



Guidelines for Development of a Minimum Reassessment Program

Bureau of Local Assessment
Revised July 2008

Please Review the Following Significant Changes:

Land Analysis and Valuation.....Page 12
State Owned Land.....Pages 12-15

Retain these Guidelines until further notice

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These materials have been prepared by the Bureau of Local Assessment to assist assessors plan and carry out the reassessment program necessary to achieve full and fair cash value assessments, in accordance with the requirements of Massachusetts General Laws, Chapter 40, Section 56 and Chapter 58, Sections 1, 1A, and 3. An analysis of market trends along with assessment level and uniformity must be done annually whether for an interim year adjustment or for triennial certification.

I. INTERIM YEAR ADJUSTMENTS

In all cities and towns assessors must annually adjust valuations to reflect changes in the tax base due to new construction, alterations, demolitions, etc. If there has been a change in market conditions, adjustments must also be made to property values to reflect full and fair cash value as of January 1. The assessors may undertake and complete a valuation adjustment program without the prior review or approval of the Bureau of Local Assessment in the years between the required triennial recertification. This is called an interim year adjustment. A plan, which includes analysis and application of appropriate appraisal methods, must be used to develop any valuation adjustments (see section III). After completion of the program, the community's assessments should be equitable and consistent within and between all property classes, as evidenced by conformity with accepted mass appraisal measures of assessment level and uniformity.

Documentation to support valuation changes must be prepared and retained by the assessors. This documentation might include, for example, income, expense and capitalization rate analyses, sales ratio studies or any other data that support the type and extent of the valuation changes made by the assessors.

All assessors must report the results for their analyses (whether or not an adjustment was necessary) of all real property to the Bureau of Local Assessment on the form "Adjustment of Valuations Between Certification" (LA15). Valuations must conform to the assessment level and uniformity outlined in Section III-B of these guidelines. It must be received with the Form LA-4 "Assessment/Classification Report." The completed form will be sufficient, although more detailed information may be requested.

II. TRIENNIAL CERTIFICATION PLAN COMPONENTS

To develop the reassessment program, current assessment levels, assessment uniformity and market trends should be analyzed. Also, an evaluation of data quality should be made and certification recommendations of the Bureau of Local Assessment should be reviewed.

After determining the nature of the reassessment program, the assessors must prepare a plan for its accomplishment and submit it to the Bureau, as explained in detail in Section VI.

A carefully prepared plan is a tool by which the assessors can define the specific tasks required, manage their limited human and financial resources and monitor

the progress of the program, thereby ensuring the timely and satisfactory implementation of new values. When developing a plan, the assessors should:

A. Current Capability

Evaluate the capability of the present assessment administration system. Analyze the level and uniformity of the current assessments.

B. Program Components

Determine the program components necessary to achieve full and uniform assessments and the management, analytic and appraisal tasks necessary to complete those components. These include:

1. Use of methods and techniques of appraisal and valuation, which are proper and legally defensible.
2. Choice of means to complete the project that are reasonable and appropriate:
 - a. In-house personnel, sufficient in number and qualifications, or
 - b. Professional appraisal assistance.
3. Appropriation of adequate funds.

C. Timetable

Establish a timetable that is realistic.

D. Review

Provide for public as well as State review, to permit verification that the plan has been implemented as proposed and that fair cash valuations have been achieved.

E. Implementation

Implement a valuation system with the capability of maintaining data, updating values, providing necessary reports and meeting the minimum standards for assessment administration.

III. ASSESSMENT ADMINISTRATION SYSTEM ANALYSIS

Essential components of professional, efficient and equitable assessment administration include the thorough and accurate collection and analysis of certain property descriptive data and market data that serve as the foundation for the development of value estimates.

A. Tax Maps

Every community requires adequate tax maps, which can include a geographic information system (GIS), in order to ensure that property assessments meet the legal standard of full and fair cash value.

Without tax maps, assessors may not have a readily accessible, complete parcel inventory or detailed land area information, such as front and

square footage, for each parcel. As a result, they may be unable to precisely analyze market influences on the value of land, such as, size, shape, frontage and depth, or develop a land valuation system based on accurate measures of market value, such as square footage, front footage, and site. Moreover, without accurate land information, existing appraisal systems cannot produce uniform assessments.

1. Assessors in communities that do not have adequate tax maps must include the development and implementation of a tax-mapping program as the initial component of their reassessment program.
2. Assessors in all communities must provide for the maintenance and updating of their tax maps as a component of their reassessment program.

B. Analysis of Assessment Level and Uniformity

There are two ways to analyze existing assessments through assessment/sales ratio studies: first, by looking at the assessment level and second, by looking at the uniformity of the assessments. Assessment level refers to the degree to which the overall ratio of assessed value to market value approximates the full value of the property class being analyzed. Assessment uniformity refers to the degree to which properties within and among classes are assessed at equal percentages of market value.

