JAMES A. GRAASKAMP COLLECTION OF TEACHING MATERIALS
VII. INDUSTRY EDUCATIONAL COURSES - LONG TERM
G. Australian Lecture Series
3. "The New Urban Land Economics", First Module

Index

FIRST MODULE

THE NEW URBAN LAND ECONOMICS

Presented By

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

FIRST HOUR

I. BASIC CONCEPTS AND DEFINITIONS

A. Real estate is a tangible product - defined as artificially delineated space with a fourth dimension of time referenced to a fixed point on the face of the earth.

1. Real estate is a space-time unit, room per night, apartment per month, square foot per year, tennis court hours, or a condominium for two weeks in January at a ski slope.

2. To the space-time abstraction can be added special attributes to house and contribute some form of activity. Contribution is efficiency, security, comfort, or well-being.

3. Improvements from survey market to city layouts to structures define space.

4. Legal contracts and precedents define time.

5. Rights of use are defined by public values, court opinions.

6. Private rights to use are those which remain after the public has exercised its rights to control, to tax, or to condemn.

B. <u>A real estate project</u> is a cash cycle business enterprise which combines a space-time product with certain types of management services to meet the needs of a specific user. It is the process of converting space-time needs to money-time dimensions in a cash economy.

1. _An enterprise_ is an organized undertaking whose form and behavior at any point in time is a concensus or synthesis of forces outside the enterprise attempting to determine its form and behavior and focus within the organization which can affect form, behavior, and sustaining energy over time.

2. _A real estate business_ is any business which provides expertise necessary to relate space-time need to money-time requirements and includes architects, brokers, city planners, mortgage bankers, and all other special skills.

3. The true _profit centers_ in real estate are in the delivery of services and cash capital.

4. _Equity ownership_ is the degree to which one enterprise controls or diverts cash from another real estate enterprise.

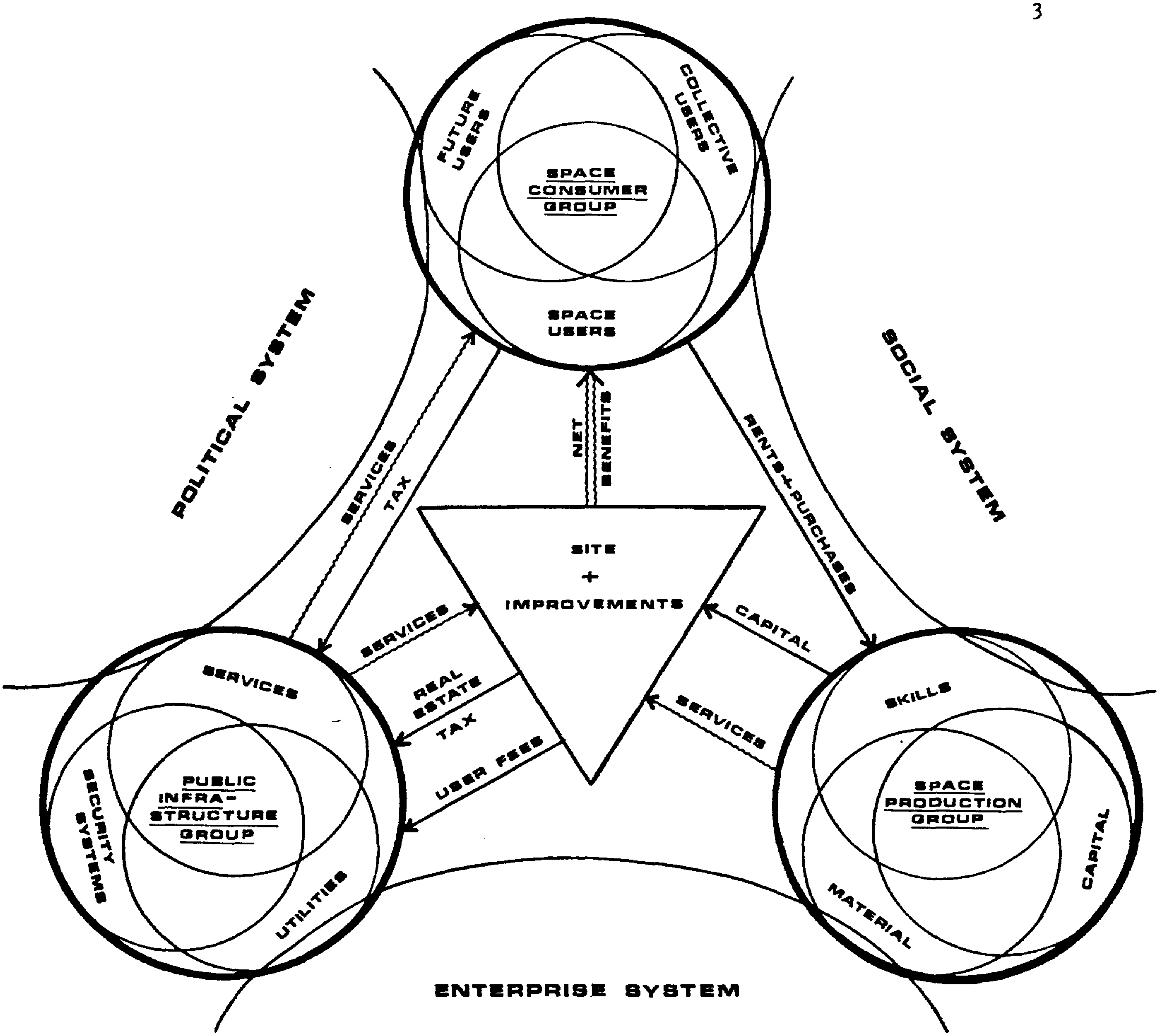
5. Public ownership exists to the degree real estate taxes, user fees, and other charges take a percentage of gross revenue in excess of service cost.

6. A consumer must view space as one part of a total consumption system involving direct cost, surface cost, transportation cost and negative income of risk.

C. _The real estate process_ is the dynamic interaction of three groups, space users (consumers), space producers, and the various public agencies (infrastructures) which provide services and capital to support the consumer needs. (See Exhibit 1.)

   1. Each of these three decision groups represent an enterprise, an organized undertaking. All are cash cycle enterprises constrained by a need for cash solvency, both short and long term.

EXHIBIT 1



THE REAL ESTATE PROCESS

2. A desirable real estate solution occurs when the process permits maximum satisfaction to the consumer at a price that he can afford within the environmental limits of land while permitting the consumer, producer, and the government cash cycle to achieve solvency - cash breakeven at a minimum, after full payment for services rendered.

3. Solvency of the total process, not value, is the critical issue.

4. Land is an environmental constraint and not a profit cener.

5. Land provides access to a real estate business opportunity and is not the opportunity itself. Real estate business wants to control land to create a captive market for services.

D. The consumer group requires three levels of marketing sensitivity.

1. The collective consumer operating through the political process must be convinced that it should provide permits, zoning, or other approvals which franchise project.

2. The individual consumer who rents or buys must be convinced he will improve the activity housed in terms of convenience, efficiency, security, and well-being at a periodic cash cost which is affordable.

3. Future users consist of undefined future tenants representing a change in use which requires flexibility of site, structure, or services to maintain market edge, and therefore presumed resale liquidity.

