COUNTY COMMISSIONERS
Association of Pennsylvania

Assessment Valuations Process in the Commonwealth

Revised November 2023

by AAP and LGC Staff

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Curriculum Agenda

The Consolidated County Assessment Law and a glossary of common terminology will be provided to all students. Unless otherwise noted, all definitions in this module are pulled from that glossary.

- Uniformity
- Appraisals
- Approaches to Value
    - Sales Comparison
    - Cost
    - Income
- Uniform Standards of Professional Appraisal Practices (USPAP) Compliance

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Glossary

Ad Valorem Tax. A tax levied in proportion to the value of the thing(s) being taxed. Exclusive of exemptions, use-value assessment provisions, and the like, property tax is an ad valorem tax.

Appeal. A process in which a property owner contests an assessment either informally or formally.

Appraisal. (1) The act of estimating the monetary value of property. (2) The monetary value of property as estimated by an appraiser. (3) Of or pertaining to appraising and related functions, for example, appraisal practice, appraisal services.

Glossary

Arm's-Length Transaction. (1) A sale between a willing buyer and a willing seller that are unrelated and are not acting under duress, abnormal pressure or undue influences. (2) A sale between two unrelated parties, both seeking to maximize their positions from the transaction.

Assessed Value. The assessment placed on real property by a county assessment office upon which all real estate taxes shall be calculated.

Assessment Ratio. (1) The fractional relationship an assessed value bears to the market value of the property in question. (2) By extension, the fractional relationship the total of the assessment roll bears to the total market value of all taxable property in a jurisdiction

Glossary

Base Year. The year upon which real property market values are based for the most recent countywide revision of assessment of real property or other prior year upon which the market value of all real property of the county is based for assessment purposes. Real property market values shall be equalized within the county and any changes by the board shall be expressed in terms of base-year values.

Glossary

Board. As defined in Title 53 (Municipalities Generally) of the Pennsylvania Consolidated Statutes (Pa.C.S.), Section 8802 (relating to definitions).

- The Board of Property Assessment, Appeals and Review in a county of the second class under the act of June 21, 1939 (P.L. 626, No. 294), referred to as the Second Class County Assessment Law, or a similar body established by a home rule county.
- The Board of Revision of Taxes and Appeals under Title 11 (Cities) of the Pa.C.S. Chapter 125, Subchapter A.
- The Board of Revision of Taxes in a county of the first class under the act of June 27, 1939, (P.L. 1199, No. 404), relating to taxation.

Glossary

Certification Date. The statutory date by which formal real property valuations [post informal reviews, if applicable] are certified by the county assessment office. [In counties of the second class A through eighth class, this date is November 15. *See* 53 Pa.C.S. §8844(f).]

Certified Pennsylvania Evaluator (CPE). A person responsible for the valuation of real property for ad valorem taxation purposes who has satisfied the qualifications for certification as a Certified Pennsylvania Evaluator pursuant to the Assessors Certification Act and the Professional and Vocational Standards under Title 49 of the Pennsylvania Code, Chapter 36, Subchapter C (Certified Pennsylvania Evaluators).

Glossary

Common Level Ratio (CLR). The ratio of assessed value to current market value used generally in the county and published by the State Tax Equalization Board on or before July 1 of the year prior to the tax year on appeal before the board under the act of June 27, 1947 (P.L. 1046, No. 447), referred to as the State Tax Equalization Board Law.

Common Level Ratio is determined by the State Tax Equalization Board (STEB).

Glossary

Contract Rent. The actual amount of rent, per unit of time, that is specified in the contract (lease). *Income approach.*

Glossary

Cost Approach to Value. One of the three approaches to value, the cost approach is based on the principal of substitution – that a rational, informed purchaser will pay no more for a property than the cost of building an acceptable substitute with like utility. The cost approach seeks to determine the replacement cost new of an improvement less depreciation plus land value; it is the method of estimating the value of property by: (a) estimating the cost of construction based on replacement or reproduction cost new or trended historic cost (often adjusted by a local multiplier), (b) subtracting depreciation, and (c) adding the estimated site value. The site value is most frequently determined by the sales comparison approach.

Countywide Revision of Assessment. A change in the established predetermined ratio or revaluation of all real property within a county. *Most commonly known as countywide reassessment.*

Glossary

Depreciation. Loss in value of an object, relative to its replacement cost new, reproduction cost new, or original cost, whatever the cause of the loss in value. *Cost approach*.

Depreciation, Accrued. The amount of depreciation, from any and all sources, that affects the value of the property in question on the effective date of the appraisal. *Cost approach*.

Effective Age. The typical age of a structure equivalent to the one in question with respect to its utility and condition as of the appraisal date. Knowing the effective age of an old, rehabilitated structure or a building with substantial deferred maintenance is generally more important in establishing value than knowing the chronological age. *Cost approach*.

