AD HOC TAXATION/ASSESSMENT ADVISORY COMMITTEE MEETING

March 4, 2013, 1:00PM, Council Chamber, Town Hall

1. Call to order.

The meeting was called to order at 1:05 P.M. by Bob Manchester.

Present were Committee Members Robert Manchester (chairman), Joel Hellmann, Don Nessing and Joop Nagtegaal (secretary). Also present was Michael Minardi, tax assessor, and Bruce Sauter, consultant on real property valuation and assessment administration.

2. Approve Minutes of February 19, 2013 Meeting.

Upon a motion duly made and seconded, the minutes of the meeting of February 19, 2013 were approved with one spelling correction.

3. Assessing Standards.

Bob Manchester introduced Bruce Sauter to the Committee. Before Bruce became a full time consultant, he was chief Information Officer and Chief Valuation Strategist of the Office of Real Property Services of the State of New York.

Bruce handed out his résumé and a memo with some perspectives on Computer-Assisted Mass Appraisal (CAMA) in Barrington (attached). He proceeded to comment on the Joop's memo with thoughts about standards (attached), and observed that there were sensible ideas in that memo, in particular with relation to the discussion of waterfront properties. He said that development of standards for the process would be a good idea – the objective is to obtain the best possible accuracy and stability. He stressed in particular the latter aspect: since there is always uncertainty in the evaluation process, one should try to avoid unnecessary volatility, since that is undesirable for the property owners as well as the town. He said there are techniques that help provide stability.

Don Nessing asked for some clarification of the stability concept. Bruce proceeded to mention the Adaptive Estimation Procedure (AEP) developed at Carnegie Mellon University. In this approach, one starts with assuming that the various factors that influence the valuation of a property (such as neighborhood, waterfront, traffic, home style factors) are unchanged from the previous revaluation. Based on the sales data available for the valuation one then adjust factors to

fit the sales when it is clear there are significant trends in sales prices. In contrast, Multiple Regression Analysis starts with the latest sales data and simply tries to fit the model chosen to the data. In this approach, historical context is not considered, and this can lead to greater fluctuations in assessed values, in particular for market segments for which there are few sales.

Bruce noted that it is important to pay significant attention to analysis of sales since this influences assessments for all properties, and he suggested that the committee could play an important role in this part of the process. Don Nessing pointed out that all information shared with the committee, even working documents, has to be made public, and that this causes some problems during the previous revaluation. Don also noted that continuity in neighborhood definitions (in the revaluation sense) is important, although some adjustments may be necessary from time to time. Bruce observed that for neighborhood definition another aspect to consider is time on market; there is an inverse correlation between changes in time on market and changes in sales prices.

In response to the question what to do if there are not enough sales in a neighborhood for the relevant revaluation period, Bruce suggested that in most cases it is better to look at historic sale prices in the same neighborhood than at sale prices in similar neighborhoods in other communities, since historic price adjustments are easier to make. Bruce noted further that the number of sales in a neighborhood used to calibrate the CAMA model should be at least in the order of 10% of the properties in the neighborhood, otherwise the sample would likely not be statistically significant. This also implies that process standards may be different for different neighborhoods. It was noted that Michael's proposed RFP already includes an example of different process standards, since it requires that individual appraisals are obtained for properties over $2M. Bruce said that in certain neighborhoods the standard approach used in a community may not work well, and that using an altogether different approach for a neighborhood could be a time saver.

Bob asked whether the individual appraisals called for in the RFP could possible affect properties in the same neighborhood that were not appraised. Michael replied that if the individual appraisals lead to an adjustment of the neighborhood parameters in the CAMA model, all properties in that neighborhood would be adjusted. Bruce said that it is also useful to have a list of "hot" properties (owned by people in political positions, such as Town Council members,

the Town Manager and the Tax Assessor), and make very sure that these properties are fairly valued.

