

# USPAP MASS APPRAISAL REPORT

February 18,  
2020

City of Portsmouth, NH, 2019 Statistical  
Valuation Update



Prepared By:  
J. Michael Tarello  
Vision Government Solutions, Inc.  
1 Cabot Road  
Hudson, Ma. 01749  
Phone: 1-800-628-1013; Fax: 508-351-3797

Developed by Cornell Consultants for the City of Portsmouth

# Contents

- Letter of Transmittal ..... 8
- SALIENT FACTS ..... 13**
  - Date of Report:..... 13
  - Client: ..... 13
  - Date of Mass Appraisal Report:..... 13
  - Effective Date of the Mass Appraisal: ..... 13
  - Final Opinion of Value:..... 13**
    - Appraisal Firm Completing the Work: ..... 13
    - Appraisers: ..... 13
    - Intended Use of the Mass Appraisal Report: ..... 14
    - Intended Users of This Mass Appraisal: ..... 14
    - Interest Valued:..... 14
    - Type of Value Estimated: ..... 14
    - Real Estate Valued..... 16
    - Extraordinary Assumptions: ..... 16
    - Hypothetical Conditions:..... 17
  - Scope of Work..... 17**
    - Format of This Mass Appraisal Report: ..... 19
    - Competency: ..... 19
    - Highest and Best Use - Explanation:..... 19
      - Highest and Best Use Determination:..... 20
      - Approaches to Value Considered and Utilized.....20
      - Approaches to Value Not Utilized.....20
- PROCEDURE FOR MASS VALUATION APPRAISALS..... 21**
- OVERVIEW OF MASS APPRAISAL AND VALUATION MODELING..... 21**
- TIME AND MARKET ANALYSIS.....22
- SPECIFICATION AND CALIBRATION REVIEW..... 24**
  - Underlying Economic Principles.....24
  - Approaches to Value ..... 25
  - Land/Site Valuation in Mass Appraisal ..... 26

Overview of Base Land Valuation Techniques.....	26
Scope of Land Valuation.....	27
Site Valuation – Sales Comparison Approach.....	27
Site Valuation – Market Extraction (Land Residual Technique).....	28
<b>Residential Neighborhood analysis.....</b>	<b>29</b>
<b>Commercial Neighborhood analysis.....</b>	<b>40</b>
<b>Base Land Value and Factors .....</b>	<b>57</b>
Base Land Value - Residential .....	57
Base Land Value Factors – Commercial .....	58
Adjustments Made to Base Residential Land Values (Neighborhoods Map) .....	59
Base Land Value Refinements Within Neighborhoods.....	61
Residential.....	61
Adjustments Made to Base Land Values (Land Size) .....	63
<b>Commercial and Residential .....</b>	<b>63</b>
Residential Land Pricing.....	64
Valuation Modeling.....	66
<b>Commercial .....</b>	<b>66</b>
Commercial Land Pricing.....	68
Special Base Land Rates .....	70
Land pricing for Apartments, Mobile Home Parks and Hotels.....	70
C/I Condo .....	74
<b>COST APPROACH - GENERAL EXPLANATION .....</b>	<b>75</b>
Building Base Valuation.....	78
Effective Area Factors.....	85
Building Valuation (Building Base Rate Adjustment) .....	93
Story Height.....	114
Model Specification.....	114
Improvement Data .....	114
Land Data .....	115
Location Data .....	115
Model Calibration.....	115
Grade.....	115
Quality adjustment Rating.....	116
Quality Grade Guidelines.....	116
Building Size .....	123
Extra Features .....	124
Out Buildings.....	126
Depreciation.....	131
Summary of Depreciation .....	136
Building Valuation Model Calculation.....	136
Cost Approach Conclusion .....	137
<b>SALES COMPARISON APPROACH FOR IMPROVED PROPERTY .....</b>	<b>138</b>

Sales Comparison Model.....	139
<b>INCOME APPROACH .....</b>	<b>139</b>
Income Model Overview .....	140
INCOME VALUATION .....	141
Gross Income Base Rates .....	141
Income Adjustments .....	144
Size Adjustment .....	144
Location Adjustment.....	146
Use Adjustment.....	146
Vacancy .....	146
Expenses .....	148
Expense Adjustments.....	150
Capitalization Rate Tables .....	150
Summary of Income Approach.....	153
<b>MODEL TESTING .....</b>	<b>170</b>
Sales Ratio Study .....	170
Coefficient of Dispersion .....	171
<b>MODEL TESTING - RESIDENTIAL.....</b>	<b>171</b>
Price Related Differential .....	172
<b>2018 Ratios</b> .....	172
Residential Neighborhoods .....	172
Neighborhood Analysis Conclusion.....	175
Residential Property Style .....	175
Style Analysis Conclusion .....	176
Residential Property Neighborhood and Style .....	176
Neighborhood Combined with Style Analysis Conclusion .....	181
Grade .....	181
Grade Conclusion .....	182
Condition.....	182
Condition Conclusion .....	182
Year Built .....	182
Age Conclusion .....	183
Size .....	183
Size Conclusion.....	184
Review of Ratios Citywide .....	184
Citywide Conclusion .....	186
Conclusion of Residential Model Testing .....	186
<b>MODEL TESTING - COMMERCIAL.....</b>	<b>187</b>
Price Related Differential .....	187
Commercial Neighborhood.....	188
Neighborhood Analysis Conclusion.....	188

Commercial Property Style.....	188
Style Analysis Conclusion .....	189
Commercial Property Neighborhood and Style .....	189
Neighborhood Combined with Style Analysis Conclusion .....	190
Grade .....	190
Grade Conclusion .....	190
Year Built .....	190
Age Conclusion .....	191
Size .....	191
Size Conclusion.....	192
<b>Review of Ratios Citywide .....</b>	<b>192</b>
Citywide Conclusion .....	193
Conclusion of Commercial Model Testing.....	194
<b>CONCLUSION AND SUMMARY OF MASS APPRAISAL.....</b>	<b>194</b>
<b>GENERAL ASSUMPTIONS AND LIMITING CONDITIONS .....</b>	<b>195</b>
<b>CERTIFICATION .....</b>	<b>197</b>
Appraiser Qualifications .....	197
<b>ADDENDUM .....</b>	<b>208</b>
Sales Codes.....	208
Sales Used in Analysis.....	209
Unqualified Sales.....	218
Capitalization Rate Analysis.....	222
Zoning Ordinances.....	223
Equalization Study 2018 Summary.....	225
Copy of Contract.....	227
Definitions.....	242

## Links to Tables in Report

Table 1: Summary by Sales Date Residential and Commercial .....	22
Table 2: Residential Land Residual.....	35
Table 3: Commercial Land Residual .....	42
Table 4: Income Land Residual .....	42
Table 5: Neighborhood Land Values- Commercial .....	58
Table 6: Neighborhood Land Values- Residential.....	60
Table 7: Residential Site Index .....	61
Table 8: Commercial Site index.....	62
Table 9: Residential Land Curve.....	64
Table 10: Commercial land curve .....	67
Table 11: Apartment Land Value .....	71
Table 12: Special Land Adjustments .....	72
Table 13: M&S Residential Construction Survey Rates.....	78
Table 14: Residential Base Rates .....	79
Table 15: Condo Base Rates.....	80
Table 16: M&S Commercial Construction Survey Rates .....	82
Table 17: Commercial Base Rates.....	83
Table 18: Sub Area Codes.....	86
Table 19: Property Attributes .....	93
Table 20: Grade Adjustment.....	123
Table 21: Extra Features .....	124
Table 22: Outbuildings .....	126
Table 23: Residential and Residential Condo Depreciation Table .....	132
Table 24: Mobile Home Depreciation Table .....	133
Table 25: Commercial & Industrial Depreciation Table.....	134
Table 26: Base Income Rates .....	143
Table 27: Income Size Adjustment .....	144
Table 28: Income Location Adjustment .....	146
Table 29: Income Use Adjustments .....	146
Table 30: Income Vacancy Rates .....	147
Table 31: Income Vacancy Adjustments.....	148
Table 32: Base Income Expenses .....	149
Table 33: Income Expense Adjustments.....	150
Table 34: Income Capitalization Rates.....	151
Table 35 Capitalization Rate Adjustments.....	152
Table 36: Adjusted Capitalization Rates .....	152
Table 37: Income Value Per Unit .....	152
Table 38: 2018 Ratio Study .....	172
Table 39: Residential Neighborhood Ratios .....	173
Table 40: Residential Condo Ratios .....	174
Table 41: Residential Mobile Home Ratios.....	174
Table 42: Residential Style Ratios .....	175
Table 43: Residential Condo Style Ratios.....	175
Table 44: Residential Model Home Style Ratios.....	176

Table 45: Residential Neighborhood/Style Ratios .....	176
Table 46: Residential Condo Neighborhood/Style Ratios.....	179
Table 47 Residential Mobile Home Neighborhood/Style Ratios .....	181
Table 48: Residential Grade Ratios .....	182
Table 49: Residential Condition Ratios .....	182
Table 50: Commercial Neighborhood Ratios .....	188
Table 51: Commercial Style Ratios.....	189
Table 52: Commercial Neighborhood/Style Ratios .....	189
Table 53: Commercial Grade Ratios.....	190
Table 54: Sales Codes.....	208
Table 55: Sales Used in Analysis .....	209
Table 56: Unqualified Sales.....	218

Links to Charts in Report

Chart 1- Commercial Price Per Acre .....	59
Chart 2- Residential Land Curve.....	64
Chart 3- Commercial Land Curve .....	68
Chart 4: Residential Depreciation Chart .....	133
Chart 5: Mobile Home Depreciation Chart .....	134
Chart 6: Commercial & Industrial Depreciation Chart.....	136
Chart 7: Residential Actual Year Build Ratios .....	183
Chart 8: Residential Living Area Charts.....	184
Chart 9: Residential Ratio Map .....	185
Chart 10: Residential Outlier Map .....	186
Chart 11: Overall Ratio Map .....	187
Chart 12: Commercial Actual Year Build Ratio Chart.....	191
Chart 13: Commercial Size Ratio Chart.....	192
Chart 14: Commercial Ratio Map.....	193

## Letter of Transmittal

February 18, 2020

Municipal and Assessing Officials  
Municipality of Portsmouth  
1 Junkin's Avenue  
Portsmouth, NH 03801

RE: 2019 Portsmouth, NH USPAP Mass Appraisal Report

In accordance with your request, Vision Government Solutions has completed a statistical valuation update of all properties in the City of Portsmouth. The purpose of this mass appraisal is for tax assessment purposes.

The intended user of this appraisal is Municipal and Assessing Officials. Other users include the New Hampshire Department of Revenue (DRA). This report may also be used by the New Hampshire Board of Tax and Land Appeals (BTLA) and the General Court of the State of New Hampshire. The appraiser is not responsible for unintended use of this report. No third parties are authorized to rely on this report. This letter must remain attached to the report for the opinions set forth herein to be considered valid.

This is a Mass Appraisal Report which is intended to comply with the appraisal development and reporting requirements set forth under Standard Rules 5 and 6 of the Uniform Standards of Professional Appraisal Practice (USPAP). Supporting documentation concerning the data, reasoning and analyses is retained in the appraiser's file. The information in this report is specific to the needs of the client and for the intended use stated in this report.

The reported analyses, opinions, and conclusions were developed, and this report has been prepared in conformity with the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute. It has also intended to comply with International Association of Assessing Officials (IAAO) Standards.

This is a mass appraisal. It is assumed that all factual and financial data provided the appraiser in the report is accurate, unless otherwise stated. This is what USPAP refers to as an extraordinary assumption; if found to be incorrect, it could affect the conclusions.

The following is a summary of the new assessed values and the number of parcels in each use category.

USE DESCRIPTION	Total Assessed Parcel Value	COUNT
905C	\$3,679,300	2
906V	\$274,400	1



999V	\$0	5
AC LAND IMP	\$2,327,378	14
APT 4-7 UN MDL-94	\$87,350,900	121
APT OVER EIGHT	\$207,398,004	35
AUTO REPR MDL	\$16,503,700	16
AUTO S S&S	\$6,692,900	4
AUTO V S&S	\$40,579,700	12
BOARDING HS MDL-94	\$481,700	1
CABLE ROW	\$2,212,688	1
CBL-TV TR	\$95,168,283	1
CDMV	\$0	24
CELL TWR	\$2,345,300	6
CHAR CONDO	\$1,173,700	3
CHAR MDL-00	\$824,600	1
CHARITABLE	\$16,965,900	3
CHARTBL	\$74,439,651	33
CHARTBL 00	\$5,156,100	10
CHARTBL 01	\$9,934,000	10
CHURCH ETC MDL-94	\$575,500	1
COMM BLDG	\$33,206,000	13
COMM CONDO	\$116,853,400	42
COMM WHSE	\$21,820,200	11
CONDO SITE	\$840,900	6
CONDO/XMPT MDL-06	\$2,417,300	8
CONDOMINIUM	\$962,372,000	2279
CONV FOOD	\$585,500	1
DAY CARE	\$1,613,000	2
DEVEL LAND	\$26,604,305	32
DOCK YARDS	\$9,775,300	4
DRA ELEC -MDL-00	\$675,033	1
DRA GAS MDL-00	\$813,400	1
DRA IND CONDO UTIL	\$5,059,626	1
EDUC BLDG	\$4,023,900	1
ELEC PLANT MDL-00	\$13,920,803	11
ELECSUBSTA	\$8,515,600	3
EX HARDWOOD W/O	\$815	1

USE DESCRIPTION	Total Assessed Parcel Value	COUNT
EX OTHER W/O	\$2,590	4
EX UNPROCUCTIVE	\$100	1
FACTORY	\$57,431,400	12
FARM LAND	\$2,179	1
FRATNL ORG	\$3,656,300	3
FUEL SV/PR	\$15,915,394	14
FUNERAL HM	\$1,678,600	1
GAS PLANT	\$2,347,100	1
GAS ROW	\$56,801,807	5
GAS ST SRV MDL	\$4,350,200	6
GAS STG	\$627,700	1
GYMS	\$4,077,700	3
HARD WOOD W/O	\$1,671	2
HOPITAL	\$103,626,500	2
HOTELS	\$175,649,200	14
HRDWARE ST	\$769,300	1
HSNG AUTH	\$45,719,200	6
IND BLDG	\$10,331,700	3
IND CONDO	\$2,787,700	41
IND LD DV	\$4,019,600	5
IND LD PO	\$186,200	1
IND LD UD	\$362,400	7
IND OFFICE	\$43,762,800	11
IND WHSES	\$152,616,600	60
INNS	\$8,550,100	4
LUMBER YRD MDL-94	\$2,224,900	1
MARINA	\$2,493,900	1
MARINAS	\$955,400	1
MH PARK MDL-00	\$10,463,500	2
MIX	\$1,014,600	1
MOBILE HOME	\$26,624,300	258
MOTELS	\$1,728,800	1
MULTI HOUSES	\$56,179,134	76
MUNICIPAL	\$83,100,800	158
MUNICIPAL MDL-01	\$1,061,100	3
MUNICIPAL MDL-94	\$133,015,400	30
NOT SEP ASSESSED	\$0	2
NURSING HM	\$14,175,200	3
OFF CONDO	\$277,669,700	423
OFFICE BLD	\$485,422,300	107

USE DESCRIPTION	Total Assessed Parcel Value	COUNT
OTHER CULT	\$3,701,000	1
OTHER OUT DOOR	\$8,495,800	1
OTHER W/O	\$7,194	5
PARK GAR	\$7,205,400	1
PARK LOT	\$18,705,600	26
POT DEVEL	\$1,319,700	4
PRI COMM	\$117,439,400	117
PRI RESI	\$2,466,500	5
PRI SCHOOL	\$6,577,800	1
PROF ASSOC	\$552,100	1
PROF BLDG	\$6,158,100	4
PUB TANKS	\$5,896,400	1
PUB TANKS MDL-00	\$3,254,000	3
PUB-SCHOOL MDL-94	\$178,077,000	9
R-D FACIL	\$161,883,500	1
RELIGIOUS	\$1,373,300	5
RELIGIOUS MDL-01	\$2,264,800	4
RELIGIOUS MDL-94	\$60,169,000	23
RES ACLNPO	\$800,100	14
RES ACLNUD	\$2,012,600	90
REST/CLUBS	\$54,050,000	39
RETAIL	\$127,809,300	72
RTL CONDO	\$79,022,400	116
SAND&GRAVL	\$3,802,700	1
SFR WATERFRONT	\$183,425,534	138
SFR WATERINFL	\$95,094,500	121
SHOPNGMALL	\$129,938,100	12
SINGLE FAM MDL-00	\$190,700	1
SINGLE FAMILY	\$1,995,139,234	3896
STATE	\$19,544,675	37
STATE MDL-01	\$9,363,800	1
STATE MDL-94	\$57,640,400	16
STATE MDL-96	\$3,835,200	2
STORE/SHOP	\$59,295,800	12
TEL POLE/CONDUIT	\$5,445,207	1
TEL ROW	\$1,770,150	1
TEL X STA	\$3,586,900	3
THREE FAMILY	\$57,717,500	74
TRANSPORTATION	\$888,800	2
TWO FAMILY	\$171,687,800	296

USE DESCRIPTION	Total Assessed Parcel Value	COUNT
UNDEV LAND	\$2,599,000	26
UNPRODUCTIVE	\$533	2
US GOVT	\$611,700	3
US GOVT MDL-94	\$43,318,000	6
VACANT LAND	\$6,814,800	29
WETLAND	\$255	3
WHITE PINE W/O	\$6,303	4
<b>Total</b>	<b>\$7,275,542,446</b>	<b>9227</b>

This appraisal report is qualified by certain definitions, assumptions and limiting conditions, and certifications that are set forth in the attached report.

Respectfully Submitted,



J. Michael Tarello, VP of Appraisal

Vision Government Solutions, Inc.

# USPAP Mass Appraisal Report

CITY OF PORTSMOUTH, NH, 2019 STATISTICAL VALUATION UPDATE

## SALIENT FACTS

### Date of Report:

February 18, 2020

### Client:

Municipal and Assessing Officials  
1 Junkins Avenue  
Portsmouth, NH 03801

### Date of Mass Appraisal Report:

The date of this mass valuation report was February 18, 2020.

### Effective Date of the Mass Appraisal:

April 1, 2019, as required by RSA 74:1 and RSA 76:2.

### Final Opinion of Market Value

\$7,275,542,446

### Appraisal Firm Completing the Work:

Vision Government Solutions, Inc.  
1 Cabot Road  
Hudson, Ma. 01749  
Phone: 1-800-628-1013; Fax: 508-351-3797

## Appraisers:

J. Michael Tarello, VP of Appraisal Division- Project Manager  
Steve Whalen, Assistant District Manager- Commercial income, sales and cost assistance  
Richard Kulp, Senior appraiser- Commercial review assistance  
Sandra Schmucki, Project Manager- Reviewed residential properties  
June Perry, District Manager- assist with residential analysis

## Intended Use of the Mass Appraisal Report:

The purpose of this report is to fairly and equitably value all properties in the City of Portsmouth and meet the requirements of Standards 5 and 6 of the Uniform Standards of Professional Appraisal Practice (USPAP). Standard 5 outlines the development of mass valuations and Standard 6 guides mass valuation reporting.

Additionally, this report is intended to comply with New Hampshire Assessing Standards Board (ASB) Standards, New Hampshire Department of Revenue (DRA) Rules and the Statutes (RSA) of the General Court of the State of New Hampshire.

## Intended Users of This Mass Appraisal:

This mass appraisal report is prepared for the sole and exclusive use of the appraiser's client, Municipal and Assessing Officials. Other users include the New Hampshire Department of Revenue (DRA). This report may also be used by the New Hampshire Board of Tax and Land Appeals (BTLA) and the General Court of the State of New Hampshire. There are no other intended users. The appraiser is not responsible for unintended use of this report.

## Interest Valued:

Fee simple estate for ad valorem tax purposes.

**Fee simple estate**<sup>1</sup>. Absolute ownership unencumbered by any other interest or estate, subject only to the limitations imposed by the governmental powers of taxation, eminent domain, police power, and escheat.

## Type of Value Estimated:

New Hampshire State Statute provides important definitions and outlines the general framework of valuing property in New Hampshire. RSA 75:1 outlines how to appraise property for assessment purposes. As shown on the definition below, with a few exceptions, the law instructs assessors to appraise most properties at market value.

---

<sup>1</sup> *The Dictionary of Real Estate Appraisal*, 6<sup>th</sup> ed. Chicago: Appraisal Institute, 2015.

**75:1 How Appraised. – The selectmen shall appraise open space land pursuant to RSA 79-A:5, open space land with conservation restrictions pursuant to RSA 79-B:3, land with discretionary easements pursuant to RSA 79-C:7, residences on commercial or industrial zoned land pursuant to RSA 75:11, earth and excavations pursuant to RSA 72-B, land classified as land under qualifying farm structures pursuant to RSA 79-F, buildings and land appraised under RSA 79-G as qualifying historic buildings, qualifying chartered public school property appraised under RSA 79-H, residential rental property subject to a housing covenant under the low-income housing tax credit program pursuant to RSA 75:1-a, renewable generation facility property subject to a voluntary payment in lieu of taxes agreement under RSA 72:74 as determined under said agreement, telecommunications poles and conduits pursuant to RSA 72:8-C, and all other taxable property at its market value. Market value means the property's full and true value as the same would be appraised in payment of a just debt due from a solvent debtor. The selectmen shall receive and consider all evidence that may be submitted to them relative to the value of property, the value of which cannot be determined by personal examination.**

Market value is defined in RSA 75:1 as

*Market value means the property's full and true value as the same would be appraised in payment of a just debt due from a solvent debtor.<sup>2</sup>*

The Department of Revenue 600 Rules defines "Market value" as:

- A. Is the most probable price, not the highest, lowest or average price;
- B. Is expressed in terms of money;
- C. Implies a reasonable time for exposure to the market;
- D. Implies that both buyer and seller are informed of the uses to which the property may be put;
- E. Assumes an arm's length transaction in the open market;
- F. Assumes a willing buyer and a willing seller, with no advantage being taken by either buyer or seller; and

---

<sup>2</sup> New Hampshire Revised Statutes Annotated (RSA) Title V, Taxation, Chapter 75, Appraisal of Taxable Property, Section 75:1

- G. Recognizes both the present use and the potential use of the property. The term includes “full and true value.”<sup>3</sup>

The definition(s) under RSA 75:1 and the 600 Rules are similar compared with **market value** which is defined in the Dictionary of Real Estate Appraisal as:

"the most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller, each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition are the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

- The buyer and seller are typically motivated;
- Both parties are well informed or well advised, and acting in what they consider their own best interests;
- A reasonable time is allowed for exposure in the open market;
- Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable, thereto; and
- The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.”<sup>4</sup>

## Real Estate Valued

The final value estimate is for real property only; personal property such as trade fixtures, furniture or going concern (business) value is not included in the final value estimate.

## Extraordinary Assumptions:

An extraordinary assumption is defined as “an assumption, directly related to a specific assignment, as of the effective date of the assignment results, which, if found to be false, could alter the appraiser’s opinions or conclusions. Extraordinary assumptions presume as fact otherwise uncertain information about physical, legal or economic characteristics of the subject property; or about conditions external to the property, such as market conditions or trends; or about the integrity of data used in an analysis.”<sup>5</sup>

The assessing contract did not include a full data collection of all properties. As such, we approached the assignment making the extraordinary assumption that the base assessing data is accurate. During our mass valuation of the City, we found the underlying data in Portsmouth to be reasonably accurate.

---

<sup>3</sup> NH Department of Revenue, Property Appraisal Division, “600 Rules”; Rev 601.32

<sup>4</sup> The Appraisal of Real Estate, 14<sup>th</sup> ed. Chicago: Appraisal Institute, 2013, Page 59

<sup>5</sup> *The Dictionary of Real Estate Appraisal*, 6<sup>th</sup> ed. Chicago: Appraisal Institute, 2015.



## Hypothetical Conditions:

A hypothetical condition is defined by USPAP as:

*An assumption, which is contrary to what exists but is supposed for the purpose of analysis.*<sup>6</sup>

This mass appraisal report does not include any hypothetical conditions.

## Scope of Work

Scope of work is defined as

*The type and extent of research and analyses in an assignment.*<sup>7</sup>

Unless otherwise stated, in the preparation of this mass valuation we:

- Reviewed the revaluation contract and planned the mass valuation to be compliant with the terms of the contract.
- Performed initial ratio studies based on a variety of variables, including but not limited to location, age and size. These studies helped identify areas where assessments were inconsistent with sale prices.
- The city is on a cyclical measure and list program to keep the property data up to date.
- The contract specifies a statistical update.
- The exterior of a portion of properties were inspected and some were photographed.
- Data correction and additions were submitted to City of Portsmouth staff for entry in the City's CAMA system.
- Income and expense questionnaires were mailed to commercial property owners in the City.
- Third party data on rental rates, vacancy rates, operating expense ratios and capitalization rates were collected and analyzed. Services utilized were internet searches, Co-Star, Realty Rates and local appraisers and realtors
- Construction cost data was collected in the local market from recently constructed buildings, when available. The Marshall Valuation Service was also used in estimating replacement cost new.

---

<sup>6</sup> Ibid

<sup>7</sup> Ibid

- Depreciation tables were developed from local market data and Marshall Valuation Service depreciation tables.
- Vacant land sales were collected for the time period of 4/1/2018 to 3/31/2019, verified and inspected consistent with New Hampshire Department of Revenue (DRA) 600 Rules.
- Improved sales were collected for the time period of 4/1/2018 to 3/31/2019, verified and inspected consistent with New Hampshire Department of Revenue (DRA) 600 Rules.
- The City keys the sales data into the assessing software to ensure ownership information is accurate. Then the assessing staff begins the process to determine if the transfer is a qualified, arms-length, market transaction or not, this includes the use of a sales verification questionnaires and a request to inspect the property to verify the data. In conjunction with the City's questionnaire, other resources are available such as the Department of Revenue Administration PA 34 form, Multi Listing Services (MLS), Commercial Listing Services (CoStar, NECPE, CREXi), communication with either the listing or selling agent, local real estate appraisers, fellow assessors and other real estate professionals. It should be noted, a sale may be qualified market transaction for use in determining market trends during a revaluation but may not be qualified for annual Department of Revenue Administration's equalization ratio study.
- The qualified sales were then broken in to various sub-segments of the market and are analyzed to determine which variables are significant. Then they are grouped by any number of categories such as neighborhood, property use, property style, or condition and were used in developing valuation models (model specification) for each property class.
- Once the valuation models were specified, the models were calibrated based on a review of the market data. Areas of the City may receive a parcel by parcel drive-by as part of the analysis portion of the revaluation to ensure equity within each neighborhood.
- Once the parcels were updated with the new models the values were updated to current market conditions. Then a series of quality control procedures were completed. This consists of running error logs, old to new reports to identify any outliers, land detail reports, condo detail reports and building detail reports.
- Tested the models for accuracy by computing the overall assessment ratio (which measures the overall ratio), Coefficient of Dispersion (which measures the accuracy of the new values), and the Price Related Differential (which measures if lower valued properties are assessed at the same level as higher valued properties) and determined if the statistics meet NH's Assessing Standards Board's (ASB) Standards.
- Analyzed sales by relevant characteristics including neighborhood, property type, size, year built, and construction grade to measure assessment consistency across Portsmouth.

- Communicated our findings in a mass appraisal report that is intended to comply with the Mass Appraisal Development and Reporting requirements set forth under Standard Rules 5 (development) and 6 (reporting) of the Uniform Standards of Professional Appraisal Practice (USPAP). It was also intended to comply with International Association of Assessing Officials (IAAO) Standards, New Hampshire Assessing Standards Board (ASB) Standards, New Hampshire Department of Revenue (DRA) Rules and the Statutes (RSA) of the General Court of the State of New Hampshire.

The appraisers have done the following per the contract:

- Have not measured or completed an interior inspection of any properties, except for sale if directed by the Assessor, in the City of Portsmouth. Sales inspections were also conducted by the assessor's office.
- An external review of sales for 4/1/2018 to 3/31/2019 was performed.
- An external review of the commercial and industrial properties was performed.

### Format of This Mass Appraisal Report:

This is a mass "Appraisal Report," which is intended to comply with the reporting requirements set forth under USPAP Standards Rule 6 that pertains to mass appraisal reports. The depth of discussion contained in this report is specific to the needs of the client and for the intended use stated previously.

### Competency:

The appraisers have years of experience and are competent in the appraisal of residential, commercial, industrial, utility, and special purpose properties, including the mass appraisal of numerous other property types for ad valorem taxation purposes. Our experience, background and education (see attached qualifications at the end of this report) qualifies us to perform a mass valuation of all properties in the City of Portsmouth.

Steve Whalen and Rick Kulp have assisted with the review and valuation of the commercial properties. Sandra Schmucki assisted with the review of residential properties. June Perry has assisted with the analysis of the residential properties.

### Highest and Best Use - Explanation:

Highest and best use is defined as:

*The reasonably probable use of property that results in the highest value.*<sup>8</sup>

---

<sup>8</sup> *The Dictionary of Real Estate Appraisal*, 6<sup>th</sup> ed. Chicago: Appraisal Institute, 2015.

In the analysis of pertinent data, four criteria are applied in the following order to develop adequate support for the appraiser's highest and best use determination:

- 1.) Legally permissible
- 2.) Physically possible
- 3.) Financially feasible
- 4.) Maximally productive

These criteria are generally considered sequentially; however, the tests of physical possibility and legal permissibility can be applied in either order, but they both must be applied before the tests of financial feasibility and maximum productivity.

The process for determining the highest and best use of a property has four main steps. The first two are applied in the analysis of highest and best use of the land or site "as though vacant;" the third and fourth steps are applied in the analysis of the highest and best use of the property "as improved:"

- 1.) Determine the highest and best use of the site, as though vacant.
- 2.) Determine the ideal improvement for development of the site.
- 3.) Compare the ideal improvement and the existing improvement.
- 4.) Conclude whether the improvements should be maintained, renovated, converted, or demolished.

#### **Highest and Best Use Determination:**

The property's existing use, in most cases, will reflect the highest and best use. These properties were valued based on their highest and best use using the above criteria.

In limited cases, the highest and best use is different from the existing use. In these cases, a note is added to the property's record cards.

Exceptions to valuation based on highest and best use are found in RSA 75-1 (How Appraised). They include properties under Current Use, residentially occupied property in commercial and industrial zoning districts, poles and conduits, and Low-Income Tax Credit (LIHTC) properties. These properties are valued based on criteria found in their corresponding RSAs.

**Approaches to Value Considered and Utilized:** The residential properties were valued by the Sales Comparison and Cost approaches to value. The Cost approach was reconciled with the other approaches and was used as the final value for assessment purposes.

**Approaches to Value Not Utilized:** The income approach was not used for valuation of residential properties of less than four units.

## PROCEDURE FOR MASS VALUATION APPRAISALS

The procedure for valuing a universe of properties (mass appraisal) is summarized as follows:

1. The first step reviews the data to determine which variables are included in the model. This is known as the appraiser's model specification.
2. The second step reviews the relative uniformity of the data elements that drive value<sup>9</sup>.
3. From the data, models are developed for each property class.
4. Once the models are developed, they are calibrated. Model calibration applies a value or factor to the relevant characteristics that drive value.
5. The next step tests the results of the model. Properly specified and calibrated models should produce values within State of New Hampshire ASB and International Association of Assessing Officers (IAAO) Standards.

## OVERVIEW OF MASS APPRAISAL AND VALUATION MODELING

Unlike single property appraisals where appraisers value one property at a time, assessors rely on valuation models to value groups of properties, utilizing computer assisted mass appraisal (CAMA) systems.

Valuation models utilize one or more of the three approaches to be discussed and often use statistics in developing and testing models. Well-designed models replicate the actions of buyers and sellers and produce accurate values.

Mass appraisal models have two primary categories: model specification and model calibration. Model specification determines what data elements to include in the model and model calibration assigns a value, or factor, to the data elements. Model specification starts with identifying the data elements that drive value. For example, the type of property, size, age, condition, location, neighborhood characteristics, water views and access, along with other property characteristics will typically influence value. Through model specification, all features that drive value should be considered. After data is collected, the market is analyzed to determine the value contribution of each data element. This is referred to as model calibration. Naturally, the model can only be as accurate as the data collected. Missing or incorrect data will impact the reliability of the model.

In addition to the physical characteristics, income modeling requires a substantial amount of income and expense data for all types of properties located within the jurisdiction.

---

<sup>9</sup> Full statistical revaluation is the process of valuation of all property in the municipality using existing property data and limited data collection was required. Statistical valuation is a very common scope of revaluation assignments in New Hampshire.

Accurate valuation modeling depends on 1) determining what data to collect, 2) accurately collecting data, 3) correctly analyzing how each characteristic influence value through model calibration 4) testing the model and as necessary 5) refining the model through recalibration by repeating steps 3 and 4.

Essentially, the goal of the model is to reasonably predict the market value of each property through assigning value (through calibration) to the relevant characteristics that drive value.

## TIME AND MARKET TRENDING ANALYSIS

**Explanation and Derivation of Time Trending Factors:** Time trending refers to an analysis of market conditions over a specific period, with two objectives: 1) First, the assessor must identify whether the market has appreciated, remained stable, or declined since the last valuation/reporting period; 2) Secondly, the assessor must determine the actual rate of such activity, typically on a percentage basis.

The most useful and direct basis for extracting the rate of market change, whether up, down, or neutral, is to identify property that has sold twice with few changes in the property between the two sale dates. In such situations, the rate is calculated by comparing the change in sale price between the two periods. The reliability of this extracted rate of change is greatly improved when a number of such sales are available. There were no multiple parcel sales without a physical change from April 1, 2018 to March 31, 2019 and therefore this technique was unreliable.

Another technique, less direct, but generally more statistically reliable due to the number of sales associated with the study, is to extract the rate of change in market conditions from Sale Date Quartile and stratification of sales to assessment ratios. In the date range April 1, 2018 to March 31, 2019 there were 142 single family sales during this time. The sales when stratified by Sale Date Quartile show sale to assessment ratios within two percent of a median of .95 over the one-year period.

TABLE 1: SUMMARY BY SALES DATE

<i>Summary by Sale Date</i>										02/16/2020
<i>PORTSMOUTH, NH</i>										
Sale Date Quarter	Count	Mean Sale Price	Mean Appraised	Mean A/S Ratio	Median SalePrice	Median Appraised	Median A/S Ratio	Median Abs Disp	COD	Weighted Average
2018, Q 2	30	565,917	544,250	0.97	517,500	458,900	0.97	0.05	6.39%	0.96
2018, Q 3	54	587,283	540,559	0.94	455,950	463,100	0.96	0.05	6.71%	0.92
2018, Q 4	32	553,466	533,050	0.96	500,750	474,650	0.94	0.03	5.22%	0.96
2019, Q 1	26	545,338	529,269	0.97	490,500	465,450	0.97	0.05	5.39%	0.97
		<b>567,468</b>	<b>537,580</b>	<b>0.96</b>	<b>477,500</b>	<b>467,250</b>	<b>0.95</b>	<b>0.05</b>	<b>6.19%</b>	<b>0.95</b>

Although the market has been increasing from year to year in Portsmouth, it was determined that a time adjustment for residential properties were not needed when analyzing market sales for the 2019 revaluation of Portsmouth.

The same process was completed for the Commercial and Industrial sales. A two-year period was completed. The first set of quartiles were examined from 4/1/2017 to 3/31/2018. There were 15 qualified sales during this time period.

**Summary by Sale Date**  
**PORTSMOUTH, NH**

03/01/2020

Sale Date Quarter	Count	Mean Sale Price	Mean Appraised	Mean A/S Ratio	Median Sale Price	Median Appraised	Median A/S Ratio	Median Abs Disp	COD	Weighted Average
2017, Q 2	4	768,500	752,050	1.02	844,000	822,950	0.98	0.01	5.10%	0.98
2017, Q 3	3	718,333	734,100	1.00	575,000	608,400	1.02	0.04	4.58%	1.02
2017, Q 4	3	8,772,167	7,128,167	0.95	199,500	197,300	0.99	0.06	8.08%	0.81
2018, Q 1	5	1,078,200	943,560	0.89	1,100,000	946,400	0.88	0.04	5.45%	0.88
		<b>2,462,433</b>	<b>2,087,520</b>	<b>0.96</b>	<b>1,000,000</b>	<b>883,500</b>	<b>0.97</b>	<b>0.04</b>	<b>7.56%</b>	<b>0.85</b>

The median ratio for the year is at 97%. The above sales were stable for the first three quarters, while the last quarter showed a median ratio of 88%. This is an indication that the market is trending upward from the third to fourth quarter, although the sample size is small with only 5 sales. The next quartile study analyzed occurred from 4/1/2018 to 3/31/2019. There were 20 qualified sales during this time period.

**Summary by Sale Date**  
**PORTSMOUTH, NH**

03/01/2020

Sale Date Quarter	Count	Mean Sale Price	Mean Appraised	Mean A/S Ratio	Median Sale Price	Median Appraised	Median A/S Ratio	Median Abs Disp	COD	Weighted Average
2018, Q 2	7	152,843	150,114	0.97	100,000	92,300	0.96	0.05	5.95%	0.98
2018, Q 3	6	460,500	422,917	0.92	129,750	123,250	0.92	0.02	2.72%	0.92
2018, Q 4	3	715,000	693,067	0.94	620,000	547,600	0.90	0.02	5.93%	0.97
2019, Q 1	4	361,533	296,725	0.92	199,066	199,830	0.94	0.07	9.04%	0.82
		<b>371,202</b>	<b>342,720</b>	<b>0.94</b>	<b>185,917</b>	<b>190,000</b>	<b>0.93</b>	<b>0.04</b>	<b>5.97%</b>	<b>0.92</b>

The median ratio is at 93%. The median for the year also shows a change from the median of 97% from the previous year, indicating a further increase in market value of 4%. The medians for each quarter during this time period were relatively stable. The data above for both studies indicates a median ratio of 98% during Q2 in 2017 and a median ratio of 94% in Q1 of 2019, also a 4% change. When reviewing the median ratio for each quarter during the past two years there is a pattern that values are increasing, but also that the ratios are relatively similar from quarter to quarter for most of the sample quarters. A decreasing ratio indicates an increasing market, but not enough change existed to draw a conclusion that the market increased materially during the two-year period based on a sample size of 35 sales.

So, based on the rate of change to the ratios over the two-year period of sales, no time adjustment to the sales was deemed necessary.

## SPECIFICATION AND CALIBRATION REVIEW

### Underlying Economic Principles

Mass Appraisal models estimate market values for a large group of properties. Like single property appraisals, a solid understanding of economic principles is essential to produce accurate mass appraisals. Understanding the underlying economic principles is also essential in reviewing mass appraisals.

Anticipation, supply and demand, balance, substitution, and change are the central economic concepts and principles that influence value.

- The principle of anticipation is based on the expectation of future benefits provided by a property.



- The principle of supply and demand asserts that the price of real property varies directly, but not necessarily proportionately with demand. This principle also states price varies inversely, but not necessarily proportionately with supply.
- The principle of balance affirms that land value is created and sustained when contrasting, opposing, or interacting elements are in equilibrium.
- The principle of substitution is based on the premise a buyer will pay no more for a site than another that is equal.
- Change is a result of the cause and effect relationship among the forces that influence land value.

## Approaches to Value

The three methods typically used to estimate the value of properties are briefly summarized as follows:

Residential property buyers typically rely on the sales comparison and cost approaches, with little consideration given to the income approach. Commercial buyers and sellers rely on all three approaches, but often prefer the income approach.

**Cost Approach:** In the cost approach, an estimated reproduction or replacement cost of the building and land improvements as of the date of the appraisal is developed together with an estimate of the losses in value that have taken place due to wear and tear, design and plan, or neighborhood influences. To the depreciated building cost estimate, entrepreneurial profit and the estimated value of the land are added. The total represents the value indicated by the cost approach.

**Sales Comparison Approach:** In the sales comparison approach, the subject property is compared with similar properties sold recently or for which listing prices or offering figures are known. Data for generally comparable properties are used and comparisons are made to demonstrate a probable price at which the subject property would be sold if offered on the market.

**Income Capitalization Approach:** In the income capitalization approach, the current rental income to the property is calculated with deductions for vacancy and collection loss and expenses. The prospective net operating income of the property is then estimated. To support this estimate, operating statements for the subject property in previous years and for comparable properties are reviewed along with available operating cost estimates. An applicable capitalization method and appropriate capitalization rates are developed and used in computations that lead to an indication of value.

In this section, a greater explanation of each approach is given, and the relative strengths and weaknesses of each approach are analyzed.

## Land/Site Valuation in Mass Appraisal

The first step in the cost approach is to estimate the value of land “as though vacant” to develop “base land values.” Base land values normally represent an average land value in a specific jurisdiction. There may be one or many “base values,” depending on the jurisdiction.

Through the analysis of a jurisdiction’s unique locations and analysis of the inventory of properties within the jurisdiction, certain conclusions can be made. The goal is to identify factors that create value in the market. These normally include location, site size, and access and exposure. Further, when assessing vacant land available for new development, zoning and topography are additionally considered.

These variables are included in the valuation model and this process is known as an appraiser’s model specification. Once the “average” of the relevant variables are determined, adjustments can be made to the (average) base values for the unique characteristics of each property.

## Overview of Base Land Valuation Techniques

Site valuation is performed to derive a value of the underlying land of improved properties (except condominiums). The following methods are commonly used in site valuation

1. Sales comparison
2. Allocation
3. Extraction
4. Income capitalization

Sales comparison is the most common technique for valuing the underlying site (as though vacant) and is the preferred method when comparable sales are available. To apply this method, data on sales of similar parcels of land is collected, analyzed, compared, and adjusted to provide a value indication for the site being appraised. Compared with residential sales, jurisdictions usually have fewer commercial land sales.

The allocation method is based on the principle of balance and the related concept of contribution. Both affirm there is a normal, or typical ratio of site value to property value for specific categories of real estate in specific locations. The allocation method has its greatest benefit and accuracy when estimating the value of residential lots.

Market extraction is a technique in which site value is extracted from the sale price of an improved property by deducting the contributory value of the improvements, usually at their depreciated cost. The remaining value is the value of the site. The market extraction method is commonly used when few vacant land sales exist.

The various income capitalization procedures used to estimate land or site values rely on information that is often difficult for an appraiser to obtain. Therefore, these techniques are generally not used as primary valuation techniques except in special situations such as subdivision development analysis.

If present and readily available, vacant land sales are preferred. However, when sales are few, the land residual technique produces credible value indications. The land residual is an acceptable technique and is used extensively in mass appraisal.

## Scope of Land Valuation

To estimate land value, we employed a sales comparison approach and land residual technique. We analyze and review all the sales and determine what sales are valid. This was completed by verifying deed records, using MLS and contacting local real estate brokers. Refer to the addendum section for a list of sales codes.

We identified and analyzed the few available sales. Since there were few sales, we primarily relied on a land residual technique. The land residual technique measures land value by deducting the value of improvements from total sale price. The “residual” is the land value once improvement value is deducted.

The exception to the above is condominiums. For condominiums, land is considered a common element and the contributory value of land is essentially part of the sale price and value of condominium units. There is not normally a separate land value for condominiums. This is an acceptable technique that is commonly used in valuing condominiums.

The following is a more specific overview of the sales comparison approach as it contributed to the development of our base land values.

## Site Valuation – Sales Comparison Approach

The sales comparison approach is used in estimating land values. To apply the sales comparison approach, the following steps and procedures are followed.

1. Research the market for recent sales of similar vacant lots.
2. Verify the data with one or more principals involved in the transactions for details regarding the sales.
3. Select the relevant unit(s) of comparison and apply adjustments to the sale prices of the comparable sales for significant differences with the subject.
4. Analyze the data and conclude the most probable market value of the average (base) site in the jurisdiction (as though vacant).

Determining land valuation through the sales comparison approach is an important and often preferred method in estimating land value. This is especially the case when sufficient land sales exist in

the market. When few land sales are found, the sales comparison approach can't be fully relied upon due to the lack of data. When few sales exist, it can be useful as a test of the concluded land values developed through allocation.

There were few land sales found in the jurisdiction. The identified sales are profiled in the addendum (identify where). The sales were confirmed (when possible) with individuals knowledgeable of the transactions. This may include buyers, sellers, brokers and certain appraisers.

The sources of sales data included City of Portsmouth assessing records and various companies that track sales. Multiple Listing service (MLS) was used to further verify the sales and the building data.

The vacant sales were arrayed on spreadsheets by neighborhood, site size, zoning, topography and sale date. These arrays were analyzed for model specification and as a check of the results of the market extraction analysis (land residual). These arrays were also used to support model specification and model calibration.

### Site Valuation – Market Extraction (Land Residual Technique)

The land residual technique measures land value by deducting the value of improvements from total sale price. The “residual” is the land value once improvement value is deducted. This technique is most applicable when:

- *The contribution of the improvements to total property value is generally small and relatively easy to identify.*
- *The improvements are new, their cost is known, and there is little or no depreciation from any causes.*<sup>10</sup>

Optimally, a newly constructed building (where the actual construction cost is known) that sells provides the most reliable land residual values. Unfortunately, few of the improved sales identified in Portsmouth were newly constructed buildings.

We calculated the residential land residual values from 144 sales of improved properties. There were also three (3) vacant residential sites identified. The residential sales used in the residual are included on Table 2.

We calculated the commercial land residual values from six 6 improved property sales. There were also no vacant commercial sites identified. The commercial sales used in the residual are included on Table 3.

We also utilized the income land residuals from 598 income properties to support the commercial land values. This is where the depreciated building value is subtracted from the income value to derive an income land residual. See Table 4.

---

<sup>10</sup> The Appraisal of Real Estate, 14<sup>th</sup> ed. Chicago: Appraisal Institute, 2013, Page 365

The improved sales and income properties are separately arrayed on spreadsheets by neighborhood. The arrays help to illustrate how each variable impact sale prices or income values.

Except for condominiums, the sale prices of the improved sales include both land and building components. The building values deducted from the sale prices are developed later in this report. The building values were estimated using actual sales and the Marshall Valuation cost estimating service. Once improvements are deducted from the sale prices, the residuals represent the value of the underlying land based on neighborhood delineation. Below is an analysis of the Residential Land Neighborhoods and an identification of each neighborhood. Twenty-nine distinct neighborhoods have been created based on market sales and data.

## RESIDENTIAL NEIGHBORHOOD ANALYSIS

*What is a neighborhood?*

*A neighborhood is a group of properties defined by natural, man-made, or political boundaries and sharing locational and physical similarities. Economic, social, environmental, and governmental forces affecting property values tend to be homogeneous in a given neighborhood. Single-property appraisers must define the neighborhood for a given subject property and then analyze and discuss the relevant forces at work in the neighborhood and how they affect the subject property. Mass appraisers usually group properties into neighborhoods for analysis. Valuation schedules and formulas must recognize neighborhood differences.<sup>11</sup>*

After neighborhoods are identified, values are most reliably determined by analyzing sales of vacant lots. When such sales do not exist, values can be extracted by removing the depreciated improvement value from the total sale price, resulting in the contributory value of the land. Sales are deemed qualified for this market analysis after determining the transaction meets the definition of market value. This is accomplished by researching the deed, listing, property characteristics, and by interviewing the buyer, seller, broker and/or real estate agents whenever possible.

“Location, Location, Location!” is usually the first attribute we hear when a property with a desirable location is marketed. When land value is extracted and analyzed, base rates are established. Ratio studies stratified by neighborhoods evaluate the need for neighborhood adjustments and subsequently test the assigned values. The neighborhood factor is the method for capturing differences in neighborhood land value.

## Portsmouth Residential Neighborhoods

---

<sup>11</sup> Mass Appraisal of Real Property, Robert J. Gloudeans, IAAO

## **101**

Generally, a historic area and known as the “South End”, southeast of downtown beginning south of Prescott Park and Strawberry Banke and extending down to New Castle Avenue and generally along the westerly side of Marcy Street, this neighborhood has a strong waterfront influence. 70% of the homes are Antique and Conventional styles, with average year built of 1825, 1900 square feet and lot size of .15 acre. Streets include: Ball St., Baycliff Rd., Brackett Rd., Driftwood Ln., Fernald Ct., Gardner St., Gates St., Holmes Ct., Humphreys Ct., Hunking St., Marcy St., Mechanic St., New Castle Ave., Partridge St., Pickering St., Pleasant St., Pray St., Ridges Ct., Round Island, Salter St., Walden St., Walton Alley and Washington St.

## **102**

This area is also part of the historic “South End” and is generally inland and to the west of neighborhood 101, southeast of downtown, with less of a water influence. Like 101, this neighborhood is predominantly antique and conventional style homes with an average year built in the first half of 1800’s, around 2000 square feet on an average .11 acre. Streets include: Blossom St., Chapel St., Court St., Daniel St., Franklin St., Gates St., High St., Howard St., Humphreys Ct., Johnson Ct., Manning St., Meeting House Hill Rd., Melcher St., New Castle Ave., Pleasant St., Porter St., Richmond St., Sheafe St., South School St., South St., State St., Webster Way, Wentworth St. and Whidden St.

## **103A**

Walkable proximity to downtown and many other community centers such as the Middle School and High School, the Public Library, City Hall and Leary Field, this area is part of the Little Harbor School district. Located between Junkins and Richards Avenue on the east and west, and Rockland and South Streets to the north and south as well as Pinehurst Road and Lookout Lane, this area has a newer average year built of around 1900 and has a higher concentration of conventional style homes. Homes are around 2000 square feet on average and lots average .18 acre. Streets include: Elwyn Ave., Haven Rd., Kent St., Lincoln Ave., Lookout Ln., McNabb Ct., Pinehurst Rd., Richards Ave., Rockland St., Sherburne Ave. and South St.

## **103B**

Also, part of the Little Harbor School district with the same amenities as 103A, this area is slightly farther from downtown and is located southeast of Middle Street and the beginning of Lafayette Road and along both sides of South Street. Homes are slightly larger than in 103A with an average size of 2120 square feet but are similar in year built and lot size: 1902 and .22 acre. Streets include: Ash St., Brackett Ln. & Rd., Broad St., Chauncey St., Haven Rd., Hawthorne St., Highland St., Jenkins Ave., Lafayette Rd., Lincoln Ave., Marston Ave., Mendum Ave., Merrimac St., Middle St., Miller Ave., Mt. Vernon St., Orchard Ct. & St., Park St., Parrott Ave., Rand Ct., Richards Ave., Rockaway St., Rockland St., Sagamore Ave., South St., Spring St., Summit Ave., Union St., Wibird St., Willard Ave., Willow Ln.

## **104**

This area is west of Middle Street and the beginning of Lafayette Road, and east of Spinney Road. This area has a mostly conventional, and an even mix of ranch, cape and colonial style homes with an average

year built of 1917, slightly smaller size of 1880 square feet on quarter acre lots. Streets include Aldrich Ct. & Rd., Boss Ave., Chevrolet Ave., Fells Rd., Fields Rd., Islington St., Joffre Ter., Kensington Rd., Lafayette Rd., Lawrence St., Middle Rd. & St., Monroe St. & Ext., Sanderson Dr., Sewall Rd., Sheridan Ave., South St., Sunset Rd. and Thaxter Rd.

### **105**

This neighborhood includes the widely marketed “West End” and is bordered on the northwest by the railroad and the North Mill Pond, the north by downtown, east by Middle Street and to the southwest by the shopping/commercial area and converted historic industrial buildings. The predominant style of home is conventional, but this area is seeing a larger percentage (24%) of 2- and 3-unit homes. The average year built is still older, at 1884, the homes are smaller on average at 1730 square feet, on smaller .10 acre lots. Streets include: Austin St., Brewery Ln., Brewster St., Cabot St., Cass St., Cate St., Coffins Ct., Columbia Ct. & St., Cornwall St., Dover St., Elm Ct., Friend St., Hanover St., Hill St., Islington St., Langdon St., Lovell St., Madison St., Maplewood Ave., Mark St., McDonough St., Parker St., Pearl St., Rockingham St., Rogers St., Salem St., State St., Sudbury St., Summer St., Tanner Ct. & St., Union St. & Winter St.

### **108**

The residential area around Strawberry Banke and within downtown, it is bordered on the northeast by Marcy Street and the south by Pleasant Street and includes a small section of side streets on the South Mill Pond. You will find antique style homes account for more than half of the properties, an average year built of 1830 but a much larger home and lot size than in 101 or 102 at 3000 square feet on a quarter acre. Streets include Atkinson St., Court St., Daniel St., Edward St., Hancock St., Livermore St., Marcy St., Mast Ln., Middle St., Pleasant St., Puddle Ln., State St. and Washington St.

### **109**

Eastern-most waterfront including the Pleasant Point neighborhood, Shapleigh & Pest Island. You will find a mix of ranch, modern/contemporary, cape and colonial style homes with an average year built of 1960, 2600 square feet on just under an acre of land. Streets include: Boyan Pl., Haven Rd., Moebus Ter., New Castle Ave., Pest Is., Pleasant Point Dr., Ridges Ct. and Robin Ln.

### **110**

Small cul-de-sac neighborhoods of Oakwood Drive and Regina Road on the southeasterly side of Elwyn Road, bordering the town of Rye, with a mix of homes averaging 2680 square feet, on larger 1.85-acre lots and an average year built of 1977.

### **111**

Encompassing Little Harbor Road, this neighborhood is nearly all larger waterfront lots on Currier’s Cove and the Piscataqua River. There are a mix of primarily modern/contemporary, ranch and cape style homes but also a fair number of vacant lots, 20% of the total properties in the neighborhood. The average year built is 1892, the size is 2850 square feet and the lot sizes average 3.14 acres. Streets are:

Cliff Rd., Clough Dr., Curriers Cv., Goose Island, Little Harbor Rd., Martine Cottage Rd., Shaw Rd., Walker Bungalow Rd. and Wentworth House Rd.

### **112**

This is the mostly inland area to the west of neighborhood 111, with some waterfront on Sagamore Creek. Homes tend to be a mix of ranch and cape cod styles with an average year built of 1951, average size of 1770 square feet on 1.43 acre lots. It follows Jones Avenue and includes Cliff Rd., Lens Ave., Marne Ave., Sagamore Ave. & Grv., South St., Verdun Ave., Versailles Ave. and Wentworth House Rd.

### **113**

Commonly known as “Tucker’s Cove” and located between Sagamore Avenue and Elwyn Road, these homes are much newer and larger than all but one neighborhood. The northern lots border Sagamore Creek and the westerly lots about the Urban Forestry land. The average year built is 2003, average size is 4100 square feet on 1.43 acre lots. Streets are Odiorne Point Rd. and Gosport Rd.

### **114**

“Elwyn Park” was built up in the 1950’s-60’s and is located south of the Little Harbor area and east of Lafayette Road. The homes and lots are smaller on average with 1480 square feet on .31 acre lots. Ranches make up more than half of the homes in this neighborhood. Streets include mostly Presidential names: Adams Ave., Arthur Rd., Cleveland Dr., Dwight Ave., Elwyn Rd. Ext., Fillmore Rd., Garfield Rd., Grant Ave., Harding Rd., Harrison Ave., Hayes Pl., Hoover Dr., McKinley Rd., Nixon Park, Polk Ave., Taft Rd., Taylor Ln., Truman Pl., Tyler Pl., Van Buren Ave. and Wilson Rd.

### **115**

Bordering neighborhood 114 to the south and east of Lafayette Road, this includes Pheasant Lane and “The Woodlands”, a large development of homes primarily built in the 1980’s, with an average size of 2800 square feet on 1.45 acre lots. A third are colonial style, 2 and 2.5 story homes. Streets include FW Hartford Dr., Pheasant Ln. and TJ Gamester Ave.

### **117**

Off Ocean Road, this neighborhood includes Buckminster Way and Ocean Road. Homes are primarily colonial style with an average year built of 1995, 2350 square feet on 1.31 acre lots.

### **118**

This area includes the “Maple Haven” neighborhood and other homes along Ocean Road and on Lafayette Road. 68% are smaller 1290 square feet ranch style homes built in the 1940’s on half acre lots on average. Streets include: Cardinal Ln., Denise St., Lafayette Rd., Mariette Dr., Martha Ter., Ocean Rd., Pamela St., Patricia Dr., Simonds Rd., Suzanne Dr., Wallis Rd. and Winchester St.

### **119**

Three small, separate and distinct areas on the outskirts of the City, if stratified separately, would not yield sample sizes large enough for sampling. Primarily colonial style homes, the average year built is



1972 with an average size of 2150 square feet and 1.18-acre lot. Streets include: Blue Heron Dr., Dunlin Way, Eastwood Dr., Heather Ln., Lafayette Rd., Lang Rd., Nathaniel Dr., Ocean Rd., Osprey Dr., Sanderling Way and Shearwater Dr.

### **120**

Along Banfield and Lafayette Roads and the railroad. The average year built is 1960, and the primarily cape cod and ranch style homes are 1550 square feet on average. Streets include: Banfield Rd., Greenland Rd., Lafayette Rd., Ocean Rd. and Peverly Hill Rd.

### **121**

This area includes the “Pannaway Manor” neighborhood, homes near Pease International Tradeport and off Greenland Road, straddling I-95 in the mid-west area of the City. Though much farther from downtown and Lafayette Road business district and accessed primarily by Route 33, this area is valued for its commuter access. Residents will find a moderate amount of air traffic for its proximity to the airport. Cape cod and ranch style homes account for over 75% of the properties, the average year built is 1943, and the size is smaller at 1340 square feet on .33 acre lots. Streets include: Bishop St., Colonial Dr., Davis Rd., Decatur Rd., Doris Ave., Georges Ter., Greenland Rd., Greenside Ave., Griffin Rd., Hall Ct., Holly Ln., Mason Ave., Oxford Ave., Schurman Ave., Sherburne Rd., Sutton Ave., Victory Rd., Whipple Ct., Witmer Ave. and Worthen Rd.

### **123**

Bordered by Route 1 and Spinney Road on the east, Middle Road on the south and the railroad to the west and north, this area encompasses the southern end of Islington Street and its offshoots. Cape cod and ranch account for more than half of the home styles, and the average year built is 1927. The homes are average sized at 1580 square feet, on .38 ac lots. Streets include: Barberry Ln., Benson St., Coakley Rd., Essex Ave., Fletcher St., Foch Ave., Haig Ave., Hampshire Rd., Islington St., Joffre Ave., Melbourne St., Pearson St., Plains Ave., Rutland St., Sanderson Dr., Sheffield Rd., Sherburne St., Sims Ave., Spinney Rd., US Route 1 Byp. and Vine St.

### **125**

This area is generally sandwiched between Peverly Hill Road and Lafayette Rd, with most of the properties between Middle Road and Greenleaf Avenue. There is mostly a mix of cape cod, colonial and ranch style homes as well as a fair amount of vacant properties. The average year built is 1926 and the homes are 1700 square feet with .87 acre lots on average. Streets include: Andrew Jarvis Dr., Artwill Ave., Banfield Rd., Greenleaf Ave., Hillside Dr., Lafayette Rd., Leavitt Ave., Lois St., Marjorie St., McClintock Ave., Middle Rd., Moffat St., Peverly Hill Rd., Swett Ave., Sylvester St., US Route 1 Byp. and Woodworth Ave.

### **127**

Abutting the Spaulding Turnpike with access via Woodbury Avenue, its previous additional access via an exit ramp from the turnpike has been closed due to unwanted traffic through the residential area. This area also includes a small grouping of homes around the intersection of Woodbury and Edmond

Avenues. The average year built is 1952 and homes are 2000 square feet with .46 acre lots on average. Streets include: Echo Ave., Granite St., Hodgdon Ln., Snug Harbor Ave., Wholey Way and Woodbury Ave.

### **128**

Clustered around the busy convergence of I-95 and Market Street, this area is made up nearly half of ranch style homes, with an average year built of 1933, size of 1400 square feet on one-third acre lots. Streets include Ashland St., Beechwood St., Birch St., Central Ave. & St., Chase Dr., Clark Dr., Cutts Ave. & St., Edmond Ave., Elm St., Fairview Ave., Forest St., Kearsarge Way, Leslie Dr., Mangrove St., Market St. and Oak St.

### **129**

This area is located north and south of the Portsmouth traffic circle, which is the intersection of I-95 and the Spaulding Turnpike. You will find it is a mix but mostly ranch and cape cod style homes with an average year built of 1921, average size of 1600 square feet on one-third acre lots. Streets include: Boyd Rd., Cate St., Clover Ln., Coakley Rd., Cottage St., Diamond Dr., Edmond Ave., Emery St., Fairview Dr., Farm Ln., Garden St., Hillcrest Dr., Larry Ln., Longmeadow Ln., Maple St., Maplewood Ave., McGee Dr., Meadow Rd., Morning St., Myrtle Ave., O'Leary Pl., Onyx Ln., Opal Ave, Rockingham Ave., Ruby Rd., Sapphire St., Topaz Pl., Woodbury Ave. and Woodlawn Cir.

### **130**

Accessed via Market Street to Kearsarge Way, this neighborhood includes "Atlantic Heights" and Laurel Court. The homes in Atlantic Heights are quite different from those on Laurel Court, but these areas are adjacent to one another and experience the same locational influences of proximity to I-95. Atlantic Heights was built up around 1910-1920 and consist mainly of townhouse and duplex style homes around 700 square feet on very small lots. Laurel Court has bungalow style homes typically built around 2012, around 2000 square feet on small one-eighth acre lots. Streets include Albacore Way, Concord Way, Crescent Way, Falkland Way, Kearsarge Way, Laurel Court, Porpoise Way, Preble Way, Raleigh Way and Saratoga Way.

### **131**

This area abuts Route 1 to the west and North Mill Pond to the east. More than half the homes are conventional style and the average year built is 1893. The average size is 1700 square feet on .20 acre lots. Streets include: Alder Way, Bartlett St., Burkitt St., Clinton St., Dearborn St., Dennett St., Hunters Hill Ave., Kane St., Maplewood Ave., Marsh Ln., Meredith Way, Mill Pond Way, Monteith St., North School St., Northwest St., Pine St., Prospect St., Ruth St., Sparhawk St., Stark St., Thornton St., Walker St. and Woodbury Ave.

### **132**

Near Borthwick Ave, these streets are dead ends off Route 33 (Greenland Road & Middle Road). Average year built is 1951, size is 1450 square feet on .36 acre. Streets include Dartmouth St., Dodge Ave., Greenland Rd., Harvard St., Leavitt Ave and Princeton St.

### **133**

Primarily Elwyn Road and the end of Sagamore Avenue heading into Rye, these homes are mostly ranch style, around 1360 square feet with 2.44 acres on average. Streets include Edgewood Rd., Elwyn Rd. and Sagamore Ave.

**134**

Tucked between Market Street to the south, north to the railroad and I-95 to the west, this small distinctive neighborhood enjoys waterfront to the east and views of the Sarah Mildred Long Bridge. Homes are all modern/contemporary styles, built around 2006 and 4400 square feet with lots .37 acre on average.

These neighborhood arrays were used to support model specification and model calibration. The following table shows the calculation of the residential residual land values by neighborhood.

TABLE 2: RESIDENTIAL LAND RESIDUAL

Neighborhood/ Address	Sale Prices	Building Values	Indicated Land Values	Assessed Land Values	Ratios
<b>101</b>					
137 NEW CASTLE AVE	\$1,387,500	\$ 738,900	\$648,600	\$ 486,000	0.75
209 MARCY ST	\$ 864,000	\$ 366,200	\$497,800	\$ 375,700	0.75
215 WASHINGTON ST	\$ 949,000	\$ 521,000	\$428,000	\$ 360,000	0.84
284 NEW CASTLE AVE	\$ 850,000	\$ 362,400	\$487,600	\$ 533,200	1.09
326 MARCY ST	\$ 900,000	\$ 563,200	\$336,800	\$ 336,500	1.00
363 NEW CASTLE AVE	\$1,025,000	\$ 310,500	\$714,500	\$ 697,100	0.98
41 SOUTH MILL ST	\$ 750,000	\$ 354,800	\$395,200	\$ 393,600	1.00
56 SALTER ST	\$1,600,000	\$ 554,000	\$1,046,000	\$ 632,400	0.60
<b>101 Averages</b>	<b>\$1,040,688</b>	<b>\$ 3,771,000</b>	<b>\$569,313</b>	<b>\$ 476,813</b>	<b>0.88</b>
<b>102</b>					
14 PORTER ST	\$ 970,000	\$ 628,900	\$341,100	\$ 354,100	1.04
22 PORTER ST	\$1,325,000	\$ 733,500	\$591,500	\$ 357,900	0.61
26 PORTER ST	\$1,495,000	\$ 778,000	\$717,000	\$ 358,500	0.50
32 MANNING ST	\$ 818,800	\$ 404,400	\$414,400	\$ 364,600	0.88
405 PLEASANT ST	\$ 705,000	\$ 330,900	\$374,100	\$ 344,800	0.92
47 HOWARD ST	\$1,010,000	\$ 602,000	\$408,000	\$ 374,700	0.92
76 SOUTH SCHOOL ST	\$ 620,000	\$ 202,700	\$417,300	\$ 390,800	0.94
86 NEW CASTLE AVE	\$1,285,000	\$ 354,300	\$930,700	\$1,067,100	1.15
<b>102 Averages</b>	<b>\$1,028,600</b>	<b>\$ 4,034,700</b>	<b>\$524,263</b>	<b>\$ 451,563</b>	<b>0.87</b>
<b>104</b>					
27 THAXTER RD	\$ 665,000	\$ 242,000	\$423,000	\$ 369,300	0.87
276 ALDRICH RD	\$ 550,000	\$ 230,100	\$319,900	\$ 319,100	1.00

Neighborhood/ Address	Sale Prices	Building Values	Indicated Land Values	Assessed Land Values	Ratios
<b>35 LAWRENCE ST</b>	\$ 675,000	\$ 235,600	\$439,400	\$ 365,300	0.83
<b>400 MIDDLE RD</b>	\$ 385,000	\$ 158,200	\$226,800	\$ 305,100	1.35
<b>65 FIELDS RD</b>	\$ 655,000	\$ 298,200	\$356,800	\$ 339,400	0.95
<b>104 Averages</b>	<b>\$ 586,000</b>	<b>\$ 1,164,100</b>	<b>\$353,180</b>	<b>\$ 339,640</b>	<b>1.00</b>
<b>105</b>					
<b>117 CASS ST</b>	\$ 415,000	\$ 208,500	\$206,500	\$ 250,200	1.21
<b>226 UNION ST</b>	\$ 895,000	\$ 508,200	\$386,800	\$ 277,300	0.72
<b>239 CASS ST</b>	\$ 482,500	\$ 205,500	\$277,000	\$ 273,100	0.99
<b>303 CABOT ST</b>	\$ 560,000	\$ 209,100	\$350,900	\$ 261,600	0.75
<b>47 LANGDON ST</b>	\$ 736,000	\$ 457,000	\$279,000	\$ 274,400	0.98
<b>495 STATE ST</b>	\$ 675,000	\$ 389,200	\$285,800	\$ 276,000	0.97
<b>65 ROGERS ST</b>	\$ 765,000	\$ 352,900	\$412,100	\$ 287,300	0.70
<b>860 STATE ST</b>	\$ 791,500	\$ 417,300	\$374,200	\$ 257,300	0.69
<b>105 Averages</b>	<b>\$ 665,000</b>	<b>\$ 2,747,700</b>	<b>\$321,538</b>	<b>\$ 269,650</b>	<b>0.87</b>
<b>108</b>					
<b>45 RICHMOND ST</b>	\$ 650,000	\$ 207,400	\$442,600	\$ 387,600	0.88
<b>108 Averages</b>	<b>\$ 650,000</b>	<b>\$ 207,400</b>	<b>\$442,600</b>	<b>\$ 387,600</b>	<b>0.88</b>
<b>109</b>					
<b>50 PLEASANT POINT DR</b>	\$ 830,000	\$ 66,200	\$763,800	\$ 860,900	1.13
<b>109 Averages</b>	<b>\$ 830,000</b>	<b>\$ 66,200</b>	<b>\$763,800</b>	<b>\$ 860,900</b>	<b>1.13</b>
<b>111</b>					
<b>25 MARTINE COTTAGE RD</b>	\$ 375,000	\$ -	\$375,000	\$ 442,000	1.18
<b>111 Averages</b>	<b>\$ 375,000</b>	<b>\$ -</b>	<b>\$375,000</b>	<b>\$ 442,000</b>	<b>1.18</b>
<b>112</b>					
<b>436 JONES AVE</b>	\$ 475,000	\$ 148,100	\$326,900	\$ 333,400	1.02
<b>112 Averages</b>	<b>\$ 475,000</b>	<b>\$ 148,100</b>	<b>\$326,900</b>	<b>\$ 333,400</b>	<b>1.02</b>
<b>113</b>					
<b>69 GOSPORT RD</b>	\$1,250,000	\$ 774,800	\$475,200	\$ 449,600	0.95
<b>113 Averages</b>	<b>\$1,250,000</b>	<b>\$ 774,800</b>	<b>\$475,200</b>	<b>\$ 449,600</b>	<b>0.95</b>
<b>114</b>					
<b>14 VAN BUREN AVE</b>	\$ 452,000	\$ 229,200	\$222,800	\$ 173,100	0.78
<b>205 COOLIDGE DR</b>	\$ 398,000	\$ 242,700	\$155,300	\$ 180,500	1.16
<b>22 HARRISON AVE</b>	\$ 375,000	\$ 169,000	\$206,000	\$ 175,400	0.85
<b>24 COOLIDGE DR</b>	\$ 549,000	\$ 314,100	\$234,900	\$ 182,600	0.78
<b>270 MCKINLEY RD</b>	\$ 442,000	\$ 255,200	\$186,800	\$ 173,100	0.93
<b>296 COOLIDGE DR</b>	\$ 480,000	\$ 280,300	\$199,700	\$ 182,300	0.91
<b>34 HARRISON AVE</b>	\$ 535,000	\$ 293,100	\$241,900	\$ 191,500	0.79
<b>39 WILSON RD</b>	\$ 429,900	\$ 236,000	\$193,900	\$ 183,500	0.95
<b>4 HARDING RD</b>	\$ 356,200	\$ 191,100	\$165,100	\$ 178,700	1.08
<b>40 TAFT RD</b>	\$ 365,000	\$ 135,600	\$229,400	\$ 173,800	0.76

Neighborhood/ Address	Sale Prices	Building Values	Indicated Land Values	Assessed Land Values	Ratios
<b>43 WILSON RD</b>	\$ 430,000	\$ 216,200	\$213,800	\$ 183,400	0.86
<b>51 TAFT RD</b>	\$ 577,500	\$ 402,600	\$174,900	\$ 182,000	1.04
<b>6 NIXON PARK</b>	\$ 685,000	\$ 493,300	\$191,700	\$ 184,700	0.96
<b>73 TAFT RD</b>	\$ 394,000	\$ 164,500	\$229,500	\$ 175,900	0.77
<b>114 Averages</b>	<b>\$ 462,043</b>	<b>\$ 3,622,900</b>	<b>\$203,264</b>	<b>\$ 180,036</b>	<b>0.90</b>
<b>115</b>					
<b>580 FW HARTFORD DR</b>	\$ 585,000	\$ 405,400	\$179,600	\$ 164,500	0.92
<b>595 FW HARTFORD DR</b>	\$ 637,500	\$ 424,700	\$212,800	\$ 167,100	0.79
<b>620 FW HARTFORD DR</b>	\$ 625,000	\$ 393,800	\$231,200	\$ 161,000	0.70
<b>115 Averages</b>	<b>\$ 615,833</b>	<b>\$ 1,223,900</b>	<b>\$207,867</b>	<b>\$ 164,200</b>	<b>0.80</b>
<b>117</b>					
<b>228 BUCKMINSTER WAY</b>	\$ 509,900	\$ 335,500	\$174,400	\$ 182,500	1.05
<b>570 OCEAN RD</b>	\$ 519,000	\$ 310,700	\$208,300	\$ 167,900	0.81
<b>117 Averages</b>	<b>\$ 514,450</b>	<b>\$ 646,200</b>	<b>\$191,350</b>	<b>\$ 175,200</b>	<b>0.93</b>
<b>118</b>					
<b>12 SIMONDS RD</b>	\$ 400,000	\$ 273,400	\$126,600	\$ 133,200	1.05
<b>17 SUZANNE DR</b>	\$ 349,900	\$ 168,800	\$181,100	\$ 135,900	0.75
<b>23 MARIETTE DR</b>	\$ 397,000	\$ 212,000	\$185,000	\$ 136,600	0.74
<b>24 SUZANNE DR</b>	\$ 390,000	\$ 252,700	\$137,300	\$ 139,100	1.01
<b>381 OCEAN RD</b>	\$ 485,000	\$ 305,300	\$179,700	\$ 141,700	0.79
<b>5 SUZANNE DR</b>	\$ 280,000	\$ 154,500	\$125,500	\$ 134,600	1.07
<b>6 SIMONDS RD</b>	\$ 290,000	\$ 145,900	\$144,100	\$ 133,200	0.92
<b>118 Averages</b>	<b>\$ 370,271</b>	<b>\$ 1,512,600</b>	<b>\$154,186</b>	<b>\$ 136,329</b>	<b>0.91</b>
<b>119</b>					
<b>105 NATHANIEL DR</b>	\$ 545,000	\$ 321,000	\$224,000	\$ 174,200	0.78
<b>13 DUNLIN WAY</b>	\$ 530,000	\$ 319,800	\$210,200	\$ 171,700	0.82
<b>131 NATHANIEL DR</b>	\$ 535,000	\$ 356,200	\$178,800	\$ 174,500	0.98
<b>3 SANDERLING WAY</b>	\$ 535,000	\$ 337,500	\$197,500	\$ 171,500	0.87
<b>60 NATHANIEL DR</b>	\$ 575,000	\$ 377,100	\$197,900	\$ 174,100	0.88
<b>119 Averages</b>	<b>\$ 544,000</b>	<b>\$ 1,711,600</b>	<b>\$201,680</b>	<b>\$ 173,200</b>	<b>0.86</b>
<b>120</b>					
<b>1641 LAFAYETTE RD</b>	\$ 445,000	\$ 272,400	\$172,600	\$ 126,300	0.73
<b>890 BANFIELD RD</b>	\$ 450,000	\$ 245,700	\$204,300	\$ 175,200	0.86
<b>120 Averages</b>	<b>\$ 447,500</b>	<b>\$ 518,100</b>	<b>\$188,450</b>	<b>\$ 150,750</b>	<b>0.79</b>
<b>121</b>					
<b>130 COLONIAL DR</b>	\$ 325,000	\$ 137,100	\$187,900	\$ 155,800	0.83
<b>182 COLONIAL DR</b>	\$ 365,000	\$ 173,600	\$191,400	\$ 147,800	0.77
<b>26 DECATUR RD</b>	\$ 285,000	\$ 126,400	\$158,600	\$ 143,900	0.91
<b>34 MASON AVE</b>	\$ 374,000	\$ 188,300	\$185,700	\$ 155,300	0.84
<b>627 COLONIAL DR</b>	\$ 373,000	\$ 209,000	\$164,000	\$ 155,000	0.95

Neighborhood/ Address	Sale Prices	Building Values	Indicated Land Values	Assessed Land Values	Ratios
<b>121 Averages</b>	<b>\$ 344,400</b>	<b>\$ 834,400</b>	<b>\$177,520</b>	<b>\$ 151,560</b>	<b>0.86</b>
<b>123</b>					
10 FLETCHER ST	\$ 459,900	\$ 242,000	\$217,900	\$ 229,500	1.05
163 SPINNEY RD	\$ 790,000	\$ 511,400	\$278,600	\$ 219,200	0.79
27 PEARSON ST	\$ 425,000	\$ 193,300	\$231,700	\$ 202,500	0.87
<b>123 Averages</b>	<b>\$ 558,300</b>	<b>\$ 946,700</b>	<b>\$242,733</b>	<b>\$ 217,067</b>	<b>0.90</b>
<b>125</b>					
183 HILLSIDE DR	\$ 450,000	\$ 219,200	\$230,800	\$ 169,800	0.74
2 SYLVESTER ST	\$ 430,000	\$ 221,500	\$208,500	\$ 178,700	0.86
201 US ROUTE 1 BYP	\$ 289,000	\$ 131,900	\$157,100	\$ 161,100	1.03
3 SYLVESTER ST	\$ 502,000	\$ 351,000	\$151,000	\$ 167,200	1.11
50 SWETT AVE	\$ 410,000	\$ 227,800	\$182,200	\$ 159,000	0.87
8 GREENLEAF AVE	\$ 501,000	\$ 295,400	\$205,600	\$ 172,900	0.84
<b>125 Averages</b>	<b>\$ 430,333</b>	<b>\$ 1,446,800</b>	<b>\$189,200</b>	<b>\$ 168,117</b>	<b>0.91</b>
<b>127</b>					
30 ECHO AVE	\$ 446,900	\$ 241,200	\$205,700	\$ 168,100	0.82
<b>127 Averages</b>	<b>\$ 446,900</b>	<b>\$ 241,200</b>	<b>\$205,700</b>	<b>\$ 168,100</b>	<b>0.82</b>
<b>128</b>					
181 KEARSARGE WAY	\$ 250,000	\$ 65,000	\$185,000	\$ 211,100	1.14
25 MANGROVE ST	\$ 225,000	\$ -	\$225,000	\$ 198,800	0.88
263 LESLIE DR	\$ 375,000	\$ 161,800	\$213,200	\$ 195,800	0.92
73 LESLIE DR	\$ 320,000	\$ 119,600	\$200,400	\$ 194,600	0.97
85 LESLIE DR	\$ 382,000	\$ 159,700	\$222,300	\$ 195,000	0.88
9 CENTRAL AVE	\$ 412,000	\$ 259,900	\$152,100	\$ 207,000	1.36
<b>128 Averages</b>	<b>\$ 327,333</b>	<b>\$ 766,000</b>	<b>\$199,667</b>	<b>\$ 200,383</b>	<b>1.03</b>
<b>129</b>					
109 DIAMOND DR	\$ 475,000	\$ 264,700	\$210,300	\$ 202,900	0.96
113 ROCKINGHAM AVE	\$ 359,900	\$ 163,400	\$196,500	\$ 185,400	0.94
15 LARRY LN	\$ 307,000	\$ 147,500	\$159,500	\$ 190,700	1.20
187 MYRTLE AVE	\$ 365,000	\$ 181,200	\$183,800	\$ 161,600	0.88
231 WOODLAWN CIR	\$ 379,000	\$ 180,200	\$198,800	\$ 194,500	0.98
34 COAKLEY RD	\$ 320,000	\$ 127,200	\$192,800	\$ 175,500	0.91
42 COAKLEY RD	\$ 313,500	\$ 125,100	\$188,400	\$ 177,600	0.94
641 MAPLEWOOD AVE	\$ 427,500	\$ 188,900	\$238,600	\$ 169,500	0.71
7 CLOVER LN	\$ 395,000	\$ 206,700	\$188,300	\$ 199,500	1.06
70 MORNING ST	\$ 395,000	\$ 142,300	\$252,700	\$ 189,300	0.75
737 WOODBURY AVE	\$ 410,000	\$ 252,200	\$157,800	\$ 186,600	1.18
87 EDMOND AVE	\$ 405,000	\$ 213,100	\$191,900	\$ 194,200	1.01
<b>129 Averages</b>	<b>\$ 379,325</b>	<b>\$ 2,192,500</b>	<b>\$196,617</b>	<b>\$ 185,608</b>	<b>0.96</b>
<b>130</b>					

Neighborhood/ Address	Sale Prices	Building Values	Indicated Land Values	Assessed Land Values	Ratios
144 RALEIGH WAY	\$ 280,000	\$ 119,900	\$160,100	\$ 158,900	0.99
191 CRESCENT WAY	\$ 263,800	\$ 107,700	\$156,100	\$ 151,500	0.97
209 CONCORD WAY	\$ 278,600	\$ 115,200	\$163,400	\$ 151,700	0.93
214 CONCORD WAY	\$ 420,000	\$ 219,400	\$200,600	\$ 160,600	0.80
226 RALEIGH WAY	\$ 289,900	\$ 119,800	\$170,100	\$ 151,200	0.89
261 RALEIGH WAY	\$ 289,000	\$ 120,000	\$169,000	\$ 155,700	0.92
28 LAUREL COURT	\$ 650,000	\$ 421,800	\$228,200	\$ 172,800	0.76
62 PORPOISE WAY	\$ 291,000	\$ 118,700	\$172,300	\$ 152,100	0.88
679 KEARSARGE WAY	\$ 280,000	\$ 124,500	\$155,500	\$ 149,900	0.96
7 LAUREL COURT	\$ 580,000	\$ 433,600	\$146,400	\$ 160,600	1.10
<b>130 Averages</b>	<b>\$ 362,230</b>	<b>\$ 1,900,600</b>	<b>\$172,170</b>	<b>\$ 156,500</b>	<b>0.92</b>
<b>131</b>					
102 PINE ST	\$ 450,000	\$ 155,500	\$294,500	\$ 264,000	0.90
107 STARK ST	\$ 510,000	\$ 207,200	\$302,800	\$ 252,100	0.83
108 BURKITT ST	\$ 550,000	\$ 229,500	\$320,500	\$ 241,300	0.75
15 WOODBURY AVE	\$ 387,500	\$ 152,400	\$235,100	\$ 215,200	0.92
17 STARK ST	\$ 565,000	\$ 300,700	\$264,300	\$ 260,600	0.99
232 BARTLETT ST	\$ 345,000	\$ 143,400	\$201,600	\$ 220,900	1.10
24 BURKITT ST	\$ 415,000	\$ 219,700	\$195,300	\$ 229,800	1.18
25 CLINTON ST	\$ 320,000	\$ 106,100	\$213,900	\$ 231,400	1.08
308 THORNTON ST	\$ 455,000	\$ 188,700	\$266,300	\$ 236,300	0.89
334 MAPLEWOOD AVE	\$ 534,000	\$ 265,500	\$268,500	\$ 221,000	0.82
49 DENNETT ST	\$ 701,000	\$ 447,300	\$253,700	\$ 248,000	0.98
618 DENNETT ST	\$ 775,000	\$ 439,900	\$335,100	\$ 261,000	0.78
<b>131 Averages</b>	<b>\$ 500,625</b>	<b>\$ 2,855,900</b>	<b>\$262,633</b>	<b>\$ 240,133</b>	<b>0.93</b>
<b>132</b>					
95 DODGE AVE	\$ 275,000	\$ 117,600	\$157,400	\$ 165,600	1.05
<b>132 Averages</b>	<b>\$ 275,000</b>	<b>\$ 117,600</b>	<b>\$157,400</b>	<b>\$ 165,600</b>	<b>1.05</b>
<b>133</b>					
1375 ELWYN RD	\$ 292,000	\$ 100,400	\$191,600	\$ 168,000	0.88
15 EDGEWOOD RD	\$ 311,000	\$ 179,400	\$131,600	\$ 173,600	1.32
1566 ELWYN RD	\$ 375,000	\$ 171,700	\$203,300	\$ 173,100	0.85
250 ELWYN RD	\$ 455,500	\$ 288,400	\$167,100	\$ 173,300	1.04
3 EDGEWOOD RD	\$ 390,000	\$ 204,100	\$185,900	\$ 172,000	0.93
<b>133 Averages</b>	<b>\$ 364,700</b>	<b>\$ 944,000</b>	<b>\$175,900</b>	<b>\$ 172,000</b>	<b>1.00</b>
<b>103A</b>					
137 ELWYN AVE	\$1,165,000	\$ 518,400	\$646,600	\$ 412,900	0.64
43 MCNABB CT	\$ 657,900	\$ 264,500	\$393,400	\$ 383,800	0.98
430 RICHARDS AVE	\$ 962,000	\$ 467,800	\$494,200	\$ 410,800	0.83
<b>103A Averages</b>	<b>\$ 928,300</b>	<b>\$ 1,250,700</b>	<b>\$511,400</b>	<b>\$ 402,500</b>	<b>0.82</b>

Neighborhood/ Address	Sale Prices	Building Values	Indicated Land Values	Assessed Land Values	Ratios
<b>103B</b>					
<b>109 SPRING ST</b>	\$ 549,900	\$ 195,100	\$354,800	\$ 354,000	1.00
<b>137 WIBIRD ST</b>	\$1,150,000	\$ 763,200	\$386,800	\$ 381,700	0.99
<b>144 PARK ST</b>	\$ 760,000	\$ 370,800	\$389,200	\$ 336,900	0.87
<b>204 WIBIRD ST</b>	\$ 865,000	\$ 400,700	\$464,300	\$ 395,700	0.85
<b>226 PARK ST</b>	\$ 635,000	\$ 134,500	\$500,500	\$ 392,100	0.78
<b>243 WIBIRD ST</b>	\$ 895,000	\$ 549,700	\$345,300	\$ 349,600	1.01
<b>281 SAGAMORE AVE</b>	\$ 948,000	\$ 603,300	\$344,700	\$ 365,500	1.06
<b>319 LINCOLN AVE</b>	\$ 875,000	\$ 439,900	\$435,100	\$ 352,200	0.81
<b>33 MILLER AVE</b>	\$ 820,000	\$ 388,400	\$431,600	\$ 376,300	0.87
<b>339 WIBIRD ST</b>	\$ 575,000	\$ 264,800	\$310,200	\$ 333,500	1.08
<b>349 WIBIRD ST</b>	\$ 539,900	\$ 195,100	\$344,800	\$ 353,900	1.03
<b>364 MILLER AVE</b>	\$ 930,000	\$ 517,600	\$412,400	\$ 406,600	0.99
<b>6 ROCKAWAY ST</b>	\$ 753,000	\$ 264,900	\$488,100	\$ 420,700	0.86
<b>103B Averages</b>	<b>\$ 791,985</b>	<b>\$ 5,088,000</b>	<b>\$400,600</b>	<b>\$ 370,669</b>	<b>0.94</b>
<b>Grand Total</b>	<b>\$ 567,270</b>	<b>\$40,733,700</b>	<b>\$284,397</b>	<b>\$ 255,243</b>	<b>0.92</b>

## COMMERCIAL NEIGHBORHOODS ANALYSIS

The commercial neighborhoods are broken down to eight specific neighborhoods. Below is an explanation of each neighborhoods geographical area along with it indicated value per acre.

### Downtown

NHBD 305, primarily the downtown area, was shown to be the most desirable area and was valued at factor of 1.32 or \$1,426,000 per acre. Certain locations in the downtown in the prime Market square areas and areas near the riverfront with frontage on two streets received premiums of 20% to 50%, while a few of the lower traffic areas received reductions of 10% for location within the downtown.

In addition, in the Downtown some lots via grandfathering or by right exceeded the allowed density/intensity of use of three stories. The added property rights that these lots have by right or by grandfathering made their bundle of property rights greater than lots that do not have this allowance. So, these lots were also valued at 50% to 100% greater than lots only allowing three story maximum density or intensity of use. These lots will bring in added income beyond just the contributory value of the improvements and will be applied to land value.

### Woodbury Ave.



NHBD 303. The Woodbury Ave shopping district, the next most valuable area, was shown to be worth about 100%, for a per acre value of \$1,080,300 or a factor of 1.00. The area behind Woodbury, with Home Depot and Christmas Tree Shops, etc. was also part of NHBD 303 but received a 25% to 30% discount in the condition field for its less visible and accessible location. This was derived from a land sales and income residuals.

### Downtown 2

NHBD 305A. The Islington street area, including streets that run of it like Dover, McDonough, Bartlett, Brewery, Cabot and Albany. This was the next valuable area with an indicated value of \$594,200 per acre or a factor of 0.55.

