Assessing and Managing Risk in Capital Project Delivery

Effective Risk Management Planning

Bob Wicklein and Craig Parsons
Outline

• Introduction to Seneca Real Estate Group
• Identification of Risks
• Risk Categories
• Assessment and Priority
• Mitigation Actions - Examples
• Case Study
• Questions
About Seneca

The Seneca Real Estate Group, Inc. provides comprehensive real estate advisory and development management services to private and public sector clients through the Northwest.
Commercial Office

Bill & Melinda Gates Foundation Headquarters
Commercial Office

505 First Avenue – Starbucks
Commercial Office

Preston Gates & Ellis (KL Gates)

Washington Mutual Center

Christensen O’Connor
Civic

King County Courthouse
Civic

Seattle Central Library
Civic

Museum of Flight
Pedestrian Bridge

Personal Courage Wing & Lobby Expansion
Medical/Bio Science

Seattle Children’s Ambulatory Care Wing
Medical/ Bio Science

Seattle Children’s Janet Sinegal Patient Care Building
Medical/ Bio Science

University of Washington – School of Medicine (South Lake Union)
Education

St. Thomas School
Education

Seattle Country Day School
Identification of Risks

Risk Categories:
- Entitlement
- Property
- Design
- Construction
- Financial

Key Factors:
- Market expertise
- Process expertise
- Knowledge of Client
Risk Planning

• Risk = Probability x Impact
Risk Planning

Factors to Identify: Brainstorm!

• **Event:** What could happen?
• **Probability:** How likely is it to happen?
• **Impact:** How bad will it be if it happens? (High, Med, Low.... 1-10, etc.)
### Assessment and Priority

Evaluate and score each risk:

<table>
<thead>
<tr>
<th>#</th>
<th>Risks</th>
<th>Probability</th>
<th>Impact</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Scenario X</td>
<td>9</td>
<td>9</td>
<td>81</td>
</tr>
<tr>
<td>2</td>
<td>Scenario C</td>
<td>9</td>
<td>6</td>
<td>54</td>
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<tr>
<td>3</td>
<td>Scenario G</td>
<td>6</td>
<td>5</td>
<td>30</td>
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<tr>
<td>4</td>
<td>Scenario Z</td>
<td>5</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>5</td>
<td>Scenario P</td>
<td>2</td>
<td>1</td>
<td>2</td>
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</tbody>
</table>
Risk Planning

Develop Strategy:

• **Mitigation:** How can you reduce the Probability (and by how much)?
• **Contingency:** How can you reduce the Impact (and by how much)?
• **Assignment of Responsibility**
## Risk Mitigation

### Mitigation and Responsibility:

<table>
<thead>
<tr>
<th>#</th>
<th>Risks</th>
<th>Prob.</th>
<th>Impact</th>
<th>Score</th>
<th>Mitigation</th>
<th>Responsibility</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Scenario X</td>
<td>9</td>
<td>9</td>
<td>81</td>
<td>Provide design alternates for…...</td>
<td>Architect</td>
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<tr>
<td>2</td>
<td>Scenario C</td>
<td>9</td>
<td>6</td>
<td>54</td>
<td>Research the costs for alternate…...</td>
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<td>3</td>
<td>Scenario G</td>
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<td>5</td>
<td>30</td>
<td>Commit resources early…...</td>
<td>Permit expeditor</td>
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<tr>
<td>4</td>
<td>Scenario Z</td>
<td>5</td>
<td>3</td>
<td>15</td>
<td>Document scope…...</td>
<td>Architect / Owner</td>
</tr>
<tr>
<td>5</td>
<td>Scenario P</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>Get written agreement…...</td>
<td>Attorney</td>
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</tbody>
</table>
Mitigation Actions - Entitlement

• Planning and design review process:
  - Contract for planner services for duration of project
  - Pay premium for OT or add’l resources

• Neighborhood opposition
  - Appeals of decisions: Prevention through outreach - early and often - to community stakeholders

• Delays in obtaining required permits
  - Permit expeditor services
  - Split submittal packages into phases
Mitigation Actions - Design

• Scope Creep
  - Develop Client requirements (program) before start of design
  - Firmly establish budget
  - ‘Design-to-budget’ clause in contract

• Design Completeness
  - Consider pre-award of select subcontractors
  - Third party QA / plan review services
Mitigation Actions - Construction

• Labor work stoppage
  – Project Labor Agreements (PLA)

• Construction escalation/ resource availability
  – Encourage realistic contingencies
  – Pre-award and/ or early procurement
  – Maintain design alternates

• Shoring – Case study
Mitigation Actions - Financial

• Insolvency Risk
  - Pre-award and periodic audits of key players
  - Select performance bonding
  - Avoid proprietary systems where possible

• Financing Risk
  - Project viability may not be known until late in design / pricing process
  - Capital markets are frozen – even for great projects!
Case Study - 505 First Avenue

- **Client** – Starbucks
- **Located in** Pioneer Square - Seattle
- **Seven story office building** over four levels parking (280K SF Office + 15K SF Retail)
- **Completion in 2009**
505 First Avenue – Site Conditions

- Timber pile foundations
- Water table at depth of eight feet
- Land was reclaimed from Elliot Bay with 30 feet of wood debris from early sawmills and 1889 Seattle Fire
- Sandwiched between two historic buildings
- Directly adjacent to an on ramp to the Alaskan Way Viaduct – very settlement prone
505 First Avenue

- Cutter Soil Mixing (CSM) video
Inadvertent Historic Artifact
Questions

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Thank you for having us!