Bob made the suggestion that the town send out a separate RFP for a consultant to help develop standards. He noted that BET would be willing to co-fund the work done by the consultant. Joop noted that the creation and publication of such standards will be helpful to increase the public confidence in the revaluation process.

Joop Nagtegaal then made the following motion: **"The committee recommends that the Town Council, with assistance of the Ad Hoc Committee, hire a consultant to assist the Committee and the Assessor with the development of revaluation process standards that are consistent with IAAO and USPAP standards and that specifically address issues relevant for Barrington."** The motion we seconded by Joel Hellmann and approved unanimously.

4. RFP for December 31, 2014 Revaluation

Michael said he would like to lock in the price for the next statistical revaluations with the full revaluation. The committee did not express an opinion about that. The question arose how many residential properties in town are currently valued over $2M. No exact number was given, but the estimate was around 100. The suggestion was then made to require individual appraisals for the 100 highest appraised residential properties in town instead of for those over $2M. Michael said he liked that idea and would give it serious consideration. For commercial properties, the $2M limit would still be used.

5. Next meeting

No date was set for the next meeting

6. Adjourn

The Committee thanked Joop for his services. Bob announced that BET will recommend John Harker to succeed Joop. The committee will have to decide who will succeed Joop as secretary. The meeting was adjourned at 3:16 PM.

Respectfully submitted,

Joop Nagtegaal, Secretary

Attachment 1

R e s u m e

Bruce W. Sauter

48 FAR FIELDS ROAD BREWSTER, MASSACHUSETTS (508) 896-8328

CONSULTANT, *Real Property Valuation and Assessment Administration* **(1980 through current)**

STATE OF NEW Y O R K (1972 - 2005)

Office of Real Property Services *(formerly the* ***Division of Equalization and Assessment)***

Chief Information Officer and Chief Valuation Strategist Aug 2002 - July 2005
Core Process Manager, Valuation May 1999 - Aug 2002
Asst. Program Manager, State Assessment Services June 1995 - May 1999
Director, External Services Aug 1994 - June 1995
Director, Bureau of Local Assessment Services Jan 1990 - Aug 1994
Director, Bureau of Valuation Services June 1986 - Jan 1990
Director, Valuation Research and Development Nov 1980 - June 1986
and a series of 6 progressively responsible positions since August 1973 Aug 1973 - Nov 1980

Department of Correctional Services

Bureau of Research and Statistics, Crime Statistics Unit August 1972

Significant Accomplishments:

Developed the textbook outline and was a global editor for the International Association of Assessing Officers' textbook Property Appraisal and Assessment Administration used to support the professional education program of the IAAO worldwide and adopted as a text for college accreditation through the University of British Columbia, New York University (Masters Program in Real Estate), and the Empire State College among others.

Received the 1994 New York State Association of County Directors of Real Property Tax plaque in recognition and appreciation of support and assistance given in dealing with the complex issues of real property tax administration

A New York State Management/Leadership initiative developed an employee-management consensus that balanced agency goals leading to improvements in productivity and fiscal savings with employee needs and desired working conditions. The initiative was recognized as a significant achievement with television and newspaper coverage from coast to coast.

Analyzed tax policy issues related to shifting a portion of the fiscal infrastructure base from the Real Property Tax on taxable State-owned lands to a payment in lieu of taxes (PILOT) lauded by many local government officials and legislators.

Champion for technology advancements by developing the first videodisc on real property (NYU and MIT), integrating Geographic Information Systems (GIS) technology in real property tax administration, and Internet based network opportunities.

Successfully influenced and negotiated policy changes with the New York State Appraiser Licensing Board to sanction mass appraisal experience criteria for Appraiser Licensing in New York State. Appointed to The Appraisal Foundation's (ASB) task team to rewrite USPAP Standard 6 (Mass Appraisal, Development and Reporting).

