

Schedule of Values, Standards, and Rules

Wake County,
North Carolina
2020

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Forward

The purpose of this manual is to describe the methodology and procedures for appraising all Wake County real estate at market value (and present use value, as appropriate) at the time of the county's most recent General Reappraisal. The Schedule of Values establishes the base rates and ranges for all types of property which will be in effect until the next General Reappraisal. It also includes the adjustments that may be used for various types of construction and market conditions, and valuation schedules for land. The tables, rates, and ranges found in this manual are only guidelines. On a property-by-property basis, appraisers have the flexibility to adjust rates in order to appraise individual properties at market value and establish equitable and uniform values for all types of property.

General Reappraisals are conducted by applying Mass Appraisal techniques, with thorough analysis from appraisal staff and the use of a computer-assisted mass appraisal (CAMA) software system. The sales comparison, cost approach, and income approach to value are all considered when applicable to appraise all real property.

Appraisal of Real Property in Wake County, NC

North Carolina General Statute 105-274 states that all real and personal property located within its jurisdiction shall be subject to taxation unless it is otherwise exempted or excluded from taxation by law.

North Carolina General Statute 105-283 requires appraisals to be made of each property's "true value in money." The term "true value" is defined as "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." This definition applies to both the terms "true value" and "market value" when used in this manual.

North Carolina General Statute 105-286 requires each county to conduct a General Reappraisal of all real property at least once every eight years. Wake County performed its first General Reappraisal under this law in 1976. GS 105-285 (d) states that real property shall be appraised at its value as of January 1 of the year a General Reappraisal is conducted under GS 105-286. The effective date of each appraisal performed in accordance with this Schedule of Values is January 1, 2020, regardless of the calendar year in which the appraisal is made or the fiscal year for which ad valorem taxes are being calculated.

North Carolina General Statute 105-317 requires the tax assessor to create this Schedule of Values, and outlines the procedure for adoption of the schedule. All appraisals of property performed under the terms of this manual are performed for the purpose of calculating and allocating the annual ad valorem property tax assessment authorized under GS 105-274 and related statutes for Wake County, its municipalities, and other tax districts as authorized by law.

All appraisals, including those for ad valorem tax purposes, fall under the jurisdiction of the Uniform Standards of Professional Appraisal Practice (USPAP), the relevant portions of which have been included in this manual, beginning on page 125.

An Overview of Mass Appraisal

Mass appraisal is the process of appraising a large number of properties as of a given effective date using statistical analysis to arrive at uniform and equitable values. A valuation model is developed to replicate changes in supply and demand over a large area. It is different from single-property appraisal ("fee appraisal"), in which a market analysis is performed for only the subject parcel. The same approaches to value (sales comparison, income, cost) apply to both methods; the differences lie in the way market analysis and appraisal are performed and the quality control process.

To accomplish appraising nearly 400,000 properties at the time of the General Reappraisal, as well as new construction on an ongoing basis, the county is divided into approximately 4,800 neighborhoods and submarkets. These are referred to as Value Control Sections (VCS). This allows the county to recognize and adjust for distinct market conditions affecting value in each neighborhood. An example of a VCS would be a residential subdivision where houses are of a similar age, are constructed with similar style and workmanship, and share the same common amenities. These homes would typically be affected by the same market conditions and have similar desirability on the market.

First, all recent sales are analyzed to determine if they are arm's length transactions. A transaction is considered "arm's length" if it is between two unrelated parties who are not under any unique compulsion to buy or sell, and if it is representative of the fair market value. Sales between relatives, short sales, and estate sales are examples of transactions which might not be good evidence of market value in that area. Sale prices are determined based on the excise tax ("revenue stamps") paid to the Register of Deeds office and reported on the deed.

Land is appraised based on available land sale data, allocation of sale prices between land and improvements, or other methods as appropriate.

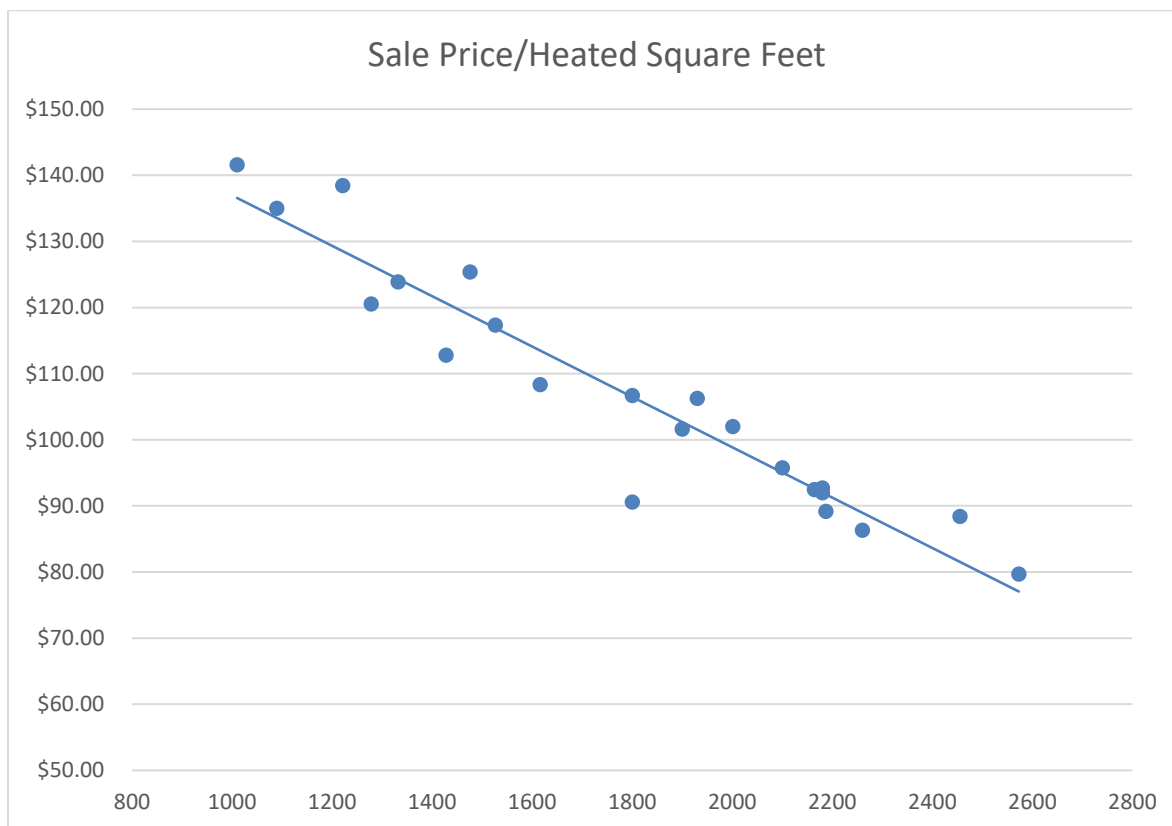
Once land rates are established, analyses are performed to establish the positive or negative influence of various property characteristics. Base square foot rates for each type of addition, outbuilding, and internal characteristic (such as bath count or walk-up attics) are determined.

The rates published in the Schedule of Values are base rates and ranges for what is considered to be average quality and workmanship and standard lots and acreage. The CAMA appraisal system contains factors and adjustments that can be applied to land and building rates to recognize market conditions, functional or economic obsolescence, deferred maintenance, remodeling, poor topography, and many other characteristics

which can affect supply and demand. Judgment by the appraiser plays an important role with respect to comparative grading and depreciation.

Further sales analysis is now performed to confirm the valuation model is correctly producing values in line with the current market sales in each VCS. The final appraised value of each property is the appraiser's opinion of the most probable price at which the property would sell on the open market as of the effective date of the appraisal. It is not the highest or lowest price it could sell for, nor is it an average price.

The following graph shows each sale in a single Wake County neighborhood that occurred from Jan 1, 2018 to July 15, 2019. While a simple mathematical average would value every house in this neighborhood at \$107 per square foot, on the market houses with the same heated area will sell for very different prices for many reasons (such as differences in unheated features, remodeling, or upgrades chosen during construction). A quality valuation model identifies those differences and accounts for them, generating a more likely sale price for each unique home and its particular combination of features.



Quality Control in Mass Appraisal

Mass appraisal relies heavily on statistical analysis to ensure uniformity and equity. The most commonly used test is the ratio study.

A ratio study compares appraised values to actual sale prices for a sample of properties. The ratios themselves are calculated by dividing the appraised value generated during the General Reappraisal by the sale price. For example, if a property is appraised at \$250,000 and has a recent sale price of \$252,000, its sale ratio is 99%.

$(\$250,000/\$252,000)$. This means the property is appraised at 99% of its market value, as represented by the sale price.

In mass appraisal, appraised values should not be expected to exactly match sale prices or independent appraisals. Instead, the median ratio for a group of similar properties (such as a VCS) should be near 100%, with high and low ratios balancing. Per the International Association of Assessing Officers (IAAO) *Standard on Ratio Studies* (2013a), the median ratio should fall between 90% and 110%. If the median ratio for a group of parcels falls within this range, the standard for overall appraisal level has been met. In conducting a ratio study, it is imperative that there be a sufficient number of samples for meaningful analysis. In Wake County, the market is active enough to meet this need.

Additional checks show if the appraised values are uniform and equitable.

The Coefficient of Dispersion (COD) measures the difference between each ratio in the sample and the median ratio, and returns the average deviation. A low COD indicates more uniformity in the sample than a high COD. Under IAAO standards a COD demonstrates acceptable uniformity when it is under 10 for newer and homogenous residential neighborhoods, under 15 for older or heterogeneous neighborhoods, under 20 or 25 for vacant land in urban or rural areas, under 20 for rural residential property, and under 20 for commercial properties.

The Price-related Differential is used to determine how high-value properties and low-value properties are appraised relative to each other. A high PRD indicates that high-value properties are under-appraised, meaning a weighted average will be less than the un-weighted average. A low PRD indicates the opposite; that high-value properties are over-appraised and are skewing the average sales ratio higher.

After the General Reappraisal

After a General Reappraisal, the Schedule of Values must remain in effect until the next General Reappraisal. North Carolina General Statute 105-287 outlines the conditions under which values may and may not be changed in between General Reappraisal years. This section highlights the points that are most relevant to the majority of property owners, however the taxpayer is encouraged to review section 105-287 in its entirety for a more detailed understanding of the law. Currently, statutes can be viewed online at the North Carolina General Assembly website using the following URL:

<http://www.ncleg.net/gascripts/statutes/Statutes.asp>

The statute permits the assessor to increase or decrease the appraised value of a property based on physical changes to the land and/or improvements (105-287(a)(2b)). Common examples of this would include new additions to a home, new outbuildings (such as detached garages), demolition of existing improvements, changes to zoning, or a division of land into smaller lots.

The statute permits the assessor to increase or decrease the appraised value of a property to correct clerical or mathematical errors, and to correct errors based on a misapplication of the Schedule of Values (105-287(a)(1) and 105-287(a)(2)).

The statute prohibits the assessor from increasing or decreasing the appraised value of a property due to inflation, deflation, or changes in the local economy (105-287(b)(2)). This allows for equity in assessments, as every property is appraised based on the economic conditions influencing supply and demand at the same point in time.

The statute requires that all changes made in the above (and other allowed) situations be made using the current Schedule of Values (105-287(c)). This means that when improvements are made, they are valued using the same rates and guidelines outlined in the rest of this manual until the next General Reappraisal is conducted. For example, a house built in 2022 would be appraised based on an analysis of what similar homes were selling for at the time this 2020 Schedule of Values was compiled. The cost and market value of the home at the time of its construction would not be considered. This allows new construction to be appraised uniformly and equitably with existing construction.

North Carolina General Statute 105-317 (a)(3) requires that partially completed buildings be appraised based on their degree of completion as of January 1 of the year for which the new assessment is being made.

Approaches to Value

There are three recognized approaches to appraising real property; these are the Market, Cost, and Income approaches. Wake County uses all three as appropriate when performing appraisals. Not all approaches are applicable to every type of property.

The Market approach, also referred to as the Sales Comparison approach, is the most commonly used method for residential properties and the most commonly known among the general public. Stated simply, this method involves comparing the characteristics of a property being appraised to those of properties that have recently sold, adjusting the known sale prices to reflect any noted differences, and using those adjusted sales to estimate the value of the subject property.

In the Cost approach, the appraiser determines the cost to build the subject structure(s) new, including all direct and indirect costs, and then makes an allowance for depreciation based on the actual condition of the improvements. This is added to the appraiser's opinion of the value of the land to calculate a total value.

The Income approach assumes that the subject property was (or is typically) bought for its potential to produce an income stream. It estimates the present value of all future anticipated income, making allowances for operating expenses and loss for vacancy and collections (among other factors).

Highest and Best Use

Properties in Wake County are appraised based on their highest and best use, which best reflects what the property would sell for in an open market. Almost all property has the potential to be used for more than one purpose. The highest and best use is that which is the most profitable and for which the demand is highest, thus generating the highest return for the property owner. It must be both economically feasible and physically possible. It must also be a legally permissible use. To be legally permissible, consideration must be made for zoning and similar land use restrictions (such as watersheds).

The ability to obtain a zoning change or variance is often a factor in the price a potential buyer is willing to pay, therefore both current and potential zonings and restrictions may be considered when determining the highest and best use of a parcel. This potential

highest and best use must be a probable one based on supply and demand in the market; it should not be an unlikely or speculative use. The appraiser may also consider what interim uses may exist in between the present use of the property and the possible future use.

Because the highest and best use of a piece of land may not be its current use, the appraiser must consider the relationship between the highest and best use of the land and its existing improvements. These improvements may still offer an income stream, salvage value, or other benefits. A reduction in the appraised value of the improvements may be appropriate, but in some cases, the appraiser may determine that the improvements contribute no value to the property, or that the improvements are a detriment to the overall value of the property due to the expense involved in removing them.

Present Use Value

The term Value in Use refers to the value of land or improvements for a specific purpose. Present Use applies this definition to the way a property is currently being utilized. In the case where the current use of the property is also its highest and best use, these are the same. In some cases, a separate appraised value may be calculated based on the present use of the property. This is most commonly the case with property being assessed as agricultural, horticultural, or forestland under GS 105-277.2 through GS105-277.7.

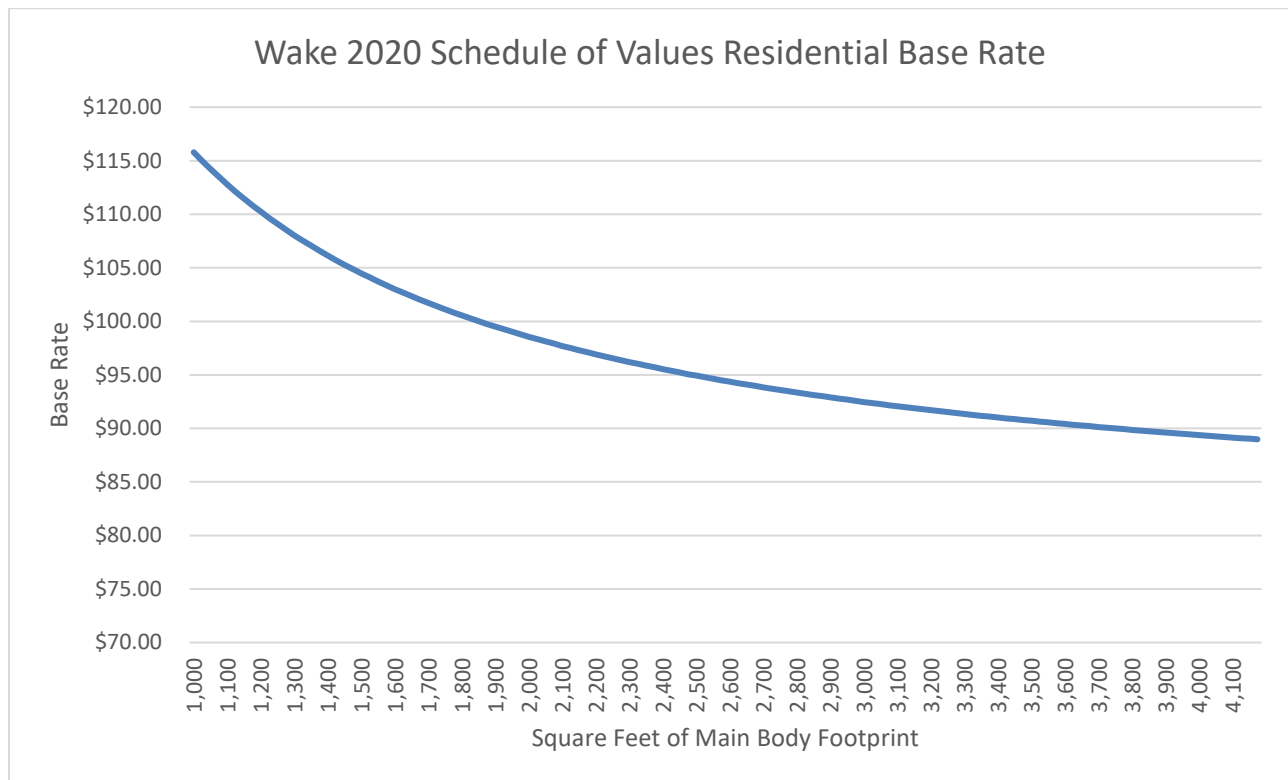
To qualify for Present Use Value classification, property must meet statutory requirements for ownership, size, income, and sound management. The appraiser will determine both the market value of the property based on its highest and best use and a value based on its present use. Ad valorem taxes will be calculated each year based on both figures, with the owner paying on the present use value. The difference between the two tax amounts will be kept in the record each year as deferred taxes. When property becomes disqualified from the PUV program, the deferred taxes for the current year and the three previous years, along with accrued interest, will usually become immediately due and payable. These taxes are commonly referred to as "rollback" taxes.

Residential Section

Residential Schedules

Explanation of Difference in Base Square Foot Values

Houses of smaller area will have a higher value per square foot than houses of larger area, all else being equal. This is because a smaller house has greater wall surface in proportion to floor area. The cost of one stairway, one bathroom, one fireplace, etc. must be prorated over a smaller area. For the same reason, a single-story home will have a higher per square foot value than a multi-story home with the same foundation area. Economic theory refers to this as “economies of scale.” Market analyses show that this relationship is reflected in purchase prices when homes sell, both to their original owner after construction and later as they are resold.



This graph is created from the Base Rate tables that begin on page 19 and illustrates the relationship between building area and price per square foot. These rates assume average quality and workmanship. After the appraiser determines an initial value, they will adjust it for quality, depreciation, and other factors as appropriate.

By referring to the Grade Specifications following, one can see the difference in square foot values for various levels of construction. This difference in value takes into account the quality and quantity of materials and workmanship. There are a few very distinct and obvious differences in quality throughout each level of construction.

Depreciation

The purpose of appraising improvements separately from land is to establish the value that each building contributes to the land on which it is located. The appraiser must consider all factors affecting supply and demand, including depreciation. The prices buyers are willing to pay in “arm’s length sales,” as defined earlier, are the best indication of depreciation from all sources once the land value is removed. The causes of depreciation fall into three categories: physical deterioration (“wear and tear”); functional obsolescence (change in the desirability of a property due to changes in style, technology, or similar factors); and external obsolescence (lack of desirability due to factors outside a property’s boundaries). Individual sources of obsolescence may affect an entire neighborhood or a small number of properties within it. In the first case, the effect on supply and demand is considered to be reflected in the known sale prices and no separate adjustment is made. The appraiser may make unique adjustments to a specific property if the source of obsolescence is not experienced by typical homes in the neighborhood or reflected in their sale prices.

Grade Specifications

AA

Buildings generally having the highest quality of architectural style and design, constructed with the finest quality materials and workmanship. Highest quality of interior finish and features.

A

Buildings generally having excellent quality materials and workmanship throughout. Excellent quality of interior finish and features.

B

Buildings generally having above average quality materials and workmanship throughout. Above average quality of interior finish and features.

C

Buildings generally having average quality materials and workmanship throughout. Average quality of interior finish and features.

D

Buildings generally having below average quality materials and workmanship throughout. Below average quality of interior finish and features.

E

Buildings generally having very low-quality materials and workmanship throughout. Very low quality of interior finish and features.

Base rates for all grade specifications include one three-piece ("full") bath, one kitchen sink, and one automatic water heater, as well as central heat throughout. Base rates do not include attic stairs, floor, or finish, fireplaces, or central air-conditioning. Base rates assume a crawl space or slab foundation for most building types.

Grade Factors – Residential

To determine the Replacement Cost of a dwelling, the appraiser first analyzes and values the building according to size (main foundation area), story height, and other basic features as listed for that particular subject property, based on the valuation schedule contained herein. This determines the Schedule Value of such a building on the basis of average materials and workmanship. To adjust for quality of construction and finish, the following grading system is then applied.

A grade is chosen based on the above descriptions per the appraiser's observations and analysis of the market. The numeric which follows the grade enables the appraiser to adjust values within a range, bringing the appraisals as close as possible to market value. The percentage shown is the amount the base Schedule Value is adjusted to calculate a Replacement Cost for the building being appraised.

For example, consider an average house appraised at \$100,000 before a quality grade and depreciation rating are assigned. If the home is given a grade of C, the value before depreciation ("Replacement Cost") would still be \$100,000. In this case, the Schedule Value and Replacement Cost are the same. A home of the same size, with the same features, if given the grade A+10 would have a Replacement Cost of \$153,000. (\$100,000 * 1.53). A grade of A+05 would come in slightly lower, at \$147,000.

To put it another way, if the appraiser determines a house meets the criteria of a "B" grade, they have a range of five grades to choose from. These range from a high of B+10 to a low of B-10. If the home has a Schedule Value of \$100,000, this choice will create a Replacement Cost between \$128,000 (B+10, 128%) and \$110,000 (B-10, 110%), before depreciation.

Quality Grade & Adjustment to Schedule Value

Grade	Adjustment	Grade	Adjustment	Grade	Adjustment	Grade	Adjustment
AA+170	1280%	AA+168	1232%	AA+165	1183%	AA+163	1139%
AA+160	1094%	AA+158	1054%	AA+155	1011%	AA+153	974%
AA+150	935%	AA+148	901%	AA+145	865%	AA+143	833%
AA+140	799%	AA+138	770%	AA+135	739%	AA+133	711%
AA+130	683%	AA+128	658%	AA+125	632%	AA+123	608%
AA+120	585%	AA+118	562%	AA+115	541%	AA+113	520%
AA+110	500%	AA+108	481%	AA+105	462%	AA+103	445%
AA+100	427%	AA+98	422%	AA+95	405%	AA+93	391%
AA+90	377%	AA+88	365%	AA+85	352%	AA+83	340%
AA+80	336%	AA+75	326%	AA+70	313%	AA+65	304%
AA+60	292%	AA+55	283%	AA+50	279%	AA+45	270%
AA+40	260%	AA+35	251%	AA+30	247%	AA+25	238%
AA+20	228%	AA+15	218%	AA+10	213%	AA+05	204%
AA	194%	AA-05	189%	AA-10	179%	AA-15	172%

Grade	Adjustment	Grade	Adjustment	Grade	Adjustment	Grade	Adjustment
A+25	171%	A+20	164%	A+15	158%	A+10	153%
A+05	147%	A	140%	A-05	133%	A-10	129%

Grade	Adjustment	Grade	Adjustment	Grade	Adjustment	Grade	Adjustment
B+10	128%	B+05	126%	B	120%	B-05	115%
B-10	110%						

Grade	Adjustment	Grade	Adjustment	Grade	Adjustment	Grade	Adjustment
C+10	110%	C+05	105%	C	100%	C-05	95%
C-10	90%						

Grade	Adjustment	Grade	Adjustment	Grade	Adjustment	Grade	Adjustment
D+10	90%	D+05	88%	D	84%	D-05	80%
D-10	75%	D-15	72%	D-20	67%		

Grade	Adjustment	Grade	Adjustment	Grade	Adjustment	Grade	Adjustment
E+15	67%	E+10	65%	E+05	62%	E	59%
E-05	56%	E-10	53%	E-15	50%	E-20	47%
E-25	44%	E-30	41%	E-35	38%	E-40	35%
E-45	32%	E-50	30%				

Residential Base Price Schedule Average Grade "C"

Residential Base Price Schedule

The Base Ground Floor Area is the footprint area of the main body of a building, as shown on the building sketch, rounded to the nearest 25 square feet.

