10 Tips Every Project Manager Should Know About Managing Contracts



Presented by:

Anthony Fasano, PE, AEC PM
Todd Oppeau

EMI QUALITY **ASSURANCE**

The Engineering Management Institute has met the standards and requirements of the Registered Continuing Education Program. Credit earned on completion of this program will be reported to RCEP at RCEP.net. A certificate of completion will be issued to each participant. As such, it does not include content that may be deemed or construed to be an approval or endorsement by the RCEP.

RCEP.net for Engineers, Surveyors and A/E/C Professionals



COPYRIGHT MATERIALS

This educational activity is protected by U.S. and international copyright laws. Reproduction, distribution, display, and use of the educational activity without written permission of the presenter is prohibited.

©The Engineering Management Institute 2026.



Purpose & Learning Objectives

Purpose: To equip project managers with practical strategies to manage contracts more effectively, reduce liability risks, and improve project outcomes.

By the end of this session, participants will be able to:

- Identify contract red flags—including slow payments, risky purchase orders, and contractor-requested changes—and respond effectively.
- Strengthen project outcomes through clear scopes of work, constructability reviews, and proactive expectation management.
- Build a culture of professional liability awareness across project teams to reduce risks and improve design quality.
- Implement best practices for critical processes like shop drawing review.
- Apply rigorous documentation strategies to protect against disputes and ensure accountability throughout the project lifecycle.

Speakers



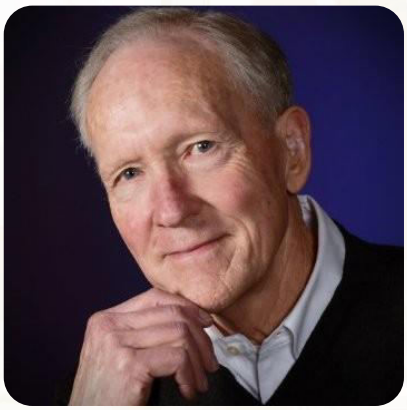
Anthony Fasano, PE, AEC PM, F ASCE
Engineering Management Institute



Todd Oppeau
Black & Veatch

In Honor of John Lowe, P.E.

- Civil Engineering graduate, University of Florida (1961)
- 46+ years as consulting engineer on private & public projects (PM, Principal-in-Charge, Office Manager)
- Registered and practiced in Florida, Georgia, South Carolina, California & Oregon
- Former Design Coordinator, Oregon Bridge Delivery Partners
- Founder, Lowe Consulting LLC (2010) – focused on contract management & professional liability training
- Author of ***A Guide to Managing Engineering and Architectural Design Services Contracts***
- Respected speaker, mentor, and advocate for educating engineers on contracts



This session is dedicated to the memory of John Lowe, whose work continues to guide and inspire civil engineers and project managers.

