

# Consulting 101



*Presented in partnership with the  
Engineering Management Institute*



# Why Consulting 101?



Why are we here today?

What is our goal for this Session?

Why now?

# Strategic Goals

In 2020 T&M formed a strategic planning team to develop Vision 2025 – a 5 year strategic plan.

The team focused on developing components of the plan needed to achieve and realize the vision over the next 5 years.

These four strategic goals, which carried through from the previous strategic plan, are the foundation of Vision 2025.



Sustainable,  
Profitable,  
Growth



A Leading  
Team



One Team.  
One Culture.



A Valuable  
Company

# T&M's Mission & Vision



YOUR GOALS. OUR MISSION

## Our Mission

**Improving neighborhoods, infrastructure and environments one project at a time**

## Our Vision

**Committed to enhancing the quality of life for employees, clients and communities**

Why EMI?



# Introductions



# T&M Team



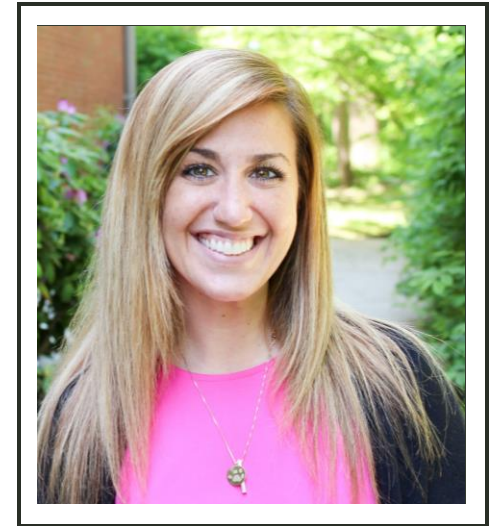
**Patrick Jeffery, PE,  
PP, CME**  
Executive Vice President,  
Chief Operating Officer



**Lynn Spence, SPHR**  
Senior Vice President,  
Chief People Officer



**Michael Thomas, PE,  
LEED AP ND, PMP**  
Portfolio/Program Manager



**Megan Carew, SHRM-CP**  
Associate, Human  
Resources Manager

# EMI Instructors



**Anthony Fasano P.E.**



**Mike Lozanoff P.E.**



**Matthew Douglas**

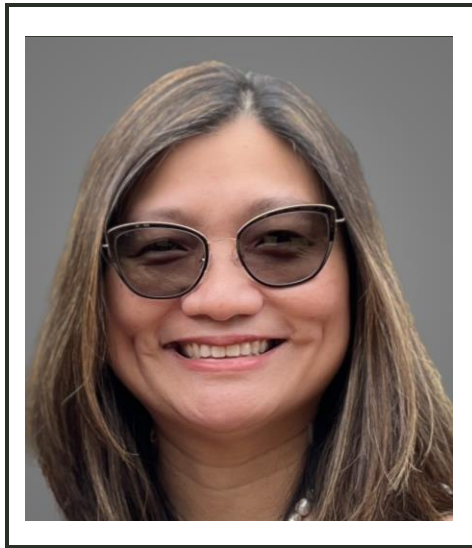


**Ann Tomalavage  
P.E.**

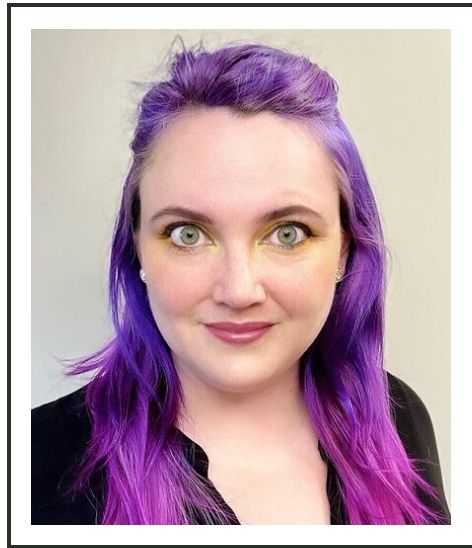


**Sue Wolford PLA,  
AICP, ENV SP, LEED  
Green Associate**

# EMI Learning & Development Team



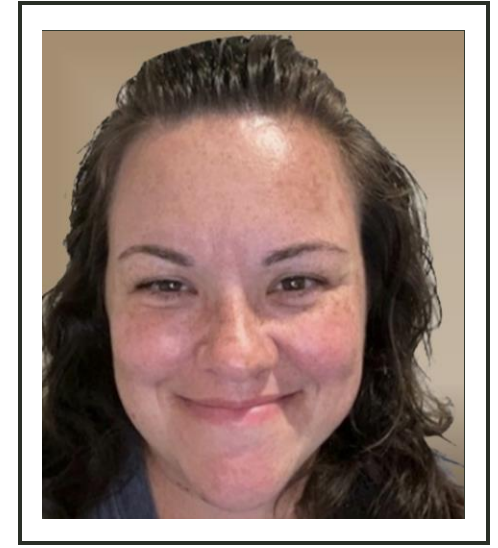
**Betty Arellano**  
*Learning & Development  
Program Leader*



**Madison Jardin**  
*Learning & Development  
Specialist*



**Ana Prats**  
*Learning & Development  
Specialist*



**Michelle Cochran**  
*Learning Management  
System Specialist*

# Session Overview



- Consulting Overview
- The Business of Consulting
- What's Next for T&M?