Base GFA	SQFT Rate	Base GFA	SQFT Rate	Base GFA	SQFT Rate	Base GFA	SQFT Rate
100	\$328.30	125	\$285.15	150	\$256.09	175	\$235.07
200	\$219.07	225	\$206.41	250	\$196.10	275	\$187.52
300	\$180.22	325	\$173.94	350	\$168.45	375	\$163.61
400	\$159.30	425	\$155.43	450	\$151.94	475	\$148.76
500	\$145.87	525	\$143.21	550	\$140.76	575	\$138.50
600	\$136.40	625	\$134.44	650	\$132.62	675	\$130.91
700	\$129.32	725	\$127.82	750	\$126.40	775	\$125.07
800	\$123.81	825	\$122.62	850	\$121.49	875	\$120.42
900	\$119.40	925	\$118.44	950	\$117.51	975	\$116.63
1,000	\$115.79	1,025	\$114.99	1,050	\$114.22	1,075	\$113.49
1,100	\$112.78	1,125	\$112.10	1,150	\$111.45	1,175	\$110.83
1,200	\$110.23	1,225	\$109.65	1,250	\$109.09	1,275	\$108.56
1,300	\$108.04	1,325	\$107.54	1,350	\$107.06	1,375	\$106.59
1,400	\$106.14	1,425	\$105.71	1,450	\$105.29	1,475	\$104.88
1,500	\$104.48	1,525	\$104.10	1,550	\$103.73	1,575	\$103.37
1,600	\$103.02	1,625	\$102.68	1,650	\$102.35	1,675	\$102.03
1,700	\$101.72	1,725	\$101.42	1,750	\$101.12	1,775	\$100.83
1,800	\$100.56	1,825	\$100.28	1,850	\$100.02	1,875	\$99.76
1,900	\$99.51	1,925	\$99.26	1,950	\$99.02	1,975	\$98.79
2,000	\$98.56	2,025	\$98.34	2,050	\$98.12	2,075	\$97.91
2,100	\$97.70	2,125	\$97.50	2,150	\$97.30	2,175	\$97.11
2,200	\$96.92	2,225	\$96.73	2,250	\$96.55	2,275	\$96.37
2,300	\$96.20	2,325	\$96.03	2,350	\$95.86	2,375	\$95.70
2,400	\$95.54	2,425	\$95.38	2,450	\$95.23	2,475	\$95.07
2,500	\$94.93	2,525	\$94.78	2,550	\$94.64	2,575	\$94.50
2,600	\$94.36	2,625	\$94.23	2,650	\$94.10	2,675	\$93.97
2,700	\$93.84	2,725	\$93.71	2,750	\$93.59	2,775	\$93.47
2,800	\$93.35	2,825	\$93.24	2,850	\$93.12	2,875	\$93.01
2,900	\$92.90	2,925	\$92.79	2,950	\$92.68	2,975	\$92.58
3,000	\$92.47	3,025	\$92.37	3,050	\$92.27	3,075	\$92.17
3,100	\$92.07	3,125	\$91.98	3,150	\$91.88	3,175	\$91.79
3,200	\$91.70	3,225	\$91.61	3,250	\$91.52	3,275	\$91.44
3,300	\$91.35	3,325	\$91.26	3,350	\$91.18	3,375	\$91.10
3,400	\$91.02	3,425	\$90.94	3,450	\$90.86	3,475	\$90.78
3,500	\$90.71	3,525	\$90.63	3,550	\$90.56	3,575	\$90.48
3,600	\$90.41	3,625	\$90.34	3,650	\$90.27	3,675	\$90.20
3,700	\$90.13	3,725	\$90.06	3,750	\$90.00	3,775	\$89.93
3,800	\$89.87	3,825	\$89.80	3,850	\$89.74	3,875	\$89.67
3,900	\$89.61	3,925	\$89.55	3,950	\$89.49	3,975	\$89.43
4,000	\$89.37	4,025	\$89.32	4,050	\$89.26	4,075	\$89.20
4,100	\$89.15	4,125	\$89.09	4,150	\$89.04	4,175	\$88.98

Base GFA	SQFT Rate	Base GFA	SQFT Rate	Base GFA	SQFT Rate	Base GFA	SQFT Rate
4,200	\$88.93	4,225	\$88.88	4,250	\$88.82	4,275	\$88.77
4,300	\$88.72	4,325	\$88.67	4,350	\$88.62	4,375	\$88.57
4,400	\$88.52	4,425	\$88.48	4,450	\$88.43	4,475	\$88.38
4,500	\$88.33	4,525	\$88.29	4,550	\$88.24	4,575	\$88.20
4,600	\$88.15	4,625	\$88.11	4,650	\$88.07	4,675	\$88.02
4,700	\$87.98	4,725	\$87.94	4,750	\$87.90	4,775	\$87.85
4,800	\$87.81	4,825	\$87.77	4,850	\$87.73	4,875	\$87.69
4,900	\$87.65	4,925	\$87.61	4,950	\$87.58	4,975	\$87.54
5,000	\$87.50	5,025	\$87.46	5,050	\$87.43	5,075	\$87.39
5,100	\$87.35	5,125	\$87.32	5,150	\$87.28	5,175	\$87.25
5,200	\$87.21	5,225	\$87.18	5,250	\$87.14	5,275	\$87.11
5,300	\$87.07	5,325	\$87.04	5,350	\$87.01	5,375	\$86.98
5,400	\$86.94	5,425	\$86.91	5,450	\$86.88	5,475	\$86.85
5,500	\$86.82	5,525	\$86.79	5,550	\$86.75	5,575	\$86.72
5,600	\$86.69	5,625	\$86.66	5,650	\$86.63	5,675	\$86.61
5,700	\$86.58	5,725	\$86.55	5,750	\$86.52	5,775	\$86.49
5,800	\$86.46	5,825	\$86.43	5,850	\$86.41	5,875	\$86.38
5,900	\$86.35	5,925	\$86.33	5,950	\$86.30	5,975	\$86.27
6,000	\$86.25	6,025	\$86.22	6,050	\$86.19	6,075	\$86.17
6,100	\$86.14	6,125	\$86.12	6,150	\$86.09	6,175	\$86.07
6,200	\$86.04	6,225	\$86.02	6,250	\$85.99	6,275	\$85.97
6,300	\$85.95	6,325	\$85.92	6,350	\$85.90	6,375	\$85.88
6,400	\$85.85	6,425	\$85.83	6,450	\$85.81	6,475	\$85.78
6,500	\$85.76	6,525	\$85.74	6,550	\$85.72	6,575	\$85.70
6,600	\$85.67	6,625	\$85.65	6,650	\$85.63	6,675	\$85.61
6,700	\$85.59	6,725	\$85.57	6,750	\$85.55	6,775	\$85.53
6,800	\$85.51	6,825	\$85.49	6,850	\$85.47	6,875	\$85.45
6,900	\$85.43	6,925	\$85.41	6,950	\$85.39	6,975	\$85.37
7,000	\$85.35	7,025	\$85.33	7,050	\$85.31	7,075	\$85.29
7,100	\$85.27	7,125	\$85.25	7,150	\$85.23	7,175	\$85.22
7,200	\$85.20	7,225	\$85.18	7,250	\$85.16	7,275	\$85.14
7,300	\$85.13	7,325	\$85.11	7,350	\$85.09	7,375	\$85.07
7,400	\$85.06	7,425	\$85.04	7,450	\$85.02	7,475	\$85.00
7,500	\$84.99	7,525	\$84.97	7,550	\$84.95	7,575	\$84.94
7,600	\$84.92	7,625	\$84.91	7,650	\$84.89	7,675	\$84.87
7,700	\$84.86	7,725	\$84.84	7,750	\$84.83	7,775	\$84.81
7,800	\$84.79	7,825	\$84.78	7,850	\$84.76	7,875	\$84.75
7,900	\$84.73	7,925	\$84.72	7,950	\$84.70	7,975	\$84.69
8,000	\$84.67	8,025	\$84.66	8,050	\$84.64	8,075	\$84.63
8,100	\$84.61	8,125	\$84.60	8,150	\$84.59	8,175	\$84.57
8,200	\$84.56	8,225	\$84.54	8,250	\$84.53	8,275	\$84.52
8,300	\$84.50	8,325	\$84.49	8,350	\$84.47	8,375	\$84.46
8,400	\$84.45	8,425	\$84.43	8,450	\$84.42	8,475	\$84.41
8,500	\$84.39	8,525	\$84.38	8,550	\$84.37	8,575	\$84.36
8,600	\$84.34	8,625	\$84.33	8,650	\$84.32	8,675	\$84.31
8,700	\$84.29	8,725	\$84.28	8,750	\$84.27	8,775	\$84.26
8,800	\$84.24	8,825	\$84.23	8,850	\$84.22	8,875	\$84.21

Base GFA	SQFT Rate	Base GFA	SQFT Rate	Base GFA	SQFT Rate	Base GFA	SQFT Rate
8,900	\$84.19	8,925	\$84.18	8,950	\$84.17	8,975	\$84.16
9,000	\$84.15	9,025	\$84.14	9,050	\$84.12	9,075	\$84.11
9,100	\$84.10	9,125	\$84.09	9,150	\$84.08	9,175	\$84.07
9,200	\$84.06	9,225	\$84.05	9,250	\$84.03	9,275	\$84.02
9,300	\$84.01	9,325	\$84.00	9,350	\$83.99	9,375	\$83.98
9,400	\$83.97	9,425	\$83.96	9,450	\$83.95	9,475	\$83.94
9,500	\$83.93	9,525	\$83.92	9,550	\$83.91	9,575	\$83.90
9,600	\$83.88	9,625	\$83.87	9,650	\$83.86	9,675	\$83.85
9,700	\$83.84	9,725	\$83.83	9,750	\$83.82	9,775	\$83.81
9,800	\$83.80	9,825	\$83.79	9,850	\$83.78	9,875	\$83.78
9,900	\$83.77	9,925	\$83.76	9,950	\$83.75	9,975	\$83.74
10,000	\$83.73	10,025	\$83.72	10,050	\$83.71	10,075	\$83.70
10,100	\$83.69	10,125	\$83.68	10,150	\$83.67	10,175	\$83.66
10,200	\$83.65	10,225	\$83.64	10,250	\$83.63	10,275	\$83.63
10,300	\$83.62	10,325	\$83.61	10,350	\$83.60	10,375	\$83.59
10,400	\$83.58	10,425	\$83.57	10,450	\$83.56	10,475	\$83.56
10,500	\$83.55	10,525	\$83.54	10,550	\$83.53	10,575	\$83.52
10,600	\$83.51	10,625	\$83.50	10,650	\$83.50	16,075	\$83.49
10,700	\$83.48	10,725	\$83.47	10,750	\$83.46	10,775	\$83.45
10,800	\$83.45	10,825	\$83.44	10,850	\$83.43	10,875	\$83.42
10,900	\$83.41	10,925	\$83.41	10,950	\$83.40	10,975	\$83.39
11,000	\$83.38	11,025	\$83.38	11,050	\$83.37	11,075	\$83.36
11,100	\$83.35	11,125	\$83.34	11,150	\$83.34	11,175	\$83.33
11,200	\$83.32	11,225	\$83.31	11,250	\$83.31	11,275	\$83.30
11,300	\$83.29	11,325	\$83.28	11,350	\$83.28	11,375	\$83.27
11,400	\$83.26	11,425	\$83.25	11,450	\$83.25	11,475	\$83.24
11,500	\$83.23	11,525	\$83.23	11,550	\$83.22	11,575	\$83.21
11,600	\$83.20	11,625	\$83.20	11,650	\$83.19	11,675	\$83.18
11,700	\$83.18	11,725	\$83.17	11,750	\$83.16	11,775	\$83.16
11,800	\$83.15	11,825	\$83.14	11,850	\$83.14	11,875	\$83.13
11,900	\$83.12	11,925	\$83.12	11,950	\$83.11	11,975	\$83.10
12,000	\$83.10	12,025	\$83.09	12,050	\$83.08	12,075	\$83.08
12,100	\$83.07	12,125	\$83.06	12,150	\$83.06	12,175	\$83.05
12,200	\$83.04	12,225	\$83.04	12,250	\$83.03	12,275	\$83.03
12,300	\$83.02	12,325	\$83.01	12,350	\$83.01	12,375	\$83.00
12,400	\$82.99	12,425	\$82.99	12,450	\$82.98	12,475	\$82.98
12,500	\$82.97	12,525	\$82.96	12,550	\$82.96	12,575	\$82.95
12,600	\$82.95	12,625	\$82.94	12,650	\$82.93	12,675	\$82.93
12,700	\$82.92	12,725	\$82.92	12,750	\$82.91	12,775	\$82.90
12,800	\$82.90	12,825	\$82.89	12,850	\$82.89	12,875	\$82.88
12,900	\$82.88	12,925	\$82.87	12,950	\$82.86	12,975	\$82.86
13,000	\$82.85	13,025	\$82.85	13,050	\$82.84	13,075	\$82.84
13,100	\$82.83	13,125	\$82.83	13,150	\$82.82	13,175	\$82.81
13,200	\$82.81	13,225	\$82.80	13,250	\$82.80	13,275	\$82.79
13,300	\$82.79	13,325	\$82.78	13,350	\$82.78	13,375	\$82.77
13,400	\$82.77	13,425	\$82.76	13,450	\$82.76	13,475	\$82.75
13,500	\$82.74	13,525	\$82.74	13,550	\$82.73	13,575	\$82.73

Base GFA	SQFT Rate	Base GFA	SQFT Rate	Base GFA	SQFT Rate	Base GFA	SQFT Rate
13,600	\$82.72	13,625	\$82.72	13,650	\$82.71	13,675	\$82.71
13,700	\$82.70	13,725	\$82.70	13,750	\$82.69	13,775	\$82.69
13,800	\$82.68	13,825	\$82.68	13,850	\$82.67	13,875	\$82.67
13,900	\$82.66	13,925	\$82.66	13,950	\$82.65	13,975	\$82.65
14,000	\$82.64	14,025	\$82.64	14,050	\$82.63	14,075	\$82.63
14,100	\$82.63	14,125	\$82.62	14,150	\$82.62	14,175	\$82.61
14,200	\$82.61	14,225	\$82.60	14,250	\$82.60	14,275	\$82.59
14,300	\$82.59	14,325	\$82.58	14,350	\$82.58	14,375	\$82.57
14,400	\$82.57	14,425	\$82.56	14,450	\$82.56	14,475	\$82.56
14,500	\$82.55	14,525	\$82.55	14,550	\$82.54	14,575	\$82.54
14,600	\$82.53	14,625	\$82.53	14,650	\$82.52	14,675	\$82.52
14,700	\$82.52	14,725	\$82.51	14,750	\$82.51	14,775	\$82.50
14,800	\$82.50	14,825	\$82.49	14,850	\$82.49	14,875	\$82.49
14,900	\$82.48	14,925	\$82.48	14,950	\$82.47	14,975	\$82.47
15,000	\$82.46	15,025	\$82.46	15,050	\$82.46	15,075	\$82.45
15,100	\$82.45	15,125	\$82.44	15,150	\$82.44	15,175	\$82.43
15,200	\$82.43	15,225	\$82.43	15,250	\$82.42	15,275	\$82.42
15,300	\$82.41	15,325	\$82.41	15,350	\$82.41	15,375	\$82.40
15,400	\$82.40	15,425	\$82.39	15,450	\$82.39	15,475	\$82.39
15,500	\$82.38	15,525	\$82.38	15,550	\$82.37	15,575	\$82.37
15,600	\$82.37	15,625	\$82.36	15,650	\$82.36	15,675	\$82.36
15,700	\$82.35	15,725	\$82.35	15,750	\$82.34	15,775	\$82.34
15,800	\$82.34	15,825	\$82.33	15,850	\$82.33	15,875	\$82.32
15,900	\$82.32	15,925	\$82.32	15,950	\$82.31	15,975	\$82.31
16,000	\$82.31	16,025	\$82.30	16,050	\$82.30	16,075	\$82.30
16,100	\$82.29	16,125	\$82.29	16,150	\$82.28	16,175	\$82.28
16,200	\$82.28	16,225	\$82.27	16,250	\$82.27	16,275	\$82.27
16,300	\$82.26	16,325	\$82.26	16,350	\$82.26	16,375	\$82.25
16,400	\$82.25	16,425	\$82.24	16,450	\$82.24	16,475	\$82.24
16,500	\$82.23	16,525	\$82.23	16,550	\$82.23	16,575	\$82.22
16,600	\$82.22	16,625	\$82.22	16,650	\$82.21	16,675	\$82.21
16,700	\$82.21	16,725	\$82.20	16,750	\$82.20	16,775	\$82.20
16,800	\$82.19	16,825	\$82.19	16,850	\$82.19	16,875	\$82.18
16,900	\$82.18	16,925	\$82.18	16,950	\$82.17	16,975	\$82.17
17,000	\$82.17	17,025	\$82.16	17,050	\$82.16	17,075	\$82.16
17,100	\$82.15	17,125	\$82.15	17,150	\$82.15	17,175	\$82.14
17,200	\$82.14	17,225	\$82.14	17,250	\$82.13	17,275	\$82.13
17,300	\$82.13	17,325	\$82.12	17,350	\$82.12	17,375	\$82.12
17,400	\$82.12	17,425	\$82.11	17,450	\$82.11	17,475	\$82.11
17,500	\$82.10	17,525	\$82.10	17,550	\$82.10	17,575	\$82.09
17,600	\$82.09	17,625	\$82.09	17,650	\$82.08	17,675	\$82.08
17,700	\$82.08	17,725	\$82.08	17,750	\$82.07	17,775	\$82.07
17,800	\$82.07	17,825	\$82.06	17,850	\$82.06	17,875	\$82.06
17,900	\$82.05	17,925	\$82.05	17,950	\$82.05	17,975	\$82.05
18,000	\$82.04	18,025	\$82.04	18,050	\$82.04	18,075	\$82.03
18,100	\$82.03	18,125	\$82.03	18,150	\$82.03	18,175	\$82.02
18,200	\$82.02	18,225	\$82.02	18,250	\$82.01	18,275	\$82.01

Base GFA	SQFT Rate	Base GFA	SQFT Rate	Base GFA	SQFT Rate	Base GFA	SQFT Rate
18,300	\$82.01	18,325	\$82.01	18,350	\$82.00	18,375	\$82.00
18,400	\$82.00	18,425	\$81.99	18,450	\$81.99	18,475	\$81.99
18,500	\$81.99	18,525	\$81.98	18,550	\$81.98	18,575	\$81.98
18,600	\$81.97	18,625	\$81.97	18,650	\$81.97	18,675	\$81.97
18,700	\$81.96	18,725	\$81.96	18,750	\$81.96	18,775	\$81.96
18,800	\$81.95	18,825	\$81.95	18,850	\$81.95	18,875	\$81.94
18,900	\$81.94	18,925	\$81.94	18,950	\$81.94	18,975	\$81.93
19,000	\$81.93	19,025	\$81.93	19,050	\$81.93	19,075	\$81.92
19,100	\$81.92	19,125	\$81.92	19,150	\$81.92	19,175	\$81.91
19,200	\$81.91	19,225	\$81.91	19,250	\$81.91	19,275	\$81.90
19,300	\$81.90	19,325	\$81.90	19,350	\$81.90	19,375	\$81.89
19,400	\$81.89	19,425	\$81.89	19,450	\$81.89	19,475	\$81.88
19,500	\$81.88	19,525	\$81.88	19,550	\$81.88	19,575	\$81.87
19,600	\$81.87	19,625	\$81.87	19,650	\$81.87	19,675	\$81.86
19,700	\$81.86	19,725	\$81.86	19,750	\$81.86	19,775	\$81.85
19,800	\$81.85	19,825	\$81.85	19,850	\$81.85	19,875	\$81.84
19,900	\$81.84	19,925	\$81.84	19,950	\$81.84	19,975	\$81.83
20,000	\$81.83						

Rates in the above table were generated from a valuation model. Results can be replicated using the steps below.

MBH Factor = .75 for manufactured homes, 1 for all other building types

Schedule Factor = 9.90839

Constant = .80673

1. Round footprint area to the nearest 25 sqft.
2. $X = 10 + (4750 / \text{Rounded Area})$
3. $Y = ((\text{Rounded Area} + 400) / 100)^3$
4. $\text{Base Price} = X * (1 / (1 + (50 / Y))) * \text{Constant} * \text{Schedule Factor} * \text{MBH Factor}$

This example shows the calculation for a home with footprint area 29x43 (1247 sqft).

1. Rounded Footprint = 1250.
2. $X = 10 + (4750 / 1250) = 13.8$
3. $Y = ((1250 + 400) / 100)^3 = 4492.125$
4. $\text{Base Price} = 13.8 * (1 / (1 + (50 / 4492.125))) * .80673 * 9.90839 * 1 = \109.09

Base Price Adjustments for Residential Buildings

Base Price Adjustments for Residential Buildings

These tables describe adjustments to the Base Rate per Square Foot for residential buildings. Base Price adjustments are commonly referred to as “add/deduct rates” or just “add/deducts.” Percent adjustments increase or decrease the value of a home in proportion with its size, while flat adjustments are the same regardless of size. When the adjustment is listed as “base,” the feature is either accounted for in the Base Rate, is only descriptive, or market analyses indicate no additional adjustment for the feature is needed.

When an add/deduct has a percent adjustment, multiply this percent by the Base Square Foot Rate for the building to calculate a per square foot adjustment. When the add/deduct adjustment is flat, divide the adjustment dollar amount by the footprint area of the main body of the building to create a dollar per square foot rate. A more detailed explanation of this follows beginning on page 140.

Adjustments for Building Type & Use

For manufactured homes, the Base Rate should be multiplied by .75 before calculating any other type of add/deduct adjustment.

Description	Adjustment Type	Adjustment Rate
One Family	Base	None
Two Family	Flat	+\$2,700
Three Family	Flat	+\$5,100
Four Family	Flat	+\$7,700
Multi-Family	Flat	+\$10,200
Residential w/Business Use	Flat	+\$4,200
Cabin	Flat	+\$20,000
Manufactured Home	Percent	75%
Group Home	Base	None
House Conv to Rooming House	Base	None

Adjustments for Story Height

Description	Adjustment Type	Adjustment Rate
1 Story	Base	None
1.4 Story	Percent	+27.50%
1.5 Story	Percent	+35.00%

1.63 Story	Percent	+40.00%
1.75 Story	Percent	+45.00%
1.88 Story	Percent	+50.00%
2 Story	Percent	+55.00%
3 Story	Percent	+110.00%
4 Story	Percent	+165.00%

Adjustments for Design/Style

(All entries are descriptive)

Description	Adjustment Type	Adjustment Rate
Conventional	Base	None
Duplex	Base	None
Townhouse	Base	None
Condo	Base	None
Conversion	Base	None
Colonial	Base	None
Ranch	Base	None
Cape	Base	None
Split Level	Base	None
Split Foyer	Base	None
Contemporary	Base	None
Log	Base	None
Manufactured Multi-Section	Base	None
Manufactured Single-Section	Base	None
Modular	Base	None

Adjustments for Foundation or Basement

Description	Adjustment Type	Adjustment Rate
Crawl Space	Base	None
Slab	Base	None
Full Basement	Percent	+7.00%
Partial Basement	Percent	+7.00% * Basement Area Percent
Pier Foundation	Percent	-5.00%
Skirting – Masonry	Percent	-2.00%
Skirting – Other	Percent	-6.00%

Adjustments for Exterior Wall

Description	Adjustment Type	Adjustment Rate
Frame	Base	None
Aluminum/Vinyl Siding	Base	None
Brick	Percent	+4.00%
C-Block	Base	None
Brick & Frame	Percent	+2.00%
Brick & C-Block	Percent	+2.00%
C-Block & Frame	Base	None
Stucco on Frame	Base	None
Stucco on Masonry	Base	None
Stone	Percent	+4.00%
Stone & Frame	Percent	+2.00%
Stone & Brick	Percent	+4.00%
Single Frame	Percent	-3.00%
Metal	Percent	-3.00%
Simulated Brick	Percent	+2.00%
Simulated Stone	Percent	+2.00%
Log	Base	None

Adjustments for Unfinished Interior

Description	Adjustment Type	Adjustment Rate
Interior Partly Unfinished	Percent	-75.00% * % Unfinished
Interior Partly Semi-Finished	Percent	-30.00% * % Semi-Finished
Interior Fully Unfinished	Percent	-75.00%
Interior Fully Semi-Finished	Percent	-30.00%

Adjustments for Upper Story (formerly Attic Finish)

Description	Adjustment Type	Adjustment Rate
.30 Story Finished	Percent	+20.00%
.30 Story Unfinished	Percent	+2.00%
.30 Story Partly Finished	Percent	+20.00% * % Finished
.30 Story Fully Semi-Fin	Percent	+15.00%
.30 Story Partly Semi-Fin	Percent	+15.00 * % Finished
.40 Story Finished	Percent	+27.50%
.40 Story Unfinished	Percent	+2.75%
.50 Story Finished	Percent	+35.00%
.50 Story Unfinished	Percent	+3.50%
.63 Story Finished	Percent	+40.00%
.63 Story Unfinished	Percent	+4.00%

.75 Story Finished	Percent	+45.00%
.75 Story Unfinished	Percent	+4.50%
.88 Story Finished	Percent	+50.00%
.88 Story Unfinished	Percent	+5.00%

Adjustments for Basement Finish

Description	Adjustment Type	Adjustment Rate
Fully Finished	Percent	+20.00%
Partly Finished	Percent	+20.00% * % Finished
Fully Rec Room	Percent	+15.00%
Partly Rec Room	Percent	+15.00% * % Finished
Fully Semi-Finished	Percent	+15.00%
Partly Semi-Finished	Percent	+15.00% * % Finished
Unfinished	Base	None

Adjustments for Heating

Description	Adjustment Type	Adjustment Rate
Central (100%)	Base	None
Central (<100%)	Percent	-6.00% * % Unheated
Limited/Partial	Percent	-3.00%
No Heating	Percent	-6.00%
No Burner	Percent	-3.00%
Solar	Base	None

Adjustments for Air Conditioning

Description	Adjustment Type	Adjustment Rate
Central (100%)	Percent	+4.00%
Central (<100%)	Percent	+4.00% * % Cooled
Limited/Partial	Percent	+2.00%
No Air Conditioning	Base	None

Adjustments for Plumbing

Description	Adjustment Type	Adjustment Rate
One Full	Base	None
One Full, One Half	Flat	+\$2,400
One Full, Two Half	Flat	+\$5,400
One Full, Three Half	Flat	+\$7,100
One Full, Four Half	Flat	+\$9,500
One Full, Five Half	Flat	+\$9,500

Two Full	Flat	+\$3,600
Two Full, One Half	Flat	+\$5,900
Two Full, Two Half	Flat	+\$8,300
Two Full, Three Half	Flat	+\$9,500
Three Full	Flat	+\$7,100
Three Full, One Half and Up	Flat	+\$9,500
Limited Plumbing	Flat	-\$3,600
No Plumbing	Flat	-\$5,900
Extra Fixtures	Flat	+\$1,200 * # of Fixtures

Adjustments for Built-Ins

Description	Adjustment Type	Adjustment Rate
Fireplace (1)	Flat	+\$1,500
Fireplace (2 or more)	Flat	+\$2,500

Values for Additions and Attached Items

Most Common Abbreviations & Descriptions of Addition Codes

Addition Description	Abbreviation(s)
Aluminum	ALUM or ALVY
Aluminum/Vinyl	ALVY
Attic	A
Basement	BSMT or B
Basement (Full or Partial)	FB or PB
Brick	BR
Canopy	CN
Carport	CP
Courtyard	COURYD or CTYD
Crawl Space	CS
Deck	DK
Enclosed Porch	EP
Finish(ed)	FIN or F
Finished (Fully or Partially)	FF or PF
Frame	FR or F
Garage	GAR or G
Greenhouse	GRHSE
Half Story	HS
Masonry	MS
Open Porch	OP
Patio	PA or PAT
Pool (Residential)	POOLRES or PRES
Pool House	POOLHSE
Screened Porch	SP
Shelter	SHEL
Slab	SL
Stoop	STP
Storage	STG
Sunroom	SURM or SUNRM
Terrace	TERR
Three-Quarter Story	TS
Unfinished	UF

Story Height Factors and Upper Floor Finish

% of Floor Space	Story Height	Abbreviation
30%	Attic (Finished)	AF or .30S
40%	.40 Story	4S or .40S
50%	.50 Story	HS (Half Story) or .50S
63%	.63 Story	63S or .63S
75%	.75 Story	TS (Three Quarter Story) or .75S
88%	.88 Story	88S or .88S
100%	1 Story	1S
200%	2 Story	2S

The amount of heated area for any space not on the ground floor is calculated using a story height factor, an upper floor factor, or both. A factor will be applied to the foundation area of the main body (for houses with two or more floors), the foundation area of an addition, or both, as appropriate.

