COST APPROACH

The 300,000 square foot warehouse building is located on a 3.5 acre site. Industrial land is valued at $60,000 per acre. The depreciated value of the site improvement (parking lot, driveway, landscaping, exterior lighting) is estimated to be $19,000. New warehouses in the area have been constructed for $35 per square foot. This amount has been confirmed with published cost manuals. The warehouse has a problem, the ceiling height of 16 feet is too low. The market typically demands ceiling heights of at least 18 feet. It is not economically possible to add “height” to the building; however, you estimate the loss in value of $700,000. The building is 12 years old. There is significant deterioration to the property. It is economically feasible to fix $600,000 of the “wear and tear.” Approximately $1,200,000 is considered structural depreciation and it is not economically feasible to cure.

1. Calculate the replacement cost of the building.

\[
\text{Cost New} \quad (\text{300,000} \times \text{35} \times \frac{1}{\text{ac}}) \quad \text{S\,10,500,000}
\]

2. Calculate total depreciation and identify each type of depreciation.

\[
\begin{align*}
\text{Physical Depreciation} & \quad 1800 \text{ acy} \\
\text{Functional Obsolescence} & \quad 700 \text{ acy} \\
\text{External Obsolescence} & \quad 0 \text{ acy}
\end{align*}
\]

3. Calculate the value of the land.

\[
\frac{\$60,000}{\text{acre}} \times 3.5 \text{ acy} = \$210,000 + \$19,000 = \$229,000
\]

4. Put it all together and come up with a value indication by the Cost Approach.

\[
\begin{align*}
\text{Cost New} & \quad \text{S\,10,500,000} \\
\text{less Depreciation (total)} & \quad \text{S\,250,000} \\
\text{equals Value of the Building} & \quad \text{S\,8,250,000} \\
\text{plus Land Value} & \quad \text{S\,229,000} \\
\text{Total Value by Cost Approach} & \quad \text{S\,8,229,000} \\
\text{Rounded to} & \quad \text{S\,8,230,000}
\end{align*}
\]
Effective Age/Economic Life Problem

Given: Subject property is 50,000 sf industrial building on 3.3 acres of land.

- Value of land: $90,000/acre
- Reproduction Cost New: $40/sf
- Age: 40 years

→ Effective Age: 16 years
→ Economic Life of Building: 55 years

Reproduction Cost New \((840 \times 50000) = 2,000,000\)

Less: Accumulated Depreciation \((0.95 \times 27\%) = 580,000\)

\(V_B\) Depreciated Value of Improvements = \(1,420,000\)

Plus: Land Value \((3.3 \text{ acres} \times 90,000) = 297,000\)

Value by Cost Approach = $1,717,000

Rounded to $1,720,000