will be greatly appreciated.

Members of the home should have an enjoyable time reading and checking the accompanying questionnaire so that it may properly record the judgments.
and convictions of the interested parties.

Appreciation by future generations of home loving people may be your reward for checking each statement so that it reads true as applied to your own situation.

Thaxter N. Daniels
A STUDY OF SOME OF THE CONSUMER VALUES OF HOME PLANNING

This is a survey of some of the values in home ownership. One evening, or about two hours should be sufficient to fully check all the items. Please check each item so that it will read true to the judgments and convictions of the individual participating in its completion.

A. FUNDAMENTALS OF HOME OWNERSHIP

1. The family living in the home consists of the following:

1 Adult ___ 2 Adults ___ 3 or more ___ Boys ___ Girls ___

2. How long has the home been owned?

Years ___ Months ___

3. Estimated value of the house and lot is:

$2,000 to $4,000 ___

$4,000 to $8,000 ___

4. Estimated value of the lot compared with the house is:

1/5 the value ___

More than 1/5 ___

5. The monthly payment on the home in relation to the rent previously paid is:

Same ___

Less ___ More ___

6. The per cent of monthly income spent for home payments including insurance and taxes is:

Less than 25% ___

25% ___

More than 25% ___

7. The cost of the home in relation to the total yearly income is:

Twice the income ___

Less than twice ___

2 1/2 times the income ___

8. Did home ownership prove to be more expensive than had been anticipated?

Yes ___ No ___

9. Were there unexpected extra fees connected with home financing?

Yes ___ No ___

10. Were the tax and insurance rates investigated before obtaining the home?

Yes ___ No ___
11. At the time of purchasing the home was there a need of spending considerable for a new automobile within five years?  

12. Is there more than one person with a regular income living with the family?  

13. Is there some small outside source of income other than wages available?  

14. The home was obtained by:  
   a. Purchasing the finished home?  
      Yes_____ No_____  
   b. Planning and contracting the home?  
      Yes_____ No_____  

15. The home was financed with:  
   a. An F.H.A. insured loan?  
      Yes_____ No_____  
   b. A private loan?  
      Yes_____ No_____  
   c. Cash payment in full?  
      Yes_____ No_____  

SUGGESTIONS:  
A.  
B.  
C. 
B. GOOD DESIGN

For each item you have - check (H)
For each item you would have should you build again - check (WH)
For each item you are not sure - check (NS)

1. Were there architectural services in connection with house plans?  H__ WH__ NS__

2. Are the owners able to read and understand house plans and specifications?  Yes___ No___ Not sure___

3. Do you have adequate wall and floor space for properly arranging furniture?  H___ WH____

4. Do the living room and bedrooms have sunlight some part of the day?  H___ WH____

5. Are the bedrooms removed from noises?  H___ WH____

6. May one go from the kitchen, dining room, living room direct to the bedrooms by means of a pass hall?  H___ WH____

7. Do the kitchen and bedrooms receive the benefits of the prevailing winds?  H___ WH____

8. Do the kitchen windows have protection from the hot afternoon sun?  H___ WH____

9. Gas floor furnace-----------------------H__ WH
   Gas gravity furnace in basement-------H__ WH
   Gas forced circulation furnace
   in basement--------------------------H__ WH
   Gas forced circulation furnace on
   first floor--------------------------H__ WH
   Gas furnace has Thermostatic
   control --------------------------H__ WH
10. Check the items in the home (H)
Check the items you would have (WH)