Effective Gross Income. The potential gross rent, less vacancy and collection loss, plus miscellaneous income. *Income approach*.

Glossary

Excess Rent. The difference between contract rent and market rent that occurs when contract rent exceeds economic rent. *Income approach.*

Gross Income Multiplier (GIM). Expresses a relationship between gross annual income and value of property. The GIM is calculated by dividing the property value or selling price by the property's gross income at the time of sale.

Sales approach.

Gross Lease. A lease under the terms of which the lessor (landlord) receives stipulated rent and pays the expenses of operating and maintaining the leased property. *Income approach.*

Glossary

Gross Rent Multiplier (GRM). (1) The factor by which gross rent is multiplied in order to obtain an estimate of value, (2) The ratio between sale price and potential gross income or effective gross income. By convention, the gross rent multiplier is typically the term used when developing the relationship based on monthly rent and (3) Could also be known as the Gross Monthly Rent Multiplier. *Could be either sales or income approach.*

Glossary

Highest and Best Use. A principle of appraisal and assessment requiring that each property be appraised as though it were being put to its most profitable use (highest possible present net worth), given probable legal, physical, and financial constraints.

Income Approach to Value. One of the three approaches to value, based on the concept that current value is the present worth of future benefits to be derived through income production by an asset over the remainder of its economic life. The income approach uses capitalization to convert the anticipated benefits of the ownership of property into an estimate of present value.

Glossary

Market Area. A geographic area, typically encompassing a group of neighborhoods, defined on the basis that the properties within its boundaries are subject to similar economic forces and supply and demand factors. A separate valuation model is often developed for each market area. Smaller or mid-sized jurisdictions may constitute a single market area.

Market (Economic) Rent. The rent currently prevailing in the market for properties comparable to the subject property. Market rent is capitalized into an estimate of value in the income approach.

Market Value. The price in a competitive market a purchaser, willing but not obligated to buy, would pay an owner, willing but not obligated to sell, taking into consideration all the legal uses to which the property can be adapted and might be reasonably applied. (*See Buhl Found. v. Board of Prop. Assessmen*t, 180 A.2d 900 (Pa. 1962).

Glossary

Neighborhood. (1) The environment of a subject property that has a direct and immediate effect on value. (2) A geographic area (in which there are typically fewer than several thousand properties) defined for some useful purpose, such as to ensure for later multiple regression modeling that the properties are homogeneous and share important locational characteristics.

Net Lease. A lease which provides for the tenant to pay all property expenses. *Income approach.*

Net Operating Income (NOI). Annual net income after operating expenses are subtracted from effective gross income. Does not include payments for interest or principal. *Income approach.*

Glossary

Nonrealty Components. These are items that were included in the sale price but should be excluded when the sale is used as a comparable property to the subject.

Parcel. A separate, tax map-designated piece or portion of all real property, taxable or nontaxable, or eligible for preferential assessments.

Potential Gross Income (PGI). The sum of potential gross rent and miscellaneous income, that is, the income from rent and other sources that a property could generate with normal management, before allowing for vacancies, collection losses, and normal operating expenses. *Income approach*.

Glossary

Replacement Cost. The current cost of producing a building or improvement with the same utility but with modern materials, design, and workmanship. This cost is less than the amount indicated by the reproduction cost method. *Cost approach*.

Reproduction Cost. The cost of producing an exact replica of a building or improvement using the same or very similar materials, design, and workmanship. This cost involves rebuilding the subject structure with any inherent faulty design super adequacies and inefficiencies. It is an unrealistic method for older, obsolete structures. *Cost approach*.

Sales Comparison Approach to Value. One of the three approaches to value, the sales comparison approach estimates a property's value (or some other characteristic, such as its depreciation) by reference to comparable sales. Also known as the Comparable Sales Approach or Market Approach.

Glossary

Uniformity. The equality of the burden of taxation in the method of assessment.

Unit of Comparison. A property as a whole or some smaller measure of the size of the property used in the sales comparison approach to estimate a price per unit.

Vacancy and Collection (Rent) Loss. The amount of money deducted from potential annual gross income to reflect the effect of probable vacancy and turnover, or nonpayment of rent by tenants. Vacancy and collection loss is commonly expressed as a percentage of potential annual gross income, and it should be based on market research, not actual rental history of a property. *Income approach.*

Valuation. Developing and reviewing a new determination of market value for each parcel, based on current data for the County's identified base year of valuation by the appropriate use of one or more of the accepted three approaches to value (cost, market and income).

Glossary

Zoning. The exercise of the police power to restrict land owners as to the use of their land and/or the type, size and location of structures to be erected thereon.

