



REAL ESTATE FINANCE AND INVESTMENTS

RISKS AND OPPORTUNITIES

Chapter 5

Property-Level Pro Forma Analysis

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Types of Analysis

- Lease by lease analysis
- Line item analysis

Total Rental Income

- Gross Potential Rental revenue (GPR)
- Vacancy
- Net Base Rental Revenue
- Percentage Rents
 - Breakpoint

Figure 5.1

Kathy Center Gross Potential Rental Revenue Calculation	
Total Leasable Square Feet	300,000
Average Annual Base Rent PSF	\$15.00
Gross Potential Rental Revenue	\$4,500,000

Figure 5.2

Kathy Center Cash Flow Statement					
	Year 1	Year 2	Year 3	Year 4	Year 5
OPERATING INCOME					
<i>Rental Income:</i>					
Gross Potential Rental Revenue	4,500,000	4,590,000	4,816,287	4,924,653	4,957,649

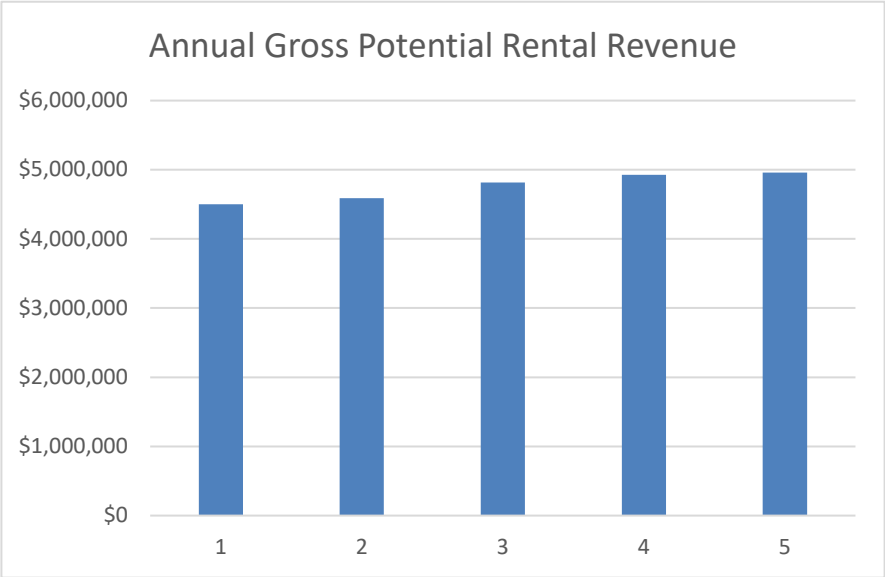


Figure 5.3

Kathy Center Cash Flow Statement					
	Year 1	Year 2	Year 3	Year 4	Year 5
OPERATING INCOME					
<i>Rental Income:</i>					
Gross Potential Rental Revenue	4,500,000	4,590,000	4,816,287	4,924,653	4,957,649
Vacancy	0	(45,900)	(72,244)	(98,493)	(148,729)
Net Base Rental Revenue	4,500,000	4,544,100	4,744,043	4,826,160	4,808,919

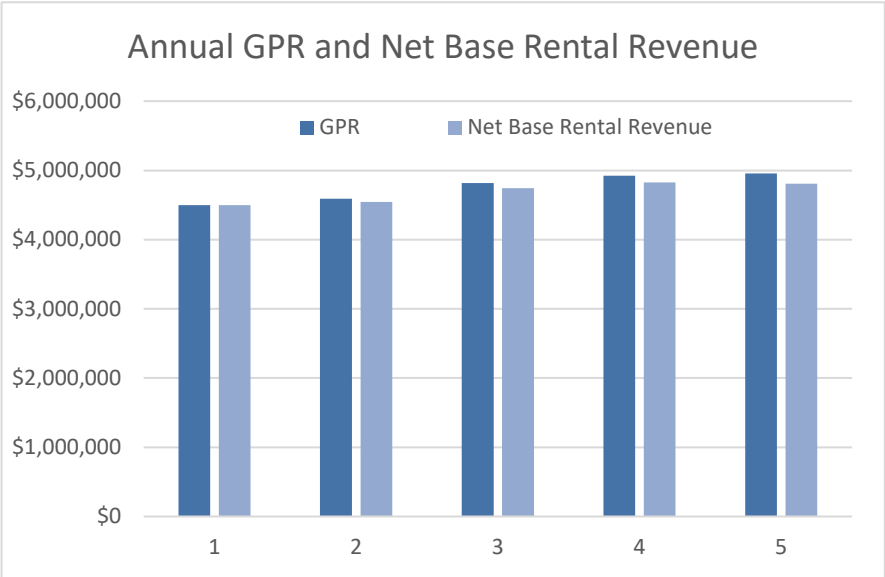
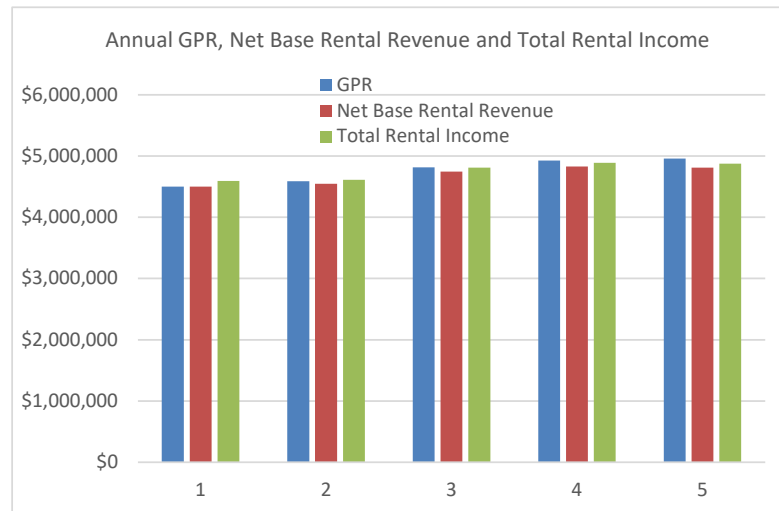