Member of the International Association of Assessing Officers (1984-2011); Executive Board (1996-98); IAAO Presidential Citation (1991,1992, 1998,1999, 2000, 2001, 2004); IAAO Representative to the Association of Appraisal Regulatory Organizations (AARO) and The Appraisal Foundation (TAF) (1996-2004); Chairperson of the Planning and Operations Committee (1998-99); Chairperson of the Research and Technology Committee (1995-96) and Chairperson of the Computer-Assisted Appraisal Section (1990-92); Chairperson of the Scholarship Committee (2005-07); Budget Subcommittee (1997-98), Infrastructure Review Committee (1996-97); Rules and By-Laws Subcommittee (1992-94); Nominating Committee (1995); USPAP and Appraisal Regulatory Advisory Committee (1999-2004), Computer-Assisted Appraisal Section (1990-97); State IAAO Rep.(1986-91).

Additional professional memberships include: New York State Assessors' Association (1981-2008), New York State Institute of Assessing Officers - IAO designation (1985-2008) and the Western New York Chapter of the IAAO (1992-2008). Formerly a member of the Northeast Regional Association of Assessing Officers, Albany/Schenectady County Assessors' Association, IAAO Mapping Section, and Urban and Regional Information Systems Association (URISA).

Other memberships include: NYS E-Govemment Guidance Team; NYS Real Property Tax Advisory Committee; NYS CIO Council (and CIO Council Leadership, Intergovernmental Communications, Security, and Strategic Planning Committees).

PUBLICATIONS

- "Economic Model for Appraising Vacant Commercial/Industrial Property in the Absence of Existing Sales Data", (Sauter), Florida Department of Revenue Property Appraisers' School, Tampa Fla., (FDR) 1994.
- "Generating Revenue Without Raising Taxes", (Sauter), State and Local Government Executives Conference Proceedings, International Business Machines (IBM) 1992.
- Property Appraisal and Assessment Administration: IAAO, (Chapter outlines, global and technical editing), International Association of Assessing Officers (IAAO) 1990.
- "Valuation Stability: A Practical Look at the Problems", (Sauter), Property Tax Journal 6(4) 243-50, International Association of Assessing Officers (IAAO) 1987.
- "Chapter 9: Computers and Comparable Sales", (Sauter), Introduction to Computer Assisted Valuation, Lincoln Institute of Land Policy (LILP) 1985.
- "Pros and Cons of Using Financial Data in Appraising Real Property", (Sauter) Chapter 23, 3rd Annual Institute on State and Local Taxation, New York University (NYU) 1985.

PRESENTATIONS AND SPEECHES

- World Congress on Computer Assisted Valuation, I and II
- Institute on State and Local Taxation
- International Association of Assessing Officers'

Participation in Technical Seminars and Annual Conference on Property Tax Administration

Las Vegas, Nevada	1977	Hollywood, Florida	1984	Reno, Nevada	1985
San Francisco, CA	1986	New Orleans, Louisiana	1987	Nashville, Tennessee	1988
Fort Worth, Texas	1989	Montreal, Quebec, Canada	1990	Phoenix, Arizona	1991
St. Louis, Missouri	1992	Seattle, Washington	1994	Chicago, Illinois	1995
Houston, Texas	1996	Toronto, Ontario, Canada	1997	Orlando, Florida	1998
Las Vegas, Nevada	1999	Miami, Florida	2001	Nashville, Tennessee	2003
Boston, Massachusetts	2004	Anchorage, Alaska	2005	Louisville, Kentucky	2009

- Lincoln Institute of Land Policy
- Florida Department of Revenue Property Appraisers' Conference
- Maine Assessors' Association
- Massachusetts Chapter IAAO and the Western New York Chapter IAAO
- N.Y.S. Association of Counties, NYS Association of Towns, and Intergovernmental Conference on Data Processing
- N.Y.S. Assessors' Association and the Albany-Schenectady County Assessors' Association
- Northeast Regional Association of Assessing Officers
- Rhode Island Association of Assessing Officers
- State and Local Government Executives Conference (IBM)

Bruce W. Sauter (continued)

48 FAR FIELDS ROAD BREWSTER, MASSACHUSETTS (508) 896-8328

TECHNICAL TRAINING

- Bachelor of Science Physics/Mathematics - State University of New York at Albany

Successful completion of the following professional development courses:

- Managing N.Y.S. Management/Leadership Level I, Management Communications (American Management Association) Communication Skills for Managers, Oral Presentations, Time Management, Strategically Working Effectively in Teams, Introduction to Quality, Quality Improvement Process and numerous Quality Forum Seminars.