Uniformity

Article VIII, § 1 of the Pennsylvania Constitution provides:

"All taxes shall be uniform, upon the same class of subjects, within the territorial limits of the authority levying the tax, and shall be levied and collected under general laws."

"The Constitutional imperative of **uniformity** means that it becomes necessary to periodically step back and look at every property in order to ensure that the burden of taxation is properly distributed and no one is paying more or less than their fair share of taxes. Property values change over time. Unless a county undertakes a countywide revision of assessment, the tax assessments remain static regardless of fluctuations in market value resulting from various factors."[1]

[1] *Pennsylvania Property Assessment: A Self-Evaluation Guide for County Officials*, the Local Government Commission, June 13, 2018, adopted as "best practices" by the AAP Board of Governors and the CCAP Board of Directors on July 13, 2018 and August 5, 2018, respectively, Appendix A.

Appraisals

The Seven Steps in the Appraisal Process[2]

1. Define the problem.
2. Identify the scope of work.
   a. Intended User – Board of Appeals
   b. Intended Use – Ad Valorem Taxation
3. Preliminary survey and planning
4. Data collections and analysis

[2] *Property Assessment Valuation*, 3rd ed., International Association of Assessing Officers, Kansas City, MO., June 1, 2010, p. 63.

Appraisals

The Seven Steps in the Appraisal Process[2]

5. Highest and Best Use analysis
6. Application of the data and the approaches to value
7. Correlation/Reconciliation

[2] *Property Assessment Valuation*, 3rd ed., International Association of Assessing Officers, Kansas City, MO., June 1, 2010, p. 63.

Appraisals

Influences Affecting Market Data

Neighborhood – (1) The environment of a subject property that has a direct and immediate effect on value. (2) A geographic area (in which there are typically fewer than several thousand properties) defined for some useful purpose, such as to ensure…that the properties are homogeneous and share important locational characteristics.

Appraisals

Appraisers analyze the neighborhood to identify and evaluate factors that may influence property values (PEGS).[3]

- Physical Factors
- Economic Factors
- Governmental Factors
- Social Factors

[3] *Property Assessment Valuation*, 3rd ed., International Association of Assessing Officers, Kansas City, MO., June 1, 2010, p. 76.

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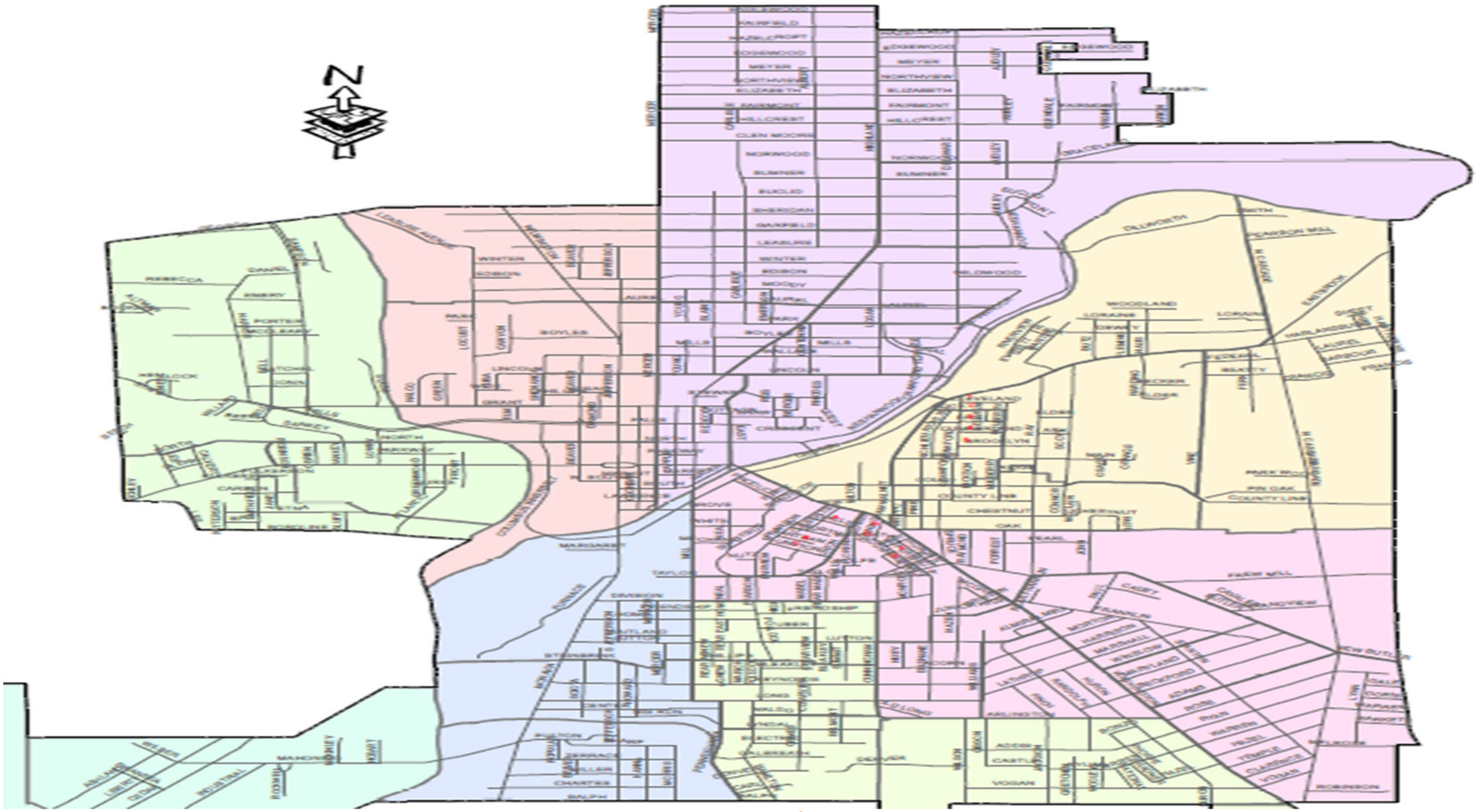

