#### JAMES A. GRAASKAMP COLLECTION OF TEACHING MATERIALS

- V. INDUSTRY SEMINARS AND SPEECHES SHORT TERM
  - A. Appraisal Organizations
    - 14. 1984
      - b. "Contemporary Appraisal of Large Income Properties", North Carolina Chapter, AIREA, April 20, 1984

#### CONTEMPORARY APPRAISAL OF LARGE INCOME PROPERTIES

### Presented by

Professor James A. Graaskamp, Ph.D., CRE, SREA University of Wisconsin, School of Business

Sponsored by North Carolina Chapter of the American Institute of Real Estate Appraisers

Inn on the Plaza Asheville, North Carolina

April 20, 1984

#### CONTEMPORARY APPRAISAL THEORY AND THE INCOME APPROACH

#### Presented By

James A. Graaskamp, Ph.D., CRE, SREA University of Wisconsin, School of Business

#### FIRST HOUR

- I. The basic premises of the contemporary approach stem from the fundamental belief that pricing is a behavioral science, that analysis should be inductive rather than deductive wherever possible, and that appraised values are intended to serve as a benchmark for some decision process.
  - A. A price is a social transaction and the behavior of the parties and configuration of the transaction reflects a consensus at some point in time between external market forces sufficiently strong to impose on the outcome and internal forces on the supply side sufficiently strong to pursue their own self-perceived interests.

Notice that the above does not presume:

- 1. Both demand and supply forces to have alternatives of equal indifference.
- 2. Negotiation abilities of equal force, or
- 3. Cash maximization as their sole criteria all of which characterize the traditional approach.
- B. The contemporary view sees appraisal as a limited and fictional case of feasibility analysis which, in turn, is a limited case in problem solving which, in turn, is part of a larger planning framework.
- C. Appraisal as a fictional feasibility study is a model of a decision process and, therefore, like all models is constrained by the following elements:

- 1. What is the nature of the question?
- What quantity and quality of data may be available?
- 3. What theory or hypothesis may edit and focus the available data as a tentative answer to the question?
- 4. What techniques and data management can be used reliably by the analysts?
- 5. What techniques and data management have credibility with the ultimate decision maker hiring the analyst?
- 6. What techniques and data management are cost effective in terms of the dollar consequences of the decision?
- D. Functions of appraisal differ dramatically and lead to multiple definitions of value.
  - 1. Validation (mortgage loans)
  - 2. Benchmarking performance (pension funds)
  - Confrontation (legal cases)
  - 4. Counseling (investment decisions)
- II. In that light, the sequence of steps required of the contemporary/appraisal process referred to by Wisconsin students as RATGRAM is as follows:
  - A. What is the issue for which the appraisal is sought as a benchmark?
  - B. What are the attributes of the property in terms of alternative courses of action for their productive use?
  - C. Given the alternatives, what is the most probable use?

- D. Given the most probable use, who is the most probable buyer in terms of class, motivation profile, or market position? (See Exhibit 1.)
- E. Given the most probable use and most probable buyer assumptions, there are three approaches to predicting most probable price:
  - 1. Inference from past transactions involving properties of similar potential and buyers of similar motivation.
  - 2. Failing adequate transaction data, it is then acceptable to simulate the pricing methods of the most probable buyer.
  - 3. Failing to find either similar properties or articulate buyers, the appraiser is then permitted to use normative methods which indicate what might happen if buyer and seller were as smart as the appraiser.
- F. With an initial estimate of value, it may then be modified for external conditions unique to the parties, the place, or the time.
- G. The adjusted value must then be tested to demonstrate that results at that price would be consistent with the minimum goals of all major parties to the transaction.
- H. Since the appraiser is predicting price under conditions of uncertainty and many different market terms, the appraisal conclusion must be expressed as a central tendency within a transaction zone which is qualified by financial terms and/or critical assumptions about unknowable facts.
  - 1. Although the Institute uses fair market value and most probable price interchangeably, that is a travesty on the work of modern theorists and a deliberate attempt to confuse or negate the implied criticism of traditional ways by contemporary analysts. See Exhibits 2 & 3.

#### EXHIBIT 3

The most probable price is that selling price which is most likely to emerge from a transaction involving the subject property if it were to be exposed for sale in the current market for a reasonable time at terms of sale which are currently predominant for properties of the subject type.

Source: P. 8, <u>The Appraisal of 25 N. Pinckney</u>, Editor James A. Graaskamp.

#### Critical Issues That Define Appraisal Process

Function of the Appraisal	Property Rights	Relevant Definition of Value	Allocation of Productivity	Buyer Motivation Presumed
Tax assessment	Fee simple private rights unencumbered	Cash market present value (As opposed to most probable selling price)	Present value income attributable to land and structures only	Purchase of economic productivity
Mortgage loan (nonparticipating)	Encumbered fee simple private rights plus additional rights pledged	Regulations - market value Underwriting - solvency price or liquidating value	Fixed income pledged from all sources less costs of creative management	Share of economic productivity contributed by capital
Mortgage loan (participatory)	Encumbered title plus nonvested interest in selected future revenues	Present value of all future cash flows	Variable income pledged plus share of reversionary interest	Share of economic productivity contributed by capital plus share in selected management return plus positioning against devaluation due to changing conditions
Sale of an investment	Encumbered title plus vested entitlements plus going concern profit center opportunities	Most probable price above minimum acceptable alternative opportunity	Returns from land, structures, personalty, and selected entitlements	increase in spendable cash increase in liquidity value of estate Positioning to maximize probability of survival of benefits despite changing conditions
Purchase of Investments	Encumbered title plus positioning for access to entitlements	Most probable price within perceived peril point limit	Land, structure, personalty, and intangible assets less profit centers for management	Increase in spendable cash increase in liquidity value of estate Positioning to maximize probability of survival of benefits despite changing conditions
Going concern purchase of a business	Encumbered title plus positioning for access to entitlements plus reduction in risk for business start-up plus control of monopolistic market position controls	Most probable sales price within perceived costs of creating an alternative	Land, structure, personalty, and intangible assets and good will plus artifactual profit centers for management	value of estate

#### EXHIBIT 2

#### FAIR MARKET VALUE

The most probable price in cash, terms equivalent to cash, or in other precisely revealed terms, for which the appraised property will sell in a competitive market under all conditions requisite to fair sale, with the buyer and seller each acting prudently, knowledgeably, and for self-interest, and assuming that neither is under undue duress.

Fundamental assumptions and conditions presumed in this definition are

- 1. Buyer and seller are motivated by self-interest.
- 2. Buyer and seller are well informed and are acting prudently.
- 3. The property is exposed for a reasonable time on the open market.
- 4. Payment is made in cash, its equivalent, or in specified financing terms generally available for the property type in its locale on the effective appraisal date.
- 5. The effect, if any, on the amount of market value of atypical financing, services, or fees shall be clearly and precisely revealed in the appraisal report.

Source: American Institute of Real Estate Appraisers, <u>The Appraisal of Real Estate</u>, 8th ed., (Chicago: American Institute of Real Estate Appraisers, 1983), p. 33.

- 2. Contemporary theory recognizes explicitly the errors in forecasting, the role of financial terms, and the reality of bargaining position.
- I. These general precepts are then expanded into an appraisal report outline of the general type included in Exhibit 4.
- J. Upon review of the more detailed outline and the limited time that we have, I would like to demonstrate a manual market inference system, an automated market comparison system, an income simulation method, and a computer test model.

#### III. Three Basic Methods of Appraisal

Ratcliff concludes that most appraisals are concerned with prediction of a future event, a transaction price. Since an appraisal method is a forecasting tool, forecasting is best done with some past experience. Failing that, the best method is simulation of the real estate market process.

- A. Given reliable information on past market behavior, the preferred method of appraisal is to process the data, statistically if possible, to derive a prediction of future price behavior under given conditions and with means for estimating the reliability of the prediction.
  - 1. Statistical prediction if possible.
  - 2. Statistical rules for defintiion of a data set at the least.
- B. Should market data be unavailable or inconclusive, the appraiser is forced to resort to the second method of appraisal, namely the construction of a real estate market model of factors which reflect his understanding of how buyers and sellers might behave.
  - 1. The income approach and the cost approach are submodels of how an investor is supposed to behave.

#### EXHIBIT 4

#### CONTEMPORARY REAL ESTATE APPRAISAL REPORT OUTLINE

#### Letter of Transmittal

- 1. Brief statement of appraisal issue
- 2. Definition of value aplied
- 3. Value conclusion (qualified by financing, terms of sale, and range of probable transaction zone as appropriate)
- 4. Sensitivity of conclusion to critical assumptions
- 5. Property observations or recommendations
- Incorporation by reference of limiting assumptions and conditions

#### Table of Contents

#### List of Exhibits

#### Digest of Facts, Assumptions, and Conclusions

- Property type
- 2. Property location
- 3. Property ownership
- 4. Determinant physical attributes
- 5. Controlling legal-political attributes
- 6. Pivotal linkage attributes
- 7. Marketable dynamic attributes
- 8. Most probable use conclusion
- 9. Most probable buyer profile assumed
- 10. Initial probable price prediction and central tendency
- 11. Adjustment of preliminary value estimate for external factors or market position of parties
- 12 Testing of corrected probable price for consistency with most probable buyer objectives
- 13. Final value conclusion and range of error estimate as appropriate

#### I. Appraisal Problem Assignment

- A. Statement of issue or circumstances for which appraisal is intended to serve as a decision benchmark and date of valuation
- B. Special problems implicit in property type or issue that affect appraisal methodology and definition of value

- C. Special assumptions or instructions that are provided by others
- D. Definition of value, which is the objective of appraisal analysis and disciplines appraisal process
  - 1. Selected definition and source
  - 2. Implicit conditions of the definition
  - 3. Assumptions required by relevant legal rulings
- E. Definition of legal interests to be appraised
  - 1. Legal description and source
  - 2. Permits, political approvals, and other public use entitlements
  - 3. Fixtures or personalty to be included with sale
  - 4. Specific assets or liabilities excluded as inconsistent with issue or premise of appraisal

#### II. Property Analysis to Determine Alternative Uses

#### A. Site Analysis

- Physical (static) site attributes (size, shape, geology, slope, soil hydrology, etc.)
- 2. Special site improvements (wells, bulkheads, irrigation systems, parking surfaces with unique salvage or re-use characteristics, etc.)
- 3. Legal-political attributes (applicable federal, state and local zoning, convenants, easements, special assessments, or other land use codes and ordinances, etc.)
- 4. Linkages of site (key relationships to networks, populations, or activity centers that might generate need for subject property)
- 5. Dynamic attributes of site (perceptual responses of people to site in terms of anxiety, visibility, prestige, aesthetics, etc.)
- 6. Environmental attributes of site as related to off-site systems or impact areas.

#### B. Improvement Analysis

- I. Physical (static) attributes of improvements, cataloged by type, construction, layout, condition, structural flaws, etc.
- Mechanical attributes (brief sttement of heating, ventilating, air conditioning, electrical, plumbing, and fire or safety systems in terms of limitations on use or efficiency)

- 3. In short, it is useful to subdivide improvements into subsystems:
  - a. Foundation system
  - b. Structural system
  - c. Vertical circulation
  - d. Horizontal circulation
  - e. Floor system
  - f. Ceiling system
  - g. Roof system
  - h. Internal wall system
  - i. External wall system
  - j. HVAC system
  - k. Communications system
  - 1. Traffic separation system
  - m. Security system
  - n. Life safety system
  - o. Waste removal system
- 4. Special structural linkages to off-site elements (tunnels, bridges, adjoining structures, etc.)
- 5. Legal-political constraints on use of existing improvements (federal, state and local building codes, fire codes, conditional use procedures, neighborhood associations, and inspection liens of record for violations).
- Dynamic οf 6. attributes existing improvements bulk, (impressions created bу type, texture, functional previous uses, past history, or efficiency)
- 7. Current uses and tenancies of improvements, if any
- 8. Environmental impact attributes of improvements on environs
- C. Identification of Alternative Use Scenarios for Subject Property
  - 1. Marketing existing uses of property as is
  - Renovation of existing property and marketing improved space
  - 3. Redirection of existing property to alternative tenancies and uses
  - 4. Replacement of existing improvements or program with new uses

#### III. Selection of Most Probable Use

- A. Comparative Analysis of Alternative Uses
  - Testing and ranking alternative use strategies for legal-political compatibility
  - Testing alternative use scenarios for fit to physical property attributes within reasonable cost to cure
  - Selection of scenarios that justsify market research
- B. Analysis of Effective Demand for Selected Uses
  - Search for rents and income potentials of scenario space-time products
  - 2. Screen and rank market targets
  - Apply income-justified residual investment approach to rank economic power of alternative market scenarios
  - Evaluate marginal revenue, marginal investment risk trade-offs
- C. Summary Matrix for Selection of Most Probable Use Scenario
  - 1. Physical fit
  - 2. Legal-political risk
  - 3. Strength of market demand
  - 4. Adequacy of available financing
  - 5. Revenue and cost assumptions risk
- IV. Prediction of Price for Subject Property
  - A. Specification of Most Probable Buyer Type Implied by Most Probable Use
    - 1. Criteria motivations of alternative buyer types
    - Selection of most probable buyer type as basis for prediction
    - Specification of essential site, improvement, financial, or key decision criteria of principal alternative buyer types

- B. Explanation of Appraisal Methodology for Prediction of Probable Purchase Price
  - Preferred method: to infer buyer behavior from actual market transaction and market data available from sales by comparable buyers of acceptable alternative properties
  - In the absence of adequate market sales data, the alternative method selected for simulation of probable buyer decision process
  - If market influence of simulation is impossible, select normative model such as investment value, or cost to replace
- C. Search for Comparable Market Sales Transactions
  - 1. Unit of comparison
  - 2. Method of comparison
  - 4. Investigation of sale transaction circumstances
  - 5. Evaluation for comparability
  - 6. Definition of predominant terms of sale
  - 7. Source of comparative adjustments
- D. Determination of Suitability of Existing Market Data for Inference of Value for Subject Property
  - Where data is adequate, selection of market comparison method to estimate value
  - Where data is lacking or misleading, selection of method leads to simulation in E or normative methods in F
- E. Simulation of Probable Buyer Decision Process if Market Comparison Approach is Inconclusive or Impossible
  - 1. Source and explanation of simulation model
  - 2. Schedules of simulation assumptions
  - Range of alternative simulation value predictions (sensitivity analysis)
- (OR) F. Selection of Normative Model of Buyer Behavior
  - 1. Investment model
  - 2. Cost-to-replace model
  - 3. Nonquantitative decision models
  - G. Computation of Most Probable Price and Standard Error of Prediction

- H. Correction of Preliminary Value Estimate for External Factors
  - I. Identification of conditions relative to date of appraisal not present in market comparison assumptions
  - Specification of political contingencies that might upset normal appraisal assumptions of substitution
  - Identification of any violation of conditions in the definition of value by the appraisal methodology
  - 4. Indication of adjustment necessary to preliminary probable price estimate or
  - 5. Explicit statement that no adjustment is necessary
- I. Test of Most Probable Price or Value Conclusion by Means of:
  - 1. Comparison to values derived from selected alternative appraisal methodology
  - Demonstration of achievement of objectives of most probable buyer minimum selection criteria
  - 3. Measurement of fit of financial cash requirements to market rents, lender ratios, or other relevant constraints
  - 4. Comparison decision criteria appropriate to (financial ratios required by mortgage lender, comparative assessments of similar property tax appeal board, the rates of return alternative investments, construction prices for similar property, or whatever demonstrates consistency with statement of the issue)
- V. Appraisal Conclusion and Limiting Conditions
  - A. Definition of Value and Value Conclusion of the Report
  - B. Certification of Independent Appraisal Judgment
  - C. Statement of Limiting Conditions that Establish:
    - 1. Contributions of other professionals on which report relies
    - Facts and forecasting under conditions of uncertainty
    - 3. Critical assumptions provided by the appraiser
    - 4. Assumptions provided by the client
    - Controls on use of appraisal imposed by the appraiser

#### Appendices

Maps, data sets, only if referred to in the text. These data collections would slow down the reader if included as an exhibit and are secondary to the argument in the body of the report.

- 2. After-tax investment models are another submodel of market behavior, but while these may measure demand from the buyer's viewpoint, it may not measure the minimum price expected by the seller who also has a tax model to consider. In using the second approach, the appraiser must be very careful to indicate price on the supply side representing minimum expections (Vs) of the seller.
- C. Should there be no sales and no way to verify how buyers would review the specific property (utility case rate base or kilowatt production?), then the appraiser falls back to normative methods.
  - 1. Normative means what the buyer would do if he were as smart as the appraiser and motivated only by a desire to maximize wealth.
  - 2. The traditional income approach or the cost approach are normative models unless it can be proven buyers behave accordingly.
  - 3. After-tax cash flow models are normative models until it can be shown how these models value property.
- D. Highest and best use or most probable use in order to identify most probable user and buyer, requires analysis and explicit recognition of possible uses which are:
  - 1. Legal/political acceptability
  - 2. Physical/technical feasibility
  - 3. Effective demand and marketability
  - 4. Financial viability
  - 5. Community compatibility

(See Exhibit 5.)

#### EXHIBIT 5

"Highest and best use: That reasonable and probable use that will support the highest present value, as defined, as of the effective date of the appraisal. Alternatively, that use, from among reasonably probable and legal alternative uses, found to be physically possible, appropriately supported, financially feasible, and which results in highest land value. definition immediately above applied specifically to the highest and best use of land. It is to be recognized that in cases where a site has existing improvements on it, the highest and best use may very well be determined to be different from the existing The existing use will continue, however, unless and until land value in its highest and best use exceeds the total value of the property in its existing Implied within these definitions is recognition of the contribution of that specific use to community environment or to community development goals in addition\_to\_wealth\_maximization\_of\_individual\_property owners. Also implied is that the determination of highest and best use results from the appraiser's judgment and analytical skill, i.e., that the use determined from analysis represents an opinion, not a fact to be found. In appraisal practice, the concept of highest and best use represents the premise upon which value is based. In the context of most probable selling price (market value) another appropriate term to reflect highest and best use would be most probable In the context of investment value an alternative term would be most profitable use.

Real Estate Appraisal Terminology, Edited by Byrl N. Boyce, Ph.D., SRPA, Ballinger Publishing Co., Cambridge, Mass., 1975. (Emphasis added.)

#### IV. New Issues and New Appraisal Techniques

It is generally recognized that the real estate market is dependent upon substantial amounts of credit to support effective demand so that real estate prices and perhaps values vary with the terms and supply of credit generally available in the marketplace. Indeed the old timers have seen the definition of fair market value gradually move away from the firm premise of cash to the seller to a somewhat more subjective condition of terms generally available in the market.

- A. The pressure of double digit inflation is eroding many of the appraisers' favorite simplifications of the market model:
  - 1. The long-term fixed interest mortgage, amortized from property productivity is gone.
  - The simple division of income between the mortgage and the equity component is smothered in participating mortgages, limited partnerships, convertible mortgages and seller financing.
  - 3. As the government had removed general subsidies to real estate finance such as regulation Q, it has made greater use of specific interest subsidies to selected special groups.
  - 4. Real estate markets must be defined not only in terms of use, age, income, but also access to capital.
  - 5. Moreover, most properties exist in a 3-tier market, utility to house to activity, commodity and money speculation, and as part of a going concern.
  - 6. The 3-tier market can be further subdivided by the nature of permits or other entitlements that are site specific and define risk of a vested or non-vested opportunity.

- B. Volatile money market conditions and the widespread use of creative financing leave the appraiser in considerable difficulty in defining typical market terms, cash equivalent prices or the relationship of fair market value to transaction price. Does the client want fair market price, most probable price, going concern value, contributory value, investment value, or liquidating value in event of delinquency and foreclosure?
- C. The impact of these elements is significantly different for problems involving:
  - 1. Income investment properties
  - 2. Economic development properties
  - 3. Multi-family residential properties
  - 4. Single family residential properties
- D. The impact of financing in each situation requires that we go back to basics. The appraiser or his client must define:
  - 1. What is the function of the appraisal?
  - 2. Which rights are to be appraised? People buy interests in real estate income, entitlements to business opportunities as well as fee simple title.
  - 3. Eighth edition definition of value in Exhibit 2 requires specificity of financial terms and value increment assigned to financing.
  - 4. Where is the definition explicit about value impact of leases in place?
  - 5. How is productivity allocated to the agents of production?

#### CONTEMPORARY APPRAISAL - INCOME APPROACH--APPLIED

#### Presented By

James A. Graaskamp, Ph.D., CRE, SREA University of Wisconsin, School of Business

#### SECOND HOUR

- I. Traditional techniques of market comparison and capitalized income lack reliable data or fail to represent market behavior, leading to greater reliance on discounted cash flows for large income properties.
  - A. Sales prices are engineered by accountants to some degree to shift asset values among various classifications for land, structure, personalty, intangibles, capital gains and losses and ordinary gains and losses, making market comparison anything but objective (not to mention adjustments for non-market financing discussed in second day).
  - B. Similarly, the income approach has great difficulty in applying the truism that income value is the present value of income plus the present value of reversion.
    - 1. There is the problem of defining net operating income in terms of what is attributable to the real estate (aside from financing effect on cash throw off).
    - 2. There is the problem of defining the net reversion to equity in an uncertain future (aside from financing effect on mortgage balance).
    - 3. There is the problem of selecting a conversion process which reduces income cash flows and reversionary cash flows to a single present value.

- C. Neither revenue, nor expenses, nor debt service are constant over time anymore, so that NOI/OAR is no longer a useful valuation model. Instead rents, vacancies, expenses, and financing must be staged using a spread sheet for both income and the reversion. Lenders may share in appreciation and owner and lender may share the risk of variable interest and the first principal payment.
- D. The problem of defining real property as tangible or intangible.
  - 1. Property refers to things and objects capable of ownership.
  - 2. Real property refers to the legal rights, interests, and benefits inherent in the ownership of real estate.
  - 3. What is inherent?
  - 4. Is the residual claim the right to receive cash flow from income property subject to any prior claims?
  - 5. How is cash flow allocated among land, labor, capital, and management...and public licenses?
- E. The definition of economic rent attributable to the real estate:
  - 1. Is income attributable to entitlements that go with fee simple title to the land and are point specific or to transportable permits?
    - a. For example--does liquor license go with the building? Is permit to build or maintain a dam assignable? Does right to management fee and brokerage fee go with general partnership or property?
  - 2. Is the real estate income from retailing of space or from wholesaling of space?
    - a. Parking ramp lease versus parking space by the hour, observation deck versus ticket, condominium conversion fee versus apartment project investment.

- 3. Is the income for extraordinary services or intangible assets rather than customary?
  - a. Maid service versus janitorial, shopping center premium for proximity or for joint merchandising and risk management.
- 4. Ancillary to rather than integral with the project.
  - a. Can services be acquired off premises such as janitorial or utilities?
- 5. IRS classification as 1250 property (real) or 1231 property (personalty) and Section 453, 453A and B, or Section 38 (tangible) or Section 45 (intangible).
- 6. Is income attributable to governmental agencies in exchange for contractual entitlements of control or use to the public interest for the term of the contract?
- F. Problem of defining or forecasting a reversion:
  - Pricing real estate for utilitarian purpose, to buy access to service sales, or speculate in long term demand/supply commodity relationships or long term commodity/money ratios.
  - 2. Can the appraiser prove presence of necessary conditions for appreciation and amount of depreciation?
    - a. Rising net income
    - b. Falling interest rates
    - c. Falling investor expectations
  - 3. When is appreciation speculative, non-vested, and excluded from fair market value?
  - 4. Can the appraiser simulate alternative speculative gains for most probable price?

