

JAMES A. GRAASKAMP COLLECTION OF TEACHING MATERIALS

VII. INDUSTRY EDUCATIONAL COURSES - LONG TERM

F. U.W. Extension And Executive Development

3. "Contemporary Real Estate Appraisal Methods",
May 22-25, 1978: Includes James A. Graaskamp
lecture outline and schedule

CONTEMPORARY REAL ESTATE APPRAISAL METHODS

May 22-25, 1978

PROGRAM SCHEDULE

Monday, May 22, 1978

7:00-8:30 P.M. Introduction to the Real Estate Process & Feasibility Analysis

Tuesday, May 23

8:30-10:15 Contemporary Appraisal Theory

10:15 Coffee Break

10:30-12:00 Outline of Contemporary Appraisal Report

12:00 Lunch

1:00-3:00 P.M. Property Analysis to Identify Alternative Uses

3:00 Refreshment Break

3:15-5:00 Selection of most Probable and Fitting Use

6:00 Dinner

7:00-9:00 Concept of Most Probable Buyer Type and Selection of
Appraisal Methods
(Prof. James A. Graaskamp)

Wednesday, May 24, 1978

8:30-10:15 Statistics and Predicting Probable Price for Market Sales
(H. Robert Knitter)

10:15 Coffee Break

10:30-12:00 Automated Market Comparison Techniques
(H. Robert Knitter & Prof. James A. Graaskamp)

12:00 Lunch

1:00-3:00 Linear Regression for Market Comparison
(Prof. James A. Graaskamp)

3:00 Refreshment Break

3:15-5:00 Writing a Readable Report
(Prof. Richard Hansen)

6:00 Dinner

7:00-9:00 Investment Purchase Simulation for Most Probable Buyer
(Prof. James A. Graaskamp)

Thursday, May 25, 1978

8:30-9:30 Testing the Appraisal Value Conclusion
 (Prof. James A. Graaskamp)

9:30-11:00 Demonstration Report Techniques
 (Prof. James A. Graaskamp)

CONTEMPORARY REAL ESTATE APPRAISAL SEMINAR

Instructor: Professor James A. Graaskamp
University of Wisconsin School of Business

FIRST MORNING
8:30-10:15 a.m.

I. A Real Estate Appraisal - A Business Forecast

- A. Prof. Richard U. Ratcliff was the first of several urban land economists to critique traditional appraisal in light of current business forecasting methods and techniques. In effect Ratcliff describes an appraisal as a prediction about the price of a future transaction under conditions of uncertainty. Uncertainty is introduced because knowledge of the facts is less than perfect and future conditions unknown.

One approach to forecasting or reaching a decision is by modeling to structure facts and relationships in a manner appropriate to the decision process. Three types of models are common in real estate analysis:

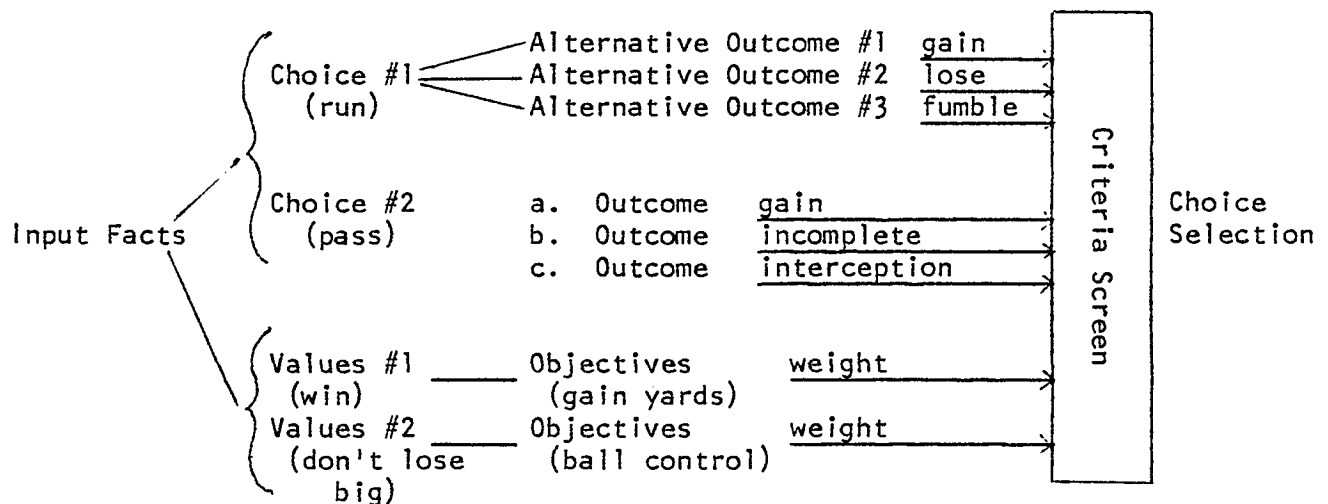
1. Physical models = sand tables to understand site, building mass, and shape.
2. Communication models = flow charts of industrial process or traffic patterns.
3. Abstract or symbolic models = items with mathematical or logic concepts, $I/C = V$ is a symbolic model of the relationship between income productivity.