For example, consider a house with a foundation 30x40, and a garage 20x20. The house is known to have 800 square feet of heated area on the 2nd floor, including a 200 square foot bonus room over the garage, for a grand total of 2,000 heated square feet.

This would be listed as a 1.5 Story house with a HS/GFR addition, using the following formula.

$$\begin{aligned} &\text{Foundation} + 2^{\text{nd}} \text{ floor area} + \text{Bonus room} \\ &(30 \times 40) + (30 \times 40 \times .5) + (20 \times 20 \times .5) = 2,000 \end{aligned}$$

An upper floor factor will usually, but not always, indicate the presence of a third level. The story height factor and the upper floor factor (if any) should be considered together and equal the number of levels of the building. An upper floor calculation is performed in the same way as the story height adjustment.

To expand on the example above, let us say the same house also has a third floor finished attic measuring 480 square feet. This would be listed as a 1.5 Story house with

a .40 Story (.40S) upper floor and a HS/GFR addition. The calculation now looks like this:

Foundation + 2nd floor area + 3rd floor area + Bonus room

$$(30 \times 40) + (30 \times 40 \times .5) + (30 \times 40 \times .4) + (20 \times 20 \times .5) = 2,480$$

All improvements are listed with a foundation (or footprint) size, however only heated area is included in the Total Living Area.

Residential Addition Codes

Residential Addition Codes

The following formulas are used to calculate schedule values for additions. An example follows beginning on page 140.

Work Area = ((Addition Footprint + 5)/10) + 2. This Work Area should be rounded **down** to the nearest whole number before any further calculations are done.

Adjusted Base Rate = (Base Rate * 10). Round the base rate **down** to the nearest whole number.

Schedule Value = Rounded Work Area * Adjusted Base Rate

Schedule Rate (Adjusted) = Schedule Value / Addition Footprint.

Where a different rate exists for lower, main, and/or upper levels, market analyses have indicated that the value the addition adds is different when it is on the ground floor (main) level, the basement level, or an upper level of a home.

In the following table, if a value exists in the "% Living Area" column, this addition type is included in the Total Heated Area of the building. If the % Living Area is 100, then 100% of the footprint area is added to the Total Heated Area. If the % Living Area is less than 100%, then multiply the footprint area by this % to calculate the appropriate heated area.

Abbreviations shown in the table are used when space is a consideration, such as on the Property Record Card.

Abbrev.	Description	Lower	Main	Upper	% Living Area
1SFR	1 Story, Frame	\$34.93	\$69.85	\$38.41	100%
1SFRDR	1 Story, Frame, Dirt Floor	\$32.07	\$64.15	\$35.28	100%
1SFRSF	1 Story, Frame, Semi-Finished	\$24.45	\$48.89	\$26.89	100%
1SFRUF	1 Story, Frame, Unfinished	\$17.46	\$34.93	\$19.21	
1SMS	1 Story, Masonry	\$36.32	\$72.65	\$39.95	100%
1SMS&FR	1 Story, Masonry & Frame	\$35.64	\$71.26	\$39.20	100%
1SMSSF	1 Story, Masonry, Semi-Finished	\$25.45	\$50.86	\$27.97	100%
1SMSUF	1 Story, Masonry, Unfinished	\$18.16	\$36.32	\$19.99	
ALCPCF	Aluminum Carport, Concrete Floor	\$22.16	\$22.16	\$22.16	
ALCPDF	Aluminum Carport, Dirt Floor	\$16.46	\$16.46	\$16.46	
.30FR	.30 Attic, Frame		\$13.97	\$13.97	30%
.30FRUF	.30 Attic, Frame, Unfinished		\$7.00	\$7.00	
.30MS	Attic, Masonry		\$14.54	\$14.54	30%
AF&MUF	Attic, Masonry & Frame, Unfinished		\$7.14	\$7.14	
.30MSUF	.30 Attic, Masonry, Unfinished		\$7.26	\$7.26	

Abbrev.	Description	Lower	Main	Upper	% Living Area
BF	Basement, Finished	\$34.93			100%
BSF	Basement, Semi-Finished	\$24.45			100%
BUF	Basement, Unfinished	\$13.97			
BUFDF	Basement, Unfinished, Dirt Floor	\$12.83			
CNPY	Canopy	\$10.76	\$10.76	\$10.76	
CNPYDF	Canopy, Dirt Floor	\$10.76	\$10.76	\$10.76	
CP	Carport	\$35.27	\$35.27	\$35.27	
CPDF	Carport, Dirt Floor	\$29.56	\$29.56	\$29.56	
DK	Deck	\$14.23	\$14.23	\$14.23	
EP	Enclosed Porch	\$50.60	\$50.60	\$50.60	
GFR	Garage, Frame	\$53.82	\$53.82		
GFRDF	Garage, Frame, Dirt Floor	\$48.12	\$48.12		
GMS	Garage, Masonry	\$55.83	\$55.83		
GMSDF	Garage, Masonry, Dirt Floor	\$50.14	\$50.14		
GZBO	Gazebo	\$35.27	\$35.27	\$35.27	
GRHS	Greenhouse	\$50.60	\$50.60	\$50.60	
GRHSDF	Greenhouse, Dirt Floor	\$44.89	\$44.89	\$44.89	
HSFR	Half Story, Frame		\$24.45	\$24.45	50%
HSFRUF	Half Story, Frame, Unfinished		\$12.24	\$12.24	
HSMS	Half Story, Masonry		\$25.42	\$25.42	50%
HSMSUF	Half Story, Masonry, Unfinished		\$12.72	\$12.72	
OP	Open Porch	\$35.27	\$35.27	\$35.27	
OPDF	Open Porch, Dirt Floor	\$29.56	\$29.56	\$29.56	
PA	Patio	\$5.71	\$5.71	\$5.71	
PLHS	Pool House	\$50.60	\$50.60	\$50.60	
SP	Screened Porch	\$39.21	\$39.21	\$39.21	
SHELTCF	Shelter, Concrete Floor	\$16.46	\$16.46	\$16.46	
SHELTFDF	Shelter, Dirt Floor	\$10.76	\$10.76	\$10.76	
SHOP	Shop	\$53.82	\$53.82	\$53.82	
SHOPSF	Shop, Semi-Finished	\$37.67	\$37.67	\$37.67	
SOLR	Solarium	\$34.93	\$69.85	\$38.41	100%
STP	Stoop	\$19.59	\$19.59	\$19.59	
STG	Storage	\$42.93	\$42.93	\$42.93	
STGDF	Storage, Dirt Floor	\$37.23	\$37.23	\$37.23	
SURM	Sunroom	\$34.93	\$69.85	\$38.41	100%
TERR	Terrace	\$19.59	\$19.59	\$19.59	
TSFR	Three Quarter Story, Frame		\$31.44	\$31.44	75%
TSFRUF	Three Quarter Story, Frame, Unfinished		\$15.73	\$15.73	
TSMS	Three Quarter Story, Masonry		\$32.70	\$32.70	75%
TSMSUF	Three Quarter Story, Masonry, UF		\$16.33	\$16.33	
TSHOPUF	Three Quarter Story, Shop, Unfin		\$12.11	\$12.11	
MISC	Miscellaneous	REF	REF	REF	

Abbrev.	Description	Lower	Main	Upper	% Living Area
2FL	2 nd Floor			\$38.41	100%
CRTYD-R	Courtyard, Residential	\$19.59	\$19.59	\$19.59	
DOGRUNR	Dog Run, Residential	\$15.94	\$15.94		
KENNEL-R	Kennel, Residential	\$31.86	\$31.86		
OA	Open Area	REF	REF	REF	
40FR	40% Story, Frame		\$19.21	\$19.21	40%
40FRUF	40% Story, Frame, Unfinished		\$9.61	\$9.61	
40MS	40% Story, Masonry		\$19.99	\$19.99	40%
40MSUF	40% Story, Masonry, Unfinished		\$9.98	\$9.98	
63FR	63% Story, Frame		\$27.93	\$27.93	63%
63FRUF	63% Story, Frame, Unfinished		\$13.97	\$13.97	
63MS	63% Story, Masonry		\$29.06	\$29.06	63%
63MSUF	63% Story, Masonry, Unfinished		\$14.54	\$14.54	
88FR	88% Story, Frame		\$34.93	\$34.93	88%
88FRUF	88% Story, Frame, Unfinished		\$17.46	\$17.46	
88MS	88% Story, Masonry		\$36.32	\$36.32	88%
88MSUF	88% Story, Masonry, Unfinished		\$18.16	\$18.16	

Effective Year/Condition Percent Tables

Effective Year/Condition Percent

High quality, consistent results in depreciation values are partly dependent on carefully selected entries for Effective Year and Normal Condition Percent. Effective Year and Year Built are quite often the same in a subject property which has had average care and maintenance, no remodeling, renovation, modernization, or additions, and which has normal life expectancy. While the Effective Year/Condition Percent tables provide a specific percent good, pinpoint accuracy is not crucial. The market does not draw such a fine line and tends to show the condition percent good as being substantially the same for groups of similar properties built within the same time frame and located within a given neighborhood. Simply stated, the market prices for any group of residential properties within a homogeneous neighborhood will seek the same level.

When listing the Effective Year for each subject property, strong consideration must be given to the effective age of the neighborhood, and the estimate must be tempered and smoothed toward that year. The Year Built for every principal building must be listed.

Items which may be considered within the broad category of normal maintenance, repair, and replacement should not influence the Effective Year estimate for appraisal purposes. Such items generally do not materially increase the overall market value or extend the remaining useful life of the building. For example, a new water heater may temporarily influence the market price, but it does not significantly extend the life of the building.

The following tables give the base percent adjustment based on the effective age of the structure. The appraiser may make additional adjustments for functional or external obsolescence. The "accrued percentage" reflects the table value along with any other adjustments. If no additional adjustments are made, the depreciation percentage and the accrued percentage are the same. Definitions of depreciation and obsolescence are provided below for clarity.

General areas to be considered by the appraiser in making a determination of obsolescence include: suitability or appropriateness; comfort; efficiency; safety; security; accessibility; ease and cost of maintenance; market standards; attractiveness; profitability.

Physical Depreciation

Physical depreciation is a reduction in utility due to the chemical and mechanical breaking down of improvements due to use, weathering, damage, pest or insect

infestation, and deferred maintenance. Physical deterioration may be subdivided into curable and incurable components.

Curable physical depreciation is deterioration that a prudent buyer would plan to correct upon purchase of the property, and the cost of making the correction would be no more than the increase in the present worth associated with the cure. Curable physical deterioration is usually measured by the cost to cure and subtracted from the cost new. Examples of physical deterioration include such repairable or replaceable items as worn-out roofing, broken window panes, or soiled or peeling paint.

Incurable physical depreciation is deterioration that, when looking at market conditions on the effective date of the appraisal, a prudent buyer would not feasibly or economically be justified in correcting. The test is not physical ability, but rather economic feasibility. In other words, if the cost of correcting the condition is greater than the anticipated increase in present worth, incurable physical depreciation is present.

Functional Obsolescence

A loss of value due to characteristics inherent within the property. This is a loss in value due to defects in design, or caused by changes that, over time, have made some aspect of a structure obsolete by current standards. The defect may be curable or incurable. To be curable, the cost of replacing the outmoded or unacceptable aspect must be the same as or less than the anticipated increase in value. Curable functional obsolescence is measured as the cost to cure the condition. Incurable functional obsolescence may be caused by a deficiency or a super-adequacy.

Examples of functional obsolescence include: excessive or deficient floor load capacity; deficient storage space; poor heating, lighting, or air-conditioning system; inadequate parking or loading facilities; multiple floors in a manufacturing facility, inhibiting efficient manufacturing process; low or excessive ceiling height; insufficient elevator service.

External Obsolescence

A loss of value due to forces outside the boundaries of the property. The diminished utility of a structure due to negative influences from outside the site is incurable. It can be caused by a variety of factors, including neighborhood decline, the property's location in a community, state or region, or market conditions.

Examples of external obsolescence include: zoning laws that affect the use or operation of the property; lack of need for this property due to changing economic conditions; a well-kept house located on land with commercial zoning; oversupply of a type of property; a very large house located in a neighborhood of small houses; a house located near a busy street or highway.

Normal Condition Percent Schedule

Residential

Effective Year	Effective Age	Depr – A	Depr – B	Depr – C	Depr – D
2019	0	97%	97%	97%	97%
2018	1	97%	96%	96%	96%
2017	2	96%	96%	95%	94%
2016	3	96%	95%	94%	93%
2015	4	95%	94%	93%	92%
2014	5	95%	93%	92%	91%
2013	6	94%	93%	91%	89%
2012	7	94%	92%	90%	88%
2011	8	93%	91%	89%	87%
2010	9	93%	91%	89%	85%
2009	10	92%	90%	88%	84%
2008	11	92%	89%	87%	83%
2007	12	91%	89%	86%	81%
2006	13	91%	88%	85%	80%
2005	14	91%	87%	85%	79%
2004	15	90%	86%	84%	78%
2003	16	90%	86%	83%	76%
2002	17	89%	85%	82%	75%
2001	18	89%	84%	81%	74%
2000	19	88%	84%	81%	73%
1999	20	88%	83%	80%	72%
1998	21	87%	83%	79%	71%
1997	22	87%	82%	78%	70%
1996	23	87%	82%	77%	69%
1995	24	86%	81%	77%	68%
1994	25	86%	81%	76%	67%
1993	26	85%	80%	75%	67%
1992	27	85%	79%	74%	66%
1991	28	84%	79%	73%	65%
1990	29	84%	78%	73%	64%
1989	30	84%	78%	72%	63%
1988	31	83%	77%	71%	62%
1987	32	83%	77%	70%	61%
1986	33	82%	76%	70%	60%
1985	34	82%	76%	69%	59%
1984	35	82%	75%	69%	58%
1983	36	81%	74%	68%	57%
1982	37	81%	74%	67%	57%
1981	38	80%	73%	67%	56%
1980	39	80%	73%	66%	55%
1979	40	79%	72%	66%	54%
1978	41	79%	72%	65%	53%
1977	42	79%	71%	64%	52%

Effective Year	Effective Age	Depr – A	Depr – B	Depr – C	Depr – D
1976	43	78%	71%	64%	52%
1975	44	78%	70%	63%	51%
1974	45	78%	69%	63%	50%
1973	46	77%	69%	62%	49%
1972	47	77%	68%	61%	48%
1971	48	76%	68%	61%	47%
1970	49	76%	67%	60%	47%
1969	50	76%	67%	60%	46%
1968	51	75%	66%	59%	45%
1967	52	75%	66%	59%	44%
1966	53	75%	65%	58%	44%
1965	54	74%	65%	57%	43%
1964	55	74%	64%	57%	43%
1963	56	74%	64%	56%	42%
1962	57	73%	63%	56%	41%
1961	58	73%	63%	55%	41%
1960	59	72%	62%	54%	40%
1959	60	72%	62%	54%	40%
1958	61	72%	61%	53%	39%
1957	62	71%	61%	53%	39%
1956	63	71%	61%	52%	38%
1955	64	71%	60%	52%	37%
1954	65	70%	60%	51%	37%
1953	66	70%	59%	50%	36%
1952	67	70%	59%	50%	36%
1951	68	69%	58%	49%	35%
1950	69	69%	58%	49%	35%
1949	70	69%	58%	49%	35%
1948	71	68%	57%	48%	34%
1947	72	68%	56%	47%	33%
1946	73	67%	56%	47%	33%
1945	74	67%	56%	46%	32%

Normal Condition Percent Schedule

Manufactured Home

Effective Year	Effective Age	Depr – A	Depr – B	Depr – C	Depr – D
2019	0	96%	96%	96%	96%
2018	1	96%	96%	96%	96%
2017	2	94%	94%	94%	94%
2016	3	93%	92%	92%	92%
2015	4	91%	91%	90%	90%
2014	5	89%	89%	89%	88%
2013	6	88%	87%	87%	86%
2012	7	87%	86%	85%	84%
2011	8	85%	84%	84%	82%
2010	9	84%	83%	82%	80%
2009	10	83%	81%	80%	78%
2008	11	81%	80%	79%	76%
2007	12	80%	78%	77%	74%
2006	13	79%	77%	76%	72%
2005	14	78%	75%	74%	70%
2004	15	77%	74%	73%	69%
2003	16	76%	73%	72%	67%
2002	17	75%	72%	70%	65%
2001	18	74%	71%	69%	64%
2000	19	73%	70%	68%	62%
1999	20	72%	69%	66%	60%
1998	21	71%	67%	65%	59%
1997	22	70%	66%	64%	57%
1996	23	70%	65%	63%	56%
1995	24	69%	64%	62%	55%
1994	25	68%	63%	60%	53%
1993	26	67%	62%	59%	52%
1992	27	67%	61%	58%	51%
1991	28	66%	60%	57%	49%
1990	29	65%	60%	56%	48%
1989	30	65%	59%	55%	47%
1988	31	64%	58%	54%	46%
1987	32	63%	57%	53%	45%
1986	33	63%	56%	52%	44%
1985	34	62%	55%	51%	42%
1984	35	62%	54%	51%	41%
1983	36	61%	54%	50%	40%
1982	37	60%	53%	49%	40%
1981	38	60%	52%	48%	39%
1980	39	59%	51%	47%	38%
1979	40	59%	51%	46%	37%
1978	41	58%	50%	46%	36%
1977	42	58%	49%	45%	35%

Effective Year	Effective Age	Depr – A	Depr – B	Depr – C	Depr – D
1976	43	57%	49%	44%	34%
1975	44	57%	48%	43%	34%
1974	45	57%	47%	43%	33%
1973	46	56%	47%	42%	32%
1972	47	56%	46%	41%	31%
1971	48	55%	46%	41%	31%
1970	49	55%	45%	40%	30%

Commercial Section

Commercial Base Price Schedule

Description	Schedule	Wall Ratio Factor	Base Price
Apartment Building	14	0	\$110.00
Hotel/Motel	15	2	\$125.00
Retail Building	20	2	\$105.00
Store Combination	22	2	\$80.00
Bowling Alley	23	2	\$74.00
Office Building	25	2	\$128.00
Bank Building	26	2	\$222.00
Theatre Building	27	2	\$83.00
Service Station	28	5	\$56.00
Auto Sales & Service	29	5	\$120.00
Hospital Building	31	5	\$239.00
Mini-Warehouse	32	0	\$55.00
Conv. Store/Foodmart	33	5	\$289.00
Industrial Building	41	5	\$50.00
Restaurants	46	2	\$150.00

Wall Ratios

The Wall Ratio expresses the relationship between the perimeter of a building and its ground floor area.

The Wall Ratio = Footprint Area / Perimeter, where Perimeter is defined as the square root of the footprint area, multiplied by 4.

For example, the Wall Ratio of a building with Footprint Area of 3600 square feet would be $3600/(\sqrt{3600} * 4)$, or 15.00.

Wall Ratios are calculated to two decimal places, therefore base prices in the following schedules should be understood as benchmarks within a range of values.

Base Price Schedules with Adjustments for Wall Ratio

Schedule 14 – Apartment

Base Value \$110.00; Wall Ratio Factor 0

This schedule is used for all types of apartment buildings, including traditional Garden, Townhouse, and Elevator style apartments, as well as luxury apartments. Student Apartments, which may be rented by the room, are also priced from this schedule.

WR Value	Base Price	WR Value	Base Price	WR Value	Base Price	WR Value	Base Price
6	\$110.00	7	\$110.00	8	\$110.00	9	\$110.00
10	\$110.00	11	\$110.00	12	\$110.00	13	\$110.00
14	\$110.00	15	\$110.00	16	\$110.00	17	\$110.00
18	\$110.00	19	\$110.00	20	\$110.00	21	\$110.00
22	\$110.00	23	\$110.00	24	\$110.00	25	\$110.00
26	\$110.00	27	\$110.00	28	\$110.00	29	\$110.00
30	\$110.00	31	\$110.00	32	\$110.00	33	\$110.00
34	\$110.00	35	\$110.00	36	\$110.00	37	\$110.00
38	\$110.00	39	\$110.00	40	\$110.00	41	\$110.00
42	\$110.00	43	\$110.00	44	\$110.00	45	\$110.00
46	\$110.00	47	\$110.00	48	\$110.00	49	\$110.00
50	\$110.00	51	\$110.00	52	\$110.00	53	\$110.00
54	\$110.00	55	\$110.00	56	\$110.00	57	\$110.00

Schedule 15 – Hotel/Motel

Base Value \$125.00; Wall Ratio Factor 2

This schedule is used for all types of hotels and motels, including full and limited service, extended stay, and high rise. It is also used for dormitories, fraternity and sorority houses, and nursing and assisted living type facilities.

WR Value	Base Price	WR Value	Base Price	WR Value	Base Price	WR Value	Base Price
6	\$166.67	7	\$160.71	8	\$156.25	9	\$152.78
10	\$150.00	11	\$147.73	12	\$145.83	13	\$144.23
14	\$142.86	15	\$141.67	16	\$140.62	17	\$139.71
18	\$138.89	19	\$138.16	20	\$137.50	21	\$136.90
22	\$136.36	23	\$135.87	24	\$135.42	25	\$135.00
26	\$134.62	27	\$134.26	28	\$133.93	29	\$133.62
30	\$133.33	31	\$133.06	32	\$132.81	33	\$132.58
34	\$132.35	35	\$132.14	36	\$131.94	37	\$131.76
38	\$131.58	39	\$131.41	40	\$131.25	41	\$131.10
42	\$130.95	43	\$130.81	44	\$130.68	45	\$130.56
46	\$130.43	47	\$130.32	48	\$130.21	49	\$130.10
50	\$130.00	51	\$129.90	52	\$129.81	53	\$129.72
54	\$129.63	55	\$129.55	56	\$129.46	57	\$129.39

Schedule 20 – Retail

Base Value \$105.00; Wall Ratio Factor 2

This schedule is used for all types of single and multi-tenant retail stores, stand-alone stores, and shopping complexes. This schedule is also used for pharmacies, concession stands, and bathhouses.

WR Value	Base Price	WR Value	Base Price	WR Value	Base Price	WR Value	Base Price
6	\$140.00	7	\$135.00	8	\$131.25	9	\$128.33
10	\$126.00	11	\$124.09	12	\$122.50	13	\$121.15
14	\$120.00	15	\$119.00	16	\$118.12	17	\$117.35
18	\$116.67	19	\$116.05	20	\$115.50	21	\$115.00
22	\$114.55	23	\$114.13	24	\$113.75	25	\$113.40
26	\$113.08	27	\$112.78	28	\$112.50	29	\$112.24
30	\$112.00	31	\$111.77	32	\$111.56	33	\$111.36
34	\$111.18	35	\$111.00	36	\$110.83	37	\$110.68
38	\$110.53	39	\$110.38	40	\$110.25	41	\$110.12
42	\$110.00	43	\$109.88	44	\$109.77	45	\$109.67
46	\$109.57	47	\$109.47	48	\$109.38	49	\$109.29
50	\$109.20	51	\$109.12	52	\$109.04	53	\$108.96
54	\$108.89	55	\$108.82	56	\$108.75	57	\$108.68

Schedule 22 – Store Combination

Base Value \$80.00; Wall Ratio Factor 2

The Store Combination schedule is used for buildings with retail stores on the ground floor and offices and/or apartments on the upper floors.

WR Value	Base Price	WR Value	Base Price	WR Value	Base Price	WR Value	Base Price
6	\$106.67	7	\$102.86	8	\$100.00	9	\$97.78
10	\$96.00	11	\$94.55	12	\$93.33	13	\$92.31
14	\$91.43	15	\$90.67	16	\$90.00	17	\$89.41
18	\$88.89	19	\$88.42	20	\$88.00	21	\$87.62
22	\$87.27	23	\$86.96	24	\$86.67	25	\$86.40
26	\$86.15	27	\$85.93	28	\$85.71	29	\$85.52
30	\$85.33	31	\$85.16	32	\$85.00	33	\$84.85
34	\$84.71	35	\$84.57	36	\$84.44	37	\$84.32
38	\$84.21	39	\$84.10	40	\$84.00	41	\$83.90
42	\$83.81	43	\$83.72	44	\$83.64	45	\$83.56
46	\$83.48	47	\$83.40	48	\$83.33	49	\$83.27
50	\$83.20	51	\$83.14	52	\$83.08	53	\$83.02
54	\$82.96	55	\$82.91	56	\$82.86	57	\$82.81

Schedule 23 – Bowling Alley

Base Value \$74.00; Wall Ratio Factor 2

The Bowling Alley schedule is used for bowling alleys, gymnasiums, health clubs, and similar recreational facilities.

WR Value	Base Price	WR Value	Base Price	WR Value	Base Price	WR Value	Base Price
6	\$98.67	7	\$95.14	8	\$92.50	9	\$90.44
10	\$88.80	11	\$87.45	12	\$86.33	13	\$85.38
14	\$84.57	15	\$83.87	16	\$83.25	17	\$82.71
18	\$82.22	19	\$81.79	20	\$81.40	21	\$81.05
22	\$80.73	23	\$80.43	24	\$80.17	25	\$79.92
26	\$79.69	27	\$79.48	28	\$79.29	29	\$79.10
30	\$78.93	31	\$78.77	32	\$78.62	33	\$78.48
34	\$78.35	35	\$78.23	36	\$78.11	37	\$78.00
38	\$77.89	39	\$77.79	40	\$77.70	41	\$77.61
42	\$77.52	43	\$77.44	44	\$77.36	45	\$77.29
46	\$77.22	47	\$77.15	48	\$77.08	49	\$77.02
50	\$76.96	51	\$76.90	52	\$76.85	53	\$76.79
54	\$76.74	55	\$76.69	56	\$76.64	57	\$76.60

Schedule 25 – Office

Base Value \$128.00; Wall Ratio Factor 2

The Office schedule is used for all varieties of office buildings, as well as institutional buildings such as schools, museums, and libraries.

WR Value	Base Price	WR Value	Base Price	WR Value	Base Price	WR Value	Base Price
6	\$170.67	7	\$164.57	8	\$160.00	9	\$156.44
10	\$153.60	11	\$151.27	12	\$149.33	13	\$147.69
14	\$146.29	15	\$145.07	16	\$144.00	17	\$143.06
18	\$142.22	19	\$141.47	20	\$140.80	21	\$140.19
22	\$139.64	23	\$139.13	24	\$138.67	25	\$138.24
26	\$137.85	27	\$137.48	28	\$137.14	29	\$136.83
30	\$136.53	31	\$136.26	32	\$136.00	33	\$135.76
34	\$135.53	35	\$135.31	36	\$135.11	37	\$134.92
38	\$134.74	39	\$134.56	40	\$134.40	41	\$134.24
42	\$134.10	43	\$133.95	44	\$133.82	45	\$133.69
46	\$133.57	47	\$133.45	48	\$133.33	49	\$133.22
50	\$133.12	51	\$133.02	52	\$132.92	53	\$132.83
54	\$132.74	55	\$132.65	56	\$132.57	57	\$132.49

Schedule 26 – Bank

Base Value \$222.00; Wall Ratio Factor 2

The Bank schedule is used for buildings whose primary purpose is banking, and drive-in teller booths.

