Preface

The intent of the property revaluation program is to readjust the appraised values of real property so that values are brought into line with "true market value" as of a specified date. For the 2019 general reappraisal, the specific date is January 1st. The Tax Administrator's office estimates market value by accumulating descriptive data of the real property in our county and by studying the property transactions in our county. The goal of this effort is to uniformly estimate property values in an efficient manner.

Although the resulting estimates of value for each property will be used later in calculation of property tax, at this point, the sole responsibility of the Tax Administrator and his appraisal staff is to reasonably approach and estimate the most probable total selling price for all parcels.

Also, at this point, the property owner should acknowledge only that the Tax Administrator did, or did not, reasonably estimate the approximate market value for the property. The appraisal staff will be available to informally discuss any concerns a property owner may have prior to the meeting of the *Board of Equalization and Review*. A general provision, set out by Statute 105-394, states that "Immaterial irregularities in the listing, appraisal, or assessment of property for taxation ... or in any other proceeding or requirement of this Subchapter shall not invalidate the tax imposed upon any property or any process of listing, appraisal, assessments, levy, collection, or any other proceeding under this Subchapter."

Rules governing the listing, appraisal and assessment of real property for taxation are set out in Subchapter II of Chapter 105 of the General Statutes of North Carolina. These rules are collectively referred to as *The Machinery Act of North Carolina*.

To assist property owners, employees, and administrative interest in understanding and applying assessment standards, this manual of values, standards, and rules is required.

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REVALUATION OVERVIEW

The purpose of a general reappraisal is not to raise revenue but to equalize property values.

The common denominator or the basis for equalization is market value; that price which an informed and intelligent person, fully aware of the existence of competing properties and not being compelled to act, is justified in paying for a particular property.

The job of the appraiser is to arrive at a reasonable estimate of that justified price. To accomplish this, the coordination of approaches to the valuation of the various classes of property must be made so that they are related one to another in such a way as to reflect the motives of the prospective purchasers of each type of property.

The prime objective of mass appraisals for tax purposes is to equalize property values. Not only must the value of one residential property be equalized with another, but it must also be equalized with each agricultural, commercial, and industrial property within the county.

A prospective purchaser of a residential property is primarily interested in its capacity to render service to the family as a place to live. Its location, size, quality, design, age, condition, desirability and usefulness are the primary factors to be considered in selection. By relying heavily upon powers of observation and inherent intelligence, knowing what could be afforded and simply comparing what is available, one property will eventually stand out to be more appealing than another. It is likewise the job of the appraisers to evaluate the relative degree of appeal of one property to another for tax purposes.

The prospective purchaser of agricultural property will be motivated somewhat differently. The primary interest will be in the productive capabilities of the land. It is reasonable to assume that the purchaser will be familiar, at least in a general way, with the productive capacity of the farm. It might be expected that the prudent investor would compare one farm's capabilities against another. Accordingly, the appraiser, for local tax equalization purposes, must rely heavily upon prices being paid for comparable farmland in the community.

The prospective purchaser of commercial property is primarily interested in the potential net return and tax shelter the property will provide. That price which is justified to pay for the property is a measure of the prospects for a net return from the investment. Real estate, as an investment, must not only compete with other real estate, but also with stocks, bonds, annuities and other similar investment options. The commercial appraiser must explore the rental market and compare the income-producing capabilities of one property to another.

The prospective purchaser of industrial property is primarily interested in overall utility value of the property. In evaluating the overall utility, individual considerations must be given to the land and each improvement thereon. Industrial buildings are generally of special purpose design, and as such, cannot readily be divorced from the operation for which they were built. If the operation remains effective, the building likewise retains its utility. The upper limit of its value is its replacement cost new, and its present-day value is some measure of its present-day usefulness in relation to the purpose for which it was originally designed.

Any effective approach to valuations for tax purposes must be patterned in such a way as to reflect the "modus operandi" of buyers in the market place. As indicated above, the motives influencing prospective buyers tend to differ depending upon the type of property involved. It follows that the appraisal approach to value must differ accordingly.

The residential appraiser must rely heavily upon the market data approach to value; analyzing the selling prices of comparable properties and considering the very same factors of location, size, quality, design, age, condition, desirability, and usefulness which were considered by the buyer.

The agricultural appraiser must likewise rely primarily upon the market data approach to value, but in addition to analyzing the selling prices of comparable properties, an effective analysis of the farm's productive potential must also be made.

Rural dwellings are like urban dwellings in that their primary purpose is to provide a family with a home. The appraiser should value them in the same manner as the valuation of any other residence. The approach to farm buildings, however, must be somewhat different. Here, the primary objective is to arrive at the value which the building's presence adds to the productivity of the land, their degree of utility or usefulness. In determining the productive capabilities of the land, it will be necessary to divide the land into various classes per specific types and uses, such as tillable, pasture, woodland, and wasteland; to compute the acreage of each class, and to value each class individually. Due consideration must be given to soil types and fertility, making every effort to utilize all soil and land maps available through agriculture extension services and state universities. Similarly, equal consideration must be given to all other factors affecting the value of the property, such as its location relative to the market place, its relative accessibility, the topography of the land, the shape and size of the fields, the extent and condition of the fences, drainage, water supply, etc.

The commercial appraiser will find that since commercial property is not bought and sold as frequently as is residential property, the sales market will then be hard to establish. Two other options for valuing commercial property are the cost approach and the income approach. For the most part, the income approach to value should be used. By relying on the income approach to value, the net economic rent, which the property is capable of yielding, can usually be determined. The amount of investment required to affect that net return at a rate commensurate with the normal expectations of typical investors can be determined. This can only be achieved through a comprehensive study of the income-producing capabilities of comparable properties and an analysis of present day investment practices.

The industrial appraiser will not be able to rely primarily on the market data approach because of the absence of comparable sales with each sale generally reflecting different circumstances and conditions. Also, it is not possible to rely primarily upon the income approach. Again because of the absence of comparable investments, and because of the inability to accurately determine the contribution of each unit of production to the overall income produced. Therefore, by relying primarily on the cost approach to value, a determination must be made of the upper limit or replacement cost new of each improvement and the subsequent loss of value resulting from the overall physical, functional, and economic factors.

The fact that there are different approaches to value - some of which are more applicable to one class of property than to another, does not, by any means preclude equalization between classes. Remember that the objective in each approach is to arrive at a price which an informed and intelligent person, fully aware of the existence of competing properties and not being compelled to act, is justified in paying for any one property. Underlying and fundamental to each of the approaches is the comparison process. Regardless of whether the principal criteria are actual selling prices, income-producing capabilities, or functional usefulness, like properties must be treated alike. The primary objective is equalization. The various approaches to value, although valid in themselves, must nevertheless be coordinated one to the other in such a way as to produce values, which are not only valid and accurate, but are also equitable. The same "yardstick" of values must be applied to all properties and must be applied by systematic and uniform procedures.

It is obvious that sales on all properties are not required to effectively apply the market data approach. The same is true regarding any other approach. What is needed is a comprehensive record of all the significant physical and economic characteristics of each property to compare the properties of "unknown" values with the properties of "known" values. All significant differences between properties must in some measure, either positively or negatively, be reflected in the final estimate of value.

Each property must be given individual treatment, but the treatment must be uniform and standardized, and essentially no different than that given to any other property. All the factors affecting value must be analyzed and evaluated for every property within the entire county. It is only by doing this that equalization between properties and between classes of properties can be ultimately affected.

All this, at best, is an over-simplification of the equalization process underlying the entire mass appraisal process. The program itself consists of various operational phases. Its success depends primarily upon the systematic coordination of collecting, recording, analyzing and processing the data to its respective indicated value.

DATA COLLECTION AND RECORDING

Basic to the appraisal process is the collecting and recording of pertinent data. The data will consist of general supporting data. Referring to the data required to develop the elements essential to the valuation process is neighborhood data, referring to information regarding pre-delineated neighborhood units; and specific property data, referring to the data compiled for each parcel of property to be processed into an indication of value by the cost, market and/or income approach.

The data must be comprehensive enough to allow for the adequate consideration of all factors which significantly affect property values. In keeping with economics of a mass appraisal program, it is costly and impractical to collect, maintain, and process data of no or marginal contribution to the desired objectives. The axiom "too much data is better than insufficient data" does not apply. What does apply is the proper amount of data, no more or less, which is necessary to provide the database required to generate the desired output.

General Supporting Data. The appraisal staff will be primarily concerned with cost, sales and income data, but they will also find it necessary to research and compile general socioeconomic information pertaining to the entire county under appraisal. The information will serve to assist the staff during the analytical phase of the operation and should include, but not necessarily be limited to, population trends, prevailing geographical factors, primary transportation facilities, primary income sources, unemployment and income levels, institutional influences, the annual volume of new construction and ownership transfers, availability of vacant land, construction labor and material costs, preponderance of residential rentals, and the amount of residential vacancies.

Cost data must be sufficient enough to develop or select and validate the pricing schedules and cost tables required to compute the replacement cost new of improvements needed to apply the cost approach to value.

All data pertaining to the cost of total buildings in place should include the parcel identification number, property address, date of completion, construction cost, source of information, structural characteristics, and other information pertinent to analysis.

Cost information may be recorded on the same form (unassigned property record card) used to record specific property data.

The principal sources for obtaining cost data are builders and developers, and it is generally advisable to collect cost data in conjunction with new construction pick-ups.

Sales data must be sufficient to provide a representative sampling of comparable sales needed to apply the market data approach, to derive unit land values and depreciation indicators needed to apply the cost approach, and to derive gross rent multipliers and elements of the capitalization rate needed to apply the income approach.

All sales data should include the parcel identification number, property classification code, month and year of sale, selling price, source of information (i.e., buyer, seller, agent, or fee), and a reliable judgment as to whether the sale is representative of a true arm's length transaction.

Sales data should be recorded on the same form (assigned property record card) used to record specific property data and verified during the property listing phase.

The principal source for obtaining sales data is the County Registrar’s Office and the real estate transfer returns. Other sources may include developers, realtors, lending institutions, and individual owners during the listing phase of the operation.

Income and Expense Data. Income and expense information data must be sufficient to derive capitalization rates and accurate estimates of net income needed to apply the income approach.

Income and expense data should include both general data regarding existing financial attitudes and practices, and specific data regarding the actual incomes and expenses realized by specific properties.

The general data should include such information as equity return expectations, gross rentals, vacancy and operating cost expectations and trends, prevailing property management costs, and prevailing mortgage costs.

Specific data should include the parcel identification number, property address (or building ID), source of information, the amount of equity, the mortgage and lease terms, and an itemized account of the annual gross income, vacancy loss, and operating expenses for the most recent two-year period.

The general data should be documented in conjunction with the development of capitalization procedural guidelines. The specific data, since it is often considered confidential and not subject to public access, should be recorded on special forms, designed in such a way as to accommodate the property owner or agent thereof in submitting the required information. The forms should also have space reserved for the appraiser's analysis and calculations.

The principal sources for obtaining the general financial data are investors, lending institutions, and property managers. The primary sources for obtaining specific data are the individual property owners and/or tenants during the listing phase of the operation.

Neighborhood Data. At the earliest feasible time during the data inventory phase of the operation, and after a thorough consideration of the living environment and economic characteristics of the overall county or any political subdivision thereof, the appraisal staff should delineate the larger jurisdictions into smaller "neighborhood units," each exhibiting a higher degree of homogeneity in residential amenities, land use, economic trends, and housing characteristics such as structural quality, age and condition. The neighborhood delineations should be outlined on an index (or comparable) map and each assigned a Neighborhood Identification Code, which when combined with the parcel identification number system, will serve to uniquely identify it from other neighborhoods.

Neighborhood data must be comprehensive enough to permit the adequate consideration of value-influencing factors to determine the variations in selling prices and income yields attributable to benefits arising from the location of one specific property as compared to another. The data should include the taxing district, the school district, the neighborhood identification code, special reasons for delineation (other than obvious physical and economic boundaries), and various neighborhood characteristics such as the type (urban, suburban, etc.), the predominant class (residential, commercial, etc.), the trend (whether it is declining, improving, or relatively stable), its accessibility to the central business district, shopping centers, interstate highways and primary transportation terminals, its housing characteristics, the estimated range of selling prices for residentially-improved properties, and a rating of its relative durability.

All neighborhood data should be recorded on a specially designed form during the delineation phase.

Specific property data must be comprehensive enough to provide the data base needed to process each parcel of property to an indication of value, to generate the tax roll and related tax roll requirements, to generate other specified output, and to provide the assessing officials with a permanent record to facilitate maintenance functions and to administer taxpayer assistance and grievance proceedings.

The data should include the parcel identification number, ownership and mailing address, legal description, property address, property classification code, local zoning code, neighborhood identification code, site characteristics, and structural characteristics.

All the data should be recorded on a single, specially-designed property record card customized to meet individual assessing needs. Each card should be designed and formatted in such a way as to accommodate the listing of information and to facilitate data processing. In addition to the property data items noted above, space must be provided for a building sketch, land and building computations, summarization, and memoranda. In keeping with the economy and efficiency of a mass appraisal program, the card should be formatted to minimize writing by including a sufficient amount of site and structural descriptive data, which can be checked and/or circled. The descriptive data should be comprehensive enough to be suitable for listing any type of land and improvement data regardless of class, with the possible exception of large industrial, institutional, and utility complexes, which require lengthy descriptions. In these cases, it will generally be necessary to use a specially designed supplemental property record document, keyed and indexed to the corresponding property record card. The property record card should be made a permanent part of the assessing system, and used not only in conjunction with the revaluation, but also to update the property records for subsequent assessments.

The specific property data should be compiled from existing assessing records, field inspections, aerial photography and street level desktop reviews. The parcel identification number, ownership, mailing address and legal description may be obtained from existing tax rolls. Property classification codes may also be obtained from existing tax rolls (whenever available) and verified in the field. Local zoning codes may be obtained from existing zoning maps. Neighborhood identification codes may be obtained from the neighborhood delineation maps. Lot sizes and acreage may be obtained from existing tax maps. The property address and the site and structural characteristics may be obtained by making a physical inspection of each property.

In transferring lot sizes from the tax maps to the property record cards, the personnel performing the tasks must be specially trained in the use of standardized lot sizing techniques and depth tables, which are necessary to adjust irregular shaped lots and abnormal depths to account for variations from predetermined norms. In regard to acreage, the total acreage may be transferred, but the acreage breakdowns required to affect the valuation of agricultural, commercial, and industrial properties must be obtained in the file from the property owner and verified by personal observation and aerial photographs, if available.

Qualified appraisal staff under the close supervision of the tax administrator must conduct field inspections as warranted. During the inspections, the following procedures must be adhered to:

Identification of the property

Verification of the ownership (recording any transfers which may have occurred)

Recording the property address

Verification of the property classification and zoning codes

Recording of the principal building(s), and the main portion of the structure along with any significant attached exterior features, such as porches, etc. All components must be identified, and the exterior dimensions shown for each

Selection of and recording the proper quality grade of the improvement

Selection of and recording the proper condition, desirability and usefulness (CDU) for all field items

Reviewing the property record card for completeness and accuracy.

After the field inspection is completed, the property record cards must be submitted to clerical personnel to review the cards for completeness and data entry.

Complete and accurate data is essential to the program. Definite standardized data collection and recording procedures must be followed if these objectives are to be met.

ANALYZING AND PROCESSING THE DATA

This phase of the operation involves the analysis of data compiled during the data inventory phase and the processing of the data to an indication of value through the use of the cost, market, and income approaches to value.

During the analytical phase, it will be necessary to analyze cost, market, and income data in order to provide a basis for validating the appropriate cost schedules and tables required to compute the replacement cost new of all buildings and structures; for establishing comparative unit land values for each class of property; for establishing the appropriate depreciation tables and guidelines for each class of property; and for developing gross rent multipliers, economic rent and operating expense norms, capitalization rate tables, and other related standards and norms required to effect the mass appraisal of all the property within the county on an equitable basis.

After establishing the appropriate standards and norms, it remains to analyze the specific data compiled for each property by giving due consideration to the factors influencing the value of that particular property as compared to another, and then to process the data into an indication of value by employing the techniques described in the section of the manual dealing with the application of the traditional approaches to value.

Any one - or all three of the approaches, if applied properly - should lead to an indication of market value. The primary concern is applying the approaches on an equitable basis. This will require the coordinated effort of a number of individual appraisers, each appraiser acting as a member of a team, with the team effort directed toward a valid, accurate, and equitable appraisal of each property within the county. Each property must be physically reviewed during which time the following procedures must be adhered to:

> Verification of the accuracy of each of the characteristics recorded on the property record card.
>
> Determination of the proper quality grade and design factor to be applied to each building to account for variations from the base specifications.
>
> Making a judgment of the CDU of each improvement in order to arrive at a sound allowance for depreciation.
>
> Capitalization of net income capabilities into an indication of value in order to determine the loss of value attributable to functional and economic obsolescence.
>
> Addition of the depreciated value of all improvements to the land value and reviewing the total property value in relation to the value of comparable properties.
>
> Determination that the total property value established can be correlated to actual sales of comparable properties.

Once the final values have been established for each property, the entire program should be evaluated in terms of its primary objectives; do the values approximate a satisfactory level of market value, and - what's more important - are the values equitable? Satisfactory answers to these questions can best be obtained through a statistical analysis of recent sales in an appraisal-to-sale ratio study, if sufficient sales are available.

To perform the study, it is necessary to take a representative sampling of recent valid sales and compute the appraisal-to-sale ratio for each of the sales. If the sample is representative, the computed median appraisal-to-sale ratio will give an indication of how close the appraisals within each district approximate the market value. This is providing, of course, that the sales included represent true market transactions. It is then necessary to determine the deviation of each individual appraisal-to-sale ratio from the median ration, and to compute either the average or the standard deviation, which will give an indication of the degree of equity within each individual district. What remains then is to compare the statistical measures across property classes in order to determine those areas, if any, which need to be further investigated, revising the appraisal, if necessary, to attain a satisfactory level of value and equity throughout the entire county.

The techniques and procedures set forth herein, if applied skillfully, should yield highly accurate and equitable property valuations, and should provide a sound property tax base. It should be noted, however, that no program, regardless of how skillfully administered, can ever be expected to be error-free. The appraisal must be fine-tuned, and this can best be done by giving the taxpayer an opportunity to question the value placed upon his property and to produce evidence that the value is inaccurate or inequitable. During this time, the significant errors will be brought to light, and taking the proper corrective action will serve to further the objective of the program. What's important in the final analysis is to use all these measures as well as any other resources available to affect the highest degree of accuracy and equity possible.

Schedule of Values, Standards, and Rules

Section 1
Land Valuation Process

Pender County, North Carolina

Effective January 1, 2019

LAND VALUATION PROCESS

Overview

Accurate land values are crucial to an effective assessment system. They contribute to the accuracy of appraisals of improved parcels and ensure that landowners pay only their fair share of taxes. Accurate land values promote well-informed land use decisions by both the public and private sectors.

Physically, land may be defined as the surface of the earth together with everything beneath and above. The shape of a parcel is like a three-dimensional pyramid, with its apex at the center of the earth, extending upward through the surface into space. Legally, land is the right to enjoy, use, and dispose of this physical space, subject to the limitations imposed by government. The assessor first identifies, lists, and values all land and improvements thereto. This task requires the use of cadastral maps showing boundaries and other features. Second, an accurate inventory of land data, including: location, ownership, classification and use, size, shape, and physical characteristics must be maintained. The assessor analyzes the local market and estimates the assessment value.

COMPUTER ASSISTED LAND PRICING (CALP)

Objectives of CALP

The purpose of this section is to provide a clear and precise understanding of the capabilities and utility of *Computer Assisted Land Pricing* (CALP). This concept of pricing land reflects a continuing effort to advance and improve the unique computerized systems we presently use. This section should serve as a reference for field and data personnel in the proper application of CALP. It will also familiarize and assist field and data personnel with the land pricing phase of revaluation programs, both manual and computerized.

The following is a list of objectives in employing CALP:

1. To provide update capability of land prices, both during a revaluation program and in subsequent value updating.
2. To provide flexibility in the scheduling of the land pricing process in relation to the project calendar.
3. To provide greater consistency in land pricing within the confines of individual projects.
4. To increase standardization of land pricing.
5. To reduce the need for influence factor application on a parcel-by-parcel basis (e.g., excess frontage).
6. To eliminate the manual transfer of unit land values from land pricing maps to *Property Record Card*s.
7. To eliminate the encoding of unit land values.

Land Valuation

In making appraisals for Ad Valorem tax purposes, it is generally necessary (essential if you are using the cost approach) to establish separate values for land and for the improvements on the land. In actuality, the two are not separated and the final estimate of the property as a single unit must be given prime consideration. However, in arriving at that final estimate of value, aside from contractual and legal requirements, there are certain advantages in making a separate estimate of value for the land.

- An estimate of land value is required in the application of the Cost Approach.
- An estimate of land value is required to be deducted from the total property selling price in order to derive indications of depreciation through market-data analysis. The equation is as follows:

Depreciation = (RCN + Land Value) - (Selling Price)

Land is not a depreciable item, and a separate estimate of land value may be required for bookkeeping and accounting purposes.

Since land may or may not be used to its highest potential, the value of land may be completely independent of the existing improvements on the land. In a situation of economic mis-improvements, the value of the land may be a good indicator of the value of the entire parcel.

Comparable Sales Method

A frequently used method in estimating the value of land is the comparable sales method, in which land values are derived from analyzing the selling prices of similar sites. This method is, the application of the market data approach to value and all consideration pertaining thereto are equally applicable here.

The appraiser must select comparable and valid market transactions, and must weigh and give due consideration to all the factors significant to value, adjusting each to the subject property. The comparable sites must be used in the same way as the subject property and subjected to the same zoning regulations and restrictions. It is also preferable, whenever possible, to select comparables from the same or a similar neighborhood. The major adjustments will be to account for variations in time, location, and physical characteristics including size, shape, topography, landscaping, access, as well as other factors which may significantly influence the selling price, such as the productivity of farm land.

Although it is preferable to use sales of unimproved lots for comparables, it is not always possible to do so. Older neighborhoods are not likely to yield a sufficient number of representative sales of unimproved lots to permit a valid analysis. In such cases, in order to arrive at an estimate of land values using the comparable sales approach, it is necessary to consider improved property sales and to estimate the portion of the selling price applicable to the structures. The procedure would be to estimate the replacement cost of the buildings as of the date of the sale, estimate the accrued depreciation, and deduct that amount from the replacement cost. This will result in the estimated selling price of the buildings which can be deducted from the total selling price of the property to derive the portion of the selling price which can be allocated to the land. The equation is as follows:

(Selling Price of Property) - Estimated Depreciated Value of Building =
Indication of Land Value

In order to apply the comparable sales method, it is first necessary to establish a common unit of comparison. The units generally used in the valuation of land are *price per front foot, price per square foot, and price per acre.* The selection of any one particular unit depends upon the type of property being appraised: frontage being commonly used for platted, uniform type lots;
square footage for residential lots in square foot zones and for commercial properties; and acreage for larger individual tracts, as well as for irregularly shaped parcels lacking uniformity. The utility of a site will vary with the footage, width, depth, and overall area. Similarly, the unit land values should be adjusted to account for differences in size and shape between the comparable sales and the subject property. Since such an adjustment may be necessary for each lot, it is beneficial that the appraiser adopt and/or develop standardized procedures for adjusting the lot size and the unit values to account for the variations.

Some of the techniques commonly employed are as follows:

Standard lot sizing techniques for the adjustment of the frontage, width, and depth of irregularly shaped lots to make the units of measurement more comparable with uniform rectangular lots.

Standard Depth Tables provide for the adjustment of front foot unit values to account for variations in depth from a predetermined norm.

During the process of adjusting the comparable sales to account for variations between them and the subject property, the appraiser must exercise great care to include all significant factors and to properly consider the impact of each of the factors upon the total value. If done properly, the adjusted selling prices of the comparable properties will establish a range of value in which the value of the subject property will fall. Further analysis of the factors should enable the appraiser to narrow the range down to the value level which is most applicable to the subject property.

The Land Residual Technique

In the absence of sufficient market data, income-producing land may be valued by determining the portion of the net income attributable to the land, and capitalizing the net income into an indication of value. The procedure is as follows:

1. Determine the highest and best use of the land, which may be either its present use or hypothetical use.
2. Estimate the net income which the property can be expected to yield.
3. Estimate the replacement cost new of the improvements.
4. If the case involves the present use, estimate the proper allowance for depreciation, and deduct that amount from the replacement cost new of the improvements to arrive at an estimate of their depreciated value.
5. Develop appropriate capitalization rates.
6. Calculate the income requirements of the improvements, and deduct the amount from the total net income to derive that portion of the income which can be said to be attributable to the land.
7. Capitalize the residual income attributable to the land into an indication of value.

Ratio Method

A technique useful for establishing broad indications of land values is a "typical" allocation or ratio method. In this technique, the ratio of the land value to the total value of improved properties is observed in situations where there is good market and/or cost evidence to support both the land values and total values. This market abstracted ratio is then applied to similar properties where the total values are known, but the allocation of values between land and improvements are not known. The ratio is usually expressed as a percentage which represents the portion of the total improved value that is land value, or as a formula:

Land Value = % of Property Value Attributable to Land X Total Property Value

This technique can be used on most types of improved properties, with important exceptions being farms and recreational facilities, provided that the necessary market and/or cost information is available. In actual practice, available market information limits this technique primarily to residential properties, and to a much lesser extent, commercial and industrial properties such as apartments, offices, shopping centers, and warehouses.

The ratio technique cannot give exact indications of land value. It is nevertheless useful, especially when used in conjunction with other techniques of estimating land values because it provides an indication of the reasonableness of the final estimate of land value.

The ratio should be extracted from available market information and applied to closely similar properties. It should be noted that any factor that affects values may also affect the ratio of values. Zoning is particularly important because it may require more or fewer improvements be made to the land, or may require a larger or smaller minimum size. This tends to have a bearing on the land values, and so it may also influence the ratio of values considerably from community to community.

The following is an example of a residential land valuation situation.

Market information derived from an active subdivision	
Typical Lot Sale Price (most lots equivalent)	$30,000
Improved Lot Sales (range)	$130,000 to $150,000

Indicated Ratio = $30,000/150,000 to $30,000/130,000
Or
<u>20% to 23%</u>

Similar subdivision, but 100% developed	
Typical Lot Sale Price (most lots equivalent)	unavailable
Improved Lot Sales (range)	$170,000 to $210,000
Broadest Indicated Range of Lots	
20% x $170,000 to 23% x $210,000	$34,000 to $48,300
Narrowest Indicate Range of Lot Values	
23% x $170,000 to 20% x $210,000	$39,100 to $42,000

If both lots and improvements vary considerably, the broadest range is most important. If most lots vary little and are judged equivalent, but the improvements vary somewhat, the narrowest range is appropriate. Most subdivisions exhibit a combination of the two ranges. Showing a typical narrow total value range but a wider actual range of land values.

Cost of Development Method

This method finds its widest application in the appraisal of large tracts of undeveloped land suitable for residential, commercial, or industrial development. It is a technique which requires a great deal of data, time, and skill. Therefore, it is generally used only in those cases where an insufficient number of comparable sales are available for analysis.

This method involves making an estimate of the value of the site when fully developed for its highest and most likely use. Then deducting an estimate of the total cost of developing the site to derive an indication of its present value. The procedure for employing the method is as follows:

1. Determine the highest and most likely use of the site, including the optimum size of the lots if the use involves subdividing.
2. Estimate the most likely selling price of the developed site(s) by the comparable sales method.
3. In cases involving subdividing, determine the optimum number of sites which can be developed.
4. Calculate the aggregate selling price the developer can expect to receive.
5. Estimate the developing cost to include the cost of improvements, taxes, insurance, engineering fees, interest, advertising, sales, profit and other related expenditures,

and deduct that amount from the anticipated gross sales, to arrive at an indication of the present value of the undeveloped tract.

CALP System Concept

The foregoing material is intended to illustrate the basic appraisal principles and methods commonly recognized and considered applicable to the valuation of land.

IAS CALP was conceived and developed to incorporate these traditional land valuation methods in a relational database system to allow:

- Flexibility
- Uniformity
- Update Maintenance Capability
- Relational Based Land Rates by Land Types
- System Driven Adjustments for:
  - Under/Over Sized Parcels
  - Street Improvements and Utilities Available
  - Zoning
  - Location Type

All major property classes can be accommodated by this concept including:

- Residential
  - Single Family
  - Multi-family
  - Condominiums

- Agricultural
  - Market Value
  - Preferential Use

- Commercial
  - Retail
  - Apartments
  - Offices

- Industrial

- Exempt/Institutional

Land categories or types, such as primary site, undeveloped, etc., are user determined and not limited. Standard land type categories are provided as part of the system, but users are permitted to revise and/or expand allowable land types as needed.

The CALP land tables are normally driven by some form of geographic delineation, such as neighborhood and general property class, residential, commercial, etc.

Further refinements are possible by:

Zoning
Street improvements and available utilities
Land type category
Base land type tize with adjustment for over- and under-size parcels
Location type

All major unit value types may be utilized including:

Front foot
Square foot
Acres
Gross or lump sum
Unit (as per apartment unit or lot)
Common element (condominiums)

The recommended application normally suggests analysis and development of base land tables for the most common property types and median value levels.

A sample analysis indicates the following:

Median Single Family price: $100,000

Typical Land/Building ratio is 20%: (Land $20,000, Building $80,000)

Based on this observation, base tables can be constructed which calculate a value of $20,000 for the selected base size or sizes and relationships assigned for various land types, street improvements, utilities available, and similar aspects.

Multiple base sizes should be developed to accommodate variety in zoning minimums or neighborhood norms. Base tables developed by the preceding analysis are subject to further refinement and calibration to market-indicated value levels by application of a neighborhood CALP index feature. For example:

- Base table yields $20,000 for Base Lot
- Subject neighborhood is in a higher value range, say, $200,000 total, with a $40,000 indicated land value.
- The Base table is calibrated to the specific neighborhood by application of a CALP Index of 200%.

Commercial neighborhoods tend to demonstrate a high volatility in land rates, often varying drastically on a block-by-block basis. CALP accommodates this situation by allowing an overall land table percentage adjustment to a parcel level. The "spot location" feature permits a parcel adjustment to specific parcels within a given neighborhood.

Specific parcel or land types within a parcel that deviate from the base table assumptions can be further refined by application of Influence Factors or specific base rate adjustments. Typical cases could include adjustment for:

- Size/Shape
- Topography
- Frequent Flooding
- Restrictions to Use
- Other user determined conditions.

Suggested guidelines for Influence Factor application are provided as part of this manual.

Summary

The many capabilities of CALP can impose some appearance of complexity to the user. It is important to recognize that the decision to use or not use some of the powerful features of CALP is entirely in the hands of specific users based on their opinion of local practice, market trends, and data sources available.

CALP does not impose undue structured standards or system constraints common to most fixed, table-driven systems. Instead, CALP permits the user to develop a land pricing system tailored to the needs and resources of the local jurisdiction.

Simply stated, CALP permits the user to:

- Select types, categories, units, definitions, and other criteria.
- Express these selected criteria in a relationship-based manner as opposed to a fixed rate table.
- Calibrate these land rates to neighborhood and/or parcel value levels.
- Adjust any category or land type for specific parcel variation from norms.

Getting to Know the CALP Screens

The CALP Module has a total of nine base screens.

OLD LP51 - CALP Neighborhood Data Screen
OLD LP52 - CALP Land Pricing Model Rates Screen
OLD LP53 - CALP Zone Model Assignment Screen
OLD LP54 - CALP Location Model Assignment Screen
OLD LP55 - CALP Street/Road Model Assignment Screen
OLD LP56 - CALP Utility Model Assignment Screen
OLD LP57 - CALP Land Code Relationships Screen
OLD LP58 - CALP Depth Factors Maintenance Screen
OLD LP59 - CALP Acres Adjustment Tables Screen

CALP Neighborhood Data Screen (OLD LP51)

The CALP Neighborhood Data screen, OLD LP51, contains an assortment of fields for encoding cost and market valuation factors based on neighborhood. These factors are used for several valuation models. For CALP, this screen is used for assigning land models and land factors at an individual neighborhood level.

To Query a CALP Neighborhood Data Record:

1. Go to OLD LP51, the CALP Neighborhood Data screen.
2. Click the [Enter Query] icon and enter your query criteria. You can query on any field or combination of fields on the screen.
3. Click the [Execute Query] icon to display the records that meet the query criteria.

CALP Land Pricing Model Rates (OLD LP52)

The CALP Land Pricing Model Rates screen, OLD LP52, is where you view the components of the individual land model records.

To Query the CALP Land Pricing Model Rates Record:

1. Go to OLD LP52, the CALP Land Pricing Model Rates screen.
2. Click the [Enter Query] icon and enter your query criteria. You may query on any field or combination of fields on the screen.
3. Click the [Execute Query] icon to display the records matching your query criteria.

CALP Zone Model Assignment (OLD LP53)

The CALP Zone Model Assignment screen, OLD LP53, is used to enter allowable combinations of jurisdiction and zoning codes. Primary application of this screen is to enable correlation of specific zoning types to land model types by zoning model. The zoning models are used on screens LP61 through LP65 and LP71 through LP75.

To Query the CALP Zone Model Assignment Record:

1. Go to OLD LP53, the CALP Zone Model Assignment screen.
2. Click the [Enter Query] icon and enter your query criteria. You may query on any field or combination of fields on the screen.
3. Click the [Execute Query] icon to display the CALP records.

CALP Location Model Assignment (OLD LP54)

The CALP Location Model Assignment screen, OLD LP54, is where you enter commercial/industrial neighborhood model criteria. Typical application would be to create/assign model types by general business location criteria such as major strip, CBD, industrial park, etc. The location models created on this screen can be used for creating land models on screens LP71 through LP75. If desired, location models or location types on record, can be disregarded by entering model O for the specific location type.

To Query a CALP Location Model Assignment Record:

1. Go to OLD LP54, the CALP Location Model Assignment screen.
2. Click the [Enter Query] icon and enter your query criteria. You may query on any field or combination of fields on the screen.
3. Click the [Execute Query] icon to display the CALP records.

CALP Street/Road Model Assignment (OLD LP55)

The CALP Street/Road Model Assignment screen, OLD LP55, allows for land rate adjustments to residential neighborhoods by street type such as paved, unpaved, semi-improved, or similar. The models created on this screen can be used for creating land models on screens LP61 through LP65 and LP81 through LP85.

To Query a CALP Street/Road Model Assignment Record:

1. Go to OLD LP55, the CALP Street/Road Model Assignment screen.
2. Click the [Enter Query] icon and enter your query criteria. You may query on any field or combination of fields on the screen.
3. Click the [Execute Query] icon to display the CALP records.

CALP Utility Model Assignment (OLD LP56)

The CALP Utility Model Assignment screen, OLD LP56, is where you enter land rate adjustments to residential neighborhoods for the availability of utilities, such as public water, public sewer, gas, well/septic, etc. This screen also contains a field for entering a priority code. The priority code determines which code is selected for modeling when multiple utility codes are present on a parcel. (The model for the code with the lowest value in priority will be used.) All utility codes to be ignored are assigned model O. The models created on this screen can be used for operating land models on screens LP61 through LP65 and LP81 through LP85.

To Query a CALP Utility Model Assignment Record:

1. Go to OLD LP56, the CALP Utility Model Assignment Screen.
2. Click the [Enter Query] icon and enter your query criteria. You may query on any field or combination of fields on the screen.
3. Click the [Execute Query] icon to display the CALP records.

CALP Land Code Relationships (OLD LP57)

The CALP Land Code Relationships Screen, OLD LP57, permits entry of allowable land types and land codes for both residential and commercial properties. The models created on this screen are used for creating land models on screens LP61 through LP65, L P 71 through LP75, and LP81 through LP85.

To Query the CALP Land Code Relationship Record:

1. Go to OLD LP57, the CALP Land Code Relationship Screen.
2. Click the [Enter Query] icon and enter your query criteria. You may query on any field or combination of fields on the screen.
3. Click the [Execute Query] icon to display the CALP records.

CALP Depth Factors Maintenance (OLD LP58)

The CALP Depth Factors Maintenance screen, OLD LP58, contains the depth factor tables for front foot land pricing. Depth tables for 75, 100, 120 and 150 feet are pre-loaded on the system and can be adjusted here if you have update security. The depth table determines the set of factors to be used. These tables are assigned to the individual neighborhoods on screen OLD LP51, CALP Neighborhood Data.

To Query the CALP Depth Factors Maintenance Record:

1. Go to OLD LP58, the CALP Depth Factors Maintenance screen.
2. Click the [Enter Query] icon and enter your query criteria. You may query on any field or combination of fields on the screen.
3. Click the [Execute Query] icon to display the CALP records.

CALP ACRES ADJUSTMENT TABLES (OLD LP59)

The CALP Acres Adjustment Tables screen, OLD LP59, is for parcels that are significantly larger or smaller than the base size of the model and may require an acre size adjustment. The adjustment factors are stored by table and acre size within the table. The table number is referenced on OLD LP57, CALP Land Code Relationship.

To Query a CALP Acres Adjustment Table Record:

1. Go to OLD LP59, the CALP Acres Adjustment Tables screen.
2. Click the [Enter Query] icon and enter your query criteria. You may query on
3. any or all fields on the screen.
4. Click the [Execute Query] icon to display the CALP records.

NEIGHBORHOOD DELINEATION AND ANALYSIS

Purpose

Neighborhood Delineation and Analysis is a study of external forces or influences which could be considered to have an effect on property value. Neighborhood Delineation and Analysis also involves conclusions on the typical housing, economic, social, and demographic characteristics of the geographic area considered as a homogeneous neighborhood. A “neighborhood”, for analysis purposes, is defined as the largest geographic grouping of properties where the significant economic forces of those properties are generally uniform. The selected ratings should be a reasonable selection for at least 50 to 75 percent of the dwellings located in the delineated neighborhood. Difficulty in assigning a general neighborhood rating indicates that the delineated area is not a reasonable statistical measuring area and should be reconfigured. A neighborhood containing a minority of structures with relatively modest deviation from typical conditions can be used.

This chapter contains two sample Neighborhood Data Forms, one for Residential/Agricultural and one for Commercial/Industrial. These Neighborhood Data Forms serve three main functions:

1. Provide an opinion of the typical structure, economic factors and conditions within an area considered to be a neighborhood, for the reviewer to use. The data forms provide a benchmark for comparing each property within the neighborhood to each other.
2. Provide a generally similar geographic area to use as a statistical base for sales comparison, both during the initial revaluation and years later to measure change and update values accordingly.
3. Provide a basis to allow development of computer assisted land pricing (CALP) tables.

Significant characteristics for consideration are:

1. Physical Boundaries
    a. Natural — rivers, mountains, woods, streams, etc.
    b. Man-made — roads, highways, railroads, streets, corporation lines, etc.
2. Housing Characteristics — type, quality, age, and condition.
3. Occupancy — as percentage of homes owner-occupied or tenant-occupied, percentage of vacant dwellings, etc.
4. Predominant land use and anticipated changes.
5. Typical land size and land valuation.

Instructions for Neighborhood Delineation Field Analysis

Step 1 Obtain large scale or index maps for the county, which ideally show all streets, roads, and significant physical features such as rivers, lakes, and railroads. Census tract maps and base maps developed from aerial photography showing photogrammetric features are ideal for this purpose.

Step 2 Establish preliminary neighborhood boundaries on your base maps using known physical and governmental features as boundaries. The general rule would be to consider all physical separation points, such as rivers, arterial streets, corporation lines, lakes, commercial-industrial areas, or highways as definite neighborhood boundaries.

Step 3 Assemble and analyze any supplementary material for the county which is available and useful.

Examples:

- Zoning maps and zoning restrictions
- Planning department maps (such as master development plans)
- Census tracts (block statistics)
- School District maps
- Redevelopment planning maps and studies
- Current and planned utility maps (sewers, public water)
- City, state, or county engineering maps or studies, such as soil maps, or topographic maps
- Real estate sales data, such as multi-list sales, revaluation program, sales verified from data collection, Assessors' office records of transfer
- Community and Chamber of Commerce area studies and literature, such as population trends and building permits
- Industrial plan listings and employment and base summaries

Step 4 Now begin the field inspection process by conducting a thorough street-by-street exterior inspection of the county. Based on the physical observations, data collected and analysis to date, establish individual neighborhood boundaries, recognizing the specific delineation points where the residential property exhibits significant physical and economic change from adjacent areas.

Step 5 After establishing the boundaries of each neighborhood:

1. Fill out the appropriate Neighborhood Data Form and assign it a temporary number.
2. Post the established neighborhood boundaries and temporary numbers to a master map.

Remember, consistency of choice is our primary objective.

Step 6 After completing Step 5, briefly review the data assembled and make refinements as required. It is highly desirable at this point to solicit the observations and comments of informed departments and groups such as the Chamber of Commerce, Planning Departments, Assessors' Office, and others.

Step 7 Establish final boundaries and permanent neighborhood numbers and post to both the Project Master Map and Individual Field Maps used for field appraisal.

Step 8 Determine, by manual and/or computerized analysis, the comparability of all neighborhoods to each other. The theory here is that even though various neighborhoods may be physically separated, if the predominant value analysis characteristics such as value range, housing characteristics, or neighborhood type, are similar, then it is desirable to group similar neighborhoods and thereby create a larger sales database for comparable property value analysis.

Step 9 Summarize and collate the final Neighborhood Data Forms and related material, and distribute copies to the Senior Appraiser and Project Supervisor.

Summary

Obviously, these instructions can only be a general guide and will require tempering and/or modification to suit local conditions. During the neighborhood analysis process, our primary purpose is to use the neighborhood established to develop a statistical measuring base for pooling and analyzing sales data and subsequently use this data to determine market value for individual properties via the comparable market data approach.

NEIGHBORHOOD DATA FORM - RESIDENTIAL/AGRICULTURAL

Follow these instructions to complete the Neighborhood Data Form for Residential/Agricultural

Top Section

County: Enter the name of the county in which the neighborhood is located. (This will not be encoded.)

County ID: Enter a two-digit numeric code denoting the county identification number, if applicable.

Area Name: Space for up to 30 characters is provided to enter a descriptive name by which the neighborhood is commonly known.

Examples: West End, Central Business District, Bunker Hill

Neighborhood ID Code: Up to eight characters are available for assignment of a neighborhood ID. It is suggested that you use only as many characters as necessary for the size of the jurisdiction allowing one or two trailing characters to denote a sub-neighborhood. It is recommended that during the field delineation process, temporary NBHD numbers be assigned and entered in the Observation and Comment area. At the conclusion and final reconciliation of the original process, permanent numbers should be assigned and entered on each form posted and on the delineated individual field maps.

Identification and Reference

Taxing District: Space is provided to enter the taxing district name where the neighborhood is located. For county-level projects, this will normally be either the township or city name.

Taxing District Number: Space is provided to enter (if applicable) a numeric entry to describe the area.

Example: Ward 03

Tax Map Numbers: Enter listing of all tax maps that have parcels in the neighborhood.

Boundaries: North, East, South, and West: Space for up to 27 characters on each line is provided to enter the boundaries of the neighborhood. Boundaries may be streets, roads, lakes, rivers, city and town lines, railroads, significant properties, or, in short, natural or manmade boundaries.

Examples: Oak Street, St. Rte. 109, Blue Lake, Rapid River, Town Line, B & O Railroad.

Boundary Codes: Space is provided for up to three characters to enter the reason or reasons why that boundary was selected as a delineation point for the neighborhood. Delineation codes 1 through 5 are provided on the form.

Example: Field analysis has revealed that the north boundary should be Blue Lake because it is a physical barrier to extension, development, or influence from outside forces to this neighborhood. Enter "1." If Blue Lake was considered both a physical barrier and a land use change point, both code "1" and "4" could be entered. A maximum of three codes may be entered for each boundary.

Characteristics

The Characteristics section generally refers to the residential development status of the neighborhood.

Type: One choice is required for each item. Circle the appropriate code number for the item. The choices are:

1. Urban — Neighborhood is a built-up area normally located within the city limits of a medium to large size city. Always incorporated.
2. Suburban — Normally a built-up area located outside the city limits, but within normal driving distance to the city for work or shopping. Could be incorporated or unincorporated.
3. Subdivision — Normally a subdivided and platted area of modern dwellings having highly homogeneous housing characteristics (for example, similar type, age group, style, quality, or value range,), located beyond normal daily commuting distance to the urban center for work or shopping. Normally unincorporated.
4. Rural — Generally considered to be an area of relatively sparsely populated, open space normally devoted to agricultural and/or recreational land use. Always unincorporated.
5. Rural Hamlet — Normally a small village or town located within a rural area and relatively remote from the urbanized areas of the community. Normally an unincorporated district.

Predominant Land Use: One choice is required. Circle the code which most accurately describes the current predominant land use. The choices are:

1. Residential
2. Agricultural
3. Commercial
4. Industrial
5. Other (for example, recreational, governmental, educational,)

Rate of Change in Life Cycle: A basic axiom of neighborhood analysis presumes that neighborhoods are subject to inevitable change, and change in the life cycle of a residential neighborhood is normal and to be expected. Circle the code which most accurately describes the speed or pace of the change taking place in the subject neighborhood. The choices are:

1. Slow — Change almost imperceptible.
2. Steady — Evidence of significant change taking place, but at a moderate rate. (e.g. Gradual development of a rural area to more intense residential development).

3. Rapid — Pronounced and dramatic change taking place within a short time span (one year). (e.g. Old, blighted residential area experiencing a rapid urban redevelopment.)

Neighborhood Life Cycle: As mentioned above, neighborhood analysis presumes that all neighborhoods have a life cycle. Circle the code which most accurately describes the current stage of neighborhood life cycle. The choices are:

1. Inception and Growth — Usually rapid and roughly equivalent to the human cycle of birth and rapid early development.
2. Relative Equilibrium — Roughly equivalent to the rather slow and almost imperceptible change cycle of the mature and fully developed human adult.
3. Decline — The point of marked decay and disintegration normally associated with almost blighted neighborhoods and roughly equivalent to the decline associated with old age.

Demand/Supply: Circle the code which most accurately describes the availability of properties for sale within the subject neighborhood. The choices are:

1. Shortage — More buyers available than there are properties for sale.
2. In Balance — Availability approximately equal to buyer demand.
3. Over Supply — More properties available for sale than buyers, and representing a temporary or relatively permanent stagnant market condition.

Density: Circle the code which most accurately describes the degree of present population and improvement density. The choices are:

1. Low —As in rural, recreational, open space land use.
2. Medium — As in areas of single family development in the range of 50% to 75% peak development.
3. High — As in highly urbanized, virtually 100% developed neighborhoods.

Rate of Turnover: Refers to the number of properties currently bought and sold within the subject neighborhood. Circle one of the following. The choices are:

1. Low — Usually less than 5% annually of the total residential properties in the neighborhood.
2. Medium — Approximately 5% annually of the residential properties in the neighborhood.
3. High — Significantly more than 5% annually of the residential properties in the neighborhood.

Marketing Time: Circle a range.

1. 1-3 Mos.
2. 4-6 Mos.
3. Over 6 Mos.

Predominant Improvement Type

Type: Indicates the typical of majority residential use in the neighborhood. Circle the most appropriate code.

1. 1 & 2 Family
2. Multiple Family
3. Other

Quality

1. A
2. B
3. C
4. D
5. E
6. X

Typical Age (Years): Indicates the average age expressed in years of the majority of residences in the neighborhood. Circle the most appropriate code.

1. 0-3
2. 4-8
3. 9-18
4. 19-28
5. 29-38
6. 39-49
7. 50+

CDU: In the context of the Neighborhood Delineation Form, ratings for "condition," "CDU," “quality," "grade," etc. refer to the typical or normal structure or dwelling type that is common to the neighborhood. CDU (Condition-Desirability-Utility) refers to the effect of depreciation or loss of value due to all causes to the structure value. This loss of value can take the form of three primary causes:

> *Physical Depreciation* — Loss of value due to the effects of age, the elements, and wear on the structure. Evidence of physical depreciation is represented by wear and tear, decay, rot, cracks, encrustation, and structural defects. Physical depreciation may be further divided into curable and incurable depreciation. Curable depreciation is those areas considered economically feasible to cure and hence are customarily repaired or replaced by a prudent property owner. Incurable depreciation takes the form of defects which are not considered economically feasible to repair or replace except at a cost in excess of their contribution to the value of the structure.
>
> *Functional Depreciation or Functional Obsolescence* — Loss of value due to design faults inherent in the structure. Functional obsolescence is brought about by such factors as

overcapacity, inadequacy, lack of modern design and mechanical features (heating, plumbing, etc.), and similar factors. Consideration of functional obsolescence focuses on the ability of the structure to perform the function for which it is intended, in terms of current market desires and standards. Elements of functional utility in residential property include architecture, design and layout, internal traffic pattern, sizes and types of rooms, and performance standards. In a similar fashion, functional obsolescence may be both curable and incurable in nature depending on the economic feasibility of correcting the design fault.

Economic Depreciation or Economic Obsolescence — Loss of value to the structure due to factors external to the property, such as economic forces or environmental conditions which affect supply and demand relationships in the marketplace. Examples include: mortgage rates, traffic patterns, nuisances, frequent flooding, inadequacy of schools, shopping, and similar factors. Economic obsolescence is generally considered incurable.

CDU ratings are an attempt to consider a composite of physical, functional, and economic depreciation affecting the structure. In practical use, primary consideration is limited to physical and functional conditions found in the structure or the common structure type in the delineated neighborhood. Economic depreciation is normally considered a common force or forces affecting all similar property types in the area or neighborhood. The economic depreciation is reflected in general adjustments. These adjustments can take the form of alternate depreciation tables reflecting lesser or greater loss of value to the common structure types within the defined neighborhood due to external economic forces common to the area.

Direct consideration for economic forces is inherent within the application of the Market Analysis or Multiple Regression Analysis approach by treating each neighborhood or group of neighborhoods as a comparative statistical measuring area. The net market effect of location on the property value is measured by sales analysis and applied to the affected subject properties.

Following are typical CDU ratings found on most Data Collection Cards:

1. EX (Excellent): In "as new" or "perfect condition." No visible evidence of physical deterioration. Modern design or rehabilitated older property with no significant design faults present.
2. VG (Very Good): A very minor degree of physical deterioration is present, but entirely curable with modest and normal maintenance. Modern design or rehabilitated older property with no significant design faults present.
3. GD (Good): Minor degree of physical deterioration is present, which is curable by normal maintenance. Modern design or rehabilitated older property with at most minor design faults present.
4. AVG (Average): Normal wear and tear commensurate with the age of the structure is present. Some modest evidence of deferred normal maintenance. May have minor functional design faults or lack of new or modern heating or plumbing but economically feasible to correct.
5. FAIR (Fair): Some degree of physical deterioration is present requiring repair beyond the level of normal maintenance. Likely to have some functional design faults that are economically feasible to cure.
6. PR (Poor): Significant physical deterioration with some possible evidence of structural faults. May be considered marginally imprudent or economically infeasible to correct or repair to original condition. Suffers from significant design faults that may be considered incurable.
7. VP (Very Poor): Major physical deterioration in addition to significant structural faults. Deterioration is considered incurable or not economically feasible to cure. Structure may currently be occupied, but is approaching the end of its economic life.
8. UN (Unsound): Structure has reached the end of its useful life for its designed purpose. It is not habitable and may pose a health or safety risk.

Predominant Occupancy: Circle owner if most of the properties in the neighborhood are owner-occupied. Otherwise, circle tenant.

1. Owner: Circle owner if most of the properties in the neighborhood are owner-occupied.
2. Tenant: Circle tenant if most properties in the neighborhood are rented.

Vacancy: Enter (from 0% to 100%) the estimated number of currently unoccupied homes in the neighborhood.

Change in Use: Circle the most accurate choice describing the current likelihood of a change in significant land use in the neighborhood. The choices are:

1. Not likely
2. Likely
3. Taking Place

Probable New Use: Circle the most accurate choice describing the likely anticipated future land use in the neighborhood. The choices are:

1. None
2. Residential
3. Agricultural
4. Commercial
5. Industrial
6. Other

Typical Land Category: Circle the most appropriate choice.

1. SQ - Square Feet
2. AC - Acreage
3. Unit - Number of units used for apartments or condos

Land Base Size: For typical land category size, enter the common land base size.

ESTIMATED MARKET VALUE FOR RESIDENTIAL IMPROVED PROPERTY

This section represents an estimate by the field analyst of the current market value of the typical residential property within the neighborhood. Generally, it can be said that an area can be considered highly homogeneous if at least 75% of the residential property in the neighborhood falls within the minimum-maximum value range and the value range does not exceed a 25%± range from the median value.

Example:	Minimum	$125,000
	Maximum	$155,000
	Median	$132,000

Minimum: Enter, right justified, the estimated minimum residential market value for the typical residential property in the neighborhood, after adjusting utilized valid market sales used in the analysis with a time index. Round the value to the nearest $100.

Maximum: Enter, right justified, the estimated maximum residential market value for the typical residential property in the neighborhood, after adjusting utilized valid market sales used in the analysis with a time index. Round the value to the nearest $100.

Median: Enter, right justified, in $100 multiples, the estimated median residential market value for the typical residential property in the neighborhood, after adjusting utilized valid market sales used in the analysis with a time index. The median is defined as a measure of central tendency equal to that point in a distribution above which 50% of the values fall and below which 50% of the values fall.

OTHER ECONOMIC MARKET INFLUENCES

Adequacy of Shopping: Circle the best choice.

1. Very Good
2. Good
3. Average
4. Fair
5. Poor

Adequacy of Utilities: Circle the best choice.

1. Very Good
2. Good
3. Average
4. Fair
5. Poor

Protection from Adverse Influence: Circle the best choice.

1. Very Good
2. Good
3. Average
4. Fair
5. Poor

Adequacy of Police and Fire Protection: Circle the best choice.

1. Very Good
2. Good
3. Average
4. Fair
5. Poor

Aesthetic Appeal of Structures: Circle the best choice.

1. Very Good
2. Good
3. Average
4. Fair
5. Poor

Availability of Public Transportation: Circle the best choice.

1. Very Good
2. Good
3. Average
4. Fair
5. Poor

Level of Nuisances: Indicate type of nuisance if one is present.

1. None
2. Low
3. Medium
4. High

Type: Space is provided to list the type of nuisance present.

Observations and Comments: Use this space to record any additional observations and comments about the neighborhood.

THE NEIGHBORHOOD DATA FORM COMMERCIAL/INDUSTRIAL

Follow these instructions to complete The Neighborhood Data Form for Commercial/Industrial. Please refer back to the instructions for filling out the Neighborhood Data Form for Residential/Agricultural when filling out the following sections of the Neighborhood Data Form for Commercial/Industrial.

- **Top Section**
- **Identification & Reference**
- **Characteristics**

Typical Land Category: Circle the most appropriate choice.

1. SQ — Square Feet
2. AC — Acreage
3. Unit — Number of units (used for apartments or condos)

The following data characteristics are specific to the Neighborhood Data Form for Commercial/Industrial:

LOCATION IDENTIFIERS

1. Central Business District - To indicate the core area in the center of a city with a concentration of major retail, financial, governmental, professional, and service activities. In many instances, these boundaries have already been established or defined by city planners or other agencies.
2. Perimeter CBD - To indicate the outer boundaries of the central business district or core area in which the concentration of major mercantile activity is significantly less pronounced.
3. Business Cluster - To indicate a cluster or number of commercial properties grouped together due to some attracting force (such as a major intersection of interstate highway or major shopping mall).
4. Major Strip - To indicate the type of commercial development in which major thoroughfares are bordered by an almost continuous row or strip of retail stores and allied service establishments.
5. Secondary Strip - To indicate row-type or strip-type commercial development bordering major strips.
6. Neighborhood or Spot - To indicate individual or scattered commercial establishments located in basically residential areas.
7. Commercial/Industrial Park - To indicate a controlled park-like development designed to accommodate specific light industrial and mercantile properties and containing the required utilities, street, and other amenities.
8. Industrial Site - To indicate land or land and improvements (not located in an established park) adaptable for industrial use. Normally, this is a combination of land, improvements, and machinery intended for the assembling, processing and manufacturing of products from raw materials or fabricated parts or for the production of natural resources.
9. Apartment/Condominium Complex - To indicate the property is an apartment or condominium complex site.

Improvement Type Characteristics & Estimated % Of Mix (Nearest 10%)

This section generally refers to the structural characteristics of the typical properties located in the neighborhood and the estimated percent of mix.

Improvement Type: Percent of occurrence actual buildings are one retail, office, warehouse, and apartment.

1. Retail
2. Office
3. Warehouse
4. Apartment

Typical Grade: Estimate the typical quality grade by improvement type within the neighborhood.

1. A (or very good)
2. B (or good)
3. C (or average, standard)
4. D (or fair, somewhat substandard)
5. E (or minimal, well below standard)
6. X (or excellent)

Typical Economic Rent Range: Estimate the typical rent by improvement type within the neighborhood.

Typical Age: (years) Circle the appropriate age range.

1. New to 3 years old
2. 4 to 8 years old
3. 9 to 18 years old
4. 19 to 28 years old
5. 29 to 38 years old
6. 39 to 49 years old
7. Over 50 years old

Typical Physical Condition: (relative to age)

1. Poor
2. Fair
3. Average
4. Good
5. Very Good
6. Excellent
7. Unsound

Typical Functional/Economic Utility:

1. Poor
2. Fair
3. Average
4. Good
5. Very Good
6. Excellent
7. Unsound

Please refer back to the instructions for filling out the Neighborhood Data Form for Residential/Agricultural when filling out the following sections of the Neighborhood Data Form for Commercial/Industrial:

- **Predominant Occupancy**
- **Vacancy**
- **Change In Use**

THE INTERPLAY OF CAMA AND CALP SCREENS

Parcel Tab - CAMA General Property Data

The PARCEL TAB permits entry of general property data for a specific parcel. The majority of information is for general identification and classification purposes. However, it should be noted that CALP land models will access this data to determine specific land models and rates applicable to the subject parcel.

Land Tab - Land Data and Computations

The LAND TAB permits entry of land classifications, categories, types, land sizes, and influence factors for a specific parcel. Applications of IAS CALP models are dependent on this specific parcel data.

How the Computer Sees the CALP Model

1. Each rate is defined by a set of dimensions referred to as models.
2. The land type and land code are additional dimensions pointing to rates.
3. The whole structure can occur multiple times for different years.
4. In building the tables, a zero is used if a dimension is not used.
5. Data items on the parcel are used to look at a model table and point to a dimension.
6. The dimensions are combined to do a lookup of the rates.
7. If a match is not found for a given dimension, the lookup will default to zero.
8. The dimensions for lookup are as follows:
    a. Table Version comes from the jurisdiction and tax year of the data and the Land Version field for that jurisdiction and tax year.
    b. Land type comes from the parcel.
    c. Neighborhood comes from OLD CA12, which points to a model (dimension) for each land type on OLD LP51.
    d. Zone comes from jurisdiction and zoning on OLD CA12, which points to a model from OLD LP53.
    e. Street comes from street code on OLD CA12, which points to a model from OLD LP55.
    f. Location comes from location on OLD CA12, which points to a model from OLD LP54.
    g. Utility comes from utility codes on OLD CA12. The code defined with the lowest priority code on OLD LP56 gets its model from that screen.

h. Land code comes from the parcel.

The residential zoning models (LP6x) assume the base model 0 for location. Neighborhood model is defined as 1. The neighborhood model number should not be used for any other model.

The commercial models (LP7x) assume the base model 0 for street and utility.

The residential neighborhood models (LP8x) assume model 0 for zoning and location.

<u>Section 2</u>

Schedule of Values, Standards, and Rules

Schedule of Land Values

Pender County, North Carolina

Effective January 1, 2019

SCHEDULE OF LAND VALUES

Overview of Land Values

Residential:

Land pricing is based, as much as practicable, using market data. The information has been gathered and analyzed since 2012 and is available to this schedule. Sales originate from deeds recorded in the Register of Deeds office. The recorded deeds are assigned parcel identification numbers by the mapping section of the Tax Administrator's office. The newly assigned parcels are then input to IAS, the county's computer system. Staff appraisers review the sales to determine if they qualify as arms-length transactions. An arms-length transaction is when both the buyer and seller act completely independent and in their own self-interest. Additionally, there is no relationship between the parties involved in the transaction. The data from the sales that qualify are then compiled in a residential sales data base file. Within this file, various characteristics are coded to describe the uniqueness of the property. Such codes record road type, zoning, acres, sale price and sale date just to name a few.

Because of the high number of variables influencing the value of land, this section is tendered only as a general guideline. The individual appraiser must evaluate location, shape, size, topography, highest and best use, zoning, soil type, and market conditions before making a final determination of the parcel's land value. The basic units of measurement are the lot or site, square foot, and acre. Lot values are used for the vast majority of residential properties. Square footage is the unit for commercial property, while acreage can be applicable to both. Adjustments for the shape, size, frontage, location, and other market conditions will be established using market sales and pricing guides.

The sales comparison approach models the behavior of the market by comparing the properties being appraised (subjects) with similar properties that have recently sold (comparable properties). Comparable properties are selected for similarity to the subject property. The sales are then adjusted for their differences from the subject. Finally, a market value for the subject is estimated from the adjusted sales prices of the comparable properties.

Commercial / Industrial

Commercial and industrial land sales information is collected by the Tax Administrator's office through the recording of deeds in the Register of Deeds office. The recorded deeds are assigned parcel identification numbers by the mapping section of the Tax Administrator's office. The newly assigned parcel identification numbers are then input to IAS, the county's computer system. Staff appraisers review the sales to determine if they qualify as arms-length transactions. An arms-length transaction is when both the buyer and seller act completely independent and in their own self-interest. Additionally, there is no relationship between the parties involved in the transaction. The data from the sales that qualify are then entered into the Commercial Sales data base file.

The county is currently divided into commercial corridors based on their geographical location. The sales in the data base file are grouped by these commercial corridors and then adjusted for time and location to determine a base rate for each corridor.

Staff appraisers then analyze the results from the corridors. Based on the final analysis, base rates are selected for each commercial corridor. These rates, along with the size adjustment tables, are then loaded into the IAS system to value the commercial and industrial land.

Acreage

Because of the high number of variables influencing the value of land, this section is tendered only as a general guideline. The individual appraiser must evaluate location, shape, size, topography, highest and best use, zoning, soil type, and market conditions before making a final determination of the parcel's land value. The parcels of land are valued for the amount of acreage they contain.

In residential neighborhoods, a lot or site value is defined, but for rural tracts of land an acreage rate is applied. Generally, for acreage parcels, the land prices were established by analyzing market sales for a specific geographical area, which in turn created factors as well as tables to be applied generally for an area. Areas of the county were broken down and analyzed and reviewed considering variables associated with acreage parcels including, but not limited to location, zoning, size, and soil type.

Agricultural

A tract or parcels of land used to produce agricultural, horticultural, and timber products that originate from the land's productivity for the primary use of obtaining a monetary profit i.e., crops have been raised, harvested, and or sold. In the appraisal of farmland, careful examination must be given to production records, soil characteristics and other elements that affect income from the land and tend to fix the market value. Farm real estate values are affected by many factors, both agricultural and non-agricultural. In the more rural area, where farmers account for most of the farmland purchases, net returns to agricultural uses of farmland (whether from marketing commodities or government subsidies) are the principal determinant of farmland value. Cash rents, where available, are often used as a measure of net returns that help predict the values of farmland.

Farmland values are influenced by farm and non-farm factors. While rising land values are beneficial for farm equity, they also boost production costs, reducing the ability of rural industries to compete on cheap land cost. Ultimately, farmland values will be one of the keys that determine the future competitiveness of rural areas. Intrinsic value to the farmers themselves is another factor that can add value to particular parcels of land. Considerations such as proximity of the parcel to an existing operation (for purposes of farm expansion), a "heritage" of long-time family ownership of the parcel, and "farming as a way of life" will all add value above that justified from a purely investment perspective.

Several other factors that may each contribute worth to a parcel of agricultural land include the potential for conversion of farmland to residential, commercial, or industrial development. The potential to convert farmland to non-agricultural use can increase the price of farmland well above its value in agricultural use.

In addition to the nonagricultural factors mentioned above, an array of government policies influence the income derived from farmland, and hence its value.

National findings support the assertion that different types of proximate farmland utilizations affect residential sale prices differently. No reasonable fact finder can conclude that in the real estate marketplace, a potential buyer would not notice, and react economically, to having an animal production facility (e.g. poultry or hog farm) nearby while living in a rural location. However, it is noted that typical agriculture crop operations may not be a deterrent of residential sales.

Any affect that the above may have on the market value of a property will be handled by the appropriate use of market analysis and economic obsolescence.

		Schedule Range		**Typical Range**	
		High	Low	High	Low
Residential	Acre	$225,000	$300	$50,000	$500
	Lot / Gross	$250,000	$500	$150,000	$10,000
Multifamily	Acre	$250,000	$875	$100,000	$7,500
	Square Foot	$4.00	$0.10	$1.75	$0.15
Office Institutional	Acre	$500,000	$2,000	$275,000	$10,000
	Square Foot	$15.00	$0.04	$6.00	$0.25
Commercial	Acre	$500,000	$2,000	$275,000	$10,000
	Square Foot	$25.00	$0.04	$6.00	$0.25
Industrial	Acre	$350,000	$2,000	$125,000	$8,500
	Square Foot	$15.00	$0.04	$3.00	$0.20
Agricultural	Acre	$25,000	$40	$5,000	$400

Note: All the above values may be given a percent condition (up or down) by the appraiser to adjust for topography, size, location, shape, access, road frontage, rights of way, etc.

LAND INFLUENCE FACTORS & GUIDELINES

General

The technique of land pricing, as previously described, provides for the development of unit land rates for residential properties within a given area of neighborhoods. These land rates are developed from verified recent sales and are expected to reflect market value for various prevalent land types as of the effective date for each given area.

Land rates will be developed for parcels in the following categories:

Front Foot
Square Foot
Acreage
Unit / Gross

It is significant to point out that assigned land rates are based on typical or normal conditions for that class of property and land type within a specific neighborhood or area. It is likely that some number of specific parcels within a neighborhood will have unique factors affecting the value of that land parcel. These factors, or "land influences" may affect the value of a specific parcel beneficially or detrimentally; i.e., plus or minus compared to the norm for the neighborhood.

Proper appraisal practice indicates that a land rate adjustment or "Land Influence Factor' should be applied by the review appraiser to properly reflect the unique considerations for a parcel with significant physical or economic characteristics, deviating from the normal conditions reflected by the neighborhood land rates.

The following guidelines have been developed based on research of local market conditions and best practices for general appraisal.

As the primary goal of a revaluation program is equalization, it is strongly recommended that appraisal personnel exercise proper judgment and caution in the application of land influence factors.

Unimproved

By definition, each selected site type rate such as home-site, primary site, secondary site, etc., includes provisions for normal site improvements to the land as site preparation, typical utility service (water, sewer or septic disposal, electricity), typical landscaping, and walks. Therefore, it is not necessary or desirable to apply an unimproved land influence factor to lots, home sites, primary or secondary site. Those parcels lacking site improvements should be classified in the appropriate non-developed category, such as undeveloped, residual, etc.

The purpose of this explanation is to illustrate that unimproved land influence factors have a very narrow potential utilization.

Topography

This category is reserved for a reviewer's judgment of the degree of difficulty due to poor topography in erecting a suitable improvement on the subject parcel.

Normally, if a suitable improvement is present on the subject lot, the topography problem has been corrected. Therefore, an improved lot normally should have no allowance for topography to the base lot.

However, a topography influence may have to be applied in significant cases of unimproved lots or tracts where poor topography represents an actual detriment to the presumed utilization of the parcel.

Topography factors include, but are not limited to: irregular land contour, poor drainage, potential subsidence, sub-surface rock ledge, and potential erosion.

The following is presented as topography factor guide:

	CONDITION	**FACTOR**
Normal	Problem corrected or not significant.	**None**
Minor	Problem is a moderate handicap to the full utilization of the lot, but is correctable. The lot is buildable but less desirable than typical lots in the area due to topography problem.	**-25%**
Major	Problem is significant, but correctable such that it prevents the development of the lot until the topography problem is corrected.	**-50%**
Unbuildable	The topography problem is so severe that it is economically not feasible to attempt to correct and develop the lot. A typical example would be lots requiring septic tanks that will not pass health and safety perk tests.	**-75%**

Note: The influence factors used here are intended as a guide, and may not always apply as presented. After a careful review of market factors, variations from the guide are allowed.

Shape or Size

Shape or size factor is normally a negative adjustment to account for loss of value to a parcel due to highly irregular shape or insufficient size for the presumed utilization of the parcel.

Shape or size factor is a review judgment and may apply to all land types. The basis for any factor is a negative adjustment reducing the subject lot value to the amount and degree of land utility applicable for the presumed utilization.

The following is presented as a shape/size factor guide:

	CONDITION	**FACTOR**
Normal	Shape or size is not a significant detriment to the highest and best utilization of the parcel.	**None**
Minor	The lot is buildable and/or economically useable for the highest and best utilization, but irregular shape or insufficient or super-sufficient size precludes the full utilization of the parcel.	**-25%**
Major	Irregular shape or insufficient size represents a significant handicap to the highest and best utilization and/or development of the land.	**-50%**
Unbuildable	The shape or size problem is so severe that it renders the land category unusable and/or unbuildable. A typical example would be an undersized lot subject to minimum zoning restrictions that effectively prevents any economic utilization.	**-75%**

Note: The influence factors used here are intended as a guide, and may not always apply as presented. After a careful review of market factors, variations from the guide are allowed.

Economic

Economic influence factor is normally a negative adjustment to recognize loss of value due to:

A. Influences from outside the property, which are considered detrimental to the property value. Typical cases would include heavy traffic influences, aircraft traffic noise, undesirable nuisances adjacent to the property, such as commercial, industrial or agricultural, horticulture, or forestry properties, commercial or industrial encroachment, etc.
B. Economic variations within a given neighborhood.

The following is presented as an economic land influence guideline:

	CONDITION	FACTOR
Normal	No significant adverse economic influence of neighborhood variation affects the property.	**None**
Minor	An adverse economic influence exists which represents a moderate loss of desirability to the property. Example: to distinguish between typical neighborhood traffic pattern and lots on streets subject to heavy through traffic.	**-25%**
Major	Normally, this selection would be applicable to a major value level variation in a given neighborhood. Example: a major mining facility or quarry located within a residential subdivision.	**-50%**
Unbuildable	The economic influence is so severe that it precludes any but token utilization of the property. Example: small lot, zoned residential, located adjacent to a large industrial plant with heavy truck traffic and noxious fumes.	**-75%**

Note: The influence factors used here are intended as a guide, and may not always apply as presented. After a careful review of market factors, variations from the guide are allowed.

Restrictions

A negative land influence adjustment for restrictions is applicable for cases where the property is subject to a legal or physical restriction to its utilization. Typical examples would include:

A. Utility easements, such as power lines and sewer lines.
B. Zoning or deed restrictions to the property, limiting the utilization to a less than normal use for typical lots in the neighborhood.
C. Physical barriers to the property like bridges, highway medians, fences, or abutments.

The following is presented as a land influence factor guide for restrictions:

	CONDITION	FACTOR
Normal	No significant restrictions to the property exist.	**None**
Minor	A restriction of moderate significance, legal or physical, exists which causes the property to be less desirable than similar lots in the area which are not subject to this restriction but does not prevent utilization of the property for the highest and best use.	**-25%**
Major	A restriction of major significance, legal or physical, exists which causes the property to be restricted to a less than full utilization compared to similar lots in the area which are not subject to this restriction. Example: Power lines bisecting the lot which prevent the building of a dwelling, but would be suitable for a garage or secondary structure.	**-50%**
Unbuildable	A restriction of very severe impact, legal or physical, exists which causes the property to be rendered virtually unbuildable or unsuitable for any significant utilization compared to similar lots in the area, which are not subject to this restriction. Example: A lot rendered non-accessible by a highway right-of-way.	**-75%**

Note: The influence factors used here are intended as a guide, and may not always apply as presented. After a careful review of market factors, variations from the guide are allowed.

Corner and/or Location Influence

This category is reserved for the recognition of land value attributable to the potential utilization of a corner lot or location, over or below the value of an otherwise comparable inside lot. The enhancement due to the presence of a rear or side alley is normally common to all lots in a given area or block. Therefore, the recommended procedure for enhancement due to alley influence, if any, is to consider this factor in the land rate itself.

The amount of enhancement, if any, to a corner lot or location must be based on the individual merits of each.

Normally, corner influence and/or location is not applicable to residential or agricultural property. Corner and/or location influence factors should be applied only to those cases of commercial or industrial property where the corner and/or location is an actual enhancement to the land.

The following is presented as a guide for Corner Influence Factors:

	CONDITION	FACTOR
Normal	The presence of a corner or location has no significant enhancement effect to the property.	**None**
Minor	The lot value is moderately enhanced by the presence of corner or location exposure. Example: intersection of two secondary streets or a major arterial street and a secondary street.	**+10%**
Major	The lot value is significantly enhanced by the presence of a corner or location exposure. Example: The intersection of two major arterial streets.	**+25%**

Note: The influence factors used here are intended as a guide, and may not always apply as presented. After a careful review of market factors, variations from the guide are allowed.

View Influence

This factor is normally a positive adjustment for lots or parcels where the land value is significantly enhanced by the presence of a scenic vista, golf course, or waterfront view when compared to similar lots in the area where no significant view is present.

It is highly recommended that the appraiser exercise due caution in the application of view influence. It is useful to remember that while the subject property may have an appealing view, if this condition is common to most parcels in the area, then comparatively there is probably no real view enhancement. The appraiser should also consider the permanency of the view.

The following is presented as a rand influence factor guide for view:

	CONDITION	FACTOR
Normal	The property has no significant view or the view is considered so common to the area that market evidence indicates no actual value enhancement exists.	**None**
Minor	The subject property has a moderate enhancement due to an appealing view. Example: the subject parcel has an enhancing view not common to other lots in the area but the view is partially or potentially obstructed by other structures.	**+10%**
Major	The subject property has a significant enhancement due to an appealing view. Further, the view enhancement is not common to similar lots in the area, and there is little or no potential for obstruction of the view by other structures. Example: The subject lot has a desirable waterfront view and no likelihood exists for structures to be built which obstruct the view. Note: adjustments for golf course view should be determined on a neighborhood-by-neighborhood basis, and the preceding will normally not apply.	**+25%**

Note: The influence factors used here are intended as a guide, and may not always apply as presented. After a careful review of market factors, variations from the guide are allowed.

Economic Misimprovement

This category is reserved for a reviewer's judgment of the comparative loss of value due to the presence of a structure which represents an economic misimprovement to the land (either an under improvement or over improvement). This judgment is expressing the appraiser's opinion that the existing structure represents an encumbrance to the full utilization of the land.

The application of a misimprovement factor for residential or agricultural property is possible but very rare. Most instances occur in commercial or industrial situations where market evidence indicates a different economic utilization of the land than the current utilization. It is important to recognize in the application of economic misimprovement factors that the land is presumed to be valued on the basis of typical "highest and best use" utilization, and the existing structure is non-contributory to this most economical utilization. Obviously, vacant tracts are not encumbered by any structure; therefore, vacant tracts are not subject to economic misimprovement factors. Further. the appraiser should recognize that the economic misimprovement condition is "curable," i.e., if the structure is removed, the previously applied economic misimprovement factor is no longer applicable.

Following are instructions for applying Economic Misimprovement factors:

A. Determine if an application of economic misimprovement is necessary.
B. Estimate the depreciated value of the improvement(s) contributing to the economic misimprovement situation.
C. Divide the depreciated value of the offending improvement(s) by the land value.

A typical example would be:

Gross under-improvement, such as an old warehouse located in an area where market evidence indicates modern office complex development

Depreciated value of warehouse	$325,000	
Land value	$1,600,000	
$325,000 divided by $1,600,000 =	20%	
Influence factor =		**-20%**

Frequent Flooding

This category is reserved for application to those parcels subject to a loss of value due to the potential for periodic flooding when compared to similar lots in the area where this problem does not exist. Typically, this is an appraisal judgment recognizing the degree of loss of value from none to rendering the parcel un-buildable for parcels in flood plain areas.

The following is presented as a guide for Land Influence Factors due to Frequent Flooding.

	CONDITION	FACTOR
Normal	The property is not subject to any potential flooding.	None
Minor	The property is subject to potential flooding at infrequent intervals or a rate which does not prevent development but represents a potential hazard. Example: land lying in a 100-year flood plain.	**-25%**
Major	The property is subject to potential flooding at a frequency that should or does limit the development of the property to seasonal and/or marginal utilization.	**-50%**
Unbuildable	The property is subject to potential flooding to a degree of frequency and severity that it is not prudent or possible to utilize the land for permanent structures. Example: Reserved ponding or run-off areas adjacent to lakes or rivers.	**-75%**

Note: The influence factors used here are intended as a guide, and may not always apply as presented. After a careful review of market factors, variations from the guide are allowed.

MANUAL PRICING PROCEDURE (LAND)

Land Valuation

The calculation routine reads the lines of land information to be calculated (one by one) from screen OLD CA14, Land Data and Computations.

Land Screen (OLD CA14): Get the detailed land information.

Land Type	_______		Land Code	_______
Influence Codes	_______	_______	Influence Percent	_______

If land type = S
Square Feet _______

If land type = A
Acres _______

If land type = U
Units _______

If override rates are present:

Size	_________	Rate	________
Incremental	_________	Decremental	________

Parcel Screen (OLD CA12): Get the parcel level descriptive information for land

Neighborhood	______	Zoning	______
Municipality	______	Location	______
Utility Codes	______	Street/Road	______
Spot Location Adjustment	default to 1 if blank		______
Size Adj. Acres	______	Ag Use Flag	______

AA44: Get the cost table version for the tax year being processed. Version ______

NBHD Screen (OLD LP51):Using the cost table version and the neighborhood, get the following:

Neighborhood model for land type (lot, square foot, acres, gross or units) ______
Percentage adjustment for model ______
Land code model ______ Standard depth table ______

Land Code Screen (OLD LP57): Using the cost table version, and the land code model, land type and land code being processed, get the following:

Acre Table	______	By Line Flag	______
Ag Use Flag	______		

NBHD Screen (OLD LP51): If the Ag Use Flag from the Parcel Screen, is set to Y, and the Ag Use Flag on the Land Code Screen (OLD LP57) is set to Y, use the agricultural model number instead of the model designated by land type.

Agricultural model ______

Location Model Screen (OLD LP54): Using the cost table version, and the location code from the Parcel screen (OLD CA12), get the location model number. Check to see if the neighborhood model for the land type = 1. If so, set the location model to O. If the neighborhood model is not equal to 1, if any of the neighborhood models (lot, square feet, acres, gross) is greater than 1, set the location model as found on the Location screen (OLD LP54), otherwise, set to O.

Location model ______

Zone Model screen (OLD LP53): Using the cost table version, and the jurisdiction and municipality codes from the Parcel screen (OLD CA12), get the zoning model number. Using the location model, check the Land Model screen (OLD LP52) to verify that the location model and the zone model are both present in a model; otherwise the zone model is set to O.

Zone model ______

Street/Road Model screen (OLD LP55): Using the cost table version, and the street code from CAI2, get the street model number. Using the neighborhood model, check the Land Model screen (OLD LP52) to verify that the neighborhood model and the street model are both present in a model; otherwise the street model is set to O.

Street model ______

Utility Model screen (OLD LP56): Using the cost table version, and the utility codes from CAI 2, get the utility model number. The calculation routine examines the utility codes on the parcel, determines the one with the lowest priority code on the Utility Model screen (OLD LP56) and uses the matching utility model. Using the neighborhood model, check LP52 to verify that the neighborhood model and the utility model are both present in a model; otherwise the utility model is set to O.

Utility model ______

Land Model screen (OLD LP52): Using the cost table version, get the size and rates corresponding to the neighborhood, zone, location, street and utility models retrieved. If any of the model numbers were null, or if no match was found, the default will be zero.

Base size ______ Base rate ______
Incremental rate ______ Decremental rate ______

NOTE: Rates may have been created on special screens for easier maintenance, by residential zoning model criteria (LP61 through LP65), commercial neighborhood model assignments (LP71 through LP75) and residential typical land size (LP81 through LP85). Rates that are created in this manner appear as line items on the Land Pricing Model Rates screen, LP52.

Acre Adjustment Screen (OLD LP59): If the By Line flag is L on the Land Code screen (OLD LP57) for the land type and land code being processed, get the number of acres for the line from the Land screen (OLD CA14), description page. If the By Line flag is P on the Land Code screen (OLD LP57) for the land type and land code being processed, get the size adjustment acres from the parcel screen (OLD CA12). Using the acre size adjustment table specified on the Land Code screen (OLD LP57) and the number of acres, get the acre size adjustment. If an exact match for the total acres is not found, the adjustment for the next largest size in the table is used. If no acre size table was specified, the acre size adjustment is 1.

Acre size adjustment ______

Calculate the adjusted rates:

Base rate X Acre size adjustment X Spot location X Percentage adjustment for the neighborhood model = Adjusted base rate ______

Incremental rate X Acre size adjustment X Spot location X Percentage adjustment for the neighborhood model = Adjusted incremental rate ______

Decremental rate X Acre size adjustment X Spot location X Percentage adjustment for the neighborhood model = Adjusted decremental rate ______

Using the formula for the specific land type, calculate the value for the line.

If land type is "S"

Calculate the land value, using override base size and rates, if entered, otherwise the model base size and adjusted rates. If the base size is blank, use the square feet from the land line.

Square feet - base size = Size difference

If size difference > 0, use incremental rate as size adjustment rate. If size difference < 0, use decremented rate as size adjustment rate.

(Base size x adjusted base rate) + (Size difference x size adjustment rate) =

Base price ______

If land type is "A"

Calculate the land value, using override base size and rates, if entered, otherwise the model base size and adjusted rates. If the base size is blank, use the acreage from the land line.

Acres - base size = Size difference

If size difference > 0, use incremental rate as size adjustment rate. If size difference < 0, use decremental rate as size adjustment rate.

(Base size x adjusted base rate) + (Size difference x size adjustment rate) =

Base price ______

If land type is "U"

Calculate the land value, using override base size and rates, if entered, otherwise the model base size and adjusted rates. If the base size is blank, use the number of units from the land line.

Units - base size = Size difference

If size difference > 0, use incremental rate as size adjustment rate; if size difference < 0, use decremental rate as size adjustment rate.

(Base size x adjusted base rate) + (Size difference x size adjustment rate) =

Base price ______

For all land types:

Calculate influence adjustment;
Base price x (1 + influence percent) = Adjusted base price ______

Parcel screen (OLD CA12): Retrieve the property class. Class ______

CA41: Retrieve the neighborhood class factor using the cost table version, neighborhood, and class. A neighborhood of "*" indicates all neighborhoods. A class of "*" indicates all classes. If the check screen and column are filled in, verify that the data matches the parcel data for the adjustment factor. If low and high limits are entered, verify that the land value falls within the limits.

Neighborhood/class factor ______

Calculate neighborhood/class factor adjustment:
Adjusted base price x nbhd/class factor = Final land value ______

Calculate the exemption value:
Final land value x exemption percent = Exemption value ______

Schedule of Values, Standards, and Rules

Section 3
Approaches to Value

Pender County, North Carolina

Effective January 1, 2019

APPRAISAL THEORY

An appraisal is nothing more than an opinion of value. This does not imply, however, that one opinion is necessarily as good as another; there are valid and accurate appraisals, and there are invalid and inaccurate appraisals. The validity of an appraisal can be measured against the supporting evidence from which it was derived, and its accuracy against that very thing it is supposed to predict: the actual behavior of the market. Each is fully contingent upon the ability of the appraiser to record adequate data and to interpret that data into an indication of value. Appraising real property, like the solving of any problem, is an exercise in reasoning. It is a discipline, and like any discipline, it is founded on fundamental economic and social principles. From these principles evolve certain premises which, when applied to the valuation of property, serve to explain the reaction of the market. This section concerns itself with those concepts and principles basic to the property valuation process. One cannot overstate the necessity of having a workable understanding of them.

Bundle of Rights

Real estate and real property are often used interchangeably. Generally speaking, real estate pertains to the real or fixed improvements to the land such as structures and other appurtenances, whereas real property encompasses all the interests, benefits and rights enjoyed by the ownership of the real estate.

Real property ownership involves the Bundle of Rights Theory, which asserts that the owner has the right to enter it, use it, sell it, lease it, or give it away, or refuse to perform any of these actions, as he so chooses. Law guarantees these rights, but they are subject to certain governmental and private restrictions.

The governmental restrictions are found in its power to:

- tax property
- take property by condemnation for the benefit of the public, providing just compensation is made to the owner (Eminent Domain)
- police property by enforcing any regulations deemed necessary to promote the safety, health, morale and general welfare of the public
- provide for the reversion of ownership to the state in cases where a competent heir to the property cannot be ascertained (Escheat)

Private restrictions imposed upon property are often in the form of agreements incorporated into the deed. The deed also spells out precisely which rights of the total bundle of rights the buyer is acquiring. Since value is related to each of these rights, the appraiser should know precisely which rights are involved in his appraisal.

Appraisals for Ad Valorem tax purposes generally assume the property is owned in the "Fee Simple", meaning that the total bundle of rights is considered to be intact.

The Nature and Meaning of Value

An appraisal is an opinion or estimate of value. The concept of value is basic to the appraisal process and calls for a thorough understanding. The American Institute of Real Estate Appraiser's Appraisal Terminology Handbook, 1981 edition, offers the following definitions:

> "The measure of value is the amount (for example, of money) which the potential purchaser probably will pay for possession of the thing desired."
>
> "The ratio of exchange of one commodity for another, for example, one bushel of wheat in terms of a given number of bushels of corn; thus, the value of one thing may be expressed in terms of another thing. Money is the common denominator by which value is measured."
>
> "It is the power of acquiring commodities in exchange, generally with a comparison of utilities -the utility of the commodity parted with (money) and that of the commodity acquired in the exchange (property)."
>
> "Value depends upon the relation of an object to unsatisfied needs; that is, supply and demand."
>
> "Value is the present worth of future benefits arising out of ownership to typical users and investors."

With these definitions, one can see that value is not an intrinsic characteristic of the commodity itself. On the contrary, value is determined by people...created by desire, modified by varying degrees of desire and reduced by lack of desire, Throughout the definitions a relationship between the purchase and the commodity (property) is implied; this relationship is "value."

A purchaser desires a property because it is a useful commodity in that it has utility. Utility is a prerequisite to value, but utility standing alone does not sufficiently cause value. If a great supply of a useful commodity exists - as for example, air - needs would be automatically satisfied, desire would not be aroused, and therefore value would not be created. Therefore, besides having utility, in order to effectively arouse desire, the commodity must also be scarce.

One additional factor is necessary to complete the value equation; the ability to become a buyer. The translation must be made of desire into a unit of exchange; a buyer must have purchasing power. The relationship is now complete; the commodity has utility and is relatively scarce, it arouses desire and the buyer is able to satisfy that desire by trading for it. Value is created. The question is how much value, and herein lies the job of the appraiser. Numerous definitions of value have been offered, some simple and some complex. It would seem though that any valid definition of value would necessarily embody the elements of utility, desire, scarcity and purchasing power. Furthermore, the concept of value very rarely stands alone. Instead, it is generally prefixed by a descriptive term which serves to relate it to a specific appraisal purpose or activity such as "loan value." Since appraisals are made for a variety of reasons, it is important for the appraiser to clarify the specific purpose for the appraisal and the type of value which he seeks to estimate.

For Ad Valorem Tax purposes, the value sought is generally market value. The descriptive term “market" indicates the activity of buyers and sellers. MARKET VALUE is the justifiable price, or that price which an informed and intelligent buyer, fully aware of the existence of competing properties, and not being compelled to act, would be justified in paying for a specific property.

