An Informal Look at the Income Approach

"The Income Approach on the Back of an Envelop"

Maine Chapter Fall 2020

December 10, 2020

Good Morning!

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In Order to attempt to de-mysticize the Income Approach, I'll attempt to answer the following 4 questions…

An Informal Look at the Income Approach

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Question 1 - How Does the Income Approach Fit into What We Do?

Question 2 - How Do You Get A Capitalization Rate (Cap Rate)? *

Question 3 - What Types Of Properties Are We Talking About?

Question 4 - What is the Income in the Income Approach? (and what isn't?)

Value = Income / Rate

Value = Income / Rate

The Basic mechanics of the Income Approach is that Value is equal to an estimate of the revenue produced by the real estate, divided by a rate.

First a Quick Example

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Value = Income / Rate

Income:

Description	per Month	Annual		Gross Potential Income
(4) 2 Bedroom	1,400	16,800	(4 X 16800) =	67,200
Less: Vacancy (5%)				-3,360
Expense: (Say 20%)				-13,440
NOI (Net Operating Income)				50,400
Capitalization Rate (Cap Rate)				0.083

Value = (Income / Rate)

Indicated Income Value = (50,400 / .083) or 607,229

Value = Income / Rate

First Question.

How Does the Income Approach Fit into What We Do?

Or

Why Bother?

How Does the Income Approach Fit into What We Do?

"To an investor, future *cash flows* dictate what *value* is and what they are is willing to pay for a property."

- One of three generally accepted valuation methods (together with the Cost and Market Approaches)
- It's a practical method to validate the Cost or Market Approach for applicable properties
- To an investor, it's the only things that matters

- **Plus – It's the Law!**

How Does the Income Approach Fit into What We Do?

The following 3 Law Court cases show how the Court developed its requirement that we consider the Income Approach, when relevant.

Frank v. Assessors of Skowhegan (1974)
Shawmut Inn v. Inhabitants of The Town of Kennebunkport (1981)
South Portland Associates v. City of South Portland (1983)

Frank v. Board of Assessors Skowhegan

Frank v. Assessors of Skowhegan
329 a.2D 167 (1974)

- There is a presumption of validity and good faith to the assessor's valuation, and it is the burden of the owner/taxpayer (the party seeking the abatement) to show the overvaluation or discrimination – that is, and assessment not in conformity with law

- "Deference [is] afforded to assessors and the methodology they employ in arriving at property values assigned for taxation purposes, the burden is upon the owner [...] not on the assessors or municipality to establish the correctness of the appraisal figures. Sweet v. City of Auburn, 134 Me. 28, 32, 33, 180 A. 803 (Me. 1935).

Frank v. Board of Assessors Skowhegan

Frank v. Board of Assessors Skowhegan

Frank v. Board of Assessors Skowhegan

Shawmut Inn v. Town of Kennebunk

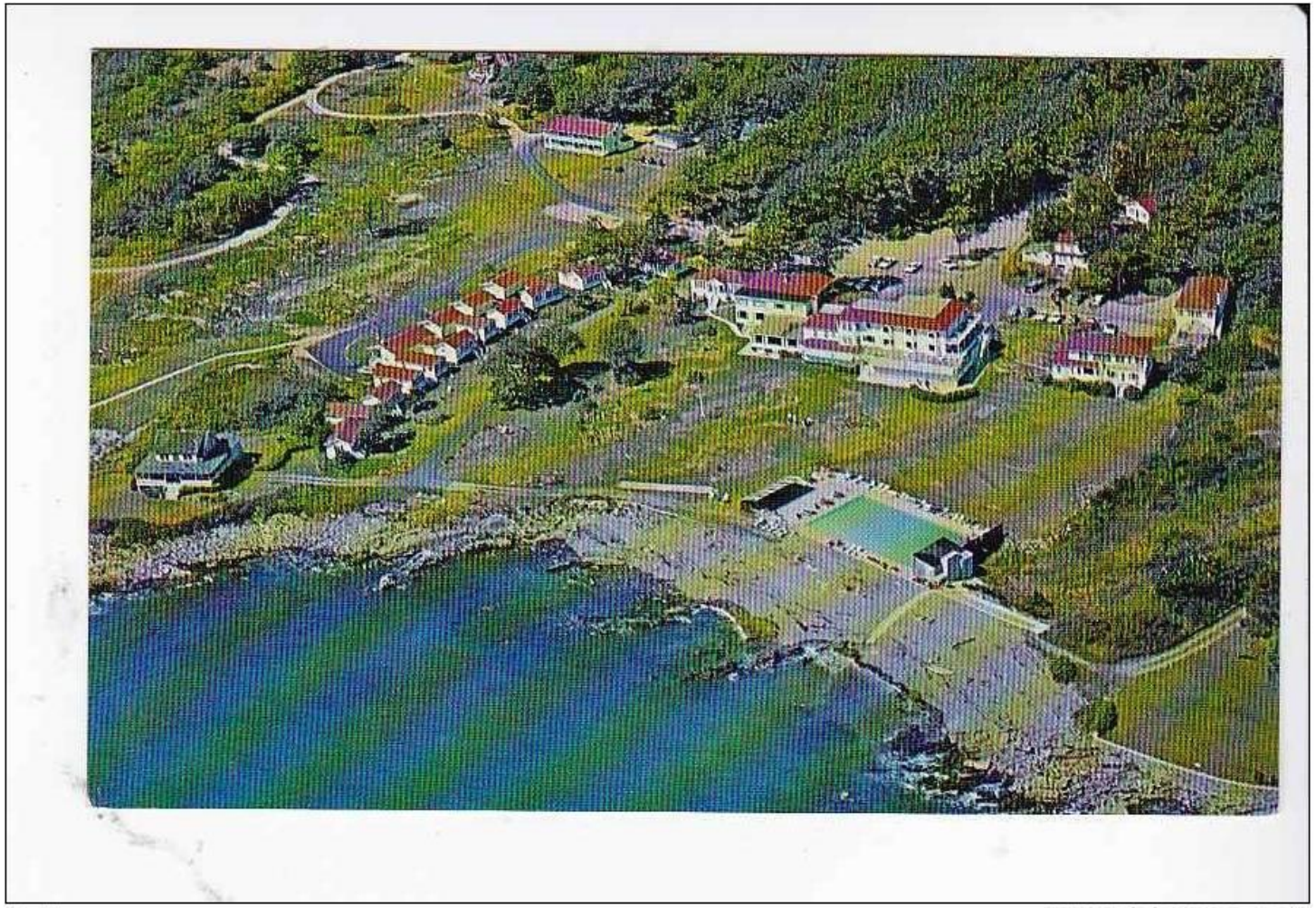
Shawmut Inn v. Inhabitants of The Town of Kennebunkport.
428 A.2d 384 (1981)

