

**Table 13.1 Sales Comparison Grid**

	<b>Subject Property</b>	<b>Comparable 1</b>	<b>Adjustment</b>	<b>Comparable 2</b>	<b>Adjustment</b>
Address	8225 Washington Blvd.	1430 E. 82nd Street		1710 E. 80th Street	
Sale price	\$0		\$79,000		\$55,000
Price per sq. ft.	\$0	\$2.13		\$3.61	
Rights transferred	fee simple	fee simple	0.00%	fee simple	0.00%
<b>Subtotal</b>			<u>\$79,000</u>		<u>\$55,000</u>
Financing	assume cash	contract sale	-5.00%	cash to seller	0.00%
<b>Subtotal</b>			<u>\$75,050</u>		<u>\$55,000</u>
Conditions of sale*	arm's-length	arm's-length	0.00%	arm's-length	0.00%
<b>Subtotal</b>			<u>\$75,050</u>		<u>\$55,000</u>
Date of sale	now	5 months ago	1.25%	4 months ago	1.00%
<b>Subtotal</b>			<u>\$75,988</u>		<u>\$55,550</u>
Topography	rolling	level	5.00%	level	5.00%
Location	cul-de-sac	corner lot	10.00%	cul-de-sac	0.00%
Wooded	10%	50%	-8.00%	50%	-8.00%
Flood area	0.00%	0.00%	0.00%	0.00%	0.00%
Size (square feet)	22,000	37,026		15,246	
Size (acres)†	0.5051	0.8500	-17.25%	0.3500	7.75%
Zoning	residential	residential	0.00%	residential	0.00%
Utilities	public water/sewer	public water/sewer	0.00%	public water/sewer	0.00%
Type (platted)	platted	platted	0.00%	platted	0.00%
Improved property	\$300,000	\$450,000		\$200,000	
Price range‡	\$400,000	\$550,000	-7.50%	\$250,000	6.25%
Other factors	None	None	0.00%	None	0.00%
Net adjustment	N/A		<u>-17.75%</u>		<u>11.00%</u>
Indicated value	N/A		<u>\$62,500</u>		<u>\$61,661</u>

\* Date of sale adjustment = 0.25% per month

† Lot size adjustment = 50% per acre

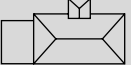
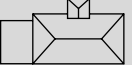
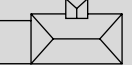
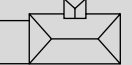
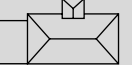
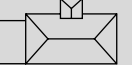
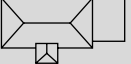
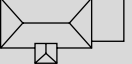
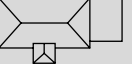

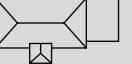
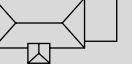
‡ Price range adjustment = 0.05% per \$1,000 in value

### Paired Data Sales Analysis

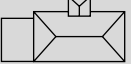
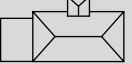
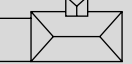
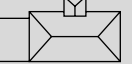
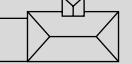
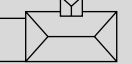
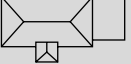
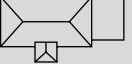
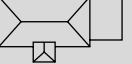
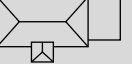
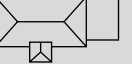
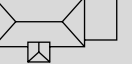
In paired data sales analysis, appraisers measure the difference in the sale prices of two properties and explain it by studying differences in the properties. This means appraisers normally adjust to a point where all the bottom-line answers are the same. This is not just luck, it is the method.

As an example, assume the subject property is a lot in the middle of the block on Main Street (Lot 15 in the figure). The sale properties are equal to the subject in all other elements of comparison. The process of extracting adjustments from the comparable sales data is shown in the adjustment grid.

#### Market Street 50' R/W

 Lot 1 Sold \$25,000 6 mos. ago	 Lot 2 Sold \$23,000 12 mos. ago	 Lot 3	 Lot 4 Sold \$24,000 6 mos. ago	 Lot 5	 Lot 6 Sold \$26,000 6 days ago
 Lot 7	 Lot 8	 Lot 9 Sold \$26,000 Now	 Lot 10	 Lot 11	 Lot 12 Sold \$27,000 6 days ago

#### Main Street 50' R/W

 Lot 13 Sold \$27,000 Now	 Lot 14 Sold \$24,000 12 mos. ago	 Lot 15 <b>Subject</b>	 Lot 16	 Lot 17	 Lot 18
 Lot 19 Sold \$28,000 Now	 Lot 20 Sold \$25,000 12 mos. ago	 Lot 21	 Lot 22	 Lot 23 Sold \$27,000 Now	 Lot 24

#### Lake Street 50' R/W

#### Adjustment Grid Using Extracted Rates

	Lot 1	Lot 2	Lot 4	Lot 6	Lot 9	Lot 12	Lot 13	Lot 14	Lot 19	Lot 20	Lot 23
Sale price	\$25,000	\$23,000	\$24,000	\$26,000	\$26,000	\$27,000	\$27,000	\$24,000	\$28,000	\$25,000	\$27,000
Date of sale	6 mos.	12 mos.	6 mos.	now	now	now	now	12 mos.	now	12 mos.	now
	+1,000	+2,000	+1,000	0	0	0	0	+2,000	0	+2,000	0
Street location	Market	Market	Market	Market	Main	Main	Main	Main	Lake	Lake	Lake
	+1,000	+1,000	+1,000	+1,000	0	0	0	0	-1,000	-1,000	-1,000
Corner	yes	no	no	yes	no	yes	yes	no	yes	no	no
	-1,000			-1,000		-1,000	-1,000		-1,000		
Adjusted price	\$26,000	\$26,000	\$26,000	\$26,000	\$26,000	\$26,000	\$26,000	\$26,000	\$26,000	\$26,000	\$26,000

The first adjustment extracted in the grid is for the date of sale (i.e., market conditions). Comparing the sales of Lots 2 and 4 shows that the price has increased by \$1,000 over the last six months. This implies an appreciation rate of \$2,000 per year. Another straightforward example of extraction is between the sales of Lots 20 and 23, where there is a \$2,000 difference in price that occurred over 12 months. This again shows an increase of \$2,000 per year. Comparing sales of Lots 1 and 6 shows a rate of \$2,000 per year as well.

