

2024 Assessment Year

ECF Analysis for 2024 assessment roll.

Sales utilized in the analysis were for a two year equalization study with dates from April 1, 2021 thru March 31, 2023.

In this section you will find:

1. L-4018 for 2024 Equalization Study for real property
2. Development of Economic Condition Factors
3. ECF Tables
4. ECF analysis for real property classes

State Tax Commission Analysis for Equalized Valuation of Real Property

County Name Ingham County		City/Township Name (check appropriate box) <input type="checkbox"/> City <input checked="" type="checkbox"/> Township		Study Year 2023	Equalization Year 2024
Assessment Roll Classification					
Class of Real Property	Study Type	Stratified Study	Combined Study	Sample	
				Assessed Value	No. of Parcels
100 Agricultural	AS			41,929,300	20
				4,017,900	
200 Commercial	AS			1,856,500	5
				2,419,059	
300 Industrial	AS			1,014,300	3
				2,077,079	
400 Residential	SS			97,319,700	36
500 Timber-Cutover				0	
600 Developmental				0	
TOTAL - REAL				142,119,800	64
Study Type Codes					
AS: Appraisal Study		NC: None Classified		OH: One Hundred % Study	
NW: New Class		RA: Reappraisal		S1: One Year Sales Study	
				S2: Two Year Sales Study	

INSTRUCTIONS, Page 1:
Enter county name.
Enter Unit name and check the appropriate box for township or city.
Enter study year followed by equalization year.
For the following, enter into the appropriate field within each classification of real property, the study results of each study conducted.

Study type: Enter the two character codes that best identify the study type/s used to obtain the projected true cash value for the classification. NOTE: The two character codes to be used can be found under the "Study Type Codes" heading of this form.

Stratified Study: If a stratified study is used, check this box and follow the instructions on page 2 of this form.

Combined Study: If a combined study is used, check this box and follow the instructions on page 3 of this form.

Assessed Value: Enter the current year's ending Assessed Value of the classification from the 2164 (L-4023).

No. of Parcels: Enter the number of parcels included in the study sample.

Sample Assessed Value: Enter the assessed value of the appraisal study sample when study type "AS" is used. If "OH" is also selected this value must match Assessed Value of the classification. NOTE: No data entry required if using a sales study, stratified study or combined study.

Sample True Cash Value: Enter the true cash value of the appraisal study sample when study type "AS" is used. NOTE: No data entry required if using a sales study, stratified study or combined study.

% Ratio Assessments to Appraisals: Enter the ratio by dividing the "Assessed Value by the "True Cash Value" of the appraisal study sample when study type "AS" is used. The ratio will be rounded to four decimals and displayed using two decimals (0.4975 displayed as 49.75) NOTE: If using a sales study, enter the applicable ratio from the form 2793 (L-4017/L-4047). If using a stratified or combined study, then the resulting "Study % Ratio" for the classification is used from page 2 for a Stratified Study or from page 3 for a Combined Study.

Projected True Cash Value: Enter the projected true cash value by dividing "Assessed Value" of the classification by the "% Ratio Assessment to Appraisals". NOTE: If using a stratified or combined study, then the total projected true cash value for the classification is used from page 2 for a Stratified Study or from page 3 for a Combined Study.

Remarks: Enter brief remarks relating to the study if applicable.
Study Type Codes: If "ES" was selected as a study type, please give a brief explanation why the estimated value was used.

INSTRUCTIONS: County Summary (Total Recap)
Enter county name.
Enter study year followed by equalization year.

For the following, enter into the appropriate field within each classification of real property, the study results of each study conducted.
Study type: No entry required.
Stratified Study: No entry required.
Combined Study: No entry required.

Assessed Value: Enter the total current year's ending Assessed Value of the classification from the 2164 (L-4023). This is the sum of all the assessed value for the classification from the current year individual unit 2164's (L-4023's).

No. of Parcels: Enter the total number of study parcels included in the classification.

Sample Assessed Value: No entry required.
Sample True Cash Value: No entry required.
% Ratio Assessments to Appraisals: Enter the ratio by dividing the total Assessed Value of the classification by the total Projected True Cash Value of the classification. The ratio will be rounded to four decimals and displayed using two decimals (0.4975 displayed as 49.75).

Projected True Cash Value: Enter the total Projected True Cash Value by summing the projected true cash values of the individual units in the classification.
Remarks: Enter brief remarks relating to the study if applicable.

