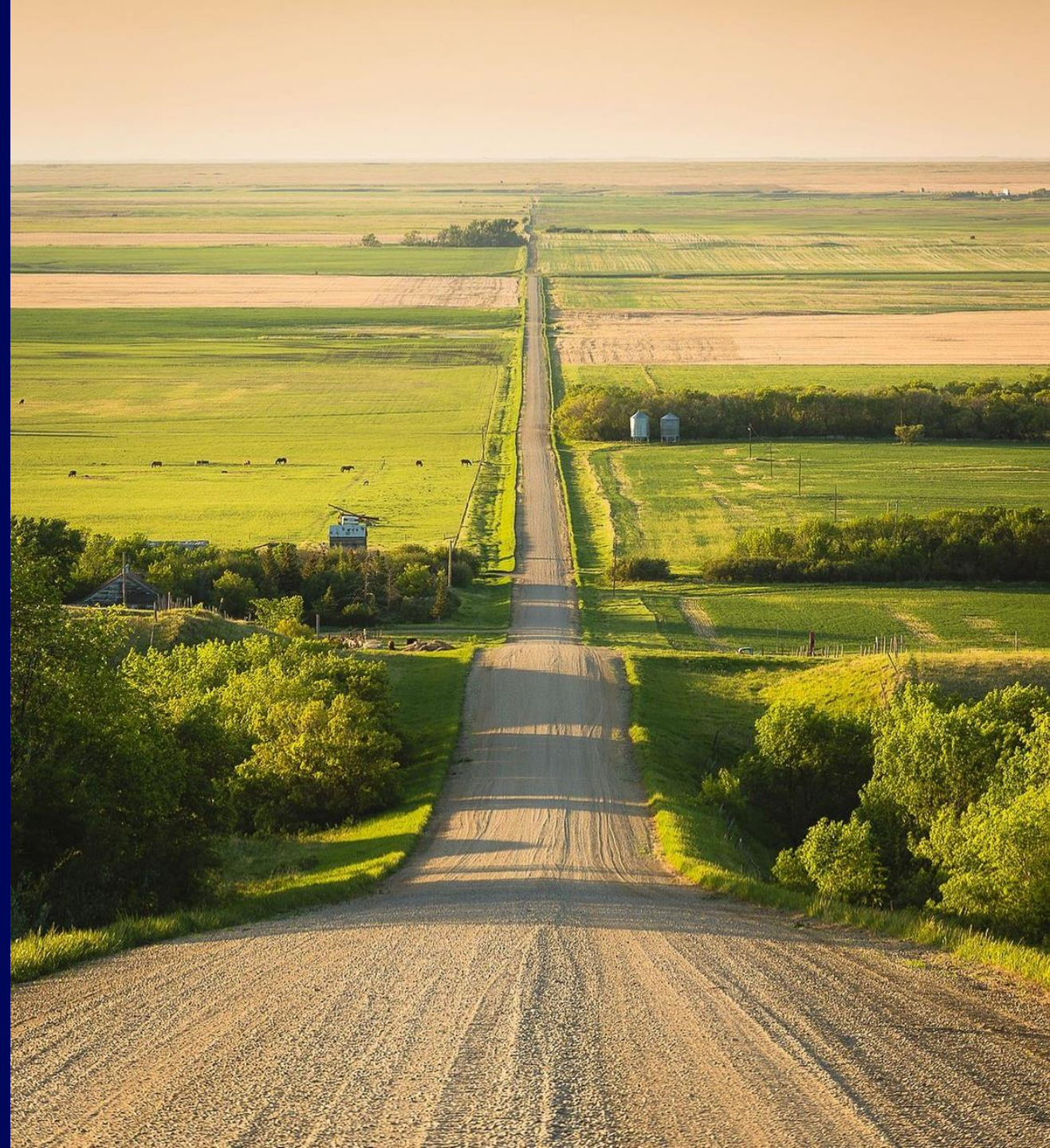# A Journey Through Project Management for Town Administrators: From Concept to Completion

A Workshop to better understand project management for municipal capital projects

Land Acknowledgement

Colliers Project Leaders has offices across Canada. We acknowledge that our work takes place within ancestral, traditional, treaty and unceded territories which continue to be home to many First Nations, Inuit and Métis people.

In Saskatchewan, we recognize the sacredness of the treaties, and deeply value our relationships with its sovereign First Nations. We are committed to knowing the truth of colonialism in Canada and doing our part towards reconciling past and ongoing wrongs.

Session Goal

Our goal is to help you gain a clear understanding of the project management process and how administration plays a crucial role in successfully leading municipal capital projects.

Scan the QR Code to share what you would like to get out of this session!
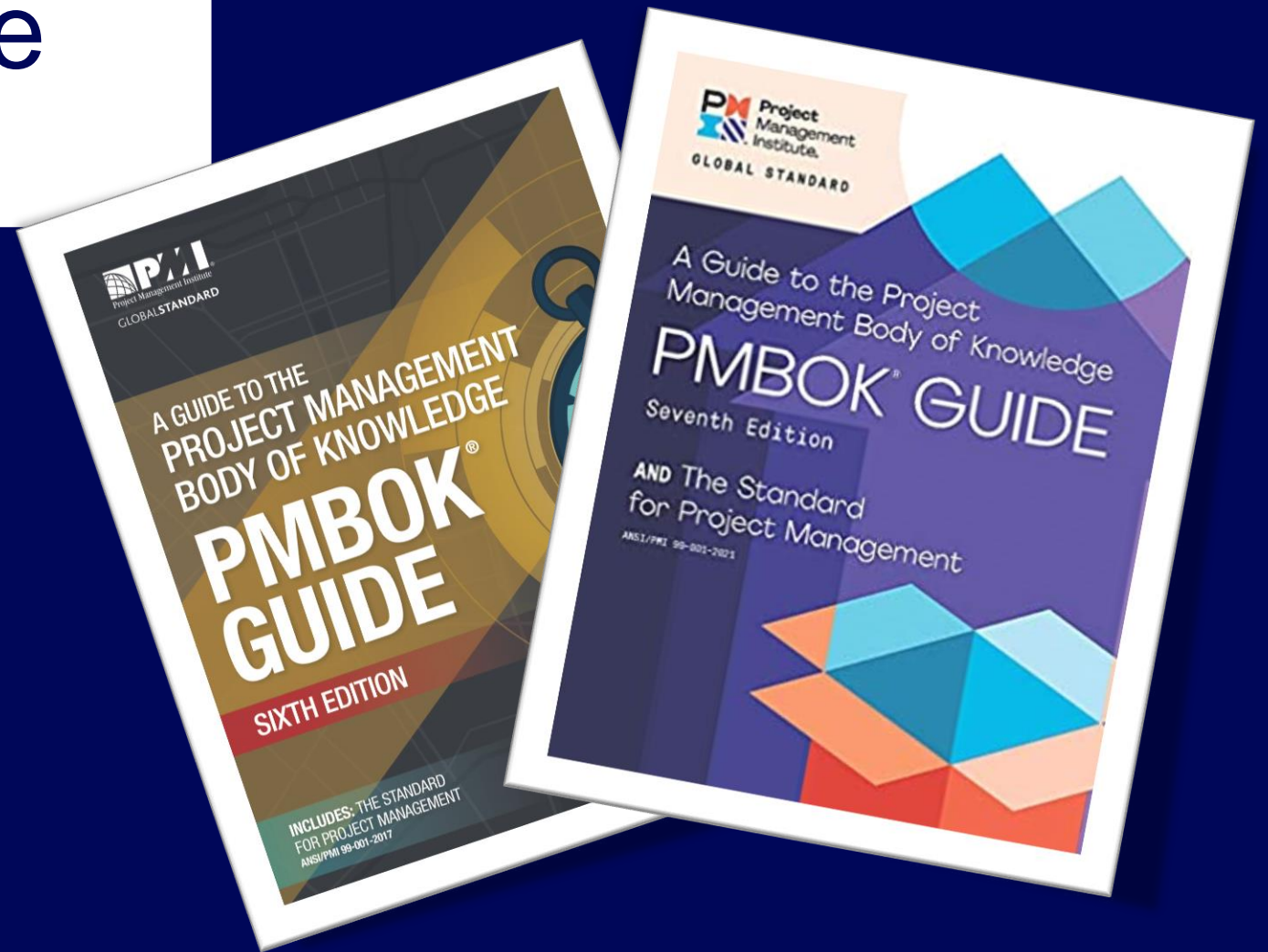
Agenda