- C. In constructing any decision model there are six basic elements to be considered:

1. The decision to be made or the question to be answered.
2. The data available with which a decision must be made.
3. The theoretical relationships or logical structure which focuses the data on the problem.
4. The interface between the analyst and the requirements of the model.
5. The interface between the results of the model and the decision maker or client and their ability to comprehend and believe (credit ability is always more important than credit in real estate).
6. The relationship between the economic significance of the answer and the cost to acquire the answer by using the model.

- D. In general, a decision requires that information be systematically organized to identify choices of action and the alternative outcomes from each choice. (See Diagram #1). At the same time facts help shape general values which in turn lead to explicit objectives, and then specific selection criteria.

Diagram #1



- E. The three approaches to value are models of how economic man might price a property to maximize his return and minimize his cost. It represents an historical compromise between three powerful groups in the early 1930's who really had different needs or questions about price.
1. Insurance company lenders wanted to lend less than cost to build - thus they emphasize the cost approach.
 2. Real estate brokers wanted to know what they could sell it for today, and therefore emphasize the market comparison approach.
 3. The FHA appraisal section was headed by a Michigan professor, Fred Babcock, who believed all property should be valued as a capital budgeting decision, i.e. as the present value of future net returns.
 4. To compromise they seized on Marshallian economics which said in the short run the market is out of balance and reveals market price. During the intermediate term, it reflects income value which cannot be forecast for the long run. In the long run, prices have tendency to equal cost of production.
- F. Since that time, writers have shown buyers are interested in many things besides maximum profit including minimum risk, compatibility with community, portfolio effects from taxes and diversification as well as subjective, qualitative satisfactions. Therefore, an appraisal model may seem to have the same question - What is the value of property - but in fact it represents multiple questions:
1. What is the nature of the decision to be served by the appraisal benchmark?
 2. What is the specific asset for which value is sought?
 3. What is the date for which value is relevant?
 4. What is the definition of value - theoretical structure - which focuses the data on the problem?
- G. Ratcliff points out a variety of value estimates or viewpoints which have significance in the appraisal of any specific property:

1. Vs - value to the owner or user.
2. Vc - cost of constructing a substitute property.
3. Vp - a probabilistic prediction of what the property will sell for.
4. Vo - price at which the property is offered for sale.
5. Vb - bid price by a prospective purchaser.
6. Vt - the price at which the property is actually sold, as an historic fact.

H. The Ratcliff viewpoint is just plain common sense. On page 14 of his text he states his premise:

"The fundamental concepts of value and price which are central to appraisal are at the heart of the social science of economics. Economic goods are valuable because of their utility (productivity) and scarcity. Thus in analyzing the value of a parcel of real estate, the starting point is with its inherent utility - the characteristics and qualities which can make it productive and desirable, and for which people are willing to pay.

"But price is set in the market place. To serve his client's needs, the appraiser seeks to predict the price at which the subject property will probably sell. Viewing the property as a package of potentially productive qualities, the appraiser must predict the outcome of the interaction of the market forces of demand and supply to which the property might be exposed and which could trigger a transaction from which market price will emerge.