WR Value	Base Price	WR Value	Base Price	WR Value	Base Price	WR Value	Base Price
6	\$296.00	7	\$285.43	8	\$277.50	9	\$271.33
10	\$266.40	11	\$262.36	12	\$259.00	13	\$256.15
14	\$253.71	15	\$251.60	16	\$249.75	17	\$248.12
18	\$246.67	19	\$245.37	20	\$244.20	21	\$243.14
22	\$242.18	23	\$241.30	24	\$240.50	25	\$239.76
26	\$239.08	27	\$238.44	28	\$237.86	29	\$237.31
30	\$236.80	31	\$236.32	32	\$235.88	33	\$235.45
34	\$235.06	35	\$234.69	36	\$234.33	37	\$234.00
38	\$233.68	39	\$233.38	40	\$233.10	41	\$232.83
42	\$232.57	43	\$232.33	44	\$232.09	45	\$231.87
46	\$231.65	47	\$231.45	48	\$231.25	49	\$231.06
50	\$230.88	51	\$230.71	52	\$230.54	53	\$230.38
54	\$230.22	55	\$230.07	56	\$229.93	57	\$229.79

Schedule 27 – Theatre

Base Value \$83.00; Wall Ratio Factor 2

The Theatre schedule is used for both movie theatres and performing arts theatres.

WR Value	Base Price	WR Value	Base Price	WR Value	Base Price	WR Value	Base Price
6	\$110.67	7	\$106.71	8	\$103.75	9	\$101.44
10	\$99.60	11	\$98.09	12	\$96.83	13	\$95.77
14	\$94.86	15	\$94.07	16	\$93.38	17	\$92.76
18	\$92.22	19	\$91.74	20	\$91.30	21	\$90.90
22	\$90.55	23	\$90.22	24	\$89.92	25	\$89.64
26	\$89.38	27	\$89.15	28	\$88.93	29	\$88.72
30	\$88.53	31	\$88.35	32	\$88.19	33	\$88.03
34	\$87.88	35	\$87.74	36	\$87.61	37	\$87.49
38	\$87.37	39	\$87.26	40	\$87.15	41	\$87.05
42	\$86.95	43	\$86.86	44	\$86.77	45	\$86.69
46	\$86.61	47	\$86.53	48	\$86.46	49	\$86.39
50	\$86.32	51	\$86.25	52	\$86.19	53	\$86.13
54	\$86.07	55	\$86.02	56	\$85.96	57	\$85.91

Schedule 28 – Service Station

Base Value \$56.00; Wall Ratio Factor 5

The Service Station schedule is used for all types of gasoline stations, with or without service bays.

WR Value	Base Price	WR Value	Base Price	WR Value	Base Price	WR Value	Base Price
6	\$102.67	7	\$96.00	8	\$91.00	9	\$87.11
10	\$84.00	11	\$81.45	12	\$79.33	13	\$77.54
14	\$76.00	15	\$74.67	16	\$73.50	17	\$72.47
18	\$71.56	19	\$70.74	20	\$70.00	21	\$69.33
22	\$68.73	23	\$68.17	24	\$67.67	25	\$67.20
26	\$66.77	27	\$66.37	28	\$66.00	29	\$65.66
30	\$65.33	31	\$65.03	32	\$64.75	33	\$64.48
34	\$64.24	35	\$64.00	36	\$63.78	37	\$63.57
38	\$63.37	39	\$63.18	40	\$63.00	41	\$62.83
42	\$62.67	43	\$62.51	44	\$62.36	45	\$62.22
46	\$62.09	47	\$61.96	48	\$61.83	49	\$61.71
50	\$61.60	51	\$61.49	52	\$61.38	53	\$61.28
54	\$61.19	55	\$61.09	56	\$61.00	57	\$60.91

Schedule 29 – Garage

Base Value \$120.00; Wall Ratio Factor 5

The Garage schedule is used for buildings whose purpose is the sale, service, and/or maintenance of automobiles. Parking decks are also priced with this schedule.

WR Value	Base Price	WR Value	Base Price	WR Value	Base Price	WR Value	Base Price
6	\$220.00	7	\$205.71	8	\$195.00	9	\$186.67
10	\$180.00	11	\$174.55	12	\$170.00	13	\$166.15
14	\$162.86	15	\$160.00	16	\$157.50	17	\$155.29
18	\$153.33	19	\$151.58	20	\$150.00	21	\$148.57
22	\$147.27	23	\$146.09	24	\$145.00	25	\$144.00
26	\$143.08	27	\$142.22	28	\$141.43	29	\$140.69
30	\$140.00	31	\$139.35	32	\$138.75	33	\$138.18
34	\$137.65	35	\$137.14	36	\$136.67	37	\$136.22
38	\$135.79	39	\$135.38	40	\$135.00	41	\$134.63
42	\$134.29	43	\$133.95	44	\$133.64	45	\$133.33
46	\$133.04	47	\$132.77	48	\$132.50	49	\$132.24
50	\$132.00	51	\$131.76	52	\$131.54	53	\$131.32
54	\$131.11	55	\$130.91	56	\$130.71	57	\$130.53

Schedule 31 – Hospital

Base Value \$239.00; Wall Ratio Factor 5

The Hospital schedule is used for hospitals and other large medical complexes.

WR Value	Base Price	WR Value	Base Price	WR Value	Base Price	WR Value	Base Price
6	\$438.17	7	\$409.71	8	\$388.38	9	\$371.78
10	\$358.50	11	\$347.64	12	\$338.58	13	\$330.92
14	\$324.36	15	\$318.67	16	\$313.69	17	\$309.29
18	\$305.39	19	\$301.89	20	\$298.75	21	\$295.90
22	\$293.32	23	\$290.96	24	\$288.79	25	\$286.80
26	\$284.96	27	\$283.26	28	\$281.68	29	\$280.21
30	\$278.83	31	\$277.55	32	\$276.34	33	\$275.21
34	\$274.15	35	\$273.14	36	\$272.19	37	\$271.30
38	\$270.45	39	\$269.64	40	\$268.88	41	\$268.15
42	\$267.45	43	\$266.79	44	\$266.16	45	\$265.56
46	\$264.98	47	\$264.43	48	\$263.90	49	\$263.39
50	\$262.90	51	\$262.43	52	\$261.98	53	\$261.55
54	\$261.13	55	\$260.73	56	\$260.34	57	\$259.96

Schedule 32 – Mini-Warehouse

Base Value \$55.00; Wall Ratio Factor 0

The Mini-Warehouse schedule is used for warehouse complexes with small rental units in each building.

WR Value	Base Price	WR Value	Base Price	WR Value	Base Price	WR Value	Base Price
6	\$55.00	7	\$55.00	8	\$55.00	9	\$55.00
10	\$55.00	11	\$55.00	12	\$55.00	13	\$55.00
14	\$55.00	15	\$55.00	16	\$55.00	17	\$55.00
18	\$55.00	19	\$55.00	20	\$55.00	21	\$55.00
22	\$55.00	23	\$55.00	24	\$55.00	25	\$55.00
26	\$55.00	27	\$55.00	28	\$55.00	29	\$55.00
30	\$55.00	31	\$55.00	32	\$55.00	33	\$55.00
34	\$55.00	35	\$55.00	36	\$55.00	37	\$55.00
38	\$55.00	39	\$55.00	40	\$55.00	41	\$55.00
42	\$55.00	43	\$55.00	44	\$55.00	45	\$55.00
46	\$55.00	47	\$55.00	48	\$55.00	49	\$55.00
50	\$55.00	51	\$55.00	52	\$55.00	53	\$55.00
54	\$55.00	55	\$55.00	56	\$55.00	57	\$55.00

Schedule 33 – Convenience Store (Food Mart)

Base Value \$289.00; Wall Ratio Factor 5

The Food Mart schedule is used for small retail properties where food sales are a significant part of the business.

WR Value	Base Price	WR Value	Base Price	WR Value	Base Price	WR Value	Base Price
6	\$529.83	7	\$495.43	8	\$469.62	9	\$449.56
10	\$433.50	11	\$420.36	12	\$409.42	13	\$400.15
14	\$392.21	15	\$385.33	16	\$379.31	17	\$374.00
18	\$369.28	19	\$365.05	20	\$361.25	21	\$357.81
22	\$354.68	23	\$351.83	24	\$349.21	25	\$346.80
26	\$344.58	27	\$342.52	28	\$340.61	29	\$338.83
30	\$337.17	31	\$335.61	32	\$334.16	33	\$332.79
34	\$331.50	35	\$330.29	36	\$329.14	37	\$328.05
38	\$327.03	39	\$326.05	40	\$325.12	41	\$324.24
42	\$323.40	43	\$322.60	44	\$321.84	45	\$321.11
46	\$320.41	47	\$319.74	48	\$319.10	49	\$318.49
50	\$317.90	51	\$317.33	52	\$316.79	53	\$316.26
54	\$315.76	55	\$315.27	56	\$314.80	57	\$314.35

Schedule 41 – Industrial

Base Value \$50.00; Wall Ratio Factor 5

The Industrial schedule is used for manufacturing facilities, warehouses, and laboratories. It is also used for buildings whose purpose is the boarding of animals.

WR Value	Base Price	WR Value	Base Price	WR Value	Base Price	WR Value	Base Price
6	\$91.67	7	\$85.71	8	\$81.25	9	\$77.78
10	\$75.00	11	\$72.73	12	\$70.83	13	\$69.23
14	\$67.86	15	\$66.67	16	\$65.62	17	\$64.71
18	\$63.89	19	\$63.16	20	\$62.50	21	\$61.90
22	\$61.36	23	\$60.87	24	\$60.42	25	\$60.00
26	\$59.62	27	\$59.26	28	\$58.93	29	\$58.62
30	\$58.33	31	\$58.06	32	\$57.81	33	\$57.58
34	\$57.35	35	\$57.14	36	\$56.94	37	\$56.76
38	\$56.58	39	\$56.41	40	\$56.25	41	\$56.10
42	\$55.95	43	\$55.81	44	\$55.68	45	\$55.56
46	\$55.43	47	\$55.32	48	\$55.21	49	\$55.10
50	\$55.00	51	\$54.90	52	\$54.81	53	\$54.72
54	\$54.63	55	\$54.55	56	\$54.46	57	\$54.39

Schedule 46 – Restaurants

Base Value \$150.00; Wall Ratio Factor 2

The Restaurant schedule is used for full service restaurants and fast food establishments, as well as bars and clubs.

WR Value	Base Price	WR Value	Base Price	WR Value	Base Price	WR Value	Base Price
6	\$200.00	7	\$192.86	8	\$187.50	9	\$183.33
10	\$180.00	11	\$177.27	12	\$175.00	13	\$173.08
14	\$171.43	15	\$170.00	16	\$168.75	17	\$167.65
18	\$166.67	19	\$165.79	20	\$165.00	21	\$164.29
22	\$163.64	23	\$163.04	24	\$162.50	25	\$162.00
26	\$161.54	27	\$161.11	28	\$160.71	29	\$160.34
30	\$160.00	31	\$159.68	32	\$159.38	33	\$159.09
34	\$158.82	35	\$158.57	36	\$158.33	37	\$158.11
38	\$157.89	39	\$157.69	40	\$157.50	41	\$157.32
42	\$157.14	43	\$156.98	44	\$156.82	45	\$156.67
46	\$156.52	47	\$156.38	48	\$156.25	49	\$156.12
50	\$156.00	51	\$155.88	52	\$155.77	53	\$155.66
54	\$155.56	55	\$155.45	56	\$155.36	57	\$155.26

Commercial & Industrial Building Uses

Commercial and Industrial Building Uses

Code	Description	Base Price Schedule	Percent Adjustment
7	Garden Apartment	APT – 14	Base
8	Townhouse Apartmt	APT – 14	Base
9	Elevator Apartment	APT – 14	+10%
10	Rooming House	HOT – 15	-24%
11	Bank Building	BNK – 26	Base
12	Drive-In Bank Bldg	BNK – 26	+55%
13	(Not in Use)	NA	NA
14	Bowling Alley	BWL – 23	Base
15	Health Club	BWL – 23	+45%
16	Day Care	OFF – 25	+62%
17	Club House	OFF – 25	-14%
18	Bath House	RET – 20	+59%
19	Sales & Service	GAR – 29	Base
20	Service Garage	GAR – 29	-50%
21	Parking Deck	GAR – 29	-34%
22	Oil & Lube	GAR – 29	Base
23	Car Wash	GAR – 29	+4%
24	Wand Car Wash	GAR – 29	-32%
25	Service Station	GAS – 28	Base
26	(Not in Use)	NA	NA
27	Gas – Other/Booth	GAS – 28	+61%
28	Hotel/Motel – Full	HOT – 15	+20%
29	Hotel/Motel – Limited	HOT – 15	Base
30	Motel – Extended Stay	HOT – 15	Base
31	Hotel – High Rise	HOT – 15	+20%
32	Motel – Independent	HOT – 15	-15%
33	Hotel – Luxury	HOT – 15	+80%
34	Office – Typical, Gross Rent	OFF – 25	Base
35	Residential Conversion	OFF – 25	-15%
36	Office – Medical, Gross Rent	OFF – 25	+10%
37	Office/Apartment	OFF – 25	-23%
38	Office – High Rise	OFF – 25	Base
39	Restaurant	RST – 46	Base
40	Fast Food	RST – 46	+51%
41	Drive-In	RST – 46	+65%
42	Store-Type Building	RST – 46	-16%
43	Bar/Club	RST – 46	-25%

Code	Description	Base Price Schedule	Percent Adjustment
44	Cafeteria	RST – 46	-12%
45	Concession Stand	RET – 20	-69%
46	Conv Store (Food Mart)	FMT – 33	Base
47	Single Tenant	RET – 20	Base
48	Multi-Tenant	RET – 20	Base
49	Super Market	RET – 20	-31%
50	Discount Store	RET – 20	-58%
51	Department Store	RET – 20	+18%
52	Bulk Retail	RET – 20	-58%
53	Mall	RET – 20	+46%
54	Community Shopping Center	RET – 20	+65%
55	Neighborhood Shopping Center	RET – 20	+59%
56	Junior Anchor	RET – 20	+15%
57	Stores w/Apartments	STR – 22	Base
58	Stores w/Offices	STR – 22	+20%
59	Stores w/Offices & Apartments	STR – 22	+10%
60	Junior Department Store	RET – 20	-8%
61	Pharmacy, Stand-Alone	RET – 20	+155%
62	Airport Terminal	OFF – 25	+83%
63	Vet Clinic	OFF – 25	+15%
64	Clinic	HOS – 31	-35%
65	Club	OFF – 25	+31%
66	Church	OFF – 25	+43%
67	Dormitory	HOT – 15	-10%
68	Fire Station	OFF – 25	+15%
69	Gymnasium	BWL – 23	+42%
70	Hospital	HOS – 31	Base
71	Library	OFF – 25	+31%
73	Municipal Building	OFF – 25	+56%
74	Nursing Home	HOT – 15	+22%
75	Funeral Home	OFF – 25	+11%
76	Rest Home	HOT – 15	-10%
77	School	OFF – 25	+35%
78	Theatre	THT – 27	Base
79	Light Manufacturing	IND – 41	+18%
80	Manufacturing	IND – 41	+46%
81	Pharmaceutical Plant	IND – 41	+74%
82	Prefab Warehouse	IND – 41	Base

Code	Description	Base Price Schedule	Percent Adjustment
83	Warehouse	IND – 41	+13%
84	Bulk/Dist Warehouse	IND – 41	-26%
85	Flex Warehouse	IND – 41	+35%
86	Mini Warehouse	MNW – 32	Base
87	Bottling Plant	IND – 41	+46%
88	Chemical Plant	IND – 41	+106%
89	Biology	IND – 41	+84%
90	Research & Development	IND – 41	+159%
91	Hangar	IND – 41	-11%
92	Power House	IND – 41	+145%
93	Kennel	IND – 41	+70%
94	Telephone Exchange	IND – 41	+145%
95	Truck Terminal	IND – 41	+27%
96	Laboratory	IND – 41	+256%
97	Stable	IND – 41	-19%
98	Laundry	RET – 20	Base
100	Student Apartment	APT – 14	+29%
101	Luxury Apartment	APT – 14	+70%
102	Museum	OFF – 25	+144%
103	New Car Showroom/Offices	GAR – 29	+16%
104	Fraternity House	HOT – 15	-8%
105	Sorority House	HOT – 15	-8%
106	Post Office	OFF – 25	+5%
107	Armory	OFF – 25	+8%
109	Restroom Building	RET – 20	+59%
110	Guard House	RET – 20	Base
111	Prison/Jail	HOT – 15	+229%
113	Sports Arena	BWL – 23	+150%
115	Skating Rink	BWL – 23	Base
200	Service Garage – Premium	GAR – 29	Base
210	Parking Deck – For Profit	GAR – 29	+15%
340	Typical Office – Gross Rent	OFC – 25	Base
360	Medical Office – Gros Rent	OFC – 25	+10%

Special Write-Ins (Building Type/Use 99)

If a subject property cannot be listed and appraised by selecting a distinct building type & use compatible with the classification series from which the building is to be priced, then a special write-in is provided. The use of the special write-in "99" for building use allows for the adjustment of the appropriate classification series up or down in price, without otherwise deviating from the appraisal procedure. If the appraiser desires an adjustment for building use, the following conditions must be met:

1. Building Use number "99" must be used.
2. The appropriate building type (residential, office, retail, industrial, etc.) must be listed, followed by the building description. If adjusting the rate, the desired rate including a "+" or "-" will follow the description.
3. For residential building types, the rate entered for adjustment purposes must be expressed in dollars and cents per square foot of foundation area.
4. For commercial/industrial building types, the rate entered for adjustments will be multiplied by the number of stories as shown in the Story Height field.

Note: If a selection for building use is made from the available choices other than 99, the description field for a special write-in is automatically inspected. If blank, standard processing follows. If not blank, the description will appear as the type & use on the Property Record Card, and standard processing follows, except for the adjustment for that particular building use number. A special write-in rate, when listed, takes precedence over the standard building use adjustment, and then standard processing follows.

Note: For retrieval programming, building use selections other than 99 will take precedence. Capability for retrieving selection 99 is restricted to retrieving all such selections without regard to the special write-in description.

Commercial & Industrial Pricing Schedule

Base Price Adjustments for Commercial and Industrial Buildings

These tables describe adjustments to the Base Rate per Square Foot (with respect to Wall Ratio) for commercial and industrial buildings.

Adjustments for Story Height

(All entries are descriptive)

Description	Adjustment Factor Commercial	Adjustment Factor Industrial
One Story	Base	Base
1.4 Story	Base	Base
1.5 Story	Base	Base
1.63 Story	Base	Base
1.75 Story	Base	Base
1.88 Story	Base	Base
Two Story	Base	Base
2.4 Story	Base	Base
2.5 Story	Base	Base
2.63 Story	Base	Base
2.75 Story	Base	Base
3 Story	Base	Base
3.5 Story	Base	Base
4 Story	Base	Base
Multi Story	Base	Base

Adjustments for Upper Story (formerly Attic Finish)

Description	Adjustment Factor Commercial	Adjustment Factor Industrial
.30 Story Fully Finished	+\$24.10	+\$24.10
.30 Story Part Finished	+\$24.10 * % Finished	+\$24.10 * % Finished
.30 Story Fully Semi-Finished	+\$17.90	+\$17.90
.30 Story Part Semi-Finished	+\$17.90 * % Semi-Finished	+\$17.90 * % Semi-Finished
.30 Story Unfinished	+\$2.40	+\$2.40

Adjustments for Design/Style

(All entries are descriptive)

Description	Adjustment Factor Commercial	Adjustment Factor Industrial
Cape	Base	Base
Colonial	Base	Base

Condo	Base	Base
Contemporary	Base	Base
Conventional	Base	Base
Conversion	Base	Base
Duplex	Base	Base
Log	Base	Base
Ranch	Base	Base
Split Foyer	Base	Base
Split Level	Base	Base
Townhouse	Base	Base

Adjustments for Foundation or Basement

Description	Adjustment Factor Commercial	Adjustment Factor Industrial
Full Basement	+\$21.90	+\$21.90
Part Basement	+\$21.90 * Basement Area %	+\$21.90 * Basement Area %
Pier Foundation	Base	Base
Crawl Space	Base	Base
Slab	Base	Base

Adjustments for Basement Finish

Description	Adjustment Factor Commercial	Adjustment Factor Industrial
Fully Finished	+\$32.20	+\$32.20
Fully Rec	+\$21.20	+\$21.20
Fully Semi	+\$15.80	+\$15.80
Partly Finished	+\$32.20 * % Finished	+\$32.20 * % Finished
Partly Rec	+\$21.20 * % Finished	+\$21.20 * % Finished
Partly Semi	+\$15.80 * % Semi-Finished	+\$15.80 * % Semi-Finished
Unfinished	Base	Base

Adjustments for Exterior Wall

Description	Adjustment Factor Commercial	Adjustment Factor Industrial
Aluminum/Vinyl Siding	-\$4.40	-\$4.40
Brick & C-Block	-\$2.20	-\$2.20
Brick & Frame	-\$2.20	-\$2.20
Brick & Metal	-\$2.20	-\$2.20
Brick	Base	Base
C-Block	-\$4.40	-\$4.40
C-Block & Frame	-\$4.40	-\$4.40
C-Block & Metal	-\$4.40	-\$4.40
Enameled Steel	Base	Base
Factory Sash	Base	Base

Frame	-\$4.40	-\$4.40
Glass Aluminum	Base	Base
Insulated Panel	Base	Base
Log	-\$2.20	-\$2.20
Metal	-\$4.40	-\$4.40
Precast Concrete	Base	Base
Reinforced Concrete	Base	Base
Simulated Brick	-\$2.20	-\$2.20
Simulated Stone	-\$1.60	-\$1.60
Single Fr Siding	-\$6.60	-\$6.60
Solar Glass	Base	Base
Stone & Frame	-\$2.20	-\$2.20
Stone	Base	Base
Stone & Brick	Base	Base
Stucco on Frame	-\$4.40	-\$4.40
Stucco on Masonry	-\$4.40	-\$4.40

Adjustments for Roof/Floor System

Description	Adjustment Factor Commercial	Adjustment Factor Industrial
Cellular Steel	Base	Base
Exposed Steel	Base	Base
Fireproof Steel	Base	Base
Reinforced Concrete	Base	Base
Timber	Base	Base
Wood Joist	Base	Base

Adjustments for Interior Finish

Description	Adjustment Factor Commercial	Adjustment Factor Industrial
Fin Building/Fully Finished	+\$32.10	+\$32.10
Fin Building/Fully Semi-Fin	+\$21.20	+\$21.20
Fin Building/Partly Finished	+\$32.10 * % Finished	+\$32.10 * % Finished
Fin Building/Partly Semi-Fin	+\$21.20 * % Semi-Finished	+\$21.20 * % Semi-Finished
Fully Semi	-\$21.20	-\$21.20
Fully Unfin	-\$32.10	-\$32.10
Partly Semi	-\$21.20 * % Unfinished	-\$21.20 * % Unfinished
Partly Unfin	-\$32.10 * % Unfinished	-\$32.10 * % Unfinished

Adjustments for Mezzanine

Description	Adjustment Factor Commercial	Adjustment Factor Industrial
Partly Finished	+\$32.10 * % Finished	+\$32.10 * % Finished
Partly Floored Only	+\$6.40 * % Floored	+\$6.40 * % Floored

Partly Semi-Finished	+\$21.20 * % Semi-Finished	+\$21.20 * % Semi-Finished
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Adjustments for Heating

Description	Adjustment Factor Commercial	Adjustment Factor Industrial
Central (100%)	Base	+\$3.90
Central (<100%)	-\$3.90 * % Unheated	+\$3.90 * % Heated
Central Units	Base	+\$3.90
Limited	-\$2.90	+\$2.90
No Burner	-\$1.90	+\$1.90
No Heating	-\$3.40	Base
Solar	Base	+\$3.90
Units	-\$1.90	+\$1.90

Adjustments for Air Conditioning

Description	Adjustment Factor Commercial	Adjustment Factor Industrial
Central (100%)	Base	+\$6.20
Central (<100%)	-\$6.20 * % Uncooled	+\$6.20 * % Cooled
Climate Control	Base	+\$6.20
Limited/Partial	-\$1.90	+\$1.90
No Air Conditioning	-\$6.20	Base
Unit Air Conditioning	-\$6.20	Base

Adjustments for Plumbing

Description	Adjustment Factor Commercial	Adjustment Factor Industrial
Adequate	Base	Base
Limited Plumbing	-\$.60	-\$.60
No Plumbing	-\$1.10	-\$1.10

Adjustments for Fireplaces

Description	Adjustment Factor Commercial	Adjustment Factor Industrial
One Fireplace	+\$1,500	+\$1,500
Multiple Fireplaces	+\$2,500	+\$2,500

Adjustments for Built-Ins

Description	Adjustment Factor Commercial	Adjustment Factor Industrial
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Escalator	Base	+\$173,350
Freight Elevator	Base	+\$55,350
Passenger Elevator	Base	+\$55,350
Sprinkler	Base	+\$2.60

Application of Add/Deduct Rates

For Commercial and Industrial buildings, add/deduct rates are calculated using the following formula:

$$\text{Add/Deduct Rate} = ((5/\text{Wall Ratio}) + 1) \times \text{Adjustment Factor}$$

For features that have a flat value, such as fireplaces, the formula is:

$$\text{Add/Deduct Rate} = \text{Adjustment Factor} / \text{Footprint Area of Main Building}$$

Elevators & Escalators

These items are listed for industrial buildings only. They are part of the base value for any other building.

