



Alternate Project Delivery Beyond Design-Bid-Build

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Agenda

- About GHD
- What is Standard Project delivery (Design-Bid-Build)
- What is Alternate Project Delivery (APD/Design-Build)
- Why use an APD/DB?
- Management of Risk
- When to consider APD/DB
- Advantages of APD/DB
- Types of Applicable Projects
- State laws, etc.
- Cautions when using APD/DB
- DB Reference Materials
- Questions

GHD at a glance





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What are Primary Project Delivery Methods?

- Standard Project Delivery
 - Design Bid Build (DBB)
- Alternate Project Delivery (APD) Methods
 - CM at Risk (CMR)
 - Fixed Price Design Build (FPDB)
 - Progressive Design Build (PDB)
 - Operations & Ownership Options

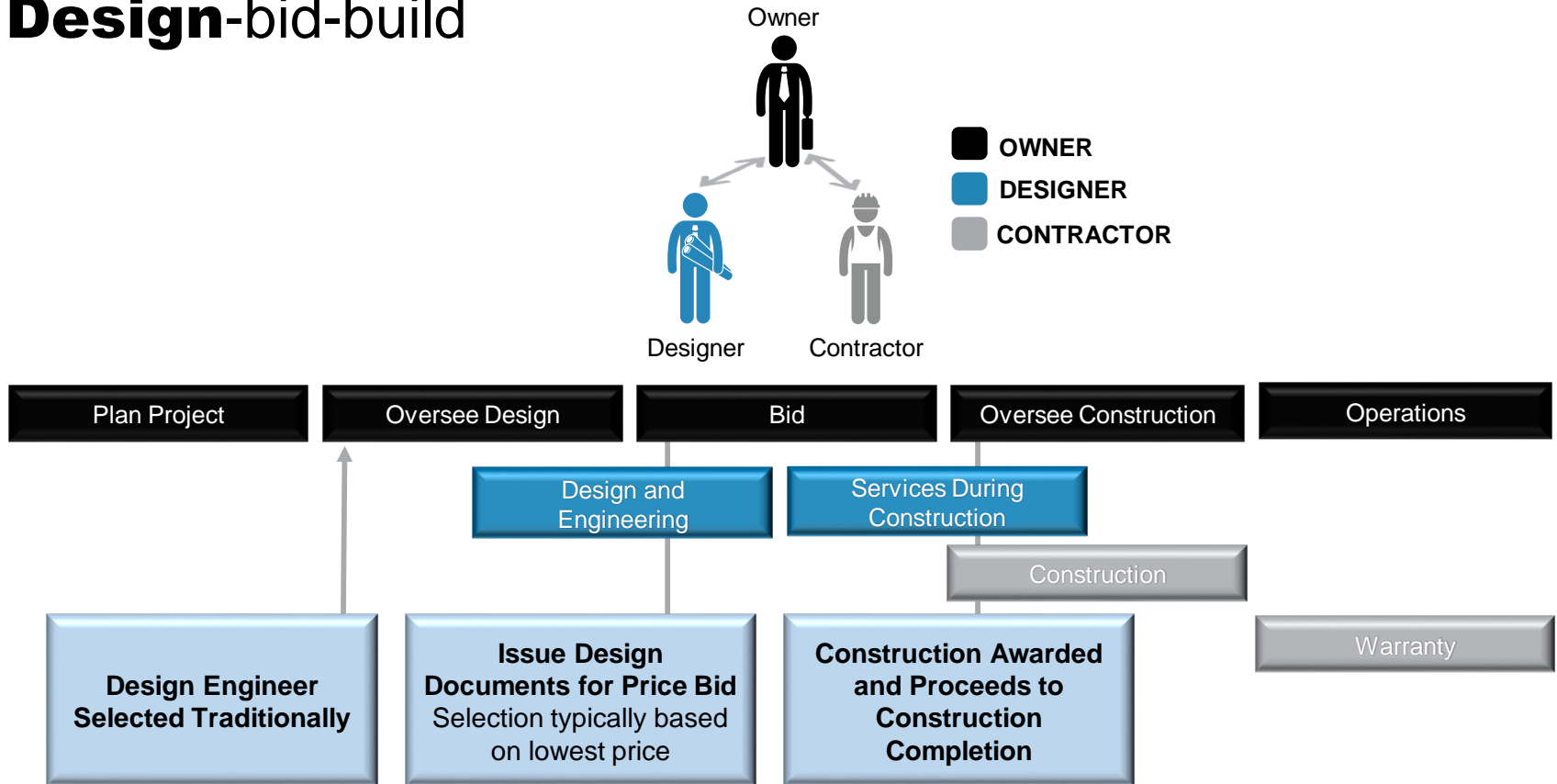


How does standard project delivery work?

