THE ECONOMICS OF CONSTRUCTION

Building Types

Buildings can be categorized on the basis of their economic equation. Relation of profit to function. It is determined by original intent.

1. Intent: Purely to function, not to earn: single family house, courthouse, library, etc.
2. Intent: Primarily to function, but also to make economic sense: hospital, nursing home, etc.
3. Intent: Function and earn through its function: factory.
4. Intent: Primarily to earn as an investment, but also to function in order to be marketable: housing, office buildings, commercial buildings.

Motives: Profit (free market) versus Social good (controlled economy) . . . the equation still has to work to make economic sense.

Roles of: Developer
Market Analyst
Mortgage Lender
PROFORMA

COST
land acquisition
local costs (utility extension, fee, etc.)
construction cost
furnishings
architect/engineer fee
legal expenses/accounting
misc. costs (survey, borings, printing, etc.)
marketing (personal, advertising, etc.)
Project Cost
+ Interest on construction loan
Total Cost (-mortgage = cash equity)

EXPENSE
utilities (gas oil, water, electric, etc.)
operating (engineer, doorman, etc.)
repair and maintenance
management office
continued marketing
insurance
real estate taxes
miscellaneous
operating expense
+ mortgage retirement
Total Expense

INCOME
apartment rents
office or commercial leases
garage rents
gross income
- vacancies (. . . %)
Net Income (or cash flow)

NET INCOME – TOTAL EXPENSE = PROFIT (= % OF EQUITY)
THE “ECONOMIC EQUATION”

Assume a 12-14 story apartment building at a good Evanston site containing 100 two-bedroom apartments of 1200 square feet, 100 parking spaces and 5,000 square feet commercial.

HARD COST

Land:

$25,000/Unit at 100...............................................................$ 2,500,000

Building:

Net Units: 100 at 1,200 square feet 120,000 sf
Circulation: add 20% 24,000 sf
Common areas: add 7% 10,000 sf
Commercial 5,000 sf
Total 159,000 sf

159,000 square feet at $120.00..............................................$ 19,080,000

Garage: 100 at 350 square feet 35,000 sf

35,000 square feet at $70.00..................................................$ 2,450,000

TOTAL HARD COST ..........................................................$ 24,030,000
**SOFT COST**

Construction Loan: $24,030,000
   at 7.0 % halved since it will be drawn progressively: $841,050

Lender’s 1.5% Fee: $360,450

Architect’s Fee, 4% of construction cost (Hot Land!): $861,200

Legal: $50,000

Marketing: $50,000

Miscellaneous: $120,000

**TOTAL SOFT COST:** $2,282,700

**TOTAL COST**

Hard Cost: $24,030,000

Soft Cost: $2,282,700

**TOTAL COST:** $26,312,700
**INCOME**

Apartment Rents: $1,600/month at 100 at 12: $1,920,000

Garage: $200/month at 100 at 12: $240,000

Commercial: $100,000

Subtotal: $2,260,000

Less 5% vacancy: $113,000

TOTAL INCOME: $2,147,000

**EXPENSES**

Management: salaries, utilities, maintenance, taxes, etc. 40% of income: 40% of $2,147,000: $858,800

Mortgage Retirement: 85% of $26,312,700 = $22,365,800

6% $1,341,950

TOTAL EXPENSES: $2,200,750

**BALANCE**

Income: $2,147,000

Expenses: $2,200,750

Loss: $53,750 =

Equity: 15% of $26,312,700 = Almost 1.4% = $3,946,900 loss/year of investment

**CONCLUSION**

Compared to risk-free savings accounts or bonds, this is a poor investment. Can it be improved and have it still marketable?
Let’s Try Higher Rents:

INCOME

Apartment Rents: $2,000/month
   at 100 at 12: ......................................................... $ 2,400,000
Garage: $200/month at 100 at 12: .......................... $  240,000
Commercial: ............................................................... $  100,000
Subtotal: ....................................................................... $  2,740,000
Less 5% vacancy: ........................................................... $ -  137000

TOTAL INCOME: ........................................................................ $  2,603,000

EXPENSES

Management: salaries, utilities,
   maintenance, taxes, etc. 40% of income: 40% of $2,603,000:................. $  1,041,200

Mortgage Retirement: 85% of $26,312,700 = $22,365,800
   6% ............................................................... $  1,341,950

TOTAL EXPENSES: ...................................................................... $  2,383,150

BALANCE

Income .................................................................$  2,603,000
Expenses ............................................................... $ -  2,383,150
Gain: $ 219,850 =

   Equity: 15% of 26,312,700 = 5.6 %
   = $ 3,946,900 gain/year of investment

CONCLUSION

This is not a great investment, but if one considers the value of the real estate which increases more rapidly than money in the bank, it might make sense to certain people who are not looking for liquidity.
CONDOMINIUM

Hard Cost (Same): ........................................ $ 24,030,000
Soft Cost (Same with increases)...... $ 2,329,000

Increases:
  Broker: 6% of 24,030,000 $1,441,800
  Legal: .............................................. $ 25,000
  Surveyor: ....................................... $ 75,000

Sub-total: ............................................ $ 27,900,800

Add 15% Profit: ................................. $ 4,185,120

Total: .............................................. $ 32,085,920

32,085,920 ÷ 100 = $320,000/Apartment
is a reasonable assumption in Evanston.