

## Comparable Sales Adjustments

Jefferson County Assessor's Office

May 1, 2019

The Comparable Sales adjustment spreadsheet is one of the tools used in Mass Appraisal. It is generally used to conduct individual review for value analysis and defense. The Mass Appraisal Model uses qualified sales to determine rates (aka coefficients) that influence value via multiple regression analysis. Those rates are also the basis for the Comparable Sales module. When appropriate, additional specific adjustments may be made by the appraiser.

You can look for comparable sales on the Assessor's website via the [Property Record Search](#). Enter your Pin/Schedule number, select your schedule and you will be directed to the Property Information page. The next tab is labeled Sales. This page defaults to the current sales period for the 2019 Reappraisal, listing the qualified sales used in the reappraisal analysis. There are 3 different sections:

- Sale Details which allows you to choose different sale dates, sale price ranges, sale types and qualified and/or all sales (defaults to 07/01/2016 – 06/30/2018, Qualified).
- Location Details which allows you to refine or expand your search (defaults to your Neighborhood) by City, Postal Code, Distance from Property, Market Area, Neighborhood and/or Subdivision.
- Property Inventory Details defaults to the same property type as the subject. Additional refinement options include Gross Square Feet (bldg.), Acreage, Year Built, and Design.

You can see the results on a Google map. Primary inventory used in the mass appraisal analysis can be expanded so that you can see the sale type, qualified reason, time adjusted sale price, and distance from the selected property. The result set can also be exported for your review and analysis.

If you are interested in learning more about the mass appraisal process, please go to the Assessor's website via Assessment Process/Mass Appraisal [Valuation](#) section.

This document will compare a Subject property with Comparable 1 for illustration purposes in explaining the adjustment process. Please refer to this section for specifics throughout the document.

**Subject:** Ranch design, Brick construction, Good quality, 1,500 square foot above grade home, 1,000 square foot unfinished basement, built in 1980, major remodel updates in 2018 resulting with an adjusted year built 2000. It has 1 full bath and 1 three-quarter bath, Forced Air Heat and Central Air Conditioning, and 400 square foot Attached Garage. The home backs to a Private Golf Course, Land Adj 8 and the site size is .350 acres.

**Comparable 1:** 2 Story design, Frame construction and Good quality, 2,300 square foot above grade home, 1,500 square foot finished walkout (Grade C) basement, built in 2000, minor remodel updates in 2017 resulting in no change in the adjusted year built. Its Time Adjusted Sale Price is \$500,000. It has 2 full baths, 1 three-quarter bath and 1 half bath. It has Forced Air Heat and Roof-top Evaporative cooling. It has a 600 square foot Attached Garage and an additional 750 square foot Frame, Good quality Carriage House. The home is located about a half mile from the Subject but does not have any golf course frontage. It is assigned Land Adj 4. The site size is .570 acres.

**Please note:** These two properties should **not** be compared to each other. There is very little comparability between the two, which can be seen by the number of adjustments and level of adjustments. Just because they are a half mile from each other does not mean they are comparable. This is presented solely to demonstrate the adjustment methodology. Preferred comparability is using similar designs, age and size properties. Comp grids work best when the adjustments are meaningful.

**Property Identification.**

**Subject/Comparable Number.**

**Account. Pin aka Schedule Number.** Comparable Sales have 3 digits added at the end of their Pin. This is used by the database for indexing purposes.

**Property Address aka Situs.**

**Sale Information:**

**Sales Price** is the Time Adjusted Sale Price used in the analysis for value. Adjustments for time, concessions and personal property are included here. Please refer to the [Assessor’s website](#) for specific information regarding the sale prices and time adjustments.

**Date of Sale.** All sales are adjusted to June 30, 2018, which is the Assessment or Valuation Date. Sales occurring during the 24-month period of July 1, 2016 to June 30, 2018 are analyzed for inflation rates by property type and market area.

**Time Adjusted Sales Price per square foot.** This is the recorded sale price, plus the market conditions and time adjustment amount, divided by the Above Grade Heated Area square footage.

**Improvement Adjustments.**

**Design/Quality/Construction Class.** Market analysis has indicated that design, quality and construction class have a correlating influence on sales price. An adjustment is made for these differences between the Subject and Comparable Sale with the following formulas:

1. Base Living Area Rate = Quality Rate x Design Factor x Construction Class
2. (Subject Rate / Comparable Rate) x Time Adjusted Sale Price.