Elevators

Base Price \$55,350 per elevator
Each Additional Floor X 1.10 Accum.
Total Divided by Base SF & Story Height

Escalators

Flat Base Price \$173,350 per escalator
Total Divided by Base SF & Story Height

Special Built-In: Other Feature "SBI"

If the subject property has an item or feature than cannot be handled through the listing choices, then a special write-in is provided. The use of the Special Built In (SBI) for other features allows the entering of special pricing into the system. If the appraiser desires an adjustment for a special item or feature, the following conditions must be met:

1. SBI will be listed as a Built-In/Other Feature
2. A description of the special item will be provided.
3. For residential building types, the rate entered for the pricing of the special item must be expressed in dollars and cents per square foot of foundation area.
4. For commercial/industrial building types, the rate entered for the pricing of the special item will be multiplied by the number of stories, as shown in the Story Height field.
5. The rate will be positive unless the "-" sign is used to indicate a deductive rate.

A maximum of five selections are allowed when listing built-ins and other features. When an SBI is listed, it will count as one of the five.

Commercial/Industrial Grades & Correlation of NC Grades to Numeric Classifications

Grade	Classification	Factor	Grade	Classification	Factor
AA+170	1.29	1600%	AA+168	1.28	1540%
AA+165	1.27	1479%	AA+163	1.26	1424%
AA+160	1.25	1367%	AA+158	1.24	1317%
AA+155	1.23	1264%	AA+153	1.22	1218%
AA+150	1.21	1169%	AA+148	1.20	1126%
AA+145	1.19	1081%	AA+143	1.18	1041%
AA+140	1.17	999%	AA+138	1.16	962%
AA+135	1.15	924%	AA+133	1.14	889%
AA+130	1.13	854%	AA+128	1.12	822%
AA+125	1.11	790%	AA+123	1.10	760%
AA+120	1.09	731%	AA+118	1.08	703%
AA+115	1.07	676%	AA+113	1.06	650%
AA+110	1.05	625%	AA+108	1.04	601%
AA+105	1.03	578%	AA+103	1.02	556%
AA+100	1.01	534%	AA+98	1.00	514%
AA+95	.99	494%	AA+90	.98	460%
AA+85	.97	429%	AA+80	.96	400%
AA+70	.95	373%	AA+60	.94	348%
AA+50	.93	324%	AA+40	.92	302%
AA+30	.91	281%	AA+25	.90	270%
AA+20	.89	259%	AA+15	.88	248%
AA+10	.87	237%	AA+05	.86	227%
AA	.85	216%	AA-05	.83	205%
AA-10	.81	194%	AA-15	.80	187%
A+20	.79	173%	A+15	.78	166%
A+10	.77	158%	A+05	.76	151%
A	.75	144%	A-05	.73	137%
A-10	.69	130%	B+10	.71	130%
B+05	.67	125%	B	.65	120%
B-05	.63	115%	B-10	.61	110%
C+10	.59	110%	C+05	.57	105%
C	.55	100%	C-05	.53	95%
C-10	.49	90%	D+10	.51	90%
D+05	.47	85%	D	.45	80%
D-05	.43	76%	D-10	.41	72%
E+10	.39	62%	E+05	.37	59%
E	.35	56%	E-05	.33	53%
E-10	.31	50%	E-15	.30	48%
E-20	.29	45%	E-25	.28	42%
E-30	.27	40%	E-40	.25	34%
E-50	.23	28%			

Effective Economic Life Tables

Effective Economic Life

Economic Life is primarily based upon the average condition of the subject property relative to its actual age. The normal condition percentage good found by the application of the Effective Economic Life Tables may be adjusted as deemed necessary by the appraiser.

The economic life of any commercial/industrial structure is determined by its Type & Use. Wood joist construction has a lower life expectancy than fire-resistant construction. Structures built for a temporary need are characterized by low-cost construction. In most instances, the choice of construction is determined by the building use, and by the estimated economic life of that particular use. The following examples should serve as guidelines.

It is important to also keep in mind that the functional and economic rates of depreciation for some building uses are faster than the rate of physical decline.

Commercial/Industrial Economic Life Tables

(by Type & Use)

Building Use	T & U Code	Cellular Steel	Exposed Steel	Fireproof Steel	Reinforced Concrete	Timber	Wood Joist
Air Term	62	50	50	50	50	50	50
Arena	113	30	30	30	30	30	30
Armory	107	40	40	50	50	40	40
Auto CW	23	20	30	30	30	30	30
Bank Bld	11	40	40	50	50	40	40
Bar/Club	43	30	40	40	40	40	40
Bath House	18	20	30	30	30	30	30
Biology	89	30	40	50	50	40	40
Bot Plant	87	30	40	50	50	40	40
Bowling	14	30	30	30	30	30	30
Bulk Ret	52	30	40	40	40	40	40
Bulk/Dist	84	30	40	50	50	40	40
Cafeteria	44	30	40	40	40	40	40
Car Sales	103	30	40	50	50	40	40
Chem Pln	88	30	40	50	50	40	40
Church	66	30	40	50	50	40	40
Clinic	64	30	40	40	40	40	40
Club	65	30	40	40	40	40	40
Club House	17	30	40	40	40	40	40
Comm S/C	54	30	40	50	50	40	40
ComRmHse	10	40	40	50	50	40	40
Concess	45	30	30	30	30	30	30
Conv Store	46	20	30	30	30	30	30
Day Care	16	30	40	40	40	40	40
Dept Store	51	30	40	50	50	40	40
DI Bank	12	40	40	50	50	40	40
Disc Store	50	30	40	50	50	40	40
Dormitory	67	40	40	50	50	40	40
Drive-In	41	20	20	20	20	20	20
Drugstore	61	40	40	50	50	40	40
Elev Apt	09	40	40	50	50	40	40
Fast Food	40	30	40	40	40	40	40
Fire Station	68	30	40	50	50	40	40
Flex Whse	85	30	40	50	50	40	40
Fraternity	104	30	40	50	50	40	40
Funeral	75	30	40	50	50	40	40
Gas Only	27	30	30	30	30	30	30
Garden Apt	07	40	40	50	50	40	40
Guard Hse	110	20	20	20	20	20	20
Gym	69	30	40	50	50	40	40
H/M – ES	30	40	40	50	50	40	40

Building Use	T & U Code	Cellular Steel	Exposed Steel	Fireproof Steel	Reinforced Concrete	Timber	Wood Joist
H/M – Full	28	40	40	50	50	40	40
H/M – HR	31	40	40	50	50	40	40
H/M – Indep	32	40	40	50	50	40	40
H/M – Lim	29	40	40	50	50	40	40
H/M – Lux	33	40	40	50	50	40	40
Hangar	91	20	30	40	40	30	30
Health	15	40	40	50	50	40	40
Hospital	70	30	40	50	50	40	40
HR Office	38	30	40	50	50	40	40
Jr Anchor	56	30	40	50	50	40	40
Jr Dept	60	30	40	50	50	40	40
Kennel	93	30	30	30	30	30	30
Laboratory	96	30	40	50	50	40	40
Laundry	98	30	40	40	40	40	40
Library	71	30	40	50	50	40	40
Lt Manuf	79	30	40	50	50	40	40
Lux Apt	101	40	40	50	50	40	40
Manuf	80	30	40	50	50	40	40
Med Off Gr	36/360	30	40	50	50	40	40
Mini-Whse	86	30	40	50	50	40	40
Multi Ten	48	30	40	50	50	40	40
Munc Bldg	73	30	40	50	50	40	40
Museum	102	30	40	50	50	40	40
Nbhd S/C	55	30	40	50	50	40	40
Nursg Hm	74	30	40	50	50	40	40
OD Park	21	40	40	50	50	40	40
Ofc Gross	34/340	30	40	50	50	40	40
Ofc/Apt	37	30	40	50	50	40	40
Oil Change	22	40	40	50	50	40	40
Pharmacy	81	30	40	50	50	40	40
Post Office	106	40	40	50	50	40	40
Power Hs	92	30	40	50	50	40	40
Prefab	82	30	40	50	50	40	40
Prison	111	40	40	50	50	40	40
Pub Pk Dk	210	40	40	50	50	40	40
Reg Mall	53	30	40	50	50	40	40
Res Conv	35	30	40	50	50	40	40
Research	90	30	40	50	50	40	40
Rest Home	76	30	40	50	50	40	40
Restaurant	39	30	40	40	40	40	40
Restroom	109	20	20	20	20	20	20
Sale/Serv	19	30	40	40	40	40	40
School	77	30	40	50	50	40	40

Building Use	T & U Code	Cellular Steel	Exposed Steel	Fireproof Steel	Reinforced Concrete	Timber	Wood Joist
Ser Gar	20	30	40	40	40	40	40
SerGarPrem	200	40	40	40	40	40	40
Srv Station	25	30	30	30	30	30	30
Skate Rink	115	30	30	30	30	30	30
Single Ten	47	30	40	50	50	40	40
Sorority	105	30	40	50	50	40	40
Special WI	99	40	40	40	40	40	40
St/Ofc/Apt	59	30	40	50	50	40	40
Stable	97	30	30	30	30	30	30
Store/Apt	57	30	40	50	50	40	40
Store/Office	58	30	40	50	50	40	40
Str Bldg	42	30	40	40	40	40	40
Student Apt	100	40	40	50	50	40	40
Super Mkt	49	30	40	50	50	40	40
Tel Exch	94	30	40	50	50	40	40
Theatre	78	30	40	50	50	40	40
Thse Apt	08	40	40	50	50	40	40
Truck Term	95	30	40	50	50	40	40
Vet Clinic	63	30	40	40	40	40	40
Wand CW	24	20	20	20	20	20	20
Warehouse	83	30	40	50	50	40	40

Commercial/Industrial Building Depreciation Schedule

Economic Life: 20 Years

Effective Year	Effective Age	Depr - B	Depr - C	Depr - D	Depr - E	Depr - F
2019	0	99%	99%	95%	85%	75%
2018	1	99%	97%	92%	82%	73%
2017	2	99%	94%	89%	80%	71%
2016	3	96%	91%	86%	77%	68%
2015	4	92%	88%	84%	75%	66%
2014	5	89%	85%	81%	72%	64%
2013	6	86%	82%	78%	70%	62%
2012	7	83%	79%	75%	67%	59%
2011	8	80%	76%	72%	65%	57%
2010	9	77%	73%	69%	62%	55%
2009	10	74%	70%	67%	60%	53%
2008	11	70%	67%	64%	57%	50%
2007	12	67%	64%	61%	54%	48%
2006	13	64%	61%	58%	52%	46%
2005	14	61%	58%	55%	49%	44%
2004	15	58%	55%	52%	47%	41%
2003	16	55%	52%	49%	44%	39%
2002	17	51%	49%	47%	42%	37%
2001	18	48%	46%	44%	39%	35%
2000	19	45%	43%	41%	37%	32%

Commercial/Industrial Building Depreciation Schedule

Economic Life: 30 Years

Effective Year	Effective Age	Depr - B	Depr - C	Depr - D	Depr - E	Depr - F
2019	0	99%	99%	95%	85%	75%
2018	1	99%	98%	93%	83%	74%
2017	2	99%	96%	91%	82%	72%
2016	3	99%	94%	89%	80%	71%
2015	4	97%	92%	87%	78%	69%
2014	5	95%	90%	86%	77%	68%
2013	6	92%	88%	84%	75%	66%
2012	7	90%	86%	82%	73%	65%
2011	8	88%	84%	80%	71%	63%
2010	9	86%	82%	78%	70%	62%
2009	10	84%	80%	76%	68%	60%
2008	11	82%	78%	74%	66%	59%
2007	12	80%	76%	72%	65%	57%
2006	13	78%	74%	70%	63%	56%

Effective Year	Effective Age	Depr - B	Depr - C	Depr - D	Depr - E	Depr - F
2005	14	76%	72%	68%	61%	54%
2004	15	74%	70%	67%	60%	53%
2003	16	71%	68%	65%	58%	51%
2002	17	69%	66%	63%	56%	50%
2001	18	67%	64%	61%	54%	48%
2000	19	65%	62%	59%	53%	47%
1999	20	63%	60%	57%	51%	45%
1998	21	61%	58%	55%	49%	44%
1997	22	59%	56%	53%	48%	42%
1996	23	57%	54%	51%	46%	41%
1995	24	55%	52%	49%	44%	39%
1994	25	53%	50%	48%	43%	38%
1993	26	50%	48%	46%	41%	36%
1992	27	48%	46%	44%	39%	35%
1991	28	46%	44%	42%	37%	33%
1990	29	44%	42%	40%	36%	32%

Commercial/Industrial Building Depreciation Schedule

Economic Life: 40 Years

Effective Year	Effective Age	Depr - B	Depr - C	Depr - D	Depr - E	Depr - F
2019	0	99%	99%	95%	85%	75%
2018	1	99%	99%	94%	84%	74%
2017	2	99%	97%	92%	82%	73%
2016	3	99%	96%	91%	81%	72%
2015	4	99%	94%	89%	80%	71%
2014	5	97%	93%	88%	79%	69%
2013	6	96%	91%	86%	77%	68%
2012	7	94%	90%	85%	76%	67%
2011	8	92%	88%	84%	75%	66%
2010	9	91%	87%	82%	74%	65%
2009	10	89%	85%	81%	72%	64%
2008	11	88%	84%	79%	71%	63%
2007	12	86%	82%	78%	70%	62%
2006	13	85%	81%	76%	68%	60%
2005	14	83%	79%	75%	67%	59%
2004	15	81%	78%	74%	66%	58%
2003	16	80%	76%	72%	65%	57%
2002	17	78%	75%	71%	63%	56%
2001	18	77%	73%	69%	62%	55%
2000	19	75%	72%	68%	61%	54%
1999	20	74%	70%	67%	60%	53%
1998	21	72%	69%	65%	58%	51%
1997	22	70%	67%	64%	57%	50%

Effective Year	Effective Age	Depr - B	Depr - C	Depr - D	Depr - E	Depr - F
1996	23	69%	66%	62%	56%	49%
1995	24	67%	64%	61%	54%	48%
1994	25	66%	63%	59%	53%	47%
1993	26	64%	61%	58%	52%	46%
1992	27	62%	60%	57%	51%	45%
1991	28	61%	58%	55%	49%	44%
1990	29	59%	57%	54%	48%	42%
1989	30	58%	55%	52%	47%	41%
1988	31	56%	54%	51%	45%	40%
1987	32	55%	52%	49%	44%	39%
1986	33	53%	51%	48%	43%	38%
1985	34	51%	49%	47%	42%	37%
1984	35	50%	48%	45%	40%	36%
1983	36	48%	46%	44%	39%	35%
1982	37	47%	45%	42%	38%	33%
1981	38	45%	43%	41%	37%	32%
1980	39	44%	42%	39%	35%	31%

Commercial/Industrial Building Depreciation Schedule

Economic Life: 50 Years

Effective Year	Effective Age	Depr - B	Depr - C	Depr - D	Depr - E	Depr - F
2019	0	99%	99%	95%	85%	75%
2018	1	99%	99%	94%	84%	74%
2017	2	99%	98%	93%	83%	73%
2016	3	99%	96%	92%	82%	72%
2015	4	99%	95%	90%	81%	71%
2014	5	99%	94%	89%	80%	71%
2013	6	97%	93%	88%	79%	70%
2012	7	96%	92%	87%	78%	69%
2011	8	95%	90%	86%	77%	68%
2010	9	94%	89%	85%	76%	67%
2009	10	92%	88%	84%	75%	66%
2008	11	91%	87%	82%	74%	65%
2007	12	90%	86%	81%	73%	64%
2006	13	89%	84%	80%	72%	63%
2005	14	87%	83%	79%	71%	62%
2004	15	86%	82%	78%	70%	62%
2003	16	85%	81%	77%	69%	61%
2002	17	84%	80%	76%	68%	60%
2001	18	82%	78%	74%	67%	59%
2000	19	81%	77%	73%	66%	58%
1999	20	80%	76%	72%	65%	57%
1998	21	79%	75%	71%	64%	56%

Effective Year	Effective Age	Depr - B	Depr - C	Depr - D	Depr - E	Depr - F
1997	22	77%	74%	70%	63%	55%
1996	23	76%	72%	69%	62%	54%
1995	24	75%	71%	68%	61%	53%
1994	25	74%	70%	67%	60%	53%
1993	26	72%	69%	65%	58%	52%
1992	27	71%	68%	64%	57%	51%
1991	28	70%	66%	63%	56%	50%
1990	29	68%	65%	62%	55%	49%
1989	30	67%	64%	61%	54%	48%
1988	31	66%	63%	60%	53%	47%
1987	32	65%	62%	59%	52%	46%
1986	33	63%	60%	57%	51%	45%
1985	34	62%	59%	56%	50%	44%
1984	35	61%	58%	55%	49%	44%
1983	36	60%	57%	54%	48%	43%
1982	37	58%	56%	53%	47%	42%
1981	38	57%	54%	52%	46%	41%
1980	39	56%	53%	51%	45%	40%
1979	40	55%	52%	49%	44%	39%
1978	41	53%	51%	48%	43%	38%
1977	42	52%	50%	47%	42%	37%
1976	43	51%	48%	46%	41%	36%
1975	44	50%	47%	45%	40%	35%
1974	45	48%	46%	44%	39%	35%
1973	46	47%	45%	43%	38%	34%
1972	47	46%	44%	41%	37%	33%
1971	48	45%	42%	40%	36%	32%
1970	49	43%	41%	39%	35%	31%

Values for Additions and Attached Items

Additions and Attached Items

Commercial/industrial additions and attached items may be appraised by the following methods:

1. Determination of a square foot value
2. Application of the Base Price Multiplier ("BPM")
3. Application of the reference-only code ("REF")

As much as possible, refer to the commercial/industrial schedule for appropriate square foot rates when appraising the more common additions, such as docks and canopies. In some instances, it may be more appropriate to use the residential schedule, for example open porches or wood decks on a restaurant. Larger additions, such as office and storage areas, may be priced by determining the wall ratio based on the number of sides not joining the main body (as in a 2 or 3-wall addition), then finding the base price for such a wall ratio in the appropriate classification series and using that base price as the square foot rate.

If the addition is considered to be equal or comparable to the main body of the structure, it may be priced the same way, taking into account any difference in story height, by application of the code "BPM." This code applies the one-story main body price to the story height and footprint area of the addition. In some cases, the listing for the main body, as described by the add/deduct adjustments, may not be comparable to the features of the addition. By determining the differences, an appropriate square foot rate can be developed.

Additions that might be considered incidental due to size, construction quality, or physical condition may be sketched and marked as reference-only. This code may also be used when the market indicates the type of addition in question does not add to the overall market value of the property.

Commercial/Industrial Addition Codes

The following formulas are used to calculate schedule values for additions.

Work Area = ((Addition Footprint + 5)/10) + 2. This Work Area should be rounded **down** to the nearest whole number before any further calculations are done.

Adjusted Base Rate = (Base Rate * 10). Round the base rate **down** to the nearest whole number.

Schedule Value = Rounded Work Area * Adjusted Base Rate

Schedule Rate (Adjusted) = Schedule Value / Addition Footprint.

Where a different rate exists for lower, main, and/or upper levels, market analyses have indicated that the value the addition adds is different when it is on the ground floor (main) level, the basement level, or an upper level of a building.

Abbrev.	Description	Lower	Main	Upper
BALCONY	Balcony		\$30.91	\$30.91
BASIN	Basin		\$9.80	
BATHHSE	Bath House		\$68.57	
CNPY-BANK	Canopy – Bank	\$54.85	\$54.85	\$54.85
CNPY-COMM	Canopy – Commercial	\$33.27	\$33.27	\$33.27
CNPY-IND	Canopy – Industrial	\$16.63	\$16.63	\$16.63
CN/DOCK	Canopy over Dock	\$31.42	\$31.42	
CP-COMM	Carport – Commercial	\$39.17	\$39.17	
COLDSTG	Cold Storage	\$48.97	\$48.97	\$48.97
CONCRMP	Concrete Ramp	\$9.80	\$9.80	
COVRINK	Covered Rink	\$27.42	\$27.42	
DK	Deck	\$14.23	\$14.23	\$14.23
DOCK	Dock	\$18.48	\$18.48	
ENCDOCK	Dock – Enclosed	\$44.35	\$44.35	
DOGRUN-C	Dog Run – Commercial	\$28.89	\$28.89	
EP-C	Enclosed Porch – Commercial	\$51.75	\$51.75	\$51.75
EQUIPRM	Equipment Room	\$44.35	\$44.35	\$44.35
GARFR-C	Garage, Frame, Commercial	\$46.20	\$46.20	
GARMS-C	Garage, Masonry, Commercial	\$48.05	\$48.05	
GZBO	Gazebo	\$35.27	\$35.27	\$35.27
GRHSE-C	Greenhouse, Commercial	\$33.27	\$33.27	
KENNEL-C	Kennel, Commercial	\$54.85	\$54.85	
MAINTPHS	Maintenance Penthouse		\$44.35	\$44.35
MECHFLR	Mechanical Floor		\$47.02	\$47.02
OP-C	Open Porch, Commercial	\$33.27	\$33.27	\$33.27
PATIO	Patio	\$5.71	\$5.71	\$5.71

Abbrev.	Description	Lower	Main	Upper
SP-C	Screened Porch, Commercial	\$41.95	\$41.95	\$41.95
SHLTR-C	Shelter, Commercial	\$12.93	\$12.93	\$12.93
SHOP-CE	Shop, Commercial, Exterior	\$48.97	\$48.97	\$48.97
STP	Stoop	\$19.59	\$19.59	\$19.59
STG-C	Storage, Commercial	\$44.35	\$44.35	\$44.35
TERR	Terrace	\$19.59	\$19.59	\$19.59
UNFBMTE	Unfinished Basement, Exterior	\$19.26		
4S BALC	4 Story Balcony		\$69.14	\$69.14
5S BALC	5 Story Balcony		\$110.88	\$110.88
6S BALC	6 Story Balcony		\$141.08	\$141.08
9S BAL	9 Story Balcony		\$211.57	\$211.57
12S BAL	12 Story Balcony		\$282.09	\$282.09

Income Approach to Commercial & Industrial Income-Producing Property

Income Approach to Value

The income approach to value is based on the principle that the value of an investment property reflects the quality and quantity of the income it is expected to generate over its life. In other words, the market value is the estimated present value of future benefits (chiefly income and proceeds from the future sale of the property). The model used to estimate the value of expected future income is known as the IRV formula.

$$\text{Net Operating Income} / \text{Capitalization Rate} = \text{Value}$$
$$I/R = V$$

Net Operating Income is an estimate of the property's earning capacity, free from debt and before income taxes. First, gross annual rent from comparable rental real estate is examined and is used to determine what the subject property should earn (Potential Gross Rent). There must be a distinction made between market rent, or the rent that the property is expected to produce on the open market, and contract rent, or rent which the property is actually realizing at the time of the appraisal due to lease terms established at some point in the past. From the Potential Gross Rent is subtracted a reasonable vacancy and collection loss, as well as expenses required to operate the property (except ad valorem taxes). Any other miscellaneous income is added.

Capitalization is the process of determining the present value of the expected future income. In the simplest form, capitalization is the division of a present income by the appropriate rate of return to estimate the value of the income stream. It does include a percentage for ad valorem taxes.

The IRV formula is the general model used as the basis for all applications of the income approach. To use the model to estimate value, the income and capitalization rate must be estimated. Income is the annual Net Operating Income expected for the property being appraised. The rate is the capitalization rate appropriate for the subject property as of the appraisal date. Direct Capitalization is considered the most appropriate for mass appraisal purposes and uses only two numbers: annual income and a capitalization rate.

The income approach to value applies several economic principles:

- Supply & Demand – oversupply leads to lower prices; high demand leads to higher prices
- Anticipation – Demand is influenced by the potential for future benefits
- Substitution – Demand is influenced by the price of potential substitutes
- Competition – The attempt of two or more parties to buy or sell similar commodities influences the rate of return on invested capital.

Application of the Income Model

Income Models are used for the following commercial and industrial income-producing property types: Apartments, Hotels/Motels, Office, Retail, Warehouse, Garage, Storage Facilities, and Mobile Home Parks.

Income and expense models are developed for each property type to cover the range of income-producing properties in Wake County.

Market income is developed on a net square foot or unit basis. Potential Gross Income is adjusted for market vacancy and collection loss to produce an Effective Gross Income. Income and vacancy factors may be adjusted for individual properties.

Market Operating Expenses are those that would be normal and ongoing, and do not include one-time expenses. They include fixed expenses, such as insurance, but do not include real estate taxes because these estimates of value are for ad valorem purposes. Variable expenses include management, administrative/legal/accounting, payroll, utilities, janitorial and common area maintenance, normal repair and maintenance, garbage collection, supplies and sundries, other miscellaneous expenses, and reserves for replacement.

Capitalization rates are derived from the Market Extraction technique and supported by the Band of Investments technique. These methods are commonly used to select an appropriate capitalization rate, depending on the availability and applicability of market data and investment parameters. The effective tax rates will be added to the capitalization rates in order to produce an overall rate because they are not included in the Operating Expenses.

Property qualifying for a Section 42 tax credit will be appraised in accordance with North Carolina General Statute 105-277.16. This requires the use of the income approach to value and requires the appraiser to consider rent restrictions in its application.

