

Healthcare Construction Pitfalls and Mitigation Strategies

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Nothing more
Important
Than The
Process (in the
correct order)



Planning the Process



DREAM



DESIGN



BUILD

- Front-loaded planning saves time, money, and patient risk
- Functional Program Accuracy
- BOD – Basis of Design Accuracy

Most of all healthcare overruns originate in early design and planning

Case Study:
Denver–
Aurora V.A.
Hospital

- Original budget ~\$328M; final cost exceeded \$1.7B
- Root causes: immature design, scope creep, governance failure
- Key lesson: Do not fast-track incomplete healthcare design

Case Study: Medical Gas Rework

- Non-certified installers used
- Entire system removed and reinstalled
- Lesson: Specialty systems require certified oversight

Understand
Regulatory,
Clinical, and
Commissioning
Impacts

Case Study: Infection Control Failure (OR Renovation)

- Improper containment and negative pressure
- Construction shutdown and remediation
- Lesson: ICRA planning is critical to schedule protection

Construction & Commissioning Controls

- Qualified specialty trades (medical gas, power systems)
- Independent commissioning authority (CxA)
- Integrated systems testing before occupancy

Risk, Planning, and Regulatory Controls

- Early PCRA, ICRA, and ILSM assessments
- Early AHJ engagement and code specialist review
- Formal change management governance

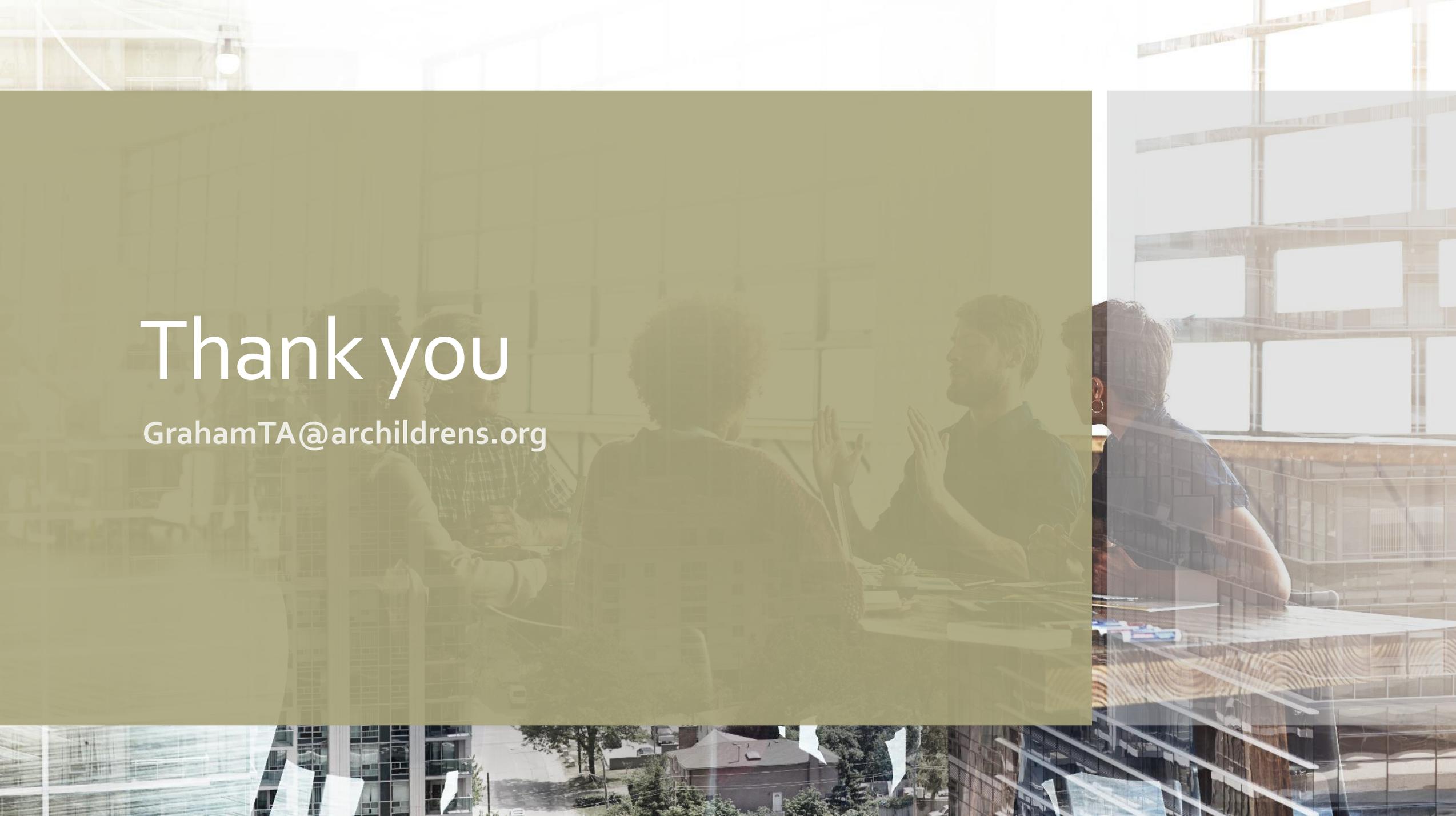
Pillars of Success - ASHE

Require 90–100%
coordinated design
before construction

Engage CM-at-Risk or
IPD delivery models

Use BIM clash detection
and constructability
reviews



A group of people are seated around a table in a meeting room, engaged in a discussion. The scene is partially obscured by a semi-transparent olive green overlay on the left side, which contains the text 'Thank you' and 'GrahamTA@archildrens.org'. The background shows a modern building with large windows and a view of a residential area with trees and houses.

Thank you

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