### Downtown Peripheral

NHBD 304, the area abutting and nearby to the prime downtown areas and to Woodbury Ave., was valued at an indicated value per acre of \$572,600 or a factor of 0.53.

### Lafayette and Rt. 1 Bypass

Another significant area was NHBD 302, which included most of the Route 1 Bypass, and most of Rte. 1 aka Lafayette Rd. These areas were indicated at a value per acre of \$518,500 or a NHBD factor of 0.48.

### Industrial and Tertiary Commercial Locations

The last and lowest valued areas were NHBDs 306, mostly industrial land, and NHBD 301, spot tertiary locations and these were indicated at \$237,700 to 280,900 per acre, therefore, they had factors of 0.22 to 0.26 of the \$1,080,300 base acre pricing.

### Pease

In NHBD 307, at Pease, most property owners do not own the land, so the overall property was predominantly valued by the income approach, which includes income attributable to the building and land. So, in this way the land value in use was captured in the total value (though not explicitly broken out). In a few minor situations in which the income approach was not or could not be performed the land was primarily valued at about \$237,700 or a factor of 0.22.

The following table shows the calculation of the commercial sales residual land values per neighborhood.

TABLE 3: COMMERCIAL LAND RESIDUAL

Neighborhood/ Address	Sale Prices	Building Values	Indicated Land Values	Assessed Land Values	Ratios
<b>304</b>					
132 MIDDLE ST	\$1,175,000	\$ 699,000	\$476,000	\$484,000	1.02
159 MIDDLE ST	\$1,187,500	\$ 723,700	\$463,800	\$347,100	0.75
767 STATE ST	\$ 706,200	\$ 376,100	\$330,100	\$290,400	0.88
846 STATE ST	\$ 750,000	\$ 417,200	\$332,800	\$297,000	0.89
<b>304 Averages</b>	<b>\$ 954,675</b>	<b>\$2,216,000</b>	<b>\$400,675</b>	<b>\$354,625</b>	<b>0.88</b>
<b>305</b>					
110 STATE ST	\$1,200,000	\$ 646,200	\$553,800	\$466,500	0.84
202 COURT ST	\$1,000,000	\$ 267,900	\$732,100	\$474,700	0.65
<b>305 Averages</b>	<b>\$1,100,000</b>	<b>\$ 914,100</b>	<b>\$642,950</b>	<b>\$470,600</b>	<b>0.75</b>
<b>Grand Total</b>	<b>\$1,003,117</b>	<b>\$3,130,100</b>	<b>\$481,433</b>	<b>\$393,283</b>	<b>0.84</b>

The following table shows the calculation of the Income residual land values per neighborhood.

TABLE 4: INCOME LAND RESIDUAL

NBHD	Address	LUC	Total Income Values	Building Values	Indicated Land Values	Assessed Land Values	Ratios
301	75 LONGMEADOW LN	0304	\$2,380,900	\$1,605,000	\$775,900	\$570,400	0.74
301	SARATOGA WAY	0310	\$952,000	\$626,300	\$325,700	\$280,600	0.86
301	620 PEVERLY HILL RD	013C	\$1,624,200	\$1,358,600	\$265,600	\$310,600	1.17
301	127 BARTLETT ST	111C	\$743,400	\$435,200	\$308,200	\$255,200	0.83
301	138 BARTLETT ST	111C	\$542,500	\$261,400	\$281,100	\$255,200	0.91
301	150 BARTLETT ST	111C	\$472,400	\$235,700	\$236,700	\$261,300	1.1
301	40 BEDFORD WAY	1120	\$3,401,300	\$2,425,200	\$976,100	\$1,135,200	1.16
301	225 BORTHWICK AVE	3400	\$35,803,200	\$30,755,100	\$5,048,100	\$2,838,800	0.56
301	100 BORTHWICK AVE	3410	\$7,863,700	\$5,916,200	\$1,947,500	\$1,279,900	0.66
301	155 COMMERCE WAY	3400	\$5,273,700	\$3,759,300	\$1,514,400	\$1,012,300	0.67
301	170 COMMERCE WAY	3400	\$7,983,301	\$6,231,900	\$1,751,401	\$1,179,700	0.67
301	755 BANFIELD RD	3400	\$3,880,500	\$3,033,600	\$846,900	\$582,600	0.69
301	195 COMMERCE WAY	3400	\$3,864,400	\$2,833,400	\$1,031,000	\$712,800	0.69
301	180 GREENLEAF AVE	3400	\$3,155,100	\$2,335,100	\$820,000	\$575,800	0.7
301	100 HERITAGE AVE	3160	\$6,152,800	\$4,257,900	\$1,894,900	\$1,345,400	0.71
301	100 PORTSMOUTH BLVD	3000	\$15,728,000	\$13,242,900	\$2,485,100	\$1,836,000	0.74
301	1 FALKLAND PL	3400	\$712,600	\$504,300	\$208,300	\$168,000	0.81
301	100 WEST RD	3160	\$2,247,100	\$1,494,200	\$752,900	\$620,200	0.82
301	1 ROBERT AVE	3160	\$532,100	\$244,500	\$287,600	\$239,800	0.83

301	10 MIRONA RD	3250	\$506,400	\$243,100	\$263,300	\$224,700	0.85
301	47 EMERY ST	3540	\$542,500	\$178,600	\$363,900	\$316,800	0.87
301	6 ROBERT AVE	3160	\$779,000	\$429,100	\$349,900	\$306,200	0.88
301	230 COMMERCE WAY	3400	\$8,170,500	\$6,579,900	\$1,590,600	\$1,421,000	0.89
301	20 LONGMEADOW RD	3320	\$601,000	\$249,400	\$351,600	\$315,100	0.9
301	ORIENTAL GDNS	306V	\$1,837,500	\$172,900	\$1,664,600	\$1,498,600	0.9
301	100 COAKLEY RD	3210	\$803,100	\$463,400	\$339,700	\$305,900	0.9
301	275 WEST RD	3160	\$662,300	\$311,900	\$350,400	\$317,400	0.91
301	428 US ROUTE 1 BYP	3690	\$3,856,500	\$2,175,800	\$1,680,700	\$1,525,200	0.91
301	330 WEST RD	3160	\$1,653,500	\$847,500	\$806,000	\$750,700	0.93
301	700 PEVERLY HILL RD	3320	\$2,375,100	\$1,300,100	\$1,075,000	\$1,002,700	0.93
301	72 MIRONA RD EXT	3230	\$5,716,700	\$4,565,100	\$1,151,600	\$1,077,500	0.94
301	150 MIRONA RD	3400	\$948,300	\$636,000	\$312,300	\$294,900	0.94
301	1 MIRONA RD	3160	\$1,013,500	\$614,200	\$399,300	\$385,500	0.97
301	20 MIRONA RD EXT	3320	\$546,400	\$314,100	\$232,300	\$224,700	0.97
301	15 BANFIELD RD	3220	\$1,108,400	\$632,300	\$476,100	\$463,400	0.97
301	295 WEST RD	3320	\$960,400	\$559,900	\$400,500	\$392,100	0.98
301	225 GREENLEAF AVE	3320	\$622,700	\$308,600	\$314,100	\$309,000	0.98
301	650 MAPLEWOOD AVE	3250	\$817,900	\$429,700	\$388,200	\$386,500	1
301	3201 LAFAYETTE RD	3400	\$8,804,701	\$641,600	\$8,163,101	\$8,150,400	1
301	210 COMMERCE WAY	3400	\$7,807,400	\$6,768,500	\$1,038,900	\$1,070,800	1.03
301	11 MIRONA RD	3320	\$2,490,200	\$1,677,800	\$812,400	\$857,400	1.06
301	75 CONSTITUTION AVE	3160	\$1,396,500	\$854,100	\$542,400	\$579,200	1.07
301	135 COMMERCE WAY	3400	\$7,318,100	\$6,048,700	\$1,269,400	\$1,362,400	1.07
301	150 GOSLING RD	3760	\$731,700	\$501,300	\$230,400	\$254,900	1.11
301	375 BANFIELD RD	3320	\$965,000	\$314,400	\$650,600	\$727,500	1.12
301	406 US ROUTE 1 BYP	3320	\$979,100	\$614,100	\$365,000	\$415,500	1.14
301	2 MIRONA RD	3320	\$905,000	\$644,900	\$260,100	\$301,500	1.16
301	155 WEST RD	3400	\$742,000	\$501,300	\$240,700	\$284,700	1.18
301	1000 MARKET ST	3000	\$9,352,800	\$7,813,400	\$1,539,400	\$1,862,000	1.21
301	175 COMMERCE WAY	3400	\$4,610,400	\$3,801,600	\$808,800	\$1,028,800	1.27
301	500 US ROUTE 1 BYP	3300	\$2,370,500	\$1,677,500	\$693,000	\$882,200	1.27
301	215 COMMERCE WAY	3400	\$9,513,800	\$8,647,700	\$866,100	\$1,483,700	1.71
301	195 WEST RD	4020	\$2,607,400	\$1,856,000	\$751,400	\$548,200	0.73
301	115 HERITAGE AVE	4010	\$1,955,700	\$1,191,900	\$763,800	\$575,500	0.75
301	430 WEST RD	4010	\$3,078,700	\$2,056,600	\$1,022,100	\$779,700	0.76
301	50 CAMPUS DR	4010	\$1,952,200	\$1,111,900	\$840,300	\$651,600	0.78
301	35 MIRONA RD	4000	\$2,097,500	\$1,295,500	\$802,000	\$630,600	0.79
301	60 WEST RD	4010	\$1,599,600	\$831,400	\$768,200	\$620,200	0.81
301	218 GRIFFIN RD	4010	\$3,534,400	\$2,455,500	\$1,078,900	\$872,100	0.81
301	112 HERITAGE AVE	4010	\$1,843,300	\$1,154,700	\$688,600	\$566,700	0.82
301	40 LONGMEADOW RD	4010	\$1,468,500	\$814,500	\$654,000	\$539,300	0.82

301	300 HERITAGE AVE	4010	\$1,572,600	\$901,600	\$671,000	\$554,800	0.83
301	170 WEST RD	4010	\$4,653,001	\$3,074,600	\$1,578,401	\$1,317,300	0.83
301	9 POST RD	4010	\$2,483,400	\$1,624,200	\$859,200	\$722,800	0.84
301	235 HERITAGE AVE	4010	\$3,805,100	\$2,550,200	\$1,254,900	\$1,056,100	0.84
301	200 WEST RD	4000	\$2,310,100	\$1,734,600	\$575,500	\$490,300	0.85
301	275 CONSTITUTION AVE	4010	\$5,612,900	\$4,360,400	\$1,252,500	\$1,070,600	0.85
301	145 HERITAGE AVE	4010	\$1,710,300	\$966,400	\$743,900	\$641,200	0.86
301	3570 LAFAYETTE RD	4000	\$3,681,900	\$2,442,700	\$1,239,200	\$1,079,400	0.87
301	1 HIGH LINER AVE	4010	\$9,178,400	\$4,760,800	\$4,417,600	\$3,855,000	0.87
301	300 CONSTITUTION AVE	4020	\$8,143,300	\$6,455,700	\$1,687,600	\$1,482,000	0.88
301	3 MICHAEL SUCCI DR	4000	\$13,251,500	\$6,992,400	\$6,259,100	\$5,524,600	0.88
301	114 GOSLING RD	4010	\$1,755,400	\$859,100	\$896,300	\$792,100	0.88
301	255 WEST RD	4010	\$1,115,400	\$630,000	\$485,400	\$430,900	0.89
301	70 HERITAGE AVE	4010	\$5,696,600	\$3,936,200	\$1,760,400	\$1,567,300	0.89
301	325 WEST RD	4250	\$2,470,300	\$1,318,000	\$1,152,300	\$1,029,100	0.89
301	225 BANFIELD RD	4010	\$704,900	\$367,400	\$337,500	\$307,300	0.91
301	284 CONSTITUTION AVE	4020	\$719,500	\$362,700	\$356,800	\$327,800	0.92
301	19 POST RD	4010	\$1,711,900	\$967,000	\$744,900	\$688,600	0.92
301	360 CONSTITUTION AVE	4010	\$1,196,500	\$570,500	\$626,000	\$581,700	0.93
301	350 HERITAGE AVE	4010	\$1,600,800	\$1,004,500	\$596,300	\$555,900	0.93
301	124 HERITAGE AVE	4020	\$5,499,400	\$3,793,300	\$1,706,100	\$1,604,100	0.94
301	30 MIRONA RD EXT	4020	\$946,700	\$738,300	\$208,400	\$196,600	0.94
301	50 BORTHWICK AVE	4010	\$539,000	\$269,900	\$269,100	\$255,600	0.95
301	141 BANFIELD RD	4020	\$2,096,700	\$1,268,700	\$828,000	\$786,500	0.95
301	290 HERITAGE AVE	4010	\$3,441,600	\$2,732,800	\$708,800	\$692,100	0.98
301	175 HERITAGE AVE	4010	\$1,919,500	\$1,265,900	\$653,600	\$641,200	0.98
301	100 RANGER WAY	4010	\$1,465,200	\$794,400	\$670,800	\$665,700	0.99
301	240 WEST RD	4010	\$2,147,300	\$1,489,700	\$657,600	\$653,000	0.99
301	90 MAPLEWOOD AVE	4010	\$1,399,000	\$759,000	\$640,000	\$636,200	0.99
301	55 HERITAGE AVE	4010	\$1,864,100	\$1,220,600	\$643,500	\$640,400	1
301	225 HERITAGE AVE	4000	\$1,666,500	\$1,119,400	\$547,100	\$563,900	1.03
301	85 HERITAGE AVE	4020	\$1,035,500	\$551,500	\$484,000	\$507,500	1.05
301	6 POST RD	4010	\$3,051,200	\$2,140,200	\$911,000	\$963,900	1.06
301	20 RANGER WAY	4010	\$1,171,800	\$241,700	\$930,100	\$1,008,600	1.08
301	20 POST RD	4000	\$5,281,100	\$3,790,200	\$1,490,900	\$1,654,600	1.11
<b>Count</b>						<b>Median</b>	<b>0.91</b>
302	865 ISLINGTON ST	0402	\$1,503,800	\$1,012,800	\$491,000	\$433,000	0.88
302	581 LAFAYETTE RD	0326	\$4,437,600	\$3,133,200	\$1,304,400	\$1,177,100	0.9
302	157 FARM LN	013C	\$880,400	\$565,100	\$315,300	\$285,000	0.9
302	201 ECHO AVE	0111	\$678,400	\$479,600	\$198,800	\$189,200	0.95

302	806 US ROUTE 1 BYP	0322	\$510,700	\$191,100	\$319,600	\$311,500	0.97
302	3131 LAFAYETTE RD	0310	\$894,600	\$440,800	\$453,800	\$445,700	0.98
302	821 ISLINGTON ST	013C	\$679,500	\$369,300	\$310,200	\$308,900	1
302	909 ISLINGTON ST	013C	\$2,566,500	\$1,942,900	\$623,600	\$627,800	1.01
302	3510 LAFAYETTE RD	0112	\$4,067,000	\$2,732,100	\$1,334,900	\$1,378,100	1.03
302	177 BARTLETT ST	013C	\$781,900	\$541,500	\$240,400	\$290,500	1.21
302	2 ANNE AVE	111C	\$717,700	\$377,800	\$339,900	\$306,200	0.9
302	68 ANNE AVE	111C	\$717,700	\$377,900	\$339,800	\$306,200	0.9
302	12 ROBERT AVE	111C	\$717,700	\$378,300	\$339,400	\$306,200	0.9
302	149 RICCI AVE	111C	\$717,700	\$378,300	\$339,400	\$306,200	0.9
302	12 JOAN AVE	111C	\$717,700	\$378,500	\$339,200	\$306,200	0.9
302	80 JOAN AVE	111C	\$717,700	\$378,500	\$339,200	\$306,200	0.9
302	42 JOAN AVE	111C	\$717,700	\$378,500	\$339,200	\$306,200	0.9
302	185 RICCI AVE	111C	\$717,700	\$378,700	\$339,000	\$306,200	0.9
302	3 ROBERT AVE	111C	\$717,700	\$378,900	\$338,800	\$306,200	0.9
302	33 ROBERT AVE	111C	\$717,700	\$379,100	\$338,600	\$306,200	0.9
302	36 ANNE AVE	111C	\$717,700	\$379,400	\$338,300	\$306,200	0.91
302	63 ROBERT AVE	111C	\$717,700	\$380,400	\$337,300	\$306,200	0.91
302	99 LANG RD	1120	\$11,428,400	\$6,172,900	\$5,255,500	\$4,287,400	0.82
302	145 LANG RD	1120	\$20,628,000	\$11,646,100	\$8,981,900	\$7,349,800	0.82
302	165 LANG RD	1120	\$15,509,900	\$9,009,700	\$6,500,200	\$5,512,300	0.85
302	1001 ISLINGTON ST	1120	\$8,612,600	\$5,958,400	\$2,654,200	\$2,383,900	0.9
302	100 LAFAYETTE RD	1120	\$1,867,500	\$1,205,400	\$662,100	\$638,000	0.96
302	1 FREEDOM CIR	1120	\$16,606,800	\$9,832,700	\$6,774,100	\$6,652,800	0.98
302	50 ANNE AVE	1120	\$2,140,500	\$1,231,900	\$908,600	\$918,700	1.01
302	3003 LAFAYETTE RD	3400	\$34,523,600	\$22,266,800	\$2,256,800	\$7,267,800	0.59
302	599 LAFAYETTE RD	3230	\$8,841,700	\$5,829,900	\$3,011,800	\$2,202,700	0.73
302	95 BREWERY LN	3230	\$4,880,500	\$3,494,900	\$1,385,600	\$1,066,400	0.77
302	2222 LAFAYETTE RD	3250	\$1,077,900	\$586,400	\$491,500	\$381,000	0.78
302	300 WOODBURY AVE	3000	\$8,736,000	\$6,420,400	\$2,315,600	\$1,820,000	0.79
302	3548 LAFAYETTE RD	3010	\$1,848,000	\$1,266,800	\$581,200	\$462,000	0.79
302	959 ISLINGTON ST	3400	\$896,800	\$481,800	\$415,000	\$334,400	0.81
302	2837 LAFAYETTE RD	3420	\$916,800	\$455,200	\$461,600	\$373,000	0.81
302	1190 LAFAYETTE RD	3000	\$6,904,800	\$4,811,700	\$2,093,100	\$1,694,000	0.81
302	2200 LAFAYETTE RD	3320	\$629,100	\$246,700	\$382,400	\$314,300	0.82
302	750 LAFAYETTE RD	3400	\$8,503,300	\$6,100,200	\$2,403,100	\$1,988,700	0.83
302	2800 LAFAYETTE RD	3230	\$5,306,400	\$3,293,700	\$2,012,700	\$1,674,500	0.83
302	2468 LAFAYETTE RD	3350	\$1,015,300	\$450,900	\$564,400	\$475,500	0.84
302	2032 LAFAYETTE RD	3410	\$2,880,800	\$1,616,400	\$1,264,400	\$1,071,300	0.85
302	2458 LAFAYETTE RD	3250	\$4,442,300	\$2,812,500	\$1,629,800	\$1,390,200	0.85
302	500 MAPLEWOOD AVE	3400	\$1,451,600	\$873,100	\$578,500	\$493,600	0.85
302	767 ISLINGTON ST	3400	\$1,664,200	\$1,001,300	\$662,900	\$568,400	0.86

302	383 WOODBURY AVE	3000	\$2,903,600	\$1,918,700	\$984,900	\$854,000	0.87
302	3600 LAFAYETTE RD	3320	\$1,479,300	\$734,900	\$744,400	\$645,800	0.87
302	3613 LAFAYETTE RD	3220	\$2,368,200	\$1,340,500	\$1,027,700	\$893,700	0.87
302	880 ISLINGTON ST	3250	\$868,700	\$482,200	\$386,500	\$339,600	0.88
302	605 LAFAYETTE RD	3250	\$2,612,100	\$2,020,300	\$591,800	\$521,900	0.88
302	2975 LAFAYETTE RD	3330	\$1,239,500	\$629,800	\$609,700	\$544,700	0.89
302	948 US ROUTE 1 BYP	3250	\$826,500	\$482,900	\$343,600	\$307,600	0.9
302	951 ISLINGTON ST	3250	\$2,229,200	\$1,724,900	\$504,300	\$451,900	0.9
302	1010 US ROUTE 1 BYP	3330	\$1,049,100	\$434,500	\$614,600	\$551,700	0.9
302	815 LAFAYETTE RD	3400	\$4,177,000	\$2,719,500	\$1,457,500	\$1,311,900	0.9
302	2460 LAFAYETTE RD	3220	\$17,892,500	\$13,262,900	\$4,629,600	\$4,168,000	0.9
302	3612 LAFAYETTE RD	3222	\$2,582,300	\$1,589,300	\$993,000	\$894,200	0.9
302	933 US ROUTE 1 BYP	3160	\$3,223,600	\$2,031,200	\$1,192,400	\$1,088,900	0.91
302	417 WOODBURY AVE	3000	\$4,379,200	\$2,968,800	\$1,410,400	\$1,288,000	0.91
302	1555 LAFAYETTE RD	3410	\$1,201,900	\$632,600	\$569,300	\$521,300	0.92
302	185 COTTAGE ST	3420	\$675,300	\$140,000	\$535,300	\$491,300	0.92
302	2909 LAFAYETTE RD	3310	\$1,357,300	\$530,100	\$827,200	\$766,400	0.93
302	2255 LAFAYETTE RD	3260	\$1,735,200	\$888,900	\$846,300	\$790,000	0.93
302	955 US ROUTE 1 BYP	3330	\$631,300	\$266,000	\$365,300	\$342,400	0.94
302	803 LAFAYETTE RD	3330	\$784,200	\$405,300	\$378,900	\$355,700	0.94
302	856 US ROUTE 1 BYP	3330	\$891,200	\$407,000	\$484,200	\$455,700	0.94
302	802 LAFAYETTE RD	3260	\$1,074,300	\$479,600	\$594,700	\$560,800	0.94
302	921 ISLINGTON ST	3340	\$560,700	\$182,900	\$377,800	\$357,200	0.95
302	545 LAFAYETTE RD	3400	\$652,900	\$304,800	\$348,100	\$329,800	0.95
302	775 LAFAYETTE RD	3230	\$14,483,900	\$10,360,400	\$4,123,500	\$3,911,900	0.95
302	1166 GREENLAND RD	3330	\$1,919,300	\$1,014,700	\$904,600	\$864,000	0.96
302	766 LAFAYETTE RD	3340	\$789,100	\$292,900	\$496,200	\$475,600	0.96
302	999 ISLINGTON ST	3250	\$974,900	\$446,000	\$528,900	\$507,500	0.96
302	US ROUTE 1 BYP	3300	\$10,867,400	\$6,410,000	\$4,457,400	\$4,331,900	0.97
302	150 GREENLEAF AVE	3300	\$5,901,300	\$3,268,300	\$2,633,000	\$2,571,700	0.98
302	800 LAFAYETTE RD	3330	\$1,039,700	\$561,100	\$478,600	\$467,700	0.98
302	2100 LAFAYETTE RD	3250	\$718,900	\$388,900	\$330,000	\$322,800	0.98
302	927 US ROUTE 1 BYP	3250	\$520,900	\$251,800	\$269,100	\$263,500	0.98
302	180 MIRONA RD	3300	\$3,448,900	\$1,890,900	\$1,558,000	\$1,528,000	0.98
302	155 GREENLEAF AVE	3300	\$2,768,700	\$1,300,300	\$1,468,400	\$1,440,700	0.98
302	1070 LAFAYETTE RD	3250	\$496,700	\$158,000	\$338,700	\$333,000	0.98
302	3580 LAFAYETTE RD	3320	\$817,400	\$316,300	\$501,100	\$495,200	0.99
302	2859 LAFAYETTE RD	3350	\$637,200	\$306,500	\$330,700	\$327,000	0.99
302	822 US ROUTE 1 BYP	3330	\$742,700	\$333,400	\$409,300	\$409,700	1
302	54 BARTLETT ST	3320	\$731,700	\$277,200	\$454,500	\$456,000	1
302	446 US ROUTE 1 BYP	3160	\$1,716,000	\$900,200	\$815,800	\$820,100	1.01
302	1400 LAFAYETTE RD	3250	\$6,189,400	\$3,554,500	\$2,634,900	\$2,659,500	1.01

302	1500 LAFAYETTE RD	3230	\$13,251,400	\$9,388,500	\$3,862,900	\$3,899,100	1.01
302	2059 LAFAYETTE RD	3250	\$629,800	\$400,800	\$229,000	\$232,200	1.01
302	3660 LAFAYETTE RD	3300	\$618,100	\$232,400	\$385,700	\$391,200	1.01
302	180 SPAULDING TPKE	3300	\$1,435,300	\$768,500	\$666,800	\$679,300	1.02
302	3605 LAFAYETTE RD	3160	\$1,669,700	\$843,600	\$826,100	\$846,500	1.02
302	2225 LAFAYETTE RD	3250	\$793,300	\$266,700	\$526,600	\$540,800	1.03
302	1475 LAFAYETTE RD	3330	\$2,506,200	\$1,778,000	\$728,200	\$752,100	1.03
302	1000 LAFAYETTE RD	3260	\$1,459,600	\$859,300	\$600,300	\$622,200	1.04
302	3611 LAFAYETTE RD	3222	\$1,964,600	\$1,174,100	\$790,500	\$821,400	1.04
302	2219 LAFAYETTE RD	3300	\$2,126,600	\$1,064,700	\$1,061,900	\$1,110,900	1.05
302	2400 LAFAYETTE RD	3410	\$1,448,100	\$740,000	\$708,100	\$744,400	1.05
302	990 LAFAYETTE RD	3250	\$1,103,200	\$680,600	\$422,600	\$445,900	1.06
302	2299 LAFAYETTE RD	3250	\$1,236,200	\$678,000	\$558,200	\$589,100	1.06
302	2466 LAFAYETTE RD	3260	\$1,405,800	\$882,400	\$523,400	\$553,100	1.06
302	580 US ROUTE 1 BYP	3000	\$9,464,000	\$7,688,700	\$1,775,300	\$1,892,800	1.07
302	786 US ROUTE 1 BYP	3330	\$631,300	\$286,900	\$344,400	\$367,700	1.07
302	650 BORTHWICK AVE	3000	\$5,920,000	\$4,251,900	\$1,668,100	\$1,785,000	1.07
302	120 SPAULDING TPKE	3300	\$2,659,400	\$1,105,500	\$1,553,900	\$1,678,500	1.08
302	3 CATE ST	3250	\$547,200	\$343,800	\$203,400	\$220,800	1.09
302	875 ISLINGTON ST	3222	\$648,300	\$358,900	\$289,400	\$315,700	1.09
302	2839 LAFAYETTE RD	3410	\$1,816,000	\$1,287,000	\$529,000	\$578,200	1.09
302	505 US ROUTE 1 BYP	3010	\$2,713,200	\$1,828,000	\$885,200	\$969,000	1.09
302	2875 LAFAYETTE RD	3310	\$2,313,800	\$1,397,100	\$916,700	\$1,008,500	1.1
302	2010 LAFAYETTE RD	3400	\$3,025,400	\$1,935,300	\$1,090,100	\$1,203,000	1.1
302	200 SPAULDING TPKE	3250	\$1,298,100	\$488,100	\$810,000	\$895,800	1.11
302	801 ISLINGTON ST	3230	\$4,117,100	\$3,212,200	\$904,900	\$1,008,000	1.11
302	400 SPAULDING TPKE	3300	\$5,199,300	\$2,393,500	\$2,805,800	\$3,158,100	1.13
302	2355 LAFAYETTE RD	3300	\$2,079,800	\$844,500	\$1,235,300	\$1,393,800	1.13
302	980 LAFAYETTE RD	3260	\$1,262,800	\$829,100	\$433,700	\$489,500	1.13
302	2998 LAFAYETTE RD	3250	\$920,600	\$497,400	\$423,200	\$479,700	1.13
302	2179 LAFAYETTE RD	3310	\$1,098,200	\$547,400	\$550,800	\$631,600	1.15
302	3002 LAFAYETTE RD	3250	\$651,700	\$391,500	\$260,200	\$298,900	1.15
302	1900 LAFAYETTE RD	3400	\$4,936,200	\$3,837,900	\$1,098,300	\$1,278,700	1.16
302	833 ISLINGTON ST	3250	\$578,100	\$328,400	\$249,700	\$301,400	1.21
302	933 ISLINGTON ST	3222	\$1,059,300	\$742,000	\$317,300	\$418,900	1.32
302	105 BARTLETT ST	3222	\$2,096,400	\$1,628,600	\$467,800	\$618,400	1.32
302	124 BARTLETT ST	4010	\$664,800	\$257,300	\$407,500	\$396,700	0.97
302	1700 LAFAYETTE RD	4020	\$3,213,800	\$1,454,900	\$1,758,900	\$1,783,800	1.01
302	ISLINGTON ST	4010	\$127,700	\$65,600	\$62,100	\$75,500	1.22
302	855 ISLINGTON ST	4000	\$1,265,200	\$1,006,800	\$258,400	\$373,400	1.45
<b>Count</b>						<b>Median</b>	<b>0.96</b>
<b>128</b>							

303	1338-1350 WOODBURY A	013C	\$1,047,800	\$395,300	\$652,500	\$578,200	0.89
303	1650 WOODBURY AVE	3410	\$1,919,100	\$823,600	\$1,095,500	\$908,700	0.83
303	1800 WOODBURY AVE	3400	\$1,734,400	\$727,800	\$1,006,600	\$864,200	0.86
303	1815 WOODBURY AVE	3330	\$1,317,400	\$347,900	\$969,500	\$860,900	0.89
303	1811 WOODBURY AVE	3220	\$16,866,600	\$8,289,300	\$8,577,300	\$7,940,100	0.93
303	100 DURGIN LN	3220	\$18,067,900	\$10,763,600	\$7,304,300	\$6,791,900	0.93
303	1850 WOODBURY AVE	3220	\$2,957,300	\$1,361,400	\$1,595,900	\$1,485,400	0.93
303	1550 WOODBURY AVE	3400	\$1,399,500	\$298,700	\$1,100,800	\$1,026,300	0.93
303	1980 WOODBURY AVE	3340	\$1,735,300	\$576,000	\$1,159,300	\$1,115,800	0.96
303	1600 WOODBURY AVE	3230	\$26,409,700	\$14,635,800	\$1,773,900	\$11,365,100	0.97
303	1303 WOODBURY AVE	3250	\$3,365,700	\$1,717,100	\$1,648,600	\$1,598,600	0.97
303	1976 WOODBURY AVE	3260	\$1,683,600	\$784,700	\$898,900	\$879,500	0.98
303	100 ARTHUR F BRADY D	3250	\$21,262,400	\$11,541,800	\$9,720,600	\$9,522,200	0.98
303	35 GOSLING RD	3000	\$5,140,800	\$3,598,800	\$1,542,000	\$1,512,000	0.98
303	1840 WOODBURY AVE	3250	\$1,971,100	\$542,300	\$1,428,800	\$1,405,300	0.98
303	1618 WOODBURY AVE	3250	\$889,000	\$269,000	\$620,000	\$617,400	1
303	1262 WOODBURY AVE	3250	\$544,800	\$203,800	\$341,000	\$341,600	1
303	1465 WOODBURY AVE	3230	\$28,079,800	\$16,680,900	\$1,398,900	\$11,443,500	1
303	50 DURGIN LN	3310	\$3,281,600	\$1,695,000	\$1,586,600	\$1,605,700	1.01
303	1981 WOODBURY AVE	3230	\$7,052,400	\$3,433,700	\$3,618,700	\$3,687,200	1.02
303	1855 WOODBURY AVE	3260	\$1,280,700	\$447,700	\$833,000	\$859,600	1.03
303	1464 WOODBURY AVE	3260	\$3,026,000	\$1,358,600	\$1,667,400	\$1,728,500	1.04
303	1725 WOODBURY AVE	3350	\$921,400	\$245,000	\$676,400	\$716,200	1.06
303	1574 WOODBURY AVE	3260	\$1,898,200	\$934,100	\$964,100	\$1,028,900	1.07
303	1817 WOODBURY AVE	3320	\$1,103,400	\$393,300	\$710,100	\$773,200	1.09
303	1700 WOODBURY AVE	3220	\$5,140,400	\$2,384,300	\$2,756,100	\$3,145,900	1.14
303	99 DURGIN LN	3000	\$12,096,000	\$10,825,500	\$1,270,500	\$1,750,000	1.38
303	GOSLING RD	9080	\$21,030,700	\$9,590,500	\$1,440,200	\$11,594,000	1.01
<b>Count 28</b>						<b>Median</b>	<b>0.98</b>
304	365 MARCY ST	0310	\$939,700	\$534,300	\$405,400	\$333,000	0.82
304	78 BRIDGE ST	0310	\$658,600	\$370,900	\$287,700	\$238,900	0.83
304	45 PEARL ST	0310	\$694,400	\$414,400	\$280,000	\$237,000	0.85
304	515 MIDDLE ST #517	013C	\$932,300	\$545,300	\$387,000	\$330,200	0.85
304	503 STATE ST	013C	\$715,500	\$429,400	\$286,100	\$245,700	0.86
304	95 MECHANIC ST	013C	\$832,300	\$268,100	\$564,200	\$507,500	0.9
304	439 MIDDLE ST	013C	\$1,014,000	\$736,100	\$277,900	\$252,000	0.91
304	145 MIDDLE ST	0310	\$1,090,300	\$811,500	\$278,800	\$259,000	0.93
304	504 MIDDLE ST	0310	\$704,900	\$445,400	\$259,500	\$242,400	0.93
304	116 MIDDLE ST	013C	\$956,300	\$644,700	\$311,600	\$297,300	0.95
304	591 MIDDLE ST	0310	\$621,800	\$343,700	\$278,100	\$270,900	0.97



304	15 PICKERING AVE	013C	\$1,799,800	\$814,000	\$985,800	\$971,600	0.99
304	96 BRIDGE ST	013C	\$494,800	\$270,100	\$224,700	\$223,900	1
304	461 MIDDLE ST	013C	\$702,900	\$461,300	\$241,600	\$256,100	1.06
304	181 HILL ST	013C	\$1,647,800	\$1,181,800	\$466,000	\$528,000	1.13
304	683 STATE ST	111C	\$1,141,000	\$648,200	\$492,800	\$379,600	0.77
304	10 MERRIMAC ST	111C	\$1,071,600	\$624,400	\$447,200	\$352,000	0.79
304	75 MONROE ST	111C	\$1,066,200	\$619,000	\$447,200	\$352,000	0.79
304	579 STATE ST	111C	\$680,300	\$292,100	\$388,200	\$306,200	0.79
304	411 MIDDLE ST	111C	\$1,221,200	\$788,800	\$432,400	\$344,500	0.8
304	400 BROAD ST	111C	\$685,700	\$326,900	\$358,800	\$290,400	0.81
304	608 STATE ST	111C	\$843,500	\$418,200	\$425,300	\$344,500	0.81
304	1061 MAPLEWOOD AVE	111C	\$550,800	\$236,100	\$314,700	\$255,200	0.81
304	1009 MAPLEWOOD AVE	111C	\$715,900	\$360,300	\$355,600	\$290,400	0.82
304	245 WOODLAWN CIR	111C	\$525,400	\$214,300	\$311,100	\$255,200	0.82
304	50 AUSTIN ST	111C	\$737,900	\$427,000	\$310,900	\$255,200	0.82
304	270 CASS ST	111C	\$734,700	\$365,600	\$369,100	\$303,100	0.82
304	1200 ISLINGTON ST	111C	\$751,000	\$440,600	\$310,400	\$255,200	0.82
304	18 HILLCREST DR	111C	\$771,000	\$462,500	\$308,500	\$255,200	0.83
304	96 CABOT ST	111C	\$803,700	\$444,800	\$358,900	\$297,000	0.83
304	282 MIDDLE ST	111C	\$1,044,300	\$552,900	\$491,400	\$408,300	0.83
304	1150 WOODBURY AVE	111C	\$869,200	\$397,000	\$472,200	\$396,000	0.84
304	186 MILLER AVE	111C	\$1,468,900	\$919,600	\$549,300	\$464,600	0.85
304	499 MIDDLE ST	111C	\$863,500	\$422,100	\$441,400	\$379,600	0.86
304	476 MIDDLE ST	111C	\$593,800	\$291,100	\$302,700	\$261,300	0.86
304	10 MENDUM AVE	111C	\$678,500	\$342,900	\$335,600	\$290,400	0.87
304	270 RICHARDS AVE	111C	\$932,400	\$582,300	\$350,100	\$303,100	0.87
304	170 AUSTIN ST	111C	\$707,500	\$357,900	\$349,600	\$303,100	0.87
304	192 LINCOLN AVE	111C	\$678,500	\$343,600	\$334,900	\$290,400	0.87
304	235 MAPLEWOOD AVE	111C	\$992,400	\$356,000	\$636,400	\$552,400	0.87
304	824 STATE ST	111C	\$625,800	\$332,500	\$293,300	\$255,200	0.87
304	879 STATE ST	111C	\$520,800	\$228,200	\$292,600	\$255,200	0.87
304	240 MIDDLE ST	111C	\$1,093,400	\$718,200	\$375,200	\$327,300	0.87
304	31 PEARL ST #33	111C	\$702,900	\$308,900	\$394,000	\$344,500	0.87
304	69 ALBANY ST	111C	\$816,300	\$478,100	\$338,200	\$297,000	0.88
304	12 DENNETT ST	111C	\$591,900	\$316,300	\$275,600	\$242,400	0.88
304	55 MILLER AVE	111C	\$692,200	\$402,100	\$290,100	\$255,200	0.88
304	846 STATE ST	111C	\$751,000	\$417,200	\$333,800	\$297,000	0.89
304	147 LINCOLN AVE	111C	\$591,100	\$305,000	\$286,100	\$255,200	0.89
304	39 SUMMER ST	111C	\$870,700	\$484,900	\$385,800	\$344,500	0.89
304	229 MILLER AVE	111C	\$1,240,900	\$758,000	\$482,900	\$432,000	0.89
304	767 STATE ST	111C	\$698,700	\$376,100	\$322,600	\$290,400	0.9
304	664 STATE ST	111C	\$875,300	\$423,500	\$451,800	\$408,300	0.9

304	827 STATE ST	111C	\$589,600	\$302,200	\$287,400	\$261,300	0.91
304	777 STATE ST	111C	\$719,500	\$303,000	\$416,500	\$379,600	0.91
304	224 AUSTIN ST	111C	\$616,800	\$337,900	\$278,900	\$255,200	0.92
304	462 MIDDLE ST	111C	\$823,900	\$440,400	\$383,500	\$352,000	0.92
304	499 CUTTS AVE	111C	\$718,400	\$350,400	\$368,000	\$338,800	0.92
304	33 UNION ST	111C	\$598,600	\$322,100	\$276,500	\$255,200	0.92
304	582 MIDDLE ST	111C	\$977,000	\$552,500	\$424,500	\$392,000	0.92
304	26 COLUMBIA CT	111C	\$598,600	\$322,900	\$275,700	\$255,200	0.93
304	909 STATE ST	111C	\$718,500	\$404,800	\$313,700	\$290,400	0.93
304	473 MIDDLE ST	111C	\$733,900	\$409,100	\$324,800	\$303,100	0.93
304	94 RICHARDS AVE	111C	\$625,800	\$352,800	\$273,000	\$255,200	0.93
304	799 SOUTH ST	111C	\$1,208,400	\$798,300	\$410,100	\$388,700	0.95
304	259 MAPLEWOOD AVE	111C	\$961,200	\$505,800	\$455,400	\$432,000	0.95
304	567 STATE ST	111C	\$647,400	\$329,700	\$317,700	\$303,100	0.95
304	31 RICHARDS AVE	111C	\$707,500	\$348,700	\$358,800	\$344,900	0.96
304	300 UNION ST	111C	\$506,100	\$280,300	\$225,800	\$220,000	0.97
304	108 SPRING ST	111C	\$547,900	\$286,300	\$261,600	\$255,200	0.98
304	235 AUSTIN ST	111C	\$737,900	\$442,300	\$295,600	\$290,400	0.98
304	285 HANOVER ST	111C	\$739,100	\$443,900	\$295,200	\$290,400	0.98
304	322 LAFAYETTE RD	111C	\$631,600	\$374,200	\$257,400	\$255,200	0.99
304	211 SUMMER ST	111C	\$493,200	\$237,600	\$255,600	\$255,200	1
304	815 MIDDLE ST	111C	\$804,900	\$515,800	\$289,100	\$290,400	1
304	425 MIDDLE ST	111C	\$999,200	\$701,900	\$297,300	\$303,100	1.02
304	258 MAPLEWOOD AVE	111C	\$591,900	\$307,400	\$284,500	\$290,400	1.02
304	1219 MAPLEWOOD AVE	111C	\$598,600	\$315,800	\$282,800	\$290,400	1.03
304	124 CABOT ST	111C	\$458,000	\$210,300	\$247,700	\$255,200	1.03
304	40 SUMMER ST	111C	\$1,045,200	\$712,200	\$333,000	\$344,500	1.03
304	3 RICHARDS AVE	111C	\$860,200	\$580,700	\$279,500	\$290,400	1.04
304	214 MYRTLE AVE	111C	\$522,700	\$278,400	\$244,300	\$255,200	1.04
304	547 STATE ST	111C	\$725,600	\$356,400	\$369,200	\$392,000	1.06
304	248 MAPLEWOOD AVE	111C	\$566,000	\$247,400	\$318,600	\$338,800	1.06
304	599 MIDDLE ST	111C	\$859,800	\$427,800	\$432,000	\$464,600	1.08
304	357 MAPLEWOOD AVE	111C	\$704,100	\$469,000	\$235,100	\$255,200	1.09
304	649 STATE ST	111C	\$710,200	\$475,200	\$235,000	\$255,200	1.09
304	52 HIGHLAND ST	111C	\$771,000	\$502,400	\$268,600	\$297,000	1.11
304	171 AUSTIN ST	111C	\$566,900	\$302,700	\$264,200	\$297,000	1.12
304	361 MILLER AVE	111C	\$709,500	\$403,800	\$305,700	\$344,500	1.13
304	34 HIGHLAND ST	111C	\$769,000	\$513,500	\$255,500	\$290,400	1.14
304	94 HIGHLAND ST #96	111C	\$748,300	\$447,200	\$301,100	\$344,500	1.14
304	85 AUSTIN ST	111C	\$680,300	\$433,000	\$247,300	\$297,000	1.2
304	366 BROAD ST	111C	\$892,500	\$583,500	\$309,000	\$379,600	1.23
304	139 OSPREY DR	1120	\$7,147,400	\$5,532,100	\$1,615,300	\$1,366,800	0.85

304	241 MIDDLE ST	1120	\$1,621,700	\$1,085,100	\$536,600	\$454,100	0.85
304	132 MIDDLE ST	1120	\$1,268,000	\$699,000	\$569,000	\$484,000	0.85
304	1 JUNKINS AVE	1120	\$2,817,300	\$2,142,400	\$674,900	\$580,800	0.86
304	LAFAYETTE RD	1120	\$14,195,900	\$8,912,300	\$5,283,600	\$4,620,000	0.87
304	6 BLUE HERON DR	1120	\$8,625,100	\$6,754,800	\$1,870,300	\$1,636,300	0.87
304	SHEARWATER DR	1120	\$1,831,000	\$979,200	\$851,800	\$756,800	0.89
304	8 OSPREY DR	1120	\$17,347,200	\$13,587,900	\$3,759,300	\$3,349,500	0.89
304	263 ROCKLAND ST	1120	\$4,399,000	\$2,426,300	\$1,972,700	\$1,816,300	0.92
304	96 MILLER AVE	1120	\$1,153,200	\$586,500	\$566,700	\$572,000	1.01
304	1137 ISLINGTON ST	1120	\$2,794,700	\$1,666,000	\$1,128,700	\$1,144,000	1.01
304	53 COLUMBIA ST	1120	\$937,600	\$435,700	\$501,900	\$528,000	1.05
304	134 SOUTH ST	1120	\$1,111,100	\$568,200	\$542,900	\$612,500	1.13
304	184 MADISON ST	1120	\$6,419,400	\$3,718,600	\$2,700,800	\$3,168,000	1.17
304	1094 WOODBURY AVE	1120	\$1,537,400	\$1,049,800	\$487,600	\$572,000	1.17
304	548 BROAD ST	1120	\$1,188,600	\$741,700	\$446,900	\$572,000	1.28
304	299 HANOVER ST	3400	\$950,200	\$663,000	\$287,200	\$189,700	0.66
304	381 MIDDLE ST	3400	\$770,000	\$420,900	\$349,100	\$270,900	0.78
304	171 MIDDLE ST	3400	\$1,063,300	\$694,200	\$369,100	\$338,700	0.92
304	40 MIDDLE RD	3340	\$527,900	\$212,100	\$315,800	\$308,400	0.98
304	266 MIDDLE ST	3400	\$841,600	\$581,900	\$259,700	\$260,800	1
304	159 MIDDLE ST	3400	\$1,057,900	\$723,700	\$334,200	\$347,100	1.04
304	75 ALBANY ST	3690	\$506,300	\$317,800	\$188,500	\$234,300	1.24
304	59 CASS ST	4010	\$707,000	\$389,300	\$317,700	\$307,200	0.97
304	WOODBURY AVE	9080	\$3,779,200	\$2,135,600	\$1,643,600	\$1,352,600	0.82
304	245 MIDDLE ST	9080	\$10,182,400	\$6,342,100	\$3,840,300	\$3,194,800	0.83
304	GREENLEAF AVE	9080	\$13,831,900	\$6,790,900	\$7,041,000	\$5,940,000	0.84
304	940 STATE ST	9080	\$1,142,800	\$522,300	\$620,500	\$567,600	0.91
<b>Count</b>						<b>Median</b>	<b>0.92</b>
<b>122</b>							
305	25 MAPLEWOOD AVE	0340	\$5,483,900	\$3,820,900	\$1,663,000	\$1,207,600	0.73
305	31 MARKET ST	0310	\$1,258,600	\$687,500	\$571,100	\$445,500	0.78
305	134 MIDDLE ST	0310	\$1,436,700	\$880,600	\$556,100	\$440,000	0.79
305	10 COMMERCIAL ALY	0310	\$1,462,900	\$868,300	\$594,600	\$481,300	0.81
305	21 DANIEL ST	0310	\$1,936,900	\$1,290,700	\$646,200	\$526,200	0.81
305	123 MARKET ST	0310	\$1,597,000	\$985,500	\$611,500	\$505,800	0.83
305	113 MARKET ST	0310	\$1,359,800	\$766,600	\$593,200	\$491,100	0.83
305	41 MARKET ST	013C	\$1,282,300	\$590,100	\$692,200	\$580,200	0.84
305	75 COURT ST	013C	\$863,500	\$376,000	\$487,500	\$409,200	0.84
305	108 PENHALLOW ST	013C	\$766,300	\$359,400	\$406,900	\$342,300	0.84
305	18 LADD ST	013C	\$620,900	\$334,300	\$286,600	\$241,200	0.84
305	232 COURT ST	013C	\$899,300	\$441,300	\$458,000	\$395,200	0.86
305	44 MARKET ST	0310	\$1,693,700	\$838,200	\$855,500	\$762,400	0.89

305	8 BOW ST	0310	\$1,409,100	\$690,000	\$719,100	\$641,500	0.89
305	214 STATE ST	0310	\$1,128,100	\$530,300	\$597,800	\$547,600	0.92
305	101 MARKET ST	0310	\$1,391,900	\$841,100	\$550,800	\$505,300	0.92
305	29 CONGRESS ST	0310	\$864,300	\$430,900	\$433,400	\$397,700	0.92
305	35 CONGRESS ST	0310	\$1,570,000	\$973,200	\$596,800	\$552,700	0.93
305	30 DANIEL ST	0310	\$2,043,500	\$1,325,900	\$717,600	\$681,000	0.95
305	136 STATE ST	0310	\$817,100	\$407,100	\$410,000	\$391,300	0.95
305	92 PLEASANT ST	013C	\$830,400	\$335,600	\$494,800	\$472,700	0.96
305	110 CHAPEL ST	013C	\$1,271,300	\$560,900	\$710,400	\$680,000	0.96
305	87 MARKET ST	0310	\$2,164,800	\$1,320,400	\$844,400	\$812,700	0.96
305	175 HIGH ST	0310	\$2,449,100	\$1,508,800	\$940,300	\$905,500	0.96
305	117 MARKET ST	0310	\$1,251,600	\$803,600	\$448,000	\$431,800	0.96
305	48 MARKET ST	0310	\$912,600	\$509,800	\$402,800	\$391,400	0.97
305	40 MARKET ST	0310	\$836,100	\$428,300	\$407,800	\$396,500	0.97
305	238 DEER ST	0326	\$1,378,700	\$729,600	\$649,100	\$631,900	0.97
305	205 MARKET ST	0310	\$1,728,700	\$815,600	\$913,100	\$889,200	0.97
305	132 STATE ST	0310	\$909,300	\$416,200	\$493,100	\$481,600	0.98
305	102 STATE ST	0310	\$778,500	\$318,400	\$460,100	\$452,300	0.98
305	93 MARKET ST	0310	\$1,166,600	\$657,800	\$508,800	\$509,300	1
305	1 CONGRESS ST	0310	\$2,753,400	\$1,956,900	\$796,500	\$798,600	1
305	84 PLEASANT ST	0310	\$794,000	\$287,800	\$506,200	\$507,800	1
305	426 STATE ST	0310	\$917,800	\$372,700	\$545,100	\$552,600	1.01
305	49 MARKET ST	0310	\$1,062,000	\$576,900	\$485,100	\$492,500	1.02
305	128 PENHALLOW ST	013C	\$1,252,500	\$786,900	\$465,600	\$475,600	1.02
305	49 PLEASANT ST	0310	\$1,742,000	\$980,700	\$761,300	\$781,300	1.03
305	56 MARKET ST	0310	\$2,031,500	\$1,363,800	\$667,700	\$685,700	1.03
305	107 STATE ST	0310	\$775,600	\$391,100	\$384,500	\$395,100	1.03
305	65 BOW ST	0310	\$1,293,700	\$588,500	\$705,200	\$724,900	1.03
305	35 PLEASANT ST	013C	\$1,627,200	\$1,072,200	\$555,000	\$572,900	1.03
305	64 BRIDGE ST	0310	\$955,900	\$337,400	\$618,500	\$639,300	1.03
305	142 STATE ST	0310	\$1,763,100	\$1,101,300	\$661,800	\$686,300	1.04
305	112 STATE ST	0310	\$859,900	\$457,500	\$402,400	\$418,400	1.04
305	278 STATE ST	0310	\$661,500	\$101,900	\$559,600	\$585,900	1.05
305	112 PENHALLOW ST	0310	\$821,900	\$374,700	\$447,200	\$470,600	1.05
305	105 MARKET ST	0310	\$1,312,900	\$822,000	\$490,900	\$523,700	1.07
305	70 CONGRESS ST	0310	\$545,000	\$268,300	\$276,700	\$297,000	1.07
305	95 DANIEL ST	0310	\$407,000	\$122,900	\$284,100	\$306,200	1.08
305	74 CONGRESS ST	0310	\$559,300	\$215,700	\$343,600	\$372,200	1.08
305	60 MARKET ST	0310	\$709,100	\$349,900	\$359,200	\$389,900	1.09
305	105 DANIEL ST	0310	\$735,300	\$399,300	\$336,000	\$367,100	1.09
305	54 DANIEL ST	0310	\$863,800	\$525,300	\$338,500	\$370,200	1.09
305	9 SHEAFE ST	0310	\$515,100	\$248,100	\$267,000	\$292,600	1.1

305	114 MAPLEWOOD AVE	013C	\$678,500	\$254,100	\$424,400	\$465,900	1.1
305	379 STATE ST	0310	\$942,000	\$520,600	\$421,400	\$466,800	1.11
305	99 DANIEL ST	0310	\$426,900	\$136,100	\$290,800	\$325,300	1.12
305	154 FLEET ST	013C	\$843,300	\$428,900	\$414,400	\$464,300	1.12
305	168 FLEET ST	0310	\$499,100	\$221,100	\$278,000	\$316,100	1.14
305	24 MARKET ST	013C	\$735,000	\$385,600	\$349,400	\$401,500	1.15
305	58 WASHINGTON ST	013C	\$759,800	\$343,700	\$416,100	\$484,500	1.16
305	54 COURT ST	0310	\$981,100	\$564,000	\$417,100	\$489,900	1.17
305	177 STATE ST	0310	\$1,532,900	\$1,060,800	\$472,100	\$570,300	1.21
305	30 PENHALLOW ST	0340	\$5,738,400	\$4,883,000	\$855,400	\$1,050,400	1.23
305	252 STATE ST	0341	\$1,111,000	\$761,000	\$350,000	\$637,000	1.82
305	393 NEW CASTLE AVE	111C	\$1,383,000	\$596,800	\$786,200	\$660,000	0.84
305	33 GARDNER ST	111C	\$680,600	\$284,900	\$395,700	\$338,800	0.86
305	423 COURT ST	111C	\$932,600	\$401,600	\$531,000	\$457,400	0.86
305	388 STATE ST	111C	\$1,332,200	\$805,000	\$527,200	\$464,600	0.88
305	30 GARDNER ST	111C	\$750,100	\$365,700	\$384,400	\$338,800	0.88
305	420 PLEASANT ST	111C	\$727,800	\$337,900	\$389,900	\$344,900	0.88
305	371 COURT ST	111C	\$680,300	\$352,000	\$328,300	\$303,100	0.92
305	37 HANOVER ST	111C	\$1,226,300	\$788,000	\$438,300	\$409,200	0.93
305	438 STATE ST	111C	\$1,035,800	\$587,000	\$448,800	\$432,000	0.96
305	20 CHAPEL ST	111C	\$521,500	\$219,900	\$301,600	\$297,000	0.98
305	306 HANOVER ST	111C	\$498,900	\$240,400	\$258,500	\$255,200	0.99
305	404 PLEASANT ST	111C	\$680,300	\$342,800	\$337,500	\$344,500	1.02
305	151 HIGH ST	111C	\$758,000	\$379,100	\$378,900	\$392,000	1.03
305	383 PLEASANT ST	111C	\$725,600	\$419,600	\$306,000	\$344,500	1.13
305	38 CHAPEL ST	111C	\$641,200	\$341,700	\$299,500	\$344,900	1.15
305	99 HANOVER ST	1120	\$14,046,400	\$11,524,900	\$2,521,500	\$2,296,300	0.91
305	182 MARKET ST	1120	\$1,156,000	\$623,600	\$532,400	\$522,700	0.98
305	135 CONGRESS ST #145	3260	\$2,363,500	\$1,017,500	\$1,346,000	\$746,700	0.55
305	325 STATE ST	3410	\$4,728,000	\$3,093,000	\$1,635,000	\$1,204,700	0.74
305	82-86 CONGRESS ST	3400	\$5,435,100	\$4,267,200	\$1,167,900	\$897,300	0.77
305	250 MARKET ST	3000	\$31,538,401	\$24,693,900	\$6,844,501	\$5,276,100	0.77
305	21 PLEASANT ST	3410	\$2,127,900	\$1,456,400	\$671,500	\$527,000	0.78
305	99 BOW ST	3400	\$12,220,500	\$9,313,500	\$2,907,000	\$2,289,100	0.79
305	7 COMMERCIAL ALY	3250	\$827,100	\$509,500	\$317,600	\$252,400	0.79
305	29 VAUGHAN ST	3250	\$2,283,300	\$1,465,900	\$817,400	\$659,800	0.81
305	19 MARKET ST	3250	\$2,016,600	\$1,105,200	\$911,400	\$756,000	0.83
305	76-82 BOW ST	3400	\$877,500	\$333,500	\$544,000	\$453,200	0.83
305	152 COURT ST	3400	\$1,085,900	\$581,400	\$504,500	\$423,000	0.84
305	95 COURT ST	3400	\$1,602,600	\$1,036,500	\$566,100	\$478,100	0.84
305	100 HIGH ST	3000	\$27,818,900	\$25,052,700	\$2,766,200	\$2,338,600	0.85
305	15 CONGRESS ST	3250	\$10,115,900	\$8,556,700	\$1,559,200	\$1,322,400	0.85

305	134 PLEASANT ST	3410	\$3,290,900	\$1,669,600	\$1,621,300	\$1,391,800	0.86
305	110 STATE ST	3222	\$1,168,700	\$646,200	\$522,500	\$466,500	0.89
305	147 CONGRESS ST	3250	\$1,867,800	\$1,112,000	\$755,800	\$694,000	0.92
305	53 MARKET ST	3250	\$1,211,500	\$642,500	\$569,000	\$523,800	0.92
305	28 DEER ST	3400	\$4,527,300	\$3,390,700	\$1,136,600	\$1,048,200	0.92
305	202 COURT ST	3320	\$781,200	\$267,900	\$513,300	\$474,700	0.92
305	10 A LADD ST	3250	\$754,600	\$442,500	\$312,100	\$288,900	0.93
305	165 COURT ST	3400	\$786,400	\$386,300	\$400,100	\$371,200	0.93
305	9 COMMERCIAL ALY	3250	\$604,700	\$308,200	\$296,500	\$275,700	0.93
305	314 COURT ST	3020	\$1,221,100	\$549,700	\$671,400	\$629,300	0.94
305	15 PLEASANT ST	3410	\$1,810,700	\$1,298,200	\$512,500	\$483,900	0.94
305	82 COURT ST	3400	\$2,279,500	\$1,234,500	\$1,045,000	\$990,800	0.95
305	127 PARROTT AVE	3400	\$3,354,000	\$2,041,900	\$1,312,100	\$1,244,600	0.95
305	35-43 BOW ST	3260	\$2,261,700	\$946,900	\$1,314,800	\$1,258,500	0.96
305	333 STATE ST	3410	\$5,387,000	\$4,110,200	\$1,276,800	\$1,223,000	0.96
305	16 MARKET ST	3250	\$811,400	\$449,300	\$362,100	\$348,600	0.96
305	10 MARKET SQ	3250	\$1,727,600	\$1,038,900	\$688,700	\$666,400	0.97
305	206 MARKET ST	3400	\$791,200	\$500,900	\$290,300	\$282,500	0.97
305	100 DEER ST	3000	\$21,187,900	\$16,831,800	\$4,356,100	\$4,251,800	0.98
305	10 PLEASANT ST	3400	\$3,411,000	\$2,476,100	\$934,900	\$912,900	0.98
305	1 RAYNES AVE	3760	\$2,843,400	\$1,799,000	\$1,044,400	\$1,031,800	0.99
305	2 BOW ST	3250	\$1,120,900	\$636,200	\$484,700	\$479,700	0.99
305	45 MARKET ST	3250	\$725,700	\$314,900	\$410,800	\$407,400	0.99
305	53 GREEN ST	3400	\$3,849,100	\$1,821,200	\$2,027,900	\$2,013,200	0.99
305	144 WASHINGTON ST	3400	\$1,076,000	\$427,700	\$648,300	\$645,100	1
305	172 HANOVER ST	3260	\$3,002,700	\$2,288,200	\$714,500	\$721,900	1.01
305	75 PLEASANT ST	3260	\$1,052,300	\$543,600	\$508,700	\$514,000	1.01
305	80 MARKET ST	3250	\$1,597,200	\$864,500	\$732,700	\$740,900	1.01
305	27 PLEASANT ST	3410	\$2,067,500	\$1,554,400	\$513,100	\$519,900	1.01
305	85 MIDDLE ST	3400	\$1,419,600	\$778,400	\$641,200	\$650,400	1.01
305	14 MARKET SQ	3260	\$3,019,600	\$1,387,000	\$1,632,600	\$1,658,800	1.02
305	47 BOW ST	3260	\$1,474,900	\$750,700	\$724,200	\$737,900	1.02
305	13 CONGRESS ST	3250	\$976,700	\$438,700	\$538,000	\$551,600	1.03
305	138 CONGRESS ST	3220	\$2,247,300	\$1,580,500	\$666,800	\$684,500	1.03
305	40 COURT ST	3020	\$3,650,700	\$2,551,000	\$1,099,700	\$1,133,600	1.03
305	113 DANIEL ST	3260	\$728,200	\$262,600	\$465,600	\$483,800	1.04
305	106 PENHALLOW ST	3260	\$678,200	\$311,300	\$366,900	\$382,500	1.04
305	1 MARKET ST	3250	\$2,059,500	\$1,161,600	\$897,900	\$952,200	1.06
305	44 BRIDGE ST	3400	\$1,766,200	\$1,101,000	\$665,200	\$706,900	1.06
305	61 MARKET ST	3250	\$972,300	\$550,400	\$421,900	\$448,500	1.06
305	70 COURT ST	3400	\$1,058,800	\$558,500	\$500,300	\$534,400	1.07
305	93 PLEASANT ST	3250	\$1,914,600	\$1,154,600	\$760,000	\$816,500	1.07

305	42 MIDDLE ST	3400	\$729,000	\$425,900	\$303,100	\$327,600	1.08
305	93 MIDDLE ST	3400	\$918,200	\$422,500	\$495,700	\$536,800	1.08
305	31 RAYNES AVE	3400	\$2,217,000	\$839,500	\$1,377,500	\$1,494,900	1.09
305	76 CONGRESS ST	3250	\$638,200	\$318,000	\$320,200	\$347,800	1.09
305	111 MAPLEWOOD AVE	3400	\$8,102,400	\$2,788,800	\$5,313,600	\$5,822,800	1.1
305	56 MIDDLE ST	3400	\$1,068,800	\$506,800	\$562,000	\$618,200	1.1
305	3 PLEASANT ST	3410	\$3,522,200	\$2,532,100	\$990,100	\$1,091,100	1.1
305	126 BRIDGE ST	3250	\$2,912,400	\$1,348,200	\$1,564,200	\$1,725,700	1.1
305	67 BOW ST	3260	\$1,654,800	\$812,000	\$842,800	\$932,800	1.11
305	118 PLEASANT ST	3400	\$977,700	\$417,900	\$559,800	\$624,100	1.11
305	88 PENHALLOW ST	3260	\$536,900	\$197,100	\$339,800	\$379,500	1.12
305	85 DANIEL ST	3250	\$609,000	\$193,300	\$415,700	\$471,800	1.13
305	96 STATE ST	3260	\$1,534,600	\$972,100	\$562,500	\$643,100	1.14
305	104 CONGRESS ST	3400	\$3,286,400	\$2,562,400	\$724,000	\$833,400	1.15
305	132 CHAPEL ST	3400	\$606,600	\$300,200	\$306,400	\$354,700	1.16
305	51 PENHALLOW ST	3260	\$465,600	\$171,300	\$294,300	\$342,800	1.16
305	63 CONGRESS ST	3400	\$5,770,700	\$4,886,200	\$884,500	\$1,048,800	1.19
305	53 BOW ST	3260	\$2,065,800	\$1,294,600	\$771,200	\$928,400	1.2
305	3 SHEAFE ST	3020	\$485,900	\$286,000	\$199,900	\$240,900	1.21
305	64 VAUGHAN ST	3220	\$1,437,400	\$931,700	\$505,700	\$611,500	1.21
305	64 MARKET ST	3260	\$2,651,300	\$1,973,800	\$677,500	\$821,600	1.21
305	29 PLEASANT ST	3410	\$2,924,800	\$1,346,600	\$1,578,200	\$1,920,300	1.22
305	126 DANIEL ST	3400	\$2,638,700	\$1,903,000	\$735,700	\$921,700	1.25
305	40 CONGRESS ST	3400	\$4,777,900	\$4,096,600	\$681,300	\$859,600	1.26
305	100 MARKET ST	3400	\$11,787,300	\$10,425,200	\$1,362,100	\$1,724,900	1.27
305	150 CONGRESS ST	3220	\$2,393,100	\$1,678,600	\$714,500	\$938,100	1.31
305	111 STATE ST	3260	\$1,299,900	\$924,100	\$375,800	\$498,200	1.33
305	77 DANIEL ST	3260	\$944,200	\$665,600	\$278,600	\$376,800	1.35
305	40 PLEASANT ST	3222	\$3,095,800	\$2,445,900	\$649,900	\$926,800	1.43
<b>Count</b>						<b>Median</b>	<b>1.00</b>
<b>168</b>							
305A	610 ISLINGTON ST	0310	\$1,086,900	\$599,500	\$487,400	\$386,800	0.79
305A	169 ISLINGTON ST	0310	\$708,200	\$342,000	\$366,200	\$303,900	0.83
305A	163 ISLINGTON ST	0310	\$826,800	\$496,200	\$330,600	\$299,000	0.9
305A	240 ISLINGTON ST	0310	\$606,300	\$294,700	\$311,600	\$282,900	0.91
305A	562 ISLINGTON ST	0310	\$620,600	\$299,800	\$320,800	\$299,800	0.93
305A	313 ISLINGTON ST	013C	\$648,400	\$342,800	\$305,600	\$288,400	0.94
305A	303 ISLINGTON ST	0310	\$1,059,200	\$758,400	\$300,800	\$288,400	0.96
305A	180 ISLINGTON ST	0310	\$598,800	\$331,200	\$267,600	\$259,700	0.97
305A	695 ISLINGTON ST	013C	\$618,800	\$358,900	\$259,900	\$256,700	0.99
305A	110 BREWERY LN #F1	0112	\$7,101,600	\$5,564,700	\$1,536,900	\$1,694,000	1.1
305A	BARTLETT ST	0316	\$1,726,200	\$906,300	\$819,900	\$927,000	1.13

305A	356 ISLINGTON ST	0111	\$562,100	\$363,300	\$198,800	\$255,200	1.28
305A	18 DOVER ST	111C	\$498,900	\$244,900	\$254,000	\$121,000	0.48
305A	80 MCDONOUGH ST	111C	\$699,300	\$394,100	\$305,200	\$255,200	0.84
305A	536 ISLINGTON ST	111C	\$634,900	\$286,300	\$348,600	\$303,100	0.87
305A	524 ISLINGTON ST	111C	\$734,700	\$391,300	\$343,400	\$303,100	0.88
305A	98 MCDONOUGH ST	111C	\$653,100	\$381,000	\$272,100	\$255,200	0.94
305A	19 ISLINGTON ST	111C	\$882,900	\$519,100	\$363,800	\$344,500	0.95
305A	425 ISLINGTON ST	111C	\$446,200	\$231,900	\$214,300	\$220,000	1.03
305A	28 MCDONOUGH ST	111C	\$615,000	\$418,300	\$196,700	\$204,200	1.04
305A	553 ISLINGTON ST	111C	\$566,900	\$284,500	\$282,400	\$297,000	1.05
305A	20 ISLINGTON ST	1120	\$6,598,500	\$4,469,000	\$2,129,500	\$1,786,400	0.84
305A	90 BREWERY LN #B1	1120	\$10,647,700	\$7,090,200	\$3,557,500	\$4,573,800	1.29
305A	278 CABOT ST	121C	\$484,500	\$222,600	\$261,900	\$259,100	0.99
305A	738 ISLINGTON ST	3230	\$5,208,200	\$2,884,000	\$2,324,200	\$1,836,900	0.79
305A	848 ISLINGTON ST	3410	\$3,521,200	\$2,121,900	\$1,399,300	\$1,112,300	0.79
305A	674 ISLINGTON ST	3250	\$1,630,900	\$966,600	\$664,300	\$550,500	0.83
305A	566 ISLINGTON ST	3420	\$1,027,200	\$434,400	\$592,800	\$523,900	0.88
305A	642 ISLINGTON ST	3250	\$668,300	\$250,800	\$417,500	\$375,600	0.9
305A	63 ISLINGTON ST	3310	\$952,500	\$541,400	\$411,100	\$375,300	0.91
305A	531 ISLINGTON ST	3260	\$732,800	\$292,200	\$440,600	\$407,200	0.92
305A	653 ISLINGTON ST	3250	\$696,300	\$241,300	\$455,000	\$437,800	0.96
305A	800 ISLINGTON ST	3230	\$9,113,900	\$4,711,800	\$4,402,100	\$4,274,400	0.97
305A	93 ISLINGTON ST	3320	\$493,000	\$134,900	\$358,100	\$353,700	0.99
305A	378 ISLINGTON ST	3400	\$790,800	\$369,500	\$421,300	\$423,600	1.01
305A	201 ISLINGTON ST	3330	\$891,200	\$423,900	\$467,300	\$480,200	1.03
305A	565 ISLINGTON ST	3330	\$866,400	\$350,900	\$515,500	\$534,600	1.04
305A	601 ISLINGTON ST	3250	\$1,212,600	\$721,300	\$491,300	\$527,200	1.07
305A	105 BARTLETT ST	3130	\$2,112,300	\$833,600	\$1,278,700	\$1,391,300	1.09
305A	323 ISLINGTON ST	3400	\$551,000	\$282,400	\$268,600	\$294,000	1.09
305A	459 ISLINGTON ST	4010	\$1,260,200	\$603,600	\$656,600	\$549,300	0.84
305A	95 BREWSTER ST	4010	\$552,500	\$262,500	\$290,000	\$253,400	0.87
305A	218 ISLINGTON ST	4022	\$888,900	\$386,400	\$502,500	\$482,300	0.96
305A	55 CATE ST	4022	\$1,554,100	\$574,600	\$979,500	\$950,700	0.97
305A	68 ALBANY ST	4010	\$1,094,100	\$656,800	\$437,300	\$438,200	1
305A	JEWELL CT	4010	\$430,000	\$267,300	\$162,700	\$171,700	1.06
305A	135 MCDONOUGH ST	4010	\$1,599,400	\$1,188,100	\$411,300	\$448,500	1.09
305A	35 DOVER ST	4010	\$450,600	\$253,200	\$197,400	\$231,100	1.17
<b>Count</b> <b>48</b>						<b>Median</b>	<b>0.96</b>
306	635 SAGAMORE AVE	0310	\$710,300	\$418,400	\$291,900	\$275,200	0.94
306	188 JONES AVE	3040	\$5,687,000	\$3,795,400	\$1,891,600	\$1,155,800	0.61
306	JONES AVE	3530	\$1,907,600	\$834,300	\$1,073,300	\$907,500	0.85



306	928 SOUTH ST	3040	\$8,151,000	\$6,892,700	\$1,258,300	\$1,128,400	0.9
306	955 SAGAMORE AVE	3220	\$742,700	\$324,200	\$418,500	\$402,000	0.96
306	936 SOUTH ST	3040	\$1,206,300	\$586,900	\$619,400	\$616,000	0.99
306	960 SAGAMORE AVE	3250	\$706,900	\$501,900	\$205,000	\$240,000	1.17
306	1150 SAGAMORE AVE	3400	\$1,781,300	\$1,609,700	\$171,600	\$271,700	1.58
<b>Count 8</b>						<b>Median</b>	<b>0.95</b>
<b>Count 598</b>	<b>Grand Total</b>		<b>\$1,587,363,404</b>	<b>\$1,013,170,600</b>	<b>\$534,192,804</b>	<b>\$538,640,000</b>	<b>0.96</b>

## Base Land Value and Factors

The base values for the residential neighborhoods are whole land values based on a city-wide average.

Commercial property is treated differently compared with residential. Instead of whole land values, factors are used. The average commercial neighborhood is assigned a factor of "1."

### Base Land Value - Residential

Residential neighborhoods 117, 121 and 132 were used in determining the base land values. They were selected as most representative of an "average" neighborhood in Portsmouth.

These neighborhoods have an average indicated land value of \$175,423 and an average assessed land value of \$164,120.

The average ratio, or level of assessment, of the base neighborhoods should be consistent with the overall level of assessment in the City. The average ratio of the base neighborhoods, as shown on the next table is 95% and consistent with the overall level of assessment of the entire revaluation.

The following table shows the residential neighborhoods that represented the average or base land values.

Neighborhoods	Sale Prices	Building Values	Indicated Land Values	Assessed Land Values	Average of Ratio
<b>117</b>	\$514,450	\$646,200	\$191,350	\$175,200	0.93
<b>121</b>	\$344,400	\$834,400	\$177,520	\$151,560	0.86
<b>132</b>	\$275,000	\$117,600	\$157,400	\$165,600	1.05
<b>Average</b>	<b>\$377,950</b>	<b>\$532,733</b>	<b>\$175,423</b>	<b>\$164,120</b>	<b>0.95</b>

Analysis of the results of the residual analysis resulted in a concluded base land value of \$162,300 for a 10,000 SF lot and \$169,400 for a 20,000 square foot lot (as shown on following page). Neighborhood 0 (on Table 4) is the “base residential value.”

**Base Land Value Factors – Commercial**

The commercial base rates are developed different compared with the residential base rates. The commercial base is a factor, not an average numerical value as was estimated for residential land.

The commercial base factor is always “1” and the corresponding base neighborhood in this case is 303 (Woodbury Ave). Woodbury Ave was deemed most representative of commercial neighborhoods in Portsmouth.

Superior neighborhoods such as 305 (“Downtown”) were assigned factors above one, and inferior neighborhoods like 304 (“DT Peripheral”) were assigned adjustment factors below one. Superior neighborhoods are thus valued higher and neighborhoods inferior compared with the base neighborhood are valued lower.

On Table 5, Neighborhood 303 (Woodbury Ave.) is the “base commercial land factor.”

The following table shows all commercial neighborhoods and their adjustment factors.

TABLE 5- NEIGHBORHOOD LAND VALUES- COMMERCIAL

Nbhd	Areas	Adjustment Factor	Price per Acre
301	Industrial and Tertiary Locations	0.26	\$ 280,900
302	Lafayette, Rte1, Bypass	0.48	\$ 518,500
303	Woodbury Ave.	1	\$ 1,080,300
304	DT Peripheral	0.53	\$ 572,600
305	Downtown	1.32	\$ 1,426,000
305A	Downtown- 2	0.55	\$ 594,200
306	Tertiary Commercial Location	0.22	\$ 237,700
307	Pease (when applicable)	0.22	\$ 237,700

The following graph shows the average price per acre in each commercial neighborhood.

CHART 1- COMMERCIAL PRICE PER ACRE



### Adjustments Made to Base Residential Land Values (Neighborhoods)

The City of Portsmouth is a diverse city with a variety of neighborhoods. Some neighborhoods command higher prices than others.

Neighborhoods are defined as:

*“A group of complimentary land uses; a congruous grouping of inhabitants, buildings, or business enterprises.”<sup>12</sup>*

Neighborhoods within the city are first geographically defined. Each neighborhood is then coded by unique numbers and letters.

The neighborhoods and their corresponding codes are illustrated on the City’s Neighborhood Maps that are located on the City’s Website.

The following table lists each residential neighborhood. Please note next to each neighborhood code is a corresponding “adjustment factor.” The land adjustment factor is applied to the “base” land value to

<sup>12</sup> *The Dictionary of Real Estate Appraisal*, 6<sup>th</sup> ed. Chicago: Appraisal Institute, 2015.

reflect the unique location and desirability of the neighborhood. The higher the adjustment, the more desirable the neighborhood.

Adjustments range (from the table on the following page) from .75 to 2.90 from the base land value. Neighborhood 0 is the “base value.”

To illustrate, Neighborhood 109 was found to be more desirable compared with the average neighborhood, with higher prices found in 109. The 10,000 SF “base land value” is \$162,300. Considering the higher values in Neighborhood 109, the unit price is adjusted upward to \$405,800 ( $\$162,300 \times 2.50 = \$405,800$ ).

Conversely, Neighborhoods 117, 121, 132, and 134 are considered typical and their base rates are \$162,300 ( $\$162,300 \times 1 = \$162,300$ ).

The following table shows all residential neighborhoods and their adjustment factors.

**TABLE 6- NEIGHBORHOOD LAND VALUES- RESIDENTIAL**

Nbhd Code	Nbhd Adj	10,000 SF Lot	20,000 SF Lot	Notes
0	1	\$162,300	\$169,400	not used*
101	2.6	\$422,000	\$440,400	
102	2.9	\$470,700	\$491,300	
103	2.4	\$389,500	\$406,600	not used*
103A	2.9	\$470,700	\$491,300	
103B	2.5	\$405,800	\$423,500	
104	2.25	\$365,200	\$381,200	
105	2	\$324,600	\$338,800	
106	1.7	\$275,900	\$288,000	not used*
107	1.7	\$275,900	\$288,000	not used*
108	2.7	\$438,200	\$457,400	
109	2.5	\$405,800	\$423,500	
110	1.7	\$275,900	\$288,000	
111	2.05	\$332,700	\$347,300	
112	1.5	\$243,500	\$254,100	
113	2.4	\$389,500	\$406,600	
114	1.1	\$178,500	\$186,300	
115	0.95	\$154,200	\$160,900	
116	0.75	\$121,700	\$127,100	
117	1	\$162,300	\$169,400	
118	0.85	\$138,000	\$144,000	
119	1.05	\$170,400	\$177,900	

Nbhd Code	Nbhd Adj	10,000 SF Lot	20,000 SF Lot	Notes
120	0.95	\$154,200	\$160,900	
121	1	\$162,300	\$169,400	
123	1.4	\$227,200	\$237,200	
124	1.2	\$194,800	\$203,300	
125	1.13	\$183,400	\$191,400	
127	1.1	\$178,500	\$186,300	
128	1.3	\$211,000	\$220,200	
129	1.25	\$202,900	\$211,800	
130	1.2	\$194,800	\$203,300	
131	1.7	\$275,900	\$288,000	
132	1	\$162,300	\$169,400	
133	1.15	\$186,600	\$194,800	
134	1	\$162,300	\$169,400	

## Base Land Value Refinements Within Neighborhoods

### Residential

Location is one of the most important considerations in real estate valuation. Further refinements are necessary for base commercial and residential land values within neighborhoods. For example, certain streets within a neighborhood can be more desirable than others.

The following table shows the Site Index for certain locations within specific neighborhoods in Portsmouth. The factors vary, but again the higher the influence factor, the more desirable the location. These adjustments are based on market land sales or residual sales.

Most properties are assigned a Site Index 1 and Site Index 2.

Properties with exceptional locations, largely waterfront, were adjusted upward with some of the highest factors.

The next table shows all residential site index and influence factors.

TABLE 7- RESIDENTIAL SITE INDEX

Site Idx	Description	Influence Fact	10,000 SF Lot	20,000 SF Lot
1	SITE INDEX 1	1	\$ 162,300	\$ 169,400
2	SITE INDEX 2	1	\$ 162,300	\$ 169,400
3	Down Town	1.25	\$ 202,900	\$ 211,800
4	304P	1.07	\$ 173,700	\$ 181,300
5	305P	1.25	\$ 202,900	\$ 211,800
6	301W	1.25	\$ 202,900	\$ 211,800

Site Idx	Description	Influence Fact	10,000 SF Lot	20,000 SF Lot
7	304W	1.32	\$ 214,200	\$ 223,600
8	305W	1.7	\$ 275,900	\$ 288,000
9	306W	4.5	\$ 730,400	\$ 762,300
A	Harbor South	2.75	\$ 446,300	\$ 465,900
B	Harbor North	1.75	\$ 284,000	\$ 296,500
C	South Mill Pnd	1.25	\$ 202,900	\$ 211,800
D	Nth Mill Pnd 1	1.45	\$ 235,300	\$ 245,600
E	Nth Mill Pnd 2	1.6	\$ 259,700	\$ 271,000
F	Pisc River 1	2	\$ 324,600	\$ 338,800
G	Pisc River 2	2.1	\$ 340,800	\$ 355,700
H	Pisc River 3	2.2	\$ 357,100	\$ 372,700
I	Sag Crk West	2	\$ 324,600	\$ 338,800
J	Sag Crk East	2.6	\$ 422,000	\$ 440,400
K	110 W	2.7	\$ 438,200	\$ 457,400
L	110 P	1.22	\$ 198,000	\$ 206,700
M	111 W	2.7	\$ 438,200	\$ 457,400
N	111 P	1.27	\$ 206,100	\$ 215,100
O	108 W	2.3	\$ 373,300	\$ 389,600
P	108 P	1.2	\$ 194,800	\$ 203,300
Q	113 W	1.75	\$ 284,000	\$ 296,500
R	113 P	1.25	\$ 202,900	\$ 211,800
S	127 W	1.2	\$ 194,800	\$ 203,300
T	127 P	1.06	\$ 172,000	\$ 179,600
U	128 W	1.1	\$ 178,500	\$ 186,300
V	OBS WV	1.1	\$ 178,500	\$ 186,300
W	WV	1.2	\$ 194,800	\$ 203,300
X	WV	1.2	\$ 194,800	\$ 203,300
Y	EXP WV	1.3	\$ 211,000	\$ 220,200
Z	131 P	1.11	\$ 180,200	\$ 188,000

The next table shows all commercial site index and influence factors.

TABLE 8- COMMERCIAL SITE INDEX

Site Idx	Description	Influence Fact	Price per Acre
1	SITE INDEX 1	1	\$ 1,080,300
2	SITE INDEX 2	1	\$ 1,080,300
3	SITE INDEX 3	1.9	\$ 2,052,500
4	304P	1.07	\$ 1,155,900
5	305P	1.25	\$ 1,350,400
6	301W	1.25	\$ 1,350,400
7	304W	1.32	\$ 1,426,000

Site Idx	Description	Influence Fact	Price per Acre
8	305W	1.7	\$ 1,836,500
9	306W	4.5	\$ 4,861,300
A	101 W	2.4	\$ 2,592,700
B	101 P	1.42	\$ 1,534,000
C	102 W	1.3	\$ 1,404,400
D	102 P	1.07	\$ 1,155,900
E	106 W	1.33	\$ 1,436,800
F	106 P	1.1	\$ 1,188,300
G	107 W	1.89	\$ 2,041,700
H	107 P	1.41	\$ 1,523,200
I	109 W	1.95	\$ 2,106,600
J	109 P	1.1	\$ 1,188,300
K	110 W	2.7	\$ 2,916,800
L	110 P	1.22	\$ 1,318,000
M	111 W	3.2	\$ 3,456,900
N	111 P	1.27	\$ 1,372,000
O	108 W	2.3	\$ 2,484,700
P	108 P	1.3	\$ 1,404,400
Q	113 W	2.08	\$ 2,247,000
R	113 P	1.39	\$ 1,501,600
S	127 W	1.2	\$ 1,296,300
T	127 P	1.16	\$ 1,253,100
U	128 W	1.33	\$ 1,436,800
V	128 P	1.17	\$ 1,263,900
W	130 W	1.69	\$ 1,825,700
X	130 P	1.22	\$ 1,318,000
Y	131 W	1.44	\$ 1,555,600
Z	131 P	1.28	\$ 1,382,800

## Adjustments Made to Base Land Values (Land Size)

Larger lots typically sell for lower unit prices (all else being the same) compared with smaller parcels. For example, a 10,000 square foot (SF) lot that is similar in all aspects (except size) compared with a 100,000 square foot lot would normally sell for a higher unit (\$/SF) price. This is a result of a marginal return on increasing size and the concept of wholesale (bulk) versus retail pricing.

### Commercial and Residential

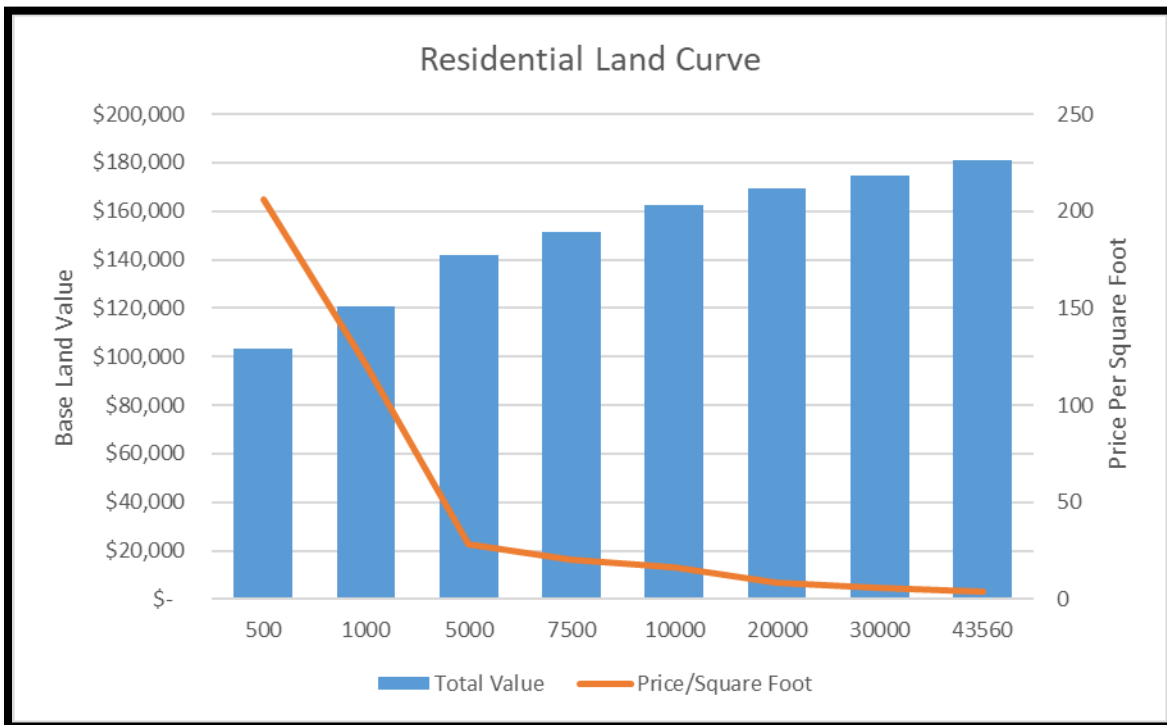
To capture the relationship between residential size and price, market sales data was analyzed, and conclusions formed. The conclusions were incorporated into a linear format that considered size and price. As lot sizes increase, unit values normally decrease. When graphed, this shows a downward “curve” in unit values as size increases. This is the basis of our “residential land curve.”

The results of the study are shown on the following Table 9 – Residential Land Curve. The “curve” is illustrated on Chart 2 - Residential Land Curve).

TABLE 9- RESIDENTIAL LAND CURVE

Square Feet	Price/Square Foot	Total Value
500	206.25	\$ 103,125
1000	120.78	\$ 120,780
5000	28.36	\$ 141,800
7500	20.2	\$ 151,500
10000	16.23	\$ 162,300
20000	8.47	\$ 169,400
30000	5.83	\$ 174,900
43560	4.16	\$ 181,210

CHART 2- RESIDENTIAL LAND CURVE



### Residential Land Pricing

Below is a breakdown of the land pricing and additional site-specific adjustments to an individual parcel.



**Site Improvements**

Utility improvements to the site such as well, septic, and/or public utilities are included in the building rate pricing schedule. All lots are valued based upon the use of vacant land sales and land residuals.

**Landline #1**

Landline #1 represents the prime site in square footage up to 43,560 square feet. In addition, ROW, topography, or traffic adjustments can be found in the condition factor section. The Street index code is utilized to distinguish the different types of locations within the market area of Portsmouth. Site indexes were utilized for views and waterfront.

**Landline #2**

Any excess acreage over 43,560 square feet will be priced at \$15,000/acre. In addition, any applicable topography, wetlands, or any other detrimental factors can be found in the condition factor. Excess acreage is factored by both street index, but *not* the site index.

**Condition Factors**

The condition factor field in the land line section of the property record card is used to adjust lot values for topographical problems i.e. steep, ledge, wetland, as well as positive adjustments such as waterfront and location adjustments. Condition factors show as a percent good in the condition factor field. These adjustments will be based upon the severity of the noted problem and will therefore fluctuate. However, the following is a guideline to typical adjustments, which have been made utilizing the condition factor field.