10 Tips Every Civil Engineer should Know about Managing Engineering and Architectural Design Services Contracts – Ep 040

September 14, 2016

Twitter Facebook LinkedIn Pinterest

00:00 00:00

Podcast: Play in new window | Download | Embed



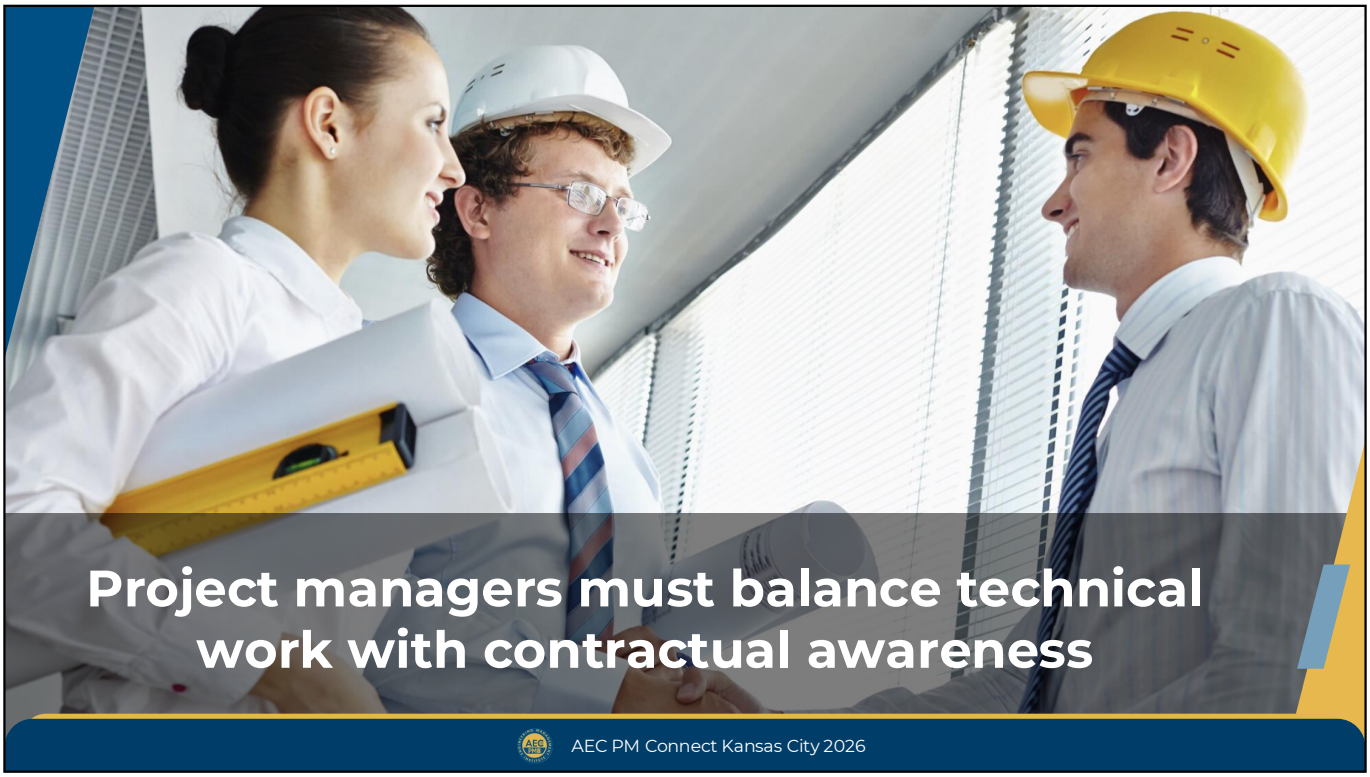
Why Contracts Matter



Contracts set the rules for scope, budget, and risk



Poor contract management → disputes, delays, liability



Project managers must balance technical work with contractual awareness



Success = delivering what was expected, on time, and within risk boundaries

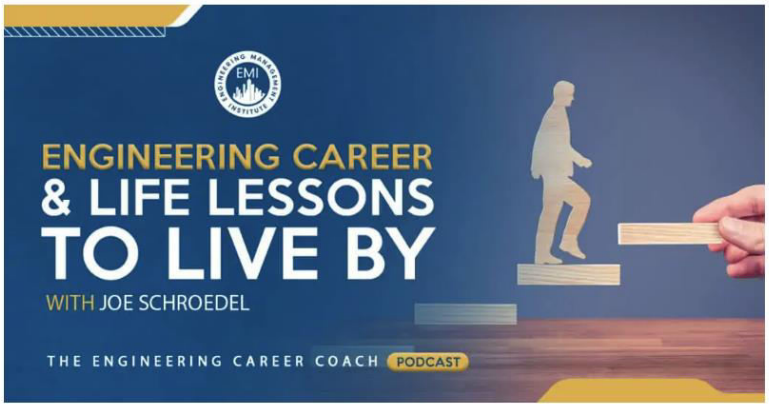
Engineering Career and Life Lessons to Live By – Ep 100