"Economics is a behavioral science, descriptive of the economic behavior of people under various conditions. It is the appraiser's task to predict how people, both buyers and sellers, will behave with respect to the subject property when it is exposed for sale. People make values and determine prices."

- I. An appraisal as a benchmark for decision requires the appraisal report to reflect the client's purposes for which an appraisal is sought. It is common sense that the more questions that an appraisal can serve, the more business potential there is; fair market value serves only a limited number of issues.
 1. For the mortgage lender, the issue is the liquidating value or probability of future cash returns being adequate to repay the loan, interest, and cost, and the distribution of profit centers over time to maintain repayment incentive to the borrower.
 2. For the courts eminent domain or assessment appeal, the statement of function leads to the definition of value as the jurisdictional market value.
 3. A report for a would-be buyer or seller might lead to the definition of value as investment market value.
 4. For most cases the appraiser would seek to determine the most probable selling price.
- J. Investment market value is a term coined by Mack Hodges for the present value of future income receipts, considering a specific set of assumptions about the after tax cash flow of property and

requires some general description of the investment standards and tax status of buyers interested in a specific type of property, specifically income investment property. Investment value, which requires some detail about motivations of a probable or specific buyer, is a special case of the broader concept of "most probable sales price." (Vp)

- K. Most probable selling price is derivative of the theoretical work of Prof. Richard U. Ratcliff.
1. The quotable definition: "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."
 2. This approach makes the point conclusion explicitly a statement of the central tendency (mode, mean, or median) around which a transaction price is likely to fall. Thus it generally supplies a valuation as a range of prices within which a transaction would most likely occur, similar to but not necessarily a concept of statistical standard error. This range will be called a transaction zone.
- L. Combining the basic question for which an answer is sought - most probable price - with the elements of economic analysis forecasting leads to a simple appraisal logic.
1. The purpose of the appraisal (assessment, mortgage loan, insurance, etc.) leads to a selection of a value definition.
 2. Detailed analysis of the property leads to a statement about most probable productive use.
 3. Most probable use leads to inference about the most probable buyer-type, his motivation, and economic logic.
 4. Buyer-type leads to a choice of valuation method. Comparability becomes a matter of analyzing a buyer-type as well as a physical piece of similar real estate.
 5. In Ratcliff the basic approaches are:
 - a. Preferred method is to infer buyer behavior from actual market transactions.
 - b. In the absence of adequate market data, the method requires simulation of probable buyer investment analysis or enterprise budgeting.
- C - normative approaches - i.e. investment values, cost approach, etc.*
- M. The number of points would be underscored:
1. One or more of the traditional approaches to value may be used if relevant to the purpose or any other method may be used which provides a reliable conclusion. The degree of error in the estimate is more important than the consistency of the theoretical logic.
 2. Buyer-type may be a class of buyers, it may be a single buyer such as the property owner next door, or a particular investor with a very strong preference for property attributes inherent in the subject property.

3. There is no need that buyers be fully informed as the market may provide evidence that prices are being set by ignorance; there is no need that buyers have reasonable choices if the seller is enjoying a monopoly position.
 4. Finally it should be noted that the logical development from productivity analysis to selection of the appraisal report structures the form of the report.
- II. Since appraisal starts from what is known about a specific piece of property (Productivity Analysis, Chapter 2 in Ratcliff), it is similar to a feasibility report until one has determined the probable use and the probable buyer.
- A. Refer to Exhibit 2.
 - B. The traditional appraisal report always moves from the general to the specific, subject to a series of limiting conditions. Many of these special conditions are professional courtesies to avoid competition with other professions at the same time that one avoids paying the other professions and continues as a lone wolf in appraisal, controlling the customer, a psychological hang-up of real estate brokerage. Thus the appraiser avoids:
 1. Engineering factors
 2. Finance and taxation matters
 3. Title issues, surveys, etc.
 4. Legal character of leases, permits, and other contracts
 - C. At the same time the element of uncertainty, left implicit by a single number conclusion, is hedged by additional limiting conditions including the appraisal practice of ignoring politics, land use administration, and personalities.
 1. The practice of using limiting conditions has moved to the point where the appraiser supports consistency based on faulty premises rather than honesty as the reliability of a prediction
 2. Nevertheless, all an investor buys is a set of assumptions about future.
 3. Since risk is the variance between assumptions and realizations, how can the appraiser evaluate the probable productivity of the property without evaluating all the assumptions which can be made explicit.
 4. Thus the transaction zone or range of estimates together with other report writing techniques are intended to provide better methods of recognizing the need for tolerance in the decision process for the conditions of uncertainty which surround the appraisal estimate.
- III. Ratcliff has been most comprehensive in statement of basic appraisal theory, many writers are contributing to the rethinking of the appraisal process and appraisal techniques. A number of selected readings by these other professional and academic critics have been included in the appendix of your workbook.