# Consulting Overview



A photograph of two people, a man and a woman, wearing orange and yellow hard hats. They are looking down at a tablet computer. The background is a blurred industrial setting with rows of lights. The image has a blue color overlay.

# What is Consulting Engineering?

*“A professional service that provides independent expertise in engineering, science, and related areas to governments, industries, developers, and construction firms. Engineering consultants work with businesses to help them meet their design and construction needs.”*

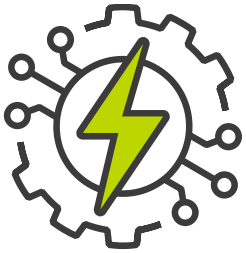
# Improving **Neighborhoods**, One Project at a Time.



Consulting, engineering, environmental, and technical services supporting the communities where we live, work, and play.

**What do we do  
at T&M?**

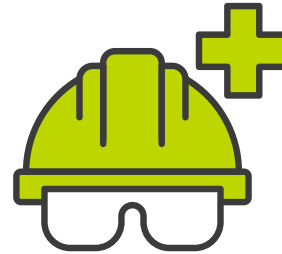
# Practice Areas



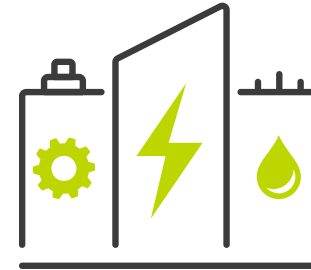
**ELECTRICAL +  
AUTOMATION**



**ENVIRONMENTAL**



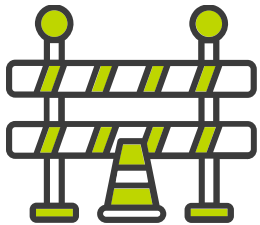
**HEALTH &  
SAFETY**



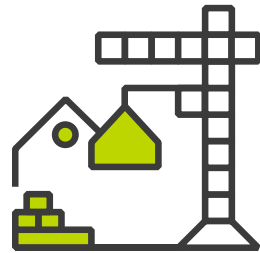
**MECHANICAL,  
ELECTRICAL,  
& PLUMBING**