- Course 1: Fundamentals of Real Property Appraisal, Course 2: Income Approach to Valuation, Course 3: Narrative Appraisal Report Writing, Course 207: Industrial Property Appraisal, Course 302: Mass Appraisal of Income Producing Commercial Properties, Course 311: Residential Modeling Concepts, Course 400: Assessment Administration, Course 402: Tax Policy, IAAO Commercial Case Study Exam, Seminars on Computer Assisted Appraisal Systems, and the Workshop on Narrative Appraisal Report Writing from the International Association of Assessing Officers (IAAO).

- Computer Assisted Mass Appraisal and Multiple Regression Basics, Land Valuation Methods, Land Valuation for Rural Property, Mathematical Methods for Computer Assisted Mass Appraisal, Feedback Computer Assisted Mass Appraisal, and Computer Assisted Mass Appraisal Potential for Commercial Property from the Lincoln Institute of Land Policy (LILP).

- Advanced Rural Appraisal from the American Society of Farm Managers and Rural Appraisers (ASFMRA)

- Appraisal Licensing Courses R1, G1, Ethics and Standards of Professional Appraisal Practice [USPAP] and G3 (granted equivalency for all other appraisal licensing courses)

- The First and Second World Congresses on Computer Assisted Valuation (LILP/ IAAO)

CONSULTING: REAL PROPERTY TAX ADMINISTRATION, MANAGEMENT & VALUATION SYSTEMS

City of Boston, Massachusetts
City of Calgary, Alberta, Canada
City of Charlottesville, Virginia
City of Hampton, Virginia
City of Minneapolis, Minnesota
City of Montreal, Quebec, Canada
City of Providence, Rhode Island
City of Richmond, Virginia
City of Washington, District of Columbia
City of White Plains, New York
Town of Kennebunk, Maine
County of Brevard (Melbourne, Titusville), Florida
County of Jasper, Texas
County of Johnson (Olathe), Kansas
County of Johnson, Texas
County of Luzerne (Wilkes-Barre, Hazelton) Pennsylvania
County of Orange, Texas
County of Pinellas (Clearwater/St. Petersburg), Florida
County of Prince William, Virginia
County of Shelby (Memphis), Tennessee
County of Tioga, Pennsylvania
States of Florida, Maryland, and Vermont

.. and private real property taxpayers in:

New Fairfield, CT • Bronxville, NY • Canaan, NY • Greenburgh, NY • Guilderland, NY • Skeneateles, NY • Barrington, RI

Consulting rates and reference furnished upon request

Attachment 2

Perspectives on Computer-Assisted Mass Appraisal (CAMA) in Barrington

Bruce W. Sauter

Assessments are meant to apportion the real property tax levy among the taxable real property based upon their fair market value. Fair market value is defined by th International Association of Assessing Officers (IAAO) as, 'The most probable price of a property in terms of money in a competitive and open market, assuming that the buyer and seller are acting prudently and knowledgeably, allowing sufficient time for the sale, and assuming that the transaction is not affected by undue pressures." Buyers and sellers may span the spectrum in terms of knowledge of all potential property uses and the desire or pressure to buy or sell. Therefore, identical properties often sell at differing prices. Sales prices are a transaction value with more direct indication of market value, but are not of themselves the true market value of that property. Fair market value is reflected within the distribution of sales prices, but may not be the same as any individual transaction price.