- 5. When a premium is paid anticipating syndication of condominium conversion, should there be an adjustment for purchase of a business opportunity? Does fair market value include management fees for conversion?
- G. Referring back to functions and the accounting/ appraisal interface, consider that accounting theory distinguishes values according to the following in order to fit the function of the accounting task:
  - 1. Exit value assuming completion of normal business cycle in an orderly fashion (benchmarking).
  - 2. Exit value assuming abrupt liquidation (construction loan validation).
  - 3. Replacement value with asset of current technology.
  - 4. Reproduction value of asset at original state of technology.
  - 5. Market value in an organized market for tangible goods.
  - 6. Current value as original cost indexed for dollar devaluation.
  - 7. Discounted value of future receipts at interest factor.
  - 8. Value of asset not yet charged to consumption or production.

- II. Case Study of an appraisal of a 50-year old high rise office building in the CBD with vacancy problems, utility problems, and management problems. (See Exhibits 1 through 9.)
  - A. Revenues reflected loss of a major tenant (State of Wisconsin), lack of demand for retail space on the first floor, a soft market for B-class space, and a reluctance of management and tenants to use pass-throughs for operating costs.
  - B. It was necessary to do a spread sheet indicating a gradual reduction of vacancy loss, a gradual updating of existing leases with pass-through clauses, and investment in critical energy conservation.
  - C. Resale price is tied to projected net income and gross with a debt cover ratio and a cash-on-cash yield. Loan-to-value ratio is irrelevant. (See <u>The Appraisal Journal</u>, January 1981, "DCR/RE Cap Rate Tables for Today's Financing," p. 15.)

### EXHIBIT 1

# CASE STUDY - SEMINAR EXCERPTED FROM APPRAISAL OF OFFICE BUILDING

### LIST OF EXHIBITS

	ray
1	Location of Subject Site Relative to the Capitol Square 2
2	Subject Site in Original Madison Plat 8
3	Site Plan of Subject Property
4	Proposed Capitol Concourse Plan
5	Proposed Parking for Concourse Plan
6	Traffic Patterns and Public Parking Upon Completion of Capitol Concourse
7	View from the East Main Office Entrance of the Subject Property
8	Photographs of Subject Property
9	Location of First Floor Retail Vacancies on the Capitol Square
10	First Floor Retail Vacancies on the Square Existing or Known to be Available as of January 1, 1980
11	Madison Downtown Office Space as of January 1, 1980 35
12 .	Expression of State's Interest in Post Office BuildingWisconsin State Journal Article
13	Location of Comparable Sales on or Near Capitol Square
14	Comparable #1 - 30 West Mifflin
15	Comparable #2 - 50 East Mifflin
16	Comparable #3 - 16 North Carroll
17	Comparable #4 - 123 West Washington
18	Comparable #5 - 102 and 110 North Hamilton
19	Comparable #6 - 212 East Washington
20	Comparable #7 - 2 West Mifflin
21	Scale for Scoring Comparables on Important Investor Considerations
22	Weighted Matrix for Comparable Properties
23	Calculation of Most Probable Price Using Mean Price Per Point Equation Method

### LIST OF EXHIBITS -- Continued

		٢	age
24	Schedule of Rental Revenues for the Period of April 30, 1980 Through April 29, 1985	•	62
25	Schedule of Vacancies by Floor and By Lease Terms for the Period of April 30, 1980 Through April 29, 1985	•	68
26	Average Rate of Increase in Consumer Price Index - All Items May 1975 Through April 1980		<b>7</b> 5
27	Schedule of Projected Revenues and Expenses from April 30, 1980 Through April 29, 1985	•	77
28	Revenue Justified Capital Budget - Debt Cover Ratio Approach		82
29	MRCAP Input and OutputJustified Capital Budget with Real Estate Taxes at 5.4% of First Year's Gross Rent	•	86
30	Sources of Comparable Land Sales from 1973-1980 in Madison, Wisconsin		94
31	Location of Comparable Class B Office Sites in Odana Area		96
32	Analysis of Comparable Land Sales	•	97
33	BFCF Test of Justified Land Cost		105

## SCALE FOR SCORING COMPARABLES ON IMPORTANT INVESTOR CONSIDERATIONS FOR OFFICE/RETAIL SPACE IN MADISON C-4 ZONE

Рa	٢	k	i	n	g
	2	5	ጷ		

- 5 = Ample private parking on site or available on contract within the same block.
- 3 = Limited parking on premises
- 0 = Little or no surface parking on premises.

Location 20%

- 5 = In the blocks of East and West Mifflin St. or North and South Carroll St., across from the Capitol Square
- 3 = In the blocks of North and South
  Pinckney St., across from the Capitol
  Square, or in the 100 block of West
  Washington, or adjacent to General
  Executive Facilities.
- 1 = Off of the Capitol Square

First Floor Retail Lease in Place at Time of Purchase 15%

- 5 = Strong lease in place.
- 3 = Strong lease in place for part of first floor.
- 0 = Lease expires in less than 6 months
   or vacant.

Need for Renovation of Office Space at Time of Purchase 15%

- 5 = No renovation required.
- 3 = Modest renovation required.
- l = intensive renovation required.

Visual Quality of Office Entrance 10%

- 5 = Excellent design and location.
- 3 = Indifferent design and/or location.
  1 = Poorly defined and/or adjacent to incompatible uses.

Vacancies in Existing
Office Space at Time
of Purchase
15%

- 5 = Less than 10% of net rentable area (NRA).
- 3 = More than 10% of NRA.
- 0 = Vacant

## WEIGHTED MATRIX FOR COMPARABLE PROPERTIES

			Rating	Weighted Rating		**	Subject
EATURE/ EIGHT	/I 30 W. HIFFIIn	#2 50 E. Hifflin	/3 16 N. Carroll	#4 123 H. Washington	#5 102 M. Hamilton	#6 212 E. Washington	110 E. Mair
arking 25%	5/1.25	3/.75	0/0	0/0	3/.75	3/.75	3/.75
ocation 20%	5/1.00	5/1.00	5/1.00	3/.60	1/.20	3/.60	3/.60
First Floor Retall Lease In Place 15%	5/.75	5/.75	, <b>0/</b> 0	3/.45	3/.45	0/0	1/.15
foed for Removation 15%	5/.75	1/.15	3/.45	5/.75	1/.15	17.15	3/.45
visual Quality of Office Entrance 10%	5/.50	3/.30	3/.30	5/.50	3/.30	3/.30	1/.10
Vacancles In Existing Office Space 15%	5/.75	0/0	5/.75	5/.75	0/0	0/0	1/.15
Total Weighted Score	5.00	2.95	2.50	3.05	1,85	1.80	2.20
Selling Price	\$2,555,500	\$850,000	\$615,270	\$2,896,000	\$330,000	\$472,000	X
Total Net Rentable Area (NRA)	65,000 sq. ft.	38,500 sq. fr.	35,725 sq. ft.	138,000 sq. ft.	28,000 sq. ft.	38,000 sq. (t.	74,000 sq. ft.
Price Per Square Foot (NRA)	\$ 39 . 30	\$22.10	\$17.20	\$21.00	\$11.80	\$12.40	
Price Per Square Foot of IIRA Total Weighte Score	ā 7.86	7.49	6.88	6.89	6.38	6.89	

EXHIBIT 3

CALCULATION OF MOST PROBABLE PRICE USING MEAN PRICE PER POINT EQUATION METHOD (With Standardized Weighted Point Scores)

Comparable Property	Selling Price per NRA	Weighted Point Score	Price per NRA Weighted Point Score	(x)
1	\$39.30	5.00	7.86	<del></del>
2	22.10	3.45	7.49	
3	17.20	2.50	6.88	
4	21.00	3.05	6.89	
5	11.80	1.85	6.38	
6	12.40	1.80	6.89	
		T	TAL 42.39	

Central Tendency 
$$=$$
  $\frac{\cancel{\leq} \times}{n}$   $=$   $\frac{42.39}{6}$   $=$  7.07

Dispersion (Standard deviation = s) = 
$$\sqrt{\frac{\cancel{(x-\bar{x})^2}}{n-1}} = \sqrt{\frac{1.38}{5}} = .525$$

where:

×	X	/(x-x)/	$\leq (x-\bar{x})^2$	<u>n</u>	<u>n-1</u>
7.86 - 7.49 - 6.88 - 6.89 - 6.38 - 6.89 -	7.07 = 7.07 = 7.07 =	.42 .19 .18	.62 .18 .04 .03 .48 .03	6	5

Value Range:

 $\bar{x} \pm s = 7.07 \pm .53$ 

Estimate of Value of Subject Property =

NRA of subject \* Weighted point score of subject \* (74,000 S.F.) (2.2)

[Sample mean of price per NRA per total weighted score  $\pm$  (Dispersion  $\pm$  t value)] [7.07  $\pm$  (.53  $\pm$  t value)]

#### Confidence Level

	68% (t = 1.000)	@ n-1 = 5; 90% (t = 2.015)
High Estimate:	\$1,240,000	\$1,320,000
Central Tendency:	1,150,000	1,150,000
Low Estimate:	1,060,000	000,086

All value estimates are rounded.

## SCHEDULE OF RENTAL REVENUES 1 FOR THE PERIOD OF APRIL 30, 1980 THROUGH APRIL 29, 1985

		Annua l				Gross Rental		
Occupancy as of	Space	Rent per	Lease Terms .	4/30/80-	4/30/81-	4/30/82-	4/30/83-	4/30/84-
April 30, 1980	Sq. Ft.	5q. ft.2	as of 4/30/80	4/29/81	4/29/82	4/29/83	4/29/84	4/29/85
VALLE 30, 1300	24:-12:	<u> </u>						
Lower Level & Roof						A	A 2 220	e 2 km
B Level Vault-Vacant	700	3.00	<b>*</b> **	\$ 2,100	\$ 2,100	\$ 2,270	\$ 2,270	\$ 2,450
B Level-Showroom & Office	4000	3.00		12,000	12,000	12,960	12,960	14,000
A Level-Storage	400	4.00	6/30/80	1,600	2,400	2,600	2,800	3,000
Honeywell Phone Box			gás, ami	600	600	600	650	650
Total-Lower Level	5100			\$16,300	\$17,100	\$18,430	\$18,680	\$20,100
First Floor	4 - 4		10/1/2/ 0/20/81	£ 2 180	4 1 100	\$ 2,360	\$ 2,360	\$ 2,360 m
Chez Vous-112	454	4.80	10/1/76 - 9/30/81	\$ 2,180	\$ 2,290	5,200	5,200	5,200 ≍
Chez Vous-114	1000	4.80	10/1/76 - 9/30/81	4,810	5,030		22,500	5,200 <del>X</del> 24,000 <del>X</del>
North Entry	2000	9.00		18,000	19,500	21,000		39,600 -
South Entry-Leaf & Ladle?	3 <u>500</u> 6954	9.00	1/1/80 - 12/30/84	31,500	<u>33,130</u>	33,250	36,670	\$77,160 =
Total-First Floor	6954	•		\$56, 190	\$59,950	\$62,510	\$86,730	
Second Floor								4
201 Vacant	150	6.50	ted star	\$ 970	\$ 970	\$ 1,050	\$ 1,050	\$ 1,140
202 State5	600	6.70	7/1/79 - 6/30/80	4,020	4,320	4,320	4,670	4,670
203-4 Vacant 5	543	6.20	9/1/78 - 8/31/79	3,370	3,640	3,640	3,640	3,930
205-6 State	506	7,00	3/1/78 - 5/31/80	3,540	3,820	3,820	4,120	4,120
207-8 Homecrafts	386	7.20	1/1/79 - 12/31/81	2,780	2,850	3,000	3,000	3,080
209-10 State5	451	6.25	11/1/79 - 5/31/80	2,820	3,040	3,040	3,280	3,280
211 Dr. Reyez	219	7.00		1,600	1,730	1,730	1,870	1,870
212-14 Dr. Wierwill	700	6.50	4/1/78 - 3/31/81	4,570	4,900	4,900	4,900	5,210
215 Vacant	415	6.75	7/1/78 - 6/30/79	2,800	3,020	3,020	3,270	3,270
216 UPI	500	7.50	5/1/80 - 4/30/81	3,750	4,050	4,050	4,370	4,370
218-19 Rape Crisis Center	816	7.00	1/1/80 - 12/31/81	5,840	6,120	6,260	6,530	6,690
220-21 State5	1400	6,25	12/1/79 - 5/31/80		2,450	9,450	10,200	10,200
Total-Second Floor	5855	/	, , , , , , , , , , , , , , , , , , , ,	8,750 \$44,810	\$47,910	\$48,280	\$50,900	\$51,830
TOTAL SCCOUR LIGOT	8000					•		

## SCHEDULE OF RENTAL REVENUES 1 FOR THE PERIOD OF APRIL 30, 1980 THROUGH APRIL 29, 1985

		Annua I				Gross Rental		
Occupancy as of	Space	Rent per	Lease Torms ,	4/30/80-	4/30781-	4730782-	4/30/83-	1/30/01-
Apr 11 30, 1980	Sq. ft.	Sq. Ft.2	as of 4/30/80 <sup>3</sup>	4/29/81	4/29/82	4/29/83	4/29/84	4/29/85
Chii 301 500			<del>OR OTHER STREET</del>					
Tited Floor								4
101 Vacant	150	5.75		\$ 860	\$ 860	\$ 930	\$ 930	\$ 1,000
102-3 State	1179	5.75		6,780	7,320	7,320	7,900	7,900
304 State	230	6.70		1,540	1,660	1,660	1,800	1 ,800
305-8 State	942	6.70	~ ~	6,300	6,800	6,800	1,360	7,360 ე
109 The Journal Co.	232	7.20	9/1/79 - 8/31/80	1,810	1,880	1,9/0	2,030	2,130 🖹
310-11 State <sup>5</sup>	456	6.70		3,050	3,300	3,300	3,560	3,560
312 Vacant	234	5.75		1,340	1,450	1,450	1,570	1,570
2 **	462	7.20	6/1/79 - 5/31/80	3,490	3,730	3,750	4,000	4,030 -
313-14 Dr. R. Hong 315 - Vacant	731	6.70	10/1/79 - 9/30/80	5,000	5,080	5,310	5,480	5,630 4
	1091	7.00	1/1/80 - 12/31/80	7,810	8,180	8,360	8,730	8,940 ~
316-19 Wisc. Builders Assoc.	1363	7.00	**	2,540	10,300	10,300	11,130	11 (10 5
320-24 Vacant	7050	7.00		\$47,520	\$50,560	\$51,150	\$54,490	\$55.040
Total-Third Floor	70 90			41112	42-12	<b>(3.4.</b>		<u> </u>
Fourth Floor								3 5
401 Vacant	150	6.40	*-	\$ 960	\$ 960	\$ 1,040	\$ 1,040	\$ 1,120 =
402 Furst, Carlson Inc.	648	6.40	5/1/79 - 4/30/80	4,350	4,370	4,700	4,730	5,090 g
403-11 State	2147	6.75	1/1/80 - 12/31/81	14,500	14,880	15,670	16,100	16,960
412 Vacant	202	6.40		1,290	1,290	1,400	1,400	1,500
413-14 Wisconsin Alliance of Cities	679	6.80	** a*	4,980	5,020	5,420	5,420	5,850
415 State,	259	7.00	3/1/79 - 2/28/81	1,830	1,940	1,970	2,100	2,130
416-19 State	1370	6.00	vacated 6/30/80	8,220	<b>0,6</b> 80	8,880	<b>9,</b> 590	9,590
420-20a State	560	6.70	vacated 6/30/80	3,750	3,750	4,050	4,050	4,370
421-22 State	300	6.70	vacated 6/30/80	2,010	2,010	2,170	2,1/0	2,340
423-24 Ed Konkol	140	6.60	9/1/79 - 8/31/80	2,240	2,240	2,420	2,420	2,620
	<b>6655</b>	7.04	# 11 # W # 1 # 1 # 1 # 1 # 1 # 1 # 1 # 1	\$44, i jā	\$15,340	\$47,720	\$49,020	\$51,570
Tatal-Fourth Floor	2077			4 , 42-	¥ := ¥ * · · ·			

SCHEDULE OF RENTAL REVENUES FOR THE PERIOD OF APRIL 30, 1980 THROUGH APRIL 29, 1985

		Annual			Annual I zed	Gross Rental	Revenues	
Occupancy as of	Space	Rent per	lease Terms 3	4/30/80-	4/30/81-	4/30/82-	4730783-	4/30/84-
April 30, 1980	sq. Ft.	Sq. ft.2	as of 4/30/80 <sup>3</sup>	4/29/81	4/29/82	4/29/83	4/29/84	4/29/85
<u>Upi 11 301 1300</u>	<u> </u>		de the second second second					
Fifth Floor					£ 1 270	£ 1 270	\$ 1,380	\$ 1,380
501 E. C. Barton	150	7.60		\$ 1,240	\$ 1,270	\$ 1,270 6,820	7,360	7,360
502 Vacant	842	7.50		6,310	6,820	6,020	6,800	6,800
503-5 Vacant	810	7.50	<b></b>	6,070	6,070	6,440		
506-19 State	3922	6.25	11/1/79 - 10/31/83	24,500	24,500	24,500	30,590	31,770
520 State-Bd. of Aging	555	6.70	7/1/79 - 6/30/81	3,950	4,000	4,270	4,330	4,940
521-22 Dr. Coryell	339	7.20	7/1/79 - 6/30/80	2,440	2,690	2,740	2,920	2,950
523-24 Green Bay Press Gazette	337	7.60	9/1/79 - 8/31/82	2,560	2,690	2,760	2,760	2,760
Total-Fifth Floor	ัช <u>ี</u> รีรี้รั	•		\$47,070	\$48,040	\$48,800	\$56,140	\$57,960
• • • • • •	-200							
Sixth Floor	150	6 10		\$ 1,000	\$ 1,000	\$ 1,080	\$ 1,080	\$ 1,170
601 Vacant	150	6.70	vacated 6/30/80	8,840	9,540	9,540	10,300	10,300
602-4 State <sup>5</sup>	1473	6.00	Ascated 6/30/00	1,300	1,300	1,410	1,410	1,520
605 Vacant	204	6.40	to 6/30/80	1,300	* , , , , ,	1,410	.,	.,,,,
			· • •	7 270	7,500	7,500	8,100	8,100
606-10 State	1000	6.70	then no no.	7,370		2,160	2,160	2,330
611 The Evjue Foundation	286	7.00	vacated 11/30/80	2,000 4,850	2,000 4,850		5,080	5,240
612-14 State	647	7.50	11/1/79 - 10/31/83			4,850		2,800
615 Tenney Bldg.	344	7.00	<u></u>	2,400	2,400	2,600	2,600	
616 John Barsness	850	6.00	3/1/79 - 2/28/81	5,170	5,520	5,590	5,950	6,020
617 Bill Ward	250	6.70	vacated 5/31/80	1,940	2,120	2,120	2,300	2,300
618-19 State	494	8.00	vacated 5/31/79	3,950	3,950	4,270	4,270	4,610
620-24 Vacant	1262	6.70		8.450	9,130	9,130	9,860	9,860
Total-Sixth Floor	6960	•	•	\$47,270	\$49,310	\$50,250	\$53,110	\$54,250
Seventh Floor	150	5.75	6/1/79 - 5/31/83	\$ 930	\$ 970	\$ 1,100	\$ 1,050	\$ 1,090
701 Lawton & Cates	5417	5.75	6/1/79 - 5/31/83	33,600	35,100	36,450	37,850	39,160
702-19 Lawton & Cates			0/1//3 - 3/31/03	7.740	7.740	8,360	8,360	9,030
720-24 Vacant	1106	7.00	<del>-</del> -	\$42,270	\$43,810	\$45,910	\$47,260	\$49,280
Total-Seventh Floor	6673			474,470	447,010	4171710	411,1200	4.71

# SCHEDULE OF RENTAL REVENUES FOR THE PERIOD OF APRIL 30, 1980 THROUGH APRIL 29, 1985

		Annual		Annualized Gross Rental Revenues					
0	Space	Rent per	Lease Terms.	1/30/80-	4/30/81-	4730/82-	4730783-	4730/84-	
Occupancy as of April 30, 1980	Sq. Ft.	Sq. ft. 2	as of 4/30/80 <sup>3</sup>	4/29/81	4/29/82	4/29/83	4/29/84	4/29/85	
<u> </u>		-	distribution of the state of th		_				
Eighth Floor			. / /20/90	\$ 1,050	\$ 1,050	\$ 1,130	\$ 1,130	\$ 1,220	
801 Wisconsin Madio Nows	150	7.00	to 6/30/80	11,600	11,600	11,600	12,060	12,520	
802-5 State	1536	7.55	to 10/31/83	3,840	4,000	4,000	4,210	4,320	
806-7 Dr. Hannis	470	7.50	9/1/79 - 8/31/80		36,620	37,100	3/.100	39,580	
808-22 State	4580	6.00	7/1/79 - 6/30/80	27,480		3,040	3,120	3,120	
823-24 Br. Boyle	_319	7.60	9/1/79 - 8/31/80	2,780	2,880 \$56,150	\$56,870	\$57,620	\$60,760	
Total-Eighth Floor	7015			\$48,750	120,120	470,070	437,020	100,70=	
Minth Floor						4 1 210	A 1 1.00	e i kon	
901 Hillman & Robertson	150	8.00	1/1/80 - 12/31/80	\$ 1,230	\$ 1,300	\$ 1,340	\$ 1,400	\$ 1,400	
902 Visc. Ins. Alliance	864	7.00	6/1/79 - 5/31/ <del>8</del> 0	6,400	6,480	6,910	7,000	7,000 1	
903-6 Hulcahy & Wherry	980	8.00	1/1/79 - 12/31/81	8,070	8,530	8,750	9,210	9,210	
907 Robert Hehling	225	8.00	4/1/80 - 3/31/81	1,810	1,960	1,280	2,110	2,110	
909-10 Larry Hall	700	6.00	6/1/79 - 5/31/80	4,520	4,550	4,870	4,900	4,900	
	248	7.75	1/1/79 - 12/31/80	1,920	1,970	2,060	2,140	2,230	
911 Dr. Schmitz 912-19 Devine Insurance	2580	7.00	4/1/80 - 3/31/83	18,060	18,060	18,180	19,350	19,350	
921 State	5/5	7.00	vacated 7/1/80	4,020	4,350	4,350	4,700	4,700	
922-23 Judicial Commission	355	6.50	.5/1/79 - 4/30/81	2,300	2,500	2,500	2,700	2,700	
924-25 Dr. Bundell	119	7.20	6/1/79 - 5/31/80	2,650	2,680	2,860	2,880	2,880	
Total-Minth Floor	7616	,,,,		\$50,980	\$52,300	\$53,800	\$56.390	\$56,480 g	
	,							~	
Tenth Floor 1001 Victor Lind	150	6.80	11/1/79 - 10/31/80	\$ 1,050	\$ 1,200	\$ 1,250	\$ 1,300	\$ 1,350	
1002 Visc. Assoc. of Indap. Col		6.50	1/1/80 - 12/11/80	5,760	6,050	6,190	6,480	6,650	
1003-4 Wisc. Conners & Freezers	756	8.00	5/1/79 - 4/30/80	6.050	6,050	6,530	6.530	7,050	
	911	6.80	12/1/79 - 11/30/80	6,370	6,650	6,880	1.200	7,400	
1005-8 Woelter Co.	455	6.50	48	2,950	3,190	3,190	3,450	3,450	
1009-10 Vacant	727	6.65	6/1/79 - 5/31/80	5,230	5,2/0	5,640	5,670	6,100	
1011-13 Pr. Poll	229	6.25		1,430	1,430	1,540	1,540	1,670	
1014 Vacant	1616	7.50	11/1/79 - 10/31/83	12,120	12,120	12,120	12,600	13,090	
1015-18 State	083	6.70	vacated 2/29/80	5.380	5,440	5,870	5,910	6,350	
1019-21 Vacant	171	8.00	12/1/79 - 11/30/80	1,420	1,490	1,490	1,540	1,600	
1022 Herb Walsh	1/1	9.170	12,1,1,3	• • • • •		•	<b>,</b> -		
1023-24 Dane Co. Advocate for	331	7.20	8/1/79 - 7/31/80	2,610	2,600	2,840	2,900	3,070	
Battered Wimen	7 8 3 0 T	7.20	-, 1113 11311 24	\$50,370	\$51,570	\$53,540	\$55,120	\$57,780	
Total-Tenth Floor	uu ju				** ***		•		
Annual Totals for	74,054 sq	. ft.		\$493,960	\$522,120	\$537,260	1565,460	\$586,210	

## NOTES TO SCHEDULE OF RENTAL REVENUES FOR THE PERIOD OF APRIL 30, 1980 THROUGH APRIL 29, 1985

The annualized gross rental revenue for the period from April 30, 1980 through April 29, 1981 is consistent with the actual lease terms, if at market rents, as of April 30, 1980. Increases in rents are assumed to take place according to lease terms and conditions; an increase of 8 percent is used at lease renewal dates. This factor was taken from a survey of office rent increases in Class 8 buildings on and near the Capitol Square in Madison and is the current rate used by the Tenney Building manager.

