

*BUILDING DESIGN FOR HOMELAND SECURITY*

# Unit II

## Asset Value Assessment



**FEMA**

# Unit Objectives

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

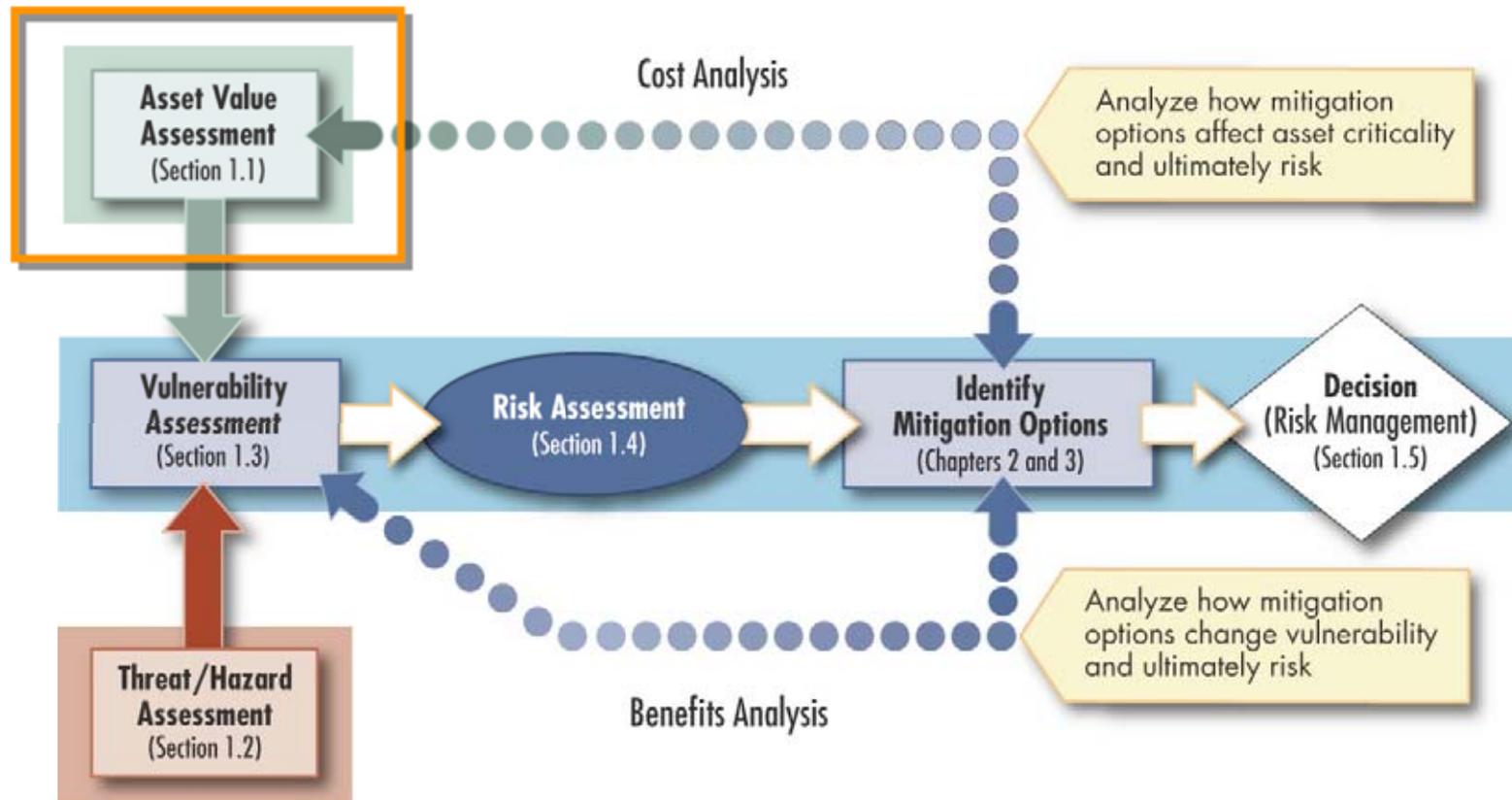
**Explain** the components used to determine the value of an asset.

**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

# People and Asset Value

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

**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.



# 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



# 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



**FEMA**

# Asset Value

Asset Value	
Very High	10
High	8-9
Medium High	7
Medium	5-6
Medium Low	4
Low	2-3
Very Low	1

Table 1-1: Asset Value Scale, page 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

Table 1-2: Nominal Building Asset Value Assessment, page 1-14



# Critical Functions

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



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

# Critical Infrastructure

Function	Cyber attack	Armed attack (single gunman)	Vehicle bomb	CBR attack
<b>Site</b>				
<b>Asset Value</b>	4	4	4	4
Threat Rating				
Vulnerability Rating				
<b>Structural Systems</b>				
<b>Asset Value</b>	8	8	8	8
Threat Rating				
Vulnerability Rating				



# Summary

**Identify** a building's Core Functions and Critical Infrastructure

**Assign** a value to a building's assets or resources

**Input** values into the Critical Site Functional and Critical Site Infrastructure System Matrices



# 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 HIC case study and answer worksheet questions:

- Identifying Building Core Functions
- Identifying Building Assets and Quantifying
- Asset Values



**FEMA**