<table>
<thead>
<tr>
<th>Item</th>
<th>H</th>
<th>WH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrance hall</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Living room</td>
<td></td>
<td></td>
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<tr>
<td>Pass hall to bedrooms, etc.</td>
<td></td>
<td></td>
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<tr>
<td>Dining room</td>
<td></td>
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<tr>
<td>Kitchen</td>
<td></td>
<td></td>
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<tr>
<td>Breakfast room or nook</td>
<td></td>
<td></td>
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<tr>
<td>State number of bedrooms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service room or Laundry</td>
<td></td>
<td></td>
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<tr>
<td>Library or den</td>
<td></td>
<td></td>
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<tr>
<td>Sewing room</td>
<td></td>
<td></td>
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<tr>
<td>Game room</td>
<td></td>
<td></td>
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<tr>
<td>Craft shop</td>
<td></td>
<td></td>
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<tr>
<td>Bath room</td>
<td></td>
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<tr>
<td>Separate shower</td>
<td></td>
<td></td>
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<tr>
<td>Second toilet and lavatory</td>
<td></td>
<td></td>
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<tr>
<td>Bath room storage cabinet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Linen closets</td>
<td></td>
<td></td>
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<tr>
<td>Moth proof clothes closets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kitchen cabinets</td>
<td></td>
<td></td>
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<tr>
<td>Ant proof cooler</td>
<td></td>
<td></td>
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<tr>
<td>Case goods cabinet</td>
<td></td>
<td></td>
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<tr>
<td>Fresh vegetable cabinet</td>
<td></td>
<td></td>
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<tr>
<td>Breakfast room corner cabinets</td>
<td></td>
<td></td>
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<tr>
<td>Double garage</td>
<td></td>
<td></td>
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<tr>
<td>Out door living room</td>
<td></td>
<td></td>
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<tr>
<td>Covered front entrance</td>
<td></td>
<td></td>
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<tr>
<td>Covered rear entrance</td>
<td></td>
<td></td>
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<tr>
<td>Inclosed porch</td>
<td></td>
<td></td>
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<tr>
<td>Cement service walks</td>
<td></td>
<td></td>
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<tr>
<td>Paved driveway</td>
<td></td>
<td></td>
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<tr>
<td>Clothes drying yard</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Play yard</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Others:

1.
2.
3.
11. Check the storage items the home has (H)
Check the additional storage items you would have (WH)

Household cleaning appliances
Linen and bedding
Towels for bathroom
Medicines
Card tables and game boards
Laundry appliances
Seasonal clothes
Seasonal decorations
Athletic goods
Books and magazines
Extra dishes
Kitchen utensils and tools not in use
Old pieces of furniture
Fireplace wood
Old toys
Garden furniture
Garden tools
Bicycles and wheel toys

Others:
1.
2.
3.

SUGGESTIONS:

C. GOOD MATERIALS INCLUDING SPECIFICATIONS

Check the items you have (H)
Check the items of which you are not sure (NS)
Check the items you would have (WH)

1. Has the kitchen, bathroom, and service room been finished with dull enamel ____, gloss enamel ____, or varnished ____?

2. Has the quality of the interior paint been satisfactory? Yes__ No__

3. Have the oak floors been satisfactorily finished? Yes__ No__
4. Has the quality of the outside paint been satisfactory? Yes ______ No ______