Figure 5.4

Kathy Center Cash Flow Statement					
	Year 1	Year 2	Year 3	Year 4	Year 5
OPERATING INCOME					
<i>Rental Income:</i>					
Gross Potential Rental Revenue	4,500,000	4,590,000	4,816,287	4,924,653	4,957,649
Vacancy	0	(45,900)	(72,244)	(98,493)	(148,729)
Net Base Rental Revenue	4,500,000	4,544,100	4,744,043	4,826,160	4,808,919
Percentage Rents	93,305	66,209	66,925	64,003	65,425
Total Rental Income	4,593,305	4,610,309	4,810,968	4,890,163	4,874,344



Expense Reimbursements

- CAM billings
- Property Tax billings

Figure 5.5

Kathy Center Cash Flow Statement					
	Year 1	Year 2	Year 3	Year 4	Year 5
OPERATING INCOME					
<i>Rental Income:</i>					
Gross Potential Rental Revenue	4,500,000	4,590,000	4,816,287	4,924,653	4,957,649
Vacancy	0	(45,900)	(72,244)	(98,493)	(148,729)
Net Base Rental Revenue	4,500,000	4,544,100	4,744,043	4,826,160	4,808,919
Percentage Rents	93,305	66,209	66,925	64,003	65,425
Total Rental Income	4,593,305	4,610,309	4,810,968	4,890,163	4,874,344
<i>Expense Reimbursements:</i>					
CAM Billings	445,368	440,267	420,196	415,895	376,894
Property Tax Billings	390,428	370,123	351,126	346,681	330,128

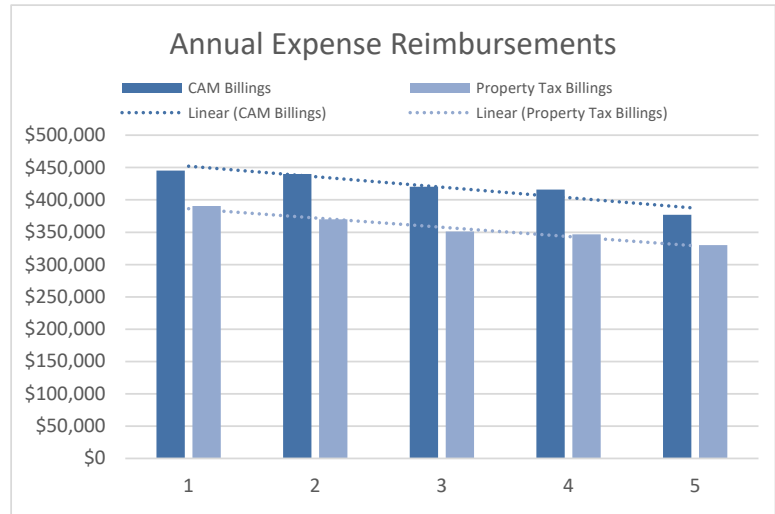
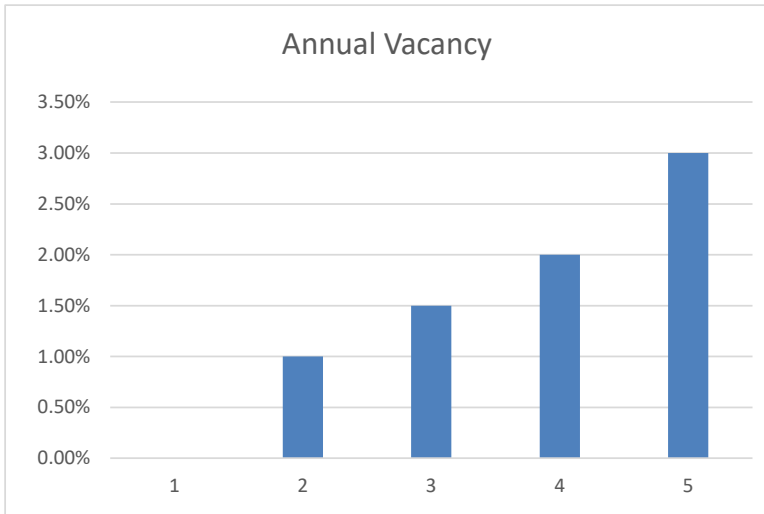
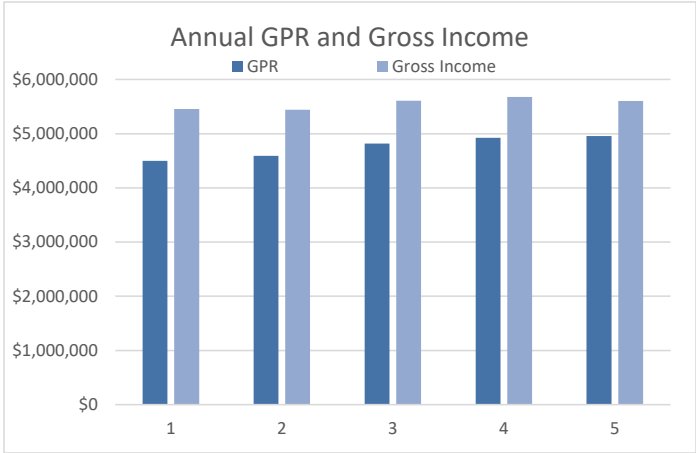