Value In Use as Opposed to Value In Exchange

As stated there are a number of qualifying distinctions made in reference to the meaning of value. One of the most common and probably the most important relative to the purpose of this manual is the distinction between value in use and value in exchange. We have defined market value as a justifiable price which buyers, in general, will pay in the market. The question arises then as to the value of property which, by nature of its special and highly unique design, is useful to the present owner, but relatively less useful to typical buyers in the market. One can readily see that such a property's utility value may differ greatly from its potential sales price. It is even possible that no market for such a property exists. Such a property is said to have value in use which refers to the actual value of a commodity to a specific person, as opposed to value in exchange which aligns itself with market value, referring to the dollar-value of a commodity to buyers in general.

Economic Principles Affecting Property Appraisals

The Principle of Supply and Demand

Among the forces, which constantly operate to influence supply and demand, are population growth, new techniques in transportation, purchasing power, price levels, wage rates, taxation, governmental controls, and scarcity. A sudden population growth in an area would create an increase in demand for housing. If the demand increased at a higher rate than the supply, there could soon be a scarcity of housing. If the demand was backed up by purchasing power, rentals and sale prices would tend to increase and ultimately reach a level which would tend to stimulate more builders to compete for the potential profits and thus serve to increase the supply toward the level of demand. As the supply is increased demand would begin to taper off. This would cause rentals and sale prices to level off. When builders, due to increases in labor and material rates, are no longer able to build cheaply enough to meet the new level of prices and rents, competition would tend to taper off and supply would level off. The cycle is then complete.

Balance occurs when reasonable competition serves to coordinate supply with demand. When competition continues unchecked to produce a volume, which exceeds the demand, the net returns to investors are no longer adequate to pay all the costs of ownership, resulting in loss rather than profit and consequently, a decline in values.

A community may well support two shopping centers, but the addition of a third shopping center may increase the supply to excess, if this occurs, one of two effects are caused: either the net dollar return to all the shopping centers will be reduced below that level necessary to support the investment, or one of the shopping centers will flourish at the expense of their competitors.

The Principle of Highest And Best Use

The highest and best use for a property is that use which will produce the highest net return to the land for a given period of time within the limits of those uses which are economically feasible, physically possible, legally permissible, and maximally productive.

On a community-wide basis, the major determining factor in highest and best use is the maximum quantity of land, which can be devoted to a specific use and still yield a satisfactory return. Once a suitable basic use has been chosen for a specific property, each increment of capital investment to the existing or planned improvement will increase the net return to the land only up to a certain point; after this point is reached, the net return to the land begins to diminish. This is the point at which the land is at its highest and best use.

For example, in planning a high-rise office building, each additional upper floor represents an extra capital expenditure, which must yield a certain return to the investor. This return will be dependent upon the levels of economic rent which the market will bear at the time. An optimum number of floors can be calculated above which the income yield requirements of additional expenditures will no longer be satisfactorily met. This, notwithstanding the possibility of other more particular considerations, should determine the number of stories for the building.

Detailed analysis of this type is rarely thrust upon the property tax appraiser. Generally, the tax appraiser will find the most prudent course of action is to consider the present use and follow development rather than anticipate it.

The Principle of Change

The impact of change on the value of real property manifests itself in the life cycle of a neighborhood. The cycle is characterized by three stages of evolution: the development and growth evidenced by improving values; the leveling off stage evidenced by static values; and finally, the stage of infiltration of decay evidenced by declining values.

The highest and best use today is not necessarily the highest and best use tomorrow. The highest and best use of the land often lies in a succession of uses. A declining single-family residential neighborhood may be ripe for multi-family, commercial or industrial development. Whether it is or not depends upon the relationship of present or anticipated future demand with existing supply.

In estimating value, the appraiser is obligated to reasonably anticipate the future benefits, as well as the present benefits derived from ownership and to evaluate the property in light of the quality, quantity, and duration of these benefits based on actual data as opposed to speculative or potential benefits which may or may not occur.

The Principle of Substitution

People in the market place create value. It is the function of translating demand into a commodity of exchange. When the benefits and advantages derived from two properties are equal, the lowest priced property receives the greatest demand. The informed buyer is not justified in paying anything more for a property than it would cost to acquire an equally desirable property. That is to say that the value of a property is established as that amount for which equally desirable comparable properties are being bought and sold in the market. Herein lies an approach to value...and the basis of the valuation process.

Approaches to Value

In the preceding paragraphs, it has been stated that value is an elusive item that occurs in many different forms, and that the forces and influences which combine to create, sustain or destroy value are numerous and varied. It is the appraiser's function to define the type of value sought, to compile and analyze all related data, giving due consideration to all the factors which may influence the value, to process and translate that data into a final opinion or estimate of value. This he must do for each property he is to appraise.

The processing of this data into a conclusion of value generally takes the form of three recognized approaches to value: COST APPROACH, MARKET DATA APPROACH, and INCOME APPROACH. Underlying each of the approaches is the principle that the justifiable price of a property is no more than the cost of acquiring and/or reproducing an equally desirable substitute property. The use of one or all three approaches in the valuation of a property is determined by the quantity, quality, and accuracy of the data available to the appraiser.

The COST APPROACH involves making an estimate of the depreciated cost of reproducing or replacing the building and site improvements. Reproduction Cost refers to the cost at a given point in time of reproducing a replica property, whereas Replacement Cost refers to the cost of producing improvements of equal utility. Depreciation is deducted from this cost new for loss in value caused by physical deterioration, and functional or economic obsolescence. To this depreciated cost is then added the estimated value of the land, resulting in an indication of value derived by the Cost Approach.

The significance of the Cost Approach lies in its extent of application. It is the one approach that can be used on all types of construction. It is a starting point for appraisers, and therefore it is a very effective "yardstick " in any equalization program for Ad Valorem taxes. Its widest application is in the appraisal of properties where the lack of adequate market and income data preclude the reasonable application of the other traditional approaches.

The SALES COMPARISON APPROACH (aka Market Data Approach) involves the compiling of sales and offerings of properties which are comparable to the property being appraised. These sales and offerings are then adjusted for any dissimilarities, and a value range obtained by comparison. The approach is reliable to the extent that the properties are comparable, and the appraiser's judgment of proper adjustments is sound. The procedure for using this approach is essentially the same for all types of property with the only difference being the elements of comparison.

The significance of this approach lies in its ability to produce estimates of value which directly reflect the attitude of the market. Its application is contingent upon the availability of comparable sales, and therefore finds its widest range in the appraisal of vacant land and residential properties.

The INCOME APPROACH measures the present worth of the future benefits of a property by the capitalization of the net income stream over the remaining economic life of the property. This approach involves making an estimate of the "effective gross income" of a property, derived by deducing the appropriate vacancy and collection losses from its estimated economic rent, as evidenced by the yield of comparable properties. From this figure then is deducted applicable operating expenses, the cost of taxes and insurance, and reserve allowances for replacements resulting in an estimate of net income, which may then be capitalized into an indication of value.

This approach obviously has its basic application in the appraisals of properties universally bought and sold on their ability to generate and maintain a stream of income for their owners. The effectiveness of the approach lies in the appraiser's ability to relate to the changing economic environment and to analyze income yields in terms of their relative quality and durability.

Applying the Cost Approach

If the highest and best use of a property is its present use, then estimating the value of the land and adding the depreciated value of the structures on the land will provide a valid indication of the property value.

	Estimated Land Value
+	Estimated Replacement Cost New of Structures
-	<u>Estimated Depreciation</u>
	Indication of Property Value

Since estimating the land value is covered in a separate section, this section will be limited to the two remaining elements: Replacement Cost and Depreciation.

Replacement Cost

Replacement Cost is the current cost of producing an improvement of equal utility to the subject property; it may or may not be the cost of reproducing a replica property. The distinction being drawn is one between Replacement Cost, which refers to a substitute property of equal utility, as opposed to Reproduction Cost, which refers to an exact reproduction property. In a particular situation, the two concepts may be interchangeable, but they are not necessarily so. They both, however, have application in the Cost Approach to value, the difference being reconciled in the consideration of depreciation allowances.

In actual practice, outside of a few historic type communities in this country, developers and builders, for obvious economic reasons, replace buildings, not reproduce them. It logically follows that if an appraiser's job is to measure the actions of knowledgeable persons in the market place, the use of proper replacement costs should provide an accurate point of beginning in the valuation of most improvements.

The replacement cost includes the total cost of construction incurred by the builder whether preliminary to, during the course of, or after completion of the construction of a particular building. Among these are material, labor, all subcontracts, builders' overhead and profit, architectural and engineering fees, consultation fees, survey and permit fees, legal fees, taxes, insurance, and the cost of interim financing.

Estimating Replacement Cost

There are various methods that may be employed to estimate replacement cost new. The methods widely used in the appraisal field are the quantity-survey method, the unit-in-place or component part-in-place method, and the model method.

The Quantity-Survey Method involves a detailed itemized estimate of the quantities of various materials used, labor and equipment requirements, architect and engineering fees, contractor's overhead and profit, and other related costs. This method is primarily employed by contractors and cost estimators for bidding and budgetary purposes and is much too laborious and costly to be effective in every day appraisal work, especially in the mass appraisal field. The method, however, does have its place in that it is used to develop certain unit-in-place costs which can be more readily applied to estimating for appraisal purposes.

The Unit-in-Place Method is employed by establishing in-place cost estimates (including material, labor, overhead and profit) for various structural components. The prices established for the specified components are related to their most common units of measurement such as cost per yard of excavation, cost per lineal foot of footings, and cost per square foot of floor covering. The unit prices can then be multiplied by the respective quantities of each as they are found in the composition of the subject building to derive the whole dollar component cost, the sum of which is equal to the estimated cost of the entire building, providing of course, that due consideration is given to all other indirect costs which may be applicable. This component part-in-place method of using basic units can also be extended to establish prices for larger components in-place such as complete structural floors (including the finish flooring, sub-floor, joists and framing) which are likely to occur repeatedly in a number of buildings.

The Model Method is still a further extension, in that unit-in-place costs are used to develop base unit square foot or cubic foot costs for total specified representative structures in place, which may then serve as "models" to derive the base unit cost of comparable structures to be appraised. The base unit cost of the model most representative of the subject building is applied to the subject building and appropriate tables of additions and deductions are used to adjust the base cost of the subject building to account for any significant variations between it and the model.

Developed and applied properly, these pricing techniques will assist the appraiser in arriving at valid and accurate estimates of replacement cost new as of a given time. That cost generally represents the upper limit of value of a structure. The difference between its replacement cost new and its present value is depreciation. The final step in completing the Cost Approach then is to estimate the amount of depreciation and deduct said amount from the replacement cost new.

Depreciation

Simply stated, depreciation can be defined as "a loss in value from all causes." As applied to real estate, it represents the loss in value between market value and the sum of the replacement cost new of the improvements plus the land value as of a given time. The causes for the loss in value may be divided into three broad classifications: Physical Deterioration, Functional Obsolescence, and Economic Obsolescence.

Physical Deterioration pertains to the wearing out of the various building components, referring to both short-life and long-life terms, through the action of the elements, age, and use. The condition may be considered either "curable" or "incurable", depending upon whether it may or may not be practical and economically feasible to cure the deficiency by repair and replacement.

Functional Obsolescence is a condition caused by either inadequacies or over-adequacies in design, style, composition, or arrangement inherent to the structure itself, which tends to lessen its usefulness. Like physical deterioration, the condition may be considered either curable or incurable. Some of the more common examples of functional obsolescence are excessive wall and ceiling heights, excessive structural construction, surplus capacity, ineffective layouts, and inadequate building services.

Economic Obsolescence is a condition caused by factors extraneous to the property itself, such as changes in population characteristics and economic trends, encroachment of inharmonious land uses, excessive taxes, and governmental restrictions. The condition is generally incurable in that the causes lie outside the property owner's realm of control.

Estimating Depreciation

An estimate of depreciation represents an opinion of the appraiser as to the degree that the present and future appeal of a property has been diminished by deterioration and obsolescence. Of the three estimates, necessary to the cost approach, it is the one most difficult to make. The accuracy of the estimate will be a product of the appraiser's experience in recognizing the symptoms of deterioration and obsolescence and the ability to exercise sound judgment in equating all observations to the proper monetary allowance to be deducted from the replacement cost new. There are several acceptable methods which may be employed:

> Physical deterioration and/or functional obsolescence can be measured by observing and comparing the physical condition and/or functional deficiencies of the subject property as of a given time with either an actual or hypothetical, comparable, new and properly planned structure.
>
> Curable physical deterioration and functional obsolescence can be measured by estimating the cost of restoring each item of depreciation to a physical condition as good as new, or estimating the cost of eliminating the functional deficiency. Incurable deterioration, on the other hand, is either not cost-effective (the cost to correct the defect would exceed the benefit gained) - or impossible, due to space or ability - to correct.

Functional and economic obsolescence can be measured by capitalizing the estimated loss in rental due to the structural deficiency or lack of market demand.

Total accrued depreciation may be estimated by first estimating the total useful life of a structure and then translating its present condition, desirability, and usefulness into an effective age (rather than an actual age) which would represent that portion of its total life (percentage) which has been used up.

Total accrued depreciation may also be estimated by deriving the amount of depreciation recognized by purchasers as evidenced in the prices paid for property in the market place; the loss of value being the difference between the cost of replacing the structure new and its actual selling price (total property selling price less the estimated value of the land).

Applying the Market Data Approach

Analyzing the selling prices of comparable properties can derive an indication of the value of a subject property. The use of this technique, often referred to as the "sales comparison approach" or comparable sales approach, involves the selection of a sufficient number of valid comparable sales and the adjustment of each sale to the subject property to account for variations in time, location, site and structural characteristics.

Selecting Valid Comparables

Since market value has been defined as the price which an informed and intelligent buyer, fully aware of the existence of competing properties and not being compelled to act is justified in paying for a particular property, it follows that if market value is to be derived from analyzing comparable sales, that the sales must represents valid "arm's length" transactions. Due consideration must be given to the conditions and circumstances of each sale before selecting the sales for analysis. Some examples of sales, which do not normally reflect valid market conditions, are as follows:

Sales in connection with foreclosure, bankruptcy, condemnation or other legal actions

Sales to or by federal, state, county and local governmental agencies

Sales to or by religious, charitable or benevolent tax exempt agencies

Sales involving family transfers or "love and affection"

Sales involving intra-corporate affiliations

Sales involving the retention of life interests

Sales involving cemetery lots

Sales involving mineral or timber rights and access or drainage rights

Sales involving the transfer of part interests

In addition to selecting valid market transactions, it is equally important to select properties which are truly comparable to the property under appraisement. For instance, sales involving both real property and personal property or chattels may not be used unless the sale can be adjusted to reflect only the real property transaction, nor can sales of non-operating or deficient industrial plants be validly compared with operating plants. The comparable and subject properties must exhibit the same use, and the site and structural characteristics must exhibit an acceptable degree of comparability.

Processing Comparable Sales

All comparable sales must be adjusted to the subject property to account for variations in time and location. The other major elements of comparison will differ depending upon the type of property being appraised. In selecting these elements, the appraiser must consider the same factors that influence the prospective buyers of particular types of properties.

The typical homebuyer is interested in the property's capacity to provide the family with a place to live. A primary concern is with the living area, utility area, number of rooms, number of baths, age, structural quality and condition, the presence of a modern kitchen and/or recreational conveniences of the house. Equally important is the location and neighborhood, including the proximity to and the quality of schools, public transportation, recreational and shopping facilities.

In addition to the residential amenities, the buyer of agricultural property is primarily interested in the productive capacity of the land, the accessibility to the market place and the condition and functional utility of the farm buildings and structures on the land.

The typical buyer of commercial property, including warehouses and certain light industrial plants, is primarily concerned with its capability to produce revenue. Of special interest, will be the age, design and structural quality and condition of the improvements, the parking facilities, and the location relative to transportation, labor markets and trade centers.

In applying the market data approach to commercial/industrial property, the appraiser will generally find it difficult to locate a sufficient number of comparable sales, especially of properties which are truly comparable in their entirety. It will, therefore, generally be necessary to select smaller units of comparison such as price per square foot, per unit, per room, etc. In doing so, great care must be exercised in selecting a unit of comparison that represents a logical common denominator for the properties being compared. A unit of comparison that is commonly used and proven to be fairly effective is the Gross Rent Multiplier, generally referred to as GRM, which is derived by dividing the gross annual income into the sales price. Using such units of comparison enables the appraiser to compare two properties which are similar in use and structural features, but differ significantly in size and other characteristics.

Having selected the major factors of comparison, it remains for the appraiser to adjust each of the factors to the subject property. In comparing the site, adjustments for size, location, accessibility, and site improvements must be made. In comparing the structures, adjustments for size, quality, design, condition, and significant structural and mechanical components also must be made. The adjusted selling prices of the comparable properties will establish a range in value in which the value of the subject property will fall. Further analysis of the factors should enable the appraiser to narrow the range down to the value level which is most applicable to the subject property.

Applying the Income Approach

The justified price paid for income producing property is no more than the amount of investment required to produce a comparably desirable return; and since the market can be analyzed in order to determine the net return actually anticipated by investors, it follows that the value of income producing property can be derived from the income which it is capable of producing. What is involved is an estimate of income through the collection and analysis of available economic data, the development of a property capitalization rate and the processing of the net income into an indication of value by employing one or more of the acceptable capitalization methods and techniques.

The Principles of Capitalization

Capitalization is the process for converting the net income produced by property into an indication of value. Through the years of appraisal history, a number of procedures have been recognized and employed by appraisal authorities in determining the value of real estate by the income approach. Although present-day practice recommends only certain methods, we will at least touch on the other approaches to value, even though they may not be accepted in today's appraisal scene because they do not accurately reflect the current market conditions.

Exploring the Rental Market

The starting point for the appraiser is an investigation of current economic rent in a specific area in order to establish a sound basis for estimating the gross income that should be returned from competitive properties. The appraiser must make a distinction between economic rent and the rent which property is normally expected to produce on the open market, as opposed to control rent or the rent which property is actually realizing at the time of the appraisal due to lease terms established in the past.

The first step then is to obtain specific income and expense data on properties that best typify normal market activity. The data is necessary to develop local guidelines for establishing the economic rent and related expenses for various types of properties.

The next step is to similarly collect income and expense data on individual properties and to evaluate the data against the established guidelines. The collection of income and expense data (l & E) is an essential phase in the valuation of commercial properties. The appraiser is primarily concerned with the potential earning power of the property. The objective is to estimate its expected net income. Income and Expense Statements of past years are valuable only to the extent which they serve this end. The statements must not only be complete and accurate, but must also stand the test of market validity. Consideration of the following factors should assist the appraiser in evaluating the I & E data in order to arrive at an accurate and realistic estimate of net income.

Questions Relating to Income Data

A. Was the reported income produced entirely by the subject property? Very often the rental will include an amount attributable to one or more additional parcels of real estate. In this case, it would be necessary to obtain the proper allocations of rent.

B. Was the income attributable to the subject property as it physically existed at the time of the appraisal or did the appraisal include the value of leasehold improvements and remodeling for which the tenant paid in addition to rent? If so, it may be necessary to adjust the income to reflect economic rent.

C. Does the reported income represent a full year's return? It is often advisable to obtain both monthly and annual amounts as a cross-check.

D. Does the income reflect current economic rent? Is either part or all of the income predicated on old leases? If so, what are the provisions for renewal options and rates?

E. Does the reported income reflect 100% occupancy? What percentage of occupancy does it reflect? Is this percentage typical of this type of property or is it due to special non-recurring causes?

F. Does the income include rental for all marketable space? Does it include an allowance for space, if any, which is either owner or manager occupied? Is the allowance realistic?

G. Is the income attributable directly to the real estate and conventional amenities? Is some of the income derived from furnishings and appliances? If so, it will be necessary to adjust the income or make provisions for reserves to eventually replace them, whichever local custom dictates.

H. In many properties, an actual rental does not exist because the real estate is owner occupied. In this event, it is necessary to obtain other information to provide a basis to estimate economic rent. The information required pertains to the business operation using the property. Proper analysis of the annual operating statements of the business, including gross sales or receipts, can provide an accurate estimate of economic rent. Information requirements for a few of the more common property uses are as follows:

Retail Stores	Annual net gross sales (gross sales less returned merchandise)
Hotels and Motels	The annual operating statement of the business. If retail or office space is leased in these properties, obtain the actual rent paid.
Theaters	The annual gross receipts (including admissions and concessions) and seating capacity
Automobile Parking	The annual gross receipts

Analysis of Expense Data

The appraiser must consider only those expenses which are applicable to the cost of ownership; that is, those expenses which are normally owner incurred. Any portion of the expenses incurred directly or indirectly by the tenant should not be considered. Each expense item must stand the test of both legitimacy and accuracy. How do they compare with the established guidelines and norms? Are they consistent with the expenses incurred by comparable properties?

Management refers to the cost of administration. These charges should realistically reflect what a real estate management company would actually charge to manage the property. If no management fee is shown on the statement, a proper allowance must be made by the appraiser. On the other hand, if excessive management charges are reported, as is often the case, the appraiser must disregard the reported charges and use an amount which he deems appropriate and consistent with comparable type properties. The cost of management bears a relationship with the risk of ownership and will generally range between 4 to 10% of the gross income.

General expenses may include such items as the cost of services and supplies not charged to a particular category. Unemployment and F.I.C.A. taxes, Workmen's Compensation Insurance and other employee insurance plans are usually legitimate deductions when employees are a part of the building operation.

Reimbursed expenses refer to the cost associated with the maintenance of public or common areas of the commercial property. This expense is passed on to the tenants and should, therefore, only be considered when the amount of reimbursement is included as income.

Miscellaneous expenses are the "catch-all" category for incidentals. This item should reflect a very nominal percentage of the income. If expenses reported seem to be excessive, the appraiser must examine the figures carefully in order to determine if they are legitimate expenses, and if so, to allocate them to their proper category.

Cleaning expenses are legitimate charges. They are for such items as general housekeeping and maid service, and include the total cost of labor and related supplies. All or a portion of the cleaning services may be provided by outside firms working on a "contract" basis. Cleaning expenses vary considerably and are particularly significant in operations such as offices and hotels. "Rule of thumb" norms for various operations are made available through national management associations. The appraiser should have little difficulty in establishing local guidelines.

Utilities are generally legitimate expenses and if reported accurately, need very little reconstruction by the appraiser, other than to determine if the charges are consistent with comparable properties. Local utility companies can provide the appraiser with definite guidelines.

Heat and Air Conditioning costs are often reported separately and in addition to utilities. The expenses would include the cost of fuel other than the above-mentioned utilities and may include, especially in large installations, the cost of related supplies, inspection fees and maintenance charges. These are generally legitimate costs and the same precautions prescribed for "utilities" are in order.

Elevator expenses, including the cost of repairs and services, are legitimate deductions; and are generally handled through service contracts. These fees can be regarded as annual expenses.

Decorating and minor alterations are necessary to maintain the income stream of many commercial properties. In this respect, they are legitimate expenses. However, careful scrutiny of these figures is required. Owners tend to include the cost of major alterations and remodeling which are, in fact, capital expenditures, and as such are not legitimate operating expenses.

Repairs and Maintenance expenses reported for any given year may not necessarily be a true indication of the average or typical annual expense for these items. For example, a statement could reflect a substantial expenditure for a specific year (possibly because the roof was replaced and/or several items of deferred maintenance were corrected). The statement for the following year may indicate that repairs and maintenance charges were practically nil. It is necessary for the appraiser to either obtain complete economic history on each property in order to make a proper judgment as to the average annual expense for these items or include a proper allowance based on norms for the type and age of the improvements to cover annual expenses. Since it is neither possible nor practical to obtain enough economic history on every property, the latter method is generally used and the amounts reported for repairs and maintenance are then estimated by the appraiser.

Insurance. Caution must be used in accepting insurance expense figures. Cost shown may be for more than one year or may be for blanket policies including more than one building. It is generally more effective for the appraiser to establish his own guidelines for insurance. He must also be careful to include only items applicable to the real estate. Fire extended coverage and owner's liability are the main insurance expense items. Separate coverage on special component parts of the buildings, such as elevators and plate glass, are also legitimate expenses.

Real Estate Taxes. In making appraisals for tax purposes, the appraiser must exclude the actual amount reported for real estate taxes. Since future taxes will be based on his appraised value, the appraiser must express the taxes as a factor of the estimated value. This can be done by including an additional percentage in the capitalization rate to account for real estate taxes.

Depreciation. The figure shown for depreciation on an operating statement is a "bookkeeping figure" which the owner uses for Internal Revenue purposes and should not be considered in the income approach. This reflects a tax advantage which is one of the benefits of ownership.

Interest. Although interest is considered a legitimate expense, it is always included in the Capitalization Rate. Most property is appraised as if it were "free and clear". However, the appraiser does consider the interest of a current mortgage in the Capitalization Rate build-up.

Land Rent. When appraising for real estate tax purposes, only the sum of the leasehold and the leased fee is usually considered. Land rent is not deducted as an expense. Considered separately, rent from a ground lease would be an expense to the leasehold interest and an income to the leased fee. However, if land were rented from another property to supply additional parking for example, that land rent would be an allowable expense.

It is obvious that there are some expense items encountered on operating statements that the appraiser should not consider as allowable. This is because he is interested in legitimate cash expenses only. Income statements are usually designed for income tax purposes where credit can be taken for borrowing costs and theoretical depreciation losses.

It is virtually impossible and certainly not always practical to obtain a complete economic history on every commercial property being appraised. On many properties, however, detailed economic information can be obtained through the use of Income and Expense forms. One must realistically recognize the fact that the data obtainable on some properties is definitely limited.

In most cases, the gross income and a list of the services and amenities furnished can be obtained during the data gathering operation. However, in order to insure a sound appraisal, it may be necessary to estimate the fixed and operating expenses. This is best accomplished by setting guidelines for expenses, based on a percent of Effective Gross Income or a cost per square foot of leasable area. These percentages or costs will vary depending on the services supplied and the type of property.

Capitalization Methods

The most prominent methods of capitalization are Direct, Straight Line, Sinking Fund, and Annuity. Each of these is a valid method for capitalizing income into an indication of value. The basis for their validity lies in the action of the market, which indicates that the value of income producing property can be derived by equating the net income with the net return anticipated by informed investors. This can be expressed in terms of a simple equation:

Value = Net Income divided by Capitalization Rate

The Straight Line and Sinking Fund methods are both actual forms of Straight Capitalization, with one using Straight Line recapture and the other using Sinking Fund recapture. Both methods follow the same basic principles as Direct Capitalization, differing only in that they provide for separate capitalization rates for land and buildings; the building rate differing from the land rate in that it includes an allowance for recapture.

Straight Line Capitalization allows for "recapture" based on remaining economic life of the building - implying that at the end of that period of time, there would be a zero-improvement value. There are three fallacies in this thinking. First, the potential buyer (investor) has no intention of holding the property that long. The average investment period might be ten years. Second, the investor anticipates that at the end of that period he will either get all his money back or will make a profit. And third, is the depreciation allowance possible in connection with federal income taxes.

Depreciation allowances begin to "run out" between seven and ten years, so the advantages of owning the property are reduced considerably. A prudent owner may choose to sell the property at this point and re-invest in another property so that he may begin the depreciation cycle again and continue to take full advantage of the favorable tax laws.
For these reasons, the Straight-Line Capitalization Method does not usually follow what the market indicates.

Straight Line recapture calls for the return of investment capital in equal increments or percentage allowances spread over the estimated remaining economic life of the building.

Sinking Fund recapture calls for the return of invested capital in one lump sum at the termination of the estimated remaining economic life of the building. This is accomplished by providing for the annual return of a sufficient amount needed to invest and annually re-invest in "safe" interest-bearing accounts, such as government bonds or certificates of deposit, which will ultimately yield the entire capital investment during the course of the building's economic life.

Annuity Capitalization lends itself to the valuation of long-term leases. In this method, the appraiser determines, by the use of annuity tables, the present value of the right to receive a certain specified income over stipulated duration of the lease. In addition to the value of the income stream, the appraiser must also consider the value that the property will have once it reverts back to the owner at the termination of the lease. This reversion is valued by discounting its anticipated value against its present day worth. The total property value then is the sum of the capitalized income stream plus the present worth of the reversion value.

Current Techniques

There are two methods, however, that do lend themselves to an accurate measure of market value based on potential income. These are Direct Capitalization, utilizing the Direct Comparison Method of Rate Selection and Mortgage Equity Capitalization.

Direct Capitalization

In Direct Capitalization, the appraiser determines a single "overall" capitalization rate. This is done by analyzing actual market sales of similar types of properties. He develops the net income of each property and divides the net income by the sales price to arrive at an overall rate to provide an indication of value.

Mortgage Equity Capitalization

Mortgage Equity Capitalization is a form of direct capitalization with the major difference in the two approaches being the development of the overall capitalization rate.

In this method, equity yields and mortgage terms are considered influencing factors in construction of the interest rate. In addition, a plus or minus adjustment is required to compensate for anticipated depreciation or appreciation. This adjustment can be related to the recapture provisions used in other capitalization methods and techniques.

Residual Techniques

It can readily be seen that any one of the factors of the Capitalization Equation (Value = Net Income divided by Capitalization Rate) can be determined if the other two factors are known. Furthermore, since the value of property is the sum of the land value plus the building value, it holds that either of these can be determined if the other is known. The uses of these mathematical formulas in capitalizing income into an indication of value are referred to as the residual techniques, or more specifically, the property residual, the building residual and the land residual techniques.

The Property Residual Technique is an application of Direct Capitalization. In this technique, the total net income is divided by an overall capitalization rate (which provides for the return on the total investment) to arrive at an indicated value for the property. This technique has received more popular support in recent years because it closely reflects the market. With this technique, the capitalization rate may be developed by either "direct comparison" in the market or by the Mortgage Equity Method.

The Building Residual Technique requires the value of the land to be a known factor. The amount of net income required to earn an appropriate rate of return on the land investment is deducted from the total net income. The remainder of the net income (residual) is divided by the building capitalization rate (which is composed of a percentage for the return on the investment, plus a percentage for the recapture of the investment) to arrive at an indicated value for the building.

The Land Residual Technique requires the value of the building to be a known factor. The amount of net income required to provide both a proper return on and the recapture of the investment is deducted from the total net income. The remainder of the net income (residual) is then divided by the land capitalization rate (which is composed of a percentage for the return on the investment) to arrive at an indicated value for the land.

Mortgage Equity Method Example

For purposes of illustration, assume an investment financed with a 70% loan at 14.0% interest. The term of the mortgage is 20 years, paid off in level monthly payments. The total annual cost for principal and interest on such a loan can be determined by referring to the mortgage equity tables. Select the Constant Annual percent for an interest rate of 14.0% and a term of 20 years. Note that the constant is 14.92% of the amount borrowed, or .92% more than the interest rate alone.

Assume that the equity investor will not be satisfied with less than a 18% yield. The income necessary to satisfy both Lender and Equity can now be shown. The product of the percent portion and the rate equals the weighted rate. The total of each weighted rate equals the weighted average.

		RATE	
	70%	.1492	= 0.1044
	30%	.1800	= 0.0540
Weighted Portion	100%		= 0.1584

Note that the "constant annual percent" is used for the rate of the loan.

Since there is a gain in equity's position through the years by the loan being paid off little by little, it is necessary to calculate the credit for equity increase. Assume that the investor plans to hold the property for ten years. Since the mortgage is for 20 years, only a portion of the principal will be paid off and this amount must be discounted, as it won't be received for ten years. From the Table of Loan Balance and Debt Reduction, at the end of ten years for a 20-year mortgage at 14%, the figure is 0.199108. Consulting the sinking fund tables indicates that the discount factor for 18% and 10 years is 0.0425.

The credit for equity increase can now be deducted from the basic rate, thus

0.199108	X	70%	X	0.0425	=	0.0059
(% of loan paid in 10 yrs.)		(loan rate)				(sinking fund)

Resulting Net Rate = 0.1525

Land Valuation Techniques

In performing appraisals for Ad Valorem Tax purposes, it is generally necessary to estimate separate values for the land and the improvements on the land. In actuality, the two are not separated and the final estimate of the property as a single unit must be given prime consideration. However, in arriving at that final estimate of value, aside from the requirements for property tax appraisals, there are certain other reasons for making a separate estimate of value for the land.

> An estimate of land value is required in the application of the Cost Approach.
>
> An estimate of land value is required to be deducted from the total property selling price in order to derive indications of depreciation through market-data analysis. (Depreciation being equal to the difference between the replacement cost new of a structure and the actual price paid in the market place for the structure.)
>
> As land is not a depreciable item, a separate estimate of land value is required for bookkeeping and accounting purposes; likewise, the total capitalization rate applicable to land will differ from the rate applicable to the improvements on the land.
>
> Since land may or may not be used to its highest potential, the value of land may be completely independent of the existing improvements on the land.

Real Estate is valued in terms of its highest and best use. The highest and best use of the land (or site), if vacant and available for use, may be different from the highest and best use of the improved property. This will be true when the improvement is not an appropriate use and yet contributes to total property value in excess of the value of the site. Highest and Best Use (Highest and Most Profitable Use; Optimum Use) is that reasonable and probable use which will support the highest present value as of the date of the appraisal. Alternatively, it is the most profitable likely use to which a property can be put. It may be measured in terms of the present worth of the highest net return that the property can be expected to produce over a stipulated long run period of time. (American Institute of Real Estate Appraisers' Appraisal Terminology Handbook, 1981 edition.)

As appraiser’s opinions are based on data derived from the market, it is necessary to study and adapt, if possible, procedures used by those closest to everyday transactions.

Comparable Sales Method

The most frequently used method in estimating the value of land is the comparable sales method in which land values are derived from analyzing the selling prices of similar sites. This method is in essence the application of the market data approach to value and all the considerations pertaining thereto are equally applicable here.

The appraiser must select comparable and valid market transactions, and must weigh and give due consideration to all the factors significant to value, adjusting each to the subject property. The comparable sites must be used in the same way as is the subject property, and subjected to the same zoning regulations and restrictions. It is also preferable, whenever possible, to select comparables from the same or a similar neighborhood. The major adjustments will be to account for variations in time, location and physical characteristics to include size, shape, topography, landscaping, access, as well as other factors which may significantly influence the selling price, such as the productivity of farm land.

Although it is always preferable to use sales of unimproved lots for comparables, it is not always possible to do so. Older neighborhoods are not likely to yield a sufficient number of representative sales of unimproved lots to permit a valid analysis. In such cases, in order to arrive at an estimate of land values using the comparable sales approach, it is necessary to consider improved property sales and to estimate the portion of the selling price applicable to the structure. The procedure would be to estimate the replacement cost of the buildings as of the date of sale, estimate the accrued depreciation and deduct that amount from the replacement cost resulting in the estimated selling price of the buildings, which can be deducted from the total selling price of the property to derive the portion of the selling price which can be allocated to the land. The equation is as follows:

$$\begin{array}{rl} & \text{Selling Price of Property} \\ - & \underline{\text{Estimated Depr Value of Buildings}} \\ & \text{Indication of Land Value} \end{array}$$

In some of these older neighborhoods, vacant lots will exist often as a result of fire or normal deterioration. Since the desirability as a new building site is restricted, value is generally determined by adjoining property owners who have a desire for additional land area.

In order to apply the comparable sales method, it is first necessary to establish a common unit of comparison. The units generally used in the valuation of land are price per front foot, price per square foot, price per acre, price per apartment unit and price per motel unit. The selection of any one particular unit depends upon the type of property being appraised. For example, frontage might be commonly used for platted, uniform type residential lots and square footage or acreage for larger, unplatted tracts, as well as irregularly shaped lots lacking uniformity. Use of square footage is especially desirable in Central Business Districts where the entire lot maintains the same level of value: depth factor adjustments tend to distort this concept. Commercial arteries are also best valued on a square foot basis.

The utility of a site will vary with the frontage, width, depth and overall area. Similarly, the unit land values should be adjusted to account for differences in size and shape between the comparables and the subject property. Since such an adjustment is generally necessary for each lot, it is beneficial that the appraiser adopt and/or develop standardized procedures for adjusting the lot size and the unit values to account for the variations. It is not uncommon for all lots within a development to market at the same price. Should data indicate this, it is necessary to make alterations or adjustments to maintain this value level. In some cases, a "site value" concept has advantages. Some of the techniques commonly employed are as follows:

> Standard Lot Sizing Techniques provide for the adjustment of the frontage, width, and depth of irregular shaped lots to make the units of measurement more comparable with uniform rectangular lots.
>
> Standard Depth Tables provide for the adjustment of front foot unit values to account for variations in depth from a predetermined norm.
>
> Frontage Tables provide for the adjustment of front footage unit values to account for variations in the relative utility value of excessive or insufficient frontage as compared to a predetermined norm.
>
> Acreage or Square Footage Tables provide for the adjustment of unit values to account for variations in the relative utility value of excessive or insufficient land sizes as compared to a predetermined norm.

During the process of adjusting the comparable sales to account for variations between them and the subject property, the appraiser must exercise great care to include all significant factors and to properly consider the impact of each of the factors upon the total value. If done properly, the adjusted selling prices of the comparable properties will establish a range in value in which the value of the subject property will fall. Further analysis of the factors should enable the appraiser to narrow the range down to the value level which is most applicable to the subject property.

The Soil Productivity Method

This method involves the classification of agricultural tracts according to a productivity index and establishing corresponding unit land values either by the analysis of comparable sales or the capitalization of income yields. The method requires a great deal of data and time and its application, for ad valorem tax purposes, is generally limited to the appraisal of predominantly agricultural jurisdictions, in which soil productivity is either the primary influence to buyers and sellers, or in which soil productivity is the legal basis for the assessment of farm land.

There is a second condition which presupposes the use of the soil productivity method: the availability of current soil maps and related data. Soil productivity refers to the capacity of a soil to produce crops. Its productive capacity is basically dependent upon the properties and characteristics inherent in the soil, the prevailing environmental and climatic conditions and the level of management input. Since the appraiser, for tax purposes, generally is neither provided with the time nor the resources to survey, analyze and classify the varied numbers of soils, the use of the method is solely contingent upon the availability of reliable soil maps and data compiled from scientific soil surveys. Such surveys are generally conducted and reported under the auspices of the agricultural departments at the various state universities. Providing then, that the value of the farm land as evidenced in the market place, or as mandated by law, is directly related to its capacity to produce, and that current soil maps and related data are available, it follows that soil productivity should be given prime consideration in the valuation of farm land.

The following is a suggested procedure for establishing unit land values based upon the relative productivity of the soil. Whereas precise terminology may differ from state to state, the general procedure should prove to be fairly applicable to any region.

1. Obtain soil maps. Soil maps prepared by soil surveyors should provide an accurate inventory of the soil resources of an area. The soil mapping units delineated on the maps provide a basis for soil-use suggestions and for crop yield and/or soil productivity estimates.
2. Obtain or develop soil productivity index ratings for each soil mapping unit. Soil productivity is generally expressed in terms of yield per acre. In developing a soil productivity approach to value, it is necessary to compare the productivity of different soils and different yields. A productivity index provides the statistical means of expressing the productivity of different soils in relative units of comparison. Table 1 shows the calculation of a productivity index for Muscatine silt loam at a high management level. The yield estimates are related to a base yield. The same base yield is used for all soils, but the crop-yield estimates and acreage ratio will vary with each soil. The acreage ratio is an expression of the percentage of the time that a particular crop is grown. Management level is held constant. Thus, the soil productivity index provides a measure of the soil contribution in crop production. Such ratings may be prepared for cropland, pasture, and timber.
3. Determine appropriate soil-use categories. Separate soil-use categories may be established for each significant use. However, in many areas, it is often more practical to consider only cropland, and to establish the necessary guidelines for adjusting land in timber, brush, or pasture accordingly.
4. Compile data on the selling prices and/or income yields for agricultural land in representative soil areas.
5. Either obtain or measure and record the acreage of each soil-use mapping unit category for each tract of land in the sampling compiled in Step 4. If measured, a planimeter, grid or electric area calculator should be used.
6. Calculate a tract-productivity index for each tract of land in the sampling. A tract productivity index may be calculated by using the acreage and soil-productivity index for each soil-mapping unit in a tract. The acreage is multiplied by the soil productivity index to obtain a soil contribution for each mapping unit. The soil contributions are added together, and the resulting sum is divided by the number of acres in the tract. The result is a weighted index of the soil productivity of the tract.
7. Determine the relationship of productivity and selling price and/or income yields per acre for each of the tracts included in the sampling. A curve (or graph) may be prepared by

plotting the measure of dollar value along the vertical axis and the productivity along the horizontal axis.

8. Either obtain or measure and record the acreage of each soil-use mapping unit category for each tract of agricultural land to be appraised.
9. Calculate a tract productivity index for each tract of agricultural land to be appraised and determine an estimate of its value from the graph generated in Step 7. Once the productivity of the tract is known, the base value of the tract can be determined from such a graph, or if preferred, a table can be prepared from the graph showing the tract productivity in one column and the estimated corresponding base unit level values in an adjoining column. Note: the base unit land values obtained in Step 9 will often require adjustments to account for factors such as location, accessibility, special soil conditions, etc., which influence land value, but which cannot be measured by productivity.

In such cases where soil productivity is a prime factor in determining the value of the land, the procedural steps outlined above should provide a sound basis for establishing equitable values.

It should be noted, however, that the procedure is not a formula for appraising farm land, but only a method of establishing unit values based upon a soil productivity index. Soil productivity is but one value-influencing factor to be considered, and depending upon the area in which the farm land is located, it may or may not have significant bearing upon the market value of the property.

In the final analysis, each farm appraisal must stand the test of comparison with competing properties. Intelligent buyers may be assumed to know of the existence of similar properties as well as the bidding prices or asking prices for such properties. It is also reasonable to assume that well informed buyers of competing properties have examined the characteristics of the property, in a practical, if not scientific way before establishing the value of the property to them as investors.

Similarly, the appraiser must rely heavily upon the comparison process in determining the relationship of a farm property of unknown value, but of known characteristics (subject farm), to comparable farms of known value as well as known characteristics (bench-mark farms). Each value-influencing factor must be analyzed in order to determine its individual contribution to the overall value. In the process, consideration must be given to such factors as the time and condition of the sale, the size of the property, the suitability and productivity of the soil, the value of the buildings, the location of the property in relation to market accessibility and the location of the property in relation to its suitability for higher land uses.

Only after determining the contribution value of each of these factors can the appraiser determine the proper basis or criteria for establishing unit land values which will accurately reflect the action of the market.

The Land Residual Technique

In the absence of sufficient market data, income-producing land may be valued by determining the portion of the net income attributable to the land and capitalizing the net income into an indication of value. The procedure is as follows:

1. Determine the highest and best use of the land, which may be either its present use or hypothetical use.
2. Estimate the net income which the property can be expected to yield.
3. Estimate the replacement cost new of the improvements.
4. If the case involves the present use, estimate the proper allowance for depreciation and deduct that amount from the replacement cost new of the improvements to arrive at an estimate of their depreciated value.
5. Develop appropriate capitalization rates.
6. Calculate the income requirements of the improvements and deduct the amount from the total net income to derive that portion of the income which can be said to be attributable to the land.
7. Capitalize the residual income attributable to the land to an indication of value.

Ratio Method

A technique useful for establishing broad indications of land values is a "typical" allocation or ratio method. In this technique, the ratio of the land value to the total value of improved properties is observed in situations where there is good market and/or cost evidence to support both the land values and total values. This market abstracted ratio is then applied to similar properties where the total values are known, but the allocation of values between land and improvements are not known. The ratio is usually expressed as a percentage which represents the portion of the total improved value that is land value, or as a formula:

Total Land Value / Total Property Value X 100% = %Land Is of Total Property Value

This technique can be used on most types of improved properties, with important exceptions being farms and recreational facilities, provided that the necessary market and/or cost information is available. In actual practice, available market information limits this technique primarily to residential properties and to a much lesser extent, commercial and industrial properties such as apartments, offices, shopping centers and warehouses.

The ratio technique cannot give exact indications of land values. It is nevertheless useful, especially when used in conjunction with other techniques of estimating land values because it provides an indication of the reasonableness of the final estimate of land value.

The ratio should be extracted from available market information and applied to closely similar properties. It should be noted that any factor that affects values may also affect the ratio of values. Zoning is particularly important because it may require more or less improvements be made to the land or may require a larger or smaller minimum size. This tends to have a bearing on the land values, and so it may also influence the ratio of values considerably from community to community.

The following is an example of a residential land valuation situation.

Market information derived from an active subdivision	
Typical Lot Sale Price (most lots equivalent)	$30,000
Improved Lot Sales (range)	$130,000 to $150,000

Indicated Ratio = $30,000/150,000 to $30,000/130,000

Or

20% to 23%

Similar subdivision, but 100% developed	
Typical Lot Sale Price (most lots equivalent)	unavailable
Improved Lot Sales (range)	$170,000 to $210,000
Broadest Indicated Range of Lots	
20% x $170,000 to 23% x $210,000	$34,000 to $48,300
Narrowest Indicate Range of Lot Values	
23% x $170,000 to 20% x $210,000	$39,100 to $42,000

If both lots and improvements vary considerably, the broadest range is most important. If most lots vary little and are judged equivalent, but the improvements vary somewhat, the narrowest range is appropriate. Most subdivisions exhibit a combination of the two ranges. Showing a typical narrow total value range but a wider actual range of land values.

SUMMARY

In preceding sections, we have outlined the fundamental concepts, principles, and valuation techniques underlying the Appraisal Process. We will now approach the problem at hand: the revaluation of certain specified real property within a total taxing jurisdiction - be it an entire county or any subdivision thereof - and to structure a systematic mass appraisal program to affect the appraisal of said properties in such a way as to yield valid, accurate and equitable property valuations at a reasonable cost dictated by budgetary limitations and within a time span totally compatible with assessing administration needs.

The key elements of the program are validity, accuracy, equity, economy, and efficiency. To be effective, the program must:

- incorporate the application of proven and professionally acceptable techniques and procedures;
- provide for the compilation of complete and accurate data and the processing of that data into an indication of value approximating the prices actually being paid in the market place;
- provide the necessary standardization measures and quality controls essential to promoting and maintaining uniformity throughout the jurisdiction;
- provide the appropriate production controls necessary to execute each phase of the operation in accordance with a carefully planned budget and work schedule; and
- provide techniques especially designed to streamline each phase of the operation, eliminating superfluous functions and reducing the complexities inherent in the appraisal process to more simplified but equally effective procedures.

In summary, the objective of an individual appraisal is to arrive at an opinion of value, the key elements being the validity of the approach and the accuracy of the estimate. The objective of a mass appraisal for tax purposes is essentially the same. However, in addition to being valid and accurate, the value of each property must be equitable to that of each other property, and what's more, these valid, accurate and equitable valuations must be generated as economically and efficiently as possible.

Schedule of Values, Standards, and Rules

Appendix 1
Glossary and Associated Business Rules

Pender County, North Carolina

Effective January 1, 2019

From time to time the Tax Administrator of Pender County may deem it necessary to add one or another definition or appraisal policy (expressed as a business rule) contained in this *Schedule of Values*, to address unforeseen situations.

All such new definition and policy are hereby incorporated into this *Schedule of Values* except that no new policy may negatively affect the integrity of (equality among) the valuations arising from the implementation of and continuing use of this Schedule, as approved.

ADDN
The IASWORLD table that stores residential building addition records. ADDN stands for residential building Additions.

AGVAL
The name of the IASWORLD table that stores agricultural value records. AGVAL stands for Agricultural Values.

AIR CONDITIONING
The air in a building is actively cooled by permanently attached mechanical device(s), which may also provide heat to building occupants. Devices that may be temporarily placed in a wall or ceiling opening do not qualify the building as having conditioned air.

ANCHOR STORE, HARDY FINISH
This is a commercial building STRUCTURE and USE which is anchor store space for Community Retail Centers. This space is usually occupied by such high traffic retailers as grocery stores, pottery stores, drug stores in community centers, et cetera who require minimal but hardy interior finish. This code has an influence on the Cost Approach, and the Income Approach. Also, please refer to the discussion of Net Operating Income below.

ANCHOR STORE, FINE FINISH
This is a commercial building STRUCTURE and USE which is large, upscale retail space and good interior finish (Department Store). This code has an influence on the Cost Approach, and the Income Approach. Also, please refer to the discussion of Net Operating Income below.

APRVAL
The name of the IASWORLD table that stores the CAMA module's value estimates from the Cost Approach, Income Approach, and Market Approach, and provides an appraiser override feature. APRVAL stands for Appraised Values.

APPLICATION (Program)
"...a program such as a word processor or a spreadsheet) that performs one of the major tasks for which a computer is used..." Webster's Collegiate Dictionary

APPRAISER CONTRADICTION
The definitions and business rules expressed in this *Schedule of Values* provide the only acceptable standard for describing a given property to the county's CAMA system. Appraiser contradiction

arises when at least one staff appraiser develops and uses his or her own standards, thereby contradicting the work of the other staff appraisers.

ASMT

The IASWORLD table which stores values from the Real and Personal Property appraisal modules and applies any exemptions to arrive at Taxable Value. ASMT stands for Assessment.

ASSESSED VALUE

In North Carolina, "Assessed Value" is the same as "Market Value. If a parcel is appraised for a Market Value of $100,000, the Assessed Value is also $100,000. However, to say that a parcel has been "assessed" means that someone has specifically done a Change Action on the administrative module's ASMT Screen, which moves the value from the appraisal module.

ASSESSMENT LEVEL

The state-mandated percentage to be multiplied by the market value estimate, however derived. For real estate and personal property in North Carolina, the assessment level is 100%. If your property is appraised for $100,000, your assessed value is $100,000 ($100,000 X 1.00).

ASSESSMENT RATIO STUDY

A statistical tool used by appraisers to measure the assessment level in a county. Each arms-length sale, and each sold parcel's assessed value, is part of the market-selected statistical population, and available for sampling.

First, the ratio of assessed value to sale price is calculated by dividing the assessed value of the parcel by the sale price of the parcel. This gives the parcel's assessment ratio.

Second, standard statistical analysis is applied to all assessment ratios (one ratio per sale, not per parcel). This is the only measure of the quality of the appraisal effort for the year both in terms of the Assessment Level and Uniformity of Assessments. See TAX ROLL, SEGREGATION.

AUTOMOTIVE SERVICE GARAGE

This is a commercial building USE which defines an automotive service garage that is not part of a full-service dealership. This code has an influence on the Cost Approach, and the Income Approach. Also, please refer to the discussion of Net Operating Income.

AUTOMOTIVE FULL-SERVICE DEALER

This is a commercial building USE which defines a full-service dealership. This code has an influence on the Cost Approach and the Income Approach. Use this code to define any building engaged in more than a service function. For example, an on-site building used only as a body shop is a "service garage". Also, please refer to the discussion of Net Operating Income.

BALCONY

A balcony is an interior "bridge" or other "mezzanine" space overlooking BASE area, or it is a cantilevered exterior "deck" (one whose supports do not reach the ground).

BAR / LOUNGE

This is a commercial building STRUCTURE and USE which has an influence on the Cost Approach, and the Income Approach. Code the space for bar and/or lounge when it was designed as such (and specifically is not logical former or future retail space, as in a retail center). Also, please refer to the discussion of Net Operating Income.

BASE AREA

Also, called Living or Heated Area (see BUILDING ADDITION).

BASEMENT AREA

We have defined two types of residential basement:

1. Excavated (the hole is lined with poured concrete walls or concrete block walls, and floored);
2. Concrete Block (typical of the older split-level and bi-level designs).

Use the "Basement Finish" field to denote living area in these sub-main floor areas. A "furnace room" excavation with dirt walls (dirt and/or concrete floor) should not be picked up as a basement, for any quality of residential or commercial structure.

BATHS: HALF

Partial bathroom utility limited to two fixtures; the lump sum cost per bath is modified by the Quality Grade modifier and is depreciated with the building.

BATHS: FULL

The count of 3 fixture baths, otherwise known as a "Full Bath". The lump sum cost per bath is modified by the Quality Grade modifier and is depreciated with the building.

BATHS: EXTRA FIXTURE

The count of "extra" fixtures, to include hot water heater, kitchen or bathroom sink, etc. The lump sum cost per fixture contribution to building RCN will be modified by the Quality Grade modifier and is depreciated with the building.

BEDROOM COUNT

The count of bedrooms. This data does not affect the value produced by the Cost Approach. However, "bedroom count" is a potential adjustment item in the Market Approach, so this data needs to be accurately and zealously collected.

BIG BOX / DISCOUNT DEPARTMENT STORE

This is a commercial building STRUCTURE and USE which is large retail space with high ceilings and minimal interior finish. This code has an influence on the Cost Approach, and the Income Approach. Also, please refer to the discussion of Net Operating Income below.

BUILDING

A building is a residential or commercial structure that has living (heated) area. While some Other Buildings and Yard Items (such as detached garages) are certainly "buildings" to the layman, they are not "buildings" to the CAMA system. The market simply does not treat these structures the same as it does "normal" structures built to enclose living or working space.

BUILDING ADDITION

LIVING (or BASE) AREA, or NON-LIVING AREA A building must have one main living (heated) area. Most structures also have attached amenities as porches, decks, and/or garages or in the commercial world, canopies. Such amenities must be defined as building additions if the appraiser's intention is to depreciate the porch, deck, garage, or canopy with the building.

BUSINESS RULE

A Business Rule defines or constrains one aspect of our business, appraisal, and is intended to assert structure on, control over, or otherwise influence how we appraise real estate. Business rules must be well indexed in documentation and will have built-in Quality Control measures.

Business rules often focus on control issues. For example: "Split-level structures must be listed as being a one-story structure with a 'concrete block' basement.... "

Business rules may pertain to value calculations. For example: All parcels in Neighborhood LG401 will be appraised "per Lot."

Some Business rules focus on policy. For example: "Mobile Homes that are real estate will be flagged in two separate fields: (1) Property Class (for reporting purposes); (2) Building Style.

CALP

This is an acronym for Computer Assisted Land Pricing (module).

CAMA

This is an acronym for Computer Assisted Mass Appraisal (system).

COMAPT

The name of the IASWORLD table that stores an inventory of rental apartments for the Income Approach. COMAPT stands for Commercial Apartment (inventory).

COMDAT
The name of the IASWORLD table that holds commercial building records. COMDAT stands for Commercial Data. Also, see COMFEAT, COMINTEXT.

COMFEAT
The name of the IASWORLD table that holds commercial building feature records. COMFEAT stands for Commercial Features.

COMINTEXT
The name of the IASWORLD table that stores commercial building section records and other, similar building attributes. COMINTEXT stands for Commercial Interior/Exterior.

COMMUNITY RETAIL CENTER
This is a commercial building STRUCTURE and USE which is for retail space that has occupied anchor store space designed into the center. This code has an influence on the Cost Approach, and the Income Approach. Also, please refer to the discussion of Net Operating Income.

COMP
In the Market Approach, an appraiser must find parcels comparable to the "subject" parcel that have sold. These comparable sales are known as COMPs.

COMUSE
The name of the IASWORLD table that stores "use" information about a commercial parcel (for the Income Approach). COMUSE stands for Commercial Use.

CONDITION, DESIRABILITY and UTILITY (CDU)
This is the appraiser's notation of the condition of the residential or commercial building, followed by the building's desirability and utility to the market. It, together with Year Built or Effective Year Built, will govern the amount of Physical Depreciation applied to a building. Condition, like Quality Grade, should have a County-wide definition which does not change for:

1. Quality (of Construction) - As structures or different Quality Grades are viewed, one should not think "Well... the CDU is average for a building of this quality.";
2. Effective Age - As structures of different effective ages are viewed one should not think "Well... the CDU is average for a building of this age.";
3. Location - View structures in different neighborhoods (locations) using the same Countywide definition of Condition, Desirability, and Utility.

Some people have an unfortunate tendency to confuse Condition and Quality. The quality of construction is set during original construction or during a major remodeling effort (rebuilt from the bone structure out). Quality (of original construction) does not change because a structure is in poor Condition, even if the structure is literally falling down.

COST APPROACH
The Cost Approach is one of three methods appraisers may use to estimate value (not every parcel is a candidate suitable to apply all three methods). Also see MARKET and INCOME. As a staff

appraiser describes a building to the county's CAMA system, the Cost module automatically generates an estimate of value via the Cost Approach.

The CAMA system estimates the value of a given parcel's improvements via the Cost Approach by calculating the Replacement Cost New value associated with every descriptive attribute for each building or OBY item. The CAMA system then "looks up" and applies the depreciation of each improvement to calculate its Replacement Cost New Less Depreciation. The CAMA system then adds land value previously calculated in the CALP module.

CULTURAL FACILITY
This is a commercial building STRUCTURE and USE which is for museum-like space, almost but not quite institutional in nature. This code has an influence on the Cost Approach, and the Income Approach. Also, please refer to the discussion of Net Operating Income.

DEPRECIATION
In the Cost Approach, an appraiser may observe up to three kinds of depreciation to measure a building's loss in value (from Replacement Cost New). They are:

1. Physical Deterioration - Bone structure aging, condition of the structure, and the typical effective age in the given neighborhood are components of this type of depreciation;
2. Functional Obsolescence (FO) - Functional problems within the structure, such as dysfunctional floor plans. Appraisers measure and enter FO as a percentage for this type of depreciation;
3. Locational (or Economic) Obsolescence (LO or EO) - Locational problems, defined as problems that arise outside of the parcel's borders such as an adjacent junk yard or major road. Appraisers measure and enter LO (EO) as a percentage for this type of depreciation.

The appraisal software "looks up" the estimate of physical building depreciation from appraiser's entries in the Year Built or Effective Year Built and Condition (CDU) fields.
It applies the percentage found to the Replacement Cost New of all "building" and its "additions".

Functional or Locational (Economic) Obsolescence must be manually entered from an appraiser's observation of the property in question. The appraisal software then uses the entered percentage to "add to" the amount of Physical Depreciation for both residential and commercial buildings.

DRY STORAGE
This is a commercial building USE which is for space that was not designed for warehousing purposes. Except for Roofed Rack type of storage space, this USE code is intended to describe space who’s only remaining use, as long as the roof continues to keep water out, is for storage. This code has an influence on the Cost Approach, and the Income Approach.

DWELDAT
The name of the IASWORLD table that holds residential building records. DWELDAT stands for Dwelling Data.

ECONOMIC OBSOLESCENCE (Residential and Commercial)
Locational problems, defined as problems that arise outside of the parcel's borders such as an adjacent junk yard, are measured and entered into the appraisal software as a percentage for this type of depreciation. (See the discussion under DEPRECIATION.)

Economic Obsolescence (EO) is typically measured by capitalizing the rent loss arising from the problem. Apply EO evenly across all affected parcels as a percentage. Be roughly aware of the dollar amount of change in the appraised value to help gain the correct percentage. Taper the percentage used as the distance from the source of the problem increases.

Business Rule: ALWAYS know the dollar change in value arising from applying EO to a building, being certain the percentage used addresses the problem sufficiently but does not overstate the cure, and ALWAYS explain any applied EO thoroughly in notes.
Also, see PHYSICAL CURABLE DETERIORATION.

EFFECTIVE YEAR BUILT
The Year Built of a building is one of two major factors in the amount of physical depreciation for the building. The Effective Year Built entry will override the building's "actual year built". In a building's early years effective age and actual age are roughly synonymous. As the building ages, Effective Age becomes more and more relative to where the parcel's neighborhood is in its life cycle, and somewhat relative to the condition of the structure. Together, the neighborhood's life cycle position and building condition are always related to the effective age estimate (as inferred from Year Built or Effective Year Built).

To clarify the above paragraph's statement, ask the age-old appraiser's question: "How can I say this building has an effective age of "fill in the blank" when Life New is 50 years and the building is already 150 years old?" The answer lies in the following "formula" (also see the definitions for LIFE NEW and REMAINING ECONOMIC LIFE).

Life New = Effective Age + Remaining Economic Life

This formula must always contain a true statement. Life New is the stable, unchanging "constant" value in the formula while Effective Age and Remaining Economic Life are mathematically “complementary” numbers. That is, Life New always stays the same while Effective Age must change if Remaining Economic Life changes, and vice versa.

For example, as a building ages, it becomes more and more difficult to estimate its Effective Age. The decision should then revolve about the Remaining Economic Life of the structure. If given:

> Life New = 50 Years for a given type of residential (or commercial) building
> Remaining Economic Life = 20 Years
> Then the formula (and logic) demands:
> Life New = Effective Age + Remaining Economic Life.
> 50 Years = Effective Age + 20 Years (Remaining Economic Life)
> 50 Years = 30 Years (Effective Age) + 20 Years (Remaining Economic Life) Effective Age = 30 Years

The Life New estimate of 50 years is the same for all similar buildings in the county and does not change from neighborhood to neighborhood. The appraiser's estimate of 20 years for Remaining Economic Life is based, in part, upon observation of the neighborhood's place in its life cycle and the surrounding land use patterns. It is also based, in part, upon observation of the condition of the house in question relative to the condition of other buildings in the neighborhood.

END USER
End user is a non-technical term employed by the staff of an Information Technology department to identify those they serve. The typical end user is an expert in their field of endeavor. It is the end user's job to know what software tools are needed, and how to use them to accomplish the job at hand. It is, therefore, the job of the Information Technology department to create and/or otherwise obtain and maintain the tools and required infrastructure at peak operational efficiency.

ENTER
The name of the IASWORLD table that stores records relating to any on-site visits to a given parcel by an appraiser. ENTER stands for Entrance data.

F-TEST
The F-statistic is a ratio of that part of the sum of the squares accounted for by the regression equation to the residual (that part of the sum of the squares not accounted for by the regression equation). We can consider our "fit" to be better as the F-statistic increases. The level of certainty, a concept to be here accepted as a "given", increases to 98% as the F-statistic increases to 8.0. The partial F-statistic has essentially the same significance, except in this case it tries to assess the significance of a single term in the model rather than all the terms taken together.

FEE APPRAISER
A FEE appraiser appraises to solve a problem for the owner, or prospective owner, such as financing - one parcel at a time.
One major difference between the MASS appraiser and the FEE appraiser is the amount of time available to appraise each individual parcel. A fee appraiser will spend as much time as required to understand and appraise a highly unique property while the mass appraiser must, of necessity, spend far less time appraising the same unique property.
A second major difference arises from the fact that a FEE appraiser does not usually have to consider any appraisal work done on surrounding parcels when estimating the value of a parcel. On the other hand, equity between appraisals is critical for the MASS appraiser.

FEE SIMPLE

To appraise a parcel for fee simple market value is to assume that all rights of real ownership are intact and vested in the owner-of-record (except as permanently limited by powers of the state).

FENESTRATION

The arrangement, proportioning, and design of any openings in a building's envelope (windows, doors, skylights, soffits, archways, etc.) and accessories, or supplementary elements to a building. By our definition "fenestration" includes, but is not limited to, such accessories or supplementary building elements as shutters, cornices, pilasters, lace-work, moldings, and built-in cabinets.

FIREPLACES

The count of fireboxes (openings) and chimneys (stacks). A prefabricated fireplace is a metal opening, and, in most cases, a metal flue inserted into a wooden stack (a vent-free gas unit may not have a stack). A masonry stack is a normal fireplace. This field is not a required entry.

Business Rule: Record the accurate count of openings and/or stacks for fireplaces (masonry or prefab). If the fireplace is closed off determine the reason and enter sufficient Functional Obsolescence to account for the cost to return the fireplace to functional service. Do not write the fireplace 's contribution completely off via FO unless the stack must be replaced from the ground up. Always explain any applied Functional Obsolescence thoroughly in notes.

FLEX SPACE

This is a commercial building USE which is designed to be flexible (the tenant can use the space in many different ways including but not limited to retail, light manufacturing, and office uses). This code has an influence on the Cost Approach and the Income Approach. Also, please refer to the discussion of Net Operating Income below.

FUNCTIONAL OBSOLESCENCE (FO)

Appraisers measure functional problems within a structure and enter an amount of Functional Obsolescence (as a percentage) to address the issue. Functional Obsolescence (FO) includes such problems as dysfunctional floor plans for residential structures and ceiling height too low for forklifts to be used in warehouse structures.

Because we use the appraisal concept of Replacement Cost New (versus Reproduction Cost New), most items of depreciation that are normally defined as Incurable Functional Obsolescence are not in the building's Replacement Cost New. The appraiser must always be aware of the dollar amount of change in the appraised value to apply gain the correct percentage and fully document the reasons for the application of Functional Obsolescence.

Business Rule: ALWAYS know the dollar change in value arising from applying FO to a building, being certain the percentage used addresses the problem sufficiently but does not overstate the cure, and ALWAYS explain any applied FO thoroughly in notes.

GFLA

Ground Floor Living Area

HIGHEST AND BEST USE (Residential and Commercial/Industrial)
That reasonably probable and legal use of vacant land, or improved property, which is physically possible, financially feasible, and which results in the highest possible land value.

In most, but not all, situations the appraisal staff will assume that the present use of a parcel will represent its highest and best use. For example, assume that an owner of a residential structure that is zoned for commercial use and that is surrounded by commercial development continues to live in that residence. The present use of such a parcel will not be assumed to be residential use. In this situation, the land will be appraised, as though vacant, for its highest and best use as a commercial site. The residential structure will clearly represent a mis-improvement of the land and will be valued according to its negligible contribution to the value of the whole property. see MISIMPROVEMENT

Business Rule: The Highest and Best Use of vacant land is dictated by the permanent zoning (or with the existence of temporary zoning-in-force, by the most likely permanent zoning) in force on the Effective Date of Appraisal. A property may be considered as under temporary zoning if the use of the land is tightly restricted to only one named use and owner is required to go through the entire zoning process to put the parcel to any other use. The appraiser will consider the cost of re-zoning the property to its most likely permanent zoning-in-force and the effect of the passage of time between January 1, 2019 and the time the likely date of such a change.

IAS
The appraisal and administrative software used by the Tax Administrator.

INCOME APPROACH
The Income Approach is one of three methods appraisers may use to estimate value (not every parcel is a candidate suitable for using all three methods).

The Income Approach estimates the total value of a given parcel by modeling the decisions of the typical investor in a given type of property. The Income module calculates the Net Operating Income associated with every part of the parcel’s income generating capability.

The CAMA system then applies a suitable Capitalization Rate to the Net Income via formula:

Value = Net Operating Income / Cap Rate.

This is the same formula used to calculate the total amount of money in a bank savings account if one knows the dollar amount of interest and the interest rate paid by the bank (Principal = Interest Dollars / Interest Rate).
The Income Approach, therefore, is a Feasibility Study which guides investor decision making. It advises an investor as to the value to be paid no more than in order to meet the investment goals.

The Income module will divide each parcel's estimate of total value into Land Value, Building Value, and OBY Value as follows:

Total Value (via the Income Approach)
less Land Value (via the CALP module)
less <u>OBY Value (via the Cost module)</u>
Building Value (via the Income Approach)

Business Rule: Residual Land is that part of a parcel's land area that is not currently engaged in generating income for the owner. The appraiser must identify all such land and use the appropriate Land Code in the CALP module to describe such "inactive " land.

INTERFACE
"... to interact or coordinate harmoniously..." Webster's Collegiate Dictionary
As used in these Appendices, "interface" means a collection of computer screens that enable the end user to view, understand, and maintain data in IAS (the public will have inquiry-only access).

INTERIM USE
The real estate market may not be ready to support an expensive-to-develop, intensive, highest and best use for vacant acreage in the path of population growth that is otherwise near the border of more intensive uses. Rather than allow the property to sit idle, a knowledgeable owner will seek an interim use, one that will produce sufficient income to pay the parcel's ad valorem tax bill, thus eliminating a major holding cost. The best interim uses for such vacant land will require minimal investment in buildings, etc. (which will have to be razed when the market is ready for change).

Business Rule: Appraise land in interim use for highest and best use; recognize a holding period.

KNEE WALL
Short, vertical finished wall in a bonus room or in finished attic space. Knee walls are usually between three and six feet high. Measure the square footage of Usable Space for all finished attics and bonus rooms. Never measure Usable Space as in contact with a Knee Wall that is less than five feet high. Always measure from an estimated point(s) where the finished ceiling is at least five feet above the floor.

LAND
The name of the IASWORLD table that stores Land Line data for the CALP module.

LAND LINE
The computer assisted land pricing (CALP) module of the CAMA system allows the appraiser to use multiple "descriptions" to describe the land of any given parcel. Such a description is called a Land Line. For example, the typical house and its lot only require one Land Line to fully describe the lot. Alternately, a farm may require twenty Land Lines to fully describe the row crop areas, the "high" wooded areas, the pasture lands, and the swampy areas.

LIFE NEW
The day a building is completed is the day it begins to age. Like our bodies, the building will reach the end of its life in an unknown number of years. Unlike our bodies, a building is said to have an economic life. That is, a building must continually justify its existence to an aware and

knowledgeable owner or it will be removed from the land - regardless of age or condition. If we think for a moment, we can all remember buildings in good condition that have been razed or moved to prepare the land for a new use. Conversely, we all know of buildings that have "lived" for centuries.

Since an appraiser's crystal ball is increasingly fuzzy into the future, the LIFE NEW of any building cannot logically be projected beyond a few score years. YES, with normal maintenance any given building will physically last longer - but at the outset one cannot predict the new building's neighborhood's life cycle or changes in general land use patterns for the long term.

LOV
List of Values (a list of valid codes for an edited field).

MARKET: REAL ESTATE
Unlike value in the stock market, market value for a given parcel in the real estate market cannot be observed directly. Parcels that have sold are used to infer the true but unknown market value for each parcel, whether it sold or not.

Sales prices, therefore, are used as a substitute for market value in sales ratio studies and other analytical work. However, "one sale does not make a market". When appraising or appealing individual properties any subject sale (the sale of any appraised parcel) must be one of at least three sales used to analyze the property. This will help clarify whether the purchaser in a subject sale paid too much or too little (got a good deal).

MARKET (Sales Comparison) APPROACH
The Market Approach is one of three methods appraisers may use to estimate value (not every parcel is a candidate suitable for using all three methods). Also, see COST and INCOME.
The Market Approach estimates the total value of a given parcel by analyzing sales of similar property and adjusting for differences between the sale and the subject. Each parcel in the county is a "subject" for the Market Approach. Because the sale price of the comparable property is known while the market value of the subject is not known (until the conclusion of the analysis), the appraiser always adjusts the sale price to the subject parcel and never vice versa.

If an attribute of the sale is superior to the subject in some way, a downward adjustment of the sale price is appropriate to "equalize" sale and subject. Likewise, if an attribute of the sale is inferior to the subject, an upward adjustment of the sale price is appropriate. For example, assume the sale of a residence has a fireplace while the subject has none. The appraiser must always reduce the sale price to account for the contribution of that fireplace.

Of course, if an attribute of the sale is equal to that of the subject, no adjustment is needed.

The Market module will divide each parcel's estimate of total value into Land Value, Building Value, and OBY Value as follows:

Total Value (via the Market Approach)
less Land Value (via the CALP module)

less OBY Value (via the Cost module)
Building Value (via the Market Approach)

MARKET VALUE
N.C.G.S. 105-283: "All property ... shall as far as practicable be appraised or valued at its true value in money ... the price estimated in terms of money at which the property would change hands between a willing and financially able buyer and a willing seller, neither being under any compulsion to buy or to sell and both having reasonable knowledge of all the uses to which the property is adapted and for which it is capable of being used..."

Specifically, to address the requirement to appraise all real property equitably, our goal is to appraise all properties in Pender County for fee simple market value.

MASS APPRAISER
A mass appraiser is charged with the responsibility to appraise all parcels in a jurisdiction, usually for ad-valorem taxation purposes. One major difference between the MASS appraiser and the FEE appraiser is the amount of time available to appraise each individual parcel.

A second major difference arises from the fact that equity between appraisals is critical for the MASS appraiser. A FEE appraiser does not usually have to consider any previous appraisal work when estimating the value of a given parcel.

MILLAGE RATE
The root of the word Millage is the Latin word Milia (thousand). Please see Tax Rate.

MISIMPROVEMENT
A structure that can be clearly demonstrated to be in conflict with the Highest and Best Use of the land. An example is a house on land zoned for "high density" commercial use (and located in a neighborhood where such land is scarce).

Business Rule: The Highest and Best Use of vacant land is dictated by the permanent zoning (or with the existence of temporary zoning-in-force, by the most likely permanent zoning) in force on the Effective Date of Appraisal. A property may be considered as under temporary zoning if the use of the land is tightly restricted to only one named use and owner is required to go through the entire re-zoning process to put the parcel to any other use.

Land rates in the neighborhood are best estimated by analyzing sales of similarly zoned vacant land in the same neighborhood, or a highly similar neighborhood.

Business Rule: For mass appraisal purposes, the present use of improved land is considered to be the Highest and Best Use, except where the present use is in conflict with permanent zoning in force on the parcel.

A clear example is a residential structure, used as a residence, on land zoned for commercial use and in an area of predominantly commercial uses. Such non-conforming uses are ,
generally permitted under zoning regulations and where not permitted, the use is

"grandfathered”. However, continued use as a residence is clearly not the Highest and Best Use of the property.

Appraise the land of such property for its Highest and Best Use as though vacant. Appraise the structure according to its contribution but considering its nonconforming use (which usually means applying significant Locational Obsolescence). Always leave clear notes regarding your reasoning in the file.

Business Rule: In cases where the Income Approach clearly demonstrates that a commercial or industrial building(s) is a mis-improvement to the land, the existence of the building(s) must be recognized by placing a sound value (a residual value) on the individual building.

MIXED COMMERCIAL / RESIDENTIAL
This is a commercial building STRUCTURE which is for a two to four story building that houses retail or office space on the lower floor(s) and has residential space on the upper floor(s). The preponderance of any income stream arises from the building's commercial uses. This code has an influence on the Cost Approach, and the Income Approach. Also, please refer to the discussion of Net Operating Income.

MIXED RESIDENTIAL / COMMERCIAL
This is a commercial building STRUCTURE which is for a five or more-story building that houses retail or office space on the lower floor(s) and has residential space on the upper floor(s). The preponderance of any income stream arises from the building's residential uses. This code has an influence on the Cost Approach, and the Income Approach. Also, please refer to the discussion of Net Operating Income.

MODEL
Appraisal management will determine what the county's most common types of residential and commercial/industrial structure are. As management further researches the most common characteristics for each type of structure and estimates "cost rates" for each type, it becomes a model for the appraisal software to use in appraising all structures via the Cost Approach.
Likewise, the Market Approach and the Income Approach both work by a process of modeling the market. A "model" is NOT a builder's "model home " for a given subdivision.

MULTIPLE REGRESSION
(Mathematical or statistical) "regression in which one variable is estimated by the use of more than one other variable." Webster's Collegiate Dictionary

Multiple regression is a tool of the CAMA module used to indicate market value via the Market Approach where sufficient sales exist.

NEIGHBORHOOD
"A portion of a larger community, or an entire community, in which there is a homogeneous grouping of inhabitants, buildings, or business enterprises. Inhabitants of a neighborhood usually have a more than casual community of interest and a similarity of economic level or cultural background. Neighborhood boundaries may consist of well-defined natural, or man-made barriers,

or they may be more or less well defined by a distinct change in land use or in the character of the inhabitants. "
Real Estate Appraisal Terminology, The American Institute of Real Estate Appraisers, The Society of Real Estate Appraisers, Boyce

NEIGHBORHOOD: LIFE CYCLE
The life of a neighborhood, usually involving the following stages, growing only in intensity and duration: (l) Development and Growth; (2) Stability; and (3) Transition and Decline. "This pattern may be followed by renewal and rehabilitation, at which point the cycle is repeated."
Real Estate Appraisal Terminology, The American Institute of Real Estate Appraisers, The Society of Real Estate Appraisers, Boyce

NEIGHBORHOOD RETAIL CENTER
This is a commercial building STRUCTURE and USE which is for retail space with anchor store space designed into the center, BUT the center has lost its anchor store(s). The anchor space is unoccupied or has been converted to secondary use. This code has an influence on the Cost Approach, and the Income Approach. Also, please refer to the discussion of Net Operating Income below.

NET OPERATING NCOME (NOI)
An investor in commercial real estate is constantly judging the quality, quantity, and duration of the net income "stream" a given property is capable of producing. The Investment Rating field on the Commercial Data (COMDAT) screen is where the appraiser recognizes the quality, quantity, and duration of the new income stream.

NON-CONFORMING USE
A 'grandfathered' or other use of real property which is not permitted under current zoning regulations or under a special use permit. See MISIMPROVEMENT.

NUMBER OF STORIES (Commercial only)
For commercial buildings, the appraiser will enter the Story Height for each section of BASE area in full story increments. There is no provision for entry of fractional Story Height (as in residential buildings).

OBY
The name of the IASWORLD table that stores OBY data, 0BY is an acronym that stands for Other Buildings and Yard Items.

OFF-LINE
This technical data processing term is used to denote changes to computer files that occur in a batch. A given program will make the changes while the computer is off-line. This is normal night-time processing and is abnormal for day-time processing.

ON-LINE
This technical data processing term is used to denote a data entry person sitting at a terminal making changes to computer files.

OTHER BUILDINGS and YARD ITEMS (OBY)
This term describes such "yard items" as detached garages, swimming pools, and the like. These parcel attributes are entered, costed and depreciated separately from "buildings". OBY values are added to the estimate of Replacement Cost New Less Depreciation of all buildings on the parcel.

PP
Personal Property.

PARCEL
One individually appraised unit of real estate. A parcel may be a vacant lot, a lot with a house, the store, a viable farm, or a 700-acre tract of land awaiting development.

PARCEL ID (PID)
A unique number which identifies a parcel, used by the appraisal staff and much of the public (although it has little meaning in defining the location of a parcel).

In Pender County, the GIS Department maintains all real estate maps, and Parcel ID numbers. GIS Department does not fall under Tax Office.

PARDAT
The name of the IASWORLD table that stores parcel-level data. PARDAT is an acronym that stands for Parcel Data.

PARTIAL CORRELATION
The partial correlation is a measure of how closely the value of the independent variable or factor (such as the number of full baths), is related to the dependent variable (usually the sales price).

The dependent variable is adjusted so that all of the other factors in the model are "taken out" of the values in order for us to have a measure of how closely this particular variable is related to the remaining dependent variable. Mathematically, its maximum value is one.

PERCENT COMPLETE
Goal One of the Tax Administrator's Office is to: "Review the appraised value of all real estate in the county (roughly 48,000 parcels) as of January 1, each year for fee simple market value..."
Many structures whose construction begins in the Fall will be incomplete on January 1, yet the labor and materials thus assembled will contribute to the value of the parcel. This building-level field gives the reviewing appraiser a place to record their estimate of "percent complete" on January 1. The system will apply the percentage to the building value for the year in question.

PERMIT
The name of the IASWORLD table that stores building permit data.

PHYSICAL DEPRECIATION
Loss in value due to physical deterioration of the structure. There are two classes of Physical Deterioration:

1. Curable; and
2. Incurable.

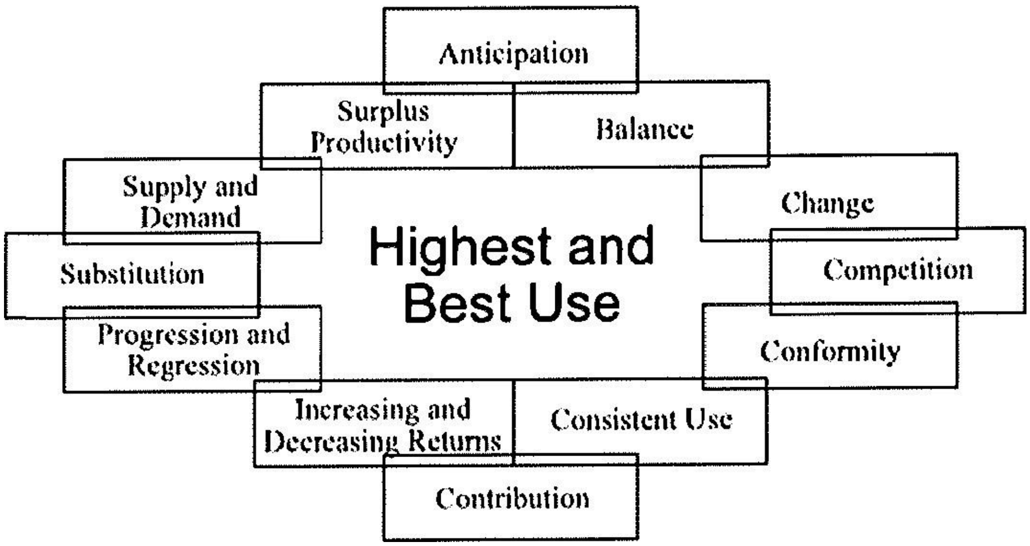
Depreciation schedules for Physical Incurable Depreciation, which reflect the real estate market's estimate loss in value of the bone structure of the building, are in Appendix 4. These depreciation schedules are preliminary and may change as appraisal management calibrates the rate ranges in Appendix 4 to the market in Pender County. The appraiser must calculate and enter Physical Curable Depreciation as an additional percentage in the Functional Obsolescence field and must list each item of Physical Curable Depreciation together with the item's cost-to-cure directly into the NOTE fields.

PLUMBING FIXTURE
A plumbing fixture is an opening in a wall which allows an appliance access to a water supply line and water or sewer drain line. "Fixture" includes the appliance that is permanently attached to the building (a clothing washing machine and its connections do not qualify as a fixture).

PRINCIPLES OF VALUE

The following principles, which have evolved from economic doctrine, form the foundation for the concepts of value and highest and best use. These principles rarely, if ever, can be considered in isolation. They should be perceived as interrelated, for they complement and accompany one another (see Figure). Also, highest and best use should be viewed not as an economic principle or an isolated concept, but as the interrelationship among the basic appraisal principles.

The above paragraph, graphic below, and all following "principle definitions" are quoted from Properly Assessment Valuation, International Association of Assessing Officers, 1966



PRINCIPLE OF ANTICIPATION

Value is the present worth of all the anticipated future benefits to be derived from a property. The benefits, in the form of an income stream or amenities, are those benefits anticipated by the market. The assessor should not allow personal opinion to influence the estimation of anticipated future benefits. Prior sales and prior income streams are important only when they parallel the current actions of buyers, thus providing an indication of what may be expected in the future. The Principle of Anticipation is related to the Principle of Change, which can sometimes make the prediction of future benefits difficult.

PRINCIPLE OF BALANCE

The Principle of Balance has one meaning when applied to an individual property, and another when applied to neighborhoods. When applied to an individual property, the principle states that maximum market value is reached when the four agents of production attain a state of equilibrium. The four agents of production are:

- land
- labor
- capital
- management (coordination).

Stated another way, balance means that the highest market value will result when the size and type of improvements are proportional to each other as well as to the land. For example, a three-car garage is out of balance with a two-bedroom house.

When applied to a neighborhood, the Principle of Balance indicates that maximum market value is reached when the uses of land are perfectly complementary. For example, a single family residential neighborhood requires commercial facilities such as grocery stores, gasoline stations, and drugstores. The neighborhood also needs facilities such as churches, schools, and recreational facilities. The neighborhood and individual properties achieve maximum market value when these complementary uses are in balance.

Balance can also be related to the Principle of Increasing and Decreasing Returns. When the four agents of production are in equilibrium (balance), the maximum market value is achieved. Investing more (or withdrawing) any of the agents of production will result in decreasing returns.

PRINCIPLE OF CHANGE

This principle states that market value is never constant because environmental (physical), economic, social, and governmental forces are at work to change the property and its environment. When these forces are in balance, the market achieves a temporary state of rest called equilibrium. However, this state of rest does not last because aging and natural events, such as drought or flooding, change property over time. Thus, the estimate of market value is valid only on the day it is made. The Principle of Change is related to the Principle of Anticipation and can affect the prediction of future benefits.

PRINCIPLE OF COMPETITION

Competition is created by the potential for profits, which attract new sellers and buyers to a market. Competition among sellers may lead to an oversupply, which reduces prices and profits. (Profits breed competition, excess profits breed ruinous competition.)

Competition among buyers may lead to shortages, which increase prices and profits to sellers. Applied to property, competition means that an excess of one type of facility will decrease the value of all such facilities. A neighborhood can support only so many bowling alleys, department stores, gas stations, and shopping centers. Excess competition destroys balance.

PRINCIPLE OF CONFORMITY

The value of property depends, to some extent, on its relation to its surroundings. The Principle of Conformity states that maximum market value is reached when there is reasonable similarity among the improvements in a neighborhood, and when the residents have similar ages, incomes, education, attitudes, and so on. The Principle of Conformity works in conjunction with the Principles of Progression and Regression.

PRINCIPLE OF CONSISTENT USE

The Principle of Consistent Use states that the property must be valued with a single use for the entire property. It is improper to value a property on the basis of one use for the land and another use for the improvements. This principle is especially important to remember when valuing a property in transition from one use to another. For example, a residence situated on a parcel that is zoned and surrounded by commercial property may have a remaining physical life. However, its economic life may have already ended. In this case, the improvements may have negative value, namely, the cost of demolition.

PRINCIPLE OF CONTRIBUTION

The Principle of Contribution states that the value of a component of property depends upon its contribution to the whole. In other words, the cost of the component does not necessarily equal the value the component adds to the property. For example, a residential homeowner spends $7,500 to erect a garage. However, the market value is increased by only $5,000. In this case, $5,000 is the value contribution to the garage.

In the case of income-producing properties, the value of a component can be measured by the amount it contributes to net operating income, because net operating income can be capitalized into value. For example, the owner of a small retail store finds that by spending $6,000 for an air-conditioning unit, annual gross income from rents can be increased by $1,800. Additional operating expense due to the air-conditioning unit will be only $1,200, including amortizing the investment. Thus, installing this unit will add value in excess of cost.

Another situation that occurs, especially in areas experiencing transition, is that the existing improvement does not provide a proper balance for the total property, because the current use does not fully utilize the land. However, this interim use may continue until it is economically feasible for someone to convert the property to a use that does fully utilize the land. Thus, the assessor must estimate the correct value contributed by the improvements to the property as a whole.

The Principle of Contribution is the basis for the adjustment process in the sales comparison approach to value; for determining whether physical deterioration and functional obsolescence are curable or incurable; and for justifying remodeling and modernization. The Principle of Contribution is related to the Principles of Balance, Increasing and Decreasing Returns, and Surplus Productivity, as shown in the examples provided.

PRINCIPLE OF INCREASING AND DECREASING RETURNS

The Principle of Increasing and Decreasing Returns states that when successive increments of one agent of production are added to fixed amounts of the other agents, future net benefits (income or amenities) will increase up to a certain point (the point of decreasing returns) after which successive increments will decrease future net benefits. For example, assume an investor is deciding how much capital to invest in constructing a commercial building. The investor's analysis provides the following returns on different amounts of investment:

- a $500,000 building will earn a 1.4 percent return;
- a $600,000 building will earn a 5.5 percent return;
- a $700,000 building will earn an 8.0 percent return;
- an $800,000 building will earn a 5.8 percent return;
- a $900,000 building will earn a 1.2 percent return.

Additional investment of capital produces increasing returns up to the point of $700,000 in this illustration. Beyond this point, the return on additional capital diminishes. The Principle of Increasing and Decreasing Returns is related to the Principles of Balance, Contribution, and Surplus Productivity.

PRINCIPLES OF PROGRESSION AND REGRESSION
The Principle of Progression states that the value of a lower-priced property is increased by association with better properties of the same type. For example, a $90,000 house among $140,000 homes could probably bring a price higher than $90,000 in the market. The Principle of Regression states that the value of a better-quality property is decreased by association with lower quality properties in the same area. Thus, when a $120,000 house is located in an area where the typical home is about $70,000, the market value of the former will tend to fall. The $120,000 house in this example is an over-improvement for the neighborhood. The Principles of Progression and Regression are related to the Principle of Conformity.

PRINCIPLE OF SUBSTITUTION
A property's market value tends to be set by the cost of acquiring an equally desirable and valuable substitute property, assuming that no costly delay is encountered in making the substitution. This principle underlies each of the three approaches to value: cost, sales comparison, and income.