1. Monitoring Sales Activity

The validity of any sales analysis depends in large part on the selection of arms-length sales. An arms-length sale is defined as one between two unrelated parties, each of whom is reasonably knowledgeable of market conditions and under no undue pressure to buy or sell. Therefore, the assessors should first obtain as much information as possible about the circumstances of each sale. This can be done by sending sales verification questionnaires to buyers and/or sellers to determine the type of transaction, financing arrangements and any special circumstances of the sales. Local real estate brokers are also valuable sources for such information. Whenever possible, all sold properties should be inspected. This will enable the assessors to verify existing data, monitor property renovations and to identify more readily market trends within the community.

2. Analyzing the Market

Once the arms-length sales have been identified and verified, the assessors should undertake a statistical analysis to determine both the level and uniformity of existing assessments and to identify the source(s) of any existing inequities.

a. Number of Sales to be used

The total number of arms-length sales in any residential class should be at least 2% of all parcels in that use class. If 2% is less than 10 sales, twenty-four months of sales for that class should be analyzed and submitted to the Department for review, time-adjusted as needed. The analysis of the various classes of property must use sales in the same time period for obtaining the required number of sales. All commercial and industrial sales should be similarly analyzed and submitted.

b. Date of Analysis

The effective date of the analysis is the January 1 prior to the fiscal year. For example, the assessment date for FY2009 is January 1, 2008, and the sales to be analyzed are those occurring in calendar year 2007 (January 1, 2007 through December 31, 2007).

Since the object of the valuation program is to estimate fair market value as of January 1 of a particular year, the ratio study used to evaluate that program should reflect market conditions as of that same January 1. In the event that two years of sales are needed, the previous year's sales can additionally be used or assessors may supplement their calendar year analysis with sales that occurred, both 6 months previous and 6 months after the calendar year. It should be noted that the calendar year sales with any supplemental sales must meet all statistical requirements and that the same time period be used for all classes requiring additional sales.

c. Adjusting for Date of Sale

The effective date of the ratio study submitted is January 1. Assessors may supplement their analysis by adjusting sales forward or backward to the assessment date by use of a time adjustment factor. The BLA certification advisor should be consulted regarding the development and use of such a factor. Written documentation is also required.

d. Conducting the Ratio Study

The community-wide median assessment/sales ratio (ASR) and coefficient of dispersion (COD) about the median should be calculated first for the residential class of properties having the largest number of parcels. Then the ASR and COD for all other property classes with sufficient numbers of sales should be calculated.

For certification purposes, the following chart describes the range in which the median ASR must fall and the maximum COD for all classes of property.

TYPE	CLASS USE CODES	MEDIAN SR (Range)	COD Maximum)
Single Family	101	90-110%	10.0%
Condominiums	102	90-110%	10.0%
Two Family	104	90-110%	12.0%
Three Family	105	90-110%	12.0%
Apartments	111-112	90-110%	15.0%
Vacant Land	130-132	90-110%	20.0%
Commercial	300s	90-110%	20.0%
Industrial	400s	90-110%	20.0%
Mixed Use	013-031	90-110%	20.0%

The difference in the median ASR of the residential class use code with the largest number of parcels and the median ASR of any other class should be 5% or less, but the median ASR may not go below 90% or above 110%.

If a sufficient number of sales exist for any property class, the assessors should stratify the sales into subgroups, for example, neighborhood (e.g. location), sales price quartile, style, grade, age, etc. The median ASR and COD need to be computed for each group. The difference between the median ASR of the subgroups should be plus or minus 5% of the property class median and the COD should be no higher than that indicated for the appropriate class in the preceding chart. These group statistics, if outside the parameters when compared with the overall median ASR and COD for each class of property, may indicate assessment inequities.

When market value indicators, other than vacant land sales, are used for the development of land values (i.e., residual or abstraction analyses), the median ASR should be in the range of 90% to 110% and within 5% of the ratio computed for the largest residential class. The COD may be up to 20%. The analysis should also be done by neighborhood and lot size. The difference between the median ASRs of the neighborhood, lot size and zoning (if applicable) should be within 5% of the median of the group as a whole.

For each condominium complex having 5 or more sales, the median ASR should be within 5% of that of the condominium class as a whole and the COD no higher than 10%.

For each property use class having 40 or more sales in the analysis period, the median ASR for each price quartile should be computed. Arraying the selling prices from low to high, and dividing them into four groups having approximately equal numbers of sold properties establishes the price quartiles. The median for each price quartile should fall within a range of 5% of the median for the entire class.

The date quarters are established by arraying sale dates from the beginning to the end of the year and dividing them into four three-month groups. If two years of sales were used, divide them into four six-month groups.

For each class of property having at least 20 but less than 40 sales, array the sales as directed for price analysis. However, analyze them in two rather than four groups.

