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# PROCEDURES FOR REAL PROPERTY ASSESSMENT IN PUERTO RICO

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The procedures for the assessment of real property in Puerto Rico were developed during the reorganization project of 1952-1953. Study of the existing laws and regulations showed that the assessment of real property in Puerto Rico had been neglected. These deficiencies have been corrected and the procedures for the assessment of real property in Puerto Rico have been developed.

## Department of the Treasury

Part One of this volume contains the general principles of real property assessment. It is divided into two chapters. The first chapter, the general principles of real property assessment, discusses the basic concepts of real property assessment and the methods of assessment. The second chapter, the methods of real property assessment, discusses the methods of assessment of real property in Puerto Rico.

Part Two of this volume contains the procedures for the assessment of real property in Puerto Rico. It is divided into three chapters. The first chapter, the assessment of real property in Puerto Rico, discusses the assessment of real property in Puerto Rico. The second chapter, the assessment of real property in Puerto Rico, discusses the assessment of real property in Puerto Rico. The third chapter, the assessment of real property in Puerto Rico, discusses the assessment of real property in Puerto Rico.

Part Three of this volume contains the forms and instructions for the assessment of real property in Puerto Rico. It is divided into three chapters. The first chapter, the forms and instructions for the assessment of real property in Puerto Rico, discusses the forms and instructions for the assessment of real property in Puerto Rico. The second chapter, the forms and instructions for the assessment of real property in Puerto Rico, discusses the forms and instructions for the assessment of real property in Puerto Rico. The third chapter, the forms and instructions for the assessment of real property in Puerto Rico, discusses the forms and instructions for the assessment of real property in Puerto Rico.

## Commonwealth of Puerto Rico

1958

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## Foreword

The procedures for the assessment of real property contained in this volume are in conformity with the theories and practices presented in Standards for Assessing Real Property. The two volumes are complementary and it is intended that they be used in conjunction with each other. Together they comprise the system for the assessment of real property in Puerto Rico.

Some conditions that exist in Puerto Rico demand special techniques of assessment not commonly required elsewhere. Such techniques, however, are merely modifications of standard methods that have proved their value in many jurisdictions over a long period of time.

The procedures for the assessment of both land and improvements in Puerto Rico were developed during the reassessment project of 1949-1951. Many of the activities that were necessary in the islandwide reassessment, however, are no longer applicable to the maintenance of the system and have been eliminated. Those that have been retained have been incorporated in the methods and rules to be followed in the future.

Part One of this volume is devoted to procedures for the assessment of urban land. The basic methods of sales analysis and capitalized income are used in the determination of urban land values. For the most part, the procedural rules are definite and specific but, where necessary, the basic considerations have been expanded and explained. This is especially true in those cases where techniques prescribed for Puerto Rico are markedly different in detail from those commonly used on the continent. All tables and curves are those currently in use and all examples have been drawn, sometimes with modifications, from conditions discovered in the course of the reassessment.

Part Two deals with procedures for the assessment of rural land in Puerto Rico, which is based upon a complete classification of soils and upon value information derived largely from sales analysis. No attempt is made here to present a comprehensive discussion of soil science, since it is assumed that employees assigned to rural land appraisal, like those who participated in the soil survey of the reassessment project, have a knowledge of this science. The procedures contained herein, therefore, require a technical knowledge of soils for their application in the appraisal of rural land for assessment purposes. Most of the techniques described and all of the tables and charts were developed during the reassessment. Some of the activities described may not be repeated for years, while others that were of minor value during the reassessment may become significant in the future. This is especially true of the information on value analysis of rural land. The rules, therefore, should be modified and expanded as may be deemed necessary to keep up with future developments.

Part Three presents the procedures for determining the value of improvements, which are based upon the replacement-cost method of appraisal and upon a complete classification system covering all use and construction types of buildings found in Puerto Rico. Detailed procedures are provided for analyzing value factors, for surveying and classifying buildings, and for computing assessed valuations. The procedural rules are given in detail so that nothing will be omitted. All classes, specifications, illustrations, and schedules of costs and depreciation were developed for Puerto Rico and are currently in use.

This manual was prepared by members of the staffs of Public Administration Service, under the supervision of Truett B. Marshall, and of the Scientific Classification and Assessment Project, under the direction of David A. Rodriguez.

PUBLIC ADMINISTRATION SERVICE

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Department of the Treasury  
Bureau of Property Tax, Inheritances and Gifts

PROCEDURES FOR REAL PROPERTY ASSESSMENT

IN PUERTO RICO

PART ONE

URBAN LAND

1953

PART ONE

URBAN LAND

I. LAND-USE CLASSIFICATION

Urban land is classified according to use because different value factors affect the general use types in varying degree. With rare exceptions, the legal zoning established by the Puerto Rico Planning Board is not suited to assessment purposes. All urban land, therefore, has been rezoned in accordance with present land use. The following zones have been established: commercial, residential, semicommercial, and industrial. Unless specifically qualified, the terms "zone" and "zoning" in this chapter refer to this use classification for assessment purposes.

Definitions of Use Zones

In order to make a proper use classification, the minimum requirements for each of the several zones must be kept in mind. The general descriptions given below are a guide to be followed. More specific instructions for land classification appear in the next section.

Commercial

Commercial zones consist primarily of retail and financial establishments. Grocery stores, pharmacies, restaurants, clothing stores, shoe stores, hardware stores, furniture stores, and the like are characteristic. The zones are so designated that they are practically restricted to commercial uses. Few residences should appear and they should constitute less than ten per cent of the total improvements in any given commercial zone.

Residential

Residential zones consist primarily of residential parcels, which, except for corner parcels, should always amount to at least 60 per cent of the total number of parcels in a given residential zone. The residential category includes buildings with either one-family, two-family, or multiple family dwelling units.

Semicommercial

Mixed Use. These zones consist of commercial retail property with an intermixture of residential property. They represent the initial stages in the growth or in the decline of a commercial zone. To fall within this category, the area should contain not less than 30 per cent commercial establishments, not including corners, in smaller towns, and not less than 50 per cent in the larger cities. If the percentage of commercial property reaches 90 per cent, the zone should be designated commercial.

Wholesale. These zones consist almost exclusively of warehouses, car lots, garages, repair shops, and various light industries on relatively small parcels.

Office. These districts consist almost entirely of private or public office buildings.

Industrial

Industrial zones consist of parcels with an area of more than half a cuerda, devoted to any class of light or heavy industry including manufacturing, transportation, and public utilities.

Instructions for the Classification of Urban Land

The following rules apply to the classification of urban land:

1. Plot the zone boundaries on a working map, which is often referred to as the "100 per cent value map." The following color code is to be used to delineate the boundary lines: commercial zone, blue; residential zone, red; semicommercial zone, green; industrial zone, brown.
2. Separate the zones by double lines, enclosing each zone within its corresponding color. The location of all zone boundaries is to be determined by field inspections.
3. Except for industrial zones and new urbanizations, all zones should contain a minimum of six parcels which are adjacent to or directly across the street from each other.
4. Ignore nonconforming parcels as long as the defined requirements of the zones are met. Common examples are commercial and industrial establishments scattered around residential zones, and residential and industrial establishments located in commercial zones.

## PROCEDURES FOR REAL PROPERTY ASSESSMENT IN PUERTO RICO

5. If all or any part of the front of a building is used for commercial purposes, consider the entire building to be commercial.
6. As far as possible, include all of any given parcel in a single zone.
7. In case a parcel fronts on two streets which are in different zones, zone the lot into two parts by drawing dotted colored lines dividing the lot. The location of the dividing line is discretionary with the zoner and depends upon lot shape and the depth and shape of adjacent parcels.
8. In general, the dividing line between residential and semicommercial zones falls between a residence and a retail establishment; the line between semicommercial and commercial zones is between a residence and a retail establishment or between a wholesale establishment, factory, or office building and a residence or retail establishment; and the line between commercial and residential zones is between a residence and a retail establishment.
9. When drawing the zone lines, bear in mind the effects of depth and corner influence, as the zone dictates the rules to be used in value computations. The commercial depth curve is steep for the first twenty meters and descends much more gradually thereafter; the residential curve is very flat during its entire length; the semicommercial curve falls midway between the other two for the first twenty meters and then merges with the residential; and depth influence is not recognized in industrial property. Commercial corner influence varies from 10 per cent enhancement in the cheapest zones to a maximum of perhaps 100 per cent under certain conditions in areas where unit values are as high as \$20 per square meter; residential corner property is enhanced by not more than 10 per cent; semicommercial corner influence is computed in the same way as commercial, but the maximum enhancement is computed for industrial property.
10. Always estimate the future development of the zones; i. e., whether there is likely to be zonal contraction or expansion and in what direction it is likely to occur.
11. Much government and church property, like schools, plazas, city halls, and churches, may be placed in any type of zone because it is exempt. Likewise, some private establishments, such as theatres and service stations, do not influence zone lines.
12. Desirable gradations of value can sometimes be achieved through the careful application of zoning. For example, when moving from a commercial to a semicommercial zone, it is reasonable to expect a drop in unit values. Certain difficult valuation problems, such as accounting for corner and plaza reflections, can be indicated by extending the commercial zone down a side street.
13. All commercial and semicommercial zones normally will fall within the limits of commercial, industrial, or public land zones as defined by the Planning Board. Make commercial or semicommercial designations within a legally zoned residential area.
14. The total area which is legally zoned as commercial in new urbanizations by the Planning Board will be zoned as commercial for assessment purposes.

Instructions for the Maintenance of the Classification System

The following rules indicate the routine need for review or modification of the land-use classifications:

1. All commercial, semicommercial, and industrial zones should be inspected annually for possible revisions.
2. Areas along main traffic routes of expanding communities, areas in and about new urbanizations, areas along new through highways and streets, and any other areas where land is being platted or replatted should be investigated to determine its proper use classification.
3. All zoning corrections should be made by pasting a corrected map of the affected parcels over the corresponding section of the original 100 per cent value map.

## II. VALUE ANALYSIS

To determine the value of urban land it is necessary to accumulate descriptive physical data for use in studying the effects of the many value factors at work, and to collect and analyze sales and rental information in order that dollar values may be estimated. All of this information is posted eventually on one or more maps whose development and uses are described below.

Accumulation of Physical Data

Two general categories of physical data are needed for the appraisal. The first is neighborhood characteristics, which provide clues concerning value relationships of different areas; and the second is topography, which is eventually used in the modification of parcel values.

Neighborhood Characteristics

The following rules apply to the plotting of neighborhood characteristics on the working map, known as the use-topographic map:

1. From the appraisal cards, record building use, construction class, and subclass on the map. Some corrections and additions to these data should be made by field observation. Outline commercial parcels and blocks in blue; residential in red; exempt in yellow; and industrial in green.
2. By field observation in communities other than villages, record building use for commercial and semicommercial areas. Mark parcels on which commercial buildings appear in predominantly residential areas. Outline commercial parcels in blue and residential in red.
3. By field observation in villages, identify all commercial buildings on the map by a blue "C," residential buildings by a red "R," and exempt buildings by a yellow "X."
4. For paved streets mark a blue "P" in the street in the middle of each paved block. For unpaved streets, draw broken blue lines down the middle of the street to indicate their extent. Separate paved and unpaved sections by blue dividing lines drawn across the street.
5. Indicate sewage services by marking large blue spots in the streets at manhole locations.
6. Record by name or appropriate abbreviations such miscellaneous information as the location of bus and public terminals and stops.
7. Although existing use-topographic maps showing neighborhood characteristics are in many cases inaccurate in detail, they should be retained for general reference purposes without attempting to revise them to attain 100 per cent accuracy.

Topographic Features

In general, any street or lot with appreciable inclination is given a per cent reduction. Likewise, parcels whose accessibility to front or rear streets is impaired, or which are affected by poor drainage conditions, receive reductions.

The original data should be marked on the use-topographic map in red pencil. All these data are compiled by field observation usually with the aid of the inclinometer — a topographic measuring device calibrated in accordance with the table below.

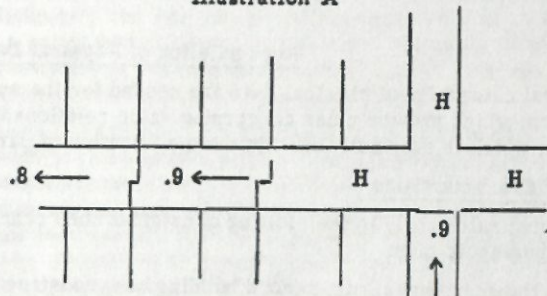
Table 1  
Adjustment for Incline of Parcels and Streets

Angle of Inclination	Inclinometer Reading	Per Cent Good
0 - 4	-	-
5 - 14	10	90
15 - 24	20	80
25 - 90	50	50

The following rules govern the recording of topographic features:

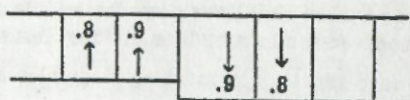
1. Inclined streets. Check each street for its inclination. If it has 4 degrees inclination or less, consider it horizontal and mark a red "H" in the center. If the street has more than 4 degrees inclination, draw a red arrow in the street with the arrow pointing in the direction of increasing elevation. Put the appropriate inclinometer reading at the arrowhead. Mark changes in readings by red dividing lines in the streets, whether such changes occur at intersections or within blocks. (See Illustration A.)

Illustration A



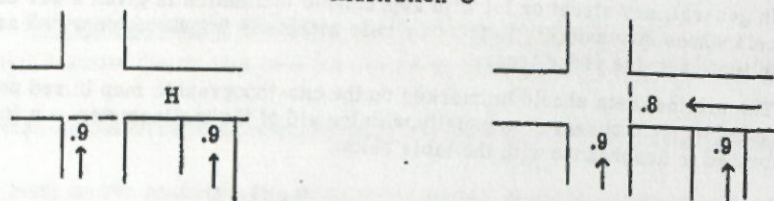
2. Parcel inclined in the plane of the street. Make no individual parcel reduction in this case because the reduction is computed into the street value.
3. Interior parcel inclined in a plane different from that of the street. Draw a red arrow to indicate the upward direction and then insert the appropriate percentage correction in the parcel. Note that there are several possible variations from parcel to parcel. (See Illustration B.)

Illustration B



4. Corner parcel where one or both abutting streets are inclined. If a corner parcel has the same inclination as its bordering streets, plot no arrow or correction in it. (See Illustration C.)

Illustration C



5. Interior or corner parcel made horizontal by leveling or by a retaining wall. Mark a red "H" in the affected parcel. (See Illustrations D and E.)

Illustration D

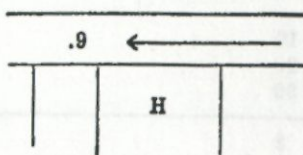
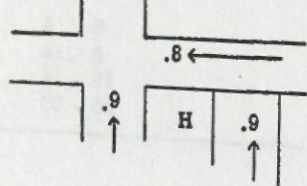


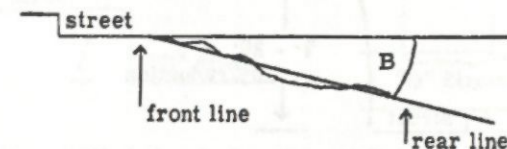
Illustration E



(The distinction between foundation walls and retaining walls should be clearly understood. If the improvement covers the parcel area completely, it is being supported by a foundation wall. If there is yard space between the wall and the building on any side, the wall is a retaining wall.)

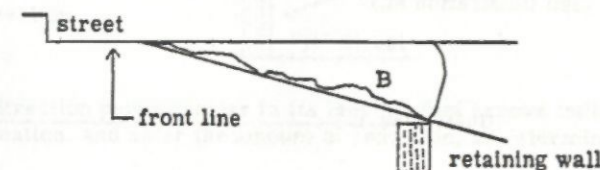
6. Parcel with more than one quarter of its area inclined downward from the front street. Measure the angle by sighting from the front line of the lot to the lowest level of the lot along its rear property line. (See Illustration F.)

Illustration F



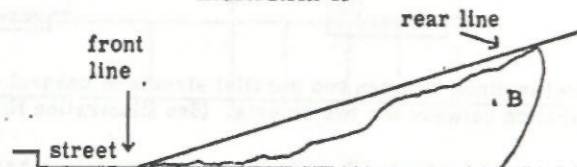
7. Parcel with rear portion supported by a retaining wall. Measure the angle by sighting from the front line of the lot to the top of the retaining wall in the rear. (See Illustration G.)

Illustration G



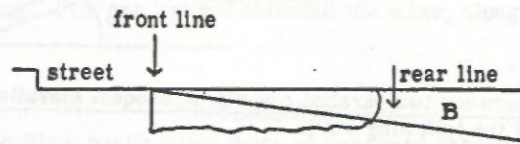
8. Parcel with more than one quarter of its area inclined upward from the street. Measure the angle by sighting from the front parcel line to the highest level on the rear line. (See Illustration H.)

Illustration H



9. Parcel located at an elevation below the level of the street. Measure the angle by sighting from the front line of the lot to the rear line. (See Illustration I.)

Illustration I



10. Parcel without retaining wall located on a plateau above the street level. Treat in one of the following ways:

- a. If the elevation is less than 6 feet, make no reduction.
- b. If the elevation is from 7 to 20 feet, enter .9 in the parcel; if there is also a correction necessary for inclination, multiply .9 by such correction and enter the product. (See Illustration J.)

- c. If the elevation is greater than 20 feet, enter .8 in the parcel; if the parcel is inclined, multiply the inclination correction by .8 and enter the product. (See Illustration K.)

Illustration J

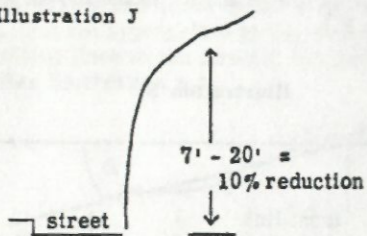
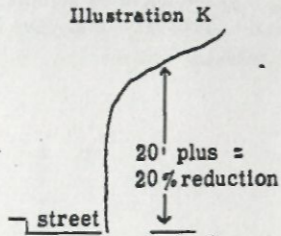


Illustration K



- 11. Parcel located on a plateau and having a retaining wall. Treat in one of the following ways:
  - a. If the lot is horizontal, make no reduction regardless of the plateau elevation. (See Illustration L.)
  - b. If the lot is inclined, measure the angle by sighting from the top of the wall to the rear line. (See Illustration M.)

Illustration L

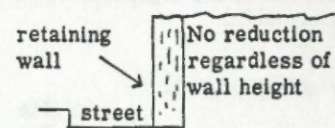
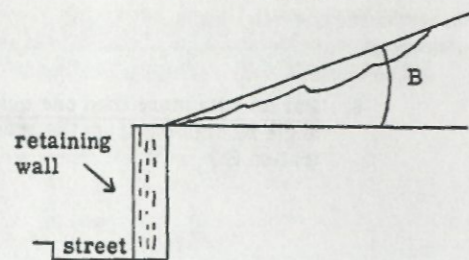
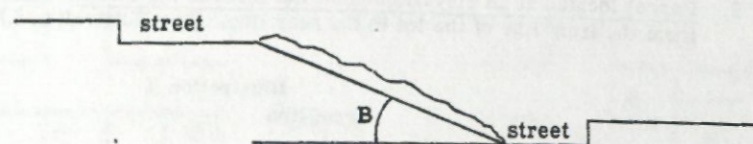


Illustration M



- 12. Parcel inclined between two parallel streets of unequal elevation. Measure the angle along the inclination between the two streets. (See Illustration N.)

Illustration N



- 13. Parcel between two parallel streets of unequal elevation but at the level of one street. Treat in one of the following ways:
  - a. If the difference in elevation is less than 6 feet, make no reduction.
  - b. If the difference is over 6 feet, draw a bracket on the inaccessible street side and attach a note stating that there is a plateau of "x" feet without a retaining wall. (See Illustrations O and P.)

Illustration O

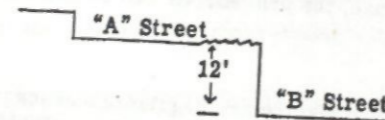
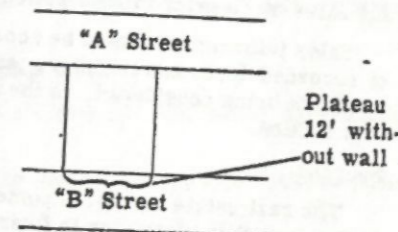
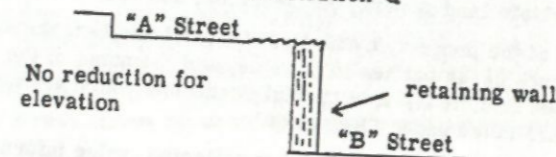


Illustration P



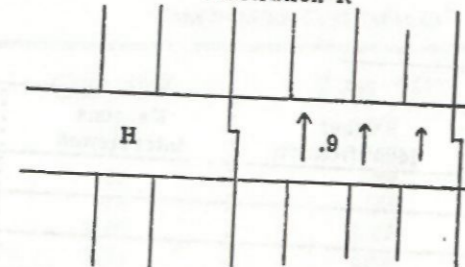
- c. If there is a retaining wall, follow instructions in Rule 11. (See Illustration Q.)

Illustration Q



- 14. Street inclined in a direction perpendicular to its length. Plot arrows indicating the upward direction of the inclination, and enter the amount of reduction, as determined by the appraiser. (See Illustration R.)

Illustration R



- 15. Parcels affected by bad drainage systems, ditches, floods, swamps, or any other such depreciating factor not covered by the preceding rules. Enter the amount of the reduction as determined by the appraisers.
- 16. The use-topographic map does not need to be maintained accurately with respect to topographic features; but errors observed on the preliminary land-value map should be corrected immediately. Make duplicate lists of the parcels affected and enter the corresponding corrections on the final land value map. File one list and transmit the other, along with the corrected map, to the computers.

Sales Analysis

Urban land sales in Puerto Rico, particularly those of improved parcels, reflect erratic patterns because the development of the real estate market is relatively immature and the market lacks any reliable system for exchanging market information. Another factor contributing to a misunderstanding of urban land values is the widespread ownership of land by municipalities. Individuals have been allowed to erect buildings on such land without having to pay for its use, and they often follow the practice of including the value of the land in the price of the improvements when sold.

To minimize irregularities, it is necessary to concentrate on vacant lots wherever possible. As a rule, parcels which contain improvements that are of some value, but are to be destroyed and replaced

by others, can be considered as vacant lots. Sales between relatives, sales involving corporations, and sales made under any form of duress or ignorance on the part of either party are not to be given weight. All sales made prior to 1945 reflect low, and hence unusable, values.

Sales information should be accumulated regularly, insofar as it is possible to routinize the analysis of recorded deeds and transfers, and particular effort should be expended when any change of unit values is being considered. In the latter case, the procedures will be approximately as described in this section.

Sources

The real estate market is somewhat more mature and regulations concerning it are more exacting in San Juan than elsewhere in Puerto Rico. The first group of sources cited below should be consulted in all cases; and, in addition, recourse should be had to the second group in the metropolitan area.

Sources Available Throughout the Island. Main reliance should be placed upon interviews with informed persons. These include public officials and agents of the municipal, insular, and federal governments and private land owners, businessmen, and real estate agents.

The description of the property by block and parcel number, the selling price, the date of the transaction, the names of the parties to the sale, and the name of the informant are recorded on the interview form. (See Exhibit 1.) Any special conditions which are not obvious but which affect the resulting land value are noted under "Remarks."

At the same time that sales data are being collected, value information based upon the opinion of informed persons is solicited and recorded.

Exhibit 1  
REPORT OF VALUE INTERVIEWS

Town \_\_\_\_\_ Date \_\_\_\_\_

Block	Lot	Other Identification	Persons Interviewed	Price	Year	Remarks

Investigators \_\_\_\_\_

Additional Sources in Metropolitan San Juan. Information contained in deeds filed in the office of the Register of Deeds is fairly reliable for new urbanizations in the metropolitan area of San Juan. Most other recordings, however, are low because of efforts of the contracting parties to avoid high assessments or capital gains taxes.

Condemnation court proceedings should be considered, even though at times the value will be too low to be used.

Offers to sell appear in newspapers in the metropolitan area and on signboards. They usually represent the upper limits of value.

Derivation of Preliminary Unit Street Values

The following steps are to be followed in deriving tentative unit values from the sales information that is accumulated:

1. Take the replacement cost new of the building from the appraisal card. Divide the cost of Class ONE improvements by .70 and the cost of Classes TWO and THREE by .76; check all values

taken from the appraisal card with the appraisal disc to be sure that no major error has been made in processing the card. If an appraisal card is not available, estimate the value new of the improvements by use of the appraisal disc with no percentage adjustment.

2. Multiply the cost of replacement new by the index figure for the appropriate class and year of the transaction to adjust the 1949 value to the year of the sale. Table 2 below gives the indexes for all classes in recent years.
3. Depreciate the value of the improvements to the year of sale.
4. Subtract the depreciated improvement value from the sale price to obtain the residual land value.
5. Divide the residual land value by the parcel area in square meters to obtain the square meter value for the parcel.
6. Obtain the estimated street value from sales by one of the following procedures:
  - a. For interior parcels, divide the depth factor of the average depth of the parcel into the square meter value of the parcel.
  - b. For corner parcels, first make the depth correction as described in rule 6a. Then make the corner correction by dividing the depth-corrected figure by 1.1 for residential lots, by 1.2 for semicommercial lots, and by 1.3 for commercial lots. For very valuable properties, estimate the ratio of the side street to the main street value and determine the corresponding street values by using the regular corner enhancement tables and simultaneous equations.
  - c. For through parcels, estimate the ratio of back to front street values and select a corresponding merge line. Then, by trial and error, determine the corresponding street values.

Table 2  
Construction Cost Indexes<sup>a</sup>

Year	Class ONE	Class TWO	Class THREE
1939	.43	.49	.48
1940	.47	.52	.53
1941	.53	.59	.60
1942	.70	.76	.76
1946	1.07	1.03	1.02
1947	1.04	1.02	1.02
1948	1.07	1.02	1.02
1949	1.00	1.00	1.00
1950	.98	.98	.98
1951	1.06	1.06	1.06

<sup>a</sup>1949 = 100

Posting Sales Data On Map

The following rules apply to entering the preliminary unit values derived from sales on the 100 per cent value map:

1. Record parcel sales values per square meter in red pencil within the parcel.
2. Record preliminary unit values in red pencil in the street in front of the parcel concerned.
3. Record new values derived in the process of revaluation on cut-out sections of a map which are pasted on the original 100 per cent value map.

Rent Analysis

As in the case of sales values, rental values are erratic in Puerto Rico. This is probably caused in large part by the existence of rent control. Commercial rent data are of some use with respect to the Sanchez Index and other reference levels at various points in commercial zones. Capitalization of

residential rental income, on the other hand, too frequently yields ridiculously high values for construction of poor quality and negligible, or even negative, values for construction of good quality.

For best results with rental data all information must be confirmed by field investigations. The form for recording this information is reproduced as Exhibit 2. It provides for the rent distribution by floors, family or corporate relationships between tenants and owners, the time elapsed since the rent was last changed, the services paid by the owner and the tenant, who pays the taxes, and whether there is partial owner occupancy. For more complicated cases, lease and sublease arrangements have to be considered in addition to information provided for on the form.

Rents are to be accumulated and analyzed whenever the more valuable commercial properties in a municipality are reappraised.

Sources

The first problem is to determine the properties on which rents are being paid and where there is complete or partial owner occupancy. In addition, factual information is needed to establish the level of rents and owner-tenant relationships. The following sources are available:

1. The appraisal cards, which include information concerning rents, partial owner occupancy, and some of the services which may be included in the rent. Since this information was accumulated during the reappraisal, 1949-1951, it will become progressively more obsolete.
2. The Office of Rent Control files.
3. Door-to-door inquiry in selected commercial zones. In this case, the rent interview form is to be used. (See Exhibit 2.)

Derivation of Preliminary Unit Street Values

The following steps are involved in reducing rental information to street values:

1. Derive the improvement value in the same way as in sales analysis.
2. Use the Capitalization of Rent form, reproduced as Exhibit 3, for the following steps:
  - a. Calculate the annual gross rent for the entire building and reduce it by 10 per cent for an assumed occupancy of 90 per cent.
  - b. Make deductions for various annual expenses to the owner in the following manner:
    - (1) Taxes - Obtain from the Bureau of Collections or ascertain the tax rate and multiply it by the total valuation of the property.
    - (2) Amortization - Estimate the loss of value in the improvement from the present to the end of its life expectancy by subtracting 36 per cent of the replacement cost new from the depreciated replacement cost. Compute the remaining life by subtracting the age from the life expectancy, and take the factor corresponding to the remaining life from the amortization table. (See Table 3.) Multiply the amortization factor by the estimated loss in value. This is the amount of an annual payment to a 5 per cent sinking fund required to make available at the end of the life expectancy the total future loss in value.
    - (3) Other Expenses - Estimate the cost of other items provided by the owners, such as furniture, water, and repairs.
  - c. Capitalize the resultant net income in perpetuity at 8.3 per cent by multiplying the annual net income by 12.
  - d. Compute the parcel value by subtracting the improvement value from the capitalized rental value.
3. Compute street values derived from rent analysis in the same manner as that used in sales analysis.

Posting Rental Data on Map

The same procedures are followed in posting values derived from rent analysis as in the case of sales analysis except that entries are made in green instead of red.

Exhibit 2  
RENTAL INFORMATION REPORT

Map \_\_\_\_\_ Town \_\_\_\_\_  
Block \_\_\_\_\_ Parcel \_\_\_\_\_

Name of Tenant(s) \_\_\_\_\_  
\_\_\_\_\_

Family or corporate relationship between owner and tenant(s) Yes ( ) No ( )

Rent	First floor _____	Monthly ( )	Weekly ( )	Other ( )
	Second floor _____	Monthly ( )	Weekly ( )	Other ( )
	Other _____	Monthly ( )	Weekly ( )	Other ( )

Date when present rent was established \_\_\_\_\_

Services paid by:

	Owner	Tenant
Water	_____	_____
Light	_____	_____
Gas	_____	_____
Furniture	_____	_____
Repairs	_____	_____
Other	_____	_____

Taxes paid by: Owner ( ) Tenant ( )

Building use:

First floor	_____
Second floor	_____
Other	_____

Does the owner occupy part of the building? Yes ( ) No ( )

Number of rooms:

First floor	_____
Second floor	_____
Other	_____

Additional Information

Sale value of the property	\$ _____	Year _____		
Other sales:	Block _____	Parcel _____	Cost _____	Year _____
	_____	_____	_____	_____
	_____	_____	_____	_____

Exhibit 3

CAPITALIZATION OF RENTS ANALYSIS

		Date _____		
City	Classification	Map	Block	Parcel
<u>Building</u>	<u>Area</u>	<u>Unit</u>	<u>Cost</u>	<u>Total</u>
First floor	_____	_____	\$ _____	
Second floor	_____	_____	_____	
Third floor	_____	_____	_____	\$ _____
<u>Additional Items</u>	_____	_____	_____	
	_____	_____	_____	
	_____	_____	_____	
	_____	_____	_____	
	_____	_____	_____	
Replacement Cost				_____
Adjusted Per Cent Good				_____
<b><u>TOTAL PRESENT VALUE</u></b>				\$ _____
Annual Rent		_____		
.90 Occupancy		_____		
<u>Less: Expenses</u>				
Taxes	_____			
Amortization	_____			
Other	_____			
<u>Net Income</u>				
Capitalized Income .083				
<u>Less: Building Value</u>				
<u>Parcel Value</u>				
Parcel Value			\$ _____	
Parcel Area				Square Meter
Remarks:	_____			
	_____			
	_____			
	_____			
	Corrected _____ By _____			

Table 3

Amortization Factor Table

Life Expectancy In Years	Amortization Factor	Life Expectancy In Years	Amortization Factor
1	1.000	26	.020
2	.488	27	.018
3	.317	28	.017
4	.232	29	.016
5	.181	30	.015
6	.147	31	.014
7	.123	32	.013
8	.105	33	.012
9	.091	34	.012
10	.080	35	.011
11	.070	36	.010
12	.063	37	.010
13	.056	38	.009
14	.051	39	.009
15	.046	40	.008
16	.042	41	.008
17	.039	42	.007
18	.035	43	.007
19	.033	44	.007
20	.030	45	.006
21	.028	46	.006
22	.026	47	.006
23	.024	48	.005
24	.022	49	.005
25	.021	50	.005

### III. ESTABLISHING UNIT VALUES

The establishment of unit values throughout an entire community or urban area depends upon first determining the location and value levels of the best commercial and residential properties, and then determining additional reference point values as a guide in the completion of the value pattern. The 100 per cent value map is the basis of dollar values as reflected by the sales and income analysis, and the use-topographic map is used to evaluate the value factors at work. After the pattern of values has been completed by a field appraisal, the final land-value map, known as the 80 per cent map, is prepared.

#### Maximum Value Points

The identification and evaluation of the points of highest value in the several use zones are the first steps in establishing units. These points are the most useful references because they provide a constant comparison for all other values in the community. Any other value can vary from the maximum only in degree, not in direction, and hence the comparisons are somewhat simplified.

#### Location

The location of the best commercial property is fairly easy to ascertain by observation. In general, it occurs where there is the most pedestrian-consumer movement. In case of doubt, consult local opinions to confirm the observations of the appraiser. The location of the best residential site usually is identified by the best residential improvements in town. In some cities, however, accessibility to the commercial zones and other facilities is of sufficient importance to render the land occupied by lower quality improvements more valuable than any other residential sites.

#### Value Levels

The determination of value levels at the maximum value points in each use zone involves both a consideration of value information and an appraisal of value relationships among the various cities. Considerably more elaborate techniques are required in commercial than in residential zones.

**Commercial.** In most cases sales values, particularly vacant lot sales, provide the best reference point for the maximum value. In other cases, opinions of value, which like sales values have to be converted to preliminary unit values, may be of significant supplementary assistance.

Often, reliance must be put upon index information to achieve comparisons of maximum values of the towns. Note that the indexes are only indexes and not infallible indications of maximum land values. Some of the data which may be useful are the following:

1. **Sanchez (or E. S.) Rental Index.** The Sanchez Index represents an average maximum street value as computed from a sample of rents. To compute the Sanchez Index, use only commercial rents. Compute parcel and street values in the usual way and then multiply each street value thus computed by the ratio of the 100 per cent maximum value in the town to the established 100 per cent unit values for the street upon which the property is located.

For example, assume that rental values are available on five properties and the maximum 100 per cent value in a town is \$50 per square meter. Table 4 below shows the computation of the Sanchez Index.

Since the computation must await the assignment of all 100 per cent values, it serves primarily as a back check. For best use, the Sanchez Index requires a considerably larger sample than that shown in Table 4.

2. **Consumer population estimates.** These figures are computed from an estimate of the number of dwelling units multiplied by the per dwelling unit occupancy (number of persons) as shown in the latest census for each urban area. The number of dwelling units is estimated by counting the total number of all types of structures in and immediately around the urban area. To this total is added the difference between the latest census number of dwelling units and the latest census number of dwelling structures.

Table 4  
Sample Computation of the Sanchez Index

	Capitalized Rent Value	Established 100% Unit Value	Ratio of Maximum Value to Street Unit Value	Rent Value Ratio <sup>a</sup>
Parcel A	\$18.50	\$25.00	2.00	\$37.00
Parcel B	38.75	35.00	1.43	55.41
Parcel C	32.00	35.00	1.43	45.76
Parcel D	37.50	40.00	1.25	46.88
Parcel E	58.00	50.00	1.00	58.00
				5 \$243.05
				\$ 48.61 <sup>b</sup>

<sup>a</sup>Index for each individual parcel.

<sup>b</sup>Average index, or Sanchez Index, for the town.

In the case of villages, the total number of structures is simply multiplied by 5 to yield the population estimate.

3. **Agricultural income estimates.** The agricultural income estimate is based upon ten of the twelve most important rural activities of the island. Charcoal making and sweet-potato raising are among the first ten but are not used because of the lack of census data concerning them. The figure is an estimate in millions of dollars of the combined farm and sugar factory income for each municipality. Total crop and harvest figures in dollars were obtained from Perloff, *Puerto Rico's Economic Future*, Tables A-2 and C-2 of the Appendix. These total dollar values were distributed among the municipalities on the basis of 1940 agricultural census crop figures. For each crop, each municipality was assigned a percentage of the total crop value based on the municipality's percentage of the total crop production in accordance with the following schedule:

Sugar (farm income)	Acres per Municipality
Sugar (factory income)	Tons Ground per Municipality
Milk (farm income)	Quarts per Municipality
Poultry (farm income)	Chickens per Municipality
Beef (farm income)	Head per Municipality
Pork (farm income)	Head per Municipality
Eggs (farm income)	Dozens per Municipality
Tobacco (farm income)	Acres per Municipality
Coffee (farm income)	Acres per Municipality
Plantains (farm income)	Acres per Municipality
Bananas (farm income)	Acres per Municipality

The resultant estimates of each crop value for each municipality were then added. When the 1950 agricultural census figures are available, new agricultural income estimates should be computed using the new total crop values.

4. **Industrial income estimates.** For the present, the only source of industrial information by municipality is to be found in the Industrial Directory of Puerto Rico. Since only names and addresses of establishments are listed, it is impossible to make any income estimates. However, the 1950 census will include an industrial section with which it may be possible to work out estimates comparable to those of agricultural income.
5. **Income data.** Only two figures are used regarding personal income: an estimate of the income on which taxes were paid by municipality, and the number of persons paying income tax in each municipality. There is no rural-urban breakdown. These figures are obtained from the Insular Bureau of Income Taxes and should be secured every year.

6. Other bases for comparison. A number of other items are important in making intertown comparisons. The presence or absence of a commercial zone and the number and distribution of the parcels within it should be compared with what would be expected from the population of the town. This analysis of commercial development often reflects the effects of competing commercial centers in neighboring towns. Other things to be considered in a region are recent or imminent important economic changes whose influence on land values will require some time to be observable. Some examples of these are the appearance or disappearance of sugar factories, big industries, government public works and military establishments, and drastic changes in crop values.

Residential. Recourse may be had to sales and opinion data for top residential value levels. Rent data, except for apartment house districts, should be ignored. In general, residential levels tend to follow the pattern of the local commercial levels; that is, in an urban area of high commercial values, the best residential property will be high also. This fact indicates that residential property values at top levels reflect the business and employment opportunities of the given region. Sometimes the existence or lack of desirable residential neighborhoods and recreational facilities may alter somewhat the value that would be expected on the basis of local commercial values alone.

#### Other Reference Points

Before establishing the pattern in the field, several other key point values are ascertained. In small towns the values at the edges of town along the principal traffic routes should be investigated. The minimum value in any town should be determined or estimated from adjacent rural land values before field work is undertaken. Absolute minimum for urban land must not be less than \$.15 per square meter (based on 1950 values). In larger communities, value levels for various districts, urbanizations, and points along principal traffic routes are needed. They can be found by sales, opinions, and sometimes by rent analysis.

#### Assigning Unit Values

The final establishment of unit values is accomplished by a field appraisal, which requires a careful analysis of value factors and adherence to certain general rules of procedure. When the field appraisal of a town or an urban community has been completed, an appraisal report is prepared to be used for reference and comparison with other towns.

#### General Procedures

The appraiser's basic tool is the 100 per cent value map, on which appear the assessment office zoning; the legal zoning, if any; sales data in red; rental data in green; opinion data in black; and topographical notations in brown. In addition, the maximum and minimum values already determined are entered in black.

Starting with the most valuable blocks of the most valuable zone, square meter unit values are determined and entered on the map. The appraisers should proceed block by block, carefully estimating and recording unit values which are in conformance with the reference points. All commercial unit values are assigned first, best residential second, semicommercial third, and the rest of the residential last. Values usually change as zoning lines are crossed; e.g., values drop when moving from a commercial to a residential zone along the same block front. An exception to this rule frequently occurs at corners, where a commercial and a residential street intersect. In these cases, residential side-street value should be continued to include the corner parcel, even though the corner itself is in a commercial zone and fronts on a commercial street.

The values entered on the map are flat land values and will ultimately be corrected by the topographic markings appearing on the map. The appraisers therefore should keep in mind what the effects of the topographic corrections will be in order that the proper relationship will still obtain after such adjustments are made.

#### Value Factors

The following value factors are the most important that affect urban land values in Puerto Rico. They appear in the approximate order of decreasing importance.

##### Commercial Factors:

1. Type, quality, and concentration of improvements. In general, the best commercial land in most Puerto Rican urban areas is to be found around the best retail commercial improvements; that

is, those having the biggest and best facilities and best quality of buildings. The commercial facilities themselves generate pedestrian traffic and hence the greatest concentration of pedestrian traffic normally appears where facilities of good quality are concentrated. Conversely, the poorest commercial zones are to be found where there are the smallest facilities and the poorest quality of construction.

2. Proximity to bus or publico stops, terminals, and routes. In most communities the best commercial improvements are found at or close to publico and bus terminals and stops. The mere fact that a bus or publico line passes along a street enhances the commercial value of that street. Proximity to ferry landings, airports, and parking lots is another example of the way in which accessibility to transportation facilities influences commercial land values in Puerto Rico.
3. Proximity to other pedestrian traffic generators. Probably the most important other factor in generating traffic, especially in smaller communities, is the plaza. Next in importance are the larger private enterprises, such as factories. Post offices and other government offices may be significant. Schools, however, are of little significance because of the low purchasing power of the students.
4. Legal zoning. The type of commercial establishments which are permitted or prohibited affects the land's potential earning ability. Zoning restrictions can enhance nonconforming property values considerably, since such properties have a virtual monopoly in the area which they serve.

##### Residential Factors:

1. Type and quality of improvements. In general, single-family residences of the best quality are located on the most valuable residential sites. The highest quality apartment house sections in the metropolitan areas may demand the top residential land values, however, because of the commercial opportunities accruing to the owner. Slum areas not only have the lowest land values, but also exert downward pressures on values in neighboring sections. The existence of offensive industrial improvements in a neighborhood sometimes depresses residential values for some distance in all directions.
2. Street improvements and services. The existence of paved streets, sewage, water, and light facilities affects the land values. This effect is most noticeable in the poor sections where one or more such utilities are missing. Unpaved streets in lower class districts seldom have values as high as \$2.00 per square meter, based on the 1950 level of values; those that are so narrow as to be inaccessible to automobiles and those without water seldom rise above \$1.00 per square meter, based on the 1950 level of values. On the other hand, lack of sewage facilities is fairly common, and is primarily of interest to the appraiser in a town which is only partially covered. Finally, over-all landscaping, including shade trees, may be important, particularly in the middle- and high-class residential areas.
3. Accessibility to commercial facilities. Residential property adjacent to commercial and semi-commercial zones often attains maximum residential prices, particularly if there are improvements of good quality within the commercial area. Because of the much greater availability of land on the edges of town, values drop to their lowest point as the rural areas are approached. Since accessibility also implies availability of transportation, in Puerto Rico middle- and lower-class property along bus and publico routes is considered more valuable; but there is a tendency for upper-class homes to seek the quiet of side streets or districts somewhat away from the crowded center of town.
4. Accessibility to other facilities. In smaller communities, proximity to the plaza is considered very desirable. In other places, proximity and accessibility to parks, beaches, fresh air, and interesting views tend to raise values.
5. Legal zoning. The number of stories permitted, the number of dwelling units permitted per parcel, and the possibilities of future commercial developments established by legal zoning may have a significant bearing upon residential land values.

##### Semicommercial Factors:

1. Mixed Retail and Residential.
  - a. Proximity to and value of adjacent commercial and residential property. Values in a mixed-use zone are somewhat lower than in adjacent commercial sectors. If there is no adjacent commercial property, the values are higher than in surrounding residential areas.

- b. **Commercial factors.** All commercial factors, except legal zoning, influence land values in approximately the same manner with respect to mixed semicommercial property as in commercial zones.
2. **Wholesale, Car Markets, Light Industry, and Shops.**
- a. **Proximity to and value of adjacent commercial and residential property.** The more accessible wholesale districts are to the retail districts which they service, the more valuable the property is, and the higher the value of the retail district, the higher the value of the wholesale district. The lower limit of wholesale district values is fixed by the upper limit of adjacent residential values. Since the values of wholesale districts are dependent more upon vehicular traffic facilities than pedestrian traffic, the changes in values from block to block in wholesale districts are generally more gradual than in retail areas.
- b. **Concentration of wholesale improvements.** The greater the concentration of wholesale improvements in the vicinity, the higher the value. This is because there are more facilities for exchange between warehouses and for shipping.
- c. **Accessibility to shipping facilities.** Wholesale values are raised by accessibility to main traffic routes, railroads, and pier facilities. The width and condition of street pavement is important in wholesale districts because it influences the ease of truck traffic.
3. **Private and Public Offices.**
- The proximity and value of adjacent commercial and residential property is usually sufficient to set these values.

#### Appraisal Report

After the appraisal of a town or community is complete, the appraiser is to prepare a report to be used for future reference and to facilitate making comparisons of values between towns. A complete report should be made for all cities and towns of reasonable size. The same general scope should be included in village reports, but it is not necessary to go into a great deal of detail. Following is the outline of the appraisal report:

##### A. Zoning

1. A brief description of the location of the commercial and semicommercial zones with respect to main highways, plazas, and other terminal points.
2. A brief notation of nature.  
Examples: Well-defined or not; large or small; expanding or contracting, and in what direction split or concentrated; types of facilities.
3. Reasons for the above.  
Examples: Proximity to competing centers, shift in population centers.
4. Number of parcels in the commercial zone.
5. Relationship with Planning Board.  
Zoning if any exists.

##### B. Rents

1. A summary of the rental ranges by zones indicating whether investigated by interview and whether converted into a street value.
2. The E.S. Index figure. E.S. = \_\_\_\_\_.
3. Comments as to the validity or whether high or low in comparison with other towns. If possible, include rental comparison data in tabulation under Values and Value Factors, Section D.

##### C. Sales and Other Information

1. Number of persons interviewed and summary sales obtained by zones indicating whether converted into street value.
2. Validity of sales data and any comparison of significance.

3. Summary and validity of opinion value data.
4. Any other pertinent data obtained by interview and influencing values.

#### D. Values and Value Factors

1. Estimated Population 1950; per cent increase from 1940
2. Commercial: (Maximum Value)
  - a. Factors of lot shape or location with respect to back streets or intersections, if parcel values per square meter are very different from street values in the best commercial zones. A listing of the top few square meter parcel values for the town should always be presented.
  - b. Factors of value which have determined the best commercial section, such as central location in the commercial zone, proximity to plaza and to bus, publico; or other facilities generating pedestrian traffic concentrations.
  - c. Factors of value which have contributed to determining the maximum value for the commercial zone, but which are of a more general or regional nature than the localized factors of part b. These are factors which should affect both the number and quality of the consuming public. Most of these data can be presented in the tabulation, while some can be presented in accompanying paragraphs. The towns actually considered and compared in assigning maximum values should be those included in this section. The following are the types of factors to be discussed:

Examples: Populations, income tax reports, municipal budgets, agricultural and industrial production, metropolitan influences, parcels in commercial zones, etc.

##### 3. Semicommercial: (Maximum Value)

A statement as to whether or not determined by adjacent residential and commercial property. If not, a report following the procedure of section D.2., Commercial, should be made.

##### 4. Residential (Maximum Value)

- a. Factors of lot shape and location as under section D.2.a.
- b. Factors of best section location as under section D.2.b. These would include factors such as neighborhood building class and subclass, proximity to plaza, commercial facilities, and other residential locational advantages.
- c. Factors of regional significance as in section D.2.c. These would include factors such as local or regional employment or business opportunities, accessibility to opportunities and facilities of other regions, physical appearance of the town, extent of slums, climate, surrounding region, recreational facilities.

#### Conditions Requiring Reappraisal

Unit values will not be changed frequently but there will be certain physical, economic social, and legal developments which will necessitate readjustments. The following are some of these possibilities, with the necessary procedures listed under each.

#### Major Developments

##### New Villages.

1. Preparation of a use-topographic map and 100 per cent value map.
2. Estimation of population.
3. Collection and analysis of sales and opinion data.
4. Determination of the maximum and minimum values on the basis of information accumulated and by comparison with corresponding data on other villages for which values are known.
5. Assignment of a complete value pattern in the field.
6. Writing of an appraisal report.

New Urbanizations.

1. Preparation of a use-topographic and 100 per cent value map.
2. Determination of value levels from sales and opinion values at various points in the project.
3. Assignment of the complete value pattern of the urbanization and revision of feeding street values where necessary.

New Through Street and Highway Developments.

1. Preparation of new sections for the 100 per cent value map, complete with all topographic corrections as necessary.
2. Collection and analysis of sales, opinion, and, if applicable, rental data within the areas affected by the change.
3. Reassignment of values along the street and along feeding streets if necessary.

Significant Industrial and Agricultural Changes. If economic changes are such as to materially affect regional or municipal prosperity, the maximum values certainly will be affected, and often all values in substantial sectors of the commercial and semicommercial zones need revision. Procedures will be as follows:

1. Collect new sales, opinion, and commercial rent data throughout the community affected.
2. Recheck and recompute the Sanchez, Agricultural, Industrial, and Income Indexes if possible.
3. Reassign maximum values and others if necessary.
4. Revise or rewrite the appraisal report.

Minor Revisions

There may frequently be need for slight changes in topographic notations, zoning, and values within restricted areas. The following types of changes are in this category:

1. Changes in the use and character of improvements sufficient to require a zoning change will also require some unit value changes.
2. Addition of groups of new parcels around the edges of town.
3. Addition of new side streets or new improvements in formerly undeveloped areas.
4. Addition of new street services such as pavement, water, and sewerage.
5. Revisions as a result of tax appeals.

Preparation of Land-Value Map

The final land-value map, sometimes referred to as the 80 per cent map, is the end result of the urban land appraisal function. Extensive corrections and computations are necessary to convert the information on the 100 per cent value map used in the field into useful and valid information for parcel value computations. Revisions are necessary in the map whenever there are any additions to or changes in unit values, topography, or zoning. In making revisions, paste a corrected section over the existing map and note the date of the change. When an entire map sheet is done over eventually, all appraisal cards should be checked with the new map to insure that all corrections have been made.

Adjustments on 100 Per Cent Value Map

After all field work is completed and all values assigned, final topographical adjustments must be made on the 100 per cent value map. The following rules govern this procedure:

1. Corner parcel where one or both of the streets has a topographical reduction.
  - a. If the inclined street has a value higher than the other street after the topographical reduction, nothing is done. (See Illustration S.)
  - b. If the inclined street has a value lower than the other street after the reduction, but higher before the reduction, nothing is done. (See Illustration T.)

Illustration S

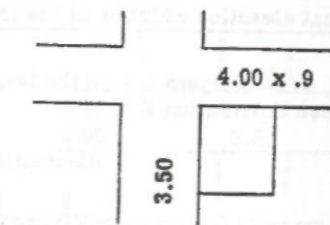
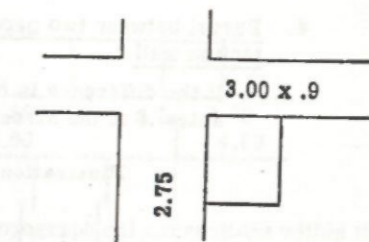


Illustration T



- c. If the inclined street has a value lower than the other street before and after any reduction, or if both streets are inclined, draw a brown box on the low value street side and enter the original 100 per cent value of the low value street in the box. Place the inclinometer reading for the low value street within the parcel. (See Illustrations U and V.)

Illustration U

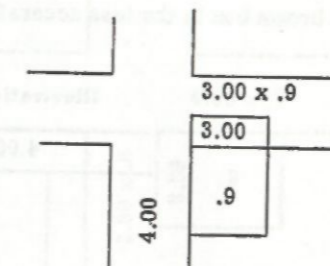
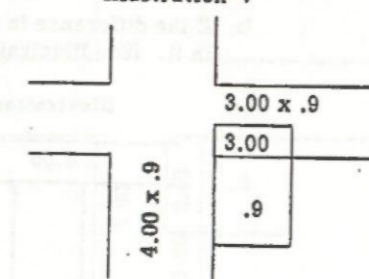
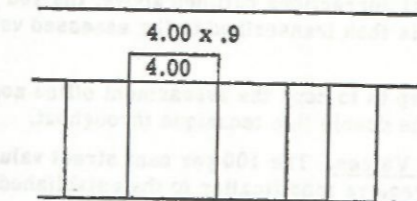


Illustration V



2. Interior parcel which has been made horizontal but which fronts on an inclined street. Insert a brown box in front of the parcel and enter the original 100 per cent value of the street in the box. (See Illustration W.)

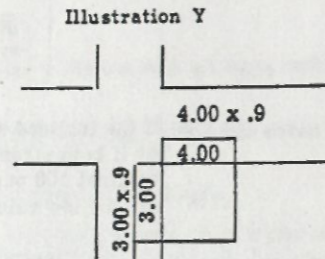
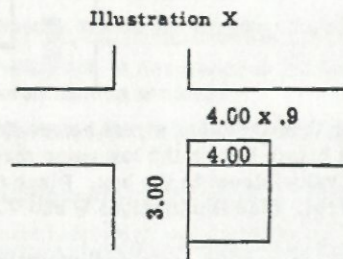
Illustration W



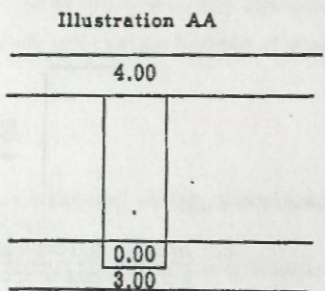
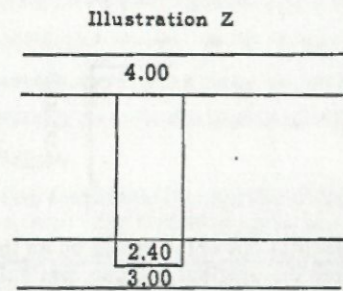
3. Corner parcel which has been made horizontal, but which fronts on one or two inclined streets. Draw brown boxes along the inclined streets and enter the original 100 per cent values of the streets in the boxes. (See Illustrations X and Y.)

4. Parcel between two parallel streets of unequal elevation which is at the level of one with no retention wall.

- a. If the difference is between 6 and 20 feet, draw a brown box on the less accessible side and enter .8 of the street value in the box. (See Illustration Z.)



- b. If the difference is over 20 feet, draw a brown box in the less accessible side and enter 0.00 in it. (See Illustration AA.)



Adjustments on Assessed Value Map

With the topographical corrections outlined above, the 100 per cent value map is complete. The information shown on it is then transcribed to the assessed value map with such additional adjustments as are necessary.

**Zoning.** The first step is to copy the assessment office zoning onto the 80 per cent value map in complete detail, using the double line technique throughout.

**Conversion of Street Values.** The 100 per cent street values which have been determined by the appraisers in the field require modification to the established level of assessed values. The following rules are to be followed in making this adjustment.

1. Multiply each unit value by its topographical modification, if any.
2. Reduce all values to 80 per cent and round to the nearest \$.05. This includes the values entered in boxes for topographical correction.
3. Enter the corrected values on the land-value map in the following manner. (See Illustration BB.)
  - a. Put unit values on both sides of the street in red pencil.
  - b. Where streets are crossed by zoning lines, place values on both sides of the zoning lines.
  - c. Mark off other changes within a single block front by light red dividing lines.

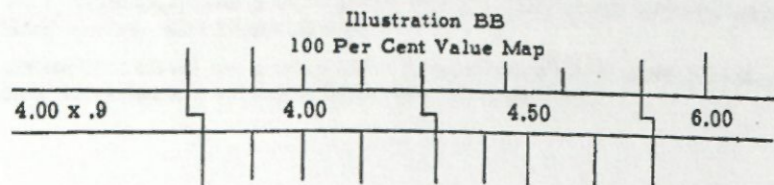
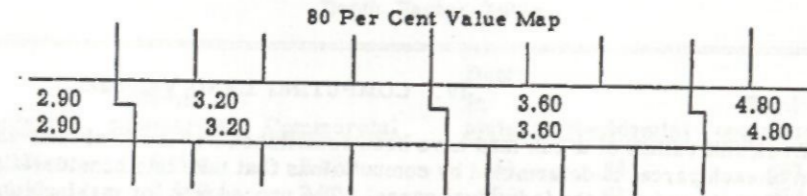


Illustration BB (continued)



Conversion of Topographical Corrections. Enter parcel topographical corrections within the corresponding parcels of the land-value map in red pencil. (See Illustration CC.)

Illustration CC

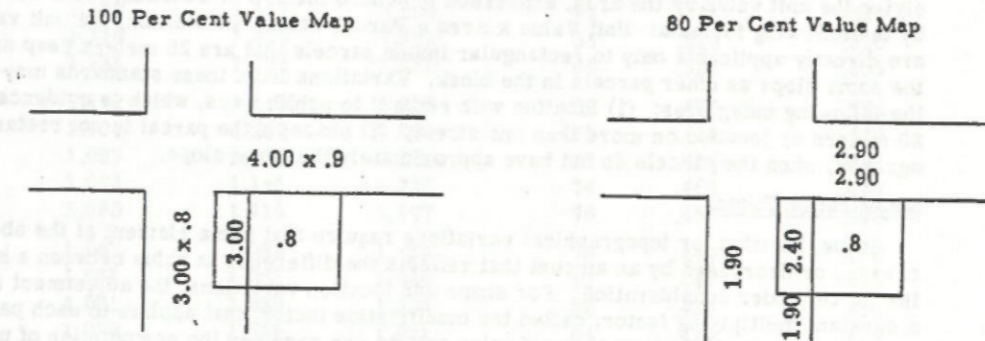


Table 5  
Depth Factor Table

Depth In Meters	Residential	Semi-commercial	Commercial	Depth In Meters	Residential	Semi-commercial	Commercial
1	1.300	2.090	2.880	48	.631	.631	.523
2	1.240	1.860	2.500	50	.612	.612	.504
3	1.216	1.722	2.213	52	.596	.596	.488
4	1.202	1.625	2.050	54	.580	.580	.472
5	1.189	1.547	1.916	56	.566	.566	.458
6	1.176	1.479	1.800	58	.552	.552	.444
7	1.163	1.472	1.694	60	.539	.539	.431
8	1.150	1.372	1.600	62	.527	.527	.419
9	1.138	1.326	1.522	64	.516	.516	.408
10	1.125	1.284	1.450	66	.505	.505	.397
11	1.112	1.245	1.385	68	.494	.494	.386
12	1.100	1.209	1.325	70	.485	.485	.377
13	1.087	1.176	1.271	72	.476	.476	.368
14	1.073	1.145	1.223	74	.467	.467	.359
15	1.060	1.116	1.177	76	.459	.459	.351
16	1.047	1.089	1.136	78	.449	.449	.341
17	1.033	1.063	1.098	80	.444	.444	.336
18	1.021	1.039	1.062	82	.436	.436	.328
19	1.010	1.019	1.031	84	.429	.429	.321
20	1.000	1.000	1.000	86	.423	.423	.315
21	.981	.981	.972	88	.417	.417	.309
22	.965	.965	.945	90	.411	.411	.303
23	.950	.950	.920	92	.405	.405	.297
24	.937	.937	.896	94	.399	.399	.291
25	.923	.923	.873	96	.394	.394	.286
26	.910	.910	.850	98	.389	.389	.281
27	.896	.896	.828	100	.384	.384	.276
28	.882	.882	.807	102	.379	.379	.271
29	.868	.868	.787	104	.374	.374	.266
30	.854	.854	.767	106	.370	.370	.262
31	.840	.840	.748	108	.366	.366	.258
32	.827	.827	.730	110	.361	.361	.253
33	.813	.813	.713	112	.357	.357	.249
34	.799	.799	.696	114	.353	.353	.245
35	.786	.786	.681	116	.350	.350	.242
36	.772	.772	.666	118	.346	.346	.238
37	.759	.759	.651	120	.342	.342	.234
38	.746	.746	.637	124	-	.335	.227
39	.732	.732	.623	128	-	.329	.221
40	.718	.718	.610	132	-	.323	.215
42	.694	.694	.586	136	-	.317	.209
44	.671	.671	.563	140	-	.311	.203
46	.650	.650	.542				

IV. COMPUTING LAND VALUES

When unit values of urban land have been established and the final land-value map prepared, the valuation of each parcel is determined by computations that take into consideration all the varying elements that affect the value of the individual parcel. The procedures for making computations are among the most completely standardized in the field of assessment.

Standard Computation Techniques

Parcel values obviously vary because of differences in area. Such variations are computed by multiplying the unit value by the area, expressed in square meters or cuerdas. This computation is expressed by the following formula: Unit Value x Area = Parcel Value. In addition, the unit values of urban parcels are directly applicable only to rectangular inside parcels that are 20 meters deep and have approximately the same slope as other parcels in the block. Variations from these standards may occur in any or all of the following categories: (1) location with respect to public ways, which is evidenced by depth exceeding 20 meters or location on more than one street; (2) shape, if the parcel is not rectangular; and (3) topography, when the parcels do not have approximately the same slope.

Modification Factor

Shape, location, or topographical variations require that some element of the above formula be increased or decreased by an amount that reflects the difference in value between a standard parcel and the parcel under consideration. For shape and location variations, the adjustment is made by computing a constant multiplying factor, called the modification factor, that applies to each parcel. The modification factor is used to adjust the unit value and its use resolves the computation of urban land values into two formulas as follows:

1. Unit value x modification factor = meter value.
2. Meter value x area = parcel value.

Topographic adjustments are applied to the parcel value as derived from these two formulas resulting in a third formula:

3. Parcel value x topography adjustment = adjusted parcel value.

The great advantage of using a modification factor is that it remains constant in almost every case, unless there is a change in the boundaries of the parcel. This greatly simplifies the process of revaluation. In those instances where the factor does not remain constant, two or more modification factors are derived, a separate computation is made to determine each factor, and the values so determined are added to obtain the total value of the parcel. One or more modification factors are necessary in every computation except for parcels appraised by means of a unit value per cuerda.

Depth Modification

Depth influence is commonly represented graphically by means of a curve. These curves may be of either of two types. A "cumulative" curve depicts the total value of land from the street front back to a given depth, and a "marginal" curve shows the value of each individual square unit of land as the perpendicular distance from the street increases. A cumulative curve is used with front units; a marginal curve is used with square units. Nearly every parcel has a depth factor computed for it. In many cases, this is the only modification made, and therefore is in itself the modification factor. Three depth curves are used, all of which are marginal square meter curves.

The marginal square meter derivative of the Somers-Cleveland depth curve is used for commercial properties. The Somers-Cleveland curve was used because it allocates a higher percentage of value to the front half of the parcel than any other well-known curve, and hence appears to describe the importance of depth influence in commercial property most accurately. The factors were derived from the original Somers-Cleveland depth table by the following computations:

1. Since the standard depth of the Somers-Cleveland curve is 100 feet and the standard depth in Puerto Rico is 20 meters, the correct factor for 20 meters is 1,000.
2. Each one-meter variation from the standard is equal to 1/20 of the standard depth, or a variation equivalent to 5 feet ( $\frac{100}{20}$ ) on the Somers-Cleveland curve. The Somers curve was therefore

converted to a cumulative front meter curve with 20 meters as standard depth by substituting 1 meter for each 5 feet. For example, the depth factor for 10 meters would be .725 (Somers-Cleveland depth factor for 50 feet).

- The cumulative curve derived by step 2 above was then converted into a marginal curve for every depth by use of the formula:

$$\text{Marginal depth factor} = \frac{\text{Cumulative depth factor} \times \text{standard depth}}{\text{Depth}}$$

For residential properties, the marginal square meter derivative of the apartment-residential curve used by the California State Board of Equalization is used up to a depth of 20 meters. This curve was developed from the original in the same way as the commercial curve.

The semicommercial curve was plotted midway between the commercial and residential curves up to a depth of 40 meters. The residential curve was then merged with the semicommercial curve from 20 to 40 meters and the resulting common curve extended beyond 40 meters by drawing it parallel to the commercial curve.

Table 5 shows the depth factors that are used.

Because of the complexity of computing depth factors for rear parcels by use of the square meter depth curve, an additional table was prepared showing the rear depth factors computed for parcels with depths up to 20 meters and located not more than 20 meters from the street. The factors themselves were derived from a formula, which is also used to find the depth factor for those parcels to which the table is not applicable.

The formula is:

$$DF_3 = \frac{(D_1 \times DF_1) - (D_2 \times DF_2)}{D_3}$$

Where D = Depth, DF = Depth Factor

Subscript 1 = Depth from street to rear line of parcel

Subscript 2 = Depth from street to front line of rear parcel

Subscript 3 = Depth of the rear parcel being computed

Table 6 is the Rear Parcel Depth Factor Table.

**Corner Modification**

The value of urban land generally is considered to be greater if it is located at or near the intersection of two streets. The percentage enhancement is also considered to vary according to the following factors: (1) land use; (2) ratio of street values; (3) ratio of frontage on the two streets; (4) distance from the corner; and (5) the level of street values. All of these variations are taken into consideration by the corner modification rules that are followed in the computation of corner influence.

Corner enhancement is considered to extend in appreciable amounts to a distance of 20 meters each way from the corner, but it is computed only for the corner parcel except for a few extremely high valued commercial properties. The enhancement that is occasionally given to the parcels not on the corner is referred to as corner reflection. If any dimension of a parcel is more than 20 meters, corner enhancement is applied only to that portion of it which lies within the zone of corner influence, that is, within the standard depth of 20 meters, along both streets from the corner.

Two rules are followed for computing corner enhancement. All residential properties and those commercial and semicommercial parcels which have a front street value of less than \$5 a square meter are enhanced by 10 per cent of their value as inside lots for location on a corner.

In the case of commercial and semicommercial properties having a unit value of \$5 a square meter or higher, the corner influence factor is applied. Each parcel is computed first as an inside lot facing on the main street using whatever computing techniques are necessary. Then the parcel, or that part of it lying within the zone of corner influence, is computed again as an inside lot fronting on the side street. In the latter computation the same rules are applied except that a corner influence factor is used in place of a depth factor. The two values so computed are added to obtain the total value of the parcel.

The Zangerle rule of corner influence is the basis for commercial property computations. This rule commends itself because it varies the corner enhancements in direct proportion to the variation of side street values, and also gives equal enhancement to portions of the lot equidistant from the side street. Zangerle's basic rule provides maximum enhancement to parcels fronting on streets with unit values of

Table 6

Rear Parcel Depth Factor Table<sup>a</sup>  
(For use only in lots or parts of lots without street frontage)

Depth	Distance from Front Parcel Line to the Street									
	2	4	6	8	10	12	14	16	18 <sup>b</sup>	20
Residential Zone										
2	1.164	1.124	1.072	1.025	.975	.911	.865	.813	.811	.615
4	1.144	1.098	1.050	1.000	.943	.888	.839	.806	.713	.612 <sup>b</sup>
6	1.120	1.074	1.024	.970	.926	.863	.830	.750	.685	.610
8	1.096	1.049	.996	.944	.891	.850	.776	.719	.660	.587
10	1.072	1.021	.967	.918	.875	.803	.747	.691	.632	.562
12	1.045	.995	.944	.900	.832	.774	.720	.662	.604	.539
14	1.019	.969	.925	.859	.803	.747	.691	.633	.578	.512
16	.997	.950	.886	.831	.776	.719	.662	.607	.549	.487
18	.973	.912	.857	.803	.747	.690	.636	.579	.523	.464
20	.938	.884	.830	.775	.719	.663	.607	.552	.499	.436
Semicommercial Zone										
2	1.390	1.187	1.049	.932	.834	.761	.697	.669 <sup>b</sup>	.647	.627 <sup>b</sup>
4	1.290	1.119	.992	.883	.798	.729	.668	.644	.626 <sup>b</sup>	.622
6	1.210	1.057	.939	.842	.764	.699	.662	.634	.633	.610
8	1.140	1.001	.895	.806	.733	.687	.650	.633	.620	.587
10	1.079	.953	.855	.773	.716	.672	.646	.624	.599	.562
12	1.026	.910	.819	.752	.699	.665	.636	.606	.577	.539
14	.979	.872	.795	.732	.689	.654	.619	.585	.554	.512
16	.936	.844	.772	.720	.676	.637	.599	.565	.529	.487
18	.904	.818	.756	.705	.659	.617	.580	.541	.505	.464
20	.876	.799	.739	.686	.639	.598	.558	.518	.482	.436
Commercial Zone										
2	1.600	1.300	1.000	.850	.700	.611	.527	.470	.442	.395
4	1.450	1.150	.925	.775	.656	.567	.499	.456	.419	.376
6	1.300	1.050	.850	.720	.613	.539	.480	.436	.398	.350
8	1.188	.963	.790	.672	.578	.513	.459	.416	.373	.324
10	1.090	.892	.738	.632	.550	.489	.438	.392	.348	.301
11	1.010	.831	.693	.600	.524	.467	.415	.368	.325	.280
14	.941	.780	.657	.571	.500	.443	.391	.345	.303	.262
16	.882	.738	.624	.544	.475	.419	.368	.324	.284	.249
18	.833	.699	.595	.517	.450	.395	.347	.305	.270	.234
20	.790	.665	.565	.490	.426	.373	.327	.290	.255	.220

<sup>a</sup>For depths more than 20 meters, compute depth factor by use of this formula:

$$\frac{D_1 DF_1 - D_2 DF_2}{D_3} = DF_3$$

<sup>b</sup>Arbitrarily adjusted to compensate for error in rate of decline caused by the merging of two depth factor curves, one curve for depths up to twenty meters and the other for depths over twenty meters.

\$200 per front foot or more, and percentage reductions down to 25 per cent of the maximum for front street values of \$50. The Puerto Rico table was prepared by using factors for main street values of \$20 per square meter or more, which are direct conversions to a marginal curve of the cumulative factors used by Zangerle for his maximum front street values. The other factors are computed on the basis of a five per cent reduction for each \$1 reduction in front street values to a minimum of 25-per cent for street values between \$5 and \$6. Table 7 is the Corner Influence Factor Table in use in Puerto Rico.

Corner reflection, i.e., the enhancement accruing to a parcel located within 20 meters but not immediately on a corner, is computed by using the same corner influence factor table. The factors, however, are exactly comparable to the rear parcel depth factors and are computed by the use of the same formula. Table 7a is the Corner Reflection Factor Table in use in Puerto Rico.

Triangle Modification

Triangular parcel shapes have the effect of altering the distribution of land in relation to the street. To adjust for this difference, practically all assessment jurisdictions use a triangle modification factor.

Triangles are of two kinds: (1) delta, which have their bases on or toward the street, and (2) nabla, which have their apexes on or toward the street. The Triangle Factor Table developed for use in Puerto Rico is derived, with slight modification, from Zangerle's triangle factor table. Since every triangle has half the area of the minimum rectangle that would contain it, Zangerle's table adjusts for area by using .500 as the maximum nabla factor and the minimum delta factor. If square units are used in all computations, however, the area adjustment is not necessary in the triangle factor and hence the factors in the Puerto Rico table have 1.000 as the delta minimum and nabla maximum.

Table 8 is the Triangle Factor for Puerto Rico.

Trapezoid Modification

A majority of urban parcels in Puerto Rico are probably quadrangular, but not rectangular. No distinction is made between the two if the front and rear dimensions differ by less than two meters. In this case, the opposite sides are merely averaged and the parcel computed as though it were rectangular. If, however, a quadrangular parcel has front and rear dimensions varying by more than two meters, the parcel is considered to be a trapezoid and a trapezoid factor is applied.

The factors in the trapezoid table were calculated by reducing a series of trapezoidal parcels to their component rectangles and triangles, computing the values, and computing the percentage such values are of rectangular parcels with equal depth and area. If the ratio of the short to the long side is more than .850, the trapezoid factors very nearly approach unity, so such parcels are also treated as rectangles. In all cases of quadrangular parcels, the opposite sides are averaged to compute the area and the depth factor is determined by the average depth.

Table 9 is the Trapezoid Factor Table for Puerto Rico.

Merge Line Location

To compute the value of a through parcel fronting on both a front and a back street, it is necessary to establish an imaginary line of division, the land on either side of which is considered as an inside parcel fronting on one street. This imaginary line is called the merge line.

The position of the merge line is determined by the ratio of the street values according to the following formula:

$$\frac{\text{High street value} \times \text{total depth}}{\text{Sum of street values}} = \text{distance from main street to merge line}$$

Distances have been worked out and incorporated into the merge line table for all depths up to 60 meters and all ratios of street value to the nearest tenth. The table was directly derived from the formula given above.

Table 10 is the Merge Line Table.

Irregular Parcels

Use of the tables and techniques already discussed makes it possible to compute the value of almost any parcel of urban land. Parcels with more than four sides are divided into rectangles, trapezoids, and triangles for computation. A composite modification factor for such parcels is determinable by computing the area and modification factors for each part individually and substituting in the following formula:

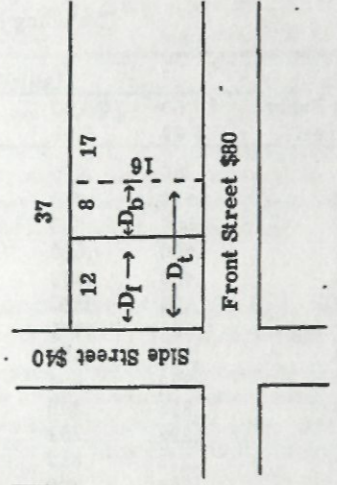
Table 7  
Corner Influence Factor Table  
(Including Modification for Front Street Values)

Depth In Meters From Side Street	Unit Value of Front Street (From Map)							
	\$5.00-	\$6.00-	\$7.00-	\$8.00-	\$9.00-	\$10.00-	\$11.00-	\$12.00-
	5.99	6.99	7.99	8.99	9.99	10.99	11.99	12.99
1	.750	.900	1.050	1.200	1.350	1.500	1.650	1.800
2	.625	.750	.875	1.000	1.125	1.250	1.375	1.500
3	.550	.660	.770	.880	.990	1.100	1.210	1.320
4	.500	.600	.700	.800	.900	1.000	1.100	1.200
5	.460	.552	.644	.736	.828	.920	1.012	1.104
6	.425	.510	.595	.680	.765	.850	.935	1.020
7	.393	.471	.550	.628	.707	.785	.864	.943
8	.362	.435	.507	.580	.652	.725	.797	.870
9	.337	.404	.472	.539	.607	.674	.741	.809
10	.315	.378	.441	.504	.567	.630	.693	.756
11	.293	.352	.410	.469	.527	.586	.645	.703
12	.275	.330	.385	.440	.495	.550	.605	.660
13	.257	.309	.360	.412	.463	.515	.566	.618
14	.243	.291	.340	.388	.437	.485	.534	.583
15	.230	.276	.322	.368	.414	.460	.506	.552
16	.219	.262	.306	.350	.394	.437	.481	.525
17	.207	.249	.290	.332	.373	.414	.456	.497
18	.197	.237	.276	.316	.355	.394	.434	.473
19	.188	.226	.264	.301	.339	.376	.414	.452
20	.180	.216	.252	.288	.324	.360	.396	.432

Depth In Meters From Side Street	Unit Value of Front Street (From Map)							
	\$13.00-	\$14.00-	\$15.00-	\$16.00-	\$17.00-	\$18.00-	\$19.00-	\$20.00-
	13.99	14.99	15.99	16.99	17.99	18.99	19.99	20.00- or over
1	1.950	2.100	2.250	2.400	2.550	2.700	2.850	3.000
2	1.625	1.750	1.875	2.000	2.125	2.250	2.375	2.500
3	1.430	1.540	1.650	1.760	1.870	1.980	2.090	2.200
4	1.300	1.400	1.500	1.600	1.700	1.800	1.900	2.000
5	1.196	1.288	1.380	1.472	1.564	1.656	1.748	1.840
6	1.105	1.190	1.275	1.360	1.445	1.530	1.615	1.700
7	1.021	1.100	1.178	1.257	1.335	1.414	1.492	1.571
8	.942	1.015	1.087	1.160	1.232	1.305	1.377	1.450
9	.876	.944	1.011	1.078	1.145	1.213	1.281	1.348
10	.819	.882	.945	1.008	1.071	1.134	1.197	1.260
11	.762	.820	.879	.938	.996	1.055	1.113	1.172
12	.715	.770	.825	.880	.935	.990	1.045	1.100
13	.669	.721	.772	.824	.875	.927	.978	1.030
14	.631	.680	.728	.777	.825	.874	.922	.971
15	.598	.644	.690	.736	.782	.828	.874	.920
16	.569	.612	.656	.700	.744	.787	.831	.875
17	.539	.580	.622	.663	.705	.746	.788	.829
18	.513	.552	.592	.631	.671	.710	.750	.789
19	.489	.527	.565	.602	.640	.678	.715	.753
20	.468	.504	.540	.576	.612	.648	.684	.720

Table 7a  
Corner Reflection Factor Table

Width of Corner Parcel	Width of Inside Parcel Within Zone of Corner Influence																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	2.000	1.800	1.667	1.550	1.440	1.333	1.229	1.142	1.067	.989	.927	.866	.815	.771	.733	.693	.659	.628	.600	--
2	1.600	1.500	1.400	1.300	1.199	1.100	1.019	.950	.877	.820	.763	.716	.677	.643	.606	.575	.547	.522		
3	1.400	1.300	1.200	1.099	1.000	.922	.857	.787	.733	.679	.636	.600	.569	.535	.507	.482	.459			
4	1.200	1.100	.999	.900	.826	.767	.699	.650	.599	.559	.527	.500	.469	.443	.420	.400				
5	1.000	.899	.800	.733	.680	.615	.571	.524	.488	.460	.436	.408	.385	.365	.347					
6	.797	.700	.644	.600	.538	.500	.456	.424	.400	.380	.354	.334	.316	.300						
7	.603	.568	.534	.474	.441	.399	.371	.350	.334	.310	.291	.276	.262							
8	.532	.500	.431	.400	.358	.332	.314	.300	.277	.260	.246	.233								
9	.468	.380	.356	.315	.292	.278	.267	.245	.230	.218	.206									
10	.292	.300	.263	.249	.240	.233	.213	.200	.190	.180										
11	.308	.249	.234	.227	.222	.200	.187	.177	.168											
12	.190	.197	.200	.200	.179	.167	.158	.150												
13	.204	.205	.203	.176	.162	.153	.144													
14	.206	.203	.166	.152	.143	.134														
15	.200	.147	.134	.127	.120															
16	.093	.101	.102	.100																
17	.109	.107	.102																	
18	.105	.099																		
19	.093																			
20	---																			



Formula:  

$$CRF = \frac{CIF_f D_f - CIF_r D_r}{D_b}$$

Table 8  
Triangle Factor Table

Depth in Meters	Delta	Nabla	Depth in Meters	Delta	Nabla
2	1.000	1.000	20	1.300	.700
3	1.056	.944	22	1.320	.680
4	1.096	.904	24	1.340	.660
5	1.132	.868	26	1.360	.640
6	1.156	.844	28	1.380	.620
7	1.170	.830	30	1.400	.600
8	1.180	.820	34	1.430	.570
9	1.190	.810	38	1.460	.540
10	1.200	.800	42	1.490	.510
11	1.210	.790	46	1.520	.480
12	1.220	.780	50	1.550	.450
13	1.230	.770	60	1.580	.420
14	1.240	.760	70	1.600	.400
15	1.250	.750	80	1.620	.380
16	1.260	.740	90	1.640	.360
17	1.270	.730	100	1.660	.340
18	1.280	.720	110	1.680	.320
19	1.290	.710	120	1.700	.300

Table 9  
Trapezoid Factor Table  
(For use in four-sided figures when front and rear dimensions vary by 2 meters or more)

Depth in Meters	Ratio of short dimension to long dimension (Long dimension = 1.000)							
	.800		.700		.600		.500	
	Delta	Nabla	Delta	Nabla	Delta	Nabla	Delta	Nabla
5	1.020	.980	1.030	.970	1.040	.960	1.050	.950
10	1.020	.980	1.030	.970	1.050	.950	1.070	.930
15	1.030	.970	1.040	.960	1.060	.940	1.080	.920
20	1.030	.970	1.050	.950	1.080	.920	1.100	.900
25	1.040	.960	1.060	.940	1.090	.910	1.120	.880
30	1.040	.960	1.070	.930	1.100	.900	1.140	.860
40	1.050	.950	1.080	.920	1.120	.880	1.160	.840
50	1.060	.940	1.100	.900	1.150	.850	1.190	.810

Depth in Meters	.400		.300		.200		.100	
	Delta	Nabla	Delta	Nabla	Delta	Nabla	Delta	Nabla
5	1.060	.940	1.080	.920	1.100	.900	1.120	.880
10	1.090	.910	1.110	.890	1.130	.870	1.160	.840
15	1.110	.890	1.130	.870	1.160	.840	1.200	.800
20	1.130	.870	1.160	.840	1.200	.800	1.240	.760
25	1.150	.850	1.190	.810	1.230	.770	1.280	.720
30	1.180	.820	1.220	.780	1.270	.730	1.330	.670
40	1.210	.790	1.260	.740	1.320	.680	1.390	.610
50	1.240	.760	1.300	.700	1.370	.630	1.450	.550

Table 10  
Merge Line Table  
(For Use With Through Parcels)

Total Depth in Meters	Distance from Front Street to Merge Line in Meters When Ratio of Low Street Value to High Street Value Is:									
	1.000	.900	.800	.700	.600	.500	.400	.300	.200	.100
1	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.8	0.8	0.9
2	1.0	1.1	1.1	1.2	1.3	1.3	1.4	1.5	1.7	1.8
3	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.3	2.5	2.7
4	2.0	2.1	2.2	2.4	2.5	2.7	2.9	3.1	3.3	3.6
5	2.5	2.6	2.8	2.9	3.1	3.3	3.6	3.8	4.2	4.5
6	3.0	3.2	3.3	3.5	3.8	4.0	4.3	4.6	5.0	5.5
7	3.5	3.7	3.9	4.1	4.4	4.7	5.0	5.4	5.8	6.4
8	4.0	4.2	4.4	4.7	5.0	5.3	5.7	6.2	6.7	7.3
9	4.5	4.7	5.0	5.3	5.6	6.0	6.4	6.9	7.5	8.2
10	5.0	5.3	5.6	5.8	6.3	6.7	7.1	7.7	8.3	9.1
11	5.5	5.8	6.1	6.5	6.9	7.3	7.9	8.5	9.2	10.0
12	6.0	6.3	6.6	7.1	7.5	8.0	8.6	9.2	10.0	10.9
13	6.5	6.8	7.2	7.6	8.1	8.7	9.3	10.0	10.9	11.8
14	7.0	7.4	7.7	8.2	8.8	9.3	10.0	10.8	11.7	12.7
15	7.5	7.9	8.3	8.8	9.4	10.0	10.7	11.5	12.5	13.6
16	8.0	8.4	8.8	9.4	10.0	10.7	11.4	12.3	13.3	14.5
17	8.5	8.9	9.4	10.0	10.6	11.3	12.1	13.1	14.2	15.5
18	9.0	9.5	10.0	10.6	11.3	12.0	12.9	13.8	15.0	16.4
19	9.5	10.0	10.6	11.2	11.9	12.7	13.6	14.6	15.9	17.3
20	10.0	10.5	11.1	11.8	12.5	13.3	14.3	15.4	16.7	18.2
21	10.5	11.1	11.7	12.4	13.1	14.0	15.0	16.2	17.5	19.1
22	11.0	11.6	12.2	12.9	13.8	14.7	15.7	16.9	18.3	20.0
23	11.5	12.1	12.7	13.5	14.4	15.3	16.4	17.7	19.2	20.9
24	12.0	12.6	13.3	14.1	15.0	16.0	17.1	18.5	20.0	21.8
25	12.5	13.2	13.9	14.7	15.6	16.7	17.9	19.2	20.8	22.7
26	13.0	13.7	14.4	15.3	16.3	17.3	18.6	20.0	21.7	23.6
27	13.5	14.2	15.0	15.9	16.9	18.0	19.3	20.8	22.5	24.5
28	14.0	14.7	15.6	16.5	17.5	18.7	20.0	21.5	23.3	25.5
29	14.5	15.3	16.1	17.1	18.1	19.3	20.7	22.3	24.2	26.4
30	15.0	15.8	16.6	17.6	18.8	20.0	21.4	23.1	25.0	27.3
31	15.5	16.3	17.2	18.2	19.4	20.7	22.1	23.8	25.8	28.2
32	16.0	16.8	17.7	18.8	20.0	21.3	22.9	24.6	26.7	29.1
33	16.5	17.4	18.3	19.4	20.6	22.0	23.6	25.4	27.5	30.0
34	17.0	17.9	18.9	20.0	21.3	22.7	24.3	26.2	28.3	30.9
35	17.5	18.4	19.4	20.6	21.9	23.3	25.0	26.9	29.2	31.8
36	18.0	19.0	20.0	21.2	22.5	24.0	25.7	27.7	30.0	32.7
37	18.5	19.5	20.6	21.8	23.1	24.7	26.4	28.5	30.8	33.6
38	19.0	20.0	21.1	22.4	23.8	25.3	27.1	29.2	31.7	34.5
39	19.5	20.5	21.6	22.9	24.4	26.0	27.9	30.0	32.5	35.5
40	20.0	21.1	22.2	23.5	25.0	26.7	28.6	30.8	33.3	36.4

Table 10  
(Continued)

Total Depth in Meters	Distance from Front Street to Merge Line in Meters When Ratio of Low Street Value to High Street Value Is:									
	1.000	.900	.800	.700	.600	.500	.400	.300	.200	.100
41	20.5	21.6	22.8	24.1	25.6	27.3	29.3	31.5	34.2	37.3
42	21.0	22.1	23.3	24.7	26.3	28.0	30.0	32.3	35.0	38.2
43	21.5	22.6	23.9	25.3	26.9	28.7	30.7	33.1	35.8	39.1
44	22.0	23.2	24.4	25.9	27.5	29.3	31.4	33.8	36.7	40.0
45	22.5	23.7	25.0	26.5	28.1	30.0	32.1	34.6	37.5	40.9
46	23.0	24.2	25.6	27.1	28.8	30.7	32.9	35.4	38.3	41.8
47	23.5	24.7	26.1	27.7	29.4	31.3	33.6	36.2	39.2	42.7
48	24.0	25.3	26.7	28.2	30.0	32.0	34.3	36.9	40.0	43.6
49	24.5	25.8	27.2	28.8	30.6	32.7	35.0	37.8	40.8	44.5
50	25.0	26.3	27.8	29.4	31.3	33.3	35.7	38.5	41.7	45.5
51	25.5	26.8	28.3	30.0	31.9	34.0	36.4	39.2	42.5	46.4
52	26.0	27.4	28.9	30.6	32.5	34.7	37.1	40.0	43.3	47.3
53	26.5	27.9	29.4	31.2	33.1	35.3	37.9	40.8	44.2	48.2
54	27.0	28.4	30.0	31.8	33.8	36.0	38.6	41.5	45.0	49.1
55	27.5	28.9	30.6	32.4	34.4	36.7	39.3	42.3	45.8	50.0
56	28.0	29.5	31.1	32.9	35.0	37.3	40.0	43.1	46.7	50.9
57	28.5	30.0	31.7	33.5	35.6	38.0	40.7	43.8	47.5	51.8
58	29.0	30.5	32.2	34.1	36.3	38.7	41.4	44.6	48.3	52.7
59	29.5	31.1	32.8	34.7	36.9	39.3	42.1	45.4	49.2	53.6
60	30.0	31.6	33.3	35.3	37.5	40.0	42.9	46.2	50.0	54.5

High Street Value = 1,000

Note: If total depth is more than 60 meters, apply the following formula to determine the distance from the front street to the merge line:

$$\frac{\text{Total depth} \times \text{high street value}}{\text{Sum of the two street values}} = \text{distance to merge line}$$

$$\frac{[(MF)A \times \text{Area A}] + [(MF)B \times \text{Area B}] \dots [(MF)N \times \text{Area N}]}{\text{Total Area}} = \text{Composite Modification Factor}$$

Where MF equals Modification Factor for each part, A, B, and N = Portions of the parcel.