Why Project Management Matters for Administrators

Project Management Body of Knowledge (PMBOK)

- Process-Based Approach

- 10 Key Knowledge Areas

- Focus on Best Practices

PRINCE2

- Tailored to the Project

- Defined Roles and Responsibilities

- Focus on Business Justification

- Product-Based Planning

PMBOK vs. PRINCE2

PMBOK

- Knowledge Based
- Process Groups
- Flexible Roles
- General Guidelines
- Output Oriented
- Customizable

PRINCE2

- Process Driven
- Defined Stages
- Defined Roles
- Governance Emphasis
- Business Case Justified
- Tailored to the Environment

Project Lifecycle for Municipal Projects

Scope, Budget,
Schedule, Risks

Tracking
Progress

| Initiation | Planning | Execution | Monitoring & Controlling | Closing |

Defining the
project and
goals

Managing
the Work

Finalizing
Deliverables

Step One

Initiation

Initiation
Defining the Project and Goals

- Project Purpose (why)

- Needs Assessment (what)

- Project Team and Stakeholders (who)

- Project Governance (how)

- Business Case (how/where/when)

- Project Charter (document)

Projects don't fail in the end…
They fail at the beginning.

Initiation

Why Are we Doing This?

- **Project Purpose**

- **Needs Assessment**

Administrator's Role

•Facilitate assessments of current infrastructure or services.

•Compare current assessment to expected performance.

•Identify and engage key stakeholders to gather opinions.

•Gather data, conduct surveys, and analyze community needs.
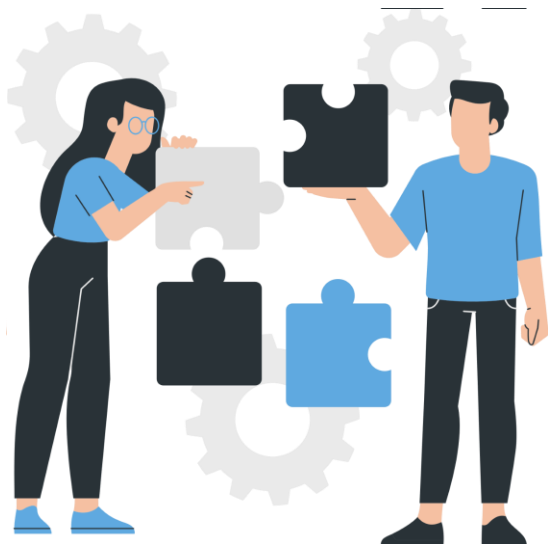
Initiation

Defining Project Scope

Set clear and well-defined boundaries to avoid scope creep

Communicate the scope clearly to avoid misunderstandings

Ensure clarity on deliverables and traceability to the project's purpose
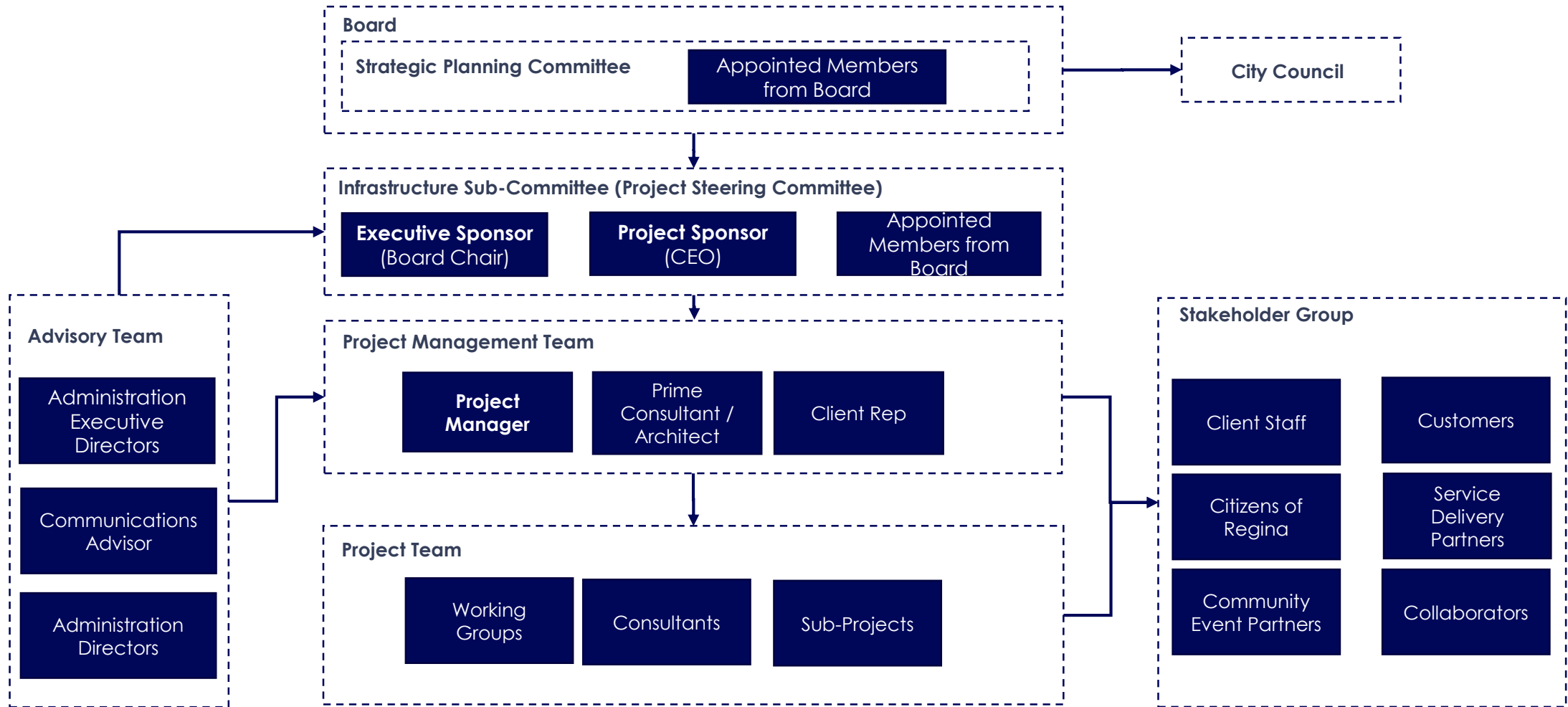
Initiation

