

CO**GENCE Alliance**
Owners + Architects + Engineers + Contractors

Inspire. Educate. Unite.



Mission + Purpose

Cogence *(Latin)*

“To drive together” or “Thinking that is well organized”

The purpose of the Alliance is to bring Owners and Developers, Architects and Engineers, Construction Managers and Contractors, and Allied Industry Professionals together to **advocate** and be a **resource** for improved project delivery.

For more information visit us at www.cogence.org

Inspire. Educate. Unite.

2021 Theme: INFLECTION POINTS – The Moments that Define a Project

- **March 24: Project Kick-Off**
- **May 26: GMP / Design Sign-Off**
- **July 27: Start of Construction**
- **September 22: Changes in the Work**
- **November 11: Post-Occupancy Review**

Agenda

- Introduction
- Survey Highlights
- Presentation 1: Bryan Wahl, Bostwick Design Partnership
- Presentation 2: Scott Wallerman, Neptune Plumbing
- Questions
- Breakout
- Breakout Results
- Plus / Delta

Changes in the Work

22 September 2021

SURVEY RESULTS

What is your (1-2 word) reaction when you hear “Change Order”?

Is it
valid?

More
Money

Delay

Defense

Sad

Inefficient

Expensive

Why?

Cost

Pain

Cost

Added
cost

Normal

What/
Why?

Is it
valid?

More
Money

Delay

Defense

Sad

UGH!!!
Inefficient

Expensive

Why?

Cost

Pain

Cost

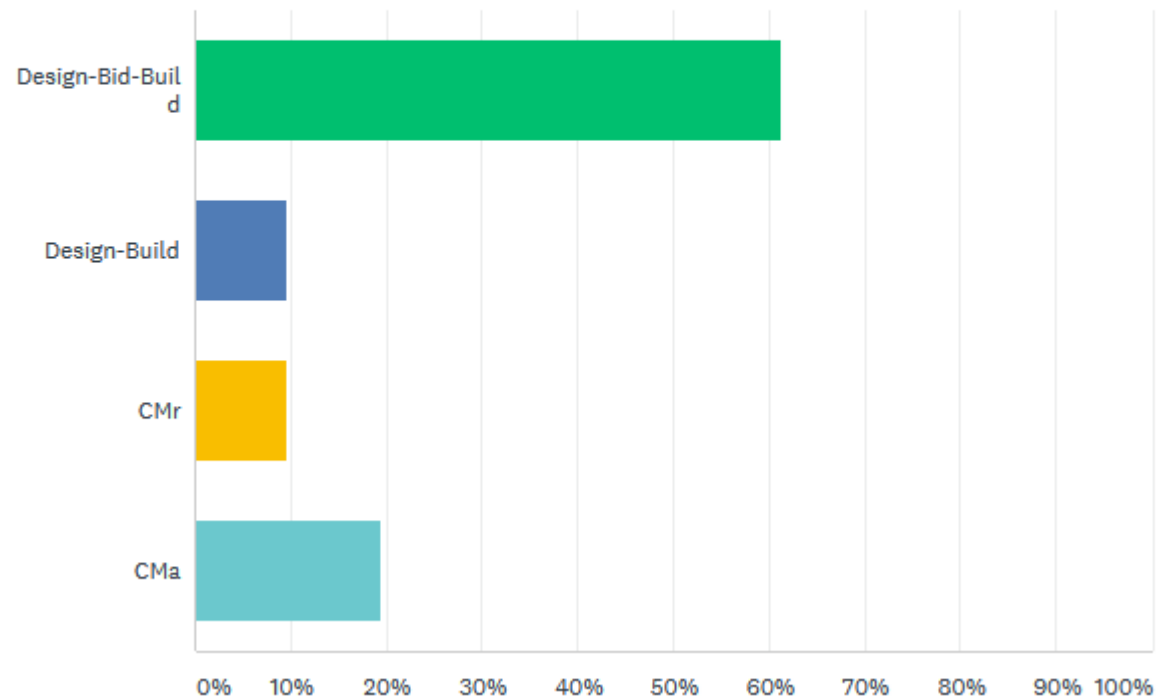
Added
cost

Normal

What/
Why?