TRADITIONAL APPRAISAL AS A FICTIONAL SET OF FEASIBILITY ASSUMPTIONS

Feasibility Analysis

Will the project really work for a specific investor?

1. Objectives - decision standards provided by client decision process
 - a. Maximize spendable cash of total enterprise
 - b. Subjective gratification of specific individual
 - c. Adaptation to enterprise management specialties and weaknesses
2. Aggregate market potential opportunity identification
3. Merchandising analysis (Defining competitive edge) and specific user profile
4. Legal-political context
 - a. All legal constraints on site, seller, buyer and user are considered
 - b. What is legal is qualified by what is political
5. Physical-technical constraints are examined in terms of what might be
6. Impact on environment and community specifically forecast
7. Financing from buyer viewpoint considering all profit centers
8. Income tax advantages or disadvantages affecting spendable cash
9. Actual cash revenues and expenses forecasted for each period of time horizon
10. Limiting assumptions of solution
 - a. Identification of potential variance and sensitivity of objectives to alternative futures
 - b. Responsibility allocated among sources of expertise
 - c. Budget & purpose of study edits information scope
 - d. Format of analysis determined by structuring of data to lead to desired conclusion or recommendation

Appraisal Analysis

What would the project sell for if it did work for a typical investor?

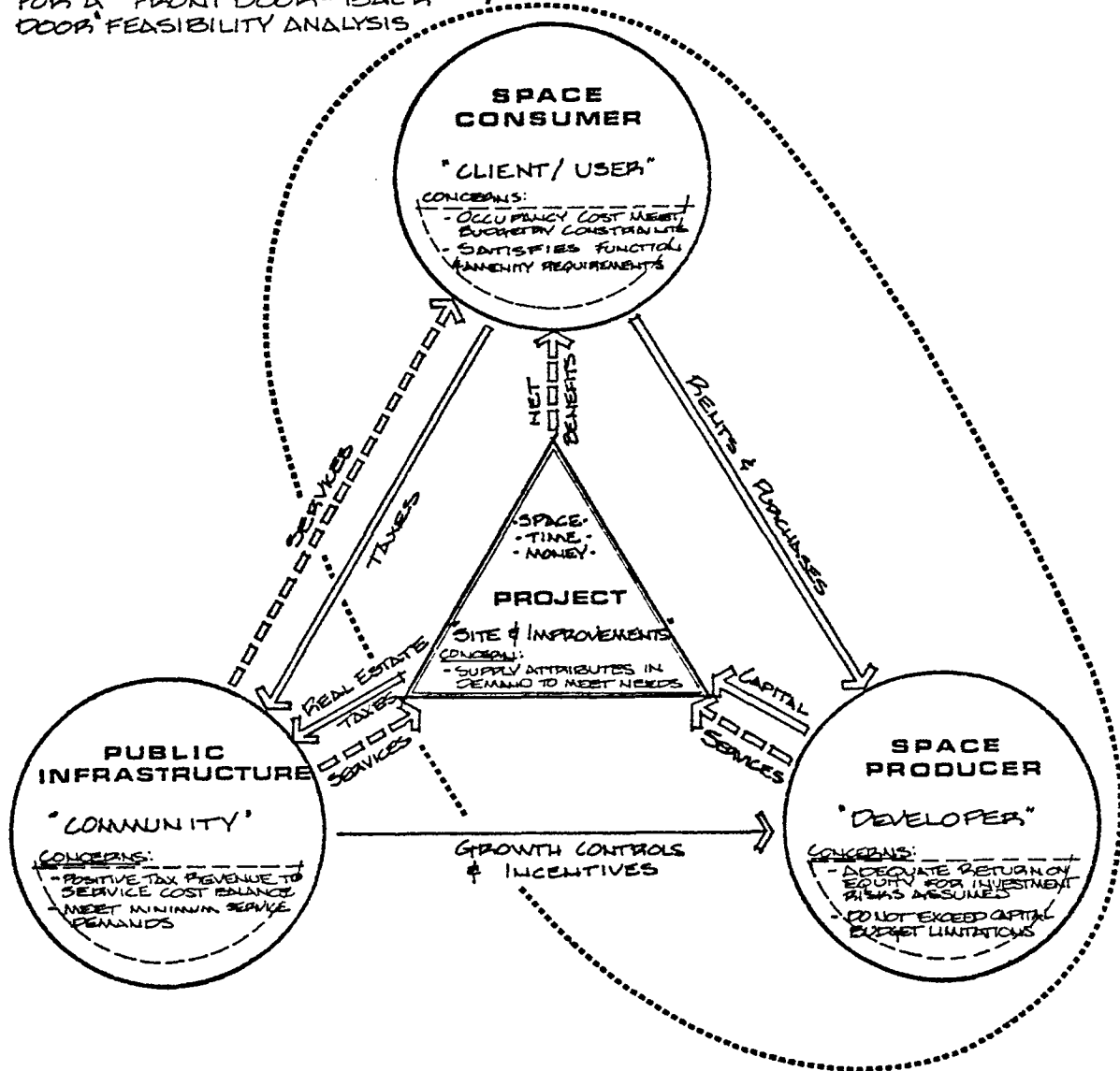
1. Objectives - decision standards provided by theoretical framework
 - a. Maximize economic surplus of individual parcel
 - b. Prudent behavior of economic man
 - c. Average management to isolate return to land & capital
2. Aggregate market potential business climate
3. Merchandising comparison (Defining standard competitive substitute)
4. Legal-political context
 - a. Legality assumed
 - b. Limited to site use rather than regulations on probable user as alternative buyers are assumed
5. Physical-technical constraints are studied as is or in terms of conventional uses