State Tax Commission Analysis for Equalized Valuation of Personal Property

County Name		City/Township Name (check appropriate box)				Year	
Ingham County		Wheatfield Township				2024	
		<input type="checkbox"/> City		<input checked="" type="checkbox"/> Township			
Class of Personal Property	Study Type	Unit Ending Assessed Value	No. of Parcels	Sample		Unit Starting True Cash Value	Remarks
				Assessed Value	True Cash Value		
150 Agricultural	NC						
250 Commercial	ES	356,000			712,000		
350 Industrial	NC						
450 Residential	NC						
550 Utility	ES	1,871,400				3,742,800	
TOTAL - PERSONAL		2,227,400	0			4,454,800	

AS: Appraisal Study AU: Audit CT: Class Transfer
 ES: Estimated Values (Explain): Not studied, typically done by the Director. It was discovered that no deed verification had occurred in the last 2+ y
 NC: None Classified NW: New Class OH: 100%
 RV: Review S1: One Year Sales Study S2: Two Year Sales Study

Remarks:

Chapter 3: Development of Economic Condition Factors

What is an Economic Condition Factor (ECF)? An ECF adjusts the assessor's use of the Assessors Manual to the local market. County multipliers are provided by the State Tax Commission and adjusted annually to reflect change in the market of the construction costs found in the State Tax Commission Assessor's Manual (Assessors Manual) and to "bring" those costs to the County level. But economic condition factors are necessary, and developed annually by assessors to further refine these costs to the local market.

"An ECF must be determined and used in cost appraisal situations where the Assessor's Manual is used." It is not appropriate to declare that one isn't used because the assessor relied on a recently published Assessor's Manual, or because the improvements are newly constructed. The ECF is used to adjust the costs of the Assessor's Manual to local markets. An ECF must be used regardless of the age of the improvements being valued.

According to the Michigan Constitution, Article IX, Section 3, assessments are developed annually, uniformly and not to exceed 50% of a property's true cash value. Because of the diversity of properties Michigan assessors must value every year in their respective jurisdiction(s), assessors often rely on mass appraisal models to accomplish this task. Most mass appraisal models rely on a cost-less-depreciation approach and adjust its results to what properties are selling for through the use of an ECF. The ECF is prepared by analyzing properties which have sold and then comparing their respective cost-less-depreciation of the buildings (i.e., building value) to that portion of the sale prices attributable to those buildings.

Calculation of Economic Condition Factors

An ECF is developed by analyzing verified property true cash value level sale prices. The portion of each sale price attributed to the building(s) only on the parcel is compared to the value on the record card of the same building(s). The ECF represents the relationship between the appraised value of the building and calculated using the Assessors Manual and its respective building value (i.e., the sale value of that building). When the building value is added to the value of the land and the land improvements, an indication of true cash value is developed for assessment purposes.

Generally, the sales used for the ECF analysis should be from the same time period used for the sales study utilized for Equalization. This is often a 24-month time period. Michigan assessors must consider the following guidelines when developing and applying ECFs:

1. The time period of sales for the ECF study should be the same as the County Equalization Department study.
2. The County multiplier used by the assessor should be the same as the County Equalization Department.
3. The ECF is not applied to land value or the land improvements.
4. The ECF is only applied to building improvements.
5. The ECF is not applied to any buildings that are assessed as "flat-values".

E.C.F.s for Neighborhood: 2 'AGRICULTURE'

Residential : 1.030
Town Homes/Duplexes: 1.000
Mobile Homes : 1.000
Agricultural Bldgs : 1.050
Commercial Bldgs : 1.000
Industrial Bldgs : 1.000

(Optional) Gross Rate Multipliers

A: 0.000
B: 0.000
C: 0.000
D: 0.000

E.C.F.s for Neighborhood: 3 'COMMERCIAL'

Residential : 1.000
Town Homes/Duplexes: 1.000
Mobile Homes : 1.000
Agricultural Bldgs : 1.000
Commercial Bldgs : 0.700
Industrial Bldgs : 1.000

(Optional) Gross Rate Multipliers

A: 0.000
B: 0.000
C: 0.000
D: 0.000

E.C.F.s for Neighborhood: 4 'INDUSTRIAL'