Special problems of computation are encountered in triangular corner parcels and parcels located at the end of ending streets. These problems are rare and their solution is explained in detail in connection with the examples of computation.

#### Alley Modification

Access to alleys conveys many of the same advantages as access to streets, but to a lesser degree. The tables following incorporate the principle of deriving alley influence by assigning a unit value to the alley depending upon the alley width and the unit value of the front street. The tables have been converted for use with square meters and also to express in percentages the same enhancement in parcel value which derives from using alley unit values. The percentage enhancements derived from the alley unit system were therefore computed and used as factors in these tables.

Table 11 is the Rear Alley Influence Factor Table and Table 12 is the Side Alley Influence Factor Table.

Table 11  
Rear Alley Influence Factor Table

Alley width in meters	Parcel Depth in Meters				
	10	15	20	30	40 or Over
2	.040	.027	.020	.013	.010
3	.060	.040	.030	.020	.015
4	.080	.053	.040	.027	.020
5	.100	.067	.050	.033	.025
6	.120	.080	.060	.040	.030

Table 12  
Side Alley Influence Factor Table

Alley width in meters	Parcel Frontage in Meters			
	5	10	15	20
2	.067	.050	.033	.025
3	.100	.075	.050	.038
4	.133	.100	.067	.050
5	.167	.125	.083	.063
6	.200	.150	.100	.075

Computation Procedures

The actual computation of urban parcel values involves the following steps: (1) recording data on the appraisal card; (2) calculating the areas of parcels or portions thereof; (3) computing one or more modification factors for the parcel; and (4) deriving the total value of the parcel.

Two records are used in the computation: the land-value map and the appraisal card. Information found on the land-value map includes (1) parcel outlines and dimensions; (2) use zones outlined in color; (3) unit values expressed in dollars per square meter and written in the street in front of each block; and (4) topographic discounts expressed as tenths and written in red within the parcel boundaries or in boxes attached to the parcel. Zones are outlined according to the following code: commercial - blue; semi-commercial - green; residential - red; industrial - brown. The right half of the front of the appraisal card headed LAND is used for the computations, and entries are made in the following sections under LAND: Parcel Data, Computation of Modification Factor, and Computation of Parcel Value.

Recording Data

Enter in the Parcel Data Section the following information as shown on the map. If the information has already been recorded on the card, verify it.

**Size.** Enter or check dimensions on the card with those shown on the map and correct the card as necessary. For four-sided parcels with varying frontages and depths, compute the average dimensions and enter the average immediately after the appropriate word.

**Unit.** After "Front" enter the unit value of the street upon which the parcel fronts. After "Side" enter the unit value of the side street, in case it is a corner parcel. After "Per Cuerda" enter the unit value of those parcels for which a value per cuerda is used. If the parcel runs entirely through a block, write the word "Back" in place of "Per Cuerda" and enter the unit value of the back street on that line.

**Discount.** If there is a topographic discount for the parcel, enter the number shown on the map on the first line.

PARCEL DATA	
Size:	Frontage _____
	Depth _____
	Cuerdas _____
Unit:	Front _____
	Side _____
	Per Cuerda _____
Discount: %	_____
	Reason _____
_____	
_____	
Zoning:	_____

**Zoning.** Enter the zone in which the parcel lies according to the map. The following abbreviations will be used for this entry: commercial, "C," semicommercial, "SC," residential, "R," and industrial, "I." If the parcel is partly in one zone and partly in another, enter both zones on the card.

Calculating Areas

Compute the area of each parcel and enter the computation of the area in the upper right portion of the Computation of Modification Factor section.

COMPUTATION OF MODIFICATION FACTOR	

There are numerous cases in which the areas will be computed for the several parts of the parcel, and some in which different parts of the parcel are computed in different ways because it is necessary to segregate the area subject to certain value influences. In general, the rules listed below apply and exceptions or amplifications to them may be found by studying the examples of computation at the end of this section of the manual.

Area of parcels will be computed in the following manner:

1. All dimensions used will be to the closest tenth of a meter. After the computation is complete, round the answer to the closest square meter by dropping all decimals less than .5 and increasing any decimal of .5 or more to the next whole number.
2. For rectangular parcels multiply the frontage by the depth.
3. For nonrectangular four-sided parcels, multiply the average frontage by the average depth.
4. For triangular parcels, multiply the frontage by the depth and divide the product by 2.
5. For parcels with more than four sides, reduce the figure to triangles and rectangles and compute the area of each separately.
6. For parcels fronting on both a front street and a back street, divide the parcel into two parts according to the rules for calculation of the merge line and compute the area of each separately.
7. For parcels valued at a unit per cuerda, compute the area by use of a planimeter.

Computation of the Modification Factor

The computation of the modification factor is the most difficult part of the computation of urban land values. Because of the infinite variations that are possible, the 50 examples at the end of this section are primarily designed to explain and illustrate the rules for determining the modification factor. All work done in this part of the computation will be shown on the section of the card headed "Computation of Modification Factor."

**Direction of Frontage.** The computation of the modification factor sometimes depends upon the direction in which the parcel fronts. Observe the following rules in determining the direction of frontage:

1. A parcel usually fronts in the same direction as those immediately adjoining it on the same side of the block and usually has a narrow frontage and a long depth.
2. Corner parcels which are approximately square, with no clear pattern of frontage in the block, are assumed to front on the higher valued street.

3. All commercial corner parcels front on the higher valued street unless the picture or other information on the card clearly indicates the contrary.
4. Rear parcels are assumed to front toward the nearest street, but the rear portions of parcels which possess some actual street frontage face in the same direction as the rest of the parcel.

**Number of Modifications.** Compute at least one modification factor for every parcel if its area is computed on a square meter basis. For the following types of property, more than one factor will be used to derive a composite modification factor or more than one modification factor will be computed:

1. Four-sided parcels, the front and rear dimensions of which vary by 2 meters or more.
2. Parcels that do not have four sides.
3. Parcels that front on more than one street.
4. Parcels subject to corner reflection.

**Modification for Depth.** Compute a depth factor for every parcel by using the Depth Factor Table (see page 25). Actual or average depths will be used and care should be exercised that the proper zone column is used to derive the factor. (See Examples 1, 2, 3, and 20.) If the parcel has no street frontage, the depth factor is derived from the Rear Parcel Depth Factor Table (see page 27) or computed according to the formula. (See Examples 4 and 5.)

**Modification for Corners.** Compute a corner influence factor for every parcel located at a street intersection. The zone of corner influence is limited to a distance of 20 meters each way from the corner. Two general methods of modification are used:

1. One of the following procedures is necessary for all residential parcels and for those commercial and semicommercial properties located on a front street with a unit value of less than \$5 a square meter:
  - a. If no dimension is more than 20 meters, increase the modification factor of the parcel by 10 per cent. (See Example 6.)
  - b. If one or more dimensions are more than 20 meters, compute the area within the zone of corner influence separately and use a modification factor of .100 in computing its value. (Examples 7 and 8.)
2. In commercial and semicommercial zones where the front street value is \$5 a square meter or more, always compute a separate modification factor for corner influence. The proper factor is derived from the Corner Influence Factor Table. It should be particularly noted in using this table that the column at the extreme left refers to depth from the side street, while the row of dollar amounts across the top refers to the unit value of the front street. (See page 29.)
3. In certain high valued commercial districts, corner reflection must be computed. (This is only a special case of commercial corner influence.) (See Examples 11 and 12.)

**Modification of Triangular Parcels.** Use a triangle modification factor for all parcels or parts of parcels which are triangular in shape. Take the factor from the Triangle Factor Table. (See page 31.) A delta triangle has its base on or toward the street; a nabla triangle has its apex on or toward the street. (See Examples 20, 21, 22, and 23.)

**Modification of Nonrectangular Four-Sided Parcels.** Consider all nonrectangular four-sided parcels under the generic term of trapezoids. The modification factor for such parcels is computed in two different ways, depending upon whether or not the front and rear dimensions vary by two meters.

1. If the front and rear dimensions vary by less than two meters, consider the parcel to be rectangular. (See Example 13.) If the shorter of the two dimensions is more than .850 times the long side, regardless of the lengths, the parcel is also considered to be a rectangle. (See Example 39.)
2. If the front and rear dimensions vary by more than two meters, multiply the depth factor by a trapezoid factor taken from the Trapezoid Factor Table. (See page 31.) To use this table, divide the short dimension by the long dimension to determine the proper ratio column. The extreme left column refers to the perpendicular average depth of the parcel and should be used to the closest 5 meters. Use the subcolumn headed "Delta" if the parcel has its base (long dimension) on or toward the street, and the subcolumn headed "Nabla" if the opposite is true. If the parcel is within the zone of corner influence and the two depths vary by more than 2 meters, use a trapezoid factor in computing corner influence. (See Examples 14, 15, 16, 17, 18, and 19.)

**Modification of Through Parcels.** At least two modification factors will be computed for parcels fronting on both a front and back street. The computing procedure involves dividing the parcel into two parts, one fronting on each street. To determine the position of the dividing line (merge line) between the parts, refer to the Merge Line Table. (See pages 32 and 33.) Divide the low street value by the high street value to determine the ratio column to use. The depth to be used is the total distance from one street to the other. The resultant figure in the table is the distance in meters from the high valued street to the merge line. If the total depth is more than 60 meters, the formula at the bottom of the table will be used to determine the position of the merge line. (See Examples 24, 25, 26, and 27.)

**Modification of Parcels Having More than Four Sides.** Reduce parcels that have more than four sides to rectangles, triangles, and trapezoids by dropping perpendiculars from each angle to the street. Then compute modification factors for each part and combine into one modification factor for the parcel. Compute the composite modification factor according to the formula. There are no tables for this calculation.

Compute only one modification factor for a parcel unless the parcel fronts on more than one street or is subject to corner reflection. (See Examples 28, 29, 30, 31, and 33.) The same device is used for computing the corner influence of irregular parcels. (See Example 32.) If the parcel has curved boundaries, reduce it to an approximately equivalent area bounded by straight lines and compute. (See Example 34.)

**Modification of Parcels Fronting on Three or Four Streets.** Parcels fronting on more than two streets present special problems of computation. Through corner parcels are the most common of these types and may be considered as of four types:

1. Those with more than 40 meters depth. Compute as three parcels: one corner parcel fronting on the highest valued street, one corner parcel fronting on the second highest valued street, and one inside parcel fronting on the side street. (See Examples 35 and 36.)
2. Those with less than 40 meters depth in which the merge line is within 20 meters of the front street. Compute as two corner parcels, with the parts divided by the merge line. (See Examples 37 and 40.)
3. Those with less than 40 meters depth in which the merge line is more than 20 meters from the front street. Compute as two corner parcels, with the parts divided 20 meters back from the front street. (See Examples 38 and 40.)
4. Those with the highest valued street on the side, which are computed as two corner parcels fronting on the side street. (See Example 41.) Divide a four-sided parcel fronting on four streets into four corner parcels by use of two merge lines. (See Example 39.) Divide a triangular parcel fronting on three streets into three triangles, each of which fronts on one street. (See Example 42.)

**Other Modification Problems.** Divide parcels lying at the end of ending streets and lacking full street frontage into two triangles or a rectangle and two triangles. (See Examples 44 and 45.)

Divide triangular corner parcels into two trapezoids, each fronting on one street. (See Example 43.)

Compute parcels subject to discount according to the rules for a parcel of the given shape and location and apply the discount in terms of a per cent good after computing the value. (See Example 46.)

Parcels computed at a value per cuerda are not subject to as many influences as other parcels, and no modification factor is computed for them. (See Example 47.)

The enhancement in value caused by access to alleys is not computed at present, but in case it is recognized in the future, a procedure is provided here. In general, alley influence should always be confined to commercial properties.

Compute rear alley influence by taking a factor from the Rear Alley Influence Table and increasing the modification by that amount. Use the table (see page 34) by taking the parcel depth closest to that which is encountered. No variation in enhancement is recognized for depth greater than 40 meters. (See Example 48.)

Side alley influence varies with the frontage of the parcel. If the parcel has a frontage of 20 meters or less, compute enhancement exactly as in the case of rear alleys. (See Example 49.) If, however, the frontage is over 20 meters, apply enhancement only to that portion of the parcel within 20 meters of the alley. (See Example 50.)

COMPUTATION OF PARCEL VALUE									
Year	Comp. By	Unit Value	Mod. Factor	Meter Value	Area	Value	Prem. or Discount	Adjusted Value	Assessed Value

Deriving Parcel Values

The computation of parcel values is completed in the section of the card entitled "Computation of Parcel Value" reproduced above. Use one line for each modification factor computed for the parcel. The following rules apply to this computation.

1. Year - enter the year of assessment.
2. Computed By - enter the initials of the computer.
3. Unit Value - enter from the land-value map the unit value that applies to the parcel being computed.
4. Modification Factor - enter the modification factor that has been computed for the parcel.
5. Meter Value - enter the product of the figures in the two preceding columns expressed in dollars and cents.
6. Area (or frontage) - enter the area as determined for the parcel.
7. Value - enter the product of the figures in the two preceding columns, rounded to the nearest dollar.
8. Premium or Discount - enter the decimal, if any, shown on the map for topographic discount.
9. Adjusted Value - enter the product of the two preceding columns.
10. Assessed Value - enter the figure in the preceding column, rounded to the nearest ten dollars.
11. If the parcel has a unit value per cuerda, no modification factor is used and therefore entries are not required for all columns.

Examples of Computation

Examples of the computation of land values for various shapes and types of parcels and how to record them on the appraisal form are set forth in the following pages. Although possible variations are infinite, it is believed that these illustrations provide methods for computing the valuation of all parcels.

Listed below is a subject matter grouping of the examples for use as a convenient index to specific illustrations:

- Corner Parcels: Examples 6, 7, 8, 9, 10, 19, 32, 35, 36, 37, 38, 41, 43
- Inside Parcels: Examples 1, 2, 3, 11, 12, 20, 21, 24, 25, 26, 27, 31, 48, 49, 50
- Irregular Parcels: Examples 17, 18, 33, 34
- L-Shaped Parcels: Examples 29, 30, 31, 32
- Miscellaneous: Examples 39, 44, 45, 46, 47
- Rear Parcels: Examples 4, 5, 16, 18, 22, 23
- Six-Sided Parcel: Example 28
- Through Parcels: Examples 24, 25, 26, 27, 31, 35, 36, 37, 38, 40, 41, 42
- Trapezoidal Parcels: Examples 13, 14, 15, 16, 17, 18, 19, 25
- Triangular Parcels: Examples 20, 21, 22, 23, 42, 43

Processing Value Changes

When the value of an urban land parcel has been computed and recorded on the appraisal card, prepare a change memorandum giving all pertinent information necessary for the correction of other assessment records. Since land and improvement values are recorded on the same appraisal card and on other records, if there is also a change in the value of improvements, prepare one memorandum covering both corrections; when practicable, hold the change memoranda until all adjustments for a given control unit have been prepared. These precautions simplify posting to the control records.

Using an adding machine, figure the totals of land and improvements separately for all change memoranda within a control unit and prepare a summary sheet of changes. Post the net changes to the control ledger and forward the change memoranda with the summary sheets to the central assessment office for transmittal to the machine tabulation unit.



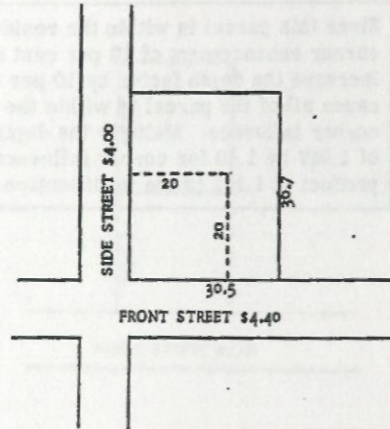




Example 7

RECTANGULAR CORNER PARCEL, RESIDENTIAL ZONE,  
DIMENSIONS MORE THAN STANDARD DEPTH

Ten per cent corner enhancement is again applied, but only to that part of the parcel lying within the zone of corner influence (shown by the dotted lines). Two modification factors are therefore used — the first is the depth factor of .759, the second is the 10 per cent corner influence factor of .100. Note that the parcel value is computed in two parts, the first modification factor being used with the entire parcel area and the second with the 400 square meters to which it applies.

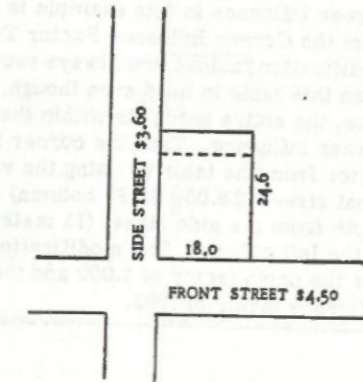


COMPUTATION OF MODIFICATION FACTOR						PARCEL DATA			
DF 37M = .759		30.5 x 36.7 = 1,119				Size: Frontage	30.5		
CIF = .100		20.0 x 20.0 = 400				Depth	36.7		
						Cuerdas			
						Unit: Front	4.40		
						Side	4.00		
						Per Cuerda			
						Discount: %			
						Reason			
						Zoning:	R		
COMPUTATION OF PARCEL VALUE									
Year	Comp. By	Unit Value	Mod. Factor	Meter Value	Area	Value	Prem. or Discount	Adjusted Value	Assessed Value
1951		4.40	.759	3.34	1,119	3,737			
		4.40	.100	.44	400	176			
						3,913		3,913	3,910

Example 8

RECTANGULAR CORNER PARCEL, SEMICOMMERCIAL ZONE,  
FRONT STREET VALUE LESS THAN \$5.00

This example is exactly like the preceding one because, although the parcel is located within the semicommercial zone, the front street value is less than \$5.00. Do not use the Corner Influence Factor Table here. Note that the area within the zone of corner influence in this case is only 360 square meters.

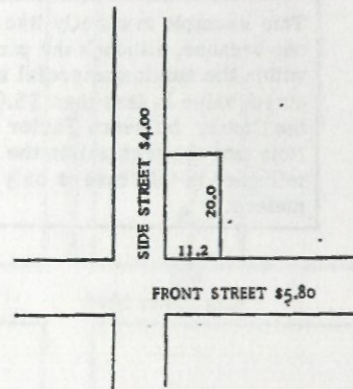


COMPUTATION OF MODIFICATION FACTOR						PARCEL DATA			
DF 25M = .923		24.6 x 18.0 = 443				Size: Frontage	18.0		
CIF = .100		20.0 x 18.0 = 360				Depth	24.6		
						Cuerdas			
						Unit: Front	4.50		
						Side	3.60		
						Per Cuerda			
						Discount: %			
						Reason			
						Zoning:	SC		
COMPUTATION OF PARCEL VALUE									
Year	Comp. By	Unit Value	Mod. Factor	Meter Value	Area	Value	Prem. or Discount	Adjusted Value	Assessed Value
1951		4.50	.923	4.15	443	1,838			
		4.50	.100	.45	360	162			
						2,000		2,000	2,000

Example 9

RECTANGULAR CORNER PARCEL, COMMERCIAL ZONE  
FRONT STREET VALUE BETWEEN \$5.00 AND \$20.00

Corner influence in this example is computed from the Corner Influence Factor Table. Two modification factors are always necessary when this table is used even though, as in this case, the entire parcel is within the zone of corner influence. Take the corner influence factor from the table by using the value of the front street (\$5.00 - \$5.99 column) and the depth from the side street (11 meters) shown in the left column. The modification factors are the depth factor of 1.000 and the corner influence factor of .293.

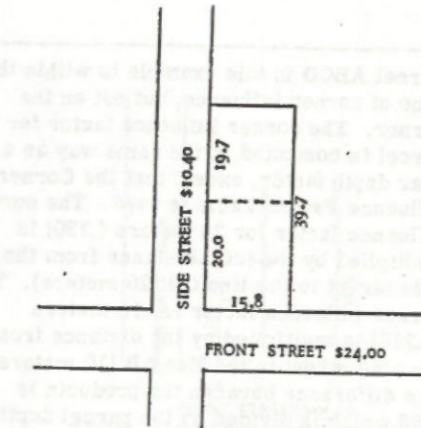


COMPUTATION OF MODIFICATION FACTOR							PARCEL DATA			
DF 20M = 1.000							Size:	Frontage	11.2	
CIF 11M = .293								Depth	20.0	
							Unit:	Front	5.80	
								Side	4.00	
								Per Cuerda		
							Discount: %			
							Reason			
							Zoning:		C	
COMPUTATION OF PARCEL VALUE										
Year	Comp. By	Unit Value	Mod. Factor	Meter Value	Area	Value	Prem. or Discount	Adjusted Value	Assessed Value	
1951		5.80	1.000	5.80	224	1,299				
		4.00	.293	1.17	224	262				
						1,561		1,561	1,560	

Example 10

RECTANGULAR CORNER PARCEL, COMMERCIAL ZONE,  
FRONT STREET VALUE OVER \$20.00

This example is exactly like Example 9 except that the corner influence factor is taken from the extreme right column on the table. Note that this is true for any front street value over \$20.00. The two modification factors are the depth factor of .610 and the corner influence factor of .875.

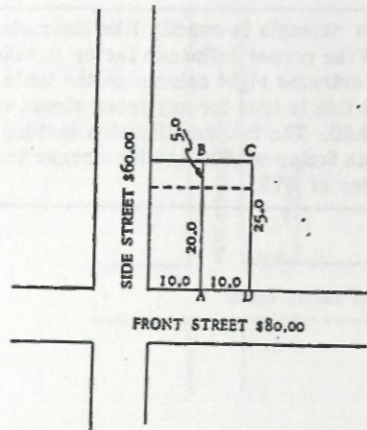


COMPUTATION OF MODIFICATION FACTOR							PARCEL DATA			
DF 40M = .610							Size:	Frontage	15.8	
CIF 16M = .875								Depth	39.7	
							Unit:	Front	24.00	
								Side	10.40	
								Per Cuerda		
							Discount: %			
							Reason			
							Zoning:		C	
COMPUTATION OF PARCEL VALUE										
Year	Comp. By	Unit Value	Mod. Factor	Meter Value	Area	Value	Prem. or Discount	Adjusted Value	Assessed Value	
1951		24.00	.610	14.64	627	9,179				
		10.40	.875	9.10	316	2,876				
						12,055		12,055	12,060	

Example 11

RECTANGULAR INSIDE PARCEL SUBJECT TO CORNER REFLECTION  
(Parcel ABCD)

Parcel ABCD in this example is within the zone of corner influence, but not on the corner. The corner influence factor for the parcel is computed in the same way as a rear depth factor, except that the Corner Influence Factor Table is used. The corner influence factor for 20 meters (.720) is multiplied by the total distance from the side street to the line CD (20 meters). The corner influence factor for 10 meters (1.260) is multiplied by the distance from the side street to the line AB (10 meters). The difference between the products is 1.80 which is divided by the parcel depth from the side street (10 meters) to yield the second modification factor of .180.

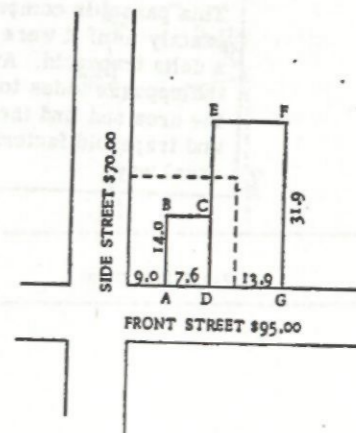


COMPUTATION OF MODIFICATION FACTOR						PARCEL DATA			
DF 25M = .873		10.0 x 25.0 = 250		Size:	Frontage	10.0			
CIF 20M = .720		10.0 x 20.0 = 200			Depth	25.0			
.720 x 20 = 14.40				Unit:	Front	80.00			
CIF 10M = 1.260					Side	60.00			
1.260 x 10 = 12.60					Per Cuerda				
14.40 - 12.60 = 1.80				Discount: %					
1.80 ÷ 10 = .180				Reason					
				Zoning:		C			
COMPUTATION OF PARCEL VALUE									
Year	Comp. By	Unit Value	Mod. Factor	Meter Value	Area	Value	Prem. or Discount	Adjusted Value	Assessed Value
1951		80.00	.873	69.84	250	17,460			
		60.00	.180	10.80	200	2,160			
						19,620		19,620	19,620

Example 12

INSIDE PARCEL SUBJECT TO A PORTION OF THE TOTAL CORNER REFLECTION  
(Parcel ABCD)

This example is similar to the preceding one, but it should be noted that the depth from the side street to the rear parcel line is only 16.6 meters. Corner reflection also affects parcel DEFG, the computation of which is not shown in this example.



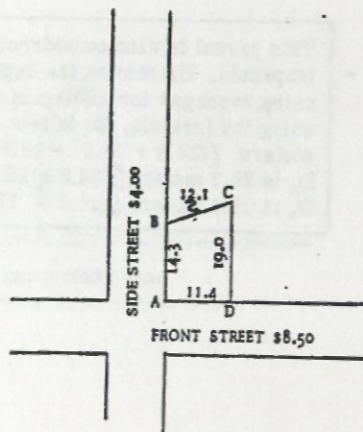
COMPUTATION OF MODIFICATION FACTOR						PARCEL DATA			
DF 14M = 1.223		14.0 x 7.6 = 106		Size:	Frontage	7.6			
CIF 17M = .829					Depth	14.0			
.829 x 16.6 = 13.76				Unit:	Front	95.00			
CIF 9M = 1.348					Side	70.00			
1.348 x 9.0 = 12.13					Per Cuerda				
13.76 - 12.13 = 1.63				Discount: %					
1.63 ÷ 7.6 = .214				Reason					
				Zoning:		C			
COMPUTATION OF PARCEL VALUE									
Year	Comp. By	Unit Value	Mod. Factor	Meter Value	Area	Value	Prem. or Discount	Adjusted Value	Assessed Value
1951		95.00	1.223	116.19	106	12,316			
		70.00	.214	14.98	106	1,588			
						13,904		13,904	13,900



Example 19

TRAPEZOIDAL CORNER PARCEL

In this example the front and rear dimensions differ by less than two meters so that the parcel is considered rectangular with respect to the front street. In computing the corner influence, however, compute a trapezoidal factor by using the ratio of line AB to line CD (.753). Multiply the resulting trapezoid factor (.970) by the corner influence factor (.440) to obtain the second modification factor of .427.



COMPUTATION OF MODIFICATION FACTOR						PARCEL DATA			
DF 17M = 1.063	16.7 x 11.8 = 197					Size:	Frontage	11.4, 12.1	
CIF 12M = .440							Depth	14.3, 19.0	
14.3 + 19.0 = .753							Cuerdas		
TrF (.800) 10M = .980						Unit:	Front	8.50	
.980 x .440 = .431							Side	4.00	
							Per Cuerda		
						Discount: %			
						Reason			
						Zoning:	S.C.		

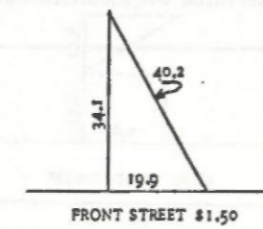
  

COMPUTATION OF PARCEL VALUE									
Year	Comp. By	Unit Value	Mod. Factor	Meter Value	Area	Value	Prem. or Discount	Adjusted Value	Assessed Value
1951		8.50	1.063	9.04	197	1,781			
		4.00	.431	1.72	197	339			
						2,120		2,120	2,120

Example 20

DELTA TRIANGULAR INSIDE PARCEL

To compute this parcel it is necessary to use a triangle factor taken from the Triangle Factor Table. Use the delta column on the table (because the base of the triangle is on the street) and the depth of the parcel (34 meters) to select the triangle factor (1.430). Multiply the triangle factor by the depth factor (.799) to obtain the modification factor of 1.143.



COMPUTATION OF MODIFICATION FACTOR						PARCEL DATA			
DF 34M = .799	34.1 x 19.9 = 679					Size:	Frontage	19.9	
TF 34M = 1.430	679 + 2 = 340						Depth	34.1	
.799 x 1.430 = 1.143							Cuerdas		
						Unit:	Front	1.50	
							Side		
							Per Cuerda		
						Discount: %			
						Reason			
						Zoning:	R		

COMPUTATION OF PARCEL VALUE									
Year	Comp. By	Unit Value	Mod. Factor	Meter Value	Area	Value	Prem. or Discount	Adjusted Value	Assessed Value
1951		1.50	1.143	1.71	340	581		581	580

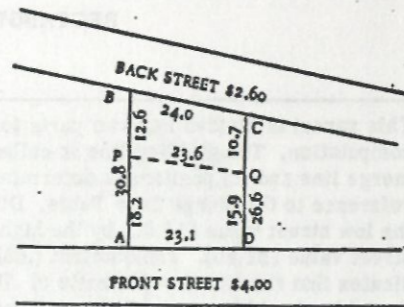




Example 25

TRAPEZOIDAL INSIDE THROUGH PARCEL

In this example it is necessary to determine merge points on each side of the parcel. First, use the length of line AB (31 meters) with the Merge Line Table to determine point P. Then use the length of line CD (27) to determine point Q. Connect P and Q to form the merge line. Scale the length of the merge line and average the opposite sides of the two parts of the parcel. Note that the average frontage of the part fronting on the main street is 23.3 meters, while that of the part fronting on the back street is 23.8 meters.



COMPUTATION OF MODIFICATION FACTOR					PARCEL DATA				
$2.60 \div 4.00 = .650$		$23.3 \times 17.1 = 398$			Size:	Frontage	23.1, 24.0		
$ML = 18.2 \& 15.9$		$23.8 \times 11.7 = 278$				Depth	30.8, 26.6		
$DF 17M = 1.033$					Unit:	Front	4.00		
$DF 12M = 1.100$						Side Back	2.60		
					Discount:	Per Cuerda			
						Reason			
					Zoning:		R		

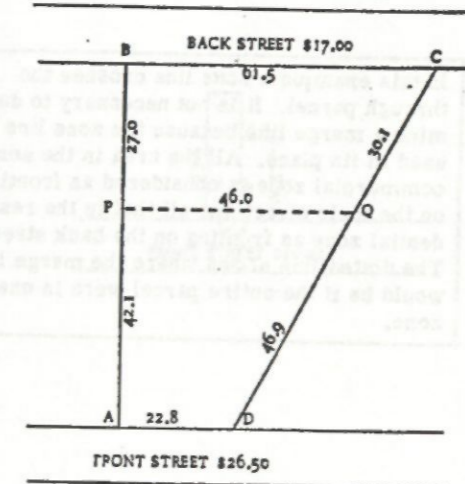
  

COMPUTATION OF PARCEL VALUE									
Year	Comp. By	Unit Value	Mod. Factor	Meter Value	Area	Value	Prem. or Discount	Adjusted Value	Assessed Value
1951		4.00	1.033	4.13	398	1,644			
		2.60	1.100	2.86	278	795			
						2,439		2,439	2,440

Example 26

INSIDE THROUGH PARCEL WITH DEPTH MORE THAN 60 METERS

This parcel is more than 60 meters deep and the position of its merge line is computed from the formula. Multiply the total depth AB (69.1 meters) by the higher value (26.50) and divide the product (1831.2) by the sum of the street values (43.50). The quotient (42.1) is the distance in meters from the front street to the merge point P. Repeat the process for line CD to fix point Q. Draw and scale the merge line. Note that the merge line is of sufficient length that each part is a trapezoid and trapezoid factors are used in computing both modification factors.



COMPUTATION OF MODIFICATION FACTOR					PARCEL DATA				
$69.1 \times 26.50 = 1831.2$		$44.5 \times 34.4 = 1531$			Size:	Frontage	22.8, 61.5		
$26.50 + 17.00 = 43.50$		$28.6 \times 53.8 = 1539$				Depth	69.1, 77.0		
$1831.2 \div 43.50 = 42.1 = ML$					Unit:	Front	26.50		
$77.0 \times 26.50 = 2040.5$						Side Back	17.00		
$2040.5 \div 43.50 = 46.9 = ML$					Discount:	Per Cuerda			
$DF 44M = .563$						Reason			
$22.8 \div 46.0 = .496$					Zoning:		C		
$TrF (.500) 40M = .840$									
$.563 \times .840 = .472$									
$DF 29M = .787$									
$46.0 \div 61.5 = .748$									
$TrF (.700) 30M = 1.070$									
$.787 \times 1.070 = .842$									

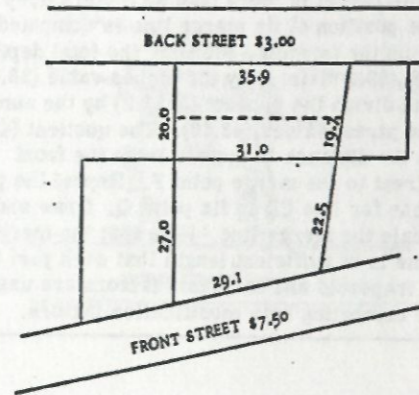
  

COMPUTATION OF PARCEL VALUE									
Year	Comp. By	Unit Value	Mod. Factor	Meter Value	Area	Value	Prem. or Discount	Adjusted Value	Assessed Value
1951		26.50	.472	12.51	1,531	19,153			
		17.00	.842	14.31	1,539	22,023			
						41,176		41,176	41,180

Example 27

INSIDE THROUGH PARCEL LYING IN TWO USE ZONES

In this example a zone line crosses the through parcel. It is not necessary to determine a merge line because the zone line is used in its place. All the area in the semi-commercial zone is considered as fronting on the main street and all that in the residential zone as fronting on the back street. The dotted line shows where the merge line would be if the entire parcel were in one zone.

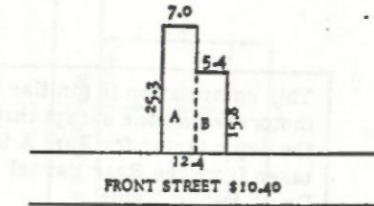


COMPUTATION OF MODIFICATION FACTOR					PARCEL DATA				
DF 25M = .923	24.8 x 30.0 = 744	Size:	Frontage	29.1, 35.9	Unit:	Front	7.50	Discount:	%
DF 20M = 1.000	19.8 x 33.5 = 663	Depth	47.0, 42.2	Reason		Side Back	3.00		
		Cuerdas		Zoning:		Per Cuerda			
COMPUTATION OF PARCEL VALUE									
Year	Comp. By	Unit Value	Mod. Factor	Meter Value	Area	Value	Prem. or Discount	Adjusted Value	Assessed Value
1951		7.50	.923	6.92	744	5,148			
		3.00	1.000	3.00	663	1,989			
						7,137		7,137	7,140

Example 28

SIX-SIDED PARCEL FRONTING ON ONE STREET

A composite modification factor is computed in this case. Multiply the depth factor for Part A (.873) by the area of Part A (177) to derive a modification constant of 154.52. Multiply the depth factor for Part B (1.136) by the area of Part B (85) to derive another modification constant of 96.56. Add the modification constants and divide the sum (251.08) by the total area of the parcel (262) to obtain a modification factor of .958.



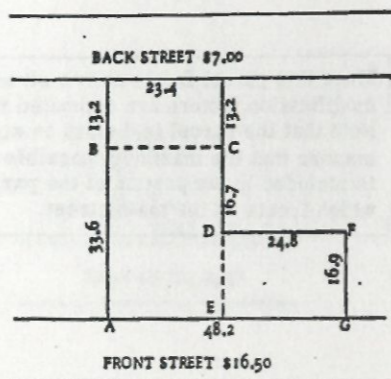
COMPUTATION OF MODIFICATION FACTOR					PARCEL DATA				
DF 25M = .873	7.0 x 25.3 = 177	Size:	Frontage	12.4, 7.0	Unit:	Front	10.40	Discount:	%
.873 x 177 = 154.52	5.4 x 15.8 = 85	Depth	25.3, 15.8	Reason		Side			
DF 16M = 1.136	262	Cuerdas		Zoning:		Per Cuerda			
1.136 x 85 = 96.56									
96.56 + 154.52 = 251.08									
251.08 + 262 = .958									
COMPUTATION OF PARCEL VALUE									
Year	Comp. By	Unit Value	Mod. Factor	Meter Value	Area	Value	Prem. or Discount	Adjusted Value	Assessed Value
1951		10.40	.958	9.96	262	2,610		2,610	2,610



Example 31

L-SHAPED INSIDE THROUGH PARCEL

In this example compute separate modification factors for the areas ABCE and EDFG even though they both front on the same street. This is necessary because the modification factor for ABCE is not constant and hence a composite factor for ABCDFG would change with any change in street values.

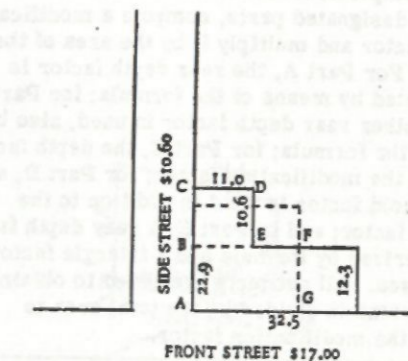


COMPUTATION OF MODIFICATION FACTOR						PARCEL DATA			
$7.00 \div 16.50 = .424$	$33.6 \times 23.4 = 786$	Size:	Frontage	48.2, 23.4					
ML = 33.6	$24.8 \times 16.9 = 419$		Depth	46.8, 16.9					
DF 34M = .696	$13.2 \times 23.4 = 309$		Cuerdas						
DF 17M = 1.098		Unit:	Front	16.50					
DF 13M = 1.271			Side Back	7.00					
			Per Cuerda						
		Discount:	%						
			Reason						
		Zoning:		C					
COMPUTATION OF PARCEL VALUE									
Year	Comp. By	Unit Value	Mod. Factor	Meter Value	Area	Value	Prem. or Discount	Adjusted Value	Assessed Value
1951		16.50	.696	11.48	786	9,023			
		16.50	1.098	18.12	419	7,592			
		7.00	1.271	8.90	309	2,750			
						19,365		19,365	19,370

Example 32

L-SHAPED CORNER PARCEL

In this example first compute a composite modification factor for the entire parcel considered as an inside lot facing on the front street. This computation uses two depth factors and gives a first modification factor of 1.127. Then compute the second modification factor, which is also a composite and is derived in the same way, using corner influence factors instead of depth factors and confining all computations to the zone of corner influence. Multiply the corner influence factor for 20 meters (.612) by the area ABFG (246 square meters) and multiply the corner influence factor for 11 meters (.996) by the area BCDE (85 square meters). Add the products and divide the sum (235.21) by the total area within the zone of corner influence (331 square meters) to obtain the second modification factor of .711.

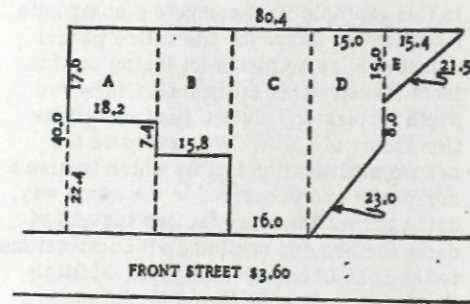


COMPUTATION OF MODIFICATION FACTOR						PARCEL DATA			
DF 23M = .920	$22.9 \times 11.0 = 252$	Size:	Frontage	32.5					
$.920 \times 252 = 231.84$	$12.3 \times 21.5 = 264$		Depth	22.9, 12.3					
DF 12M = 1.325	516		Cuerdas						
$1.325 \times 264 = 349.80$	$7.7 \times 11.0 = 85$	Unit:	Front	17.00					
$231.84 + 349.80 = 581.64$	$12.3 \times 20.0 = 246$		Side	10.60					
$581.64 + 516 = 1,127$	331		Per Cuerda						
CIF 20M = .612		Discount:	%						
$.612 \times 246 = 150.55$			Reason						
CIF 11M = .996									
$.996 \times 85 = 84.66$									
$150.55 + 84.66 = 235.21$		Zoning:		C					
$235.21 + 331 = .711$									
COMPUTATION OF PARCEL VALUE									
Year	Comp. By	Unit Value	Mod. Factor	Meter Value	Area	Value	Prem. or Discount	Adjusted Value	Assessed Value
1951		17.00	1.127	19.16	516	9,887			
		10.60	.711	7.54	331	2,496			
						12,383		12,383	12,380

Example 33

IRREGULAR PARCEL WITH MORE THAN FOUR SIDES

This is an extreme example of the computation of a composite modification factor. For each of the designated parts, compute a modification factor and multiply it by the area of the part. For Part A, the rear depth factor is computed by means of the formula; for Part B, another rear depth factor is used, also by using the formula; for Part C, the depth factor is the modification factor; for Part D, a trapezoid factor is used in addition to the depth factor; and in Part E, a rear depth factor derived by formula and a triangle factor are used. All products are added to obtain a sum which is divided by the total area to yield the modification factor.

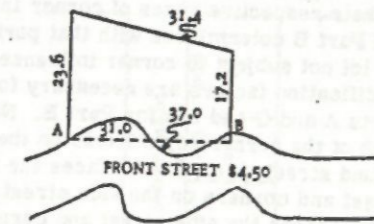


COMPUTATION OF MODIFICATION FACTOR						PARCEL DATA			
A) DF 40M = .718; .718 x 40.0 = 28.72	17.6 x 18.2 = 320	DF 22M = .965; .965 x 22.4 = 21.62	25.0 x 15.8 = 395	28.72 - 21.62 = 7.10; 7.10 ÷ 17.6 = .403; .403 x 320 = 128.96	31.5 x 15.0 = 473	Size: Frontage	16.0	Unit: Front	3.60
B) DF 40M = .718; .718 x 40.0 = 28.72	7.5 x 15.4 = 116	DF 15M = 1.060; 1.060 x 15 = 15.90	1944	28.72 - 15.90 = 12.82; 12.82 ÷ 25.0 = .512		Depth	40.0	Side	
C) DF 40M = .718; .718 x 640 = 459.52				.512 x 395 = 202.24		Cuerdas		Per Cuerda	
D) DF 32M = .827; 15.0 + 23.0 = .652						Discount: %		Reason	
TrF (.700) 30M = .930; .930 x .827 = .769; .769 x 473 = 363.74						Zoning: R			
E) DF 40M = .718; .718 x 40.0 = 28.72									
DF 25M = .923; .923 x 25.0 = 23.08; 28.72 - 23.08 = 5.64; 5.64 ÷ 15 = .376									
TF 15M = .750; .750 x .376 = .282; .282 x 116 = 32.71									
128.96 + 202.24 + 459.52 + 363.74 + 32.71 = 1187.17									
1187.17 ÷ 1944 = .611									
COMPUTATION OF PARCEL VALUE									
Year	Comp. By	Unit Value	Mod. Factor	Meter Value	Area	Value	Prem. or Discount	Adjusted Value	Assessed Value
1951		3.60	.611	2.20	1944	4.277		4.277	4.280

Example 34

IRREGULAR PARCEL BOUNDED BY CURVED LINES

There are no standardized methods for computing the value of a parcel bounded by curved lines. Therefore, duplicate the area and distance from the street approximately by drawing the dotted line AB. The parcel is then computed as a rectangle, because the length of AB is less than 2 meters different from the rear dimension.

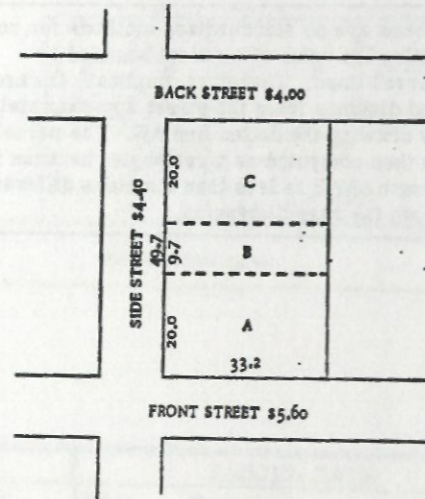


COMPUTATION OF MODIFICATION FACTOR						PARCEL DATA			
DF 20M = 1.000	31.2 x 20.4 = 636					Size: Frontage	37.0, 31.4	Unit: Front	4.50
						Depth	23.6, 17.2	Side	
						Cuerdas		Per Cuerda	
						Discount: %		Reason	
						Zoning: R			
COMPUTATION OF PARCEL VALUE									
Year	Comp. By	Unit Value	Mod. Factor	Meter Value	Area	Value	Prem. or Discount	Adjusted Value	Assessed Value
1951		4.50	1.000	4.50	636	2,862		2,862	2,860

Example 35

CORNER THROUGH PARCEL, RESIDENTIAL ZONE,  
DEPTH MORE THAN TWICE THE STANDARD

Corner through parcels more than 40 meters deep are divided into three parts for computation. No merge line is computed in this case. Lay out Parts A and C to include all of their respective zones of corner influence and Part B coterminous with that portion of the lot not subject to corner influence. Two modification factors are necessary for Parts A and C and one for Part B. Note that each of the corner parts fronts on the higher valued street, i. e., Part A faces the front street and corners on the side street, while Part C faces the side street and corners on the back street.

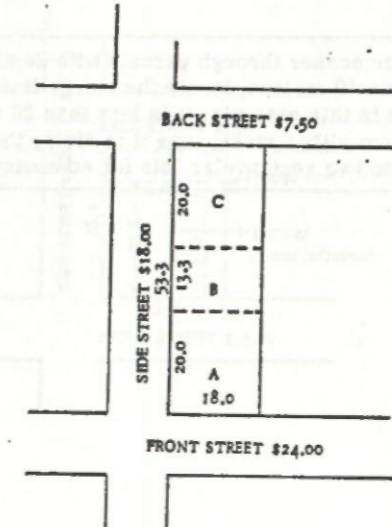


COMPUTATION OF MODIFICATION FACTOR						PARCEL DATA			
DF 20M = 1.000	20.0 x 33.2 = 664	Size:	Frontage	33.2					
DF 33M = .813	33.2 x 9.7 = 322		Depth	49.7					
CIF = .100	20.0 x 20.0 = 400	Unit:	Front	5.60					
			Side	4.40					
			Per Cuerda Back	4.00					
		Discount: %	Reason						
		Zoning:		R					
COMPUTATION OF PARCEL VALUE									
Year	Comp. By	Unit Value	Mod. Factor	Meter Value	Area	Value	Prem. or Discount	Adjusted Value	Assessed Value
1951		5.60	1.000	5.60	664	3,718			
		5.60	.100	.56	400	224			
		4.40	.813	3.58	322	1,153			
		4.40	.813	3.58	664	2,377			
		4.40	.100	.44	400	176			
						7,648		7,648	7,650

Example 36

CORNER THROUGH PARCEL, COMMERCIAL ZONE,  
MORE THAN TWICE STANDARD DEPTH

This example is similar to the preceding one, except that the corner influence factors are derived from the table because the parcel is in a commercial zone. Note that the corner influence factors are taken from different columns on the table because the front street for Part A has a unit value of \$ 24 and that for Part C has a unit value of only \$ 18.

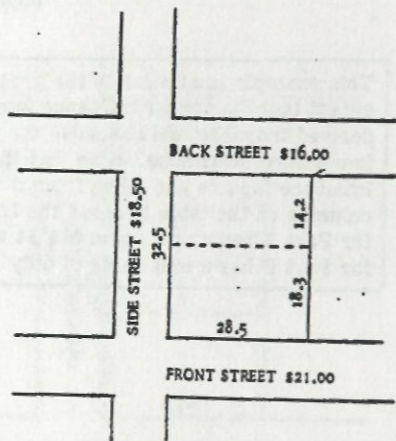


COMPUTATION OF MODIFICATION FACTOR						PARCEL DATA			
DF 20M = 1.000	20.0 x 18.0 = 360	Size:	Frontage	18.0					
DF 18M = 1.062	18.0 x 13.3 = 239		Depth	53.3					
CIF 18M = .789		Unit:	Front	24.00					
CIF 20M = .648			Side	18.00					
			Per Cuerda Back	7.50					
		Discount: %	Reason						
		Zoning:		C					
COMPUTATION OF PARCEL VALUE									
Year	Comp. By	Unit Value	Mod. Factor	Meter Value	Area	Value	Prem. or Discount	Adjusted Value	Assessed Value
1951		24.00	1.000	24.00	360	8,640			
		18.00	.789	14.20	360	5,112			
		18.00	1.062	19.12	239	4,570			
		18.00	1.062	19.12	360	6,883			
		7.50	.648	4.86	360	1,750			
						26,955		26,955	26,960

Example 37

CORNER THROUGH PARCEL, LESS THAN TWICE THE STANDARD DEPTH

For corner through parcels with depths less than 40 meters, locate the merge line and if, as in this example, it is less than 20 meters from either street, use it to divide the parcel into two rectangular lots for computation.



COMPUTATION OF MODIFICATION FACTOR						PARCEL DATA			
$16.00 + 21.00 = .762$		$18.3 \times 28.5 = 522$		Size:	Frontage	28.5			
ML = 18.3		$14.2 \times 28.5 = 405$			Depth	32.5			
DF 18M = 1.062		$18.3 \times 20.0 = 366$		Unit:	Cuerdas				
CIF 20M = .720		$14.2 \times 20.0 = 284$			Front	21.00			
DF 29M = .787					Side	18.50			
CIF 14M = .874					Per Cuerda Back	16.00			
				Discount: %	Reason				
				Zoning:	C				

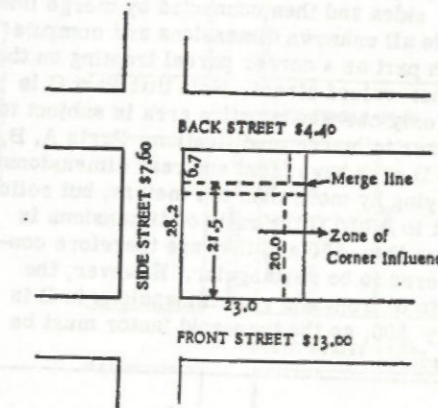
  

COMPUTATION OF PARCEL VALUE									
Year	Comp. By	Unit Value	Mod. Factor	Meter Value	Area	Value	Prem. or Discount	Adjusted Value	Assessed Value
1951		21.00	1.062	22.30	522	11,641			
		18.50	.720	13.32	366	4,875			
		18.50	.787	14.56	405	5,897			
		16.00	.874	13.98	284	3,970			
						26,383		26,383	26,380

Example 38

CORNER THROUGH PARCEL, LESS THAN TWICE THE STANDARD DEPTH

In this example, the merge line is more than 20 meters from the front street. Divide the parcel therefore at a point 20 meters from the front street in order to place all the land in either one zone of corner influence or the other.



COMPUTATION OF MODIFICATION FACTOR						PARCEL DATA			
$4.40 + 13.00 = .338$		$20.0 \times 23.0 = 460$		Size:	Frontage	23.0			
ML = 21.5		$8.2 \times 23.0 = 189$			Depth	28.2			
DF 20M = 1.000		$20.0 \times 20.0 = 400$		Unit:	Cuerdas				
CIF 20M = .468		$8.2 \times 20.0 = 164$			Front	13.00			
DF 23M = .920					Side	7.60			
CIF 8M = .507					Per Cuerda Back	4.40			
				Discount: %	Reason				
				Zoning:	C				

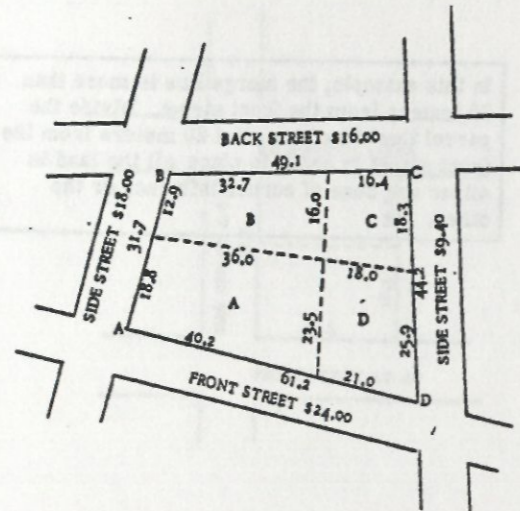
  

COMPUTATION OF PARCEL VALUE									
Year	Comp. By	Unit Value	Mod. Factor	Meter Value	Area	Value	Prem. or Discount	Adjusted Value	Assessed Value
1951		13.00	1.000	13.00	460	5,980			
		7.60	.468	3.56	400	1,424			
		7.60	.920	6.99	189	1,321			
		4.40	.507	2.23	164	366			
						9,091		9,091	9,090

Example 39

FOUR-SIDED PARCEL BOUNDED BY FOUR STREETS

This parcel is computed by dividing it into four parts by means of merge lines. The merge points are first established on all four sides and then connected by merge lines. Scale all unknown dimensions and compute each part as a corner parcel fronting on the higher valued street. Note that Part C is the only one whose entire area is subject to corner influence modification. Parts A, B, and D each have front and rear dimensions varying by more than two meters, but notice that in A and D the ratio of dimensions is more than .850 and they are therefore considered to be rectangular. However, the ratio of front and rear dimensions in B is only .800, so the trapezoid factor must be used.

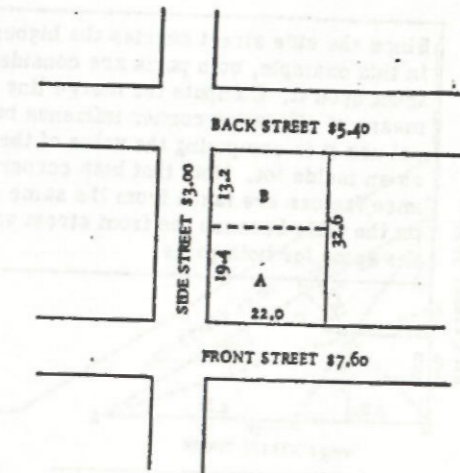


COMPUTATION OF MODIFICATION FACTOR					PARCEL DATA				
$16.00 \div 24.00 = .667$					Size:	Frontage	61.2; 49.1		
ML on AB & CD = 18.8 & 25.9						Depth	31.7; 44.2		
$9.40 \div 18.00 = .522$						Cuerdas			
ML on BC = 32.7					Unit:	Front	24.00		
$18.00 \times 61.2 = 1101.6$						Side	18.00; 9.40		
$18.00 + 9.40 = 27.40$						Per Cuerda Back	16.00		
$1101.6 \div 27.40 = 40.2 = \text{ML on AD}$					Discount: %	Reason			
A) DF 21M = .972; $36.0 \div 40.2 = .896$									
CIF 20M = .720					Zoning:	C			
B) DF 34M = .696; $12.9 \div 16.0 = .806$									
TrF (.800) 34M = .960 $\times .696 = .668$ ; CIF 14M = .874									
C) DF 17M = 1.098; CIF 17M = .663									
D) DF 25M = .873; CIF 20M = .720									
COMPUTATION OF PARCEL VALUE									
Year	Comp. By	Unit Value	Mod. Factor	Meter Value	Area	Value	Prem. or Discount	Adjusted Value	Assessed Value
1951		24.00	.972	23.33	808	18,851			
		18.00	.720	12.96	388	5,028			
		18.00	.668	12.02	494	5,938			
		16.00	.874	13.98	278	3,886			
		16.00	1.098	17.57	294	5,166			
		9.40	.663	6.23	294	1,832			
	24.00	.873	20.85	482	10,098				
	9.40	.720	6.77	400	2,708				
						53,507		53,507	53,510

Example 40

THROUGH CORNER PARCEL WITH BACK STREET HAVING SECOND HIGHEST VALUE

In this example Part B is considered to front on the back street rather than the side street because the corner carries a higher unit value. Compute corner influence for both parts from the side street.

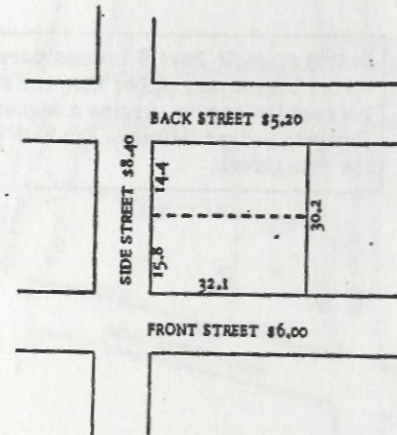


COMPUTATION OF MODIFICATION FACTOR					PARCEL DATA				
$5.40 \div 7.60 = .711$					Size:	Frontage	22.0		
ML = 19.4						Depth	32.6		
DF 19M = 1.019						Cuerdas			
CIF 20M = .252					Unit:	Front	7.60		
DF 13M = 1.176						Side	3.00		
CIF 20M = .180						Per Cuerda Back	5.40		
					Discount: %	Reason			
					Zoning:	S. C.			
COMPUTATION OF PARCEL VALUE									
Year	Comp. By	Unit Value	Mod. Factor	Meter Value	Area	Value	Prem. or Discount	Adjusted Value	Assessed Value
1951		7.60	1.019	7.74	427	3,305			
		3.00	.252	.76	388	295			
		5.40	1.176	6.35	290	1,842			
		3.00	.180	.54	264	143			
							5,585		5,585

Example 41

CORNER THROUGH PARCEL  
WITH HIGHEST VALUE ON SIDE STREET

Since the side street carries the higher value in this example, both parts are considered to front upon it. Compute the merge line as a means of allocating corner influence but do not use it in computing the value of the parcel as an inside lot. Note that both corner influence factors are taken from the same column on the table because the front street value is the same for both parts.

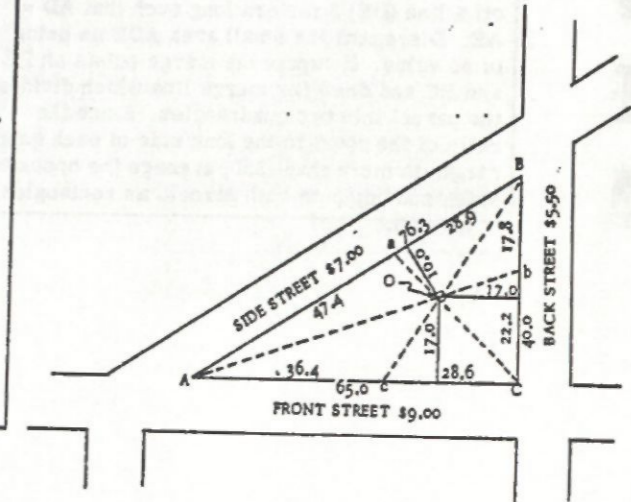


COMPUTATION OF MODIFICATION FACTOR						PARCEL DATA			
$5.20 \div 6.00 = .867$		$30.2 \times 32.1 = 969$		Size:	Frontage	32.1			
ML = 15.8		$20.0 \times 15.8 = 316$			Depth	30.2			
		$20.0 \times 14.4 = 288$		Unit:	Cuerdas				
DF 32M = .827					Front	6.00			
CIF 16M = .350					Side	8.40			
CIF 14M = .388					Per Cuerda Back	5.20			
				Discount: %	Reason				
				Zoning:		S. C.			
COMPUTATION OF PARCEL VALUE									
Year	Comp. By	Unit Value	Mod. Factor	Meter Value	Area	Value	Prem. or Discount	Adjusted Value	Assessed Value
1951		8.40	.827	6.95	969	6,735			
		6.00	.350	2.10	316	664			
		5.20	.388	2.02	288	582			
						7,981		7,981	7,980

Example 42

TRIANGULAR PARCEL FRONTING ON THREE STREETS

In this parcel, first determine the merge points on each of the three sides. Compute the merge point on AB by use of the formula with street values of \$9.00 and \$5.50; that on BC by the table with street values of \$9.00 and \$7.00; and that on AC by the formula with street values of \$7.00 and \$5.50. Lines drawn from the merge points a, b, and c to the opposite apexes of the parcel (C, A, and B, respectively) meet at a point O and divide the parcel into three triangles AOB, BOC, and AOC. Perpendiculars from O to each of the three sides are scaled to determine the depth of the triangles. The three triangles are then computed separately as delta triangles, each fronting on a different street. No corner influence is computed in this case.

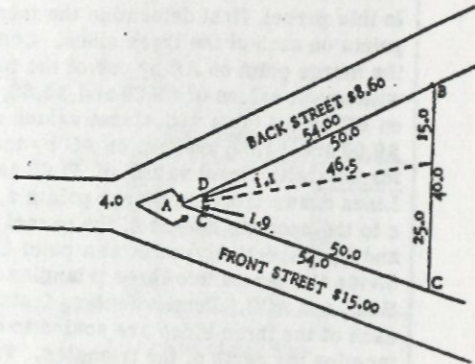


COMPUTATION OF MODIFICATION FACTOR						PARCEL DATA			
$9.00 \times 76.3 = 686.7$		$17.0 \times 65.0 \div 2 = 553$		Size:	Frontage	65.0, 76.3, 40.0			
$9.00 \times 5.50 = 49.5$		$10.0 \times 76.3 \div 2 = 382$			Depth				
$686.7 \div 14.50 = 47.4$		$17.0 \times 40.0 \div 2 = 340$		Unit:	Cuerdas				
$\therefore$ ML on AB = 47.4					Front	9.00			
$7.00 \div 9.00 = .777$					Side	7.00			
ML (.800) = 22.2 = ML on BC					Per Cuerda Back	5.50			
$7.00 \times 65.0 = 455$				Discount: %	Reason				
$7.00 \div 5.50 = 12.50$				Zoning:		C			
$455 \div 12.50 = 36.4 =$ ML on AC									
DF 17M = 1.098; TF 17M = 1.270									
$1.098 \times 1.270 = 1.394$									
DF 10M = 1.450; TF 10M = 1.200									
$1.450 \times 1.200 = 1.740$									
COMPUTATION OF PARCEL VALUE									
Year	Comp. By	Unit Value	Mod. Factor	Meter Value	Area	Value	Prem. or Discount	Adjusted Value	Assessed Value
1951		9.00	1.394	12.55	553	6,940			
		7.00	1.740	12.18	382	4,653			
		5.50	1.394	7.67	340	2,608			
						14,201		14,201	14,200

Example 43

TRIANGULAR CORNER PARCEL

To compute the value of this parcel, first lay off a line (DE) 3 meters long such that AD = AE. Disregard the small area ADE as being of no value. Compute the merge points on DE and BC and draw the merge line which divides the parcel into two quadrangles. Since the ratio of the short to the long side of each quadrangle is more than .850, average the opposite sides and compute both parcels as rectangles.

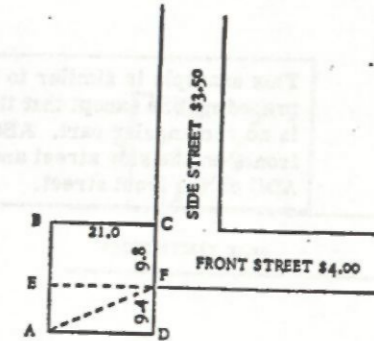


COMPUTATION OF MODIFICATION FACTOR					PARCEL DATA				
$8.60 \div 15 = .573$	$13.4 \times 48.2 = 646$				Size: Frontage	54.0, 54.0			
$ML (.600) 40M = 25.0 M$	$8.0 \times 48.2 = 386$				Depth	40.0			
$ML (.600) 3M = 1.9 M$					Cuerdas				
$DF 13M = 1.271$					Unit: Front	15.00			
$DF 8M = 1.600$					Side Back	8.60			
					Per Cuerda				
					Discount: %				
					Reason				
					Zoning:	C			
COMPUTATION OF PARCEL VALUE									
Year	Comp. By	Unit Value	Mod. Factor	Meter Value	Area	Value	Prem. or Discount	Adjusted Value	Assessed Value
1951		15.00	1.271	19.07	646	12,319			
		8.60	1.600	13.76	386	5,311			
						17,630		17,630	17,630

Example 44

PARCEL WITH PARTIAL FRONTAGE ON ENDING STREET

This parcel is computed as three parcels. Consider the rectangle EBCF and the triangle AEF to front on the side street, and the triangle ADF to front on the front street. Note that both triangles are nable and that no composite modification factor is computed because there are two different assumed street frontages.

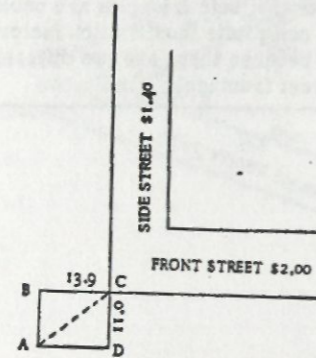


COMPUTATION OF MODIFICATION FACTOR					PARCEL DATA				
$DF 21M = .981$	$21.0 \times 9.8 = 206$				Size: Frontage	19.2			
$TF 22M = .680$	$21.0 \times 9.4 \div 2 = 99$				Depth	21.0			
$.981 \times .680 = .667$					Cuerdas				
$DF 9M = 1.138$					Unit: Front	4.00			
$TF 9M = .810$					Side	3.50			
$1.138 \times .810 = .922$					Per Cuerda				
					Discount: %				
					Reason				
					Zoning:	R			
COMPUTATION OF PARCEL VALUE									
Year	Comp. By	Unit Value	Mod. Factor	Meter Value	Area	Value	Prem. or Discount	Adjusted Value	Assessed Value
1951		3.50	.981	3.43	206	707			
		3.50	.667	2.33	99	231			
		4.00	.922	3.69	99	365			
						1,303		1,303	1,300

Example 45

PARCEL ON ENDING STREET WITH NO STREET FRONTAGE

This example is similar to the preceding one except that there is no rectangular part. ABC fronts on the side street and ADC on the front street.



COMPUTATION OF MODIFICATION FACTOR						PARCEL DATA			
DF 14M = 1.073				13.9 x 11.0 = 153		Size: Frontage	11.0		
TF 14M = .760				153 ÷ 2 = 76		Depth	13.9		
1.073 x .760 = .815						Cuerdas			
DF 11M = 1.112					Unit: Front	2.00			
TF 11M = .790					Side	1.40			
1.112 x .790 = .878					Per Cuerda				
					Discount: %				
					Reason				
					Zoning: R				

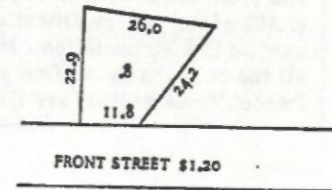
  

COMPUTATION OF PARCEL VALUE									
Year	Comp. By	Unit Value	Mod. Factor	Meter Value	Area	Value	Prem. or Discount	Adjusted Value	Assessed Value
1951		2.00	.878	1.76	76	134			
		1.40	.815	1.14	76	87			
						221		221	220

Example 46

PARCEL SUBJECT TO TOPOGRAPHIC DISCOUNT

The modification factor for this parcel is computed as for any other nabra trapezoid. The .8 entered in the center of the parcel indicates that the parcel is considered to be only 80 percent as good as the normal because of uneven topography. Enter .8 both after "Discount" in the Parcel Data section and under "Discount" in the Computation of Parcel Value section. Multiply it by the parcel value (446) to obtain the adjusted parcel value of \$357.



COMPUTATION OF MODIFICATION FACTOR						PARCEL DATA			
DF 23M = .950				23.6 x 18.9 = 446		Size: Frontage	11.8, 26.0		
11.8 + 26.0 = .454						Depth	22.9, 24.2		
TrF (.500) 25M = .880					Unit: Front	1.20			
.880 x .950 = .836					Side				
					Per Cuerda				
					Discount: %	.8			
					Reason				
					Zoning: R				

COMPUTATION OF PARCEL VALUE									
Year	Comp. By	Unit Value	Mod. Factor	Meter Value	Area	Value	Prem. or Discount	Adjusted Value	Assessed Value
1951		1.20	.836	1.00	446	446	.8	357	360





Commonwealth of Puerto Rico  
 Department of the Treasury  
 Bureau of Property Tax, Inheritances and Gifts

PROCEDURES FOR REAL PROPERTY ASSESSMENT

IN PUERTO RICO

PART TWO

RURAL LAND

1953

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PART TWO

RURAL LAND

Category	Assessment Rate	Notes
1. Agricultural Land	0.0000	Land used for agricultural purposes.
2. Pasture Land	0.0000	Land used for grazing livestock.
3. Forest Land	0.0000	Land used for growing trees.
4. Other Rural Land	0.0000	Land used for other rural purposes.

## I. SOIL CLASSIFICATION

Agricultural land in Puerto Rico is classified according to soil series, type, and phase. The basis of the system is the soil survey published in 1942 by the Bureau of Plant Industry, United States Department of Agriculture. This survey has been amended and revised when found necessary for assessment purposes.

The principal changes that have been made in the original classification of soils are: (1) the elimination of the soil classes "silty clay loam" and "sandy clay loam" and their distribution among the soil classes "silty clay," "clay loam," "silt loam," and "sandy clay"; (2) the treatment of irrigation, where it is practiced, as a distinct phase of the soil irrigated; (3) the subdivision of poorly drained soil types and phases into three conditions—good, regular, and poor—so as to account for their possibilities as agricultural land and the resultant differences in value; and (4) the subdivision of the condition of stoniness into good, regular, and poor as a basis for distinguishing differences in value. All of these amendments have been made to the end that those classes in use may differentiate between value levels, a consideration that is not necessarily present in the technical survey of the soil scientist.

Soils are grouped into classification schedules according to the physiographic divisions in which they occur. Full descriptions are not given of all soil types, but they are available in Soil Survey of Puerto Rico, by R. R. Roberts; Series 1936, No. 8.

### Soils of the Uplands

The soils of the uplands occur in a large portion of the center of the island of Puerto Rico. They have a wide range of characteristics: from black to nearly white, from rich to poor, from acid to alkaline, from fine sandy loam to clay, from shallow to deep, and from young to old. Because of these profound differences, the soils of the uplands are divided into three subgroups according to the depth of their profiles. The subgroups are: deep soils, medium deep soils, and shallow soils.

#### Deep Soils of the Uplands

The deep soils of the uplands occur throughout the entire humid section of the interior and range in elevation from less than 100 feet to about 3,000 feet above sea level. They are all red or purplish red in color and in general have subsoils that are very acid, heavy but permeable, and adequately drained. Most soils in this category occur on steep hills. The soil classes in this group are shown in Table 13.

Table 13  
Deep Soils of the Uplands

Parent Material	Soil Series	Soil Type and Phase	Symbol	Occurrence	
Volcanic Igneous Rock	Alonso	Alonso Clay	Al 1	Humid Section of the Interior	
		Alonso Clay Colluvial Phase	Al 11		
		Alonso Clay Shallow Phase	Al 12		
		Alonso Clay Loam	Al 3		
		Alonso Clay Loam Colluvial Phase	Al 31		
	Catalina	Catalina Clay	C 1	"	
		Catalina Stony Clay	C 5	"	
	Cialitos	Cialitos Clay	Cl 1	"	
Granite	Jayuya	Jayuya Silt Loam	Jy 7	"	
Volcanic Igneous Rock	Los Guineos	Los Guineos Clay	LG 1	"	
		Malaya	Malaya Clay	Ma 1	"
		Nipe	Nipe Clay	Np 1	"

### Medium Deep Soils of the Uplands

The medium deep soils are in the hilly lands of the humid and subhumid sections and leave parent rock at a depth ranging from one to two feet below the surface. The value of these soils depends upon the degree of slope, amount of surface soil lost by sheet erosion, and, to some extent, the number of years the land has been producing clean, cultivated crops without the addition of much fertilizer. The series in this group are derived from widely varying parent materials as shown in Table 14.

### Shallow Soils of the Uplands

The shallow soils occur throughout the entire upland part of Puerto Rico. Their parent rock lies at a depth of less than 18 inches from the surface. These soils have a wider variation in relief and rainfall

Table 14  
Medium Deep Soils of the Uplands

Parent Material	Soil Series	Soil Type and Phase	Symbol	Occurrence	
Igneous Rock - Granite	Cayaguá	Cayaguá Sandy Clay	Cy 4	East Central	
		Ciales	Ciales Clay Loam	Ce 3	Central and
			Ciales Clay Loam Colluvial Phase	Ce 31	Southeastern
			Ciales Loam	Ce 6	Humid and
			Ciales Loam Colluvial Phase	Ce 61	Subhumid
	Pandura	Pandura Loam	Pa 6	Southeastern	
		Pandura Sandy Loam	Pa 8	Humid and Subhumid	
	Teja	Teja Loam	Tj 6	Eastern Humid and Subhumid	
	Utua	Utua Loam		Ut 6	Central section around Utua
					and Jayuya
Vieques	Vieques Loam Vieques Loam Colluvial Phase		Vq 6	Vieques and	
			Vq 61	Culebra Island	
Lower Tertiary Clay	Plata	Plata Clay	Pt 1	Between North and South Lime- stone Escarp- ments	
Shales	Río Piedras	Río Piedras Clay	RP 1	Northern Humid	
		Río Piedras Clay Loam	RP 3	"	
Tertiary Limestone	Colinas	Colinas Clay Loam	Cl 3	Northern Tertiary	
		Colinas Stony Loam	Cl 6	Limestone Belt	
		Colinas Fine Sandy Loam	Cl 8	"	
	Soller	Soller Clay	So 1	"	
	Tanamá	Tanamá Stony Clay Colluvial Phase	Ta 51	"	
	Tuffaceous Shales and Other Volcanic Rocks	Daguao	Daguao Clay	Da 1	Eastern
			Daguao Clay Colluvial Phase	Da 11	"
Juncos	Juncos Clay	Jn 1	Associated with Múcara		
Múcara	Múcara Clay Loam Múcara Silt Loam		Mu 3	Humid Uplands	
			Mu 7	"	
Naranjito	Naranjito Clay Loam Naranjito Clay Loam Colluvial Phase		Nj 3	"	
			Nj 31	"	
Sabana	Sabana Clay Loam Sabana Silt Loam		Sa 3	"	
			Sa 7	"	

than the soils of any other group. Climate ranges from arid to humid and the soils range from level to precipitous. The parent materials of the series in the shallow subgroup are shown in Table 15.

Table 15  
Shallow Soils of the Uplands

Parent Material	Soil Series	Soil Type and Phase	Symbol	Occurrence
Cretaceous Limestone	Lajas	Lajas Clay	La 1	Subhumid to Humid
Cretaceous Limestone associated with volcanic rocks	San Germán	San Germán Clay	SG 1	Lajas to Cayey Southwestern-semiarid to arid
Cretaceous Shales and Tuffs and Igneous Rocks-Andesitic with Calcareous Influence	Descalabrado	Descalabrado Silty Clay	De 2	Southern Slopes of Cordillera
	Guayama	Guayama Clay Guayama Clay Colluvial Phase	Gy 1 Gy 11	Central North of Guayama-La Parguera and Vieques Island
	Jácana	Jácana Clay	Ja 1	Associated with Descalabrado
Andesitic Igneous Rock	Picacho	Picacho Stony Clay	Ph 5	High Humid Areas of the Interior
Calcareous Fine Sandstone	Juana Díaz	Juana Díaz Silty Clay	JD 2	Vicinity of Juana
		Juana Díaz Clay Loam	JD 3	Díaz
Serpentine	Rosario	Rosario Silty Clay	Ro 2	East of Mayaguez to Yauco
Tuffaceous Rocks	Mariana	Mariana Clay Loam	Mi 3	Humid Uplands
Shale From Volcanic Ashes	Yunes	Yunes Clay	Yu 1	Fajardo to
		Yunes Silt Loam	Yu 7	Ciales
Tertiary Limestones	Aguilita	Aguilita Clay	Ag 1	Southern Limestone Belt
		Aguilita Stony Clay	Ag 5	
	Colinas	Colinas Stony Clay Loam	Cl 5	Northern Limestone Belt
Hard Tertiary Limestone	Ensenada	Ensenada Clay	En 1	Vieques and Ensenada Arid Sections
Tertiary Limestone	Soller	Soller Clay Loam	So 3	Northern Limestone Belt
		Soller Clay Loam Shallow Phase	So 32	
Hard Tertiary Limestone	Tanamá	Tanamá Stony Clay	Ta 5	Northern Limestone Belt
Igneous Rocks	Rough Stony	Rough Stony Land	R	High Peaks with High Rainfall

#### Soils of the Inner Plains

With very few exceptions the soils of the inner plains have dark, sticky, plastic, heavy clay surface soils and deep, plastic, heavy subsoils. The soils are very retentive of moisture, but they are very difficult to plow or cultivate.

The soils of the inner plains include 29 soil types and phases of Las Piedras, Mabí, Moca, Dominguito, Río Arriba, Santa Clara, and Camagüey series on the humid sections and the Yauco, Ponceña, Portugués, Mercedita, Barrancas, Pozo Blanco, Amelia, Río Cañas, and Cabo Rojo series of the arid and semiarid districts.

The derivation of the series and the soil classes in this group and their occurrence on the island are given in Table 16.

#### Soils of the Terraces and Alluvial Fans

The soils of the terraces and alluvial fans include those derived from material washed from the uplands and deposited along and near streams. They now occupy elevations above overflow and do not receive additional material by deposition. Soils of the alluvial fans have been formed by material flushed into the valleys from the mouths of streams in the arid and semiarid sections. The soils in this group fall into two subgroups: medium friable and compact. They are divided according to this grouping in Tables 17 and 18.

#### Soils of the Coastal Plains

The soils of the coastal plains are deep, nearly level, and fertile. They range from neutral to strongly acid in reaction and the texture varies from sand to clay. The colors range from red to yellow and from nearly black to nearly white. This group also is subdivided according to compactness.

#### Compact Soils of the Coastal Plains

Compact soils are more difficult to cultivate than any others. The compact soils occur on the northern coastal plains and inland valleys. Elevation ranges from a few feet to 500 feet above sea level. The soils in this group are shown in Table 19.

#### Friable Soils of the Coastal Plains

These are the heavier textured soils of the Bayamón, Coto, Espinosa, Matanzas, and Vega Alta series. They occur in flat or gently rolling valleys between Aguadilla and Carolina and range in elevation from 100 to 600 feet above sea level; they were formed by the solution and erosion of large sections of limestone. The soils are heavy textured, permeable, and neutral or acid. Table 20 lists the friable soils of the coastal plains.

#### Very Friable Soils of the Coastal Plains

This subgroup includes the sandy-textured types of the Vega Alta, Espinosa, Bayamón, and Río Lajas soils and occur in subhumid or humid sections; therefore, they are acid and leached. The Coto, Maleza, and Islote soils occur in subhumid and semiarid sections and, therefore, are less acid and less seriously leached than the other series. The very friable soils of the coastal plains are listed in Table 21.

#### Loose Soils of the Coastal Plains

These soils have either light grayish-brown, nearly white or nearly black, very loose, noncohesive, sandy surface soils and medium heavy, stiff, mottled red, brown, and grey sandy clay subsoils as in the Guayabo, Corozo, Algarrobo, and St. Lucie series. The loose soils of the coastal plains are shown in Table 22.

#### Soils of the River Flood Plains

All of the recent alluvial soils are included in the soils of the river flood plains. Since they are quite suitable for sugar cane production, under present conditions they are the most valuable soils on the island. These soils have been formed from material that is being washed continuously from the hills of the interior and carried and distributed by the silt-laden overflowing streams and rivers.

The soils of the river flood plains are divided into two subgroups: (1) the well-drained soils, which are fairly near the streams; and (2) the poorly drained soils, which are far from the streams and closely associated with the better area of poorly drained mineral soils of the coastal lowlands.

#### Well-Drained Soils of the River Flood Plains

These soils are well-drained, friable, and generally deep. Most areas where they occur are nearly level. The series included in this subgroup and their derivation, and occurrence are shown in Table 23.