E. Recognition of the fact that profit maximization must be limited by concerns for physical environment and community priorities for land use has resulted in redefinition of the most basic concept in appraisal; i.e. highest and best use, in the authorized terminology handbook sponsored by the American Insitute of Real Estate Appraisers and the Society of Real Estate Appraisers. Compare the 1971 definition with that for 1975:

Highest and best use concept -
A valuation concept that can be applied to either the land or improvements. It normally is used to mean that use of a parcel of land (without regard to any improvements upon it) that will maximize the owner's wealth by being the most profitable use of the land. The concept of highest and best use can also be applied to a property which has some improvements upon it that have a remaining economic life. In this context, highest and best use can refer to that use of the existing improvements which is not profitable to the owner. It is possible to have two different highest and best uses for the same property: one for the land ignoring the improvements; and another that recognizes the presence of the improvements.
p. 57, Real Estate Appraisal Principles and Terminology, Second Edition, Society of Real Estate

"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. The definition immediately above applies 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 use. 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 use. 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 use. 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.)

G. The purchase of a piece of real estate today involves the acceptance of a great many assumptions about the future. Those who take care to validate these assumptions in a period of transition as to public land use control tend to have the most successful investment.

1. Business decisions today make explicit recognition of their assumptions and the need to act under conditions of uncertainty.

2. Business risk is the difference between assumptions about the future and realizations, and the proforma budget and the end of the year income statement.

3. Risk management is the control of variance between key assumptions and realizations.

4. An appraisal is a set of assumptions about the future productivity of a property under selected conditions of certainty.

5. A feasibility study is a test of a particular proposal under alternative sets of assumptions about the future and its tolerance for variance or priority for certainty.

H. The concept of highest and best use of land was a commodity concept which did not consider externalities adequately. It is being replaced by concepts of _most fitting use_ and the concept of _most probable use_.

1. The _most fitting use_ is that use which is the optimal reconciliation of effective consumer demand, the cost of production, and the fiscal and environmental impact on third parties.

2. Reconciliation involves financial impact analysis on "who pays" and "who benefits"--thus the rash of debate on how to do impact studies.

3. The most probable use will be something less than the most fitting use depending upon topical constraints imposed by current political factors, the state of real estate technology, and short-term solvency pressures on consumer, producer, or public agency.

4. Most probable use means that an appraisal is first a feasibility study of alternative uses for a site in search of a user, an investor, and in need of public consent.

I. In seeking the most fitting and most probable use, the inner city planner and private property appraiser must interact to determine how community objectives and consumer and production sector solvency can be achieved simultaneously.

1. A real estate decision has only two basic forms. Either a site is in search of a use and consumer with the ability to pay, or a consumer, need or use with a defined ability to pay is seeking some combination of space-time attributes he can afford.

2. The individual consumer with needs and a budget is the drive wheel.

3. The public sector represents the community owned consumer service delivery system, seeking to minimize marginal cost to the consumer and average cost to the community at large.

4. The production sector responds to a derivative demand for engineering and management expertise.

5. Real estate is a collective decision and a product of the political process.

J. Critiquing the form and adequacy of a real estate solution is analogous to the artistic concept of judging the success of an art object by relating form of the solution to the context to which it was created.

1. Context includes those elements which are fixed, given, or objective and to which any solution must adapt.

2. Form-giving elements are those variables within the artist's control, i.e. options or alternatives at a particular time.

3. A solution is judged for its correctness or success in terms of the degree of fit of the form proposed to the context.

4. Feasibility analysis is concerned with the degree of fit or the extent of misfit between a proposed course of action and the context within which it must operate or fit.

5. Success therefore depends on how appropriately the problem is defined; testing feasibility depends primarily upon accurate and comprehensive definition of the context.

K. Ultimately there are only three major decision formats for real estate and land economics.

1. A location (and related improvements) in search of a justified use.

2. A justified use in search of the best fitting location (and related improvements).

3. Money in search of an investment in location and related improvements--the conversion of space-time needs to money invested over time.

EXHIBIT 3

Analysis Process: In Search of a Use(s) For a Site

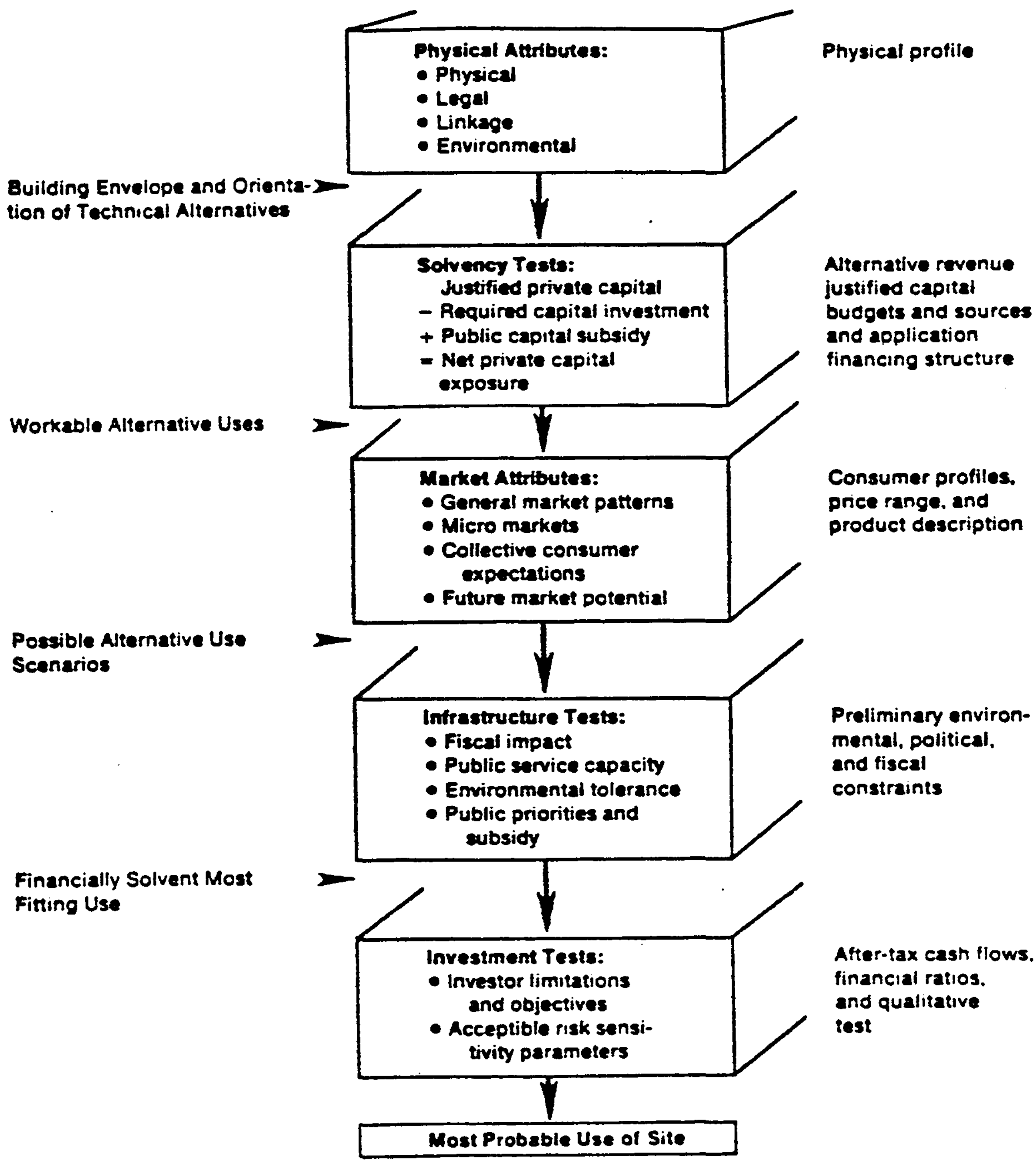


EXHIBIT 4

Analysis Process: The Search For a Site For a Use(s)