Income Model Attributes

	Annual Income per SF	Vacancy	Operating Expenses	Reserves	Direct Capitalization Rate
Apartment	\$5.00-\$45.00	1%-30%	20%-70%	2%-6%	.0400 - .1200
Luxury Apt	\$6.00-\$50.00	1%-30%	20%-70%	2%-6%	.0400 - .1200
Student Apt	\$5.00-\$45.00	1%-30%	20%-70%	2%-6%	.0400 - .1200

	Average Daily Rate	Food/Bev Ratio	Misc. Income	Vacancy	Operating Expenses	Departmental Expenses	Reserves	Direct Cap Rate
Hotel/Motel Full Facility	\$50.00-\$400.00	0%-35%	0%-20%	10%-60%	10%-60%	10%-80%	2%-8%	.0600 - .1500
Hotel/Motel Limited Fac.	\$30.00-\$300.00	0%	0%-10%	10%-60%	10%-60%	10%-80%	2%-8%	.0600 - .1500
Motel Extend. Stay	\$25.00-\$250.00	0%	0%-10%	10%-60%	10%-60%	15%-80%	2%-8%	.0600 - .1500
Motel Independent	\$25.00-\$175.00	0%	0%-10%	10%-60%	10%-60%	15%-80%	2%-8%	.0600 - .1500
Hotel High Rise	\$65.00-\$400.00	0%-40%	0%-30%	10%-65%	20%-60%	20%-80%	2%-8%	.0600 - .1500
Hotel Luxury	\$100.00-\$1100.00	0%-40%	0%-30%	10%-65%	20%-60%	20%-80%	2%-8%	.0600 - .1500

	Annual Income per SF	Vacancy	Operating Expenses	Reserves	Direct Capitalization Rate
General Retail	\$5.00-\$75.00	1%-30%	2%-50%	2%-5%	.0500 - .1200
Super Regional Mall	\$5.00-\$100.00	1%-40%	2%-50%	2%-5%	.0500 - .1200
Community SC	\$8.00-\$50.00	1%-40%	3%-50%	2%-5%	.0500 - .1200
Neighborhood SC	\$5.00-\$50.00	1%-30%	3%-50%	2%-5%	.0500 - .1200
Multi-Tenant Shops	\$5.00-\$50.00	1%-30%	2%-50%	2%-5%	.0500 - .1200
Department Store	\$1.00-\$35.00	1%-40%	2%-50%	2%-5%	.0500 - .1200
Discount Store	\$2.00-\$35.00	2%-30%	2%-50%	2%-5%	.0500 - .1200
Supermarket	\$2.00-\$25.00	2%-30%	2%-40%	2%-5%	.0500 - .1200
Junior Anchor	\$2.00-\$25.00	2%-40%	2%-50%	2%-5%	.0500 - .1200
Junior Dept Store	\$2.00-\$25.00	2%-40%	2%-50%	2%-5%	.0500 - .1200
Bulk Retail	\$2.00-\$25.00	2%-30%	2%-50%	2%-5%	.0500 - .1400

	Annual Income per SF	Vacancy	Operating Expenses	Reserves	Direct Capitalization Rate
Gen Office Gross Lease	\$5.00-\$85.00	2%-25%	3%-40%	1%-5%	.0500 - .1400
Medical Office	\$5.00-\$85.00	2%-25%	3%-50%	2%-5%	.0500 - .1400

	Annual Income per SF	Interior Finish per SF	Air Conditioning per SF	Vacancy	Operating Expenses	Reserves	Direct Capitalization Rate
General Warehouse	\$1.00-\$20.00	\$1.00-\$10.00	\$.50-\$4.00	1%-50%	0%-50%	2%-5%	.0500 - .1400
Bulk/Dist Warehouse	\$1.00-\$20.00	\$1.00-\$10.00	\$.50-\$4.00	1%-50%	2%-50%	2%-5%	.0500 - .1200
Flex Warehouse	\$2.00-\$20.00	\$1.00-\$10.00	\$.50-\$4.00	1%-50%	2%-50%	2%-5%	.0500 - .1400
Mini-Warehouse	\$5.00-\$40.00	NA	\$1.00-\$20.00	2%-30%	15%-50%	2%-5%	.0500 - .1400

	Annual Income per SF	Vacancy	Operating Expenses	Reserves	Direct Capitalization Rate
Restaurant	\$5.00-\$75.00	2%-25%	2%-50%	2%-5%	.0500 - .1200
Fast Food	\$5.00-\$75.00	2%-25%	2%-50%	2%-5%	.0500 - .1200
Bank	\$20.00-\$80.00	2%-20%	2%-50%	0%-5%	.0400 - .1200
Free-Standing Pharmacy/Drugstore	\$15.00-\$75.00	2%-20%	0%-50%	2%-5%	.0400 - .1200
Public Parking Deck	\$10.00-\$40.00	10%-40%	10%-50%	2%-5%	.0400 - .1200
Convenience Store/Food Mart	\$10.00-\$75.00	3%-25%	2%-50%	2%-5%	.0400 - .1200
Auto Service	\$5.00-\$35.00	5%-25%	2%-50%	2%-5%	.0500 - .1500
Premium Service Garage	\$5.00-\$50.00	5%-25%	2%-50%	2%-5%	.0500 - .1200
Oil & Lube	\$10.00-\$75.00	5%-25%	2%-50%	2%-5%	.0500 - .1200

Gross Monthly Rent Multiplier for Multi-Family Rental Property

The Gross Monthly Rent Multiplier (GMRM) is used to convert the gross potential monthly rent into an indication of value. To derive a gross monthly rent multiplier from the market data, sales of properties that were rented at the time of sale or were anticipated to be rented within a short time must be available. The ratio of sale price to the monthly gross rent at the time of sale or projected over the first year to several years of ownership is the Gross Monthly Rent Multiplier.

$$\text{GMRM} = \text{Sale Price} / \text{Gross Monthly Rent}$$

For example:

If a property has a sale price of \$368,500 and a gross monthly rent of \$7,092, the Gross Monthly Rent Multiplier would be 51.96. ($\$368,500 / \$7,092$)

For multi-family property of 2-49 units, consisting of duplexes, triplexes, quadraplexes, and other small multi-family properties, the GMRM ranges from 20-500.

Land Section

Appraisal of Land

In making appraisals for Ad Valorem Tax purposes, it is 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 advantages in making a separate estimate of value for the land.

1. An estimate of land value is required in the application of the Cost Approach
2. 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 here is defined as difference between the replacement cost of a structure and the actual price paid in the market for the structure.
3. Since land may or may not be used to its highest potential, the value of a tract of land may be completely independent of the existing improvements located on it.

All of the land in the county has been appraised on a per lot, per square foot, per apartment unit, or per acre basis. Base values have been established for each type of land unit based on market analysis and use value analysis for land considered to have agricultural, horticultural, or forestry use.

In appraising land, we try to establish the relative desirability of each lot compared to that of other parcels in the VCS. The final value of a specific unit may be adjusted up or down from its base value. When adjusting land rates, we have considered the fact that the same condition may reduce the value of one site and enhance a different site. For example, a rocky ledge usually reduces the value of a business location but may enhance a residential site. A slight hollow is sometimes an asset, as it may reduce excavation costs, but in many instances it is a liability. A list of common adjustments follows later in this section.

Approaches to Land Value

There are six recognized methods for appraising land. Not all approaches are applicable to every type of property and the method(s) used may be determined by the availability of sales data. Wake County uses all six as appropriate when performing appraisals.

The Market (or Sales Comparison) approach compares the subject property with vacant land that has recently sold and makes adjustments for differences between the subject and comparable property. When performing mass appraisal on land using the market approach, the appraiser can apply either of two methods:

- The Base-Lot method, in which the appraiser determines the attributes and value of a typical property in the market area and then uses it as a benchmark for other properties, which may be adjusted up or down. This is most frequently seen in subdivisions where most lots are similar in size, shape, and desirability.
- The Comparative Unit method, where land is divided into categories (for example, by zoning or use) and sales data is used to calculate a mean or median price per unit. This is more common in rural or commercial areas where parcels vary widely in size.

The Abstraction approach is related to the Cost approach to value. In this case, the comparable sales are for land with improvements. The depreciated cost of the improvements is removed from the sale price, and the remaining balance is indicative of the land value. This is most appropriate when improvements are relatively new with little depreciation observed.

The Allocation approach is based on the economic principle of balance, which states that the value of land has a logical relationship to the value of improved property. In this case a total value is determined, and a proportion is then assigned to the land. This is typically 15-25% in newer residential neighborhoods but may be higher in older ones.

The abstraction and allocation methods are most frequently used in subdivisions which are fully developed with few or no vacant lots.

Capitalization of Ground Rent is related to the Income method of appraisal and converts a projected income stream into an indication of value. Market rents are used to calculate a net income amount which is divided by a capitalization rate to determine the market value.

Land Residual Capitalization is similar to the Allocation approach. Here the calculated net income stream is divided between the land and improvements, with a separate capitalization rate used to determine the market value of the land.

The Anticipated Use (Development) method uses the projected sale price of developed lots to determine a total value for a tract of land, then deducts the cost of development to appraise the raw land in its current state.

Factors Determining Base Acreage Values

1. Location of Property

- a. Relation of the tract to high or low urban, commercial, or industrial development areas, or to farming and rural areas
- b. Proximity to cities, towns, schools, and churches
- c. Access to roads and highways
- d. Proximity to recreational facilities
- e. Overall desirability

2. Land Characteristics

- a. Topography (level or rolling, high or low)
- b. Physical Characteristics
 - i. Open land (cultivated, pasture, orchards)
 - ii. Woodland
 - iii. Wasteland (swamps, gullies, floodplain)
 - iv. Ponds

3. Market Value

- a. Actual sales prices of comparable properties, marketed as an arm's length transaction
- b. Highest and best use
- c. Supply and demand

4. Size and Shape of Tract

- a. The shape of the tract can have a positive or negative effect on value.
- b. Depending upon market reaction, acreage in some cases sells for less per acre as the size of the tract increases, with all other amenities being the same. In other situations, acreage tracts may sell for more per acre as the size of the tract increases. This is often the case in areas experiencing high levels of development activity. The higher price per acre is primarily attributed to the reduction in time and money spent by a developer compared to assembling many small, separate tracts to achieve comparable development potential.

Marginal Utility and Assemblage

In general, a large rural or commercial tract of land will command a higher sale price in the market, but a lower per unit price. This is due to the influence of diminishing marginal utility, an economic principle which states that as one consumes more of a good additional units of that good become less desirable. However, in a market where large tracts are becoming scarce, buyers may be willing to pay more for a large tract as an alternative to assembling smaller tracts into a single development site.

Failure to Perc

If a lot is not connected to public water/sewer, and an appropriate septic system cannot be installed, the lot value may be reduced. Alternative septic systems continue to be designed that make many previously unbuildable sites financially feasible to develop. The specific reduction amount may vary based on the base lot value and incorporates the cost to cure the deficiency. Proof that the lot does not perc must be provided by the owner. The adjustment will be removed if public sewer access becomes available or a septic system is installed.

Accessibility

Access to each parcel via a paved road, public or private, is assumed in base land values. This may include an easement across another property that ends at a paved road. When a parcel is accessed by a dirt or gravel road, is landlocked, or when a mapped road has not been built and only exists on paper, an appropriate adjustment may be applied.

Undesirable Topography

When unit values are established, it is assumed that the land is reasonably level and free from any physical encumbrances. When the final field inspection of each parcel is made, due consideration is given to any undesirable features which would normally be removed, such as depressions, ledges, hills, or slopes. Consideration is also given to odd shapes, excessive depths, or any features which would ordinarily detract from the normal value on the basis of cost to remove physical encumbrances or an estimated deduction resulting from sales resistance.

Most Common Abbreviations & Descriptions of Land Influence/Condition Codes

An influence represents a positive adjustment in value (increase) relative to other parcels in the VCS. A condition represents a negative adjustment. Some codes, such as size, may carry a positive or negative adjustment.

Influence/Condition	Abbreviation
Access	AC
Brook	BK
Buffer	BU
Contamination	CO
Conditional Use	CU
Easement	EA
Flood Plain	FP
Golf Course	GC
Gravel Street	GS
Heavy Traffic	HT
Lake Front	LF
Lake View	LV
Location	LC
No Perc	NP
Paper Street	PS
Rear Location (landlocked)	RL
Raw/Rough	RW
Shape	SH
Size	SZ
Topography	TP
Under-improved	UI

Rural Land Schedule

Schedule for Rural Land

Basis: No relative convenience to towns. Few or no roads. No development activity in immediate area.

\$1,000 to \$60,000 per acre

Basis: No relative convenience to towns. Average or few roads. Minimum development in immediate area.

\$5,000 to \$100,000 per acre.

Basis: Convenience to towns. Adequate or average roads. Some development in immediate area.

\$10,000 to \$400,000 per acre.

Note: Wasteland will have the same base price per acre as surrounding land. The per acre rate is subject to a condition factor based on market and economic analysis. The presence of public utilities and market and economic indicators should weigh into any decision to condition the land.

Ponds will usually fall into the same category as surrounding land.

Schedule for Rural Residential Development Areas

Basis: Average developed area away from metropolitan area with good roads and tertiary desirability.

\$10,000 to \$100,000 per acre.

Basis: Good development area near metropolitan area with major highways and secondary desirability.

\$20,000 to \$500,000 per acre.

Basis: Highest development area adjacent to metropolitan area with major highways and primary desirability.

\$30,000 to \$750,000 per acre.

Schedule for Rural Residential Home Sites (per Acre)

Basis: Primary Development Areas

\$20,000 to \$1,000,000

Basis: Secondary Development Areas

\$15,000 to \$750,000

Note: Rural home sites may in some cases be valued on a per building site basis

Land Present Use Value Schedule

Wake County, NC

Present Use Value Schedule

January 1, 2020

Rates are determined by the North Carolina Use-Value Advisory Board, in accordance with North Carolina General Statute 105-277.7, and are published by the North Carolina Department of Revenue.

In Wake County, each parcel is assigned to one of five soil classes. For property approved for the PUV program as Forestry, each soil class corresponds to the land class with the matching number (I through V) in the table below. For Agricultural and Horticultural Land, use the following guide:

Soil Class I – Land Class I
Soil Class II & III – Land Class II
Soil Class IV & V – Land Class III

Agricultural Land

Land Class	Rate (per acre)
I	\$950
II	\$645
III	\$420

Horticultural Land

Land Class	Rate (per acre)
I	\$1,370
II	\$890
III	\$615

Forest Land

Land Class	Rate (per acre)
I	\$365
II	\$260
III	\$250
IV	\$160
V	\$115

Urban Land Schedule

Urban Land Schedule

Basis: Residential Acreage

\$5,000 to \$2,500,000 per acre

Basis: Residential Lots

\$2,000 to \$5,000,000 per lot

Basis: Commercial

\$0.10 to \$500.00 per square foot

Basis: Shopping Centers

\$40,000 to \$5,000,000 per acre, improved

\$5,000 to \$4,000,000 per acre, unimproved

Basis: Office & Institutional

\$40,000 to \$10,000,000 per acre

Basis: Apartment Complexes

\$4,000 to \$100,000 per unit, improved

\$40,000 to \$2,500,000 per acre, unimproved

Detached Building Schedule

Explanation of Detached Building Listings

When listing detached structures and outbuildings, the appraiser may value items on a per square foot or per unit basis. This will depend on the type of structure and the appraiser's opinion of how the structure is valued on the open market. In some cases, an outbuilding may be listed for reference purposes, with no value assigned. This mainly occurs when the appraiser wishes to recognize the presence of a structure, but expects it to be assessed as personal property (such as a manufactured home on a rented lot), or when the appraiser does not feel the item contributes to the market value of the property.

As with other types of structures, the rates listed in the Schedule of Values are base rates, which may be adjusted up or down due to depreciation, quality of construction, and other factors as appropriate.

Although most improvements are appraised on a per square foot basis, the appraiser may also use a per unit basis when it is more appropriate. This method is more often seen with items such as paving or trailer sites, but may be used with any type of structure.

When a structure is appraised on a per square foot basis, the Property Record Card may show the square foot quantity as either dimensions or a total size. Total size is typically used for improvements with an unusual shape, or which don't fit neatly into a "length by width" format for other reasons.

Sound Values

Many detached buildings can be appraised by sight. These types of buildings include sheds and farm buildings, or any detached building that does not add a significant value to the property because of the age, size, or condition of the structure. The price range would typically be from \$100 to \$3,000. The appraiser should use their experience and judgment to adjust any detached building to the amount they feel it contributes to the overall value of the property.

Application of Outbuilding Rates

Outbuildings are priced from the following schedules with the formula below, then rounded to the nearest \$10.

Unit Quantity * Rate * Grade Factor * Depreciation Factor

Base Prices for Detached Buildings & Improvements

The following table contains base square foot or unit values for detached structures. As is the case with other improvements, the appraiser may use their judgment to raise or lower the rates based on quality of construction, depreciation, and obsolescence or other factors. The "short descriptions" given in the table below are abbreviations used on the Property Record Card and other records due to space constraints.

Description	Short Description	Base Price/Rate	Depreciation Applied
Airplane Hangar	HANGER	\$31.20	Y
Apartment Carport	APTCP	\$4,500	Y
Apartment Carwash	APCARWSH	\$35.60	Y
Apartment Garage	APGR	\$17,800	Y
Apartment Storage	APSTG	\$5,000	Y
Apron	APRON	REF	Y
Arena (Riding)	ARENA	\$17.50	Y
Asphalt Paving	PAVASPH	\$3.00	Y
Automated Teller Building	ATM	REF	N
Barn/Excellent	BARNEX	\$41.30	Y
Barn/High	BARNHI	\$27.50	Y
Barn/Low	BARNLOW	\$13.80	Y
Barn/Medium	BARNMED	\$22.00	Y
Bath House	BATHHSE	\$109.70	Y
Bleachers	BLEACHER	\$129.50	Y
Boat Dock	BOATDOCK	\$14.30	Y
Boat House	BOATHSE	\$55.00	Y
Bulk Barn (Box)	BULKBARN	\$1,500	N
Bulk Barn (Rack)	BBRNRACK	\$100	N
Cabin	CABIN	\$53.10	Y
Canopy (Bank)	CANPYBNK	\$40.30	Y
Canopy/Excellent	CANPYEX	\$20.20	Y
Canopy/High	CANPYHIG	\$17.80	Y
Canopy/Low	CANPYLOW	\$10.70	Y
Canopy/Medium	CANPYMED	\$14.10	Y
Canopy/Supreme	CANPYSUP	\$25.90	Y
Carport	CARPORT	\$22.00	Y
Carport (Aluminum)	CPTALUM	\$2.10	Y
Carport (Dirt Floor)	CPDIRT	\$19.90	Y
Cell Tower	CELLTWR	REF	N
Cell Tower Equipment Building	CTEQBLDG	REF	N
College Football Stadium	CFSTADUM	\$3,400	Y
Community/Municipal Park Ball Field	CPBALLFD	\$283,500	N
Concession	CONCESS	\$28.80	Y

Description	Short Description	Base Price/Rate	Depreciation Applied
Concrete Paving	PAVCONC	\$3.80	Y
Control Station	CTRLSTN	\$57.70	Y
Crypt Site	CRPTSITE	\$216	N
Double Wide	DBL WIDE	REF	N
Driving Tee	DRIVETEE	\$6,500	N
Enclosed Porch	ENCPORCH	\$50.50	Y
Equipment Building	EQUIPBLD	\$40.30	Y
Equipment Shed	EQSHED	\$31.80	Y
Equipment Shed (1 Side Open)	EQ1OPEN	\$28.30	Y
Equipment Shed (2 Sides Open)	EQ2OPEN	\$24.70	Y
Equipment Shed (3 Sides Open)	EQ3OPEN	\$21.30	Y
Equipment Shed (4 Sides Open)	EQ4OPEN	\$17.80	Y
Fence (12 Foot)	FENCE12	REF	N
Fence (10 Foot)	FENCE10	REF	N
Fence (8 Foot)	FENCE8	REF	N
Fence (6 Foot)	FENCE6	REF	N
Fence (4 Foot)	FENCE4	REF	N
Fiber Equipment Building	FEQBLDG	REF	N
Garage Frame	GARFR	\$40.40	Y
Garage Frame (1.5 Story, Fin)	GFRHSFIN	\$58.70	Y
Garage Frame (1.5 Story, Unfin)	GFRHSUNF	\$49.40	Y
Garage Frame (1.75 Story, Fin)	GFRTSFIN	\$64.00	Y
Garage Frame (1.75 Story, Unfin)	GFRTSUNF	\$52.10	Y
Garage Frame (2 Story, Fin)	GFR2SFIN	\$69.20	Y
Garage Frame (2 Story, Unfin)	GFR2SUNF	\$54.80	Y
Garage Frame (Attic Fin)	GFRATFIN	\$50.90	Y
Garage Frame (Attic Unfin)	GFRATUNF	\$45.60	Y
Garage Frame/Excellent	GARFREX	\$57.90	Y
Garage Frame/High	GARFRHI	\$48.40	Y
Garage Frame/Low	GARFRLOW	\$28.50	Y
Garage Frame/Medium	GARFRMED	\$38.80	Y
Garage Masonry	GARMS	\$42.00	Y
Garage Masonry (1.5 Story, Fin)	GMSHSFIN	\$60.90	Y
Garage Masonry (1.5 Story, Unfin)	GMSHSUNF	\$51.40	Y
Garage Masonry (1.75 Story, Fin)	GMSTSFIN	\$66.40	Y

Description	Short Description	Base Price/Rate	Depreciation Applied
Garage Masonry (1.75 Story, Unfin)	GMSTSUNF	\$54.10	Y
Garage Masonry (2 Story, Fin)	GMS2SFIN	\$71.80	Y
Garage Masonry (2 Story, Unfin)	GMS2SUNF	\$56.80	Y
Garage Masonry (Attic Fin)	GMSATFIN	\$52.90	Y
Garage Masonry (Attic Unfin)	GMSATUNF	\$47.30	Y
Garage Masonry/Excellent	GARMSEX	\$61.40	Y
Garage Masonry/High	GARMSHI	\$51.00	Y
Garage Masonry/Low	GARMSLOW	\$30.30	Y
Garage Masonry/Medium	GARMSMED	\$40.90	Y
Gazebo	GAZEBO	\$530	Y
Golf Course Lights	LIGHT GC	\$2,100	N
Golf Course/Excellent	GOLFEX	\$190,500	N
Golf Course/Executive	GOLFEXEC	\$61,000	N
Golf Course/High	GOLFHI	\$114,300	N
Golf Course/Low	GOLFLOW	\$63,500	N
Golf Course/Medium	GOLFMED	\$82,600	N
Golf Course/Par 3	GOLFPAR3	\$38,100	N
Grain Bin	GRAINBIN	\$177.00	N
Grave Site	GRAVSITE	\$47.10	N
Greenhouse/Commercial	GRHSCOMM	\$14.80	Y
Greenhouse/High	GRHSEHI	\$11.10	Y
Greenhouse/Low	GRHSELOW	REF	N
Guest/Office Frame	GUESTFR	\$55.80	Y
Guest/Office Masonry	GUESTMS	\$58.70	Y
High School Ball Field	HSBALLFD	\$369,200	N
High School Football Stadium	HSFSTADM	\$860	Y
Hog House	HOGHOUSE	\$22.00	Y
Hotel or Motel Pool	POOLHTLMTL	\$75.00	Y
Ice Vending Machine Building	ICE VENDING	REF	N
Kiosk	KIOSK	\$201.70	Y
Lawn Crypt	LAWNCRPT	\$72.00	N
Lean-To (Shelter)	LEAN-T0	\$3.60	Y
Lights/Excellent	LIGHTEX	REF	N
Lights/Football Field	LIGHT FB	REF	N
Lights/High	LIGHTHIG	REF	N
Lights/Low	LIGHTLOW	REF	N
Lights/Medium	LIGHTMED	REF	N
Lights/Progress Energy	LIGHTCPL	REF	N
Lights/Softball Field	LIGHT SB	REF	N
Loading Dock	LOADDOCK	\$11.20	Y
Lumber Shed	LMBRSHED	\$25.90	Y

Description	Short Description	Base Price/Rate	Depreciation Applied
Lumber Shed (1 Side Open)	LMBR1OPN	\$24.10	Y
Lumber Shed (2 Sides Open)	LMBR2OPN	\$20.20	Y
Lumber Shed (3 Sides Open)	LMBR3OPN	\$17.30	Y
Lumber Shed (4 Sides Open)	LMBR4OPN	\$14.40	Y
Maintenance Building	MAINTBLD	\$40.30	Y
Minor League Stadium	MLSTADUM	\$2,030	Y
Mobile Office	MOBILOFC	\$64.80	Y
Modular Classroom	MODCLSRM	REF	N
Niche	NICHE	\$100.90	N
Open Porch	OPNPORCH	\$35.40	Y
Other	OTHER	REF	N
Pack House	PACKHOUS	REF	N
Patio	PATIO	\$5.90	Y
Permanent Bleachers	PERMBLCH	\$43.20	N
Picnic Shelter	PICSHLTR	\$35.40	Y
Pitch and Putt	PITCHPUT	\$31,800	N
Pole Shed	POLESHED	\$16.40	Y
Pole Shed (1 Side Open)	POLE1OPN	\$11.10	Y
Pole Shed (2 Sides Open)	POLE2OPN	\$8.40	Y
Pole Shed (3 Sides Open)	POLE3OPN	\$5.40	Y
Pole Shed (4 Sides Open)	POLE4OPN	\$1.80	Y
Pool/Apartment	POOLAPT	\$69.60	Y
Pool/Community	POOLCOMM	\$64.20	Y
Pool/Hotel	POOLHTL	\$75	Y
Pool/Motel	POOLMOTL	\$75	Y
Pool/Residential	POOLRES	\$30.30	Y
Pool House	POOLHSE	\$68.60	Y
Poultry House	PLTRYHSE	\$8.40	Y
Prefabricated	PREFAB	\$22.00	Y
Press Box	PRESSBOX	\$36.10	Y
Pump House	PUMP HSE	\$42.50	Y
Quonset Hut	QUONHUT	\$9.70	Y
Radio Equipment Building	RTEQBLDG	REF	N
Radio Tower	RADIOTWR	REF	N
Railroad	RAILROAD	\$100.60	Y
Ramp	RAMP	\$11.20	Y
Recreational Vehicle Site	RVSITE	\$2,500	N
Reservoir	RESVOIR	\$.30	Y
Restroom	RESTROOM	\$44.60	Y
Screened Porch	SCRNPRCH	\$38.90	Y
Sewer System	SEWERSYS	\$265	N
Shed	SHED	\$8.40	Y
Shelter	SHELTER	\$6.80	Y
Shop	SHOP	\$27.50	Y

Description	Short Description	Base Price/Rate	Depreciation Applied
Silo	SILO	\$8,851	Y
Single Wide	SGL WIDE	REF	N
Sky Boxes	SKY BOXES	\$3,000	Y
Slab	SLAB	\$4.50	Y
Sports Dugout	DUGOUT	\$14.70	Y
Stable	STABLE	\$16.40	Y
Stands CC	STANDSCC	\$230.50	Y
Tank	TANK	REF	N
Television Equipment Building	TTEQBLDG	REF	N
Television Tower	TV TOWER	REF	N
Tennis Court	TENNISCT	\$64,200	Y
Tennis Court – Residential	TENCTRES	\$6,900	N
Tobacco Barn	TOBBARN	REF	N
Track	TRACK	\$2.50	Y
Trailer Site/Average	TRLSTAV	\$14,800	N
Trailer Site/Excellent	TRLSTEX	\$21,500	N
Trailer Site/Fair	TRLSTFR	\$10,800	N
Trailer Site/Good	TRLSTGD	\$17,500	N
Trailer Site/Poor	TRLSTPR	\$5,400	N
Trailer Site/Very Poor	TRLSTVP	\$3,400	N
Triple Wide	TPL WIDE	REF	N
Urn Site	URNSITE	\$47.10	N
Water System	WATERSYS	\$265	N
Water Tank	WATERTNK	REF	N
Water Tower	WATERTWR	REF	N
Wood Deck	WOODDECK	\$14.30	Y

Other Outbuilding Types

Certain types of improvements are appraised with a unique value generated for each property, as opposed to a base square foot rate. These are generally improvements that are not measured either due to their stage of construction or the way their value is allocated.