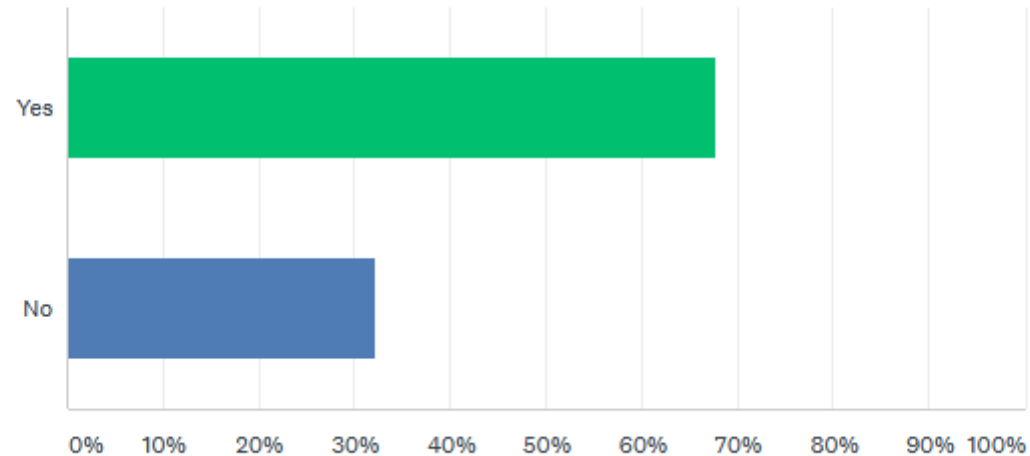
In your opinion, which delivery method typically results in the MOST change orders?

Answered: 31 Skipped: 0



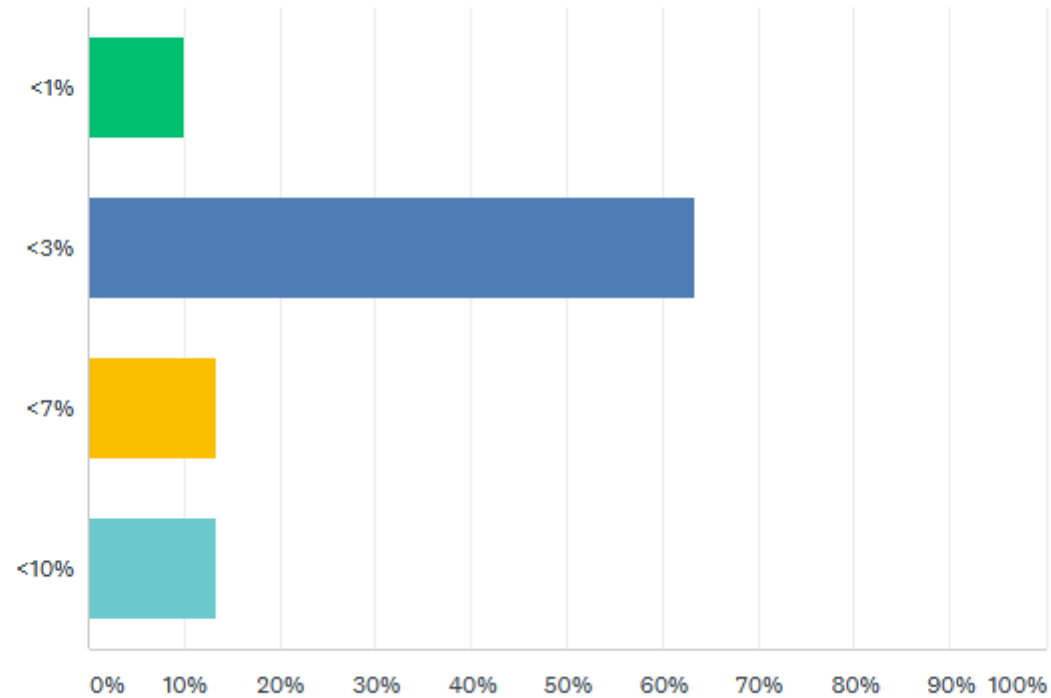
If a change is paid out of contingency, do you consider that a “change order”?