Residential : 1.080
Town Homes/Duplexes: 1.000
Mobile Homes : 1.000
Agricultural Bldgs : 1.250
Commercial Bldgs : 1.000
Industrial Bldgs : 1.000

(Optional) Gross Rate Multipliers

A: 0.000
B: 0.000
C: 0.000
D: 0.000

E.C.F.s for Neighborhood: 5 'WILLIAMSTON'

Style:	%Good:	100-91	90-81	80-71	70-61	60-51	50-0
RANCH		1.040	1.140	1.040	1.190	1.040	1.040
MULTI STORY		1.040	1.140	1.040	1.190	1.040	1.040
2 STORY		1.040	1.140	1.040	1.190	1.040	1.040
BI-LEVEL		1.040	1.140	1.040	1.190	1.040	1.040
TRI-LEVEL		1.040	1.140	1.040	1.190	1.040	1.040
MODULAR/MH		1.040	1.140	1.040	1.190	1.040	1.040

Town Homes/Duplexes: 1.040
Mobile Homes : 1.000
Agricultural Bldgs : 1.050
Commercial Bldgs : 1.000
Industrial Bldgs : 1.000

(Optional) Gross Rate Multipliers

A: 0.000
B: 0.000
C: 0.000
D: 0.000

E.C.F.s for Neighborhood: 6 'DANSVILLE'

Residential : 1.150
Town Homes/Duplexes: 1.150
Mobile Homes : 1.000
Agricultural Bldgs : 1.030
Commercial Bldgs : 1.000
Industrial Bldgs : 1.000

(Optional) Gross Rate Multipliers

A: 0.000
B: 0.000
C: 0.000
D: 0.000

E.C.F.s for Neighborhood: 7 'MASON'

Residential : 1.150
Town Homes/Duplexes: 1.150
Mobile Homes : 1.000
Agricultural Bldgs : 1.050
Commercial Bldgs : 1.000
Industrial Bldgs : 1.000

(Optional) Gross Rate Multipliers

A: 0.000
B: 0.000
C: 0.000
D: 0.000

Neighborhoods Used: **WILLIAMSTON**

1642 SORG DR
 Parcel Number ** Valid Sale ** Class AdjSalePrice LandValue
 33-07-07-14-300-001 03/22/2023 5 401 520,000 103,043
 Occupancy Style %Good ResidualValue CostByManual E.C.F.
 Single Family 2 STORY 69 399,870 318,395 1.256
 Agricultural Buildings: ResidualValue CostByManual E.C.F.
 17087 13606 1.256



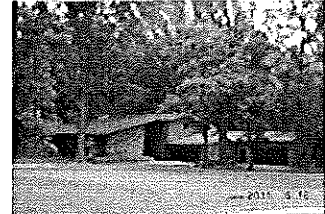
2100 HOLT RD
 Parcel Number ** Valid Sale ** Class AdjSalePrice LandValue
 33-07-07-24-100-005 03/10/2023 5 401 653,000 122,209
 Occupancy Style %Good ResidualValue CostByManual E.C.F.
 Single Family MULTI STORY 60 513,371 470,612 1.091
 Agricultural Buildings: ResidualValue CostByManual E.C.F.
 17420 15970 1.091



15 APPLE BLOSSOM LN
 Parcel Number ** Valid Sale ** Class AdjSalePrice LandValue
 33-07-07-06-427-002 08/10/2022 5 401 250,000 57,678
 Occupancy Style %Good ResidualValue CostByManual E.C.F.
 Single Family RANCH 60 186,848 194,162 0.962
 Agricultural Buildings: ResidualValue CostByManual E.C.F.
 5474 5689 0.962



3420 ZIMMER RD
 Parcel Number ** Valid Sale ** Class AdjSalePrice LandValue
 33-07-07-03-251-001 07/29/2022 5 401 475,000 71,820
 Occupancy Style %Good ResidualValue CostByManual E.C.F.
 Single Family MULTI STORY 60 403,180 368,289 1.095



415 E HOLT RD
 Parcel Number ** Valid Sale ** Class AdjSalePrice LandValue
 33-07-07-17-400-013 07/19/2022 5 401 330,000 46,133
 Occupancy Style %Good ResidualValue CostByManual E.C.F.
 Single Family 2 STORY 60 283,867 257,017 1.104



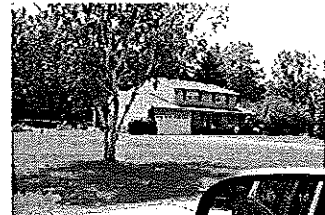
345 LINN RD
 Parcel Number ** Valid Sale ** Class AdjSalePrice LandValue
 33-07-07-05-400-002 07/08/2022 5 401 750,000 122,784
 Occupancy Style %Good ResidualValue CostByManual E.C.F.
 Single Family RANCH 72 627,216 645,625 0.971
 !!MULTI-PARCEL SALE!!