C. Market Data Assembly

Depending on the valuation system and methods being used, the assessors must collect sufficient cost and market data such as the following:

- Current cost data (no more than 2 years old), such as updated cost schedules, or trending modifier from the applicable national cost services and local building costs where available.
- Current sales data, including conditions of sales, regional trends and financing.
- Current income, expense and vacancy data, which may be obtained from questionnaires or by interviews with lessees, lessors or agents. If sufficient data cannot be obtained locally then data should be obtained from similar neighboring municipalities or professional sources. This data must be sufficient to develop verifiable schedules.
- Data relative to the development of capitalization rates, financing terms, discount rates, recapture rates, yield requirements and local debt coverage ratios

The assessors may obtain information needed to determine the fair cash valuation of property by requesting that the owners and lessees of such property make a written return in accordance with General Laws Chapter 59, Section 38D (applicable to real property) and Chapter 59, Section 38F (applicable to personal property). The returns can be used to request sales information, income and expense data, property descriptive data such as age, condition and cost of personalty items as well as annual reports filed with regulatory agencies in the case of utilities and nursing homes, or any other information reasonably required to determine value.

D. Property Inventory Data

The collection and maintenance of current and accurate property inventory data is a critical element in the development of uniform, fair market values.

1. Maintaining Existing Data Base

The collection of property data can be the most costly part of the revaluation process. Unless such data is regularly maintained, a community will inevitably face the requirement of an expensive community-wide data recollection effort in order to provide uniform assessments and meet certification requirements.

There are a number of factors that must be considered in determining when a property inspection program is necessary to meet certification requirements. These include, for example, the quality of the original data collection effort, the conversion to a new valuation system that may require different data items, the frequency of property renovation and remodeling in the community (which is often related to the frequency of property sales), and the absence of a systematic program to reinspect properties other than those that have sold or for which building permits have been issued.

It is recommended that assessors plan a periodic, cyclical inspection program. Such a program enables the assessors to maintain accurate property data by continuously reinspecting all property to verify and update existing data. In a cyclical program, each property in the community is inspected at least once in a fixed period of time. The best time to begin such a program is immediately after a comprehensive, community-wide inspection ("full measure and list") has been completed.

The time period of a cyclical program is dependent on a number of factors, including:

- the time since the completion of the last community wide inspection program,
- the quality of existing data, as measured by a data quality study or evaluation,
- the nature of change in the community and its neighborhoods, and
- a change in valuation systems that may require additional or more specific data.

It is recommended that a periodic data inspection program provide for the inspection of each parcel at least once in every nine-year cycle. If six to nine years have passed since the last property inspection program, a shorter initial inspection cycle (three to six years, for example) may be called for.

2. Data Quality Analysis

The following outline should be used as a guide for conducting a data quality study:

a. Sampling method and sample size

- 1) If the study is a formal data quality study, select a random, representative sample of 2 to 5% of the properties in each class being evaluated.

The size of the sample is dependent on: size of the community, location mix (neighborhoods) in the community, complexity of the property mix, age and style of the properties, homogeneity of property, number of years since last data collection program and the nature of data maintenance programs used.

The sampling process must be sufficient to ensure that a data quality conclusion can be made concerning each significant type, class, or neighborhood.

- 2) If the study is an evaluation review of properties inspected as part of the regular data maintenance and verification activities (e.g. building permits, abatement reviews), the representativeness of the sample must be checked. Additional inspections may be needed if significant segments of the community were not included in the initial review.

This type of review requires assessors to keep adequate records documenting the inspections that have been completed. These records may include color-coded property maps, daily work reports, dated property record cards, etc.

b. Property inspections

There are two principal methods for inspecting properties and recording the results:

- 1) Using new, blank property record cards, measure and list each property selected for study as if for the first time.
- 2) Using copies of existing property record cards in the field, conduct a data verification inspection, marking the copies distinctly where differences are identified. Copies of the property record cards should be kept in a separate location, documenting the data quality evaluation or study.

c. Identification of discrepancies and their impact

For each parcel selected and reviewed, the original value is compared with the value that would have been in effect had accurate data been available. The dollar difference and percent difference are then identified. The percent difference is calculated by dividing the dollar difference in value by the old, or original, value.

d. Coding

Each property reviewed should be coded as follows:

- 1) No discrepancies found.
- 2) Discrepancies would have been identified by a field review.
- 3) Discrepancies would only have been found by an exterior inspection.
- 4) Discrepancies would only have been found by an interior inspection.

e. Analysis

The mean and median of both value (dollar) and percentage differences should be computed for the entire sample, as well as for each of the four categories listed above. The assessors should also stratify the sample by such items as neighborhood, style, age, price quartiles, etc.

f. Corrective action (as necessary)

A median in excess of 10% in any category, class, or type of property may indicate a need for prompt appropriate corrective action. For example, discrepancies listed in the coding section (see previous section d.) might require:

- d. 2) a comprehensive field review.
- d. 3) a full exterior data verification inspection.
- d. 4) would likely require interior inspections.

