

JAMES A. GRAASKAMP COLLECTION OF TEACHING MATERIALS

V. INDUSTRY SEMINARS AND SPEECHES - SHORT TERM

B. Assessors and Other Public Officials

7. "Appraisal Seminar" presented to the
Wisconsin Department of Revenue, August 15,
1985. Includes letter organizing the seminar



State of Wisconsin \ DEPARTMENT OF REVENUE

OFFICE LOCATED AT
125 SOUTH WEBSTER STREET

MAILING ADDRESS
POST OFFICE BOX 8933
MADISON, WISCONSIN 53708

July 18, 1985

Dr. Graaskamp
202 N. Breese Terrace
Madison, WI 53705

Dear Dr. Graaskamp:

I am confirming our scheduled training seminar we talked about previously and also providing you with questions, issues and problems that we must face. We have scheduled your presentation for Thursday, August 15, 1985 at 9:00 a.m. I expect you will conclude sometime between 11:00 and 12:00 a.m. You mentioned on the phone that your fee would be about \$400 to \$500 for a half-day session. I would like you to get back to me with an exact figure for our budgeting purposes. I am told we have a very tight budget for this new fiscal year, so we would appreciate any help you can give us on this.

I had mentioned our great interest in Mr. Shlaes article "The Market in Market Value" and in the topic of reliability of sales data in thin markets. You had said that you knew Mr. Shlaes and had discussed this topic with him and that you both had identical ideas on the subject and in fact you were quoted several times in the article. Enclosed are a list of questions/issues and three appraisal articles. Some of the questions make reference to statements in the articles. If you would like to discuss the questions/issues or if you have some other material for your presentation, please let me know.

Sincerely yours,

Charles E. Turner, Chief
Manufacturing Assessment Section
Bureau of Property Tax

CET:sb
Enclosure

APPRAISAL SEMINAR

STATE OF WISCONSIN DEPARTMENT OF REVENUE

August 15, 1985

I. Objectives of Session

- A. Appraisal responsibility to reflect collective market behavior.
- B. Three approaches to value
 - 1. Truth, chance, and beauty
 - 2. Normative, inference, and simulation
 - 3. Cost, market, and income
- C. Expansion of appraisal function
 - 1. An appraisal is a benchmark for making a decision and therefore value must be defined in terms of the decision.
 - 2. An appraisal is application of alternative pricing models to a specific property given availability of relevant data.
- D. The assessment system is a model for pricing like any other, and subject to the six constraints of modeling:
 - 1. Careful definition of the question.
 - 2. Recognition of available and qualified data.
 - 3. Choice of hypothesis which focuses data on the question.
 - 4. Limitations imposed by time and talent of the analyst.
 - 5. Recognition of constraints of credibility with the client (Wisconsin taxpayers and Wisconsin courts).
 - 6. Cost effectiveness of the process.
- E. Appraised value for assessment is a specific decision with an artificial set of constraints of its own, just as investors have specific constraints in their context.
 - 1. The interest to be appraised is the contribution of land and building to the total venture.
 - 2. Definition of market value assumes buyer and seller are under no duress and have at least two alternatives which can substitute.
 - 3. Value is fee simple under the Unity Rule.
 - 4. Value should not be confused with price where the seller did not receive cash or did not retain contractual benefits.
 - 5. The real estate tax must fall on the contribution of land and real estate capital, and exclude returns to management and labor.

II. The assessor should stop fighting the emphasis on market sales and defending the cost system by recognizing that assessment now has the following advantages:

- A. Uniformity of application or a market derived pricing algorithm is more important than exact prediction of the re-sale price.
- B. Set theory is the basis for market comparison--not statistics, so you need only a very limited number of clean sale transactions and data for an appraisal model.

- C. Careful research of a limited number of sales will do more to improve assessments than any other single factor.
- D. The minicomputer is all that is needed to make alternative methods cost-effective in applying market comparison methods.
- E. Before specifically answering questions provided by Mr. Turner, I would like to show you three methods for handling market data which depend on a limited number of benchmark sales and a very limited number of adjustments and are perfectly defensible in court.
 - 1. The Ratgram-Dilmore Algorithm.
 - 2. The "Backdoor System" to income value.
 - 3. The MKTCOMP Concept.

III. The Ratgram-Dilmore Handout

- A. Selection of four to six benchmark sales for which data is available. Adjust sales for terms and conditions and possibly time and location if there are great discrepancies.
- B. Discovery of a common unit of comparison which explains perhaps 50% of the difference between one price and another. (Remember that the objective of market adjustments is to reduce the standard deviation of the mean price due to differences among somewhat similar properties; properties should be similar in terms of function and buyer motivation.)
- C. Choose five, and no more than ten, attributes which characterize significant differences among properties, covering a span of attributes such as:
 - 1. Location
 - 2. Appearance
 - 3. Internal efficiency for activity housed
 - 4. Quality of construction
 - 5. Efficient utilization of site
 - 6. Market conditions controlling buyer or seller.
- D. Assign weights to the scores and then develop a price per unit of comparison per weighted point score.
- E. Apply the price per point per unit to scores of the comparable properties to test the predicted price against the actual price.
- F. Then apply the pricing formula to the score and number of units in the subject property.
- G. The system can be stylized for apartments in different size groups, industrial properties of different sizes, farms, etc.
- H. Once a property has been scored, it is available in the data bank for all future appraisals on the same scoring system.

- IV. The income approach is a market comparison approach because ultimately buyers compare properties on the ability of the property to produce dollars of cash. A capitalization rate is an attempt at market comparison.
- A. Overall rates from the market have become totally unreliable due to engineered prices to achieve creative financing, income tax advantages, or access to special business opportunities.
 - B. However, it is possible to easily estimate the value of the property justified by its ability to produce cash for a conventional institutional mortgage lender and the equity investment, ignoring non-real estate factors in terms of personal financial goals of the investor.
 - C. The basic value of a farm, aside from lifestyle, is its ability to produce bushels per acre, support so many animals for so many months, etc.
 - D. In real estate, we call it the backdoor approach, it can be done by hand or computer and driven from estimated market rents and expense ratios for a specific class of property. The best source of data for the required market factors of debt cover ratio and mortgage constant is the American Council of Life Insurance Schedule M, which is available free on a quarterly basis.
 - E. Refer to Backdoor Chart.
 - F. Refer to sample Backdoor Computer Output.
 - G. Test the system with VALTEST.
- V. My partner, Jean Davis, is the assessor for Maple Bluff and successfully utilizes a system called MTCOMP to select, adjust, and apply four comparable sales to each improved property each year, and three comparable sales of vacant lots to each vacant lot. Maple Bluff continues at 100.5% equalized value.
- A. The system has too much detail for historical reasons, but does work with a very limited number of sales each year.
 - B. The concept works very well and is statistically very robust, i.e. very insensitive to adjustment factors which are necessary to the market comparison approach.
 - C. Federal mortgage institution regulators have disapproved the use of multiple regression because the appraiser has not inspected the properties, is not responsible for adjustments between properties, and because the subject property is compared to the mean of the sample rather than specific properties with a specific address. Moreover, HLB argued that it required too many sales to maintain statistical reliability.
 - D. The concept permits the appraiser to bracket the subject property with a specific set of comparables--the key word is "set." Any specified number most like the subject property. "Most like" is measured using Euclidian distance

1. The attributes chosen as a basis for comparison are subjective as are the dollar factors for adjustment; the analysis is objective.
2. The point is here to show that only a limited number of sales are needed each year to keep the system relevant and representative.
3. The point we want to make is that the system is cost-effective, it meets the credibility requirement with the client because it matches specific properties to specific sales, it can be automated so that the typical assessor can operate it with common sense and some input from a supervisor, and it is consistent with the data and hypothesis available from existing records and traditional market comparison logic.

VI. QUESTION: How can the assessor show the Tax Appeals Commission and courts that a sale price does not always equal market value or that the most comparable sales to be found may not represent market value and should not always be the sole determinant of value?

- A. Do not confuse absolute price with price per unit; with a little imagination, price per unit per point will greatly expand the application of the limited number of clean sales prices available.
- B. Discounted cash flow is simulation of the market when direct inference is not possible.
- C. Take guidance from the Ratcliff hierarchy of market inference, buyer simulation, and only then normative methods like cost.

QUESTION: The courts appear to have gone from market value to most probable selling price. They are saying if liquidation sales are the most likely type of transaction, then they should control value even though they may not meet the market value standards as described in this article. Please expand upon the difference between most probable selling price and market value and how the assessor can go about showing the difference to reviewing authorities.

- A. Be careful to define "liquidation" sales in terms of the cause of liquidation--poor management of the property or no productivity of the property.
- B. No productivity in the property means liquidation price is market price and value added by conversion to another use is in part a return to management.
- C. Be sure to distinguish between a distressed seller and a distressed property. Probable price for a distressed seller is irrelevant to the assessor; a fair market price of a productive property minus the cost to cure including return to the entrepreneur is relevant to the assessor.

QUESTION: Of all this verbage the key phrase is "The level of confidence associated with a sample has to do not so much with the range of distribution as with sample size." Yet assessors and case law show no effort by anyone to show this fact.

- A. The emphasis on sample size is misplaced and reflects the belief that the market is statistics rather than "sets." Statistics deals with inference where sets deal with parameters and simultaneous equations. Set theory allows you to bypass the number of degrees of freedom required of statistics.
- B. There is a whole new area of information analysis developing called "fuzzy sets," which will be directly applicable to appraisal.
- C. The test for the appraiser is whether his pricing algorithm can reasonably predict the price of his comparable sales; the second test is whether the estimated fair market price for the subject property would result in economic benefit to the buyer without external subsidies. These tests determine if the assessed value is congruent with the market in which the subject property will be traded. Economic logic and not statistical rules is the critical demonstration.
- D. Confidence is a matter of consistency with a limited number of sales, adjusted for cash equivalency and the rules of the set.

QUESTION: Is there a way to calculate the probability factor shown on the vertical axis of these graphs?

- A. No, and it is not necessary. The point system shown solves for factor weights which automatically adjust sales prices for most of the differences. The range then becomes dispersion of prices around the transformed unit of comparison.

QUESTION: The assessor cannot have two values like the fee appraiser can. Do you believe that the assessor in Wisconsin must choose one or the other use as his premise or can he give a weighted value based on estimates of probability?

- A. I believe the assessor should choose the current use of the property rather than speculate on the next-best use; the problem of predicting future effective demand, appreciation, or depreciation is unnecessary since the assessor can review his judgment each year in light of conditions which are observable at that time. Rate of obsolescence due to social change does not have to be recognized until confirmed by market transactions.

QUESTION: If we had a subject property of 1.2 million sq. ft. how would you show whether or not two sales is or isn't an adequate market or a reliable market:

- A. The problem is you have unnecessarily narrowed the set at 500,000 sq. ft. or more. This is the point of "fuzzy set" theory. If you need four or five sales for the price per point system, take additional

transactions of properties of less than 500,000 sq. ft. Set up an attribute score that reflects your judgment that bigger plants sell for less money and let the Dilmore algorithm assign a weight, or select on the basis of five or six variables including age, location, flexibility of alternative uses, and location in terms of population density and choose four comps based on Euclidian distance.

- B. We have already discussed gross adjustments.
- C. Sale of a special purpose industrial plant will reflect to the next-best user and not the compulsion factor; the bankruptcy trustee has time to look for the best deal for the creditors; the next buyer may have faced opportunity costs in alternative properties that would have made it impossible to go forward or make the risks higher than returns to capital would justify. Again, the appraiser must recognize if the real estate caused the business to be unprofitable due to location, flexibility for changing techniques, or excessive cost to operate, or whether outside conditions changed the demand for the product, the cost of labor, or other factors not related to location and structure.
- C. Special purpose commercial buildings are better analyzed from discounted cash flow analysis or cost to provide a functional alternative than through a search for comparable sales. The Sentry building case.