Table 16  
Soils of the Inner Plains

Parent Material	Soil Series	Soil Type and Phase	Symbol	Occurrence
Tuffaceous Rocks and Shales	Amelia	Amelia Clay	Am 1	Southern arid and semiarid. Associated with Descalabrado and Aguilita
	Mabi	Mabi Clay	M 1	Northern humid. Associated with Mucara and Juncos
Tuffaceous Shales with Calcareous influence	Río Cañas	Río Cañas Clay	RC 1	Southern arid and semiarid. Vicinity of Coamo.
Alluvial-colluvial calcareous Marine Clays, Sandstones, and Tertiary Limestone	Barrancas	Barrancas Clay	Ba 1	Southern arid and semiarid. Between Ponce-Guayama.
		Barrancas Silty Clay	Ba 2	
Tertiary Limestone	Camagüey	Camagüey Silty Clay	Cg 2	Northern Tertiary Limestone Belt
		Camagüey Clay Loam	Cg 3	
	Mercedita	Mercedita Clay	Mr 1	Southern Arid and Semiarid; Limestone Belt
	Ponceña	Ponceña Clay	Po 1	"
	Portugués	Portugués Clay	Pg 1	"
	Santa Clara	Santa Clara Clay	SC 1	Northern Humid-Limestone Belt
		Santa Clara Clay Loam	SC 3	
	Yauco	Yauco Clay	Ya 1	Southern Arid and Semiarid; Aguirre to Bogueron
		Yauco Clay Colluvial Phase	Ya 11	
Lower Tertiary Shales and Clay	Cabo Rojo	Cabo Rojo Clay	CB 1	Southwestern Arid and Semiarid
Lower Tertiary Shales and Clay	Dominguito	Dominguito Clay	Do 1	Northern Humid
	Moca	Moca Clay	Mo 1	"
Moca Clay Loam		Mo 3	"	
Moca Clay Loam Steep Phase		Mo 36	"	
Moca Loam		Mo 6	"	
	Río Arriba	Río Arriba	RA 1	"
Granitic Material	Las Piedras	Las Piedras Clay Loam	LP 3	"
		Las Piedras Clay Loam Steep Phase	LP 36	"
		Las Piedras Loam	LP 6	"
		Las Piedras Loam Steep Phase	LP 66	"
Material Washed From Medium Hard Limestone	Pozo Blanco	Pozo Blanco Clay	Pz 1	Southern Arid Semiarid
		Pozo Blanco Clay Loam	Pz 3	

Table 17

## Medium Friable Soils of Terraces and Alluvial Fans

Parent Material	Soil Series	Soil Type and Phase	Symbol	Occurrence
Granitic Materials	Arcadia	Arcadia Loam	Ad 6	Eastern, semi-arid
		Arcadia Loam Steep Phase	Ad 66	
	Humacao	Humacao Clay	Hu 1	Eastern-Humid
		Humacao Clay Steep Phase	Hu 16	
		Humacao Clay Loam	Hu 3	
		Humacao Clay Loam Steep Phase	Hu 36	
		Humacao Loam	Hu 6	
		Humacao Loam Steep Phase	Hu 66	
	Llave	Llave Loam	Ll 6	Eastern Semi-arid
		Llave Loam Steep Phase	Ll 66	
		Llave Sandy Loam	Ll 8	
		Llave Sandy Loam Steep Phase	Ll 86	
	Mayo	Mayo Clay Loam	My 3	Eastern-Humid
		Mayo Clay Loam Steep Phase	My 36	
		Mayo Loam	My 6	
		Mayo Loam Steep Phase	My 66	
	Resolución	Resolución Clay Loam	Rs 3	Eastern Semi-arid
		Resolución Clay Loam Steep Phase	Rs 36	
Descalabrado Washed Material	Coamo	Coamo Clay	Cm 1	Southern Arid and Semiarid
		Coamo Clay Steep Phase	Cm 16	
		Coamo Silty Clay	Cm 2	
		Coamo Silty Clay Steep Phase	Cm 26	
		Coamo Silty Clay Rolling Phase	Cm 27	
Río Piedras and Yunes	Fajardo	Fajardo Clay	Fj 1	Northern Humid
		Fajardo Clay Steep Phase	Fj 16	
		Fajardo Clay Gray Phase	Fj 13	
Tertiary Clays and Shales	Lares	Lares Clay	Ls 1	Northern Humid
		Lares Clay Steep Phase	Ls 16	
		Lares Clay Loam	Ls 3	
		Lares Clay Loam Steep Phase	Ls 36	
		Lares Sandy Loam	Ls 8	
		Lares Sandy Loam Steep Phase	Ls 86	
Guayama Washed Material	Machete	Machete Clay	Mt 1	Southern Arid and Semiarid
		Machete Clay Steep Phase	Mt 16	
		Machete Clay Loam	Mt 3	
		Machete Clay Loam Steep Phase	Mt 36	
		Machete Loam	Mt 6	
		Vives	Machete Loam Steep Phase	Mt 66
	Vives Clay Loam		Vs 3	"
	Vives Clay Loam Colluvial Phase		Vs 31	
	Vives Clay Loam Steep Phase		Vs 36	
	Vives Loam		Vs 6	
	Torres	Vives Loam Steep Phase	Vs 66	
Vives Sandy Loam		Vs 8		
Vives Sandy Loam Steep Phase		Vs 86		
Washes from Catalina Cialitos, and other Red and Purple Soils		Torres Clay	To 1	Northern Humid
		Torres Clay Steep Phase	To 16	
	Torres Clay Loam	To 3		
	Torres Clay Loam Steep Phase	To 36		

Table 17 (Cont.)  
Medium Friable Soils of Terraces and Alluvial Fans

Parent Material	Soil Series	Soil Type and Phase	Symbol	Occurrence
Washed materials from Múcara and associated Neutral Soils	Via	Via Silty Clay	V 2	Northern Humid
		Via Silty Clay Steep Phase	V 26	"
		Via Clay Loam	V 3	"
		Via Clay Loam Steep Phase	V 36	"
		Via Silt Loam	V 7	"
		Via Silt Loam Steep Phase	V 76	"

Table 18  
Compact Soils of Terraces and Alluvial Fans

Parent Material	Soil Series	Soil Type and Phase	Symbol	Occurrence		
Granitic Material	Candeleró	Candeleró Clay	Co 1	East Central-Humid		
		Candeleró Clay Steep Phase	Co 16			
		Candeleró Loam	Co 6	"		
		Candeleró Loam Steep Phase	Co 66	"		
		Candeleró Sandy Loam	Co 8	"		
		Candeleró Sandy Loam Steep Phase	Co 86	"		
		Washed from Limestone and Tuffaceous Rocks and Shales	Fe	Fe Clay	Fe 1	Southern - Arid and Semi-arid
				Fe Clay Steep Phase	Fe 16	
				Fe Clay Imperfectly Drained Phase	Fe 15	
			Fraternidad	Fraternidad Clay	Fd 1	"
Fraternidad Clay Shallow Phase	Fd 12			"		
Fraternidad Clay Steep Phase	Fd 16			"		
Fraternidad Clay Imperfectly Drained	Fd 13			"		
Fraternidad Clay Loam	Fd 3			"		
Fraternidad Clay Loam Steep Phase	Fd 36			"		
Paso Seco	Paso Seco Clay			PS 1	"	
	Paso Seco Clay Steep Phase	PS 16	"			
	Paso Seco Silty Clay	PS 2	"			
	Paso Seco Silty Clay Steep Phase	PS 26	"			
	Paso Seco Clay Loam	PS 3	"			
	Paso Seco Clay Loam Steep Phase	PS 36	"			
	Paso Seco Silt Loam	PS 7	"			
	Paso Seco Silt Loam Steep Phase	PS 76	"			
	Paso Seco Loam	PS 6	"			
	Paso Seco Loam Steep Phase	PS 66	"			
Santa Isabel	Santa Isabel Clay	SI 1	"			
	Santa Isabel Clay Steep Phase	SI 16	"			
	Santa Isabel Silty Clay	SI 2	"			
	Santa Isabel Silty Clay Steep Phase	SI 26	"			
	Santa Isabel Loam	SI 6	"			
	Santa Isabel Loam Steep Phase	SI 66	"			
Washed from Limestone and Tuffaceous Rocks and Shales	Teresa	Teresa Clay	Tr 1	Southern - Arid and Semi-arid		
		Teresa Clay Steep Phase	Tr 16			
		Teresa Silty Clay	Tr 2			
		Teresa Silty Clay Steep Phase	Tr 26			
		Teresa Loam	Tr 6			
		Teresa Loam Steep Phase	Tr 66			

Table 19  
Compact Soils of the Coastal Plains

Parent Material	Soil Series	Soil Type and Phase	Symbol	Occurrence
Hard Tertiary Limestone	Almirante	Almirante Clay	At 1	Northern Limestone Belt
		Almirante Sandy Clay	At 4	
		Almirante Fine Sandy Loam	At 8	
	Vega Alta	Vega Alta Clay, Heavy Subsoil	VA 14	"
		Vega Alta Clay Loam, Heavy Subsoil	VA 34	"
		Vega Alta Sandy Clay, Heavy Subsoil	VA 44	"
Old Marine Deposits and Materials Washed From The Uplands	Caguas	Caguas Clay	Ca 1	Caguas-Cidra-Cabo Rojo
		Caguas Sandy Clay	Ca 4	
	Sabana Seca	Sabana Seca Clay	SS 1	Northern
		Sabana Seca Sandy Clay	SS 4	
Sandy Limestone	Islote	Islote Clay Loam	Is 3	Northern Limestone Belt
		Islote Sandy Loam	Is 8	
		Islote Sandy Loam Imperfectly Drained	Is 83	"

Table 20  
Friable Soils of the Coastal Plains

Parent Material	Soil Series	Soil Type and Phase	Symbol	Occurrence
Medium Hard Limestone	Bayamón	Bayamón Clay	By 1	Northern Limestone Belt
		Bayamón Sandy Clay	By 4	
	Coto	Coto Clay	Ct 1	Northern semi-arid
		Coto Sandy Clay	Ct 4	
	Espinosa	Espinosa Clay	Ep 1	Northern Limestone Belt
		Espinosa Sandy Clay	Ep 4	
	Matanzas	Matanzas Clay	Mt 1	Northern semi-arid
		Matanzas Sandy Clay	Mt 4	
	Vega Alta	Vega Alta Clay	VA 1	Northern Limestone Belt
		Vega Alta Clay Loam	VA 3	
		Vega Alta Sandy Clay	VA 4	

Table 21  
Very Friable Soils of the Coastal Plains

Parent Material	Soil Series	Soil Type and Phase	Symbol	Occurrence
Medium Hard Limestone	Bayamón	Bayamón Fine Sandy Loam Bayamón Loamy Fine Sand	By 8 By 9	Northern Limestone Belt
	Coto	Coto Loamy Sand	Ct 9	Northern and Northwest Semiarid
	Espinosa	Espinosa Sandy Loam Espinosa Loamy Sand	Ep 8 Ep 9	Northern Limestone Belt
	Islote	Islote Sand Islote Loamy Sand	Is 0 Is 9	Northern Semiarid
	Maleza	Maleza Fine Sandy Loam Maleza Loamy Sand	Ml 8 Ml 9	Northern and Northwest Semiarid
	Rfo Lajas	Rfo Lajas Sand	RL 0	Northern Limestone Belt
	Vega Alta	Vega Alta Fine Sandy Loam Vega Alta Loamy Fine Sand	VA 8 VA 9	" "

Table 22  
Loose Soils of the Coastal Plains

Parent Material	Soil Series	Soil Type and Phase	Symbol	Occurrence
Residual from Sandstone and Siliceous Shales	Algarrobo	Algarrobo Fine Sand	Ao 0	Northern Limestone Belt
	Corozo	Corozo Fine Sand	Cz 0	"
	St. Lucie	St. Lucie Sand	SL 0	"
Calcareous Sandstone and Siliceous Limestone	Guayabo	Guayabo Fine Sand	Gb 0	"

Table 23  
Well-Drained Soils of the River Floor Plains

Parent Material	Soil Series	Soil Type and Phase	Symbol	Occurrence		
Washed Descalabrado and Aguilita of Semi-humid Regions	Altura	Altura Clay	Ar 1	Southern Arid and Semiarid		
		Altura Silty Clay	Ar 2			
		Altura Loam	Ar 6	"		
		Altura Silt Loam	Ar 7	"		
		Altura Loam Shallow Phase	Ar 62	"		
		San Antón	San Antón Clay	SA 1	"	
	San Antón Silty Clay	SA 2	"			
	San Antón Silty Clay Shallow Phase	SA 22	"			
	San Antón Clay Loam	SA 3	"			
	San Antón Loam	SA 6	"			
San Antón Loam Shallow Phase	SA 62	"				
San Antón Silt Loam	SA 7	"				
San Antón Silt Loam Shallow Phase	SA 72	"				
San Antón Fine Sandy Loam	SA 8	"				
Washed Catalina and Red	Estación	Estación Silty Clay	Et 2	Northern Humid		
		Estación Clay Loam	Et 3			
		Estación Loam 2	Et 6	"		
		Estación Silt Loam	Et 7	"		
		Estación Silt Loam Low Bottom	Et 75	"		
		Estación Sandy Loam	Et 8	"		
		Washed Múcara and Associated Soils	Toa	Toa Silty Clay	T 2	"
				Toa Clay Loam	T 3	"
Toa Loam	T 6			"		
Toa Silt Loam	T 7			"		
Toa Silt Loam Low Bottom	T 75			"		
Toa Fine Sandy Loam	T 8			"		
Toa Fine Sandy Loam Low Bottom	T 85			"		
Washed Granite Hills	Viví			Viví Clay	Vi 1	"
		Viví Clay Loam	Vi 3	"		
		Viví Clay Loam Shallow Phase	Vi 32	"		
		Viví Loam	Vi 6	"		
		Viví Loam Shallow Phase	Vi 62	"		
		Viví Silt Loam	Vi 7	"		
		Viví Sandy Loam	Vi 8	"		
		Viví Loamy Sand	Vi 9	"		
		Washed Sand and Gravel	Riverwash	Riverwash	RW	Islandwide

#### Poorly Drained Soils of the River Flood Plains

All of the soils in this group are at an elevation of only a few feet above sea level and in many cases the water table is at a constant depth averaging less than 24 inches from the surface. Most areas are subject to frequent inundations and sedimentations. Most of these soils occur as low, imperfectly or poorly drained flat areas between the well-drained soils of the river floor plains and the soils of the coastal lowlands. The series included in this subgroup and their derivation and occurrence are shown in Table 24.

#### Soils of the Coastal Lowlands

The soils of the coastal lowlands, with few exceptions, occur within one half mile of the coast. With the exception of dune sand, the relief is nearly level. The rainfall ranges from less than 25 inches along

Table 24  
Poorly Drained Soils of the River Flood Plains

Parent Material	Soil Series	Soil Type and Phase	Symbol	Occurrence	
Descalabrado and Aguilita Soils	Aguirre	Aguirre Clay	Ae 1	Southern Arid and Semiarid	
		Aguirre Silt Loam	Ae 7		
	Guánica	Guánica Clay	Ga 1	"	
		Vayas	Vayas Clay	Vy 1	"
			Vayas Silty Clay	Vy 2	"
			Vayas Loam	Vy 6	"
			Vayas Silty Loam	Vy 7	"
Washed Múcara and Associated Soils	Coloso	Coloso Clay	Cs 1	Northern Humid	
		Coloso Silty Clay	Cs 2		
		Coloso Clay Loam	Cs 3		
		Coloso Loam	Cs 6		
		Coloso Silt Loam	Cs 7		
		Coloso Clay Poorly Drained	Cs 13		
Washed from Catalina Soils	Fortuna	Fortuna Clay	Fo 1	"	
		Fortuna Clay Poorly Drained	Fo 13	"	
		Fortuna Silty Clay	Fo 2	"	
		Fortuna Clay Loam	Fo 3	"	
Washed Granite Hills	Irurena	Irurena Clay Loam	Ir 3	Eastern Humid	
		Irurena Loam	Ir 6		
Granitic Material	Josefa	Josefa Clay	Jf 1	"	
		Josefa Clay Loam	Jf 3	"	
	Talante	Talante Clay	Tt 1	"	
		Talante Clay Loam	Tt 3	"	
		Talante Loam	Tt 6	"	
		Talante Sandy Loam	Tt 8	"	
Washed from Limestone and Shales Over Estuary Deposits of Coastal Plain Material	Martín Peña	Martín Peña Clay	MP 1	Northern Humid	
		Martín Peña Sandy Clay	MP 4		
	Maunabo	Maunabo Clay	Mb 1	Eastern Humid	
		Maunabo Loam	Mb 6		
Yabucoa	Yabucoa Clay	Yb 1	"		
	Yabucoa Clay Loam	Yb 3	"		
	Yabucoa Loam	Yb 6	"		
Deposits of Tuffs, Limestone, and Fine Grain Volcanic Rocks and Coastal Plain Material	Vega Baja	Vega Baja Clay	VB 1	Northern Humid	
		Vega Baja Silty Clay	VB 2		

the dry southwestern coast to about 80 inches along the coast at Mayaguez. This group includes three subgroups: (1) well-drained sandy soils that fringe the coast; (2) imperfectly and poorly drained mineral soils; and (3) poorly drained organic soils.

#### Well-Drained Soils of the Coastal Lowlands

These are the friable, noncoherent, well-drained, sandy-textured soils adjacent to or near the beach. They have probably been washed from the interior to the coast, reworked by the action of the waves, and deposited at the water's edge. The series and their origins are given in Table 25.

Table 25  
Well-Drained Soils of the Coastal Lowlands

Parent Material	Soil Series	Soil Type and Phase	Symbol	Occurrence	
Material Washed From Limestone and Tuffaceous Rocks. Also includes many small sea shells.	Aguadilla	Aguadilla Sand	Au 0	Northern, Eastern, and Western Coast	
		Aguadilla Sandy Loam	Au 8		
		Aguadilla Loamy Sand	Au 9		
	Cataño	Cataño Sand	Cn 0	"	
		Cataño Loamy Sand	Cn 9	"	
		Coastal Beach Coastal Beach Sand	CB 0	"	
	Various Sized Sea Shell Fragments, Coral, and Only a Small Quantity of Sand. These are recent soils and partly developed.	Jaucas	Jaucas Sand	Ju 0	Southern Arid
		Palm Beach	Palm Beach Sand	PB 0	Northern, Eastern, and Western Coast
		Dune	Dune Sand	Ds 0	Islandwide
Derived from Dark-Colored Igneous Material Washed from the Cordillera Central. Mixed with Sea Shell Fragments.	Meros	Meros Sand	Ms 0	Southern Coast	

#### Imperfectly and Poorly Drained Soils of the Coastal Lowlands

These soils are lagoonal deposits of clays, silts, and sands, consisting of alluvial material underlain by sandy beach material, and imperfectly drained coastal sands. They have been washed from the hills of the interior and from alluvial deposits, and they have settled out in lagoons that were separated from the ocean by sand bars and dunes. These soils are fine-grained, sticky, acid, and plastic. Most of them have gray or bluish gray subsoil. Soils of this group in the semiarid and arid districts generally are calcareous. The soil types in this subgroup are shown in Table 26.

#### Poorly Drained Organic Soils of the Coastal Lowlands

The poorly drained organic soils occupy low areas adjacent to or only a few miles inland from the coast. They are water-soaked or under water many months of the year. Most areas are impregnated with salty or brackish water. These soils differ from the inorganic subgroup in that they contain more than 30 per cent organic matter, are fibrous and spongy, generally black or reddish brown, and have a foul odor below a depth of 2 feet. The value of these soils for agricultural crops depends to a very great extent upon the cost of adequate drainage. They range from slightly to strongly acid. The soil types of this subgroup are given in Table 27.

Table 26  
Imperfectly and Poorly Drained Mineral Soils of the Coastal Lowlands

Parent Material	Soil Series	Soil Type and Phase	Symbol	Occurrence
Poorly and imperfectly drained Coastal Sands from material washed from Limestone and Tuffaceous Rocks, also including small sea shells.	Aguadilla	Aguadilla Sandy Loam Poorly Drained	Au 83	Northern, Eastern, and Western Coast
		Aguadilla Loamy Sand Poorly Drained	Au 93	
	Cataño	Cataño Loamy Sand Poorly Drained	Cn 93	"
		Cataño Sand Poorly Drained	Cn 03	"
Coastal Sands Covered With Material Washed from Limestone and Tuffaceous Shale Hills	Corcega	Corcega Sandy Clay	Cc 4	Western Humid
		Corcega Sandy Clay Poorly Drained	Cc 43	"
		Corcega Sandy Loam	Cc 8	"
		Corcega Sandy Loam Poorly Drained	Cc 83	"
Old Estuarine or Lagoonal Deposits of Clays, Silts, and Sands	Cintrona	Cintrona Clay	Cr 1	Southern Arid and Semiarid
		Cintrona Silty Clay	Cr 2	
		Cintrona Loam	Cr 6	
Palmas Altas	Palmas Altas	Palmas Altas Clay	PA 1	Northern, Western, and Eastern Coast
		Palmas Altas Silty Clay	PA 2	
		Palmas Altas Clay Loam	PA 3	
		Palmas Altas Sandy Clay	PA 4	
		Palmas Altas Loam	PA 6	
Piñones	Piñones	Piñones Clay	Pn 1	"
		Piñones Silty Clay	Pn 2	"
		Piñones Sandy Clay	Pn 4	"
Serrano	Serrano	Serrano Clay	Sr 1	Eastern, Southern, Arid and Semiarid Coast
		Serrano Sandy Clay	Sr 4	
		Serrano Loam	Sr 6	
		Serrano Sandy Loam	Sr 8	
Ursula	Ursula	Ursula Clay	Ur 1	"

Table 27  
Poorly Drained Organic Soils of the Coastal Lowlands

Parent Material	Soil Series	Soil Type and Phase	Symbol	Occurrence
Old Estuarine and Lagoonal Deposits of Clays, Silts, and Sands, and Remains of Organic Matter	Peat	Peat	P	Coastal Lowlands Islandwide
	Piñones	Piñones Clay Peaty Subsoil	Pn 14	Coastal Lowlands Northern Coast
	Reparada	Reparada Clay	Rd 1	Eastern, Southern Arid and Semi- arid Coast
	Saladar	Saladar Muck	SM	Coastal Lowlands Islandwide
	Tiburones	Tiburones Muck	TM	Coastal Lowlands Northern Coast

## II. VALUE ANALYSIS

Three common methods of analysis are used in determining the value of agricultural land: sales, rental income, and farm income. The discussion here will center primarily around sales analysis because this proved to be the only information of significant value for the reassessment project. Income data should be accumulated and analyzed periodically, however, in an effort to obtain reliable information to establish the validity of sales data.

Value modifications of the soil itself are recognized for slope and erosion. Other value modifications which have a bearing upon the value of the farm as a whole are based upon location with respect to the nearest market center and ports, types of roads, and the accessibility of water. These modifications are an integral part of the value analysis process, and in Puerto Rico they are themselves based upon sales research.

### Sales Analysis

Sales of rural land in Puerto Rico have been numerous in recent years and the information concerning them is by far the most fruitful source of value information available to the assessor. The primary impetus behind the active real estate market is the land acquisition program of the Insular Government. All such purchases have been made with reference to soil types, productivity, and location and hence constitute one of the most mature and consistent real estate markets which could be found.

Sales information should be accumulated regularly and analyzed to insure that assessed values retain their close relationship to market values. Changes may occur in any of four categories: (1) the general level of land values; (2) the value relationships among the several land classes; (3) the effect upon value of variations in slope and erosion within a given land class; and (4) modifications of the farm as a whole. The continuous accumulation and analysis of sales data is the best means of discovering these trends and making value adjustments in accordance therewith.

### Sources

The principal sources of current sales information are the Puerto Rico Land Authority and the Farmers' Home Administration. These agencies have made many land purchases during the last decade. The reappraisal project analyzed 245 such purchases totaling 300,000 *cuerdas* and occurring in 62 different municipalities. This constituted nearly 15 per cent of the island's area and represented 80.5 per cent of the 77 municipalities. The sales studies accounted for 102 soil series and 309 soil types out of the total of 115 soil series and 358 soil types recognized in *Soil Survey of Puerto Rico*.

In addition to using these sources, it is desirable that efforts be made in the future to collect and analyze information from real estate brokers.

### Derivation of Unit Values

To establish unit values from the known sales, it is necessary to take averages of a number of sale prices. It is important that the samples include sales involving both corporations and individuals so that the average will not be severely biased. If there are several sales of a given soil type, the following steps are to be taken to determine a preliminary unit value:

1. Adjust the recorded sales prices for variation in location within a farm. That is, if a given tract has been sold at a low figure because it is at some distance from the road, but is part of a farm which is itself adjacent to the road, the sale value for that particular tract is increased by applying the location modification factor for the farm.
2. Adjust all sales values to eliminate the influence of distance from the nearest town. Since this influence is figured as a modification in computation, it is necessary that all units be related to a standard distance. For example, if a certain tract sold at \$190 per *cuerda* and is at a distance from town such that the farm is subject to a 5 per cent value reduction for location, divide the sale price of \$190 by .95 (100 per cent - 5 per cent) and use the resulting figure of \$200 per *cuerda* for analysis purposes.
3. Average the resulting adjusted values to obtain a preliminary unit value for the soil type.

To establish final unit values from the preliminary ones, the following steps should be taken:

1. Analyze critically the relationships between soil types and make adjustments whenever known ratios of productivity are at wide variance with preliminary unit values.
2. Interpolate values of soil classes for which insufficient sales data are available. Productivity is the prime factor to consider in the interpolation.

#### Rental Income Analysis

Little use was made of rental information during the reassessment project because most leases had been in effect for more than a decade. As a result, values indicated by lease agreements were either inordinately high, if the contract was negotiated in the 1920's, or low, if the lease dated from the 1930's. Many leases are by oral agreement so that information on them was difficult to obtain.

New leases should be recorded and analyzed as they are made, however, because the rental agreements are an excellent indication of value and may be of considerable use in checking unit values derived from sales. In the future, rental income data will be valuable for determining differences in land values in various sections of the island.

#### Sources

Probably the most fruitful source of rent information in the future will be the records of the sugar cane corporations. These corporations control under leases a large portion of the rural land in Puerto Rico. The appraisers should keep a lookout for the recording of the new leases negotiated by corporations or individuals and secure the information for analysis.

#### Derivation of Unit Values

The establishment of unit values from rents involves the estimation of net income, the amortization of the value of improvements, and the capitalization of the remaining income. These computations yield a value for the entire farm which should then be allocated to the various soil classes in proportion to their estimated ratio of productivity. The following outline of steps is suggested as a guide, but probably should be further refined when and if valid rents become available.

1. By analysis of the lease, estimate the future net income. Reduce the gross rent per month by the monthly cost of any expenses assumed by the owner. Such expenses may be taxes, building repairs, or others.
2. Find the present depreciated value of all buildings owned by the owner of the farm.
3. Amortize 64 per cent of the value of the improvements over the remaining estimated life. (Detailed instructions for this computation are given in Part One, Chapter II, page 10.)
4. Subtract the monthly cost of the building sinking fund from the net income derived in Step 1.
5. Capitalize the amount in Step 4 in perpetuity at the current mortgage and credit loan rates of governmental agencies.
6. Subtract from the capitalized value the value of improvements owned by the owner of the farm.
7. Estimate the productivity ratios of the various soil types in the farm and reduce the capitalized farm value to unit values by a computation such as that illustrated in Standards for Assessing Real Property.<sup>1</sup>

#### Farm Income Analysis

The use of farm income analysis during the reassessment project was severely limited by the invalidity of information. Efforts should be made, however, to use data for sugar cane, tobacco, and coffee plantations.

#### Sources

The best sources of farm income information are the economic studies of the agricultural enterprises of the island made by agencies of the federal and insular governments. The accounts of farmers are potential sources of farm income data, but before relying upon them extreme care should be exercised to ascertain that the records are accurately maintained and are not misleading.

<sup>1</sup>Chicago: Public Administration Service, 1951, p. 41.

#### Derivation of Unit Values

The procedure for deriving both farm and unit values from farm income is similar to that used to derive values from rental income. It may be possible to estimate income from specific classes of soils, but such a procedure contemplates an unusually high degree of accounting detail and accuracy.

The chief difference between the capitalization of farm income and rental income capitalization is in the computation of net income. If the farm is owner operated, it is necessary to subtract from the gross income all expenses, including compensation to the owner for his labor, and to amortize all improvements before capitalizing. Otherwise, the procedures for computing unit values are identical with those employed in rent capitalization.

#### Value Modifications

The unit values derived from the analysis of sales, rents, or other income apply directly only to standard tracts of land. In order to allow for the differences in value attributable to variations in slope, erosion, and location, a series of modifications is used. There is no one standard of slope and erosion; the typical condition of a given soil class is considered to be standard for that soil, and modifications are made for variations therefrom. The location modification is made for distance from the nearest market town for coffee, tobacco, and subsistence crop farms, and from the nearest sugar mill for sugar cane farms, and is further modified as to the nearest port. An additional modification is made for access to the farm according to type of roads. Accessibility to water for domestic use and for livestock is also accounted for by a modification.

#### Slope and Erosion Modification

Slope and erosion are so related in their influence upon land values in Puerto Rico that they should be discussed together. The detailed appraisal reports that were used during the reassessment project gave much specific information regarding the effect of slope on prices and this information has been incorporated into the unit value tables. Table 28 below defines the five degrees of slope that are recognized in field operations and Table 29 below defines the five grades of erosion that are recognized.

Table 28  
Slope Categories for Rural Land Appraisal

Symbol	Degrees Slope	Per Cent Slope
A	0 - 3	0 - 5
B	4 - 9	6 - 15
C	10 - 19	16 - 35
D	20 - 29	36 - 59
E	30 or over	60 or over

The studies that were made showed that slope compared to erosion influences land values as indicated in Table 30.

#### Salinity Modification

Modification is also made for the presence of toxic amounts of salts in the soil. Soils that exceed 0.5 per cent saline content are classified as "saline" and have only a nominal value of \$1 per cuerda. Soil with saline content from 0.2 per cent to 0.5 per cent, considered as slightly affected, will sustain a 25 per cent discount on its value.

Table 29  
Erosion Categories for Rural Land Appraisal

Symbol	Soil Removed
0	None
1	1 to 50 per cent of topsoil
2	50 per cent to 100 per cent of topsoil
3	100 per cent of topsoil and 1 to 50 per cent of subsoil
4	100 per cent of topsoil and over 50 per cent of subsoil

Table 30  
Comparison of Slope and Erosion Influences on Land Values

Soil Groups According to Physiographic Divisions	Ratio of Importance With Respect to Land Values		Difference in Value Expressed in Percentage Between	
	Slope	Erosion	Slope	Erosion
Soils of the Upland:				
Deep	3	1	30	10
Medium Deep	2	1	25	12
Shallow	1	1	20	20
Soils of the Inner Plains	3	1	15	5
Soils of the Coastal Plains	3	1	15	5
Soils of the Coastal Lowlands	3	1	9	3
Soils of the Terraces	3	1	9	3
Soils of the River Flood Plains	3	1	9	3

#### Location Modification

Location modifications are based upon the distance from the farm to the nearest market center and nearest port. The type of road serving the farm is recognized by converting each distance into its equivalent of paved road. The resulting weighted distance is used for modification. Standard weighted distance is 10 kilometers to nearest market center and from 30 to 35 kilometers to nearest port.

Table 31 shows the basic data used in the conversion for types of roads. It gives the average speeds which may be expected from different kinds of vehicles on the several types of roads. The average for all vehicles on each type of road was used to compute the conversion factors.

Table 31  
Average Speed Attained by Vehicles on Different Kinds of Roads<sup>a</sup>

Vehicle	Trail	Dirt Road	Gravel Road	Paved Road
Passenger Car	-	48.0	68.8	72.0
Light Truck	-	43.2	64.0	67.0
Medium Truck	-	36.8	57.6	60.8
Heavy Truck	-	32.0	52.8	56.0
Horses	8	-	-	-
Average	8	40.0	60.8	64.0

<sup>a</sup>Source: Bureau of Public Roads, U. S. Department of the Interior.  
Federal Planning in Oregon. (Distances converted to kilometers)

These figures were rounded and adjusted in order to yield the conversion factors actually used to recognize distance from farms to markets. The factors used in Puerto Rico are the following:

Trail roads to paved roads	10.00
Dirt roads to paved roads	1.60
Gravel roads to paved roads	1.00

The location modification tables for farms according to proximity of sugar cane farms to sugar mills and of coffee, tobacco, subsistence crop, and other farms to nearest market centers were developed on the basis of two studies made by the Agricultural Experiment Station of the University of

Puerto Rico. One, entitled "Descriptive Tables of a Study of Sugar Cane Production Costs in Puerto Rico, 1945-1946," was published in December 1947. The other, which deals with cost of transporting sugar cane from farms to mills, including hauling bonuses received by farmers, was made in 1949 and is still unpublished.

According to the study of sugar cane production costs, the average net income per ton of sugar cane for the island was \$1.56, and the average cost of transportation of one ton of cane to the mill was \$0.34. Adding these together, the net benefit per ton of cane, not including transportation costs, is shown to be \$1.90.

According to the study of transportation costs from farms to mills and using the net benefit of \$1.90 per ton of sugar cane, not including transportation costs, Table 32 was developed to determine the net benefit per ton of sugar cane after deducting the cost of transportation per ton for distances covered.

Table 32  
Net Benefit Per Ton of Sugar Cane According to Distance From Farm to Mill<sup>a</sup>

Distance	Cost of Transportation		Net Benefit Per Distance Traveled	Net Per Cent Benefit on Basis of 10 Kilometers
	Average Distance Covered	Cost Per Ton		
0 - 5	3.7	0.66	1.24	120
6 - 15	10.5	0.86	1.04	100
16 - 20	17.78	1.06	0.84	80
21 - 25	23.09	1.12	0.78	75
26 - 30	27.71	1.26	0.64	60
Over 30	38.57	1.40	0.50	50

<sup>a</sup>Unpublished study on costs of transportation of sugar cane, 1948-1949; Agricultural Experiment Station, University of Puerto Rico.

The results of the studies as shown in Table 32 were utilized to develop the location modification factors according to the nearest market center given in Table 33.

*Tabla a Utilizarse Mod I Fivca Ubicacion en la parte superior*

Table 33

Location For Farms According to Proximity to:  
(1) Sugar Cane Farms to Sugar Mills  
(2) Other Farms to Nearest Market

Distance in Kilometers	Per Cent Modification	Distance in Kilometers	Per Cent Modification	Distance in Kilometers	Per Cent Modification
0 - 1	120 + 20	13 - 14	92	26 - 27	66
1 - 2	117	14 - 15	90	27 - 28	64
2 - 3	114	15 - 16	88	28 - 29	62
3 - 4	112	16 - 17	86	29 - 30	60
4 - 5	110	17 - 18	84	30 - 31	59
5 - 6	108	18 - 19	82	31 - 32	58
6 - 7	106	19 - 20	80	32 - 33	57
7 - 8	104 + 4	20 - 21	78	33 - 34	56
8 - 9	102 + 2	21 - 22	76	34 - 35	55
9 - 10	100 - 0	22 - 23	74	35 - 36	54
10 - 11	98 - 2	23 - 24	72	36 - 37	53
11 - 12	96 - 4	24 - 25	70	37 - 38	52
12 - 13	94	25 - 26	68	38 - 39	51
-	-	-	-	39 - 40	50

The location modification factor also must reflect the influence of the distance from the market center to the nearest port. This is provided for in Table 34. The factor for distance from market center to

port in addition to the factor that measures the influence in value of the distance from the farm to the nearest market center constitute the location modification factor for the farm.

Table 34  
Modification Factor According to Proximity of Market Center to Port  
Based on Net Benefit Per Ton of Sugar Cane Equivalent in Hundredweight of Sugar<sup>a</sup>

Distance	Per Kilometer Cost of Transporting 2.22 Cwt. of Sugar From Central to Dock	Net Gain Per Ton of Sugar Cane Less Transportation Cost of Sugar	Gain in Per Cent	Modification Factor
0 - 5	\$.02	\$1.88	1.06	+6
5 - 10	.04	1.86	1.05	+5
10 - 15	.06	1.84	1.04	+4
15 - 20	.08	1.82	1.03	+3
20 - 25	.10	1.80	1.02	+2
25 - 30	.12	1.78	1.01	+1
30 - 35	.14	1.76	1.00	0
35 - 40	.16	1.74	0.99	-1
40 - 45	.18	1.72	0.98	-2
45 - 50	.20	1.70	0.97	-3
50 - 55	.22	1.68	0.95	-4
55 - 60	.24	1.66	0.94	-5
60 - 65	.26	1.64	0.93	-6
65 - 70	.28	1.62	0.92	-7
70 - 75	.30	1.60	0.91	-8
75 - 80	.32	1.58	0.90	-9
80 - 85	.34	1.56	0.89	-10
85 - 90	.36	1.54	0.88	-11

<sup>a</sup>One ton of sugar cane - 2.22 hundredweight of sugar.  
Cost of transporting 100 pounds of sugar one kilometer - \$.002.  
Benefit per ton of sugar cane - \$1.90.  
Cost of transportation for 2.22 hundredweight of sugar - \$.004.

### III. SURVEYING AND CLASSIFYING SOILS

The field appraisal of rural land consists of surveying the soil and preparing maps which reflect the soil classification and other significant information, such as slope and erosion. The technical instructions in this chapter are a brief summary of some of the more important elements of soil science and other rules for the specific working procedures used to complete the survey.

#### Technical Information

This section includes an outline of information concerning soil classification. It is primarily a review and a glossary of terminology, since the appraiser is expected to possess sufficient technical educational background to understand the details of soil science.

#### Soil Profile

A profile is a vertical cut or cross section of the soil in which it is possible to observe the nature and sequence of the various layers of soils grouped as a single unit. This grouping of the soil layers, which are referred to as horizons, implies a relationship in their chemical, physical, biological, and morphological characteristics. It is necessary to consider not only the horizons that exist in a given profile, but also the morphology of each horizon.

**Horizons.** In a mature soil without accelerated erosion and in equilibrium with its environment, it is possible to observe three definite horizons.

1. The **A-Horizon**, ordinarily called soil, is the horizon of alluviation. In it nutrients and solid material, especially colloidal clay, are being leached downward to the B-Horizon.
2. The **B-Horizon**, ordinarily called subsoil, is the horizon of illuviation or accumulation. It gathers the material removed from A-Horizon.
3. The **C-Horizon**, ordinarily called parent material, usually consists of rock fragments in different stages of weathering.

A soil profile generally consists of three horizons, but if the A-Horizon has been removed by erosion, the remaining horizons constitute, theoretically, a profile. This condition is referred to as a truncated profile. If, however, only two horizons have been found, there is no true profile. This usually occurs in immature soils and may be evidenced in the following ways:

1. The subsoil is not a true horizon of illuviation because the soil is not in equilibrium with its environment.
2. The parent material does not constitute a true C-Horizon. This often occurs in immature alluvial soils that are transported rather than genetically developed out of the rock below, as in the case of residual soils.

**Morphology.** There are innumerable characteristics in each soil profile, and those which are of importance and indicate the condition of the profile should be observed. Laboratory analysis and close observation determine the presence or absence of these characteristics and a soil description explains the laboratory findings and describes the intensity with which each characteristic occurs. The standard morphological characteristics are:

1. **Color** - especially valuable in identifying horizons.
2. **Constitution** - the several elements of this characteristic are as follows:
  - a. **Hardness.** Another guide to differentiating between horizons.
  - b. **Agglutination or Cementation.** The presence of cementing agents such as iron, silica, and organic matter.
  - c. **Porosity.** A measure of the ability of the soil as a unit to absorb moisture.
  - d. **Consistency.** The degree of resistance to disintegration offered by the soil aggregates.
  - e. **Plasticity.** The ability of the soil to retain a definite pattern after being molded.
  - f. **Adhesion.** The tendency of the soil particles to stick together.
3. **Arrangement** - This is the general appearance of the profile as a whole.
4. **Depth** - The depth includes both the total depth of the profile and the individual depths of the several horizons.

5. Texture - This refers to the makeup of the horizons with respect to amounts of clay, silt, and sand present.
6. Structure - The structure considers the arrangements of the different primary particles (clay, sand, silt) into secondary particles, known as aggregates, by the effect of cementing agents.
7. Foreign Materials - These are objects that occur in the soil but are not derived by natural soil building processes.
8. Other Elements - Many other elements occur in soils; but the two most commonly considered are the geologic origin of the parent materials and the characteristics of the water table.

#### Soil Classification

There are several ways of classifying soils, depending upon the distinguishing characteristics considered and the degree of precision required. Soils are commonly classified according to the pedogenic factors.

Classification According to Morphological Characteristics. This is the classification of soils used to establish land classes for assessment purposes. It is by far the most refined of the three classifications and depends upon the morphology as described in a foregoing section. Soils are classified into series, and each series is subdivided into classes comprising a unit known as soil type which is further divided into phases. These elements of the classification are defined as follows:

1. Series is a group of soils which have similar morphological characteristics and are developed from similar parent material. The texture of the A-Horizon is not a factor in determining series.
2. Class is a grouping of the primary particles which are found in the A-Horizon of the soil exclusively. The class is determined by considering the percentage by weight of sand, silt, or clay that make up the composition of the A-Horizon. For example, silt loam contains 20 per cent to 50 per cent of sand, 50 per cent to 80 per cent of silt, and 0 per cent to 20 per cent of clay.
3. Phase is an additional subdivision based upon some deviation of importance when compared with the typical conditions of the soil. Among the most common phases are the ones that refer to amount of erosion, per cent of slope, depth of soil, water table, and excessive content of stones.
4. Type is the combination of series, class, and phase, if any.

An example of a soil classification is San Antón loam, shallow, in which San Antón is the series, loam is the class, shallow is the phase, and all together make up the type.

#### Working Instructions

Although it is recognized that geologic change, and hence change in soil classes, is a slow process, soil erosion is dynamic and alluvial and colluvial depositions occur frequently, so that considerable continuing review and revision of the soil maps are necessary. The instructions given herewith are basically those used in the course of the reassessment project and should be followed in the future with such modifications as experience may dictate.

The primary task of rural land appraisal is to survey the soil of Puerto Rico and to prepare a soil map registering a physical inventory of the agricultural resources, especially involving the various soil types, phases, and conditions that affect productivity and hence land value. The maps as prepared in the field are actually aerial photographs. Each photograph contains an area outlined in green which is the only part of that particular photograph to be surveyed, since other areas are subject to distortion. All soil areas are to be inked on the photographs, together with a legend showing the soil type, slope, erosion, and miscellaneous factors. The following rules are to be observed by rural land appraisers.

1. Use the photograph first to be sure of proper orientation. The photograph shows all physical and cultural features, but check these from time to time to be sure that changes have not occurred. When in doubt, ask the residents of the vicinity about changed conditions and rely mainly upon natural features which do not change.
2. The aerial photographs are at a scale of 1:10,000. The table below gives some examples of the relative size of identical areas on the photograph and on the ground:

Photograph Dimensions	Field Equivalents
1 inch	833.33 feet
1 inch	253.99 meters

#### Photograph Dimensions

1 square inch  
1 square inch  
1/4 inch square

#### Field Equivalents

694,438.89 square feet  
16.41 cuerdas  
1.025 cuerdas

3. Determine the boundary lines of soil types by a thorough examination of the profile. This may be done by taking borings at stated intervals, examining road cuts and slopes, and observing the color of the soil and rock types. Whenever in doubt, make several borings to establish the soil type.
4. Draw lines in pencil between areas of different soils. In drawing these boundaries, observe the following rules:
  - a. Extend all boundary lines until they meet either themselves, the green line on the photograph, an urban area limit, or physical barriers, such as rivers.
  - b. Ignore soil areas of less than 0.5 of a cuerda.
  - c. Be especially painstaking in establishing boundaries between soil areas of markedly different values.
5. Write the appropriate symbol in each soil area outlined. Make these entries either vertically or horizontally depending upon the size and shape of the area. An example of such an entry is A1 1 for Alonso Clay.
6. Consider irrigated areas as separate soil types. In this case, add the letter "R" to the soil symbol.
7. Determine the slope of each tract by using the hand level. This instrument is graduated in degrees or per cents and is used by sighting an object at the end of the slope at the height of the eyes. Convert the reading on the level to an erosion group as shown in Table 28 and enter the proper symbol. An example of this entry, assuming Alonso Clay with 12° (21 per cent) slope is A1 1 C.
8. Determine the degree of erosion by taking borings with the soil auger. Compare the depth of the soil, or the subsoil if the former has disappeared, with the standard as shown in the Key to the Soils of Puerto Rico, or consult Soil Survey of Puerto Rico. Determine the percentage of the profile that has been removed and enter on the map the proper symbol as shown on Table 29. Assuming Alonso Clay with 12° slope and 25 per cent of its topsoil removed, the proper entry is A1 1 C2.
9. Compute an average degree of slope and erosion wherever possible. This technique should be used especially in mountainous areas or in places where differences in elevation are slight. Include several small areas in one larger tract for which the averages have been determined.
10. In alkali affected areas, determine the percentages of noxious salts by consulting the soil survey maps or by observing the kinds of plants growing on such plots. If available, use an electrolytic bridge to determine salt concentrations. Observe the following rules in recording the salt content:
  - a. If the percentage is less than .2 per cent, make no entry.
  - b. If the percentage is between .2 per cent and .5 per cent inclusive, add the letter S after the erosion symbol on the map.
  - c. If the percentage is between .5 per cent and .9 per cent, add the letter M after the erosion symbol on the map.
  - d. If the percentage is over .9 per cent, classify the soil as "Salitre" and enter only the letter S as identification of the whole plot.
11. Trace all means of transportation and communication. Draw all power and pipe lines, intermittent flows, streams and rivers, aqueducts, important irrigation or drainage canals, and other structures. Be sure to use the corresponding symbol in each case.
12. Differentiate between the different conditions when dealing with stony or poorly drained phases as follows:
  - a. Stoniness Conditions:
 

When 25 per cent or less of the area is covered with stones, add the number 1 after the erosion symbol on the map.

When 25 per cent to 50 per cent of the area is covered with stones, add the number 2 after the erosion symbol.

When 50 per cent to 75 per cent of the area is covered with stones, add the number 3 after the erosion symbol.

b. Poorly Drained Conditions:

When drainage condition is good, that is, water table is withheld at 3 or more feet beneath the surface soil, add letters CB after erosion symbol on the map.

When drainage condition is regular, that is, water table lies about 1 1/2 feet beneath the surface soil, add letters CR after the erosion symbol on the map.

When drainage condition is poor, that is, water table is near the surface soil, add the letters CM after the erosion symbol on the map.

13. Check the penciled entries on the photograph for consistency with each other and with the information shown on adjoining photographs.

14. Ink all entries before returning the photograph to the office.

IV. COMPUTING VALUES

There are two major phases involved in the process of computing rural land values. They consist of: (1) measuring with a polar planimeter the area of each parcel and the area of each type of soil within the parcel; and (2) computing the value of each of these soil areas and, after adding and modifying these values, determining the total assessed value of the parcel.

Parcel values must be recomputed whenever a change occurs in the parcel boundary lines. Under certain circumstances, major changes in rural road conditions, the establishment or removal of sugar central operations, or the irrigation of large areas of previously unirrigated land would also require recomputation of the values of affected parcels.

All entries of soil types, areas, values, and modification factors are made on the rural appraisal card. Prepared tables are used to increase efficiency and to reduce the possibility of error.

Planimentering the Parcel

Soil Type	Soil Modification (+ - %)			% Good Adj.
	Slope	Erosion	Salinity	
			.77	
			.09	
			.86	
		Lake		
		Road		
A.T. 6.43 A.N. = 5.57				

1. Using only the parcel boundary map, planimeter the total area of each parcel. As a check against error, do this twice and enter the average result on the appraisal card, on the bottom line of the column headed "Soil Type," putting the letters "A. T" (for Area Total) on the same line immediately before the total planimeter reading. Make the entry at the left end of the line.

2. When rivers, lakes, or public roads are found within a parcel, measure or planimeter the area of each and enter each reading vertically in the column headed "Salinity."

3. Add together the readings for rivers, lakes, and roads, and subtract the total so obtained from the total area of the parcel as found in step 1 above. The result of this subtraction is the net area of the parcel. Enter it on the card on the same line as, but to the right of, the total area figure. Use the letters "A.N." (for Area Net) and place them in front of the figure.

4. When a parcel is so situated that parts of it are in two or more different maps, planimeter each part separately. Enter these readings on the card on the lines next above the bottom line of the column headed "Soil Type." In each case, the planimeter reading should be followed (in parenthesis) by the number of the map in which the portion is located. (See below.)

Soil Type	Soil Modification (+ - %)			% Good Adj.
	Slope	Erosion	Salinity	
			.09	
			.02	
			.12	
			.03	
			.26	
A.T. 7.12 (363)				
A.T. 4.10 (388)				
A.T. .71 (364)				
A.T. .19 (382)				
A.T. 12.12		River		
A.N. 11.86		River		
		Road		
		Road		

Having ascertained the net area of the parcel, the planimeter operator can proceed to measure the areas of its soils.

Soil Type	Soil Modification (+ - %)			% Good Adj.
	Slope	Erosion	Salinity	
Gy 1 (178) 1.07				
RA 1 (178) .80				
Sa 3 (178) 1.17				
Gy 1 (178) .46			.31	.06
Sa 3 (205) 2.17			(178)	(205)
Sa 3 (205) .77			(178)	(205)
Ca 1 (205) .05			(178)	(205)
	6.49			
A.T. (178) 3.90			late	road
A.T. (205) 3.16			lake	lake
A.T. 7.06 A.N.	6.49			

5. Place the transparent soil overlay squarely over the parcel boundary map and planimeter the area of that part of each soil tract that appears within the parcel boundaries. Enter the soil type symbol as found on the overlay on the remaining lines of the column headed "Soil Type." Record the planimeter reading of each soil area immediately after the symbol. When the same soil type occurs in more than one place in the parcel, or is cut by a map line, record it as many times as necessary.

6. Add the planimeter readings for all soil tracts entered, and compare the total reading with the total net area. (See step 3 above.) When these two figures differ by 2 per cent or less, change the net parcel area figure to equal the total of the soil areas. When the two figures differ by more than 2 per cent, planimeter the parcel again. (See example immediately above.)

Note: Additional blank appraisal cards, each identified by the key number, may be used to record the above information when large or complex parcels are being computed. All cards of the same parcel should be securely stapled together along the top edge, with the original card in front.

Deriving Unmodified Parcel Values

The computation of unmodified parcel values involves: 1) converting planimeter readings from square inches to cuerdas; 2) determining adjusted soil area values; and 3) computing, when necessary, semi-urban land values by use of the urban land computation techniques. All entries are made in the section of the appraisal card headed "Computation of Land Values."

Area Computation

Soil areas are determined by multiplying the planimeter reading shown in the "Soil Type" column by a fixed factor. The following rules apply to this operation (assuming that the planimeter reads 1.00 per square inch):

1. If the soil area has been planimetered from a 1:10,000 scale map, multiply the planimeter reading by 16.41.
2. If the soil area has been planimetered from a 1:1,000 scale map, multiply the planimeter reading by .1641.
3. Enter the product of the multiplication, rounded to the nearest tenth of a cuerdas, on the same line in the column headed "Area." (See example on page 126.)

Adjusted Soil Area Values

The value of each soil area in the parcel is computed as follows:

1. Find each soil type listed in Table 35, Index to Soil Value Tables Used in Rural Land Appraisal System, and enter the index number on the same line in the column headed "Basic Unit." (See example on page 126.)
2. Find the index number on Table 36, Adjusted Soil Values, and select the appropriate value for the condition of slope and erosion shown on the card. Enter this value under "Adjusted Unit."
3. Multiply the adjusted unit by the area for each soil type and enter the product, rounded to the nearest dollar, under "Value" on the same line.
4. Add the items under "Value" and enter the sum at the bottom of the column after "Total Value." (See example on page 127.)

Semi-Urban Computation

If the parcel lies completely within the semi-urban zone, no planimeter readings are taken and the value is determined by urban methods. Whenever the line designating a semi-urban area crosses a

Table 35  
Index to Soil Value Tables Used in Rural Land Appraisal System

Soil Symbol	Index No.	Soil Symbol	Index No.	Soil Symbol	Index No.	Soil Symbol	Index No.
Ae-1 (CB)	A-39	At-4	B-74	Ca-4R(2)(SZ)	B-83	Ce-61(2)(SE)	C-129
Ae-1 (CM)	A-54	At-8	B-80	Ca-4R(3)(SZ)	B-90	Ce-61(3)(SE)	C-131
Ae-1 (CR)	A-49	Au-0	A-51	Ca-4(SZ)	B-83	Cg-2	B-66
Ae-1R(CB)	A-8	Au-03(CB)	A-53	Ca-4(1)(SZ)	B-86	Cg-3	B-66
Ae-1R(CM)	A-42	Au-03(CR)	A-55	Ca-4(2)(SZ)	B-90	Cl-1	C-152
Ae-1R(CR)	A-26	Au-03(CM)	A-57	Ca-4(3)(SZ)	B-94	Cl-1(1)	C-157
Ae-7 (CB)	A-39	Au-8	A-47	Cc-4	A-17	Cl-1(2)	C-161
Ae-7 (CM)	A-54	Au-83(CB)	A-50	Cc-8	A-22	Cl-1(3)	C-165
Ae-7 (CR)	A-49	Au-83(CR)	A-53	Cc-43(CB)	A-22	Cl-3	C-133
Ae-7R(CB)	A-8	Au-83(CM)	A-55	Cc-43(CM)	A-49	Cl-3R(NW)	A-13
Ae-7R(CM)	A-42	Au-9	A-49	Cc-43(CR)	A-39	Cl-5	B-113
Ae-7R(CR)	A-26	Au-93(CB)	A-51	Cc-83(CB)	A-30	Cl-5(1)	C-113
Ad-6	A-32	Au-93(CR)	A-54	Cc-83(CM)	A-51	Cl-5(2)	B-117
Ad-66	B-97	Au-93(CM)	A-56	Cc-83(CR)	A-44	Cl-5(3)	B-98
Ag-1R(SZ)	B-110			Ce-3	C-135	Cl-5R(NW)	C-124
Ag-1	B-115			Ce-3(1)	C-139	Cl-6	C-135
Ag-5	B-118			Ce-3(2)	C-142	Cl-8	C-137
Ag-5(1)	B-118	Ba-1(CB)	C-174	Ce-3(3)	C-146	Cm-1	A-33
Ag-5(2)	C-172	Ba-1(CM)	B-94	Ce-3R(SE)	C-133	Cm-1R	A-4
Ag-5(3)	C-148	Ba-1(CR)	B-90	Ce-3R(1)(SE)	C-136	Cm-2	A-33
Al-1	C-151	Ba-1R(CB)	B-83	Ce-3R(2)(SE)	C-140	Cm-2R	A-4
Al-1(1)	C-155	Ba-1R(CM)	B-85	Ce-3R(3)(SE)	C-145	Cm-16	B-97
Al-1(2)	C-160	Ba-1R(CR)	B-76	Ce-3(SE)	C-137	Cm-16R	B-96
Al-1(3)	C-164	Ba-2(CB)	C-174	Ce-3(1)(SE)	C-140	Cm-17	C-168
Al-3	C-151	Ba-2(CM)	B-94	Ce-3(2)(SE)	C-143	Cm-17R	A-24
Al-3(1)	C-155	Ba-2(CR)	B-90	Ce-3(3)(SE)	C-147	Cm-26	B-97
Al-3(2)	C-160	Ba-2R(CB)	B-63	Ce-6	C-137	Cm-26R	B-96
Al-3(3)	C-164	Ba-2R(CM)	B-85	Ce-6(1)	C-140	Cm-27	C-168
Al-11	C-149	Ba-2R(CR)	B-76	Ce-6(2)	C-143	Cm-27R	A-24
Al-11(1)	C-150	By-1	B-71	Ce-6(3)	C-146	Cn-0	A-51
Al-11(2)	C-154	By-4	B-71	Ce-6R(SE)	C-134	Cn-03(CB)	A-55
Al-11(3)	C-164	By-8	B-77	Ce-6R(1)(SE)	C-137	Cn-03(CM)	A-58
Al-12	C-159	By-9	B-80	Ce-6R(2)(SE)	C-141	Cn-03(CR)	A-56
Al-12(1)	C-162			Ce-6R(3)(SE)	C-146	Cn-9	A-49
Al-12(2)	C-164			Ce-6(SE)	C-141	Cn-93(CB)	A-53
Al-12(3)	C-167			Ce-6(1)(SE)	C-143	Cn-93(CM)	A-58
Al-31	C-149	CB-0	A-57	Ce-6(2)(SE)	C-145	Cn-93(CR)	A-56
Al-31(1)	C-150	C-1	C-168	Ce-6(3)(SE)	C-167	Co-1	A-29
Al-31(2)	C-156	C-5	C-153	Ce-31	C-121	Co-1(1)	A-36
Al-31(3)	C-164	C-5(1)	C-158	Ce-31(1)	C-124	Co-1(2)	A-44
Am-1	B-83	C-5(2)	C-162	Ce-31(2)	C-127	Co-1(3)	A-52
Am-1(1)	B-86	C-5(3)	C-165	Ce-31(3)	C-129	Co-1R(SE)	A-22
Am-1(2)	B-90	Ca-1	B-77	Ce-31R(SE)	C-178	Co-1R(1)(SE)	A-30
Am-1(3)	B-94	Ca-1(1)	B-82	Ce-31R(1)(SE)	B-79	Co-1R(2)(SE)	A-39
Am-1R	B-65	Ca-1(2)	B-86	Ce-31R(2)(SE)	B-84	Co-1R(3)(SE)	A-49
Am-1R(1)	B-69	Ca-1(3)	B-92	Ce-31R(3)(SE)	B-90	Co-1(SE)	A-39
Am-1R(2)	B-77	Ca-1R(SZ)	B-73	Ce-31(SE)	C-179	Co-1(1)(SE)	A-44
Am-1R(3)	B-85	Ca-1R(1)(SZ)	B-77	Ce-31(1)(SE)	C-127	Co-1(2)(SE)	A-49
Ao-0	B-92	Ca-1R(2)(SZ)	B-83	Ce-31(2)(SE)	C-129	Co-1(3)(SE)	A-54
Ar-1	A-30	Ca-1R(3)(SZ)	B-90	Ce-31(3)(SE)	C-131	Ce-4	A-32
Ar-1R	A-1	Ca-1(SZ)	B-83	Ce-61	C-121	Co-4(1)	A-38
Ar-2	A-30	Ca-1(1)(SZ)	B-86	Ce-61(1)	C-124	Co-4(2)	A-45
Ar-2R	A-1	Ca-1(2)(SZ)	B-90	Ce-61(2)	C-127	Co-4(3)	A-52
Ar-6	A-30	Ca-1(3)(SZ)	B-94	Ce-61(3)	C-129	Co-4R(SE)	A-26
Ar-6R	A-1	Ca-4	B-77	Ce-61R(SE)	C-178	Co-4R(1)(SE)	A-33
Ar-7	A-30	Ca-4(1)	B-82	Ce-61R(1)(SE)	B-79	Co-4R(2)(SE)	A-42
Ar-7R	A-1	Ca-4(2)	B-86	Ce-61R(2)(SE)	B-84	Co-4R(3)(SE)	A-50
Ar-62(1.5')	A-44	Ca-4(3)	B-92	Ce-61R(3)(SE)	B-90	Co-4(SE)	A-42
Ar-62R(1.5')	A-19	Ca-4R(SZ)	B-73	Ce-61(SE)	C-154	Co-4(1)(SE)	A-45
At-1	B-74	Ca-4R(1)(SZ)	B-77	Ce-61(1)(SE)	C-127	Co-4(2)(SE)	A-49





RURAL LAND

Table 35 (continued)

Table with 8 columns: Soil Symbol, Index No., Soil Symbol, Index No., Soil Symbol, Index No., Soil Symbol, Index No. Contains soil classification data for rural land, including entries like Co-4(3)(SE), Cs-33(CR), Ep-8, and various other soil types with their corresponding index numbers.

PROCEDURES FOR REAL PROPERTY ASSESSMENT IN PUERTO RICO

Table 35 (continued)

Table with 8 columns: Soil Symbol, Index No., Soil Symbol, Index No., Soil Symbol, Index No., Soil Symbol, Index No. Contains soil classification data for real property assessment, including entries like Ir-3R(CB)(SE), La-1, Mb-6R(CM)(SE), and various other soil types with their corresponding index numbers.

RURAL LAND

Table 35  
(continued)

Soil Symbol	Index No.	Soil Symbol	Index No.	Soil Symbol	Index No.	Soil Symbol	Index No.
Pñ-14(CB)	A-30	Rd-1(CR)	A-50	SC-3(1)	B-79	SS-1	B-77
Pñ-14(CM)	A-52	Rd-1R(CB)	A-14	SC-3(2)	B-84	SS-1(NW)	B-79
Pñ-14(CR)	A-44	Rd-1R(CM)	A-45	SC-3(3)	B-91	SS-1R(NW)	B-68
Po-1	B-81	Rd-1R(CR)	A-32	SG-1	B-113	SS-1R(SZ)	B-73
Po-1R	B-61	RL-0	B-88	SG-1(1)	B-115	SS-1R(1)(SZ)	B-77
PS-1	C-173	RL-0(NW)	B-90	SG-1(2)	B-117	SS-1R(2)(SZ)	B-83
PS-1R	A-3	RL-OR	B-84	SG-1(3)	B-98	SS-1R(3)(SZ)	B-90
PS-2	C-173	Ro-2	B-116	SI-1	C-173	SS-1(SZ)	B-83
PS-2R	A-3	Ro-2(1)	B-117	SI-1R	A-3	SS-1(1)(SZ)	B-86
PS-3	C-173	Ro-2(2)	B-118	SI-2	C-173	SS-1(2)(SZ)	B-90
PS-3R	A-3	Ro-2(3)	B-98	SI-2R	A-3	SS-1(3)(SZ)	B-94
PS-6	C-173	RP-1	C-135	SI-6	C-173	SS-4	B-77
PS-6R	A-3	RP-1(1)	C-139	SI-6R	A-3	SS-4(NW)	B-79
PS-7	C-173	RP-1(2)	C-142	SI-16	B-97	SS-4R(NW)	B-68
PS-7R	A-3	RP-1(3)	C-146	SI-16R	B-96	SS-4R(SZ)	B-73
PS-16	B-97	RP-3	C-135	SI-26	B-97	SS-4R(1)(SZ)	B-77
PS-16R	B-96	RP-3(1)	C-139	SI-26R	B-96	SS-4R(2)(SZ)	B-83
PS-26	B-97	RP-3(2)	C-142	SI-66	B-97	SS-4R(3)(SZ)	B-90
PS-26R	B-96	RP-3(3)	C-146	SI-66R	B-96	SS-4(SZ)	B-83
PS-36	B-97	Rs-3	A-29	SL-0	A-97	SS-4(1)(SZ)	B-86
PS-36R	B-96	Rs-36	B-97	SM-Unreclaimed	A-59	SS-4(2)(SZ)	B-90
PS-66	B-97	RW	C-148	SM-(CB)	A-39	SS-4(3)(SZ)	B-94
PS-66R	B-96	RB	B-99	SM-(CM)	A-59		
PS-76	B-97			SM-(CR)	A-49		
PS-76R	B-96			So-1	C-134		
Pt-1	C-133			So-1(1)	C-138	T-2	A-6
Pt-1(1)	C-136	S	B-99	So-1(2)	C-141	T-22	A-25
Pt-1(2)	C-140	SA-1	A-30	So-1(3)	C-146	T-3	A-6
Pt-1(3)	C-145	SA-1R	A-1	So-3	B-110	T-32	A-23
Pz-1	B-86	SA-2	A-30	So-3(1)	B-112	T-6	A-6
Pz-1(1)	B-89	SA-2R	A-1	So-3(2)	B-115	T-62	A-23
Pz-1(2)	B-92	SA-3	A-30	So-3(3)	B-118	T-7	A-6
Pz-1(3)	C-176	SA-3R	A-1	So-32	B-112	T-72	A-25
Pz-1R	B-70	SA-6	A-30	So-32(1)	B-113	T-75	A-30
Pz-1R(1)	B-76	SA-6R	A-1	So-32(2)	B-116	T-8	A-12
Pz-1R(2)	B-82	SA-7	A-30	So-32(3)	B-98	T-82	A-30
Pz-1R(3)	B-89	SA-7R	A-1	Sr-1(CB)	A-41	T-85	A-39
Pz-3	B-86	SA-8	A-39	Sr-1(CM)	A-55	Ta-5	B-99
Px-3(1)	B-89	SA-8R	A-12	Sr-1(CR)	A-50	Ta-51	B-105
Pz-3(2)	B-92	SA-12(1.5')	A-44	Sr-1R(CB)	A-14	Ta-51(1)	C-129
Pz-3(3)	C-176	SA-12R(1.5')	A-19	Sr-1R(CM)	A-45	Ta-51(2)	C-131
Pz-3R	B-70	SA-22(1.5')	A-44	Sr-1R(CR)	A-32	Ta-51(3)	C-132
Pz-3R(1)	B-76	SA-22R(1.5')	A-19	Sr-4(CB)	A-41	Tj-6	C-144
Pz-3R(2)	B-82	SA-62(1.5')	A-44	Sr-4(CM)	A-55	Tj-6(1)	C-146
Pz-3R(3)	B-89	SA-62R(1.5')	A-19	Sr-4(CR)	A-50	Tj-6(2)	C-147
		SA-72(1.5')	A-44	Sr-4R(CB)	A-14	Tj-6(3)	C-167
		SA-72R(1.5')	A-19	Sr-4R(CM)	A-45	TM	A-59
		SA-72R(1.5')	A-19	Sr-4R(CR)	A-32	To-1	A-22
R	C-148	Sa-3	C-139	Sr-6(CB)	A-41	To-16	B-97
RA-1	B-77	Sa-3(1)	C-141	Sr-6(CM)	A-55	To-3	A-22
RC-1	B-83	Sa-3(2)	C-144	Sr-6(CR)	A-50	To-3(1)	A-30
RC-1(1)	B-86	Sa-3(3)	C-147	Sr-6R(CB)	A-14	To-36	B-97
RC-1(2)	B-90	Sa-7	C-139	Sr-6R(CM)	A-45	Tr-1(CB)	A-35
RC-1(3)	B-94	Sa-7(1)	C-141	Sr-6R(CR)	A-32	Tr-1(CM)	A-53
RC-1R	B-65	Sa-7(2)	C-144	Sr-8(CB)	A-43	Tr-1(CR)	A-47
RC-1R(1)	B-69	Sa-7(3)	C-147	Sr-8(CM)	A-55	Tr-1R(CB)	A-6
RC-1R(2)	B-77	SC-1	B-74	Sr-8(CR)	A-51	Tr-1R(CM)	A-39
RC-1R(3)	B-85	SC-1(1)	B-79	Sr-8R(CB)	A-19	Tr-1R(CR)	A-22
Rd-1(CB)	A-41	SC-1(2)	B-84	Sr-8R(CM)	A-47	Tr-2(CB)	A-35
Rd-1(CM)	A-59	SC-1(3)	B-91	Sr-8R(CR)	A-35	Tr-2(CM)	A-53
		SC-3	B-74				

PROCEDURES FOR REAL PROPERTY ASSESSMENT IN PUERTO RICO

Table 35  
(Continued)

Soil Symbol	Index No.	Soil Symbol	Index No.	Soil Symbol	Index No.	Soil Symbol	Index No.
Tr-2(CR)	A-47			VA-44R(NW)	B-68	Vs-36R	B-96
Tr-2R(CB)	A-6	U		VB-1(CB)	A-12	Vs-66	B-97
Tr-2R(CM)	A-39	Ur-1	A-59	VB-1(CM)	A-44	Vs-66R	B-96
Tr-2R(CR)	A-22	Ut-6	C-135	VB-1(CR)	A-30	Vy-1(CB)	A-35
Tr-6(CB)	A-35	Ut-6(1)	C-139	VB-2(CB)	A-12	Vy-1(CM)	A-53
Tr-6(CM)	A-53	Ut-6(2)	C-142	VB-2(CM)	A-44	Vy-1(CR)	A-47
Tr-6(CR)	A-47	Ut-6(3)	C-146	VB-2(CR)	A-30	Vy-1R(CB)	A-6
Tr-6R(CB)	A-6			VI-1	A-8	Vy-1R(CM)	A-4
Tr-6R(CM)	A-39	V		VI-1(SE)	A-20	Vy-1R(CR)	A-23
Tr-6R(CR)	A-22			VI-12(SE)	A-33	Vy-2(CB)	A-53
Tr-16	B-97	V-2	A-22	VI-1R(SE)	A-3	Vy-2(CM)	A-6
Tr-16R	B-96	V-2(1)	A-30	VI-12R(SE)	A-17	Vy-2(CR)	A-47
Tr-26	B-97	V-2(2)	A-39	VI-3	A-8	Vy-2R(CB)	A-6
Tr-26R	B-96	V-2(3)	A-49	VI-3(SE)	A-20	Vy-2R(CM)	A-40
Tr-66	B-97	V-2R	A-17	VI-32(SE)	A-33	Vy-2R(CR)	A-23
Tr-66R	B-96	V-3	A-22	VI-3R(SE)	A-3	Vy-6(CB)	A-35
Ti-1(CB)	A-12	V-3(1)	A-30	VI-32R(SE)	A-17	Vy-6(CM)	A-53
Ti-1(CM)	A-44	V-3(2)	A-39	VI-6	A-12	Vy-6(CR)	A-47
Ti-1(CR)	A-30	V-3(3)	A-49	VI-6(SE)	A-22	Vy-6R(CB)	A-6
Ti-1(CB)(SE)	C-180	V-7	A-22	VI-62(SE)	A-38	Vy-6R(CM)	A-40
Ti-1(CR)(SE)	A-40	V-7(1)	A-30	VI-6R(SE)	A-6	Vy-6R(CR)	A-23
Ti-1(CM)(SE)	A-49	V-7(2)	A-39	VI-62R(SE)	A-22	Vy-7(CB)	A-35
Ti-1R(CB)(SE)	A-6	V-7(3)	A-49	VI-7	A-8	Vy-7(CM)	A-53
Ti-1R(CR)(SE)	A-23	V-26	B-97	VI-7(SE)	A-20	Vy-7(CR)	A-67
Ti-1R(CM)(SE)	A-40	V-36	B-97	VI-72(SE)	A-33	Vy-7R(CB)	A-6
Ti-3(CB)	A-12	V-76	B-97	VI-7R(SE)	A-3	Vy-7R(CM)	A-40
Ti-3(CM)	A-44	VA-1	B-74	VI-72R(SE)	A-17	Vy-7R(CR)	A-23
Ti-3(CR)	A-30	VA-1(NW)	B-77	VI-8	A-17		
Ti-3(CB)(SE)	C-180	VA-1R(NW)	B-66	VI-85	A-39		
Ti-3(CR)(SE)	A-40	VA-3	B-74	VI-8(SE)	A-28		
Ti-3(CR)(SE)	A-49	VA-3(NW)	B-77	VI-8R(SE)	A-11	Ya-1	B-83
Ti-3R(CB)(SE)	A-6	VA-3R(NW)	B-66	VI-9	A-22	Ya-1R	B-68
Ti-3R(CR)(SE)	A-23	VA-4	B-74	VI-9(SE)	A-33	Ya-11	B-85
Ti-3R(CM)(SE)	A-40	VA-4(NW)	B-77	VI-9R(SE)	A-17	Ya-11R	B-71
Ti-6(CB)	A-12	VA-4R(NW)	B-66	VI-95	A-33	Yb-1(CB)	A-14
Ti-6(CM)	A-44	VA-8	B-80	VI-32(1.5')	A-22	Yb-1(CM)	A-45
Ti-6(CR)	A-30	VA-8(NW)	B-82	VI-62(1.5')	A-25	Yb-1(CR)	A-38
Ti-6(CB)(SE)	C-180	VA-8R(NW)	B-71	Vq-6	C-139	Yb-3(CB)	A-14
Ti-6(CR)(SE)	A-40	VA-9	B-81	Vq-6(1)	C-142	Yb-3(CM)	A-45
Ti-6(CM)(SE)	A-49	VA-9(NW)	B-83	Vq-6(2)	C-144	Yb-3(CR)	A-32
Ti-6R(CB)(SE)	A-6	VA-9R(NW)	B-74	Vq-6(3)	C-147	Yb-6(CB)	A-14
Ti-6R(CR)(SE)	A-23	VA-14	B-77	Vq-61	C-121	Yb-6(CM)	A-45
Ti-6R(CM)(SE)	A-40	VA-14(NW)	B-79	Vq-61(1)	C-125	Yb-6(CR)	A-32
Ti-8(CB)	A-22	VA-14R(NW)	B-68	Vq-61(2)	C-128	Yu-1	C-161
Ti-8(CM)	A-49	VA-33	B-68	Vq-61(3)	C-130	Yu-1(1)	C-163
Ti-8(CR)	A-39	VA-33(NW)	B-79	Vs-3	A-34	Yu-1(2)	C-165
Ti-8(CB)(SE)	A-33	VA-33R(NW)	B-68	Vs-3R	A-4	Yu-1(3)	C-167
Ti-8(CR)(SE)	A-46	VA-34	B-77	Vs-6	A-33	Yu-7	C-161
Ti-8(CM)(SE)	A-53	VA-34(NW)	B-79	Vs-6R	A-4	Yu-7(1)	C-163
Ti-8R(CB)(SE)	A-17	VA-34R(NW)	B-68	Vs-8	A-34	Yu-7(2)	C-165
Ti-8R(CR)(SE)	A-34	VA-44	B-77	Vs-8R	A-11	Yu-7(3)	C-167
Ti-8R(CM)(SE)	A-47	VA-44(NW)	B-79	Vs-36	B-97		







RURAL LAND

card, no type of road is checked, examine the property line map to see whether any public road touches the parcel. If none appears on the map, check "Foot Path" on the list and enter -15 in the modification section.

2. Under "Water" enter the percentage modification taken from Table 38, Water Modification Table. If no type of water supply is checked and none is identifiable on the map, place a check mark after "None" and enter -15 in the modification section.
3. Enter the distance to the nearest central or market town after the phrase "Distance to" on the line just below the section for checking off the road modification. The distance is determined by the following procedures:
  - a. Scale the distance from the nearest corner of the parcel to the closest applicable mileage notation on a road, using a scale of 1 centimeter equals 1 kilometer.
  - b. Add the scaled distance to the cumulative distance marked on the road and enter the sum rounded to the nearest tenth of a kilometer, in the parcel on the property line map.
  - c. If the parcel is in a sugar area, use the nearest notation in red; if in a general market area, use the nearest blue figure.
  - d. Delete the word "road" after "distance to" and enter the name of the central or market town in its place. Place the total distance to the nearest tenth of a kilometer before the abbreviation "km." If the parcel is in a sugar cane area, place the letter "A" after the distance figure; if in a general market area, place the letter "M" after the number of kilometers.
4. Select the proper percentage modification from Table 33, Location For Farms According to Proximity of: 1) Sugar Cane Farms to Sugar Mills; 2) Other Farms to Nearest Market, and enter it on the first line under "Location" in the section headed "Modification for the Farm."
5. From Table 39, Modification Factor for Distance from Market Town to Port, or Table 40, Modification Factor for Distance from Central to Port, whichever is appropriate, select the proper percentage modification factor for the distance to the nearest port and enter it on the second line under "Location." Note that different tables are used for market towns and centrals.

Table 37  
Road Modification Table

	Discount
1. All farms with direct exit to an improved road—paved or unpaved—will have no increase or decrease in value.	0
2. All farms with direct exit to a dirt road where jeeps and heavy trucks can be used, will have a discount of 5 per cent.	-5
3. All farms with direct exit to a dirt road (cart trail) where only ox carts can be used will have a discount of 10 per cent.	-10
4. All farms with direct exit to a trail (foot path) will have a discount of 15 per cent.	-15

6. Add algebraically all percentage modifications shown and enter the sum on the first line under "Net."

Quota - Sugar	T., Tobacco	cwt., Total \$	Total Value	\$2,570
Remarks:			Mod. Val. for Farm 77%	1,979
			Mod. Val. for Quota SU	500
			Assessed Value	\$2,480

7. Add algebraically the per cent shown under "Net" to 100 per cent and enter the sum before the per cent sign on the third from the last line, "Modified Value for the Farm."

Table 38  
Water Modification Table

	Discount
1. All farms with direct access to river, brook, spring, aqueduct, or other continuous supply of water will have no increase or decrease in value.	0
2. All farms that depend upon an artesian well or rain water cistern will have a discount of 5 per cent.	-5
3. All farms lacking access to any source of water supply will have a discount of 15 per cent.	-15
8. Multiply total value, as shown on the fourth from the bottom line, by the percentage modification for the farm, and enter the product, rounded to the closest dollar, in the column headed "Value," on the line, "Modified Value for the Farm."	
9. Enter the figure determined in step 8 above, rounded to the nearest \$10, on the last line after "Assessed Value," in the column headed "Value."	

*± Tabla a utilizar en ubicación de la parte correspondiente*

Table 39  
Modification Factor for Distance from Market Town to Port (M)

Market Town	No. Kms. Distance to Nearest Port	Port Of Embarkation	Per Cent Modification
Adjuntas	36.2	Ponce Playa	- 1
Aguada	31.5	Mayaguez	0
Aguadilla	39.6	Mayaguez	- 1
Aguas Buenas	45.2	San Juan	- 2
Aibonito	36.2	Ponce Playa	- 1
Añasco	12.7	Mayaguez	+ 4
Arecibo	76.6	San Juan	- 9
Arroyo	0.0	Arroyo	+ 6
Barceloneta	55.1	San Juan	- 5
Barranquitas	60.1	San Juan	- 6
Bayamón	11.6	San Juan	+ 4
Cabo Rojo	14.6	Mayaguez	+ 4
Caguas	35.7	San Juan	- 1
Camuy	89.4	San Juan	-11
Carolina	23.0	San Juan	+ 2
Cayey	33.6	Arroyo	0
Ceiba	9.8	Fajardo	+ 5
Ciales	63.1	San Juan	- 6
Cidra	43.4	Arroyo	- 2
Coamo	38.7	Ponce Playa	- 1
Comerio	43.6	San Juan	- 2

Table 39  
(Continued)

Market Town	No. Kms. Distance to Nearest Port	Port of Embarkation	Per Cent Modification
Corozal	40.6	San Juan	- 2
Cataño	13.8	San Juan	+ 4
Dorado	39.0	San Juan	- 1
Fajardo	0.0	Fajardo	+ 6
Florida	72.3	San Juan	- 8
Guánica	0.0	Guánica	+ 6
Guayama	7.5	Arroyo	+ 5
Guayanilla	28.7	Ponce Playa	+ 6
Guaynabo	16.3	San Juan	+ 3
Gurabo	30.9	Humacao	0
Hatillo	86.4	San Juan	-11
Hormigueros	10.9	Mayaguez	+ 4
Humacao	9.5	Humacao	+ 5
Isabela	76.4	Mayaguez	- 9
Jayuya	47.2	Ponce Playa	- 3
Juana Díaz	19.0	Ponce Playa	+ 3
Juncos	24.2	Humacao	+ 2
Lajas	25.8	Mayaguez	+ 1
Lares	56.5	Mayaguez	- 5
Las Marías	26.2	Mayaguez	+ 1
Las Piedras	15.5	Humacao	+ 3
Loíza (Canóvanas)	29.6	San Juan	+ 1
Luquillo	12.2	Fajardo	+ 4
Manatí	49.8	San Juan	- 3
Maricao	26.8	Mayaguez	+ 1
Maunabo	26.0	Arroyo	+ 1
Mayaguez	1.0	Mayaguez	+ 6
Moca	41.2	Mayaguez	- 2
Morovis	50.6	San Juan	- 4
Naguabo	4.1	Humacao	+ 6
Naranjito	36.8	San Juan	- 1
Orocovis	76.0	San Juan	- 9
Patillas	8.0	Arroyo	+ 5
Peñuelas	22.1	Ponce Playa	+ 2
Ponce	6.6	Ponce Playa	+ 5
Quebradillas	98.7	San Juan	-11
Rincón	21.8	Mayaguez	+ 2
Río Grande	25.8	Fajardo	+ 1
Río Piedras	11.9	San Juan	+ 4
Sabana Grande	30.6	Mayaguez	0

Table 39  
(Continued)

Market Town	No. Kms. Distance to Nearest Port	Port of Embarkation	Per Cent Modification
Salinas	29.2	Arroyo	+ 1
San Germán	21.6	Mayaguez	+ 2
San Juan	0.0	San Juan	+ 6
San Lorenzo	27.7	Humacao	+ 1
San Sebastián	42.6	Mayaguez	- 2
Santa Isabel	28.0	Ponce Playa	+ 1
Toa Alta	27.8	San Juan	+ 1
Toa Baja	31.4	San Juan	0
Trujillo Alto	21.2	San Juan	+ 2
Utuado	50.1	Ponce Playa	- 4
Vega Alta	30.2	San Juan	0
Vega Baja	37.3	San Juan	- 1
Villalba	31.0	Ponce Playa	0
Yabucoa	24.7	Humacao	+ 2
Yauco	38.7	Ponce Playa	- 1
Culebra	110.0	Playa Fajardo	-11
Vieques	54.0	Playa Fajardo	- 4

Processing Value Changes

When the value of a rural land parcel has been computed and recorded on the appraisal card, prepare a change memorandum giving all pertinent information necessary for the correction of other assessment records. Since land and improvement values are recorded on the same appraisal card and on other records, if there is also a change in the value of improvement, prepare one memorandum covering both corrections; and, when practicable, hold the change memoranda until all adjustments for a given control unit have been prepared. Those precautions simplify posting to the control records.

Using an adding machine, figure the totals of land and improvements separately for all change memoranda within a control unit and prepare a summary sheet of changes. Post the net changes to the control ledger and forward the change memoranda with the summary sheets to the central assessment office for transmittal to the machine tabulation unit.

Table 40  
Modification Factor for Distance from Central to Port (A)

Central	No. Kms. Distance To Nearest Port	Port of Embarkation	Per Cent Modification
1. San José	13.3	San Juan	+4
2. Victoria	15.7	" " (Via Isla Verde)	+3
3. Canóvanas	33.2	" "	0
4. Fajardo	2.2	Fajardo Playa	+6
5. Pasto Viejo	4.3	Humacao Playa	+6
6. Ejemplo	10.8	" "	+4
7. Roig	23.0	" "	+2
8. Juncos	37.1	" "	-1
9. Lafayette	1.0	Arroyo	+6
10. Guamaní	8.3	Aguirre	+5
11. Machete	9.3	Arroyo	+5
12. Aguirre	0.0	Aguirre	+6
13. Cortada	16.8	Ponce Playa	+3
14. Mercedita	11.2	" "	+4
15. Constancia	3.5	" "	+6
16. Rufina	4.0	Guayanilla	+6
17. San Francisco	9.3	" "	+5
18. Guánica	0.0	Ensenada	+6
19. Eureka	11.0	Mayaguez	+4
20. Rochelaise	6.7	" "	+5
21. Igualdad	8.8	" "	+5
22. Coloso	34.2	" "	0
23. Soller	67.2	" "	-7
24. Río Llano	90.0	San Juan	-11
25. Los Caños	83.2	" "	-10
26. Cambalache	73.0	" "	-8
27. Plazuela	57.6	" "	-5
28. Monserrate	49.8	" "	-3
29. San Vicente	45.7	" "	-3
30. Toa	30.4	" "	0
31. Juanita	17.9	" "	+3
32. Santa Juana	37.5	" "	-1
33. Cayey	35.6	Arroyo	-1
34. Plata	54.2	Mayaguez	-4

Commonwealth of Puerto Rico  
Department of the Treasury  
Bureau of Property Tax, Inheritances and Gifts

PROCEDURES FOR REAL PROPERTY ASSESSMENT

IN PUERTO RICO

PART THREE  
IMPROVEMENTS

1953

PART THREE

IMPROVEMENTS

I. BUILDING CLASSIFICATION

The classification of improvements is based upon use type, determined by the use for which the improvements were designed, and construction type, determined by materials and quality. Within each group of improvements which are alike in these particulars, typical structures are described by specifications and illustrated by photographs. Improvements are classified by relating them to the typical structure which they resemble most closely in use type, construction type, and quality, and assigning them to the classes and subclasses so determined.

Classification by Use Type

The use types into which improvements are classified are grouped into five categories. All kinds of improvements discovered during the reassessment project were assigned use type classes. If others appear in the future, they should be added to the classification. The complete list, giving the class symbol and name of each use type, follows:

	<u>Use Classification</u>	
	<u>Symbol</u>	<u>Type</u>
Residential	A	One-family
	B	Two-family
	C	Multi-family - Walk-up or Row
	D	Multi-family - Elevator
Commercial	E	Hotel
	G	Public Garage
	H	Store, Market, Auto Sales, etc.
	J	Office
	K	Bank
	L	Theatre
	M	Warehouse <sup>1</sup>
	P	Gasoline Station
Industrial	S	Factory
Miscellaneous	T	Miscellaneous Structures
	U	Public Utility
	V	Vacant Land
	X	Exempt Property
Agricultural	BT	Storm Shelter <sup>2</sup>
	CB	Pump House
	CR	Open Shed
	EV	Dairy Barn
	GC	Cane Derrick
	HC	Coffee Processing Building
	PA	Stable
	PC	Paddock
	PP	Pigpen
	RA	Storage Barn
	RT	Tobacco Barn

There are other structures and building appurtenances that are not included in the use type class designations or are not included in the specifications of the buildings that are classified. These, including specifications and cost factors, are listed in a separate section entitled "Additional Items," which appears immediately following the unit cost schedules of improvements in Chapter IV.

<sup>1</sup>Although here classified under commercial use, warehouses are also commonly found in property that is classified as industrial.

<sup>2</sup>The letters used to identify the use types of agricultural improvements are initials selected on the basis of the Spanish terms for the use types.

Table 41  
Classes of Residential and Commercial Type Improvements by Use and Construction Types

	Use		Construction	
	Symbol	Type	Class	Subclass
Residential	A	One-Family	ONE	1, 2, 3, 4, 5, 6 & 9
			TWO	1, 2, 3, 4, 5 & 6
			THREE	1, 2, 3, 4, 5 & 6
	B	Two-Family	ONE	2, 3, 4 & 5
			TWO	3, 4 & 5
			THREE	3, 4 & 5
	C	Multi-Family - Walk-up or Row	ONE	3 & 4
			TWO	3, 4 & 5
			THREE	3, 4 & 5
	D	Multi-Family - Elevator	TWO	5
			THREE	4 & 5
	Commercial	E	Hotel	ONE
TWO				4 & 5
THREE				4 & 5
G		Public Garage	ONE	3
			TWO	3
			THREE	3
H		Store, Market, Auto Sales, Etc.	ONE	1, 2, 3 & 4
			TWO	1, 2, 3, & 4
			THREE	1, 2, 3 & 4
J		Office	TWO	3, 4 & 5
			THREE	3, 4 & 5
K		Bank	TWO	5
			THREE	4 & 5
L		Theater	ONE	3
			TWO	3 & 4
	THREE		3 & 4	
	FOUR		3	
M	Warehouse	ONE	2 & 3	
		TWO	3	
		THREE	3	
		FOUR	1, 2, 3 & 4	
P	Gasoline Station	ONE	3	
		TWO	4	
		THREE	4	
S	Factory	TWO	3	
		THREE	3	
		FOUR	2, 3 & 4	

Classification by Construction Type

There are four fundamental types of building construction. They are wood frame, masonry, reinforced concrete, and steel frame, which are classified as follows:

Class One - Wood frame construction with foundation of wood posts, reinforced concrete piers or continuous reinforced concrete, stone or brick wall; exterior walls of wood, metal, roofing paper, asbestos, stucco, plaster, or masonry veneer, and partition walls, floors, ceilings, and roof, or some of them, of combustible materials.

Class Two - Masonry construction with foundation of continuous concrete, stone, or brick wall, exterior walls of reinforced concrete, block with reinforced concrete columns, stone, or brick, and partition walls, floors, ceilings, and roof, or some of them, of combustible materials.

Class Three - Reinforced concrete construction with foundation of continuous reinforced concrete wall, exterior walls of reinforced concrete or block with reinforced concrete columns, and partition walls, floors, and roof of reinforced concrete, block, tile, or other noncombustible materials.

Class Four - Steel frame construction with foundation of reinforced concrete; exterior walls of steel frame with curtain walls of reinforced concrete, block, tile, stone, brick, or metal, and roof of steel truss or rigid frame; partition walls, floors, ceilings, and roof of noncombustible materials.

Each of the foregoing classes is divided into subclasses according to quality of construction with an over-all range from Subclass 1 to Subclass 6, except for Subclass 9 which appears in Class One only. Construction specifications according to use types are provided for the subclasses from 1 to 6 that appear in each class and for Subclass 9 in Class One. The subclasses that appear in each use and construction type depend upon the range of typical buildings found in each. Subclass 9 is used to designate dwellings, commonly referred to as shacks, that are too simple in construction to require unit costs and are appraised in lump sum amounts of \$150 or less.