Figure 5.6

Kathy Center Cash Flow Statement					
	Year 1	Year 2	Year 3	Year 4	Year 5
OPERATING INCOME					
<i>Rental Income:</i>					
Gross Potential Rental Revenue	4,500,000	4,590,000	4,816,287	4,924,653	4,957,649
Vacancy	0	(45,900)	(72,244)	(98,493)	(148,729)
Net Base Rental Revenue	4,500,000	4,544,100	4,744,043	4,826,160	4,808,919
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Total Rental Income	4,593,305	4,610,309	4,810,968	4,890,163	4,874,344
<i>Expense Reimbursements:</i>					
CAM Billings	445,368	440,267	420,196	415,895	376,894
Property Tax Billings	390,428	370,123	351,126	346,681	330,128
Ancillary Income	24,580	23,251	24,654	23,125	24,188
Gross Income	5,453,681	5,443,950	5,606,944	5,675,864	5,605,554

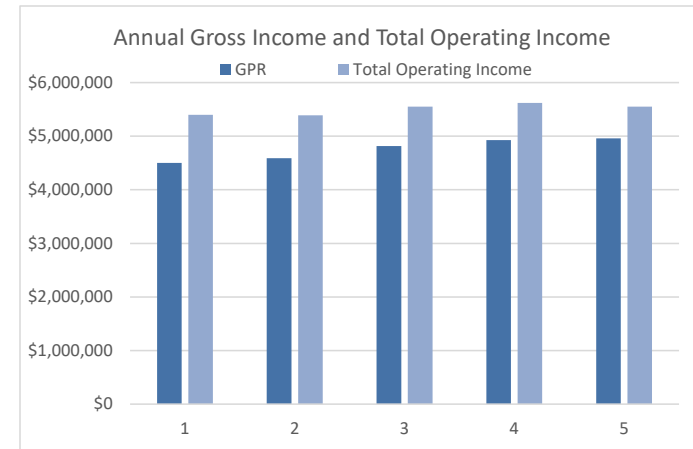


Total Operating Income

- Total Rental Income
- Expense Reimbursements
- Ancillary / Other Income
- Credit Loss / Bad Debt

Figure 5.7

Kathy Center Cash Flow Statement					
	Year 1	Year 2	Year 3	Year 4	Year 5
OPERATING INCOME					
<i>Rental Income:</i>					
Gross Potential Rental Revenue	4,500,000	4,590,000	4,816,287	4,924,653	4,957,649
Vacancy	0	(45,900)	(72,244)	(98,493)	(148,729)
Net Base Rental Revenue	4,500,000	4,544,100	4,744,043	4,826,160	4,808,919
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<i>Expense Reimbursements:</i>					
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Ancillary Income	24,580	23,251	24,654	23,125	24,188
Gross Income	5,453,681	5,443,950	5,606,944	5,675,864	5,605,554
Credit Loss	(54,537)	(54,440)	(56,069)	(56,759)	(56,056)
Total Operating Income	5,399,144	5,389,511	5,550,874	5,619,106	5,549,499



Total Operating Expenses

- Reimbursable Expenses
 - Common Area Maintenance
 - Property Taxes
- Non-Reimbursable Expenses
 - Insurance
 - Utilities
 - Management

Figure 5.8

Kathy Center Cash Flow Statement					
	Year 1	Year 2	Year 3	Year 4	Year 5
OPERATING INCOME					
<i>Rental Income:</i>					
Gross Potential Rental Revenue	4,500,000	4,590,000	4,816,287	4,924,653	4,957,649
Vacancy	0	(45,900)	(72,244)	(98,493)	(148,729)
Net Base Rental Revenue	4,500,000	4,544,100	4,744,043	4,826,160	4,808,919
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Total Rental Income	4,593,305	4,610,309	4,810,968	4,890,163	4,874,344
<i>Expense Reimbursements:</i>					
CAM Billings	445,368	440,267	420,196	415,895	376,894
Property Tax Billings	390,428	370,123	351,126	346,681	330,128
Ancillary Income	24,580	23,251	24,654	23,125	24,188
Gross Income	5,453,681	5,443,950	5,606,944	5,675,864	5,605,554
Credit Loss	(54,537)	(54,440)	(56,069)	(56,759)	(56,056)
Total Operating Income	5,399,144	5,389,511	5,550,874	5,619,106	5,549,499
OPERATING EXPENSES					
<i>Reimbursable Expenses:</i>					
Common Area Maintenance	(445,368)	(463,183)	(481,710)	(500,978)	(521,018)
Property Taxes	(390,428)	(406,045)	(422,287)	(439,178)	(456,746)