February 9, 2016

Twitter Facebook LinkedIn Pinterest

00:00 00:00

Podcast: Play in new window | Download | Embed





Joe Schroedel, P.E., F.SAME

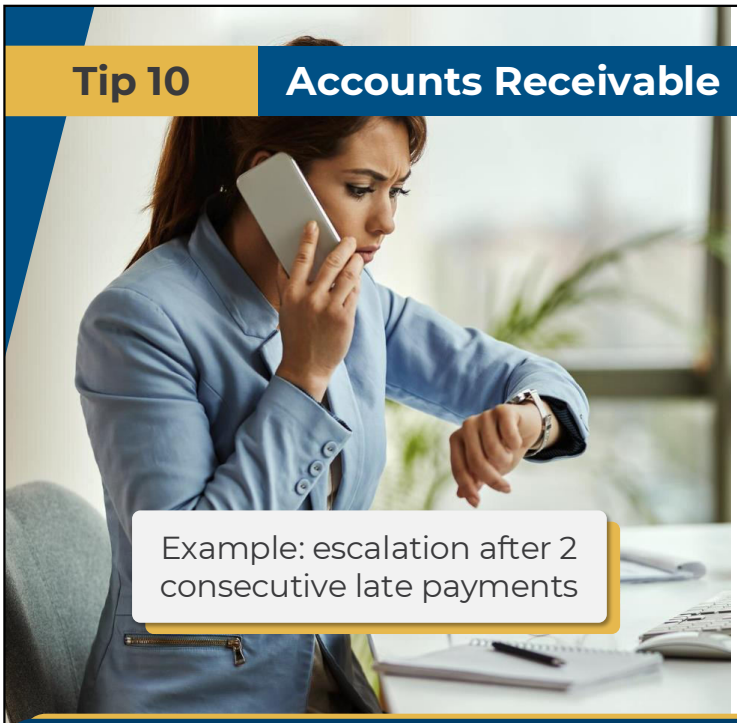
Executive Director for the Society of American Military Engineers

10 Tips Every Project Manager Should Know About Managing Contracts

10 Tips

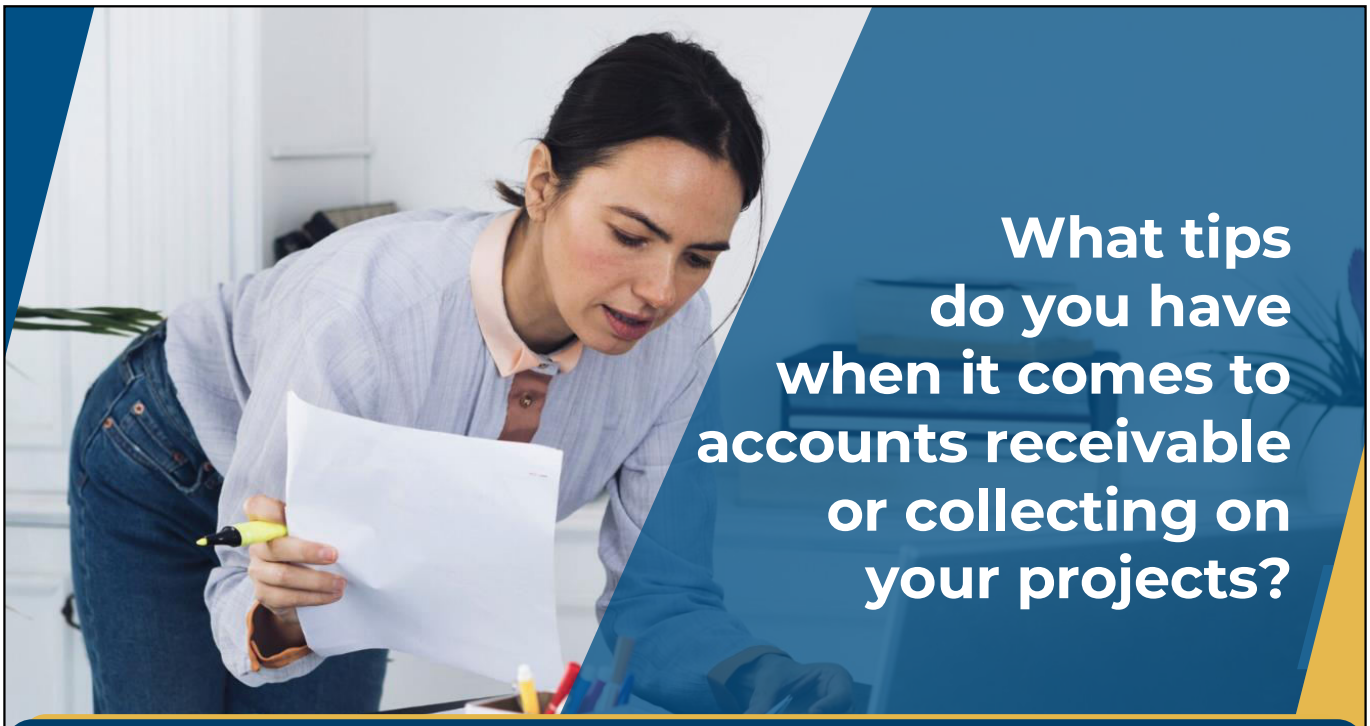
Tip 10	Accounts Receivable
Tip 9	Purchase Orders
Tip 8	Build a Culture of Professional Liability Awareness
Tip 7	Contractor-Requested Changes
Tip 6	Stop Work Authority
Tip 5	Shop Drawing Review
Tip 4	Clear Scope of Work
Tip 3	Expectation Management
Tip 2	Constructability Review
Tip 1	Documentation