- Standard Project Delivery
 - **Design Bid Build (DBB)**
 - Most utilized
 - Owner hires Engineer
 - Complete design plans & specs
 - Bid to Contractors
 - Typically “low bid” mentality
 - Engineer & Owner vs Contractor
 - Battle of “risk shifting”
 - Industry Standard



Design-bid-build



What is Alternate Project Delivery (APD)

- It is not Design-Bid-Build (DBB)
- APD is Collaborative (Engineer + Contractor)
- It is “Design to be Built” – not Bid
- It is an opportunity to better manage risk and realize value (cost/schedule/quality)

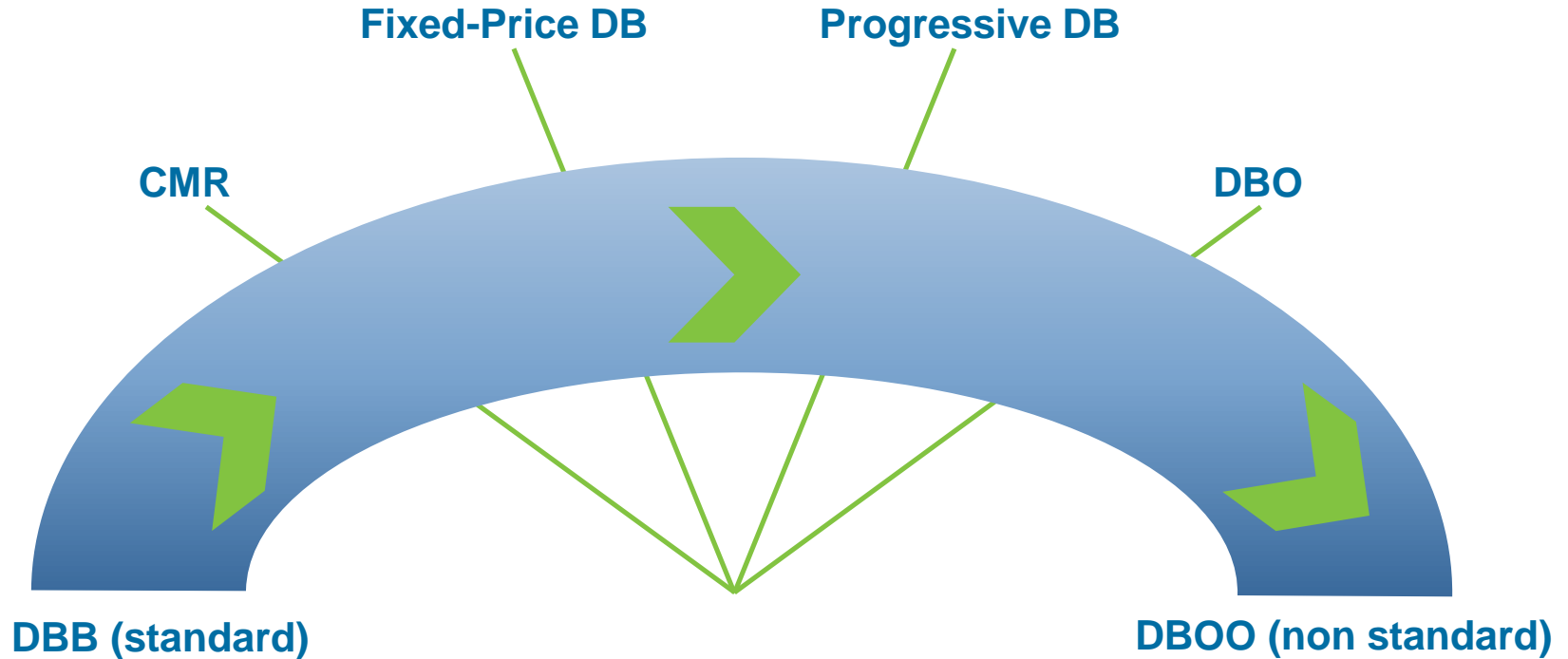


Examples of Alternate Project Delivery

- Alternate Project Delivery (APD) Methods
 - CM at Risk (CMR)
 - **Design Build**
 - Fixed Price Design Build (FPDB)
 - Progressive Design Build (PDB)
 - Operations & Ownership Options