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Approaches to Value – Sales Comparison

The most frequently used approach to determining value in real estate appraisal practice is the sales comparison approach. This approach estimates a property's value (or some other characteristic, such as its location) by reference to comparable sales and this is done by evaluating the subject based upon these differences to comparable sales. This is done by adjusting the comparable sales to the subject property based upon their differences.

These properties are adjusted for time, acreage, size, amenities, etc. as compared to the property that is being valued. A property characteristic that is highly valued in one neighborhood may not be valued to the same degree in a different area.

Approaches to Value – Sales Comparison

Elements of Comparison for Improvements

Non Realty Components – The board should be aware that there are items that may be included in the sale price, but should be excluded when the sale is used as a comparable property to the subject.

Examples:

- Drapes
- Furniture
- Outdoor Equipment
- Appliances
- Liquor License
- Franchise Name

Approaches to Value – Sales Comparison

Elements of Comparison for Improvements[4]

Rights Conveyed – The board needs to determine if all rights are being conveyed in that sale. (Fee Simple)

- Air Rights
- Mineral Rights
- Oil and Gas Rights
- Leasehold Interest

Financing

- Creative or Special Financing – atypical
- Concession – points or closing costs included in the sale

[4] *Property Assessment Valuation*, 3rd ed., International Association of Assessing Officers, Kansas City, MO., June 1, 2010, p. 204.

Approaches to Value – Sales Comparison

Applying Adjustments

- The board should review the adjustments made by the appraiser to makes sure the direction of the adjustments is correct.

- The board should always compare the SALE to the SUBJECT.
  - If the comparable property is **<u>in</u>**ferior to the subject, the adjustment is made upward (**<u>In</u>**crease).
  - If the comparable property is **<u>su</u>**perior to the subject, the adjustment is made downward (**<u>Su</u>**btract).
  - Adjustments may be made in dollars or percentages.

- Typically, the sale with the fewest adjustments is the most comparable and often the most reliable value to the subject.

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Approaches to Value – Sales Comparison

Elements of Comparison for Improvements

Units of Comparison – a property as a whole or some smaller measure of the size of the property used in the sales comparison approach to estimate a price per unit

Typical Units of Comparison by Various Property Types[5]

	Single-Family	Apartments	Retail	Office	Industrial	Agricultural
Total Property	X					
Sq. Ft. of Living Area	X					
Room		X				
Bedroom		X				
Unit		X				
Gross Income/Rent Multiplier	X	X	X		X	
Gross Sq. Ft. Building Area		X	X	X	X	
Net Sq. Ft. Rentable Area				X		
Front Foot			X			
Cubic Foot					X	
Acre					X	X
Animal Unit (Pasture)						X
Board Foot (Timber)						X

[5] Adapted from *Property Assessment Valuation*, 3rd ed., International Association of Assessing Officers, Kansas City, MO., June 1, 2010, p. 209.

Approaches to Value – Sales Comparison

Special Purpose Properties – "the sales comparison approach is applicable to special purpose properties when suitable comparable sales are available and worthwhile units of comparison can be developed."[6]

For example:

- Number of seats in a theater
- Number of lanes in a bowling alley
- Number of bays in a garage or car wash
- Number of holes on a golf course

[6] *Property Assessment Valuation*, 3rd ed., International Association of Assessing Officers, Kansas City, MO., June 1, 2010, p. 220.