Rates of 5 to 10% in a category may be corrected through a periodic, community-wide, data inspection program.

Results of a data quality study must be reviewed with the BLA certification advisor before certification planning proceeds.

IV. DEVELOPMENT OF MINIMUM PROGRAM COMPONENTS

A. Field Review

Regardless of the method employed to value property, the assessors must also review the new values for sold and unsold properties in the field to ensure valuation consistency and uniformity.

The following sets forth minimum field review activities:

1. A full field review of all data and the new valuations is to be conducted for any program that provides for the development and implementation of a new valuation system or a data conversion program (manual or automated). This is required regardless of whether (1) a new data collection is being undertaken or (2) existing property inventory data is being used.

When planning the implementation of a new valuation system, care must be taken to ensure that all data needed to run the system is either "converted" from the old system to the new, or collected through a property inspection or review process.

2. In all other types of reassessment programs, including an upgrade of a current appraisal system, a field review of a sufficient number of properties must be conducted to verify that the application of the valuation methodology employed has resulted in the uniform and consistent valuation of comparable sold and unsold properties. The extent of the valuation field review activities required will depend on many factors including, for example, the results of data quality studies, sales verification and analysis activities, the nature and extent of the valuation adjustments made, and the review appraiser's familiarity with the community's valuation system and property. The field review should include a review of the data and new valuations of all sales and a representative sample of unsold properties.
3. Assessors must keep comprehensive records documenting the review and its results. If systematic errors are identified, appropriate corrective measures should be taken. Therefore, the field review, whether full or partial, must be completed early enough in the valuation process to allow for corrections.

B. Valuation Methodologies

1. Residential Property

a. Adjustment of Existing Valuation System

Sales analyses and market data may be used to identify what adjustments need to be made to the existing valuation system for residential improvements and land.

For example:

- 1) If the source of dispersion appears to be specific neighborhoods, it may be necessary to adjust the existing land valuation schedule to accurately reflect current market value.
- 2) If the source of dispersion appears to be a specific style or age of property, it may be necessary to adjust the existing valuation models, the base cost tables or depreciation schedules.

This approach has the advantage of maintaining the integrity of the existing valuation system. The funds expended on the initial revaluation may, in a large part, be wasted if the system is not maintained and updated.

b. Trending or Factoring

In some cases, sales analyses could be used as a basis for adjusting the assessments on a group of properties by a uniform

percentage. This approach is effective when the underlying data is current and accurate and when separate trending factors are developed for comparable properties (such as by location, age, style, etc.) that appreciated or depreciated in value at the same rate.

A single factor may be applied to an entire residential property class only when the sales analysis indicates a uniform assessment level among stratified groups, i.e. the median ASRs for significant groups is within 5% of the class median and the overall COD is less than 10%.

Trending has the advantage of being relatively easy to perform, especially where the assessors have access to data processing services for analysis and value computation. However, where the values have been previously factored, the application of trending factors may magnify underlying inequities and, therefore, be considered an inappropriate appraisal technique.

2. Land Analysis and Valuation

If there are insufficient vacant land sales to produce a meaningful land analysis, an analysis using the abstraction method should be conducted. When estimating land values by the abstraction method, the following contributory values must be considered:

- primary improvement (dwelling)
- accessory improvements (garage, pools, etc.) , and
- site improvements (water and sewer).

Neighborhoods for appraisal purposes must be delineated and analyzed by the indicated land value. Any unique combination of factors is to be considered a neighborhood unto itself and should be analyzed as such. All land factors and/or value adjustments must be supported by market evidence within the neighborhood in which they are being applied.

When analyzing sales to determine rear/excess acre values, the indicated lot value, not necessarily the assessed prime lot value should be used. A parcel's size relative to use in the excess acreage analysis should be of sufficient acreage to render a meaningful analysis. If the land schedule calls for a rear acre value adjustment by neighborhood, there must be market evidence to support this adjustment.

Land schedule must be supplied in Excel format.

3. State Owned Land

The Commissioner of Revenue determines the fair cash value of certain tax-exempt state owned land (SOL) for reimbursement. Criteria for reimbursement generally depends upon three factors: taxable status at the time of state acquisition, land use, and the particular state agency owning or "holding" the land (see MGL Chapter 58 s. 13-17 and MGL Chapter 59 s. 5G).

Land valuation does not include any improvements to the properties (such as buildings) or personal property. All state owned lands are being used for public purposes and as such are exempt from local taxation.

a. Procedure

The Department of Capital Asset Management (DCAM) notifies the DOR of acquisitions, deletions and agency transfers.