**MUNICIPAL**



**NATURAL  
HAZARDS**



**PROGRAM  
MANAGEMENT &  
CONSTRUCTION  
MANAGEMENT**



**SITE DEVELOPMENT**



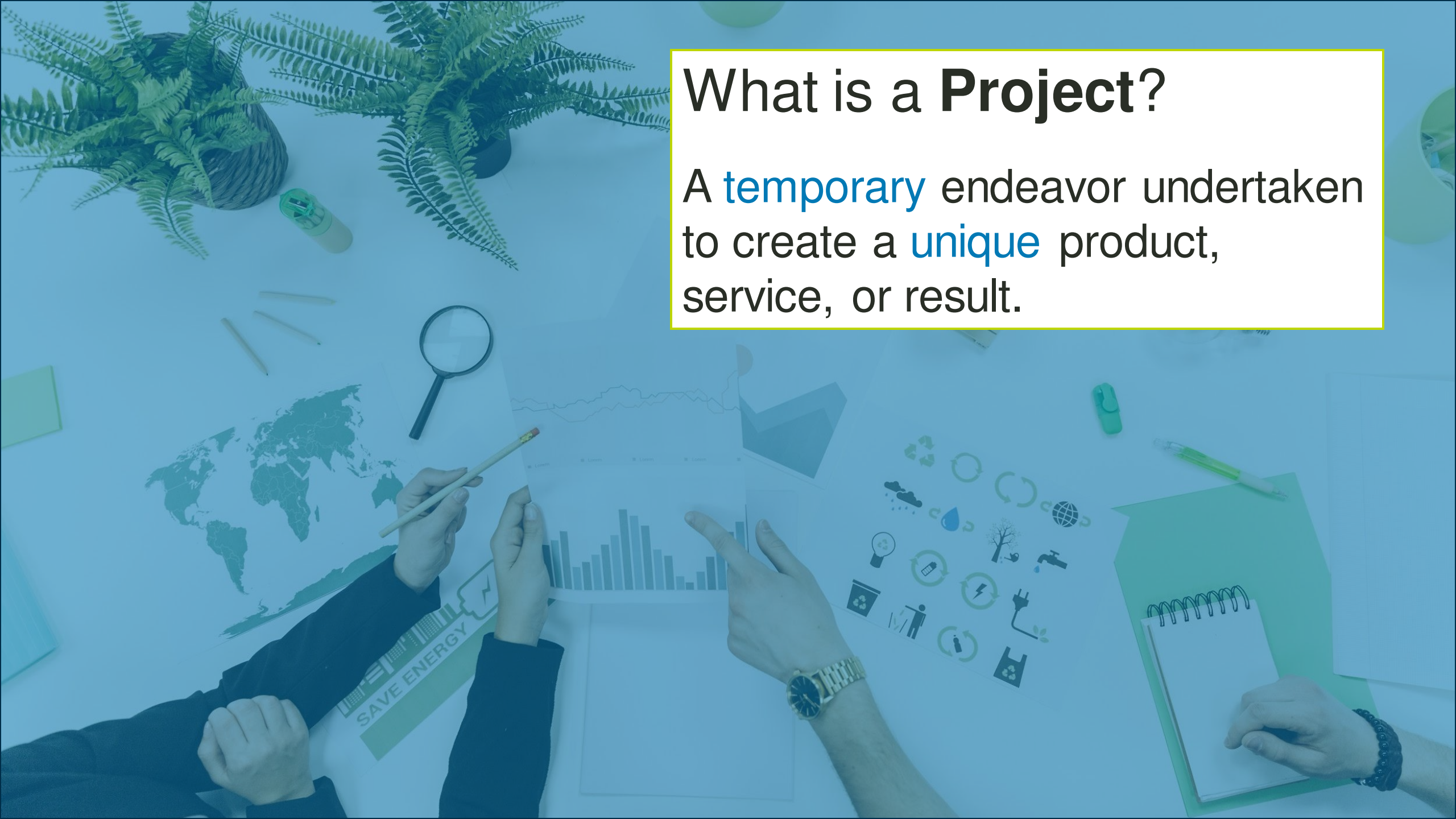
**WATER**



**TRANSPORTATION**

# What is a **Project**?

A **temporary** endeavor undertaken to create a **unique** product, service, or result.



# T&M Project Life Cycle






**Scope:**  
**The Fence Around Our Project**



## What's your role on any project?

- Understand the **Project Scope** (YOUR scope).
- Know the due dates of all **Deliverables** (including interim deliverables).
- Understand the **Number of Hours** budgeted for YOU to complete each task and know who to ask (Including time for QA/QC.)
- **Communication is KEY** - Know when and/or how often to check in with your Project Manager and other team members (this may include Subcontractors, Agencies, etc.).
- Know who will be checking my work (**QC**) and when they will need to review it to hit the delivery date.

...in the chat



What's one or two things that make Project Teams successful, which in turn will improve our Project Performance?

# The Business of Consulting



# Financial Success

*How do we make money?*

Repeat business is very important for T&M

- Negotiate a fair fee
- Track effort (budget vs. actual)
- Avoid variances
- Deliver a premier client experience

***When the project is completed on time and at or under budget!***







# What's the real harm?

The better we perform on our projects,  
the better we do as a firm.

**“We win together,  
We lose together.”**

# Time – *The basis for everything we do*

- Establish a fee
- Monitor project budgets and performance
- Execute on project deliverables (set deadlines and milestones)
- Follow a good project plan
- Invoice in a timely manner



# Timesheets – *Why are they so important?*

- **Time tracking** for all project tasks
- **Expense tracking**
- **Charge to a project** for advancing a project forward, **including meetings** that are built into the budget (to avoid missing out on project-related work that is mistakenly charged to Overhead)



# Best Practices for Timesheets



- **Do them daily**
- If you are not clear what to charge, consult with your project manager
- If you are not familiar with how to properly put comments on your timesheet, discuss it with your project manager



