EDA University Center for Economic Development Southern University, BR

"CREATING NEIGHBORHOOD DEVELOPERS PROGRAM"

Revitalizing Communities through Emerging Developers through Quality Training

Course 5: Development and Construction

Saturday, March 25, 2017, 9:00 AM – 11:30 AM

Room 313, College of Business, Southern University, Baton Rouge

Comnet - Eric Porter

EDA University Center for Economic Development Southern University, BR

COURSE OVERVIEW

- This course provides information regarding the development and construction planning of a housing project. It will teach the emerging developer how to plan, implement and to achieve milestones in the development phase.

DEVELOPER'S CONSTRUCTION PROCESS

- Planning:
- Emphasis on the importance of planning.
- The design phase of construction – Working with architects and engineers

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DEVELOPER'S CONSTRUCTION PROCESS

- Document Administration:
- The Procurement Process for contractors.
- Environmental Review Process

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When Does Development Occur?

- Economic Feasibility
  - Property Specific Market Analysis
    - Regional
    - Neighborhood
  - Site Selection
- Design Feasibility
  - Site
  - Building

When Does Development Occur?

- Financial Feasibility
  - Investment returns on the
    - Property
    - Equity
    - Debt
      - Construction period
      - Permanent loan
- Regulatory/Legal Feasibility

Timing

A. Market Analysis

1. Purpose

   a. to identify needs in the real property market

   b. to help estimate the market value of the completed property

   c. to provide documentation for the financing decision

      i. to support loan application

      ii. to attract equity investors

A. Market Analysis

2. Steps

   a. Define the relevant (sub-)market boundaries

      i. primary market

      ii. secondary market

   b. Market characteristics

      i. size of market

      ii. market share

      iii. absorption rates

   c. Characteristics of demanders

      i. income

      ii. preferences

A. Market Analysis
    2. Steps
        d. Product supply
            i. Existing supply
                - Occupancy/vacancy rates
            ii. The pipeline
                - New construction
                - Conversions from alternative uses
                - Planned/no permit issued
        e. Barriers to entry