CAMA often incorporates a multiple regression modeling of sales as the most direct reflection of market value. This mathematical modeling makes use of a least squares data fitting process to determine the "most probable price" for fair market value. However, a short-coming of this process is the central tendency is overly influenced by "outliers". While a sale transaction price may be valid or invalid as a fair market transaction, any outliers must be screened out of any analysis to determine an accurate market value. Validation of arms-length sales is a fundamental part of the assessment process. It is often said that an error on the subject property creates one bad assessment; however, an error on a sale property used in market analysis could create many bad assessments.

The calculation of the fair market value of a property is further complicated when using the summation approach. Sometimes the "whole" is not equal to the sum of its parts. The determination of the "contributory value" of the land and improvements that could be added to calculate the true market value of the property is often difficult to determine precisely and even more difficult to explain clearly. Contributory value must reflect the best property in a neighborhood that may not return its full value in that neighborhood or conversely the lowest value property in a neighborhood that often brings a higher than expected sale price. It may also reflect other direct or indirect value influences such as (but not limited to) the location of the improvement on the property or adjacency to positive or negative value influences on adjacent property,

It is clear that adjustment factors are the key to calculating fair market value using the summation approach. Analyzing, discriminating, and maintaining a record of such adjustments is a critical part of a successful CAMA process. Discerning adjustment factors separately may be more difficult to statistically determine with extreme precision. However, maintaining discrete adjustment factors will clarify their origin and simplify explanation of the adjustments to the property owner or other taxpayers making assessment comparisons to evaluate their own equity. Multiple adjustments may be combined in the ultimate calculations; however, failure to maintain discrete adjustment records (both of type and amount) will cause many problems.

Determining fair market values in the absence of adequate sales data has always been a challenge to statistically based CAMA systems. Suggestions identified in the discussion paper from Joop Nagtegaal, as forwarded to me, cover most of the commonly held practices (i.e., lengthening the market analysis time period and incorporating appropriate time adjustments, reviewing market trends in comparable market areas, establishing an upper limit through analysis of "asking prices" for MLS listings with adequate time for exposure to the market, etc.). It can never be assumed that the lack of sales indicates the lack of market trends. Since market sales transactions cannot be

created in areas where they don't exist, Nagtegaal's suggestions of augmentation with local real estate knowledge from brokers and appraisers is a valid alternative. The next question is when and how these should be employed. Statistical confidence testing is impacted by both the volume and diversity of sales in the market analysis. Furthermore, reliable market trends developed from an adequate number of sales may be useless or misleading if the sales do not reflect the subject properties in the neighborhood to be valued. Another valuable tool is the incorporation of valuation information from prior revaluations or from fringe jurisdiction to the Barrington market area. The best mathematical method of accomplishing this is through the use of the adaption estimation procedure (AEP) developed many years ago at the Carnegie-Mellon University in Pittsburgh. This method can initialize valuation model contributions with prior revaluation information, current cost and land values, appraiser or broker opinions, or component contributions derived from MLS listing. The process revises and updates the market model based on available sales data without the statistical burden of confidence testing routines. This process works better in areas with a paucity of sales activity. It also has the advantage of calibrating a hybrid market model structure (i.e., both quantitative/"additive" factors, such as size, room, acres, waterfront, etc. and qualitative/"multiplicative" factors, such as construction grade, condition, desirability, etc.) and being decomposable to land and improvement values.