The annual rental market rate is given as of April 30, 1980. Only one tenant in Rooms 909-10 is considered to be below market rent at \$4.73/square foot; therefore the rent for this space is calculated at a market rate of \$6.00/square foot. Harket rents are also imputed to spaces used by the building owner.

<sup>3</sup>Of the 87 rental space units in the Tenney Building as of April 30, 1980, there are 62 leases in place, but 54 of those terminate between 1980 and 1982. Only eight have leases that extend beyond April 30, 1982.

The Leaf and Ladle Restaurant began its lease of 3500 sq. ft. of the first floor retail space on January 1, 1980. The restaurant had closed its door by October 1, 1980, and the remodeled space is once again on the market. The rental rate of \$9.00 with an annual escalator of 8% per year commencing in the second year is considered comparable for the area. A most probable investor might consider an escalator based upon a percentage of gross sales to encourage rental of this space if restaurant use is most likely; the projected revenues probably would not increase as rapidly as forecast.

 $^{5}$ The state has given notice that it will vacate these spaces by June 30, 1980.

## SCHEDULE OF VACANCIES BY FLOOR AND BY LEASE TERMS FOR THE PERIOD OF APRIL 30, 1980 THROUGH APRIL 29, 1985

			Annua I	∦ of	Projection Period				
	Fanna		Rental Rate	Honths	4/10/80-	4/30/81-	4/30/82-	4/30/83-	4/30/84-
	Space Sq. ft. <sup>2</sup>	1 Vacant	Per. Sq. Ft.	Vacant	4/29/81	4/29/82	4/29/83	4/29/84	4/29/85
امري	MALLEY.	<u> </u>							
lower Level & Roof	700	100	3.00	12	\$ 2,100				
B (evet - Vault	700	100	3.00	12		\$ 2,100			
	700	100	3.25	12			\$ 2,270	4	
	700	50	3.25	6				\$ 1,140	4 : 1km
	700	50	3.50	6					\$ 1,140
B taval				• •	12,000				
Showroom and Office	4,000	100	3.00	12	12,000	6,000			U
	4,000	100	3,00	6		e ,000	3,250		EXHIBIT
	4,000	50	3.25	6			,,.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	3,250	=
	4,000	50	3.25	6				<b>&gt;1-</b> 2-	1,750
	4,000	50	3.50	3					*****
A Level - Storage	400	100	1.00	6				1,400	1 1ED
	400	100	7.50	9			A	<del></del>	2,250
Total - Lower tevel					\$14,100	\$ 8,100	\$ 5,520	\$ 5,790	\$ 5,140
First Floor									
112 East Hain	454	100	5.20	8		\$ 1,570			
112 East Leath	454	100	5.20	12			\$ 2,360		
	454	100	5.20	4				\$ 780	
114 East Hain	1,000	100	5.20	8		3,480			
	1,000	50	5.20	12			2,600	<b>^</b>	
	1,000	50	5.20	4				860	
Leaf & Ladie	3,500	100	9.00	1	18,370				•
	3,500	100	9.50	3		8,310			
	3,500	100	10.50	3				9,190	A - A
	3,500	100	11.30	3					\$ 9,890
	,,,,,,	1							
Morth Entry	2,000	100	9.00	9	13,500		g	<del></del>	-
Total - First Floor					\$31,870	\$13,360	\$ 4,960	\$10,830	\$ 9,890

			faunnA	# of		Projection Period						
	Space		Rental Rate	Honths	4/30/80-	4/30/81-	4/30/82-	4/30/83-	4/30/84-			
	Space Sq. Ft. <sup>2</sup>	<b>1 Vacant</b>	Per Sg. Ft.	Vacant	4/29/81	4/29/82	4/29/83	4/29/84	4/29/85			
Second Floor 3												
201	150	100	6.50	12	\$ 900							
	150	100	6.50	12		\$ 900						
	150	100	7.00	12			\$ 1,050					
	150	100	7.00	12				\$ 1,050	4 4 4 4 4 4 4			
	150	100	7.60	12					\$ 1,140			
202	600	100	6.70	6	2,010							
	600	50	7.20	12	• •	2,160			Ü			
	600	50	7.20	12		•	2,160		全			
	600	50	7.80	6			•	1,170	I B			
	600	50	7.80	3					EXHIB IT 580			
203-4	543	100	6.20	12	3,370							
203-4	543	50	6.70	12	2,57-	1,820			Ŋ			
	543	50	6.70	12		V,	1,820		6			
	543	50	6.70	`ē			.,	1,360	(Continued)			
205 (	506	100	7.00	6	1,770							
205-6	506	50	7.50	12	1,770	1,900			5			
	506	50 50	7.50	12		1,,00	1,900		9			
	506	50 50	8.15				11,500	1,550	÷			
	506	50	8.15	9 6				*,,,,,	1,030			
209-10	451	100	6.25	6	1,410							
203-10	451	50 50	6.75	12	1,710	1,520						
	451	50 50	6.75	12		1,520	1,520					
	451	50 50	7.30	9			1,720	1,230				
					_			.,				
215	415	100	6.75	12	2,800							
	415	100	7.30	6		1,510						
	415	100	7.30	3			760					
218-19	816	100	8.00	8				4,370				
·	816	100	8.20	12					6,690			
220 21	1 400	100	4 05	,								
220-21	1,400	100	6.25	6	4,370							
	1,400 1,400	50	6.75	12		4,720	_					
		50 50	6.75	6			2,360					
	1,400	50	7. 30	6				2,560	4			
Total - Second Floor					\$16,630	\$14,530	\$11,570	\$13,290	\$ 9,440			

	Space Sq. Ft. <sup>2</sup>	3 Vacant	Annual Rontal Rate Per Sq. Ft.	/ of Months Vacant	4/30/80- 4/29/81	4/30/81- 4/29/82	rojection Pari 4/30/82- 4/29/81	od 4/30/83- 4/29/84	4/30/04- 4/29/85
Third Floor <sup>3</sup> 301	150 150 150 150 150	100 100 100 100	5.75 5.75 6.20 6.20 6.70	12 12 12 12 12	\$ 860	\$ 860	\$ 930	\$ 930	₩ \$ 1,000 ×
302-3	1,179 1,179 1,179 1,179	100 50 50 50	5.75 6.20 6.20 6.70	6 12 12 6	3,390	3,650	3,650	3,950	11817 5
304	230 230 230	100 100 100	6.70 7.20 7.80	6 12 6	770	t ,66a			(Continued)
305-8	942 942 942 942	100 50 50 50	6.70 7.20 7.20 7.80	6 12 12 3	3,150	3,190	3,390		1,830
310-11	456 456 456	100 50 50	6.70 7.20 7.20	6 12 12	1,530	1,640	1,640		
312	234 234 234 234 234	100 100 100 100 100	5.75 6.20 6.20 6.70 6.70	12 12 12 12 12	1,340	1,450	1,450	1,570	1,570
315	731	100	6.70	4	1,610				,,,,
320-24	1,363 1,363	100 100	7.00 7.60	12 6	9,540	5,150	***	deret de la comprese de la	
Total - Third Flour					\$22,190	\$17,800	\$11,060	\$ 6,450	\$ 5,300

			Annua l	/ of		Projection Period					
	Space Sq. Ft. <sup>2</sup>	% Vacant	Rental Rate Per Sq. Ft.	Months Vacant	4/30/80- 4/29/81	4/30/81- 4/29/82	4/30/82- 4/29/83	4/30/83- 4/29/84	4/30/84- 4/29/85		
Fourth Floor		100	6 40	12	\$ 960						
401	150	100	6.40 6.40	12 12	\$ 200	\$ 960					
	150	100 100	6.90	12		, ,,,,,	\$ 1,040				
	150 150	100	6.90	12			<b>, ,,</b> , , =	\$ 1,040	E E		
	150	100	7.45	12				•	\$ 1,120 EXH BIT		
412	202	100	6.40	12	1,290				118		
714	202	100	6.40	12	·	1,290			•		
	202	100	6.90	12			1,400		Ŋ		
	202	100	6.90	12				1,400			
	202	100	7.40	12					1,500 (Continued) 2,400		
416-19	1,370	100	6.00	6	4,110				nt		
	1,370	50	6.50	12		4,450			∃;		
	1,370	50	6.50	12			4,450	1 000	r e		
	1,370	50	7.00	12				4,800	2,400 🚊		
	1,370	50	7.00	6					2,100		
420~20a	560	100	6.70	6	1,880	_					
	560	50	6.70	12		1,870					
	560	50	7.20	9			1,520		***************************************		
Total - Fourth Floor					\$ 8,240	\$ 8,570	\$ 8,410	\$ 7,240	\$ 5,020		
Fifth Floor											
502	842	100	7.50	12	\$ 6,310						
•	842	50	0.00	12		\$ 3,410					
	842	50	8.00	12			\$ 3,410	A 3 1.10			
	842	50	8.75	6	÷			\$ 3,410			
520	555	100	7.70	6			2,130				
<b>₹</b> = :	555	50	7.80	12				2,160	4 4 050		
	555	50	8.90	9	-	the graph white the section of	***	***************************************	\$ 1,850		
Total - Fifth Floor					\$ 6,310	\$ 3,410	\$ 5,540	\$ 5,570	\$ 1,850		

			Annua I	∦ of		Projection Pariod					
	Space Sq. Ft.2	1 Vacant	Nental Rate Per Sq. Ft.	Honths Vacant	4/30/80- 4/29/81	4/30/81- 4/29/82	4730/82- 4/29/83	4/30/83- 4/29/84	4/30/84-		
Sixth Floor			•		A				,		
601	150	100	6.70	12	\$ 1,000	6 1 000					
	150	100	6.70	12		\$ 1,000	\$ 810		דן		
	150	100	7.20	9			3 810		×		
602-4	1,473	100	6.00	6	4,420				ה אחום וו		
502 4	1,473	50	6.50	12		4,770			=		
	1.473	50	6.50	12			4,770		_		
	1.473	50	7.00	6				\$ 3,870	υ		
	1,473 1,473	50	7.00	6					\$ 2,580		
605	204	100	6.40	12	1,300				(Continued)		
903	204	100	6.40	12	- • -	1,300			+ -		
	204	100	6.90	12		•	1,410				
	204	100	6.90	9				1,060	ūe		
617	250	100	7.75	4	640				٥)		
(no st	1,262	100	6.70	12	8,450						
620-24	1,262	100	7.20	<b>'</b> 6	4,1,50	4,540					
	1,262	100	7.20	6		*,,,,,	4,540				
	1,262	50	7.80	9			- 10	<u> 1,690</u>			
	1,202	20	7.00	,							
Total - Sixth Floor					\$15,810	\$11,610	\$11,530	\$ 8,620	\$ 2,580		
Seventh Floor No Vacancies Projected											
Eighth Floor											
Bol	150	100	7.00	10	\$ 880						
<del></del>	150	100	7.00	12		\$ 1,050					
	150	100	7.50	6		*****	\$ 560	agopolispo agranding de 180			
Total - Eighth Floor					\$ 880	\$ 1,050	\$ 560	0	0		

			Annua 1	# of		Projection Period				
	Space 2 Sq. Ft. <sup>2</sup>	1 Vacant	Bental Rate Per Sq. Ft.	Honths Vacant	4/30/80- 4/29/81	4/30/81- 4/29/82	4/30/82- 4/29/83	4/30/83- 4/29/84	4/30/84- 4/29/85 XX BI	
Ninth Floor 909-10	70 <b>0</b> 700	100	6.50 7.00	6 6		\$ 2,280	\$ 2,440			
922-23	35 <b>5</b> 355	100 100	7.00 7.60	12 6	1-10-10-10-10-10-10-10-10-10-10-10-10-10	and the second second	2,500	\$ 1,350	5 (co	
Total - Ninth Floor					0	\$ 2,280	\$ 4,940	\$ 1,350	<b>a</b> ntin	
Tenth Floor 1009-10	455 455 455	100 100 100	6.50 7.00 7.00	12 12 9	\$ 2,950	\$ 3,190	\$ 2,390		(Continued):	
1014	229 229 229	100 100 100	6.25 6.25 6.70	12 12 6	1,430	1,430		770		
1019-20	680	100	6.70	1	380	<u> </u>				
Total - Tenth Floor					\$ 4,760	\$ 4,620	\$ 2,390	<u>\$ 770</u>	0	
TENNEY BUILDING TOTALS					\$120,790	\$85,330	\$66,480	<u>\$59,910</u>	<u>\$39,220</u>	

The lower level space has a continued record of vacancy; it is assumed that until the space is made more marketable by remodeling, rents will not keep pace with the market. Uses other than a showroom for the 4000 sq. ft. will need to be explored; subdividing the larger space for office space and/or storage space are possibilities.

It is assumed that the smaller office spaces from 200-500 square feet will experience less overall vacancy than the larger spaces. There appears to be a trend toward several small independent businessmen sharing a common secretarial staff; some of the larger vacant suites could be remodeled for this type of use.

The second and third floors have the greatest amount of vacancy due to the exodus of State tenants. By the end of June, 1980, the State's move alone will cause 44% of the second floor vacancies; the third floor will experience a vacancy rate of 39.5% due to loss of State tenants; the State related vacancy rates on the fourth and sixth floors will be 29% and 21% respectively. A most probable buyer will have to anticipate a large capital investment in 1980 to remodel and refurbish the Building to make it competitive in the Class B office market that already has a large supply of space available on and near the Square.

Vacancles are assumed to gradually decrease between 1981 and 1983; a most probable buyer will institute a vigorous marketing program which will involve research of space needs in the area and remodeling which will be targeted to those needs.

## Schedule of Projected Revenues and Expenses From April 30, 1980 Through April 29, 1985

Ravenues:	4/30/80- 4/29/81	4/30/81~ 4/29/82	4/30/82- 4/29/83	4/30/83- 4/29/84	4/30/84- 4/29/85	
Gross Income Less: Vacancles Effective Gross Parking Rentals	\$493,960 (120,790)(24.5%) 373,170 12,960	\$522,120 (85,330)(16.3%) 436,790 12,960	\$537,260 (66,480)(12.4%) 470,780 12,960	\$565,460 _(59,910) (10.6%) _505,550 _14,000	\$586,210 (39,220)(6.7%) 546,990 14,000	m
Total Revenues	\$386,130	\$449,750	\$483,740	\$519,550	\$560,990	EXHIBIT
Expenses:					,	<b>-</b>
Accounting & Legal Building Security <sup>2</sup> insurance Maintenance Wage & Salaries Payroll Taxes Repairs Telephone, Utilities Office Expenses Management Concourse Special Assessment	4,200 21,840 7,000 28,850 60,000 11,500 14,880 1,600 90,600 7,040 22,390 2,360	4,640 24,100 7,730 31,850 66,240 12,700 16,430 1,770 101,470 7,520 26,320 2,410	5,120 26,620 8,530 35,160 73,130 14,020 18,130 1,950 107,560 8,250 27,540 2,630	5,650 29,390 9,420 38,820 80,730 15,470 20,020 2,150 114,380 8,840 30,280 2,550	6,240 32,440 10,400 42,860 89,130 17,080 22,100 2,380 122,020 9,690 32,570 2,480	(Continued)
Total Operating Expenses Before R.E. Taxes	( <u>\$272,260</u> )	(\$303,180)	( <u>\$328,640</u> )	(\$357,700)	(\$389,390)	
Net Operating Income Before R.E. Taxes	\$113,870	\$146,570	\$155,100	\$161,850	\$171,600	
Real Estate Taxes	(26,680)	(28,000)	(29,400)	(30,880)	(32,420)	
Net Operating income	\$ 87,190	\$118,570	\$125,700	\$130,970	\$139,180	

## Notes to Schedule of Projected Revenues and Expenses From April 30, 1980 Through April 29, 1985

## Expenses

In general, expenses are projected to increase according to the average annual change of 10.4% in the All Item Consumer Price Index over the past five years. (See amended Exhibit 27).

## 2 Building Security

Security personnel is hired from 10 P.M. to 6 A.M. on weekdays with 24 hour coverage on the weekends. The building is open to the public from 6 A.M. to 6 P.M. each weekday. The continuing problems created by the presence of bars and adult entertainment places across the street make this security protection mandatory.

## 3Ha Intenance

This account includes an elevator maintenance contract at \$9,060 a year.

## Utilities

At present the Tenney Building consumes approximately 55,000 to 70,000 gallons of No. 2 fuel oil per year depending upon the weather. The cost of fuel has increased as follows:

January 12, 1979 .43/gallon October 1, 1979 .77/gallon February 1, 1980 .95/uallon

In thirteen months the cost has risen 121%. Though the Tenney Building is converting to natural gas on its primary boller, the cost of natural gas is also volatile. Over the past five years natural gas has had an average annual increase of 17.6% for the commercial time-of-use consumer, according to Milton Spiros, Madison Gas & Electric Co.

The installation of combination storm windows throughout the building should help to conserve fuel costs. To stabilize utility costs it is assumed management will place energy cost escalators in renewed leases; therefore in the pro-forma income statement utility costs are escalated at 12 percent annually with 50 percent of the increase passed through to the tenant after year 2.

<sup>5</sup>Office expenses include rental of space in the Tenney Building for management operations.

Management costs are computed as 6% of effective gross office revenue with 4% allowed for management and 2% for leasing commissions for space turnover.

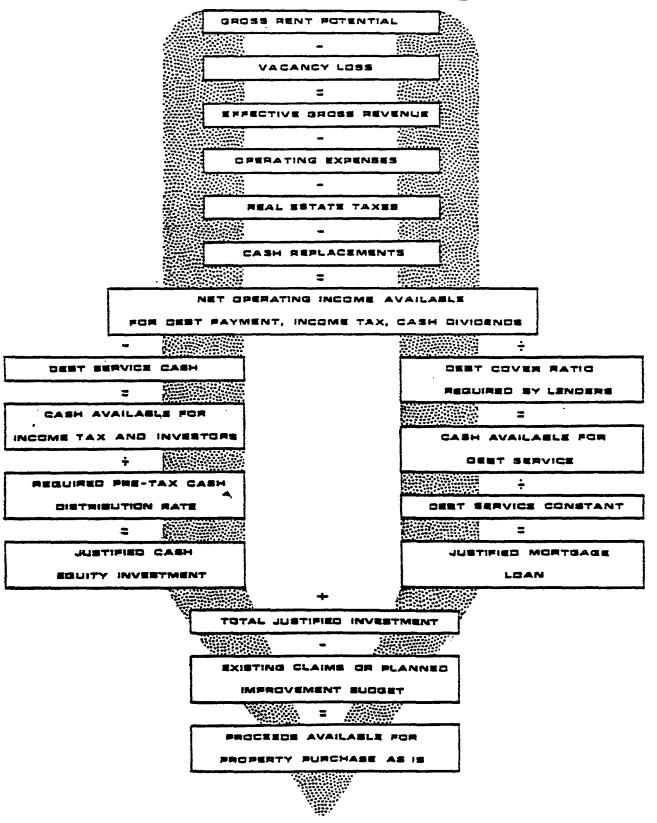
## Notes to Schedule of Projected Revenues and Expenses From April 30, 1980 Through April 29, 1985

7<sub>Total</sub> operating expenses are calculated before including real estate taxes for ease in using the MRCAP discounted cash flow program.

Real estate taxes are calculated as 5.4% of gross revenues in the first year and increased at 5% per annum thereafter. These calculations are based on the following fact and assumptions:

- 1. The assessed value as of 1/1/80 is \$1,200,000.
- 2. The mill rate is assumed to increase slightly (approximately 1%) after several years of decrease.
- 3. Taxes will continue to increase due to inflated city budgets and decreasing state aids.

# DEBT COVER RATIO APPROACH



#### EXHIBIT 7

4. Conversion of Net Income to Present Value

The MRCAP program from the National EDUCARE library of programs, previously described, is used to convert net income to a present value after taxes as of April 30, 1980, for the Tenney Building at the end of a five-year holding period.

## C. Assumptions Used in MRCAP

The MRCAP discounted cash flow program can solve for a justified project value by specifying the ratio of net income to debt service acceptable to an institutional mortgage lender. Given the interest rate and term available as of April 30, 1980, the program will solve for the justified amount of mortgage and for justified cash equity, assuming typical before—tax cash—on—cash investor requirements for office buildings, with potential for inflation sensitive rents. Exhibit 28 is a simplified flow chart depicting the steps in solving for the justified project budget.

On April 30, 1980, prudent lenders will require a minimum debt cover ratio of 1.3 and equity investors expect no less than 6 percent cash-on-cash.

- 1. Inputs into MRCAP Program
  - a. Debt cover ratio = 1.3
  - b. Before tax cash-on-cash requirements # 6%
  - c. Project holding period = 5 years

- d. Real estate taxes = historical pattern suggests real estate taxes at 5.4 percent of first year's gross with an annual inflation factor of 5% (see assumptions discussed below)
- e. Discount rate = 13% (present value factor used
  to discount cash flow)
- f. Reinvestment rate = 6% after tax rate applied
  to after tax cash flow
- g. Resale price = 10 times net operating income in year of sale
- h. Resale cost rate = 4%
- i. Working capital reserves from equity to cover
  one month's expenses = \$30,000
- j. Investor marginal income tax rate = 50%
- k. Land = \$340,000, as of most recent appraisal for IRS
- 1. Buildings = 60% of total improvement value
- m. Mechanicals and site improvements = 40% of total improvement value
- n. Elevators = remaining book value of \$73,000
- o. Improvements for Energy Conservation = a total of \$54,000 which includes \$43,000 for storm windows and \$11,000 for natural gas conversion unit.
- p. Tenant Improvements = \$50,000 for carpeting and partitions as needed to upgrade vacant office space
- q. Investment Credit Dummy = to allow for tax benefit of investment credit in first year for capital improvement for energy conservation
- r. Mortgage = principal amount determined by debt cover ratio; interest rate a minimum of 12% with a 20-year term, paid monthly, on the first mortgage and 13% interest and an 8-year term for the second mortgage

#### 2. Real Estate Tax Assumptions

Real estate taxes are a function of assessed value (or fair market value when assessed value is 100 percent of market value) and the net mill rate; therefore, real estate taxes are estimated as a function of gross rental income. During the past two years, real estate taxes have been between 5 percent and 6 percent of the Building's potential gross rental income. As a result of tests of several values between 5 percent and 6 percent, it is determined that 5.4 percent of gross rental revenues best represents the historical pattern of the Building's real estate taxes.

MRCAP is programmed to use 5.4 percent of the first year's gross rental income to compute the first year's real estate taxes and then provides for a growth factor of 5 percent to increase the taxes each year thereafter.