**Landline #1**

Prime site condition factors should be 1.00 unless there are topo/wet issues, traffic, easements, or row’s. Condition Factor discounts are between 5% and 50% based on the severity.

**Landline #2**

Discounts to excess acreage are based on the severity of the condition and broken into five categories:

<b>Condition</b>	<b>Impact Of Topography, Wetlands, Easements, Shape,</b>
.90-.95	Slight
0.75	Moderate
0.50	Heavy
0.25	Severe
0.10	Unusable/Undevelopable

<b>Other Typical Condition Land Adjustments</b>	
<b>Type</b>	<b>Adjustment</b>

Vacant Buildable Lots	No adjustment 100% condition factor
Unbuildable Lots	.10% condition factor
Potentially buildable Lots	20-50% condition factor
Topography	10-90% adjustment to condition factor depending upon severity
Easements, ROW, shared driveway, access	5-10% off condition factor depending upon severity
Severe Traffic Area	.80% condition factor
High Traffic Area	.90% condition factor
Moderate Traffic Area	.95% condition factor
Abuts Highway Severe	.90% condition factor
Abuts Highway Moderate	.95% condition factor
Waterfront lots with excess waterfront	105 -250 condition factor
Enhanced location of non-waterfront	125 -150 condition factor
Current Use	per State guidelines

### Valuation Model

The land valuation model for each land line is defined as Land Value = Size x Unit Price x Site Index factor x Condition Factor x Neighborhood factor.

Example:

43,560 Square Foot Lot

\$4.16 per Sq. Ft. (from Land Curve)

Site Index Factor 1.00 (SI 1)

Condition Factor 1.00

Neighborhood Factor 1.00 (117)

$$43,560 \times \$4.16 \times 1.00 \times 1.00 \times 1.00 = \$181,210$$

**Land Value = \$181,200 rounded**

### Commercial

Location is one of the most important considerations in real estate valuation. Further refinements are necessary for base commercial and residential land values within neighborhoods. Considerations for commercial property include traffic volume, amenities, street locations and other significant differences.

An analysis was performed to capture the relationship between size and price of commercial properties. This resulted in a “commercial land curve” that was unique to commercial properties. Base

pricing of smaller lots are priced on a curve, so that a ½ acre will generally work out to about 70% to 75% of the value of a full acre and a ¼ acre will be priced at 70% to 75% of a half-acre and so on (as the lots become smaller but more fully utilized - see the land curve pricing above). These various prices per SF were tested using land extractions and residuals of various size lots. For lots of 2 acres or greater, the acre price per SF was used but these lots were discounted 2% for each acre greater than one up to a 50% discount for size. For example:

2 Acres = a Condition Factor of 0.96 (-4%)

4 Acres = a Condition Factor of 0.92 (-8%)

8 Acres = a Condition Factor of 0.84 (-16%)

16 Acres = a Condition Factor of 0.68 (-32%)

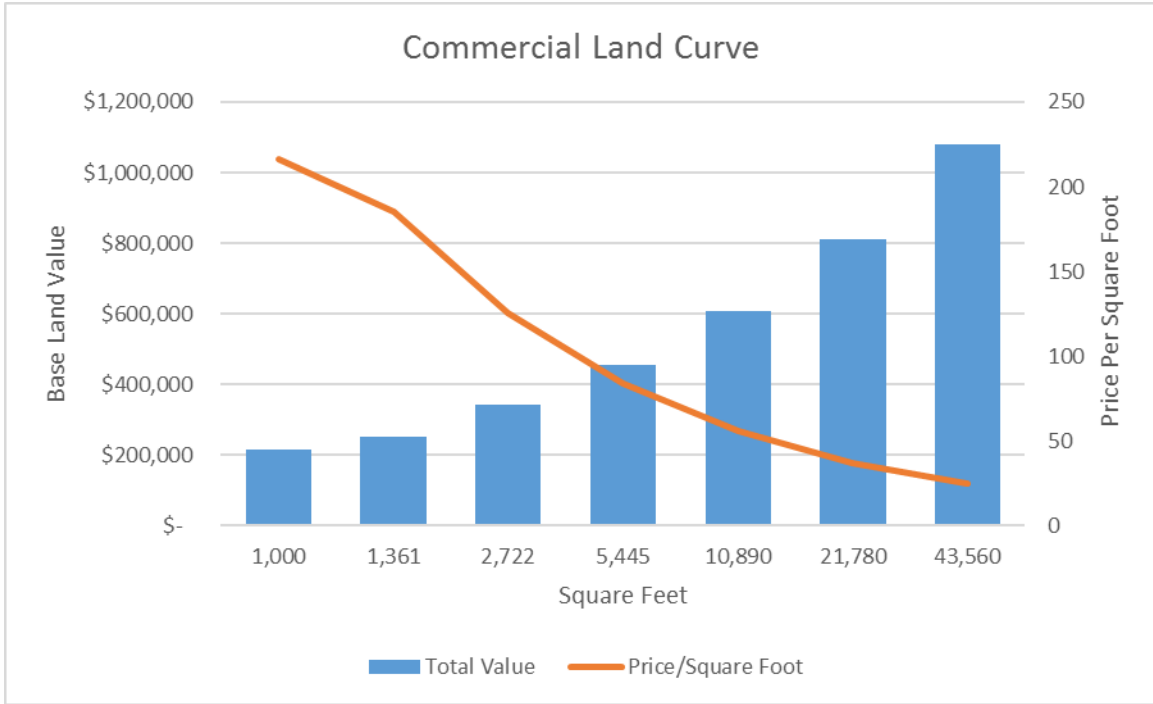
25 Acres = a Condition Factor of 0.50 (-50%)

The results of the study are shown on the following Table 10 – Commercial Land Curve. The “curve” is illustrated on Chart 3 - Commercial Land Curve).

**TABLE 10 - COMMERCIAL LAND CURVE**

Square Feet	Price/Square Foot	Total Value
1000	216.00	\$ 216,000
1361	184.91	\$ 251,660
2722	125.54	\$ 341,720
5445	83.68	\$ 455,640
10890	55.78	\$ 607,440
21780	37.2	\$ 810,220
43560	24.80	\$ 1,080,300
958320	24.80	\$ 23,773,780

Chart 3- Commercial Land Curve



### Commercial Land Pricing

#### Site

The primary site will consist of the area typically utilized to support the improvements. This area will be categorized as Site SF. The site will comprise up to 43,560 SF or typically 4 times the Gross Building Area (GBA) whichever is greater. On larger industrial buildings approaching 100,000 SF or larger the site (based on economies of scale) may drop to 3 times the GBA. In most cases, land greater than the indicated site is considered Excess.

#### Vacant Site

The most probable buildable land area. Land greater than the indicated site is considered Excess.

#### Expansion Land

Land beyond that which is being used, that has imminent development potential in the foreseeable future or used as secondary site such as yard storage will be priced at 50%- 60% of the improved land in use.

## **Excess Acreage**

Land over and above that which is categorized as vacant site, improved site, or expansion land. Typically priced at 10% or less of the site (SF) pricing. In this case, most excess land will be priced at 10% or less of the site SF per SF.

## **Special Land Pricing and External Land Factors**

Positive external factors existed in this community. Premium locations were riverfront commercial and riverfront industrial locations. In the lower priced, tertiary commercial locations these were shown to command a premium of a factor of 2.40 higher than similar non-waterfront locations. These were mostly small marina usages. Here, an acre would be valued at \$237,600 x 2.40 (waterfront) or \$570,240. This was extracted from a previous waterfront Boat Club sale and a more recent Marina sale as well as from a portion of a lot sold as vacant lot along Sagamore Rd. A site index of "A" was applied which carries a factor of 2.40

Further upriver in more busy and viable commercial locations, such as in the downtown area, with base land values off the water at a much higher \$1,150,000 per acre, the waterfront premium was reduced to 70% or a factor of 1.70. This was checked via income values which afforded higher income potential for properties with unobstructed water access. Theoretically, a one-acre lot along the open river in the prime downtown area would be valued at \$1,955,000 per acre, though most lots were smaller and would be lower in value as a result of the smaller size. Regardless, waterfront lots here had a Site Index of 8 applied which carries a 1.70 factor, so the lot would have a 70% premium versus a non-waterfront lot in the same general area.

The 70% differential was the same differential that was previously extracted and utilized, so was further backed up with older sales from the previous update. Other areas in New England have shown a 50% to 150% premium on open ocean riverfront versus non- waterfront locations.

Most Industrial Land pricing in Portsmouth is based on a value of

\$1,080,300 per acre and most sites indicated a factor of 0.26. This resulted in a value of about \$280,900 per acre. I-95 highway visibility sites had 10% to 20% premiums applied. Riverfront industrial land was also valued 70% higher than non-river front land. So theoretically one acre of industrial land on the river would be valued at \$404,000 to

\$477,500 per acre as opposed to \$237,600,000 to \$280,900 off river. I-95 highway visibility sites had 10% to 20% premiums applied based on higher potential income. Riverfront industrial land was also valued 70% higher than non-river front land. So theoretically one acre of industrial land on the river would be valued at \$404,000 to \$477,500 per acre as opposed to \$237,600,000 to \$280,900 off river.

**Easement, Topo, Access, Visibility, and Other Adjustments for Internal Land Influences**

These adjustments for internal land influences were made on an individual lot basis to the site and/or the excess land and applied to the condition factor for adjustments for easements, topography, access, visibility and any other adjustments for internal influences impacting the utility of the land.

## Special Base Land Rates

### Apartment Land Pricing

As part of the land analysis there were a few improved apartment sales and the land extraction analysis indicated a land value as high as \$82,500 per apartment unit and as low as \$43,000 per apartment unit. The median indication from the sales was \$55,000 per unit. Generally given equal locations and lot sizes, the fewer the number of apartment units, the higher was the indicated land value per unit and vice versa.

So, apartment land with eight or more units were shown to represent a discount of about 20% less per apartment unit than a four-unit property (if all else were equal). So, the site price per unit for 5 units was interpolated to have a 5% discount, 6 units 10%, 7 units 15%, and 8 units and above a 20% discount applied relative to properties with just four units. This was applied in the condition factor as 0.95 for five units, 0.90 for 6 units, 0.85 for 7 units and 0.80 for 8 units or more.

This pricing is accomplished by zeroing out the SF pricing on line 1 and adding a line 2 with special land calculations using BL (building lot) as the unit of measure as opposed to SF.

Lot pricing examples in average locations are as follows (rounded to the nearest 100):

$$4 \text{ Units} \times \$63,800 \times 1.00 = \$255,200$$

$$5 \text{ Units} \times \$63,800 \times 0.95 = \$303,100$$

$$6 \text{ Units} \times \$63,800 \times 0.90 = \$344,500$$

$$7 \text{ Units} \times \$63,800 \times 0.85 = \$379,600$$

$$8 \text{ Units} \times \$63,800 \times 0.80 = \$408,300$$

So, given similar lots and locations, a property with 4 legal units would have a site value of \$255,200, while one with 8 legal units would have a site value of \$408,300 or about 60% higher. So, under this scenario, the overall lot is being valued at 15% more for each additional apartment unit. This is based on intensity of usage and different highest and best uses for each lot. This was corroborated both by sales and income residuals.

See land pricing below for specifics. The per apartment unit pricing using special land calcs will replace the SF land pricing and will be applied as follows per apartment:

TABLE 11- APARTMENT LAND VALUES

	4 Units	5 Units	6 Units	7 Units	8 Units +
<b>Factor</b>	1.00	0.95	0.90	0.85	0.80
VP APT	\$38,500	\$36,575	\$34,650	\$32,725	\$30,800
PR APT	\$47,300	\$44,935	\$42,570	\$40,205	\$37,840
FR APT	\$55,000	\$52,250	\$49,500	\$46,750	\$44,000
AVG APT	\$63,800	\$60,610	\$57,420	\$54,230	\$51,040
ABV AVG APT	\$72,600	\$68,970	\$65,340	\$61,710	\$58,080
GD APT	\$84,700	\$80,465	\$76,230	\$71,995	\$67,760
VG APT	\$102,300	\$97,185	\$92,070	\$86,955	\$81,840
EX APT	\$113,300	\$107,635	\$101,970	\$96,305	\$90,640
APT WF	\$165,000	\$156,750	\$148,500	\$140,250	\$132,000

### Mobil Home Park Land Pricing

On mobile home parks, based on sales and/or overall indicated income values and improvement extractions/residuals, specific per unit land pricing extractions were developed and utilized. Based on the size of lots, and location quality, the range of per unit land/site value will be utilized of \$25,000 to \$48,000 per unit/site.

This pricing is accomplished by zeroing out the SF pricing on line 1 and adding a line 2 with special land calculations using BL (building lot) as the unit of measure as opposed to SF. These land unit site values are as follows per MH site:

#### Mobil Home Park Site Values

Code	Description	Base Site Price/ Unit
MH1	MH Site V Poor	\$ 25,000
MH2	MH Site Poor	\$ 28,000
MH3	MH Site Fair	\$ 33,000
MH4	MH Site Avg,	\$ 38,000
MH5	MH Site Abv. Avg..	\$ 43,000
MH6	MH Site Good	\$ 48,000

### Hotel/Motel Land Pricing

In the prime downtown areas, lodging facility land will be based on the SF method pricing for the commercial Neighborhood 305.

Outside of Downtown, the pricing will be based on a per rental room unit basis as follows based on sales and income residuals (see land extraction and income residual spreadsheets).

This pricing is accomplished by zeroing out the SF pricing on line 1 and adding a line 2 with special land calcs using BL (building lot) as the unit of measure as opposed to SF.

These land unit site values are as follows per rental room:

Hotel/Motel Site Values			
Code	Description		Base Site Price/ Unit
HT1	Hotl/Motl Site Poor	\$	10,000
HT2	Hotl/Motl Site Fair	\$	14,000
HT3	Hotl/Motl Site Avg.	\$	17,000
HT4	Hotl/Motl Site Good	\$	22,000
HT5	Hotl/Motl Site V	\$	27,000
	Good		
HT6	Hotl/Motl Site Exc	\$	33,000

Table 12 shows adjustments to base land values of both residential and commercial properties including mobile home parks and hotels/motels.

TABLE 12- SPECIAL LAND ADJUSTMENTS

Code	Unit Type	Description	Effect on Price	Price Adjust
719	Acre	NURSERIES	Replace	\$ 1,000.00
720	Acre	NONPRNECLD	Replace	\$ 30.00
722	Acre	NONPREWETLD	Replace	\$ 50.00
AP1	Building Lot	VP APT	Replace	\$ 38,500.00
AP2	Building Lot	PR APT	Replace	\$ 47,300.00
AP3	Building Lot	FR APT	Replace	\$ 55,000.00
AP4	Building Lot	AVG APT	Replace	\$ 63,800.00
AP5	Building Lot	ABV AVG APT	Replace	\$ 72,600.00



Code	Unit Type	Description	Effect on Price	Price Adjust
AP6	Building Lot	GD APT	Replace	\$ 84,700.00
AP7	Building Lot	VG APT	Replace	\$ 102,300.00
AP8	Building Lot	EX APT	Replace	\$ 113,300.00
APW	Building Lot	APT WF	Replace	\$ 165,000.00
BL1		Bldg. Lot 1	Replace	\$ 60,000.00
BL2		Excess Land	Replace	\$ -
CU1	Acre	FARMLAND	Replace	\$ 425.00
CU2	Acre	WHITE PINE W	Replace	\$ 83.00
CU3	Acre	HARDWOOD W	Replace	\$ 36.00
CU4	Acre	ALL OTHER W	Replace	\$ 25.00
CU5	Acre	UNPRODUCTIVE	Replace	\$ 20.00
CU6	Acre	WETLAND	Replace	\$ 20.00
CU7	Acre	WHITE PINE WO	Replace	\$ 138.00
CU8	Acre	HARDWOOD WO	Replace	\$ 59.00
CU9	Acre	ALLOTHER WO	Replace	\$ 43.00
FT	FT		Replace	\$ 4.00
HT1	Building Lot	HOTEL/MOT PR	Replace	\$ 10,000.00
HT2	Building Lot	HOTEL/MOT FR	Replace	\$ 14,000.00
HT3	Building Lot	HOTEL/MOT AV	Replace	\$ 17,000.00
HT4	Building Lot	HOTEL/MOT GD	Replace	\$ 22,000.00
HT5	Building Lot	HOTEL/MOT VG	Replace	\$ 27,000.00
HT6	Building Lot	HOTEL/MOT EX	Replace	\$ 33,000.00
MH1	Building Lot	VP MH	Replace	\$ 25,000.00
MH2	Building Lot	PR MH	Replace	\$ 28,000.00
MH3	Building Lot	FR MH	Replace	\$ 33,000.00
MH4	Building Lot	AV MH	Replace	\$ 38,000.00
MH5	Building Lot	ABV AV MH	Replace	\$ 43,000.00
MH6	Building Lot	GD MH	Replace	\$ 48,000.00
MH7	Building Lot	VG MH	Replace	\$ 52,000.00
MH8	Building Lot	EX MH	Replace	\$ 56,000.00
ROW	Other	Right of Way	Replace	\$ 4.00
SP		Septic	Adjust	\$ (2,000.00)
TP		Topography	Factor	\$ .90
WF1	Waterfront		Replace	\$ 100.00
WF2	Waterfront		Replace	\$ 200.00
WF3	Waterfront		Replace	\$ 250.00
WF4	Waterfront		Replace	\$ 300.00
WT		Wet	Factor	\$ .8

## C/I Condos

Rather than have a separate land price scheme associated with each condo unit that represents its contribution above the building value, a Condo Location Factor will be applied to the building value based on the quality of the location of the improvements. Based on the condo site extractions, these are indicated at 0.80 to 4.00 based on sales and income valuation residuals and are shown on the individual property cards in the Condo Section.

### Condo Factors

#### NHBD 301

##### Location Factor Range

Fair	1.00 to 1.20
Average	1.25 to 1.50
Good	1.75 to 2.00

#### NHBD 302

##### Location Factor Range

Fair	1.00 to 1.20
Average	1.25 to 1.50
Good	1.75 to 2.00

#### NHBD 304

##### Location Factor Range

Poor	0.70 to 0.95
Fair	1.00 to 1.20
Average	1.25 to 1.50
Good	1.75 to 2.00
V Good	2.10 to 2.50

#### NHBD 305

### Location Factor Range

Poor	1.00 to 1.20
Fair	1.25 to 1.60
Average	1.75 to 2.25
Average+	2.30 to 2.55
Good	2.60 to 2.75
V Good	3.00 to 4.00

### NHBD 307

### Location Factor Range

Fair	1.00 to 1.05
Average	1.10 to 1.30
Good	1.35 to 1.50
V Good	1.55 to 2.00

## Cost Approach - General Explanation

In the cost approach, the appraiser analyzes the cost of the subject improvements by comparison to the cost of construction of substitute properties with the same utility as the subject.

The principle of substitution, the underlying rationale of this approach, holds that no prudent person will pay more for a property than the price of a site and the cost of constructing, without undue delay, an equally desirable and useful property.

The cost new estimate is adjusted for losses in value caused by the age, condition, and diminished utility of the improvements. Poor demand (economic) and decreases in value resulting from offsite conditions are also considered. Once all forms of depreciation are accounted for, land value is added to the value of the depreciated improvement value. The result is the market value via the cost approach.

The cost approach to value is most effective when the improvements are new or near new and the land value is well supported. If the existing improvements represent the highest and best use of the site and the building suffers from minor depreciation, the value provided by this approach is reliable. The approach is less reliable when the site value is not well supported or when the improvements are older and suffer from several forms of depreciation. The cost approach provides a reliable value

indication for owner-occupied properties, proposed properties, special purpose properties and other properties not frequently exchanged in the market.

In the cost approach, the following steps are typically employed:

1. Estimate the value of the site as though vacant and available to be developed to its highest and best use.<sup>13</sup>
2. Determine which cost basis is most applicable to the assignment: reproduction cost or replacement cost.
3. Estimate the direct (hard) and indirect (soft) costs of the improvements as of the effective appraisal date.
4. Estimate the appropriate entrepreneurial profit or incentive from analysis of the market.
5. Add the estimated direct costs, indirect costs, and entrepreneurial profit or incentive to arrive at the total cost of the improvements.
6. Estimate the amount of depreciation in the structure and, if necessary, allocate it among the three major categories:
  - Physical deterioration
  - Functional obsolescence
  - External obsolescence
7. Deduct estimated depreciation from the total cost of the improvements to derive an estimate of their depreciated cost.
8. Estimate the contributory value of any site improvements that have not already been considered.
9. Add site value to the total depreciated cost of all the improvements to develop the market value of the property.
10. Adjust the value conclusion if any personal property (e.g., furniture, fixtures, and equipment) or intangible assets are included in the appraisal assignment. If necessary, this value, which reflects the value of the fee simple interest, may be adjusted for the property interest being appraised to arrive at the indicated value of the specified interest in the property.

Definitions of terms that may be used in the cost approach analysis include:<sup>14</sup>

---

<sup>13</sup> See the “Land/Site Valuation” for an explanation of site valuation.

<sup>14</sup> Source: Dictionary of Real Estate Appraisal, 5<sup>th</sup> Addition, Appraisal Institute, Chicago, Illinois 2015

**Breakdown method.** *A method of estimating depreciation in which the total diminution in the value of a property is estimated by analyzing and measuring each cause of depreciation (physical, functional, and external) separately.*

**Cost approach.** *A set of procedures through which a value indication is derived for the fee simple estate by estimating the current cost to construct a reproduction of (or replacement for) the existing structure, including an entrepreneurial incentive or profit; deducting depreciation from the total cost; and adding the estimated land value. Adjustments may then be made to the indicated value of the fee simple estate in the subject property to reflect the value of the property interest being appraised.*

**Curable functional obsolescence.** *An element of depreciation; a curable defect caused by a flaw in the structure, materials, or design, which can be practically and economically corrected.*

**Curable physical deterioration.** *A form of physical deterioration that can be practically and economically corrected as of the date of appraisal; excludes vandalism and damage, which are curable conditions but are not accounted for in an estimate of replacement cost or reproduction cost.*

**Depreciation.** *In appraisal, a loss in property value from any cause; the difference between the cost of an improvement on the effective date of the appraisal and the market value of the improvement on the same date.*

**Direct costs.** *Expenditures for the labor and materials used in the construction of improvements; also called hard costs.*

**Economic age-life method.** *A method of estimating depreciation in which the ratio between the effective age of a building and its total economic life is applied to the current cost of the improvements to obtain a lump-sum deduction; also known as the age-life method.*

**Economic life.** *The period over which improvements to real estate contribute to property value.*

**Entrepreneurial incentive.** *The amount an entrepreneur expects to receive for his or her contribution to a project. Entrepreneurial incentive may be distinguished from entrepreneurial profit (often called developer's profit) in that it is the expectation of future profit as opposed to the profit actually earned on a development or improvement. The amount of entrepreneurial incentive required for a project represents the economic reward sufficient to motivate an entrepreneur to accept the risk of the project and to invest the time and money necessary in seeing the project through to completion.*

**External obsolescence.** *A type of depreciation; a diminution in value caused by negative external influences and generally incurable on the part of the owner, landlord, or tenant. The external influence may be either temporary or permanent.*

**Functional obsolescence.** *The impairment of functional capacity of improvements according to market tastes and standards.*

**Incurable functional obsolescence.** *An element of depreciation; a defect caused by a deficiency or superadequacy in the structure, materials, or design that cannot be practically or economically corrected as of the effective date of the appraisal.*

**Incurable physical deterioration.** *A form of physical deterioration that cannot be practically or economically corrected as of the effective date of appraisal.*

**Indirect costs.** *Expenditures or allowances for items other than labor and materials that are necessary for construction but are not typically part of the construction contract. Indirect costs may include administrative costs; professional fees; financing costs and the interest paid on construction loans; taxes and the builder's or developer's all-risk insurance during construction; and marketing, sales, and lease-up costs incurred to achieve occupancy or sale. Also called soft costs.*

**Physical deterioration.** *The wear and tear that begins when a building is completed and placed into service.*

**Physical life.** *An estimate of how old a building or improvement will be when it is worn out. 2. The total period a building lasts or is expected to last as opposed to its economic life.*

**Quantity survey method.** *A cost-estimating method in which the quantity and quality of all materials used, and all categories of labor required are estimated and unit cost figures are applied to arrive at a total cost estimate for labor and materials.*

**Reproduction cost.** *The estimated cost to construct, at current prices as of the effective date of the appraisal, an exact duplicate or replica of the building being appraised, using the same materials, construction standards, design, layout, and quality of workmanship and embodying all the deficiencies, superadequacies, and obsolescence of the subject building.*

**Unit-in-place method.** *A cost-estimating method in which total building cost is estimated by adding together the unit costs for the various building components as installed; also called the segregated cost method.*

**Useful life.** *The period of time over which a structure or a component of a property may reasonably be expected to perform the function for which it was designed.*

When valuing improvements in mass appraisals, it's typical to estimate base rates using elements of both the cost and sales comparison approaches. The sales comparison approach is used to assist in the calibration and testing of the cost model.

## **Building Base Valuation**

After the land schedule was developed and reviewed, the building tables were addressed. Residential building costs are determined through reviewing starting cost estimates provided by National Cost Construction Manuals. The national surveys have location adjustments for various

communities in a state. The community chosen is usually the one closest to the subject community. The selected community's costs may be higher or lower than the subject community based on location or construction stock. This must be considered when applying the costs. These starting rates were tested for several building styles and they were adjusted for region and location. Sales were reviewed and the indicated land values subtracted from the sales price, producing an indicated building value.

These residential survey rates were used as a guide and were tested while developing the assessment ratio studies but needed to be adjusted based upon the local community's market. See Table Below.

**Table 13: M&S Construction Survey Rates**

PORTSMOUTH RESIDENTIAL BUILDING RATES FY 2019														Date of location adjustments and calculations April 2019			
RECOMMENDED STYLES AND RATES TO BEGIN VALUATION																	
Group	Code	Description	Story height	Class	Type	Section	Page	Rate	Curr	East	Portsmouth	Ind	Proposed rates at 115% of Market Value plus 5% site improvements	New % Diff to FY2019 figures at 97% of Market Value	New % Diff to M&S		
										Adj	Loc	Rate				%	
SIN	01	Ranch	1	D	A	12	25,26	91.00	1	1.05	98	120%	118	1.20	108	0.91	
SIN	02	Split Level	1	D	A	12	25,26	91.00	1	1.05	98	120%	118	1.20	116	0.98	
SIN	03	Colonial	2	D	A	12	25,26	86.09	1	1.05	93	120%	112	1.20	116	1.04	
SIN	04	Cape	1.5	D	A	12	25,26	88.45	1	1.05	96	120%	115	1.20	122	1.06	
SIN	05	Bungalow other	1	D	A	12	25,26	91.00	1	1.05	98	120%	118	1.20	122	1.03	
SIN	06	Conventional	1.5	D	A	12	25,26	88.45	1	1.05	96	120%	115	1.20	122	1.06	
SIN	07	Modern Contemp	2	D	A	12	25,26	86.09	1	1.05	93	120%	112	1.20	115	1.03	
SIN	08	Raised Ranch	1	D	A	12	25,26	91.00	1	1.05	98	120%	118	1.20	115	0.97	
SIN	09	Two Family	2	D	G	12	16	104.00	1	1.05	112	120%	135	1.20	115	0.85	
SIN	10	Duplex	2	D	G	12	16	104.00	1	1.05	112	120%	135	1.20	115	0.85	
SIN	11	Three Family	2	D	G	12	16	104.00	1	1.05	112	120%	135	1.20	135	1.00	
SIN	63	Antique	2	D	A	12	24	115.41	1	1.05	125	120%	150	1.20	130	0.87	
										average	103		123		119	0.97	

We used 1.5 story height for Conventional and Modern type properties as they are the most common story height for these types of properties.

The Portsmouth town Building inspector indicated that utility improvements to the site run around \$12,000. The median town base rate is approximately \$117/sf x 2000 sf for an average house which indicates an average construction cost of \$234,000 +/-.

The M&S swift rates compared to the local rates of Portsmouth need to be adjusted up 15% to 115%

So by raising the rates up by 5% from the 115% level, it adds approximately \$12,000 in value to account for these utilities.

Some rates may vary from the M&S rate based on local market data.

April 2019 Massachusetts & New Hampshire Loc Factor

Local rates were tested by style and in this community the rates needed to be higher than the National Cost rates due to local market conditions within the community.

The base residential rates are found on the table below.

**TABLE 14: RESIDENTIAL BASE RATES**

Style	Style Description	Base Rate	Depreciation Table
1	Ranch	\$ 108	4
2	Split-Level	\$ 116	4
3	Colonial	\$ 116	4
4	Cape Cod	\$ 122	4

Style	Style Description	Base Rate	Depreciation Table
5	Bungalow	\$ 122	4
6	Conventional	\$ 122	4
7	Modern/Contemp	\$ 115	4
8	Raised Ranch	\$ 115	4
9	2 Unit	\$ 115	4
10	Duplex	\$ 115	4
105	Townhouse/Row	\$ 122	4
106	Gambrel	\$ 116	4
107	Garrison	\$ 115	4
108	Saltbox	\$ 115	4
109	Log	\$ 115	4
11	3 Unit	\$ 135	4
20	Mobile Home	\$ 80	4
20D	Double Wide MH	\$ 90	4
36	Camp	\$ 105	4
3A	Old Style Colonial	\$ 138	4
55	Condominium	\$ 200	4
56	Condo Office	\$ 120	4
60	Victorian	\$ 123	4
63	Antique	\$ 130	4
76	Mortuary/Cemet	\$ 122	4
89	Other Municip	\$ 155	4
90	Retail Condo	\$ 103	4
94	Outbuildings	\$ -	4
95	Garage/Office	\$ 85	4
98	Indust Condo	\$ 63	4
99	Vacant Land	\$ -	4

The base residential and commercial condominium rates are found on the table below.

TABLE 14- CONDO BASE RATES

Style	Style Description	Base Rate	Depreciation Table
120	House Conv 1FL	\$ 213	4
121	House Conv 1FL+	\$ 209	4
122	Townhouse End	\$ 212	4
123	Garden End	\$ 203	4
124	Townhouse Int	\$ 212	4
125	Garden Int	\$ 201	4



Style	Style Description	Base Rate	Depreciation Table
129	Townhouse/Row	\$ 200	4
210	Hanger Condo	\$ 60	4
211	COMM CONDO	\$ 90	4
55	Condominium	\$ 200	4
56	Condo Office	\$ 120	4
5C	Condo Bank	\$ 185	4
90	Retail Condo	\$ 103	4
98	Indust Condo	\$ 63	4

These residential survey rates were used as a guide and were tested while developing the assessment ratio studies but needed to be adjusted based upon the local community's market. See Table Below.

TABLE 16- M&S COMMERCIAL CONSTRUCTION SURVEY RATES

BASE RATES WORKSHEET																
PORTSMOUTH, NH 2019 As checked 4/1/2019																
Description	Class	Code	S	P	Grade	Unadj Cost	Adj Cost	Vision Code	Median ASR	Modifier	Indicated Rate	System Description	Old Rate	OTN Ratio	New Rate	New Ratio
Retail Stores	D	353	13	26	AVG	80.00	87.36	12	1.00	1.00	87	Commercial	87	1.00	93.00	1.06
Discount Stores	D	319	13	28	AVG	63.00	70.12	13	1.00	1.00	70	Dept Store	73	1.04	77.00	1.10
Multi Residences	D	352	12	16	AVG	76.50	82.73	14	1.00	1.00	83	Apartments	103	1.24	110.00	1.33
Community Shopping Centers	D	413	13	34	AVG	92.00	100.46	15	1.00	1.00	100	Shopping Ctr Re	111	1.10	118.00	1.17
NBHD Shopping Centers	D	412	13	33	AVG	86.00	93.91	16	1.00	1.00	94	Shopping Ctr Lo	104	1.11	111.00	1.18
Retail Stores	D	353	13	26	AVG	80.00	87.36	17	1.00	1.00	87	Retail Bldg	96	1.10	103.00	1.18
Office Buildings	D	344	15	17	AVG	107.00	117.97	18	1.00	1.00	118	Office	135	1.14	142.00	1.20
Medical Office Building	D	341	15	22	AVG	135.00	148.84	19	1.00	1.00	149	Profess. Bldg	146	0.98	153.00	1.03
Restaurants-Fast Food	D	349	13	17	AVG	128.00	139.78	21	1.00	1.00	140	Fast Food Rest	149	1.07	158.00	1.13
Banks-Central Offices	D	423	15	20	AVG	159.00	170.32	23	1.00	1.00	170	Financial Inst	173	1.02	184.00	1.08
Service Garages	D	528	14	32	AVG	51.00	55.69	25	1.00	1.00	56	Service Shop	67	1.20	72.00	1.29
Stations with Service Bays	D	408	64	1	AVG	105.00	114.66	26&49	1.00	1.00	115	Serv Sta	145	1.26	155.00	1.35
Complete Auto Dealerships	D	455	14	30	AVG	85.00	92.82	27	1.00	1.00	93	Auto Dealer	101	1.09	108.00	1.16
Nursing Homes	D	313	15	26	AVG	138.00	152.15	29	1.00	1.00	152	Nursing Home	156	1.03	165.00	1.08
Restaurants	D	350	13	14	AVG	120.00	131.04	30	1.00	1.00	131	Restaurant	138	1.05	147.00	1.12
Banks-Branches	D	304	15	21	AVG	160.00	181.44	31	1.00	1.00	181	Bank	171	0.94	181.00	1.00
Theaters: Cinema	D	380	16	13	AVG	97.50	107.49	32	1.00	1.00	107	Theaters Encl.	113	1.05	119.00	1.11
Bars/Taverns	D	442	13	13	AVG	97.50	106.47	33	1.00	1.00	106	Nightclub/Bar	100	0.94	107.00	1.00
Country Clubs	D	314	11	31	AVG	129.00	138.18	38	1.00	1.00	138	Country Club	145	1.05	153.00	1.11
Motels	D	343	12	9	AVG	92.00	99.50	39	1.00	1.00	99	Motel/Inn	78	0.78	111.00	1.12
Industrials, Light Manufacturing	D	494	14	14	AVG	47.50	51.87	40	1.00	1.00	52	Industrial	60	1.16	64.00	1.23
Research & Development Buildings	D	392	14	16	AVG	68.00	74.26	41	1.00	1.00	74	Research/Devel	80	1.08	86.00	1.16
Car Wash Automatic	D	436	64	4	AVG	116.00	126.67	43	1.00	1.00	127	Car Wash	100	0.79	106.00	0.84
Cold Storage Facilities	D	447	14	24	AVG	63.00	68.80	47	1.00	1.00	69	Cold Storage	76	1.10	80.00	1.16
Storage Warehouses	D	406	14	26	AVG	39.50	43.13	48&4C	1.00	1.00	43	Warehouse	51	1.18	54.00	1.25
Mini Warehouse	D	386	14	28	AVG	34.50	37.67	206	1.00	1.00	38	Self Strg	39	1.04	42.00	1.11
Mini-Mart Convenience Stores	D	531	13	22	AVG	145.00	158.34	203	1.00	1.00	158	Conv Store	106	0.67	113.00	0.71
								51				Ind Office	113		120.00	
Industrials, Light Manufacturing	S	494	14	14	AVG	44.05	47.19	52	1.00	1.00	47	Pre-Eng Mfg	47	1.00	50.00	1.06
Storage Warehouses	S	406	14	26	AVG	39.50	42.31	53	1.00	1.00	42	Pre-Eng Warehs	39	0.92	42.00	0.99
Health Club	D	418	11	31	AVG	112.00	127.01	54	1.00	1.00	127	Health Club	98	0.77	105.00	0.83
Public Libraries	D	337	15	32	AVG	133.00	146.63	57	1.00	1.00	147	Library	155	1.06	155.00	1.06
Fire Stations Staffed	D	322	15	29	AVG	117.00	128.99	59	1.00	1.00	129	Fire Station	144	1.12	144.00	1.12
Retail Stores	D	353	13	26	AVG	80.00	87.36	61	1.00	1.00	87	Dry Cleaner	93	1.06	96.00	1.10
Tennis Club	D	416	16	22	AVG	59.50	67.47	64	1.00	1.00	67	Tennis Club	56	0.83	62.00	0.92
Skating Rink	D	175	16	20	AVG	89.00	100.93	64	1.00	1.00	101	Skating Arena	85	0.84	92.00	0.91
Hotel	D	594	11	25	AVG	123.00	133.02	66	1.00	1.00	133	Hotel	152	1.14	160.00	1.20
Car Wash Self-Serve	D	434	64	5	AVG	70.00	76.44	67	1.00	1.00	76	Coin-op CarWsh	71	0.93	75.00	0.98
Transit Warehouses	D	406	14	23	AVG	59.37	64.83	69	1.00	1.00	65	Truck Terminal	64	0.99	68.00	1.05
Dormitories	D	321	11	14	AVG	104.00	120.12	70	1.00	1.00	120	Dormitory	129	1.07	129.00	1.07
Churches (Chapels)	D	309	16	9	AVG	128.00	145.15	71	1.00	1.00	145	Churches	147	1.01	150.00	1.03
High Schools	D	484	18	9	AVG	131.00	148.55	72	1.00	1.00	149	Schools-College	128	0.86	140.00	0.94
General Hospitals	D	331	15	24	AVG	207.00	228.22	73	1.00	1.00	228	Hospitals Priv	159	0.70	175.00	0.77
Multi Residences - Senior Citizens	D	451	12	18	AVG	84.00	90.85	74	1.00	1.00	91	Home for Aged	142	1.56	146.00	1.61
Mini Mart Conv Store	D	531	13	22	AVG	145.00	156.82	75	1.00	1.00	157	Gas Mart	174	1.11	182.00	1.16
Mortuaries/Funeral Homes	D	342	11	32	AVG	103.00	110.33	76	1.00	1.00	110	Mortuary/Cemt	115	1.04	122.00	1.11
Clubhouses	D	311	11	30	AVG	92.50	106.84	77	1.00	1.00	107	Clubs/Lodges	107	1.00	114.00	1.07
Maintenance Hangars	D	329	14	29	AVG	53.00	57.88	78	1.00	1.00	58	Airport Hangar	53	0.92	56.00	0.97
Broadcasting Facilities	D	498	14	19	AVG	129.00	140.87	79	1.00	1.00	141	Telephone Bldg	158	1.12	160.00	1.14
Mixed Use Retail / Residential	D	459	13	33	AVG	85.50	93.37	80	1.00	1.00	93	Retail/Apt Com	103	1.10	110.00	1.18
Auditoriums	D	302	16	14	AVG	117.00	132.68	82	1.00	1.00	133	Auditorium	136	1.03	140.00	1.06
Office-Apartments	D	544	12	13	AVG	95.00	102.74	205	1.00	1.00	103	Retail/Office/Apt	106	1.03	113.00	1.10
Office-Apartments	D	544	12	13	AVG	95.00	102.74	208	1.00	1.00	103	Office/Apt	110	1.07	117.00	1.14
Mixed Use Retail / Offices	D	597	13	34	AVG	87.50	95.55	200	1.00	1.00	96	Retail/Office	105	1.10	112.00	1.17
High Schools	D	484	18	9	AVG	131.00	148.55	83	1.00	1.00	149	Schools-Public	145	0.98	152.00	1.02
General Hospitals	D	331	15	24	AVG	207.00	228.22	85	1.00	1.00	228	Hospitals	234	1.03	234.00	1.03
Governmental Buildings	D	327	15	30	AVG	134.00	147.74	58	1.00	1.00	148	Other State	155	1.05	155.00	1.05
Governmental Buildings	D	327	15	30	AVG	134.00	147.74	58	1.00	1.00	148	Other Fed	155	1.05	155.00	1.05
Governmental Buildings	D	327	15	30	AVG	134.00	147.74	58	1.00	1.00	148	Other Municipice	155	1.05	155.00	1.05
Snack Bars	D	529	13	18	AVG	75.00	81.90	91	1.00	1.00	82	Fast Food Stnd	84	1.03	89.00	1.09
Governmental Buildings	D	327	15	30	AVG	134.00	147.74	92	1.00	1.00	148	Court House	155	1.05	155.00	1.05
								95				Garage/Office	79		85.00	
								96				Office/Warehs	63		67.00	
High Rise Apartment	D	300	11	18	AVG	86.50	95.37	97	1.00	1.00	95	High Rise Apt	120	1.26	130.00	1.36
Parking Structure	B	345	14	34	AVG	51.75	56.51	202	1.00	1.00	57	Parking Garage	55	0.97	59.00	1.04
Day Care	D	426	18	13	AVG	115.00	126.79	204	1.00	1.00	127	Day Care	124	0.98	132.00	1.04
								207				Cultural Facility	127		133.00	
												Median		1.05		1.09

The base commercial rates are summarized on the following table.

TABLE 17- COMMERCIAL BASE RATES

Style	Style Description	Base Rate	Depreciation Table
12	Commercial	\$ 93	4
13	Department Str	\$ 77	4
14	Apartments	\$ 110	4
15	Shop Center RE	\$ 118	4
16	Shop Center LO	\$ 111	4
17	Store	\$ 103	4
18	Office Bldg	\$ 142	4
19	Profess. Bldg	\$ 153	4
20	Mobile Home	\$ 75	4
21	Fast Food Rest	\$ 158	4
23	Finan Inst.	\$ 184	4
25	Service Shop	\$ 72	4
26	Serv Sta 2-bay	\$ 155	4
27	Auto Sales Rpr	\$ 108	4
29	Nursing Home	\$ 165	4
30	Restaurant	\$ 147	4
31	Branch Bank	\$ 181	4
32	Theaters Encl.	\$ 119	4
33	Nightclub/Bar	\$ 107	4
38	Country Club	\$ 153	4
39	Inn	\$ 111	4
40	Light Indust	\$ 64	4
41	Research/Devel	\$ 86	4
43	Car Wash	\$ 106	4
47	Cold Storage	\$ 80	4
48	Whse-Indust	\$ 54	4
49	Serv Sta 3-Bay	\$ 155	4
51	Indust. Office	\$ 120	4
52	Pre-Eng Mfg	\$ 50	4
53	Pre-Eng Warehs	\$ 42	4
54	Health Club	\$ 105	4
56	Condo Office	\$ 120	4
57	Library	\$ 155	4
59	Fire Station	\$ 144	4
61	Dry Cln/Laundr	\$ 96	4

Style	Style Description	Base Rate	Depreciation Table
64	Tennis Club	\$ 62	4
65	Skating Arena	\$ 92	4
66	Hotel	\$ 160	4
67	Coin-op CarWsh	\$ 75	4
69	Truck Terminal	\$ 68	4
70	Dormitory	\$ 129	4
71	Churches	\$ 150	4
72	School/College	\$ 140	4
73	Hospitals-Priv	\$ 175	4
74	Home for Aged	\$ 146	4
75	Gas Mart	\$ 182	4
76	Mortuary/Cemet	\$ 122	4
77	Clubs/Lodges	\$ 114	4
78	Airport Hangar	\$ 56	4
79	Telephone Bldg	\$ 160	4
80	Retail/Apartment	\$ 110	4
82	Auditorium	\$ 140	4
83	Schools-Public	\$ 152	4
85	Hospital	\$ 234	4
87	Other State	\$ 155	4
88	Other Federal	\$ 155	4
89	Other Municip	\$ 155	4
90	Retail Condo	\$ 103	4
91	Fast Food	\$ 89	4
92	Court House	\$ 155	4
95	Garage/Office	\$ 79	4
96	Office/Warehs	\$ 67	4
97	High Rise Apt	\$ 130	4
98	Indust Condo	\$ 63	4
200	Retail/Office	\$ 112	4
201	Food Stand	\$ 86	4
202	Parking Garage	\$ 59	4
203	Conv Store	\$ 113	4
204	Day Care	\$ 132	4
205	Retail/Office/Apt	\$ 113	4
206	Self Storage	\$ 42	4
207	Cultural Facility	\$ 133	4
208	Office/Apt	\$ 117	4
210	Hanger Condo	\$ 60	4
211	Blank in system	\$ 90	4
212	Hanger/Office	\$ 97	4

Style	Style Description	Base Rate	Depreciation Table
4C	Comml whse	\$ 55	4

### Effective Area Factors

The term “effective area” is used in the Vision Government Solutions CAMA system as a conceptual valuation tool. Additionally, effective area is used to compare properties and determine their equanimity.

As a valuation tool, “effective area” helps us account for the contributory value of different parts of a building. Each subarea of a building has its own “effective” area based on the contribution of value to the entire property.

It makes sense that a porch, basement or garage would not have the same contributory value as the living area of the building (In this case, living area is characterized as finished, heated space). To properly account for the value, the effective areas of these spaces are added to the living area to equal the total effective area.

Building 1	Building 2
Colonial Style	Colonial Style
1,252 Square Feet of Living Area	1,252 Square Feet of Living Area
Actual Year Built is 2004	Actual Year Built is 2004
Exterior Siding is Vinyl	Exterior Siding is Vinyl
Attached Garage 180 SF, 72 SF effective	No Garage
Screen Porch 168 SF, 42 SF effective	No Porch

The homes illustrated above have a similar style and identical living area but they would probably not sell for the exact same price. For the purposes of assessment valuation, applying the same price per square foot to the total living area of both of the homes would not compensate for the additional features of the first home. Applying the price per square foot to the total effective square footage of the home results in a higher value for the enhancements of the first home.

The following pages contain Subarea Codes with effective area factors used in the Portsmouth, NH revaluation project.

TABLE 15: SUB AREA CODES

**SUBAREA CODES  
PORTSMOUTH, NH**

Area Type	Description	Model	Living Area Factor	Eff Area %
CAN	Canopy	06	0.00	20
CAN	Canopy	94	0.00	20
CAN	Canopy	95	0.00	20
CAN	Canopy	96	0.00	20
<hr/>				
CLP	Loading Platform, Finished	01	0.00	0
CLP	Loading Platform, Finished	02	0.00	0
CLP	Loading Platform, Finished	03	0.00	0
CLP	Loading Platform, Finished	04	0.00	30
CLP	Loading Platform, Finished	05	0.00	0
CLP	Loading Platform, Finished	06	0.00	30
CLP	Loading Platform, Finished	94	0.00	30
CLP	Loading Platform, Finished	95	0.00	30
CLP	Loading Platform, Finished	96	0.00	30
<hr/>				
CRL	Crawl Space	01	0.00	5
CRL	Crawl Space	02	0.00	5
CRL	Crawl Space	03	0.00	5
CRL	Crawl Space	04	0.00	5
CRL	Crawl Space	05	0.00	5
<hr/>				
CTH	Cathedral Ceiling	01	0.00	0
CTH	Cathedral Ceiling	02	0.00	0
CTH	Cathedral Ceiling	03	0.00	0
CTH	Cathedral Ceiling	04	0.00	0
CTH	Cathedral Ceiling	05	0.00	0
CTH	Cathedral Ceiling	06	0.00	0
CTH	Cathedral Ceiling	94	0.00	0
CTH	Cathedral Ceiling	95	0.00	0
CTH	Cathedral Ceiling	96	0.00	0
<hr/>				
DCK	Deck, Metal	01	0.00	10
DCK	Deck, Metal	02	0.00	10
DCK	Deck, Metal	03	0.00	10
DCK	Deck, Metal	04	0.00	10
DCK	Deck, Metal	05	0.00	10
DCK	Deck, Metal	06	0.00	10
DCK	Deck, Metal	94	0.00	10
DCK	Deck, Metal	95	0.00	10
DCK	Deck, Metal	96	0.00	10
<hr/>				
EAF	Attic Expansion	01	0.35	35
EAF	Attic Expansion	02	0.35	35
EAF	Attic Expansion	03	0.35	35
EAF	Attic Expansion	04	0.35	35
EAF	Attic Expansion	05	0.35	35
EAF	Attic Expansion	06	0.35	35
EAF	Attic Expansion	94	0.35	35
EAF	Attic Expansion	95	0.35	35
EAF	Attic Expansion	96	0.35	35
<hr/>				
EAU	Attic Expansion Unfin	01	0.00	25
EAU	Attic Expansion Unfin	02	0.00	25
EAU	Attic Expansion Unfin	03	0.00	25
EAU	Attic Expansion Unfin	04	0.00	25

**SUBAREA CODES  
PORTSMOUTH, NH**

Area Type	Description	Model	Living Area Factor	Eff Area %
EAU	Attic Expansion Unfin	05	0.00	25
EAU	Attic Expansion Unfin	06	0.00	25
EAU	Attic Expansion Unfin	94	0.00	25
EAU	Attic Expansion Unfin	95	0.00	25
EAU	Attic Expansion Unfin	96	0.00	25
<hr/>				
FAT	Attic	01	0.25	25
FAT	Attic	02	0.25	25
FAT	Attic	03	0.25	25
FAT	Attic	04	0.25	25
FAT	Attic	05	0.25	25
FAT	Attic	06	0.25	25
FAT	Attic	94	0.25	25
FAT	Attic	95	0.25	25
FAT	Attic	96	0.25	25
<hr/>				
FEM	Basement, Finished	01	0.00	45
FEM	Basement, Finished	02	0.00	45
FEM	Basement, Finished	03	0.00	45
FEM	Basement, Finished	04	0.00	45
FEM	Basement, Finished	05	0.00	45
FEM	Basement, Finished	06	0.00	60
FEM	Basement, Finished	94	0.00	60
FEM	Basement, Finished	95	0.00	60
FEM	Basement, Finished	96	0.00	60
<hr/>				
FCP	Carpport	01	0.00	20
FCP	Carpport	02	0.00	20
FCP	Carpport	03	0.00	20
FCP	Carpport	04	0.00	20
FCP	Carpport	05	0.00	20
FCP	Carpport	06	0.00	25
FCP	Carpport	94	0.00	25
FCP	Carpport	95	0.00	25
FCP	Carpport	96	0.00	25
<hr/>				
FEP	Porch, Enclosed	01	0.00	70
FEP	Porch, Enclosed	02	0.00	70
FEP	Porch, Enclosed	03	0.00	70
FEP	Porch, Enclosed	04	0.00	70
FEP	Porch, Enclosed	05	0.00	70
FEP	Porch, Enclosed	06	0.00	65
FEP	Porch, Enclosed	94	0.00	65
FEP	Porch, Enclosed	95	0.00	65
FEP	Porch, Enclosed	96	0.00	65
<hr/>				
FGR	Garage, Attached	01	0.00	40
FGR	Garage, Attached	02	0.00	40
FGR	Garage, Attached	03	0.00	40
FGR	Garage, Attached	04	0.00	40
FGR	Garage, Attached	05	0.00	40
FGR	Garage, Attached	06	0.00	40
FGR	Garage, Attached	94	0.00	40
FGR	Garage, Attached	95	0.00	40
FGR	Garage, Attached	96	0.00	40

SUBAREA CODES  
PORTSMOUTH, NH

Area Type	Description	Model	Living	
			Area Factor	Eff Area #
FHS	Half Story, Finished	01	0.50	50
FHS	Half Story, Finished	02	0.50	50
FHS	Half Story, Finished	03	0.50	50
FHS	Half Story, Finished	04	0.50	50
FHS	Half Story, Finished	05	0.50	50
FHS	Half Story, Finished	06	0.50	50
FHS	Half Story, Finished	94	0.50	50
FHS	Half Story, Finished	95	0.50	50
FHS	Half Story, Finished	96	0.50	50
<hr/>				
FOP	Porch, Open	01	0.00	20
FOP	Porch, Open	02	0.00	20
FOP	Porch, Open	03	0.00	20
FOP	Porch, Open	04	0.00	20
FOP	Porch, Open	05	0.00	20
FOP	Porch, Open	06	0.00	25
FOP	Porch, Open	94	0.00	25
FOP	Porch, Open	95	0.00	25
FOP	Porch, Open	96	0.00	25
<hr/>				
FRB	Fin. Raised Bsmt	06	1.00	75
FRB	Fin. Raised Bsmt	94	1.00	75
FRB	Fin. Raised Bsmt	95	1.00	75
FRB	Fin. Raised Bsmt	96	1.00	75
<hr/>				
FSP	Porch, Screened	01	0.00	25
FSP	Porch, Screened	02	0.00	25
FSP	Porch, Screened	03	0.00	25
FSP	Porch, Screened	04	0.00	25
FSP	Porch, Screened	05	0.00	25
FSP	Porch, Screened	06	0.00	35
FSP	Porch, Screened	94	0.00	35
FSP	Porch, Screened	95	0.00	35
FSP	Porch, Screened	96	0.00	35
<hr/>				
FST	Utility Storage	01	0.00	15
FST	Utility Storage	02	0.00	15
FST	Utility Storage	03	0.00	15
FST	Utility Storage	04	0.00	15
FST	Utility Storage	05	0.00	15
FST	Utility Storage	06	0.40	40
FST	Utility Storage	94	0.00	40
FST	Utility Storage	95	0.40	40
FST	Utility Storage	96	0.40	40
<hr/>				
FUS	Upper Story, Finished	01	1.00	100
FUS	Upper Story, Finished	02	1.00	100
FUS	Upper Story, Finished	03	1.00	100
FUS	Upper Story, Finished	04	1.00	100
FUS	Upper Story, Finished	05	1.00	100
FUS	Upper Story, Finished	06	1.00	100
FUS	Upper Story, Finished	94	1.00	100
FUS	Upper Story, Finished	95	1.00	100
FUS	Upper Story, Finished	96	1.00	100



SUBAREA CODES  
PORTSMOUTH, NH

Area Type	Description	Model	Living	
			Area Factor	Eff Area %
GRN	Greenhouse	01	0.00	45
GRN	Greenhouse	02	0.00	45
GRN	Greenhouse	03	0.00	45
GRN	Greenhouse	04	0.00	45
GRN	Greenhouse	05	0.00	45
GRN	Greenhouse	06	0.00	30
GRN	Greenhouse	94	0.00	30
GRN	Greenhouse	95	0.00	30
GRN	Greenhouse	96	0.00	30
<hr/>				
OVH	Over hang	01	0.00	20
OVH	Over hang	02	0.00	20
OVH	Over hang	03	0.00	20
OVH	Over hang	04	0.00	20
OVH	Over hang	05	0.00	20
OVH	Over hang	06	0.00	20
OVH	Over hang	94	0.00	20
OVH	Over hang	95	0.00	20
OVH	Over hang	96	0.00	20
<hr/>				
PDA	Pull Down Attic	01	0.00	5
PDA	Pull Down Attic	02	0.00	5
PDA	Pull Down Attic	03	0.00	5
PDA	Pull Down Attic	04	0.00	5
PDA	Pull Down Attic	05	0.00	5
PDA	Pull Down Attic	06	0.00	5
PDA	Pull Down Attic	94	0.00	5
PDA	Pull Down Attic	95	0.00	5
PDA	Pull Down Attic	96	0.00	5
<hr/>				
PTO	Patio	01	0.00	10
PTO	Patio	02	0.00	10
PTO	Patio	03	0.00	10
PTO	Patio	04	0.00	10
PTO	Patio	05	0.00	10
PTO	Patio	06	0.00	5
PTO	Patio	94	0.00	5
PTO	Patio	95	0.00	5
PTO	Patio	96	0.00	5
<hr/>				
SDA	Store Display Area	01	0.00	0
SDA	Store Display Area	02	0.00	0
SDA	Store Display Area	03	0.00	0
SDA	Store Display Area	04	1.00	100
SDA	Store Display Area	05	0.00	0
SDA	Store Display Area	06	1.00	135
SDA	Store Display Area	94	1.00	100
SDA	Store Display Area	95	1.00	100
SDA	Store Display Area	96	1.00	135
<hr/>				
SFB	Base, Semi-Finished	01	0.00	40
SFB	Base, Semi-Finished	02	0.00	40
SFB	Base, Semi-Finished	03	0.00	40
SFB	Base, Semi-Finished	04	0.00	40
SFB	Base, Semi-Finished	05	0.00	40

SUBAREA CODES  
PORTSMOUTH, NH

Area Type	Description	Model	Living	
			Area Factor	Eff Area %
SFB	Base, Semi-Finished	06	0.70	70
SFB	Base, Semi-Finished	94	0.70	70
SFB	Base, Semi-Finished	95	0.70	70
SFB	Base, Semi-Finished	96	0.70	70
<hr/>				
SLB	Slab	01	0.00	0
SLB	Slab	02	0.00	0
SLB	Slab	03	0.00	0
SLB	Slab	04	0.00	0
SLB	Slab	05	0.00	0
SLB	Slab	06	0.00	0
SLB	Slab	94	0.00	0
SLB	Slab	95	0.00	0
SLB	Slab	96	0.00	0
<hr/>				
SPA	Service Production Area	01	0.00	0
SPA	Service Production Area	02	0.00	0
SPA	Service Production Area	03	0.00	0
SPA	Service Production Area	04	0.85	85
SPA	Service Production Area	05	0.00	0
SPA	Service Production Area	06	1.00	100
SPA	Service Production Area	94	0.85	85
SPA	Service Production Area	95	0.85	85
SPA	Service Production Area	96	1.00	100
<hr/>				
STP	Stoop	01	0.00	0
STP	Stoop	02	0.00	0
STP	Stoop	03	0.00	0
STP	Stoop	04	0.00	0
STP	Stoop	05	0.00	0
STP	Stoop	06	0.00	10
STP	Stoop	94	0.00	10
STP	Stoop	95	0.00	10
STP	Stoop	96	0.00	10
<hr/>				
TQS	Three Quarter Story	01	0.75	75
TQS	Three Quarter Story	02	0.75	75
TQS	Three Quarter Story	03	0.75	75
TQS	Three Quarter Story	04	0.75	75
TQS	Three Quarter Story	05	0.75	75
TQS	Three Quarter Story	06	0.75	75
TQS	Three Quarter Story	94	0.75	75
TQS	Three Quarter Story	95	0.75	75
TQS	Three Quarter Story	96	0.75	75
<hr/>				
UAT	Attic	01	0.00	10
UAT	Attic	02	0.00	10
UAT	Attic	03	0.00	10
UAT	Attic	04	0.00	10
UAT	Attic	05	0.00	10
UAT	Attic	06	0.00	10
UAT	Attic	94	0.00	10
UAT	Attic	95	0.00	10
UAT	Attic	96	0.00	10

**SUBAREA CODES  
PORTSMOUTH, NH**

Area Type	Description	Model	Living Area Factor	Eff Area %
UBM	Basement, Unfinished	01	0.00	20
UBM	Basement, Unfinished	02	0.00	20
UBM	Basement, Unfinished	03	0.00	20
UBM	Basement, Unfinished	04	0.00	20
UBM	Basement, Unfinished	05	0.00	20
UBM	Basement, Unfinished	06	0.00	25
UBM	Basement, Unfinished	94	0.00	20
UBM	Basement, Unfinished	95	0.00	35
UBM	Basement, Unfinished	96	0.00	35
<hr/>				
UEP	Porch, Enclosed, Unfinished	01	0.00	50
UEP	Porch, Enclosed, Unfinished	02	0.00	50
UEP	Porch, Enclosed, Unfinished	03	0.00	50
UEP	Porch, Enclosed, Unfinished	04	0.00	50
UEP	Porch, Enclosed, Unfinished	05	0.00	50
UEP	Porch, Enclosed, Unfinished	06	0.00	50
UEP	Porch, Enclosed, Unfinished	94	0.00	50
UEP	Porch, Enclosed, Unfinished	95	0.00	50
UEP	Porch, Enclosed, Unfinished	96	0.00	50
<hr/>				
UGR	Garage, Unfinished	01	0.00	30
UGR	Garage, Unfinished	02	0.00	30
UGR	Garage, Unfinished	03	0.00	30
UGR	Garage, Unfinished	04	0.00	30
UGR	Garage, Unfinished	05	0.00	30
UGR	Garage, Unfinished	06	0.00	30
UGR	Garage, Unfinished	94	0.00	30
UGR	Garage, Unfinished	95	0.00	30
UGR	Garage, Unfinished	96	0.00	30
<hr/>				
UHS	Half Story, Unfinished	01	0.00	30
UHS	Half Story, Unfinished	02	0.00	30
UHS	Half Story, Unfinished	03	0.00	30
UHS	Half Story, Unfinished	04	0.00	30
UHS	Half Story, Unfinished	05	0.00	30
UHS	Half Story, Unfinished	06	0.00	30
UHS	Half Story, Unfinished	94	0.00	30
UHS	Half Story, Unfinished	95	0.00	30
UHS	Half Story, Unfinished	96	0.00	30
<hr/>				
ULP	Loading Platform, Unfinished	01	0.00	0
ULP	Loading Platform, Unfinished	02	0.00	0
ULP	Loading Platform, Unfinished	03	0.00	0
ULP	Loading Platform, Unfinished	04	0.00	20
ULP	Loading Platform, Unfinished	05	0.00	0
ULP	Loading Platform, Unfinished	06	0.00	20
ULP	Loading Platform, Unfinished	94	0.00	20
ULP	Loading Platform, Unfinished	95	0.00	20
ULP	Loading Platform, Unfinished	96	0.00	20
<hr/>				
UNK	Unknown	01	0.00	0
UNK	Unknown	02	0.00	0
UNK	Unknown	03	0.00	0
UNK	Unknown	04	0.00	0
UNK	Unknown	05	0.00	0
UNK	Unknown	06	1.00	100

SUBAREA CODES  
PORTSMOUTH, NH

Area Type	Description	Model	Living	
			Area Factor	Eff Area %
UNK	Unknown	94	1.00	100
UNK	Unknown	95	1.00	100
UNK	Unknown	96	1.00	100
<hr/>				
UQS	Three Quarter Story, Unfished	01	0.00	40
UQS	Three Quarter Story, Unfished	02	0.00	40
UQS	Three Quarter Story, Unfished	03	0.00	40
UQS	Three Quarter Story, Unfished	04	0.00	40
UQS	Three Quarter Story, Unfished	05	0.00	40
UQS	Three Quarter Story, Unfished	06	0.00	40
UQS	Three Quarter Story, Unfished	94	0.00	40
UQS	Three Quarter Story, Unfished	95	0.00	40
UQS	Three Quarter Story, Unfished	96	0.00	40
<hr/>				
URB	Basement, Unfinished, Raised	01	0.00	30
URB	Basement, Unfinished, Raised	02	0.00	30
URB	Basement, Unfinished, Raised	03	0.00	30
URB	Basement, Unfinished, Raised	04	0.00	30
URB	Basement, Unfinished, Raised	05	0.00	30
URB	Basement, Unfinished, Raised	06	0.00	30
URB	Basement, Unfinished, Raised	94	0.00	30
URB	Basement, Unfinished, Raised	95	0.00	30
URB	Basement, Unfinished, Raised	96	0.00	30
<hr/>				
UST	Utility, Storage, Unfinished	01	0.00	10
UST	Utility, Storage, Unfinished	02	0.00	10
UST	Utility, Storage, Unfinished	03	0.00	10
UST	Utility, Storage, Unfinished	04	0.00	10
UST	Utility, Storage, Unfinished	05	0.00	10
UST	Utility, Storage, Unfinished	06	0.00	30
UST	Utility, Storage, Unfinished	94	0.00	30
UST	Utility, Storage, Unfinished	95	0.00	30
UST	Utility, Storage, Unfinished	96	0.00	30
<hr/>				
UUS	Upper Story, Unfinished	01	0.00	50
UUS	Upper Story, Unfinished	02	0.00	50
UUS	Upper Story, Unfinished	03	0.00	50
UUS	Upper Story, Unfinished	04	0.00	50
UUS	Upper Story, Unfinished	05	0.00	50
UUS	Upper Story, Unfinished	06	0.00	50
UUS	Upper Story, Unfinished	94	0.00	50
UUS	Upper Story, Unfinished	95	0.00	50
UUS	Upper Story, Unfinished	96	0.00	50
<hr/>				
WDK	Deck, Wood	01	0.00	10
WDK	Deck, Wood	02	0.00	10
WDK	Deck, Wood	03	0.00	10
WDK	Deck, Wood	04	0.00	10
WDK	Deck, Wood	05	0.00	10
WDK	Deck, Wood	06	0.00	10
WDK	Deck, Wood	94	0.00	10
WDK	Deck, Wood	95	0.00	10
WDK	Deck, Wood	96	0.00	10

## Building Valuation (Building Base Rate Adjustment)

There are many different factors contributing to market value and a wide array of adjustments are applied to building base rates. Both qualitative and quantitative adjustments are necessary.

Model specification identifies which characteristics influence value. These characteristics determine what data is collected and how it's analyzed. For example, a typical house has carpet flooring. The base rate of a house with marble floors would be adjusted upward for this superior feature compared with the carpeted house.

Once items that influence value are identified and collected (model specification), a value or factor (model calibration) is then applied to each attribute.

The following are all property attributes for both residential and commercial properties.

TABLE 19: PROPERTY ATTRIBUTES

Building Type	Attribute	Valid Code	Description
RESIDENTIAL	AC Type:	1	None
RESIDENTIAL	AC Type:	2	Heat Pump
RESIDENTIAL	AC Type:	3	Central
RESIDENTIAL	AC Type:	4	Unit/AC
RESIDENTIAL	AC Type:	5	Vapor Cooler
RESIDENTIAL	AC Type:	6	
RESIDENTIAL	Bath Style:	1	Avg Quality
RESIDENTIAL	Bath Style:	2	Above Avg Qual
RESIDENTIAL	Bath Style:	3	Below Avg Qual
RESIDENTIAL	Bath Style:	4	Good Quality
RESIDENTIAL	Bath Style:	5	Fair
RESIDENTIAL	CNS_BATHRM_STYLE2	1	Avg Quality
RESIDENTIAL	CNS_BATHRM_STYLE2	2	Above Avg Qual
RESIDENTIAL	CNS_BATHRM_STYLE2	3	Below Avg Qual
RESIDENTIAL	CNS_BATHRM_STYLE2	4	Good Quality
RESIDENTIAL	CNS_BATHRM_STYLE2	5	Fair
RESIDENTIAL	CNS_BATHRM_STYLE3	1	Avg Quality
RESIDENTIAL	CNS_BATHRM_STYLE3	2	Above Avg Qual
RESIDENTIAL	CNS_BATHRM_STYLE3	3	Below Avg Qual
RESIDENTIAL	CNS_BATHRM_STYLE3	4	Good Quality
RESIDENTIAL	CNS_BATHRM_STYLE3	5	Fair
RESIDENTIAL	CNS_KITCHEN_STYLE2	1	Avg Quality
RESIDENTIAL	CNS_KITCHEN_STYLE2	2	Above Avg Qual

Building Type	Attribute	Valid Code	Description
RESIDENTIAL	CNS_KITCHEN_STYLE2	3	Below Avg Qual
RESIDENTIAL	CNS_KITCHEN_STYLE2	4	Good Quality
RESIDENTIAL	CNS_KITCHEN_STYLE2	5	Fair
RESIDENTIAL	CNS_KITCHEN_STYLE3	1	Avg Quality
RESIDENTIAL	CNS_KITCHEN_STYLE3	2	Above Avg Qual
RESIDENTIAL	CNS_KITCHEN_STYLE3	3	Below Avg Qual
RESIDENTIAL	CNS_KITCHEN_STYLE3	4	Good Quality
RESIDENTIAL	CNS_KITCHEN_STYLE3	5	Fair
RESIDENTIAL	CNS_USRFLD_100	A	
RESIDENTIAL	CNS_USRFLD_100	B	
RESIDENTIAL	CNS_USRFLD_100	C	
RESIDENTIAL	CNS_USRFLD_100	D	
RESIDENTIAL	Exterior Wall 1	1	Minimum
RESIDENTIAL	Exterior Wall 1	2	Comp./Wall Brd
RESIDENTIAL	Exterior Wall 1	3	Below Average
RESIDENTIAL	Exterior Wall 1	4	Single Siding
RESIDENTIAL	Exterior Wall 1	5	Average
RESIDENTIAL	Exterior Wall 1	6	Board & Batten
RESIDENTIAL	Exterior Wall 1	7	Asbest Shingle
RESIDENTIAL	Exterior Wall 1	8	Wood on Sheath
RESIDENTIAL	Exterior Wall 1	9	Logs
RESIDENTIAL	Exterior Wall 1	10	Cement Fiber
RESIDENTIAL	Exterior Wall 1	11	Clapboard
RESIDENTIAL	Exterior Wall 1	12	Cedar or Redwd
RESIDENTIAL	Exterior Wall 1	13	Pre-Fab Wood
RESIDENTIAL	Exterior Wall 1	14	Wood Shingle
RESIDENTIAL	Exterior Wall 1	15	Concr/Cinder
RESIDENTIAL	Exterior Wall 1	16	Stucco on Wood
RESIDENTIAL	Exterior Wall 1	17	Stucco/Masonry
RESIDENTIAL	Exterior Wall 1	18	Asphalt
RESIDENTIAL	Exterior Wall 1	19	Brick/Stne Ven
RESIDENTIAL	Exterior Wall 1	20	Brick/Masonry
RESIDENTIAL	Exterior Wall 1	21	Stone/Masonry
RESIDENTIAL	Exterior Wall 1	22	Precast Panel
RESIDENTIAL	Exterior Wall 1	23	Pre-cast Concr
RESIDENTIAL	Exterior Wall 1	24	Reinforc Concr
RESIDENTIAL	Exterior Wall 1	25	Vinyl Siding
RESIDENTIAL	Exterior Wall 1	26	Aluminum Sidng
RESIDENTIAL	Exterior Wall 1	27	Pre-finsh Metl
RESIDENTIAL	Exterior Wall 1	28	Glass/Thermo.
RESIDENTIAL	Exterior Wall 1	29	Vinyl Shingle

Building Type	Attribute	Valid Code	Description
RESIDENTIAL	Exterior Wall 1	30	Stone Veneer
RESIDENTIAL	Exterior Wall 2	1	Minimum
RESIDENTIAL	Exterior Wall 2	2	Comp./Wall Brd
RESIDENTIAL	Exterior Wall 2	3	Below Average
RESIDENTIAL	Exterior Wall 2	4	Single Siding
RESIDENTIAL	Exterior Wall 2	5	Average
RESIDENTIAL	Exterior Wall 2	6	Board & Batten
RESIDENTIAL	Exterior Wall 2	7	Asbest Shingle
RESIDENTIAL	Exterior Wall 2	8	Wood on Sheath
RESIDENTIAL	Exterior Wall 2	9	Logs
RESIDENTIAL	Exterior Wall 2	10	Cement Fiber
RESIDENTIAL	Exterior Wall 2	11	Clapboard
RESIDENTIAL	Exterior Wall 2	12	Cedar or Redwd
RESIDENTIAL	Exterior Wall 2	13	Pre-Fab Wood
RESIDENTIAL	Exterior Wall 2	14	Wood Shingle
RESIDENTIAL	Exterior Wall 2	15	Concr/Cinder
RESIDENTIAL	Exterior Wall 2	16	Stucco on Wood
RESIDENTIAL	Exterior Wall 2	17	Stucco/Masonry
RESIDENTIAL	Exterior Wall 2	18	Asphalt
RESIDENTIAL	Exterior Wall 2	19	Brick/Stne Ven
RESIDENTIAL	Exterior Wall 2	20	Brick/Masonry
RESIDENTIAL	Exterior Wall 2	21	Stone/Masonry
RESIDENTIAL	Exterior Wall 2	22	Precast Panel
RESIDENTIAL	Exterior Wall 2	23	Pre-cast Concr
RESIDENTIAL	Exterior Wall 2	24	Reinforc Concr
RESIDENTIAL	Exterior Wall 2	25	Vinyl Siding
RESIDENTIAL	Exterior Wall 2	26	Aluminum Sidng
RESIDENTIAL	Exterior Wall 2	27	Pre-finsh Metl
RESIDENTIAL	Exterior Wall 2	28	Glass/Thermo.
RESIDENTIAL	Exterior Wall 2	29	Vinyl Shingle
RESIDENTIAL	Exterior Wall 2	30	Stone Veneer
RESIDENTIAL	Grade:	A	A
RESIDENTIAL	Grade:	A+	A+
RESIDENTIAL	Grade:	A-	A-
RESIDENTIAL	Grade:	B	B
RESIDENTIAL	Grade:	B+	B+
RESIDENTIAL	Grade:	B-	B-
RESIDENTIAL	Grade:	C	C
RESIDENTIAL	Grade:	C+	C+
RESIDENTIAL	Grade:	C-	C-
RESIDENTIAL	Grade:	D	D

Building Type	Attribute	Valid Code	Description
RESIDENTIAL	Grade:	D+	D+
RESIDENTIAL	Grade:	D-	D-
RESIDENTIAL	Grade:	E	E
RESIDENTIAL	Grade:	X	X
RESIDENTIAL	Grade:	X+	X+
RESIDENTIAL	Grade:	X-	X-
RESIDENTIAL	Heat Fuel	0	None
RESIDENTIAL	Heat Fuel	1	Coal or Wood
RESIDENTIAL	Heat Fuel	2	Oil
RESIDENTIAL	Heat Fuel	3	Gas
RESIDENTIAL	Heat Fuel	4	Electric
RESIDENTIAL	Heat Fuel	5	Solar Assisted
RESIDENTIAL	Heat Fuel	6	Geo Thermal
RESIDENTIAL	Heat Type:	1	None
RESIDENTIAL	Heat Type:	2	Warm Air
RESIDENTIAL	Heat Type:	3	Electric
RESIDENTIAL	Heat Type:	4	Hot Water
RESIDENTIAL	Heat Type:	5	Steam
RESIDENTIAL	Heat Type:	6	Wall Unit
RESIDENTIAL	Heat Type:	7	Baseboard
RESIDENTIAL	Heat Type:	8	Solar
RESIDENTIAL	Heat Type:	9	Radiant
RESIDENTIAL	Heat Type:	10	Hot Air-no Duc
RESIDENTIAL	Interior Flr 1	1	Dirt/None
RESIDENTIAL	Interior Flr 1	2	Minimum/Plywd
RESIDENTIAL	Interior Flr 1	3	Concr-Finished
RESIDENTIAL	Interior Flr 1	4	Concr Abv Grad
RESIDENTIAL	Interior Flr 1	5	Vinyl/Asphalt
RESIDENTIAL	Interior Flr 1	6	Inlaid Sht Gds
RESIDENTIAL	Interior Flr 1	7	Cork Tile
RESIDENTIAL	Interior Flr 1	8	Average
RESIDENTIAL	Interior Flr 1	9	Pine/Soft Wood
RESIDENTIAL	Interior Flr 1	10	Terrazzo Monol
RESIDENTIAL	Interior Flr 1	11	Ceram Clay Til
RESIDENTIAL	Interior Flr 1	12	Hardwood
RESIDENTIAL	Interior Flr 1	13	Parquet
RESIDENTIAL	Interior Flr 1	14	Carpet
RESIDENTIAL	Interior Flr 1	15	Quarry Tile
RESIDENTIAL	Interior Flr 1	16	Terrazzo Epoxy
RESIDENTIAL	Interior Flr 1	17	Precast Concr
RESIDENTIAL	Interior Flr 1	18	Slate



Building Type	Attribute	Valid Code	Description
RESIDENTIAL	Interior Flr 1	19	Marble
RESIDENTIAL	Interior Flr 1	20	Laminate Wood
RESIDENTIAL	Interior Flr 2	1	Dirt/None
RESIDENTIAL	Interior Flr 2	2	Minimum/Plywd
RESIDENTIAL	Interior Flr 2	3	Concr-Finished
RESIDENTIAL	Interior Flr 2	4	Concr Abv Grad
RESIDENTIAL	Interior Flr 2	5	Vinyl/Asphalt
RESIDENTIAL	Interior Flr 2	6	Inlaid Sht Gds
RESIDENTIAL	Interior Flr 2	7	Cork Tile
RESIDENTIAL	Interior Flr 2	8	Average
RESIDENTIAL	Interior Flr 2	9	Pine/Soft Wood
RESIDENTIAL	Interior Flr 2	10	Terrazzo Monol
RESIDENTIAL	Interior Flr 2	11	Ceram Clay Til
RESIDENTIAL	Interior Flr 2	12	Hardwood
RESIDENTIAL	Interior Flr 2	13	Parquet
RESIDENTIAL	Interior Flr 2	14	Carpet
RESIDENTIAL	Interior Flr 2	15	Quarry Tile
RESIDENTIAL	Interior Flr 2	16	Terrazzo Epoxy
RESIDENTIAL	Interior Flr 2	17	Precast Concr
RESIDENTIAL	Interior Flr 2	18	Slate
RESIDENTIAL	Interior Flr 2	19	Marble
RESIDENTIAL	Interior Flr 2	20	Laminate Wood
RESIDENTIAL	Interior Wall 1	1	Minim/Masonry
RESIDENTIAL	Interior Wall 1	2	Wall Brd/Wood
RESIDENTIAL	Interior Wall 1	3	Plastered
RESIDENTIAL	Interior Wall 1	4	Plywood Panel
RESIDENTIAL	Interior Wall 1	5	Drywall/Sheet
RESIDENTIAL	Interior Wall 1	6	Cust Wd Panel
RESIDENTIAL	Interior Wall 1	7	K Pine/A Wd
RESIDENTIAL	Interior Wall 2	1	Minim/Masonry
RESIDENTIAL	Interior Wall 2	2	Wall Brd/Wood
RESIDENTIAL	Interior Wall 2	3	Plastered
RESIDENTIAL	Interior Wall 2	4	Plywood Panel
RESIDENTIAL	Interior Wall 2	5	Drywall/Sheet
RESIDENTIAL	Interior Wall 2	6	Cust Wd Panel
RESIDENTIAL	Interior Wall 2	7	K Pine/A Wd
RESIDENTIAL	Kitchen Gr	A	
RESIDENTIAL	Kitchen Gr	B	
RESIDENTIAL	Kitchen Gr	C	
RESIDENTIAL	Kitchen Gr	D	
RESIDENTIAL	Kitchen Style:	1	Avg Quality

Building Type	Attribute	Valid Code	Description
RESIDENTIAL	Kitchen Style:	2	Above Avg Qual
RESIDENTIAL	Kitchen Style:	3	Below Avg Qual
RESIDENTIAL	Kitchen Style:	4	Good Quality
RESIDENTIAL	Kitchen Style:	5	Fair
RESIDENTIAL	Metal Fireplaces	1	None
RESIDENTIAL	Metal Fireplaces	2	Heat Pump
RESIDENTIAL	Metal Fireplaces	3	Central
RESIDENTIAL	Metal Fireplaces	4	Unit/AC
RESIDENTIAL	Metal Fireplaces	5	Vapor Cooler
RESIDENTIAL	Metal Fireplaces	6	
RESIDENTIAL	Roof Cover	1	Metal/Tin
RESIDENTIAL	Roof Cover	2	Rolled Compos
RESIDENTIAL	Roof Cover	3	Asph/F Gls/Cmp
RESIDENTIAL	Roof Cover	4	Tar&Grvl/Rubbr
RESIDENTIAL	Roof Cover	5	Corrugated Asb
RESIDENTIAL	Roof Cover	6	Asbestos Shing
RESIDENTIAL	Roof Cover	7	Concrete Tile
RESIDENTIAL	Roof Cover	8	Clay Tile
RESIDENTIAL	Roof Cover	9	Enam Mtl Shing
RESIDENTIAL	Roof Cover	10	Wood Shingle
RESIDENTIAL	Roof Cover	11	Slate
RESIDENTIAL	Roof Structure:	1	Flat
RESIDENTIAL	Roof Structure:	2	Shed
RESIDENTIAL	Roof Structure:	3	Gable/Hip
RESIDENTIAL	Roof Structure:	4	Wood Truss
RESIDENTIAL	Roof Structure:	5	Salt Box
RESIDENTIAL	Roof Structure:	6	Mansard
RESIDENTIAL	Roof Structure:	7	Gambrel
RESIDENTIAL	Roof Structure:	8	Irregular
RESIDENTIAL	Roof Structure:	9	Rigid Frm/BJst
RESIDENTIAL	Roof Structure:	10	Steel Frm/Trus
RESIDENTIAL	Roof Structure:	11	Bowstring Trus
RESIDENTIAL	Roof Structure:	12	Reinforc Concr
RESIDENTIAL	Roof Structure:	13	Prestres Concr
RESIDENTIAL	Total Bedrooms:	0	
RESIDENTIAL	Total Bedrooms:	1	1 Bedroom
RESIDENTIAL	Total Bedrooms:	2	2 Bedrooms
RESIDENTIAL	Total Bedrooms:	3	3 Bedrooms
RESIDENTIAL	Total Bedrooms:	4	4 Bedrooms
RESIDENTIAL	Total Bedrooms:	5	5 Bedrooms
RESIDENTIAL	Total Bedrooms:	6	6 Bedrooms

Building Type	Attribute	Valid Code	Description
RESIDENTIAL	Total Bedrooms:	7	7 Bedrooms
RESIDENTIAL	Total Bedrooms:	8	8 Bedrooms
RESIDENTIAL	Total Bedrooms:	9	9+ Bedrooms
COMMERCIAL	AC Type	1	None
COMMERCIAL	AC Type	2	Heat Pump
COMMERCIAL	AC Type	3	Central
COMMERCIAL	AC Type	4	Unit/AC
COMMERCIAL	AC Type	5	Vapor Cooler
COMMERCIAL	AC Type	6	
COMMERCIAL	Baths/Plumbing	0	NONE
COMMERCIAL	Baths/Plumbing	1	LIGHT
COMMERCIAL	Baths/Plumbing	2	AVERAGE
COMMERCIAL	Baths/Plumbing	3	ABOVE AVERAGE
COMMERCIAL	Baths/Plumbing	4	EXTENSIVE
COMMERCIAL	CNS_STRUCT_CLASS	1	Ranch
COMMERCIAL	CNS_STRUCT_CLASS	2	Split-Level
COMMERCIAL	CNS_STRUCT_CLASS	3	Colonial
COMMERCIAL	CNS_STRUCT_CLASS	4	Cape Cod
COMMERCIAL	CNS_STRUCT_CLASS	5	Bungalow
COMMERCIAL	CNS_STRUCT_CLASS	6	Conventional
COMMERCIAL	CNS_STRUCT_CLASS	7	Modern/Contemp
COMMERCIAL	CNS_STRUCT_CLASS	8	Raised Ranch
COMMERCIAL	CNS_STRUCT_CLASS	9	Family Flat
COMMERCIAL	CNS_STRUCT_CLASS	10	Family Duplex
COMMERCIAL	CNS_STRUCT_CLASS	11	Family Conver.
COMMERCIAL	CNS_STRUCT_CLASS	12	Commercial
COMMERCIAL	CNS_STRUCT_CLASS	13	Department Str
COMMERCIAL	CNS_STRUCT_CLASS	14	Apartments
COMMERCIAL	CNS_STRUCT_CLASS	15	Shop Center RE
COMMERCIAL	CNS_STRUCT_CLASS	16	Shop Center LO
COMMERCIAL	CNS_STRUCT_CLASS	17	Store
COMMERCIAL	CNS_STRUCT_CLASS	18	Office Bldg
COMMERCIAL	CNS_STRUCT_CLASS	19	Profess. Bldg
COMMERCIAL	CNS_STRUCT_CLASS	20	Mobile Home
COMMERCIAL	CNS_STRUCT_CLASS	200	Retail/Office
COMMERCIAL	CNS_STRUCT_CLASS	201	Food Stand
COMMERCIAL	CNS_STRUCT_CLASS	202	Parking Garage
COMMERCIAL	CNS_STRUCT_CLASS	203	Conv Store
COMMERCIAL	CNS_STRUCT_CLASS	204	Day Care
COMMERCIAL	CNS_STRUCT_CLASS	205	Ret/Off/Apt
COMMERCIAL	CNS_STRUCT_CLASS	206	Self Strge

Building Type	Attribute	Valid Code	Description
COMMERCIAL	CNS_STRUCT_CLASS	207	Cultrl Facilit
COMMERCIAL	CNS_STRUCT_CLASS	208	Office/Apt
COMMERCIAL	CNS_STRUCT_CLASS	21	Fast Food Rest
COMMERCIAL	CNS_STRUCT_CLASS	210	Hangar Condo
COMMERCIAL	CNS_STRUCT_CLASS	211	Comm Condo
COMMERCIAL	CNS_STRUCT_CLASS	22	Supermarket
COMMERCIAL	CNS_STRUCT_CLASS	23	Finan Inst.
COMMERCIAL	CNS_STRUCT_CLASS	24	Ins Co Reg Off
COMMERCIAL	CNS_STRUCT_CLASS	25	Service Shop
COMMERCIAL	CNS_STRUCT_CLASS	26	Serv Sta 2-bay
COMMERCIAL	CNS_STRUCT_CLASS	27	Auto Sales Rpr
COMMERCIAL	CNS_STRUCT_CLASS	28	Funeral Home
COMMERCIAL	CNS_STRUCT_CLASS	29	Nursing Home
COMMERCIAL	CNS_STRUCT_CLASS	30	Restaurant
COMMERCIAL	CNS_STRUCT_CLASS	31	Branch Bank
COMMERCIAL	CNS_STRUCT_CLASS	32	Theaters Encl.
COMMERCIAL	CNS_STRUCT_CLASS	33	Nightclub/Bar
COMMERCIAL	CNS_STRUCT_CLASS	34	Bowling/Arena
COMMERCIAL	CNS_STRUCT_CLASS	35	Bakery
COMMERCIAL	CNS_STRUCT_CLASS	36	Camp
COMMERCIAL	CNS_STRUCT_CLASS	37	Quonset Bldg
COMMERCIAL	CNS_STRUCT_CLASS	38	Country Club
COMMERCIAL	CNS_STRUCT_CLASS	39	Motel
COMMERCIAL	CNS_STRUCT_CLASS	40	Light Indust
COMMERCIAL	CNS_STRUCT_CLASS	41	Research/Devel
COMMERCIAL	CNS_STRUCT_CLASS	42	Heavy Indust
COMMERCIAL	CNS_STRUCT_CLASS	43	Car Wash
COMMERCIAL	CNS_STRUCT_CLASS	44	Packing Plant
COMMERCIAL	CNS_STRUCT_CLASS	45	Brewery/Winery
COMMERCIAL	CNS_STRUCT_CLASS	46	Food Process
COMMERCIAL	CNS_STRUCT_CLASS	47	Cold Storage
COMMERCIAL	CNS_STRUCT_CLASS	48	Whse-Indust
COMMERCIAL	CNS_STRUCT_CLASS	49	Serv Sta 3-Bay
COMMERCIAL	CNS_STRUCT_CLASS	4C	Comml Whse
COMMERCIAL	CNS_STRUCT_CLASS	50	Serv Sta 1-Bay
COMMERCIAL	CNS_STRUCT_CLASS	51	Indust. Office
COMMERCIAL	CNS_STRUCT_CLASS	52	Pre-Eng Mfg
COMMERCIAL	CNS_STRUCT_CLASS	53	Pre-Eng Warehs
COMMERCIAL	CNS_STRUCT_CLASS	54	Health Club
COMMERCIAL	CNS_STRUCT_CLASS	55	Condominium
COMMERCIAL	CNS_STRUCT_CLASS	56	Condo Office