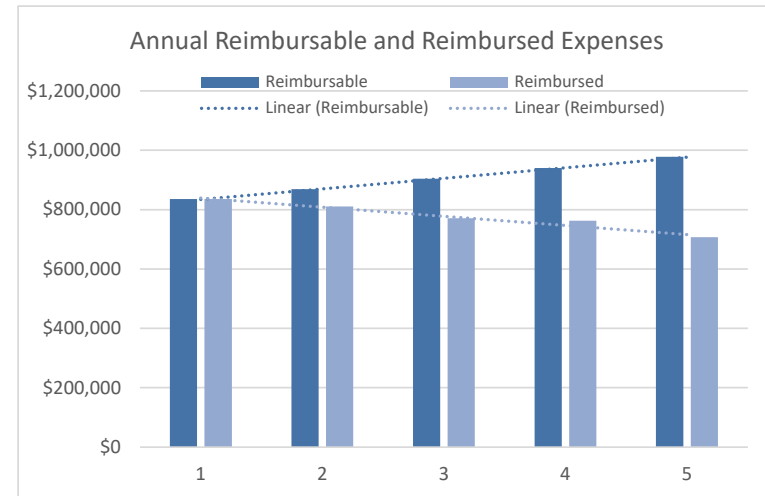
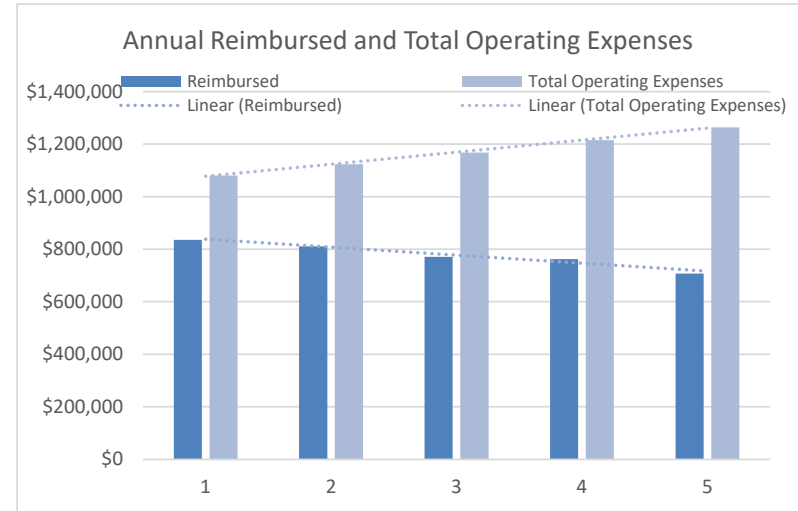


Figure 5.9

Kathy Center Cash Flow Statement					
	Year 1	Year 2	Year 3	Year 4	Year 5
OPERATING INCOME					
<i>Rental Income:</i>					
Gross Potential Rental Revenue	4,500,000	4,590,000	4,816,287	4,924,653	4,957,649
Vacancy	0	(45,900)	(72,244)	(98,493)	(148,729)
Net Base Rental Revenue	4,500,000	4,544,100	4,744,043	4,826,160	4,808,919
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Total Rental Income	4,593,305	4,610,309	4,810,968	4,890,163	4,874,344
<i>Expense Reimbursements:</i>					
CAM Billings	445,368	440,267	420,196	415,895	376,894
Property Tax Billings	390,428	370,123	351,126	346,681	330,128
Ancillary Income	24,580	23,251	24,654	23,125	24,188
Gross Income	5,453,681	5,443,950	5,606,944	5,675,864	5,605,554
Credit Loss	(54,537)	(54,440)	(56,069)	(56,759)	(56,056)
Total Operating Income	5,399,144	5,389,511	5,550,874	5,619,106	5,549,499
OPERATING EXPENSES					
<i>Reimbursable Expenses:</i>					
Common Area Maintenance	(445,368)	(463,183)	(481,710)	(500,978)	(521,018)
Property Taxes	(390,428)	(406,045)	(422,287)	(439,178)	(456,746)
<i>Non-Reimbursable Expenses:</i>					
Insurance	(55,548)	(57,734)	(60,017)	(62,389)	(64,855)
Utilities	(105,114)	(109,355)	(113,755)	(118,334)	(123,097)
Management	(83,580)	(86,923)	(90,400)	(94,016)	(97,776)
Total Operating Expenses	(1,080,038)	(1,123,240)	(1,168,169)	(1,214,896)	(1,263,491)

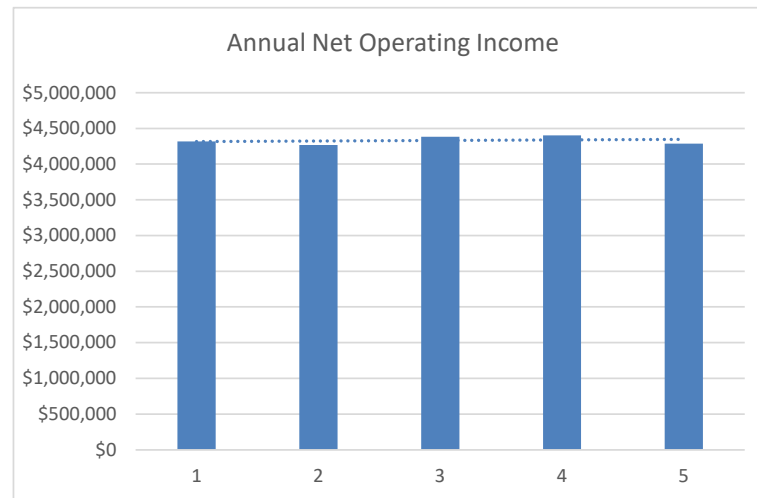


Net Operating Income (NOI)

- Total Operating Income
- Total Operating Expenses

Figure 5.10

Kathy Center Cash Flow Statement					
	Year 1	Year 2	Year 3	Year 4	Year 5
OPERATING INCOME					
Total Operating Income	5,399,144	5,389,511	5,550,874	5,619,106	5,549,499
OPERATING EXPENSES					
Total Operating Expenses	(1,080,038)	(1,123,240)	(1,168,169)	(1,214,896)	(1,263,491)
Net Operating Income (NOI)	4,319,107	4,266,271	4,382,706	4,404,210	4,286,007