- The Legislature has established minimum assessing standards, but has not set forth the methods local Assessors may use. Assessors have considerable leeway or flexibility in choosing the method or combinations of methods to achieve just valuations.

- Assessors must keep themselves informed of the methods used by professionals they hire. State has undertaken to train Assessors and eliminate non expert valuations, so as to alleviate assessment inequality;

Shawmut Inn v. Town of Kennebunk

Shawmut Inn v. Town of Kennebunk



Shawmut Inn v. Town of Kennebunk

Shawmut Inn v. Town of Kennebunk

Shawmut Inn v. Town of Kennebunk

South Portland Associates v. City of South Portland

South Portland Associates v. City of South Portland
550 A.2d 363 (1988)

- Specifically rejected the "proposition that the use of the single 'cost' approach in valuing income-producing property will always be acceptable." ….Instead we declared "that where professional appraisers choose the 'cost' approach as a starting point for a general revaluation, they *should use other methods as checks* in testing the reasonableness of such values as may appear questionable. The process of 'correlation' can be particularly useful in valuing a commercial property….

- The Board must consider all relevant evidence, including the results obtained by applying an income approach to valuing the taxpayers' properties.

"As a reasonability test, correlation, validation"

City of South Portland v. South Portland Associates

"As a reasonability test, correlation, validation"

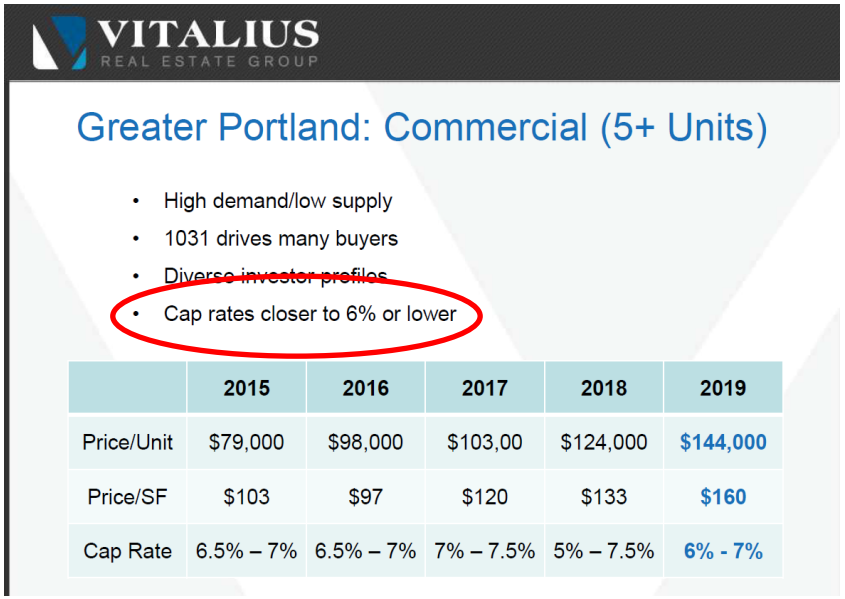
City of South Portland v. South Portland Associates

"As a reasonability test, correlation, validation"

Question 2- How Do You Get A Capitalization Rate (Cap Rate)? *

- Yield Capitalization (Discounted Cash Flow)
  (I think we're going to see some of this later today)
- Direct Capitalization
- Build Up Methods
- Published Sources (Merida Conference, for example)
- Korpacz; B.M.

- We'll take a crack at Band of Investment method



	2015	2016	2017	2018	2019
Price/Unit	$79,000	$98,000	$103,00	$124,000	$144,000
Price/SF	$103	$97	$120	$133	$160
Cap Rate	6.5% – 7%	6.5% – 7%	7% – 7.5%	5% – 7.5%	6% - 7%

(From the Merida Conference)

Remember our Example from Earlier?

Value = Income / Rate

Income:

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BAND OF INVESTMENT Method deals with two components of the buyers investment.