Approaches to Value – Sales Comparison

Gross Income/Rent Multiplier[7]

Gross Income Multiplier (GIM) – relationship between gross ANNUAL income and the value of property

- GIM = Property Value or Selling Price ÷ Gross Income at Time of Sale

Gross Rent Multiplier (GRM)* - relationship between MONTHLY rental income and the value of property

* Can also be GMRM

- GRM = Sale Price ÷ Monthly Rent

Gross Rent Multipliers for Single-Family Properties

Sale	Sale Price	Monthly Rent	Annual Rent	GRM	GIM
1	$192,000	$1,175	$14,100	163	13.62
2	$176,000	$1,100	$13,200	160	13.33
3	$220,000	$1,400	$16,800	157	13.09

[7] Adapted from *Property Assessment Valuation*, 3rd ed., International Association of Assessing Officers, Kansas City, MO., June 1, 2010, pp. 220-222.

Sample Residential Appraisal Report

Uniform Residential Appraisal Report

File No. Sample Report 1004

The purpose of this summary appraisal report is to provide the lender/client with an accurate, and adequately supported, opinion of the market value of the subject property.

SUBJECT

Property Address 123 Homes St | City New Castle | State PA | Zip Code 16101

Intended User County Board of Assessment Appeals | Owner of Public Record Thomas Jones | County Lawrence

Legal Description Lot 48, Block 73, Section 44, South Side

Assessor's Parcel # 07-11-42-6044-00730-00480 | Tax Year 2019 | R.E. Taxes $ 574

Neighborhood Name Lehigh Woods - South Side | Map Reference 4B-1 | Census Tract 0602.02

Occupant [X] Owner [ ] Tenant [ ] Vacant | Special Assessments $ 0 | [ ] PUD | HOA $ 0 | [ ] per year [ ] per month

Property Rights Appraised [X] Fee Simple [ ] Leasehold [ ] Other (describe)

Assignment Type [X] Purchase Transaction [ ] Refinance Transaction [ ] Other (describe)

Lender/Client Thomas Jones | Address 123 Home St, New Castle Pa 16101

Is the subject property currently offered for sale or has it been offered for sale in the twelve months prior to the effective date of this appraisal? [X] Yes [ ] No

Report data source(s) used, offering price(s), and date(s). DOM 135;Had an expired offering as of 09/07/2018 for $260,000. The reference number is as provided by FCAR, days on market is 30. Had a price change as of 07/15/2018 for $299,999. The < continued in addendum >

Sample Residential Appraisal Report

- This is the 1st page of the appraisal report after the cover and summary page.
- Identifies who is permitted to use and see the report.
- Gives the assessment office the right to look over the report.
  - Assessment Office can't review report without complying with USPAP

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Sample Residential Appraisal Report

Sales Comparison Grid – (Next Slide)

- List 3 to 6 recent sales that are considered comparable (similar) to subject property
- Appraiser then determines differences between the comparable and the subject
  - Every difference SHOULD require an adjustment
  - Differences determine dollar amount of adjustment
- Adjustments then added/subtracted from sales price to determine the adjusted sales price
- Appraiser uses the adjusted sales price of the 3 to 6 recent sales to help determine the opinion of value of the subject property.