Building Type	Attribute	Valid Code	Description
COMMERCIAL	CNS_STRUCT_CLASS	57	Library
COMMERCIAL	CNS_STRUCT_CLASS	58	City/Town Hall
COMMERCIAL	CNS_STRUCT_CLASS	59	Fire Station
COMMERCIAL	CNS_STRUCT_CLASS	5C	Condo Bank
COMMERCIAL	CNS_STRUCT_CLASS	60	Victorian
COMMERCIAL	CNS_STRUCT_CLASS	61	Dry Cln/Laundr
COMMERCIAL	CNS_STRUCT_CLASS	62	Furn Showroom
COMMERCIAL	CNS_STRUCT_CLASS	63	Antique
COMMERCIAL	CNS_STRUCT_CLASS	64	Tennis Club
COMMERCIAL	CNS_STRUCT_CLASS	65	Skating Arena
COMMERCIAL	CNS_STRUCT_CLASS	66	Hotel
COMMERCIAL	CNS_STRUCT_CLASS	67	Coin-op CarWsh
COMMERCIAL	CNS_STRUCT_CLASS	68	Dairy/Feed Lot
COMMERCIAL	CNS_STRUCT_CLASS	69	Truck Terminal
COMMERCIAL	CNS_STRUCT_CLASS	70	Dormitory
COMMERCIAL	CNS_STRUCT_CLASS	71	Churches
COMMERCIAL	CNS_STRUCT_CLASS	72	School/College
COMMERCIAL	CNS_STRUCT_CLASS	73	Hospitals-Priv
COMMERCIAL	CNS_STRUCT_CLASS	74	Home for Aged
COMMERCIAL	CNS_STRUCT_CLASS	75	Gas Mart
COMMERCIAL	CNS_STRUCT_CLASS	76	Mortuary/Cemet
COMMERCIAL	CNS_STRUCT_CLASS	77	Clubs/Lodges
COMMERCIAL	CNS_STRUCT_CLASS	78	Airport Hangar
COMMERCIAL	CNS_STRUCT_CLASS	79	Telephone Bldg
COMMERCIAL	CNS_STRUCT_CLASS	80	Stores/Apt Com
COMMERCIAL	CNS_STRUCT_CLASS	81	Military
COMMERCIAL	CNS_STRUCT_CLASS	82	Auditorium
COMMERCIAL	CNS_STRUCT_CLASS	83	Schools-Public
COMMERCIAL	CNS_STRUCT_CLASS	84	Colleges
COMMERCIAL	CNS_STRUCT_CLASS	85	Hospital
COMMERCIAL	CNS_STRUCT_CLASS	86	Other Country
COMMERCIAL	CNS_STRUCT_CLASS	87	Other State
COMMERCIAL	CNS_STRUCT_CLASS	88	Other Federal
COMMERCIAL	CNS_STRUCT_CLASS	89	Other Municip
COMMERCIAL	CNS_STRUCT_CLASS	90	Retail Condo
COMMERCIAL	CNS_STRUCT_CLASS	91	Fast Food
COMMERCIAL	CNS_STRUCT_CLASS	92	Court House
COMMERCIAL	CNS_STRUCT_CLASS	93	Petroleum/Gas
COMMERCIAL	CNS_STRUCT_CLASS	94	Outbuildings
COMMERCIAL	CNS_STRUCT_CLASS	95	Garage/Office
COMMERCIAL	CNS_STRUCT_CLASS	96	Office/Warehs

Building Type	Attribute	Valid Code	Description
COMMERCIAL	CNS_STRUCT_CLASS	97	High Rise Apt
COMMERCIAL	CNS_STRUCT_CLASS	98	Indust Condo
COMMERCIAL	CNS_STRUCT_CLASS	99	Vacant Land
COMMERCIAL	Ceiling/Wall	0	NONE
COMMERCIAL	Ceiling/Wall	1	SUSP-CEIL ONLY
COMMERCIAL	Ceiling/Wall	2	CEILING ONLY
COMMERCIAL	Ceiling/Wall	3	SUS-CEIL/MN WL
COMMERCIAL	Ceiling/Wall	4	CEIL & MIN WL
COMMERCIAL	Ceiling/Wall	5	SUS-CEIL & WL
COMMERCIAL	Ceiling/Wall	6	CEIL & WALLS
COMMERCIAL	Ceiling/Wall	7	-DESCRIPTION-
COMMERCIAL	Exterior Wall 1	1	Minimum
COMMERCIAL	Exterior Wall 1	2	Comp./Wall Brd
COMMERCIAL	Exterior Wall 1	3	Below Average
COMMERCIAL	Exterior Wall 1	4	Single Siding
COMMERCIAL	Exterior Wall 1	5	Average
COMMERCIAL	Exterior Wall 1	6	Board & Batten
COMMERCIAL	Exterior Wall 1	7	Asbest Shingle
COMMERCIAL	Exterior Wall 1	8	Wood on Sheath
COMMERCIAL	Exterior Wall 1	9	Logs
COMMERCIAL	Exterior Wall 1	10	Cement Fiber
COMMERCIAL	Exterior Wall 1	11	Clapboard
COMMERCIAL	Exterior Wall 1	12	Cedar or Redwd
COMMERCIAL	Exterior Wall 1	13	Pre-Fab Wood
COMMERCIAL	Exterior Wall 1	14	Wood Shingle
COMMERCIAL	Exterior Wall 1	15	Concr/Cinder
COMMERCIAL	Exterior Wall 1	16	Stucco on Wood
COMMERCIAL	Exterior Wall 1	17	Stucco/Masonry
COMMERCIAL	Exterior Wall 1	18	Asphalt
COMMERCIAL	Exterior Wall 1	19	Brick/Stne Ven
COMMERCIAL	Exterior Wall 1	20	Brick/Masonry
COMMERCIAL	Exterior Wall 1	21	Stone/Masonry
COMMERCIAL	Exterior Wall 1	22	Precast Panel
COMMERCIAL	Exterior Wall 1	23	Pre-cast Concr
COMMERCIAL	Exterior Wall 1	24	Reinforc Concr
COMMERCIAL	Exterior Wall 1	25	Vinyl Siding
COMMERCIAL	Exterior Wall 1	26	Aluminum Sidng
COMMERCIAL	Exterior Wall 1	27	Pre-finsh Metl
COMMERCIAL	Exterior Wall 1	28	Glass/Thermo.
COMMERCIAL	Exterior Wall 1	29	Vinyl Shingle
COMMERCIAL	Exterior Wall 1	30	Stone Veneer

Building Type	Attribute	Valid Code	Description
COMMERCIAL	Exterior Wall 2	1	Minimum
COMMERCIAL	Exterior Wall 2	2	Comp./Wall Brd
COMMERCIAL	Exterior Wall 2	3	Below Average
COMMERCIAL	Exterior Wall 2	4	Single Siding
COMMERCIAL	Exterior Wall 2	5	Average
COMMERCIAL	Exterior Wall 2	6	Board & Batten
COMMERCIAL	Exterior Wall 2	7	Asbest Shingle
COMMERCIAL	Exterior Wall 2	8	Wood on Sheath
COMMERCIAL	Exterior Wall 2	9	Logs
COMMERCIAL	Exterior Wall 2	10	Cement Fiber
COMMERCIAL	Exterior Wall 2	11	Clapboard
COMMERCIAL	Exterior Wall 2	12	Cedar or Redwd
COMMERCIAL	Exterior Wall 2	13	Pre-Fab Wood
COMMERCIAL	Exterior Wall 2	14	Wood Shingle
COMMERCIAL	Exterior Wall 2	15	Concr/Cinder
COMMERCIAL	Exterior Wall 2	16	Stucco on Wood
COMMERCIAL	Exterior Wall 2	17	Stucco/Masonry
COMMERCIAL	Exterior Wall 2	18	Asphalt
COMMERCIAL	Exterior Wall 2	19	Brick/Stne Ven
COMMERCIAL	Exterior Wall 2	20	Brick/Masonry
COMMERCIAL	Exterior Wall 2	21	Stone/Masonry
COMMERCIAL	Exterior Wall 2	22	Precast Panel
COMMERCIAL	Exterior Wall 2	23	Pre-cast Concr
COMMERCIAL	Exterior Wall 2	24	Reinforc Concr
COMMERCIAL	Exterior Wall 2	25	Vinyl Siding
COMMERCIAL	Exterior Wall 2	26	Aluminum Sidng
COMMERCIAL	Exterior Wall 2	27	Pre-finsh Metl
COMMERCIAL	Exterior Wall 2	28	Glass/Thermo.
COMMERCIAL	Exterior Wall 2	29	Vinyl Shingle
COMMERCIAL	Exterior Wall 2	30	Stone Veneer
COMMERCIAL	Frame Type	1	NONE
COMMERCIAL	Frame Type	2	WOOD FRAME
COMMERCIAL	Frame Type	3	MASONRY
COMMERCIAL	Frame Type	4	REINF. CONCR
COMMERCIAL	Frame Type	5	STEEL
COMMERCIAL	Frame Type	6	FIREPRF STEEL
COMMERCIAL	Frame Type	7	SPECIAL
COMMERCIAL	Grade	A	A
COMMERCIAL	Grade	A+	A+
COMMERCIAL	Grade	A-	A
COMMERCIAL	Grade	B	B

Building Type	Attribute	Valid Code	Description
COMMERCIAL	Grade	B+	B+
COMMERCIAL	Grade	B-	B-
COMMERCIAL	Grade	C	C
COMMERCIAL	Grade	C+	C+
COMMERCIAL	Grade	C-	C-
COMMERCIAL	Grade	D	D
COMMERCIAL	Grade	D+	D+
COMMERCIAL	Grade	D-	D-
COMMERCIAL	Heat/AC	0	NONE
COMMERCIAL	Heat/AC	1	HEAT/AC PKGS
COMMERCIAL	Heat/AC	2	HEAT/AC SPLIT
COMMERCIAL	Heating Fuel	1	Coal or Wood
COMMERCIAL	Heating Fuel	2	Oil
COMMERCIAL	Heating Fuel	3	Gas
COMMERCIAL	Heating Fuel	4	Electric
COMMERCIAL	Heating Fuel	5	Solar Assisted
COMMERCIAL	Heating Type	1	None
COMMERCIAL	Heating Type	2	Floor Furnace
COMMERCIAL	Heating Type	3	Hot Air-no Duc
COMMERCIAL	Heating Type	4	Forced Air-Duc
COMMERCIAL	Heating Type	5	Hot Water
COMMERCIAL	Heating Type	6	Steam
COMMERCIAL	Heating Type	7	Electr Basebrd
COMMERCIAL	Heating Type	8	Radiant
COMMERCIAL	Interior Floor 1	1	Dirt/None
COMMERCIAL	Interior Floor 1	2	Minimum/Plywd
COMMERCIAL	Interior Floor 1	3	Concr-Finished
COMMERCIAL	Interior Floor 1	4	Concr Abv Grad
COMMERCIAL	Interior Floor 1	5	Vinyl/Asphalt
COMMERCIAL	Interior Floor 1	6	Inlaid Sht Gds
COMMERCIAL	Interior Floor 1	7	Cork Tile
COMMERCIAL	Interior Floor 1	8	Average
COMMERCIAL	Interior Floor 1	9	Pine/Soft Wood
COMMERCIAL	Interior Floor 1	10	Terrazzo Monol
COMMERCIAL	Interior Floor 1	11	Ceram Clay Til
COMMERCIAL	Interior Floor 1	12	Hardwood
COMMERCIAL	Interior Floor 1	13	Parquet
COMMERCIAL	Interior Floor 1	14	Carpet
COMMERCIAL	Interior Floor 1	15	Quarry Tile
COMMERCIAL	Interior Floor 1	16	Terrazzo Epoxy
COMMERCIAL	Interior Floor 1	17	Precast Concr



Building Type	Attribute	Valid Code	Description
COMMERCIAL	Interior Floor 1	18	Slate
COMMERCIAL	Interior Floor 1	19	Marble
COMMERCIAL	Interior Floor 2	1	Dirt/None
COMMERCIAL	Interior Floor 2	2	Minimum/Plywd
COMMERCIAL	Interior Floor 2	3	Concr-Finished
COMMERCIAL	Interior Floor 2	4	Concr Abv Grad
COMMERCIAL	Interior Floor 2	5	Vinyl/Asphalt
COMMERCIAL	Interior Floor 2	6	Inlaid Sht Gds
COMMERCIAL	Interior Floor 2	7	Cork Tile
COMMERCIAL	Interior Floor 2	8	Average
COMMERCIAL	Interior Floor 2	9	Pine/Soft Wood
COMMERCIAL	Interior Floor 2	10	Terrazzo Monol
COMMERCIAL	Interior Floor 2	11	Ceram Clay Til
COMMERCIAL	Interior Floor 2	12	Hardwood
COMMERCIAL	Interior Floor 2	13	Parquet
COMMERCIAL	Interior Floor 2	14	Carpet
COMMERCIAL	Interior Floor 2	15	Quarry Tile
COMMERCIAL	Interior Floor 2	16	Terrazzo Epoxy
COMMERCIAL	Interior Floor 2	17	Precast Concr
COMMERCIAL	Interior Floor 2	18	Slate
COMMERCIAL	Interior Floor 2	19	Marble
COMMERCIAL	Interior Wall 1	1	Minim/Masonry
COMMERCIAL	Interior Wall 1	2	Wall Brd/Wood
COMMERCIAL	Interior Wall 1	3	Plastered
COMMERCIAL	Interior Wall 1	4	Plywood Panel
COMMERCIAL	Interior Wall 1	5	Drywall/Sheet
COMMERCIAL	Interior Wall 1	6	Cust Wd Panel
COMMERCIAL	Interior Wall 1	7	K PINE/A WD
COMMERCIAL	Interior Wall 2	1	Minim/Masonry
COMMERCIAL	Interior Wall 2	2	Wall Brd/Wood
COMMERCIAL	Interior Wall 2	3	Plastered
COMMERCIAL	Interior Wall 2	4	Plywood Panel
COMMERCIAL	Interior Wall 2	5	Drywall/Sheet
COMMERCIAL	Interior Wall 2	6	Cust Wd Panel
COMMERCIAL	Interior Wall 2	7	K PINE/A WD
COMMERCIAL	Kitchen Grd	1	Average
COMMERCIAL	Kitchen Grd	2	Above Avg
COMMERCIAL	Kitchen Grd	3	Excellent
COMMERCIAL	Roof Cover	1	Metal/Tin
COMMERCIAL	Roof Cover	2	Rolled Compos
COMMERCIAL	Roof Cover	3	Asph/F GlS/Cmp

Building Type	Attribute	Valid Code	Description
COMMERCIAL	Roof Cover	4	T & Grvl/Rubbr
COMMERCIAL	Roof Cover	5	Corrugated Asb
COMMERCIAL	Roof Cover	6	Asbestos Shing
COMMERCIAL	Roof Cover	7	Concrete Tile
COMMERCIAL	Roof Cover	8	Clay Tile
COMMERCIAL	Roof Cover	9	Enam Mtl Shing
COMMERCIAL	Roof Cover	10	Wood Shingle
COMMERCIAL	Roof Cover	11	Slate
COMMERCIAL	Roof Structure	1	Flat
COMMERCIAL	Roof Structure	2	Shed
COMMERCIAL	Roof Structure	3	Gable/Hip
COMMERCIAL	Roof Structure	4	Wood Truss
COMMERCIAL	Roof Structure	5	Salt Box
COMMERCIAL	Roof Structure	6	Mansard
COMMERCIAL	Roof Structure	7	Gambrel
COMMERCIAL	Roof Structure	8	Irregular
COMMERCIAL	Roof Structure	9	Rigid Frm/BJst
COMMERCIAL	Roof Structure	10	Steel Frm/Trus
COMMERCIAL	Roof Structure	11	Bowstring Trus
COMMERCIAL	Roof Structure	12	Reinforc Concr
COMMERCIAL	Roof Structure	13	Prestres Concr
COMMERCIAL	Rooms/Prtns	1	LIGHT
COMMERCIAL	Rooms/Prtns	2	AVERAGE
COMMERCIAL	Rooms/Prtns	3	ABOVE AVERAGE
CONDO UNIT	AC Type:	1	None
CONDO UNIT	AC Type:	2	Heat Pump
CONDO UNIT	AC Type:	3	Central
CONDO UNIT	AC Type:	4	Unit/AC
CONDO UNIT	AC Type:	5	Vapor Cooler
CONDO UNIT	AC Type:	6	
CONDO UNIT	Bath Style:	1	Avg Quality
CONDO UNIT	Bath Style:	2	Above Avg Qual
CONDO UNIT	Bath Style:	3	Below Avg Qual
CONDO UNIT	Bath Style:	4	Good Quality
CONDO UNIT	Bath Style:	5	Fair
CONDO UNIT	CNS_BATHRM_STYLE2	1	Avg Quality
CONDO UNIT	CNS_BATHRM_STYLE2	2	Above Avg Qual
CONDO UNIT	CNS_BATHRM_STYLE2	3	Below Avg Qual
CONDO UNIT	CNS_BATHRM_STYLE2	4	Good Quality
CONDO UNIT	CNS_BATHRM_STYLE2	5	Fair
CONDO UNIT	CNS_BATHRM_STYLE3	1	Avg Quality

Building Type	Attribute	Valid Code	Description
CONDO UNIT	CNS_BATHRM_STYLE3	2	Above Avg Qual
CONDO UNIT	CNS_BATHRM_STYLE3	3	Below Avg Qual
CONDO UNIT	CNS_BATHRM_STYLE3	4	Good Quality
CONDO UNIT	CNS_BATHRM_STYLE3	5	Fair
CONDO UNIT	CNS_CONDO_FLR	0	BASEMENT
CONDO UNIT	CNS_CONDO_FLR	1	FIRST FLOOR
CONDO UNIT	CNS_CONDO_FLR	2	SECOND FLOOR
CONDO UNIT	CNS_CONDO_FLR	3	THIRD FLOOR
CONDO UNIT	CNS_CONDO_FLR	4	FOURTH FLOOR
CONDO UNIT	CNS_CONDO_FLR	5	FIFTH FLOOR
CONDO UNIT	CNS_PARK_OWN	T	Typical
CONDO UNIT	CNS_PARK_TANDEM	1	None
CONDO UNIT	CNS_PARK_TANDEM	2	Heat Pump
CONDO UNIT	CNS_PARK_TANDEM	3	Central
CONDO UNIT	CNS_PARK_TANDEM	4	Unit/AC
CONDO UNIT	CNS_PARK_TANDEM	5	Vapor Cooler
CONDO UNIT	CNS_PARK_TANDEM	6	
CONDO UNIT	CNS_UNIT_LOCN	0	BASEMENT
CONDO UNIT	CNS_UNIT_LOCN	1	FIRST FLOOR
CONDO UNIT	CNS_UNIT_LOCN	2	SECOND FLOOR
CONDO UNIT	CNS_UNIT_LOCN	3	THIRD FLOOR
CONDO UNIT	CNS_UNIT_LOCN	4	FOURTH FLOOR
CONDO UNIT	CNS_UNIT_LOCN	5	FIFTH FLOOR
CONDO UNIT	Grade	A	A
CONDO UNIT	Grade	A+	A+
CONDO UNIT	Grade	A-	A-
CONDO UNIT	Grade	B	B
CONDO UNIT	Grade	B+	B+
CONDO UNIT	Grade	B-	B-
CONDO UNIT	Grade	C	C
CONDO UNIT	Grade	C+	C+
CONDO UNIT	Grade	C-	C-
CONDO UNIT	Grade	D	D
CONDO UNIT	Grade	D+	D+
CONDO UNIT	Grade	D-	D-
CONDO UNIT	Grade	E	E
CONDO UNIT	Grade	X	X
CONDO UNIT	Grade	X+	X+
CONDO UNIT	Grade	X-	X-
CONDO UNIT	Heat Fuel:	0	None
CONDO UNIT	Heat Fuel:	1	Coal or Wood

Building Type	Attribute	Valid Code	Description
CONDO UNIT	Heat Fuel:	2	Oil
CONDO UNIT	Heat Fuel:	3	Gas
CONDO UNIT	Heat Fuel:	4	Electric
CONDO UNIT	Heat Fuel:	5	Solar Assisted
CONDO UNIT	Heat Fuel:	6	Geo Thermal
CONDO UNIT	Heat Type:	1	None
CONDO UNIT	Heat Type:	2	Warm Air
CONDO UNIT	Heat Type:	3	Electric
CONDO UNIT	Heat Type:	4	Hot Water
CONDO UNIT	Heat Type:	5	Steam
CONDO UNIT	Heat Type:	6	Wall Unit
CONDO UNIT	Heat Type:	7	Baseboard
CONDO UNIT	Heat Type:	8	Solar
CONDO UNIT	Heat Type:	9	Radiant
CONDO UNIT	Heat Type:	10	Hot Air-no Duc
CONDO UNIT	Interior Floor 1	1	Dirt/None
CONDO UNIT	Interior Floor 1	2	Minimum/Plywd
CONDO UNIT	Interior Floor 1	3	Concr-Finished
CONDO UNIT	Interior Floor 1	4	Concr Abv Grad
CONDO UNIT	Interior Floor 1	5	Vinyl/Asphalt
CONDO UNIT	Interior Floor 1	6	Inlaid Sht Gds
CONDO UNIT	Interior Floor 1	7	Cork Tile
CONDO UNIT	Interior Floor 1	8	Average
CONDO UNIT	Interior Floor 1	9	Pine/Soft Wood
CONDO UNIT	Interior Floor 1	10	Terrazzo Monol
CONDO UNIT	Interior Floor 1	11	Ceram Clay Til
CONDO UNIT	Interior Floor 1	12	Hardwood
CONDO UNIT	Interior Floor 1	13	Parquet
CONDO UNIT	Interior Floor 1	14	Carpet
CONDO UNIT	Interior Floor 1	15	Quarry Tile
CONDO UNIT	Interior Floor 1	16	Terrazzo Epoxy
CONDO UNIT	Interior Floor 1	17	Precast Concr
CONDO UNIT	Interior Floor 1	18	Slate
CONDO UNIT	Interior Floor 1	19	Marble
CONDO UNIT	Interior Floor 1	20	Laminate Wood
CONDO UNIT	Interior Floor 2	1	Dirt/None
CONDO UNIT	Interior Floor 2	2	Minimum/Plywd
CONDO UNIT	Interior Floor 2	3	Concr-Finished
CONDO UNIT	Interior Floor 2	4	Concr Abv Grad
CONDO UNIT	Interior Floor 2	5	Vinyl/Asphalt
CONDO UNIT	Interior Floor 2	6	Inlaid Sht Gds

Building Type	Attribute	Valid Code	Description
CONDO UNIT	Interior Floor 2	7	Cork Tile
CONDO UNIT	Interior Floor 2	8	Average
CONDO UNIT	Interior Floor 2	9	Pine/Soft Wood
CONDO UNIT	Interior Floor 2	10	Terrazzo Monol
CONDO UNIT	Interior Floor 2	11	Ceram Clay Til
CONDO UNIT	Interior Floor 2	12	Hardwood
CONDO UNIT	Interior Floor 2	13	Parquet
CONDO UNIT	Interior Floor 2	14	Carpet
CONDO UNIT	Interior Floor 2	15	Quarry Tile
CONDO UNIT	Interior Floor 2	16	Terrazzo Epoxy
CONDO UNIT	Interior Floor 2	17	Precast Concr
CONDO UNIT	Interior Floor 2	18	Slate
CONDO UNIT	Interior Floor 2	19	Marble
CONDO UNIT	Interior Floor 2	20	Laminate Wood
CONDO UNIT	Interior Wall 1:	1	Minim/Masonry
CONDO UNIT	Interior Wall 1:	2	Wall Brd/Wood
CONDO UNIT	Interior Wall 1:	3	Plastered
CONDO UNIT	Interior Wall 1:	4	Plywood Panel
CONDO UNIT	Interior Wall 1:	5	Drywall/Sheet
CONDO UNIT	Interior Wall 1:	6	Cust Wd Panel
CONDO UNIT	Interior Wall 1:	7	K Pine/A Wd
CONDO UNIT	Interior Wall 2:	1	Minim/Masonry
CONDO UNIT	Interior Wall 2:	2	Wall Brd/Wood
CONDO UNIT	Interior Wall 2:	3	Plastered
CONDO UNIT	Interior Wall 2:	4	Plywood Panel
CONDO UNIT	Interior Wall 2:	5	Drywall/Sheet
CONDO UNIT	Interior Wall 2:	6	Cust Wd Panel
CONDO UNIT	Interior Wall 2:	7	K Pine/A Wd
CONDO UNIT	Kitchen Grd	1	Average
CONDO UNIT	Kitchen Grd	2	Above Avg
CONDO UNIT	Kitchen Grd	3	Excellent
CONDO UNIT	Kitchen Style:	1	Avg Quality
CONDO UNIT	Kitchen Style:	2	Above Avg Qual
CONDO UNIT	Kitchen Style:	3	Below Avg Qual
CONDO UNIT	Kitchen Style:	4	Good Quality
CONDO UNIT	Kitchen Style:	5	Fair
CONDO UNIT	MTL Openings	T	Typical1
CONDO UNIT	Ttl Bathrms:	0.1	1 Half
CONDO UNIT	Ttl Bathrms:	0.2	2 Half baths
CONDO UNIT	Ttl Bathrms:	0.5	1 Half
CONDO UNIT	Ttl Bathrms:	0	

Building Type	Attribute	Valid Code	Description
CONDO UNIT	Ttl Bathrms:	0.5	1 Half
CONDO UNIT	Ttl Bathrms:	1	1 Full
CONDO UNIT	Ttl Bathrms:	1.1	1 Full 1 Half
CONDO UNIT	Ttl Bathrms:	1.2	1 Full 2 Half
CONDO UNIT	Ttl Bathrms:	1.3	1 Full 3 Half
CONDO UNIT	Ttl Bathrms:	1.4	1 Full 4 Half
CONDO UNIT	Ttl Bathrms:	1.5	1 Full 1 Half
CONDO UNIT	Ttl Bathrms:	2	2 Full
CONDO UNIT	Ttl Bathrms:	2.1	2 Full 1 Half
CONDO UNIT	Ttl Bathrms:	2.2	2 Full 2 Half
CONDO UNIT	Ttl Bathrms:	2.3	2 Full 3 Half
CONDO UNIT	Ttl Bathrms:	2.4	2 Full 4 Half
CONDO UNIT	Ttl Bathrms:	2.5	2 1/2 Bathrms
CONDO UNIT	Ttl Bathrms:	3	3 Full
CONDO UNIT	Ttl Bathrms:	3.1	3 Full 1 Half
CONDO UNIT	Ttl Bathrms:	3.2	3 Full 2 Half
CONDO UNIT	Ttl Bathrms:	3.3	3 Full 3 Half
CONDO UNIT	Ttl Bathrms:	3.4	3 Full 4 Half
CONDO UNIT	Ttl Bathrms:	3.5	3 1/2 Bathrms
CONDO UNIT	Ttl Bathrms:	4	4 Full
CONDO UNIT	Ttl Bathrms:	4.1	4 Full 1 Half
CONDO UNIT	Ttl Bathrms:	4.2	4 Full 2 Half
CONDO UNIT	Ttl Bathrms:	4.3	4 Full 3 Half
CONDO UNIT	Ttl Bathrms:	4.4	4 Full 4 Half
CONDO UNIT	Ttl Bathrms:	4.5	4 1/2 Bthrms
CONDO UNIT	Ttl Bathrms:	5	5 Full
CONDO UNIT	Ttl Bathrms:	5.1	5 Full 1 Half
CONDO UNIT	Ttl Bathrms:	5.2	5 Full 2 Half
CONDO UNIT	Ttl Bathrms:	5.3	5 Full 3 Half
CONDO UNIT	Ttl Bathrms:	5.4	5 Full 4 Half
CONDO UNIT	Ttl Bathrms:	5.5	5 1/2 Bathrms
CONDO UNIT	Ttl Bathrms:	6	6 Full
CONDO UNIT	Ttl Bathrms:	6.1	6 Full 1 Half
CONDO UNIT	Ttl Bathrms:	6.2	6 Full 2 Half
CONDO UNIT	Ttl Bathrms:	6.3	6 Full 3 Half
CONDO UNIT	Ttl Bathrms:	6.4	6 Full 4 Half
CONDO UNIT	Ttl Bathrms:	6.5	6 1/2 Bathrms
CONDO UNIT	Ttl Bathrms:	7	7 Full
CONDO UNIT	Ttl Bathrms:	7.1	7 Full 1 Half
CONDO UNIT	Ttl Bathrms:	7.2	7 Full 2 Half
CONDO UNIT	Ttl Bathrms:	7.3	7 Full 3 Half

Building Type	Attribute	Valid Code	Description
CONDO UNIT	Ttl Bathrms:	7.4	7 Full 4 Half
CONDO UNIT	Ttl Bathrms:	7.5	7 1/2 Bathrms
CONDO UNIT	Ttl Bathrms:	8	8 Full
CONDO UNIT	Ttl Bathrms:	8.1	8 Full 1 Half
CONDO UNIT	Ttl Bathrms:	8.2	8 Full 2 Half
CONDO UNIT	Ttl Bathrms:	8.3	8 Full 3 Half
CONDO UNIT	Ttl Bathrms:	8.4	8 Full 4 Half
CONDO UNIT	Ttl Bathrms:	8.5	8 1/2 Bathrms
CONDO UNIT	Ttl Bathrms:	9	9 + Bathrooms
CONDO UNIT	Ttl Bedrms:	0	
CONDO UNIT	Ttl Bedrms:	1	1 Bedroom
CONDO UNIT	Ttl Bedrms:	2	2 Bedrooms
CONDO UNIT	Ttl Bedrms:	3	3 Bedrooms
CONDO UNIT	Ttl Bedrms:	4	4 Bedrooms
CONDO UNIT	Ttl Bedrms:	5	5 Bedrooms
CONDO UNIT	Ttl Bedrms:	6	6 Bedrooms
CONDO UNIT	Ttl Bedrms:	7	7 Bedrooms
CONDO UNIT	Ttl Bedrms:	8	8 Bedrooms
CONDO UNIT	Ttl Bedrms:	9	9+ Bedrooms
CONDO MAIN	Exterior Wall 1:	1	Minimum
CONDO MAIN	Exterior Wall 1:	2	Comp./Wall Brd
CONDO MAIN	Exterior Wall 1:	3	Below Average
CONDO MAIN	Exterior Wall 1:	4	Single Siding
CONDO MAIN	Exterior Wall 1:	5	Average
CONDO MAIN	Exterior Wall 1:	6	Board & Batten
CONDO MAIN	Exterior Wall 1:	7	Asbest Shingle
CONDO MAIN	Exterior Wall 1:	8	Wood on Sheath
CONDO MAIN	Exterior Wall 1:	9	Logs
CONDO MAIN	Exterior Wall 1:	10	Cement Fiber
CONDO MAIN	Exterior Wall 1:	11	Clapboard
CONDO MAIN	Exterior Wall 1:	12	Cedar or Redwd
CONDO MAIN	Exterior Wall 1:	13	Pre-Fab Wood
CONDO MAIN	Exterior Wall 1:	14	Wood Shingle
CONDO MAIN	Exterior Wall 1:	15	Concr/Cinder
CONDO MAIN	Exterior Wall 1:	16	Stucco on Wood
CONDO MAIN	Exterior Wall 1:	17	Stucco/Masonry
CONDO MAIN	Exterior Wall 1:	18	Asphalt
CONDO MAIN	Exterior Wall 1:	19	Brick/Stne Ven
CONDO MAIN	Exterior Wall 1:	20	Brick/Masonry
CONDO MAIN	Exterior Wall 1:	21	Stone/Masonry
CONDO MAIN	Exterior Wall 1:	22	Precast Panel

Building Type	Attribute	Valid Code	Description
CONDO MAIN	Exterior Wall 1:	23	Pre-cast Concr
CONDO MAIN	Exterior Wall 1:	24	Reinforc Concr
CONDO MAIN	Exterior Wall 1:	25	Vinyl Siding
CONDO MAIN	Exterior Wall 1:	26	Aluminum Sidng
CONDO MAIN	Exterior Wall 1:	27	Pre-finsh Metl
CONDO MAIN	Exterior Wall 1:	28	Glass/Thermo.
CONDO MAIN	Exterior Wall 1:	29	Vinyl Shingle
CONDO MAIN	Exterior Wall 1:	30	Stone Veneer
CONDO MAIN	Exterior Wall 2:	1	Minimum
CONDO MAIN	Exterior Wall 2:	2	Comp./Wall Brd
CONDO MAIN	Exterior Wall 2:	3	Below Average
CONDO MAIN	Exterior Wall 2:	4	Single Siding
CONDO MAIN	Exterior Wall 2:	5	Average
CONDO MAIN	Exterior Wall 2:	6	Board & Batten
CONDO MAIN	Exterior Wall 2:	7	Asbest Shingle
CONDO MAIN	Exterior Wall 2:	8	Wood on Sheath
CONDO MAIN	Exterior Wall 2:	9	Logs
CONDO MAIN	Exterior Wall 2:	10	Cement Fiber
CONDO MAIN	Exterior Wall 2:	11	Clapboard
CONDO MAIN	Exterior Wall 2:	12	Cedar or Redwd
CONDO MAIN	Exterior Wall 2:	13	Pre-Fab Wood
CONDO MAIN	Exterior Wall 2:	14	Wood Shingle
CONDO MAIN	Exterior Wall 2:	15	Concr/Cinder
CONDO MAIN	Exterior Wall 2:	16	Stucco on Wood
CONDO MAIN	Exterior Wall 2:	17	Stucco/Masonry
CONDO MAIN	Exterior Wall 2:	18	Asphalt
CONDO MAIN	Exterior Wall 2:	19	Brick/Stne Ven
CONDO MAIN	Exterior Wall 2:	20	Brick/Masonry
CONDO MAIN	Exterior Wall 2:	21	Stone/Masonry
CONDO MAIN	Exterior Wall 2:	22	Precast Panel
CONDO MAIN	Exterior Wall 2:	23	Pre-cast Concr
CONDO MAIN	Exterior Wall 2:	24	Reinforc Concr
CONDO MAIN	Exterior Wall 2:	25	Vinyl Siding
CONDO MAIN	Exterior Wall 2:	26	Aluminum Sidng
CONDO MAIN	Exterior Wall 2:	27	Pre-finsh Metl
CONDO MAIN	Exterior Wall 2:	28	Glass/Thermo.
CONDO MAIN	Exterior Wall 2:	29	Vinyl Shingle
CONDO MAIN	Exterior Wall 2:	30	Stone Veneer
CONDO MAIN	Foundation	1	
CONDO MAIN	Foundation	2	
CONDO MAIN	Foundation	3	



Building Type	Attribute	Valid Code	Description
CONDO MAIN	Foundation	4	
CONDO MAIN	Foundation	5	
CONDO MAIN	Foundation	6	
CONDO MAIN	Foundation	7	
CONDO MAIN	Foundation	8	
CONDO MAIN	Foundation	9	
CONDO MAIN	Grade	A	A
CONDO MAIN	Grade	A+	A+
CONDO MAIN	Grade	A-	A-
CONDO MAIN	Grade	B	B
CONDO MAIN	Grade	B+	B+
CONDO MAIN	Grade	B-	B-
CONDO MAIN	Grade	C	C
CONDO MAIN	Grade	C+	C+
CONDO MAIN	Grade	C-	C-
CONDO MAIN	Grade	D	D
CONDO MAIN	Grade	D+	D+
CONDO MAIN	Grade	D-	D-
CONDO MAIN	Grade	E	E
CONDO MAIN	Grade	X	X
CONDO MAIN	Grade	X+	X+
CONDO MAIN	Grade	X-	X-
CONDO MAIN	Roof Cover	1	Metal/Tin
CONDO MAIN	Roof Cover	2	Rolled Compos
CONDO MAIN	Roof Cover	3	Asph/F GlS/Cmp
CONDO MAIN	Roof Cover	4	Tar&Grvl/Rubbr
CONDO MAIN	Roof Cover	5	Corrugated Asb
CONDO MAIN	Roof Cover	6	Asbestos Shing
CONDO MAIN	Roof Cover	7	Concrete Tile
CONDO MAIN	Roof Cover	8	Clay Tile
CONDO MAIN	Roof Cover	9	Enam Mtl Shing
CONDO MAIN	Roof Cover	10	Wood Shingle
CONDO MAIN	Roof Cover	11	Slate
CONDO MAIN	Roof Structure	1	Flat
CONDO MAIN	Roof Structure	2	Shed
CONDO MAIN	Roof Structure	3	Gable/Hip
CONDO MAIN	Roof Structure	4	Wood Truss
CONDO MAIN	Roof Structure	5	Salt Box
CONDO MAIN	Roof Structure	6	Mansard
CONDO MAIN	Roof Structure	7	Gambrel
CONDO MAIN	Roof Structure	8	Irregular

Building Type	Attribute	Valid Code	Description
CONDO MAIN	Roof Structure	9	Rigid Frm/BJst
CONDO MAIN	Roof Structure	10	Steel Frm/Trus
CONDO MAIN	Roof Structure	11	Bowstring Trus
CONDO MAIN	Roof Structure	12	Reinforc Concr
CONDO MAIN	Roof Structure	13	Prestres Concr
CONDO MAIN	Xtra Field 1:	1	Average
CONDO MAIN	Xtra Field 1:	2	Above Avg
CONDO MAIN	Xtra Field 1:	3	Excellent

## Story Heights

When valuing the residential properties, story heights are not included in the valuation model. In the Commercial modeling it is adjusted based on an average height for commercial and industrial models. If it varies from the average it is adjusted per linear foot. Either in a positive way if the height increases or in a negative way if the height decreases.

## Model Specification

The foundation of any mass appraisal is the data. Model specification determines what data elements, including the format, to include in the model. Model Specification starts with identifying data elements that drive value. For example, the type of property, size, age, condition, location, neighborhood characteristics, water views and access, along with other property characteristics will typically influence value. Through Model Specification, all features that drive value should be considered. Selecting which information to collect and assembling this information in a consistent and methodical manner is the backbone in producing accurate values. Importantly, these items are analyzed together for the Valuation Models to properly work, since the goal of CAMA models is to predict market values<sup>15</sup>.

Essential data item should be collected to estimate accurate property value. The Standard on Mass Appraisal of Real Property lists these typical data items<sup>16</sup>:

### Improvement Data

- Living area/ effective Area
- Construction quality and other key components (foundation, exterior wall type, etc.)
- Effective age or condition
- Building design or style
- Basements, garages, covered porches, and balconies

<sup>15</sup> Or a percent of market value (95% for example)

<sup>16</sup> IAAO's Standard on Mass Appraisal of Real Property (2017), Page 8.

- Bathrooms and central air conditioning
- Significant accessory structures including guest houses, boat houses, and barns

#### **Land Data**

- Lot size
- Available utilities (sewer, water, electricity)

#### **Location Data**

- Market area
- Submarket area or neighborhood
- Site amenities, such as view, golf course or water frontage
- External nuisances, (e.g., heavy traffic or airport noise).

Collecting and maintaining accurate data is one of the expensive and most labor-intensive consuming tasks in assessing offices. Accurate data is the foundation of any mass appraisal system. Naturally, the model can only be as accurate as the data collected. Missing or incorrect data will compromise the reliability of the model.

In addition to physical characteristics, Income Modeling requires a substantial amount of financial data for all types of commercial properties located within a jurisdiction.

### **Model Calibration**

After data is collected, the market is analyzed to determine the value contribution of each feature (data element). This is known as Model Calibration. Model calibration refers to the development of valuation formulas, tables and schedules.

By studying the market, an assessor or modeler determines the adjustments (multipliers, coefficients and variables) that will comprise the model. Calibration could be a dollar adjustment, percentage adjustment, multiplier or factor.

Essentially, the goal of a model is to predict the market value by assigning values (calibration) to the key data elements collected (specification). Successful calibration is dependent on the accuracy of collected data.

#### **Grade**

Adjustments for grade are required for properties that display grades above or below average. For example, there is a difference between average quality construction (C) compared with top quality (A+) construction. A typical house is considered average with no adjustment. However, a custom-built house utilizing excellent quality materials and workmanship would require an upward adjustment to the base rate for superior grade.

**Quality Adjustment Rating:** A pure replacement cost system of valuation relies only on quality of materials, design and workmanship in quality grade determinants. It has been said that the three most important considerations in purchasing real estate are Location, Location and Location. Unfortunately, a pure cost system does not address what might be a major value ingredient on improvement values (**Neighborhood and Location**). Yes, materials, design and workmanship should be the primary quality grade determinant, but the neighborhood's appeal, or lack thereof, may have a secondary impact. An extreme example of this is that the so-called \$100,000 home in the \$200,000 neighborhood will usually bring more than its pure replacement cost. Because Vision Government Solutions, Inc's Appraisal System is a combination of Cost/Market Appraisal Systems, quality grades may need to vary slightly among similar neighborhoods. Any variations from the pure cost approach quality rating should be made only with supportable conclusive market evidence, using neighborhood sales to justify these adjustments. Once the quality grade determinants are determined, the final quality grades should be similar on similar homes within similar neighborhoods. Equitability and consistency are paramount.

Within Vision Government Solutions, Inc's Appraisal System, there are quality adjustments available to cover a wide range of possible construction qualities. The quality grades applied to the properties are multipliers, or factors, applied to the basic construction rate, which is derived from the structural components.

What follows are the guidelines in establishing residential quality grades based purely on a cost approach system, unadjusted for market neighborhood conditions:

**Quality Grading Guidelines:** The general quality specifications and associated factor for each grade are as follows:

**Minimum Grade (E, .50 Factor):** Buildings constructed with very low grades of materials. No extras, only bare minimum.

**Below Average Grade (D-, .60 Factor, D, .70 Factor, D+, .80 Factor):** Buildings constructed with a minimum grade materials, usually "culls" and "seconds" and poor quality workmanship resulting from unskilled, inexperienced, "do-it-yourself" type labor. Low-grade heating, plumbing and lighting fixtures.

**Average Grade (C-, .90 Factor, C, 1.00 Factor, C+, 1.10 Factor):** Buildings constructed with average quality materials and workmanship throughout, conforming to the base specifications used to develop the pricing schedule. Minimal architectural treatment. Average quality interior finish and built-in features. Standard grade heating, plumbing and lighting fixtures.

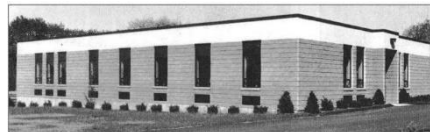
**Good Grades (B-, 1.20 Factor, B, 1.35 Factor, B+, 1.50 Factor):** Buildings constructed with good quality materials and workmanship throughout. Moderate architectural treatment. Good quality interior finish and built-in features. Good grade heating, plumbing and lighting fixtures.

**Very Good Grades (A-, 1.70 Factor, A, 1.90 Factor, A+, 2.10 Factor):** Buildings constructed with very good quality materials and workmanship throughout. Moderate architectural treatment. Very good quality interior finish and built-in features. Very good grade heating, plumbing and lighting fixtures.

**Excellent Grades (X-, 2.35 Factor, X, 2.70 Factor, X+, 3.10 Factor):** Buildings generally having an excellent architectural style and design, constructed with excellent quality materials and workmanship throughout. Excellent quality interior finish and built-in features. Excellent grade heating, plumbing and lighting fixtures.

Below is a breakout of commercial quality grades as reference Marshall & Swift cost Manual (MVS). In MVS are the key components for each REFERENCE TYPE, CLASS and QUALITY GRADE that makes up each Class and Grade for each property REFERENCE type. These are referenced in MVS and the key components are fully described in MVS based on the grade on which the rate was based and can be seen in the MVS manual. Here is a synopsis of the various major commercial property types:

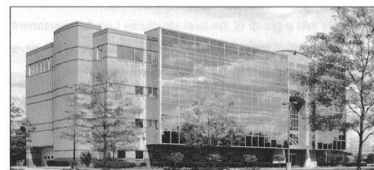
### Office Type Facilities



C - is an Average quality grade and is typically found in neighborhood and/or downtown fringe areas. It will usually have a small amount of trim and few amenities while still meeting building codes.



B - is a Good quality grade and usually the best quality office built for investment/rental purposes, where the rental return must justify the cost of the building. It will generally have some special exterior and interior features; workmanship materials and design are good with some decorative



features and will have mostly good quality interior fit-up.

A - is an Excellent quality grade and is typically a prestige building very often a one-of-a-kind architecturally designed facility. It often will be a regional or national office for a major corporation. The exterior will largely be constructed of expensive materials such as glass, stone, and/or stainless

steel. Interior materials will also represent top-of-the-line with aspects of high end wood paneling, high end (often unique) lighting fixtures, highly decorative expensive finishes and often unique amenities and executive quality restrooms, etc.



D - is a Below-Average low cost quality grade with minimum design and minimum interior finish and partitions. Exterior walls will reflect low cost materials and interior walls materials such as wallboard or cheap paneling. There will be little to no trim. Interior fit-up and lighting will be very basic with the lowest quality/cost materials.

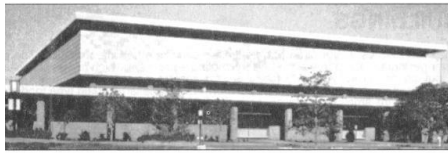
### **Retail Type Facilities**



C - is an Average quality grade. It will usually have partial plate glass fronts with block wall sides and rear with some ornamentation typically just on the front. Most often there will be minimal interior partitioning except for a rear storage area and a restroom and perhaps a small office area. Flooring will often be VCT tile and lighting is fluorescent. Historically these had average quality 2 x 4 foot suspended ceiling tiles, but the recent trend has been to open exposed ceilings typically painted all black or all white.



B - is a Good quality grade and is marked by architectural embellishments particularly to the front of the building. It will generally have some special exterior and interior features; workmanship materials and design are good with some decorative features and will have mostly good quality interior fit-up.



A - is an Excellent quality grade and is typically limited to prestige retailers perhaps such as upscale local or national jewelry chains often one-of-a-kind architecturally designed facilities. The exterior will largely be constructed of expensive and unique materials such as glass, stone, and/or stainless steel. Interior will also contain top-of-the-line materials with aspects of high end wood paneling, high end (often unique) lighting fixtures, highly quality decorative expensive flooring finishes (marble or hardwood) and overall often uniquely designed interiors.



D - is a Below-Average low cost quality grade with minimum design and minimum interior finish. Exterior walls will reflect low cost materials and will have little to no trim even in the front. Interior fit-up and lighting will be very basic with the lowest quality/cost materials and finishes with some areas with little to no finish.

### **Industrial/Warehouse Type Facilities**



C - is an Average quality grade. Average quality buildings of this type are typically smaller industrial/warehouses built with average to light structural frames. They usually will have some exterior ornamentation, but it is limited and is typically only found on the front of the building only. This quality will mostly have open interior areas with space heaters except for office areas which may have A/C. Office space is generally limited to 5% to 10% and is of average utilitarian quality.



B - is a Good quality grade and is marked by some architectural embellishment such as a brick and/or glass front. It will generally have some special exterior and interior features such as good interior lighting and/or heating; workmanship materials and design are good. Office space will be abundant and fully finished with good quality materials and central A/C. Plumbing such as restrooms will be more abundant and of good quality on the shop floor as well as within the office space.



A - is an Excellent quality grade and is marked by a heavy steel frame with insulated panels or walls and finished interior walls throughout. It will have significant architectural embellishment such as all brick and/or glass front. It will generally have many special exterior and interior features such as superior high intensity interior lighting and heating often with ducted combined heat and A/C throughout; workmanship materials and design will be of excellent quality. Office space will be abundant and fully finished with excellent quality materials and excellent quality heat and A/C. Plumbing such as restrooms will be abundant and of excellent quality on the shop floor as well as within the office space



D - is a Below-Average low cost quality grade with a light frame and essentially no design and minimum interior finish and office space. Exterior walls will reflect low cost materials and will have little to no trim even in the front. Interior lighting and heating will be very basic with the lowest quality/cost materials. Office space will be very limited in size and in finishes and heat and plumbing.

### **Apartment Type Facilities**





C - is an Average quality grade. It will usually have average quality wood or brick veneer siding with average quality standard size windows and a small amount of exterior trim while still meeting building codes. Roofs will either be flat or low pitched gable with average quality asphalt shingle. Units will have a kitchen and one bathroom with standard fixtures. Floors will consist of average quality low pile carpeting except for kitchens and baths which typically will have vinyl sheet goods. Kitchens will have average quality cabinetry and

standard laminate countertops. Heat will most often be forced hot air with no central A/C but often will have one wall unit. Common areas will have limited amenities except perhaps for a small coin-op laundry room. This quality level is built for optimum return on investment and offers few extras.



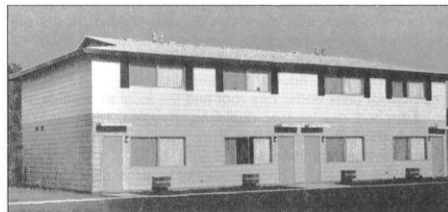
B - is a Good quality grade. It will usually have good quality wood or brick veneer siding with good quality standard to larger size windows and noticeable exterior trim elements. Roofs will generally be ornamented flat roofs or higher pitched than average with good quality asphalt shingle. Units will have a kitchen and one to

two bathrooms with better than standard quality fixtures. Floors will consist of good quality plush pile

carpeting except for kitchens and baths which typically will have better quality vinyl sheet goods or ceramic tile. Kitchens will have above average cabinetry and overall design. Heat will most often be forced hot air or hot water and will often have central A/C. Common areas will have amenities such as a laundry rooms which may be available on each floor or one built into each unit. Other amenities such as pools or clubhouse often exist This quality level is built for middle to upper middle-income level occupants and rental levels will be higher than average quality facilities.



A - is an Excellent quality grade. It will usually have very good to excellent quality wood or brick/stone veneer siding with very good quality larger size windows and noticeable exterior trim and overall exterior design. Roofs will generally be ornamented or higher pitched than average often with additional design elements such as dormers and covered with superior quality materials. Units will have a large updated kitchen and usually more than one bathroom with high quality fixtures and finishes. Often there will be a private ensuite bathroom attached to the master bedroom along with a walk-in closet. Floors will consist of hardwood or high quality carpeting except for kitchens and baths which typically will have high quality ceramic or mosaic tile. Kitchens will be larger than typical and will have abundant high quality cabinetry countertops, and backsplashes with an overall designer feel. Heat most often will also include central A/C in all rooms. Built in laundry rooms or laundry closets typically will exist in each apartment unit housing both washer and dryer. Units also will have an abundance of closet space. Common areas will have amenities such as pool and clubhouse with exercise, function, and/or meeting rooms. This quality level is built for upper middle to upper income level occupants and rental levels will be higher and larger than good quality apartment complexes.



D - is a Below Average/Low Cost quality grade. It will usually have below average quality wood, vinyl or brick veneer siding meeting minimum building codes with small size low quality windows and little to no exterior trim while still meeting building codes. Roofs will either be flat or very low pitched gable with low cost coverings. Units will have a kitchen and one bathroom with minimal standard fixtures. Floors will consist of low cost VCT tile or low quality level loop carpeting except for kitchens and baths which typically will have generally have VCT tile or inexpensive vinyl sheet goods. Kitchens will have a minimal amount of cabinetry and countertops and the quality will be “builder grade” or less. Heat will often be space heaters or electric or forced warm air with no central A/C. Window A/C units may be allowed but the units often will be owned by the tenant (not the landlord). Common areas will have limited amenities except perhaps for a small coin-op laundry room often in the basement level or in a low cost addition often not easily accessible from all units.

This quality level is built to provide subsistence shelter to lower income residents and for maximizing return on investment and typically offers no extras.

The following is the specification and calibration of grade.

TABLE 20- GRADE ADJUSTMENTS

Grade	Commercial Condo	Industrial	MDL 93	Mobile Home	Multi Family	Residential	Residential Condo	Service Station
A	0.9	0.8		0.8		0.9	0.9	0.53
A-	0.7			0.65		0.7	0.7	
A+	1.15	1.15		1		1.1	1.1	1.15
B	0.36	0.36		0.35		0.35	0.35	0.36
B-	0.22	0.22		0.25		0.2	0.2	0.22
B+	0.5	0.5		0.5		0.5	0.5	0.50
C	0	0		0		0	0	0.00
C-	-0.08	-0.08		-0.1		-0.1	-0.1	-0.08
C+	0.1	0.1		0.2		0.1	0.1	0.10
D	-0.22	-0.22		-0.3		-0.3	-0.25	-0.22
D-	-0.3	-0.3		-0.5		-0.4	-0.3	-0.30
D+	-0.15	-0.15		-0.2		-0.2	-0.15	-0.15
E	0			-0.7		-0.5	-0.5	
GRADE_01			-0.25		-0.25			
GRADE_02			-0.1		-0.1			
GRADE_03			0		0			
GRADE_04			0.1		0.1			
GRADE_05			0.21		0.21			
GRADE_06			0.33		0.33			
GRADE_07			0.46		0.46			
GRADE_08			0.61		0.61			
GRADE_09			0.8		0.8			
GRADE_10			1		1			
GRADE_11					1.25			
GRADE_AA		1.25						
X				1.2		1.7	1.6	
X-	0			1.1		1.35	1.35	
X+				1.3		2.1	1.9	

The adjustments developed for each property type were tested and found to be reasonable.

### Building Size

All else being the same, larger buildings typically sell for lower unit prices compared with smaller ones. For example, a 10,000 SF house that is similar in all aspects (except size) compared with a 1,000 SF house would not normally sell for 10x the price.

When graphed, unit values like \$/SF trend downward as size increases. This is known as the “building curve.” The “building curve” adjustments were internally tested (see model test section of this report) are found to be accurate and reasonable.

### Extra Features

Extra features include items such as elevators, fireplaces and sprinklers. They are listed on the following chart. Extra features are added to the base value resulting from a count of such items, linear foot (LF) of square foot (SF) contribution. Extra features are added to the base value and depreciated at the overall depreciation rate.

The following extra feature values were developed for residential and commercial properties.

TABLE 21: EXTRA FEATURES

Code	Description	Unit Type	Unit Price
A/C	AIR CONDITION	S.F	\$ 2.65
ADU3	ADU W/BASEMENT	S.F.	\$ 116.00
ADUB	ADU IN BASEMENT	S.F.	\$ 50.00
ATM	AUTOMATIC TELLER	UNITS	\$ 35,000.00
BAL	BALCONY	S.F.	\$ 30.00
BL1	BOWLING LANE1	UNITS	\$ 5,000.00
BL2	BOWLING LANE2	UNITS	\$ 5,000.00
BOX	SAFE DEPOSIT	UNITS	\$ 87.00
CAN1	CANOPY AVG	S.F.	\$ 18.00
CAN2	CANOPY GOOD	S.F.	\$ 28.00
CAN3	CANOPY EXCEL	S.F.	\$ 36.00
CLR1	COOLER	S.F.	\$ 26.00
CLR2	FREEZER TEMPS	S.F.	\$ 35.00
CR1	COMPUTER FLOOR	S.F.	\$ 10.00
DUW1	DRIVE-UP WINDW	UNITS	\$ 7,000.00
DUW2	WIDE BAY	UNITS	\$ 10,700.00
DUW3	W/PNEU TUBE	UNITS	\$ 20,400.00
DUW4	W/REM SCR&TUBE	UNITS	\$ 41,000.00
ELV1	ELEVATOR PASS	STOPS	\$ 13,300.00
ELV2	ELEVATOR FRGHT	STOPS	\$ 10,200.00
ENT	ENCLOSED ENTRY	S.F.	\$ 31.00
FBLA	FINISHED BSMNT	S.F.	\$ 32.00
FCP	CARPORT	S.F.	\$ 13.00
FEP	ENCLOSED PORCH	S.F.	\$ 27.00
FES	FIRE ESCAPE	UNITS	\$ 1,225.00
FGR1	GARAGE-AVG	S.F	\$ 31.00
FGR2	GARAGE-GOOD	S.F.	\$ 42.00

Code	Description	Unit Type	Unit Price
FOP	OPEN PORCH	S.F.	\$ 24.00
FPL	GAS FIREPLACE	UNITS	\$ 2,100.00
FPL1	FIREPLACE 1 OPN	UNITS	\$ 4,100.00
FPL2	FIREPLACE 2 OPN	UNITS	\$ 4,600.00
FSP	SCREENED PORCH	S.F.	\$ 18.00
GEN	GENERATOR	UNITS	
GIR1	GIRDERS LT 12"	L.F.	\$ 38.00
GIR2	GIRDERS 13"-18	L.F.	\$ 47.00
GIR3	GIRDERS 19"-24	L.F.	\$ 82.00
GIR4	GRDRS OVER 24"	L.F.	\$ 125.00
HRTH	HEARTH	UNITS	\$ 640.00
HTB	HOTTUB	UNITS	\$ 5,200.00
KIT	EXTRA KITCHEN	UNITS	\$ 4,000.00
LD1	LOAD DOCK ST/CC	S.F.	\$ 56.00
LD2	LOAD DOCK WOOD	S.F.	\$ 45.00
LD4	TRUCK WELLS	UNITS	\$ 5,600.00
LDL1	LOAD LEVELERS	UNITS	\$ 3,900.00
LDL2	W/MAN FLIP OUT	UNITS	\$ 1,225.00
LFT1	LIFT-LIGHT	UNITS	\$ 5,600.00
LFT2	LIFT-HEAVY	UNITS	\$ 9,000.00
LT13	FLOOD LIGHT ATT	UNITS	\$ 360.00
MEZ1	MEZZANINE-UNF	S.F.	\$ 13.00
MEZ2	FINISHED	S.F.	\$ 21.00
MEZ3	W/PARTITIONS	S.F.	\$ 34.00
NDP	NITE DEPOSIT	UNITS	\$ 7,300.00
OD1	OVERHEAD DOOR	UNITS	\$ 2,150.00
OD2	OVHD DOOR MOTOR	UNITS	\$ 4,300.00
PCT	PADDLEBALL CRT	S.F.	\$ 5.00
REC	REC ROOM	S.F.	\$ 25.00
RNG	INDOOR RANGE	S.F.	\$ 137.30
RQT	RACQUETBALL	UNITS	\$ 35,300.00
SF1	STORE FRONT WD	S.F.	\$ 56.00
SF2	STORE FRONT AVG	S.F.	\$ 56.00
SNA	SAUNA	UNITS	\$ 3,900.00
SOLR	SOLAR	WATTS	\$ 2.00
SPL7	INDOOR POOL	S.F.	\$ 40.00
SPR1	SPRINKLERS-WET	S.F.	\$ 1.75
SPR2	WET/CONCEALED	S.F.	\$ 2.05
SPR3	DRY	S.F.	\$ 2.05
STK1	CHIMNEY STK BR	UNITS	\$ 1,500.00
STK2	CHIMNEY STK MT	UNITS	\$ 600.00

Code	Description	Unit Type	Unit Price
TER	TERRACE	S.F.	\$ 30.00
TS1	TRUCK SCALE	UNITS	\$ 26,000.00
TS2	TRUCK SCALE	UNITS	\$ 26,000.00
VLT1	VAULT-AVG	S.F.	\$ 117.00
VLT2	VAULT-GOOD	S.F.	\$ 148.00
VLT3	VAULT-EXCELLNT	S.F.	\$ 189.00
VLT4	VAULT- RECORD	S.F.	\$ 71.00
WDK1	WOOD DECK	S.F.	\$ 13.00
WHL	WHIRLPOOL	UNITS	\$ 3,700.00

### Outbuildings

Outbuildings include items such as garages, pools, service station fuel tanks and site lighting fixtures. They are listed on the following chart. Outbuildings are added to the base value resulting from a count of such items, linear foot (LF) or square foot (SF) contribution. Outbuildings are individually depreciated.

The following outbuilding values were developed for both residential and commercial properties.

TABLE 22: OUTBUILDINGS

Code	Description	Unit Type	Unit Price
ANT1	ANTENNA	UNITS	\$ 39,000.00
AP1	FENCE CHAIN	L.F.	\$ 5.65
AP2	FENCE PICKET	L.F.	\$ 5.65
AP3	FENCE STOCKADE	L.F.	\$ 5.65
AP4	FENCE POST	L.F.	\$ 0.55
AP6	FENCE STONE	L.F.	\$ 16.00
AP7	FENCE WRGHT IRON	L.F.	\$ 52.00
ATM	ATM DETACHED 02 DETACHED	UNITS	\$ 35,000.00
BB1	BILLBOARD	S.F.	\$ 90.00
BB2	SIGN	S.F.	\$ 41.00
BD1	BOAT DOCK WOOD	S.F.	\$ 43.00
BHS1	CMM BTH HSE AV	S.F.	\$ 29.00
BHS2	CMM BTH HSE GD	S.F.	\$ 39.00
BHS3	CMM BTH HSE PR	S.F.	\$ 23.00
BIN1	BINS	S.F.	\$ 21.00
BIN2	AGRICULTURAL	S.F.	\$ 16.00
BK1	BULK HEAD	L.F.	\$ 337.00
BOT1	BOATHOUSE	S.F.	\$ 142.00
BOT2	BOATHOUSE W/FIN RM	S.F.	\$ 175.00
BRNO	BARN	S.F.	\$ 24.00
BRN1	BARN - 1 STORY	S.F.	\$ 24.00

Code	Description	Unit Type	Unit Price
BRN2	1 STORY W/BSMT	S.F.	\$ 27.00
BRN3	1 STORY W/LOFT	S.F.	\$ 32.00
BRN4	1 STY LFT&BSMT	S.F.	\$ 35.00
BRN5	2 STORY	S.F.	\$ 36.00
BRN6	2 STY W/BSMT	S.F.	\$ 38.00
BRN7	TOBACCO BARN	S.F.	\$ 16.00
BRN8	POLE BARN	S.F.	\$ 14.00
BRN9	BARN	S.F.	\$ 24.00
BTH1	BATH HOUSE/CAB	S.F.	\$ 36.00
BTH2	W/PLUMBING	S.F.	\$ 69.00
CAB1	CABIN-MINIMAL	S.F.	\$ 47.00
CAB2	W/PLUMBING ETC	S.F.	\$ 56.00
CAN1	CANOPY AVG 02 DETACHED	S.F.	\$ 13.00
CAN2	CANOPY GOOD 02 DETACHED	S.F.	\$ 28.00
CAN3	CANOPY EXCEL 02 DETACHED	S.F.	\$ 36.00
CMTW	COMM. TOWER	UNITS	\$ 214,000.00
CON	CONDUIT	L.F.	\$ -
CRN	CORN CRIB	S.F.	\$ 19.00
CTA	CELL TOWER ARRAY	UNITS	\$ 150,000.00
CTCL	CELL COLOCATOR	UNITS	\$ 240,000.00
CTF	CELL TOWER FRAME	L.F.	\$ 2,500.00
CTM	CELL TOWER MONOPOLE	L.F.	\$ 2,800.00
DCK1	DOCKS-RES TYPE	S.F.	\$ 35.00
DCK2	COM TYPE	S.F.	\$ 68.00
DNT1	DRIVE-IN THTR AVG	SPEAKERS	\$ 970.00
DNT2	DRIVE-IN THTR GD	SPEAKERS	\$ 1,325.00
FCP	CARPORT 02 DETACHED	S.F.	\$ 13.00
FEP	ENCLOSED PORCH 02 DETACHED	S.F.	\$ 30.00
FF4	CONC APRON	L.F.	\$ 16.00
FGR1	GARAGE-AVE 02 DETACHED	S.F.	\$ 31.00
FGR2	GARAGE-GOOD 02 DETACHED	S.F.	\$ 42.00
FGR3	GARAGE-POOR	S.F.	\$ 18.00
FGR4	GAR W/LFT AVE	S.F.	\$ 41.00
FGR5	W/LOFT GOOD	S.F.	\$ 52.00
FGR6	W/LOFT-POOR	S.F.	\$ 28.00
FGR7	GARAGE W FIN RM	S.F.	\$ 75.00
FGR8	GARAGE W/APT	S.F.	\$ 75.00
FN1	FENCE-4' CHAIN	L.F.	\$ 12.25
FN10	W/O TOP RL-10'	L.F.	\$ 20.50
FN2	FENCE-5' CHAIN	L.F.	\$ 13.25
FN3	FENCE-6' CHAIN	L.F.	\$ 16.30

Code	Description	Unit Type	Unit Price
FN4	FENCE-8' CHAIN	L.F.	\$ 22.50
FN5	FENCE-10'CHAIN	L.F.	\$ 27.00
FN6	W/O TOP RL-4'	L.F.	\$ 11.25
FN7	W/O TOP RL-5'	L.F.	\$ 12.25
FN8	W/O TOP RL-6'	L.F.	\$ 15.30
FN9	W/O TOP RL-8'	L.F.	\$ 18.50
FNDT	FOUNDATION	S.F.	\$ 20.00
FOP	OPEN PORCH 02 DETACHED	S.F.	\$ 26.00
FSP	SCREENED PORCH 02 DETACHED	S.F.	\$ 28.00
GAZ	GAZEBO	S.F.	\$ 43.00
GHS1	GUEST HS/STUDIO -NO	S.F.	\$ 75.00
GHS2	GUEST HS/STUDIO W/ P	S.F.	\$ 100.00
GRN1	GREEN HOUSE-RS	S.F.	\$ 17.00
GRN2	COMM GLASS	S.F.	\$ 10.20
GRN3	COMM PLASTIC	S.F.	\$ 4.10
HOG	HOG HOUSE	S.F.	\$ 8.20
HOLE	GOLF	UNITS	\$ 31,000.00
IMP	IMPLEMENT SHED	S.F.	\$ 13.25
KEN1	KENNEL-AVG	S.F.	\$ 47.00
KEN2	KENNEL-GOOD	S.F.	\$ 88.00
KF1	KIOSK	S.F.	\$ 153.00
KSK1	KIOSK-SERV STA	S.F.	\$ 153.00
KSK2	PHOTO BOOTH	S.F.	\$ 153.00
LNT	LEAN-TO	S.F.	\$ 9.00
LT1	LIGHTS-IN W/PL	UNITS	\$ 1,125.00
LT10	W/DOUBLE LIGHT	UNITS	\$ 3,160.00
LT11	W/TRIPLE LIGHT	UNITS	\$ 4,300.00
LT12	W/FOUR LIGHTS	UNITS	\$ 5,600.00
LT2	W/DOUBLE LIGHT	UNITS	\$ 1,750.00
LT3	W/TRIPLE LIGHT	UNITS	\$ 2,250.00
LT4	W/FOUR LIGHTS	UNITS	\$ 2,900.00
LT5	MERC VAP/FLU	UNITS	\$ 1,630.00
LT6	W/DOUBLE LIGHT	UNITS	\$ 2,250.00
LT7	W/TRIPLE LIGHT	UNITS	\$ 3,100.00
LT8	W/FOUR LIGHTS	UNITS	\$ 4,100.00
LT9	HGH PRE-SOD PL	UNITS	\$ 2,150.00
MHP1	MOB HM SITE V CHEAP	UNITS	\$ 2,900.00
MHP2	MOB HM SITE CHEAP	UNITS	\$ 3,500.00
MHP3	MOB HM SITE LO COST	UNITS	\$ 6,200.00
MHP4	MOB HM SITE AVG	UNITS	\$ 9,000.00
MHP5	MOB HM SITE ABV AVG	UNITS	\$ 10,250.00



Code	Description	Unit Type	Unit Price
MHP6	MOB HM SITE GOOD	UNITS	\$ 13,300.00
MHP7	MOB HM PK EXCLNT	UNITS	\$ 17,500.00
MLK	MILK HOUSE	S.F.	\$ 34.00
PAT1	PATIO-AVG	S.F.	\$ 7.00
PAT2	PATIO-GOOD	S.F.	\$ 13.00
PAV1	PAVING-ASPHALT	S.F.	\$ 1.75
PAV2	PAVING-CONC	S.F.	\$ 2.75
PC2	PAVING HEAVY	UNITS	\$ 1.10
PC3	PAVING SLAB	UNITS	\$ 1.10
PE1	COMMERCIAL WHARF	L.F.	\$ 125.00
PG1	PARKING GARAGE UND	UNITS	\$ 80.00
PGAS	GAS PIPELINE 30"	L.F.	\$ 546.00
PKS	ADDTL PARKING SPC 02	UNITS	\$ 25,000.00
PLT1	PLTRY HSE 1 ST	S.F.	\$ 13.25
PLT2	PLTRY HSE 2 ST	S.F.	\$ 16.30
PLT3	PLTRY HSE 3 ST	S.F.	\$ 18.40
PM1	GAS PUMP SINGLE	UNITS	\$ 8,600.00
PM2	GAS PUMP SIN/CARD	UNITS	\$ 12,300.00
PM3	GAS PUMP MULTI	UNITS	\$ 13,300.00
PM4	GAS PUMP MULTI/CARD	UNITS	\$ 16,400.00
PMP1	PUMP-SING HSE	UNITS	\$ 6,200.00
PMP2	W/BLENDING	UNITS	\$ 6,800.00
PMP3	ELECTRONIC	UNITS	\$ 8,600.00
PMP4	DOUBLE HOSE	UNITS	\$ 12,300.00
PMP5	W/BLENDING	UNITS	\$ 12,500.00
PMP6	ELECTRONIC	UNITS	\$ 12,500.00
PMP7	3 HOSE	UNITS	\$ 13,300.00
PMP8	6 HOSE	UNITS	\$ 21,000.00
PT1	COM BRICK PATIO	S.F.	\$ 12.00
PT3	PATIO CONCRETE	S.F.	\$ 9.00
RAR	RIDING ARENA	S.F.	\$ 18.00
RCL	ROOT CELLAR	S.F.	\$ 8.00
RD1	BOAT DOCK LT	UNITS	\$ 40.00
RD2	BOAT DOCK MED	UNITS	\$ 70.00
RD3	BOAT DOCK HVY	UNITS	\$ 100.00
RD4	CC DOCK	S.F.	\$ 150.00
RL1	STUDIO	S.F.	\$ 50.00
RM1	MOBILE SINGLE WIDE	S.F.	\$ 50.00
RR1	TRACK RAILROAD	L.F.	\$ 62.00
RS1	UTIL BLDG FRAME	S.F.	\$ 65.00
RS2	UTIL BLDG STEEL	S.F.	\$ 85.00

Code	Description	Unit Type	Unit Price
RS3	UTIL BLDG MASON	S.F.	\$ 100.00
SC1	COMM SWIM POOL	S.F.	\$ 52.00
SCL1	SCALES-MECHAN	TONS	\$ 775.00
SCL2	SCALES-ELECT	TONS	\$ 1,025.00
SGN1	SIGN-1 SD W/M	S.F.&HGT	\$ 29.00
SGN2	DOUBLE SIDED	S.F.&HGT	\$ 47.00
SGN3	W/INT LIGHTS	S.F.&HGT	\$ 100.00
SGN4	W/MOTOR & LTS	S.F.&HGT	\$ 110.00
SH1	COM SHED FRAME	S.F.	\$ 21.00
SH2	COM SHED ALUM	S.F.	\$ 9.00
SH3	COM SHED METAL	S.F.	\$ 7.00
SH4	COM SHED QUONSE	S.F.	\$ 28.00
SH5	COM LUM SHED 2S	S.F.	\$ 8.25
SHD1	SHED FRAME	S.F.	\$ 13.00
SHD2	W/LIGHTS ETC	S.F.	\$ 21.00
SHD3	METAL	S.F.	\$ 11.00
SHP1	WORK SHOP AVE	S.F.	\$ 27.00
SHP2	WORK SHOP GOOD	S.F.	\$ 32.00
SHP3	WORK SHOP POOR	S.F.	\$ 22.00
SHP4	W/IMPROV AGE	S.F.	\$ 31.00
SHP5	W/IMPROV GOOD	S.F.	\$ 34.00
SHP6	W/IMPROV POOR	S.F.	\$ 25.00
SL1	SL1	UNITS	\$ 10,000.00
SL18	SOLAR 2018	WATTS	\$ 1.00
SLO1	SILO-WD OR CNC	DIAXHT	\$ 22.00
SLO2	PORCELAN	DIAXHT	\$ 52.00
SLO3	CONCRETE TRNCH	DIAXHT	\$ 8.50
SM2	MH ADDITION	S.F.	\$ 50.00
SM4	SKIRTING	L.F.	\$ 10.00
SPL1	POOL-INGR CONC	S.F.	\$ 55.00
SPL2	POOL-INGR VN/P	S.F.	\$ 48.00
SPL3	POOL-INGR GUNI	S.F.	\$ 68.00
SPL4	POOL AGR ROUND	DIAMETER	
SPL5	POOL AGR OVAL	LENGTH	
SPL6	POOL AGR RECT	S.F.	
STB1	STABLE	S.F.	\$ 21.00
STB2	W/IMPROVEMENTS	S.F.	\$ 37.00
TEL1	TELEPHONE POLES 100	UNITS	\$ -
TEL2	TELEPHONE POLES 50	UNITS	\$ -
TEN	TENNIS COURT	S.F.	\$ 4.90
TN1	COM TANK ELV STEEL	UNITS	\$ 8.00

Code	Description	Unit Type	Unit Price
TN2	COM TANK STEEL-PETR	BBLS	\$ 16.00
TN4	COM TANK CONCRETE	UNITS	\$ 3.25
TN5	COM TANK STEEL PRE	UNITS	\$ 3.25
TN7	COM TANK UNGRD ST	GALS	\$ 4.50
TNK1	TANK-UNDERGRND	GALS	\$ 9.25
TNK2	3000-10000 GAL	GALS	\$ 4.60
TNK3	GT-10,000	GALS	\$ 4.00
TNK4	COMPRESSED AIR	GALS	\$ 5.20
TNK5	ELEVATED TANK	GALS	\$ 10.25
TOT	TOTALIZER	UNITS	\$ 1,835.00
TR1	COM TANK UNGRD FB	UNITS	\$ 2.65
TT1	COM TOWER RADIO	L.F.	\$ 410.00
TT2	COM TOWER MICRO	L.F.	\$ 220.00
TT3	COM TOWER TV	L.F.	\$ 410.00
VC1	COM VACUUM	UNITS	\$ 565.00
WDK1	WOOD DECK 02 DETACHED	S.F.	\$ 13.00
XY7	MISC/SOUND VALUE	UNITS	\$ 1.00

## Depreciation

Depreciation is a loss in property value from any cause; the difference between the cost new of an improvement on the effective date of the appraisal and the market value of the improvement on the same date. There are three major categories of depreciation:

- Physical deterioration
- Functional obsolescence
- External obsolescence

In the appraisal of a single property (not Mass Appraisal), the three primary methods for estimating depreciation are: the “market extraction method”, the “age-life” method, and the “breakdown” method. Typically, the market extraction and age-life calculation techniques are utilized to capture the total depreciation in a property from all sources. The “breakdown” method is a more rigorous exercise that attempts to isolate the specific components for each type of depreciation, physical, functional, and economic. Typically, in mass appraisal, the identification of depreciation relies upon the application of computer modeling techniques. Importantly, regardless of the methodology utilized to identify depreciation, it is imperative that the final estimate of depreciation reflects the loss in value from all sources.

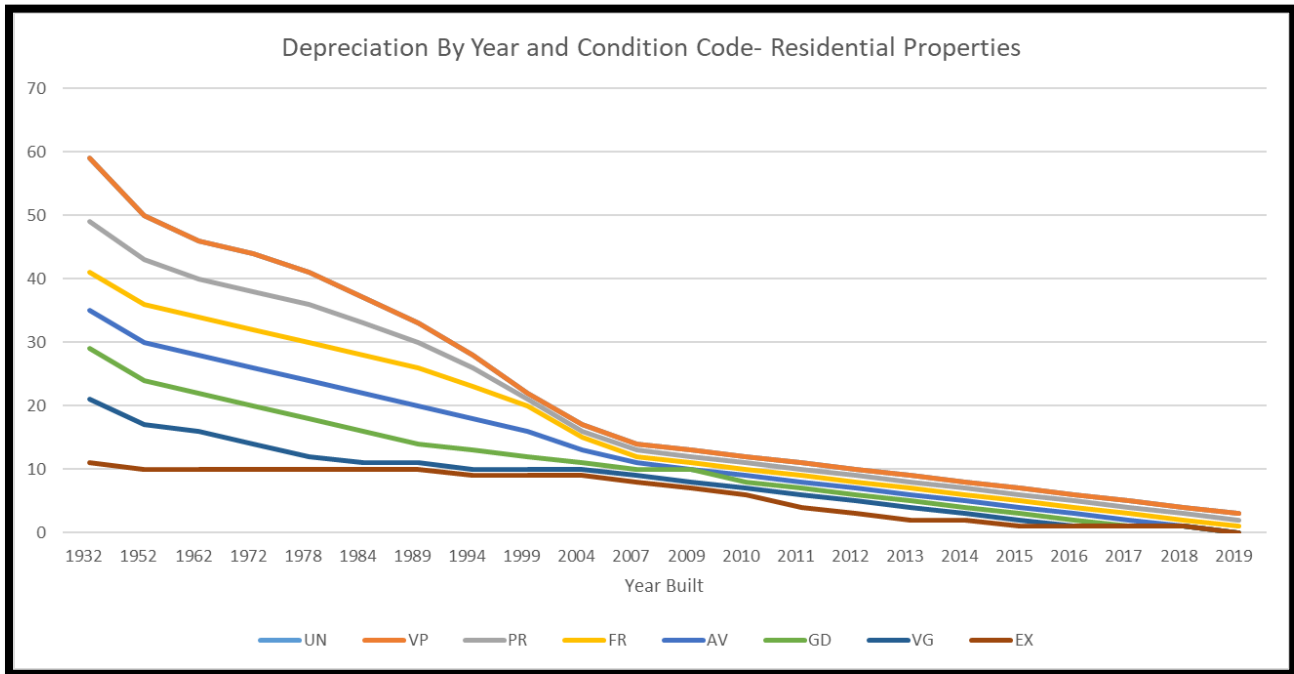
The following table illustrates the various rates of depreciation based on age and condition. The table shows how inferior condition correlates to higher rates of depreciation.

TABLE-23: Residential and Residential Condo Depreciation Table

Year Built	Condition- Residential & Residential Condos							
	UN	VP	PR	FR	AV	GD	VG	EX
1932	59	59	49	41	35	29	21	11
1952	50	50	43	36	30	24	17	10
1962	46	46	40	34	28	22	16	10
1972	44	44	38	32	26	20	14	10
1978	41	41	36	30	24	18	12	10
1984	37	37	33	28	22	16	11	10
1989	33	33	30	26	20	14	11	10
1994	28	28	26	23	18	13	10	9
1999	22	22	21	20	16	12	10	9
2004	17	17	16	15	13	11	10	9
2007	14	14	13	12	11	10	9	8
2009	13	13	12	11	10	10	8	7
2010	12	12	11	10	9	8	7	6
2011	11	11	10	9	8	7	6	4
2012	10	10	9	8	7	6	5	3
2013	9	9	8	7	6	5	4	2
2014	8	8	7	6	5	4	3	2
2015	7	7	6	5	4	3	2	1
2016	6	6	5	4	3	2	1	1
2017	5	5	4	3	2	1	1	1
2018	4	4	3	2	1	1	1	1
2019	3	3	2	1	0	0	0	0

The chart below illustrates the depreciation curve.

Chart 4: Residential Depreciation Chart



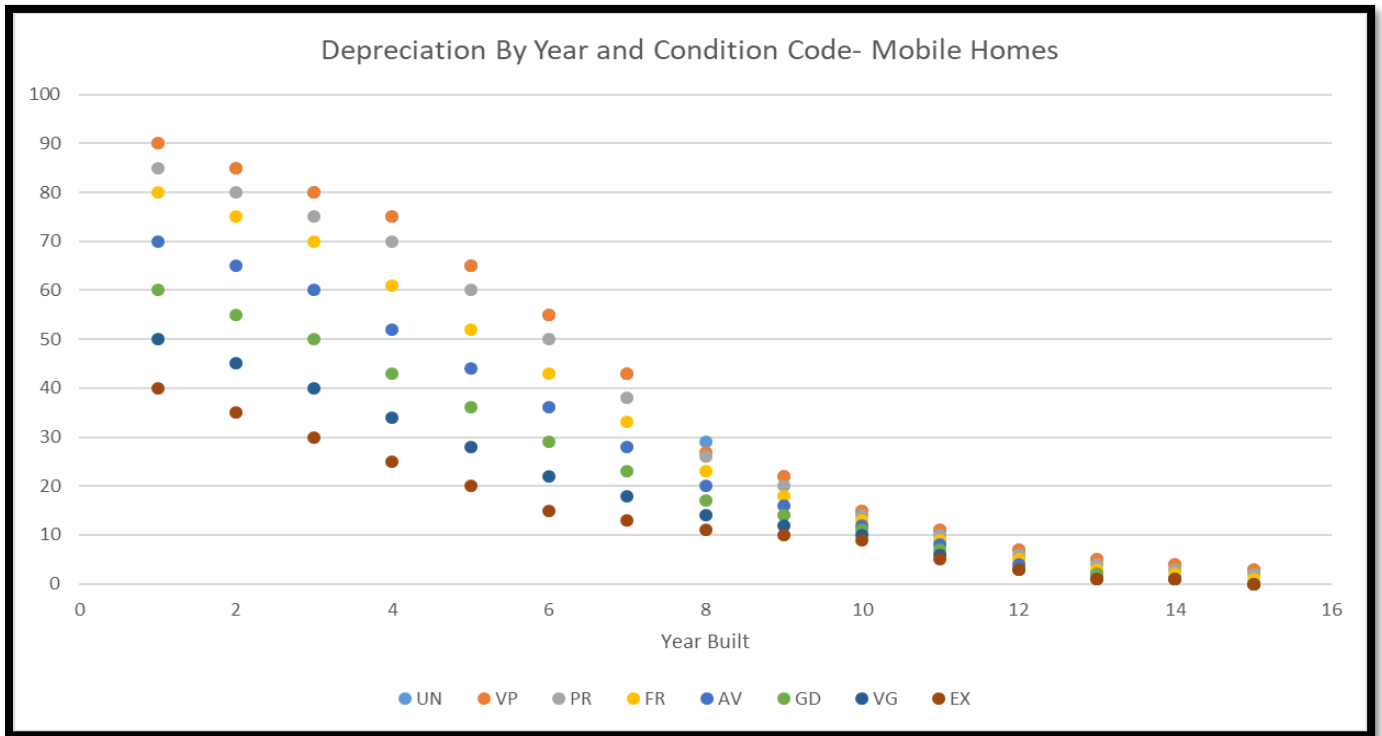
The next table shows depreciation rates for mobile homes.

TABLE 24: MOBILE HOME DEPRECIATION TABLE

Year Built	Condition- Mobile Homes							
	UN	VP	PR	FR	AV	GD	VG	EX
1972	90	90	85	80	70	60	50	40
1977	85	85	80	75	65	55	45	35
1982	80	80	75	70	60	50	40	30
1987	75	75	70	61	52	43	34	25
1992	65	65	60	52	44	36	28	20
1997	55	55	50	43	36	29	22	15
2002	43	43	38	33	28	23	18	13
2006	29	27	26	23	20	17	14	11
2009	22	22	20	18	16	14	12	10
2012	15	15	14	13	12	11	10	9
2013	11	11	10	9	8	7	6	5
2014	7	7	6	5	4	3	3	3
2015	5	5	4	3	2	2	1	1
2017	4	4	3	2	1	1	1	1
2019	3	3	2	1	0	0	0	0

The chart below illustrates the depreciation curve for mobile homes. Mobile homes depreciate faster and have steeper depreciation curves.

Chart 5: Mobile Home Depreciation Chart



This next table illustrates the depreciation rates for commercial and industrial properties.

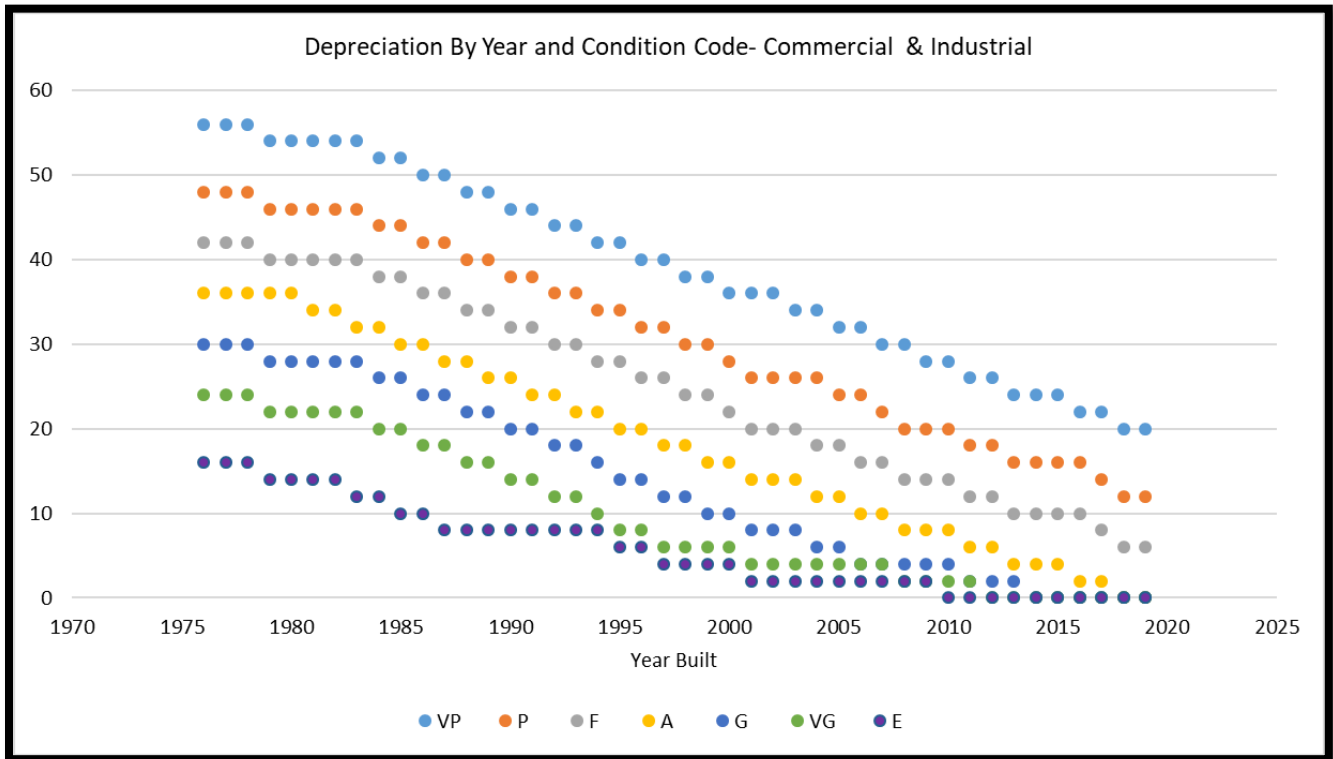
TABLE 25: COMMERCIAL & INDUSTRIAL DEPRECIATION TABLE

Year Built	Condition- Commercial & Industrial						
	VP	P	F	A	G	VG	E
1976	56	48	42	36	30	24	16
1977	56	48	42	36	30	24	16
1978	56	48	42	36	30	24	16
1979	54	46	40	36	28	22	14
1980	54	46	40	36	28	22	14
1981	54	46	40	34	28	22	14
1982	54	46	40	34	28	22	14
1983	54	46	40	32	28	22	12
1984	52	44	38	32	26	20	12
1985	52	44	38	30	26	20	10

Year Built	Condition- Commercial & Industrial						
	VP	P	F	A	G	VG	E
1986	50	42	36	30	24	18	10
1987	50	42	36	28	24	18	8
1988	48	40	34	28	22	16	8
1989	48	40	34	26	22	16	8
1990	46	38	32	26	20	14	8
1991	46	38	32	24	20	14	8
1992	44	36	30	24	18	12	8
1993	44	36	30	22	18	12	8
1994	42	34	28	22	16	10	8
1995	42	34	28	20	14	8	6
1996	40	32	26	20	14	8	6
1997	40	32	26	18	12	6	4
1998	38	30	24	18	12	6	4
1999	38	30	24	16	10	6	4
2000	36	28	22	16	10	6	4
2001	36	26	20	14	8	4	2
2002	36	26	20	14	8	4	2
2003	34	26	20	14	8	4	2
2004	34	26	18	12	6	4	2
2005	32	24	18	12	6	4	2
2006	32	24	16	10	4	4	2
2007	30	22	16	10	4	4	2
2008	30	20	14	8	4	2	2
2009	28	20	14	8	4	2	2
2010	28	20	14	8	4	2	0
2011	26	18	12	6	2	2	0
2012	26	18	12	6	2	0	0
2013	24	16	10	4	2	0	0
2014	24	16	10	4	0	0	0
2015	24	16	10	4	0	0	0
2016	22	16	10	2	0	0	0
2017	22	14	8	2	0	0	0
2018	20	12	6	0	0	0	0
2019	20	12	6	0	0	0	0

The graph below illustrates the depreciation curve for commercial and industrial properties.