- The $120,000 down payment (the buyer's money)
  AND
- The $480,000 loan (the bank's money)

- Band 1 - The Investor expects to get their money back (the 120k) plus a 10% return

- Band 2 – Cost of the loan (principal and interest) is captured here.
  - To calculate this Cost, this method uses a "Mortgage Constant"

*** "I fear you more than any spectre I have seen."**

– Scrooge, upon encountering the 3rd Spirit in, "A Christmas Carol"

The next slide is going to calculate a number called the ***Mortgage Constant***. This seems to trip people up in trying understand this method.

It's just a calculated number that uses only the Interest rate of the loan and the number of years of the loan in 2 distinct Bands.

Basically, it's a way to measure the weight of the annual principal and interest payments against the total value of the loan.

See the formula below.

If we had more than an hour here, we'd spend A LOT more time on this :)

Mortgage Constant = (i/12)/(1-(1/(1+(i/12))^(n*12)))*12
where i is the interest rate and n is the years

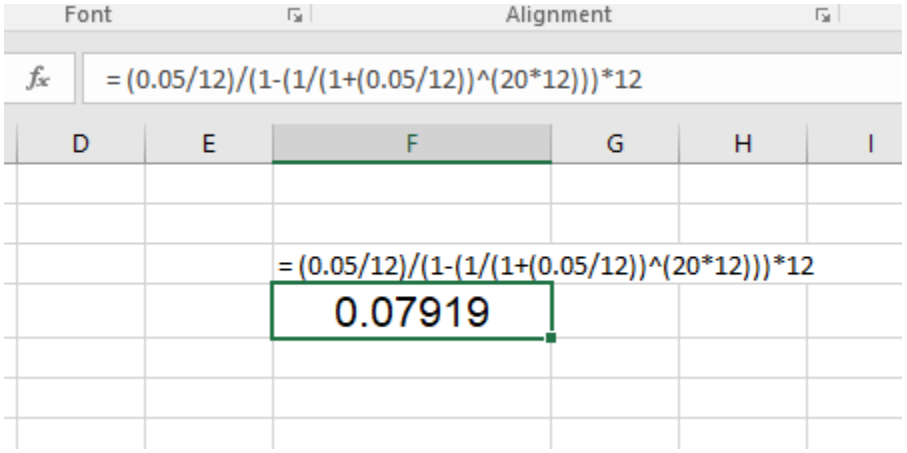
Mortgage Constant = (i/12)/(1-(1/(1+(i/12))^(n*12)))*12
where i is the interest rate and n is the years

Annual interest rate is 5%
20 Year loan

Plugging these numbers into the formula...to get

Mortgage Constant = (**.05**/12)/(1-(1/(1+(**.05**/12))^(**20***12)))*12
Mortgage Constant = 0.07919

Here it is in Excel…



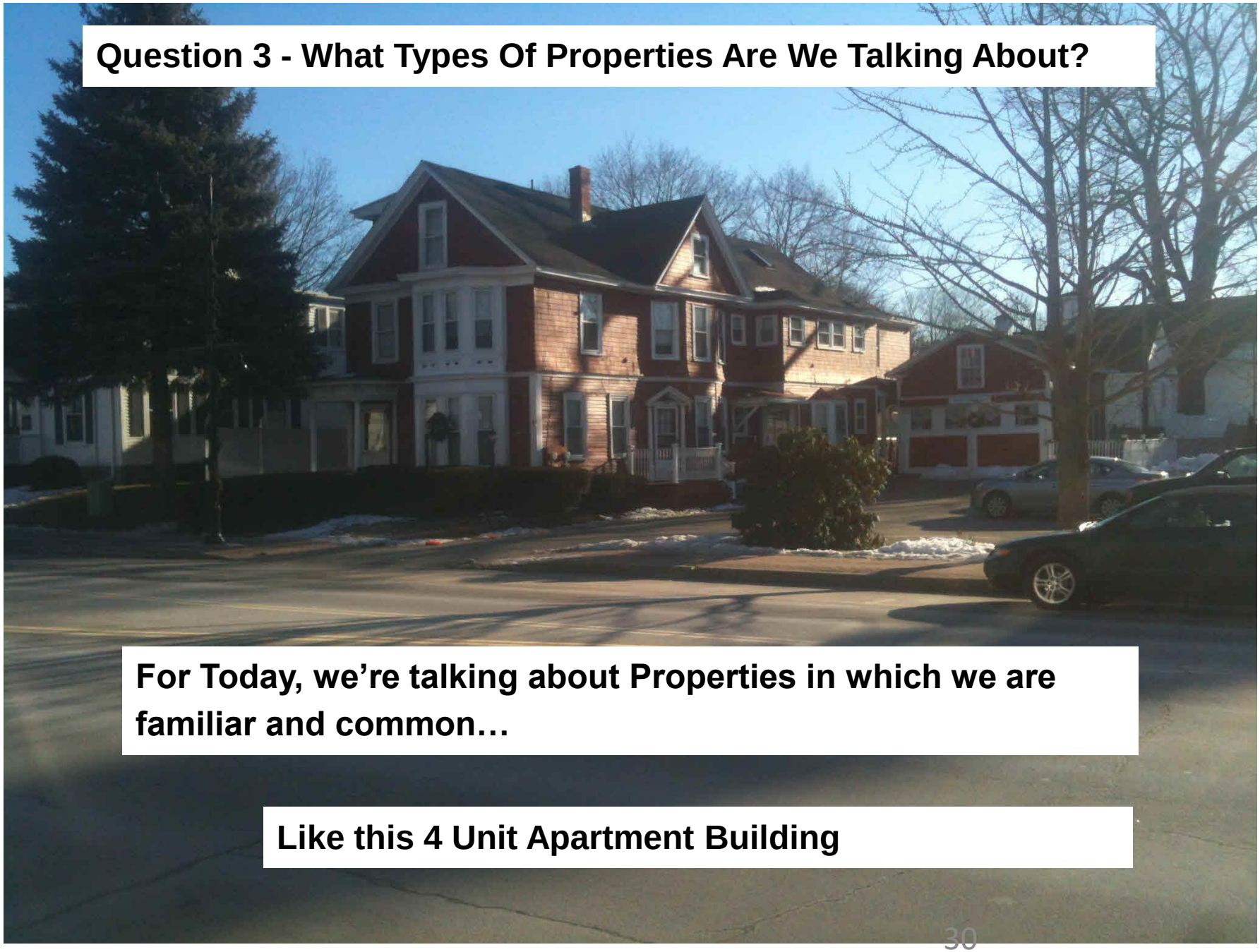
- Say a buyer is looking to buy the 4 Unit apartment building and places a down payment (DP) of **$120,000** on a **$600,000** sale price. (Will borrow $480,000)
- This DP equates to **20% percent** of the total purchase price (calculated by dividing $120,000 by $600,000).
- The remainder of the purchase price was financed by a new loan bearing a **5% interest rate**. The term of the loan is **20 years**.
- For their 20% Down Payment, the buyer expects a 10% return **on** their investment