Schedules of Basic Specifications

The schedules of basic specifications of construction type classes and subclasses for all use types in the classification system that follows provide a guide to the classification of improvements for Puerto Rico.

Table 42  
Classes of Agricultural Type Improvements

Structures Appraised Separately			Structures Appraised as Additional Items	
Symbol	Type	Class	Symbol	Type
BT	Storm Shelter	1, 2 & 3	AG	Livestock Watering Trough
CB	Pump House	1, 2, 3 & 4	CG	Livestock Feeding Trough
CR	Open Shed	1, 2, 3 & 4	GS	Coffee Drying Area
EV	Dairy Barn	1, 2, 3 & 4	MV	Windmill
GC	Cane Derrick	1, 2, 3 & 4	OE	Other Structures
HC	Coffee Processing Building	3 & 4	SA	Silo
PA	Stable	1, 2, 3 & 4	TA	Water Tank
PC	Paddock	3 & 4		
PP	Pigpen	1, 2 & 3		
RA	Storage Barn	1, 2, 3 & 4		
RT	Tobacco Barn	1, 2, 3 & 4		

## BASIC SPECIFICATIONS FOR RESIDENTIAL TYPE BUILDINGS

A - One-Family  
Class ONE - Subclass 1

Very small wood frame one-family dwelling of inferior materials and workmanship; single walls without partitions, closets, or ceilings; no plumbing.



## FOUNDATION - Wood posts

## EXTERIOR WALLS

Structure - Light, inferior wood studs, single wall  
Finish - Boards, unpainted, or galvanized iron, unpainted

## ROOF

Structure - Light inferior wood rafters  
Covering - Inferior corrugated galvanized iron or paper roofing

## FLOORS

Structure - Light, inferior wood joists  
Finish - Rough boards

## INTERIOR WALLS

Structure - None  
Finish - None

## CEILINGS - None

## DOORS

Exterior - Inferior batten, unpainted  
Interior - None

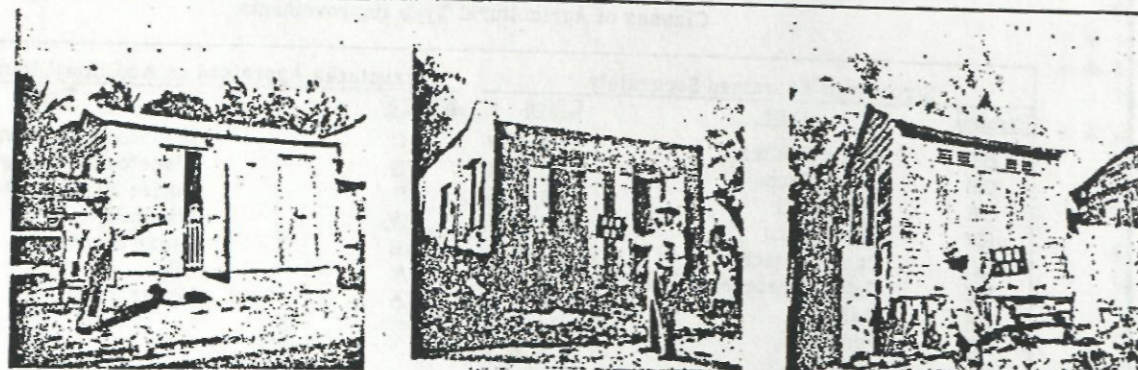
## WINDOWS - Inferior batten, unpainted

## ELECTRICAL

Wiring - None or open knob and tube overhead with one drop cord  
Fixtures - None

## Class ONE - Subclass 2

Very small wood frame one-family dwelling of inferior materials and workmanship; single walls with partitions; no closets or ceilings; no plumbing.



## FOUNDATION - Wood posts

## EXTERIOR WALLS

Structure - Light inferior wood studs, single wall  
Finish - Boards, unpainted, or galvanized iron, unpainted

## ROOF

Structure - Light, inferior wood rafters  
Covering - Inferior corrugated galvanized iron or paper roofing

## FLOORS

Structure - Light, inferior wood joists  
Finish - Rough boards

## INTERIOR WALLS

Structure - Light wood studs, less than full height  
Finish - Composition board or inferior lumber, one side only, unpainted

## CEILINGS - None

## DOORS

Exterior - Inferior batten, unpainted  
Interior - None

## WINDOWS - Inferior batten, unpainted

## ELECTRICAL

Wiring - None or open knob and tube overhead with one or two drop cords  
Fixtures - None

## BASIC SPECIFICATIONS FOR RESIDENTIAL TYPE BUILDINGS

A - One-Family  
Class ONE - Subclass 3

Small wood frame one-family dwelling of standard design and of fair materials and workmanship; single walls and partitions with not less than three rooms including living room and kitchen; most rooms have ceilings; no closets; may have some tile floors; may have plumbing with simple fixtures and tile flooring in bathroom.



## FOUNDATION - Reinforced concrete piers

## EXTERIOR WALLS

Structure - Medium or light studs  
Finish - Wood siding, painted

## ROOF

Structure - Medium or light wood rafters  
Covering - Corrugated galvanized iron, paper, or composition roofing

## FLOORS

Structure - Medium or light wood joists and reinforced concrete in bathroom  
Finish - Finished wood flooring, cement or tile in bathroom

## INTERIOR WALLS

Structure - Light wood studs  
Finish - Composition board or inferior lumber, one side only, painted

CEILINGS - Wood or composition board, painted

## DOORS

Exterior - Medium batten, painted  
Interior - Medium batten, painted

## WINDOWS - Medium batten or shutter, painted

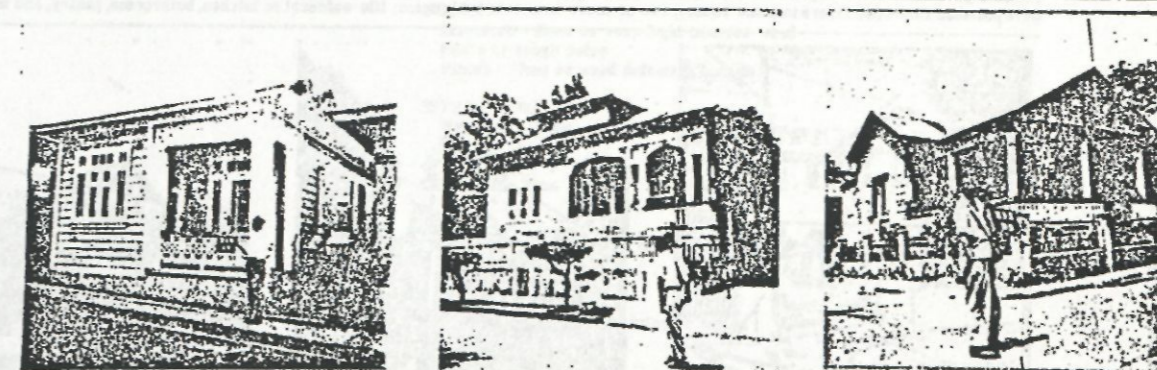
## ELECTRICAL

Wiring - Open knob and tube with drop cords throughout

Fixtures - None

## Class ONE - Subclass 4

Medium wood frame one-family dwelling of good design, appearance, materials, and workmanship; some double walls and partitions, ceilings; some closets; tile floors in bathroom and kitchen, and may have in some other rooms.



## FOUNDATION - Reinforced concrete piers or reinforced concrete walls

## EXTERIOR WALLS

Structure - Medium wood studs, double wall in living room and dining room  
Finish - Wood siding, painted

## ROOF

Structure - Medium wood rafters, braced  
Covering - Good corrugated galvanized iron roofing

## FLOORS

Structure - Medium wood joists and reinforced concrete in kitchen and bathroom  
Finish - Finished wood flooring and tile in kitchen and bathroom

## INTERIOR WALLS

Structure - Medium wood studs  
Finish - Composition board or finished lumber, painted, and concrete, painted or plastered, in bathroom

## CEILINGS - Wood or stamped metal, painted

## DOORS

Exterior - Medium panel, painted  
Interior - Medium panel, painted

## WINDOWS - Shutter or wood Miami, painted

## ELECTRICAL

Wiring - Armored or other cable, ceiling lights, pull cords in bedrooms, switches elsewhere, one outlet per room  
Fixtures - Inferior and in living room and dining room only

## BASIC SPECIFICATIONS FOR RESIDENTIAL TYPE BUILDINGS

## A - One-Family

## Class ONE - Subclass 5

Medium large wood frame one-family dwelling, usually professionally designed and supervised; distinctive appearance; reflects personal desires; very good materials and workmanship; double walls and partitions; numerous closets; tile floors throughout or may have polished wood floors in some rooms; usually two baths; tile wainscot in bathrooms and kitchen.



**FOUNDATION** - Continuous reinforced concrete wall

**EXTERIOR WALLS**

Structure - Heavy wood studs, double wall  
Finish - Wood siding, painted

**ROOF**

Structure - Heavy, well-braced wood rafters  
Covering - Extra heavy corrugated galvanized iron, composition shingle, or tile roofing with gutters and downspouts

**FLOORS**

Structure - Reinforced concrete or heavy wood joists  
Finish - Tile or finished wood flooring, painted

**INTERIOR WALLS**

Structure - Good wood studs, double walls  
Finish - Beaded boards, painted, sometimes fine wood wainscot in living room and dining room, and concrete with tile wainscot in kitchen and bathrooms

**CEILING** - Wood or stamped metal, painted

**DOORS**

Exterior - Glazed panel, painted

Interior - Panel, painted

**WINDOWS** - Glazed, shutters or metal

Miami, painted

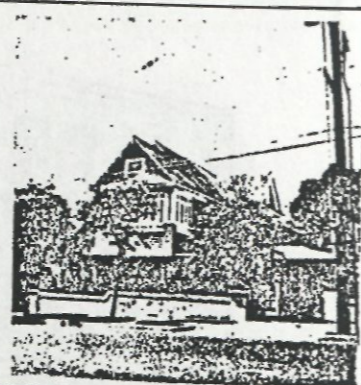
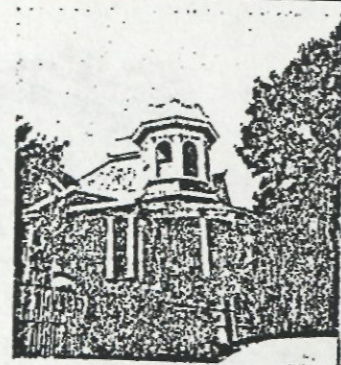
**ELECTRICAL**

Wiring - Cable, ceiling lights, switches, two outlets per room, stove, heater, and other special outlets

Fixtures - Good throughout

## Class ONE - Subclass 6

Large wood frame one-family dwelling, professionally designed and supervised; very attractive, imposing, and distinctive appearance; reflects personal desires, special and unique features; superior materials and workmanship; abundant closets; tile floors throughout or may have polished fine wood floors in some rooms; two or more luxurious bathrooms; tile wainscot in kitchen, bathrooms, pantry, and utility rooms.



**FOUNDATION** - Continuous reinforced concrete wall

**EXTERIOR WALLS**

Structure - Heavy wood studs, double wall  
Finish - Wood siding, painted

**ROOF**

Structure - Heavy, well-braced wood rafters  
Covering - Extra heavy corrugated galvanized iron, composition shingle or tile roofing with gutters and downspouts

**FLOORS**

Structure - Reinforced concrete or may have some heavy wood joists  
Finish - Cement tile or terrazzo, may have some ceramic or marble tile or fine wood flooring

**INTERIOR WALLS**

Structure - Good wood studs, double wall  
Finish - Beaded boards, painted, usually wood wainscot in living room and dining room, and concrete, plastered, in kitchen, bathrooms and utility rooms

**CEILING** - Wood or stamped metal, painted

**DOORS**

Exterior - Extra quality glazed or panel, well-finished, painted  
Interior - Extra quality panel, well-finished, painted

**WINDOWS** - Extra quality frame, glazed and painted, glazed aluminum, aluminum Miami, or leaded colored glazed

**ELECTRICAL**

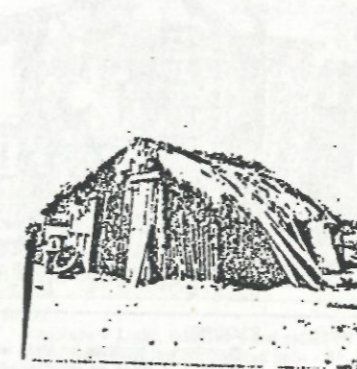
Wiring - Cable, ceiling lights and switches, several outlets per room, stove, heater, and other special outlets  
Fixtures - Best throughout

## BASIC SPECIFICATIONS FOR RESIDENTIAL TYPE BUILDINGS

## A - One Family

## Class ONE - Subclass 9

Very small wood frame one-family dwelling of very inferior materials and workmanship; very frail; no partition, ceilings, or plumbing; all or most material used is scrap, discarded, and substandard, often from packing cases or crates; estimated value not to exceed \$150.



**FOUNDATION** - None

**EXTERIOR WALLS**

Structure - Very light and inferior studs or rough poles, single walls  
Finish - Used and defective boards, tin sheets, or roofing paper

**ROOF**

Structure - Very light and inferior wood rafters or rough poles  
Covering - Roofing paper, tin sheets, or used inferior galvanized iron

**FLOORS**

Structure - None or very light inferior wood joists or rough poles  
Finish - None or used defective boards

**INTERIOR WALLS**

Structure - None  
Finish - None

**CEILING** - None**DOORS**

Exterior - None or very inferior batten or tin covered  
Interior - None

**WINDOWS** - None or very inferior batten

**ELECTRICAL**

Wiring - None  
Fixtures - None

IMPROVEMENTS

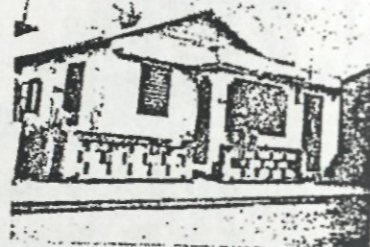
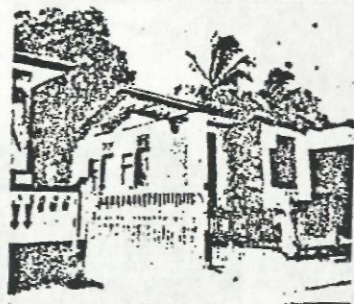
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BASIC SPECIFICATIONS FOR RESIDENTIAL TYPE BUILDINGS

A - One-Family

Class TWO - Subclass 3

Small masonry one-family dwelling of standard design and fair materials and workmanship; single wall wood frame partitions with not less than three rooms including living room and kitchen; most rooms have ceilings; no closets; may have some tile floors; may have plumbing with simple fixtures and tile floor in bathroom.



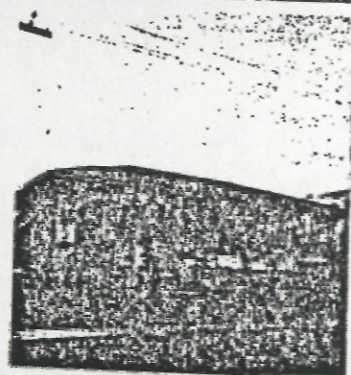
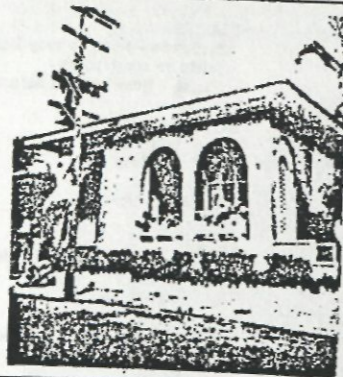
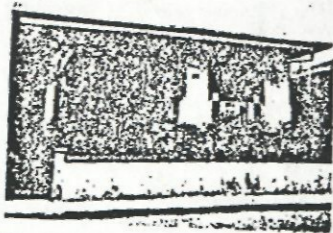
**FOUNDATION** - Reinforced concrete piers and beams, continuous stone, brick, or reinforced concrete wall  
**EXTERIOR WALLS**  
 Structure - Reinforced concrete, block or tile with reinforced concrete columns, or stone or brick  
 Finish - Plastered or rubbed, water painted  
**ROOF**  
 Structure - Medium or light wood rafters or wood beam and brick construction  
 Covering - Good corrugated galvanized iron, paper, composition, or brick

**FLOORS**  
 Structure - Medium or light wood joists or stone, and stone or reinforced concrete in bathroom  
 Finish - Finished wood with cement or tile in bathroom  
**INTERIOR WALLS**  
 Structure - Light wood studs  
 Finish - Composition board or inferior lumber, one side only, painted

**CEILING** - Wood or composition board, painted, or exposed beams  
**DOORS**  
 Exterior - Medium batten, painted  
 Interior - Medium batten, painted  
**WINDOWS** - Medium batten or shutter, painted  
**ELECTRICAL** -  
 Wiring - Conduit in concrete walls, otherwise open knob and tube overhead with drop cords throughout  
 Fixtures - None

Class TWO - Subclass 4

Medium masonry one-family dwelling of good design, appearance, materials, and workmanship; some double wall wood frame or masonry partitions; ceilings throughout; some closets; tile floors in bathroom and kitchen and may have in some other rooms.



**FOUNDATION** - Reinforced concrete piers and beams, continuous stone, brick, or reinforced concrete wall  
**EXTERIOR WALLS**  
 Structure - Reinforced concrete, block or tile with reinforced concrete columns, or stone or brick  
 Finish - plastered, water painted  
**ROOF**  
 Structure - Medium wood rafters, braced or beam and brick construction  
 Covering - Good corrugated galvanized iron, paper, composition, or brick

**FLOORS**  
 Structure - Medium wood joists and reinforced concrete in kitchen and bathroom  
 Finish - Finished wood flooring, and tile in kitchen and bathroom  
**INTERIOR WALLS**  
 Structure - Medium wood studs, reinforced concrete, block, stone, or brick  
 Finish - Composition board or finished lumber, plastered or painted  
**CEILING** - Wood or stamped metal, painted, or exposed beams

**DOORS**  
 Exterior - Medium panel or solid flush, painted  
 Interior - Medium panel or flush veneered, painted  
**WINDOWS** - Shutter or Miami, painted  
**ELECTRICAL**  
 Wiring - Conduit in concrete walls and cable elsewhere, ceiling lights, pull cords in bedrooms and switches elsewhere, one outlet per room  
 Fixtures - Interior and in living room and dining room only

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PROCEDURES FOR REAL PROPERTY ASSESSMENT IN PUERTO RICO

BASIC SPECIFICATIONS FOR RESIDENTIAL TYPE BUILDINGS

A - One-Family

Class TWO - Subclass 1

Very small masonry one-family dwelling of inferior materials and workmanship; no partitions, closets, or ceilings; no plumbing.



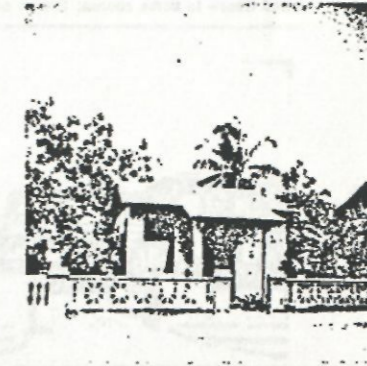
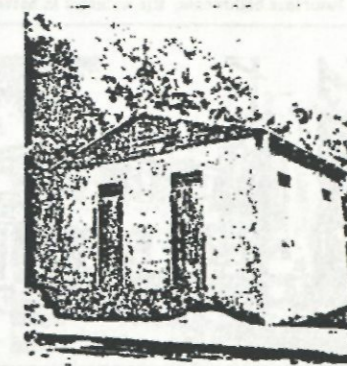
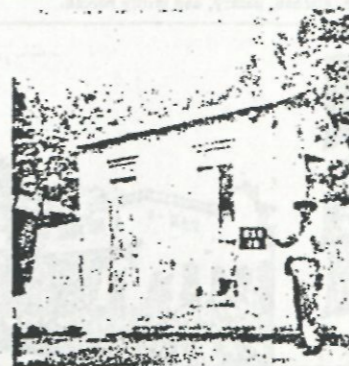
**FOUNDATION** - Reinforced concrete piers and beams, continuous stone, brick, or reinforced concrete wall  
**EXTERIOR WALLS**  
 Structure - Reinforced concrete, block or tile with reinforced concrete columns, or stone or brick  
 Finish - None or rubbed or plastered, unpainted

**ROOF**  
 Structure - Light, inferior wood rafters  
 Covering - Inferior corrugated galvanized iron or paper roofing  
**FLOORS**  
 Structure - Light, inferior wood joists  
 Finish - Rough boards  
**INTERIOR WALLS**  
 Structure - None  
 Finish - None

**CEILING** - None  
**DOORS**  
 Exterior - Inferior batten, unpainted  
 Interior - None  
**WINDOWS** - Inferior batten, unpainted  
**ELECTRICAL**  
 Wiring - None or open knob and tube overhead, one drop cord  
 Fixtures - None

Class TWO - Subclass 2

Very small masonry one-family dwelling of inferior materials and workmanship; single wall wood frame partitions; no closets or ceilings; no plumbing.



**FOUNDATION** - Reinforced concrete piers and beams, continuous stone, brick, or reinforced concrete wall  
**EXTERIOR WALLS**  
 Structure - Reinforced concrete, block or tile with reinforced concrete columns, or stone or brick  
 Finish - None or rubbed or plastered, unpainted

**ROOF**  
 Structure - Light, inferior wood rafters  
 Covering - Inferior corrugated galvanized iron or paper roofing  
**FLOORS**  
 Structure - Light, inferior wood joists  
 Finish - Rough boards  
**INTERIOR WALLS**  
 Structure - Light wood studs, less than full height  
 Finish - Composition board or inferior lumber, one side only, unpainted

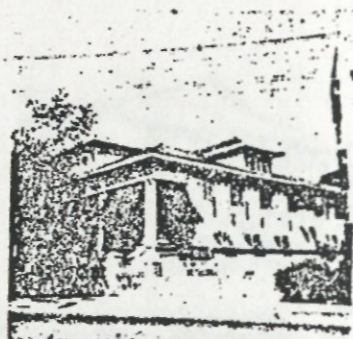
**CEILING** - None  
**DOORS**  
 Exterior - Inferior batten, unpainted  
 Interior - None  
**WINDOWS** - Inferior batten, unpainted  
**ELECTRICAL**  
 Wiring - None or open knob and tube overhead, one or two drop cords  
 Fixtures - None

## BASIC SPECIFICATIONS FOR RESIDENTIAL TYPE BUILDINGS

A - One-Family

Class TWO - Subclass 5

Medium large masonry one-family dwelling, professionally designed and supervised; distinctive appearance; reflects personal desires, very good materials and workmanship; masonry partitions throughout or may have some double wall wood frame partitions; numerous closets; tile floors throughout or may have polished wood floors in some rooms; usually two bathrooms; tile wainscot in bathrooms and kitchen.



**FOUNDATION** - Continuous reinforced concrete wall, continuous stone or brick wall

**EXTERIOR WALLS**

Structure - Reinforced concrete, block or tile with reinforced concrete columns, stone, or brick  
Finish - Plastered, water or oil painted

**ROOF**

Structure - Heavy, well-braced wood rafters or wood beam and brick construction  
Covering - Extra heavy corrugated galvanized iron, composition shingle, or tile roofing with gutters and downspouts, or brick roofing

**FLOORS**

Structure - Reinforced concrete or heavy wood joists  
Finish - Tile or finished wood, painted

**INTERIOR WALLS**

Structure - Good wood studs, double wall, reinforced concrete, block, stone, or brick  
Finish - Beaded boards or plastered, painted, sometimes fine wood wainscoting in living room and dining room, or ornamental plaster finish, tile wainscoting in bathrooms and kitchen

**CEILINGS** - Wood or stamped metal, painted, plastered on lath, or exposed beams

Class TWO - Subclass 6

**DOORS**

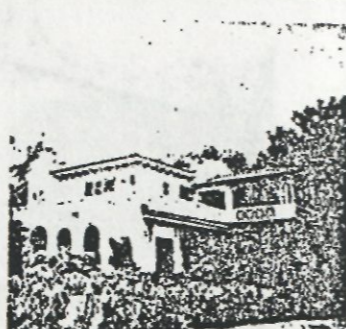
Exterior - Glazed panel or good solid flush, painted  
Interior - Panel or flushed veneered, painted

**WINDOWS** - Glazed, shutter or metal Miami, painted

**ELECTRICAL**

Wiring - Conduit in concrete walls, and cable elsewhere, ceiling lights, switches, and two outlets per room, stove, heater, and other special outlets  
Finish - Good throughout

Large masonry dwelling, professionally designed and supervised; very attractive, imposing, and distinctive appearance; reflects personal desires; special and unique features; superior materials and workmanship; abundant closets; tile floors throughout or may have polished fine wood floors in some rooms; two or more luxurious bathrooms; tile wainscot in bathrooms, kitchen, pantry, and utility rooms.



**FOUNDATION** - Continuous reinforced concrete wall

**EXTERIOR WALLS**

Structure - Reinforced concrete, block or tile with reinforced concrete columns  
Finish - Plastered, oil painted

**ROOF**

Structure - Heavy well-braced wood rafters  
Covering - Extra heavy corrugated galvanized iron, composition shingle, or tile roofing with gutters and downspouts

**FLOORS**

Structure - Reinforced concrete or may have some heavy wood joists  
Finish - Tile, terrazzo, marble, or fine wood flooring, painted

**INTERIOR WALLS**

Structure - Reinforced concrete, block or tile  
Finish - Plastered or ornamental plastered, fine wood wainscot in living room and dining room

**CEILING** - Wood or stamped metal, painted, ornamental plaster or plaster on lath, oil painted

**DOORS**

Exterior - Extra quality glazed, panel, or solid flush, well-finished, painted  
Interior - Extra quality or flush veneered, well-finished, painted

**WINDOWS** - Extra-quality wood, glazed or aluminum glazed, aluminum Miami, or leaded colored glazed

**ELECTRICAL**

Wiring - Conduit, ceiling lights and switches, several outlets per room, stove, heater, and other special outlets  
Fixtures - Best throughout

## BASIC SPECIFICATIONS FOR RESIDENTIAL TYPE BUILDINGS

A - One-Family

Class THREE - Subclass 1

Very small reinforced concrete one-family dwelling of inferior materials and workmanship; no partitions, closets, or ceilings; no plumbing.



**FOUNDATION** - Continuous reinforced concrete wall

**EXTERIOR WALLS**

Structure - Reinforced concrete, block or tile with reinforced concrete columns  
Finish - Unfinished, rubbed, or plastered, unpainted

**ROOF**

Structure - Reinforced concrete  
Covering - Smooth finish

**FLOORS**

Structure - Reinforced concrete on fill

Finish - Rough

**INTERIOR WALLS**

Structure - None

Finish - None

**CEILINGS** - Unfinished, unpainted

**DOORS**

Exterior - Inferior batten, unpainted

Interior - None

**WINDOWS** - Inferior batten, unpainted

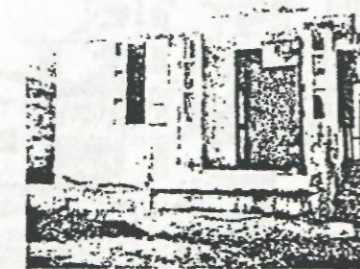
**ELECTRICAL**

Wiring - None or open knob and tube, one drop cord

Fixtures - None

Class THREE - Subclass 2

Very small reinforced concrete one-family dwelling of inferior materials and workmanship; with partitions; no closets; no ceilings; no plumbing.



**FOUNDATION** - Continuous reinforced concrete wall

**EXTERIOR WALLS**

Structure - Reinforced concrete, block or tile with reinforced concrete columns  
Finish - Unfinished, rubbed, or plastered, unpainted

**ROOF**

Structure - Reinforced concrete  
Covering - Smooth finished

**FLOORS**

Structure - Reinforced concrete on fill  
Finish - Rough

**INTERIOR WALLS**

Structure - Block, tile, or reinforced concrete  
Finish - Unfinished or rubbed, unpainted.

**CEILINGS** - Unfinished, unpainted

**DOORS**

Exterior - Inferior batten, unpainted

Interior - None

**WINDOWS** - Inferior batten, unpainted

**ELECTRICAL**

Wiring - None or open knob and tube, two drop cords  
Fixtures - None

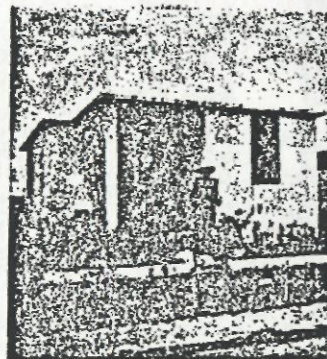
PROCEDURES FOR REAL PROPERTY ASSESSMENT IN PUERTO RICO

BASIC SPECIFICATIONS FOR RESIDENTIAL TYPE BUILDINGS

A - One-Family

Class THREE - Subclass 3

Small reinforced concrete one-family dwelling of standard design and fair materials and workmanship; not less than three rooms including living room and kitchen; no closets; may have some tile floors; may have plumbing with simple fixtures and tile in bathroom.



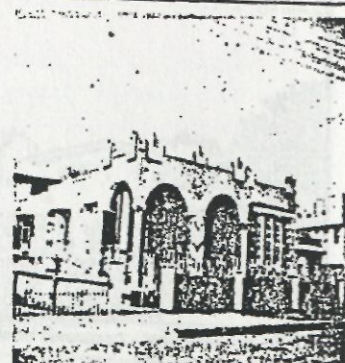
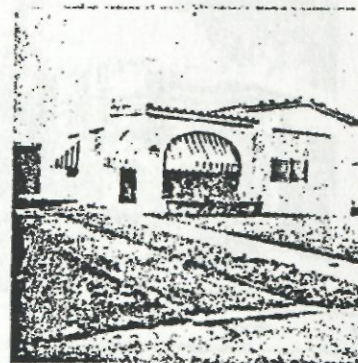
**FOUNDATION** - Continuous reinforced concrete wall  
**EXTERIOR WALLS**  
 Structure - Reinforced concrete, block or tile with reinforced concrete columns  
**ROOF**  
 Structure - Reinforced concrete  
 Covering - Smooth finish, integral

**FLOORS**  
 Structure - Reinforced concrete  
 Finish - Smooth cement  
**INTERIOR WALLS**  
 Structure - Block, tile, or reinforced concrete  
 Finish - Rubbed or plastered, water painted  
**CEILINGS** - Rubbed or plastered, water painted

**DOORS**  
 Exterior - Medium batten, painted  
 Interior - Medium batten, painted  
**WINDOWS** - Medium batten or shutter, painted  
**ELECTRICAL**  
 Wiring - Conduit, drop cords throughout  
 Fixtures - None

Class THREE - Subclass 4

Medium reinforced concrete one-family dwelling of good design, appearance, materials, and workmanship; some closets; tile floors throughout or may have other finish in some rooms; tile floors in kitchen and bathroom.



**FOUNDATION** - Continuous reinforced concrete wall  
**EXTERIOR WALLS**  
 Structure - Reinforced concrete, block or tile with reinforced concrete columns  
 Finish - Plastered, water painted  
**ROOF**  
 Structure - Reinforced concrete  
 Covering - Smooth finish, integral

**FLOORS**  
 Structure - Reinforced concrete  
 Finish - Smooth cement or tile  
**INTERIOR WALLS**  
 Structure - Block, tile, or reinforced concrete  
 Finish - Rubbed or plastered, resin painted  
**CEILINGS** - Rubbed or plastered, resin painted

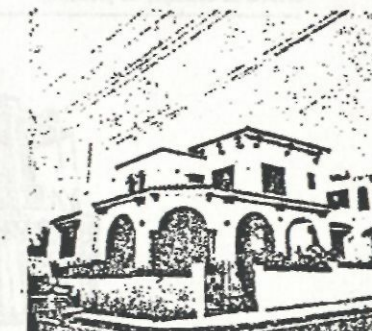
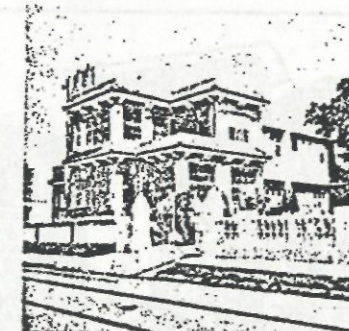
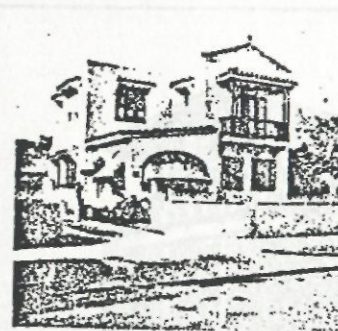
**DOORS**  
 Exterior - Panel or solid flush, painted  
 Interior - Panel or flush veneered, painted  
**WINDOWS** - Shutters or wood Miami, painted  
**ELECTRICAL**  
 Wiring - Conduit, ceiling lights, pull cords in bedrooms, switches elsewhere, one outlet per room  
 Fixtures - Interior in living room and dining room, none elsewhere

BASIC SPECIFICATIONS FOR RESIDENTIAL TYPE BUILDINGS

A - One-Family

Class THREE - Subclass 5

Medium large reinforced concrete one-family dwelling, professionally designed and supervised; distinctive appearance; reflects personal desires; very good materials and workmanship; numerous closets; tile floors throughout; usually two bathrooms; tile wainscot in bathrooms and kitchen.



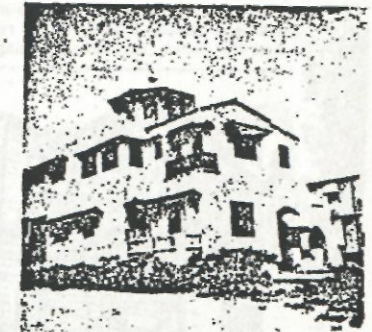
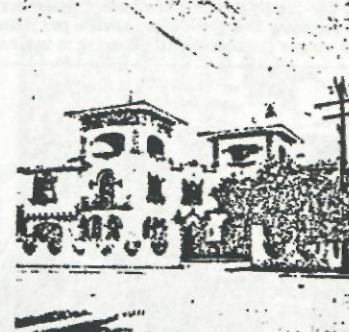
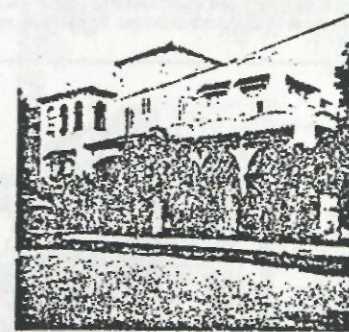
**FOUNDATION** - Continuous reinforced concrete wall  
**EXTERIOR WALLS**  
 Structure - Reinforced concrete, block or tile with reinforced concrete columns  
 Finish - Plastered, water or oil painted  
**ROOF**  
 Structure - Reinforced concrete  
 Covering - Smooth finish, integral, Bermuda, or tile

**FLOORS**  
 Structure - Reinforced concrete  
 Finish - Tile throughout  
**INTERIOR WALLS**  
 Structure - Block, tile, or reinforced concrete  
 Finish - Rubbed or plastered, or may be ornamental plastered, oil painted, tile wainscot in bathrooms and kitchen  
**CEILINGS** - Rubbed or plastered, resin painted, or ornamental plastered, oil painted

**DOORS**  
 Exterior - Glazed panel or solid flush, painted  
 Interior - Panel or flush veneered, painted  
**WINDOWS** - Glazed, shutters or metal Miami, painted  
**ELECTRICAL**  
 Wiring - Conduit, ceiling lights, switches, two outlets per room, stove, heater, and other special outlets  
 Fixtures - good throughout

Class THREE - Subclass 6

Large reinforced concrete one-family dwelling, professionally designed and supervised; very attractive, imposing, and distinctive appearance; reflects personal desires; special and unique features; superior materials and workmanship; abundant closets; tile floors throughout; two or more luxurious bathrooms; tile wainscot in bathrooms, kitchen, pantry, and utility rooms.



**FOUNDATION** - Continuous reinforced concrete wall  
**EXTERIOR WALLS**  
 Structure - Reinforced concrete, block or tile with reinforced concrete columns  
 Finish - Plastered, oil painted  
**ROOF**  
 Structure - Reinforced concrete  
 Covering - Smooth finish integral, Bermuda, or tile

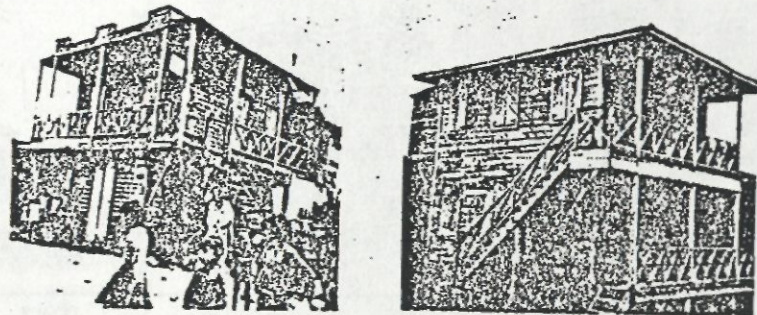
**FLOORS**  
 Structure - Reinforced concrete  
 Finish - Tile, terrazzo, or marble  
**INTERIOR WALLS**  
 Structure - Reinforced concrete, block or tile  
 Finish - Plastered or ornamental plastered, oil painted  
**CEILINGS** - Plastered or ornamental plastered, oil painted

**DOORS**  
 Exterior - Extra quality glazed panel or solid flush, well-finished  
 Interior - Extra quality panel or flush veneered, well-finished  
**WINDOWS** - Extra quality wood glazed or aluminum glazed, aluminum Miami, or leaded colored glazed  
**ELECTRICAL**  
 Wiring - Conduit, ceiling lights, switches, several outlets per room, stove, heater, and other special outlets  
 Fixtures - Best throughout

BASIC SPECIFICATIONS FOR RESIDENTIAL TYPE BUILDINGS

B - Two-Family  
Class ONE - Subclass 2

Very small wood frame one- or two-story, two-family dwelling of inferior materials and workmanship; single walls with partitions; no closets or ceilings; no plumbing.



<p><b>FOUNDATION</b> - Wood posts</p> <p><b>EXTERIOR WALLS</b> Structure - Light inferior wood studs, single wall Finish - Boards, unpainted, or galvanized iron, unpainted</p> <p><b>ROOF</b> Structure - Light, inferior wood rafters Covering - Inferior corrugated galvanized iron or paper roofing</p>	<p><b>FLOORS</b> Structure - Light, inferior wood joists Finish - Rough boards</p> <p><b>INTERIOR WALLS</b> Structure - Light wood studs, less than full height Finish - Composition board or inferior lumber, one side only, unpainted</p> <p><b>CEILINGS</b> - None</p>	<p><b>DOORS</b> Exterior - Inferior batten, unpainted Interior - None</p> <p><b>WINDOWS</b> - Inferior batten, unpainted</p> <p><b>ELECTRICAL</b> Wiring - None or open knob and tube overhead with one or two drop cords Fixtures - None</p>
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Class ONE - Subclass 3

Small wood frame, one- or two-story, two-family dwelling of standard design and of fair materials and workmanship; single walls and partitions with not less than three rooms including living room and kitchen per living unit; most rooms have ceilings; no closets; may have some tile floors; may have plumbing with simple fixtures and tile flooring in bathrooms.



<p><b>FOUNDATION</b> - Reinforced concrete piers</p> <p><b>EXTERIOR WALLS</b> Structure - Medium or light studs Finish - Wood siding, painted</p> <p><b>ROOF</b> Structure - Medium or light wood rafters Covering - Corrugated galvanized iron, paper, or composition roofing</p>	<p><b>FLOORS</b> Structure - Medium or light wood joists and reinforced concrete in bathrooms Finish - Finished wood flooring, cement or tile in bathrooms</p> <p><b>INTERIOR WALLS</b> Structure - Light wood studs Finish - Composition board or inferior lumber, one side only, painted</p>	<p><b>CEILINGS</b> - Wood or composition board, painted</p> <p><b>DOORS</b> Exterior - Medium batten, painted Interior - Medium batten, painted</p> <p><b>WINDOWS</b> - Medium batten or shutter, painted</p> <p><b>ELECTRICAL</b> Wiring - Open knob and tube with drop cords throughout Fixtures - None</p>
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BASIC SPECIFICATIONS FOR RESIDENTIAL TYPE BUILDINGS

B - Two-Family  
Class ONE - Subclass 4

Medium wood frame, one or two story, two-family dwelling of good design, appearance, materials, and workmanship; some double walls and partitions; ceilings; some closets; tile floors in bathrooms and kitchens, and may be in some other rooms.



<p><b>FOUNDATION</b> - Reinforced concrete piers or reinforced concrete walls</p> <p><b>EXTERIOR WALLS</b> Structure - Medium wood studs, double wall in living room and dining room Finish - Wood siding, painted</p> <p><b>ROOF</b> Structure - Medium wood rafters, braced Covering - Good corrugated galvanized iron roofing</p>	<p><b>FLOORS</b> Structure - Medium wood joists and reinforced concrete in kitchen and bathrooms Finish - Finished wood flooring and tile in kitchens and bathrooms</p> <p><b>INTERIOR WALLS</b> Structure - Medium wood studs Finish - Composition board or finished lumber, painted, and concrete, painted or plastered, in bathrooms</p>	<p><b>CEILINGS</b> - Wood or stamped metal, painted</p> <p><b>DOORS</b> Exterior - Medium panel, painted Interior - Medium panel, painted</p> <p><b>WINDOWS</b> - Shutter or wood, Miami, painted</p> <p><b>ELECTRICAL</b> Wiring - Armored or other cable, ceiling lights, pull cords in bedrooms, switches elsewhere, one outlet per room Fixtures - Inferior and in living room and dining room only</p>
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Class ONE - Subclass 5

Medium large wood frame, one- or two-story, two-family dwelling, usually professionally designed and supervised; distinctive appearance; reflects personal desires; very good materials and workmanship; double walls and partitions; numerous closets; tile floors throughout or may have polished wood floors in some rooms; usually two baths per living unit; tile wainscot in bathrooms and kitchens.



<p><b>FOUNDATION</b> - Continuous reinforced concrete wall</p> <p><b>EXTERIOR WALLS</b> Structure - Heavy wood studs, double wall Finish - Wood siding, painted</p> <p><b>ROOF</b> Structure - Heavy, well-braced wood rafters Covering - Extra heavy corrugated galvanized iron, composition shingle, or tile roofing with gutters and downspouts</p>	<p><b>FLOORS</b> Structure - Reinforced concrete or heavy wood joists Finish - Tile or finished wood flooring, painted</p> <p><b>INTERIOR WALLS</b> Structure - Good wood studs, double walls Finish - Beaded boards, painted, sometimes fine wood wainscot in living room and dining room, and concrete with tile wainscot in kitchens and bathrooms</p>	<p><b>CEILINGS</b> - Wood or stamped metal, painted</p> <p><b>DOORS</b> Exterior - Glazed panel, painted Interior - Panel, painted</p> <p><b>WINDOWS</b> - Glazed, shutters or metal Miami, painted</p> <p><b>ELECTRICAL</b> Wiring - Cable, ceiling lights, switches, two outlets per room, stove, heater, and other special outlets Fixtures - good throughout</p>
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PROCEDURES FOR REAL PROPERTY ASSESSMENT IN PUERTO RICO

BASIC SPECIFICATIONS FOR RESIDENTIAL TYPE BUILDINGS

B - Two-Family

Class TWO - Subclass 3

Small masonry, one- or two-story, two-family dwelling of standard design and fair materials and workmanship; single wall wood frame partitions with not less than three rooms including living room and kitchen per living unit; most rooms have ceilings; no closets; may have some tile floors; may have plumbing with simple fixtures and tile floors in bathrooms.



**FOUNDATION** - Reinforced concrete piers and beams, continuous stone, brick, or reinforced concrete wall

**EXTERIOR WALLS**

Structure - Reinforced concrete, block or tile with reinforced concrete columns, or stone or brick  
Finish - Plastered or rubbed, water painted

**ROOF**

Structure - Medium or light wood rafters or wood beam and brick construction  
Covering - Good corrugated galvanized iron, paper, composition or brick

**FLOORS**

Structure - Medium or light wood joists or stone, and stone or reinforced concrete in bathrooms  
Finish - Finished wood with cement or tile in bathrooms

**INTERIOR WALLS**

Structure - Light wood studs  
Finish - Composition board or inferior lumber, one side only, painted

**CEILING** - Wood or composition board, painted, or exposed beams

**DOORS**

Exterior - Medium batten, painted  
Interior - Medium batten, painted

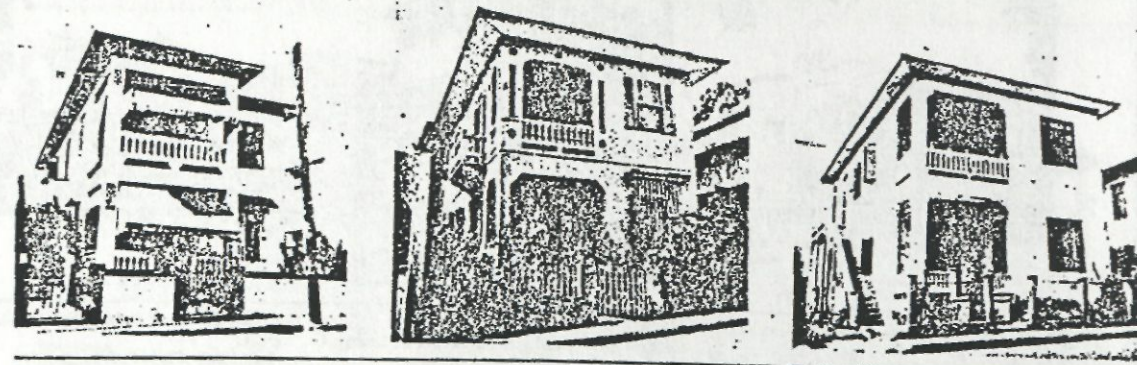
**WINDOWS** - Medium batten or shutter, painted

**ELECTRICAL**

Wiring - Conduit in concrete walls, otherwise open knob and tube overhead with drop cords throughout  
Fixtures - None

Class TWO - Subclass 4

Medium masonry, one- or two-story, two-family dwelling of good design, appearance, materials, and workmanship; some double wall wood frame or masonry partitions; ceilings throughout; some closets; tile floors in bathrooms and kitchens and may have in some other rooms.



**FOUNDATION** - Reinforced concrete piers and beams, continuous stone, brick, or reinforced concrete wall

**EXTERIOR WALLS**

Structure - Reinforced concrete, block or tile with reinforced concrete columns, or stone or brick  
Finish - Plastered, water painted

**ROOF**

Structure - Medium wood rafters, braced, or beam and brick construction  
Covering - Good corrugated galvanized iron, paper, composition, or brick

**FLOORS**

Structure - Medium wood joists and reinforced concrete in kitchens and bathrooms  
Finish - Finished wood flooring, and tile in kitchens and bathrooms

**INTERIOR WALLS**

Structure - Medium wood studs, reinforced concrete, block, stone, or brick  
Finish - Composition board or finished lumber, plastered or painted

**CEILING** - Wood or stamped metal, painted or exposed beams

**DOORS**

Exterior - Medium panel or solid flush, painted  
Interior - Medium panel or flush veneered, painted

**WINDOWS** - Shutter or Miami, painted

**ELECTRICAL**

Wiring - Conduit in concrete walls and cable elsewhere, ceiling lights, pull cords in bedrooms and switches elsewhere, one outlet per room  
Fixtures - Inferior and in living room and dining room only

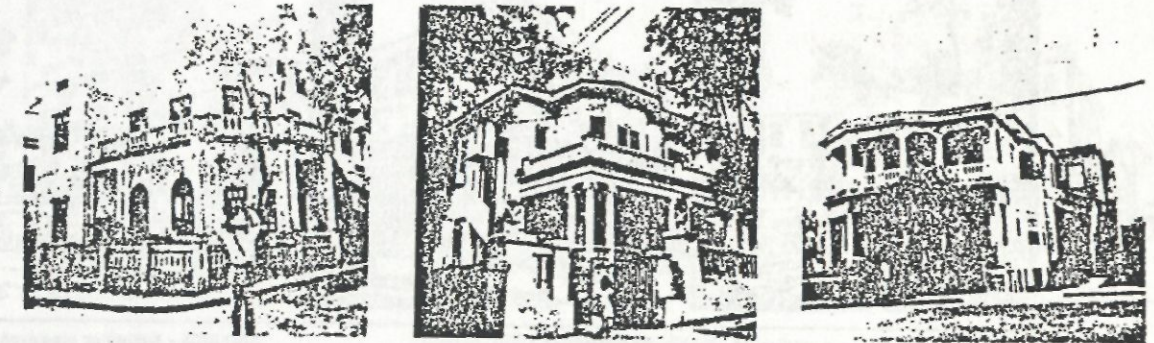
IMPROVEMENTS

BASIC SPECIFICATIONS FOR RESIDENTIAL TYPE BUILDINGS

B - Two-Family

Class TWO - Subclass 5

Medium large masonry, one- to two-story, two-family dwelling, professionally designed and supervised; distinctive appearance; reflects personal desires; very good materials and workmanship; masonry partitions throughout or may have some double wall wood frame partitions; numerous closets; tile floors throughout or may have polished wood floors in some rooms; usually two bathrooms per living unit; tile wainscot in bathrooms and kitchens.



**FOUNDATION** - Continuous reinforced concrete wall, continuous stone or brick wall

**EXTERIOR WALLS**

Structure - Reinforced concrete, block or tile with reinforced concrete columns, stone, or brick  
Finish - Plastered, water or oil painted

**ROOF**

Structure - Heavy, well-braced wood rafters or wood beam and brick construction  
Covering - Extra heavy corrugated galvanized iron, composition shingle, or tile roofing with gutters and downspouts, or brick roofing

**FLOORS**

Structure - Reinforced concrete or heavy wood joists  
Finish - Tile or finished wood, painted

**INTERIOR WALLS**

Structure - Good wood studs, double wall, reinforced concrete, block, stone, or brick  
Finish - Beaded boards or plastered, painted, sometimes fine wood wainscot in living rooms and dining rooms, or ornamental plaster finish, tile wainscot in bathrooms and kitchens

**CEILING** - Wood or stamped metal, painted, plastered on lath, or exposed beams

**DOORS**

Exterior - Glazed panel or good solid flush, painted  
Interior - Panel or flushed veneered, painted

**WINDOWS** - Glazed, shutter or metal Miami, painted

**ELECTRICAL**

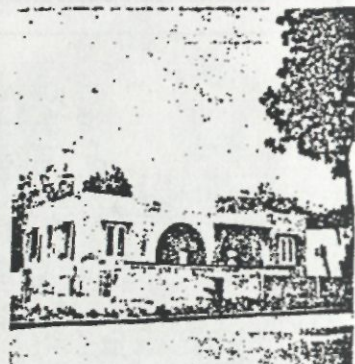
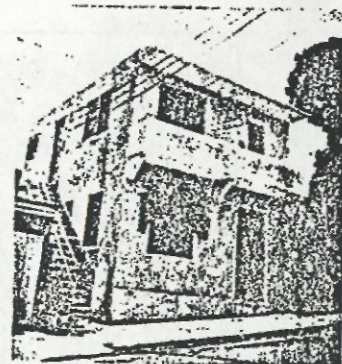
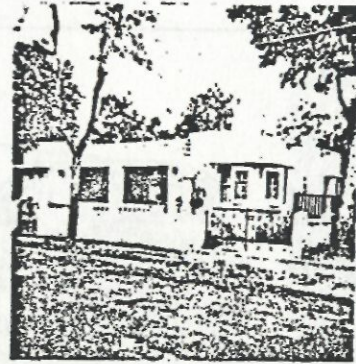
Wiring - Conduit in concrete walls, and cable elsewhere, ceiling lights, switches, and two outlets per room, stove, heater, and other special outlets  
Fixtures - good throughout

## BASIC SPECIFICATIONS FOR RESIDENTIAL TYPE BUILDINGS

## B - Two-Family

## Class THREE - Subclass 3

Small reinforced concrete, one- or two-story, two-family dwelling of standard design and fair materials and workmanship; not less than three rooms including living room and kitchen; no closets; may have some tile floors; may have plumbing with simple fixtures and tile floor in bathrooms.



**FOUNDATION** - Continuous reinforced concrete wall

**EXTERIOR WALLS**

Structure - Reinforced concrete, block or tile with reinforced concrete columns  
Finish - Plastered or rubbed, water painted

**ROOF**

Structure - Reinforced concrete  
Covering - Smooth finish, integral

**FLOORS**

Structure - Reinforced concrete  
Finish - Smooth cement

**INTERIOR WALLS**

Structure - Block, tile or reinforced concrete  
Finish - Rubbed or plastered, water painted

**CEILINGS** - Rubbed or plastered, water painted

**DOORS**

Exterior - Medium batten, painted  
Interior - Medium batten, painted

**WINDOWS** - Medium batten or shutter, painted

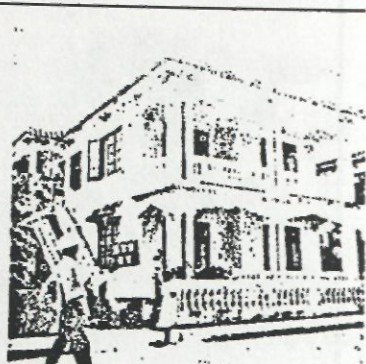
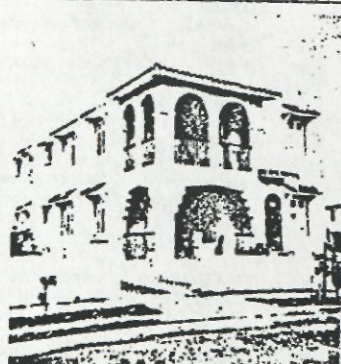
**ELECTRICAL**

Wiring - Conduit, drop cords throughout  
Fixtures - None

## B - Two-Family

## Class THREE - Subclass 4

Medium reinforced concrete, one- or two-story, two-family dwelling of good design, appearance, materials, and workmanship; some closets; tile floors throughout or may have other finish in some rooms; tile floors in kitchens and bathrooms.



**FOUNDATION** - Continuous reinforced concrete wall

**EXTERIOR WALLS**

Structure - Reinforced concrete, block or tile with reinforced concrete columns  
Finish - Plastered, water painted

**ROOF**

Structure - Reinforced concrete  
Covering - Smooth finish, integral

**FLOORS**

Structure - Reinforced concrete  
Finish - Smooth cement or tile

**INTERIOR WALLS**

Structure - Block, tile, or reinforced concrete  
Finish - Rubbed or plastered, resin painted

**CEILINGS** - Rubbed or plastered, resin painted

**DOORS**

Exterior - Panel or solid flush, painted  
Interior - Panel or flush veneered, painted

**WINDOWS** - Shutters or wood Miami, painted

**ELECTRICAL**

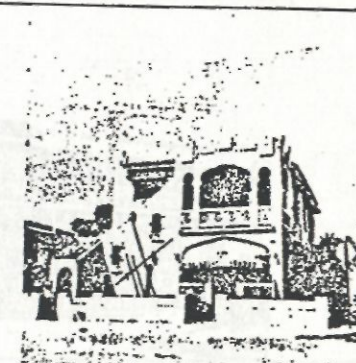
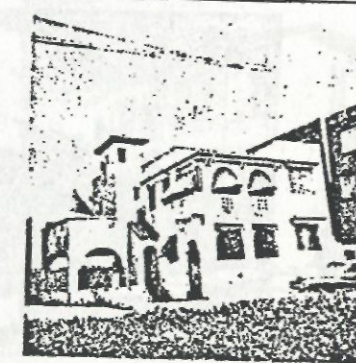
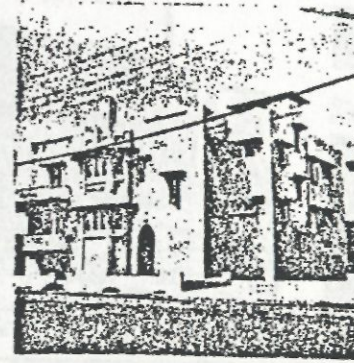
Wiring - Conduit, ceiling lights, pull cords in bedrooms, switches elsewhere, one outlet per room  
Fixtures - Interior in living room and dining room, none elsewhere

## BASIC SPECIFICATIONS FOR RESIDENTIAL TYPE BUILDINGS

## B - Two-Family

## Class THREE - Subclass 5

Medium large reinforced concrete, one- or two-story, two-family dwelling, professionally designed and supervised; distinctive appearance; reflects personal desires; very good materials and workmanship; numerous closets; tile floors throughout; usually two bathrooms per living unit; tile wainscot in bathrooms and kitchens.



**FOUNDATION** - Continuous reinforced concrete wall

**EXTERIOR WALLS**

Structure - Reinforced concrete, block or tile with reinforced concrete columns  
Finish - Plastered, water or oil painted

**ROOF**

Structure - Reinforced concrete  
Covering - Smooth finish, integral, Bermuda, or tile

**FLOORS**

Structure - Reinforced concrete  
Finish - Tile

**INTERIOR WALLS**

Structure - Block, tile, or reinforced concrete  
Finish - Rubbed or plastered, or may be ornamental plastered, oil painted, tile wainscot in bathrooms and kitchens

**CEILINGS** - Rubbed or plastered, resin painted, or ornamental plastered, oil painted

**DOORS**

Exterior - Glazed panel or solid flush, painted  
Interior - Panel or flush veneered, painted

**WINDOWS** - Glazed, shutters or metal Miami, painted

**ELECTRICAL**

Wiring - Conduit, ceiling light, switches, two outlets per room, stove, heater, and other special outlets  
Fixtures - Good throughout

PROCEDURES FOR REAL PROPERTY ASSESSMENT IN PUERTO RICO

BASIC SPECIFICATIONS FOR RESIDENTIAL TYPE BUILDINGS

C - Multi-Family - Walk-up or Row

Class ONE - Subclass 3

Small or medium wood frame, one- or two-story, multi-family walk-up or row dwelling of standard design and of fair materials and workmanship; single walls and partitions with not less than three rooms including living room and kitchen per living unit; most rooms have ceilings; no closets; may have some tile floors; may have plumbing with simple fixtures and tile flooring in bathrooms.



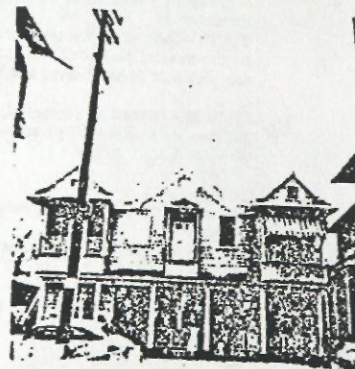
**FOUNDATION** - Reinforced concrete piers  
**EXTERIOR WALLS**  
 Structure - Medium or light studs  
 Finish - Wood ceiling, painted  
**ROOF**  
 Structure - Medium or light wood rafters  
 Covering - Corrugated galvanized iron, paper, or composition roofing

**FLOORS**  
 Structure - Medium or light wood joists and reinforced concrete in bathrooms  
 Finish - Finished wood flooring, cement or tile in bathrooms  
**INTERIOR WALLS**  
 Structure - Light wood studs  
 Finish - Composition board or inferior lumber, one side only, painted  
**CEILING** - Wood or composition board, painted

**DOORS**  
 Exterior - Medium batten, painted  
 Interior - Medium batten, painted  
**WINDOWS** - Medium batten or shutter, painted  
**ELECTRICAL**  
 Wiring - Open knob and tube with drop cords throughout  
 Fixtures - None

C - Multi-Family - Walk-up or Row  
 Class ONE - Subclass 4

Medium or large wood frame, two or more story, multi-family walk-up or row dwelling of good design, appearance, materials, and workmanship; some double walls and partitions; ceilings; some closets; tile floors in bathrooms and kitchens, and may be in some other rooms.



**FOUNDATION** - Reinforced concrete piers or reinforced concrete walls  
**EXTERIOR WALLS**  
 Structure - Medium wood studs, double wall in living room and dining room  
 Finish - Wood siding, painted  
**ROOF**  
 Structure - Medium wood rafters, braced  
 Covering - Good corrugated galvanized iron roofing

**FLOORS**  
 Structure - Medium wood joists and reinforced concrete in kitchen and bathrooms  
 Finish - Finished wood flooring and tile in kitchens and bathrooms  
**INTERIOR WALLS**  
 Structure - Medium wood studs  
 Finish - Composition board or finished lumber, painted, and concrete, painted or plastered, in bathrooms  
**CEILING** - Wood or stamped metal, painted

**DOORS**  
 Exterior - Medium panel, painted  
 Interior - Medium panel, painted  
**WINDOWS** - Shutter or wood, Miami, painted  
**ELECTRICAL**  
 Wiring - Armored or other cable, ceiling lights, pull cords in bedrooms, switches elsewhere, one outlet per room  
 Fixtures - Inferior and in living room and dining room only

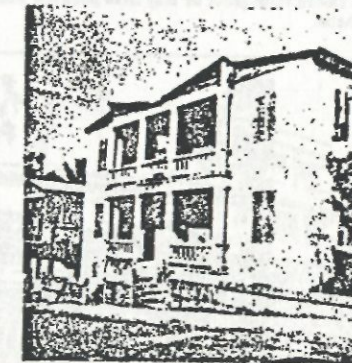
IMPROVEMENTS

BASIC SPECIFICATIONS FOR RESIDENTIAL TYPE BUILDINGS

C - Multi-Family - Walk-up or Row

Class TWO - Subclass 3

Small or medium masonry, one- to four-story, multi-family walk-up or row dwelling of standard design and fair materials and workmanship; single wall wood frame partitions with not less than three rooms including living room and kitchen per living unit; most rooms have ceilings; no closets; may have some tile floors; may have plumbing with simple fixtures and tile floor in bathrooms.



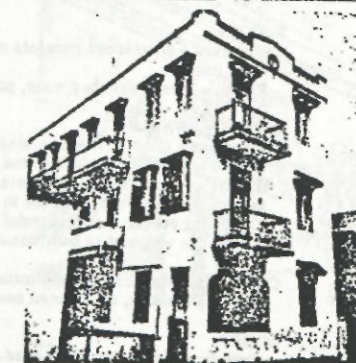
**FOUNDATION** - Reinforced concrete piers and beams, continuous stone, brick, or reinforced concrete wall  
**EXTERIOR WALLS**  
 Structure - Reinforced concrete, block or tile with reinforced concrete columns, or stone or brick  
 Finish - Plastered or rubbed, water painted  
**ROOF**  
 Structure - Medium or light wood rafters or wood beam and brick construction  
 Covering - Good corrugated galvanized iron, paper, composition, or brick

**FLOORS**  
 Structure - Medium or light wood joists or stone, and stone or reinforced concrete in bathrooms  
 Finish - Finished wood with cement or tile in bathrooms  
**INTERIOR WALLS**  
 Structure - Light wood studs  
 Finish - Composition board or inferior lumber, one side only, painted  
**CEILING** - Wood or composition board, painted, or exposed beams

**DOORS**  
 Exterior - Medium batten, painted  
 Interior - Medium batten, painted  
**WINDOWS** - Medium batten or shutter, painted  
**ELECTRICAL**  
 Wiring - Conduit in concrete walls, otherwise open knob and tube overhead with drop cords throughout  
 Fixtures - None

Class TWO - Subclass 4

Medium or large masonry, two- to four-story, multi-family walk-up dwelling of good design, appearance, materials, and workmanship; some double wall wood frame or masonry partitions; ceilings throughout; some closets; tile floors in bathrooms and kitchens and may have in some other rooms.



**FOUNDATION** - Reinforced concrete piers and beams, continuous stone, brick or reinforced concrete wall  
**EXTERIOR WALLS**  
 Structure - Reinforced concrete, block or tile with reinforced concrete columns, or stone or brick  
 Finish - Plastered, water painted  
**ROOF**  
 Structure - Medium wood rafters, braced, or beam and brick construction  
 Covering - Good corrugated galvanized iron, paper, composition, or brick

**FLOORS**  
 Structure - Medium wood joists and reinforced concrete in kitchens and bathrooms  
 Finish - Finished wood flooring and tile in kitchens and bathrooms  
**INTERIOR WALLS**  
 Structure - Medium wood studs, reinforced concrete, block, stone or brick  
 Finish - Composition board or finished lumber, plastered or painted  
**CEILING** - Wood or stamped metal, painted, or exposed beams

**DOORS**  
 Exterior - Medium panel or solid flush, painted  
 Interior - Medium panel or flush veneered, painted  
**WINDOWS** - Shutter or Miami, painted  
**ELECTRICAL**  
 Wiring - Conduit in concrete walls and cable elsewhere, ceiling lights, pull cords in bedrooms and switches elsewhere, one outlet per room  
 Fixtures - Inferior and in living room and dining room only

## BASIC SPECIFICATIONS FOR RESIDENTIAL TYPE BUILDINGS

C - Multi-Family-Walk-up or Row

Class TWO - Subclass 5

Medium or large masonry, usually two- or three-story, multi-family walk-up dwelling, professionally designed and supervised; distinctive appearance; reflects personal desires; very good materials and workmanship; masonry partitions throughout or may have some double wall frame partitions; numerous closets; tile floors throughout or may have polished wood floors in some rooms; usually two bathrooms per living unit; tile wainscot in bathrooms and kitchens.



**FOUNDATION** - Continuous reinforced concrete wall, continuous stone or brick wall

**EXTERIOR WALLS**  
Structure - Reinforced concrete, block or tile with reinforced concrete columns, stone, or brick  
Finish - Plastered, water or oil painted

**ROOF**  
Structure - Heavy, well-braced wood rafters or wood beam and brick construction  
Covering - Extra heavy corrugated galvanized iron, composition shingle, or tile roofing with gutters and downspouts, or brick roofing

**FLOORS**  
Structure - Reinforced concrete or heavy wood joists  
Finish - Tile or finished wood, painted

**INTERIOR WALLS**  
Structure - Good wood studs, double wall, reinforced concrete, block, stone, or brick  
Finish - Beaded boards or plastered, painted, sometimes fine wood wainscot in living rooms and dining rooms, or ornamental plaster finish, tile wainscot in bathrooms and kitchens

**CEILINGS** - Wood or stamped metal, painted, plastered on lath, or exposed beams

**DOORS**  
Exterior - Glazed panel or good solid flush, painted  
Interior - Panel or flushed veneered, painted

**WINDOWS** - Glazed, shutter or metal, Miami, painted

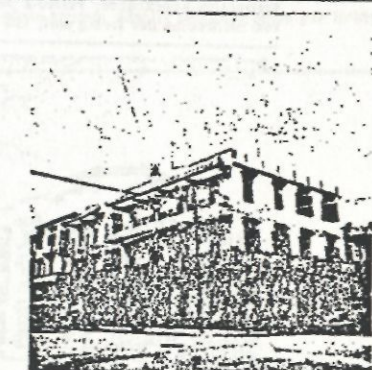
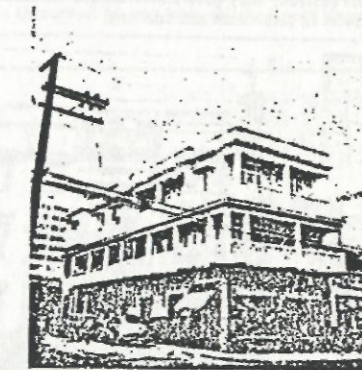
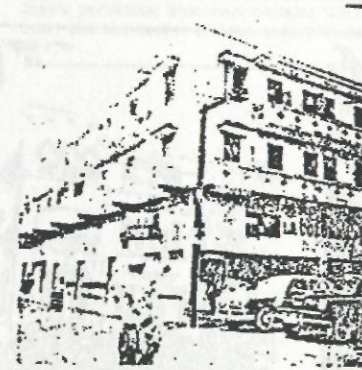
**ELECTRICAL**  
Wiring - Conduit in concrete walls, and cable elsewhere, ceiling lights, switches, and two outlets per room, stove, heater, and other special outlets  
Fixtures - Good throughout

## BASIC SPECIFICATIONS FOR RESIDENTIAL TYPE BUILDINGS

C - Multi-Family-Walk-up or Row

Class THREE - Subclass 3

Small or medium reinforced concrete, one- to four-story, multi-family or row dwelling of standard design and fair materials and workmanship; not less than three rooms including living rooms and kitchens per living unit; no closets; may have some tile floors; may have plumbing with simple fixtures and tile floor in bathrooms.



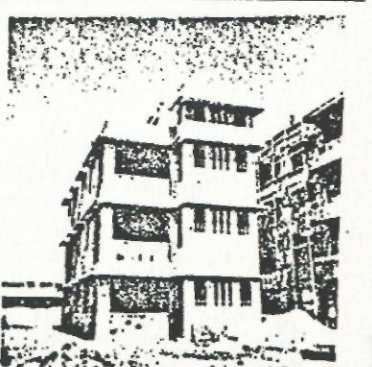
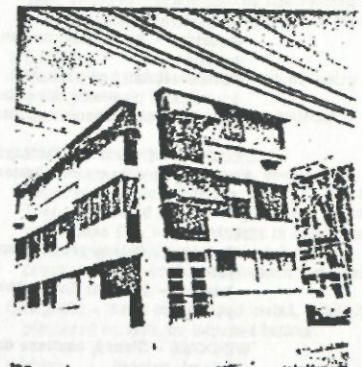
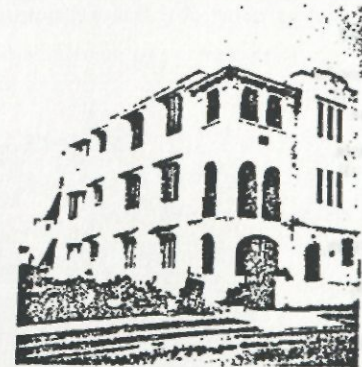
**FOUNDATION** - Continuous reinforced concrete wall  
**EXTERIOR WALLS**  
Structure - Reinforced concrete, block or tile with reinforced concrete columns  
Finish - Plastered or rubbed, water painted  
**ROOF**  
Structure - reinforced concrete  
Covering - Smooth finish, integral

**FLOORS**  
Structure - Reinforced concrete  
Finish - Smooth cement  
**INTERIOR WALLS**  
Structure - Block, tile, or reinforced concrete  
Finish - Rubbed or plastered, water painted

**CEILINGS** - Rubbed or plastered, water painted  
**DOORS**  
Exterior - Medium batten, painted  
Interior - Medium batten, painted  
**WINDOWS** - Medium batten or shutter, painted  
**ELECTRICAL**  
Wiring - Conduit, drop cords throughout  
Fixtures - None

Class THREE - Subclass 4

Medium or large reinforced concrete, two- to four-story, multi-family walk-up dwelling of good design, appearance, materials, and workmanship; some closets; tile floors throughout or may have other finish in some rooms; tile floors in kitchens and bathrooms.



**FOUNDATION** - Continuous reinforced concrete wall  
**EXTERIOR WALLS**  
Structure - Reinforced concrete, block or tile with reinforced concrete columns  
Finish - Plastered, water painted  
**ROOF**  
Structure - Reinforced concrete  
Covering - Smooth finish, integral

**FLOORS**  
Structure - Reinforced concrete  
Finish - Smooth cement or tile  
**INTERIOR WALLS**  
Structure - Block, tile or reinforced concrete  
Finish - Rubbed or plastered, resin painted  
**CEILINGS** - Rubbed or plastered, resin painted

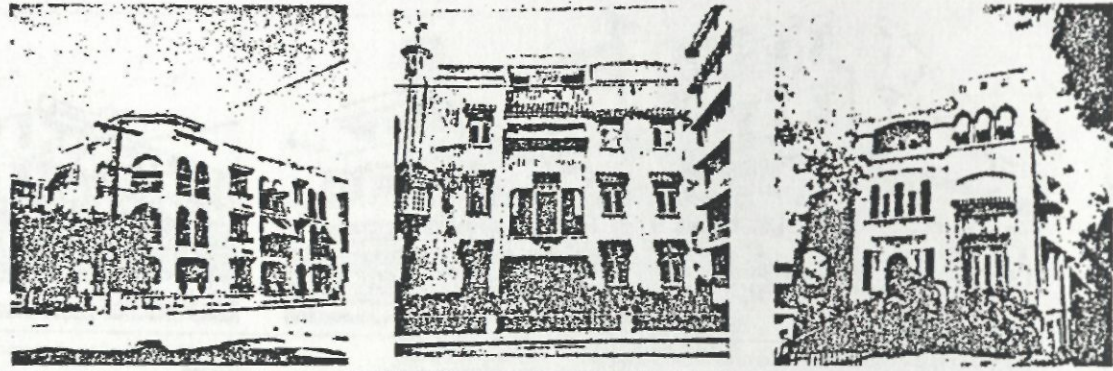
**DOORS**  
Exterior - Panel or solid flush, painted  
Interior - Panel or flush veneered, painted  
**WINDOWS** - Shutters or wood Miami, painted  
**ELECTRICAL**  
Wiring - Conduit, ceiling lights, pull cords in bathrooms, switches elsewhere, one outlet per room  
Fixtures - Inferior in living room and dining room, none elsewhere

## BASIC SPECIFICATIONS FOR RESIDENTIAL TYPE BUILDINGS

C - Multi-Family - Walk-up or Row

CLASS THREE - Subclass 5

Medium or large reinforced concrete, usually two- or three-story, multi-family walk-up dwelling, professionally designed and supervised; distinctive appearance; reflects personal desires; very good materials and workmanship; numerous closets; tile floors throughout; usually two bathrooms per living unit; tile wainscot in bathrooms and kitchens.



FOUNDATION - Continuous reinforced concrete wall

## EXTERIOR WALLS

Structure - Reinforced concrete, block or tile with reinforced concrete columns  
Finish - Plastered, water or oil painted

## ROOF

Structure - Reinforced concrete  
Covering - Smooth finish, integral, Bermuda, or tile

## FLOORS

Structure - Reinforced concrete  
Finish - Tile

## INTERIOR WALLS

Structure - Block, tile, or reinforced concrete  
Finish - Rubbed or plastered, or may be ornamental plastered, oil painted, tile wainscot in bathrooms and kitchens

CEILINGS - Rubbed or plastered, resin painted, or ornamental plastered, oil painted

## DOORS

Exterior - Glazed panel or solid flush, painted  
Interior - Panel or flush veneered, painted

WINDOWS - Glazed, shutters or metal, Miami, painted

## ELECTRICAL

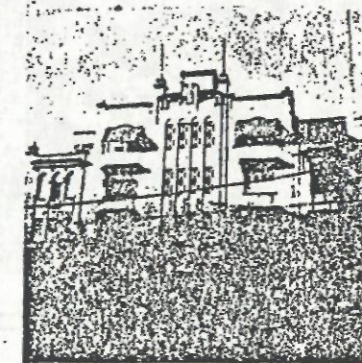
Wiring - Conduit, ceiling lights, switches, two outlets per room, stove, heater, and other special outlets  
Fixtures - Good throughout

## BASIC SPECIFICATIONS FOR RESIDENTIAL TYPE BUILDINGS

D - Multi-Family - Elevator

Class TWO - Subclass 5

Medium or large masonry, four or more story, multi-family dwelling with elevator, professionally designed and supervised; distinctive appearance; reflects personal desires; very good materials and workmanship; masonry partitions throughout or may have some double wall frame partitions; numerous closets; tile floors throughout or may have polished wood floors in some rooms; usually two bathrooms per living unit; tile wainscot in bathrooms and kitchens.



FOUNDATION - Continuous reinforced concrete wall, continuous stone or brick wall

## EXTERIOR WALLS

Structure - Reinforced concrete, block or tile with reinforced concrete columns, stone, or brick  
Finish - Plastered, water or oil painted

## ROOF

Structure - Heavy, well-braced wood rafters or wood beam and brick construction  
Covering - Extra heavy corrugated galvanized iron, composition shingle, or tile roofing with gutters and downspouts, or brick roofing

## FLOORS

Structure - Reinforced concrete or heavy wood joists  
Finish - Tile or finished wood, painted

## INTERIOR WALLS

Structure - Good wood studs, double wall, reinforced concrete, block, stone, or brick  
Finish - Beaded boards or plastered, painted, sometimes fine wood wainscot in living rooms and dining rooms, or ornamental plaster finish, tile wainscot in bathrooms and kitchens

CEILINGS - Wood or stamped metal, painted, plastered on lath, or exposed beams

## DOORS

Exterior - Glazed panel or good solid flush, painted  
Interior - Panel or flushed veneered, painted

WINDOWS - Glazed, shutter or metal, Miami, painted

## ELECTRICAL

Wiring - Conduit in concrete walls, and cable elsewhere, ceiling lights, switches, and two outlets per room, stove, heater, and other special outlets  
Fixtures - Good throughout

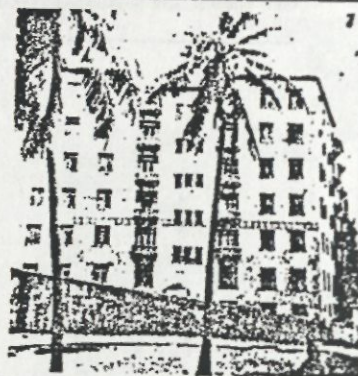
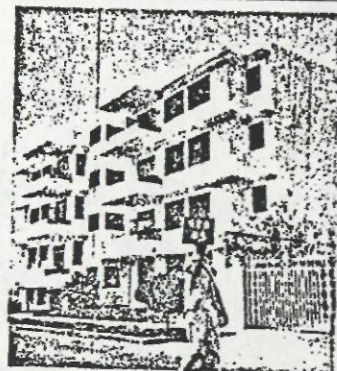
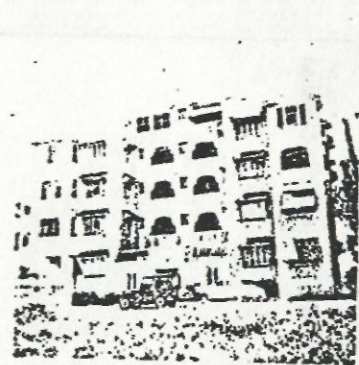
## PROCEDURES FOR REAL PROPERTY ASSESSMENT IN PUERTO RICO

## BASIC SPECIFICATIONS FOR RESIDENTIAL TYPE BUILDINGS

D - Multi-Family - Elevator

Class THREE - Subclass 4

Medium or large reinforced concrete, four or more story, multi-family dwelling with elevator, of good design, appearance, materials and workmanship; some closets; tile floors throughout or may have other finish in some rooms; tile floors in kitchens and bathrooms.



**FOUNDATION** - Continuous reinforced concrete wall

**EXTERIOR WALLS**

Structure - Reinforced concrete, block or tile with reinforced concrete columns  
Finish - Plastered, water painted

**ROOF**

Structure - Reinforced concrete  
Covering - Smooth finish, integral

**FLOORS**

Structure - Reinforced concrete  
Finish - Smooth cement or tile

**INTERIOR WALLS**

Structure - Block, tile or reinforced concrete  
Finish - Rubbed or plastered, resin painted

**CEILINGS** - Rubbed or plastered, resin painted

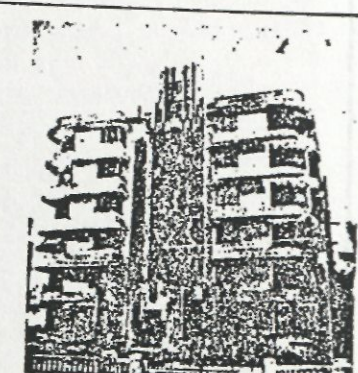
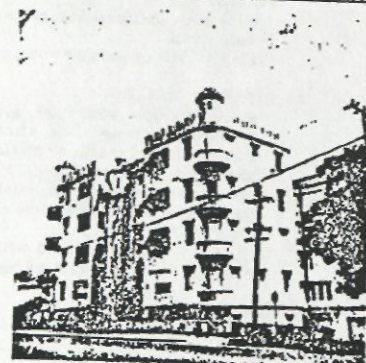
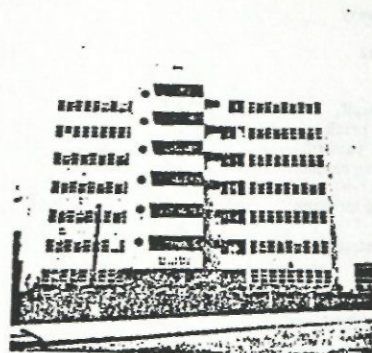
**DOORS**

Exterior - Panel or solid flush, painted  
Interior - Panel or flush veneered, painted  
**WINDOWS** - Shutters or wood Miami, painted  
**ELECTRICAL**

Wiring - Conduit, ceiling lights, pull cords in bathrooms, switches elsewhere, one outlet per room  
Fixtures - Inferior in living room and dining room, none elsewhere

Class THREE - Subclass 5

Medium or large reinforced concrete, three or more story, multi-family dwelling with elevator, professionally designed and supervised; distinctive appearance; reflects personal desires, very good materials and workmanship; numerous closets; tile floors throughout; usually two bathrooms per living unit; tile wainscot in bathrooms and kitchens.



**FOUNDATION** - Continuous reinforced concrete wall

**EXTERIOR WALLS**

Structure - Reinforced concrete, block or tile with reinforced concrete columns  
Finish - Plastered, water or oil painted

**ROOF**

Structure - Reinforced concrete  
Covering - Smooth finish, integral, Bermuda, or tile

**FLOORS**

Structure - Reinforced concrete  
Finish - Tile

**INTERIOR WALLS**

Structure - Block, tile, or reinforced concrete  
Finish - Rubbed or plastered, or may be ornamental plastered, oil painted, tile wainscot in bathrooms and kitchens

**CEILINGS** - Rubbed or plastered, resin painted, or ornamental plastered, oil painted

**DOORS**

Exterior - Glazed panel or solid flush, painted  
Interior - Panel or flush veneered, painted

**WINDOWS** - Glazed, shutters or metal Miami, painted

**ELECTRICAL**

Wiring - Conduit, ceiling lights, switches, two outlets per room, stove, heater, and other special outlets  
Fixtures - Good throughout

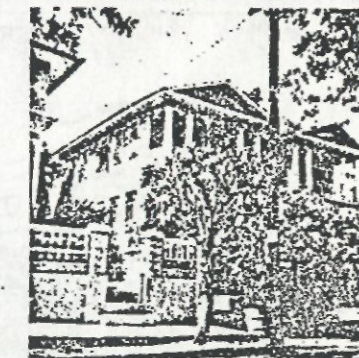
## IMPROVEMENTS

## BASIC SPECIFICATIONS FOR COMMERCIAL TYPE BUILDINGS

E - Hotel

Class ONE - Subclass 4

Medium wood frame, one or more story, hotel building of standard design; good appearance, materials, and workmanship; single walls and partitions or may have some double walls; ceilings; tile floors in bathrooms, lavatories, kitchen, and service rooms; several bathrooms and lavatories.



**FOUNDATION** - Reinforced concrete piers, brick or stone wall

**EXTERIOR WALLS**

Structure - Medium wood studs, single wall or may have some double wall  
Finish - Wood siding, painted

**ROOF**

Structure - Medium wood rafters, braced  
Covering - Good corrugated galvanized iron

**FLOORS**

Structure - Medium wood joists, reinforced concrete in kitchen, bathrooms, lavatories and service rooms  
Finish - Finished wood flooring, and tile

**INTERIOR WALLS**

Structure - Medium wood studs, concrete in bathrooms, lavatories and kitchen  
Finish - Composition board or good lumber, plastered, may have tiled wainscot in bathrooms and lavatories

**CEILINGS** - Wood, painted

**DOORS**

Exterior - Panel, painted  
Interior - Panel, painted

**WINDOWS** - Shutters, painted

**ELECTRICAL**

Wiring - Cable with drop cords, switches, and outlets  
Fixtures - Medium in lobby, dining room, and other public rooms

## BASIC SPECIFICATIONS FOR COMMERCIAL TYPE BUILDINGS

E - Hotel

Class TWO - Subclass 4

Medium large, two or more story, hotel building of standard design; good appearance, materials, and workmanship; masonry partitions or may have some single or double wall wood frame partitions; ceilings; tile floors in bathrooms, kitchen, lavatories, and service rooms and usually in lobby, dining room, and other public rooms; some private bathrooms; usually has elevator.



**FOUNDATION** - Continuous reinforced concrete, stone, or brick wall

**EXTERIOR WALLS**

Structure - Reinforced concrete, block with reinforced concrete columns, stone or brick  
Finish - Plastered, water painted

**ROOF**

Structure - Medium wood rafters, braced, or wood beam and brick construction  
Covering - Corrugated galvanized iron, composition, or brick

**FLOORS**

Structure - Medium wood joists and reinforced concrete  
Finish - Finished wood and tile

**INTERIOR WALLS**

Structure - Reinforced concrete, block, tile, or medium wood studs  
Finish - Plastered or good lumber, may have tile wainscot in bathrooms and lavatories

**CEILING** - Wood, stamped metal, or composition board, painted

**DOORS**

Exterior - Good panel, painted  
Interior - Good panel, painted

**WINDOWS** - Shutters or glazed, painted

**ELECTRICAL**

Wiring - Conduit in concrete walls, cable elsewhere, ceiling lights, switches, and outlets

Fixtures - Medium in lobby, dining room, and other public rooms, inferior in bedrooms

Class TWO - Subclass 5

Large masonry, two or more story, hotel building professionally designed and supervised; very attractive, imposing, and distinctive appearance; special and unique features, modern and elaborate facilities; superior materials and workmanship; tile floors throughout or may have some polished fine wood floors; private bath in each room or suite; tile wainscot in bathrooms, lavatories, kitchens, pantries, and utility rooms; elevators; air conditioning.