#### D. Analysis of Test Results

Four runs of the MRCAP program were done using different assumptions about the amount of real estate taxes that would be paid on the subject property. Taxes and net mill rates for the past three years on the subject property have been:

Year	<u> 1977</u>	1978	1979
Real Estate Taxes	\$33,118.75	\$29,951.95	\$25,340.93
Net Mill Rate	.026495	.024153	.022036

Real estate taxes estimated at various percentages of the first year's projected gross and inflated 5 percent a year gave these results in the MRCAP runs:

Percentage of First	Real Estate Taxes										
Year's Gross Rental Revenue	1980	1981	1982	1983	1984						
5.0	\$24,698	\$25,933	\$27,230	\$28,591	\$30,021						
5.4	\$26,674	\$28,008	\$29,408	\$30,878	\$32,422						
5.8	\$28,650	\$30,082	\$31,586	\$33,166	534,824						
6.0	\$29.638	\$31,119	\$32,675	\$34,309	\$36,025						

The real estate taxes estimated at 5.4 percent of the first year's gross rent best approximates the shift from a decreasing to an increasing net mill rate that can now be expected due to an anticipated decrease in state aids to cities. Rising costs of local government can be expected to be borne by the local taxpayer.

The input and output for the MRCAP program using real estate taxes estimated at 5.4 percent of gross rental revenue are found in Exhibit 29.

If taxes are a conservative 5.4 percent of gross rental revenue, MRCAP substantiates the fair market value of \$1,150,000 estimated by the market comparison approach to value.

EXHIBIT 8

# MRCAP INPUT AND OUTPUT-JUSTIFIED CAPITAL BUDGET WITH REAL ESTATE TAXES AT 5.4% OF FIRST YEAR'S GROSS RENT

HRCAP 09:49CST 12/20/80

ENTER INPUT FILE MAME? TENNEY

THE PROGRAM MRCAP IS THE PROPERTY OF MICHAEL L. ROBBINS C/O REAL ESTATE DYNAMICS INC. 4701 WINNEQUAN RD. HONONA, WISC.

USER NO. 36

(408)-221-1129

NO REPRESENTATION IS MADE THAT THE ASSUMPTIONS OR COMPUTATIONAL FORMAT USED IN THIS PROJECTION WILL BE ACCEPTABLE TO TAXING AUTHORITIES.

\*\*10.00 LIB CHG APPLIED

## REPORT SEC<sub>A</sub>TION NUMBER 1 PAGE 1

\* GROSS RENT \* 554378. \* RATE OF GROWTH OF GROSS REN( 0.0432 \* EXPENSES # 330234. \* RATE OF GROUTH OF EXPENSES 0.0938 # 29478. \* RATE OF GROUTH OF R E TAXES \* R E TAXES 0.0500 INCOME TAX RATE 0.5000 PROJECT VALUE GROWTH OF 2.0000 VACANCY RATE 0.1375 WORKING CAPITAL LUAN RATE EQUITY DISCOUNT 0.1300 EXTRAORDINARY EXPENSES & RESALE COST 0.0400 REINVESTMENT RATE \* VACANCY RATE 0.1400 ٥. 0.0400 UKG CAPITAL RS \$ 30000. CAPITAL RESER INTEREST RATE v. INITIAL COST # 1091502. INITIAL EQUITY REQUIRED # 486009.

ALL '\*' VALUES ARE AVERAGE AMOUNTS FOR HOLDING PERIOD. OF 5 YRS.

INITIAL COST DERIVED THROUGH BACKDOOR TYPE 3 USING 2 HORTGAGES

## PRO FORMA

## INVESTMENT ANALYSIS OF

BUILDING

FOR

£	Ε	₽	0	Ŕ	I	S	٤	C	Ĭ	1	Û	بب	ij	IJ	Ħ	3	Ε	R	2

PAGE 1

## CORPONERT SUMMARY

TITLE	PCT. BEPR	BEGIN USE	USEFUL LIFE	DEPR METHOD		COST	SCH
TLAMB	9.	1	25.	0	\$	340000.	Ŭ
BUILDING	0.80	1	ÇĢ.	2	5	338221.	Ó
HVAC	0.90	1	Ģ.	2	\$	225481.	Ö
ELEVATORS	0.90	1	4.	•	\$	73000.	9
EMERGY COMSERVATION	0.90	1	5.	2	i	54000.	O .
TEHANT IMPRGUENENTS	0.90	1	10.	4	ŧ	50000.	Ů.
INVESTMENT CREDIT BU	1.60	i	1.	2	š	10800.	Ú

## MORTGAGE SUMMARY

TITLE		BEGIN TR.		TERM	ORIG BALC	PCT MALUE
FIRST MORTGAGE	0.1200 0.1300	1	20 8	- :	531493. 104000.	

## PRO FORMA

## INVESTHENT ANALYSIS OF

BUILDING

FOR

REPORT SECTION NUMBER 3 PAGE 1

Cash	FLOW AWALYSIS					
1225		1980	1981	1982	1983	1984
1	GROSS INCOME	500920.	535080.	550220.	579400.	400210.
	LESS VACANCY	120790.	85330.	65480.	54910.	39820.
3	LESS REAL ESTATE TAXES	26674.	28008.	29408.	30873.	32422.
1	LESS EXPENSES					
5	NET INCOME	87196.	118562.	125692.	130972.	139178.
á	LESS BEPRECIATION	76323.	64398.	63442.	<b>å2å29.</b>	45513.
7	LESS INTEREST	76472.	74515.	72298.	69785.	64938.
8	TAXABLE INCOME	-65599.	-20351.	-10048.	-1443.	26726.
9	PLUS BEPRECIATION	76323.	64398.	63442.	62629.	45513.
10	LESS PRINCIPAL PAYMENTS					
11	CASH THROW-OFF	-4004.	27361.	34490.	39770.	47976.
12	LESS TAXES	٥.	0.	0.	0.	13363.
13	LESS RESERVES					
14	CASH FROM OPERATIONS	0.	27361.	34490.	39770.	34613.
15	WORKING CAPITAL LOAN	0.	. 0.	. 0.	0.	0.
16	DISTRIBUTABLE CASH AFR TAX	0.	27361.	34490.	39770.	34613.
17	TAX SAVING ON OTHER INCOME	32799.	10175.	5024.	721.	ũ.
18	SPENDABLE CASH AFTER TAX					

:1	Ĥ	۶	ł.	ε	Ī	•	ij	ń	Ł	U	Ε		\$		R	E	1,7	Ε	F	ε	:	G	N
=	=	=	=	=	=	=	=	=	z	=	=	z	=	=	=	=	=	=	=	ı	=	=	=

CASH FLOW AMALYSIS	1980	1981	1982	1983	1954				
19 END OF YEAR MARKET VALUE 20 LESS RESALE COST 21 LESS LOAN BALANCES 22 PLUS CUM. CASH RESERVES 23 BEFORE TAX NET WORTH 24 CAPITAL BAIN (IF SOLD) 25 CAPITAL BAINS TAX 26 HINIMUM PREF. TAX 27 INCOME TAX ON EXCESS BEP. 28 AFTER TAX NET WORTH	871962. 34878. 620764. 25994. 242314. -181096. -36219. 0. 1500. -16610.	1185625. 47425. 504077. 25994. 560117. 182544. 36509. 0. 2438. 38946.	1256921. 50277. 585173. 25994. 647460. 313511. 62702. 0. 2897. 65599.	1309717. 52389. 563756. 25994. 719566. 424719. 85344.	1391778. 55471. 539493. 25094. 822.08. 551590. 110319. 0. 2457. 112977.				
BEFORE TAX RATIO ANALYSIS									
CASH FLOW ANALYSIS	1780	1981	1982	1983	1984				
30 RETURN ON NET WORTH B/4, TAX 31 CHANGE IN NET WORTH B/4 TAX 32 ORIG EQUITY CASH RTNB/4 TAX 33 ORIG EQUITY PAYBACK B/4 TAX 34 B/4 TAX PRESENT VALUE	-243696. -0.0082 0.0000	317903. 0.0563 0.0563	87349. 0.0710 0.1273	72100. 0.0818 0.2091	103042.				
AFTER TAX RATIO ANALYSIS									
CASH FLOW ANALYSIS	1980	1981	1982	1983	1984				
35 RETURN ON NET WORTH AFR TAX 36 CHANGE IN NET WORTH AFR TAX 37 ORIG EQUITY CASH RTNAFR TAX 38 ORIG EQUITY PAYBACK AFR TAX 39 AFTER TAX PRESENT VALUE	-227086. 0.0675	262248. 0.0772 0.1447	60696. 0.0813 0.2260	4940a. 0.0833 0.3093	78359. 0.0712 0.3804				
CASH FLOW ANALYSIS	1980	1981	1982	1983	; 0 3 4				
40 HET INCOME-MARKET VALUE RTO 41 LEMBER BONUS INTEREST RATE 42 DEFAULT RATIO	0.0000	0.0660	0.1000 0.0000 0.2155	0.0000	0.1996 0.0090 0.8547				

#### INPUT FILE

#### 09:48CST 12/20/80

```
110 1. BUILDING.
                              DAVIS
120 10.1980.0.1,1.0.5.74000
130 20.3.2.1.3..06.2.2
140 40.493960.522120.537260.565460.586210
150 50,12960,12960,12960,14000,14000
140 40.120790.85330.4480.57910.39220
170 70..054..05.*
180 80.272240.303180.328440.357700.389390
190 100,.13..50,.0c
200 101.0.10.2
210 102,.14.1,.04.0
220 103.0.30000.0.0
230 200.1.1LAND
240 201.1.340000.0.0
250 202,1.1.25.0
240 200.2.BUILDING
270 201,2..60..80,2
280 202.2.1.29.0
290 200.3,HVAC
300 201,3..40..90.2
310 202,3,1,9.0
J20 200.4.ELEVATORS
330 201,4,73000..90,2
340 202,4,1,4,0
350 200.5. ENERGY CONSERVATION
360 201,5,54000..90.2
370 202.5.1.5.0
380 200, 4 TENANT INPROVENENTS
390 201,4.50000,.90,4
400 202.6.1,10.0
410 200.7, INVESTMENT CREDIT BUNHY
420 201.7,10800.1.0.2
430 202.7.1.1.0
440 300.1.FIRST HORTGAGE
450 301.1.1.0..12.0.20
460 302.1.12.1.20.0
470 303.1.0.0.0,0
480 JOO.2. SECOND MORTGAGE
490 301.2.104000..13,0.8
500 302,2,12,1.8.0
510 303.2.0.0,0,0
520 400.9
530 403.99.1,2.3.4,5
540 999.99
```

## VALTEST

## 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

## VALTEST

## **DEMONSTRATION 1**

#### INPUT ASSUMPTIONS \*\*\*\*\*\*\*

- 1. ENTER PROJECT NAKE ? J
- 2. ENTER PROJECTION PERIOD ? 5
- 3. DO YOU WANT TO ENTER EFFECTIVE GROSS REVENUE INSTEAD OF NOI? N TO REPEAT PREVIOUS YEAR'S NOI/EGR FOR BAL OF PROJECTION ENTER O
  - N.O.I. YEAR 17 5000

  - N.D.I. YEAR 2? 5000 N.D.I. YEAR 3? 6000
  - N.D.I. YEAR 47 6000
  - N.D.I. YEAR 57 7000
- 4. ACRUISITION COST: ? 50000
- 5. DO YOU WANT TO USE STANDARD FINANCING? Y OR N?Y MTG. RATIO OR AMOUNT, INT., TERM, NO PAY/YR ? .8. .12. 25, 12
- 6. ENTER RATIO OF IMP #1/TOTAL VALUE, LIFE OF IMP #1? .8. 15 IS THERE A SECOND IMPROVEMENT? Y OR Nº N
- 7. DEPRECIATION METHOD, IMPROVEMENT #1 ? 2 ENTER B.B. %: ? 175
  - IS PROPERTY SUBSIDIZED HOUSING ? Y OR N ?N
  - IS PROPERTY RESIDENTIAL? Y DR Nº Y
- 8. IS OWNER A TAXABLE CORPORATION? Y OR N ?Y

CORPORATE FEDERAL ORDINARY TAX RATE COULD BE :

- 17% 46% (1978 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)
- .46, .46
- 9. RESALE PRICE (NET OF SALE COSTS) ? 60000
- 10. IS THERE LENDER PARTICIPATION ?N
- 11. ENTER DUNER'S AFTER TAX REINVESTMENT RATE (%)? 9
- 12. ENTER OWNER'S AFTER TAX OPPORTUNITY COST OF EDUITY FUNDS (%)? 9

#### **DEMONSTRATION 1 (Cont.)**

AFTER TAX CASH FLOW PROJECTION
J
DATE 9/14/82

## BATA SUNNARY \*\*\*\*\*\*\*\*\*\*\*

ACQUISTN COST: \$50.000. HTG. AMT.: \$40,000. MTG. INT.: 12% NOI 1ST YR: \$5,000. ORG. EQUITY: \$10.000. NTG. TERM: 25. YRS CTO 1ST YEAR: **\$**-55. DEBT SERVICE 1ST YEAR: \$5,055. NTG. CONST.: .1263869 IMP. #1 VALUE: \$40,000. IMP. #1 LIFE: 15. INC. IX RATE: 46% SALE YR RATE: 46% OWNER: CORPORATION

DEPRECIATION IMPROVEMENT #1: 175% D.B. RESIDENTIAL PROPERTY

LENDER PARTICIPATION: CASH THROW-OFF: NONE REVERSION: NORE

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 DNE PERIOD IS COVERED BY A CONTRIBUTION FROM EQUITY IN THAT PERIOD

YEAR	NOI	MTG INT & LENDERS %	TAX Dep	TAXABLE INCOHE	INCOHE TAX	AFTER TAX CASH FLOW
1.	5000.	4785.	4667.	-4453.	-2049.	1994.
2.	5000.	4751.	4122.	-3874.	-1783.	1728.
3.	6000.	4713.	3641.	-2355.	-1084.	2029.
4.	6000.	4669.	3216.	-1887.	-8cº.	1814.
5.	7600.	4620.	2641.	-462.	-214.	2159.
	\$29000.	\$23539.	\$18488.	\$-13031.	\$-5999.	\$9722.

## **DEMONSTRATION 1 (Cont.)**

RESALE PRICE:	\$60,000.	157	YR B4 TAX EQ DIV:	5548%
LESS MORTGAGE BALANCE:	\$38,261.	AVG	DEBT COVER RATIO:	1.1473
PROCEEDS BEFORE TAXES:	\$21,739.			
LESS LENDER'S X:	\$0.			
NET SALES PROCEEDS				
BEFORE TAXES:	\$21,739.			
RESALE PRICE:	\$60,000.			
LESS LENDER'S %:	<b>\$0.</b>			
NET RESALE PRICE:	\$60,000.			
LESS BASIS:	\$31,512.			
TOTAL GAIN:	\$28,485.			
EXCESS DEPRECIATION:	\$5,155.			
CAFITAL GAIN:	\$23,333.			
ORDINARY GAIN:	<b>\$5,155.</b>			
	******			
TAX ON ORDINARY GAIN:	\$2,371.			
TAX ON CAPITAL GAIN:	\$6,533.			
PLUS MORTGAGE BAL:	\$38,261.			
TOTAL DEDUCTIONS FROM				
NET RESALE PRICE:	\$47,166.			
	*********			
NET SALES PROCEEDS				
	\$12,834.			
AFTER TAX:	#12;004*			

IF PURCHASED AS ABOVE, HELD 5 YEARS & SOLD FOR \$60,000.
THE MODIFIED I.R.R. BEFORE TAXES IS 20.6487% AND AFTER TAXES IS 19.5605% ASSUMING AN AFTER TAX REINVESTMENT RATE OF 9%, AND OPPORTUNITY COST OF 9%

## **DEMONSTRATION 1 (Cont.)**

## MORTGAGE ANALYSIS

~\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

		HORT	MORT	DEBT		MTG.
YEAR	ТОИ	INT.	AMORT	SERV	DCR	BAL.
1.	5000.	4785.	270.	<b>5</b> 055.	.989	39730.
2.	5000.	4751.	304.	5055.	<b>.9</b> 89	39426.
3.	6000.	4713.	343.	5055.	1.187	39083.
4.	6000.	4669.	386.	5055.	1.187	38697.
5.	7000.	4620.	435.	5055.	1.385	38261.
AVG	<b>\$5,800.</b>				1.147	

## DISTRIBUTION OF CASH THROW-OFF

J

	CASH THROW-OFF	CASH THROW-DFF	CASH BONUS
YEAR	TOTAL	TO EQUITY	TO LENDER
1.	-55.	-55.	0.
2.	-55.	-55.	0.
3.	945.	945.	0.
4.	945.	945.	0.
5.	1945.	1945.	0.
	3723.	3723.	0.
RESALE	PRICE:	\$60,000.	
LESS N	ORTGAGE BALANCE:	\$38,261.	
PROCEE	DS BEFORE TAXES:	\$21,739.	
LESS L	ENDER'S X:	<b>\$0.</b>	
NET SA	LES PROCEEDS		
BEFORE	TAXES:	\$21,739.	
		*========	

CASH THROW-DFF = 0% REVERSION = 0%

## **DEMONSTRATION 1 (Cont.)**

#### DEPRECIATION SCHEDULE

J

IMPROVEMENT # 1 175% D.B. RESIDENTIAL

#### \*\*\*\*\*\*\*\*\*\*\*\*\*

YEAR	TAX DEP.	S.L. DEP.	EXCESS DEP	BALANCE
1.	4666.7	2666.7	2000.0	35333.3
2.	4122.2	2666.7	1455.6	31211.1
3.	3641.3	2666.7	974.6	27569.8
4.	3216.5	2666.7	549.8	24353.3
5.	2841.2	2666.7	174.6	21512.1

TOTAL 18487.9 13333.3 5154.6

## EQUITY ANALYSIS J

#### BEFORE TAX EQUITY DIVIDEND

		YR END		CASH	RETURN
YR	NOI	EQUITY	THUUKA	ORG EQ	CUR EQ
1.	\$5,000.	\$10,325.	<b>\$-55.</b>	0055	0054
2.	5,000.	10,685.	-55.	0055	0052
3.	6,000.	11,028.	945.	.0945	<b>.0</b> 856
4.	6,000.	11,414.	945.	.0945	.0827
5.	7,000.	11,850.	1,945.	.1945	.1641

DRIGINAL EDUITY: \$ 10000

#### VALTEST.

#### **DEMONSTRATION 2**

## INPUT ASSUMPTIONS

- 1. ENTER PROJECT NAME ? CARDINAL-2
- 2. ENTER PROJECTION PERIOD ? 5
- 3. DO YOU WANT TO ENTER EFFECTIVE GROSS REVENUE INSTEAD OF NOI? N TO REPEAT PREVIOUS YEAR'S NOI/EGR FOR BAL OF PROJECTION ENTER O

N.B.I. YEAR 19 81745

N.O.I. YEAR 2? 81920

N.D.I. YEAR 37 98910

N.O.I. YEAR 4? 108800

N.D.I. YEAR 5? 119680

- 4. ACQUISITION COST: ? 1007000
- 5. DO YOU WANT TO USE STANDARD FINANCING? Y OR NºY MTG. RATIO OR AMDUNT, INT., TERM, NO PAY/YR ? 647000. .15236. 30, 12
- 6. ENTER RATIO OF IMP #1/TOTAL VALUE, LIFE OF IMP #1? \*149, 15 IS THERE A SECOND IMPROVEMENT? Y OR N? Y ENTER RATIO OF IMP #2/TOTAL VALUE, LIFE OF IMP #2? .781, 15 ENTER REHABILITATION TAX CREDIT FOR IMP #2: 196625 IS STRUCTURE A CERTIFIED HISTORICAL LANDMARK? Y OR N?Y
- 7. DEFRECIATION METHOD, IMPROVEMENT #1 ? 1
  DEPRECIATION METHOD, IMPROVEMENT #2 ? 1
  IS PROPERTY SUBSIDIZED HOUSING ? Y OR N ?N
  IS PROPERTY RESIDENTIAL? Y OR N? Y
- 8. IS DWNER A TAXABLE CORPORATION? Y OR N ?N
  THE MAXIMUM FEDERAL INDIVIDUAL ORDINARY RATE COULD BE:

70% (PRE-1981 LAW) 50% (1981 LAW, EFFECTIVE 1982)

#### (PLUS STATE RATE)

#### ENTER:

- 1) EFFECTIVE ORDINARY RATE 2) EFFECTIVE ORDINARY RATE (YEAR OF SALE)
- ? .5, .5
- 9. RESALE PRICE (NET OF SALE COSTS) ? 1258750
- 10. IS THERE LENDER PARTICIPATION ?N
- 11. ENTER OWNER'S AFTER TAX REINVESTMENT RATE (%)? 11
- 12. ENTER DUNER'S AFTER TAX OPPORTUNITY COST OF EQUITY FUNDS (%)? 11

#### **DEMONSTRATION 2 (Cont.)**

AFTER TAX CASH FLOW PROJECTION CARDINAL-2 DATE 9/14/82

#### DATA SUNNARY \*\*\*\*\*\*\*\*\*\*

ACQUISTN COST: \$1,007,000. \$647,000. MTG. AMT.: NOI 1ST YR: 15.236% \$81,745. HTG. INT.: \$360,000. ORG. EQUITY: NTG. TERM: 30. YRS CTD 1ST YEAR: \$-17,893. DEBT SERVICE 1ST YEAR: \$99.638. MTG. CONST.: .15400037 IMP. #1 VALUE: \$150,043. IMP. #1 LIFE: 15. IMP. #2 VALUE: \$786,467. IMP. #2 LIFE: 15. INC. TX RATE: 50% OWNER: INDIVIDUAL SALE YR RATE: 50%

DEPRECIATION IMPROVEMENT #1 : STRAIGHT LINE DEPRECIATION IMPROVEMENT #2 : STRAIGHT LINE

RESIDENTIAL PROPERTY

CERTIFIED HISTORICAL STRUCTURE

LENDER PARTICIPATION: CASH THROW-OFF: NONE REVERSION: NONE

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 HADE 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

		NTG INT &	TAX	TAXABLE	INCOME	AFTER TAX
YEAR	NOI	LENDERS Z	BEP	INCOME	TAX	CASH FLOW
1.	81745.	98500.	62434.	-79190.	-236221.	218328.
2.	81920.	98313.	62434.	-78828.	-39415.	21697.
3.	<b>9</b> 8910.	98097.	62434.	-61622.	-30812.	30084.
4.	108800.	97845.	62434.	-51480.	-25741.	34903.
5.	119680.	97552.	62434.	-40307.	-20154.	40196.
	\$491055.	\$490307.	\$312170.	\$-311427.	\$-352343.	\$345207.

NOTE: 1ST YEAR'S TAX REBUCED BY \$196,625. FOR TAX CREDIT (IMF #2)

## DEMONSTRATION 2 (Cont.)

RESALE PRICE: LESS MORTGAGE BALANCE: PROCEEDS BEFORE TAXES: LESS LENDER'S %: NET SALES PROCEEDS BEFORE TAXES:	\$1,258,750. \$639,115. \$619,635. \$0.	YR B4 TAX EQ DIV: DEBT COVER RATIO:	
RESALE PRICE: LESS LENDER'S %: NET RESALE PRICE: LESS BASIS: TOTAL GAIN: EXCESS DEPRECIATION: CAPITAL GAIN: ORDINARY GAIN:	\$1,258,750. \$6. \$1,258,750. \$694,830. \$563,920. \$0. \$563,920. \$0.		
TAX ON ORDINARY GAIN: TAX ON CAPITAL GAIN: PLUS MORTGAGE BAL: TOTAL DEDUCTIONS FROM NET RESALE PRICE:	\$0. \$112,784. \$639,115. \$751,899.		
NET SALES PROCEEDS AFTER TAX:	<b>\$</b> 506,851.		

IF PURCHASED AS ABOVE, HELD 5 YEARS & SOLD FOR \$1,258,750.
THE MODIFIED I.R.R. BEFORE TAXES IS 10.5005% AND AFTER TAXES IS 22.2744% ASSUMING AN AFTER TAX REINVESTMENT RATE OF 11%, AND OPPORTUNITY COST OF 11%

=========

## **DEMONSTRATION 2 (Cont.)**

#### DISTRIBUTION OF CASH THROW-OFF CARDINAL-2

	CASH THROW-OFF	CASH THROW-OFF	CASH BONUS
YEAR	TOTAL	TO EQUITY	TO LENDER
1.	-17893.	-17893.	0.
2.	-17718.	-17718.	0.
3.	-728.	-728.	0.
4.	9162.	9162.	0.
5.	20042.	20042.	0.
	-7136.	-7136.	0.