A Band-of-Investment Method could derive a Cap Rate in the following way:

Down Payment (Equity Component)	20% X 10% OR	.02	The 20% is the DP percent, and the 10% is the buyer's expected return
	Plus		
Debt Component (Loan)	80% X .083% OR	.06336	

So the going in* Capitalization Rate in the Example is = (.02 + .06336) = .08336 (Say .083)

Question 3 - What Types Of Properties Are We Talking About?



For Today, we're talking about Properties in which we are familiar and common…

Like this 4 Unit Apartment Building

Usually We're talking about Properties in which we are familiar…

…or this 4 Unit Office Building.

Usually We're talking about Properties in which we are familiar…

…or this Light Industrial Distribution Building.

Single Family House

Probably not this type

Usually We're Talking About Properties That Are More Familiar To Us than these

What is Heavy Industry?

Mining

Shipbuilding

Pharmaceuticals

Chemicals

Injection Molding

Aircraft

Industry that is capital intensive but not labor intensive. It uses capital equipment and other heavy goods.

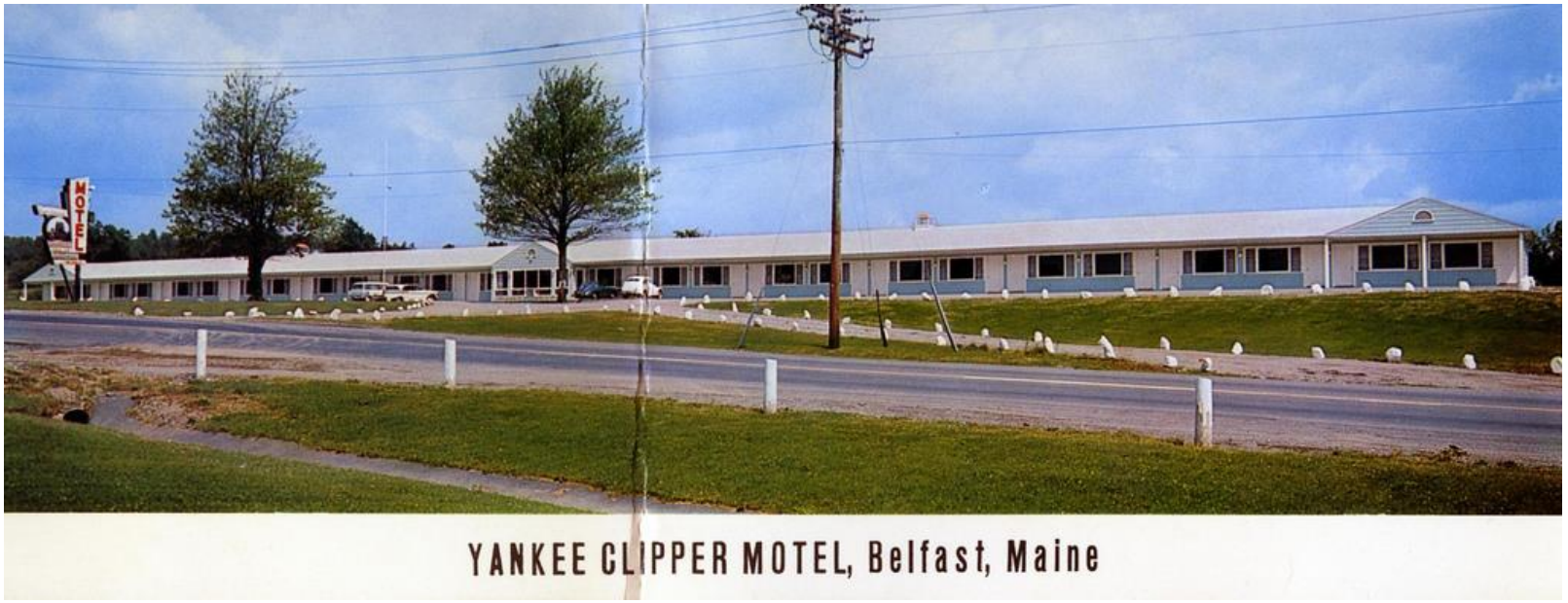
Other Examples…

Office Building with a Store Front

Other Examples… **Self-Storage**

Other Examples…

Hospitality



Hospitality properties have their own specialized form of Income Approach

Gravel Pit

Discounted Cash Flow would be an appropriate method to use to "Capitalize" this property's future revenue streams.