Chart 6: Commercial & Industrial Depreciation Chart



### Summary of Depreciation

In appraising, depreciation is a loss in property value from any cause. It is determined by taking the difference between the cost new of an improvement on the effective date of the appraisal and the market value of the improvement on the same date. Actual age and condition were assigned to each individual property. Our internal testing of the depreciation curves appears reasonable (see the results of model testing later in the report).

### Building Valuation Model Calculation

Once all the components of the building costs are completed a building valuation model is calculated. See the process below:

The building valuation model is defined as follows:  $\text{Base Rate} \pm \text{Number of Baths etc...} \pm \text{Size Adjustment} \pm \text{Grade of Construction} = \text{Adjusted Base Rate}$ .  $\text{Adjusted Base Rate} \times \text{Effective Area} - \text{Depreciation Adjustment} = \text{Building Value}$ . Base rates were developed from Marshall & Swift and adjusted according to market sales data.

Example:



PID = 31313  
Use Code = 1010  
Cost rate Group = SIN  
Model ID = P01

Section #1

Base Rate: 108 (**starting base rate**)

Size Adjustment: 1.43833 (**adjustment for building size**)

Effective Area: 1050 (Size of Building)

Adjusted Base Rate = (108 + 0) (**comes from amenities listed under base rate adjustments**) \* 1.43833

Adjusted Base Rate: 155.34 (**does not include quality of construction grade adjustment**)

RCN = (((155.34 \* 1050) + 6000 (**comes from flat value additions**)) \* 1 (**grade adjustment**)) + 0 (**comes from non-factored flat value additions**)

RCN: 169107 (**cost new**)

### **Base Rate Adjustments**

EX WALL 1 07 (Asbestos Shingle) = -2.16 + Base Rate

FLOOR COVER 1 12 (Hardwood) = 2.16 + Base Rate

### **Flat Value Additions**

EXTRA PLUMBING FIXTURE =1500+ RCN

FULL BATHROOMS = 4500 + RCN

Percent Good = 70

RCNLD: 118400

**Building Value = \$118,400 rounded**

## **Cost Approach Conclusion**

As was previously discussed, base rates were established for the improvements. The base rates for those improvements were then refined based on the individual characteristics of each property. Additional features and outbuilding contributions to value were added. Depreciation was deducted from the refined improvement costs. The last step in the cost approach required land values to be added to the depreciated improvement values.

## SALES COMPARISON APPROACH FOR IMPROVED PROPERTY

The sales comparison approach is defined as:

**Sales comparison approach.** *The process of deriving a value indication for the subject property by comparing sales of similar properties to the property being appraised, identifying appropriate units of comparison, and making adjustments to the sale prices (or unit prices, as appropriate) of the comparable properties based on relevant, market-derived elements of comparison. The sales comparison approach may be used to value improved properties, vacant land, or land being considered as though vacant when an adequate supply of comparable sales is available.*<sup>17</sup>

The elements of comparison are defined as:

**Elements of comparison.** *The characteristics or attributes of properties and transactions that cause the prices of real property to vary; include real property rights conveyed, financing terms, conditions of sale, expenditures made immediately after purchase, market conditions, location, physical characteristics, and other characteristics such as economic characteristics, use, and non-realty components of value.*<sup>18</sup>

In the sales comparison approach, the value of a property is estimated by comparing it with similar, recently sold properties in the surrounding or competing area. Inherent in this approach is the principle of substitution, which holds that when a property is replaceable in the market, its value tends to be set by the cost of acquiring an equally desirable substitute property, assuming no costly delay is encountered in making the substitution.

Through the analysis of sales of verified arm's-length transactions, market value and price trends are identified. The sales utilized are comparable to the subject in physical, functional, and economic characteristics. The basic procedure is as follows:

1. Identify the most recent relevant sales from which to select and analyze truly comparable sales, with consideration given to the date of sale.
2. Identify any changes in economic conditions between the date of sale and the date of value.
3. Calculate the cash equivalent price for any sale that includes favorable financing.
4. Reduce the sale price to a unit of comparison such as the sale price per square foot or sale price per unit.

---

<sup>17</sup> *The Dictionary of Real Estate Appraisal*, 6<sup>th</sup> ed. Chicago: Appraisal Institute, 2015.

<sup>18</sup> *The Dictionary of Real Estate Appraisal*, 6<sup>th</sup> ed. Chicago: Appraisal Institute, 2015.

5. Make appropriate adjustments to the prices of the comparable sale properties for differences in the relevant elements of comparison.
6. Interpret the results to derive a value indication from the sales comparison approach.

## Sales Comparison Model

While sales were used to calibrate the cost and income models, an independent sales comparison model was not developed. This is typical in mass valuation in New Hampshire due to the limited number of sales. Few, if any, assessing districts in New Hampshire develop independent sales comparison models.

## INCOME APPROACH

In the income approach, the present value of the future benefits of property ownership is measured. A property's income and resale value upon reversion may be capitalized into a current, lump-sum value. There are two methods of income capitalization: direct capitalization and yield capitalization. In direct capitalization, the relationship between one year's income and value is reflected in either a capitalization rate or an income multiplier. In yield capitalization, the relationship between several years' stabilized income and a reversionary value at the end of a designated period is reflected in a yield rate. The most common application of yield capitalization is discounted cash flow analysis.

The income approach is not normally relied upon for residential valuation and we did not employ an income approach in our residential mass valuation model.

The direct capitalization method was completed for commercial properties. In direct capitalization, a single year's net operating income is divided by an overall capitalization rate to arrive at an indication of value. The general formula for the income approach is as follows:

1. Estimate the potential gross income (PGI).
2. Estimate the vacancy and collection loss.
3. Subtract the vacancy and collection loss from the potential gross income to derive the effective gross income.
4. Estimate the total operating expenses for the subject and deduct them from the effective gross income to derive net operating income ( $I_o$ ).
5. Estimate an overall capitalization rate ( $R_o$ ).
6. Divide the net operating income by the overall capitalization rate to derive a value indication by the income capitalization approach.

Definitions that may be used in the income capitalization approach analysis are as follows:<sup>19</sup>

**Direct capitalization.** *A method used to convert an estimate of a single year's income expectancy into an indication of value in one direct step, either by dividing the net income estimate by an appropriate capitalization rate or by multiplying the income estimate by an appropriate factor. Direct capitalization employs capitalization rates and multipliers extracted or developed from market data. Only one year's income is used. Yield and value changes are implied, but not explicitly identified.*

**Effective gross income (EGI).** *The anticipated income from all operations of the real estate after an allowance is made for vacancy and collection losses and an addition is made for any other income.*

**Income capitalization approach.** *Specific appraisal techniques applied to develop a value indication for a property based on its earning capability and calculated by the capitalization of property income.*

**Net operating income (NOI or I<sub>o</sub>).** *The actual or anticipated net income that remains after all operating expenses are deducted from effective gross income but before mortgage debt service and book depreciation are deducted.*

**Operating expenses.** *The periodic expenditures necessary to maintain the real estate and continue production of the effective gross income, assuming prudent and competent management.*

**Potential gross income (PGI).** *The total income attributable to property at full occupancy before vacancy and operating expenses are deducted.*

**Vacancy and collection loss.** *A deduction from potential gross income (PGI) made to reflect income reductions due to vacancies, tenant turnover, and nonpayment of rent.*

## Income Model Overview

Just like individual property appraisals, mass appraisal income models are designed to estimate values based on future income potential. The income approach is based upon the principle of “anticipation” which recognizes value is created by a property’s expected future benefits. Typically, these benefits are anticipated in the form of income, and/or in the anticipated increase in the property’s value over time. This technique requires that the appraiser estimate the potential gross market income for the property at its highest and best use and make an allowance for vacancy and collection loss, then subtract all appropriate expenses to derive the net operating income. The net operating income is then divided by a “capitalization” rate. These are market-derived rates investors expect on alternative investments that share the same degree of risk as the property appraised. Well-designed income models replicate the actions of commercial buyers and sellers and produce accurate income values.

Mass appraisal income models have two primary categories: model specification and model calibration. Model specification determines what data elements to include in the model, and model calibration assigns a value, or factor, to the data elements. Model specification starts with understanding what data

---

<sup>19</sup> Source: *The Dictionary of Real Estate Appraisal*, 6<sup>th</sup> ed. Chicago: Appraisal Institute, 2015.

elements drive income. For example, the type of property, age, condition, and location will typically influence income so the model should ensure, through model specification, these items are correct. Income modeling depends on collecting the right data (model specification), correctly obtaining the data, and correctly analyzing how each data item influences value (model calibration).

Income and expense expectations differ by property type. This requires unique income and expense estimates for different property uses. Additionally, income models need to capture the different income and expense expectations within the same use category. For example, new apartments in exceptional neighborhoods have premium rents compared with older apartments in modest neighborhoods. In this example, an accurate income model will accurately estimate market rents for both apartment types resulting from proper specification and calibration.

Well-designed and up-to-date models typically do an excellent job of predicting market values of 80% to 95% of commercial properties. The remaining 5% to 20%, which are typically unique or unusual properties, require additional review from an appraiser/assessor.

**INCOME VALUATION**

An income approach is typically only appropriate for commercial properties. An income approach was developed only for commercial and apartment properties.

In gathering data for the report, we relied on third party data sources, such as surveys from LoopNet, Realty Rates.com, Costar, CBRE Office and Realty Rates and internet sites. We also mailed income and expense data requests sent to commercial property owners. In the State of NH, property owners are not required to submit income and expense statements.

We collected and compiled an extensive amount of third-party income and expense data. Along with the local data, the regional and national data we received was analyzed and used in developing vacancy rates, rental rates and expense ratios.

**Gross Income Base Rates**

Base rental rates were developed from market studies and surveys of local properties. They represent the average or “base” amount of rent an owner of a typical commercial property could expect their property to command in the local market. Below is an explanation of how the market rents and income parameters are setup.

- 1.Acquire all Actual Rents/Asking Rents and screen reports for any extremes or incorrect data.
- 2.Manually set average economic rents for all Use Codes

A. Average Base Size                      Base Unit Income                      \$

B. Maximum Size	Minimum Unit Income	\$
C. Minimum Size	Maximum Unit Income	\$

NOTES:

- (A) Determine average size for each Use Code and an average rent per unit for this size.
- (B) Determine the maximum size for each Use Code and the minimum rent per unit for this size.
- (C) Determine the minimum size for each Use Code and the maximum rent per unit for this size.

3. Manually set average vacancy percentages and expense ratios for each Use Code.

Typically, average properties will run 2% - 10% vacancy rates. Use any data available from Vacancy and Expense data and reports.

- Debt/Vacancy Percent:
- Expense Percent:

Expense percent will vary dependent on lease type. Note typically which expenses and utilities are paid by or not paid by owners on the Actual Rental Reports: Gross = All by Owner, and NNN = none, etc..

4. Manually set economic adjustments for non-average:

- Location Adj. (Quality of Location)
- Use Code Adj. (Quality of Space)
- Debt/Vac Adj. (Current and future projection)
- Expense Adj. (Current and future projection)

NOTE: A and B are multipliers of Average Rent/Unit for all Use Codes.

EX: If Use Code 10 (Retail) = \$10.00/Unit (Average)

	\$10.00
Location Adj.	<u>X 1.10 (Good)</u>
	\$11.00
Use Adj.	<u>X 1.20 (Good)</u>
	\$13.20

We established the following base rents for the various commercial properties found in Portsmouth.

TABLE 26: BASE INCOME RATES

Use Code	Description	Unit Type	Base Unit Income
10	DT RETAIL	SQFT	\$ 31.00
11	DISCOUNT STORE	SQFT	\$ 8.50
12	CONV STORE	SQFT	\$ 27.00
13	SUPERMARKET	SQFT	\$ 12.50
14	LARGE RETAIL	SQFT	\$ 15.00
15	RETL STRIP	SQFT	\$ 19.50
16	RETAIL	SQFT	\$ 16.50
17	PHARMACY	SQFT	\$ 25.00
19	OFFICE/WHSE	SQFT	\$ 10.25
20	INDUSTRIAL	SQFT	\$ 7.00
21	R&D	SQFT	\$ 8.50
22	WAREHOUSE	SQFT	\$ 7.00
23	MILL BLDG	SQFT	\$ 4.75
24	SERV SHOP	SQFT	\$ 10.00
25	SELF STORAGE	SQFT	\$ 11.00
30	RESTAURANT	SQFT	\$ 23.50
31	FAST FOOD	SQFT	\$ 33.00
32	CLUB/LNGE	SQFT	\$ 19.00
35	EFF MIXU APT	BED	\$ 1.00
36	1 BED MIXU APT	BED	\$ 1.00
37	2 BED MIXU APT	BED	\$ 1.00
38	3 BED MIXU APT	BED	\$ 1.00
39	4 BED MIXU APT	BED	\$ 1.00
40	EFF/STUDIO APT	APT	\$ 11,400.00
41	1 BR APT	APT	\$ 15,000.00
42	2 BR APT	APT	\$ 18,000.00
43	3 BR APT	APT	\$ 21,000.00
44	4 BR APT	APT	\$ 24,000.00
45	ROOM HSE	ROOM	\$ 8,500.00
46	MOBIL HM PK	SITE	\$ 6,300.00
48	MOTEL/INN	ROOM	\$ 35,000.00
49	HOTEL	ROOM	\$ 57,000.00
50	OFFICE NNN	SQFT	\$ 15.50
51	BANK	SQFT	\$ 28.00
52	OFFICE MG	SQFT	\$ 19.50

Use Code	Description	Unit Type	Base Unit Income
53	OFFICE NET	SQFT	\$ 17.50
54	RES STYLE OFC	SQFT	\$ 17.00
55	OFFICE CONDO	SQFT	\$ 21.00
60	SERV STATION	UNIT	\$ 55,000.00
61	SVC GARAGE	SQFT	\$ 10.50
62	AUTO DEALER	SQFT	\$ 12.00
63	SER ST/CONV	SQFT	\$ 65,000.00
64	CAR WASH	SQFT	\$ 13.50
65	LS STUDIO APT	BED	\$ 19,800.00
66	LS 1 BR APT	BED	\$ 23,400.00
67	LS 2 BR APT	BED	\$ 29,400.00
68	LS 3 BR APT	BED	\$ 37,200.00
90	MISC	SQFT	\$ 2.20
91	DEAD STRGE	SQFT	\$ 2.20
92	BOWLING	LANE	\$ 4,300.00
93	THEATRE	SQFT	\$ 11.00
94	NURSING HOME	BED	\$ 110,000.00

## Income Adjustments

Market rent estimates are a central feature of the income approach. The base market rent is estimated for each property type and further refined. Refinements include size, location, use, vacancies and operating expenses.

## Size Adjustment

The following table shows the range of “base rents” for each property type based on size.

TABLE 6: INCOME SIZE ADJUSTMENT

Use Code	Description	Base Unit Income	Min Rent	Max Rate
10	DT RETAIL	\$ 31.00	\$ 24.00	\$ 36.00
11	DISCOUNT STORE	\$ 8.50	\$ 8.50	\$ 14.50
12	CONV STORE	\$ 27.00	\$ 22.00	\$ 35.00
13	SUPERMARKET	\$ 12.50	\$ 12.00	\$ 12.00
14	LARGE RETAIL	\$ 15.00	\$ 13.00	\$ 16.00
15	RETL STRIP	\$ 19.50	\$ 16.25	\$ 25.50
16	RETAIL	\$ 16.50	\$ 12.50	\$ 22.50
17	PHARMACY	\$ 25.00	\$ 21.00	\$ 29.00
19	OFFICE/WHSE	\$ 10.25	\$ 8.25	\$ 14.25
20	INDUSTRIAL	\$ 7.00	\$ 6.00	\$ 9.00



Use Code	Description	Base Unit Income	Min Rent	Max Rate
21	R&D	\$ 8.50	\$ 8.25	\$ 9.25
22	WAREHOUSE	\$ 7.00	\$ 6.00	\$ 9.00
23	MILL BLDG	\$ 4.75	\$ 4.25	\$ 5.25
24	SERV SHOP	\$ 10.00	\$ 9.50	\$ 13.00
25	SELF STORAGE	\$ 11.00	\$ 9.00	\$ 13.00
30	RESTAURANT	\$ 23.50	\$ 18.25	\$ 27.75
31	FAST FOOD	\$ 33.00	\$ 30.00	\$ 38.00
32	CLUB/LNGE	\$ 19.00	\$ 16.00	\$ 25.00
35	EFF MIXU APT	\$ 1.00	\$ 1.00	\$ 1.00
36	1 BED MIXU APT	\$ 1.00	\$ 1.00	\$ 1.00
37	2 BED MIXU APT	\$ 1.00	\$ 1.00	\$ 1.00
38	3 BED MIXU APT	\$ 1.00	\$ 1.00	\$ 1.00
39	4 BED MIXU APT	\$ 1.00	\$ 1.00	\$ 1.00
40	EFF/STUDIO APT	\$ 11,400.00	\$ 11,400.00	\$ 11,400.00
41	1 BR APT	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00
42	2 BR APT	\$ 18,000.00	\$ 18,000.00	\$ 18,000.00
43	3 BR APT	\$ 21,000.00	\$ 21,000.00	\$ 21,000.00
44	4 BR APT	\$ 24,000.00	\$ 24,000.00	\$ 24,000.00
45	ROOM HSE	\$ 8,500.00	\$ 8,500.00	\$ 8,500.00
46	MOBIL HM PK	\$ 6,300.00	\$ 6,300.00	\$ 6,300.00
48	MOTEL/INN	\$ 35,000.00	\$ 35,000.00	\$ 35,000.00
49	HOTEL	\$ 57,000.00	\$ 57,000.00	\$ 57,000.00
50	OFFICE NNN	\$ 15.50	\$ 13.25	\$ 17.50
51	BANK	\$ 28.00	\$ 21.50	\$ 34.00
52	OFFICE MG	\$ 19.50	\$ 15.50	\$ 21.50
53	OFFICE NET	\$ 17.50	\$ 14.50	\$ 20.25
54	RES STYLE OFC	\$ 17.00	\$ 14.00	\$ 19.00
55	OFFICE CONDO	\$ 21.00	\$ 18.00	\$ 25.00
60	SERV STATION	\$ 55,000.00	\$ 55,000.00	\$ 55,000.00
61	SVC GARAGE	\$ 10.50	\$ 9.50	\$ 13.50
62	AUTO DEALER	\$ 12.00	\$ 11.00	\$ 16.00
63	SER ST/CONV	\$ 65,000.00	\$ 65,000.00	\$ 65,000.00
64	CAR WASH	\$ 13.50	\$ 12.50	\$ 21.00
65	LS STUDIO APT	\$ 19,800.00	\$ 19,800.00	\$ 19,800.00
66	LS 1 BR APT	\$ 23,400.00	\$ 23,400.00	\$ 23,400.00
67	LS 2 BR APT	\$ 29,400.00	\$ 29,400.00	\$ 29,400.00
68	LS 3 BR APT	\$ 37,200.00	\$ 37,200.00	\$ 37,200.00
90	MISC	\$ 2.20	\$ 2.20	\$ 2.20
91	DEAD STRGE	\$ 2.20	\$ 2.20	\$ 2.20
92	BOWLING	\$ 4,300.00	\$ 4,300.00	\$ 4,300.00
93	THEATRE	\$ 11.00	\$ 10.50	\$ 10.50

Use Code	Description	Base Unit Income	Min Rent	Max Rate
94	NURSING HOME	\$ 110,000.00	\$ 110,000.00	\$ 110,000.00

## Location Adjustment

Location is among the most important considerations in real property valuation. The “base rental rates” are adjusted using factors ranging from poor (.75) to excellent (1.4). The lower factors are applied to less desirable properties which reduce their base rental rates. The higher factors are applied to properties considered above average, thus capturing their superior income generating potential.

TABLE 28: INCOME LOCATION ADJUSTMENT

Location Adjustment				
Poor	Fair	Average	Good	Excellent
0.75	0.85	1.00	1.20	1.40

## Use Adjustment

Use is an adjustment for utility and functionality. For example, newer apartments with modern amenities and floor plans will command higher rents compared with older apartments with dated amenities and poor floor plans. The “base rental rates” are adjusted using factors ranging from poor (.75) to excellent (1.4). The lower factors are applied to less desirable properties thus reducing their base rental rates. The higher factors are applied to properties considered well above average, thus capturing their superior income generating potential.

TABLE 29: INCOME USE ADJUSTMENTS

Use Adjustment				
Poor	Fair	Average	Good	Excellent
0.75	0.85	1.00	1.20	1.40

## Vacancy

Vacancy is an adjustment that recognizes certain properties achieve lower or higher vacancy rates. A variety of characteristics influence vacancy rates. With apartments, characteristics such as age, unit mix and overall supply and demand for a specific market segment are important drivers of vacancy. For example, two-bedroom apartments are favored in many markets. Apartments with five-bedrooms may be less desirable and incur higher vacancy rates. The following table shows the “base vacancy rate” for each property type.

TABLE 30: INCOME VACANCY RATES

Use Code	Description	Average Size	Vacancy %
10	DT RETAIL	1,300	4.0%
11	DISCOUNT STORE	70,000	5.0%
12	CONV STORE	3,000	3.0%
13	SUPERMARKET	50,000	6.0%
14	LARGE RETAIL	30,000	5.0%
15	RETL STRIP	3,000	8.0%
16	RETAIL	3,000	6.0%
17	PHARMACY	15,000	5.0%
19	OFFICE/WHSE	5,000	7.0%
20	INDUSTRIAL	8,000	5.0%
21	R&D	10,000	7.0%
22	WAREHOUSE	8,000	5.0%
23	MILL BLDG	7,000	9.0%
24	SERV SHOP	3,000	5.0%
25	SELF STORAGE	80	15.0%
30	RESTAURANT	3,000	5.0%
31	FAST FOOD	2,500	4.0%
32	CLUB/LNGE	3,000	5.0%
35	EFF MIXU APT	1	3.0%
36	1 BED MIXU APT	1	3.0%
37	2 BED MIXU APT	1	3.0%
38	3 BED MIXU APT	1	3.0%
39	4 BED MIXU APT	1	3.0%
40	EFF/STUDIO APT	1	3.0%
41	1 BR APT	1	3.0%
42	2 BR APT	1	3.0%
43	3 BR APT	1	3.0%
44	4 BR APT	1	3.0%
45	ROOM HSE	1	8.0%
46	MOBIL HM PK	1	4.0%
48	MOTEL/INN	1	40.0%
49	HOTEL	1	34.0%
50	OFFICE NNN	2,500	7.0%
51	BANK	3,000	5.0%
52	OFFICE MG	1,800	7.0%
53	OFFICE NET	1,800	7.0%
54	RES STYLE OFC	1,500	7.0%
55	OFFICE CONDO	1,000	7.0%
60	SERV STATION	1	7.0%

Use Code	Description	Average Size	Vacancy %
61	SVC GARAGE	3,000	5.0%
62	AUTO DEALER	10,000	6.0%
63	SER ST/CONV	1	7.0%
64	CAR WASH	3,000	5.0%
65	LS STUDIO APT	1	3.0%
66	LS 1 BR APT	1	3.0%
67	LS 2 BR APT	1	3.0%
68	LS 3 BR APT	1	3.0%
90	MISC	1,000	10.0%
91	DEAD STRGE	1,000	10.0%
92	BOWLING	1	8.0%
93	THEATRE	4,000	6.0%
94	NURSING HOME	1	5.0%

Vacancy rates were derived from income and expense forms that were mailed out and from market surveys. The “base vacancy rates” are adjusted using factors ranging from poor (2) to excellent (.50). The lower factors applied to more desirable properties reduce their base vacancy rates. The higher factors are applied to less desirable properties to accurately reflect their lower income generating potential.

Assuming a “base” or average vacancy rate of 3.0%, an excellent apartment will incur 1.50% vacancy (3.0% x .50 = 1.5%). A poor apartment is projected to suffer from a 6% vacancy rate (3.0% x 2 = 6%).

The following table shows the vacancy adjustment factors.

TABLE 31: INCOME VACANCY ADJUSTMENTS

Vacancy Adjustment				
Poor	Fair	Average	Good	Excellent
2.00	1.50	1.00	0.70	0.50

## Expenses

Operating expenses are the expenditures required to maintain the real estate and continue the production of income. Typical expenses include insurance, real estate taxes, maintenance, repairs, utilities, heating fuel, management, and snow removal.

Income models allow for adjustments for variations in operating cost efficiency. Certain properties operate at a lower cost to the owner compared with others. The classic example is heating cost. Using apartments again as an example, when tenants pay for heating, the owner’s expense is substantially lower. Management and maintenance are other good examples. Some properties are more difficult to manage and maintain than others.

Some leases require property owners to pay for all expenses (gross), some expenses (modified gross) or nearly no expenses (NNN). With triple net (NNN) leases, most expenses are passed-through to tenants. The following table shows the “base expense rate” for all commercial properties.

In mass valuation, “operating expense ratios” are used for simplicity of analysis. Expense ratios are simply operating expenses divided by actual income.

The following table shows base expense ratios and lease types for the various commercial uses.

TABLE 32: BASE INCOME EXPENSES

Use Code	Description	Exp %	Lease Type
10	DT RETAIL	33.00%	Modified Gross
11	DISCOUNT STORE	15.00%	NNN
12	CONV STORE	12.00%	NNN
13	SUPERMARKET	13.00%	NNN
14	LARGE RETAIL	15.00%	NNN
15	RETL STRIP	15.00%	NNN
16	RETAIL	15.00%	NNN
17	PHARMACY	15.00%	NNN
19	OFFICE/WHSE	19.00%	NNN
20	INDUSTRIAL	15.00%	NNN
21	R&D	15.00%	NNN
22	WAREHOUSE	15.00%	NNN
23	MILL BLDG	45.00%	Gross
24	SERV SHOP	15.00%	NNN
25	SELF STORAGE	33.00%	Gross
30	RESTAURANT	14.00%	NNN
31	FAST FOOD	12.00%	NNN
32	CLUB/LNGE	14.00%	NNN
35	EFF MIXU APT	40.00%	Modified Gross
36	1 BED MIXU APT	40.00%	Modified Gross
37	2 BED MIXU APT	40.00%	Modified Gross
38	3 BED MIXU APT	40.00%	Modified Gross
39	4 BED MIXU APT	40.00%	Modified Gross
40	EFF/STUDIO APT	40.00%	Modified Gross
41	1 BR APT	40.00%	Modified Gross
42	2 BR APT	40.00%	Modified Gross
43	3 BR APT	40.00%	Modified Gross
44	4 BR APT	40.00%	Modified Gross
45	ROOM HSE	42.00%	Modified Gross

Use Code	Description	Exp %	Lease Type
46	MOBIL HM PK	30.00%	Gross
48	MOTEL/INN	72.00%	Gross
49	HOTEL	83.00%	Gross
50	OFFICE NNN	16.00%	NNN
51	BANK	15.00%	NNN
52	OFFICE MG	33.00%	Modified Gross
53	OFFICE NET	28.00%	Net
54	RES STYLE OFC	29.00%	Gross
55	OFFICE CONDO	29.00%	Gross
60	SERV STATION	15.00%	NNN
61	SVC GARAGE	15.00%	NNN
62	AUTO DEALER	19.00%	NNN
63	SER ST/CONV	14.00%	NNN
64	CAR WASH	14.00%	NNN
65	LS STUDIO APT	40.00%	Modified Gross
66	LS 1 BR APT	40.00%	Modified Gross
67	LS 2 BR APT	40.00%	Modified Gross
68	LS 3 BR APT	40.00%	Modified Gross
90	MISC	20.00%	NNN
91	DEAD STRGE	20.00%	Net
92	BOWLING	15.00%	NNN
93	THEATRE	15.00%	NNN
94	NURSING HOME	94.00%	Gross

### Expense Adjustments

The “base expense rates” are adjusted using factors ranging from poor (1.5) to excellent (.65). Assuming a “base” or average expense ratio of 38%, an excellent apartment may incur a lower 24.7% expense ratio ( $38\% \times .65 = 24.7\%$ ). A poor apartment may suffer from a higher 57% expense ratio ( $38\% \times 1.5 = 57\%$ ).

TABLE 33: INCOME EXPENSE ADJUSTMENTS

Expense Adjustment				
Poor	Fair	Average	Good	Excellent
1.50	1.25	1.00	0.80	0.65

### Capitalization Rate Tables

Capitalization rates were developed through the band of investment technique, along with the review of market surveys, like Realty rates.com ( See the Addendum section for a detail analysis of capitalization rates by type). The following table summarizes the capitalization rates, along with the factors used to

adjust for various levels of desirability and risk. The capitalization rates range from 6.2% to 12%. Some use codes have more than one capitalization rate applied to them. For example, hotels have three rates based on the different types of services offered in these facilities. This is also the case for the major types of properties such as apartments, mix use, office and retail. Their utility, design and lease type vary which dictate the use of more than one capitalization rate.

TABLE 34: INCOME CAPITALIZATION RATES

Use Code	Description	Rate
<b>APT</b>	APARTMENT	7.70%
<b>APTS</b>	APT SUBSIDZD	7.70%
<b>BANK</b>	BANK	6.20%
<b>BED</b>	NURSING HM	12.00%
<b>CARS</b>	AUTO/SERV GAR	7.50%
<b>FF3</b>	FAST FOOD	6.50%
<b>HOTF</b>	HOTEL FULL SRV	10.00%
<b>HOTL</b>	HOTEL/LUXRY	9.00%
<b>HOTX</b>	HOT/MOT EX ST/LM SRV	10.50%
<b>IND3</b>	INDUST NNN	7.50%
<b>INDN</b>	INDUST NET	9.00%
<b>LANE</b>	BOWLING	9.00%
<b>MAR</b>	MARINA	10.50%
<b>MHP</b>	MOB HM PK	9.00%
<b>MIX3</b>	MIX USE NNN	7.00%
<b>MIXG</b>	MIX USE MG	8.50%
<b>MIXN</b>	MIX USE NET	8.50%
<b>OF3</b>	OFFICE NNN	8.00%
<b>OFG</b>	OFFICE MG	9.50%
<b>OFN</b>	OFFICE NET	9.50%
<b>OFFP</b>	OFFICE PEASE MG	9.00%
<b>R&amp;D3</b>	R&D NNN	8.30%
<b>REST</b>	REST/LNGE	7.50%
<b>RET3</b>	RETAIL NNN	7.20%
<b>RETG</b>	RETAIL MG	9.20%
<b>RETN</b>	RETAIL NET	9.20%
<b>ROOM</b>	ROOMING HSE	9.20%
<b>SELF</b>	SELF STRG	8.80%
<b>SSTA</b>	SERV STATN	7.00%
<b>THET</b>	THEATRE	7.70%

There is an “inverse” relationship between capitalization rates and values. The lower the rate, the higher the value. Conversely, the higher the rate, the lower the value.

The capitalization rates are adjusted for risk and desirability. The refinements range from “poor” to “excellent.” For example, the “poor” adjustment of 1.16 adjusts a capitalization rate upward, thus reducing value. An excellent adjustment reduces the rate by applying a .85 factor. This increases the value.

TABLE 35: CAPITALIZATION RATE ADJUSTMENTS

Cap Rate Adjustment				
Poor	Fair	Average	Good	Excellent
1.16	1.08	1.00	0.92	0.85

Further illustrating the process, the bank capitalization rate is 6.2%. A “poor” bank capitalization rate is adjusted upward to 7.19% ( $1.16 \times 6.20\% = 7.19\%$ ). Again, since the bank is “poor,” the rate is adjusted upward. The higher capitalization rate results in a lower value.

An “excellent” bank capitalization rate would be adjusted downward to 5.27% ( $.85 \times 6.20\% = 5.27\%$ ). Again, since the bank is “excellent,” the rate is adjusted downward. The lower capitalization rate results in a higher value, which reflects the exceptional desirability and lower risk of an excellent bank.

The following table shows the adjusted capitalization rates for each property type.

TABLE 36: ADJUSTED CAPITALIZATION RATES

Description	Poor	Fair	Average	Good	Excellent
APARTMENT	8.93%	8.32%	7.70%	7.08%	6.55%
APT SUBSIDZD	8.93%	8.32%	7.70%	7.08%	6.55%
BANK	7.19%	6.70%	6.20%	5.70%	5.27%
NURSING HM	13.92%	12.96%	12.00%	11.04%	10.20%
AUTO/SERV GAR	8.70%	8.10%	7.50%	6.90%	6.38%
FAST FOOD	7.54%	7.02%	6.50%	5.98%	5.53%
HOTEL FULL SRV	11.60%	10.80%	10.00%	9.20%	8.50%
HOTEL/LUXRY	10.44%	9.72%	9.00%	8.28%	7.65%
HOT/MOT EX ST/LM SRV	12.18%	11.34%	10.50%	9.66%	8.93%
INDUST NNN	8.70%	8.10%	7.50%	6.90%	6.38%
INDUST NET	10.44%	9.72%	9.00%	8.28%	7.65%
BOWLING	10.44%	9.72%	9.00%	8.28%	7.65%
MARINA	12.18%	11.34%	10.50%	9.66%	8.93%
MOB HM PK	10.44%	9.72%	9.00%	8.28%	7.65%
MIX USE NNN	8.12%	7.56%	7.00%	6.44%	5.95%



Description	Poor	Fair	Average	Good	Excellent
MIX USE MG	9.86%	9.18%	8.50%	7.82%	7.23%
MIX USE NET	9.86%	9.18%	8.50%	7.82%	7.23%
OFFICE NNN	9.28%	8.64%	8.00%	7.36%	6.80%
OFFICE MG	11.02%	10.26%	9.50%	8.74%	8.08%
OFFICE NET	11.02%	10.26%	9.50%	8.74%	8.08%
OFFICE PEASE MG	10.44%	9.72%	9.00%	8.28%	7.65%
R&D NNN	9.63%	8.96%	8.30%	7.64%	7.06%
REST/LNGE	8.70%	8.10%	7.50%	6.90%	6.38%
RETAIL NNN	8.35%	7.78%	7.20%	6.62%	6.12%
RETAIL MG	10.67%	9.94%	9.20%	8.46%	7.82%
RETAIL NET	10.67%	9.94%	9.20%	8.46%	7.82%
ROOMING HSE	10.67%	9.94%	9.20%	8.46%	7.82%
SELF STRG	10.21%	9.50%	8.80%	8.10%	7.48%
SERV STATN	8.12%	7.56%	7.00%	6.44%	5.95%
THEATRE	8.93%	8.32%	7.70%	7.08%	6.55%

## Summary of Income Approach

The income capitalization approach converts the anticipated income of a property into a present value indication. The reliability of the income approach is predicated on the appraiser's ability to accurately estimate net operating income and investment returns required by investors. This approach is most effective when sufficient market data is available. The income approach usually provides the primary value indication for properties purchased for their income generating ability. The primary advantage of this approach is that investors primarily value the property from an income perspective. The primary disadvantage is certain buyers are not motivated in purchasing properties based on their income-generating potential. A common class of buyers not interested in income are known as "owner-occupant" buyers. They acquire property to operate a business. They value the buildings the purchase based on the amenities a property offers and how well it accommodates their primary objective, their business operation.

Based on the data and our internal analysis and testing presented in this report, the income specifications (data collected) and calibrations (values, adjustments, and factors) are well-supported and reasonable. Below is a breakout of each type of property showing the income value by unit type.

TABLE 37: INCOME VALUE BY UNIT TYPE

USE CODE	NBHD	ADDRESS	UNITS	GROSS INCOME	NET INCOME	CAP RATE	INCOME VALUE	VALUE PER UNIT
APT	304	134 SOUTH ST	12	\$176,400	\$85,554	0.077	\$1,111,100	\$92,592
APT	305	420 PLEASANT ST	5	\$84,960	\$56,040	0.077	\$727,800	\$145,560
APT	305	404 PLEASANT ST	6	\$108,000	\$52,380	0.077	\$680,300	\$113,383
APT	305	33 GARDNER ST	4	\$82,800	\$48,190	0.071	\$680,600	\$170,150
APT	304	95 MECHANIC ST	1,484	\$105,467	\$64,090	0.077	\$832,300	\$561

APT	305	30 GARDNER ST	4	\$86,400	\$56,989	0.077	\$740,100	\$187,525
APT	305	383 PLEASANT ST	6	\$96,000	\$55,872	0.077	\$725,600	\$120,933
APT	305	423 COURT ST	6	\$108,864	\$71,807	0.077	\$932,600	\$155,433
APT	305	76-82 BOW ST	903	\$100,890	\$67,568	0.077	\$877,500	\$972
APT	305	20 CHAPEL ST	6	\$82,800	\$40,158	0.077	\$521,500	\$86,917
APT	305	38 CHAPEL ST	5	\$78,000	\$45,396	0.071	\$641,200	\$128,240
APT	305	371 COURT ST	5	\$90,000	\$52,380	0.077	\$680,300	\$136,060
APT	304	1 JUNKINS AVE	10	\$302,400	\$199,463	0.071	\$2,817,300	\$281,730
APT	304	147 LINCOLN AVE	4	\$69,000	\$45,512	0.077	\$591,100	\$147,775
APT	305	388 STATE ST	8	\$176,256	\$102,581	0.077	\$1,332,200	\$166,525
APT	305	438 STATE ST	7	\$126,000	\$73,332	0.071	\$1,035,800	\$147,971
APT	305	75 COURT ST	4	\$100,800	\$66,488	0.077	\$863,500	\$215,875
APT	305	182 MARKET ST	9	\$153,360	\$89,009	0.077	\$1,156,000	\$128,444
APT	305	151 HIGH ST	6	\$99,360	\$58,364	0.077	\$758,000	\$126,333
APT	305	37 HANOVER ST	4	\$120,960	\$86,825	0.071	\$1,226,300	\$306,575
APT	304	248 MAPLEWOOD AVE	4	\$74,880	\$43,580	0.077	\$566,000	\$141,500
APT	304	258 MAPLEWOOD AVE	4	\$72,000	\$41,904	0.071	\$591,900	\$147,975
APT	304	259 MAPLEWOOD AVE	7	\$126,000	\$74,012	0.077	\$961,200	\$137,314
APT	304	235 MAPLEWOOD AVE	6	\$126,000	\$73,332	0.077	\$952,400	\$165,400
APT	304	285 HANOVER ST	4	\$100,800	\$66,488	0.071	\$939,100	\$184,775
APT	304	181 HILL ST	12	\$216,000	\$126,879	0.077	\$1,647,800	\$137,317
APT	304	547 STATE ST	6	\$115,200	\$55,872	0.077	\$725,600	\$120,933
APT	302	20 ISLINGTON ST	58	\$1,047,600	\$508,086	0.077	\$6,598,500	\$113,767
APT	304	31 PEARL ST #33	6	\$93,000	\$54,126	0.077	\$702,900	\$117,150
APT	305	306 HANOVER ST	4	\$66,000	\$38,412	0.077	\$498,900	\$124,725
APT	302	19 ISLINGTON ST	6	\$99,360	\$57,827	0.066	\$882,900	\$147,150
APT	304	3 RICHARDS AVE	4	\$103,680	\$60,902	0.071	\$860,200	\$215,050
APT	304	132 MIDDLE ST	11	\$167,760	\$97,636	0.077	\$1,268,000	\$115,273
APT	304	608 STATE ST	6	\$111,600	\$64,951	0.077	\$843,500	\$140,583
APT	304	85 AUSTIN ST	6	\$90,000	\$52,380	0.077	\$680,300	\$113,383
APT	304	31 RICHARDS AVE	5	\$93,600	\$54,475	0.077	\$707,500	\$141,500
APT	304	263 ROCKLAND ST	48	\$698,400	\$338,724	0.077	\$4,399,000	\$91,646
APT	304	96 MILLER AVE	13	\$183,090	\$88,798	0.077	\$1,153,200	\$88,708
APT	304	10 MERRIMAC ST	8	\$144,000	\$82,512	0.077	\$1,071,600	\$133,950
APT	304	55 MILLER AVE	5	\$91,584	\$53,301	0.077	\$692,200	\$138,440
APT	304	192 LINCOLN AVE	4	\$79,200	\$52,241	0.077	\$678,500	\$169,625
APT	304	186 MILLER AVE	8	\$170,928	\$113,104	0.077	\$1,468,900	\$183,613
APT	304	229 MILLER AVE	7	\$133,200	\$87,859	0.071	\$1,240,900	\$177,271
APT	304	270 RICHARDS AVE	5	\$100,080	\$66,014	0.071	\$932,400	\$186,480
APT	304	361 MILLER AVE	6	\$93,000	\$54,628	0.077	\$709,500	\$118,250
APT	304	799 SOUTH ST	4	\$147,000	\$85,554	0.071	\$1,208,400	\$302,100
APT	304	108 SPRING ST	4	\$63,000	\$36,666	0.071	\$517,900	\$136,975
APT	304	94 HIGHLAND ST #96	6	\$99,000	\$57,618	0.077	\$748,300	\$124,717
APT	304	411 MIDDLE ST	6	\$142,560	\$94,033	0.077	\$1,221,200	\$203,533
APT	304	425 MIDDLE ST	5	\$116,640	\$76,935	0.077	\$999,200	\$199,840
APT	304	52 HIGHLAND ST	6	\$90,000	\$59,364	0.077	\$771,000	\$128,500
APT	304	34 HIGHLAND ST	4	\$100,800	\$59,210	0.077	\$769,000	\$192,250
APT	304	473 MIDDLE ST	5	\$89,280	\$51,961	0.071	\$733,900	\$146,780
APT	304	300 UNION ST	4	\$66,960	\$38,970	0.077	\$506,100	\$126,525
APT	304	499 MIDDLE ST	7	\$100,800	\$66,488	0.077	\$863,500	\$123,357

APT	304	476 MIDDLE ST	5	\$79,800	\$45,725	0.077	\$593,800	\$118,760
APT	304	462 MIDDLE ST	8	\$108,000	\$63,439	0.077	\$823,900	\$102,988
APT	304	96 CABOT ST	6	\$108,000	\$61,884	0.077	\$803,700	\$133,950
APT	304	224 AUSTIN ST	4	\$72,000	\$47,491	0.077	\$616,800	\$154,200
APT	304	50 AUSTIN ST	4	\$79,200	\$52,241	0.071	\$737,900	\$184,475
APT	304	39 SUMMER ST	6	\$115,200	\$67,046	0.077	\$870,700	\$145,117
APT	304	282 MIDDLE ST	508	\$125,570	\$73,938	0.071	\$1,044,300	\$2,056
APT	304	240 MIDDLE ST	7	\$117,360	\$77,411	0.071	\$1,093,400	\$156,200
APT	304	94 RICHARDS AVE	4	\$82,800	\$48,190	0.077	\$625,800	\$156,450
APT	304	241 MIDDLE ST	12	\$214,560	\$124,873	0.077	\$1,621,700	\$135,142
APT	304	245 MIDDLE ST	137	\$1,746,750	\$847,173	0.083	\$10,182,400	\$74,324
APT	304	40 SUMMER ST	7	\$131,760	\$80,484	0.077	\$1,045,200	\$149,314
APT	304	170 AUSTIN ST	5	\$93,600	\$54,475	0.077	\$707,500	\$141,500
APT	304	664 STATE ST	8	\$115,800	\$67,396	0.077	\$875,300	\$109,413
APT	304	683 STATE ST	7	\$133,200	\$87,860	0.077	\$1,141,000	\$163,000
APT	304	649 STATE ST	4	\$86,400	\$50,285	0.071	\$710,200	\$177,550
APT	304	211 SUMMER ST	4	\$60,000	\$34,920	0.071	\$493,200	\$123,300
APT	304	579 STATE ST	6	\$90,000	\$52,380	0.077	\$680,300	\$113,383
APT	304	567 STATE ST	4	\$74,880	\$49,849	0.077	\$647,400	\$161,850
APT	305A	28 MCDONOUGH ST	4	\$66,000	\$43,534	0.071	\$614,900	\$153,750
APT	304	12 DENNETT ST	4	\$72,000	\$41,904	0.071	\$591,900	\$147,975
APT	304	357 MAPLEWOOD AVE	4	\$74,880	\$49,849	0.071	\$704,100	\$176,025
APT	305A	80 MCDONOUGH ST	4	\$86,400	\$49,507	0.071	\$699,300	\$174,825
APT	304	98 MCDONOUGH ST	4	\$86,400	\$50,285	0.077	\$653,100	\$163,275
APT	302	425 ISLINGTON ST	4	\$59,040	\$34,361	0.077	\$446,200	\$111,550
APT	304	777 STATE ST	7	\$100,950	\$55,403	0.077	\$719,500	\$102,786
APT	304	767 STATE ST	4	\$75,000	\$49,470	0.071	\$698,700	\$174,675
APT	304	827 STATE ST	5	\$78,000	\$45,396	0.077	\$589,600	\$117,920
APT	302	356 ISLINGTON ST	6	\$89,250	\$43,285	0.077	\$562,100	\$93,683
APT	304	33 UNION ST	4	\$79,200	\$46,094	0.077	\$598,600	\$149,650
APT	304	909 STATE ST	4	\$95,040	\$55,313	0.077	\$718,400	\$179,625
APT	304	879 STATE ST	4	\$63,360	\$36,875	0.071	\$520,800	\$130,200
APT	304	53 COLUMBIA ST	12	\$151,200	\$72,198	0.077	\$937,600	\$78,133
APT	304	235 AUSTIN ST	4	\$79,200	\$52,241	0.071	\$737,900	\$184,475
APT	304	124 CABOT ST	5	\$60,600	\$35,269	0.077	\$458,000	\$91,600
APT	304	824 STATE ST	4	\$82,800	\$48,190	0.077	\$625,800	\$156,450
APT	304	846 STATE ST	6	\$99,360	\$57,827	0.077	\$751,000	\$125,167
APT	304	171 AUSTIN ST	6	\$90,000	\$43,650	0.077	\$566,900	\$94,483
APT	304	940 STATE ST	12	\$151,200	\$87,998	0.077	\$1,142,800	\$95,233
APT	304	184 MADISON ST	72	\$1,009,800	\$494,296	0.077	\$6,419,400	\$89,158
APT	304	582 MIDDLE ST	6	\$114,048	\$75,226	0.077	\$977,000	\$162,833
APT	304	599 MIDDLE ST	8	\$113,760	\$66,208	0.077	\$859,800	\$107,475
APT	304	270 CASS ST	5	\$97,200	\$56,570	0.077	\$734,700	\$146,940
APT	304	815 MIDDLE ST	4	\$86,400	\$56,989	0.071	\$804,900	\$201,225
APT	304	10 MENDUM AVE	4	\$79,200	\$52,241	0.077	\$678,500	\$169,625
APT	302	100 LAFAYETTE RD	10	\$216,000	\$143,796	0.077	\$1,867,500	\$186,750
APT	302	90 BREWERY LN #B1	54	\$1,231,560	\$819,875	0.077	\$10,647,700	\$197,180
APT	302	524 ISLINGTON ST	5	\$97,200	\$56,570	0.077	\$734,700	\$146,940
APT	302	536 ISLINGTON ST	5	\$84,000	\$48,888	0.077	\$634,900	\$126,980
APT	304	26 COLUMBIA CT	4	\$79,200	\$46,094	0.077	\$598,600	\$149,650

APT	304	69 ALBANY ST	6	\$108,000	\$62,856	0.077	\$816,300	\$136,050
APT	302	553 ISLINGTON ST	6	\$90,000	\$43,650	0.077	\$566,900	\$94,483
APT	304	18 DOVER ST	4	\$66,000	\$38,412	0.077	\$498,900	\$124,725
APT	301	127 BARTLETT ST	4	\$79,800	\$52,636	0.071	\$743,400	\$185,850
APT	301	138 BARTLETT ST	4	\$66,000	\$38,412	0.071	\$542,500	\$135,625
APT	301	150 BARTLETT ST	5	\$75,000	\$36,375	0.077	\$472,400	\$94,480
APT	304	75 MONROE ST	8	\$143,280	\$82,099	0.077	\$1,066,200	\$133,275
APT	302	1001 ISLINGTON ST	63	\$1,047,720	\$609,773	0.071	\$8,612,600	\$136,708
APT	111	400 LITTLE HARBOR RD	2,042	\$230,618	\$140,717	0.077	\$1,827,500	\$895
APT	305	393 NEW CASTLE AVE	4	\$110,880	\$73,137	0.071	\$1,033,000	\$345,750
APT	304	499 CUTTS AVE	4	\$95,040	\$55,313	0.077	\$718,400	\$179,600
APT	301	40 BEDFORD WAY	30	\$450,000	\$261,900	0.077	\$3,401,300	\$113,377
APT	304	139 OSPREY DR	71	\$1,134,750	\$550,353	0.077	\$7,147,400	\$100,668
APT	304	8 OSPREY DR	174	\$2,797,350	\$1,335,733	0.077	\$17,347,200	\$99,697
APT	304	SHEARWATER DR	20	\$290,700	\$140,989	0.077	\$1,831,000	\$91,550
APT	304	6 BLUE HERON DR	85	\$1,369,350	\$664,134	0.077	\$8,625,100	\$101,472
APT	304	1219 MAPLEWOOD AVE	4	\$79,200	\$46,094	0.077	\$598,600	\$149,650
APT	304	1061 MAPLEWOOD AVE	4	\$63,360	\$36,875	0.071	\$520,800	\$137,700
APT	304	1009 MAPLEWOOD AVE	4	\$82,800	\$55,122	0.077	\$715,900	\$178,975
APT	304	214 MYRTLE AVE	4	\$63,000	\$37,006	0.071	\$522,700	\$130,675
APT	304	548 BROAD ST	13	\$188,700	\$91,519	0.077	\$1,188,600	\$91,431
APT	304	400 BROAD ST	4	\$90,720	\$52,799	0.077	\$685,700	\$171,425
APT	304	366 BROAD ST	7	\$117,000	\$68,726	0.077	\$892,500	\$127,500
APT	306	936 SOUTH ST	14	\$159,600	\$92,887	0.077	\$1,206,300	\$86,164
APT	304	LAFAYETTE RD	150	\$2,473,500	\$1,181,096	0.083	\$14,195,900	\$94,639
APT	304	322 LAFAYETTE RD	4	\$82,800	\$48,636	0.077	\$631,600	\$157,900
APT	304	1200 ISLINGTON ST	4	\$99,360	\$57,827	0.077	\$751,000	\$187,750
APT	304	1137 ISLINGTON ST	26	\$369,750	\$215,194	0.077	\$2,794,700	\$107,488
APT	301	75 LONGMEADOW LN	25	\$378,000	\$183,330	0.077	\$2,380,900	\$95,236
APT	304	1094 WOODBURY AVE	13	\$203,400	\$118,379	0.077	\$1,537,400	\$118,262
APT	304	1150 WOODBURY AVE	9	\$138,000	\$66,930	0.077	\$869,200	\$96,578
APT	304	18 HILLCREST DR	4	\$90,000	\$59,364	0.077	\$771,000	\$192,750
APT	304	245 WOODLAWN CIR	4	\$56,400	\$37,201	0.071	\$525,400	\$131,350
APT	302	201 ECHO AVE	4	\$79,200	\$52,240	0.077	\$678,400	\$169,600
APT	303	GOSLING RD	7,637	\$2,522,581	\$1,488,974	0.071	\$21,030,700	\$2,754
APT	402	70 CONSTITUTION AVE	95	\$2,619,600	\$1,743,921	0.077	\$22,648,300	\$238,403
APT	302	1 FREEDOM CIR	216	\$2,636,547	\$1,278,724	0.077	\$16,606,800	\$76,883
APT	302	12 ROBERT AVE	6	\$102,600	\$59,713	0.083	\$717,700	\$119,617
APT	302	149 RICCI AVE	6	\$102,600	\$59,713	0.083	\$717,700	\$119,617
APT	302	185 RICCI AVE	6	\$102,600	\$59,713	0.083	\$717,700	\$119,617
APT	302	68 ANNE AVE	6	\$102,600	\$59,713	0.083	\$717,700	\$119,617
APT	302	36 ANNE AVE	6	\$102,600	\$59,713	0.083	\$717,700	\$119,617
APT	302	2 ANNE AVE	6	\$102,600	\$59,713	0.083	\$717,700	\$119,617
APT	302	3 ROBERT AVE	6	\$102,600	\$59,713	0.083	\$717,700	\$119,617
APT	302	33 ROBERT AVE	6	\$102,600	\$59,713	0.083	\$717,700	\$119,617
APT	302	63 ROBERT AVE	6	\$102,600	\$59,713	0.083	\$717,700	\$119,617
APT	302	50 ANNE AVE	17	\$306,000	\$178,092	0.083	\$2,140,500	\$125,912
APT	302	80 JOAN AVE	6	\$102,600	\$59,713	0.083	\$717,700	\$119,617
APT	302	42 JOAN AVE	6	\$102,600	\$59,713	0.083	\$717,700	\$119,617
APT	302	12 JOAN AVE	6	\$102,600	\$59,713	0.083	\$717,700	\$119,617

APT	302	99 LANG RD	84	\$1,512,000	\$879,984	0.077	\$11,428,400	\$136,052
APT	302	145 LANG RD	146	\$2,772,000	\$1,588,356	0.077	\$20,628,000	\$141,288
APT	302	165 LANG RD	108	\$2,052,000	\$1,194,264	0.077	\$15,509,900	\$143,610
APT	302	3510 LAFAYETTE RD	23	\$490,200	\$287,944	0.071	\$4,067,000	\$176,826
APTS	305	444 PLEASANT ST	8	\$168,000	\$97,776	0.071	\$1,381,000	\$172,625
APTS	304	WOODBURY AVE	40	\$600,000	\$291,000	0.077	\$3,779,200	\$94,480
APTS	304	GREENLEAF AVE	100	\$1,830,000	\$1,065,060	0.077	\$13,831,900	\$138,319
BANK	305	137 DANIEL ST #D101	907	\$41,087	\$34,891	0.057	\$612,100	\$675
BANK	305	3 PLEASANT ST	13,248	\$252,596	\$200,765	0.057	\$3,522,200	\$266
BANK	305	15 PLEASANT ST	5,109	\$140,813	\$112,266	0.062	\$1,810,700	\$354
BANK	305	21 PLEASANT ST	6,135	\$165,494	\$131,929	0.062	\$2,127,900	\$347
BANK	305	27 PLEASANT ST	5,902	\$160,766	\$128,187	0.062	\$2,067,500	\$350
BANK	305	29 PLEASANT ST	5,430	\$157,733	\$132,514	0.057	\$2,324,800	\$539
BANK	305	333 STATE ST	25,456	\$420,075	\$333,997	0.062	\$5,387,000	\$212
BANK	305	325 STATE ST	20,547	\$358,052	\$293,138	0.062	\$4,728,000	\$230
BANK	305	134 PLEASANT ST	14,584	\$255,684	\$204,033	0.062	\$3,290,900	\$226
BANK	302	848 ISLINGTON ST	18,513	\$296,092	\$235,923	0.067	\$3,521,200	\$190
BANK	302	501 ISLINGTON ST #1	5,798	\$133,238	\$107,590	0.062	\$1,735,300	\$299
BANK	303	1650 WOODBURY AVE	3,389	\$130,849	\$109,390	0.057	\$1,919,100	\$566
BANK	302	1555 LAFAYETTE RD	4,224	\$93,351	\$74,516	0.062	\$1,201,900	\$285
BANK	301	100 BORTHWICK AVE	47,676	\$661,497	\$526,866	0.067	\$7,863,700	\$165
BANK	302	2032 LAFAYETTE RD	13,238	\$226,635	\$178,609	0.062	\$2,880,800	\$218
BANK	302	2400 LAFAYETTE RD	1,500	\$86,730	\$76,317	0.053	\$1,448,100	\$965
BANK	302	2839 LAFAYETTE RD	3,036	\$121,895	\$103,514	0.057	\$1,816,000	\$598
BANK	302	3003 LAFAYETTE RD	81,652	\$2,457,725	\$2,140,464	0.062	\$34,523,600	\$423
BED	306	188 JONES AVE	138	\$9,935,820	\$737,036	0.130	\$5,687,000	\$41,210
BED	306	928 SOUTH ST	156	\$17,160,000	\$978,120	0.120	\$8,151,000	\$52,250
CARS	305	202 COURT ST	3,908	\$75,297	\$58,589	0.075	\$781,200	\$200
CARS	302	93 ISLINGTON ST	2,556	\$38,953	\$31,454	0.064	\$493,000	\$193
CARS	302	54 BARTLETT ST	4,836	\$58,675	\$47,380	0.075	\$631,700	\$151
CARS	301	406 US ROUTE 1 BYP	7,964	\$96,444	\$73,432	0.075	\$979,100	\$123
CARS	301	500 US ROUTE 1 BYP	17,220	\$233,503	\$177,789	0.075	\$2,370,500	\$138
CARS	301	114 GOSLING RD	17,162	\$163,039	\$131,654	0.075	\$1,755,400	\$102
CARS	303	1725 WOODBURY AVE	3,378	\$75,363	\$63,576	0.069	\$921,400	\$273
CARS	303	1817 WOODBURY AVE	4,452	\$80,000	\$70,395	0.064	\$1,103,400	\$248
CARS	302	US ROUTE 1 BYP	39,536	\$852,396	\$661,442	0.064	\$10,367,400	\$275
CARS	302	120 SPAULDING TPKE	14,492	\$207,547	\$169,458	0.075	\$2,259,400	\$184
CARS	302	180 SPAULDING TPKE	11,806	\$138,721	\$107,645	0.075	\$1,435,300	\$122
CARS	302	400 SPAULDING TPKE	38,799	\$512,147	\$389,949	0.075	\$5,199,300	\$134
CARS	302	155 GREENLEAF AVE	32,732	\$294,542	\$224,265	0.081	\$2,768,700	\$85
CARS	302	150 GREENLEAF AVE	48,585	\$538,361	\$442,597	0.075	\$5,901,300	\$121
CARS	301	700 PEVERLY HILL RD	22,800	\$220,596	\$178,131	0.075	\$2,375,100	\$104
CARS	302	180 MIRONA RD	27,340	\$360,888	\$258,667	0.075	\$3,448,900	\$126
CARS	301	20 MIRONA RD EXT	5,670	\$50,747	\$40,978	0.075	\$546,400	\$96
CARS	301	2 MIRONA RD	7,702	\$99,818	\$62,446	0.069	\$905,000	\$118
CARS	301	11 MIRONA RD	37,616	\$249,790	\$201,705	0.081	\$2,490,200	\$66
CARS	302	2200 LAFAYETTE RD	3,360	\$58,430	\$47,182	0.075	\$629,100	\$187
CARS	301	295 WEST RD	9,360	\$89,201	\$72,030	0.075	\$960,400	\$103
CARS	302	2219 LAFAYETTE RD	14,227	\$196,333	\$159,498	0.075	\$2,126,600	\$149
CARS	302	2225 LAFAYETTE RD	6,150	\$73,677	\$59,494	0.075	\$793,300	\$129

CARS	302	2355 LAFAYETTE RD	14,910	\$204,863	\$155,983	0.075	\$2,079,800	\$139
CARS	302	2458 LAFAYETTE RD	33,150	\$437,580	\$333,173	0.075	\$4,442,300	\$134
CARS	301	9 POST RD	25,400	\$241,300	\$186,253	0.075	\$2,483,400	\$98
CARS	302	2470 LAFAYETTE RD #2	3,844	\$49,741	\$41,777	0.069	\$605,500	\$158
CARS	302	2468 LAFAYETTE RD	5,790	\$93,206	\$76,150	0.075	\$1,015,300	\$175
CARS	302	2859 LAFAYETTE RD	2,400	\$46,344	\$40,652	0.064	\$637,200	\$266
CARS	302	2909 LAFAYETTE RD	8,700	\$126,063	\$101,796	0.075	\$1,357,300	\$156
CARS	301	20 LONGMEADOW RD	3,800	\$55,822	\$45,076	0.075	\$601,000	\$158
CARS	302	3660 LAFAYETTE RD	2,960	\$46,383	\$39,435	0.064	\$618,100	\$209
CARS	302	3600 LAFAYETTE RD	15,793	\$137,392	\$110,944	0.075	\$1,479,300	\$94
CARS	302	3580 LAFAYETTE RD	6,500	\$75,920	\$61,305	0.075	\$817,400	\$126
CARS	307	104 GRAFTON DR	55,457	\$470,138	\$352,709	0.081	\$4,354,400	\$79
CARS	307	115 FLIGHT LINE RD	83,523	\$1,051,609	\$846,220	0.075	\$11,282,900	\$135
FF3	302	531 ISLINGTON ST	1,249	\$56,380	\$47,630	0.065	\$732,800	\$587
FF3	303	1855 WOODBURY AVE	1,866	\$92,889	\$83,246	0.065	\$1,280,700	\$686
FF3	302	802 LAFAYETTE RD	2,020	\$82,658	\$69,830	0.065	\$1,074,300	\$532
FF3	302	1000 LAFAYETTE RD	4,261	\$131,537	\$111,123	0.065	\$1,709,600	\$343
FF3	302	2255 LAFAYETTE RD	4,715	\$144,185	\$121,808	0.070	\$1,735,200	\$368
FF3	402	2454 LAFAYETTE RD #5	2,029	\$69,128	\$58,399	0.065	\$898,400	\$443
FF3	302	2600 LAFAYETTE RD #2	3,856	\$120,269	\$97,369	0.075	\$1,291,400	\$335
HOTF	305	100 HIGH ST	131	\$12,544,560	\$2,781,882	0.100	\$27,818,800	\$212,358
HOTF	305	250 MARKET ST	148	\$14,172,480	\$3,153,837	0.100	\$31,538,400	\$213,097
HOTF	305	100 DEER ST	12,783	\$12,715,466	\$2,118,788	0.100	\$21,187,900	\$1,658
HOTF	305	40 COURT ST	34	\$1,999,200	\$335,866	0.092	\$3,650,700	\$107,374
HOTX	305	121 BOW ST #LOWER A	10	\$686,000	\$115,248	0.097	\$1,193,000	\$119,300
HOTX	305	314 COURT ST	10	\$504,000	\$128,218	0.105	\$1,221,100	\$122,110
HOTX	305	403 DEER ST #7-13	10	\$504,000	\$128,218	0.105	\$1,221,100	\$122,110
HOTX	305	195 HANOVER ST #2	5,070	\$7,271,516	\$1,360,419	0.097	\$14,083,000	\$2,778
HOTX	302	300 WOODBURY AVE	130	\$5,460,000	\$917,280	0.105	\$8,736,000	\$67,200
HOTX	302	580 US ROUTE 1 BYP	169	\$5,915,000	\$993,720	0.105	\$9,464,000	\$56,000
HOTX	301	100 PORTSMOUTH BLVD	116	\$5,846,400	\$1,651,443	0.105	\$15,728,000	\$135,586
HOTX	301	1000 MARKET ST	133	\$7,581,000	\$982,043	0.105	\$9,352,800	\$70,322
HOTX	302	383 WOODBURY AVE	61	\$1,814,750	\$304,878	0.105	\$2,903,600	\$47,600
HOTX	302	417 WOODBURY AVE	92	\$2,737,000	\$459,816	0.105	\$4,379,200	\$47,600
HOTX	302	505 US ROUTE 1 BYP	57	\$1,695,750	\$284,886	0.105	\$2,713,200	\$47,600
HOTX	302	650 BORTHWICK AVE	102	\$3,700,000	\$621,600	0.105	\$5,920,000	\$58,039
HOTX	303	35 GOSLING RD	108	\$3,213,000	\$539,784	0.105	\$5,140,800	\$47,600
HOTX	303	99 DURGIN LN	125	\$6,300,000	\$1,270,080	0.105	\$12,096,000	\$96,768
HOTX	302	1190 LAFAYETTE RD	121	\$4,000,000	\$725,000	0.105	\$6,904,800	\$57,064
HOTX	302	3548 LAFAYETTE RD	33	\$1,155,000	\$194,040	0.105	\$1,848,000	\$56,000
HOTX	307	1 INTERNATIONAL DR	90	\$6,174,000	\$1,244,678	0.105	\$11,854,100	\$131,712
IND3	305	319 VAUGHAN ST	18,000	\$161,280	\$130,234	0.075	\$1,736,500	\$96
IND3	305	126 BRIDGE ST	19,045	\$250,976	\$200,953	0.069	\$2,912,400	\$153
IND3	301	90 MAPLEWOOD AVE	24,695	\$147,814	\$113,319	0.081	\$1,399,000	\$57
IND3	304	95 BREWSTER ST	4,440	\$45,599	\$38,121	0.069	\$552,500	\$124
IND3	302	933 US ROUTE 1 BYP	68,075	\$395,998	\$280,453	0.087	\$3,223,600	\$47
IND3	304	35 DOVER ST	6,816	\$41,850	\$33,793	0.075	\$450,600	\$66
IND3	304	135 MCDONOUGH ST	36,134	\$160,435	\$129,551	0.081	\$1,599,400	\$44
IND3	302	JEWELL CT	7,788	\$46,339	\$34,827	0.081	\$430,000	\$55
IND3	302	68 ALBANY ST	15,180	\$101,619	\$82,057	0.075	\$1,094,100	\$72

IND3	304	59 CASS ST	6,501	\$69,760	\$53,026	0.075	\$707,000	\$109
IND3	301	BARTLETT ST	21,152	\$160,332	\$129,468	0.075	\$1,726,200	\$82
IND3	302	124 BARTLETT ST	15,795	\$82,924	\$57,840	0.087	\$664,800	\$42
IND3	302	55 CATE ST	17,100	\$167,499	\$125,885	0.081	\$1,554,100	\$91
IND3	302	865 ISLINGTON ST	12,672	\$128,494	\$103,759	0.069	\$1,503,800	\$119
IND3	301	3 MICHAEL SUCCI DR	201,109	\$1,230,787	\$993,861	0.075	\$13,251,500	\$66
IND3	301	100 RANGER WAY	19,974	\$148,107	\$118,685	0.081	\$1,465,200	\$73
IND3	301	150 GOSLING RD	9,625	\$65,643	\$54,878	0.075	\$731,700	\$76
IND3	301	47 EMERY ST	3,600	\$36,936	\$29,826	0.064	\$467,500	\$151
IND3	301	100 COAKLEY RD	10,400	\$70,200	\$60,232	0.075	\$803,100	\$77
IND3	302	200 SPAULDING TPKE	15,000	\$97,350	\$78,610	0.075	\$1,048,100	\$87
IND3	301	225 GREENLEAF AVE	5,902	\$57,840	\$46,706	0.075	\$622,700	\$106
IND3	301	60 WEST RD	20,578	\$148,573	\$119,972	0.075	\$1,599,600	\$78
IND3	301	100 WEST RD	21,423	\$201,590	\$168,529	0.075	\$2,247,100	\$105
IND3	301	170 WEST RD	62,250	\$443,843	\$348,972	0.075	\$4,653,000	\$75
IND3	301	35 MIRONA RD	38,927	\$210,397	\$169,895	0.081	\$2,097,500	\$54
IND3	302	1070 LAFAYETTE RD	7,280	\$52,125	\$40,234	0.081	\$496,700	\$68
IND3	301	10 MIRONA RD	5,000	\$42,600	\$34,943	0.069	\$506,400	\$101
IND3	301	1 MIRONA RD	13,448	\$94,129	\$76,009	0.075	\$1,013,500	\$75
IND3	301	225 BANFIELD RD	8,489	\$70,713	\$57,100	0.081	\$704,900	\$83
IND3	301	141 BANFIELD RD	26,000	\$194,740	\$157,253	0.075	\$2,096,700	\$81
IND3	301	50 BORTHWICK AVE	8,000	\$47,600	\$40,422	0.075	\$539,000	\$67
IND3	301	1 HIGH LINER AVE	196,424	\$852,480	\$688,378	0.075	\$9,178,400	\$47
IND3	301	218 GRIFFIN RD	34,343	\$344,117	\$265,077	0.075	\$3,534,400	\$103
IND3	301	375 BANFIELD RD	7,072	\$61,765	\$49,876	0.075	\$665,000	\$136
IND3	301	195 WEST RD	29,714	\$242,169	\$195,552	0.075	\$2,607,400	\$88
IND3	301	235 WEST RD #1	1,986	\$20,337	\$15,990	0.075	\$213,200	\$107
IND3	301	235 WEST RD #2	1,986	\$20,337	\$16,422	0.075	\$219,000	\$110
IND3	301	235 WEST RD #3	1,986	\$20,337	\$15,285	0.075	\$203,800	\$103
IND3	301	235 WEST RD #5	1,986	\$20,337	\$15,285	0.075	\$203,800	\$103
IND3	301	235 WEST RD #6	1,986	\$20,337	\$15,285	0.075	\$203,800	\$103
IND3	301	235 WEST RD #7	1,986	\$20,337	\$16,422	0.075	\$219,000	\$110
IND3	301	235 WEST RD #8	1,986	\$20,337	\$16,422	0.075	\$219,000	\$110
IND3	301	235 WEST RD #9	2,672	\$19,559	\$15,794	0.075	\$210,600	\$79
IND3	301	235 WEST RD #10	3,230	\$23,385	\$18,386	0.081	\$227,000	\$70
IND3	301	235 WEST RD #11	3,462	\$29,150	\$21,908	0.081	\$270,500	\$78
IND3	301	255 WEST RD	13,114	\$103,601	\$83,658	0.075	\$1,115,400	\$85
IND3	301	275 WEST RD	6,400	\$54,080	\$43,670	0.075	\$582,300	\$103
IND3	301	325 WEST RD	30,838	\$229,435	\$185,269	0.075	\$2,470,300	\$80
IND3	301	300 WEST RD #1	4,856	\$34,478	\$26,613	0.075	\$354,800	\$73
IND3	301	300 WEST RD #2	4,856	\$34,478	\$25,912	0.075	\$345,500	\$71
IND3	301	300 WEST RD #3	4,856	\$34,478	\$25,912	0.075	\$345,500	\$71
IND3	301	300 WEST RD #4	4,856	\$34,478	\$25,912	0.075	\$345,500	\$71
IND3	301	270 WEST RD #1	4,994	\$35,457	\$27,368	0.075	\$364,900	\$73
IND3	301	270 WEST RD #2	4,994	\$35,457	\$27,368	0.075	\$364,900	\$73
IND3	301	270 WEST RD #3	4,994	\$35,457	\$27,368	0.075	\$364,900	\$73
IND3	301	270 WEST RD #4	4,994	\$35,457	\$27,368	0.075	\$364,900	\$73
IND3	301	240 WEST RD	32,272	\$199,441	\$161,049	0.075	\$2,147,300	\$67
IND3	301	210 WEST RD #1	2,700	\$23,706	\$18,298	0.075	\$244,000	\$90
IND3	301	210 WEST RD #2	2,450	\$24,745	\$18,597	0.075	\$248,000	\$101

IND3	301	210 WEST RD #3	3,050	\$30,470	\$22,900	0.081	\$282,700	\$93
IND3	301	210 WEST RD #4	2,450	\$24,745	\$18,597	0.075	\$248,000	\$101
IND3	301	210 WEST RD #5	3,400	\$29,920	\$24,160	0.081	\$298,300	\$88
IND3	301	210 WEST RD #6	2,450	\$23,398	\$18,894	0.075	\$251,900	\$103
IND3	301	210 WEST RD #7	3,400	\$25,296	\$20,426	0.081	\$252,200	\$74
IND3	301	210 WEST RD #8	3,400	\$28,662	\$21,541	0.081	\$265,900	\$78
IND3	301	210 WEST RD #9	3,100	\$26,288	\$19,757	0.081	\$243,900	\$79
IND3	301	210 WEST RD #10	3,100	\$26,288	\$19,757	0.075	\$263,400	\$85
IND3	301	210 WEST RD #11	2,450	\$21,046	\$16,995	0.075	\$226,600	\$92
IND3	301	210 WEST RD #12	2,450	\$21,046	\$16,995	0.075	\$226,600	\$92
IND3	301	200 WEST RD	29,578	\$220,356	\$173,255	0.075	\$2,310,100	\$78
IND3	301	50 CAMPUS DR	24,112	\$181,322	\$146,418	0.075	\$1,952,200	\$81
IND3	301	430 WEST RD	38,391	\$291,189	\$230,901	0.075	\$3,078,700	\$80
IND3	301	75 CONSTITUTION AVE	20,140	\$127,688	\$104,736	0.075	\$1,396,500	\$69
IND3	301	284 CONSTITUTION AVE	9,000	\$65,790	\$53,965	0.075	\$719,500	\$80
IND3	301	360 CONSTITUTION AVE	15,590	\$122,807	\$89,738	0.075	\$1,196,500	\$77
IND3	301	300 CONSTITUTION AVE	65,651	\$774,423	\$610,748	0.075	\$8,143,300	\$124
IND3	301	290 HERITAGE AVE	35,061	\$314,343	\$258,117	0.075	\$3,441,600	\$98
IND3	301	350 HERITAGE AVE	20,970	\$148,677	\$120,057	0.075	\$1,600,800	\$76
IND3	301	300 HERITAGE AVE	17,640	\$146,059	\$117,943	0.075	\$1,572,600	\$89
IND3	301	225 HERITAGE AVE	25,909	\$161,931	\$124,990	0.075	\$1,666,500	\$64
IND3	301	235 HERITAGE AVE	53,874	\$353,413	\$285,381	0.075	\$3,805,100	\$71
IND3	301	280 HERITAGE AVE #A	4,200	\$49,392	\$41,291	0.075	\$550,500	\$131
IND3	301	280 HERITAGE AVE #E	6,397	\$46,960	\$38,586	0.075	\$514,500	\$80
IND3	301	280 HERITAGE AVE #F	4,897	\$51,539	\$43,066	0.075	\$574,200	\$117
IND3	301	280 HERITAGE AVE #G	3,000	\$30,000	\$24,225	0.075	\$323,000	\$108
IND3	301	280 HERITAGE AVE #J	5,100	\$49,521	\$39,988	0.075	\$533,200	\$105
IND3	301	282 HERITAGE AVE #11	4,800	\$40,944	\$33,062	0.075	\$440,800	\$92
IND3	301	282 HERITAGE AVE #12	8,056	\$76,935	\$62,125	0.075	\$828,300	\$103
IND3	301	282 HERITAGE AVE #13	4,320	\$37,022	\$29,895	0.075	\$398,600	\$92
IND3	301	124 HERITAGE AVE	77,451	\$606,608	\$445,448	0.081	\$5,499,400	\$71
IND3	301	19 POST RD	25,400	\$159,004	\$128,396	0.075	\$1,711,900	\$67
IND3	301	55 HERITAGE AVE	26,800	\$167,232	\$139,806	0.075	\$1,864,100	\$70
IND3	301	85 HERITAGE AVE	8,880	\$76,013	\$64,551	0.069	\$935,500	\$117
IND3	301	115 HERITAGE AVE	25,376	\$214,935	\$146,680	0.075	\$1,955,700	\$77
IND3	301	145 HERITAGE AVE	25,376	\$158,854	\$128,274	0.075	\$1,710,300	\$67
IND3	301	20 POST RD	96,178	\$490,508	\$396,086	0.075	\$5,281,100	\$55
IND3	301	6 POST RD	44,800	\$273,728	\$228,837	0.075	\$3,051,200	\$68
IND3	301	112 HERITAGE AVE	20,000	\$162,800	\$138,250	0.075	\$1,843,300	\$92
IND3	301	275 CONSTITUTION AVE	76,000	\$560,120	\$420,965	0.075	\$5,612,900	\$74
IND3	301	199 CONSTITUTION AVE	23,400	\$155,844	\$125,844	0.075	\$1,677,900	\$72
IND3	301	CONSTITUTION AVE #2	24,200	\$147,378	\$119,008	0.075	\$1,586,800	\$66
IND3	301	6 ROBERT AVE	9,150	\$78,141	\$63,099	0.081	\$779,000	\$85
IND3	301	40 LONGMEADOW RD	19,995	\$161,560	\$118,949	0.081	\$1,468,500	\$73
IND3	301	3570 LAFAYETTE RD	57,200	\$341,968	\$276,139	0.075	\$3,681,900	\$64
IND3	302	3605 LAFAYETTE RD	22,319	\$155,833	\$125,224	0.075	\$1,669,700	\$75
IND3	307	30 NEW HAMPSHIRE AVE	54,035	\$487,819	\$373,715	0.075	\$4,982,900	\$92
IND3	307	1 REDHOOK WAY	105,936	\$999,220	\$809,087	0.075	\$10,787,800	\$102
IND3	307	111 NEW HAMPSHIRE AV	76,222	\$742,523	\$586,303	0.075	\$7,817,400	\$103
IND3	307	130 INTERNATIONAL DR	50,178	\$443,643	\$335,571	0.081	\$4,142,900	\$83



IND3	307	68 NEW HAMPSHIRE AVE	18,525	\$167,638	\$133,132	0.075	\$1,775,100	\$96
IND3	307	139 FLIGHT LINE RD	45,200	\$293,348	\$236,879	0.075	\$3,158,400	\$70
IND3	307	62 DURHAM ST	23,800	\$189,686	\$153,172	0.075	\$2,042,300	\$86
IND3	307	62 DURHAM ST	23,800	\$152,558	\$114,657	0.081	\$1,415,500	\$59
IND3	307	23 HAMPTON ST	25,849	\$145,530	\$101,507	0.087	\$1,166,700	\$45
IND3	307	44 DURHAM ST	2,000	\$11,240	\$8,448	0.087	\$97,100	\$49
IND3	307	44 DURHAM ST	28,400	\$180,056	\$135,323	0.081	\$1,670,700	\$59
IND3	307	110 AVIATION AVE	10,040	\$85,541	\$67,256	0.081	\$830,300	\$83
IND3	307	20 DURHAM ST	81,600	\$491,232	\$379,169	0.075	\$5,055,600	\$62
IND3	307	125 AVIATION AVE	65,212	\$515,438	\$408,164	0.081	\$5,039,100	\$77
IND3	307	162 CORPORATE DR	102,400	\$751,514	\$600,835	0.081	\$7,417,700	\$72
IND3	307	230 CORPORATE DR	29,952	\$304,283	\$241,238	0.075	\$3,216,500	\$107
IND3	307	47 DURHAM ST	6,462	\$45,492	\$38,632	0.075	\$515,100	\$80
IND3	307	72 PEASE BLVD	205,891	\$2,208,884	\$1,839,789	0.075	\$24,530,500	\$119
INDN	302	855 ISLINGTON ST	47,005	\$245,706	\$122,975	0.097	\$1,265,200	\$27
INDN	302	ISLINGTON ST	4,374	\$22,964	\$11,493	0.090	\$127,700	\$29
INDN	301	20 RANGER WAY	32,224	\$138,241	\$69,189	0.097	\$711,800	\$36
INDN	307	120 AVIATION AVE	19,499	\$281,761	\$222,208	0.083	\$2,683,700	\$138
INDN	307	58 DURHAM ST	28,400	\$180,056	\$125,589	0.097	\$1,292,100	\$46
MHP	301	ORIENTAL GDNS	38	\$239,400	\$160,877	0.090	\$1,787,500	\$48,355
MHP	301	3201 LAFAYETTE RD	3,207	\$1,163,645	\$792,419	0.090	\$8,804,700	\$2,745
MIX3	305	400 DEER ST #8-4	762	\$61,698	\$36,929	0.064	\$573,400	\$752
MIX3	302	459 ISLINGTON ST	11,597	\$126,338	\$95,272	0.076	\$1,260,200	\$109
MIX3	302	909 ISLINGTON ST	36,370	\$284,855	\$194,026	0.076	\$2,566,500	\$71
MIX3	301	620 PEVERLY HILL RD	21,221	\$177,642	\$122,787	0.076	\$1,624,200	\$77
MIXG	304	365 MARCY ST	2,455	\$116,300	\$73,482	0.078	\$939,700	\$383
MIXG	305	110 CHAPEL ST	3,089	\$122,417	\$91,913	0.072	\$1,271,300	\$412
MIXG	305	10 COMMERCIAL ALY	4,402	\$200,040	\$124,348	0.085	\$1,462,900	\$332
MIXG	305	31 MARKET ST	1,704	\$157,154	\$106,981	0.085	\$1,258,600	\$739
MIXG	305	19 MARKET ST	8,401	\$270,473	\$171,415	0.085	\$2,016,600	\$240
MIXG	305	30 DANIEL ST	8,459	\$259,724	\$173,701	0.085	\$2,043,500	\$242
MIXG	305	108 PENHALLOW ST	1,209	\$80,135	\$55,403	0.072	\$766,300	\$634
MIXG	305	112 PENHALLOW ST	2,009	\$92,212	\$64,275	0.078	\$821,900	\$409
MIXG	305	128 PENHALLOW ST	1,935	\$142,930	\$97,946	0.078	\$1,252,500	\$647
MIXG	305	8 BOW ST	3,973	\$190,784	\$119,777	0.085	\$1,409,100	\$355
MIXG	305	49 MARKET ST	3,267	\$130,968	\$90,268	0.085	\$1,062,000	\$325
MIXG	305	41 MARKET ST	1,606	\$146,701	\$100,272	0.078	\$1,282,300	\$798
MIXG	305	7 COMMERCIAL ALY	2,738	\$97,888	\$64,679	0.078	\$827,100	\$302
MIXG	305	123 MARKET ST	4,226	\$209,111	\$135,746	0.085	\$1,597,000	\$378
MIXG	305	117 MARKET ST	2,084	\$174,519	\$106,390	0.085	\$1,251,600	\$601
MIXG	305	113 MARKET ST	1,027	\$171,631	\$115,587	0.085	\$1,359,800	\$1,324
MIXG	305	105 MARKET ST	2,855	\$163,243	\$111,600	0.085	\$1,312,900	\$460
MIXG	305	101 MARKET ST	3,258	\$172,562	\$118,312	0.085	\$1,391,900	\$427
MIXG	305	93 MARKET ST	3,785	\$149,802	\$99,160	0.085	\$1,166,600	\$308
MIXG	305	65 BOW ST	2,290	\$158,739	\$109,968	0.085	\$1,293,700	\$565
MIXG	305	67 BOW ST	3,243	\$191,540	\$140,659	0.085	\$1,654,800	\$510
MIXG	305	99 DANIEL ST	709	\$49,516	\$30,868	0.072	\$426,900	\$602
MIXG	305	95 DANIEL ST	501	\$42,335	\$29,424	0.072	\$407,000	\$812
MIXG	305	3 SHEAFE ST	701	\$53,270	\$35,129	0.072	\$485,900	\$693
MIXG	305	9 SHEAFE ST	1,330	\$54,267	\$37,244	0.072	\$515,100	\$387

MIXG	305	21 DANIEL ST	5,024	\$218,235	\$151,464	0.078	\$1,936,900	\$386
MIXG	305	35 PLEASANT ST	2,900	\$217,760	\$138,312	0.085	\$1,627,200	\$561
MIXG	305	49 PLEASANT ST	3,852	\$178,938	\$136,221	0.078	\$1,742,000	\$452
MIXG	305	177 STATE ST	2,014	\$172,110	\$119,871	0.078	\$1,532,900	\$761
MIXG	305	123 STATE ST #1	902	\$84,942	\$64,369	0.072	\$890,300	\$987
MIXG	305	121 STATE ST #2	859	\$91,519	\$62,758	0.078	\$802,500	\$934
MIXG	305	107 STATE ST	2,142	\$96,013	\$60,655	0.078	\$775,600	\$362
MIXG	305	102 STATE ST	1,245	\$86,599	\$60,879	0.078	\$778,500	\$625
MIXG	305	110 STATE ST	1,314	\$131,347	\$91,390	0.078	\$1,168,700	\$889
MIXG	305	112 STATE ST	1,413	\$119,118	\$73,091	0.085	\$859,900	\$609
MIXG	305	132 STATE ST	1,951	\$101,766	\$71,106	0.078	\$909,300	\$466
MIXG	305	136 STATE ST	1,622	\$92,830	\$63,900	0.078	\$817,100	\$504
MIXG	305	142 STATE ST	8,827	\$238,473	\$149,865	0.085	\$1,763,100	\$200
MIXG	305	214 STATE ST	1,207	\$161,412	\$95,889	0.085	\$1,128,100	\$935
MIXG	305	92 PLEASANT ST	1,467	\$85,808	\$60,040	0.072	\$830,400	\$566
MIXG	305	84 PLEASANT ST	4,453	\$121,629	\$78,284	0.099	\$794,000	\$178
MIXG	305	278 STATE ST	1,339	\$135,026	\$60,728	0.092	\$661,500	\$494
MIXG	305	58 WASHINGTON ST	1,586	\$80,424	\$54,933	0.072	\$759,800	\$479
MIXG	305	379 STATE ST	2,897	\$118,076	\$80,068	0.085	\$942,000	\$325
MIXG	305	426 STATE ST	1,950	\$103,510	\$71,769	0.078	\$917,800	\$471
MIXG	305	232 COURT ST	1,623	\$117,607	\$70,322	0.078	\$899,300	\$554
MIXG	305	152 COURT ST	5,511	\$135,608	\$92,299	0.085	\$1,085,900	\$197
MIXG	305	154 FLEET ST	963	\$106,886	\$71,676	0.085	\$843,200	\$876
MIXG	305	168 FLEET ST	1,067	\$63,537	\$39,031	0.078	\$499,100	\$468
MIXG	305	35 CONGRESS ST	2,787	\$203,212	\$133,447	0.085	\$1,570,000	\$563
MIXG	305	29 CONGRESS ST	1,388	\$103,976	\$67,586	0.078	\$864,300	\$623
MIXG	305	1 CONGRESS ST	9,184	\$324,373	\$234,039	0.085	\$2,753,400	\$300
MIXG	305	24 MARKET ST	1,153	\$95,064	\$62,479	0.085	\$735,000	\$637
MIXG	305	18 LADD ST	724	\$74,390	\$48,556	0.078	\$620,900	\$858
MIXG	305	44 MARKET ST	6,294	\$223,458	\$143,961	0.085	\$1,693,700	\$269
MIXG	305	48 MARKET ST	2,162	\$124,718	\$77,574	0.085	\$912,600	\$422
MIXG	305	60 MARKET ST	2,533	\$92,884	\$60,276	0.085	\$709,100	\$280
MIXG	305	70 CONGRESS ST	2,208	\$65,845	\$46,323	0.085	\$545,000	\$247
MIXG	305	175 HIGH ST	8,104	\$332,786	\$208,173	0.085	\$2,449,100	\$302
MIXG	305	114 MAPLEWOOD AVE	508	\$88,551	\$49,052	0.072	\$678,500	\$1,336
MIXG	305	195 HANOVER ST #1	18,429	\$5,069,375	\$3,359,420	0.078	\$42,959,300	\$2,331
MIXG	304	78 BRIDGE ST	1,512	\$92,178	\$55,984	0.085	\$658,600	\$436
MIXG	304	96 BRIDGE ST	2,479	\$63,473	\$42,061	0.085	\$494,800	\$200
MIXG	305	99 HANOVER ST	7,588	\$1,601,122	\$1,098,427	0.078	\$14,046,400	\$1,851
MIXG	304	503 STATE ST	3,471	\$107,584	\$65,679	0.092	\$715,500	\$206
MIXG	304	45 PEARL ST	2,402	\$76,512	\$59,025	0.085	\$694,400	\$289
MIXG	305	64 BRIDGE ST	1,751	\$101,570	\$81,255	0.085	\$955,900	\$546
MIXG	304	145 MIDDLE ST	1,843	\$127,509	\$85,265	0.078	\$1,090,300	\$592
MIXG	305	134 MIDDLE ST	889	\$183,579	\$122,116	0.085	\$1,436,700	\$1,616
MIXG	304	116 MIDDLE ST	1,954	\$110,074	\$74,779	0.078	\$956,300	\$489
MIXG	304	515 MIDDLE ST #517	3,877	\$128,790	\$79,248	0.085	\$932,300	\$240
MIXG	304	504 MIDDLE ST	1,542	\$88,061	\$59,919	0.085	\$704,900	\$457
MIXG	302	169 ISLINGTON ST	1,810	\$73,953	\$55,385	0.078	\$708,200	\$391
MIXG	302	163 ISLINGTON ST	2,205	\$135,932	\$75,900	0.092	\$826,800	\$375
MIXG	302	948 US ROUTE 1 BYP	3,607	\$150,479	\$75,876	0.092	\$826,500	\$229