**Be cognizant that a Client may see what you write someday**

# Billing Rates

- How are they generated?
- Actual Hourly Rate + Overhead + Profit



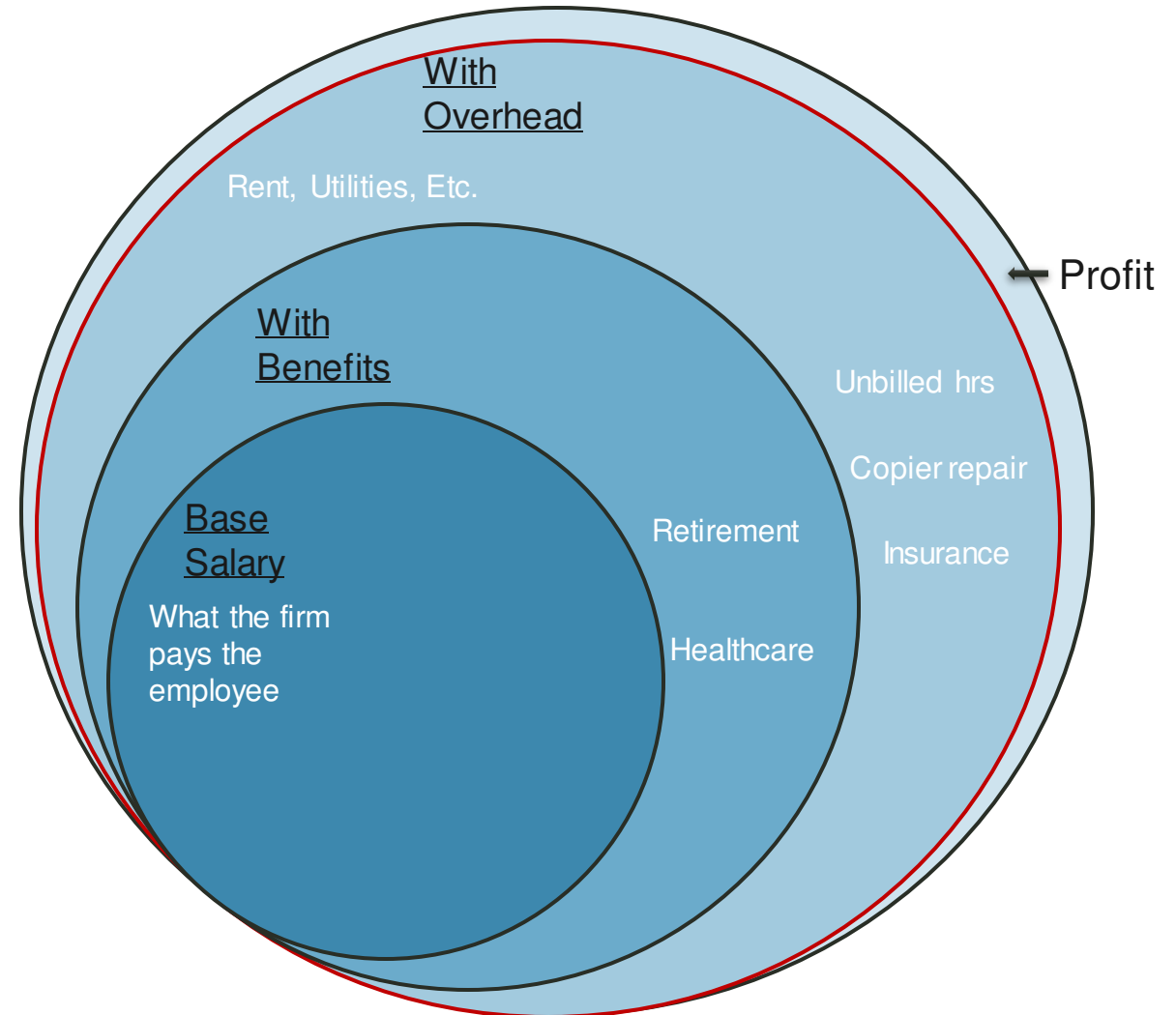
# Overhead Rate

---

What is Overhead?

*Costs associated with running a business.*

- Benefits
- Rent
- Utilities
- Software/Hardware
- Licensing and Insurance
- Etc.



Source: Michael Ermann (ARE 5.0 Community)

# POLL



## What is the Largest Contributor to Overhead?

- a) Rent
- b) Utilities
- c) Insurance
- d) Software/Hardware/Licensing
- e) Non-Billable Time

### Non-Billable

Admin

Proposals

Marketing

PTO

Holiday

Etc.

# Break-even Rate

---

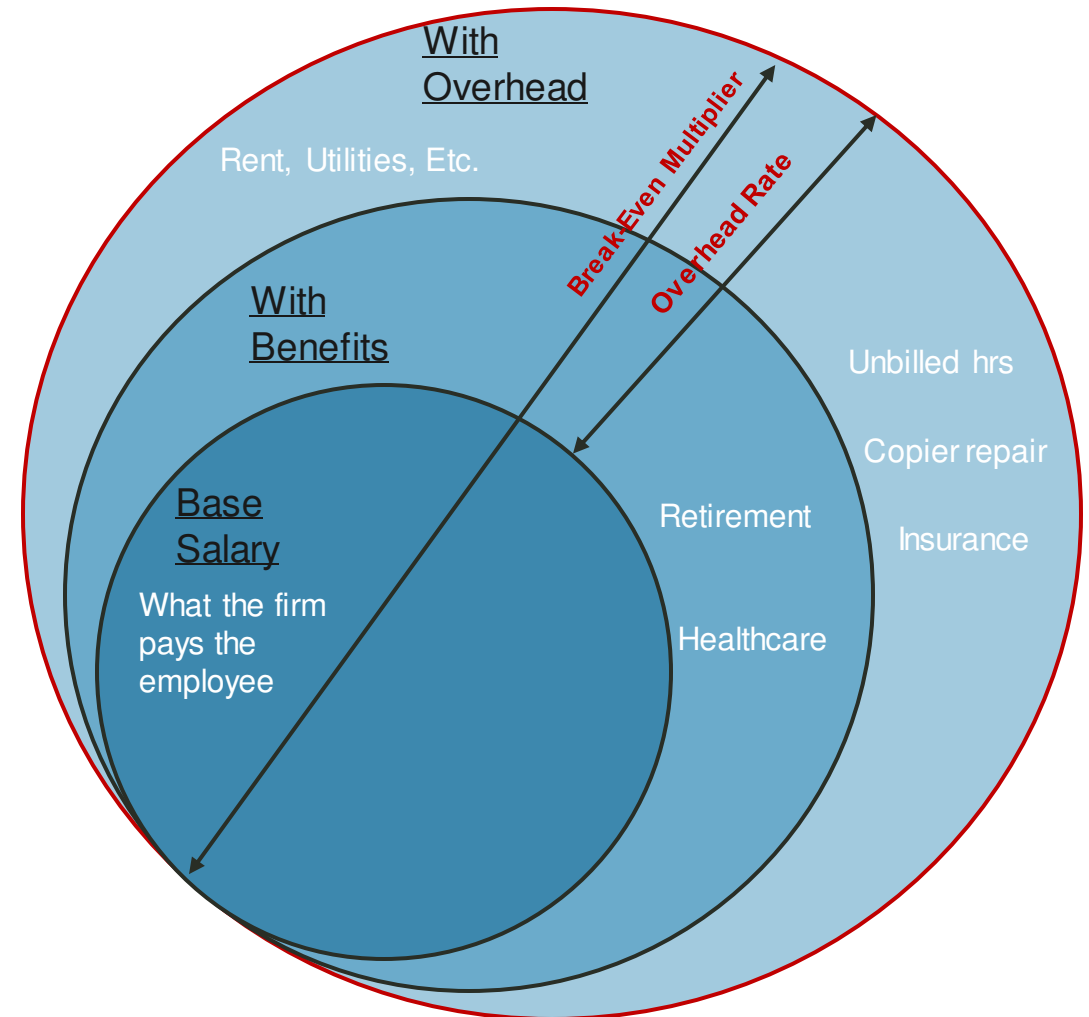
**Base Salary/Wage = \$50/hour**

**Non-Billable Expenses**

**(Overhead Rate) = \$150/hour**

**Break-Even Rate = (\$50+\$150)**  
**= \$200/hour**

*Just to breakeven, we need to charge \$200 for every hour!!*



Source: Michael Ermann (ARE 5.0 Community)