Solar Farms!

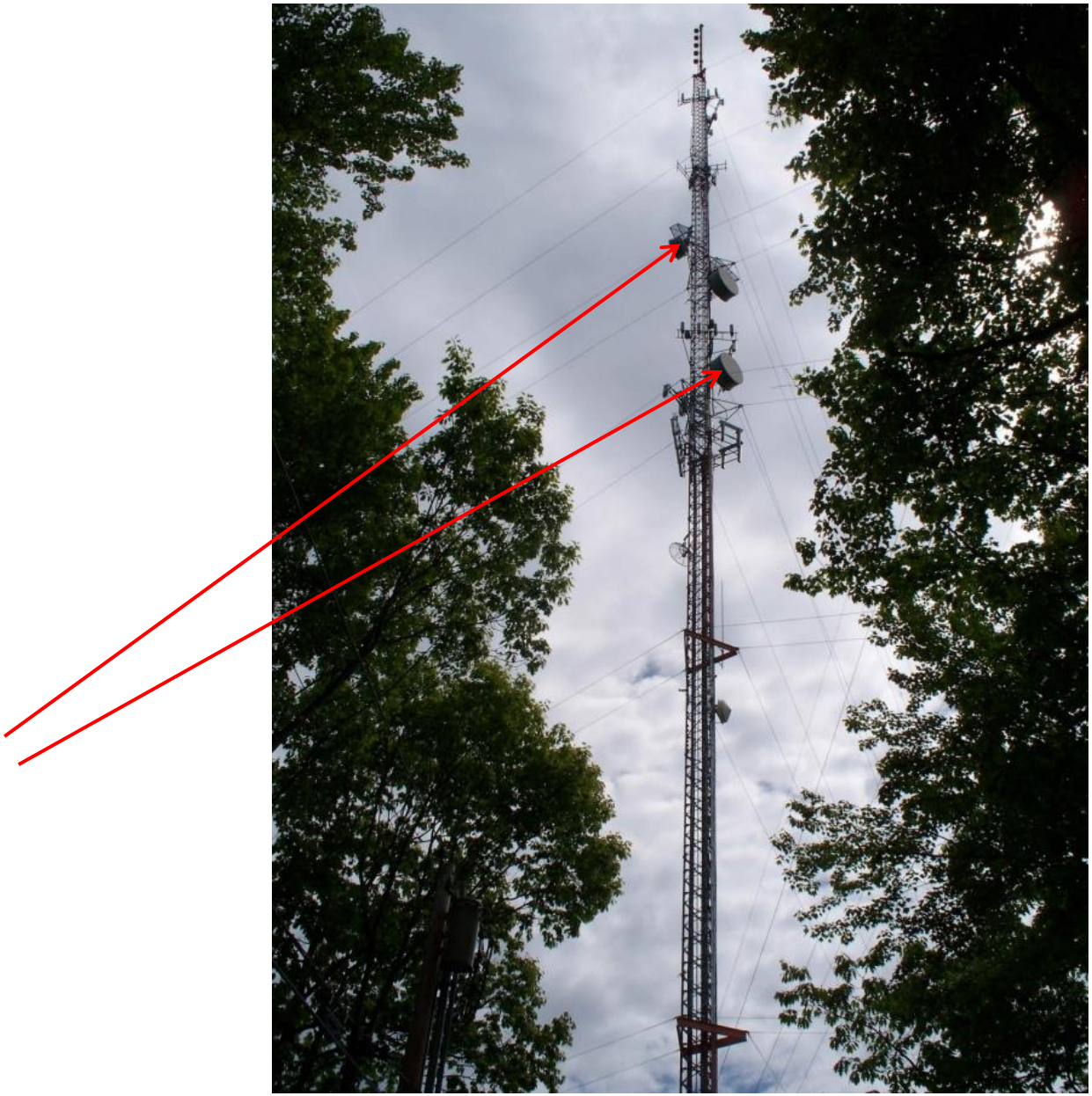
Discounted Cash Flow for this property as well

(I think we'll see more on these later today!)


How about Communication Towers?

Recently offered $800,000 to buy out the Two Cell Leases

(Annual Income Stream of $55,000)



We're talking about Income that's related to the Real Estate and **not Income related to the business in operation at the site***…*

Not concerned with the Income of the Convenience Store, but with the rental income its Landlord receives

We're talking about Income that's related to the Real Estate and **not Income related to the business in operation at the site***…*

Probably concerned with the income value of the available unmined gravel and not the operator's Income and Expenses.

Question 4 - What is the Income in the Income Approach? (<u>and</u> what isn't?)