MASTER
COPY

SAMPLE OF EXPERIMENTAL
AUTOMATED MARKET COMPARISON PROCESS.

DILMORE
AND
GRAASKAMP

EXHIBIT IV-9

SCALE FOR SCORING COMPARABLE SALES
BASED UPON PRICE SENSITIVE ATTRIBUTES

ATTRIBUTE	WEIGHT	SCORE
GROSS BUILDING AREA	30%	5 = Building less than 15,000 SF of GBA 3 = Building between 15,000 SF to 40,000 SF of GBA 1 = Building greater than 40,000 SF of GBA
LOCATION	30%	5 = Located in South Madison Industrial Park area with or without rail siding or along major highway with rail siding 3 = Located along or visible from a major road such as Highways 51, 151, 113, or 30 in a mixed use area without rail siding. 1 = Located in more isolated commercial mixed use area without rail siding
RATIO OF LAND TO GBA	10%	5 = Greater than 4:1 3 = Between 4:1 and 2.5:1 1 = Less than 2.5:1
EFFICIENCY OF BUILDING DESIGN FOR STORAGE AND DISTRIBUTION USES	10%	5 = Efficient layout for accessibility of stored goods with adequate number of overhead doors and truck height loading docks 3 = Adequate layout with limited number of overhead doors and truck height docks 1 = Deep space with inadequate number of overhead doors and truck height doors
QUALITY OF HVAC SYSTEM	20%	5 = Fully insulated with heat in warehouse and office area 3 = Partially heated warehouse space and adequate heated office space 1 = Minimal heat, if any, in warehouse area and small heated office space

WEIGHTED MATRIX FOR COMPARABLE PROPERTIES SCORE/WEIGHTED SCORE

ATTRIBUTE	WEIGHT	COMPARABLE NO. 1	COMPARABLE NO. 2	COMPARABLE NO. 3	COMPARABLE NO. 4	COMPARABLE NO. 5	COMPARABLE NO. 6	SUBJECT
		1115 O'Neill St.	2810 Bryant St.	910 Watson Ave.	4401 Cottage Grove Rd.	4610 - 4622 Ferrite Rd.	3103 Watford Way	2422 Pennsylvania
GROSS BUILDING AREA (GBA)	30%	5/1.50	3/0.90	1/0.30	3/0.90	5/1.50	5/1.50	3/0.90
LOCATION	30%	1/0.30	3/0.90	5/1.50	5/1.50	3/0.90	5/1.50	3/0.90
RATIO OF LAND TO GBA	10%	3/0.30	1/0.10	1/0.10	5/0.50	3/0.30	1/0.10	1/0.10
EFFICIENCY OF BUILDING DESIGN	10%	3/0.30	1/0.10	1/0.10	5/0.50	5/0.50	3/0.30	1/0.10
QUALITY OF HVAC SYSTEM	20%	5/1.00	3/0.60	3/0.60	1/0.20	5/1.00	1/0.20	5/1.00
TOTAL WEIGHTED SCORE	100%	3.40	2.60	2.60	3.60	4.20	3.60	3.00
CASH SELLING PRICE		\$200,000	\$212,000	\$625,000	\$525,000	\$301,000	\$209,000	
DATE OF SALE		6/27/84	6/12/83	6/30/83	1/4/82	2/29/84	6/30/82	
GROSS BUILDING AREA (GBA)		13,832 SF	19,760 SF	57,800 SF	34,517 SF	17,300 SF	14,000 SF	30,195 SF
CASH PRICE/ SF OF GBA		\$14.46	\$10.73	\$10.81	\$15.21	\$17.40	\$14.94	
CASH PRICE PER SF/ WEIGHTED POINT SCORE		\$4.2529	\$4.1269	\$4.1577	\$4.2250	\$4.1429	\$4.1500	

EXHIBIT IV-10

JUSTIFICATION OF COMPARABLE PRICE FORMULA
FOR THE GOODWILL BUILDING
BY MEANS OF ANALYSIS OF VARIANCE OF ACTUAL SALE PRICE
VS. PREDICTED PRICE OF COMPARABLES
USING MEAN PRICE PER POINT EQUATION METHOD

NO.	COMPARABLE SALE	WEIGHTED POINT SCORE	MEAN PRICE PER POINT SCORE	PREDICTED PRICE PER SF OF GBA	ACTUAL PRICE PER SF OF GBA	VARIANCE	% OF VARIANCE TO ACTUAL PRICES
1	1115 O'Neill Street	3.40	\$4.18	14.21	14.46	- 0.25	1.7%
2	2810 Bryant Street	2.60	4.18	10.87	10.73	0.14	1.3%
3	901 Watson Avenue	2.60	4.18	10.87	10.81	0.06	0.6%
4	4401 Cottage Grove Road	3.60	4.18	15.05	15.21	- 0.16	1.1%
5	4610-22 Femrite Road	4.20	4.18	17.56	17.40	0.16	0.9%
6	3103 Watford Way	3.60	4.18	15.05	14.94	0.11	0.7%
NET VARIANCE						\$ 0.06	

EXHIBIT IV-11

EXHIBIT IV-12

GOODWILL BUILDING

CALCULATION OF MOST PROBABLE PRICE USING
MEAN PRICE PER POINT EQUATION METHOD

COMPARABLE PROPERTY	CASH SELLING PRICE PER SF OF GBA	WEIGHTED POINT SCORE	PRICE PER SF OF GBA/TOTAL WEIGHTED SCORE (x)
1	\$14.46	3.40	\$4.25
2	10.73	2.60	4.13
3	10.81	2.60	4.16
4	15.21	3.60	4.23
5	17.40	4.20	4.14
6	14.94	3.60	<u>4.15</u>
TOTAL			\$25.06

Total of Price per SF of GBA = \$25.06
Total Weighted Score

Mean Value (x) = \$25.06/6 = \$4.18

Standard Deviation = $\sqrt{\frac{\sum (x - \bar{x})^2}{n - 1}}$ = \$0.05 where:

<u>x</u>	<u>\bar{x}</u>	<u>$(x - \bar{x})$</u>	<u>$(x - \bar{x})^2$</u>	<u>n</u>	<u>n - 1</u>
4.25	4.18	0.07	0.0049	6	5
4.13	4.18	= - 0.05	0.0025		
4.16	4.18	= - 0.02	0.0004		
4.23	4.18	= 0.05	0.0025		
4.14	4.18	= - 0.04	0.0016		
4.15	4.18	= - 0.03	<u>0.0009</u>		
			0.0128		

$$\sqrt{\frac{0.0128}{5}} = 0.050596$$

ESTIMATED RANGE OF MOST PROBABLE SELLING PRICE
OF THE GOODWILL BUILDING

	SCORE FOR SUBJECT	MEAN VALUE +/- \$0.05/POINT SCORE	PRICE/SF OF GBA	GBA OF SUBJECT	ESTIMATED VALUE
LOW ESTIMATE	3.00	\$4.13	\$12.39	30,195 SF	\$374,116 or \$374,000
CENTRAL TENDENCY	3.00	\$4.18	\$12.54	30,195 SF	\$378,645 or \$379,000
HIGH ESTIMATE	3.00	\$4.23	\$12.69	30,195 SF	\$383,175 or \$383,000

EXHIBIT IV-12 (Continued)

APPENDIX E

COMPUTER OUTPUT OF DILMORE QUANTITATIVE POINT WEIGHTING PROGRAM

**** GOODWILL 3 ****

Attributes = 5

Attribute Names, Prelim. Weights ← Preliminary weights selected
GROSS BUILDING AREA (GBA) 20 by the appraisers
LOCATION 20
RATIO OF LAND TO GBA 20
EFFICIENCY OF BUILDING DESIGN FOR STORAGE AND DISTRIBUTION 20
QUALITY OF HVAC SYSTEM 20

of Observations = 6 ← Comparable sales with score for
each comparable

Observ. # 1 1115 O'NEILL ST Price 14.46
GROSS BUILDING AREA (GBA) 5
LOCATION 1
RATIO OF LAND TO GBA 3
EFFICIENCY OF BUILDING DESIGN FOR STORAGE AND DISTRIBUTION 3
QUALITY OF HVAC SYSTEM 5
Observ. # 2 2810 BRYANT ST Price 10.73
GROSS BUILDING AREA (GBA) 3
LOCATION 3
RATIO OF LAND TO GBA 1
EFFICIENCY OF BUILDING DESIGN FOR STORAGE AND DISTRIBUTION 1
QUALITY OF HVAC SYSTEM 3
Observ. # 3 901 WATSON AVE Price 10.81
GROSS BUILDING AREA (GBA) 1
LOCATION 5
RATIO OF LAND TO GBA 1
EFFICIENCY OF BUILDING DESIGN FOR STORAGE AND DISTRIBUTION 1
QUALITY OF HVAC SYSTEM 3
Observ. # 4 4401 COTTAGE GROVE RD Price 15.21
GROSS BUILDING AREA (GBA) 3
LOCATION 5
RATIO OF LAND TO GBA 5
EFFICIENCY OF BUILDING DESIGN FOR STORAGE AND DISTRIBUTION 5
QUALITY OF HVAC SYSTEM 1
Observ. # 5 4610-22 FERMITE RD Price 17.4
GROSS BUILDING AREA (GBA) 5
LOCATION 3
RATIO OF LAND TO GBA 3
EFFICIENCY OF BUILDING DESIGN FOR STORAGE AND DISTRIBUTION 5
QUALITY OF HVAC SYSTEM 5
Observ. # 6 3103 WATFORD WAY Price 14.94
GROSS BUILDING AREA (GBA) 5
LOCATION 5
RATIO OF LAND TO GBA 1
EFFICIENCY OF BUILDING DESIGN FOR STORAGE AND DISTRIBUTION 3
QUALITY OF HVAC SYSTEM 1

The Matrix: ← Test matrix to select optimal
combination of weights
20 20 20 20 20
10 10 10 10 10
15 15 15 15 15
25 25 25 25 25
30 30 30 30 30

Median	= 4.565106	← Initial results using
Mean	= 4.528223	appraiser's weights
Standard Deviation	= .441591	

Weights:		← Appraiser's initial weights
GROSS BUILDING AREA (GBA	= 20	
LOCATION	= 20	
RATIO OF LAND TO GBA	= 20	
EFFICIENCY OF BUILDING D	= 20	
QUALITY OF HVAC SYSTEM	= 20	

Final Results:		← Iterations to
Number of Combinations	= 3125	select optimal
Number of Combinations Adding to 100%	= 381	weight

Median	= 4.153846	← Final results using
Mean	= 4.175902	optimal weights
Standard Deviation	= 5.067353E-02	

Weights:		← Optimal weights
GROSS BUILDING AREA (GBA	= 30	
LOCATION	= 30	
RATIO OF LAND TO GBA	= 10	
EFFICIENCY OF BUILDING D	= 10	
QUALITY OF HVAC SYSTEM	= 20	

COMPUTERIZATION OF ALL MARKET COMPARISON CALCULATIONS

14112 G.S.

Program Choices Are:

1. Enter/edit/display/file input data
2. Analyze quality point ratings
3. Display output to screen
4. Print output to printer
5. Select options
6. Quit

Enter your choice: ? 1

Load/edit file options Current disk file: None

1. Create new data file
2. Load existing disk file for editing
3. Display current data
4. Edit current data
5. Save current data to disk file
6. Clear (erase) all current data
7. Quit load/edit options, return to main program

Enter selection number:

Enter selection number: 1

Enter new data

Enter heading for output: INDUSTRIAL WAREHOUSE

Enter number of attributes: ? 5

Enter name for attribute: 1 ? GROSS BUILDING AREA (GBA)

Preliminary weight: 1 ? 20

Enter name for attribute: 2 ? LOCATION

Preliminary weight: 2 ? 20

Enter name for attribute: 3 ? RATIO OF LAND TO GBA

Preliminary weight: 3 ? 20

Enter name for attribute: 4 ? EFFICIENCY OF BUILDING DESIGN

Preliminary weight: 4 ? 20

Enter name for attribute: 5 ? QUALITY OF HVAC SYSTEM

Weight for QUALITY OF HVAC SYSTEM is 20, so that total of weights is 100.