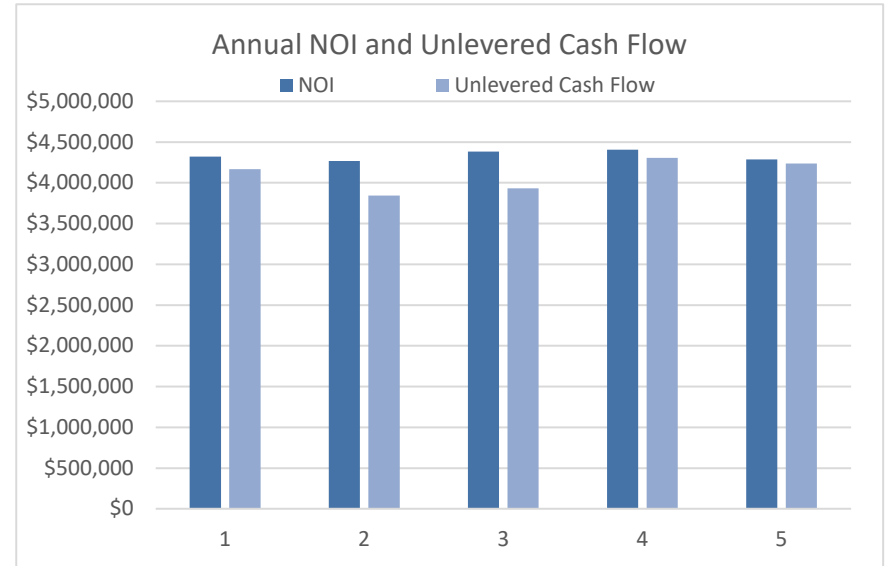


Capital and Leasing Costs

- Tenant Improvements (TIs)
- Leasing Commissions (LCs)
- Capital Expenditures
 - Reserves

Figure 5.11

Kathy Center Cash Flow Statement					
	Year 1	Year 2	Year 3	Year 4	Year 5
OPERATING INCOME					
<i>Rental Income:</i>					
Gross Potential Rental Revenue	4,500,000	4,590,000	4,816,287	4,924,653	4,957,649
Vacancy	0	(45,900)	(72,244)	(98,493)	(148,729)
Net Base Rental Revenue	4,500,000	4,544,100	4,744,043	4,826,160	4,808,919
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Total Rental Income	4,593,305	4,610,309	4,810,968	4,890,163	4,874,344
<i>Expense Reimbursements:</i>					
CAM Billings	445,368	440,267	420,196	415,895	376,894
Property Tax Billings	390,428	370,123	351,126	346,681	330,128
Ancillary Income	24,580	23,251	24,654	23,125	24,188
Gross Income	5,453,681	5,443,950	5,606,944	5,675,864	5,605,554
Credit Loss	(54,537)	(54,440)	(56,069)	(56,759)	(56,056)
Total Operating Income	5,399,144	5,389,511	5,550,874	5,619,106	5,549,499
OPERATING EXPENSES					
<i>Reimbursable Expenses:</i>					
Common Area Maintenance	(445,368)	(463,183)	(481,710)	(500,978)	(521,018)
Property Taxes	(390,428)	(406,045)	(422,287)	(439,178)	(456,746)
<i>Non-Reimbursable Expenses:</i>					
Insurance	(55,548)	(57,734)	(60,017)	(62,389)	(64,855)
Utilities	(105,114)	(109,355)	(113,755)	(118,334)	(123,097)
Management	(83,580)	(86,923)	(90,400)	(94,016)	(97,776)
Total Operating Expenses	(1,080,038)	(1,123,240)	(1,168,169)	(1,214,896)	(1,263,491)
Net Operating Income (NOI)	4,319,107	4,266,271	4,382,706	4,404,210	4,286,007
CAPITAL & LEASING COSTS					
Tenant Improvements	(36,200)	(57,629)	(152,145)	(46,696)	(18,629)
Leasing Commissions	(12,200)	(41,722)	(107,561)	(25,567)	(18,760)
Capital Expenditures	(103,400)	(323,565)	(190,919)	(24,947)	(10,975)
Unlevered Cash Flow	4,167,307	3,843,355	3,932,081	4,307,000	4,237,643



Depreciation vs. Cap Ex

- Actual vs. tax accounting
- After-Tax Cash Flow
- Reserves vs. actual expenditures
- Depreciable basis
 - Land vs. structure
- Expensing vs. capitalizing

Figure 5.12

Kathy Center Purchase Depreciation Schedule					
Purchase Information					
Purchase Price	\$48,500,000				
Depreciation Allocation Totals:					
Land (20%)	\$9,700,000				
Structure (50%)	\$24,250,000				
7-year items (20%)	\$9,700,000				
3-year items (10%)	\$4,850,000				
	Year 1	Year 2	Year 3	Year 4	Year 5
Land	0	0	0	0	0
Structure	621,795	621,795	621,795	621,795	621,795
7-year items	1,385,714	1,385,714	1,385,714	1,385,714	1,385,714
3-year items	1,616,667	1,616,667	1,616,667	0	0
Depreciation from Purchase	\$3,624,176	\$3,624,176	\$3,624,176	\$2,007,509	\$2,007,509

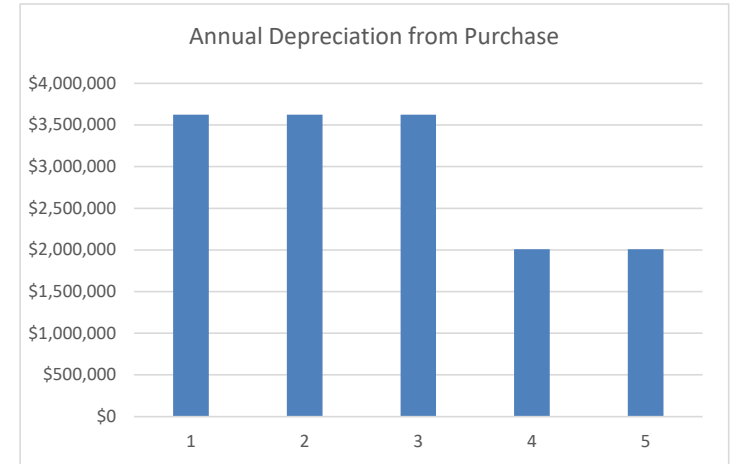


Figure 5.13

Kathy Center TIs and Cap Ex Depreciation Schedule					
	Year 1	Year 2	Year 3	Year 4	Year 5
Total TIs	18,100	31,831	83,892	43,846	33,704
Cap Ex	14,771	60,995	88,269	91,833	93,401
Depreciation from TIs and Cap Ex	\$32,871	\$92,826	\$172,161	\$135,679	\$127,105

