

# Construction, Survey and Utilities Division Updates

- **Construction**

- Plan Reviews Reoccurring Issues
- Estimating Tips and Tricks

- **Survey**

- Performs initial topographical survey for design
- Plat maps
- Construction layout (includes utility relocations)

- **Utilities**

- Utility Coordination (Planning and Design)
- Utility Relocation



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# Design it to be constructable

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## ◀ What is Constructability?

Constructability is the integration of construction knowledge, experience, and expertise into the design and pre-construction phases to ensure a project can be built **efficiently, safely, and cost-effectively**

Efficiently – Minimize impacts by either reducing time or utilizing best installation practices

Safely – Eliminate risks for public and the workers building the job.

Cost Effectively – Reduce the estimated price of a project through alternate design, value engineering, or simplified construction methods

# Common Issues During Plan Reviews

- **Involving the Specialty Trades Early in design**

- Lighting, Water, Sewer, Gas, Fiber, Signals, Structural, etc.
  - *CLTW 2025 Design Manual and updates SPUs*
- Utilities = AMA = AVOID, MITIGATE, OR ACCOMODATE



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- **Quality Control of Plan Set Submittals**

- Ensure the estimate, special provisions, and plans were all coordinated with the all designers.

# Estimating... It's an ART!



- Measurement and Payment Dictate Unit Costs
- Nothing is Free - incidental does not mean no cost
- Risk = \$\$\$\$



# Explore the Risk

## ◀ Obvious

- Bridges with Highway Shutdowns
- Specialty work like art, lighting, and cable span bridge

## ◀ Hidden

- Retaining Walls
- Structure Access
- Classified Rock
- Utilities



<https://www.linkedin.com/pulse/how-risk-priced-bid-understanding-contingency-mark-up-chris-loving-uiu6c>





# New Year's Resolutions for Construction Firms!

1. STOP CALLING EVERYTHING "URGENT"
2. FIX THE MEETINGS
3. UPDATE THE SCHEDULES
4. NO MORE "THAT'S HOW WE'VE ALWAYS DONE IT"
5. INVEST IN THE FIELD
6. SHARE INFORMATION
7. USE TECHNOLOGY (FOR REAL)
8. SAFETY IS CULTURE
9. LEARN TO SAY "NO"
10. DO LESSONS LEARNED
11. BUSY ≠ PRODUCTIVE
12. REMEMBER WHY WE BUILD!

<https://groundbreakcarolinas.com/new-years-resolutions-for-construction-firms/>

# Lessons Learned

- ▶ Lengthy Planning can increase project complexity.
- ▶ Explicitly communicate expectations upon a defined working schedule.
- ▶ Designers benefit from as much information as possible from site survey early on.



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# Lesson Learned Summary 2025