Specific Standards for Barrington, Rl

Standards necessary to improve the Barrington revaluation process focus on the assessment process. The process improvements should create a more long term, sustainable improvement in the assessment product as well. Areas to review and develop standards and procedures should include:

- Property Record Card/ Database/ Data Definitions
  - Identify all key value influences for discrete adjustment
  - Redefine PRC and database to capture and maintain accurate records of such
- Sales Validation and Verification Standards
  - Focus substantial efforts on sales verification
  - Analyze sales for "outliers" - follow up on verification
  - Identify neighborhoods with a paucity of sales or unrepresentative sales base
    - Seek to augment market data in these areas with related information
- Statistical Model Specification and Calibration
  - If a summation model is used, review components for completeness (including adjustments)
  - Possibly test an AEP model in parallel for stability and model performance
    - Review preliminary mode! responsiveness
      - Test performance with valuation of sales
      - Review model strengths and weakness for predictability (80/20)
- Value Derivation and Supporting Documentation
  - Maintain records on the derivation of the value estimates for public relations and performance analysis review
- Standards for Assessment Appeals and Value Changes
- Sharing Market Analysis and Tax Shift Impacts through Public Information
  - Decrease the "shock factor" for taxpayers less familiar with market trends
  - Consider disclosure of reassessment impact analysis

Attachment 3

On the need for standards in a Computer Assisted Mass Appraisal (CAMA)

Joop Nagtegaal

CAMA concepts and process

The fundamental concept of a Computer Assisted Mass Appraisal (CAMA) is that the value of a property can be evaluated by a computer model based on the location and physical data describing a property. The calculation is split in two parts: a calculation of the land value and a calculation of the value of the improvements, and the two are added to obtain a total value for the property.

Ideally, the land value is deduced from land sales in the area to be evaluated. However, if there is a lack of land sales in the area, the land value may have to be deduced from sales of improved properties. The value of the improvements is usually based on construction cost, adjusted by local factors and depreciation. The construction cost are usually calculated by using the physical properties of the improvements (dimensions, # rooms, #bathrooms, etc), as well as by the quality (grade) of the construction. Depreciation depends on the physical condition of the property (state of maintenance) as well as the effective age of the structure. Further discussion of these factors will follow below.

Once the value of the improvements of a sold property is determined, the land value of that property can be estimated by subtracting the improvement value from the sale price.

The CAMA process involves a number of steps, that are listed below. Some steps can be carried out independently of each other, whereas other steps have to be sequential.

Neighborhood definition

A major factor determining the value of real estate is location. In the CAMA approach, this is taken into account in the land value. For that purpose, the town is subdivided into “neighborhoods”, for each of which a land value table is created. The process for this is ad-hoc, and relies to some extent on input from in the local real estate community (realtors, appraisers, etc). For each neighborhood the land values are then based on the land sales in that neighborhood, or, if there are insufficient land sales, on the regular property sales with the calculated home value subtracted from the sales prices. This is a difficult task, particularly in communities such as Barrington with small and diverse neighborhoods. It becomes particularly problematic if two very dissimilar neighborhoods are adjacent to each other and no clear physical barrier (e.g. major thoroughfare, water, park) is present. Compare for instance 181 Rumstick Road (38,529sf, land assessment $713,700) with adjacent 14 Chachapacassett Road (52,410sf, land assessment $419,900). *Some averaging would be desirable, and standards for this should be developed.*

The properties in a neighborhood will usually have a typical size, that is often related to zoning. However, there are cases where one neighborhood has significant areas where the zoning does not correspond with the typical property size. Such is for instance the case in neighborhood 10, where the typical property size is 40,000sf or larger, but Adams Point is zoned R25, whereas everywhere else the zoning is R40. *In such cases, the “primary lot” size as defined in the CAMA system should be based on the typical property size in the neighborhood, and should be unique for the neighborhood; an inconsistent primary lot size, for instance based on zoning, leads to inconsistent assessments. This requirement should be a revaluation standard.*

Identification of qualified sales

A qualified sale is described as an arm's length transaction between a motivated seller and buyer. The word "motivated" means that the seller wants to sell the property within a reasonable time frame for the highest possible price, and the buyer wants to acquire a property for the lowest possible price with the objective to use it. Sales are usually disqualified if either the buyer or the seller doesn't have the proper motivation. Obvious examples of non-qualified sales are:

- Transactions between family members or otherwise related parties;
- Foreclosures.where the price is determined by the debt owned on the property;
- Probate sales, where the probate court sells the property;
- Tax sales, where the seller wants to recoup the taxes owed on the property.