~~Observation number 5 :~~

~~Enter name 5 ?~~

~~Score for QUALITY OF HVAC SYSTEM? 1~~

Observation number 5 :

Enter name 5 ? 4610-22 FEMRITE RD.

Enter price 5 ? 17.40

Score for GROSS BUILDING AREA (GBA)? 5

Score for LOCATION? 3

Score for RATIO OF LAND TO GBA? 3

Score for EFFICIENCY OF BUILDING DESIGN? 5

Score for QUALITY OF HVAC SYSTEM? 5

Observation number 6 :

Enter name 6 ? 3103 WATFORD WAY

Enter price 6 ? 14.94

Score for GROSS BUILDING AREA (GBA)? 5

Score for LOCATION? 5

Score for RATIO OF LAND TO GBA? 1

Score for EFFICIENCY OF BUILDING DESIGN? 3

Score for QUALITY OF HVAC SYSTEM? 1

Enter subject property name:? INDUSTRIAL WAREHOUSE

Enter the name of the designated unit of comparison
(acre, square foot, etc.) ? SQUARE FOOT

Enter number of units of comparison for subject
(acres, square feet, etc.) ? 30195

Enter attribute scores for subject property

GROSS BUILDING AREA (GBA) ? 3

LOCATION ? 3

RATIO OF LAND TO GBA ? 1

EFFICIENCY OF BUILDING DESIGN? 1

QUALITY OF HVAC SYSTEM ? 5

Load/edit file options Current disk file: None

1. Create new data file
2. Load existing disk file for editing
3. Display current data
4. Edit current data
5. Save current data to disk file
6. Clear (erase) all current data
7. Quit load/edit options, return to main program

Enter selection number: 5

Enter name for data file: SAMPLE

Load/edit file options Current disk file: SAMPLE

1. Create new data file
2. Load existing disk file for editing
3. Display current data
4. Edit current data
5. Save current data to disk file
6. Clear (erase) all current data
7. Quit load/edit options, return to main program

Enter selection number: 3

Project title: INDUSTRIAL WAREHOUSE

Unit prices Search interval = 5

	GROSS	LOCAT	RATIO	EFFIC	QUALI	Price
Prel. wts.	20	20	20	20	20	-
1115 O'NEIL	5	1	3	3	5	\$14.46
2810 BRYANT	3	3	1	1	3	\$10.73
910 WATSON	1	5	1	1	3	\$10.81
4401 COTTAG	3	5	5	5	1	\$15.21
4610-22 FEM	5	3	3	5	5	\$17.40
3103 WATFOR	5	5	1	3	1	\$14.94
INDUSTRIAL	3	3	1	1	5	-

Press any key to continue

GP

Version 2.1

Program Choices Are:

1. Enter/edit/display/file input data
2. Analyze quality point ratings
3. Display output to screen
4. Print output to printer
5. Select options
6. Quit

Enter your choice: ? 2

Pass # 1 Combination # 6

Standard deviation = .4693161 Mean = 4.497911

Status	GROSS	LOCAT	RATIO	EFFIC	QUALI	S.D.	Mean
Prelim. Wts.	20	20	20	20	20	.441591	4.528223

QP

Version 2.1

Program Choices Are:

1. Enter/edit/display/file input data
2. Analyze quality point ratings
3. Display output to screen
4. Print output to printer
5. Select options
6. Quit

Enter your choice: ? 3

Display Output to Screen

Select output to be displayed:

1. Weighted matrix for properties
2. Value range determination: mean price per point method
3. Value range per unit of dispersion
4. Transaction zone: mean price per point method
5. Transaction zone: linear regression method
6. Mean price per point method: predicted vs. actual price for comparables
7. Linear regression method: predicted vs. actual price for comparables
8. Input data
9. Computation matrix

<Return> to quit

Enter your choice: 1

Feature/ Attribute	Weighted Matrix					Wtd. score
	GROSS	BU	LOCATION	RATIO OF	EFFICIEN QUALITY	
Initial weights	20	20	20	20	20	100
Final weights	30	30	10	10	20	100
1115 O'NEILL S	5/ 1.50	1/ 0.30	3/ 0.30	3/ 0.30	5/ 1.00	3.40
2810 BRYANT ST	3/ 0.90	3/ 0.90	1/ 0.10	1/ 0.10	3/ 0.60	2.60
910 WATSON AVE	1/ 0.30	5/ 1.50	1/ 0.10	1/ 0.10	3/ 0.60	2.60
4401 COTTAGE G	3/ 0.90	5/ 1.50	5/ 0.50	5/ 0.50	1/ 0.20	3.60
4610-22 FEMRIT	5/ 1.50	3/ 0.90	3/ 0.30	5/ 0.50	5/ 1.00	4.20
3103 WATFORD W	5/ 1.50	5/ 1.50	1/ 0.10	3/ 0.30	1/ 0.20	3.60
INDUSTRIAL WAR	3/ 0.90	3/ 0.90	1/ 0.10	1/ 0.10	5/ 1.00	3.00

Press any key to continue

Display Output to Screen

Select output to be displayed:

1. ~~Weighted matrix for properties~~
2. Value range determination: mean price per point method
3. Value range per unit of dispersion
4. ~~Transaction zone: mean price per point method~~
5. ~~Transaction zone: linear regression method~~
6. Mean price per point method: predicted vs. actual price for comparables
7. ~~Linear regression method: predicted vs. actual price for comparables~~
8. Input data
9. Computation matrix

<Return> to quit

Enter your choice: 2

(and 3)

Value Range Determination: Mean Price Per Point Method

Mean price per point: \$4.18
Dispersion About the Mean: \$0.05
Coefficient of Dispersion: 0.0121

Value Range Per Unit of Dispersion

	Subject Point Score		Mean (+/- One Standard Deviation)		Price Per Unit
Low Estimate	3.00	X	\$4.13	=	\$12.38
Central Tendency	3.00	X	\$4.18	=	\$12.53
High Estimate	3.00	X	\$4.23	=	\$12.68

Press any key to continue

Display Output to Screen

Select output to be displayed:

1. Weighted matrix for properties
2. Value range determination: mean price per point method
3. Value range per unit of dispersion
4. Transaction zone: mean price per point method
5. Transaction zone: linear regression method
6. Mean price per point method: predicted vs. actual price for comparables
7. Linear regression method: predicted vs. actual price for comparables
8. Input data
9. Computation matrix

<Return> to quit

Enter your choice: 4

(and 5)

Transaction Zone: Mean Price Per Point Method

Number of units in subject property: 30195

Low Estimate	\$373,679	or	\$374,000
Central Tendency	\$378,274	or	\$378,000
High Estimate	\$382,869	or	\$383,000

Transaction Zone: Linear Regression Method

a = -7.505322E-02 Standard Error of the Forecast = .2056632
b = 4.200016

Prediction equation: price =

30195 units X [-7.505322E-02 + (4.200016 +/- .2056632) X 3]

Low Estimate	\$359,562	or	\$360,000
Central Tendency	\$378,192	or	\$378,000
High Estimate	\$396,822	or	\$397,000

Press any key to continue

Display Output to Screen

Select output to be displayed:

1. Weighted matrix for properties
2. Value range determination: mean price per point method
3. Value range per unit of dispersion
4. Transaction zone: mean price per point method
5. Transaction zone: linear regression method
6. Mean price per point method: predicted vs. actual price for comparables
7. Linear regression method: predicted vs. actual price for comparables
8. Input data
9. Computation matrix

<Return> to quit

Enter your choice: 6

Mean Price Per Point Method: Predicted vs. Actual Price for Comparables

	Predicted Price	Actual price	Error
1115 O'NEILL ST.	\$14.20	\$14.46	-\$0.26
2810 BRYANT ST.	\$10.86	\$10.73	\$0.13
910 WATSON AVE.	\$10.86	\$10.81	\$0.05
4401 COTTAGE GROVE	\$15.03	\$15.21	-\$0.18
4610-22 FEMRITE RD	\$17.54	\$17.40	\$0.14
3103 WATFORD WAY	\$15.03	\$14.94	\$0.09

Press any key to continue

Display Output to Screen

Select output to be displayed:

1. Weighted matrix for properties
2. Value range determination: mean price per point method
3. Value range per unit of dispersion
4. Transaction zone: mean price per point method
5. Transaction zone: linear regression method
6. Mean price per point method: predicted vs. actual price for comparables
7. Linear regression method: predicted vs. actual price for comparables
8. Input data
9. Computation matrix

<Return> to quit

Enter your choice: 7

Linear Regression Method: Predicted vs. Actual Price for Comparables

	Predicted Price	Actual price	Error
1115 O'NEILL ST.	\$14.20	\$14.46	-\$0.26
2810 BRYANT ST.	\$10.84	\$10.73	\$0.11
910 WATSON AVE.	\$10.84	\$10.81	\$0.03
4401 COTTAGE GROVE	\$15.05	\$15.21	-\$0.16
4610-22 FEMRITE RD	\$17.57	\$17.40	\$0.17
3103 WATFORD WAY	\$15.05	\$14.94	\$0.11

Press any key to continue

Display Output to Screen

Select output to be displayed:

1. Weighted matrix for properties
2. Value range determination: mean price per point method
3. Value range per unit of dispersion
4. Transaction zone: mean price per point method
5. Transaction zone: linear regression method
6. Mean price per point method: predicted vs. actual price for comparables
7. Linear regression method: predicted vs. actual price for comparables
8. Input data
9. Computation matrix

<Return> to quit

Enter your choice: 8

Project title: INDUSTRIAL WAREHOUSE

Unit prices Search interval = 5

	GROSS	LOCAT	RATIO	EFFIC	QUALI	Price
Prel. wts.	30	30	10	10	20	-
1115 O'NEIL	5	1	3	3	5	\$14.46
2810 BRYANT	3	3	1	1	3	\$10.73
910 WATSON	1	5	1	1	3	\$10.81
4401 COTTAG	3	5	5	5	1	\$15.21
4610-22 FEM	5	3	3	5	5	\$17.40
3103 WATFOR	5	5	1	3	1	\$14.94
INDUSTRIAL	3	3	1	1	5	-

Press any key to continue

Display Output to Screen

Select output to be displayed:

1. Weighted matrix for properties
2. Value range determination: mean price per point method
3. Value range per unit of dispersion
4. Transaction zone: mean price per point method
5. Transaction zone: linear regression method
6. Mean price per point method: predicted vs. actual price for comparables
7. ~~Linear regression method: predicted vs. actual price for comparables~~
8. Input data
9. Computation matrix

<Return> to quit

Enter your choice: 9

Computation Matrix

20	20	20	20	20
10	10	10	10	10
15	15	15	15	15
25	25	25	25	25
30	30	30	30	30

Press any key to continue

Display Output to Screen

Select output to be displayed:

