

Project Management

The Essentials of a Successful Project

The logo for Pickering Associates is a white oval sign with a grey border. On the left side of the oval, there are three horizontal grey bars of varying lengths, resembling a stylized 'P' or a winged emblem. The text 'PICKERING ASSOCIATES' is written in a dark red, serif font across the center of the oval.

**PICKERING
ASSOCIATES**

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Introductions:

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- Project Management Professional #1572523
- Electrical Engineer – Fairmont State Univ.
- MS Engineering Management – Marshall Univ.
- Pickering Associates - 11 years

Presentation Objective:

- To provide expectations of project delivery for your projects in the Water and Waste Water world.
- Understand how to achieve success on Water and Waste Water Projects.



Presentation Agenda

- What is a Successful Project?
- Ready or Not...
- Creating the Baseline
- Communication and Pitfalls
- Cultivating Teamwork
- Meetings – Useful or Social?
- It's in the Details...
- Running the Marathon
- Case Study – City of Marietta
- Questions

What is a Successful Project?

Project Success Metrics:

- Scope
- Schedule
- Cost
- Quality
- Perspective!

Measuring the culture of a project



Judging Success

What made your project a success?

- Communication
- Planning
- Execution
- A little bit of everything?

Success goes beyond
measurables...what was your
culture?

Start to Succeed

- We established what will make our project a success.
- So where do you go from here, where do we start?
- As with anything, let's start from the beginning.
- ...but, where is that exactly.



Ready or Not....

What is the leading cause of capital project cost and schedule overruns?

Poor Scope Definition

How can we fix that?

Project Definition Rating Index or PDRI

When properly used to achieve a good project definition score, PDRI provides up to

- **25%** Cost Reduction
- **17%** Schedule Improvement

What is Project Definition Rating Index (PDRI)?

- Comprehensive methodology with a numerical rating to measure the level of project definition. This checklist is developed from real-world data on the most critical elements for project success. A team's assessment that can be implemented quickly (2-4 hours) and it can identify the most critical project items that need improvement. Uses an objective management metric to determine when a project is ready for project funding, detailed design, and construction

Basis of Project Decision

A. Project Alignment

B. Project Performance Requirements

Basis of Design

C. Design Guidance

D. Process/ Product Design Basis

E. Electrical & Instrumentation Systems

F. General Facility Requirements

Execution Approach

G. Execution Requirements

H. Engineering/ Construction Plan & Approach

What's in the Checklist ?

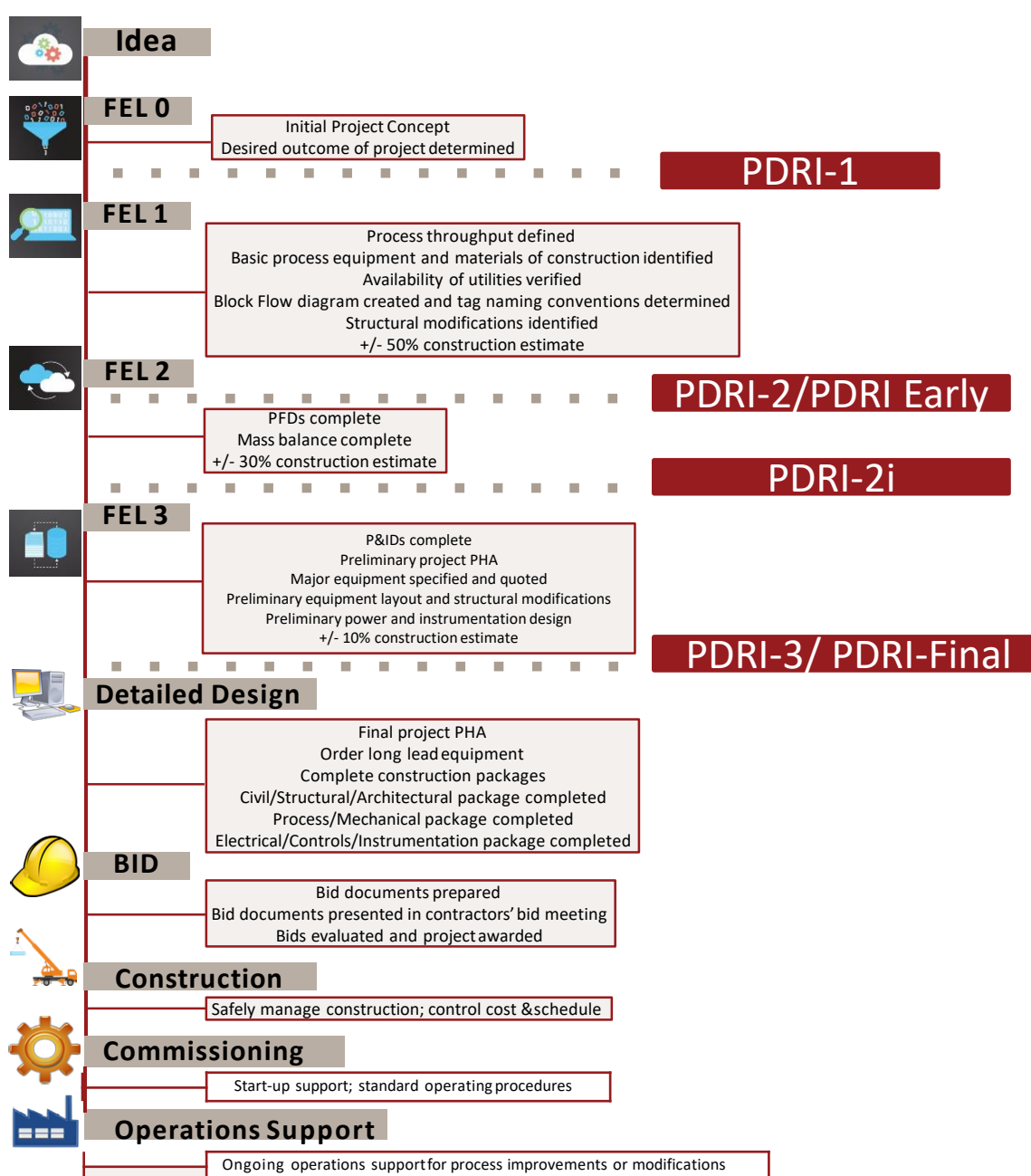
Small Industrial (the example above) has Sections (3) Categories (8) Elements (41)