A. Market Analysis

2. Steps

f. Location of competing products

g. Current market conditions

i. rent levels

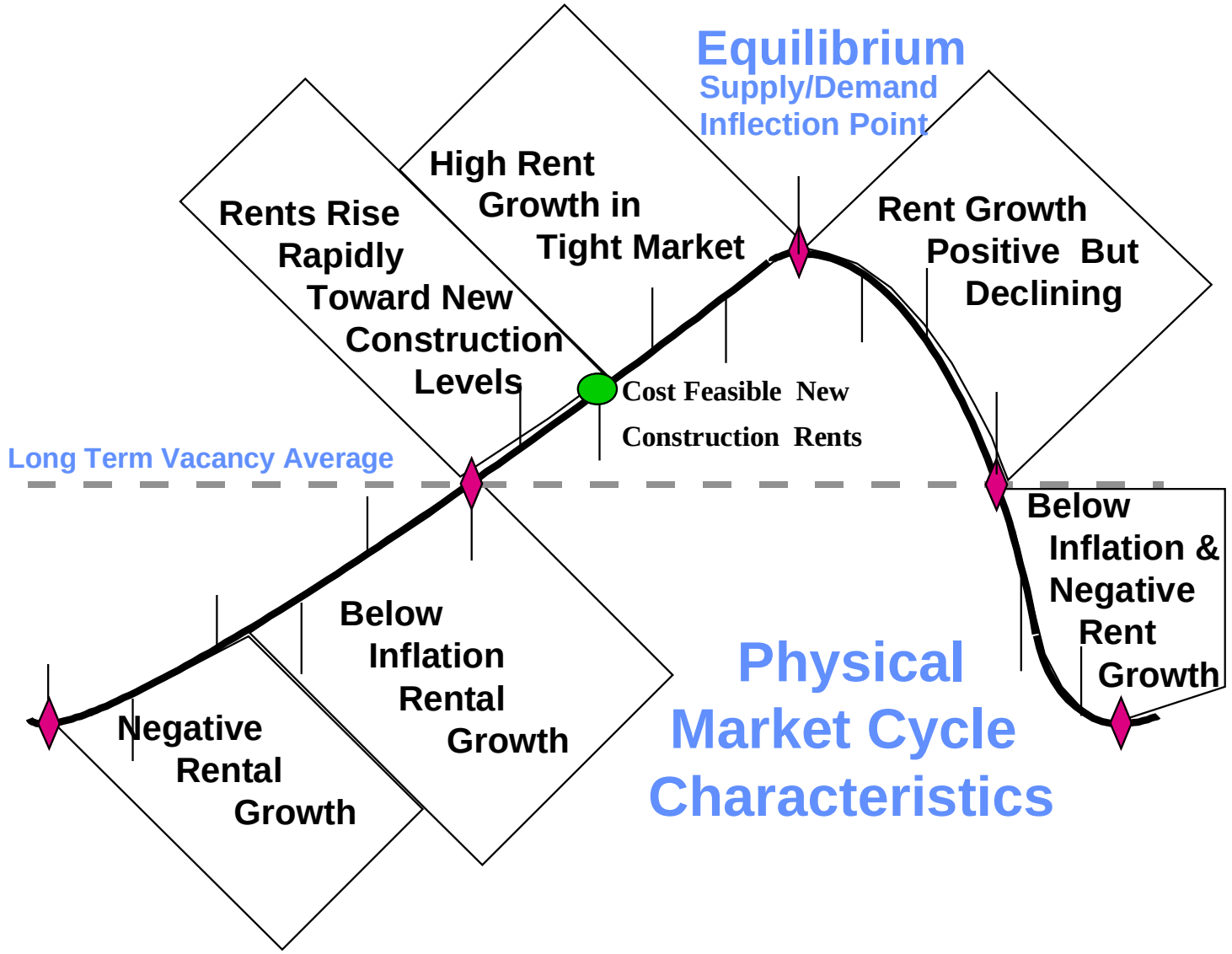
ii. vacancy rates

- by product type
- by amenity package

2. Steps
   h. Market projections
      i. future demand
      ii. future supply
      iii. identify development opportunities
         - product type
         - amenity package
         - consumer profile
      iv. estimate absorption
      v. estimate capture rates

A. Market Analysis
    2. Steps
        i. Real estate cycles
            - Market rents do not justify new construction
                - Excess supply
                    - High vacancy rates
                    - Rents and values declining
            - No new construction
            - Economic growth increases demand
                - Vacancy rates decline
                - Rents and then values increase
            - New construction occurs when expected benefits exceed (all) expected development costs

A. Market Analysis
    2. Steps
        i. Real estate cycles
            - Market equilibrium
                - Market rents and vacancy rates stable
            - Economic growth slower than expected
                - Pipeline adds to existing supply
                - Vacancy rates increase
                - Rents then values decline
            - Cycle repeats
                - Cycle time varies with property type
                    - MF: 18 months
                    - Large Class A Office: 3 years



REAL ESTATE DEVELOPMENT
ECONOMIC FEASIBILITY

B. Site Selection

1. Highest and Best Use
2. Location and Neighborhood Amenities
   a. Proximity
   b. Accessibility
   c. Visibility
3. Environmental Issues
   a. soil contamination

B. Site Selection

4. Size and Shape
5. Site conditions
    a. slope & topography
    b. geology/drainage/soil conditions
    c. vegetation
6. Easements and covenants

B. Site Selection

7. Utilities
   a. electric
   b. water
   c. gas
   d. telephone
   e. cable
8. Traffic patterns
9. Neighboring uses

C. **Maps and Surveys**

1. **Topographic survey**
   a. **property contours**
   b. **springs/marshes/wetlands**
   c. **soil types**
   d. **vegetation**
2. **Site map**
3. **Boundary survey**
4. **Utilities map**

D. Design Feasibility

1. Site

a. Footprint

b. Parking

c. Landscaping

d. Other amenities

D. Design Feasibility

2. Building configuration

a. External Design Features

i. Structure

ii. Shell components

iii. Roof systems

iv. Signage

D. Design Feasibility

2. Building configuration

b. Interior Design Characteristics

i. tenant space

ii. structural flexibility

iii. ceiling height

iv. floor covering

v. utilities

vi. mechanical and electrical

E. Financial Feasibility

1. Measure investment returns

   a. Project amount and timing of benefits

   b. Project amount and timing of costs

   c. Required returns
      i. Yield on property
      ii. Yield on equity
      iii. Yield on cost: spread over cap rates and loan constants

E. Financial Feasibility

2. Capital Structure

a. Debt

b. Equity

3. Types of loans

a. Construction

b. Permanent

c. Miniperm—construction loan w/option to extend for a short period

d. Standby commitment

E. Financial Feasibility

4. Completed Project NPV

   a. rental revenues: leases

   b. non-rental income

   c. expenses

      i. vacancy/collection/loss to leases

      ii. fixed expenses

      iii. variable expenses

      iv. reserves for replacements

E. Financial Feasibility

5. Construction Period NPV

a. land costs

b. site development costs

i. grading

ii. storm/water drainage

iii. sanitary sewer

iv. streets/curbs/walks

v. utilities

E. Financial Feasibility
    5. Construction Period NPV
        c. Building costs
            i. hard costs
                - shell structure
                - HVAC
                - Electrical
                - Plumbing
                - Project management fees
                - Finish out
                - Signage