Answered: 31 Skipped: 0



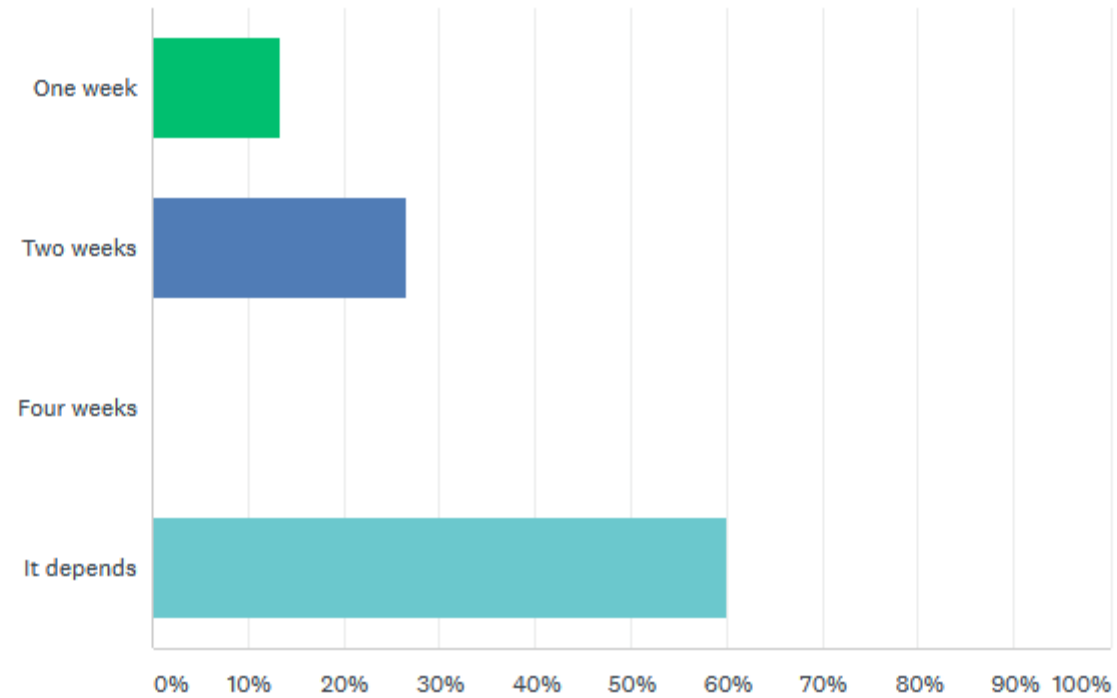
What % of cost of work in change orders would you consider acceptable?

Answered: 30 Skipped: 1



What is a reasonable time to approve change orders?