Depending on the project type and/or industry, there are specific templates tailored to the situation:

- Infrastructure
- Water and Waste Water
- Small Infrastructure
- Buildings
- Manufacturing & Life Sciences
- Industrial
- Small Industrial

Pickering Associates' PDRI input and Project Life Cycle

Scope
Definition
Phase





Creating the Baseline

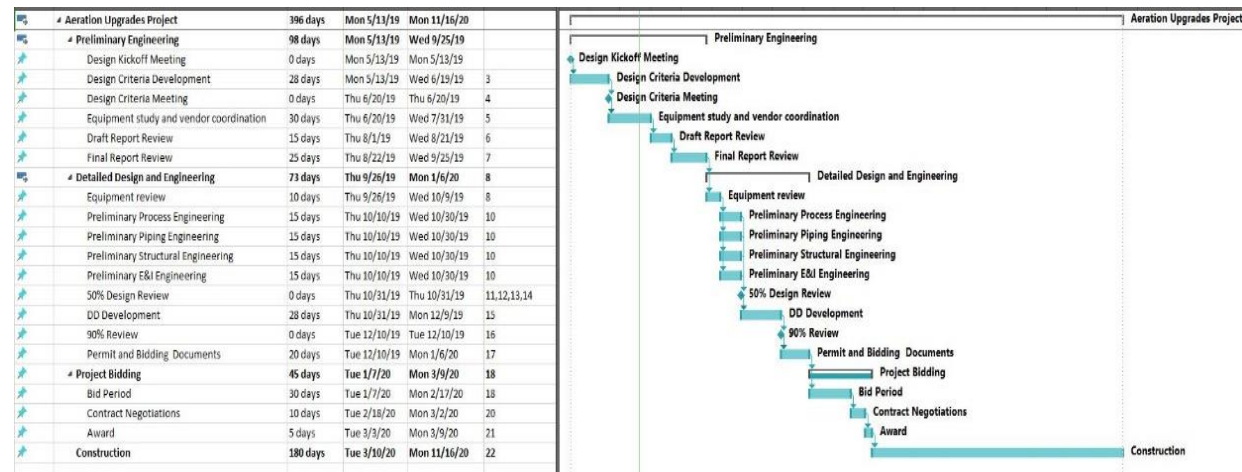
What is a baseline?

- Baseline scope
- Baseline schedule
- Baseline budget
- Quality and Risks
- Safety

Maintenance of the baseline

- Updates to the baseline and how it benefits the team

Creating the Baseline



Updating a baseline and the benefits

Why keep updates:

- Change control
- Risk evaluation
- Seeing into the future
- Measuring success
- Future uses



Communication and Pitfalls

- Like real estate purchase, kind of.
 - Communication, Communication, Communication.
- ...To Become Like One!
- Challenges in this industry
- Communication ties into the success of every project, and failure





Culture of Communication

- How to create this culture, it's the simple things...
 - Agendas, minutes, reports, status meetings, etc.
- Culture extends far beyond this:
 - Uncomfortable discussions
 - Listening and understanding
 - Be proactive
 - No Surprises!