345 LINN RD
 Parcel Number ** Valid Sale ** Class AdjSalePrice LandValue
 33-07-07-05-400-019 07/08/2022 5 401 750,000 122,784
 Occupancy Style %Good ResidualValue CostByManual E.C.F.
 Single Family RANCH 72 627,216 645,625 0.971
 !!MULTI-PARCEL SALE!!



1298 GREENFIELD CT
 Parcel Number ** Valid Sale ** Class AdjSalePrice LandValue
 33-07-07-03-202-010 07/06/2022 5 401 300,000 83,954
 Occupancy Style %Good ResidualValue CostByManual E.C.F.
 Single Family 2 STORY 60 216,046 224,190 0.964



Neighborhoods Used: 5.WILLIAMSTON

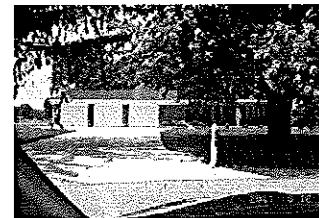
Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue	
33-07-07-20-100-003	06/10/2022 5	401	290,000	45,216	
Occupancy	Style	%Good	ResidualValue	CostByManual	E.C.F.
Single Family	2 STORY	60	239,679	230,814	1.038
Agricultural Buildings:	ResidualValue	CostByManual	E.C.F.		
	5105	4916	1.038		



Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue	
33-07-07-21-100-017	05/24/2022 5	401	316,000	71,811	
Occupancy	Style	%Good	ResidualValue	CostByManual	E.C.F.
Single Family	2 STORY	55	244,189	255,400	0.956



Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue	
33-07-07-03-202-006	05/02/2022 5	401	305,700	44,839	
Occupancy	Style	%Good	ResidualValue	CostByManual	E.C.F.
Single Family	2 STORY	60	260,861	240,249	1.086



Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue	
33-07-07-05-302-003	04/12/2022 5	401	375,000	48,758	
Occupancy	Style	%Good	ResidualValue	CostByManual	E.C.F.
Duplex	RANCH	60	321,351	317,500	1.012
Agricultural Buildings:	ResidualValue	CostByManual	E.C.F.		
	4891	4832	1.012		



Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue	
33-07-07-10-100-019	03/21/2022 5	401	373,000	79,950	
Occupancy	Style	%Good	ResidualValue	CostByManual	E.C.F.
Single Family	2 STORY	85	293,050	256,666	1.142



Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue	
33-07-07-13-100-015	12/23/2021 5	401	525,000	140,446	
Occupancy	Style	%Good	ResidualValue	CostByManual	E.C.F.
Single Family	2 STORY	69	214,850	198,900	1.080
Agricultural Buildings:	ResidualValue	CostByManual	E.C.F.		
	169704	157106	1.080		



Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue	
33-07-07-05-302-014	12/14/2021 5	401	385,000	58,224	
Occupancy	Style	%Good	ResidualValue	CostByManual	E.C.F.
Single Family	RANCH	60	326,776	295,920	1.104



Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue	
33-07-07-08-400-007	10/25/2021 5	401	248,500	69,988	
Occupancy	Style	%Good	ResidualValue	CostByManual	E.C.F.
Single Family	MULTI STORY	60	169,883	181,018	0.938
Agricultural Buildings:	ResidualValue	CostByManual	E.C.F.		
	8629	9194	0.938		



Neighborhoods Used: 5.WILLIAMSTON

1650 NOBLE RD						
Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue		
33-07-07-14-100-029	10/06/2021 5	401	354,900	63,584		
Occupancy	Style	%Good	ResidualValue	CostByManual	E.C.F.	
Single Family	2 STORY	60	262,758	237,157	1.108	
Agricultural Buildings:	ResidualValue	CostByManual	E.C.F.			
	28558	25775	1.108			