Design	Factor	x	Construction Class	Factor	x	Quality	\$/sf
Ranch	1.00		Frame	1.00		0 – Economy	\$61
Raised Ranch	1.00		Brick	1.05		1 – Poor	\$116
1-1/2 Story	1.00		Combination	1.03		2 – Fair	\$130
2 Story	0.98		Log	0.95		3 – Average	\$135
2-1/2 Story	0.97		Modular	0.85		4 – Good	\$147
3 Story	0.97					5 – Very Good	\$175
Mixed Design	0.98					6 – Excellent	\$250
Split Level	0.98					7 – Premier	\$271
Bi Level	0.95						
A-Frame	0.95						
Geodesic Dome	0.95						
Subterranean	0.95						
Seasonal Cabin	0.68						

Subject's Base Rate is  $\$147 \times 1.00 \times 1.05 = \$154.35$ .  
 Comparable 1's Base Rate is  $\$147 \times 0.98 \times 1.00 = \$144.06$ .  
 $\$154.35 / \$144.06 = 1.071$ .  $1.071 - 1.00 = 0.071$ .  $0.071 \times \$500,000 = \$35,500$

Based on the combination of these factors, a positive adjustment is made to Comparable 1.

**Living Area Adjustment.** Living area consists of all areas above ground. Garden Level area consists of areas mid-level above ground indicated by the windows, which are above the ground. Basement area consists of areas below the ground. The Assessor's Office does not add these areas together as total square footage.

When there is a square footage difference greater than 100 square foot between the Subject and Comparable, an adjustment for living area is made. Only the Living Area receives a size adjustment in the comp grid. Depending upon the amount of square foot difference, a Size factor is applied to the Adjusted Base Living Area Rate to account for economies of size, which is then applied to the square foot difference.

Subject contains 1,500 square feet; Comparable 1 contains 2,300 square feet.  
 $1,500 \text{ sq. ft.} - 2,300 \text{ sq. ft.} = -800 \text{ sq. ft.}$   
 $\$144.06 \times 0.60 = \$86.44 \times -800 \text{ sq. ft.} = -\$69,149$

A negative adjustment is applied to Comparable 1 to adjust for the living area difference.

The following table shows the area break points and adjustment factors.

Living Area Difference	Factor	Living Area Difference	Factor	Living Area Difference	Factor	Living Area Difference	Factor
101	0.85	750	0.60	2,000	0.43	5,000	0.35
250	0.80	1,000	0.50	3,000	0.40		
500	0.70	1,500	0.45	4,000	0.38		

**Year Built -- Adjusted Year Built – Remodel Year.** Year built is the first year the improvement is placed on the tax roll, not when construction is begun. For example, if construction began in January 2019, finished and occupied in October 2019, the improvement would be placed on the 2020 tax roll and considered built in 2020.

Adjusted Year Built refers to the result of additional living space added either through an addition or conversion of non-living area or interior remodeling, all of which extends the life of the improvement. Adjusted Year Built is used as the adjustment rather than Year Built due to the modified life to the improvement.

When there is an Adjusted Year difference greater than 10 years between the Subject and Comparable, an adjustment is made by applying an age difference factor to the Time Adjusted Sale Price.

For example, the Year Built difference between the Subject and Comparable 1 is 20 years. However due to the 2018 major remodel of the Subject, its Adjusted Year Built is 2000, which is the same as Comparable 1. No adjustment for age is made. If the Subject's Adjusted Year Built was not the same as Comparable 1, the adjustment would be: Subject: 1980 – Comparable 1: 2000 = -20.  $0.08 \times \$500,000 = -\$40,000$ .

Age Difference	Factor	Age Difference	Factor	Age Difference	Factor
10	0.02	40	0.18	70	0.45
15	0.05	45	0.20	75	0.50
20	0.08	50	0.25	80	0.55
25	0.10	55	0.30	85	0.60
30	0.12	60	0.35	90	0.65
35	0.15	65	0.40	95	0.70

The remaining improvement adjustment items are a quality-based rate. What has been presented is the Average quality rate. Please apply the appropriate quality factor for each adjustment item for both the Subject and Comparable Sale if they have been classified by the Assessor's Office as anything other than Average Quality construction.