Project delivery spectrum

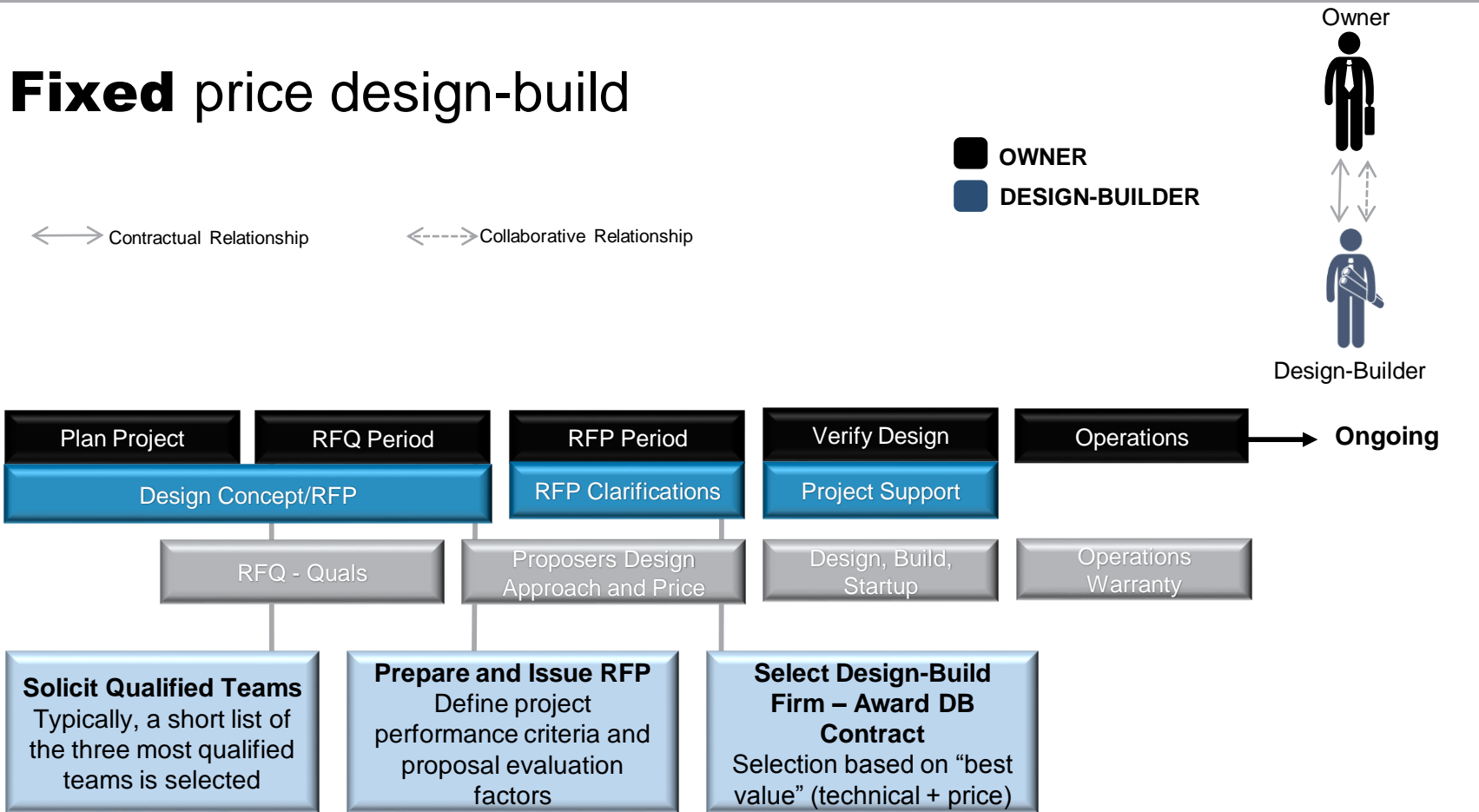


How does an APD (DB) work?