E. Financial Feasibility
    5. Construction Period NPV
        c. Building costs
            ii. soft costs
                - Architect
                - Fees and permits
                - Legal
                - Construction period interest
                - Construction loan fees
                - Permanent loan fees
                - Leasing commissions
                - Direct overhead
                - Indirect overhead

Construction Period or Interim Loan

- Variable Rate: prime + 300 basis points
- Developer obtains line of credit and draws funds as work is completed
- Draws must be approved by lender
- Construction period interest and loan fees ***accrue*** during the construction period and are paid with the proceeds of the sale of the property or with the permanent financing

Construction Period Loan Example

You want a construction loan to develop a $1.75M garden apartment complex. The property will take 12 months to build. The expected non-loan development costs appear in the first column of the table on the following slide. The construction loan has a 2% fee. The fee is computed on the total amount borrowed. Interest is quoted as an annual rate at prime plus 300 basis points. The prime rate is expected to be:

6% over the first three months of the construction period;

7% over months 4-6 of the construction period;

8% over months 7-9 of the construction period; and

9% over months 10-12 of the construction period.

The interest on the construction loan and the loan fee are not paid but ***accrue*** interest over the development period. Compute monthly interest, total draws, the loan fee, and the effective borrowing cost.

Construction Loan Analysis:

Borrowing Cost	13.351%
Fee	2.000%

Month	Non-Interest Costs	Annual Rate	Interest & Fees	Draw	Cumulative Loan	Cash Flow
0	36,000	#N/A	26,943	62,943	62,943	36,000
1	25,000	9.00%	472	25,472	88,415	25,000
2	71,000	9.00%	663	71,663	160,078	71,000
3	125,000	9.00%	1,201	126,201	286,279	125,000
4	174,600	10.00%	2,386	176,986	463,265	174,600
5	200,000	10.00%	3,861	203,861	667,125	200,000
6	160,000	10.00%	5,559	165,559	832,684	160,000
7	175,000	11.00%	7,633	182,633	1,015,317	175,000
8	95,000	11.00%	9,307	104,307	1,119,625	95,000
9	93,000	11.00%	10,263	103,263	1,222,888	93,000
10	50,000	12.00%	12,229	62,229	1,285,117	50,000
11	21,000	12.00%	12,851	33,851	1,318,968	21,000
12	15,000	12.00%	13,190	28,190	1,347,157	15,000
						(1,347,157)
Totals	1,240,600		106,557	1,347,157	1,347,157	

REAL ESTATE DEVELOPMENT
ECONOMIC FEASIBILITY

E. Financial Feasibility

6. Property NPV: Amortization/ Depreciation Periods

Cost	Depreciation/Amortization Period
Capital Improvements	27.5 years for residential 39.0 years for commercial
Tenant Improvements	7 years
Construction Loan Fees	Construction period (1 year)
Permanent Loan Fees	Loan Term
Leasing Commissions	Typical lease term (7 years)

Interim Lender Closing Requirements

1. Project information: final drawings, cost estimates, site plan
2. Property market and borrower financial information
3. Government and regulator information
4. Legal documentation
    a. approval for permanent loan
    b. all documentation for general contractors, architects, planners, subcontractors; evidence of bonding; contractor agreements to perform for construction lender; closing documents
    c. inventory of personal property that secures interim loan
    d. executed leases
    e. default provisions

Source: Brueggeman and Fisher, 11th Ed., page 440-441.

Permanent Lender Closing Requirements

1. Market and financial data
    a. Financial status of borrower
    b. List of tenants, lease contracts, estoppel certificates
    c. Residual construction cost obligations
2. Project information
    a. Estimate of market value
    b. Building survey
3. Government and regulatory information
    a. Property taxes
    b. Certificate of occupancy
    c. Other permits (e.g. fire, safety, health).

Permanent Lender Closing Requirements

4. Legal documentation
    a. delivery of construction loan mortgage
    b. architect's certificate of completion
    c. insurance policy endorsements (casualty, hazard)
    d. title insurance policy
    e. status of ground rents (if applicable)
    f. an exculpation agreement that relieves the borrower
        of personal liability (if applicable)
    g. lien releases from construction subcontractors

Source: Brueggeman and Fisher, 11th Ed., p. 441

F. Regulatory Issues

1. Zoning

a. permitted uses

b. density

c. floor/area ratio (FAR)

d. height restrictions

e. size requirements

D. Regulatory Issues

2. Platting

   a. street width

   b. lot size

   c. setbacks

   d. turning radius

3. Public Approvals

4. Building Codes

5. Fire Codes

Go/No go decision points

- Land option (option to purchase land)
- Government approvals
  - Site plan approvals
  - Building plan approvals
- Lender commitments
- Equity investor commitments

a. *Professional Real Estate Development: The ULI Guide to the Business*, by Richard B. Peiser with Dean Schwanke. The Urban Land Institute. 1992.