1. Weighted matrix for properties
2. Value range determination: mean price per point method
3. Value range per unit of dispersion
4. Transaction zone: mean price per point method
5. Transaction zone: linear regression method
6. Mean price per point method: predicted vs. actual price for comparables
7. Linear regression method: predicted vs. actual price for comparables
8. Input data
9. Computation matrix

<Return> to quit

Enter your choice: 10

Iterations

		GROSS	LOCAT	RATIO	EFFIC	QUALI	S.D.	Mean
Prelim.	Wts.	20	20	20	20	20	.441591	4.528223
Pass #	1	30	30	10	10	20	5.067353E-02	4.175902
Pass #	2	30	30	10	10	20	5.067353E-02	4.175902

Press any key to continue

QP

Version 2.1

Program Choices Are:

1. Enter/edit/display/file input data
2. Analyze quality point ratings
3. Display output to screen
4. Print output to printer
5. Select options
6. Quit

Enter your choice: ? 5

Special options

Enter your selection:

1. Change search interval

<Return> for no changes

Enter your choice: ? 5

EXHIBIT 1 - A
CORRELATION COEFFICIENTS AND R^2 OF SALES PRICE

Space Unit	Correlation	R^2
First floor frontage (frt)	0.745	55.5%
Lot area	0.908	82.4
First floor (1st fl)	0.790	62.4
First floor + Upper floors (upp fl)	0.933	87.0
1st fl + .05 (upp fl)	0.919	84.5
2(1st fl) + upp fl	0.919	84.5
(1st fl) x (frt)	0.784	61.5
[1st fl + 0.5 (upp fl)] x (frt)	0.864	74.6
[2(1st fl) + upp fl] x (frt)	0.864	74.6
(1st fl + upp fl) x (frt)	0.874	76.4

ANALYSIS OF CONSISTENCY IN FIRST YEAR RATIOS:

WITH VALUE CONCLUSION OF 470000
GROSS POTENTIAL RENTAL OF 68160
NET OP INC OF 42534
MTGE OF 352500
INTEREST RATE OF .145
MTGE TERM OF 30 YRS
PMTS PER YR OF 12
AND OP EXP OF 22900 :

GAM = 6.89554
OAR = .0904979
EQUITY DIVIDEND = -.273743
DEBT SERVICE COVERAGE = .821139
BREAKEVEN RATIO = 1.09593
EQUITY PAYBACK PERIOD = -12.6825

WITH TYPICAL D/S COVERAGE OF 1.2
LENDER'S SAFE OVERALL RATE = .132252
(LOAN RATIO * CONSTANT * COVERAGE)

OCCUPANCY RATE .96
EXPENSE RATIO .35
GROSS INCOME GROWTH RATE .1
EXPENSE GROWTH RATE .06
PROJECTION PERIOD 7
IMPLIED NET INCOME GROWTH RATE: .118847

EXHIBIT 10

V A L T E S T

A DEMONSTRATION PACKET

PREPARED BY
LANDMARK RESEARCH, INC.
MADISON, WISCONSIN

PREPARED FOR
THE REAL ESTATE ANALYSTS NORTHSTAR USERS GROUP

SEPTEMBER 24 AND 25, 1982
COSTA MESA, CALIFORNIA

V A L T E S T - DEMONSTRATION 3

45

INPUT ASSUMPTIONS

1. ENTER PROJECT NAME ? SELL AT LOSS TEST
 2. ENTER PROJECTION PERIOD ? 5
 3. DO YOU WANT TO ENTER EFFECTIVE GROSS REVENUE INSTEAD OF NOI? Y
TO REPEAT PREVIOUS YEAR'S NOI/EGR FOR BAL OF PROJECTION ENTER 0
- EFFECTIVE GROSS REVENUE YEAR 1? 13800
 EFFECTIVE GROSS REVENUE YEAR 2? 14210
 EFFECTIVE GROSS REVENUE YEAR 3? 1000
 EFFECTIVE GROSS REVENUE YEAR 4? 15080
 EFFECTIVE GROSS REVENUE YEAR 5? 15530
- VAR OF EXPENSE (Z) YEAR 1? 6
 VAR OF EXPENSE (Z) YEAR 2? 5
 VAR OF EXPENSE (Z) YEAR 3? 0
- FIXED OF EXPENSE YEAR 1? 3700
 FIXED OF EXPENSE YEAR 2? 3920
 FIXED OF EXPENSE YEAR 3? 4160
 FIXED OF EXPENSE YEAR 4? 4410
 FIXED OF EXPENSE YEAR 5? 4670
4. ACQUISITION COST: ? 66000 .
 5. DO YOU WANT TO USE STANDARD FINANCING? Y OR N? Y
 MTG. RATIO OR AMOUNT, INT., TERM, NO PAY/YR ? 49500. .18. 25. 12
 6. ENTER RATIO OF IMP #1/TOTAL VALUE, LIFE OF IMP #1? .25. 15
 IS THERE A SECOND IMPROVEMENT? Y OR N? Y
 ENTER RATIO OF IMP #2/TOTAL VALUE, LIFE OF IMP #2? .55. 15
 ENTER REHABILITATION TAX CREDIT FOR IMP #2: 9075
 IS STRUCTURE A CERTIFIED HISTORICAL LANDMARK? Y OR N? Y *
 7. DEPRECIATION METHOD, IMPROVEMENT #1 ? 2
 ENTER D.B. Z: ? 125*
 DEPRECIATION METHOD, IMPROVEMENT #2 ? 2
 ENTER D.B. Z: ? 125*
 IS PROPERTY SUBSIDIZED HOUSING ? Y OR N ? N
 IS PROPERTY RESIDENTIAL? Y OR N? N
 8. IS OWNER A TAXABLE CORPORATION? Y OR N ? Y
 CORPORATE FEDERAL ORDINARY TAX RATE COULD BE :
 17% - 46% (1979 LAW, EFFECTIVE 1979)
 16% - 46% (1981 LAW, EFFECTIVE 1982)
 15% - 46% (1981 LAW, EFFECTIVE 1983 & THEREAFTER)
 MAXIMUM CORPORATE CAPITAL GAIN ALTERNATIVE TAX RATE IS 28%

 (PLUS STATE RATE)
- ENTER:
 1) EFFECTIVE ORDINARY RATE 2) EFFECTIVE ORDINARY RATE (YEAR OF SALE)
 ? .4. .4
9. RESALE PRICE (NET OF SALE COSTS) ? 60000
 10. IS THERE LEASE PARTICIPATION ?
 ENTER CASH THRU-OFF (2%), PROCEEDS REPAIR TAXES (2): 5. 5
 11. ENTER OWNER'S AFTER TAX REINVESTMENT F.A.F. (2)? 9
 12. ENTER OWNER'S AFTER TAX OPPORTUNITY COST OF EQUITY FUND (2)? 9

FILE = SALTEST4

LANDMARK RESEARCH, INC.

DEMONSTRATION 3 (Cont.)

AFTER TAX CASH FLOW PROJECTION
 SELL AT LOSS TEST
 DATE 9/14/82

DATA SUMMARY

ACQUISITION COST: \$66,000. MTG. AMT.: \$49,500.
 NOI 1ST YR: \$9,272. MTG. INT.: 18%
 ORIG. EQUITY: \$16,500. MTG. TERM: 25. YRS
 CTO 1ST YEAR: \$258. DEBT SERVICE 1ST YEAR: \$9,014.
 MTG. CONST.: .1820916
 IMP. #1 VALUE: \$16,500. IMP. #1 LIFE: 15.
 IMP. #2 VALUE: \$36,300. IMP. #2 LIFE: 15.
 INC. TX RATE: 40%
 SALE YR RATE: 40% OWNER: CORPORATION

DEPRECIATION IMPROVEMENT #1 : 175% D.B.
 DEPRECIATION IMPROVEMENT #2 : 175% D.B.
 NON-RESIDENTIAL PROPERTY
 CERTIFIED HISTORICAL STRUCTURE
 LENDER PARTICIPATION: CASH THROW-OFF: 5% REVERSION: 5%

NO REPRESENTATION IS MADE THAT THE ASSUMPTIONS PROVIDED BY JEAN
 ARE PROPER OR THAT THE CURRENT TAX ESTIMATES USED IN THIS
 PROJECTION WILL BE ACCEPTABLE TO TAXING AUTHORITIES. NO ESTIMATE
 HAS BEEN MADE OF MINIMUM PREFERENCE TAX. CAPITAL LOSSES IN YEAR OF
 SALE ARE TREATED AS ORDINARY LOSSES (SECTION 1231 PROPERTY) AND
 ARE CREDITED AGAINST TAXES PAID AT THE
 ORDINARY RATE AT THE TIME OF SALE.
 FOR THE PURPOSE OF THE MODIFIED INTERNAL RATE OF RETURN (M.I.R.R.)
 CALCULATION, NEGATIVE CASH IN ANY ONE PERIOD IS COVERED
 BY A CONTRIBUTION FROM EQUITY IN THAT PERIOD

YEAR	NOI	MTG INT & LENDERS %	TAX DEF	TAXABLE INCOME	INCOME TAX	AFTER TAX CASH FLOW
1.	9272.	8914.	6160.	-5803.	-11397.	11643.
2.	9560.	8907.	5441.	-4770.	-1909.	2447.
3.	-3210.	8853.	4807.	-16870.	-6749.	-5475.
4.	9916.	8866.	4246.	-3197.	-1280.	2137.
5.	10064.	8837.	3750.	-2505.	-1003.	2019.
	\$35641.	\$44377.	\$24404.	\$-33145.	\$-22338.	\$12771.

NOTE: 1ST YEAR S TAX REDUCED BY \$9,075. FOR TAX CREDIT (14% #2)

EXHIBIT 6 (Continued)

DEMONSTRATION 3 (Cont.)

RESALE PRICE:	\$60,000.	1ST YR 84 TAX EQ DIV:	1.4881%
LESS MORTGAGE BALANCE:	\$48,670.	AVG DEBT COVER RATIO:	.7908
PROCEEDS BEFORE TAXES:	\$11,330.	AVG DEFAULT RATIO:	1.1581
LESS LENDER'S %:	\$567.		
NET SALES PROCEEDS			
BEFORE TAXES:	\$10,764.		
	=====		

RESALE PRICE:	\$60,000.
LESS LENDER'S %:	\$567.
NET RESALE PRICE:	\$59,433.
LESS BASIS:	\$41,596.
TOTAL GAIN:	\$17,838.
TAX DEPRECIATION:	\$24,404.
CAPITAL GAIN:	\$0.
ORDINARY GAIN:	\$17,838.
	=====

TAX ON ORDINARY GAIN:	\$7,135.
TAX ON CAPITAL GAIN:	\$0.
PLUS MORTGAGE BAL:	\$48,670.
TOTAL DEDUCTIONS FROM	
NET RESALE PRICE:	\$55,805.
	=====

NET SALES PROCEEDS	
AFTER TAX:	\$3,629.
	=====

IF PURCHASED AS ABOVE, HELD 5 YEARS & SOLD FOR \$60,000.
 THE MODIFIED I.R.R. BEFORE TAXES IS -12.477% AND AFTER TAXES IS 5.4951%
 ASSUMING AN AFTER TAX REINVESTMENT RATE OF 9%, AND OPPORTUNITY COST OF 9%

EXHIBIT 6 (Continued)

DEMONSTRATION 3 (Cont.)