When and How to Involve Stakeholders

- **Intention**

- **Timing**

- **Methods**

- **Regular Updates**

Project Governance

Board

Strategic Planning Committee | Appointed Members from Board

City Council

Infrastructure Sub-Committee (Project Steering Committee)

| Executive Sponsor (Board Chair) | Project Sponsor (CEO) | Appointed Members from Board |

Advisory Team

- Administration Executive Directors
- Communications Advisor
- Administration Directors

Project Management Team

| Project Manager | Prime Consultant / Architect | Client Rep |

Project Team

| Working Groups | Consultants | Sub-Projects |

Stakeholder Group

Client Staff	Customers
Citizens of Regina	Service Delivery Partners
Community Event Partners	Collaborators

Project Governance – Project Change Management

Board	
Strategic Planning Committee	
Infrastructure Sub-Committee	
Steering Committee	
Project Management Team	
Consultant / Contractor / Supplier	

Approval

Public Approval Required?

Yes

No

Approval

Support

No

Within ToR?

Yes

Approval

Change Identified

Impact Statement and Recommendation

Contract Admin / Control Doc Updates

Impact Statement: Scope, Schedule, Budget

Proceed w/ Work

Business Case

- Defines Project Purpose & Rationale

- Outlines Expected Benefits & Outcomes

- Justifies Resources & Investment

- Assesses Risks, Opportunities, & Constraints
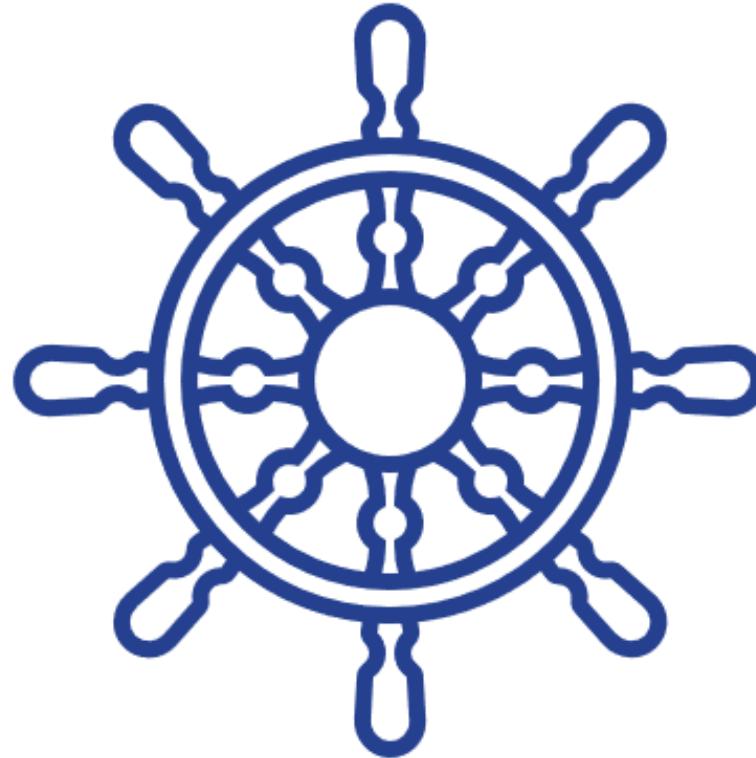
- Secures Approval to Proceed

Project Plan / Charter

Defines Project Scope

Establishes Objectives

Authorizes the Project

Outlines Success Criteria

Identifies Stakeholders

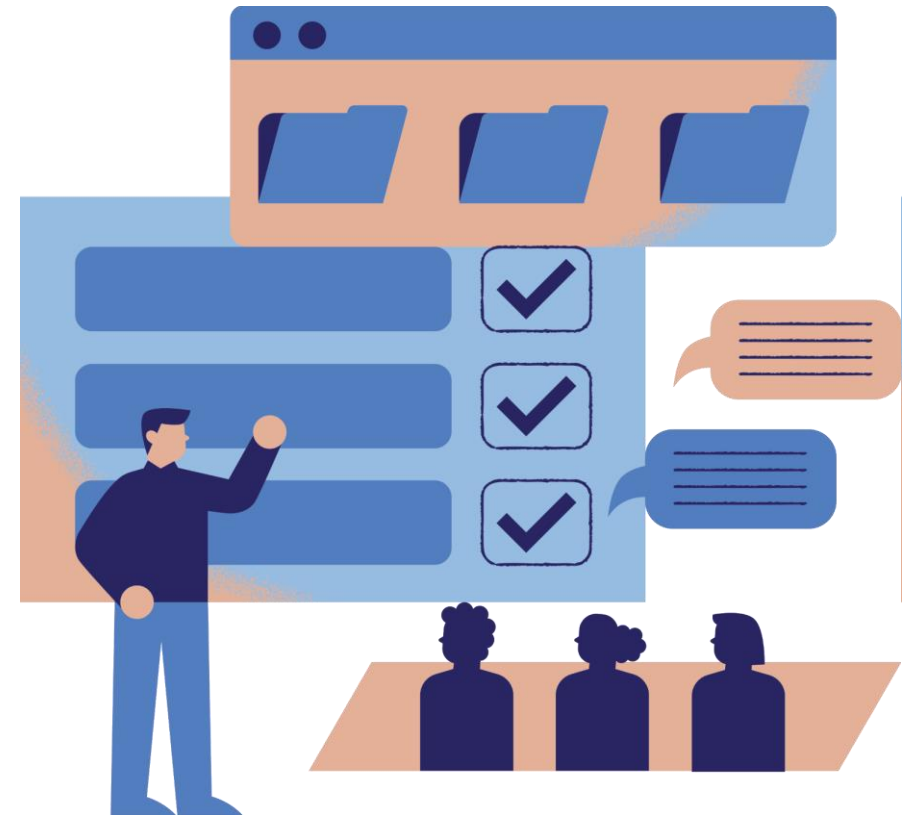# Planning

Planning

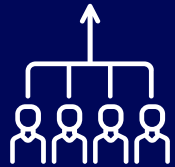# Building a Realistic Project Plan

Laying the Foundation For Success

" *Administrator's role is to determine the processes, systems and tools used for establishing and maintaining the project's scope, schedule, budget, and quality*