Tip 10 Accounts Receivable



Example: escalation after 2 consecutive late payments

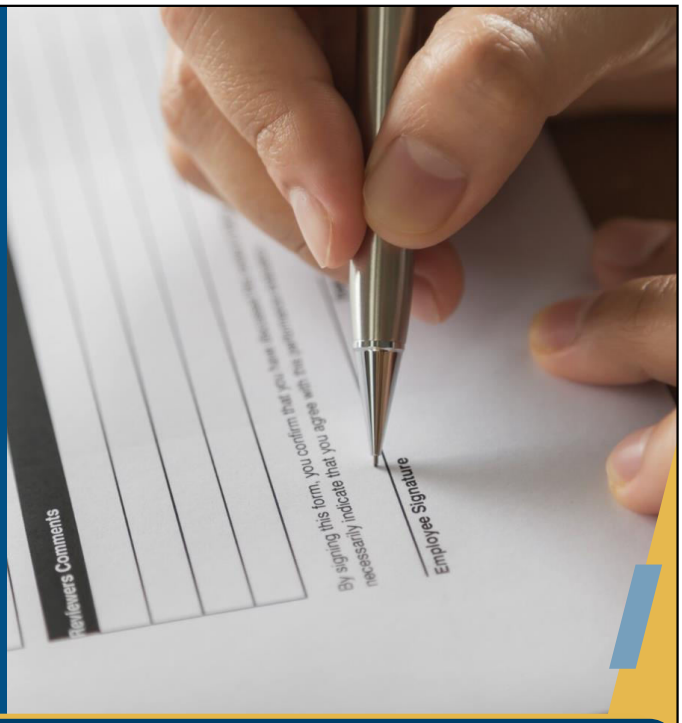
- Watch for **slow-paying clients** – may signal cash issues or dissatisfaction
- Establish internal **payment tracking & red flag system**
- Address patterns early → reduces financial risk



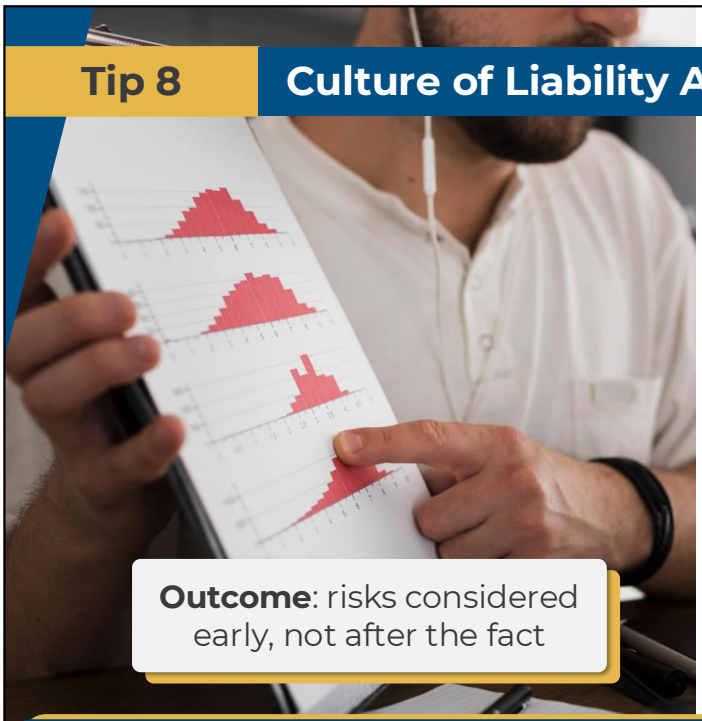
What tips do you have when it comes to accounts receivable or collecting on your projects?