DISTRIBUTION OF CASH THROW-OFF
SELL AT LOSS TEST

YEAR	CASH THROW-OFF TOTAL	CASH THROW-OFF TO EQUITY	CASH BONUS TO LENDER
1.	258.	246.	12.
2.	566.	532.	28.
3.	-12224.	-12224.	0.
4.	992.	857.	45.
5.	1070.	1016.	53.
	-----	-----	-----
	-9427.	-9567.	140.

RESALE PRICE: \$60,000.
 LESS MORTGAGE BALANCE: \$48,670.
 PROCEEDS BEFORE TAXES: \$11,330.
 LESS LENDER 5 %: \$567.
 NET SALES PROCEEDS
 BEFORE TAXES: \$10,764.
 =====

CASH THROW-OFF = 5% REVERSION = 5%

EQUITY ANALYSIS
 SELL AT LOSS TEST

BEFORE TAX EQUITY DIVIDEND					
YR	NCI	YR END EQUITY	AMOUNT	CASH RETURN	
				ORG EQ	CUR EQ
1.	\$9,272.	\$16,613.	\$246.	.0142	.0145
2.	9,580.	16,747.	538.	.0326	.0321
3.	-3,210.	29,131.	-12,224.	-.7408	-.4196
4.	9,916.	29,324.	857.	.0520	.0292
5.	10,084.	29,554.	1,016.	.0618	.0344

ORIGINAL EQUITY: \$ 16500

EXHIBIT 6 (Continued)

DEMONSTRATION 3 (Cont.)

MORTGAGE ANALYSIS
SELL AT LOSS TEST

YEAR	NOI	MORT INT.	MORT AMORT	DEBT SERV	DCR	MTG. BAL.	DEFAULT RATIO
1.	9272.	8901.	113.	9014.	1.029	49387.	.981
2.	9580.	8679.	135.	9014.	1.063	49253.	.960
3.	-3210.	8653.	161.	9014.	-.356	49092.	13.224
4.	9916.	8921.	192.	9014.	1.100	48900.	.940
5.	10084.	8784.	230.	9014.	1.119	48670.	.931
AVG	\$7,128.				.791		1.158

REVENUE AND EXPENSE REPORT
SELL AT LOSS TEST
DATE 9/14/82

YEAR	EFF GROSS REV	% RATE	% VAR OF	\$ FIXED OF	NOI
1.	\$13,800.	6.2%	\$928.	\$3,700.	\$9,272.
2.	\$14,210.	5.2%	\$711.	\$3,920.	\$9,580.
3.	\$1,000.	5.2%	\$50.	\$4,160.	\$-3,210.
4.	\$15,080.	5.2%	\$754.	\$4,410.	\$9,916.
5.	\$15,530.	5.2%	\$777.	\$4,670.	\$10,084.
	-----		-----	-----	-----
	\$59,620.		\$3,119.	\$20,860.	\$35,641.

EXHIBIT 6 (Continued)

DEMONSTRATION 3 (Cont.)

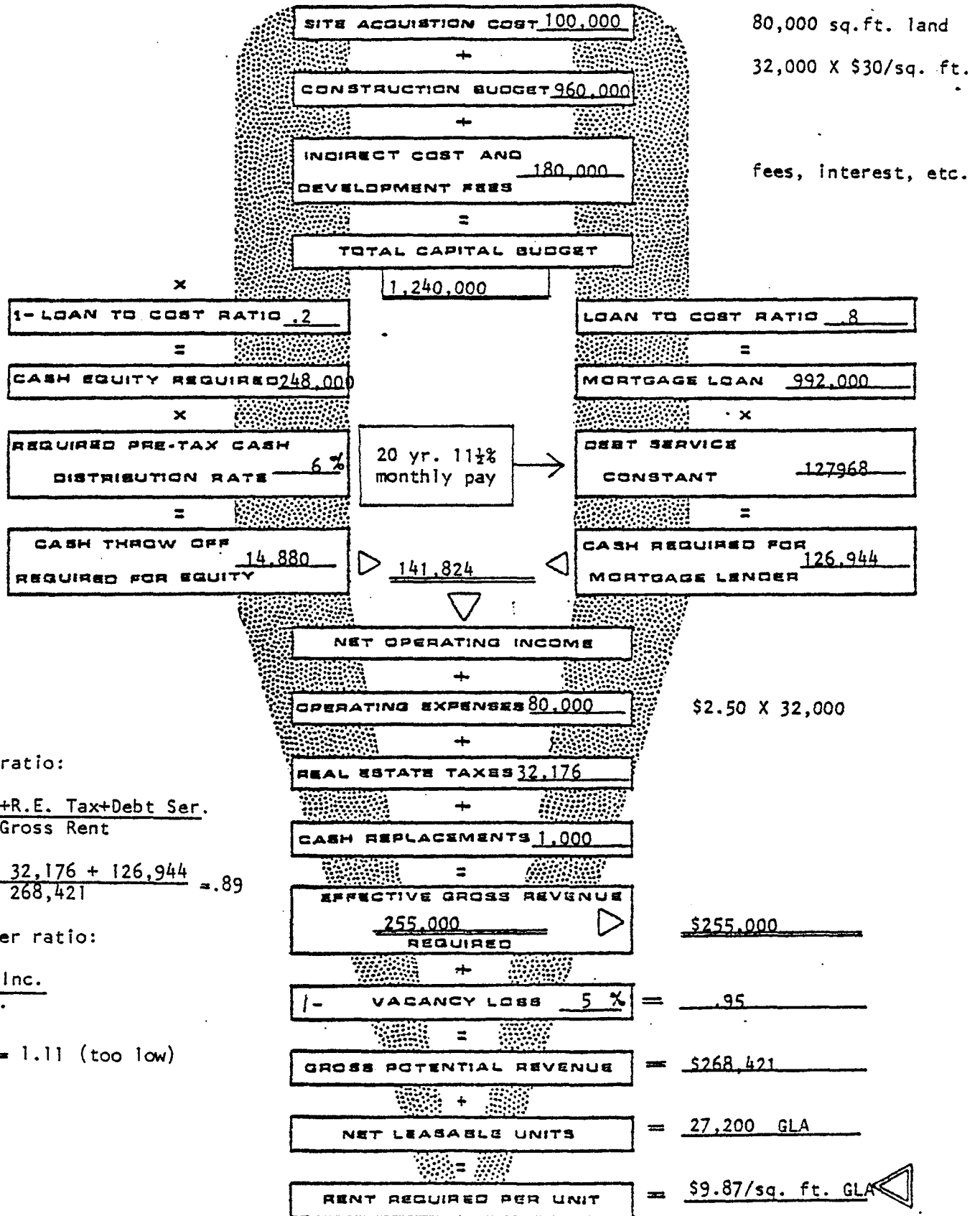
DEPRECIATION SCHEDULE
 SELL AT LOSS TEST
 IMPROVEMENT # 1
 175% D.B.
 NON-RESIDENTIAL

YEAR	TAX DEP.	S.L. DEP.	TAX DEP	BALANCE
1.	1925.0	1100.0	1925.0	14575.0
2.	1700.4	1100.0	1700.4	12874.6
3.	1502.0	1100.0	1502.0	11372.5
4.	1326.8	1100.0	1326.8	10045.8
5.	1172.0	1100.0	1172.0	8873.7
	-----	-----	-----	
SUB-TOTAL	7626.3	5500.0	7626.3	

DEPRECIATION SCHEDULE
 SELL AT LOSS TEST
 IMPROVEMENT # 2
 175% D.B.
 NON-RESIDENTIAL

YEAR	TAX DEP.	S.L. DEP.	TAX DEP	BALANCE
1.	4235.0	2420.0	4235.0	32065.0
2.	3740.9	2420.0	3740.9	28324.1
3.	3304.5	2420.0	3304.5	25019.6
4.	2919.0	2420.0	2919.0	22100.7
5.	2578.4	2420.0	2578.4	19522.2
	-----	-----	-----	
SUB-TOTAL	16777.8	12100.0	16777.8	
	=====	=====	=====	
TOTAL	24404.0	17600.0	24404.0	