**FOUNDATION** - Continuous reinforced concrete wall

**EXTERIOR WALLS**

Structure - Reinforced concrete or block with reinforced concrete columns  
Finish - Plastered, oil painted

**ROOF**

Structure - Heavy wood rafters, well braced  
Covering - Composition shingle or tile roofing with gutters and downspouts

**FLOORS**

Structure - Reinforced concrete or may have some heavy wood joists  
Finish - Tile, terrazzo, or marble, fine wood flooring in rooms, painted

**INTERIOR WALLS**

Structure - Reinforced concrete, block or tile  
Finish - Plastered or ornamental decorated

**CEILING** - Plastered, coved, elaborate on lath, oil painted

**DOORS**

Exterior - Extra quality glazed panel, metal bound or bronze  
Interior - Panel or flush veneered, painted

**WINDOWS** - Extra quality wood glazed, glazed aluminum or leaded colored glazed

**ELECTRICAL**

Wiring - Conduit in walls, cable elsewhere, ceiling lights, switches, and outlets throughout with special outlets for stoves, heaters, radios, bells, and telephones, switchboard control, illuminated signs

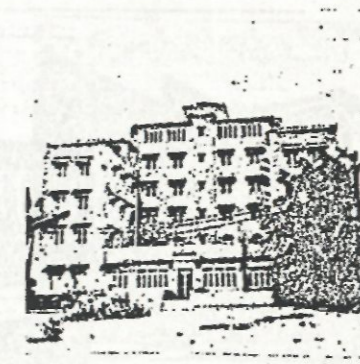
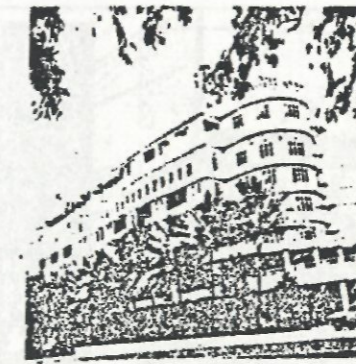
Fixtures - Best and ample throughout

## BASIC SPECIFICATIONS FOR COMMERCIAL TYPE BUILDINGS

E - Hotel

Class THREE - Subclass 4

Medium large reinforced concrete, two or more story, hotel building of standard design; good appearance, materials, and workmanship; tile floors throughout; tile wainscot in bathrooms and lavatories; some private bathrooms; usually has elevator.



**FOUNDATION** - Continuous reinforced concrete wall

**EXTERIOR WALLS**

Structure - Reinforced concrete or block with reinforced concrete columns  
Finish - Plastered, water painted

**ROOF**

Structure - Reinforced concrete  
Covering - Cement finish, integral

**FLOORS**

Structure - Reinforced concrete  
Finish - Tile

**INTERIOR WALLS**

Structure - Reinforced concrete, block or tile  
Finish - Plastered, painted

**CEILING** - Plastered, painted

**DOORS**

Exterior - Good panel, solid flush or glazed, painted  
Interior - Good panel or flushed veneered, painted

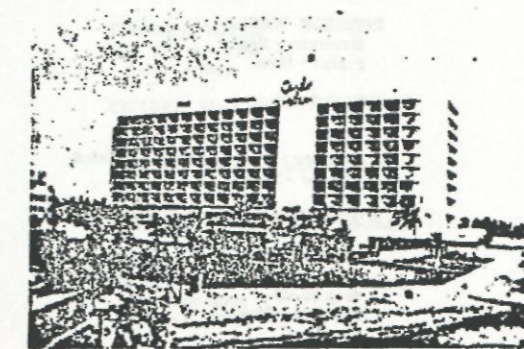
**WINDOWS** - Shutters, glazed, or wood or metal Miami

**ELECTRICAL**

Wiring - Conduit, ceiling lights, switches, and outlets  
Fixtures - Medium in lobby, dining room, and other public rooms, inferior in bedrooms

Class THREE - Subclass 5

Large reinforced concrete, two or more story, hotel building professionally designed and supervised; very attractive, imposing, and distinctive appearance; special and unique features; modern and elaborate facilities; superior materials and workmanship; tile floors throughout; private bath in each room or suite; tile wainscot in bathrooms, lavatories, kitchens, pantries, and utility rooms; elevators; air conditioning.



**FOUNDATION** - Continuous reinforced concrete wall

**EXTERIOR WALLS**

Structure - Reinforced concrete or block with reinforced concrete columns  
Finish - Plastered, oil painted

**ROOF**

Structure - Reinforced concrete  
Covering - Smooth finish, integral, Bermuda or tile

**FLOORS**

Structure - Reinforced concrete  
Finish - Tile, terrazzo, or marble

**INTERIOR WALLS**

Structure - Reinforced concrete, block or tile  
Finish - Plastered, ornamental decorated, oil painted

**CEILING** - Plastered, coved, elaborate, oil painted

**DOORS**

Exterior - Extra quality glazed panel, metal bound or bronze  
Interior - Panel or flush veneered

**WINDOWS** - Extra quality wood glazed or glazed aluminum

**ELECTRICAL**

Wiring - Conduit, ceiling lights, switches, outlets throughout with special outlets for stoves, heaters, radios, bells, and telephone, switchboard control, illuminated signs  
Fixtures - Best and ample throughout

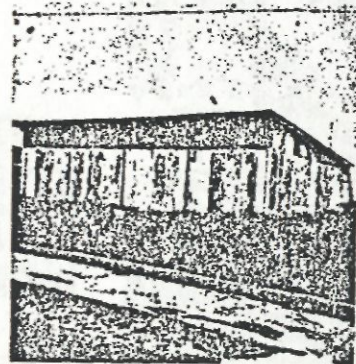
## PROCEDURES FOR REAL PROPERTY ASSESSMENT IN PUERTO RICO

## BASIC SPECIFICATIONS FOR COMMERCIAL TYPE BUILDINGS

## G - Public Garage

## Class ONE - Subclass 3

Medium wood frame one-story public garage building of standard design and good materials and workmanship; single walls without partitions or ceilings; interior height up to 12 feet; reinforced concrete floor; no plumbing.



**FOUNDATION** - Continuous reinforced concrete, stone, or brick wall

**EXTERIOR WALLS**

Structure - Medium wood studs, single wall  
Finish - Wood siding or corrugated galvanized iron, painted

**ROOF**

Structure - Medium wood rafters, braced  
Covering - Corrugated galvanized iron, paper, or composition

**FLOORS**

Structure - Reinforced concrete on fill  
Finish - Rough or cement finish

**INTERIOR WALLS**

Structure - None  
Finish - None

**CEILING** - None**DOORS**

Exterior - Inferior batten, unpainted  
Interior - None

**WINDOWS** - Inferior batten, painted

**ELECTRICAL**

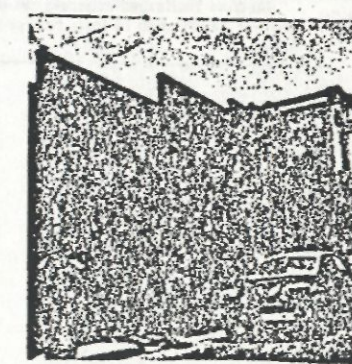
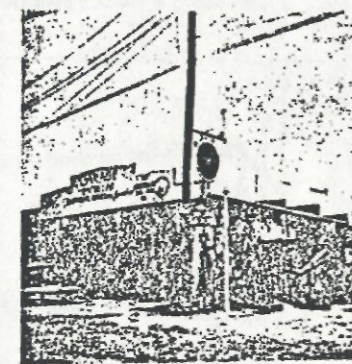
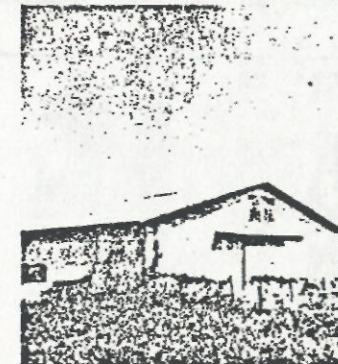
Wiring - None or open knob and tube with drop cords  
Fixtures - None

## BASIC SPECIFICATIONS FOR COMMERCIAL TYPE BUILDINGS

## G - Public Garage

## Class TWO - Subclass 3

Medium masonry one-story public garage building of standard design and good materials and workmanship; no partitions or ceilings; interior height up to 12 feet; reinforced concrete floor; no plumbing.



**FOUNDATION** - Continuous reinforced concrete, stone, or brick wall

**EXTERIOR WALLS**

Structure - Reinforced concrete, block with reinforced concrete columns, brick, or stone  
Finish - Plastered or rubbed

**ROOF**

Structure - Medium wood rafters or wood beam and brick construction  
Covering - Corrugated galvanized iron, paper, composition, or brick

**FLOORS**

Structure - Reinforced concrete on fill  
Finish - Rough or cement finish

**INTERIOR WALLS**

Structure - None  
Finish - None

**CEILING** - None**DOORS**

Exterior - Inferior batten, painted  
Interior - None

**WINDOWS** - Inferior batten, painted

**ELECTRICAL**

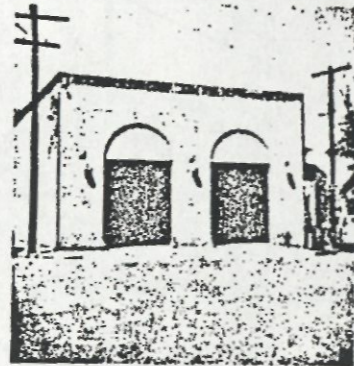
Wiring - None or open knob and tube with drop cords  
Fixtures - None

BASIC SPECIFICATIONS FOR COMMERCIAL TYPE BUILDINGS

G - Public Garage

Class THREE - Subclass 3

Medium reinforced concrete one-story public garage building of standard design and good materials and workmanship; no partitions or ceilings; interior height up to 12 feet; reinforced concrete floors; no plumbing.



**FOUNDATION** - Continuous reinforced concrete wall

**EXTERIOR WALLS**  
Structure - Reinforced concrete or block with reinforced concrete columns  
Finish - Plastered or rubbed

**ROOF**  
Structure - Reinforced concrete  
Covering - Cement finish, integral

**FLOORS**  
Structure - Reinforced concrete on fill  
Finish - Rough or cement finish

**INTERIOR WALLS**  
Structure - None  
Finish - Unfinished

**CEILING** - Unfinished

**DOORS**  
Exterior - Inferior batten, painted  
Interior - None

**WINDOWS** - Inferior batten, painted

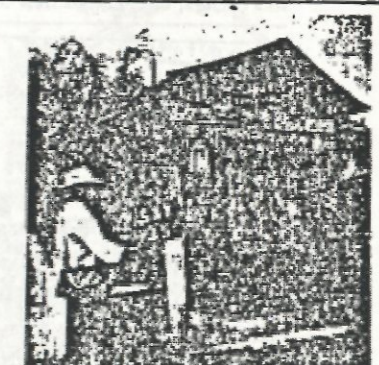
**ELECTRICAL**  
Wiring - None or open knob and tube with drop cords  
Fixtures - None

BASIC SPECIFICATIONS FOR COMMERCIAL TYPE BUILDINGS

H - Store, Market, Auto Sales, Etc.

Class ONE - Subclass 1

Very small wood frame store-type building of inferior materials and workmanship; single walls without partitions or ceilings; interior height up to 10 feet; reinforced concrete floor; no plumbing.



**FOUNDATION** - Continuous reinforced concrete, stone, or brick wall  
**EXTERIOR WALLS**  
Structure - Light, inferior wood studs, single wall  
Finish - Boards, roofing paper, or corrugated galvanized iron, unpainted

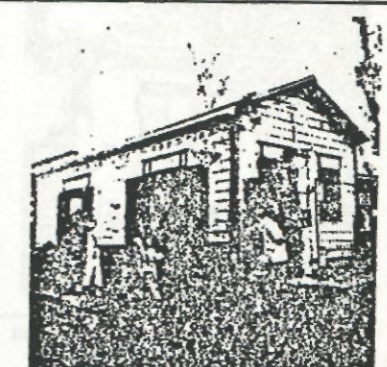
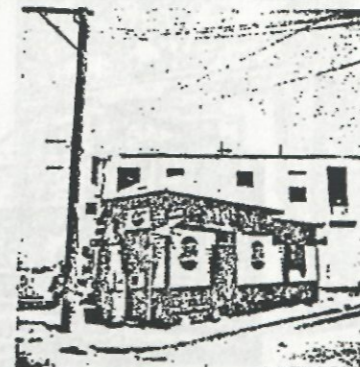
**ROOF**  
Structure - Light, inferior wood rafters  
Covering - Corrugated galvanized iron or roofing paper

**FLOORS**  
Structure - Reinforced concrete on fill  
Finish - Rough  
**INTERIOR WALLS**  
Structure - None  
Finish - None

**CEILING** - None  
**DOORS**  
Exterior - Inferior batten, unpainted  
Interior - None  
**WINDOWS** - Inferior batten, unpainted  
**ELECTRICAL**  
Wiring - None or open knob or tube with drop cords  
Fixtures - None

Class ONE - Subclass 2

Small wood frame store-type building of inferior materials and workmanship; single walls with one partition and some ceiling; ceiling height up to 10 feet; reinforced concrete floor, no plumbing.



**FOUNDATION** - Continuous reinforced concrete, stone, or brick wall  
**EXTERIOR WALLS**  
Structure - Light, inferior wood studs, single wall  
Finish - Boards, roofing paper, or corrugated galvanized iron, unpainted

**ROOF**  
Structure - Light inferior wood rafters  
Covering - Corrugated galvanized iron or roofing paper

**FLOORS**  
Structure - Reinforced concrete on fill  
Finish - Rough or cement finish  
**INTERIOR WALLS**  
Structure - Light inferior wood studs, less than full height  
Finish - Composition board or inferior lumber, one side only, unpainted

**CEILINGS** - None or may have some wood or composition board, unpainted

**DOORS**  
Exterior - Inferior batten, unpainted  
Interior - None  
**WINDOWS** - Inferior batten, unpainted  
**ELECTRICAL**  
Wiring - Open knob and tube with drop cords  
Fixtures - None

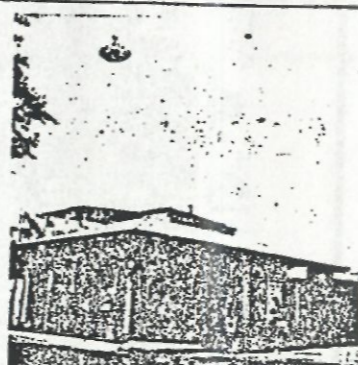
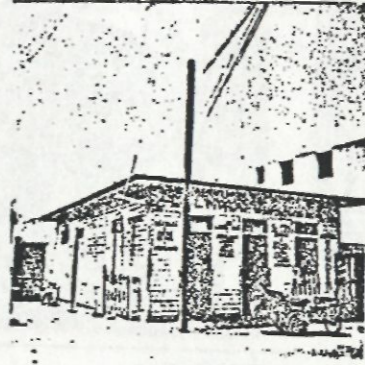
PROCEDURES FOR REAL PROPERTY ASSESSMENT IN PUERTO RICO

BASIC SPECIFICATIONS FOR COMMERCIAL TYPE BUILDINGS

H - Store, Market, Auto Sales, Etc.

Class ONE - Subclass 3

Medium wood frame store-type buildings of standard design and good appearance, materials and workmanship; single walls and partitions with ceilings; ceiling height from 10 to 12 feet; may have tile floor; plumbing with simple fixtures; may have glazed display front.



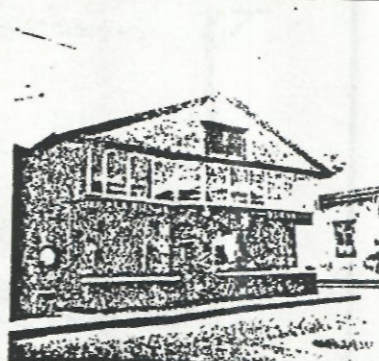
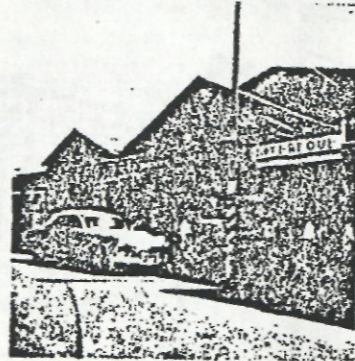
**FOUNDATION** - Continuous reinforced concrete, stone, or brick wall  
**EXTERIOR WALLS**  
 Structure - Medium wood studs, single wall  
 Finish - Wood siding, painted  
**ROOF**  
 Structure - Medium wood rafters braced  
 Covering - Good corrugated galvanized iron or roofing paper

**FLOORS**  
 Structure - Reinforced concrete  
 Finish - Cement finish or tile  
**INTERIOR WALLS**  
 Structure - Medium wood studs  
 Finish - Composition board or good lumber, one side only, painted  
**CEILING** - Wood or composition board, painted

**DOORS**  
 Exterior - Medium batten, glazed, painted  
 Interior - Medium batten, panel, painted  
**WINDOWS** - Medium batten or shutter, painted, may have display front  
**ELECTRICAL**  
 Wiring - Cable with several drop cords, may have switches and outlets  
 Fixtures - None or inferior

Class ONE - Subclass 4

Medium or large wood frame store-type building professionally designed and supervised; attractive and distinctive appearance; special and unique features; ornate glazed display fronts and illuminated signs; very good materials and workmanship; double walls with single wall partitions; ceiling height from 12 feet to 14 feet; tile floors throughout; tile wainscot in lavatories.



**FOUNDATION** - Continuous reinforced concrete wall  
**EXTERIOR WALLS**  
 Structure - Heavy wood studs, double wall  
 Finish - Wood siding, painted  
**ROOF**  
 Structure - Heavy wood rafters, well braced  
 Covering - Extra heavy galvanized iron roofing

**FLOORS**  
 Structure - Reinforced concrete  
 Finish - Cement finish, terrazzo, tile, or marble  
**INTERIOR WALLS**  
 Structure - Medium wood studs, single wall  
 Finish - Composition board, beaded lumber, or plywood, painted, tile wainscot in lavatories  
**CEILING** - Wood, composition board, plywood, or acoustical block, painted

**DOORS**  
 Exterior - Good batten, flush veneered, panel or glazed, painted  
 Interior - Good batten, flush veneered, panel or glazed, painted  
**WINDOWS** - Shutters, metal Miami, glazed, painted, display fronts  
**ELECTRICAL**  
 Wiring - Cable with switches and outlets, special outlets for display, switchboard control, illuminated signs  
 Fixtures - Good and ample

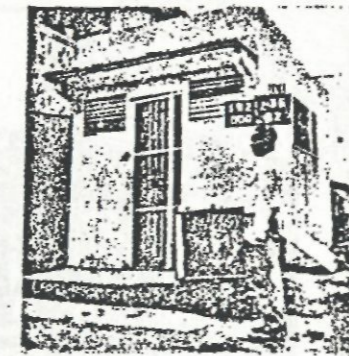
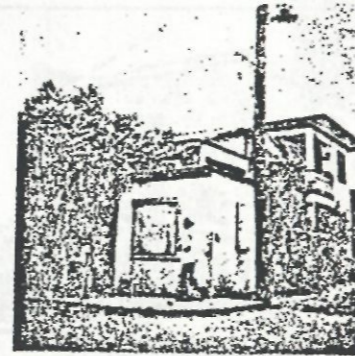
IMPROVEMENTS

BASIC SPECIFICATIONS FOR COMMERCIAL TYPE BUILDINGS

H - Store, Market, Auto Sales, Etc.

Class TWO - Subclass 1

Very small masonry store-type building of inferior materials and workmanship; no partitions or ceilings; interior height up to 10 feet; reinforced concrete floor; no plumbing.



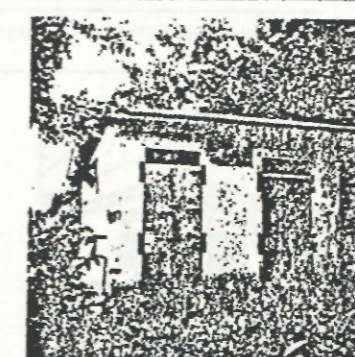
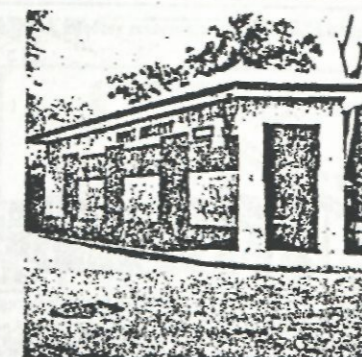
**FOUNDATION** - Continuous reinforced concrete, stone, or brick wall  
**EXTERIOR WALLS**  
 Structure - Reinforced concrete, block with reinforced concrete columns, stone, or brick  
 Finish - Unfinished or rubbed  
**ROOF**  
 Structure - Light, inferior wood rafters  
 Covering - Corrugated galvanized iron or roofing paper

**FLOORS**  
 Structure - Reinforced concrete on fill  
 Finish - Rough  
**INTERIOR WALLS**  
 Structure - None  
 Finish - None  
**CEILING** - None  
**DOORS**  
 Exterior - Inferior batten, unpainted  
 Interior - None

**WINDOWS** - Inferior batten, unpainted  
**ELECTRICAL**  
 Wiring - None or open knob and tube with drop cords  
 Fixtures - None

Class TWO - Subclass 2

Small masonry store-type building of inferior materials and workmanship; one single wood frame partition with some ceiling; ceiling height up to 10 feet; reinforced concrete floor; no plumbing.



**FOUNDATION** - Continuous reinforced concrete, stone, or brick wall  
**EXTERIOR WALLS**  
 Structure - Reinforced concrete, block with reinforced concrete columns, stone or brick  
 Finish - Unfinished or rubbed  
**ROOF**  
 Structure - Light inferior wood rafters  
 Covering - Corrugated galvanized iron or roofing paper

**FLOORS**  
 Structure - Reinforced concrete on fill  
 Finish - Rough or cement finish  
**INTERIOR WALLS**  
 Structure - Light wood studs, less than full height  
 Finish - Composition board or inferior lumber, one side only, unpainted  
**CEILING** - None or may have some wood or composition board, unpainted

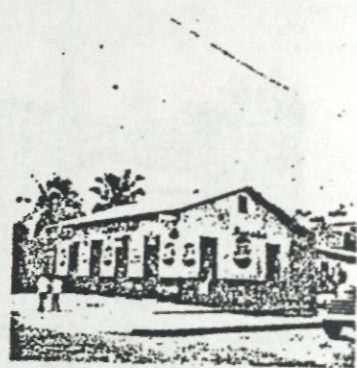
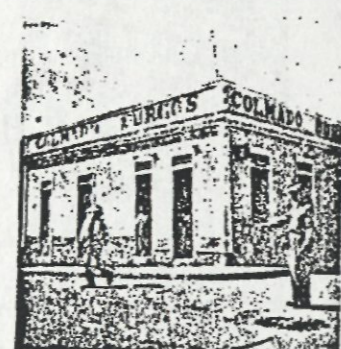
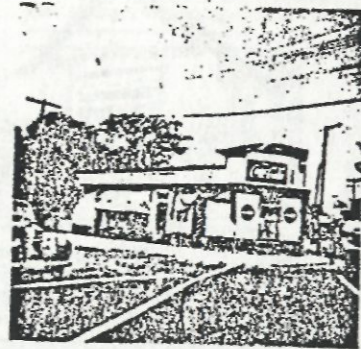
**DOORS**  
 Exterior - Inferior batten, unpainted  
 Interior - None  
**WINDOWS** - Inferior batten, unpainted  
**ELECTRICAL**  
 Wiring - Open knob and tube with drop cords  
 Fixtures - None

BASIC SPECIFICATIONS FOR COMMERCIAL TYPE BUILDINGS

H - Store, Market, Auto Sales, Etc.

Class TWO - Subclass 3

Medium masonry, one- or two-story, store-type building of standard design and good appearance, materials, and workmanship; single wood frame partitions with ceilings; ceiling height from 10 feet to 12 feet; may have tile floors; plumbing with simple fixtures; may have glazed display front.



**FOUNDATION** - Continuous reinforced concrete, stone, or brick wall  
**EXTERIOR WALLS**  
 Structure - Reinforced concrete, block with reinforced concrete columns, stone, or brick  
 Finish - Plastered, water painted  
**ROOF**  
 Structure - Finished medium wood rafters, braced, or wood beam and brick construction  
 Covering - Good corrugated galvanized iron, roofing paper, or brick

**FLOORS**  
 Structure - Reinforced concrete and wood beam and brick construction  
 Finish - Cement finish or tile  
**INTERIOR WALLS**  
 Structure - Medium wood studs  
 Finish - Composition board or good lumber, one side only, painted  
**CEILING** - Wood or composition board, painted

**DOORS**  
 Exterior - Medium batten, glazed, painted  
 Interior - Medium batten, panel, painted  
**WINDOWS** - Medium batten or shutters, painted, may have display front  
**ELECTRICAL**  
 Wiring - Cable with several drop cords, may have switches and outlets  
 Fixtures - None or inferior

Class TWO - Subclass 4

Medium or large masonry, one- or two-story, store-type building, professionally designed and supervised; attractive and distinctive appearance; special and unique features; ornate glazed display front and illuminated signs; very good materials and workmanship; masonry partitions throughout with ceiling height from 12 feet to 14 feet; tile floors throughout; tile wainscot in lavatories.



**FOUNDATION** - Continuous reinforced concrete, stone, or brick wall  
**EXTERIOR WALLS**  
 Structure - Brick, stone, reinforced concrete or block with reinforced concrete columns  
 Finish - Plastered, water painted  
**ROOF**  
 Structure - Heavy wood rafters, well braced, or may have wood beam and brick construction  
 Covering - Extra heavy galvanized iron, composition, or brick

**FLOORS**  
 Structure - Reinforced concrete and wood beam and brick construction  
 Finish - Cement finish, terrazzo, tile, or marble  
**INTERIOR WALLS**  
 Structure - Reinforced concrete, block, or tile  
 Finish - Plastered, ornamental decorated, resin painted  
**CEILING** - Wood, composition board, plywood, or acoustical block, painted

**DOORS**  
 Exterior - Good solid flush, panel or glazed, painted  
 Interior - Good flush veneered, panel, or glazed, painted  
**WINDOWS** - Shutters, metal Miami, glazed, painted, display front  
**ELECTRICAL**  
 Wiring - Conduit in walls, cable elsewhere, switches and outlets, special outlets for display and power switchboard control, illuminated signs  
 Fixtures - Good and ample

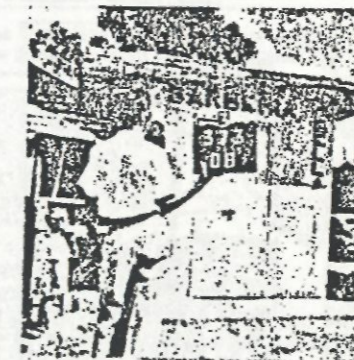
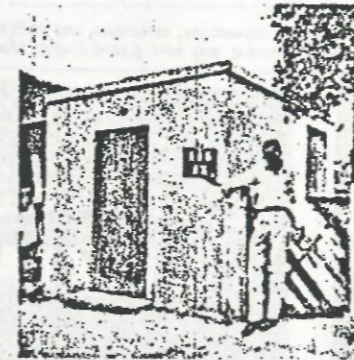
IMPROVEMENTS

BASIC SPECIFICATIONS FOR COMMERCIAL TYPE BUILDINGS

H - Store, Market, Auto Sales, Etc.

Class THREE - Subclass 1

Very small reinforced concrete store-type building of inferior materials and workmanship; no partitions; interior height up to 10 feet; reinforced concrete floor; no plumbing.



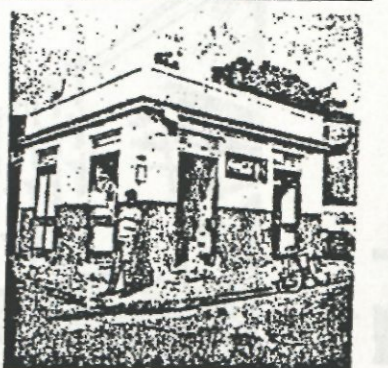
**FOUNDATION** - Continuous reinforced concrete wall  
**EXTERIOR WALLS**  
 Structure - Reinforced concrete or block with reinforced concrete columns  
 Finish - Unfinished or rubbed  
**ROOF**  
 Structure - Reinforced concrete  
 Covering - Cement finish

**FLOORS**  
 Structure - Reinforced concrete on fill  
 Finish - Rough  
**INTERIOR WALLS**  
 Structure - None  
 Finish - None  
**CEILING** - Unfinished or rubbed

**DOORS**  
 Exterior - Inferior batten, unpainted  
 Interior - None  
**WINDOWS** - Inferior batten, unpainted  
**ELECTRICAL**  
 Wiring - None, open knob and tube or cable with drop cord  
 Fixtures - None

Class THREE - Subclass 2

Small reinforced concrete store-type building of inferior materials and workmanship; one partition and ceiling height up to 10 feet; reinforced concrete floor; no plumbing.



**FOUNDATION** - Continuous reinforced concrete wall  
**EXTERIOR WALLS**  
 Structure - Reinforced concrete or block with reinforced concrete columns  
 Finish - Unfinished or rubbed  
**ROOF**  
 Structure - Reinforced concrete  
 Covering - Cement finish

**FLOORS**  
 Structure - Reinforced concrete on fill  
 Finish - Rough or cement finish  
**INTERIOR WALLS**  
 Structure - Reinforced concrete, block, or tile  
 Finish - Unfinished or rubbed  
**CEILING** - Unfinished or rubbed

**DOORS**  
 Exterior - Inferior batten, unpainted  
 Interior - None  
**WINDOWS** - Inferior batten, unpainted  
**ELECTRICAL**  
 Wiring - Open cord and tube or cable with drop cords  
 Fixtures - None

## BASIC SPECIFICATIONS FOR COMMERCIAL TYPE BUILDINGS

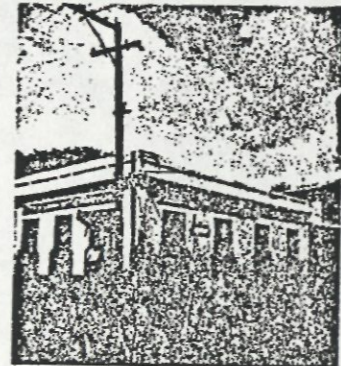
H - Store, Market, Auto Sales, Etc.

Class THREE - Subclass 3

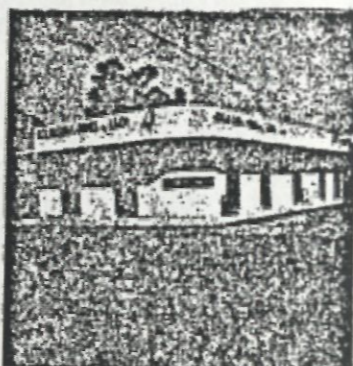
Medium reinforced concrete, one- or two-story, store-type building of standard design and good appearance, materials, and workmanship; partitions and ceiling height from 10 feet to 12 feet; may have tile floors; plumbing with simple fixtures; may have glazed display front.



**FOUNDATION** - Continuous reinforced concrete wall  
**EXTERIOR WALLS**  
 Structure - Reinforced concrete or block with reinforced concrete columns  
 Finish - Plastered, water painted  
**ROOF**  
 Structure - Reinforced concrete  
 Covering - Cement finish, integral



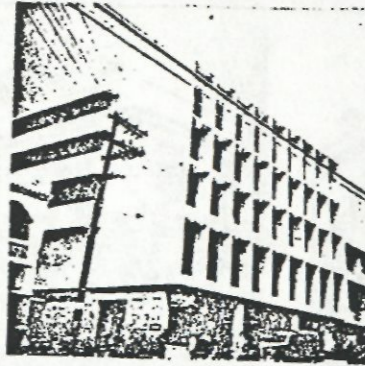
**FLOORS**  
 Structure - Reinforced concrete  
 Finish - Cement finish or tile  
**INTERIOR WALLS**  
 Structure - Reinforced concrete or block, with reinforced concrete columns  
 Finish - Plastered, water painted  
**CEILING** - Plastered, water painted



**DOORS**  
 Exterior - Medium batten, glazed, painted  
 Interior - Medium batten, panel, painted  
**WINDOWS** - Medium batten, painted, may have display front  
**ELECTRICAL**  
 Wiring - Conduit with switches and outlets  
 Fixtures - None

Class THREE - Subclass 4

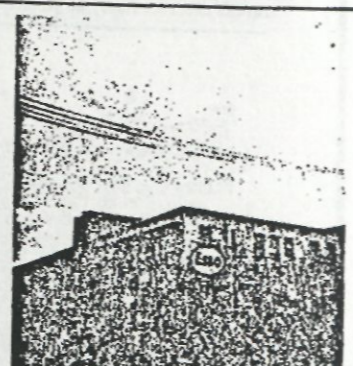
Medium or large reinforced concrete, one or more stories, store-type building, professionally designed and supervised; attractive and distinctive appearance; special and unique features; ornate glazed display front and illuminated signs; very good materials and workmanship; ceiling height from 12 feet to 14 feet; tile floors throughout; tile wainscot in lavatories; may have elevators.



**FOUNDATION** - Continuous reinforced concrete wall  
**EXTERIOR WALLS**  
 Structure - Reinforced concrete or block with reinforced concrete columns  
 Finish - Plastered, water painted  
**ROOF**  
 Structure - Reinforced concrete  
 Covering - Cement finish, integral, or may have tile



**FLOOR**  
 Structure - Reinforced concrete  
 Finish - Cement finish, terrazzo, tile, or marble  
**INTERIOR WALLS**  
 Structure - Reinforced concrete or block, with reinforced concrete columns  
 Finish - Plastered, ornamental decorated, resin painted, tile wainscot in lavatories  
**CEILING** - Plastered, may have acoustical block, resin painted



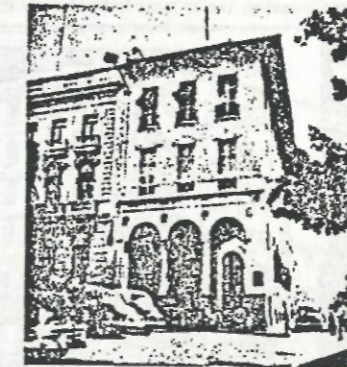
**DOORS**  
 Exterior - Solid flush, panel, or glazed metal frame, painted  
 Interior - Good batten, flush veneered, panel, or glazed, painted  
**WINDOWS** - Shutters, metal Miami, glazed, painted, display front  
**ELECTRICAL**  
 Wiring - Conduit with switches and outlets, special outlets for displays and power; switchboard control; illuminated signs  
 Fixtures - Good and ample

## BASIC SPECIFICATIONS FOR COMMERCIAL TYPE BUILDINGS

J - Office

Class TWO - Subclass 3

Small masonry office building of standard design and fair materials and workmanship; single wood frame partitions with ceilings; may have tile floor; plumbing with simple fixtures.



**FOUNDATION** - Continuous reinforced concrete, stone, or brick wall  
**EXTERIOR WALLS**  
 Structure - Reinforced concrete, block with reinforced concrete columns, stone, or brick  
 Finish - Plastered, water painted  
**ROOF**  
 Structure - Finished medium wood rafters braced, or wood beam and brick construction  
 Covering - Good corrugated galvanized iron, roofing paper, or brick

**FLOORS**  
 Structure - Reinforced concrete or medium wood joists  
 Finish - Cement finish, tile or finished wood flooring  
**INTERIOR WALLS**  
 Structure - Medium wood studs  
 Finish - Composition board or good lumber, one side only, painted  
**CEILING** - Wood or composition board, painted

**DOORS**  
 Exterior - Medium batten or panel, painted  
 Interior - Panel, painted  
**WINDOWS** - Medium batten or shutter, painted  
**ELECTRICAL**  
 Wiring - Conduit in walls, cable elsewhere, switches and outlets  
 Fixtures - Interior

Class TWO - Subclass 4

Medium masonry, two or more story office building, usually professionally designed and supervised; good appearance, materials, and workmanship; masonry partitions throughout; tile floors throughout; two or more lavatories with tile wainscot; usually has elevators.



**FOUNDATION** - Continuous reinforced concrete, stone, or brick wall  
**EXTERIOR WALLS**  
 Structure - Reinforced concrete, block with reinforced concrete columns, stone, or brick  
 Finish - Plastered, water painted  
**ROOF**  
 Structure - Finished heavy wood rafters, well braced, or wood beam and brick construction  
 Covering - Extra heavy corrugated iron, composition, or brick

**FLOORS**  
 Structure - Reinforced concrete  
 Finish - Tile, terrazzo, or marble  
**INTERIOR WALLS**  
 Structure - Reinforced concrete, block or tile  
 Finish - Plastered, resin painted  
**CEILING** - Wood, composition board, or stamped metal, painted

**DOORS**  
 Exterior - Good panel, painted  
 Interior - Good panel, painted  
**WINDOWS** - Shutter, glazed or Miami, painted  
**ELECTRICAL**  
 Wiring - Conduit in concrete walls and cable elsewhere, ceiling lights and switches, and outlets  
 Fixtures - Medium throughout

## PROCEDURES FOR REAL PROPERTY ASSESSMENT IN PUERTO RICO

## BASIC SPECIFICATIONS FOR COMMERCIAL TYPE BUILDINGS

## J - Office

## Class TWO - Subclass 5

Large masonry, two or more story office building, professionally designed and supervised; attractive and distinctive appearance; special and unique features; very good materials and workmanship; two or more lavatories per floor; elevators; air conditioning.



**FOUNDATION** - Continuous reinforced concrete walls

**EXTERIOR WALLS**

Structure - Brick, stone, reinforced concrete, or block with reinforced concrete columns  
Finish - Plastered, water painted

**ROOF**

Structure - Finished wood rafters or wood beam and brick construction  
Covering - Corrugated galvanized iron, composition, or brick

**FLOORS**

Structure - Reinforced concrete on fill  
Finish - Tile, terrazzo, or marble

**INTERIOR WALLS**

Structure - Reinforced concrete, block or tile  
Finish - Plastered or ornamental plaster, painted

**CEILINGS** - Wood, composition board, acoustical tile, or stamped metal, painted

**DOORS**

Exterior - Good batten, flush veneered, panel or glazed, painted  
Interior - Panel or flush veneered, painted

**WINDOWS** - Glazed shutters, glazed metal, metal Miami, or glazed casements, painted

**ELECTRICAL**

Wiring - Conduit in walls, cable elsewhere, switches, outlets, special power and other outlets, switchboard control  
Fixtures - Good throughout

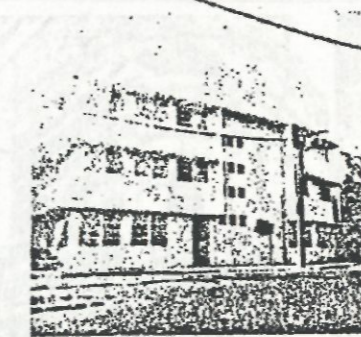
## IMPROVEMENTS

## BASIC SPECIFICATIONS FOR COMMERCIAL TYPE BUILDINGS

## J - Office

## Class THREE - Subclass 3

Small reinforced concrete office building of standard design and fair materials and workmanship; partitions; may have tile floors; plumbing with simple fixtures.



**FOUNDATION** - Continuous reinforced concrete wall

**EXTERIOR WALLS**

Structure - Reinforced concrete or block with reinforced concrete columns  
Finish - Plastered, water painted

**ROOF**

Structure - Reinforced concrete  
Covering - Cement finish, integral

**FLOORS**

Structure - Reinforced concrete  
Finish - Cement or tile

**INTERIOR WALLS**

Structure - Reinforced concrete, block or tile  
Finish - Plastered, water painted

**CEILINGS** - Plastered, water painted

**DOORS**

Exterior - Medium batten, panel, painted

Interior - Panel, painted

**WINDOWS** - Shutter or Miami, painted

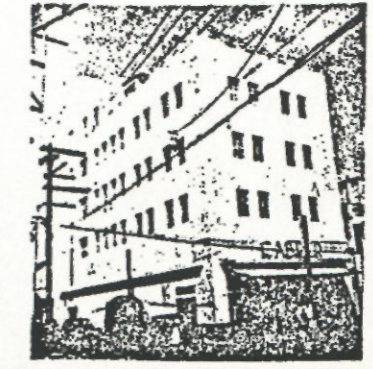
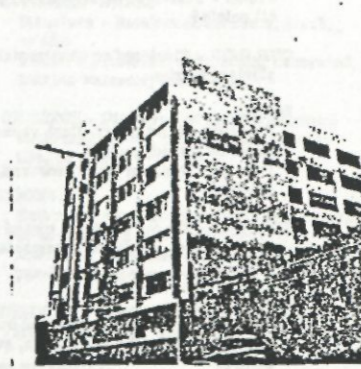
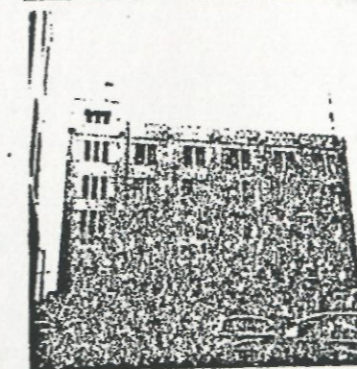
**ELECTRICAL**

Wiring - Conduit with switches and outlets

Fixtures - Interior

## Class THREE - Subclass 4

Medium reinforced concrete, two or more story office building, usually professionally designed and supervised; good appearance, materials and workmanship; tile floors throughout; two or more lavatories with tile wainscot; usually has elevator.



**FOUNDATION** - Continuous reinforced concrete wall

**EXTERIOR WALLS**

Structure - Reinforced concrete or block with reinforced concrete columns  
Finish - Plastered, water painted

**ROOF**

Structure - Reinforced concrete  
Covering - Cement finish, integral or may have tile

**FLOORS**

Structure - Reinforced concrete  
Finish - Tile, terrazzo, or marble

**INTERIOR WALLS**

Structure - Reinforced concrete  
Finish - Plastered, resin painted

**CEILINGS** - Plastered, resin painted

**DOORS**

Exterior - Good panel or flush veneered, painted

Interior - Good panel or flush veneered, painted

**WINDOWS** - Shutters, glazed, or wood Miami, painted

**ELECTRICAL**

Wiring - Conduit, switches, and outlets  
Fixtures - Medium throughout

## PROCEDURES FOR REAL PROPERTY ASSESSMENT IN PUERTO RICO

### BASIC SPECIFICATIONS FOR COMMERCIAL TYPE BUILDINGS

#### J - Office

##### Class THREE - Subclass 5

Large reinforced concrete, two or more story office building, professionally designed and supervised; attractive and distinctive appearance; special and unique features; very good materials and workmanship; two or more lavatories per floor; elevators; air conditioning.



**FOUNDATION** - Continuous reinforced concrete wall

#### EXTERIOR WALLS

Structure - Reinforced concrete or blocks with reinforced concrete columns  
Finish - Plastered, water painted

#### ROOF

Structure - Reinforced concrete  
Covering - Cement finish, integral, or may have tile

#### FLOORS

Structure - Reinforced concrete  
Finish - Tile, terrazzo, or marble

#### INTERIOR WALLS

Structure - Reinforced concrete  
Finish - Plastered or ornamental plaster, oil painted

**CEILINGS** - Plastered or ornamental plaster, painted

#### DOORS

Exterior - Good batten, flush veneered, panel or glazed, painted  
Interior - Panel or flush veneered, painted

**WINDOWS** - Glazed shutters, glazed metal, metal Miami, or glazed casements, painted

#### ELECTRICAL

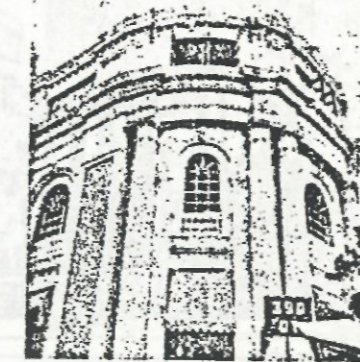
Wiring - Conduit, switches, and outlets, special power and other outlets, switchboard control  
Fixtures - Good throughout

### BASIC SPECIFICATIONS FOR COMMERCIAL TYPE BUILDINGS

#### K - Bank

##### Class TWO - Subclass 5

Large masonry, two or more story bank building; bank may occupy entire building or first floor and basement of an office building; professionally designed and supervised, distinctive and very attractive appearance; very good materials and workmanship; high ceilings and usually has mezzanine floor; spacious customers' areas and ornate lobbies; several luxurious lavatories or rest rooms; large modern vault; freight and passenger elevators; complete air conditioning.



**FOUNDATION** - Heavy reinforced concrete walls

#### EXTERIOR WALLS

Structure - Heavy reinforced concrete  
Finish - Plastered, stucco, painted, or art stone, terra cotta, or masonry veneer

#### ROOF

Structure - Heavy wood or steel frame  
Covering - Corrugated galvanized iron, composition, copper, or tile

#### FLOORS

Structure - Reinforced concrete, may have heavy wood joists  
Finish - Tile, terrazzo, marble, may have some fine wood

#### INTERIOR WALLS

Structure - Reinforced concrete, block, or tile  
Finish - Plastered, ornamental decorated, marble wainscot, metal trim

**CEILINGS** - Plastered on lath, ornamental decorated, coved, very ornate, acoustic tile, or metal

#### DOORS

Exterior - Good quality glazed metal bound or bronze with heavy grill work  
Interior - Glazed metal bound, high quality panel or flush veneered

**WINDOWS** - Good quality heavy glazed metal frame with heavy grill work

#### ELECTRICAL

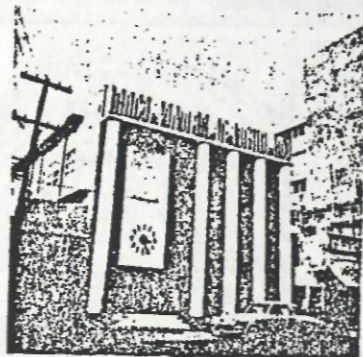
Wiring - Conduit overhead, numerous outlets, special alarm, signal, telephone, and power outlets, switchboard control  
Fixtures - Best, elaborate, and ample

BASIC SPECIFICATIONS FOR COMMERCIAL TYPE BUILDINGS

K - Bank

Class THREE - Subclass 4

Medium reinforced concrete, one or more story bank building; bank may occupy entire building or first floor of an office building; standard design; good appearance, materials, and workmanship; medium height ceilings; may have mezzanine floor; adequate customers' area; two or more lavatories; modern vault; may have air conditioning.



**FOUNDATION** - Continuous reinforced concrete wall  
**EXTERIOR WALLS**  
 Structure - Reinforced concrete  
 Finish - Plastered or stucco, painted, or masonry veneer  
**ROOF**  
 Structure - Reinforced concrete  
 Covering - Cement finish, integral

**FLOORS**  
 Structure - Reinforced concrete  
 Finish - Tile or terrazzo  
**INTERIOR WALLS**  
 Structure - Reinforced concrete, block or tile  
 Finish - Plastered, may have marble wainscot  
**CEILINGS** - Plastered, may have acoustic tile

**DOORS**  
 Exterior - Good glazed metal bound or wood frame, may have grill work  
 Interior - Panel or flush veneered  
**WINDOWS** - Glazed, metal frame, may have grill work  
**ELECTRICAL**  
 Wiring - Conduit overhead, switches and outlets, special alarm, signal and telephone outlets, switchboard control  
 Fixtures - Good, ample

Class THREE - Subclass 5

Large reinforced concrete, two or more story bank building; bank may occupy entire building or first floor and basement of an office building; professionally designed and supervised; distinctive and very attractive appearance; very good materials and workmanship; high ceilings; usually has mezzanine floor; spacious customers' area and ornate lobbies; several luxurious lavatories or rest rooms; large modern vault; freight and passenger elevators; complete air conditioning.



**FOUNDATION** - Heavy reinforced concrete wall  
**EXTERIOR WALLS**  
 Structure - Heavy reinforced concrete  
 Finish - Plastered or stucco, painted, art stone, or terra cotta  
**ROOF**  
 Structure - Reinforced concrete  
 Covering - Cement finish, integral, or tile

**FLOORS**  
 Structure - Reinforced concrete  
 Finish - Tile, terrazzo, marble, or may have some fine wood  
**INTERIOR WALLS**  
 Structure - Reinforced concrete, block, or tile  
 Finish - Plastered, ornamental decorated, marble wainscot, metal trim  
**CEILINGS** - Plastered, ornamental decorated, coved, very ornate, acoustic tile

**DOORS**  
 Exterior - Good quality glazed, metal bound or bronze, heavy grill work  
 Interior - Glazed metal bound good quality panel or flush veneered  
**WINDOWS** - Good quality heavy glazed metal frame, heavy grill work  
**ELECTRICAL**  
 Wiring - Conduit overhead, numerous outlets, special alarm, signal, telephone, and power outlets, switchboard control  
 Fixtures - Best, elaborate, ample

BASIC SPECIFICATIONS FOR COMMERCIAL TYPE BUILDINGS

L - Theater

Class ONE - Subclass 3

Small or medium wood frame theater building of standard design; plain appearance; usually a converted warehouse; good materials and workmanship; ceiling; double wall in lobby and auditorium, single wall elsewhere; no mezzanine; sloping concrete or wood floor; plain wood marquee or none; ticket booth at one side with open lobby; plumbing with simple fixtures; fans and ducts or no cooling system; inferior seats.



**FOUNDATION** - Continuous reinforced concrete, stone or brick wall

**EXTERIOR WALLS**  
 Structure - Medium wood studs  
 Finish - Wood siding, double wall in lobby and auditorium

**ROOF**  
 Structure - Medium wood rafters  
 Covering - Good corrugated galvanized iron or roofing paper

**FLOORS**  
 Structure - Reinforced concrete on fill  
 Finish - Cement finish or wood

**INTERIOR WALLS**  
 Structure - Light wood studs  
 Finish - Wood or composition board, painted

**CEILINGS** - Composition board

**DOORS**  
 Exterior - Iron gates at entrance, medium batten elsewhere  
 Interior - Medium batten or panel

**WINDOWS** - Medium batten or glazed

**ELECTRICAL**  
 Wiring - Cable with switches and outlets  
 Fixtures - Inferior

PROCEDURES FOR REAL PROPERTY ASSESSMENT IN PUERTO RICO

BASIC SPECIFICATIONS FOR COMMERCIAL TYPE BUILDINGS

L - Theater  
Class TWO - Subclass 3

Small or medium masonry theater building of standard design; good appearance, materials, and workmanship; masonry or wood frame partitions with ceilings; sloping concrete floor; well-lighted metal frame marquee; ticket booth inside or at center of entrance; may have mezzanine; two or more lavatories; fans and ducts or may have air conditioning; good seats.



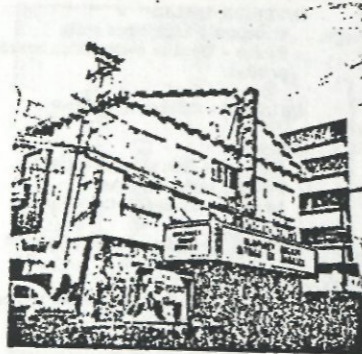
**FOUNDATION** - Continuous reinforced concrete wall  
**EXTERIOR WALLS**  
Structure - Reinforced concrete or reinforced concrete columns with block or tile  
Finish - Plastered, painted  
**ROOF**  
Structure - Medium wood or steel truss  
Covering - Good corrugated galvanized iron or roofing paper

**FLOORS**  
Structure - Reinforced concrete and medium wood joists  
Finish - Cement finish, tile in lobby and lavatories  
**INTERIOR WALLS**  
Structure - Reinforced concrete, block, brick, or medium wood studs  
Finish - Plastered, composition board, or acoustic tile  
**CEILINGS** - Acoustic tile, metal

**DOORS**  
Exterior - Glazed at entrance and good batten elsewhere  
Interior - Panel  
**WINDOWS** - Medium batten or glazed  
**ELECTRICAL**  
Wiring - Conduit and cable with switches and outlets, switchboard control  
Fixtures - Good

Class TWO - Subclass 4

Large masonry theater building, professionally designed and supervised; elaborate and attractive appearance; very good materials and workmanship; masonry partitions; high, auditorium type ceiling; spacious and ornate lobby; one or more mezzanines; sloping concrete floor; elaborate, deep, well-lighted metal frame marquee; glazed ticket booth; two or more luxurious lavatories or rest rooms per floor; air conditioning; superior seats.



**FOUNDATION** - Continuous reinforced concrete wall  
**EXTERIOR WALLS**  
Structure - Reinforced concrete or reinforced concrete columns with block or tile  
Finish - Plastered, ornamental front, painted  
**ROOF**  
Structure - Heavy wood or medium steel truss  
Covering - Good corrugated galvanized iron or composition

**FLOORS**  
Structure - Reinforced concrete and medium steel joists  
Finish - Cement finish, tile, or terrazzo in lobby and lavatories  
**INTERIOR WALLS**  
Structure - Reinforced concrete, block, or tile  
Finish - Plastered, cast plastered, acoustic tile wainscot, tile in lavatories  
**CEILINGS** - Plastered on lath, cast plastered, metal, or acoustic tile

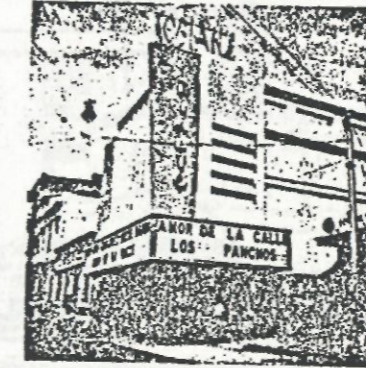
**DOORS**  
Exterior - Good quality glazed on heavy metal frames at entrance, metal or metal bound elsewhere  
Interior - Good panel, metal bound, or flush veneered  
**WINDOWS** - Glazed, metal frame  
**ELECTRICAL**  
Wiring - Conduit with switches and outlets, switchboard control  
Fixtures - Elaborate, ample

IMPROVEMENTS

BASIC SPECIFICATIONS FOR COMMERCIAL TYPE BUILDINGS

L - Theater  
Class THREE - Subclass 3

Small or medium reinforced concrete theater building of standard design; good appearance, materials, and workmanship; reinforced concrete partitions with ceilings; sloping reinforced concrete floor; well-lighted metal frame marquee; ticket booth inside or at center of entrance; may have mezzanine; two or more lavatories; fans and ducts, or may have air conditioning; good seats.



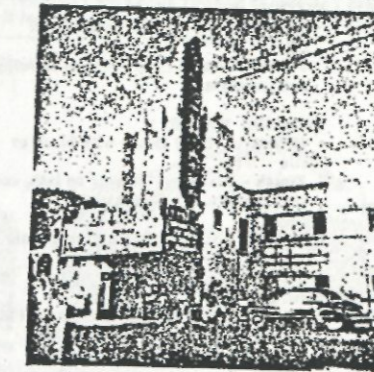
**FOUNDATION** - Continuous reinforced concrete wall  
**EXTERIOR WALLS**  
Structure - Reinforced concrete wall or reinforced concrete columns with block or tile  
Finish - Plastered, painted  
**ROOF**  
Structure - Reinforced concrete  
Covering - Cement finish, integral

**FLOORS**  
Structure - Reinforced concrete on fill  
Finish - Cement finish and tile in lobby and lavatories  
**INTERIOR WALLS**  
Structure - Reinforced concrete block, or tile  
Finish - Plastered, acoustic tile, tile in lavatories

**DOORS**  
Exterior - Glazed with metal frame at entrance, good batten or panel elsewhere  
Interior - Panel or flush veneered  
**WINDOWS** - Glazed metal frame  
**ELECTRICAL**  
Wiring - Conduit with switches and outlets, switchboard control  
Fixtures - Good, ample

Class THREE - Subclass 4

Large reinforced concrete theater building, professionally designed and supervised; elaborate and attractive appearance; very good materials and workmanship; masonry partitions; high auditorium type ceilings; sloping concrete floor; elaborate, deep, well-lighted metal frame marquee; spacious lobby; one or more mezzanines; glazed ticket booth; two or more luxurious lavatories or rest rooms per floor; air conditioning; superior seats.



**FOUNDATION** - Continuous reinforced concrete wall  
**EXTERIOR WALLS**  
Structure - Reinforced concrete or reinforced concrete columns with block or tile  
Finish - Plastered, ornamental front, painted  
**ROOF**  
Structure - Reinforced concrete or steel truss with reinforced concrete slab  
Covering - Cement finish, integral or tile

**FLOORS**  
Structure - Reinforced concrete  
Finish - Cement finish and tile or terrazzo in lobby and lavatories  
**INTERIOR WALLS**  
Structure - Reinforced concrete, block, or tile  
Finish - Plastered, cast plastered, ornamental or acoustic tile, tile in lavatories  
**CEILINGS** - Plastered, cast plastered, coved, or acoustic tile

**DOORS**  
Exterior - Good quality glazed on heavy metal frames at entrance, metal or metal bound elsewhere  
Interior - Good panel, metal bound or flush veneered  
**WINDOWS** - Glazed, metal frame  
**ELECTRICAL**  
Wiring - Conduit with switches and outlets, switchboard control  
Fixtures - Elaborate, ample

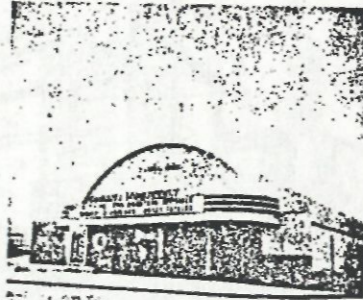
## PROCEDURES FOR REAL PROPERTY ASSESSMENT IN PUERTO RICO

## BASIC SPECIFICATIONS FOR COMMERCIAL TYPE BUILDINGS

L - Theater

Class FOUR - Subclass 3

Small or medium steel frame theater building of standard design; good appearance, materials, and workmanship; partitions with ceilings; sloping reinforced concrete floor; well-lighted metal frame marquee; ticket booth inside or at center of entrance; may have mezzanine; two or more lavatories; fans and ducts or may have air conditioning; good seats.



**FOUNDATION** - Continuous reinforced concrete wall

**EXTERIOR WALLS**

Structure - Medium steel frame  
Finish - Reinforced concrete, block or tile curtain walls, plastered, rubbed, or unfinished

**ROOF**

Structure - Medium rigid frame or steel truss  
Covering - Corrugated galvanized iron or reinforced concrete slab, integral finished

**FLOORS**

Structure - Reinforced concrete on fill  
Finish - Cement finish and tile in lobby and lavatories

**INTERIOR WALLS**

Structure - Steel frame with block or tile  
Finish - Plastered, plaster on lath, acoustic tile, painted, tile in lavatories

**CEILINGS** - Acoustic tile or composition board

**DOORS**

Exterior - Glazed with metal frame at entrance, metal covered elsewhere  
Interior - Panel or flush veneered

**WINDOWS** - Glazed metal frame

**ELECTRICAL**

Wiring - Conduit with switches and outlets, switchboard control  
Fixtures - Good, ample

## IMPROVEMENTS

## BASIC SPECIFICATIONS FOR COMMERCIAL TYPE BUILDINGS

M - Warehouse

Class ONE - Subclass 2

Small or medium wood frame shell-type, one-story warehouse building of inferior materials and workmanship; single walls without partitions or ceilings; ceiling height up to 12 feet; reinforced concrete floor; no plumbing.



**FOUNDATION** - Continuous reinforced concrete, stone, or brick wall

**EXTERIOR WALLS**

Structure - Light, inferior wood studs, single wall  
Finish - Corrugated galvanized iron, boards, or roofing paper

**ROOF**

Structure - Light, inferior wood rafters  
Covering - Corrugated galvanized iron or roofing paper

**FLOORS**

Structure - Reinforced concrete on fill

**INTERIOR WALLS**

Structure - None  
Finish - None  
CEILINGS - None

**DOORS**

Exterior - Inferior wood siding or batten, unpainted

Interior - None

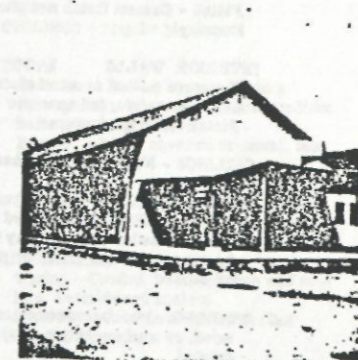
**WINDOWS** - Inferior batten or none

**ELECTRICAL**

Wiring - None or open knob and tube with drop cord  
Fixtures - None

Class ONE - Subclass 3

Medium wood frame shell-type, one- or two-story warehouse building of standard design; good materials and workmanship; single walls; may have partitions and some ceilings; wall heights of 12 feet or more; reinforced concrete floor in first story; plumbing with simple fixtures.



**FOUNDATION** - Continuous reinforced concrete, stone, or brick wall

**EXTERIOR WALLS**

Structure - Medium wood studs, single wall  
Finish - Corrugated galvanized iron or wood siding, painted

**ROOF**

Structure - Medium wood rafters  
Covering - Good corrugated galvanized iron or roofing paper

**FLOORS**

Structure - Reinforced concrete on fill and heavy wood joists  
Finish - Cement finish and plank flooring

**INTERIOR WALLS**

Structure - None or wood studs  
Finish - None or wood or composition board, may be painted

**CEILINGS** - None except composition board in office space

**DOORS**

Exterior - Sliding wood and medium batten, may be painted  
Interior - Medium batten or panel, may be painted

**WINDOWS** - Metal covered wood, glazed, wood or medium batten, may be painted

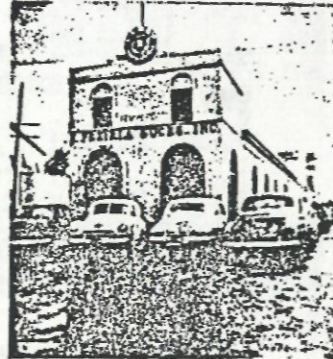
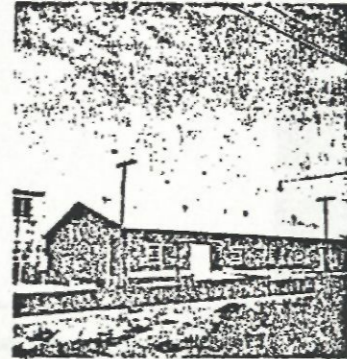
**ELECTRICAL**

Wiring - Cable with switches and outlets, switchboard control  
Fixtures - Inferior

## BASIC SPECIFICATIONS FOR COMMERCIAL TYPE BUILDINGS

M - Warehouse  
Class TWO - Subclass 3

Medium or large masonry shell-type, one or more story warehouse building of standard design; good materials and workmanship; may have partitions and some ceilings; wall heights of 12 feet or more; reinforced concrete floor on first story; plumbing with simple fixtures; may have freight elevator.



**FOUNDATION** - Heavy continuous reinforced concrete, stone, or brick wall

**EXTERIOR WALLS**

Structure - Reinforced concrete, block with reinforced concrete columns, stone, or brick  
Finish - Plastered, water painted

**ROOF**

Structure - Medium wood rafters or wood beam and brick construction  
Covering - Good corrugated galvanized iron, paper, or brick

**FLOORS**

Structure - Reinforced concrete and heavy wood joists  
Finish - Cement finish and plank flooring

**INTERIOR WALLS**

Structure - None or wood studs, block, brick, or reinforced concrete  
Finish - May be plastered

**CEILINGS** - None or exposed beams**DOORS**

Exterior - Sliding corrugated galvanized iron and medium batten, may be painted  
Interior - Medium batten or panel, may be painted

**WINDOWS** - Metal covered wood, glazed wood, or medium batten, may be painted

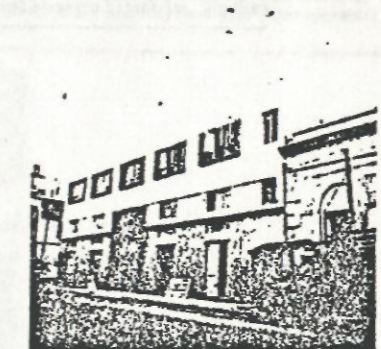
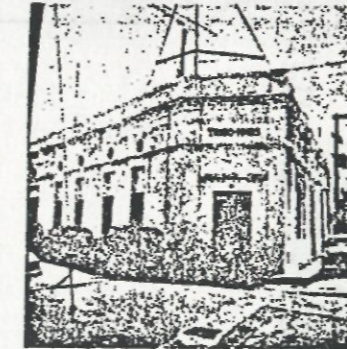
**ELECTRICAL**

Wiring - Cable with switches and outlets, switchboard control  
Fixtures - Inferior

## BASIC SPECIFICATIONS FOR COMMERCIAL TYPE BUILDINGS

M - Warehouse  
Class THREE - Subclass 3

Medium or large reinforced concrete shell-type, one or more story warehouse building of standard design; good materials and workmanship; may have partitions; wall height of 12 feet or more; reinforced concrete floors; plumbing with simple fixtures.



**FOUNDATION** - Heavy continuous reinforced concrete wall

**EXTERIOR WALLS**

Structure - Reinforced concrete or block with reinforced concrete columns  
Finish - Plastered

**ROOF**

Structure - Reinforced concrete or open joists  
Covering - Cement finish, integral, or built up

**FLOORS**

Structure - Reinforced concrete  
Finish - Cement finish

**INTERIOR WALLS**

Structure - None or block or tile  
Finish - May be plastered

**CEILINGS** - May be plastered**DOORS**

Exterior - Rolling type or sliding corrugated galvanized iron and medium batten, may be painted  
Interior - Metal covered or panel, may be painted

**WINDOWS** - Metal covered wood, glazed wood or glazed steel, painted

**ELECTRICAL**

Wiring - Conduit with switches and outlets, switchboard control  
Fixtures - Good in office space but inferior elsewhere

PROCEDURES FOR REAL PROPERTY ASSESSMENT IN PUERTO RICO

BASIC SPECIFICATIONS FOR COMMERCIAL TYPE BUILDINGS

M - Warehouse

Class FOUR - Subclass 1

Medium light steel frame shell-type, one-story warehouse building of standard design; fair materials and workmanship; no partitions or ceilings; reinforced concrete floor; steel frame may be prefabricated; minimum interior height 12 feet or more.



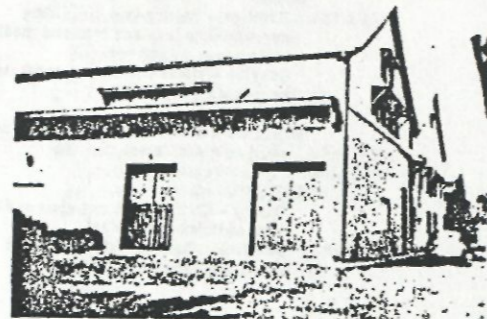
**FOUNDATION** - Reinforced concrete wall  
**EXTERIOR WALLS**  
 Structure - Light steel frame  
 Finish - Corrugated galvanized iron  
**ROOF**  
 Structure - Light rigid frame or steel truss  
 Covering - Corrugated galvanized iron

**FLOORS**  
 Structure - Reinforced concrete on fill  
 Finish - Cement finish  
**INTERIOR WALLS**  
 Structure - None  
 Finish - None  
**CEILINGS** - None

**DOORS**  
 Exterior - Sliding corrugated galvanized iron  
 Interior - None  
**WINDOWS** - None or glazed steel frame or metal covered wood  
**ELECTRICAL**  
 Wiring - Open knob and tube overhead with switches and few outlets  
 Fixtures - None

Class FOUR - Subclass 2

Medium large medium-weight steel frame shell-type, one-story warehouse building of standard design; good materials and workmanship; no partitions or ceilings; reinforced concrete floor; plumbing with simple fixtures; interior height 12 feet or more.



**FOUNDATION** - Medium reinforced concrete wall  
**EXTERIOR WALLS**  
 Structure - Medium steel frame  
 Finish - Asbestos siding, may have block or tile curtain wall, plastered or unfinished, unpainted  
**ROOF**  
 Structure - Medium rigid frame or steel truss  
 Covering - Corrugated galvanized iron

**FLOORS**  
 Structure - Reinforced concrete on fill  
 Finish - Cement finish  
**INTERIOR WALLS**  
 Structure - Steel frame, block, or tile  
 Finish - Plaster board or plastered, painted  
**CEILINGS** - None except composition board in office space

**DOORS**  
 Exterior - Sliding steel frame with galvanized iron  
 Interior - Panel or metal covered  
**WINDOWS** - Glazed, steel frame  
**ELECTRICAL**  
 Wiring - Open knob and tube or armored overhead with switches and outlets, switchboard control  
 Fixtures - None or inferior

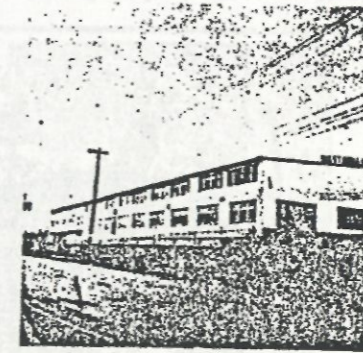
IMPROVEMENTS

BASIC SPECIFICATIONS FOR COMMERCIAL TYPE BUILDINGS

M - Warehouse

Class FOUR - Subclass 3

Large heavy steel frame shell-type, one or more story warehouse building of standard design; very good materials and workmanship; may have partitions and some ceilings; reinforced concrete floors; one lavatory per floor; freight elevators and may have passenger elevator; interior story heights 12 feet or more.



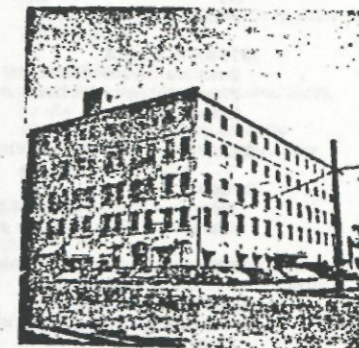
**FOUNDATION** - Heavy reinforced concrete wall  
**EXTERIOR WALLS**  
 Structure - Heavy steel frame  
 Finish - Reinforced concrete, block, or tile curtain wall, rubbed or plastered, water painted  
**ROOF**  
 Structure - Heavy rigid frame or steel truss  
 Covering - Corrugated galvanized iron or reinforced concrete slab, integral finished

**FLOORS**  
 Structure - Reinforced concrete on fill and heavy open steel joists with reinforced concrete slab  
 Finish - Cement finish and tile in office space  
**INTERIOR WALLS**  
 Structure - Steel frame, block, or tile  
 Finish - Plaster board or plastered on lath, plaster painted  
**CEILINGS** - None except plaster board or acoustic tile in office space

**DOORS**  
 Exterior - Sliding steel frame with corrugated galvanized iron or rolling type, and metal covered batten  
 Interior - Panel or metal covered  
**WINDOWS** - Glazed steel frame  
**ELECTRICAL**  
 Wiring - Armored cable or conduit with switches and outlets, special alarm and telephone outlets, switchboard control  
 Fixtures - Good in office space but inferior otherwise

Class FOUR - Subclass 4

Large heavy steel frame, two or more story warehouse building, professionally designed and supervised; very good materials and workmanship; partitions and ceilings; reinforced concrete floors; one or more lavatories per floor; interior heights 14 feet or more; freight and passenger elevators.



**FOUNDATION** - Heavy reinforced concrete wall  
**EXTERIOR WALLS**  
 Structure - Heavy steel frame  
 Finish - Reinforced concrete, block or tile curtain wall, plastered, painted  
**ROOF**  
 Structure - Heavy rigid frame or steel truss with reinforced concrete slab  
 Covering - Cement finish integral or tile

**FLOORS**  
 Structure - Reinforced concrete on fill and heavy open steel joists with reinforced concrete slab  
 Finish - Cement finish and tile  
**INTERIOR WALLS**  
 Structure - Steel frame, block, or tile  
 Finish - Plaster board or plastered on lath, plaster painted  
**CEILINGS** - Plaster board, acoustical tile, or plaster on lath, painted

**DOORS**  
 Exterior - Sliding steel frame or rolling type and solid flush, panel or glazed metal frame  
 Interior - Panel, solid flush or metal covered  
**WINDOWS** - Glazed, steel frame  
**ELECTRICAL**  
 Wiring - Armored cable with switches and outlets, special alarm and telephone outlets, switchboard control  
 Fixtures - Good in office space but inferior elsewhere

## BASIC SPECIFICATIONS FOR COMMERCIAL TYPE BUILDINGS

P - Gasoline Station

Class ONE - Subclass 3

Small or medium wood frame, one-story gasoline station building of standard design; fair materials and workmanship; single walls with ceilings; may have partitions; reinforced concrete floors; may have plumbing with simple fixtures; spaces for greasing and washing usually in separate buildings.



**FOUNDATION** - Continuous reinforced concrete, stone, or brick wall

**EXTERIOR WALLS**

Structure - Medium wood studs, single wall  
Finish - Wood siding, painted

**ROOF**

Structure - Medium wood rafters, braced  
Covering - Corrugated galvanized iron or composition roofing

**FLOORS**

Structure - Reinforced concrete on fill  
Finish - Cement finish

**INTERIOR WALLS**

Structure - Light wood studs  
Finish - Composition board or finished lumber, painted

**CEILINGS** - Wood or composition board

**DOORS**

Exterior - Medium batten or panel  
Interior - Medium batten or panel

**WINDOWS** - Medium batten, painted

**ELECTRICAL**

Wiring - One knob and tube with drop cords  
Fixtures - None

## IMPROVEMENTS

## BASIC SPECIFICATIONS FOR COMMERCIAL TYPE BUILDINGS

P - Gasoline Station

Class TWO - Subclass 4

Medium or large masonry, one-story gasoline station building, usually professionally designed and supervised, good appearance, materials, and workmanship; reinforced concrete floors; usually has tile floors in office and lavatories and may have tile wainscot in spaces for greasing and washing; flood lighting and illuminated signs.



**FOUNDATION** - Continuous reinforced concrete wall

**EXTERIOR WALLS**

Structure - Reinforced concrete or block with reinforced concrete columns  
Finish - Plastered, oil painted

**ROOF**

Structure - Heavy wood rafters  
Covering - Good corrugated galvanized iron or composition

**FLOORS**

Structure - Reinforced concrete on fill  
Finish - Cement finish and tile in office and lavatories

**INTERIOR WALLS**

Structure - Reinforced concrete, block, or tile  
Finish - Plastered, may have tile wainscot in lavatories and spaces for greasing and washing

**CEILINGS** - Wood

**DOORS**

Exterior - Good panel or glazed, painted metal roll type for spaces for greasing and washing  
Interior - Good panel

**WINDOWS** - Shutters glazed, painted, may have display fronts

**ELECTRICAL**

Wiring - Conduit in walls, cable with switches and outlets  
Fixtures - Good

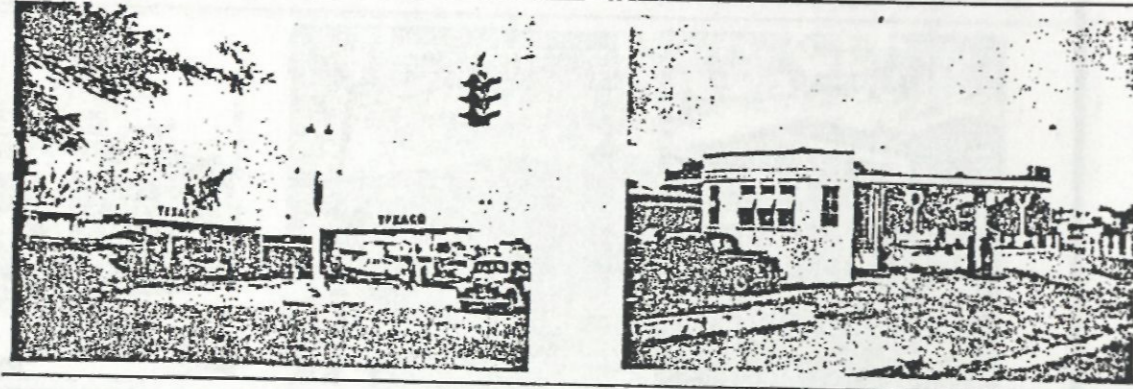
PROCEDURES FOR REAL PROPERTY ASSESSMENT IN PUERTO RICO

BASIC SPECIFICATIONS FOR COMMERCIAL TYPE BUILDINGS

P - Gasoline Station

Class THREE - Subclass 4

Medium or large reinforced concrete, one-story gasoline station building, usually professionally designed and supervised; good appearance, materials, and workmanship; usually has tile floors in office and lavatories and tile wainscot in spaces for greasing and washing; flood lighting and illuminated signs.



**FOUNDATION** - Continuous reinforced concrete wall

**EXTERIOR WALLS**

Structure - Reinforced concrete or block with reinforced concrete columns  
Finish - Plastered, oil painted

**ROOF**

Structure - Reinforced concrete  
Covering - Cement finish, integral

**FLOORS**

Structure - Reinforced concrete on fill  
Finish - Cement, tile in office and lavatories

**INTERIOR WALLS**

Structure - Reinforced concrete, block, or tile  
Finish - Plastered, may have tile wainscot in spaces for greasing and washing

**CEILINGS** - Plastered, water painted

**DOORS**

Exterior - Good panel or glazed, painted, metal roll type for spaces for greasing and washing  
Interior - Panel, painted

**WINDOWS** - Aluminum Miami or glazed, may have display fronts

**ELECTRICAL**

Wiring - Conduit with switches and outlets, switchboard control  
Fixtures - Good

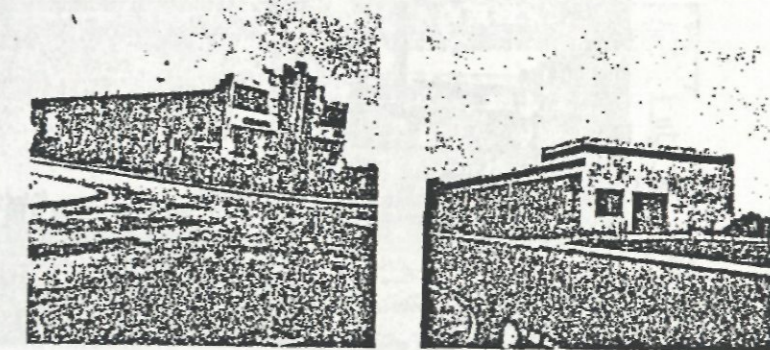
IMPROVEMENTS

BASIC SPECIFICATIONS FOR INDUSTRIAL TYPE BUILDINGS

E - Factory

Class TWO - Subclass 3

Medium or large masonry shell-type, one or more story factory building of standard design; good materials and workmanship; may have partitions and some ceilings; wall heights of 12 feet or more; reinforced concrete floor in first story; plumbing with simple fixtures, may have freight elevator.



**FOUNDATION** - Heavy continuous reinforced concrete, stone, or brick wall

**EXTERIOR WALLS**

Structure - Reinforced concrete, block with reinforced concrete columns, stone, or brick  
Finish - Plastered, water painted

**ROOF**

Structure - Medium wood rafters or wood beam and brick construction  
Covering - Good corrugated galvanized iron, paper, or brick

**FLOORS**

Structure - Reinforced concrete and heavy wood joists  
Finish - Cement finish and plank flooring

**INTERIOR WALLS**

Structure - None or wood studs, block, brick, or reinforced concrete  
Finish - May be plastered

**CEILINGS** - None or exposed beams

**DOORS**

Exterior - Sliding corrugated galvanized iron and medium batten, may be painted  
Interior - Medium batten or panel, may be painted

**WINDOWS** - Metal covered wood, glazed wood, or medium batten, may be painted

**ELECTRICAL**

Wiring - Cable with switches and outlets, switchboard control  
Fixtures - Interior

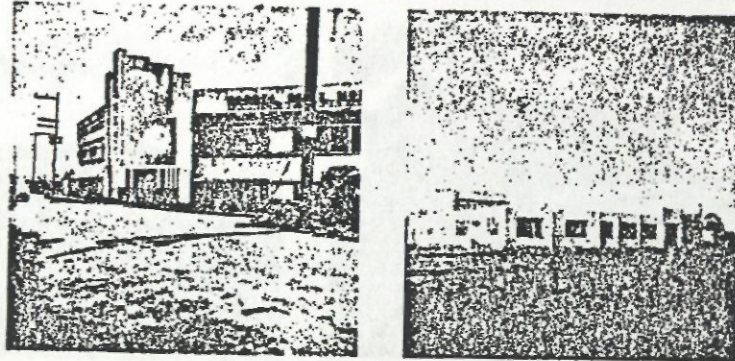
## PROCEDURES FOR REAL PROPERTY ASSESSMENT IN PUERTO RICO

## BASIC SPECIFICATIONS FOR INDUSTRIAL TYPE BUILDINGS

## S - Factory

## Class THREE - Subclass 3

Medium or large reinforced concrete shell-type, one or more story factory building of standard design; good materials and workmanship; may have partitions; wall height of 12 feet or more; reinforced concrete floors; plumbing with simple fixtures.



**FOUNDATION** - Heavy continuous reinforced concrete wall

**EXTERIOR WALLS**

Structure - Reinforced concrete or block with reinforced concrete columns  
Finish - Plastered

**ROOF**

Structure - Reinforced concrete or open joists  
Covering - Cement finish, integral, or built up

**FLOORS**

Structure - Reinforced concrete  
Finish - Cement finish

**INTERIOR WALLS**

Structure - None or block or tile  
Finish - May be plastered

**CEILINGS** - May be plastered

**DOORS**

Exterior - Rolling type or sliding corrugated galvanized iron and medium batten, may be painted  
Interior - Metal covered or panel, may be painted

**WINDOWS** - Metal covered wood, glazed wood or glazed steel, painted

**ELECTRICAL**

Wiring - Conduit with switches and outlets, switchboard control  
Fixtures - Good in office space but inferior elsewhere

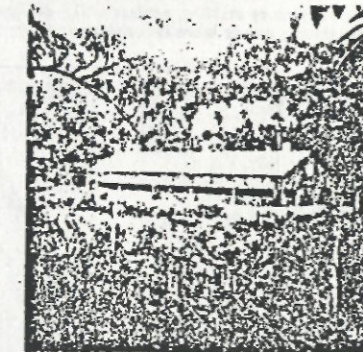
## IMPROVEMENTS

## BASIC SPECIFICATIONS FOR INDUSTRIAL TYPE BUILDINGS

## S - Factory

## Class FOUR - Subclass 2

Medium large medium-weight steel frame shell-type, one-story factory building of standard design; good materials and workmanship; no partitions or ceilings; reinforced concrete floor; plumbing with simple fixtures; interior height of 12 feet or more.



**FOUNDATION** - Medium reinforced concrete wall

**EXTERIOR WALLS**

Structure - Medium steel frame  
Finish - Asbestos siding, may have block or tile curtain wall, plastered or unfinished, unpainted

**ROOF**

Structure - Medium rigid frame or steel truss  
Covering - Corrugated galvanized iron

**FLOORS**

Structure - Reinforced concrete on fill  
Finish - Cement finish

**INTERIOR WALLS**

Structure - Steel frame, block or tile  
Finish - Plaster board or plastered, painted

**CEILING** - None except composition board in office space

**DOORS**

Exterior - Sliding steel frame with galvanized iron

Interior - Panel or metal covered

**WINDOWS** - Glazed, steel frame

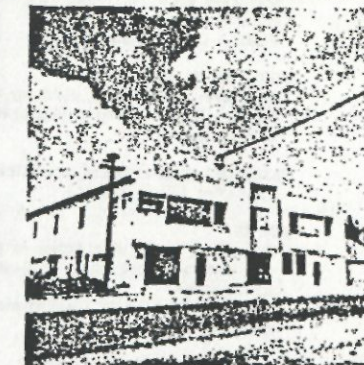
**ELECTRICAL**

Wiring - Open knob and tube or armored overhead with switches and outlets, switchboard control

Fixtures - None or inferior

## Class FOUR - Subclass 3

Large heavy steel frame shell-type, one or more story factory building of standard design; very good materials and workmanship; may have partitions and some ceilings; reinforced concrete floors; one lavatory per floor; freight elevators and may have passenger elevators, interior story heights 12 feet or more.



**FOUNDATION** - Heavy reinforced concrete wall

**EXTERIOR WALLS**

Structure - Heavy steel frame  
Finish - Reinforced concrete, block, or tile curtain wall, rubbed or plastered, water painted

**ROOF**

Structure - Heavy rigid frame or steel truss  
Covering - Corrugated galvanized iron or reinforced concrete slab, integral finished

**FLOORS**

Structure - Reinforced concrete on fill and heavy open steel joists with reinforced concrete slab  
Finish - Cement finish and tile in office space

**INTERIOR WALLS**

Structure - Steel frame, block, or tile  
Finish - Plaster board or plastered on lath, plaster painted

**CEILINGS** - None except plaster board or acoustic tile in office space

**DOORS**

Exterior - Sliding steel frame with corrugated galvanized iron or rolling type, and metal covered batten

Interior - Panel or metal covered

**WINDOWS** - Glazed steel frame

**ELECTRICAL**

Wiring - Armored cable or conduit with switches and outlets, special alarm and telephone outlets, switchboard control

Fixtures - Good in office space but inferior otherwise

## PROCEDURES FOR REAL PROPERTY ASSESSMENT IN PUERTO RICO

## BASIC SPECIFICATIONS FOR INDUSTRIAL TYPE BUILDINGS

S - Factory

Class FOUR - Subclass 4

Large heavy steel frame, two or more story factory building, professionally designed and supervised; very good materials and workmanship; partitions and ceilings; reinforced concrete floors; one or more lavatories per floor; interior heights 14 feet or more; freight and passenger elevators.