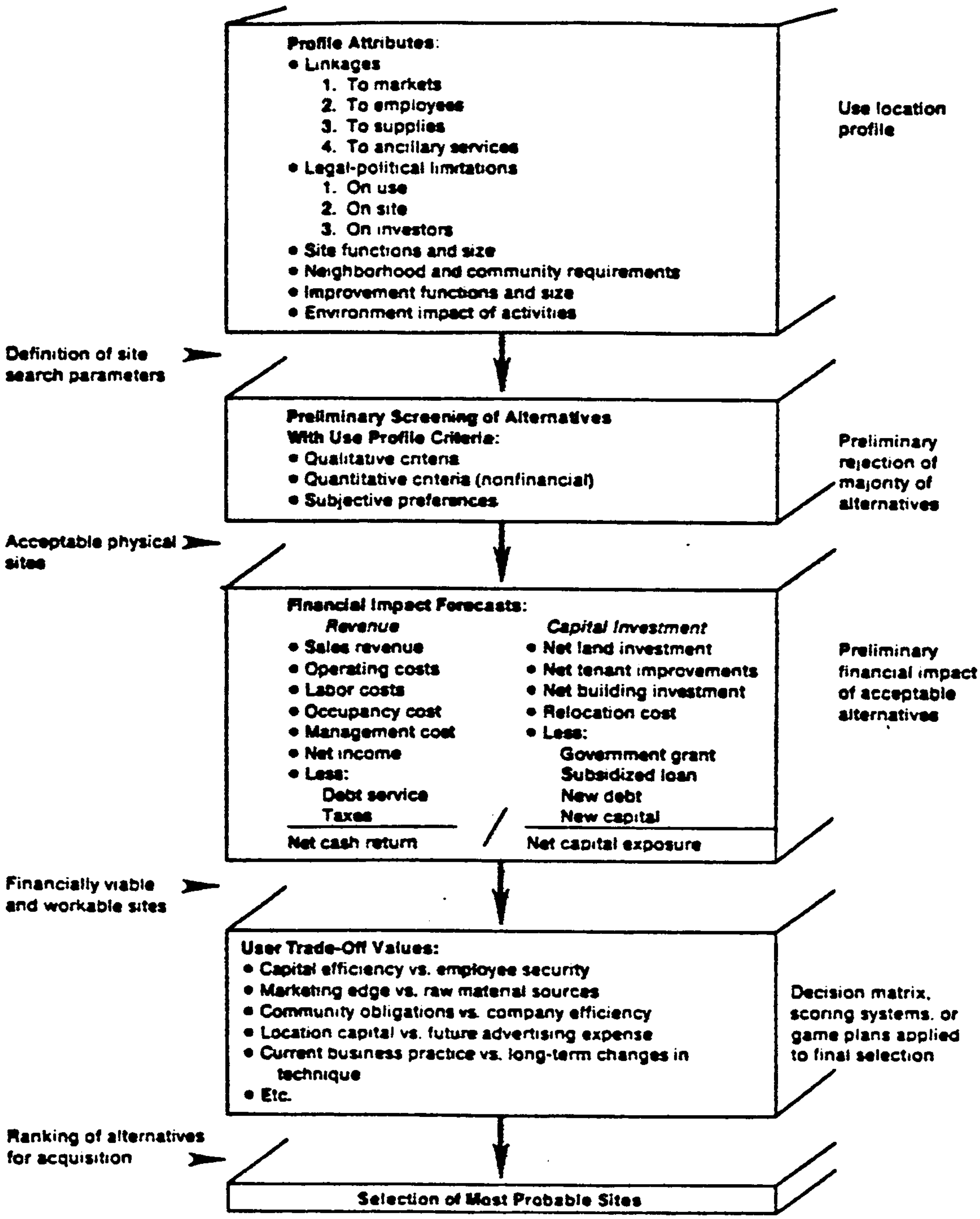
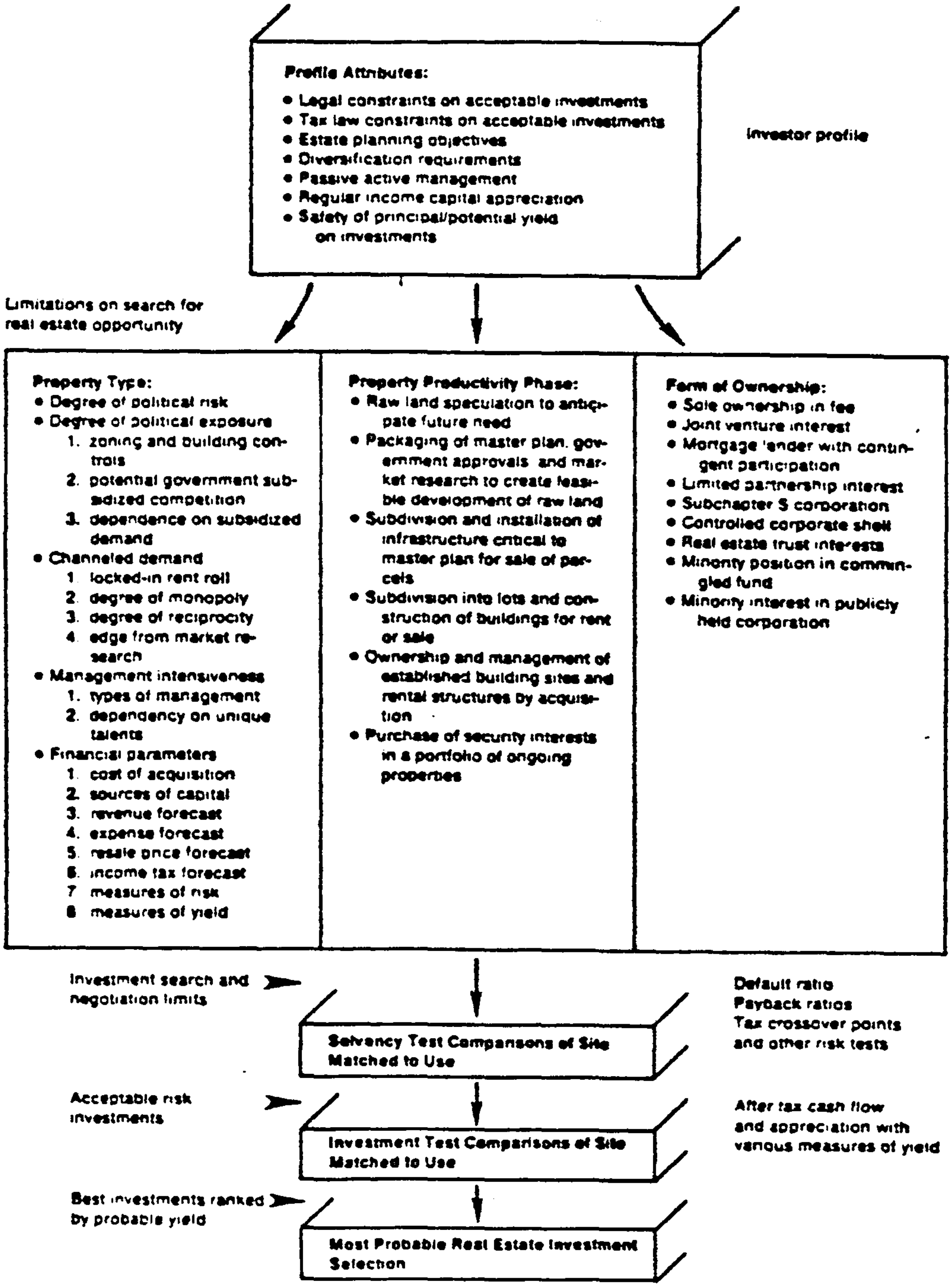


EXHIBIT 5

Process for Investor Selection of Real Estate



THE NEW URBAN LAND ECONOMICS

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SECOND HOUR

ANALYSIS OF LAND AND IMPROVEMENTS

I. BASIC CONCEPTS

Site analysis begins with a specific site and structures or stems from the market revenue approach as a set of site specifications which will control the search for alternatives. Today there is no such thing as raw land or a vacant lot. A site suitability study recognizes every site as having:

A. Static attributes--physical characteristics of size, shape, topography, soils, etc.

B. Legal attributes--public controls, private agreements, and potential legislation defining use.

C. Linkage attributes--relationships to other sites which may tend to generate movements of goods and people to the subject site.