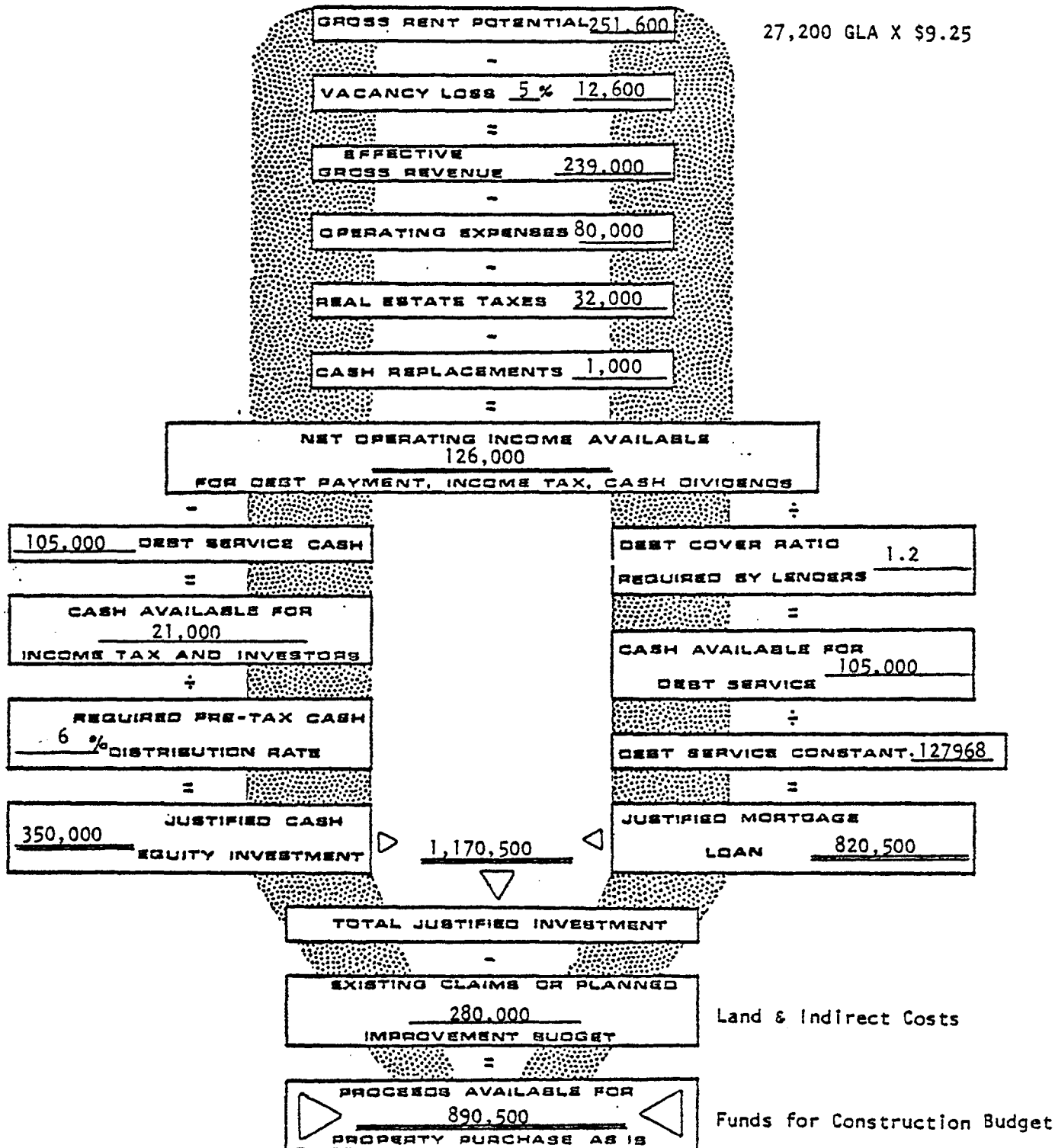
EXHIBIT 7 LOAN TO COST RATIO APPROACH



LENDER'S POINT OF VIEW

EXHIBIT 8

DEBT COVER RATIO APPROACH



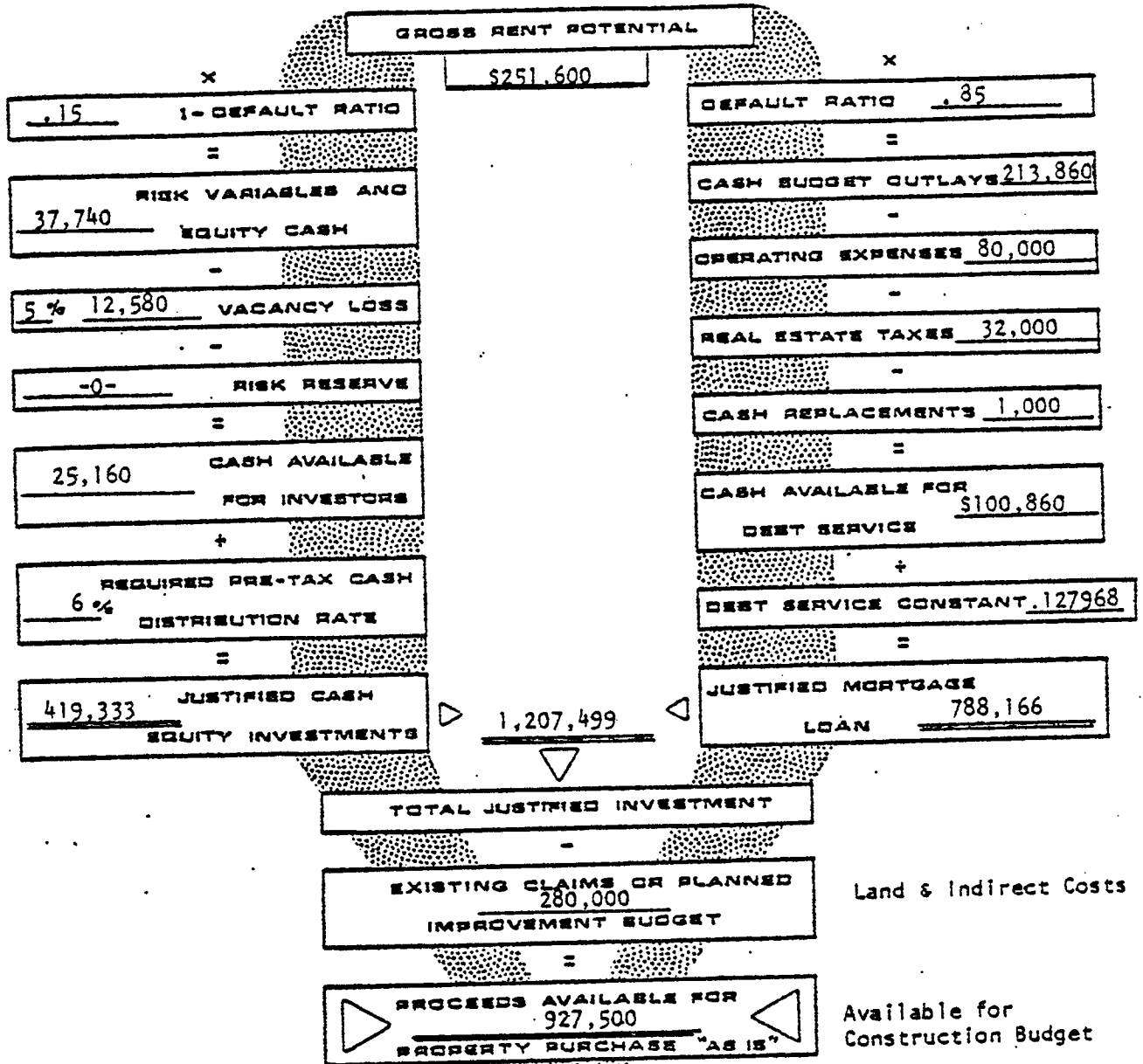
890,500

32,000 = \$27.80/sq. ft. justified building budget

DEVELOPER'S POINT OF VIEW

EXHIBIT 9

DEFAULT RATIO APPROACH



\$37/sq. ft. of gross area for justified bldg. budget

INPUT INSTRUCTIONS FOR FRONT DOOR/BACK DOOR

Front Door/Back door analysis is a before tax static analysis. The front door uses project cost to determine the necessary rents to satisfy an equity cash on cash return, to satisfy a give debt cover ratio or to satisfy a given default rate. Back door analysis uses market rents to determine a justified project cost. The amount of equity and debt is determined by satisfying a given debt cover ratio or default ratio. While few investment decisions can be made using only front door/back door analysis it can be an effective screening tool and useful in performing sensitivity analysis.

1. TITLE-- enter the title of the analysis
caps will appear as caps, lower
case as lower case
2. TYPE-- E--existing income property
R--rehabilitation of existing
property
N--new construction
E--uses land, building cost and
other costs in dollars
R--uses land and building costs in
dollars, # of square feet to rehab
and rehab cost per square foot, and
other cost in dollars
N--uses land and other costs in dollars
and the # of square feet to build
and the cost per square foot of
construction
3. ANNUAL EXPENSES 3-5 enter either a dollar amount or
4. ANNUAL REAL ESTATE TAXES a percentage of gross income as
5. VACANCY RATE either a percentage i.e., 15.5
or a decimal, i.e., .155.
6. INTEREST RATE enter either a percentage or decimal
value
7. TERM the term in years
8. PAYMENTS PER YEAR enter the number of payments/year
9. EQUITY CASH ON CASH enter either a percentage or decimal
RATE value of the desired equity cash
return before taxes as a percent of
total equity
10. LOAN TO VALUE RATIO enter a percentage or decimal value
of the required ratio of the loan
to total cost or value

11. DEFAULT RATIO enter a percentage or decimal value
 of the required ratio of expenses
 plus real estate taxes plus annual
 debt service to gross income

The default ratio is defined as:

$$\frac{\text{OPERATING EXPENSES} + \text{REAL ESTATE TAXES} + \text{ANNUAL DEBT SERVICE}}{\text{GROSS INCOME}}$$

It is a measure of risk for the equity interest in that it indicates the ability of the project to withstand shock i.e., higher vacancies rates, lower rents. As the default ratio approaches one, the project's ability to withstand shocks is reduced, thus higher risk.

12. DEBT COVER RATIO enter the decimal value that
 represents the required ratio of net
 operating income to debt service

The debt cover ratio is defined as:

$$\frac{\text{NET OPERATING INCOME}}{\text{ANNUAL DEBT SERVICE}}$$

It is a traditional measure of risk for lenders. A value well above one indicates the project's ability to withstand shocks, those things that would lower net operating income, and still meet debt service obligations. As the ratio approaches one, higher risk of default is assumed by the lender.

13. SPACE TIME UNITS (STU) enter the number of rentable units;
 i. e. the number of leasable square
 feet, the number of apartments
 (total units to calculate annual
 rent or total units X 12 to
 calculate monthly rents)

14. MARKET RENTS/STU enter the dollar amount of rents
 per space time unit (be sure these
 match, do not enter total apart-
 ments and then monthly rents)

- | | | |
|-----|--|--|
| 15. | LAND COST | dollar amount |
| 16. | BUILDING COST | dollar amount |
| 17. | SQUARE FEET TO
REHABILITATE OR # OF
SQUARE FEET TO BUILD | number of square feet to actually
build or to rehabilitate |
| 18. | CONSTRUCTION COST PER
SQUARE FOOT | actual dollar cost per square foot
for construction or rehabilitation |
| 19. | SOFT COSTS | enter either a dollar amount or as
a percentage of construction or
rehabilitation cost; percentage can
be a percentage or a decimal value |
| 20. | OTHER COSTS | dollar amount |

The following pages include a blank input screen and an example of inputs contained in FDBD.IN and the resulting output.

BLANK FDBD INPUT SCREEN

INPUT ROUTINE FOR FRONT DOOR/BACK DOOR ANALYSIS

3. ANNUAL EXPENSES	-----	10. LOAN TO VALUE RATIO	-----
4. ANNUAL R. E. TAXES	-----	11. DEFAULT RATIO	-----
5. VACANCY RATE	-----	12. DEBT COVER RATIO	-----
6. LOAN INTEREST RATE	-----		
7. LOAN TERM IN YEARS	-----	13. SPACE TIME UNITS	-----
8. PAYMENTS PER YEAR	-----		
9. EQUITY CASH ON CASH RATE	-----		

FRONT DOOR INPUTS

15. LAND COST	-----
17. SQ. FT. TO BE BUILT	-----
18. CONSTRUCTION COST/SQ FT	-----
19. SOFT COSTS AS % CONS.	-----
20. OTHER	-----

BACK DOOR INPUTS

14. MARKET RENTS/SPACE TIME UNIT	-----
-------------------------------------	-------

1. ENTER THE TITLE FOR THIS ANALYSIS ?

2. ENTER THE TYPE PROPERTY ?

E=EXISTING INCOME PROPERTY

R=REHABILITATION OF EXISTING PROPERTY

N=NEW CONSTRUCTION

COMPLETED FDBD INPUT SCREEN

ENTER THE # OF THE VARIABLE YOU WISH TO CHANGE-0 TO RETURN TO MAIN MENU?

3. ANNUAL EXPENSES	20.0000%	10. LOAN TO VALUE RATIO	80.0000%
4. ANNUAL R. E. TAXES	50,000	11. DEFAULT RATIO	85.0000%
5. VACANCY RATE	5.0000%	12. DEBT COVER RATIO	1.25
6. LOAN INTEREST RATE	14.0000%		
7. LOAN TERM IN YEARS	25	13. SPACE TIME UNITS	80,000
8. PAYMENTS PER YEAR	12		
9. EQUITY CASH ON CASH RAT	10.0000%		

FRONT DOOR INPUTS

15. LAND COST	300,000
17. SQ. FT. TO BE BUILT	100,000
18. CONSTRUCTION COST/SQ FT	40.00
19. SOFT COSTS AS % CONS.	18.0000%
20. OTHER	200,000

BACK DOOR INPUTS

14. MARKET RENTS/SPACE TIME UNIT	11.50
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1. ENTER THE TITLE FOR THIS ANALYSIS Neighborhood Shopping Center

2. ENTER THE TYPE PROPERTY n

E=EXISTING INCOME PROPERTY

R=REHABILITATION OF EXISTING PROPERTY

N=NEW CONSTRUCTION

FRONT DOOR ANALYSIS USING LOAN TO VALUE RATIO FOR Neighborhood Shopping Center

LAND COST	300,000
CONSTRUCTION COST	4,000,000
SOFT COSTS	720,000
OTHER	200,000
TOTAL COST	5,220,000

1,044,000		4,176,000
10.0000% EQUITY CASH ON CASH RATE		MORTGAGE CONSTANT 14.4451%
104,400		603,229

NET OPERATING INCOME	707,629	
R. E. TAXES	50,000	
OPERATING EXPENSES	202,034	
EFF. GROSS INCOME	959,663	
VACANCY LOSS	50,509	
GROSS INCOME	1,010,172	
SPACE TIME UNITS	80,000	
REQUIRED RENT PER SPACE TIME UNIT	12.63	= 109.8013% OF MARKET RENTS
LOAN TO VALUE RATIO	80.0000%	
DEBT COVER RATIO	1.17	
DEFAULT RATIO	84.6651%	