Quality	Quality Factor
0 – Economy	0.45
1 – Poor	0.86
2 – Fair	0.97
3 – Average	1.00
4 – Good	1.09
5 – Very Good	1.29
6 - Excellent	1.85
7 - Premier	2.00

**Remodel Adjustment.** Remodel year is the most recent year when the improvement was modified for remodeling, additions, or conversion of non-living area to living area. Market analysis has shown that there are different levels of remodeling. The Jefferson County Assessor's Office has been gathering data from building permits, RE Colorado notes and field inspections to determine the level of remodeling completed on an improvement. Three remodel types are applied using a \$/sf quality-adjusted rate by the Above Grade Heated Area: Many Updates, Gutted or Rebuild.

Remodel Type	Adjustment
0%: As Is; Paint Carpet	\$0.00
5%: Minor Updates (Roofing, Windows)	\$0.00
15%: Some Updates (Room remodel)	\$0.00
40%: Many Updates (Substantial changes)	\$10.00
75%: Gutted	\$15.00
95%: Rebuild	\$15.00

The Subject had Many Updates completed in 2018. Comparable 1 had Minor Updates completed in 2017.

$$\text{Subject: } \$10.00 \times 1.09 = \$10.90. \text{ Comparable 1: } \$0.00.$$

$$\$10.90 - \$0.00 = \$10.90 \times 2,300 \text{ sq. ft.} = \$25,070.$$

A positive adjustment is made to Comparable 1.

**Heating and Cooling Adjustment.** A heating adjustment is made when the heat source is something other than forced air. Both Heat and Cooling adjustments are applied using a \$/sf quality-adjusted rate by the Above Grade Heated Area.

Heating Adjustment						
Quality	Forced Air	Hot Water	Electric	Gravity	Wall Furnace	No Heat
Average	\$0.00	\$3.50	-\$1.50	-\$1.50	-\$1.50	-\$15.70

  

Cooling Adjustment		
Quality	Central Air Conditioning	Evaporative Cooler
Average	\$6.00	\$2.70

The Subject has Forced Air and Central Air Conditioning;  
 Comparable 1 has Forced Air and Roof-top Evaporative Cooling.  
 Subject:  $\$6.00 \times 1.09 = \$6.54$ . Comparable 1:  $\$2.70 \times 1.09 = \$2.94$ .  
 $\$6.54 - \$2.94 = \$3.60$  adjustment difference.  $\$3.60 \times 2,300 \text{ sq. ft.} = \$8,280$ .

A positive adjustment is applied to the Comparable.

**Bathroom Adjustment.** A lump sum adjustment for the differences on each quality-adjusted item type is made.

Bathroom Adjustment					
Quality	Full Bath+ Kit/Laundry	Full Bath	3/4 Bath	1/2 Bath	No Bath
Average	\$13,190	\$13,190	\$9,900	\$6,600	-\$7,920

Subject has 1 Full bath; 1 - 3/4 bath.  $\$13,190 + \$9,900 = \$23,090 \times 1.09 = \$25,168.10$ .  
 Comparable 1 has 2 Full baths; 1 - 3/4 bath, 1 - 1/2 bath.  $\$13,190 + \$13,190 + \$9,900 + \$6,600 =$   
 $\$42,880 \times 1.09 = \$46,739.20$ .  
 $\$25,168 - \$46,739 = -\$21,571$ .

A negative adjustment is applied to the Comparable.

**Basement Area / Garden Level Adjustment.** When there is a difference of 100 square feet or greater, \$/sf quality-adjusted rate is made for both total basement/garden level area and the finished basement/garden level area.

Basement / Garden Level Area Adjustment				
Quality	Total Basement	Finished Basement	Total Garden Level	Finished Garden Level
Average	\$26.00	\$26.00	\$37.00	\$38.00

Subject has 1,000 square foot Unfinished Basement:  
 $\$26.00 \times 1.09 = \$28.34 \times 1,000 \text{ sq. ft.} = \$28,340$ .  
 Comparable 1 has 1,500 square foot Finished Walkout (grade C) Basement (100% of Basement):  
 $\$26.00 + \$26.00 + \$12.00 = \$64.00 \times 1.09 = \$69.76 \times 1,500 \text{ sq. ft.} = \$104,640$ .  
 $\$28,340 - \$104,640 = -\$76,300$ .

A negative adjustment is applied to the Comparable.

**Walkout Adjustment.** There are three types of walkouts. These additional adjustments are applied to the finished areas. The rates below reflect average quality homes.

Walkout Type	\$/sf
A - Exterior Stairwell	\$5.00
B - Slightly out of ground / Door at Grade	\$8.00
C - At least one side out of ground / Door & Windows at Grade	\$12.00

The Subject does not have a walkout. Comparable 1 does have a Grade C walkout. The adjustment was made with the Basement adjustment.