# Profit

---

**Base Salary** = \$50/hour

**Non-Billable Expenses**

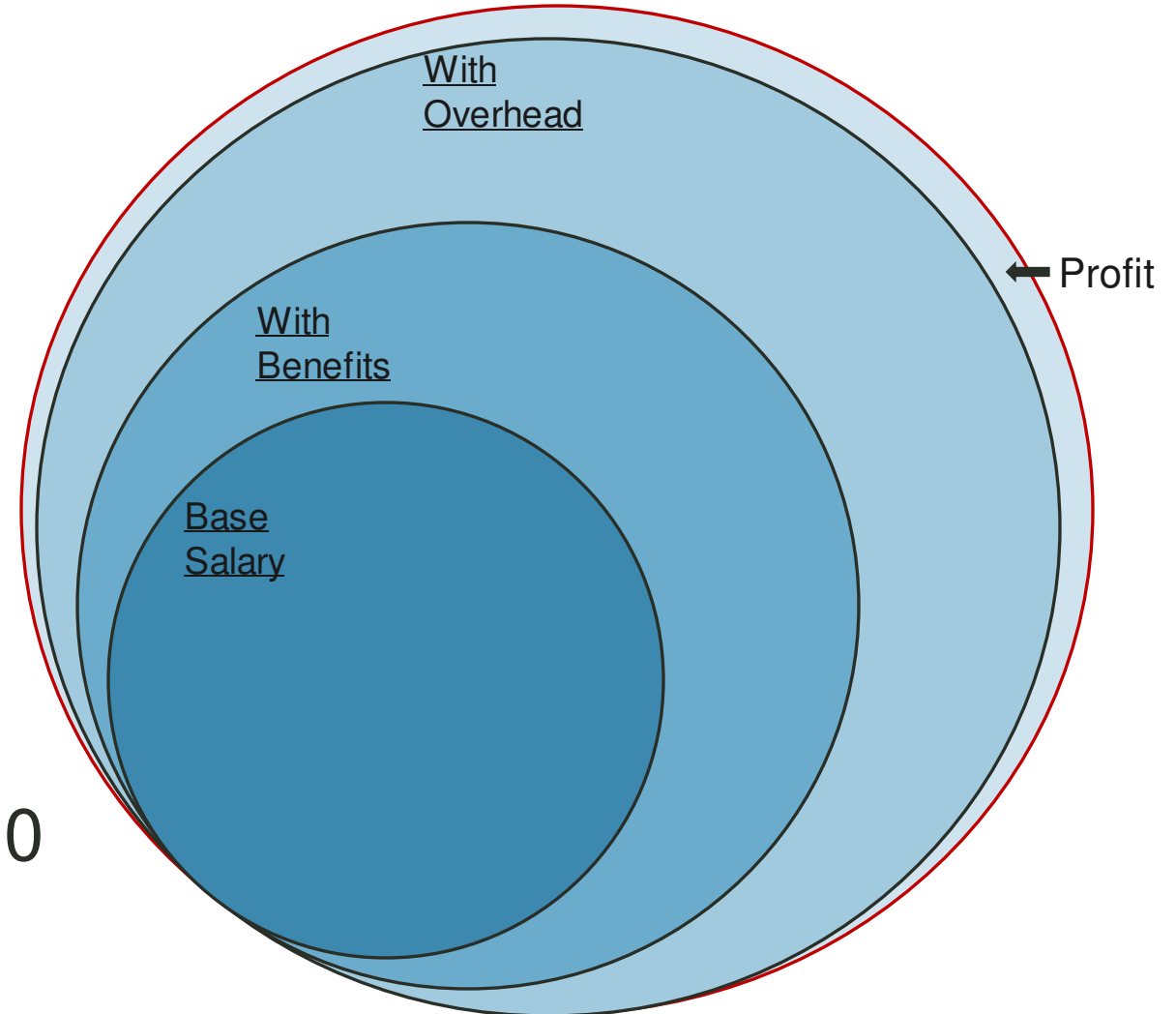
**(Overhead Rate)** = \$150/hour

**Break-Even Rate** =  $(\$50 + \$150)$

= \$200/hour

**Profit** = \$30 (15% of B/E Rate)

**Charge client** =  $\$200 + \$30 = \$230$



Source: Michael Ermann (ARE 5.0 Community)

# Billing Percentage

What is billing percentage and why is this important to track?



**Billable vs Non-Billable**  
(indication of how busy we are)



**Be Efficient**  
Avoid churning your time



**Ask** for help and **communicate** your progress

# Calculating Billing Percentage

Billable percentage calculates efficiency by comparing actual work hours to available hours

 32 Billable Hours

 40 Total Hours

 80% Billable

# Project Budgets

## *Establishing a Project Budget*

- Create a scope of work based on deliverables

1



- Break the overall project into tasks

2



- Estimate the number of hours and employees needed to complete each task

3



- Add up the total of all the tasks

4



# Fee ≠ Budget

Fee

Budget

What we think  
the market will  
bear or what  
client might be  
"willing to pay"