PRINCIPLE OF SUPPLY AND DEMAND
The theory of supply and demand, as applied to property appraisal, holds that the price of a property varies directly with demand and inversely with supply. In the market, sellers can control supply and price to influence demand. By failing to produce enough of a product to meet demand, sellers can raise prices. By raising prices, sellers can decrease demand. Buyers can influence price and supply by staying out of the market until prices decrease, which often happens when supply increases in relation to demand. Many forces, environmental (physical), economic, social, and governmental, influence the behavior of buyers and sellers.
"... Supply is a function of the four agents of production: land, labor, capital, and management. More goods are produced as these agents become more available or decrease in price. The appraisal Principles of Surplus Productivity and Increasing and Decreasing Returns, are defined in terms of these four agents of production."

PRINCIPLE OF SURPLUS PRODUCTIVITY

Surplus productivity is the net income remaining after the costs of labor, management, and capital (in that order) have been satisfied. The surplus productivity is the income earned by the land. The agents of production must be satisfied in the following order: labor, management, capital and land.

As a result, land value tends to be set by the cost of labor, management, and capital. The Principle of Surplus Productivity is related to the Principles of Balance, Contribution, and Increasing and Decreasing Returns.

PROPERTY RECORD CARD(S)

Any *Property Record Card* is a "report" that gathers all pertinent appraisal facts and other information about a parcel and prints it on paper, or other medium.

QUALITY GRADE

Quality Grade is the appraiser's notation of the quality of original materials and workmanship in a structure. Care should be taken to avoid confusion between ORIGINAL QUALITY and OBSERVED CONDITION and LOCATION.

By strict appraisal definition the above three terms are not interrelated. The real estate market interrelates them, but when listing or reviewing parcels the appraiser must not be confused. The following box illustrates the separateness of these ideas and definitions.

Quality Grade is Quality Grade
Location is Location (Neighborhood is Neighborhood)
Effective Year Built is Relative to NBHD and Condition
Condition is Condition

Quality has a county-wide definition because the User Control Records are a county-wide appraisal control. Because we account for locational differences by neighborhood assignment, the appraiser should always list building Quality Grade by county-wide definition.

The Effective Year Built of a younger structure is correctly considered to be relative to its chronological age. For older structures, Effective Year Built (Age) is somewhat relative to its neighborhood's place in its life cycle and to the condition of the structure. Accordingly, the appraiser defines the Effective Year Built for his or her subject structure with an eye on its neighborhood (location) while ignoring all other locations, and on its Condition.

Non-professionals have an unfortunate tendency to confuse Condition and Quality. The quality of original construction is set during original construction or during a major remodeling effort (rebuilt from the bone structure out). Quality Grade does not change because a structure is in poor Condition, even if the structure is literally falling down.

R-SQUARED

The R-squared statistic is a ratio related to how well the data (sale prices) are fit by the regression equation. It is equal to the complement of the residual sum of squares divided by the total sum of squares corrected for the mean, where the total sum of squares is the sum of the squares of the sales prices minus their mean value, and the residual sum of squares is the sum of the squares of the differences between the actual sales prices and those predicted by the regression equation. It is apparent that the closer R squared is to 1, the better the "fit" of the data.

RCN

An appraisal acronym which stands for either:

1. Replacement Cost New; or
2. Reproduction Cost New.

Pender County incorporates the Replacement Cost New concept into its version of the Cost Approach. see REPLACEMENT COST NEW.

RCNLD

An appraisal acronym which stands for either:

1. Replacement Cost New Less Depreciation; or
2. Reproduction Cost New Less Depreciation.

Pender County appraisal staff devised their own depreciation tables from market information within the County.

RECREATIONAL CENTER

This is a commercial building USE which is for recreational space including but not limited to health club, bowling alley, and skating. This code has an influence on the Cost Approach, and the Income Approach. Also, please refer to the discussion of Net Operating Income.

REMAINING ECONOMIC LIFE

The day a building is completed is the day it begins to age. Like our bodies the building will reach the end of its life in an unknown number of years. Unlike our bodies, a building has an economic life. The building must continually justify its existence, or it will be removed from the land - regardless of its physical age or condition.

The Remaining Economic Life (REL) is the appraiser's estimate of the amount of time the building will continue to justify its existence. Remaining Economic Life has a converse relationship with Effective Age. Therefore, as a building ages, Remaining Economic Life becomes easier to estimate and the Effective Year Built (Age) becomes harder to estimate.

This may be directly observed in the following "formula".

$$\text{Life New} = \text{Effective Age} + \text{Remaining Economic Life}$$

This formula will always contain a true statement. Life New is a stable, unchanging "constant" value in the formula (it is the estimate of a NEW building's life). Effective Age and Remaining Economic Life are mathematically "complementary" numbers. That is, Life New always stays the same while Effective Age must change if Remaining Economic Life changes, and vice versa.

REPLACMENT COST NEW
One of two basic concepts within the Cost Approach, Replacement Cost New strives to reflect to cost to replace the function of a building rather than the cost to reproduce the building itself.

This concept lends itself to mass appraisal much better than the concept of Reproduction Cost New because it does not reproduce the functional problems that older buildings tend to exhibit.

In mathematically replacing the function of a building rather than the building itself, items of functional obsolescence (such as excessive or over-built foundations) are NOT introduced into the pricing algorithm. Such Functional Obsolescence actually existing in a given building must NOT be recognized or the appraiser will "double-dip" (or remove the item twice).

RESIDENTIAL ON COMMERCIAL LAND
There are five codes intended to be used to appraise residential buildings via the commercial cost approach algorithm, as backed up by the Income Approach.

RESIDUAL LAND
The CAMA module reserves a specific meaning for the term "Residual Land." It is that part of a parcel's land area that is not currently engaged in generating income for the owner. Residual Land may share road frontage with the portion(s) of the land that are generating income. As such and from time-to-time true "residual" land may have a "For Sale or Lease" or "Build to Suit" sign on it. Residual Land may also be "rear" land available for (but not yet under) a separate use.

Specifically, Residual Land can be sold or leased separately without harm to any current tenant's business practices (which is not the case with land needed for parking or required for a retention pond(s), for two examples). The CAMA system recognizes specific commercial Land Codes as being land "residual" to the income approach. It will calculate the value of Residual Land Lines using the same land unit rates intended for the area. However, the income approach will add in the value of any Residual Land Lines after the normal income analysis is completed.

RESTAURANT
This is a commercial building STRUCTURE and USE which has an influence on the Cost Approach, and the Income Approach. Code the space for restaurant use when it was designed as such (and specifically is not logical former or future retail space, as in a retail center). Also, please refer to the discussion of Net Operating Income.

RETAIL, SINGLE OCCUPANCY
This is a commercial building STRUCTURE and USE which is stand-alone retail space. Do not use this USE for Big Box space. This code has an influence on the Cost Approach, and the Income Approach. Also, please refer to the discussion of Net Operating Income below.

ROLE

As used in this document, a Role is a set of functions within the Tax Administrator's Office. The security module of the CAMA system controls access to the interface by Role, an "umbrella" of common access rules under which each separate department operates.

ROLL

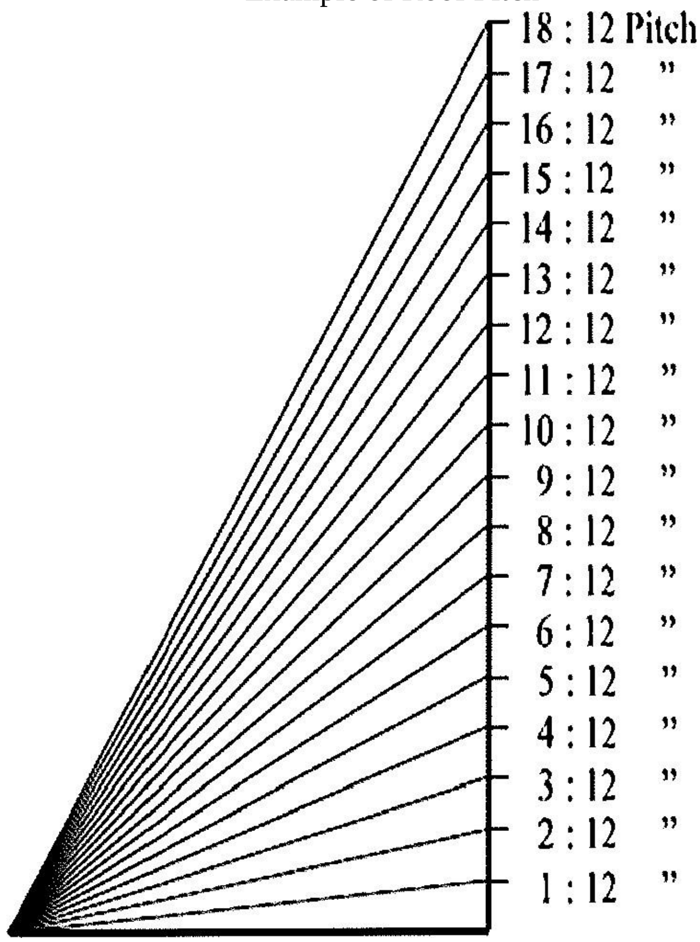
Different types of property are commonly grouped together for ad valorem taxation. Real Estate, Personal Property (airplanes, machinery and equipment, etc.), Intangible Personal Property (cash in bank accounts, stocks, etc.) are all examples of different tax rolls. Pender County has a "Combined Roll", meaning Real Estate (land, building(s), and miscellaneous improvements) may easily be combined with Personal Property items (boats, automobiles, etc.) on any tax bill.

ROOF PITCH

The "pitch" of a roof measures the angle between the eave of the roof and the crown of the roof and is expressed as a "rise and run" fraction. For example, if a roof has a 6:12 pitch, it will rise six feet for every twelve feet of run (or six inches of rise for every foot of run).

The typical residential roof (without dormers) must have a minimum 6:12 pitch to have enough usable attic space to call the Story Height I .25 story. Of course, there will always be exceptions to every rule.

Example of Roof Pitch



ROOF TYPE (Residential only)
This residential field was designed to store a code defining a hip roof, a gambrel roof, or another type of roof for a building. Please accurately record this data.

SALES RATIO STUDY
A Sales Ratio Study is the tool we use to test the Cost Approach appraisal product of the County, the annual Tax Roll. This measures the performance in the interaction of land values, building data elements (or characteristics), and the rates in the User Control Tables. The Cost Approach is the default method of valuing each parcel in the County.

A sales ratio is calculated by dividing the appraised value of a given parcel by the sale price of the parcel. For example, if a parcel is appraised for $80,000 but sold for $100,000, the sale ratio is .80 (or 80%).

A sales ratio study is a statistical analysis of all sales ratios in the sample. The ratio study advises at least two critically important facts:

1. The level of appraised values as compared to sale prices;
2. The tightness of fit of the ratios in the sample about the median sales ratio.

The Department of Revenue measures uniformity with the Coefficient of Dispersion (COD). The lower the COD number, the more uniform the values in the Tax Roll.

SFLA
Square Feet (of) Living Area

SHELL SPACE
Commercial rental space is often leased as a "shell". In new space, the landlord will enclose the space and provide roughed-in plumbing and electrical service. In previously leased space, the prior tenant's leasehold improvements are likely in place but may not meet the new tenant's need. For shell rentals (as opposed to turn-key rentals), the tenant builds the interior finish to suit. Leasehold improvements revert to the leased fee property owner at the end of the lease.

Business Rule: Interior finish is charged as real estate unless the Tax Administrator confirms that a tenant duly reported interior finish as a Leasehold Improvement (on a Listing Abstract).

Should the Tax Administrator determine the listed amount for the leasehold improvement is realistic the appraiser shall remove the interior finish from the real appraisal for the year(s) in question.

SQRT
Square Root (of a number) as used in certain formulas in the CAMA module.

SOUND VALUE
An appraiser's estimate of the residual value for an improvement that has reached the end of its economic life. As long as the improvement exists, it cannot be legally removed from the Tax Roll

(exempted from taxation) unless it is so far gone that it literally contributes no value to the parcel. (In these cases, the appraiser must describe the item sufficient to identify it and note that it existed on a date certain.) Sound Values are quite low and are used to merely recognize the existence of the improvement as of January 1 of the year in question, the TAX DATE.

STANDARD ERROR
The square root of the mean square residual gives an idea of the average amount by which regression equation "misses" actual sale prices. In a somewhat more precise statistical sense, we expect that roughly 2/3 of the regression estimates should be within one standard error (either high or low) of the actual sales price. In general, the smaller this number the better.

STORY HEIGHT (Residential only)
For residential buildings, the story height for each section of BASE area is entered as story sizes, from 1.0 story to 3.0 stories.

STRATIFICATION
The process of segmenting, or layering, the appraisal database. Ratio studies available to Pender County enable us to study the entire county or a portion of the county. For example, sales may be restricted to sales of residential buildings that are of a certain age AND to buildings that are also Quality Grade B. This enables us to seek common weaknesses in the appraisal product and correct them.

STRIP RETAIL CENTER
This is a commercial building USE which is for retail space in a complex designed without anchor store space. This code has an influence on the Cost Approach, and the Income Approach.

STRUCTURE
This is a required field for commercial buildings. It defines the purpose for which the building was designed and built, which may or may not be the present use of the building.
The Structure code is an element of the Replacement Cost New of the building.

T STATISTIC
The t-statistic is a ratio of the standard error of a coefficient to the value of that coefficient. Comparison with a table of t-statistic values would tell the probability that the given coefficient is indeed statistically different from zero. This should give us the same conclusion as the F-statistical analysis.

TABLE (Database)
A table in a database contains data arrayed in rows and columns, just like a typical Excel spreadsheet. The table's rows contain data while the columns organize the data (each column contains the same type of data). Each column header names the data stored therein. For example, Parcel ID, a basic way of relating parcel-level data housed in different tables, is always stored in a table column named PARID. No other kind of data will ever be found in this column.

TAXABLE VALUE

The net result of subtracting the value of any exemptions from the Market Value or Use Value. This is the value used to calculate the annual tax bill.

TAX DATE

N.C.G.S. 105-285 mandates that property ownership will be kept, and parcels are to be appraised as of January 1 each year.

For example, John Smith purchased a house on September 10, 2017. He is NOT the owner-of record on the 2017 tax bill, but since he owns it on 01/01/2019 he will be the owner for 2019. The appraised value of John Smith's house will also reflect our opinion of the property's value as of January 1, of each of these years. If Mr. Smith adds a porch immediately upon purchase (finishing by December 31) he will also see a change in value (for 2019) on his 2019 Notice.

TAX DISTRICT

A given property in Pender County receives a given set of services from the County according to its location. "Tax District" is the term given to an area where governmental services are identical, so the parcels in each district will pay the same Millage Rates for those services.

TAX RATE

The Tax Rate is the result obtained by dividing the Total Approved Budget by the Total Tax Roll for the Tax District (Total of all Taxable Values). Ad valorem tax dollars are calculated via two factors: (l) the Taxable Value (appraised value less any exemptions) of a real estate or personal property parcel; and (2) the Tax Rate of the jurisdiction. It is our duty to fairly and equitably appraise all real estate for market value, without prejudice for the county or any owner therein.

TAX ROLL (or Tax scroll)

The "Tax Roll" or "Scroll" is a listing and summing of all taxable property in Pender County as broken into classes of property (Property Class is an entry on the ASMT screen). "Tax Roll" or "Scroll" is a North Carolina specific term synonymous with Digest, Grand List, et cetera, used in other states.

UNIT OF COMPARISON

For a real estate appraiser, it is often times more meaningful to work with Units of Comparison rather than a whole number, such as a sale price or appraised value. For example, the sale price per acre of a large vacant parcel is much more applicable to other large vacant parcels than the whole sale price of the parcel.

Several different kinds of Units of Comparison are important in appraisal work.

For example, appropriate "units" for land are "S"- the Square Feet of land area, "A" - the Acreage (for larger parcels), or "U" - for "Unit" (value per lot).

With improvements to land, the appropriate residential unit is the gross square feet of BASE (living) area. For commercial or industrial buildings, the gross or net square feet of BASE area is appropriate. For tank farms not charged as personal property, net cubic feet enclosed is appropriate, while the number of overhead doors (for truck terminals), the number of rooms (hotels and motels), etc. are also Units of Comparison appropriate for each industry.

USABLE SPACE
Never measure Usable Space as in contact with a Knee Wall that is less than five feet high. Always measure from an estimated point(s) where the finished ceiling is at least five feet above the floor.

Finished space between the knee wall and the estimated "point of usability" (as above) generally contributes little or no value to the parcel.

VALUATION ENGINE
As used herein, this term represents the IAS System's algorithms and coefficients that work together to value property.

YEAR BUILT
Enter the year a building's foundation was started in this field. Partially complete buildings as of January 1, will be appraised as a given percent complete in the appraisal system. Also, refer to the discussion in Effective Year Built.

ZONING (Permanent)
To appraise a parcel for fee simple market value is to assume that all rights of real ownership are intact and vested in the owner-of-record except as limited by the powers of state (as delegated to local jurisdictions). The zoning-in-force on a parcel limits one of the inherent rights of ownership: to use the property in any way the owner sees fit. Permanent zoning-in-force recognizes or lists the various specific uses permitted on parcels enjoying membership in a given Zoning District and, without question, the owner is free to choose among the several permitted uses.

ZONING (Temporary)
Jurisdictions in North Carolina are permitted to more tightly control the uses an owner may contemplate for property by allowing only one named use. Generally, the temporary use is an interim use as requested by the owner at the time. If the owner wishes to change the parcel's named use to any other use, to include reversion back to the formerly permitted use, the owner must reapply for a change in Zoning District and go through the entire re-zoning process.

Business Rule: If a given property is clearly in an INTERIM USE and the jurisdiction allows only one named use for the property, the appraiser must consider the named specific use to be a temporary zoning-in-force. Temporary zoning will in no manner represent or limit the most likely highest and best use of the parcel.

Business Rule: Appraise land in interim use under temporary zoning-in-force for its most likely highest and best use, considering the permitted uses of surrounding and nearby parcels, and the demand for a change to the most likely highest and best use. The appraiser must recognize: (1) the cost of re-zoning the parcel; and (2) the holding period, during which the interim use is likely to continue while market demand increases for the change to the most likely highest and best use.

Schedule of Values, Standards, and Rules

Appendix 2
Computer Assisted Mass Appraisal (CAMA) Modules

Pender County, North Carolina

Effective January 1, 2019

Table of Contents

From time to time, to address unforeseen situations, the Tax Administrator of Pender County may deem it necessary to add one or another computer application not discussed in this *Schedule of Values*.

All such new applications are hereby incorporated into this *Schedule of Values* except that no new application may negatively affect the integrity of (equality among) the valuations arising from the implementation of and continuing use of this Schedule, as approved.

In this section, we include technical documentation on the Computer Aided Mass Appraisal (CAMA) system currently in use for Pender County. The three documents detail the calculation processes for a representative cross-section of our properties. Additional documentation is available for other areas of the CAMA system and are considered incorporated in the 2018 Schedule of Values.

These guides are presented in their entirety without edit.

iasWorld
a tyler appraisal & property tax solution

CAMA Land

Calculation Guide

Version 1.1

November 2010

Tyler Technologies Inc.
1 Tyler Way
Moraine, OH 45439
Phone: 800.800.2581 Fax: 866.658.4258

tyler technologies

Land Valuation

The following formula defines the cost calculation for land using the CLT valuation method. The source of each required data element is identified by its iMaintain tab or setup form.

Source	Calculations		Result
CAMA Land Tab	Get the detailed land information.		
		Land Type	
		Land Code	
		Influence Code 1	
		Influence Code 2	
		Influence Percent 1	
		Influence Percent 2	
	If land type = "F"	Effective Frontage	
		Effective Depth	
		Depth Table (if entered)	
	If land type = "S"	Square Feet	
	If land type = "A"	Acres	
	If land type = "U"	Units	
	If override rates are present:	Size	
		Rate	
		Incremental	
		Decremental	

Source	Calculations	Result
Parcel Tab Land Tab	Get the parcel level descriptive information for land.	
	Neighborhood	
	Zoning	
	Municipality	
	Location	
	Utility Codes (1)	
	(2)	
	(3)	
	Street/Road	
	Spot Location Adjustment (default to 1 if blank)	
	Size Adj Acres	
	Ag Use Flag	
Setup Forms—AA Jurisdictions	Get the cost table version for the tax year being processed. Version	
Setup Forms—CAMA General Neighborhood Parameters	Using the cost table version and the neighborhood, get the following:	
	Neighborhood model for land type (lot, square foot, acres, gross, or units)	
	Percentage adjustment for model	
	Land code model	
	Standard depth table	
Setup Forms—CAMA CALP Land Code Definitions	Using the cost table version, land code model, land type, and land code being processed, get the following:	
	Acre Table	
	By Line Flag	
	Ag Use Flag	
	FAR Flag	
Setup Forms—CAMA General Neighborhood Parameters	If the Ag Use Flag from LAND is set to Y, and the Ag Use Flag on LPCODE is set to Y, use the agricultural model number instead of the model designated by land type. Agricultural model	

Source	Calculations	Result
Setup Forms—CAMA CALP Location Code Model Assignments	Using the cost table version, and the location code from PARDAT, get the location model number. Check to see if the neighborhood model for the land type = 1. If so, set the location model to 0. If the neighborhood model is not equal to 1 or if any of the neighborhood models (lot, square feet, acres, gross) is greater than 1, set the location model as found on LPLOC, otherwise, set to 0. Location model	
Setup Forms—CAMA CALP Zoning Assignments	Using the cost table version, and the jurisdiction and municipality codes from PARDAT, get the zoning model number. Using the location model, check LPMOD to verify that the location model and the zone model are both present in a model; otherwise the zone model is set to 0. Zone model	
Setup Forms—CAMA CALP Street Code Model Assignments	Using the cost table version and the street code from PARDAT, get the street model number. Using the neighborhood model, check LPMOD to verify that the neighborhood model and the street model are both present in a model; otherwise the street model is set to 0. Street model	
Setup Forms—CAMA CALP Utility Code Model Assignments	Using the cost table version and the utility codes from PARDAT, get the utility model number. The calculation routine examines the utility codes on the parcel, determines the one with the lowest priority code on LPUTIL and uses the matching utility model. Using the neighborhood model, check LPMOD to verify that the neighborhood model and the utility model are both present in a model; otherwise the utility model is set to 0. Utility model	
Setup Forms—CAMA CALP Models	Using the cost table version, get the size and rates corresponding to the neighborhood, zone, location, street and utility models retrieved. If any of the model numbers are null, or if no match is found, the default value is 0. Base size	
	Base rate	
	Incremental rate	
	Decremental rate	

<table>
<tr><th>Source</th><th colspan="8">Calculations</th><th>Result</th></tr>
<tr><td rowspan="8">Setup Forms—CAMA CALP Acre Size Adjustments</td><td colspan="8">If the By Line flag is “L” on LPCODE for the land type and land code being processed, get the number of acres for the line from LAND (description page). If the By Line flag is “P” on LPCODE for the land type and land code being processed, get the size adjustment acres from LAND (parcel page), or PARDAT.

Using the acre size adjustment table specified on LPCODE and the number of acres, get the acre size adjustment. If an exact match for the total acres is not found, the adjustment for the next largest size in the table is used. If no acre size table is specified, the acre size adjustment default is 1.

Acre size adjustment</td><td></td></tr>
<tr><td colspan="9">Calculate the adjusted rates:</td></tr>
<tr><td>Base Rate</td><td>X</td><td>Acre Size adjustment</td><td>X</td><td>Spot Location</td><td>X</td><td>Percentage adjustment for the neighborhood model</td><td>=</td><td>Adjusted Base Rate</td></tr>
<tr><td></td><td>X</td><td></td><td>X</td><td></td><td>X</td><td></td><td>=</td><td></td></tr>
<tr><td>Incremental Rate</td><td>X</td><td>Acre Size adjustment</td><td>X</td><td>Spot Location</td><td>X</td><td>Percentage adjustment for the neighborhood model</td><td></td><td>Adjusted Incremental Rate</td></tr>
<tr><td></td><td>X</td><td></td><td>X</td><td></td><td>X</td><td></td><td>=</td><td></td></tr>
<tr><td>Decremental Rate</td><td>X</td><td>Acre Size adjustment</td><td>X</td><td>Spot Location</td><td>X</td><td>Percentage adjustment for the neighborhood model</td><td></td><td>Adjusted Incremental Rate</td></tr>
<tr><td></td><td>X</td><td></td><td>X</td><td></td><td>X</td><td></td><td>=</td><td></td></tr>
<tr><td></td><td colspan="9">Using the formula for the specific land type, calculate the values for the following lines.</td></tr>
<tr><td rowspan="2">If land type is “F”

Setup Forms—CAMA CALP Depth Adjustments</td><td colspan="8">Get the depth factor for the override depth table, if entered on LAND, or the standard depth table from LPNBHD. If the depth table = '000', the depth factor is set to 1. If the depth table does not contain an exact match for the depth, the lowest depth in the table greater than the parcel depth is used.

Depth factor</td><td></td></tr>
<tr><td colspan="9">Calculate the land value, using override base size and rates, if entered, otherwise the model base size and adjusted rates. If the base size is blank, use the effective frontage from the land line.

Effective frontage – base size = Size difference

If size difference > 0, use incremental rate as size adjustment rate; if size difference < 0, use decremental rate as size adjustment rate.</td></tr>
</table>

Source	Calculations									Result
((Base Rate	X	Adjusted Base Rate **)**	+	(Size Difference	X	Size Adjustment Rate **))**	X	Depth Factor	=	Base Price
	X				X					
			+							
							X		=	

If land type is "S"

Calculate the land value, using override base size and rates, if entered, otherwise the model base size and adjusted rates. If the base size is blank, use the square feet from the land line.

Square feet – base size = Size difference

If size difference > 0, use incremental rate as size adjustment rate; if size difference < 0, use decremental rate as size adjustment rate.

(Base Size	X	Adjusted Base Rate **)**	+	**(** Size Difference	X	Size Adjustment Rate **)**	=	Base Price
	X				X			
			+				=	

If land type is "A"

Calculate the land value, using override base size and rates, if entered, otherwise the model base size and adjusted rates. If the base size is blank, use the acreage from the land line.

Acres – base size = Size difference

If size difference > 0, use incremental rate as size adjustment rate; if size difference < 0, use decremental rate as size adjustment rate.

(Base Size	X	Adjusted Base Rate **)**	+	**(** Size Difference	X	Size Adjustment Rate **)**	=	Base Price
	X				X			
			+				=	

If land type is "G"

Calculate the land value, using override base rate, if entered; otherwise, use the model adjusted rate.

Adjusted base rate **=** Base price

Source	Calculations	Result
If land type is "U"	Calculate the land value, using override base size and rates, if entered; otherwise use the model base size and adjusted rates. If the base size is blank, use the number of units from the land line. Units – base size = Size difference If size difference > 0, use incremental rate as size adjustment rate; if size difference < 0, use decremental rate as size adjustment rate.	

(Base Size	X	Adjusted Base Rate)	+	(Size Difference	X	Size Adjustment Rate)	=	Base Price
	X				X			
			+				=	

Source	Calculations	Result
For all land types	Calculate influence adjustment.	

Base Price	X	(1 + Influence Percent1)	X	(1 + Influence Percent2)	=	Adjusted Base Price
	X		X		=	

Source	Calculations	Result
Parcel tab	From PARDAT, retrieve the property class. Class	
Setup Forms—CAMA General Neighborhood / Class Factors	From NBHDFACT, retrieve the neighborhood class factor using the cost table version, neighborhood, and class. A neighborhood of '********' indicates all neighborhoods, and a class of '****' indicates all classes. If the check screen and column are filled in, verify that the data matches the parcel data for the adjustment factor. If low and high limits are entered, verify that the land value falls within the limits. Neighborhood/class factor	
	Calculate neighborhood/class factor adjustment:	

Adjusted Base Price	X	Neighborhood/Class Factor	=	Final Land Value
	X		=	

Calculate the exemption value:

Final Land Value	X	Exemption Percent	=	Final Land Value
	X		=	

Source	Calculations	Result
	If any land code has FAR flag set to Y, calculate AFAR and AFARSF: Sum(units) for each FAR land code = AFARSF	
	Sum(units) for each FAR land code/sum(sf) for all land codes = AFAR	

Glossary of Forms

iMaintain Form Description	Table	Legacy Form
Transaction Tabs		
CAMA Residential/Commercial Land tab	LAND	CA14
CAMA Residential/Commercial Parcel tab	PARDAT	CA12
Setup Forms		
Assessment Administration—Jurisdictions setup	JURIS	AA44
CAMA CALP—Acre Size Adjustments setup	LPACRE	LP59
CAMA CALP—Depth Adjustments setup	LPDEPTH	LP58
CAMA CALP—Land Code Definitions setup	LPCODE	LP57
CAMA CALP—Location Code Model Assignments setup	LPLOC	LP54
CAMA CALP—Models setup	LPMOD	LP52
CAMA CALP—Street Code Model Assignments setup	LPSTREET	LP55
CAMA CALP—Utility Code Model Assignments setup	LPUTIL	LP56
CAMA CALP—Zoning Assignments setup	LPZONE	LP53
CAMA General—Neighborhood Parameters setup	LPNBHD	LP51
CAMA General—Neighborhood/Class Factors setup	NPHDFACT	CA41

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CAMA Residential Calculation Guide

Version 1.0

December 2009

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Table of Contents

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Main Dwelling Calculations

There are two cost algorithms available in IAS. The residential cost method to be used is identified in the Assessment Administration—Jurisdictions setup form.

- The first type, MAN, for manual, is the same algorithm used in previous releases of IAS, and is available for the purpose of maintaining value stability across years.

- The second type, CLT, is an enhanced version of the original manual method, which includes application of grade factor at the line level, and depreciation of individual additions.

The following formula defines the cost calculation for a dwelling using the CLT method. The location of each data element needed is identified by iMaintain tab or setup form.

Source	Calculations	Result
CAMA Residential Parcel tab	Neighborhood	
CAMA Residential Dwelling tab	Story Height	
	Attic Code	
	Finished Bsmt. Living Area	
	User Other Feature Area	
	GFLA (Ground Floor living area)	
Setup Forms CAMA Residential Cost Factors	VALYR (Factor JURVALYR, Variable jurisdiction number) If not found, VALYR (Factor COST, Variable VALYR)	
Setup Forms CAMA Assessment Administration Jurisdictions	Residential Cost Table Version	

<table>
<tr><th>Source</th><th colspan="7">Calculations</th><th>Result</th></tr>
<tr><td rowspan="3">Setup Forms
CAMA Residential
Cost Factors</td><td colspan="7">STORYSF rate for SFLA for the story, for version</td><td></td></tr>
<tr><td colspan="7">ATTICSF rate for Attic Code, for version</td><td></td></tr>
<tr><td colspan="7">All rates retrieved from RCFACT use a Residential Model number. A hierarchy has been established to determine how this number is retrieved. This hierarchy is as follows:

Dwelling tab
The calculation looks for a card-based model number using the DWELDAT.MODOVER for a model.

Setup Forms—System—System Factors
If DWELDAT.MODOVER does not return a valid model, then the calculation looks for a card-based model number using the DWELDAT.STYLE to retrieve a model on the System Factors setup. (Calculation Name = RESMOD, Table Name = STYLE, Field Name = DWELDAT.STYLE, Factor = Residential model being used)

Setup Forms—CAMA General—Neighborhood Parameters
If the override value on DWELDAT is NULL or does not return a valid model, and no model has been set for style, then the LPNBHD.RESMOD model will be used in the calculations.

Setup Forms—System—System Factors
If the LPNBHD.RESMOD default model is NULL or points to a model that doesn't exists in the RCFACT table for Dwellings or RCADDN for Additions, then it will use the default model defined in SYSFACT. (Calculation Name = DEFAULT, Table Name = DWELDAT, Field Name = RESMODEL, Factor = Model Number)

= Residential Model</td><td></td></tr>
<tr><td rowspan="4"></td><td colspan="8">Compute the SFLA of the dwelling.</td></tr>
<tr><td>(GFLA</td><td>X</td><td>STORYSF)</td><td>+</td><td>(GFLA</td><td>X</td><td>ATTICSF)</td><td rowspan="3"></td></tr>
<tr><td></td><td>X</td><td></td><td>+</td><td></td><td>X</td><td></td></tr>
<tr><td colspan="7">= Dwelling SFLA</td></tr>
<tr><td rowspan="4">CAMA Residential
Additions tab</td><td colspan="7">Line number</td><td></td></tr>
<tr><td colspan="7">Floor</td><td></td></tr>
<tr><td colspan="7">Addition Code</td><td></td></tr>
<tr><td colspan="7">Area</td><td></td></tr>
</table>

Source	Calculations	Result
Setup Forms CAMA Residential Addition Factors	Part SFLA percentage	
	Multiply the Addition Area times the Part SFLA percentage:	
	Line | Floor | Code | Area | | Part SFLA |	
	| | | | X | | =	
	| | | | X | | =	
	| | | | X | | =	
	| | | | X | | =	
Setup Forms CAMA Residential Cost Factors	Get User Other Feature Area Percent, factor OTH-FEAT, variable UFPCT Percent	
	Calculate the area adjustment for the user other feature: Percent X User Other Feature Area = Area Adjustment	
	Add the individual areas to obtain the total Square Foot Living Area:	
	Dwelling SFLA | + | FBLA | + | ∑ addition SFLA | + | Area Adjustment	
	| + | | + | | + |	
	= Square Foot Living Area	
Setup Forms CAMA Residential Addition Factors	Get the area sum percent and calculate first floor area:	
	GFLA | + | ∑ (first floor addition area | X | sumpct/100)	
	| + | | X |	
	= First Floor Area	
Setup Forms CAMA Residential Cost Factors	Base Rate, factor COST, variable BASE	
	Schedule Level Factor LEVEL, RES	
	Area factor components, AREA, COEFF	
	AREA, CONST	
	AREA, SQRT	
CAMA Residential Dwelling tab	Ground Floor Living Area (GFLA)	
	Multiply:	
	(GFLA | X | COEFF) | + | (Sq. Root of GFLA | X | SQRT) | + | CONST	
	| X | | + | | X | | + |	
	= Area Factor	
	Story Height	

<table>
<tr><th>Source</th><th colspan="2">Calculations</th><th>Result</th></tr>
<tr><td rowspan="2">CAMA Residential Dwelling tab</td><td colspan="2">Construction</td><td></td></tr>
<tr><td colspan="2">Grade</td><td></td></tr>
<tr><td rowspan="6">Setup Forms
CAMA Residential
Cost Factors</td><td colspan="2">Story height factor, SH-FACT, (story height)</td><td></td></tr>
<tr><td colspan="2">Construction factors, SH-BRICK, (story height)</td><td></td></tr>
<tr><td colspan="2">EXTWALL, (construction)</td><td></td></tr>
<tr><td colspan="2">Grade factor, GRADE</td><td></td></tr>
<tr><td colspan="3">Multiply:</td></tr>
<tr><td colspan="2"><table>
<tr><td>(SH-BRICK rate</td><td>X</td><td>EXTWALL rate)</td><td>+</td><td>1.00</td></tr>
<tr><td></td><td>X</td><td></td><td>+</td><td>1.00</td></tr>
</table>
= Construction Factor</td><td></td></tr>
<tr><td rowspan="2">Setup Forms
CAMA Residential
Cost Factors</td><td colspan="3">Multiply the following:</td></tr>
<tr><td colspan="2"><table>
<tr><td>Base Rate</td><td>X</td><td>Schedule Level Factor</td><td>X</td><td>Area Factor</td><td>X</td><td>Story Height Factor</td><td>X</td><td>Construction Factor</td><td>X</td><td>Grade Factor</td></tr>
<tr><td></td><td>X</td><td></td><td>X</td><td></td><td>X</td><td></td><td>X</td><td></td><td>X</td><td></td></tr>
</table>
= Adjusted Base Price</td><td></td></tr>
<tr><td rowspan="9">Setup Forms
System User Field Definitions</td><td colspan="2">Get user-defined fields that have a calculation (function for user 1through user 20 is not null).
Calculate area ratio: FLR1AREA / MGFA =
AREARATIO</td><td></td></tr>
<tr><td colspan="3">Calculate user factor and/or user amount for each user field having a calculation function. All functions are described here.</td></tr>
<tr><td>URCNMULT</td><td>USERFACT = USERn</td><td></td></tr>
<tr><td>URCNAREA</td><td>USERFACT = USERn * arearatio</td><td></td></tr>
<tr><td>URCNAMT</td><td>USERAMT = USERn</td><td></td></tr>
<tr><td>URCNFLR1</td><td>USERAMT = ‘USERn’ * FLR1AREA * GRDFACT * (1 + (CDPCT * .01))</td><td></td></tr>
<tr><td>FRCNMULT</td><td>USERFACT = RCFACT.RATE (where FACT = ‘DUSERn’ and CODE = USERn)</td><td></td></tr>
<tr><td>FRCNAREA</td><td>USERFACT = RCFACT.RATE (where FACT = ‘DUSERn’ and CODE = USERn) * astraration</td><td></td></tr>
<tr><td>FRCNAMT</td><td>USERAMT = RCFACT.RATE (where FACT = ‘DUSERn’ and CODE = USERn)</td><td></td></tr>
</table>

Source	Calculations		Result
	FRCNFLR1	USERAMT = RCFACT.RATE *(where FACT = 'DUSERn' and CODE = USERn)* * FLR1AREA * GRDFACT * (1 + (CDPCT * .01))	
	FRCNRTAREA	USERAMT = RCFACT.RATE (*where FACT = 'DUSERn' and CODE = 'AREA'*) * USERn * GRDFACT * (1 + (CDPCT * .01))	
	FRCNAMTFCT	USERAMT = RCFACT.RATE (*where FACT = 'DUSERn' and CODE = USERn*) * GRDFACT * (1 + (CDPCT * .01))	
	URCNAMTFCT	USERAMT = USERn * GRDFACT * (1 + (CDPCT * .01))	
	If more than one user field has a calculation, multiply the factors, and sum the amounts.		

Other Features Calculations

Other Features are entered on the Dwellings tab of iMaintain. Other Features rates are found on the CAMA Residential Cost Factors setup form based on FACTOR “OTH-FEAT” and their unique VARIABLE names given in the equations below. The location of each data element needed is identified by iMaintain tab or setup form.

<table>
<tr><th>Source</th><th colspan="7">Calculations</th><th>Result</th></tr>
<tr><td>CAMA Residential Dwellings tab</td><td colspan="7">Heating Code</td><td></td></tr>
<tr><td rowspan="19">Setup Forms CAMA Residential Cost Factors</td><td colspan="7">Schedule Level Factor (SLF), factor LEVEL, variable RES</td><td></td></tr>
<tr><td colspan="7">Air Conditioning codes, factor AIRCODE</td><td></td></tr>
<tr><td colspan="8">Multiply:</td></tr>
<tr><td>Multiple Masonry Trim Area</td><td>X</td><td>SLF</td><td>X</td><td>TRIMB rate</td><td>X</td><td>Grade Factor</td><td rowspan="3"></td></tr>
<tr><td></td><td>X</td><td></td><td>X</td><td></td><td>X</td><td></td></tr>
<tr><td colspan="7">= Masonry Trim Value</td></tr>
<tr><td>Unfinished Area</td><td>X</td><td>SLF</td><td>X</td><td>UNFIN rate</td><td>X</td><td>Grade Factor</td><td rowspan="3"></td></tr>
<tr><td></td><td>X</td><td></td><td>X</td><td></td><td>X</td><td></td></tr>
<tr><td colspan="7">= Unfinished Area Value</td></tr>
<tr><td colspan="8">If Heating code <u>does not</u> match one of the air conditioning codes (AIRCODE):</td></tr>
<tr><td>Rec Room Area</td><td>X</td><td>SLF</td><td>X</td><td>BREC rate</td><td>X</td><td>Grade Factor</td><td rowspan="3"></td></tr>
<tr><td></td><td>X</td><td></td><td>X</td><td></td><td>X</td><td></td></tr>
<tr><td colspan="7">= Basement Rec Room Value</td></tr>
<tr><td colspan="8">If Heating code <u>does</u> match one of the air conditioning codes (AIRCODE):</td></tr>
<tr><td>Rec Room Area</td><td>X</td><td>SLF</td><td>X</td><td>BRECA rate</td><td>X</td><td>Grade Factor</td><td rowspan="3"></td></tr>
<tr><td></td><td>X</td><td></td><td>X</td><td></td><td>X</td><td></td></tr>
<tr><td colspan="7">= Basement Rec Room Value</td></tr>
</table>

Source	Calculations							Result
Setup Forms CAMA Residential Cost Factors	*If Heating code does not match one of the air conditioning codes (AIRCODE):*							
	Finished Bsmt Living Area	X	SLF	X	BLIV rate	X	Grade Factor	
		X		X		X		
	= Finished Basement Living Area Value							
	If Heating code does match one of the air conditioning codes (AIRCODE):							
	Finished Bsmt Living Area	X	SLF	X	BLIVA rate	X	Grade Factor	
		X		X		X		
	= Finished Basement Living Area Value							
	If Heating code does not match one of the air conditioning codes (AIRCODE):							
	User Other Feature Area	X	SLF	X	UFEAT rate	X	Grade Factor	
		X		X		X		
	= User Other Feature Area Value							
	If Heating code does match one of the air conditioning codes (AIRCODE):							
	User Other Feature Area	X	SLF	X	UFAIR rate	X	Grade Factor	
		X		X		X		
	= User Other Feature Area Value							
CAMA Residential Dwellings tab	Calculate the value of the fireplaces.							
#1	Wood burning Fireplace Stacks	X	WBFP1 rate					
		X						
	=							
#2	(Openings	–	Stacks)	=	Result	X	WBFP2 rate	
		–		=		X		
	=							

Source	Calculations	Result

#3

Prefab Fireplaces	X	METFP rate
	X	
		=

#4

Add #1, #2, and #3 (above), and multiply the total times SLF and Grade Factor to get the total Fireplace Value.

#1	+	#2	+	#3	=	Result	X	SLF	X	Grade Factor
	+		+		=		X		X	

= Total Fireplace Value

Calculate the value of the basement garage.

Rate for (BGAR concatenated with the Basement Garage number of cars) (e.g. BGAR2)	X	SLF	X	Grade Factor
	X		X	

= Basement Garage Value

Calculate the values of miscellaneous other features (1).

Rate for factor MISC, variable (DWELDAT Misc 1 description)	X	SLF	X	Grade Factor	X	Misc 1 Quantity
	X		X		X	

= Misc. Other Features 1 Value

Calculate the values of miscellaneous other features (2).

Rate for factor MISC, variable (DWELDAT Misc 2 description)	X	SLF	X	Grade Factor	X	Misc 2 Quantity
	X		X		X	

= Misc. Other Features 2 Value

Add all the values listed in this "Other Features" table to calculate the total.

= TOTAL OTHER FEATURES VALUE

Dwelling Addition Calculations

The following formula defines the cost calculations for additions. The location of each data element needed is identified by iMaintain tab or setup form.

Source	Calculations	Result
CAMA Residential Dwellings tab	Heating Code	
	Grade	
	Cost & Design Factor	
Setup Forms CAMA Assessment Administration Jurisdictions	Residential cost table version (resver) for the subject tax year	
Setup Forms CAMA Residential Cost Factors	Schedule Level Factor (SLF), factor LEVEL, variable RES	
	Air Conditioning codes, factor AIRCODE	
CAMA Residential Additions tab	Get the line number, floor, addition code and area of the additions and enter them below in the Line #, Floor, Code, and Area cells below.	
Setup Forms CAMA Residential Addition Factors Setup	Get the First Floor Adjustment flag, the 1st Floor and Upper Floor constants, square foot rates, and square root terms, and the AC rate for the subject code, and enter them in the corresponding spaces below. **Note**: If no code is present to the left of the subject code of the Additions line that is being calculated, use the 1st Floor rates. If a code is present to the left of the addition being calculated and the FFAdj for that code is "Y," use the Upper Floor rates.	

				First Floor				Upper Floor			
Line #	Floor	Code	Area	First Floor Adj.	Const	SF Rate	Square Root	Const	SF Rate	Square Root	AC%

Source	Calculations	Result

#1 Using the data gathered previously, perform the following calculations.
(Constant + (Area * rate) + (√Area * Sq.rt. term)) * SLF = base value

L#	Flr	Code	(Constant	+	(Area	X	Rate)	+	(√Area	X	Sq Rt term))	X	SLF	
				+		X		+		X		X		
													= Line value	

L#	Flr	Code	(Constant	+	(Area	*	Rate)	+	(√Area	*	Sq Rt term))	X	SLF	
				+		X		+		X		X		
													= Line value	

L#	Flr	Code	(Constant	+	(Area	*	Rate)	+	(√Area	*	Sq Rt term))	*	SLF	
				+		X		+		X		X		
													= Line value	

#2 Using the data gathered previously, perform the following calculation.
If the Heating code on CAMA Residential Dwellings matches one of the air conditioning codes (AIRCODE) on the CAMA Residential Cost Factors Setup, multiply Area times the AC Rate times the SLF.

L#	Flr	Code	Area	X	AC Rate	X	SLF	
				X		X		
							= Line value	

L#	Flr	Code	Area	X	AC Rate	X	SLF	
				X		X		
							= Line value	

L#	Flr	Code	Area	X	AC Rate	X	SLF	
				X		X		
							= Line value	

Source			Calculations				Result
#3 Using the data gathered previously, perform the following calculations. Add the results of calculations #1 and #2 above for each line.							
L#	Flr	Code	#1 value	+	#2 Value		
				+		= Addition value	
L#	Flr	Code	#1 value	+	#2 Value		
				+		= Addition value	
L#	Flr	Code	#1 value	+	#2 Value		
				+		= Addition value	
Using the data gathered previously, perform the following calculation. For code 99, multiply the number in the Area field times 100.							
L#	Flr	Code	Area	X	100		
		99		X	100	= Addition value	
L#	Flr	Code	Area	X	100		
		99		X	100	= Addition value	
CAMA Residential Additions tab			Get the Grade, if it exists; otherwise use the Grade from the Dwellings tab.				
Setup Forms CAMA Residential Cost Factors			Get the Grade Factor, factor GRADE				
CAMA Residential Dwellings tab			Get the Cost & Design Percent				
			Calculate the cost & design factor as (100 + C&D Percent)/100				

<table>
<tr><th>Source</th><th colspan="7">Calculations</th><th>Result</th></tr>
<tr><td rowspan="10"></td><td colspan="8">For each line of additions, multiply Addition Value times Grade Factor times Cost & Design factor times User Factor:</td></tr>
<tr><td>Addition Value</td><td>X</td><td>Grade Factor</td><td>X</td><td>Cost & Design Factor</td><td>X</td><td>User Factor</td><td rowspan="3"></td></tr>
<tr><td></td><td>X</td><td></td><td>X</td><td></td><td>X</td><td></td></tr>
<tr><td colspan="7">= Addition Value *</td></tr>
<tr><td>Addition Value</td><td>X</td><td>Grade Factor</td><td>X</td><td>Cost & Design Factor</td><td>X</td><td>User Factor</td><td rowspan="3"></td></tr>
<tr><td></td><td>X</td><td></td><td>X</td><td></td><td>X</td><td></td></tr>
<tr><td colspan="7">= Addition Value *</td></tr>
<tr><td colspan="7">Add all the Addition Values marked with an asterisk (*) above together to arrive at:
Total Additions RCN Value</td><td></td></tr>
</table>

<table>
<tr><td rowspan="3">CAMA Residential Additions tab</td><td>For each addition:
Get CDU if it exists; otherwise get it from the Dwellings tab</td><td></td></tr>
<tr><td>Get Year Built if it exists; otherwise get it from the from Dwellings tab</td><td></td></tr>
<tr><td>Get Percent Complete</td><td></td></tr>
<tr><td colspan="3">Calculate the Additions RCNLD:</td></tr>
<tr><td>CAMA Residential Dwellings tab</td><td>Get Override Depreciation Table, if present</td><td></td></tr>
<tr><td rowspan="2">CAMA General Neighborhood Parameters Setup</td><td>For cost version and neighborhood, get neighborhood depreciation table if no override table.
If neighborhood depreciation table equals ‘RCGRD’ then get depreciation table by locating the record in RCGRADE where fact = ‘DEPR’ and grade matches the grade on Addition line. If grade on Addition line is null, then use the grade from dwelling.
Neighborhood depreciation table</td><td></td></tr>
<tr><td>Get neighborhood CDU</td><td></td></tr>
</table>

Source	Calculations	Result
CAMA Residential Additions tab	Get Depreciation Override if present, or Depreciation Override from Dwellings, if present, or Table Percent Good from CAMA Residential Depreciation Factor Setup below for physical depreciation. Depreciation Override	
	Year Built, if present, or default to Year Built on the Dwellings tab	
	Subtract Year Built from VALYR: VALYR — Year Built — = Age	
CAMA Residential Additions tab	Get CDU, if present, or default to CEDU on Dwellings, if present, or default to neighborhood CDU from CAMA General Neighborhood Parameters Setup CDU	
CAMA Residential Depreciation Factor Setup	Query the Depreciation Table for this parcel. Locate the correct Depreciation percent by finding the row of the Age of the addition, or the next higher age available, and the column for the subject CDU. Depreciation percent	
CAMA Residential Dwellings tab	Get the functional and economic depreciation percents (percent good), if any. Functional Depreciation percent	
	Economic Depreciation percent	
	Multiply Addition Value times Depreciation percents. RCN X Physical % good from table or Override if present) X Functional % good, if entered X Economic % good, if entered X X X = Replacement Cost New Less Depreciation (RCNLD)	
	If percent complete entered and less than 100, multiply RCNLD times percent complete. RCNLD X % Complete X = Additions RCNLD	

Final Dwelling Calculations

Using the values gathered in the previous topics, calculate the final dwelling value. The location of each data element needed is identified by iMaintain tab or setup form.

Source	Calculations	Result
From the Main Dwelling Calculations, get:	Adjusted Base Value	
	Schedule Level Factor	
	Area Factor	
	Story Height Factor	
CAMA Residential Parcel tab	Parcel's neighborhood	
CAMA Residential Dwellings tab	Get Class; if blank, get class from Parcels tab.	
Setup Forms CAMA General Neighborhood/ Class Factors	Dwelling Factor based on dwelling's Neighborhood and Class, or use 1.00	
CAMA Residential Dwellings tab	Heating code	
	Attic code	
	C&D Percent	
	Percent Complete	
Setup Forms CAMA Residential Cost Factors	Get plumbing factors: PLUMB, FIXT	
	PLUMB, ADDFX	
	*PLUMB, COUNT * if blank, = 5	
	Get basement factor: BSMT (basement code)	
	Get heat factor: HEAT (heating code)	
	Get attic factor: ATTIC (attic code)	
	Get grade factor: GRADE (dwelling grade)	

Source	Calculations	Result
CAMA Residential Dwellings tab	To verify total fixtures calculation: Multiply number of full baths ______ X 3 (fixtures) =	
	Multiply number of half baths ______ X 2 (fixtures) =	
	Add full bath fixtures plus half bath fixtures plus additional fixtures plus ADDFX	
	Full bath fixtures + Half bath fixtures + Additional fixtures + ADDFX ______ + ______ + ______ + ______ = Total Fixtures	
	Calculate plumbing value:	
	FIXT rate X SLF X (FIXTOT minus COUNT) X Grade Factor ______ X ______ X ______ X ______ = Plumbing Value	
	Calculate basement value:	
	FIXT rate X SLF X (FIXTOT minus COUNT) X Grade Factor ______ X ______ X ______ X ______ = Basement Value	
	Calculate heat value:	
	HEAT rate X SLF X Story Height Factor X Area Factor X Grade Factor = Heat Value	
	Calculate attic value:	
	ATTIC rate X Area Factor X SLF X Grade Factor ______ X ______ X ______ X ______ = Attic Value	
	From the Other Features Calculations topic, get: Total Other Features Value	

<table>
<tr><th>Source</th><th colspan="5">Calculations</th><th>Result</th></tr>
<tr><td></td><td colspan="5">Add the values above to calculate the:
Dwelling RCN Subtotal</td><td></td></tr>
<tr><td>CAMA Residential Dwellings tab</td><td colspan="5">Get Depreciation Override if present, or Table Percent Good from the CAMA Residential Depreciation Factor Setup below.
Depreciation Percent</td><td></td></tr>
<tr><td>Setup Forms
CAMA Residential Cost Factors</td><td colspan="5">Factor “COST” – “VALYR” Valuation Year</td><td></td></tr>
<tr><td rowspan="5">CAMA Residential Dwellings tab</td><td colspan="5">Effective Year</td><td></td></tr>
<tr><td colspan="5">Year Built</td><td></td></tr>
<tr><td colspan="5">If Effective Year is present, subtract Effective Year from VALYR; otherwise subtract Year Built from VALYR.</td><td rowspan="4"></td></tr>
<tr><td colspan="2">VALYR</td><td>–</td><td colspan="2">Effective Year or Year Built</td></tr>
<tr><td colspan="2"></td><td>–</td><td colspan="2"></td></tr>
<tr><td></td><td colspan="5">= Age</td></tr>
<tr><td>CAMA Residential Dwellings tab</td><td colspan="5">CDU</td><td></td></tr>
<tr><td rowspan="10">Setup Forms
CAMA Residential Depreciation Factor Setup</td><td colspan="5">Query the Depreciation Table for this parcel. (See additions for depreciation table.)
Locate the correct Depreciation percent by finding the row of the Age of the dwelling, or the next higher age available, and the column for the subject CDU.
Depreciation Percent</td><td></td></tr>
<tr><td colspan="5">Multiply C&D Factor X .01; add 1.00: C&D Percent</td><td></td></tr>
<tr><td colspan="6">Multiply:</td></tr>
<tr><td>(Subtotal</td><td>+</td><td>User Amount)</td><td>X</td><td>C&D Percent</td><td rowspan="3"></td></tr>
<tr><td></td><td>+</td><td></td><td>X</td><td>X</td></tr>
<tr><td colspan="5">X User Factor
= Replacement Cost New (RCN)</td></tr>
<tr><td colspan="5">Multiply:</td><td rowspan="4"></td></tr>
<tr><td colspan="2">Dwelling Replacement Cost New</td><td>X</td><td colspan="2">Depreciation Percent</td></tr>
<tr><td colspan="2"></td><td>X</td><td colspan="2"></td></tr>
<tr><td colspan="5">= Replacement Cost New Less Depreciation (Dwelling RCNLD)</td></tr>
</table>

<table>
<tr><th>Source</th><th>Calculations</th><th>Result</th></tr>
<tr><td rowspan="7">CAMA Residential Dwellings tab</td><td colspan="2">Get functional and economic depreciation percents.</td></tr>
<tr><td><table>
<tr><th>RCNLD</th><th>X</th><th>Functional Depreciation</th><th>X</th><th>Economic Depreciation</th></tr>
<tr><td></td><td>X</td><td></td><td>X</td><td></td></tr>
<tr><td colspan="5">= Replacement Cost New Less Depreciation (RCNLD)</td></tr>
</table></td><td></td></tr>
<tr><td>Multiply:<table>
<tr><th>RCNLD</th><th>X</th><th>Percent Complete</th></tr>
<tr><td></td><td>X</td><td></td></tr>
<tr><td colspan="3">= Adjusted RCNLD</td></tr>
</table></td><td></td></tr>
<tr><td colspan="2">Add:</td></tr>
<tr><td><table>
<tr><th>Adjusted RCNLD</th><th>+</th><th>Sum of Addition RCNLDs</th></tr>
<tr><td></td><td>+</td><td></td></tr>
<tr><td colspan="3">= Total Dwelling RCNLD</td></tr>
</table></td><td></td></tr>
<tr><td colspan="2">Multiply:</td></tr>
<tr><td><table>
<tr><th>Dwelling RCNLD</th><th>X</th><th>Class Factor (or 1.00)</th></tr>
<tr><td></td><td>X</td><td></td></tr>
<tr><td colspan="3">= Dwelling Value</td></tr>
</table></td><td></td></tr>
<tr><td>CAMA Residential Values tab</td><td>The sum of the dwelling value of all the cards is written to APRVAL.DWELVAL.

The dwelling value times Building class Factors is written to APRVAL.BLDGVAL (“Building Cost” on the Values tab).</td><td></td></tr>
</table>

Residential Condominium Valuation

The following formula defines the cost calculation for a condominium using the CLT method. The location of each data element needed is identified by iMaintain tab or setup form.

<table>
<tr><th>Source</th><th colspan="4">Calculations</th><th>Result</th></tr>
<tr><td></td><td colspan="4">If Dwelling valuation method (DWELDAT.VALMETH) = “C”:</td><td></td></tr>
<tr><td>Setup Forms
CAMA Assessment Administration
Jurisdictions</td><td colspan="4">Get residential cost version for jurisdiction and tax year (JURIS.RESVER).
Version</td><td></td></tr>
<tr><td rowspan="3">Dwellings tab</td><td colspan="4">Get condo complex number (DWELDAT.CNDCMPLX).
Complex</td><td></td></tr>
<tr><td colspan="4">Get condo type (DWELDAT.CONDOTYP).
Type</td><td></td></tr>
<tr><td colspan="4">Get floor level of condo (DWELDAT.CONDOLVL).
Level</td><td></td></tr>
<tr><td rowspan="10">CAMA Condominium Complex Transaction,
Condo tab</td><td colspan="4">Get rate/value for condo type, using jurisdiction, tax year, complex number, and level (CNDTYPE.TYPEVAL).
Rate/Value</td><td></td></tr>
<tr><td colspan="4">Get type of calculation for condo type (CNDTYPE.CALCTYPE).
Calculation type</td><td></td></tr>
<tr><td colspan="4">If condo type has floor adjustment (CNDTYPE.FLRADJ is not null), and level is in from-to range (DWELDAT.CONDOLVL greater than CNDTYPE.FLRFRM and not greater than CNDTYPE.FLRTO), retrieve adjustment type (CNDTYPE.FLRCALC) and adjustment amount (CNDTYPE.FLRADJ):
Adjustment Type</td><td></td></tr>
<tr><td colspan="4">Adjustment Amount</td><td></td></tr>
<tr><td colspan="5">Calculate condo base value as:

If calculation type = SQF:</td></tr>
<tr><td>Area
CNDTYPE.AREA</td><td>X</td><td>Rate
CNDTYPE.TYPEVAL</td><td>=</td><td>Value
DWELDAT.
CNDBASEVAL</td></tr>
<tr><td></td><td>X</td><td></td><td>=</td><td></td></tr>
<tr><td colspan="5">If calculation type = AMT:</td></tr>
<tr><td colspan="3">Rate
CNDTYPE.TYPEVAL</td><td>=</td><td>Value
DWELDAT.
CNDBASEVAL</td></tr>
<tr><td colspan="3"></td><td>=</td><td></td></tr>
</table>

<table>
<tr><th>Source</th><th colspan="2">Calculations</th><th>Result</th></tr>
<tr><td>CAMA Condominium Complex Transaction, Details tab</td><td colspan="3">Calculate condo adjusted value, compounding the adjustment for each floor above the base. For example, if the floor from is 01, and the floor to is 05, and the condo is on floor 04, take the base value, adjust it for floor 02, then adjust that value for floor 03, then adjust that value for floor 04.

If adjustment calculation type = PCT
<table>
<tr><th colspan="3">Value</th><th>X</th><th>(Floor Adj. / 100)</th><th>=</th><th>Intermediate Value</th></tr>
<tr><td colspan="3"></td><td></td><td></td><td></td><td></td></tr>
<tr><td># of floor to adjust</td><td>X</td><td>Intermediate value</td><td>X</td><td>(Floor Adj. / 100)</td><td>=</td><td>Intermediate Value</td></tr>
<tr><td></td><td>X</td><td></td><td>X</td><td></td><td>=</td><td></td></tr>
<tr><td></td><td>X</td><td></td><td>X</td><td></td><td>=</td><td></td></tr>
<tr><td></td><td>X</td><td></td><td>X</td><td></td><td>=</td><td></td></tr>
<tr><td colspan="6">DWELDAT.CNDBASEVAL X CNDTYPE.FLRADJ / 100 = DWELDAT.CNDADJVAL</td><td></td></tr>
</table>

If adjustment calculation type = AMT
<table>
<tr><th colspan="3">Rate
DWELDAT.CNDBASEVAL</th><th>+</th><th>(Floor Adj. / 100)
CNDTYPE.FLRADJ / 100</th><th>=</th><th>Intermediate Value</th></tr>
<tr><td colspan="3"></td><td></td><td></td><td></td><td></td></tr>
<tr><td># of floor to adjust</td><td>X</td><td>Intermediate value</td><td>+</td><td>(Floor Adj. / 100)</td><td>=</td><td>Intermediate Value</td></tr>
<tr><td></td><td>X</td><td></td><td>+</td><td></td><td>=</td><td></td></tr>
<tr><td></td><td>X</td><td></td><td>+</td><td></td><td>=</td><td></td></tr>
<tr><td></td><td>X</td><td></td><td>+</td><td></td><td>=</td><td></td></tr>
<tr><td colspan="6">DWELDAT.CNDBASEVAL X CNDTYPE.FLRADJ / 100 = DWELDAT.CNDADJVAL</td><td></td></tr>
</table>
</td></tr>
<tr><td>Setup Forms CAMA Residential Cost Factors</td><td colspan="2">Get Schedule Level Factor (FACT=LEVEL, CODE = RES).
SLF</td><td></td></tr>
</table>

Source	Calculations	Result
CAMA Residential Dwellings tab	Get miscellaneous other features. Multiply:	

Rate for factor MISC, variable (DWELDAT Misc 1 description)	X	SLF	X	Misc 1 Quantity	=	Misc 1 Value
	X		X		=	
Rate for factor MISC, variable (DWELDAT Misc 2 description)	**X**	**SLF**	**X**	**Misc 2 Quantity**	**=**	**Misc 2 Value**
	X		X		=	

Compute RCN.

DWELDAT.CNDADJVAL	+	DWELDAT. MSC1VAL	+	DWELDAT.MSC2VAL	=	DWELDAT. RCNVAL
					=	

Get market adjustment	
DWELDAT.MKTADJ	

Compute RCNLD.

DWELDAT.RCNVAL	X	DWELDAT.MKTADJ	=	DWELDAT. RCNLD
	X		=	

Apply neighborhood/class factors, in the same manner as dwelling valuation.

SFLA Calculations

The following formula defines the calculations for residential square foot living area (SFLA) using the CLT method. The location of each data element needed is identified by iMaintain tab or setup form.

Source	Calculations	Result
CAMA Residential Dwellings tab	Get story height. STORIES	
	Get attic code. ATTIC	
CAMA Residential Additions tab	Get main ground floor area (MGFA) from area of line 0. MGFA	
Setup Forms CAMA Residential Cost Factors	Get story height factor as Rate where Fact = STORYSF and Code = number of stories. SF FACTOR	
	Get attic factor as Rate where Fact = ATTICSF and Code = attic code. ATTIC FACTOR	
	Compute base dwelling SFLA as:	
	(MGFA X SF Factor) + (MGFA X Attic Factor) =	SFLA
	_____ X _____ + _____ X _____	
	_____ + _____	
	= SFLA	
CAMA Residential Additions tab	Get area for each addition. Addition 1 area	
	Addition 2 area	
	Addition 3 area	
	Addition 4 area	

<table>
<tr><th>Source</th><th colspan="6">Calculations</th><th>Result</th></tr>
<tr><td rowspan="17">Setup Forms
CAMA Residential
Addition Factors</td><td colspan="6">Get SFLA Percent for each addition code found on the Additions tab.

Multiply:</td><td></td></tr>
<tr><td>(Addition Area</td><td>X</td><td>Corresponding
SFLA Percent)</td><td>+</td><td>SFLA</td><td>=</td><td>SFLA Percent</td></tr>
<tr><td>__________</td><td>X</td><td>__________</td><td></td><td></td><td></td><td rowspan="3"></td></tr>
<tr><td colspan="3">__________</td><td>+</td><td>__________</td><td></td></tr>
<tr><td colspan="6">= Addition 1 SFLA Percent</td></tr>
<tr><td>(Addition Area</td><td>X</td><td>Corresponding
SFLA Percent)</td><td>+</td><td>SFLA</td><td>=</td><td>SFLA Percent</td></tr>
<tr><td>__________</td><td>X</td><td>__________</td><td></td><td></td><td></td><td rowspan="3"></td></tr>
<tr><td colspan="3">__________</td><td>+</td><td>__________</td><td></td></tr>
<tr><td colspan="6">= Addition 2 SFLA Percent</td></tr>
<tr><td>(Addition Area</td><td>X</td><td>Corresponding
SFLA Percent)</td><td>+</td><td>SFLA</td><td>=</td><td>SFLA Percent</td></tr>
<tr><td>__________</td><td>X</td><td>__________</td><td></td><td></td><td></td><td rowspan="3"></td></tr>
<tr><td colspan="3">__________</td><td>+</td><td>__________</td><td></td></tr>
<tr><td colspan="6">= Addition 3 SFLA Percent</td></tr>
<tr><td>(Addition Area</td><td>X</td><td>Corresponding
SFLA Percent)</td><td>+</td><td>SFLA</td><td>=</td><td>SFLA Percent</td></tr>
<tr><td>__________</td><td>X</td><td>__________</td><td></td><td></td><td></td><td rowspan="3"></td></tr>
<tr><td colspan="3">__________</td><td>+</td><td>__________</td><td></td></tr>
<tr><td colspan="6">= Addition 4 SFLA Percent</td></tr>
<tr><td rowspan="2">CAMA Residential
Dwellings tab</td><td colspan="6">Get finished basement living area and add to SFLA.
Finished basement living area + SFLA</td><td></td></tr>
<tr><td colspan="6">Get user other feature area.
User other feature area</td><td></td></tr>
</table>

Source	Calculations					Result
Setup Forms CAMA Residential Cost Factors	Get SFLA percent for user other feature area as Rate where Fact = OTHER-FEAT and Code = UFPCT. SFLA Percent					
	Multiply SFLA percent X user other feature area, and add to SFLA. (Percent can be negative, resulting in a reduction to SFLA.)					
	(SFLA Percent	X	User other feature area)	+	SFLA	
		X				
				+		
					= SFLA	

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Glosssary of Forms

iMaintain Form Description	Table Name	Legacy Form
Transaction Tabs		
CAMA Residential Parcel tab	PARDAT	CA12
CAMA Residential Values tab	APRVAL	CA11
Setup Forms		
Assessment Administration—Jurisdictions setup	JURIS	AA44
CAMA General—Neighborhood Parameters setup	LPNBHD	LP51
CAMA General—Neighborhood/Class Factors setup	NPHDFACT	CA41
CAMA Residential Addition Factors setup	RCADDN	CA43
CAMA Residential Additions tab	ADDN	CA22
CAMA Residential Condominium Complex	CNDTYPE	CA17
CAMA Residential Cost Factors setup	RCFACT	CA42
CAMA Residential Depreciation Factors setup	RCDEPR	CA44
CAMA Residential Dwellings tab	DWELLDAT	CA21
System Factors setup	SYSFACT	SY23
System User Field Definitions setup	USRDEF	SY83

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Appraisal & Tax Solutions
CAMA Commercial CLT Calculation

Version 2.0

February 2015

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Main Building Valuation

The following formulas define the cost calculations for a commercial building. In the calculations, each section is valued separately for a building (card), and each building is valued separately for the parcel.

In following these instructions manually, value each section line with its corresponding component lines, and then sum for the commercial building data. Where multiple lines are shown for sections and components, use as many lines as needed for the building.

The source of each required data element is identified by its iMaintain tab or setup form.

<table>
<tr><th>Source</th><th colspan="7">Calculations</th><th>Result</th></tr>
<tr><td>Setup Forms
Assessment
Administration—
Jurisdictions</td><td colspan="7">Get the Cost Table Version (Comver) for the subject tax year.
Version</td><td></td></tr>
<tr><td rowspan="4">CAMA
Commercial
Com Bldgs tab</td><td colspan="7">Get the Structure Code, Grade, Effective Year (if present), or Year Built.
Structure Code</td><td></td></tr>
<tr><td colspan="7">Grade</td><td></td></tr>
<tr><td colspan="7">Effective Year</td><td></td></tr>
<tr><td colspan="7">Year Built</td><td></td></tr>
<tr><td rowspan="7">CAMA
Commercial
Com Int/Ext tab</td><td colspan="7">Get the Effective Year, if present; otherwise get the Year Built. Substitute this year for the Com Bldgs tab Year Built for this line.</td><td rowspan="7"></td></tr>
<tr><td colspan="7">Get the following exterior data, determining the Floor Level code according to the table below.</td></tr>
<tr><td colspan="2">From level</td><td>Level Code</td><td></td><td colspan="2">From level</td><td>Level Code</td></tr>
<tr><td>A</td><td>Attic</td><td>U</td><td></td><td>B</td><td>Basement</td><td>B</td></tr>
<tr><td>C</td><td>Crawl Space</td><td>B</td><td></td><td>E</td><td>Enclosure</td><td>None</td></tr>
<tr><td>M</td><td>Mezzanine</td><td>U</td><td></td><td>P</td><td>Penthouse</td><td>U</td></tr>
<tr><td>01</td><td></td><td>F</td><td></td><td>02-99</td><td></td><td>U</td></tr>
</table>

Source	Calculations	Result
CAMA Commercial Com Int/Ext tab	Record the following details.	

Line	Floor Level(s)	Floor Level Code	Area	Perimeter	Use Type	Use Group
Line	**Wall Height**	**Ext. Wall**	**Const.**	**Eff. Year**	**Phys**	**Functional**

Source	Calculations
Com Int/Ext tab Setup Forms CAMA Commercial (Base Cost)—Commercial Interior Rates	Get the following interior data for each line. Get rates for Commercial Cost Version and use type.

Line	Use Type	Finish % / Rate	Partitions / Rate	Heat Code / Rate	Air / Rate	Plumbing / Rate	Lighting / Rate

Source	Calculations	Result
Setup Forms CAMA Residential—Cost Factors	Get the Commercial Schedule Level Factor (CSLF) Factor: LEVEL, Variable: COM	
	Get the Grade Factor: Factor: GRADE, Variable (Com Bldg Grade)	
	Get the Valuation Year Factor: COST, Variable JURVALYR* *If JURVALYR (multi-jurisdiction installations) variable not present, use VALYR.	

<table>
<tr><th>Source</th><th>Calculations</th><th>Result</th></tr>
<tr><td>Setup Forms CAMA Commercial (Base Cost) — Commercial Interior Rates</td><td>Get the Basic Structure Code (BSC) for the Ver and Structure Code.

BSC</td><td></td></tr>
<tr><td>Setup Forms CAMA Commercial (Base Cost) — Commercial Base SF Rates</td><td>Get the Base Rate for the Basic Structure Code, Floor Level, and Construction/Material.

Base Rate (BSR)</td><td></td></tr>
<tr><td rowspan="3">Setup Forms CAMA Commercial (Base Cost) — Commercial Exterior Wall Rates</td><td>Get the Base Wall Rate (BWR) for the Exterior Wall Code and BSC. (Basement level will have zero wall rate.) See Notes for calculation of wall rate in Indiana.

BWR</td><td></td></tr>
<tr><td colspan="2">Calculate the Perimeter Area Ratio (PAR) by dividing the Perimeter by the Area, rounding to the nearest .0001.<table>
<tr><th>Perimeter</th><th>/</th><th>Area</th><th>=</th><th>Rounded PAR</th></tr>
<tr><td></td><td>/</td><td></td><td>=</td><td></td></tr>
</table></td></tr>
<tr><td colspan="2">Calculate the Adjusted Wall Rate (AWR) by multiplying the PAR times the Wall Height times the BWR (Wall Rate), rounded to pennies.<table>
<tr><th>Perimeter Area Ratio (PAR)</th><th>X</th><th>Wall Height</th><th>X</th><th>Base Wall Rate (BWR)</th><th>=</th><th>Adjusted Wall Rate (AWR)</th></tr>
<tr><td></td><td>X</td><td></td><td>X</td><td></td><td>=</td><td></td></tr>
</table></td></tr>
<tr><td>Setup Forms CAMA Commercial (Base Cost)— Commercial Interior Rates</td><td>Get the Base Rate for Use for the Use Type and Ver.

BUR</td><td></td></tr>
</table>

Source	Calculations	Result
	Calculate adjustments:	
	Interior Finish Adjustment (IFA) = CAMA Commercial (Base Cost) Commercial Interior Rate times Unfinished Area Percent (UFAP) divided by 100, rounded to pennies. UFAP = 100 minus Interior Finish percent.	

100	– (minus)	Interior Finish %	=	UFAP
	–		=	
Commercial Interior Rate	X	(UFAP / 100)	=	IFA
	X		=	

Partitions Rate from CAMA Commercial (Base Cost) Commercial Interior Rate setup	=	Partitions Adjustment (PA)
	=	
Heating Rate from CAMA Commercial (Base Cost) Commercial Interior Rate setup	=	Heating Adjustment (HA)
	=	
Air Conditioning Rate from CAMA Commercial (Base Cost) Commercial Interior Rate setup	=	A/C Adjustment (ACA)
	=	
Plumbing Rate from CAMA Commercial (Base Cost) Commercial Interior Rate setup	=	Plumbing Adjustment Rate (PBA)
	=	
Lighting Rate from CAMA Commercial (Base Cost) Commercial Interior Rate setup	=	Lighting Adjustment Rate (LTA)
	=	

	Calculate Square Foot Rate (SFR) as:

BSR	+	AWR	+	BUR	–	IFA	+	PA	+	HA	+	ACA	+	PBA	+	LTA	=	Square Foot Rate (SFR)
	+		+		–		+		+		+		+		+		=	

	Adjust Square Foot Rate (SFR) for number of stories (NSF) and user field adjustments (USRADJ) and schedule level factor.	

<table>
<tr><th>Source</th><th>Calculations</th><th>Result</th></tr>
<tr><td>CAMA
Commercial
Com Int/Ext tab</td><td>Get maximum floor for building section.
FLRTO</td><td></td></tr>
<tr><td rowspan="2">Setup Forms
CAMA Residential
Cost Factors</td><td>Get story adjustment rate from RCFACT
FACT = COMSTRY
CODE=NSADJ
NSRATE</td><td></td></tr>
<tr><td>IF FLRTO > “05”, THEN
1 + (NSRATE X (FLRTO-5) X (FLRTO-4) / (2 X FLRTO)) = NSF</td><td></td></tr>
<tr><td>Setup Forms
System User Field
Definitions</td><td>Get function name, if applicable, for all Com Bldgs (COMDAT) user fields.</td><td></td></tr>
<tr><td>CAMA
Commercial
Com Bldgs tab</td><td>Get data for user fields that have functions defined.</td><td></td></tr>
<tr><td rowspan="3">Setup Forms
CAMA Residential
Cost Factors</td><td colspan="2">Get rate from RCFACT for data in user fields where function = FRCNPNT
FACT = CUSERn
CODE = value in USERn</td></tr>
<tr><td><table>
<tr><th>User Field #</th><th>Function</th><th>Data on Com Bldgs</th><th>Factor (PNT)</th></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
</table></td><td></td></tr>
<tr><td>If Function = FRCNPNT, use the rate from RCFACT corresponding to the value in the user field.
If Function = URCNPNT, use the value in the user field as the rate.
Compute USERADJ = 1 + Σ(PNT).</td><td></td></tr>
<tr><td></td><td colspan="2">Calculate adjusted square foot rate (ASFR) as:
<table>
<tr><th>NSF</th><th>X</th><th>USERADJ</th><th>X</th><th>SFR</th><th>X</th><th>CSLF</th><th>=</th><th>ASFR</th></tr>
<tr><td></td><td>X</td><td></td><td>X</td><td></td><td>X</td><td></td><td>=</td><td></td></tr>
</table></td></tr>
</table>

Source	Calculations	Result
	Adjust by Floor Level Factor if appropriate, rounding to pennies:	

Floor Level	Code	Floor Level Factor
A	U	Effective area = area X 0.4
C	B	Apply 0.2 to Structural Cost
E	None	No structural cost, only wall

Source	Calculations	Result
	Calculate Base Price as effective square feet (for attics, Com Int/Ext times 0.4; for non-attics, Com int/Ext area) times number of stories times ASFR	

Source	(Com Int/Ext Area	X	0.4)	X	Stories	X	ASFR rounded	=	Base Price
Attics:		X	0.4	X		X		=	
Others:				X		X		=	

Source	Calculations	Result
CAMA Commercial Com Features tab	Other Features values are added to the value of the Interior/Exterior Line (Com Int/Ext tab) where the line number equals the Other Feature Line number. Add Building Other Features values. See the topic Building Other Features Calculations for details.	

Base Price	+	Total Building Other Features (BOFs)	=	Building Subtotal
	+		=	

Source	Calculations	Result
	Multiply Subtotal times Grade Factor to get RCN.	

Subtotal	X	Grade Factor	=	RCN
	X		=	

Notes:

- FOR INDIANA (juris.comvalmeth) = 'IND'
  If the following SYSFACT set up exists and value of fact = 1 then the wall rate will be calculated as follows
  CALCNAME = 'WALLRATE'
  ver = COmver from juris
  Tble = COMINTEXT
  COl = WALLHGT
  If walladj on CIBASE is 0 THEN use Wall height from Comintext
  v_wrate := v_wrate * v_wrate4 * i_wallhgt
  else use wall height from CIBASE
  v_wrate := v_wrate * v_wrate4 * NVL(gtab.g_cibase.wallht,0)

CLT Commercial Depreciation

With the CLT method, commercial depreciation is generated by cross-referencing the Structure Code and the Construction Type (both found on the Com Bldgs tab), instead of the Neighborhood as in Residential depreciation.The CAMA Commercial Structure Code Assignments setup form defines each Structure Code and its depreciations tables by Construction Type.

The calculations applied to each RCN are as follows.

Source	Calculations	Result
CAMA Commercial Com Int/Ext tab	Get Depreciation Override, if present, or Table Percent Good from Depreciation Worksheet below for Physical Depreciation. Depreciation Override or Table Percent Good	
CAMA Commercial Com Bldgs tab	Get the Structure Code (COMDAT.STRUCTURE). This is applicable to all sections in a building, (lines on a card). Structure Code	
CAMA Commercial Com Int/Ext tab	Get the Construction Type (COMINTEXT.CONSTR) applicable only to its own section (line). Construction Type	
Setup Forms CAMA Commercial (Base Cost)— Commercial Structure Code Assignments	Get the DPT (Depreciation Table) for the Cost Version, Structure Code and Construction Type: a) For Construction Type codes of 1 and 4, use the Frm column (CISTRUCT.FRAME) for determining the DPT. DPT	
	b) For all other Construction Type codes, use the Fire Res column (CISTRUCT.BRICK) for determining the DPT. DPT	
CAMA Commercial Com Bldgs tab	If the depreciation table from the Commercial Structure Code Assignments setup is null, use the depreciation table on the Com Bldgs tab. DPT	
	Note: “Expected life for depreciation of…” is defined in years, which is traditionally the name of the depreciation table to be used, i.e. 40, 50, 60…	
CAMA Commercial Parcel tab	Neighborhood is used to get the CDU table to be referenced in the CDU definitions. Neighborhood	

<table>
<tr><th>Source</th><th colspan="3">Calculations</th><th>Result</th></tr>
<tr><td>System Setup Forms
CAMA General—Neighborhood Parameters

CAMA Commercial (Base Cost)- Commercial CDU Lookups</td><td colspan="3">Get the CDU table for the Cost Version and Neighborhood. If no record exists for the COMVER version, use LANDVER.

CDU Table</td><td></td></tr>
<tr><td rowspan="5">System Setup Forms
CAMA Commercial (Base Cost) — Commercial CDU Lookups</td><td colspan="4">Get the CDU for the physical and functional codes, using COMVER and CDU table.</td></tr>
<tr><th>Line</th><th>Physical</th><th>Functional</th><th>CDU</th></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td>CAMA Commercial
Com Int/Ext tab</td><td colspan="3">Determine the Age of the building.

a) (VALYR) minus (COMINTEXT.EFFYR) from each section (line) on the Comm Sections tab, if present</td><td rowspan="5"></td></tr>
<tr><td>CAMA Commercial
Com Int/Ext tab</td><td colspan="3">Else,

b) (VALYR) minus (COMINTEXT.YRBLT) from each section (line) on the Comm Sections tab, if present</td></tr>
<tr><td>CAMA Commercial
Com Bldgs tab</td><td colspan="3">Else,
c) (VALYR) minus (COMDAT.EFFYR) for the building on the Com Bldgs tab, if present</td></tr>
<tr><td>CAMA Commercial
Com Bldgs tab</td><td colspan="3">Else,
d) Default to, (VALYR) minus (COMDAT.YRBLT) for the building on the Com Bldgs tab.</td></tr>
<tr><td></td><td colspan="3">= Age</td></tr>
</table>

<table>
<tr><th colspan="2">Source</th><th colspan="8">Calculations</th><th>Result</th></tr>
<tr><td colspan="2">System Setup
Forms
CAMA Residential-Depreciation Factors</td><td colspan="8">Get the Depreciation Percent (Percent Good) for the CDU and Age.
Depreciation Percent</td><td></td></tr>
<tr><td colspan="2" rowspan="3">CAMA Commercial
Com Int/Ext tab</td><td colspan="8">Get the Functional and Economic Depreciation Percents (Percent Good).
Functional Depreciation</td><td></td></tr>
<tr><td colspan="8">Economic Depreciation</td><td></td></tr>
<tr><td colspan="8">Get the Obsolescence Depreciation Percent (Percent Good).
Obsolescence (% Good)</td><td></td></tr>
<tr><td colspan="2"></td><td colspan="9">Calculate RCNLD as RCN times depreciation percents.</td></tr>
<tr><th>RCN</th><th>X</th><th>% Good from table or override</th><th>X</th><th>Functional % good, if entered</th><th>X</th><th>Economic % good, if entered</th><th>X</th><th>Obsolescence % Good, if entered</th><th>=</th><th>RCNLD</th></tr>
<tr><td></td><td>X</td><td></td><td>X</td><td></td><td>X</td><td></td><td>X</td><td></td><td>=</td><td></td></tr>
<tr><td colspan="2">CAMA Commercial
Com Bldgs tab</td><td colspan="9">The sum of all the Commercial Interior/Exterior RCN’s and RCNLD's for a given card of a parcel are written to the Main Building record.</td></tr>
<tr><td colspan="2" rowspan="3">CAMA Commercial
Comm Sections tab</td><td colspan="9">Calculate average depreciation for building.
100 * total RCNLD / total RCN (this includes any functional and/or economic depreciation entered on CA34).</td></tr>
<tr><th>100</th><th>X</th><th colspan="3">(Total RCNLD</th><th>/</th><th>Total RCN)</th><th>=</th><th>Average Depreciation for building</th></tr>
<tr><td>100</td><td>X</td><td colspan="3"></td><td>/</td><td></td><td>=</td><td></td></tr>
<tr><td colspan="2" rowspan="4">CAMA Commercial
Com Bldgs tab</td><td colspan="8">Get Market Adjustment override.
Market Adjustment Override</td><td></td></tr>
<tr><td colspan="9">If Market Adjustment > 0, compute:
RCNLD = RCN * Market Adjustment. (This override is a composite of depreciation from all sources.)</td></tr>
<tr><th colspan="4">RCN</th><th>X</th><th colspan="2">Market Adjustment Override</th><th>=</th><th>RCNLD</th></tr>
<tr><td colspan="4"></td><td>X</td><td colspan="2"></td><td>=</td><td></td></tr>
</table>

<table>
<tr><th>Source</th><th colspan="4">Calculations</th><th>Result</th></tr>
<tr><td rowspan="7">System Setup Forms
CAMA General-Neighborhood / Class Factors

CAMA Commercial Com Bldgs tab</td><td colspan="4">Get the Neighborhood Adjustment Factor for the neighborhood and class. (Use property class for building, if it exists; otherwise parcel property class.), screen Com Bldgs, and column BLDGVAL.

Neighborhood Adjustment Factor</td><td></td></tr>
<tr><td colspan="4">Get LO and HI values.

Neighborhood Adjustment Factor, LO Value</td><td></td></tr>
<tr><td colspan="4">Neighborhood Adjustment Factor, HI Value</td><td></td></tr>
<tr><td colspan="4">Compute:
If RCNLD not < LO and not > HI,
RCNLD = RCNLD * Neighborhood Adjustment</td><td></td></tr>
<tr><td>RCNLD</td><td>X</td><td>Neighborhood Adjustment</td><td>=</td><td>RCNLD</td></tr>
<tr><td></td><td>X</td><td></td><td>=</td><td></td></tr>
<tr><td></td><td></td><td></td><td></td><td></td></tr>
</table>

Building Other Features Calculation

Other Features values are added to the value of the Interior/Exterior Line (Com Int/Ext tab) where the line number equals the Other Feature line number.

<table>
<tr><th>Source</th><th colspan="6">Calculations</th><th>Result</th></tr>
<tr><td>Setup Forms Assessment Administration—Jurisdictions</td><td colspan="6">Get the Cost Table Version (Comver if CLT method; Mswver if Marshall & Swift method) for the subject tax year.
Version</td><td></td></tr>
<tr><td>Setup Forms CAMA Residential Cost Factors</td><td colspan="6">Get Cost Schedule Level Factor (CSLF).
CSLF</td><td></td></tr>
<tr><td rowspan="7">CAMA Commercial Com Features tab
Setup Forms CAMA Commercial (Base Cost) — Commercial Other Features Rates</td><td colspan="7">Get the subject Structure Code, Meas 1, Meas 2, and Identical Units.
Get the Unit of Measure and Rate for the Ver and Structure.
Enter the information below.</td></tr>
<tr><th colspan="5">Com Features</th><th colspan="2">Setup Forms CAMA Commercial (Base Cost) — Commercial Other Features Rates</th></tr>
<tr><th>Line</th><th>Struct</th><th>Meas1</th><th>Meas2</th><th>Identical Units</th><th>Unit of Measure</th><th>Rate</th></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="6">Note: If there is an entry in the +/- field on the Com Features tab, then that entry and the entry in the Meas 1 field constitutes the value for that line.
(+/-) ____ ___________ (Meas 1) = Value</td><td></td></tr>
<tr><td>For Unit of Measure</td><td colspan="7">Calculate value as:</td></tr>
<tr><td rowspan="3">1—Quantity</td><td colspan="7">Rate = Value</td></tr>
<tr><th>Line</th><th colspan="2">Structure</th><th colspan="2">Rate</th><th>=</th><th>Value</th></tr>
<tr><td></td><td colspan="2"></td><td colspan="2"></td><td>=</td><td></td></tr>
</table>

Source	Calculations	Result

2—Area

Rate X Meas 1 X Meas 2 = Value

Line	Struct	Rate	X	Meas 1	X	Meas 2	=	Value
			X		X		=	
			X		X		=	
			X		X		=	
			X		X		=	

3—Lineal

Rate X Meas 1 = Value

Line	Structure	Rate	X	Meas 1	=	Value
			X		=	
			X		=	

4—Cylinder Area

Meas 1^2 X Rate X .07854 = Value

Line	Structure	Meas 1^2	X	Rate	X	.07854	=	Value
			X		X	.07854	=	
			X		X	.07854	=	

5—Cylinder Volume

Meas 1^2 X Rate X .07854 X Meas 2 = Value

Line	Struct	Meas 1^2	X	Rate	X	.07854	X	Meas 2	=	Value
			X		X	.07854	X		=	
			X		X	.07854	X		=	

6—Elevators

Rate + (Perstop X Number of Stops) = Value

Line	Struct	Rate	+	(Perstop Rate	X	# of Stops)	=	Value
			+		X		=	
			+		X		=	

Source	Calculations	Result
7—Escalators	Rate + (Perstop Rate X height in feet)= value	

Line	Struct	Rate	+	(Perstop Rate	X	Height in Feet)	=	Value
			+		X		=	
			+		X		=	

Source	Calculations
8—RCN Adjusted	((cifeat.rate/100) X (comintext.rcn/comintext.area)) X (comfeat.meas 1 X comfeat.meas2)

Line	Struct	((cifeat. rate	/	100)	X	(comintext. rcn	/	comintext. area))	X	(comfeat. meas1	X	comfeat. meas 2	=	Value
			/	100)	X		/		X		X		=	
			/	100)	X		/		X		X		=	

For each line, adjust by schedule level factor and number of units.

