Unit II
Asset Value Assessment

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Unit Objectives

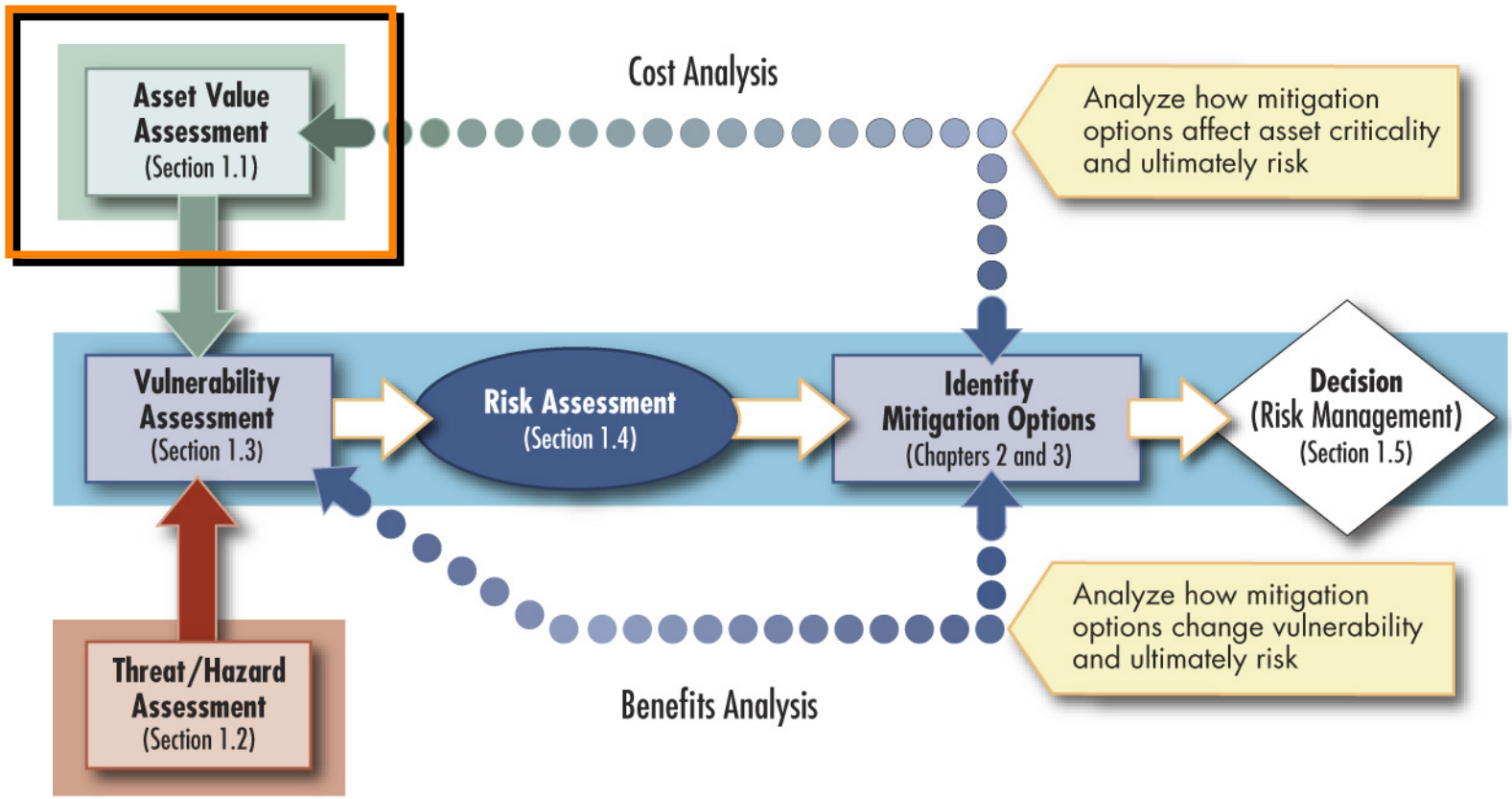
Identify the assets of a building or site that can be affected by a threat or hazard.

Explain the components used to determine the value of an asset.

Determine the critical assets of a building or site.

Provide a numerical rating for the asset and justify the basis for the rating.

Assessment Flow Chart



FEMA 426, Figure 1-3: The Assessment Process Model, p. 1-5

Definition of Risk

Risk is a combination of:

- The probability that an event will occur, and
- The consequences of its occurrence

	Low Risk	Medium Risk	High Risk
Risk Factors Total	1-60	61-175	≥ 176

Risk = Asset Value x Threat Rating x Vulnerability Rating

Infrastructure	Function
Replacement/Repair	People
Loss of Use	

Asset - A resource of value requiring protection. An asset can be tangible, such as buildings, facilities, equipment, activities, operations, and information; or intangible, such as processes or a company's information and reputation.