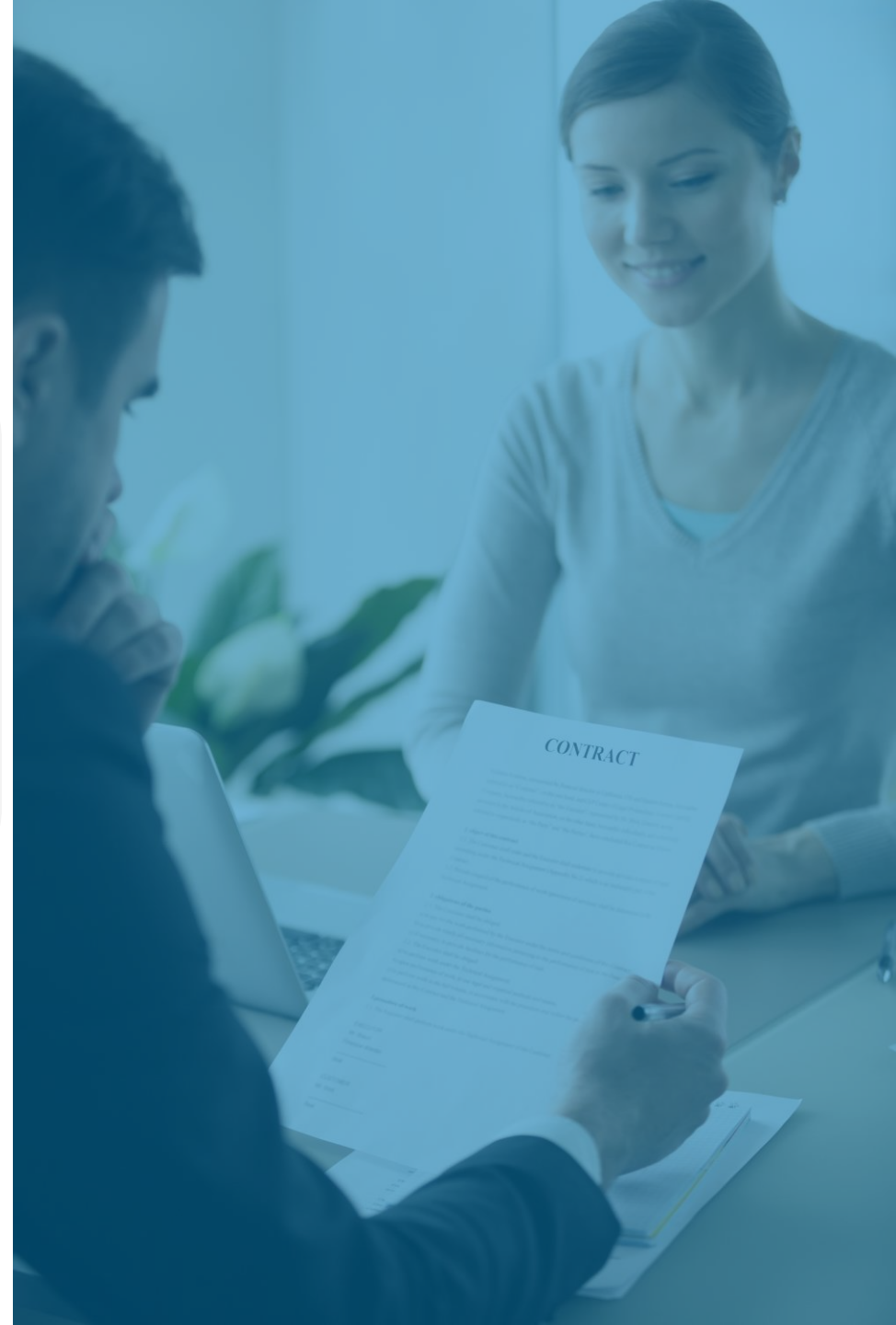
Estimating  
what we think  
it will cost us  
to do the  
work.



# Contract Types



How do we develop a fair **Fee** to charge a Client that includes **Profit**?