The second adjustment is for street location. Comparing the sale prices of Lots 6 and 12 shows that the market may be paying \$1,000 more for lots with frontage on Main Street than for lots with frontage on Market Street. Comparing sales of Lots 14 and 20 further reveals that there seems to be a \$1,000 premium for locations on Lake Street over Main Street. Lots 2 and 9 can also be compared to extract a location adjustment after the adjustment for date of sale is made. The sales of Lots 14 and 23 can also be considered to derive an indication of the adjustment for location but only after adjustment for the date of sale. There could also be an adverse locational issue for properties adjacent to or above Market Street; the farther the property is away from that adverse influence, the less its price is affected.

A final adjustment is made for corner influence. This adjustment rate can be extracted from comparable sales of Lots 9 and 12, which imply that the price of a corner lot is \$1,000 more than a property not on a corner. Comparing Lots 19 and 23 also supports a \$1,000 higher price for the corner lots.

**Table 13.2 Land Value via Extraction**

Gross sale price				\$301,000
Cost of residence	2,800 @	\$75.00 =	\$210,000	
Cost of basement	500 @	\$25.00 =	\$12,500	
Cost of porches, etc.	500 @	\$25.00 =	\$12,500	
Cost of garage	750 @	\$25.00 =	\$18,750	
Total cost of building improvements			\$253,750	
Total depreciation (all causes)		12%	– \$30,450	
Depreciated value of building improvements				– \$223,300
Depreciated value of site improvements				– \$12,500
Estimated land value				\$65,200

**Table 13.3 Land Value via the Allocation Method**

	<b>Sale 1</b>	<b>Sale 2</b>	<b>Sale 3</b>	<b>Sale 4</b>
Sale price	\$250,000	\$300,000	\$220,000	\$200,000
Estimated land value	<u>– \$50,000</u>	<u>– \$56,000</u>	<u>– \$45,000</u>	<u>– \$40,000</u>
Estimated building value	\$200,000	\$244,000	\$175,000	\$160,000
Land/property ratio	20.00%	18.67%	20.45%	20.00%

**Figure 13.1 Land Value via Direct Capitalization of Ground Rent**

Income to the land ( $I_L$ )	\$12,000
Capitalization rate for the land ( $R_L$ )	÷ 0.12
	<hr/> <b>\$100,000</b>

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### Figure 13.2 Land Value via Land Residual Method

The net operating income for the property is \$125,000 ( $I_o = \$125,000$ ).

The capitalization rate for the land is 10% ( $R_L = 0.10$ ).

The value of the building is \$800,000 ( $V_B = \$800,000$ ).

The capitalization rate to the building is 12% ( $R_B = 0.12$ ). Therefore,

The value of the building multiplied by the capitalization rate to the building equals the income to the building.

$$\$800,000 (V_B) \times 0.12 (R_B) = \$96,000 (I_B)$$

The income to the building is subtracted from the income overall to determine the income to the land.

$$\$125,000 (I_o) - \$96,000 (I_B) = \$29,000 (I_L)$$

The income to the land is divided by the capitalization rate to the land to estimate land value.

$$\$29,000 / 0.10 = \$290,000 (V_L)$$

**Table 13.4 Land Value by Discounted Cash Flow Analysis**

<b>Quarter</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
Lots per quarter	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Sale price per lot	\$47,500	\$47,500	\$47,500	\$47,500	\$47,500	\$47,500	\$47,500	\$47,500
Estimated <i>PGI</i>	\$356,250	\$356,250	\$356,250	\$356,250	\$356,250	\$356,250	\$356,250	\$356,250
<b>Less estimated expenses</b>								
Development costs	\$200,000	\$200,000	\$200,000	\$200,000	\$0	\$0	\$0	\$0
Real estate taxes	\$400	\$0	\$400	\$0	\$2,000	\$0	\$2,000	\$0
Sales commission (7%)	\$24,938	\$24,938	\$24,938	\$24,938	\$24,938	\$24,938	\$24,938	\$24,938
Advertising, etc. (4%)	\$14,250	\$14,250	\$14,250	\$14,250	\$14,250	\$14,250	\$14,250	\$14,250
Entrepreneurial incentive (20%)	\$71,250	\$71,250	\$71,250	\$71,250	\$71,250	\$71,250	\$71,250	\$71,250
<b>Total expenses</b>	<b>\$310,838</b>	<b>\$310,438</b>	<b>\$310,838</b>	<b>\$310,438</b>	<b>\$112,438</b>	<b>\$110,438</b>	<b>\$112,438</b>	<b>\$110,438</b>
Net cash flow	\$45,412	\$45,812	\$45,412	\$45,812	\$243,812	\$245,812	\$243,812	\$245,812
Discounted @ 12%	0.9709	0.9426	0.9151	0.8885	0.8626	0.8375	0.8131	0.7894
Present value	\$44,091	\$43,182	\$41,556	\$40,704	\$210,312	\$205,868	\$198,242	\$194,044
Present value of land = \$977,999								