RESALE PRICE: \$1,258,750.
LESS 'MORTGAGE BALANCE: \$639,115.
PROCEEDS BEFORE TAXES: \$619,635.
LESS LENDER'S Z: \$0.
NET SALES PROCEEDS

BEFORE TAXES: \$619,635.

CASH THROW-DFF = 0% REVERSION = 0%

# MORTGAGE ANALYSIS CARDINAL-2

		MORT	MORT	DEBT		MTG.
YEAR	NDI	INT.	AMORT	SERV	DCR	BAL.
1.	81745.	98500.	1139.	99638.	.820	645861.
2.	81920.	98313.	1325.	99638.	<b>.8</b> 22	644537.
3.	98910.	98097.	1541.	99638.	<b>.9</b> 93	642995.
4.	108800.	97845.	1793.	<b>9</b> 9638.	1.092	641202.
5.	119680.	97552.	2086.	99638.	1.201	639115.
AVG	\$98,211.				.985	

## EQUITY ANALYSIS CARDINAL-2

## BEFORE TAX EQUITY DIVIDEND

		YR END		CASH	RETURN
YR	NDI	EDUITY	AHDUNT	ORG EQ	CUR ED
1.	\$81,745.	\$379,032.	<b>\$-17.893.</b>	0497	0472
2.	81,920.	398,075.	-17,718.	0492	0445
3.	98,910.	400,345.	-728.	0020	0018
4.	108,800.	402,138.	9,162.	.0254	.0228
5.	119,6EC.	404,224.	20.042.	.055.7	.049ċ

DRIGINAL EDUITY: \$ 360000

## DEMONSTRATION 2 (Cont.)

# DEPRECIATION SCHEDULE CARDINAL-2 IMPROVEMENT # 1 STRAIGHT LINE RESIDENTIAL

#### \*\*\*\*\*\*\*\*\*\*\*\*\*\*

YEAR	TAX DEP.	S.L. DEP.	EXCESS DEP	BALANCE
1.	10002.9	10002.9	.0	140040.1
2.	10002.9	10002.9	.0	130037.3
3.	10002.9	10002.9	.0	120034.4
4.	10002.9	10002.9	.0	110031.5
5.	10002.9	10002.9	.0	100028.7
SUB-TOTAL	50014.3	50014.3	.0	

# DEPRECIATION SCHEDULE CARDINAL-2 IMPROVEMENT # 2 STRAIGHT LINE RESIDENTIAL

#### \*\*\*\*\*\*\*\*\*\*

YEAR	TAX DEP.	S.L. DEP.	EXCESS DEF	BALANCE
1.	52431.1	52431.1	.0	734035.9
2.	52431.1	52431.1	.0	681604.7
3.	52431.1	52431.1	.0	629173.6
4.	52431.1	52431.1	.0	576742.5
5.	52431.1	52431.1	.0	524311.3
				•
SUF-TOTAL	262155.7	262155.7	.0	
	******	=======	*******	
TOTAL	312170.0	312170.0		

## VALTEST - DEMONSTRATION 3

## 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 O

EFFECTIVE GROSS REVENUE YEAR 17 13800 EFFECTIVE GROSS REVENUE YEAR 27 14210 EFFECTIVE GROSS REVENUE YEAR 37 1000 EFFECTIVE GROSS REVENUE YEAR 47 15080 EFFECTIVE GROSS REVENUE YEAR 57 15530

VAR OF EXPENSE (%) YEAR 17 6 VAR OF EXPENSE (%) YEAR 27 5 VAR OF EXPENSE (%) YEAR 37 0

FIXED OF EXPENSE YEAR 17 3700 FIXED OF EXPENSE YEAR 27 3920 FIXED OF EXFENSE YEAR 37 4160 FIXED OF EXPENSE YEAR 47 4410 FIXED OF EXPENSE YEAR 57 4670

- 4. ACQUISITION COST: ? 66000 .
- 5. DO YOU WANT TO USE STANDARD FINANCING? Y OR NAY 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. DEFRECIATION METHOD, IMPROVEMENT #1 ? 2 ENTER D.B. Z: ? 175 \* DEPRECIATION METHOD, IMPROVEMENT #2 ? 2

ENTER D.B. Z: ? 175\*
IS PROPERTY SUBSIDIZED HOUSING ? Y DR 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% (1978 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 (YEAF OF SALE)
- 7 .4. .4
- 9. RESALE PRICE (NET OF SALE COSTS) ? 60000
- 10. IS THERE LENDER PARTICIPATION ?Y

ENTER CASH THROU-OFF (%), PROCEEDS BEFORE TAXES (%): 5.5

- 11. ENTER DUNER S AFTER TAX REINVESTMENT BATE (1)? 9
- 12. ENTER DWNER S AFTER TAX DEPORTUNITY COST OF EQUITY FUNDS (2.00) 9

\*For Illustrative

Purposes Only

#### **DEMONSTRATION 3 (Cont.)**

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

## DATA SUMMARY

ACRUISTN CDST: \$66,000. MTG. AMT.: \$49,500.

NOI 1ST YR: \$9,272. MTG. INT.: 18%

ORG. EQUITY: \$16,500. MTG. TERM: 25. YRS

CTO 1ST YEAR: \$258. DEFT 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

DEFRECIATION IMPROVEMENT #1 : 175% D.B. DEFRECIATION IMPROVEMENT #2 : 175% D.B.

NON-RESIDENTIAL PROPERTY

CERTIFIED HISTORICAL STRUCTURE

LENDER PARTICIPATION: CASH THROW-OFF: 5% REVERSION: 5%

NO REFRESENTATION IS MADE THAT THE ASSUMPTIONS PROVIDED BY JEAN ARE PROFER 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

		MTG INT &	XAT	TAXABLE	INCOME	AFTER TAX
YEAR	NOI	LENDERS %	DEF	INCOME	XAT	CASH FLOW
1.	9272.	8914.	6160.	-5803.	-11397.	11643.
2.	<b>9</b> 580.	8907.	5441.	-4770.	-1909.	2447.
3.	-3210.	8853.	4807.	-16870.	-6749.	-5475.
4.	9916.	8866.	4246.	-3197.	-1280.	2137.
5.	10084.	8837.	3750.	-2505.	-1003.	2019.
	****	*****		+ 77(45	* 00370	******
	\$35641.	\$44377.	\$24404.	<b>\$</b> -33145.	<b>\$</b> -22338.	\$12771.

NOTE: 15T YEAR'S TAX REDUCED BY \$9,075. FOR TAX CREDIT (IMP #2)

## **DEMONSTRATION 3 (Cont.)**

RESALE PRICE:	\$60,000.	1ST YR B4 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 X:	\$567.	
NET SALES PROCEEDS		
BEFORE TAXES:	\$10,764.	
	=======================================	
RESALE PRICE:	\$60,000.	
LESS LENDER'S X:	\$567.	
NET RESALE PRICE:	<b>\$</b> 59,433.	
LESS BASIS:	\$41.596.	
TDTAL GAIN:	\$17,838.	
TAX DEFRECIATION:	\$24,404.	
CAPITAL GAIN:	<b>\$0.</b>	
ORDINARY GAIN:	<b>\$17,838.</b>	
74V BU 5557VIEW 515V		
TAX ON ORDINARY GAIN:	\$7,135.	
TAX ON CAPITAL GAIN:	\$0.	
PLUS MORTGAGE BAL:	\$48,670.	
TOTAL BEDUCTIONS FROM		
NET RESALE PRICE:	<b>\$55,8</b> 05.	
NET SALES PROCEEDS		
AFTER TAX:	\$3,629.	

IF PURCHASED AS ABOVE, HELD 5 YEARS & SOLD FOR \$40,000.

THE MODIFIED I.R.R. BEFORE TAXES IS -12.4777% AND AFTER TAXES IS 5.4951% ASSUMING AN AFTER TAX REINVESTMENT RATE OF 9%, AND OPPORTUNITY CUST OF 9%

\*========

## **DEMONSTRATION 3 (Cont.)**

## DISTRIBUTION OF CASH THROW-OFF SELL AT LOSS TEST

	CASH THROW-DFF	CASH THROW-OFF	CASH BONUS
YEAR	TOTAL	TO EQUITY	TO LENDER
1.	258.	24ó.	13.
2.	566.	538.	28.
3.	-12224.	-12224.	0.
4.	902.	857.	45.
5.	1070.	1016.	53.
	-9427.	-9567.	140.
RESALE	FRICE:	\$60,000.	
LESS H	ORTGAGE BALANCE:	<b>\$48,670.</b>	
PROCEE	DS BEFORE TAXES:	\$11,330.	
LESS L	ENDER'S %:	<b>\$567.</b>	
NET SA	LES PROCEEDS		
BEFORE	TAXES:	\$10,764.	
		========	

CASH THROW-OFF = 5% REVERSION = 5%

## BEFORE TAX EQUITY DIVIDEND

		YR END		CASH	RETURN
YR	NOI	EQUITY	ANDUNT	ORG EQ	CUR EQ
1.	\$9,272.	\$16,613.	\$246.	.0149	.0148
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.	.0616	.0344

ORIGINAL EQUITY: \$ 16500

## **DEMONSTRATION 3 (Cont.)**

# MORTGAGE ANALYSIS SELL AT LOSS TEST

		MORT	MCRT	DEBT		NTG.	DEFAULT
YEAR	NDI	INT.	ANORT	SERV	DCR	BAL.	RATIO
1.	9272.	8901.	113.	9014.	1.029	49387.	.981
2.	9580.	8879.	135.	9014.	1.063	49253.	<b>.9</b> 60
3.	-3210.	8853.	161.	9014.	356	49092.	13.224
4.	9916.	8821.	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	Z VAR OP.	\$ FIXED OF	ION
1.	\$13,800.	6.7	\$828.	<b>\$3,700.</b>	\$9,272.
2.	\$14,210.	5.%	\$711.	\$3,920.	\$9,580.
3.	\$1,000.	5.%	<b>\$50.</b>	\$4,160.	<b>\$-3,210.</b>
4.	\$15,080.	5.%	\$754.	\$4,410.	\$9,916.
5.	\$15,530.	5.7	\$777.	\$4,670.	\$10,084.
	\$59,620.		\$3,119.	\$20,860.	\$35,641.
	407,0201		10,	720,000.	100,011

## **DEMONSTRATION 3 (Cont.)**

DEPRECIATION SCHEBULE 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 BEF.	S.L. BEP.	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	

#### CONTEMPORARY APPRAISAL - MARKET COMPARISON APPROACH

#### Presented by

Professor James A. Graaskamp, Ph.D., CRE, SREA University of Wisconsin, School of Business

#### THIRD HOUR

I. Inference from Weighted Point System Comparisons

Application from Market Comparison Approach requires correct definition of a common denominator to be used as a unit of comparison to establish degree of sameness before adjusting for less significant differences.

- A. Selection of a comparable unit as the basis for comparison; should reflect user or investor viewpoint as to source of productivity.
  - 1. Conventional physical units should be tested or compared to see which one explains the greatest percentage of variance.
  - 2. Adjusted prices should be tested to see if variance is greater or less on the average per unit after adjustments.
- B. In <u>The Appraisal of 25 N. Pinckney</u> sales demonstrated that shop keepers purchased per unit of first floor space while real estate developers purchased per unit of gross floor area.
- C. The computer makes it possible to test a single linear regression comparing adjusted sales price to a number of alternative independent variables to select the one unit which reduces the variance between sales the most. (See Exhibit 1.)

Space Unit	Correlation	R <sup>2</sup>
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

D. Linear regression has more everyday application to appraisal than multiple regression. In the U.S. regression is used for intermediate analysis rather than for setting price as the dependent variable. It has limited use for pricing because:

#### 1. Theory:

- a. Violation of data requirements of independence, normally distributed error, degrees of freedom, etc.
- b. Comparison of subject to mean of set
- Where market comparison is sameness or set theory, not statistical variance within a heterogeneous group
- d. Responsibility of appraiser to select comps and make specific adjustments

#### 2. Practice:

- a. Lack of adequate comparables
- b. Failure of appraiser to view all properties and set adjustments
- c. Inability to communicate with credibility to property owner to jury
- E. Basic steps for market comparison approach using price per point per unit
  - 1. Define the unit of comparison
  - 2. Set up an ordinal scale for property variables of importance to the buyer
  - 3. Convert ordinal scale for each variable to a cardinal scale, using common denominator of 100 percent to determine weighted point score for property.
  - 4. Establish weighted price per point per unit for each comparable and the subject

- 5. Divide dollars per unit by point score
- 6. Determine mean price per point per unit using linear and straight averaging techniques

## F. Some case examples:

- 1. Burned-out hotel (See Exhibit 2).
- 2. Large acreage site (See Exhibit 3).
- 3. Industrial site (See Exhibit 4).

# FEASIBILITY OF ALTERNATIVE USES

	Scenario 1	Scenario 2	Scenario 3	Scanario 4 Conversion to	Scenario 5 Conversion to	Scenario 6
Feasibility Factor	Return to Former Use	Purchase by Welfare Agency	Conversion to Class B/C Office	Apartments with Office on 1st Floor	Apartments with Existing Bar	Demolition and Sale of Site
Market Demand Risks	Demand very elastic relative to price unless room rates subsidized by welfare agencies	Welfare agencies lack capital resources to purchase and remodel facilities, given the absence of government funding	Office market becoming more price sensitive; would not accept neighborhood and lack of parking unless rents were lower than necessary to support remodeling	Strong demand for specious two bedroom units in CBD area	Though there is a strong demand for affordable downtown housing, consumer survey shows tenant reluctance to live above noisy/potentially malodorous bar-restaurant	Soft market for vacant sites which cannot be assembled into larger plot- tage; parking revenues from 20 spaces inadequate to carry clearance costs
Legal/Political Acceptability	Inconsistent with long term City goals for Olin Place	Mixed acceptability as interim use as housing for transient males by some groups; favored by welfare advocates and disfavored by local residents	Neighborhood resistance to increased demand for street parking	Preferred use, given need for downtown housing and politi- cal statements by alderpersons for reduction of bar business in residen- tial neighborhoods	Preferred use for housing is compro- mised by existing bar management agreement	Inconsistent with constituency favoring landwark designation
Technical Construction Problems and Capital Cost Risks	Failure to repair within one year may have jeopardized grandfathered non-conforming building conditions. Otherwise this use has lowest construction risks of Scenarios 1 through 5	Capital costs of renovation to state standards excessive for short term use	Variance needed for parking requirement of 1 stall per 300 SF to 1 stall per 2,500 SF of office space	Spacious apartments with views provide favorable rent/cost per SF ratio— housing code creates more remodeling risk than commercial code	Apartment mix cheapened by re- taining existing bar operation—smaller units require more plumbing and bring less favorable rent/ coat per SF ratio	Nome 2
Relative Investment Power Based Upon						
Revenue Generation Potential	\$192,765	\$120,380	<b>\$80,331</b>	\$103,220	(\$10,513)	<b>\$</b> 13 <b>,</b> 778
Special Income Tax Advantages or Public Subsidies Available	Hone	None	Rehabilitation tax credit of 20% for older commercial building conversion plus possible industrial bond financing	Possible historic landmark status for 25% rehabilitation tax credit plus tax incremental financing (TIF) assistance	Possible historic landmark status for 25% rehabilitation tax credit. TIF less likely because increase in tax is smaller	None
Real Estate Tax Consequences to City	Modest increase in assessed value	Loss of \$194,300 tax base with tax-exempt agency as owner	Real estate tax base would be multiplied approximately 3 times the present	Real estate tax base would be multiplied approximately 3 1/2 times the present	Real estate tax base would be multiplied approximately 2 1/2 times the present	Loss of approximately \$140,000 of tax base

assessment

assessment

assessment

#### SCALE FOR SCORING COMPARABLE SALE ATTRIBUTES

Location 15%	<ul> <li>5 = Corner lot with high visibility on major traffic artery</li> <li>3 = Inside lot with low visibility on major traffic artery</li> <li>1 = Inside lot with low visibility on secondary street</li> </ul>
Investor Perception of Neighborhood Image 15%	<ul> <li>5 = Strong identification with Square (within 1 block) or established commercial or residential area</li> <li>3 = Neutral investor attitude</li> <li>1 = General identification with deteriorated neighborhood</li> </ul>
Structural Condition of Improvements 25%	<pre>5 = Fire-resistant construction, well     maintained, operational,     marketable 3 = Ordinary mill construction (brick     bearing walls-wood beams), poorly     maintained, needs mechanical work 1 = Boarded up and/or partially     damaged or vandalized</pre>
Reuse Potential 30%	<pre>5 = Dominant commercial/retail reuse     potential with anticipation of     Landmark designation with 1981 tax     laws applied 4 = Dominant commercial/retail reuse</pre>

1981 tax law
3 = Residential reuse potential with
1981 tax laws applied

potential with anticipation of Landmark designation prior to

- 1981 tax laws applied
  2 = Residential reuse potential prior
  to 1981 tax law
- 1 = Warehouse
- 0 = Improvements demolished leaving land only

Bargaining Position of Seller 15%

- 5 = Income adequate to carry property
   or seller with strong asset
   position
- 3 = Little or no steady income but seller not known to be under financial pressures
- 1 = Building owner known to have financial pressures or multiple liens on property

## WEIGHTED MATRIX FOR COMPARABLE PROPERTIES

#### Rating/Weighted Rating

FRATURE	WEIGHT	#1 Frautschi 215-219 King	#2 Sutherland Elec. 323 K. Wilson	#3 Fess Hotel 123 E. Doty	#A Miller Horns 71% Villiamson	#5 Miller Horne 722 Williamson	#6 Atrium 25 M. Pinckney	01d Sorority 10 Langdon	Cardinal Hotel
Location	15%	3/ .45	5/ .75	5/ .75	3/ .45	3/ •45	1/ .15	3/ •45	5/ .75
Investor Perception of Weighborhood Image	15\$	3/ •45	3/ •45	5/ •75	1/ .15	1/ .15	5/ .75	5/ .75	1/ .15
Structural Condition of Improvements at Time of Sale	25\$	3/ •75	5/1.25	1/ .25	5/1.25	5/1.25	3/ •75	1/ .25	1/ .25
Reuse Potential	30%	4/1.2	1/ .30	4/1.2	2/ .60	4/1.2	4/1.2	4/1.2	5/1.5
Bargaining Position of Seller	15%	5/75	3/_45	1/_15	3/ .45	1/15	1/15	1/_415	3/_45
Total Point Score		3.6	3.2	3.1	2.9	3.2	3.0	2.8	3.1

	#1 Frautschi 215-219 King	#2 Sutherland Elec. 323 E. Vilson	#3 Fess Hotel 123 E. Doty	#4 Miller Horne 714 Williamson	#5 Miller Horne 722 Williamson	#6 Atrium 25 N. Pinokney	01d Sorority 10 Langdon	
Nominal Sale Price	\$320,000	\$165,000	\$120,000	\$148,000	\$300,000	<b>\$150,000</b>	\$91,000	
Date of Sale	November 1978	July 1979	January 1975	January 1979	November 1981	April 1977	July 1981	
Terms of Sale	Land contract \$50,000 - down 270,000 - 2 yra 10% Year 1 6% Year 2	Cash to seller	Land contract	Land contract \$23,000 down 125,000 @ 9 3/4\$ 5 years	Land contract	\$100,000 cash 50,000 seller 2nd subordinated to construction loan	Cash to seller	
Adjustment for:							•	
Terms of Sale	Discount 10%	No adjustment	5% Finder's fee for \$320,000 construction loan	Reduce to \$140,000	Discount 20% for creative financing	Discount 2nd-20%	Mone	Ĺ
Time of Sale (5%/year from 1/1/79 on)	Appreciate 17.5%	Appreciate 15%	Appreciate 17.5%	Appreciate 17.5%	Appreciate 2.5%	Appreciate 17.5%	Appreciate 5%	באטונס!!
Adjusted Price for Terms and Time	<b>\$338,400</b>	\$189,750	\$121,500	\$164,500	\$246,000	<b>\$16\$,500</b>	\$95,550	^
Land Area	21,728 SF	8,221 SF	8,712 SF	8,712 SF	17,424 SF	8,712 SF	6,720 SF	(,
Adjustment for Land Area Differences 6 \$5.00/SF	(\$108,640)	(\$41,105)	(\$43,560)	(\$43,560)	(\$87,120)	(\$43,560)	(\$33,600)	(continued)
Adjusted Price less Allowance for Land Value	\$229,760	\$148,645	\$77,940	<b>\$120,940</b>	<b>\$158,880</b>	\$120,940	<b>\$61,950</b>	(2)
Gross Building Area (GBA) (Square Feet)	21,000 SF	17,790 SF	9,330 <b>S</b> F	28,000 SF	30,000 SF	16,060 SF	10,500 SF	
Adjusted Price per Square Foot of GBA	\$10.94/8F of GBA	\$8.36/SF of GBA	\$8.35/SF of GBA	\$4.32/SF of GBA	\$5.30/SF of GBA	\$7.53/SF of GBA	\$5.90/SF of GBA	
Total Point Score	3.6	3.2	3.1	2.9	3.2	3.0	2.8	
Price per Square Foot/Point Score	<b>\$3.0</b> 4	<b>\$2.61</b>	\$2.69	\$1.49	\$1.66	\$2.51	\$2.11	

EXHIBIT 2 (Continued)

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

Comparable Property	Adjusted Selling Pr per SF of	ice Point	Price per SF Weighted Point Score	(x)				
1	\$10.94	3.6	\$3.04					
2	8.36	3.2	2.61					
3	8.35	3.1	2.69					
4	4.32	2.9	1.49					
5	5.30	3.2	1.66					
6	7.53	3.0	2.51					
7	5.90	2.8	2.11					
		TC	TAL \$16.11					
Central Ten	dency = _	$\frac{\xi x}{n} = \frac{16.11}{7}$	L = 2.30					
Dispersion = $\sqrt{\frac{2(x-\bar{x})^2}{(n-1)}} = \sqrt{\frac{1.9417}{6}} = .569$								
where:	•	•						
X	$\bar{\mathbf{x}}$	$(\bar{x}-x)$	$(x-\hat{x})^2$ n n-1					
3.04 2.61 2.69 1.49 1.66 2.51 2.11	- 2.30 - 2.30 - 2.30 - 2.30 - 2.30 - 2.30 - 2.30	= .74 = .31 = .39 = .81 = .64 = .21 = .19 £(x-x) =	.5476 7 6 .0961 .1521 .6561 .4096 .0441 0361					

Value range:  $x \pm dispersion = 2.30 \pm .57$ 

Gross Weighted

Building x Point x (Central Tendency ± Dispersion) =

Area Score

 $17,900 \text{ SF x } 3.1 \text{ x} \qquad (2.30 \pm .57) =$ 

High Estimate of \$159,256 or \$160,000 Central Tendency of \$127,627 or \$130,000

Low Estimate of \$95,998 or \$100,000

All value estimates are rounded

COMPARABLE VACANT LARGE LOT LAND SALES

a Highway 50 No Ag 12/76 Rudy Industrial Wis. Electric \$700,475 155.66 \$ 4,5	CRE
Park, Inc. Power Company	00
5 Highway 158 Ro Ag 6/79 Pitts City of Kemosha \$696,920 133.00 \$ 5,2	40
19 Highway G No Ag 11/77 Thomas Campbell \$188,373 53-87 \$ 3,5	00
32 Highway 158 Yes Comm 1980 Shopko \$415,800 75.60 \$5,5	00

WEIGHTED SCORE MATRIX FOR COMPARABLE LAND SALES BASED UPON PRICE SENSITIVE ATTRIBUTES EXHIBIT 3 (Continued)