Sample Income Statement

Potential Gross Income		
14 units @ $900 per month x 12 months		$151,200
Less: Vacancy/Collection Loss - 5%		(7,560)
Effective Gross Income		$143,640
Less **Operating Expenses**		
Property Taxes	(13,500)	
Lawn Care	(3,500)	
Supplies/Maintenance	(8,500)	
Remodeling (3 Units annually @ $2400)	(7,200)	
Common Lighting	(1,400)	
Water & Sewer	(4,600)	
Hazard Insurance	(7,100)	
Mngmt - 10% of EGI	(14,364)	
Reserves	(3,500)	
		(63,664)
Net Operating Income		$79,976
"Capitalized" @ 10 % = Indicated Value		
($79,976 / .10) =		$799,760
	R	**$799,800**

Question 4 - What is the Income in the Income Approach? (<u>and</u> what isn't?)

Revenue

Effective Gross Income =

Potential Gross Rent
Less: Vacancy and Collection Loss
Plus: Misc. Income

Examples:

Revenue Generated from Rent

- Revenue from Rent or Leases

Miscellaneous Income

- Laundry Machines
- Vending Machines

Value = Income / Rate

Operating Expenses:

- Maintenance
- Administrative
- Utilities
- Insurance
- Reserves for Replacement*
- (Property Tax**)

What Expenses Do Not Belong In The Analysis?

- Depreciation Expense
- Debt Service
- Income Tax
- Capital Improvements
- Owner's Business Expense

*Reserves for Replacement – a little controversial – Sellers tend to exclude / buyer tend to include
** We treat this differently

A Little More On the Band of Investment
Recall the "Non-Loaded" Capitalization Rate in our Example was = (.02 + .06336) = .083

In lieu of reporting Property Tax as an expense, it's appropriate to "load" the Cap Rate with the Tax Rate

*** **for a mil rate of $17.75**, load the cap rate this way **(.02 + .06336 + .01775) = .085** ***

In Conclusion…

Tying this Off with an Example

A Taxpayer presented the City with a fee appraisal to dispute assessment

Distribution Warehouse Example

Presented with a fee appraisal to dispute assessment

Conclusions

In summary, the subject neighborhood is an industrial park located on the west side of the City in close proximity to the interstate highway. The park has undergone continued expansion since its inception; there are currently three vacant sites available in the original park and ten sites available in expansion sections. There is currently a moderate amount (60,000± SF in four properties) of light industrial/distribution/office space for sale or lease in the park with asking rent rates ranging from $5.00 NNN to $6.95 NNN. The neighborhood is in a stabilization stage of its economic life cycle.

Distribution Warehouse Example

From Fee Appraisal						From Fee Appraisal	Adjusted				
		Market			Actual Rent	Annual	Statement				
Income	Type	Rent	Terms	Area (SF)	(If Applicable)	Income			Comparables From the Appraisal		
	Light Manufacturing	3.75		69,324.00		259,965.00	4.50	311,958.00	p67 appraisal		Weighted
									14,727	4.50	3.50
	Gross Potential Income:					259,965.00		311,958.00	15,000	4.00	3.17
									15,000	4.00	3.17
									15,052	5.00	3.98
	Less: Vacancy	2%				5,199.30	2%	6,239.16	17,500	5.00	4.63
									18,565	4.75	4.66
	Effective Gross Income:					**254,765.70**		**305,718.84**	36,540	4.50	8.69
Expenses									132,384	4.54	4.54
	Fixed Expenses								18,912		
	Insurance						3%	9,171.57			
	Ope										
	Man										
	Vaca										
	Rese										
	Cont										
	Tc										13.29%
Net Operating Income:						**235,025.69**		**265,094.98**			
Capitalization Rate						0.090		0.085			
Income Value						**2,611,396.57**		**3,118,764.42**			
						From Fee Appraisal		**Adjusted**			

Conclusions

In summary, the subject neighborhood is an industrial park located on the west side of the City of Saco in close proximity to the interstate highway. The park has undergone continued expansion since its inception; there are currently three vacant sites available in the original park and ten sites available in expansion sections. There is currently a moderate amount (60,000± SF in four properties) of light industrial/distribution/office space for sale or lease in the park with asking rent rates ranging from $5.00 NNN to $6.95 NNN. The neighborhood is in a stabilization stage of its economic life cycle.

From Fee Appraisal						From Fee Appraisal	Adjusted		As NNN			
		Market			Actual Rent	Annual	Statement					
Income	Type	Rent	Terms	Area (SF)	(If Applicable)	Income				Comparables From the Appraisal		
	Light Manufacturing	3.75		69,324.00		259,965.00	4.50	311,958.00	311,958.00	p67 appraisal		Weighted
		.								14,727	4.50	3.50
	Gross Potential Income:					259,965.00		311,958.00	311,958.00	15,000	4.00	3.17
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										18,565	4.75	4.66
	Effective Gross Income:					**254,765.70**		**305,718.84**	**305,718.84**	36,540	4.50	8.69
Expenses										132,384	4.54	4.54
	Fixed Expenses									18,912		
	Insurance						3%	9,171.57	9,171.57			
	Operating Expenses											
	Management	3.00%				7,642.97	7%	21,400.32	Exc.			
	Vacancy Expense	$1.85				2,564.99	Exc.		Exc.			
	Reserve for Replacement	$ 0.10				6,932.40	0.10	6,932.40				
	Contingiency	1.00%				2,599.65	1%	3,119.58	Exc.			
	Total Expenses:					**19,740.01**		**40,623.86**	**9,171.57**	13.29%		
Net Operating Income:						**235,025.69**		**265,094.98**	**296,547.27**			
Capitalization Rate						0.090		0.085	0.083			
Income Value						**2,611,396.57**		**3,118,764.42**	**3,572,858.73**			
						From Fee Appraisal		**Adjusted**	**NNN**			

Thank you!