Planning - Setting the Foundation for Success

***What* do I need, *when*, *how* much will it cost, and *who* will manage risk?**

Resources
What people (roles) and materials are needed?

Procurement
How do I hire or acquire them?

Cost
How to a create a budget and control?

Schedule
When do I need them and what sequence?
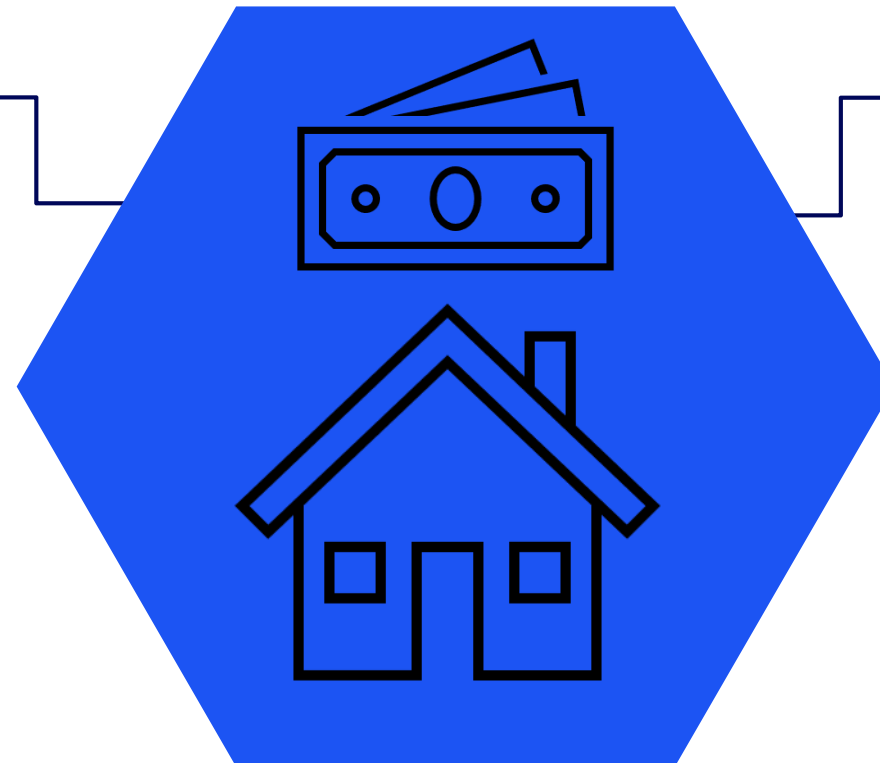
Planning

Identifying Resources

Make-or-Buy Analysis

Should we do it…
or should we get help?

Make (in house)

Consideration may inlcude:

- Do you have *capacity* and *capability*?
- Production costs
- Monitoring costs
- Storage?
- Waste Production?

Buy (outsourcing)

Consideration may inlcude:

- Purchase prices
- Cost of procurement (T&M)
- Political factors

Planning

Procurement

Acquiring Resources for Your Project

Control Procurements

Manage relationships; monitor performance; ensure compliance to the procurement docs

Conduct Procurements

Solicitation; evaluation; notification; and contract award

Plan Procurement

Identify associated laws and protocols,; document method; identify vendors
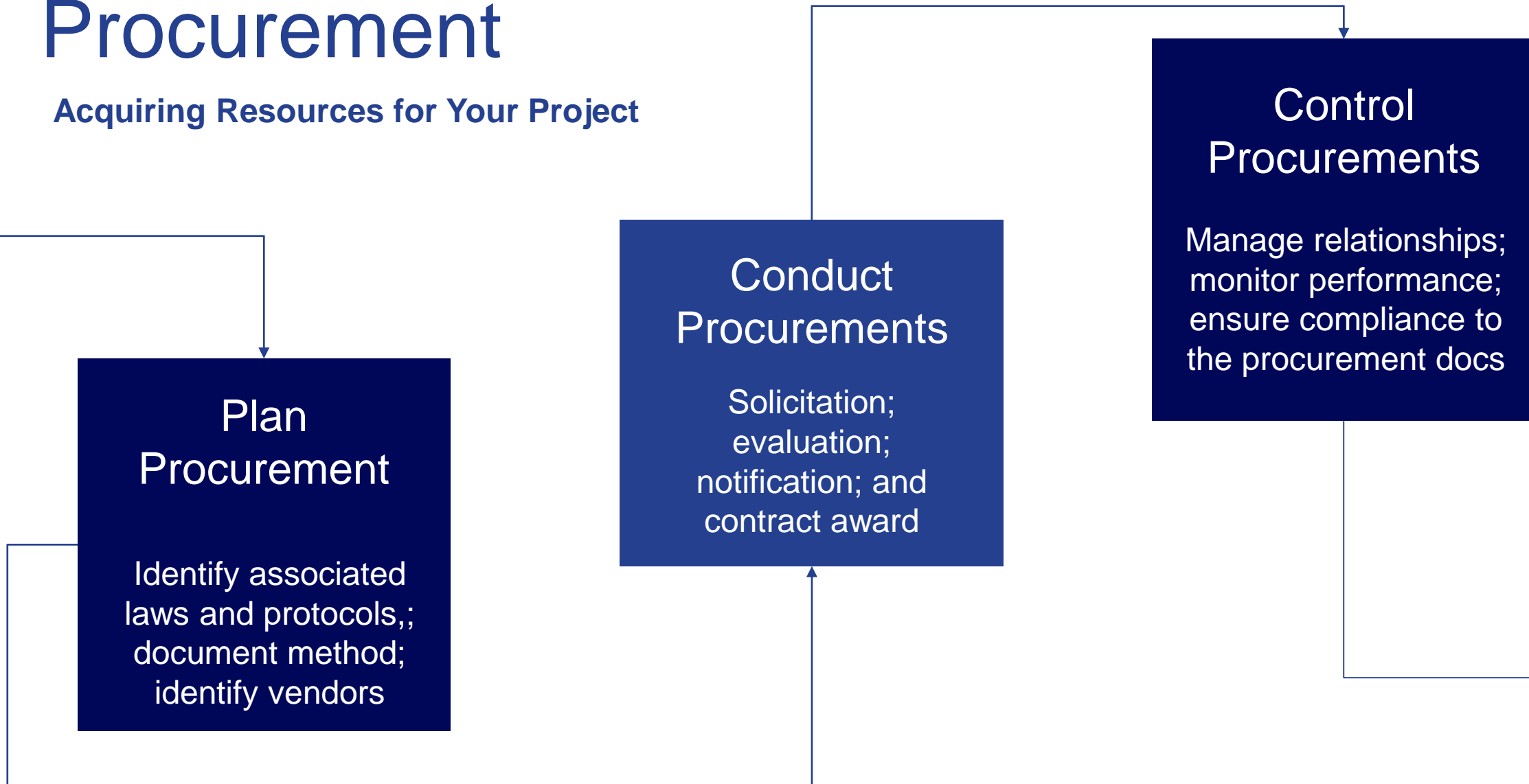
Planning

