



# Architectural Engineering:

Understanding our Partners is the Key to Success

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- Structural Engineer – PE Licensed in MA
- Project Director – Odeh Engineers a member of WSP
  - North Providence, RI
- The Pennsylvania State University
  - BAE/MAE Architectural Engineering
- Experience in design across a broad range of material types and market sectors
- Managed projects across many different delivery methods: design-bid-build, design build, CM at Risk, and IPD



# Work Force Development

- What is Architectural Engineering?
- Current Industry Challenges?
  - Collaboration and Coordination
- How does Architectural Engineering fill the gap?

# Architectural Engineering

- Architectural engineering is the science of the built environment, more specifically the design of the engineered systems in a building.
- Architectural engineers apply practical and theoretical knowledge to the engineering design of buildings and building systems. The goal is to engineer high-performance buildings that are sustainable, resilient, economically viable, that ensure the safety, health, comfort, and productivity of occupants.

Source: The Pennsylvania State University – Architectural Engineering, The University of Nebraska – Durham School of Architectural Engineering and Construction

# Why Architectural Engineering?

- Engineering with a focus on the built environment
  - Curriculum focused specifically on topics as they relate to the design of buildings
  - Foundational knowledge in Architecture

# Why Architectural Engineering?

**DIGITAL TWIN**

**BIM EXECUTION PLAN**

**BIM**

**L.O.D.**

**CLASH DETECTION**

**SCRUM**

**IPD**

**PULL PLAN**

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- Engineering with a focus on understanding our partners
  - Entry level coursework required in each domain of study



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*I don't like that man. I must get to know him better.*

– Abraham Lincoln

*Any fool can know. The point is to understand.*

– Albert Einstein

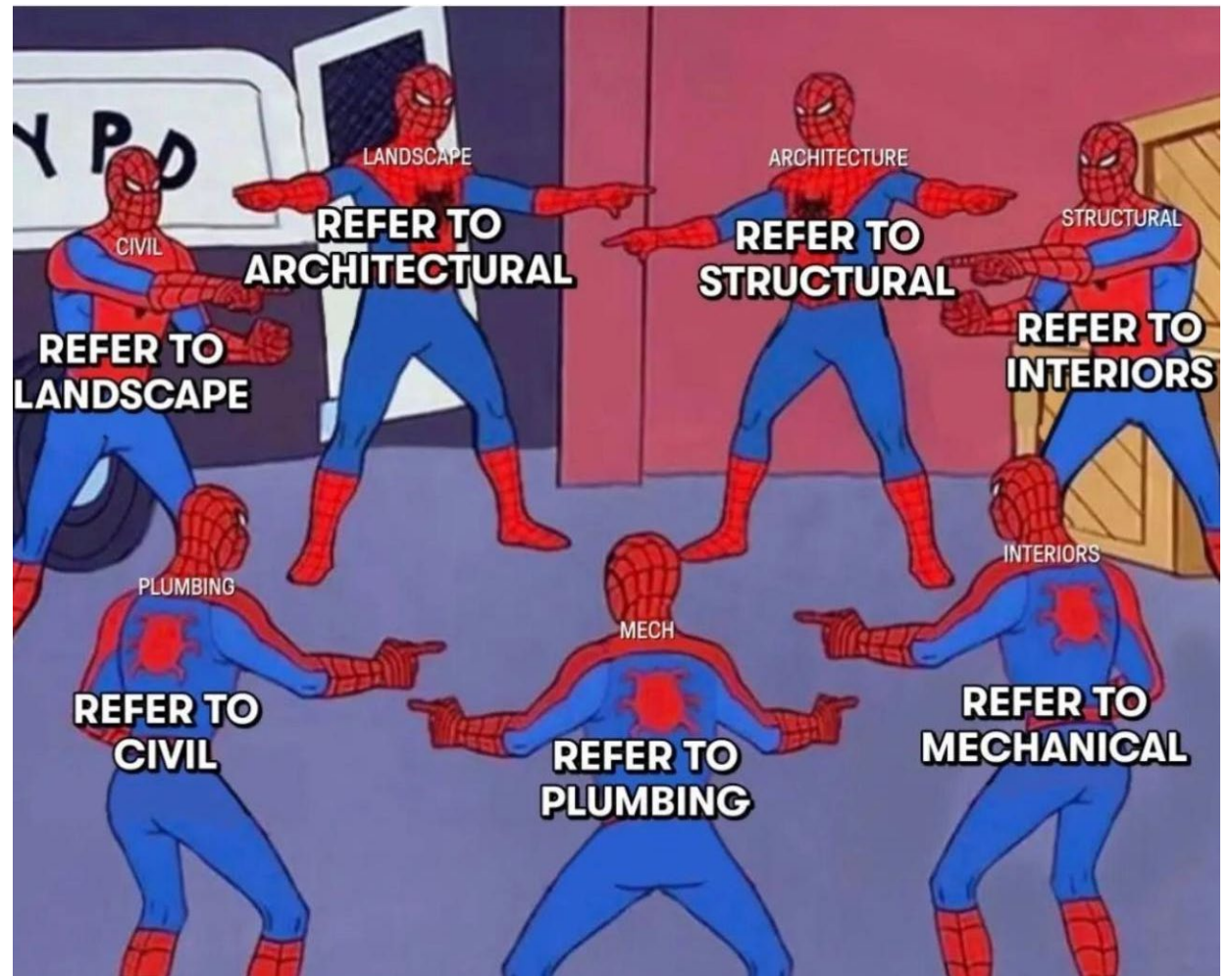


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  - Foundational knowledge in Architecture
- Engineering with a focus on understanding our partners
  - Entry level coursework required in each domain of study
- Engineering with a focus on collaboration
  - Heavy focus on teamwork

# “The Drawings are Well Coordinated..”

## The Drawings:








# How Does Architectural Engineering Fill the Gap?



Source: RioCan REIT and Allied Properties REIT



# Thank you Questions?