MIXG	302	313 ISLINGTON ST	1,324	\$74,465	\$50,701	0.078	\$648,400	\$490
MIXG	302	303 ISLINGTON ST	1,797	\$125,947	\$82,831	0.078	\$1,059,200	\$589
MIXG	304	591 MIDDLE ST	857	\$65,950	\$44,954	0.072	\$621,800	\$726
MIXG	302	610 ISLINGTON ST	4,699	\$146,765	\$99,777	0.092	\$1,086,900	\$231
MIXG	302	110 BREWERY LN #F1	17,281	\$882,109	\$555,344	0.078	\$7,101,600	\$411
MIXG	302	562 ISLINGTON ST	1,178	\$73,156	\$44,869	0.072	\$620,600	\$527
MIXG	301	177 BARTLETT ST	1,325	\$125,436	\$71,782	0.092	\$781,900	\$590
MIXG	302	695 ISLINGTON ST	1,411	\$101,460	\$52,600	0.085	\$618,800	\$439
MIXG	302	821 ISLINGTON ST	4,146	\$88,299	\$57,756	0.085	\$679,500	\$164
MIXG	306	960 SAGAMORE AVE	4,701	\$82,046	\$60,084	0.085	\$706,900	\$150
MIXG	301	SARATOGA WAY	4,404	\$128,420	\$80,919	0.085	\$952,000	\$216
MIXG	306	635 SAGAMORE AVE	4,087	\$99,196	\$65,209	0.092	\$710,300	\$174
MIXG	302	288 LAFAYETTE RD #A	7,220	\$189,428	\$115,517	0.085	\$1,359,000	\$188
MIXG	302	157 FARM LN	2,605	\$123,140	\$74,834	0.085	\$880,400	\$338
MIXG	303	1262 WOODBURY AVE	1,901	\$73,208	\$46,307	0.085	\$544,800	\$287
MIXG	303	1338-1350 WOODBURY A	1,675	\$164,743	\$103,318	0.099	\$1,047,800	\$626
MIXG	302	3131 LAFAYETTE RD	3,178	\$125,335	\$76,039	0.085	\$894,600	\$282
MIXN	304	15 PICKERING AVE	2,712	\$126,645	\$93,828	0.078	\$1,199,800	\$664
MIXN	305	54 DANIEL ST	1,388	\$99,851	\$73,419	0.085	\$863,800	\$622
MIXN	305	2 BOW ST	3,345	\$132,147	\$95,275	0.085	\$1,120,900	\$335
MIXN	305	87 MARKET ST	6,004	\$266,240	\$184,005	0.085	\$2,164,800	\$361
MIXN	305	105 DANIEL ST	1,102	\$85,291	\$57,500	0.078	\$735,300	\$667
MIXN	302	218 ISLINGTON ST	7,614	\$114,099	\$81,601	0.092	\$888,900	\$117
OF3	305	454 COURT ST	4,835	\$75,329	\$58,847	0.080	\$735,600	\$152
OF3	305	1 HARBOUR PL #2-1	2,758	\$82,602	\$61,456	0.080	\$768,200	\$279
OF3	305	1 HARBOUR PL #2-2	4,376	\$106,468	\$83,173	0.080	\$1,039,700	\$238
OF3	305	62 DANIEL ST	61,554	\$1,174,450	\$973,939	0.080	\$12,174,200	\$198
OF3	305	99 BOW ST	48,617	\$1,234,168	\$977,640	0.080	\$12,220,500	\$251
OF3	305	22 MARKET SQ #2	1,500	\$34,020	\$29,415	0.068	\$432,600	\$288
OF3	305	30 PENHALLOW ST	24,229	\$509,294	\$422,344	0.074	\$5,738,400	\$237
OF3	305	252 STATE ST	3,750	\$109,975	\$88,881	0.080	\$1,111,000	\$296
OF3	305	144 WASHINGTON ST	3,034	\$93,660	\$73,167	0.068	\$1,076,000	\$355
OF3	305	85 MIDDLE ST	7,488	\$145,380	\$113,570	0.080	\$1,419,600	\$190
OF3	305	93 MIDDLE ST	3,944	\$88,582	\$73,458	0.080	\$918,200	\$233
OF3	305	73 COURT ST	5,674	\$96,571	\$83,499	0.080	\$1,043,700	\$184
OF3	305	95 COURT ST	8,472	\$161,255	\$128,205	0.080	\$1,602,600	\$189
OF3	305	165 COURT ST	3,513	\$90,484	\$62,909	0.080	\$786,400	\$224
OF3	305	118 PLEASANT ST	3,184	\$80,173	\$66,486	0.068	\$977,700	\$307
OF3	305	82 COURT ST	10,341	\$194,035	\$167,770	0.074	\$2,279,500	\$220
OF3	305	70 COURT ST	5,274	\$107,449	\$84,706	0.080	\$1,058,800	\$201
OF3	305	40 CONGRESS ST	15,720	\$418,969	\$351,653	0.074	\$4,777,900	\$304
OF3	305	82-86 CONGRESS ST	25,063	\$586,481	\$434,809	0.080	\$5,435,100	\$217
OF3	305	53 GREEN ST	20,849	\$371,321	\$307,926	0.080	\$3,849,100	\$185
OF3	305	500 MARKET ST #1B	1,540	\$36,652	\$24,201	0.080	\$302,500	\$196
OF3	305	111 MAPLEWOOD AVE	19,976	\$500,399	\$414,966	0.068	\$6,102,400	\$406
OF3	204	233 VAUGHAN ST #10	5,606	\$167,451	\$144,785	0.068	\$2,129,200	\$380
OF3	304	299 HANOVER ST	5,045	\$93,736	\$76,016	0.080	\$950,200	\$188
OF3	305	25 MAPLEWOOD AVE	30,688	\$561,590	\$438,714	0.080	\$5,483,900	\$179
OF3	305	56 MIDDLE ST	4,231	\$94,859	\$78,664	0.074	\$1,068,800	\$253
OF3	305	42 MIDDLE ST	2,580	\$57,328	\$49,569	0.068	\$729,000	\$283

OF3	305	44 BRIDGE ST	6,207	\$156,753	\$129,991	0.074	\$1,766,200	\$285
OF3	304	381 MIDDLE ST	3,164	\$68,342	\$56,674	0.074	\$770,000	\$243
OF3	304	439 MIDDLE ST	4,603	\$100,069	\$81,116	0.080	\$1,014,000	\$220
OF3	304	266 MIDDLE ST	3,844	\$81,185	\$67,325	0.080	\$841,600	\$219
OF3	305	361 HANOVER ST #1	26,879	\$358,835	\$266,974	0.080	\$3,337,200	\$124
OF3	302	500 MAPLEWOOD AVE	8,203	\$147,102	\$116,125	0.080	\$1,451,600	\$177
OF3	302	323 ISLINGTON ST	2,263	\$43,336	\$37,470	0.068	\$551,000	\$243
OF3	302	378 ISLINGTON ST	3,260	\$70,188	\$58,205	0.074	\$790,800	\$243
OF3	302	650 ISLINGTON ST #	2,560	\$39,526	\$32,054	0.080	\$400,700	\$157
OF3	302	650 ISLINGTON ST #	2,840	\$43,225	\$35,054	0.080	\$438,200	\$154
OF3	302	33 JEWELL CT #S1	10,800	\$153,684	\$122,769	0.080	\$1,534,600	\$142
OF3	302	566 ISLINGTON ST	3,750	\$66,188	\$54,888	0.068	\$807,200	\$274
OF3	302	959 ISLINGTON ST	11,770	\$100,690	\$77,486	0.086	\$896,800	\$76
OF3	302	185 COTTAGE ST	6,240	\$74,693	\$58,350	0.086	\$675,300	\$108
OF3	306	955 SAGAMORE AVE	3,000	\$45,330	\$35,412	0.080	\$442,700	\$248
OF3	306	1150 SAGAMORE AVE	8,635	\$171,837	\$142,500	0.080	\$1,781,300	\$206
OF3	301	170 COMMERCE WAY	47,837	\$817,542	\$638,664	0.080	\$7,983,300	\$167
OF3	301	210 COMMERCE WAY	49,480	\$872,332	\$624,590	0.080	\$7,807,400	\$158
OF3	301	230 COMMERCE WAY	49,480	\$836,707	\$653,636	0.080	\$8,170,500	\$165
OF3	301	195 COMMERCE WAY	34,990	\$395,737	\$309,149	0.080	\$3,864,400	\$110
OF3	301	175 COMMERCE WAY	41,856	\$472,136	\$368,832	0.080	\$4,610,400	\$110
OF3	301	155 COMMERCE WAY	38,986	\$529,820	\$413,896	0.080	\$5,173,700	\$135
OF3	301	135 COMMERCE WAY	56,560	\$749,420	\$585,447	0.080	\$7,318,100	\$129
OF3	301	215 COMMERCE WAY	107,447	\$1,083,655	\$778,304	0.080	\$9,728,800	\$89
OF3	301	1000 MARKET ST #1	30,156	\$401,979	\$284,118	0.080	\$3,551,500	\$118
OF3	302	545 LAFAYETTE RD	3,477	\$57,944	\$48,052	0.074	\$652,900	\$188
OF3	303	1550 WOODBURY AVE	5,851	\$119,126	\$103,001	0.074	\$1,399,500	\$239
OF3	301	225 BORTHWICK AVE	298,240	\$3,728,000	\$3,056,256	0.080	\$38,203,200	\$120
OF3	304	8 GREENLEAF WOODS DR	34,534	\$245,191	\$184,703	0.080	\$2,308,800	\$67
OF3	301	180 GREENLEAF AVE	18,858	\$304,368	\$252,404	0.080	\$3,155,100	\$167
OF3	302	750 LAFAYETTE RD	41,599	\$790,153	\$625,842	0.074	\$8,503,300	\$204
OF3	302	815 LAFAYETTE RD	13,203	\$258,251	\$214,161	0.080	\$2,677,000	\$316
OF3	302	1700 LAFAYETTE RD	16,910	\$239,270	\$193,100	0.080	\$2,413,800	\$190
OF3	301	155 WEST RD	4,168	\$65,854	\$54,611	0.074	\$742,000	\$178
OF3	301	30 MIRONA RD EXT	7,152	\$105,778	\$75,737	0.080	\$946,700	\$132
OF3	301	150 MIRONA RD	6,224	\$93,546	\$75,862	0.080	\$948,300	\$152
OF3	301	155 BORTHWICK AVE #1	50,496	\$1,006,385	\$857,537	0.080	\$10,719,200	\$212
OF3	301	155 BORTHWICK AVE #2	53,916	\$1,121,992	\$956,045	0.074	\$12,989,700	\$241
OF3	301	100 GRIFFIN RD #1A	3,286	\$61,382	\$40,530	0.080	\$506,600	\$154
OF3	301	100 GRIFFIN RD #1B	4,960	\$90,966	\$64,971	0.080	\$812,100	\$164
OF3	301	100 GRIFFIN RD #1C	4,570	\$79,152	\$61,833	0.074	\$840,100	\$184
OF3	301	150 GRIFFIN RD #1	4,754	\$90,659	\$59,862	0.080	\$748,300	\$157
OF3	301	150 GRIFFIN RD #3	5,465	\$103,234	\$68,166	0.080	\$852,100	\$156
OF3	301	150 GRIFFIN RD #2	3,803	\$67,047	\$52,377	0.080	\$654,700	\$172
OF3	301	200 GRIFFIN RD #6	2,172	\$50,043	\$33,043	0.080	\$413,000	\$190
OF3	301	200 GRIFFIN RD #16	4,209	\$77,698	\$51,304	0.080	\$641,300	\$152
OF3	301	155 GRIFFIN ROAD #1	7,324	\$139,376	\$92,030	0.080	\$1,150,400	\$157
OF3	301	155 GRIFFIN ROAD #2	8,762	\$161,484	\$106,628	0.080	\$1,332,900	\$152
OF3	302	2010 LAFAYETTE RD	24,198	\$282,645	\$222,669	0.074	\$3,025,400	\$125
OF3	302	1900 LAFAYETTE RD	21,318	\$420,178	\$363,303	0.074	\$4,936,200	\$232

OF3	301	755 BANFIELD RD	24,832	\$397,388	\$310,439	0.080	\$3,880,500	\$156
OF3	302	2837 LAFAYETTE RD	3,087	\$78,039	\$67,476	0.074	\$916,800	\$297
OF3	302	3612 LAFAYETTE RD	19,995	\$280,813	\$223,108	0.086	\$2,582,300	\$129
OF3	307	2 INTERNATIONAL DR	88,467	\$1,528,710	\$1,194,228	0.074	\$16,225,900	\$183
OF3	307	20-30 INTERNATIONAL	33,748	\$471,634	\$370,951	0.080	\$4,636,900	\$137
OF3	307	14 MANCHESTER SQ #	2,583	\$66,926	\$56,317	0.080	\$704,000	\$273
OF3	307	14 MANCHESTER SQ #	4,968	\$119,530	\$93,377	0.080	\$1,167,200	\$235
OF3	307	25 NEW HAMPSHIRE AV	33,371	\$515,248	\$368,011	0.080	\$4,600,100	\$138
OF3	307	25 NEW HAMPSHIRE AV	2,047	\$44,645	\$37,023	0.074	\$503,000	\$246
OF3	307	25 NEW HAMPSHIRE AV	1,707	\$48,223	\$34,442	0.080	\$430,500	\$252
OF3	307	67 CORPORATE DR	70,556	\$596,198	\$410,184	0.080	\$5,127,300	\$73
OF3	307	73 CORPORATE DR	12,300	\$241,080	\$199,921	0.074	\$2,716,300	\$221
OF3	303	121 CORPORATE DR	26,698	\$513,136	\$425,529	0.074	\$5,781,600	\$217
OF3	307	161 CORPORATE DR	18,906	\$383,036	\$299,227	0.080	\$3,740,300	\$198
OF3	307	110 CORPORATE DR #1	31,220	\$481,128	\$344,487	0.086	\$3,987,100	\$128
OF3	307	112 CORPORATE DR #	19,277	\$245,203	\$175,566	0.086	\$2,032,000	\$105
OF3	307	114 CORPORATE DR #	4,879	\$70,014	\$52,637	0.080	\$658,000	\$135
OF3	307	108 CORPORATE DR #	17,385	\$458,964	\$380,606	0.074	\$5,171,300	\$297
OF3	401	119 INTERNATIONAL D	5,828	\$82,466	\$61,998	0.080	\$775,000	\$133
OF3	401	19 RYE ST #3	29,683	\$395,674	\$309,101	0.080	\$3,863,800	\$130
OF3	307	50 INTERNATIONAL DR	25,500	\$340,680	\$222,669	0.080	\$2,783,400	\$109
OF3	307	100 INTERNATIONAL DR	65,546	\$1,082,730	\$845,828	0.080	\$10,572,900	\$161
OF3	307	100 INTERNATIONAL DR	47,465	\$804,592	\$667,226	0.080	\$8,340,300	\$176
OF3	307	11 MANCHESTER SQ #3	4,737	\$48,649	\$36,648	0.080	\$458,100	\$97
OF3	307	81 NEW HAMPSHIRE AVE	27,414	\$365,977	\$285,902	0.080	\$3,573,800	\$116
OF3	307	85 NEW HAMPSHIRE AV	28,526	\$547,984	\$428,085	0.080	\$5,351,100	\$188
OF3	307	75 NEW HAMPSHIRE AV	12,530	\$245,337	\$191,657	0.080	\$2,395,700	\$191
OF3	307	75 NEW HAMPSHIRE AV	12,098	\$237,242	\$185,333	0.080	\$2,316,700	\$191
OF3	307	75 NEW HAMPSHIRE AV	52,769	\$1,015,276	\$755,366	0.080	\$9,442,100	\$179
OF3	307	32 ROCHESTER AVE	74,653	\$1,186,983	\$948,210	0.080	\$11,852,600	\$159
OF3	307	75 ROCHESTER AVE #4	12,024	\$196,472	\$162,929	0.080	\$2,036,600	\$169
OF3	307	75 ROCHESTER AVE #3	15,197	\$246,495	\$192,562	0.080	\$2,407,000	\$158
OF3	307	75 ROCHESTER AVE #2	19,368	\$312,406	\$259,069	0.080	\$3,238,400	\$167
OF3	307	75 ROCHESTER AVE #1	15,120	\$245,246	\$203,376	0.080	\$2,542,200	\$168
OF3	307	75 ROCHESTER AVE	13,530	\$183,602	\$143,430	0.080	\$1,792,900	\$133
OF3	307	31 ROCHESTER AVE	50,075	\$656,630	\$512,960	0.080	\$6,412,000	\$128
OF3	307	77 AVIATION AVE	8,658	\$119,654	\$93,474	0.080	\$1,168,400	\$135
OF3	307	222 INTERNATIONAL DR	146,410	\$1,644,055	\$1,290,155	0.080	\$16,126,900	\$110
OF3	307	200 INTERNATIONAL DR	87,190	\$951,553	\$719,934	0.080	\$8,999,200	\$103
OF3	307	180 INTERNATIONAL DR	56,966	\$770,809	\$605,333	0.074	\$8,224,600	\$144
OF3	307	164-166 CORPORATE DR	205,550	\$2,274,591	\$1,858,146	0.080	\$23,226,800	\$113
OF3	307	30 RYE ST	11,203	\$130,067	\$101,608	0.080	\$1,270,100	\$113
OF3	307	183-185 INTERNATIONA	95,428	\$1,525,611	\$1,265,146	0.074	\$17,189,500	\$186
OF3	307	177 CORPORATE DR	11,068	\$211,842	\$183,167	0.074	\$2,488,700	\$225
OF3	307	231 CORPORATE DR	24,354	\$412,070	\$321,909	0.080	\$4,023,900	\$165
OF3	307	249 CORPORATE DR	37,044	\$709,022	\$553,888	0.080	\$6,923,600	\$187
OF3	307	207 INTERNATIONAL DR	102,324	\$1,640,254	\$1,281,368	0.074	\$17,409,900	\$170
OF3	307	282 CORPORATE DR	15,007	\$208,897	\$173,232	0.080	\$2,165,400	\$144
OF3	307	359 CORPORATE DR	26,230	\$400,422	\$320,026	0.080	\$4,000,300	\$153
OF3	307	273 CORPORATE DR	100,650	\$1,512,071	\$1,226,229	0.080	\$15,327,900	\$152

OF3	307	325 CORPORATE DR	99,102	\$1,604,461	\$1,301,154	0.080	\$16,264,400	\$164
OF3	307	100 ARBORETUM DR	127,896	\$2,057,820	\$1,607,568	0.074	\$21,842,000	\$171
OF3	307	16 PEASE BLVD	1,244	\$23,711	\$19,663	0.074	\$267,200	\$215
OFG	204	200 MARCY ST	2,380	\$63,379	\$40,383	0.087	\$462,000	\$194
OFG	305	121 BOW ST #C1	1,736	\$66,419	\$46,489	0.095	\$489,400	\$282
OFG	305	1 HARBOUR PL #1-1	47,870	\$1,732,894	\$1,079,766	0.095	\$11,366,000	\$237
OFG	305	126 DANIEL ST	13,286	\$358,145	\$250,678	0.095	\$2,638,700	\$199
OFG	305	132 CHAPEL ST	1,985	\$70,031	\$49,017	0.081	\$606,600	\$306
OFG	305	55 MARKET ST #2	950	\$27,370	\$19,157	0.095	\$201,700	\$212
OFG	305	117 BOW ST #2A	2,041	\$65,190	\$40,620	0.095	\$427,600	\$210
OFG	305	40 PLEASANT ST	17,253	\$413,054	\$294,104	0.095	\$3,095,800	\$179
OFG	305	10 PLEASANT ST	12,420	\$423,185	\$298,118	0.087	\$3,411,000	\$275
OFG	305	127 PARROTT AVE	14,949	\$455,227	\$318,630	0.095	\$3,354,000	\$224
OFG	305	54 COURT ST	1,893	\$125,963	\$85,745	0.087	\$981,100	\$518
OFG	305	15 CONGRESS ST	54,576	\$1,342,720	\$884,132	0.087	\$10,115,900	\$185
OFG	305	20 LADD ST #G	4,881	\$129,395	\$90,568	0.087	\$1,036,200	\$212
OFG	305	20 LADD ST #K	4,892	\$118,925	\$83,240	0.087	\$952,400	\$195
OFG	305	20 LADD ST #L	4,885	\$138,539	\$96,969	0.095	\$1,020,700	\$209
OFG	305	18 CONGRESS ST #207	2,424	\$64,333	\$45,029	0.081	\$557,300	\$230
OFG	305	18 CONGRESS ST #209	2,290	\$71,585	\$50,105	0.087	\$573,300	\$250
OFG	305	18 CONGRESS ST #210	4,075	\$100,816	\$70,565	0.095	\$742,800	\$182
OFG	305	100 MARKET ST	58,000	\$1,467,100	\$1,030,211	0.087	\$11,787,300	\$203
OFG	305	28 DEER ST	22,900	\$679,037	\$430,089	0.095	\$4,527,300	\$198
OFG	305	31 RAYNES AVE	10,387	\$300,911	\$210,618	0.095	\$2,217,000	\$213
OFG	305	1 RAYNES AVE	28,999	\$434,701	\$270,122	0.095	\$2,843,400	\$98
OFG	304	159 MIDDLE ST	3,991	\$132,102	\$92,463	0.087	\$1,057,900	\$265
OFG	304	171 MIDDLE ST	5,134	\$145,857	\$92,936	0.087	\$1,063,300	\$207
OFG	304	461 MIDDLE ST	1,355	\$90,198	\$61,437	0.087	\$702,900	\$519
OFG	302	501 ISLINGTON ST #1A	2,603	\$68,303	\$47,808	0.095	\$503,200	\$193
OFG	302	501 ISLINGTON ST #3B	6,463	\$141,023	\$95,220	0.087	\$1,089,500	\$169
OFG	302	501 ISLINGTON ST #4	6,178	\$134,989	\$91,146	0.087	\$1,042,900	\$169
OFG	301	1 CATE ST #1	3,400	\$76,092	\$51,378	0.095	\$540,800	\$159
OFG	301	1 CATE ST #2	1,290	\$38,700	\$25,554	0.095	\$269,000	\$209
OFG	301	1 CATE ST #3	4,000	\$88,800	\$59,959	0.095	\$631,100	\$158
OFG	301	1 CATE ST #4	4,550	\$100,464	\$67,834	0.095	\$714,000	\$157
OFG	301	1 CATE ST #5	4,450	\$102,306	\$67,553	0.095	\$711,100	\$160
OFG	301	1 CATE ST #1A	2,420	\$55,297	\$37,337	0.087	\$427,200	\$177
OFG	301	1 CATE ST #2A	2,500	\$57,000	\$37,637	0.095	\$396,200	\$158
OFG	301	1 CATE ST #2B	1,860	\$43,431	\$28,678	0.095	\$301,900	\$162
OFG	301	1 CATE ST #3A	2,560	\$58,266	\$39,342	0.095	\$414,100	\$162
OFG	302	767 ISLINGTON ST	13,702	\$250,755	\$158,095	0.095	\$1,664,200	\$121
OFG	302	1039 ISLINGTON ST #1	960	\$19,200	\$11,964	0.095	\$125,900	\$131
OFG	302	951 ISLINGTON ST	21,875	\$339,875	\$211,776	0.095	\$2,229,200	\$102
OFG	301	1000 MARKET ST #3	28,392	\$576,925	\$394,893	0.095	\$4,156,800	\$146
OFG	301	330 BORTHWICK AVE #1	5,395	\$108,386	\$75,863	0.095	\$798,600	\$148
OFG	301	330 BORTHWICK AVE #1	1,680	\$47,275	\$33,090	0.095	\$348,300	\$207
OFG	301	330 BORTHWICK AVE #2	3,074	\$75,989	\$47,349	0.095	\$498,400	\$162
OFG	301	330 BORTHWICK AVE #2	3,380	\$75,644	\$54,028	0.095	\$568,700	\$168
OFG	301	330 BORTHWICK AVE #2	2,132	\$48,226	\$33,755	0.087	\$386,200	\$181
OFG	301	330 BORTHWICK AVE #3	3,016	\$64,542	\$45,175	0.087	\$516,900	\$171

OFG	301	330 BORTHWICK AVE #3	3,432	\$72,209	\$50,542	0.087	\$578,300	\$169
OFG	301	330 BORTHWICK AVE #3	2,392	\$61,857	\$43,296	0.095	\$455,700	\$191
OFG	302	1950 LAFAYETTE RD #1	7,760	\$151,863	\$115,113	0.095	\$1,211,700	\$156
OFG	302	1950 LAFAYETTE RD #2	8,800	\$219,648	\$139,953	0.087	\$1,601,300	\$182
OFG	302	2059 LAFAYETTE RD	4,791	\$93,510	\$59,834	0.095	\$629,800	\$131
OFG	307	1 NEW HAMPSHIRE AVE	107,746	\$1,889,865	\$1,567,212	0.087	\$17,931,500	\$166
OFG	401	15 RYE ST #2	57,096	\$1,061,986	\$661,723	0.095	\$6,965,500	\$122
OFG	307	75 NEW HAMPSHIRE AVE	78,075	\$1,452,195	\$904,862	0.095	\$9,524,900	\$122
R&D3	301	175 HERITAGE AVE	25,376	\$190,574	\$159,320	0.083	\$1,919,500	\$76
R&D3	307	101 INTERNATIONAL DR	708,678	\$14,201,698	\$12,367,898	0.076	\$61,883,500	\$228
R&D3	307	19 DURHAM ST	8,408	\$71,720	\$60,021	0.083	\$723,100	\$86
REST	305	88 PENHALLOW ST	1,464	\$43,232	\$37,046	0.069	\$536,900	\$367
REST	305	106 PENHALLOW ST	1,548	\$54,613	\$46,799	0.069	\$678,200	\$438
REST	305	135 MARKET ST #D	3,040	\$102,448	\$83,700	0.075	\$1,116,000	\$367
REST	305	113 DANIEL ST	3,418	\$68,027	\$54,615	0.075	\$728,200	\$213
REST	305	73 DANIEL ST #1	2,178	\$44,257	\$36,158	0.075	\$482,100	\$221
REST	305	51 PENHALLOW ST	1,155	\$40,748	\$34,918	0.075	\$465,600	\$403
REST	305	22 MARKET SQ #1	6,440	\$223,468	\$187,718	0.075	\$2,502,900	\$389
REST	305	111 STATE ST	4,808	\$119,335	\$97,496	0.075	\$1,299,900	\$270
REST	305	96 STATE ST	5,982	\$143,452	\$115,093	0.075	\$1,534,600	\$257
REST	305	75 PLEASANT ST	2,847	\$96,599	\$78,921	0.075	\$1,052,300	\$370
REST	210	401 STATE ST	5,029	\$123,512	\$100,909	0.075	\$1,345,500	\$268
REST	305	80 HANOVER ST #1	8,878	\$132,904	\$108,583	0.081	\$1,340,500	\$151
REST	305	43 VAUGHAN ST #2	2,809	\$45,618	\$37,270	0.075	\$496,900	\$177
REST	305	41 VAUGHAN ST #3	2,841	\$55,286	\$46,640	0.075	\$621,900	\$219
REST	305	174 FLEET ST #4	3,325	\$64,339	\$52,565	0.081	\$649,000	\$195
REST	305	238 DEER ST	4,000	\$124,600	\$103,406	0.075	\$1,378,700	\$345
REST	305	135 CONGRESS ST #145	12,015	\$221,243	\$177,264	0.075	\$2,363,500	\$197
REST	305	113 CONGRESS ST	3,243	\$107,116	\$91,790	0.075	\$1,223,900	\$377
REST	305	103 CONGRESS ST	2,117	\$70,962	\$57,976	0.075	\$773,000	\$365
REST	305	121 CONGRESS ST	3,053	\$119,861	\$99,473	0.075	\$1,326,300	\$434
REST	305	172 HANOVER ST	10,000	\$262,800	\$225,199	0.075	\$3,002,700	\$300
REST	301	428 US ROUTE 1 BYP	30,920	\$363,589	\$289,235	0.075	\$3,856,500	\$125
REST	306	JONES AVE	7,392	\$175,116	\$143,070	0.075	\$1,907,600	\$258
REST	302	581 LAFAYETTE RD	15,944	\$407,369	\$332,821	0.075	\$4,437,600	\$278
REST	303	1464 WOODBURY AVE	5,540	\$217,833	\$193,060	0.064	\$3,026,000	\$546
REST	303	1574 WOODBURY AVE	4,570	\$160,636	\$142,368	0.075	\$1,898,200	\$415
REST	302	980 LAFAYETTE RD	7,116	\$115,920	\$94,707	0.075	\$1,262,800	\$177
REST	302	2456 LAFAYETTE RD #A	3,600	\$96,120	\$78,530	0.081	\$969,500	\$269
REST	402	2454 LAFAYETTE RD #6	5,700	\$136,458	\$111,486	0.075	\$1,486,500	\$261
REST	302	2466 LAFAYETTE RD	6,659	\$129,051	\$105,434	0.075	\$1,405,800	\$211
REST	307	27 INTERNATIONAL DR	14,889	\$165,175	\$127,613	0.081	\$1,575,500	\$106
REST	307	200 GRAFTON DR	2,339	\$22,000	\$17,242	0.087	\$198,200	\$85
RET3	305	35-43 BOW ST	7,300	\$202,774	\$162,839	0.072	\$2,261,700	\$310
RET3	305	64 VAUGHAN ST	26,061	\$172,080	\$120,026	0.084	\$1,437,400	\$55
RET3	305	138 CONGRESS ST	11,908	\$201,757	\$161,803	0.072	\$2,247,300	\$189
RET3	302	63 ISLINGTON ST	8,408	\$97,028	\$74,105	0.078	\$952,500	\$113
RET3	302	927 US ROUTE 1 BYP	5,635	\$50,189	\$40,527	0.078	\$520,900	\$92
RET3	302	95 BREWERY LN	59,000	\$625,990	\$407,520	0.084	\$4,880,500	\$83
RET3	302	800 ISLINGTON ST	60,972	\$865,087	\$709,062	0.078	\$9,113,900	\$149

RET3	302	642 ISLINGTON ST	2,151	\$61,519	\$48,107	0.072	\$668,200	\$311
RET3	302	674 ISLINGTON ST	8,184	\$157,133	\$126,885	0.078	\$1,630,900	\$199
RET3	302	738 ISLINGTON ST	26,525	\$501,323	\$374,989	0.072	\$5,208,200	\$196
RET3	304	75 ALBANY ST	4,426	\$45,145	\$36,455	0.072	\$506,300	\$114
RET3	301	105 BARTLETT ST	13,648	\$212,909	\$164,339	0.078	\$2,112,300	\$155
RET3	302	806 US ROUTE 1 BYP	2,834	\$48,943	\$39,730	0.078	\$510,700	\$180
RET3	302	3 CATE ST	4,900	\$56,644	\$42,572	0.078	\$547,200	\$112
RET3	302	105 BARTLETT ST	14,060	\$188,325	\$150,943	0.072	\$2,096,400	\$149
RET3	302	653 ISLINGTON ST	3,258	\$62,749	\$50,136	0.072	\$696,300	\$214
RET3	302	565 ISLINGTON ST	1	\$78,000	\$62,384	0.072	\$866,400	\$866,400
RET3	302	875 ISLINGTON ST	5,805	\$67,106	\$50,434	0.078	\$648,300	\$112
RET3	302	833 ISLINGTON ST	3,790	\$51,544	\$41,622	0.072	\$578,100	\$153
RET3	302	801 ISLINGTON ST	28,000	\$379,160	\$296,428	0.072	\$4,117,100	\$147
RET3	302	880 ISLINGTON ST	5,892	\$74,652	\$57,505	0.066	\$868,700	\$147
RET3	302	999 ISLINGTON ST	6,392	\$86,931	\$70,196	0.072	\$974,900	\$153
RET3	302	933 ISLINGTON ST	11,117	\$108,641	\$82,413	0.078	\$1,059,300	\$95
RET3	301	1 FALKLAND PL	6,058	\$78,815	\$51,309	0.072	\$712,600	\$118
RET3	303	1981 WOODBURY AVE	43,041	\$717,890	\$548,678	0.078	\$7,052,400	\$164
RET3	303	1811 WOODBURY AVE	117,028	\$1,193,686	\$1,050,369	0.066	\$15,866,600	\$144
RET3	303	1465 WOODBURY AVE	196,094	\$2,525,817	\$2,021,749	0.072	\$28,079,800	\$143
RET3	303	1303 WOODBURY AVE	11,096	\$253,211	\$222,810	0.066	\$3,365,700	\$303
RET3	301	650 MAPLEWOOD AVE	7,324	\$84,665	\$63,631	0.078	\$817,900	\$112
RET3	302	599 LAFAYETTE RD	50,407	\$814,073	\$636,605	0.072	\$8,841,700	\$175
RET3	302	605 LAFAYETTE RD	14,130	\$248,509	\$188,071	0.072	\$2,612,100	\$185
RET3	303	1600 WOODBURY AVE	133,369	\$2,395,390	\$1,901,496	0.072	\$26,409,700	\$198
RET3	303	100 ARTHUR F BRADY D	165,073	\$1,863,669	\$1,530,891	0.072	\$21,262,400	\$129
RET3	303	1618 WOODBURY AVE	2,880	\$70,848	\$58,855	0.066	\$889,000	\$309
RET3	303	50 DURGIN LN	18,460	\$282,623	\$236,273	0.072	\$3,281,600	\$178
RET3	303	1700 WOODBURY AVE	34,960	\$510,066	\$399,924	0.078	\$5,140,400	\$147
RET3	303	1800 WOODBURY AVE	4,784	\$135,912	\$114,818	0.066	\$1,734,400	\$363
RET3	303	1840 WOODBURY AVE	3,844	\$139,230	\$120,629	0.061	\$1,971,100	\$513
RET3	303	1850 WOODBURY AVE	12,970	\$270,814	\$212,928	0.072	\$2,957,300	\$228
RET3	303	1976 WOODBURY AVE	6,571	\$148,989	\$121,218	0.072	\$1,683,600	\$256
RET3	303	100 DURGIN LN	76,470	\$1,319,872	\$1,103,413	0.066	\$16,667,900	\$236
RET3	302	800 LAFAYETTE RD	1	\$93,600	\$74,861	0.072	\$1,039,700	\$39,700
RET3	302	775 LAFAYETTE RD	112,572	\$1,576,008	\$1,126,846	0.078	\$14,483,900	\$129
RET3	302	1500 LAFAYETTE RD	89,689	\$1,244,545	\$954,100	0.072	\$13,251,400	\$148
RET3	301	140 WEST RD #1301	3,500	\$35,315	\$28,517	0.078	\$366,500	\$105
RET3	301	140 WEST RD #1302	3,500	\$35,315	\$28,517	0.078	\$366,500	\$105
RET3	301	140 WEST RD #1303	3,500	\$35,315	\$28,517	0.078	\$366,500	\$105
RET3	301	140 WEST RD #1304	3,500	\$35,315	\$28,517	0.078	\$366,500	\$105
RET3	301	140 WEST RD #1305	3,500	\$35,315	\$28,517	0.078	\$366,500	\$105
RET3	302	1400 LAFAYETTE RD	17,613	\$485,344	\$409,736	0.066	\$6,189,400	\$351
RET3	301	72 MIRONA RD EXT	54,275	\$648,929	\$477,342	0.084	\$5,716,700	\$105
RET3	301	115 MIRONA RD #7	3,990	\$61,566	\$48,145	0.084	\$576,600	\$145
RET3	302	990 LAFAYETTE RD	10,795	\$120,040	\$85,828	0.078	\$1,103,200	\$102
RET3	301	15 BANFIELD RD	10,956	\$123,813	\$92,550	0.084	\$1,108,400	\$101
RET3	302	2222 LAFAYETTE RD	4,896	\$99,242	\$77,608	0.072	\$1,077,900	\$220
RET3	302	2100 LAFAYETTE RD	6,008	\$78,224	\$55,930	0.078	\$718,900	\$120
RET3	302	2179 LAFAYETTE RD	9,600	\$97,920	\$79,070	0.072	\$1,098,200	\$114



RET3	302	2299 LAFAYETTE RD	6,889	\$110,224	\$89,006	0.072	\$1,236,200	\$179
RET3	402	2454 LAFAYETTE RD #3	35,858	\$330,969	\$242,021	0.084	\$2,898,500	\$81
RET3	402	2454 LAFAYETTE RD #4	73,654	\$1,196,878	\$895,265	0.072	\$12,434,200	\$169
RET3	402	2454 LAFAYETTE RD	21,595	\$423,262	\$330,991	0.072	\$4,597,100	\$213
RET3	302	2800 LAFAYETTE RD	40,379	\$713,827	\$443,083	0.084	\$5,306,400	\$131
RET3	302	2600 LAFAYETTE RD #1	3,038	\$48,608	\$39,251	0.066	\$592,900	\$195
RET3	302	2460 LAFAYETTE RD	190,444	\$1,618,774	\$1,374,663	0.072	\$19,092,500	\$94
RET3	301	1 ROBERT AVE	4,000	\$43,680	\$35,226	0.066	\$532,100	\$133
RET3	302	2875 LAFAYETTE RD	14,139	\$224,695	\$166,595	0.072	\$2,313,800	\$164
RET3	302	3002 LAFAYETTE RD	4,464	\$51,604	\$43,141	0.066	\$651,700	\$146
RET3	302	2998 LAFAYETTE RD	8,532	\$95,026	\$66,280	0.072	\$920,600	\$108
RET3	302	3611 LAFAYETTE RD	27,180	\$230,215	\$152,842	0.078	\$1,964,600	\$72
RET3	302	3613 LAFAYETTE RD	31,919	\$267,993	\$197,748	0.084	\$2,368,200	\$74
RET3	307	14 MANCHESTER SQ	22,962	\$370,989	\$290,036	0.072	\$4,028,300	\$175
RETG	305	11 MARKET ST	2,385	\$92,490	\$71,198	0.078	\$910,500	\$382
RETG	305	1 MARKET ST	9,414	\$277,745	\$189,472	0.092	\$2,059,500	\$219
RETG	305	50 DANIEL ST #1	2,772	\$80,985	\$56,012	0.085	\$662,100	\$239
RETG	305	61 MARKET ST	4,446	\$133,009	\$89,455	0.092	\$972,300	\$219
RETG	305	53 MARKET ST	4,532	\$150,542	\$102,494	0.085	\$1,211,500	\$267
RETG	305	45 MARKET ST	3,855	\$77,676	\$56,753	0.078	\$725,700	\$188
RETG	305	9 COMMERCIAL ALY	2,540	\$78,738	\$55,632	0.092	\$604,700	\$238
RETG	305	47 BOW ST	5,088	\$205,735	\$135,688	0.092	\$1,474,900	\$290
RETG	305	53 BOW ST	7,080	\$253,008	\$190,057	0.092	\$2,065,800	\$292
RETG	305	85 DANIEL ST	3,237	\$78,379	\$51,525	0.085	\$609,000	\$188
RETG	305	77 DANIEL ST	4,200	\$135,798	\$86,869	0.092	\$944,200	\$225
RETG	305	14 MARKET SQ	9,114	\$347,551	\$255,454	0.085	\$3,019,600	\$331
RETG	305	93 PLEASANT ST	8,010	\$233,079	\$161,973	0.085	\$1,914,600	\$239
RETG	305	29 VAUGHAN ST	13,757	\$327,756	\$210,068	0.092	\$2,283,300	\$166
RETG	305	63 CONGRESS ST	40,025	\$908,676	\$573,604	0.099	\$5,770,700	\$144
RETG	305	55 CONGRESS ST #B	1,575	\$55,645	\$35,791	0.092	\$389,000	\$247
RETG	305	55 CONGRESS ST #C	2,344	\$53,842	\$38,042	0.092	\$413,500	\$176
RETG	305	13 CONGRESS ST	2,628	\$116,946	\$82,629	0.085	\$976,700	\$372
RETG	305	CONGRESS ST #D	3,542	\$118,126	\$91,965	0.078	\$1,176,000	\$332
RETG	305	10 MARKET SQ	8,300	\$233,783	\$158,935	0.092	\$1,727,600	\$208
RETG	305	10 A LADD ST	1,897	\$93,433	\$63,843	0.085	\$754,600	\$398
RETG	305	36 MARKET ST #A	4,147	\$147,876	\$104,483	0.078	\$1,336,100	\$322
RETG	305	40 MARKET ST	2,666	\$125,204	\$76,924	0.092	\$836,100	\$314
RETG	305	56 MARKET ST	10,414	\$294,864	\$186,902	0.092	\$2,031,500	\$195
RETG	305	64 MARKET ST	14,824	\$389,152	\$243,919	0.092	\$2,651,300	\$179
RETG	305	80 MARKET ST	6,940	\$204,947	\$135,127	0.085	\$1,597,200	\$230
RETG	305	20 CONGRESS ST #104	1,770	\$85,137	\$60,155	0.085	\$711,100	\$402
RETG	305	74 CONGRESS ST	2,776	\$79,219	\$51,459	0.092	\$559,300	\$201
RETG	305	76 CONGRESS ST	2,443	\$83,274	\$58,713	0.092	\$638,200	\$261
RETG	305	16 MARKET ST	1,028	\$106,290	\$68,643	0.085	\$811,400	\$789
RETG	305	62 CONGRESS ST	2,350	\$106,643	\$75,349	0.085	\$890,700	\$379
RETG	305	205 MARKET ST	4,254	\$259,589	\$159,036	0.092	\$1,728,700	\$406
RETG	305	206 MARKET ST	4,753	\$115,186	\$72,788	0.092	\$791,200	\$166
RETG	305	147 CONGRESS ST	9,840	\$273,048	\$171,837	0.092	\$1,867,800	\$190
RETG	305	104 CONGRESS ST	14,600	\$465,422	\$302,344	0.092	\$3,286,300	\$225
RETG	305	150 CONGRESS ST	16,197	\$322,881	\$220,162	0.092	\$2,393,100	\$148

RETG	302	180 ISLINGTON ST	3,544	\$107,773	\$59,518	0.099	\$598,800	\$169
RETG	302	240 ISLINGTON ST	2,360	\$87,808	\$55,781	0.092	\$606,300	\$257
RETG	304	100 ALBANY ST #C	1,296	\$36,612	\$23,549	0.092	\$256,000	\$198
RETG	302	601 ISLINGTON ST	12,244	\$219,601	\$120,536	0.099	\$1,212,600	\$99
ROOM	305A	278 CABOT ST	12	\$102,000	\$44,574	0.092	\$484,500	\$40,375
SELF	302	446 US ROUTE 1 BYP	18,406	\$254,900	\$151,011	0.088	\$1,716,000	\$93
SELF	301	330 WEST RD	28,800	\$297,888	\$157,080	0.095	\$1,653,500	\$57
SELF	301	70 HERITAGE AVE	116,580	\$1,063,074	\$541,178	0.095	\$5,696,600	\$49
SELF	301	100 HERITAGE AVE	131,200	\$1,125,696	\$584,518	0.095	\$6,152,800	\$47
SSTA	302	201 ISLINGTON ST	1	\$78,000	\$62,384	0.070	\$891,200	\$891,200
SSTA	302	1010 US ROUTE 1 BYP	1	\$93,600	\$73,437	0.070	\$1,049,100	\$49,100
SSTA	302	955 US ROUTE 1 BYP	1	\$55,250	\$44,189	0.070	\$631,300	\$631,300
SSTA	304	40 MIDDLE RD	1	\$46,750	\$36,955	0.070	\$527,900	\$527,900
SSTA	302	822 US ROUTE 1 BYP	1	\$65,000	\$51,987	0.070	\$742,700	\$742,700
SSTA	302	856 US ROUTE 1 BYP	1	\$78,000	\$62,384	0.070	\$891,200	\$891,200
SSTA	302	786 US ROUTE 1 BYP	1	\$55,250	\$44,189	0.070	\$631,300	\$631,300
SSTA	302	921 ISLINGTON ST	1	\$56,100	\$42,391	0.076	\$560,700	\$560,700
SSTA	303	1815 WOODBURY AVE	1	\$109,200	\$92,218	0.070	\$1,317,400	\$317,400
SSTA	303	1980 WOODBURY AVE	1	\$127,400	\$111,753	0.064	\$1,735,300	\$735,300
SSTA	302	766 LAFAYETTE RD	1	\$66,000	\$55,234	0.070	\$789,100	\$789,100
SSTA	302	803 LAFAYETTE RD	1	\$65,000	\$54,892	0.070	\$784,200	\$784,200
SSTA	302	1475 LAFAYETTE RD	1	\$170,000	\$149,121	0.060	\$2,506,200	\$506,200
SSTA	302	1166 GREENLAND RD	865	\$146,261	\$123,604	0.064	\$1,919,300	\$2,219
SSTA	302	2470 LAFAYETTE RD #1	1	\$109,200	\$95,789	0.070	\$1,368,400	\$368,400
SSTA	302	2975 LAFAYETTE RD	1	\$91,000	\$79,824	0.064	\$1,239,500	\$239,500
THET	402	2454 LAFAYETTE RD #2	29,532	\$372,103	\$307,804	0.077	\$3,997,500	\$135

## MODEL TESTING

Developing mass appraisal models consist of three (3) major components. They include

- 1) Model specification
- 2) Model calibration
- 3) Model testing

Model testing measures the performance of the reassessment and determines if models meet acceptable mass appraisal standards and produce fair and equitable values.

### Sales Ratio Study

A sales ratio study compares model developed values (the new assessments) to market values. Typically, the sale prices of open-market, arm's-length sales reflect market values. Sales ratio studies provide

objective indicators of assessment performance to help ensure accurate, uniform values.<sup>20</sup> A sales ratio study consists of an analysis of assessment level and uniformity.

Assessment level calculates the overall ratio of assessments in a jurisdiction. Additionally, assessment levels are calculated by various property classes, strata and groups within the jurisdiction. Each group or strata in well-calibrated models should be assessed at or near market value as required by professional standards, State of NH statutes, rules, and related requirements.

The three common measures of central tendency in ratio studies are the median, mean, and weighted mean. The (IAAO) Standard on Ratio Studies stipulates the median ratio should be between 0.90 and 1.10. This is the same level assessment established by the NH Assessing Standards Board (ASB).

Assessment uniformity relates to the consistency and equity of values. Uniformity is most commonly tested by analyzing the overall ratios, the coefficient of dispersion, and price related differential. These tests measure the consistency, accuracy, and uniformity of the new assessments. Consistency among property groups can be evaluated by comparing measures of central tendency calculated for each group.

The level of appraisal for each major group of properties should be within 5 percent of the overall level of the jurisdiction to determine whether it can be concluded from ratio data if the Standard has been met.

The level of assessment by property type, neighborhood, age and grade were reviewed.

### **Coefficient of Dispersion**

Coefficient of Dispersion (COD) measures assessment equity. The COD is the most widely used statistic to measure assessment uniformity. The COD is calculated by:

- 1.) Calculate the ratio of all qualified properties that have sold.
- 2.) Find the median ratio of the universe of property.
- 3.) Calculate the absolute difference between each ratio and the overall median.
- 4.) Sum the absolute differences.
- 5.) Divide by the sample size (this give the average absolute deviation).
- 6.) Divide by the median ratio.
- 7.) Multiply by 100.

Lower CODs indicate better the uniformity and equity. The NH Assessing Standards Board has established an acceptable guideline of 20.0 or less for the COD (insert the IAAO COD guideline table).

## **MODEL TESTING- RESIDENTIAL**

---

<sup>20</sup> International Association of Assessing Officers- Standard on Ratio Studies, April 2013

## Price Related Differential

Price Related Differential (PRD) measures the equity between high-value properties versus low-value properties. The PRD is calculated by dividing the mean ratio by the weighted mean ratio. PRDs between .98 and 1.03 indicate relative uniformity. PRDs greater than 1.03 suggest higher value properties may be assessed at lower ratios than lower value properties. Results less than .98 indicate lower value properties may be assessed at lower ratios than higher value properties.

The calculated PRD for all residential sales is 1.00. This is within the acceptable limit for mass appraisal and indicates the model is assessing low valued properties in relative uniformity with higher valued properties.

## 2018 Ratios

A ratio study using the 2018 assessment was completed. This analysis calculates various statistics using the 2018 assessments and current sales. This analysis is often viewed at the “starting line.” It calculates the ratios using the latest sales, but prior to new assessments.

The 2018 median ratio was 86.69%. This indicates values are increasing since the last revaluation. The overall 2018 COD is 11.8 and the overall 2018 PRD is 1.02. The COD for commercial and mobile homes is high, this is due to several outliers and limited sales data.

The following table shows the 2018 ratio study statistics.

TABLE 38: 2018 RATIO STUDY

Property Type	2018 Median Ratio	2018 Mean Ratio	2018 COD	2018 PDR	# of Sales
Com Condo	90.28%	91.67%	4.4	1.02	15
Commercial	71.30%	72.65%	26.1	1.00	6
Mobile Home	79.35%	77.67%	20.8	0.99	11
Res Condo	87.50%	84.78%	11.3	1.03	125
Residential	85.38%	85.41%	12.2	1.02	143
<b>Grand Total</b>	<b>86.59%</b>	<b>84.92%</b>	<b>11.8</b>	<b>1.02</b>	<b>300</b>

## Residential Neighborhoods

An analysis of level of assessment was performed by neighborhood. This analysis ensures neighborhoods are properly calibrated within the model.

Most neighborhoods have fewer than eight 8 sales. Therefore, the COD was calculated from the median ratio of all residential sales in all neighborhoods. This produces a slightly higher COD, but it allows for calculating the COD in each neighborhood.<sup>21</sup> The ratio study relied on sales from 4/1/2018 to 3/29/2019

The following tables show the statistics of all residential properties, except condos and mobile homes, in each neighborhood.

**TABLE 39: RESIDENTIAL NEIGHBORHOOD RATIOS**

Neighborhood	Average Assessment	Average Sale Price	Average Ratio	Median Ratio	# of Sales	COD
<b>101</b>	\$948,188	\$1,040,688	93.1%	95.6%	8	8.18
<b>102</b>	\$955,900	\$1,028,600	94.1%	95.8%	8	7.55
<b>103A</b>	\$819,400	\$928,300	89.9%	91.3%	3	7.87
<b>103B</b>	\$762,054	\$791,985	96.2%	99.4%	13	5.58
<b>104</b>	\$572,460	\$586,000	99.7%	97.3%	5	8.69
<b>105</b>	\$613,113	\$665,000	93.5%	93.2%	8	8.78
<b>108</b>	\$595,000	\$650,000	91.5%	91.5%	1	3.86
<b>109</b>	\$927,100	\$830,000	111.7%	111.7%	1	17.31
<b>111</b>	\$442,000	\$375,000	117.9%	117.9%	1	23.79
<b>112</b>	\$481,500	\$475,000	101.4%	101.4%	1	6.46
<b>113</b>	\$1,224,400	\$1,250,000	98.0%	98.0%	1	2.88
<b>114</b>	\$438,814	\$462,043	94.8%	94.7%	14	5.64
<b>115</b>	\$572,167	\$615,833	93.0%	92.8%	3	3.86
<b>117</b>	\$498,300	\$514,450	96.9%	96.9%	2	4.92
<b>118</b>	\$352,414	\$370,271	95.5%	96.2%	7	5.90
<b>119</b>	\$515,520	\$544,000	94.8%	95.1%	5	2.42
<b>120</b>	\$409,800	\$447,500	91.6%	91.6%	2	3.83
<b>121</b>	\$318,440	\$344,400	92.5%	91.9%	5	3.85
<b>123</b>	\$532,633	\$558,300	96.0%	93.1%	3	4.24
<b>125</b>	\$409,250	\$430,333	95.3%	93.9%	6	4.85
<b>127</b>	\$409,300	\$446,900	91.6%	91.6%	1	3.81
<b>128</b>	\$328,050	\$327,333	99.8%	96.8%	6	8.00
<b>129</b>	\$368,317	\$379,325	97.3%	97.7%	12	6.50
<b>130</b>	\$346,560	\$362,230	95.8%	95.6%	10	3.21
<b>131</b>	\$478,125	\$500,625	96.4%	94.1%	12	6.10

<sup>21</sup> The COD takes the absolute difference of each sales ratio from the median. In neighborhoods with only one sale, the median and sale ratio are the same, so the calculated COD would be 0. Using the overall median of all residential sales allows for a COD calculation in neighborhoods with one sale. Additionally, it shows how each neighborhood compares to the overall median. This calculation results a slightly higher COD when analyzing subsets.

Neighborhood	Average Assessment	Average Sale Price	Average Ratio	Median Ratio	# of Sales	COD
<b>132</b>	\$283,200	\$275,000	103.0%	103.0%	1	8.16
<b>133</b>	\$360,800	\$364,700	99.0%	96.4%	5	6.77
<b>Grand Total</b>	<b>\$538,116</b>	<b>\$567,270</b>	<b>95.9%</b>	<b>95.6%</b>	<b>144</b>	<b>6.18</b>

The following table shows the calculated statistics, by neighborhood, of all residential condo properties.

Table 40: Residential Condo Ratios

Neighborhood	Average Assessment	Average Sale Price	Average Ratio	Median Ratio	# of Sales	COD
<b>201</b>	\$555,000	\$583,167	94.3%	95.8%	6	3.32
<b>204</b>	\$539,587	\$560,351	96.2%	95.9%	68	3.16
<b>206</b>	\$451,890	\$488,780	92.8%	92.5%	10	2.82
<b>207</b>	\$621,450	\$656,850	94.6%	94.6%	2	2.95
<b>210</b>	\$342,700	\$365,000	93.8%	93.3%	3	3.46
<b>212</b>	\$499,500	\$535,000	93.4%	93.4%	1	1.94
<b>213</b>	\$1,245,433	\$1,289,333	96.5%	97.1%	3	2.21
<b>215</b>	\$173,507	\$181,971	95.4%	95.2%	14	2.01
<b>216</b>	\$227,282	\$231,627	98.3%	96.2%	11	3.34
<b>217</b>	\$224,200	\$235,000	95.4%	95.2%	3	0.55
<b>219</b>	\$878,050	\$937,217	93.4%	93.2%	12	3.54
<b>220</b>	\$314,725	\$331,425	94.7%	93.7%	8	4.65
<b>222</b>	\$289,700	\$301,450	96.1%	96.1%	2	0.94
<b>223</b>	\$276,900	\$295,000	93.9%	93.9%	1	1.42
<b>224</b>	\$273,000	\$272,967	100.5%	95.9%	3	7.57
<b>302</b>	\$353,150	\$387,500	90.5%	90.5%	2	7.24
<b>305</b>	\$639,600	\$683,776	93.6%	93.2%	25	4.32
<b>Grand Total</b>	<b>\$506,180</b>	<b>\$532,110</b>	<b>95.3%</b>	<b>95.2%</b>	<b>174</b>	<b>3.35</b>

The following table shows the calculated statistics, by neighborhood, of all residential mobile home properties.

TABLE 7: Residential Mobile Home Ratios

Neighborhood	Average Assessment	Average Sale Price	Average Ratio	Median Ratio	# of Sales	COD
<b>401</b>	\$34,750	\$38,750	87.4%	87.4%	2	11.86
<b>403</b>	\$189,444	\$204,333	95.7%	94.9%	9	9.20
<b>Grand Total</b>	<b>\$161,318</b>	<b>\$174,227</b>	<b>94.2%</b>	<b>94.9%</b>	<b>11</b>	<b>9.68</b>

## Neighborhood Analysis Conclusion

As shown on the above tables, variations in statistics by neighborhood are well within acceptable standards for mass appraisal.

## Residential Property Style

The next analysis shows the level of assessment by style. This analysis ensures property styles are properly calibrated within the model. The following table shows the calculated statistics by style of all residential properties, except condos and mobile homes.

TABLE 42: Residential Style Ratios

Style	Average Assessment	Average Sale Price	Average Ratio	Median Ratio	# of Sales	COD
<b>2 Unit</b>	\$567,933	\$574,967	98.9%	99.3%	3	3.89
<b>3 Unit</b>	\$665,200	\$675,000	98.5%	98.5%	1	3.50
<b>Antique</b>	\$878,611	\$956,478	94.1%	96.7%	9	5.70
<b>Bungalow</b>	\$492,550	\$531,225	94.4%	95.9%	4	7.35
<b>Camp</b>	\$276,100	\$250,000	110.4%	110.4%	1	15.99
<b>Cape Cod</b>	\$568,968	\$593,888	95.5%	92.9%	25	5.77
<b>Colonial</b>	\$568,228	\$585,161	97.9%	96.6%	18	5.01
<b>Conventional</b>	\$601,800	\$641,088	94.4%	93.1%	33	6.98
<b>Garrison</b>	\$596,200	\$640,000	93.1%	93.1%	2	4.50
<b>Modern/Contemp</b>	\$678,000	\$685,000	99.0%	99.0%	1	3.95
<b>Raised Ranch</b>	\$397,375	\$402,800	98.7%	99.5%	4	5.37
<b>Ranch</b>	\$369,219	\$381,590	96.4%	95.4%	31	6.18
<b>Townhouse/Row</b>	\$510,770	\$576,230	93.3%	95.6%	10	5.57
<b>Grand Total</b>	<b>\$541,182</b>	<b>\$571,035</b>	<b>95.8%</b>	<b>95.6%</b>	<b>142</b>	<b>6.05</b>

The following table shows the calculated statistics by style of all residential condos.

TABLE 43: Residential Condo Style Ratios

Neighborhood	Average Assessment	Average Sale Price	Average Ratio	Median Ratio	# of Sales	COD
<b>Condominium</b>	\$938,267	\$999,933	93.4%	94.2%	6	4.68
<b>Garden End</b>	\$475,825	\$496,449	96.1%	96.1%	65	3.05
<b>Garden Int</b>	\$428,541	\$445,582	96.5%	95.7%	22	4.40
<b>House Conv 1FL</b>	\$413,083	\$441,017	93.3%	93.8%	18	3.96

Neighborhood	Average Assessment	Average Sale Price	Average Ratio	Median Ratio	# of Sales	COD
<b>House Conv 1FL+</b>	\$521,938	\$554,310	94.1%	94.9%	21	2.33
<b>Townhouse End</b>	\$592,808	\$622,852	94.9%	95.3%	25	2.97
<b>Townhouse Int</b>	\$471,869	\$494,723	96.0%	95.2%	13	4.06
<b>Townhouse/Row</b>	\$684,650	\$733,500	93.1%	92.8%	4	3.06
<b>Grand Total</b>	<b>\$506,180</b>	<b>\$532,110</b>	<b>95.3%</b>	<b>95.2%</b>	<b>174</b>	<b>3.35</b>

The following table shows the calculated statistics by style of all residential mobile homes.

TABLE 44: Residential Model Home Style Ratios

Neighborhood	Average Assessment	Average Sale Price	Average Ratio	Median Ratio	# of Sales	COD
<b>Double Wide MH</b>	\$227,314	\$247,714	92.2%	94.9%	7	6.18
<b>Mobile Home</b>	\$45,825	\$45,625	97.6%	93.9%	4	15.81
<b>Grand Total</b>	<b>\$161,318</b>	<b>\$174,227</b>	<b>94.2%</b>	<b>94.9%</b>	<b>11</b>	<b>9.68</b>

### Style Analysis Conclusion

As shown on the above tables, variation in statistics by style are well within acceptable standards for mass appraisal.

### Residential Property Neighborhood and Style

The next analysis combines style and neighborhood. This analysis ensures the combination of style and neighborhoods are properly calibrated within the model.

The following table shows the calculated statistics by style within every neighborhood of all residential properties, except condos and mobile homes.

TABLE 45: Residential Neighborhood/Style Ratios

Neighborhood/ Style	Average Assessment	Average Sale Price	Average Ratio	Median Ratio	# of Sales	COD
<b>101</b>	<b>\$948,188</b>	<b>\$1,040,688</b>	<b>93.1%</b>	<b>95.6%</b>	<b>8</b>	<b>8.18</b>
Antique	\$1,014,850	\$1,159,375	90.5%	94.0%	4	9.80
Cape Cod	\$874,750	\$944,500	92.1%	92.1%	2	6.53
Colonial	\$881,000	\$949,000	92.8%	92.8%	1	2.50
Conventional	\$895,600	\$850,000	105.4%	105.4%	1	10.66
<b>102</b>	<b>\$955,900</b>	<b>\$1,028,600</b>	<b>94.1%</b>	<b>95.8%</b>	<b>8</b>	<b>7.55</b>
2 Unit	\$593,500	\$620,000	95.7%	95.7%	1	0.54
Antique	\$807,133	\$844,600	95.5%	95.8%	3	1.20



Neighborhood/ Style	Average Assessment	Average Sale Price	Average Ratio	Median Ratio	# of Sales	COD
Cape Cod	\$1,421,400	\$1,285,000	110.6%	110.6%	1	16.18
Townhouse/Row	\$1,070,300	\$1,263,333	86.6%	82.4%	3	13.36
<b>103A</b>	<b>\$819,400</b>	<b>\$928,300</b>	<b>89.9%</b>	<b>91.3%</b>	<b>3</b>	<b>7.87</b>
Conventional	\$819,400	\$928,300	89.9%	91.3%	3	7.87
<b>103B</b>	<b>\$762,054</b>	<b>\$791,985</b>	<b>96.2%</b>	<b>99.4%</b>	<b>13</b>	<b>5.58</b>
2 Unit	\$549,000	\$539,900	101.7%	101.7%	1	6.80
Bungalow	\$537,850	\$592,450	91.4%	91.4%	2	8.89
Cape Cod	\$685,600	\$753,000	91.0%	91.0%	1	4.37
Colonial	\$764,700	\$820,000	93.3%	93.3%	1	2.06
Conventional	\$853,963	\$874,750	97.7%	99.5%	8	5.19
<b>104</b>	<b>\$572,460</b>	<b>\$586,000</b>	<b>99.7%</b>	<b>97.3%</b>	<b>5</b>	<b>8.69</b>
Bungalow	\$611,300	\$665,000	91.9%	91.9%	1	3.45
Cape Cod	\$575,050	\$612,500	94.4%	94.4%	2	5.69
Colonial	\$463,300	\$385,000	120.3%	120.3%	1	26.39
Garrison	\$637,600	\$655,000	97.3%	97.3%	1	2.24
<b>105</b>	<b>\$613,113</b>	<b>\$665,000</b>	<b>93.5%</b>	<b>93.2%</b>	<b>8</b>	<b>8.78</b>
3 Unit	\$665,200	\$675,000	98.5%	98.5%	1	3.50
Antique	\$731,400	\$736,000	99.4%	99.4%	1	4.37
Conventional	\$584,717	\$651,500	91.7%	86.5%	6	10.40
<b>108</b>	<b>\$595,000</b>	<b>\$650,000</b>	<b>91.5%</b>	<b>91.5%</b>	<b>1</b>	<b>3.86</b>
Conventional	\$595,000	\$650,000	91.5%	91.5%	1	3.86
<b>109</b>	<b>\$927,100</b>	<b>\$830,000</b>	<b>111.7%</b>	<b>111.7%</b>	<b>1</b>	<b>17.31</b>
Ranch	\$927,100	\$830,000	111.7%	111.7%	1	17.31
<b>112</b>	<b>\$481,500</b>	<b>\$475,000</b>	<b>101.4%</b>	<b>101.4%</b>	<b>1</b>	<b>6.46</b>
Ranch	\$481,500	\$475,000	101.4%	101.4%	1	6.46
<b>113</b>	<b>\$1,224,400</b>	<b>\$1,250,000</b>	<b>98.0%</b>	<b>98.0%</b>	<b>1</b>	<b>2.88</b>
Colonial	\$1,224,400	\$1,250,000	98.0%	98.0%	1	2.88
<b>114</b>	<b>\$438,814</b>	<b>\$462,043</b>	<b>94.8%</b>	<b>94.7%</b>	<b>14</b>	<b>5.64</b>
Cape Cod	\$464,367	\$477,400	97.5%	97.0%	6	4.85
Modern/Contemp	\$678,000	\$685,000	99.0%	99.0%	1	3.95
Raised Ranch	\$369,800	\$356,200	103.8%	103.8%	1	9.04
Ranch	\$384,900	\$427,167	89.9%	89.8%	6	6.16
<b>115</b>	<b>\$572,167</b>	<b>\$615,833</b>	<b>93.0%</b>	<b>92.8%</b>	<b>3</b>	<b>3.86</b>
Colonial	\$580,850	\$611,250	95.1%	95.1%	2	2.41
Garrison	\$554,800	\$625,000	88.8%	88.8%	1	6.77
<b>117</b>	<b>\$498,300</b>	<b>\$514,450</b>	<b>96.9%</b>	<b>96.9%</b>	<b>2</b>	<b>4.92</b>
Colonial	\$498,300	\$514,450	96.9%	96.9%	2	4.92
<b>118</b>	<b>\$352,414</b>	<b>\$370,271</b>	<b>95.5%</b>	<b>96.2%</b>	<b>7</b>	<b>5.90</b>
Colonial	\$415,133	\$425,000	98.1%	100.5%	3	5.16
Ranch	\$305,375	\$329,225	93.6%	92.0%	4	6.46

Neighborhood/ Style	Average Assessment	Average Sale Price	Average Ratio	Median Ratio	# of Sales	COD
<b>119</b>	<b>\$515,520</b>	<b>\$544,000</b>	<b>94.8%</b>	<b>95.1%</b>	<b>5</b>	<b>2.42</b>
Cape Cod	\$491,500	\$530,000	92.7%	92.7%	1	2.60
Colonial	\$521,525	\$547,500	95.3%	95.5%	4	2.38
<b>120</b>	<b>\$409,800</b>	<b>\$447,500</b>	<b>91.6%</b>	<b>91.6%</b>	<b>2</b>	<b>3.83</b>
Cape Cod	\$398,700	\$445,000	89.6%	89.6%	1	5.90
Ranch	\$420,900	\$450,000	93.5%	93.5%	1	1.76
<b>121</b>	<b>\$318,440</b>	<b>\$344,400</b>	<b>92.5%</b>	<b>91.9%</b>	<b>5</b>	<b>3.85</b>
Cape Cod	\$364,000	\$373,000	97.6%	97.6%	1	2.49
Ranch	\$307,050	\$337,250	91.2%	91.0%	4	4.19
<b>123</b>	<b>\$532,633</b>	<b>\$558,300</b>	<b>96.0%</b>	<b>93.1%</b>	<b>3</b>	<b>4.24</b>
Cape Cod	\$601,050	\$624,950	97.5%	97.5%	2	5.27
Conventional	\$395,800	\$425,000	93.1%	93.1%	1	2.19
<b>125</b>	<b>\$409,250</b>	<b>\$430,333</b>	<b>95.3%</b>	<b>93.9%</b>	<b>6</b>	<b>4.85</b>
Cape Cod	\$428,650	\$475,500	90.0%	90.0%	2	5.52
Colonial	\$518,200	\$502,000	103.2%	103.2%	1	8.42
Conventional	\$393,500	\$420,000	93.7%	93.7%	2	1.58
Ranch	\$293,000	\$289,000	101.4%	101.4%	1	6.48
<b>127</b>	<b>\$409,300</b>	<b>\$446,900</b>	<b>91.6%</b>	<b>91.6%</b>	<b>1</b>	<b>3.81</b>
Cape Cod	\$409,300	\$446,900	91.6%	91.6%	1	3.81
<b>128</b>	<b>\$353,900</b>	<b>\$347,800</b>	<b>102.0%</b>	<b>98.2%</b>	<b>5</b>	<b>8.15</b>
Camp	\$276,100	\$250,000	110.4%	110.4%	1	15.99
Ranch	\$373,350	\$372,250	99.9%	96.8%	4	6.19
<b>129</b>	<b>\$368,317</b>	<b>\$379,325</b>	<b>97.3%</b>	<b>97.7%</b>	<b>12</b>	<b>6.50</b>
Cape Cod	\$438,800	\$410,000	107.0%	107.0%	1	12.40
Conventional	\$344,267	\$395,833	87.2%	83.9%	3	8.38
Raised Ranch	\$437,450	\$440,000	99.5%	99.5%	2	4.51
Ranch	\$345,550	\$345,733	100.0%	97.9%	6	5.23
<b>130</b>	<b>\$346,560</b>	<b>\$362,230</b>	<b>95.8%</b>	<b>95.6%</b>	<b>10</b>	<b>3.21</b>
Cape Cod	\$522,933	\$550,000	94.8%	91.5%	3	5.50
Townhouse/Row	\$270,971	\$281,757	96.2%	95.8%	7	2.23
<b>131</b>	<b>\$478,125</b>	<b>\$500,625</b>	<b>96.4%</b>	<b>94.1%</b>	<b>12</b>	<b>6.10</b>
2 Unit	\$561,300	\$565,000	99.3%	99.3%	1	4.34
Antique	\$695,300	\$701,000	99.2%	99.2%	1	4.17
Cape Cod	\$700,900	\$775,000	90.4%	90.4%	1	5.01
Colonial	\$425,000	\$455,000	93.4%	93.4%	1	1.90
Conventional	\$419,375	\$438,938	96.8%	94.0%	8	7.21
<b>132</b>	<b>\$283,200</b>	<b>\$275,000</b>	<b>103.0%</b>	<b>103.0%</b>	<b>1</b>	<b>8.16</b>
Bungalow	\$283,200	\$275,000	103.0%	103.0%	1	8.16
<b>133</b>	<b>\$360,800</b>	<b>\$364,700</b>	<b>99.0%</b>	<b>96.4%</b>	<b>5</b>	<b>6.77</b>
Colonial	\$461,700	\$455,500	101.4%	101.4%	1	6.46

Neighborhood/ Style	Average Assessment	Average Sale Price	Average Ratio	Median Ratio	# of Sales	COD
Raised Ranch	\$344,800	\$375,000	91.9%	91.9%	1	3.43
Ranch	\$332,500	\$331,000	100.6%	96.4%	3	7.99
<b>Grand Total</b>	<b>\$541,182</b>	<b>\$571,035</b>	<b>95.8%</b>	<b>95.6%</b>	<b>142</b>	<b>6.05</b>

The following table shows the calculated statistics by style within every neighborhood of all residential condo properties.

TABLE 46: Residential Condo Neighborhood/Style Ratios

Neighborhood/Style	Average Assessment	Average Sale Price	Average Ratio	Median Ratio	# of Sales	COD
<b>201</b>	<b>\$555,000</b>	<b>\$583,167</b>	<b>94.3%</b>	<b>95.8%</b>	<b>6</b>	<b>3.32</b>
Garden End	\$376,800	\$415,000	90.8%	90.8%	1	4.64
Garden Int	\$412,600	\$419,000	98.5%	98.5%	1	3.42
House Conv 1FL	\$393,750	\$428,500	91.3%	91.3%	2	4.09
Townhouse End	\$876,550	\$904,000	97.0%	97.0%	2	1.84
<b>204</b>	<b>\$539,587</b>	<b>\$560,351</b>	<b>96.2%</b>	<b>95.9%</b>	<b>68</b>	<b>3.16</b>
Garden End	\$646,662	\$666,431	97.0%	96.5%	26	3.42
Garden Int	\$425,100	\$438,600	97.1%	95.7%	18	4.45
House Conv 1FL	\$353,414	\$373,914	94.4%	94.1%	7	1.99
House Conv 1FL+	\$568,140	\$598,800	94.9%	95.9%	10	1.83
Townhouse End	\$425,850	\$462,250	92.7%	92.7%	2	4.48
Townhouse Int	\$567,867	\$589,333	96.0%	95.8%	3	0.84
Townhouse/Row	\$758,150	\$792,000	95.7%	95.7%	2	1.21
<b>206</b>	<b>\$451,890</b>	<b>\$488,780</b>	<b>92.8%</b>	<b>92.5%</b>	<b>10</b>	<b>2.82</b>
House Conv 1FL	\$343,800	\$364,500	94.3%	94.3%	2	1.58
House Conv 1FL+	\$434,833	\$468,133	93.0%	93.0%	6	2.54
Townhouse/Row	\$611,150	\$675,000	90.5%	90.5%	2	4.91
<b>207</b>	<b>\$621,450</b>	<b>\$656,850</b>	<b>94.6%</b>	<b>94.6%</b>	<b>2</b>	<b>2.95</b>
House Conv 1FL+	\$621,450	\$656,850	94.6%	94.6%	2	2.95
<b>210</b>	<b>\$342,700</b>	<b>\$365,000</b>	<b>93.8%</b>	<b>93.3%</b>	<b>3</b>	<b>3.46</b>
Garden End	\$342,800	\$357,500	95.7%	95.7%	2	2.52
Townhouse Int	\$342,500	\$380,000	90.1%	90.1%	1	5.34
<b>212</b>	<b>\$499,500</b>	<b>\$535,000</b>	<b>93.4%</b>	<b>93.4%</b>	<b>1</b>	<b>1.94</b>
Garden End	\$499,500	\$535,000	93.4%	93.4%	1	1.94
<b>213</b>	<b>\$1,245,433</b>	<b>\$1,289,333</b>	<b>96.5%</b>	<b>97.1%</b>	<b>3</b>	<b>2.21</b>
Townhouse End	\$1,304,300	\$1,334,000	97.7%	97.7%	2	2.66

Neighborhood/Style	Average Assessment	Average Sale Price	Average Ratio	Median Ratio	# of Sales	COD
Townhouse Int	\$1,127,700	\$1,200,000	94.0%	94.0%	1	1.30
<b>215</b>	<b>\$173,507</b>	<b>\$181,971</b>	<b>95.4%</b>	<b>95.2%</b>	<b>14</b>	<b>2.01</b>
Garden End	\$173,507	\$181,971	95.4%	95.2%	14	2.01
<b>216</b>	<b>\$227,282</b>	<b>\$231,627</b>	<b>98.3%</b>	<b>96.2%</b>	<b>11</b>	<b>3.34</b>
Garden End	\$227,282	\$231,627	98.3%	96.2%	11	3.34
<b>217</b>	<b>\$224,200</b>	<b>\$235,000</b>	<b>95.4%</b>	<b>95.2%</b>	<b>3</b>	<b>0.55</b>
Townhouse End	\$220,800	\$232,500	95.0%	95.0%	2	0.28
Townhouse Int	\$231,000	\$240,000	96.3%	96.3%	1	1.09
<b>219</b>	<b>\$878,050</b>	<b>\$937,217</b>	<b>93.4%</b>	<b>93.2%</b>	<b>12</b>	<b>3.54</b>
Condominium	\$938,267	\$999,933	93.4%	94.2%	6	4.68
House Conv 1FL+	\$551,300	\$603,000	91.4%	91.4%	1	3.98
Townhouse End	\$914,100	\$977,125	93.4%	92.8%	4	2.59
Townhouse Int	\$699,300	\$735,500	95.1%	95.1%	1	0.14
<b>220</b>	<b>\$314,725</b>	<b>\$331,425</b>	<b>94.7%</b>	<b>93.7%</b>	<b>8</b>	<b>4.65</b>
Townhouse End	\$314,183	\$329,567	94.9%	93.7%	6	5.25
Townhouse Int	\$316,350	\$337,000	94.1%	94.1%	2	2.83
<b>222</b>	<b>\$289,700</b>	<b>\$301,450</b>	<b>96.1%</b>	<b>96.1%</b>	<b>2</b>	<b>0.94</b>
Townhouse End	\$289,700	\$301,450	96.1%	96.1%	2	0.94
<b>223</b>	<b>\$276,900</b>	<b>\$295,000</b>	<b>93.9%</b>	<b>93.9%</b>	<b>1</b>	<b>1.42</b>
Townhouse End	\$276,900	\$295,000	93.9%	93.9%	1	1.42
<b>224</b>	<b>\$273,000</b>	<b>\$272,967</b>	<b>100.5%</b>	<b>95.9%</b>	<b>3</b>	<b>7.57</b>
Townhouse End	\$265,700	\$277,000	95.9%	95.9%	1	0.74
Townhouse Int	\$276,650	\$270,950	102.8%	102.8%	2	10.98
<b>302</b>	<b>\$353,150</b>	<b>\$387,500</b>	<b>90.5%</b>	<b>90.5%</b>	<b>2</b>	<b>7.24</b>
House Conv 1FL	\$292,500	\$350,000	83.6%	83.6%	1	12.23
House Conv 1FL+	\$413,800	\$425,000	97.4%	97.4%	1	2.26
<b>305</b>	<b>\$639,600</b>	<b>\$683,776</b>	<b>93.6%</b>	<b>93.2%</b>	<b>25</b>	<b>4.32</b>
Garden End	\$762,430	\$818,150	93.5%	93.0%	10	3.30
Garden Int	\$454,500	\$496,333	91.9%	90.7%	3	4.43
House Conv 1FL	\$532,333	\$564,150	93.9%	93.5%	6	5.62
House Conv 1FL+	\$462,300	\$502,000	92.1%	92.1%	1	3.28
Townhouse End	\$833,900	\$881,667	94.2%	93.8%	3	3.27
Townhouse Int	\$422,100	\$446,000	95.2%	95.2%	2	7.40
<b>Grand Total</b>	<b>\$506,180</b>	<b>\$532,110</b>	<b>95.3%</b>	<b>95.2%</b>	<b>174</b>	<b>3.35</b>

The following table shows the calculated statistics by style within every neighborhood of all residential mobile home properties.

Table 47: Residential Mobile Home Neighborhood/Style Ratios

Neighborhood/Style	Average Assessment	Average Sale Price	Average Ratio	Median Ratio	# of Sales	COD
<b>401</b>	<b>\$34,750</b>	<b>\$38,750</b>	<b>87.4%</b>	<b>87.4%</b>	<b>2</b>	<b>11.86</b>
Mobile Home	\$34,750	\$38,750	87.4%	87.4%	2	11.86
<b>403</b>	<b>\$189,444</b>	<b>\$204,333</b>	<b>95.7%</b>	<b>94.9%</b>	<b>9</b>	<b>9.20</b>
Double Wide MH	\$227,314	\$247,714	92.2%	94.9%	7	6.18
Mobile Home	\$56,900	\$52,500	107.8%	107.8%	2	19.77
<b>Grand Total</b>	<b>\$161,318</b>	<b>\$174,227</b>	<b>94.2%</b>	<b>94.9%</b>	<b>11</b>	<b>9.68</b>

### Neighborhood Combined with Style Analysis Conclusion

As shown on the above tables, variation in ratios by neighborhood combined with style are well within acceptable standards for mass appraisal.

### Grade

The next feature analyzed was property grade. This analysis ensures the grades are properly calibrated within the model.

The following table shows the calculated statistics by grade of all residential properties.

Table 48: Residential Grade Ratios

Grade	Average Assessment	Average Sale Price	Average Ratio	Median Ratio	# of Sales	COD
<b>A</b>	\$692,179	\$739,889	94.2%	96.5%	19	4.88
<b>A-</b>	\$887,763	\$934,594	95.0%	96.4%	16	4.12
<b>A+</b>	\$1,131,020	\$1,205,500	94.4%	92.8%	5	4.65
<b>B</b>	\$484,873	\$504,360	96.3%	95.8%	67	4.49
<b>B-</b>	\$445,795	\$475,054	94.0%	92.8%	41	4.72
<b>B+</b>	\$652,049	\$693,714	94.0%	94.0%	63	4.37
<b>C</b>	\$287,085	\$298,725	95.3%	95.7%	48	4.46
<b>C-</b>	\$312,800	\$325,667	96.4%	94.3%	3	4.18
<b>C+</b>	\$363,192	\$372,076	97.7%	96.3%	59	5.11
<b>D-</b>	\$276,100	\$250,000	110.4%	110.4%	1	15.99
<b>D+</b>	\$337,500	\$320,000	105.5%	105.5%	1	10.77
<b>X-</b>	\$1,270,875	\$1,435,000	88.9%	89.2%	4	10.24
<b>Total</b>	<b>\$509,779</b>	<b>\$536,974</b>	<b>95.5%</b>	<b>95.3%</b>	<b>327</b>	<b>4.73</b>

## Grade Conclusion

As shown on the above table, variation in statistics by grade are well within acceptable standards for mass appraisal.

## Condition

The next characteristic analyzed was property condition. This analysis ensures condition is properly calibrated within the model.

The following table shows the calculated statistics based on the condition of all residential properties.

Table 49: Residential Condition Ratios

Condition	Average Assessment	Average Sale Price	Average Ratio	Median Ratio	# of Sales	COD
AV	\$511,679	\$535,062	96.1%	95.7%	117	5.08
CR	\$1,040,060	\$1,222,300	86.4%	88.3%	5	9.90
EX	\$605,379	\$634,764	94.9%	95.5%	58	4.08
GD	\$406,533	\$431,155	95.4%	95.3%	64	4.21
MR	\$577,900	\$614,400	94.1%	94.1%	2	1.14
VG	\$480,226	\$505,096	95.3%	94.8%	80	4.73
VP	\$927,100	\$830,000	111.7%	111.7%	1	17.31
<b>Total</b>	<b>\$509,779</b>	<b>\$536,974</b>	<b>95.5%</b>	<b>95.3%</b>	<b>327</b>	<b>4.73</b>

## Condition Conclusion

As shown on the above table, variation in statistics by condition are well within acceptable standards for mass appraisal.

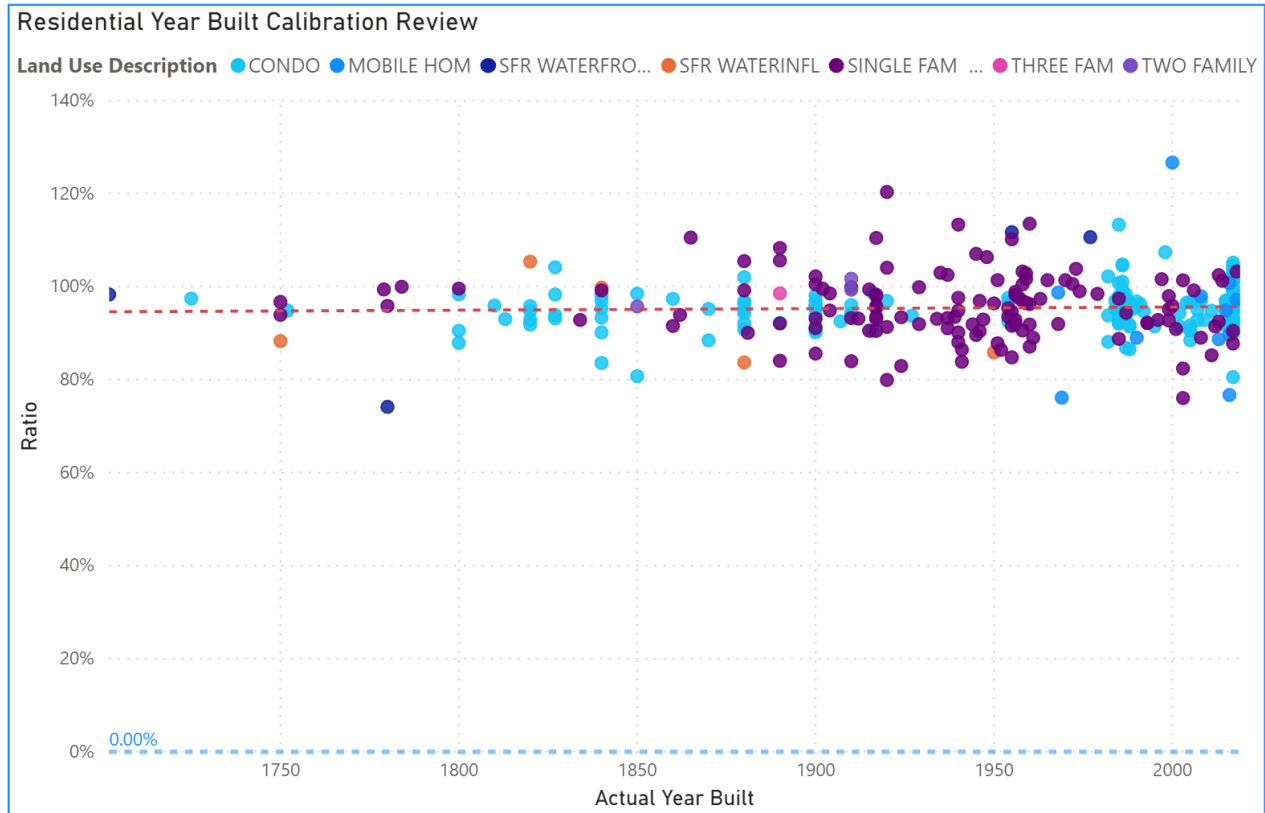
## Year Built

The characteristic analyzed was year built, or age. Age is important for validating depreciation rates specified in the model. With properly calibrated models, there should be relative uniformity within the ratios regardless of differences in age.

In the Vision model, the actual year built is converted to an effective year built based on the observed condition of the improvements. A significant variation in ratios indicate flaws in the depreciation curve. Properly calibrated models will have a relatively flat ratio trend line. A flat trend line ensures older properties are assessed at the same level as newer properties.

The following chart shows ratios by actual year built of all residential properties. The red line is a linear trend line.