b. *Value by Design: Landscape, Site Planning, and Amenities*, by Lloyd W. Bookout with Michael D. Beyard and Steven W. Fader. The Urban Land Institute. 1994

c. *ABC of Architecure*, by James F. O'Gorman with drawings by Dennis

CONSTRUCTION MANAGEMENT

OWNERS/PLAYERS

- Owner – owns project upon completion of construction
  - Private – owner owns land and pays for construction of facility
    - Able to accept/reject bids based on many parameters including cost, quality, reputation
  - Public – owner is government agency, public pays for facility
    - Very strict method of soliciting bids, accepting bids, writing specs

TEAM PLAYERS

- Design Professionals
  - Architects, Engineers, design professionals
    - Assist owner in developing plan for facility
    - Make sure it is structurally sound
    - Make sure all systems, utilities, facilities are integrated into design
    - Responsible for applying for and obtaining all necessary permits

- Contractor
- Contracts to build project to the specs set forth in the contract for a contracted price
  - Contract will subcontract to specialty firms
  - Subcontractors may subcontract further
- Project Management
  - Acts as owners agent and works with designers and contractors to insure high quality and lower cost

PM IS THE KEY TO SUCCESS!

CONSTRUCTION PROJECT

- Has following characteristics
  - Defined goal or objective
  - Specific tasks not routinely performed
  - Defined beginning and end
  - Defined deliverables
  - Resources being consumed

ROAD MAP TO SUCCESS- FINISH LINE

- To build a project on time and at cost need a good map to get thru project
  - Steps
    - Establish project plan/objectives
    - Do research into materials and design
    - Design, estimate and schedule
    - Present design to owner
    - Analyze project for viability
    - Adjust project plans as needed and go back to beginning

CHANGE ORDERS (RFI) EMAIL AND DOCUMENTATION

- As the project progresses more information is known and needs to be considered
- Good early decisions provide significant benefits. Ability to influence the project costs decreases as the project is built

CONSTRUCTION PROJECT CATEGORIES

- Residential
  - Condos, town houses, apartments, single family homes
  - Owners may be development companies or individual owners
  - Fairly low tech
- Building Construction Projects
  - Office buildings, large apartment buildings, shopping malls, theaters
  - Dependent on economy
  - Designed by architects with engineering support

CONSTRUCTION PROJECT CATEGORIES

- Heavy Construction
  - Roads, bridges, dams, tunnels, water & waste water systems
  - Designed by engineers
  - Usually public projects
- Industrial Projects
  - Steel mills, petroleum refineries, chemical processing plants, auto production facilities
  - Specialized design and construction
  - Limited companies do this work

CHRONOLOGY

- Conceptual Planning
  - Owner makes decisions on designers, site, and project cost and schedule
  - Iterative process – add in and delete items to get desired final product
  - Need to gather as much info as possible
    - Rehab work uncovers many unknowns
  - Permits are started and applications made
  - Estimate +/- 25%, Schedule +/- month

CHRONOLOGY

- Schematic Design
  - Actual design begins
  - Looking at method and materials to use
  - Value engineering
  - Begin setting up work packages
  - Id long lead time items
  - Preliminary estimate (+/- 10%) and schedule are completed

CHRONOLOGY

- Design Development
  - Final design phase
  - Make system choices based on cost and schedule
  - Prequalification process for bidders
  - Contract documents and determination of work packages – Woodrow Wilson Bridge
  - Fair cost estimate and schedule developed

- Construction
  - Mobilization-
  - Milestones- what milestones do I need make for payment? (lead time, order, accounts)
  - Substantial completion-
  - Punchlist items- (attention to detail and laser focus)
  - Project Close out- the child is born!

CHRONOLOGY

PROJECT RISK & ABILITY TO PARTNER

- Bid depends on amount of risk contractor is willing to take
- Risks
  - Project Site – Neighbors, Regulatory environment, Subsurface conditions, Economic climate
  - Project – complexity, planned technologies, degree of finishes, materials, mechanical/electrical systems
  - Process – Project funding, timetable, preconstruction info, project unknowns
  - Owner Org – sophistication, org structure, decision making
- Contingency takes some of risk out

CONTRACT TYPES

- Fixed Price (Lump Sum)
  - Do work for a set price
  - Must have an accurate estimate for bid
  - Provides owner and contractor with a number
  - Risk to contractor is great, to owner minimal
- Unit Price
  - Price is per unit of each item. Price includes all O&P
  - Designer estimates quantities

CONTRACT TYPES

- Cost Plus Fee
  - Owner reimburses actual costs plus a fee to cover O&P
  - Good when scope of project is unclear
- GMP
  - Owner knows max price for financing
  - Clause provides a split of money if contract comes in under budget