Tip 9 Purchase Orders

- Many purchase orders contain **hidden warranties/guarantees**
- These may **invalidate professional liability insurance**
- Always **review & strike** risky clauses before signing
- Align terms with insurance policy limits



Tip 8 Culture of Liability Awareness



Outcome: risks considered early, not after the fact

- Engineers often ignore liability… until a claim occurs
- **Solution**: make awareness part of team culture
  - Start meetings with a short liability lesson or case study
  - Encourage questions about liability during design



Is there anything you have done as a project manager to reduce liability on your projects?

Tip 7 Contractor-Requested Changes

- Contractors often request changes to **save cost for themselves**
- **Risk**: may reduce quality or increase owner's costs

Best practices:

- Involve the right discipline experts
- Never approve changes without **owner's written consent**
- Document the rationale for every decision

From the Field: Contractor Change Orders

- Change orders are often cost recovery, not true scope changes
- **Ask first**: is this a real scope gap, or already the contractor's obligation?
- Require a technical reason or a business case for every change
- In a services role, your value to the client is vetting changes before they're approved
- Your role changes the conversation: **EPC vs. engineering services**

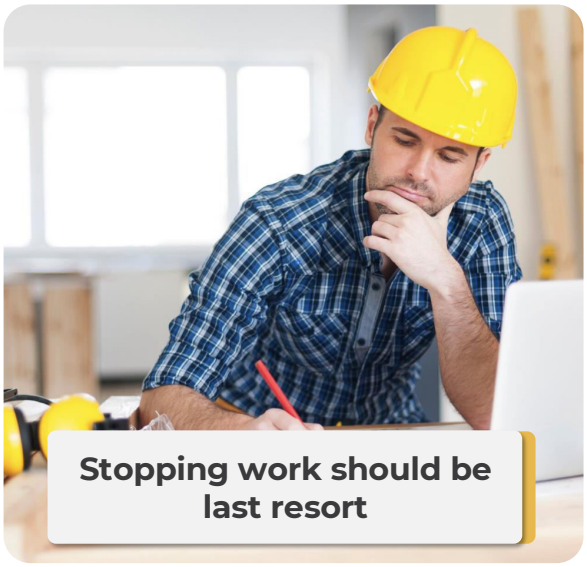


Tip 6 Stop-Work Authority

- Stopping work triggers legal & liability consequences
- **Ideally**: the owner should retain that authority

If project manager must hold authority:

- Always secure owner agreement first
- Follow clear process to remediate issues



From the Field: When Stopping Work Isn't Optional

- If the safety of workers, the public or end users is at risk, stopping work becomes an obligation, not an option
- Before stopping work, have a clear, written action plan
- Name the reason: design error, technical issue or code violation
- Define the action that will resolve it right away

Have you ever had to stop work on a project?

What triggered it, and how was it resolved?



Tip 5 Shop Drawing Review

Critical: Poor Reviews = Cost Overruns or Safety Risks

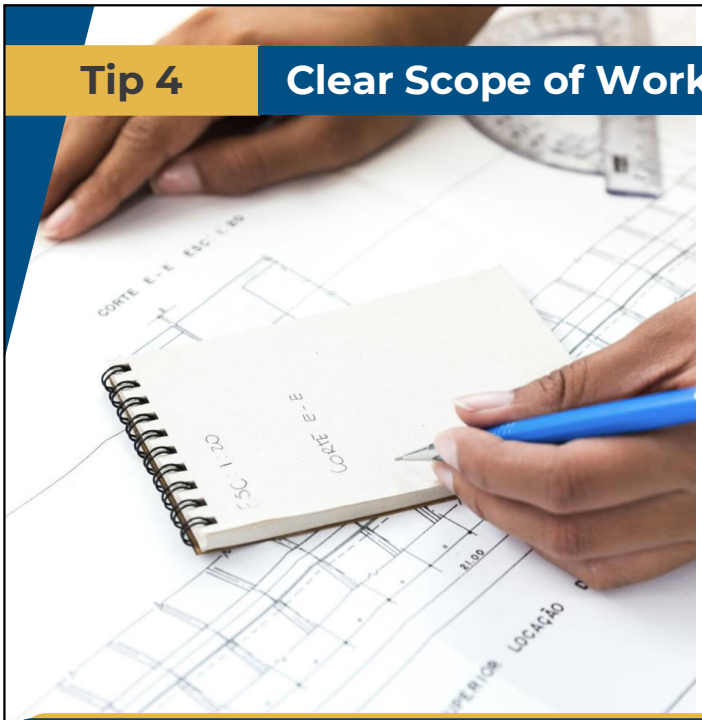
- Assign **qualified reviewers** (not just available staff)
- Maintain a **numbered shop drawing log**
- Treat review as QA/QC step, not paperwork





How do you log shop drawings or other submittals on your projects? What has worked for you?