FEMA 426, Table 1-19: Total Risk Color Code, p. 1-38

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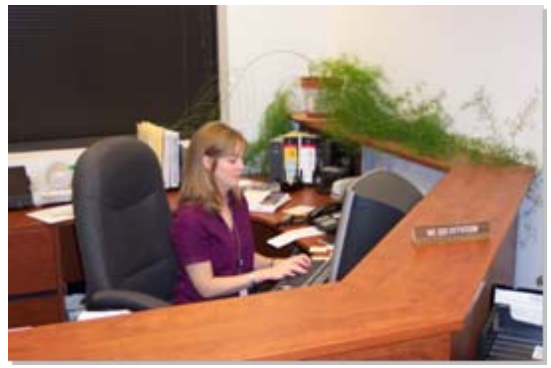
People and Asset Value

Asset Value - The degree of debilitating impact that would be caused by the incapacity or destruction of an asset.



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Identification of a Building's Assets

Two Step Process

Step 1: Define and understand a building's core functions and processes

Step 2: Identify site and building infrastructure and systems

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Asset Value

Core Functions

- Primary services or outputs
- Critical activities
- Identify customers
- Inputs from external organizations

Critical Infrastructure

- Injuries or deaths related to lifelines
- Effect on core functions
- Existence of backups
- Availability of replacements
- Critical support lifelines
- Critical or sensitive information

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Asset Value Rating

Asset Value		
Very High	10	Very High – Loss or damage of the building's assets would have exceptionally grave consequences, such as extensive loss of life, widespread severe injuries, or total loss of primary services core processes, and functions.
High	8-9	High – Loss or damage of the building's assets would have grave consequences, such as loss of life, severe injuries, loss primary services or major loss of core processes and functions for an extended period of time.
Medium High	7	Medium High – Loss or damage of the building's assets would have serious consequences, such as serious injuries or impairment of core processes and functions for an extended period of time.

Key elements

- Loss of assets and/or people would have grave, serious, moderate, or negligible consequences or impact

FEMA 426, Adaptation of Table 1-1: Asset Value Scale, p. 1-13

Asset Value Rating (continued)

Asset Value		
Medium	5-6	Medium – Loss or damage of the building's assets would have moderate to serious consequences, such as injuries or impairment of core functions and processes.
Medium Low	4	Medium Low – Loss or damage of the building's assets would have moderate consequences, such as minor injuries or minor impairment of core functions and processes
Low	2-3	Low – Loss or damage of the building's assets would have minor consequences or impact, such as a slight impact on core functions and processes for a short period of time.
Very Low	1	Very Low – Loss or damage of the building's assets would have negligible consequences or impact.

Key elements

- Loss of assets and/or people would have grave, serious, moderate, or negligible consequences or impact

FEMA 426, Adaptation of Table 1-1: Asset Value Scale, p. 1-13

Asset Value Notional Example

Asset	Value	Numeric Value
Site	Medium Low	4
Architectural	Medium	5
Structural Systems	High	8
Envelope Systems	Medium High	7
Utility Systems	Medium High	7
Mechanical Systems	Medium High	7
Plumbing and Gas Systems	Medium	5
Electrical Systems	Medium High	7
Fire Alarm Systems	High	9
IT/Communications Systems	High	8

FEMA 426, Table 1-2: Nominal Building Asset Value Assessment, p. 1-14

Critical Functions

Function	Cyber attack	Armed attack (single gunman)	Vehicle bomb	CBR attack
Administration				
Asset Value	**5**	**5**	**5**	**5**
Threat Rating				
Vulnerability Rating				
Engineering				
Asset Value	**8**	**8**	**8**	**8**
Threat Rating				
Vulnerability Rating				

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FEMA 426, Adaptation of Table 1-20: Site Functional Pre-Assessment Screening Matrix, p. 1-38

Critical Infrastructure

Infrastructure	Cyber attack	Armed attack (single gunman)	Vehicle bomb	CBR attack
Site				
Asset Value	**4**	**4**	**4**	**4**
Threat Rating				
Vulnerability Rating				
Structural Systems				
Asset Value	**8**	**8**	**8**	**8**
Threat Rating				
Vulnerability Rating				

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FEMA 426, Adaptation of Table 1-21: Site Infrastructure Systems Pre-Assessment Screening Matrix, p. 1-39

Summary

Identify a building's Critical Functions and Critical Infrastructure

Assign a value to a building's assets or resources

Input values into the Critical Functions and Critical Infrastructure Matrices

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Unit II Case Study Activity

Asset Value Ratings

Background

Asset value: degree of debilitating impact that would be caused by the incapacity or destruction of a building's assets

FEMA 426: Tables 1-1 and 1-2

Requirements

Refer to Case Study and answer worksheet questions:

- Identify Core Functions
- Identify Building Assets
- Quantify Asset Values

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