

# Project Management

## Topic 5.8 Risk Management



# Risk Management

- Risk: the possibility that an uncertain event will occur that has a positive or negative effect on project objectives
- Risk management has four components:
  - Risk Identification
  - Risk Assessment
  - Risk Response Planning (Contingency Plan)
  - Risk Monitoring

# Identification & Assessment

## Risk Identification

- Determining risks to project objective
- Determining consequences of each risk if they occur
- Brainstorming is a common approach to identify risk

## Risk Assessment

- Determining the likelihood that the risk event will occur
- Determining the degree of impact the event will have on the project objective
- Risks can be prioritized based on the likelihood of occurrence and potential impact

# Risk Response Planning

1. Developing an **action plan** to reduce the impact or likelihood of each risk
2. Establishing a **trigger point** for when to implement action plans to address each risk
3. Assigning an **accountable individual** for implementing each response plan
4. Mitigating: **contingency plan** that would be implemented if the risk event occurs along with a trigger
  - Contingency or management reserves are included in the project prices and budgets to pay for the additional expenses of implementing contingency plans.

# Risk Strategies

Risk Strategy	Definition
<b>Avoidance</b>	Selecting a different course of action resulting in the risk disappearing or having no impact on the project.
<b>Acceptance</b>	Planning for the risk by building in additional time and cost factors comprehending the probability and impact of the risk
<b>Transference</b>	Shifting the risk to another party such as securing insurance against a possible loss or establishing a fixed cost contract with someone else to do the work associated with the risk.
<b>Mitigation</b>	Facing the risk and developing contingency plans which are triggered by a defined set of conditions to minimize impact on the project.
<b>Partnering</b>	Form of risk mitigation that involves sharing and collaborating on the risk to develop plans to minimize the impact on all participants.

# Risk Management Matrix

(See Figure 5.6 of MPM text, page 162)

Risk	Consequence	Probability (L, M, H)	Severity (L, M, H)	Action Trigger	Responsibility	Response Plan
Permit delayed	Delay constr.	M	H	Permit status slipping	PM	Reduce renovation time
Public Relations Problems	Delay constr & site approval	L	H	Negative local news/editorials	Marketing Specialist	Address negative opinions
Production equip Problems	Production delays	H	H	Machine does not meet spec	Manufacturing Engineer	Equipment run-off at source prior to shipment
Price increases on building matls	Exceed budget	H	M	10% incr. in bldg economic activity	Purchasing Manager	Early fixed price purchase of building materials

# 5.8.1 Team Exercise



## Risk Management Matrix

Learn by Doing Project Management  
Pages 155-156

# Risk Monitoring

- Regular review of the risk management matrix
- Determine changes in probability or impact of risks throughout the duration of the project
- Identify new risks and add to the risk matrix
- Project status review meeting agendas should include risk management
- Particular attention should be given to the trigger points to determine if any risk response plans need to be implemented