Line	Value	X	CSLF	=	Adjusted Value
		X		=	
		X		=	
		X		=	
		X		=	
		X		=	

Line	Adjusted Value	X	Identical Units	=	BOF (Building Other Features)
		X		=	
		X		=	
		X		=	
		X		=	
		X		=	

Source	Calculations	Result
9— Unit of Measure Note Area is assumed to be: AREA = COMFEAT.MEAS1 * COMFEAT.MEAS2 Null values for MEAS1 and MEAS2 default to “0”		
For FC:	**Calculate value as:**	

1 — R1 + (R2 X Square Root (area)) + (R3 X area) = Value

R1	+	(R2	X	Square Root (area))	+	(R3	X	area)	=	Value
	+		X		+		X		=	

2 — R1 X Area = Value

R1	X	area	=	Value
	X		=	

3 — R1 + (R2 X Area) + (R3 X Meas1 X Meas2) = Value

R1	+	(R2	X	area)	+	(R3	X	Meas1	X	Meas2)	=	Value
	+		X		+		X		X		=	

4 — R1 = Value

R1	=	Value
	=	

5 — (R1 X Area) + (R2 X Meas2) = Value

(R1	X	Area)	+	(R2	X	Meas2)	=	Value
	X		+		X		=	

6 — R1 + (R2 X Meas1 X Area) + (R3 X Meas1 X Meas1) = Value

R1	+	(R2	X	Meas1	X	Area)	+	(R3	X	Meas1	X	Meas1)	=	Value
	+		X		X		+		X		X		=	

7 — Area = Value

Area	=	Value
	=	

Source	Calculations	Result
11	If R4 > 0 and Area > R4 Then R5 + (R6 X Area) + (R7 / Area) = Value	

R5	+	(R6	X	Area)	+	(R7	/	Area	=	Value
	+		X		+		/		=	

Else if Area > 0 Then

R1 + (R2 X Area) + (R3 /Area) = Value

R1	+	(R2	x	Area)	+	(R3	/	Area)	=	Value
	+		X		+		/		=	

Else

0	=	Value
	=	

Source	Calculations	Result
12	(R1 X Meas1) + (R2 X Meas1 X # of Stops) + (R3 X Meas2) + (R4 X Meas2 X # of Stops) = Value	

(R1	X	Meas1)	+	(R2	X	Meas1	X	# of Stops)	+	
	X		+		X		X		+	
(R3	X	Meas2)	+	(R4	X	Meas2	X	# of Stops)	=	Value
	X		+		X		X		=	

Source	Calculations	Result
13	R1 + (R2 X Square Root (Area)) + (R3 X Area) + (R4 X # of Stops X Area) = Value	

R1	+	(R2	X	Square Root (Area))	+	R3	X	Area)	+	

(R4	X	# of Stops	X	Area)	=	Value
	X		X		=	

Source	Calculations	Result
14	R1 + (R2 X # of Stops) = Value	

R1	+	R2	X	# of Stops)	=	Value
	+		X		=	

<table>
<tr><th>Source</th><th>Calculations</th><th>Result</th></tr>
<tr><td rowspan="2">15</td><td colspan="2">R1 + (R2 X Square Root (Meas2)) + (R3 X Meas2) + (R4 X Meas1) + (R5 X Area) = Value</td></tr>
<tr><td colspan="2">
<table>
<tr><td colspan="3">R1</td><td>+</td><td colspan="3">(R2</td><td>X</td><td colspan="3">Square Root(Meas2))</td><td>+</td></tr>
<tr><td colspan="3"></td><td>+</td><td colspan="3"></td><td>X</td><td colspan="3"></td><td>+</td></tr>
<tr><td>(R3</td><td>X</td><td>Meas2)</td><td>+</td><td>(R4</td><td>X</td><td>Meas1</td><td>(R5</td><td>X</td><td>Area)</td><td>=</td><td>Value</td></tr>
<tr><td></td><td>X</td><td></td><td>+</td><td></td><td>X</td><td></td><td></td><td>X</td><td></td><td>=</td><td></td></tr>
</table>
</td></tr>
<tr><td rowspan="2">21</td><td colspan="2">(R1 X # of Stops) + (R2 X Square Root (Area)) + (R3 X Area) = Value</td></tr>
<tr><td colspan="2">
<table>
<tr><td>R1</td><td>X</td><td># of Stops)</td><td>+</td><td>(R2</td><td>X</td><td>Square Root (Area))</td><td>+</td><td>R3</td><td>X</td><td>Area)</td><td>=</td><td>Value</td></tr>
</table>
</td></tr>
<tr><td>Other</td><td colspan="2">Values for FC that are omitted from this table are not in use at this time.</td></tr>
<tr><td></td><td colspan="2">The sum of the Other Feature values (BOFs) is added in on Com Int/Ext. See the topic Main Building Valuation for details.</td></tr>
</table>

Glossary of Forms

iMaintain Form Description	Table	Legacy Form
Transaction Tabs		
CAMA Commercial Com Bldgs tab	COMDAT	CA31
CAMA Commercial Com Features tab	COMFEAT	CA32
CAMA Commercial Com Int/Ext tab	COMINTEXT	CA34
Setup Forms		
Assessment Administration—Jurisdictions	JURIS	AA44
CAMA General Neighborhood/Class Factor Setup	NBHDFACT	CA41
CAMA Residential Cost Factors	RCFACT	CA42
CAMA Residential Depreciation Factors	RCDEPR	CA44
CAMA Commercial (Base Cost) Structure Code Assignments	CISTRUCT	CA61
CAMA Commercial (Base Cost) Base SF Rates	CIBASE	CA62
CAMA Commercial (Base Cost) Exterior Wall Rates	CIEXT	CA63
CAMA Commercial (Base Cost) Interior Rates	CINTEXT	CA64
CAMA Commercial (Base Cost) Other Features Rates	CIFEAT	CA65
CAMA Commercial (Base Cost) Elevator Rates	CIELEV	CA66
CAMA Commercial (Base Cost) CDU Lookups	CICDU	CA67
CAMA Commercial (Base Cost)	RCDEPR	CA44
CAMA General Neighborhood Parameters	LPNBHD	LP51
System Factors setup	SYSFACT	SY23
System User Field Definitions setup	USRDEF	SY83

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Schedule of Values, Standards, and Rules

Appendix 3
Appraisal Attribute Code Definitions and Associated Business Rules

Pender County, North Carolina

Effective January 1, 2019

Table of Contents

From time to time the Tax Administrator of Pender County may deem it necessary to add or modify one or another code or appraisal policy (expressed as a business rule) contained in this *Schedule of Values*, to address unforeseen situations.

All such code changes and new policy are hereby incorporated into this *Schedule of Values* except that no new code or policy may negatively affect the equity of the valuations arising from the implementation of and continuing use of this Schedule, as approved.

Air Conditioning COM

Enter on the COMINTEXT screen (Interior/Exterior data): Field Name Air

Code	Description
0	None
1	Central
2	Units
3	Above Normal

Air Conditioning Residential

Please refer to DWELDAT.

Attic

DWELDAT screen ➔ Field Label = ATTIC

Code	Description
1	None
2	Unfinished
3	Part Finished
4	Full Finished

Business Rule: Attic – required entry for dwellings. One-character position is provided to enter the numeric code that most represents the presence of an attic and the extend of its finish. An attic must have permanent stairs leading up to it. Pull down stairs is not considered permanent stairs. Five choices are provided:

Enter 1	NONE to indicate no attic is present
Enter 2	UNFIN to indicate an unfinished attic having only a sub floor and stairs.
Enter 3	PT FIN to indicate either an undivided (one room) fully finished attic or a divided (two rooms) semi-finished attic where one room is finished and one room is unfinished.
Enter 4	FULL FIN to indicate a divided (two or more rooms) and fully finished attic

Basement

This field is on DWELDAT ➔ Field Label = BASEMENT and is a required field. The CAMA system may only be configured to add the same "lump sum" dollar amount for the following codes for this field (regardless of basement size).

In addition to entering the area in one of the above two User Fields, use the installed codes for Full and Part Basement, to officially flag to the system that the building has a "basement'

Code	Description
0	Not Classified

1	Earth/Dirt Floor
2	Pier/Post
3	Continuous Slab
4	Perimeter Footings
5	Brick Veil
6	Crawl Space
7	Basement
8	Finished Pilings
9	Unfinished Pilings
A	Continuous Slab (0)
B	Unfin Pilings/Garage
C	Fin Pilings/Garage

Basement Garage Cars

DWELDAT Screen ➔ Other Features Tab ➔ Screen literal = BSMT Garage # Cars

C&D

This is the DWELDAT Screen ➔ Field Label = Cost and Design. This field can increase or reduce the appraised value of a dwelling based on the appraiser-specified percentage.

Business Rule: The field should only be used to modify RCNLD value within the range of percentages shown in the description field for the C & D Reason codes below.

C&D Reason

This is the DWELDAT Screen ➔ Field Label = Cost and Design Reason.

Code	Description
1	Condition
2	Low-Drainage
3	Excess Physical Depreciation Present
4	Water Seepage – Basement
5	Found – Structure – Non-curable
6	Sketch Retained – Hist Purpose
7	Quality of Construction
8	Physical – Excessive Curable
9	As-Is Condition – Remodeling Due
B	BER/State Adjustment

CDU

This field describes the overall physical condition of a building. Secondarily, the appraiser should consider the overall desirability and utility of the building in estimating its CDU code.

The choice of condition should be treated commensurately with the improvement's actual age; that is, if the structure is twenty years old and fits the condition anticipated of typical twenty-year old structures, it should be identified as "average." Likewise, a newly constructed home, which boasts an appropriately typical condition as other new homes should also be indicated to be in "average" condition. The use of 'excellent" as a condition modifier is designed to reflect a premium resulting in a lower effective age, NOT the recordation of an actual, physical age.

Do not confuse CONDITION and original QUALITY of construction. "Condition" carries the following county-wide definitions and will seriously affect the estimate of depreciation.

Business Rule**:** Judge CDU for each building, following the standard expressed herein. Do not judge CDU using any other standard (i.e. any other neighborhood structure).

Business Rule: Enter the CDU code at the building level or leave the building's CDU field as null. If null, the system will apply the general CDU for the parcel's neighborhood.

Business Rule: Never enter a CDU code for a residential building addition.

Code Descriptions

EX - Excellent: The building is in NEW condition, is highly desirable in the market, and can be fully utilized for land's highest and best use without modification.

VG - Very Good: All items that can normally be replaced or repaired have recently been fixed, such as new roofing, new paint, furnace replaced, new wall coverings, new carpet, updated mechanical and electrical systems, etc. The market strongly desires buildings like the subject and can utilize the building for land's highest and best use with only cosmetic changes.

GD – Good: All items well maintained, many having been overhauled and repaired as soon as they showed signs of wear. The building is desirable to the market, but the market may require some modification to easily utilize the building for land's highest and best use.

AV – Average: The need for maintenance is showing but the overall impression is very reasonable. Nothing MUST be repaired. The building is desirable in the market but will require some modification to be easily utilized for land's highest and best use.

FR – Fair: Many items in the structure are showing their age but some repairs and cosmetic refinishing is needed immediately. The market does not view the building as being more than basic shelter (few want to buy the building). The market will require extensive modification to the building to utilize it for land's highest and best use.

PR – Poor: Major repair and overhaul needed on painted surfaces, roofing, plumbing, heating, et cetera. Virtually every item in the structure requires immediate attention. Found only in extraordinary circumstances. The market will actively avoid purchase of this building except to use it as dry storage. The roof may show many patches but will not be leaking.

VP - Very Poor: Major physical deterioration in addition to significant structural faults. Deterioration is considered incurable or not economically feasible to cure. Structure may currently be occupied but is approaching the end of its economic life.

U**N** – Unsound: Structure is condemned and is unsafe to enter.

Condo Appraisal Rules

There are two main types of condominium projects, each representing unique condo appraisal issues:

- Residential
- Commercial (usually associated with retail and/or office uses)

Residential**:** Descriptive codes may be added during the life of this revaluation cycle. The CAMA module's Cost and Market Approaches operate as designed for single family properties if the residential condominium parcel is described in normal residential terms. The descriptive attribute that is unique to residential condo parcels determines whether the apartment is an "end unit".

Business Rule**:** Appraise each apartment within the condominium project using the standard tools for any residential building - DWELDAT, ADDN and OBY. Be careful to use the Style field to define whether a residential condo unit is an End Unit or a Middle Unit.

Commercial: Descriptive codes may be added during the life of this revaluation cycle.
The CAMA module's Cost and income Approaches operate as designed for commercial and industrial properties if the commercial condominium parcel is described in normal commercial terms.

Business Rule**:** Appraise each unit within the condominium project using the standard tools for any commercial building, COMDAT, COMINTEXT, COMFEAT, and OBY.

Construction (Commercial)

Code	Description
0	No Construction Code
1	Wood Frame
2	Steel Frame (Fire Resistant)
3	Reinforced Concrete
4	Pre-engineered or Light Open Steel Frame

Construction (Residential)

Code	Description
1	ALU/VINL
2	FRAME
3	ASBESTOS
4	STUCCO
5	BRICK
6	CONC BLK
7	STONE
8	COMPOSITION
9	CDR/RDWD
10	WD PANEL
11	WD SHNGL
12	BLOCK
13	CEMFIBBD
14	CBSTUCCO
15	CEMBRICK
16	MAS/FRAME
17	REINFORCE CONC
18	METAL
19	GLASS
20	LOG

Effective Year Built

Year Built, together with CDU, will determine the estimate of depreciation applied to any building. Effective Year Built, if entered, will replace Year Built in this calculation.

Business Rule: Judge the Effective Year Built of any structure following the logical process described in the discussion of Effective Year Built in Appendix 1.

Entrance

Code	Description
0	VACANY OR OBY ONLY
1	ENTRANCE AND INFO GAINED
2	INFO AT DOOR
3	INFO REFUSED, MEASUREMENTS GAINED
4	TOTAL REFUSAL
5	OCCUPANT NOT HOME
6	CURRENTLY UNOCCUPIED

7	QUALITY CONTROL CHECK
8	OTHER REASON
9	PHONE CALL/DATA MAILER
10	INFO AT DOOR, MSMTS REFUSED
11	TYLER VERIFY/DESKTOP REVIEW

Entrance Information

Code	Description
0	(none)
1	OWNER
2	RELATIVE
3	TENANT
4	MANAGER
5	BUILDER
6	OTHER
7	NONE
8	MINOR

Exterior Wall

Please refer to the CONSTRUCTION (Exterior Walls, Residential) page for codes and definitions.

Fronts

Please refer to the LAND page for codes and definitions.

Function OBY

Please refer to the CDU page for codes and definitions.

Grade

Please refer to Quality Grade page for codes and definitions.

Heat (Residential)

Enter as Dwelling data in the Heat Code field.

Code	Description
1	None
2	Unit
3	Central

4	Central W/AC
5	Heat Pump
6	Radiant
7	WD Stove/Furnace
8	Solar
9	Elect – BB 09
J	Solar 10
K	No A/C 11
L	CNTRLHTA 12
M	CENTRLAC 13
N	RFTPOP AC 14
O	CHILLEDW 15

Heat (Commercial)

Enter as Heating data in the Heat Code field.

Code	Description
0	None
1	Below Normal (less than normal heat for the type of building)
2	Normal (normal heat for the type of building)
3	Above Normal (more than normal heat for the type of building)

Heating Fuel

Code	Description
0	None
1	Gas
2	Electric
3	Oil
5	Solar
6	Wood
7	Kerosene

Influence

Please refer to the LAND: Land Value Influences, Appraiser Adjustment Codes page for codes and definitions.

Interior Exterior Commercial

Please refer to the USE TYPES page for codes and definitions.

Investment Rating

The commercial building screen's Investment Rating field provides a measure of the Quality, Quantity, and Duration of the income a building is capable of producing.

Code	Description
1	Poor: Tenants are hard to find. Property stands vacant for considerable time.
2	Fair: Tenants go in and out of business. Property stands vacant at times.
3	Average: Tenants of average strength. Property is relatively easy to lease.
4	Good: Tenants using the property at highest and best use. Continue for some time.
5	Excellent: Tenants using the property at highest and best use. Continue for considerable time.

Land

The primary code for appraising land is the Land Code. The LPCODE table validates Land Codes for use in respective neighborhoods. Utilizing the CAMA software, the appraisal staff developed a schema for land appraisal able to accurately reflect the location, use and size of individual parcels, or parts thereof, and respond to other influences on land value.

Business Rule: All commercial land not required for the production of income must be identified as "residual" (to the production of income under the present use of the parcel).

Land Influence, Appraiser Adjustment

The appraiser may enter a percentage adjustment for any given Land Line.

Business Rule: All adjustments to Land Line values must be accompanied by an explanation that makes use of one of the following codes, either in the Neighborhood or in the parcel-level note fields where the appraiser elects to use a different adjustment than specified for the Neighborhood.

Code	Description
1	UNIMPROVED
2	EXTRA FRONT
3	TOPOGRAPHY
4	SHAPE/SIZE
5	MISIMPROVED
6	RESTRICTIONS
7	CORNER/ALLEY
8	VIEW
9	LOCATION
10	PERK TEST
11	WATERFRONT
12	ACCESS
13	EASEMENTS
14	DRAINAGE/FLD
15	ECONOMIC
16	EROSION
17	OTHER-NOTES
18	ROAD/STREET

Location

Location Codes are maintained on the Parcel Data screen. These codes represent a further refinement of the location of a parcel within a neighborhood. They are capable of directly modifying land value.

Code	Description
0	NO LOCATION
1	CENTRAL BUSINESS DIST (CBD)
2	PERIMETER CBD
3	BUSINESS CLUSTER
4	MAJOR STRIP
5	SECONDARY STRIP
6	NEIGHBORHOOD OR SPOT
7	COMMERICAL/INDUSTRIAL PARK
8	INDUSTRIAL SITE
9	APARTMENT/CONDOMINIUM SITE

Land Influences, Type of Street

Street Codes are maintained on the Parcel Data screen and can directly modify land value.

Code	Description
1	PAVED
2	UNPAVED
3	PROPOSED
4	ALLEY
5	PRIVATE
C1	CHANNEL INFLUENCE 1
C2	CHANNEL INFLUENCE 2
C3	CHANNEL INFLUENCE 3
CE	CONSERVATION EASEMENT
CF	CHANNEL FRONT
CI	COMMERCIAL INFLUENCE
G1	GOLF COURSE INFLUENCE 1
G2	GOLF COURSE INFLUENCE 2
G3	GOLF COURSE INFLUENCE 3
GF	GOLF COURSE FRONT
I1	INTRACOASTAL INFLUENCE 1
I2	INTRACOASTAL INFLUENCE 2
I3	INTRACOASTAL INFLUENCE 3
IF	INTRACOASTAL FRONT
II	INDUSTRIAL INFLUENCE

K1	CREEK INFLUENCE 1
K2	CREEK INFLUENCE 2
K3	CREEK INFLUENCE 3
KF	CREEK FRONT
M1	MARSH INFLUENCE 1
M2	MARSH INFLUENCE 2
M3	MARSH INFLUENCE 3
MF	MARSH FRONT
ML	MARSH LAND
N	NONE (FLAG FOR NO LOC CODE)
O1	OCEAN INFLUENCE 1
O2	OCEAN INFLUENCE 2
O3	OCEAN INFLUENCE 3
OF	Ocean Front
R1	RIVER INFLUENCE 1
R2	RIVER INFLUENCE 2
R3	RIVER INFLUENCE 3
RA	RURAL ACREAGE
RF	RIVER FRONT
S1	SOUND INFLUENCE 1
S2	SOUND INFLUENCE 2
S3	SOUND INFLUENCE 3
SF	SOUND FRONT
TN	TRAFFIC NOISE
W1	LAKE FRONT
W2	RETENTION POND FRONT
W3	FRESH WATER MARSH
WL	WASTELAND

Land Influences, Utility Available

Utility Codes are maintained on the Parcel Data screen. These codes MAY modify land value.

Code	Description
1	ELECTRICITY
2	GAS
3	WATER (PUB)
4	SEWER (PUB)
5	SPTCTANK
7	NATRL GAS
8	WELL
9	ALL PUB
10	NONE
11	WELL (SEC)
12	SPTC (SEC)

Land Use Codes

Code	Description
101	Single Family Residence
102	Two-Family
103	Three-Family
104	Multiple Houses on One Parcel
105	No Description
106	CONDO COMMON ELEMENT
107	Residential Condominium
108	Mobile Home
109	Residential Land with Accessory Structure
111	Apartments - 4 To 8 Units
112	Apartments - 8 Units or More
121	Rooming _ Boarding Houses
122	Fraternity _ Sorority Houses
123	Residential Halls or Dormitories
124	Rectories, Convents, Monasteries
125	Other Congregate Housing
13	Multiple Use - Primarily Residential
130	Vacant Land - Developable
131	Vacant Land - Potentially Developable
132	Vacant Land - Undevelopable
140	Child Care Facility
201	Residential Open Land
202	Underwater Land or Marshes - Residential
210	Non-Productive Agricultural Land
211	Non-Productive Vacant Land
220	Vacant Land - Commercial
221	Underwater Land or Marshes - Commercial
230	Industrial Vacant Land
231	Underwater Land or Marshes - Industrial
300	Hotels
301	Motels
302	Inns, Resorts or Tourist Homes
303	(Intentionally Left Bank)
304	Nursing Homes
305	Private Hospitals
306	Care _ Treatment Facilities
31	Multiple Use - Primarily Commercial
310	Storage for Oil Products
311	Bottled Gas _ Propane Gas Tanks
312	Grain _ Feed Elevators
313	Storage for Lumber

314	Truck Terminals
315	Piers, Wharves, Docks _ Related Facility
316	Storage, Warehouses and Distribution
317	Farm Buildings - Barns, Silo, Utility S
318	Commercial Greenhouses
319	Airport Hangars, Condos
320	Airport Hangars
321	Retail Building Materials, Farm Equipment
322	Discount Stores
323	Shopping Centers
324	Supermarkets Greater Than 10,000 Sf
325	Small Retail and Service Stores Under 1
326	Eating and Drinking Establishments
327	No Description
328	No Description
329	No Description
330	Automotive Vehicles Sales _ Services
331	Automotive Supplies Retail
332	Automobile Repair
333	Fuel Service Only
334	Automotive Gas Sales _ Service
335	Car Wash Facilities
336	Parking Garages
337	Parking Lots
338	Other Motor Vehicles Sales _ Services
339	No Description
340	General Office
341	Banks
342	Medical Office
343	Medical Office Condominium
344	No Description
345	No Description
346	No Description
347	No Description
348	No Description
349	No Description
350	Property Used for Postal Services
351	Educational Properties
352	Day Care Center
353	Fraternal Organizations
354	Bus Transportation Facilities
355	Funeral Homes
356	Miscellaneous Public Service (Professional)
360	Museums

361	Art Galleries
362	Motion Picture Theaters
363	Drive-Ins
364	Legitimate Theaters
365	Stadiums
366	Arenas _ Field Houses
367	Race Tracks
368	Fairgrounds _ Amusement Parks
369	Other Cultural _ Entertainment Property
370	Bowling
371	Ice Skating
372	Roller Skating
373	Swimming Pools
374	Health Spas
375	Tennis And/or Racquetball Clubs
376	Gymnasiums _ Athletic Clubs
377	Archery, Billiards, Other Indoor Facility
380	Golf Courses
381	Tennis Courses
382	Riding Stables
383	Beaches or Swimming Pools
384	Marinas
385	Fish _ Game Clubs
386	Camping Facilities
387	Summer Camps for Children
388	Other Outdoor Facilities
389	Structures on Land Classified Under Cha
390	Vacant Land - Accessory to Commercial P
391	Vacant Land - Accessory to Commercial P
392	Vacant Land - Undevelopable
393	Agricultural/Horticultural Land Not Inc
394	No Description
395	No Description
396	No Description
397	No Description
398	No Description
399	No Description
400	Manufacturing Facilities
401	Manufacturing Warehouse Facilities
402	Office Building
403	Vacant Land Used as An Integral Part Of
404	No Description
405	Research and Development Facilities
406	No Description

407	No Description
408	No Description
409	No Description
410	Sand and Gravel
411	Mobile Home Park
412	Rock
413	Other
414	No Description
415	No Description
416	No Description
417	No Description
418	No Description
419	No Description
420	Tanks
421	Liquid Natural Gas Tanks
422	Electric Company
423	Electric Transmission Right-Of-Way
424	Electricity Regulating Substations
425	Gas Production Plants
426	Gas Pipeline Right-Of-Way
427	Natural or Manufactured Gas Storage
428	Gas Pressure Control Stations
430	Telephone Exchange Stations
431	Vacant Land - Industrial
432	Cable Tv Transmitting Facilities
433	Radio, Television Transmission Facility
440	Developable Land - Accessory to Industry
441	Vacant Land - Industrial
442	Vacant Land - Undevelopable
450	Electric Generation Plants
451	Electric Generation Plants, Transition
452	Electric Generation Plants, Agreement V
601	All Land Designated Under Chapter 61
610	Pub Act Farm Land
620	Pub Act Forest Land
710	Cranberry Bog
711	Tobacco, Sod
712	Truck Crops - Vegetable
713	Field Crops - Hay, Wheat, Etc.
714	Orchards - Pears, Apples, Etc.
715	Grape Vineyards
716	Tillable Forage Cropland
717	Productive Woodland - Christmas Trees,
718	Pasture

719	Nurseries
720	Necessary Related Land - Farm Rd, Ponds
722	Wet Land, Scrub Land, Rock Land
801	Hiking - Trails or Paths
802	Camping - Areas with Sites Fir Overnight
803	Nature Study - Areas for Nature Study O
804	Boating - Recreational Boating + Support
805	Golfing - Areas of Land Arranged as A G
806	Horseback Riding - Trails or Areas
807	Hunting - Areas for The Hunting of Wild
808	Fishing Areas
809	Alpine Skiing - Areas For "Downhill" Sc
810	Nordic Skiing - Areas For "Cross-Country
811	Swimming Areas
812	Picnicking Areas
813	Public Non-Commercial Flying - Gliding
814	Target Shooting - Archery, Skeet or App
900	U.S. Government
901	State Of North Carolina
902	Counties
903	Municipality
904	Colleges
905	Charitable Organizations
906	Churches, Synagogues and Temples
907	121A Corporations
908	Housing Authority
909	Unknown
910	Department of Environmental Management
911	Division of Fisheries _ Wildlife
912	Department of Corrections, Division Of
913	Department of Public Health, Soldiers H
914	Dept Of Mental Health, Dept Of Mental R
915	Metropolitan District Commission (Water
916	Military Division - Campgrounds
917	Education - State Colleges, Community C
918	DEP Low-Level Radioactive Waste Manage
919	Other
920	Department of Environmental Management
921	Division of Fisheries _ Wildlife
922	Department of Corrections, Division Of
923	Department of Public Health, Soldiers H
924	State Highway Dept.
925	Metropolitan District Commission
926	Judiciary

927	Education - State Colleges, Community C
928	Bureau of State Office Buildings
929	Other
941	Cemeteries
999	Split Accts

Lighting

Enter as Commercial Building data: The Lighting field.

Code	Description
0	None
1	Below Normal (less than normal lighting for the type of building)
2	Normal (normal for the type of building)
3	Above Normal (more than normal lighting for the type of building)

Location (Land)

Please refer to the LAND: Land Influences, Location page for codes and definitions.

Market Adjustment

The appraiser may enter a percentage adjustment for any given building on the Commercial or Residential Building screens, in the Market Adjustment field.

Business Rule: All Market Adjustments to building values must be accompanied by an explanation that makes use of one of the following codes. These codes may be modified from time-to-time.

Code	Description
1	Economic
2	Physical
3	Functional
4	Location

Neighborhood and Modifier

Every parcel of real estate is assigned to a neighborhood. The number of neighborhoods is ever changing in response to the creation of new subdivisions and projects, and changes in zoning. During a revaluation cycle a given parcel's neighborhood code will only change with response to changes in zoning, splits or combinations of parcels, or to correct a rare error. However, when working on a new revaluation a parcel's neighborhood assignment is subject to material change. The values in a neighborhood may be modified together, or as stratified, to better meet market value.

Parking Quantities

There are three locations where we must capture and maintain parking data for all parcels: (l) the historic district, (2) the central business district, and (3) other commercial parcels.

Code	Description
0	None
1	Minimal
2	Adequate
3	Abundant

Parking Proximity

Code	Description
0	Far from Parcel
1	Near Parcel
2	Adjacent to Parcel
3	On-Site

Parking Types

Code	Description
0	None
1	Off Street
2	On Street
3	On and Off Street
4	Parking Deck

Partitions (Commercial)

Code	Description
0	None
1	Below Normal
2	Normal
3	Above Normal

Plumbing (Commercial)

Code	Description
0	None
1	Below Normal
2	Normal
3	Above Normal

Physical Functional (Commercial)

See Commercial Building Pricing Schedule.

Quality Grade

Non-professionals have an unfortunate tendency to confuse Condition and Quality. The quality of original construction is set during original construction or during a major remodeling effort (rebuilt from the skeletal structure out). Quality Grade does not change because a structure is in poor Condition, even if the structure is literally falling down.

The same concepts (if not the same exact codes) are used in Residential, Commercial, and OBY grading for quality. OBY only uses the "whole" grades "A", "B", "C", "D", and "E".

Business Rule: Judge Quality Grade for each building, based on the standard expressed herein. Do not judge Quality Grade using any other standard (i.e. any other neighborhood structure).

Business Rule: Use a TWO STEP process to judge Quality Grade: (1) decide the "whole " Grade ("E", "D", "C", "B", "A ", "X"); (2) only then decide if a given the building is "+ " or "-".

Business Rule: Enter the Quality Grade code at the building level or leave the building's Grade field as null. If null, the CAMA system will apply the general Quality Grade for the parcel's neighborhood.

Business Rule: Never enter a separate GRADE code for an addition, residential or commercial.

Grade	Description
E-	Not quite low quality
E	Low quality of original materials and workmanship
E+	Somewhat better then low quality
D-	Not quite fair quality
D	Fair quality of original material and workmanship
D+	Somewhat better than fair quality
C-	Not quite average quality
C	Average quality of original material and workmanship
C+	Somewhat better than average quality
B-	Not quite good quality
B	Good quality of original materials and workmanship
B+	Somewhat better than good quality
A-	Not quite excellent quality
A	Excellent quality of original workmanship
A+	Somewhat better than excellent quality

E Quality Commercial

A Building must meet at least half of these specifications before coding its quality as ‘E’

Minimal Construction (materials and workmanship barely met standards when new)

Architect. Interest	Simplest possible design, straight walls, no “inside” corners.
Wall Height	Nine feet or less. No access to attic, or scuttle hole access only.
Fenestration	Minimal.
Floor Covering	Bare concrete or pine.
Heat	No duct work (floor or wall furnace, space heater, no heat) .
Roof	5/12 Rise and Run or less, gable ends. Shed or flat roof is possible.
Material	Asphalt or tin. Life new: 15 to 20 year maximum.
Siding	Frame, Substandard materials such as pine, vinyl or aluminium / asbestos.
E- meets 40%	
E+ meets 55% - 60%	

D Quality Commercial

A Building must meet at least half of these specifications before coding its quality as D

Substandard Construction

Architect. Interest	Simplest possible design elements, straight walls, no “inside” corners.
Wall Height	Nine feet or less. No costum work, no crown molding.
Fenestration	Minimal.
Floor Covering	Bare concrete or lowest grade covering.
Heat	Substandard duct work or none (floor or wall furnace).
Roof	5/12 Rise and Run or less, gable ends. Shed or flat roof is posible.
Material	Asphalt shingle, Tin Life new: 15 to 20 year maximum.
Siding	Frame. Substandard materials such as pine, vinyl or aluminum/ asbestos.
D- Meets 40%	
D+ Meets 55% - 60%	

C Quality Commercial

A Building must meet at least half of these specifications before coding its quality as C

Basic Construction

Architect. Interest	Simple structural elements, may have shallow offsets with “inside” corners.
Wall Height	Nine feet or less. Little custom work, simple crown molding or none.
Fenestration	Minimal, includes boxed eaves, cornice
Floor Covering	Carpet, vinyl linoleum or other.
Heat	Standard forced air (duct work). May be fueled by gas, oil or electric.
Roof	Flat roof is possible, or 5/12 Rise and Run or less, gable ends.
Material	Asphalt shingle, Tin. Life New: 15 to 20 year maximum.
Siding	Frame. Basic quality materials: Vinyl/aluminum, asbestos, masonite.

C+ Meets 55% - 60%
C- Meets 40%

B Quality Commercial

A Building must meet at least half of these specifications before coding its quality as B

Good Construction

Architect. Interest	Above average structural elements, offset with “inside” corners.
Wall Height	Twelve feet or less. Some custom work, simple crown molding or none
Fenestration	Good. Boxed eaves, cornice, gutters.
Floor Covering	Carpet, vinyl linoleum or other.
Heat	HVAC system.
Roof	Flat roof is likely, or 3/12 to 6/12 Rise and Run, gable ends, some valleys.
Material	Asphalt shingle. Life new: 15 to 20 years, may be higher.
Siding	Frame, brick, stucco or pleasinf mixture. Good qualitymaterials.

B+ Meets 55% - 60%

B- Meets 40%

A Quality Commercial

A Building must meet at least half of these specifications before coding its quality as A

Good Construction

Architect. Interest	Above average structural elements, offset with “inside” corners.
Wall Height	Twelve feet or less. Some custom work, simple crown molding or none.
Fenestration	Good. Boxed eaves, cornice, gutters.
Floor Covering	Carpet, vinyl, linoleum or other.
Heat	HVAC system
Roof	Flat roof is likely, or 3/12 to 6/12 Rise and Run, gable ends, some valleys.
Material	Asphalt shingle, Life new: 15 to 20 years , maybe higher.
Siding	Frame, brick, stucco or pleasing mixture. Good quality materials.

A+ Meets 55% - 60%
A- Meets 40%

E Quality Residential

A Building must meet at least half of these specifications before coding its quality as E

Architect. Interest	Simplest possible design elements, straight walls, no “inside” corners.
Base Area	600 square feet 50%+- (larger than 900 sq ft is possible but rare.
Bed/Bath Count	1 to 2 bedrooms max. 1 bath, low quality fixtures, minimal/no cabinetry.
Ceiling Height	Below eight feet. No access to attic or scuttle-hole access only.
Fenestration	Minimal. Five feet 50%+- of low quality kitchen cabinetry.
Floor Covering	Pine or lowest grade linoleum.
Foundation	Piers, low with no real crawl space. May not be underpinned.
Heat	No duct work (floor or wall furnace, space heater, no heat)
Roof	5/12 Rise and Run or less, gable ends. Shed or flat roof possible.
Material	Asphalt shingle, Tin Life new: 16 to 20 year maximum.
Siding	Frame. Substandard materials such as pine, vinyl or aluminum, asbestos
Typical Styles	Bungalow, Ranch or manufactured (SW)
Planning / Traffic	Minimal halls. Must usually pass through rooms to get to other rooms.
Upgrades	Fireplaces. May have been sole source of heat, usually not in service. Laundry facility: will be on porch if any.

E+ Meets 55% - 60%
E- Meets 40%

D Quality Residential

A Building must meet at least half of these specifications before coding its quality as D

SubStandard Construction ("Starter Home" of substandard material / workmanship)

Architect. Interest	Simplest possible structural elements, straight walls, no "inside" corners.
Base Area	900 Square feet ± 50% (rarely larger, but is possible)
Bed/Bath Count	2 bedrooms, 1 to 2 baths, low quality fixtures, minimal or no cabinetry.
Ceiling Height	Eight feet or below, no crown molding. Scuttle-hole for attic access unless upper floor finish is evident.
Fenestration	Minimal. Six feet ± 50% of low quality kitchen cabinetry.
Floor Covering	Pine or low grade of linoleum. Low grade carpet possible.
Foundation	Piers, low crawl space. May not be underpinned.
Heat	Substandard duct work or none (floor or wall furnace, elect. baseboard)
Roof	5/12 Rise and Run or less, gable ends. Shed or flat roof is possible.
Material	Asphalt shingle, tin Life new: 15- 20 years maximum.
Sidinig	Frame. Low quality materials: vinyl/ aluminum asbestos Masonite.
Typical Styles	Bungalow, Ranch, Modular (Jim Walkerr, Levitt), Manufactured (DW)
Planning / Traffic	Substandard, minimal closet space. Limited to no storage space.
Upgrades	Fireplaces: may have been sole source of heat, usually not in service. Laundry facility: will be on a porch or in a closet.

D- Meets 40%
D+ Meets 55% - 60%

C Quality Residential

A Building must meet at least half of these specifications before coding its quality as C

Basic Construction ("Starter Home" built using standard materials and workmanship)

Architect. Interest	Simple structural elements, may have shallow offsets with "inside" corners.
Base Area	1,200 square feet, ± 50% (rarely smaller, but may be quite large.)
Bed/Bath Count	3 bedrooms and 1.5 to 2 baths, basic fixtures, some bath cabinetry.
Ceiling Height	Eight feet, no custom work, simple crown molding or none. Scuttle-hole for attic access unless upper floor finish is evident.
Fenestration	Minimal, includes boxed eaves, cornice, 8 feet ± 50% kitchen cabinetry.
Floor Covering	Carpet, vinyl, linoleum or other, may have some hardwood.
Foundation	Usually built on concrete slab, but may have piers and crawl space.
Heat	Standard forced air (duct work). May be fueled by gas, oil, electricity.
Roof	5/12 Rise and Run or less, gable ends, few valleys. Flat roof possible.
Material	Asphalt shingle. Life new 15-20 years.
Siding	Frame. Basic quality materials: vinyl/ aluminum, asbestos, masonite, 4x8 panels. May have some brick trim.
Typical Styles	Ranch, Bungalow, ("235", Habitat) Split Level, Bi-Level, Modular
Planning / Traffic	Reasonable. Long relatively narrow halls. Closets. Some storage space.
Upgrades	Fireplaces: prefabricated enclosure, vent free (no chimney), gas logs. Laundry facility: will be in a closet.

C- Meets 40%
C+ Meets 55%-60%

B Quality Residential

A Building must meet at least half of these specifications before coding its quality as B

Good Construction ("Higher-level Starter Home", good materials and workmanship)

Architect. Interest	Above average structural elements, offsets with "inside" corners, front garage.
Base Area	1,300 square feet ± 50% (rarely smaller but may be larger)
Bed/Bath Count	3 bedrooms, 2.5 baths, good fixtures and bath cabinetry, may have standard quality ceramic tile tub sorrounds / ceramic tile floors
Ceiling Height	Eight or nine feet. Some custom work such as crown molding. May have cathederal ceilings build from prefabricated trusses.
Fenestration	Boxed eaves, cornice, gutters, 10 feet ± 50% kitchen cabinetry.
Floor Covering	Carpet, vinyl linoleum, "Pergo" / hardwood, may have some ceramic tile.
Foundation	Usually build on concerte slab, but may have piers and crawl space.
Heat	Central HVAC.
Roof	3/12 to 6/12 Rise and Run, gable ends, some valleys.
Material	Asphalt shingle. Life new: 15-20 years, may be higher.
Siding	Frame, brick, stucco, or pleasing mixture. Good quality materials.
Typical Styles	Ranch, Colonial, Modular, Split Level. Bi-Level, Contemporary.
Planning / Traffic	Good. Wide hall spaces. Good closet and other storage space.
Upgrades	Fireplaces: Prefab. Wooden or masonry chimney. Laundry: Usually in a dedicated room. *Bonus Room:* Minimal if any.

B- Meets 40%
B+ Meets 55% - 60%

A Quality Residential

A Building must meet at least half of these specifications before coding its quality as A

Very Good Construction (Very good quality of original materials and workmanship.)

Architect. Interest	Very good structural elements such as dormers, multiple offsets (some with other-than-right angles), side or rear garage entrance.
Base Area	2,200 square feet ± 50% (rarely smaller but, may be larger)
Bed/Bath Count	3 to 4 bedrooms, 2.5 baths or more, very good bath cabinetry, etc.
Ceiling Height	Eight to ten feet. Custom work such as crown molding. Is likely to have good sized rooms with "stick built cathedral ceilings.
Fenestration	*QG 124 plus:* 15 feet ± 50% of custom kitchen cabinetry, Corian counter tops, chair rail, wainscoting, raised panel doors, built-in book cases.
Heat	Central HVAC. May have dual systems.
Roof	8/12 to 12/12 Rise and Run, hip, gambrel, gable, many valleys.
Material	Arch. Shingle, 5 tab Timberline, metal. Life new: 30 years.
Siding	Frame. Brick, stucco or pleasing mixture. Very good quality materials.
Typical Styles	Colonial, Ranch, Charleston, Contemorary, Modular.
Planning / Traffic	Very good closet and other storage spaces.
Upgrades	Vaulted foyer, very good bonus room space. Fireplaces have ornamental mantle, prewired for sound system, alarm system, computer network.

A- Meets 40%
A+ Meets 55% to 60%

X Quality Residential

A Building must meet at least half of these specifications before coding its quality as X

Excellent Construction (Excellent quality of original materials and workmanship)

Architect. Interest	Excellent structural elements such as dormers, extensive offsets (many with other-than-right angles), side or rear garage entrance.
Base Area	3,000 square feet ± 50% (rarely smaller but, may be larger)
Bed/Bath Count	4 to 5 bedrooms, 3 baths or more, excellent quality bath cabinetry, etc.
Ceiling Height	Nine to ten feet. Custom work such as arches, crown molding. Is likely to have large rooms with "stick built" cathedral and or trey ceilings.
Fenestration	*QG 150 plus: 30* feet ± 50% of custom kitchen cabinetry, marble counter tops, dental molding, lacework, copper flashing panel doors, built-in book cases.
Heat	Central HVAC. May have dual systems.
Roof	8/12 to 12/12 Rise and Run, hip, gambrel, gable, many valleys. Arch. Shingle, 5 tab Timberline, metal. *Life new:* 30 years.
Siding	Frame. Brick, stucco or pleasing mixture. Very good quality materials.
Typical Styles	Victorian, Charleston, Contemporary, Custom.
Planning / Traffic	Custoum. Extensive closet and other storage spaces.
Upgrades	QG 150 Plus: Custom porches, elevator, basement, built-in storm shutters, may have audio-visual and or safe room.

X- Meets 40%
X+ Meets 55% to 60%

Sale Qualification Procedures

When a deed is placed on the public record maintained by the office of the Registrar of Deeds, the Registrar collects an Excise Tax on the "new money" in the transaction. The Tax Administrator's staff uses this tax to infer the sale price of the parcel.

The appraisal staff must confirm these "raw" (calculated) sale prices before the sale can be used in the Market Approach or for other analytical purposes. There are three ways this may occur:

1. The staff combs through all sales, removing those between obviously related parties, foreclosures, tax deeds, and the like.
2. The staff also utilizes online Realtor websites to verify sales. This resource is a rich source of information about interior information and selling prices.

Business Rule: Where the Realtor site selling price equals the tax selling price calculated from the Excise Tax with no personal property or concessions indicated, the reviewing appraiser may consider the Realtors site selling price to be prima facie confirmation of the consideration paid and qualify the sale.

Business Rule: Where the Realtors site selling price does not equal the raw selling price, the appraiser must confirm the sale directly with a knowledgeable party. The name and phone number of the listing agent and the selling agent are in the online listings. Only after documenting this contact may the reviewing appraiser qualify the sale price as the actual consideration paid.

Business Rule: Any confirmed sale price contained in a submitted Appraisal Report or otherwise relayed by a North Carolina-certified fee appraiser may be accepted as evidence of the actual consideration paid. If the reviewing appraiser finds such an outside, confirmed sale price is in conflict with an already qualified sale price, the appraiser must contact the source of the sale data to confirm the sale price listed on the CAMA system 's records or disqualify the sale for all uses.

The CAMA system has two fields designed to record selling price, and three fields designed to qualify the sale, further define, and/or otherwise document the sale. Present codes to be used for these purposes are documented under other headings.

1. Price: Unadjusted and/or uncorrected Sale Price.
2. Adjusted Price: Corrected or otherwise adjusted Sale Price.
3. Sale Validity: Codes for use in qualifying or disqualifying a given sale for service.
4. Sale Source: Codes for identifying the source of actual sale price information.
5. Sale Type: Codes indicating whether the parcel sold as vacant land, or as improved.

Business Rule: A sale is "improved" only by a building(s) or significant OBY item(s). "Vacant" sales may have numerous less significant OBY items.

Sales: Market Codes

These codes are promulgated by the North Carolina Department of Revenue.

Code	Description
0	Valid
1	Multi Parcel
2	Mismatch between sale and parcel records
3	Transaction less the 6,000
4	Deed Out of Date Range
5	Intra Family
6	Divided or Fractional Interest
7	Life estate or other interest reserve
8	Possession Retained or Leased Back
9	Government, Utility, Lending Institution
10	Cemetery Lot or Other Exempt Property
11	Church/Education/Lodge
12	Deed of Trust indicates amount that is in excess of purchase price reflected by excise stamps
13	Property Crosses County Lines
14	Mineral or Timber Rights
15	Sale Price Includes Personal Property
16	Forced Sale or Auction
17	Contract for Deed Prior Year
18	Trade of Exchange Other-Than-Cash
19	Parcel Cannot Be Clearly Identified
24	Other (provide a separate explanation)
25	Pre-Conversion Unqualified Sales
30	Valid Multiple Sales

Sales: Sales Types

Code	Description
1	Land
2	Improved (parcel is "improved" by a building, as opposed to a sale of vacant land)
3	Building

Sales: Source

Code	Description
1	Buyer
2	Other
3	Seller
4	Agent
5	Stamps

Story Height

Business Rule: When the appraiser encounters a residential building that appears to have a fractional story height (anything other than 1.00, 2.00, or 3.00 stories), first determine the extent of any unfinished area whether due to "truss" construction or "cathedral ceilings". Enter all such unfinished area(s) into the DWELDAT, Other Features field for Unfinished Area.

Code	Description
1	1 STORY
1.5	1.5 STORY
1.75	1.75 STORY
2	2 STORY
2.5	2.5 STORY
2.75	2.75 STORY
3.0	3 STORY

Structure

The Commercial Interior / Exterior (COMINTEXT) fields are designed for listing BASE building sections and other items capable of generating rental income while the Commercial Other Feature (COMFEAT) fields are designed for listing non-BASE (sketch able) sections such as porches and canopies. The appraiser may also use these fields for listing other (non-sketch able) items such as elevators and escalators. All Other Features are modified by the Quality Grade modifier and depreciate with the building.

Code	Description
101	RESIDENTIAL 1 FAMILY
102	RESIDENTIAL 2 FAMILY
103	RESIDENTIAL 3 FAMILY
104	RESIDENTIAL 4 FAMILY
105	MIXED RESIDENTIAL/COMMERCIAL
106	CONDO COMMON ELEMENT
107	CONDO FEE SIMPLE
201	RES STRCT ON APT VAL
211	APARTMENTS - GARDEN
212	APARTMENTS HIGH RISE
301	RES ON COMM LAND
314	HOTEL/MOTEL HI RISE
315	HOTEL/MOTEL LO RISE
316	NURSING HOME
318	BRDING-ROOMING HOUSE
319	MIXED RES/COMM
321	RESTAURANT
323	FOOD STAND

325	FRANCHISE
327	BAR/LOUNGE
328	NIGHT/CLUB/DNR THEATER
331	AUTO DEALER/F-SEVICE
332	AUTO SERVICE GARAGE
333	SERVICE STATION - FULL
334	SERVICE STATION FULL SERVE
335	TRUCK STOP
336	CAR WASH - MANUAL
337	CAR WASH - AUTOMAITC
338	PARKING GARAGE/DECK
339	KWIK LUBE
340	SUPER REG SHOPMALL
341	REGIONAL SHPMALL/CNT
342	COMM SHOPPING CENTER
343	NBHD SHOPPING CENTER
344	STRIP SHOPPING CNTR
345	DISCOUNT DEPT STORE
346	DEPARTMENT STORES
347	SUPERMARKET
348	CONVENIENCE FOOD MKT
349	MEDICAL OFFICE BLDG
351	BANK
352	SAVINGS INSTITUTION
353	OFFICE BLDG L/R 1-4S
354	OFFICE BLDG H-R 5ST
355	OFFICE CONDOMINIUM
356	RETAIL CONDOMINIUM
361	FUNERAL HOME
362	VETERINARY CLINIC
363	LEGITIMATE THEATER
364	MOTION PICTURE THEATER
365	CINEMA/THEATER
366	RADIO/TV/MIN PIC STUDIO
367	SOCIAL/FRATERNAL HALL
368	HANGAR
369	DAY CARE CENTER
370	GREENHOUSE/FLORIST
371	DOWNTOWN ROW TYPE
373	RETAIL SINGLE OCCUP
374	RETAIL MULTI OCCUP
375	RETAIL DRIVE-UP
381	BOWLING ALLEY
382	SKATING RINK
383	HEALTH SPA
384	SWIMMING-INDOOR POOL

385	TENNIS CLUB - INDOOR
386	RACQUET CLUB INDOOR
387	COUNTRY CLUB
388	CLUB HOUSE
389	COUNTRY CLUB/W CRSE
391	COLD STORAGE
392	LUMBER STORAGE
395	TRUCK TERMINAL
396	MINI WAREHOUSE
397	OFFICE/WAREHOUSE
398	WAREHOUSE
399	PREFAB WAREHOUSE
401	MFG/PROCESSING
405	RESEARCH _ DEVELOPMENT
610	RECREATIONAL/HEALTH
611	LIBRARY
612	SCHOOL
613	COLLEGES _ UNIVERSITY
620	RELIGIOUS
630	AUDITORIUM
640	HOSPITALS
660	POLICE/FIRE STATIONS
670	CORRECTIONAL
680	CULTURAL FACILITIES
690	RAIL/BUS/AIR TERMINAL
710	TELEPHONE EQUIPMENT BLDG
715	TELE SRV GAR FACILITY
720	RADIO/TV TRANSMITTER BLD

Code	Description
AE1	AERIAL WALK
AT3	ATRIUM-COVER ONLY
AT4	ATRIUM WALLS
BA1	BALCONY
BC1	GOOD CANOPY-DRIVE IN
BE0	BANK PNEUMATIC TUBE
BE1	BANK VAULT - NO DOOR
BE2	BANK VAULT REC ST/ND
BE3	BANK VAULT DR CIRC $
BE4	BANK VAULT DR RECT $
BE5	BANK VAULT DR REC ST
BE6	BANK NT DEP CHUTE
BE7	BANK DR IN WINDOW
BE8	BANK SERV WINDOW
BE9	BANK DR IN TELLER BOOTH

BT0	ATM STRUCTURE
BT1	BASEMENT TOP
CA1	CENTRAL AIR CONDITIONING
CA2	UNIT AIR CONDITIONER
CF1	COOLER-CHILLER
CF2	COOLER-FREEZER
CF3	COOLER-SHARP FREEZE
CM1	COVERED MALL
CP5	CANOPY ONLY
CP6	CANOPY ROOF/SLAB
CP7	CANOPY RF-ECONOMY
CP8	CANOPY RF-AVERAGE
CP9	CANOPY RF-GOOD
CR1	COMPUTER FLOOR
CR2	COMPUTER ROOM AIR CTL
CR3	COMPUTER FIRE SUPP
CW1	CRANEWAYS
DL1	DOCK LEVEL FLOOR
EE1	ENCLOSED ENTRY
EL1	ELEVATOR ELECTRIC FREIGHT
EL2	ELEVATOR ELECTRIC PASNGR
EL3	ELEVATOR HYDRAULIC FREIGHT
EL4	ELEVATOR HYDRAULIC PASNGR
EL5	ESCALATOR WIDTH=32
EL6	ESCALATOR WIDTH=48
FI1	FIREPLACE 1 OPENING
FI2	FIREPLACE 2 OPENINGS
FI3	FIREPLACE 3 OPENINGS
GH4	GREENHSE-ECONOMY
GH5	GREENHSE-AVERAGE
GH6	GREENHSE-GOOD
GZ1	GAZEBO
LD1	LOAD DOCK-ST OR CONC
LD2	LOADING DOCK- WOOD
LD3	LOADING DOCK- INTR
LD4	TRUCK / TRAIN WELLS
LD5	DOCK LEVELERS
LP3	PATIO- CONCRETE
LP4	PATIO- ASPHALT
LP5	PATIO- FLGST-SND-BSE
LP6	PATIO- FLGST-CON-BSE
LP7	PATIO- BRICK
MR1	MONITOR ROOF
MR2	HIGH BAY ROOF
MS1	MISCELLANEOUS
OA1	OPEN AREA APT. HOTEL

OA2	OPEN AREA MOTEL DWLG
OA3	OPEN AREA STORE RSTR
OA4	OPEN AREA INDSTR/WHS
OA5	OPEN AREA BANK/OFFICE
OA6	OPEN AREA THEAT/AUDT
OA7	OPEN AR.LT MTL/AG BD
OA8	OPEN AREA HI RISE OFFICE
OD1	OVERHEAD DR-WOOD/MTL
OD2	OVERHEAD DR-ROLL STL
OD3	OVRHD DR-MTR-OP-WD-MT
OD4	OVRHD DR-MTR-OP-RL-ST
PR1	PORCH- OPEN
PR2	PORCH- ENCLOSED
PR3	PORCH- OPEN UPPER
PR4	PORCH- ENCLOSED UPPER
PR5	PORCH COVERED
PR6	PORCH- SCREENED
PR7	PORCH COV-UPPER
PR8	PORCH SCREEN-UPPER
RA1	GARAGE-ATTACHED-FRM
RA2	GARAGE-ATTACHED-MAS
RC1	CARPORT
RR1	RAILROAD TRACKAGE
RS1	UTILITY BLDG-FRAME
RS2	UTILITY BLDG-METAL
RS3	UTILITY BLDG-BRK/STN
SC2	INDOOR POOL
SF1	STORE FRONT/WOOD FRAME
SF2	STORE FRONT/AV MET F
SF3	STORE FRONT/ELABORATE
SK1	INDOOR SKATING RINK
SS1	SPRINKLER SYS WET
SS2	SPRINKLER SYS DRY
STP	STOOP
TS1	TRUCK SCALE
TS2	TRUCK SCALE-ELEC.RDR.
TU1	TUNNEL
TU2	TUNNEL UTILITY
WD1	WOOD DECK

Style

Style is a major variable in the Market Approach. "Quality" and "CDU" notations being equal, the real estate market will favor one Style of house over another. Match carefully.

Code	Description	Code	Description
01	Duplex	17	Cabin
02	Flat	18	Victorian
03	Colonial	19	Tudor
04	Ranch	20	A – Frame
05	Cape	34	Conventional
06	Split Foy	35	Dutch Colonial
07	Log	36	Mediterranean
09	Singlewide Mobile Home	40	Barn
10	Doublewide Mobile Home	41	Beach House
11	Modular	42	Condo
12	Split Level	43	Town House
13	Contemporary	47	Guest House
14	Cottage	48	Conversion
15	Bungalow	50	Geodesic Dome
16	Farm	79	Chalet

Topography

Code	Description
A	LEVEL
B	ROLLING
C	HIGH
D	LOW
E	SWAMP
F	CREEK
G	DITCH
H	HILLY
I	EASEMENT
J	LAKE
K	POND
L	STREAM
M	POWERLINE

Traffic

Code	Description
1	LIGHT
2	MEDIUM
3	HEAVY
4	NONE

Use Types

See Land Use Codes.

Utilities

Used in the Parcel tab of the transaction.

Zone

Presented on the Land tab of the transaction.

Parcel-Level Business Rules

Highest and Best Use - The highest and best use of vacant land is dictated by the permanent zoning (or with the existence of temporary zoning-in-force, by the most likely permanent zoning) influence on the Effective Date of Appraisal. A property may be considered as under temporary zoning if the use of the land is tightly restricted to only one named use and the owner is required to go through the entire zoning process to put the parcel to any other use, to include uses permitted prior to the last change. The appraiser will consider the cost of re-zoning the property to its most likely permanent zoning-in-force and the effect of the passage of time between January 1, 2019 and the time the likely date of such a change.

Interim Use - Appraise land in interim use for its "highest and best use " as outlined above. The appraiser shall recognize the estimated holding period (until the market is ready to accept the highest and best use of the property in interim use) and the likely cost to re-zone the property.

Mis improvement - In cases where the Income Approach clearly demonstrates that a commercial or industrial building(s) is a mis-improvement to the land, the existence of the building(s) must be recognized by placing a sound value (a residual value) on the individual building.

Mis-improvement - For mass appraisal purposes, consider the present use of improved land as the highest and best use, except where the present use is in conflict with permanent zoning-in-force on the parcel.

A clear example is a residential structure, used as a residence but located in an area of predominantly commercial uses and placed on land zoned for commercial use. Such non-conforming uses are generally permitted under zoning regulations and where not permitted, the use is usually "grandfathered". Even though continued use as a residence is clearly not the "highest and best use" of the property.

Appraise the land of such property for its highest and best use as though vacant. Appraise the structure according to its contribution to the value as a whole but consider its non-conforming use (which usually means applying significant Economic Obsolescence). Always document clear notes regarding your reasoning in the file.

Mis-improvement - The highest and best use of vacant land is dictated by the permanent zoning or with the existence of temporary zoning-in-force, by the most likely permanent zoning in force on the Effective Date of Appraisal. A property may be considered as under temporary zoning if the use of the land is tightly restricted to only one named use and the owner is required to go through the entire re-zoning process to put the parcel to any other use.

Land rates in the neighborhood are best estimated by analyzing sales of similarly zoned vacant land in the same neighborhood, or a highly similar neighborhood.

Commercial Residential on Residential Land Where multiple residential buildings occur on one parcel zoned for residential use, residential appraisers will use the commercial algorithms to appraise the parcel. The middle number in this series of codes defines the number of families each such structure is designed to house.

Zoning (Temporary) – If a given property is clearly in an interim use and the jurisdiction maps indicate only one named use for the property, the appraiser will consider the named specific use to be a temporary zoning-in-force. A parcel that has temporary zoning will in no manner represent or limit the most likely highest and best use of the parcel.

Land Business Rules

General - Appraise land in interim use under temporary zoning-in-force for its most likely “highest and best use” and consider the permitted uses of surrounding and nearby parcels, and the current demand for a change to the most likely “highest and best use”. The appraiser must recognize:

1. the cost of re-zoning the parcel; and
2. the holding period during which the interim use is likely to continue while market demand increases for a change to the most likely “highest and best use”.

Land Line Adjustments - All adjustments to Land Line values must be accompanied by an explanation that makes use of one of the adjustment codes, either in the neighborhood or in the parcel-level note fields where the appraiser elects to use a different adjustment than specified.

Commercial Residual Land - All commercial land not required for the production of income must be identified as "residual" (to the production of income under the present use of the parcel).

Dwelling Business Rules

CDU - Never enter a CDU code for a residential building addition. Consider the building in its entirety when rating its CDU. Enter the CDU code at the building level or leave the building's CDU field as null. If null is selected, the CAMA system will apply the general CDU for the parcel's neighborhood.

Cost and Design - This field should only be used to modify RCNLD value within the range of percentages shown.

Economic Obsolescence - Always know the dollar change in value arising from applying EO to a building, being certain the percentage used addresses the problem sufficiently but does not overstate the cure, and always explain any applied EO thoroughly in notes.

Effective Year Built - Judge the Effective Year Built of any structure following the logical process described in the discussion of Effective Year Built in Appendix 1.

Fireplaces - Record the accurate count of openings and/or stacks for fireplaces (masonry or prefab). If the fireplace is closed off, determine the reason and enter sufficient Functional Obsolescence to account for the cost to return the fireplace to functional service. Do not write the fireplace's contribution completely off via FO unless the stack (chimney) must be replaced from the ground up. Always explain any applied Functional Obsolescence thoroughly in notes.

Functional Obsolescence - Always know the dollar change in value arising from applying FO to a building, being certain the percentage used addresses the problem sufficiently but does not overstate the cure, and always explain any applied FO thoroughly in notes.

Market Adjustment – All adjustments to building value must be accompanied by an explanation that makes use of one of the following codes. These codes may be modified from time to time.

Quality Grade - Judge Quality Grade for each building, in turn, according to the standard expressed herein. Do not judge Quality Grade using any other standard (i.e. any other neighborhood structure).

Quality Grade - Use a TWO STEP process to judge Quality Grade. Decide the “whole" grade ("E", "D", "C", "B", "A", "X") first; only then decide if a given the building is "+" or "-".

Quality Grade - Enter the Quality Grade code at the building level or leave the building's Grade field as null. If set to null, the CAMA system will apply the general Grade for the parcel's neighborhood.

Story Height - When the appraiser encounters a residential building that appears to have a fractional story height (anything other than 1.00, 2.00. 3.00 or 4.00 stories), first determine the extent of any unfinished area (whether due to 'truss " construction or "cathedral ceilings"). Enter all such unfinished area(s) into the DWELDAT, Other Features field for Unfinished Area.

Style Code DW- Double Wide - Check the structure to determine whether the moving hitch is attached, and whether or not the axles and/or the wheels are attached before applying this code.

Style Code - Garage Apartment - Be certain a structure that appears to be a garage apartment has functioning kitchen and bath facilities. If not, list the structure as an OBY item.

Style Code SW- Single Wide - Check the structure to determine whether or not the moving hitch is attached, AND whether or not the axles and/or the wheels are attached before applying this code.

Commercial Building Business Rules

CDU - Judge CDU for each building, in turn, according to the standard expressed herein. Do not judge CDU using any other standard.

CDU - Enter the CDU code at the building level or leave the building's CDU field as null. If set to null, the CAMA system will apply the general CDU for the parcel's neighborhood.

CDU - Never enter a CDU code for a commercial interior/exterior section. Consider the building in its entirety when rating its CDU.

Condo Buildings - Appraise each unit within the commercial condominium project using the standard tools for any commercial building, COMDAT, COMINTEXT, COMFEAT, and OBY

Effective Year Built - Judge the Effective Year Built of any structure following the logical process described in the discussion of Effective Year Built in Appendix 1.

Quality Grade - Judge Quality Grade for each building, in turn, according to the standard expressed herein. Do not judge Quality Grade using any other standard (i.e. any other neighborhood structure).

Quality Grade - Use a TWO STEP process to judge Quality Grade. Decide the “whole" grade ("E", "D", "C", "B", "A", "X") first; only then decide if a given the building is "+" or"-".

Quality Grade - Never enter a separate GRADE code for an addition, residential or commercial.

Quality Grade - Enter the Quality Grade code at the building level or leave the building's Grade field as null. If set to null, the CAMA system will apply the general Grade for the parcel's neighborhood.

Structure (Built As) Codes - General - In all cases where the "Built As" code and the "Present Use " indicate that a building is no longer being used for its designed purpose, the appraiser must review the building for the presence of suspected Functional Obsolescence.

COMINTEXT - Commercial Building "Section" Business Rules

CDU - Never enter a CDU code for a commercial interior/exterior section. Consider the building in its entirety when rating its CDU.

Economic Obsolescence - Always know the dollar change in value arising from applying EO to a building, being certain the percentage used addresses the problem sufficiently but does not overstate the cure, and always explain any applied EO thoroughly in notes.

Functional Obsolescence - Always know the dollar change in value arising from applying FO to a building, being certain the percentage used addresses the problem sufficiently but does not overstate the cure, and always explain any applied FO thoroughly in notes.

Heat Code 1 - Central Air Conditioning - Do not use Code 1 for window unit cooling.

Quality Grade - Never enter a separate GRADE code for an addition, residential or commercial.

Shell Space – Interior finish is charged as real estate unless the Tax Administrator confirms that a tenant duly reported interior finish as a Leasehold Improvement (on a Listing Abstract). Should the Tax Administrator judge the listed amount for the leasehold improvement as realistic the appraiser shall remove the interior finish from the real appraisal for the year(s) in question.

Cost Approach Business Rule

General – If a residential structure has interior finish, a viable kitchen and bathroom facilities, it shall be encoded as a Building (such will NOT be an OBY Item). However, if a structure does not have both a viable kitchen and/or bathing facilities (it must have both) it must be encoded as an OBY Item.

Market Approach Business Rules

Sale Qualification Procedures - Where the online Realtor selling price equals the tax selling price calculated from the Excise Tax with no personal property or concessions indicated, the reviewing appraiser may consider the online Realtor selling price to be confirmation of the consideration paid, and qualify the sale

Sale Qualification Procedures - Where the online Reator selling price does not equal the tax selling price, the appraiser must confirm the sale directly with a knowledgeable party. The name and phone number of the listing agent and the selling agent are listed on the Realtor sites. Only after documenting this contact may the reviewing appraiser qualify the online Realtor sale price, as adjusted, as the actual consideration paid.

Sale Qualification Procedures - Any confirmed sale price contained in a submitted Appraisal Report or otherwise relayed by a North Carolina-certified fee appraiser may be accepted as prima facie evidence of the actual consideration paid. If the reviewing appraiser finds such an outside-confirmed sale price disagrees with an already qualified sale price, the appraiser must contact the source of the sale data to confirm the sale price listed on the CAMA system's records or disqualify the sale for all uses.

Sale Qualification Procedures - A sale is "improved" only by a building(s) or very significant OBY item. "Vacant" sales may have numerous less significant OBY item(s).

Income Approach Business Rules

Mis-improvement – If the estimate of Total Value for a given parcel (via the Income Approach) is less than the land value for that parcel via the CALP module, the appraiser must carefully check and adjust all components of the Income and CALP modules. Should the Income Module's Total Value remain equal to or below the estimate of land value after close review, the structure(s) on the land will represent an economic mis-improvement to the land. The appraiser will apply sufficient Functional Obsolescence to recognize the existence of the improvements with a residual value (and very carefully note the reason).

Residual Land - Residual Land is that part of a parcel's land area that is not currently engaged in generating income for the owner. The appraiser must identify all such land and use the appropriate Land Code in the CALP module to describe such "inactive' land.

Schedule of Values, Standards, and Rules

Appendix 4
Detailed Components of the Schedule of Values

Pender County, North Carolina

Effective January 1, 2019

From time to time the Tax Administrator of Pender County may deem it necessary to add one or another code, with associated rates, to those in this *Schedule of Values* to address unforeseen situations.

All such new codes and associated rates are hereby incorporated into this *Schedule of Values* except that no new code or rate may negatively affect the integrity of equity among the valuations arising from the implementation of and continuing use of this Schedule, as approved.

The Tax Administrator is authorized to use the cost models engineered to closely emulate the IAS system, as the best method available to value discovered property and to revalue any error correction to be made for the years 2019.

The Tax Administrator has permission to create new models from one or a combination of several models published herein. However, all new model rate values must fall within the ranges of rate value published herein. The appraisal staff may change parcel model assignments as needed.

Table of Contents

Land Pricing Schedules

The following pages are a guide to typical unit land values used throughout Pender County in its revaluation program effective as of January 1, 2019. The staff will measure the market value of land and will develop any local business rules regarding the appraisal of land at the neighborhood and/or neighborhood model level.

Lands Not Under the "Present Use Value" Program

Land is one of the most important aspects of real property. It is therefore imperative that a manageable methodology for valuing land be established. Applying general rules to specific properties becomes problematic, therefore, any of the following techniques may be employed in developing uniform land value schedules.

The most frequently used method of estimating the value of land is the comparable sales method in which land values are derived from analyzing the selling price of similar sites. This method is the application of the market approach to value and all considerations pertaining to the market approach are equally applicable here.

The cost-of-development method finds its widest application in the appraisal of large tracts of undeveloped land suitable for residential, commercial, and industrial development. It is a method which requires a great deal of data, time, and skill. It is therefore generally used only in those cases where an insufficient number of comparable sales are available for analysis. This method involves making estimates of the value of the site fully developed for its highest and best use, then deducting an estimate of the total cost of developing the site to derive an indication of its present value.

The land residual technique is a method of valuing land. In the absence of a sufficient number of comparable sales, the appraiser may use any one or all of several techniques. Income producing and may be valued by determining the portion of the net income attributable to the land and capitalizing the net income into an indication of value. Residential land (lots) in fully developed areas may be valued by subtracting an estimate of the value of the building from the total sale price of improved parcels.

As part of an allocation by comparison analysis, the appraiser gains insight into the land-to-building or land-to-total-price ratios the market has established in an area and apply that ratio to appropriate sales of improved properties in similar areas.

Units of Measure

The appraiser may utilize one of the following types of *unit-of-measure rates* to appraise land.

Value Per Whole Unit (lot or building site). This unit of measure may be used within neighborhoods, subdivisions or phases of subdivisions where lots are of nearly equal size (which will be true across major portions of Pender County). Small differences in lot size simply are not generally recognized in the market as contributing to/detracting from value in these areas.

Value per Square Foot or the Value per Acre. These units of measure place equal weight on every square foot or every acre in a parcel or part of the parcel recognized by a land line. In Pender County, the *value per square foot* may be used for all types of land but is most applicable to smaller commercial or industrial tracts where every square foot or acre may be utilized for the parcel's highest and best use. The *value per acre* is most applicable to valuing larger tracts.

Value per Front Foot. This unit of measure places the most value on the front portion(s) of a lot or tract of land. It recognizes that the rear portions of a tract of land that is deeper than is normal for the surrounding area will not contribute to the total value of the land at the same rate as the front portions of that tract will contribute. The value per front foot is particularly applicable to use in areas where pedestrian traffic is heavy, tracts whose value is strongly influenced by adjacent recreational waters and areas where tracts are predominately rectangular in shape but are also of irregular depths.

Land Value Ranges

The appraiser responsible for a given area will research the market and make many final selections of the unit land values after this manual *Schedule of Values* is adopted. Each appraiser shall duly consider all significant factors influencing land value. Such factors include, but are not limited to:

- Zoning
- Current use
- Highest and best use (which may override temporary zoning)
- Neighborhood characteristics and trends
- Competing and comparable available land
- Other amenities and or nuisances
- Physical properties of the subject site, to include but not limited to:
    - topography
    - availability of public utilities
    - propensity to flood

Nothing in the following pages will be construed as binding the appraiser's decision(s) of land rates per unit-of-measure and associated local business rules (those to be followed within the neighborhood). However, such value and local business rule decisions must be clearly stated and documented within the neighborhood/model documentation.

After January l, 2019, the appraiser is specifically NOT permitted to exceed the maximum unit land rates established for similar properties in similar neighborhoods prior to that date. As land use patterns, zoning, and other significant factors change, land values also change. The appraiser is required to respond to changes in value due to re-zoning during a revaluation cycle under N.C.G.S. 105-287 (2c).

Land Type & Codes				
VER	**MODEL**	**LTYPE**	**CODE**	**DESCRIPTION**
19	0	A	1	HOMESITE
19	0	A	2	SECONDARY
19	0	A	3	UNDEVELOPED
19	0	A	4	RESIDUAL
19	0	A	5	CLEARED1
19	0	A	6	CLEARED2
19	0	A	7	CLEARED3
19	0	A	8	WOODLAND1
19	0	A	9	WOODLAND2
19	0	A	10	WOODLAND3
19	0	A	11	WASTELAND
19	0	A	12	RIGHT-OF-WAY
19	0	A	15	TOBECONVERTED
19	0	S	1	HOMESITE
19	0	S	2	SECONDARY
19	0	S	3	UNDEVELOPED
19	0	S	4	RESIDUAL
19	0	S	11	WASTELAND
19	0	S	12	RIGHT-OF-WAY
19	0	U	1	UNIT VALUE
19	1	A	1	PRIMARY SITE
19	1	A	2	SECONDARY
19	1	A	3	UNDEV
19	1	A	4	RESIDUAL
19	1	A	5	CLEARED1
19	1	A	6	CLEARED2
19	1	A	7	CLEARED3
19	1	A	8	WOODLAND1
19	1	A	9	WOODLAND2
19	1	A	10	WOODLAND3
19	1	A	11	WASTE
19	1	A	12	RIGHT-OF-WAY
19	1	S	1	PRIMARY
19	1	S	2	SECONDARY
19	1	S	3	UNDEVELOPED
19	1	S	4	RESIDUAL
19	1	S	11	WASTELAND
19	1	S	12	RIGHT-OF-WAY

Small Acreage Adjustment Table			
VER	**TBLE**	**ACRES**	**FACT**
19	1	0.05	300
19	1	0.08	288
19	1	0.10	275
19	1	0.13	263
19	1	0.15	250
19	1	0.18	238
19	1	0.20	225
19	1	0.23	213
19	1	0.25	200
19	1	0.28	195
19	1	0.30	190
19	1	0.33	185
19	1	0.35	180
19	1	0.38	175
19	1	0.40	170
19	1	0.43	165
19	1	0.45	160
19	1	0.48	155
19	1	0.50	150
19	1	0.53	147
19	1	0.55	145
19	1	0.58	142
19	1	0.60	140
19	1	0.63	137
19	1	0.65	135
19	1	0.68	132
19	1	0.70	130
19	1	0.73	127
19	1	0.75	125
19	1	0.78	122
19	1	0.80	120
19	1	0.83	117
19	1	0.85	115
19	1	0.88	112
19	1	0.90	110
19	1	0.93	107
19	1	0.95	105
19	1	0.98	102
19	1	999999	100

Lands Under the "Present Use Value" Program

Pender County has chosen to adopt the 2019 Use-Value Manual For Agricultural. Horticultural and Forest Land, as published by the North Carolina Department of Revenue, and containing the general Rules and Regulations of the North Carolina Department of Revenue as they pertain to properties meeting Use Value requirements, as the pricing mechanism) for all such lands. It is attached hereto as Appendix 5.

Residential Building Pricing Schedules

The following tables contain a range of model rate values within which the final model rates to be used in the 2019 Revaluation are hereby authorized.

Appraisal management is to correlate the final model rates to the real estate market in Pender County between this writing and the mailing of Notices of Value Change for the revaluation.

The residential models are broadly configured as follows:

Model 1: Stick-Built Houses (averaging 1,700 square feet of living area).

Residential Cost Factors (RCFACT)					
Version	Model	Factor Name	Variable Costed	Description	Rate for Valuation
19	1	AIRCODE	3	CENTRAL A/C	1
19	1	AREA	COEFF	AREA FACTOR=AREA*COEFF+CONST	0.000349
19	1	AREA	CONST	AREA FACTOR=AREA*COEFF+CONST	0.2344
19	1	AREA	SQRT	SQRT FACTOR	0.002312
19	1	ATTIC	1	NONE	0
19	1	ATTIC	2	UNFINISHED	6892.4
19	1	ATTIC	3	PART FINISH	15326.4
19	1	ATTIC	4	FULL FINISH	25719
19	1	ATTICSF	1	NONE	
19	1	ATTICSF	2	UNFINISHED	
19	1	ATTICSF	3	PART FINISH	0.25
19	1	ATTICSF	4	FULL FINISH	0.4
19	1	BGAR	0	NO BASEMENT GARAGE	
19	1	BGAR	1	1 CAR BASEMENT GARAGE	1285
19	1	BGAR	2	2 CAR BASEMENT GARAGE	1780
19	1	BGAR	3	3 CAR BASEMENT GARAGE	2280
19	1	BGAR	4	4 CAR BASEMENT GARAGE	2770
19	1	BSMT	0	NOT CLASSIFIED	0
19	1	BSMT	1	EARTH/DIRT FLOOR	0
19	1	BSMT	2	PIER/POST	0
19	1	BSMT	3	CONTINUOUS SLAB	0
19	1	BSMT	4	PERIMETER FOOTINGS	0
19	1	BSMT	5	BRICK VEIL	0
19	1	BSMT	6	CRAWL SPACE	0
19	1	BSMT	7	BASEMENT	12000
19	1	BSMT	8	FINISHED PILINGS	26000
19	1	BSMT	9	UNFIN PILINGS	26000
19	1	BSMT	A	CONTINUOUS SLAB (0)	0
19	1	BSMT	B	UNFIN PILINGS/GARAGE	26000
19	1	BSMT	C	FIN PILINGS/GARAGE	26000
19	1	COMAREA	A	ATTIC AREA ADJ	0.4
19	1	COMLVL	C	CRAWL SPACE ADJ	0.2
19	1	COMLVL	E	ENCLOSURE ADJ	
19	1	COST	BASE	BASE COST VALUE	180000

Residential Cost Factors (RCFACT)					
Version	Model	Factor Name	Variable Costed	Description	Rate for Valuation
19	1	COST	VALYR	VALUATION YEAR	2019
19	1	EXTWALL	01	ALU/VINL	
19	1	EXTWALL	02	FRAME	
19	1	EXTWALL	03	ASBESTOS	-0.1
19	1	EXTWALL	04	STUCCO	
19	1	EXTWALL	05	BRICK	1
19	1	EXTWALL	06	CONC BLK	
19	1	EXTWALL	07	STONE	1
19	1	EXTWALL	08	COMPOSITION	
19	1	EXTWALL	09	CDR/RDWD	
19	1	EXTWALL	10	WD PANEL	
19	1	EXTWALL	11	WD SHNGL	
19	1	EXTWALL	12	BLOCK	
19	1	EXTWALL	13	CEMFIBBD	
19	1	EXTWALL	14	CBSTUCCO	
19	1	EXTWALL	15	CEMBRICK	1
19	1	EXTWALL	16	MAS/FRAME	0.5
19	1	EXTWALL	17	REINFORCE CONC	1
19	1	EXTWALL	18	METAL	
19	1	EXTWALL	19	GLASS	1
19	1	EXTWALL	20	LOG	
19	1	FUEL	0	NONE	1
19	1	FUEL	1	GAS	1
19	1	FUEL	2	ELECTRIC	1
19	1	FUEL	3	OIL	1
19	1	FUEL	5	SOLAR	1
19	1	FUEL	6	WOOD	1
19	1	FUEL	7	KEROSENE	1
19	1	GRADE	A	VERY GOOD	1.6
19	1	GRADE	A+	VERY GOOD	1.7
19	1	GRADE	A-	VERY GOOD	1.5
19	1	GRADE	B	GOOD	1.3
19	1	GRADE	B+	GOOD	1.4
19	1	GRADE	B-	GOOD	1.2
19	1	GRADE	C	AVERAGE	1
19	1	GRADE	C+	AVERAGE	1.1
19	1	GRADE	C-	AVERAGE	0.9

Residential Cost Factors (RCFACT)					
Version	Model	Factor Name	Variable Costed	Description	Rate for Valuation
19	1	GRADE	D-	BELOW AVERAGE	0.7
19	1	GRADE	E	POOR	0.5
19	1	GRADE	E+	POOR	0.6
19	1	GRADE	E-	POOR	0.4
19	1	GRADE	X	EXCELLENT	2
19	1	GRADE	X+	EXCELLENT	2.2
19	1	GRADE	X-	EXCELLENT	1.85
19	1	HEAT	1	NONE	-12000
19	1	HEAT	2	UNIT	-5000
19	1	HEAT	3	CENTRAL	0
19	1	HEAT	4	CENTRAL W/AC	12000
19	1	HEAT	5	HEAT PUMP	0
19	1	HEAT	6	RADIANT	0
19	1	HEAT	7	WD STOVE/FURNACE	0
19	1	HEAT	8	SOLAR	0
19	1	HEAT	9	ELECT-BB 09	0
19	1	HEAT	J	SOLAR 10	0
19	1	HEAT	K	NO A/C 11	0
19	1	HEAT	L	CNTRLHTA 12	0
19	1	HEAT	M	CENTRLAC 13	12000
19	1	HEAT	N	RFTOP AC 14	0
19	1	HEAT	O	CHILLEDW 15	0
19	1	HEAT	P	HEATPUMP 16	0
19	1	HEAT	Q	GAS PACK 17	0
19	1	HEAT	R	WD STOVE 18	-7500
19	1	HEAT	S	SPACE HT 19	-7500
19	1	HEATCODE	1	HEAT ADJ	
19	1	HEATCODE	2	HEAT ADJ	
19	1	HEATCODE	3	HEAT ADJ	
19	1	HEATSYS	1	NO HEAT, NO AC	
19	1	HEATSYS	2	BASIC	
19	1	HEATSYS	3	CENTRAL HEAT / AC	1
19	1	LEVEL	COM	COMM LEVEL	100
19	1	LEVEL	OBY	OBY LEVEL	100
19	1	LEVEL	RES	RES LEVEL	100
19	1	MISC	1	WELL ONLY	0
19	1	MISC	10	RES ELEVATOR	15000

Residential Cost Factors (RCFACT)					
Version	Model	Factor Name	Variable Costed	Description	Rate for Valuation
19	1	MISC	2	SEPTIC ONLY	0
19	1	MISC	3	WELL AND SEPTIC	0
19	1	MISC	4	CONCRETE FOOTING	0
19	1	MISC	5	WOOD BLOCK AND SILL	0
19	1	MISC	6	CONCR BRICK R BLOCK	0
19	1	MISC	7	STEEL PILINGS	0
19	1	MISC	8	CONCRETE PILINGS	0
19	1	MISC	9	WOOD PILINGS	0
19	1	OTH-FEAT	BLIV	FIN-BASEMENT LIVING AREA	22.8
19	1	OTH-FEAT	BLIVA	FIN-BASEMENT LIVING AREA	22.8
19	1	OTH-FEAT	BREC	RECREATION ROOM	11.4
19	1	OTH-FEAT	BRECA	RECREATION ROOM	11.4
19	1	OTH-FEAT	FBPCT	FIN BSMT SFLA %	0
19	1	OTH-FEAT	METFP	METAL FIREPLACES	1600
19	1	OTH-FEAT	TRIMB	BRICK TRIM	12.3
19	1	OTH-FEAT	TRIMS	STONE TRIM	12.3
19	1	OTH-FEAT	UNFIN	UNFINISHED AREA	-9.4
19	1	OTH-FEAT	WBFP1	WBFP-ONE STACK, ONE OPENING	1800
19	1	OTH-FEAT	WBFP2	ADDITIONAL OPENINGS	650
19	1	PLUMB	ADDFX	BASE # FIXTURES	2
19	1	PLUMB	COUNT	NORMAL # FIXTURES	5
19	1	PLUMB	FIXT	PRICE PER PLUMBING FIXTURE	1000
19	1	REVEDIT	BLDG	REVIEWERS BLDG %	
19	1	REVEDIT	LAND	REVIEWERS LAND %	
19	1	ROUND	APRTT	ROUND APR TOTALS	-1
19	1	SH-BRICK	10	1 STORY MASONRY	0.0554
19	1	SH-BRICK	15	1.5 STORY MASONRY	0.07
19	1	SH-BRICK	17.5	1.75 STORY MASONRY	0.085
19	1	SH-BRICK	20	2 STORY MASONRY	0.1
19	1	SH-BRICK	25	2.5 STORY MASONRY	0.115
19	1	SH-BRICK	27.5	2.75 STORY MASONRY	0.13
19	1	SH-BRICK	30	3 STORY MASONRY	0.145
19	1	SH-BRICK	35	3.5 STORY MASONRY	0.16
19	1	SH-BRICK	37.5	3.75 STORY MASONRY	0.175
19	1	SH-BRICK	40	4 STORY MASONRY	0.19
19	1	SH-FACT	10	1 STORY	1
19	1	SH-FACT	15	1.5 STORY	1.22

Residential Cost Factors (RCFACT)					
Version	Model	Factor Name	Variable Costed	Description	Rate for Valuation
19	1	SH-FACT	17.5	1.75	1.44
19	1	SH-FACT	20	2 STORY	1.65
19	1	SH-FACT	25	2.5 STORY	1.85
19	1	SH-FACT	27.5	2.75 STORY	1.93
19	1	SH-FACT	30	3 STORY	2
19	1	SH-FACT	35	3.5 STORY	2.85
19	1	SH-FACT	37.5	3.75 STORY	2.93
19	1	SH-FACT	4	4 STORY	3
19	1	STDFIX	2	# ADD FIXTURES	0
19	1	STORYSF	1	1 STORY SFLA FACT	1
19	1	STORYSF	1.5	1.5 STORY SFLA FACTOR	1.5
19	1	STORYSF	1.75	1.75 STORY SFLA FACTOR	1.75
19	1	STORYSF	2	2 STORY SFLA FACT	2
19	1	STORYSF	2.5	2.5 STORY SFLA FACTOR	2.5
19	1	STORYSF	2.75	2.75 STORY SFLA FACTOR	2.75
19	1	STORYSF	3	3 STORY SFLA FACT	3
19	1	STORYSF	3.5	3.5 STORY SFLA FACT	3.5
19	1	STORYSF	3.75	3.75 STORY SFLA FACT	3.75
19	1	STORYSF	4	4 STORY SFLA FACT	4
19	2	AIRCODE	3	CENTRAL A/C	1
19	2	AREA	COEFF	AREA FACTOR=AREA*COEFF+CONST	0.00075
19	2	AREA	CONST	AREA FACTOR=AREA*COEFF+CONST	0.10000
19	2	AREA	SQRT	SQRT FACTOR	0.002312
19	2	ATTIC	1	NONE	0
19	2	ATTIC	2	UNFINISHED	6892.4
19	2	ATTIC	3	PART FINISH	15326.4
19	2	ATTIC	4	FULL FINISH	25719
19	2	ATTICSF	1	NONE	
19	2	ATTICSF	2	UNFINISHED	
19	2	ATTICSF	3	PART FINISH	0.25
19	2	ATTICSF	4	FULL FINISH	0.4
19	2	BGAR	0	NO BASEMENT GARAGE	
19	2	BGAR	1	1 CAR BASEMENT GARAGE	1285
19	2	BGAR	2	2 CAR BASEMENT GARAGE	1780
19	2	BGAR	3	3 CAR BASEMENT GARAGE	2280
19	2	BGAR	4	4 CAR BASEMENT GARAGE	2770
19	2	BSMT	0	NOT CLASSIFIED	0

Residential Cost Factors (RCFACT)					
Version	Model	Factor Name	Variable Costed	Description	Rate for Valuation
19	2	BSMT	1	EARTH/DIRT FLOOR	0
19	2	BSMT	2	PIER/POST	0
19	2	BSMT	3	CONTINUOUS SLAB	0
19	2	BSMT	4	PERIMETER FOOTINGS	0
19	2	BSMT	5	BRICK VEIL	0
19	2	BSMT	6	CRAWL SPACE	0
19	2	BSMT	7	BASEMENT	12000
19	2	BSMT	8	FINISHED PILINGS	26000
19	2	BSMT	9	UNFIN PILINGS	26000
19	2	BSMT	A	CONTINUOUS SLAB (0)	0
19	2	BSMT	B	UNFIN PILINGS/GARAGE	26000
19	2	BSMT	C	FIN PILINGS/GARAGE	26000
19	2	COMAREA	A	ATTIC AREA ADJ	0.4
19	2	COMLVL	C	CRAWL SPACE ADJ	0.2
19	2	COMLVL	E	ENCLOSURE ADJ	
19	2	COST	BASE	BASE COST VALUE	80000
19	2	COST	VALYR	VALUATION YEAR	2019
19	2	EXTWALL	01	ALU/VINL	
19	2	EXTWALL	02	FRAME	
19	2	EXTWALL	03	ASBESTOS	-0.1
19	2	EXTWALL	04	STUCCO	
19	2	EXTWALL	05	BRICK	1
19	2	EXTWALL	06	CONC BLK	
19	2	EXTWALL	07	STONE	1
19	2	EXTWALL	08	COMPOSITION	
19	2	EXTWALL	09	CDR/RDWD	
19	2	EXTWALL	10	WD PANEL	
19	2	EXTWALL	11	WD SHNGL	
19	2	EXTWALL	12	BLOCK	
19	2	EXTWALL	13	CEMFIBBD	
19	2	EXTWALL	14	CBSTUCCO	
19	2	EXTWALL	15	CEMBRICK	1
19	2	EXTWALL	16	MAS/FRAME	0.5
19	2	EXTWALL	17	REINFORCE CONC	1
19	2	EXTWALL	18	METAL	
19	2	EXTWALL	19	GLASS	1
19	2	EXTWALL	20	LOG	

Residential Cost Factors (RCFACT)					
Version	Model	Factor Name	Variable Costed	Description	Rate for Valuation
19	2	FUEL	0	NONE	1
19	2	FUEL	1	GAS	1
19	2	FUEL	2	ELECTRIC	1
19	2	FUEL	3	OIL	1
19	2	FUEL	5	SOLAR	1
19	2	FUEL	6	WOOD	1
19	2	FUEL	7	KEROSENE	1
19	2	GRADE	A	VERY GOOD	1.6
19	2	GRADE	A+	VERY GOOD	1.7
19	2	GRADE	A-	VERY GOOD	1.5
19	2	GRADE	B	GOOD	1.3
19	2	GRADE	B+	GOOD	1.4
19	2	GRADE	B-	GOOD	1.2
19	2	GRADE	C	AVERAGE	1
19	2	GRADE	C+	AVERAGE	1.1
19	2	GRADE	C-	AVERAGE	0.9
19	2	GRADE	D	BELOW AVERAGE	0.8
19	2	GRADE	D+	BELOW AVERAGE	0.85
19	2	GRADE	D-	BELOW AVERAGE	0.7
19	2	GRADE	E	POOR	0.5
19	2	GRADE	E+	POOR	0.6
19	2	GRADE	E-	POOR	0.4
19	2	GRADE	X	EXCELLENT	2
19	2	GRADE	X+	EXCELLENT	2.2
19	2	GRADE	X-	EXCELLENT	1.85
19	2	HEAT	1	NONE	-12000
19	2	HEAT	2	UNIT	-5000
19	2	HEAT	3	CENTRAL	0
19	2	HEAT	4	CENTRAL W/AC	12000
19	2	HEAT	5	HEAT PUMP	0
19	2	HEAT	6	RADIANT	0
19	2	HEAT	7	WD STOVE/FURNACE	0
19	2	HEAT	8	SOLAR	0
19	2	HEAT	9	ELECT-BB 09	0
19	2	HEAT	J	SOLAR 10	0
19	2	HEAT	K	NO A/C 11	0
19	2	HEAT	L	CNTRLHTA 12	0

Residential Cost Factors (RCFACT)					
Version	Model	Factor Name	Variable Costed	Description	Rate for Valuation
19	2	HEAT	M	CENTRLAC 13	12000
19	2	HEAT	N	RFTOP AC 14	0
19	2	HEAT	O	CHILLEDW 15	0
19	2	HEAT	P	HEATPUMP 16	0
19	2	HEAT	Q	GAS PACK 17	0
19	2	HEAT	R	WD STOVE 18	-7500
19	2	HEAT	S	SPACE HT 19	-7500
19	2	HEATCODE	1	HEAT ADJ	
19	2	HEATCODE	2	HEAT ADJ	
19	2	HEATCODE	3	HEAT ADJ	
19	2	HEATSYS	1	NO HEAT, NO AC	
19	2	HEATSYS	2	BASIC	
19	2	HEATSYS	3	CENTRAL HEAT / AC	1
19	2	LEVEL	COM	COMM LEVEL	100
19	2	LEVEL	OBY	OBY LEVEL	100
19	2	LEVEL	RES	RES LEVEL	100
19	2	MISC	1	WELL ONLY	0
19	2	MISC	10	RES ELEVATOR	15000
19	2	MISC	2	SEPTIC ONLY	0
19	2	MISC	3	WELL AND SEPTIC	0
19	2	MISC	4	CONCRETE FOOTING	0
19	2	MISC	5	WOOD BLOCK AND SILL	0
19	2	MISC	6	CONCR BRICK R BLOCK	0
19	2	MISC	7	STEEL PILINGS	0
19	2	MISC	8	CONCRETE PILINGS	0
19	2	MISC	9	WOOD PILINGS	0
19	2	OTH-FEAT	BLIV	FIN-BASEMENT LIVING AREA	22.8
19	2	OTH-FEAT	BLIVA	FIN-BASEMENT LIVING AREA	22.8
19	2	OTH-FEAT	BREC	RECREATION ROOM	11.4
19	2	OTH-FEAT	BRECA	RECREATION ROOM	11.4
19	2	OTH-FEAT	FBPCT	FIN BSMT SFLA %	0
19	2	OTH-FEAT	METFP	METAL FIREPLACES	1600
19	2	OTH-FEAT	TRIMB	BRICK TRIM	12.3
19	2	OTH-FEAT	TRIMS	STONE TRIM	12.3
19	2	OTH-FEAT	UNFIN	UNFINISHED AREA	-9.4
19	2	OTH-FEAT	WBFP1	WBFP-ONE STACK, ONE OPENING	1800
19	2	OTH-FEAT	WBFP2	ADDITIONAL OPENINGS	650

Residential Cost Factors (RCFACT)					
Version	Model	Factor Name	Variable Costed	Description	Rate for Valuation
19	2	PLUMB	ADDFX	BASE # FIXTURES	2
19	2	PLUMB	COUNT	NORMAL # FIXTURES	5
19	2	PLUMB	FIXT	PRICE PER PLUMBING FIXTURE	1000
19	2	REVEDIT	BLDG	REVIEWERS BLDG %	
19	2	REVEDIT	LAND	REVIEWERS LAND %	
19	2	ROUND	APRTT	ROUND APR TOTALS	-1
19	2	SH-BRICK	10	1 STORY MASONRY	0.0554
19	2	SH-BRICK	15	1.5 STORY MASONRY	0.07
19	2	SH-BRICK	17.5	1.75 STORY MASONRY	0.085
19	2	SH-BRICK	20	2 STORY MASONRY	0.1
19	2	SH-BRICK	25	2.5 STORY MASONRY	0.115
19	2	SH-BRICK	27.5	2.75 STORY MASONRY	0.13
19	2	SH-BRICK	30	3 STORY MASONRY	0.145
19	2	SH-BRICK	35	3.5 STORY MASONRY	0.16
19	2	SH-BRICK	37.5	3.75 STORY MASONRY	0.175
19	2	SH-BRICK	40	4 STORY MASONRY	0.19
19	2	SH-FACT	10	1 STORY	1
19	2	SH-FACT	15	1.5 STORY	1.22
19	2	SH-FACT	17.5	1.75	1.44
19	2	SH-FACT	20	2 STORY	1.65
19	2	SH-FACT	25	2.5 STORY	1.85
19	2	SH-FACT	27.5	2.75 STORY	1.93
19	2	SH-FACT	30	3 STORY	2
19	2	SH-FACT	35	3.5 STORY	2.85
19	2	SH-FACT	37.5	3.75 STORY	2.93
19	2	SH-FACT	4	4 STORY	3
19	2	STDFIX	2	# ADD FIXTURES	0
19	2	STORYSF	1	1 STORY SFLA FACT	1
19	2	STORYSF	1.5	1.5 STORY SFLA FACTOR	1.5
19	2	STORYSF	1.75	1.75 STORY SFLA FACTOR	1.75
19	2	STORYSF	2	2 STORY SFLA FACT	2
19	2	STORYSF	2.5	2.5 STORY SFLA FACTOR	2.5
19	2	STORYSF	2.75	2.75 STORY SFLA FACTOR	2.75
19	2	STORYSF	3	3 STORY SFLA FACT	3
19	2	STORYSF	3.5	3.5 STORY SFLA FACT	3.5
19	2	STORYSF	3.75	3.75 STORY SFLA FACT	3.75
19	2	STORYSF	4	4 STORY SFLA FACT	4

Additions Factors (RCADDN)										
VER	**CODE**	**DESCRIPTION**	**RATE1ST**	**RATEUP**	**FFADJ**	**OKLOW**	**OK1**	**OK2**	**OK3**	**PCTSF**
19	10	ONE STORY FRAME	54.75	40	Y	Y	Y	Y	Y	1
19	11	OFP OPEN FRAME PORCH	17.7	10.5	Y	Y	Y	Y	Y	
19	12	EFP ENCL FRAME PORCH	23.5	15	Y	Y	Y	Y	Y	
19	13	FRGR FRAME GARAGE	15.5	15.5	Y	Y	Y	Y	Y	
19	14	FR UT FRAME UTIL BLDG	11	11	Y	Y	Y	Y	Y	
19	15	FRBAY FRAME BAY	54.75	40	Y	Y	Y	Y	Y	1
19	16	FROVR FRAME OVERHANG	49.25	36	Y	Y	Y	Y	Y	1
19	17	1/2 FRAME HALF STORY	27.5	27.5	N		Y	Y	Y	0.5
19	18	AT UN ATTIC-UNFIN	4.8	4.8	N			Y	Y	
19	19	AT FIN ATTIC-FIN	13.75	13.75	N			Y	Y	0.4
19	20	1S MAS 1 ST MASONRY	59	43.25	Y	Y	Y	Y	Y	1
19	21	OMP OPEN MASONRY PORCH	19	11.25	Y	Y	Y	Y	Y	
19	22	EMP ENCL MASONRY PORCH	25.5	16.25	Y	Y	Y	Y	Y	
19	23	MG/BG MASON/BRICK GAR	16.75	16.75	Y	Y	Y			
19	24	MASUT MASONRY UTIL	12	12	Y	Y	Y	Y	Y	
19	25	MABAY MASONRY BAY	59	43.25	Y	Y	Y	Y	Y	1
19	26	MASOH MASONRY OVERHANG	53	39	Y	Y	Y	Y	Y	1
19	27	1/2 MASONARY HALF STORY	29.7	29.7	N			Y	Y	0.5
19	28	PART FINISHED ATTIC		7.5	N			Y	Y	0.15
19	29	LOFT	26.5	26.5	Y			Y	Y	0.5
19	30	CARPORT	7.7	7.7	N	Y	Y			
19	31	WOOD DECK	11	11	Y	Y	Y	Y	Y	
19	32	CANOPY	5.5	5.5	N	Y	Y	Y	Y	
19	33	MASON CONCRETE PATIO	3.75	3.75	N	Y	Y			
19	34	STONE TILE PATIO	3.75	3.75	N	Y	Y			
19	35	STOOP	10	10	N	Y	Y	Y	Y	
19	36	ATTACHED GREENHOUSE	22	22	N	Y	Y	Y		
19	37	FR GAR EXTENSION	14	14	N	Y	Y			
19	38	MS GAR EXTENSION	15	15	N	Y	Y			
19	41	GAZEBO ATTACHED	23.75	23.75	N	Y	Y			
19	49	CRAWL	0	0	N	Y	Y			
19	50	UNFIN BSMT	8	8	N	Y	Y			
19	51	FINISHED BSMT	0		N	Y	Y			
19	55	SOLARIUM	40	34	Y	Y	Y	Y	Y	
19	97	ROOFTOP TERRACE	9	9	N	N	N	Y	Y	
19	98	PIER/POST	8	8	N	Y	Y			
19	99	MISC ADD TOTAL			N	Y				
19	189	ELEVATOR				Y	Y	Y	Y	
19	355	FINISHED PILINGS				Y	Y	Y	Y	
19	356	UNFINISHED PILINGS				Y	Y	Y	Y	
19	357	UNF PILINGS/GARAGE				Y	Y	N	N	
19	358	FIN PILINGS/GARAGE				Y	Y	N	N	

Commercial Building Pricing Schedules

The following tables contain a range of model rate values within which the final model rates to be used in the 2019 revaluation are hereby authorized.