Questions?

Direct Capitalization
Exercise II

Suppose we want to
Estimate the value of a
25 space parking lot
in Ourtown.

We have three sales and
We know the annual income
Of each of the three…

See Handout

Direct Capitalization
Exercise II

Direct Capitalization		
Parking Lot Example		
Price	**NOI (Net Operating Income - Annual)**	
312,500	25,000	8.00%
400,000	40,000	10.00%
200,000	18,500	9.25%
912,500		9.08%
		Average

First, with regard to valuation of the tax credits, the Board concludes that application of the discounted cash flow method of valuation reasonable and appropriate when determining the value of the credits, because what is being valued is a definite benefit over a time certain. The present value of the definite benefit over a time certain is best measured by application of a discount factor, as was done by both Mr. Taylor and also Mr. Plourde. Secondly, the Board finds Mr. Taylor's testimony that the depreciation benefit to Key Community Bank associated with the tax credits is not the type of depreciation associated with valuation of real property credible. Unlike the credits which are a dollar for dollar deduction off the tax liability of the owner of the property regardless of the owner's income level, the deprecation associated with the credits is related to the particular income level of the taxpayer against which depreciation is actually deducted. Consequently, this type of depreciation is not directly related to the real property, is more in the nature of an accounting function based on the individual owner's income and should not be considered a value influencing factor to the real property. Consistent with Mr. Taylor's reasoning, which the Board finds persuasive, Mr. Plourde did not consider depreciation a factor when applying the discounted cash flow method of valuation to the credits. Furthermore, the Board finds persuasive Mr. Taylor's testimony that any benefit to Key Community Development Corporation under the Federal Community Reinvestment Act, gained as a consequence of being awarded the credits, is a non-economic, non-quantifiable motivation factor, not directly related to the value of the real property. Indeed, neither Mr. Plourde nor Ms. Amidon considered this benefit in their analysis when valuing the credits. In Ex. #20 page 2 and 3 Mr. Plourde posed several conclusions of value of the remaining tax credits as of April 1, 2004 and April 1, 2005, respectively, based on different discount rates. The Board finds that application of the 9.75% discount rate reasonable and consistent with the capitalization rate Mr. Plourde employed in his income approach to his pro forma stabilized net income, exclusive of the tax credit benefit. Based on the foregoing, the Board concludes that $2, 065,934 and $1,601,125 for the tax years April 1, 2004 and April 1, 2005, respectively, is credible evidence of fair market value of the remaining tax credits.

Ellen M. Leach Memorial Home
v.
City of Brewer , 2006

"All relevant factors"

- **Restricted Rents**
- **Support Services Required**
- **LIHTC ("inextricably intertwined")**

- **Cost Approach "fails to consider the rent restrictions and the tax credits"**

- Discounted Cash Flow (**DCF**) "reasonable and appropriate when determining the value of the [Tax] Credits"

The elements used to calculate the capitalization or discount rate are as follows:

Risk-Free Rate	x
Equity Risk Premium	x
Size Premium	x
Specific-Company Risk Premium	x
Total	Discount Rate
Less: Sustainable Growth Rate	(x)
Equals	Capitalization Rate

A further description of the elements above is as follows. The Risk-Free Rate is often considered to be equal to the return on a 20 year U.S. Treasury Bond. The Equity Risk Premium is the additional rate of return an investor would expect to receive for investing

Risk-Free RatexEquity Risk PremiumxSize PremiumxSpecific-Company Risk Premiumx TotalDiscount RateLess: Sustainable Growth Rate(x)EqualsCapitalization Rate