FR. DR. ANAL. USING LTV AND DEBT COVER RATIO FOR Neighborhood Shopping Center

LAND COST	300,000
CONSTRUCTION COST	4,000,000
SOFT COSTS	720,000
OTHER	200,000
TOTAL COST	5,220,000

1,044,000		4,176,000
14.4451% EQUITY CASH ON CASH RATE		MORTGAGE CONSTANT 14.4451%
150,807		603,229

NET OPERATING INCOME	754,036	
R. E. TAXES	50,000	
OPERATING EXPENSES	214,410	
EFF. GROSS INCOME	1,018,446	
VACANCY LOSS	53,602	
GROSS INCOME	1,072,048	
SPACE TIME UNITS	80,000	
REQUIRED RENT PER SPACE TIME UNIT	13.40	= 116.5270% OF MARKET RENTS
LOAN TO VALUE RATIO	80.0000%	
DEBT COVER RATIO	1.25	
DEFAULT RATIO	80.9328%	

FR. DR ANAL. USING LTV AND DEFAULT RATIO FOR Neighborhood Shopping Center

LAND COST	300,000
CONSTRUCTION COST	4,000,000
SOFT COSTS	720,000
OTHER	200,000
TOTAL COST	5,220,000

1,044,000

9.6261% EQUITY CASH ON CASH RATE

100,497

4,176,000

MORTGAGE CONSTANT 14.4451%

603,229

NET OPERATING INCOME	703,726	
R. E. TAXES	50,000	
OPERATING EXPENSES	200,993	
EFF. GROSS INCOME	954,719	
VACANCY LOSS	50,248	
GROSS INCOME	1,004,967	
SPACE TIME UNITS	80,000	
REQUIRED RENT PER SPACE TIME UNIT	12.56	= 109.2356% OF MARKET RENTS
LOAN TO VALUE RATIO	80.0000%	
DEBT COVER RATIO	1.17	
DEFAULT RATIO	85.0000%	

BACK DOOR ANALYSIS USING DEBT COVER RATIO FOR Neighborhood Shopping Center

GROSS RENTS	920,000
VACANCY LOSS	46,000
EFF. GROSS INCOME	874,000
EXPENSES	184,000
R. E. TAXES	50,000
NET OPERATING INCOME	640,000

128,000		512,000
10.0000% EQUITY CASH ON CASH RATE		MORTGAGE CONSTANT 14.4451%
1,280,000		3,544,446

JUSTIFIED INVESTMENT 4,824,446

IF YOU HOLD CONSTANT REHABILITATION COST LAND COST

LAND COST	-95,555 *	300,000
OTHER	200,000	200,000
CONSTRUCTION COST	4,000,000	3,664,784 *
SOFT COSTS	720,000	659,661 *
CONSTRUCTION COST PER SQUARE FOOT	40.00	36.65 *

BACK DOOR ANALYSIS USING DEFAULT RATIO FOR Neighborhood Shopping Center

GROSS INCOME	920,000
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138,000		782,000
46,000 VACANCY LOSS		EXPENSES 184,000
		R.E. TAXES 50,000
131,100 CASH TO EQUITY		DEBT SERVICE 548,000
10.0000% EQUITY CASH ON CASH RATE		MORTGAGE CONSTANT 14.4451%
1,311,000 EQUITY INVESTMENT		MORTGAGE LOAN 3,793,665

JUSTIFIED INVESTMENT 5,104,664

IF YOU HOLD CONSTANT REHABILITATION COST LAND COST

LAND COST	184,664 *	300,000
OTHER	200,000	200,000
CONSTRUCTION COST	4,000,000	3,902,258 *
SOFT COSTS	720,000	702,406 *
CONSTRUCTION COST PER SQUARE FOOT	40.00	39.02 *

INPUT INSTRUCTIONS FOR VALTEST

Valtest is a multiple year after tax discounted cash-flow model that incorporates the current federal tax laws as they affect real estate. The projection period can vary from two to twenty years. Basic assumptions of the model include:

1. Income flows to the equity interest occur at the end of the year
2. The sales proceeds at the end of the holding period are assumed to occur at the end of the year
3. Internal rate of return is calculated using the 'Newton-Raphson Iteration' and is calculated to the .0001 level of precision
4. All equity is assumed invested at day one of the project
5. The following-cash flow statement is used:

GROSS INCOME
LESS VACANCY LOSS

EFFECTIVE GROSS INCOME
LESS VARIABLE OPERATING EXPENSES
LESS FIXED OPERATING EXPENSES

NET OPERATING INCOME
LESS INTEREST
LESS DEPRECIATION

TAXABLE INCOME
LESS PRINCIPAL PAID
PLUS DEPRECIATION

CASH THROW-OFF
LESS INCOME TAXES (PLUS TAX LOSSES)

SPENDABLE CASH AFTER TAXES

6. The impact of the alternative minimum tax is ignored

The following includes input instructions with copies of both blank and completed input screens. The data was originally entered through Ellwood and the minimum additional inputs were added. The input screens from the Ellwood file follow the output. In addition, the following input screens and resulting output use the same basic data with additional data input assumptions.

BASIC DATA

- | | |
|--|--|
| 1. PROJECT NAME | enter the title for the project, caps will appear as caps, lower case as lower case |
| 2. PROJECTION PERIOD | enter the holding period for this analysis, minimum of two, maximum of twenty |
| 3. ACQUISITION COST | enter the total acquisition cost for the project |
| 4. IS PROPERTY SUBSIDIZED HOUSING | Y--Yes, N--No, used in calculating capital gains at sale |
| 5. IS PROPERTY RESIDENTIAL | Y--Yes, N--No, used in calculating taxes on sale |
| 6. IS OWNER A TAXABLE CORP. | Y--Yes, N--No, used in calculating taxes on sale |
| 7. EFFECTIVE ORDINARY TAX RATE | enter the effective marginal tax rate for the holding period as either a decimal or percentage |
| 8. EFFECTIVE ORDINARY TAX RATE IN YEAR OF SALE | enter the effective marginal tax rate in the year of sale as either a decimal or percentage |
| 9. RESALE PRICE OR CAPITALIZATION RATE | enter either the resale price at the end of the holding period or enter a capitalization rate to be used against net operating income in the year of sale to determine the sales price as either a decimal or a percentage |
| 10. OWNER'S REINVESTMENT | enter the owner's reinvestment rate RATE as either a decimal or a percentage; this rate is used in calculating the modified internal rate of return |
| 11. OWNER'S DISCOUNT RATE | enter the owner's discount rate for this project as either a decimal or a percentage; used in calculating net present value of the project |

MORTGAGE DATA

1. MORTGAGE RATIO OR AMOUNT enter either the dollar size of the loan or the ratio of the loan to acquisition cost as either a decimal or a percentage, the program will not allow over 100% financing
2. INTEREST RATE enter the contract interest rate for the loan as either a decimal or a percentage
3. MORTGAGE TERM IN YEARS OR PERIODIC PAYMENT enter the mortgage term from 1 to 99 years or the periodic payment', a periodic payment should be used if the loan is not a standard amortizing loan, a payment equal to the interest due per period will be a interest only loan and a payment below that will result in negative amortization
4. PAYMENTS PER YEAR enter the number of payments per year, the payment specified in #3 above should be entered corresponding to this entry
5. POINTS TO BE PAID enter the percentage of the original loan amount that will be paid at the closing of the loan as either a decimal or percentage, this amount will be amortized for ten years for tax purposes
6. PREPAYMENT PENALTY enter the percentage of the ending balance of the loan that must be paid for early retirement of the loan as either a decimal or a percentage
7. IS THERE LENDER PARTICIPATION Y--Yes, N--No
8. % OF CASH THROW-OFF TO LENDER enter the percentage of the cash throw-off the lender will receive as additional interest on their loan as either a decimal or a percentage
9. % OF BEFORE TAX PROCEEDS AT SALE TO LENDER enter the percentage of the before tax proceeds from sale that the lender will receive as additional interest on their loan as either a decimal or a percentage

COMPONENT DATA

1. VALUE OF COMPONENT #1
OR RATIO TO TOTAL
VALUE enter the dollar value of the first
component or the percentage of the
acquisition cost as either a
decimal or a percentage
2. DEPRECIABLE LIFE enter the useful life of the
component for tax depreciation
purposes
3. DEPRECIATION METHOD 1=Straight line
2=Declining balance method
3=Sum-of-the-years-digits
4. DECLINING BALANCE % if #3 is 2 then enter the type
declining balance method to use as
either a decimal or a percentage
5. IS THERE A SECOND COMPONENT Y--Yes, N--No
6. VALUE OF COMPONENT #2
OR RATIO TO TOTAL
VALUE see #1
7. DEPRECIABLE LIFE see #2
8. DEPRECIATION METHOD see #3
9. DECLINING BALANCE % see #4
10. REHABILITATION TAX
CREDIT FOR COMPONENT #2 enter the tax credit for either
rehabilitation or investment tax
credit as a percentage of this
components value as either a
decimal or a percentage
11. IS STRUCTURE A CERTIFIED Y--Yes, N--No
HISTORIC STRUCTURE

INCOME AND EXPENSE DATA

1. WHERE TO START

1=Gross income
2=Effective gross income
3=Net operating income

if #1--enter gross income, vacancy rate, variable operating expenses and fixed operating expenses

if #2--enter effective gross income, variable operating expenses and fixed operating expenses

if #3--enter net operating income

2. INSTRUCTIONS FOR INPUTTING GROSS INCOME, EFFECTIVE GROSS INCOME, FIXED OPERATING EXPENSES AND NET OPERATING INCOME

For year one enter the fixed dollar amount for that year

For years two through the holding period enter either:

1. A fixed dollar amount for that year
2. A zero to hold the amount from the previous year constant for the balance of the holding period
3. A percentage growth rate to be used to calculate the remaining years amount by applying the growth rate to the previous year as either a decimal or a percentage, the growth is assumed to be compound

3. INSTRUCTIONS FOR INPUTTING VACANCY RATE AND VARIABLE OPERATING EXPENSES

For year one enter either:

1. A zero to disregard all years
2. A percentage
for vacancy a percentage of gross income for variable operating expenses a percentage of either gross income or effective gross income depending on where the analysis starts--see #1 above

For year two through the holding period enter either

1. The percentage for that year
2. A zero to zero out the remaining years
3. A 99 to duplicate the previous years entry for the remaining years

INPUT ASSUMPTIONS FOR--Neighborhood Shopping Center

BASIC DATA

Project Name	Neighborhood Shopping Center
Projection Period	7
Acquisition Cost	5,220,000
Is Property Subsidized Housing ? Y Or N	n
Is Property Residential? Y Or N	n
Is Owner A Taxable Corporation? Y Or N	n
Effective Ordinary Tax Rate	50.000
Effective Tax Rate In Year Of Sale	50.000
Cap Rate for NOI to Determine Resale Price	12.261
Owner's Reinvestment Rate in %	12.180
Owner's Discount Rate in %	12.180

MORTGAGE DATA

Do You Want To Use Standard Financing? Y Or N	Y
Mortgage Ratio Or Amount	80.000
Interest Rate	14.000
Mortgage Term	25
Payments Per Year	12
Points to be paid	0.000
Prepayment penalty	0.000
Is There Lender Participation? Y Or N	n
Income Cash Throw-Off To Lender In %	0.000
Resale Proceeds To Lender Before Taxes In %	0.000