5. Has all exposed plumbing in the house nickel-chromium finish? H ______ WH ______ NS ______

6. The capacity of the automatic hot water heater is 20 gal.____, 30 gal.____, Larger ______.

7. Have you hose connections on all four sides of the house and one in the rear of the lot? H ______ WH ______

8. Have you the best grade of shingles on your roof? H ______ WH ______ NS ______

9. Have you a copper flue connecting the furnace and hot water heater to the main chimney? H ______ WH ______ NS ______

10. Check the items the home has (H)
    Check the items considered inferior (I)
    Check the items you would have (WH)

    Interior Tile---------------------------------------- H ______ I ______ WH ______
    Insulation Board---------------------------------- H ______ I ______ WH ______
    Wood Lath---------------------------------------- H ______ I ______ WH ______
    Rock Lath---------------------------------------- H ______ I ______ WH ______
    Wall Board--------------------------------------- H ______ I ______ WH ______
    Glass-------------------------------------------- H ______ I ______ WH ______
    Door Mirror-------------------------------------- H ______ I ______ WH ______
    Hardware------------------------------------------ H ______ I ______ WH ______
    Door Bell---------------------------------------- H ______ I ______ WH ______
    Door Chimes-------------------------------------- H ______ I ______ WH ______
    Steel Window Frames------------------------------- H ______ I ______ WH ______
    Double Hung Windows----------------------------- H ______ I ______ WH ______
    Casement Windows-------------------------------- H ______ I ______ WH ______
    Doors-------------------------------------------- H ______ I ______ WH ______
    Finish Lumber------------------------------------ H ______ I ______ WH ______
    Inside Trim-------------------------------------- H ______ I ______ WH ______
    Window Shades------------------------------------ H ______ I ______ WH ______
    Venetian Shades---------------------------------- H ______ I ______ WH ______
    Linoleum---------------------------------------- H ______ I ______ WH ______
    Oak Floors--------------------------------------- H ______ I ______ WH ______
    Pine Floors-------------------------------------- H ______ I ______ WH ______
    Plaster------------------------------------------ H ______ I ______ WH ______
    Built-in Cabinets-------------------------------- H ______ I ______ WH ______
    Electric Fixtures------------------------------- H ______ I ______ WH ______
Electric Switches------------------H   I   WH
Plumbing Fixtures------------------H   I   WH
Ant Proof Cooler---------------------H   I   WH
Roof Tile--------------------------H   I   WH
Wood Shingles----------------------H   I   WH
Building Wire----------------------H   I   WH
Concrete--------------------------H   I   WH
Building Paper---------------------H   I   WH
Stucco Cement---------------------H   I   WH
Rough Lumber----------------------H   I   WH
Driveway Materials----------------H   I   WH
Cement Walks----------------------H   I   WH
Garage Doors----------------------H   I   WH
Louver for Attic-------------------H   I   WH
Ventilation-----------------------H   I   WH
Mail Box--------------------------H   I   WH
Milk Receiver---------------------H   I   WH
Gas Meter Box---------------------H   I   WH
Electric Meter Box----------------H   I   WH
Lawn Sprinkler System-------------H   I   WH
Wooden fence---------------------H   I   WH
Brick Wall------------------------H   I   WH

Others:
1.
2.
3.

SUGGESTIONS:

D. GOOD CONSTRUCTION

Check the items the home has (H)
Check the items you would have (WH)
Check the items of which you are not sure (NS)

1. May the lights in rooms that have more than one door be controlled with more than one switch?  
   H___WH___

2. May the lights nearest the door or entrance to the living room be turned on by a tumbler switch?  
   H___WH___

3. The closets and storage rooms are fitted with the following: No lights__, Pull chain__, Wall switch__.  

4. Have any weather proof convenience outlets been placed for outdoor use? [H WH]

5. Have sufficient double convenience outlets been placed near corners and under windows for use without moving furniture? [H WH]

6. Have the breaker switches or fuse boxes been placed within the house? [H WH]

7. Have the door locks and other hardware been satisfactory? [Yes No]

8. Has ceiling insulation been installed below the attic or between the ceiling joists? [H WH NS]

9. Has the plumbing required excessive services, and would you desire permanent changes? [Yes No]

10. Do wet places show in the plaster during hard rain storms? [Yes No]

11. Have excessive plaster cracks shown in the home? [Yes No]

12. Have excessive cracks shown between the fireplace and the outer walls of the house? [Yes No]

13. Have excessive cracks shown in the cement work? [Yes No]

14. If you have cement service walks, check the width: 2 feet [2 feet] 3 feet [WH] None [None]

15. Has the home been constructed termite proof? [H WH]

16. Have gutters and downspouts been placed on the entire house and garage? [H WH]
17. If there is a cesspool or septic tank, has it been placed in the front of the lot?

SUGGESTIONS:
1. 
2. 
3. 