Upon receipt of an acquisition assessors will be notified to supply the following documentation:

- property record card for last year taxed,
- recorded deed or order of taking,
- copy of commitment book entry for year prior to taking,
- assessor's map marked with the location of the site,
- accepted street list from town clerk, and
- dimensional and use regulation tables from zoning by-laws.

Notification of deletions will be sent to the boards of assessors indicating the amount of acreage that is being removed from reimbursement.

Should documentation be found, e.g. by the Bureau of Local Assessment, another state agency or local assessors, showing that land not previously reimbursed is eligible for reimbursement, it will be added to the Cherry Sheet payment in Lieu of Taxes Program (PILOT). Conversely, if it becomes evident that land was erroneously reimbursed in the past, it will be removed from the PILOT Program.

The procedure for valuation of state owned land follows generally accepted practices for the appraisal of vacant land to arrive at full and fair cash value estimates requires standardized procedures in order to achieve consistency in valuation application throughout the Commonwealth.

Land will be valued as vacant based on the requirements of local zoning laws of the municipality or predominant land use in the absence of zoning laws. If the land is zoned for governmental or institutional use (e.g. government buildings, schools etc.), the surrounding land use should be considered characteristic and applicable to the state owned land. Building restrictions such as those on protected watersheds, reservoirs, floodplains etc., should also be taken into consideration. Local zoning changes that are made only to state owned land to enhance reimbursement will not be considered valid. Assessors must notify BLA of any zoning changes affecting reimbursable state owned land.

The land should be valued by site. For the purposes of SOL, a site is defined as land held or controlled by a particular agency for a particular purpose, such as a state park or a wildlife sanctuary.

Sites generally have a name, are often made up of more than one parcel and may overlap municipal bounds.

Site acreage should be analyzed and segmented into one or more of the following categories:

- 1) Primary Front Lots – land on accepted municipal public ways and accepted state highways (roadways) with direct and complete access is eligible for the front lot value attribution. The roadway may be unpaved but must be maintained and passable year round. These front lots must have frontage, depth and area that meet local zoning requirements and be readily developable (i.e. not requiring any special permitting or site preparation). Prime lot attribution will not be considered for land lying within a 100-foot buffer zone of any wetland area. Irregularly shaped lots with minimal frontage, sometimes called “pork chop lots,” will not be considered. Notwithstanding M.G.L. Ch. 40A § 3, any zoning within a community that prohibits building and any land that requires authorization under M.G.L. Ch. 91 for construction on both coastal and inland waterways will not be eligible for prime lot attribution.
- 2) Rear/Excess Land – land that does not qualify for front lot attribution, has limited or no access, but is potentially buildable. This category includes land on accepted municipal public ways and accepted state highways (roadways) that meet the minimum local zoning requirements, but are not readily developable due to minor topography issues or other negative influences.
- 3) Undevelopable/Wet Land – land that is unbuildable due to physical conditions such as wetness, extreme slope, governmental restrictions or land that is a water body (lake, pond, marsh etc.). Due to an ATB decision, the water body portions of DCR Water Supply Protection property (MGL Chapter 59 s. 5G) are not eligible for reimbursement. (Town of Boylston v Commissioner of Revenue, Metropolitan District Commission and Massachusetts Water Resources Authority, ATB Docket No. F183626, F22902 (2000).

Rear/excess land and wet land determinations should be based upon U.S. Geodetic Maps, local conservation commission maps, U.S. and state agency maps, holding agency reports and visual observations, etc.

b. Standardization of Local Land Schedules

The BLA reviews and certifies all communities’ real and personal property values on a triennial basis to ensure that they are at full and fair market value. The resulting certified land schedule is used as a starting point for SOL valuation. Since the process occurs over a three-year period, equalizing or standardizing the values is

necessary so that all SOL values are at the same level at one point in time.

c. Municipal Maintenance of Property Record Cards

Assessors' property record cards (PRCs) must show the proper use class codes for reimbursable SOL, reflect the full and fair cash value as well as the reconciled segmentation using the Bureau's guidelines. While municipal land values may change annually due to the real estate market, SOL values for reimbursement remain fixed until the next SOL valuation every four years. SOL valuation, for reimbursement purposes, will only change between SOL valuations when there are additions or deletions to the SOL inventory. Assessors performing interim year adjustments should change the value of the SOL on the PRCs. The BLA SOL value may also be shown on the PRCs if the assessors so choose.

Adjustments for size and absorption rate must be made using standard tables developed and supplied by the Bureau. Specifically large acreage discounts must be applied to sites larger than 100 acres and excess primary lot adjustments must be applied to sites with road frontage allowing for 26 or more prime lots. For sites over 100 acres in a community that utilizes a land curve, the value at 100 acres using the curve must be supplied to the Bureau before the standard land discount table is applied.