Description	Short Description
Commercial Building	COMMBLDG
Commercial Upfit	UPFIT
Common Area, Condo Units	COMMAREA
Final Value	FINAL VALUE
Foundation	FNDATION
Incomplete Addition	INCADDN
Incomplete Building	INCBLDG
Old House	OLDHOUSE

Detached Building Grades

As with other types of improvements, detached structures are assigned a quality grade. Grades for outbuildings are as follows:

Grade	Adj	Grade	Adj	Grade	Adj	Grade	Adj	Grade	Adj	Grade	Adj
AA	216	A	144%	B	120%	C	100%	D	84%	E	59%

Depreciation Schedule for Detached Buildings

Effective Year Built	Effective Age	Depreciation
2019	0	95%
2018	1	90%
2017	2	85%
2016	3	85%
2015	4	80%
2014	5	80%
2013	6	75%
2012	7	75%
2011	8	70%
2010	9	70%
2009	10	65%
2008	11	65%
2007	12	60%
2006	13	60%
2005	14	55%
2004	15	55%
2003	16	50%
2002	17	50%
2001	18	50%
2000	19	45%
1999	20	45%
1998	21	40%
1997	22	40%
1996	23	40%
1995	24	35%
1994	25	35%
1993	26	30%
1992	27	30%
1991	28	30%
1990	29	25%
1989	30	25%
1988	31	20%

Golf Courses

Excellent: Championship-level course on good, undulating terrain. Fairway and greens bunkered and contoured, large tees and greens, driving range. May have been designed by renowned architect. Site approximately 180 acres, 6900-7200 yards long, par 68-74.

\$10,000 to \$500,000 per hole

High: Typical private club-level course on undulating terrain. Bunkers at most greens, average elevated tees and greens, some large trees. Some with driving range. Site approximately 130 acres, 6500 yards long, par 68-74.

\$10,000 to \$150,000 per hole

Medium: Simply designed course on relatively flat terrain. Natural rough, few bunkers, small built-up tees and greens, some small trees. Site approximately 110 acres, 6000 yards long, par 67-73.

\$5,000 to \$100,000 per hole

Low: Minimal quality, simply developed, budget course on open natural or flat terrain. Few bunkers, small tees and greens. Site approximately 90 acres, 5400 yards long, par 64-73.

\$100 to \$75,000 per hole

Short Courses

Pitch & Putt:	Nine holes on 10 to 15 acres, around 1000 yards long, including irrigation, excluding structures and lighting. \$100 to \$40,000 per hole or pitching green
Par 3 Course:	Nine holes on 15 to 20 acres, around 1400 yards long, including irrigation, excluding structures and lighting \$100 to \$50,000 per hole or pitching green
Executive Course:	Eighteen holes on 50 to 60 acres, around 4800 yards long, rated par 60, including irrigation, excluding structures and lighting \$5,000 to \$100,000 per hole or pitching green
Lighted Driving Range:	Separate pitching green, fenced, irrigated. \$100 to \$20,000 per hole or pitching green

Other Recreational Facilities

Miniature golf courses, go-cart raceways, batting cages, and water slides are considered business personal property.

Commercial Cemeteries

Gravesite:	A space of ground in a cemetery used for interment of the remains of a deceased person. Dimensions vary among cemeteries, but are approximately 4'x10' and generally accommodate one casket. \$32.50 to \$4,000 per site
Urn Lot:	Approximately the same size or a little smaller than a gravesite and may accommodate a memorial as well as two (2) urns. \$32.50 to \$4,000 per lot
Mausoleum Crypt:	A space or receptacle within a mausoleum for above-ground entombment. \$150.00 to \$20,000 per crypt
Niche:	A receptacle for an urn or container housing the cremated remains of a deceased person, enclosed in a columbarium. A columbarium is a mausoleum for the interment of the cremated remains of a deceased person. \$70.00 to \$10,000 per niche
Lawn Crypt:	A space of ground in a cemetery used for interment of the remains of deceased persons. Dimensions vary among cemeteries, but are approximately 4'x10' and generally accommodate two (2) caskets. \$35.00 to \$10,000 per site

Manufactured Home Parks

Manufactured Home Parks

The per manufactured home site value includes streets, walks, water and sewer systems, electrical distribution system, gas system, outdoor lighting, pads, and patios. Therefore, the land pricing rates should be comparable with adjoining or nearby land. The per space or per site value does not include offices, service buildings, and recreational facilities such as swimming pools and tennis courts.

TS1: Well-designed; full concrete pads; large paved patios; good and wide asphalt streets with curb and gutter; paved walks; underground electrical systems; best sewer and water facilities; good street lighting; excellent services buildings and recreational facilities.

\$20,000 to \$60,000 per site

TS2: Good design; full concrete pads; good paved patios; good asphalt streets with gutter; some paved walks; underground electrical systems; good water and sewer facilities; adequate street lighting; good service buildings and recreational facilities.

\$15,000 to \$45,000 per site

TS3: Average design; full concrete pads; average size paved patios, average asphalt streets; some walks, overhead electrical system; average water and sewer facilities; average street lighting; average service buildings and recreational facilities.

\$10,000 to \$30,000 per site

TS4: Little design; full concrete pads, small size paved patios or runners; minimum asphalt streets; no curb and gutter; some walks, below average overhead electrical systems; below average water and sewer facilities; below average street lighting; average service buildings and small recreational area.

\$7,500 to \$25,000 per site

TS5: Very little design; no pads; no patios or runners; gravel streets; no curb and gutter; no paved walks; septic tanks; minimum water facilities; no street lighting; below average service buildings and no recreational facilities.

\$4,000 to \$20,000 per site

TS6: No design; no pads, patios, or runners; dirt streets; no curb and gutter; no paved walks; septic tanks; minimum water facilities; no street lighting; no services buildings or recreational facilities.

\$2,000 to \$12,500 per site

RVS: Recreational Vehicle Site; designed for temporary occupancy for either tow-behind or motorized recreational vehicles. These spaces can either be in a separate RV-only park or part of a standard park.

\$1,500 to \$5,000 per site

General Classification of Real and Tangible Personal Property

Manufactured Homes

NC General Statute 105-273 includes in the definition of Real Property all land, buildings, structures, improvements, and permanent fixtures on land. Manufactured Homes are to be listed as real estate if they meet all three of the following conditions:

- The building is a residential structure
- The wheels, axles, and hitch ("tongue") have been removed
- The home has a permanent foundation, and is located on property owned by the same person or entity as the home. This condition may also be met if the owner of the home has a leasehold interest with a primary term of at least 20 years, and the lease makes provision for the disposition of the home at such time as the lease is terminated.

Real Property and Business Personal Property

The following list is a guide to which improvements are typically classified as real property and which should be listed as Business Personal Property in accordance with North Carolina General Statute 105-274 and 105-275 (16). This list should not be considered comprehensive, and serves only as a guideline. Final decisions may be made on a case-by-case basis, as needed. Care should be taken to ensure that improvements are not listed as both real and personal property in the same fiscal year. Property owners are encouraged to contact the Wake County Department of Tax Administration at (919) 856-5400 for questions concerning classification of assets.

General Classification of Real and Tangible Personal Property

Real	Personal	Asset
XX		Air Conditioning – Building
	XX	Air Conditioning – Manufacturing/Product
	XX	Air Conditioning – Window Units
	XX	Airplanes
	XX	Alarm Systems (Security) and Wiring
	XX	Alarm Systems (Fire) and Wiring – Computer Room in Office Building
XX		Alarm Systems (Fire) and Wiring – Required by Code; Data Center
	XX	Asphalt Plants
	XX	ATM – All Equipment & Self-standing Booths
XX		Auto Exhaust Systems for Building
	XX	Auto Exhaust Systems for Equipment
	XX	Awnings
	XX	Balers (Paper, Cardboard, etc.)
XX		Bank Teller Counters & Lockers – Movable or Built-In
XX		Bank Night Depository
	XX	Bar and Bar Equipment – Movable or Built-In
XX		Bathroom Fixtures - All
XX		Bulk Barns
	XX	Billboards
	XX	Boats & Motors – All
XX		Boiler – For Service of Building
	XX	Boiler – Primarily for Process
	XX	Bookcases – Movable or Built-In
	XX	Bowling Alley Lanes
	XX	Broadcasting Equipment
XX		Cabinets (Medical Office & Laboratories; Building coded as Med or Lab)
	XX	Cabinets (All Other)
	XX	Cable TV Distribution Systems
	XX	Cable TV Equipment & Wiring
	XX	Cable TV Subscriber Connections
	XX	Camera Equipment
	XX	Canopies – Fabric, Vinyl, Plastic
XX		Canopies – Generally
XX		Canopy Lighting
	XX	Car Wash – All Equipment, Filters, and Tanks
XX		Carpet – Installed
	XX	Catwalks

Real	Personal	Asset
	XX	Cement Plants
	XX	Chairs – All Types
	XX	CIP Equipment
	XX	Closed Circuit TV
	XX	Cold Storage – Equipment, Rooms, Partitions
	XX	Compressed Air or Gas Systems (Other than Building Heat)
	XX	Computer Room A/C
	XX	Computer Room Raised Floor
	XX	Computer Scanning Equipment
	XX	Computer and Data Lines
	XX	Concrete Plants
	XX	Construction and Grading Equipment
	XX	Control Systems – Building & Equipment
	XX	Conveyor & Material Handling Systems
	XX	Coolers – Walk-In or Self-Standing
XX		Cooling Towers – Primary Use for Building
	XX	Cooling Towers – Primary Use in Manufacturing
	XX	Counters/Reception Desks – Movable or Built-In
	XX	Dairy Processing Plants – All Process Items, Bins, Tanks
	XX	Dance Floors
	XX	Data Processing Equipment – All Items
	XX	Deli Equipment
	XX	Desks – All
	XX	Diagnostic Center Equipment – Movable or Built-In
	XX	Display Cases – Movable or Built-In
	XX	Dock Levelers
	XX	Drapes & Curtains, Blinds, Etc.
XX		Drinking Fountains
XX		Drive-Thru Windows – All
	XX	Drying Systems – Process or Product
	XX	Dumpsters
	XX	Dust Catchers, Control Systems, etc.
	XX	Electronic Control Systems
XX		Elevators
XX		Escalators
	XX	Farm Equipment – All
	XX	Fencing – Inside
XX		Fencing – Outside
	XX	Flagpoles
	XX	Flooring – Raised, Padded, Special Purpose
	XX	Foundations for Machinery & Equipment
XX		Fountain Structure
	XX	Freight Charges
	XX	Fuels – Not for Sale (List as Supplies)

Real	Personal	Asset
	XX	Furnaces – Steel Mill Process, etc.
	XX	Furniture & Fixtures
XX		Gazebos & Pergolas
XX		Golf Course & Improvements (Drainage/Irrigation)
	XX	Grain Bins/Feed Hoppers
XX		Grain Bins (Storage)
XX		Grease Traps
	XX	Greenhouse Benches, Heating System, etc.
XX		Greenhouses – Structure if Permanently Affixed
	XX	Handrails – If Used for Dividing Areas or Decorative
	XX	Heating Systems – Process
	XX	Hoppers – Metal Bin Type
	XX	Hospital Systems, Equipment & Piping
	XX	Hot Air Balloons
	XX	Hotel/Motel – Televisions & Wiring, Movable Furnishings
	XX	Humidifiers – Process
	XX	Incinerators – Equipment and/or Movable
	XX	Industrial Piping – Process
	XX	Installation Cost
XX		Irrigation Equipment – In-ground
	XX	Irrigation Equipment – Portable
	XX	Kiln Heating System
	XX	Kilns – Metal Tunnel or Movable
	XX	Laboratory Equipment
XX		Lagoons/Settling Ponds
	XX	Laundry Bins
	XX	Law & Professional Libraries
	XX	Leased Equipment – Lessor or Lessee Possession
		Leasehold Improvements (List in Detail Annually)
	XX	Lifts – Other than Elevator
	XX	Lighting – Portable, Movable, Special
XX		Lighting – Yard Lighting, Canned Lighting
	XX	Machinery & Equipment
	XX	Medical Equipment
	XX	Mezzanines – For Parts or Storage (Metal Racking)
	XX	Milk Handling – Milking, Cooling, Piping, Storage
	XX	Millwork
XX		Mineral Rights
	XX	Mirrors (Other than Bathroom)
	XX	Molds
	XX	Monitoring Systems – Building or Equipment
	XX	Netting – Driving Range
	XX	Newspaper Stands
	XX	Office Equipment – All

Real	Personal	Asset
	XX	Office Supplies (List as Supplies)
	XX	Oil Company Equipment – Pumps, Supplies, etc.
	XX	Ovens – Processing/Manufacturing
	XX	Overhead Conveyor System
	XX	Package & Labeling Equipment
	XX	Paging Systems
	XX	Paint Spray Booths
		Painting – No Added Value
	XX	Partitions
XX		Paving
	XX	Piping Systems – Process Piping
	XX	Playground Equipment – All
	XX	Pneumatic Tube Systems
	XX	Portable Buildings/Storage Sheds
	XX	Power Generator Systems (Auxiliary, Emergency, etc.)
	XX	Power Transformers – Equipment
	XX	Public Address Systems (Intercom, Music, etc.)
XX		Railroad Sidings (Other than Railroad-owned)
	XX	Refrigeration Systems – Compressors, etc.
XX		Repairs – Building
	XX	Repairs – Equipment (50% Cost)
	XX	Restaurant Furniture (Incl. Attached Floor or Building)
	XX	Restaurant/Kitchen Equip – Vent Hoods, Sinks, etc. (Commercial)
	XX	Returnable Containers
	XX	Roll-up Doors (Inside Wall)
XX		Roll-up Doors (Outside Wall); Storage Unit Roll-up Doors
XX		Roofing
	XX	Room Dividers/Partitions – Movable or Built-In
	XX	Rooms – Self-Contained or Special Purpose (Walls, Ceiling, Floor)
	XX	Safes – Wall or Self-Standing
	XX	Sales/Use Tax
	XX	Satellite Dishes (All Wiring & Installation to TV & Equipment)
XX		Scale Houses (Unless Movable)
	XX	Scales
	XX	Security Systems
	XX	Service Station Equipment – Pumps, Tanks, Lifts, and Related
XX		Sewer Systems
	XX	Sheds (Storage)
	XX	Shelving – Movable or Built-In
	XX	Signs – All Types Including Attached to Building
XX		Silos
XX		Sinks – Bathroom (Includes Medical & Dental Offices)
	XX	Sinks – Kitchen Area
	XX	Software – Purchased from Unrelated 3 rd Party & Capitalized

Real	Personal	Asset
		Software – Custom & Modification Costs for Canned Software (Not Taxable)
XX		Solar Equipment – Used to Heat & Cool Building
	XX	Solar Equipment – Photovoltaic & Solar Thermal
	XX	Solar Farm – Electricity Generation
	XX	Sound Systems & Projection Equipment
	XX	Spare Parts – List as Supplies
	XX	Speakers – Built-In or Freestanding
	XX	Spray Booths
	XX	Sprinkler System – Attached to Product Storage Racks
XX		Sprinkler System – Building/Fire Protection
	XX	Storage Buildings – Not on a Permanent Foundation
	XX	Supplies – Office & Other
XX		Swimming Pool Filtration Equipment
	XX	Swimming Pool Heater Equipment
XX		Swimming Pools
	XX	Tanks – All Above & Below Ground
	XX	Telephone Systems & Wiring – Private
	XX	Theatre Screens – Indoor
XX		Theatre Screens – Outdoor
	XX	Tooling, Dies, Molds
	XX	Towers – Microwave, Equipment, Wiring, Foundation, Building & Fencing
	XX	Towers – TV, Radio, CATV, Two-Way Radio, Wiring & FDN
		Towers – Cell Towers & Mobile Communications Equip Owned by Communication Co – State-Assessed
	XX	Trailers – Designed to be Pulled Behind Vehicle
	XX	Trailers – Office or House Type
	XX	Transportation Cost – All
XX		Tunnels – Unless Part of Process System
	XX	Upgrades to Equipment
	XX	Vacuum System – Process
XX		Vault
	XX	Vault Door, Inner Gates, Vents & Equipment
	XX	Vending Machines
	XX	Vent Fans
XX		Ventilation Systems – General Building
	XX	Ventilation Systems – Needed for Manufacturing, Process
	XX	Video Tapes, Movies, Reel Movies
XX		Wall Covering
	XX	Walls – Partitions, Movable & Room Dividers
	XX	Water Coolers – All
	XX	Water Lines – For Process Above or Below Ground
XX		Water System – Residential or General Building

Real	Personal	Asset
	XX	Water Tanks & System – For Process Equipment
XX		Water Wells – If Used for Irrigation Only
	XX	Whirlpool, Jacuzzi, Hot Tubs
	XX	Wiring – Power Wiring for Machinery & Equipment

Uniform Standards of Professional Appraisal Practice (USPAP)

Uniform Standards of Professional Appraisal Practice

As promulgated by the Appraisal Standards Board of The Appraisal Foundation

The purpose of the Uniform Standards of Professional Appraisal Practice (USPAP) is to promote and maintain a high level of public trust in appraisal practice by establishing requirements for appraisers. It is essential that appraisers develop and communicate their analyses, opinions, and conclusions to intended users of their services in a manner that is meaningful and not misleading.

The Appraisal Standards Board promulgates USPAP for both appraisers and users of appraisal services. The appraiser's responsibility is to protect the overall public trust and it is the importance of the role of the appraiser that places ethical obligations on those who serve in this capacity. USPAP reflects the current standards of the appraisal profession.

USPAP does not establish who or which assignments must comply. Neither The Appraisal Foundation nor its Appraisal Standards Board is a government entity with the power to make, judge, or enforce law. Compliance with USPAP is required when either the service or the appraiser is obligated to comply by law or regulation, or by agreement with the client or intended users. When not obligated, the individual may still choose to comply.

USPAP addresses the ethical and performance obligations of appraisers through DEFINITIONS, Rules, Standards, Standards Rules, and Statements (there are currently no active Statements).

- The DEFINITIONS establish the application of certain terminology in USPAP
- The ETHICS RULE sets forth the requirements for integrity, impartiality, objectivity, independent judgment, and ethical conduct.
- The RECORD KEEPING RULE establishes the workfile requirements for appraisal and appraisal review assignments.
- The COMPETENCY RULE presents pre-assignment and assignment conditions for knowledge and experience.
- The SCOPE OF WORK RULE presents obligations related to problem identification, research, and analyses.
- The JURISDICTIONAL EXCEPTION RULE preserves the balance of USPAP if a portion is contrary to law or public policy of a jurisdiction.
- The Standards establish the requirements for appraisal and appraisal review and the manner in which each is communicated.
 - STANDARDS 1 and 2 establish requirements for the development and communication of a real property appraisal
 - STANDARDS 3 and 4 establish requirements for the development and communication of an appraisal review
 - STANDARDS 5 and 6 establish requirements for the development and communication of a mass appraisal.
 - STANDARDS 7 and 8 establish requirements for the development and communication of a personal property appraisal
 - STANDARDS 9 and 10 establish requirements for the development and communication of a business or intangible asset appraisal.
- There are currently no active Statements on Appraisal Standards.
- Comments are an integral part of USPAP and have the same weight as the component they address. These extensions of the DEFINITIONS, Rules, and Standards Rules provide interpretation and establish the context and conditions for application.

When do USPAP Rules and Standards Apply?

USPAP does not establish who or which assignments must comply. Neither The Appraisal Foundation nor its Appraisal Standards Board is a government entity with the power to make, judge, or enforce law. An appraiser must comply with USPAP when either the service or the appraiser is required by law, regulation, or agreement with the client or intended user. Individuals may also choose to comply with USPAP any time that individual is performing the service as an appraiser. In order to comply with USPAP, an appraiser must meet the following obligations:

- An appraiser must act competently and in a manner that is independent, impartial, and objective.
- An appraiser must comply with the ETHICS RULE in all aspects of appraisal practice.
- An appraiser must maintain the data, information, and analysis necessary to support his or her opinions for appraisal and appraisal review assignments in accordance with the RECORD KEEPING RULE.
- An appraiser must comply with the COMPETENCY RULE and the JURISDICTIONAL EXCEPTION RULE for all assignments.
- When an appraiser provides an opinion of value in an assignment, the appraiser must also comply with the SCOPE OF WORK RULE, the RECORD KEEPING RULE, the applicable development and reporting Standards, and applicable Statements (there are currently no active Statements).
- When an appraiser provides an opinion about the quality of another appraiser's work that was performed as part of an appraisal or appraisal review assignment, the appraiser must also comply with the SCOPE OF WORK RULE, the RECORD KEEPING RULE, applicable portions of STANDARDS 3 and 4, and applicable Statements (there are currently no active Statements).
- When preparing an appraisal or appraisal review that is a component of a larger assignment with additional opinions, conclusions, or recommendations, the appraisal or appraisal review component must comply with the applicable development and reporting Standards and applicable Statements (there are currently no active Statements), and the remaining component of the assignment must comply with the ETHICS RULE, the COMPETENCY RULE, and the JURISDICTIONAL EXCEPTION RULE.

STANDARD 5: MASS APPRAISAL, DEVELOPMENT

In developing a mass appraisal, an appraiser must be aware of, understand, and correctly employ those recognized methods and techniques necessary to produce and communicate credible mass appraisals.

Comment: STANDARD 5 applies to all mass appraisals of real or personal property regardless of the purpose or use of such appraisals. STANDARD 5 is directed toward the substantive aspects of developing and communicating credible analyses, opinions, and conclusions in the mass appraisal of properties. Mass appraisals can be prepared with or without computer assistance. The reporting and jurisdictional exceptions applicable to public mass appraisals prepared for ad valorem taxation do not apply to mass appraisals prepared for other purposes.

A mass appraisal includes:

- 1) Identifying properties to be appraised;
- 2) Defining market area of consistent behavior that applies to properties;
- 3) Identifying characteristics (supply and demand) that affect the creation of value in that market area;
- 4) Developing a model structure that reflects the relationship among the characteristics affecting value in the market area;
- 5) Calibrating the model structure to determine the contribution of the individual characteristics affecting value;
- 6) Applying the conclusions reflected in the model to the characteristics of the property(ies) being appraised; and
- 7) Reviewing the mass appraisal results.

The JURISDICTIONAL EXCEPTION RULE may apply to several sections of STANDARD 5 because ad valorem tax administration is subject to various state, county, and municipal laws.

Standards Rule 5-1

In developing a mass appraisal, an appraiser must:

- (a) Be aware of, understand, and correctly employ those recognized methods and techniques necessary to produce a credible mass appraisal;**

Comment: Mass appraisal provides for a systematic approach and uniform application of appraisal methods and techniques to obtain estimates of value that allow for statistical review and analysis of results.

This requirement recognizes that the principle of change continues to affect the manner in which appraisers perform mass appraisals. Changes and developments in the real property and personal property fields have a substantial impact on the appraisal profession.

To keep abreast of these changes and developments, the appraisal profession is constantly reviewing and revising the appraisal methods and techniques and devising new methods and techniques to meet new circumstances. For this reason it is not sufficient for appraisers to simply maintain the skills and the knowledge they possess when they become appraisers. Each appraiser must continuously improve his or her skills to remain proficient in mass appraisal.

- (b) Not commit a substantial error of omission or commission that significantly affects a mass appraisal; and**

Comment: An appraiser must use sufficient care to avoid errors that would significantly affect his or her opinions and conclusions. Diligence is required to identify and analyze the factors, conditions, data, and other information that would have a significant effect on the credibility of the assignment results.

(c) Not render a mass appraisal in a careless or negligent manner.

Comment: Perfection is impossible to attain, and competence does not require perfection. However, an appraiser must not render appraisal services in a careless or negligent manner. This Standards Rule requires an appraiser to use due diligence and due care.

Standards Rule 5-2

In developing a mass appraisal, an appraiser must:

(a) Identify the client and other intended users;

Comment: It is the appraiser's responsibility to identify the client and other intended users. In ad valorem mass appraisal, the assessor, or party responsible for certification of the assessment or tax roll is required to apply the relevant law or statute and identify the client and other intended users (if any).

(b) Identify the intended use of the appraisal;

Comment: An appraiser must not allow the intended use of an assignment or a client's objectives to cause the assignment results to be biased.

(c) Identify the type and definition of value, and, if the value opinion to be developed is market value, ascertain whether the value is to be the most probable price:

- i. In terms of cash; or
- ii. In terms of financial arrangements equivalent to cash; or
- iii. In such other terms as may be precisely defined; and
- iv. If the opinion of value is based on non-market financing or financing with unusual conditions or incentives, the terms of such financing must be clearly identified and the appraiser's opinion of their contributions to or negative influence on value must be developed by analysis of relevant market data;

(d) Identify the effective date of the appraisal

(e) Identify the characteristics of the properties that are relevant to the type and definition of value and intended use, including:

- i. The group with which a property is identified according to similar market influence;
- ii. The appropriate market area and time frame relative to the property being valued; and
- iii. Their location and physical, legal, and economic characteristics;

Comment: The properties must be identified in general terms, and each individual property in the universe must be identified, with the information on its identity stored or referenced in its property record.

When appraising proposed improvements, an appraiser must examine and have available for future examination, plans, specifications, or other documentation sufficient to identify the extent and character of the proposed improvements.

Ordinarily, proposed improvements are not appraised for ad valorem tax. Appraisers, however, are sometimes asked to provide opinions of value of proposed improvements so that developers

can estimate future property tax burdens. Sometimes units in condominiums and planned unit developments are sold with an Interest in un-built community property, the pro rata value of which, if any, must be considered in the analysis of sales data.

- (f) Identify the characteristics of the market that are relevant to the purpose and intended use of the mass appraisal, including:**
 - i. Location of the market area;**
 - ii. Physical, legal, and economic attributes;**
 - iii. Time frame of market activity; and**
 - iv. Property interests reflected in the market;**
- (g) In appraising real property or personal property;**
 - i. Identify the appropriate market area and time frame relative to the property being valued;**
 - ii. When the subject is real property, identify and consider any personal property, trade fixtures, or intangibles that are not real property but are included in the appraisal;**
 - iii. When the subject is personal property, identify and consider any real property or intangibles that are not personal property but are included in the appraisal;**
 - iv. Identify known easements, restrictions, encumbrances, leases, reservations, covenants, contracts, declarations, special assessments, ordinances, or other items of similar nature; and**
 - v. Identify and analyze whether an appraised fractional interest, physical segment or partial holding contributes pro rata to the value of the whole;**

Comment: The above requirements do not obligate the appraiser to value the whole when the subject of the appraisal is a fractional interest, physical segment, or a partial holding. However, if the value of the whole is not identified, the appraisal must clearly reflect that the value of the property being appraised cannot be used to develop the value opinion of the whole by mathematical extension.