Residential Appraisal Report

File No. 170113B

FEATURE	SUBJECT	COMPARABLE SALE NO. 1		COMPARABLE SALE NO. 2		COMPARABLE SALE NO. 3	
Address	Alyssa Drive New Castle, PA 16105	123 Perry Way		190 Lawrence St		1458 Mercer Ave	
Proximity to Subject		1.26 miles NE		0.37 miles NE		1.20 miles NE	
Sale Price	$ N/A		$ 375,000		$ 365,000		$ 379,450
Sale Price/Gross Liv. Area	$ N/A sq. ft.	$ 108.38 sq. ft.		$ 96.95 sq. ft.		$ 159.30 sq. ft.	
Data Source(s)		West Penn MLS #1224010		West Penn MLS #1232386		West Penn MLS #1055065	
Verification Source(s)		Agent/County records		Agent/County records		Agent/County records	
VALUE ADJUSTMENTS	DESCRIPTION	DESCRIPTION	+(-) $ Adjustment	DESCRIPTION	+(-) $ Adjustment	DESCRIPTION	+(-) $ Adjustment
Sale or Financing Concessions		Cash None noted		Cash None noted		Conventional None noted	
Date of Sale/Time		11/09/2016		07/08/2016		04/27/2016	
Location	Suburban	Suburban		Suburban		Suburban	
Leasehold/Fee Simple	Fee Simple	Fee Simple		Fee Simple		Fee Simple	
Site	1.93 acres +/-	0.50 acre	+57,200	4.31 acres	-20,000	0.41 acre	+60,800
View	Residential	Residential		Residential		Residential	
Design (Style)	Contemporary	Contemporary		Contemporary		Contemporary	
Quality of Construction	Good	Good		Good		Good	
Actual Age	3 years	19 years	+15,500	18 years	+15,000	8 years	
Condition	Good	Inferior	+15,500	Inferior	+15,000	Good	
Above Grade Room Count (Total / Bdrms. / Baths)	10 / 4 / 2.1	8 / 4 / 3.1	-10,000	9 / 4 / 3.1	-10,000	8 / 3 / 2.1	
Gross Living Area	4,217 sq. ft.	3,460 sq. ft.	+19,700	3,765 sq. ft.	+11,800	2,382 sq. ft.	+47,700
Basement & Finished Rooms Below Grade	Full Finish started	Full Partial finish	-15,000	Full Unfinished	+15,000	Full Partial finish	-15,000
Functional Utility	Good	Good		Good		Good	
Heating/Cooling	FWA/central air	FWA/central air		FWA/central air		FWA/central air	
Energy Efficient Items	None noted	None noted		None noted		None noted	
Garage/Carport	3 car/attached	2 car/attached	+10,000	3 car/attached		3 car/attached	
Porch/Patio/Deck	Patios	Porch/patio/pool	-40,000	Patios		Porch/patio/pool	-40,000
Fireplaces	1 fireplace	2 fireplaces	-5,000	1 fireplace			
Net Adjustment (Total)		[X] + [ ] -	$ 47,900	[X] + [ ] -	$ 26,800	[X] + [ ] -	$ 53,500
Adjusted Sale Price of Comparables			$ 422,900		$ 391,800		$ 432,950

SALES COMPARISON APPROACH

Approaches to Value – Cost Approach

The **cost approach** seeks to determine the replacement cost new of an improvement less **depreciation** plus land value.

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What is the Objective of the Cost Approach?

- The ultimate goal, as with any appraisal of real property is

  MARKET VALUE

- Other approaches to value…Sales Comparison Approach and Income Approach
- **Market Value:** means the most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

Cost Approach…Market Value Defined: [8]

- Buyer and seller are typically motivated;
- Both parties are well informed or well advised, and acting in what they consider their best interests;
- A reasonable time is allowed for exposure in the open market;
- Payment is made in terms of cash in United States dollars or in terms of financial arrangements comparable thereto; and
- The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

[8] *Property Assessment Valuation*, 3rd ed., International Association of Assessing Officers, Kansas City, MO., June 1, 2010, p. 14-15.

Cost Approach to Value

Understand the definitions…

- **Price**: the amount asked, offered, or paid for a property (USPAP)
  - Price refers to the amount a particular purchaser agrees to pay and a particular seller agrees to accept under the circumstances surrounding their transaction…when finalized, refers to a sale and implies an exchange.
- **Cost**: the amount required to create, produce, or obtain a property (USPAP)
- **Value**: the monetary relationship between properties and those who buy, sell, or use those properties In order for property to have value there must be…
  - ❖ Utility
  - ❖ Scarcity
  - ❖ Demand or Desirability

Cost Approach to Value

Principal of Substitution – Basis for the Cost Approach[9]

The primary principal states that a rational, informed purchase will pay no more for a property than the **cost** of acquiring an acceptable substitute with like utility, assuming that no costly delay is encountered in making the substitution.

While many people use cost and value synonymously, appraisers are required to use more precise definitions.

COST ≠ VALUE

The term **COST** is used by appraisers in relation to production, not exchange

[9]*Property Assessment Valuation*, 3rd ed., International Association of Assessing Officers, Kansas City, MO., June 1, 2010, p. 228.

Steps inthe Cost Approach

- Estimate the Cost New of the Improvement as of the date of the appraisal; including…the direct costs, indirect costs, entrepreneurial profit and entrepreneurial incentive;
  - Direct (aka Hard Costs)
    - Labor
    - Materials
    - Supervisions
  - Indirect Costs (aka Soft Costs)
    - Architectural fees
    - Engineering fees
    - Title and legal fees
    - Taxes
  - Entrepreneurial Profit/Incentive
- (-) Estimate the amount of Accrued Deprecia**tion**;
- = Depreciat**ed** Value of the Improvement;
- \+ Site Value (directly from the Market);
- = Value by the Cost Approach.

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What properties is the Cost Approach most applicable for use in valuation?

- Special Purpose Properties – properties for which information is limited or scarce…
  - Sales typically do not exist…
    - ✓ Courthouse
    - ✓ School
    - ✓ Specialized processing plants – Industrial
    - ✓ Public Utilities
    - ✓ Railroad properties
  - Income and Expense information is not available
- Only approach to value that provides for the appraiser to breakdown into site and building/improvement components. Other approaches do not provide for the site to be separated from the improvement.