- Alternate Project Delivery / **Design Build**
 - Owner develops project RFP
 - Engineer & Contractor develop collaborative response
 - Engineer/Contractor deliver project
 - Risk is managed between Engineer & Contractor from the outset
 - Owner has a lesser role
 - Scope can be **progressive** to “see” around corners, minimizing risk



Fixed price design-build

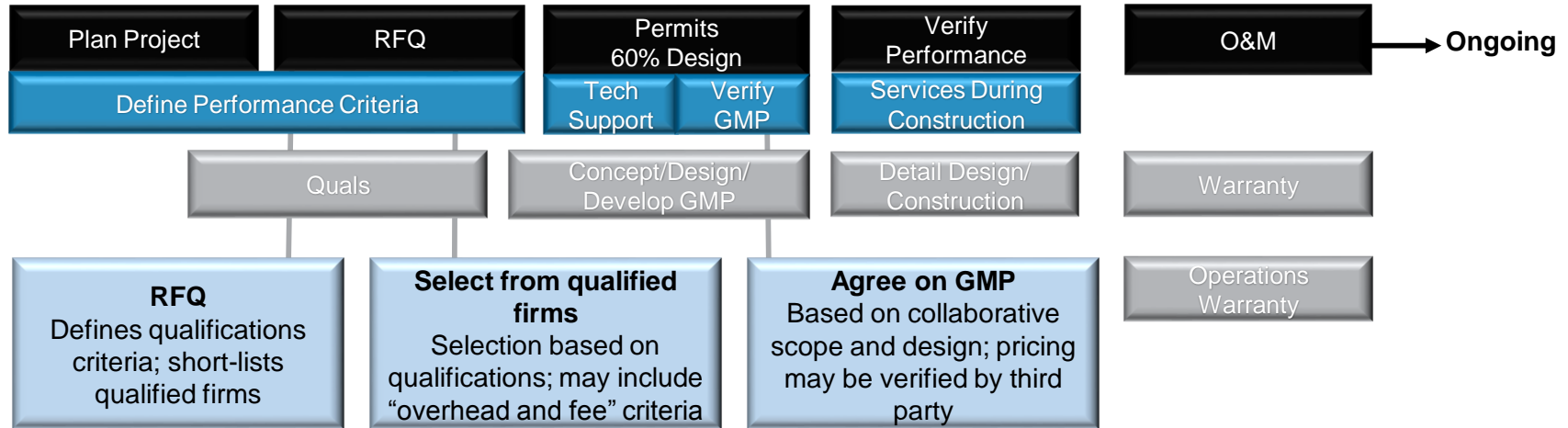
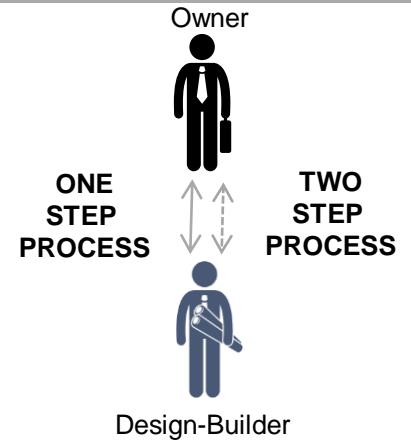