2190 WILLIAMSTON RD						
Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue		
33-07-07-13-300-003	10/04/2021 5	401	230,000	25,775		
Occupancy	Style	%Good	ResidualValue	CostByManual	E.C.F.	
Single Family	MULTI STORY	60	204,225	183,305	1.114	



2584 WILLIAMSTON RD						
Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue		
33-07-07-12-300-009	09/24/2021 5	401	145,000	47,705		
Occupancy	Style	%Good	ResidualValue	CostByManual	E.C.F.	
Single Family	RANCH	60	97,295	98,880	0.984	



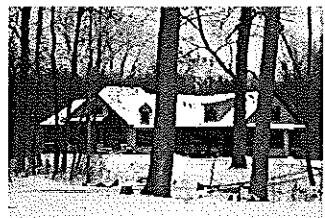
100 APPLE BLOSSOM LN						
Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue		
33-07-07-05-302-013	07/16/2021 5	401	420,000	71,975		
Occupancy	Style	%Good	ResidualValue	CostByManual	E.C.F.	
Single Family	RANCH	71	321,983	326,515	0.986	
Agricultural Buildings:	ResidualValue	CostByManual	E.C.F.			
	26042	26409	0.986			



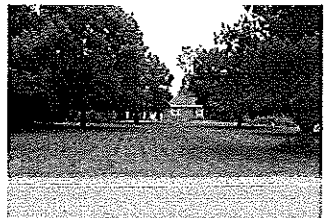
230 LINN RD						
Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue		
33-07-07-08-100-001	07/13/2021 5	401	260,000	50,312		
Occupancy	Style	%Good	ResidualValue	CostByManual	E.C.F.	
Single Family	2 STORY	60	198,580	209,707	0.947	
Agricultural Buildings:	ResidualValue	CostByManual	E.C.F.			
	11108	11730	0.947			



175 THREE OAKS DR						
Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue		
33-07-07-05-302-012	06/09/2021 5	401	725,000	54,651		
Occupancy	Style	%Good	ResidualValue	CostByManual	E.C.F.	
Single Family	RANCH	94	670,349	683,819	0.980	

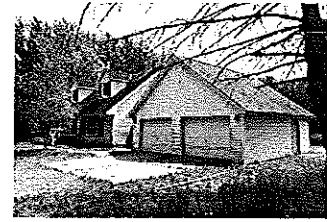


2332 N WILLIAMSTON RD						
Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue		
33-07-07-13-100-016	06/07/2021 5	401	350,000	72,939		
Occupancy	Style	%Good	ResidualValue	CostByManual	E.C.F.	
Single Family	RANCH	60	277,061	281,726	0.983	



Neighborhoods Used: 6 - DANSVILLE, 7 - MASON

620 WALDO RD
 Parcel Number ** Valid Sale ** Class AdjSalePrice LandValue
 33-07-07-33-100-002 03/14/2023 6 401 369,900 63,143
 Occupancy Style %Good ResidualValue CostByManual E.C.F.
 Single Family MULTI STORY 73 306,757 243,112 1.262



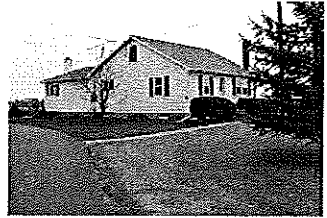
2425 E HOWELL RD
 Parcel Number ** Valid Sale ** Class AdjSalePrice LandValue
 33-07-07-36-400-007 09/29/2022 6 401 286,000 50,051
 Occupancy Style %Good ResidualValue CostByManual E.C.F.
 Single Family RANCH 60 220,144 164,991 1.334
 Agricultural Buildings: ResidualValue CostByManual E.C.F.
 15805 11846 1.334



1327 WALDO RD
 Parcel Number ** Valid Sale ** Class AdjSalePrice LandValue
 33-07-07-34-200-005 09/06/2022 6 401 300,000 48,114
 Occupancy Style %Good ResidualValue CostByManual E.C.F.
 Single Family RANCH 67 251,886 227,293 1.108



1650 N WILLIAMSTON RD
 Parcel Number ** Valid Sale ** Class AdjSalePrice LandValue
 33-07-07-24-300-006 08/03/2022 6 401 275,250 27,401
 Occupancy Style %Good ResidualValue CostByManual E.C.F.
 Single Family MULTI STORY 60 247,849 183,891 1.348