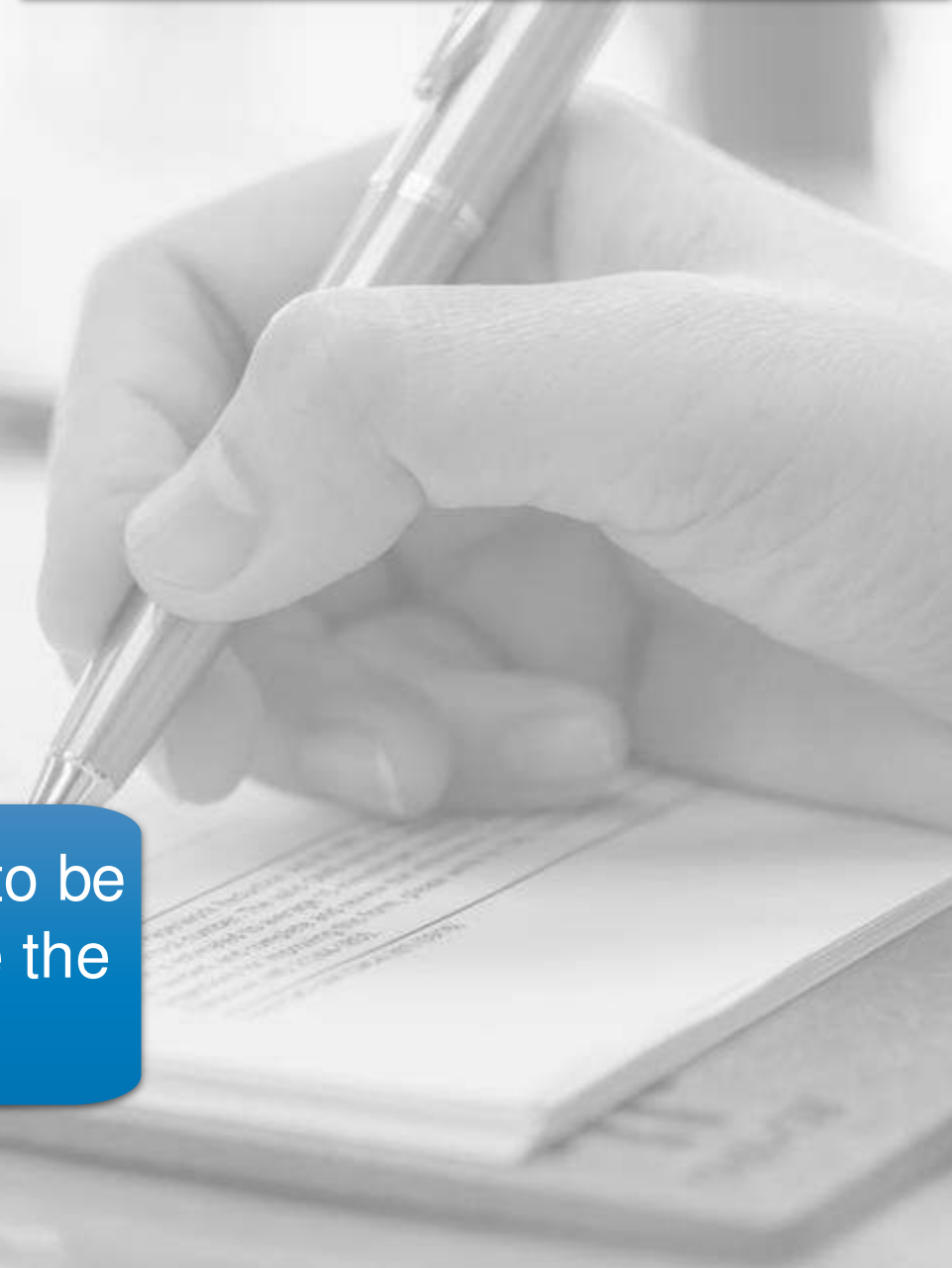
# Contract Type: Lump Sum

One lump sum amount with no hourly detail.

We receive the same fee regardless of the effort spent. Efficiency matters.

Be sure to allow adequate contingency in your estimate to allow for the unforeseen.

Your scope needs to be written to minimize the unforeseen.



Paid for every hour spent

## Contract Type: Hourly (Time and Material)

Billed by the hour, per our negotiated rates

Invoices typically include hourly staff timesheet details or hours by activity.

Scope exists, but harder to define or sometimes open-ended.

If an estimate is requested, be sure to state that the “fee may be more or less.”

# Contract Type: Hourly- Not to Exceed

Paid for every hour for a specific amount – not paid for time spent over the fee

Just like Hourly, except a maximum billing amount has been established

Invoices typically include hourly staff timesheet detail or hours by activity.

If over budget: the client is not billed unless approved by the client.

If under budget: the client is not billed the balance of the not-to-exceed price.

Be sure to allow adequate contingency in your estimate to allow for the unforeseen.

# Billing and Accounts Receivable

Billing is done on a monthly basis (or as needed) for each active project but can be done at the preference of a Client.


If Billing is delayed a month, takes up to 90 days to collect, so it'll take 4 months to get paid

Variances affect our profitability

How this affects cash flow (interest on the line of credit)

**What happens  
when it takes  
longer to get paid?**



A blurred background showing several people in a meeting or office setting, with a focus on the text overlay.

Project Managers are the  
CEOs of their projects  
but it's our collective responsibility as a team to  
get the projects done **successfully.**

# Key to Financial Success

---

- The financial success of the firm is a compilation of the financial success of the projects we execute.
- Every member of a project team impacts the financial success of a project.
- It is the responsibility of the Project Manager to ensure the team achieves the project financial goals.
- For the firm to be profitable, our projects must be profitable.
- For our business to be sustainable and ensure growth, we **MUST** be profitable.