Appraisal management is to correlate the final model rates to the local real estate market between this writing and the mailing of Notices of Value Change for the revaluation. In doing so, management has the authority to modify the Basic Model and the depreciation schedules below.

Commercial Structure Codes (CISTRUCT)					
VER	CODE	DESCRIPTION	STRUC CODE	FRAME	BRICK
19	101	RESIDENTIAL 1 FAMILY	10	40	40
19	102	RESIDENTIAL 2 FAMILY	10	40	40
19	103	RESIDENTIAL 3 FAMILY	10	40	40
19	104	RESIDENTIAL 4 FAMILY	10	40	40
19	105	MIXED RESIDENTIAL/COMMERCIAL	10	40	40
19	106	CONDO COMMON ELEMENT	10	40	40
19	107	CONDO FEE SIMPLE	10	40	40
19	201	RES STRCT ON APT VAL	10	40	40
19	211	APARTMENTS - GARDEN	02	40	50
19	212	APARTMENTS HIGH RISE	01	50	50
19	301	RES ON COMM LAND	10	40	40
19	314	HOTEL/MOTEL HI RISE	01	50	50
19	315	HOTEL/MOTEL LO RISE	02	30	40
19	316	NURSING HOME	02	40	50
19	318	BRDING-ROOMING HOUSE	10	40	50
19	319	MIXED RES/COMM	03	40	50
19	321	RESTAURANT	03	30	40
19	323	FOOD STAND	03	30	30
19	325	FRANCHISE	09	30	30
19	327	BAR/LOUNGE	03	30	40
19	328	NIGHT/CLUB/DNR THEATER	03	30	40
19	331	AUTO DEALER/F-SEVICE	05	30	40
19	332	AUTO SERVICE GARAGE	04	30	40
19	333	SERVICE STATION - FULL	03	30	30
19	334	SERVICE STATION FULL SERVE	03	30	30
19	335	TRUCK STOP	04	30	40
19	336	CAR WASH - MANUAL	07	30	30
19	337	CAR WASH - AUTOMAITC	04	30	30
19	338	PARKING GARAGE/DECK	04	40	40
19	339	KWIK LUBE	03	30	30
19	340	SUPER REG SHOPMALL	03	40	50
19	341	REGIONAL SHPMALL/CNT	03	40	50
19	342	COMM SHOPPING CENTER	03	30	40
19	343	NBHD SHOPPING CENTER	03	30	40
19	344	STRIP SHOPPING CNTR	03	30	40
19	345	DISCOUNT DEPT STORE	03	30	40
19	346	DEPARTMENT STORES	03	40	50
19	347	SUPERMARKET	03	30	40

Commercial Structure Codes (CISTRUCT)					
VER	CODE	DESCRIPTION	STRUC CODE	FRAME	BRICK
19	348	CONVENIENCE FOOD MKT	03	30	40
19	349	MEDICAL OFFICE BLDG	05	40	50
19	351	BANK	05	40	60
19	352	SAVINGS INSTITUTION	05	40	50
19	353	OFFICE BLDG L/R 1-4S	05	40	50
19	354	OFFICE BLDG H-R 5ST	08	60	60
19	355	OFFICE CONDOMINIUM	05	40	50
19	356	RETAIL CONDOMINIUM	05	40	50
19	361	FUNERAL HOME	10	40	50
19	362	VETERINARY CLINIC	03	30	40
19	363	LEGITIMATE THEATER	06	60	60
19	364	MOTION PICTURE THEATER	06	40	50
19	365	CINEMA/THEATER	06	30	40
19	366	RADIO/TV/MIN PIC STUDIO	05	40	50
19	367	SOCIAL/FRATERNAL HALL	03	30	40
19	368	HANGAR	04	30	40
19	369	DAY CARE CENTER	03	30	40
19	370	GREENHOUSE/FLORIST	04	30	40
19	371	DOWNTOWN ROW TYPE	03	40	50
19	373	RETAIL SINGLE OCCUP	03	30	40
19	374	RETAIL MULTI OCCUP	03	30	40
19	375	RETAIL DRIVE-UP	03	30	40
19	381	BOWLING ALLEY	04	30	40
19	382	SKATING RINK	04	30	40
19	383	HEALTH SPA	05	30	40
19	384	SWIMMING-INDOOR POOL	04	30	40
19	385	TENNIS CLUB - INDOOR	04	30	40
19	386	RACQUET CLUB INDOOR	03	30	40
19	387	COUNTRY CLUB	05	40	50
19	388	CLUB HOUSE	03	30	40
19	389	COUNTRY CLUB/W CRSE	05	40	50
19	391	COLD STORAGE	04	30	40
19	392	LUMBER STORAGE	07	20	30
19	395	TRUCK TERMINAL	04	30	40
19	396	MINI WAREHOUSE	04	30	40
19	397	OFFICE/WAREHOUSE	04	40	50
19	398	WAREHOUSE	04	30	40
19	399	PREFAB WAREHOUSE	07	30	30
19	401	MFG/PROCESSING	04	40	50
19	405	RESEARCH _ DEVELOPMENT	05	40	50
19	610	RECREATIONAL/HEALTH	05	30	40

Commercial Structure Codes (CISTRUCT)					
VER	**CODE**	**DESCRIPTION**	**STRUC CODE**	**FRAME**	**BRICK**
19	611	LIBRARY	05	50	60
19	612	SCHOOL	05	50	60
19	613	COLLEGES _ UNIVERSITY	05	50	60
19	620	RELIGIOUS	05	50	60
19	630	AUDITORIUM	06	50	60
19	640	HOSPITALS	05	50	60
19	660	POLICE/FIRE STATIONS	05	50	60
19	670	CORRECTIONAL	05	50	60
19	680	CULTURAL FACILITIES	05	50	60
19	690	RAIL/BUS/AIR TERMINAL	05	40	50
19	710	TELEPHONE EQUIPMENT BLDG	04	50	60
19	715	TELE SRV GAR FACILITY	04	30	40
19	720	RADIO/TV TRANSMITTER BLD	04	30	40

Commercial Base SF Rates (CIBASE)							
VER	STRUCT CODE	CONSTR TYPE	LEVEL	NAME	RATE	WALLHT	WALLADJ
19	01	1	B		14.28		
19	01	1	F		11.34		
19	01	1	U		10.29		
19	01	2	B		15.26		
19	01	2	F		15.26		
19	01	2	U		13.86		
19	01	3	B		15.26		
19	01	3	F		20.72		
19	01	3	U		18.83		
19	01	4	B		0		
19	01	4	F		0		
19	01	4	U		0		
19	02	1	B		9.45		
19	02	1	F		10.22		
19	02	1	U		9.31		
19	02	2	B		11.48		
19	02	2	F		12.95		
19	02	2	U		11.76		
19	02	3	B		11.48		
19	02	3	F		19.04		
19	02	3	U		17.29		
19	02	4	B		0		
19	02	4	F		0		
19	02	4	U		0		
19	03	1	B		14.56		
19	03	1	F		11.69		
19	03	1	U		10.64		
19	03	2	B		16.03		
19	03	2	F		16.8		
19	03	2	U		15.26		
19	03	3	B		16.03		
19	03	3	F		21.35		
19	03	3	U		19.39		
19	03	4	B		14.42		
19	03	4	F		12.39		
19	03	4	U		11.27		
19	04	1	B		11.9		
19	04	1	F		10.85		

Commercial Base SF Rates (CIBASE)							
VER	STRUCT CODE	CONSTR TYPE	LEVEL	NAME	RATE	WALLHT	WALLADJ
19	04	1	U		9.8		
19	04	2	B		12.74		
19	04	2	F		11.9		
19	04	2	U		10.85		
19	04	3	B		12.74		
19	04	3	F		15.75		
19	04	3	U		14.21		
19	04	4	B		10.36		
19	04	4	F		9.66		
19	04	4	U		8.75		
19	05	1	B		11.9		
19	05	1	F		14.35		
19	05	1	U		13.02		
19	05	2	B		16.45		
19	05	2	F		19.88		
19	05	2	U		18.06		
19	05	3	B		16.45		
19	05	3	F		25.27		
19	05	3	U		22.96		
19	05	4	B		13.23		
19	05	4	F		13.72		
19	05	4	U		12.46		
19	06	1	B		14.21		
19	06	1	F		14		
19	06	1	U		12.74		
19	06	2	B		16.87		
19	06	2	F		21.28		
19	06	2	U		19.32		
19	06	3	B		16.87		
19	06	3	F		27.79		
19	06	3	U		25.27		
19	06	4	B		13.65		
19	06	4	F		13.86		
19	06	4	U		12.6		
19	07	1	B		11.55		
19	07	1	F		10.5		
19	07	1	U		9.52		
19	07	2	B		12.39		
19	07	2	F		11.55		
19	07	2	U		10.5		

Commercial Base SF Rates (CIBASE)							
VER	STRUCT CODE	CONSTR TYPE	LEVEL	NAME	RATE	WALLHT	WALLADJ
19	07	3	B		12.39		
19	07	3	F		15.26		
19	07	3	U		13.86		
19	07	4	B		10.01		
19	07	4	F		9.31		
19	07	4	U		8.54		
19	08	1	B		16.52		
19	08	1	F		15.19		
19	08	1	U		13.79		
19	08	2	B		17.99		
19	08	2	F		22.4		
19	08	2	U		20.37		
19	08	3	B		17.99		
19	08	3	F		28.7		
19	08	3	U		26.11		
19	08	4	B		0		
19	08	4	F		0		
19	08	4	U		0		
19	09	4	U		0		
19	10	1	B		4.62		
19	10	1	F		10.22		
19	10	1	U		9.31		
19	10	2	B		5.39		
19	10	2	F		11.83		
19	10	2	U		10.78		
19	10	3	B		0		
19	10	3	F		0		
19	10	3	U		0		
19	10	4	B		0		
19	10	4	F		0		
19	10	4	U		0		

Commercial Exterior Wall (CIEXT)				
VER	EXTWALL	DESCRIPTION	BASIC STRUCT CODE	RATE
19	00	NONE	01	0
19	00	NONE	02	0
19	00	NONE	03	0
19	00	NONE	04	0
19	00	NONE	05	0
19	00	NONE	06	0
19	00	NONE	07	0
19	00	NONE	08	0
19	00	NONE	09	0
19	00	NONE	10	0
19	01	BRICK VENEER	01	15.82
19	01	BRICK VENEER	02	13.44
19	01	BRICK VENEER	03	16.17
19	01	BRICK VENEER	04	15.4
19	01	BRICK VENEER	05	17.99
19	01	BRICK VENEER	06	17.71
19	01	BRICK VENEER	07	13.02
19	01	BRICK VENEER	08	17.99
19	01	BRICK VENEER	09	0
19	01	BRICK VENEER	10	13.44
19	02	FRAME/VINYL/ALUMINUM	01	10.64
19	02	FRAME/VINYL/ALUMINUM	02	9.87
19	02	FRAME/VINYL/ALUMINUM	03	11.48
19	02	FRAME/VINYL/ALUMINUM	04	10.64
19	02	FRAME/VINYL/ALUMINUM	05	11.83
19	02	FRAME/VINYL/ALUMINUM	06	11.62
19	02	FRAME/VINYL/ALUMINUM	07	8.96
19	02	FRAME/VINYL/ALUMINUM	08	11.83
19	02	FRAME/VINYL/ALUMINUM	09	0
19	02	FRAME/VINYL/ALUMINUM	10	9.87
19	03	CONCRETE BLOCK	01	13.79
19	03	CONCRETE BLOCK	02	12.32
19	03	CONCRETE BLOCK	03	13.51
19	03	CONCRETE BLOCK	04	12.6
19	03	CONCRETE BLOCK	05	15.19
19	03	CONCRETE BLOCK	06	14.49
19	03	CONCRETE BLOCK	07	9.87
19	03	CONCRETE BLOCK	08	15.19
19	03	CONCRETE BLOCK	09	0
19	03	CONCRETE BLOCK	10	12.32

Commercial Exterior Wall (CIEXT)				
VER	EXTWALL	DESCRIPTION	BASIC STRUCT CODE	RATE
19	04	BRICK / CONCRETE BLOCK	01	14.7
19	04	BRICK / CONCRETE BLOCK	02	12.95
19	04	BRICK / CONCRETE BLOCK	03	14.91
19	04	BRICK / CONCRETE BLOCK	04	14.07
19	04	BRICK / CONCRETE BLOCK	05	16.52
19	04	BRICK / CONCRETE BLOCK	06	16.03
19	04	BRICK / CONCRETE BLOCK	07	11.41
19	04	BRICK / CONCRETE BLOCK	08	16.52
19	04	BRICK / CONCRETE BLOCK	09	0
19	04	BRICK / CONCRETE BLOCK	10	12.95
19	05	TILE TILT UP PANELS	01	19.74
19	05	TILE	02	19.39
19	05	TILE	03	19.81
19	05	TILE	04	18.76
19	05	TILE	05	19.39
19	05	TILE	06	19.53
19	05	TILE	07	0
19	05	TILE	08	19.39
19	05	TILE	09	0
19	05	TILE	10	19.39
19	06	MASONRY / FRAME	01	13.16
19	06	MASONRY / FRAME	02	11.62
19	06	MASONRY / FRAME	03	13.86
19	06	MASONRY / FRAME	04	13.02
19	06	MASONRY / FRAME	05	14.91
19	06	MASONRY / FRAME	06	14.63
19	06	MASONRY / FRAME	07	10.92
19	06	MASONRY / FRAME	08	14.91
19	06	MASONRY / FRAME	09	0
19	06	MASONRY / FRAME	10	11.62
19	07	METAL, LIGHT	01	0
19	07	METAL, LIGHT	02	0
19	07	METAL, LIGHT	03	3.43
19	07	METAL, LIGHT	04	3.43
19	07	METAL, LIGHT	05	3.43
19	07	METAL, LIGHT	06	3.43
19	07	METAL, LIGHT	07	2.94
19	07	METAL, LIGHT	08	3.43

Commercial Exterior Wall (CIEXT)				
VER	**EXTWALL**	**DESCRIPTION**	**BASIC STRUCT CODE**	**RATE**
19	07	METAL, LIGHT	09	0
19	07	METAL, LIGHT	10	0
19	08	METAL, SANDWICH	01	0
19	08	METAL, SANDWICH	02	0
19	08	METAL, SANDWICH	03	17.01
19	08	METAL, SANDWICH	04	16.1
19	08	METAL, SANDWICH	05	16.1
19	08	METAL, SANDWICH	06	16.1
19	08	METAL, SANDWICH	07	16.1
19	08	METAL, SANDWICH	08	16.1
19	08	METAL, SANDWICH	09	0
19	08	METAL, SANDWICH	10	0
19	09	CONCRETE LOAD BEARING	01	14.91
19	09	CONCRETE LOAD BEARING	02	13.86
19	09	CONCRETE LOAD BEARING	03	15.89
19	09	CONCRETE LOAD BEARING	04	15.33
19	09	CONCRETE LOAD BEARING	05	17.08
19	09	CONCRETE LOAD BEARING	06	16.66
19	09	CONCRETE LOAD BEARING	07	12.04
19	09	CONCRETE LOAD BEARING	08	17.08
19	09	CONCRETE LOAD BEARING	09	0
19	09	CONCRETE LOAD BEARING	10	13.86
19	10	CONCRETE NON-LOAD BEARING	01	14.21
19	10	CONCRETE NON-LOAD BEARING	02	0
19	10	CONCRETE NON-LOAD BEARING	03	14.49
19	10	CONCRETE NON-LOAD BEARING	04	14.14
19	10	CONCRETE NON-LOAD BEARING	05	15.75
19	10	CONCRETE NON-LOAD BEARING	06	14.35
19	10	CONCRETE NON-LOAD BEARING	07	11.27
19	10	CONCRETE NON-LOAD BEARING	08	15.75
19	10	CONCRETE NON-LOAD BEARING	09	0
19	10	CONCRETE NON-LOAD BEARING	10	0
19	11	GLASS	01	23.03
19	11	GLASS	02	21.7
19	11	GLASS	03	23.31
19	11	GLASS	04	21.28
19	11	GLASS	05	24.43
19	11	GLASS	06	23.94

Commercial Exterior Wall (CIEXT)				
VER	EXTWALL	DESCRIPTION	BASIC STRUCT CODE	RATE
19	11	GLASS	07	18.62
19	11	GLASS	08	24.43
19	11	GLASS	09	0
19	11	GLASS	10	21.7
19	12	GLASS / MASONRY	01	21.14
19	12	GLASS / MASONRY	02	19.74
19	12	GLASS / MASONRY	03	21
19	12	GLASS / MASONRY	04	19.32
19	12	GLASS / MASONRY	05	23.59
19	12	GLASS / MASONRY	06	24.99
19	12	GLASS / MASONRY	07	0
19	12	GLASS / MASONRY	08	23.59
19	12	GLASS / MASONRY	09	0
19	12	GLASS / MASONRY	10	19.74
19	13	ENCLOSURE	01	0
19	13	ENCLOSURE	02	0
19	13	ENCLOSURE	03	0
19	13	ENCLOSURE	04	3.08
19	13	ENCLOSURE	05	0
19	13	ENCLOSURE	06	0
19	13	ENCLOSURE	07	3.22
19	13	ENCLOSURE	08	0
19	13	ENCLOSURE	09	0
19	13	ENCLOSURE	10	0
19	14	CONCRETE TILT-UP	01	0
19	14	CONCRETE TILT-UP	02	0
19	14	CONCRETE TILT-UP	03	12.53
19	14	CONCRETE TILT-UP	04	11.34
19	14	CONCRETE TILT-UP	05	13.02
19	14	CONCRETE TILT-UP	06	12.95
19	14	CONCRETE TILT-UP	07	8.61
19	14	CONCRETE TILT-UP	08	13.02
19	14	CONCRETE TILT-UP	09	0
19	14	CONCRETE TILT-UP	10	0
19	15	SOLAR GLASS	01	34.93
19	15	SOLAR GLASS	02	34.65
19	15	SOLAR GLASS	03	37.03
19	15	SOLAR GLASS	04	34.23

Commercial Exterior Wall (CIEXT)				
VER	EXTWALL	DESCRIPTION	BASIC STRUCT CODE	RATE
19	15	SOLAR GLASS	05	40.67
19	15	SOLAR GLASS	06	39.97
19	15	SOLAR GLASS	07	0
19	15	SOLAR GLASS	08	40.67
19	15	SOLAR GLASS	09	0
19	15	SOLAR GLASS	10	34.65
19	16	ASBESTOS, COR. RIG.	01	9.52
19	16	ASBESTOS, COR. RIG.	02	8.96
19	16	ASBESTOS, COR. RIG.	03	10.5
19	16	ASBESTOS, COR. RIG.	04	10.01
19	16	ASBESTOS, COR. RIG.	05	10.99
19	16	ASBESTOS, COR. RIG.	06	10.71
19	16	ASBESTOS, COR. RIG.	07	7.21
19	16	ASBESTOS, COR. RIG.	08	10.99
19	16	ASBESTOS, COR. RIG.	09	0
19	16	ASBESTOS, COR. RIG.	10	8.96
19	17	MASONRY / MTL	01	14.21
19	17	MASONRY / MTL	02	12.53
19	17	MASONRY / MTL	03	14.56
19	17	MASONRY / MTL	04	14.14
19	17	MASONRY / MTL	05	15.75
19	17	MASONRY / MTL	06	13.72
19	17	MASONRY / MTL	07	0
19	17	MASONRY / MTL	08	15.75
19	17	MASONRY / MTL	09	0
19	17	MASONRY / MTL	10	12.53
19	18	NATIVE STONE	01	13.16
19	18	NATIVE STONE	02	11.62
19	18	NATIVE STONE	03	13.86
19	18	NATIVE STONE	04	13.02
19	18	NATIVE STONE	05	14.91
19	18	NATIVE STONE	06	14.63
19	18	NATIVE STONE	07	10.92
19	18	NATIVE STONE	08	14.91
19	18	NATIVE STONE	09	0
19	18	NATIVE STONE	10	11.62

Commercial Interior (CINTEXT)														
VER	USE	Description	BASE	INTFIN	PART0	PART1	PART3	HEAT0	HEAT1	HEAT3	AC0	AC1	AC2	AC3
19	011	APARTMENT	40.45	-6.20	-14.70	-7.35	3.70	-3.15	-0.80	0.80	-2.65		-1.10	
19	012	HOTEL	61.70	-12.60	-19.60	-9.80	4.90	-4.90	-1.25	1.25	-5.60		-2.35	
19	021	MOTEL	54.85	-11.35	-19.60	-9.80	4.90	-4.90	-1.25	1.25	-3.50		-1.50	
19	023	DORMITORY	44.25	-8.80	-14.70	-7.35	3.70	-3.15	-0.80	0.80	-2.65		-1.10	
19	025	DWELL CONV-OFF	38.80	-6.20	-15.40	-5.70	3.85	-3.15	-0.80	0.80	-2.65		-1.10	
19	026	DWELL CONV-SAL	38.80	-6.20	-15.40	-5.70	3.85	-3.15	-0.80	0.80	-2.65		-1.10	
19	027	DWELLING	41.55	-8.95	-15.40	-7.70	3.85	-3.15	-0.80	0.80	-2.65		-1.10	
19	031	RESTAURANT	57.05	-9.70	-11.90	-5.95	3.00	-5.60	-1.40	1.40	-9.80		-4.90	
19	032	DEPARTMENT STOR	33.85	-8.65	-7.00	-3.50	1.75	-4.90	-1.25	1.25	-3.15		-1.60	
19	033	DISC STORE/MART	26.40	-8.65	-3.15	-1.60	0.80	-3.85	-0.95	0.95	-3.15		-2.80	
19	034	RETAIL STORE	29.80	-8.65	-3.85	-1.95	0.95	-4.20	-1.05	1.05	-3.50		-1.75	
19	035	TAVERN/BAR	36.65	-8.65	-3.85	-1.95	0.95	-4.20	-1.05	1.05	-3.50		-1.75	
19	036	BAR/LOUNGE	36.65	-8.65	-3.85	-1.95	0.95	-4.20	-1.05	1.05	-3.50		-1.75	
19	037	CAFETERIA	36.55	-7.05	-3.85	-1.95	0.95	-4.20	-1.05	1.05	-5.60		-2.80	
19	038	CONVENIENCE STO	30.70	-8.65	-3.85	-1.95	0.95	-3.85	-0.95	0.95	-3.15		-1.60	
19	039	MALL SHOPS	32.80	-12.10	-3.85	-1.95	0.95	-4.20	-1.05	1.05	-5.60		-2.80	
19	041	MINI-WAREHOUSE	7.15	-1.25	-5.90	-2.50	2.50			0.90				
19	042	HANGAR	7.00	-2.50	-1.25	-0.30	0.30	-1.05	-0.25	0.25		2.80	2.80	
19	043	MANUFACTURING	22.00	-2.50	-3.15	-0.80	0.80	-4.90	-1.25	1.25		3.85	3.85	
19	044	LGHT MANUFACTUR	13.25	-2.50	-1.40	-0.35	0.35	-3.50	-0.90	0.90		2.80	2.80	
19	045	WAREHOUSE	9.50	-2.15	-1.25	-0.30	0.30	-2.30	-1.15	1.15		2.80	2.80	
19	046	AUTO SHOWRM/OFF	38.75	-9.55	-4.90	-2.45	1.25	-4.90	-1.25	1.25	-9.10		-4.55	
19	047	AUTO PARTS/SERV	24.55	-8.90	-3.15	-0.80	0.80	-4.90	-1.25	1.25		2.80	2.80	
19	048	TENNIS CLUB	21.10	-2.15	-1.25	-0.30	0.30	-2.30	-1.15	1.20	-3.85		-1.05	
19	049	RACQUETBALL CRT	49.40	-3.15	-24.55	-12.30	6.15	-4.20	-1.05	1.05	-3.15		-1.60	
19	050	SKATING RINK	30.05	-8.25	-2.45	-1.25	0.60	-4.90	-1.25	1.25	-5.60		-2.80	
19	051	BANK/SVNGS INST	81.85	-17.80	-26.95	-13.50	6.75	-6.30	-1.60	1.60	-9.10		-4.55	
19	052	MEDICAL CENTER	78.25	-13.50	-29.05	-14.55	7.25	-5.60	-1.40	1.40	-8.40		-3.55	
19	053	OFFICE BUILDING	61.95	-11.75	-21.00	-10.50	5.25	-5.60	-1.40	1.40	-8.40		-3.55	
19	054	NURSING HOME	57.90	-8.80	-14.70	-7.35	5.50	-5.60	-1.40	1.40	-9.10		-3.85	
19	055	SCHOOL	65.85	-11.75	-21.00	-10.50	5.25	-5.60	-1.40	1.40	-8.40		-3.55	
19	056	HOSPITAL	142.00	-58.20	-39.05	-19.50	19.50	-5.60	-1.40	1.40	-8.40		-3.55	
19	057	LIBRARY	76.40	-24.95	-21.00	-10.50	5.25	-5.60	-1.40	1.40	-8.40		-3.55	
19	058	FUNERAL HOME	53.50	-11.75	-11.40	-5.70	2.85	-5.60	-1.40	1.40	-8.40		-3.55	
19	061	AUDITORIUM/THEA	64.45	-13.90	-25.20	-12.60	6.30	-4.90	-1.25	1.25	-5.60		-2.80	
19	062	CINEMA	58.55	-9.70	-25.20	-12.60	6.30	-4.90	-1.25	1.25	-5.60		-2.80	
19	063	RELIGIOUS INSTI	73.75	-35.95	-13.35	-6.70	3.35	-4.90	-1.25	1.25	-5.60		-2.80	
19	064	SOCIAL/FRAT HLL	35.90	-7.40	-7.00	-3.50	1.75	-4.90	-1.25	1.25	-5.60		-2.80	
19	070	SERV STN W BAYS	15.80	-2.50	-2.30	-0.60	0.60	-4.20	-1.05	1.05				
19	071	SERV STA-CONV R	27.95	-6.60	-3.15	-1.60	0.80	-3.85	-0.95	0.95	-3.15		-1.60	
19	072	SERV STA-CONV C	7.35	-1.25	-1.25	-0.30	0.30	-2.30	-1.15	1.20				
19	073	SERV STA-NO BAYS	27.95	-6.60	-3.15	-1.60	0.80	-3.85	-0.95	0.95	-3.15		-1.60	
19	074	CAR WASH MANUAL	10.75	-3.90	-3.35	-0.60	0.60							
19	075	CAR WASH AUTO	9.70	-3.90	-1.25	-0.30	0.30	-1.05	-0.25	0.25				
19	076	FANC OIL/LUBE	22.10	-2.50	-2.30	-0.60	0.60	-4.20	-1.05	1.05		2.80	2.80	
19	081	MULTI-USE APART	39.95	-8.80	-14.70	-7.35	3.70	-2.80	-0.70	0.70	-2.65		-1.10	
19	082	MULTI-USE OFFICE	48.25	-6.20	-15.40	-7.70	3.85	-5.60	-1.40	1.40	-7.00		-2.95	
19	083	MULTI-USE SALES	27.55	-8.65	-3.15	-1.60	0.80	-3.85	-0.95	0.95	-3.15		-1.60	
19	084	MULTI-USE STORA	5.75	-1.25	-0.90	-0.25	0.25	-1.05	-0.55	0.55				
19	085	ENCLOSURE	29.10	-6.20	-3.85	-1.95	0.95	-3.85	-0.95	0.95	-5.60		-2.80	
19	086	SUPPORT AREA	5.10	-1.25	-0.90	-0.25	0.25	-1.05	-0.55	0.55				
19	088	RSTRM/LCKRM FAC	18.00	-7.40	-1.25	-0.30	0.30	-3.50	-0.90	0.90		3.85	3.85	
19	090	PARKING GARAGE	4.80	-2.50	-1.25	-0.30	0.30							
19	091	UNFIN RES BSMT	3.20	-1.25	-0.90	-0.25	0.25							
19	095	COVERED MALL	27.45	-8.65	-3.85	-1.95	0.95	-4.20	-1.05	1.05	-3.15		-1.60	
19	100	FRANCHISES	88.25	-17.80	-26.95	-13.50	6.75	-6.30	-1.60	1.60	-9.80			
19	990	PARKING UP DECK	3.50											

Commercial Interior (CINTEXT)													
USE	Description	PLUMB0	PLUMB1	PLUMB3	LIGHT0	LIGHT1	LIGHT3	SUMPCT	INCUSE	PART2	HEAT2	PLUMB2	LIGHT2
011	APARTMENT	-9.20	-2.35	2.35	-4.55	-0.70	0.70		01				
012	HOTEL	-12.00	-3.00	3.00	-7.00	-0.70	0.70		02				
021	MOTEL	-9.20	-2.30	2.30	-6.30	-0.70	0.70		02				
023	DORMITORY	-10.40	-2.60	2.60	-4.55	-0.70	0.70		00				
025	DWELL CONV-OFF	-6.45	-1.60	1.60	-4.95	-0.70	0.70		23				
026	DWELL CONV-SAL	-6.45	-1.60	1.60	-4.95	-0.70	0.70		24				
027	DWELLING	-6.45	-1.60	1.60	-4.95	-0.70	0.70		17				
031	RESTAURANT	-8.15	-2.05	2.05	-11.90	-2.60	2.60		16				
032	DEPARTMENT STOR	-2.45	-0.60	0.60	-7.70	-1.70	1.70		09				
033	DISC STORE/MART	-2.00	-0.50	0.50	-5.60	-1.25	1.25		19				
034	RETAIL STORE	-3.30	-0.85	0.85	-6.30	-1.40	1.40		03				
035	TAVERN/BAR	-10.15	-2.55	2.55	-6.30	-1.40	1.40		24				
036	BAR/LOUNGE	-10.15	-2.55	2.55	-6.30	-1.40	1.40		24				
037	CAFETERIA	-8.15	-2.05	2.05	-7.70	-1.70	1.70		16				
038	CONVENIENCE STO	-4.90	-1.25	1.25	-6.30	-1.40	1.40		22				
039	MALL SHOPS	-3.30	-0.85	0.85	-6.30	-1.40	1.40		05				
041	MINI-WAREHOUSE						0.50		08				
042	HANGAR	-1.15	-0.30	0.30	-1.05	-0.25	0.25		25				
043	MANUFACTURING	-6.20	-1.55	1.55	-5.25	-1.15	1.15		12				
044	LGHT MANUFACTUR	-2.35	-0.60	0.60	-3.50	-0.75	0.75		12				
045	WAREHOUSE	-1.50	-0.40	0.40	-2.30	-0.50	0.50		07				
046	AUTO SHOWRM/OFF	-4.00	-1.00	1.00	-6.30	-1.40	1.40		04				
047	AUTO PARTS/SERV	-2.35	-0.60	0.60	-5.25	-1.15	1.15		14				
048	TENNIS CLUB	-8.05	-2.00	2.00	-3.50	-0.75	0.75		00				
049	RACQUETBALL CRT	-8.05	-2.00	2.00	-6.30	-1.40	1.40		00				
050	SKATING RINK	-2.55	-0.65	0.65	-6.30	-1.40	1.40		00				
051	BANK/SVNGS INST	-7.00	-1.75	1.75	-14.70	-3.25	3.25		15				
052	MEDICAL CENTER	-10.15	-2.55	2.55	-11.55	-1.75	1.75		10				
053	OFFICE BUILDING	-4.70	-1.20	1.20	-10.50	-1.75	1.75		04				
054	NURSING HOME	-12.35	-3.10	3.10	-7.35	-0.70	0.70		00				
055	SCHOOL	-8.60	-2.15	2.15	-10.50	-1.75	1.75		00				
056	HOSPITAL	-19.20	-4.80	4.80	-11.55	-1.75	1.75		00				
057	LIBRARY	-5.95	-1.50	1.50	-10.50	-1.75	1.75		00				
058	FUNERAL HOME	-5.15	-1.30	1.30	-11.20	-0.70	0.70		00				
061	AUDITORIUM/THEA	-6.10	-1.55	1.55	-8.75	-1.95	1.95		24				
062	CINEMA	-4.40	-1.10	1.10	-8.75	-1.95	1.95		24				
063	RELIGIOUS INSTI	-6.25	-1.55	1.55	-7.70	-1.70	1.70		00				
064	SOCIAL/FRAT HLL	-4.70	-1.20	1.20	-6.30	-1.40	1.40		24				
070	SERV STN W BAYS	-3.30	-0.85	0.85	-3.50	-0.75	0.75		00				
071	SERV STA-CONV R	-4.90	-1.25	1.25	-6.30	-1.40	1.40		24				
072	SERV STA-CONV C	-1.50	-0.40	0.40	-1.05	-0.25	0.25		25				
073	SERV STA-NO BAYS	-4.90	-1.25	1.25	-6.30	-1.40	1.40		00				
074	CAR WASH MANUAL	-2.45	-0.60	0.60	-1.05	-0.25	0.25		00				
075	CAR WASH AUTO	-2.45	-0.60	0.60	-1.05	-0.25	0.25		00				
076	FANC OIL/LUBE	-8.20	-2.05	2.05	-4.90	-1.10	1.10		00				
081	MULTI-USE APART	-6.95	-1.75	1.75	-4.05	-0.70	0.70		17				
082	MULTI-USE OFFICE	-3.55	-0.90	0.90	-10.50	-1.40	1.40		23				
083	MULTI-USE SALES	-2.45	-0.60	0.60	-6.30	-1.40	1.40		24				
084	MULTI-USE STORA	-1.50	-0.40	0.40	-1.05	-0.25	0.25		25				
085	ENCLOSURE	-3.30	-0.85	0.85	-6.30	-1.40	1.40		11				
086	SUPPORT AREA	-0.85	-0.20	0.20	-1.05	-0.25	0.25	0	00				
088	RSTRM/LCKRM FAC	-2.35	-0.60	0.60	-3.50	-0.75	0.75		25				
090	PARKING GARAGE				-1.05	-0.25	0.25		13				
091	UNFIN RES BSMT				-1.05	-0.25	0.25	0	00				
095	COVERED MALL	-2.00	-0.50	0.50	-5.60	-1.25	1.25		00				
100	FRANCHISES	-12.70	-3.15	3.15	-14.70	-3.25	3.25		20				
990	PARKING UP DECK								13				

Commercial Other Features (CIFEAT)				
VER	CODE	Description	UNITS	RATE
19	AE1	AERIAL WALK	2 - AREA	250.32
19	AT3	ATRIUM-COVER ONLY	2 - AREA	40.04
19	AT4	ATRIUM WALLS	2 - AREA	14.49
19	BA1	BALCONY	2 - AREA	9.8
19	BC1	GOOD CANOPY-DRIVE IN	2 - AREA	36.05
19	BE0	BANK PNEUMATIC TUBE	3 - LINEAL FT	721
19	BE1	BANK VAULT - NO DOOR	2 - AREA	129.15
19	BE2	BANK VAULT REC ST/ND	2 - AREA	38.99
19	BE3	BANK VAULT DR CIRC $	1 - UNITS	149240
19	BE4	BANK VAULT DR RECT $	1 - UNITS	40040
19	BE5	BANK VAULT DR REC ST	1 - UNITS	3192
19	BE6	BANK NT DEP CHUTE	1 - UNITS	8302
19	BE7	BANK DR IN WINDOW	1 - UNITS	0
19	BE8	BANK SERV WINDOW	1 - UNITS	
19	BE9	BANK DR IN TELLER BOOTH	2 - AREA	92.75
19	BT0	ATM STRUCTURE	1 - UNITS	27230
19	BT1	BASEMENT TOP	2 - AREA	9.24
19	CA1	CENTRAL AIR CONDITIONING	2 - AREA	4.13
19	CA2	UNIT AIR CONDITIONER	2 - AREA	2.17
19	CF1	COOLER-CHILLER	2 - AREA	8.96
19	CF2	COOLER-FREEZER	2 - AREA	11.27
19	CF3	COOLER-SHARP FREEZE	2 - AREA	15.33
19	CM1	COVERED MALL	2 - AREA	30.03
19	CP5	CANOPY ONLY	2 - AREA	7.84
19	CP6	CANOPY ROOF/SLAB	2 - AREA	9.59
19	CP7	CANOPY RF-ECONOMY	2 - AREA	12.6
19	CP8	CANOPY RF-AVERAGE	2 - AREA	21
19	CP9	CANOPY RF-GOOD	2 - AREA	28
19	CR1	COMPUTER FLOOR	2 - AREA	14.07
19	CR2	COMPUTER ROOM AIR CTL	2 - AREA	9.31
19	CR3	COMPUTER FIRE SUPP	2 - AREA	11.97
19	CW1	CRANEWAYS	3 - LINEAL FT	44.03
19	DL1	DOCK LEVEL FLOOR	2 - AREA	1.33
19	EE1	ENCLOSED ENTRY	2 - AREA	27.02
19	EL1	ELEVATOR ELECTRIC FREIGHT	6 - TABLE LOOKUP	1
19	EL2	ELEVATOR ELECTRIC PASNGR	6 - TABLE LOOKUP	1

Commercial Other Features (CIFEAT)				
VER	CODE	Description	UNITS	RATE
19	EL3	ELEVATOR HYDRAULIC FREIGHT	6 - TABLE LOOKUP	1
19	EL4	ELEVATOR HYDRAULIC PASNGR	6 - TABLE LOOKUP	1
19	EL5	ESCALATOR WIDTH=32	7 - TABLE LOOKUP	1
19	EL6	ESCALATOR WIDTH=48	7 - TABLE LOOKUP	1
19	FI1	FIREPLACE 1 OPENING	1 - UNITS	3612
19	FI2	FIREPLACE 2 OPENINGS	1 - UNITS	5404
19	FI3	FIREPLACE 3 OPENINGS	1 - UNITS	7210
19	GH4	GREENHSE-ECONOMY	2 - AREA	9.87
19	GH5	GREENHSE-AVERAGE	2 - AREA	12.67
19	GH6	GREENHSE-GOOD	2 - AREA	14.77
19	GZ1	GAZEBO	2 - AREA	16.8
19	LD1	LOAD DOCK-ST OR CONC	2 - AREA	11.97
19	LD2	LOADING DOCK- WOOD	2 - AREA	8.12
19	LD3	LOADING DOCK- INTR	2 - AREA	26.04
19	LD4	TRUCK / TRAIN WELLS	2 - AREA	14.28
19	LD5	DOCK LEVELERS	1 - UNITS	5908
19	LP3	PATIO- CONCRETE	2 - AREA	3.15
19	LP4	PATIO- ASPHALT	2 - AREA	2.17
19	LP5	PATIO- FLGST-SND-BSE	2 - AREA	6.37
19	LP6	PATIO- FLGST-CON-BSE	2 - AREA	8.4
19	LP7	PATIO- BRICK	2 - AREA	7.7
19	MR1	MONITOR ROOF	2 - AREA	3.85
19	MR2	HIGH BAY ROOF	2 - AREA	3.85
19	MS1	MISCELLANEOUS	1 - UNITS	1
19	OA1	OPEN AREA APT. HOTEL	2 - AREA	7.42
19	OA2	OPEN AREA MOTEL DWLG	2 - AREA	6.79
19	OA3	OPEN AREA STORE RSTR	2 - AREA	7.98
19	OA4	OPEN AREA INDSTR/WHS	2 - AREA	7.98
19	OA5	OPEN AREA BANK/OFFICE	2 - AREA	9.73
19	OA6	OPEN AREA THEAT/AUDT	2 - AREA	10.5
19	OA7	OPEN AR.LT MTL/AG BD	2 - AREA	5.74
19	OA8	OPEN AREA HI RISE OFFICE	2 - AREA	10.01
19	OD1	OVERHEAD DR-WOOD/MTL	2 - AREA	13.86
19	OD2	OVERHEAD DR-ROLL STL	2 - AREA	21.98
19	OD3	OVRHD DR-MTR-OP-WD-MT	2 - AREA	18.41
19	OD4	OVRHD DR-MTR-OP-RL-ST	2 - AREA	29.26
19	PR1	PORCH- OPEN	2 - AREA	22.4
19	PR2	PORCH- ENCLOSED	2 - AREA	35

Commercial Other Features (CIFEAT)				
VER	CODE	Description	UNITS	RATE
19	PR3	PORCH- OPEN UPPER	2 - AREA	14
19	PR4	PORCH- ENCLOSED UPPER	2 - AREA	21
19	PR5	PORCH COVERED	2 - AREA	14
19	PR6	PORCH- SCREENED	2 - AREA	30.8
19	PR7	PORCH COV-UPPER	2 - AREA	8.4
19	PR8	PORCH SCREEN-UPPER	2 - AREA	19.04
19	RA1	GARAGE-ATTACHED-FRM	2 - AREA	17.01
19	RA2	GARAGE-ATTACHED-MAS	2 - AREA	21.77
19	RC1	CARPORT	2 - AREA	9.59
19	RR1	RAILROAD TRACKAGE	3 - LINEAL FT	84.14
19	RS1	UTILITY BLDG-FRAME	2 - AREA	10.85
19	RS2	UTILITY BLDG-METAL	2 - AREA	14.21
19	RS3	UTILITY BLDG-BRK/STN	2 - AREA	15.4
19	SC2	INDOOR POOL	2 - AREA	50.12
19	SF1	STORE FRONT/WOOD FRAME	3 - LINEAL FT	100.17
19	SF2	STORE FRONT/AV MET F	3 - LINEAL FT	200.2
19	SF3	STORE FRONT/ELABORATE	3 - LINEAL FT	300.37
19	SK1	INDOOR SKATING RINK	2 - AREA	15.19
19	SS1	SPRINKLER SYS WET	2 - AREA	2.45
19	SS2	SPRINKLER SYS DRY	2 - AREA	2.8
19	STP	STOOP	2 - AREA	10
19	TS1	TRUCK SCALE	2 - AREA	0
19	TS2	TRUCK SCALE-ELEC.RDR.	1 - UNITS	6860
19	TU1	TUNNEL	2 - AREA	420.49
19	TU2	TUNNEL UTILITY	2 - AREA	131.67
19	WD1	WOOD DECK	2 - AREA	9.8

Commercial Elevators (CIELEV)							
VER	CODE	Description	MINSPEED	MAXSPEED	CAPACITY	RATE	PERSTOP
19	EL1	ELEVATOR ELECTRIC FREIGHT	0	100	2000	63420	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	0	100	2500	64715	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	0	100	3000	66010	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	0	100	3500	66542	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	0	100	4000	68600	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	0	100	4500	69930	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	0	100	5000	71260	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	0	100	6000	73920	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	0	100	7000	76510	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	0	100	7500	77805	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	0	100	8000	79100	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	0	100	9000	81725	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	0	100	10000	84350	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	0	100	11000	86975	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	0	100	12000	89600	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	0	100	13000	92225	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	0	100	14000	94850	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	0	100	15000	97475	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	0	100	16000	100100	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	0	100	17000	102725	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	0	100	18000	105350	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	0	100	19000	107975	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	0	100	20000	110600	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	101	150	2000	68320	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	101	150	2500	69930	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	101	150	3000	71540	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	101	150	3500	73150	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	101	150	4000	74760	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	101	150	4500	76615	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	101	150	5000	78015	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	101	150	6000	81270	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	101	150	7000	84490	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	101	150	7500	86100	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	101	150	8000	87710	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	101	150	9000	90965	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	101	150	10000	94220	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	101	150	11000	97440	9100

Commercial Elevators (CIELEV)							
VER	CODE	Description	MINSPEED	MAXSPEED	CAPACITY	RATE	PERSTOP
19	EL1	ELEVATOR ELECTRIC FREIGHT	101	150	12000	100660	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	101	150	13000	103880	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	101	150	14000	107100	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	101	150	15000	110355	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	101	150	16000	113610	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	101	150	17000	116830	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	101	150	18000	120050	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	101	150	19000	123305	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	101	150	20000	126560	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	151	200	2000	73220	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	151	200	2500	75145	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	151	200	3000	77070	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	151	200	3500	78995	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	151	200	4000	80920	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	151	200	4500	82845	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	151	200	5000	84770	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	151	200	6000	88620	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	151	200	7000	92470	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	151	200	7500	94395	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	151	200	8000	96320	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	151	200	9000	100170	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	151	200	10000	104020	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	151	200	11000	107870	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	151	200	12000	111720	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	151	200	13000	115570	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	151	200	14000	119420	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	151	200	15000	123270	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	151	200	16000	127120	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	151	200	17000	130970	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	151	200	18000	134820	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	151	200	19000	138670	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	151	200	20000	142520	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	201	250	2000	78120	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	201	250	2500	80360	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	201	250	3000	82600	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	201	250	3500	84840	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	201	250	4000	87080	9100

Commercial Elevators (CIELEV)							
VER	CODE	Description	MINSPEED	MAXSPEED	CAPACITY	RATE	PERSTOP
19	EL1	ELEVATOR ELECTRIC FREIGHT	201	250	4500	89320	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	201	250	5000	91560	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	201	250	6000	96040	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	201	250	7000	100520	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	201	250	7500	102760	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	201	250	8000	103670	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	201	250	9000	109410	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	201	250	10000	113820	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	201	250	11000	118300	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	201	250	12000	122780	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	201	250	13000	127225	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	201	250	14000	131670	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	201	250	15000	136150	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	201	250	16000	140630	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	201	250	17000	145075	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	201	250	18000	149520	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	201	250	19000	154000	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	201	250	20000	158480	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	251	300	2000	83020	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	251	300	2500	85561	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	251	300	3000	88095	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	251	300	3500	90636	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	251	300	4000	93170	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	251	300	4500	95725	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	251	300	5000	98280	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	251	300	6000	103390	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	251	300	7000	108465	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	251	300	7500	111006	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	251	300	8000	113540	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	251	300	9000	118615	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	251	300	10000	123690	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	251	300	11000	128765	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	251	300	12000	133840	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	251	300	13000	138915	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	251	300	14000	143990	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	251	300	15000	149065	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	251	300	16000	154140	9100

Commercial Elevators (CIELEV)							
VER	CODE	Description	MINSPEED	MAXSPEED	CAPACITY	RATE	PERSTOP
19	EL1	ELEVATOR ELECTRIC FREIGHT	251	300	17000	159215	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	251	300	18000	164290	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	251	300	19000	169365	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	251	300	20000	174440	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	301	350	2000	87990	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	301	350	2500	90825	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	301	350	3000	93667	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	301	350	3500	96502	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	301	350	4000	99344	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	301	350	4500	104027	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	301	350	5000	108717	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	301	350	6000	118090	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	301	350	7000	124390	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	301	350	7500	127540	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	301	350	8000	130690	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	301	350	9000	137025	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	301	350	10000	143360	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	301	350	11000	149660	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	301	350	12000	155960	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	301	350	13000	162260	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	301	350	14000	168560	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	301	350	15000	174860	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	301	350	16000	181160	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	301	350	17000	187460	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	301	350	18000	193760	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	301	350	19000	200270	9100
19	EL1	ELEVATOR ELECTRIC FREIGHT	301	350	20000	206780	9100
19	EL2	ELEVATOR - ELECTRIC PASSENGER	0	100	1500	54600	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	0	100	2000	62300	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	0	100	2500	70000	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	0	100	3000	77000	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	0	100	3500	84700	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	0	100	4000	91980	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	0	100	4500	99400	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	0	100	5000	106400	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	101	150	1500	61600	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	101	150	2000	68600	4200

Commercial Elevators (CIELEV)							
VER	**CODE**	**Description**	**MINSPEED**	**MAXSPEED**	**CAPACITY**	**RATE**	**PERSTOP**
19	EL2	ELEVATOR - ELECTRIC PASSENGER	101	150	2500	76300	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	101	150	3000	83300	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	101	150	3500	91000	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	101	150	4000	98000	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	101	150	4500	105700	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	101	150	5000	113400	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	151	200	1500	67900	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	151	200	2000	75600	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	151	200	2500	82600	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	151	200	3000	90300	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	151	200	3500	97440	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	151	200	4000	105000	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	151	200	4500	112000	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	151	200	5000	119700	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	201	250	1500	74900	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	201	250	2000	81900	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	201	250	2500	89600	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	201	250	3000	96600	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	201	250	3500	104300	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	201	250	4000	111300	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	201	250	4500	119000	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	201	250	5000	126000	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	251	350	1500	81200	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	251	350	2000	88200	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	251	350	2500	95900	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	251	350	3000	102900	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	251	350	3500	110600	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	251	350	4000	117600	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	251	350	4500	125300	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	251	350	5000	132300	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	351	400	1500	0	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	351	400	2000	154000	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	351	400	2500	162400	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	351	400	3000	170800	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	351	400	3500	179200	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	351	400	4000	186200	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	351	400	4500	194600	4200

Commercial Elevators (CIELEV)							
VER	CODE	Description	MINSPEED	MAXSPEED	CAPACITY	RATE	PERSTOP
19	EL2	ELEVATOR - ELECTRIC PASSENGER	351	400	5000	203000	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	401	500	1500	0	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	401	500	2000	179200	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	401	500	2500	189000	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	401	500	3000	198800	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	401	500	3500	208600	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	401	500	4000	218400	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	401	500	4500	228200	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	401	500	5000	238000	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	501	600	1500	0	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	501	600	2000	203000	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	501	600	2500	214200	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	501	600	3000	225400	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	501	600	3500	238000	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	501	600	4000	249200	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	501	600	4500	260400	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	501	600	5000	271600	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	601	700	1500	0	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	601	700	2000	228200	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	601	700	2500	240800	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	601	700	3000	253400	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	601	700	3500	267400	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	601	700	4000	280000	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	601	700	4500	292600	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	601	700	5000	306600	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	701	800	1500	0	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	701	800	2000	252000	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	701	800	2500	267400	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	701	800	3000	281400	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	701	800	3500	296800	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	701	800	4000	310800	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	701	800	4500	326200	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	701	800	5000	340200	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	801	900	1500	0	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	801	900	2000	277200	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	801	900	2500	292600	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	801	900	3000	309400	4200

Commercial Elevators (CIELEV)							
VER	CODE	Description	MINSPEED	MAXSPEED	CAPACITY	RATE	PERSTOP
19	EL2	ELEVATOR - ELECTRIC PASSENGER	801	900	3500	326200	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	801	900	4000	343000	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	801	900	4500	358400	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	801	900	5000	375200	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	901	1000	1500	0	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	901	1000	2000	301000	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	901	1000	2500	319200	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	901	1000	3000	337400	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	901	1000	3500	355600	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	901	1000	4000	373800	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	901	1000	4500	392000	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	901	1000	5000	410200	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	1001	1100	1500	0	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	1001	1100	2000	326200	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	1001	1100	2500	345800	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	1001	1100	3000	365400	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	1001	1100	3500	385000	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	1001	1100	4000	404600	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	1001	1100	4500	424200	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	1001	1100	5000	443800	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	1101	1200	1500	0	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	1101	1200	2000	350000	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	1101	1200	2500	372400	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	1101	1200	3000	393400	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	1101	1200	3500	414400	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	1101	1200	4000	435400	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	1101	1200	4500	456400	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	1101	1200	5000	478800	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	1201	1300	1500	0	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	1201	1300	2000	375200	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	1201	1300	2500	397600	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	1201	1300	3000	421400	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	1201	1300	3500	443800	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	1201	1300	4000	466200	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	1201	1300	4500	490000	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	1201	1300	5000	512400	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	1301	1400	1500	0	4200

Commercial Elevators (CIELEV)							
VER	CODE	Description	MINSPEED	MAXSPEED	CAPACITY	RATE	PERSTOP
19	EL2	ELEVATOR - ELECTRIC PASSENGER	1301	1400	2000	399000	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	1301	1400	2500	424200	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	1301	1400	3000	449400	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	1301	1400	3500	473200	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	1301	1400	4000	498400	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	1301	1400	4500	522200	4200
19	EL2	ELEVATOR - ELECTRIC PASSENGER	1301	1400	5000	547400	4200
19	EL3	HYDRAULIC FREIGHT	0	50	2000	21140	9800
19	EL3	HYDRAULIC FREIGHT	0	50	2500	23135	9800
19	EL3	HYDRAULIC FREIGHT	0	50	3000	25130	9800
19	EL3	HYDRAULIC FREIGHT	0	50	3500	27125	9800
19	EL3	HYDRAULIC FREIGHT	0	50	4000	29120	9800
19	EL3	HYDRAULIC FREIGHT	0	50	4500	31150	9800
19	EL3	HYDRAULIC FREIGHT	0	50	5000	33180	9800
19	EL3	HYDRAULIC FREIGHT	0	50	6000	37240	9800
19	EL3	HYDRAULIC FREIGHT	0	50	7000	41230	9800
19	EL3	HYDRAULIC FREIGHT	0	50	7500	43225	9800
19	EL3	HYDRAULIC FREIGHT	0	50	8000	45220	9800
19	EL3	HYDRAULIC FREIGHT	0	50	9000	49210	9800
19	EL3	HYDRAULIC FREIGHT	0	50	10000	53200	9800
19	EL3	HYDRAULIC FREIGHT	0	50	11000	57260	9800
19	EL3	HYDRAULIC FREIGHT	0	50	12000	61320	9800
19	EL3	HYDRAULIC FREIGHT	0	50	13000	65310	9800
19	EL3	HYDRAULIC FREIGHT	0	50	14000	69300	9800
19	EL3	HYDRAULIC FREIGHT	0	50	15000	73290	9800
19	EL3	HYDRAULIC FREIGHT	0	50	16000	77280	9800
19	EL3	HYDRAULIC FREIGHT	0	50	17000	81340	9800
19	EL3	HYDRAULIC FREIGHT	0	50	18000	85400	9800
19	EL3	HYDRAULIC FREIGHT	0	50	19000	89502	9800
19	EL3	HYDRAULIC FREIGHT	0	50	20000	93380	9800
19	EL3	HYDRAULIC FREIGHT	51	100	2000	29260	9800
19	EL3	HYDRAULIC FREIGHT	51	100	2500	31500	9800
19	EL3	HYDRAULIC FREIGHT	51	100	3000	33740	9800
19	EL3	HYDRAULIC FREIGHT	51	100	3500	35980	9800
19	EL3	HYDRAULIC FREIGHT	51	100	4000	38220	9800
19	EL3	HYDRAULIC FREIGHT	51	100	4500	40425	9800
19	EL3	HYDRAULIC FREIGHT	51	100	5000	42630	9800

Commercial Elevators (CIELEV)							
VER	CODE	Description	MINSPEED	MAXSPEED	CAPACITY	RATE	PERSTOP
19	EL3	HYDRAULIC FREIGHT	51	100	6000	47040	9800
19	EL3	HYDRAULIC FREIGHT	51	100	7000	51450	9800
19	EL3	HYDRAULIC FREIGHT	51	100	7500	53655	9800
19	EL3	HYDRAULIC FREIGHT	51	100	8000	55860	9800
19	EL3	HYDRAULIC FREIGHT	51	100	9000	60270	9800
19	EL3	HYDRAULIC FREIGHT	51	100	10000	64680	9800
19	EL3	HYDRAULIC FREIGHT	51	100	11000	69090	9800
19	EL3	HYDRAULIC FREIGHT	51	100	12000	73500	9800
19	EL3	HYDRAULIC FREIGHT	51	100	13000	77980	9800
19	EL3	HYDRAULIC FREIGHT	51	100	14000	82460	9800
19	EL3	HYDRAULIC FREIGHT	51	100	15000	86870	9800
19	EL3	HYDRAULIC FREIGHT	51	100	16000	91280	9800
19	EL3	HYDRAULIC FREIGHT	51	100	17000	95690	9800
19	EL3	HYDRAULIC FREIGHT	51	100	18000	100100	9800
19	EL3	HYDRAULIC FREIGHT	51	100	19000	104510	9800
19	EL3	HYDRAULIC FREIGHT	51	100	20000	108920	9800
19	EL3	HYDRAULIC FREIGHT	101	150	2000	37520	9800
19	EL3	HYDRAULIC FREIGHT	101	150	2500	39935	9800
19	EL3	HYDRAULIC FREIGHT	101	150	3000	42350	9800
19	EL3	HYDRAULIC FREIGHT	101	150	3500	44765	9800
19	EL3	HYDRAULIC FREIGHT	101	150	4000	47180	9800
19	EL3	HYDRAULIC FREIGHT	101	150	4500	49595	9800
19	EL3	HYDRAULIC FREIGHT	101	150	5000	52010	9800
19	EL3	HYDRAULIC FREIGHT	101	150	6000	56840	9800
19	EL3	HYDRAULIC FREIGHT	101	150	7000	61670	9800
19	EL3	HYDRAULIC FREIGHT	101	150	7500	64085	9800
19	EL3	HYDRAULIC FREIGHT	101	150	8000	66500	9800
19	EL3	HYDRAULIC FREIGHT	101	150	9000	71330	9800
19	EL3	HYDRAULIC FREIGHT	101	150	10000	76160	9800
19	EL3	HYDRAULIC FREIGHT	101	150	11000	80990	9800
19	EL3	HYDRAULIC FREIGHT	101	150	12000	85820	9800
19	EL3	HYDRAULIC FREIGHT	101	150	13000	90650	9800
19	EL3	HYDRAULIC FREIGHT	101	150	14000	95480	9800
19	EL3	HYDRAULIC FREIGHT	101	150	15000	100310	9800
19	EL3	HYDRAULIC FREIGHT	101	150	16000	105140	9800
19	EL3	HYDRAULIC FREIGHT	101	150	17000	109970	9800
19	EL3	HYDRAULIC FREIGHT	101	150	18000	114800	9800

Commercial Elevators (CIELEV)							
VER	CODE	Description	MINSPEED	MAXSPEED	CAPACITY	RATE	PERSTOP
19	EL3	HYDRAULIC FREIGHT	101	150	19000	119630	9800
19	EL3	HYDRAULIC FREIGHT	101	150	20000	124460	9800
19	EL3	HYDRAULIC FREIGHT	151	200	2000	45640	9800
19	EL3	HYDRAULIC FREIGHT	151	200	2500	48265	9800
19	EL3	HYDRAULIC FREIGHT	151	200	3000	50890	9800
19	EL3	HYDRAULIC FREIGHT	151	200	3500	53515	9800
19	EL3	HYDRAULIC FREIGHT	151	200	4000	56140	9800
19	EL3	HYDRAULIC FREIGHT	151	200	4500	58765	9800
19	EL3	HYDRAULIC FREIGHT	151	200	5000	61390	9800
19	EL3	HYDRAULIC FREIGHT	151	200	6000	66640	9800
19	EL3	HYDRAULIC FREIGHT	151	200	7000	71890	9800
19	EL3	HYDRAULIC FREIGHT	151	200	7500	74515	9800
19	EL3	HYDRAULIC FREIGHT	151	200	8000	77140	9800
19	EL3	HYDRAULIC FREIGHT	151	200	9000	82390	9800
19	EL3	HYDRAULIC FREIGHT	151	200	10000	87640	9800
19	EL3	HYDRAULIC FREIGHT	151	200	11000	92890	9800
19	EL3	HYDRAULIC FREIGHT	151	200	12000	98140	9800
19	EL3	HYDRAULIC FREIGHT	151	200	13000	103390	9800
19	EL3	HYDRAULIC FREIGHT	151	200	14000	108640	9800
19	EL3	HYDRAULIC FREIGHT	151	200	15000	113890	9800
19	EL3	HYDRAULIC FREIGHT	151	200	16000	119140	9800
19	EL3	HYDRAULIC FREIGHT	151	200	17000	124320	9800
19	EL3	HYDRAULIC FREIGHT	151	200	18000	129500	9800
19	EL3	HYDRAULIC FREIGHT	151	200	19000	134750	9800
19	EL3	HYDRAULIC FREIGHT	151	200	20000	140000	9800
19	EL4	HYDRAULIC PASSENGER	0	50	1500	23100	8400
19	EL4	HYDRAULIC PASSENGER	0	50	2000	27020	8400
19	EL4	HYDRAULIC PASSENGER	0	50	2500	30940	8400
19	EL4	HYDRAULIC PASSENGER	0	50	3000	34860	8400
19	EL4	HYDRAULIC PASSENGER	0	50	3500	38640	8400
19	EL4	HYDRAULIC PASSENGER	0	50	4000	42560	8400
19	EL4	HYDRAULIC PASSENGER	0	50	4500	46480	8400
19	EL4	HYDRAULIC PASSENGER	0	50	5000	50400	8400
19	EL4	HYDRAULIC PASSENGER	51	75	1500	27300	8400
19	EL4	HYDRAULIC PASSENGER	51	75	2000	31640	8400
19	EL4	HYDRAULIC PASSENGER	51	75	2500	35700	8400
19	EL4	HYDRAULIC PASSENGER	51	75	3000	39900	8400

Commercial Elevators (CIELEV)							
VER	CODE	Description	MINSPEED	MAXSPEED	CAPACITY	RATE	PERSTOP
19	EL4	HYDRAULIC PASSENGER	51	75	3500	44100	8400
19	EL4	HYDRAULIC PASSENGER	51	75	4000	48300	8400
19	EL4	HYDRAULIC PASSENGER	51	75	4500	52640	8400
19	EL4	HYDRAULIC PASSENGER	51	75	5000	56700	8400
19	EL4	HYDRAULIC PASSENGER	76	100	1500	31640	8400
19	EL4	HYDRAULIC PASSENGER	76	100	2000	36120	8400
19	EL4	HYDRAULIC PASSENGER	76	100	2500	40600	8400
19	EL4	HYDRAULIC PASSENGER	76	100	3000	45080	8400
19	EL4	HYDRAULIC PASSENGER	76	100	3500	49700	8400
19	EL4	HYDRAULIC PASSENGER	76	100	4000	54040	8400
19	EL4	HYDRAULIC PASSENGER	76	100	4500	58660	8400
19	EL4	HYDRAULIC PASSENGER	76	100	5000	63000	8400
19	EL4	HYDRAULIC PASSENGER	101	125	1500	35700	8400
19	EL4	HYDRAULIC PASSENGER	101	125	2000	40600	8400
19	EL4	HYDRAULIC PASSENGER	101	125	2500	45360	8400
19	EL4	HYDRAULIC PASSENGER	101	125	3000	50120	8400
19	EL4	HYDRAULIC PASSENGER	101	125	3500	55020	8400
19	EL4	HYDRAULIC PASSENGER	101	125	4000	59780	8400
19	EL4	HYDRAULIC PASSENGER	101	125	4500	64540	8400
19	EL4	HYDRAULIC PASSENGER	101	125	5000	69440	8400
19	EL4	HYDRAULIC PASSENGER	126	150	1500	39900	8400
19	EL4	HYDRAULIC PASSENGER	126	150	2000	45080	8400
19	EL4	HYDRAULIC PASSENGER	126	150	2500	50120	8400
19	EL4	HYDRAULIC PASSENGER	126	150	3000	55440	8400
19	EL4	HYDRAULIC PASSENGER	126	150	3500	60480	8400
19	EL4	HYDRAULIC PASSENGER	126	150	4000	65520	8400
19	EL4	HYDRAULIC PASSENGER	126	150	4500	70560	8400
19	EL4	HYDRAULIC PASSENGER	126	150	5000	75880	8400
19	EL4	HYDRAULIC PASSENGER	151	200	1500	48300	8400
19	EL4	HYDRAULIC PASSENGER	151	200	2000	54040	8400
19	EL4	HYDRAULIC PASSENGER	151	200	2500	59780	8400
19	EL4	HYDRAULIC PASSENGER	151	200	3000	65520	8400
19	EL4	HYDRAULIC PASSENGER	151	200	3500	71260	8400
19	EL4	HYDRAULIC PASSENGER	151	200	4000	77000	8400
19	EL4	HYDRAULIC PASSENGER	151	200	4500	82740	8400
19	EL4	HYDRAULIC PASSENGER	151	200	5000	88480	8400
19	EL5	ESCALATOR - 32 IN WIDE				102200	1890
19	EL6	ESCALATOR - 48 IN WIDE				107800	2380

Commercial CDU (CICDU)						Commercial CDU (CICDU)				
VER	CDU TABLE	PHYS	FUNCT	CDU		VER	CDU TABLE	PHYS	FUNCT	CDU
19	C1	G	G	EX		19	R1	E	P	EX
19	C1	G	A	VG		19	R1	E		EX
19	C1	G	F	FR		19	R1	G	G	GD
19	C1	G	P	PR		19	R1	G	A	GD
19	C1	G	U	VP		19	R1	G	F	GD
19	C1	G		EX		19	R1	G	P	GD
19	C1	A	G	VG		19	R1	G	U	VP
19	C1	A	A	GD		19	R1	G		GD
19	C1	A	F	FR		19	R1	A	G	AV
19	C1	A	P	PR		19	R1	A	A	AV
19	C1	A	U	VP		19	R1	A	F	AV
19	C1	A		AV		19	R1	A	P	AV
19	C1	F	G	FR		19	R1	A	U	VP
19	C1	F	A	FR		19	R1	A		AV
19	C1	F	F	PR		19	R1	F	G	FR
19	C1	F	P	P-		19	R1	F	A	FR
19	C1	F	U	V-		19	R1	F	F	FR
19	C1	F		PR		19	R1	F	P	FR
19	C1	P	G	PR		19	R1	F	U	V-
19	C1	P	A	PR		19	R1	F		FR
19	C1	P	F	P-		19	R1	P	G	PR
19	C1	P	P	P-		19	R1	P	A	PR
19	C1	P	U	UN		19	R1	P	F	PR
19	C1	P		P-		19	R1	P	P	PR
19	C1	U	G	PR		19	R1	P	U	UN
19	C1	U	A	PR		19	R1	P		PR
19	C1	U	F	P-		19	R1	U	G	UN
19	C1	U	P	P-		19	R1	U	A	UN
19	C1	U	U	UN		19	R1	U	F	UN
19	C1	U		UN		19	R1	U	P	UN
19	R1	E	G	EX		19	R1	U	U	UN
19	R1	E	A	EX		19	R1	U		UN
19	R1	E	F	EX						

Other Building and Yard Improvements (OBY) Pricing Schedules

The following tables contain a range of model rate values within which the final model rates to be used in the 2019 revaluation are hereby authorized.

Appraisal management is to correlate the final model rates to the local real estate market between this writing and the mailing of Notices of value Change for the revaluation.