Chart 7: Residential Actual Year Build Ratios



### Age Conclusion

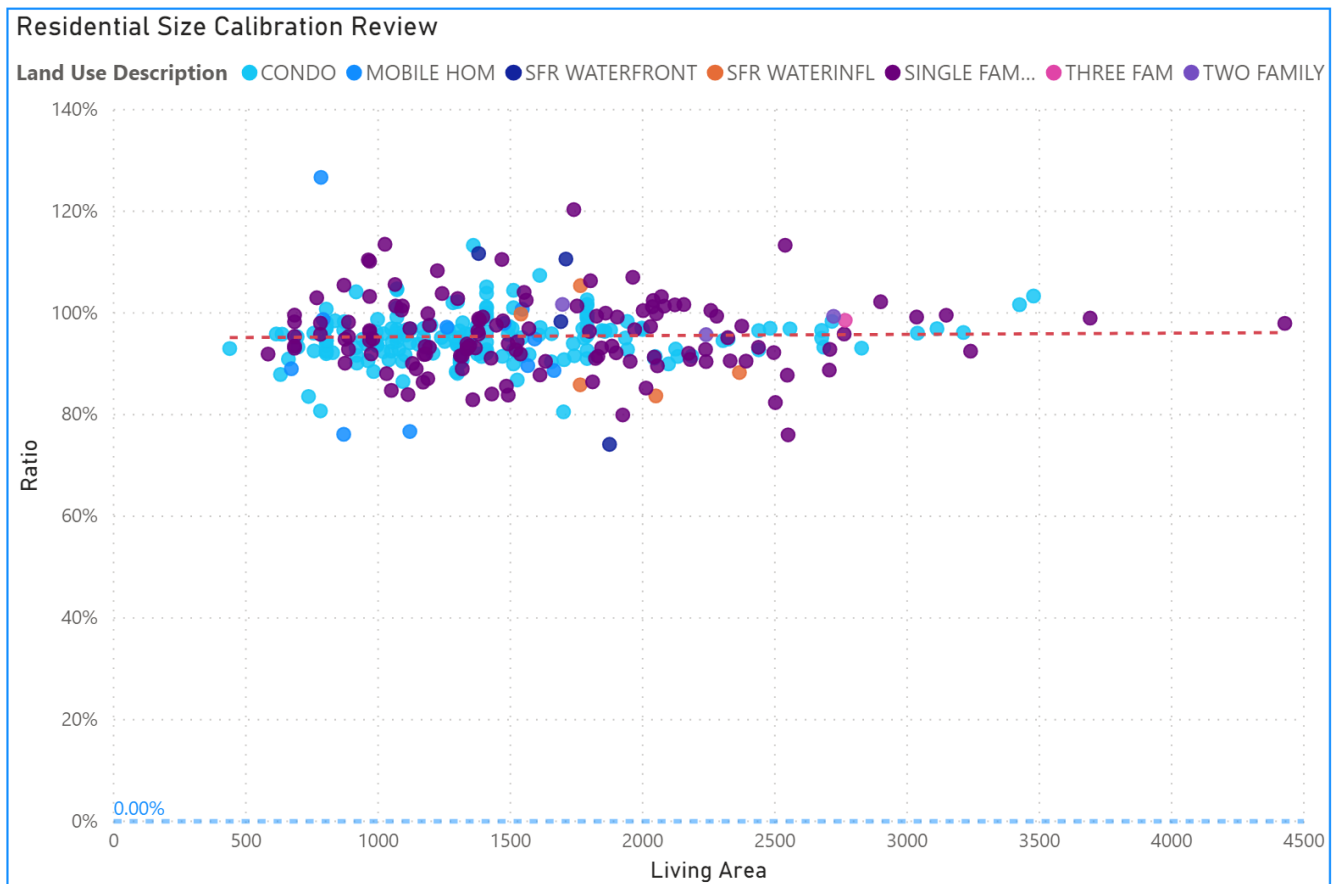
As shown on the above chart, newer and older properties have relatively uniform ratios, regardless of differences in age. A flat trend line as shown above demonstrates acceptable depreciation calibration rates.

### Size

The next level of assessment analyzed was size (living area). Size is important in validating building curves specified in the model. With properly calibrated models, there should be relative uniformity within the ratios regardless of differences in size. A significant variation in ratios indicate flaws in the building (size) curve. Properly calibrated models will have a relatively flat ratio trend line. A flat trend line ensures smaller properties are assessed at the same level compared with larger properties.

The following chart shows average ratio by living area for all residential properties. The red line is a linear trend line.

Chart 8: Residential Living Area Charts



### Size Conclusion

As shown on the above chart, smaller and larger properties have similar ratios regardless of differences in size. A flat trend line like the one above indicates acceptable size-curve calibration rates.

### Review of Ratios Citywide

The next level of assessment analyzed is ratios throughout the City. Analysis of ratios throughout the City are important in validating locational adjustments specified in the model and identifying geographical inequity. With properly calibrated models, there should be relative uniformity within the ratios throughout the City. High and low ratios (outliers) should be random and without geographical concentration.

The following map shows ratio grouping across the entire city.



Chart 9: Residential Ratio Map

Ratio (groups) ● 100 - 105% ● 105-110% ● 80 - 85% ● 85-90% ● 90-95% ● 95-100% ● Over 110% ● Under 80%

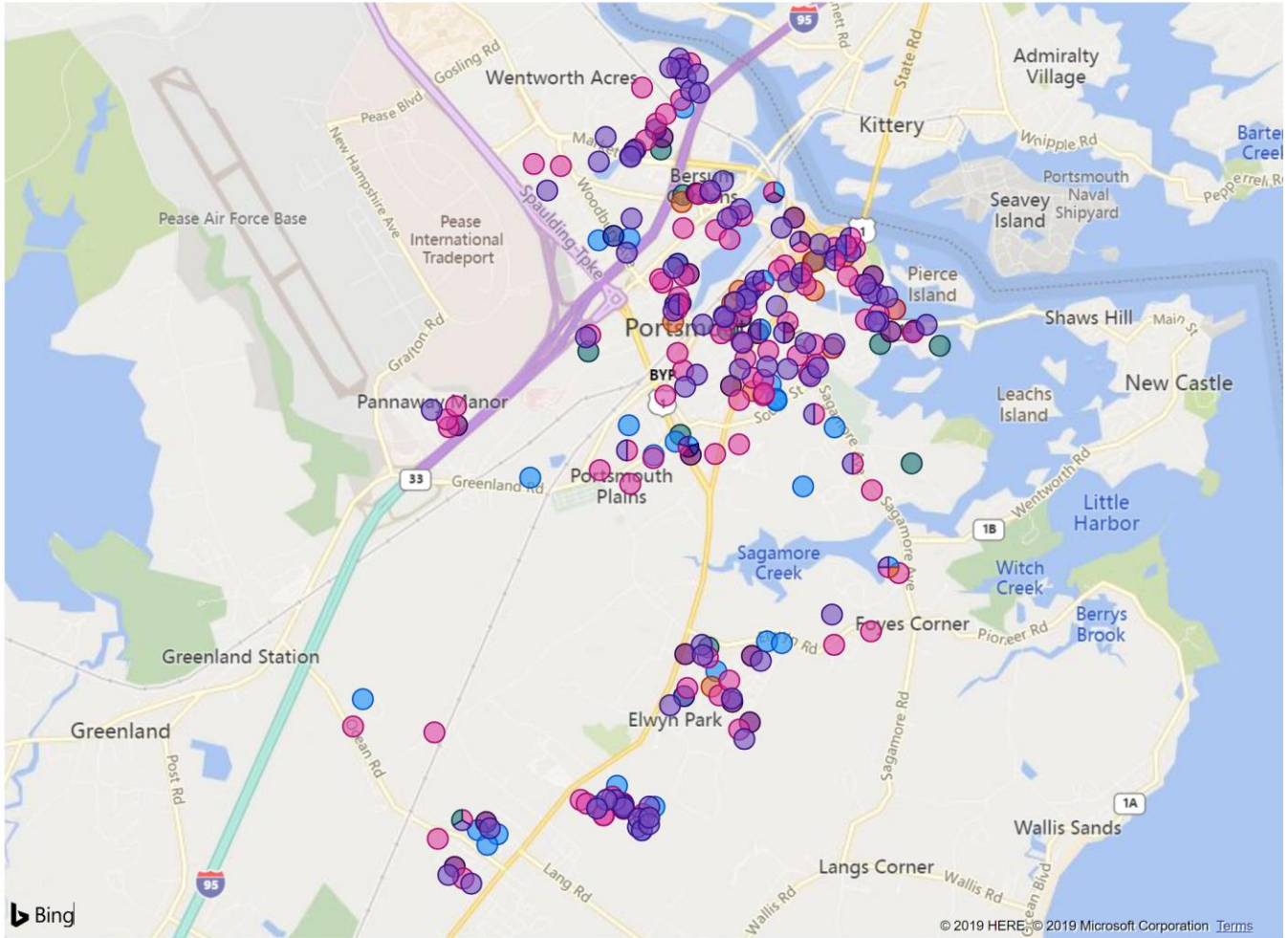
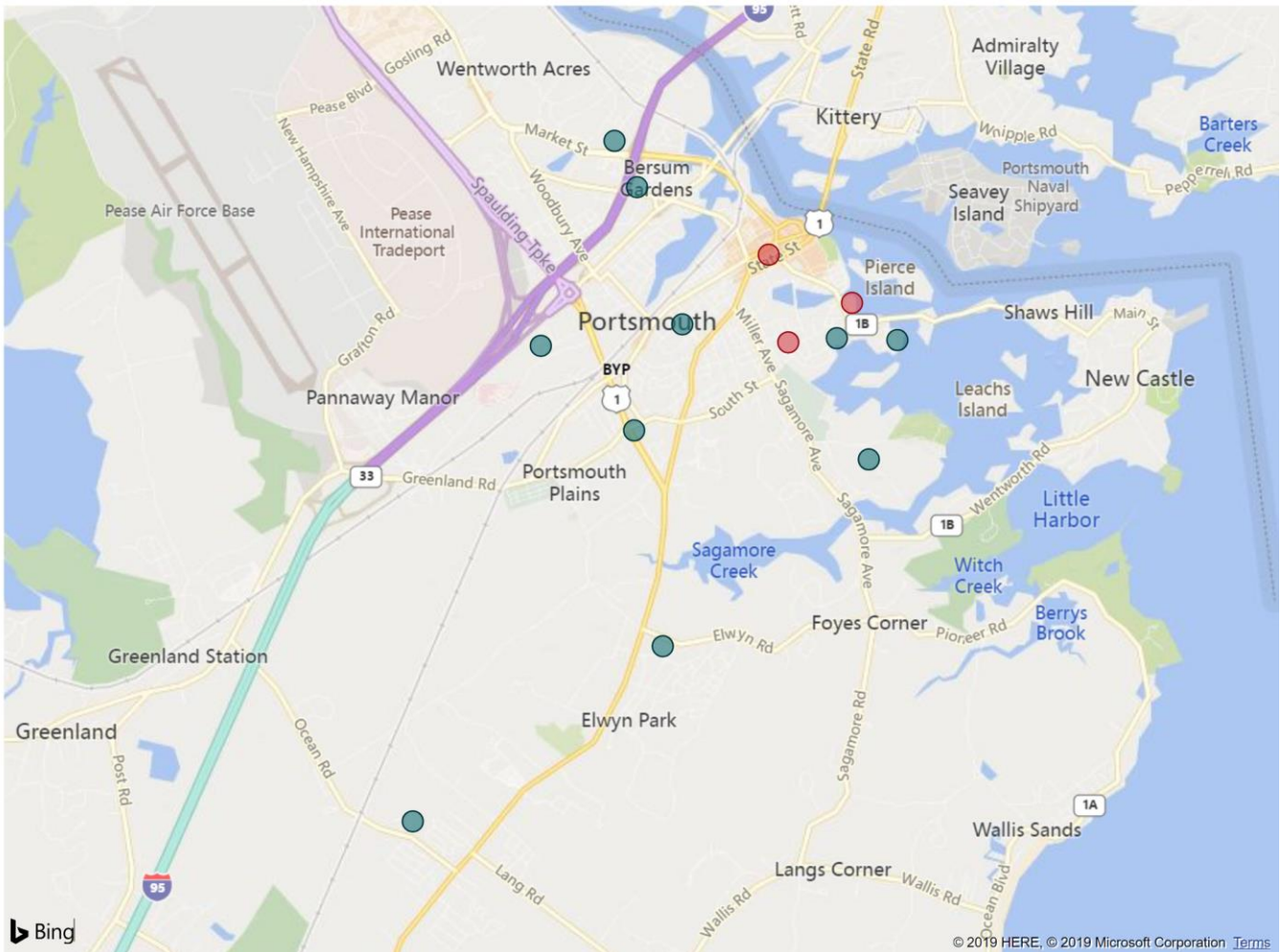


Chart 10: Residential Outlier Map

Ratio (groups) ● Over 110% ● Under 80%



### Citywide Conclusion

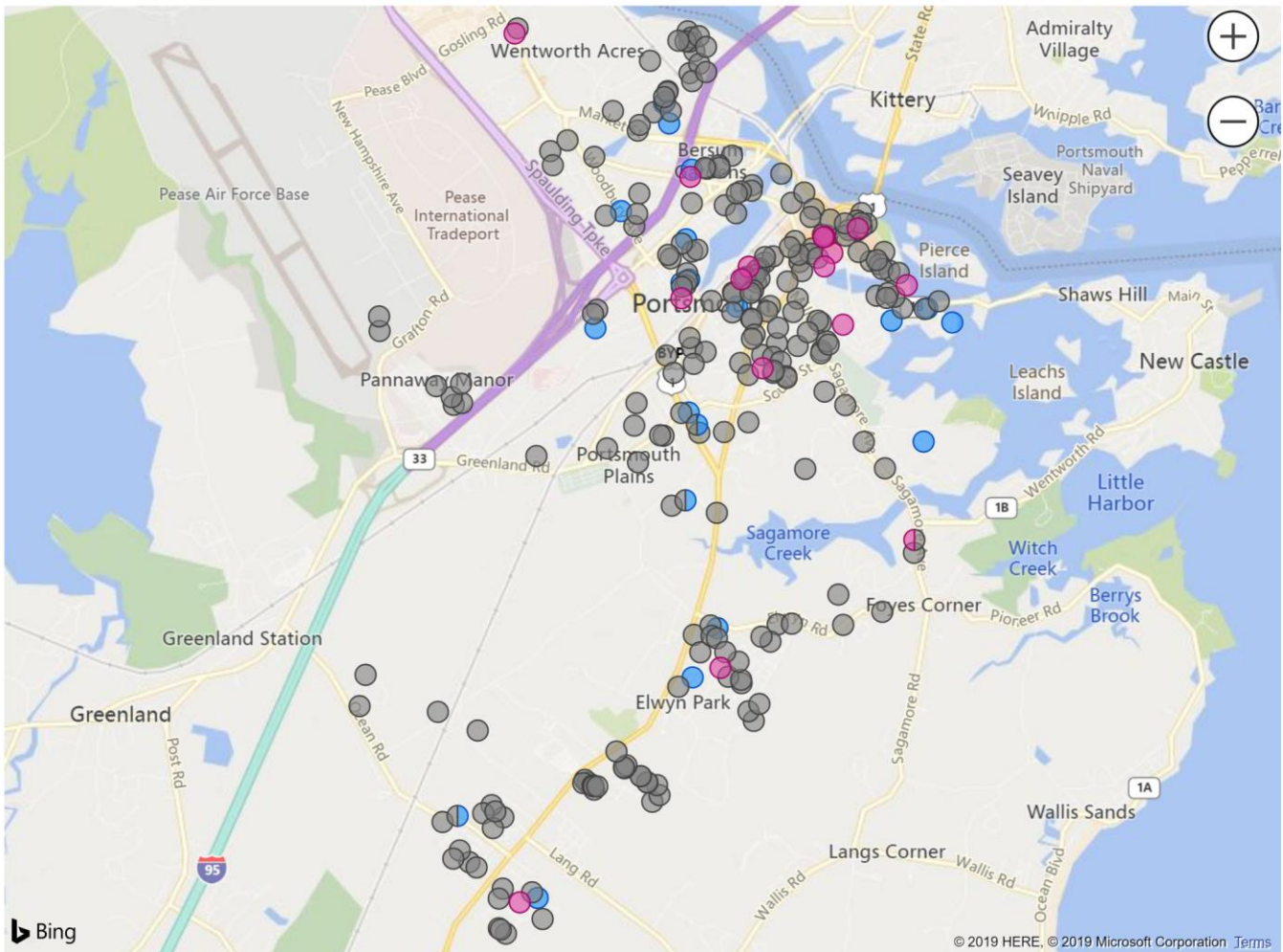
Areas with the most sales should have a greater number of outliers. Given this consideration, there are few outliers and those found are randomly scattered throughout the city.

### Conclusion of Residential Model Testing

The following map groups ratios into three categories: High Ratio (over >105%), In the Range (>85- <105%), and Low Ratio (<85%). Most values are “In the Range.” As typically found in all revaluations, there are high and low ratios.

Chart 11: Overall Ratio Map

Overall Ratios ● High Ratio > 105% ● In the Range 85% - 105% ● Low Ratio < Under 85%



Well-established and effective statistical tests were used in measuring the credibility of our mass valuation. The results of the statistical studies verify this report to be supported and credible and meet ASB, DRA and IAAO Standards.

## MODEL TESTING- COMMERCIAL

### Price Related Differential

As stated above, the Price Related Differential (PRD) measures the vertical equity between high and low value properties. The PRD is calculated by dividing the mean ratio by the weighted mean ratio. PRDs between .98 and 1.03 indicate relative uniformity. PRDs greater than 1.03 suggests higher value properties may be assessed at lower ratios compared with lower value properties. PRDs less than .98 indicate the opposite.

The calculated PRD for all commercial sales is 1.01. This is within the acceptable limit for mass appraisal and indicates the model is assessing high and low valued properties uniformly.

### Commercial Neighborhood

The next level of assessment analyzed was by neighborhood. This analysis ensures the neighborhoods are properly calibrated within the model. Many of the neighborhoods have less than eight (8) sales. Therefore, the COD was calculated from the median ratio of all commercial sales. This produces a slightly higher COD, but it allows for calculating the COD for each neighborhood<sup>22</sup>.

The following table shows the calculated statistics for all commercial sales by neighborhood.

Table 50: Commercial Neighborhood Ratios

Neighborhood	Average Assessment	Average Sale Price	Average Ratio	Median Ratio	# of Sales	COD
<b>301</b>	\$278,800	\$290,000	96.1%	96.1%	1	0.97
<b>302</b>	\$194,600	\$195,211	99.9%	98.2%	3	4.95
<b>304</b>	\$409,700	\$430,370	95.4%	93.3%	10	5.09
<b>305</b>	\$893,125	\$986,250	89.8%	90.5%	4	10.26
<b>307</b>	\$45,650	\$49,000	93.2%	93.2%	2	2.16
<b>Grand Total</b>	<b>\$412,200</b>	<b>\$440,963</b>	<b>94.4%</b>	<b>93.4%</b>	<b>21</b>	<b>5.77</b>

### Neighborhood Analysis Conclusion

As shown on the above table, statistical variation by neighborhood are well within acceptable standards for mass appraisal.

### Commercial Property Style

The next analysis shows the level of assessment by style. This analysis ensures property styles are properly calibrated within the model.

The following table shows the calculated statistics by style of all commercial properties.

<sup>22</sup> The COD takes the absolute difference of each sales ratio from the median. In neighborhoods with only one sale, the median and sale ratio are the same, so the calculated COD would be 0. Using the overall median of all residential sales allows for a COD calculation in neighborhoods with one sale. Additionally, it shows how each neighborhood compares to the overall median. This calculation results in a slightly higher COD when analyzing subsets.

Table 51: Commercial Style Ratios

Style	Average Assessment	Average Sale Price	Average Ratio	Median Ratio	# of Sales	COD
<b>Apartments</b>	\$854,567	\$877,067	96.8%	95.2%	3	2.21
<b>Comm Condo</b>	\$1,169,600	\$1,125,000	104.0%	104.0%	1	9.19
<b>Condo Office</b>	\$84,925	\$88,800	94.8%	92.3%	8	6.40
<b>Hanger Condo</b>	\$45,650	\$49,000	93.2%	93.2%	2	2.16
<b>Indust Condo</b>	\$278,800	\$290,000	96.1%	96.1%	1	0.97
<b>Office Bldg</b>	\$1,070,800	\$1,187,500	90.2%	90.2%	1	5.29
<b>Office/Apt</b>	\$1,112,700	\$1,200,000	92.7%	92.7%	1	2.61
<b>Retail Condo</b>	\$315,767	\$339,378	96.6%	95.3%	3	6.32
<b>Service Shop</b>	\$742,600	\$1,000,000	74.3%	74.3%	1	22.01
<b>Grand Total</b>	<b>\$412,200</b>	<b>\$440,963</b>	<b>94.4%</b>	<b>93.4%</b>	<b>21</b>	<b>5.77</b>

### Style Analysis Conclusion

As shown on the previous table, the variation in ratios by style are well within acceptable standards for mass appraisal.

### Commercial Property Neighborhood and Style

The next analysis combines style and neighborhood. This analysis ensures the combination of style and neighborhoods are properly calibrated within the model.

The following table shows the calculated statistics by style within every neighborhood of all commercial properties.

Table 52: Commercial Neighborhood/Style Ratios

Neighborhood/ Style	Average Assessment	Average Sale Price	Average Ratio	Median Ratio	# of Sales	COD
<b>212</b>	<b>\$32,800</b>	<b>\$37,900</b>	<b>86.5%</b>	<b>86.5%</b>	<b>1</b>	<b>9.11</b>
Condo Office	\$32,800	\$37,900	86.5%	86.5%	1	9.11
<b>301</b>	<b>\$278,800</b>	<b>\$290,000</b>	<b>96.1%</b>	<b>96.1%</b>	<b>1</b>	<b>0.97</b>
Indust Condo	\$278,800	\$290,000	96.1%	96.1%	1	0.97
<b>302</b>	<b>\$194,600</b>	<b>\$195,211</b>	<b>99.9%</b>	<b>98.2%</b>	<b>3</b>	<b>4.95</b>
<b>Condo Office</b>	\$184,100	\$187,500	98.2%	98.2%	1	3.12
Retail Condo	\$199,850	\$199,067	100.8%	100.8%	2	5.87
<b>304</b>	<b>\$409,700</b>	<b>\$430,370</b>	<b>95.4%</b>	<b>93.3%</b>	<b>10</b>	<b>5.09</b>
<b>Apartments</b>	\$854,567	\$877,067	96.8%	95.2%	3	2.21
Condo Office	\$77,083	\$80,833	95.6%	92.3%	6	6.50
Office Bldg	\$1,070,800	\$1,187,500	90.2%	90.2%	1	5.29
<b>305</b>	<b>\$893,125</b>	<b>\$986,250</b>	<b>89.8%</b>	<b>90.5%</b>	<b>4</b>	<b>10.26</b>

Neighborhood/ Style	Average Assessment	Average Sale Price	Average Ratio	Median Ratio	# of Sales	COD
Comm Condo	\$1,169,600	\$1,125,000	104.0%	104.0%	1	9.19
Office/Apt	\$1,112,700	\$1,200,000	92.7%	92.7%	1	2.61
Retail Condo	\$547,600	\$620,000	88.3%	88.3%	1	7.24
Service Shop	\$742,600	\$1,000,000	74.3%	74.3%	1	22.01
<b>307</b>	<b>\$45,650</b>	<b>\$49,000</b>	<b>93.2%</b>	<b>93.2%</b>	<b>2</b>	<b>2.16</b>
Hanger Condo	\$45,650	\$49,000	93.2%	93.2%	2	2.16
<b>Grand Total</b>	<b>\$412,200</b>	<b>\$440,963</b>	<b>94.4%</b>	<b>93.4%</b>	<b>21</b>	<b>5.77</b>

### Neighborhood Combined with Style Analysis Conclusion

As shown on the above table, statistical analysis by neighborhood combined with style are well within acceptable standards for mass appraisal.

### Grade

The next test considers grade. This analysis ensures grades are properly calibrated within the model. The following table shows the calculated statistics by grade of all commercial properties.

Table 53: Commercial Grade Ratios

Grade	Average Assessment	Average Sale Price	Average Ratio	Median Ratio	# of Sales	COD
<b>B</b>	\$989,333	\$1,037,500	95.4%	95.2%	3	3.68
<b>B-</b>	\$278,800	\$290,000	96.1%	96.1%	1	0.97
<b>B+</b>	\$943,300	\$981,667	95.0%	92.7%	3	6.35
<b>C</b>	\$116,256	\$118,959	97.0%	95.3%	9	5.98
<b>C-</b>	\$32,800	\$37,900	86.5%	86.5%	1	9.11
<b>C+</b>	\$704,550	\$853,100	84.3%	84.3%	2	11.44
<b>D-</b>	\$45,650	\$49,000	93.2%	93.2%	2	2.16
<b>Grand Total</b>	<b>\$412,200</b>	<b>\$440,963</b>	<b>94.4%</b>	<b>93.4%</b>	<b>21</b>	<b>5.77</b>

### Grade Conclusion

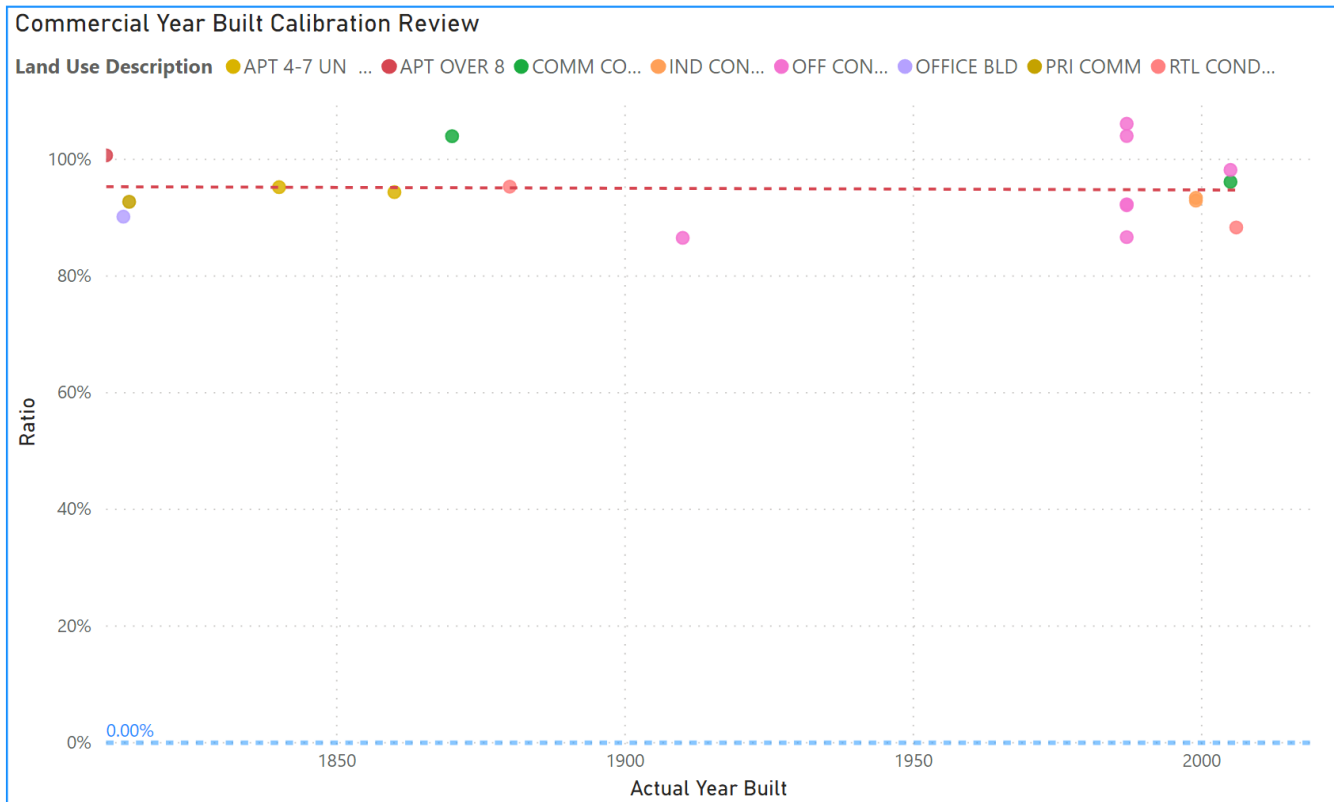
As shown on the previous table, variations in statistics by grade are well within acceptable standards for mass appraisal.

### Year Built

The next consideration is year built (age). Age is important in validating depreciation rates specified in the model. With properly calibrated models, there should be relative uniformity within the ratios regardless of differences in age.

The actual year built is converted to an effective year built based on the observed condition. A significant variation in ratios indicate flaws in the depreciation curve. Properly calibrated models will have a relatively flat ratio trend line. A flat trend line ensures older properties are assessed at the same level as newer properties.

**Chart 12: Commercial Actual Year Build Ratio Chart**



**Age Conclusion**

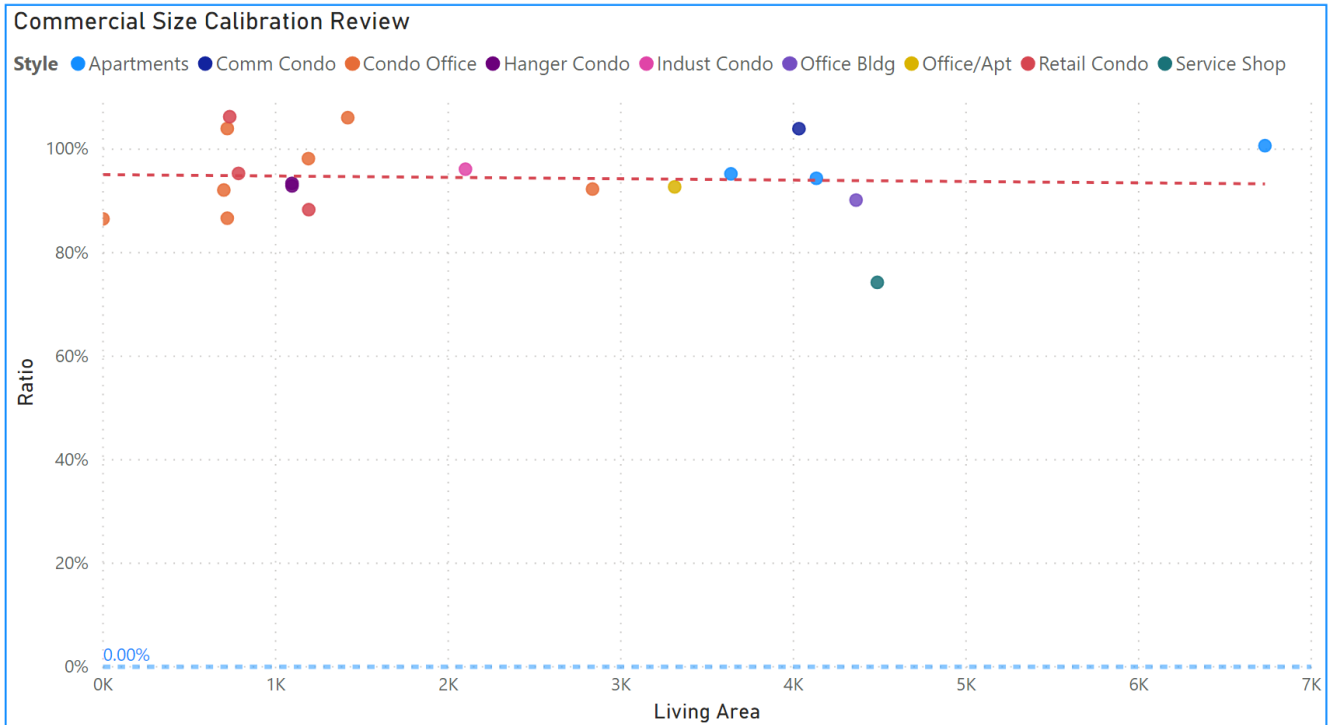
As shown on the above chart, newer and older properties have reasonable uniformity in the ratios regardless of differences in age. A flat trendline, like the one above, indicates acceptable depreciation calibration rates.

**Size**

Size is important in validating building curves specified in the model. With properly calibrated models, there should be relative uniformity in ratios regardless of differences in size. A significant variation in ratios indicates flaws in the building curve. Properly calibrated models will have a relatively flat ratio trend line. A flat trend line ensures smaller properties are assessing at the same level as larger properties.

The following graph shows average ratios by size for all commercial sale properties. The red line is a linear trend line.

Chart 13: Commercial Size Ratio Chart



**Size Conclusion**

As shown on the above chart, although the trendline is not perfectly flat, smaller and larger properties have relative uniformity in ratios regardless of differences in size. A reasonably flat trend line, like the one above, indicates acceptable size-curve calibration rates.

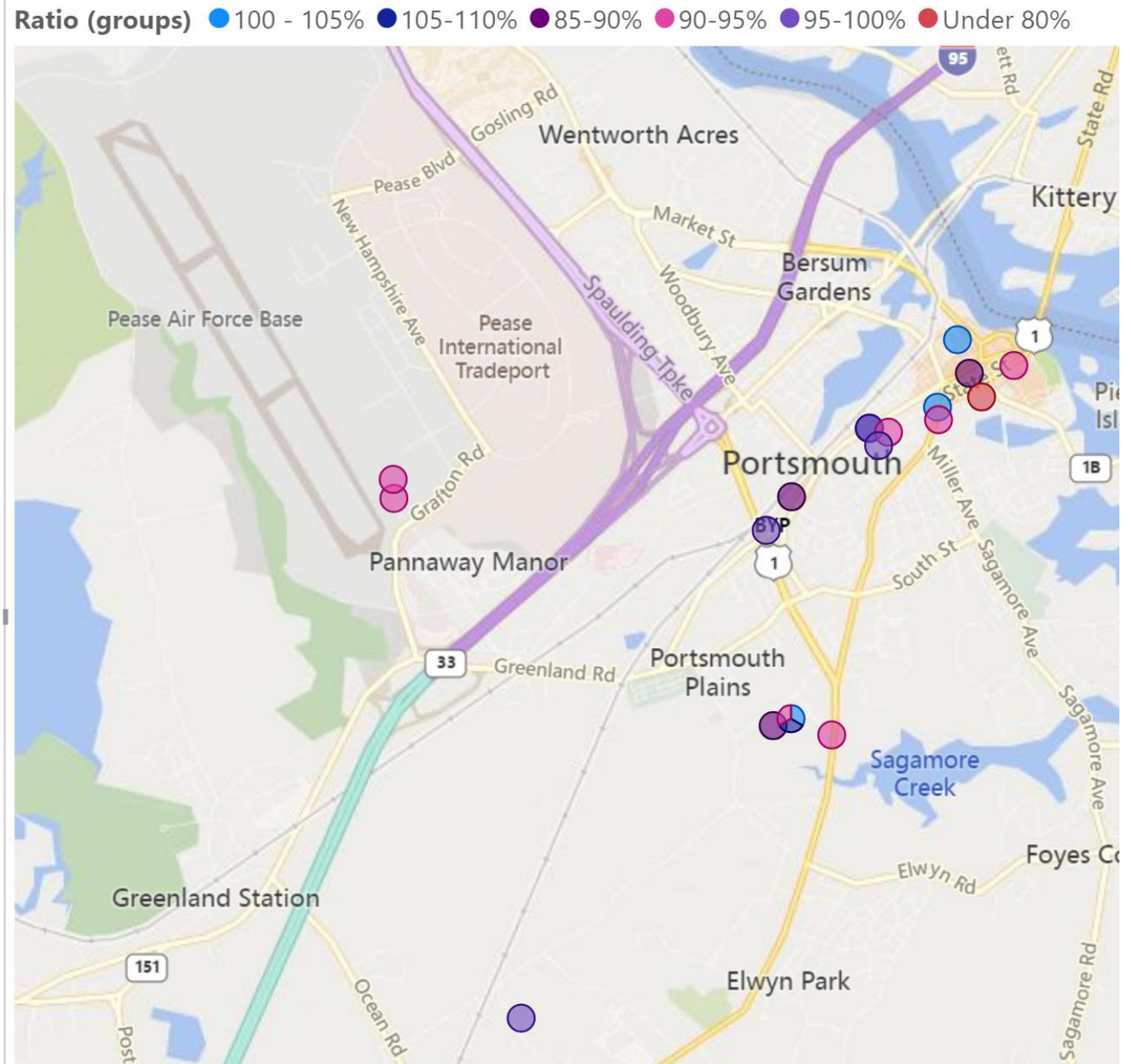
**Review of Ratios Citywide**

The next level of assessment analyzed is ratios throughout the City. Analysis of ratios throughout the City are important in validating locational adjustments specified in the model and identifying geographical inequity. With properly calibrated models, there should be relative uniformity within the ratios throughout the City. High and low ratios (outliers) should be random and without geographical concentration.

The following map shows ratio grouping across the entire city.



Chart 14: Commercial Ratio Map



### Citywide Conclusion

Areas with the most sales should have a greater number of outliers. Given this consideration, there are few outliers and those found are randomly scattered throughout the city.

## Conclusion of Commercial Model Testing

Well-established and effective statistical tests were used in measuring the credibility of our mass valuation. The results of the statistical studies show our mass valuation to be supported and credible.

## Conclusion and Summary of Mass Appraisal

Mass appraisal is the systematic appraisal of a large group of properties based on standardized procedures and statistical testing. Unlike mass appraisal, single property appraisal conducts a market analysis and forms an opinion of value for only one property. While credible mass appraisals should produce reliable values for most properties in a jurisdiction, not every property is appraised with single property appraisal precision.

The mass appraisal standards promulgated by the Assessing Standards Board (ASB), International Association of Assessing Officials (IAAO), Appraisal Foundation's Uniform Standards of Professional Appraisal Practice (USPAP) and the New Hampshire Department of Revenue consider the nature of mass valuation and allow for reasonable variation between assessments and sales.

We tested our mass valuation to determine if it meets the above standards. In this study, the model specifications and calibrations were analyzed. Based on the data and analysis presented in this report, the specifications and calibrations are reasonable and credible.

The level of assessment was measured using ratio studies. The results of the ratio studies indicate this mass valuation meets established standards and guidelines. Additional statistical testing was used to measure the credibility of our mass valuation. The results of the statistical studies show our conclusions to be supported and credible.

## General Assumptions and Limiting Conditions

The submitted report is subject to the following underlying assumptions and limiting conditions:

- This is an Appraisal which is intended to comply with the mass appraisal, development and reporting requirements set forth under Standard Rules 5 and 6 of the Uniform Standards of Professional Appraisal Practice. Supporting documentation concerning the data, reasoning and analyses is retained in the appraiser's file. The information in this report is specific to the needs of the client and for the intended use stated in this report. The appraiser is not responsible for unauthorized use of this report.
- The purpose of this report is to fairly and equitably value all properties in the City of Portsmouth and meet the requirements of Standards 5 and 6 of the Uniform Standards of Professional Appraisal Practice (USPAP). Standard 5 outlines the development of mass valuations and Standard 6 guides mass valuation reporting.
- No responsibility is assumed for the legal description or for matters including legal or title considerations. Title to the property is assumed to be good and marketable unless otherwise stated in this report.
- The property is assumed free and clear of any or all liens or encumbrances unless otherwise stated in this report.
- Responsible ownership and competent property management are assumed unless otherwise stated in this report.
- The information furnished by others is believed to be reliable. All factual data contained in the appraisal is assumed to be accurate. No warranty, however, is given for its accuracy.
- All engineering is assumed to be correct. Any plot plans and illustrative material in this report are included only to assist the reader in visualizing the property.
- It is assumed that there are no hidden or unapparent conditions of the property, subsoil, or structures that render it more or less valuable. The appraiser is not qualified to detect hazardous waste and/or toxic materials and is not an environmental or structural engineer. The appraisal does not guarantee that the property is free of defects or environmental problems. If the property is inspected, the appraiser performs only routine observations during the inspection process of those readily accessible areas that are easily visible from a standing position; crawl spaces and attics are not viewed. Personal property may conceal many areas from view; no equipment or personal property is moved by the appraiser to facilitate observation. Any comment by the appraiser that might suggest the possibility of the presence of such substances should not be taken as confirmation of the presence of hazardous waste and/or toxic materials or molds. Such determination would require investigation by a qualified expert in the field of environmental assessment. The presence of substances such as but not limited to asbestos, urea-formaldehyde materials, lead paint, mold, radon, PCBs, VOCs or other potentially hazardous materials may affect the value of the property. The appraiser's opinions and conclusions are predicated on the assumption that there is no such material on or in the property that would cause a loss in value unless otherwise stated in this report. No responsibility is assumed for such conditions or for arranging for engineering studies that may be required to discover them.
- It is assumed that there is full compliance with all applicable federal, state, and local environmental regulations and laws unless noncompliance is stated, defined, and considered in the report.
- Unless otherwise stated in this report, no specific compliance survey has been conducted to determine if the property is or is not in conformance with the requirements of the Americans with Disabilities Act (ADA). The presence of architectural and communications barriers that are structural in nature that would restrict access by disabled individuals may adversely affect the property's value, marketability or utility.
- Unless otherwise noted in the reports, it is assumed that all applicable zoning and use regulations and

restrictions have been complied with, unless non-conformity has been stated, defined, and considered in the report.

- It is assumed that all required licenses, certificates of occupancy, consents, or other legislative or administrative authority from any local, state, or national government or private entity or organization have been or can be obtained or renewed unless otherwise stated in this report.
- Any sketch in this report may show approximate dimensions and is included to assist the reader in visualizing the property. Maps and exhibits found in this report are provided for reader reference purposes only. No guarantee as to accuracy is expressed or implied unless otherwise stated in this report. No survey has been made for the purpose of this report.
- It is assumed that the utilization of the land and improvements is within the boundaries or property lines of the property described and that there is no encroachment or trespass unless noted in the reports.
- The report is assumed to disclose all known easements, restrictions, encumbrances, leases, reservations, covenants, contracts, declarations, special assessments, ordinances, or items of a similar nature. The appraiser has not performed a title search or done any research to uncover any undisclosed encumbrances.
- Possession of this report, or a copy thereof, does not carry with it the right of publication. It may not be used for any other purpose by any other person other than the party to whom it is addressed without the written consent of the appraiser, and in any event only with proper written qualifications and only in its entirety.
- The appraiser herein is not required to give further consultation, testimony, or be in attendance in court with reference to the property in question unless arrangements have been previously made, or as otherwise required by law.
- Neither all nor any part of the contents of this report (especially any conclusions as to value, the identity of the appraiser, or the firm with which the appraiser is connected) shall be disseminated to the public through advertising, public relations, news, sales, or other media without the prior written consent and approval of the appraiser. The appraiser has given the City of Portsmouth permission to post this report on their website.
- This appraisal has been prepared by an appraiser with the experience, competency and education necessary to qualify him to make appraisals of the type of property being valued in the report. There were no additional steps required to competently complete the attached report.

## CERTIFICATION

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

- The statements of fact contained in this report are true and correct.
- The report 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 present or prospective interest in the properties that being appraised and no personal interest with respect to the parties involved.
- I have performed other services, as an appraiser regarding the properties that are the subject of the work within the three-year period immediately preceding acceptance of this assignment. The City has contracted Vision Government Solutions to complete valuation work in 2017 and in 2018.
- I have no bias with respect to the properties that have been appraised.
- My engagement in this assignment was not contingent upon developing or reporting predetermined results.
- My compensation is not contingent on an action or event resulting from the analyses, opinions or conclusions in this report or from its use.
- My compensation for completing this assignment is not contingent upon the development or reporting of predetermined assignment results or assignment results that favor the cause of the client, 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 not made a personal inspection of all the properties that have been valued.
- The following people have assisted in the reviewing and valuation of the properties being valued. Steve Whalen and Rick Kulp have assisted with the review and valuation of the commercial properties. Sandra Schmucki assisted with the review of residential properties. June Perry has assisted with the analysis of the residential properties. Dave Cornell assisted with the template of this report.
- The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.
- The reported analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the requirements of the Code of Professional Ethics and the Standards of Professional Appraisal Practice of the Appraisal Institute.
- The use of this report is subject to the requirements of the Appraisal Institute and by its duly authorized representatives
- As of the date of this report, I, J. Michael Tarello, has completed the continuing education requirements for the Appraisal Institute.



J. Michael Tarello, VP of Appraisal

Vision Government Solutions, Inc.

## Appraiser Qualifications

### **JOHN MICHAEL TARELLO, MAI, ASA, MBA**

#### **PROFESSIONAL EXPERIENCE**

##### **2016 – Present, Vice President Appraisal Operations**

Primary Responsibilities: Organization and oversight of all appraisal personnel and projects within the Company. Coordinate the efforts of district personnel in the completion of all types of appraisal projects throughout Northeast. Develop and implement innovative new appraisal policies and procedures aimed at increasing productivity, accuracy and streamlining the appraisal process. Utilizing new technologies, create product enhancements in response to future appraisal client needs. Coordinate with information systems personnel in the ongoing development of Vision software.

##### **1997 – 2015, District Manager**

To oversee and manage appraisal operations for Eastern and Northern New England. Supervise and review appraisers, programmers and support staff in the completion of revaluation projects. Provide individual consulting services and expert testimony for court defense of real estate values. Designed software models for the New York City Assessors Office with over 1.1 Million parcels and managed the software conversion and implementation for Henrico County VA. containing over 110,000 parcels. Managed a staff of 30± clerical and professional employees.

##### **1992 – 1996, Director of Fee Appraisal Division**

Developed a Fee Appraisal Division within the company. Designed and implemented various narrative appraisal and income analysis products. Managed a staff of 20± clerical and professional employees.

##### **1990 – 1992, Commercial Senior Appraiser**

Primary Responsibilities: Coordinated all aspects of an assigned appraisal project. Completed projects throughout New England, including appraisal assignments and project management in the following towns and cities: Worcester, Auburn, Medford, Revere, Somerville, Chelsea, Massachusetts; Nashua, Seabrook, New Hampshire and New Haven Connecticut.

##### **1987 – 1990, Staff Appraiser**

Appraisal assignments throughout New England and New Jersey.

#### **CAMERON BISHOP FINANCIAL SERVICES, STONEHAM, MA**

##### **1986 – 1987, Fee Appraiser**

#### **QUALITY CONSTRUCTION, INC., LOWELL, MA**

##### **1985 – 1986, Builder**

## EDUCATION

### University of Massachusetts, Amherst, Massachusetts

Bachelor of Science (BS): Hotel and Restaurant Management, with a concentration in accounting and finance

### Western New England University, Springfield, Massachusetts

Master of Business Administration (MBA): With a concentration in Management Information Systems

### Appraisal Institute

Real Estate Appraisal Principles; Residential Valuation; Standards of Professional Practice & Procedures Part A, B & C; Capitalization Theory & Techniques, Part A & B; Case Studies in Real Estate Valuation; Report Writing & Valuation Analysis; Commercial Demonstration Report Seminar; Seminars in Contaminated Properties

### International Association of Assessing Officers

Course 302: Mass Appraisal of Income Producing Property; Course 3: Development and Writing of Narrative Appraisal Report

## SPECIAL QUALIFICATIONS

**Appraisal Institute:** Designated Member Appraisal Institute (MAI) #12106 and Past Committee Member of the Technology Committee

**Appraisal Institute Massachusetts, Rhode Island Chapter:** Past President, Vice President, Treasurer, Secretary, Board of Director, Regional Representative, Chairman of Seminar Committee, the Associates Committee, the News Letter Committee and the Technology Committee

**American Society of Appraisers:** Accredited Senior Appraiser (ASA), Designated in Real Property/Urban

**Massachusetts Board of Real Estate Appraisers:** Designated General Appraiser (MRA)

**Massachusetts Appellate Tax Board:** Qualified as Expert Appraisal Witness

**New Hampshire Department of Revenue Administration:** Certified as Real Estate Appraiser Supervisor

**New Hampshire Board of Tax and Land Appeals:** Qualified as Expert Appraisal Witness

**Connecticut Office of Policy and Management:** Certified as Revaluation Appraiser Supervisor

**Vermont Department of Taxes:** Certified as Revaluation Project Supervisor

**Virginia Department of Taxation:** Certified Professional Assessor

**Ujenzi Trust:** Treasurer and Board of Director

**State of Maine:** Certified Maine Assessor (CMA)

**State of Massachusetts:** Certified General Appraiser #660

**State of New Hampshire:** Certified General Appraiser #154

**State of Rhode Island:** Certified General Appraiser #A00325G

**State of Maine:** Certified General Appraiser

**State of Connecticut:** Certified General Appraiser

**State of Virginia:** Certified General Appraiser #4001017831

# **RICHARD KULP**

## **PROFESSIONAL EXPERIENCE**

### **VISION GOVERNMENT SOLUTIONS, INC., HUDSON, MA**

#### **2012 – Present, Senior Staff Appraiser**

Review Residential and commercial properties for revaluation purposes. Responsibilities include residential sales review, update farm and forest use land value based upon client's data, set condition factors for land based upon topography, reconcile income and expense reports for commercial properties on Vision software. Coordinating and documenting taxpayer hearings; creating and maintaining various reports for project managers. Also responsible for managing Residential and Commercial data collection, quality control, and communicating directly with the Assessor throughout the projects. Projects include: Kittery, Skowhegan, Arundel, Standish, Camden, Kennebunkport, Winslow, Gardiner and Raymond, Maine; Portsmouth, Bedford, Moultonborough, N. Hampton, Hampton, Seabrook, Claremont, Laconia, Fremont, Littleton, Manchester and Derry, New Hampshire; Newburyport, Quincy, Medford, Chelsea, Norwood, Chelmsford, Acton, Groton, Dracut and Lowell, Massachusetts; Hartford, Newport, Bridgewater and Colchester, VT; Newport, Cranston, Providence, Lincoln, Smithfield, Narragansett and Pawtucket, Rhode Island; as well as Stamford, Danbury, Bristol, New Haven, and Bridgeport, Connecticut.

#### **2004 – 2012, Crew Chief / Commercial Specialist**

Duties include the training and production/accuracy of Data Collectors and overseeing the entire data collection process. Other responsibilities include accurately measuring and listing Commercial Properties in Derry, Manchester, Moultonborough and Portsmouth, NH as well as various communities in all other New England states.

#### **2002 – 2004, Data Collector**

Responsibilities include accurately locating, identifying and measuring the exterior dimensions of assigned properties. Making a thorough inspection of the interior of the property and accurately recording all pertinent physical Data used in the valuation of the property. Experience in working in Hooksett, New Durham, Exeter, Fremont and Wolfeboro, New Hampshire and York, Kittery, Camden, Standish and Raymond, Maine.

### **TYCOM INTEGRATED CABLE SYSTEMS, NEWINGTON, NH**

#### **2000 – 2002, Technical Analyst**

Perform fiber optic transmission analysis, using various testing systems to obtain power/attenuation values and signal loss over multiple wavelengths, ensuring conformity with engineering specifications. Collect data and prepare reports for quality assurance using Microsoft Excel and Word.

### **RUSSOUND, INC. NEW MARKET, NH**

#### **1994 - 2000, Inventory Control Team Leader**

Management of material flow from receiving to production, tracking the movement of over 2000 parts and subassemblies used in the manufacture of audio/video electronic equipment. Supervise all aspects of inventory control and reporting using company specific automated system. Oversee stock levels to ensure cost effective re-ordering. Coordinate material requirements and resolve purchase-ordering



discrepancies with purchasing department. Complete bi-monthly physical inventory counts. Organize warehouse. Supervise and train all receiving/inventory control personnel. Lead the quality assurance team for all sheet metal fabrication and procurement.

**HARCOURT HOME IMPROVEMENT CO., NOTTINGHAM, NH**  
**1991 – 1994, Carpenter/Painter/Landscaper**

**NATIONAL OCEANOGRAPHIC AND ATMOSPHERIC ADMINISTRATION NOAA,**  
**SEATTLE, DC**  
**1986 – 1991, Survey Technician**

**EDUCATION/CERTIFICATIONS**

**University of New Hampshire**  
B.S. Park Management

**Vision Appraisal Technology**

80 Hour In-House Training Program

REA1-Real Estate Appraisal Basics – 10220032 (Mass. Board of RE Appraisers) 39 hours

USPAP: Uniform Standards of Professional Appraisal Practice – 2006

**JMB Real Estate Academy**

Appraising Income Properties – 10180003 (Mass Board of RE Appraisers)  
30 hours,

**Massachusetts Association of Assessing Officers**

Course 2 Cost Approach to Value

Course 3 Income Approach to Value

**NH Department of Revenue Administration & NH Association of Assessing Officials**

NH State Statutes Part II - 2015

NH State Statutes Part I – 2018

Standards of Professional Practice - Part A

Standards of Professional Practice - Part B

USPAP Update Course 2018-2019

**SPECIAL QUALIFICATIONS**

**New Hampshire Department of Revenue Administration**

DRA Certified Property Assessor expires December 31, 2024

**State Of Connecticut**

**Connecticut Office of Policy and Management**

Certified Land and Residential Valuation – Certificate #914 expires April 30, 2023

# **JUNE PERRY**

## **PROFESSIONAL EXPERIENCE**

### **VISION GOVERNMENT SOLUTIONS, INC., HUDSON, MA**

#### **2008 – Present, District Manager**

Duties include overseeing all appraisal operations, coordinating large staff of Present appraisers, programmers and support staff and managing annual client consulting services such as revaluations, data conversions, cyclical re-inspections, building permit work and defense of values.

#### **2000 – 2007, Project Manager**

Responsible for planning, implementing and running revaluation projects for various municipalities. Specific duties include the mass appraisal of residential, commercial, industrial, and personal property accounts. Duties include property sales review and verification, statistical analysis, model calibration, the supervision of data collectors and field review appraisers, taxpayer hearings and all reporting requirements as they relate to project certification.

#### **1991 – 2000, Senior Appraiser**

Responsible for the supervision of town-wide revaluations and valuation update projects. Duties include performing all sales analysis, establishing the methodology to be used on the appraisal of residential properties, coordinating field review operations, taxpayer hearings and client consultations.

Management assignments include Glastonbury, Lyme, Watertown, Fairfield Granby, Stonington, New Haven and West Haven, Enfield, Tolland, Connecticut; Leominster, Gardner, Spencer, Westminster, Sutton, and Dudley, Paxton, Massachusetts. Have specific expertise in recreational areas including Martha's Vineyard - Tisbury, Oak Bluffs, and Aquinnah in Massachusetts; Kennebunkport and Cumberland, Maine; Jaffrey and Swanzey, New Hampshire.

#### **1990 – 1991, Staff Appraiser**

Responsibilities included the field review of property record cards to verify accurate and critical data for value estimation. Also performing quality control of data throughout the project and supervising daily operations.

#### **1987 – 1989, Senior Data Collector**

Responsible for coordinating, supervising and completing the Data Collection Phase of a Revaluation. Duties were to inspect residential and commercial properties, prepare and analyze inspection and production reports and supervise Data Collectors.

## **EDUCATION**

### **Southeastern Massachusetts University**

B.S. in Management

### **International Association of Assessing Officers**

Course I: Fundamentals of Real Property Appraisal

Course II: Income Approach to Valuation  
Course 301: Mass Appraisal of Residential Property  
Course 302: Mass Appraisal of Income-Producing Property  
Course 3: Development and Writing of Narrative Appraisal Reports  
Course 400: Assessment Administration

**Massachusetts Association of Assessing Officers**

Course 1 Comparable Sales Approach to Value  
Course 2 Cost Approach to Value  
Course 3 Income Approach to Value  
Course 5 Mass Appraisal of Real Property  
USPAP 15 hour Part 1 &2  
USPAP Update - 2008  
USPAP Update -2011  
USPAP Update -2014-16  
USPAP Update -2019

**New Hampshire**

NH State Statutes Course I  
NH State Statutes Course II  
NH State Statutes One- Day Update November 15, 2019

**Appraisal Institute**

Standards of Professional Practice - Part A  
Standards of Professional Practice - Part B  
Updates 2008, 2011, 2014, 2019

**Other Courses/Seminars**

**Basic Appraisal Principles – 28 hours**

Market Analysis & Highest and Best Use  
Wireless Depreciation & Solar Legislation  
Tif's & Pilots  
The effect of Casino's  
Foreclosures and Short Sales  
Pilots and Rural Land  
Mold Remediation  
GIS & Assessing  
Land Valuation and Mass Valuation Process

**SPECIAL QUALIFICATIONS**

**State of Connecticut:** Certified Residential, Commercial/Industrial Appraiser and Supervisor #347

**State of New Hampshire:** DRA Certified Assessor Supervisor #303

**Massachusetts Superior Court:** Qualified Expert Witness

**State of Vermont:** Project Supervisor

# **Stephen P. Whalen**

25 Lincoln Street  
Weymouth, MA 02191  
Cell (617) 462-6091

## **Career Profile**

Senior Project Manager for Vision Government Solutions with more than 35 years' experience in real estate valuation. Responsible for the on-time and on-budget oversight of revaluations throughout New England. Vision Government Solutions is a real estate revaluation company with over four hundred clients throughout New England.

### **Appraisal Experience**

**Vision Government Solutions Hudson,  
MA  
Project Manager  
(2005 to Present)**

Responsibilities include project management, residential and commercial property valuation, consulting and court work. Specific expertise in the valuation of commercial and industrial properties. Responsible for handling over a dozen town/city contracts annually.

### **Other Professional Experience**

**Hingham, MA William Raveis Real Estate  
Real Estate Realtor (2014-Present)**

**Saugus, MA – Assessor's Office  
Property Appraiser (1999 – 2014)**

Performs inspections of all residential and commercial properties that have filed building permits and re-inspection of properties that have filed for a tax abatement. Additional responsibilities include income and expense analysis and commercial and industrial valuation. And implement the D.O.R. commercial required reval update. Including land values, cost modeling, income and expense analysis, and final value correlation.

**West Newbury, MA – Assessor's Office  
Property Appraiser (2005 – 2012) (2019 – 2020)**

Responsibilities included field review and verification of all residential properties that have filed building permits and re-inspection of properties that had sold within the past year. Also performed all commercial analysis for D.O.R. required state revaluation. Including setting of land values, cost modeling, commercial table building, and all required D.O.R. spreadsheets.

**Wellesley, MA – Assessor’s Office  
Property Appraiser (2008 – 2012)**

Performed field review and verification of all residential properties that filed building permits. Re-inspection of properties that filed for tax abatements or had sold within the last year.

**CLT/TYLER  
Tolland, CT  
Senior Project Manager (1987 – 2005)**

Supervised several revaluation projects throughout New England and is experienced in all phases of the revaluation process. Responsibilities included hiring and training of both colleagues and clients, defense of values at both informal and formal levels, establishing market rents for commercial and industrial properties based on income and expense reports, and utilizing the income, cost and sales approaches to value for state mandated revaluations.

**Education**

**University of Massachusetts – Boston, MA**  
Degree – Economics  
**Dartmouth, MA**

Bachelor of Arts  
**University of Massachusetts –**  
Liberal Arts and Computer Science Courses

**Massachusetts Association of Assessing Officers**  
Course 1: Comparable Sales Approach

**International Association Of Assessing Officers**

Site Analysis and Evaluation  
Introduction to the Cost Approach to Value  
Introduction to the Market Approach to Value  
Course 1: Fundamentals of Real Property Appraisal  
Course 2: Income Approach to Valuation  
Course 301: Mass Appraisal of Residential Property  
Course 400: Assessment Administration

**Other Courses/Seminars**

2019 NH State Statutes Course#1 (40) hours  
2019 NH State Statutes Course#2 (30) hours  
The Rushmore Model for Hotel Valuation  
Complex Industrial Property  
Mass Appraisal of High-End Residences  
Valuation of Regional Malls and Golf Courses  
Specialty Properties; Hospital Exemptions and Assisted Living  
Valuation Telecommunications Property and Wireless Technology

**The Appraisal Foundation**

National Uniform Standards of Professional Appraisal Practice Course (USPAP 2020)

**Professional Real Estate Training Institute**

Completed forty (40) hours of pre-licensure salesperson education

## **Computer/Software Experience**

Experienced with using multiple revaluation company's software.

## **Certifications/Licenses**

MA Licensed Real Estate Salesperson #00953264  
CT Certified Residential Appraiser  
NH Certified Real Estate Assessors Assistant  
VT Certified Supervisor

---

SANDRA SCHMUCKI

---

## **PROFESSIONAL EXPERIENCE**

### **VISION GOVERNMENT SOLUTIONS, INC., HUDSON, MA**

#### **2008 – Present, Project Manager**

Oversee all assigned appraisal operations; manage support staff and Staff Appraisers; project planning and supervision of multiple projects within the district. Meet with state appointed representatives of Bureau of Assessments for certification of municipality values.

#### **1999 – 2001, Staff Appraiser**

Review residential and commercial properties for revaluation purposes. Responsibilities include residential sales review, hearings with taxpayers, update 61A Farm use land value based on clients' data, set condition factors for land based on topography, reconcile income and expense reports with commercial properties on Vision software, and work with Assessor's offices. Experience includes working in Massachusetts, Connecticut, Rhode Island, New Hampshire, and Maine.

#### **1998 – 1999, Crew Chief**

Responsible for overseeing the total data collection effort, completing complex data collection assignments which may be beyond the scope of normal data collection personnel, maintaining a high level of operating competence and efficiency, monitor and evaluate the process of data collection personnel.

### **FRESENIUS MEDICAL CARE NA, NMC HOMECARE, INC., LEXINGTON, MA**

#### **1996 – 1998, Accounting Manager**

Manage department to account for regional branches with annual revenue of \$100 million. Oversee monthly close of the general ledger. Supervise three accountants and payroll department. Responsible for monthly financial reports for multiple offices, analysis of gross margin and operating costs, oversee billing and collecting accounts receivable. Implement action plan to resolve problem areas on balance sheet and fixed assets. Member of SAP accounting software implementation to resolve Y2K issue, focus on fixed assets and general ledger. Work with human resources, field management and corporate financial departments.

#### **1987 – 1996, Accountant/Accounting Supervisor**

Progressive accounting experience working in home healthcare, construction, property management and conference industries.

## **EDUCATION**

### **University of Massachusetts- Lowell, MA**

1987 Bachelor of Science Degree: Business

**SPECIAL QUALIFICATIONS**

**State of Connecticut Office of Policy and Management:** Certified Land/Residential Appraiser 2000, 2012. Certified Commercial Appraiser 2013 (valid through April 30, 2023)

**State of New Hampshire DRA Certified** Real Estate Appraiser 2005, Assessor Assistant 2010, DRA-Certified Property Assessor 2015(valid through December 30, 2020)

**State of Vermont Department of Taxation** Certified Project Supervisor (through March 2024)

**IAAO Course 300 Fundamentals of Mass Appraisal:** Certificate of Completion 2000

**IAAO Course 201 Appraising Income Properties:** Certificate of Completion 2002

**IAAO Course 100 Basics of Real Estate Appraisal:** Certificate of Completion 2004

**MAAO Course 3 – Income Approach to Value:** Certificate of Completion 2013

**MBREA Course - Basic Appraisal Principles:** Certificate of Completion 2018

**MBREA Course – Basic Appraisal Procedures:** Certificate of Completion 2018

# ADDENDUM

## Sales Codes

TABLE 54: SALES CODES

Sales Validity Codes		
Code	Description	Qualified
00	Verif by Deed or Assurance	Q
01	Verif by Buyer	Q
02	Verif by Seller	Q
03	Verif by Agent	Q
04	Verif by Other Source	Q
11	Property Sold Not Separately As:	U
12	Subdivided Post Assessment/Pri	U
13	Improvements +/- (post sale/pre	Q
14	Improvements +/- (post assessm	U
15	Improvements +/- incomplete at	U
16	L/O Assessment - L/B Sale	U
17	L/B Assessment - L/O Sale	U
18	Multiple Parcel Same Town Per I	U
19	Multi Town Property	U
20	MPC - Cannot be Sold Seperatel	U
21	Multi-Parcel Conveyance (MPC)	U
22	Indeterminate Price/Consideratic	U
23	No Stamp Required Per Deed	U
24	Sale Between Owners of Abuttin	U
25	Insufficient Market Exposure	U
26	Mineral Rights Only	U
Sales Validity Codes		
Code	Description	Qualified
27	Less than 100% Interest Transfe	U
28	Life Estate/Deferred Possession	U
29	Plottage or Assemblage Impact	U
30	Timeshare	U
31	Easement	U
32	Timber Rights	U
33	Landlord/Tenant as Grantor/Gra	U
34	Public Utility as Grantor/Grantee	U
35	Government Agency as Grantor/	U
36	Religious/Charitable/Education	U
37	Financial Entity as Grantor/Grant	U
38	Family/Relatives/Affiliates as Gri	U
39	Divorcing parties as Grantor/Gra	U
40	Business Affiliates as Grantor/Gr	U
43	Short Sale	
45	Boundary Adjustment	U
47	Other Sale of Convenience	U
48	By Sheriff or Other Court Official	U
49	Deed in Lieu of Foreclosure	U
50	Tax Sale	U
51	Foreclosure	U



Sales Validity Codes		
Code	Description	Qualified
52	Other Forced Sale	U
54	Deed to Quiet Title	U
56	Other Doubtful Title	U
57	Substantial Value in Trade	U
58	Installment Sale	U
60	Unidentifiable in Assessor's Recd	U
66	Complex Commercial Sale	U
67	Unknown Value of Persona/Nor	U
68	Pertinent Mortgage Terms Unkn	U
69	Assumed Lease With Unknown	U
70	Substantial Seller/Buyer Cost Sh	U
77	Special Assessment Encumbran	U
80	Subsidized or Assisted Housing	U
81	Estate Sale With Fiduciary Cove	U
82	Deed Date Too Old or Incomple	U
83	Cemetary Lots	U
87	Over-representation of Locale S	U
88	Over-representation of P-Type in	U
89	Resale in EQ Period	U
90	RSA 79-A Current Use	U
97	RSA 79-B Conservation Easeme	U
98	Sales Related Assessment Chan	U
99	Unclassified Exclusion	U

## Sales Used in Analysis

TABLE 55: SALES USED IN ANALYSIS

Street #	Street	Land Use	Sale date	Sale Price	Sale Code	New Assess Value
85	ALBANY ST	1020	9/4/2018	384000	0	347900
85	ALBANY ST	1020	7/2/2018	372000	0	341000
276	ALDRICH RD	1010	4/19/2018	550000	0	549200
64	AUSTIN ST	1020	8/10/2018	620000	0	594700
890	BANFIELD RD	1010	10/12/2018	450000	0	420900
217	BARTLETT ST	1020	12/27/2018	320000	0	291000
217	BARTLETT ST	1020	12/14/2018	460000	0	451100
217	BARTLETT ST	1020	11/29/2018	465000	0	446000
232	BARTLETT ST	1010	7/3/2018	345000	0	364300
101	BLUEFISH BLVD	1030	10/26/2018	296000	0	262500
114	BLUEFISH BLVD	1030	4/13/2018	275000	0	210900
135	BOW ST	1020	7/10/2018	1400000	0	1376900
135	BOW ST	1020	5/7/2018	1268000	0	1231700
135	BOW ST	1020	1/14/2019	1200000	0	1127700
21	BREWSTER ST	1020	2/22/2019	629900	0	593700
21	BREWSTER ST	1020	11/2/2018	575000	0	556600
21	BREWSTER ST	1020	12/11/2018	645000	0	622300
21	BREWSTER ST	1020	10/15/2018	625000	0	594700
21	BREWSTER ST	1020	8/3/2018	525000	0	535600
40	BRIDGE ST	1020	5/23/2018	577000	0	540100

Street #	Street	Land Use	Sale date	Sale Price	Sale Code	New Assess Value
40	BRIDGE ST	1020	8/3/2018	725000	0	666500
40	BRIDGE ST	1020	4/20/2018	673000	0	635300
40	BRIDGE ST	1020	6/14/2018	1249000	0	1143000
482	BROAD ST	1020	10/1/2018	785000	0	742300
482	BROAD ST	1020	8/15/2018	799000	0	774000
228	BUCKMINSTER WAY	1010	2/26/2019	509900	0	518000
24	BURKITT ST	1010	7/13/2018	415000	0	449500
108	BURKITT ST	1010	4/30/2018	550000	0	470800
210	CABOT ST	1020	2/15/2019	415000	0	390700
303	CABOT ST	1010	11/14/2018	560000	0	470700
117	CASS ST	1010	12/4/2018	415000	0	458700
227	CASS ST	1020	9/26/2018	339000	0	313700
239	CASS ST	1010	11/16/2018	482500	0	478600
9	CENTRAL AVE	1010	8/1/2018	412000	0	466900
25	CLINTON ST	1010	4/23/2018	320000	0	337500
7	CLOVER LN	1010	6/18/2018	395000	0	406200
34	COAKLEY RD	1010	3/15/2019	320000	0	302700
42	COAKLEY RD	1010	10/10/2018	313500	0	302700
171	CODFISH CORNER RD	1030	10/1/2018	217000	0	194500
130	COLONIAL DR	1010	11/28/2018	325000	0	292900
182	COLONIAL DR	1010	9/18/2018	365000	0	321400
627	COLONIAL DR	1010	7/17/2018	373000	0	364000
20	COLUMBIA ST	1020	5/17/2018	449000	0	427300
24	COLUMBIA ST	1020	4/12/2018	359000	0	344100
46	COLUMBIA ST	1020	6/26/2018	450000	0	424400
209	CONCORD WAY	1010	12/3/2018	278600	0	266900
214	CONCORD WAY	1010	7/23/2018	420000	0	380000
24	CONGRESS ST	3221	12/26/2018	620000	0	547600
24	COOLIDGE DR	1010	8/15/2018	549000	0	496700
205	COOLIDGE DR	1010	2/22/2019	398000	0	423200
296	COOLIDGE DR	1010	1/22/2019	480000	0	462600
98	COURT ST	1020	4/10/2018	500000	0	473700
202	COURT ST	3320	3/15/2019	1000000	0	742600
191	CRESCENT WAY	1010	3/18/2019	263800	0	259200
70	CUTTS ST	1020	9/25/2018	675000	0	615000
90	CUTTS ST	1020	8/20/2018	675000	0	607300
79	DANIEL ST	1020	4/30/2018	502000	0	462300
135	DANIEL ST	1020	11/5/2018	995000	0	899500
135	DANIEL ST	1020	11/1/2018	760000	0	750400
26	DECATUR RD	1010	9/19/2018	285000	0	270300
403	DEER ST	3842	11/9/2018	1125000	0	1169600

Street #	Street	Land Use	Sale date	Sale Price	Sale Code	New Assess Value
49	DENNETT ST	1010	11/6/2018	701000	0	695300
152	DENNETT ST	1020	8/13/2018	476000	0	438800
618	DENNETT ST	1010	9/5/2018	775000	0	700900
27	DESFOSES AVE	1030	10/26/2018	54000	0	68400
109	DIAMOND DR	1010	7/16/2018	475000	0	467600
95	DODGE AVE	1010	6/6/2018	275000	0	283200
13	DUNLIN WAY	1010	3/20/2019	530000	0	491500
30	ECHO AVE	1010	8/20/2018	446900	0	409300
155	ECHO AVE	1020	10/16/2018	295000	0	276900
3	EDGEWOOD RD	1010	8/2/2018	390000	0	376100
15	EDGEWOOD RD	1010	5/16/2018	311000	0	353000
87	EDMOND AVE	1010	8/17/2018	405000	0	407300
137	ELWYN AVE	1010	7/2/2018	1165000	0	931300
250	ELWYN RD	1010	3/5/2019	455500	0	461700
1375	ELWYN RD	1010	1/8/2019	292000	0	268400
1566	ELWYN RD	1010	6/26/2018	375000	0	344800
9	FALKLAND PL	1020	5/24/2018	399500	0	387400
65	FIELDS RD	1010	4/9/2018	655000	0	637600
10	FLETCHER ST	1010	7/2/2018	459900	0	471500
201	FLIGHT LINE RD	4021	2/27/2019	48000	0	44600
203	FLIGHT LINE RD	4021	8/29/2018	50000	0	46700
580	FW HARTFORD DR	1010	1/31/2019	585000	0	569900
595	FW HARTFORD DR	1010	11/26/2018	637500	0	591800
620	FW HARTFORD DR	1010	5/2/2018	625000	0	554800
69	GOSPORT RD	1010	12/31/2018	1250000	0	1224400
8	GREENLEAF AVE	1010	1/3/2019	501000	0	468300
4	GREENLEAF WOODS DR	3401	4/2/2018	60000	0	62400
4	GREENLEAF WOODS DR	3401	6/28/2018	87000	0	92300
4	GREENLEAF WOODS DR	3401	6/8/2018	100000	0	92300
4	GREENLEAF WOODS DR	3401	6/27/2018	100000	0	92300
6	GREENLEAF WOODS DR	3401	9/27/2018	72000	0	62400
7	GREENLEAF WOODS DR	3401	8/7/2018	66000	0	60800
77	HANOVER ST	1020	2/15/2019	965000	0	932500
77	HANOVER ST	1020	4/30/2018	439000	0	388400
77	HANOVER ST	1020	4/13/2018	670000	0	607900
4	HARDING RD	1010	2/5/2019	356200	0	369800
22	HARRISON AVE	1010	8/31/2018	375000	0	344400
34	HARRISON AVE	1010	10/30/2018	535000	0	484600
280	HERITAGE AVE	3842	5/31/2018	290000	0	278800
183	HILLSIDE DR	1010	5/9/2018	450000	0	389000
47	HOWARD ST	1010	5/1/2018	1010000	0	976700

Street #	Street	Land Use	Sale date	Sale Price	Sale Code	New Assess Value
51	ISLINGTON ST	1020	6/6/2018	480000	0	455100
271	ISLINGTON ST	1020	9/14/2018	870000	0	843000
285	ISLINGTON ST	1020	11/20/2018	938000	0	910100
314	ISLINGTON ST	1020	5/1/2018	319900	0	304900
369	ISLINGTON ST	3221	1/9/2019	213800	0	203800
371	ISLINGTON ST	3221	3/29/2019	184333	0	195900
385	ISLINGTON ST	1020	7/17/2018	425000	0	413800
401	ISLINGTON ST	1020	10/11/2018	350000	0	292500
621	ISLINGTON ST	1020	8/27/2018	370000	0	358500
871	ISLINGTON ST	1020	7/11/2018	535000	0	499500
871	ISLINGTON ST	3401	6/27/2018	37900	0	32800
1039	ISLINGTON ST	3401	7/9/2018	187500	0	184100
1	JACKSON HILL ST	1020	7/6/2018	655700	0	638800
436	JONES AVE	1010	8/22/2018	475000	0	481500
181	KEARSARGE WAY	1010	10/23/2018	250000	0	276100
581	KEARSARGE WAY	1020	10/19/2018	218000	0	208900
679	KEARSARGE WAY	1010	9/4/2018	280000	0	274400
1641	LAFAYETTE RD	1010	3/27/2019	445000	0	398700
18	LANGDON ST	1020	12/14/2018	800000	0	773800
47	LANGDON ST	1010	3/7/2019	736000	0	731400
15	LARRY LN	1010	8/27/2018	307000	0	338200
7	LAUREL COURT	1010	2/25/2019	580000	0	594200
28	LAUREL COURT	1010	7/16/2018	650000	0	594600
35	LAWRENCE ST	1010	2/15/2019	675000	0	600900
73	LESLIE DR	1010	8/10/2018	320000	0	314200
85	LESLIE DR	1010	3/29/2019	382000	0	354700
263	LESLIE DR	1010	10/25/2018	375000	0	357600
199	LINCOLN AVE	1020	3/25/2019	415000	0	376800
319	LINCOLN AVE	1010	3/13/2019	875000	0	792100
207	MACKEREL AVE	1030	5/18/2018	170000	0	166500
25	MANGROVE ST	1300	2/12/2019	225000	0	198800
32	MANNING ST	1010	11/6/2018	818800	0	769000
273	MAPLEWOOD AVE	1020	4/13/2018	370000	0	343500
334	MAPLEWOOD AVE	1010	8/31/2018	534000	0	486500
641	MAPLEWOOD AVE	1010	7/2/2018	427500	0	358400
1275	MAPLEWOOD AVE	1020	5/25/2018	298000	0	288900
1275	MAPLEWOOD AVE	1020	6/25/2018	304900	0	290500
209	MARCY ST	1012	8/24/2018	864000	0	741900
326	MARCY ST	1010	9/7/2018	900000	0	899700
23	MARIETTE DR	1010	12/14/2018	397000	0	348600
36	MARKET ST	1020	7/2/2018	1200000	0	1180100

Street #	Street	Land Use	Sale date	Sale Price	Sale Code	New Assess Value
250	MARKET ST	1020	10/2/2018	807500	0	701100
500	MARKET ST	1020	10/19/2018	479000	0	422100
500	MARKET ST	1020	10/19/2018	413000	0	422100
500	MARKET ST	1020	9/5/2018	450000	0	422100
25	MARTINE COTTAGE RD	1300	3/5/2019	375000	0	442000
34	MASON AVE	1010	6/12/2018	374000	0	343600
270	MCKINLEY RD	1010	10/19/2018	442000	0	428300
43	MCNABB CT	1010	9/28/2018	657900	0	648300
40	MERRIMAC ST	1020	4/20/2018	475000	0	452200
40	MERRIMAC ST	1020	6/25/2018	525000	0	464300
400	MIDDLE RD	1010	11/29/2018	385000	0	463300
777	MIDDLE RD	1020	12/10/2018	240000	0	231000
777	MIDDLE RD	1020	2/11/2019	240000	0	227300
777	MIDDLE RD	1020	6/15/2018	225000	0	214300
132	MIDDLE ST	1120	6/29/2018	1175000	0	1183000
159	MIDDLE ST	3400	8/31/2018	1187500	0	1070800
659	MIDDLE ST	1020	9/26/2018	607500	0	572500
733	MIDDLE ST	1020	7/23/2018	505000	0	483800
921	MIDDLE ST	1020	4/2/2018	343000	0	321500
162	MILL POND WAY	1020	6/5/2018	875000	0	812000
33	MILLER AVE	1010	9/28/2018	820000	0	764700
352	MILLER AVE	1020	4/4/2018	466500	0	437300
364	MILLER AVE	1010	5/4/2018	930000	0	924200
70	MORNING ST	1010	11/20/2018	395000	0	331600
187	MYRTLE AVE	1010	2/22/2019	365000	0	342800
60	NATHANIEL DR	1010	12/18/2018	575000	0	551200
105	NATHANIEL DR	1010	11/27/2018	545000	0	495200
131	NATHANIEL DR	1010	8/20/2018	535000	0	530700
86	NEW CASTLE AVE	1013	11/13/2018	1285000	0	1421400
137	NEW CASTLE AVE	1012	1/4/2019	1387500	0	1224900
272	NEW CASTLE AVE	1020	8/10/2018	658000	0	604100
284	NEW CASTLE AVE	1012	1/7/2019	850000	0	895600
363	NEW CASTLE AVE	1013	8/27/2018	1025000	0	1007600
6	NIXON PARK	1010	1/31/2019	685000	0	678000
380	OCEAN RD	1020	4/23/2018	252000	0	285500
380	OCEAN RD	1020	6/4/2018	277000	0	265700
380	OCEAN RD	1020	6/11/2018	289900	0	267800
381	OCEAN RD	1010	5/15/2018	485000	0	447000
570	OCEAN RD	1010	12/17/2018	519000	0	478600
48	ORCHARD ST	1020	11/1/2018	525000	0	473500
50	ORCHARD ST	1020	11/29/2018	510800	0	464100

Street #	Street	Land Use	Sale date	Sale Price	Sale Code	New Assess Value
107	ORIENTAL GDNS	1030	8/13/2018	31000	0	23600
303	ORIENTAL GDNS	1030	7/12/2018	46500	0	45900
144	PARK ST	1010	11/1/2018	760000	0	707700
226	PARK ST	1010	6/18/2018	635000	0	526600
27	PEARSON ST	1010	1/18/2019	425000	0	395800
102	PINE ST	1010	5/11/2018	450000	0	419500
50	PLEASANT POINT DR	1013	3/1/2019	830000	0	927100
405	PLEASANT ST	1010	12/27/2018	705000	0	675700
62	PORPOISE WAY	1010	11/7/2018	291000	0	270800
14	PORTER ST	1010	6/8/2018	970000	0	983000
22	PORTER ST	1010	8/27/2018	1325000	0	1091400
26	PORTER ST	1010	8/15/2018	1495000	0	1136500
144	RALEIGH WAY	1010	4/17/2018	280000	0	278800
226	RALEIGH WAY	1010	8/6/2018	289900	0	271000
261	RALEIGH WAY	1010	5/30/2018	289000	0	275700
284	RICHARDS AVE	1020	11/21/2018	297000	0	285200
430	RICHARDS AVE	1010	9/17/2018	962000	0	878600
452	RICHARDS AVE	1020	4/12/2018	679000	0	658000
45	RICHMOND ST	1010	10/26/2018	650000	0	595000
6	ROCKAWAY ST	1010	6/28/2018	753000	0	685600
113	ROCKINGHAM AVE	1010	7/2/2018	359900	0	348800
65	ROGERS ST	1012	7/12/2018	765000	0	640200
281	SAGAMORE AVE	1010	6/25/2018	948000	0	968800
579	SAGAMORE AVE	1020	10/26/2018	875000	0	800100
579	SAGAMORE AVE	1020	6/15/2018	780000	0	724600
579	SAGAMORE AVE	1020	2/19/2019	735500	0	699300
579	SAGAMORE AVE	1020	12/26/2018	1155000	0	1071300
579	SAGAMORE AVE	1020	8/28/2018	1098500	0	1060400
794	SAGAMORE AVE	1020	5/15/2018	603000	0	551300
1163	SAGAMORE AVE	1020	5/11/2018	1049000	0	1066100
1163	SAGAMORE AVE	1020	11/1/2018	1089900	0	1052600
1163	SAGAMORE AVE	1020	11/1/2018	1127000	0	1051100
1163	SAGAMORE AVE	1020	2/19/2019	1109900	0	1054800
1163	SAGAMORE AVE	1020	10/25/2018	848800	0	683600
1177	SAGAMORE AVE	1020	12/5/2018	775000	0	721400
56	SALTER ST	1013	8/30/2018	1600000	0	1186400
3	SANDERLING WAY	1010	12/3/2018	535000	0	509000
6	SIMONDS RD	1010	9/26/2018	290000	0	279100
12	SIMONDS RD	1010	3/6/2019	400000	0	406600
41	SOUTH MILL ST	1012	10/6/2018	750000	0	748400
50	SOUTH SCHOOL ST	1020	7/3/2018	1075000	0	1042500

Street #	Street	Land Use	Sale date	Sale Price	Sale Code	New Assess Value
76	SOUTH SCHOOL ST	1040	11/15/2018	620000	0	593500
66	SOUTH ST	1020	11/15/2018	464500	0	420400
139	SOUTH ST	1020	10/26/2018	949000	0	900200
3	SPINNAKER WAY	1020	4/17/2018	305000	0	295300
7	SPINNAKER WAY	1020	2/27/2019	305000	0	291800
17	SPINNAKER WAY	1020	10/26/2018	274900	0	265800
23	SPINNAKER WAY	1020	5/15/2018	310000	0	268200
47	SPINNAKER WAY	1020	8/10/2018	287500	0	263800
101	SPINNAKER WAY	1020	7/23/2018	369000	0	337400
124	SPINNAKER WAY	1020	2/19/2019	400000	0	365900
140	SPINNAKER WAY	1020	6/19/2018	400000	0	429600
163	SPINNEY RD	1010	12/3/2018	790000	0	730600
109	SPRING ST	1010	9/21/2018	549900	0	549100
108	SPRINGBROOK CIR	1020	10/2/2018	226500	0	219200
209	SPRINGBROOK CIR	1020	9/27/2018	245000	0	235600
307	SPRINGBROOK CIR	1020	6/12/2018	238000	0	224800
412	SPRINGBROOK CIR	1020	9/18/2018	228000	0	219200
416	SPRINGBROOK CIR	1020	3/21/2019	245000	0	235600
501	SPRINGBROOK CIR	1020	4/13/2018	224900	0	235600
503	SPRINGBROOK CIR	1020	6/8/2018	242500	0	231300
704	SPRINGBROOK CIR	1020	8/24/2018	217000	0	219200
709	SPRINGBROOK CIR	1020	12/21/2018	221000	0	219200
716	SPRINGBROOK CIR	1020	2/26/2019	245000	0	235600
903	SPRINGBROOK CIR	1020	4/27/2018	215000	0	224800
17	STARK ST	1040	2/19/2019	565000	0	561300
107	STARK ST	1010	8/29/2018	510000	0	459300
38	STATE ST	1020	2/25/2019	320000	0	297600
70	STATE ST	1020	6/29/2018	419000	0	412600
77	STATE ST	1020	3/6/2019	1435000	0	1314300
110	STATE ST	310	9/28/2018	1200000	0	1112700
126	STATE ST	1020	3/15/2019	495000	0	399600
159	STATE ST	1020	4/2/2018	600000	0	624900
159	STATE ST	1020	9/24/2018	620000	0	609400
159	STATE ST	1020	5/2/2018	670000	0	624200
159	STATE ST	1020	4/10/2018	679900	0	638300
224	STATE ST	1020	6/20/2018	490000	0	453200
224	STATE ST	1020	9/7/2018	500000	0	487900
224	STATE ST	1020	9/27/2018	380000	0	367200
401	STATE ST	1020	11/29/2018	385000	0	377700
401	STATE ST	1020	12/4/2018	380000	0	342500
401	STATE ST	1020	9/21/2018	330000	0	307900

Street #	Street	Land Use	Sale date	Sale Price	Sale Code	New Assess Value
414	STATE ST	1020	10/2/2018	357000	0	313800
495	STATE ST	1050	8/21/2018	675000	0	665200
767	STATE ST	111C	10/3/2018	706200	0	666500
846	STATE ST	111C	1/15/2019	750000	0	714200
860	STATE ST	1010	8/13/2018	791500	0	674600
409	STRIPED BASS AVE	1030	8/10/2018	262000	0	263900
418	STRIPED BASS AVE	1030	7/16/2018	225000	0	218700
429	STRIPED BASS AVE	1030	3/29/2019	289000	0	274200
5	SUZANNE DR	1010	6/18/2018	280000	0	289100
17	SUZANNE DR	1010	2/27/2019	349900	0	304700
24	SUZANNE DR	1010	8/20/2018	390000	0	391800
50	SWETT AVE	1010	12/7/2018	410000	0	386800
2	SYLVESTER ST	1010	11/20/2018	430000	0	400200
3	SYLVESTER ST	1010	2/28/2019	502000	0	518200
40	TAFT RD	1010	8/31/2018	365000	0	309400
51	TAFT RD	1010	8/17/2018	577500	0	584600
73	TAFT RD	1010	7/20/2018	394000	0	340400
27	THAXTER RD	1010	6/29/2018	665000	0	611300
308	THORNTON ST	1010	10/30/2018	455000	0	425000
3	TUNA TER	1030	10/30/2018	51000	0	45400
211	UNION ST	1020	8/31/2018	750000	0	775000
211	UNION ST	1020	1/28/2019	750000	0	775000
211	UNION ST	1020	7/17/2018	842000	0	812000
211	UNION ST	1020	7/18/2018	845000	0	815700
211	UNION ST	1020	7/18/2018	790000	0	751100
211	UNION ST	1020	11/27/2018	800000	0	771000
226	UNION ST	1010	5/18/2018	895000	0	785500
346	UNION ST	1020	10/23/2018	658000	0	597600
150	US ROUTE 1 BYP	1020	6/5/2018	419700	0	423500
150	US ROUTE 1 BYP	1020	10/9/2018	546800	0	540900
150	US ROUTE 1 BYP	1020	9/10/2018	454900	0	459600
150	US ROUTE 1 BYP	1020	9/4/2018	439900	0	423700
150	US ROUTE 1 BYP	1020	8/2/2018	554900	0	569300
150	US ROUTE 1 BYP	1020	8/17/2018	560000	0	569300
150	US ROUTE 1 BYP	1020	8/1/2018	419900	0	395600
150	US ROUTE 1 BYP	1020	7/16/2018	395700	0	395600
150	US ROUTE 1 BYP	1020	10/23/2018	426300	0	395600
150	US ROUTE 1 BYP	1020	10/19/2018	526000	0	487200
150	US ROUTE 1 BYP	1020	10/5/2018	427600	0	395600
150	US ROUTE 1 BYP	1020	5/23/2018	461200	0	481700
150	US ROUTE 1 BYP	1020	6/22/2018	417700	0	414400



Street #	Street	Land Use	Sale date	Sale Price	Sale Code	New Assess Value
150	US ROUTE 1 BYP	1020	6/22/2018	530300	0	538600
150	US ROUTE 1 BYP	1020	6/29/2018	553300	0	538600
150	US ROUTE 1 BYP	1020	8/1/2018	491400	0	467600
150	US ROUTE 1 BYP	1020	6/15/2018	420900	0	442500
150	US ROUTE 1 BYP	1020	9/18/2018	479900	0	439500
150	US ROUTE 1 BYP	1020	8/30/2018	540000	0	538600
150	US ROUTE 1 BYP	1020	11/13/2018	604500	0	599800
150	US ROUTE 1 BYP	1020	7/20/2018	482000	0	433700
150	US ROUTE 1 BYP	1020	6/15/2018	446400	0	413800
150	US ROUTE 1 BYP	1020	9/25/2018	459900	0	423500
150	US ROUTE 1 BYP	1020	9/11/2018	568600	0	543300
150	US ROUTE 1 BYP	1020	9/21/2018	534900	0	487000
150	US ROUTE 1 BYP	1020	6/25/2018	380700	0	395400
150	US ROUTE 1 BYP	1020	6/1/2018	390700	0	395400
201	US ROUTE 1 BYP	1010	9/21/2018	289000	0	293000
14	VAN BUREN AVE	1010	7/27/2018	452000	0	402300
233	VAUGHAN ST	1020	5/7/2018	1950000	0	1872600
215	WASHINGTON ST	1010	5/30/2018	949000	0	881000
202	WHITE CEDAR BLVD	1020	5/11/2018	169000	0	170300
312	WHITE CEDAR BLVD	1020	5/9/2018	177900	0	170200
503	WHITE CEDAR BLVD	1020	1/7/2019	179000	0	169400
508	WHITE CEDAR BLVD	1020	5/15/2018	179900	0	170200
608	WHITE CEDAR BLVD	1020	9/28/2018	180000	0	170200
809	WHITE CEDAR BLVD	1020	5/7/2018	184000	0	170200
1403	WHITE CEDAR BLVD	1020	8/17/2018	169900	0	164700
1407	WHITE CEDAR BLVD	1020	7/31/2018	188500	0	182900
1511	WHITE CEDAR BLVD	1020	10/12/2018	198000	0	182900
1605	WHITE CEDAR BLVD	1020	8/16/2018	185000	0	170200
1610	WHITE CEDAR BLVD	1020	5/9/2018	177900	0	170200
1611	WHITE CEDAR BLVD	1020	12/11/2018	188500	0	184600
1811	WHITE CEDAR BLVD	1020	8/21/2018	195000	0	182900
1910	WHITE CEDAR BLVD	1020	4/6/2018	175000	0	170200
137	WIBIRD ST	1010	7/23/2018	1150000	0	1144900
204	WIBIRD ST	1010	8/7/2018	865000	0	796400
243	WIBIRD ST	1010	5/15/2018	895000	0	899300
339	WIBIRD ST	1010	7/24/2018	575000	0	598300
349	WIBIRD ST	1040	11/2/2018	539900	0	549000
39	WILSON RD	1010	7/24/2018	429900	0	419500
43	WILSON RD	1010	4/24/2018	430000	0	399600
15	WOODBURY AVE	1010	8/27/2018	387500	0	367600
37	WOODBURY AVE	1020	3/1/2019	375000	0	359700

Street #	Street	Land Use	Sale date	Sale Price	Sale Code	New Assess Value
737	WOODBURY AVE	1010	5/17/2018	410000	0	438800
231	WOODLAWN CIR	1010	9/5/2018	379000	0	374700

## UNQUALIFIED SALES NOT USED

TABLE 56: SALES NOT USED IN ANALYSIS

Street #	Street	Land Use	Sale date	Sale Price	Sale Code	New Assess Value
230	CRESCENT WAY	1010	4/2/2018	160000	22	408700
30	CATE ST	1120	4/5/2018	4185000	13	6541600
230	CRESCENT WAY	1010	4/9/2018	320000	15	408700
313	LESLIE DR	1010	4/9/2018	345000	24	400700
175	MARKET ST	1020	4/12/2018	1430200	15	742900
117	BOW ST	3401	4/13/2018	1240000	99	1163200
64	EMERY ST	1040	4/16/2018	177500	21	431200
74	EMERY ST	1300	4/16/2018	177500	21	209000
40	BRIDGE ST	102V	4/16/2018	629000	21	28100
7	ISLINGTON ST	1020	4/16/2018	629000	21	514100
2075	LAFAYETTE RD	1120	4/19/2018	2304000	12	8312800
19	RYE ST	3401	4/20/2018	745000	40	3677900
73	PROSPECT ST	102V	4/23/2018	535000	13	718300
126	HILL ST	1040	4/23/2018	250000	38	416500
73	STATE ST	3221	4/23/2018	599700	99	688100
200	GREENLEAF AVE	9300	4/26/2018	425000	36	991600
117	BOW ST	1020	5/1/2018	625000	13	397400
217	BARTLETT ST	1020	5/1/2018	1045000	13	296300
217	BARTLETT ST	1020	5/1/2018	1045000	13	291000
217	BARTLETT ST	1020	5/1/2018	1045000	13	451100
217	BARTLETT ST	1020	5/1/2018	1045000	13	446000
8	GREENLEAF AVE	1010	5/1/2018	215000	81	468300
442	MIDDLE ST	1040	5/2/2018	400000	99	613600
11	WALDEN ST	1010	5/8/2018	425000	21	523000
0	WALDEN ST	1320	5/8/2018	425000	21	26400
252	STATE ST	3410	5/9/2018	1200000	37	1398000
115	ECHO AVE	1010	5/14/2018	380000	13	413600
99	GATES ST	1010	5/14/2018	950000	13	1157700
25	NEW HAMPSHIRE AVE	3401	5/31/2018	544100	40	476600
1275	MAPLEWOOD AVE	1020	6/1/2018	340000	33	333700
49	MT VERNON ST	1010	6/4/2018	410000	12	641900
6	TUNA TER	1030	6/4/2018	40000	33	61000
57	MT VERNON ST	1010	6/4/2018	410000	99	518400

777	MIDDLE RD	1020	6/5/2018	212000	25	171600
138	BARTLETT ST	111C	6/5/2018	420200	51	516600
200	SWETT AVE	1010	6/8/2018	343000	12	534900
210	SWETT AVE	1010	6/8/2018	343000	12	552900
188	JONES AVE	3040	6/11/2018	13500000	66	4951200
220	HILLSIDE DR	1010	6/11/2018	367000	81	364500
79	DANIEL ST	1020	6/15/2018	425000	24	352000
24	MEADOW RD	1010	6/18/2018	415800	13	492500
285	OCEAN RD	1010	6/20/2018	250000	38	342400
151	PARK ST	1010	6/28/2018	670000	13	608100
364	COLONIAL DR	1010	6/28/2018	300000	38	289800
20	TAFT RD	1010	7/3/2018	386000	38	400200
29	HIGHLAND ST	1040	7/5/2018	450000	25	506100
11	ELWYN AVE	1010	7/19/2018	550000	38	632000
255	GOSPORT RD	1013	7/20/2018	1400000	15	1717600
113	BOW ST	1020	7/30/2018	870000	13	818400
45	MILLER AVE	1010	7/30/2018	920000	21	943500
0	MILLER AVE	1060	7/30/2018	920000	21	78000
35	PLEASANT POINT DR	1010	7/31/2018	1350000	25	1035800
222	COURT ST	9300	7/31/2018	675000	36	701300
737	ISLINGTON ST	1020	8/8/2018	225000	38	211400
353	MILLER AVE	1010	8/9/2018	650000	13	689800
17	PRAY ST	1010	8/10/2018	685000	99	634800
15	THORNTON ST	1010	8/13/2018	639000	13	583000
70	STATE ST	1020	8/16/2018	651900	21	550400
70	STATE ST	1020	8/16/2018	651900	21	579700
70	STATE ST	1020	8/16/2018	651900	21	550700
56	THORNTON ST	1010	8/21/2018	320000	13	629700
77	HANOVER ST	1020	8/21/2018	450000	38	551700
100	PINEHURST RD	1010	8/27/2018	650000	99	804900
41	FAIRVIEW AVE	1010	8/31/2018	305000	13	461900
56	MIDDLE ST	3400	8/31/2018	1250000	15	1125000
1187	SAGAMORE AVE	1010	9/7/2018	269000	19	306400
0	ROCKINGHAM AVE	1300	9/10/2018	400000	21	232500
0	ROCKINGHAM AVE	1300	9/10/2018	400000	21	208100
0	ROCKINGHAM AVE	1300	9/10/2018	400000	21	223500
442	MIDDLE ST	1040	9/12/2018	530000	13	613600
138	BARTLETT ST	111C	9/14/2018	383200	37	516600
279	MARCY ST	1020	9/19/2018	609000	25	529500
55	ELWYN AVE	1010	9/20/2018	525000	40	649000
21	ROCKINGHAM ST	1020	9/25/2018	553100	40	907000
50	LOVELL ST	1010	9/27/2018	639000	99	1144000
235	HILLSIDE DR	1010	9/28/2018	387000	38	375300
23	DESFOSES AVE	1030	10/3/2018	45000	33	69300

136	HILL ST	1020	10/10/2018	250000	24	258200
397	LANG RD	1010	10/10/2018	300000	25	358900
11	COMMERCIAL ALY	3250	10/11/2018	260000	24	283900
196	SHERBURNE AVE	1010	10/12/2018	425000	13	535900
	GREENLEAF WOODS					
2	DR	3401	10/18/2018	53000	24	72600
140	SHERBURNE AVE	1010	10/22/2018	590000	13	681200
240	ELWYN RD	1010	10/31/2018	157300	25	355200
566	GREENLAND RD	1010	10/31/2018	78200	39	386600
486	OCEAN RD	1010	10/31/2018	267000	99	276900
1	CATE ST	4010	11/2/2018	14500000	13	954800
55	CATE ST	4022	11/2/2018	14500000	13	1525300
161	CATE ST	1040	11/2/2018	14500000	13	389000
0	CATE ST	3900	11/2/2018	14500000	13	595400
428	US ROUTE 1 BYP	3690	11/2/2018	14500000	13	3701000
5	OSPREY DR	1010	11/2/2018	299000	24	338900
177	WOODLAWN CIR	1010	11/6/2018	311000	51	503900
284	RICHARDS AVE	1020	11/7/2018	424900	38	422600
303	DECATUR RD	1010	11/8/2018	200300	99	346600
127	WILLARD AVE	1010	11/13/2018	725000	13	703600
10	VAN BUREN AVE	1010	11/13/2018	380000	38	373500
185	COTTAGE ST	3420	12/3/2018	650000	21	631300
185	COTTAGE ST	999V	12/3/2018	650000	21	0
19	STAYSAIL WAY	1020	12/3/2018	285000	81	284500
279	WIBIRD ST	1010	12/4/2018	552000	13	677900
124	STATE ST	1050	12/19/2018	1100000	15	935000
0	BARTLETT ST	5040	12/21/2018	1242000	14	0
0	BARTLETT ST	4010	12/21/2018	1242000	14	1292600
0	BARTLETT ST	3222	12/21/2018	1242000	24	2563500
0	BARTLETT ST	5040	12/21/2018	477400	29	0
1900	LAFAYETTE RD	3400	12/21/2018	360400	40	5116600
0	BARTLETT ST	4000	12/21/2018	38400	45	1833300
105	BARTLETT ST	3130	12/21/2018	773000	45	2224900
303	SALMON AVE	1030	12/21/2018	252000	99	265500
14	MARKET SQ	3220	1/7/2019	4250000	13	3045800
0	LAFAYETTE RD	3900	1/11/2019	425000	24	469400
777	MIDDLE RD	1020	1/16/2019	130000	81	248300
54	DANIEL ST	310	1/30/2019	962500	27	895500
88	PENHALLOW ST	3260	1/30/2019	962500	27	576600
206	WHITE CEDAR BLVD	1020	2/1/2019	161500	99	182900
17	WINCHESTER ST	1010	2/15/2019	285000	13	270000
50	HARDING RD	1010	2/19/2019	150000	38	366800
1000	GREENLAND RD	1010	2/26/2019	280000	15	300600
2	MARSH LN	1012	2/27/2019	100000	38	427400

24	EDGEWOOD RD	1010	2/28/2019	320000	81	329000
124	PINEHURST RD	1010	3/1/2019	655000	81	676100
91	HILLSIDE DR	1010	3/7/2019	370000	81	370900

## CAPITALIZATION RATE ANALYSIS BY TYPE

### PORTSMOUTH, NH FY2019 REVALUATION CAP RATE ANALYSIS

FY2019 EST TAX RATE                      \$15.00                      FACTOR                      1.50%

THE TAX FACTOR IS ONLY TAKEN OFF FOR GROSS OR NET LEASES. NNN LEASE DO NOT HAVE A TAX FACTOR APPLIED

A FEW CAP RATES DID NOT HAVE A SURVEY CATEGORY. IN THIS CASE THE BAND OF INVESTMENT WAS SOLELY USED AS SUPPORT FOR THE BASE CAP RATE.