4. Commercial and Industrial Property

Commercial and industrial properties should be reviewed in the context of the approaches to value used to determine the original base values. For certification purposes, a second approach to value must be developed and applied to all properties bought and sold on investors' expectations. Such properties would include, but not necessarily be limited to: multiple use properties that are predominately commercial; apartments over four units; hotels and motels; storage, warehouse and distribution facilities; discount and department stores; shopping centers and malls; supermarkets; small retail properties; office buildings; medical office buildings; research and development facilities; and properties within industrial parks.

The following are acceptable methods for valuing commercial and industrial properties:

- a. Cost - The application of cost from a recognized cost manual, local building costs and/or a cost trending multiplier (from an applicable national cost service) may be considered for updating improvements, with proper allowances given for depreciation.
- b. Income - All rent schedules, income and expense information and capitalization rates must reflect current market conditions. The necessary information can be obtained from a questionnaire or by

interviews with taxpayers or from third party sources. There are sample forms and cover letters located in Local Assessment section of the DOR website at www.mass.gov/dls under General Information.

- c. Market - Recent commercial and industrial sales may be analyzed and units of value developed from comparable sales. Such unit values may then be applied to comparable non-sold properties. Sales from surrounding communities with comparable property bases and market influences may be used for analysis purposes

5. Farmland Valuation

The Farmland Valuation Advisory Commission (FVAC) adopts the range of recommended agricultural, horticultural and forest land use values for the various categories of land classified under Chapter 61 and 61A. These value ranges are to be used in conjunction with the assessors' appraisal knowledge, judgment and experience as to agricultural, horticultural and forest land values.

When a Board of Assessors determines local valuations for land classified as agricultural, horticultural or forest land under these chapters, they must consider only those indicia of value that such land has for agricultural, horticultural or forest uses. Any income, sales or other appraisal information considered by the assessors is limited to data specific to the crop or product being grown or produced.

If a Board of Assessors adopts values outside the range of values recommended by the FVAC, the determination must be supported by a comprehensive study of local factors influencing the agricultural, horticultural or forest use value, and include a detailed description of the selected valuation models and resulting use value estimates. The FVAC valuations must be considered in all local analyses.

Any sales of farmland, income data or other appraisal information being considered by the assessors should be limited to data specific to the crop or product being grown or produced. Any indicia of use value derived from sales must come from comparable sales of agricultural, horticultural or forest land to buyers who purchase the property to continue its current agricultural, horticultural or forest use. Assessors should ensure that sales used to support their valuations are comparable with respect to tillable land, pasture, meadow, woodland, mountainside and marsh, etc. In addition, they should identify and consider all other circumstances about the transactions that may have influenced the prices paid for the land, e.g., sales during crop growing season, irrigation and personal or business motivations of the parties.

When analyzing these sales, they should be grouped into crop or product categories similar to those recognized by the FVAC. If the number of sales is inadequate, regional data from comparable communities should be considered.

Rental income is a reliable means for deriving an estimate of market value using the income capitalization approach. When income data is available, local farm rental rates per acre for various land classifications should be used. Care should be taken to ensure that only the productivity of the land is evaluated and not the other income sources such as retail sales. The rental income method requires fewer assumptions, less dependence on management performance, and rental patterns are relatively consistent within the farming community.

6. Multiple Regression Analysis

To determine whether a certain Multiple Regression Analysis (MRA) model is the best predictor of a given group of sales, appropriate statistics and program outputs must be achieved in the modeling process. The following statistical standards should be represented in the overall model.

- a. The Coefficient of Determination (R^2) equals the percentage of the variation in sales prices explained by the MRA model. An R^2 percentage equal to or above 90% is desirable.

- b. Standard Error of the Estimate

The Standard Error of the Estimate (SEE) provides an estimate of the variation (the amount of deviation between actual and estimated sale prices) that is likely to be observed when making estimates of value using a specific model. The SEE must be a positive number. A low number is a better indicator of predictability.

- c. Coefficient of Variation

The Coefficient of Variation (COV) is the SEE expressed as a percentage. This statistic describes the standard of deviation of the regression as a percentage of the mean sales price. The COV is expected to be equal to or below 12%.

- d. Average Percentage Error

The average percentage error is the average absolute difference between the actual and the predicted sales price. A low number is a better indicator of predictability.

7. Personal Property

Personal property must be valued in accordance with an acceptable appraisal methodology. Trending may be used, provided recognized indices are employed and proper allowances are made for depreciation.