901 FROST RD
 Parcel Number ** Valid Sale ** Class AdjSalePrice LandValue
 33-07-07-21-400-013 05/27/2022 6 401 450,000 60,766
 Occupancy Style %Good ResidualValue CostByManual E.C.F.
 Single Family RANCH 75 358,776 295,430 1.214
 Agricultural Buildings: ResidualValue CostByManual E.C.F.
 30458 25081 1.214



800 FROST RD
 Parcel Number ** Valid Sale ** Class AdjSalePrice LandValue
 33-07-07-28-200-004 05/20/2022 6 401 513,000 204,415
 Occupancy Style %Good ResidualValue CostByManual E.C.F.
 Single Family RANCH 60 283,915 245,988 1.154
 Agricultural Buildings: ResidualValue CostByManual E.C.F.
 24670 21375 1.154



644 WALDO RD
 Parcel Number ** Valid Sale ** Class AdjSalePrice LandValue
 33-07-07-33-100-003 11/16/2021 6 401 305,000 75,489
 Occupancy Style %Good ResidualValue CostByManual E.C.F.
 Single Family RANCH 60 222,759 178,310 1.249
 Agricultural Buildings: ResidualValue CostByManual E.C.F.
 6752 5405 1.249



850 WALDO RD
 Parcel Number ** Valid Sale ** Class AdjSalePrice LandValue
 33-07-07-33-200-013 10/21/2021 6 401 292,000 96,209
 Occupancy Style %Good ResidualValue CostByManual E.C.F.
 Single Family 2 STORY 60 195,791 202,882 0.965



Neighborhoods Used: 6 - DANSVILLE, 7 - MASON

1154 BURKLEY RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue	
33-07-07-28-300-007	06/30/2021 6	401	531,500	86,498	
Occupancy	Style	%Good	ResidualValue	CostByManual	E.C.F.
Single Family	RANCH	87	404,195	324,417	1.246
Agricultural Buildings:	ResidualValue	CostByManual	E.C.F.		
	40807	32752	1.246		



620 WALDO RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue	
33-07-07-33-100-002	05/24/2021 6	401	320,000	63,143	
Occupancy	Style	%Good	ResidualValue	CostByManual	E.C.F.
Single Family	MULTI STORY	73	256,857	243,112	1.057



Assessors should start the ECF calculation by identification of an ECF "neighborhood". The neighborhood should be established so properties sharing similar value-related property characteristics are analyzed together. Borders for ECF neighborhoods may be natural and/or human made. They can also be based on the age of the buildings, construction type and qualities of the buildings, general location amenities, as well as a number of other attributes. ECF's are typically calculated for a group of properties based upon the primary structure and its characteristics. For example, the neighborhood may consist of masonry/brick one-story homes built in the 1950's in a subdivision developed with 800 lots or wood frame two-story homes built in the 1960's throughout a small community.

Assessors can make the mistake of having too many neighborhoods. Assessors set up neighborhoods based on subdivisions and the parcel count is simply too small to do any type of analysis. Within the commercial and industrial classes, ECF's are sometimes calculated for different types of properties (e.g., apartments, warehouses, strip retail centers, big box retail stores, manufacturing plants, and research and development buildings)

It is critical that the ECF analysis be based upon a sufficient number of verified arms-length sales transactions and that the sales be representative of the properties being assessed using the ECF. In some rural townships, there may be insufficient sales to develop an ECF. In this case, the assessor may have to analyze sales in adjoining communities to assist in developing an ECF. The assessor may need to include sales having occurred outside the normal period, requiring the use of a market conditions adjustment (i.e., time). It may be necessary to compare the subject area to another area with a known ECF and make adjustments in much the same way as comparable sales are adjusted to a subject property in a market appraisal.

An assessor should verify the sale price and terms of sale for each parcel used in its ECF analysis. An assessor should also make a physical inspection of the property to determine if there were any physical changes that may affect the sale price. Physical changes could include remodeling a basement, an addition to the building, or a new garage. These changes must be noted so that the assessor can properly value the property as it existed prior to the sale, or so the property can be removed from the ECF analysis. The assessor should use the effective age as of the date of sale or the assessment date.