**FOUNDATION** - Heavy reinforced concrete wall

**EXTERIOR WALLS**

Structure - Heavy steel frame  
Finish - Reinforced concrete, block or tile curtain wall, plastered, painted

**ROOF**

Structure - Heavy rigid frame or steel truss with reinforced concrete slab  
Covering - Cement finish integral or tile

**FLOORS**

Structure - Reinforced concrete on fill and heavy open steel joists with reinforced concrete slab  
Finish - Cement finish and tile

**INTERIOR WALLS**

Structure - Steel frame, block, or tile  
Finish - Plaster board or plastered on lath, plaster painted

**CEILINGS** - Plaster board, acoustical tile, or plaster on lath, painted

**DOORS**

Exterior - Sliding steel frame or rolling type and solid flush, panel or glazed metal frame  
Interior - Panel, solid flush or metal covered

**WINDOWS** - Glazed, steel frame

**ELECTRICAL**

Wiring - Armored cable with switches and outlets, special alarm and telephone outlets, switchboard control  
Fixtures - Good in office space but inferior elsewhere

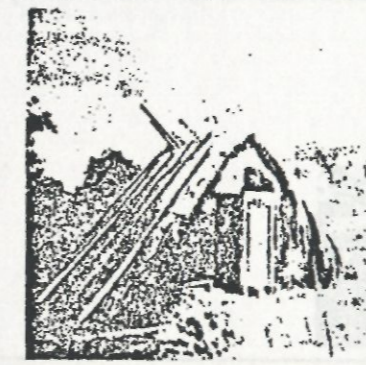
## IMPROVEMENTS

## BASIC SPECIFICATIONS FOR AGRICULTURAL TYPE BUILDINGS

BT - Storm Shelter

Subclass 1

Small wood frame storm shelter of inferior materials and workmanship; light frame, straw covered; earth or wood floor.



**WALLS AND ROOF** - Straw on inferior wood rafters

**FLOOR** - Earth or wood on earth

**DOOR** - Straw or batten

Subclass 2

Small wood frame shelter of fair materials and workmanship; medium frame corrugated galvanized iron covered; wood or concrete floor.



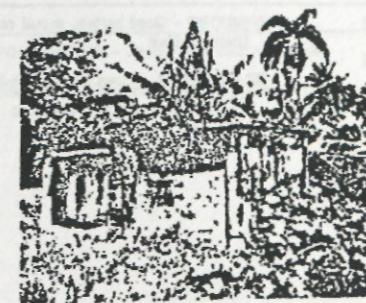
**WALLS AND ROOF** - Corrugated galvanized iron on medium wood rafters and studs

**FLOOR** - Wood or reinforced concrete on fill

**DOOR** - Galvanized iron covered or batten

Subclass 3

Small or medium reinforced concrete storm shelter of good materials and workmanship; reinforced concrete floor.



**WALLS AND ROOF** - Reinforced concrete

**FLOOR** - Reinforced concrete on fill

**DOOR** - Batten

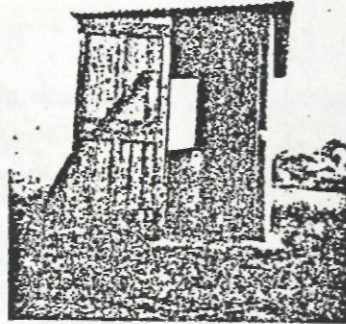
PROCEDURES FOR REAL PROPERTY ASSESSMENT IN PUERTO RICO

BASIC SPECIFICATIONS FOR AGRICULTURAL TYPE BUILDINGS

CB - Pump House

Subclass 1

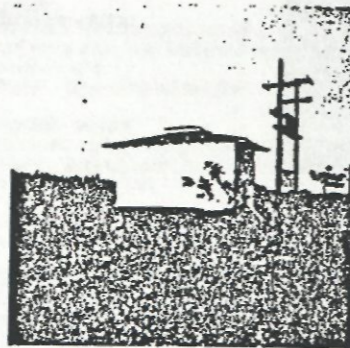
Very small wood frame pump house of inferior materials and workmanship; single wall without partitions; reinforced concrete floor.



FOUNDATION - Reinforced concrete wall	ROOF - Corrugated galvanized iron on light, inferior wood rafters	WINDOWS - Inferior batten or corrugated galvanized iron over wood frame
WALLS - Corrugated galvanized iron on light, inferior wood studs	FLOOR - Reinforced concrete on fill	ELECTRICAL - Open knob and tube overhead
	DOORS - Inferior batten or corrugated galvanized iron over wood frame	

Subclass 2

Small wood frame pump house of good materials and workmanship; single wall without partitions; reinforced concrete floor.



FOUNDATION - Reinforced concrete wall	FLOOR - Reinforced concrete on fill	WINDOWS - Good batten, metal covered, or fixed shutter
WALLS - Wood siding on medium wood studs	DOORS - Good batten, metal covered	ELECTRICAL - Open knob and tube overhead or conduit
ROOF - Corrugated galvanized iron on medium wood rafters or roofing paper on closed sheathing		

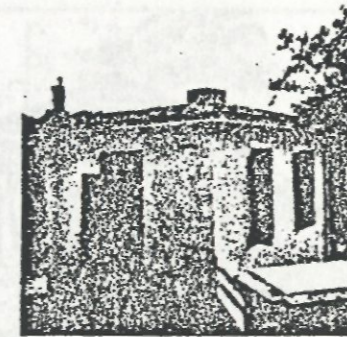
IMPROVEMENTS

BASIC SPECIFICATIONS FOR AGRICULTURAL TYPE BUILDINGS

CB - Pump House

Subclass 3

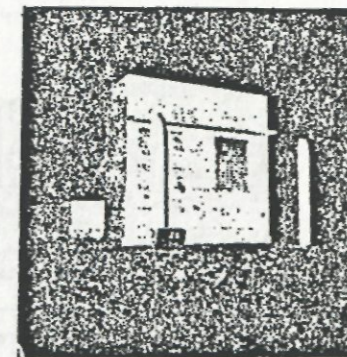
Medium masonry pump house of good materials and workmanship; no partitions; reinforced concrete floor.



FOUNDATION - Reinforced concrete wall	FLOOR - Reinforced concrete on fill	WINDOWS - Miami, glazed, shutter, or good batten
WALLS - Reinforced concrete, block, or tile	DOORS - Good batten, solid flush, panel, or metal covered	ELECTRICAL - Open knob and tube or cable with switches
ROOF - Corrugated galvanized iron on paper on medium wood rafters or light steel truss		

Subclass 4

Medium reinforced concrete pump house of good materials and workmanship; no partitions; reinforced concrete floor.



FOUNDATION - Reinforced concrete wall	ROOF - Reinforced concrete	WINDOWS - Miami, glazed or shutter
WALLS - Reinforced concrete or concrete columns with block or tile	FLOOR - Reinforced concrete on fill	ELECTRICAL - Conduit with switches
	DOORS - Good batten, solid flush, panel, or metal covered	

BASIC SPECIFICATIONS FOR AGRICULTURAL TYPE BUILDINGS

CR - Open Shed

Subclass 1

Very small wood frame open shed of inferior materials and workmanship; no walls; rough pole columns; earth floor.



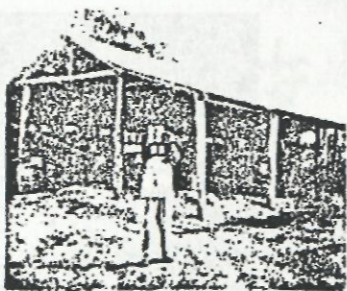
FOUNDATION AND COLUMNS -  
Rough wood poles

FLOOR - Earth

ROOF - Straw or roofing paper on wire mesh  
with light wood rafters

Subclass 2

Small wood frame open shed of fair materials and workmanship; no walls; rough native posts or heavy wood columns; tamped earth, wood or stone floor.



FOUNDATION AND COLUMNS -  
Rough native wood posts or heavy  
wood columns

FLOOR - Tamped earth, wood, or stone

ROOF - Corrugated galvanized iron or paper  
on wire mesh with medium wood rafters

IMPROVEMENTS

BASIC SPECIFICATIONS FOR AGRICULTURAL TYPE BUILDINGS

CR - Open Shed

Subclass 3

Medium wood frame shed of good materials and workmanship; no walls; native wood posts or treated heavy wood columns; floors of reinforced concrete on fill.



FOUNDATION - Reinforced concrete wall  
or piers

COLUMNS - Native wood posts or treated  
heavy wood

ROOF - Well-finished straw or roofing paper  
on wood with medium wood rafters

FLOOR - Reinforced concrete on fill

Subclass 4

Medium masonry frame shed of good materials and workmanship; no walls; reinforced concrete columns; floors of reinforced concrete on fill.



FOUNDATION - Reinforced concrete wall

FLOOR - Reinforced concrete on fill

ROOF - Corrugated galvanized iron or roofing  
paper on closed sheathing with medium  
wood rafters

COLUMNS - Reinforced concrete

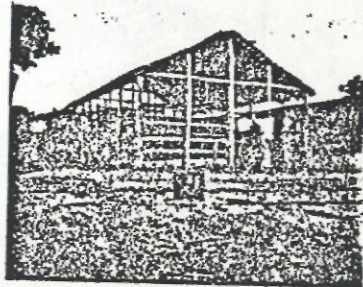
PROCEDURES FOR REAL PROPERTY ASSESSMENT IN PUERTO RICO

BASIC SPECIFICATIONS FOR AGRICULTURAL TYPE BUILDINGS

EV - Dairy Barn

Subclass 1

Small wood frame dairy barn of inferior materials and workmanship; no walls; native wood posts; reinforced concrete floor; feed bins; no yokes, stall partitions, milk, storage, or wash rooms, or special pens for bulls, calves, or cows.



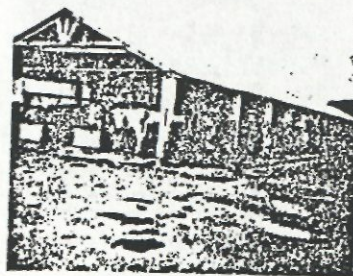
FOUNDATION - Rough wood poles or reinforced concrete wall  
 COLUMNS - Rough wood poles  
 ROOF - Straw or roofing paper on wire mesh with light wood rafters  
 FLOORS - Rough concrete on fill

FEED BINS - Rough lumber  
 DRINKING TROUGH - Feed bins used  
 YOKES - None  
 STALL PARTITIONS - None  
 ELECTRICAL - None or open knob and tube  
 WATER - One faucet  
 MILKING SYSTEM - Manual

MILK ROOM - None  
 STORAGE ROOM - None  
 BULL PENS - None  
 CALF PENS - None  
 COW PENS - None  
 WASH ROOM - None

Subclass 2

Small or medium wood frame dairy barn of fair materials and workmanship; no walls; native wood or concrete columns; reinforced concrete floor; feed bins, yokes, milk and wash rooms, calf pens; no stall partitions, storage room, or special pens for bulls or cows.



FOUNDATION - Reinforced concrete wall  
 COLUMNS - Rough wood poles or reinforced concrete columns  
 ROOF - Corrugated galvanized iron or roofing paper on closed sheathing with medium rafters  
 FLOORS - Rough concrete on fill  
 FEED BINS - Rough lumber on inferior reinforced concrete

DRINKING TROUGH - Feed bins used  
 YOKES - Home made  
 STALL PARTITIONS - None  
 ELECTRICAL - Open tube and knob  
 WATER - Several faucets  
 MILKING SYSTEM - Manual  
 MILK ROOM - Wood with half concrete wall; no ceiling; screened doors and windows

STORAGE ROOM - None  
 BULL PENS - None  
 CALF PENS - May have concrete floor and half wire and corrugated galvanized iron fence  
 COW PENS - None  
 WASH ROOM - Wood with galvanized iron

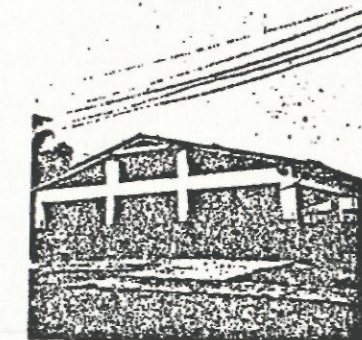
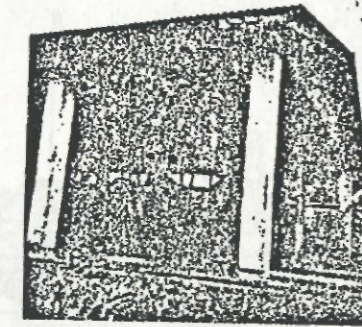
IMPROVEMENTS

BASIC SPECIFICATIONS FOR AGRICULTURAL TYPE BUILDINGS

EV - Dairy Barn

Subclass 3

Medium masonry frame dairy barn of good materials and workmanship; reinforced concrete or steel columns; reinforced concrete floor; feed bins, drinking troughs, yokes, stall partitions, special milk, storage, and wash rooms, and pens for bulls, calves, cows, and for calving.



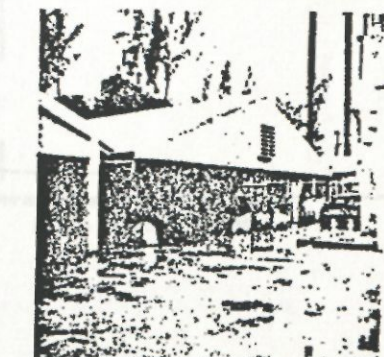
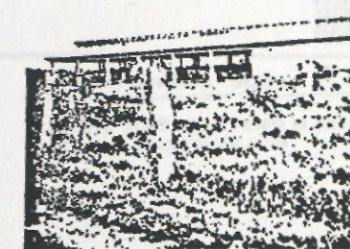
FOUNDATION - Reinforced concrete wall  
 COLUMNS - Reinforced concrete or steel  
 ROOF - Corrugated galvanized iron with medium rafters, well braced, wood gable ends  
 FLOORS - Reinforced concrete on fill with good drains  
 FEED BINS - Two concrete troughs with passage between  
 DRINKING TROUGH - Feed bins used

YOKES - Home made metal or manufactured  
 STALL PARTITIONS - Pipe, home made  
 ELECTRICAL - Open knob and tube or cable, switches and outlets  
 WATER - Shower, faucets in feed trough and milk room  
 MILKING SYSTEM - Mechanical  
 MILK ROOM - Finished ceiling, walls with screened doors and windows, concrete base and washing area

STORAGE ROOM - Finished wood walls  
 BULL PENS - Concrete floor, feed bins, automatic drinking troughs, concrete or tubing walls  
 CALF PENS - Concrete floor and half walls, wood or tubing  
 COW PENS - Same as bull pens  
 WASH ROOM - Concrete floors and walls

Subclass 4

Medium or large masonry frame dairy barn of very good materials and workmanship; reinforced concrete or steel columns; reinforced concrete floor; feed bins, drinking troughs, yokes, stall partitions, special milk, storage, and wash rooms, and pens for bulls, calves, cows, and calving.



FOUNDATION - Reinforced concrete wall  
 COLUMNS - Heavy reinforced concrete or steel  
 ROOF - Corrugated galvanized iron with heavy rafters, well braced, reinforced concrete or wood gable ends  
 FLOORS - Reinforced concrete on fill with good drains  
 FEED BINS - Two concrete troughs with passage between

DRINKING TROUGH - Automatic, individual  
 YOKES - Manufactured  
 STALL PARTITIONS - Manufactured  
 ELECTRICAL - Cable with switches and outlets  
 WATER - Shower, numerous faucets, automatic drinking fixtures  
 MILKING SYSTEM - Mechanical  
 MILK ROOM - Finished ceiling, walls with screened doors and windows, concrete base and washing area

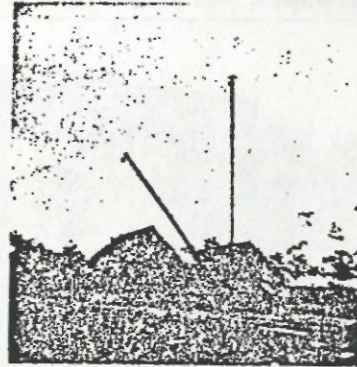
STORAGE ROOM - Finished wood or concrete walls  
 BULL PENS - Concrete floor, feed bin, automatic drinking troughs, concrete or tubing walls  
 CALF PENS - Concrete floor and half walls, wood or tubing  
 COW PENS - Same as bull pens  
 WASH ROOM - Concrete floors and walls

BASIC SPECIFICATIONS FOR AGRICULTURAL TYPE BUILDINGS

GC - Cane Derrick

Subclass 1

Medium wood frame cane derrick with vertical wood post and guy cables on reinforced concrete base.



VERTICAL POST - Heavy wood with steel guy cables

ARM - Heavy wood

BASE - Reinforced concrete

Subclass 2

Medium steel frame cane derrick with vertical steel post and guy cables on reinforced concrete base.



VERTICAL POST - Steel I beam or lattice

ARM - Steel I beam or lattice

BASE - Reinforced concrete

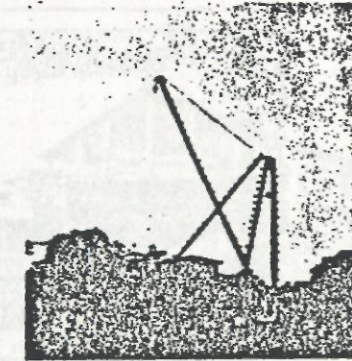
IMPROVEMENTS

BASIC SPECIFICATIONS FOR AGRICULTURAL TYPE BUILDINGS

GC - Cane Derrick

Subclass 3

Heavy wood frame cane derrick with vertical wood post, arm and tripod on reinforced concrete base.



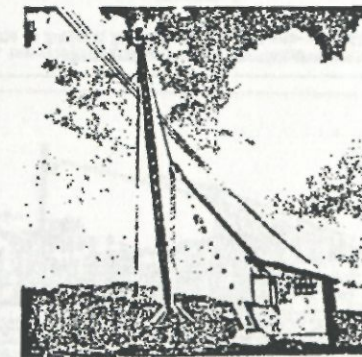
VERTICAL POST - Heavy wood with tripod instead of guy cables

ARM - Heavy wood

BASE - Reinforced concrete

Subclass 4

Heavy steel frame cane derrick with vertical steel post, arm and tripod on reinforced concrete base.



VERTICAL POST - Steel I beam or lattice with tripod instead of guy cable

ARM - Steel I beam or lattice

BASE - Reinforced concrete

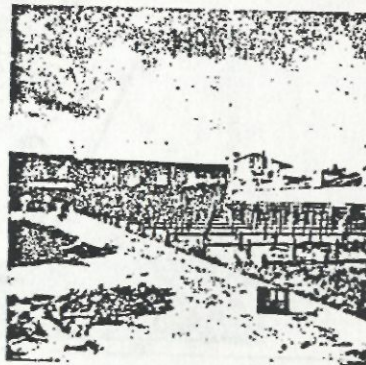
PROCEDURES FOR REAL PROPERTY ASSESSMENT IN PUERTO RICO

BASIC SPECIFICATIONS FOR AGRICULTURAL TYPE BUILDINGS

HC - Coffee Processing Building

Subclass 3

Medium or large wood frame shell-type, one- or two-story coffee processing building of standard design; good materials and workmanship; medium heavy frame; wall heights of 12 or more feet; reinforced concrete floor in basement or first floor; no plumbing.



FOUNDATION - Medium reinforced concrete stone or brick wall

FLOOR - Reinforced concrete on fill and heavy wood joists

DOORS AND WINDOWS - Galvanized iron, covered, or batten

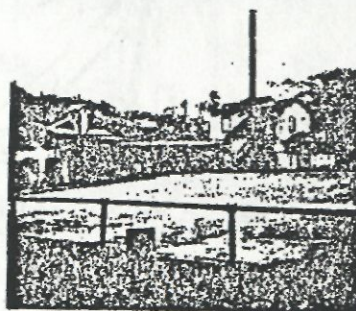
WALLS - Medium heavy wood studs with corrugated galvanized iron sheets

ROOF - Corrugated galvanized iron on medium heavy wood rafters

ELECTRICAL - None or cable with switches or open knob and tube with switches

Subclass 4

Medium or large steel frame shell-type one-story coffee processing building of standard design; good materials and workmanship; medium frame; wall heights 16 or more feet; reinforced concrete floor; no plumbing.



FOUNDATION - Medium reinforced concrete wall

FLOOR - Reinforced concrete on fill

DOORS AND WINDOWS - Galvanized iron covered sliding doors and galvanized iron covered or batten windows

WALLS - Medium steel frame with corrugated galvanized iron sheets

ROOF - Corrugated galvanized iron sheets, or medium rigid frame, or steel truss

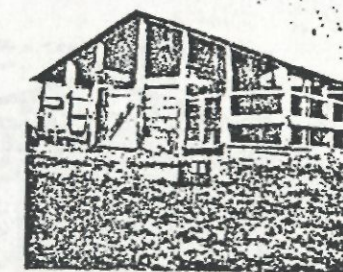
ELECTRICAL - Armored cable or conduit with switches and outlets

BASIC SPECIFICATIONS FOR AGRICULTURAL TYPE BUILDINGS

PA - Stable

Subclass 1

Small wood frame stable of inferior materials and workmanship; no walls, native wood posts; earth floor; feed troughs; may have storage room.



FOUNDATION - Rough wood poles

FLOOR - Earth

ELECTRICAL - None

COLUMNS - Rough wood poles

FEED BINS - Rough wood

WATER - None

ROOF - Roofing paper on wire mesh or used corrugated galvanized iron with light rough pole rafters

STORAGE ROOM - None or corrugated galvanized iron and wood (used)

Subclass 2

Small or medium wood frame stable of fair materials and workmanship; no walls, native wood post; earth or wood floor; feed troughs and storage room.



FOUNDATION - Rough wood poles

FLOOR - Earth or rough wood

ELECTRICAL - None

COLUMNS - Rough wood poles

FEED BINS - Wood or concrete

WATER - None

ROOF - Roofing paper on wire mesh or corrugated galvanized iron with medium pole rafters

STORAGE ROOM - Corrugated galvanized iron and wood

## PROCEDURES FOR REAL PROPERTY ASSESSMENT IN PUERTO RICO

## BASIC SPECIFICATIONS FOR AGRICULTURAL TYPE BUILDINGS

PA - Stable

Subclass 3

Medium wood or masonry stable of good materials and workmanship; heavy wood; reinforced concrete or steel tube columns; wood floor on reinforced concrete on fill; no walls; feed troughs; storage room.



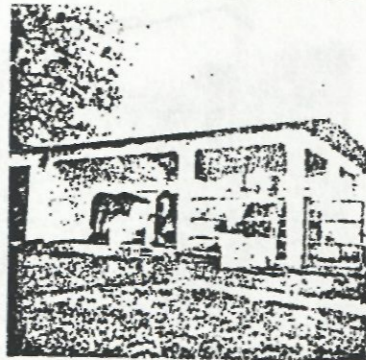
FOUNDATION - Reinforced concrete wall  
COLUMNS - Heavy wood, reinforced concrete or tube  
BEAMS - Medium wood

ROOF - Roofing paper on sheathing or corrugated galvanized iron with medium rafters, braced  
FLOOR - Heavy wood on reinforced concrete on fill  
FEED TROUGHS - Concrete

STORAGE ROOM - Finished wood with reinforced concrete floor  
ELECTRICAL - Open knob and tube with switches  
WATER - Two faucets

Subclass 4

Medium or large masonry stable of very good materials and workmanship; heavy reinforced concrete columns; wood floor on reinforced concrete on fill; no walls; feed troughs; storage room.



FOUNDATION - Reinforced concrete wall  
COLUMNS - Heavy reinforced concrete  
BEAMS - Reinforced concrete  
ROOF - Corrugated galvanized iron with heavy rafters, well braced

FLOOR - Heavy wood on reinforced concrete on fill  
FEED TROUGHS - Concrete  
STORAGE ROOM - Finished wood with reinforced concrete floor

ELECTRICAL - Open knob and tube or cable with switches  
WATER - Complete

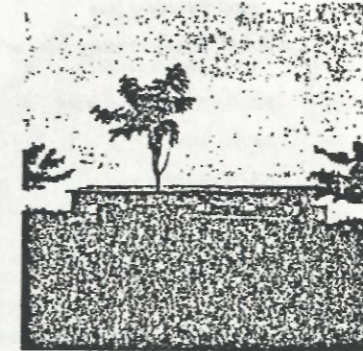
## IMPROVEMENTS

## BASIC SPECIFICATIONS FOR AGRICULTURAL TYPE BUILDINGS

PC - Paddock

Subclass 3

Medium wood frame paddock of standard design, good materials and workmanship; double walls in stalls to heights of six feet; wood floor on earth or reinforced concrete fill; no feed troughs.



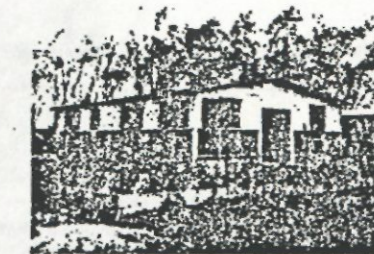
FOUNDATION - Reinforced concrete, brick or stone wall  
WALLS - Medium wood studs with rough boards outside, finished double wall in stalls, may be painted outside

ROOF - Corrugated galvanized iron with medium rafters, well braced  
FLOOR - Heavy wood planks on reinforced concrete on fill or tamped earth  
DOORS - Sliding galvanized iron covered or good batten

WINDOWS - Galvanized iron covered or good batten  
ELECTRICAL - Armored cable or open knob and tube with switches  
WATER - Two faucets

Subclass 4

Medium or large wood frame paddock of standard design, very good materials and workmanship; double walls throughout to heights of six feet; wood floor on reinforced concrete; storage room; no feed troughs.



FOUNDATION - Reinforced concrete wall  
WALLS - Medium heavy wood studs with good siding with finished double wall throughout, painted  
ROOF - Corrugated galvanized iron with medium heavy rafters, well braced, finished wood, gabled ends

FLOOR - Heavy wood planks on reinforced concrete on fill with good drains  
DOORS - Sliding galvanized iron covered or good batten  
WINDOWS - Galvanized iron covered

ELECTRICAL - Armored cable with switches and outlets  
WATER - Complete

## PROCEDURES FOR REAL PROPERTY ASSESSMENT IN PUERTO RICO

## BASIC SPECIFICATIONS FOR AGRICULTURAL TYPE BUILDINGS

## PP - Pigpen

## Subclass 1

Very small wood frame pigpen of inferior materials and workmanship; walls, rough pole columns; earth floor.

FOUNDATION AND COLUMNS - Rough wood poles

WALLS - Rough wood poles, bamboo or corrugated galvanized iron

ROOF - Straw or roofing paper or wire mesh with light wood rafters

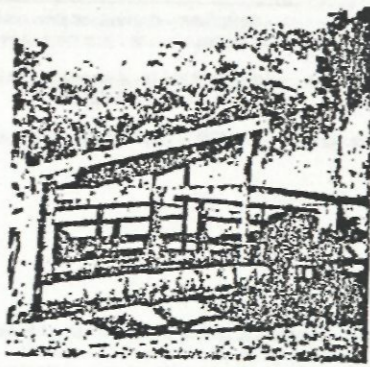
FEED BINS - None or wood

BATH - None

WATER - None

## Subclass 2

Small wood frame pigpen of fair materials and workmanship; walls; feed trough; rough pole or medium wood columns; rough concrete floor.



FOUNDATION - Reinforced concrete wall

COLUMNS - Rough poles or medium wood

WALLS - Rough boards, wire mesh, or corrugated galvanized iron

ROOF - Roofing paper on wire mesh or corrugated galvanized iron on medium wood rafters

FEED BINS - None or concrete

BATH - None or concrete

WATER - None or one faucet

## Subclass 3

Medium or large masonry or wood frame pigpen of good materials and workmanship; walls; feed trough; bath; concrete floor.



FOUNDATION - Reinforced concrete wall

COLUMNS - Reinforced concrete, native wood, or pipe

WALLS - Reinforced concrete, block, pipe, steel rods and special wire mesh

ROOF - Corrugated galvanized iron, roofing paper on closed sheathing with medium rafters, well braced

FEED BINS - Concrete

BATH - Concrete

WATER - Faucet

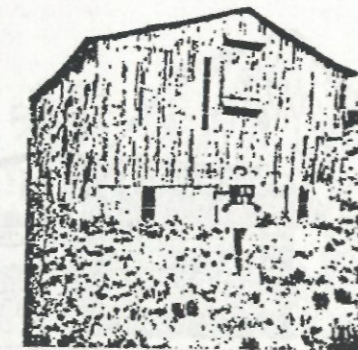
## IMPROVEMENTS

## BASIC SPECIFICATIONS FOR AGRICULTURAL TYPE BUILDINGS

## RA - Storage Barn

## Subclass 1

Small or medium wood frame storage barn of inferior materials and workmanship; rough light frame; earth floor.



FOUNDATION - Rough wood posts

WALLS - Rough wood grating, or palm

ROOF - Straw or paper on wire mesh with light wood rafters

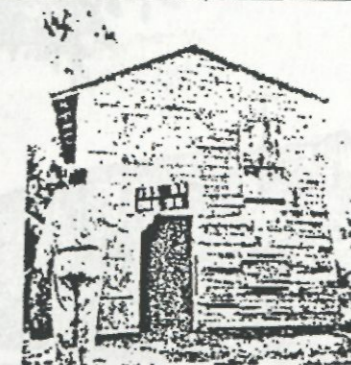
DOORS AND WINDOWS - Galvanized iron covered, or batten

ELECTRICAL - None or open knob and tube

FLOOR - Earth

## Subclass 2

Small or medium wood frame storage barn of fair materials and workmanship; medium frame; earth floor.



FOUNDATION - Rough wood posts

WALLS - Rough wood grating, or light wood

ROOF - Corrugated galvanized iron, or paper on wire mesh with medium wood rafters

DOORS AND WINDOWS - Galvanized iron covered or batten

ELECTRICAL - None or open knob and tube

FLOOR - Earth

BASIC SPECIFICATIONS FOR AGRICULTURAL TYPE BUILDINGS

RA - Storage Barn

Subclass 3

Medium wood frame storage barn of good materials and workmanship; medium frame; reinforced concrete floor.



FOUNDATION - Reinforced concrete

WALLS - Medium studs with wire mesh

ROOF - Corrugated galvanized iron, or roofing paper with medium wood rafters, braced

DOORS AND WINDOWS - Wood studs, grating

ELECTRICAL - None or open knob and tube with one switch

FLOORS - Reinforced concrete on fill

Subclass 4

Medium or large wood frame storage barn of very good materials and workmanship; medium heavy frame; reinforced concrete floor.



FOUNDATION - Reinforced concrete

WALLS - Medium studs with galvanized iron

ROOF - Corrugated galvanized iron, or roofing paper on sheathing with medium or heavy rafters, well braced

DOORS AND WINDOWS - Galvanized iron covered or batten

ELECTRICAL - None or open knob and tube with one switch

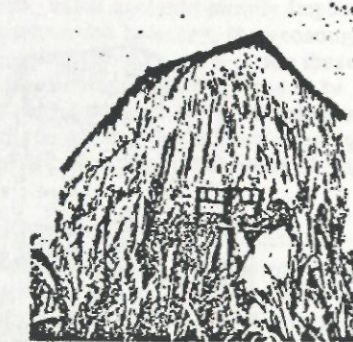
FLOOR - Reinforced concrete on fill

BASIC SPECIFICATIONS FOR AGRICULTURAL TYPE BUILDINGS

RT - Tobacco Barn

Subclass 1

Medium wood frame tobacco barn of inferior materials and workmanship; rough light frame; straw roof and walls; earth floor; very high interior height.



WALLS

Structure - Native wood and rough poles  
Finish - Straw

ROOF

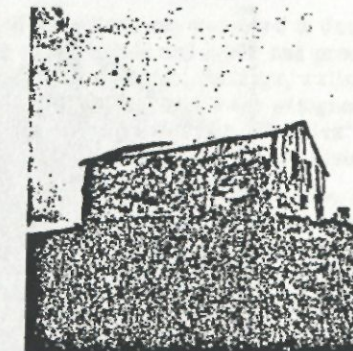
Structure - Rough Poles  
Covering - Straw, or roofing paper on wire mesh

ROOM DIVISIONS - Rough wood

RACKS - Rough wood poles  
DOORS AND WINDOWS - None or batten

Subclass 2

Medium or large wood frame tobacco barn of fair materials and workmanship; rough medium frame; straw walls; galvanized iron or paper roofing; earth floor; very high interior height.



WALLS

Structure - Native and rough poles  
Finish - Straw

ROOF

Structure - Native or medium rafters  
Covering - Corrugated galvanized iron (used), roofing paper, or straw on wire mesh

ROOM DIVISIONS - Rough wood, or medium studs

RACKS - Medium frame, or rough wood poles  
DOORS AND WINDOWS - None or batten

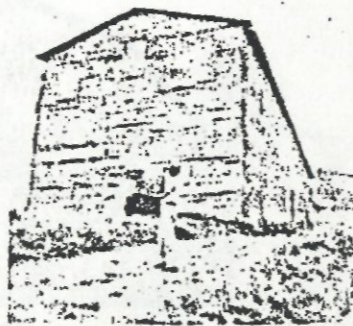
## PROCEDURES FOR REAL PROPERTY ASSESSMENT IN PUERTO RICO

## BASIC SPECIFICATIONS FOR AGRICULTURAL TYPE BUILDINGS

## RT - Tobacco Barn

## Subclass 3

Medium or large wood frame tobacco barn of good materials and workmanship; native wood, medium frame; corrugated galvanized iron or wood walls; straw, paper or corrugated galvanized iron roofing; earth floor; very high interior height.



## WALLS

Structure - Native wood, medium studs  
Finish - Corrugated galvanized iron, or rough boards

## ROOF

Structure - Native wood, medium rafters  
Covering - Corrugated galvanized iron, roofing paper on sheathing

ROOM DIVISIONS - Medium frame studs  
RACKS - Medium frame, rough wood poles  
DOORS AND WINDOWS - Batten, or galvanized iron

## Subclass 4

Large wood frame tobacco barn of very good materials and workmanship; native or heavy wood frame; corrugated galvanized iron roof and wood board or galvanized iron walls; earth floors; very high interior height.



## WALLS

Structure - Native wood, heavy studs  
Finish - Corrugated galvanized iron, finish wood or roofing paper

## ROOF

Structure - Native wood, or heavy rafters  
Covering - Corrugated galvanized iron

ROOM DIVISIONS - Medium frame studs  
RACKS - Medium frame rough wood poles  
DOORS AND WINDOWS - Batten, or galvanized iron

## II. VALUE ANALYSIS

Field appraisals and computations in a jurisdiction as large as Puerto Rico are an almost continuous operation. This is not true of the basic fact-finding processes of value analysis, however. Once the basic pattern and skeleton have been derived, value analysis simply implies keeping information current by checking it against changes in the construction industry, the economy as a whole, and any other force or activity which has an effect upon improvement values. It is for these reasons that instead of discussing value analysis by setting forth the procedures and instructions to be followed, as was done for field appraisal and computing, the discussion is an account of the techniques and procedures that were used to develop cost factors, depreciation schedules, and cost indexes during the reassessment project, which will serve as a guide for the development of replacement costs of improvements in the future.

## Development of Cost Factors

The development of replacement-cost factors of improvements was based on material and labor prices as of April 1949, when the data were accumulated. Dealers in construction supplies and government agencies were the sources of information for prices of materials, which were checked by the appraisal staff of architects and engineers. The sources of labor prices and productivity were developed from verified subcontract prices, consultation with skilled workmen, studies made available by the Federal Housing Authority, and frequent staff consultations.

The cost data were utilized to provide:

1. A method whereby quantities of construction materials and labor can be quickly and uniformly priced for the purpose of developing square foot unit costs of all buildings typical of the various construction classes in the classification system.
2. A uniform and efficient method for estimating the reproduction cost of a typical building which must be appraised by individual pricing.
3. A system for maintaining construction cost data so that trends in costs can be kept up with and adjustments can be made for any assessment year simply by inserting current material and labor costs.

A wide variety of building plans and specifications was used to develop cost data. Records were prepared showing quantities and costs of materials and labor and productivity for each item of building construction activity. Major construction—excavation, footings, walls, etc.—was assigned key item numbers and variations by sizes or other specifications were assigned supplementary numbers. For example, Item 7 is "Reinforced Concrete Foundation Walls, 6" Thick"; a 5" foundation wall of the same type is Item 7-2. Other variations from the standard 6" wall are also assigned subitem numbers.

The quantities taken from plans were net amounts of a given item exclusive of openings. The pricings on the cost data records include all construction and forms for ordinary openings which have been averaged from a number of buildings. There is, therefore, a difference in cost between a 6" foundation wall without openings and a 6" exterior wall with openings; this difference allows for larger area of forms per cubic yard of concrete, for the lumber and labor of form work, and for door bucks at openings.

The cost data include labor, materials, and workmen's compensation. An additional amount was separately added for job conditions, profit, and overhead. These latter items were deliberately restricted to a minimum cost. The reason for this was that, while the sources of information as to materials prices were the best available, it is obvious that in an actual purchase a builder will obtain various discounts which depend on bargaining and market conditions. Thus, while the project endeavored to obtain actual prices to builders, undoubtedly many of these were subject to further discounts. Also, in actual building practice in unsupervised construction, specifications may be reduced on the job. It is necessary, in estimating construction, to figure the actual sizes and specifications required by good practice, which are, to some extent, maximum criteria not present in construction. This condition is somewhat equalized by the fact that in larger construction projects, where the engineering specifications are adhered to, the relatively larger purchases will permit greater discounts from established prices.

The foreman's time for small buildings was taken as a 30 per cent override on a carpenter's wage during the course of construction, since it is common practice of foremen to work at several trades during the period of construction.

Exhibit 4  
Construction Costs

Construction Cost		SCIENTIFIC CLASSIFICATION AND ASSESSMENT PROJECT		Building Class		
Job No. SC _____		Size of Bldg. _____	No. Stories _____	One		
Date _____		No. of Rooms _____	No. Apts. _____	Two		
By _____		No. of Porches _____	No. Baths _____	Three		
Form SC-2-Rev.6-14-49				Four		
ITEM	DESCRIPTION	SIZE	UNIT	QUANTITY	RATE	COST
2	Excavation	Bulk .....	cu.yd.			
		Trench (includes backfill) .....	cu.yd.			
3	Fill	.....	cu.yd.			
5	Footings	Reinforced concrete .....	cu.yd.			
		.....	cu.yd.			
6	Stair	Concrete .....	Risers			
7	Fdn. Walls	Reinforced concrete .....	cu.yd.			
		.....	cu.yd.			
7	Ext. Walls	Reinforced concrete .....	cu.yd.			
		.....	cu.yd.			
7	Int. Walls or Partitions	Reinforced concrete .....	cu.yd.			
		Reinforced concrete .....	cu.yd.			
8	Concrete slab	Reinforced on fill. ....	cu.yd.			
9	Concrete slab	Suspended. ....	cu.yd.			
		.....	cu.yd.			
10	Beams	Reinforced concrete .....	cu.yd.			
10	Columns	Reinforced concrete .....	cu.yd.			
11	Concrete Blks.	Foundation Wall. ....	sq.ft.			
		Exterior Wall .....	sq.ft.			
		Partition .....	sq.ft.			
13	Cement Fin. Int.	.....	sq.yd.			
13-1	Roof Covering	Cement Fin. Integral .....	sq.yd.			
		Tile Cement (Bldg. Area) .....	sq.ft.			
		Cement .....	sq.yd.			
14	Plastering	Floors .....	sq.ft.			
20	Wood	Partitions (Cov. Side) .....	sq.ft.			
21	Wood	Roof (Area of Bldg.) .....	sq.ft.			
22	Wood	Ext. Walls (Cov. Side) .....	sq.ft.			
23	Wood	.....	sq.ft.			
30	Trim	Moulding .....	ln.ft.			
		Wood Base .....	ln.ft.			
31	Millwork	Doors - Interior .....	sq.ft.			
		Doors - Entrance .....	sq.ft.			
		Doors - Other Ext. ....	sq.ft.			
		Windows .....	sq.ft.			
		Jalousies .....	sq.ft.			
		Cabinets .....	sq.ft.			
50	Electrical	Outlets - Rigid Conduit .....	each			
		Back to Back Outlets .....	each			
		Range .....	each			
		Service and Panel .....	each			
		Buzzer, Telephone, Radio .....	each			
		Fixtures .....	each			
51	Painting	(Not including doors or windows)	sq.yd.			

IMPROVEMENTS  
Exhibit 4 (Continued)

ITEM	DESCRIPTION	SIZE	UNIT	QUANTITY	RATE	COST
62	Sheet Metal		ln.ft.			
	Field Cost .....					
	Arch. and Survey .....					
	1. Job Conditions .....					
	Bldrs. P. and O. ....					
A. SUBTOTAL - Cost (without Plumbing and Tile)						
	Field Cost-Plumbing, Tile, etc. (See Over)					
	Arch. Fee .....					
	Job Conditions .....					
	Bldrs. P. and O. ....					
B. SUBTOTAL - Cost of Plumbing, Tile, etc.						

Data from Plans - Permit No. \_\_\_\_\_ Total Field Cost \_\_\_\_\_  
 File No. \_\_\_\_\_ Date \_\_\_\_\_ Arch. Fee and Survey \_\_\_\_\_  
 Location \_\_\_\_\_ 1. Job Conditions \_\_\_\_\_  
 Owner \_\_\_\_\_ Builder's P. and O. \_\_\_\_\_  
 Sq. Ft. \_\_\_\_\_ C. TOTAL COST (A + B) \$ \_\_\_\_\_  
 Cost per sq. ft. A. \$ \_\_\_\_\_ C. \$ \_\_\_\_\_  
 Job No. SC \_\_\_\_\_ Date \_\_\_\_\_ Location \_\_\_\_\_  
 Tile, Plumbing, and Other Items not included above:

ITEM	DESCRIPTION	SIZE	UNIT	QUANTITY	RATE	COST
16	Native Tile Flooring .....		sq.ft.			
16-1	Native Tile Base .....		ln.ft.			
16-2	Terrazzo .....		sq.ft.			
18	Ceramic Tile Floor .....		sq.ft.			
19	Glazed Tile Wainscot .....		sq.ft.			
19-1	Bath Access .....		each			
19-2	Medicine Cabinet .....		each			
49	Plumbing - W. C. 1st .....		each			
	Multiple .....		each			
	Lavatory 1st. ....		each			
	Multiple .....		each			
	Bath Tub, Overhead Shower 1st .....		each			
	Multiple .....		each			
	Shower 1st. ....		each			
	Multiple .....		each			
	Sink 1st. ....		each			
	Multiple .....		each			
	Bidet. ....		each			
	Laundry Tray - Cement .....		each			
	House sewer, drain, stack, etc. ....		L.S.			
	Field Cost-Plumbing, Tile, etc. ....					
	Arch. Fee .....					
	Job Conditions .....					
	Bldrs. P. and O. ....					
B. SUBTOTAL - Plumbing, Tile, etc.						

The cost data were developed for one- and two-story buildings, which represent more than 95 per cent of the total buildings. The cost of construction which involves complex methods or methods not typical of small buildings, therefore, must be included under "Job Conditions" on the "Construction Cost" form, SC-2 Revised, 6-14-49. (See Exhibit 4.) The construction form is filled out according to the following instructions when making the cost analysis of a building to determine its value:

Insert any items occurring in the building that are not specified on the form.

Before commencing the survey, enter the following data on the form: (1) in the upper left corner, the job number given by the supervisor, the current date, and the name of the person preparing the form; (2) in the upper center of the form, the size of the building, number of stories, number of rooms, number of apartments, number of porches, and number of baths; (3) in the upper right corner the building classification; and (4) in the lower left corner, the Permit Bureau file number, date of building plans, location, and owner's name. Work sheets should be attached containing all major computations and the identification and item numbers used on the form.

Use net quantities and make no allowance for waste or conditions which have already been considered in fixing unit prices. Insert any items occurring in the building which are not specified on the form.

**Item 2 - Excavation**

Assume the lots to be level in all cases. Compute the item of bulk excavation only when there is subsurface construction. The unit is a cubic yard.

**Item 3 - Fill**

Do not compute backfill for trenches or column footings. This item is included in excavation. Compute fill from the finished grade without regard to actual contours shown on plans. The unit is a cubic yard.

**Item 5 - Footings**

Compute all footings 2' 6" below finished grade. Where basements or cellars are shown, compute them separately on attached sheet. The unit is a cubic yard.

**Item 6 - Stairs**

Count and record the number of stairs.

**Item 7 - Foundation Walls**

Compute foundation walls from the top of the footing to the top of the floor slab on fill, the bottom of suspended first floor slab, or bottom of a wood sill. Each thickness of foundation wall shall be computed and identified separately. The unit is a cubic yard.

**Exterior Walls**

Measure each thickness of wall and identify it separately. Make deductions for floor slabs. The unit is a cubic yard.

**Interior Walls or Partitions**

Measure in the same manner as exterior walls. The unit is a cubic yard.

**Item 8 - Concrete Slab on Fill**

Compute and show separate computations for different thicknesses of slabs. Compute them to the inside of the walls. The unit is a cubic yard.

**Item 9 - Concrete Slab-Suspended**

Show separate computations for each thickness of slab. Compute them to the outside of the wall. The unit is a cubic yard.

Compute window hoods, cornices, and projections from the wall separately using a cubic yard unit.

**Item 10 - Columns**

Record each size of column separately except where the variation is not over 20 per cent. Compute columns together if desirable. The unit is a cubic yard.

**Beams**

Measure in the same manner as columns. Compute lintel beams.

**Item 11 - Concrete Blocks**

Compute each thickness of foundation, exterior walls, and partitions separately. The unit is a square foot of wall surface, exclusive of openings.

**Item 13 - Cement Finish-Integral**

Compute cement finish for all floor surfaces. The unit is a square yard.

**Item 13-1 Roof Covering**

Compute flat roof surfaces of cement finish integral by the square yard and tile cement by the square foot.

**Item 14 - Plastering**

Take off measurements and compute area of cement plaster finish for all interior and exterior concrete or concrete block walls. Include the ceilings or slabs. Exclude openings. The unit is a square yard.

**Item 20 - Wood Floors**

Measure wood floors as the area of the inside of the wall of masonry buildings and the outside of the studs for frame buildings. The unit is a square foot.

**Item 21 - Wood Partitions**

Measure partitions on an area basis from the finished floor to the bottom of the ceiling beams, exclusive of openings. Partitions include the finished surface in the cost. Note whether the partitions are covered on one or two sides. The unit is a square foot.

**Item 22 - Wood Roof**

The area of a wood roof is the building area. Allowance has been made in the price data for pitch of roof and overhangs. Make a notation of the material of roof covering, but do not compute area. The cost of covering, rafters, ceiling, etc., is included in the roof cost. The unit is a square foot of horizontal building area.

**Item 23 - Wood Exterior Walls**

Measure exterior walls from the bottom of the sill to the bottom of the plate. Exclude openings. The unit is a square foot.

**Item 30 - Trim**

Measure mouldings in lineal feet and restrict them to picture moulding in most cases. Do not include door or window mouldings. Describe, rather than measure, other mouldings. The only trim measurement to be taken is the wood floor base. Describe any other trim but do not include door or window trim. Compute floor base per lineal foot. Record cabinets in terms of square feet of horizontal surface.

**Item 31 - Millwork**

Measure the net square foot area of all doors, windows, and jalousies without considering trim. Record the types of windows or jalousies—batten, glass, "Miami," etc. The unit is a square foot.

**Item 50 - Electrical**

Count each outlet including wall, switch, base, range, buzzer, telephone, and radio; count back-to-back outlets as one and list separately; count fixtures; count service and panel connections.

**Item 51 - Painting**

Specify wall surfaces in square yards. List interior and exterior painting separately. Do not include doors and windows.

**Item 62 - Sheet Metal**

Include in this item the lineal feet of downspouts but not ridge rolls for galvanized iron roofs since they are already included in the roof costs. Specify the item and dimensions of all other sheet metal.

**Item 16 - Native Tile Flooring**

Compute native tile per square foot of room area.

Item 16-1 Native Tile Base

Compute native tile base per lineal foot.

Item 16-2 Terrazzo

Compute terrazzo finish on a square foot basis. Briefly describe the character and dimensions of any other type of floor finish.

Item 18 - Ceramic Tile Floor

Compute per square foot.

Item 19 - Glazed Wall Tile

Compute per square foot.

Item 19-1 Bath Access

Compute per square foot.

Item 19-2 Medicine Cabinet

Include bath accessories and medicine cabinet in all cases where the bath is tiled.

Item 49 - Plumbing

If a set of fixtures is back-to-back, cross out "Multiple" and insert "back-to-back." Record the number of soil and waste stacks and the number and length of house drains. In one-family dwellings use "1st" for the main fixtures and "Multiple" for secondary baths or lavatories.

Miscellaneous

Describe in detail all items not included above in sheets attached to the SC-2 Form, Revised 6-14-49.

After the quantities of materials have been placed on Form SC-2, Revised 6-14-49, each item is priced from the cost data sheets on file at the central office in San Juan. The unit is shown in the column headed "Rate" and the quantity and rate are extended. The pricing should be done by an experienced estimator who will check the various quantities with the plans and work sheets whenever any item is questionable.

Plans should be examined at this point to ascertain whether any untypical conditions have been included. Such conditions might be, for example, spread footings for unusual soil conditions, foundations more than 2' 6" below grade, or excavation or fill taken for any but a level lot. Accessory buildings must be computed separately.

Architect's fee and survey fee are figured at actual prices paid for such services—not by any recommended professional schedule.

Job conditions, profit, and overhead are priced at a minimum, as discussed above.

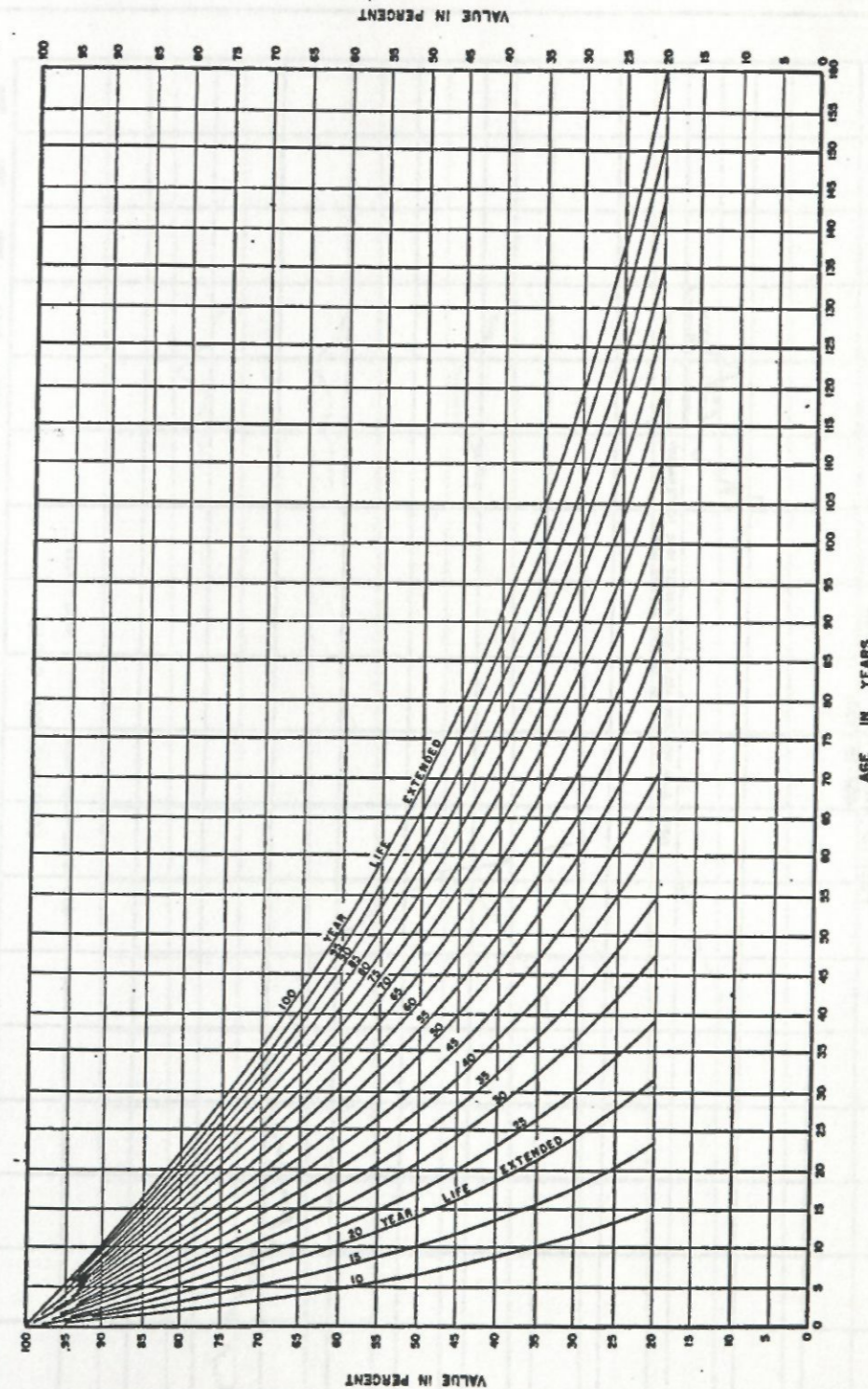
If cost data sheets do not provide exact data for certain units involved in a particular structure, an estimate is made and placed in the cost data files pending verification or revision by research.

If items 16 through 49—the last group listed on the form—exist, the sum of 16 per cent of their field cost for Classes TWO and THREE and 13 per cent of field cost for Class ONE must be added to take care of architect's fee, job conditions and the builder's profit and overhead. Where it is evident that more than these percentages should be assigned, the additional sums warranted should be included in basic cost "A" on page 1 of Form SC-2, Revised 6-14-49.

The extension and summation of the foregoing data represent total costs of the average structure. Each building selected for value analysis was of a given use and construction type and was typical of a specific class in the classification system. By dividing the total costs of the structures surveyed by the square or cubic footage, the unit cost schedules for buildings of the various classes were established.

Development of Depreciation Schedules

The development of schedules of depreciation was based upon the life expectancy of buildings. A wide variety and volume of buildings, covering all structures in the classification system, were



DEPRECIATING VALUE OF IMPROVEMENTS

Figure 1

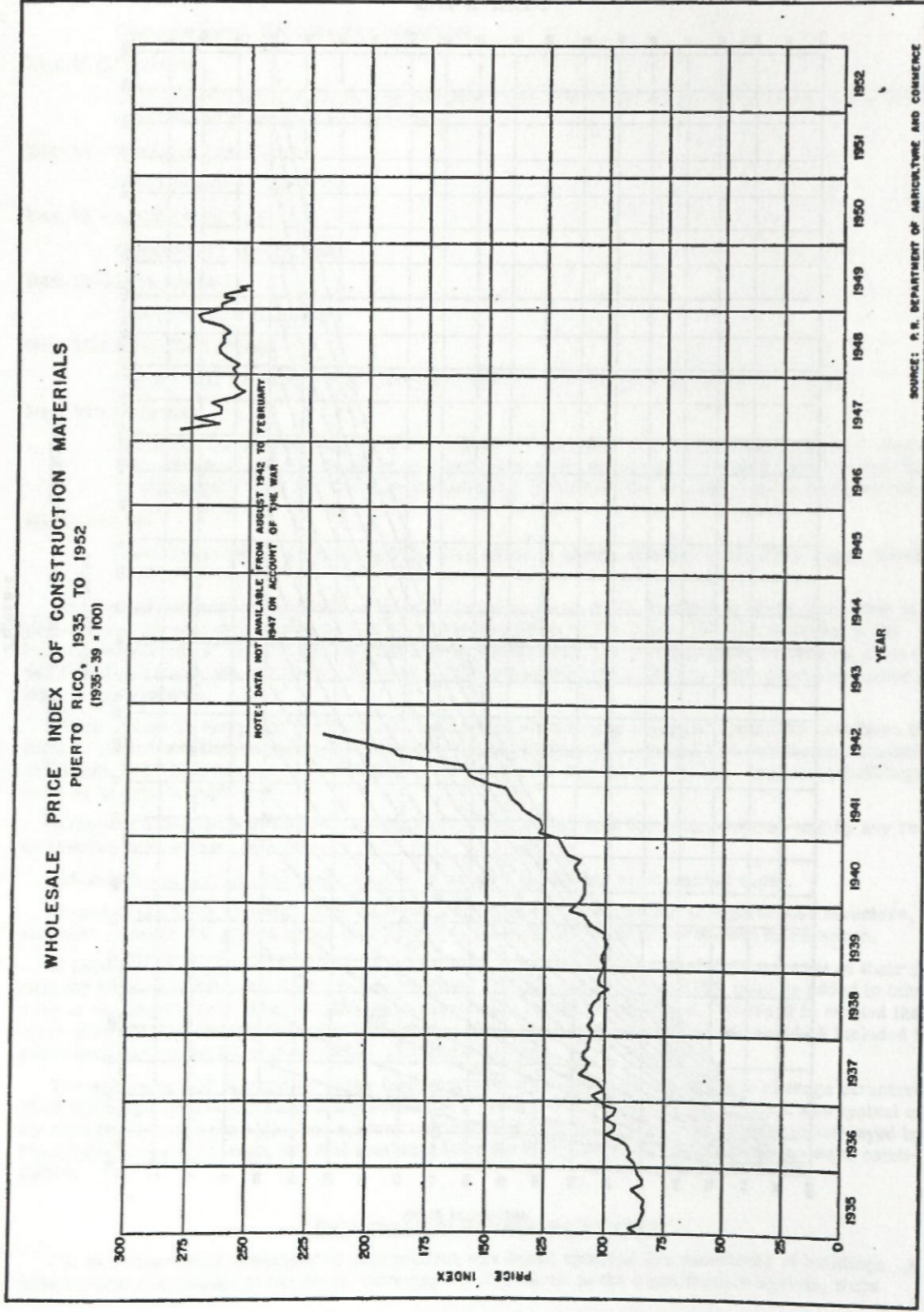


Figure 2

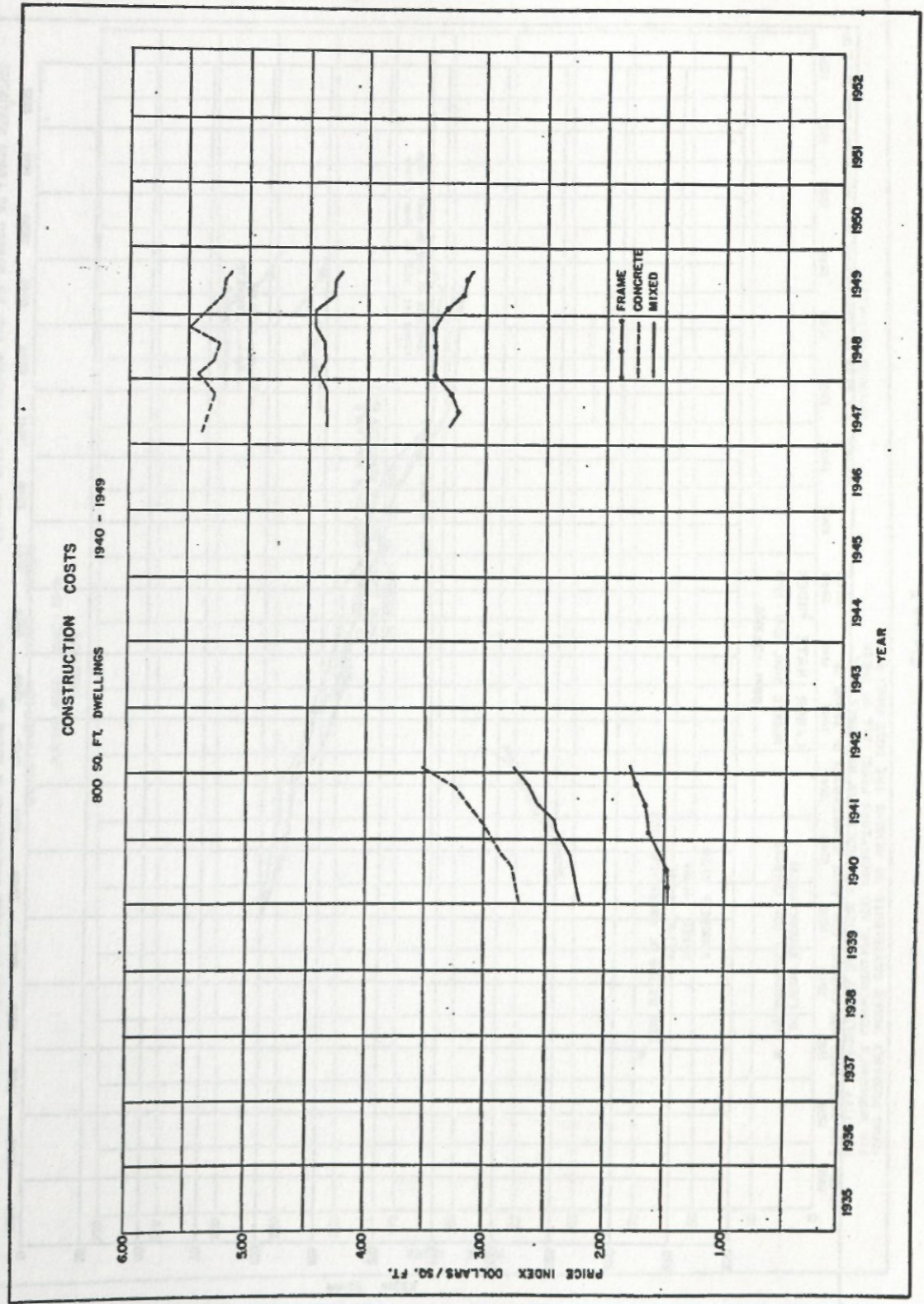


Figure 3

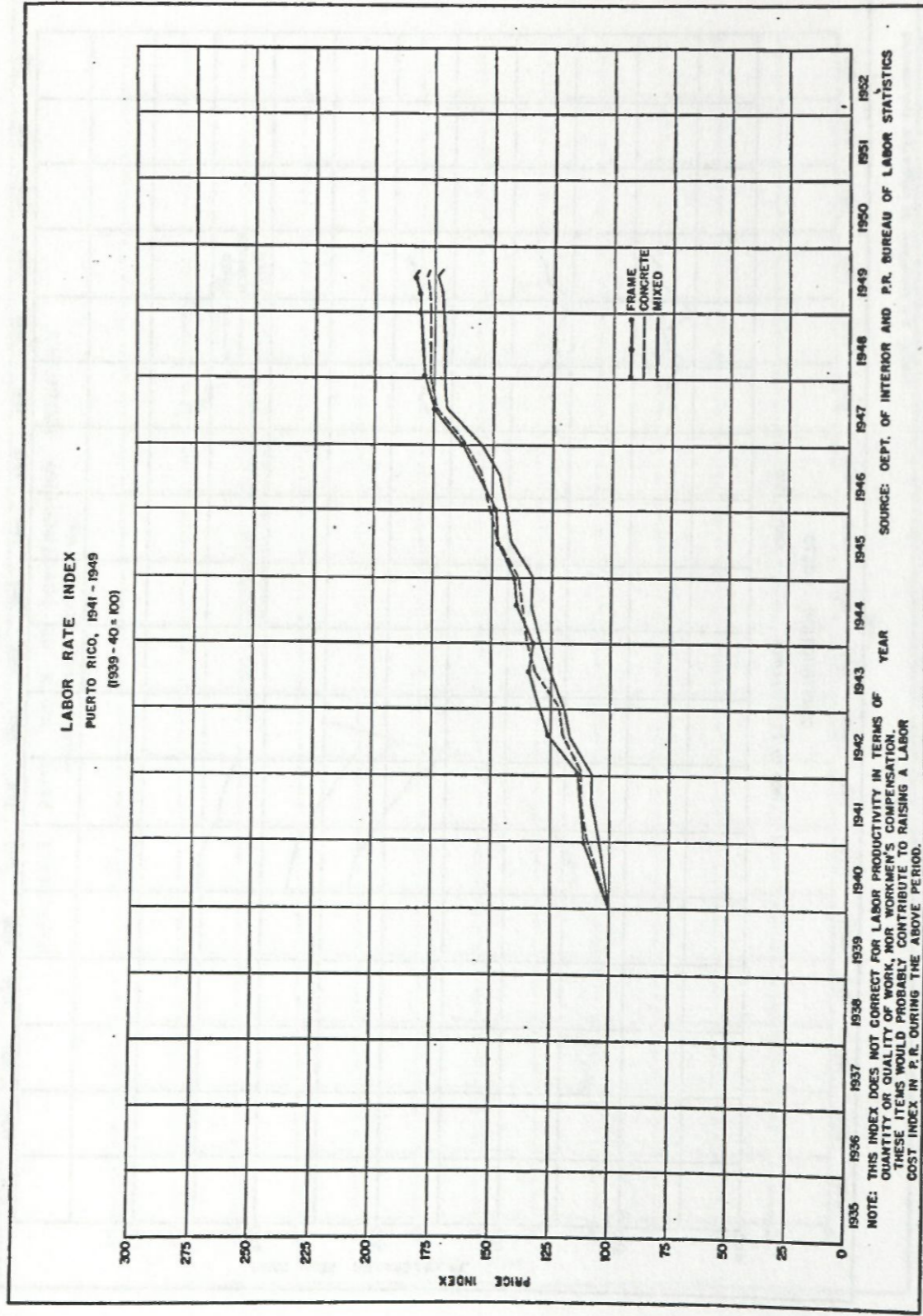


Figure 4

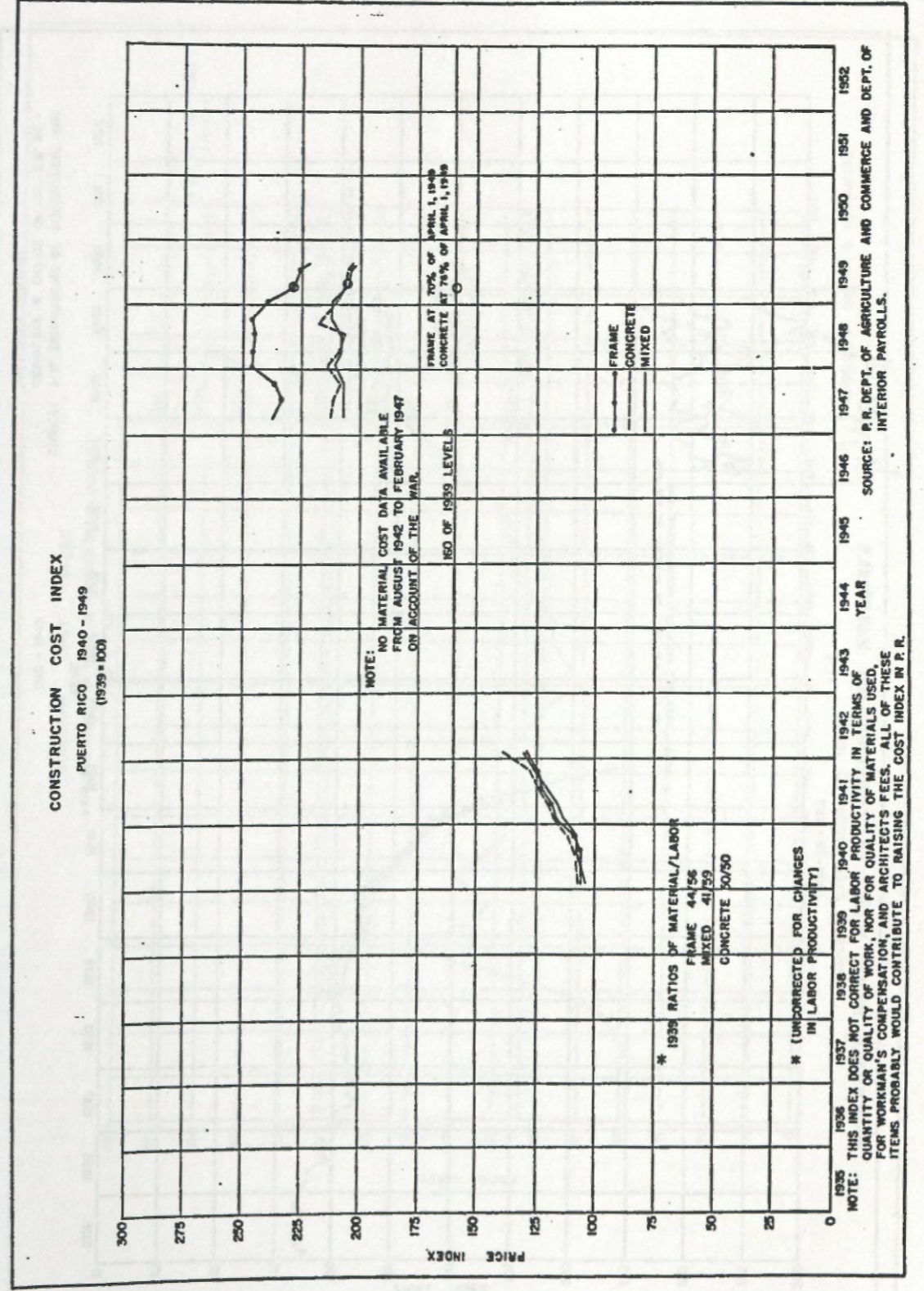


Figure 5

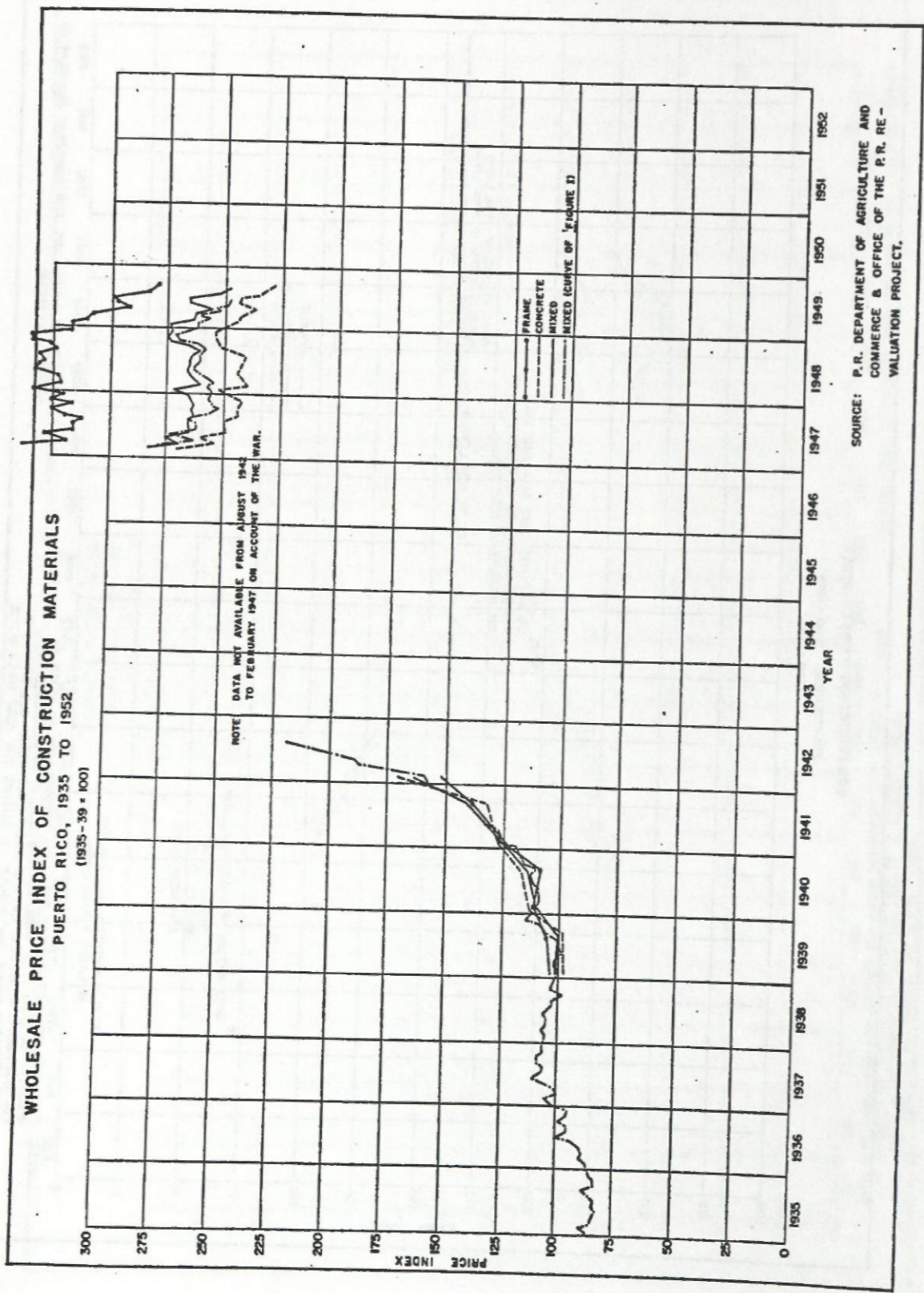


Figure 6

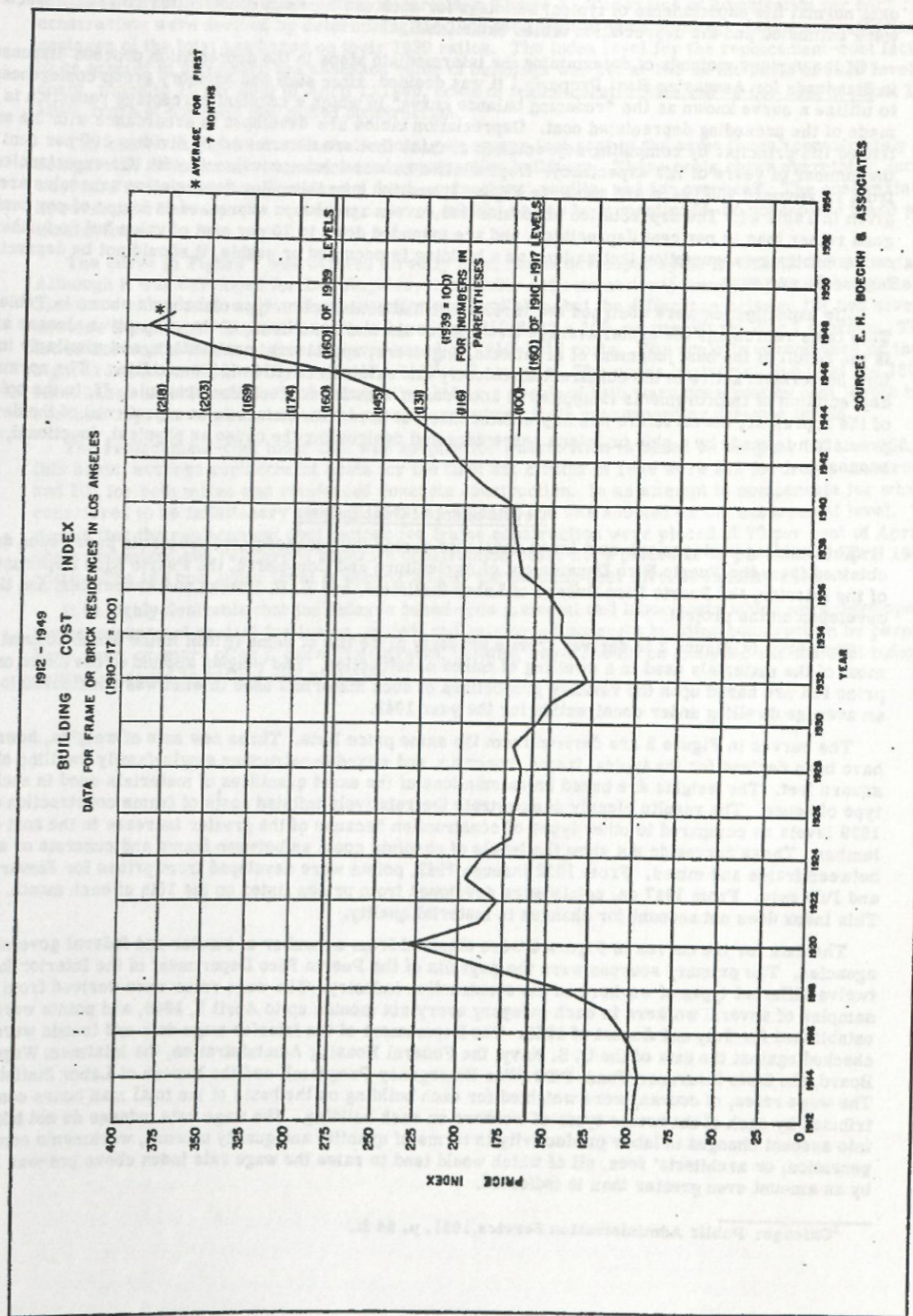


Figure 7

analyzed by field inspections and consultations with architects, engineers, and contractors. From these data normal life expectancies of typical buildings for each use type and construction class and subclass were estimated and the depreciation tables established.

Of the various methods of determining the intermediate steps in the depreciation process discussed in *Standards for Assessing Real Property*,<sup>1</sup> it was decided, after staff and advisory group conferences, to utilize a curve known as the "reducing balance curve" in which a constant percentage reduction is made of the preceding depreciated cost. Depreciation tables are developed in accordance with the extended life principle by computing depreciation at rates that are determined by dividing 100 per cent by the number of years of life expectancy. Depreciation curves for improvements with life expectancies from 10 years to 100 years are shown in Figure 1, and the corresponding depreciation schedules are given in Table 44. The depreciation schedules and curves are always expressed in terms of per cent good rather than in per cent depreciated, and are extended down to 20 per cent of value but no further on the arbitrary assumption that as long as a building is occupied or usable, it should not be depreciated beyond 80 per cent.

Life expectancies were assigned the various use and construction type classes as shown in Table 43. This table represents the useful average lives, under normal conditions, of the respective classes and is the result of the best judgment of architects, engineers, appraisers, contractors, and similarly informed persons active in the construction industry and related activities in Puerto Rico. The normal depreciation of improvements is applied in accordance with the depreciation schedule. If, in the opinion of the appraiser, the structure has depreciated more or less than the norm, an adjustment of the depreciation is made by a plus or minus percentage and designating the cause as physical, functional, or economic.

#### Development of Cost Indexes

The building replacement-cost index developed during the reassessment project is based upon data obtained from the Puerto Rico Department of Agriculture and Commerce, the Puerto Rico Department of the Interior, the Puerto Rico Bureau of Labor Statistics, and E. H. Boeckh and Associates, and those developed on the project.

The curve in Figure 2 is derived from a biweekly price list of some fifteen items which account for most of the materials used in a dwelling of mixed construction. The weights applied to the items on the price list are based upon the relative proportions of such materials used in what was considered to be an average dwelling under construction for the year 1942.

The curves in Figure 3 are derived from the same price lists. Three new sets of weights, however, have been derived for the typical frame, concrete, and mixed construction single-family dwelling of 800 square feet. The weights are based on calculations of the exact quantities of materials used in each type of house. The results clearly demonstrate the relatively inflated costs of frame construction over 1939 levels as compared to other types of construction because of the greater increase in the cost of lumber. These curves do not show the levels of absolute costs as between frame and concrete or as between frame and mixed. From 1939 through 1942, points were developed from prices for January and July only. From 1947 on, points were developed from prices listed on the 15th of each month. This index does not account for changes in material quality.

The data for the curves in Figure 4 were obtained from a number of insular and federal government agencies. The primary sources were the payrolls of the Puerto Rico Department of the Interior for twelve different types of workers in the construction industry. The wage rates were derived from samples of several workers in each category every six months up to April 1, 1949, and points were established for July and August of 1949. The Department of the Interior wage data and trends were checked against the data of the U. S. Navy, the Federal Housing Administration, the Minimum Wage Board, the State Insurance Fund, PEG (War Emergency Program), and the Bureau of Labor Statistics. The wage rates, of course, were weighted for each building on the basis of the total man hours contributed by each of the twelve types of workers on each building. The wage rate indexes do not take into account changes in labor productivity in terms of quantity and quality of work, workmen's compensation, or architects' fees, all of which would tend to raise the wage rate index above pre-war levels by an amount even greater than is indicated.

<sup>1</sup>Chicago: Public Administration Service, 1951, p. 54 ff.

The curves in Figure 5 were derived by combining the labor rate index curves in Figure 4 and the wholesale price index of construction materials in Figure 3. The ratios of combination for each type of construction were derived by determining the 1939 total cost of each building. Labor and material percentages of the total are based on their 1939 ratios. The index level for the replacement-cost factors to be applied in computing the assessed value of buildings was set at 160 on the basis of 1939 levels of costs, which is 70 per cent of April 1, 1949, costs of frame construction and 76 per cent of April 1, 1949, costs of concrete and mixed construction.

The curves in Figure 6 indicate the total per square foot cost of the same three approximately comparable frame, concrete, and mixed construction buildings. These costs cover everything, including workmen's compensation, architects' fees, contractors' profits, and job overhead. The cost variations, however, are based on the preceding indexes, which, as has been mentioned, do not include these particular items.

The curve in Figure 7 was derived directly from tables developed by E. H. Boeckh and Associates. Although it was developed for Los Angeles, it probably reflects national trends rather closely. Separate curves for brick and wood construction are available, but the difference between the two never exceeds 3 per cent. The main scale is based on 1910-1917 = 100, or pre-World War I average. The lower horizontal line is at the 160 level based on 1910-1917 costs. The scale in parentheses on the right is based on 1939 = 100, or pre-World War II average. The upper horizontal line is at the 160 level based on 1939 costs. It is noteworthy that as a result of both wars construction cost levels increased to peaks of almost identical percentages above their corresponding pre-war levels.

The replacement-cost index that was adopted for Puerto Rico is based on the year 1939 as 100. On this basis, average replacement costs for the first six months of 1949 were 232 for frame construction and 207 for both mixed and reinforced concrete construction. In an attempt to compensate for what were considered to be inflationary costs in 1949, an index of 160 was adopted as the assessment level. This means that the replacement cost factors for frame construction were placed at 70 per cent of April 1949 costs and mixed and reinforced concrete construction costs were placed at 76 per cent of April 1949 costs. The 160 cost index level is approximately the building cost level of January 1942.

It is highly desirable that the indexes based upon material and labor costs which were developed by the reassessment project for frame, mixed, and reinforced concrete building construction be perpetuated. Each year, or more often if deemed desirable, building costs should be analyzed and the cost index curves extended to reflect any variations.

### III. SURVEYING AND CLASSIFYING

Obtaining and recording data utilized in the appraisal of improvements involve a critical survey of structures—both inside and outside. Value data are obtained in part through discussions with the occupant, but chiefly through a careful inspection of structural and finish details. Space is provided for recording in designated places on the appraisal card all significant value data of the building being surveyed and classified.

The field survey includes identifying the property to be appraised; recording on the appraisal form a full description of all the improvements, including structural and finish details and fixed machinery and equipment, and a description of all additional items not included in the specifications; and measuring the building and making a scale drawing of the outside dimensions. Classifying improvements consists of determining the use type of the improvement, the structural class to which it belongs, and the subclass that indicates the quality of construction within the class.

Accuracy, thoroughness, and neatness are absolute requirements in recording data. Office computations and other operations depend upon these data, all of which are used to determine the assessed value of the property—the basis for the amount of taxes each property owner must pay. To establish sound and fair values on individual properties, an assessment jurisdiction cannot depend only upon the use of the standards and procedures set forth in the two volumes that comprise this manual; basically, it must rely upon the accuracy and thoroughness of the field inspection and the recording of data on each parcel by appraisal personnel in the field. Unless the record is neat and clear, it cannot be interpreted accurately and readily by others.

Letters for abbreviating many terms are a practical necessity for saving time and for recording in the limited space provided on appraisal cards. The following list includes all the abbreviations that were developed during the reassessment project and may be expanded as becomes desirable. The letters used to abbreviate the following terms are selected on the basis of the Spanish terminology.

Acero estructural (structural steel)	A
Brea (tar)	B
Carton de techar (roofing paper)	CT
Cerámica (ceramic tile)	CE
Cyclone fence (cyclone fence)	CY
Domicilio del servicio (servants' quarters)	DS
Garaje (garage)	G
Hormigón (reinforced concrete)	H
Hierro galvanizado (galvanized iron)	HG
Hormigón con reja de hierro (concrete with iron grillwork—refers to porches or fences)	H-H
Piso de hormigón sin balaustrada (concrete floor, no balustrades—refers to porches)	H-O
Piso de hormigón con balaustrada de madera (concrete floor with wooden balustrades—refers to porches)	H-M
Hormigón prefabricado (prefabricated concrete)	H-P
Rejas de hierro—verjas (iron grillwork fence)	H-R
Postes hormigón con alambre (concrete posts with wire)	HW
Losetas (tile)	L
Losetas de asfalta (asphalt tile)	LA
Ladrillo (brick)	LD
Losetas de cantera (stone tile)	LQ
Madera (wood)	M
Mármol (marble)	MM
Mampostería (rubble-work masonry)	MP
Marquesina (marquee)	MQ
Ninguno (nothing or none)	O
Porche (porch)	P
Patio (patio)	PA

### IMPROVEMENTS

Pizarra (slate)	PZ
Sótano (basement)	S
Teja (roofing tile)	T
Teja de asbestos (asbestos roofing shingles)	TA
Teja de barro (clay roofing tile)	TB
Teja de hormigón (concrete roofing tile)	TH
Tierra (earth, land, or ground)	TI
Teja de madera (wood roofing shingles)	TM
Terrazzo (terrace)	TZ
Tuberfa (tubing or piping)	TU

The instructions and procedures that appraisal personnel are to follow are presented in separate sections for each category of improvements: (1) residential, (2) commercial, (3) industrial, and (4) agricultural.