Budgeting for Success

Managing Costs and Keeping Control

Why do I need a budget?

- Set expectations
- Baseline for measuring
- Validation
- Secure funding
- Most importantly, ensuring good stewardship of Public Funds

Planning

Setting Schedules for Success

Keep Projects on Track with Smart Scheduling

#	Task Name	Duration	Start	End
1	Construction of a House	20 days?	2/13/2014	3/12/2014
2	⊟ 1. Internal	18 days	2/13/2014	3/10/2014
3	⊟ 1.1 Electrical	12 days	2/13/2014	2/28/2014
4	1.1.1 Rough-in electrical	4 days	2/13/2014	2/18/2014
5	1.1.2 Install and terminate	3 days	2/19/2014	2/24/2014
6	1.1.3 HVAC equipment	5 days	2/24/2014	2/28/2014
7	⊟ 1.2 Plumbing	18 days	2/13/2014	3/10/2014
8	1.2.1 Rough-in plumbing	3 days	2/13/2014	2/18/2014
9	1.2.2 Set plumbing fixtur…	4 days	3/3/2014	3/6/2014
10	1.2.3 Test and clean	2 days	3/7/2014	3/10/2014
11	⊟ 2. Foundation	10 days	2/13/2014	2/26/2014
12	⊟ 2.1 Excavate	6 days	2/13/2014	2/20/2014
13	2.1.1 Pour Concrete	3 days	2/13/2014	2/17/2014
14	2.1.2 Cure & Strip Forms	3 days	2/18/2014	2/20/2014
15	⊟ 2.2 Steel Erection	10 days	2/13/2014	2/26/2014
16	2.2.1 Steel Columns	2 days	2/21/2014	2/24/2014
17	2.2.2 Beams	4 days	2/21/2014	2/26/2014

- Establishing an Approved Baseline

- Tracking & Monitoring Progress

- Adjusting for Delays

- Setting Realistic Deadlines

Risk Management and Contingency Planning

Planning

Risk Management & Contingency Planning

Anticipating and Preparing for Potential Risks <u>BEFORE</u> they happen

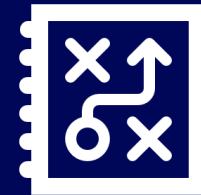**Identifying Risks Early**

Assessing Risks

Developing Contingency Plans

Managing When Things go Wrong

Risk Management & Contingency Planning

Spotting Risks Before They Become a Problem

- Identifying Risks in Municipal Projects

- Assessing Risk Severity

- Risk Mitigation Strategies

Risk Management & Contingency Planning

Risk Identification

Identification		
Risk	**Identified Risk Description**	**Impact Description**
Project Risks		
Hardwood Floor Price Increases	Price of hardwood flooring increases due to supplier and installer shortages.	Local suppliers are worried this could result in a 25% increase to costs. If we assumed $15/ft2 this will be an additional $3.75/ft2. Therefore: **Budget**: $3.75 x 2,500ft2 = **$9,375**
Power Line Cut	Underground power lines may be hit when excavating	Our lot is in a 'brownfield' area and undergrounds are not clearly defined. We've heard power is in the area but not sure where.

Risk Management & Contingency Planning

Risk Management

Identification			Response Planning	
Risk	**Identified Risk Description**	**Impact Description**	**Risk Management Strategy**	**Response**
Project Risks				
Hardwood Floor Price Increases	Price of hardwood flooring increases due to supplier and installer shortages.	Local suppliers are worried this could result in a 25% increase to costs. If we assumed $15/ft2 this will be an additional $3.75/ft2. Therefore: **Budget**: $3.75 x 2,500ft2 = **$9,375**	Accept	We will accept the risk and carry contingency costs associated with the increase - we really want this hardwood!
Power Line Cut	Underground power lines may be hit when excavating	Our lot is in a 'brownfield' area and undergrounds are not clearly defined. We've heard power is in the area but not sure where.	Avoid	We will invest in a proper investigation to review areas and consider 'daylighting' areas of concern

Risk Management & Contingency Planning

Monetizing the Risk

Identification			Response Planning		Residual Risk Analysis		
Risk	Identified Risk Description	Impact Description	Risk Management Strategy	Response	Probability	Task Cost ($)	Estimated Impact on Cost ($)
Project Risks							
Hardwood Floor Price Increases	Price of hardwood flooring increases due to supplier and installer shortages.	Local suppliers are worried this could result in a 25% increase to costs. If we assumed $15/ft2 this will be an additional $3.75/ft2. Therefore: **Budget**: $3.75 x 2,500ft2 = **$9,375**	Accept	We will accept the risk and carry contingency costs associated with the increase - we really want this hardwood!	Moderate	9,375	4,688
Power Line Cut	Underground power lines may be hit when excavating	Our lot is in a 'brownfield' area and undergrounds are not clearly defined. We've heard power is in the area but not sure where.	Avoid	We will invest in a proper investigation to review areas and consider 'daylighting' areas of concern	Low	30,000	6,000
						$	10,688

This number informs your budget "Risk Contingency"

Risk Management & Contingency Planning

Preparing for the Unexpected

The Importance of Backup Plans

Contingency Plans:

Developing 'Plan B' scenarios for key project phases.

Creating a Contingency Fund:

Allocating extra budget to handle unexpected costs.

When to Use the Contingency Plan and Funds:

Knowing when to pivot and activate the backup plan without derailing the project.