Answered: 30 Skipped: 1



Changes in the Work

Observations, Risks, & Best Practices

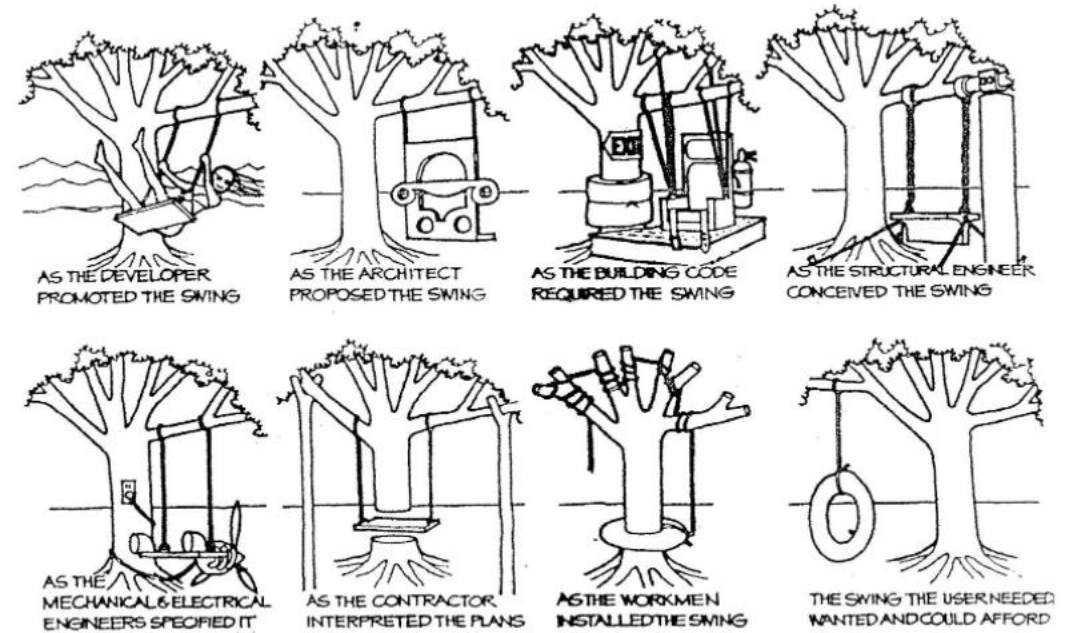
Bryan Wahl

Principal

Bostwick Design Partnership

Observations

- Time and Material
- Lump Sum
- Zero Cost
- Additive
- Deductive



“When a contractor enters an agreement with a client for work, there should be an understanding that change orders will likely be required at some point in the construction process. **This is just part of the game.**”

Unknown

Risks

- Increased project costs
- Delays in hitting contract milestones
- Interruptions of workflow
- Not completing a project on time



“When there are errors or omissions that happen at the design or construction level, that would necessitate a change order. Change orders require the agreement of the change by the owner, the architect and the contractor. Change orders normally increase the cost of the original contract but are also used to provide extended time to complete a task. This is important because **delay claims for change orders are some of the most litigated and disputed documents in the industry.**”

Construction Advisor

Best Practices

- Encourage collaboration between the contractor and the design team.
- Enhance interdisciplinary coordination during design.
- Ensure clarity in contract documents.
- Minimize the risks brought on by unforeseen conditions.
- Get quotes for alternatives, include appropriate sums as allowances in your budget.



“On virtually all construction projects, **change orders are inevitable**. While many change orders are perfectly valid, questionable and controversial charges can really be a nuisance. With the cost overruns, delays, and tarnished relationships they leave in their wake, their lousy reputation is indeed befitting. It’s not surprising that project owners always look for ways to avert these unanticipated change orders.”

Construction Advisor

Changes in the Work

Observations, Risks, & Best Practices

Scott Wallenstein

Neptune Plumbing & Heating Co.

A Trade Contractor's Perspective

- #1: "Killer Clauses" – The beginning of change orders and disconnect**
- #2: Our Frustrations**
- #3: What works best (in my eyes)**

“Killer Clauses”

#10 – Where the existing plumbing fixtures are to be removed all existing walls shall be patched that are affected. P.C. shall finish walls per architect’s direction.

“Killer Clauses”

#13 – Cut floor, walls, and ceiling construction for penetrations to accommodate piping. Patch construction to match, or to the satisfaction of the architect and owner.

“Killer Clauses”

#23 – Plumbing contractor shall replace any existing piping that is damaged or cracked with new sizes to match existing. Coordinate all work with architect. No additional compensation will be allowed.

“Killer Clauses”

#2A – Any existing piping found in a return air plenum that does not conform to section 602 of the Ohio Mechanical Code shall be replaced with piping that conforms to above standard.

Our Frustrations

- **Architectural and mechanical plans not aligned**
 - (Missing items)
- **Lost Momentum**
 - Stopping work when issues are discovered
 - Losing continuity of the crew
 - Remobilizing

Our Frustrations

- **Project Managers not processing change orders**
- **Lack of Communication**
- **Fabrication Changes**

What works Best (In my eyes)

- **Communication**
 - We are all in this together, we should be part of the discussion
- **Design Assist**
 - Change orders are limited when we are brought into the discussion early. They are usually only the owner's changes

What works Best (In my eyes)

- **Trust (I know this is a tough one)**
 - Ethics - Honesty

Questions



Breakout Sessions

Breakout Sessions



Breakout Sessions

How do you, in your role, manage risk, cost, and schedule when changes in the work arise?