6. Impact on environment and community assumed acceptable within existing permitted uses
7. Financing from lender viewpoint considering only net income line and below
8. Income tax not considered except implicitly recognized in market comparison
9. Revenues and expenses generally normalized and projected on linear trend for standard period
10. Limiting assumptions of solution
 - a. Average outcome without qualification as to alternative futures
 - b. Responsibility denied for other areas of expertise
 - c. Date of appraisal edits information scope
 - d. Format of analysis defined by model of fair market value appraisal report

- A. Much commentary on appraisal can be divided between those who would just as soon scrap the historical textbooks and language of appraisal (a la Ratcliff and Graaskamp), and those who would simply like to refine present dogma and techniques of appraisal report content (Wendt and Smith).
- B. While the rebels attack theory head-on with the romantic notion of toppling the temple of principles built in Chicago, the more pragmatic politicians are realistically chipping away at the stone tablets from within traditional institutions.
- C. A few argue that the change in appraisal method represents a shift from deductive logic based on principles to inductive forecasting tools capitalizing on observed behavior. A parody of scientific method versus theory and reason.
- D. Some of the other issues in debate relate to the following topics:
 - 1. What is function of appraisal?
 - a. Benchmark of value
 - b. Predict transaction price under conditions of uncertainty
 - c. To answer a question of a client
 - 2. What is the standard of professionalism?
 - a. Format (profession vs. institution)
 - b. Tools and techniques
 - c. Standards of business conduct
 - d. Reliability of results
 - 3. What is the frame of reference of real estate productivity?
 - a. The parcel
 - b. The individual investment interest
 - c. The community
 - d. The collective interest of society

