Life Cycle Costs of Transformation

An LCC model for developers and investors for comparing the costs and benefits of different intervention strategies for vacant office building

De Studio, Amsterdam Churchill Torens, Rijswijk Brinkwal 7, Nieuwegein
Bomansplaats, Eindhoven
Westerlaantoren, Rotterdam Wilhelminastaete, Diemen

Theory

Market Location Building Vacancy Characteristics

15% office vacancy 3P model

Empirical Research

Case Studies

Variables

Time Factor of money Preparation & Construction period Rental Income Energy Costs Residual Value

LCC model

Cash flow vacant office building Cash flow developer Cash flow investor

Costs & Benefits Costs & Benefits

Ratio Investment/Operating

Strategies LCC model

Sheets LCC model

Input Sheets
Office input Open & Building characteristics Benefit input Rental income & WOZ-value

Cost Database Sheets
For each strategy Investment Costs Open costs

Operating Costs Sheets
For each strategy - A summary of all operating costs

Cash Flow Sheets
For each strategy - All costs & benefits plotted and indexed over the lifespan

Summary/Output Sheet

In the Netherlands there is about 16 million m2 of vacant real estate. This consists of different types of real estate like churches, schools, and office. The vacant office buildings play a large role in the total vacancy problem and is the focus of my research.

The 7 million m2 could fit almost 90,000 housing units (just the offices). These 90,000 units is twice the annual total current construction production. Transformation could therefore solve the vacancy problem and housing problem for a significant part.

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