Cost Approach

Cost Bases or Concepts of Cost

- ***Historical Cost*** – known cost at the time a property was originally constructed and placed into service;
- ***Trended Historical Costs*** – historical cost factored by reference to some current index for property components;
- ***Reproduction Cost*** – exact replica using same materials, design, and workmanship;
- ***Replacement Cost*** – producing a building improvement having the same utility, but using modern materials, design, and workmanship.

Cost Approach

Cost Estimation Methods

- ***Quantity Survey*** – (aka Engineered Breakdown) and most accurate;
- ***Comparative Unit*** – (aka Square Foot) known costs ÷ appropriate unit;
- ***Unit-In-Place*** – (aka Segregated Cost) all cost to a single amount/cost;
- ***Factored Historical Cost***
  - http://www.in2013dollars.com/Housing/price-inflation
  - http://www.usinflationcalculator.com
  - In 1970 a home that cost $25,000 to build would cost $219,209 in 2023 (a $194,209 difference in value)!
  - Between 1970 and 2023 Housing experienced an inflation rate of 4.18% per year compared to an overall inflation rate of 3.96%

Use of Cost Manuals – such as Marshall & Swift®

- Assessment Application
- Customized to Local Market
- Classification of Structures
- Construction Quality
- Floor Area
- Shape
- Height

- Cost Trending – Indexing
  - Application of Cost Index Modifier
  - Costs vary geographically and over time, yet cost schedules reflect a specific time and location…set in time – Base Year for assessment purposes

Cost Approach - Depreciation

Depreciation: loss in value from cost new from all causes for property having a limited economic life…depreciation from all causes from the time of construction to the effective date of the appraisal and is directly related to utility.

- Loss in value due to wear and tear
- Presence of features that a deficient
- Excess, currently undesirable
- Exterior factors causing loss in value
- Depreciation, which is measured separately only in the cost approach, is the difference between cost new of a property and its market value as of the date of the appraisal.

Cost Approach - Depreciation

- Origins and causes of depreciation fall into three general categories of diminished utility:
    - Physical Deterioration – Curable or Incurable;
    - Functional Obsolescence – Curable or Incurable;
    - External (Economic) Obsolescence – Incurable.

Measuring Depreciation

Accrued Depreciation: the total depreciation from all causes taken on an asset from the time of purchase to the present.

Accrual for Depreciation: a prescribed systematic write-off of the cost of an asset over time – aka Straight-Line Depreciation.

Depletion: loss of value due to consumption and is properly applied to oil, gas, precious metals, and timber.

Methods of Measuring Depreciation

- Indirect Methods
- Market Abstraction/Extraction
- Capitalization of Income

Direct Methods

- Economic Age Life
- Modified Economic Age-Life
- Breakdown

Measure of Direct Depreciation – Economic Age-Life Method

- **Effective Age:** the age of property based on the amount of observed deterioration and obsolescence it has sustained.
- **Total Economic Life:** the total number of years during which the improvements on the site contribute to total property value.
- **Remaining Economic Life:** the period of time from the date of the appraisal to the end of the building's (improvement) economic life, i.e. the period of time the building will continue to contribute value to the property.

Effective Age + Remaining Economic Life = Total Economic Life

COUNTY COMMISSIONERS Association of Pennsylvania

Approaches to Value – Cost Approach

COST APPROACH TO VALUE (not required by Fannie Mae)

COST APPROACH

Provide adequate information for the lender/client to replicate the below cost figures and calculations.

Support for the opinion of site value (summary of comparable land sales or other methods for estimating site value)

65 Renmont Place	10,000 sq.ft.	sold 11/11/05 for $74,000
4 Red Barn Drive	10,500 sq.ft.	sold 12/12/05 for $76,000
65 Renworth Lane	10,000 sq.ft.	sold 01/10/05 for $75,000

ESTIMATED ☐ REPRODUCTION OR ☒ REPLACEMENT COST NEW	OPINION OF SITE VALUE = $	60,000
Source of cost data Blue Book	Dwelling 1,655 Sq. Ft. @ $ 70 = $	115,850
Quality rating from cost service Blue Book Effective date of cost data 03/01/2011	Bsmt: 1655 Sq. Ft. @ $ 28 = $	46,340
Comments on Cost Approach (gross living area calculations, depreciation, etc.)		
N/A	Garage/Carport 399 Sq. Ft. @ $ 24 = $	9,576
	Total Estimate of Cost-New = $	171,766
	Less 7 Physical / Functional / External	
	Depreciation $12,024 = $ (	12,024)
	Depreciated Cost of Improvements = $	159,742
	"As-is" Value of Site Improvements = $	10,000
Estimated Remaining Economic Life (HUD and VA only) 67 Years	INDICATED VALUE BY COST APPROACH = $	229,742

Approaches to Value – Income Approach

The third approach to value is called the **income approach**, which is based on the concept that current value is the present worth of future benefits to be derived from the income produced by an asset over the remainder of its economic life and is usually most applicable to commercial properties.