Outbuilding Setup (RCOBY)																
VER	CODE	Description	MINSIZE	MAXSIZE	UNITS	R1	R2	R3	DEPRT	CDUTBLE	A	B	C	D	E	SUMPCT
19	177	FIN 2ND LVL OVR GAR			1				40	R1						
19	178	UUF 2ND LVL OVR GAR			1				40	R1						
19	AB1	BANK BARN			1	7434	0	20.58	50	R1	1.6	1.3	1	0.8	0.5	
19	AB2	FLAT BARN			1	0	157.01	8.23	40	R1	1.6	1.3	1	0.8	0.5	
19	AC2	WELDED WIRE CORN CRIB			1	0	77.84	6.56	30	R1	1	1	1	1	1	
19	AD1	HORSE & DAIRY BARN			1	0	548	14.42	50	R1	1.6	1.3	1	0.8	0.5	
19	AG1	STEEL GRAIN BIN W/O DRYING BIN			6	3381	0.582	5	20	R1	1	1	1	1	1	
19	AG2	STEEL GRAIN BIN W DRYING BIN			6	3381	0.582	6.5	20	R1	1	1	1	1	1	
19	AH1	1S FR OR MTL POULTRY HSE			1	14	138.6	6.52	30	R1	1	1	1	1	1	
19	AL1	1S LEAN TO			1	0	0	8.28	20	R1	1	1	1	1		
19	AM1	ATT'D CB MILK HSE			1	2249.8	108.36	10.97	30	R1	1.3	1.3	1	0.8	0.8	
19	AO1	POTATO STRG, UNDERGRND			1	0	34.58	7.5	30	R1	1	1	1	1	1	
19	AP1	4-SIDE CLOSED MTL POLE			1	1370	75.75	6.5	20	R1	1.6	1.3	1	0.8	0.5	
19	AP2	4-SIDE CLOSED FRM POLE			1	1772	74.35	6.5	20	R1	1.6	1.3	1	0.8	0.5	
19	AP3	1-SIDE OPEN MTL POLE			1	1885.8	23.1	5.39	20	R1	1.6	1.3	1	0.8	0.5	
19	AP4	1-SIDE OPEN FRM POLE			1	1491	56	5.39	20	R1	1.6	1.3	1	0.8	0.5	
19	AP5	4-SIDE OPEN MTL POLE			1	329	66.08	4.21	20	R1	1.6	1.3	1	0.8	0.5	
19	AP6	4-SIDE OPEN FRM POLE			1	0	112.42	6	20	R1	1.6	1.3	1	0.8	0.5	
19	AS3	BUTLER LMS SILO			3	0	34.58	30.65	40	R1	1	1	1	1	1	
19	AT1	CONCRETE OR PLANK TRENCH SILO			5	28	12.25	0	20	R1	1	1	1	1	1	
19	AT2	DIRT TRENCH SILO			5	8.64	3.78	0	20	R1	1	1	1	1	1	
19	AV1	SWINE FARROWING BARN			1	2793	0	13.5	30	R1	1.6	1.3	1	0.8	0.5	
19	AW1	SWINE FINISHING BARN			1	3859.8	2.212	9.14	30	R1	1.6	1.3	1	0.8	0.5	
19	AW2	SWINE CONFINEMENT BARN			1	3859.8	2.212	10.26	30	R1	1.6	1.3	1	0.8	0.5	
19	AX1	PREFABRICATED STEEL BUILDING			1	525	246.722	13.93	30	R1	1.6	1.3	1	0.8	0.5	
19	BC1	BANK CANOPY - DRIVE IN			1	0	0	36.05	30	C1	1.6	1.3	1	0.8	0.5	
19	BD1	BOAT DOCK WOOD TRIM			1			10.78	20	C1	1.6	1.3	1	0.8	0.5	
19	BD2	BOAT DCK MED			1			15	20	C1	1	1	1	1	1	
19	BD3	BOAT DCK HEAVY			1			20	20	C1	1	1	1	1	1	
19	BH1	BOATHOUSE OPEN			1	0	0	6.16	20	C1	1.6	1.3	1	0.8	0.5	
19	BH2	BOATHOUSE ENCLOSED			1	0	0	12.18	20	C1	1.6	1.3	1	0.8	0.5	
19	BK1	BULKHEAD			2	155.12	0	0	20	C1	1	1	1	1	1	
19	BS1	BOAT SLIP ECONOMY			4	5628	0	0	20	C1	1.6	1.3	1	0.8	0.5	
19	BS2	BOAT SLIP AVERAGE			4	7028	0	0	20	C1	1.6	1.3	1	0.8	0.5	
19	BS3	BOAT SLIP GOOD			4	8442	0	0	20	C1	1.6	1.3	1	0.8	0.5	
19	CB1	CABIN			1	0	0	45	40	R1	1	1	1	1	1	
19	CP5	CANOPY ONLY			1	0	0	7.84	20	C1	1.6	1.3	1	0.8	0.5	
19	CP6	CANOPY, ROOF/SLAB			1	0	0	9.59	20	C1	1.6	1.3	1	0.8	0.5	
19	CP7	CANOPY RF-ECONOMY			1	0	0	12.6	20	C1	1.6	1.3	1	0.8	0.5	
19	CP8	CANOPY RF-AVERAGE			1	0	0	21	20	C1	1.6	1.3	1	0.8	0.5	
19	CP9	CANOPY RF-GOOD			1	0	0	28	20	C1	1.6	1.3	1	0.8	0.5	
19	CS1	CONCESSION STAND F			1			30	20	C1	1	1	1	1	1	
19	CS2	CONCESSION STAND A			1			40	20	C1	1	1	1	1	1	
19	CS3	CONCESSION STAND G			1			50	20	C1	1	1	1	1	1	
19	GH4	COMM GREENHSE - ECONOMY			1	0	0	9.87	20	C1	1.6	1.3	1	0.8	0.5	
19	GH5	COMM GREENHSE - AVERAGE			1	0	0	12.67	20	C1	1.6	1.3	1	0.8	0.5	
19	GH6	COMM GREENHSE - GOOD			1	0	0	14.77	20	C1	1.6	1.3	1	0.8	0.5	
19	GS3	GAS STATION BOOTH			1	0	0	120.19	20	C1	1.6	1.3	1	0.8	0.5	
19	GS4	GAS STATION BOOTH			1	0	0	96.11	20	C1	1.6	1.3	1	0.8	0.5	
19	GZ1	GAZEBO			1	0	0	17.22	20	C1	1	1	1	1	1	
19	KF1	KIOSK			1	0	0	183.54	20	C1	1.6	1.3	1	0.8	0.5	
19	LP3	CONCRETE PATIO	24	8000	1	0		5	15	R1	1	1	1	1	1	
19	LT1	LIGHT - MER-WL-MTD-FLD			4	0	0	0	20	C1	1	1	1	1	1	
19	LT2	LIGHT - INC-WL-MTD-FLD			4	0	0	0	20	C1	1	1	1	1	1	
19	LT3	LIGHT - FLO-POLE / BRK			4	0	0	0	20	C1	1	1	1	1	1	
19	LT4	LIGHT - INCN-POLE / BRK			4	0	0	0	20	C1	1	1	1	1	1	
19	LT5	LIGHT - MER - POLE / BRK			4	0	0	0	20	C1	1	1	1	1	1	
19	MH2	M H PARK PADS GD			4	9800			20	C1	1	1	1	1	1	

Outbuilding Setup (RCOBY)

VER	CODE	Description	MINSIZE	MAXSIZE	UNITS	R1	R2	R3	DEPRT	CDUTBLE	A	B	C	D	E	SUMPCT
19	MH3	M H PARK PADS AV			4	7350			20	C1	1	1	1	1	1	
19	MH4	M H PARK PADS FR			4	5257			15	C1	1	1	1	1	1	
19	MH5	M H PARK PADS PR			4	3157			15	C1	1	1	1	1	1	
19	MS1	MISCELLANEOUS			7	0	0	1.4	20	C1	0	0	1	0	0	
19	PA1	PAVING ASPHALT PARKING			1	0	0	1.75	15	C1	1.6	1.3	1	0.8	0.5	
19	PA2	PAVING ASPHALT/CONCRETE			1	0	0	2.1	15	C1	1.6	1.3	1	0.8	0.5	
19	PB1	PLUMBING FIXTURES			4	798	0	0	20	C1	1	1	1	1	1	
19	PC1	PAVING CONCRETE AVERAGE			1	0	0	3.36	15	C1	1.6	1.3	1	0.8	0.5	
19	PC2	PAVING CONCRETE HEAVY DUTY			1	0		3.64	15	C1	1.6	1.3	1	0.8	0.5	
19	PD1	CONC PATIO - DETACHED			1	0	0	3.75	15	R1	1	1	1	1	1	
19	PIE	PIER			1			15	20	C1	1	1	1	1	1	
19	RBH	BATH HOUSE			1	0	0	45	20	R1	1.6	1.3	1	0.8	0.5	
19	RC1	CARPORT			1	0	0	5.6	20	R1	1.6	1.3	1	0.8	0.5	
19	RG1	FRAME OR CB DETACHED GARAGE			1	3801	0	14.01	40	R1	1.6	1.3	1	0.8	0.5	
19	RG2	BRICK OR STONE DETACHED GAR.			1	4571	0	17.01	40	R1	1.6	1.3	1	0.8	0.5	
19	RM1	SINGLE WIDE MOBILE HOME			1	3276	196	30.15	25	RM	1.6	1.3	1	0.8	0.5	
19	RP1	POOL -PLASTIC LINER			1	2279.2	78.18	69.72	15	R1	1	1	1	1	1	
19	RP2	POOL - PREFAB VINYL			1	4340	0	8.26	15	R1	1	1	1	1	1	
19	RP3	POOL - REINF CONC			1	1008	403.2	1.82	15	R1	1	1	1	1	1	
19	RP4	POOL - FIBERGLASS			1	2030	350	3.878	15	R1	1	1	1	1	1	
19	RR1	TRACK, RAILROAD			2	84.14	0	0	20	C1	1	1	1	1	1	
19	RS1	FRAME UTILITY SHED			1	0	0	10.85	20	C1	1.6	1.3	1	0.8	0.5	
19	RS2	METAL UTILITY SHED			1	0	0	14.21	20	C1	1.6	1.3	1	0.8	0.5	
19	RS3	BRICK/STN UTILITY SHED			1	0	0	15.4	20	C1	1	1	1	1	1	
19	SC1	COMMERCIAL SWIMMING POOL			1	0	0	56.84	20	C1	1	1	1	1	1	
19	SH1	FRAME MACHINERY SHED			1	0	0	9.87	30	C1	1	1	1	1	1	
19	SH2	ALUMINUM SHED			1	0	0	12.11	30	C1	1	1	1	1	1	
19	SH3	FINISHED METAL SHED			1	0	0	17.29	30	C1	1	1	1	1	1	
19	SH4	QUONSET SHED			1	0	0	14.14	30	C1	1	1	1	1	1	
19	SH5	LUMBER SHED 2 SIDE OPEN			1	0	0	6.09	20	C1	1	1	1	1	1	
19	SH6	LUMBER SHED 4 SIDE OPEN			1	0	0	5.53	20	C1	1	1	1	1	1	
19	SK1	SKATING RINK OUTDOORS			1	0	0	15.19	20	C1	1	1	1	1	1	
19	SM1	PORCH - SCREENED			1	0	0	13.75	15	R1	1.3	1.3	1	0.8	0.8	
19	SM2	WOOD/MTL/GLASS ADD'N			1	1500	0	14.25	15	R1	1.3	1.3	1	0.8	0.8	
19	SM3	COVERED PATIO/CARPORT			1	0	0	6.5	15	R1	1.3	1.3	1	0.8	0.8	
19	SM4	SKIRTING			2	6	0	0	15	R1	1.3	1.3	1	0.8	0.8	
19	SM5	WOOD DECK			1	275	0	5.4	15	R1	1.3	1.3	1	0.8	0.8	
19	SM6	ATTACHED 1 STY FRAME			1	1500	0	19.49	15	R1	1.3	1.3	1	0.8	0.8	
19	SM7	OFP - DWLG TYPE			1	0	0	12.1	15	R1	1.6	1.3	1	0.8	0.5	
19	SM8	EFP - DWLG TYPE			1	0	0	18.8	15	R1	1.6	1.3	1	0.8	0.5	
19	SMO	MAS STOOP			1	0	0	7	15	R1	1.3	1.3	1	0.8	0.8	
19	SMP	MAS PATIO			1	0	0	3.75	15	R1	1.3	1.3	1	0.8	0.8	
19	SS1	SPRINKLER W/S			1	0	0	2.45	20	C1	1.6	1.3	1	0.8	0.5	
19	SS2	SPRINKLER D/S			1	0	0	2.8	20	C1	1.6	1.3	1	0.8	0.5	
19	SW1	SEAWALL			2			40	20	C1	1	1	1	1	1	
19	SW2	SEAWALL COMM			2			60	20	C1	1	1	1	1	1	
19	TB1	TICKET BOOTHS			1			20	20	C1	1	1	1	1	1	
19	TC1	ASPHALT TENNIS COURT			4	22834	0	0	15	C1	1	1	1	1	1	
19	TC2	CONCRETE TENNIS COURT			4	27426	0	0	15	C1	1	1	1	1	1	
19	TC3	CLAY TENNIS COURT			4	16030	0	0	15	C1	1	1	1	1	1	
19	TN1	TANK ELEVATED STEEL			6		0	0	30	C1	1	1	1	1	1	
19	TN2	TANK ELEVATED BULK			6		0	0	20	C1	1	1	1	1	1	
19	TN3	TANK REDWOOD			6			0	20	C1	1	1	1	1	1	
19	TN4	TANK CONCRETE			6		0	0	20	C1	1	1	1	1	1	
19	TN5	TANK STEEL PRE-FAB			6			0	20	C1	1	1	1	1	1	
19	TN6	TANK UNDERGROUND			6			0	20	C1	1	1	1	1	1	
19	TN7	TANKD UNDGRD FIBERGL			6			0	20	C1	1	1	1	1	1	
19	TR1	RESTROOM STR/FRM-CB			1	0	0	22.9	30	R1	1.6	1.3	1	0.8	0.5	
19	TR2	RESTROOM STR/BRK-STN			1	0	0	27.2	40	R1	1.6	1.3	1	0.8	0.5	
19	TS1	TRUCK SCALES			1	0	0	0	30	C1	1	1	1	1	1	
19	TT1	TOWER RADIO			2			20	20	C1	1	1	1	1	1	
19	TT2	TOWER MICRO			2			20	20	C1	1	1	1	1	1	
19	TT3	TOWER TV			2			20	20	C1	1	1	1	1	1	
19	WA1	FENCE CHAIN LINK			1	0	0	1.4	20	C1	1.6	1.3	1	0.8	0.5	
19	WA3	STOCKADE			1	0	0	1.75	20	C1	1.6	1.3	1	0.8	0.5	
19	WA4	POST / RAIL			1	0	0	1.47	20	C1	1.6	1.3	1	0.8	0.5	
19	WCB	CB WALL			1	0	0	9.03	20	C1	1.3	1.3	1	0.8	0.8	
19	WD1	WOOD DECK			1	0	0	7	20	R1	1.6	1.3	1	0.8	0.5	

Depreciation Tables (RCDEPR)												
VER	DEP TABLE	AGE	EX	VG	GD	AV	FR	PR	P-	VP	V-	UN
19	01	1	92	92	92	92	92	92	92	92	92	92
19	01	2	86	86	86	86	86	86	86	86	86	86
19	01	3	80	80	80	80	80	80	80	80	80	80
19	01	4	74	74	74	74	74	74	74	74	74	74
19	01	5	68	68	68	68	68	68	68	68	68	68
19	01	6	66	66	66	66	66	66	66	66	66	66
19	01	7	64	64	64	64	64	64	64	64	64	64
19	01	8	62	62	62	62	62	62	62	62	62	62
19	01	9	60	60	60	60	60	60	60	60	60	60
19	01	10	58	58	58	58	58	58	58	58	58	58
19	01	11	56	56	56	56	56	56	56	56	56	56
19	01	12	54	54	54	54	54	54	54	54	54	54
19	01	13	52	52	52	52	52	52	52	52	52	52
19	01	14	50	50	50	50	50	50	50	50	50	50
19	01	15	48	48	48	48	48	48	48	48	48	48
19	01	16	46	46	46	46	46	46	46	46	46	46
19	01	17	44	44	44	44	44	44	44	44	44	44
19	01	18	42	42	42	42	42	42	42	42	42	42
19	01	19	40	40	40	40	40	40	40	40	40	40
19	01	20	35	35	35	35	35	35	35	35	35	35
19	01	21	25	25	25	25	25	25	25	25	25	25
19	01	999	25	25	25	25	25	25	25	25	25	25
19	02	1	96	96	96	96	96	96	96	96	96	96
19	02	2	92	92	92	92	92	92	92	92	92	92
19	02	3	88	88	88	88	88	88	88	88	88	88
19	02	4	84	84	84	84	84	84	84	84	84	84
19	02	5	80	80	80	80	80	80	80	80	80	80
19	02	6	77	77	77	77	77	77	77	77	77	77
19	02	7	74	74	74	74	74	74	74	74	74	74
19	02	8	71	71	71	71	71	71	71	71	71	71
19	02	9	68	68	68	68	68	68	68	68	68	68
19	02	10	65	65	65	65	65	65	65	65	65	65
19	02	11	62	62	62	62	62	62	62	62	62	62
19	02	12	59	59	59	59	59	59	59	59	59	59
19	02	13	56	56	56	56	56	56	56	56	56	56
19	02	14	53	53	53	53	53	53	53	53	53	53
19	02	15	50	50	50	50	50	50	50	50	50	50

Depreciation Tables (RCDEPR)												
VER	DEP TABLE	AGE	EX	VG	GD	AV	FR	PR	P-	VP	V-	UN
19	02	16	47	47	47	47	47	47	47	47	47	47
19	02	17	44	44	44	44	44	44	44	44	44	44
19	02	18	41	41	41	41	41	41	41	41	41	41
19	02	19	38	38	38	38	38	38	38	38	38	38
19	02	20	35	35	35	35	35	35	35	35	35	35
19	02	21	32	32	32	32	32	32	32	32	32	32
19	02	22	29	29	29	29	29	29	29	29	29	29
19	02	23	26	26	26	26	26	26	26	26	26	26
19	02	24	25	25	25	25	25	25	25	25	25	25
19	02	25	25	25	25	25	25	25	25	25	25	25
19	02	26	25	25	25	25	25	25	25	25	25	25
19	02	27	25	25	25	25	25	25	25	25	25	25
19	02	28	25	25	25	25	25	25	25	25	25	25
19	02	999	20	20	20	20	20	20	20	20	20	20
19	03	1	97	97	97	97	97	97	97	97	97	97
19	03	2	94	94	94	94	94	94	94	94	94	94
19	03	3	91	91	91	91	91	91	91	91	91	91
19	03	4	88	88	88	88	88	88	88	88	88	88
19	03	5	85	85	85	85	85	85	85	85	85	85
19	03	6	82	82	82	82	82	82	82	82	82	82
19	03	7	80	80	80	80	80	80	80	80	80	80
19	03	8	78	78	78	78	78	78	78	78	78	78
19	03	9	76	76	76	76	76	76	76	76	76	76
19	03	10	74	74	74	74	74	74	74	74	74	74
19	03	11	72	72	72	72	72	72	72	72	72	72
19	03	12	70	70	70	70	70	70	70	70	70	70
19	03	13	68	68	68	68	68	68	68	68	68	68
19	03	14	66	66	66	66	66	66	66	66	66	66
19	03	15	64	64	64	64	64	64	64	64	64	64
19	03	16	62	62	62	62	62	62	62	62	62	62
19	03	17	60	60	60	60	60	60	60	60	60	60
19	03	18	58	58	58	58	58	58	58	58	58	58
19	03	19	56	56	56	56	56	56	56	56	56	56
19	03	20	54	54	54	54	54	54	54	54	54	54
19	03	21	52	52	52	52	52	52	52	52	52	52
19	03	22	51	51	51	51	51	51	51	51	51	51
19	03	23	50	50	50	50	50	50	50	50	50	50

Depreciation Tables (RCDEPR)												
VER	DEP TABLE	AGE	EX	VG	GD	AV	FR	PR	P-	VP	V-	UN
19	03	24	49	49	49	49	49	49	49	49	49	49
19	03	25	48	48	48	48	48	48	48	48	48	48
19	03	26	47	47	47	47	47	47	47	47	47	47
19	03	27	46	46	46	46	46	46	46	46	46	46
19	03	28	45	45	45	45	45	45	45	45	45	45
19	03	29	44	44	44	44	44	44	44	44	44	44
19	03	30	42	42	42	42	42	42	42	42	42	42
19	03	31	40	40	40	40	40	40	40	40	40	40
19	03	32	38	38	38	38	38	38	38	38	38	38
19	03	33	36	36	36	36	36	36	36	36	36	36
19	03	34	34	34	34	34	34	34	34	34	34	34
19	03	35	32	32	32	32	32	32	32	32	32	32
19	03	36	30	30	30	30	30	30	30	30	30	30
19	03	37	28	28	28	28	28	28	28	28	28	28
19	03	38	27	27	27	27	27	27	27	27	27	27
19	03	39	26	26	26	26	26	26	26	26	26	26
19	03	999	25	25	25	25	25	25	25	25	25	25
19	04	1	90	90	90	90	90	90	90	90	90	90
19	04	2	80	80	80	80	80	80	80	80	80	80
19	04	3	74	74	74	74	74	74	74	74	74	74
19	04	4	68	68	68	68	68	68	68	68	68	68
19	04	5	62	62	62	62	62	62	62	62	62	62
19	04	6	56	56	56	56	56	56	56	56	56	56
19	04	7	50	50	50	50	50	50	50	50	50	50
19	04	8	45	45	45	45	45	45	45	45	45	45
19	04	9	40	40	40	40	40	40	40	40	40	40
19	04	10	35	35	35	35	35	35	35	35	35	35
19	04	11	30	30	30	30	30	30	30	30	30	30
19	04	12	25	25	25	25	25	25	25	25	25	25
19	04	13	20	20	20	20	20	20	20	20	20	20
19	04	14	15	15	15	15	15	15	15	15	15	15
19	04	15	10	10	10	10	10	10	10	10	10	10
19	04	99	10	10	10	10	10	10	10	10	10	10
19	20	1	95	95	95	95	95	95	95	95	95	95
19	20	2	90	90	90	90	90	90	90	90	90	90
19	20	3	85	85	85	85	85	85	85	85	85	85
19	20	4	80	80	80	80	80	80	80	80	80	80

Depreciation Tables (RCDEPR)												
VER	DEP TABLE	AGE	EX	VG	GD	AV	FR	PR	P-	VP	V-	UN
19	20	5	75	75	75	75	75	75	75	75	75	75
19	20	6	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5
19	20	7	66	66	66	66	66	66	66	66	66	66
19	20	8	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5
19	20	9	57	57	57	57	57	57	57	57	57	57
19	20	10	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5
19	20	11	48.5	48.5	48.5	48.5	48.5	48.5	48.5	48.5	48.5	48.5
19	20	12	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5
19	20	13	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5
19	20	14	36.5	36.5	36.5	36.5	36.5	36.5	36.5	36.5	36.5	36.5
19	20	15	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5
19	20	16	29	29	29	29	29	29	29	29	29	29
19	20	17	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
19	20	18	22	22	22	22	22	22	22	22	22	22
19	20	19	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
19	20	20	15	15	15	15	15	15	15	15	15	15
19	20	999	15	15	15	15	15	15	15	15	15	15
19	25	1	96	96	96	96	96	96	96	96	96	96
19	25	2	92	92	92	92	92	92	92	92	92	92
19	25	3	88	88	88	88	88	88	88	88	88	88
19	25	4	84	84	84	84	84	84	84	84	84	84
19	25	5	80	80	80	80	80	80	80	80	80	80
19	25	6	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5
19	25	7	73	73	73	73	73	73	73	73	73	73
19	25	8	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5
19	25	9	65	65	65	65	65	65	65	65	65	65
19	25	10	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5
19	25	11	58	58	58	58	58	58	58	58	58	58
19	25	12	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5
19	25	13	51	51	51	51	51	51	51	51	51	51
19	25	14	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5
19	25	15	44	44	44	44	44	44	44	44	44	44
19	25	16	41	41	41	41	41	41	41	41	41	41
19	25	17	38	38	38	38	38	38	38	38	38	38
19	25	18	35	35	35	35	35	35	35	35	35	35
19	25	19	32	32	32	32	32	32	32	32	32	32
19	25	20	29	29	29	29	29	29	29	29	29	29

Depreciation Tables (RCDEPR)												
VER	DEP TABLE	AGE	EX	VG	GD	AV	FR	PR	P-	VP	V-	UN
19	25	21	26	26	26	26	26	26	26	26	26	26
19	25	22	23	23	23	23	23	23	23	23	23	23
19	25	23	20	20	20	20	20	20	20	20	20	20
19	25	24	17	17	17	17	17	17	17	17	17	17
19	25	25	15	15	15	15	15	15	15	15	15	15
19	25	999	15	15	15	15	15	15	15	15	15	15
19	30	1	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5
19	30	2	93	93	93	93	93	93	93	93	93	93
19	30	3	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5
19	30	4	86	86	86	86	86	86	86	86	86	86
19	30	5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5
19	30	6	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5
19	30	7	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5
19	30	8	73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.5
19	30	9	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5
19	30	10	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5
19	30	11	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5
19	30	12	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5
19	30	13	58.5	58.5	58.5	58.5	58.5	58.5	58.5	58.5	58.5	58.5
19	30	14	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5
19	30	15	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5
19	30	16	49.5	49.5	49.5	49.5	49.5	49.5	49.5	49.5	49.5	49.5
19	30	17	46.5	46.5	46.5	46.5	46.5	46.5	46.5	46.5	46.5	46.5
19	30	18	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5
19	30	19	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5
19	30	20	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
19	30	21	35	35	35	35	35	35	35	35	35	35
19	30	22	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5
19	30	23	31	31	31	31	31	31	31	31	31	31
19	30	24	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5
19	30	25	26	26	26	26	26	26	26	26	26	26
19	30	26	24	24	24	24	24	24	24	24	24	24
19	30	27	22	22	22	22	22	22	22	22	22	22
19	30	28	20	20	20	20	20	20	20	20	20	20
19	30	29	18	18	18	18	18	18	18	18	18	18
19	30	30	15	15	15	15	15	15	15	15	15	15
19	30	999	15	15	15	15	15	15	15	15	15	15

Depreciation Tables (RCDEPR)												
VER	DEP TABLE	AGE	EX	VG	GD	AV	FR	PR	P-	VP	V-	UN
19	35	1	97	97	97	97	97	97	97	97	97	97
19	35	2	94	94	94	94	94	94	94	94	94	94
19	35	3	91	91	91	91	91	91	91	91	91	91
19	35	4	88	88	88	88	88	88	88	88	88	88
19	35	5	85	85	85	85	85	85	85	85	85	85
19	35	6	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5
19	35	7	80	80	80	80	80	80	80	80	80	80
19	35	8	77.5	77.5	77.5	77.5	77.5	77.5	77.5	77.5	77.5	77.5
19	35	9	75	75	75	75	75	75	75	75	75	75
19	35	10	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5
19	35	11	70	70	70	70	70	70	70	70	70	70
19	35	12	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5
19	35	13	65	65	65	65	65	65	65	65	65	65
19	35	14	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5
19	35	15	60	60	60	60	60	60	60	60	60	60
19	35	16	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5
19	35	17	55	55	55	55	55	55	55	55	55	55
19	35	18	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5
19	35	19	50	50	50	50	50	50	50	50	50	50
19	35	20	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5
19	35	21	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5
19	35	22	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5
19	35	23	41.5	41.5	41.5	41.5	41.5	41.5	41.5	41.5	41.5	41.5
19	35	24	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5
19	35	25	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
19	35	26	35.5	35.5	35.5	35.5	35.5	35.5	35.5	35.5	35.5	35.5
19	35	27	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5
19	35	28	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5
19	35	29	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5
19	35	30	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5
19	35	31	25.75	25.75	25.75	25.75	25.75	25.75	25.75	25.75	25.75	25.75
19	35	32	24	24	24	24	24	24	24	24	24	24
19	35	33	22.25	22.25	22.25	22.25	22.25	22.25	22.25	22.25	22.25	22.25
19	35	34	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5
19	35	35	18.75	18.75	18.75	18.75	18.75	18.75	18.75	18.75	18.75	18.75
19	35	999	17	17	17	17	17	17	17	17	17	17
19	40	1	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5

Depreciation Tables (RCDEPR)												
VER	**DEP TABLE**	**AGE**	**EX**	**VG**	**GD**	**AV**	**FR**	**PR**	**P-**	**VP**	**V-**	**UN**
19	40	2	95	95	95	95	95	95	95	95	95	95
19	40	3	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5
19	40	4	90	90	90	90	90	90	90	90	90	90
19	40	5	88	88	88	88	88	88	88	88	88	88
19	40	6	86	86	86	86	86	86	86	86	86	86
19	40	7	84	84	84	84	84	84	84	84	84	84
19	40	8	82	82	82	82	82	82	82	82	82	82
19	40	9	80	80	80	80	80	80	80	80	80	80
19	40	10	78	78	78	78	78	78	78	78	78	78
19	40	11	76	76	76	76	76	76	76	76	76	76
19	40	12	74	74	74	74	74	74	74	74	74	74
19	40	13	72	72	72	72	72	72	72	72	72	72
19	40	14	70	70	70	70	70	70	70	70	70	70
19	40	15	68	68	68	68	68	68	68	68	68	68
19	40	16	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5
19	40	17	65	65	65	65	65	65	65	65	65	65
19	40	18	64	64	64	64	64	64	64	64	64	64
19	40	19	62	62	62	62	62	62	62	62	62	62
19	40	20	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5
19	40	21	59	59	59	59	59	59	59	59	59	59
19	40	22	58	58	58	58	58	58	58	58	58	58
19	40	23	57	57	57	57	57	57	57	57	57	57
19	40	24	56	56	56	56	56	56	56	56	56	56
19	40	25	55	55	55	55	55	55	55	55	55	55
19	40	26	54	54	54	54	54	54	54	54	54	54
19	40	27	53	53	53	53	53	53	53	53	53	53
19	40	28	52	52	52	52	52	52	52	52	52	52
19	40	29	51	51	51	51	51	51	51	51	51	51
19	40	30	50	50	50	50	50	50	50	50	50	50
19	40	31	48	48	48	48	48	48	48	48	48	48
19	40	32	46	46	46	46	46	46	46	46	46	46
19	40	33	44	44	44	44	44	44	44	44	44	44
19	40	34	42	42	42	42	42	42	42	42	42	42
19	40	35	40	40	40	40	40	40	40	40	40	40
19	40	36	37	37	37	37	37	37	37	37	37	37
19	40	37	34	34	34	34	34	34	34	34	34	34
19	40	38	31	31	31	31	31	31	31	31	31	31

Depreciation Tables (RCDEPR)												
VER	DEP TABLE	AGE	EX	VG	GD	AV	FR	PR	P-	VP	V-	UN
19	40	39	28	28	28	28	28	28	28	28	28	28
19	40	40	22	22	22	22	22	22	22	22	22	22
19	40	999	20	20	20	20	20	20	20	20	20	20
19	45	1	97.75	97.75	97.75	97.75	97.75	97.75	97.75	97.75	97.75	97.75
19	45	2	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5
19	45	3	93.25	93.25	93.25	93.25	93.25	93.25	93.25	93.25	93.25	93.25
19	45	4	91	91	91	91	91	91	91	91	91	91
19	45	5	88.75	88.75	88.75	88.75	88.75	88.75	88.75	88.75	88.75	88.75
19	45	6	86.75	86.75	86.75	86.75	86.75	86.75	86.75	86.75	86.75	86.75
19	45	7	84.75	84.75	84.75	84.75	84.75	84.75	84.75	84.75	84.75	84.75
19	45	8	82.75	82.75	82.75	82.75	82.75	82.75	82.75	82.75	82.75	82.75
19	45	9	80.75	80.75	80.75	80.75	80.75	80.75	80.75	80.75	80.75	80.75
19	45	10	78.75	78.75	78.75	78.75	78.75	78.75	78.75	78.75	78.75	78.75
19	45	11	77	77	77	77	77	77	77	77	77	77
19	45	12	75.25	75.25	75.25	75.25	75.25	75.25	75.25	75.25	75.25	75.25
19	45	13	73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.5
19	45	14	71.75	71.75	71.75	71.75	71.75	71.75	71.75	71.75	71.75	71.75
19	45	15	70	70	70	70	70	70	70	70	70	70
19	45	16	68.25	68.25	68.25	68.25	68.25	68.25	68.25	68.25	68.25	68.25
19	45	17	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5
19	45	18	64.75	64.75	64.75	64.75	64.75	64.75	64.75	64.75	64.75	64.75
19	45	19	63	63	63	63	63	63	63	63	63	63
19	45	20	61.25	61.25	61.25	61.25	61.25	61.25	61.25	61.25	61.25	61.25
19	45	21	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5
19	45	22	57.75	57.75	57.75	57.75	57.75	57.75	57.75	57.75	57.75	57.75
19	45	23	56	56	56	56	56	56	56	56	56	56
19	45	24	54.25	54.25	54.25	54.25	54.25	54.25	54.25	54.25	54.25	54.25
19	45	25	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5
19	45	26	50.75	50.75	50.75	50.75	50.75	50.75	50.75	50.75	50.75	50.75
19	45	27	49	49	49	49	49	49	49	49	49	49
19	45	28	47.25	47.25	47.25	47.25	47.25	47.25	47.25	47.25	47.25	47.25
19	45	29	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5
19	45	30	43.75	43.75	43.75	43.75	43.75	43.75	43.75	43.75	43.75	43.75
19	45	31	42	42	42	42	42	42	42	42	42	42
19	45	32	40.25	40.25	40.25	40.25	40.25	40.25	40.25	40.25	40.25	40.25
19	45	33	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5
19	45	34	36.75	36.75	36.75	36.75	36.75	36.75	36.75	36.75	36.75	36.75

Depreciation Tables (RCDEPR)												
VER	DEP TABLE	AGE	EX	VG	GD	AV	FR	PR	P-	VP	V-	UN
19	45	35	35	35	35	35	35	35	35	35	35	35
19	45	36	33.25	33.25	33.25	33.25	33.25	33.25	33.25	33.25	33.25	33.25
19	45	37	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5
19	45	38	29.75	29.75	29.75	29.75	29.75	29.75	29.75	29.75	29.75	29.75
19	45	39	28	28	28	28	28	28	28	28	28	28
19	45	40	26.25	26.25	26.25	26.25	26.25	26.25	26.25	26.25	26.25	26.25
19	45	41	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5
19	45	42	22.75	22.75	22.75	22.75	22.75	22.75	22.75	22.75	22.75	22.75
19	45	43	21	21	21	21	21	21	21	21	21	21
19	45	44	19.25	19.25	19.25	19.25	19.25	19.25	19.25	19.25	19.25	19.25
19	45	45	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
19	45	999	17	17	17	17	17	17	17	17	17	17
19	50	1	98	98	98	98	98	98	98	98	98	98
19	50	2	96	96	96	96	96	96	96	96	96	96
19	50	3	94	94	94	94	94	94	94	94	94	94
19	50	4	92	92	92	92	92	92	92	92	92	92
19	50	5	90	90	90	90	90	90	90	90	90	90
19	50	6	88	88	88	88	88	88	88	88	88	88
19	50	7	86	86	86	86	86	86	86	86	86	86
19	50	8	84	84	84	84	84	84	84	84	84	84
19	50	9	82	82	82	82	82	82	82	82	82	82
19	50	10	80	80	80	80	80	80	80	80	80	80
19	50	11	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5
19	50	12	77	77	77	77	77	77	77	77	77	77
19	50	13	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5
19	50	14	74	74	74	74	74	74	74	74	74	74
19	50	15	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5
19	50	16	71	71	71	71	71	71	71	71	71	71
19	50	17	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5
19	50	18	68	68	68	68	68	68	68	68	68	68
19	50	19	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5
19	50	20	65	65	65	65	65	65	65	65	65	65
19	50	21	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5
19	50	22	62	62	62	62	62	62	62	62	62	62
19	50	23	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5
19	50	24	59	59	59	59	59	59	59	59	59	59
19	50	25	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5

Depreciation Tables (RCDEPR)												
VER	DEP TABLE	AGE	EX	VG	GD	AV	FR	PR	P-	VP	V-	UN
19	50	26	56	56	56	56	56	56	56	56	56	56
19	50	27	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5
19	50	28	53	53	53	53	53	53	53	53	53	53
19	50	29	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5
19	50	30	50	50	50	50	50	50	50	50	50	50
19	50	31	48.5	48.5	48.5	48.5	48.5	48.5	48.5	48.5	48.5	48.5
19	50	32	47	47	47	47	47	47	47	47	47	47
19	50	33	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5
19	50	34	44	44	44	44	44	44	44	44	44	44
19	50	35	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5
19	50	36	41	41	41	41	41	41	41	41	41	41
19	50	37	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5
19	50	38	38	38	38	38	38	38	38	38	38	38
19	50	39	36.5	36.5	36.5	36.5	36.5	36.5	36.5	36.5	36.5	36.5
19	50	40	35	35	35	35	35	35	35	35	35	35
19	50	41	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5
19	50	42	32	32	32	32	32	32	32	32	32	32
19	50	43	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5
19	50	44	29	29	29	29	29	29	29	29	29	29
19	50	45	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5
19	50	46	26	26	26	26	26	26	26	26	26	26
19	50	47	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5
19	50	48	23	23	23	23	23	23	23	23	23	23
19	50	49	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
19	50	50	20	20	20	20	20	20	20	20	20	20
19	50	999	18	18	18	18	18	18	18	18	18	18
19	60	1	98.25	98.25	98.25	98.25	98.25	98.25	98.25	98.25	98.25	98.25
19	60	2	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5
19	60	3	94.75	94.75	94.75	94.75	94.75	94.75	94.75	94.75	94.75	94.75
19	60	4	93	93	93	93	93	93	93	93	93	93
19	60	5	91.25	91.25	91.25	91.25	91.25	91.25	91.25	91.25	91.25	91.25
19	60	6	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5
19	60	7	87.75	87.75	87.75	87.75	87.75	87.75	87.75	87.75	87.75	87.75
19	60	8	86	86	86	86	86	86	86	86	86	86
19	60	9	84.25	84.25	84.25	84.25	84.25	84.25	84.25	84.25	84.25	84.25
19	60	10	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5
19	60	11	81.25	81.25	81.25	81.25	81.25	81.25	81.25	81.25	81.25	81.25

Depreciation Tables (RCDEPR)												
VER	DEP TABLE	AGE	EX	VG	GD	AV	FR	PR	P-	VP	V-	UN
19	60	12	80	80	80	80	80	80	80	80	80	80
19	60	13	78.75	78.75	78.75	78.75	78.75	78.75	78.75	78.75	78.75	78.75
19	60	14	77.5	77.5	77.5	77.5	77.5	77.5	77.5	77.5	77.5	77.5
19	60	15	76.25	76.25	76.25	76.25	76.25	76.25	76.25	76.25	76.25	76.25
19	60	16	75	75	75	75	75	75	75	75	75	75
19	60	17	73.75	73.75	73.75	73.75	73.75	73.75	73.75	73.75	73.75	73.75
19	60	18	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5
19	60	19	71.25	71.25	71.25	71.25	71.25	71.25	71.25	71.25	71.25	71.25
19	60	20	71	71	71	71	71	71	71	71	71	71
19	60	21	69.75	69.75	69.75	69.75	69.75	69.75	69.75	69.75	69.75	69.75
19	60	22	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5
19	60	23	67.25	67.25	67.25	67.25	67.25	67.25	67.25	67.25	67.25	67.25
19	60	24	66	66	66	66	66	66	66	66	66	66
19	60	25	64.75	64.75	64.75	64.75	64.75	64.75	64.75	64.75	64.75	64.75
19	60	26	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5
19	60	27	62.25	62.25	62.25	62.25	62.25	62.25	62.25	62.25	62.25	62.25
19	60	28	61	61	61	61	61	61	61	61	61	61
19	60	29	59.75	59.75	59.75	59.75	59.75	59.75	59.75	59.75	59.75	59.75
19	60	30	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5
19	60	31	56.25	56.25	56.25	56.25	56.25	56.25	56.25	56.25	56.25	56.25
19	60	32	55	55	55	55	55	55	55	55	55	55
19	60	33	53.75	53.75	53.75	53.75	53.75	53.75	53.75	53.75	53.75	53.75
19	60	34	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5
19	60	35	51.25	51.25	51.25	51.25	51.25	51.25	51.25	51.25	51.25	51.25
19	60	36	50	50	50	50	50	50	50	50	50	50
19	60	37	48.75	48.75	48.75	48.75	48.75	48.75	48.75	48.75	48.75	48.75
19	60	38	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5
19	60	39	46.25	46.25	46.25	46.25	46.25	46.25	46.25	46.25	46.25	46.25
19	60	40	45	45	45	45	45	45	45	45	45	45
19	60	41	43.75	43.75	43.75	43.75	43.75	43.75	43.75	43.75	43.75	43.75
19	60	42	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5
19	60	43	41.25	41.25	41.25	41.25	41.25	41.25	41.25	41.25	41.25	41.25
19	60	44	40	40	40	40	40	40	40	40	40	40
19	60	45	38.75	38.75	38.75	38.75	38.75	38.75	38.75	38.75	38.75	38.75
19	60	46	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
19	60	47	36.25	36.25	36.25	36.25	36.25	36.25	36.25	36.25	36.25	36.25
19	60	48	35	35	35	35	35	35	35	35	35	35

Depreciation Tables (RCDEPR)												
VER	DEP TABLE	AGE	EX	VG	GD	AV	FR	PR	P-	VP	V-	UN
19	60	49	33.75	33.75	33.75	33.75	33.75	33.75	33.75	33.75	33.75	33.75
19	60	50	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5
19	60	51	31.25	31.25	31.25	31.25	31.25	31.25	31.25	31.25	31.25	31.25
19	60	52	30	30	30	30	30	30	30	30	30	30
19	60	53	27.75	27.75	27.75	27.75	27.75	27.75	27.75	27.75	27.75	27.75
19	60	54	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
19	60	55	24.25	24.25	24.25	24.25	24.25	24.25	24.25	24.25	24.25	24.25
19	60	56	24	24	24	24	24	24	24	24	24	24
19	60	57	22.75	22.75	22.75	22.75	22.75	22.75	22.75	22.75	22.75	22.75
19	60	58	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
19	60	59	20	20	20	20	20	20	20	20	20	20
19	60	60	19	19	19	19	19	19	19	19	19	19
19	60	999	19	19	19	19	19	19	19	19	19	19
19	70	1	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5
19	70	2	97	97	97	97	97	97	97	97	97	97
19	70	3	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5
19	70	4	94	94	94	94	94	94	94	94	94	94
19	70	5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5
19	70	6	91	91	91	91	91	91	91	91	91	91
19	70	7	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5
19	70	8	88	88	88	88	88	88	88	88	88	88
19	70	9	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5
19	70	10	85	85	85	85	85	85	85	85	85	85
19	70	11	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5
19	70	12	82	82	82	82	82	82	82	82	82	82
19	70	13	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5
19	70	14	79	79	79	79	79	79	79	79	79	79
19	70	15	77.5	77.5	77.5	77.5	77.5	77.5	77.5	77.5	77.5	77.5
19	70	16	76	76	76	76	76	76	76	76	76	76
19	70	17	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5
19	70	18	73	73	73	73	73	73	73	73	73	73
19	70	19	72	72	72	72	72	72	72	72	72	72
19	70	20	71	71	71	71	71	71	71	71	71	71
19	70	21	70	70	70	70	70	70	70	70	70	70
19	70	22	69	69	69	69	69	69	69	69	69	69
19	70	23	68	68	68	68	68	68	68	68	68	68
19	70	24	67	67	67	67	67	67	67	67	67	67

Depreciation Tables (RCDEPR)												
VER	DEP TABLE	AGE	EX	VG	GD	AV	FR	PR	P-	VP	V-	UN
19	70	25	66	66	66	66	66	66	66	66	66	66
19	70	26	65	65	65	65	65	65	65	65	65	65
19	70	27	64	64	64	64	64	64	64	64	64	64
19	70	28	63	63	63	63	63	63	63	63	63	63
19	70	29	62	62	62	62	62	62	62	62	62	62
19	70	30	61	61	61	61	61	61	61	61	61	61
19	70	31	60	60	60	60	60	60	60	60	60	60
19	70	32	59	59	59	59	59	59	59	59	59	59
19	70	33	58	58	58	58	58	58	58	58	58	58
19	70	34	57	57	57	57	57	57	57	57	57	57
19	70	35	56	56	56	56	56	56	56	56	56	56
19	70	36	55	55	55	55	55	55	55	55	55	55
19	70	37	54	54	54	54	54	54	54	54	54	54
19	70	38	53	53	53	53	53	53	53	53	53	53
19	70	39	52	52	52	52	52	52	52	52	52	52
19	70	40	51	51	51	51	51	51	51	51	51	51
19	70	41	50	50	50	50	50	50	50	50	50	50
19	70	42	49	49	49	49	49	49	49	49	49	49
19	70	43	48	48	48	48	48	48	48	48	48	48
19	70	44	47	47	47	47	47	47	47	47	47	47
19	70	45	46	46	46	46	46	46	46	46	46	46
19	70	46	45	45	45	45	45	45	45	45	45	45
19	70	47	44	44	44	44	44	44	44	44	44	44
19	70	48	43	43	43	43	43	43	43	43	43	43
19	70	49	42	42	42	42	42	42	42	42	42	42
19	70	50	41	41	41	41	41	41	41	41	41	41
19	70	51	40	40	40	40	40	40	40	40	40	40
19	70	52	39	39	39	39	39	39	39	39	39	39
19	70	53	38	38	38	38	38	38	38	38	38	38
19	70	54	37	37	37	37	37	37	37	37	37	37
19	70	55	36	36	36	36	36	36	36	36	36	36
19	70	56	35	35	35	35	35	35	35	35	35	35
19	70	57	34	34	34	34	34	34	34	34	34	34
19	70	58	33	33	33	33	33	33	33	33	33	33
19	70	59	32	32	32	32	32	32	32	32	32	32
19	70	60	31	31	31	31	31	31	31	31	31	31
19	70	61	30	30	30	30	30	30	30	30	30	30

Depreciation Tables (RCDEPR)												
VER	DEP TABLE	AGE	EX	VG	GD	AV	FR	PR	P-	VP	V-	UN
19	70	62	29	29	29	29	29	29	29	29	29	29
19	70	63	28	28	28	28	28	28	28	28	28	28
19	70	64	27	27	27	27	27	27	27	27	27	27
19	70	65	26	26	26	26	26	26	26	26	26	26
19	70	66	25	25	25	25	25	25	25	25	25	25
19	70	67	24	24	24	24	24	24	24	24	24	24
19	70	68	23	23	23	23	23	23	23	23	23	23
19	70	69	22	22	22	22	22	22	22	22	22	22
19	70	70	21	21	21	21	21	21	21	21	21	21
19	70	99	20	20	20	20	20	20	20	20	20	20
19	75	1	98.75	98.75	98.75	98.75	98.75	98.75	98.75	98.75	98.75	98.75
19	75	2	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5
19	75	3	96.25	96.25	96.25	96.25	96.25	96.25	96.25	96.25	96.25	96.25
19	75	4	95	95	95	95	95	95	95	95	95	95
19	75	5	93.75	93.75	93.75	93.75	93.75	93.75	93.75	93.75	93.75	93.75
19	75	6	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5
19	75	7	91.25	91.25	91.25	91.25	91.25	91.25	91.25	91.25	91.25	91.25
19	75	8	90	90	90	90	90	90	90	90	90	90
19	75	9	89	89	89	89	89	89	89	89	89	89
19	75	10	88	88	88	88	88	88	88	88	88	88
19	75	11	87	87	87	87	87	87	87	87	87	87
19	75	12	86	86	86	86	86	86	86	86	86	86
19	75	13	85	85	85	85	85	85	85	85	85	85
19	75	14	84	84	84	84	84	84	84	84	84	84
19	75	15	83	83	83	83	83	83	83	83	83	83
19	75	16	82	82	82	82	82	82	82	82	82	82
19	75	17	81	81	81	81	81	81	81	81	81	81
19	75	18	80	80	80	80	80	80	80	80	80	80
19	75	19	79	79	79	79	79	79	79	79	79	79
19	75	20	78	78	78	78	78	78	78	78	78	78
19	75	21	77	77	77	77	77	77	77	77	77	77
19	75	22	76	76	76	76	76	76	76	76	76	76
19	75	23	75	75	75	75	75	75	75	75	75	75
19	75	24	74	74	74	74	74	74	74	74	74	74
19	75	25	73	73	73	73	73	73	73	73	73	73
19	75	26	72	72	72	72	72	72	72	72	72	72
19	75	27	71	71	71	71	71	71	71	71	71	71

Depreciation Tables (RCDEPR)												
VER	**DEP TABLE**	**AGE**	**EX**	**VG**	**GD**	**AV**	**FR**	**PR**	**P-**	**VP**	**V-**	**UN**
19	75	28	70	70	70	70	70	70	70	70	70	70
19	75	29	69	69	69	69	69	69	69	69	69	69
19	75	30	68	68	68	68	68	68	68	68	68	68
19	75	31	67	67	67	67	67	67	67	67	67	67
19	75	32	66	66	66	66	66	66	66	66	66	66
19	75	33	65	65	65	65	65	65	65	65	65	65
19	75	34	64	64	64	64	64	64	64	64	64	64
19	75	35	63	63	63	63	63	63	63	63	63	63
19	75	36	62	62	62	62	62	62	62	62	62	62
19	75	37	61	61	61	61	61	61	61	61	61	61
19	75	38	60	60	60	60	60	60	60	60	60	60
19	75	39	59	59	59	59	59	59	59	59	59	59
19	75	40	58	58	58	58	58	58	58	58	58	58
19	75	41	57	57	57	57	57	57	57	57	57	57
19	75	42	56	56	56	56	56	56	56	56	56	56
19	75	43	55	55	55	55	55	55	55	55	55	55
19	75	44	54	54	54	54	54	54	54	54	54	54
19	75	45	53	53	53	53	53	53	53	53	53	53
19	75	46	52	52	52	52	52	52	52	52	52	52
19	75	47	51	51	51	51	51	51	51	51	51	51
19	75	48	50	50	50	50	50	50	50	50	50	50
19	75	49	49	49	49	49	49	49	49	49	49	49
19	75	50	48	48	48	48	48	48	48	48	48	48
19	75	51	47	47	47	47	47	47	47	47	47	47
19	75	52	46	46	46	46	46	46	46	46	46	46
19	75	53	45	45	45	45	45	45	45	45	45	45
19	75	54	44	44	44	44	44	44	44	44	44	44
19	75	55	43	43	43	43	43	43	43	43	43	43
19	75	56	42	42	42	42	42	42	42	42	42	42
19	75	57	41	41	41	41	41	41	41	41	41	41
19	75	58	40	40	40	40	40	40	40	40	40	40
19	75	59	39	39	39	39	39	39	39	39	39	39
19	75	60	38	38	38	38	38	38	38	38	38	38
19	75	61	37	37	37	37	37	37	37	37	37	37
19	75	62	36	36	36	36	36	36	36	36	36	36
19	75	63	35	35	35	35	35	35	35	35	35	35
19	75	64	32	32	32	32	32	32	32	32	32	32

Depreciation Tables (RCDEPR)												
VER	DEP TABLE	AGE	EX	VG	GD	AV	FR	PR	P-	VP	V-	UN
19	75	65	31	31	31	31	31	31	31	31	31	31
19	75	66	30	30	30	30	30	30	30	30	30	30
19	75	67	29	29	29	29	29	29	29	29	29	29
19	75	68	28	28	28	28	28	28	28	28	28	28
19	75	69	27	27	27	27	27	27	27	27	27	27
19	75	70	26	26	26	26	26	26	26	26	26	26
19	75	71	25	25	25	25	25	25	25	25	25	25
19	75	72	25	25	25	25	25	25	25	25	25	25
19	75	73	25	25	25	25	25	25	25	25	25	25
19	75	74	25	25	25	25	25	25	25	25	25	25
19	75	75	25	25	25	25	25	25	25	25	25	25
19	75	99	25	25	25	25	25	25	25	25	25	25
19	75	999	25	25	25	25	25	25	25	25	25	25
19	D0	1	99	99	99	99	99	99	99	99	99	99
19	D0	2	97	97	97	97	97	97	97	97	97	97
19	D0	3	96	96	96	96	96	96	96	96	96	96
19	D0	4	95	95	95	95	95	95	95	95	95	95
19	D0	5	94	94	94	94	94	94	94	94	94	94
19	D0	6	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5
19	D0	7	91	91	91	91	91	91	91	91	91	91
19	D0	8	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5
19	D0	9	87	87	87	87	87	87	87	87	87	87
19	D0	10	84	84	84	84	84	84	84	84	84	84
19	D0	11	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5
19	D0	12	81	81	81	81	81	81	81	81	81	81
19	D0	13	79	79	79	79	79	79	79	79	79	79
19	D0	14	77	77	77	77	77	77	77	77	77	77
19	D0	15	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7
19	D0	16	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6
19	D0	17	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5
19	D0	18	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4
19	D0	19	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3
19	D0	20	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2
19	D0	21	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1
19	D0	22	66	66	66	66	66	66	66	66	66	66
19	D0	23	65	65	65	65	65	65	65	65	65	65
19	D0	24	64	64	64	64	64	64	64	64	64	64

Depreciation Tables (RCDEPR)												
VER	DEP TABLE	AGE	EX	VG	GD	AV	FR	PR	P-	VP	V-	UN
19	D0	25	63	63	63	63	63	63	63	63	63	63
19	D0	26	62	62	62	62	62	62	62	62	62	62
19	D0	27	61	61	61	61	61	61	61	61	61	61
19	D0	28	60	60	60	60	60	60	60	60	60	60
19	D0	29	59	59	59	59	59	59	59	59	59	59
19	D0	30	58	58	58	58	58	58	58	58	58	58
19	D0	31	57	57	57	57	57	57	57	57	57	57
19	D0	32	56	56	56	56	56	56	56	56	56	56
19	D0	33	55	55	55	55	55	55	55	55	55	55
19	D0	34	54	54	54	54	54	54	54	54	54	54
19	D0	35	53	53	53	53	53	53	53	53	53	53
19	D0	36	52	52	52	52	52	52	52	52	52	52
19	D0	37	51	51	51	51	51	51	51	51	51	51
19	D0	38	50	50	50	50	50	50	50	50	50	50
19	D0	39	49	49	49	49	49	49	49	49	49	49
19	D0	40	48	48	48	48	48	48	48	48	48	48
19	D0	41	47	47	47	47	47	47	47	47	47	47
19	D0	42	46	46	46	46	46	46	46	46	46	46
19	D0	43	45	45	45	45	45	45	45	45	45	45
19	D0	44	44	44	44	44	44	44	44	44	44	44
19	D0	45	43	43	43	43	43	43	43	43	43	43
19	D0	46	42	42	42	42	42	42	42	42	42	42
19	D0	47	41	41	41	41	41	41	41	41	41	41
19	D0	48	40	40	40	40	40	40	40	40	40	40
19	D0	49	39	39	39	39	39	39	39	39	39	39
19	D0	50	38	38	38	38	38	38	38	38	38	38
19	D0	51	37	37	37	37	37	37	37	37	37	37
19	D0	52	36	36	36	36	36	36	36	36	36	36
19	D0	53	35	35	35	35	35	35	35	35	35	35
19	D0	54	34	34	34	34	34	34	34	34	34	34
19	D0	55	33	33	33	33	33	33	33	33	33	33
19	D0	56	32	32	32	32	32	32	32	32	32	32
19	D0	57	31	31	31	31	31	31	31	31	31	31
19	D0	58	30	30	30	30	30	30	30	30	30	30
19	D0	59	30	30	30	30	30	30	30	30	30	30
19	D0	60	30	30	30	30	30	30	30	30	30	30
19	D0	61	30	30	30	30	30	30	30	30	30	30

Depreciation Tables (RCDEPR)												
VER	DEP TABLE	AGE	EX	VG	GD	AV	FR	PR	P-	VP	V-	UN
19	D0	62	30	30	30	30	30	30	30	30	30	30
19	D0	63	30	30	30	30	30	30	30	30	30	30
19	D0	64	30	30	30	30	30	30	30	30	30	30
19	D0	65	30	30	30	30	30	30	30	30	30	30
19	D0	66	30	30	30	30	30	30	30	30	30	30
19	D0	67	30	30	30	30	30	30	30	30	30	30
19	D0	68	30	30	30	30	30	30	30	30	30	30
19	D0	69	30	30	30	30	30	30	30	30	30	30
19	D0	70	30	30	30	30	30	30	30	30	30	30
19	D0	71	30	30	30	30	30	30	30	30	30	30
19	D0	72	30	30	30	30	30	30	30	30	30	30
19	D0	73	30	30	30	30	30	30	30	30	30	30
19	D0	74	30	30	30	30	30	30	30	30	30	30
19	D0	75	30	30	30	30	30	30	30	30	30	30
19	D0	76	30	30	30	30	30	30	30	30	30	30
19	D0	77	30	30	30	30	30	30	30	30	30	30
19	D0	78	30	30	30	30	30	30	30	30	30	30
19	D0	79	30	30	30	30	30	30	30	30	30	30
19	D0	80	30	30	30	30	30	30	30	30	30	30
19	D0	81	30	30	30	30	30	30	30	30	30	30
19	D0	82	30	30	30	30	30	30	30	30	30	30
19	D0	83	30	30	30	30	30	30	30	30	30	30
19	D0	84	30	30	30	30	30	30	30	30	30	30
19	D0	999	30	30	30	30	30	30	30	30	30	30
19	D1	1	99	99	99	99	99	99	99	99	99	99
19	D1	2	97	97	97	97	97	97	97	97	97	97
19	D1	3	95	95	95	95	95	95	95	95	95	95
19	D1	4	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5
19	D1	5	92	92	92	92	92	92	92	92	92	92
19	D1	6	90	90	90	90	90	90	90	90	90	90
19	D1	7	88	88	88	88	88	88	88	88	88	88
19	D1	8	86	86	86	86	86	86	86	86	86	86
19	D1	9	84	84	84	84	84	84	84	84	84	84
19	D1	10	82	82	82	82	82	82	82	82	82	82
19	D1	11	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5
19	D1	12	79	79	79	79	79	79	79	79	79	79
19	D1	13	77	77	77	77	77	77	77	77	77	77

Depreciation Tables (RCDEPR)												
VER	**DEP TABLE**	**AGE**	**EX**	**VG**	**GD**	**AV**	**FR**	**PR**	**P-**	**VP**	**V-**	**UN**
19	D1	14	75	75	75	75	75	75	75	75	75	75
19	D1	15	72	72	72	72	72	72	72	72	72	72
19	D1	16	69	69	69	69	69	69	69	69	69	69
19	D1	17	67.75	67.75	67.75	67.75	67.75	67.75	67.75	67.75	67.75	67.75
19	D1	18	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5
19	D1	19	65.25	65.25	65.25	65.25	65.25	65.25	65.25	65.25	65.25	65.25
19	D1	20	64	64	64	64	64	64	64	64	64	64
19	D1	21	62.75	62.75	62.75	62.75	62.75	62.75	62.75	62.75	62.75	62.75
19	D1	22	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5
19	D1	23	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4
19	D1	24	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3
19	D1	25	58.2	58.2	58.2	58.2	58.2	58.2	58.2	58.2	58.2	58.2
19	D1	26	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1
19	D1	27	56	56	56	56	56	56	56	56	56	56
19	D1	28	55	55	55	55	55	55	55	55	55	55
19	D1	29	54	54	54	54	54	54	54	54	54	54
19	D1	30	53	53	53	53	53	53	53	53	53	53
19	D1	31	52	52	52	52	52	52	52	52	52	52
19	D1	32	51	51	51	51	51	51	51	51	51	51
19	D1	33	50	50	50	50	50	50	50	50	50	50
19	D1	34	49	49	49	49	49	49	49	49	49	49
19	D1	35	48	48	48	48	48	48	48	48	48	48
19	D1	36	47	47	47	47	47	47	47	47	47	47
19	D1	37	46	46	46	46	46	46	46	46	46	46
19	D1	38	45	45	45	45	45	45	45	45	45	45
19	D1	39	44	44	44	44	44	44	44	44	44	44
19	D1	40	43	43	43	43	43	43	43	43	43	43
19	D1	41	42	42	42	42	42	42	42	42	42	42
19	D1	42	41	41	41	41	41	41	41	41	41	41
19	D1	43	40	40	40	40	40	40	40	40	40	40
19	D1	44	39	39	39	39	39	39	39	39	39	39
19	D1	45	38	38	38	38	38	38	38	38	38	38
19	D1	46	37	37	37	37	37	37	37	37	37	37
19	D1	47	36	36	36	36	36	36	36	36	36	36
19	D1	48	35	35	35	35	35	35	35	35	35	35
19	D1	49	34	34	34	34	34	34	34	34	34	34
19	D1	50	33	33	33	33	33	33	33	33	33	33

Depreciation Tables (RCDEPR)												
VER	DEP TABLE	AGE	EX	VG	GD	AV	FR	PR	P-	VP	V-	UN
19	D1	51	32	32	32	32	32	32	32	32	32	32
19	D1	52	31	31	31	31	31	31	31	31	31	31
19	D1	53	30	30	30	30	30	30	30	30	30	30
19	D1	54	29	29	29	29	29	29	29	29	29	29
19	D1	55	28	28	28	28	28	28	28	28	28	28
19	D1	56	27	27	27	27	27	27	27	27	27	27
19	D1	57	26	26	26	26	26	26	26	26	26	26
19	D1	58	25	25	25	25	25	25	25	25	25	25
19	D1	59	25	25	25	25	25	25	25	25	25	25
19	D1	60	25	25	25	25	25	25	25	25	25	25
19	D1	61	25	25	25	25	25	25	25	25	25	25
19	D1	62	25	25	25	25	25	25	25	25	25	25
19	D1	63	25	25	25	25	25	25	25	25	25	25
19	D1	64	25	25	25	25	25	25	25	25	25	25
19	D1	65	25	25	25	25	25	25	25	25	25	25
19	D1	66	25	25	25	25	25	25	25	25	25	25
19	D1	67	25	25	25	25	25	25	25	25	25	25
19	D1	68	25	25	25	25	25	25	25	25	25	25
19	D1	69	25	25	25	25	25	25	25	25	25	25
19	D1	70	25	25	25	25	25	25	25	25	25	25
19	D1	71	25	25	25	25	25	25	25	25	25	25
19	D1	72	25	25	25	25	25	25	25	25	25	25
19	D1	73	25	25	25	25	25	25	25	25	25	25
19	D1	74	25	25	25	25	25	25	25	25	25	25
19	D1	75	25	25	25	25	25	25	25	25	25	25
19	D1	76	25	25	25	25	25	25	25	25	25	25
19	D1	77	25	25	25	25	25	25	25	25	25	25
19	D1	78	25	25	25	25	25	25	25	25	25	25
19	D1	79	25	25	25	25	25	25	25	25	25	25
19	D1	80	25	25	25	25	25	25	25	25	25	25
19	D1	81	25	25	25	25	25	25	25	25	25	25
19	D1	999	25	25	25	25	25	25	25	25	25	25
19	D2	1	99	99	99	99	99	99	99	99	99	99
19	D2	2	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5
19	D2	3	94	94	94	94	94	94	94	94	94	94
19	D2	4	92	92	92	92	92	92	92	92	92	92
19	D2	5	90	90	90	90	90	90	90	90	90	90

Depreciation Tables (RCDEPR)												
VER	DEP TABLE	AGE	EX	VG	GD	AV	FR	PR	P-	VP	V-	UN
19	D2	6	88	88	88	88	88	88	88	88	88	88
19	D2	7	86	86	86	86	86	86	86	86	86	86
19	D2	8	84	84	84	84	84	84	84	84	84	84
19	D2	9	81	81	81	81	81	81	81	81	81	81
19	D2	10	79	79	79	79	79	79	79	79	79	79
19	D2	11	77.5	77.5	77.5	77.5	77.5	77.5	77.5	77.5	77.5	77.5
19	D2	12	76	76	76	76	76	76	76	76	76	76
19	D2	13	74	74	74	74	74	74	74	74	74	74
19	D2	14	71	71	71	71	71	71	71	71	71	71
19	D2	15	69	69	69	69	69	69	69	69	69	69
19	D2	16	67	67	67	67	67	67	67	67	67	67
19	D2	17	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5
19	D2	18	64	64	64	64	64	64	64	64	64	64
19	D2	19	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5
19	D2	20	61	61	61	61	61	61	61	61	61	61
19	D2	21	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5
19	D2	22	58	58	58	58	58	58	58	58	58	58
19	D2	23	56.9	56.9	56.9	56.9	56.9	56.9	56.9	56.9	56.9	56.9
19	D2	24	55.8	55.8	55.8	55.8	55.8	55.8	55.8	55.8	55.8	55.8
19	D2	25	54.7	54.7	54.7	54.7	54.7	54.7	54.7	54.7	54.7	54.7
19	D2	26	53.6	53.6	53.6	53.6	53.6	53.6	53.6	53.6	53.6	53.6
19	D2	27	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5
19	D2	28	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4
19	D2	29	50.3	50.3	50.3	50.3	50.3	50.3	50.3	50.3	50.3	50.3
19	D2	30	49.2	49.2	49.2	49.2	49.2	49.2	49.2	49.2	49.2	49.2
19	D2	31	48.1	48.1	48.1	48.1	48.1	48.1	48.1	48.1	48.1	48.1
19	D2	32	47	47	47	47	47	47	47	47	47	47
19	D2	33	46	46	46	46	46	46	46	46	46	46
19	D2	34	45	45	45	45	45	45	45	45	45	45
19	D2	35	44	44	44	44	44	44	44	44	44	44
19	D2	36	43	43	43	43	43	43	43	43	43	43
19	D2	37	42	42	42	42	42	42	42	42	42	42
19	D2	38	41	41	41	41	41	41	41	41	41	41
19	D2	39	40	40	40	40	40	40	40	40	40	40
19	D2	40	39	39	39	39	39	39	39	39	39	39
19	D2	41	38	38	38	38	38	38	38	38	38	38
19	D2	42	37	37	37	37	37	37	37	37	37	37

Depreciation Tables (RCDEPR)												
VER	DEP TABLE	AGE	EX	VG	GD	AV	FR	PR	P-	VP	V-	UN
19	D2	43	36	36	36	36	36	36	36	36	36	36
19	D2	44	35	35	35	35	35	35	35	35	35	35
19	D2	45	34	34	34	34	34	34	34	34	34	34
19	D2	46	33	33	33	33	33	33	33	33	33	33
19	D2	47	32	32	32	32	32	32	32	32	32	32
19	D2	48	31	31	31	31	31	31	31	31	31	31
19	D2	49	30	30	30	30	30	30	30	30	30	30
19	D2	50	29	29	29	29	29	29	29	29	29	29
19	D2	51	28	28	28	28	28	28	28	28	28	28
19	D2	52	27	27	27	27	27	27	27	27	27	27
19	D2	53	26	26	26	26	26	26	26	26	26	26
19	D2	54	25	25	25	25	25	25	25	25	25	25
19	D2	55	24	24	24	24	24	24	24	24	24	24
19	D2	56	23	23	23	23	23	23	23	23	23	23
19	D2	57	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
19	D2	58	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
19	D2	59	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
19	D2	60	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
19	D2	61	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
19	D2	62	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
19	D2	63	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
19	D2	64	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
19	D2	65	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
19	D2	66	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
19	D2	67	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
19	D2	69	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
19	D2	70	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
19	D2	71	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
19	D2	72	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
19	D2	73	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
19	D2	76	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
19	D2	81	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
19	D2	86	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
19	D2	87	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
19	D2	88	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
19	D2	89	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
19	D2	90	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5

Depreciation Tables (RCDEPR)												
VER	DEP TABLE	AGE	EX	VG	GD	AV	FR	PR	P-	VP	V-	UN
19	D2	91	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
19	D2	999	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
19	D3	1	95	95	95	95	95	95	95	95	95	95
19	D3	2	91	91	91	91	91	91	91	91	91	91
19	D3	3	87	87	87	87	87	87	87	87	87	87
19	D3	4	83	83	83	83	83	83	83	83	83	83
19	D3	5	81.25	81.25	81.25	81.25	81.25	81.25	81.25	81.25	81.25	81.25
19	D3	6	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5
19	D3	7	77.75	77.75	77.75	77.75	77.75	77.75	77.75	77.75	77.75	77.75
19	D3	8	76	76	76	76	76	76	76	76	76	76
19	D3	9	74.25	74.25	74.25	74.25	74.25	74.25	74.25	74.25	74.25	74.25
19	D3	10	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5
19	D3	11	70.75	70.75	70.75	70.75	70.75	70.75	70.75	70.75	70.75	70.75
19	D3	12	69	69	69	69	69	69	69	69	69	69
19	D3	13	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5
19	D3	14	66	66	66	66	66	66	66	66	66	66
19	D3	15	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5
19	D3	16	63	63	63	63	63	63	63	63	63	63
19	D3	17	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5
19	D3	18	60	60	60	60	60	60	60	60	60	60
19	D3	19	58.5	58.5	58.5	58.5	58.5	58.5	58.5	58.5	58.5	58.5
19	D3	20	57	57	57	57	57	57	57	57	57	57
19	D3	21	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5
19	D3	22	54	54	54	54	54	54	54	54	54	54
19	D3	23	52.8	52.8	52.8	52.8	52.8	52.8	52.8	52.8	52.8	52.8
19	D3	24	51.6	51.6	51.6	51.6	51.6	51.6	51.6	51.6	51.6	51.6
19	D3	25	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4
19	D3	26	49.2	49.2	49.2	49.2	49.2	49.2	49.2	49.2	49.2	49.2
19	D3	27	49	49	49	49	49	49	49	49	49	49
19	D3	28	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8
19	D3	29	46.6	46.6	46.6	46.6	46.6	46.6	46.6	46.6	46.6	46.6
19	D3	30	45.4	45.4	45.4	45.4	45.4	45.4	45.4	45.4	45.4	45.4
19	D3	31	44.2	44.2	44.2	44.2	44.2	44.2	44.2	44.2	44.2	44.2
19	D3	32	43	43	43	43	43	43	43	43	43	43
19	D3	33	42	42	42	42	42	42	42	42	42	42
19	D3	34	41	41	41	41	41	41	41	41	41	41
19	D3	35	40	40	40	40	40	40	40	40	40	40

Depreciation Tables (RCDEPR)												
VER	DEP TABLE	AGE	EX	VG	GD	AV	FR	PR	P-	VP	V-	UN
19	D3	36	39	39	39	39	39	39	39	39	39	39
19	D3	37	38	38	38	38	38	38	38	38	38	38
19	D3	38	37	37	37	37	37	37	37	37	37	37
19	D3	39	36	36	36	36	36	36	36	36	36	36
19	D3	40	35	35	35	35	35	35	35	35	35	35
19	D3	41	34	34	34	34	34	34	34	34	34	34
19	D3	42	33	33	33	33	33	33	33	33	33	33
19	D3	43	32	32	32	32	32	32	32	32	32	32
19	D3	44	31	31	31	31	31	31	31	31	31	31
19	D3	45	30	30	30	30	30	30	30	30	30	30
19	D3	46	29	29	29	29	29	29	29	29	29	29
19	D3	47	28	28	28	28	28	28	28	28	28	28
19	D3	48	27	27	27	27	27	27	27	27	27	27
19	D3	49	26	26	26	26	26	26	26	26	26	26
19	D3	50	25	25	25	25	25	25	25	25	25	25
19	D3	51	24	24	24	24	24	24	24	24	24	24
19	D3	52	23	23	23	23	23	23	23	23	23	23
19	D3	53	22	22	22	22	22	22	22	22	22	22
19	D3	54	21	21	21	21	21	21	21	21	21	21
19	D3	55	20	20	20	20	20	20	20	20	20	20
19	D3	56	20	20	20	20	20	20	20	20	20	20
19	D3	57	20	20	20	20	20	20	20	20	20	20
19	D3	58	20	20	20	20	20	20	20	20	20	20
19	D3	59	20	20	20	20	20	20	20	20	20	20
19	D3	60	20	20	20	20	20	20	20	20	20	20
19	D3	61	20	20	20	20	20	20	20	20	20	20
19	D3	62	20	20	20	20	20	20	20	20	20	20
19	D3	63	20	20	20	20	20	20	20	20	20	20
19	D3	64	20	20	20	20	20	20	20	20	20	20
19	D3	65	20	20	20	20	20	20	20	20	20	20
19	D3	66	20	20	20	20	20	20	20	20	20	20
19	D3	67	20	20	20	20	20	20	20	20	20	20
19	D3	68	20	20	20	20	20	20	20	20	20	20
19	D3	69	20	20	20	20	20	20	20	20	20	20
19	D3	70	20	20	20	20	20	20	20	20	20	20
19	D3	71	20	20	20	20	20	20	20	20	20	20
19	D3	72	20	20	20	20	20	20	20	20	20	20

Depreciation Tables (RCDEPR)												
VER	DEP TABLE	AGE	EX	VG	GD	AV	FR	PR	P-	VP	V-	UN
19	D3	73	20	20	20	20	20	20	20	20	20	20
19	D3	74	20	20	20	20	20	20	20	20	20	20
19	D3	75	20	20	20	20	20	20	20	20	20	20
19	D3	76	20	20	20	20	20	20	20	20	20	20
19	D3	999	20	20	20	20	20	20	20	20	20	20
19	D4	1	95	95	95	95	95	95	95	95	95	95
19	D4	2	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5
19	D4	3	86	86	86	86	86	86	86	86	86	86
19	D4	4	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5
19	D4	5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5
19	D4	6	77.5	77.5	77.5	77.5	77.5	77.5	77.5	77.5	77.5	77.5
19	D4	7	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5
19	D4	8	73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.5
19	D4	9	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5
19	D4	10	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5
19	D4	11	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5
19	D4	12	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5
19	D4	13	63.9	63.9	63.9	63.9	63.9	63.9	63.9	63.9	63.9	63.9
19	D4	14	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9
19	D4	15	60.7	60.7	60.7	60.7	60.7	60.7	60.7	60.7	60.7	60.7
19	D4	16	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1
19	D4	17	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5
19	D4	18	55.9	55.9	55.9	55.9	55.9	55.9	55.9	55.9	55.9	55.9
19	D4	19	54.3	54.3	54.3	54.3	54.3	54.3	54.3	54.3	54.3	54.3
19	D4	20	52.7	52.7	52.7	52.7	52.7	52.7	52.7	52.7	52.7	52.7
19	D4	21	51.1	51.1	51.1	51.1	51.1	51.1	51.1	51.1	51.1	51.1
19	D4	22	49.5	49.5	49.5	49.5	49.5	49.5	49.5	49.5	49.5	49.5
19	D4	23	48.2	48.2	48.2	48.2	48.2	48.2	48.2	48.2	48.2	48.2
19	D4	24	46.9	46.9	46.9	46.9	46.9	46.9	46.9	46.9	46.9	46.9
19	D4	25	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6
19	D4	26	44.3	44.3	44.3	44.3	44.3	44.3	44.3	44.3	44.3	44.3
19	D4	27	43	43	43	43	43	43	43	43	43	43
19	D4	28	41.7	41.7	41.7	41.7	41.7	41.7	41.7	41.7	41.7	41.7
19	D4	29	40.4	40.4	40.4	40.4	40.4	40.4	40.4	40.4	40.4	40.4
19	D4	30	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1
19	D4	31	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8
19	D4	32	36.5	36.5	36.5	36.5	36.5	36.5	36.5	36.5	36.5	36.5

Depreciation Tables (RCDEPR)												
VER	**DEP TABLE**	**AGE**	**EX**	**VG**	**GD**	**AV**	**FR**	**PR**	**P-**	**VP**	**V-**	**UN**
19	D4	33	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4
19	D4	34	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3
19	D4	35	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2
19	D4	36	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1
19	D4	37	31	31	31	31	31	31	31	31	31	31
19	D4	38	30	30	30	30	30	30	30	30	30	30
19	D4	39	29	29	29	29	29	29	29	29	29	29
19	D4	40	28	28	28	28	28	28	28	28	28	28
19	D4	41	27	27	27	27	27	27	27	27	27	27
19	D4	42	26	26	26	26	26	26	26	26	26	26
19	D4	43	25	25	25	25	25	25	25	25	25	25
19	D4	44	24	24	24	24	24	24	24	24	24	24
19	D4	45	23	23	23	23	23	23	23	23	23	23
19	D4	46	22	22	22	22	22	22	22	22	22	22
19	D4	47	21	21	21	21	21	21	21	21	21	21
19	D4	48	20	20	20	20	20	20	20	20	20	20
19	D4	49	19	19	19	19	19	19	19	19	19	19
19	D4	50	18	18	18	18	18	18	18	18	18	18
19	D4	51	17	17	17	17	17	17	17	17	17	17
19	D4	52	16	16	16	16	16	16	16	16	16	16
19	D4	53	15	15	15	15	15	15	15	15	15	15
19	D4	54	15	15	15	15	15	15	15	15	15	15
19	D4	55	15	15	15	15	15	15	15	15	15	15
19	D4	56	15	15	15	15	15	15	15	15	15	15
19	D4	57	15	15	15	15	15	15	15	15	15	15
19	D4	58	15	15	15	15	15	15	15	15	15	15
19	D4	59	15	15	15	15	15	15	15	15	15	15
19	D4	60	15	15	15	15	15	15	15	15	15	15
19	D4	61	15	15	15	15	15	15	15	15	15	15
19	D4	62	15	15	15	15	15	15	15	15	15	15
19	D4	63	15	15	15	15	15	15	15	15	15	15
19	D4	999	15	15	15	15	15	15	15	15	15	15
19	D5	1	93	93	93	93	93	93	93	93	93	93
19	D5	2	90	90	90	90	90	90	90	90	90	90
19	D5	3	87	87	87	87	87	87	87	87	87	87
19	D5	4	84	84	84	84	84	84	84	84	84	84
19	D5	5	83	83	83	83	83	83	83	83	83	83

Depreciation Tables (RCDEPR)												
VER	DEP TABLE	AGE	EX	VG	GD	AV	FR	PR	P-	VP	V-	UN
19	D5	6	82	82	82	82	82	82	82	82	82	82
19	D5	7	81	81	81	81	81	81	81	81	81	81
19	D5	8	80	80	80	80	80	80	80	80	80	80
19	D5	9	78	78	78	78	78	78	78	78	78	78
19	D5	10	76	76	76	76	76	76	76	76	76	76
19	D5	11	74	74	74	74	74	74	74	74	74	74
19	D5	12	72	72	72	72	72	72	72	72	72	72
19	D5	13	70	70	70	70	70	70	70	70	70	70
19	D5	14	67	67	67	67	67	67	67	67	67	67
19	D5	15	64	64	64	64	64	64	64	64	64	64
19	D5	16	61	61	61	61	61	61	61	61	61	61
19	D5	17	58	58	58	58	58	58	58	58	58	58
19	D5	18	54	54	54	54	54	54	54	54	54	54
19	D5	19	50	50	50	50	50	50	50	50	50	50
19	D5	20	48	48	48	48	48	48	48	48	48	48
19	D5	21	46	46	46	46	46	46	46	46	46	46
19	D5	22	45	45	45	45	45	45	45	45	45	45
19	D5	23	44	44	44	44	44	44	44	44	44	44
19	D5	24	43	43	43	43	43	43	43	43	43	43
19	D5	25	42	42	42	42	42	42	42	42	42	42
19	D5	26	41	41	41	41	41	41	41	41	41	41
19	D5	27	40	40	40	40	40	40	40	40	40	40
19	D5	28	39	39	39	39	39	39	39	39	39	39
19	D5	29	38	38	38	38	38	38	38	38	38	38
19	D5	30	37	37	37	37	37	37	37	37	37	37
19	D5	31	36	36	36	36	36	36	36	36	36	36
19	D5	32	35	35	35	35	35	35	35	35	35	35
19	D5	33	34	34	34	34	34	34	34	34	34	34
19	D5	34	33	33	33	33	33	33	33	33	33	33
19	D5	35	32	32	32	32	32	32	32	32	32	32
19	D5	36	31	31	31	31	31	31	31	31	31	31
19	D5	37	30	30	30	30	30	30	30	30	30	30
19	D5	38	29	29	29	29	29	29	29	29	29	29
19	D5	39	28	28	28	28	28	28	28	28	28	28
19	D5	40	27	27	27	27	27	27	27	27	27	27
19	D5	41	26	26	26	26	26	26	26	26	26	26
19	D5	42	25	25	25	25	25	25	25	25	25	25

Depreciation Tables (RCDEPR)												
VER	DEP TABLE	AGE	EX	VG	GD	AV	FR	PR	P-	VP	V-	UN
19	D5	43	24	24	24	24	24	24	24	24	24	24
19	D5	44	23	23	23	23	23	23	23	23	23	23
19	D5	45	22	22	22	22	22	22	22	22	22	22
19	D5	46	21	21	21	21	21	21	21	21	21	21
19	D5	47	20	20	20	20	20	20	20	20	20	20
19	D5	48	19	19	19	19	19	19	19	19	19	19
19	D5	49	18	18	18	18	18	18	18	18	18	18
19	D5	50	17	17	17	17	17	17	17	17	17	17
19	D5	51	16	16	16	16	16	16	16	16	16	16
19	D5	52	15	15	15	15	15	15	15	15	15	15
19	D5	53	14	14	14	14	14	14	14	14	14	14
19	D5	54	13	13	13	13	13	13	13	13	13	13
19	D5	55	12	12	12	12	12	12	12	12	12	12
19	D5	56	11	11	11	11	11	11	11	11	11	11
19	D5	57	10	10	10	10	10	10	10	10	10	10
19	D5	58	10	10	10	10	10	10	10	10	10	10
19	D5	59	10	10	10	10	10	10	10	10	10	10
19	D5	60	10	10	10	10	10	10	10	10	10	10
19	D5	61	10	10	10	10	10	10	10	10	10	10
19	D5	62	10	10	10	10	10	10	10	10	10	10
19	D5	63	10	10	10	10	10	10	10	10	10	10
19	D5	64	10	10	10	10	10	10	10	10	10	10
19	D5	65	10	10	10	10	10	10	10	10	10	10

Depreciation Tables (RCDEPR)

VER	DEP TABLE	AGE	EX	VG	GD	AV	FR	PR	P-	VP	V-	UN
18	MHDW	1	99	98	97	97	97	96	95	20	15	10
18	MHDW	2	98	96	95	94	94	93	91	19	15	10
18	MHDW	3	97	93	92	92	92	89	86	19	14	10
18	MHDW	4	96	92	90	90	89	86	82	18	14	10
18	MHDW	5	95	90	88	88	87	83	74	18	14	9
18	MHDW	6	94	88	86	86	84	80	70	17	13	9
18	MHDW	7	93	87	85	84	82	77	67	17	13	9
18	MHDW	8	92	85	83	81	79	74	63	16	13	9
18	MHDW	9	91	84	81	79	77	71	59	16	12	8
18	MHDW	10	89	81	79	77	75	68	52	15	12	8
18	MHDW	12	87	77	76	74	71	63	45	15	11	8
18	MHDW	14	84	74	72	70	66	57	37	14	11	7
18	MHDW	16	81	71	69	66	61	52	20	14	10	7
18	MHDW	18	78	69	66	62	56	46	20	13	9	6
18	MHDW	20	75	65	63	59	52	40	20	13	9	6
18	MHDW	22	72	63	59	55	48	34	20	12	8	5
18	MHDW	24	68	60	56	51	43	30	20	12	8	5
18	MHDW	26	65	57	53	48	37	30	20	11	8	5
18	MHDW	28	62	54	50	44	30	30	20	11	8	5
18	MHDW	30	59	51	46	40	30	30	20	10	8	5
18	MHDW	32	56	48	44	37	30	30	20	10	8	5
18	MHDW	34	52	46	41	30	30	30	20	10	8	5
18	MHDW	36	49	43	38	30	30	30	20	10	8	5
18	MHDW	38	46	40	34	30	30	30	20	10	8	5
18	MHDW	40	44	37	30	30	30	30	20	10	8	5
18	MHDW	42	42	36	30	30	30	30	20	10	8	5
18	MHDW	44	40	30	30	30	30	30	20	10	8	5
18	MHDW	46	39	30	30	30	30	30	20	10	8	5
18	MHDW	999	30	30	30	30	30	30	20	10	8	5
18	MHOB	0	91	91	91	91	91	91	91	91	91	91
18	MHOB	1	91	91	91	91	91	91	91	91	91	91
18	MHOB	2	82	82	82	82	82	82	82	82	82	82
18	MHOB	3	74	74	74	74	74	74	74	74	74	74
18	MHOB	4	67	67	67	67	67	67	67	67	67	67
18	MHOB	5	61	61	61	61	61	61	61	61	61	61
18	MHOB	6	56	56	56	56	56	56	56	56	56	56
18	MHOB	7	51	51	51	51	51	51	51	51	51	51
18	MHOB	8	47	47	47	47	47	47	47	47	47	47
18	MHOB	9	39	43	43	43	43	43	43	43	43	43
18	MHOB	10	39	39	39	39	39	39	39	39	39	39
18	MHOB	11	36	36	36	36	36	36	36	36	36	36
18	MHOB	12	30	33	33	33	33	33	33	33	33	33
18	MHOB	13	30	30	30	30	30	30	30	30	30	30
18	MHOB	14	28	28	28	28	28	28	28	28	28	28
18	MHOB	15	26	26	26	26	26	26	26	26	26	26
18	MHOB	16	24	24	24	24	24	24	24	24	24	24
18	MHOB	17	22	22	22	22	22	22	22	22	22	22
18	MHOB	18	20	20	20	20	20	20	20	20	20	20
18	MHOB	19	18	18	18	18	18	18	18	18	18	18
18	MHOB	20	17	17	17	17	17	17	17	17	17	17
18	MHOB	21	16	16	16	16	16	16	16	16	16	16
18	MHOB	22	14	14	14	14	14	14	14	14	14	14
18	MHOB	23	13	13	13	13	13	13	13	13	13	13
18	MHOB	24	12	12	12	12	12	12	12	12	12	12
18	MHOB	25	11	11	11	11	11	11	11	11	11	11
18	MHOB	26	10	10	10	10	10	10	10	10	10	10
18	MHOB	27	9	9	9	9	9	9	9	9	9	9
18	MHOB	28	9	9	9	9	9	9	9	9	9	9

2019 USE-VALUE MANUAL
FOR AGRICULTURAL, HORTICULTURAL
AND
FOREST LAND

May 2018

North Carolina Use-Value Advisory Board
North Carolina Department of Revenue
Raleigh, North Carolina

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Foreword

When originally enacted in 1973, the objective of the present-use value program was to keep "the family farm in the hands of the farming family." By the early 1970's, North Carolina had become a prime site for industrial and commercial companies to relocate because of its plentiful and reliable work force. With this growth came other improvements to the State's infrastructure to accommodate this growth, such as new and larger road systems, more residential subdivisions, and new industrial and commercial developments. The land on which to build these improvements came primarily from one source: farmland. As the demand for this land skyrocketed, so did its price as well as its assessed value, as counties changed from a fractional assessment to a market value system. Farmers who owned land near these sites soon could not afford the increase in property values and sought relief from the General Assembly.

In response, the General Assembly passed legislation known as the Present-Use Value program. As originally enacted, the basic tenets of this program were that only individuals who lived on the land for which they were applying could immediately qualify and that the land had to have a highest and best use as agriculture, horticulture or forest land. Land might also have qualified if the farmer owned it for seven years. Passage of this law eased the financial burden of most farmers and eliminated to some degree the "sticker shock" of the new property tax values. From that time until the mid-1980's, the present-use value schedules were based on farmer-to-farmer sales, and quite often the market value schedules were very similar to the present use schedules, especially in the more rural areas.

Virtually every session of the General Assembly has seen new changes to the law, causing a constant rethinking as to how the law is to be administered. The mid-1980's saw several court cases that aided in this transformation. Among the legislative changes that resulted from these cases were the use of soil productivity to determine value, the use of a 9% capitalization rate, and the utilization of the "unit concept" to bring smaller tracts under the present use value guidelines.

Through the years the General Assembly has expanded the present-use value program to include new types of ownership such as business entities, tenants in common, trusts, and testamentary trusts. Legislation also expanded the definition of a relative. More recent legislation has established cash rents as the basis for determining present-use value for agricultural and horticultural land, while retaining the net income basis for determining present-use value for forestland.

This Use-Value Advisory Board Manual is published yearly to communicate the UVAB recommended present-use value rates and to explain the methodology used in establishing the recommended rates.

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USE-VALUE ADVISORY BOARD MANUAL

Following are explanations of the major components of this manual.

I. Cash Rents

Beginning in 1985, the basis for determining present-use value for agricultural land was based on the soil productivity for growing corn and soybeans. At that time, corn and soybeans were considered the predominant crops in the state. Over time, fewer and fewer acres went into the production of corn and soybeans and the land used for these crops tended to be lower quality. As a result, both the productivity and value of these crops plummeted, thus resulting in lower present-use values. A viable alternative was sought to replace corn and soybeans as the basis for present-use value. Following a 1998 study by North Carolina State University, cash rents for agricultural and horticultural land were determined to be the preferred alternative. Cash rents are a very good indicator of net income, which can be converted into a value using an appropriate capitalization rate.

The General Assembly passed legislation that established cash rents as the required method for determining the recommended present-use values for agricultural and horticultural land. The cash rents data from the NCSU study served as the basis for determining present-use value for the 2004-2007 UVAB manuals. However, starting in 2006, funding became available for the North Carolina Department of Agriculture to perform an extensive statewide cash rents survey on a yearly basis. The 2006 survey became the basis for the 2008 UVAB recommended values, and this process will continue forward until changes dictate otherwise (i.e. the 2007 survey is used to establish the 2009 UVAB values, etc).

Forestland does not lend itself well to cash rents analysis and continues to be valued using the net income from actual production.

II. Soil Types and Soil Classification

The 1985 legislation divided the state using the six Major Land Resource Areas (MLRAs). Five different classes of productive soils and one non-productive soil class for each MLRA were determined. Each class was identified by its net income according to type: agriculture, horticulture and forestry. The net income was then divided by a 9% capitalization rate to determine the present-use value. For 2004 and forward, the following change has taken place. For agricultural and horticultural classifications, the five different soil classes have been reduced to three soil classes and one non-productive soil class. Forestland present-use value has kept the five soil classes and one non-productive soil class. The use of the six MLRAs has been retained.

The six MLRAs are as follows:

MLRA 130	Mountains
MLRA 133A	Upper Coastal Plain
MLRA 136	Piedmont
MLRA 137	Sandhills
MLRA 153A	Lower Coastal Plains
MLRA 153B	Tidewater

The soils are listed in this manual according to the MLRA in which they occur. They are then further broken down into their productivity for each of the three types of use: agriculture, horticulture and forestry. Every soil listed in each of the MLRAs is ranked by its productivity into four classes (with the exception of forestry which retained its previous six classes). The classes for agricultural and horticultural land are as follows:

CLASS I	Best Soils
CLASS II	Average Soils
CLASS III	Fair Soils
CLASS IV	Non-Productive Soils

It should be noted that, in some soil types, all the various slopes of that soil have the same productivity class for each of the usages, and therefore for the sake of brevity, the word "ALL" is listed to combine these soils. Each of the classes set up by the UVAB soils subcommittee corresponds to a cash rent income established by the most recent cash rents survey conducted by the North Carolina Department of Agriculture. This rent income is then capitalized by a rate established each year by the UVAB (see below). The criteria for establishing present-use value for forestry have remained basically unchanged from previous years due to the quantity and quality of information already available.

III. Capitalization Rate

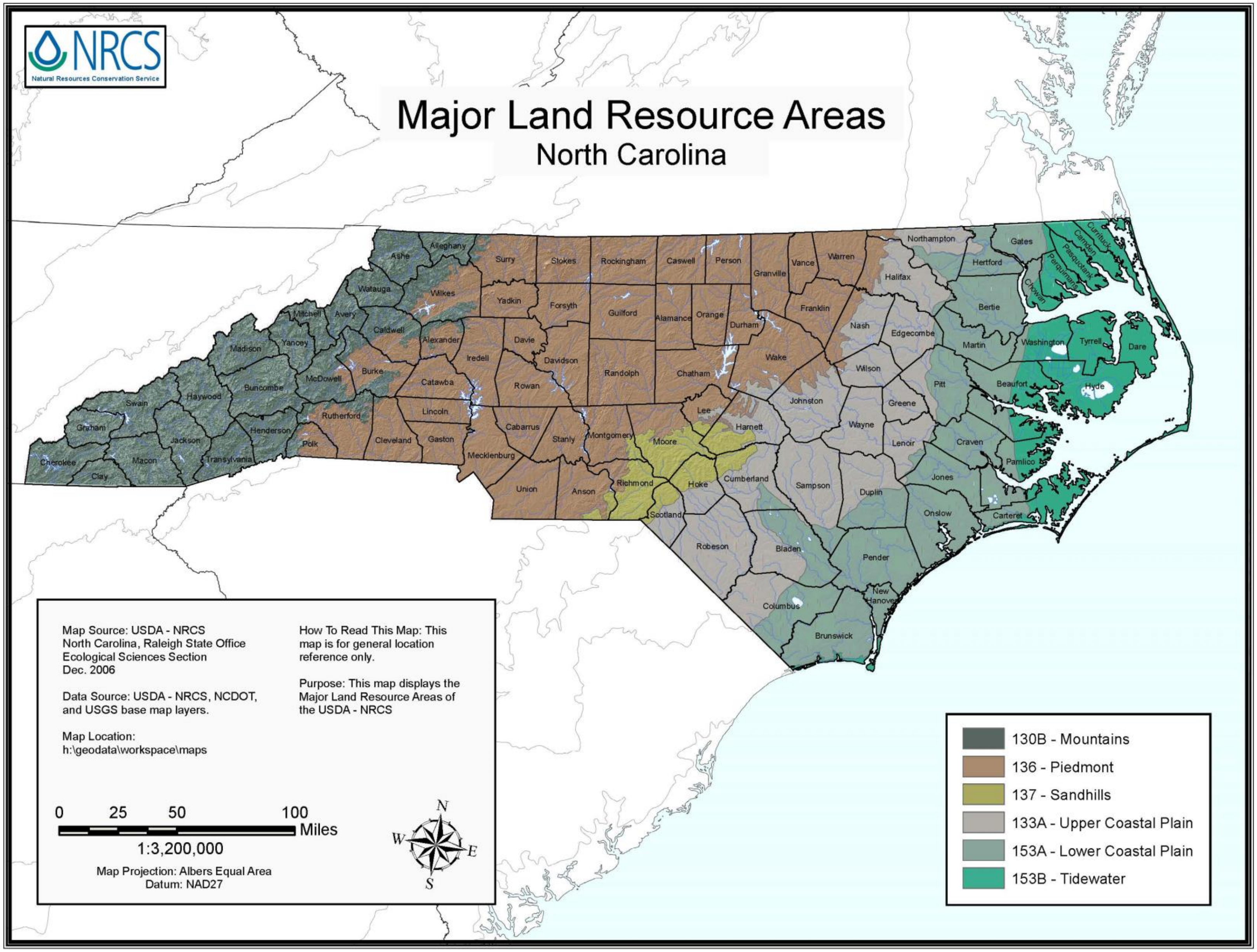
The capitalization rate mandated by the 1985 legislation for all types of present-use value land was 9%. The 1998 study by NCSU strongly indicated that a lower capitalization rate for agricultural and horticultural land was more in line with current sales and rental information. The 2002 legislation mandated a rate between 6%-7% for agricultural and horticultural land.

For the year 2004 and the subsequent years, the UVAB has set the capitalization rate at 6.5% for agricultural and horticultural land.

The capitalization rate for forestland continues to be fixed at 9% as mandated by the statutes.

IV. Other Issues

The value for the best agricultural land can be no higher than $1,200 an acre for any MLRA.


NRCS
Natural Resources Conservation Service
Major Land Resource Areas
North Carolina
Map Source: USDA - NRCS
North Carolina, Raleigh State Office
Ecological Sciences Section
Dec. 2006
Data Source: USDA - NRCS, NCDOT, and USGS base map layers.
Map Location:
h:\geodata\workspace\maps
How To Read This Map: This map is for general location reference only.
Purpose: This map displays the Major Land Resource Areas of the USDA - NRCS
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Miles
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Map Projection: Albers Equal Area
Datum: NAD27
N
S
E
W
130B - Mountains
136 - Piedmont
137 - Sandhills
133A - Upper Coastal Plain
153A - Lower Coastal Plain
153B - Tidewater
Ashe
Alleghany
Surry
Stokes
Rockingham
Caswell
Person
Vance
Warren
Granville
Northampton
Gates
Hertford
Halifax
Watauga
Wilkes
Yadkin
Forsyth
Guilford
Alamance
Orange
Durham
Franklin
Nash
Edgecombe
Bertie
Martin
Washington
Tyrrell
Dare
Mitchell
Avery
Caldwell
Alexander
Davie
Yancey
Madison
Iredell
Davidson
Randolph
Chatham
Wake
Wilson
Pitt
Beaufort
Hyde
Buncombe
McDowell
Burke
Catawba
Rowan
Haywood
Swain
Graham
Cherokee
Clay
Macon
Jackson
Transylvania
Henderson
Polk
Rutherford
Cleveland
Gaston
Lincoln
Mecklenburg
Cabarrus
Stanly
Montgomery
Moore
Lee
Harnett
Johnston
Wayne
Greene
Lenoir
Craven
Pamlico
Union
Anson
Richmond
Hoke
Scotland
Cumberland
Sampson
Duplin
Jones
Onslow
Carteret
Robeson
Bladen
Pender
Columbus
Brunswick
New Hanover
Currituck
Camden
Pasquotank
Perquimans
Chowan

PRESENT-USE VALUE SCHEDULES

AGRICULTURAL RENTS

MLRA	BEST	AVERAGE	FAIR
130	90.30	54.30	35.50
133A	82.15	58.30	43.65
136	61.80	42.10	27.35
137	67.50	47.30	32.20
153A	77.10	56.10	42.20
153B	103.95	70.70	53.00

AGRICULTURAL SCHEDULE

MLRA	CLASS I	CLASS II	CLASS III
130	$1,200*	$835	$545
133A	$1,200*	$895	$670
136	$950	$645	$420
137	$1,035	$725	$495
153A	$1,185	$860	$645
153B	$1,200*	$1,085	$815

--NOTE: All Class 4 or Non-Productive Land will be appraised at $40.00 per acre.
--For 2019, rents were increased 10% to more accurately represent the current cash rents and then divided by a capitalization rate of 6.5% to produce the Agricultural Schedule.
* As required by statute, agricultural values cannot exceed $1,200.