#### Residential

Data for all residences on the island are recorded on the residential-commercial appraisal card. This work is done in the field by appraisal personnel from firsthand observation. For the sake of illustrative completeness, procedures are outlined on the assumption that a card is being filled out for a newly discovered property. On return visits to previously appraised properties the appraiser will, of course, merely check the accuracy of existing information. One appraisal card is made for each separate parcel of land and the improvements thereon except when there is more than one building that is sufficiently complex to require a separate appraisal card to describe it adequately, when the other improvement or improvements are residences, or when there are improvements that are owned by some one other than the owner of the land.

#### General Information

Although improvements appraisal personnel are not concerned with the appraisal of land, there are certain sections in the portion of the appraisal card devoted to land appraisal which they are required to fill out because they visit the individual parcels whereas the land appraisers do not necessarily do so. Space for some of the desired information was provided only for use during the reassessment program and for a limited period thereafter until the old and new records have been reconciled. The instructions include all sections, and personnel will continue to follow them until given notice to the contrary.

LAND		No. _____ of _____	
Parcel Code No.	Mun.	Barrio	Map Block Par.
Address: Street _____		No. _____	
Name of Occupant _____			
Occupant			
Pays Rent to _____		Address _____	
Rental \$ _____	month - week	Date Established _____	19 _____
Includes: Water _____ Gas _____ Electricity _____ Furniture _____			
Name of Owner _____		Address _____	
Name of Taxpayer _____		Address _____	
Construction: Year _____ Cost _____ Permit No. _____			

**Parcel Code Number.** A parcel is identified by a fourteen-digit number which sets it apart from any other on the island. For example, 09-13-057-013-10-06 decoded reads:

09 - the number of the municipality

13 - the number of the barrio within the municipality.

057 - the number of the 1:10,000 scale map which covers the territory in question.

013 - the number of the 1:1,000 map within the 1:10,000 scale map which depicts urban or other parcels too small to be depicted on 1:10,000 scale maps.

10 - the number of the particular block of which the parcel is a part.

06 - the number of the specific parcel within the block.

Parcels are always numbered consecutively within a block, clockwise, and from top to bottom. A newly created parcel or a grouping of two or more parcels forming a single parcel is assigned the number following the highest current parcel number in the block. The total number of parcels in a block cannot exceed 99. When all parcels in a block are grouped into a single parcel, it is assigned number 1. When a parcel has more than one improvement requiring one or more additional cards, further code identification must be made. For example, House No. 001, House No. 002, etc., is placed in the blank space immediately above the word "Parcel," and use is made of the blanks at the extreme top right of the card to indicate the number of cards filled out for the separate improvements on the property, such as 1 of 3, 2 of 3, and 3 of 3.

**Street Address.** Place the complete and correct street name and house number in the space provided. When in doubt, as with corner and similar properties, follow the postal address. Corner parcels should show two or more streets.

**Name of Occupant.** Record the name of the actual occupant of the house. It is sufficient to record the name of the head of the family. Both surnames must be included. Example: Miguel Belaval-Sanchez.

**Rental Information.** If the house is rented, enter the complete name and address of the person to whom rent is paid and the amount. Circle the frequency of payment. Mark in the appropriate blank the date on which the property rental was placed under government control. Write "yes" or "no" opposite the listed services to indicate whether or not they are included in the rental.

**Names of Owner and Taxpayer.** Secure and enter complete names and addresses of both the owner and the taxpayer. Often they are not the same person. If the occupant is the owner or the taxpayer, insert the word "occupant." When giving the owner's name, the surname should be followed by the mother's maiden surname in addition to first names. In the event the ownership is an estate, the legal representative's name must be given.

**Year of Construction.** When the appraiser cannot obtain precise information on the exact year of construction of a building from a reliable source he should estimate it. Before estimating, however, every effort should be made to obtain the information from the owner, occupant, neighbors, official documents, or government or builder's records. In estimating the year of construction, the appraiser should carefully inspect and study the materials, structural type, and architectural style, and should utilize data for similar buildings of the same period on which the correct construction year has been obtained. The construction year does not necessarily coincide with the "effective year" of the building, as in the latter case consideration is given to the general condition of the building as reflected by improvements, alterations, modernization, or additions. Normal maintenance does not create a difference between the "construction year" and the "effective year." When a building is in poor condition because of neglect, the construction year should not be lowered as this condition will be recognized by an adjustment of the effective age by changing the "effective year" or by a percentage reduction recorded under "observed depreciation," which will be explained later. The exact year should be followed by a check mark and the estimated year by "est." Example: "1946✓" or "1947 est."

**Cost of Construction.** This information is provided by the central office from building permits obtained from the Bureau of Permits. Care should be taken that the information received and estimates made do not include the cost of the land or, if it is included, that the inclusion is so specified.

**Permit Number.** This information is provided by the Bureau of Permits.

#### Prior Assessment Data

The information in this section is to be secured from the last tax receipt available, which should be obtainable in the case of occupant-owners. There will, however, be properties which have not appeared on the tax roll heretofore or which are rented. In these cases the information will of necessity be omitted.

**Receipt Number.** Record the number of the tax receipt.

**Fiscal Year.** Enter the fiscal year covered by the tax receipt.

**Name and Address.** Copy the name and address of the owner of the property as it appears on the tax receipt.

## IMPROVEMENTS

**Land--Area and Value.** Enter the area of the parcel, which will be either square meters or cuerdas, and the value of the land as shown on the tax receipt.

**Value of Buildings.** Enter the value of buildings as shown on the tax receipt.

**Total Value.** Enter the total value as shown on the tax receipt.

**Tax Paid.** Enter the amount of taxes paid as shown on the tax receipt.

#### Topography

Use a check mark (✓) to indicate whether the parcel is approximately level or sloping, and if it is high or low in relation to the street. Avoid making contradictory check marks.

TOPOGRAPHY	
Level	High
Sloping	Low

#### Street Improvements

Place a check mark to indicate whether streets are unpaved or paved and the presence of curb and sidewalk. Numbers should be used when the parcel has frontage on two or more streets.

STREET IMPROVEMENTS	
Unpaved	Curb
Paved	Sidewalk

#### Utilities

Place check marks to indicate the utility services that are available even if they are not connected to the improvements or if the parcel has no improvements. If sewer service is available but the occupants are using a septic tank, check both items. If there are sewer mains in the street not yet connected to the main sewer line for the area, and septic tanks are being used, check space for septic tank and insert "SU" immediately following the word "sewer," meaning "not in use." When there is no bathroom and a privy is used, write in the word "latrina" in the blank space under "gas" and place check mark after it.

UTILITIES	
Water	Light
Sewer	Gas
Septic Tank	

#### Computation of Modification Factor

This space is used in the process of computing the value of land parcels and therefore personnel engaged in surveying and classifying improvements are not concerned with it.

#### Parcel Data

Measure the frontage, depth, and sides of the parcel, using a metric tape, and record, to the nearest tenth of a meter, the frontage in the space next to "Frontage" and the depth of the sides in the space next to "Depth." If there is a question as to which street a building faces, use the postal address as a guide. For parcels of grossly irregular shape, write "see map" instead of recording parcel data. This last procedure is followed when the foregoing instructions cannot be complied with accurately.

#### Computation of Parcel Value

This space is also for the use of the computation staff in an office operation, and is to be ignored by the field appraisal staff.

#### Construction Record

Beginning with the left side of the front of the appraisal card headed "Improvements," the discussion of the appraisal card and the instructions for filling it out will be devoted henceforth to improvements. Use the construction record section for recording changes in the status of structures previously appraised or of new structures that are to be appraised in the future. Construction permits are required for making alterations and additions as well as for new structures. Survey all properties on which construction permits are issued.

**Permit Record.** Record, as an office operation, the date when issued, the number, and the amount of the construction record permit in the space provided.

**Alterations and Additions.** In the case of a permit to erect a new structure, write "new" in the space provided. In the case of improvements that already exist, enter the description of the work specified by the permit. These entries are both made by office personnel.

PARCEL DATA	
Size:	Frontage _____
	Depth _____
	Cuerdas _____
Unit:	Front _____
	Side _____
	Per Cuerda _____
Discount:	% _____
	Reason _____
Zoning:	_____

CONSTRUCTION RECORD					
Permit Record			Alterations and Additions	Appraised	
Date	Number	Amount		By	Date
Remarks					

**Appraised.** When the appraisal is completed, the appraiser will enter his initials and the date in the spaces provided.

**Remarks.** This space is provided for any additional information or explanation that may be desirable. Sometimes alterations are of such a minor nature that no change in the appraisal is necessary, in which case this should be noted in the "Remarks" section. Sometimes alterations and additions are of such major consequence that a complete reappraisal in detail, requiring a new appraisal card, may be necessary. This fact should be noted on the old card.

**Depreciation and Obsolescence**

Depreciation and obsolescence are considered in two categories: (1) normal, and (2) observed.

**Normal.** If a house is considered to have normal depreciation, no entries need be made by the appraiser. Office employees record and compute all necessary data from normal depreciation tables.

**Observed.** Although as a rule this section will not be used, in some cases it is necessary because, in the judgment of the appraiser, depreciation is significantly greater or less than normal. "Condition" refers to depreciation caused by physical deterioration. "Functional" refers to depreciation evidenced by poor design and arrangements, lack of modern facilities, antiquated equipment, and inadequacy of site. "Economic" depreciation is evidenced by such factors as inappropriate location or change in use demands.

**Computation of Improvement Value**

This space is used in the process of computing the value of improvements; therefore, personnel engaged in surveying and classifying improvements are not concerned with it.

**Foundation**

Describe the types of foundations by placing a check mark in the appropriate space in the section headed "Foundation" in the upper left corner on the back of the appraisal card. "Piers" refers to the outside foundation and not to the piers that are supports of the floor where spans are too great to be supported solely by outside walls. The kind of walls can be determined by observation underneath the building or in the unfinished portions of basements. Sometimes the walls of the foundation, even if different from the exterior walls of the building, can be seen from the outside. If more than one type of pier or wall is found, check both and use the blank space for description if necessary.

FOUNDATION	
Wood Piers	
Concrete Piers	
Masonry Wall	
Concrete Walls	

**Floor Structure**

Check the type or types of structural construction. Inspection will be simple for buildings with piers, but those that necessitate locating openings underneath the building so that the foundation can be observed frequently require the use of flashlights. Wood joists are horizontal members of the frame. Concrete on grade refers to floor framing which consists of a concrete slab laid directly upon graded earth fill. Reinforced concrete refers to a concrete slab with steel reinforcing for the floor structure. Steel beams are usually found in large and expensive buildings which are constructed to support considerable weight.

FLOOR STRUCTURE	
Wood Joists	
Concrete on Grade	
Reinforced Concrete	
Steel Beams	

**Exterior Walls**

Recording of exterior wall data is divided into structural and finish details. If adjacent buildings have common walls, question the occupants to determine ownership of the wall, which may be plural, and record the information in the "Remarks" space at the bottom of the card. Regardless of the ownership situation, however, always complete the exterior wall section.

EXTERIOR WALLS			
Structure	Finish	Cheap	Good
Wood	Wood		
Masonry	Asbestos		
Concrete	Cement Plaster		
Conc. Block with Col.	Concrete Tile Block		
Hollow Tile with Col.	Galvanized Iron		
Steel	Roofing Paper		

**Structure.** This refers only to the load bearing portion of the wall structure. Check the type in the appropriate space. If concrete block or hollow tile construction without columns is found, draw a line through "with Col." and check the item.

**Finish.** This may refer to a structural material which is also the finish, such as a masonry wall, or it may refer to material that is put on the structural part, such as wood siding, asbestos, or plaster. In addition to checking the type of finish, check its quality as either cheap or good on the basis of workmanship and materials used.

**Roof**

Describe the structure and covering of the roof, indicating in each instance whether the quality is cheap or good.

ROOF					
Structure	Cheap	Good	Covering	Cheap	Good
Wood			Galv. Iron		
Hardwood			Tile		
Reinforced Concrete			Reinforced Concrete		
Steel					

**Structure.** This applies to the construction of the roof, which is usually evident from its appearance. In case of doubt, obtain the information either from the occupant or from looking in the attic.

**Covering.** The materials with which roofs are covered can be ascertained readily as a rule, although some types will require close inspection to distinguish between them. If in doubt, ask the occupant who, in most instances, will be able to provide the correct information. If the roof is covered with a type of tile (clay, asphalt, concrete, etc.), write the corresponding identification letter or letters after the word "tile" and check its quality in the space provided.

**Electrical**

The descriptions of electrical installations are given under the headings of wiring and fixtures. Place a check mark after the type that appears in the building being surveyed.

**Wiring.** The four types of wiring usually found are: (1) open, the knob and tube kind with plain unshielded wire; (2) moulding, with rubber insulated wire covered by a wood or metal moulding; (3) armored cable, with rubber insulated wire within a flexible metal tube; and (4) conduit, with wire within a metal pipe coated inside and outside with zinc, enamel, or both.

ELECTRICAL INSTALLATION		
Wiring	Fixtures	
Open	Drop Cord	
Moulding	Average	
Armored Cable	Good	
Conduit		

**Fixtures.** Except for the drop cord, which is the type with a light bulb suspended from the ceiling by its wire and needs only to be identified, indicate the general quality of fixtures as average or good. The most common installation of bulbs in sockets flush

with the ceiling is considered average; check more elaborate types as good. Use the blank space for an additional insertion if needed.

**Interior Walls**

The description of interior walls is divided into the structure and the finish. The latter does not appear in this section, but is included in the section devoted to interior finish of floors and ceilings as well as walls. Check the proper description.

**Structure.** Interior walls of wood construction are easily recognizable. It is more difficult to distinguish between concrete block and reinforced concrete wall construction; but, as a rule in Puerto Rico, a reinforced concrete interior wall, exclusive of finishing material, is no wider than four inches, while concrete block or tile is generally six inches and, if load-bearing, eight inches. This rule, however, covers only the most common structures and does not apply, for example, to load-bearing walls in buildings of three or four stories.

INTERIOR WALLS	
Structure	
Wood	
Block	
Reinforced concrete	

**Windows**

Check each type of window as cheap or good, or if a window is definitely superior in quality insert the abbreviation "sup" for superior. If a building has more than one type, check each kind unless they consist only of inferior types. The four types of windows commonly found in Puerto Rico are: (1) batten—simple solid boards with reinforced cross pieces that can be propped open, usually vertically, and can be hooked closed; (2) shutter—adjustable slats within the window rectangle for admission of light and air and solid wood doors that close over the shutter; (3) glazed—ordinary windows with glass panes that may or may not be transparent; and (4) Miami, or jalousies—horizontal slats, usually of metal, affixed to the window frame. In some cases there may be exterior windows of one type and doors of another type. Indicate next to the type of window which describes the type of door the abbreviation "pu" for *puerta*, the Spanish word for door, and check the appropriate line. This is also used when no windows or very few are found and doors are used in place of windows.

Type	Cheap	Good
Batten		
Shutter		
Glazed		
Miami		

**Interior Finish**

Check in the spaces provided the interior finishes of floors, walls, and ceilings according to floor levels as they occur in the various rooms and similar units listed.

**Units.** Rooms or similar units that most frequently occur are listed on the appraisal form and a few blank lines are provided for others. In the case of basements insert the word "basement" and its use, such as "living area," "utility," or "store," and describe finishes next to this consolidated heading and not by each individual unit heading.

**Number of Rooms.** The subheads under this heading indicate the floor levels. For example, in a house with two bedrooms on the first floor write the figure "2" in the space below "first floor" and on the line for "bedroom" or, for another example, if there is a basement utility room, write the word "basement" in the blank space below "penthouse," write "utility" in the blank space below "bathroom," and insert the figure "1" in the intersecting space. Insert the ceiling height of basements and highest and lowest ceiling heights of half stories. For example, "1/2 story 8' - 5'."

**Floors.** Show the type of floor finish of each room by inserting the number of rooms of a given kind having a given type of floor finish.

**Walls.** The walls of a room usually are finished all alike; if there is a variation, as sometimes occurs in new construction, indicate both types of finish even for a single room by inserting the number of rooms under the proper heading. Show wall paper over plaster or composition board as plaster or composition board, not as wall paper. "Wood—single" and "wood—double" refer to single and double wood walls, respectively. Plaster on lath is indicated by inserting "hy-rib," which is the abbreviation for high-rib. "Hardwood" refers to local or imported hardwoods, chiefly mahogany or oak.

**Ceilings.** Indicate the type of ceiling finish in the same manner as walls by recording the type for each room. Rooms with no ceiling finish are common and should be indicated by checking in the column headed "none." If there are exposed beams, indicate this by inserting the word "viga," which is the Spanish word for beam.

Units	INTERIOR FINISH																						
	No. of Rooms				Floors				Walls				Ceilings										
	First Floor	Second Floor	Add. Floor	Penthouse	Wood	Asph. Tile on Wood	Cement	Asph. Tile on Concrete	Cement Tile	Ceramic Tile	Composition Board	Wood -- Single	Wood -- Double	Cement Plaster	Gypsum Plaster	Tile Wainscot	Hardwood	None	Composition Board	Wood	Ornamental Metal	Cement Plaster	
Living room																							
Dining room																							
Kitchen																							
Hall																							
Bedroom																							
Bathroom																							
Porch																							
Commercial Area																							
Remarks:																							

Remarks: Record in this space anything of an unusual nature which cannot be accommodated in the designated spaces and which should be on file for future field reference or office attention.

**Additional Details**

In addition to the basic structural components of a building, several other permanently attached but structurally nonessential types of items are normally found in buildings. Check, measure, or otherwise give the required information for all additional items.

	ADDITIONAL ITEMS					
	Plumbing	Cheap	Good	Sup.	Cost	Total Cost
Water Closet						
Lavatory						
Bath Tub						
Shower with Tub						
Shower						
Sink						
Laundry Tub						
Water Heater						

**Plumbing.** Place check marks, and numbers if more than one, to indicate the presence and quality of the various items. Use the blank space to write in any plumbing items not listed. When there is no plumbing but there is water installation, insert the word "pluma," Spanish for faucet, in the blank space as "1" regardless of the number of faucets. The eight items of plumbing listed on the appraisal card are: (1) water closet, sometimes referred to as toilet or commode, does not include urinal or bidet, which are listed separately; (2) lavatory, a wash basin; (3) bath tub, limited to the article designed for this purpose and does not include such substitutes as make-shift metal or wooden tubs; (4) shower with tub, a combined tub with overhead shower; (5) shower, refers only to a shower that is separate from the bath tub, which if enclosed in a special stall or cabinet should be noted and described in terms of the finish, such as tile, cement, plastic, or metal; (6) sink, the kitchen-type sink only and not a lavatory; (7) laundry tub for washing clothes, generally found outside the house or in special small adjacent buildings; and (8) water heater, permanent or semi-permanent device for heating and storing water.

**Tile.** Measure all tile surfaces and record the measurements to the nearest square foot in the column headed "Area" on the line for the appropriate type. Do not use the columns headed "Unit," "Cost," or "Total Cost" as they are filled in by office personnel from tables of cost schedules. Do not forget to include tile baseboards and tile stairways. When measuring stairs, care must be taken to arrive at the correct dimensions since treads and risers are frequently of different materials. Measure horizontal area of stairs and multiply by two to allow for risers to obtain the surface area. The most frequently found types and their basic identifying characteristics are: (1) cement, a compressed cement material, usually eight inches square, widely used for floor surfaces; (2) ceramic, a clay material, generally used on kitchen and bathroom floors, and usually small and varied in shapes and colors; and (3) glazed, a fused-surface vitreous material, generally used for ornament or on bathroom and kitchen walls where the glazed surface enhances the reflection of light and provides an easily cleaned surface.

Tile	Area	Unit	Cost	Total Cost
Cement				
Ceramic				
Glazed				

**Grillwork.** Check only decorative or ornamental grillwork, indicating whether found on windows or porches. Do not include simple unwelded iron bars found on windows and walls, or simple porch railings. Basically, the distinction is between that which is strictly utilitarian and that which is ornamentation. Measure the ornamental grillwork and record in the column headed "Type" the area in square feet for each separate type, indicating its character by "S" for simple, "A" for average, and "E" for elaborate. Make special notations of material other than iron. Do not fill in the columns for unit, cost, and total cost, as they are filled in by office personnel.

Grillwork	Type	Area	Unit	Cost	Total Cost
Porches					
Windows					

**Garage.** Classify garages structurally by circling the appropriate word designating the class as "One," "Two," or "Three." Under "Walls and Roof," show only the presence or absence of interior finish; if unfinished, insert "ST"; if finished, "Ter." Under "Floor," indicate the floor material by an appropriate abbreviation, such as "T" for earth, "H" for concrete, and "M" for wood. Do not use the columns headed "Unit," "Cost," and "Total Cost," as they are filled in by office personnel. When a garage is detached or when an attached garage does not form a part of the main building because it does not have identical characteristics, it is described as above under "Additional Items" and a separate unit is drawn on the diagram. When the garage is attached and has identical characteristics, it is described as a unit under interior finish and is included in the diagram as part of the building.

GARAGE	Class	Walls and Roof	Floor	Unit	Cost	Total Cost
	One Two Three					

**Servants' Quarters.** Use this section only when the servants' quarters are a separate structure from the main dwelling. Treat servants' quarters which are part of the main dwelling as rooms of that house. Usually the quarters recorded in these columns will be small separate buildings or attached to a garage. The procedures to follow are identical with those outlined under "Garage," above.

SERVANTS QUARTERS	Class	Walls and Roof	Floor	Unit	Cost	Total Cost
	One Two Three					

**Paved Areas.** Record private walks, driveways, interior patios, and similar areas by inserting appropriate abbreviations for the various materials used, and record the areas in square feet. Do not include terraces on roofs or on low foundations at ground level, as they are shown in the "Porches and Balconies" section. In the case of tiled areas, such as are sometimes found in patios and walks, show only the base material, such as concrete. Tile areas are to be shown in the preceding "Tile" section. Do not use the columns for unit, cost, or total cost, which are filled in by office personnel.

PAVED AREAS	Material	Area	Unit	Cost	Total Cost
Walks and Drive					

**Fences.** In Puerto Rico fences are very common and will be found on the majority of parcels containing improvements. For the purpose of this section, fences are only the usual boundary fences. When additional interior fences are encountered, they should be recorded in the blank space under "Porches and Balconies." Record data for all fences. "Front" refers to the side of the parcel that faces the principal street; "left," to the boundary line to the left as one faces the property from the front; "right," to the boundary on the right; and "rear," to the boundary across the back of the parcel. When a given fence section is owned by the owner of the property being examined, place the numeral "1" in the box under "Owner" on the line describing that section of the fence. If a fence section is a joint ownership, insert "1/2" in the column headed "Owner," and on the line that describes the appropriate section, place the length in the column headed "Length." If the fence section is entirely owned by a person other than the owner of the property being examined, place an "0" in the appropriate space. Be sure that details of adjacent parcels are not contradictory. Under "Type," indicate the construction of the fence section, using appropriate abbreviations for materials as listed earlier. Six types of fences occur most frequently in Puerto Rico: rubble work masonry, prefabricated concrete, concrete with small areas of iron grillwork, iron grillwork with small areas of concrete, cyclone, and heavy wire on concrete posts. Measure to the nearest tenth of a foot and record on the appropriate line under "Height" and "Length" the measurements of each section. Do not fill in the "Area," "Unit," "Cost," and "Total Cost" columns, which are completed by office personnel.

FENCES	Own.	Type	Height	Length	Area	Unit	Cost	Total Cost
Front								
Left								
Right								
Rear								

**Store Fronts.** Instructions for recording data for store fronts will be found in the "Commercial" section of this chapter, page 241.

**Porches and Balconies.** Record all types of porches and balconies, carefully observing their distinguishing characteristics. A porch always has a column-supported roof which may be different from the roof of the main structure, such as a shed type roof; or the porch may be covered by the roof that is an integral part of the construction of the building, such as recessed porches of which two or three sides are enclosed by walls of the building.

PORCHES AND BALCONIES	Type	Area	Unit	Cost	Total Cost
Porches					
Balconies					

A balcony is a horizontal extension from a wall with cantilever supports. In recording porch information, place two abbreviations immediately after the word "Porches"—one to indicate the roof finish and the other to indicate the construction type of porch columns. Abbreviate the descriptions of the material used in floor construction and balustrades under "Type." Classify balconies structurally by the same procedures used for porches. If the balcony has a roof, which is always an exterior projection, enter its type immediately following the word "Balconies." If it has no roof, insert the word "None." Measure the area of the balconies and enter the result in square feet under "Area." Do not use the "Unit," "Cost," or "Total Cost" columns, which are to be filled in by office personnel.

**Other Additional Details.** There are other details of buildings for which no space has been specifically allocated on the appraisal card because their occurrence is comparatively rare. Descriptions of such items should be given in the blank spaces below "Porches and Balconies" at the end of the "Additional Details" section. The recording or omission of items in this category is not susceptible of precise tabulation in advance and rests in large part upon the experienced judgment of the appraiser. Generally speaking, however, if an item is a fixed, integral part of the improvements on a property and contributes measurably to the value of the property, it should be included. Among items of additional detail encountered in Puerto Rico are those described below.

**Balustrades.** When a balustrade is not included under any other additional item, such as roofs, insert the word "Balustrade" on the line under "Balconies" and record its type and length and height measurements.

**Exterior Stairs.** When exterior stairs not included in the unit cost of the building are encountered, insert the words "Exterior Stairs" on a blank line below "Balconies" and describe, by appropriate abbreviations, the materials out of which the stairs are constructed and the type of the balustrades. If there is a double balustrade, place the figure "2" between the abbreviations describing the stairs and the balustrade. If the stairs have a roof, draw an outline of the stairs on the building diagram.

**Marquee.** Wherever marquees are found, insert the word "Marquee" on a blank line below "Balconies." Record the construction material of which the roof and columns are built, using appropriate abbreviations.

**Mezzanine.** Where mezzanines are found, insert the word "Mezzanine" on a blank line below "Balconies." Record the construction material, area, and size; also the materials of the supporting beams and columns, balustrades, partitions, ceilings, doors, stairs, number of electrical outlets and fixtures, and whether the mezzanine is painted.

**Miscellaneous Structures.** Measure and draw a diagram in the building diagram space on the appraisal card, giving dimensions of huts and other structures that do not require a separate appraisal card. Give the diagram an identification label, such as "A," which is recorded beneath the diagram and is immediately followed by a word designating its use type, such as "Hut." On a line below "Balconies," write the headings "Roof," "Wall," and "Floor." On the next line below, insert the identification label of the miscellaneous structure and, under the headings that have been written on the line above, describe by appropriate abbreviations the roof, walls, and floor. Under "Type" show the quality of construction as "Inf." for inferior, "Bo." for good (abbreviation for *bueno*), and "S" for superior. Give wall thickness for such structures as concrete swimming pools, water tanks, and retaining walls. When a diagram is not made, as in the case of penthouses of inferior construction, the square area must be entered in the diagram space.

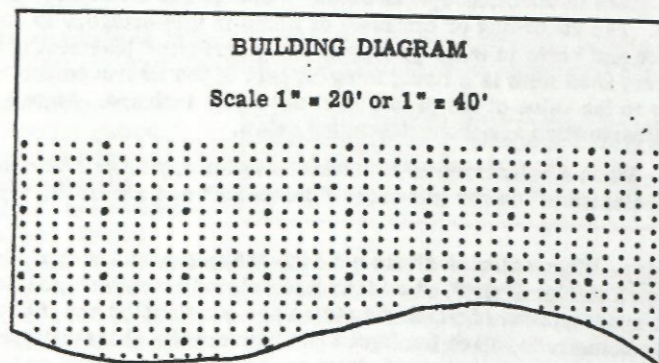
**Penthouse.** Buildings frequently have small penthouse dwelling units on roof tops. Where these units are not an integral part of the building and are of inferior construction, which is frequently the case, the penthouse should be described on the lines under "Balconies." Give information regarding its roof, wall, floor, and quality of construction in the same manner as for miscellaneous structures, and enter the exterior dimensions shown in the diagram space and the area. Better quality penthouses are included in the diagram of the structure of which they are a part.

**Special Structures.** Unit costs have not been developed for some kinds of structures because of their variety and the fact that they are not typical. The values of such structures are computed quantitatively. They must be fully described and complete information must be supplied as to wall thicknesses, ceiling heights, supporting beams, columns, rafters, joists, studs, balustrades, stairs, electrical installations, whether painted or not, and partition, wall, ceiling, and floor finishes.

**Terraces.** Paved areas above ground level are described on the appraisal card by inserting the word "Terrace" on a blank line below "Balconies" and by recording the type of balustrade, if any, by use of the appropriate abbreviation, or, if none, by the use of "0." Describe the type of pavement by inserting the appropriate abbreviation under "Type." Measure the dimensions and record the area in square feet under "Area." Do not use the "Unit" and "Cost" columns.

#### Building Diagram

Make a scale diagram showing the exterior dimensions of each building and indicating separate dimensions of each floor that varies in dimensions from the first floor, of areas with different types of construction, and of outlines of additional items or details. Use a scale of 1 inch = 20 feet whenever possible; but if the size of a building requires a smaller scale, use 1 inch = 40 feet. If necessary, a larger diagram space can be devised by pasting a sheet of cross-section paper on a separate appraisal card. The parcel code number appearing on the appraisal card must be recorded on the newly created diagram to tie the two cards together.



The space provided for the diagram is divided into cross sections indicated by small points which represent 2-foot separations at the 1" = 20' scale or 4-foot separations at the 1" = 40' scale. Larger points are placed for each 10 feet at the first scale and each 20 feet at the second.

Measure and record in feet to the nearest tenth of a foot the side of the building which faces the principal street. Record this in the lower part of the diagram space regardless of the way the building faces. Record all horizontal measurements so as to read from left to right and all vertical measurements to read from the bottom of the appraisal card to the top. Use dotted lines to indicate differences in construction materials, overhanging areas, and areas on different floors, and solid lines for all other purposes. Record all measurements outside the building lines on the diagram unless circumstances require an indication of distances between intermediate points. These can be recorded in the proper spaces inside the diagram.

Record each dimension on the diagram as it is measured and, at the close of the inspection, check the accuracy of these measurements by adding the opposite sides of the diagram to see that they are equal and that the diagram closes. When angles are more or less than right angles, they should be projected by using conventional methods either with instruments or by scaling the sides of the triangle, and the measurements should be recorded. Use a metallic tape with a hook on the end for all measurements. Begin measuring buildings at the front left corner as faced from the principal street and continue around the house counter-clockwise. Engage the hook in the corner of the building and walk to the next corner, keeping tension on the tape and holding it horizontal until the reading has been taken. Repeat this process for all sides of the building and for necessary interior measurements.

Take measurements against the wall wherever possible. If obstructions prevent this, place stakes beyond the obstruction to form a line parallel to and equidistant from the wall. Then take the measurement by firmly attaching the tape to one stake and running the tape on a straight line to the other stake. Care must be taken with this method, since the chances of error are considerable. Sometimes it is necessary to take measurements from roof tops. Estimates or approximations of measurements should never be made.

**Floor Levels.** If the improvement has only one story, write and encircle the figure ① within the diagram; if the building has more than one floor level, treat the other floor levels as follows:

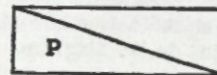
1. Indicate second and third stories that are coterminous with the first story by encircling a "2" or a "3" instead of a "1."
2. Measure separately buildings of two or more stories in which the upper stories are not coterminous with the first, indicating the dimensions by broken lines on the diagram and recording the proper number of stories within a circle in the applicable space.
3. Measure the effective areas of half-stories (which are not shown on the diagram) and note the total of these areas in a convenient blank space to the right of the diagram. (For example, "Effective area 1/2 floor = 1,000 sq. ft.") Show the total number of floors, such as 2-1/2, in a circle.
4. Diagram with broken lines and give dimensions of overhanging portions of upper stories of buildings. Record these outside the diagramed area and use uncircled figures to indicate the floor levels on which the overhangs occur. (For example, 2-3 indicates second and third floors.) Indicate with an arrow the applicable space on the diagram.
5. Show penthouses that form an integral part of a building in the diagram, following the procedures established for upper stories.
6. If the parcel slopes either toward the front or the rear, the first floor or a portion of the building may be on the second floor level of the remainder of the building. In this case, an explanation should be made in the diagram space.

**Variations in Exterior Wall Construction.** Some buildings will have a variation from their general construction type for decorative or other effect. This may take the form of a portion of a wall, perhaps around the entrance or front corners. Label these on the diagram with respective measurements. If the variation is less than two full walls, do not change the construction class of the building. If there is a variation in the exterior wall construction of a one-story building, indicate the different major sections by separating them with a solid line and labeling in the diagram the various sections as "Wood," "Masonry," "Reinforced Concrete," or "Steel Frame," giving their respective measurements. If there are variations in the exterior wall construction of a building of more than one story, show these variations by labeling just outside and opposite the diagram the type of construction for each story, such as "1st -

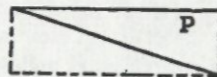
Masonry," and "2nd - Wood." If there are further variations in buildings of more than one story, indicate the major sections by solid lines and proper labeling.

**Porches.** Show porch areas by drawing a diagonal line from the top left corner to the bottom right corner. The lower left triangle thus formed represents first floor porches and the upper right triangle represents upper floor porches when the letter "P" is placed in such triangles. If a building has more than two floors, place the correct number at the side of the "P." Examples of various porch arrangements and how they are to be diagrammed are given below.

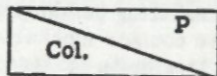
A porch on the first floor only.



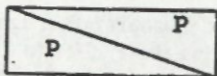
A two-story building with a projected porch on the second floor.



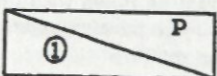
A two-story building with a porch on the second floor supported on columns or a solid base.



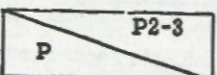
A porch on the first floor and a porch on the second floor.



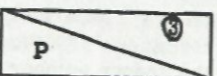
A two-story building with a porch on the second floor and living area on the first.



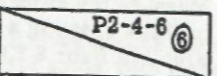
A three-story building with porches on all three floors.



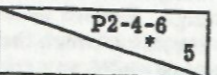
A three-story building with a porch on the first floor and living area in the corresponding upper areas.



A six-story building with porches on the second, fourth, and sixth floors only with living areas in corresponding spaces on other floors.

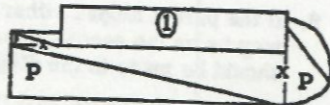


A six-story building with porches on the second, fourth, and sixth floors only with living area in corresponding spaces on first and third floors and nothing in the fifth floor space.

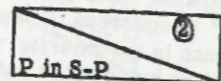


\* Nothing in 5th floor area.

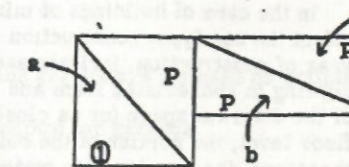
In order to make drawings of porches with irregular shapes easier and clearer, use a projection line in the following manner: Use the broken lines with crosses interspersed to divide porch areas into shapes so that diagonal lines can be drawn to indicate clearly different floor levels. When it is necessary to use a number in a circle within a porch area on a diagram, the number indicates the total number of floors on which there are porches and living areas.



A two-story building with basement (sótano in Spanish) with porches in the basement and first floor and living area on the second floor.



When porches with different characteristics are found in the same building, identify each by a letter which is used as a reference in the description in the "Additional Details" section to identify the descriptions fitting each diagram.



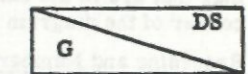
**Balconies.** Do not include balcony areas in the building diagram; sufficient information is recorded in the "Additional Details" section. These are identified by letters, as are porches, when more than one type is found.

**Marquees.** Measure marquees and incorporate their dimensions into the diagram, together with the abbreviation "MQ." Describe briefly the roof and columns in a blank space of the "Additional Details" section.

**Basements.** Show basements in the diagram and identify them by the letter "S" for sótano.

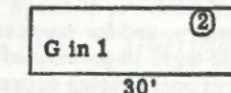
**Garages.** Include both attached and detached garages, properly oriented, on the diagram and, except as indicated below, identify with the letter "G." When a detached garage is found with servants' quarters or storage space built above the automobile area, treat it in the same manner as a porch.

A detached garage with servants' quarters (DS - domicilio del servicio) on a second floor. As with all auxiliary buildings, place a height measurement at the side of the diagram. When dwelling units are found built over detached garages and it is apparent that they are not primarily intended for servants' quarters, fill out a separate appraisal card for the building.



If an attached garage is made of the same material and has the same characteristics as the house, simply include it as part of the house on the diagram and assign a line to it in the "Interior Finish" section. Include an attached garage of construction inferior to the house as part of the house but use a solid line to mark its area off from the rest of the house. For an attached garage, consider the area over the garage as another room of the house and accord it no special treatment.

An attached garage with rooms on the second floor.



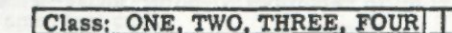
**Servants' Quarters.** Measure, including height, separate buildings used for servants' quarters and draw a diagram in the location with reference to the main structure.

**Other Additional Buildings.** Prepare a separate appraisal card for each dwelling that may be found on the same parcel, using the same identification code number except the house number. Measure and orient any other separate building, including height, make a diagram for it, and indicate its use type in the diagram space. Auxiliary buildings, including garages and servants' quarters, require, in addition to diagrams, that descriptions of roof, walls, and floor construction be recorded in the "Additional Details" section of the appraisal card by use of the abbreviations specified for describing miscellaneous structures.

**Classification**

The classification of buildings is based upon the classification system set forth in detail in Chapter I, Part Three. The use type and the construction class and subclass for a specific building are determined from the descriptive data recorded on the appraisal card and from inspection of the building. The complete classification of the building is recorded in the upper right corner on the back of the appraisal card.

To record the classification of a building, circle the appropriate structural class—ONE, TWO, THREE, or FOUR; place the letter that designates the use type—A, B, C, or D for residential buildings—in the first space to the right of the construction classes; and insert in the next space the subclass—1, 2, 3, 4, 5, 6, or 9. If the building belongs to the lowest structural classification—Class ONE, subclass 9—place the estimated value in the last space after the diagonal line. If no picture has been affixed to the appraisal card so as to cover the list, circle the letter in the list that designates the use type before recording it in the classification space as indicated above.



In the case of buildings of mixed construction, which may affect the use type, construction class and subclass, and the year of construction, indicate each different section by recording in abbreviated form and in order in the upper part of the diagram space (or as close thereto as possible) the floor level, the portion of the building referred to, the dimensions, the construction material, the use type of the construction class and the subclass, and the construction year of each section, such as 1 - front - 20 x 20 - M - H - Two - 3 - 1940. In the classification section of the appraisal card, enter one general classification consisting of the use type and the construction class and subclass which predominate in or are most representative of the building as a whole. Record as the effective year of construction the year that is representative of the building as a whole. This will always be a year intermediate between the date of earliest construction represented in the building and the date of the most recent construction. In the case of buildings that are in the category of old Spanish construction, write "Old Spanish Type" in the upper right corner of the diagram space.

A	One-family
B	Two-family
C	Multi-family - Walk-Up
D	Multi-family - Elevator
E	Hotel
G	Public Garage
H	Store, Market, Auto Sales, Etc.
J	Office
K	Bank
L	Theatre
M	Warehouse
P	Gasoline Station
T	Miscellaneous Structures
U	Public Utility
V	Vacant Land
X	Exempt Property

#### Recording and Numbering

Record all information on the appraisal cards by using hand printing rather than freehand, except where a signature is required. Always place a number after a decimal point even though it be a zero. Do not place the decimal point in the usual position but insert it half-way up the vertical dimension of the numerals; for example, 123·0. Whenever possible, put numbers between the rows of dots so they will be clear and the decimal points will not become confused with the dots. For example: 1 3' 6" 2 .

#### Summary of Field Working Procedures

The manifold variations in usage and construction make it impossible to prescribe a precise routine for the process of inspecting buildings and recording pertinent information.

As a summary, and for purposes of quick reference, an itemization which approximates the order in which the field work is performed is given below. For the sake of completeness, as with the foregoing, it assumes a property being appraised for the first time.

#### Front of card.

1. Insert, if not already present, the property code number.
2. Insert the address of the property and the name of the occupant.
3. Insert rental data if pertinent.
4. Insert the full name of the owner and/or taxpayer and addresses.
5. Insert the year of construction, the cost, indicating whether the cost of the land is included, and the building permit number.
6. Insert data regarding taxation, obtained from the most recent tax receipt.
7. Check applicable topographic features.
8. Check applicable street improvements. If the property is on a corner, use numerals to indicate improvements on each street.
9. Check utility services.

#### Back of card.

1. Insert name of appraiser.
2. Check the structural characteristics of the interior walls.
3. In "Interior Finish" indicate the number of rooms under the different headings of the "Number of Rooms" section and check the appropriate items in other sections.
4. In "Electrical" mark the type of wiring and fixtures.
5. In "Additional Details," under "Plumbing" indicate with numerals the number and quality of each item.
6. Give the area of each type of tile, adding such types as are necessary.
7. Give the structural characteristics of porches and balconies, including their roofs, and give the area of balconies.

8. Give type and area of grillwork.
9. Indicate whether the interiors of the walls and ceiling of the garage are finished or unfinished and give the material used in the floor.
10. Insert the same information for servants' quarters as is shown for garages.
11. Give the area and type of paved areas.
12. Indicate the type, quality, and ownership of the fences that form the boundary of the property and give areas of each section. At the same time that this is done, measure the parcel.
13. Check the type of building foundation.
14. Check the type of floor structure.
15. Check the structure and the kind and quality of the exterior wall finish.
16. Check the kind and quality of the roof structure and roof covering.
17. Check the kind and quality of windows. Insert the abbreviation "SUP" in the "Good" column to indicate quality that is definitely superior.
18. Under "Remarks" place any additional information or comments.
19. Measure and diagram the principal building.
20. Measure and diagram other buildings on the property.
21. Classify the improvements as to use and construction class and subclass.

#### Commercial

In the great majority of cases, the procedures outlined above for surveying and classifying residences are equally applicable to buildings designed for commercial use. For this reason, the same card is used for all commercial type buildings. (For theatres, which are discussed later, an additional special card is required.) Some of the procedures for filling out the appraisal cards for commercial buildings, however, differ from the procedures that have been given for residential buildings.

In many commercial buildings, the ceiling height of the first floor is greater than that of upper floors. Where this occurs, measure the ceiling heights, if possible; if not, make an estimate of the height and record it in the upper right corner of the diagram space.

Most commercial type buildings have special store fronts. Space is provided in "Additional Details" for a description of the plate glass area, or any other feature of the store front. Give separate information for each type, if more than one, and for front and side where they occur.

Store Fronts	Area	Unit	Cost	Total Cost

Some commercial establishments in the larger cities have a wide variety of additional details, such as air conditioning, passenger and freight elevators, and special ornamentation, inside and outside. Although in such cases the contrast to the average commercial type building is great, the construction subclass is not influenced. The value of such special features is included in the "Additional Details" section. If the appraisal card does not provide space sufficient for recording all data relevant to more elaborate structures, additional cards or appropriate sheets of paper may be utilized.

Regular district appraisal personnel, unless instructed otherwise, should obtain only basic data on structures such as banks, elaborate hotels, and large specialized commercial or industrial structures. Specially trained personnel from the central office will be assigned to assist in the appraisal of such properties.

#### Theatres

A special card known as the "theatre card" is utilized for recording data relevant to theatres, including the studios and theatres found in radio stations, which cannot be accommodated on the regular appraisal card. The fronts of both cards are filled out in the same manner as the card for residential properties. The back of the special card provides for recording additional details for both the interior and the exterior of theatres.

**Additional Interior Details.** Describe the interior of theatre buildings in accordance with the instructions given below for the various sections of the appraisal card.

Record the number of orchestra and other seats; use check marks to indicate the general quality of the seats. Cheap seats have no cushions; good seats have cushions on the seat and occasionally on the back also; superior

ADDITIONAL INTERIOR DETAILS				
Seats	Inf.	Good	Sup.	No. Cost Total Cost
Orchestra				
Other				

seats are cushioned both seat and back, are well finished, and have built-in aisle lights. Do not use the "Cost" and "Total Cost" columns.

Measure the square feet of acoustic material on ceilings, walls, columns, railings, and other places in the lobby and in the auditorium and record.

Acoustic Material	Area	Cost	Total Cost

Show the areas of the respective floor finishes in square feet. Some of the most common are wood, linoleum, and various types of tile, such as cement, quarry, asphalt, and glazed.

Floor Finish	Area	Cost	Total Cost

Describe here all murals, figures in high and low relief, or any other ornamentation which, in the judgment of the appraiser, represents a substantial cost.

Decoration	Area	Cost	Total Cost

For mezzanines, measure and give construction materials of areas on the second and higher floors, including all the seating areas, such as boxes and balconies.

Mezzanines	Area	Cost	Total Cost

Record the area of the stage and all other space or rooms behind it.

Stage and Dressing Rooms	Area	Cost	Total Cost

Measure and record the area of the cloth portion of the screen upon which pictures are projected.

Screen	Area	Cost	Total Cost

Check the existence and general quality of plumbing fixtures. Add any that are not listed on the card.

Plumbing	Inf.	Good	Sup.	Cost	Total Cost
Toilet					
Urinal					
Lavatory					

Insert after the appropriate words the number of light bulb sockets found in the respective areas.

Electrical Inst.	Bulbs	Cost	Total Cost
Auditorium			
Stage			
Marquee			

Most theatres of the island provide ventilation with either fans or air conditioning. In the case of the latter, record all the data listed on the name-plate of the equipment. If possible, secure the name of the person or firm who sold and installed the system. In the case of fans, record the number, the diameter of the blades, the brand, and the capacity and type of motor.

Ventilation	Cost	Total Cost
Fans-Fixed		
Air Conditioning		

Use this space for listing additional details not included above. Since the "Total Cost" column has not been completed in the field, leave the "Total" column blank.

Other	Cost	Total Cost
TOTAL		

This space is to be used for any explanatory or additional comment which the appraiser may consider pertinent.

Remarks:

**Additional Exterior Details.** Describe the exterior of theatre buildings in accordance with the instructions given below for the various sections of the appraisal card.

The facade or face of the building, apart from the marquee, is frequently of much costlier construction than the rest of the building exterior. Enter the material of which it is built and the dimensions.

Item	Struc.	Material	Size	Cost	Total Cost
Facade					

The canopy that projects over the entrance of the building (marquee) usually provides space for program announcements. Enter the material of which the marquee is built and its dimensions.

Marquee					

Include under "Ticket Office" only those offices which are separate small structures and not an integral part of the main building. Record the material used in construction and the dimensions, giving length, width, and height. If more space is needed, use free space nearby or in the "Remarks" column.

Item	Struc.	Material	Size	Cost	Total Cost
Ticket Office					

Most theatres have a large exterior sign, usually above the marquee and containing the name of the theatre. Give its dimensions and the materials of which it is constructed. When signs of very unusual design or shape are encountered, attach an explanatory note or sketch with the dimensions properly recorded. If the sign is electrical, record the type of illumination, such as light bulbs or neon gas.

Sign					

Exit doors are the emergency and service doors usually found at the sides and rear of the building. They are frequently sheeted with metal. Describe their construction and give dimensions.

Exit Doors					

There are also main doors or a main door at the front of the theatre, through which the patrons enter and depart. Describe their construction and give dimensions.

Entrance Doors					

Include all emergency stairs on the exterior of the building in the section headed "Fire Escape." Describe their construction and give dimensions. If the stairs are of concrete, the total area is sufficient. If the stairs are of metal, give the width and number of treads.

Fire Escape					

As in residences, grillwork refers primarily to ornamental ironwork. Simple bars across windows, with no welding between, are not to be included. The basic test for inclusion is that of ornamentation versus utility. Measure the area and give the dimensions in feet and inches; classify as simple, average, or elaborate. If the grillwork is of material other than iron, make special note of the construction material.

Item	Struc.	Material	Size	Cost	Total Cost
Grillwork					

PROCEDURES FOR REAL PROPERTY ASSESSMENT IN PUERTO RICO

Treat paved areas identically with those of residences. Record the total area of each type of paving.

Paved Areas							
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Fences are also treated in the same way as those surrounding residences. Many fences are jointly owned. If different sections belong to different owners, indicate this by placing the words "Front," "Left," "Right," and "Rear" in the spaces beneath the

Fences	Own.	Type	Ht.	Len.	Area	Unit Cost	Total Cost

heading "Fences." Right and left are determined by the appraiser's facing the property with his back to the principal street. Where the fence or a fence section belongs to the owner of the property being surveyed, the numeral "1" is placed in the box under "Own." Where ownership is divided between two owners, a "1/2" is inserted in the space and the length of the section is entered in the column headed "Length." If the fence or section is entirely owned by somebody other than the owner of the theatre, a letter "o" is placed in the ownership space. Give the material of which the fence is constructed, using appropriate abbreviations from the list. Measure height and length and insert the results in the proper spaces. The "Area" and "Unit" columns are left blank for office use.

Space is provided for the inclusion of any other additional exterior details which, in the judgment of the appraiser, should be included on the appraisal card as a significant betterment to the property.

Other	Size	Cost	Total Cost

**Diagram.** Follow the same procedure in making the diagram for theatre buildings as that outlined for residences. The wall which separates the lobby from the auditorium and the wall which separates the auditorium from the stage and the areas behind it must be shown on the diagram. Measure the height from floor to ceiling for each room or area of the theatre and record the dimensions in a corner of the diagram space.

Summary	
Item	Cost
Interior Details	
Exterior Details	
Total	

The "Summary" section of the special theatre appraisal card is not to be filled out by the appraiser but is reserved for use by office personnel.

Industrial

A residential-commercial appraisal card is prepared as a matter of record for each industrial building, whether it is adequate to contain all the appraisal data or not. It is possible to use the appraisal card alone for recording the construction characteristics and diagramming the buildings for simple industrial improvements but, for larger properties, the appraisal card will have to be supplemented by additional records.

Adequate data were accumulated during the reassessment project to provide the basic value information needed for appraising all industrial establishments in Puerto Rico. The field process required for the reappraisal of most industries, therefore, consists of a comparatively simple survey to make proper adjustments for building alterations and additions and changes in equipment inventory. In the case of new industrial plants, however, more elaborate field procedures are required and specially trained engineering personnel are assigned to do this work.

Buildings

On the front and at the right in the "Land" portion of the residential-commercial appraisal card, fill in the ownership, occupancy, tax history, parcel size, and related information about the property being surveyed. Record in the diagram space on the back of the appraisal card a sketch or a series of sketches of the improvements. If the diagram space is insufficient, use a sheet, 8" x 10", of quadrille paper and staple it to the back of the appraisal card. Record all exterior measurements and show at least one cross section of each building. If one cross section is not enough to give a precise idea of the building design, show as many as the appraiser deems necessary for the guidance of office personnel in reconstructing the building on paper.

IMPROVEMENTS

Exhibit 5

INDUSTRIAL APPRAISAL

Computation Sheet for Machinery

TI-2 CODE				
Mun.	Bo.	Map	Block	Par.

Page \_\_\_ of \_\_\_ By \_\_\_\_\_ Date \_\_\_\_\_ Municipality \_\_\_\_\_

Type of Industry \_\_\_\_\_ Product Manufactured \_\_\_\_\_

Name of Industry \_\_\_\_\_ Name of Owner \_\_\_\_\_

Address of Plant \_\_\_\_\_ Address of Office \_\_\_\_\_

Item No.	Description of Item	Year Inst.	Orig. Cost	Cost of Rep. Dollars	Year	% Good	Index For Year	Assessed Value

Exhibit 6

Date:	By:	Mun.	Bo.	Map	Block	TI-5	Par.
Name of Industry							
Product							
Address of Industry:				Street:		No:	
				Road No.		Km. H.	
Owner of Industry:							
Address of Office:				Street:		No.:	
				Town:			
Owner of Building:							
Remarks:							





Check the availability of electricity or telephone service to the individual farm regardless of whether an actual connection has been made. If there is a septic tank, check in the proper space.

Other Services	
Electricity	
Septic Tank	
Telephone	

**Residential and Commercial Buildings**

Commercial buildings, as well as residential and auxiliary farm buildings, are found on farm properties and all of them are included in the survey of agricultural improvements. This section deals with residential and commercial improvements and a separate section that follows deals with auxiliary improvements.

Do not fill out an appraisal card for residential and commercial buildings that have an estimated value of less than \$200 and are classified as Class ONE, Subclass 2, or less, but simply list them on the summary card as explained in the next paragraph. In the case of each dwelling or commercial type building that, in the opinion of the appraiser, has a value of \$200 or more or that is classified above Class ONE, Subclass 2, fill out a residential-commercial appraisal card. Follow the same procedures in filling out the "Land" portion on the front of the card as that prescribed in the foregoing section. In filling out the remainder of the card, follow the instructions provided for surveying urban residential and commercial improvements, and, in addition, list on the summary card in the "Additional Details" section each building, regardless of whether it is described on a separate residential-commercial card, having the same ownership as the land.

Beginning with the top line, list each building with an estimated value of \$200 or less which is not classified higher than Class ONE, Subclass 2, by recording: (1) Under "Item" the classification and its construction year; (2) under "Description" the principal construction of the roof, walls (or columns), and floor in that order and followed on the same line by the length and width dimensions of the building; (3) under "Unit" the construction quality and condition of the building designated by the words "Poor," "Ordinary," or "Good"; and (4) under "Cost" an estimate of the structure's value if it is \$200 or less. If it is more, leave it to be filled in by office personnel. Beginning with the third line from the bottom of the "Additional Details" section and progressing upward, list each building for which a separate residential-commercial appraisal card has been prepared, giving its number and classification. Leave at least one space between the two converging groups, using an additional summary card if necessary with a notation on the first card to indicate that there is another card.

Additional Details			
Item	Description	Unit	Cost

Record buildings which do not belong to the owner of the land in the "Remarks" section, identifying each by its building number and making a notation that the buildings so listed are separately owned.

**Auxiliary Farm Buildings**

Do not prepare separate appraisal cards for auxiliary farm improvements that have a value of \$200 or less. As indicated in preceding paragraphs, list such structures on the summary card in the "Additional Details" section if they belong to the owner of the land; and if they belong to somebody other than the owner of the land, list them as additional items on the residential-commercial appraisal card prepared for other improvements belonging to the owner of such auxiliary farm structures.

Prepare an auxiliary farm building appraisal card for all auxiliary farm buildings with a value in excess of \$200. Follow the same procedure in filling out the "Land" portion of the front of the auxiliary farm building card as that prescribed for the summary card and the residential-commercial card. Check the construction descriptions on the back of the card and to the left of the diagram space for foundation, floor structure, exterior walls, roof, electrical installation, and interior walls in the same manner as for residential and commercial type buildings. The space for describing windows is different on the auxiliary farm building card, but insert the type of window in accordance with the instructions for surveying residential type buildings. Check other construction descriptions to the right of the diagram space according to the following instructions.

"Columns" refer to those that support the roof instead of the exterior walls. Check the type or types, using the extra line to record any not listed.

Columns	
Unfinished Hardwood	
Imported Wood	
Finished Hardwood	
Concrete-Poor Construction	
Concrete-Good Construction	
Steel	
Pipes	

Check the type or use the blank space to record the type of feeding trough inside a building. If the trough is a separate structure, take other data as specified under "Additional Details" below.

Feeding Trough	
Wooden Troughs	
Concrete Troughs-Poor Construction	
Concrete Troughs-Good Construction	

Check the type of water trough. Automatic types have controls which maintain a certain water level in the trough or other water receptacle.

Water Troughs	
Same one as used for feeding	
Automatic	

Use the numerals (1), (2), etc. to indicate the number of each type of stanchions.

Stanchions	
None	
Wooden-Homemade	
Metal (piping) - Homemade	
Metal - Manufactured	

Check the incidence of water outlets in the respective spaces that apply. "Other Faucets" refers to outlets for cleaning, watering flowers and lawn, etc.

Water System		
None	One Faucet	Several Faucets
Showers	Faucet in Feeders	Faucet in Milk Shed
Other Faucets		

Check the type or types that apply. The items refer to the division for separating animals in the barn or stable. Do not confuse a stall with a stanchion, which is a sort of yoke that fastens around the animal's neck.

Stalls	
None	
Piping-Homemade	
Manufactured	

Check the type and record the information on the nameplate of the milking machines, if available, on Form TI-5. (This form is used for special and complicated machinery.) If necessary, special appraisers will survey the system in detail.

Milking System	
Hand	
Mechanical	

Indicate the type and general quality of the fixtures by checking the type and quality of construction.

Plumbing			
Unit	Inf.	Good	Sup.
Toilet			
Shower			
Wash Stand			
Wash Tub			

When a part of a stable, barn, or other structure is used for milking purposes, fill out this section of the card to describe the building of which it is a part. Use a separate card to describe a whole building that is designed to be used only for milking.

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Milking Shed		
None	Inf. Wood Wall	Good Wood Wall Siding
Concrete Wall	No Ceiling	Cardboard Ceiling
Good Wood Ceiling	Batten Doors	Batten Windows
Metal Screen Door	Metal Screen Windows	

When a room in a stable, barn, or other structure is used for storage purposes, fill out this section of the card to describe the building of which it is a part. This section does not refer to a storage barn.

Storage Room		
None	Inf. Wood Wall	Good Wall Siding
Good Concrete Wall	Dirt Floor	
Concrete Floor	No Ceiling	

Check the appropriate items that describe a pen for calves or pigs, whether the structure is or is not an integral part of a stable, barn, or other structure.

Pen for Calves or Pigs					
None	Dirt Floor	Inferior Concrete Floor	Concrete Floor	Good Drainage	
Unfinished Hardwood Wall	Metal Screen Wall	Galvanized Iron Wall	Good Wood Wall		
Concrete Wall	Piping Wall	Steel Rod Wall	No Feeder		
Wood Feeder	Good Concrete Feeder	Automatic Watering Trough			

Check the appropriate items that describe a pen where cows are kept during calving, whether it is or is not an integral part of a stable, barn, or other structure.

Calving Pen				
None	Good Concrete Floor	Good Wood Wall	Concrete Wall	Piping Wall
Steel Rod Wall	No Feeder	Wood Feeder		
Good Concrete Feeder	Automatic Drinking Trough			

Check the type and construction of the component parts, using the blank line to record any variety not listed. This refers to the common outdoor anchored derrick found throughout the sugar cane area. The more massive, specialized types found in and adjacent to the factories are taken as part of an industrial appraisal.

Cane Derrick		
Mast	Boom	Supports
Wood	Wood	Cable
Steel	Steel	Tripod

Tobacco Barn			
Studs-Unfinished Hardwood	Studs-Finished Hardwood		
Studs-Imported Wood	Trusses-Unfinished Hardwood		
Trusses-Finished Hardwood	Trusses-Imported Wood		
Drying Racks-Unfinished Hardwood	Drying Racks-Imported Wood		

The heading for this section of the appraisal card is misleading to the extent that it does not refer to the tobacco barn as a whole but refers only to parts of the structure, whether the wood used is of a native variety or imported, and the quality. Therefore, check the applicable items as complementary to other descriptions of the structure of which it is a part.

Use this space to record explanations, clarifying data, and similar notations that it may be desirable to provide as additional descriptive information.

Record all construction data not included in other sections of the auxiliary farm building card in this section. Certain use types of agricultural improvements do not require a separate appraisal card or detailed description. The necessary information for such structures is entered as an additional detail. The most common structures in this category and the procedures for securing the

Observations	

Additional Details		
Item	Description	Cost

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data required to assess them are given in subsequent paragraphs. The letters used to identify use types are initials selected on the basis of the Spanish terms for them.

AG - Livestock Watering Trough: Only those which are not part of a building and are constructed of masonry or concrete. Record the length, width, depth, wall thickness, construction material, water supply system, and any special details.

GC - Livestock Feeding Trough: Those which are not a part of a building and are constructed of masonry, concrete, or pipe. Record the length, width, depth, wall thickness, construction material, and pipe diameter.

GS - Coffee Drying Area: Concrete paved areas in the open. Record the length and width; material, length, average height, and thickness of the walls; special details; and present condition.

MV - Windmill: Record the height, distance between legs at base of tower, information on name-plate, and whether in use.

OE - Other Structures: Designate the use type of any other minor structure appraised as an additional item.

SA - Silo: Both the vertical type, which is usually constructed of concrete or masonry, and the trench type, which is an excavation in the ground and is usually reinforced by poured concrete, concrete block, or brick, and covered by a roof. For a vertical silo, record wall thickness, height above ground, and depth, if part of it is underground. For a trench silo, record length, width, depth, wall lining or reinforcement, floor material, roof material, and special details.

TA - Water Tank: Such structures may be a part of a building, a separate structure, or partly inside a building (for example, beneath a porch or kitchen). If the latter, an observation of its volume and location should be given; for example, "50 gallon water tank beneath kitchen." If it is a separate structure, record the length, width, and depth; wall thickness; construction material; exterior and interior finishes; special details; and whether in use.

Diagram. When surveying an auxiliary farm building, measure its height and record this measurement in the upper right corner of the diagram space. All other procedures for diagramming auxiliary farm buildings are identical with those given in the instructions for diagramming residential buildings.

Classification. Classify auxiliary farm structures in accordance with the specifications for agricultural type buildings by filling out the classification section as follows: Ignore the classes—ONE, TWO, THREE, and FOUR—as they are eliminated from the classification system of agricultural type buildings. Since there are no subclasses, use the numerals 1, 2, 3, and 4 to designate the classes, including both the construction type and quality, in accordance with the specifications for agricultural type buildings, and record in the second blank space in the classification section of the form.

Class ONE, TWO, THREE, FOUR

Insert in the first blank space of the classification section the appropriate use type, which appears on the appraisal card in the bottom center under the diagram space. If the person making the survey is other than the appraiser who classified the building, insert the name and date of the survey in the section below that for recording the classification. The appraiser inserts his name and the date in the space provided whether he makes the entire survey or merely does the classifying. The supervisor who approved the appraisal inserts his name and the date in the space provided.

Fieldman	Appraiser	Approved

- AG Livestock Watering Trough
- CB Pump House
- CR Open Shed
- CG Livestock Feeding Trough
- EV Dairy Barn
- GS Coffee Drying Area
- GC Cane Derrick
- HC Coffee Processing Building
- MV Windmill
- OE Other Structures
- PA Stable
- PP Pigpen
- PC Paddock
- RT Tobacco Barn
- RA Storage Barn
- SA Silo
- TA Water Tank
- BT Storm Shelter

#### IV. COMPUTING VALUES

The final step in the appraisal of improvements is the computation of values. This process involves computing the area of all improvements that have unit costs per square foot, pricing areas and additional details which are valued at other than square foot unit costs, determining the per cent good, and reducing the replacement cost new to the depreciated present value. Because the appraisals of industrial improvements are very detailed, the computation of their value is an integral part of the appraisal procedure and therefore cannot be routinized sufficiently to be performed by clerical personnel. Thus, only a general discussion of industrial computations is presented at the end of this chapter.

It is important that each computer familiarize himself with the symbols which designate use types and the classes and subclasses for construction types and quality. These are presented in Tables 41 and 42.

##### Computing Areas

A computation of the area is necessary for all improvements that are priced at a unit cost per square foot, except those for which the areas have already been extended in the field. Such improvements include the main building, auxiliary buildings, and a number of additional details. Two types of improvements — tobacco barns and storage barns — have cubic foot units and it is therefore necessary to compute the volume of these structures in cubic feet. The volume computations present no particularly difficult problems, however, and they are discussed in conjunction with area computations.

Four mathematical formulas are used in area or volume computations. To determine the area of a rectangle, use the formula: Area = Width X Length. To determine the area of a triangle, use the formula: Area =  $\frac{\text{Base X Altitude}}{2}$ . To determine the volume, use the formula: Volume = Area X Height. To determine the area of a circle, use the formula: 3.1416 X the square of the radius.

##### Principal Buildings

All completed appraisal cards, except those of unimproved parcels and certain summary cards, bear the diagram and description of one principal building; there may be subsidiary buildings also.

Before beginning the computation of the areas of improvements, the following procedural rules are to be observed:

1. Using the dimensions shown on the diagram in feet and tenths of a foot, round the product to the closest number of square feet by dropping all decimals less than .50 and raising .50 or more to the next whole number.
2. Record the principal building areas in the area column of the upper part of the section of the card headed "Computation of Improvement Value." When appropriate, make entries after any or all of the following items: "First Floor," "Second Floor," "Third Floor," and "Penthouse." If more lines are needed, enter the items and their areas on the blank lines after "Penthouse." Additional entries are required to record the areas of parts of floors if the floor is of mixed use or construction. Use the abbreviations that appear on the building diagram to represent these items.
3. Disregard all porches, balconies, terraces, and marquees in determining the area of the principal building.
4. Check the over-all dimensions on the diagram to make sure that the diagram closes. If it closes within 1.0 foot, reduce the longest part of the longer side by the difference between the two over-all dimensions. If the discrepancy is more than 1.0 foot, check the scale of the drawing. This will often disclose the source of large errors. If the scale is approximately correct and the error is more than 1.0 foot, refer to the appraiser who measured the building for final determination.
5. Identify each type of porch by use of a subscript, such as a, b, and c, on the diagram and in the space on the card for describing porches.

The following rules govern the actual computation of areas:

1. For square or rectangular buildings, multiply the width by the length.

2. For buildings with more than four sides, divide the diagram into rectangles and, if necessary, triangles. Compute each part separately and add the products to obtain the total area.
3. For buildings with irregular portions that cannot be conveniently reduced to rectangles and triangles, such as bays, approximate the average width and length and compute as a rectangle.
4. For buildings with a curved wall, reduce the area within the curve to a straight-sided figure that is approximately equivalent.
5. For buildings with more than one floor, compute and record the area of each floor separately.
6. For floors with more than one construction class or more than one use type, compute and record the area of each part separately.
7. For half stories, compute and record the total effective area shown on the diagram.
8. For tobacco and storage barns, multiply the floor area by the height to obtain the volume

##### Subsidiary Buildings

The areas of the following types of subsidiary buildings are to be computed: (1) detached buildings sketched on the diagram; (2) attached garages; and (3) detached buildings described by notes or observations on the card. There are no differences in computation techniques between this type of improvement and the principal building, but the following rules apply to recording the areas on the appraisal card:

1. Enter the area of all garages within the block that contains the word "Garage" on the back of the card.
2. Enter the area of detached servants' quarters within the block that contains the phrase "Servants' Quarters" on the back of the card.
3. Enter all other subsidiary buildings on the blank lines after "Penthouse" on the front of the card and record the areas thereof in the same manner as that used for floor areas of the principal building.

##### Additional Details

Several items constituting additional details have unit costs per square foot and the area of each must therefore be computed.

The areas of the following items are computed in the field and entered on the appraisal card in square feet so that they need not be considered in the computation process: tile and other finishes, grillwork, paved areas, store fronts, balconies, terraces, and some other unusual items that are written in.

The areas of the following items are computed from the dimensions shown on the card: porches, marquees, basements, and items the dimensions of which are noted under "Remarks."

The dimensions of fences appear in the section of the card entitled "Fences," under the columns "Height" and "Length." Multiply the height by the length and then multiply the result by the number appearing under "Owner" to obtain the area of fence belonging to the owner of the property being computed. Enter this final product under "Area." Make a separate computation for front, left, right, and rear fences.

##### Determining Replacement Cost New

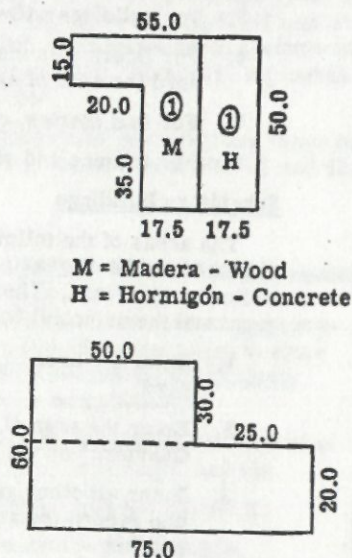
Unit costs must be selected and recorded for most of the area entered separately on the appraisal card and for each item of additional detail priced on the basis of any other unit. Each unit is then multiplied by the area or number to which it refers to obtain the replacement cost new of the respective parts, which are added to determine the replacement cost new of all the improvements.

##### Derivation of Unit Costs

The following rules apply to the selection of unit costs for the various types of improvements:

1. For one-story buildings of one construction class and use type, use the unit cost for the appropriate use type, class, subclass, and area. If the exact area of the building does not appear on the cost factor table, use the factor for the area nearest that of the building. If the area of the building is greater or smaller than any area on the table for the given subclass, check with an appraiser to insure that the building is properly classified; if it is, use the unit cost for the listed area nearest that of the building.

2. For buildings of more than one story, each of which contains only one class and use type, treat each floor as in Rule 1 above. Note that first-floor factors are used for one-story buildings except for subclass 6 residences, which have different factors for the first floor of a one-story structure and the first floor of a structure with more than one story.
3. For buildings or floors that are of two different construction classes, use the appropriate cost factors for the total area. The accompanying illustration, which assumes a building classified as TWO B 4, is an example of this situation. The Class ONE area is 1,175 square feet and the Class THREE area is 875 square feet, making a total area for the building of 2,050 square feet. Use the ONE B 4 cost factor for 2,000 square feet and also the THREE B 4 cost factor for 2,000 square feet. If the area of the smaller part of the building is less than 100 square feet, consider the entire building to be of the other class.
4. For buildings that are of two different use types, use the two cost factors for the individual areas. The accompanying illustration, which assumes a building classified as THREE H 3, is an example of the situation. The area devoted to a store is 2,250 square feet and that used as a dwelling is 1,500 square feet. Use the THREE H 3 cost factor for 2,200 square feet and the THREE A 3 cost factor for 1,600 square feet.
5. If a top story is devoted entirely to bedrooms and is less than 250 square feet in area, use the penthouse cost factor, which is to be found under "Additional Details."
6. There are no diagrams for Class ONE A 9 dwellings and farm buildings valued at less than \$200 and they are priced at a lump sum value by the appraiser in the field.
7. Enter all building unit costs in the column headed "Unit" in the appropriate section of the card. Record garage and servants' quarters units on the back of the card in the spaces provided in the respective sections. Record units for all other buildings on the front of the card in the spaces provided in the "Computation of Improvement Value" section.
8. Unit costs of additional items do not vary by area. Select the unit from the appropriate table, being guided in your selection by the description of the improvement as given on the appraisal card.
9. For additional details written in on blank lines, enter the unit costs under the title "Unit Cost" directly beneath "Porches and Balconies."
10. For plumbing fixtures, enter the unit cost under the column headed "Cost" if only one fixture of that particular type entered is on the card. Otherwise, do not enter unit costs for plumbing fixtures on the card.
11. In every case where any plumbing whatsoever is recorded on the appraisal card, write the letters "C.E." on the blank line following "Water Heater." These letters, which are an abbreviation of the Spanish costos englobados, refer to a lump sum charge for drain connections. Under "Cost" on the same line enter the appropriate unit from the table of lump sum plumbing installation costs.



#### Computation of Replacement Costs

The computation of the replacement cost of any part of the improvements consists merely of multiplying the unit cost by the area or volume, except in the case of plumbing fixtures and a few other additional details where costs are computed on a per item, per foot, or per riser basis. The following rules apply to this computation:

1. For buildings or parts of buildings that appear in the section "Computation of Improvement Value," multiply the area in square feet by the unit cost and enter the product, rounded to the nearest dollar, in the cost column.

2. For garages and servants' quarters, multiply the area indicated in the block by the unit cost and enter the product, without rounding, in the column "Total Cost."
3. For plumbing fixtures, compute the total cost of all items of any one type of fixture and enter this total under "Cost." Add the cost of all plumbing fixtures and enter this total at the bottom of the column "Total Cost."
4. For additional items other than garages, servants' quarters, and plumbing fixtures, multiply the area or other unit by the unit cost and enter the product in the column "Cost." Add the products in each section (i.e., "Tile," "Grillwork," "Paved Areas," "Fences," "Store Fronts," "Porches and Balconies," and items listed on the blank lines) and enter the sum at the bottom of the column "Total Cost."
5. Enter the sum of all additional details in the "Cost" column after "Additional Details" on the front of the card, rounding to the nearest dollar.
6. Add all the figures in the cost column in the section "Computation of Improvement Value" and enter the sum after "Replacement Cost New."
7. For Class ONE A 9 buildings, use the value written after "Class" on the back of the card. Enter this figure after "Assessed Value" on the front of the card, rounding to the nearest ten dollars.
8. For auxiliary farm buildings of less than \$200 value that are entered in the top part of the section "Additional Details" on the summary appraisal card, no further computation of replacement cost new is necessary.

#### Computing Depreciated Assessed Values

To reduce the replacement cost new of improvements to depreciated assessed values, the per cent good, obtained from the depreciation schedules, is multiplied by the replacement cost new to determine the total present value. This is rounded to the nearest \$10 and recorded as the assessed value. The following rules govern these operations:

1. Enter the year of construction, obtained from the "Land" section, in the designated column in the section "Depreciation and Obsolescence" on the front of the card.
2. Enter the year of appraisal in two places, under "Year of Appraisal" in the "Depreciation and Obsolescence" section and after "Year" in the "Computation of Improvement Value" section.
3. Enter the classification in the designated portion of the "Computation of Improvement Value" section.
4. Subtract the year of construction from the year of appraisal and enter the difference under "Age" in the "Depreciation and Obsolescence" section.
5. Find the life expectancy for the principal building in the "Life Expectancy Table" and enter it under "Life." Note that life expectancies vary according to both construction and use classification.
6. Find the per cent good of the improvements on the Normal Depreciation Table and enter the figure under "% Good" in the "Depreciation and Obsolescence" section.
7. Enter the per cent good again under "Adjusted % Good" in the "Depreciation and Obsolescence" section.
8. Enter the adjusted per cent good on the designated line in the "Computation of Improvement Value" section.
9. Multiply the replacement cost new by the adjusted per cent good, and enter the product, rounded to the nearest dollar, after "Total Present Value."
10. Round the total per cent good to the nearest ten dollars and enter it after "Assessed Value."
11. For Class ONE A 9 buildings, the value entered after "Classification" is the assessed value and no further computation is required.

12. For all farm buildings owned by the owner of the farm, enter the assessed value recorded on the card upon which it was computed on the appropriate line under "Cost" in the "Additional Details" section of the summary card.
13. On the summary card, add the cost of all improvements owned by the owner of the farm and enter the total both at the bottom of the "Additional Details" section and after "Assessed Value" in the "Computation of Improvement Value" section on the front of the card.

#### Quantitative Computations

There are some types of improvements that belong to a category of special structures, such as large skyscraper type buildings, sugar centrals, distilleries, and breweries. Because of their complexity or individuality of construction, they require special treatment in computing their values, just as they require specially trained personnel to survey and classify them. Field appraisals of these improvements are made by the quantitative method, which consists of distinguishing quantities of the various construction materials, such as cubic yards of concrete and the length and type of steel beams, and arriving at values by quantitative computations.

In the section in Chapter III, Part Three, dealing with surveying and classifying industrial improvements, in which category occur most of the structures requiring specialized treatment, procedures for obtaining and recording construction information and machinery and equipment data are described in considerable detail. Quantities are listed on special forms and on quadrille paper attached to forms; sometimes more than one hundred separate sheets and forms are required for the appraisal of a single large industry. Some of the procedures include making computations in the field; but, whenever practicable, values are to be computed as an office operation.

Unit values for all elements of the structure are obtained from the cost schedules, tables, and other records on file in the special structures appraisal section. The tables and schedules are not listed in this manual because of their great volume and limited use. When all the parts of the special structure have been priced and their values extended, they are added to obtain a total undepreciated value for the building.

Special structures are depreciated by the same procedures as those used for other structures. Life expectancies and per cents good for special structures are included in the depreciation tables, and entries on the appraisal cards of the individual buildings are made in the same way. For those industries which have more than one special structure, the depreciated assessed values on each individual card are totaled and recorded on a summary card as the total assessed value of the plant.

#### Machinery Computations

The value of industrial machinery is determined by pricing each unit individually, according to the tables and data on file in the Technical Section in the central office. No machinery cost tables are included in this manual because the volume and variety are too great. Each item is depreciated separately and a per cent good is determined by reference to life expectancy tables and the judgment of the appraiser as to condition. The depreciated totals are then added to arrive at the value for all machinery and equipment on a given parcel. If the machinery is owned by the owner of the building, its value is added to that of the buildings to obtain a total assessed value for the property which is recorded on a residential-commercial summary appraisal card, which is filed along with other appraisal cards, while the detailed supporting tabulated data are filed separately.

#### Tables and Schedules

The unit cost tables and depreciation schedules for the computation of the values of improvements are reproduced in this section. All costs are in dollars per square foot unless otherwise noted.

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Table 43  
Life Expectancy Table for All Classes

Class ONE - Wood Frame						
Built Since 1932						
Use Type	Subclasses					
	1	2	3	4	5	6
Residential	20	20	30	30	45	50
Commercial and Industrial	20	20	30	40		
Built Prior to 1932						
Residential	35	35	45	50	55	60
Commercial and Industrial	35	35	45	50		

Class TWO - Masonry Wall						
Old Spanish Type						
Use Type	Subclasses					
	1	2	3	4	5	6
Residential	40	40	60	75	85	100
Commercial and Industrial	40	40	60	75		
Other Than Old Spanish Type						
Residential	35	35	45	50	55	60
Commercial and Industrial	35	35	45	50		

Class THREE - Reinforced Concrete						
Use Type	Subclasses					
	1	2	3	4	5	6
Residential		50	50	60	70	75
Commercial and Industrial	40	40	50	60		

Class FOUR - Steel Frame						
Use Type	Subclasses					
	1	2	3	4	5	6
Commercial and Industrial		50	60	70	70	

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Table 44  
Normal Depreciation Table  
(Per Cent Good for Specific Years Based upon Reducing Balance Method)

Year	ESTIMATED LIFE																		
	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100		
1	95	96	97	97	97	97	98	98	98	98	99	99	99	99	99	99	99		
2	90	92	93	94	95	95	96	96	97	97	97	97	98	98	98	98	98		
3	86	88	90	91	93	93	94	95	95	95	96	96	96	97	97	97	97		
4	81	85	87	89	90	91	92	93	93	94	94	95	95	95	96	96	96		
5	77	81	84	86	88	89	90	91	92	93	93	93	94	94	95	95	95		
6	74	78	82	84	86	88	89	90	90	91	92	92	93	93	94	94	94		
7	70	75	79	82	84	86	87	88	89	90	90	91	92	92	92	93	93		
8	66	72	76	79	82	84	85	86	87	88	89	90	90	91	91	92	92		
9	63	69	74	77	80	82	83	85	86	87	88	89	90	91	91	92	92		
10	60	66	71	75	78	80	82	83	85	86	87	88	89	90	90	91	91		
11	57	64	69	73	76	78	80	82	83	84	85	86	87	88	88	89	90		
12	54	61	66	70	74	76	78	80	82	83	84	85	86	87	88	89	90		
13	51	59	64	68	72	74	77	79	80	82	83	84	85	86	87	88	89		
14	49	56	62	66	70	72	75	77	79	80	82	83	84	85	86	87	88		
15	46	54	60	64	68	70	74	76	78	79	81	82	83	84	85	86	87		
16	44	52	58	62	67	69	72	75	76	78	79	81	82	83	84	85	86		
17	42	50	56	60	65	68	71	73	75	77	78	80	81	82	83	84	85		
18	40	48	54	58	63	66	69	72	74	76	77	78	80	81	82	83	84		
19	38	46	52	57	62	65	68	71	73	74	76	77	79	80	81	82	83		
20	36	44	51	56	60	63	67	69	71	73	75	76	78	79	80	81	82		
21	34	42	49	54	58	61	65	68	70	72	74	75	77	78	79	80	81		
22	32	41	47	52	57	60	64	67	69	71	73	74	76	77	78	79	80		
23	31	39	46	51	56	59	63	66	68	70	72	73	75	76	77	78	79		
24	29	37	44	50	55	58	61	64	67	69	71	72	74	75	76	77	78		
25	28	36	43	48	53	56	60	63	66	68	70	71	73	74	75	76	77		
26	26	35	41	46	52	55	59	62	65	67	69	70	72	74	75	76	77		
27	25	33	40	45	50	54	58	61	64	66	68	70	71	73	74	75	76		
28	24	32	39	44	49	53	57	60	62	65	67	69	70	72	73	74	75		
29	23	31	37	43	48	52	56	59	61	64	66	68	69	71	72	73	74		
30	21	29	36	42	47	50	54	58	60	63	65	67	69	70	72	73	74		
31	20	28	35	40	46	49	53	57	59	62	64	66	68	69	71	72	73		
32		27	34	39	44	48	52	56	58	61	63	65	67	69	70	71	73		
33		26	33	38	43	47	51	55	57	60	62	64	66	68	69	71	72		
34		25	31	37	42	46	50	54	56	59	61	63	65	67	68	70	71		
35		24	30	36	41	45	49	53	56	58	60	62	64	66	68	69	70		
36		23	29	35	40	44	48	52	55	57	60	62	64	65	67	68	70		
37		22	28	34	39	43	47	51	54	56	59	61	63	65	66	68	69		
38		21	28	33	38	42	46	50	53	55	58	60	62	64	65	67	68		
39		20	27	32	37	41	45	49	52	55	57	59	61	63	65	66	68		
40			26	31	36	40	44	48	51	54	56	58	60	62	64	65	67		
41			25	30	35	40	44	47	50	53	55	58	60	62	63	65	66		
42			24	29	34	39	43	46	49	52	55	57	59	61	63	64	66		
43			23	28	34	38	42	45	49	51	54	56	58	60	62	63	65		
44			22	28	33	37	41	45	48	51	53	55	57	59	61	63	64		
45			22	27	32	36	40	44	47	50	52	55	57	59	60	62	64		

IMPROVEMENTS

Table 44  
(Continued)

Year	ESTIMATED LIFE																		
	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100		
46			21	26	31	35	39	43	46	49	52	54	56	58	60	61	63		
47			20	25	30	34	39	42	45	48	51	53	55	57	59	61	62		
48				24	30	34	38	41	45	48	50	52	55	57	59	60	62		
49				24	29	33	37	41	44	47	49	52	54	56	58	60	61		
50				23	28	32	36	40	43	46	49	51	53	55	57	59	61		
51				22	27	31	36	39	42	45	48	50	53	55	57	58	60		
52				22	27	31	35	39	42	45	47	50	52	54	56	58	59		
53				21	26	30	34	38	41	44	47	49	51	53	55	57	59		
54				21	25	29	34	37	40	43	46	48	51	53	55	56	58		
55				20	25	29	33	36	40	43	45	48	50	52	54	56	58		
56					24	28	32	36	39	42	45	47	49	52	54	55	57		
57					24	28	32	35	38	41	44	46	49	51	53	55	56		
58					23	27	31	35	38	41	43	46	48	50	52	54	56		
59					22	26	30	34	37	40	43	45	48	50	52	54	55		
60					22	26	30	33	36	39	42	45	47	49	51	53	55		
61					21	25	29	33	36	39	42	44	46	49	51	52	54		
62					21	24	28	32	35	38	41	43	46	48	50	52	54		
63					20	24	28	31	34	38	40	43	45	47	49	51	53		
64						23	27	31	34	37	40	42	45	47	49	51	53		
65						22	27	30	33	36	39	42	44	46	48	50	52		
66						22	26	30	32	36	39	41	44	46	48	50	51		
67						21	26	29	32	35	38	41	43	45	47	49	51		
68						20	25	29	32	35	38	40	43	45	47	49	50		
69						25	28	31	34	37	39	42	44	46	48	50			
70						24	28	30	34	36	39	41	44	46	48	49			
71						24	27	30	33	36	38	41	43	45	47	49			
72						23	27	29	33	35	38	40	43	45	47	48			
73						23	26	29	32	35	37	40	42	44	46	48			
74						22	26	28	32	34	37	39	42	44	46	48			
75						22	25	28	31	34	36	39	41	43	45	47			
76						21	25	27	31	33	36	38	41	43	45	47			
77						21	24	27	30	33	35	38	40	42	44	46			
78						21	24	26	30	33	35	37	40	42	44	46			
79						20	23	26	29	32	35	37	39	41	43	45			
80						23	26	29	32	35	37	39	41	43	45				
81						23	25	28	31	34	36	38	40	42	44				
82						22	25	28	31	33	36	38	40	42	44				
83						22	24	28	30	33	35	37	40	42	43				
84						21	24	27	30	32	35	37	39	41	43				
85						21	23	27	29	32	34	37	39	41	43				
86						21	23	26	29	31	34	36	38	40	42				
87						20	23	26	29	31	33	36	38	40	42				
88						22	26	28	31	33	35	37	39	41					
89						22	25	27	30	33	35	37	39	41					
90						22	25	27	30	32	34	37	39	41					



RESIDENTIAL BUILDING COST FACTORS

Area	Class ONE														
	A - One-Family						Subclasses 1 - 6								
	First Floor <sup>a</sup>						Second of 2 Floors								
	Subclass 1	Subclass 1+	2-	Subclass 2	2+	Subclass 3	3-	3+	Subclass 4	4-	4+	5-	Subclass 5	5+	Subclass 6
200	1.23	1.28	1.33	1.38	1.72	2.05	2.39	---	---	---	---	---	---	---	---
250	1.14	1.19	1.24	1.29	1.65	1.99	2.35	---	---	---	---	---	---	---	---
300	1.06	1.11	1.15	1.20	1.56	1.93	2.29	2.58	2.88	3.17	3.77	---	---	---	---
350	1.00	1.04	1.07	1.11	1.49	1.86	2.25	2.52	2.78	3.05	3.65	---	---	---	---
400	.95	.98	1.02	1.05	1.44	1.82	2.20	2.45	2.71	2.96	3.56	4.16	4.76	6.25	---
500	.85	.88	.92	.95	1.34	1.74	2.13	2.34	2.56	2.77	3.36	3.94	4.53	6.02	---
600	.76	.79	.82	.85	1.25	1.66	2.07	2.26	2.44	2.63	3.20	3.76	4.33	5.82	7.31
700	.69	.72	.74	.76	1.18	1.60	2.02	2.19	2.35	2.52	3.08	3.63	4.19	5.39	6.60
800	.63	.65	.67	.69	1.13	1.55	1.99	2.13	2.28	2.42	2.97	3.52	4.07	5.06	6.04
900	---	---	.60	.63	1.07	1.52	1.96	2.08	2.21	2.33	2.88	3.42	3.97	4.80	5.63
1000	---	---	.55	.58	1.04	1.48	1.94	2.04	2.16	2.26	2.80	3.34	3.88	4.59	5.31
1200	---	---	.49	.53	.97	1.43	1.87	1.97	2.06	2.16	2.69	3.21	3.74	4.30	4.87
1400	---	---	---	---	---	1.39	1.84	1.93	2.01	2.10	2.62	3.15	3.67	4.14	4.62
1600	---	---	---	---	---	1.35	1.80	1.88	1.96	2.04	2.56	3.09	3.61	4.03	4.44
1800	---	---	---	---	---	---	---	---	1.91	1.99	2.51	3.03	3.55	3.93	4.31
2000	---	---	---	---	---	---	---	---	1.86	1.94	2.46	2.99	3.51	3.87	4.23
2200	---	---	---	---	---	---	---	---	1.83	1.91	2.43	2.94	3.46	3.81	4.17
2400	---	---	---	---	---	---	---	---	1.80	1.88	2.40	2.92	3.44	3.78	4.12
2600	---	---	---	---	---	---	---	---	1.78	1.86	2.38	2.89	3.41	3.74	4.08
2800	---	---	---	---	---	---	---	---	1.75	1.83	2.35	2.86	3.38	3.71	4.03
3000	---	---	---	---	---	---	---	---	---	---	---	2.84	3.36	3.68	4.01
3400	---	---	---	---	---	---	---	---	---	---	---	2.78	3.30	3.63	3.95
4200	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4.28

<sup>a</sup>Subclass 6 costs in this schedule are for one-story houses only.