D. Dynamic attributes--characteristics which affect behavior such as visability, prestige, or feeling of fear or anxiety.

E. Environmental impact attributes on physical, social, or economic factors both on and off the site.

II. PHYSICAL ATTRIBUTES

Static site attributes which begin to narrow the potential market alternative uses should include both the facts and their implications for productive use in such topic areas as:

A. Size, shape, and lot area

B. Topography, soils, geology, slope stability, bearing capacity, septic suitability, potential for subsidance, etc.

C. Water table, wells, streams, ponds, storm water swales, shoreland edges, bulkhead lines, flood plain designations, etc.

D. Flora and fauna which enhance marketability or which might cause environmental impact litigation.

E. Concealed utility easements, old foundations, etc.

F. Existing on-site utility services and capacity.

G. Access points to public thoroughfares or private right-of-ways.

H. Site improvements such as paving, retaining walls, pedestrian paths, culverts, etc.

I. Landmark attributes or historical site features

J. Define physical system sub-systems

1. Foundation system
2. Structural system
3. Floor system
4. Ceiling system
5. Roof system
6. Exterior wall system
7. Interior wall system
8. Horizontal circulation system
9. Vertical circulation system
10. Life-safety system
11. HVAC system
12. Site circulation system
13. Social control system

III. LEGAL ATTRIBUTES

Legal attributes should move from specific limitations on the site imposed by rights of others to private covenants, private controls, etc. It is important to recognize not only the black letter law but the composition of those authorities who have discretionary responsibility for interpretation, enforcement, or amendment of these controls relative to future uses of the site.

A. Legal interests, vested or continued of other persons in the site.

B. Legal description, its accuracy, and implied transfers.

C. All local ordinances defining alternative setback lines and height limitations in order to identify alternative building envelopes permissable on the site.

D. Private covenants limiting use, reuse, or modification of the property (urban renewal covenants, landmark building facade bequests, etc.)

E. Applicable zoning and building code limitations on use and the critical constraints of each relative to floor area ratio (FAR) bulk, parking requirements, dwelling units (DU), etc.

F. Special zoning options which may be available at owner's option such as rezoning, down-zoning, PUD zoning, etc.

G. Special controls imposed by other communities through extra-territorial zoning, tax conservancy commitments, urban renewal districts, tax increment districts, county regulation of subdivision, and overlapping jurisdiction.

H. Special state constraints on uses affecting shorelands, state highways, state airports, etc., including state industrial building codes.

I. Special federal constraints such as airport approach zone districts, harbor and river commissions, office of environmental protection, Department of Housing and Development (HUD), provisions for the handicapped (HEW), and many more.

J. Since the building process takes time, impending legislation is important, and regulations require interpretation or public hearings so that public attitudes and expectations may modify black letter law.

K. A hidden source of regulation are the rules which control the lending institutions which lend the money. For example, they cannot lend on any properties located in a designated flood plain except under certain conditions which include community participation in flood prevention programs.

L. Attitudes of sewer, water, and highway commissions.

M. Planner's views of physical barriers to restrict "sprawl".

N. Following the legal attribute inventory, an analysis of the static and legal attributes should be summarized in terms of competitive advantages and disadvantages for costs, pricing, and marketing.

   1. Some attributes lead to higher cost which the front door approach may reveal as leading to excessive rents or prices.

   2. Some static or legal attributes can provide monopoly advantages because its suitability is unique relative to lands all around it, because of exemption from certain regulations, or existing approvals of development plans, including licenses for dredging, building code variances, etc.

   3. Static attributes will also help identify "best use" or the most probable buyer.

   4. Lack of fit between static site attributes and merchandising data is a basic cause of unsuccessful projects.

IV. LINKAGES

Linkage attributes have to do with functional network relationships or points of interaction with activity centers which may generate users or provide the infrastructure which support the site.

A. Streets, sidewalks, rail, and transit systems serving the site.

B. Access points.

C. Utility services are linkages, too.

D. Capacity of existing systems to absorb unit volume generated on site and implications for off-site improvements budgets.

E. Relationship of subject site to generators of potential needs and uses for the subject site.

F. Neighborhood demographics (population, age, employment, income, etc.)

G. Relationship to competitive alternatives and projects and exposure to interception of linkages.

V. DYNAMIC ATTRIBUTES

Dynamic attributes have to do with the mental or emotional responses which a site or project stimulates as it affects decision-making behavior. These decision makers may be property buyer, regulators of site use, customers of establishments located on the site, or peer groups which set community attributes or make decisions for others by proxy (Board of Elderly Care Organization).

A. Image conditioning of the approach zone.

B. Visual factors in terms of prominence of the site, views from the site, potential for controlled sight lines, etc.

C. Anxiety factors of access and security.

D. Noise as a function of traffic count or of nearby land uses.

E. Prevailing air currents and airborne pollution (phosphate plants or sulphite paper mills, for example).

F. Political images established for a site by the public positions of local politicians or vested interest groups.

G. Historical community reputation and values attached to the project site and structures.

  1. Recycling of old buildings within existing urban areas is fashionable among architects and the upper class.

  2. Recycling may establish historical roots and images.

H. Perceived supply and demand factors.

VI. OFF-SITE ENVIRONMENTAL IMPACTS

The real estate product today must respond not only to the needs of the individual consumer in the market place but to the collective community of consumers which represent the community political environment. The landscape builds like a reef, the cumulative bones of thousands of individual decisions. This decade will witness a final transition from relative laissez faire attitudes of land as a commodity to highly democratic regulation of land as a public resource and land use as a privilege granted by the public. If the proposal won't sell at City Hall, there will be no opportunity to market the product to individuals. Therefore, the project must consider in its feasibility procedures and in constraints imposed by pre-architectural programs the impact on the environment of:

A. Physical factors of the environment.

  1. Soil stability and water tables beyond the site boundaries.

  2. Eutrophication of lakes and streams.

3. Disruption of environmental edges, plant, and wildlife areas.

4. Impact on energy resources.

5. Contribution to social disintegration.

6. Aesthetic and urban design.

B. Social factors of the environment.

1. Displacement of existing residents and neighborhood units.

2. Contribution to social integration or mobility barriers.

3. Contribution to land use heterogeneity.

4. Contribution to regional and community master plans.

C. Economic factors of the environment.

1. Direct impact on real estate tax revenues.

2. Direct impact on other governmental revenue.

3. Direct impact on incremental government.

4. Secondary contributions to local government revenues.

5. Secondary cost burdens created for local communities.

D. Real estate business ethic environment.

1. Impact on supply equilibrium.

2. Impact on associated contractors.

3. Impact on families of project sponsor.

4. Ligitimacy of financing structure.

E. Silhouette of proposed project in terms of public perception of impact.

F. Relationship of impact assessment to:

1. Scale of project.

2. Vulnerability of project sponsor to secondary consequences of political discretion.

3. Stamina of project sponsor in the face of public pressure.

VII. MOST PROBABLE USE MATRIX

Definition of the site attributes permits the appraiser or the planner to hypothesize some alternative uses for the site. (Exhibit I-2.) The appraiser should be able to set up a series of back door, revenue to justified budget parameters for these uses to suggest the parameters within which cash flows might crunch.

This technique is not unlike the residual approach, it has the same potential for misleading, but when combined with a sensitivity approach, does identify the conditions critical for financial solvency.