Risk Management & Contingency Planning

Preparing for the Unexpected

Types of Contingencies

Design Contingency

- Covers the costs of design components that _have not_ been defined and should be set at the level of confidence for the estimate. Earlier in the design process, this is typically higher (e.g., 25-15%), but as unknowns become knowns and greater design certainty is determined, this percentage should decrease (e.g., 10-5%).

Consultant Contingency

- Typically, 5-10% of the total consulting fees to cover the consulting costs for changes throughout the project lifecycle (i.e. additional specific skills, geotechnical).

Risk Management & Contingency Planning

Preparing for the Unexpected

Types of Contingencies

Escalation Contingency

- ***Typically,*** about 2-4% of the project cost annually to cover the cost of inflation between the date of the estimate and the date the work is executed or material/product acquired. You may carry escalation separately for different components for different periods, such as construction and furniture. You must confirm the appropriate rate for current market expectations and carry the escalation for the appropriate period before procurement.
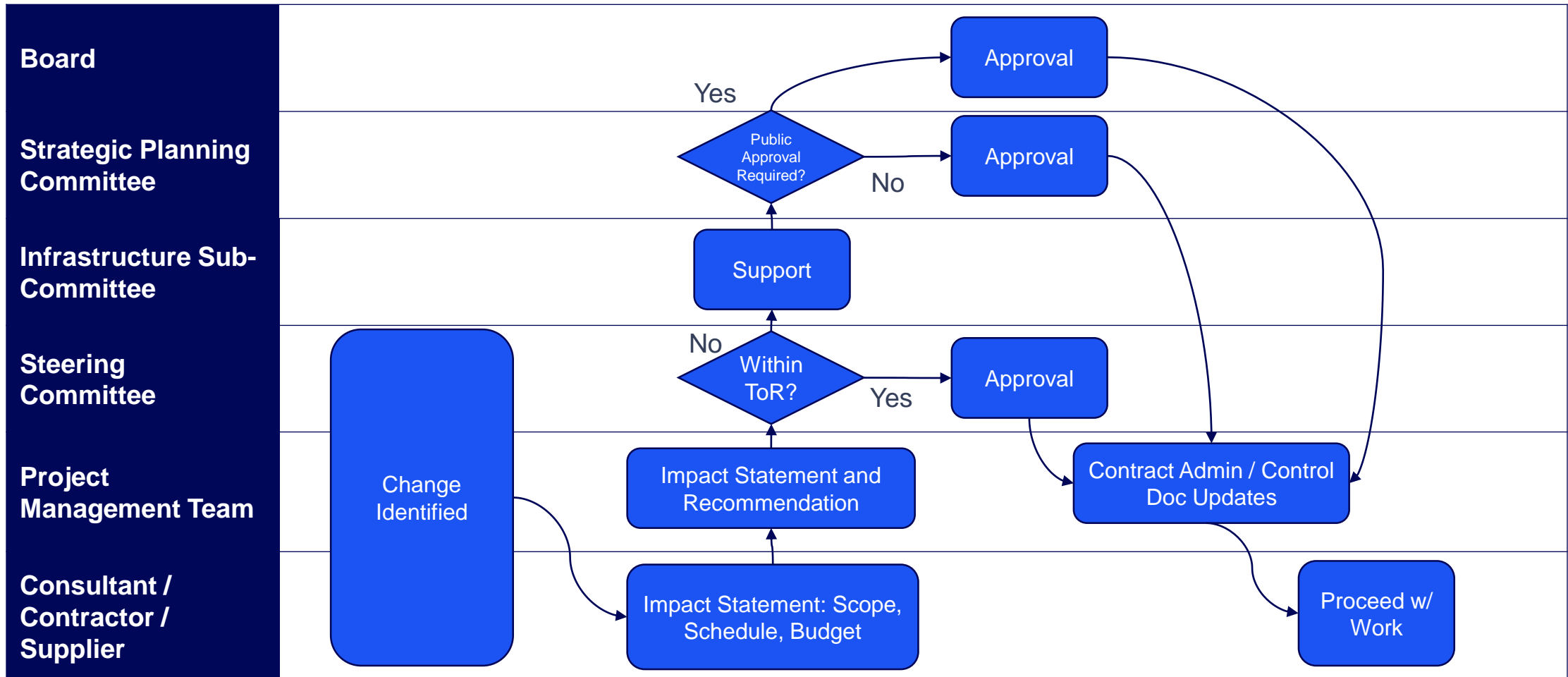
Construction Contingency

- Typically, about 10% of the construction cost on new construction to cover unknown site conditions, drawing errors and omissions and unforeseen changes identified during construction. For complex renovation projects, the contingency amount should be higher, such as 15-20% of the construction cost, depending on the nature of the project.

When Changes Need to be Made

Change Management Process

Swimlane diagram. Rows (left to right labels): Board, Strategic Planning Committee, Infrastructure Sub-Committee, Steering Committee, Project Management Team, Consultant / Contractor / Supplier.

Flow: Change Identified → Impact Statement: Scope, Schedule, Budget → Impact Statement and Recommendation → Within ToR?
- No → Support → Public Approval Required?
  - Yes → Approval (Board) → Contract Admin / Control Doc Updates
  - No → Approval (Strategic Planning Committee) → Contract Admin / Control Doc Updates
- Yes → Approval (Steering Committee) → Contract Admin / Control Doc Updates → Proceed w/ Work

Monitoring & Controlling
Managing Changes During Execution

Approaching Change Requests

Documenting Change Requests: Keeping a formal process for submitting and approving change requests.

Impact Analysis: Assessing how changes affect the overall project—timeline, budget, and scope.

Informed Decision-Making: Involving key stakeholders in approving changes to maintain alignment

Change Orders: Understanding when and how to handle changes to the project's scope, budget, or timeline.

Communicating Changes: Ensuring all stakeholders are informed and agree on the changes.

Staying in Control: Approving changes in a structured, documented manner to prevent scope creep or budget overruns

Monitoring and Controlling

Monitoring & Controlling

Keeping Your Project on Track

- **Expectations of Project Team**

- **Risk Management**

- **Managing Change Requests**

- **Performance Management**

Monitoring & Controlling

Problem Solving Before It's Too Late

Risk Management

Early Awareness Through Issue Triggers: Identifying issues through trigger warnings established in the Risk Management process.