ATTRIBUTE	WEIGHT	#A HEPCO (HMT 50)	65 Kenosha Indostrial Park	#19 CAMPERLL (HWY G)	#32 Shopko	SUBJECT (COMMERCIAL/ RETAIL)
Physical Attributes		[1]				
Size of Site	20%	1/ .20	1/ .20	5/1.00	3/ .60	1/ .20
Site Topography	10%	3/ .30	3/ -30	3/ •30	1/ -10	5/ .50
Linkaesa						
Highway Frontage	301	5/1.50	5/1.50	1/ .30	5/1.50	5/1.50
Availability of Rail	10%	5/ .50	5/ .50	1/ .10	1/ .10	1/ .10
Availability of Utilities	20\$	1/ .20	5/1-00	1/ .20	5/1.00	1/ .20
line	105	1410	1/_10	5/50	3/30	3/_30
TOTAL POINT SCORE	100\$	2.80	3.60	2.40	3.60	2.80
Sale Frice		\$700,475	<b>\$696,92</b> 0	\$188,375	\$415,600	
Date of Sale		12/76	6/79	11/77	6/76	
Time Adjustment [2]		+ 25	- 25	0\$	+ 45	
Adjusted Sale Price		<b>\$609,</b> \$13 [3]	<b>\$648,136</b> [4]	\$188,373	4432,432	1,655,280
Acres		155.66	133	53.87	75.6	127
Adjusted Price per Acre		<b>43,9</b> 15	<b>44,</b> 873	\$3,500	\$5,720	
Total Point Soure		2.80	3.60	2.40	3.60	2.80
Price per Acre Point Score		\$1,398	\$1,354	\$1,458	\$1,589	***

#### POINT SCORE ADJUSTMENT PROCESS -LARGE SITE LAND SALES

#### MOST PROBABLE PRICE COMPUTATION USING MEAN PRICE PER POINT EQUATION METHOD

Number of sales = 4 Subject Size = 154.5

			SUBJECT	COMPA	RABLE SAL	ES POI	NT SCORES
			ET II E E	žzzz 4		********** 19	32
	* PRICE/AC	RE>		3915.00	4873.00	3500.00	5720.00
	TORS	WEIGHTS					
1	UTILITIES	.2	1	1	5	1	5
2	FRONTAGE	•3	5	5	5	1	5
3	SIZE	.2	1	1	1	5	3
4	RAIL	.1	1	5	<b>5</b> .	1	1
5	TOPOG	.1	5	3	3	3	1
6	USE	.1	3	1	1	5	3
7							
8							
9							
10							
		1					

	FACTORS x WEIGHTS	SUBJECT	COM PARAB			
	EL HEREIGHTEN STREET	*****	########	5	19	32
1	UTILITIES	.2	.2	1	.2	1
2	FRONTAGE	1.5	1.5	1.5	•3	1.5
3	SIZE	.2	.2	.2	1	.6
4	RAIL	.1	.5	.5	.1	.1
5	TOPOG	.5	•3	•3	•3	.1
6	USE	•3	.1	.1	•5	.3
7		0	0	O	0	0
8		0	0	0	0	0
9		0	0	0	0	0
10		0	0	0	0	0
	TOTAL SCORE	2.8	2.8	3.6	2.4	3.6

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

******			
COMPARABLE SALE NUMBER	ADJUSTED SELLING PRICE PER ACRE	WEIGHTED POINT SCORE	PRICE PER ACRE PER WEIGHTED POINT SCORE
1 2 3 4 5 6 7 8 9	3915 4873 3500 5720 0 0 0	2.8 3.6 2.4 3.6 .00001 .00001 .00001 .00001	1398.21 1353.61 1458.33 1588.89 .00 .00 .00
			5799.05

#### Central Tendency (Mean):

The mean price per acre per point (x) =  $\frac{5799.048}{-----} = \frac{1449.762}{4}$ 

#### Where:

x	×	(x-x)	(x-x)	n	n-1
1398.214 1353.611 1458.333 1588.889 0 0	1449.762 1449.762	-51.5476 -96.1508 8.571429 139.1270 0	9244.975 73.46939	4	3
0	1449.762 1449.762	0	0 0 31331.92		

Dispersion about the mean = the square root of 
$$\frac{2}{n-x}$$
 102.1958

Therefore,

The	Value	Range	is	:		1449.762	+/-	102.1958
						į,		. •
					or	1347.566	to	1551.958

Since the subject's point score is: 2.8

Score	x	Value	=	\$/ACRE
2.8		1347.566		3773.19
2.8		1449.762		4059.33
2.8		1551.958		4345.48

Since the acreage of the subject is: 154.5

It follows that:

	\$/ACRE	x	ACRES	=	Estimated V	al ue	
Low Estimate	3773.19	x	154.5	=	582957.9	or	583000
Central Tendency	4059.33	x	154.5	=	627166.5	or	627000
High Estimate	4345.48	x	154.5	=	671376.7	or	671000

# Computation of Least Squares Fit of Sales Price and Property Score

[STEP	1]			2	2	
Sale		Y	X	2 Y	2 X	XY
	1 2 3 4 5 6 7 8 9	3915 4873 3500 5720 0 0 0	2.4	15327225 23746129 12250000 32718400 0 0 0	12.96000 5.760000	10962 17542.8 8400 20592 0 0 0
		18008	12.4	84041754	39.52000	57496.8

[STEP 2]

The sum of X's 
$$\bar{X} = \frac{1}{n}$$
 3.1

[STEP 3]

The sum of y's = (The sum of Y's) - 
$$n(\overline{Y})^2$$
  
= 2969738.

The sum of x 's = (The sum of X 's) - 
$$n(\overline{X})$$

= 1.080000

The sum of xy = (The sum of XY) - 
$$n(\overline{XY})$$

[STEP 4]

b = slope of price point relationship

[STEP 5]

a = intercept

$$= \overline{Y} - b\overline{X} = -297.259$$

[STEP 6]

Syx = The square root of 
$$\frac{2}{1}$$
 (The sum of y 's) - b(The sum of xy)  $\frac{2}{1}$   $\frac{2}{1}$   $\frac{2}{1}$   $\frac{2}{1}$ 

= 1524.011

[STEP 7]

[STEP 8]
Subject
Value = 3988.67 Estimated by Regression Equation: y = a + bX

COMPARABLE NUMBER	WEIGHTED POINT SCORE	ESTIMATED PRICE PER ACRE	ACTUAL PRICE PER ACRE	RESIDUAL ERROR
4	2.8	3988.67	3915	73.67
5	3.6	5064.22	4873	191.22
19	2.4	3450.89	3500	-49.11
32	3.6	5064.22	5280	-215.78
	0	.00	0	.00
	0	.00	o	.00
	0	.00	O	.00
	o	.00	0	.00
	0	.00	o	.00
	0	.00	0	.00
		NET ER	ROR	.00

\_\_\_\_\_

#### EXHIBIT 4

#### EXCERPTED FROM APPRAISAL OF INDUSTRIAL SITE

# C. Adjustments for Differences to Relate the Comparables to the Subject Property

To estimate the fair market value of the subject property, based upon the sale prices of the comparables, adjustments are made to account for the differences in the price sensitive attributes of the comparables and the subject property. The comparable properties and the subject property are scored according to the scale detailed in Exhibit 9.

The subject site, which contains 2.5 acres, receives a score of 3 because it is an average sized lot. Since it does not command a more highly visible corner location, a score of 1 is given.

Linkages are extremely sensitive to price. Sites located in major retail areas command higher prices than do warehouses and light manufacturing sites. No retail uses are in sight of the subject so a score of 1 is given. International Lane, a traffic collector, feeds into Packers Avenue, a major arterial, so the subject receives a score of 3. A bus line on Packers Avenue is within two to three blocks of the subject to yield a score of 3. Electricity, telephone, and natural gas lines are available in the general area, but there are no curbs, gutters,

#### EXHIBIT 9 (Continued)

#### SCALE FOR SCORING COMPARABLE SALES BASED UPON PRICE SENSITIVE ATTRIBUTES

#### PHYSICAL ATTRIBUTES = 35%

5 = Less than 1 acre Size 3 = 1 to 4 acres 20%

1 = Greater than 4 acres

5 = YesCorner Location

3 = Next to corner on a major road 15%

1 = No

#### LINKAGES = 50%

5 = Near a shopping center Proximity to Major 3 = Near strip retail area Retail Area 1 = No retail uses in sight 201

5 = On a major boulevard or highway Access to Major 3 = On a traffic collector Highways

1 = On a side street 15%

5 = On a bus line Availability of

3 = Within 2-3 blocks of bus line 1 = None Madison Metro

5%

5 = Water, sewer, gas, curb, Availability of

Utilities and gutter

10% 3 = Water, sewer, gas

1 = None

#### EXHIBIT 9 (Continued)

#### DYNAMIC ATTRIBUTES = 15%

Positive Public Recognition of Street/Location

5%

5 = High visibility or recognition of location

3 = Average

1 = Relatively unknown

Perceived Adverse Influences

5%

5 = None

3 = Noise/Odor/Visual Problems

1 = Physically threatening

Immediate View from Property

Frontage

5%

5 = Well-landscaped office, shops, and residential

3 = Office/warehouses well-screened

and partially landscaped

1 = Assortment of office/warehouse uses with inadequate screening and/or poorly maintained or

vacant

or sidewalks. A score of 3 is given the subject for the availability of utilites.

Dynamic attributes, (the public's perceptions of the property's attributes) contribute to value. Since International Lane is a well-known location with positive public recognition, the subject is given a score of 5. Since the noise from planes landing and taking off could disruptive, the subject receives a 3. The view from the subject is marred by old barracks converted to offices warehouse buildings that would no longer meet the stringent architectural controls now in existence in Truax Air Park West, so the subject receives a score of 1.

Each comparable is scored in a similar manner; the weighted point score matrix which details the calculation of a total point score for both the comparable and the subject is found in Exhibit 10.

The price per square foot for each comparable is divided by its point score and the results are also found in Exhibit 10.

The mean point score per square foot is applied to the point score of the subject to indicate a central tendency value of \$111,000, or \$1.01 per square foot. These calculations are detailed in Exhibit 11.

The range of estimates yields a high of \$123,500, or \$1.13 per square foot and a low of \$98,000, or \$0.90 per square foot.

EXHIBIT 9 (Continued) WEIGHTED PCINT SCORE MATRIX FOR COMPARABLE SALES BASED UPON PRICE SENSITIVE ATTRIBUTES

ATTRIBUTE	WEIGHT	#1 1905 ABERG AVENUE	#2 1801 COMMERCIAL AVENUE
Physical Attributes		[1]	
Size of Site	20\$	3/ .60	1/ .20
Corner Location	15\$	1/ .15	1/ .15
Linkages			
Proximity to Retail	20\$	3/ .60	1/ .20
Access to Major Roads	15\$	5/ .75	3/ .45
Availability of City Bus	5\$	3/ .25	5/ .25
Availability of Utilities	10%	5/ .50	5/ .50
Dynamic Attributes			
Public Recognition	5\$	5/ .25	3/ -15
Perceived Adverse Factors	5\$	3/ .15	5/ .25
View from Site	<u>5⊈</u> 100≴	1/_05	1/ _05
TOTAL POINT SCORE	1003	3-30	2.20
Sale Price		\$80,000	\$181,150
Date of Sale		8/82	10/80
Land Area (SF)		53,426 (1.23 A)	175,547 (4.03 A)
Price per Square Foot		\$1.50	\$1.03
Total Point Score		3-30	2.20
Price per SF/Point Score		\$0.45	\$0.47

EXHIBIT 9 (Continued)

ATTRIBUTE	WEIGHT	#3 3520 PACKERS AVENUE	#4 814 ATLAS AVENUE (Backs on to Cottage Grove Rd.)	#5 LOT 1, BLK. 7, MADISON INDUSTRIAL SUB., #1	#6 2447 ADVANCE (a.k.a. 4701 Pflaum Road)	#7 LOT 6, BLK. 3, MADISON INDUSTRIAL SUB., #1
Physical Attributes		[1]				
Size of Site	20%	5/1.00	3/ .60	3/ .60	3/ .60	5/1.00
Corner Location	15\$	5/ •75	1/ .15	1/ .15	5/ •75	1/ .15
inkarea						
Proximity to Retail	20\$	3/ .60	3/ .60	1/ .20	1/ .20	1/ .20
Access to Major Roads	15\$	3/ .45	5/ •75	1/ .15	3/ •45	1/ .15
Availability of City Bus	5%	5/ .25	5/ .25	1/ .05	1/ .05	1/ .05
Availability of Utilities	10%	5/ .50	5/ .50	5/ .50	5/ .50	5/ .50
remin Attributes						
Public Recognition	5\$	1/ .05	3/ •15	1/ .05	5/ .25	1/ .05
Perceived Adverse Factors	5\$	3/ .15	5/ .25	5/ .25	5/ .25	5/ •25
View from Site	5\$	1/ _05	3/15	3/15	3/15	3/ _15
OTAL POINT SCORE	100\$	3.80	3.40	2.10	3.20	2.50
ale Price	n	*30,000	\$125,000	\$70,000	\$60,000	\$20,900
ate of Sale		2/79	6/83	9/82	9/82	9/82
and Area (SF)		21,747 (0.50)	80,613 (1.85 A)	73,109 (1.68 A)	45,472 (1.04 A	22,997 (0.53 A)
rice per Square Foot		\$1.55 [2]	\$1.55	<b>\$0.9</b> 6	\$1.32	\$0.91
otal Point Score		3.80	3.40	2.10	3.20	2.50
Price per SF/Point Score		\$0.41	<b>\$0.</b> 46	<b>\$0.</b> 46	\$0.41	\$0.36

<sup>[1]</sup> Explanation of weighted score: point score/score x weight
[2] This older sale is adjusted upward 12 percent for time. (1.12 x \$1.38 x \$1.55)

EXHIBIT 9 (Continued)

ATTRIBUTE	WEIGHT	#8 LOT 2, BLK. 6. MADISON INDUSTRIAL SUB., #1	#9 4484 ROBERTSON ROAD MADISON IND. SUB., #1	SUBJECT LOT 2, CSM 928
Physical Attributes		[1]		
Size of Site	20%	5/1.00	3/ .60	3/ .60
Corner Location	15%	1/ .15	1/ .15	1/ .15
Linkagea				
Proximity to Retail	20\$	1/ .20	1/ .20	1/ .20
Access to Major Roads	15%	1/ .15	1/ .15	3/ •45
Availability of City Bus	5\$	1/ .05	1/ .05	3/ •15
Availability of Utilities	10\$	5/ .50	5/ •50	3/ •30
Dynamic Attributes				
Public Recognition	5\$	1/ .05	1/ .05	5/ •25
Perceived Adverse Factors	5\$	5/ .25	5/ •25	3/ •15
View from Site	<u>5₹</u> 100≴	3/15	3/15	1/05
TOTAL POINT SCORE	1003	2.50	2.10	2.30
Sale Price		\$32,000	\$98,600	n/A
Date of Sale		2/82	1/82	N/A
Land Area (SF)		24,975 (0.57)	98,600 (2.26 1)	109,493 (2.51
Price per Square Foot		\$1.28	\$1.00	N/A
Total Point Score		2.50	2.10	2.30
Price per SF/Point Score		<b>\$</b> 0.51	<b>\$0.48</b>	N/A

EXHIBIT 9 (Continued)

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

Comparable Property	Adjusted Selling Price per SF	Weighted Point Score	Price per SF Weighted Point Score
1	\$1.50	3.30	<b>\$0.</b> 45
2	1.03	2.20	0.47
3	1.55	3.80	0.41
4	1.55	3.40	0.46
5	0.96	2.10	0.46
6	1.32	3.20	0.41
7	0.91	2.50	0.36
8	1.28	2.50	0.51
9	1.00	2.10	<u>_0.48</u>
		TO	FAL \$4.01
Central Tend	ency [1] = <u>&amp; x</u> =	4.01 = ·1	<b>1</b> 4
Dispersion	$= \sqrt{\frac{\sum (x-x)^2}{(n-1)}} =$	J •0168	= .05
[1] x = S	um ofPrice_ps Weighted Poi	er SF Int Score	
n = N	umber of Observati	ons	
$\overline{\mathbf{x}} = \mathbf{A}$	verage <u>Price po</u> Weighted Po	er <u>SF</u> oint Score	

#### EXHIBIT 9 (Continued)

where:

_X_	_x_	$\nabla (\bar{x} = \bar{x}) \nabla$		$(x=\bar{x})^{z}$	_n_	n=1
.42 .47 .41 .46 .46 .41 .36 .51	. 4 4 . 4 4 . 4 4 . 4 4 . 4 4 . 4 6	.02 .03 .02 .02 .03 .08 .07		.0004 .0009 .0009 .0004 .0004 .0009 .0064 .0049	9	8
		<b></b> ≢(x - x̄)²	=	.0168		

Value range for subject property:

$$\bar{x}$$
 ± dispersion = \$0.44 ± .05

Square Footage of x Weighted x (Central Tendency  $\pm$  Dispersion) = Subject Point Score

109,493 x 2.30 x 
$$($0.44 \pm .05) =$$

High Estimate of \$123,500 or \$1.13 per square foot
Central Tendency of \$111,000 or \$1.01 per square foot
Low Estimate of \$98,000 or \$0.90 per square foot

As a check on the appropriateness of the appraiser's selection and weighting of price sensitive factors, the point scores calculated for each comparable is multiplied by the mean price per square foot per point score to predict or estimate the actual selling price of each comparable. The results are as follows:

COMPARABLENUMBER	WEIGHTED POINT SCORE	ESTIMATED PRICE/SF	ACTUAL PRICE/SF	RESIDUAL ERROR
1	3.30	1.45	1.50	05
2	2,20	0.96	1.03	07
3	3.80	1.67	1.55 (adj.)	+.12
4	3.40	1.50	1.55	05
5	2.10	0.92	0.96	04
6	3.20	1.41	1.32	+.09
7	2.50	1.10	0.91	+.19
8	2.50	1.10	1.28	18
9	2.10	0.92	1.00	±.08
		NET RE	SIDUAL ERRORS	+.09

There appears to be a tight fit between the estimated and the actual price; so it can be concluded that the selection and weighing of the price sensitive factors successfully reflected buyer behavior.

comparable approach is sensitive to the The market appraiser's ability to predict buyer perceptions in a changing market. The weighted point scores are an attempt to capture these perceptions. Consequently, this calculated value is only the initial step in determining the final price estimate. This initial transaction zone must be adjusted in light of certain external factors such as the buyer's alternative option to lease surrounding land from Dane County instead of buying in fee which, in turn, will be affected by the current cost of financing land purchases, the income tax consequences of buy versus lease decision, and the effect of the Consumer Price Index (CPI) escalator upon rental rates for leased land. Other external factors include the effect of the Truax Air Park covenants upon the quality of future development in the area, and the future expansion of the Dane County Regional Airport.

# SPECIAL PROBLEMS FOR LARGE INCOME PROPERTY APPRAISAL AND APPRAISAL CONTRACTS

#### Presented By

James A. Graaskamp, Ph.D., CRE, SREA University of Wisconsin, School of Business

#### FOURTH HOUR

- I. Support for the appraiser's judgment as to highest and best use requires far more detail than before, particularly for properties in transition or candidates for rehabilitation, industrial bonding as blighted, or special tax treatment.
  - A. The approved definition of highest and best use requires recognition (Exhibit 1) of alternative courses of action which are legal, plausible, technically doable, and financially viable at a proven level of effective demand. Moreover, the use must be consistent with community plans and objectives, particularly community fiscal plans.
  - B. Review the selection of a most probable use for a flophouse hotel in Exhibit 2.
  - C. Consider the demonstration and discussion of best use provided from an actual appraisal (Exhibits 3 and 4).
  - D. Cash equivalency to be consistent with the definition of fair market value is the subject of major debate (see Exhibit 5):
    - 1. Strictly enforced, it tends to over-discount prices to a point where the seller would not have sold.
    - 2. Typically represents sale of financing to benefit both parties.
    - 3. There is growing evidence that in many cases the buyer and seller have shared the costs of seller financing so that fair market value is closer to the midpoint between nominal sales price and deferred points discounted for institutional interest rates.

#### EXHIBIT 1

"Highest and best use: That reasonable and probable use that will support the highest present value, as defined, as of the effective date of the appraisal. Alternatively, that use, from among reasonably probable and legal alternative uses, found to be physically possible, appropriately supported, financially feasible, and which results in highest land value. definition immediately above applied specifically to the highest and best use of land. It is to be recognized that in cases where a site has existing improvements on it, the highest and best use may very well be determined to be different from the existing The existing use will continue, however, unless and until land value in its highest and best use exceeds the total value of the property in its existing Implied within these definitions is recognition use. of the contribution of that specific use to community environment or to community development goals in addition to wealth maximization of individual property Also implied is that the determination of owners. highest and best use results from the appraiser's judgment and analytical skill, i.e., that the use determined from analysis represents an opinion, not a fact to be found. In appraisal practice, the concept of highest and best use represents the premise upon which value is based. In the context of most probable selling price (market value) another appropriate term to reflect highest and best use would be most probable In the context of investment value an alternative term would be most profitable use.

Real Estate Appraisal Terminology, Edited by Byrl N. Boyce, Ph.D., SRPA, Ballinger Publishing Co., Cambridge, Mass., 1975. (Emphasis added.)

	Scenario 1	Scenario 2	Scenario 3	Sommario 4 Conversion to	Scenario 5 Conversion to	Scenario 6
Fessibility Factor	Return to Former Use	Purchase by Welfare Agency	Conversion to Class B/C Office	Apartments with Office on ist Floor	Apartments with Existing Bar	Demolition and Sale of Site
Market Demand Risks	Demand very elastic relative to price unless room rates subsidized by welfare agencies	Welfare agencies lack capital resources to purchase and remodel facilities, given the absence of government funding	Office market becoming more price sensitive; would not accept neighborhood and lack of parking unless rents were lower than necessary to support remodeling	Strong demand for spacious two bedroom units in CBD area	Though there is a strong demand for affordable downtown housing, consumer survey shows tenant reluctance to live above noisy/potentially malodorous ber-restaurant	Soft market for vacant sites which cannot be assembled into larger plot- tage; parking revenues from 20 spaces inadequate to carry clearance costs
Legal/Political Acceptability	Inconsistent with long term City goals for Olin Place	Mixed acceptability as interim use as housing for transient males by some groups; favored by welfare advocates and disfavored by local residents	Neighborhood resistance to increased demand for street parking	Preferred use, given need for downtown housing and politi- cal statements by alderpersons for reduction of bar business in residen- tial neighborhoods	Preferred use for housing is compro- mised by existing bar management agreement	Inconsistent with constituency favoring landwark designation
Technical Construction Problems and Capital Cost Risks	Failure to repair within one year may have jeopardized grandfathered non-oonforming building conditions. Otherwise this use has lowest construction risks of Scenarios 1 through 5	Capital costs of renovation to state standards excessive for short term use	Variance needed for parking requirement of 1 stall per 300 SF to 1 stall per 2,500 SF of office space	Spacious apartments with views provide favorable rent/cost per SF ratio housing code creates more remodeling risk than commercial code	Apartment mix cheapened by re- taining existing bar operation—smaller units require more plumbing and bring less favorable rent/ cost per SF ratio	No me 'N
Relative Investment Power Based Upon Revenue Generation						
Potential	\$192,765	\$120,380	<b>\$80,331</b>	\$103,220	(\$10,513)	<b>\$13,778</b>
Special Income Tax Advantages or Public Subsidies Available	None	None	Rehabilitation tax oredit of 20% for older commercial building conversion plus possible industrial bond financing	Possible historic landmark status for 25% rehabilitation tax credit plus tax incremental financing (TIF) assistance	Possible historic landmark status for 25% rehabilitation tax credit. TIF less likely because increase in tax is smaller	No ne
Real Estate Tax Consequences to City	Modest increase in assessed value	Loss of \$19%,300 tax base with tax-exempt agency as owner	Real estate tax base would be multiplied approximately 3 times present	Real estate tax base would be multiplied approximately 3 1/2 times the present	Real estate tax base would be multiplied approximately 2 1/2 times the present	Loss of approximately \$140,000 of tax base

assessment

assessment

assessment

#### EXHIBIT 3

# DEMONSTRATION OF SELECTION OF BEST USE SCENARIO FOR VACANT OFFICE TOWER REQUIRING COMPLETE MECHANICAL RENOVATION

#### B. Alternative Uses for Pyare Square

A combination of the physical characteristics of the property and the general demand characteristics of the Hilldale area suggest the following alternative scenarios for use of the subject property (Appendix D):

Scenario #1: The building would be remodeled into multi-tenant office space of class A on floors 4 to 14 and class B on floors 1 to 3.