COMPONENT DATA

Value or Ratio Of Improvement #1/Total Value	90.421
Depreciable Life Of Improvement #1	18
Depreciation Method, Improvement #1	1
Is There a Second Improvement	Y
Value or Ratio of Component #2/Total Value	3.831
Depreciable Life of Component #2	18
Depreciation Method, Improvement #2	1
Rehabilitation Tax Credit for Improvement #2	0.000
Is Structure a Historic Landmark	n

INCOME AND EXPENSE SUMMARY

Year	Gr. Inc.	Vac Rate	Var Exp	Fix Exp
1	920,000	5.000	20.000	50,000
2	933,015	5.000	20.000	50,707
3	946,215	5.000	20.000	51,425
4	959,601	5.000	20.000	52,152
5	973,177	5.000	20.000	52,890
6	986,944	5.000	20.000	53,638
7	1,000,907	5.000	20.000	54,397

CASH FLOW REPORT FOR--Neighborhood Shopping Center

Year	Gross Operating Income	Vacancy Loss	Effective Gross Income	Variable Operating Expenses	Fixed Operating Expenses	Net Operating Income
1	920,000	46,000	874,000	184,000	50,000	640,000
2	933,015	46,651	886,365	186,603	50,707	649,054
3	946,215	47,311	898,904	189,243	51,425	658,236
4	959,601	47,980	911,621	191,920	52,152	667,549
5	973,177	48,659	924,518	194,635	52,890	676,993
6	986,944	49,347	937,597	197,389	53,638	686,570
7	1,000,907	50,045	950,862	200,181	54,397	696,283
<hr/>						
	6,719,860	335,993	6,383,866	1,276,773	365,210	4,674,685

Year	Net Operating Income	Less Interest	Less Depreciation	Taxable Income	Less Principal Paid	Plus Depreciation
1	640,000	583,400	273,333	-216,734	19,829	273,333
2	649,054	580,438	273,333	-204,718	22,791	273,333
3	658,236	577,035	273,333	-192,133	26,194	273,333
4	667,549	573,123	273,333	-178,909	30,106	273,333
5	676,993	568,627	273,333	-164,969	34,602	273,333
6	686,570	563,459	273,333	-150,224	39,770	273,333
7	696,283	557,520	273,333	-134,571	45,709	273,333
<hr/>						
	4,674,685	4,003,602	1,913,333	-1,242,258	219,001	1,073,217

Year	Cash Throw-Off	Income Taxes	Spendable Cash After Taxes	Equity Return Before Taxes	Equity Return After Taxes
1	36,770	-108,368	145,138	3.52%	13.90%
2	45,825	-102,360	148,185	4.39%	14.19%
3	55,006	-96,067	151,073	5.27%	14.47%
4	64,318	-89,455	153,773	6.16%	14.73%
5	73,762	-82,485	156,247	7.07%	14.97%
6	83,340	-75,113	158,453	7.98%	15.18%
7	93,053	-67,286	160,339	8.91%	15.36%
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	452,075	-621,134	1,073,209	6.19%	14.69%

SUMMARY OF FINAL SALE OF PROPERTY FOR--Neighborhood Shopping Center

Original Cost	5,220,000
Original Net Mortgage	4,176,000
Original Equity	1,044,000

Resale Price	5,679,059
Less Mortgage Balance	3,956,999
Proceeds Before Taxes	1,722,060
Less Lender's %	0
Prepayment Penalty	0
Net Sales Proceeds Before Taxes	1,722,060
	=====

Resale Price	5,679,059
Less Lender's %	0
Prepayment Penalty	0
Net Resale Price	5,679,059
Less Basis	3,306,667
Total Gain	2,372,393

Net Sales Proceeds	1,722,060
Tax On Capital Gain	474,479
Tax On Ordinary Gain	0
Total Taxes on Sale	474,479

Excess Depreciation	0
Excess Dep. Forgiven	0
Capital Gain	2,372,393
Ordinary Gain	0

Net Sales Proceeds After Tax	1,247,582
	=====

Net Income to Market Value Ratio in Year 1	0.1226
Net Income to Market Value Ratio in Year of Sale	0.1226

The IRR for the project before taxes is	12.18 %
The IRR for the project after taxes is	16.24 %
Assumes cash flows and tax losses at end of year and a reinvestment rate equal to the calculated IRR.	

The Modified IRR for the project before taxes	12.18 %
The Modified IRR for the project after taxes	15.08 %
Assumes cash flows and tax losses at end of year and a reinvestment rate of 12.18 %.	

The Net Present Value of the Project Before Taxes Using 12.18% as the Discount Rate is	0
--	---

The Net Present Value of the Project After Taxes Using 12.18% as the Discount Rate is	204,463
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DEPRECIATION SCHEDULE FOR--Neighborhood Shopping Center
IMPROVEMENT # 1
Straight Line

Year	Depreciation For Tax Purposes	Straight Line Depreciation	Excess Depreciation	Balance
1	262,222	262,222	0	4,457,778
2	262,222	262,222	0	4,195,556
3	262,222	262,222	0	3,933,334
4	262,222	262,222	0	3,671,111
5	262,222	262,222	0	3,408,889
6	262,222	262,222	0	3,146,667
7	262,222	262,222	0	2,884,445
SUB-TOTAL	1,835,556	1,835,556	0	

DEPRECIATION SCHEDULE FOR--Neighborhood Shopping Center
IMPROVEMENT # 2
Straight Line

Year	Depreciation For Tax Purposes	Straight Line Depreciation	Excess Depreciation	Balance
1	11,111	11,111	0	188,889
2	11,111	11,111	0	177,778
3	11,111	11,111	0	166,667
4	11,111	11,111	0	155,556
5	11,111	11,111	0	144,444
6	11,111	11,111	0	133,333
7	11,111	11,111	0	122,222
SUB-TOTAL	77,778	77,778	0	
TOTAL	1,913,333	1,913,333	0	

MORTGAGE ANALYSIS FOR--Neighborhood Shopping Center

Net Mortgage Amount	4,176,000	Mortgage Term	25
Mortgage Interest Rate	14.000	Mortgage Constant	14.445
Points on Mortgage	0.000	Prepayment Penalty	0.000
Lender Participation	0.000	Reversion	0.000

Year	Interest Paid	Principal Paid	Loan Participation	Debt Service	Mortgage Balance	Debt Coverage Ratio
1	583,400	19,829	0	603,229	4,156,171	1.0610
2	580,438	22,791	0	603,229	4,133,380	1.0760
3	577,035	26,194	0	603,229	4,107,186	1.0912
4	573,123	30,106	0	603,229	4,077,080	1.1066
5	568,627	34,602	0	603,229	4,042,478	1.1223
6	563,459	39,770	0	603,229	4,002,708	1.1382
7	557,520	45,709	0	603,229	3,956,999	1.1543
Avg:						1.1071

Lenders Participation in Sales Proceeds	0
Lenders Prepayment Penalty is	0

Lenders Internal Rate of Return is 14.00 %
 assumes payments are made 12 times a year
 at the end of the period and participation
 is paid at the end of the year.

Project title: PHILLIPS

Unit prices Search interval = 5

	ACCES	SHAPE	SIZE	PROXI	LOCAT	CORNE	FRONT	Price
Prel. wts.	10	20	30	20	5	15	0	-
AMERICAN	3	5	1	3	3	1	1	\$2.50
HERITAGE	5	1	3	5	5	5	5	\$3.41
ZIMBRICK	3	3	3	3	3	5	3	\$3.33
APPLIANCE M	5	5	3	3	1	1	1	\$3.20
PROMENADE	5	1	1	5	5	1	3	\$2.45
AHRENS	3	3	3	3	3	1	1	\$2.62
PHILLIPS	1	5	1	1	3	5	5	-

Transaction Zone: Mean Price Per Point Method

Number of units in subject property: 213684

Low Estimate	\$514,962	or	\$515,000
Central Tendency	\$529,537	or	\$530,000
High Estimate	\$544,112	or	\$544,000

Value Range Determination: Mean Price Per Point Method

Mean price per point:	\$0.99
Dispersion About the Mean:	\$0.03
Coefficient of Dispersion:	0.0275

Value Range Per Unit of Dispersion

	Subject Point Score		Mean (+/- One Standard Deviation)		Price Per Unit
Low Estimate	2.50	X	\$0.96	=	\$2.41
Central Tendency	2.50	X	\$0.99	=	\$2.48
High Estimate	2.50	X	\$1.02	=	\$2.55

Mean Price Per Point Method: Predicted vs. Actual Price for Comparables

	Predicted Price	Actual price	Error
AMERICAN	\$2.48	\$2.50	-\$0.02
HERITAGE	\$3.57	\$3.41	\$0.16
ZIMBRICK	\$3.27	\$3.33	-\$0.06
APPLIANCE MART	\$3.17	\$3.20	-\$0.03
PROMENADE	\$2.38	\$2.45	-\$0.07
AHRENS	\$2.68	\$2.62	\$0.06

EQUITY YIELD RATE	16.00000
HOLDING PERIOD	5
LOAN NUMBER	1
INTEREST RATE	0.13250
LOAN TERM	25.00000
PAYMENTS PER YEAR	12
DSCR & LOAN/VALUE RATIOS	1.30000
TAX RATE	0.40000
CAPITAL GAINS TAX RATE	0.20000
RESALE PRICE	\$528,000.
LAND VALUE	\$250,000.
DEPRECIATION METHOD	SL
COST RECOVERY PERIOD	18
NET OPERATING INCOME	\$49,923.
CHANGE IN NOI	0.18242
INCOME ADJUSTMENT FACTOR	YR
SELLING COST	0.04000

VALUE	\$418,929.
AFTER TAX YIELD	16.00000
OVERALL RATE	0.11917
MORTGAGE CONSTANT	0.13760
MORTGAGE VALUE	\$279,078.
BUILDING VALUE	\$168,929.
EQUITY VALUE	\$139,851.
EQUITY DIVIDEND	0.08238

C A S H F L O W S U M M A R Y

	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
NOI	\$49,923.	\$51,580.	\$53,973.	\$56,456.	\$59,030.
DEBT SER#1	-\$38,402.	-\$38,402.	-\$38,402.	-\$38,402.	-\$38,402.
BTCF	\$11,521.	\$13,178.	\$15,571.	\$18,054.	\$20,628.
NOI	\$49,923.	\$51,580.	\$53,973.	\$56,456.	\$59,030.
INTEREST 1	-\$36,888.	-\$36,675.	-\$36,432.	-\$36,154.	-\$35,837.
DEPREC	-\$9,385.	-\$9,385.	-\$9,385.	-\$9,385.	-\$9,385.
TAXABLE	\$3,650.	\$5,520.	\$8,157.	\$10,917.	\$13,808.
TAXES	\$1,460.	\$2,208.	\$3,263.	\$4,367.	\$5,523.
ATCF	\$10,061.	\$10,970.	\$12,308.	\$13,687.	\$15,105.

RESALE PRICE	\$528,000.	RESALE PRICE	\$528,000.
SELLING COST	-\$21,120.	SELLING COST	-\$21,120.
LOAN BALANCE # 1	-\$269,052.	ADJUSTED BASIS	-\$372,004.
		TAXABLE GAIN	\$134,876.
		LONG TERM GAIN	\$134,876.
BEFORE TAX PROCEEDS	\$237,828.	ORDINARY TAXES	\$0.
TAXES	-\$26,975.	CAPITAL GAINS TAX	\$26,975.
AFTER TAX PROCEEDS	\$210,852.		

EQUITY CASH FLOW SUMMARY

YEAR	CASH FLOW
0	-\$139,851.
1	\$10,061.
2	\$10,970.
3	\$12,308.
4	\$13,687.