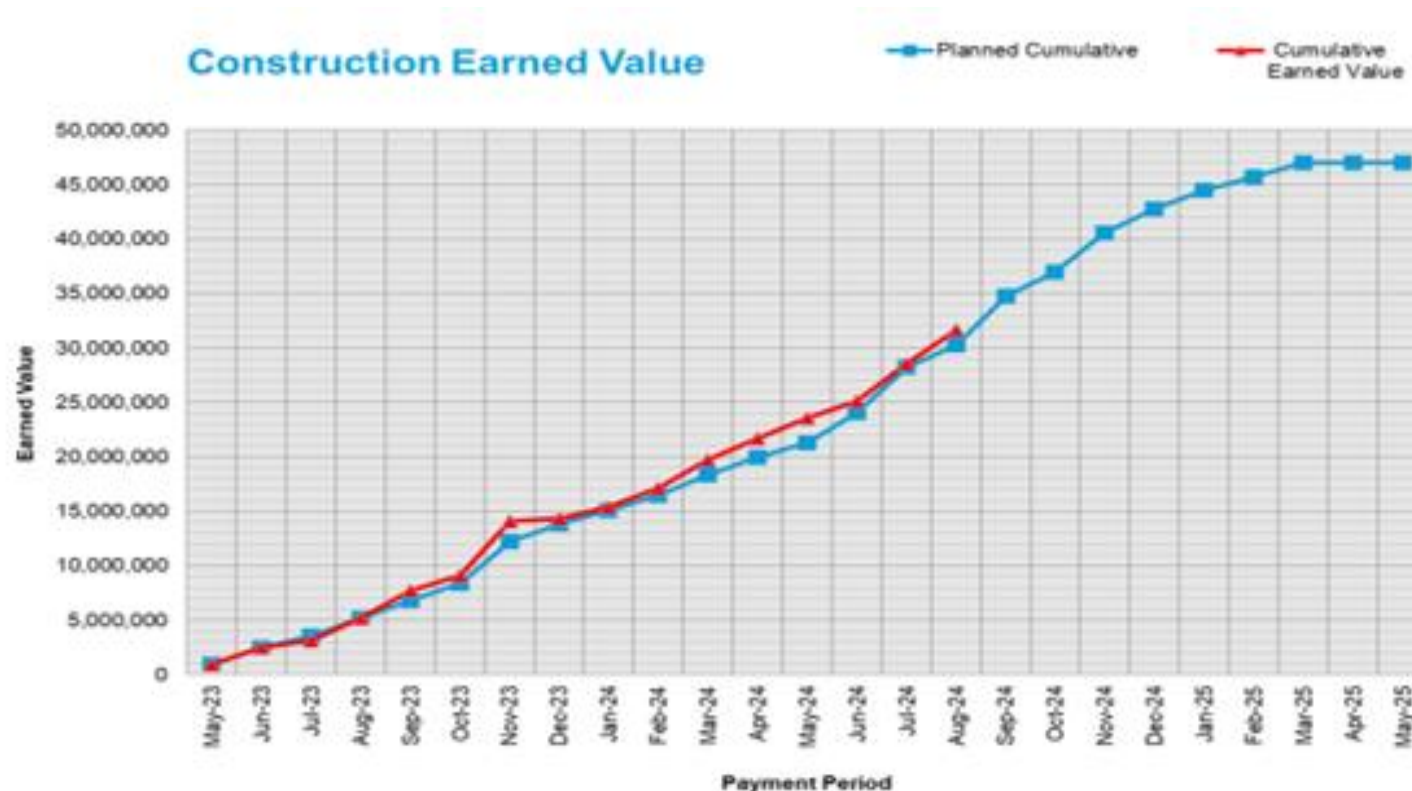**Escalating Problems When Needed**: Knowing when and how to involve higher-level decision-makers.

Problem-Solving Tips: Tips for resolving common issues like contractor delays or communication breakdowns.
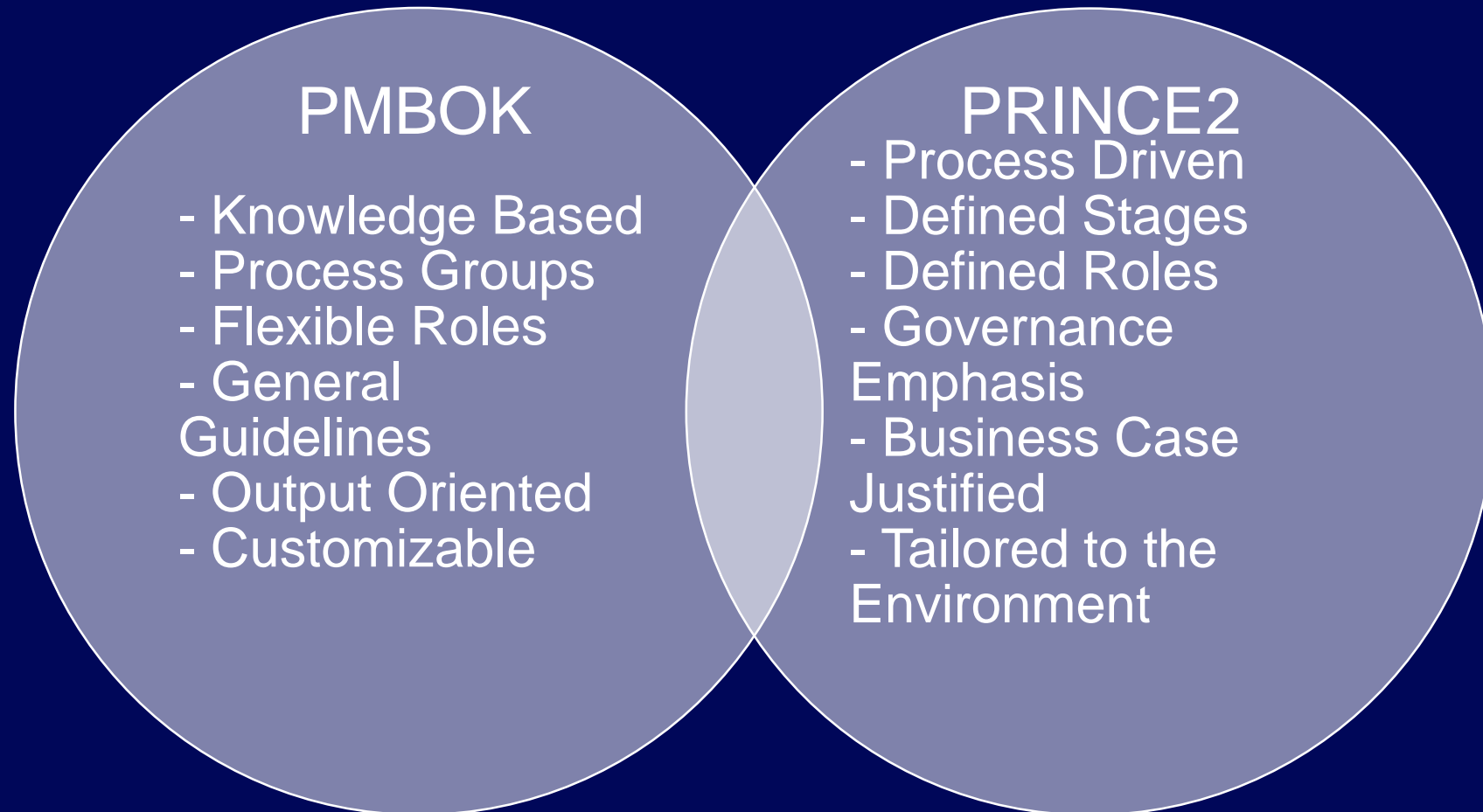
Monitoring & Controlling
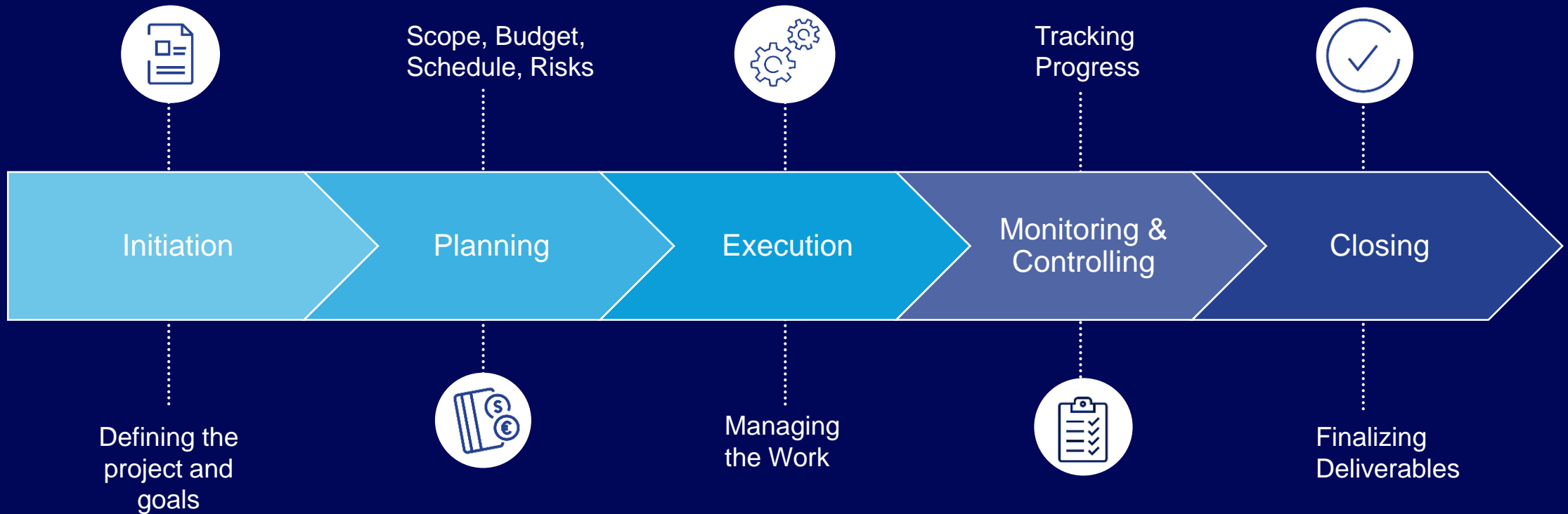
Earned Value Management

