

Assessment Bulletin

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EQUALIZED ASSESSMENT PANEL TECHNICAL COMMITTEE**Bulletin No. 03-01****March 4, 2003**

ANNUAL AUDIT PROCESS FOR 2003

The Equalized Assessment Panel (EAP) Technical Committee has made a significant contribution in shaping the assessment audit and equalization process by providing technical advice through the 30 recommendations made since its first meeting in August 2001. The committee was challenged to find a process that could systematically expand or contract to fit the diverse sizes and types of Alberta's municipalities. Investigating each process item has increased the committee's understanding of the overall requirements of the assessment audit and equalization process, from the perspective of both municipal and provincial stakeholders.

As expected, when the pieces are being put together, some refinements are necessary. This was the case with the recently released recommendation by the Technical Committee on Item 10, Stratification Methodology for the Annual Audit and Equalization Process. The committee has settled on a stratification methodology suitable for an automated, standardized process and built-in flexibility to accommodate all sizes and types of municipalities. The recommendation to use value range strata of actual use groups for audit and equalization purposes has resulted in some refinements to the annual audit quality test process flow chart attached to the Technical Committee's recommendation 3B1, on Assessment Sales Ratio (ASR) Methodology. Although some adjustments have been made to the annual audit quality test process flow chart, the principles in recommendations 3B, 3B1 and 3B2 remain valid. The alternate methods to using assessment to sales ratios that are identified in recommendation 3B2 will be explored and implemented in the coming years. The process will likely continue to evolve to take advantage of new knowledge and new stakeholder requirements.

In the meantime, for the 2003 annual audit, following the recommendations of the Technical Committee, the annual audit stage 1 quality test process specifications are being introduced in this bulletin. The recommended specification sets out a fair, standardized process for the quality testing of municipal assessments in 2003, and sets the groundwork for future enhancements to the process.

During its work on Item 10, the Technical Committee made a few minor changes to its earlier recommendation on Item 4, Actual Use Codes. Actual use codes assigned to each property are the basis for the actual use groups used in the audit and equalization

stratification process. They will also be used to help identify comparable property for users seeking sales data from the ASSET system and for future enhancements to the audit and equalization process. An updated list of the actual use codes is posted on the Alberta Municipal Affairs website at www3.gov.ab.ca/ma and on the ASSET web site. This list is the actual use code reporting standard for municipalities. Municipalities may choose to have more detailed actual use classifications. However, they will be required to cross reference their custom codes to the standard set for audit reporting purposes. For 2003, the minimum cross-reference detail put on ASSET by the municipality must be to level 1 of the standard actual use codes. While not compulsory, it is recommended that the cross reference be done to level 2 and level 3 as well. For 2004, a municipality must have on ASSET a cross-reference table of their custom codes to level 4 of the standard actual use codes.

Annual Audit Stage 1 Quality Test Process

The assessment ratio study is the most appropriate measure of assessment quality and will be relied upon exclusively for the 2003 audit. A minimum of 15 valid sales is desirable for each strata analyzed in the annual audit. Stratification procedures and inclusion of non-sale indicators of value will be used to attain the minimum sample size when 15 valid sales are not obtained.

The property types included in the assessment ratio study are listed in *Table 1 Actual Use Groups*. In general terms, these are non-regulated properties typically assessed using models developed from indicators of value.

For special purpose property where sales comparison is difficult or impossible, no annual audit is to be performed. However, the procedures used to assess these properties will be reviewed during a detailed audit. The use of reasonableness tests in the coming years is also being investigated.

Table 2 The 2003 Annual Audit Stage 1 Quality Test Process outlines the process that will be followed by ASSET for the 2003 annual audit. Residential and non-residential (commercial and industrial) will be processed separately.

Stratification for Assessment Audit and Equalized Assessment Purposes

Stratification by assessment value range is used for the annual audit, and the calculation of assessment levels for the equalized assessment of non-regulated property. The assessment value range parameters will be:

- 0 to 10th percentile
- > 10th percentile to 25th percentile
- > 25th percentile to 50th percentile
- > 50th percentile to 75th percentile
- > 75th percentile to 90th percentile
- > 90th percentile



IAAO Standard on Ratio Studies, 1999

Percentile

The values that divide a set of data into specified percentages when the data are arrayed in ascending order. The tenth percentile includes the lowest 10 percent of the values; the twentieth percentile includes the lowest 20 percent of the values, and so forth.