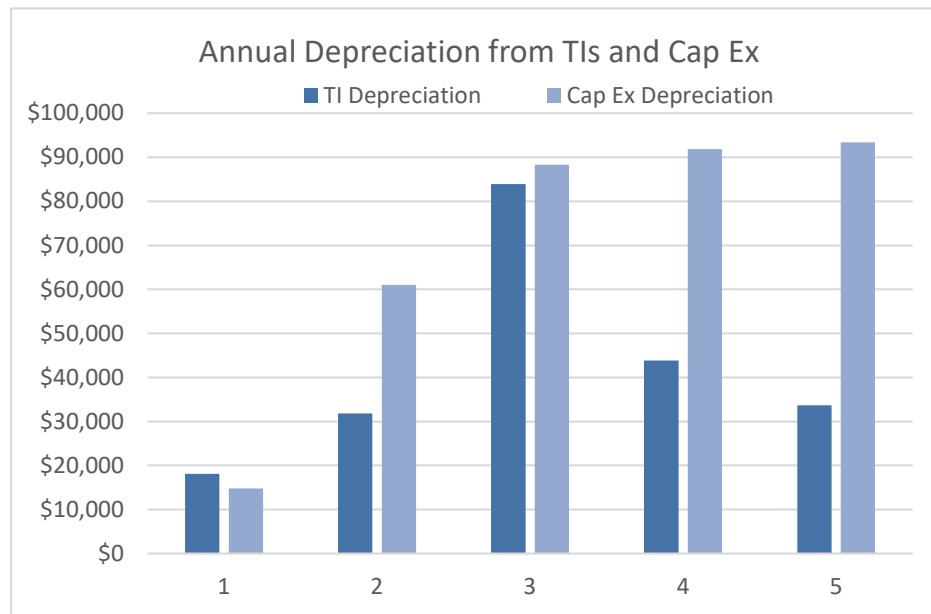


Figure 5.14

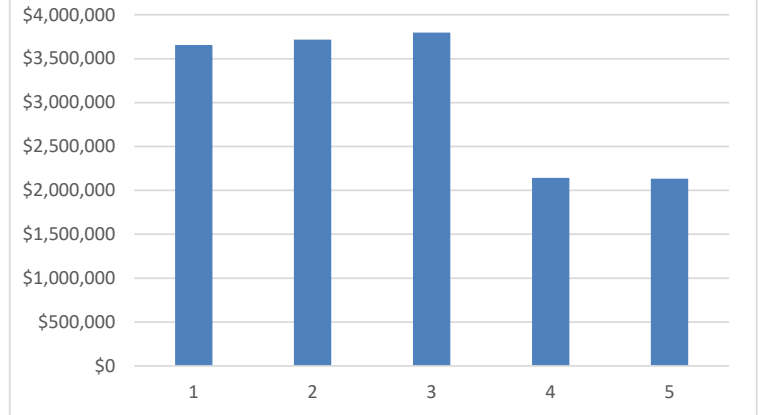
Kathy Center Total Depreciation

Purchase Information

Purchase Price	\$48,500,000
Percentage allocations	
Land (20%)	\$9,700,000
Structure (50%)	\$24,250,000
7-year items (20%)	\$9,700,000
3-year items (10%)	\$4,850,000

	Year 1	Year 2	Year 3	Year 4	Year 5
Land	0	0	0	0	0
Structure	621,795	621,795	621,795	621,795	621,795
7-year items	1,385,714	1,385,714	1,385,714	1,385,714	1,385,714
3-year items	1,616,667	1,616,667	1,616,667	0	0
Depreciation from Purchase	3,624,176	3,624,176	3,624,176	2,007,509	2,007,509
Total from TIs	18,100	31,831	83,892	43,846	33,704
Total from Cap Ex	14,771	60,995	88,269	91,833	93,401
Total Depreciation	\$3,657,047	\$3,717,002	\$3,796,337	\$2,143,188	\$2,134,614

Annual Total Depreciation

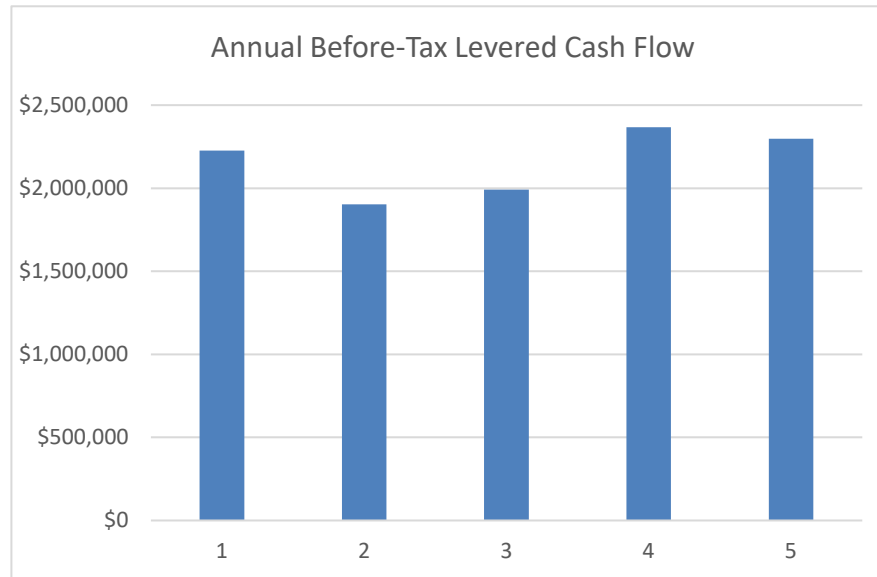


Unlevered Cash Flow

- Pre-Tax
 - Total Operating Income
 - Total Operating Expenses
 - Capital & Leasing Costs