FEASIBILITY OF ALTERNATIVE USES

Feasibility Factor	Scenario 1 Return to Former Use	Scenario 2 Purchase by Welfare Agency	Scenario 3 Conversion to Class B/C Office	Scenario 4 Conversion to Apartments with Office on 1st Floor	Scenario 5 Conversion to Apartments with Existing Bar	Scenario 6 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 bar-restaurant	Soft market for vacant sites which cannot be assembled into larger plottage; 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 political statements by alderpersons for reduction of bar business in residential neighborhoods	Preferred use for housing is compromised by existing bar management agreement	Inconsistent with constituency favoring landmark 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 retaining existing bar operation--smaller units require more plumbing and bring less favorable rent/cost per SF ratio	None
Relative Investment Power Based Upon Revenue Generation Potential	$192,765	$120,380	$80,331	$103,220	($10,513)	$13,778
Special Income Tax Advantages or Public Subsidies Available	None	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 assessment	Real estate tax base would be multiplied approximately 3 1/2 times the present assessment	Real estate tax base would be multiplied approximately 2 1/2 times the present assessment	Loss of approximately $140,000 of tax base

EXHIBIT 2

THE NEW URBAN LAND ECONOMICS

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THIRD HOUR

REAL ESTATE MARKETING REDEFINED

I. BASIC CONCEPTS AND MODELS

A. In a price economy cash solvency begins with cash revenue which in turn requires a consumer willing to spend in his own self-interest. Real estate project cash flows, growth in investment value, and all related premises of leverage, arbitrage, etc., presume some level of monopoly to avoid competition and exploit spatial inertia.

B. Free enterprise is the art of creating your own monopoly at appropriate points in time.

1. For products, monopoly requires control of raw material, design, services, and marketing channels.

2. For services, monopoly requires behavioral conditioning of consumer.

3. Real estate is both product and service.

4. Timing is concerned with a supply cycle and behavioral and demographic evolution.

5. Complexities require reduction of marketing perspective to very selected segments and time frames (market gaps and windows) which can be modeled.

C. Segmentation in both market research and merchandising to achieve monopoly reflect the following concepts:

1. Market studies are of the aggregate, uncontrollable variables and forces in longer time series within which the real estate enterprise must find opportunities for customers.

2. Merchandising studies are primary research of controllable variables in abbreviated time series with which the real estate enterprise can best operate within the sea of uncontrollable variables to capture opportunities.

3. Market research is a process of disaggregation from secondary data to refined segments which scale a subset of the population who may represent a merchandising opportunity. Merchandising research is concerned with how to capture some part of that opportunity with a buy/sell transaction.

4. Positioning is the strategic selection and tactical implementation of controllable variables to achieve enterprise goals within uncontrollable market trends. Positioning starts with a "P" because the ultimate research product is concerned with:

   a. Premise for monopoly at the margin
   b. Profile of prospect and supply segments within population (absorption rate)
   c. Profile of political power segments within permit process
   d. Psychology of the transactional decision to spend or vote
   e. Product and service standards
   f. Product and service differentiation
   g. Product and service pricing
   h. Penetration into prospect profiles (capture rate)
   i. Pace and phasing of production
   j. Promotional and motivational channels

5. Positioning at the strategic level is the sum total of decisions made to exploit aggregate opportunities and to avoid aggregate adverse factors or potentials indicated by data on effective demand and categories of supply. The subject areas of analysis are listed in number 4 but the abstraction level of data is not malleable by the decision maker. His enterprise can be maneuvered within these larger force fields.

6. Positioning at the tactical level is concerned with all the detail of controllable variables within the subject areas listed in number 4, but the decision maker can specify the exact form these elements will play in his enterprise. In short, positioning is the objective of decisions made and the questions addressed in market and merchandising research.

7. Thus the concept of segmentation also operates on two levels, the disaggregation of aggregate data, and the differentiation of product mix and promotion codes of merchandising.

8. Because the research objectives listed in number 4 require integration of market data and merchandising data within models which share certain premises and hypotheses, it follows that the seminar must also recognize and maintain these links to the final questions or decisions to be resolved in a land use decision.

D. Collective users operate politically to protect their perception of a real estate decision impact on their cash revenues, expenses, and future net worth. For purposes of favorably influencing the voting transaction (which can occur explicitly or implicitly) it is necessary to understand the political options available to various segments of collective consumers with a presumed vested interest in an enterprise decision.

1. Contiguous property owners
2. Organized neighborhood - tenant associations
3. Constituencies sharing common interests, such as age, school children, religion, professions, etc.
4. Community power structure and media bias.
5. Formal political district boards and councils
6. Public agencies regulating community infrastructure
7. Public agencies regulating financial institutions

E. Most feasibility cases require the analyst to create his own models with which to structure the data available and the data which must be researched.

1. Remember, models organize the analyst, the report, and the client.

    a. Models explain what you are going to do.
    b. Models make relationships and key assumptions explicit.
    c. Models permit clients to understand logic of conclusions and to test their own set of assumptions.

2. A market research model should be careful to recognize:

    a. What are the questions?
    b. What data is available - which is relevant?
    c. What theory is available to focus data on the questions?
    d. How will the results be communicated?
    e. What are the abilities of the analyst?
    f. What is the cost/benefit ratio between the model method and the question?

3. <u>Market data</u> models use aggregate data, secondary information, the easy to acquire data from census tracts, traffic counts, building permits, and so on. It is useful to scale the size of the market potential of the opportunity area, but by itself aggregate market data is relatively unimportant to the success of most projects.

    a. <u>Absorption rates</u> apply to aggregate market data to determine the total size or amount of market activity in terms of how many lots were sold, how many apartments in a rental rage were newly rented, or how many square feet of leased office space were occupied.

4. <u>Merchandising data</u> models are generally primary information generated by the analyst about specific competitive projects and specific user groups which will permit an estimate of what percentage of the opportunity group can be captured for a specific project.

a. <u>Capture rates</u> are the product of merchandise research and are the ratio of the total opportunity potential which might be secured for a project or must be secured to achieve financial goals. The capture rate will reflect a careful judgment of product mix, amenities, pricing, and timing.

F. Alternative purposes of primary market research

1. To establish ratios for disaggregation of secondary data to focus on specific subsets or segments of the market (to scale market opportunity).

2. To profile consumer demographics, motivations, and dissatisfactions in comparable projects.

3. To profile fears of segments of collective users within a political coalition.

4. To survey professionals who serve ultimate consumers to identify trends in terms of office layouts, technical support systems required, financing, or motivations for future use conversions.

5. To generate a definition of the competitive standard for comparable projects.

6. To discover the competitive edge in terms of site/product/service/advertising to insulate project from direct price comparison shopping and competition.

G. Recognition of real estate as a subcomponent within a larger physical and behavioral system.

1. To contribute to the efficiency of the activity housed.

2. To contribute to the security of the establishment housed.

3. To reduce anxiety and stress of occupants housed.

4. To enhance the public and self-image of the occupant.

H. Focusing on monopolistic merchandising targets.

1. Correctly recognizing the space-time product.

2. Correctly identifying who signs the check.

3. Correctly discovering what motivates the signature.

4. Providing acceptable justification for signing the check.

5. Phasing the project to fit the pace of the target group.

I. Combination of all elements relating to a site, in search of a use can then be integrated with financial analysis in a logic to screen alternative uses as suggested in Exhibit 3.