Progressive design-build

↔ Contractual Relationship

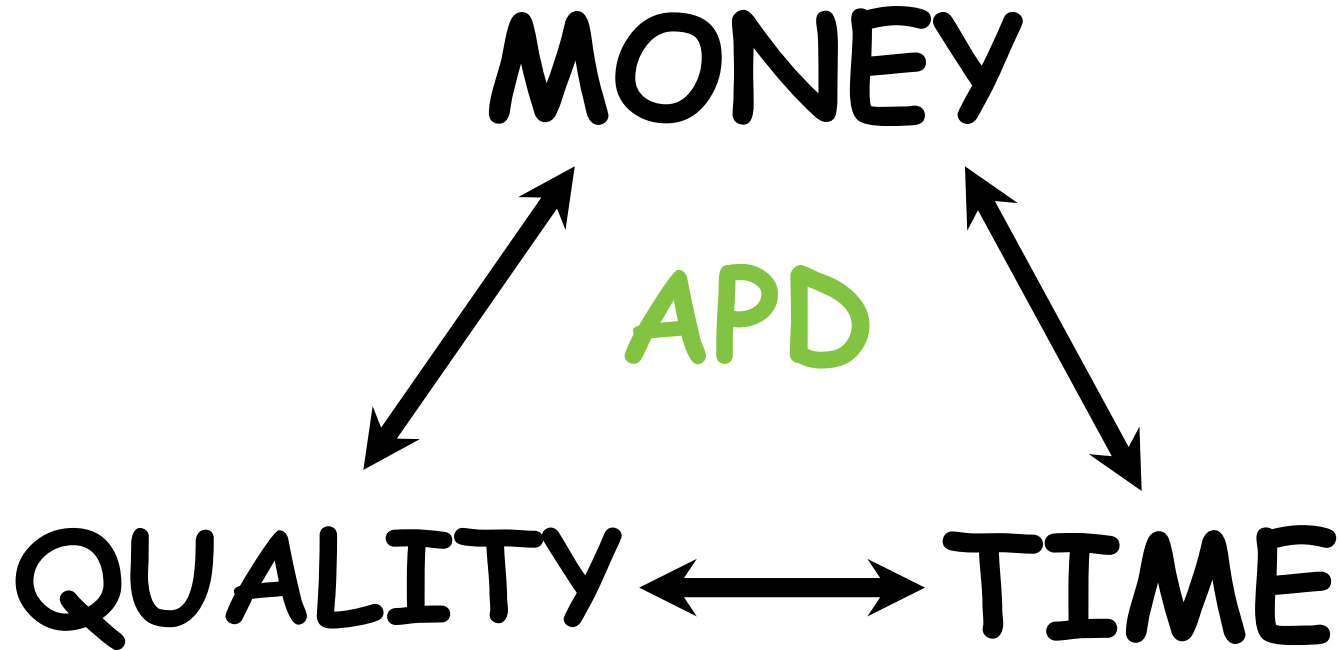
↔ Collaborative Relationship

 OWNER
 DESIGN-BUILDER



Alternate Project Delivery

Why alternate project delivery?

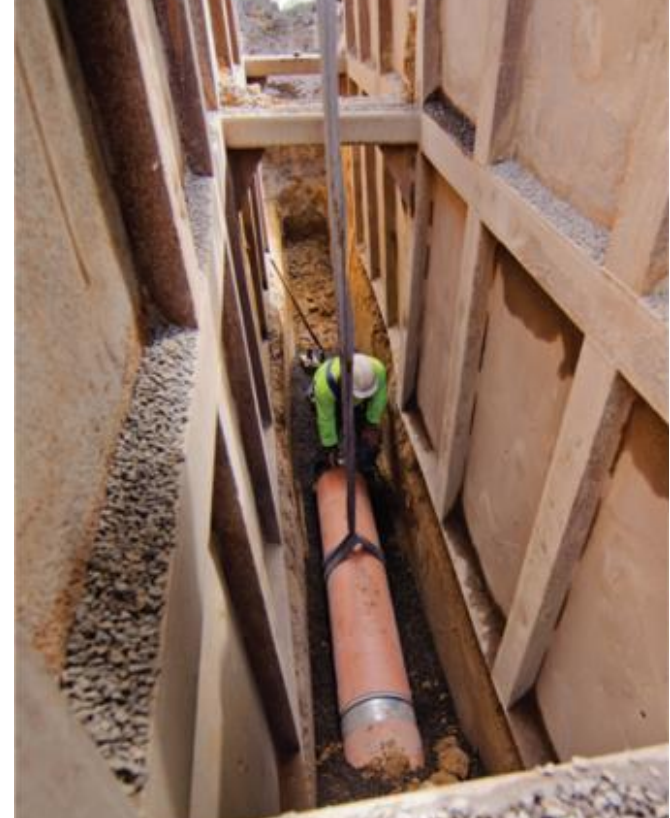


Risk vs. reward



Types of APD projects

- Most Any
- Buildings -New or Retro-fit Rehab
- Utility/Sewer -New or Rehab
- Green Infrastructure/ BMPs
- Pavement – Roads/Taxi-ways/Runways
- Decom/Demo
- Bulk Fluids/Fueling Systems
- And more...



When to use APD?

- Most any...
- Budget or design to budget projects
- Schedule driven projects
- Defined scope / Identified risk
- Willing owner, knowledgeable
- Available, skilled DB professionals
- Becoming more common...



