

CATEGORY: COST APPROACH

TOPIC: FUNCTIONAL OBSOLESCENCE (#1)

*Problem – What is the amount of functional obsolescence?
Is it curable or incurable?*

The subject property is an industrial property with no recessed dock for receiving shipments. This is a standard feature in buildings today. The current cost to add the recessed dock is \$60,000 but would have a current cost of \$38,000 if included in new construction today. The current NOI of the property is \$250,000 and the current appropriate cap rate is 9%. If the building had a recessed dock, the NOI would be \$260,000.

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Problem Solution

Cost to cure = \$60,000

If item (recessed dock) is added, the increase in property value = \$111,111

additional NOI (\$10,000) ÷ cap rate (.09) = \$111,111

Therefore, the obsolescence is **curable** because value increase (\$111,000) exceeds cost to cure (\$60,000).

Measure of Depreciation: \$32,000

Cost to cure – cost if included in original construction

\$60,000 - \$38,000 = \$32,000

This is an example of curable functional obsolescence caused by a deficiency.

Practice Problems

CATEGORY: COST APPROACH

TOPIC: FUNCTIONAL OBSOLESCENCE (#2)

*Problem – What is the amount of functional obsolescence?
Is it curable or incurable?*

The subject property is a three-story retail building that has no elevator. The cost of adding an elevator is \$250,000. Once the elevator is installed in the building, the NOI will increase by \$17,500. The Net Income Multiplier (NIM) for this market is 12.5 based on similar buildings. If the elevator was installed now (date of value) with the new construction of the property, the cost for the elevator would be \$140,000.

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Problem Solution

Cost to cure = \$250,000

If item (elevator) is added, the increase in property value = \$218,750

additional NOI (\$17,500) ÷ cap rate (.08) = \$218,750

additional NOI (\$17,500) × NIM (12.5) = \$218,750

The NIM is the reciprocal of the cap rate

Therefore, the obsolescence is ***incurable*** because value increase (\$218,750) is less than the cost to cure (\$250,000).

Measure of Depreciation: \$78,750

Value loss– cost if included in building's new construction cost

$\$218,750 - \$140,000 = \$78,750$

This is an example of incurable functional obsolescence caused by a deficiency.

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TOPIC: FUNCTIONAL OBSOLESCENCE (#3)

*Problem – What is the amount of functional obsolescence?
Is it curable or incurable?*

The subject property has an elevator that is outdated (small; low-capacity rating). The reproduction cost of the current elevator is \$20,000 and the physical depreciation of the elevator is concluded to be 40%. A contractor estimated the cost to remove the existing elevator at \$8,000 and the salvage value of the removed elevator equipment is estimated to be \$5,000. The current cost to install the new elevator is \$15,000 (\$11,000 for the equipment and \$4,000 for charges to retrofit the space to accommodate the new unit. The value will increase \$19,000. The cost of the modern elevator is \$11,000 as of the appraisal date of value.

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Problem Solution

Amount of the elevator included in the cost:	\$20,000
Less physical depreciation (40%) =	- \$5,000
Plus cost to cure:	\$18,000
Less cost if in new construction	\$11,000
EQUALS:	\$22,000

Note: cost to cure = \$8,000 (remove old) less \$5,000 (salvage value) + \$15,000 (cost to add the new one includes \$11,000 equipment and \$4,000 retrofit cost).

Cost to cure is \$18,000

Increase in value by replacing elevator is \$19,000.

Therefore, this is curable functional obsolescence by a deficiency requiring substitution or modernization.

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TOPIC: FUNCTIONAL OBSOLESCENCE (#4)

*Problem – What is the amount of functional obsolescence?
Is it curable or incurable?*

The subject property is a five-story retail building that has no elevator. The cost of adding an elevator is more than the value it will add to the property. Once the elevator is installed in the building, the monthly gross income will increase by \$1,700. The vacancy and rent loss factor for the property is 15% and the monthly effective gross rent multiplier is 95. If the elevator was installed now (date of value) with the new construction of the property, the cost for the elevator would be \$122,000.

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Is it curable or incurable?*

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Problem Solution

Monthly loss in rent	:	\$1,700
Less vacancy factor (15%):	-	\$255
Loss in effective gross rent:		\$1,445
Monthly GRM:		95
Value Loss: (\$1,445 x 95):		\$137,275

Measure of Damages:	Loss in value – cost if in new construction
	\$137,725 - \$122,000 = \$15,725

This is an example of incurable functional obsolescence caused by a deficiency.