Tip 4 Clear Scope of Work

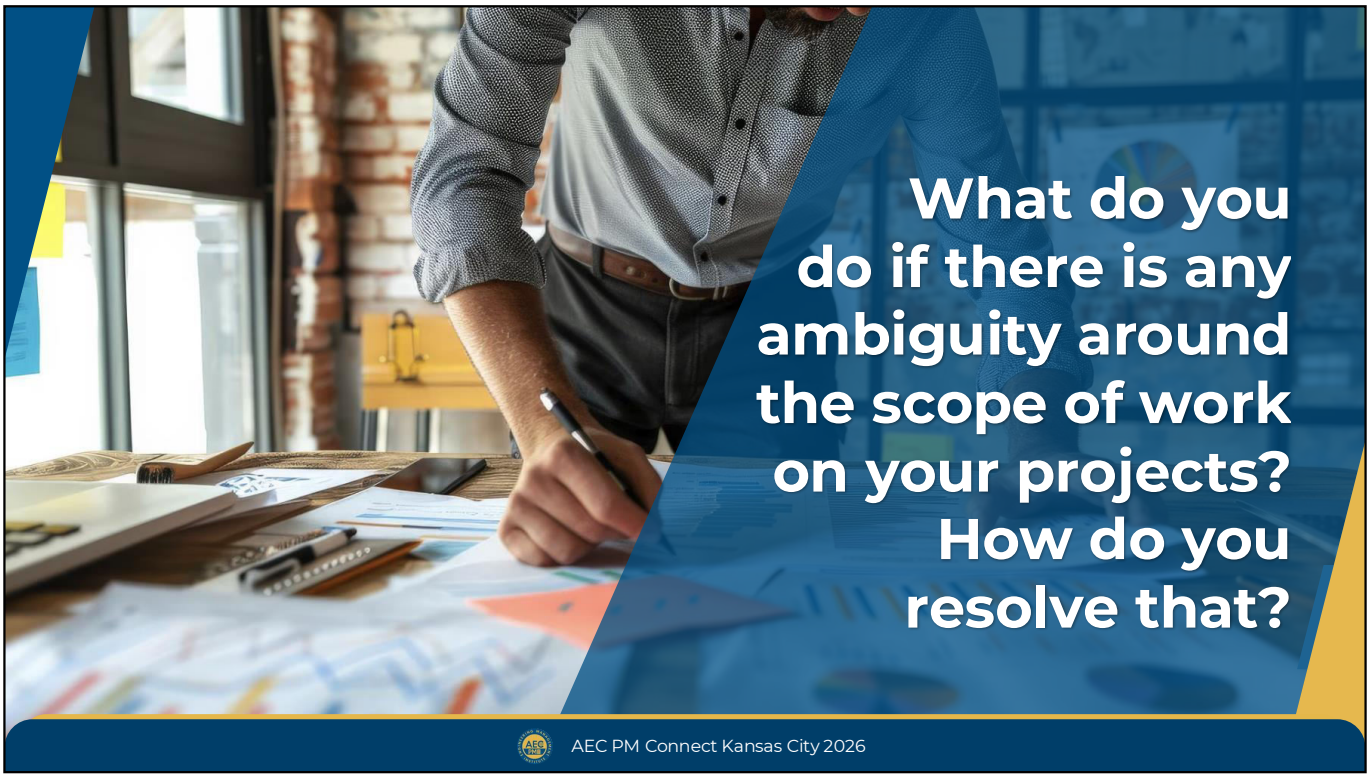


More detail = fewer disputes

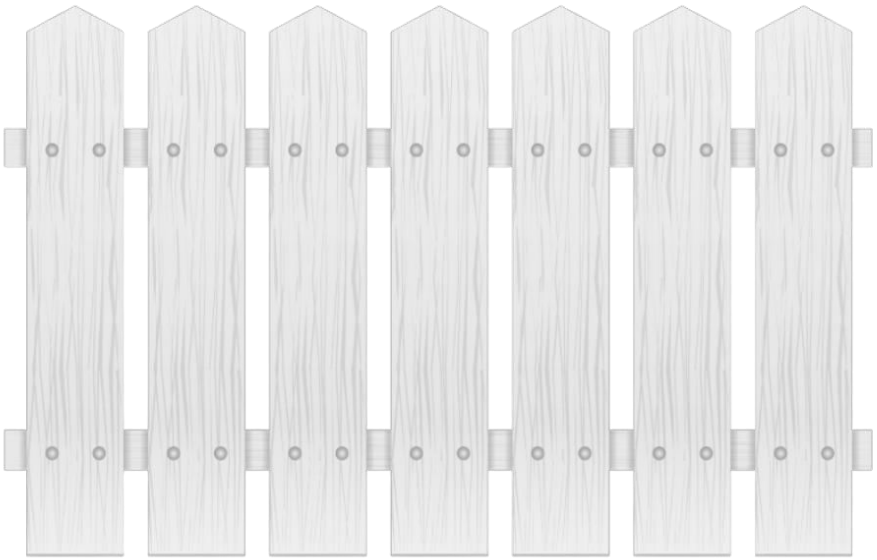
- Include:
  - Anticipated drawings list
  - Specification sections list
- Share scope widely → prevent missed or added work
- Review scope periodically with client

From the Field: Where Scope Gets Missed

- **EPC**: a standard or typical design rarely meets client expectations
- Commonly overlooked items:
  - First fills
  - Supply and disposal of chemicals
  - Hazardous waste handling and disposal
- When a gap shows up, lean on construction experience to decide whether it's:
  - A true scope gap
  - An industry standard
  - Contractor means and methods



Tip 4 Clear Scope of Work



Tip 3 Expectation Management

- Consultant must manage client's expectations
- Clarify ambiguous scope items early
- Provide feedback loops during design

Goal: At project close, client says:

> ***"That's exactly what I expected."***



Tip 2 Constructability Review



Remember: designs must be buildable

- Review **before bidding** – ideally in preliminary design phase
- Must be done by someone who has **actually built it**

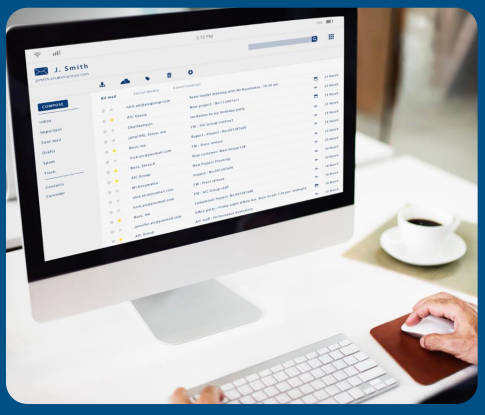
Benefits:

- Avoids costly RFIs & change orders
- Prevents design flaws from reaching the field

Tip 1 Documentation

"The faintest ink is stronger than the strongest memory."

- Document all decisions impacting **scope, schedule, or budget**
- Use: *emails, meeting minutes, photo logs*