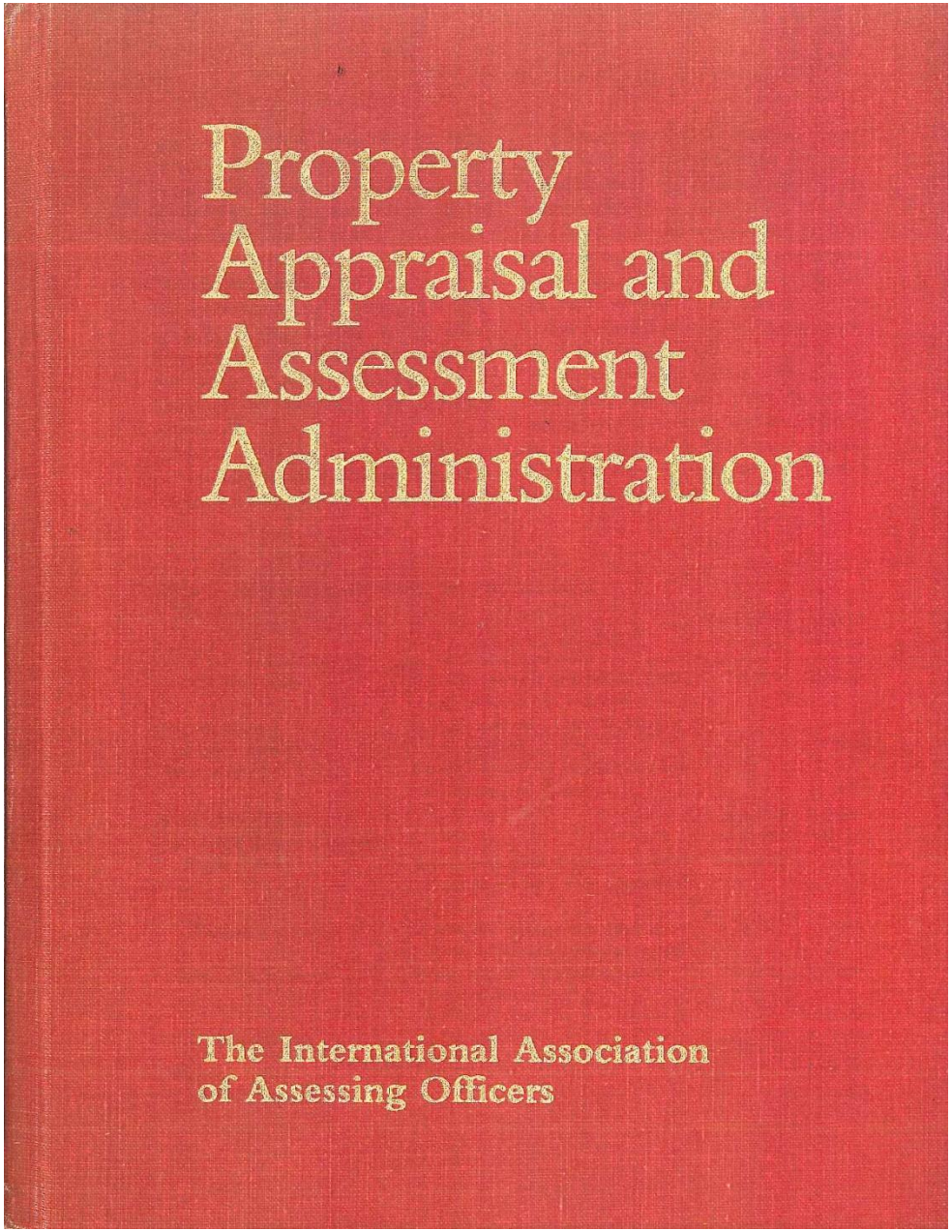
Property
Appraisal and
Assessment
Administration
The International Association
of Assessing Officers

Table 2. Reconstructed Owner's Income Statement

Account	Reason for adjustment	Owner's statement
Potential gross rent	Owner's statement is based on actual rent, which is below market.	85,000
Less vacancy and collection allowance	Owner's statement began with actual rent collected.	
Plus miscellaneous income	Owner's figures did not include $3,000 of laundry room income.	
Effective gross income		$85,000
Less current operating expenses		−31,000
Property taxes	For tax assessment purposes, property taxes are reflected in the capitalization rate.	−11,000
Mortgage payments	Interest and principal payments are financing costs, not operating expenses.	−24,000
Replacement reserve	Owner had no replacement reserve account.	none
Net operating income		$19,000
Difference		
Percentage difference		

Table 2. Reconstructed Owner's Income Statement

Account	Reason for adjustment	Owner's statement	Adjusted statement
Potential gross rent	Owner's statement is based on actual rent, which is below market.	85,000	$100,000
Less vacancy and collection allowance	Owner's statement began with actual rent collected.		−5,000
Plus miscellaneous income	Owner's figures did not include $3,000 of laundry room income.		+3,000
Effective gross income		$85,000	$ 98,000
Less current operating expenses		−31,000	−31,000
Property taxes	For tax assessment purposes, property taxes are reflected in the capitalization rate.	−11,000	N/A
Mortgage payments	Interest and principal payments are financing costs, not operating expenses.	−24,000	N/A
Replacement reserve	Owner had no replacement reserve account.	none	−2,000
Net operating income		$19,000	$ 65,000
Difference			$ 46,000
Percentage difference			70.7 percent

Distribution Warehouse Example

Uses along the interior of the park (Spring Hill Road) are primarily industrial in nature and become more mixed commercial uses closer to US Route 1. There is a bowling alley and car dealership at the intersection of US Route 1 and Spring Hill Road and also KOA Campground near this intersection.

Neighborhood Life Cycle

The dynamic quality of this neighborhood relative to the typical life cycle of a neighborhood was also considered. This life cycle is said to comprise four stages, identified as follows:

Life Cycle	Market Trends
Growth:	*A period during which the neighborhood gains public favor and acceptance*
Stability:	*A period of equilibrium without marked gains or losses*
Decline:	*A period of diminishing demand*
Revitalization:	*A period of renewal, modernization, and increasing demand*

Given the overall average condition of neighboring properties, it is my opinion that the subject's neighborhood is currently operating in a period of stability.

Conclusions

In summary, the subject neighborhood is an industrial park located on the west side of the City of Saco in close proximity to the interstate highway. The park has undergone continued expansion since its inception; there are currently three vacant sites available in the original park and ten sites available in expansion sections. There is currently a moderate amount (60,000± SF in four properties) of light industrial/distribution/office space for sale or lease in the park with asking rent rates ranging from $5.00 NNN to $6.95 NNN. The neighborhood is in a stabilization stage of its economic life cycle.