Planned and Earned Value vs Time (EVM)

Content Recap

PMBOK vs. PRINCE2

PMBOK

- Knowledge Based
- Process Groups
- Flexible Roles
- General Guidelines
- Output Oriented
- Customizable

PRINCE2

- Process Driven
- Defined Stages
- Defined Roles
- Governance Emphasis
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Project Lifecycle for Municipal Projects

Scope, Budget, Schedule, Risks

Tracking Progress

| Initiation | Planning | Execution | Monitoring & Controlling | Closing |

Defining the project and goals

Managing the Work

Finalizing Deliverables

Initiation

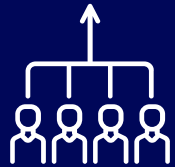## Defining the Project and Goals

- Project Purpose (why)

- Needs Assessment (what)

- Project Team and Stakeholders (who)

- Project Governance (how)

- Business Case (how/where/when)

- Project Charter (document)

Projects don't fail in the end…

They fail at the beginning.

Planning - Setting the Foundation for Success

What do I need, when, how much will it cost, and who will manage risk?

Resources
What people (roles) and materials are needed?

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Schedule
When do I need them and what sequence?

Planning

Risk Management & Contingency Planning

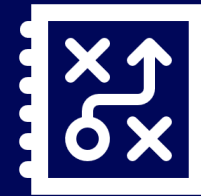*Anticipating and Preparing for Potential Risks <u>BEFORE</u> they happen*

Identifying Risks Early

Assessing Risks

Developing Contingency Plans

Managing When Things go Wrong

Monitoring & Controlling

Keeping Your Project on Track

- **Expectations of Consultants**

- **Proactive Issue Management**

- **Managing Change Requests**

Group Activity: Developing a Municipal Project Charter

Instructions:

1.Choose a Project:
- Select a project that your group would like to plan.

2.Create a Basic Project Charter:
- **Scope**: Define the project's goals, deliverables, and boundaries.
- **Budget**: Estimate the overall cost and consider funding sources.
- **Key Risks**: Identify potential risks
- **Timeline**: Break down the project into phases with specific deadlines and milestones.

3.Identify Third-Party PM Support Needs:
- Consider which parts of your project might require external project management support.
- Discuss **why** you might need a third-party PM

Group Activity: Developing a Municipal Project Plan

Project Ideas

- Recreation Center Upgrades

- Recreation Center (Arena, Ice Rink, Curling Rink, etc,.)

- Water Treatment Plant

- Fire Hall

- Road Infrastructure Upgrades

- Landfill Decommissioning or Upgrade

Questions?

Recognizing When to Engage a PM Professional

Signs You Need a PM Professional

- **Scope Complexity/Size:** when this is beyond the understanding or expertise of the organization (e.g., large infrastructure projects, multi-stakeholder involvement).
- **Complexity in Contract Management**: When legal, technical, or regulatory complexities arise (e.g., complicated procurement or compliance issues).
- **Complex Stakeholder and Resource Management**: When the project involves multiple contractors, government agencies, or significant financial oversight.
- **Organizational Capacity is Restricted:** When appropriate organizational resources are not available to dedicate sufficient time and effort to managing the project (e.g., avoid "project management off the side of the desk").

How Colliers Project Leaders Can Help

The foundation of our service is the strength and depth of our specialists.

- Schools
- Healthcare
- Multi-use Recreation Facilities
- Roads
- Rail
- Water Infrastructure
- Multi-Family Residential
- Office

Contact us

Let's stay in touch

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Colliers Project Leaders

colliersprojectleaders.com

Thank you