For audit and equalization stratification purposes, the total assessment attribute corresponding to each percentile (0, 10, 25, 50, 75, 90, 100) is used as the minimum or maximum boundary of the value range.

Value ranges are determined for each municipality. Within the municipality, they are determined for each actual use group. Exempt property is not considered when establishing the value ranges. Value ranges are based on the "TotalAsmnt" attribute for each property as provided on the municipality's annual return from the previous year. (Note for 2003, which is the start-up year, it will be necessary to use the 2003 annual return to establish the value ranges.) Value ranges are calculated for each group of properties in *Table 1 Actual Use Groups* following the procedures set out in *Table 2 The 2003 Annual Audit Stage 1 Quality Test Process*.

As a simple example for the actual use group "Single Family Dwellings" where there are 201 properties in the municipality arrayed in descending order of the "TotalAsmnt" attribute, the lowest assessment would be the 0 percentile, the 21st lowest assessment would be the 10th percentile, the 51st lowest assessment would be the 25th percentile, the 101st lowest assessment would be the 50th percentile, the 151st lowest assessment would be the 75th percentile, the 181st lowest assessment would be the 90th percentile and the highest assessment would be the 100th percentile.

The determination of the assessment value range stratification is an automated process performed by the ASSET system. During the annual audit, value ranges will be combined (collapsed) into an adjacent value range if the sample size is less than 15. Collapsing occurs from the outside value ranges towards the center.

Table 1 Actual Use Groups

RESIDENTIAL	
Actual Use Code	Description
Vacant Residential (VR)	
<i>R0</i>	<i>Vacant Residential</i>
Single Family Dwellings (SFD)	
<i>R100</i>	<i>Unspecified</i>
<i>R101</i>	<i>Single family unit – fee simple (1,2 or 3 dwelling units)</i>
<i>R104</i>	<i>Designated manufactured home</i>
<i>R106</i>	<i>Other</i>
Residential Condominium (RC)	
<i>R103</i>	<i>Residential condominium</i>
Multi-Family (MF)	
<i>R102</i>	<i>Multi-residential unit rental (4 or more dwelling units on a single title)</i>
<i>R105</i>	<i>Manufactured home community</i>
NON-RESIDENTIAL	
Vacant Industrial (VIND)	
<i>M0</i>	<i>Vacant industrial</i>
Industrial (IND)	
<i>M100</i>	<i>Unspecified</i>
<i>M101</i>	<i>Warehousing</i>
Vacant Commercial (VCOM)	
<i>C0</i>	<i>Vacant commercial</i>
<i>P0</i>	<i>Vacant public service</i>

NON-RESIDENTIAL - (continued)	
Actual Use Code	Description
Commercial - Retail (RET)	
<i>C10100</i>	<i>Retail-unspecified</i>
<i>C10101</i>	<i>Retail – stand alone</i>
<i>C10102</i>	<i>Retail – gas station</i>
<i>C10103</i>	<i>Retail – strip commercial</i>
<i>C10104</i>	<i>Retail – shopping centre</i>
<i>C10105</i>	<i>Retail – regional shopping centre</i>
<i>C10106</i>	<i>Retail – power centre</i>
<i>C10107</i>	<i>Retail – parkade</i>
<i>C10108</i>	<i>Retail – condominium</i>
<i>C10109</i>	<i>Retail –fast food Restaurant</i>
<i>C10110</i>	<i>Retail –major car dealership</i>
<i>C10400</i>	<i>Pedway – unspecified</i>
<i>C10401</i>	<i>Pedway – plus fifteen</i>
Commercial - Lodging (LOD)	
<i>C10200</i>	<i>Lodging – unspecified</i>
<i>C10201</i>	<i>Lodging – motel</i>
<i>C10202</i>	<i>Lodging – hotel</i>
Commercial - Office (OFF)	
<i>C10300</i>	<i>Office – unspecified</i>
<i>C10301</i>	<i>Office – condominium</i>
<i>P10200</i>	<i>Institutional – unspecified</i>
<i>P10201</i>	<i>Institutional – education</i>
<i>P10202</i>	<i>Institutional – health</i>
<i>P10203</i>	<i>Institutional – social services</i>
<i>P10204</i>	<i>Institutional – government services</i>

In this table the residential class is made up of four actual use groups: **Vacant Residential (VR)**, **Single Family Dwellings (SFD)**, **Residential Condominium (RC)** and **Multi-Family (MF)**. Below each actual use group is listed the actual use codes and descriptions within the group. The non-residential class is made up of six actual use groups: **Vacant Industrial (VIND)**, **Industrial (IND)**, **Vacant Commercial (VCOM)**, **Commercial - Retail (RET)**, **Commercial - Lodging (LOD)**, and **Commercial - Office (OFF)**. Below each actual use group is listed the actual use codes and descriptions (level 1 to level 3 as required) within the group.