**Garage Adjustment.** When there is a difference greater than 180 square feet, a garage adjustment is made between the Subject and Comparable.

Garage Adjustment				
Quality	Attached	Detached Frame	Detached Masonry	Carport
Average	\$56.00	\$46.75	\$50.00	\$15.00

The Subject has a 400 square foot Attached Garage.  
 Comparable 1 has a 600 square foot Attached Garage.  
 $400 \text{ sq. ft.} - 600 \text{ sq. ft.} = -200 \text{ sq. ft.}$   
 $\$56.00 \times 1.09 = \$61.04 \times -200 \text{ sq. ft.} = -\$12,208$

A negative adjustment is made to Comparable 1.

**Other Adjustments.** Additional adjustments are made for porches, wood decks, and utility buildings when the difference is greater than 200 square feet. Property specific adjustments for functional or external forces, identified as quality and depreciation adjustments, are made as needed.

Porch and Wood Deck Adjustments			
Quality	Enclosed Porch	Covered Porch	Wood Balcony/Deck
Average	\$34.00	\$32.00	\$23.00

Utility Building Adjustments				
Quality	Barn, Residential Use	Pole Barn/ Residential Greenhouse	Utility Building/Shed, Residential Use	Stable, Residential Use
Average	\$25.00	\$16.00	\$10.00	\$27.00

Additional Detached Unit Adjustments							
Quality	Carriage House, Frame	Carriage House, Masonry	Detached Structure w/ Bath & Living	Detached Apartment Unit	Detached Studio	Detached Storage	Work Shop, Residential Use
Average	\$112.00	\$120.00	\$100.00	\$107.00	\$67.50	\$50.00	\$45.00

The Subject has no additional areas.  
 Comparable 1 has a 750 square foot Good quality, Frame Carriage House.  
 $0 \text{ sq. ft.} - 750 \text{ sq. ft.} = -750 \text{ sq. ft.}$   
 $\$112.00 \times 1.09 = \$122.08 \times -750 \text{ sq. ft.} = -\$91,560.$

A negative adjustment is made to Comparable 1 for this additional structure.

**Land Adjustments**

**Land Adjustment.** When there is a difference greater than .125 acres between the Subject’s acreage and the Comparable Sale’s acreage, an adjustment is made on a per acre rate. The Acre Rate is dependent upon the amount of difference between the Subject and Comparable. Refer to the table below for the Acre Difference break points and per acre rates.

Acre Difference	Acre Rate	Acre Difference	Acre Rate	Acre Difference	Acre Rate	Acre Difference	Acre Rate
0.125	\$47,000	0.80	\$35,000	3.0	\$20,000	15.0	\$9,000
0.20	\$45,000	1.0	\$30,000	5.0	\$18,000	20.0	\$8,000
0.35	\$41,000	1.5	\$28,000	7.0	\$15,000	50.0	\$7,500
0.50	\$38,000	2.0	\$25,000	10.0	\$12,000	80.0	\$7,000

The Subject has .350 acres. Comparable 1 has .570 acres.

$$0.350 - 0.570 = -0.220. -0.220 \times \$45,000 = -\$9,900.$$

A negative adjustment is made to Comparable 1 for land size.

**Contributor Adjustment.** The difference between the Subject and Comparable Sale land contributors, if any, is calculated as a percentage of the Comparable Time Adjusted Sale Price. Refer to the table below for the Land Codes and Factor. These rates are from the global land model and may differ from the actual rates used in the valuation due to locational influences.