- a. Individuals, Partnerships, Business Corporations and other accounts
 - 1) An annual review of personal property accounts should be undertaken. This review should include:

- a) Identifying the owners of personal property located in the community as of January 1
 - b) Reviewing Forms of List from business personal property. An analysis of residential second home personal property must be conducted at least once every 6 years by inspecting or reviewing the Forms of List of at least 2% of all second home personal property accounts. The minimum should not be less than 10 accounts.
 - c) Determining the taxable status of personal property accounts.
 - d) Verifying or completing a listing of the individual items of taxable personal property for each account based on –
 - (1) Discovery and data collection of new accounts
 - (2) Review returns of Form of List and previous listings
 - (3) Estimating based on similar accounts when access cannot be gained and no Form of List is returned
 - c) Valuing the property in accordance with an appropriate and uniform appraisal methodology. All cost and depreciation tables need to reflect the current valuation date and be applied to each account.
- 2) The assessors' record for each taxable account should include the following:
- a) Owner's legal name
 - b) Business name
 - c) Business address in the community
 - d) Tax billing address
 - e) Complete list of each item that is assessable and taxable as personal property. Included for each item should be: the age, number, replacement cost new, the depreciation percent and the replacement cost new less depreciation (RCNLD) value. After itemization, the taxable value of each category of personal property should then be totaled (e.g., fixtures, furniture, machinery, inventory, etc.). Communities adopting the small personal property exemption must still perform this function prior to exempting the personal property account.

Non-taxable accounts should list owner's legal name, business name, business address in the community, tax billing address, value and the reason the account is not assessable.

b. Utility Accounts

The Electric Utility Restructuring Act, Chapter 164 of the Acts of 1997, separated the generation of electricity from its transmission and distribution. Independent, non-utility producers in a deregulated environment now generating electricity and the plants' valuation

must reflect market value. For information on the valuation of generating plants see IGR No. 98-403.

Transmission and distribution of electricity are still performed by regulated local electric utilities. As a result of Supreme Judicial Court decisions, assessors must provide relevant data to support an opinion of fair market value of utility property that is in excess of its net book cost, using the following outline as a guide.

1) Data Collection — Transmission and Distribution

As of the valuation date the assessors should collect the following data and information for each utility account:

- a) Information on the physical plant located in the community and subject to taxation. This information may be obtained from the Form of List submitted by each utility company.
- b) Information on the dollars invested in the physical plant in the community. This information may be obtained by requesting the utility company's historical (gross and net book) costs.
- c) System-wide financial and statistical data. This data may be obtained by requesting a copy of the annual return filed by each utility company with the Accounting Division of the Massachusetts Department of Telecommunications and Energy. In addition, rate base information, such as the rate of return allowed on the book cost and the return on common stock equity should be obtained.

2) Valuation

a) Cost

(1) Historical

- (a) Net book
- (b) Gross book less an approved rate of depreciation.

(2) Reproduction cost new less depreciation, provided proper allowances are made for physical and functional depreciation and economic obsolescence.

- (a) Trending, using a generally accepted manual or index
- (b) Repricing.

b) Income

Income attributable to taxable personal property must be isolated from system-wide income data.

c) Market

- (1) Stock and debt approach
- (2) Comparable sales approach.

3) Documentation

For certification purposes, the assessors must submit an appraisal report documenting the appraisal method used to arrive at an opinion of fair market value.

The appraisal report must include:

- a) A complete inventory listing the proposed values for each category of inventory, including the Form of List;
- b) Depreciation estimates fully documented by type;
- c) Relevant data supporting any opinion of value. This data must:
 - (1) Identify the existence of special circumstances that might indicate a fair market value in excess of net book. Special circumstances enumerated by the Court that might induce a buyer to pay more than net book and might indicate a fair market value in excess of net book include:
 - (a) The return actually being earned by the utility may exceed or be expected to exceed the rate of return approved by the regulatory agency in the allowed rate.
 - (b) The prospective buyer's allowed return on its investment may exceed the return available in the market for an investment having the same or greater risk.
 - (c) The applicable rules of law or regulatory agency policies may be changed so as to make the investment more attractive. For example, the regulatory agency may allow an increase in the rate of return allowed the utility or may abandon its existing carry-over rate base policy which provides that when a utility company sells an asset to another regulated utility company, the buyer's return is limited to the rate base value in the hands of the seller and not in any higher purchase price that the buyer might have paid. The prospect of any change must be a reasonable one.
 - (d) The potential for growth in a utility's business may warrant paying more than the utility's net book cost of particular property.
 - (e) A non-utility buyer, not subject to the governmental restrictions on its earnings, might purchase part of the property in the system.
 - (f) A municipality may be considering forming a municipal utility and might purchase the property.

- (2) Show why, because of the special circumstances, a buyer would not be influenced by the net book cost of the property and would reasonably be expected to pay the value placed on the property by the assessors when by investing the same dollars elsewhere the buyer could obtain a better return on its investment.
- d) The final total estimate of the full and fair cash value of the property.

C. Reassessment Program Documentation

The assessors must review and accept all proposed values prior to submitting the written documentation to support the mass appraisal process employed. Such documentation, for example, would include sales ratio studies, cost and depreciation schedules, land valuation schedules, income and expense analysis, valuation system override criteria, field review documentation and any other information that supports the adjustments made by the assessors. Standards for valuation and field review documentation are found in the Bureau of Local Assessment's Assessment Certification and Field Review Manual - Documentation Standard.