Scenario #2: The building would be modified into residential apartments on floors 4 to 14 and class B office space on floors 1 to 3.

Scenario #3: The building would be modified into residential condominiums on floors 4 to 14 and class B office space on floors 1 to 3.

Scenario #4: The building would be modified into a hotel facility with hotel rooms on floors 4 to 14, a restaurant on floor 3, and seminar and office space on the remainder.

# C. Economic Ranking of Alternatives

The alternative uses that might be plausible for the subject property can first be ranked in terms of the general budget parameters inherent in revenues and expenses for each. The best financial alternatives must then be screened for effective demand, political acceptability, and risk. In order to reveal the general range of justified investment on the existing property, the appraiser developed a logic of converting rents to justified investment by determining a market rent for each use and assuming an acceptable cash breakeven point for financial planning and budgeting. This process capitalizes funds available for debt service or cash dividends into amounts of justified investment. This residual approach can be misleading if there are small errors in the cash-flow forecast, but if estimating bias is consistent when applied to the alternative uses, it does rank the alternatives in terms of their ability to pay for the subject property as is. The logic of this process is provided in Exhibit 15; the cost assumptions and calculations are provided in Appendix D.

The ratio of cash expenses, real estate taxes, and debt service to potential gross income.

## EXHIBIT 15

# BASIC LOGIC FOR RANKING ALTERNATIVE PROGRAM SCENARIOS BY JUSTIFIED PURCHASE BUDGET

Rent/Unit (	Rent/Unit	Rent/Unit
* +	× +<	×
Number of Units	Number of Units	Number of Units
*		
Potential × Gross Income	Default Point =	Cash for Operations
×		-
1-Default Point		Operating Expenses
<b>.</b>		-
Equity Cash Margin		Capital Replacement
-		
Vacancy Loss		Real Estate Taxes
-		Real Estate Taxes
Reserve for		= '
Contingency =		Cash Available for Debt Service
Cash Throw-Off (B/4 Tax)		+
*		Mortgage Constant
Equity Cash Constant		
		-
Justified Equity (B/4 Tax Effect)	+	Justified Mortgage
	-	•
	Total Justified Project Budget	
	. <del>-</del>	
	Construction Outlays	
	=	_
	Budget for Purchase	

A summary of these calculations from the Appendix are provided in Exhibit 16. A preliminary ranking based on a cash-justified investment (Line 3, Exhibit 16), without regard to future reversion value, demonstrates that Scenario 1 is the preferable use of the structure as is.

#### D. Ranking of Alternatives

In terms of estimating risks, Scenario 1 offers more certainty in regard to construction budget because multi-tenant office use is more similar to the previous use. Less extensive remodeling plans imply that fewer problems will arise. In Scenarios 2, 3, and 4, all new plumbing facilities and windows are required for floors 4 to 14. The same improvements simply need refurbishing if the building remains office use. In addition, the market for a high-rise residential or hotel facility is largely untested in the Hilldale area, but office use has been expanding. A change from office use of Pyare Square carries business risks that are difficult to ascertain, and the costs incurred in those risks could be great.

#### E. Political Compatibility of Alternatives

According to the village administrator of Shorewood Hills, all four of the scenarios would be politically acceptable because the village wants to see improvement of the building. However, Scenarios 2, 3, and 4 require a zoning change that must be approved by the village—an effort that is likely to be more time—consuming than futile.

Although condominiums are a relatively new idea to Shorewood Hills, the community boasts of being a residential suburb, and so a well-conceived plan should pass the board. A hotel use, however, is questionable and would be subject to serious scrutiny because demand is not evident. Office use appears to be most probable in light of the fact that costs are lower, zoning is proper, and demand is evident.

#### F. Conclusions

Since the estimated residual justified purchase prices of Scenarios 1 and 3 are fairly close, the choice in determining the most probable fitting use relates to the higher costs of converting to residential coupled with the risks involved in tapping an untested market. A prudent investor would seek to stabilize his income by choosing the less speculative scenario. A review of the summary feasibility data in Exhibit 17 supports the conclusion that the most probable use of the subject property in the opinion of the appraiser is Scenario 1.

The most probable use of the subject property would be renovation to a multi-tenant office building.

EXHIBIT 16

SUMMARY OF BEDGETS FOR ALTERNATIVE USE SCENARIOS

Budget Stem		Scenario #1	cenario #1 Scenario #2		Scenario #4	
1.	Cost to construct	(2,509,975)	(2,414,225)	(2,668,140)	(2,569,600)	
2.	Justified investment for property as is	2,897,566	1,409,513	2,868,983	(4,662,172)	
3.	Total justified investment in subject property as is	387,591	(1,004,712)	200,843	(7,231,772)	

EXHIBIT 17

SUMMARY MATRIX OF FEASIBILITY OF ALTERNATIVE USES

Feasibility Factor Scenario #1		Scenario #2	Scenario #3	Scenario #4	
Justified Investment in subject	387,600 2	Negative	200,843	Negative	
Remodeling Risks	Moderate	Significant	Significant	Serious	
Effective Market demands	Positive	Positive	Questionable	Soft	
Political acceptability	Strong	Strong	Strong	Mixed	
Financial Risk	Depends on market- ing ability in pro- jecting new image for the building	Depends on desire to live in a high- rise	Depends on desire to own a home in a high-rise	Financial risk is great Hilldale is not a major office center nor a stop for travellers.	

#### EXHIBIT 4

#### B. Most Probable Price

A number of transactions involving the sale and purchase of multistory office facilities have occurred in the greater Madison metropolitan area. This makes it possible to infer from past transactions the probable price and range of sales price involving the subject property and the most probable buyer defined above. In order to reconcile the important differences between the subject property and past transactions, a ranking system will be used. This system, shown in Exhibit 13, yields a weighted score point total for each property. The weighting of the features distinguishes the most probable buyer. The point totals are a measure of the desirability of the given property to the most probable buyer. The time-adjusted cash equivalent price of each comparable can then we weighted for a property point total that provides a common denominator for comparison purposes. The common denominator can be further refined by weighting it for net rentable area. The result is a cash equivalent dollar/point square foot figure, which is then related to the cash equivalent sales price by computing the mean price per point. This statistical process produces the predicted price per unit, or central tendency, and therefore a means to estimate the range and reliability of the sale price prediction, or standard error.

## SCALE FOR SCORING COMPARABLES ON PROBABLE BUYER CONSIDERATIONS

Location	5 = Neighborhood of stable or increasing
	prices
	3 = Neighborhood of stagnant prices
	<pre>1 = Neighborhood of declining or</pre>
	deteriorating prices
Vacancy at sale	5 = Mostly occupied, 10% or less vacancy
•	3 = Partially occupied
	1 = Vacant at time of sale
Building condition and remodeling required	5 = Minimal improvements required, good condition
temodering reduring	3 = Average renovation, fair condition
	1 = Empty shell, major renovation
	required, poor condition
Accessibility	5 * Easily accessible, visible entrance
11000001011111	or entrances
	<pre>3 = Some accessibility problems</pre>
	<pre>l = Very difficult access, one-way</pre>
	streets or no islands
Parking	5 = Adequate, available parking
	3 = Limited, expensive parking
	I = No parking

## C. Market Comparison Approach to Probable Price

The first problem in real estate market comparison is to define the unit by which the comparison proceeds. Recent comparable sales that were arm's-length transactions, located in office or retail nodes, ordinary mid/high-rise construction types, and preferably sold as vacant shells were collected. Exhibit 14 summarizes the comparable sales selected for use in predicting the most probable price for the subject property. Of the eight sales, one was for cash, the balance required some type of nonmarket seller-financing.

SUMMARY OF COMPARABLE SALE

Property	Date of Sale	Terms of Sale
110 E. Main	10/76	land contract
149 E. Wilson	8/78	seller-financing
16 N. Carroll	9/74	installment
137 E. Wilson	10/78	cash
301 N. Broom	11/79	land contract
212 E. Washington	12/77	seller-financing
102-110 N. Hamilton	7/77	land contract
202 N. Henry	3/79	land contract

For each of the eight selected comparables, shown in Exhibits 15 to 22, attributes thought to greatly influence buyer behavior were scored. Location in a neighborhood of stable or increasing prices was believed to be desired by the prudent investor. Vacancy presented a depressing effect on price and was therefore viewed as a negative factor. The amount of renovation required to bring the building into compliance with codes was recognized as a negative influence on price. Well-maintained, concrete structures were preferred over those with poor maintenance or ordinary construction. Accessibility also affects price with a negative influence recognized for those buildings with difficult access paths, constrained by poor visibility. Inadequate on-site or off-site parking is an important factor that impacts on price. The final weighted matrix is presented in Exhibit 23.

Exhibit 24 displays the calculations used to obtain the predicted price for the subject property and an estimate of the reliability of the prediction.

EXHIBIT 23
WEIGHTED MATRIX FOR COMPARABLE PROPERTIES OF 4610 UNIVERSITY AVENUE

				6	eight/Wei	ghted Ra	tings		<u></u>	
Feature	Weigh	110 E. t Main	149 E. Wilson	16 N. Carroll	137 E. Wilson	301 N. Broom	212 E. Washington	102-110 Hamilton	202 Henry	Pyare Square
Location	,10	3/.3	3/.3	3/.3	3/.3	5/.5	3/.3	3/.3	5/.5	5/.5
Vacancy	. 20	3/.6	1/.2	5/1.0	1/.2	1/.2	1/.2	3/.6	1./.2	1/.2
Building condition & remodeling required	.35	3/1.15	1/.35	3/1.15	1/.35	1/.35	1/.35	3/1.15	1/.35	1/.35
Accessibility	.15	1/.15	1/.15	1/.15	1/.15	1/.15	3/.45	1/.15	1/.15	3/.45
Parking	. 20	1/.2	1/.2	1/.2	1/.2	5/1.0	5/1.0	1/.2	1/.2	3/.6
lotal weighted score	100%	2.4	1.2	2.8	1.2	2.2	2.3	2.4	1.4	2.1
lime-adjusted cash equivalent (TACE) price	, l	\$1,391,008	\$270,694	\$781,741	\$271,200	\$96,570	\$574,209	\$395,464	\$262,933	• • •
Total net rentable area (NRA)		76,000	32,000	35,725	25,500	5,760	38,000	28,000	24,000	84,969
TACE price per sq.ft.(N	RA)	\$18.30	\$8.46	\$21.88	\$10.64	\$16.77	\$15.11	\$14.12	\$10.96	•••
Mean price per point per sq. ft.		\$7.63	\$7.05	\$7.82	\$8.86	\$7.62	\$6.57	\$4.88	\$7.82	

<sup>1</sup> See Appendix F for cash equivalency calculations.

EXHIBIT 24

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

Comparable Property	Selling Price per NRA	Weighted Point Score	Price per NRA Weighted Point Score = (x)
1	\$18.30	2.4	\$7.63
2	8.46	1.2	7.05
3	21.88	2.8	7.82
4	10.64	1.2	8.86
5	16.77	2.2	7.62
6	15.11	2.3	6.57
7	14.12	2.4	5.88
8	10.96	1.4	7.82
		-	Total \$59.25

Central tendency 
$$(\bar{x}) = \frac{\Sigma x}{n} = \frac{59.25}{8} = 7.41$$

Dispersion (std. dev.=s) = 
$$\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}} = \sqrt{\frac{5.71}{7}} = .90$$

### where:

<u>x</u>		<u> </u>		(x-x)	$(x-\overline{x})^2$	<u>n</u>	<u>n-1</u>
7.63	***	7.41	=	.22	.05	8	7
7.05		7.41		.36	.13		
7.82		7.41		.41	.17		
8.86		7.41		i.45	2.10		
7.62		7.41		.21	.04		
6.57		7.41		.84	.71		
5.88		7.41		1.53	2.34		
7.82		7.41		.41	17		
					5.71		

Value range:  $\bar{x} \pm s = 7.41 \pm .90 [8.31, 6.51]$ 

Estimate of value of subject property =

NRA of subject × Weighted point score × [Sample mean of price per NRA per total weighted score = s]

$$(84,969)$$
 ×  $(2.1)$  ×  $[7.41 \pm .90]$ 

High estimate: \$1,480,000 Central tendency: \$1,320,000 Low estimate: \$1.160,000

All value estimates are rounded.

## EXHIBIT 5

# NET PRESENT VALUE UNDER L.C. FINANCING AND BALLOON PAYOUT ACCORDING TO CONTRACT ON 12/31/85

	<u> 1979</u>	1980	1981	<u> 1982 - 84</u>
	<del></del>			4 years
Down Payment	\$500,000 3,576 (2A) \$503,576	\$250,000 5,364 (3A) 33.435 (9B) \$288,799	\$250,000 11,145 (38) 50,787 (9C) \$311,932	s 67,710 (120)
			Bala	nce_2.450.000
				\$2,517,770

#### NET PRESENT VALUE CONVENTIONAL LOAN

1979 Down \$862,000

Payment -- Balance 2.404.322

Cash year 1	\$503,576	\$288,799 .884666	\$311,932 .796455		
Cash year 2	255,491	\$255,491			
Cash year 3	248,440		248,440		
Cash year 4	48,551			\$67,710	
Cash year 5	43.710			67,710	
Cash year 6	39,351			67,710	
Cash year 7	\$1,317,332				\$2,517.710
722. (	\$2,456,451	Total Cash Equ	ivalency		

(Versus \$3,450,000 nominal selling price)

INCOME PREPORTED GROSS INCOME \$499,249 (Contract) NET INCOME 196.548

## MARKET RENT LEVELS

At least gross \$450,000 Less 40% expense 180,000 NOI \$270,000

0AR = 270,000 = .109915 2.456.451

 $SP/Unit = \frac{2,456,451}{168} = 14,622$ 

Example Problem: Cash Equivalent Price - Existing Mortgage plus
Purchase Money Mortgage

Given the following information, determine the cash equivalent price of the transaction:

Sale Price \$1,000,000

Existing Mortgage (assumed) Balance \$682,052

Mo. Pmt. \$6,039.20 Contract rate 8.5% Expired Term 6 years Remaining Term 19 years

Purchase Money Mortgage \$200,000 @ 10%

Amortization over 20

years, balloon in 10 years

Current Financing 14,5%, 20 year

amortization with 10 year balloon

\$381,535

A. What is the equity investment?

B. What is the balance outstanding on the existing (assumed) mortgage in 10 years?

C. What is the payment on the PMM? What is the balance outstanding EOY 10?

D. What is the cash equivalent price of the transaction?

Suggested Solution - II Existing Mortgage plus PMM

A. \$117,948

B. \$454,781

c. \$ 1,930 \$146,049

D. Equity \$117,948

Assumed Existing Mortgage PW \$6,039.20, 120 mos.

9,039.20, 120 mos. @ 14.5%

PW \$454,781, EOY 10

e 14.5%

Purchase Money Mortgage

PW \$1,930, 120 mos. \$121,931

e 14.5%

PW \$146,049, EOY 10

© 14.5% <u>\$ 34,558</u>

Total (Cash Equivalent Price) \$763,581

<sup>\*</sup> Courtesy of Byrl Boyce

IX. PROBLEM (CASH EQUIVALENCY)\*
 \*Courtesy of A. Robert Parente, SREA, MAI.

An income producing property (special purpose) was resold by the Midland National Bank on a "workout." The terms of the sale were as follows:

Sale Price:

\$1,178,808, no cash by purchaser, I.e., 100% debt financing

Terms of Financing:

First year - interest only at a rate of 4-1/2% and payable monthly

Second year - interest only at a rate of 6% and payable monthly

For the next 23 years - principal and interest at 8-1/2%, payable monthly

The property (a 12,000 sq. ft., 3-year old restaurant building) was purchased on November 10, 1977 for \$1,178,808. Typical terms of financing at that time (11/77) were 9-3/4% interest for 25 years on a 75% loan-to-value ratio. It is estimated that equity required a 12-15% return.

#### Questions:

- A. What are the monthly interest costs in years I and 2?
- B. What is the constant on the amortized portion of the mortgage?
- C. What is the monthly payment on the mortgage?
- D. What is the unadjusted sales price per square foot for use in the DSC approach?
- E. What is the cash equivalent price assuming 100% financing were typical in the market?
- F. What is the cash equivalent price assuming an equity yield requirement of 12% 15%?
- G. What is the adjusted sales price per square foot under each of the conditions set forth above?

```
Suggested Solution - IX
Problem (Cash Equivalency)
```

- A. Year 1: \$4,420.53 Year 2: \$5,894.04
- B. f = .09913
- c. \$9,737.97
- D.  $$1.178,808 \div 12,000 = $98.23/sq. ft.$
- E. PW i Costs Year 1 @ 9-3/4% = \$ 50,347.92 PW i Costs Year 2 @ 9-3/4% = 60,918.28 PW Amortization payments Years 3-25 @ 9-3/4% = 881,198.63

Cash Equivalent Price (100% Financing) = \$992,464.83\*

 $\pm$ \$186,343.17 less than face value of note

 $$992,464.83 \div 12,000 = $82.71/sq. ft.$ 

F. Discount Rates given Y = 12%, Y = 15%, m = 75% i = 9.75%

Y = 12% Y = 15%

Discount Rate (r) = .103125 Discount rate (r) = .110625

PWCF @ 10.3125% PWCF @ 11.0625%

Year 1 \$ 50,198.33 \$ 49,999.88 Year 2 60,399.42 59,715.07 Years 3-25 835,796.73 780,188.86 \$946,394.48\*\* \$889,903.81\*\*\*

G.  $$946,394.48 \div 12,000 = $78.87/sq. ft.$ 

\$889,903.81 ÷ 12,000 = \$74.16/sq. ft.

<sup>\*</sup> Courtesy of Byrl Boyce

- II. Critique of a Real Estate Appraisal requires some understanding of the institutions of appraisal, the normative economic logic of appraisal, and the elements of reform of the appraisal process already at work.
  - A. Political compromises in the 1930s led to the appraisal doctrine which defined fair market value as that which results from synthesis of three normative approaches to value based on the economics of before tax income.
  - B. Marshallian economics presumes stability of currency and interest rates. Appraisers and their customers confuse normative models to establish a fair price with behavior models that would predict the most probable price at which a property would sell.
  - C. Normative methods are not predictive of price but nine times out of ten appraisers are supposed to predict the price at which a property would sell under specific circumstances.
  - D. If the appraisal is to serve as a benchmark for a decision under specific circumstances, or purposes, then it should not be governed by conditions characteristic of an efficient market since real estate is not known for market efficiency.
  - E. Widespread acceptance of appraisal models is a function of the cost of reeducation, on-the-job training, word processing, and data processing, and that is being drastically altered by electronics and communication advances.
  - F. A consistent theory for reconstructing appraisal has been prepared by Professor R. U. Ratcliff but its tenets are being adapted at the grassroots level by individuals rather than considered by the controlling committee of the professional societies.

- G. Factors which have delayed appraisal reforms include:
  - 1. Compensation system which separates responsibility for payment of appraisal fee from beneficiary of objective useful analysis with a corresponding decline on reliance by financial institutions in the lending process, etc.
  - 2. Lack of understanding of the variety of services in terms of appraisal, feasibilty analysis, or consulting which a professionally designated appraiser might offer. The right product depends on asking the right questions.
  - 3. Fear of appraisal societies that a retreat from old principles will discredit appraisal designations and existing regulatory monopolies and therefore contribute toward further competitive erosion by the accountants and the engineers and the investment bankers.
  - 4. Postponement of reform pending merger of the major appraisal societies, an effort recently frustrated by a membership vote which will trigger significant competition and public efforts which lack the benefit of significant reform of the profession and its out-of-date educational programs.
- H. A common sense appraisal outline representing the Ratcliff approach would be as follows:
  - 1. What is the issue?
  - 2. What are the basic appraisal problems in the issue?
  - 3. What definition of value is most appropriate?
  - 4. What implicit assumptions are inherent in the value definitions?
  - 5. What explicit assumptions are provided by others?
  - 6. What is the most probable use of the property?

- 7. What is a profile of the most probable buyer of the property?
- 8. What level of behaviorial transaction forecasting can be applied?
  - a. Inference from market sales
  - b. Simulation from actual buyer calculus
  - c. Standard normative models for prudent buyers
- 9. What externalities should be considered as modifying the expected transaction range?
- 10. How does the most probable price test in light of criteria presumed in the buyer profile?
- I. To critique an appraisal provided as a benchmark of a mortgage loan and to classify the appraiser as contemporary or old guard, the reader should look to the following elements.
  - Definition of value is the classic definition or defined as the most probable price at which it would sell subject to specific financing terms?
  - 2. Does the interest to be appraised represent fee title encumbered or does it include entitlement to the financing requested or subject to financing appropriate to regulated institutional standard?
  - 3. For a proposed project does the appraisal assume completion and therefore a future appraisal date and does it assume absorption of the units into the market in a stated period of time? If so, it must prove absorption, capture rate, and construction as reasonable assumptions or it has sidestepped the critical issue of indirect cost.
  - 4. Does it discard any of the three approaches at the outset as inappropriate or does it wait until the report reaches the section called synthesis?

- 5. In using the market approach for an appraisal, does the report indicate buyer motivation on comparable sales or current status of the comparable? Does the appraiser use basic statistics for adjustment or arbitrary percentage or flat dollar shifts in value? Does it provide the standard error of the investment or the mean price?
- 6. In using the market approach for an appraisal, does the report indicate buyer motivation on comparable sales or current status of the comparable? Does the appraiser use basic statistics for adjustment or arbitrary percentage of flat dollar shifts in value? Does it provide the standard error of the investment or the mean price?
- 7. In doing the income approach, does the appraiser use normalized income or cash flows over time, and in capitalizing the income does he use market rates, Ellwood rates, or cash on cash mortgage equity? Only the latter is reliable for mortgage loan purposes.
- 8. In doing the cost approach, does the appraiser show the entrepreneurial compensation or is that buried in over-estimated construction costs? Hard dollar costs should be the lowest of three estimates, not the highest as advocated by appraisal textbooks. The spread is the developer's fee for the entrepreneurial contribution to land, labor, and capital.
- 9. Does the appraiser provide a test on the after tax basis of either his resale assumptions on which his income appraoch depends or his conclusion as to most probable price at which it would sell? These tests might include something like VALTEST. The resulting financial ratios discussed previously, or a front door approach to demonstrate the rents implied by a given cost of acquisition.
- 10. Check the statement of limiting conditions to see what applies relative to underlying assumptions and limitations on use.

- III. Because the client of the appraiser faces unique liabilities in the United States as a pension fund trustee (Employees Retirement Securities Act) or as a party to a partial sale of a real estaet interest under the Securities Act of 1983, appraisal assignments are becoming the subject of highly detailed contract negotiations. These contracts specify appraisal content and method.
  - A. Example of contract with specified format for information contained (PMI Exhibit 6).
  - B. Example of contract controlling methods and assumptions (FARA Exhibit 7).
  - C. Appraisal reform is occurring because customers contract for it rather than because of leadership from the professional society.
  - D. Cash flow models predominate for pension fund work where each lease is detailed (Exhibit 8).