SITE IN SEARCH OF A USE

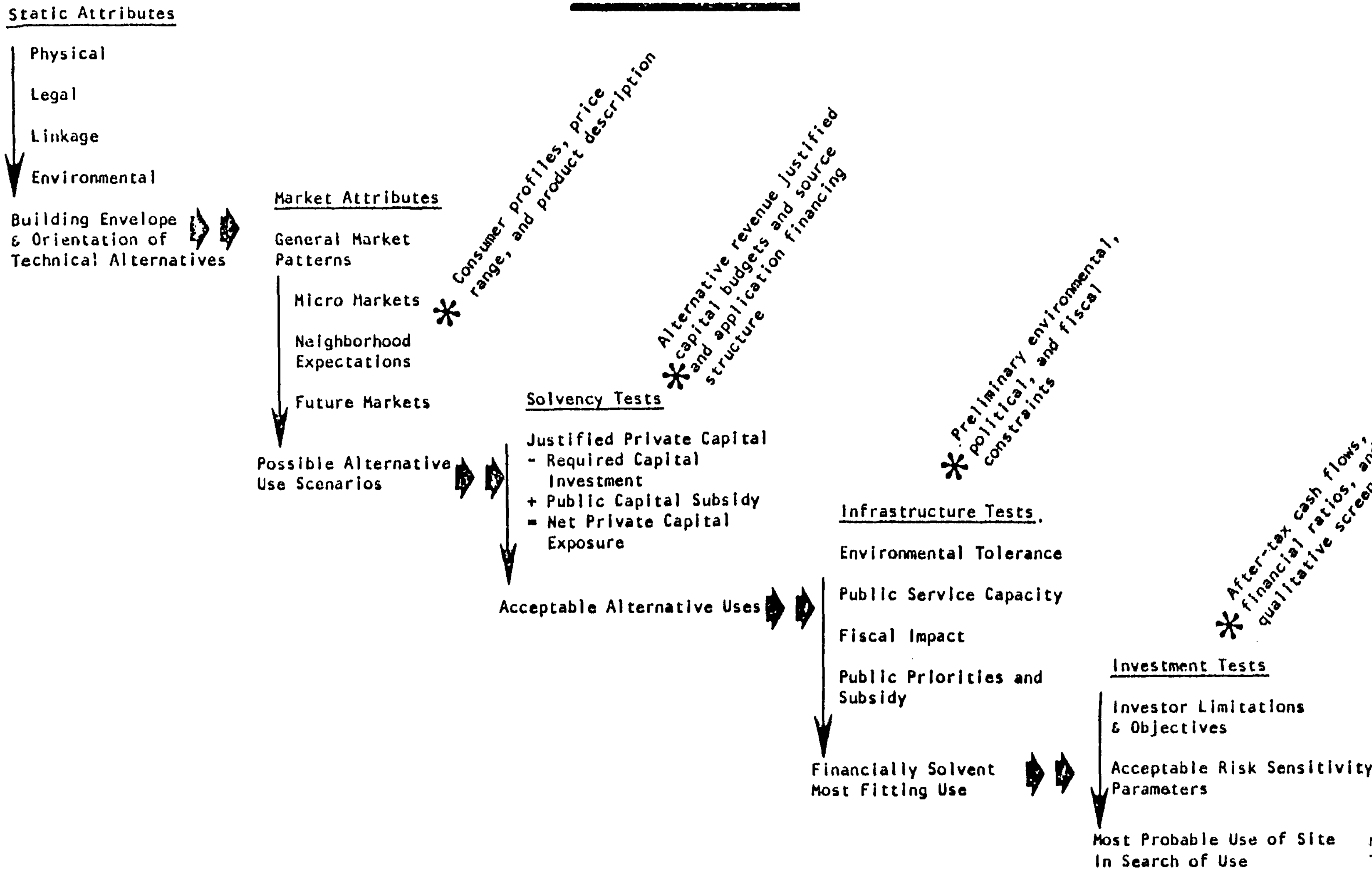

EXHIBIT 3

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FOURTH HOUR

I. BASIC ELEMENTS OF FINANCIAL PLANNING

Every real estate project is an individual business enterprise which must be planned so that cash receipts are available in a timely manner to meet all required cash outlays. This planning proceeds from generalized proforma budgets for a normal year of operations toward detailed budgets integrated with the construction, marketing, and operational phases of the project.

A. Financial Planning for future receipts and outlays requires extensive assumptions organized among the following categories.

1. The time line for segment of the real estate process to be considered from a particular viewpoint.

2. The profit centers available to be retained or traded for financing.

3. The expected pattern of operating revenues and expenses.

4. The expected pattern of capital sources and applications.

5. The expected pattern of real estate, income, or estate taxes along the time line.

6. Strategic and tactical financial plans for control of variance (risk management).

7. Concepts for measuring financial yield and risks.

B. Every real estate project has a life line from concept to eventual demolition, within which the investor is choosing a specific time-line segment for planning. At any particular point on the line, only certain profit centers remain.

1. Security of financial sources requires matching of profit centers along the line to repayment schedules on the debt.

2. Equity is the degree to which profit centers can be diverted to the investor's benefit and yield will be some relationship of receipts to outlays over time.

3. The time line of the project must be synchronized to the longer term cycles of the market and the short cash cycles of the tenants.

4. Development analysis begins with a normalized set of operating revenue and expense assumptions and then works forward to cash flow over n periods and then backward over the construction period prior to normalized operations.

C. The preferred method of financial planning is to select a market target in terms of rent levels and services and solve for the capital budget justified by revenues.

1. The traditional method is to convert net income available for debt service by a required debt coverage ratio characteristic of financing for that type of real estate. (Consider Exhibit I-3.)

2. The contemporary method is to view a real estate project like any other enterprise by establishing a critical cash break even point for planning purposes (sometimes called the default point) as demonstrated in Exhibit I-4.

3. Where the architectural budget or acquisition price is already known, the financial planner begins by solving for the rent required by the capital budget desired (Exhibit I-5).

D. A required capital structure to finance the real estate project will represent a negotiated compromise between multiple cash cycle enterprises including tenants, investors, public infrastructure, land owner, and developer. The elements of negotiation will represent arbitraging among the

EXHIBIT 4

Figure 8

Loan to Cost Ratio Approach (Frontdoor Approach)