E. GOOD NEIGHBORHOOD

Check the items you have (Yes)
Check the items you do not have (No)
Check the items of which you are not sure (NS)

1. Was a qualified real estate dealer who was thoroughly familiar with various sections of the community consulted before the home was decided upon? Yes__No__

2. Are some houses in the community not in keeping with others in age, style, and price? Yes__No__NS__

3. Are there any two-family dwellings in the same block? Yes__No__NS__

4. Does the lot have any natural hazards, such as the danger of poor drainage, floods, or made land? Yes__No__NS__

5. Have any lots been re-subdivided in the neighborhood? Yes__No__NS__

6. Does the lot in size, shape, and present treatment assure privacy? Yes__No__NS__

7. Must school children cross dangerous streets on the way to and from school? Yes__No__NS__

8. Have uniform plantings of hardy native trees been planted in the tree strip of the community? Yes__No__NS__
9. Have other varieties been substituted in some places for the original plantings?  
Yes__No__NS__

10. For the items the neighborhood has check (H)  
For the items you would have check (WH)

- Good Building Restrictions
- Marketing Centers
- Religious Institutions
- Schools
- Fully Paved Streets
- Friends with whom children might play
- Sufficient Street Lights
- Convenient Transportation
- Recreations you are interested in
- City Police Protection
- City Fire Protection
- City Mail Service
- City Parks and Playgrounds
- City Sewage
- City Water
- Swimming Pools
- Telephone Service
- Gas & Electric Service

Others:
1.
2.
3.

SUGGESTIONS:

F. GOOD LAND USAGE

1. Has the garage been built on the rear of the lot with a long driveway built along one side of the house?  
Yes__No__

2. Has the garage been attached to the house with a direct access to the street from the front?  
Yes__No__

3. Has the rear yard a maximum of space with the garage removed, as a livable garden spot adjacent to the living room?  
Yes__No__
4. Is there a play space at the rear of the lot that may easily be seen from some vantage place within the house? Yes____ No____

5. Is the garden area directly connected with the service portion of the house? Yes____ No____

6. Are the kitchen and service rooms of the house at the front of the lot? Yes____ No____

7. Have low growing shrubs been planted under the windows? Yes____ No____

8. Have slow growing compact shrubs been planted around the house? Yes____ No____

9. Have shade trees been so placed as to provide shade from the hot afternoon sun and to frame the house? Yes____ No____

10. Have the plantings been planned as part of the architectural design even if part of it must be added from time to time? Yes____ No____

SUGGESTIONS:

G. PERIODICALS

If the magazine or book is subscribed for check (S)
If the magazine or book is purchased check (P)

Arts and Decoration------------------------S  P
California Homes--------------------------S  P
House Beautiful--------------------------S  P
The Modern Home Builder-------------------S  P
American Builder--------------------------S  P
Building Your Home------------------------S  P
Better Homes and Gardens------------------S  P
Sunset------------------------------------S  P
Good Housekeeping------------------------S  P
California Arts & Architecture-------------S  P
The American Home------------------------S  P
House and Garden--------------------------S  P
Practical Gardener------------------------S  P
Housing's Book of Homes and Plans by Housing, Inc.

Book of Small Homes by Editors of Architectural Forum

Others:

SUGGESTIONS:
APPENDIX C

Letter and Questionnaire
to
Contractors and Builders
Dear Sir:

Prospective home owners have seemingly been insufficiently prepared for the home planning procedures of today. Urban living, building restrictions, building inspection, new materials, building trade conditions, and the contractor's fair profit make home ownership appear quite complicated.

Then, too, it is believed that the final contract is often let with the consumer unwittingly overlooking the integrity, capacity, organization, experience, and financial statement of some reliable builders.

With all this in mind it is proposed that a one-semester, non-technical course in home planning be introduced in the eleventh and twelfth grades of senior high school and adult education. Such a course would be exceedingly practicable and cooperative, with the participation of all reliable representatives of every important phase of home ownership.