HORTICULTURAL SCHEDULE

All horticultural crops requiring more than one growing season between planting or setting out and harvest, such as Christmas trees, ornamental shrubs and nursery stock, apple and peach orchards, grapes, blueberries, strawberries, sod and other similar horticultural crops should be classified as horticulture regardless of location in the state.

HORTICULTURAL RENTS

MLRA	BEST	AVERAGE	FAIR
130	161.70	111.10	72.90
133A	99.10	68.40	52.25
136	89.20	58.05	40.15
137	84.35	56.85	37.70
153A	93.80	58.15	44.40
153B	122.40	92.80	84.35

HORTICULTURAL SCHEDULE

MLRA	CLASS I	CLASS II	CLASS III
130	$2,485	$1,705	$1,120
133A	$1,520	$1,050	$803
136	$1,370	$890	$615
137	$1,295	$870	$580
153A	$1,440	$890	$680
153B	$1,880	$1,425	$1,295

--NOTE: All Class 4 or Non-Productive Land will be appraised at $40.00 per acre.

--For 2019 rents were increased 10% to more accurately represent the current cash rents and then divided by a capitalization rate of 6.5% to produce the Horticultural Schedule.

FORESTLAND NET PRESENT VALUES

MLRA	Class I	Class II	Class III	Class IV	Class V
130	$29.99	$18.86	$6.91	$4.74	$3.26
133A	$27.99	$21.13	$18.14	$7.08	$4.79
136	$32.51	$23.29	$22.57	$14.53	$10.42
137	$34.35	$22.72	$22.57	$7.68	$2.95
153A	$27.99	$21.13	$18.14	$7.08	$4.79
153B	$22.56	$18.14	$17.18	$7.08	$4.79

FORESTLAND SCHEDULE

MLRA	Class I	Class II	Class III	Class IV	Class V
130	$330	$205	$75	$50	$40
133A	$310	$230	$200	$75	$50
136	$360	$255	$250	$160	$115
137	$380	$250	$250	$85	$40
153A	$310	$230	$200	$75	$50
153B	$250	$200	$190	$75	$50

--NOTE: All Class VI or Non-Productive Land will be appraised at $40.00/Acre. Exception: For MLRA 130 use 80 % of the lowest valued productive land.

--Net Present Values were divided by a capitalization rate of 9.00% to produce the Forestland Schedule.

2009 Cash Rent Study

INTRODUCTION

The National Agricultural Statistics Service in cooperation with the North Carolina Department of Agricultural and Consumer Services collected cash rents data on the 2009 County Estimates Survey. North Carolina farmers were surveyed to obtain cash rent values per acre for three land types: Agricultural, horticultural, and Christmas tree land. Supporting funds for this project were provided by the North Carolina Legislature. Appreciation is expressed to all survey participants who provided the data on which this report is based.

THE SURVEY

The survey was conducted by mail with telephone follow-up during September through February. Values relate to the data collection time period when the respondent completed the survey.

THE DATA

This report includes the most current number of responses and average rental rate per acre. Producers were asked to provide their best estimate of cash rent values in their county by land quality. The data published here are simple averages of the best estimate of the cash rent value per acre. These averages are not official estimates of actual sales.

Reported data that did not represent agricultural usage were removed in order to give a more accurate reflection of agricultural rents and values. To ensure respondent confidentiality and provide more statistical reliability, counties and districts with fewer than 10 reports are not published individually, but are included in aggregate totals. Published values in this report should never be used as the only factor to establish rental arrangements.

Data were collected for three land types: Agricultural, horticultural, and Christmas tree land. Agricultural land includes land used to produce row crops such as soybeans, corn, peanuts, and small grains, pasture land, and hay. Agricultural land also includes any land on which livestock are grown. Horticultural land includes commercial production or growing of fruits or vegetables or nursery or floral products such as apple orchards, blueberries, cucumbers, tomatoes, potted plants, flowers, shrubs, sod, and turfgrass. Christmas tree land includes any land to produce Christmas trees, including cut and balled Christmas trees.

2009 Average Cash Rents for Resource Area = 130 Mountains

County	Agricultural High Productivity		Agricultural Medium Productivity		Agricultural Low Productivity		Horticultural High Productivity		Horticultural Medium Productivity		Horticultural Low Productivity		Christmas Trees High Productivity		Christmas Trees Medium Productivity		Christmas Trees Low Productivity	
	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average
ALLEGHANY	22	89.80	21	55.50	21	33.30												
ASHE	17	76.50	15	43.50	15	28.30							12	162.50				
AVERY																		
BUNCOMBE	37	100.70	31	53.90	27	33.80												
BURKE	25	55.20	22	33.20	19	26.60												
CALDWELL	13	35.40	11	23.20	10	16.70												
CHEROKEE	16	88.10	11	48.60	10	29.50												
CLAY	15	68.70	14	39.10	13	25.20												
GRAHAM																		
HAYWOOD	41	117.90	28	73.80	29	43.50												
HENDERSON	24	83.50	18	57.60	18	36.90												
JACKSON																		
MACDOWELL																		
MACON	11	73.20	12	43.30														
MADISON	26	116.50	22	63.20	23	40.50												
MITCHELL																		
POLK																		
SWAIN																		
TRANSYLVANIA	14	93.60											11	181.36				
WATAUGA	27	79.10	18	49.70	14	32.50												
WILKES	79	57.30	71	39.30	59	27.00												
YANCEY	17	117.90	13	72.30	13	48.85												
AREA TOTAL	422	82.10	349	49.40	317	32.30	78	147.00	47	101.10	41	66.30	69	153.60	47	93.60	38	61.30

2009 Average Cash Rents for Resource Area = 133A Upper Coastal Plain

County	Agricultural High Productivity		Agricultural Medium Productivity		Agricultural Low Productivity		Horticultural High Productivity		Horticultural Medium Productivity		Horticultural Low Productivity		Christmas Trees High Productivity		Christmas Trees Medium Productivity		Christmas Trees Low Productivity	
	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average
BLADEN	36	63.10	32	49.20	25	33.80												
COLUMBUS	77	60.80	58	45.80	51	34.60												
CUMBERLAND	36	66.40	29	44.70	25	30.40												
DUPLIN	142	69.30	113	50.80	90	39.70												
EDGECOMBE	36	77.10	29	57.20	22	43.60												
GREENE	61	79.70	40	55.00	36	41.30												
HALIFAX	28	83.30	18	64.20	14	42.10												
HARNETT	58	74.50	52	51.70	39	36.40												
JOHNSTON	103	71.90	84	49.90	63	33.40	13	93.90	10	53.00								
LENOIR	60	81.60	45	58.70	33	42.10												
NASH	51	77.80	39	52.70	31	43.10												
NORTHAMPTON	23	102.60	17	73.80	13	57.30												
ROBESON	53	49.60	52	38.90	28	32.40												
SAMPSON	128	81.60	109	56.40	87	41.80	10	95.00										
SCOTLAND	10	44.50																
WAYNE	96	89.70	64	62.30	65	47.00												
WILSON	40	82.80	30	61.50	27	48.20												
AREA TOTAL	**1038**	**74.70**	**819**	**53.00**	**655**	**39.70**	**61**	**90.10**	**46**	**62.20**	**35**	**47.50**						

2009 Average Cash Rents for Resource Area = 136 Piedmont

	Agricultural High Productivity		Agricultural Medium Productivity		Agricultural Low Productivity		Horticultural High Productivity		Horticultural Medium Productivity		Horticultural Low Productivity		Christmas Trees High Productivity		Christmas Trees Medium Productivity		Christmas Trees Low Productivity	
County	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average
ALAMANCE	63	52.30	51	32.90	50	20.70												
ALEXANDER	35	49.10	28	33.40	29	20.00												
ANSON	35	50.10	31	41.30	25	28.40												
BURKE	25	55.20	22	33.20	19	26.60												
CABARRUS	20	42.20	16	37.80	13	23.90												
CALDWELL	13	35.40	11	23.50	10	16.70												
CASWELL	54	49.90	41	30.90	44	19.20												
CATAWBA	32	39.20	29	28.60	31	19.20												
CHATHAM	47	48.80	48	34.70	37	23.10												
CLEVELAND	44	36.50	39	29.20	34	21.20												
DAVIDSON	50	45.60	43	32.90	40	21.40												
DAVIE	38	60.70	27	39.30	24	21.30												
DURHAM	15	36.50	12	27.50	13	21.50												
FORSYTH	26	63.60	16	48.80	18	23.30												
FRANKLIN	41	59.20	38	37.10	35	21.90												
GASTON	17	33.50	15	27.30	15	18.80												
GRANVILLE	58	53.00	45	31.60	43	17.80												
GUILFORD	46	41.20	39	27.00	34	17.60												
HALIFAX	28	83.30	18	64.20	14	42.10												
IREDELL	52	53.90	49	43.40	43	27.90												
JOHNSTON	103	71.90	84	49.90	63	33.40	13	93.90	10	53.00								
LEE	25	72.40	20	45.40	16	33.10												
LINCOLN	16	35.60	14	21.80	12	15.60												
MECKLENBURG	11	61.40																
MONTGOMERY	16	41.60	16	39.10	14	20.00												
MOORE	37	56.50	33	37.30	25	23.90												
NASH	51	77.80	39	52.70	31	43.10												
ORANGE	31	37.60	26	31.80	25	19.40												
PERSON	38	60.70	26	40.60	22	23.30												
POLK																		
RANDOLPH	96	48.20	81	33.80	73	21.90												
RICHMOND	21	32.60	15	23.30	18	19.30												
ROCKINGHAM	55	55.10	41	30.30	40	16.60												
ROWAN	47	48.80	36	34.70	33	23.50												
RUTHERFORD	21	37.40	16	27.60	14	19.30												
STANLY	34	52.50	30	40.30	29	27.90												
STOKES	54	74.20	39	47.10	34	28.10												
SURRY	73	83.00	57	53.90	53	35.30												
UNION	55	66.30	50	47.80	40	40.30												
VANCE	32	55.00	22	29.30	23	17.20												
WAKE	55	61.20	46	36.20	39	26.20												
WARREN	24	40.90	15	25.30	20	17.80												
WILKES	79	57.30	71	39.30	59	27.00												
YADKIN	79	67.00	60	47.80	58	31.50												
AREA TOTAL	**1798**	**56.20**	**1468**	**38.30**	**1324**	**24.90**	**125**	**81.10**	**101**	**52.80**	**89**	**36.50**	**46**	**77.90**	**43**	**52.90**	**41**	**35.00**

2009 Average Cash Rents for Resource Area = 137 Sandhills

County	Agricultural High Productivity		Agricultural Medium Productivity		Agricultural Low Productivity		Horticultural High Productivity		Horticultural Medium Productivity		Horticultural Low Productivity		Christmas Trees High Productivity		Christmas Trees Medium Productivity		Christmas Trees Low Productivity	
	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average
HARNETT	58	74.50	52	51.70	39	36.40												
HOKE	17	56.50	11	45.00	11	29.10												
LEE	25	72.40	20	45.40	16	33.10												
MOORE	37	56.50	33	37.30	25	23.90												
RICHMOND	21	32.60	15	23.30	18	19.30												
SCOTLAND	10	44.50																
AREA TOTAL	**168**	**61.40**	**139**	**43.00**	**115**	**29.30**	*	**76.70**	*	**51.70**	*	**34.30**						

An * indicates the data is published even though there are less than 10 reports.

2009 Average Cash Rents for Resource Area = 153A Lower Coastal Plain

County	Agricultural High Productivity		Agricultural Medium Productivity		Agricultural Low Productivity		Horticultural High Productivity		Horticultural Medium Productivity		Horticultural Low Productivity		Christmas Trees High Productivity		Christmas Trees Medium Productivity		Christmas Trees Low Productivity	
	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average
BEAUFORT	30	83.70	23	52.00	21	37.10												
BERTIE	41	75.00	23	60.10	21	44.50												
BLADEN	36	63.10	32	49.20	25	33.80												
BRUNSWICK	23	44.40	15	38.00	13	30.00												
CARTERET																		
CHOWAN	20	87.00	13	58.90	12	51.70												
COLUMBUS	77	60.80	58	45.80	51	34.60												
CRAVEN	32	60.60	29	47.80	21	35.20												
DUPLIN	142	69.30	113	50.80	90	39.70												
EDGECOMBE	36	77.10	29	57.20	22	43.60												
GATES	13	81.20	11	62.30														
HERTFORD	15	73.00	11	49.60														
JONES	25	64.40	22	49.80	20	41.30												
MARTIN	46	80.70	33	53.20	29	40.50												
NEW HANOVER																		
ONSLOW	34	55.40	24	42.80	23	34.80												
PAMLICO	13	70.40	13	51.20	13	36.50												
PENDER	24	67.10	21	45.50	19	33.70												
PITT	45	73.70	39	56.20	33	40.50												
WASHINGTON	12	128.80	10	61.00														
AREA TOTAL	**672**	**70.10**	**525**	**51.00**	**442**	**38.40**	**30**	**85.30**	**19**	**52.90**	**13**	**40.40**						

2009 Average Cash Rents for Resource Area = 153B Tidewater

	Agricultural High Productivity		Agricultural Medium Productivity		Agricultural Low Productivity		Horticultural High Productivity		Horticultural Medium Productivity		Horticultural Low Productivity		Christmas Trees High Productivity		Christmas Trees Medium Productivity		Christmas Trees Low Productivity	
County	No. of reports	Average	No. of reports	Average	No. of report s	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of report s	Average
BEAUFORT	30	83.70	23	52.00	21	37.10												
CAMDEN																		
CARTERET																		
CHOWAN	20	87.00	13	58.40	12	51.70												
CURRITUCK	10	88.00																
DARE																		
HYDE																		
PAMLICO	13	70.40	13	51.20	13	36.50												
PASQUOTANK	19	105.30	11	73.20	10	60.00												
PERQUIMANS	24	101.90	21	78.10	18	58.90												
TYRRELL	10	109.50																
WASHINGTON	12	128.80	10	61.00														
AREA TOTAL	**163**	**94.50**	**117**	**64.30**	**111**	**48.20**	**12**	**111.30**	*****	**84.40**	*****	**76.70**						

An * indicates the data is published even though there are less than 10 reports.

2009 Average Cash Rents - State Total

	Agricultural High Productivity		Agricultural Medium Productivity		Agricultural Low Productivity		Horticultural High Productivity		Horticultural Medium Productivity		Horticultural Low Productivity		Christmas Trees High Productivity		Christmas Trees Medium Productivity		Christmas Trees Low Productivity	
County	No. of reports	Average	No. of reports	Average	No. of report s	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of report s	Average
STATE TOTAL	**3431**	**66.90**	**2743**	**45.60**	**2414**	**31.50**	**254**	**103.20**	**184**	**67.70**	**155**	**46.90**	**114**	**121.50**	**93**	**75.30**	**80**	**49.40**

Christmas Tree Guidelines

This information replaces a previous memorandum issued by our office dated December 12, 1989. The 1989 General Assembly enacted an "in-lieu of income" provision allowing land previously qualified as horticulture to continue to receive benefits of the present-use value program when the crop being produced changed from any horticultural product to Christmas trees. It also directed the Department of Revenue to establish a separate gross income requirement different from the $1,000 gross income requirement for horticultural land, when the crop being grown was evergreens intended for use as Christmas trees. N.C.G.S. 105-289(a)(6) directs the Department of Revenue:

> **"To establish requirements for horticultural land, used to produce evergreens intended for use as Christmas trees, in lieu of a gross income requirement until evergreens are harvested from the land, and to establish a gross income requirement for this type of horticultural land, that differs from the income requirement for other horticultural land, when evergreens are harvested from the land."**

It should be noted that horticultural land used to produce evergreens intended for use as Christmas trees is the only use allowed benefit of the present-use value program without first having met a gross income requirement. The trade-off for this exception is a different gross income requirement in recognition of the potential for greater income than would normally be associated with other horticultural or agricultural commodities.

While the majority of Christmas tree production occurs in the western mountain counties (MLRA 130), surveys as far back as 1996 indicate that there are approximately 135 Christmas tree operations in non-mountain counties (MLRAs 136, 137, 133A, 153A & 153B). They include such counties in the piedmont and coastal plain as Craven, Halifax, Robeson, Wake, and Warren. For this reason we have prepared separate in-lieu of income requirements and gross income requirements for these two areas of the State. The different requirements recognize the difference in species, growing practices, markets, and resulting gross income potential.

After consulting with cooperative extension agents, the regional Christmas tree/horticultural specialist at the Western North Carolina Experimental Research Station, and various landowners/growers, we have determined the standards in the following attachments to be reasonable guidelines for compliance with G.S. 105-289(a)(6). Please note these requirements are subject to the whims of weather and other conditions that can have a significant impact. The combined effect of recent hurricanes, spring freezes, and ice storms across some parts of the State should be taken into consideration when appropriate within each county. As with other aspects of the present-use value program, owners of Christmas tree land should not be held accountable for conditions such as adverse weather or disease outbreak beyond their control.

We encourage every county to contact their local Cooperative Extension Service Office to obtain the appropriate local data and expertise to support particular situations in each county.

I. Gross Income Requirement for Christmas Trees

For MLRA 130, the gross income requirement for horticultural land used to grow evergreens intended for use as Christmas trees is $2,000 per acre.

For all other MLRAs, the gross income requirement for horticultural land used to grow evergreens intended for use as Christmas trees is $1,500 per acre.

II. In-Lieu of Income Requirement

MLRA 130 – Mountains

The in-lieu of income requirement is for acreage in production but not yet undergoing harvest, and will be determined by sound management practices, best evidenced by the following:

1. Sites prepared by controlling problem weeds and saplings, taking soil samples, and applying fertilizer and/or lime as appropriate.

2. Generally, a 5' x 5' spacing producing approximately 1,750 potential trees per acre. Spacing must allow for adequate air movement around the trees. (There is very little 4' x 4' or 4.5' x 4.5' spacing. Some experimentation has occurred with 5' x 6' spacing, primarily aimed at producing a 6' tree in 5 years. All of the preceding examples should be acceptable.)

3. A program for insect and weed control.

4. Generally, an eight-to-ten year setting to harvest cycle. (Most leases are for 10 years, which allows for a replanting of non-established or dying seedlings up through the second year.)

The gross income requirement for acres undergoing Christmas tree harvest in the mountain region of North Carolina (MLRA 130) is $2,000 per acre. Once Christmas trees are harvested from specific acreage, the requirement for those harvested acres will revert to the in-lieu of income requirement.

As an example, if the total amount of acres devoted to Christmas tree production is six acres, three of which are undergoing harvest and three of which have yet to reach maturity, the gross income requirement would be $6,000.

MLRA 136 – Piedmont, MLRA 137 – Sandhills, MLRA 133A – Upper Coastal Plain, MLRA 153A – Lower Coastal Plain, and MLRA 153B – Tidewater.

The in-lieu of income requirement is for acreage in production but not yet undergoing harvest, and will be determined by sound management practices, best evidenced by the following:

1. Sites prepared by controlling problem weeds and saplings, taking soil samples, and applying fertilizer and/or lime as appropriate.

2. Generally, a 7' x 7' spacing producing approximately 900 potential trees per acre. Spacing must allow for adequate air movement around the trees. (There may be variations in the spacing dependent on the species being grown, most likely Virginia Pine, White Pine, Eastern Red Cedar, and Leyland Cypress. All reasonable spacing practices should be acceptable.)

3. A program for insect and weed control.

4. Generally a five-to-six year setting to harvest cycle. (Due to the species being grown, soil conditions and growing practices, most operations are capable of producing trees for market in the five-to-six year range. However, the combined effect of adverse weather and disease outbreak may force greater replanting of damaged trees thereby lengthening the current cycle beyond that considered typical.)

The gross income requirement for acres undergoing Christmas tree harvest in the non-mountain regions of North Carolina (MLRAs 136, 137, 133A, 153A, and 153B) is $1,500 per acre. Once Christmas trees are harvested from specific acreage, the requirement for those harvested acres will revert to the in-lieu of income requirement.

As an example, if the total amount of acres devoted to Christmas tree production is six acres, three of which are undergoing harvest and three of which have yet to reach maturity, the gross income requirement would be $4,500.

Procedure for Forestry Schedules

The charge to the Forestry Group is to develop five net income per-acre ranges for each MLRA based on the ability of the soils to produce timber income. The task is confounded by variable species and stand type; management level, costs and opportunities; markets and stumpage prices; topographies; and landowner objectives across North Carolina.

In an attempt to develop realistic net income per acre in each MLRA, the Forestry Group considered the following items by area:

1. soil productivity and indicator tree species (or stand type);
2. average stand establishment and annual management costs;
3. average rotation length and timber yield; and
4. average timber stumpage prices.

Having selected the appropriate combinations above, the harvest value (gross income) from a managed rotation on a given soil productivity level can be calculated, netted of costs and amortized to arrive at the net income per acre per year soil expectation value. The ensuing discussion introduces users of this manual to the procedure, literature and software citations and decisions leading to the five forest land classes for each MLRA. Column numbers beside sub-headings refer to columns in the Forestry Net Present Values Table.

<u>Soil Productivity/Indicator Species Selection (Col. 1).</u> Soil productivity in forestry is measured by site index (SI). Site index is the height to which trees of a given species will grow on a given soil/site over a designed period of time (usually 50 or 25 years, depending on species, site or age

of site table). The Forestry Group identified key indicator species (or stand types) for each MLRA and then assigned site index ranges for the indicator species that captured the management opportunities for that region. The site index ranges became the productivity class basis for further calculations of timber yield and generally can be correlated to Natural Resource Conservation Service (NRCS) cubic foot per acre productivity classes for most stand types. By MLRA, the following site index ranges and species/stand types cover the overwhelming majority of soils/sites and management opportunities.

MLRA 153A, 153B, 137, 136, 133A:

Species/Stand Type	SI Range (50 yr. basis)
Loblolly pine	86-104
Loblolly pine	66-85
Loblolly pine	60-65
Mixed hardwoods	Mixed species and site indices on coves, river bottoms, bottomlands
Pond and/or longleaf pine	50-55
Upland hardwoods (MLRA 136)	40-68 (Upland oak)

MLRA 130:

Species/Stand Type	SI Range (50 yr. basis)
White pine	70-89
White pine	55-69
Shortleaf/mixed hardwoods	Mixed species/sites (SI 42-58 shortleaf)
Bottomland/cove hardwoods	Mixed species/site indices on coves and bottoms
Upland oak ridges	40-68

The site index ranges above, in most cases, can be correlated to individual soil series (and series' phases) according to NRCS cubic foot per acre productivity classes. An exception will be the cove, bottomland, riverbottom, and other hardwood sites where topographic position must also be considered. The Soils Group is responsible for assigning soil series to the appropriate class for agriculture, horticulture and forestry.

Stand Establishment and Annual Management Costs (Columns 2 and 3). Stand establishment costs include site preparation and tree planting costs. Costs vary from $0 to over $200 per acre depending on soils, species, and management objectives. No cost would be incurred for natural regeneration (as practiced for hardwoods) with costs increasing as pine plantations are intensively managed on highly productive sites. The second column in the Forestry Net Present Values Table contains average establishment costs for the past ten years as reported by the N.C. Forest Service for site classes in each MLRA.

Annual management may include costs of pine release, timber stand improvement activities, prescribed burning, boundary line maintenance, consultant fees and other contractual services. Cost may vary from $0 on typical floodplain or bottomland stands to as high as $6 per acre per year on intensively managed pine plantations. Annual management costs in Forestry Net Present Values Table are the best estimates under average stand management regimes by site class.

Rotation Length and Timber Yields (Columns 4, 5, 6). Sawtimber rotations are recommended on all sites in North Carolina. This decision is based on the market situation throughout the state, particularly the scarce markets for low quality and small-diameter pine and hardwood, which normally would be used for pulpwood. Timber thinnings are not available to most woodlot managers and, therefore, rotations are assumed to proceed unthinned until the optimum economic product mix is achieved.

Timber yields are based on the most current yield models developed at the N.C. State University School of Forest Resources for loblolly pine. (Hafley, Smith, and Buford, 1982) and natural hardwood stands (Gardner et al. 1982). White pine yields, mountain mixed stand yields, and upland oak yields are derived from U.S. Forest Service yield models developed by Vimmerstedt (1962) and McClure and Knight. Longleaf and pond pine yields are from Schumacher and Coile (1960).

Timber Stumpage Prices (Columns 7 and 8). Cost of forestry operations are derived from the past five year regional data (provided by the NC DFR). For timber, stumpage prices (prices paid for standing timber to landowners) are derived over the same 5-year period from regional Forest2Market reports, a timber price reporting system.

Harvest Values (Column 9). Multiplication of timber yields (columns 5 and 6) times the respective timber stumpage prices (columns 7 and 8) gives the gross harvest value of one rotation.

Annualized Net Present Value (NPV) (Column 10). Harvest values (column 9) are discounted to present value at a 4 percent discount rate, which is consistent with rates used and documented by the U.S. Forest Service, forestry industry and forestry economists. This rate approximates the long-term measures of the opportunity cost of capital in the private sector of the U. S. economy (Row et al. 1981; Gunter and Haney, 1984). The respective establishment costs and the present value of annual management costs are subtracted from the present value of the income to obtain the net present value of the timber stand. This is then amortized over the life of the rotation to arrive at the annualized net present value (or annual net income) figure.

Forestry Net Present Values

Indicator Species or Stand Types, Lengths of Rotation, Costs, Yields, Price and Annualized Net Present Value per Acre of Land by Site Index Ranges in Each Major Land Resource Are, North Carolina

(1) Species/Stand Type	(2) Est. Cost	(3) Mgmt. Cost	(4) Rot. Lgth.	(5) Yield	(6) Yield	(7) Price /mbf	(8) Price /cd	(9) Harvest Value	(10) Annualized NPV
UP LCP	($)	($)	(yrs)	(MBF)	(cds)	($)	($)	($)	($)
MLRAs 153A and 133A									
LOWER & UPPER CP									
Mixed hardwoods	$0.00	$0.00	50	11.5	44	$225.00	$14.52	$3,226.38	$21.13
Loblolly pine (86-104)	$364.00	$3.00	30	12	14.4	$207.00	$30.20	$2,918.88	$27.99
Loblolly pine (66-85)	$255.00	$2.00	30	7	16.8	$207.00	$30.20	$1,956.36	$18.14
Loblolly pine (60-65)	$127.00	$1.00	40	4.8	12.7	$207.00	$30.20	$1,377.14	$7.08
Pond pine (50-55)	$50.00	$0.50	50	2.7	20	$207.00	$30.20	$1,162.90	$4.79
Longleaf pine	$50.00	$0.50	50	3.2	8	$207.00	$30.20	$904.00	$3.94
MLRA 153B									
TIDEWATER									
Mixed hardwoods	$0.00	$0.00	50	8.43	44	$235.39	$14.52	$2,623.24	$17.18
Loblolly pine (86-104)	$458.00	$3.00	30	12	14.4	$207.00	$30.20	$2,918.88	$22.56
Loblolly pine (66-85)	$255.00	$2.00	30	7	16.8	$207.00	$30.20	$1,956.36	$18.14
Loblolly pine (60-65)	$127.00	$1.00	40	4.8	12.7	$207.00	$30.20	$1,377.14	$7.08
Pond pine	$50.00	$0.50	50	2.7	20	$207.00	$30.20	$1,162.90	$4.79
MLRA 137									
SANDHILLS									
Mixed hardwoods	$0.00	$0.00	50	11.9	46	$235.39	$14.50	$3,468.14	$22.72
Loblolly pine (86-104)	$265.20	$3.00	30	12	15.6	$207.00	$30.20	$2,955.12	$34.35
Loblolly pine (66-85)	$141.00	$2.00	30	6.4	16.9	$207.00	$30.20	$1,835.18	$22.57
Loblolly pine (60-65)	$53.00	$1.00	50	7.2	7	$207.00	$30.20	$1,701.80	$7.68
Longleaf pine (50-55)	$53.00	$0.50	50	3.2	8	$207.00	$30.20	$904.00	$2.95

Forestry Net Present Values

Indicator Species or Stand Types, Lengths of Rotation, Costs, Yields, Price and Annualized Net Present Value per Acre of Land by Site Index Ranges in Each Major Land Resource Are, North Carolina

(1) Species/Stand Type	(2) Est. Cost	(3) Mgmt. Cost	(4) Rot. Lgth.	(5) Yield	(6) Yield	(7) Price /mbf	(8) Price /cd	(9) Harvest Value	(10) Annualized NPV
UP LCP	($)	($)	(yrs)	(MBF)	(cds)	($)	($)	($)	($)
MLRA 136									
PIEDMONT									
Mixed hardwoods	$0.00	$0.00	50	11.9	46	$235.39	$16.40	$3,555.54	$23.29
Loblolly pine (86-104)	$265.20	$3.00	30	11.5	15.6	$207.00	$30.20	$2,851.62	$32.51
Loblolly pine (66-85)	$141.00	$2.00	30	6.4	16.9	$207.00	$30.20	$1,835.18	$22.57
Loblolly pine (60-65)	$55.00	$0.50	40	4.1	15	$207.00	$30.20	$1,301.70	$10.42
Upland hardwoods	$0.00	$0.00	50	6.05	32	$207.00	$30.20	$2,218.75	$14.53
MLRA 130									
WESTERN									
Mixed hardwoods	$0.00	$0.00	50	10.95	0	$263.00	$18.50	$2,879.85	$18.86
White pine (70-89)	$270.00	$2.00	30	17.8	0	$150.00	$18.50	$2,670.00	$29.99
White pine (55-69)	$175.40	$1.00	35	8.5	0	$150.00	$18.50	$1,275.00	$6.91
Shortleaf/mixed hwd.	$0.00	$0.00	60	6	0	$188.00	$18.50	$1,128.00	$4.74
Upland oak ridge (40-68)	$0.00	$0.00	70	5.32	0	$223.00	$18.50	$1,186.36	$3.26

Map Unit Name	Agri	For	Hort
Alluvial land, wet	IV	II	IV
Arents, loamy	IV	II	IV
Arkaqua loam, 0 to 2 percent slopes, frequently flooded	IV	II	IV
Arkaqua loam, 0 to 2 percent slopes, occasionally flooded	II	III	II
Arkaqua loam, 0 to 2 percent slopes, rarely flooded	II	III	II
Ashe and Edneyville soils, 6 to 15 percent slopes	IV	I	III
Ashe and Edneyville soils, 15 to 25 percent slopes	IV	I	III
Ashe and Edneyville soils, 25 to 45 percent slopes	IV	I	IV
Ashe fine sandy loam, 6 to 15 percent slopes	IV	III	III
Ashe fine sandy loam, 10 to 25 percent slopes	IV	III	III
Ashe fine sandy loam, 15 to 25 percent slopes	IV	III	III
Ashe fine sandy loam, 25 to 45 percent slopes	IV	III	IV
Ashe gravelly fine sandy loam, 25 to 65 percent slopes	IV	III	IV
Ashe stony fine sandy loam, ALL	IV	III	IV
Ashe stony sandy loam, ALL	IV	III	IV
Ashe-Chestnut-Buladean complex, very stony, ALL	IV	III	IV
Ashe-Cleveland complex, stony, ALL	IV	IV	IV
Ashe-Cleveland-Rock outcrop complex, ALL	IV	IV	IV
Ashe-Rock outcrop complex, 15 to 70 percent slopes	IV	VI	IV
Augusta fine sandy loam, cool variant, 1 to 4 percent slopes (Delanco)	II	I	II
Balsam, ALL	IV	VI	IV
Balsam-Rubble land complex, windswept, ALL	IV	VI	IV
Balsam-Tanasee complex, extremely bouldery, ALL	IV	VI	IV
Bandana sandy loam, 0 to 3 percent slopes, occasionally flooded	II	II	II
Bandana-Ostin complex, 0 to 3 percent slopes, occasionally flooded	III	II	III
Biltmore, ALL	IV	II	IV
Braddock and Hayesville clay loams, eroded, ALL	III	I	III
Braddock clay loam, 2 to 6 percent slopes, eroded	II	I	III
Braddock clay loam, 2 to 8 percent slopes, eroded	II	I	III
Braddock clay loam, 6 to 15 percent slopes, eroded	II	I	III
Braddock clay loam, 8 to 15 percent slopes, eroded	II	I	III
Braddock clay loam, eroded, ALL OTHER	IV	I	III
Braddock clay loam, 15 to 30 percent slopes, eroded, stony	IV	I	IV
Braddock fine sandy loam, 15 to 30 percent slopes	III	I	III
Braddock gravelly loam, 2 to 8 percent slopes	I	I	I
Braddock gravelly loam, 8 to 15 percent slopes	II	I	I
Braddock loam, 2 to 8 percent slopes	I	I	I
Braddock loam, 8 to 15 percent slopes	II	I	I
Braddock-Urban land complex, ALL	IV	I	IV
Bradson gravelly loam, ALL	II	I	I
Brandywine stony soils, ALL	IV	IV	IV
Brasstown-Junaluska complex, 8 to 15 percent slopes	III	IV	III
Brasstown-Junaluska complex, 15 to 30 percent slopes	IV	IV	III
Brasstown-Junaluska complex, ALL OTHER	IV	IV	IV
Brevard fine sandy loam, 1 to 6 percent slopes, rarely flooded	I	I	I
Brevard loam, 2 to 6 percent slopes	I	I	I
Brevard loam, 6 to 10 percent slopes	II	I	I
Brevard loam, 7 to 15 percent slopes	II	I	I
Brevard loam, 10 to 25 percent slopes	IV	I	I
Brevard loam, 15 to 25 percent slopes	IV	I	I
Brevard loam, 25 to 45 percent slopes	IV	I	II
Brevard sandy loam, 8 to 15 percent slopes	II	I	I

Map Unit Name	Agri	For	Hort
Brevard-Greenlee complex, extremely bouldery, ALL	IV	I	IV
Buladean-Chestnut complex, 15 to 30 percent slopes, stony	IV	I	III
Buladean-Chestnut complex, stony, ALL OTHER	IV	I	IV
Burton stony loam, ALL	IV	V	IV
Burton-Craggey complex, windswept, ALL	IV	VI	IV
Burton-Craggey-Rock outcrop complex, windswept, ALL	IV	VI	IV
Burton-Wayah complex, windswept, ALL	IV	VI	IV
Cashiers fine sandy loam, 2 to 8 percent slopes	II	I	I
Cashiers fine sandy loam, 8 to 15 percent slopes	II	I	II
Cashiers fine sandy loam, 15 to 30 percent slopes, stony	IV	I	II
Cashiers fine sandy loam, 30 to 50 percent slopes, stony	IV	I	III
Cashiers fine sandy loam, 50 to 95 percent slopes, stony	IV	I	IV
Cashiers gravelly fine sandy loam, 8 to 15 percent slopes	II	I	II
Cashiers gravelly fine sandy loam, 15 to 30 percent slopes	IV	I	II
Cashiers gravelly fine sandy loam, 30 to 50 percent slopes	IV	I	III
Cashiers gravelly fine sandy loam, 50 to 95 percent slopes	IV	I	IV
Cashiers sandy loam, 8 to 15 percent slopes, stony	II	I	II
Cashiers sandy loam, 15 to 30 percent slopes, stony	IV	I	II
Cashiers sandy loam, 30 to 50 percent slopes, stony	IV	I	III
Cashiers sandy loam, 50 to 95 percent slopes, stony	IV	I	IV
Cataska-Rock outcrop complex, 30 to 95 percent slopes	IV	VI	IV
Cataska-Sylco complex, 50 to 95 percent slopes	IV	VI	IV
Chandler and Fannin soils, 25 to 45 percent slopes	IV	I	IV
Chandler gravelly fine sandy loam, 8 to 15 percent slopes	IV	III	II
Chandler gravelly fine sandy loam, 15 to 30 percent slopes	IV	III	II
Chandler gravelly fine sandy loam, 30 to 50 percent slopes	IV	III	III
Chandler gravelly fine sandy loam, ALL OTHER	IV	III	IV
Chandler gravelly fine sandy loam, windswept, ALL	IV	VI	IV
Chandler loam, 2 to 8 percent slopes	III	III	II
Chandler loam, 8 to 15 percent slopes	IV	III	II
Chandler loam, 15 to 25 percent slopes	IV	III	III
Chandler loam, 25 to 65 percent slopes	IV	III	IV
Chandler silt loam, 10 to 25 percent slopes	IV	III	II
Chandler silt loam, 25 to 45 percent slopes	IV	III	III
Chandler stony loam, 45 to 70 percent slopes	IV	III	IV
Chandler stony silt loam, ALL	IV	III	IV
Chandler-Micaville complex, 8 to 15 percent slopes	IV	III	II
Chandler-Micaville complex, 15 to 30 percent slopes, stony	IV	III	II
Chandler-Micaville complex, 30 to 50 percent slopes, stony	IV	III	III
Chandler-Micaville complex, 50 to 95 percent slopes, stony	IV	III	IV
Cheoah channery loam, ALL	IV	I	IV
Cheoah channery loam, stony, ALL	IV	I	IV
Cheoah channery loam, windswept, stony	IV	VI	IV
Chester clay loam, 15 to 45 percent slopes, eroded (Evard)	IV	I	III
Chester fine sandy loam, 6 to 15 percent slopes (Evard)	II	I	I
Chester fine sandy loam, 15 to 25 percent slopes (Evard)	II	I	III
Chester fine sandy loam, 25 to 45 percent slopes (Evard)	IV	I	III
Chester loam, 2 to 6 percent slopes	II	I	I
Chester loam, 6 to 10 percent slopes	III	I	I
Chester loam, 10 to 25 percent slopes	IV	I	II
Chester loam, 25 to 45 percent slopes	IV	I	III
Chester stony loam, 10 to 15 percent slopes (Evard)	III	I	III

Map Unit Name	Agri	For	Hort
Chester stony loam, (Evard), ALL OTHER	IV	I	IV
Chestnut and Edneyville soils, 15 to 25 percent slopes	IV	I	II
Chestnut and Edneyville soils, 25 to 50 percent slopes	IV	I	III
Chestnut gravelly loam, 50 to 80 percent slopes	IV	III	IV
Chestnut-Ashe complex, ALL	IV	III	IV
Chestnut-Buladean complex, 8 to 15 percent slopes, rocky	III	III	III
Chestnut-Buladean complex, stony, ALL	IV	III	IV
Chestnut-Cleveland-Rock outcrop complex, windswept, ALL	IV	VI	IV
Chestnut-Edneyville complex, 8 to 25 percent slopes, stony	IV	III	III
Chestnut-Edneyville complex, 25 to 60 percent slopes, stony	IV	III	IV
Chestnut-Edneyville complex, windswept, stony, ALL	IV	VI	IV
Chestoa-Ditney-Rock outcrop complex, 30 to 95 percent slopes, very bouldery	IV	VI	IV
Cleveland-Chestnut-Rock outcrop complex, windswept, ALL	IV	VI	IV
Cleveland-Rock outcrop complex, 8 to 90 percent slopes	IV	VI	IV
Cliffield-Cowee complex, 15 to 30 percent slopes, very stony	IV	V	IV
Cliffield-Fairview complex, 15 to 25 percent slopes	IV	V	IV
Cliffield-Pigeonroost complex, very stony, ALL	IV	V	IV
Cliffield-Rhodhiss complex, 25 to 60 percent slopes, very stony	IV	V	IV
Cliffield-Rock outcrop complex, 50 to 95 percent slopes	IV	VI	IV
Cliffield-Woolwine complex, 8 to 15 percent slopes	IV	V	IV
Clifton (Evard) stony loam, ALL	IV	I	IV
Clifton clay loam, 8 to 15 percent slopes, eroded	III	I	III
Clifton clay loam, 15 to 30 percent slopes, eroded	IV	I	III
Clifton clay loam, 30 to 50 percent slopes, eroded	IV	I	IIII
Clifton loam, 2 to 8 percent slopes	II	I	I
Clifton loam, 6 to 10 percent slopes	II	I	I
Clifton loam, 8 to 15 percent slopes	II	I	II
Clifton loam, 10 to 25 percent slopes	IV	I	II
Clifton loam, 15 to 25 percent slopes	IV	I	II
Clifton loam, 25 to 45 percent slopes	IV	I	III
Clifton stony loam, 15 to 45 percent slopes	IV	I	IV
Clingman-Craggey-Rock outcrop complex, windswept, 15 to 95 percent slopes, extremely bouldery	IV	VI	IV
Codorus, ALL	II	II	III
Colvard, ALL	I	II	III
Comus, ALL	I	II	III
Cowee gravelly loam, stony, ALL	IV	V	IV
Cowee-Evard-Urban land complex, 15 to 30 percent slopes	IV	III	IV
Cowee-Saluda complex, stony, ALL	IV	V	IV
Craggey-Rock outcrop complex, 40 to 90 percent slopes	IV	VI	IV
Craggey-Rock outcrop-Clingman complex, windswept, rubbly, ALL	IV	VI	IV
Crossnore-Jeffrey complex, very stony, ALL	IV	I	IV
Cullasaja cobbly fine sandy loam, 8 to 30 percent slopes, very bouldery	IV	II	IV
Cullasaja cobbly loam, extremely bouldery, ALL	IV	II	IV
Cullasaja very cobbly fine sandy loam, extremely bouldery, ALL	IV	II	IV
Cullasaja very cobbly loam, extremely bouldery, ALL	IV	II	IV
Cullasaja very cobbly sandy loam, extremely bouldery, ALL	IV	II	IV
Cullasaja-Tuckasegee complex, 8 to 15 percent slopes, stony	IV	II	II
Cullasaja-Tuckasegee complex, 15 to 30 percent slopes, stony	IV	II	II
Cullasaja-Tuckasegee complex, 30 to 50 percent slopes, stony	IV	II	III
Cullasaja-Tuckasegee complex, 50 to 90 percent slopes, stony	IV	II	IV
Cullasaja-Tuckasegee complex, 50 to 95 percent slopes, stony	IV	II	IV

Map Unit Name	Agri	For	Hort
Cullasaja-Tusquitee complex, 10 to 45 percent slopes	IV	II	III
Cullowhee fine sandy loam, 0 to 2 percent slopes, occasionally flooded	II	II	II
Cullowhee, frequently flooded, ALL	IV	II	IV
Cullowhee-Nikwasi complex, 0 to 2 percent slopes, frequently flooded	IV	II	IV
Delanco (Dillard) loam, ALL	I	I	I
Delanco fine sandy loam, 2 to 6 percent slopes	II	I	I
Dellwood gravelly fine sandy loam, 0 to 5 percent slopes, frequently flooded	IV	II	IV
Dellwood, occasionally flooded, ALL	III	II	III
Dellwood-Reddies complex, 0 to 3 percent slopes, occasionally flooded	III	II	III
Dellwood-Urban land complex, 0 to 3 percent slopes, occasionally flooded	IV	II	IV
Dillard, ALL	I	I	I
Dillsboro clay loam, 2 to 8 percent slopes	I	I	I
Dillsboro clay loam, 8 to 15 percent slopes, rarely flooded	II	I	II
Dillsboro clay loam, 8 to 15 percent slopes, stony	III	I	II
Dillsboro clay loam, 15 to 30 percent slopes, stony	IV	I	II
Dillsboro loam, 2 to 8 percent slopes	I	I	I
Dillsboro loam, 8 to 15 percent slopes	II	I	II
Dillsboro-Urban land complex, 2 to 15 percent slopes	IV	I	IV
Ditney-Unicoi complex, very stony, ALL	IV	VI	IV
Ditney-Unicoi complex, 50 to 95 percent slopes, very rocky	IV	VI	IV
Ditney-Unicoi-Rock outcrop complex, ALL	IV	VI	IV
Edneytown gravelly sandy loam, 8 to 25 percent slopes	IV	I	III
Edneytown-Chestnut complex, 30 to 50 percent slopes, stony	IV	I	III
Edneytown-Chestnut complex, 50 to 80 percent slopes, stony	IV	I	IV
Edneytown-Pigeonroost complex, 8 to 15 percent slopes, stony	III	I	III
Edneytown-Pigeonroost complex, 15 to 30 percent slopes, stony	IV	I	III
Edneytown-Pigeonroost complex, 30 to 50 percent slopes, stony	IV	I	IV
Edneyville (Edneytown) fine sandy loam, 7 to 15 percent slopes	III	I	III
Edneyville (Edneytown) fine sandy loam, 15 to 25 percent slopes	IV	I	IV
Edneyville (Edneytown) fine sandy loam, 25 to 45 percent slopes	IV	I	IV
Edneyville loam, 15 to 25 percent slopes	IV	I	II
Edneyville loam, 25 to 45 percent slopes	IV	I	III
Edneyville stony loam, 45 to 70 percent slopes	IV	I	IV
Edneyville-Chestnut complex, 2 to 8 percent slopes, stony	III	I	III
Edneyville-Chestnut complex, 8 to 15 percent slopes, stony	IV	I	III
Edneyville-Chestnut complex, 10 to 25 percent slopes, stony	IV	I	III
Edneyville-Chestnut complex, 15 to 30 percent slopes, stony	IV	I	III
Edneyville-Chestnut complex, ALL OTHER	IV	I	IV
Edneyville-Chestnut-Urban land complex, ALL	IV	I	IV
Ellijay silty clay loam, 2 to 8 percent slopes, eroded	III	I	I
Ellijay silty clay loam, 8 to 15 percent slopes, eroded	IV	I	I
Ellijay silty clay loam, eroded, ALL OTHER	IV	I	II
Elsinboro loam, ALL	I	I	I
Eutrochrepts, mined, 30 to 50 percent slopes, very stony	IV	VI	IV
Evard and Saluda fine sandy loams, 25 to 60 percent slopes	IV	I	IV
Evard fine sandy loam, 7 to 15 percent slopes	III	I	II
Evard fine sandy loam, 15 to 25 percent slopes	IV	I	II
Evard fine sandy loam, 25 to 50 percent slopes	IV	I	III
Evard gravelly sandy loam, 6 to 15 percent slopes	III	I	II
Evard gravelly sandy loam, 15 to 25 percent slopes	IV	I	III
Evard loam, ALL	IV	I	IV
Evard soils, 15 to 25 percent slopes	IV	I	III

Map Unit Name	Agri	For	Hort
Evard soils, ALL OTHER	IV	I	IV
Evard stony loam, 25 to 60 percent slopes	IV	I	IV
Evard-Cowee complex, 2 to 8 percent slopes	III	I	II
Evard-Cowee complex, 8 to 15 percent slopes	III	I	II
Evard-Cowee complex, 8 to 15 percent slopes, eroded	III	I	II
Evard-Cowee complex, 8 to 25 percent slopes, stony	IV	I	III
Evard-Cowee complex, ALL OTHER	IV	I	IV
Evard-Cowee-Urban land complex, ALL	IV	I	IV
Fannin fine sandy loam, 8 to 15 percent slopes	III	I	I
Fannin fine sandy loam, 15 to 30 percent slopes	IV	I	II
Fannin fine sandy loam, 15 to 30 percent slopes, stony	IV	I	II
Fannin fine sandy loam, 30 to 50 percent slopes	IV	I	II
Fannin fine sandy loam, 30 to 50 percent slopes, stony	IV	I	III
Fannin fine sandy loam, 50 to 95 percent slopes	IV	I	III
Fannin loam, 8 to 15 percent slopes	III	I	II
Fannin loam, 15 to 25 percent slopes	IV	I	III
Fannin loam, 25 to 45 percent slopes	IV	I	III
Fannin loam, 30 to 50 percent slopes, eroded	IV	I	III
Fannin loam, 45 to 70 percent slopes	IV	I	IV
Fannin sandy clay loam, 8 to 15 percent slopes, eroded	III	I	II
Fannin sandy clay loam, eroded, ALL OTHER	IV	I	III
Fannin silt loam, 6 to 10 percent slopes, eroded	III	I	II
Fannin silt loam, 7 to 15 percent slopes	III	I	II
Fannin silt loam, 10 to 25 percent slopes, eroded	IV	I	III
Fannin silt loam, 15 to 25 percent slopes	IV	I	III
Fannin silt loam, 25 to 45 percent slopes	IV	I	III
Fannin silty clay loam, 15 to 45 percent slopes, eroded	IV	I	IV
Fannin-Chestnut complex, 50 to 85 percent slopes, rocky	IV	I	IV
Fannin-Cowee complex, 15 to 30 percent slopes, stony	IV	I	III
Fannin-Cowee complex, stony, ALL OTHER	IV	I	IV
Fannin-Urban land complex, 2 to 15 percent slopes	IV	I	IV
Fletcher and Fannin soils, 6 to 15 percent slopes	III	I	II
Fletcher and Fannin soils, 15 to 25 percent slopes	IV	I	II
Fluvaquents-Udifluvents complex, occasionally flooded, ALL	III	II	IV
Fontaflora-Ostin complex	IV	II	IV
French fine sandy loam, 0 to 3 percent slopes, frequently flooded	IV	II	IV
Greenlee ALL	IV	I	IV
Greenlee-Ostin complex, 3 to 40 percent slopes, very stony	IV	I	IV
Greenlee-Tate complex, ALL	IV	I	IV
Greenlee-Tate-Ostin complex, 1 to 15 percent slopes, extremely stony	IV	I	IV
Gullied land	IV	VI	IV
Harmiller-Shinbone complex, 15 to 30 percent slopes, stony	IV	III	III
Harmiller-Shinbone complex, 30 to 50 percent slopes, stony	IV	III	III
Hatboro loam	IV	II	IV
Hayesville channery fine sandy loam, 8 to 15 percent slopes, very stony	IV	I	II
Hayesville channery fine sandy loam, 15 to 25 percent slopes, very stony	IV	I	III
Hayesville channery fine sandy loam, 25 to 60 percent slopes, very stony	IV	I	IV
Hayesville clay loam, 2 to 8 percent slopes, eroded	III	I	II
Hayesville clay loam, 6 to 15 percent slopes, eroded	IV	I	II
Hayesville clay loam, 8 to 15 percent slopes, eroded	IV	I	II
Hayesville clay loam, 10 to 25 percent slopes, severely eroded	IV	I	III
Hayesville clay loam, 15 to 30 percent slopes, eroded	IV	I	III

Map Unit Name	Agri	For	Hort
Hayesville fine sandy loam, 6 to 15 percent slopes	III	I	I
Hayesville fine sandy loam, 8 to 15 percent slopes	III	I	I
Hayesville fine sandy loam, 15 to 25 percent slopes	III	I	II
Hayesville fine sandy loam, 15 to 30 percent slopes	III	I	II
Hayesville fine sandy loam, 25 to 50 percent slopes	IV	I	III
Hayesville loam, 2 to 7 percent slopes	II	I	I
Hayesville loam, 2 to 8 percent slopes	II	I	I
Hayesville loam, 6 to 10 percent slopes	II	I	I
Hayesville loam, 6 to 15 percent slopes	III	I	I
Hayesville loam, 7 to 15 percent slopes	III	I	I
Hayesville loam, 8 to 15 percent slopes	III	I	I
Hayesville loam, 10 to 25 percent slopes	III	I	II
Hayesville loam, 15 to 25 percent slopes	III	I	II
Hayesville loam, 15 to 30 percent slopes	III	I	II
Hayesville sandy clay loam, 15 to 30 percent slopes, eroded	IV	I	III
Hayesville sandy clay loam, eroded, ALL OTHER	III	I	II
Hayesville-Evard complex, 15 to 25 percent slopes	III	I	II
Hayesville-Evard-Urban land complex, 15 to 25 percent slopes	IV	I	IV
Hayesville-Sauratown complex, 2 to 8 percent slopes	II	I	II
Hayesville-Sauratown complex, 8 to 15 percent slopes	III	I	II
Hayesville-Sauratown complex, 15 to 25 percent slopes	III	I	III
Hayesville-Sauratown complex, 25 to 60 percent slopes	IV	I	III
Hayesville-Urban land complex, ALL	IV	I	IV
Haywood stony loam, 15 to 25 percent slopes	IV	I	III
Haywood stony loam, 25 to 50 percent slopes	IV	I	IV
Hemphill, rarely flooded, ALL	IV	II	IV
Humaquepts, loamy, 2 to 8 percent slopes, stony	IV	II	IV
Huntdale clay loam, 8 to 15 percent slopes, stony	III	I	II
Huntdale clay loam, 15 to 30 percent slopes, stony	IV	I	II
Huntdale clay loam, 30 to 50 percent slopes, stony	IV	I	III
Huntdale silty clay loam, 15 to 30 percent slopes, stony	IV	I	II
Huntdale silty clay loam, 30 to 50 percent slopes, very stony	IV	I	III
Huntdale silty clay loam, 50 to 95 percent slopes, very stony	IV	I	IV
Iotla sandy loam, 0 to 2 percent slopes, occasionally flooded	II	II	III
Junaluska-Brasstown complex, 6 to 25 percent slopes	IV	IV	II
Junaluska-Brasstown complex, 15 to 30 percent slopes	IV	IV	III
Junaluska-Brasstown complex, 25 to 60 percent slopes	IV	IV	III
Junaluska-Brasstown complex, 30 to 50 percent slopes	IV	IV	IV
Junaluska-Tsali complex, ALL	IV	IV	IV
Keener-Lostcove complex, 15 to 30 percent slopes, very stony	IV	I	III
Keener-Lostcove complex, 30 to 50 percent slopes, very stony	IV	I	IV
Kinkora loam	IV	I	III
Lonon loam, 2 to 8 percent slopes	I	I	I
Lonon loam, 8 to 15 percent slopes	II	I	I
Lonon loam, 15 to 30 percent slopes	IV	I	II
Lonon-Northcove complex, 6 to 15 percent slopes	IV	I	III
Maymead fine sandy loam, ALL	IV	I	II
Maymead-Greenlee-Potomac complex, 3 to 25 percent slopes	IV	I	IV
Nikwasi, ALL	IV	II	IV
Northcove very cobbly loam, ALL	IV	I	IV
Northcove-Maymead complex, extremely stony, ALL	IV	I	IV
Oconaluftee channery loam, ALL	IV	VI	IV

Map Unit Name	Agri	For	Hort
Oconaluftee channery loam, windswept, ALL	IV	VI	IV
Ostin, occasionally flooded, ALL	IV	II	IV
Pigeonroost-Edneytown complex, stony, ALL	IV	I	III
Pineola gravelly loam, 2 to 8 percent slopes	IV	I	II
Pineola gravelly loam, 8 to 15 percent slopes, stony	IV	I	II
Pineola gravelly loam, 15 to 30 percent slopes, stony	IV	I	III
Pits, ALL	IV	VI	IV
Plott fine sandy loam, 8 to 15 percent slopes, stony	III	I	II
Plott fine sandy loam, 15 to 30 percent slopes, stony	IV	I	II
Plott fine sandy loam, 30 to 50 percent slopes, stony	IV	I	III
Plott fine sandy loam, 50 to 95 percent slopes, stony	IV	I	IV
Plott loam, 15 to 30 percent slopes, stony	IV	I	II
Plott loam, 30 to 50 percent slopes, stony	IV	I	III
Plott loam, 50 to 95 percent slopes, stony	IV	I	IV
Ponzer muck, cool variant	IV	VI	IV
Porters gravelly loam, 8 to 15 percent slopes, stony	III	I	II
Porters gravelly loam, 15 to 30 percent slopes, stony	IV	I	II
Porters gravelly loam, 30 to 50 percent slopes, stony	IV	I	III
Porters gravelly loam, 50 to 80 percent slopes, stony	IV	I	IV
Porters loam, 25 to 45 percent slopes	IV	I	III
Porters loam, 25 to 80 percent slopes, stony	IV	I	IV
Porters loam, 30 to 50 percent slopes, stony	IV	I	IV
Porters loam, ALL OTHER	IV	I	II
Porters stony loam, 10 to 25 percent slopes	IV	I	II
Porters stony loam, 15 to 25 percent slopes	IV	I	II
Porters stony loam, 15 to 45 percent slopes	IV	I	II
Porters stony loam, 25 to 45 percent slopes	IV	I	III
Porters stony loam, ALL OTHER	IV	I	IV
Porters-Unaka complex, 8 to 15 percent slopes, stony	IV	I	II
Porters-Unaka complex, 15 to 30 percent slopes, stony	IV	I	II
Porters-Unaka complex, 30 to 50 percent slopes, stony	IV	I	III
Porters-Unaka complex, 50 to 95 percent slopes, rocky	IV	I	IV
Potomac, frequently flooded, ALL	IV	II	IV
Potomac-Iotla complex, 0 to 3 percent slopes, mounded, frequently flooded	IV	II	IV
Rabun loam, 6 to 25 percent slopes	IV	I	II
Rabun loam, 25 to 50 percent slopes	IV	I	III
Reddies, occasionally flooded	II	II	II
Reddies, frequently flooded, ALL	IV	II	IV
Rock outcrop	IV	VI	IV
Rock outcrop-Ashe complex, ALL	IV	VI	IV
Rock outcrop-Ashe-Cleveland complex, ALL	IV	VI	IV
Rock outcrop-Cataska complex, ALL	IV	VI	IV
Rock outcrop-Cleveland complex, ALL	IV	VI	IV
Rock outcrop-Cleveland complex, windswept, ALL	IV	VI	IV
Rock outcrop-Craggey complex, windswept, ALL	IV	VI	IV
Rosman, frequently flooded, ALL	IV	II	IV
Rosman, ALL OTHER	I	II	I
Rosman-Reddies complex, 0 to 3 percent slopes, occasionally flooded	I	II	I
Saunook gravelly loam, 2 to 8 percent slopes	I	I	I
Saunook gravelly loam, 8 to 15 percent slopes	I	I	I
Saunook gravelly loam, 8 to 15 percent slopes, stony	II	I	II
Saunook gravelly loam, 15 to 30 percent slopes	IV	I	II

Map Unit Name	Agri	For	Hort
Saunook gravelly loam, 15 to 30 percent slopes, stony	IV	I	II
Saunook gravelly loam, 30 to 50 percent slopes, stony	IV	I	III
Saunook loam, 2 to 8 percent slopes	I	I	I
Saunook loam, 8 to 15 percent slopes	I	I	I
Saunook loam, 8 to 15 percent slopes, stony	II	I	II
Saunook loam, 15 to 30 percent slopes, stony	IV	I	II
Saunook loam, 15 to 30 percent slopes, very stony	IV	I	III
Saunook loam, 30 to 50 percent slopes, very stony	IV	I	IV
Saunook sandy loam, 2 to 8 percent slopes	I	I	I
Saunook sandy loam, 8 to 15 percent slopes, stony	II	I	II
Saunook silt loam, 2 to 8 percent slopes	I	I	I
Saunook silt loam, 8 to 15 percent slopes, stony	II	I	II
Saunook-Nikwasi complex, 2 to 15 percent slopes	IV	I	III
Saunook-Thunder complex, ALL	IV	I	III
Saunook-Urban land complex, 2 to 15 percent slopes	IV	I	IV
Sauratown channery fine sandy loam, 8 to 15 percent slopes	IV	V	III
Sauratown channery fine sandy loam, 8 to 15 percent slopes, very stony	IV	V	III
Sauratown channery fine sandy loam, ALL OTHER	IV	V	IV
Soco-Cataska-Rock outcrop complex, 50 to 95 percent slopes	IV	VI	IV
Soco-Ditney complex, 6 to 25 percent slopes, stony	IV	III	III
Soco-Ditney complex, 8 to 15 percent slopes, very stony	IV	III	III
Soco-Ditney complex, 15 to 30 percent slopes, very stony	IV	III	III
Soco-Ditney complex, ALL OTHER	IV	III	IV
Soco-Stecoah complex, 8 to 15 percent slopes, stony	IV	III	II
Soco-Stecoah complex, 15 to 30 percent slopes	IV	III	III
Soco-Stecoah complex, 15 to 30 percent slopes, stony	IV	III	III
Soco-Stecoah complex, ALL OTHER	IV	III	IV
Soco-Stecoah complex, windswept, 30 to 50 percent slopes	IV	VI	IV
Spivey cobbly loam, extremely bouldery, ALL	IV	I	IV
Spivey stony loam, 10 to 40 percent slopes	IV	I	IV
Spivey-Santeetlah complex, 8 to 15 percent slopes, stony	IV	I	III
Spivey-Santeetlah complex, 15 to 30 percent slopes, stony	IV	I	III
Spivey-Santeetlah complex, stony, ALL OTHER	IV	I	IV
Spivey-Whiteoak complex, ALL	IV	I	IV
Statler, rarely flooded, ALL	I	I	I
Stecoah-Soco complex, 15 to 30 percent slopes, stony	IV	I	III
Stecoah-Soco complex, 30 to 50 percent slopes, stony	IV	I	III
Stecoah-Soco complex, 50 to 80 percent slopes, stony	IV	I	IV
Stony colluvial land	IV	II	IV
Stony land	IV	VI	IV
Stony steep land	IV	VI	IV
Suncook loamy sand, ALL	IV	II	II
Sylco-Cataska complex, ALL	IV	IV	IV
Sylco-Rock outcrop complex, 50 to 95 percent slopes	IV	IV	IV
Sylco-Soco complex, 10 to 30 percent slopes, stony	IV	IV	IV
Sylva-Whiteside complex, ALL	IV	I	II
Talladega, ALL	IV	IV	IV
Tanasee-Balsam complex, ALL	IV	VI	IV
Tate fine sandy loam, 2 to 6 percent slopes	I	I	I
Tate fine sandy loam, 2 to 7 percent slopes	I	I	I
Tate fine sandy loam, 2 to 8 percent slopes	I	I	I
Tate fine sandy loam, 2 to 8 percent slopes, very stony	IV	I	II

Map Unit Name	Agri	For	Hort
Tate fine sandy loam, 6 to 15 percent slopes	II	I	I
Tate fine sandy loam, 7 to 15 percent slopes	II	I	I
Tate fine sandy loam, 8 to 15 percent slopes	II	I	I
Tate fine sandy loam, 8 to 25 percent slopes	IV	I	II
Tate fine sandy loam, 15 to 25 percent slopes	IV	I	II
Tate gravelly loam, 8 to 15 percent slopes	II	I	I
Tate gravelly loam, 8 to 15 percent slopes, stony	II	I	II
Tate gravelly loam, 15 to 30 percent slopes, stony	IV	I	II
Tate loam, 2 to 6 percent slopes	I	I	I
Tate loam, 2 to 8 percent slopes	I	I	I
Tate loam, 6 to 10 percent slopes	II	I	I
Tate loam, 6 to 15 percent slopes	II	I	I
Tate loam, 8 to 15 percent slopes	II	I	I
Tate loam, 10 to 15 percent slopes	II	I	I
Tate loam, 15 to 25 percent slopes	IV	I	II
Tate loam, 15 to 30 percent slopes	IV	I	II
Tate-Cullowhee complex, 0 to 25 percent slopes	IV	I	II
Tate-French complex, 2 to 10 percent slopes	II	I	II
Tate-Greenlee complex, ALL	IV	I	IV
Thunder-Saunook complex, ALL	IV	II	IV
Toecane-Tusquitee complex, ALL	IV	II	III
Toxaway, ALL	IV	II	IV
Transylvania silt loam	I	II	II
Trimont gravelly loam, ALL	IV	I	IV
Tuckasegee-Cullasaja complex, 8 to 15 percent slopes, stony	IV	II	III
Tuckasegee-Cullasaja complex, 15 to 30 percent slopes, very stony	IV	II	IV
Tuckasegee-Cullasaja complex, 30 to 50 percent slopes, extremely stony	IV	II	IV
Tuckasegee-Whiteside complex, 2 to 8 percent slopes	I	II	I
Tuckasegee-Whiteside complex, 8 to 15 percent slopes	II	II	I
Tusquitee and Spivey stony soils, ALL	IV	I	IV
Tusquitee loam, 6 to 10 percent slopes	I	I	I
Tusquitee loam, 6 to 15 percent slopes	II	I	I
Tusquitee loam, 7 to 15 percent slopes	II	I	I
Tusquitee loam, 8 to 15 percent slopes	II	I	I
Tusquitee loam, 10 to 15 percent slopes	II	I	I
Tusquitee loam, 15 to 25 percent slopes	IV	I	II
Tusquitee stony loam, 25 to 45 percent slopes	IV	I	IV
Tusquitee stony loam, ALL OTHER	IV	I	III
Udifluvents, frequently flooded, ALL	IV	II	IV
Udorthents, loamy, ALL	IV	V	IV
Udorthents-Pits complex, mounded, 0 to 2 percent slopes, occasionally flooded	IV	V	IV
Udorthents-Urban land complex, ALL	IV	V	IV
Unaka-Porters complex, very rocky, ALL	IV	V	IV
Unaka-Rock outcrop complex, 50 to 95 percent slopes, very bouldery	IV	VI	IV
Unicoi-Rock outcrop complex, 30 to 95 percent slopes, extremely bouldery	IV	V	IV
Unison fine sandy loam, 2 to 8 percent slopes	I	I	I
Unison fine sandy loam, 8 to 15 percent slopes	II	I	I
Unison fine sandy loam, 15 to 25 percent slopes	IV	I	II
Unison loam, 2 to 8 percent slopes	I	I	I
Unison loam, 8 to 15 percent slopes	II	I	I
Unison loam, 15 to 30 percent slopes	IV	I	II
Urban land	IV	VI	II

Map Unit Name	Agri	For	Hort
Watauga loam, 6 to 10 percent slopes	III	I	II
Watauga loam, 6 to 15 percent slopes	III	I	II
Watauga loam, 8 to 15 percent slopes	III	I	II
Watauga loam, ALL OTHER	IV	I	III
Watauga sandy loam, 8 to 15 percent slopes, stony	III	I	II
Watauga sandy loam, 15 to 30 percent slopes, stony	IV	I	II
Watauga sandy loam, 30 to 50 percent slopes, stony	IV	I	III
Watauga stony loam, 15 to 45 percent slopes	IV	I	IV
Wayah loam, windswept, eroded, stony, ALL	IV	VI	IV
Wayah sandy loam, stony, ALL	IV	V	IV
Wayah sandy loam, windswept, stony, ALL	IV	VI	IV
Wayah-Burton complex, 15 to 30 percent slopes, bouldery	IV	V	IV
Wayah-Burton complex, 30 to 50 percent slopes, bouldery	IV	V	IV
Wayah-Burton complex, 50 to 95 percent slopes, very rocky	IV	V	IV
Wayah-Burton complex, windswept, ALL	IV	V	IV
Whiteoak cobbly loam, 8 to 15 percent slopes, stony	II	I	II
Whiteoak cobbly loam, 15 to 30 percent slopes, stony	IV	I	III
Whiteoak fine sandy loam, 2 to 8 percent slopes	I	I	I
Whiteoak fine sandy loam, 8 to 15 percent slopes, stony	II	I	II
Whiteoak fine sandy loam, 15 to 30 percent slopes, very stony	IV	I	III
Whiteside-Tuckasegee complex, 2 to 8 percent slopes	I	I	I

Map Unit Name	Agri	For	Hort
Alluvial land, wet	III	III	III
Alpin, ALL	IV	II	IV
Altavista. ALL	I	I	I
Altavista-Urban land complex, 0 to 3 percent slopes, rarely flooded	IV	I	IV
Augusta, ALL	I	I	I
Autryville loamy sand, ALL	III	II	III
Autryville, ALL OTHER	IV	II	IV
Autryville-Urban land complex, 0 to 6 percent slopes	IV	II	IV
Aycock very fine sandy loam, 2 to 6 percent slopes, eroded	II	II	II
Aycock, ALL OTHER	I	II	I
Ballahack fine sandy loam	I	I	I
Barclay very fine sandy loam	I	I	I
Bethera loam, 0 to 1 percent slopes	II	I	II
Bibb and Johnston soils, frequently flooded	IV	III	IV
Bibb, ALL	IV	III	IV
Blaney, ALL	IV	II	IV
Blanton, ALL	IV	V	IV
Bojac loamy fine sand, 0 to 3 percent slopes	III	II	III
Bonneau loamy fine sand, 0 to 4 percent slopes	II	II	II
Bonneau loamy sand, 0 to 4 percent slopes	II	II	II
Bonneau loamy sand, 0 to 6 percent slopes	II	II	II
Bonneau loamy sand, 6 to 12 percent slopes	III	II	III
Bonneau sand, 0 to 3 percent slopes	II	II	II
Butters fine sand, 0 to 2 percent slopes	II	II	II
Butters loamy sand, 0 to 2 percent slopes	II	II	II
Byars loam	II	I	II
Candor sand, 1 to 8 percent slopes	IV	V	IV
Candor sand, 8 to 15 percent slopes	IV	V	IV
Cape Fear loam	I	I	I
Caroline sandy loam, 0 to 2 percent slopes	II	II	II
Caroline sandy loam, 2 to 6 percent slopes	II	II	II
Centenary sand	IV	II	IV
Chastain and Bibb soils, 0 to 1 percent slopes, frequently flooded	IV	III	IV
Chastain silt loam, frequently flooded	IV	III	IV
Chewacla and Chastain soils, frequently flooded	IV	III	IV
Chewacla and Congaree loams, frequently flooded	III	III	III
Chewacla and Wehadkee soils, 0 to 1 percent slopes, frequently flooded	IV	III	IV
Chewacla loam	II	III	II
Chewacla loam, 0 to 1 percent slopes, occasionally flooded	II	III	II
Chewacla loam, frequently flooded	IV	III	IV
Chewacla silt loam	II	III	II
Chipley loamy sand (Pactolus)	IV	II	IV
Chipley sand, 0 to 2 percent slopes	IV	II	IV
Conetoe loamy sand, ALL	III	II	III
Congaree silt loam	I	III	I
Congaree silt loam, frequently flooded	I	III	I
Cowarts loamy sand, 2 to 6 percent slopes	II	I	II
Cowarts loamy sand, 6 to 10 percent slopes	III	I	III
Cowarts sandy loam, 6 to 12 percent slopes, eroded	IV	I	IV
Coxville loam	II	I	II
Coxville sandy loam	II	I	II
Craven fine sandy loam, 0 to 1 percent slopes	II	I	II

Map Unit Name	Agri	For	Hort
Craven fine sandy loam, 1 to 4 percent slopes	II	I	II
Craven fine sandy loam, 4 to 10 percent slopes	III	I	III
Craven loam, 1 to 4 percent slopes	II	I	II
Craven sandy clay loam, 1 to 4 percent slopes, eroded	II	I	II
Craven sandy loam, 2 to 6 percent slopes, eroded	II	I	II
Craven sandy loam, 2 to 6 percent slopes, eroded (Gritney)	II	I	II
Craven sandy loam, 6 to 10 percent slopes, eroded (Gritney)	III	I	III
Craven-Urban land complex, 0 to 4 percent slopes	IV	I	IV
Croatan muck	I	V	I
Deloss loam	I	III	I
Dogue, ALL	II	I	II
Dothan loamy sand, 2 to 6 percent slopes	II	I	II
Dothan, ALL OTHER	I	I	I
Dragston loamy sand	I	III	I
Dunbar, ALL	II	I	II
Duplin, ALL	II	I	II
Duplin-Urban land complex, 0 to 5 percent slopes	IV	I	IV
Dystrochrepts, steep	IV	II	IV
Emporia, ALL	II	II	II
Emporia-Urban land complex, 0 to 6 percent slopes	IV	II	IV
Emporia-Wedowee complex, 2 to 6 percent slopes	II	II	II
Eustis, ALL	IV	II	IV
Exum, ALL	I	II	I
Faceville fine sandy loam, ALL	II	II	II
Faceville loamy sand, 6 to 10 percent slopes, eroded	IV	II	IV
Faceville loamy sand, ALL OTHER	II	II	II
Faceville sandy loam, 0 to 2 percent slopes	II	II	II
Faceville sandy loam, 2 to 6 percent slopes	II	II	II
Faceville sandy loam, 2 to 6 percent slopes, eroded	III	II	III
Faceville sandy loam, 6 to 10 percent slopes, eroded	IV	II	IV
Faceville-Urban land complex, 0 to 6 percent slopes	IV	II	IV
Foreston loamy sand, ALL	II	II	II
Fuquay, ALL	IV	II	IV
Gilead loamy sand, 0 to 2 percent slopes	III	II	III
Gilead loamy sand, 10 to 15 percent slopes	IV	II	IV
Gilead loamy sand, 2 to 6 percent slopes	IV	II	IV
Gilead loamy sand, 2 to 6 percent slopes, eroded	III	II	III
Gilead loamy sand, 6 to 10 percent slopes	IV	II	IV
Gilead loamy sand, 6 to 10 percent slopes, eroded	IV	II	IV
Gilead sandy loam, 2 to 8 percent slopes	III	II	III
Gilead sandy loam, 8 to 15 percent slopes	IV	II	IV
Goldsboro, ALL	I	I	I
Goldsboro-Urban land complex, ALL	IV	I	IV
Grantham, ALL	I	I	I
Grantham-Urban land complex	IV	I	IV
Grifton-Meggett complex, occasionally flooded	IV	I	IV
Gritney fine sandy loam, 2 to 6 percent slopes	II	II	II
Gritney fine sandy loam, 2 to 7 percent slopes	II	II	II
Gritney fine sandy loam, 4 to 8 percent slopes	III	II	III
Gritney fine sandy loam, 5 to 12 percent slopes, eroded	IV	II	IV
Gritney fine sandy loam, 6 to 10 percent slopes	III	II	III
Gritney fine sandy loam, 7 to 15 percent slopes	IV	II	IV

Map Unit Name	Agri	For	Hort
Gritney fine sandy loam, 10 to 15 percent slopes	IV	II	IV
Gritney loamy fine sand, 2 to 7 percent slopes	II	II	II
Gritney sandy clay loam, ALL	III	II	III
Gritney sandy loam, 2 to 5 percent slopes, eroded	III	II	III
Gritney sandy loam, 2 to 6 percent slopes	II	II	II
Gritney sandy loam, 5 to 12 percent slopes, eroded	IV	II	IV
Gritney sandy loam, 6 to 10 percent slopes	III	II	III
Gritney-Urban land complex, 2 to 12 percent slopes	IV	II	IV
Hoffman loamy sand, 6 to 10 percent slopes, eroded (Gilead)	IV	II	IV
Hoffman loamy sand, 10 to 20 percent slopes (Gilead)	III	II	III
Johns, ALL	II	I	II
Johnston, ALL	IV	III	IV
Kalmia loamy sand, 0 to 2 percent slopes	II	II	II
Kalmia loamy sand, 0 to 3 percent slopes	II	II	II
Kalmia loamy sand, 2 to 6 percent slopes	II	II	II
Kalmia loamy sand, 10 to 15 percent slopes	III	II	III
Kalmia loamy sand, 15 to 25 percent slopes	IV	II	IV
Kenansville, ALL	III	II	III
Kinston, ALL	IV	III	IV
Kureb sand, 1 to 8 percent slopes	IV	V	IV
Lakeland, ALL	IV	V	IV
Leaf loam	III	I	III
Lenoir loam	III	I	III
Leon sand, ALL	IV	V	IV
Liddell very fine sandy loam	I	I	I
Lillington-Turbeville complex, 8 to 15 percent slopes	III	II	III
Lucy loamy sand	II	II	II
Lumbee, ALL	II	I	II
Lynchburg, ALL	I	I	I
Lynchburg-Urban land complex	IV	I	IV
Lynn Haven and Torhunta soils	II	II	II
Mantachie soils, local alluvium	II	III	II
Marlboro, ALL	II	II	II
Marlboro-Cecil complex, 2 to 8 percent slopes	II	II	II
Marvyn and Gritney soils. 6 to 15 percent slopes	IV	I	IV
Marvyn loamy sand, 6 to 12 percent slopes	IV	I	IV
Maxton loamy sand, 0 to 2 percent slopes	II	II	II
McColl loam	III	II	III
McQueen loam, 1 to 6 percent slopes	II	II	II
Meggett, ALL	IV	I	IV
Muckalee, ALL	IV	III	IV
Myatt very fine sandy loam	II	I	II
Nahunta, ALL	I	I	I
Nankin ,ALL	II	II	II
Nixonton very fine sandy loam	I	I	I
Norfolk and Faceville soils, 6 to 10 percent slopes	II	II	II
Norfolk loamy fine sand, ALL	I	II	I
Norfolk loamy sand, 0 to 2 percent slopes	I	II	I
Norfolk loamy sand, 2 to 6 percent slopes	I	II	I
Norfolk loamy sand, 2 to 6 percent slopes, eroded	II	II	II
Norfolk loamy sand, 6 to 10 percent slopes	II	II	II
Norfolk loamy sand, 6 to 10 percent slopes, eroded	III	II	III

Map Unit Name	Agri	For	Hort
Norfolk sandy loam, 0 to 2 percent slopes	I	II	I
Norfolk sandy loam, 2 to 6 percent slopes	I	II	I
Norfolk sandy loam, 2 to 6 percent slopes, eroded	II	II	II
Norfolk sandy loam, 6 to 10 percent slopes	II	II	II
Norfolk, Georgeville, and Faceville soils, 2 to 8 percent slopes	II	II	II
Norfolk-Urban land complex, 0 to 3 percent slopes	IV	II	IV
Norfolk-Wedowee complex, 2 to 6 percent slopes	II	II	II
Ocilla, ALL	III	II	III
Okenee loam (Paxville)	II	III	II
Orangeburg loamy sand, eroded, ALL	II	II	II
Orangeburg loamy sand, ALL OTHER	I	II	I
Pactolus, ALL	IV	II	IV
Pamlico muck	III	V	III
Pantego, ALL	I	I	I
Paxville fine sandy loam	II	III	II
Paxville loam	II	III	II
Peawick, ALL	II	II	II
Pits-Tarboro complex	IV	VI	IV
Plummer and Osier soils	IV	I	IV
Plummer, ALL	IV	V	IV
Pocalla loamy sand, 0 to 3 percent slopes	III	II	III
Polawana loamy sand, frequently flooded	IV	III	IV
Ponzer muck, siliceous subsoil variant	I	V	I
Portsmouth, ALL	I	I	I
Rains, ALL	I	I	I
Rains-Toisnot complex, 0 to 2 percent slopes	IV	I	IV
Rains-Urban land complex, ALL	IV	I	IV
Rimini sand	IV	V	IV
Riverview loam, 0 to 1 percent slopes, occasionally flooded	I	III	I
Roanoke and Wahee loams	II	III	II
Roanoke, ALL	II	III	II
Roanoke-Urban land complex	IV	III	IV
Ruston loamy sand, ALL	III	II	III
Ruston sandy loam, 2 to 6 percent slopes, eroded	IV	II	IV
Rutlege loamy sand	IV	V	IV
Seabrook loamy sand, rarely flooded	IV	II	IV
Smoothed sandy land	IV	VI	IV
St. Lucie sand (Kureb)	IV	V	IV
Stallings, ALL	II	II	II
State, ALL	I	I	I
Swamp	IV	III	IV
Tarboro, ALL	IV	II	IV
Toisnot, ALL	IV	II	IV
Tomahawk sand	III	II	III
Tomotley, ALL	I	I	I
Torhunta and Lynn Haven soils	II	I	II
Torhunta, ALL	I	I	I
Trebloc loam	I	I	I
Troup sand	IV	II	IV
Turbeville fine sandy loam, 2 to 6 percent slopes	I	II	I
Turbeville gravelly sandy loam, 2 to 8 percent slopes	II	II	II
Turbeville loamy sand, 0 to 2 percent slopes	I	II	I

Map Unit Name	Agri	For	Hort
Turbeville loamy sand, 2 to 6 percent slopes	I	II	I
Turbeville sandy clay loam, 2 to 6 percent slopes, eroded	II	II	II
Turbeville sandy loam, 0 to 2 percent slopes	I	II	I
Turbeville sandy loam, 2 to 6 percent slopes	I	II	I
Turbeville sandy loam, 2 to 8 percent slopes	I	II	I
Turbeville sandy loam, 6 to 12 percent slopes	II	II	II
Turbeville-Urban land complex, 0 to 8 percent slopes	IV	II	IV
Uchee, ALL	III	V	III
Udorthents, loamy	IV	VI	IV
Urban land	IV	VI	IV
Varina, ALL	II	II	II
Vaucluse loamy sand, 10 to 15 percent slopes	IV	II	IV
Vaucluse loamy sand, 10 to 15 percent slopes, eroded	IV	II	IV
Vaucluse loamy sand, 2 to 6 percent slopes	III	II	III
Vaucluse loamy sand, 2 to 6 percent slopes, eroded	III	II	III
Vaucluse loamy sand, 6 to 10 percent slopes	III	II	III
Vaucluse loamy sand, 6 to 10 percent slopes, eroded	III	II	III
Wagram fine sand, 0 to 6 percent slopes	II	II	II
Wagram loamy sand, 0 to 2 percent slopes	II	II	II
Wagram loamy sand, 0 to 6 percent slopes	II	II	II
Wagram loamy sand, 2 to 6 percent slopes	II	II	II
Wagram loamy sand, 6 to 10 percent slopes	III	II	III
Wagram loamy sand, 10 to 15 percent slopes	III	II	III
Wagram sand, thick surface, 0 to 6 percent slopes	II	II	II
Wagram sand, thick surface, 6 to 10 percent slopes	III	II	III
Wagram sand, thick surface, 10 to 15 percent slopes	III	II	III
Wagram-Troup sands, 0 to 4 percent slopes	IV	II	IV
Wagram-Urban land complex, ALL	IV	II	IV
Wahee, ALL	I	I	I
Wakulla, ALL	IV	V	IV
Wehadkee and Chewacla loams	IV	III	IV
Wehadkee, ALL	IV	III	IV
Wehadkee-Chastain association, frequently flooded	IV	III	IV
Weston loamy sand	III	I	III
Wickham fine sandy loam, 6 to 15 percent slopes, rarely flooded	II	I	II
Wickham fine sandy loam, ALL OTHER	I	I	I
Wickham loamy sandy, ALL	I	I	I
Wickham sandy loam, 0 to 4 percent slopes	I	I	I
Wickham sandy loam, 2 to 6 percent slopes, eroded	II	I	II
Wickham-Urban land complex, 1 to 6 percent slopes	IV	I	IV
Wilbanks loam, frequently flooded	IV	III	IV
Wilbanks silt loam	IV	III	IV
Winton fine sandy loam, ALL	IV	I	IV
Woodington loamy sand	II	II	II

Map Unit Name	Agri	For	Hort
Ailey-Appling complex, 2 to 8 percent slopes	II	II	II
Ailey-Appling complex, 8 to 15 percent slopes, bouldery	IV	II	III
Alamance silt loam, gently sloping phase	II	II	II
Alamance variant gravelly loam, ALL	IV	II	II
Altavista fine sandy loam, 2 to 6 percent slopes, eroded	II	I	I
Altavista fine sandy loam, 7 to 10 percent slopes	II	I	I
Altavista fine sandy loam, 0 to 2 percent slopes occasionally flooded	I	I	II
Altavista fine sandy loam, ALL OTHER	I	I	I
Altavista fine sandy loam, clayey variant	I	I	I
Altavista loam, 0 to 3 percent slopes, rarely flooded	I	I	I
Altavista sandy loam, ALL	I	I	I
Altavista silt loam, ALL	I	I	I
Appling coarse sandy loam, eroded gently sloping phase	II	II	II
Appling coarse sandy loam, eroded sloping phase	II	II	II
Appling coarse sandy loam, ALL OTHER	II	II	I
Appling fine sandy loam, 2 to 6 percent slopes	II	II	I
Appling fine sandy loam, 2 to 6 percent slopes, eroded	II	II	II
Appling fine sandy loam, 2 to 7 percent slopes	II	II	I
Appling fine sandy loam, 2 to 7 percent slopes, eroded	II	II	II
Appling fine sandy loam, 6 to 10 percent slopes	II	II	I
Appling fine sandy loam, 6 to 10 percent slopes, eroded	II	II	II
Appling fine sandy loam, 7 to 10 percent slopes(Wedowee)	II	II	I
Appling fine sandy loam, 7 to 10 percent slopes, eroded (Wedowee)	II	II	II
Appling fine sandy loam, 10 to 14 percent slopes (Wedowee)	III	II	II
Appling fine sandy loam, 10 to 14 percent slopes, eroded (Wedowee)	III	II	II
Appling fine sandy loam, (Wedowee), ALL OTHER	IV	II	II
Appling gravelly sandy loam, 2 to 6 percent slopes	II	II	I
Appling gravelly sandy loam, 2 to 6 percent slopes, eroded	II	II	II
Appling gravelly sandy loam, 6 to 10 percent slopes	II	II	I
Appling gravelly sandy loam, 6 to 10 percent slopes, eroded	II	II	II
Appling loamy sand, 2 to 6 percent slopes	II	II	I
Appling sandy clay loam, 6 to 10 percent slopes, severely eroded	III	II	II
Appling sandy clay loam, 10 to 15 percent slopes, severely eroded	IV	II	II
Appling sandy clay loam, severely eroded sloping phase	III	II	III
Appling sandy loam, 1 to 6 percent slopes	II	II	I
Appling sandy loam, 2 to 6 percent slopes	II	II	I
Appling sandy loam, 2 to 6 percent slopes, eroded	II	II	II
Appling sandy loam, 2 to 8 percent slopes	II	II	I
Appling sandy loam, 6 to 10 percent slopes	II	II	I
Appling sandy loam, 6 to 10 percent slopes, eroded	II	II	II
Appling sandy loam, 6 to 12 percent slopes	II	II	II
Appling sandy loam, 8 to 15 percent slopes	II	II	II
Appling sandy loam, 10 to 15 percent slopes	III	II	II
Appling sandy loam, 10 to 15 percent slopes, eroded	III	II	II
Appling sandy loam, 10 to 25 percent slopes, eroded (Wedowee)	IV	II	II
Appling sandy loam, 15 to 25 percent slopes (Wedowee)	IV	II	II
Appling sandy loam, 15 to 25 percent slopes, eroded (Wedowee)	IV	II	II
Appling sandy loam, eroded gently sloping phase	II	II	II
Appling sandy loam, eroded sloping phase	II	II	II
Appling sandy loam, eroded strongly sloping phase	III	II	II
Appling sandy loam, gently sloping phase	II	II	I
Appling sandy loam, moderately steep phase (Wedowee)	III	II	II