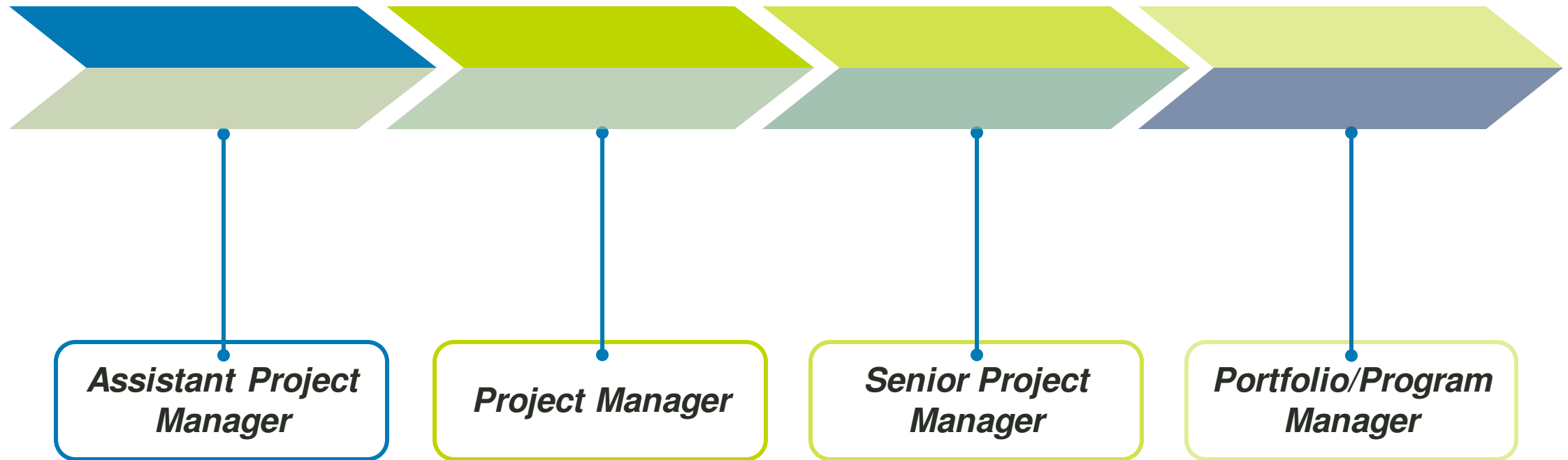


...in the chat

How can T&M improve efficiency?



# Progression Path



## ***Primer Webinars:***

Thursday

Mar. 14, 2024  
12-1 pm ET

How to Delegate Effectively Using the LAUGH Framework for AEC Professionals

Thursday

Apr. 4, 2024  
12-1 pm ET

Time Management and Maximizing Productivity for AEC Professionals

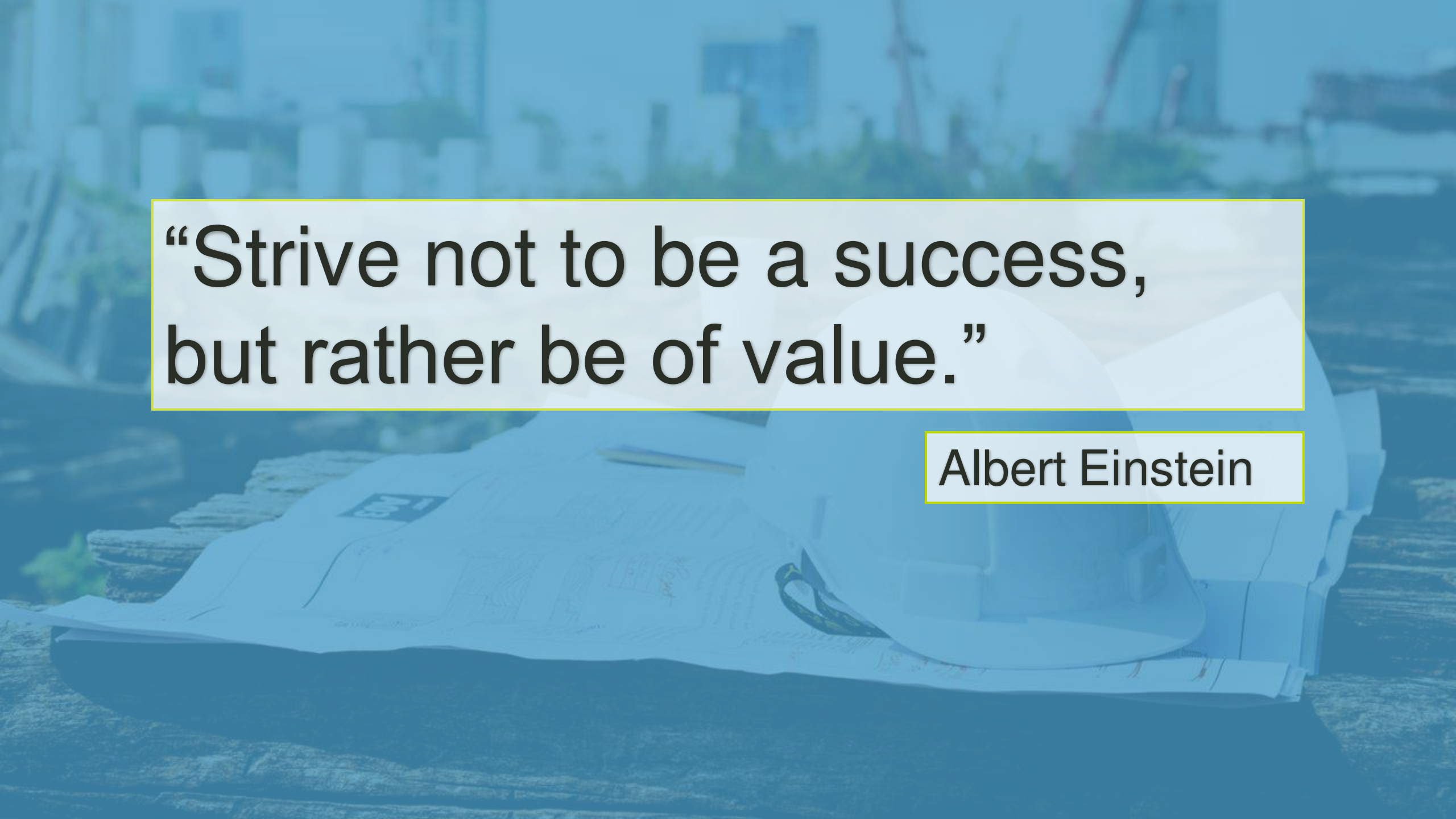
# What's Next for T&M?



# *Project Management Development Program*

What's Next for T&M?





“Strive not to be a success,  
but rather be of value.”

Albert Einstein

# Consulting 101

**Questions?**