Reliable builders may help in this educational work by giving their side of the picture. A sincere thank you is hereby given in advance for your hearty cooperation in this undertaking. Will you please answer the attached questionnaire and make your contribution an asset to education.

Sincerely,
This questionnaire contains sixteen items that may be correctly answered by underlining the word or words that make the sentence read true to your opinion and experiences.

The new trend in housing is to place the garage and service portion of the house on the front of the lot with the living room adjacent to the garden in the rear.

1. (A few of the), or (Many) consumers are willing to accept the above trend in housing.

2. (A lesser amount of), (The same amount of), (More) money must be spent when building the home with the detached garage at the rear of the lot and the service rooms adjacent to the garden.

3. (Little), or (A great deal of) competition is a factor in not allowing sufficient time for the builder in assisting the consumer in home planning.

4. (No better), (Somewhat better), (Greatly improved) plans and specifications would be produced by the builder if assurance was given of obtaining either adequate compensation for the services or the final contract.

5. (A few of the), or (Many) consumers plan with you 30, 60, or 90 days before the contract is let.

6. (Little), or (A great deal of) time is available for helping the consumer with whom you are not sure of a final contract.

7. (A few of the), or (Many) consumers know that a good small house is better than a larger one that is less expensively built.

8. (A few of the), or (Many) consumers have difficulties with home financing.

9. (A few of the), or (Many) consumers give the final contract to the contractor who helped them plan their home.

10. (A few of the), or (Many) consumers can read blue prints.
11. (A few of the), or (Many) consumers can read and understand specifications.

12. (A few of the), or (Many) consumers plan their home for future needs.

13. (A few of the), or (Many) consumers know of the new materials available for house construction.

14. (A few of the), or (Many) consumers know good construction.

15. (Little), or (A great deal) is known about building restrictions by the consumer.

16. (A few of the), or (Many) consumers purchase a site for good land usage.
APPENDIX D

Letter and Tentative Course of Study
to
School Teachers
Dear Sir:

Teachers of special subjects are now being given an opportunity to express themselves by providing new courses of study that will give a more vital type of education to a greater number of high school students. As a teacher of subjects closely related to the largest single purchase and most prized possession of the average family, (the home) it is believed you might be interested in evaluating tentative units for a non-technical, one-semester course on home planning.

This course built around visual aids, field trips, lectures, student reports, and the use of scrap books is designed to be interesting and flexible. Ample provision for active student participation, including photography, miniature house construction, non-technical drawing, and the operation of visual aids equipment, is all a part of this plan.

The major units for your consideration are as follows:

1. Fundamental Aspects of Home Ownership
2. Good Design
3. Good Materials, including specifications
4. Good Construction
5. Good Neighborhood
6. Good Land Usage

Your professional sanction of these units, with perhaps additions and suggestions, should produce a worthwhile course of study that will be highly acceptable to school administrators. A sincere
appreciation for your cooperation in this undertaking is hereby given in advance. Will you kindly return the course of study with your suggestions in the inclosed envelope?

Yours truly,

Thaxter N. Daniels

Inclosures:
UNIT ONE

FUNDAMENTAL ASPECTS OF HOME OWNERSHIP

1. How much to spend for housing
2. Financing the home
3. Extra sources of income
4. Debt consideration
5. Extra fees
6. To rent, buy, or build
7. How much to pay for the lot
8. How much to spend on the house
9. Income, regularity and certainty
10. Present and future fixed family expenses and incidental expenses
11. Education, cultural needs
12. Dental and doctor bills
13. A certain standard of living
14. How much to borrow
15. Dangers in using credit
16. Sound financial arrangements

SUGGESTIONS:

UNIT ONE

METHODS OF PRESENTATION

1. Corps of teachers
   A. Industrial Arts
   B. Homemaking
   C. Landscape Architect
2. Lectures
   A. Architects
   B. Financial Experts
   C. Real Estate Agents
   D. Title and Trust Representatives
   E. Home Owners
3. Student readings and reports
4. Visual Aids
5. Field Trips
6. Student Activities
   A. Note taking
   B. Committee reports
   C. Interviews
   D. Field committee
   E. Mimeographing
   F. Photography
7. Scrap Book
   A. Class notes
   B. Reports
   C. Clippings
   D. Snap shots
   E. Bibliography
## UNIT TWO

### GOOD DESIGN

1. Choosing the architect  
2. Obtaining stock plans  
3. The attitude of the family toward the design  
4. Reading house plans  
5. Analysis of the individual family and its activities  
6. Utility and flexibility of the home  
7. Orientation of the home  
8. The type of home to build (style of architecture)  
9. Evaluation of finished homes for sale  
10. Conformity to the neighborhood  
11. Conformity to topography  
12. Influence of climate  
13. Locational factors  
14. Trends in home design  
15. Placement of major pieces of furniture  
16. Interior finishing and furnishing (built-ins and closets)

### METHODS OF PRESENTATION

1. Corps of teachers  
   A. Industrial Arts  
   B. Homemaking  
   C. Landscape Architect  
2. Lectures  
   A. Architects  
   B. Real Estate Agents  
   C. Home Owners  
   D. Contractors  
3. Student readings and reports  
4. Visual Aids  
5. Field trips  
6. Student Activities  
   A. Note taking  
   B. Committee reports  
   C. Drawing floor plans  
   D. Collecting specimens and models  
   E. Field committee  
   F. Mimeographing  
   G. Photography  
   H. Entertainment  
7. Scrap Book  
   A. Class notes  
   B. Reports  
   C. Clippings  
   D. Pictures  
   E. Bibliography  
   F. Interviews

### SUGGESTIONS:
UNIT THREE

GOOD MATERIALS INCLUDING SPECIFICATIONS

1. Excavations and foundations
2. Material specifications
3. Savings possible without reducing quality
4. Selection of equipment
5. Elimination of rooms
6. Placement of the house on the lot
7. The uses of concrete
8. Electrical equipment, wiring and fixtures
9. Interior trim.
   Style and finish
10. Exterior finish.
    Wood, brick, stucco, stone, etc.
11. Floor materials.
    Oak, pine, tile or linoleum
12. Windows. Double sash, steel, casement
13. Built-ins
14. Plumbing and plumbing fixtures
15. Plaster and other wall coverings
16. Paint and painting
17. Glass and glazing (quality)
18. Insulation
19. Roof coverings.
    Shingles, tile, tar and gravel, etc.
20. Roof ventilation
21. Porches and shelters
22. Garages
23. Window shades

METHODS OF PRESENTATION

1. Corps of teachers
   A. Industrial Arts
   B. Homemaking
   C. Landscape Architect
2. Lectures
   A. Architects
   B. Master craftsmen
   C. Building Supply Dealers
   D. Real Estate Agents
   E. Contractors
3. Cooperative field trip to watch the entire construction of a home.
   Using the blueprints and specifications of the home for class instruction
4. Talks by home owners
5. Student readings and reports
6. Visual Aids
7. Student Activities:
   A. Field trips
   B. Photography
   C. Correspondence
   D. Committee reports
   E. Mimeographing
   F. Field committee
   G. Collection of models and museum specimens
   H. Interviews
   I. Entertainment
8. Scrap Book
   A. Class notes
   B. Reports
   C. Clippings
   D. Pictures
   E. Snap shots
   F. Bibliography
UNIT THREE (Continued)

GOOD MATERIALS INCLUDING SPECIFICATIONS

24. Hardware
25. Sprinkling systems
26. Legal specifications, insurance and payments
27. Mill work and built-ins
28. Interior finishing and furnishing

SUGGESTIONS:

UNIT FOUR

GOOD CONSTRUCTION

1. Choosing the builder
2. Inspection of homes
3. How to judge the ready built home
4. Purchasing an old house (evaluating)
5. Sources of information on good construction
6. Ear-marks of good construction
7. City building codes
8. Building restrictions
9. City zoning
10. Termite proof construction of the home
11. Jerry built homes
12. Reliable builders
13. Public utilities

METHODS OF PRESENTATION

1. Corps of teachers
   A. Industrial Arts
   B. Homemaking
   C. Landscape Architect
2. Lectures
   A. Architects
   B. Contractors
   C. Home Owners
   D. Real Estate Agents
   E. City Building Inspector
3. Student readings and reports
4. Visual aids
5. Field trips
6. Miniature section showing construction
7. Master craftsmen
8. Student Activities
   A. Note taking
   B. Committee reports
   C. Interviews
   D. Field committee
   E. Miniature house construction
UNIT FOUR (Continued)

GOOD CONSTRUCTION

SUGGESTIONS:

1. Where to buy or build
2. Who to consult
3. Tax level and assessments
4. Needs of the family
5. Continuity and stability of the neighborhood
6. Zoning ordinances and deed restrictions
7. Topographical and other hazards
8. Adequate public utilities and good streets and roads
9. Traffic control
10. Transportation
11. Social and civic characteristics
12. Schools, parks, playgrounds, swimming pools, and marketing places

UNIT FIVE

GOOD NEIGHBORHOOD

METHODS OF PRESENTATION

1. Corps of Teachers
   A. Industrial Arts
   B. Homemaking
   Lectures
   A. Real estate dealers
   B. Home owners
   C. Civic authorities
   D. Architects
   E. Civic leaders
   Visual aids
   4. Student readings and reports
   5. Field trips
   6. Student Activities
      A. Note taking
      B. Committee reports
      C. Assignments
      D. Field committee
      E. Photography
      F. Mimeographing

F. Collections of models and specimens
G. Correspondence
H. Library work
I. Photography
J. Mimeographing
K. Entertainment

9. Scrap Book
   A. Class notes
   B. Reports
   C. Clippings
   D. Pictures
   E. Mimeographed materials
   F. Bibliography
UNIT FIVE (Continued)

GOOD NEIGHBORHOOD

13. Personal preference and family convenience
14. Facilities offered for social life
15. Choosing the lot (specific site)
16. Insurance rates
17. Utility service rates

SUGGESTIONS:

UNIT SIX

GOOD LAND USAGE

1. Plantings and their conformity to the color of the house
2. Plantings in conformity to the style of architecture
3. The lawn and its relation to the house
4. Allowances for lawns and landscaping
5. Soils and their use in developing the lot.
6. Fertilizers and their uses
7. The choice and use of trees
8. Selection of shrubs
9. The lawn and garden planned according to function
10. Location of garage and driveway in relation to function
11. The flower garden and its relation to the house

METHODS OF PRESENTATION

7. Scrap Book
   A. Class notes
   B. Student reports
   C. Clippings
   D. Snap shots
   E. Bibliography

METHODS OF PRESENTATION

1. Corps of teachers
   A. Industrial Arts
   B. Homemaking
   C. Landscape Architect
2. Lectures
   A. Landscape Architects
   B. Home Owners
   C. City Authorities
   D. Architects
3. Student readings and reports
4. Visual aids
5. Field trips
6. Student Activities
   A. Note taking
   B. Assignments
   C. Miniature home construction
   D. Committee reports
   E. Field committee
   F. Library committee
   G. Photography
   H. Mimeographing
UNIT SIX (Continued)

GOOD LAND USAGE

12. The general character of the garden

13. The use of garden ornaments

SUGGESTIONS:

METHODS OF PRESENTATION

7. Scrap Book
   A. Class notes
   B. Student reports
   C. Snap shots
   D. Clippings
   E. Bibliography