Figure 5.15

Kathy Center Before-Tax Levered Cash Flow					
	Year 1	Year 2	Year 3	Year 4	Year 5
Unlevered Cash Flow	4,167,307	3,843,355	3,932,081	4,307,000	4,237,643
Debt Service	(1,940,000)	(1,940,000)	(1,940,000)	(1,940,000)	(1,940,000)
Before-Tax Levered Cash Flow	\$2,227,307	\$1,903,355	\$1,992,081	\$2,367,000	\$2,297,643



Leverage

- Loan-to-Value (LTV)
- Loan Points
- Amortization
- Debt Service
 - Interest Payments
 - Principal Payments
- Balloon Payment

Levered Cash Flow

- Pre-Tax
 - Total Operating Income
 - Total Operating Expenses
 - Capital & Leasing Costs
 - Debt Costs

After-Tax Equity Cash Flow

- Before-Tax Cash Flow
 - Unlevered Cash Flows less Interest Payments
- Adjustments → Taxable Income → Tax Liability
 - Depreciation, TIs, Cap Ex, Amortization
- Add-Backs

Figure 5.16

Kathy Center Taxable Income Calculation Part 2a					
	Year 1	Year 2	Year 3	Year 4	Year 5
Before-Tax Levered Cash Flow	\$2,227,307	\$1,903,355	\$1,992,081	\$2,367,000	\$2,297,643
Adjustments:					
Less: Depreciation (Purchase Price)	(3,624,176)	(3,624,176)	(3,624,176)	(2,007,509)	(2,007,509)
Less: Depreciation (TIs)	(18,100)	(31,831)	(83,892)	(43,846)	(33,704)
Less: Depreciation (Cap Ex)	(14,771)	(60,995)	(88,269)	(91,833)	(93,401)
Plus: TIs	36,200	57,629	152,145	46,696	18,629
Plus: Leasing Commissions	12,200	41,722	107,561	25,567	18,760
Plus: Cap Ex	103,400	323,565	190,919	24,947	10,975
Plus: Principal Amortization	0	0	0	0	0

Figure 5.17

Kathy Center Taxable Income Calculation Part 2b						
	Total	Year 1	Year 2	Year 3	Year 4	Year 5
Before-Tax Levered Cash Flow	\$10,787,386	\$2,227,307	\$1,903,355	\$1,992,081	\$2,367,000	\$2,297,643
Adjustments:						
Less: Depreciation (Purchase Price)	(\$14,887,546)	(3,624,176)	(3,624,176)	(3,624,176)	(2,007,509)	(2,007,509)
Less: Depreciation (TIs)	(\$211,372)	(18,100)	(31,831)	(83,892)	(43,846)	(33,704)
Less: Depreciation (Cap Ex)	(\$349,269)	(14,771)	(60,995)	(88,269)	(91,833)	(93,401)
Plus: TIs	\$311,299	36,200	57,629	152,145	46,696	18,629
Plus: Leasing Commissions	\$205,810	12,200	41,722	107,561	25,567	18,760
Plus: Cap Ex	\$653,806	103,400	323,565	190,919	24,947	10,975
Plus: Principal Amortization	\$0	0	0	0	0	0
Less: Leasing Commissions Amortization	(\$205,810)	(1,743)	(7,703)	(23,069)	(26,721)	(146,574)
Less: Loan Points Amortization	(\$194,000)	(27,714)	(27,714)	(27,714)	(27,714)	(83,143)