Go the Extra Mile

- Establish a foundation of communication
- Keys of communication on any project:
 - Who do I communicate with?
 - When do I communicate?
 - What do I communicate?
 - How do I communicate?
- Constantly and consistently.

Cultivating Teamwork

- What does this mean in a project setting?
- How is it important and beneficial to my project?
- The foundation is communication!
- Teamwork forms what is beneath the surface.



TEAMwork!

- Simple, yet challenging concept.
 - Political agendas, career stages, company health, etc. all affect the TEAM.
- Back to athletics
 - If all jobs are done for the TEAM, it is a win/win
- How can it go wrong?
- Row the boat???

Meetings – Useful or Social?

- Everyone is **BUSY!!!**
 - Make meetings productive
 - But how?
 - Do we need a meeting?
 - Have an agenda
 - Publish it ahead of time
 - List the meeting objective
 - Show your start/end times
 - Invite list
 - Start on time
 - Stay on topic!
 - Create action items
 - End on time
 - Follow-up



It's in the Details...

- Bringing it all together
- Owner participation in details
- Knowing the process
- Leave it to the experts
 - Plant Experts
 - Construction Experts
- Just like a snapping turtle

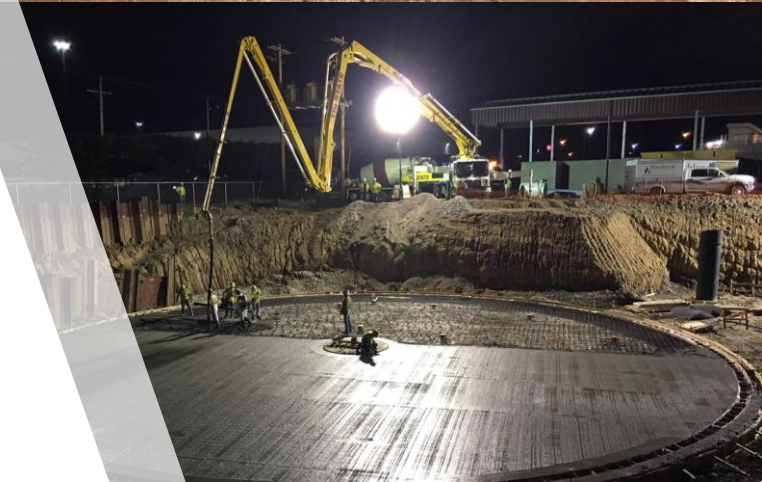


Running the Marathon

- Starting strong
- Staying involved
- Set milestones
- Celebrate small achievements
- Track and report lessons learned
- Close out and recognition

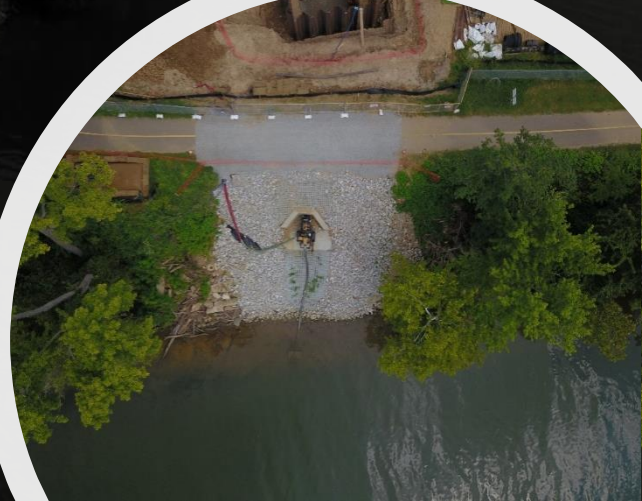
Case Study— City of Marietta

- Capstone to a ten-year project.
- Several phases over the decade span.
- Several teams over the decade span.
- Current Project:
 - New UV System
 - New Final Clarifiers
 - New High River Pump Station
 - New Flume and Outfall
 - New RAS Pumps
 - Complete SCADA Integration
- Total Project Costs: \$9,832,432
 - Initial Construction Bid: \$8,441,100
 - Engineering (Detailed): \$391,777
 - Construction Admin: \$554,585
 - Contingency: \$444,970



Case Study– City of Marietta

- Project Performance:
 - Baseline Project Completion: 09/03/19
 - Projected Project Completion: 09/13/19
 - Factors in weather days
 - Construction Bid Amount: \$8,441,100
 - Total Change Order Amount: \$-8,230
 - Current Construction Contract Amount: \$8,432,870
 - No project scope reduction
- Key Factors:
 - Up-front scope definition
 - Communication
 - Teamwork
 - Applying lessons from previous projects
 - Construction Management Team



Define Success!

Culture of Teamwork

PDRI – Are You Ready?

Efficient Meetings

Set the Baseline

Details!

COMMUNICATE!

Stick With It!

Thank you!



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