Advantages of APD/DB

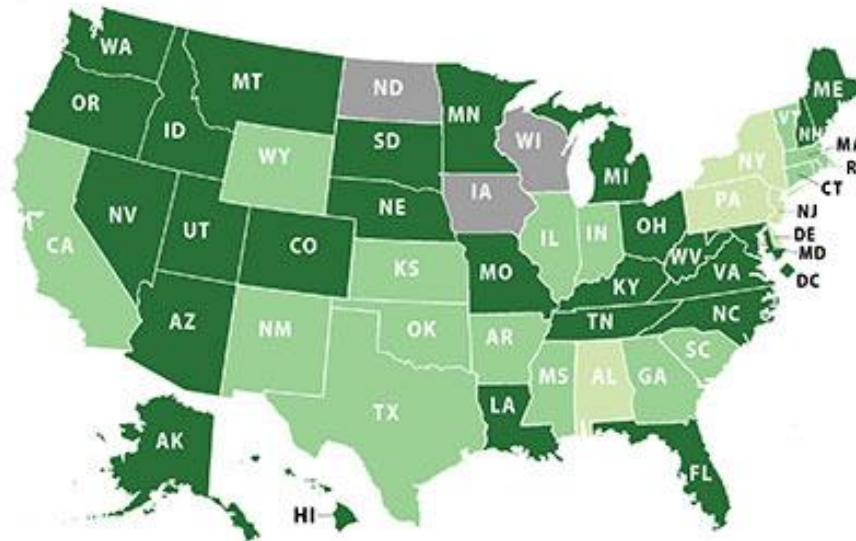
- Single point of contact
- Engineer/Constructor team
 - Accountability
 - Collaborative delivery process
 - Contain/manage risk
 - Synergy, allows for Innovation
- Reasonable cost certainty
- Overall cost savings
- Schedule acceleration
- Quality project



Comparison of project delivery methods

PARAMETER	DB vs. DBB
Cost	6.1% Lower
Construction Speed	12% Faster
Delivery Speed	33.5% Faster
Cost Growth	5.2% Less
Schedule Growth	11.4% Less

Who's doing what?



- Design-build is limited to one political subdivision, agency or project
- Design-build is a limited option

- Design-build is widely permitted
- Design-build is permitted by all agencies for all types of design and construction

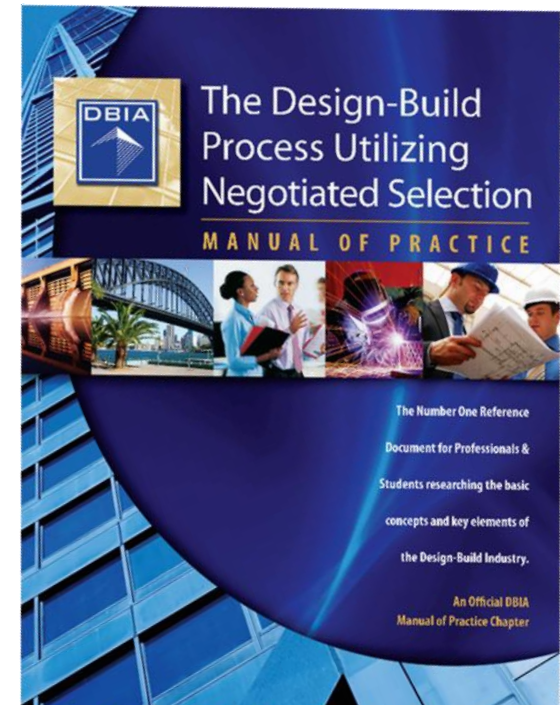
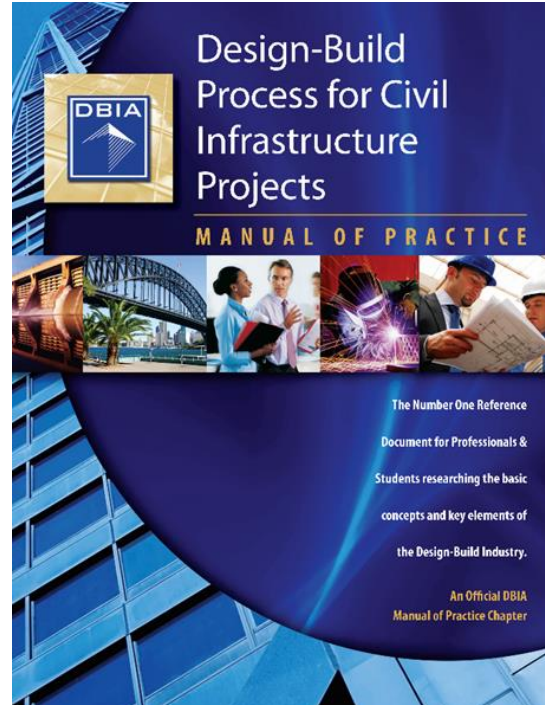
As of January 2017