RESIDENTIAL BUILDING COST FACTORS

Area	Class ONE													
	Second Floor						Subclasses 3 - 6							
	Second Floor						Second of 2 Floors							
	Subclass 3	3+	4-	Subclass 4	4+	5-	5+	Subclass 6	6-	6+	Subclass 6	6-	6+	Subclass 6
200	2.51	2.87	2.76	3.08	3.69	---	---	---	---	---	---	---	---	---
300	2.13	2.45	2.37	2.63	3.24	3.84	4.45	5.25	---	---	---	---	---	---
400	1.85	2.11	2.07	2.28	2.84	3.39	3.95	4.66	---	---	---	---	---	---
500	1.64	1.85	1.84	2.04	2.54	3.05	3.55	4.19	---	---	---	---	---	---
600	1.45	1.65	1.64	1.84	2.32	2.79	3.27	3.86	5.38	6.05	---	---	---	---
700	1.33	1.50	1.47	1.67	2.13	2.60	3.06	3.61	4.83	5.43	4.33	4.87	4.87	4.87
800	1.23	1.38	1.32	1.52	2.00	2.43	2.87	3.39	4.42	4.97	4.09	4.60	4.48	4.48
900	1.13	1.27	1.21	1.41	1.87	2.31	2.74	3.23	3.86	4.34	3.75	4.21	4.21	4.21
1000	1.05	1.18	1.11	1.31	1.70	2.11	2.53	2.99	3.54	3.98	3.56	4.00	4.00	4.00
1200	.93	1.05	1.06	1.16	1.57	1.97	2.38	2.81	3.33	3.74	3.29	3.70	3.70	3.70
1400	.86	.96	1.01	1.10	1.49	1.88	2.27	2.68	3.17	3.56	3.10	3.48	3.48	3.48
1600	.82	.91	.95	1.04	1.43	1.83	2.22	2.62	3.06	3.44	2.97	3.34	3.34	3.34
1800	---	---	.90	.99	1.38	1.77	2.16	2.55	3.01	3.38	2.88	3.24	3.24	3.24
2000	---	---	.86	.95	1.34	1.72	2.11	2.49	2.95	3.32	2.83	3.18	3.18	3.18
2200	---	---	.82	.91	1.29	1.68	2.06	2.43	2.90	3.26	2.78	3.12	3.12	3.12
2400	---	---	.80	.89	1.27	1.65	2.03	2.40	2.87	3.22	2.74	3.08	3.08	3.08
2600	---	---	.77	.86	1.24	1.62	2.00	2.36	2.84	3.19	2.70	3.03	3.03	3.03
2800	---	---	---	---	---	1.60	1.98	2.34	2.81	3.16	2.67	3.00	3.00	3.00
3000	---	---	---	---	---	1.58	1.96	2.31	2.78	3.12	2.65	2.98	2.98	2.98
3400	---	---	---	---	---	---	---	---	2.76	3.12	2.62	2.94	2.94	2.94
3800	---	---	---	---	---	---	---	---	2.74	3.08	2.58	2.90	2.90	2.90
4200	---	---	---	---	---	---	---	---	2.71	3.04	2.55	2.86	2.86	2.86

RESIDENTIAL BUILDING COST FACTORS

Area	Class TWO														
	A - One-Family						Subclasses 1 - 6								
	First Floor <sup>b</sup>						Subclass								
	1	2-	2+	3-	3	3+	4-	4	4+	5-	5	5+	6-	6	
100	2.57	2.95	3.14	---	---	---	---	---	---	---	---	---	---	---	
150	2.34	2.71	2.90	---	---	---	---	---	---	---	---	---	---	---	
200	2.14	2.49	2.67	3.18	3.69	4.20	4.53	---	---	---	---	---	---	---	
250	1.96	2.13	2.30	2.47	2.96	3.45	4.27	---	---	---	---	---	---	---	
300	1.82	1.97	2.13	2.28	2.75	3.23	3.70	4.03	4.37	4.70	5.43	---	---	---	
350	1.69	1.84	1.99	2.14	2.59	3.05	3.50	3.80	4.10	4.40	5.13	---	---	---	
400	1.60	1.74	1.87	2.01	2.45	2.90	3.34	3.63	3.91	4.20	4.93	---	---	---	
500	1.40	1.53	1.67	1.80	2.21	2.63	3.04	3.33	3.63	3.92	4.65	---	---	---	
600	1.26	1.38	1.50	1.62	2.02	2.42	2.82	3.12	3.42	3.72	4.45	---	---	---	
700	1.14	1.26	1.37	1.49	1.88	2.26	2.65	2.94	3.23	3.52	4.25	---	---	---	
800	1.04	1.16	1.27	1.39	1.76	2.14	2.51	2.80	3.09	3.38	4.11	4.84	5.57	6.58	
900	---	---	1.16	1.28	1.66	2.03	2.41	2.70	2.99	3.28	3.97	4.67	5.36	6.37	
1000	---	---	1.08	1.20	1.57	1.93	2.30	2.59	2.88	3.17	3.85	4.52	5.20	6.21	
1200	---	---	.96	1.08	1.44	1.79	2.15	2.44	2.73	3.02	3.67	4.31	4.96	5.73	
1400	---	---	---	---	---	1.65	2.01	2.31	2.62	2.92	3.54	4.16	4.78	5.43	
1600	---	---	---	---	---	1.64	2.00	2.29	2.57	2.86	3.46	4.07	4.67	5.24	
1800	---	---	---	---	---	---	---	---	2.51	2.80	3.40	4.01	4.61	5.18	
2000	---	---	---	---	---	---	---	---	2.47	2.76	3.36	3.95	4.55	5.04	
2200	---	---	---	---	---	---	---	---	2.42	2.71	3.31	3.90	4.50	4.97	
2400	---	---	---	---	---	---	---	---	2.39	2.68	3.27	3.87	4.46	4.92	
2600	---	---	---	---	---	---	---	---	2.36	2.65	3.24	3.83	4.42	4.88	
2800	---	---	---	---	---	---	---	---	2.34	2.63	3.22	3.81	4.40	4.85	
3000	---	---	---	---	---	---	---	---	---	---	---	3.78	4.37	4.81	
3400	---	---	---	---	---	---	---	---	---	---	---	3.74	4.33	4.77	
3800	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
4200	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
	---	---	---	---	---	---	---	---	---	---	---	---	---	5.08	5.52

<sup>b</sup> Subclass 6 costs on this schedule are for one-story houses only.

RESIDENTIAL BUILDING COST FACTORS

Area	Class TWO													
	A - One-Family						Subclasses 3 - 6							
	Second Floor						Second of 2 Floors							
	3	4-	4	4+	5-	5	5+	6-	6	6-	6			
200	3.72	3.86	---	---	---	---	---	---	---	---	---	---	---	---
250	3.48	3.62	---	---	---	---	---	---	---	---	---	---	---	---
300	3.28	3.42	3.71	3.82	---	---	---	---	---	---	---	---	---	---
350	3.08	3.22	3.50	3.61	---	---	---	---	---	---	---	---	---	---
400	2.94	3.08	3.36	3.47	---	---	---	---	---	---	---	---	---	---
500	2.70	2.83	2.97	3.10	3.21	---	---	---	---	---	---	---	---	---
600	2.50	2.63	2.75	2.88	2.99	---	---	---	---	---	---	---	---	---
700	2.35	2.47	2.60	2.72	2.83	---	---	---	---	---	---	---	---	---
800	2.22	2.35	2.47	2.60	2.71	2.83	2.94	3.32	---	---	---	---	---	---
900	2.12	2.25	2.37	2.50	2.64	2.78	2.92	3.30	---	---	---	---	---	---
1000	2.03	2.15	2.28	2.40	2.57	2.73	2.90	3.28	3.28	3.28	4.78	5.25	5.55	6.10
1200	1.88	2.01	2.13	2.26	2.46	2.66	2.86	3.23	3.23	3.23	4.52	4.97	5.21	5.73
1400	1.81	1.93	2.05	2.17	2.39	2.61	2.83	3.20	3.20	3.20	4.33	4.76	5.01	5.50
1600	1.75	1.87	2.00	2.12	2.35	2.57	2.80	3.16	3.16	3.16	4.20	4.62	4.83	5.31
1800	---	---	1.93	2.05	2.30	2.54	2.79	3.15	3.15	3.15	4.11	4.52	4.73	5.20
2000	---	---	1.90	2.02	2.27	2.53	2.78	3.14	3.14	3.14	4.08	4.48	4.68	5.14
2200	---	---	1.86	1.98	2.24	2.51	2.77	3.13	3.13	3.13	4.02	4.42	4.62	5.08
2400	---	---	1.82	1.94	2.21	2.48	2.75	3.11	3.11	3.11	3.99	4.38	4.57	5.02
2600	---	---	1.78	1.90	2.18	2.45	2.73	3.08	3.08	3.08	3.94	4.33	4.53	4.98
2800	---	---	1.75	1.87	2.15	2.43	2.71	3.06	3.06	3.06	3.91	4.30	4.50	4.94
3000	---	---	---	---	---	2.41	2.69	3.04	3.04	3.04	3.89	4.28	4.48	4.92
3400	---	---	---	---	---	2.37	2.65	2.99	2.99	2.99	3.86	4.24	4.44	4.88
3800	---	---	---	---	---	---	---	---	---	---	3.82	4.20	4.40	4.84
4200	---	---	---	---	---	---	---	---	---	---	3.79	4.16	4.37	4.80

RESIDENTIAL BUILDING COST FACTORS

Area	Class THREE												
	First Floor <sup>c</sup>						Subclasses 1 - 6						
	Subclass 1	Subclass 1+	Subclass 2	Subclass 2+	Subclass 3	Subclass 3+	Subclass 4	Subclass 4+	Subclass 5	Subclass 5+	Subclass 6	Subclass 6	
200	2.27	2.61	2.95	3.29	3.93	---	---	---	---	---	---	---	---
250	2.08	2.40	2.72	3.04	3.68	---	---	---	---	---	---	---	---
300	1.92	2.22	2.53	2.83	3.47	4.11	4.75	5.04	---	---	---	---	---
350	1.78	2.07	2.35	2.64	3.26	3.88	4.50	4.79	---	---	---	---	---
400	1.67	1.94	2.20	2.47	3.08	3.69	4.30	4.59	4.88	5.17	5.71	---	---
500	1.47	1.72	1.96	2.21	2.79	3.38	3.96	4.23	4.49	4.76	5.30	---	---
600	1.31	1.54	1.78	2.01	2.58	3.15	3.72	3.97	4.22	4.47	5.01	---	---
700	1.19	1.41	1.62	1.84	2.40	2.95	3.51	3.76	4.01	4.26	4.80	---	---
800	1.08	1.30	1.51	1.73	2.27	2.82	3.36	3.60	3.83	4.07	4.61	5.16	5.70
900	.98	1.19	1.41	1.62	2.15	2.69	3.22	3.46	3.70	3.94	4.46	4.98	5.50
1000	.91	1.12	1.32	1.53	2.07	2.60	3.14	3.37	3.59	3.82	4.33	4.83	5.34
1200	---	---	1.17	1.38	1.91	2.43	2.96	3.19	3.41	3.64	4.13	4.61	5.10
1400	---	---	1.08	1.29	1.81	2.32	2.84	3.06	3.29	3.51	3.98	4.46	4.93
1600	---	---	---	---	---	2.26	2.78	3.00	3.22	3.44	3.90	4.36	4.82
1800	---	---	---	---	---	2.20	2.72	2.94	3.16	3.38	3.84	4.29	4.75
2000	---	---	---	---	---	---	---	---	3.11	3.33	3.78	4.24	4.69
2200	---	---	---	---	---	---	---	---	3.06	3.28	3.73	4.19	4.64
2400	---	---	---	---	---	---	---	---	3.02	3.24	3.69	4.15	4.60
2600	---	---	---	---	---	---	---	---	3.00	3.22	3.67	4.11	4.56
2800	---	---	---	---	---	---	---	---	2.97	3.19	3.63	4.08	4.52
3000	---	---	---	---	---	---	---	---	2.95	3.17	3.61	4.06	4.50
3400	---	---	---	---	---	---	---	---	---	---	---	4.02	4.46
3800	---	---	---	---	---	---	---	---	---	---	---	3.98	4.42
4200	---	---	---	---	---	---	---	---	---	---	---	---	5.07
													5.69
													6.34

<sup>c</sup>Subclass 6 costs on this schedule are for one-story houses only.

RESIDENTIAL BUILDING COST FACTORS

Area	Class THREE												
	Second Floor			Second Floor			Second Floor			Subclasses 3 - 6			
	Subclass 3	Subclass 3+	Subclass 4	Subclass 4-	Subclass 4	Subclass 4+	Subclass 5	Subclass 5-	Subclass 5	Subclass 5+	Subclass 6	Subclass 6	
300	3.44	3.69	---	---	---	---	---	---	---	---	---	---	---
350	3.24	3.48	---	---	---	---	---	---	---	---	---	---	---
400	3.04	3.29	3.55	3.78	3.94	---	---	---	---	---	---	---	---
500	2.78	3.02	3.29	3.55	3.71	3.52	---	---	---	---	---	---	---
600	2.54	2.81	3.09	3.36	3.52	---	---	---	---	---	---	---	---
700	2.37	2.64	2.93	3.21	3.37	---	---	---	---	---	---	---	---
800	2.25	2.54	2.82	3.11	3.27	3.46	3.62	4.45	---	---	---	---	---
900	2.14	2.43	2.71	3.00	3.20	3.40	3.60	4.43	---	---	---	---	---
1000	2.03	2.32	2.63	2.92	3.14	3.36	3.56	4.40	---	---	---	---	---
1200	1.88	2.18	2.48	2.78	3.03	3.29	3.54	4.35	---	---	---	---	---
1400	1.79	2.09	2.41	2.71	2.97	3.24	3.50	4.31	5.41	6.15	6.14	6.98	---
1600	1.74	2.04	2.35	2.65	2.92	3.19	3.46	4.26	4.88	5.52	5.58	6.34	---
1800	1.68	1.98	2.30	2.60	2.88	3.16	3.44	4.23	4.53	5.15	5.25	5.97	---
2000	---	---	2.28	2.56	2.85	3.13	3.42	4.21	4.33	4.92	5.05	5.74	---
2200	---	---	2.22	2.52	2.81	3.12	3.41	4.19	4.16	4.73	4.88	5.55	---
2400	---	---	2.20	2.50	2.80	3.10	3.40	4.18	4.07	4.62	4.79	5.44	---
2600	---	---	2.16	2.46	2.77	3.08	3.39	4.17	4.00	4.55	4.73	5.38	---
2800	---	---	2.13	2.43	2.74	3.07	3.38	4.16	3.95	4.49	4.68	5.32	---
3000	---	---	2.10	2.40	2.72	3.05	3.37	4.15	3.91	4.44	4.64	5.27	---
3400	---	---	---	---	---	3.03	3.35	4.12	3.84	4.36	4.57	5.19	---
3800	---	---	---	---	---	3.01	3.33	4.10	3.79	4.31	4.51	5.13	---
4200	---	---	---	---	---	---	---	---	3.76	4.27	4.47	5.08	---



RESIDENTIAL BUILDING COST FACTORS

Area	Class TWØ													
	First Floor					Second Floor								
	Subclass 3	3+	4-	4	4+	Subclass 5-	5	3	3+	4-	4	4+	5-	5
300	4.42	4.90	---	---	---	---	---	2.50	2.65	---	---	---	---	---
400	3.96	4.44	4.92	5.40	6.21	7.03	7.84	2.40	2.55	2.69	2.84	3.74	4.64	5.54
500	3.60	4.03	4.47	4.90	5.60	6.30	7.00	2.29	2.41	2.54	2.66	3.44	4.22	5.00
600	3.34	3.73	4.11	4.50	5.11	5.73	6.34	2.21	2.31	2.42	2.52	3.21	3.89	4.58
700	3.14	3.49	3.85	4.20	4.76	5.31	5.87	2.14	2.23	2.32	2.41	3.03	3.66	4.28
800	2.98	3.31	3.63	3.96	4.46	4.97	5.47	2.08	2.16	2.23	2.31	2.89	3.47	4.05
900	2.85	3.16	3.47	3.78	4.25	4.73	5.20	2.05	2.11	2.16	2.22	2.77	3.31	3.86
1000	2.75	3.05	3.35	3.65	4.09	4.54	4.98	2.02	2.07	2.11	2.16	2.68	3.20	3.72
1200	2.58	2.86	3.14	3.42	3.87	4.33	4.78	1.97	2.00	2.03	2.06	2.54	3.02	3.50
1400	2.46	2.73	3.01	3.28	3.67	4.07	4.46	1.90	1.93	1.97	2.00	2.45	2.89	3.34
1600	2.40	2.66	2.92	3.18	3.56	3.94	4.32	1.87	1.89	1.92	1.94	2.37	2.80	3.23
1800	2.34	2.61	2.87	3.14	3.50	3.86	4.22	1.82	1.85	1.87	1.90	2.32	2.75	3.17
2000	2.29	2.54	2.80	3.05	3.42	3.79	4.16	1.80	1.82	1.84	1.86	2.28	2.69	3.11
2200	2.25	2.51	2.76	3.02	3.38	3.74	4.10	1.76	1.78	1.81	1.83	2.24	2.65	3.06
2400	2.21	2.46	2.72	2.97	3.33	3.70	4.06	1.73	1.75	1.78	1.80	2.21	2.61	3.02
2600	2.18	2.43	2.69	2.94	3.30	3.66	4.02	1.70	1.72	1.75	1.77	2.18	2.58	2.99
2800	2.15	2.41	2.66	2.92	3.27	3.63	3.98	1.68	1.70	1.72	1.74	2.15	2.55	2.96
3000	---	---	2.64	2.90	3.25	3.61	3.96	---	---	1.69	1.71	2.12	2.53	2.94
3400	---	---	2.60	2.86	3.21	3.57	3.92	---	---	1.66	1.68	2.08	2.49	2.89
3800	---	---	---	---	---	3.53	3.88	---	---	---	---	---	2.44	2.84
4200	---	---	---	---	---	3.49	3.84	---	---	---	---	---	2.40	2.80

RESIDENTIAL BUILDING COST FACTORS

Area	Class THREE														
	First Floor					Second Floor					Subclasses 3 - 5				
	Subclass 3	3+	4-	4	4+	Subclass 5-	5	3	3+	4-	4	4+	5-	5	
400	4.16	5.02	---	---	---	---	---	3.27	3.61	---	---	---	---	---	
500	3.96	4.82	5.68	6.54	6.98	7.16	7.16	3.04	3.38	3.72	4.06	4.72	---	---	
600	3.79	4.47	5.16	5.84	6.28	6.72	6.72	2.85	3.11	3.38	3.64	4.30	4.98	5.64	
700	3.66	4.21	4.76	5.31	5.71	6.11	6.51	2.70	2.90	3.11	3.31	3.89	4.49	5.07	
800	3.56	4.00	4.46	4.90	5.28	5.66	6.04	2.60	2.75	2.92	3.07	3.59	4.11	4.63	
900	3.46	3.84	4.22	4.60	4.95	5.31	5.66	2.50	2.62	2.76	2.88	3.35	3.83	4.30	
1000	3.38	3.71	4.05	4.38	4.72	5.06	5.40	2.41	2.52	2.63	2.74	3.18	3.62	4.06	
1200	3.27	3.53	3.80	4.06	4.38	4.70	5.02	2.28	2.36	2.44	2.52	2.91	3.32	3.71	
1400	3.21	3.42	3.64	3.85	4.16	4.47	4.78	2.20	2.25	2.30	2.35	2.72	3.11	3.48	
1600	3.15	3.33	3.52	3.70	4.00	4.30	4.60	2.14	2.17	2.21	2.24	2.60	2.96	3.32	
1800	3.10	3.26	3.44	3.60	3.89	4.19	4.48	2.09	2.12	2.16	2.19	2.53	2.88	3.22	
2000	3.05	3.21	3.37	3.53	3.82	4.12	4.41	2.05	2.08	2.10	2.13	2.47	2.81	3.15	
2200	3.02	3.17	3.32	3.47	3.76	4.06	4.35	2.02	2.04	2.06	2.08	2.41	2.76	3.09	
2400	2.98	3.12	3.28	3.42	3.71	4.01	4.30	1.98	2.00	2.02	2.04	2.37	2.71	3.04	
2600	2.96	3.10	3.24	3.38	3.67	3.97	4.26	1.96	1.97	1.99	2.00	2.33	2.67	3.00	
2800	2.94	3.07	3.21	3.34	3.63	3.93	4.22	1.94	1.95	1.97	1.98	2.31	2.64	2.97	
3000	---	---	3.18	3.31	3.60	3.90	4.19	---	---	1.95	1.96	2.28	2.62	2.94	
3400	---	---	3.15	3.28	3.57	3.86	4.14	---	---	1.91	1.92	2.24	2.58	2.90	
3800	---	---	---	---	---	3.80	4.09	---	---	---	---	---	2.54	2.86	
4200	---	---	---	---	---	3.75	4.04	---	---	---	---	---	2.50	2.82	

RESIDENTIAL BUILDING COST FACTORS

Area	CLASS ONE							
	C - Multi-Family - Walk-Up				Subclasses 3 and 4			
	First Floor		Second Floor		Third Floor		Subclass	
	3	3+	4-	4	3	3+	4-	4
400	2.54	3.09	---	---	2.20	2.53	---	---
500	2.52	3.07	---	---	2.16	2.49	---	---
600	2.50	3.05	3.61	4.16	2.13	2.46	2.80	3.13
700	2.48	2.91	3.33	3.76	2.10	2.34	2.58	2.82
800	2.45	2.78	3.11	3.44	2.08	2.25	2.41	2.58
900	2.43	2.69	2.96	3.22	2.06	2.17	2.27	2.38
1000	2.41	2.61	2.82	3.02	2.04	2.11	2.17	2.24
1200	2.40	2.53	2.65	2.78	2.00	2.08	2.15	2.23
1400	2.37	2.44	2.51	2.58	1.98	2.06	2.14	2.22
1600	2.35	2.38	2.41	2.44	1.96	2.04	2.13	2.21
1800	2.33	2.36	2.40	2.43	1.94	2.03	2.11	2.20
2000	2.31	2.35	2.38	2.42	1.93	2.02	2.10	2.19
2200	2.29	2.33	2.37	2.41	1.91	2.00	2.09	2.18
2400	2.27	2.31	2.36	2.40	1.89	1.98	2.08	2.17
2600	2.24	2.29	2.34	2.39	1.87	1.97	2.06	2.16
2800	2.22	2.27	2.33	2.38	1.85	1.95	2.05	2.15
3000	2.20	2.26	2.31	2.37	1.83	1.93	2.04	2.14
3400	---	---	2.30	2.36	---	---	2.03	2.13
3800	---	---	2.29	2.35	---	---	2.02	2.12
4200	---	---	2.28	2.34	---	---	2.01	2.11

RESIDENTIAL BUILDING COST FACTORS

Area	Class TWO											
	C - Multi-Family - Walk-Up				Second Floor				Subclasses 3 and 4			
	First Floor		Second Floor		Third Floor		Subclass		Subclass		Subclass	
	3	3+	4-	4	3	3+	4-	4	3	3+	4-	4
500	3.49	4.10	---	---	3.28	3.73	---	---	3.13	3.96	---	---
600	3.36	3.97	4.59	5.20	3.16	3.61	4.05	4.50	3.00	3.83	4.67	5.50
700	3.25	3.72	4.18	4.65	3.05	3.39	3.72	4.06	2.90	3.58	4.27	4.95
800	3.16	3.51	3.87	4.22	2.96	3.22	3.49	3.75	2.80	3.38	3.95	4.53
900	3.07	3.35	3.62	3.90	2.88	3.09	3.29	3.50	2.72	3.21	3.70	4.19
1000	3.00	3.22	3.44	3.66	2.82	2.99	3.15	3.32	2.65	3.08	3.52	3.95
1200	2.92	3.05	3.19	3.32	2.74	2.84	2.94	3.04	2.57	2.91	3.26	3.60
1400	2.86	2.94	3.03	3.11	2.68	2.74	2.79	2.85	2.52	2.81	3.10	3.39
1600	2.80	2.84	2.89	2.93	2.63	2.66	2.68	2.71	2.46	2.71	2.97	3.22
1800	2.75	2.78	2.80	2.83	2.58	2.60	2.61	2.63	2.42	2.65	2.88	3.11
2000	2.71	2.73	2.76	2.78	2.55	2.56	2.58	2.60	2.38	2.60	2.83	3.05
2200	2.68	2.70	2.75	2.77	2.52	2.53	2.57	2.59	2.35	2.57	2.78	3.00
2400	2.65	2.67	2.74	2.76	2.49	2.50	2.56	2.58	2.32	2.53	2.74	2.95
2600	2.63	2.65	2.73	2.75	2.47	2.48	2.55	2.57	2.30	2.50	2.71	2.91
2800	2.60	2.62	2.72	2.74	2.45	2.46	2.54	2.56	2.29	2.49	2.68	2.88
3000	2.58	2.60	2.71	2.73	2.43	2.44	2.53	2.55	2.28	2.47	2.66	2.85
3400	---	---	2.70	2.72	---	---	2.52	2.54	---	---	2.61	2.80
3800	---	---	2.69	2.71	---	---	2.51	2.53	---	---	2.56	2.75
4200	---	---	2.68	2.70	---	---	2.50	2.52	---	---	2.51	2.70

RESIDENTIAL BUILDING COST FACTORS

Area	Class THREE										
	C - Multi-Family-Walk-Up			First Floor			Second Floor			Subclasses 3 - 5	
	Subclass	Subclass	Subclass	Subclass	Subclass	Subclass	Subclass	Subclass	Subclass	Subclass	Subclass
1000	3	4	5	3	4	5	3	4	5	4+	5-
1200	4.62	---	---	---	---	---	3.39	---	---	---	---
1400	4.23	---	---	---	---	---	3.13	---	---	---	---
1600	4.00	---	---	---	---	---	2.95	---	---	---	---
1800	3.81	---	---	---	---	---	2.80	---	---	---	---
2000	3.68	3.90	4.11	4.33	5.08	5.82	2.72	2.81	2.90	2.99	3.45
2200	3.62	3.80	3.99	4.17	4.76	5.34	2.67	2.74	2.81	2.88	3.31
2400	3.56	3.73	3.89	4.06	4.56	5.05	2.61	2.68	2.74	2.81	3.22
2600	3.50	3.67	3.83	4.00	4.44	4.88	2.58	2.64	2.69	2.75	3.15
2800	3.47	3.63	3.79	3.95	4.34	4.74	2.53	2.58	2.64	2.70	3.10
3000	3.43	3.59	3.74	3.90	4.27	4.66	2.50	2.55	2.61	2.66	3.05
3200	3.40	3.55	3.71	3.86	4.22	4.59	2.47	2.52	2.57	2.62	3.01
3400	3.35	3.50	3.65	3.80	4.15	4.50	2.43	2.48	2.52	2.57	2.96
3600	3.30	3.45	3.61	3.76	4.09	4.43	2.40	2.45	2.49	2.54	2.92
3800	3.28	3.43	3.57	3.72	4.05	4.37	2.38	2.43	2.47	2.52	2.89
4000	3.26	3.40	3.54	3.68	4.01	4.33	2.36	2.41	2.46	2.51	2.88
4200	3.24	3.38	3.52	3.66	3.97	4.29	2.34	2.39	2.45	2.50	2.86
4400	3.20	3.34	3.50	3.64	3.94	4.24	2.29	2.36	2.42	2.49	2.84
4600	3.16	3.31	3.47	3.62	3.91	4.21	2.24	2.32	2.40	2.48	2.82
4800	3.14	3.29	3.45	3.60	3.89	4.17	2.19	2.28	2.36	2.47	2.80
5000	3.12	3.27	3.43	3.58	3.86	4.14	2.16	2.26	2.36	2.46	2.78
5200	3.10	3.25	3.41	3.56	3.83	4.11	2.14	2.24	2.35	2.45	2.76
5400	3.07	3.22	3.38	3.53	3.80	4.06	2.11	2.21	2.33	2.43	2.73
5600	3.04	3.19	3.35	3.50	3.76	4.02	2.08	2.19	2.30	2.41	2.69
5800	---	---	---	---	---	---	---	---	---	---	---
6000	---	---	---	---	---	---	---	---	---	---	---
6200	---	---	---	---	---	---	---	---	---	---	---
6400	---	---	---	---	---	---	---	---	---	---	---
6600	---	---	---	---	---	---	---	---	---	---	---
6800	---	---	---	---	---	---	---	---	---	---	---
7000	---	---	---	---	---	---	---	---	---	---	---
7200	---	---	---	---	---	---	---	---	---	---	---
7400	---	---	---	---	---	---	---	---	---	---	---
7600	---	---	---	---	---	---	---	---	---	---	---
7800	---	---	---	---	---	---	---	---	---	---	---
8000	---	---	---	---	---	---	---	---	---	---	---
8200	---	---	---	---	---	---	---	---	---	---	---
8400	---	---	---	---	---	---	---	---	---	---	---
8600	---	---	---	---	---	---	---	---	---	---	---
8800	---	---	---	---	---	---	---	---	---	---	---
9000	---	---	---	---	---	---	---	---	---	---	---
9200	---	---	---	---	---	---	---	---	---	---	---
9400	---	---	---	---	---	---	---	---	---	---	---
9600	---	---	---	---	---	---	---	---	---	---	---
9800	---	---	---	---	---	---	---	---	---	---	---
10000	---	---	---	---	---	---	---	---	---	---	---

RESIDENTIAL BUILDING COST FACTORS

Area	Class THREE										
	C - Multi-Family - Walk-Up			Third Floor			Subclasses 3 - 5			Subclasses 3 - 5	
	Subclass	Subclass	Subclass	Subclass	Subclass	Subclass	Subclass	Subclass	Subclass	Subclass	Subclass
1000	3	4	5	3	4	5	3	4	5	4+	5-
1200	3.39	---	---	---	---	---	---	---	---	---	---
1400	3.13	---	---	---	---	---	---	---	---	---	---
1600	2.95	---	---	---	---	---	---	---	---	---	---
1800	2.80	---	---	---	---	---	---	---	---	---	---
2000	2.72	2.78	2.84	2.90	3.36	3.81	2.90	3.36	3.81	4.27	4.74
2200	2.67	2.71	2.74	2.78	3.21	3.65	2.78	3.21	3.65	4.08	4.55
2400	2.61	2.64	2.68	2.71	3.12	3.52	2.71	3.12	3.52	3.93	4.36
2600	2.58	2.60	2.63	2.65	3.05	3.46	2.65	3.05	3.46	3.86	4.27
2800	2.53	2.55	2.58	2.60	3.00	3.40	2.60	3.00	3.40	3.80	4.20
3000	2.50	2.52	2.54	2.56	2.95	3.35	2.56	2.95	3.35	3.74	4.14
3200	2.47	2.49	2.50	2.52	2.91	3.31	2.52	2.91	3.31	3.70	4.10
3400	2.43	2.44	2.46	2.47	2.86	3.24	2.47	2.86	3.24	3.63	4.03
3600	2.40	2.41	2.43	2.44	2.82	3.21	2.44	2.82	3.21	3.59	3.99
3800	2.38	2.39	2.41	2.42	2.79	3.17	2.42	2.79	3.17	3.54	3.94
4000	2.36	2.38	2.39	2.41	2.78	3.15	2.41	2.78	3.15	3.52	3.92
4200	2.34	2.36	2.38	2.40	2.76	3.12	2.40	2.76	3.12	3.48	3.88
4400	2.29	2.32	2.36	2.39	2.74	3.09	2.39	2.74	3.09	3.44	3.84
4600	2.24	2.29	2.33	2.38	2.72	3.06	2.38	2.72	3.06	3.40	3.80
4800	2.19	2.25	2.31	2.37	2.70	3.03	2.37	2.70	3.03	3.36	3.76
5000	2.16	2.22	2.30	2.36	2.68	3.00	2.36	2.68	3.00	3.32	3.72
5200	2.14	2.21	2.28	2.35	2.66	2.97	2.35	2.66	2.97	3.28	3.68
5400	2.11	2.18	2.26	2.33	2.63	2.93	2.33	2.63	2.93	3.23	3.63
5600	2.08	2.16	2.23	2.31	2.60	2.89	2.31	2.60	2.89	3.18	3.58

RESIDENTIAL BUILDING COST FACTORS

Area	Class TWO			Subclass 5 Third Floor	
	First Floor		Second Floor		
	Subclass 5	Subclass 5	Subclass 5		Subclass 5
1500	9.30	7.90	7.46	7.46	
1600	8.21	6.90	6.54	6.54	
1700	7.42	6.10	5.82	5.82	
1800	6.92	5.54	5.30	5.30	
1900	6.36	5.09	4.89	4.89	
2000	6.02	4.76	4.58	4.58	
2200	5.56	4.32	4.16	4.16	
2400	5.28	4.03	3.91	3.91	
2600	5.08	3.84	3.73	3.73	
2800	4.93	3.70	3.59	3.59	
3000	4.84	3.62	3.52	3.52	
3400	4.74	3.48	3.41	3.41	
3800	4.64	3.42	3.32	3.32	
4200	4.55	3.35	3.22	3.22	
4600	4.49	3.29	3.16	3.16	
5000	4.43	3.23	3.10	3.10	
5600	4.34	3.14	3.01	3.01	
6200	4.25	3.09	2.92	2.92	

RESIDENTIAL BUILDING COST FACTORS

Area	Class THREE												
	First Floor			Second Floor			Third Floor			Subclasses 4 and 5			
	Subclass 4		Subclass 5	Subclass 4		Subclass 5	Subclass 4		Subclass 5	Subclass 4		Subclass 5	
	4	4+	5-	4	4+	5-	4	4+	5-	4	4+	5-	
1000	7.86	8.55	9.25	7.05	7.34	7.65	7.94	5.75	6.45	7.15	7.85	7.15	7.85
1200	6.45	6.96	7.49	5.38	5.68	6.00	6.30	4.62	5.15	5.68	6.21	5.68	6.21
1400	5.63	6.06	6.51	4.42	4.73	5.06	5.37	3.96	4.39	4.84	5.27	4.84	5.27
1600	5.16	5.54	5.94	3.87	4.19	4.52	4.84	3.57	3.95	4.34	4.72	4.34	4.72
1800	4.88	5.24	5.60	3.54	3.86	4.20	4.52	3.34	3.69	4.04	4.39	4.04	4.39
2000	4.68	5.03	5.38	3.32	3.64	3.98	4.30	3.14	3.48	3.84	4.18	3.84	4.18
2200	4.52	4.86	5.22	3.16	3.48	3.82	4.14	3.02	3.35	3.69	4.02	3.69	4.02
2400	4.43	4.76	5.11	3.05	3.38	3.71	4.04	2.96	3.27	3.60	3.91	3.60	3.91
2600	4.38	4.71	5.05	3.00	3.32	3.66	3.98	2.90	3.21	3.54	3.85	3.54	3.85
2800	4.32	4.65	4.99	2.94	3.26	3.60	3.92	2.85	3.18	3.48	3.79	3.48	3.79
3000	4.28	4.60	4.94	2.90	3.22	3.55	3.87	2.82	3.12	3.44	3.74	3.44	3.74
3400	4.20	4.53	4.86	2.82	3.14	3.48	3.80	2.74	3.05	3.36	3.67	3.36	3.67
3800	4.15	4.47	4.80	2.77	3.09	3.42	3.74	2.69	3.00	3.31	3.61	3.31	3.61
4200	4.10	4.42	4.75	2.72	3.04	3.36	3.68	2.64	2.95	3.26	3.57	3.26	3.57
4600	4.06	4.38	4.71	2.67	2.98	3.31	3.62	2.60	2.91	3.22	3.53	3.22	3.53
5000	4.02	4.34	4.67	2.62	2.93	3.26	3.57	2.56	2.87	3.18	3.49	3.18	3.49
5600	3.98	4.29	4.62	2.55	2.87	3.20	3.52	2.51	2.82	3.13	3.44	3.13	3.44
6200	3.94	4.25	4.56	2.48	2.81	3.14	3.47	2.46	2.77	3.10	3.39	3.10	3.39
6800	3.90	4.20	4.51	2.41	2.74	3.09	3.42	2.41	2.72	3.03	3.34	3.03	3.34
7400	3.86	4.15	4.46	2.36	2.69	3.04	3.37	2.36	2.67	2.98	3.29	2.98	3.29
8000	3.82	4.11	4.40	2.31	2.64	2.98	3.32	2.31	2.62	2.93	3.24	2.93	3.24
9000	---	---	4.32	---	---	2.94	3.27	---	---	---	---	---	---
10000	---	---	4.26	---	---	2.89	3.22	---	---	---	---	---	---





COMMERCIAL BUILDING COST FACTORS

Area	Class TWO													
	First Floor				Second Floor				Third Floor					
	Subclass 1	Subclass 2	Subclass 3	Subclass 4	Subclass 1	Subclass 2	Subclass 3	Subclass 4	Subclass 1	Subclass 2	Subclass 3	Subclass 4		
300	1.82	1.97	2.13	2.28	2.75	2.91	3.22	3.69	3.28	3.93	4.27	4.92	5.46	6.00
400	1.60	1.74	1.87	2.01	2.45	2.64	2.95	3.42	3.89	4.36	4.77	5.18	5.61	6.00
500	1.40	1.53	1.67	1.80	2.21	2.43	2.74	3.14	3.55	3.95	4.38	4.71	5.18	5.61
600	1.26	1.38	1.50	1.62	2.02	2.26	2.57	2.93	3.28	3.64	4.03	4.41	4.71	5.18
700	1.14	1.26	1.37	1.49	1.88	2.13	2.45	2.77	3.09	3.41	3.75	4.12	4.41	4.71
800	1.04	1.16	1.27	1.39	1.76	2.03	2.34	2.63	2.92	3.21	3.50	3.77	4.03	4.30
900	1.00	1.12	1.23	1.34	1.71	1.98	2.29	2.58	2.87	3.16	3.45	3.74	4.03	4.30
1000	1.00	1.12	1.23	1.34	1.71	1.98	2.29	2.58	2.87	3.16	3.45	3.74	4.03	4.30
1200	1.00	1.12	1.23	1.34	1.71	1.98	2.29	2.58	2.87	3.16	3.45	3.74	4.03	4.30
1400	1.00	1.12	1.23	1.34	1.71	1.98	2.29	2.58	2.87	3.16	3.45	3.74	4.03	4.30
1600	1.00	1.12	1.23	1.34	1.71	1.98	2.29	2.58	2.87	3.16	3.45	3.74	4.03	4.30
1800	1.00	1.12	1.23	1.34	1.71	1.98	2.29	2.58	2.87	3.16	3.45	3.74	4.03	4.30
2000	1.00	1.12	1.23	1.34	1.71	1.98	2.29	2.58	2.87	3.16	3.45	3.74	4.03	4.30
2200	1.00	1.12	1.23	1.34	1.71	1.98	2.29	2.58	2.87	3.16	3.45	3.74	4.03	4.30
2400	1.00	1.12	1.23	1.34	1.71	1.98	2.29	2.58	2.87	3.16	3.45	3.74	4.03	4.30
2600	1.00	1.12	1.23	1.34	1.71	1.98	2.29	2.58	2.87	3.16	3.45	3.74	4.03	4.30
2800	1.00	1.12	1.23	1.34	1.71	1.98	2.29	2.58	2.87	3.16	3.45	3.74	4.03	4.30
3000	1.00	1.12	1.23	1.34	1.71	1.98	2.29	2.58	2.87	3.16	3.45	3.74	4.03	4.30
3400	1.00	1.12	1.23	1.34	1.71	1.98	2.29	2.58	2.87	3.16	3.45	3.74	4.03	4.30
3800	1.00	1.12	1.23	1.34	1.71	1.98	2.29	2.58	2.87	3.16	3.45	3.74	4.03	4.30
4200	1.00	1.12	1.23	1.34	1.71	1.98	2.29	2.58	2.87	3.16	3.45	3.74	4.03	4.30
4600	1.00	1.12	1.23	1.34	1.71	1.98	2.29	2.58	2.87	3.16	3.45	3.74	4.03	4.30
5000	1.00	1.12	1.23	1.34	1.71	1.98	2.29	2.58	2.87	3.16	3.45	3.74	4.03	4.30
5600	1.00	1.12	1.23	1.34	1.71	1.98	2.29	2.58	2.87	3.16	3.45	3.74	4.03	4.30
6200	1.00	1.12	1.23	1.34	1.71	1.98	2.29	2.58	2.87	3.16	3.45	3.74	4.03	4.30

COMMERCIAL BUILDING COST FACTORS

Area	Class THREE													
	First Floor				Second Floor				Third Floor					
	Subclass 1	Subclass 2	Subclass 3	Subclass 4	Subclass 1	Subclass 2	Subclass 3	Subclass 4	Subclass 1	Subclass 2	Subclass 3	Subclass 4		
200	2.27	2.61	2.95	3.29	3.66	2.97	3.34	3.79	4.26	4.71	4.23	4.50	4.43	4.71
250	2.08	2.42	2.72	3.04	3.41	2.77	3.14	3.51	3.90	4.27	3.78	4.02	4.01	4.27
300	1.92	2.22	2.53	2.83	3.20	2.61	2.98	3.30	3.63	3.95	3.42	3.64	3.71	3.95
350	1.78	2.07	2.35	2.64	3.01	2.47	2.84	3.13	3.43	3.72	3.18	3.38	3.50	3.72
400	1.67	1.93	2.21	2.47	2.84	2.28	2.65	2.89	3.13	3.37	2.83	3.01	3.17	3.37
500	1.47	1.71	1.97	2.21	2.58	2.13	2.50	2.72	2.95	3.17	2.61	2.78	2.98	3.17
600	1.31	1.54	1.78	2.01	2.38	2.05	2.42	2.62	2.80	3.00	2.44	2.60	2.82	3.00
700	1.19	1.41	1.62	1.84	2.21	1.94	2.31	2.54	2.72	2.89	2.34	2.49	2.72	2.89
800	1.08	1.30	1.51	1.73	2.10	1.94	2.31	2.48	2.66	2.83	2.27	2.41	2.66	2.83
1000	.91	1.21	1.23	1.53	1.90	1.90	2.27	2.44	2.61	2.78	2.21	2.35	2.61	2.78
1200	1.08	1.38	1.53	1.73	2.10	1.94	2.31	2.48	2.66	2.83	2.27	2.41	2.66	2.83
1400	1.08	1.38	1.53	1.73	2.10	1.94	2.31	2.48	2.66	2.83	2.27	2.41	2.66	2.83
1600	1.08	1.38	1.53	1.73	2.10	1.94	2.31	2.48	2.66	2.83	2.27	2.41	2.66	2.83
1800	1.08	1.38	1.53	1.73	2.10	1.94	2.31	2.48	2.66	2.83	2.27	2.41	2.66	2.83
2000	1.08	1.38	1.53	1.73	2.10	1.94	2.31	2.48	2.66	2.83	2.27	2.41	2.66	2.83
2200	1.08	1.38	1.53	1.73	2.10	1.94	2.31	2.48	2.66	2.83	2.27	2.41	2.66	2.83
2400	1.08	1.38	1.53	1.73	2.10	1.94	2.31	2.48	2.66	2.83	2.27	2.41	2.66	2.83
2600	1.08	1.38	1.53	1.73	2.10	1.94	2.31	2.48	2.66	2.83	2.27	2.41	2.66	2.83
2800	1.08	1.38	1.53	1.73	2.10	1.94	2.31	2.48	2.66	2.83	2.27	2.41	2.66	2.83
3000	1.08	1.38	1.53	1.73	2.10	1.94	2.31	2.48	2.66	2.83	2.27	2.41	2.66	2.83
3400	1.08	1.38	1.53	1.73	2.10	1.94	2.31	2.48	2.66	2.83	2.27	2.41	2.66	2.83
3800	1.08	1.38	1.53	1.73	2.10	1.94	2.31	2.48	2.66	2.83	2.27	2.41	2.66	2.83
4200	1.08	1.38	1.53	1.73	2.10	1.94	2.31	2.48	2.66	2.83	2.27	2.41	2.66	2.83
4600	1.08	1.38	1.53	1.73	2.10	1.94	2.31	2.48	2.66	2.83	2.27	2.41	2.66	2.83
5000	1.08	1.38	1.53	1.73	2.10	1.94	2.31	2.48	2.66	2.83	2.27	2.41	2.66	2.83
5600	1.08	1.38	1.53	1.73	2.10	1.94	2.31	2.48	2.66	2.83	2.27	2.41	2.66	2.83
6200	1.08	1.38	1.53	1.73	2.10	1.94	2.31	2.48	2.66	2.83	2.27	2.41	2.66	2.83

COMMERCIAL BUILDING COST FACTORS

Area	Class THREE				Subclasses 3 and 4							
	First Floor		Second Floor		Third Floor		Subclass					
	Subclass	Subclass	Subclass	Subclass	Subclass	Subclass	Subclass	Subclass				
1800	4.19	4.24	4.30	4.35	2.68	2.80	2.93	3.05	2.62	2.74	2.86	2.98
2000	4.02	4.10	4.19	4.27	2.66	2.78	2.90	3.02	2.58	2.70	2.82	2.94
2200	3.92	4.02	4.12	4.22	2.63	2.75	2.87	2.99	2.56	2.68	2.80	2.92
2400	3.86	3.96	4.06	4.16	2.62	2.74	2.86	2.98	2.56	2.68	2.80	2.92
2600	3.80	3.91	4.01	4.12	2.62	2.74	2.86	2.98	2.56	2.67	2.79	2.90
2800	3.76	3.86	3.97	4.07	2.62	2.73	2.85	2.96	2.55	2.67	2.78	2.90
3000	3.72	3.83	3.94	4.05	2.61	2.73	2.84	2.96	2.54	2.66	2.78	2.90
3200	3.68	3.79	3.91	4.02	2.60	2.71	2.83	2.94	2.54	2.66	2.77	2.89
3600	3.64	3.75	3.87	3.98	2.59	2.70	2.82	2.93	2.53	2.65	2.76	2.88
4000	3.61	3.72	3.84	3.95	2.58	2.69	2.81	2.92	2.52	2.64	2.75	2.87
4400	3.58	3.69	3.81	3.92	2.58	2.69	2.80	2.91	2.52	2.63	2.74	2.85
4800	3.56	3.67	3.78	3.89	2.56	2.67	2.77	2.88	2.50	2.61	2.72	2.83
5200	3.54	3.64	3.75	3.85	2.56	2.66	2.76	2.86	2.50	2.60	2.71	2.81
5600	3.51	3.61	3.72	3.82	2.54	2.64	2.74	2.84	2.48	2.59	2.69	2.80
6000	3.48	3.58	3.69	3.79	2.52	2.62	2.72	2.82	2.47	2.57	2.68	2.78

COMMERCIAL BUILDING COST FACTORS

Area	Classes ONE, TWO and THREE					
	CLASS ONE		CLASS TWO		CLASS THREE	
	First Floor	Second Floor	First Floor	Second Floor	First Floor	Second Floor
1000	1.70	1.06	2.51	2.37	3.25	4.50
1200	1.60	.94	2.37	2.24	2.99	3.75
1400	1.58	.88	2.25	2.12	2.80	3.32
1600	1.57	.83	2.19	2.06	2.67	3.06
1800	1.56	.80	2.13	2.00	2.60	2.88
2000	1.55	.77	2.08	1.95	2.54	2.74
2200	1.54	.75	2.03	1.92	2.50	2.69
2400	1.53	.73	2.01	1.89	2.46	2.64
2600	1.52	.72	1.99	1.86	2.43	2.60
2800	1.52	.71	1.96	1.83	2.40	2.56
3000	1.51	.70	1.94	1.81	2.39	2.54
3200	1.50	.69	1.91	1.78	2.37	2.52
3600	1.49	.68	1.86	1.73	2.35	2.49
4000	1.48	.67	1.80	1.68	2.33	2.46
5000	---	---	1.80	1.68	2.27	2.39
6000	---	---	1.80	1.68	2.22	2.34
7000	---	---	1.79	1.67	2.20	2.26
8000	---	---	1.79	1.67	2.20	2.26
9000	---	---	1.79	1.67	2.20	2.26
10000	---	---	1.78	1.66	2.20	2.26
12000	---	---	1.78	1.66	2.20	2.26
14000	---	---	1.77	1.65	2.20	2.26
16000	---	---	1.76	1.64	2.20	2.26
18000	---	---	1.75	1.63	2.20	2.26
20000	---	---	1.74	1.62	2.20	2.26

COMMERCIAL BUILDING COST FACTORS

Area	Classes ONE, TWO, and THREE			Subclasses 3 and 4	
	Class ONE	Class TWO	Class THREE	Class THREE	
	Subclass 3	Subclass 4	Subclass 4	Subclass 4	
P - Gasoline Station					
100	2.92	---	---	---	---
150	2.92	---	---	---	---
200	2.92	5.55	5.97	5.97	5.97
250	2.92	5.25	5.68	5.68	5.68
300	2.92	5.02	5.43	5.43	5.43
350	---	4.86	5.24	5.24	5.24
400	---	4.74	5.12	5.12	5.12
500	---	4.62	5.01	5.01	5.01
600	---	4.52	4.93	4.93	4.93
700	---	4.45	4.86	4.86	4.86
800	---	4.40	4.82	4.82	4.82
900	---	4.35	4.79	4.79	4.79
1000	---	4.32	4.76	4.76	4.76
1200	---	4.26	4.70	4.70	4.70
1400	---	4.21	4.64	4.64	4.64
1600	---	4.17	4.61	4.61	4.61
1800	---	4.12	4.58	4.58	4.58

AGRICULTURAL TYPE BUILDING COST FACTORS

Miscellaneous Use Types	Subclasses 1 - 4			
	1	2	3	4
Use Type .				
Pump House	2.02	2.48	3.55	3.79
Open Shed	.47	.50	.68	.86
Dairy Barn	.43	.61	1.02	1.86
Coffee Processing Building		Compute costs quantitatively		
Stable	.42	1.05	1.08	1.37
Paddock		Compute costs quantitatively		
Pigpen	.50	.79	1.33	---
Tobacco Barn <sup>a</sup>	.006	.008	.013	.014
Storage Barn <sup>a</sup>	.043	.059	.068	.085

<sup>a</sup> Costs per cubic foot

PROCEDURES FOR REAL PROPERTY ASSESSMENT IN PUERTO RICO

ADDITIONAL DETAILS COST FACTORS

(All costs dollars per square foot unless otherwise specified)

BAKERY EQUIPMENT

Item Description	Trademark and Model	Size	Replacement Cost
<b>Bakery Mill</b>			
2 rolls			\$ 450
2 rolls		17" x 5"	
3 rolls		24" x 8"	600
		24" x 8"	900
Note: Mills made in Puerto Rico have a discount of 40 per cent of the replacement cost. "Heavy duty" doughers and mills must have 75 per cent added to the replacement cost of standard machines. The motors and transmissions of standard doughers and mills are figured separately.			
<b>Dougher</b>			
	Capacity:	100 lbs.	\$ 600
		150 lbs.	750
		200 lbs.	1,000
		300 lbs.	1,200
		350 lbs.	1,400
		400 lbs.	1,400
<b>Oven</b>			
Brick, direct fire (wood fire)			\$6 per sq. foot
Brick, indirect fire (oil burner)			\$8 per sq. foot
(The burner is figured separately)			
Prefabricated	Middleby-Marshall #102-6 two drawers		\$2,800
Prefabricated	Middleby-Marshall #728-H, Rotating, 240 lb. capacity		4,400
Note: The per cent good for doughers, mills, and brick ovens of the old type fluctuates between 35 per cent and 60 per cent.			

BALCONIES

Type of Floor	Type of Roof	Type of Railing				
		Prefabricated	Iron Grill	Concrete	Wood	None
Concrete	None	3.11	3.06	1.49	4.46	-
Concrete	Corr. Iron	3.88	3.72	2.28	1.69	-
Concrete	Concrete	4.08	4.04	2.48	2.02	-
Concrete	Tile	4.61	4.48	3.02	6.85	-

IMPROVEMENTS

ADDITIONAL DETAILS COST FACTORS

(All costs dollars per square foot unless otherwise specified)

BASEMENTS

Use Type	Depth	Class	Subclass					
			1	2	3	4	5	6
Residential	8 ft.	Three	1.43	1.43	----	----	----	----
		Two	1.24	1.24	----	----	----	----
		One	.82	.82	----	----	----	----
	9 ft.	Three	1.57	1.57	2.40	2.40	3.02	3.02
		Two	1.34	1.34	1.99	1.99	2.73	2.73
		One	.86	.86	1.44	1.44	1.94	1.94
	10 ft.	Three	----	----	2.61	2.61	3.26	3.26
		Two	----	----	2.16	2.16	2.95	2.95
		One	----	----	1.54	1.54	2.07	2.07
Storage	8 ft.	Three	1.06	1.06	----	----	----	----
		One	.64	.64	----	----	----	----
	9 ft.	Three	1.16	1.16	1.54	1.54	1.99	1.99
		One	.69	.69	.99	.99	----	----
	10 ft.	Three	1.25	1.25	1.68	1.68	2.16	2.16
		One	.74	.74	1.06	1.06	1.37	1.37
	11 ft.	Three	----	----	1.81	1.81	2.32	2.32
		One	----	----	1.12	1.12	1.46	1.46
	Utility	6 ft.	Three	.84	.84	1.03	1.03	1.26
One			.53	.53	.72	.72	.83	.83
7 ft.		Three	.93	.93	1.16	1.16	1.41	1.41
		One	.57	.57	.78	.78	.88	.88
8 ft.		Three	----	----	----	----	1.54	1.54
		One	----	----	----	----	.95	.95

BOTTLING PLANT EQUIPMENT

Item Description	Trademark and Model	Capacity or Size	Replacement Cost
Bottle filler	Gem	40 bottles at a time	\$15,000
Bottle filler and sealer	The Liquid (24 valves for carbonated water, 6 valves for syrup, and a 4-unit capper)	4,080 bottles per hour	6,500
Bottle filler	Dixie, FAF-318		3,500
Bottle washer	Ladewing-Soeich, made for the Heil Company, DC-16	160 bottles per minute	18,800
Bottle washer	Dostal and Lowey	4,000 bottles per hour	7,000
Carbonator	Caro-Cooler (made by Mojonnier Bros. Co.) Model 92, No. 1891		7,000
Carbonator	The Liquid	500 gallons per hour	1,200
Carbonator	Mojonnier, No. 1609		4,000
Filter (charcoal, sand, and gravel)		3' diameter 5' high	350

ADDITIONAL DETAILS COST FACTORS

BOTTLING PLANT EQUIPMENT - Continued

Item Description	Trademark and Model	Capacity or Size	Replacement Cost
Filter (stone and gravel)		3' diameter 5' high	\$ 350
Filter, press type		1/2 h.p. motor 6 discs	625
Filter	Filco		500
Mixer	Gem	12 bottles at a time	1,300
Mixer	The Liquid	5,000 bottles per hour	2,500
Pump, centrifugal	Goulds, Ideal Electric Motor	1.5 h.p. 1730 Rpm.	300
Refrigeration Unit:			
Brunner Compressor		15 h.p. motor 1,450 Rpm	1,500
Water Cooler, tubular form		400 bottles per hour	2,400
Tank, steel, rustproof with an agitator powered by a 3 h.p. motor	Pfaunder	400 gallons	550
Tank, steel, rustproof with an agitator powered by a 2 h.p. motor		1,250 gallons	2,000
Tank, steel, rustproof		50 gallons	200
Tank, steel, rustproof		20 gallons	150
Water Treating Unit steel tank 6' 6" in diameter and 8' high and accessories			5,000
Water Treating Unit Pump, tank, two filters 32" x 49"	Permutit	500 gallons per hour	3,800

CANE DERRICKS

Subclass	1	2	3	4
Cost (each)	260	385	425	525
Add for:				
Horizontal Rotary Base Wheel				100
Horse or Ox Power Hoisting Unit				175
Gasoline or Electric Motor Power Hoisting Unit (not including motor)				500

ADDITIONAL DETAILS COST FACTORS

(All costs dollars per square foot unless otherwise specified)

COFFEE ROASTING EQUIPMENT

Item Description	Trademark	Size	Capacity	Replacement Cost
Coffee mill	Jabes Burns	1 motor, 2 h.p.	Approx. 225 lbs.	\$ 210
Roaster (wood burner)	Lamber No.3235	1 motor, 5 h.p.	300 lbs.	1000
Huller	Mason	1 motor, 15 h.p.		1200

DAIRY EQUIPMENT

Item Description	Trademark and Model	Capacity	Replacement Cost
Bottle washer	Hell, Model F-4	2,500 bottles per hour	\$2,500
Bottle filler and capper	Oswego Falls	2,700 per hour	1,000
Bottle sealer	Oswego Falls	2,700 liters per hour	2,300
Pasteurizer	Purity	600 liters per hour	1,100
Pasteurizer	Purity	800 liters per hour	1,700
Refrigeration unit with tubular cooler	Brunner, Model W-500M2 Wright 14" x 48"	3/4 tons	1,000
Refrigeration unit connected to a tubular cooler	Brunner, Model A-200-F-C Wright, 14" x 48"	3/4 tons	625
Separator	Laval	4,000 liters per hour	1,500
Water treating unit	Permutit	4,500 gallons	800

ELEVATORS

Passenger	
1. Basic Cost, 1 car, 1000 lbs. capacity, 100 feet per minute, AC automatic, 3 floors	\$4,050
Add for each additional floor	450
Add for each additional 500 lbs. capacity	450
Add for an increase of 50 feet per minute in speed	210
For car switch, deduct from basic cost	340
For car switch, deduct for each additional floor	30
Deduct per entrance for swing-type doors	100
2. Basic Cost, 1 car, 1500-2000 lbs. capacity, 200 feet per minute, variable voltage, automatic or signal control, 4 floors	8,010
Add for each additional floor	225
Add for each additional 500 lbs. capacity	810
Add for each additional 100 feet per minute in speed	590
For car switch, deduct from basic cost	450
For car switch, deduct for each additional floor	30
Deduct per entrance for swing-type doors	100

PROCEDURES FOR REAL PROPERTY ASSESSMENT IN PUERTO RICO

ADDITIONAL DETAILS COST FACTORS

(All costs dollars per square foot unless otherwise specified)

ELEVATORS - Continued

Freight	
1. Basic Cost, 1 car, 3,000 lbs. capacity, 50 feet per minute, AC, pressure button, 2 floors	\$3,600
Add for each additional floor	230
Add for each additional 50 feet per minute in speed	210
Add for each additional 1,000 lbs. in capacity	230

Life Expectancy		
Type	Years	
Freight	45	
Passenger	35	

Note: See Table 44 for depreciated per cent good.

ELEVATORS - REPRODUCTION COSTS OF OLD-TYPE FREIGHT ELEVATORS

Hand Operated	Lift	Pounds Capacity	Platform Size	Cost
	1 floor	500	6' x 6'	\$ 390
	1 floor	1,000	6' x 6'	670
	1 floor	1,500	6' x 6'	740
	1 floor	2,000	6' x 6'	855
	1 floor	3,000	6' x 6'	945
	Add for each additional floor			125

Hydraulic	Lift	Plunger	Platform Size	Cost
	12'	8"	6' x 6'	\$1,445
	16'	8"	6' x 6'	1,880
	20'	8"	6' x 6'	1,920
	24'	8"	6' x 6'	2,160
	12'	10 1/2"	8' x 8'	1,730
	16'	10 1/2"	8' x 8'	2,045
	20'	10 1/2"	8' x 8'	2,365
	24'	10 1/2"	8' x 8'	2,685
	12'	16"	8' x 8'	2,725
	24'	16"	8' x 8'	3,685

Motor Operated	Lift	Pounds Capacity	Platform Size	Cost
	1 floor	2,000	6' x 6'	\$3,330
	1 floor	3,000	6' x 6'	3,695

IMPROVEMENTS

ADDITIONAL DETAILS COST FACTORS

(All costs dollars per square foot unless otherwise specified)

ELEVATORS - REPRODUCTION COSTS OF OLD-TYPE FREIGHT ELEVATORS - Continued

Motor Operated	Lift	Pounds Capacity	Platform Size	Cost
	1 floor	4,000	6' x 6'	\$3,910
	Add for each additional floor			180

Life Expectancy		
Type	Years	
Freight	30	

EXTERIOR STAIRS

Material	Concrete	Steel
Cost	\$2.95	\$21.95 per riser

FENCES

	Simple	Elaborate
Concrete with Wire	\$ .30	----
Masonry	.91	\$1.85
Concrete with Prefab. Concrete	2.26	2.76
Concrete with Iron Grill	1.32	2.15
Predominantly Iron Grill	2.33	3.25
Cyclone	.41	----

GARAGES (Private)

Class	Area (Sq. ft.)	Walls and Ceiling Unfinished			Walls and Ceiling Finished
		Concrete Floor	Wood Floor	Earth Floor	Concrete Floor
One	200 (attached)	\$1.64	\$1.55	\$1.29	\$1.71
	200 (detached)	1.95	2.11	1.68	2.14
	400 (detached)	1.34	----	1.06	1.48
	600 (detached)	1.33	----	1.06	1.44
Two	200 (attached)	1.82	----	1.55	2.20
	200 (detached)	2.43	----	2.16	2.94
	400 (detached)	1.77	----	1.49	2.14
	600 (detached)	1.77	----	1.47	2.10
Three	200 (attached)	2.03	----	1.76	2.31
	200 (detached)	2.66	----	2.39	3.06
	400 (detached)	2.02	----	1.74	2.29
	600 (detached)	1.95	----	1.66	2.20

PROCEDURES FOR REAL PROPERTY ASSESSMENT IN PUERTO RICO  
 ADDITIONAL DETAILS COST FACTORS

## GASOLINE STATION EQUIPMENT

Item Description	Trademark and Model	Size or Capacity	Replacement Cost
Air Compressors	Gilbarco	CPH-112 A 1	1-1/2 h.p. \$418.00
	Gilbarco	CPH-3	564.00
	Gilbarco	CPH-2C54	2 h.p. 400.00
	Gilbarco	CPH-3C56	618.00
	Gilbarco	CPH-11C1	378.00
	Gilbarco	CPH-C36	557.00
	Gilbarco	CPH-1126	420.00
	Gilbarco	CPS-34A9	3/4 h.p. 140.00
	Gilbarco	CPH-2C51	295.00
	Gilbarco	CPH-264	2 h.p. 295.00
	Gilbarco	CPH-13-36	3 h.p. 618.00
	Gilbarco	CPH-112A4	1-1/2 h.p. 420.00
	Brunner	RA	420.00
	Brunner	CVO2A-A	160.00
	Brunner	H632	1-1/2 h.p. 420.00
	Brunner	H7413	3 h.p. 567.00
	Brunner	H7415	5 h.p. 637.00
	Brunner	H620H	2 h.p. 472.00
	Brunner	H333	157.00
	Brunner	H6CB	107.00
	Brunner	H25	1-1/2 h.p. 420.00
	ECO	1126V	1/2 h.p. 290.00
	ECO	KB238	3 h.p. 536.00
	ECO	KB1-2158	1-1/2 h.p. 304.00
	ECO	216H	1 h.p. 300.00
	ECO	820	128.00
	ECO	854	273.00
	Curtis	V-153	1/2 h.p. 140.00
	Ingersoll		
	Rand	3 x 1-3/4 x 2	1-1/2 h.p. 420.00
	Ingersoll		
	Rand	253P5	5 h.p. 600.00
	Ingersoll		
	Rand	232B1	1 h.p. 337.00
	Ingersoll		
	Rand	234C4	1-1/2 h.p. 420.00
	Kellog		
	American	A140	1/2 h.p. 125.00*
	Kellog		
	American	A320	1-1/2 h.p. 400.00
Kellog			
American	A330-8	5 h.p. 650.00	
O'Brien	2-1/2 x 2-1/2	2 h.p. 420.00	
De Vilbis	220	1 h.p. 200.00	
Wilmington	9H33	3/4 h.p. 140.00	
Air Meters	Wayne	PK1	130.00
	Wayne	PK1	100.00

IMPROVEMENTS  
 ADDITIONAL DETAILS COST FACTORS

## GASOLINE STATION EQUIPMENT - Continued

Item Description	Trademark and Model	Size or Capacity	Replacement Cost
Air Meters	ECO	93	\$ 152.00
	ECO	97	78.00
	ECO	93	100.00
	ECO	98	75.00
Gasoline Pumps	Gilbarco	AM2A1	47.00
	Gilbarco	996 x 7	550.00
	Gilbarco	M96 CX 7	450.00
	Gilbarco	M96	400.00
	Gilbarco	96 x 1	525.00
	Gilbarco	M86	268.00
	Bennet	756	550.00
	Bennet	646	425.00
	Bennet	546	425.00
	Bennet	541	300.00
	Bennet	371	350.00
	Wayne		345.00
	Torkheim	89	350.00
	Torkheim	39	350.00
Bowser		325.00	
High Pressure Water Pumps	Without		
	Trademark	T85	277.00
	Without		
	Trademark	T106	282.00
	Without		
	Trademark	T105	267.00
	Supreme	AW2	1-1/2 h.p. 640.00
	Supreme	AW2	3 h.p. 725.00
	Supreme	AW5	1 h.p. 369.00
	Supreme	AW7	426.00
Supreme	AW11A	380.00	
Supreme	AW11	330.00	
Champion	H1	1 h.p. 420.00	
Curtis	2 pistons	1-1/2 h.p. 450.00	
Hoists, Electric		3-1/2 ton, with cables 450.00	
Hoists, Hydraulic		3 ton 420.00	
		4 ton 540.00	
		6 ton 840.00	
		9 ton 1,050.00	
Tanks		500 gallons 120.00	
		750 gallons 180.00	
		1,000 gallons 260.00	
		1,250 gallons 320.00	
		1,500 gallons 440.00	
		2,000 gallons 500.00	
		2,500 gallons 580.00	
	3,000 gallons 700.00		
	4,000 gallons 1,000.00		

PROCEDURES FOR REAL PROPERTY ASSESSMENT IN PUERTO RICO

ADDITIONAL DETAILS COST FACTORS

(All costs dollars per square foot unless otherwise specified)

GASOLINE STATION EQUIPMENT - Continued

Notes: 1. The per cent good for tanks, pumps, and hoists is calculated from the year of installation:

Year	% Pumps and Hoists	% Tanks
Before 1935	30	30
From 1935-1940	45	30
From 1940-1943	55	50
From 1944-1945	65	60
From 1946-1947	70	70
From 1948-1949	80	85
From 1950	90	-

2. The cost of installation is figured on the following bases:

- 5% for Air compressors
- 10% for Gasoline pumps
- 10% for High-pressure pumps
- 30% for Hydraulic hoists
- 20% for Gasoline tanks

GRILL WORK

Type	Cost
Simple	1.31
Average	1.69
Elaborate	2.07
Rolling Doors	3.12

HALF STORIES

Unfinished	40 per cent of cost of equivalent full story
Finished	60 per cent of cost of equivalent full story

LAUNDRY EQUIPMENT

Item Description	Trademark	Size and Capacity	Replacement Cost
Ironing Roller (mangle)	American Ironing Machine Co.	54"	\$ 860.00
Ironer - presser			600.00
Steam Press	Hoffman		800.00
Ironing Roller (mangle)	Troy	120" with 5 h.p. motor	7,000.00
Washing Machine, wood drum	Hoffman	36" x 30"	1,000.00
Washing Machine	Hoffman	3 h.p. motor, capacity 10 dozen clothes	1,300.00
Washing Machine	Troy	8-CY-48, capacity 60 Lbs.	1,000.00

IMPROVEMENTS

ADDITIONAL DETAILS COST FACTORS

(All costs dollars per square foot unless otherwise specified)

LAUNDRY EQUIPMENT - Continued

Item Description	Trademark	Size and Capacity	Replacement Cost
Washing Machine	American	36" x 54", capacity 100 lbs, 2 h.p. motor	\$1,500.00
Drier	Hoffman	36" x 60"	750.00
Drier	Hoffman	4-1/2 doz. capacity, 1 h.p. motor	500.00
Whirldrier	American	3 h.p. motor	600.00
Extractor	Vosser		750.00
Boiler	Morheat	11 h.p. automatic	2,000.00

MARQUEES<sup>a</sup>

	Class ONE	Class TWO	Class THREE
Tile	-	\$2.38	\$2.30
Bermuda	-	-	1.69
Concrete	-	-	1.79
Corr. Iron	\$.85	1.19	-

<sup>a</sup> Add .10 for concrete floor

OIL BURNERS

Trademark	Size	Replacement Cost
Ray	0	\$320.00
Ray	1	400.00
Ray	2	480.00

PAVED AREAS

Type	Cost
Paved	\$.10
Brick	.63
Flagstone	.45
Prefabricated Concrete	.12

PENTHOUSES<sup>b</sup>

Area	Class ONE	Class TWO	Class THREE
200	\$1.71	\$2.70	\$3.17

<sup>b</sup> If area is more than 200 square feet, or if any part is used for other than bedrooms, use the appropriate story or half-story unit.

PROCEDURES FOR REAL PROPERTY ASSESSMENT IN PUERTO RICO

ADDITIONAL DETAILS COST FACTORS

(All costs dollars per square foot unless otherwise specified)

PLATFORM SCALES

Size	Replacement Cost
1 Ton	\$150.00
2 Ton	250.00
3 Ton	350.00
4 Ton	400.00
5 Ton	500.00
7-1/2 Ton	750.00
10 Ton	950.00

PLUMBING FIXTURES

Item	Grade		
	Inferior	Good	Superior
Water Closet	\$ 46.84	\$ 54.11	\$ 56.84
Lavatory	30.13	38.31	56.49
Bathtub	105.66	114.74	132.92
Shower	19.52	24.91	----
Sink	35.36	68.99	94.89
Wash Tray:			
Single	31.63	74.35	----
Double	44.44	108.07	----
Heater	----	----	23.98
Bidet	----	53.53	68.17
Urinal	34.70	57.43	84.69
Hose Bib	----	2.74	----

Lump Sum Figures To Be Added For Sewer, Water Lines, Vents, Etc.

Type of System	Number of Water Closets	Number of Stories				
		1	2	3	4	5
Water Only	None	\$ 10.99	----	----	----	----
Septic Tank	1 to 3	170.24	\$239.40	----	----	----
Sewer	1	98.37	106.85	----	----	----
Sewer	2 or 3	162.95	196.91	\$226.20	----	----
Sewer	4 or 5	281.23	368.15	393.00	----	----
Sewer	6 to 8	414.39	495.25	586.68	\$642.21	----
Sewer	9 or 10	----	628.50	647.98	719.00	----
Sewer	11 or 12	----	733.61	771.54	792.95	\$873.89 <sup>a</sup>

<sup>a</sup> More than 5 stories or 12 water closets, figure quantitatively.

IMPROVEMENTS

ADDITIONAL DETAILS COST FACTORS

(All costs dollars per square foot unless otherwise specified)

PORCHES

On Single-Story Building:			Type of Railing				
Roof	Type of Columns	Floor	Prefabri- cated	Iron Grill Work	Concrete	Wood	None
Corr. Iron	Wood	Wood	----	\$3.22	----	\$2.05	\$1.83
Corr. Iron	Wood	Concrete	\$3.70	3.67	\$2.64	2.10	1.88
Corr. Iron	Pipe	Concrete	4.23	4.20	3.10	2.70	2.45
Corr. Iron	Concrete	Concrete	4.07	4.05	3.06	2.75	2.52
Corr. Iron	Prefab.	Concrete	4.45	4.42	3.54	3.21	3.01
Concrete	Pipe	Concrete	5.01	4.98	4.00	3.63	3.40
Concrete	Concrete	Concrete	4.45	4.44	3.44	3.18	2.86
Concrete	Prefab.	Concrete	4.96	4.95	4.29	6.05	3.80
Tile	Wood	Concrete	----	4.16	----	2.80	2.53
Tile	Pipe	Concrete	5.05	5.02	4.17	6.57	3.60
Tile	Concrete	Concrete	5.05	5.02	4.17	6.57	3.60
Tile	Prefab.	Concrete	5.43	5.40	4.29	6.86	3.75

On First Floor of Multi-Story Building:			Type of Railing				
Roof	Type of Columns	Floor	Prefabri- cated	Iron Grill Work	Concrete	Wood	None
Wood Floor of story above	Wood	Wood	----	3.04	----	1.87	1.65
"	Wood	Concrete	----	----	----	1.92	1.70
"	Pipe	Concrete	----	4.02	----	----	2.27
"	Concrete	Concrete	3.89	3.87	2.88	2.57	2.34
"	Prefab.	Concrete	4.27	4.24	3.36	3.03	2.83
Concrete	Pipe	Concrete	----	4.74	----	----	3.16
Concrete	Concrete	Concrete	4.21	4.20	3.20	2.94	2.62

On Intermediate Floor of Multi-Story Building:			Type of Railing				
Roof	Type of Columns	Floor	Prefabri- cated	Iron Grill Work	Concrete	Wood	None
Corr. Iron	Wood	Wood	----	----	----	.76	----
Corr. Iron	Wood	Concrete	----	----	2.30	.76	----
Concrete	Pipe	Concrete	----	3.22	----	----	----
Concrete	Concrete	Concrete	3.23	3.20	2.08	1.37	----
Concrete	Prefab.	Concrete	4.02	4.00	3.16	2.17	----

On Top Floor of Multi-Story Building:			Type of Railing				
Roof	Type of Columns	Floor	Prefabri- cated	Iron Grill Work	Concrete	Wood	None
Corr. Iron	Wood	Wood	----	2.66	----	1.02	----
Corr. Iron	Wood	Concrete	----	2.66	1.51	1.02	----
Corr. Iron	Pipe	Concrete	----	3.19	----	----	----
Corr. Iron	Concrete	Concrete	3.07	3.04	1.95	1.45	----
Corr. Iron	Prefab.	Concrete	3.54	3.51	2.50	2.14	----
Concrete	Pipe	Concrete	3.52	3.49	2.37	----	----
Concrete	Concrete	Concrete	3.52	3.49	2.37	----	----
Concrete	Prefab.	Concrete	4.30	4.27	3.44	----	----
Tile	Wood	Concrete	----	3.58	----	----	----
Tile	Pipe	Concrete	----	----	----	----	----
Tile	Concrete	Concrete	4.10	4.07	3.10	----	----
Tile	Prefab.	Concrete	4.57	4.54	3.40	----	----

ADDITIONAL DETAILS COST FACTORS

(All costs dollars per square foot unless otherwise specified)

PORCHES - Continued

Cantilever Porches:			Type of Railing				
Roof	Type of Columns	Floor	Prefabri- cated	Iron Grill Work	Concrete	Wood	None
Corr. Iron	Wood	Wood	----	\$3.36	----	\$1.26	----
Corr. Iron	Wood	Concrete	----	----	----	1.52	----
Corr. Iron	Pipe	Concrete	----	3.74	----	----	----
Corr. Iron	Concrete	Concrete	\$3.62	3.59	\$2.41	----	----
Corr. Iron	Prefab.	Concrete	4.09	4.06	----	3.05	----
Concrete	Pipe	Concrete	3.91	4.57	2.77	----	----
Concrete	Concrete	Concrete	3.91	3.88	2.77	----	----
Tile	Wood	Concrete	----	----	----	10.69	----
Tile	Pipe	Concrete	----	----	----	----	----
Tile	Concrete	Concrete	4.68	4.65	3.68	6.68	----
Tile	Prefab.	Concrete	5.15	5.11	3.98	7.01	----

PRINT SHOP EQUIPMENT

Item Description	Trademark	Size	Replacement Cost
Automatic press	Little Giant	12" x 18" with 2 motors of 1/2 h.p. and 1/4 h.p.	\$1,850.00
Automatic press	Craftsman	12" x 18" with motor of 1-1/2 h.p.	3,700.00
Machine for offset printing only	Davidson Dual Duplicator	Model 221, 10" x 14" with a motor of 1 h.p.	1,225.00
Multigraph	Addressograph Co.	Model 479 (rebuilt)	2,000.00
Printing machine	Chandler & Price	Plates of 13-1/2"	1,200.00
		18"	2,100.00
		20"	2,400.00
		24"	2,800.00
Paper cutter	Diamond	30" knife, powered with a GE motor of 2 h.p.	1,200.00
Paper cutter	Diamond	36-1/2" knife powered by a GE motor of 2 h.p.	2,000.00
Paper cutter		Hand operated, 19"	200.00
Paper cutter		Hand operated, 30"	300.00

ADDITIONAL DETAILS COST FACTORS

(All costs dollars per square foot unless otherwise specified)

RAILINGS

Type	Cost
Concrete with Tubing	\$ .37
Prefabricated Concrete	1.95
Masonry	.56
Iron Grillwork	1.91
Common Wood	.25
Mahogany	3.20

SERVANTS' QUARTERS

Class	Walls and Ceilings Unfinished		Walls and Ceilings Finished		
	Concrete Floor	Wood Floor	Concrete Floor	Wood Floor	
ONE	First Floor	\$2.43	\$2.39	\$2.61	\$2.51
	Second Floor	2.16	2.27	2.30	2.39
	One Story (Attached)	1.94	1.91	2.11	2.04
TWO	First Floor	3.63	3.72	4.35	4.34
	Second Floor	3.31	3.26	4.00	3.88
	One Story (Attached)	2.86	2.90	3.42	3.42
THREE	First Floor	4.51	----	5.15	----
	Second Floor	4.20	----	4.84	----
	One Story (Attached)	3.67	----	4.21	----

SHOE REPAIR EQUIPMENT

Item Description	Trademark	Model	Size	Replacement Cost
Machine for sewing soles	American	C	2 h.p. motor	\$1,600.00
Machine for polishing, sandpapering, and shining shoes	American	-	1 h.p. motor	650.00
Machine for sewing inside and outside shoe	Landis 36	A	1 h.p. motor	850.00

STORE FRONTS

Type	Brick	Glass Blocks	Glass Blocks in Wall	Stone	Glazed Tile	Vitrolite	Spanish Tile	Window Glass	Perma-Stone
Cost	\$.95	\$1.51	\$.96	\$.38	\$.86	\$2.04	\$2.49	\$1.93	\$.76

## PROCEDURES FOR REAL PROPERTY ASSESSMENT IN PUERTO RICO

## ADDITIONAL DETAILS COST FACTORS

(All costs dollars per square foot unless otherwise specified)

## STORM SHELTERS

Subclass	Cost
1	\$ .21
2	.74
3	2.07

## TERRACES

Floor	Type of Roof	Type of Railing				
		Prefab.	Iron Grill	Concrete	Wood	None
Concrete	None	\$2.20	\$2.18	\$1.42	\$1.11	\$ .93
Concrete	Corr. Iron	2.91	2.89	2.01	1.74	1.63
Concrete	Concrete	2.97	2.95	2.13	1.89	1.70
Concrete	Tile	3.65	3.65	2.87	4.83	2.37

## TILE AND OTHER FINISHES

Type	Cost
Celotex	\$ .16
Cement	.18
Metal or Plastic Wainscot	.28
Ceramic	.64
Glazed	.81
Quarry	.51
Terrazo	.62
Asphalt	.27
Marble	1.90
"Promenade"	.21
Permastone	.76

## TILE FACTORY MACHINERY

	Replacement Cost
Hydraulic presses of the old type fluctuate between for the smallest and for the largest	\$360 600
Hydraulic pressure pumps are figured on a base of	500 per piston
Hydraulic press (2" Ram)	400

## TOBACCO STRIPPING EQUIPMENT

	Replacement Cost
Standard wood press	\$100
Standard metal press	175
Note: The boilers installed before 1940 must be figured at per horsepower. The boilers installed after 1940 must be figured at per horsepower. These costs include only small boilers up to 20 h.p.	60 80
The automatic boilers must be figured at per horsepower.	160

## IMPROVEMENTS

## ADDITIONAL DETAILS COST FACTORS

(All costs dollars per square foot unless otherwise specified)

## WOOD SHOP MACHINERY

Item	Trademark	Size	Motor	Replacement Cost
Chisel	Wallace Mortiser		1 h.p.	\$500
Drill	Craftsman		1/2 h.p.	100
	Atlas		1/2 h.p.	125
	Walker Turner		1/2 h.p.	150
Planer (wood)	Delta (platform and pedestal)	6" x 32"	1/2 h.p.	130
	Walker Turner platform	6" x 32"	1/2 h.p.	175
Planer (metal)	Parks		1 h.p.	425
	Parks	12" x 4"	2 h.p.	580
	Parks	20" x 4"	5 h.p.	750
	Houston		3 h.p.	600
	Power Matic	10"	3 h.p.	775
Planer and Saw Unit		6"	1/2 h.p.	175
Band Saw		12"	1/2 h.p.	125
		14"	1/2 h.p.	135
		16"	1/2 h.p.	150
		27"	1-1/2 h.p.	200
	Circular Saw	Walker Turner	10"	1-1/2 h.p.
Walker Turner		12"	2 h.p.	650
De Walt		12"	3 h.p.	700
De Walt		10"	3 h.p.	650
De Walt		14"	5 h.p.	750
American		12"	1 h.p.	550
Multiplex		12"	3 h.p.	475
Circular Saw (tilting) with steel platform without table		Craftsman	8"	3/4 h.p.
	Craftsman	8"	1 h.p.	136
	Craftsman	10"	3/4 h.p.	140
	Craftsman	10"	1 h.p.	150
	Walker Turner	10"	1 h.p.	175
Atlas	10"	3/4 h.p.	175	
Note: Add 40 per cent to the replacement cost if they have steel tables.				
Jig Saw	Walker Turner	12"	1/3 h.p.	100
	Walker Turner	18"	1/2 h.p.	125
	Walker Turner	24"	1/2 h.p.	150
Shaper		1-1/2" in diam.	1/2 h.p.	130
		2" in diam.	1/2 h.p.	180
Tenoner	Power Matic	42"	1 h.p.	700
Wood Lathe		30"	1/2 h.p.	100
Add \$25 for each three feet of extension				

# Propiedad de Arnaldo Rivas

Item	Description	Quantity	Unit	Value
1001	...	...	...	...
1002	...	...	...	...
1003	...	...	...	...
1004	...	...	...	...
1005	...	...	...	...
1006	...	...	...	...
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1100	...	...	...	...