There are also situations where it is not certain whether a sale should qualify.

- A bank sale, where a a bank is selling a foreclosed property to a motivated buyer.
  In this case, the bank is definitely motivated to get the highest possible price, but the question is whether the bank has some patience. If the bank is in a rush, the property may sell for a price that is lower than what could reasonably be expected if the property were on the market for a sufficently longer period. The extreme of this is if a property is sold via an auction, where the sale is to take place on a certain date.
- An estate sale, where the heirs of a deceased homeowner sell the property. Usually, the heirs will be sufficiently motivated: they want to get the highest possible price. However, there are situations where the heirs want or need to sell the property within a certain time frame, and getting the highest possible price is less important.
- A company sale, where a company buys a property from an employee that is being transferred and subsequently sells the property. The sale from the employee to the company is not an arm's length transaction (although the price is often based on an appraisal), but the sale from the company to an unrelated buyer is an arm's length transaction. Hence, the sale may or may not be qualified, depending on how fast the company wishes to sell the property.
- A short sale, where a property is sold for less that the debt owed. In this case the seller may not be as motivated, but the lender has to agree and is motivated, and hence the sale may or may not qualify.

For al these cases, there are no standards to determine whether a sale is a qualified sale.

Then there are sales where the price is judged to be extraordinary low or high, although it is an arm's length transaction between at least a nominally motivated buyer and seller. Such sales are called outliers, and are often disqualified. Outliers can be on the high side, for instance if a buyer has fallen in love with a particular property and doesn't care much about the cost. On the other hand, sales can be on the low side if a seller is very motivated to sell within a certain time frame, and sells to an opportunistic buyer. This is currently a judgment call made or approved by the assessor. *It would be better to have standards for determining whether a sale is an outlier.*

The safest would be to eliminate any sale where there is any doubt that the seller and buyer did have the proper motivation. However, that can cause another problem, namely that this reduces the number of sales in certain neighborhoods to a number that is so small that there is a real danger that the sales are not sufficiently representative for the neighborhood. For instance for the 2010 revaluation there was 1 qualified sale in neighborhood 20, 5 qualified sales in neighborhood 15, and 6 qualified sales in neighborhood 10. In neighborhood 10 the situation is actually worse, because 3 of the 6 sales are waterfront properties, for which additional land assessment factors are applied. In such cases it is not sufficient to look just at these sales, but a longer sales history should be considered, taking time

adjustment factors into account. Another possibility is to look at the history of land value ratios between neighborhoods; such ratios tend to change less over time than the sales prices themselves. Certainly, there is a dire need for standards in such cases. *Standards must be developed to determine whether the number of sales in a certain neighborhood is sufficient to make a proper valuation of the properties in that area, and to specify how such cases should be handled.*

Land assessment adjustment factors

There are numerous reasons why adjustments need to be made for land assessments of individual properties. Upward adjustments are typically made for properties with waterfront or waterview, downward adjustments for properties on major thoroughfares, with wetlands or easements of various kinds, and irregular shapes. Ideally, the size of the adjustments could be made based on sales data in the neighborhood, but there are almost never enough sales data to do this. There are States that define percentages for the most common cases, and one of State standards would be provide a good starting point. The most difficult of these adjustments concern waterfront and waterview properties, which are numerous in Barrington. For waterfront and waterview properties there are many variables that need to be considered:

- The type of waterfront/view: open ocean, bay, river, large pond, small pond
- The nature of the waterfront: beach, rocks, marsh, etc.
- The depth of the water near the shore
- The presence or possibility of a deep water dock
- The length of the waterfront in relation to the property dimensions
- The quality of the view: 100% or limited
- The direction of the view: north, east, south, west

There is a further question whether the presence of waterfront or waterview has the same effect in high end properties as in low end properties. Currently, these adjustments are determined "on the fly" during the appraisal typically based on very little data. *Standard percentage adjustments for land values need to be defined.*

Style, age, grade, condition, and depreciation of improvements

The value of the improvements on a property is for a large part determined by the physical properties of the improvements. This includes such factors as the living area, number of rooms, number of bathrooms, additional areas, etc. These quantities are measurable and hence objective. However, there are also a number of other factors that play a role that are subjective.