- (h) Analyze the relevant economic conditions at the time of the valuation, including market acceptability of the property and supply, demand, scarcity, or rarity;**
- (i) Identify any extraordinary assumptions and any hypothetical conditions necessary in the assignment; and**

Comment: An extraordinary assumption may be used in an assignment only if:

- It is required to properly develop credible opinions and conclusions;
- The appraiser has a reasonable basis for the extraordinary assumption;
- The use of the extraordinary assumption results in a credible analysis; and
- The appraiser complies with the disclosure requirements set forth in USPAP for extraordinary assumptions.

A hypothetical condition may be used in an assignment only if:

- Use of the hypothetical condition is clearly required for legal purposes, for purposes of reasonable analysis, or for purposes of comparison.
- Use of the hypothetical condition results in a credible analysis, and
- The appraiser complies with the disclosure requirements set forth in USPAP for hypothetical conditions.

- (j) Determine the scope of work necessary to produce credible assignment results in accordance with the SCOPE OF WORK RULE.**

Standards Rule 5-3

When necessary for credible assignment results, an appraiser must:

- (a) In appraising real property, identify and analyze the effect on use and value of the following factors: existing land use regulations, reasonably probable modifications of such regulations, economic supply and demand, the physical adaptability of the real estate, neighborhood trends, and highest and best use of the real estate; and**

Comment: This requirement sets forth a list of factors that affect use and value. In considering neighborhood trends, an appraiser must avoid stereotyped or biased assumptions relating to race, age, color, gender, or national origin or an assumption that race, ethnic, or religious homogeneity is necessary to maximize value in a neighborhood. Further, an appraiser must avoid making an unsupported assumption or premise about neighborhood decline, effective age, and remaining life. In considering highest and best use, an appraiser must develop the concept to the extent required for a proper solution to the appraisal problem.

- (b) In appraising personal property: identify and analyze the effects on use and value of industry trends, value-in-use, and trade level of personal property. Where applicable, analyze the current use and alternative uses to encompass what is profitable, legal, and physically possible, as relevant to the type and definition of value and intended use of the appraisal. Personal property has several measurable marketplaces; therefore, the appraiser must define and analyze the appropriate market consistent with the type and definition of value.**

Comment: The appraiser must recognize that there are distinct levels of trade and each may generate its own data. For example, a property may have a different value at a wholesale level of trade, a retail level of trade, or under various auction conditions. Therefore, the appraiser must analyze the subject property within the correct market context.

Standards Rule 5-4

In developing a mass appraisal, an appraiser must:

- (a) Identify the appropriate procedures and market information required to perform the appraisal, including all physical, functional, and external market factors as they may affect the appraisal;**

Comment: Such efforts customarily include the development of standardized data collection forms, procedures, and training materials that are used uniformly on the universe of properties under consideration.

- (b) Employ recognized techniques for specifying property valuation models; and**

Comment: The formal development of a model in a statement or equation is called model specification. Mass appraisers must develop mathematical models that, with reasonable accuracy, represent the relationship between property value and supply and demand factors, as represented by quantitative and qualitative property characteristics. The models may be specified using the cost, sales comparison, or income approaches to value. The specification format may be tabular, mathematical, linear, nonlinear, or any other structure suitable for representing the observable property characteristics. Appropriate approaches must be used in appraising a class of properties. The concept of recognized techniques applies to both real and personal property valuation models.

- (c) Employ recognized techniques for calibrating mass appraisal models.**

Comment: Calibration refers to the process of analyzing sets of property and market data to determine the specific parameters of a model. The table entries in a cost manual are examples of calibrated parameters, as well as the coefficients in a linear or nonlinear model. Models must be calibrated using recognized techniques, including, but not limited to, multiple linear regression, nonlinear regression, and adaptive estimation.

Standards Rule 5-5

In developing a mass appraisal, when necessary for credible assignment results, an appraiser must:

- (a) Collect, verify, and analyze such data as are necessary and appropriate to develop:**
- i. The cost new of the improvements;**
 - ii. Depreciation;**
 - iii. Value of the land by sales of comparable properties;**
 - iv. Value of the property by sales of comparable properties;**
 - v. Value by capitalization of income or potential earnings (i.e., rentals, expenses, interest rates, capitalization rates, and vacancy data);**

Comment: This Standards Rule requires appraisers engaged in mass appraisal to take reasonable steps to ensure that the quantity and quality of the factual data that are collected are sufficient to produce credible appraisals. For example, in real property, where applicable and feasible, systems for routinely collecting and maintaining ownership, geographic, sales, income and expense, cost, and property characteristics data must be established. Geographic data must be contained in as complete a set of cadastral maps as possible, compiled according to current standards of detail and accuracy. Sales data must be collected, confirmed, screened, adjusted, and filed according to current standards of practice. The sales file must contain, for each sale, property characteristics data that are contemporaneous with the date of sale. Property characteristics data must be appropriate and relevant to the mass appraisal models being used. The property characteristics data file must contain data contemporaneous with the date of appraisal including historical data on sales, where appropriate and available. The data collection program must incorporate a quality control program, including checks and audits of the data to ensure current and consistent records.

- (b) Base estimates of capitalization rates and projections of future rental rates and/or potential earnings capacity, expenses, interest rates, and vacancy rates on reasonable and appropriate evidence;**

Comment: This requirement calls for an appraiser, in developing income and expense statements and cash flow projections, to weigh historical information and trends, current market factors affecting such trends, and reasonably anticipated events, such as competition from developments either planned or under construction.

- (c) Identify and, as applicable, analyze terms and conditions of any available leases; and**
(d) Identify the need for and extent of any physical inspection.

Standards Rule 5-6

When necessary for credible assignment results in applying a calibrated mass appraisal model an appraiser must:

- (a) Value improved parcels by recognized methods or techniques based on the cost approach, the sales comparison approach, and the income approach;**
- (b) Value sites by recognized methods or techniques; such techniques include but are not limited to the sales comparison approach, allocation method, abstraction method, capitalization of ground rent, and land residual technique;**
- (c) When developing the value of a leased fee estate or a leasehold estate, analyze the effect on value, if any, of the terms and conditions of the lease;**

Comment: In ad valorem taxation the appraiser may be required by rules or law to appraise the property as if in fee simple, as though unencumbered by existing leases. In such cases, market rent would be used in the appraisal, ignoring the effect of the individual, actual contract rents.

- (d) Analyze the effect on value, if any, of the assemblage of the various parcels, divided interests, or component parts of a property; the value of the whole must not be developed by adding together the individual values of the various parcels, divided interests, or component parts; and**

Comment: When the value of the whole has been established and the appraiser seeks to value a part, the value of any such part must be tested by reference to appropriate market data and supported by an appropriate analysis of such data.

- (e) When analyzing anticipated public or private improvements, located on or off the site, analyze the effect on value, if any, of such anticipated improvements to the extent they are reflected in market actions.**

Standards Rule 5-7

In reconciling a mass appraisal, an appraiser must:

- (a) Reconcile the quality and quantity of data available and analyzed within the approaches used and the applicability and relevance of the approaches, methods, and techniques used; and**
- (b) Employ recognized mass appraisal testing procedures and techniques to ensure that standards of accuracy are maintained.**

Comment: It is implicit in mass appraisal that, even when properly specified and calibrated mass appraisal models are used, some individual value conclusions will not meet standards of reasonableness, consistency, and accuracy. However, appraisers engaged in mass appraisal have a professional responsibility to ensure that, on an overall basis, models produce value conclusions that meet attainable standards of accuracy. This responsibility requires appraisers to evaluate the performance of models, using techniques that may include but are not limited to, goodness-of-fit statistics, and model performance statistics such as appraisal-to-sale ratio studies, evaluation of hold-out samples, or analysis of residuals.

STANDARD 6: MASS APPRAISAL, Reporting

In reporting the results of a mass appraisal, an appraiser must communicate each analysis, opinion, and conclusion in a manner that is not misleading.

Comment: Standard 6 addresses the content and level of information required in a report that communicates the results of a mass appraisal.

Standard 6 does not dictate the form, format, or style of mass appraisal reports. The form, format, and style of a report are functions of the needs of intended users and appraisers. The substantive content of a report determines its compliance.

Standards Rule 6-1

Each written report of a mass appraisal must:

- (a) Clearly and accurately set forth the appraisal in a manner that will not be misleading;**
- (b) Contain sufficient information to enable the intended users of the appraisal to understand the report properly; and**

Comment: Documentation for a mass appraisal for ad valorem taxation may be in the form of (1) property records, (2) sales ratios and other statistical studies, (3) appraisal manuals and documentation, (4) market studies, (5) model building documentation, (6) regulations, (7) statutes, and (8) other acceptable forms.

- (c) Clearly and accurately disclose all assumptions, extraordinary assumptions, hypothetical conditions, and limiting conditions used in the assignment;**

Comment: The report must clearly and conspicuously:

- State all extraordinary assumptions and hypothetical conditions; and
- State that their use might have affected the assignment results.

Standards Rule 6-2

Each written report of a mass appraisal must:

- (a) State the identity of the client, unless the client has specifically requested otherwise; state the identity of any intended users by name or type;**
- (b) State the intended use of the appraisal**
- (c) Disclose any assumptions or limiting conditions that result in deviation from recognized methods and techniques or that affect analyses, opinions, and conclusions;**
- (d) State the effective date of the appraisal and the date of the report;**

Comment: In ad valorem taxation the effective date of the appraisal may be prescribed by law. If no effective date is prescribed by law, the effective date of the appraisal, if not stated, is presumed to be contemporaneous with the data and appraisal conclusions.

The effective date of the appraisal establishes the context for the value opinion, while the date of the report indicates whether the perspective of the appraiser on the market and property as of the effective date of the appraisal was prospective, current, or retrospective.

- (e) State the type and definition of value and cite the source of the definition;**

Comment: Stating the type and definition of value also requires any comments needed to clearly indicate to intended users how the definition is being applied.

When reporting an opinion of market value, state whether the opinion of value is:

- In terms of cash or or financing terms equivalent to cash; or
- Based on non-market financing with unusual conditions or incentives.

When an opinion of market value is not in terms of cash or based on financing terms equivalent to cash, summarize the terms of such financing and explain their contributions to or negative influence on value.

(f) Identify the properties appraised including the property rights;

Comment: The report documents the sources for location, describing and listing the property. When applicable, include references to legal descriptions, addresses, parcel identifiers, photos, and building sketches. In mass appraisal, this information is often included in property records. When the property rights to be appraised are specified in a statute or court ruling, the law must be referenced.

(g) Summarize the scope of work used to develop the appraisal; exclusion of the sales comparison approach, cost approach, or income approach must be explained;

Comment: Because intended users' reliance on an appraisal may be affected by the scope of work, the report must enable them to be properly informed and not misled. Sufficient information includes disclosure of research and analyses performed and might also include disclosure of research and analyses not performed.

When any portion of the work involves significant mass appraisal assistance, the appraiser must describe the extent of that assistance. The signing appraiser must also state the name(s) of those providing the significant mass appraisal assistance in the certification, in accordance with Standards Rule 6-3.

(h) Summarize and support the model specification(s) considered, data requirements, and the model(s) chosen;

Comment: The appraiser must provide sufficient information to enable the client and intended users to have confidence that the process and procedures used conform to accepted methods and result in credible value conclusions. In the case of mass appraisal for ad valorem taxation, stability and accuracy are important to the credibility of value opinions. The report must include a summary of the rationale for each model, the calibration techniques to be used, and the performance measures to be used.

(i) Summarize the procedure for collecting, validating, and reporting data;

Comment: The report must describe the sources of data and the data collection and validation processes. Reference to detailed data collection manuals or electronic records must be made, as appropriate, including where they may be found for inspection.

(j) Summarize calibration methods considered and chosen, including the mathematical form of the final model(s); summarize how value conclusions were reviewed; and, if necessary, state the availability and location of individual value conclusions;

(k) When an opinion of highest and best use, or the appropriate market or market level was developed, summarize how that opinion was determined;

Comment: The mass appraisal report must reference case law, statute, or public policy that describes highest and best use requirements. When actual use is the requirement, the report must discuss how use-value opinions were developed. The appraiser's reasoning in support of the highest and best use opinion must be provided in the depth and detail required by its significance to the appraisal.

- (l) Identify the appraisal performance tests used and the performance measures attained;**
- (m) Summarize the reconciliation performed, in accordance with Standards Rule 5-7; and**
- (n) Include a signed certification in accordance with Standards Rule 6-3.**

Standards Rule 6-3

Each written mass appraisal report must contain a signed certification that is similar in content to the following form:

I certify that, to the best of my knowledge and belief:

- **The statements of fact contained in this report are true and correct.**
- **The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are my personal, impartial, and unbiased professional analyses, opinions, and conclusions.**
- **I have no (or the specified) present or prospective interest in the property that is the subject of this report, and I have no (or the specified) personal interest with respect to the parties involved.**
- **I have performed no (or the specified) services, as an appraiser or in any other capacity, regarding the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment.**
- **I have no bias with respect to any property that is the subject of this report or to the parties involved with this assignment.**
- **My engagement in this assignment was not contingent upon developing or reporting predetermined results.**
- **My compensation for completing this assignment is not contingent upon the reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, or the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.**
- **My analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice.**
- **I have (or have not) made a personal inspection of the properties that are the subject of this report. (If more than one person signs the report, this certification must clearly specify which individuals did and which individuals did not make a personal inspection of the subject property).**
- **No one provided significant mass appraisal assistance to the person signing this certification. (If there are exceptions, the name of each individual providing significant mass appraisal assistance must be stated).**

Comment: The above certification is not intended to disturb an elected or appointed assessor's work plans or oaths of office. A signed certification is an integral part of the appraisal report. An appraiser, who signs any part of the mass appraisal report, including a letter of transmittal, must also sign this certification.

In an assignment that includes only assignment results developed by the real property appraiser(s), any appraiser(s) who signs a certification accepts full responsibility for all elements of

the certification, for the assignment results, and for the contents of the appraisal report. In an assignment that includes personal property assignment results not developed by the real property appraiser(s), any real property appraiser(s) who signs a certification accepts full responsibility for the real property elements of the certification, for the real property assignment results, and for the real property contents of the appraisal report.

In an assignment that includes only assignment results developed by the personal property appraiser(s), any appraiser(s) who signs a certification accepts full responsibility for all elements of the certification, for the assignment results, and for the contents of the appraisal report. In an assignment that includes real property assignment results not developed by the personal property appraiser(s), any personal property appraiser(s) who signs a certification accepts full responsibility for the personal property elements of the certification, for the personal property assignment results, and for the personal property contents of the appraisal report.

When a signing appraiser(s) has relied on work done by appraisers and others who do not sign the certification, the signing appraiser is responsible for the decision to rely on their work. The signing appraiser(s) is required to have a reasonable basis for believing that those individuals performing the work are competent. The signing appraiser(s) also must have no reason to doubt that the work of those individuals is credible.

The names of individuals providing significant mass appraisal assistance who do not sign a certification must be stated in the certification. It is not required that the description of their assistance be contained in the certification, but disclosure of their assistance is required in accordance with Standards Rule 6-2(g).

Further Reading

The Machinery Act of North Carolina is published bi-annually by the North Carolina Department of Revenue, and includes extensive case notes and a list of sections affected each year by new legislation. Copies can be obtained from the LexisNexis store. All statutes can also be viewed on the North Carolina General Assembly web site.

<https://www.ncleg.gov/Laws/GeneralStatuteSections/Chapter105>

For those who seek additional information regarding real estate appraisal, mass appraisal, or other topics described in this manual, the Wake County Department of Tax Administration has used the following sources in determining how to best fulfill its duties.

International Association of Assessing Officers. 1999. *Mass Appraisal of Real Property*. Chicago: International Association of Assessing Officers.

International Association of Assessing Officers. 1996. *Property Assessment Valuation*. Chicago: International Association of Assessing Officers.

The above listed textbooks are used in most certification and continuing education classes offered by the International Association of Assessing Officers.

IAAO also publishes Standard on Mass Appraisal of Real Property, which provides advice on operation and quality control in an assessment office. This document can be downloaded for free at their website: <http://www.iaao.org> Of particular interest here is section 5, from which we obtain the use of models and quality control statistics outlined earlier in this manual.

Uniform Standards of Professional Appraisal Practice (USPAP) is developed and updated by The Appraisal Standards Board (ASB) of The Appraisal Foundation. Copies can be obtained from The Appraisal Foundation at <http://www.appraisalfoundation.org>

Present use value rates are provided by the North Carolina Department of Revenue. These are included in the 2020 Use-Value Manual for Agricultural, Horticultural, and Forest Land. This document can be downloaded for free at <http://www.dor.state.nc.us/publications/property.html> Please note that although this manual is updated annually, Wake County uses the 2020 edition due to the effective General Reappraisal date, and will continue to use this edition until the next General Reappraisal.

The following is a list of sources used to set value and rate ranges:

Investor Survey, published by RealtyRates.com, Robt G. Watts, PO Box 14970, Palma Sola, FL, 34280.

Marshall & Swift Valuation Service, published by the Marshall & Swift Publication Company, 777 S. Figueroa St., 12th Floor, Los Angeles, CA, 90017.

Korpacz Real Estate Investor Survey, published by PriceWaterhouseCoopers LLP Publications, 4208 Six Forks Rd, Ste 1200, Raleigh, NC 27609.

Triangle Business Journal and Space Magazine, published by Triangle Business Journal, 3600 Glenwood Ave, Ste 100, Raleigh, NC 27612.

Costar, published by Costar Group, 1331 L Street NW, Washington, DC, 20005.

Appendix

Example of Building Value Calculations

How to Use the Property Record Card (PRC) to Calculate Building Values

To calculate a value, the appraiser first determines a Schedule Value based solely on the objective property characteristics. Adjustments for quality of construction, depreciation, and any further adjustments are made as needed.

It is important to be aware that rates and values shown on the Property Record Card may be rounded or truncated for purposes of formatting and display. The purpose of this example is to help the non-professional understand how the Schedule of Values is applied to generate values. For that reason, calculations that the computer model is performing consecutively have been divided into separate steps; this may lead to small variations between values calculated manually and values calculated using the appraisal software, mainly due to rounding being performed at different points. These differences should not be interpreted as mathematical errors.

How to Interpret a Sketch

All sketches have a “main body” which corresponds generally to the foundation area. A sketch may also have one or more additions, such as a deck or attached garage. The term “addition” as used here does not imply that the feature was built at a different point in time than the main body; it may or may not be part of the original construction.

Step 1 – Determine the Base Square Foot Rate

The main body will have a number in the center; this is the ground floor area, also known as the “footprint.” Take this number and round it to the nearest 25 square feet. Make a note of this figure, and look it up in the table Base Square Foot Values for Main Body of Residential Buildings. In this example, the main body footprint area is 1196, which is rounded to 1200. According to the table, the Base Rate for this building is \$110.22 per square foot.

Step 2 – Determine any Adjustments to the Base Square Foot Rate

Next, calculate any needed adjustments due to building characteristics. This home has three “add/deducts;” they are for central air-conditioning, bath count, and a fireplace. If this were a multi-story home, there would be an adjustment for that here (and not in the Base Rate).

According to the Residential Listing Schedule, air-conditioned homes receive a 4% adjustment to the Base Rate. $\$110.22 \times .04 = \4.41 per square foot.

Bathrooms and fireplaces are adjusted differently. These have a fixed dollar value that is divided across the footprint area to create a per square foot value. Again, reference is made to the Residential Listing Schedule. A two bathroom home has an adjustment of \$3,600, and the fireplace has an adjustment of \$1,500. Dividing these values by the footprint area produces adjustments rates of \$3.01 ($\$3,600/1196$) and \$1.25 ($\$1,500/1196$).

Step 3 – Calculate the Schedule Value for the Main Body

Adding the adjustment rates to the Base Rate gives the total per square foot rate applied to the Main Body. This rate is multiplied by the main body footprint to generate a Schedule Value.

Base Rate	\$110.22
Air Conditioning	\$4.41
Baths	\$3.01
Fireplace	\$1.25
Total	\$118.88

$\$118.88 \times 1196 = \$142,180$ Schedule Value for Main Body.

Step 4 – Calculate Addition Values

Now, each individual addition is assigned a value using the Residential Addition Code tables.

The Base Rate used for the main body is different depending on the size. The economic theory behind this, economies of scale, is given on page 13 of this manual. With additions, there is one base rate for each type of structure, and the allowance for scale is applied separately.

Floor area is adjusted using the following formula:

$$\text{Work Area} = ((\text{Addition Footprint} + 5)/10) + 2$$

This Work Area is rounded **down** to the nearest whole number, then multiplied by the base rate, multiplied by 10.

$$\text{Schedule Value} = \text{Rounded Work Area} * (\text{Base Rate} * 10)$$

To take the deck (Addition A) on this record as an example: the base square foot rate for a deck is \$14.23, and the deck has a footprint area of 128 square feet.

$$\text{Work Area} = ((128+5)/10) + 2 = 15.3 = 15 \text{ after rounding.}$$

Schedule Value = 15 * (\$14.23*10) = \$2,134.

The Schedule Rate (Adjusted) displayed on the Property Record Card shows the square foot rate for each addition after the relative size is accounted for. It is the addition's Schedule Value divided by the footprint area. In this example, each of the three decks has a unique adjusted rate, with the largest deck having the smallest per square foot rate. This is due to the aforementioned economies of scale.

SR(A) = \$2,134/128 = \$16.67.

The following table shows the same calculations for each addition.

Addn Type	Footprint	Work Area	Base Rate	Schedule Value	Schedule Rate (Adj)
Deck	128	15	\$14.23	\$2,134	\$16.67
Storage	30	5	\$42.93	\$2,146	\$71.53
Deck	16	4	\$14.23	\$569	\$35.56
Deck	24	4	\$14.23	\$569	\$23.71

Note that the 16 and 24 square foot decks have the same schedule value. Because there is such a small difference between the two (eight square feet) a typical buyer would see them as equivalent. The Work Area formula allows the appraiser to account for this.

Step 5 – Apply Grade and Depreciation factors

Adding the Schedule Value for each addition to the Schedule Value for the main body calculated in Step 3 gives a total Schedule Value for the entire building of \$147,598. At this point, the appraiser will make adjustments for quality of construction and depreciation. Quality grades and depreciation factors are discussed in more detail on pages 15-17 and 39-44 of this manual. The grade consists of an overall quality rating (AA, A, B, etc.) and a factor which allows the appraiser to fine tune the grade to reflect overall market values in the neighborhood (such as A+10 or A+05). Depreciation for most residential buildings will be listed as "B," although homes of superior quality or homes that are deteriorating faster than is typical for comparable homes may be rated differently.

This property has a grade C-05 (95% adjustment) and a depreciation rating of B. Depreciation is expressed as a "percent good," which is the value remaining after the reduction is made. From the table on page 40, a home with a depreciation rating B and an effective year 1985 has a "percent good" of 76% (100 - 24).

The Schedule Value is multiplied by the quality grade to determine the Replacement Cost if New, and then reduced by the amount of depreciation.

Replacement Cost New = Schedule Value * Grade Factor

\$147,598 * 95% = \$140,218

Appraised Value = Replacement Cost New * Depreciation Factor

\$140,218 * 76% = \$106,566

\$106,566 is the final appraised value of the building, which will be added to the land value and outbuilding value (if any), to arrive at the Total Assessed Value of the property.

IDENTIFICATION INFORMATION				OWNER OF RECORD AND PROPERTY DESCRIPTION				BUILDING INFORMATION						
LAND CLASS	RHS	D ACRES	0.53	BLDG PROPERTY NAME:				USE	SINGLFAM	CD	001			
BILLING CLASS	EXEMPT	STATUS	ACTIVE	YEAR FOR	2020				GR	C-05	CF	001		
							FP	1,196	WR	8.66	PG	001		
							PER	1.18		110.22	CF	001		
							DEDUCTED TOT.	8.66	DATE: 12/27/2019					
NOTES/ NARRATIVES														
BR (Base rate): Determined by footprint size of main body. Refer to SOV for chart.														
Add/Deduct Total: See next page of record card														
PHOTO														
														
0058212 C3/22/2013														
COST/MARKET/ADJUSTMENTS														
FRAME														
GRADE: C-05 YR BLT 1978														
DEPREC: B 76% EF YR 1983														
MKT ADJ														
ACCR MKT ADJ														
ACCR % 76%														
TOTAL LIVING AREA (SF) 1,196														
SALE RATIO 144.50 (P)														
CENTRAL														
CENTRAL														
2F OH														
1EP														
INCOMPLETE BUILDING														
INCOMPLETE VALUE														
% COMPLETE														
MARKET ASSESSED VALUE														
LAND 56,000														
BUILDING 106,561														
OUTBLDG														
TOTAL 162,561														
MAIN BUILDING INFORMATION AND SKETCH VECTOR														
ST	ST. NO.	DESCRIPTION	FOOTPRINT (SF)	UPPER STY (SF)	BSMT FIN (SF)	UNFIN INT (SF)	% ADJ (\$)	% COMP	SCHEDULED VALUE					
1		1S/FR/CS	1,196				118.88	100%	142,180					
U26R46 Sum of Base Rate and Add/Deduct Rate— see next page of record card														
OUTBUILDINGS														
MEA	I	UNIT	TYPE	Q	BASE	R	YR	DEPR	MKT ADJ	ACCR	%	TOTAL		
		U	QUAN	V	PRICE	E	BLT	(%)	1 (%)	2 (%)	COM	ASSD.		
A														
B														
C														
D														
E														
F														
G														
H														
I														
J														
TOTAL OUTBUILDING VALUE														
ADDITION INFORMATION AND SKETCH VECTORS														
R	STH	3	2	1	M	L	CO	OFF	FP (SF)	OV	SR (ADJ)	YR	%CP	SCH VAL
A		0.00			DK		3	L12			128	16.64	100	2,130
B		0.00			STG		3	L2			30	71.50	100	2,145
C		0.00			DK		3	D4			16	35.50	100	568
D		0.00			DK		1	R20			24	23.67	100	588
Addition Section—refer to sketch above														
Addition Type/Description														
Size of Addition														
Base rate for addition—adjusted for size														
Schedule value of addition														
Total Building Schedule Value (Main Body + Additions) = 147,591														
See next page of record card for how this value is further adjusted.														

VALUE (6)

The B depreciation rating with an effective year of 1985 corresponds to 24% depreciation or 76% "good"