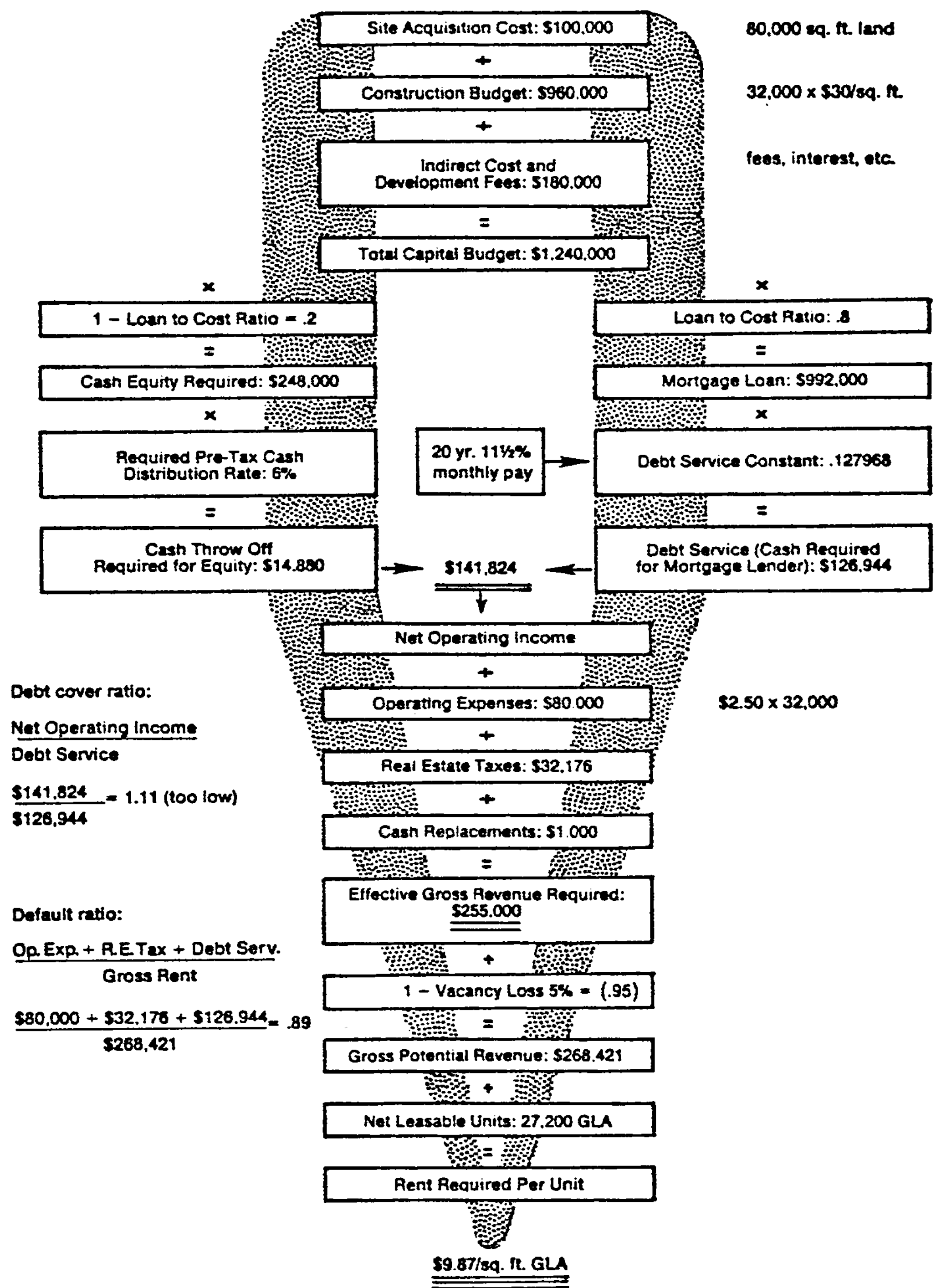
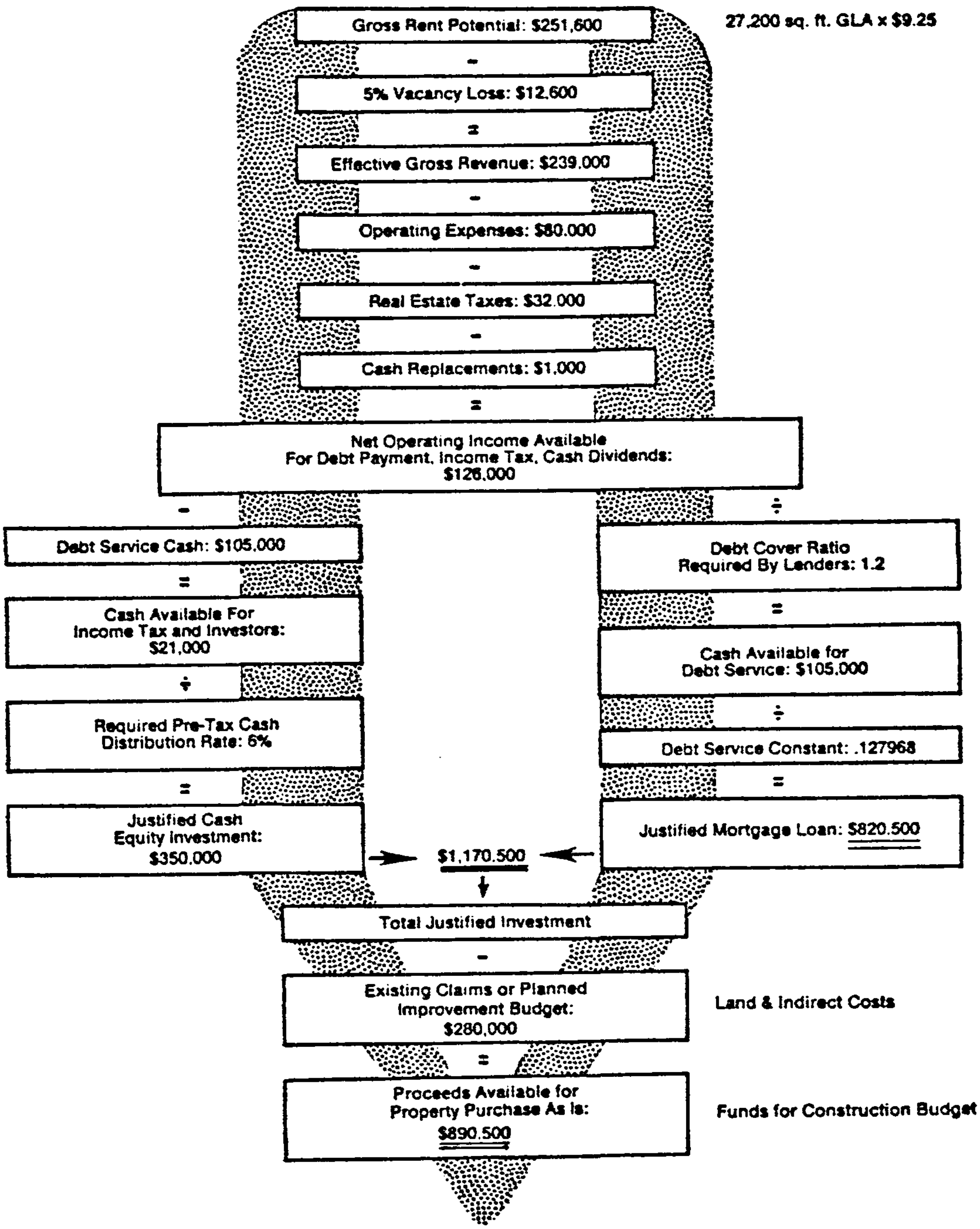