Breakout Results



Breakout Sessions - How do you, in your role, manage risk, cost, and schedule when changes in the work arise?

Construction Managers / General Contractors (Brett Klinger)

- **Collaboration/communication with remaining team members**
- **Bringing trade partners to the table to help solve problems; can help minimize cost and schedule impacts.**
- **Big risk = damaging the relationship between parties**
- **Expectation that there's a "no change order job" is unrealistic. Have the discussions upfront to ensure Owners are carrying Owner's Contingency for unforeseen conditions.**
- **Education of clients on recognition of fair price of changes**
- **Risk mitigation vs. shift of risk to others**
- **Timing of changes/cumulative effect to the cost and schedule**
- **Look at 1) additional investigation in preconstruction, and/or 2) targeted contingencies/allowances for high-risk items**
- **All team members have to share the overall risk within a project (avoid the blame game)**
- **Impact of contractual clauses (LDs, etc...) on overall team**



Breakout Sessions - How do you, in your role, manage risk, cost, and schedule when changes in the work arise?

Owners (Steve Sereda)


- **Setting expectations early and clearly**
- **Make it clear to all parties, the Owner is not shifting risk but sharing in the risk**
- **Owner contingency established, separate of contractor contingency**
- **Managing schedule, by being engaged throughout the process**
- **Owner spends adequate time on-site, real time understanding of the status of the project and situation causing the possible change**
- **Invest heavily in front end involvement (risk mitigation planning), developing risk matrix (utilizing DAs), identify the risks and implement plan to address the risk**
 - **Depending on delivery method, utilize DA as design consultant**
- **Establish accurate schedules, listen to the experts, take insight from the team. Utilize concept type schedule to identify broad targets, then establish defined schedule with input from design/contracting teams.**

Breakout Sessions - How do you, in your role, manage risk, cost, and schedule when changes in the work arise?



Trade Partners (Brad Berkowitz)

- **Risk** : The more you know, the more equipped you are to assess the risks
 - Site investigation (above ceilings), assumptions/qualifications
 - Bring tradespeople
- **Cost** : Do a lot of changes for free because its not worth the fight
 - Admin costs are same as profit
 - Treat others as we are treated
 - Don't want to cause friction
- **Cost** : Transparency - give the appropriate back-up
 - Look at the other trades; will impact efficiencies
- **Schedule** : Rarely ask for extensions but CM's need that support from Trade Partners
 - Quick approval of change orders to make sure pricing doesn't expire and future work put in place
 - Make sure Trade Partners are very involved with the durations and logic
 - Offer premium to keep the schedule (send a message)



Breakout Sessions - How do you, in your role, manage risk, cost, and schedule when changes in the work arise?

Architects (Nathan Cebula)

- Team collaboration, get everyone together to understand the issue and solution.
- Document change that occur.
- discussions early on for how to handle issues when issues arise. Set a culture.
- collaboration, collaboration, collaboration,
- Discuss with clients the benefit of getting participation from all parties early on.
- Respect perspectives of all parties. Listen
- set expectations with owners (should start at the contract) standard of care
- Risk matrix
- change orders can be good too. For example money left over goes back to enhance the project.



Breakout Sessions - How do you, in your role, manage risk, cost, and schedule when changes in the work arise?

Engineers (Aaron Lobas)

Drivers of why change - Value and cost, owner reflected changes, new information during design (code) - Risk Register to identify at least high risk challenges to a project. Mitigation requirements.

Engineers role

- **Immediate response**
- **Engineering technical evaluation understand schedule implications - communicate**
- **Staff changes accordingly - senior staff that can understand and adapt the design**
- **increase risk of error with changes - so communicate the time needed. Engineers get the change and are dictated the time constraints.**

Communication path for decisions of change and how to move forward - is everyone on board with the change (during design and construction). What are the alternatives. Is the change the correct solution?



Plus / Delta

Plus (+)

Good participation
Aligned on direction
Focus on investing in each other
Good time for breakout (15 min.)

Delta (-)

Change (-) to improvement
Number of participants
Send invite as calendar invite with embedded Zoom link

Next Program

11 November 2021

Post-Occupancy Review

Bring a Guest