Code Description	Code	Factor	Code Description	Code	Factor	Code Description	Code	Factor
Fair Access	AC-AF	0.94	Average Coverage	CV-CA	1.0	Excellent View	VW-V1	1.65
No Access	AC-AN	0.5	Good Coverage	CV-CG	1.05	Very Good View	VW-V2	1.45
Poor Access	AC-AP	0.67	Poor Coverage	CV-CP	0.8	Good View	VW-V3	1.15
Level	TP-LV	1.0	Restricted Area	RS-R1	0.9	Creek	WT-CR	1.5
Steep	TP-ST	0.65	Partial Restriction	RS-R2	0.95	Floodplain	WT-FL	0.65
Very Steep	TP-VS	0.4	Vacant Restriction	RS-R3	1.0	Lake	WT-LK	1.4
Golf Course, Pblc Community	LO-N6	1.1	5% Bentonite	SP-B1	0.95	Collector	TR-T1	0.9
Golf Course, Prv Community	LO-N7	1.1	25% Bentonite	SP-B2	0.75	Minor Arterial	TR-T2	0.81
Gated Community	LO-N8	1.3	50% Bentonite	SP-B3	0.5	Principal Arterial	TR-T3	0.74
Energy Efficient Community	LO-N9	1.05	Remediated	SP-B4	1	Parkway	TR-T4	0.67
						Freeway	TR-T5	0.62
Golf Course, Pblc adjacent	OS-F1	1.15	10% Disaster	SP-D1	0.9			
Golf Course, Prv adjacent	OS-F2	1.15	25% Disaster	SP-D2	0.75	Land Adj 1	SG-1	0.57
Greenbelt	OS-G1	1.05	40% Disaster	SP-D3	0.6	Land Adj 2	SG-2	0.72
Park	OS-P1	1.05	50% Disaster	SP-D4	0.5	Land Adj 3	SG-3	0.88
Open Space	OS-S1	1.18	80% Disaster	SP-D5	0.2	Land Adj 4	SG-4	1.0
			90% Disaster	SP-D6	0.1	Land Adj 5	SG-5	1.2
Conservation Easement	CE-ES	1.0	100% Disaster	SP-D7	0.1	Land Adj 6	SG-6	1.35
Industrial	EF-IN	0.88	Remediated	SP-D8	1	Land Adj 7	SG-7	1.55
Light Rail	EF-LR	0.88				Land Adj 8	SG-8	2.15
Multi-Family	EF-MF	0.88	90% unbl.	UB-U1	0.1	Land Adj 9	SG-9	2.4
Office	EF-OF	0.9	80% unbl.	UB-U2	0.2			
Powerline	EF-PL	0.9	70% unbl.	UB-U3	0.3			
Retail	EF-RE	0.88	60% unbl.	UB-U4	0.4			
Railroad Tracks	EF-RR	0.88	50% unbl.	UB-U5	0.5			

The Subject backs to a Private Golf Course (OS-F2) and assigned Land Adj 8 (SG-8).

$$1.15 \times 2.15 = 2.473$$

Comparable 1 is assigned Land Adj 4 (SG-4). 1.0  
 $2.473 / 1.0 = 2.473 / 10 = 0.2473$   
 $0.2473 \times \$500,000 = \$123,650$

A positive adjustment is made to Comparable 1 for land characteristic differences.

To summarize, the following are the adjustments made to Comparable 1:

Adjustment Item		\$500,000
Design/Construction/Quality	Inferior	35,500
Living Area	Superior	-69,149
Year Built / Adjusted Year Built	Similar	0
Remodel Type	Inferior	25,070
Heat / AC	Inferior	8,280
Bath Type / Count	Superior	-21,571
Basement/Garden Level/ Walkout	Superior	-76,300
Garage	Superior	-12,208
Other Area Adjustments	Superior	-91,560
Land Size	Superior	-9,900
Land Characteristics	Inferior	123,650
Adjusted Sale Price		\$411,812

**Conclusion:** Comparable 1 has one similar characteristic, Adjusted Year Built; four inferior characteristics, and six superior characteristics. Total number of adjustments is 10. Absolute Adjustment = \$473,188. Net Adjustment = -\$88,188. Because of the number of adjustments and the fact that the absolute adjustment amount is close to the Time Adjusted Sale Price, Comparable 1 is not a good candidate to compare with the Subject.

**Agricultural Property Adjustments**

When the Subject property is assigned an agricultural tax classification, the land value is assigned a per acre rate based on its usage. Agricultural classifications are granted after the property owner submits an application and provides documentation of agricultural use after a three year period. So, an improved sale that originally was given a residential tax classification could potentially be changed to a residential agricultural tax classification at a later date.

To handle those situations, the appraiser may choose to use a one to two acre improved residential sales to determine the minimal full value adjustment. Any amount above the two acres is an additional adjustment to the remaining acres. The actual per acre rate for the Subject is applied to each Comparable Sale as needed. The table below lists the 2019 Agricultural acreage rates:

2019 Agricultural Acreage Rates			
Classification	Per Acre Rate	Classification	Per Acre Rate
Dry Farm Land	\$119	Grazing Land	\$69
Meadow / Hay Land	\$305	Grazing Land Class 7	\$42
Forest Land	\$69	Grazing Land Class 8	\$20
Tree Farm or Irrigated Ag	\$162		