COFFEE BREAK

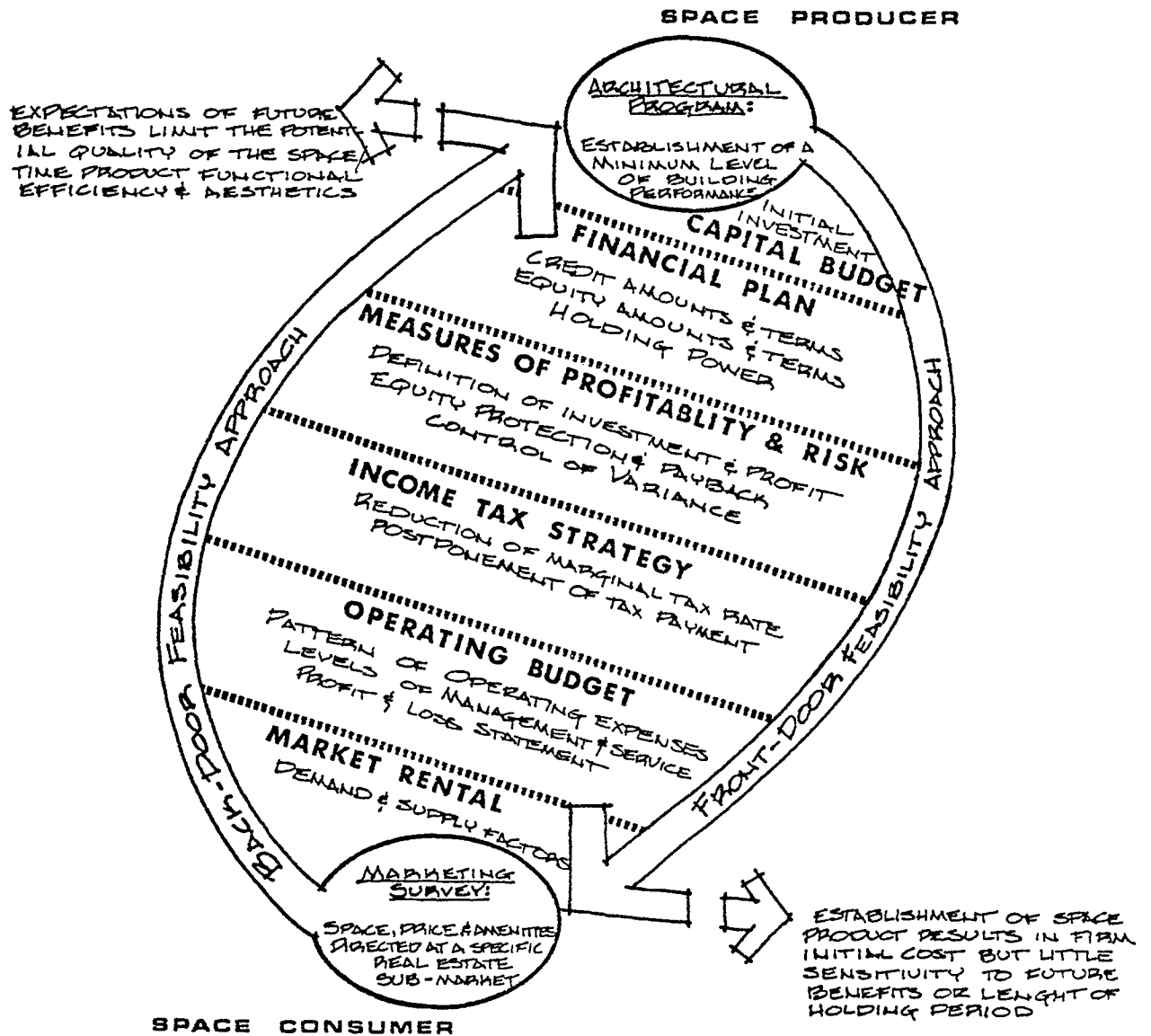
EXHIBIT I

DATA INPUT CONCENTRATION
FOR A "FRONT DOOR-BACK
DOOR" FEASIBILITY ANALYSIS



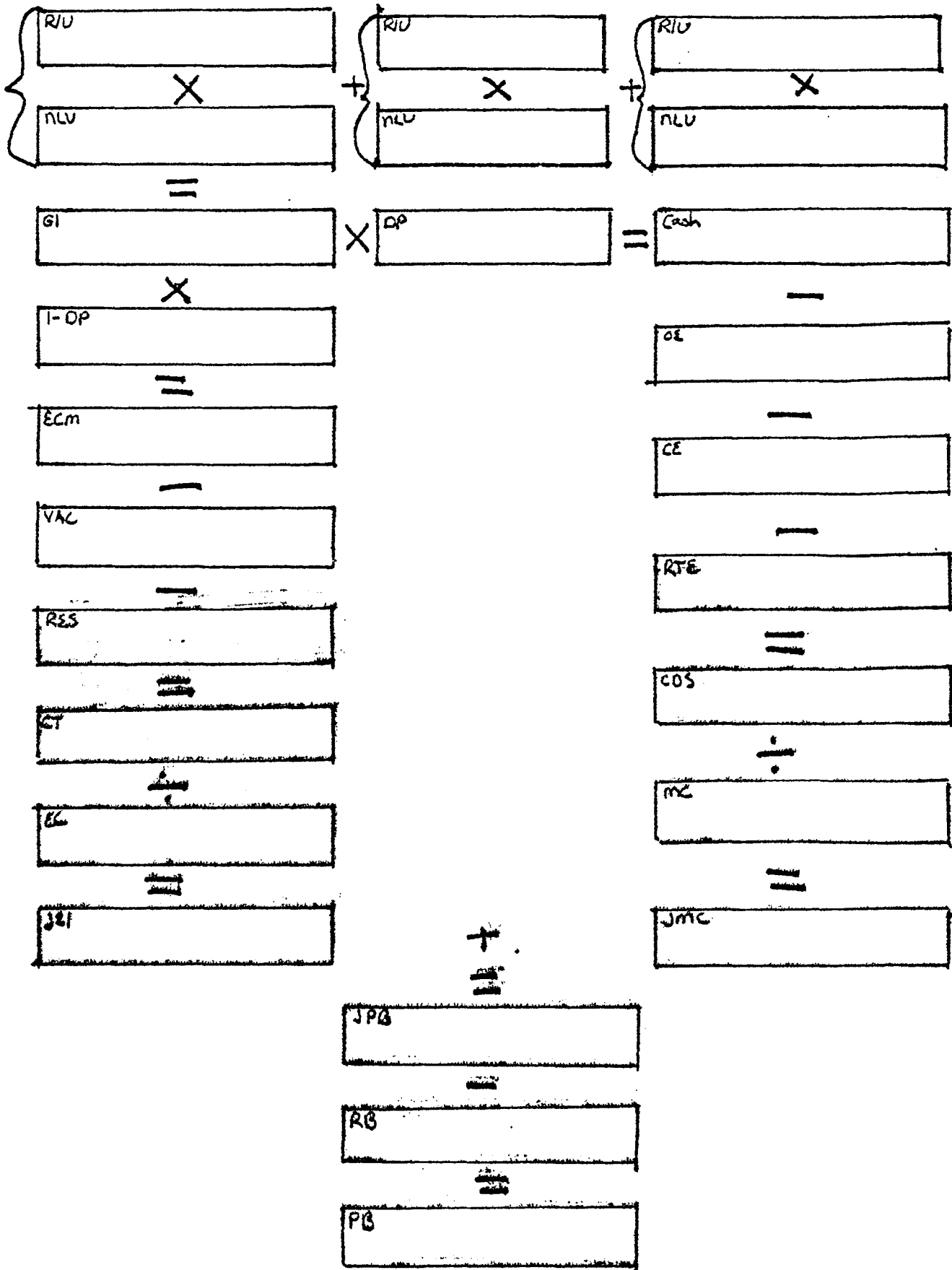
THE REAL ESTATE DEVELOPMENT SYSTEM

EXHIBIT 2



TWO SIDES OF THE COIN

BACKDOOR APPROACH FORMAT
FOR RANKING MOST PROBABLE USE



BACKDOOR APPROACH FORMAT
FOR RANKING MOST PROBABLE USE