CAP RATE CODE	DESCRIPTION	REALTY RATE.COM SURVEY	REALTY RATE.COM SURVEY	BAND OF INVESTMENT	TYPE OF LEASE	PROPOSED NEW	PROPOSED NEW	INVESTOR SURVEY
		1ST Q 2019 CR RANGES	1ST Q 2019 CR AVERAGE			BASE CAP RATE	OVERALL CAP RATE	CATEGORY USED
APT	APARTMENT	4.79% TO 13.07%	8.73%	6.20%	GROSS	6.20%	7.70%	APT ALL TYPES
AUTO	AUTO SER GAR	4.96% TO 14.67%	10.10%	7.50%	NNN	7.50%	7.50%	RETAIL ALL TYPES
BANK	BANK	4.99% TO 13.23%	9.73%	6.20%	NNN	6.20%	6.20%	OFFICE ALL TYPES
BED	NURSING HOME	4.99% TO 16.43%	9.05%	10.50%	GROSS	10.50%	12.00%	HEALTH CARE ALL TYPES
FF	FAST FOOD CHAIN	5.30% TO 15.84%	11.44%	6.50%	NNN	6.50%	6.50%	REST FF
HOTF	HOTEL FUL SERVICE	5.30% TO 17.01%	11.30%	8.50%	GROSS	8.50%	10.00%	LODGING ALL TYPES
HOTL	HOTEL LUXURY	5.30% TO 17.01%	11.30%	7.50%	GROSS	7.50%	9.00%	LODGING ALL TYPES
HOTLIM	HOTEL LIMITED SERVICE	5.30% TO 17.01%	11.30%	9.00%	GROSS	9.00%	10.50%	LODGING ALL TYPES
IND	LT IND/WHS MOD	4.97% TO 11.64%	8.43%	7.50%	NNN	7.50%	7.50%	IND WH DIST
LANE	BOWLING			9.00%	NNN	9.00%	9.00%	
MH	MOBILE HOME PARK	5.61% TO 14.05%	10.00%	7.50%	GROSS	7.50%	9.00%	MOBILE HOME PARK
MIX	MIX USE			7.00%	NET	7.00%	8.50%	
OFC	OFFICE	4.99% TO 13.23%	9.73%	8.00%	NET	8.00%	9.50%	OFFICE ALL TYPES
REST	RESTAURANT	5.30% TO 17.20%	12.49%	7.50%	NNN	7.50%	7.50%	REST ALL TYPES
RET	RETAIL	4.96% TO 14.67%	10.10%	7.70%	NET	7.70%	9.20%	RETAIL ALL TYPES
SLF	SELF STORAGE	5.03% TO 11.94%	10.33%	7.30%	NET	7.30%	8.80%	SELF STORAGE MINI
SSTA	SERVICE STATION	5.97% TO 14.19%	8.72%	7.00%	NNN	7.00%	7.00%	GAS STATION
THET	MOVIES			7.70%	NNN	7.70%	7.70%	

Section 10.520 Residential and Mixed Residential Districts

10.521 Table of Dimensional Standards – Residential and Mixed Residential Districts<sup>1</sup>

	R	SRA	SRB	GRA	GRB	GRC	GA/MH	MRO	MRB
Minimum Lot Dimensions									
<b>Lot area</b>	5 acres	1 acre	15,000 sf	7,500 sf	5,000 sf	3,500 sf	5 acres	7,500 sf	7,500 sf
<b>Lot area per dwelling unit</b>	5 acres	1 acre	15,000 sf	7,500 sf	5,000 sf	3,500 sf	10,000 sf	7,500 sf	7,500 sf
<b>Continuous street frontage</b>	NA	150'	100'	100'	80'	70'	N/A	100'	100'
<b>Depth</b>	NA	200'	100'	70'	60'	50'	N/A	80'	80'
<b>Minimum Yard Dimensions</b>									
<b>Front</b>	50'	30'	30' <sup>2</sup>	15'	5'	5'	30' <sup>2,4</sup>	5'	5' <sup>2</sup>
<b>Side</b>	20'	20'	10'	10'	10'	10'	25'	10'	10'
<b>Rear</b>	40'	40'	30'	20'	25'	20'	25'	15'	15'
<b>Maximum Structure Dimensions</b>									
<b>Structure height</b>									
<b>Sloped roof</b>	35'	35'	35'	35'	35'	35' <sup>3</sup>	35' <sup>3,4</sup>	40'	40'
<b>Flat roof</b>	35'	30'	30'	30'	30'	30'	35' <sup>3,4</sup>	30'	30'
<b>Roof appurtenance height</b>	8'	8'	8'	8'	8'	8'	8'	10'	10'
<b>Building coverage</b>	5%	10%	20%	25%	30%	35%	20% <sup>4</sup>	40%	40%
<b>Minimum open space</b>	75%	50%	40%	30%	25%	20%	50%	25%	25%

NA = Not Applicable NR = No Requirement

Notes:

1. See Article 5A and Article 5B for dimensional standards in Character and Gateway Neighborhood Mixed Use Districts.
2. See Section 10.533 for special front yard requirements on Lafayette Road.
3. Within the General Residence C and Garden Apartment/Mobile Home Park districts an additional 8' of height may be added to the maximum structure height in order to provide for multifamily dwellings that include vehicular parking spaces located within the residential building itself, if the additional height results in increased open space when compared to a site plan showing what open spaces would remain if required parking spaces were located in the open and in accessory structures.
4. See Section 10.816 for requirements within a manufactured housing park.

Section 10.530 Business and Industrial Districts

10.531 Table of Dimensional Standards – Business and Industrial Districts<sup>1</sup>

	B	GB	WB	I	WI	OR
Minimum Lot Dimensions						
<b>Lot Area</b>	20,000 sf	43,560 sf	20,000 sf	2 acres	2 acres	3 acres <sup>2</sup>
<b>Lot Area per dwelling unit</b>	2,500 sf	NR	NR	NA	NA	NA
<b>Continuous street frontage</b>	100'	200'	100'	200'	200'	300' <sup>2</sup>
<b>Depth</b>	80'	100'	100'	200'	200'	300' <sup>2</sup>
Minimum Yard Dimensions						
Front	20'	30'	30'	70'	70'	50' <sup>2</sup>
Side	15'	30'	30'	50'	50'	75' <sup>2</sup>
Rear	15'	50'	20'	50'	50'	50'
Maximum Structure Dimensions						
<b>Structure height</b>	50'	60'	35'	70' <sup>3</sup>	70' <sup>3</sup>	60' <sup>3</sup>
<b>Roof appurtenance height</b>	10'	10'	10'	10'	10'	10'
<b>Building coverage</b>	35%	30%	30%	50%	50%	30%
<b>Floor Area Ratio</b>	NR	NR	NR	NR	NR	NR
<b>Minimum open space</b>	15%	20%	20%	20%	20%	30%

Notes:  
 1. See Article 5A and Article 5B for dimensional standards in Character and Gateway Neighborhood Mixed Use Districts.  
 2. See Section 10.532.10 for requirements for lots adjacent to North Mill Pond.  
 3. See Section 10.532.20 for reduced structure height within 200' of North Mill Pond or Piscataqua River.

NA = Not Applicable NR = No Requirement





## 2018 Ratio Study Summary Report

1 of 2

2/18/2020 1:18:26 PM

Town Name: Portsmouth, Rockingham County

Date Range: 10/01/2017 through 09/30/2018

NH Dept of Revenue Administration. Ratios were created using stipulated year assessments.

Strata	Description	Mean Ratio	Median Ratio	WM Low CI	WM Ratio	WM High CI	COD	PRD	Total Strata	Sales PA34	Valid	Valid %	Valid PA34	Valid PA34 %	UT#	UT %
76	Homes with Accessory Dwelling Units	0	0	0	0	0	0	0	1	1	1	100%	1	100%	1	100%
11	Single Family Home	89.40	89.36	86.75	88.37	89.73	6.69	1.01	199	182	143	71.9%	133	93.0%	142	99.3%
70	Waterfront	0	0	0	0	0	0	0	7	7	3	42.9%	3	100%	3	100%
12	Multi Family 2-4 Units	92.29	93.75	87.13	93.03	96.60	8.84	0.99	15	13	8	53.3%	8	100%	8	100%
13	Apt Bldg 5+ Units	0	0	0	0	0	0	0	2	0	1	50.0%	0	0%	1	100%
14	Single Res Condo Unit	91.43	92.03	91.56	92.51	93.44	4.59	0.99	207	191	138	66.7%	127	92.0%	137	99.3%
18	Mfg Housing Without Land	90.12	93.11	76.88	88.82	100.79	13.33	1.01	15	12	8	53.3%	6	75.0%	8	100%
22	Residential Land	0	0	0	0	0	0	0	8	4	1	12.5%	1	100%	1	100%
23	Commercial Land	0	0	0	0	0	0	0	1	1	1	100%	1	100%	1	100%
33	Commercial L&B	0	0	0	0	0	0	0	22	15	3	13.6%	3	100%	3	100%
44	Commercial Condo	93.92	95.69	89.74	92.38	95.32	6.15	1.02	30	23	14	46.7%	12	85.7%	14	100%
45	Industrial Condo	0	0	0	0	0	0	0	1	0	1	100%	0	0%	1	100%
73	Waterfront Influence	0	0	0	0	0	0	0	4	4	2	50.0%	2	100%	2	100%
AA	Any & All	90.53	91.31	89.60	90.65	91.76	6.30	1.00	509	446	318	62.5%	291	91.5%	317	99.7%
GC1	Area Improved Res	90.55	91.31	89.67	90.58	91.42	5.97	1.00	436	398	297	68.1%	274	92.3%	294	99.0%
GC2	Area Improved Non-Res	91.52	93.97	82.69	89.22	93.19	7.75	1.03	60	40	19	31.7%	15	78.9%	19	100%
GC3	Area Unimproved	0	0	0	0	0	0	0	10	5	2	20.0%	2	100%	2	100%



## 2018 Ratio Study Summary Report

2 of 2

2/18/2020 1:18:26 PM

Town Name: Portsmouth, Rockingham County

Date Range: 10/01/2017 through 09/30/2018

NH Dept of Revenue Administration. Ratios were created using stipulated year assessments.

Type	Description	Median Low CI	Median Ratio	Median High CI	PRD Low CI	PRD	PRD High CI	COD	UT#
All (AA)	Any & All	90.43	91.31	91.95	0.99	1.00	1.01	6.30	317
Group (GC1)	Area Improved Res	90.39	91.31	91.89	0.99	1.00	1.01	5.97	294
Group (GC2)	Area Improved Non-Res	89.31	93.97	97.16	0.99	1.03	1.08	7.75	19
Group (GC3)	Area Unimproved	0	0	0	0	0	0	0	2

Title	Description	Criteria Met
Strata-Any and All (Median)	Overall Median Point Estimate confidence interval should overlap range of 90-110	True
Strata-Any and All (PRD)	Overall PRD Confidence Interval should overlap range of .98-1.03	True
Strata-Any and All (COD)	Coefficient of Dispersion < 20.0	True
Strata-GC1	Median Confidence Interval should overlap overall median +/- 5%	True
Strata-GC2	Median Confidence Interval should overlap overall median +/- 5%	True
Strata-GC3	Median Confidence Interval should overlap overall median +/- 5%	N/A

**FIVE-YEAR VALUATION CONTRACT  
PARTIAL UPDATE OR STATISTICAL REVALUATION  
REAL ESTATE PROPERTIES  
2018, 2019, 2020, 2021, 2022**

SUBJECT: An annual statistical update of values, means the process of a revaluation of all taxable and nontaxable real properties in a Municipality, using existing property data, to arrive at full and true value as of April 1 of each year.

SUBJECT: partial update means the process of analyzing market sales throughout the entire municipality to identify and implement needed value changes to the affected areas, or classes of property, to bring those properties to the Municipality's general level of assessment utilizing the existing base tax year and providing an addendum to the existing USPAP compliant report.

The City of Portsmouth, NH, a municipal corporation organized and existing under the laws of the State of New Hampshire, hereinafter called Municipality; and, Vision Government Solutions, Inc. a business organization existing under the laws of the State of Massachusetts, and having a principal place of business at, 1 Cabot Rd, Hudson, MA 01749, hereinafter called Contractor, hereby mutually agree as follows:

**This Contract replaces and supersedes an existing contract between the parties dated 5/2/2018.**

**GENERAL PROVISIONS**

**1. PARTIES**

1.1 Name of Municipality:	<u>CITY OF PORTSMOUTH</u>
1.2 Mailing Address of Municipality:	<u>1 Junkins Ave. Portsmouth, NH 03801</u>
1.3 Contracting Official(s) name(s) and title(s) for Municipality:	<u>John P. Bohenko</u>
1.4 Telephone and Fax numbers:	<u>Phone: (603) 610-7202 Fax: (603) 427-1575</u>
1.5 E-mail Address, if applicable:	<u>jpbohenko@cityofportsmouth.com</u>
<hr/>	
1.6 Name of Contractor:	<u>Vision Government Solutions</u>
1.7 Mailing Address of Contractor:	<u>1 Cabot Road Hudson, MA 01749</u>
1.8 Principal Place of Business:	<u>Same as above</u>
1.9 E-mail Address, if applicable:	<u>sales@vggsi.com</u>
1.10 Telephone and Fax numbers:	<u>Phone: 800-628-1013 Fax: 508-351-3798</u>
1.11 Name and title of authorized officer for Contractor:	<u>Kevin Bullock, CFO</u>
1.12 Type of Business Organization:	<u>C-Corporation</u>

**DEFINITIONS:**

**Abatement Review** means to make an assessment recommendation to the municipal assessing officials or to make a change to an assessment that is in response to an abatement request from a taxpayer. **Rev 601.01**

**Appraisal** means the act or process of developing a market value estimate of property which will be used as the basis for valuation, fulfilling a municipality's statutory duties relative to property tax administration including, but not limited to those pursuant to RSA 75:1. **Rev 601.02**

**Assessing Services** means the making of appraisals, reappraisals, assessments, or providing other services on behalf of municipal assessing officials for the statutory administration of property valuation and assessment including, but not limited to those pursuant to RSA 75:1. **Rev 601.05**

**Assessing Standards Board (ASB)** means the State of New Hampshire assessing standards board as established pursuant to RSA 21-J:14-a. **Rev 601.06**

**Assessment** means an estimate of the quality, amount, size, features, or worth of real estate which is used as a basis for a municipalities' valuation in accordance with statutory requirements including, but not limited to those pursuant to RSA 75:1. **Rev 601.07**

**Base Year** means the tax year in which the municipality performed a revaluation of all properties. **Rev 601.08**

**BTLA Reassessment** means an order by the State of New Hampshire board of tax and land appeals for a revaluation or partial update of a municipality's property assessments. **Rev 601.09**

**Calibration** means the process of ensuring the predictive accuracy of the CAMA model(s), through testing, which may include but not be limited to; determining the variable rates and adjustments from market analysis for land and land factors, costs and depreciation for a cost model, valuation rates and adjustments for a sales comparison model, and market rents and capitalization rates for an income model. **Rev 601.10**

**Computer Assisted Mass Appraisal System (CAMA)** means a system of appraising property that incorporates computer-supported tables, automated valuation models and statistical analysis to assist the appraiser in estimating value for a revaluation, assessment data maintenance and valuation update. **Rev 601.11**

**Contract** means any agreement between the municipality and the contractor for making appraisals, reappraisals, assessments, or for appraisal work on behalf of a municipality with the State of New Hampshire. **Rev 601.13**

**Contractor** means the person, firm, company, or corporation with which the municipality has executed a contract or agreement for assessing services. **Rev 601.14**

**Cyclical Inspection** means the process of a systematic measure and listing of all properties within a municipality over a specified period of time. The term includes "data collection" and "data verification". **Rev 601.15**

**Cyclical Revaluation** means the process of combining a full statistical revaluation of the entire municipality with a cyclical inspection process. **Rev 601.16**

**Data Collection** means the inspection, measuring, or listing of property within a municipality. The term includes data verification. **Rev 601.17**

**DRA-certified** means a level of certification attained by a person as set forth by the ASB in Asb 300 pursuant to RSA 21-J:14-f. **Rev 601.20**

**Executed** means to transact, agree to, carry into effect, sign or act upon a contract or agreement to perform assessing services for a municipality. The term includes “executing”. Rev 601.22

**Final Monitoring Report** means the DRA’s final letter to the municipality for any revaluation or partial update. Rev 601.23

**Full Revaluation** means the revaluation of all taxable and nontaxable properties in a municipality, with a complete measure and listing of all taxable and nontaxable properties to occur at the same time of the establishment of the new base year, to arrive at full and true value as of April 1. The term includes “full reappraisal” and “full reassessment.” Rev 601.24

**Full Statistical Revaluation** means the process of a revaluation of all taxable and nontaxable properties in a municipality, using existing property data, to arrive at full and true value as of April 1. The term includes “statistical update” and “statistical reassessment”. Rev 601.25

**Highest and Best Use** means the physically possible, legally permissible, financially feasible, and maximally productive use of a property, as appraised in accordance with RSA 75:1. Rev 601.26

**Improvement** means any physical change to either land or to buildings that may affect value. Rev 601.27

**In-house Work Plan** means a written set of goals, objectives, processes, and timelines that the municipality intends to rely upon to perform revaluations, partial updates, or cyclical inspections. Rev 601.29

**Listing** means recording a description of the interior, exterior, and attributes of any improvements or the recording of the description of land features and attributes. The term includes “list”. Rev 601.30

**Market Analysis** means the study and processes utilized to determine the response of buyers and sellers of real estate, in a geographic area, to various data elements through the analysis of cost data, income data, and sale transactions in the performance of mass appraisal. Rev 601.31

**Market Value** means the value of a property that:

- (a) Is the most probable price, not the highest, lowest or average price;
- (b) Is expressed in terms of money;
- (c) Implies a reasonable time for exposure to the market;
- (d) Implies that both buyer and seller are informed of the uses to which the property may be put;
- (e) Assumes an arm’s length transaction in the open market;
- (f) Assumes a willing buyer and a willing seller, with no advantage being taken by either buyer or seller; and,
- (g) Recognizes both the present use and the potential use of the property.

The term includes “full and true value”. Rev 601.32

**Mass Appraisal** means the utilization of standard commonly recognized techniques to value a group of properties as of a given date, using standard appraisal methods, employing common data and providing for statistical testing. Rev 601.33

**Measure** means the physical inspection, verification, sketching and recording of the exterior dimensions and attributes of any improvements made to a property. Rev 601.34

**Municipal Assessing Officials** means those charged by law with the duty of assessing taxes and being the:

- (a) Governing body of a municipality;
- (b) Board of assessors or selectmen of a municipality; or
- (c) County commissioners of an unincorporated place.

Rev 601.36

**Municipality** means a city, town or unincorporated place. Rev 601.37

**Partial Update** means the process of analyzing market sales throughout the entire municipality to identify and implement needed value changes to the affected areas, or classes of property, to bring those properties to the municipality's general level of assessment utilizing the existing base tax year and providing an addendum to the existing USPAP compliant report. The term includes "partial revaluation." Rev 601.38

**Revaluation** means the act of re-estimating the worth of real estate of the entire municipality using standard appraisal methods, calibration of the CAMA tables and models, establishment of a new base year with a USPAP compliant report, and providing for statistical testing whether by either:

- (a) A full revaluation; or,
- (b) A full statistical revaluation.

The term includes "reappraisal," "reassessment," and "value anew". Rev 601.40

**Sale Validation** means the process of verifying a real estate sale transaction to determine whether the sale was a valid or an invalid indicator of the market value of the sold property. The term includes "sale verification" and "sale qualification." Rev 601.41

**Statistical Testing** means the use or application of numerical statistics to understand the results of a reappraisal or the need for a reappraisal. Rev 601.42

**Uniform Standards of Professional Appraisal Practice (USPAP)** means the generally accepted and recognized standards of appraisal practice printed by The Appraisal Foundation as authorized by Congress as the source of appraisal standards and appraiser qualifications. Rev 601.44

**USPAP Compliant Report** means an appraisal report based upon the standards established by the ASB pursuant to RSA 21-J:14-b I, (c.) Rev 601.45

#### DUTIES OF:

##### **DRA-Certified Building Measurer and Lister Duties Asb 304.01**

- (a) A DRA-certified building measurer and lister may collect data as described in Asb 303.02 for the sales survey.
- (b) A DRA-certified building measurer and lister shall not validate or invalidate any property sales.
- (c) A DRA-certified building measurer and lister shall not determine, or change, the quality grade or depreciation of structures.

**DRA-Certified Property Assessor Assistant Duties Asb 304.02** A DRA-certified property assessor assistant may, under the guidance and review of a DRA-certified property assessor or DRA-certified property assessor supervisor in accordance with Asb 303.03:

- (a) Appraise various types of real estate for tax purposes; and,
- (b) Verify sales for the sales survey.

##### **DRA-Certified Property Assessor Duties Asb 304.03**

- (a) A DRA-certified property assessor may, in accordance with Asb 303.04:
  - (1) Appraise property for tax purposes including:
    - (a) The annual maintenance of assessments by using sales surveys, charts, and schedules; and,
    - (b) Using cost data established by a DRA-certified property assessor supervisor during the year of the last revaluation;
  - (2) Validate or invalidate sales for the sales survey; and,
  - (3) Submit a signed and dated statement to the DRA attesting to the qualifications of a building measurer and lister working under the DRA-certified property assessor's supervision to be true, accurate and correct.
- (b) A DRA-certified property assessor shall not adjust the cost, land, depreciation, or other tables resulting in a change to the values without the approval of a DRA-certified property assessor supervisor.

**DRA-Certified Property Assessor Supervisor Duties Asb 304.04** A DRA-certified property assessor supervisor, may, in accordance with Asb 303.05:

- (a) Exercise general supervision over a revaluation;
- (b) Conduct sales surveys and establish base values for land and buildings;
- (c) Prepare the sales survey;
- (d) Establish charts and schedules to be used in the revaluation;
- (e) Prepare reports;
- (f) Supervise informal reviews of property assessments with the property owner;
- (g) Oversee any partial update or revaluation by assisting the municipality to ensure the revaluation is performed in accordance with state laws and rules;
- (h) Assist the municipality to ensure that compliance with the contract is adhered to; and,
- (i) Submit a signed and dated statement to the DRA attesting to the qualifications at all levels of certification to be true, accurate and correct.

## **2. RESPONSIBILITIES AND SERVICES TO BE PERFORMED BY CONTRACTOR**

### **2.1 Contract Submission**

The contract, any revised contract, and the list of personnel assigned to work under the contract, shall be submitted to the DRA for examination and written recommendations of the DRA to be made to Municipality within 10 working days of receipt by the department. No work shall begin without first submitting a copy of the executed contract or agreement to the commissioner along with the names and qualifications of all personnel to be employed under the contract or agreement

### **2.2 Assessment of all real property**

Contractor shall appraise all real property in the City of Portsmouth as follows:

- 2.2.1 Contractor shall appraise all real taxable property (RSA 72:6) within Municipality in a good and workmanlike manner in accordance with RSA 75:1.
- 2.2.2 Contractor shall appraise all real tax exempt and non-taxable property (RSA 74:2) within the taxing jurisdiction of Municipality in the same manner as taxable property.
- 2.2.3 Contractor shall verify and field review all sales used to determine benchmarks for the partial update or revaluation and shall field review additional properties annually as described in section 3.
- 2.2.4 Contractor shall utilize Municipality's Vision CAMA System to assess properties.

### **2.3 Completion of Work**

- 2.3.1 Contractor shall complete all work and deliver the same in final form to the municipal assessing officials on or before September 30<sup>th</sup> for tax year 2018 and August 30<sup>th</sup>, of each year (2019, 2020, 2021&2022).
- 2.3.2 **A penalty of \$300 per day shall be paid by Contractor for each day required beyond the above stated completion dates, for each project year, for delays caused by Contractor.**
- 2.3.3 Contractor shall provide Municipality a list of all products to be delivered and dates of delivery thereof. The products include:
  - (1) Property record cards in hard copy; electronic or both formats;
  - (2) The USPAP Compliant Appraisal Report;
  - (3) The Data Collection Manual;
  - (4) The CAMA System Manual; and,
  - (5) Any other products as deemed necessary by the municipal assessing officials (as described in Section 3).

- 2.3.4 The partial update or revaluation shall be considered satisfied and in its final form only when:
- (1) The informal review of assessments has been completed as described in Section 3.6;
  - (2) Any required value adjustments are made;
  - (3) The final values are submitted to and accepted by the municipal assessing officials;
  - (4) All products required by the contract are delivered to Municipality and the DRA;
  - (5) The DRA has completed its final monitoring report;
  - (6) Values established by Contractor have been defended through the municipal abatement process, as described under RSA 76:16, for the year of the partial update or revaluation; and,
  - (7) All other terms of the contract have been satisfied.

## **2.4 Personnel**

- 2.4.1 For grading, classifying, appraising of all property covered by the contract, Contractor shall only employ personnel who are:
- (1) Certified by the DRA, as a DRA Property Assessor or DRA Property Assessor Supervisor.
  - (2) Approved by the municipal assessing officials.
- 2.4.2 Contractor shall not compensate, in any way, a municipal official, employee or any immediate family member of such official or employee in the performance of any work under the contract unless previously disclosed and a prior full-time employee of Contractor.
- 2.4.3 Upon approval of the contract and before the partial update or revaluation begins, Contractor shall provide to the DRA and the municipal assessing officials, a list of the DRA-certified personnel assigned to work under the contract.
- 2.4.4 Contractor shall ensure that the DRA-certified assessor supervisor is proficient in the use and calibration of the CAMA system that will be used to assess the property specified in Section 2.2.
- 2.4.5 Contractor shall ensure that the individual(s) assigned to perform data entry are proficient in the use of Municipality's CAMA system.
- 2.4.6 Contractor shall ensure that the DRA-certified assessor supervisor will be present on site 100% of the time for the duration of the contract.

## **2.5 Public Relations**

- 2.5.1 Contractor and the municipal assessing officials, during the progress of the work, shall each use their best efforts to promote full cooperation and amiable relations with taxpayers. All publicity and news releases shall be approved by the municipal assessing officials before being released to the news media. Contractor, upon request of the municipal assessing officials, shall provide assistance in conjunction with the municipal assessing officials to acquaint the public with the mechanics and purpose of the partial update or revaluation.

## **2.6 Confidentiality**

- 2.6.1 Contractor, municipal assessing officials or municipal employees shall not disclose any preliminary values to anyone or permit anyone to use or access any data on file during the course of the partial update or revaluation project, except the municipal assessing officials and the Commissioner of the DRA, or their respective designees, until the values have been submitted to the municipal assessing officials and made public.

## **2.7 Compensation and Terms**

- 2.7.1 Municipality, in consideration of the services hereunder to be performed by Contractor, agrees to pay Contractor the sum total of Three Hundred Sixty-Three Thousand Seven



Hundred Dollars (\$363,700); broken out annually \$69,700 for Fiscal Year 2018, \$65,500 for Fiscal Year 2019, \$65,500 for Fiscal Year 2020, \$65,500 for Fiscal Year 2021 and \$97,500 for Fiscal Year 2022, pursuant to the terms of the agreement as defined in Section 3.

Contractor acknowledges that municipality budgets annually and municipality has appropriated funds for the fiscal year 2018 only. Payments for future years are conditioned upon City Council appropriations. In the event of non-appropriation, contractor shall be timely notified and the parties shall coordinate close out of the work and termination of the agreement.

- 2.7.2 The amount or terms of compensation to be paid by Municipality for assessing services to support and defend assessments that are appealed to the BTLA or superior court, if not included in Section 3 of the agreement, quoted on a hourly or daily basis plus expenses is: \$1,000 per Diem.
- 2.7.3 Payment shall be made in monthly installments as the work progresses based on 90% of the estimated proportion of the work completed in the preceding month with the 10% balance being held and accumulated until final satisfactory completion of the partial update or revaluation as defined in 2.2.4. Rev 602.20 (a), including the DRA final monitoring report
- 2.7.4 Payment shall be based on monthly progress reports submitted by the Contractor and after being accepted by the Municipality.

#### **DETAIL OF SERVICES TO BE PERFORMED BY CONTRACTOR**

##### **3.1 Collection of Sale and Newly Inventoried Property Data**

- 3.1.1 Vacant land parcels and any attributes that may affect the market value shall be reviewed accurately. Such attributes may include, but not be limited to: number of acres; road frontage; neighborhoods; water frontage; water access; views; topography; easements; dedeed restrictions and other factors that might affect the market value.
- 3.1.2 Principal building(s), and any appurtenant building(s), or other improvements, shall be accurately measured and listed by the municipality through annual data collection efforts to account for the specific elements and details of construction as described in the data collection manual. Such elements and details may include, but not be limited to: quality of construction; age of structure; depreciation factors; basement area; roofing; exterior cover; flooring; fireplaces; heating & cooling systems; plumbing; story height; number of bathrooms; number of bedrooms; and, other features, attributes, or factors that might affect market value.
- 3.1.3 Contractor shall complete street field review of all sales properties that will be utilized in the sales analysis.
- 3.1.4 Contractor shall provide monthly progress reports indicating the percentage of completion of the statistical partial update or revaluation to the municipal assessing officials and the DRA.

##### **3.2 Property Record Cards**

- 3.2.1 Contractor shall prepare an individual property record card, for each separate parcel of property in Municipality arranged to show:
  - (1) The owner's name, street number, map and lot number or other designation of the property;
  - (2) The owner's mailing address;
  - (3) Information necessary to derive and understand:
    - (a) The land value;

- (b) The number of acres of the parcel;
- (c) The land classification;
- (d) The adjustments made to land values;
- (e) The value of the improvements on the land;
- (f) The accurate description of all improvements whether affecting market value or not;
- (g) The improvement pricing details; and,
- (h) The allowances made for physical, functional and economic depreciation factors;
- (4) The outline sketch of all principal improvements with dimensions with the street side or waterfront toward the bottom of the diagram;
- (5) The base valuation year;
- (6) The print date of property record card;
- (7) Photograph of the principal building;
- (8) History of the property transfer to include:
  - (a) Date of sale;
  - (b) Consideration amount;
  - (c) Qualification code; and,
  - (d) Property type noted as either vacant or improved;
- (9) A notation area to record any comments pertaining to the property; and,
- (10) A notation area to record the history of the property, which may include, but not be limited to:
  - (a) Property inspection date;
  - (b) Individual's identification number or initials associated with the inspection;
  - (c) The extent of the inspection;
  - (d) Reason for the inspection; and,
  - (e) Any value adjustment(s),

### 3.3 Market Analysis

- 3.3.1 A DRA-certified property assessor supervisor shall conduct the partial update or statistical revaluation market analysis.
- 3.3.2 A DRA-certified property assessor or a DRA-certified property assessor supervisor, may validate or invalidate sales for the market analysis.
- 3.3.3 The municipal assessing officials shall provide to Contractor a copy of all property transfers for a minimum of one (1) year immediately preceding the effective date of the partial update or revaluation.
- 3.3.4 A market analysis shall be conducted by Contractor using accepted mass appraisal methods in order to determine land, improvements and any other contributory values or factors including:
  - (1) A field review of all real property transfers provided by the municipal assessing officials to Contractor;
  - (2) A compilation of all unqualified real property transfers into a sales list with appropriate notations for those sales not used in the analysis accompanied by:
    - (a) The parcel map and lot number;
    - (b) The disqualification code;
    - (c) The date of sale; and,
    - (d) The sale price.
  - (3) A compilation of all qualified real property transfers into a sales list with appropriate notations for those sales used in the analysis accompanied by:
    - (a) The parcel map and lot number;
    - (b) The date of sale;
    - (c) The sale price;
    - (d) The newly established value;
    - (e) A photocopy or printout of the property record card for each property transferred; and,
    - (f) A photograph of the principal improvements attached thereto;

- (4) Estimated land values with the documented results, as follows:
  - (a) Utilizing vacant land sales whenever possible; and,
  - (b) In the absence of an adequate number of vacant land sales, the land residual method or other recognized land valuation methodologies shall be used to assist in the determination of land unit values;
- (5) The Indicated land values shall be documented as:
  - (a) Site;
  - (b) Front or square foot;
  - (c) Front acre;
  - (d) Rear acre units; and/or,
  - (e) Other appropriate units of comparison;
- (6) An analysis section to include:
  - (a) The sale price; and,
  - (b) Supporting adjustments made in sufficient detail to be understood by the municipal assessing officials and taxpayers;
- (7) The market analysis used to indicate unit values with the documentation of the method(s) employed and any special adjustment factors; and,
- (8) Tax Maps showing the locations of all qualified sales and the delineation of neighborhoods.

3.3.5 The preliminary market analysis shall:

- (1) Be provided to the municipal assessing officials and the DRA prior to the acceptance of the new values by the municipal assessing officials;
- (2) Be printed in its final form, and provided to the municipal assessing officials and the DRA at the completion of the partial update or revaluation as part of the USPAP compliant report; and,
- (3) Become property of Municipality and the DRA.

3.3.6 Contractor shall ensure that a final comprehensive review of the newly established values shall be performed by a DRA-certified property assessor supervisor utilizing a parcel-by-parcel field review of the following properties;

- 20% Residential & 10% Commercial for 2018
- 20% Residential for 2019, 2020 & 2021
- 20% Residential & 100% Commercial for 2022

in the Municipality to:

- (1) Ensure that properties are valued at their highest and best use; and,
- (2) Identify and correct: any mechanical errors; inconsistencies; unusual features or value influencing factors.

3.3.7 Any supporting documentation supplied, provided or utilized by Contractor in the process of compiling the market analysis, such as but not limited to: sales verification sheets; rental/expense statements and questionnaires; Contractor cost estimates; sales listing sheets; final review notes; etc., shall be relinquished to and become property of Municipality.

### 3.4 Approaches to Value

3.4.1 The valuation of property for the partial update or revaluation shall be completed by utilizing recognized approaches to value, which may include, but not be limited to:

3.4.2 Cost Approach:

- (1) The cost approach, when utilized, shall be implemented by calibrating and applying land valuation tables, building valuation tables and unit costs as follows:
  - (a) Investigate, with documented analysis, land values for residential, commercial, industrial and any special use properties in the area;
  - (b) Document the land valuation tables and unit costs by including statistical testing to compare the calculated preliminary land value to the sale properties to ensure accuracy before the land valuation tables and unit costs are implemented;

- (c) Document the development of the units of comparison that shall be used for the base land prices, which may include, but not limited to: site; front foot; square foot; front acre; rear acre; and, other appropriate units of comparison;
  - (d) Document site specific characteristic land adjustments, which may include, but not be limited to: topography; view; size; location; and, access; and,
  - (e) Document the calibration of land tables and models.
- (2) In developing building cost tables, Contractor shall provide the following:
- (a) Investigate, with documented analysis, the building costs of residential, commercial, industrial and any special use properties in the area;
  - (b) Document the testing of Contractor's building valuation tables and unit costs by comparing the calculated preliminary building value to the sale properties, for which the building costs are known, to ensure accuracy before the building valuation tables and unit costs are implemented;
  - (c) The building cost tables shall consist of unit prices based upon relevant factors, which may include, but not be limited to: specifications for various types of improvements; the quality of construction; the building customs and practices in Municipality; various story heights and square foot areas adequate for the valuation of all types of buildings and other improvements to the land; tables for additions and deductions for variations from the base cost improvement specifications; and, tables for depreciation based upon age and condition of the improvements.
  - (d) Document the calibration of all building cost tables and models.

3.4.3 Income Approach:

- (1) The income approach, when utilized, shall be implemented by calibrating and applying valuation models as follows:
- (a) Investigate and qualify, with documented analysis, market data, which may include but not be limited to: rental income; expenses; vacancy; and, capitalization rates for residential, commercial, industrial and any other special use properties;
  - (b) Describe property specific characteristics;
  - (c) Document statistical testing for the income valuation models to known sales of similar properties;
  - (d) Create valuation models consisting of market data based upon:
    - (i) Defined descriptions and specifications based upon property type; and,
    - (ii) Quality and size of the improvements; and,
  - (e) Document the calibration of all income approach valuation tables and models.

3.4.4 Market-Sales Comparison Approach:

- (1) The market-sales comparison approach, when utilized, shall be implemented by calibrating and applying valuation models as follows:
- (a) Contractor shall qualify, analyze, and use sales as direct units of comparison in the valuation of residential commercial, industrial and any other special use properties;
  - (b) Investigate with documented analysis comparable sales;
  - (c) Document the adjustments for specifics, which may include, but not be limited to: location; time; size; features; and, condition;
  - (d) Document how the adjustments were derived;
  - (e) Document final value reconciliation; and,
  - (f) Document calibration of all sales comparison tables and models.

3.4.5 In the utilization of the appraisal approaches to valuation, Contractor shall make and document adjustments made to properties for depreciation factors, which may include, but not be limited to: physical; functional; and, economic conditions.

3.5 Left Blank Purposely

### 3.6 Value Notification and Informal Reviews

- 3.6.1 Contractor shall provide to the municipal assessing officials:
- (1) A list of the newly established values for review;
  - (2) A preliminary value analysis with a copy delivered to the DRA for review; and,
  - (3) The informal review schedule in advance.
- 3.6.2 Contractor shall mail of each year (2018, 2019, 2020, 2021&2022), first class, to all real property owners, the notification of the newly established value of their property by sending to the property owner either of the following:
- (1) A letter to the owner stating the newly established value of their property and whether Contractor has either:
    - (a) Published a list of all property owners containing the newly established valuations for all properties within Municipality in an identified newspaper of general circulation for the entire Municipality; or,
    - (b) Posted in two (2) identified public places within Municipality a list of all property owners and the newly established values of the entire Municipality.
- 3.6.3 The notification of newly established values shall contain the details of the informal review process, instructions on scheduling an informal review; and the time frame in which informal reviews shall be scheduled.
- 3.6.4 The notification of newly established values shall contain instructions in regard to the appeal process for abatements pursuant to RSA 76:16, RSA 76:16-a and RSA 76:17.
- 3.6.5 After mailing or posting of the notification of newly established values, Contractor shall ensure that an informal review of the newly established property values is provided to all real property owners who may, within the time prescribed by the contract, request such a review.
- 3.6.6 Notwithstanding Section 2.6 of this contract (Confidentiality), Contractor shall make available to all real property owners the property record card and market analysis related to their newly established property value(s).
- 3.6.7 Contractor shall notify, by first class mail, all real property owners addressed during the informal reviews and indicate whether or not a change in value resulted and the amount thereof.
- 3.6.8 All documentation utilized or obtained during the informal review process shall be relinquished to the municipal assessing officials.

### 3.7 Appraisal Reporting and Appraisal Manuals

- 3.7.1 Contractor shall provide a preliminary USPAP compliant appraisal for public viewing when preliminary values are established and informal hearings are scheduled. The Contractor shall also provide a final USPAP compliant appraisal report pursuant to RSA 21-J:14-b,1,(c): by September 30, of each year (2018, 2019, 2020, 2021&2022). Both reports shall comply with the most recent edition of the USPAP Standard 6. The reports shall contain, at a minimum, the following:
- (1) A letter of transmittal to include a signed and dated certification statement;
  - (2) Sections detailing:
    - (a) The scope of work;
    - (b) The development of values;
    - (c) Time trending analysis;
    - (d) Land and neighborhood data;
    - (e) Improved property data;
    - (f) Statistical testing, analysis, and quality control; and,

- (g) The development of approaches to value used in the partial update or revaluation of properties.
  - (3) Appendices which may include, but not be limited to:
    - (a) Work plan;
    - (b) Neighborhood maps;
    - (c) Names and levels of DRA-certified individuals authoring or assisting with the development of the USPAP compliant report;
    - (d) CAMA system codes;
    - (e) Identification and description of zoning districts;
    - (f) Qualified and unqualified sale codes; and,
    - (g) Other useful definitions or information.
  - (4) Instructions, or as a separate document, adequate instructions for the municipal assessing officials to:
    - (a) Understand the valuation methodologies employed;
    - (b) Understand the market and neighborhood adjustments; and,
    - (c) Understand the conclusions of the appraisal report.
- 3.7.2 Contractor shall provide preliminary and final USPAP compliant reports for residential and commercial/industrial properties to the municipal assessing officials, to be retained by the municipal assessing officials until the next partial update or revaluation and a copy to the DRA.
- 3.7.3 Contractor shall be provided a data collection manual by the municipality, to be included within the USPAP report, or as a separate document, which may include but not be limited to:
- (1) A description of building characteristics; extra features; outbuildings; site improvements; site characteristics; road frontage; water frontage; water access; topography; and view;
  - (2) A glossary and description of all codes used within the data collection and on property record cards;
  - (3) A description of all grading factors utilized, which may include, but may not be limited to: condition factors; quality; depreciation; amenity values; and other factors or conditions; and,
  - (4) A glossary and description of the coding used for visitation history.
- 3.7.4 Contractor shall ensure that the municipal assessing officials have:
- (1) A technical CAMA manual detailing the CAMA system utilized; and,
  - (2) Been provided training in the proper use of the CAMA system.
- 3.8 Defense of Values/Litigation**
- 3.8.1 Contractor shall, after the final property tax bills have been mailed by Municipality, support and defend the values that were established by Contractor for the year of the partial update or revaluation as follows:
- (1) The City will review all timely filed abatement requests to the Municipality pursuant to RSA 76:16 as a result of the partial update or revaluation. The contractor will provide a staff member to support requests requiring a value decision. The process will be a combined effort of both the City and the Contractor in an endeavor to effectively and expeditiously handle all appeal requests. Both staffs will work together to resolve any outstanding valuation issues. Any assistance by the Contractor's personnel to the Board of Tax and Land Appeals is not included.
    - (a) Reviews, will be conducted by either a DRA-certified property assessor or a DRA-certified Property Assessor Supervisor; and,
- 3.8.2 Appeals to the BTLA or Superior Court:
- (1) Contractor will support and defend values established by Contractor that may have been lowered by municipal assessing officials but shall not be required to support or defend values that have been increased by the municipal assessing officials. Contractor shall include 3 days of litigation. **Any additional litigation, litigation preparation or narrative reports can be provided at a per diem rate of**

**One Thousand Dollars (\$1,000).**

3.8.4 \* All documentation utilized or obtained during the defense of assessed value process shall be relinquished to Municipality.

**4. RESPONSIBILITIES OF MUNICIPALITY**

- 4.1 The municipal assessing officials shall identify to Contractor, in writing, which properties within the taxing jurisdiction are exempt from taxation.
- 4.2 The municipal assessing officials shall furnish to Contractor information such as but not be limited to: the current ownership information of all property; the physical location of all property; property address changes within Municipality; all property transfer information; a set of current tax maps; zoning maps; plans; building permits; subdivisions; boundary line adjustments and mergers; and, other information as specified by Contractor for the services being provided.
- 4.3 The municipal assessing officials shall keep Contractor informed of all sales of property that occur during the progress of the partial update or revaluation.
- 4.4 The municipal assessing officials shall make corrections to tax maps as of April 1 of the partial update or revaluation year where lots have been subdivided, or apportioned, and notify Contractor of all ownership and name and address changes.
- 4.5 If requested, suitable office space and equipment, as specified by Contractor, for the use of Contractor's personnel in the performance of the appraisal work shall be provided.

**5. INDEMNIFICATIONS AND INSURANCE**

- 5.1 Contractor agrees to defend and indemnify Municipality, with which it is contracting, against claims for bodily injury, death and property damage which arises in the course of Contractor's performance of the contract and with respect to which Municipality, with which it is contracting, shall be free from negligence on the part of itself, its employees and agents.
- 5.2 Contractor shall not be responsible for consequential or compensatory damages arising from the late performance or non-performance of the agreement caused by circumstances, which are beyond Contractor's reasonable control.
- 5.3 Contractor shall maintain public liability insurance, automobile liability insurance and workmen's compensation insurance unless Contractor is not required to do so by New Hampshire state law or as otherwise agreed upon.
  - 5.3.1 The public liability insurance shall be in the form of commercial general liability with the inclusion of contractual liability coverage and shall provide limits of \$1,000,000 each person and \$1,000,000 each occurrence for bodily injury liability, and \$1,000,000 each occurrence for property damage liability; and,
  - 5.3.2 The automobile liability insurance shall be in the form of comprehensive automobile liability and shall provide limits of \$1,000,000 each person and \$1,000,000 each occurrence for bodily injury liability.
- 5.4 Prior to starting the partial update or revaluation, Contractor shall provide certificates of insurance by a State of NH licensed insurer confirming the required insurance coverage for Municipality with which the appraisal Contractor is contracting.
- 5.5 Contractor shall provide Municipality and the DRA a ten (10) day advance written notice of the cancellation or material change in the required insurance coverage.

6. **PERFORMANCE BOND**

6.1 Contractor, before starting any partial update or revaluation work for a specific fiscal year, shall deliver an executed bond or irrevocable letter of credit in favor of Municipality, or as otherwise agreed upon, with which it is contracting to assure faithful and satisfactory performance of the portion of the contract for a specific year, and provide a copy to the DRA. The amount of such bond or letter of credit shall be no less than the amount of compensation to be paid by Municipality to Contractor for services to be performed for the specific year, and shall not expire before final values are submitted to and accepted by the municipal assessing officials.

7. **ESTIMATED SIZE OF PARTIAL UPDATE OR REVALUATION**

7.1 It is agreed between the parties that the entire partial update or revaluation consists of an estimate of 9,027 parcels as defined by RSA 75:9..

8. **ADDENDUMS, AMENDMENTS AND APPENDIXES**

8.1 Addendums, amendments and appendixes pertaining to this contract may be added only by separate instrument in writing and shall meet all requirements of Section 2.1.

9. **SIGNATURE PAGE**

By signing the contract, Contractor attests that pursuant to RSA 21-J:11 and Rev 602.01(c) & (d):

- (1) The contract, any revised contract, and the names and DRA-certified level of all personnel to be employed under the contract has been first submitted to the DRA for examination; and,
- (2) No appraisal work shall begin until a copy of this executed contract, and the names and DRA-certified level of all personnel to be employed under this contract, has been submitted to the DRA.

Date: 8/14/18



In the Presence of:

Ann M. Shaper  
Witness Signature

Municipality of: Portsmouth, New Hampshire

By, City Manager:

[Signature]  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

In the Presence of:

[Signature]  
Witness Signature

By Contractor:

7/13/01  
Chief Financial Officer

## Definitions

**Abatement:** (1) An official reduction or elimination of one's assessed valuation after completion of the original assessment. (2) An official reduction or elimination of one's tax liability after completion of the tax roll.

**Abstraction Method:** Method of land valuation in the absence of vacant land sales, whereby improvement values obtained from the cost model are subtracted from sales prices of improved parcels to yield residual land value estimates. Also called residual land technique.

**Ad Valorem Tax:** A tax levied in proportion to the value of the thing(s) being taxed. Exclusive of exemptions, use-value assessment provisions, and the like, the property tax is an ad valorem tax.

**Adjustments:** Modifications in the reported value of a variable, such as sale price. For example, adjustments can be used to estimate market value in the sales comparison approach by modifications for differences between comparable and subject properties. Note: Adjustments are applied to the characteristics of the comparable properties in a particular sequence that depends on the method of adjustment selected.

**Age/Life method (depreciation):** A method of estimating accrued depreciation founded on the premise that, in the aggregate, a neat mathematical function can be used to infer accrued depreciation from the age of a property and its economic life. Another term is "straight-line depreciation" (see depreciation, accrued; and depreciation method, straight-line).

**Allocation by Abstraction:** A method of separating a whole property value into land and improvement components. The appraiser estimates replacement cost new, subtracts an appropriate amount for depreciation, and subtracts the remainder from the whole property value to estimate the land value.

**Allocation Method:** A method used to value land, in the absence of vacant land sales, by using a typical ratio of land to improvement value. Also called land ratio method

**Amenity:** A feature of an improvement that enhances its suitability for its basic use. A fireplace in a single-family residence is an amenity, as is covered parking at an apartment complex. By definition, amenities always increase value.

**Anticipated Use Method:** A method used to appraise underdeveloped land. Expected improvements to the land are specified, and total development costs are estimated and subtracted from the projected selling price to give an estimate of the value of the undeveloped land.

**Appeal:** A process in which a property owner contests an assessment either informally or formally.

**Appraisal Card, Building:** A card used by an assessor or appraiser on which is carried a sketch or photograph of a building, a description of its location, a list of the principal factors affecting its reproduction cost and depreciation, and the calculations by which such cost and depreciation are estimated. Note: The building appraisal card is frequently combined with the land appraisal card into a single document. In such event, the combination card may be used for a composite appraisal as well as for a summation appraisal. **Also called a “property record card”.**

**Appraisal Card, Land:** A card used by an assessor or appraiser on which is carried a sketch or an adequate description of a parcel of land, a description of its location, a list of the principal factors affecting its market value, and the calculations by which the market value is estimated.

**Appraisal Date:** The date as of which a property's value is estimated.

**Appraisal Foundation:** The organization authorized by the United States Congress as the source of appraisal standards and appraiser qualifications. The Appraisal Foundation publishes the Uniform Standards of Professional Appraisal Practice (USPAP).

**Appraisal Methods:** The three methods of appraisal, that is, the cost approach, income approach, and sales comparison approach.

**Appraisal Report:** The oral or written communication of a completed appraisal.

**Appraisal-Sale Price Ratio:** The ratio of the appraised value to the sale price (or adjusted sale price) of a property; a simple indication of appraisal accuracy.

**Appraisal Standards Board:** The division of The Appraisal Foundation that develops, publishes, interprets, and amends the Uniform Standards of Professional Appraisal Practice on behalf of appraisers and users of appraisal services. The New Hampshire Legislature has empowered New Hampshire’s own Appraisal Standards Board, under RSA 21-J:14-b.

**Appraiser:** One who estimates the value of property; more commonly, one of a group of professionally skilled persons holding themselves out as experts in valuation

**Appreciation:** Increase in value of a property, in terms of money, from causes other than additions and betterments. For example, a farm may appreciate if a shopping center is built nearby, and property of any sort may appreciate as a result of inflation.

**Appurtenance:** In appraisal, an appurtenance is any addition to a property that becomes a part of that property. Generally, an appurtenance differs from a fixture in that the fixture was once personal property.

**Arm's-Length Sale:** A sale in the open market between two unrelated parties, each of who is reasonably knowledgeable of market conditions and under no undue pressure to buy or sell.

**Assemblage:** The assembling of adjacent parcels of land into a single unit. Compare "plottage".

**Assess:** To value property officially for the purpose of taxation.

**Assessed Value:** (1) A value set on real estate and personal property by a government as a basis for levying taxes. (2) The monetary amount for a property as officially entered on the assessment roll for purposes of computing the tax levy. Assessed values differ from the assessor's estimate of actual (market) value for three major reasons: fractional assessment ratios, partial exemptions, and decisions by assessing officials to override market value.

**Assessment:** (1) In general, the official act of determining the amount of the tax base. (2) As applied to property taxes, the official act of discovering, listing, and appraising property, whether performed by an assessor, a board of review, or a court. (3) The value placed on property in the course of such act.

**Assessment Equity:** The degree to which assessments bear a consistent relationship to market value.

**Assessment Progressivity or Regressivity:** An appraisal bias such that high-value properties are appraised higher (or lower) than low-value properties in relation to market values. See "price-related differential" (PRD).

**Assessor:** (1) The head of an assessment agency; sometimes used collectively to refer to all administrators of the assessment function. (2) The public officer or member of a public body whose duty it is to make the original assessment.

**Assessment Year:** A year beginning on the day after the assessment date and ending on the assessment date in the calendar year next following. (2) The 365 days beginning with the appraisal date.

**Automated Valuation Model (AVM):** An automated valuation model (AVM) is a mathematically based computer software program that produces an estimate of market value based on market analysis of location, market conditions, and real estate characteristics from information that was previously and separately collected. The distinguishing feature of an AVM is that it is a market appraisal produced through mathematical modeling. Credibility of an AVM is dependent on the data used and the skills of the modeler producing the AVM.

**Bias:** A statistic is said to be biased if the expected value of that statistic is not equal to the population parameter being estimated. A process is said to be biased if it produces results that vary systematically with some factor that should be irrelevant. In assessment administration, assessment progressivity or regressivity is one kind of possible bias.

**Board of Tax and Land Appeals:** Empowered by RSA 71-B, the Board of Tax and Land Appeals has responsibility for: 1) hearing appeals of individual tax assessments, exemptions or refunds, whether levied by the State or its municipalities; 2) hearing petitions for reassessment and determining the adequacy of reassessments ordered by the board; and 3) determining any appeals of the equalization ratios established by the Commissioner of Revenue Administration.

**Capitalization Rate:** Any rate used to convert an estimate of future income to an estimate of market value; the ratio of net operating income to market value.

**Coefficient of Dispersion (COD):** The average deviation of a group of numbers from the median expressed as a percentage of the median. In ratio studies, the average percentage deviation from the median ratio.

**Computer Assisted Mass Appraisal (CAMA):** A system of appraising property, usually only certain types of real property, that incorporates computer-supported statistical analyses such as multiple regression analysis and adaptive estimation procedure to assist the appraiser in estimating value.

**Confidence Interval:** For a given confidence level, the range within which one can conclude that a measure of the population (such as the median or mean appraisal ratio) lies.

**Contributory Value:** The amount a component of a property contributes to the total market value. For improvements, contributory value must be distinguished from cost.

**Cost Approach:** (1) One of the three approaches to value, the cost approach is based on the principle of substitution—that a rational, informed purchaser would pay no more for a property than the cost of building an acceptable substitute with like utility. The cost approach seeks to determine the replacement cost new of an improvement less depreciation plus land value. (2) The method of estimating the value of property by: (a) estimating the cost of construction based on replacement or reproduction cost new or trended historic cost (often adjusted by a local multiplier); (b) subtracting depreciation; and, (c) adding the estimated land value. The land value is most frequently determined by the sales comparison approach.

**Deferred Maintenance:** Repairs and similar improvements that normally would have been made to a property but were not made to the property in question, thus increasing the amount of its depreciation.

**Depreciation:** Loss in value of an object, relative to its replacement cost new, reproduction cost new, or original cost, whatever the cause of the loss in value. Depreciation is sometimes subdivided into three types: physical deterioration (wear and tear), functional obsolescence (suboptimal design in light of current technologies or tastes), and economic obsolescence (poor location or radically diminished demand for the product).

**Effective Tax Rate:** (1) The tax rate expressed as a percentage of market value; will be different from the nominal tax rate when the assessment ratio is not equal to 1. (2) The relationship between dollars of tax and dollars of market value of a property. The rate may be calculated either by dividing tax by value or by multiplying a property's assessment level by its nominal tax rate.

**Escheat:** The right to have property revert to the state for nonpayment of taxes or when there are no legal heirs of someone who dies without leaving a will.

**Encumbrance:** Any limitation that affects property rights and value.

**Equalization:** The process by which an appropriate governmental body attempts to ensure that all property under its jurisdiction is assessed at the same assessment ratio or at the ratio or ratios required by law. Equalization may be undertaken at many different levels. Equalization among use classes (such as agricultural and industrial property) may be undertaken at the local level, as may equalization among properties in a school district and a transportation district; equalization among counties is usually undertaken by the state to ensure that its aid payments are distributed fairly.

**Equalized Values:** Assessed values after they have all been multiplied by common factors during equalization.

**Estate:** a right or interest in property.

**Expense:** A cost, or that portion of a cost, which, under accepted accounting procedures, is chargeable against income of the current year.

**External (Economic) Obsolescence:** The loss of appraisal value (relative to the cost of replacing a property with property of equal utility) resulting from causes outside the property that suffers the loss. Usually locational in nature in the depreciation of real estate, it is more commonly marketwide in personal property, and is generally considered to be economically infeasible to cure.

**Factor:** (1) An underlying characteristic of something (such as a house) that may contribute to the value of a variable (such as its sale price) but is observable only indirectly. For example, construction quality is a factor defined by workmanship, spacing of joists, and materials used. Factor definition and measurement may be done subjectively or by a computer-assisted statistical algorithm known as factor analysis. (2) Loosely, any characteristic used in adjusting the sales prices of comparables. (3) The reciprocal of a rate. Assessments may be equalized by multiplying them by a factor equal to the reciprocal of the assessment ratio, and value can be estimated using the income approach by multiplying income by a factor equal to the reciprocal of the discount rate.

**Fee Simple Estate:** The property rights that refer to absolute ownership unencumbered by any other interest or estate (a right or interest in property), subject only to the limitations imposed by governmental powers such as eminent domain, taxation, police power, and escheat.

**Field Review:** The practice of reviewing the reasonableness of assessments by viewing the properties in question, sometimes by examining their interiors but more often by looking at their exteriors.

**Fixture:** (1) Attached improvements that can be real or personal property. If attached to the realty in such a manner that its removal would damage the real property or the fixture, the fixture is realty. If the fixture is removable without damage, it is generally considered personal property. (2) An item of equipment that, because of the way it is used, the way it is attached, or both, has become an integral part of a building or other improvement. A fixture, such as a bathtub, is classified as real property, but trade fixtures (fixtures used in the conduct of business) are classified as personal property.

**Full-Market-Value Assessment Standard:** Assessments for which a law or other standard requires that the assessment ratio equals 100%.

**Functional Depreciation:** Synonymous with the preferred term “obsolescence”.

**Functional Obsolescence:** Loss in value of a property resulting from changes in tastes, preferences, technical innovations, or market standards.

**Highest and Best Use:** A principle of appraisal and assessment requiring that each property be appraised as though it were being put to its most profitable use (highest possible present net worth), given probable legal, physical, and financial constraints. The principle entails first identifying the most appropriate market, and, second, the most profitable use within that market. The concept is most commonly discussed in connection with underutilized land.

**Horizontal Inequity:** Differences based on criteria other than value range in the levels of assessment of groups of properties. For example, properties in one neighborhood may have a higher level of assessment than similar properties in another neighborhood. See vertical inequity.

**IAAO:** International Association of Assessing Officers.

**Improvements:** Buildings, other structures, and attachments or annexations to land that are intended to remain so attached or annexed, such as sidewalks, trees, drives, tunnels, drains, and sewers. Note: Sidewalks, curbing, sewers, and highways are sometimes referred to as "betterment," but the term "improvements" is preferred.

**Income:** The payments to its owner that a property is able to produce in a given time span, usually a year, and usually net of certain expenses of the property.

**Income Approach:** One of the three approaches to value, based on the concept that current value is the present worth of future benefits to be derived through income production by an asset over the remainder of its economic life. The income approach uses capitalization to convert the anticipated benefits of the ownership of property into an estimate of present value.

**Intangible Personal Property:** Property that has no physical existence beyond merely representational, nor any extrinsic value; includes rights over tangible real and personal property, but not rights of use and possession. Its value lies chiefly in what it represents. Examples include corporate stock, bonds, money on deposit, goodwill, restrictions on activities (for example, patents and trademarks), and franchises. Note: Thus, in taxation, the rights evidenced by outstanding corporation stocks and bonds constitute intangible property of the security holders because they are claims against the assets owned and income received by the corporation rather than by the



stockholders and bondholders; interests in partnerships, deeds, and the like are not ordinarily considered intangible property for tax purposes because they are owned by the same persons who own the assets and receive the income to which they attach.

**Land-to-Building Ratio (Land-to-Improvement Ratio):** The proportion of land area to gross building (improvement) area. For a given use, the most frequently occurring ratio will be that of a functioning economic unit.

**Lease:** A written contract by which the lessor (owner) transfers the rights to occupy and use real or personal property to another (lessee) for a specified time in return for a specified payment (rent).

**Leased Fee Estate:** An ownership interest held by a lessor with the rights of use and occupancy conveyed by lease to another.

**Leasehold Estate:** Interests in real property under the terms of a lease or contract for a specified period of time, in return for rent or other compensation; the interests in a property that are associated with the lessee (the tenant) as opposed to the lessor (the property owner). May have value when market rent exceeds contract rent.

**Lessee:** The person receiving a possessory interest in property by lease, that is, the owner of a leasehold estate.

**Lessor:** The person granting a possessory interest in property by lease, that is, the conveyor of a leasehold estate, the holder of a leased fee estate.

**Level of Assessment; Assessment Ratio:** The common or overall ratio of assessed values to market values. Compare level of appraisal. Note: The two terms are sometimes distinguished, but there is no convention determining their meanings when they are. Three concepts are commonly of interest: what the assessment ratio is legally required to be, what the assessment ratio actually is, and what the assessment ratio seems to be, on the basis of a sample and the application of inferential statistics. When level of assessment is distinguished from assessment ratio, "level of assessment" usually means either the legal requirement or the true ratio, and "assessment ratio" usually means the true ratio or the sample statistic.

**Life Estate:** An interest in property that lasts only for a specified person's lifetime; thus, the owner of a life estate is unable to leave the property to heirs

**Listing:** The process by which the assessor ensures that records for the taxable property identified during discovery are preserved with integrity, available for use in valuation activities, and ultimately reflected in the assessment roll.

**Long-lived Items:** Items that are the basic structure of a building and are not usually replaced during economic life. For example: foundation, roof structure, and framing

**Market Approach:** A valuation term with several meanings. In its broadest use, it might denote any valuation procedure intended to produce an estimate of market value, or any valuation procedure that incorporates market-derived data, such as the stock and debt technique, gross rent multiplier method, and allocation by ratio. In its narrowest use, it might denote the sales comparison approach.

**Market-Value:** Is defined in RSA 75:1 as: “the property's full and true value as the same would be appraised in payment of a just debt due from a solvent debtor”. An expanded definition of “Market Value” as defined within the NH Department of Revenue, Property Appraisal Division’s “600 Rules”, establishes the market value of a property must meet the following criteria:

- (a) Is the most probable price, not the highest, lowest or average price;
- (b) Is expressed in terms of money;
- (c) Implies a reasonable time for exposure to the market;
- (d) Implies that both buyer and seller are informed of the uses to which the property may be put;
- (e) Assumes an arm’s length transaction in the open market;
- (f) Assumes a willing buyer and a willing seller, with no advantage being taken by either buyer or seller; and
- (g) Recognizes both the present use and the potential use of the property.

**Mass Appraisal:** The process of valuing a group of properties as of a given date, using standard methods, employing common data, and allowing for statistical testing.

**Mass Appraisal Model:** A mathematical expression of how supply and demand factors interact in a market.

**Mean:** A measure of central tendency. The result of adding all the values of a variable and dividing by the number of values. For example, the mean of 3, 5, and 10 is 18 divided by 3, or 6. Also called arithmetic mean.

**Median:** A measure of central tendency. The value of the middle item in an uneven number of items arranged or arrayed according to size; the arithmetic average of the two central items in an even number of items similarly arranged; a positional average that is not affected by the size of extreme values.

**Mill Rate:** A tax rate expressed as mills per dollar. For example, a 2 percent tax rate is \$2 per \$100, \$20 per \$1,000, or 20 mills per dollar.

**Model Calibration:** The development of adjustments, or coefficients based on market analysis that identifies specific factors with an actual effect on market value.

**Neighborhood:** (1) The environment of a subject property that has a direct and immediate effect on value. (2) A geographic area (in which there are typically fewer than several thousand properties) defined for some useful purpose, such as to ensure for later multiple regression modeling that the properties are homogeneous and share important locational characteristics.

**Net Income:** (1) The income expected from a property, after deduction of allowable expenses. (2) Net annual income is the amount generated by a property after subtracting vacancy and collection loss, adding secondary income, and subtracting all expenses required to maintain the property for its intended use. The expenses include management fees, reserves for replacement, maintenance, property taxes, and insurance, but do not include debt service, reserves for building additions, or income tax.

**Nominal Tax Rate:** The stated tax rate, which does not necessarily correspond to the effective tax rate.

**Obsolescence:** A decrease in the value of a property occasioned solely by shifts in demand from properties of this type to other types of property and/or to personal services. Some of the principal causes of obsolescence are: (1) Changes in the esthetic arts; (2) changes in the industrial arts, such as new inventions and new processes; (3) legislative enactments; (4) change in consumer demand for products that results in inadequacy or overadequacy; (5) migration of markets that results in misplacement of the property. Contrast depreciation, physical; depreciation, economic.

**Overall Rate (OAR):** A capitalization rate that blends all requirements of discount, recapture, and effective tax rates for both land and improvements; used to convert annual net operating income into an indicated overall property value.

**Partial Interest:** An interest (in property) that is less complete than a fee simple interest. Also known as a “fractional” interest.

**Percent Good:** An estimate of the value of a property, expressed as a percentage of its replacement cost, after depreciation of all kinds has been deducted.

**Personal Property:** Consists of every kind of property that is not real property; movable without damage to itself or the real estate; subdivided into tangible and intangible. Also called "personality."

**Physical Depreciation:** Depreciation arising solely from a lowered physical condition of the property or a shortened life span as the result of ordinary use, abuse, and action of the elements.

**Plottage Value:** (1) The increment of value ascribed to a plot because of its suitability in size, shape, and/or location with reference to other plots (preferred). (2) The excess of the value of a large parcel of land formed by assemblage over the sum of the values of the unassembled parcels. Compare "assemblage".

**Possessory Interest:** (1) The right to occupy and use any benefit in a transferred property, granted under lease, licenses, permit, concession, or other contract. (2) A private taxable interest in public tax-exempt property, for example, a private service station in a federal military base. Assessment of this interest presents complex valuation problems. Among the issues are whether the ownership or the use is exempt, whether the parcel should be split, and whether market rent differs from contract rent.

**Price Related Differential (PRD):** The mean divided by the weighted mean. The statistic has a slight bias upward. Price-related differentials above 1.03 tend to indicate assessment regressivity; price-related differentials below 0.98 tend to indicate assessment progressivity.

**Principle of Contribution:** The principle of contribution requires an appraiser to measure the value of any improvement to a property by the amount it contributes to market value, not by its cost.

**Principle of Substitution:** The principle of substitution states that no buyer will pay more for a good than he or she would have to pay to acquire an acceptable substitute of equal utility in an equivalent amount of time.

**Property Record Card:** An assessment document with blanks for the insertion of data for property identification and description, for value estimation, and for property owner satisfaction. The basic objectives of property record forms are, first, to serve as a repository of most of the information deemed necessary for identifying and describing a property, valuing a property, and assuring property owners that the assessor is conversant with their properties, and, second, to document property appraisals. Use of properly designed property record forms permits an organized and uniform approach to amassing a property inventory

**Ratio Study:** A study of the relationship between appraised or assessed values and market values. Indicators of market values may be either sales (sales ratio study) or independent "expert" appraisals (appraisal ratio study). Of common interest in ratio studies are the level and uniformity of the appraisals or assessments. See also level of appraisal and level of assessment.

**Real Property:** Consists of the interests, benefits, and rights inherent in the ownership of land plus anything permanently attached to the land or legally defined as immovable; the bundle of rights with which ownership of real estate is endowed. To the extent that "real estate" commonly includes land and any permanent improvements, the two terms can be understood to have the same meaning. Also called "realty."

**Reconciliation:** The final step in the valuation process wherein consideration is given to the relative strengths and weaknesses of the three approaches to value, the nature of the property appraised, and the quantity and quality of available data in formation of an overall opinion of value (either a single point estimate or a range of value). Also termed "correlation" in some texts.

**Replacement Cost New Less Depreciation (RCNLD):** In the cost approach, replacement cost new less physical incurable depreciation.

**Residual Value of Improvements:** A value ascribed to improvements on a parcel of land by deducting from the total value of land and improvements (as determined by composite appraisal) the value of the land alone (as determined by comparison with other parcels). Contrast residual value of land. Note: A residual value of improvements is usually estimated only when the land is obviously not improved to its highest and best use.

**Residual Value of Land:** A value ascribed to land alone by deducting from the total value of land and improvements (as determined by composite appraisal) the value of the improvements (as determined by the depreciated reproduction cost method). Contrast residual value of improvements.

**Reversion:** The right of possession commencing on the termination of a particular estate.

**Right-of-Way:** (1) An easement consisting of a right of passage through the servient estate (preferred). (2) By extension, the strip of land traversed by a railroad or public utility, whether owned by the railroad or utility company or used under easement agreement.

**Sales Comparison Approach:** One of three approaches to value, the sales comparison approach estimates a property's value (or some other characteristic, such as its depreciation) by reference to comparable sales.

**Short-lived Items:** Items of a structure that have a shorter life than the basic structure. For example, roofing, water heaters, floor covering, and interior finish.

**Site Amenities:** The specific location-related positive attributes of a property: topography, utilities, street traffic, view, and so on.

**Standard Deviation:** The statistic calculated from a set of numbers by subtracting the mean from each value and squaring the remainders, adding together all the squares, dividing by the size of the sample less one, and taking the square root of the result. When the data are normally distributed, one can calculate the percentage of observations within any number of standard deviations of the mean from normal probability tables. When the data are not normally distributed, the standard deviation is less meaningful, and one should proceed cautiously.

**Standard Error:** A measure of the precision of a measure of central tendency; the smaller the standard error, the more reliable the measure of central tendency. Standard errors are used in calculating a confidence interval about the arithmetic mean and the weighted mean.

**Statistics:** (1) Numerical descriptions calculated from a sample, for example, the median, mean, or coefficient of dispersion. Statistics are used to estimate corresponding measures, termed parameters, for the population. (2) The science of studying numerical data systematically and of presenting the results usefully. Two main branches exist: descriptive statistics and inferential statistics.

**Stratification:** The division of a sample of observations into two or more subsets according to some criterion or set of criteria. Such a division may be made to analyze disparate property types, locations, or characteristics, for example.

**Subdivision:** A tract of land that has been divided into marketable building lots and such public and private ways as are required for access to those lots, and that is covered by a recorded plat.

**Tax-Exempt Property:** Property entirely excluded from taxation because of its type or use. The most common examples are religious, charitable, educational, or governmental properties. This definition omits property for which the application of a partial exemption reduces net taxable value to zero.

**Tax Map:** A map drawn to scale and delineated for lot lines or property lines or both, with dimensions or areas and identifying numbers, letters, or names for all delineated lots or parcels.

**Tax, Progressive:** (1) A tax in which the effective rate is higher for a taxpayer subject to taxation on a large tax base than for a taxpayer subject to taxation on a small tax base. (2) Loosely used to refer to any tax that absorbs a larger proportion of the wealth or income of the well-to-do classes than of the poorer classes. Contrast tax, proportional; tax, special property; tax, graduated.

**Tax, Proportional:** A tax in which the effective tax rate is the same for all taxpayers regardless of the sizes of the tax bases on which they are subject to taxation. Contrast tax, progressive; tax, regressive

**Tax Rate:** (1) The amount of tax stated in terms of a unit of the tax base, for example, 30 mills per dollar, 2 percent, 2 cents per gallon. (2) For the property tax, the percentage of assessed value at which each property is taxed in a given district. Distinguish between effective tax rate and nominal tax rate.

**Tax, Regressive:** (1) A tax in which the effective rate is higher for a taxpayer subject to taxation on a small tax base than for a taxpayer subject to taxation on a large tax base. (2) Loosely used to refer to any tax that absorbs a smaller proportion of the wealth or income of the well-to-do classes than of the poorer classes. Note: A tax is said to be regressive in administration, though not legally regressive, when the ratio of the actual base to the statutory base declines as the statutory base increases, in such manner as to nullify a proportional statutory rate or to make a progressive statutory rate actually regressive. The same usage is conversely applicable to the terms "progressive tax" and "proportional tax," but is less commonly associated with them. Contrast tax, progressive; tax, proportional.

**Tenement:** (1) Real property and the rights to ownership, especially those of a permanent nature that relate to and pass with the land

**Time-Adjusted Sale Price:** The price at which a property sold, adjusted for the effects of price changes reflected in the market between the date of sale and the date of analysis.

**Time Value of Money:** The principle that an amount of money anticipated as income in the future is always worth less than an equal amount in hand at the present time.

**Total Economic Life:** The period of time or units of production over which the operation of an asset is economically feasible, not necessarily the same as its physical life.

**Trade Fixture:** Property attached to a rented space or building by a tenant, used in conducting a business and owned by the tenant. Also called "chattel fixture."

**Trending:** Adjusting the values of a variable for the effects of time. Usually used to refer to adjustments of assessments intended to reflect the effects of inflation and deflation and sometimes also, but not necessarily, the effects of changes in the demand for microlocational goods and services.

**Uniform Standards of Professional Appraisal Practice:** Annual publication of the Appraisal Standards Board of The Appraisal Foundation: "These Standards deal with the procedures to be followed in performing an appraisal, review or consulting service and the manner in which an appraisal, review or consulting service is communicated. . . .STANDARD 6 sets forth criteria for the development and reporting of mass appraisals for ad valorem tax purposes or any other universe of properties"

**Uniformity:** The equality of the burden of taxation in the method of assessment.

**Unweighted Mean:** A mean in which each value is considered only once. See weighted mean.

**Use Code:** A code (used on a property record form) to indicate a property's use class or, less often, potential use.

**Use Class:** (1) A grouping of properties based on their use rather than, for example, their acreage or construction. (2) One of the following classes of property: single-family residential, multifamily residential, agricultural, commercial, industrial, vacant land, and institutional/exempt. (3) Any subclass refinement of the above-for example, townhouse, detached single-family, condominium, house on farm, and so on. See also property use category.

**Vacancy and Collection Loss:** The amount of money deducted from potential annual gross income to reflect the effect of probable vacancy and turnover, or nonpayment of rent by tenants. Vacancy and collection loss are commonly expressed as a percentage of potential annual gross income, and it should be based on market research, not actual rental history of a property.

**Variance:** A measure of dispersion equal to the standard deviation squared.

**Vertical Inequity:** Differences in the levels of assessment of properties related to the value ranges of the properties. That is, properties of higher value have assessment levels different from properties of lower value. See horizontal inequity.



**Weighted Average Method:** In personal property appraisal, a method of inventory cost accounting whereby inventory is valued according to the unit price of all units owned throughout the year, calculated by dividing total acquisition cost of all inventory by the number of units owned.

**Weighted Coefficient of Dispersion:** The coefficient of dispersion when the absolute differences between individual assessment ratios and the measure of central tendency (for example, median ratio) are weighted on the basis of sale price.

**Weighted Coefficient of Variation:** The coefficient of variation when the squared differences between individual assessment ratios and the arithmetic mean ratio are weighted on the basis of sale price.

**Weighted Mean Ratio:** Sum of the appraised values divided by the sum of the sales prices, which weights each value in proportion to its sale price.

**Weighted Mean; Weighted Average:** An average in which each value is adjusted by a factor reflecting its relative importance in the whole before the values are summed and divided by their number.

**Yield Rate:** (1) The return on investment applicable to a series of incomes that results in the present worth of each. Examples of yield rates are interest rate, discount rate, equity yield rate, and internal rate of return. (2) The required rate of return on equity capital; a component of the capitalization rate (or discount rate or mortgage-equity overall rate) that must be separately specified in band-of investment analysis and mortgage equity analysis.

**Zoning:** The exercise of the police power to restrict land owners as to the use of their land and/or the type, size, and location of structures to be erected thereon.