- The **style** says something about the exterior appearance of the improvements. Common and easily understood type descriptions are "Colonial", "Cape", and "Ranch", etc., and they usually are assigned the same or similar price per square foot of living space. There are also harder to define styles such as "Estate", "Contemporary", "Conventional" and "Antique". For these less frequently appearing types usually a different base price per square foot is used. In particular the type "Estate" is assigned a much higher price per square foot.
- The **age** states when the improvements were built. In most cases this is clear, but in certain cases the house may have undergone a total renovation well after it was built, and in that case the effective **age** may correspond to the date of renovation.
- The **grade** says something about the quality of construction and construction materials. Factors that influence this are the type of wall and roof construction, the quality of windows, doors, and plumbin, the detail in finish work, etc.

- The **condition** indicates the state of maintenance of the improvements. This is not limited to physical maintenance, but also to functional maintenance. For instance, a kitchen that was considered excellent in the 1950's would be considered hopelessly outdated now.
- The **age** and **condition** together determine the **depreciation** of the improvements. Similar to the condition, there can be both physical and functional depreciation.

Reviewing the assignments of these quantities to the properties in Barrington, it is clear that these factors are not always applied consistently. Even similar neighboring properties built by the same builder sometimes see one property categorized as an "estate" and the other as a "colonial", leading to very different valuations. It is also not at all clear how the grade is assigned. Different grades are assigned to the same type of homes built by Almeida, for instance. Similar things can be said about the condition. *It is clear that standards need to be developed for style, grade, and condition of improvements. A methodology must also be specified to determine whether a major overhaul changes the effective age of the improvement.*

There are possibly subjective other factors that influence the valuation of improvements. For instance, compare the improvements of 47 Nayatt Road and 140 Nayatt Road. The properties are in the same neighborhood, the improvements have similar size living areas (5,504sf vs 5,946sf), similar total area (8,076sf vs 8,406sf), similar number of rooms (11 vs 10), the same number of full bathrooms (3), the same style (colonial), grade (17), similar depreciation (18% vs 20%), but a very different value/sf of living area ($138.46 vs $183.06) or value/sf of total area ($94.37 vs $129.49). *Hence there must be other undocumented, subjective factors that play a role in the assessment, and these factors need to be made public and standards for these factors need to be developed.*

Summary

Considering the above, the following standards need to be developed

Neighborhood definition:
- Smoothing between adjacent neighborhoods
- Each neighborhood should have a unique primary lot size

Sales analysis:
- Qualification of bank, estate, company, and short sales
- Definition of "outliers" that are not qualified
- Specification of the number of sales required for analysis of a neighborhood
- Specification or guidelines how to handle neighborhoods with insufficient sales

Land valuation adjustment factors for:
- Adjacent major thoroughfares
- Easements
- Wetlands
- Irregular shape
- Waterfront
  - The type of waterfront: open ocean, bay, river, large pond, small pond
  - The nature of the waterfront: beach, rocks, marsh, etc.
  - The depth of the water close the shore
  - The presence or possibility of a deep water dock

    - The length of the waterfront in relation to the property dimensions
    - The direction of the view: north, east, south, west
    - Neighborhood dependence (if any)
- Waterview
    - The type of waterview: open ocean, bay, river, large pond, small pond
    - The quality of the waterview (full, percentage, permanence)
    - The direction of the view: north, east, south, west
    - Neighborhood dependence (if any)

Subjective improvement valuation factors

- Style
- Effective age (in case of major remodeling)
- Grade
- Condition
- Other unknown factors that are apparently being used