EXHIBIT 5

Figure 9

Debt Cover Ratio Approach (A Backdoor Approach) Lender's Point of View

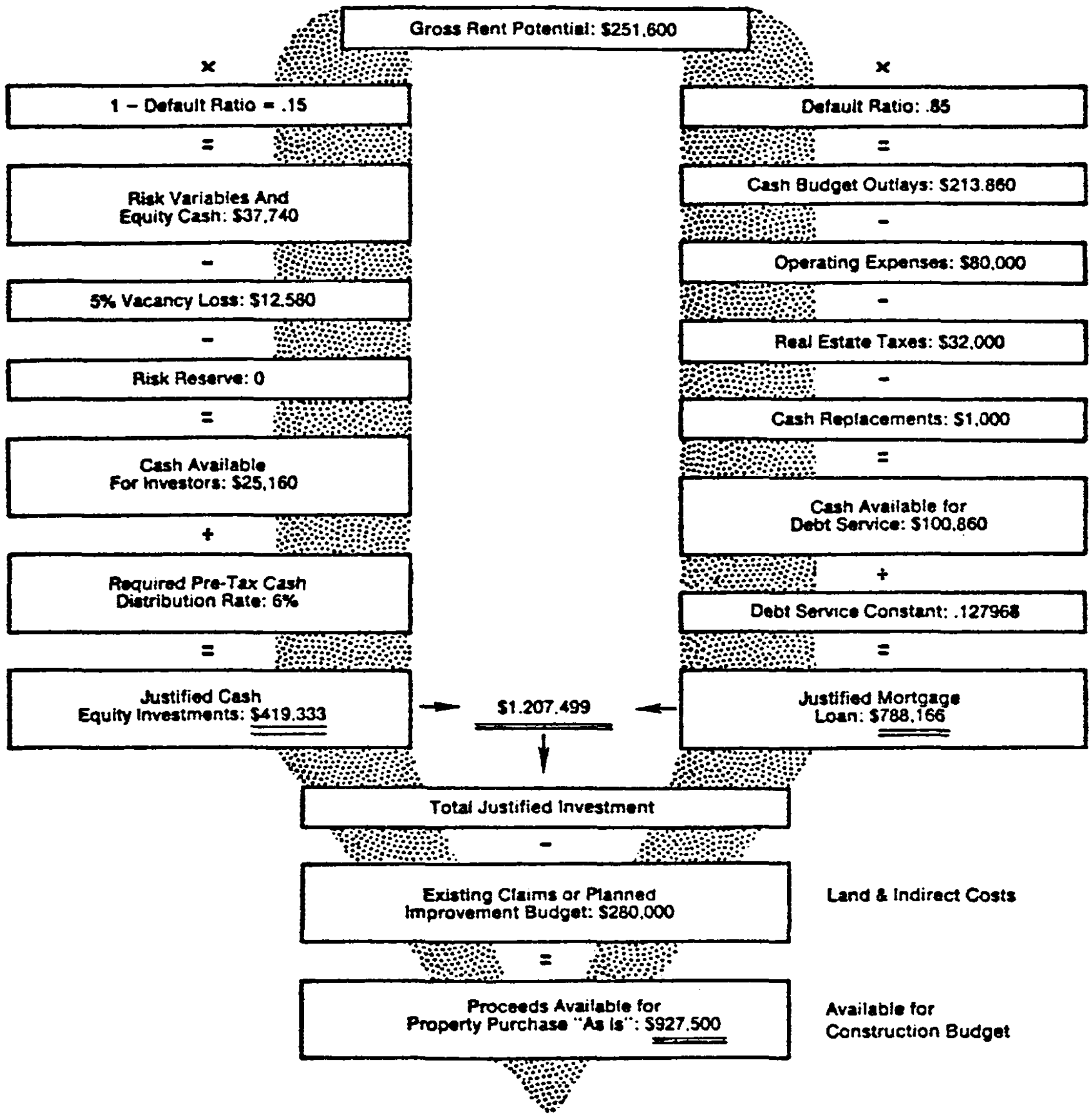


$\frac{\$890,500}{32,000 \text{ sq. ft.}}$ = $27.80/sq. ft. justified building budget

EXHIBIT 6

Figure 10

Default Ratio Approach
(Another Backdoor Approach)
Developer's Point of View



$37/sq. ft. of gross area for justified building budget comparative advantages of each party and the risk level acceptable to the decision makers in each party at interest.

1. Owner-lender

2. Land owner, building owner, lender, tenant

3. City, land owner, building owner, lender, tenant, limited partner, preferred partner, general partner

4. The arbitrage trade offs reflects the present value over time of each participant's comparative advantage in terms of payment for services, opportunity cost of money, tax advantages, ability to control and fund variance, and psychic income.

E. Financial risk management is the control of variance between expectations and realizations, between proformas and actual profit and loss statements, or balancing of receipts and outlays over time. Risk management methods include:

1. Improving forecasts through statistical research of the critical facts.

2. Combining risks by pooling resources, by diversifying investments, and by improving forecasting through scale of operations.

3. Shifting risks by insurance contract, accepting the small certain loss of an insurance premium rather than the unpredictable loss of unknown frequency and severity of some insurable catastrophe like fire, collapse, death, or disability.

4. Shifting the risk by two-party contract.

5. Limiting liability for losses through the form of ownership as a corporation or limited partnership or esculpatory clauses (which says the lender can only take the property in case of foreclosure) with which one party releases a second from an obligation to perform or for damages as a result of failure to perform.

6. Hedging is a term which covers a wide variety of devices for protecting oneself against future price fluctuations or other future contingencies. A mortgage is a straddle in future space markets, as a call on appreciation and a put to the lender if market declines.

F. Concepts of measuring yield are all variations on the objective that receipts to the investor should exceed outlays over time to a degree sufficient to compensate for risk of loss and deferral of consumption.

1. The very simplest measure of yield is, more is better than less, sooner is better than later, and spendable is better than accruing.

2. Overall rate of return on capital to measure positive leverage.

3. Spendable cash on cash after taxes.

4. Change in net worth after taxes.

5. Change in purchasing power of spendable cash and liquidating value of net worth.

6. Degree of variance in portfolio return.

7. Degree of improvements in liquidity and mobility of portfolio capital.

THE NEW URBAN LAND ECONOMICS

Presented By

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

FIFTH HOUR

I. REAL ESTATE PRODUCT AND PUBLIC INFRASTRUCTURE

The buyer or tenant of real estate space instantly becomes an ongoing customer for an infinite array of public services provided to support that particular project. Therefore the real estate project is only a short segment of a long time line continuum of cash outlays and service benefits. The question is who benefits and who pays--the fiscal impact of the incremental real estate project.

A. The public revenue from a real estate project takes many forms and generally is poorly timed relative to the cost outlay for such services, so that the public must bridge the gap between revenues and cost with public debt, taxes, user fees, and exactions on the developer.

1. The real estate taxes on new improvements
2. Real estate taxes on enhanced adjacent properties
3. Third level multipliers on community income and capital investment
4. User fees and development permits
5. Development dedications and negotiated contributions
6. Sales and income taxes attributable to community growth
7. Recapture of district and federal tax payments in the form of project subsidies and governmental financing

B. The collective consumer is now aware of the consequences to each of them implied by the fiscal impact of alternative land use plans and therefore the politics of real estate must arbitrage among the comparative advantages to be enjoyed by each set of actors in the development process and the public financing arena. Each party attempts to retain the benefits while shifting the cost, by redefinition of:

1. Percent share from special assessment versus general assessment

2. Time lagged collection of costs relative to benefits

3. Broader definition of geographic fiscal base than actual benefit area

4. Broader definition of economic benefits than can be measured or expected

5. Coalitions of beneficiaries to achieve omnibus legislation incorporating specific benefits and generalized taxation

6. Deliberate fragmentation of systems so that down stream adverse effects are not considered

C. Real estate development plans requiring public approval are now advocated on the basis of cash benefits to off-site beneficiaries, or at least the cash solvency guaranty of the collective consumer.

1. The land planner justifies apartment/townhouse/single family mix of the residential development in terms of tax base per child as well as environmental loads in terms of gallons of sewage, acre feet of storm water, or vehicles per hour generated and burdening public infrastructure.

2. New office buildings or industrial parks create more tax revenue than service costs so these surplus revenue land uses become the objects of competition among various communities who are willing to buy future surpluses at some present value of the expected future cash flow.

3. Federal or district expropriation of land for parks, military bases, or other large scale uses must provide compensation to communities for lost tax base revenues.

D. The public is willing to purchase future benefits with such devices as:

   1. Tax incremental financing which permits definition of a special district, a freeze on assessment base, and funding of a bond issue amortized from increased tax revenue, to the exclusion of all other overlapping tax districts. These bond proceeds can be used to finance public improvements, land writedowns, or financing of tenants and buyers if the "but for" criteria applies.

   2. Industrial revenue bonds permit financing of private endeavors with tax exempt public funds if it creates jobs and tax base for the community.

   3. Urban development action grants are federal grants to communities who in turn make low interest loans to selected developers to achieve lower opportunity cost of funds.

   4. Special tax offset subsidies of up to 25 percent of capital cost are available as investment tax credits for remodeling landmark buildings, updating old commercial buildings, or installing energy efficiency features.

E. In short, urban economics is the study of local governments and service utilities as cash cycle enterprises which are first attempting to maintain cash solvency, secondly create short term surpluses (the profits of non-profits) for credibility with various constituencies and ultimately increase stock of public capital infrastructure for the delivery of services to residents at the expense of non-residents.

   1. Palo Alto example

   2. Comparative advantage in the development of economic base

   3. Risk management by means of public/private joint venture or consortiums