The income approach uses a capitalization rate to convert the anticipated income stream into an estimate of present worth.

Approaches to Value – Income Approach

$$\frac{\text{I}_{\text{ncome}}}{\text{R}_{\text{ate}} \quad \text{X} \quad \text{V}_{\text{alue}}}$$

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Approaches to Value – Income Approach

Types of Leases

A **gross lease** provides for the landlord to pay all maintenance, utilities, insurance and taxes. The **net net net lease** (also known as triple net) provides for the tenant to pay all property expenses. Net leases and net net leases are degrees between the gross lease and the net net net lease, and may require specific expenses to be paid by either the tenant or the landlord.[11]

[11] *Property Assessment Valuation*, 3rd ed., International Association of Assessing Officers, Kansas City, MO., June 1, 2010, p. 322.

Approaches to Value – Income Approach

Steps in the Income Approach To Value[12]

1. Estimate **potential gross income** (PGI).
2. Deduct for vacancy and collection loss. Loss may be in dollars or percentages.
3. Add miscellaneous income to determine **effective gross income** (EGI).
4. Estimate expenses: fixed, operating and reserves.[13] These may be expressed in dollars or percentages.

[12]Adapted from *Property Assessment Valuation*, 3rd ed., International Association of Assessing Officers, Kansas City, MO., June 1, 2010, p. 318.

[13] Nationally Recognized publications are used for CAP Rates, Vacancy and Average Expenses such as Korpacz Reports, Realty Rates, etc

Approaches to Value – Income Approach

5. Subtract expenses from EGI to determine **net operating income** (NOI).
6. Subtract lease up expenses for applicable properties.
7. Develop CAP Rate.
   - Use of Loaded Cap Rate (Cap Rate + Effective Tax Rate)
8. Apply IRV (Divide NOI by the Cap Rate to arrive at value).

Approaches to Value – Income Approach

Expenses that are typically removed from income/expense statements for ad-valorem appraisals[14]:

- Real Estate Taxes
- Depreciation
- Mortgage Payments
- Mortgage Interest
- Income Taxes (payroll taxes are allowed)
- Capital Improvements
- Owner's Business Expenses

[14] *Property Assessment Valuation*, 3rd ed., International Association of Assessing Officers, Kansas City, MO., June 1, 2010, p. 330.

Sample Income Appraisal Report

Summary

Potential Gross Income (PGI)	$ 78,840		
Less Vacancy and Collection Loss (15%)	$ 11,826		
Effective Gross Income (EGI)	$67,014		

Less Expenses:

Real Estate Taxes	
Insurance	$ 2,000
Repairs/Maintenance	$ 3,600
Utilities	$ 16,000
Supplies	$ 1,000
Lawn/Snow Removal	$ 2,400
Legal/Acct./Misc.	$ 1,000

Total Expenses (38.8% of EGI) $ 26,000

Net Operating Income (before debt service) $ 41,014

The "mean" of the foregoing rates is 13.41%. Based upon the subject's location, our interpretation of the market, etc., we have concluded that a base rate of 13% fairly represents the subject property's risk. However, the overall rate must now be loaded for taxes.

The common level ratio (CLR) is the relationship of assessed value to current market value. Presently the CLR for Lawrence County is 91.7%. The calculation of the tax load is as follows:

Millage	X	Common Level Ratio	=	Tax Load
0.026508	X	0.917	=	0.0243

After adding the tax load (0.0243) to the basic rate (R_O) (0.13) the tax loaded R_O is 0.1543. Thus, the value of the appraised property from the Income Approach is calculated as follows:

NOI	÷	R_O	=	Value
$41,014	÷	0.1543	=	$265,807

USPAP Compliance

Uniform Standard of Professional Appraisal Practice

CPE's role during Assessment Appeals:

- CPEs shall not develop their opinion in anyway when discussing sales. May only give factual information.
- Read vs Review of Appraisal
- Sales vs Comparable Sales

Penalty – CPE in violation of USPAP [15]

- Certificate revoked by the State Board of Certified Real Estate Appraisers (SBCREA)
- Fine of up to $10,000 per occurrence plus cost of prosecution

[15] 1992, P.L. 155, No. 28, § 7; 49 Pa. Code § 36.51.