Map Unit Name	Agri	For	Hort
Appling sandy loam, sloping phase	II	II	II
Appling sandy loam, strongly sloping phase	II	II	II
Appling-Marlboro complex, 1 to 6 percent slopes	II	II	II
Appling-Urban land complex, ALL	IV	II	IV
Armenia, ALL	IV	III	III
Ashlar-Rock outcrop complex, ALL	IV	V	IV
Augusta, ALL	III	I	II
Ayersville gravelly loam, ALL	IV	V	II
Badin channery loam, 8 to 15 percent slopes	III	II	II
Badin channery silt loam, 2 to 8 percent slopes	III	II	II
Badin channery silt loam, 8 to 15 percent slopes	III	II	II
Badin channery silt loam, ALL OTHER	IV	II	II
Badin channery silty clay loam, eroded, ALL	III	II	II
Badin silty clay loam, 2 to 8 percent slopes, moderately eroded	III	II	II
Badin silty clay loam, 8 to 15 percent slopes, moderately eroded	IV	II	II
Badin-Goldston complex, 2 to 8 percent slopes	III	II	II
Badin-Goldston complex, 8 to 15 percent slopes	IV	II	III
Badin-Goldston complex, 15 to 25 percent slopes	IV	II	IV
Badin-Nanford complex, 15 to 30 percent slopes	IV	II	IV
Badin-Tarrus complex, 2 to 8 percent slopes	II	II	I
Badin-Tarrus complex, 2 to 8 percent slopes, moderately eroded	III	II	I
Badin-Tarrus complex, 8 to 15 percent slopes	III	II	II
Badin-Tarrus complex, 8 to 15 percent slopes, moderately eroded	IV	II	II
Badin-Tarrus complex, 15 to 25 percent slopes	IV	II	II
Badin-Tarrus complex, 25 to 45 percent slopes	IV	II	IV
Badin-Urban land complex, ALL	IV	II	IV
Banister loam, 1 to 6 percent slopes, rarely flooded	II	I	I
Bethlehem gravelly sandy loam, 2 to 8 percent slopes	III	II	II
Bethlehem gravelly sandy loam, 8 to 15 percent slopes	IV	II	II
Bethlehem-Hibriten complex, 6 to 15 percent slopes	IV	II	III
Bethlehem-Urban land complex, 2 to 15 percent slopes	IV	II	IV
Buncombe, ALL	IV	III	IV
Callison-Lignum complex, 2 to 6 percent slopes	III	II	II
Callison-Misenheimer complex, 6 to 10 percent slopes	III	II	II
Carbonton-Brickhaven complex, ALL	IV	II	IV
Cartecay and Chewacla soils	II	III	III
Cecil clay loam, 2 to 6 percent slopes, eroded	III	II	II
Cecil clay loam, 2 to 6 percent slopes, severely eroded	III	II	II
Cecil clay loam, 2 to 7 percent slopes, severely eroded	III	II	II
Cecil clay loam, 2 to 8 percent slopes, eroded	III	II	II
Cecil clay loam, 6 to 10 percent slopes, eroded	III	II	II
Cecil clay loam, 6 to 10 percent slopes, severely eroded	IV	II	II
Cecil clay loam, ALL OTHER	IV	II	II
Cecil fine sandy loam, 2 to 6 percent slopes	II	II	I
Cecil fine sandy loam, 2 to 6 percent slopes, eroded	II	II	II
Cecil fine sandy loam, 2 to 7 percent slopes	II	II	I
Cecil fine sandy loam, 2 to 7 percent slopes, eroded	II	II	II
Cecil fine sandy loam, 2 to 8 percent slopes	II	II	I
Cecil fine sandy loam, 6 to 10 percent slopes	III	II	II
Cecil fine sandy loam, 6 to 10 percent slopes, eroded	III	II	II
Cecil fine sandy loam, 7 to 10 percent slopes (Pacolet)	III	II	II
Cecil fine sandy loam, 7 to 10 percent slopes, eroded (Pacolet)	III	II	II

Map Unit Name	Agri	For	Hort
Cecil fine sandy loam, 8 to 15 percent slopes	III	II	II
Cecil fine sandy loam, 10 to 14 percent slopes (Pacolet)	III	II	II
Cecil fine sandy loam, 10 to 14 percent slopes, eroded (Pacolet)	III	II	II
Cecil fine sandy loam, 10 to 15 percent slopes	III	II	II
Cecil fine sandy loam, 10 to 15 percent slopes (Pacolet)	III	II	II
Cecil fine sandy loam, 10 to 15 percent slopes, eroded (Pacolet)	III	II	II
Cecil fine sandy loam, 14 to 25 percent slopes (Pacolet)	IV	II	II
Cecil fine sandy loam, 14 to 25 percent slopes, eroded (Pacolet)	IV	II	II
Cecil fine sandy loam, 25 to 40 percent slopes (Pacolet)	IV	II	III
Cecil fine sandy loam, 25 to 40 percent slopes, eroded (Pacolet)	IV	II	III
Cecil fine sandy loam, eroded gently sloping phase	II	II	II
Cecil fine sandy loam, eroded sloping phase	II	II	II
Cecil fine sandy loam, eroded strongly sloping phase	III	II	II
Cecil fine sandy loam, gently sloping phase	II	II	I
Cecil fine sandy loam, moderately steep phase	III	II	II
Cecil fine sandy loam, sloping phase	III	II	II
Cecil fine sandy loam, strongly sloping phase	III	II	II
Cecil gravelly fine sandy loam, 2 to 6 percent slopes	II	II	I
Cecil gravelly fine sandy loam, 2 to 6 percent slopes, eroded	II	II	II
Cecil gravelly fine sandy loam, 2 to 7 percent slopes	II	II	I
Cecil gravelly fine sandy loam, 2 to 7 percent slopes, eroded	III	II	II
Cecil gravelly fine sandy loam, 6 to 10 percent slopes	III	II	II
Cecil gravelly fine sandy loam, 6 to 10 percent slopes, eroded	III	II	II
Cecil gravelly fine sandy loam, 7 to 10 percent slopes	III	II	II
Cecil gravelly fine sandy loam, 7 to 10 percent slopes, eroded (Pacolet)	III	II	II
Cecil gravelly fine sandy loam, 10 to 14 percent slopes (Pacolet)	III	II	II
Cecil gravelly fine sandy loam, 10 to 14 percent slopes, eroded (Pacolet)	III	II	II
Cecil gravelly fine sandy loam, 10 to 15 percent slopes	III	II	II
Cecil gravelly fine sandy loam, 10 to 15 percent, eroded (Pacolet)	III	II	II
Cecil gravelly fine sandy loam, ALL OTHER	IV	II	II
Cecil gravelly sandy clay loam, 2 to 8 percent slopes, eroded	III	II	II
Cecil gravelly sandy clay loam, 8 to 15 percent slopes, eroded	IV	II	II
Cecil gravelly sandy loam, 2 to 6 percent slopes	II	II	I
Cecil gravelly sandy loam, 2 to 6 percent slopes, eroded	II	II	I
Cecil gravelly sandy loam, 6 to 10 percent slopes	III	II	II
Cecil gravelly sandy loam, 6 to 10 percent slopes, eroded	III	II	II
Cecil gravelly sandy loam, 10 to 15 percent slopes	IV	II	IV
Cecil loam, 2 to 6 percent slopes	II	II	I
Cecil loam, ALL OTHER	III	II	II
Cecil sandy clay loam, 8 to 15 percent slopes, eroded	IV	II	II
Cecil sandy clay loam, 8 to 15 percent slopes, moderately eroded	IV	II	II
Cecil sandy clay loam, ALL OTHER	III	II	II
Cecil sandy loam, 2 to 6 percent slopes	II	II	I
Cecil sandy loam, 2 to 6 percent slopes, eroded	III	II	II
Cecil sandy loam, 2 to 8 percent slopes	II	II	I
Cecil sandy loam, 2 to 8 percent slopes, eroded	III	II	II
Cecil sandy loam, 6 to 10 percent slopes	III	II	I
Cecil sandy loam, 6 to 10 percent slopes, eroded	III	II	II
Cecil sandy loam, 8 to 15 percent slopes	III	II	II
Cecil sandy loam, 8 to 15 percent slopes, eroded	IV	II	II
Cecil sandy loam, 10 to 15 percent slopes	III	II	II
Cecil sandy loam, 10 to 15 percent slopes, eroded	III	II	II

Map Unit Name	Agri	For	Hort
Cecil sandy loam, 10 to 15 percent slopes, eroded (Pacolet)	III	II	II
Cecil sandy loam, 15 to 45 percent slopes (Pacolet)	IV	II	II
Cecil sandy loam, eroded gently sloping phase	III	II	II
Cecil sandy loam, eroded sloping phase	III	II	II
Cecil sandy loam, gently sloping phase	II	II	I
Cecil sandy loam, sloping phase	III	II	I
Cecil soils, (Pacolet), ALL	IV	II	II
Cecil stony fine sandy loam, (Uwharrie), ALL	IV	II	II
Cecil-Urban land complex, ALL	IV	II	IV
Chastain silty clay loam	IV	III	III
Chenneby silt loam, 0 to 2 percent slopes, frequently flooded	III	III	III
Chewacla and Chastain soils, 0 to 2 percent slopes, frequently flooded	IV	III	III
Chewacla and Wehadkee, ALL	IV	III	III
Chewacla silt loam, frequently flooded	III	III	III
Chewacla, ALL OTHER	II	III	III
Cid, ALL	III	II	II
Cid-Lignum complex, 1 to 6 percent slopes	II	II	II
Cid-Misenheimer complex, 0 to 4 percent slopes	III	II	II
Cid-Urban land complex, 1 to 5 percent slopes	IV	II	IV
Meadowfield-Fairview complex, 15 to 25 percent slopes	IV	IV	IV
Meadowfield-Rhodhiss complex, 25 to 60 percent slopes, very stony	IV	IV	IV
Meadowfield-Woolwine complex, 8 to 15 percent slopes	IV	IV	IV
Claycreek fine sandy loam, 0 to 2 percent slopes	III	I	II
Colfax sandy loam, ALL	III	II	II
Colvard sandy loam, 0 to 3 percent slopes, occasionally flooded	I	III	III
Colfax silt loam	III	II	II
Congaree, frequently flooded	II	III	III
Congaree, ALL OTHER	I	III	III
Coronaca clay loam, ALL	II	II	I
Coronaca-Urban land complex, 2 to 10 percent slopes	IV	II	IV
Creedmoor coarse sandy loam, ALL	III	I	II
Creedmoor fine sandy loam, 8 to 15 percent slopes	IV	I	II
Creedmoor fine sandy loam, ALL OTHER	III	I	II
Creedmoor loam, 2 to 8 percent slopes	III	I	II
Creedmoor sandy loam, 10 to 15 percent slopes	IV	I	II
Creedmoor sandy loam, 10 to 20 percent slopes	IV	I	II
Creedmoor sandy loam, ALL OTHER	III	I	II
Creedmoor silt loam, ALL	III	I	II
Cullen clay loam, ALL	II	II	II
Cullen-Wynott complex, 15 to 35 percent slopes	IV	II	III
Cut and fill land	IV	VI	IV
Davidson clay, severely eroded strongly sloping phase	III	I	II
Davidson sandy clay loam, 15 to 25 percent slopes	III	I	I
Davidson, ALL OTHER	II	I	I
Dillard fine sandy loam, 2 to 8 percent slopes, rarely flooded	I	III	I
Dogue, ALL	II	I	I
Dogue-Roanoke complex, 0 to 6 percent slopes, rarely flooded	II	I	III
Durham coarse sandy loam, gently sloping phase	II	I	I
Durham coarse sandy loam, sloping phase	III	I	I
Durham loamy sand, 6 to 10 percent slopes, eroded	III	I	I
Durham loamy sand, ALL OTHER	II	I	I
Durham sandy loam, eroded sloping phase	II	I	I

Map Unit Name	Agri	For	Hort
Durham sandy loam, ALL OTHER	III	I	I
Efland silt loam, eroded gently sloping phase (Badin)	II	II	II
Efland silt loam, eroded sloping phase (Badin)	III	II	II
Efland silt loam, gently sloping phase (Badin)	II	II	II
Efland silt loam, sloping phase (Badin)	II	II	II
Efland silt loam, strongly sloping phase (Badin)	III	II	II
Efland silty clay loam severely eroded strongly sloping phase (Badin)	III	II	II
Efland silty clay loam, severely eroded sloping phase (Badin)	III	II	II
Enon clay loam, 2 to 6 percent slopes, eroded	III	II	II
Enon clay loam, 6 to 10 percent slopes, eroded	III	II	II
Enon clay loam, 10 to 15 percent slopes, eroded	IV	II	II
Enon clay loam, severely eroded sloping phase	III	II	II
Enon clay loam, severely eroded strongly sloping phase	IV	II	II
Enon cobbly loam, 2 to 8 percent slopes	II	II	II
Enon cobbly loam, 8 to 15 percent slopes	III	II	II
Enon complex, gullied	IV	II	IV
Enon fine sandy loam, 2 to 15 percent slopes, very stony	IV	II	II
Enon fine sandy loam, 2 to 6 percent slopes	II	II	II
Enon fine sandy loam, 2 to 6 percent slopes, eroded	III	II	II
Enon fine sandy loam, 2 to 8 percent slopes	II	II	II
Enon fine sandy loam, 6 to 10 percent slopes	III	II	II
Enon fine sandy loam, 6 to 10 percent slopes, eroded	III	II	II
Enon fine sandy loam, 8 to 15 percent slopes	III	II	II
Enon fine sandy loam, 10 to 15 percent slopes	III	II	II
Enon fine sandy loam, 10 to 15 percent slopes, eroded	III	II	II
Enon fine sandy loam, eroded gently sloping phase	II	II	II
Enon fine sandy loam, eroded sloping phase	III	II	II
Enon fine sandy loam, gently sloping phase	II	II	II
Enon fine sandy loam, sloping phase	III	II	II
Enon gravelly loam, 2 to 8 percent slopes	II	II	II
Enon gravelly loam, 8 to 15 percent slopes	III	II	II
Enon loam, 2 to 6 percent slopes	II	II	II
Enon loam, 6 to 10 percent slopes	II	II	II
Enon loam, 6 to 12 percent slopes	III	II	II
Enon loam, eroded gently sloping phase	II	II	II
Enon loam, eroded sloping phase	III	II	II
Enon loam, eroded strongly sloping phase	III	II	II
Enon loam, gently sloping phase	II	II	II
Enon loam, sloping phase	III	II	II
Enon loam, strongly sloping phase	III	II	II
Enon sandy loam, 2 to 8 percent slopes	II	II	II
Enon sandy loam, 8 to 15 percent slopes	III	II	II
Enon very cobbly loam, very stony, ALL	IV	II	IV
Enon very stony loam, ALL	IV	II	IV
Enon-Mayodan complex, 15 to 35 percent slopes, very stony	IV	II	III
Enon-Urban land complex, ALL	IV	II	IV
Enon-Wynott complex, 2 to 8 percent slopes	II	II	II
Enon-Wynott complex, 4 to 15 percent slopes, very bouldery	IV	II	IV
Fairview sandy clay loam, 2 to 8 percent slopes, moderately eroded	II	II	II
Fairview sandy clay loam, 8 to 15 percent slopes, moderately eroded	III	II	II
Fairview sandy clay loam, 15 to 25 percent slopes, moderately eroded	IV	II	II
Fairview-Urban land complex, ALL	IV	II	IV

Map Unit Name	Agri	For	Hort
Fluvaquents-Udifluvents complex, 0 to 3 percent slopes, mounded, occasionally flooded	IV	VI	IV
Gaston clay loam, 2 to 8 percent slopes, eroded	II	II	II
Gaston clay loam, 8 to 15 percent slopes, eroded	III	II	II
Gaston loam, 15 to 25 percent slopes	III	II	II
Gaston sandy clay loam, 2 to 8 percent slopes, eroded	II	II	II
Gaston sandy clay loam, 8 to 15 percent slopes, eroded	III	II	II
Georgeville clay loam, 2 to 6 percent slopes, eroded	II	I	II
Georgeville clay loam, 2 to 8 percent slopes, eroded	II	I	II
Georgeville clay loam, 8 to 15 percent slopes, eroded	III	I	II
Georgeville gravelly loam, 2 to 6 percent slopes	II	I	I
Georgeville gravelly loam, 2 to 8 percent slopes, stony	III	I	II
Georgeville gravelly loam, 6 to 10 percent slopes	II	I	I
Georgeville gravelly loam, 10 to 25 percent slopes	IV	I	II
Georgeville gravelly silt loam, 2 to 8 percent slopes	II	I	I
Georgeville gravelly silt loam, 8 to 15 percent slopes	III	I	II
Georgeville loam, 2 to 6 percent slopes	II	I	I
Georgeville loam, 2 to 8 percent slopes	II	I	I
Georgeville loam, 6 to 10 percent slopes	II	I	I
Georgeville loam, 8 to 15 percent slopes	III	I	I
Georgeville loam, ALL OTHER	IV	I	II
Georgeville silt loam, 2 to 6 percent slopes	II	I	I
Georgeville silt loam, 2 to 6 percent slopes, eroded	III	I	II
Georgeville silt loam, 2 to 8 percent slopes	II	I	I
Georgeville silt loam, 2 to 10 percent slopes, eroded	III	I	II
Georgeville silt loam, 4 to 15 percent slopes, extremely stony	IV	I	IV
Georgeville silt loam, 6 to 10 percent slopes	II	I	I
Georgeville silt loam, 6 to 10 percent slopes, eroded	III	I	II
Georgeville silt loam, 8 to 15 percent slopes	III	I	I
Georgeville silt loam, 10 to 15 percent slopes	III	I	I
Georgeville silt loam, 10 to 15 percent slopes, eroded	III	I	II
Georgeville silt loam, 10 to 25 percent slopes	IV	I	II
Georgeville silt loam, 15 to 45 percent slopes, extremely bouldery	IV	I	IV
Georgeville silt loam, eroded gently sloping phase	II	I	II
Georgeville silt loam, eroded sloping phase	III	I	II
Georgeville silt loam, eroded strongly sloping phase	III	I	II
Georgeville silt loam, gently sloping phase	II	I	I
Georgeville silt loam, moderately steep phase	III	I	II
Georgeville silt loam, sloping phase	II	I	I
Georgeville silt loam, strongly sloping phase	III	I	I
Georgeville silty clay loam, 2 to 6 percent slopes, moderately eroded	II	I	II
Georgeville silty clay loam, 2 to 8 percent slopes	II	I	II
Georgeville silty clay loam, 2 to 8 percent slopes, eroded	II	I	II
Georgeville silty clay loam, 2 to 8 percent slopes, moderately eroded	II	I	II
Georgeville silty clay loam, 6 to 10 percent slopes, moderately eroded	III	I	II
Georgeville silty clay loam, 8 to 15 percent slopes, eroded	IV	I	II
Georgeville silty clay loam, 8 to 15 percent slopes, moderately eroded	IV	I	II
Georgeville silty clay loam, severely eroded gently sloping phase	III	I	II
Georgeville silty clay loam, severely eroded moderately steep phase	IV	I	III
Georgeville silty clay loam, severely eroded sloping phase	III	I	III
Georgeville silty clay loam, severely eroded strongly sloping phase	IV	I	III
Georgeville-Badin complex, ALL	IV	I	II
Georgeville-Montonia complex, very stony ALL	IV	I	III

Map Unit Name	Agri	For	Hort
Georgeville-Urban land complex, ALL	IV	I	IV
Goldston, ALL	IV	II	III
Goldston-Badin complex, ALL	IV	II	III
Granville gravelly sandy loam, 2 to 8 percent slopes	II	II	I
Granville sandy loam, 2 to 6 percent slopes	II	II	I
Granville sandy loam, 2 to 6 percent slopes, eroded	II	II	I
Granville sandy loam, 2 to 8 percent slopes	II	II	I
Granville sandy loam, 6 to 10 percent slopes	III	II	I
Granville sandy loam, 6 to 10 percent slopes, eroded	III	II	I
Granville sandy loam, 10 to 15 percent slopes	IV	II	I
Grover, ALL	IV	II	III
Gullied land, ALL	IV	VI	IV
Halewood stony sandy loam, (Edneyville), ALL	IV	III	II
Hatboro sandy loam, 0 to 2 percent slopes, frequently flooded	IV	III	IV
Hayesville and Cecil clay loams, 7 to 14 percent slopes, severely eroded (Cecil and Cecil)	II	II	II
Hayesville and Cecil clay loams, 7 to 14 percent slopes, severely eroded (Cecil and Cecil)	III	II	II
Hayesville and Cecil clay loams, 14 to 25 percent slopes, severely eroded (Pacolet and Pacolet)	IV	II	II
Hayesville and Cecil fine sandy loam, eroded, ALL	IV	II	II
Helena clay loam, severely eroded sloping phase	IV	II	II
Helena coarse sandy loam, sloping phase	IV	II	II
Helena coarse sandy loam, ALL OTHER	III	II	II
Helena fine sandy loam, 2 to 8 percent slopes	III	II	II
Helena sandy loam, 10 to 15 percent slopes	IV	II	II
Helena sandy loam, ALL OTHER	III	II	II
Helena-Sedgefield sandy loams, ALL	III	II	II
Helena-Urban land complex, ALL	IV	II	IV
Helena-Worsham complex, 1 to 6 percent slopes	IV	II	III
Herndon loam, 2 to 6 percent slopes	II	II	I
Herndon loam, 6 to 10 percent slopes	II	II	I
Herndon silt loam, 2 to 6 percent slopes	II	II	I
Herndon silt loam, 2 to 6 percent slopes, eroded	II	II	II
Herndon silt loam, 2 to 8 percent slopes	II	II	I
Herndon silt loam, 6 to 10 percent slopes	III	II	I
Herndon silt loam, 6 to 10 percent slopes, eroded	III	II	II
Herndon silt loam, 8 to 15 percent slopes	III	II	I
Herndon silt loam, 10 to 15 percent slopes, eroded	III	II	II
Herndon silt loam, 15 to 25 percent slopes	III	II	I
Herndon silt loam, eroded gently sloping phase	II	II	II
Herndon silt loam, eroded sloping phase	III	II	II
Herndon silt loam, eroded strongly sloping phase	III	II	II
Herndon silt loam, gently sloping phase	II	II	I
Herndon silt loam, moderately steep phase	III	II	I
Herndon silt loam, sloping phase	II	II	I
Herndon silt loam, strongly sloping phase	III	II	I
Herndon silty clay loam, ALL	IV	II	II
Herndon stony silt loam, 2 to 10 percent slopes	III	II	II
Hibriten very cobbly sandy loam, ALL	IV	V	III
Hiwassee clay loam, 8 to 15 percent slopes, eroded	III	II	II
Hiwassee clay loam, 8 to 15 percent slopes, moderately eroded	III	II	II
Hiwassee clay loam, 10 to 15 percent slopes, eroded	III	II	II

Map Unit Name	Agri	For	Hort
Hiwassee clay loam, 15 to 30 percent slopes, moderately eroded	IV	II	II
Hiwassee clay loam, ALL OTHER	II	II	II
Hiwassee gravelly loam, 2 to 8 percent slopes	II	II	I
Hiwassee gravelly loam, 8 to 15 percent slopes	II	II	II
Hiwassee loam, 2 to 6 percent slopes	II	II	I
Hiwassee loam, 2 to 6 percent slopes, eroded	II	II	II
Hiwassee loam, 2 to 7 percent slopes, eroded	II	II	II
Hiwassee loam, 2 to 8 percent slopes	II	II	I
Hiwassee loam, 6 to 10 percent slopes	II	II	I
Hiwassee loam, 6 to 10 percent slopes, eroded	II	II	II
Hiwassee loam, 8 to 15 percent slopes	II	II	I
Hiwassee loam, 10 to 15 percent slopes	II	II	I
Hiwassee loam, 10 to 15 percent slopes, eroded	III	II	II
Hiwassee loam, 15 to 25 percent slopes	IV	II	II
Hornsboro, ALL	I	I	I
Hulett, ALL	IV	II	II
Hulett-Saw complex, 4 to 15 percent slopes, very rocky	IV	II	III
Hulett-Urban Land complex, 2 to 8 percent slopes	IV	II	IV
Iotla sandy loam, 0 to 2 percent slopes, occasionally flooded	II	III	III
Iredell clay loam, 2 to 6 percent slopes	III	II	III
Iredell fine sandy loam, 10 to 14 percent slopes (Wilkes)	IV	II	III
Iredell fine sandy loam, 10 to 14 percent slopes, eroded (Wilkes)	IV	II	III
Iredell fine sandy loam, ALL OTHER	III	II	III
Iredell gravelly loam, 1 to 4 percent slopes	III	II	III
Iredell loam, ALL	III	II	III
Iredell sandy loam, ALL	III	II	III
Iredell very stony loam, gently sloping phase (Enon)	IV	II	IV
Iredell-Urban land complex, ALL	IV	II	IV
Iredell-Urban land-Picture complex, 0 to 10 percent slopes	IV	II	IV
Kirksey silt loam, ALL	II	II	II
Kirksey-Cid complex, 2 to 6 percent slopes	III	II	II
Leaksville silt loam, 0 to 4 percent slopes	III	III	III
Leaksville-Urban land complex, 0 to 4 percent slopes	IV	III	IV
Leveled clayey land	IV	VI	IV
Lignum gravelly silt loam, 2 to 8 percent slopes	II	III	II
Lignum loam, 2 to 6 percent slopes	II	III	II
Lignum silt loam, 7 to 12 percent slopes	III	III	II
Lignum silt loam, ALL OTHER	II	III	II
Lloyd clay loam, 2 to 6 percent slopes, severely eroded (Gaston)	II	II	II
Lloyd clay loam, 2 to 10 percent slopes, severely eroded (Pacolet)	II	II	II
Lloyd clay loam, 6 to 10 percent slopes, severely eroded (Gaston)	II	II	II
Lloyd clay loam, 10 to 14 percent slopes, severely eroded (Pacolet)	III	II	III
Lloyd clay loam, 10 to 15 percent slopes, severely eroded (Gaston)	III	II	III
Lloyd clay loam, 14 to 25 percent slopes, severely eroded (Pacolet)	IV	II	IV
Lloyd clay loam, 15 to 25 percent slopes, severely eroded (Gaston)	IV	II	IV
Lloyd clay loam, severely eroded gently sloping phase (Gaston)	II	II	II
Lloyd clay loam, severely eroded sloping phase (Gaston)	II	II	II
Lloyd clay loam, severely eroded strongly sloping phase (Gaston)	III	II	III
Lloyd clay loam, severely eroded, moderately steep phase (Cecil)	IV	II	III
Lloyd fine sandy loam, 2 to 6 percent slopes (Cecil)	II	II	II
Lloyd fine sandy loam, 2 to 6 percent slopes, eroded (Cecil)	II	II	II
Lloyd fine sandy loam, 6 to 10 percent slopes (Cecil)	III	II	II

Map Unit Name	Agri	For	Hort
Lloyd fine sandy loam, 6 to 10 percent slopes, eroded (Cecil)	III	II	II
Lloyd fine sandy loam, 10 to 15 percent slopes (Pacolet)	II	II	II
Lloyd fine sandy loam, 10 to 15 percent slopes, eroded (Pacolet)	III	II	II
Lloyd fine sandy loam, 15 to 25 percent slopes (Pacolet)	IV	II	II
Lloyd fine sandy loam, 15 to 25 percent slopes, eroded (Pacolet)	IV	II	III
Lloyd loam, 2 to 6 percent slopes (Gaston)	II	II	I
Lloyd loam, 2 to 6 percent slopes, eroded (Davidson)	II	II	II
Lloyd loam, 2 to 6 percent slopes, eroded (Gaston)	II	II	I
Lloyd loam, 2 to 7 percent slopes (Pacolet)	II	II	I
Lloyd loam, 2 to 7 percent slopes, eroded (Pacolet)	II	II	II
Lloyd loam, 6 to 10 percent slopes (Cecil)	III	II	II
Lloyd loam, 6 to 10 percent slopes, eroded (Cecil)	III	II	II
Lloyd loam, 6 to 10 percent slopes, eroded (Davidson)	II	II	II
Lloyd loam, 7 to 10 percent slopes (Pacolet)	III	II	II
Lloyd loam, 7 to 10 percent slopes, eroded (Pacolet)	III	II	II
Lloyd loam, 10 to 14 percent slopes (Pacolet)	IV	II	II
Lloyd loam, 10 to 14 percent slopes, eroded (Pacolet)	IV	II	III
Lloyd loam, 10 to 15 percent slopes (Cecil)	IV	II	II
Lloyd loam, 10 to 15 percent slopes, eroded (Davidson)	II	II	III
Lloyd loam, 10 to 15 percent slopes, eroded (Pacolet)	III	II	III
Lloyd loam, 14 to 25 percent slopes (Pacolet)	IV	II	II
Lloyd loam, 14 to 25 percent slopes, eroded (Pacolet)	IV	II	III
Lloyd loam, 15 to 25 percent slopes (Pacolet)	IV	II	II
Lloyd loam, 15 to 25 percent slopes, eroded (Pacolet)	IV	II	III
Lloyd loam, 25 to 40 percent slopes (Pacolet)	IV	II	IV
Lloyd loam, eroded gently sloping phase (Gaston)	III	II	II
Lloyd loam, eroded sloping phase (Cecil)	III	II	II
Lloyd loam, eroded strongly sloping phase (Cecil)	IV	II	II
Lloyd loam, gently sloping phase (Gaston)	II	II	I
Lloyd loam, level phase (Gaston)	II	II	I
Lloyd loam, moderately steep phase (Cecil)	II	II	II
Lloyd loam, sloping phase (Cecil)	II	II	II
Lloyd loam, strongly sloping phase (Cecil)	IV	II	II
Local alluvial land, ALL	IV	III	III
Louisa fine sandy loam, 25 to 45 percent slopes	IV	II	III
Louisa sandy loam, 25 to 45 percent slopes	IV	II	III
Louisburg and Louisa soils, 25 to 55 percent slopes	IV	II	II
Louisburg and Louisa soils, ALL OTHER	IV	II	III
Louisburg coarse sandy loam, ALL	IV	II	II
Louisburg loamy coarse sand, ALL	IV	II	IV
Louisburg loamy sand, 2 to 6 percent slopes	III	II	II
Louisburg loamy sand, 6 to 10 percent slopes	III	II	II
Louisburg loamy sand, 6 to 15 percent slopes	IV	II	II
Louisburg loamy sand, 10 to 15 percent slopes	IV	II	II
Louisburg loamy sand, 15 to 45 percent slopes	IV	II	III
Louisburg sandy loam, ALL	IV	II	II
Louisburg-Wedowee complex, 15 to 25 percent slopes	IV	II	II
Louisburg-Wedowee complex, ALL OTHER	III	II	II
Made land	IV	VI	IV
Madison clay loam, 2 to 6 percent slopes, eroded	III	II	II
Madison clay loam, 6 to 10 percent slopes, eroded	III	II	II
Madison clay loam, eroded, ALL OTHER	IV	II	II

Map Unit Name	Agri	For	Hort
Madison complex, gullied	IV	II	IV
Madison fine sandy loam, 2 to 6 percent slopes	II	II	II
Madison fine sandy loam, 2 to 7 percent slopes	II	II	II
Madison fine sandy loam, 2 to 7 percent slopes, eroded	II	II	II
Madison fine sandy loam, 6 to 10 percent slopes	III	II	II
Madison fine sandy loam, 7 to 10 percent slopes	III	II	II
Madison fine sandy loam, 7 to 10 percent slopes, eroded	III	II	II
Madison fine sandy loam, 10 to 14 percent slopes	III	II	II
Madison fine sandy loam, 10 to 14 percent slopes, eroded	IV	II	II
Madison fine sandy loam, 10 to 15 percent slopes	III	II	II
Madison fine sandy loam, 14 to 25 percent slopes	IV	II	II
Madison fine sandy loam, 15 to 45 percent slopes	IV	II	II
Madison gravelly fine sandy loam, 2 to 6 percent slopes	II	II	II
Madison gravelly fine sandy loam, 2 to 6 percent slopes, eroded	II	II	II
Madison gravelly fine sandy loam, 6 to 10 percent slopes	III	II	II
Madison gravelly fine sandy loam, 6 to 10 percent slopes, eroded	III	II	II
Madison gravelly fine sandy loam, 7 to 10 percent slopes	III	II	II
Madison gravelly fine sandy loam, 10 to 14 percent slopes	III	II	II
Madison gravelly fine sandy loam, 10 to 15 percent slopes	III	II	II
Madison gravelly fine sandy loam, ALL OTHER	IV	II	II
Madison gravelly sandy clay loam, 2 to 8 percent slopes, moderately eroded	III	II	II
Madison gravelly sandy clay loam, 8 to 15 percent slopes, moderately eroded	IV	II	II
Madison gravelly sandy loam, 10 to 25 percent slopes, eroded	IV	II	II
Madison gravelly sandy loam, ALL OTHER	III	II	II
Madison sandy clay loam, 2 to 8 percent slopes, eroded	III	II	II
Madison sandy clay loam, 8 to 15 percent slopes, eroded	IV	II	II
Madison sandy clay loam, 15 to 25 percent slopes, eroded	IV	II	II
Madison sandy loam, 2 to 6 percent slopes	II	II	II
Madison sandy loam, 2 to 6 percent slopes, eroded	II	II	II
Madison sandy loam, 6 to 10 percent slopes	II	II	II
Madison sandy loam, 6 to 10 percent slopes, eroded	III	II	II
Madison sandy loam, 8 to 15 percent slopes	III	II	II
Madison sandy loam, 10 to 15 percent slopes	III	II	II
Madison sandy loam, ALL OTHER	IV	II	II
Madison-Bethlehem complex, 2 to 8 percent slopes, stony, moderately eroded	III	II	II
Madison-Bethlehem complex, 8 to 15 percent slopes, very stony, moderately eroded	IV	II	III
Madison-Bethlehem-Urban Land complex, 2 to 8 percent slopes	IV	II	IV
Madison-Udorthents complex, 2 to 15 percent slopes, gullied	IV	II	IV
Madison-Urban land complex, 2 to 10 percent slopes	IV	II	IV
Mantachie soils	III	III	II
Masada fine sandy loam, ALL	I	II	I
Masada gravelly sandy clay loam, eroded, ALL	II	II	I
Masada loam, 2 to 8 percent slopes	I	II	I
Masada loam, 8 to 15 percent slopes	II	II	I
Masada sandy clay loam, eroded ALL	II	II	I
Masada sandy loam, 2 to 8 percent slopes	I	II	I
Masada sandy loam, 8 to 15 percent slopes	II	II	I
Masada sandy loam, 15 to 25 percent slopes	IV	II	II
Masada-Urban land complex, 2 to 15 percent slopes	IV	II	IV
Mayodan fine sandy loam, 2 to 6 percent slopes	II	I	I
Mayodan fine sandy loam, 2 to 6 percent slopes, eroded	II	I	I
Mayodan fine sandy loam, 2 to 7 percent slopes	II	I	I

Map Unit Name	Agri	For	Hort
Mayodan fine sandy loam, 2 to 8 percent slopes	II	I	I
Mayodan fine sandy loam, 6 to 10 percent slopes	III	I	I
Mayodan fine sandy loam, 7 to 10 percent slopes	III	I	I
Mayodan fine sandy loam, 7 to 10 percent slopes, eroded	III	I	I
Mayodan fine sandy loam, 8 to 15 percent slopes	III	I	I
Mayodan fine sandy loam, 10 to 14 percent slopes	III	I	I
Mayodan fine sandy loam, 10 to 14 percent slopes, eroded	III	I	II
Mayodan fine sandy loam, ALL OTHER	IV	I	II
Mayodan gravelly sandy loam, 2 to 6 percent slopes	II	I	I
Mayodan gravelly sandy loam, 2 to 6 percent slopes, eroded	II	I	I
Mayodan gravelly sandy loam, 2 to 8 percent slopes	II	I	I
Mayodan gravelly sandy loam, 6 to 10 percent slopes	III	I	I
Mayodan gravelly sandy loam, 6 to 10 percent slopes, eroded	IV	I	I
Mayodan gravelly sandy loam, 8 to 15 percent slopes	III	I	II
Mayodan gravelly sandy loam, 10 to 15 percent slopes	III	I	II
Mayodan gravelly sandy loam, 15 to 25 percent slopes	IV	I	II
Mayodan sandy clay loam, 2 to 8 percent slopes, eroded	II	I	II
Mayodan sandy clay loam, 8 to 15 percent slopes, eroded	III	I	II
Mayodan sandy clay loam, 15 to 25 percent slopes, eroded	IV	I	II
Mayodan sandy loam, 2 to 6 percent slopes	II	I	I
Mayodan sandy loam, 2 to 6 percent slopes, eroded	II	I	I
Mayodan sandy loam, 2 to 8 percent slopes	II	I	I
Mayodan sandy loam, 6 to 10 percent slopes	III	I	I
Mayodan sandy loam, 6 to 10 percent slopes, eroded	III	I	I
Mayodan sandy loam, 8 to 15 percent slopes	III	I	II
Mayodan sandy loam, 10 to 15 percent slopes	III	I	II
Mayodan sandy loam, 10 to 15 percent slopes, eroded	IV	I	II
Mayodan sandy loam, 15 to 25 percent slopes	IV	I	II
Mayodan sandy loam, 15 to 25 percent slopes, stony	IV	I	IV
Mayodan silt loam, 2 to 8 percent slopes	II	I	I
Mayodan silt loam, 8 to 15 percent slopes	III	I	II
Mayodan silt loam, 15 to 25 percent slopes	IV	I	II
Mayodan silt loam, 25 to 45 percent slopes	IV	I	III
Mayodan silt loam, thin, ALL	III	I	II
Mayodan silty clay loam, 2 to 8 percent slopes, eroded	III	I	II
Mayodan silty clay loam, 8 to 15 percent slopes, eroded	IV	I	II
Mayodan-Brickhaven complex, 15 to 30 percent slopes	IV	I	III
Mayodan-Exway complex, eroded, ALL	III	I	II
Mayodan-Pinkston complex, 25 to 45 percent slopes	IV	I	III
Mayodan-Urban land complex, ALL	IV	I	IV
McQueen loam, 1 to 6 percent slopes	II	II	II
Mecklenburg clay loam, 2 to 8 percent slopes, eroded	II	II	II
Mecklenburg clay loam, 2 to 8 percent slopes, moderately eroded	II	II	II
Mecklenburg clay loam, 6 to 15 percent slopes, severely eroded	IV	II	II
Mecklenburg clay loam, 8 to 15 percent slopes, eroded	III	II	II
Mecklenburg clay loam, 8 to 15 percent slopes, moderately eroded	III	II	II
Mecklenburg clay loam, severely eroded sloping phase	IV	II	II
Mecklenburg fine sandy loam, 2 to 6 percent slopes	II	II	I
Mecklenburg fine sandy loam, 2 to 8 percent slopes	II	II	II
Mecklenburg fine sandy loam, 8 to 15 percent slopes	III	II	II
Mecklenburg loam, 2 to 6 percent slopes	II	II	I
Mecklenburg loam, 2 to 6 percent slopes, eroded	II	II	II

Map Unit Name	Agri	For	Hort
Mecklenburg loam, 2 to 7 percent slopes, eroded	II	II	II
Mecklenburg loam, 2 to 8 percent slopes	II	II	I
Mecklenburg loam, 6 to 10 percent slopes	II	II	II
Mecklenburg loam, 6 to 10 percent slopes, eroded	II	II	II
Mecklenburg loam, 7 to 14 percent slopes, eroded	III	II	II
Mecklenburg loam, 8 to 15 percent slopes	III	II	II
Mecklenburg loam, 10 to 15 percent slopes, eroded	III	II	II
Mecklenburg loam, ALL OTHER	IV	II	II
Mecklenburg loam, dark surface variant, 2 to 6 percent slopes	II	II	I
Mecklenburg loam, dark surface variant, 6 to 10 percent slopes	II	II	II
Mecklenburg loam, dark surface variant, 10 to 15 percent slopes	III	II	II
Mecklenburg loam, eroded gently sloping phase	II	II	II
Mecklenburg loam, eroded sloping phase	II	II	II
Mecklenburg loam, eroded strongly sloping phase	III	II	II
Mecklenburg sandy clay loam, eroded, ALL	III	II	II
Mecklenburg-Urban land complex, ALL	IV	II	IV
Miscellaneous water	IV	VI	IV
Misenheimer channery silt loam, 0 to 4 percent slopes	IV	V	III
Misenheimer-Callison complex, 0 to 3 percent slopes	IV	V	III
Misenheimer-Cid complex, 0 to 3 percent slopes	IV	V	III
Misenheimer-Kirksey complex, 0 to 5 percent slopes	IV	V	III
Mixed alluvial land, ALL	IV	III	III
Mocksville sandy loam, 2 to 8 percent slopes	II	II	II
Mocksville sandy loam, 8 to 15 percent slopes	III	II	II
Mocksville sandy loam, 15 to 45 percent slopes	IV	II	III
Moderately gullied land, ALL	IV	VI	IV
Monacan and Arents soils	I	III	IV
Monacan loam	I	III	III
Montonia very channery silt loam, 25 to 60 percent slopes, very stony	IV	V	IV
Mooshaunee-Hallison complex, 2 to 8 percent slopes	III	II	II
Mooshaunee-Hallison complex, 8 to 15 percent slopes	IV	II	III
Mooshaunee-Hallison complex, 15 to 25 percent slopes	IV	II	IV
Mooshaunee-Hallison complex, ALL OTHER	IV	II	IV
Nanford gravelly fine sandy loam, 8 to 15 percent slopes	III	II	II
Nanford silt loam, 2 to 6 percent slopes	II	II	I
Nanford silt loam, 2 to 8 percent slopes	II	II	I
Nanford silt loam, 8 to 15 percent slopes	III	II	II
Nanford silty clay loam, 2 to 6 percent slopes, moderately eroded	III	II	II
Nanford-Badin complex, 6 to 10 percent slopes	III	II	II
Nanford-Badin complex, 10 to 15 percent slopes	IV	II	II
Nanford-Emporia complex, 2 to 8 percent slopes	II	II	I
Nason gravelly loam, 2 to 6 percent slopes	III	II	I
Nason gravelly loam, 6 to 10 percent slopes	III	II	II
Nason gravelly loam, 10 to 25 percent slopes	IV	II	II
Nason gravelly loam, 25 to 50 percent slopes	IV	II	III
Nason gravelly silt loam, 2 to 8 percent slopes	II	II	I
Nason gravelly silt loam, 8 to 15 percent slopes	III	II	II
Nason loam, 2 to 6 percent slopes	II	II	I
Nason loam, 6 to 10 percent slopes	III	II	I
Nason silt loam, 2 to 6 percent slopes	II	II	I
Nason silt loam, 2 to 8 percent slopes	II	II	I
Nason silt loam, 6 to 12 percent slopes	III	II	I

Map Unit Name	Agri	For	Hort
Nason silt loam, 8 to 15 percent slopes	III	II	I
Nason silt loam, 10 to 15 percent slopes	III	II	I
Nason silt loam, 15 to 25 percent slopes	IV	II	II
Nason stony silt loam, 10 to 15 percent slopes (Uwharrie)	IV	II	IV
Oakboro silt loam, ALL	III	III	III
Orange gravelly loam, 2 to 7 percent slopes	II	II	II
Orange loam, 0 to 2 percent slopes	II	II	II
Orange silt loam, 0 to 3 percent slopes	II	II	II
Orange silt loam, eroded gently sloping moderately well drained variant	III	II	II
Orange silt loam, eroded gently sloping phase	III	II	II
Orange silt loam, eroded sloping moderately well drained variant	III	II	II
Orange silt loam, gently sloping moderately well drained variant	III	II	II
Orange silt loam, gently sloping phase	II	II	II
Orange silt loam, nearly level phase	II	II	II
Orange silt loam, sloping moderately well drained variant	III	II	II
Pacolet clay loam, 2 to 6 percent slopes, eroded	II	II	II
Pacolet clay loam, 2 to 8 percent slopes, moderately eroded	II	II	II
Pacolet clay loam, 6 to 10 percent slopes, eroded	III	II	II
Pacolet clay loam, 6 to 10 percent slopes, severely eroded	III	II	II
Pacolet clay loam, 8 to 15 percent slopes, moderately eroded	III	II	II
Pacolet clay loam, 10 to 15 percent slopes, eroded	III	II	II
Pacolet clay loam, 15 to 45 percent slopes, eroded	IV	II	II
Pacolet complex, 10 to 25 percent slopes, severely eroded	IV	II	III
Pacolet fine sandy loam, 2 to 6 percent slopes	II	II	I
Pacolet fine sandy loam, 6 to 10 percent slopes	III	II	I
Pacolet fine sandy loam, 8 to 15 percent slopes	III	II	II
Pacolet fine sandy loam, 10 to 15 percent slopes	III	II	II
Pacolet fine sandy loam, ALL OTHER	IV	II	II
Pacolet gravelly fine sandy loam, 2 to 6 percent slopes	II	II	I
Pacolet gravelly fine sandy loam, 6 to 10 percent slopes	III	II	II
Pacolet gravelly fine sandy loam, 8 to 15 percent slopes	III	II	II
Pacolet gravelly fine sandy loam, 15 to 25 percent slopes	IV	II	II
Pacolet gravelly sandy clay loam, 15 to 30 percent slopes, eroded	IV	II	II
Pacolet gravelly sandy loam, 2 to 8 percent slopes	II	II	I
Pacolet gravelly sandy loam, 8 to 15 percent slopes	III	II	II
Pacolet gravelly sandy loam, ALL OTHER	IV	II	II
Pacolet loam, 10 to 15 percent slopes	III	II	II
Pacolet loam, 15 to 25 percent slopes	IV	II	II
Pacolet sandy clay loam, 2 to 6 percent slopes, eroded	II	II	II
Pacolet sandy clay loam, 2 to 6 percent slopes, moderately eroded	II	II	II
Pacolet sandy clay loam, 2 to 8 percent slopes, eroded	II	II	II
Pacolet sandy clay loam, 6 to 10 percent slopes, moderately eroded	III	II	II
Pacolet sandy clay loam, 8 to 15 percent slopes, eroded	III	II	II
Pacolet sandy clay loam, 8 to 15 percent slopes, moderately eroded	III	II	II
Pacolet sandy clay loam, 10 to 15 percent slopes, moderately eroded	III	II	II
Pacolet sandy clay loam, ALL OTHER	IV	II	II
Pacolet sandy loam, 2 to 6 percent slopes	II	II	I
Pacolet sandy loam, 2 to 8 percent slopes	II	II	I
Pacolet sandy loam, 6 to 10 percent slopes	III	II	II
Pacolet sandy loam, 8 to 15 percent slopes	III	II	II
Pacolet sandy loam, 10 to 15 percent slopes	III	II	II
Pacolet sandy loam, ALL OTHER	IV	II	II

Map Unit Name	Agri	For	Hort
Pacolet soils, 10 to 25 percent slopes	IV	II	III
Pacolet-Bethlehem complex, 2 to 8 percent slopes, eroded	III	II	II
Pacolet-Bethlehem complex, 2 to 8 percent slopes, moderately eroded	III	II	II
Pacolet-Bethlehem complex, ALL OTHER	IV	II	II
Pacolet-Bethlehem complex, 15 to 25 percent slopes, stony	IV	II	III
Pacolet-Bethlehem-Urban Land complex, ALL	IV	II	IV
Pacolet-Madison-Urban land complex, ALL	IV	II	IV
Pacolet-Saw complex, 2 to 8 percent slopes, eroded	III	II	II
Pacolet-Saw complex, 2 to 8 percent slopes, moderately eroded	III	II	II
Pacolet-Saw complex, ALL OTHER	IV	II	II
Pacolet-Udorthents complex, gullied, ALL	IV	II	IV
Pacolet-Urban land complex, ALL	IV	II	IV
Pacolet-Wilkes complex, 8 to 15 percent slopes	III	II	II
Pacolet-Wilkes complex, 15 to 25 percent slopes	IV	II	II
Picture loam, 0 to 3 percent slopes	IV	II	III
Pinkston, ALL	IV	II	III
Pinoka, ALL	IV	II	III
Pinoka-Carbonton complex, 2 to 8 percent slopes	IV	II	III
Pits, ALL	IV	VI	IV
Poindexter and Zion sandy loams, 2 to 8 percent slopes	III	II	II
Poindexter and Zion sandy loams, 8 to 15 percent slopes	IV	II	II
Poindexter and Zion sandy loams, ALL OTHER	IV	II	III
Poindexter fine sandy loam, 25 to 60 percent slopes	IV	II	III
Poindexter loam, 2 to 8 percent slopes	III	II	II
Poindexter loam, 8 to 15 percent slopes	IV	II	II
Poindexter loam, 15 to 45 percent slopes	IV	II	III
Poindexter-Mocksville complex, 2 to 8 percent slopes	IV	II	II
Poindexter-Mocksville complex, 8 to 15 percent slopes	IV	II	II
Poindexter-Mocksville complex, ALL OTHER	IV	II	III
Poindexter-Zion-Urban land complex, 2 to 15 percent slopes	IV	II	IV
Polkton-White Store complex, 2 to 8 percent slopes, severely eroded	III	II	III
Polkton-White Store complex, ALL OTHER	IV	II	III
Quarry, ALL	IV	VI	IV
Rhodhiss, ALL	IV	II	II
Rhodhiss-Bannertown complex, 25 to 50 percent slopes	IV	II	III
Rion fine sandy loam, 2 to 8 percent slopes	III	II	II
Rion fine sandy loam, 8 to 15 percent slopes	IV	II	II
Rion fine sandy loam, 15 to 25 percent slopes	IV	II	II
Rion fine sandy loam, 25 to 60 percent slopes	IV	II	III
Rion loamy sand, 8 to 15 percent slopes	IV	II	II
Rion loamy sand, 15 to 25 percent slopes	IV	II	III
Rion sandy loam, 2 to 8 percent slopes	III	II	II
Rion sandy loam, 8 to 15 percent slopes	III	II	II
Rion sandy loam, 15 to 25 percent slopes	IV	II	II
Rion sandy loam, 15 to 30 percent slopes	IV	II	II
Rion sandy loam, ALL OTHER	IV	II	III
Rion, Pacolet, and Wateree soils, 25 to 60 percent slopes	IV	II	IV
Rion-Ashlar complex, 15 to 35 percent slopes, stony	IV	II	III
Rion-Ashlar complex, 25 to 60 percent slopes, rocky	IV	II	IV
Rion-Ashlar-Rock outcrop complex, 45 to 70 percent slopes	IV	II	IV
Rion-Cliffside complex, 25 to 60 percent slopes, very stony	IV	II	IV
Rion-Hibriten complex, 25 to 45 percent slopes, very stony	IV	II	IV

Map Unit Name	Agri	For	Hort
Rion-Urban land complex, 2 to 10 percent slopes	IV	II	IV
Rion-Wateree-Wedowee complex, 8 to 15 percent slopes	IV	II	III
Rion-Wedowee complex, ALL	III	II	II
Rion-Wedowee-Ashlar complex, ALL	IV	II	III
Riverview and Buncombe soils, 0 to 3 percent slopes, frequently flooded	II	III	III
Riverview and Toccoa soils, 0 to 4 percent slopes, occasionally flooded	II	III	III
Riverview, frequently flooded, ALL	II	III	III
Riverview, occasionally flooded, ALL	I	III	III
Roanoke, ALL	II	III	III
Roanoke-Wahee complex, 0 to 3 percent slopes, occasionally flooded	II	III	III
Rock outcrop	IV	VI	IV
Rock outcrop-Ashlar complex, 2 to 15 percent slopes	IV	VI	IV
Rock outcrop-Wake complex, ALL	IV	VI	IV
Sauratown channery fine sandy loam, 25 to 60 percent slopes, very stony	IV	IV	IV
Saw-Pacolet complex, ALL	IV	II	II
Saw-Wake Complex, very rocky, ALL	IV	II	IV
Secrest-Cid complex, 0 to 3 percent slopes	III	II	II
Sedgefield fine sandy loam, 1 to 4 percent slopes	II	II	II
Sedgefield fine sandy loam, 1 to 6 percent slopes	III	II	II
Sedgefield sandy loam, 1 to 6 percent slopes	III	II	II
Sedgefield sandy loam, 2 to 8 percent slopes	III	II	II
Severely gullied land, ALL	IV	VI	IV
Shellbluff loam, 0 to 2 percent slopes, occasionally flooded	II	III	III
Shellbluff silt loam, 0 to 2 percent slopes, frequently flooded	IV	III	III
Skyuka clay loam, 2 to 8 percent slopes, eroded	II	I	II
Skyuka loam, 2 to 8 percent slopes	I	I	II
Spray loam, 0 to 5 percent slopes	IV	II	III
Spray-Urban land complex, 0 to 5 percent slopes	IV	II	IV
Starr loam, ALL	II	I	III
State, ALL	I	I	I
Stoneville loam, 2 to 8 percent slopes	II	II	I
Stoneville loam, 8 to 15 percent slopes	III	II	I
Stoneville loam, 15 to 25 percent slopes	IV	II	II
Stoneville-Urban land complex, 2 to 10 percent slopes	IV	II	IV
Stony land	IV	VI	IV
Swamp	IV	III	IV
Tallapoosa fine sandy loam, ALL	IV	II	III
Tarrus gravelly silt loam, 2 to 8 percent slopes	II	II	I
Tarrus-Georgeville complex, 8 to 15 percent slopes	II	II	I
Tatum and Nason channery silt loams, 15 to 25 percent slopes	IV	II	II
Tatum channery silt loam, ALL	III	II	I
Tatum channery silty clay loam, ALL	III	II	II
Tatum gravelly loam, 2 to 8 percent slopes	II	II	I
Tatum gravelly loam, 8 to 15 percent slopes	III	II	I
Tatum gravelly loam, ALL OTHER	IV	II	II
Tatum gravelly silt loam, 2 to 8 percent slopes	II	II	I
Tatum gravelly silt loam, 8 to 15 percent slopes	III	II	I
Tatum gravelly silt loam, ALL OTHER	IV	II	II
Tatum gravelly silty clay loam, eroded, ALL	III	II	II
Tatum loam, 2 to 6 percent slopes	II	II	I
Tatum loam, 10 to 15 percent slopes	III	II	II
Tatum loam, ALL OTHER	IV	II	II

Map Unit Name	Agri	For	Hort
Tatum silt loam, 2 to 8 percent slopes	II	II	I
Tatum silt loam, 8 to 15 percent slopes	III	II	I
Tatum silt loam, ALL OTHER	IV	II	II
Tatum silty clay loam, eroded, ALL	III	II	II
Tatum-Badin complex, 2 to 8 percent slopes	III	II	I
Tatum-Badin complex, 2 to 8 percent slopes, eroded	III	II	II
Tatum-Badin complex, 8 to 15 percent slopes	III	II	II
Tatum-Montonia complex, 15 to 30 percent slopes	IV	II	II
Tatum-Montonia complex, ALL OTHER	III	II	II
Tatum-Urban land complex, 2 to 8 percent slopes	IV	II	IV
Tetotum fine sandy loam, 1 to 4 percent slopes	I	I	I
Tetotum silt loam, 0 to 3 percent slopes	I	I	I
Tirzah silt loam, eroded gently sloping phase (Tatum)	III	II	I
Tirzah silt loam, eroded sloping phase (Tatum)	II	II	I
Tirzah silt loam, eroded strongly sloping phase (Tatum)	III	II	II
Tirzah silt loam, gently sloping phase (Stoneville)	II	II	II
Tirzah silt loam, sloping phase (Stoneville)	III	II	II
Tirzah silt loam, strongly sloping phase (Stoneville)	III	II	II
Tirzah silty clay loam, severely eroded gently sloping phase (Tatum)	III	II	II
Tirzah silty clay loam, severely eroded sloping phase (Tatum)	III	II	II
Tirzah silty clay loam, severely eroded strongly sloping phase (Tatum)	IV	II	II
Toast sandy loam, 2 to 8 percent slopes	II	I	I
Toast sandy loam, 8 to 15 percent slopes	III	I	II
Toccoa, ALL	I	III	III
Turbeville fine sandy loam, 0 to 3 percent slopes	I	II	I
Udorthents, ALL	IV	VI	IV
Udorthents-Pits complex, mounded, 0 to 2 percent slopes, occasionally flooded	IV	VI	IV
Udorthents-Urban land complex, ALL	IV	VI	IV
Urban land, ALL	IV	VI	IV
Urban land-Arents complex, occasionally flooded	IV	III	IV
Urban land-Iredell-Creedmoor complex, 2 to 10 percent slopes	IV	II	IV
Urban land-Masada complex, 2 to 15 percent slopes	IV	II	IV
Uwharrie clay loam, 2 to 8 percent slopes, eroded	III	II	III
Uwharrie clay loam, 8 to 15 percent slopes, eroded	IV	II	III
Uwharrie loam, 15 to 25 percent slopes	IV	II	III
Uwharrie loam, very stony, ALL	IV	II	III
Uwharrie silt loam, 2 to 8 percent slopes	II	II	I
Uwharrie silty clay loam, 2 to 8 percent slopes, eroded	III	II	II
Uwharrie silty clay loam, 2 to 8 percent slopes, moderately eroded	III	II	II
Uwharrie silty clay loam, 8 to 15 percent slopes, eroded	IV	II	II
Uwharrie stony loam, ALL	IV	II	III
Uwharrie stony loam, very bouldery, ALL	IV	II	IV
Uwharrie-Badin complex, ALL	IV	II	III
Uwharrie-Tatum complex, 8 to 15 percent slopes	III	II	III
Uwharrie-Tatum complex, 8 to 15 percent slopes, moderately eroded	IV	II	III
Uwharrie-Urban Land, 2 to 8 percent slopes	IV	II	IV
Vance clay loam, severely eroded sloping phase	IV	II	II
Vance coarse sandy loam, 2 to 8 percent slopes	II	II	II
Vance coarse sandy loam, eroded gently sloping phase	III	II	II
Vance coarse sandy loam, eroded sloping phase	III	II	II
Vance coarse sandy loam, gently sloping phase	II	II	II

Map Unit Name	Agri	For	Hort
Vance sandy clay loam, ALL	III	II	II
Vance sandy loam, 2 to 6 percent slopes	II	II	II
Vance sandy loam, 2 to 6 percent slopes, eroded	III	II	II
Vance sandy loam, 2 to 8 percent slopes	II	II	II
Vance sandy loam, 6 to 10 percent slopes	III	II	II
Vance sandy loam, 6 to 10 percent slopes, eroded	III	II	II
Vance sandy loam, 8 to 15 percent slopes	III	II	II
Vance sandy loam, 10 to 15 percent slopes	III	II	II
Vance sandy loam, eroded gently sloping phase	III	II	II
Vance sandy loam, eroded moderately sloping phase	III	II	II
Vance sandy loam, eroded strongly sloping phase	IV	II	II
Vance sandy loam, gently sloping phase	II	II	II
Vance-Urban land complex, 2 to 10 percent slopes	IV	II	IV
Wadesboro clay loam, 2 to 8 percent slopes, moderately eroded	II	I	II
Wadesboro clay loam, 8 to 15 percent slopes, moderately eroded	III	I	II
Wadesboro fine sandy loam, 2 to 7 percent slopes (Mayodan)	II	I	II
Wadesboro fine sandy loam, 2 to 7 percent slopes, eroded (Mayodan)	II	I	II
Wadesboro fine sandy loam, 7 to 10 percent slopes (Mayodan)	III	I	II
Wadesboro fine sandy loam, 7 to 10 percent slopes, eroded (Mayodan)	III	I	II
Wadesboro fine sandy loam, 10 to 14 percent slopes (Mayodan)	III	I	II
Wadesboro fine sandy loam, 10 to 14 percent slopes, eroded (Mayodan)	IV	I	II
Wadesboro fine sandy loam, 14 to 30 percent slopes (Mayodan)	IV	I	II
Wahee, ALL	II	III	I
Wake soils, ALL	IV	II	III
Wake-Saw-Wedowee complex, 2 to 8 percent slopes, rocky	IV	II	III
Wake-Wateree complex, 15 to 30 percent slopes, very rocky	IV	II	III
Wake-Wateree-Wedowee complex, 8 to 15 percent slopes, rocky	IV	II	III
Warne and Roanoke fine sandy loams (Dogue)	IV	III	II
Wateree fine sandy loam, ALL	IV	II	II
Wateree-Rion complex, 40 to 95 percent slopes	IV	II	III
Wateree-Rion-Wedowee complex, 15 to 30 percent slopes	IV	II	III
Wedowee coarse sandy loam, 2 to 6 percent slopes	II	I	I
Wedowee coarse sandy loam, 6 to 10 percent slopes	III	I	II
Wedowee loam, 2 to 8 percent slopes	II	I	I
Wedowee loam, 8 to 15 percent slopes	III	I	II
Wedowee loam, 15 to 25 percent slopes	IV	I	II
Wedowee sandy clay loam, 8 to 15 percent slopes, eroded	IV	I	II
Wedowee sandy loam, 2 to 10 percent slopes, extremely bouldery	IV	I	IV
Wedowee sandy loam, 2 to 15 percent slopes, bouldery	IV	I	III
Wedowee sandy loam, 2 to 6 percent slopes	II	I	I
Wedowee sandy loam, 2 to 6 percent slopes, eroded	II	I	II
Wedowee sandy loam, 2 to 8 percent slopes	II	I	I
Wedowee sandy loam, 6 to 10 percent slopes	III	I	II
Wedowee sandy loam, 6 to 10 percent slopes, eroded	III	I	II
Wedowee sandy loam, 6 to 15 percent slopes	III	I	II
Wedowee sandy loam, 8 to 15 percent slopes	III	I	II
Wedowee sandy loam, 10 to 15 percent slopes	III	I	II
Wedowee sandy loam, 10 to 15 percent slopes, eroded	III	I	II
Wedowee sandy loam, 10 to 25 percent slopes	III	I	II
Wedowee sandy loam, 15 to 25 percent slopes	IV	I	II
Wedowee sandy loam, 15 to 35 percent slopes, bouldery	IV	I	III
Wedowee sandy loam, 15 to 40 percent slopes	IV	I	II

Map Unit Name	Agri	For	Hort
Wedowee-Louisburg complex, 2 to 6 percent slopes	II	I	II
Wedowee-Louisburg complex, ALL OTHER	III	I	III
Wedowee-Urban land-Udorthents complex, 2 to 10 percent slopes	IV	I	IV
Wehadkee and Bibb soils	IV	III	III
Wehadkee, ALL	IV	III	III
White Store clay loam, ALL	IV	II	III
White Store fine sandy loam, moderately eroded, ALL	IV	II	III
White Store loam, 8 to 15 percent slopes	IV	II	III
White Store loam, ALL OTHER	III	II	III
White Store sandy loam, 2 to 6 percent slopes	III	II	III
White Store sandy loam, ALL OTHER	IV	II	III
White Store silt loam, 8 to 15 percent slopes	IV	II	III
White Store silt loam, ALL OTHER	III	II	III
White Store-Polkton complex, ALL	IV	II	III
White Store-Urban land complex, ALL	IV	II	IV
Wickham fine sandy loam, 0 to 3 percent slopes, rarely flooded	I	I	I
Wickham fine sandy loam, 2 to 6 percent slopes	I	I	I
Wickham fine sandy loam, 2 to 6 percent slopes, eroded	II	I	I
Wickham fine sandy loam, 2 to 7 percent slopes, eroded	II	I	I
Wickham fine sandy loam, 2 to 8 percent slopes	II	I	I
Wickham fine sandy loam, 6 to 10 percent slopes	II	I	I
Wickham fine sandy loam, 6 to 10 percent slopes, eroded	III	I	II
Wickham fine sandy loam, 7 to 14 percent slopes, eroded	III	I	II
Wickham fine sandy loam, 10 to 15 percent slopes	III	I	II
Wickham sandy loam, ALL	I	I	I
Wilkes, ALL	IV	II	III
Wilkes-Poindexter-Wynott complex, ALL	IV	II	III
Wilkes-Urban land complex, 8 to 15 percent slopes	IV	II	IV
Winnsboro fine sandy loam, 2 to 8 percent slopes	II	II	I
Winnsboro loam, 2 to 8 percent slopes	III	II	I
Winnsboro loam, 8 to 15 percent slopes	IV	II	II
Winnsboro-Wilkes complex, 2 to 8 percent slopes	III	II	II
Winnsboro-Wilkes complex, ALL OTHER	IV	II	III
Woolwine-Fairview complex, 2 to 8 percent slopes, moderately eroded	III	II	II
Woolwine-Fairview complex, moderately eroded, ALL OTHER	IV	II	II
Woolwine-Fairview-Urban land complex, ALL	IV	II	IV
Worsham, ALL	IV	III	III
Wynott cobbly loam, 2 to 10 percent slopes, extremely stony	IV	II	IV
Wynott loam, 2 to 8 percent slopes	III	II	II
Wynott-Enon complex, 2 to 8 percent slopes	II	II	II
Wynott-Enon complex, 2 to 8 percent slopes, moderately eroded	II	II	II
Wynott-Enon complex, 8 to 15 percent slopes	II	II	II
Wynott-Enon complex, 8 to 15 percent slopes, moderately eroded	III	II	II
Wynott-Enon complex, 15 to 25 percent slopes	IV	II	II
Wynott-Enon complex, extremely bouldery, ALL	IV	II	IV
Wynott-Wilkes-Poindexter complex, 2 to 8 percent slopes	IV	II	II
Wynott-Winnsboro complex, 2 to 8 percent slopes	II	II	II
Wynott-Winnsboro complex, 8 to 15 percent slopes	II	II	II
Wynott-Winnsboro complex, 15 to 25 percent slopes	IV	II	II
Zion gravelly loam, 2 to 8 percent slopes	III	II	II
Zion gravelly loam, 8 to 15 percent slopes	IV	II	II
Zion-Enon complex, 2 to 8 percent slopes	III	II	III

Map Unit Name	Agri	For	Hort
Zion-Enon complex, 8 to 15 percent slopes	IV	II	II
Zion-Mocksville complex, 25 to 45 percent slopes	IV	II	III
Zion-Wilkes complex, 8 to 15 percent slopes	IV	II	II
Zion-Winnsboro-Mocksville complex, ALL	IV	II	II

Map Unit Name	Agri	For	Hort
Ailey gravelly loamy sand, 8 to 15 percent slopes	III	V	III
Ailey gravelly loamy sand, 15 to 25 percent slopes	IV	V	IV
Ailey loamy sand, ALL	III	V	III
Ailey sand, moderately wet, 0 to 6 percent slopes	II	V	II
Ailey-Urban land complex, ALL	IV	V	IV
Bibb loam, 0 to 2 percent slopes, frequently flooded	IV	III	IV
Blaney loamy sand, 2 to 8 percent slopes	II	II	II
Blaney loamy sand, 8 to 15 percent slopes	III	II	III
Blaney-Urban land complex, ALL	IV	II	IV
Bragg sandy loam, 1 to 4 percent slopes	IV	V	IV
Candor and Wakulla soils, 8 to 15 percent slopes	IV	V	IV
Candor sand, ALL	IV	V	IV
Candor-Urban land complex, 2 to 12 percent slopes	IV	V	IV
Dothan gravelly loamy sand, 0 to 6 percent slopes	I	II	I
Dothan loamy sand, ALL	I	II	I
Emporia loamy sand, ALL	II	II	II
Faceville sandy clay loam, 2 to 6 percent slopes, eroded	II	II	II
Fuquay, ALL	II	II	II
Fuquay-Urban land complex, 0 to 6 percent slopes	IV	II	IV
Gilead loamy sand, ALL	II	II	II
Johns fine sandy loam, 0 to 2 percent slopes	I	I	I
Johnston, ALL	IV	III	IV
Kalmia sandy loam, wet substratum, 0 to 2 percent slopes	I	II	I
Kenansville loamy sand, 0 to 4 percent slopes	II	I	II
Lakeland, ALL	IV	V	IV
Lakeland-Urban land complex, 1 to 8 percent slopes	IV	V	IV
Lillington gravelly sandy loam, 2 to 8 percent slopes	III	II	III
Lillington gravelly sandy loam, 8 to 15 percent slopes	IV	II	IV
Lillington gravelly sandy loam, 15 to 25 percent slopes	IV	II	IV
Pactolus sand, 0 to 3 percent slopes	IV	II	IV
Paxville fine sandy loam, 0 to 2 percent slopes	I	III	I
Pelion loamy sand, 0 to 2 percent slopes	II	II	II
Pelion loamy sand, 1 to 4 percent slopes	IV	II	IV
Pelion loamy sand, 2 to 8 percent slopes	III	II	III
Pelion loamy sand, 8 to 15 percent slopes	IV	II	IV
Pelion-Urban land complex, ALL	IV	II	IV
Pelion-Urban land complex, 8 to 15 percent slopes	IV	II	IV
Pocalla loamy sand, 0 to 6 percent slopes	II	II	II
Rains fine sandy loam, 0 to 2 percent slopes	III	I	III
Tetotum silt loam, 0 to 3 percent slopes, rarely flooded	I	I	I
Udorthents, ALL	IV	VI	IV
Urban land, ALL	IV	VI	IV
Vaucluse gravelly loamy sand, 2 to 8 percent slopes	III	II	III
Vaucluse gravelly loamy sand, 8 to 15 percent slopes	IV	II	IV
Vaucluse gravelly loamy sand, 15 to 25 percent slopes	IV	II	IV
Vaucluse gravelly sandy loam, ALL	III	II	III
Vaucluse gravelly sandy loam, 8 to 15 percent slopes	III	II	III
Vaucluse gravelly sandy loam, 15 to 25 percent slopes	III	II	III
Vaucluse loamy sand, 2 to 8 percent slopes	II	II	II
Vaucluse loamy sand, 8 to 15 percent slopes	III	II	III
Vaucluse loamy sand, 15 to 25 percent slopes	IV	II	IV
Vaucluse very gravelly loamy sand, ALL	IV	II	IV

Map Unit Name	Agri	For	Hort
Vaucluse-Gilead loamy sands, 15 to 25 percent slopes	IV	II	IV
Vaucluse-Urban land complex, ALL	IV	II	IV
Wakulla and Candor soils, 0 to 8 percent slopes	IV	V	IV
Wakulla sand, ALL	IV	V	IV
Wakulla-Candor-Urban land complex, 0 to 10 percent slopes	IV	V	IV
Wehadkee fine sandy loam	IV	III	IV
Wehadkee loam, 0 to 2 percent slopes, frequently flooded	IV	III	IV

Map Unit Name	Agri	For	Hort
Alaga, ALL	IV	II	IV
Alpin, ALL	IV	II	IV
Altavista, ALL	I	I	I
Altavista-Urban land complex, 0 to 2 percent slopes	IV	I	IV
Arapahoe fine sandy loam	II	I	II
Augusta, ALL	II	I	II
Autryville fine sand, 1 to 4 percent slopes	IV	II	IV
Autryville, ALL OTHER	III	II	III
Aycock, ALL ERODED	II	I	II
Aycock, ALL OTHER	I	I	I
Ballahack loam, 0 to 2 percent slopes, occasionally flooded	I	I	I
Bayboro, ALL	I	I	I
Baymeade and Marvyn soils, 6 to 12 percent slopes	IV	V	IV
Baymeade fine sand, ALL	IV	V	IV
Baymeade-Urban land complex, 0 to 6 percent slopes	IV	V	IV
Bethera, ALL	II	I	II
Bibb and Johnston loams, frequently flooded	IV	III	IV
Bibb, ALL	IV	III	IV
Bladen, ALL	III	I	III
Blanton, ALL	IV	V	IV
Bohicket, ALL	IV	VI	IV
Bonneau loamy fine sand, 0 to 6 percent slopes	II	II	II
Bonneau loamy sand, 0 to 4 percent slopes	II	II	II
Bonneau loamy sand, 0 to 6 percent slopes	II	II	II
Bonneau loamy sand, 6 to 10 percent slopes	III	II	III
Bonneau loamy sand, 6 to 12 percent slopes	III	II	III
Borrow pits	IV	VI	IV
Bragg, ALL	IV	VI	IV
Brookman loam, frequently flooded	IV	III	IV
Butters loamy fine sand, 0 to 3 percent slopes	III	II	III
Byars loam	II	III	II
Cainhoy, ALL	IV	V	IV
Cape Fear loam, ALL	I	I	I
Caroline fine sandy loam, ALL	II	II	II
Carteret, ALL	IV	VI	IV
Centenary fine sand	IV	II	IV
Chastain and Chenneby soils, frequently flooded	IV	III	IV
Chastain silt loam, frequently flooded	IV	III	IV
Chewacla and Chastain soils, frequently flooded	IV	III	IV
Chewacla loam, frequently flooded	IV	III	IV
Chipley sand	IV	II	IV
Chowan silt loam	IV	III	IV
Conetoe, ALL	III	II	III
Congaree silt loam, 0 to 4 percent slopes, occasionally flooded	I	III	I
Corolla fine sand	IV	VI	IV
Coxville, ALL	II	I	II
Craven clay loam, 4 to 12 percent slopes, eroded	IV	I	IV
Craven fine sandy loam, 0 to 1 percent slopes	II	I	II
Craven fine sandy loam, 1 to 4 percent slopes	II	I	II
Craven fine sandy loam, 1 to 6 percent slopes, eroded	III	I	III
Craven fine sandy loam, 4 to 8 percent slopes	III	I	III
Craven fine sandy loam, 4 to 8 percent slopes, eroded	IV	I	IV

Map Unit Name	Agri	For	Hort
Craven fine sandy loam, 6 to 10 percent slopes	IV	I	IV
Craven fine sandy loam, 8 to 12 percent slopes, eroded	IV	I	IV
Craven loam, 1 to 4 percent slopes	II	I	II
Craven loam, 1 to 4 percent slopes, eroded	III	I	III
Craven silt loam, 1 to 4 percent slopes	II	I	II
Craven very fine sandy loam, 1 to 4 percent slopes	II	I	II
Craven very fine sandy loam, 4 to 8 percent slopes	IV	I	IV
Craven-Urban land complex, 0 to 2 percent slopes	IV	I	IV
Croatan muck, frequently flooded	III	V	III
Croatan muck, ALL OTHER	II	V	II
Dogue sandy loam, 0 to 2 percent slopes	II	I	II
Dogue sandy loam, 2 to 6 percent slopes	III	I	III
Dogue sandy loam, 6 to 12 percent slopes	IV	I	IV
Dorovan, ALL	IV	V	IV
Duckston fine sand	IV	VI	IV
Echaw, ALL	IV	V	IV
Exum fine sandy loam, 0 to 1 percent slopes	I	II	I
Exum fine sandy loam, 1 to 6 percent slopes	II	II	II
Exum loam, 0 to 2 percent slopes	I	II	I
Exum silt loam, 0 to 2 percent slopes	I	II	I
Exum very fine sandy loam, 0 to 2 percent slopes	I	II	I
Exum very fine sandy loam, 2 to 5 percent slopes	II	II	II
Exum-Urban land complex, 0 to 2 percent slopes	IV	II	IV
Foreston loamy fine sand, ALL	II	II	II
Goldsboro sandy loam, 1 to 6 percent slopes	I	I	I
Goldsboro, ALL OTHER	I	I	I
Goldsboro-Urban land complex, ALL	IV	I	IV
Grantham, ALL	I	I	I
Grifton, ALL	II	I	II
Hobonny muck	IV	VI	IV
Icaria fine sandy loam, ALL	II	I	II
Invershiel-Pender complex, 0 to 2 percent slopes	I	II	I
Johns, ALL	II	I	II
Johnston and Pamlico soils, 0 to 1 percent slopes, frequently flooded	IV	III	IV
Johnston soils	IV	III	IV
Kalmia, ALL	II	II	II
Kenansville, ALL	III	II	III
Kinston loam, frequently flooded	IV	III	IV
Kureb, ALL	IV	V	IV
Lafitte muck	IV	VI	IV
Lakeland sand, 0 to 6 percent slopes	IV	V	IV
Leaf, ALL	III	I	III
Lenoir, ALL	III	I	III
Leon, ALL	IV	V	III
Leon-Urban land complex	IV	V	IV
Liddell silt loam	II	I	II
Lucy loamy sand, 0 to 6 percent slopes	II	II	II
Lumbee, ALL	II	I	II
Lynchburg, ALL	II	I	II
Lynchburg-Urban land complex	IV	I	IV
Lynn Haven sand	IV	II	IV
Mandarin, ALL	IV	V	IV

Map Unit Name	Agri	For	Hort
Mandarin-Urban land complex	IV	V	IV
Marvyn and Craven soils, 6 to 12 percent slopes	IV	I	IV
Marvyn, ALL	IV	I	IV
Masada sandy loam, 0 to 4 percent slopes	I	II	I
Masontown, ALL	IV	III	IV
Masontown mucky fine sandy loam and Muckalee sandy loam, frequently flooded	IV	III	IV
Meggett fine sandy loam, frequently flooded	IV	III	IV
Meggett, ALL OTHER	III	I	III
Mine pits	IV	VI	IV
Muckalee loam, ALL	IV	III	IV
Murville, ALL	IV	V	IV
Nahunta, ALL	I	I	I
Nakina fine sandy loam	I	I	I
Nawney loam, 0 to 2 percent slopes, frequently flooded	IV	III	IV
Newhan, ALL	IV	VI	IV
Newhan-Corolla complex, 0 to 30 percent slopes	IV	VI	IV
Newhan-Corolla-Urban land complex, 0 to 30 percent slopes	IV	VI	IV
Noboco fine sandy loam, 0 to 2 percent slopes	I	I	I
Noboco fine sandy loam, 2 to 6 percent slopes	II	I	II
Norfolk, ALL	II	II	II
Norfolk-Urban land complex, 0 to 6 percent slopes	IV	II	IV
Ocilla loamy fine sand, 0 to 4 percent slopes	IV	II	IV
Olustee loamy sand, sandy subsoil variant (Murville)	IV	II	IV
Onslow, ALL	II	II	II
Osier loamy sand, loamy substratum	IV	I	IV
Pactolus, ALL	IV	II	IV
Pamlico muck, frequently flooded	IV	V	IV
Pamlico muck, ALL OTHER	III	V	III
Pantego, ALL	I	I	I
Paxville sandy loam	II	III	II
Pender fine sandy loam	II	I	II
Pender-Urban land complex	IV	I	IV
Pits, ALL	IV	VI	IV
Pocalla loamy sand, 0 to 6 percent slopes	III	II	III
Rains, ALL	I	I	I
Rains-Urban land complex	IV	I	IV
Rimini sand 1 to 6 percent slopes	IV	V	IV
Roanoke, frequently flooded	IV	III	IV
Roanoke, ALL OTHER	II	III	II
Rumford, ALL	III	II	III
Rutlege mucky loamy fine sand	IV	V	IV
Seabrook, ALL	IV	II	IV
Seabrook-Urban land complex	IV	II	IV
Stallings, ALL	II	II	II
State fine sandy loam, 0 to 2 percent slopes	I	I	I
State fine sandy loam, 2 to 6 percent slopes	II	I	II
State loamy sand, 0 to 2 percent slopes	I	I	I
Stockade fine sandy loam	I	I	I
Suffolk loamy sand, 10 to 30 percent slopes	I	II	I
Swamp	IV	III	IV
Tarboro, ALL	IV	II	IV
Tarboro-Urban land complex, 0 to 6 percent slopes	IV	II	IV

Map Unit Name	Agri	For	Hort
Tomahawk fine sand, 0 to 3 percent slopes	IV	II	IV
Tomahawk loamy fine sand	IV	II	IV
Tomahawk loamy fine sand	IV	II	IV
Tomahawk loamy sand, 0 to 3 percent slopes	III	II	III
Tomotley, ALL	I	I	I
Torhunta, ALL	II	I	II
Torhunta-Urban land complex	IV	I	IV
Tuckerman fine sandy loam	II	II	II
Udorthents, ALL	IV	VI	IV
Udults, steep	IV	VI	IV
Umbric Ochraqualfs	IV	VI	IV
Urban land	IV	VI	IV
Valhalla fine sand, 0 to 6 percent slopes	III	II	III
Wagram loamy fine sand, 0 to 6 percent slopes	II	II	II
Wagram loamy sand, 6 to 10 percent slopes	III	II	III
Wagram loamy sand, 0 to 6 percent slopes	II	II	II
Wagram loamy sand, 10 to 15 percent slopes	IV	II	IV
Wahee, ALL	II	I	II
Wando fine sand, 0 to 6 percent slopes	IV	II	IV
Wando-Urban land complex, 0 to 6 percent slopes	IV	II	IV
Wakulla sand, ALL	IV	V	IV
Wasda muck	I	I	I
Wehadkee silt loam	IV	III	IV
Wickham fine sandy loam, 0 to 2 percent slopes	I	I	I
Wickham fine sandy loam, 2 to 6 percent slopes	II	I	II
Wickham fine sandy loam, 6 to 10 percent slopes	II	I	II
Wickham loamy sand, 1 to 6 percent slopes	II	I	II
Wickham sandy loam, 0 to 2 percent slopes	I	I	I
Wickham sandy loam, 0 to 6 percent slopes	II	I	II
Wickham sandy loam, 0 to 6 percent slopes, rarely flooded	II	I	II
Wickham sandy loam, 2 to 6 percent slopes	II	I	II
Wickham-Urban land complex, 2 to 10 percent slopes	IV	I	IV
Wilbanks, ALL	IV	III	IV
Winton, ALL	IV	I	IV
Woodington, ALL	II	II	II
Wrightsboro fine sandy loam 0 to 2 percent slopes	I	I	I
Yaupon silty clay loam, 0 to 3 percent slopes	III	VI	III

Map Unit Name	Agri	For	Hort
Acredale silt loam, 0 to 2 percent slopes, rarely flooded	I	I	I
Altavista ,ALL	I	I	I
Altavista-Urban land complex, 0 to 2 percent slopes	IV	I	IV
Arapahoe, ALL	I	I	I
Argent, ALL	II	I	II
Augusta ,ALL	II	I	II
Augusta-Urban land complex	IV	I	IV
Backbay mucky peat, 0 to 1 percent slopes, very frequently flooded	IV	VI	IV
Ballahack fine sandy loam, occasionally flooded	I	I	I
Barclay very fine sandy loam	I	I	I
Bayboro, ALL	I	I	I
Baymeade ,ALL	IV	V	IV
Baymeade-Urban land complex 1 to 6 percent slopes	IV	V	IV
Beaches, ALL	IV	VI	IV
Beaches-Newhan association	IV	VI	IV
Beaches-Newhan complex, ALL	IV	VI	IV
Belhaven muck, 0 to 2 percent slopes, frequently flooded	IV	V	IV
Belhaven muck, ALL OTHER	II	V	II
Bertie ,ALL	II	I	II
Bibb soils	IV	III	IV
Bladen ,ALL	III	I	III
Bohicket silty clay loam	IV	VI	IV
Bojac, ALL	III	II	III
Bolling loamy fine sand, 0 to 3 percent slopes, rarely flooded	II	I	II
Borrow pits	IV	VI	IV
Brookman loam, 0 to 2 percent slopes, rarely flooded	II	I	II
Brookman mucky loam, frequently flooded	IV	III	IV
Brookman mucky silt loam	I	I	I
Cape Fear, ALL	I	I	I
Carteret, ALL	IV	VI	IV
Chapanoke silt loam, ALL	I	I	I
Charleston loamy fine sand	III	II	III
Chowan, ALL	IV	III	IV
Conaby muck, ALL	II	I	II
Conetoe, ALL	III	II	III
Corolla, ALL	IV	VI	IV
Corolla-Duckston complex, ALL	IV	VI	IV
Corolla-Urban land complex	IV	VI	IV
Currituck, ALL	IV	VI	IV
Dare muck	IV	V	IV
Deloss fine sandy loam	I	III	I
Deloss mucky loam, frequently flooded	IV	III	IV
Delway muck, 0 to 1 percent slopes, very frequently flooded	IV	VI	IV
Dogue, ALL	II	I	II
Dorovan, ALL	IV	V	IV
Dragston, ALL	II	I	II
Duckston, ALL	IV	VI	IV
Duckston-Corolla complex, 0 to 6 percent slopes, rarely flooded	IV	VI	IV
Dune land, ALL	IV	VI	IV
Dune land-Newhan complex, 2 to 40 percent slopes	IV	VI	IV
Elkton, ALL	II	I	II
Engelhard loamy very fine sand, 0 to 2 percent slopes, frequently flooded	IV	III	IV

Map Unit Name	Agri	For	Hort
Engelhard loamy very fine sand, 0 to 2 percent slopes, rarely flooded	II	III	II
Fallsington fine sandy loam	IV	I	IV
Fork fine sandy loam, 0 to 2 percent slopes, rarely flooded	I	I	I
Fork loamy fine sand	II	I	II
Fortescue, ALL	I	III	I
Fripp fine sand, 2 to 30 percent slopes	IV	VI	IV
Galestown loamy fine sand	IV	II	IV
Gullrock muck, 0 to 2 percent slopes, rarely flooded	II	I	II
Hobonny muck, 0 to 1 percent slopes, frequently flooded	IV	VI	IV
Hobucken, ALL	IV	VI	IV
Hyde, ALL	I	I	I
Hydeland silt loam, 0 to 2 percent slopes, rarely flooded	I	I	I
Icaria loamy fine sand, 0 to 2 percent slopes, rarely flooded	II	I	II
Johns loamy sand, 0 to 2 percent slopes	II	I	II
Klej loamy fine sand	IV	II	IV
Kureb sand 1 to 8 percent slopes	IV	V	IV
Kureb-Urban land complex 1 to 8 percent slopes	IV	V	IV
Lafitte muck, ALL	IV	VI	IV
Lakeland sand 1 to 8 percent slopes	IV	V	IV
Leaf silt loam	III	I	III
Lenoir, ALL	III	I	III
Leon fine sand, 0 to 2 percent slopes, rarely flooded	IV	V	III
Leon sand	IV	V	III
Longshoal mucky peat, 0 to 1 percent slopes, very frequently flooded	IV	VI	IV
Lynn Haven, ALL	IV	II	IV
Made land and dumps	IV	VI	IV
Masontown mucky fine sandy loam	IV	III	IV
Matapeake fine and very fine sandy loams	I	II	I
Mattapex, ALL	II	I	II
Munden, ALL	II	I	II
Newhan, ALL	IV	VI	IV
Newhan-Beaches complex,	IV	VI	IV
Newhan-Corolla complex, ALL	IV	VI	IV
Newhan-Corolla-Urban land complex, 0 to 30 percent slopes	IV	VI	IV
Newhan-Urban land complex, ALL	IV	VI	IV
Newholland mucky loamy sand, 0 to 2 percent slopes, frequently flooded	IV	V	IV
Newholland mucky loamy sand, 0 to 2 percent slopes, rarely flooded	I	V	I
Nimmo, ALL	II	I	II
Nixonton very fine sandy loam	I	I	I
Osier fine sand, ALL	IV	I	IV
Othello, ALL	I	II	I
Ousley fine sand, ALL	IV	V	IV
Pactolus fine sand	IV	II	IV
Pasquotank, ALL	I	I	I
Paxville mucky fine sandy loam	II	III	II
Perquimans, ALL	I	I	I
Pettigrew muck, ALL	II	I	II
Pits, mine	IV	VI	IV
Pocomoke, ALL	II	I	II
Ponzer, ALL	II	V	II
Portsmouth, ALL	I	I	I
Psamments, 0 to 6 percent slopes	IV	VI	IV

Map Unit Name	Agri	For	Hort
Pungo muck, ALL	III	V	III
Roanoke, ALL	II	I	II
Roper muck, ALL	I	I	I
Sassafras loamy fine sand	II	I	II
Scuppernong muck, ALL	II	V	II
Seabrook, ALL	IV	II	IV
Seabrook-Urban land complex	IV	II	IV
Seagate fine sand	IV	II	IV
Seagate-Urban land complex	IV	II	IV
State fine sandy loam, ALL	I	I	I
State loamy fine sand, ALL	II	I	II
State sandy loam, ALL	I	I	I
State-Urban land complex, 0 to 2 percent slopes	IV	I	IV
Stockade loamy fine sand	I	III	I
Stockade mucky loam, ALL	IV	III	IV
Stono, ALL	I	I	I
Tarboro sand, ALL	IV	II	IV
Tidal marsh	IV	VI	IV
Tomotley fine sandy loam, ALL	I	I	I
Udorthents, ALL	IV	VI	IV
Urban land ALL	IV	VI	IV
Wahee, ALL	II	I	II
Wakulla sand, ALL	IV	V	IV
Wando, ALL	IV	II	IV
Wasda muck ALL	I	I	I
Weeksville loam, 0 to 2 percent slopes, frequently flooded	IV	I	IV
Weeksville, ALL OTHER	I	I	I
Wickham loamy sand, 0 to 4 percent slopes	II	I	II
Woodstown fine sandy loam	I	I	I
Wysocking very fine sandy loam, 0 to 3 percent slopes, rarely flooded	I	III	I
Yaupon fine sandy loam, 0 to 3 percent slopes	III	VI	III
Yeopim loam, 0 to 2 percent slopes	I	I	I
Yeopim loam, 2 to 6 percent slopes	II	I	II
Yeopim silt loam, ALL	I	I	I
Yonges, ALL	I	I	I