- Feed info back to client & team → **clear record trail**
- **Over-document** rather than under-document



From the Field: Documentation When Claims Arise

- Documentation is hardest to keep up once claims start, which is exactly when it matters most
- Add delays as activities in the record schedule as they happen
- Set a clear expectation that no work proceeds until it's authorized in writing
- Written authorization protects everyone: client, contractor and engineer

What tips do you have around project documentation that you can share with others?



10 Tips

Tip 10	Accounts Receivable
Tip 9	Purchase Orders
Tip 8	Build a Culture of Professional Liability Awareness
Tip 7	Contractor-Requested Changes
Tip 6	Stop Work Authority
Tip 5	Shop Drawing Review
Tip 4	Clear Scope of Work
Tip 3	Expectation Management
Tip 2	Constructability Review
Tip 1	Documentation



Contracts = Foundation of Project Success



Summary

- Contracts define scope, budget, and risk – manage them carefully
- Watch for red flags: late payments, risky purchase orders, liability blind spots
- Protect projects with clear scopes, expectation management, and constructability reviews
- Engage clients and contractors proactively, with owner approval for changes
- Use qualified staff for shop drawings and critical reviews
- Document everything – decisions, changes, and communications
- Success = delivering what was expected, on time, and within agreed risk boundaries


QUESTIONS
& DISCUSSION
Complete Survey
To earn 1 PDH
AEC PM Connect Kansas City 2026