First Bank Place Minneapolis, MN 55480

## APPRAISAL ENGAGEMENT LETTER

TO:	
RE:	Property Identification
Dear _	;·
your s fair m of (d assign	alf of First Asset Realty Advisors (FARA), we would like to engage ervices for the appraisal of the above property to determine the warket value of the legal interests owned by a Commingled Fund as ate of appraisal). To that end and before accepting the ment, the appraiser should consider the following requirements as inition and procedure:
1.	Fair market value shall be defined as the most probable price at which the property would sell to a knowledgeable buyer on a given date if placed on the market for a reasonable length of time by a well informed seller assuming:
	<ul> <li>a. Cash to the seller or cash plus debt owed or assumed by the buyer, where appropriate.</li> <li>b. Fee title will be encumbered by leases in place and possible other covenants. Appraiser must indicate remaining market</li> </ul>

value of these other leasehold or non-possessory interests. The appropriate exposure on the market has occurred prior

to the date of sale.

- 3. When using the market comparison approach, the appraiser must document each comparable sale as to grantor, grantee, public record, plot plan and photograph as well as basic details of construction and existing encumbrances, terms of sale, and seller motivation. Buyer motivation is profiled as an assumption by the appraiser. All calculations necessary to adjust engineered prices to cash equivalencies must be documented and explained as well as any and all adjustments to relate the comparable price to the subject property must be itemized and explained so that the reader can repeat the mathematical adjustments.
- 4. The income approach must use discounted cash flow from a ten-year forecast (and your own forecast, if different) in which all the property's existing leases are detailed individually. The rationale for roll-over vacancies, absorptions, and expense projections must be itemized with a series of footnotes in the manner of a fully detailed accounting income and balance sheet statement. Income projections should account for current market lease rates with explanations of all assumptions used. Normalized income methods including investment bond, Ellwood or net income multipliers are not acceptable.
- 5. The appraiser must document his opinion as to the appropriate discount rate applied to each segment of the cash throw-off and after tax cash flow as appropriate, together with financing terms assumed.
- 6. A cost approach based upon a responsible service or professional should be supplied with the initial appraisal. If it is not used in the final valuation, then a discussion on why it is not used is required. The appraiser is expected to carefully inspect the property and report his own independent views on the quality of maintenance, deferred maintenance, and tenant housekeeping.
- 7. The appraiser is regarded as the eyes and property inspector of FARA. To put the property in context, the appraiser must supply a separate market analysis section to include current market conditions, an evaluation of projects which are competitive alternatives in the market area of the appraiser, an indication of rent structures, vacancy and absorption rates, and in the case of a new building, some indication as to rentup success and source of tenants. Wherever possible, the appraiser is to indicate the ownership and character of investment position in competitive properties and the property management or leasing term involved with each. The appraiser should include in his market analysis section an evaluation of the future projected market conditions over the ten-year holding period.

Following the initial appraisal at the time of acquisition, the appraiser will be asked to submit a letter of review 180 days after the date of the original appraisal indicating if he would modify any of his critial

assumptions at that time and, if so, indicating how this might affect his original value estimate as a specific dollar adjustment, up or down.

At the end of 360 days, the appraiser would be expected to perform a thorough review of his original appraisal, specifically focusing on the market approach (item 3), adjustments indicated for the income approach (items 4 and 5), and additions and amendments to market data (item 7). Aside from the specific instructions provided in paragraphs 1-7 above, it is anticipated that all work will be done according to the standards of the American Institute of Real Estate Appraisers, and it is further understood that the client for whom the appraisal is done for purposes of professional accountability is both First Asset Realty Advisors, Inc., and its operations agent, The Center Companies of Minneapolis, Minnesota. Purpose of the appraisal is to meet the asset valuation requirements of an open-ended, commingled real estate fund suitable for investment by pension fund programs subject to ERISA.

Please return both copies of this letter together with an indication of your fee for the appraisal services above by (date) with a separate quote for the initial appraisal, the 180 day review, and a 360 day reappraisal and an estimate of the date the appraisal will be completed. If this is your first assignment for FARA, please include a sample of your work, preferably of a similar property, in which you have provided for the necessary cash flow projections.

Yours very truly,

MALL
Rent Roll and Lease Summaries
June 30, 1982

Page 2 of 2

Space No.	<u>Tenant</u>	No. of Twin City Stores	Tenant Kat ing	(1.4 (2.18.	teuse '	Term <u>To</u>	Year		Nase Kental	Nose Kental/ Sq.ft.	2 Kent formula	<u>/5q.ft.</u>
14.	Total Sports	3	Mat Jone 1	10,000	11/1/78	1/11/94		Yr. 1-3 Yc. 4-7 Yr. 8-10 Yc. 11-15	\$50,000 \$60,000 \$70,000 \$80,000	\$5,00 \$6,00 \$7,00 \$8,00	4% over \$1,250,000 4% over \$1,500,000 4% over \$1,750,000 4% over \$3,000,000	(\$150) (\$175)
17.	Oriental Arts, Inc.	·ı	Local	1,066	2/1/81	1/31/83	2 yrs.	Yr. 1 Yr. 2	\$ 8,925 \$ 9,975	\$8.37 \$9.35	6% over \$148,750 1% over \$161,250	(\$140) (\$151)
18.	Unessigned		••	(1,232)		,			\$ 9,856	\$8.00	1% over \$166,250 6% over \$164,267	(\$156) (\$133)
19.	Unassigned			( 449)					\$ 7,000	\$15.59	10% over \$70,000	(\$156)
20.	Unassigned			( 873)					\$12,000	\$13.75	5% over \$7.30,000	(\$275)
21.	Photomill (3)	5	local	1,536	10/1/78	1/31/89		Yr. 1-3 Yr. 4-7 Yr. 8-10	\$ 6,144 \$12,288 \$18,432	\$4.00 \$8.00 \$12.00	6% over \$102,400 64 over \$204,800 64 over \$307,200	(\$671) (\$113) (\$200)
22.	liurrah	8	Mational	1,632	2/1/79	1/31/89	lO yrs.		\$11,424	\$7.00	6% over \$190,400	(\$177)
21.		24	Reg.	4,966	11/1/78	1/31/94	15 yrs. 3 mos.	***	\$32,279	\$6.50	6% over \$537,983	(\$108)
24.	Great	5	Hational	1,037	10/1/78	1/31/84		Yr. 1 Yr. 2-5	\$10,000 \$15,000	\$9.64 \$14.46	8% over \$125,000 8% over \$187,500	(\$121) (\$181)
25.	The Book Center	ı	Reg.	1,201	6/1/79	1/31/87	7 yrs. 8 mos.	Yr. 1-2 Yr. 3-8	\$ 9,608 \$12,010	\$8.00 \$10.00	64 over \$160,133 64 over \$200,167	(\$100) (\$167)
27.	Imports	ı	Local	788	12/1/80	1/31/84	3 yrs. 2 mos.		\$10,200	\$12.00	64 over \$170,000	(\$261)
	Total			66, 142								

<sup>(3)</sup> Assigned to Photomill as of April 1, 1981

## Nental Summary

	<u>G.L.A.</u>	<u>- S.F.</u>
Leased Space	56,364	(85.24)
Unassigned Space	9,778	(14.8%)
fot als	u6, 142	(100.04)

MALL
Tenant by Tenant Base Rent Projections
Including Lease Step-ups (1) and Reletting Activity (2)

Space No.	t Tenant	Area Sq.Ft.	1982 6 mos.	<u>1963</u>	1964	1965	1986	1987	1988	1989	1990	<u> 1991</u>	1992 6 mos.
1.	Footwear	5,745	\$ 19,964	\$ 39,927	\$ 39,927	\$ 39,927	\$ 39,927	\$ 45,816	\$ 51,705	\$ 51,705	\$ 51,705	\$ 51,705	\$ 25,835
2.	Fabric	• 10, 179	\$ 27,993	\$ 55, <b>98</b> 5	\$ 55,985	\$ 55,985	\$ 55,985	\$ 55,985	\$ 55,985	\$ 55,985	\$ 55,985	\$ 55,985	\$ 27, <del>99</del> 3
3.	Uness igned	813	\$ 3,862	\$ 7,724	\$ 7,724	\$ 7,724	\$ 7,724	\$ 7,724	\$ 9,858	\$ 9,858	\$ 9,858	\$ 9,858	\$ 4,929
4.	Cedrica	1,586	\$ 5,155	\$ 10,309	\$ 11,895	\$ 11,895	¥ 11,895	\$ 11,895	\$ 11,895	\$ 18,083	\$ 18,063	\$ 18,083	\$ 9,042
5.	Unessigned	2,100	\$ 7,875	\$ 15,750	14 15,750	\$ 15,750	\$ 15,750	\$ 20,101	\$ 29,101	\$ 20,101	\$ 20,101	\$ 20,101	\$ 12,827
6.	Unassigned	4,288	\$ 11,528	\$ 23,056	\$ 23,056	\$ 23,056	\$ 23,056	\$ 30,897	\$ 30,897	\$ 30,897	\$ 30,897	\$ 30,897	\$ 19,717
7.	Horthwestern Book	5,495	\$ 13,738	\$ 27,475	\$ 27,475	\$ 27,475	\$ 33,068	\$ 38,660	\$ 38,660	\$ 38,660	\$ 38,660	\$ 38,660	\$ 24,670
6.	Body Shoppe	1,795	\$ 14,360	\$ 14,360	\$ 17,950	\$ 17,950	\$ 17,950	\$ 20,635	\$ 20,635	\$ 20,635	\$ 20,635	\$ 20,635	\$ 13,238
9.	Richards	1,612	\$ 6,045	\$ 12,090	\$ 12,090	\$ 12,090	\$ 15,430	\$ 15,430	\$ 15,430	\$ 15,430	\$ 15,430	\$ 19,693	\$ 9,846
10.	Unassigned	1,255	\$ 4,993	\$ 8,785	\$ 8,785	\$ 8,785	\$ 8,785	\$ 11,772	\$ 11,772	\$ 11,772	\$ 11,772	\$ 11,772	\$ 7,512
n.	House of Large Sizes	1,332	\$ 4,329	\$ 8,658	\$ 9,990	\$ 9,990	\$ 9,990	\$ 9,990	\$ 9,990	\$ 11,322	\$ 11,322	\$ 11,322	\$ 5,661
12.	Video	2,186	\$ 0,744	\$ 17,488	\$ 19,674	\$ 19,674	\$ 19,674	\$ 26,365	\$ 26,365	\$ 26,365	\$ 26,365	\$ 26,365	\$ 16,824
13.	Pizza	2,976	\$ 4,793	\$ 17,586	\$ 17,546	\$ 20,832	\$ 20,832	\$ 20,832	\$ 20,832	\$ 20,832	\$ 20,832	\$ 33,856	\$ 16,928
14.	Total Sports	10,000	\$ 30,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 70,000	\$ 70,000	\$ 70,000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 40,000
17.	Oriental	1,066	\$ 4,988	\$ 10,412	\$ 10,412	\$ 10,412	\$ 10,412	\$ 10,412	\$ 13,290	\$ 13,290	\$ 13,290	\$ 13,290	\$ 6,645
18.	Unussigned	1,232	\$ 4,928	\$ 9,856	\$ 9,856	\$ 9,856	\$ 9,856	\$ 13,208	\$ 13,208	\$ 13,208	\$ 13,208	\$ 13,208	\$ 8,428
19.	Shirt	449	\$ 3,500	\$ 7,000	\$ 8,934	\$ 8,934	\$ 8,934	\$ 8,934	\$ 8,934	\$ 11,402	\$ 11,402	\$ 11,402	\$ 5,701

MALL

Tenant by Tenant Base Rent Projections
Including Lease Step-ups (1) and Reletting Activity (2)

Space No.	Tenant	Apea Sq.Ft.	1982 6 mos.	1983	1964	1905	1986	1987	1988	1949	1990	1991	1992 6 mos.
20.	Diamond Center	873	\$ 6,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 16,005	\$ 16,885	\$ 16,865	\$ 16,865	\$ 16,845	\$ 23,75 <del>9</del>	\$ 11,880
21.	Photomill	1,536	\$ 6,144	\$ 12,284	\$ 12,258	\$ 12,288	\$ 12,288	\$ 18,432	\$ 18,432	\$ 20,016	\$ 20,016	\$ 20,016	\$ 10,004
22.	Hucrah	1,632	\$ 5,712	\$ 11,424	\$ 11,424	\$ 11,424	\$ 11,424	\$ 11,424	\$ 11,424	\$ 18,608	\$ 18,608	\$ 18,608	\$ 9,304
23.		4,966	\$ 16,140	\$ 32,279	\$ 32,279	\$ 32,279	\$ 32,279	\$ 32,279	\$ 32,279	\$ 32,27 <del>9</del>	\$ 32,279	\$ 32,279	\$ 16,140
24.	Great	1,037	\$ 7,500	\$ 15,000	\$ 17,868	\$ 17,868	\$ 17,868	\$ 17,868	\$ 17,864	\$ 22,804	\$ 22,804	\$ 22,804	\$ 11,400
25.	Book Center	1,201	\$ 6,005	\$ 12,010	\$ 12,010	\$ 12,010	\$ 12,010	\$ 18,347	\$ 18,347	\$ 18,347	\$ 18,347	\$ 18,347	\$ 11,700
27.	Imports	766	\$ 5,100	\$ 10,200	\$ 11,807	\$ 11,807	\$ 11,807	\$ 11,807	\$ 11,807	\$ 13,669	\$ 13,669	\$ 13,669	\$ 6,835
*		66,142	\$233,396	\$451,662	\$466,765	\$470,011	\$493,829	\$545,6 <del>98</del>	\$556,5 <del>99</del>	\$592,153	\$592,153	\$616,314	\$333,063

<sup>(1)</sup> Most lesse anniversaries end 1/31 of any particular year. For cash flow projection purposes, we've assumed lesse anniversary dates to be 12/31 of the preceding year. No material change results from this minor timing adjustment.

<sup>(2)</sup> Relet rental rates assume a 5% annual growth over the average rent currently generated from the existing tenant.

MALL % Rent Computations

Tenant	1962	1983	1904	1985	1986	1987	1988	1989	1990	1991	1992
fabrics	<b>5</b> 40	• •	622	3,192	5,967	8,965	7,703	11,198	14,975	19,052	23,546
Northwestern Book		•		551	1,3%		••		2,500	5,813	
Pizza		<b></b>	1,309		1,207	2,971	4,875	6,931			1,149
House of Large Sizes	•		*-			578	1,424	2,337	1,991	3,056	4,206
Hucrah		**	707	1,678	2,726	3,858	5,081		643	2,183	3,846
	•	••	1,793	4,518	7,462	10,642	14,075	17,784	21,789	26,114	30,785
Great	3,420	4,#94	3,617	5,337	7,193	9,197	11,363	13,701	16,227	18,955	22,296

<b>a</b>	7/1 to 12/31	1983	1984	1965	1986	1907	1984	1989	1990	1991	1/1 to 6/30 1992
Revenues								<b>\$</b> 592, 153	\$ 592,153	\$ 616,314	\$ 333,063
Base Rents (1)	£33,3 <b>%</b>	\$451,662	<b>5</b> 466,765	\$470,011	\$493,029	<b>\$</b> 545,69 <b>8</b>	\$556,599			•	•
Ground Hent (2)	\$ 14,453	\$ 28,907	\$ 28,907	\$ 33,243	\$ 33,243	\$ 33,243	\$ 38,229	\$ 38,229	\$ 38,229	\$ 43,964	\$ 21,982
4 Rent (3)	\$ 10,593	\$ 13,660	\$ 19,116	\$ 28,830	\$ 34,046	\$ 47,074	\$ 58,515	\$ 67,783	\$ 77,572	\$ 98,565	\$ 56,681
Real Estate Tax Recovery (4)	\$ 69,741	\$115,300	\$121,400	\$133,00 <u>0</u>	\$139,800	\$146,300	\$157,300	\$165,200	\$ 173,300	\$ 182,000	\$ 95,600
Recovered Exp. (5)	\$ 45,310	\$ 95,100	5 99,800	\$104,800	\$110,000	\$115,600	\$121,300	, \$127,400	<u>\$ 133,700</u>	\$ 140,400	\$ 73,700
Total Gross Revenue	\$373,493	\$704,629	\$735,988	\$749,884	\$810,918	<b>\$5</b> 87,915	\$931,943	\$ <del>99</del> 0,765	\$1,014,954	\$1,081,243	\$ 581,026
Less Vacancy (6)	\$ 43,935	\$ 59,307	<u>\$.61.775</u>	\$ 42,566	\$ 44,889	\$ 50,001	<u>\$ 39,200</u>	\$ 41,900	\$ 44,500	\$ 45,500	\$ 24,700
Percentage	(171)	(121)	(124)	. (Q)	(£L)	(SL)	(61)	(61)	(61)	(র)	(61)
Effective Gross Revunue	\$329,558	4645, 322	\$674,213	\$727,318	<b>\$766,029</b>	\$837,834	\$892,743	\$948,865	\$ 970,454	\$1,035,743	\$ 556,326
Expenses											
Real Estate Taxes (7)	\$ 84,0004	\$153,000**	\$138,000	\$144,500	\$152,0:0	\$159,000	\$167,300	\$175,700	\$ 184,400	\$ 193,700	\$ 101,700
Mecuverable Exp. (N)	\$ 39,400	\$ 82,700	\$ 86,800	\$ 91,100	\$ 95,700	\$100,500	\$105,500	\$110,800	\$ 116,300	\$ 122,100	\$ 64,100
Hymt. (5%) (9)	\$ 12,900	\$ 24,700	\$ 25,700	\$ 26,600	\$ 28,000	\$ 31,300	\$ 32,700	\$ 34,500	\$ 35,400	\$ 37,900	\$ 20,600
'Reserves for Tenunt Work (12)	0	\$ 3,300,	\$ 1,500	o	\$ 6,700	\$ 4,600	\$ 800	\$ 6,600	a	\$ 3,200	\$ 7,500
Reserves for Repairs (10)	\$ 3,500	\$ 7,300	\$ 7,700	\$ 8,000	\$ 8,400	\$ 8,900	\$ 9,300	\$ 9,800	\$ 10,300	\$ 10,800	\$ 17,500
Leasing Fees (11)	0	\$ 10,300	\$ 4,500		\$ 20,00	\$ 14,200	\$ 2,200	\$ 19,700		\$ 9,000	\$ 21,200
Tot il Expenses	\$139,800	\$281 , 3km	\$264, <b>2</b> (11)	\$270,200	\$311,600	\$318,500	\$317,800	\$357,500	\$ 346,400	\$ 376,700	\$ 232,600
Not Operating Income	\$169,758	\$164,022	\$410,013	\$457,118	\$454,429	\$519,334	\$574,943	\$591,365	\$ 624,054	\$ 659,043	\$ 123,726

<sup>\*</sup> includes specials of \$21,604.82 includes specials of \$22,000.00

## 1982 RECOVERABLE EXPENSES ANNUALIZED

For Mall,		
Recoverable expenses for 1982 budget:	are shown below in the	1982 annualized
Recoverable Expenses		
Insurance	·	\$ 8,400
Utilities Electric Water and Sewer Gas	\$19,900 \$ 3,200 \$ 3,200	
		\$26,300
Maintenance Services Snow Removal Janitorial Parking Lot Sweep Trash Rodent Control Landscaping Mall Music	\$10,500 \$12,600 \$ 3,000 \$ 400 \$ 1,100 \$ 3,800 \$ 300	
		<b>\$</b> 31,700
Overload Security		\$ 1,300
Supplies Maintenance Electric Landscaping	\$ 3,000 \$ 600 \$ 1,300	
•		\$ 4,900
Repairs Electricity Equipment Plumbing	\$ 3,100 \$ 2,500 \$ 600	•
		\$ 6,200
TUTAL RECOVERABLES		\$78,800

Recoverable expenses have been increased at 5% per year, compounded.

## BASIC ASSUMPTIONS TO CASH FLOW PROJECTIONS

#### Revenues

- In completing the financial analysis, we projected a ten-year (from July I, 1982 to July I, 1992) cash flow projection. Rental revenues are based upon actual leases giving full recognition to all step-up rental provisions. For vacant space, economic rents were estimated based upon rent levels at competitive properties. Upon reletting, rental rates are projected as increasing 5% per year over current levels. A five-year term was assumed for all new leases.
- 2. The ground rent is adjusted according to the CPI change for all cities every three years. For example, the 1982 rent is based upon the CPI change from February 1978 to February 1981 (see Exhibit D in addenda). A 5% annual rate of inflation is assumed for each subsequent rental adjustment.
- 3. For tenants in occupancy for a year or more, historical sales were used as a benchmark for projected sales. For tenants, the calendar years 1982 through 1992 sales volumes were escalated at 8% per year. Percentage rent was calculated on a tenant-by-tenant and year-by-year basis using the percentage rent formula outlined in each lease.
- 4. The standard lease provides for all tenants to pay their pro-rata share of taxes. Since the projected vacancy allowance varies, tenant reimbursement is as follows:

•	' Vacancy	Tax Reimbursement
1982 (6 mos)	17	83%
1983-84	12	887.
1984-87	8	92%
1988-91	• 6 <sub>.</sub>	947.

- 5. The standard lease provides for 100% of all recoverable expenses to be reimbursed to the landlord by the tenants, collectively. Unlike the tax clause, the pro-rata share each tenant contributes is allocated between the gross leased and occupied space; consequently 100% of all recoverable expenses are paid collectively by the existing tenants. A 15% administrative charge is added to all reimbursable expenses (per the leases). Furthermore, based upon experience, 75% of the "Reserves for Structural Repairs" are reimbursable expenses.
- A discussion for vacancy allowance is detailed in Item #4.

## Basic Assumptions to Cash Flow Projections - Continued

### Expenses

- 7. Real estate taxes for 1982 are detailed on page 1 of this report. For 1983 and thereafter, taxes have been escalated at a 5% annual rate of increase.
  - Finally, in 1982 about \$43,000 of special assessments will be billed to Burnhaven, including interest payable at 8%. Approximately one-half of the \$43,000 is to be paid in 1982 and the balance in 1983 as scheduled in the cash flow projection.
- 8. Recoverable expenses for 1982 are shown in the 1982 annualized budget on the following page.
- Property management expense is 5% of base, ground and percentage rents.
- 10. As per our discussions with properties, reserves for structural repairs are estimated at \$.10 per square foot for the first three years and are increased at 5% per year thereafter.
- 11. For 1982, leasing fees are \$2.25 per square foot of leased space. The fee is increased 5% per year, consistent with the increase in base rents. Leasing fees are expensed in the year incurred.
- 12. According to properties, tenant work is minimal for this type of mall. The cost is estimated at \$.70 per square foot for 1982 and escalated at 8% per year thereafter. Tenant work is expensed in the year incurred.

## Discounted Cash Flow Analysis - Continued

		Annual Cash Flow		Flow	Discount @ 177		Present Worth		
Last 6 mos.	1982	\$	189,758	x	.924500	-	<b>\$</b> 175,431		
	1983	\$	364,022	x	.790171	=	\$ 287,640		
	1984	\$	410,013	×	.675360	1 =	\$ 276,906		
	1985	\$	457,118	x	.577230	=	\$ 263,862		
	1986	\$	454,429	×	.493359	=	\$ 224,197		
	1987	\$	579,334	x	.421674	=	\$ 244,290		
	1988	\$	574,943	x	.360405	=	\$ 207,212		
	1989	\$	591,365	x	.308039	=	\$ 182,163		
	1990	\$	624,054	x	-263281	=	\$ 164,302		
	1991	\$	659,043	x	.225026	=	\$ 148,302		
lst 6 mos.	1992	\$	323,726	x	.208037	=	\$ 67,347		
	*Rev.	\$4	,839,000	x	.208037	=	\$1,006,000		
							\$3,247,652		
							Rounded to		
							\$3,200,000		

## \* Projected 1992 Resale Price

The 1992 resale price was estimated by adding the last six months income of 1991 and the first six months income of 1992 and capitalizing the total income at 13-1/2%.

\$329,522 - 1991 (last six months) \$323,726 - 1992 (first six months)

\$553,248 - Capitalized @ 13-1/27. \$4,838,866 Estimated 1992 Sale Price \$4,838,900