After a review and analysis of current sales, cost and income information, the assessors may determine that existing assessments in one or more classes reflect fair market value and no value or system adjustments are necessary to meet certification requirements. The Bureau must still conduct a certification field review to verify the consistent valuation of comparable sold and unsold properties at fair market value throughout the community.

If the assessors decide not to adjust existing assessments, they must provide, at the time of the Bureau's review, an appropriate analysis to support their determination. The type of analysis required will depend on the valuation methodology used in the last revaluation for each property type. For example, if the cost approach was used, this analysis would indicate that land values and building costs have not changed appreciably since the revaluation. If the income approach was employed, an analysis of current income, expenses and capitalization rates would be undertaken to ensure that there has been no significant change in any of those factors.

V. PUBLIC DISCLOSURE

It is important to build and maintain public trust and confidence in the assessment administration system. This can be accomplished by keeping taxpayers abreast of the legal requirements regarding assessments and of the assessors' responsibilities and actions in complying with those requirements.

In order to receive final certification, the assessors must undertake a public disclosure program for a minimum of five (5) business days after the Bureau's issuance of preliminary certification. However, the Bureau strongly recommends

undertaking public disclosure for a minimum of ten (10) business days to accommodate as many taxpayers as possible.

A. Basic Program

All communities are, at a minimum, required to undertake a basic public disclosure program consisting of:

1. Notice

The assessors must provide notice of a general reassessment program to all taxpayers by a comprehensive public information release **in a newspaper of general circulation in the community**. The public disclosure period begins after the newspaper notice has been published. The public disclosure notice **must** address the basis of the valuation changes, the program's overall effect on assessments, and the manner and time period in which taxpayers may ascertain the proposed new assessments prior to tax billing. It is expected that communities with a significant number of non-resident taxpayers will send impact notices.

2. Review

Prior to finalizing values and tax billing, the assessors must provide adequate opportunity, either during or after regular office hours, for taxpayers to make telephone or office inquiries regarding the proposed new values. Any changes to assessed values as a result of public disclosure should be made prior to submission of the LA10 and not through the abatement process.

B. Impact Notices

If the assessors conducted a full revaluation program, which includes data recollection and the development of a new valuation system, they must send impact notices to all taxpayers listing pertinent legal information, the proposed values and must hold informal hearings.

VI. REASSESSMENT PROGRAM PLAN

A. Preparation of Plan

After identifying the components of the reassessment program and the specific tasks necessary to complete those components, the assessors need to evaluate the resources, in-house personnel and professional assistance, required to carry out the program in a timeframe consistent with actual tax billing. They then should prepare a project plan.

1. Workplan

The Bureau's "Valuation Program Workplan" can be used as a basic framework for preparing the plan. It can be supplemented as necessary or desired.

Every plan should address:

- a. The valuation methods being employed for each class of property: land, residential, commercial and industrial, as well as business, residential and utility personal property;
- b. The in-house personnel and/or professional appraisal assistance required to complete the project and the specific project responsibilities of the project participants;
- c. The work schedule and projected date of completion (see August 2006 Bulletin 2006-12B on Realistic Planning for Certification and Tax Rate Setting);
- d. The timeframe for obtaining adequate funds. It is recommended that funds be appropriated two years in advance of the certification year.

2. Professional Services Contracts

The assessors may select from a wide range of data processing, appraisal, consulting or other professional services to revalue property, update an existing valuation system or otherwise assist them to develop an informed opinion of the full and fair cash value of properties in one or more classes. If the plan includes any professional assistance, an appropriate contract must be prepared.

Local officials are urged to review all requests for responses (RFR) and invitations for bid (IFB) and proposed contracts with municipal counsel, with particular emphasis on these guideline requirements and the Uniform Procurement Act, MGL Chapter 30B. The Inspector General's office provides guidance regarding procurement issues (617-727-9140).

B. Submission of Plan

The assessors are requested to submit to the Bureau their program plan for meeting certification requirements. The Bureau's review will focus on whether the overall plan is reasonable and likely to achieve certifiable values.

The plan must be written and should include, at a minimum, the information described in Section VI-A. If, as a result of local decisions or an on-site review of the plan or other technical assistance rendered by the Bureau, the plan is modified in any substantial way, a revised plan should be submitted. The Bureau will review and approve the plan and the assessors will be asked to keep the Bureau informed of their progress.

On an as needed basis, the Bureau may request a copy of an appropriate valuation contract.

All written plans should be submitted to either the BLA field advisor or to:

Bureau of Local Assessment
P.O. Box 9569
Boston, MA 02114-9569

Questions on program development may be addressed to the Bureau's Boston office, (617) 626-2300, or to the Division's regional offices in Springfield, (413) 784-1000, and in Worcester, (508) 792-7300. Information is also available on the DOR web site at www.mass.gov/dls