The proper development of land value is essential to an accurate ECF. The estimate of the depreciated value of the land improvements is also critical. It is important that the land values used to set the ECF are also the land values used for the assessments of those properties. These items are removed from the sale price when developing an ECF.

In terms of comparisons, assessors should try to use properties with small amounts of land and land improvements. Fewer and smaller the deductions will allow for the most accurate ECF because, in most cases, the most value is in the structure. An example would be trying to use a parcel with a house on an 80 acre parcel compared to a similar house on a 1 acre parcel. Chances are the 80 acres are worth more than the house. A slight value difference in the land would cause a huge value change in the residual for the house.

ECFs should generally be applied as calculated. Any variation from the calculated ECF must be fully documented. The detailed calculations used to develop the ECF must be kept on file to be used in defense of appeals, necessary in AMAR audits, explaining assessment to property owners, etc.

The following table contains an example of reproduction costs of four homes which are identical except for their location and are located in six different counties. The base cost is multiplied by the appropriate County multiplier to give the final cost new for each house in each County.

County	Base Reproduction Cost New	County Multiplier	Final Reproduction Cost New
Alcona	\$100,000	1.05	\$105,000
Marquette	\$100,000	1.13	\$113,000
Sanilac	\$100,000	1.14	\$114,000
Kent	\$100,000	1.19	\$119,000
Wayne	\$100,000	1.36	\$136,000
Van Buren	\$100,000	1.13	\$113,000

After getting an estimate of cost new, you subtract depreciation which gives an estimate of cost-new-less-depreciation. To develop an ECF, the depreciated cost of the building which has sold is compared to the sale value of that same building. The ECF indicator for each sale is calculated by dividing the sale price of the building by its cost new (with county multiplier applied) less any and all depreciation associated with the building. One ECF indicator is not sufficient for the development of a reliable ECF. Use of a sufficient number of sales is necessary to ensure the accuracy of an ECF.

Although the individual ECF calculations are shown in the ECF analysis, the separate ECF indicators are **not averaged** to develop the final ECF. The separate ECF indications are listed so an assessor can easily observe and review "outlying" ECFs. Also, showing the individual ECF indications allows the assessing officer an opportunity to observe if there is consistency or patterns reflected by the analysis. It is a good practice to plot the individual ECF indications on a map of the ECF area. Plotting individual ECF indications on a map may help an assessor's ECF evaluation. This same procedure is followed to develop commercial and industrial ECFs.

The development of an ECF is relatively simple if there are a sufficient number of recent, relevant, and reliable sales in the area. Sales for the ECF analysis should be limited to those occurring during the same time period as the sales study used to set the starting base. It is not necessary, or appropriate, to adjust sales for market conditions (i.e., time) if they transacted within the proper sale study time period.

**Industrial ECF
Wheatfield Township**

Parcel Number	Adj Sale Price	Sale Date	Land Value	Building Sale Value	Manual Cost Bld	ECF
33-01-01-03-352-362	\$183,750	Feb 2022	\$40,700	\$143,050	\$177,003	0.81
33-01-01-04-351-003+	\$1,425,000	Dec 2021	\$300,830	\$1,124,170	\$1,056,874	1.06
33-01-04-05-102-001	\$500,000	Feb 2022	\$92,767	\$407,233	\$396,249	1.03
33-01-01-05-102-032	\$375,000	June 2021	\$240,688	\$134,312	\$163,900	0.82
33-01-01-05-102-072	\$625,000	Dec 2021	\$145,852	\$479,148	\$470,816	1.02
33-01-01-05-104-001	\$3,700,000	May 2021	\$366,339	\$3,333,661	\$2,487,007	1.34
33-01-01-05-104-031	\$1,200,000	June 2020	\$106,297	\$1,093,703	\$968,146	1.13
33-01-01-05-104-051	\$1,400,000	July 2020	\$100,292	\$1,299,708	\$1,049,066	1.24
33-01-01-06-201-017	\$450,000	Sept 2020	\$149,667	\$300,333	\$303,594	0.99
33-01-01-15-151-041	\$425,000	Dec 2021	\$58,464	\$366,536	\$434,744	0.84
33-01-01-21-455-003	\$305,000	Sept 2021	\$49,489	\$255,511	\$371,990	0.69
33-01-01-27-326-070	\$350,000	Jan 2022	\$48,207	\$301,793	\$223,988	1.35
33-01-01-28-405-272	\$206,000	Nov 2021	\$28,641	\$177,359	\$167,501	1.06
33-01-01-34-451-041	\$2,625,000	Oct 2021	\$788,571	\$1,781,649	\$2,019,457	0.88
33-01-05-03-426-003	\$5,400,000	Nov 2011	\$576,282	\$4,823,718	\$5,141,369	0.94
33-06-06-05-251-001	\$1,067,500	Jan 2021	\$27,156	\$1,040,344	\$880,617	1.18
33-17-14-27-151-011	\$435,000	Aug 2022	\$41,410	\$393,590	\$320,824	1.23
33-17-14-27-151-024+	\$2,700,000	May 2021	\$324,069	\$2,375,931	\$3,073,938	0.77
33-17-14-28-229-033	\$742,000	May 2021	\$164,193	\$577,807	\$663,636	0.87