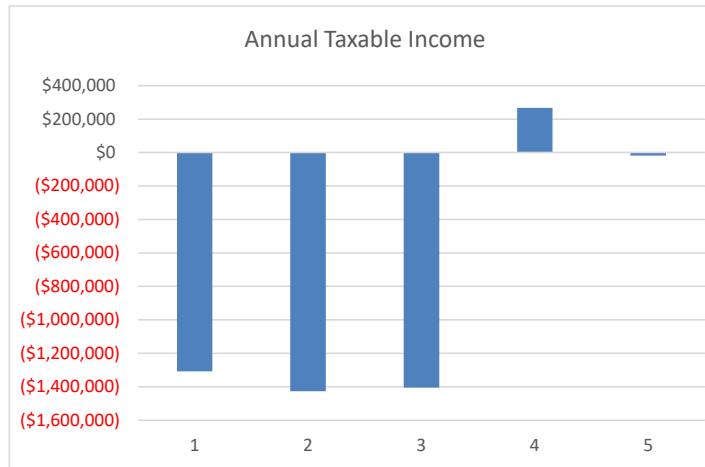


Figure 5.18

Kathy Center After-Tax Cash Flow						
	Total	Year 1	Year 2	Year 3	Year 4	Year 5
Before-Tax Levered Cash Flow	\$10,787,386	\$2,227,307	\$1,903,355	\$1,992,081	\$2,367,000	\$2,297,643
Adjustments:						
Less: Depreciation (Purchase Price)	(\$14,887,546)	(3,624,176)	(3,624,176)	(3,624,176)	(2,007,509)	(2,007,509)
Less: Depreciation (TIs)	(\$211,372)	(18,100)	(31,831)	(83,892)	(43,846)	(33,704)
Less: Depreciation (Cap Ex)	(\$349,269)	(14,771)	(60,995)	(88,269)	(91,833)	(93,401)
Less: Leasing Commissions Amortization	(\$205,810)	(1,743)	(7,703)	(23,069)	(26,721)	(146,574)
Less: Loan Points Amortization	(\$194,000)	(27,714)	(27,714)	(27,714)	(27,714)	(83,143)
Plus: TIs	\$311,299	36,200	57,629	152,145	46,696	18,629
Plus: Leasing Commissions	\$205,810	12,200	41,722	107,561	25,567	18,760
Plus: Cap Ex	\$653,806	103,400	323,565	190,919	24,947	10,975
Plus: Principal Amortization	\$0	0	0	0	0	0
Taxable Income (Loss)	(\$3,889,697)	(1,307,398)	(1,426,149)	(1,404,414)	266,587	(18,323)
Less: Application of Suspended Losses	(\$4,137,961)	0	0	0	(266,587)	(3,871,374)
Net Taxable Income (Loss)	(\$8,027,658)	(1,307,398)	(1,426,149)	(1,404,414)	0	(3,889,697)
Less: Income Tax Liability *	\$0	0	0	0	0	0
Plus: Depreciation (Purchase Price)	\$14,887,546	3,624,176	3,624,176	3,624,176	2,007,509	2,007,509
Plus: Depreciation (TIs)	\$211,372	18,100	31,831	83,892	43,846	33,704
Plus: Depreciation (Cap Ex)	\$349,269	14,771	60,995	88,269	91,833	93,401
Plus: Leasing Commissions Amortization	\$205,810	1,743	7,703	23,069	26,721	146,574
Plus: Loan Points Amortization	\$194,000	27,714	27,714	27,714	27,714	83,143
Less: TIs	(\$311,299)	(36,200)	(57,629)	(152,145)	(46,696)	(18,629)
Less: Leasing Commissions	(\$205,810)	(12,200)	(41,722)	(107,561)	(25,567)	(18,760)
Less: Cap Ex	(\$653,806)	(103,400)	(323,565)	(190,919)	(24,947)	(10,975)
Less: Principal Amortization	\$0	0	0	0	0	0
After-Tax Cash Flow	\$10,787,386	\$2,227,307	\$1,903,355	\$1,992,081	\$2,367,000	\$2,297,643

* Note: Profit-making real estate properties without a tax shelter must pay income taxes annually. In this example, losses are sustained in years 1 through 3, and income is fully sheltered in year 4 from suspended loss carry-forward. Year 5 is a loss-making year, and in addition, all unutilized deferred losses are applied as this writing off of all remaining losses is allowed in the year of sale. Consequently, income tax liability is \$0 in all years shown, and before and after-tax cash flows in each year are equal to one another.

Figure 5.19

Leslie Heights Investment With Pre-1986 Tax Shelters	
Purchase Price	\$100,000,000
<u>Interest Payment Calculation</u>	
Debt	90,000,000
Interest Rate	12.00%
Interest Payment	10,800,000
<u>Taxable Income Calculation</u>	
NOI	9,000,000
Depreciation	(8,000,000)
Interest	(10,800,000)
Taxable Income	(9,800,000)
<u>Excess Tax Shelter Calculation</u>	
Taxable Income	(9,800,000)
Tax Bracket Rate	50%
Value	4,900,000
<u>Cash Flow from Operation</u>	
NOI	9,000,000
Cap Ex	(2,000,000)
Interest	(10,800,000)
Tax Shelter Sales (90 cents on the \$)	4,410,000
Net Cash Flow from Operation	\$610,000

Figure 5.20

Leslie Heights Return on Equity Calculation				
<u>Property Sale Net Cash Flow</u>				
Proceeds from Sale (<i>property grows at inflation: $100 * 1.1^3$</i>)				133,000,000
Debt Payment				<u>(90,000,000)</u>
Net Cash Flow from Sale				43,000,000
<u>Developer's Cash Outflows and Inflows</u>				
	Year 0	Year 1	Year 2	Year 3
Purchase Price	(10,000,000)			
Net Cash Flow from Operations		610,000	610,000	610,000
Net Cash Flow from Sale				<u>43,000,000</u>
Total Net Cash Flow	<u>(10,000,000)</u>	\$610,000	\$610,000	\$43,610,000
<p style="text-align: center;">Net Cash Flow: \$34,830,000 Equity IRR: 67%</p>				

The Crazy 1980s

- Extreme depreciation schedules
- Engineering tax losses
- Pre-1986 tax framework vs. post-1986 tax framework

Figure 5.21

Leslie Heights Investment With Pre-1986 Tax Shelters	
Purchase Price	\$100,000,000
<u>Interest Payment Calculation</u>	
Debt	90,000,000
Interest Rate	12.00%
Interest Payment	10,800,000
<u>Taxable Income Calculation</u>	
NOI	9,000,000
Depreciation	(8,000,000)
Interest	(10,800,000)
Taxable Income	(9,800,000)
<u>Excess Tax Shelter Calculation</u>	
Taxable Income	(9,800,000)
Tax Bracket Rate	50%
Value	4,900,000
<u>Cash Flow from Operation</u>	
NOI	9,000,000
Cap Ex	(2,000,000)
Interest	(10,800,000)
Tax Shelter Sales (90 cents on the \$)	4,410,000
Net Cash Flow from Operation	\$610,000

Leslie Heights Investment Post-1986 Tax Law Change	
Purchase Price	\$100,000,000
<u>Interest Payment Calculation</u>	
Debt	90,000,000
Interest Rate	12.00%
Interest Payment	10,800,000
<u>Taxable Income Calculation</u>	
NOI	9,000,000
Depreciation	(4,000,000)
Interest	(10,800,000)
Taxable Income	(5,800,000)
(Tax losses no longer apply)	
<u>Cash Flow from Operation</u>	
NOI	9,000,000
Cap Ex	(2,000,000)
Interest	(10,800,000)
Tax Shelter Sales - Not Applicable	0
Net Cash Flow from Operation	(\$3,800,000)