APD Cautions – There is No Utopia! 😊

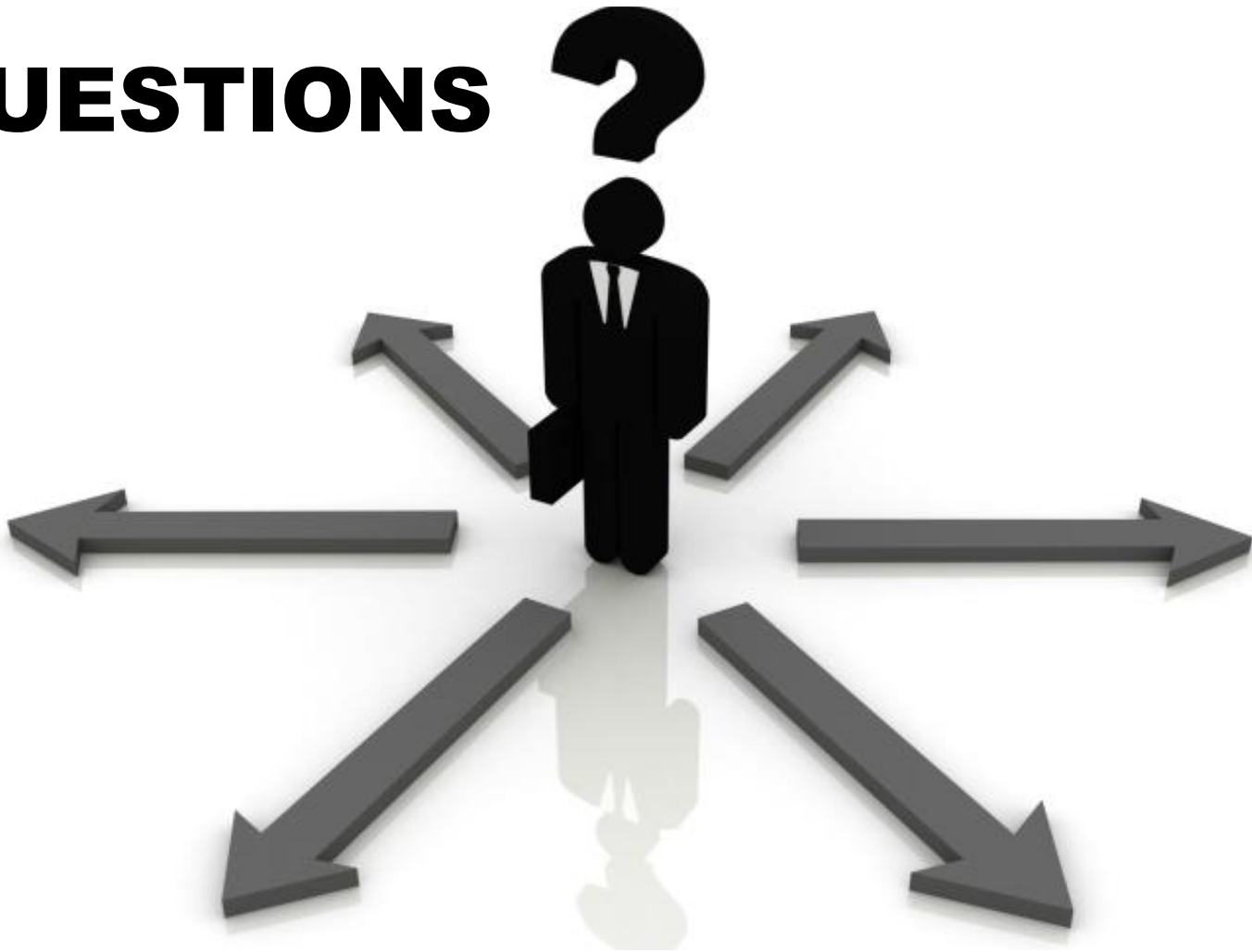
- APD = Culture shift in project management
 - Different role for owner
 - Carefully select APD method
 - Develop clear RFP
 - Consider project variables and potential unknown/unforeseen
 - Progressive DB?
 - Consultant help
- Qualified engineers/contractors
 - Less competition/bidders
 - Legal review



Reference materials



QUESTIONS



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www.ghd.com