Total \$20,409,556 \$20,370,719 1.00

USE 1.00

Parcel Number	Adj Sale Price	Sale Date	Land Value	Building Sale Value	Manual Cost Bld	ECF
33-06-06-04-203-031	136000	2/11/2022	\$ 22,800	\$ 113,200	\$ 160,972	0.70
33-06-06-04-203-023	250000	12/6/2021	40320	\$ 209,680	\$ 257,272	0.82
33-06-06-04-226-014	1665000	9/1/2021	\$ 287,876	\$ 1,377,124	\$ 1,718,165	0.80
33-06-06-04-201-042	407500	8/12/2021	57261	\$ 350,239	\$ 461,040	0.76
33-14-14-21-177-006	90000	10/29/2021	\$ 87,500	\$ 2,500	\$ 3,750	0.67
33-18-03-35-476-025	143800	1/6/2022	22000	\$ 121,800	\$ 146,000	0.83
33-18-03-35-479-030	200000	11/1/2021	\$ 26,000	\$ 174,000	\$ 188,400	0.92
33-18-03-36-356-014	132000	6/12/2021	66000	\$ 66,000	\$ 104,000	0.63
33-18-03-36-378-001	147000	10/19/2021	72600	\$ 74,400	\$ 98,400	0.76
33-18-07-01-300-013	2483901	11/22/2021	\$ 594,300	\$ 1,889,601	\$ 26,658,452	0.07
33-07-07-21-100-002	130000	9/16/2022	30980	\$ 99,020	\$ 128,280	0.77

Use

0.70

Agricultural ECF
Wheatfield Township

Parcel Number	Adj Sale Price	Sale Date	Land Value	Building Sale Value	Manual Cost Bld	ECF
33-01-01-04-351-003+	\$1,425,000	Dec 2021	\$300,830	\$1,124,170	\$1,056,874	1.06
33-01-04-05-102-001	\$500,000	Feb 2022	\$92,767	\$407,233	\$396,249	1.03
33-01-01-05-102-072	\$625,000	Dec 2021	\$145,852	\$479,148	\$470,816	1.02
33-01-01-05-104-001	\$3,700,000	May 2021	\$366,339	\$3,333,661	\$2,487,007	1.34
33-01-01-05-104-031	\$1,200,000	June 2020	\$106,297	\$1,093,703	\$968,146	1.13
33-01-01-05-104-051	\$1,400,000	July 2020	\$100,292	\$1,299,708	\$1,049,066	1.24
33-01-01-15-151-041	\$425,000	Dec 2021	\$58,464	\$366,536	\$434,744	0.84
33-01-01-27-326-070	\$350,000	Jan 2022	\$48,207	\$301,793	\$223,988	1.35
33-01-01-28-405-272	\$206,000	Nov 2021	\$28,641	\$177,359	\$167,501	1.06
33-01-05-03-426-003	\$5,400,000	Nov 2011	\$576,282	\$4,823,718	\$5,141,369	0.94
33-06-06-05-251-001	\$1,067,500	Jan 2021	\$27,156	\$1,040,344	\$880,617	1.18
33-17-14-27-151-011	\$435,000	Aug 2022	\$41,410	\$393,590	\$320,824	1.23
33-17-14-27-151-024+	\$2,700,000	May 2021	\$324,069	\$2,375,931	\$3,073,938	0.77
33-17-14-28-229-033	\$742,000	May 2021	\$164,193	\$577,807	\$663,636	0.87

Total \$17,794,701 \$17,334,775 1.03

USE 1.03