Table 2 The 2003 Annual Audit Stage 1 Quality Test Process

Procedure 1

For each actual use group listed in Table 1, using sales from July 1, 2001 to June 30, 2002 and the value range strata for each actual use group, collapse towards the center value ranges until a sample size of at least 15 indicators of value (IOV) is achieved, then run the assessment ratio study.

For each actual use group where at least 15 IOV were not obtained proceed to Procedure 2.

Procedure 2

For the actual use groups listed in Table 1 where 15 IOV were not obtained, using sales from July 1, 2000 to June 30, 2002 and the value range strata for each actual use group, collapse towards the center value ranges until a sample size of at least 15 IOV is achieved, then run the assessment ratio study.

For each actual use group where at least 15 IOV were not obtained proceed to Procedure 3.

Procedure 3

For the actual use groups listed in Table 1 where 15 IOV were not obtained, using sales from July 1, 1999 to June 30, 2002 and the value range strata for each actual use group, collapse towards the center value ranges until a sample size of at least 15 IOV is achieved, then run the assessment ratio study.

For each actual use group where at least 15 IOV were not obtained proceed to Procedure 4.

Procedure 4

For the actual use groups listed in Table 1 where 15 IOV were not obtained, add listings and appraisals from July 1, 2001 to June 30, 2002 to the sales from July 1, 1999 to June 30, 2002. Then using the value range strata for each actual use group, collapse towards the center value ranges until a sample size of at least 15 IOV is achieved, then run the assessment ratio study.

A sale negates the use of a listing or appraisal on the same property.

If at least 15 IOV were not obtained for each actual use group following Procedures 1 to 4 then proceed to Procedure 5.

Procedure 5

Combine each of the residential actual use groups where the sample size is less than 15 with Single Family Dwelling and start again with Procedure 1 and proceed to Procedure 2 if necessary then Procedure 3 if necessary and then to Procedure 4 if necessary.

Combine each of the Industrial actual use groups where the sample size is less than 15 and perform Procedure 1 to 4 as needed to obtain a sample size of at least 15 IOV.

Combine each of the other Commercial actual use groups with the Commercial - Retail actual use group where the sample size is less than 15 and perform Procedure 1 to 4 as needed to obtain a sample size of at least 15 IOV.

For the combined groups in this procedure where at least 15 IOV were not obtained then proceed to Procedure 6.

Procedure 6

Combine all the residential actual use groups into one group, then using sales from July 1, 1999 to June 30, 2002, current listings and appraisals and the value range strata, collapse towards the center value ranges until a sample size of at least 15 IOV is achieved, then run the assessment ratio study.

If at least 15 IOV were not obtained for residential then proceed to the Procedure 8.

Combine all the Commercial actual use groups into one group, then using sales from July 1, 1999 to June 30, 2002, current listings and appraisals and the value range strata, collapse towards the center value ranges until a sample size of at least 15 IOV is achieved, then run the assessment ratio study.

If at least 15 IOV were not obtained for non-residential then proceed to Procedure 7.

Procedure 7

Combine all the Commercial and Industrial actual use groups into one non-residential group, then using sales from July 1, 1999 to June 30, 2002, current listings and appraisals and the value range strata, collapse towards the center value ranges until a sample size of at least 15 IOV is achieved, then run the assessment ratio study.

If at least 15 IOV were not obtained for residential then proceed to the Procedure 8.

Procedure 8

(See Note 1)

For the combined residential group, if the numbers of IOV are between 1 and 14 inclusive then run the assessment ratio study otherwise proceed to Procedure 9.

For the combined non-residential group, if the numbers of IOV are between 1 and 14 inclusive, then run the assessment ratio study otherwise proceed to Procedure 9.

Procedure 9

For residential and /or non-residential, if there are no IOV then infer the median to be 1.000.

Note 1: When ASSET is populated with multiple years of data, assessment reasonableness tests will be developed to replace audit procedures for instances where the available sample does not permit a ratio study.