



# Plowing the Way for Efficient Private Water Project Delivery

## PRESENTERS:

**Michael E. Bisignani, PE**  
Business Group Leader  
GHD

**Joseph Koehler**  
Business Development Manager  
Allan Myers, Inc.

1

## Joseph Koehler



- Business Development Manager
- 18 years in Engineering and Construction
- Experienced in engineering, design, manufacturing, project management, and construction across various sectors

2

GHD | Allan Myers

2

## Michael E. Bisignani, PE



- Business Group Manager
- 19 years w/ GHD
- Executed over \$1B in Water and Wastewater Capital Projects

3

GHD | Allan Myers

3

## Comparing Utility Ownership Models

---

Public

---

Private

---

Authority

---

Joint Municipal

---



4

GHD | Allan Myers

4

## Alternate Delivery Keys to Success

### Key Partnerships

(Owner, Engineer, Contractor)

- Trust
- Commercial and risk alignment
- Common culture
- Mutual respect – personal and professions
- Willing to make the investment
- Risk Reward together for EVERYONE

### Development of a strategic partnership:

“In a strategic partnership, the partners remain independent; share the benefits from, risks in and control over joint actions; and make ongoing contributions in strategic areas. Most often, they are established when companies need to acquire new capabilities within their existing business.”

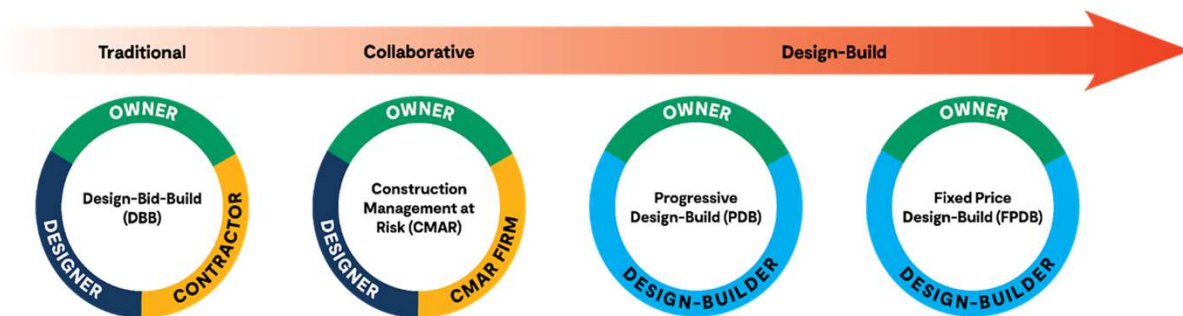


5

GHD | Allan Myers

5

## Traditional Delivery Options

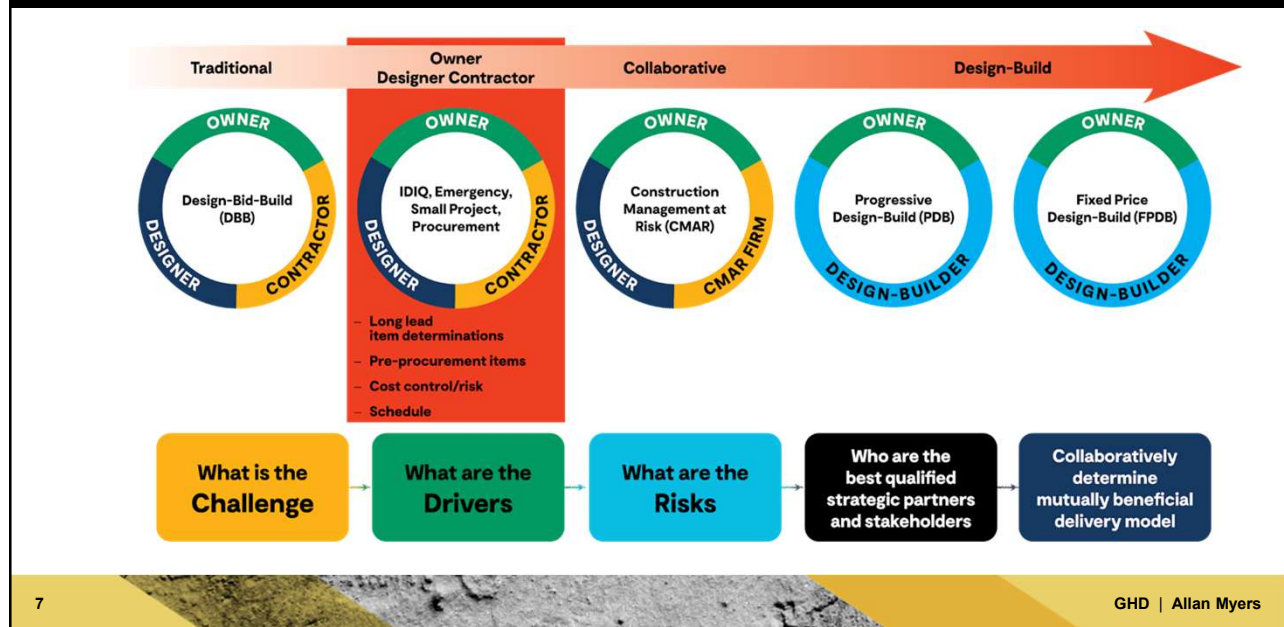


6

GHD | Allan Myers

6

## Modified Delivery Options



7

## Understanding Delivery Model Drivers

### Project Drivers and Considerations for alternate delivery:

- Avoiding Procurement Complexity
- Seeking lowest cost
- Delegating all Risk - Risk appetite
- Bandwidth limiting engagement and participation
- Ability to gain collective support on critical decisions
- Following trends

### Common alternate delivery project drivers



8



## Being an engineering consultant in alternate delivery

- Team Bandwidth
- Early Contractor Integration throughout design and construction
- Focus on Schedule
- Constant Collaborative Value Engineering
- Flexibility and Responsiveness
- Greater Accountability
- Check your ego at the door!!!



9

GHD | Allan Myers

9

## Being a Contractor in Alternate Delivery

### Early Involvement:

- Contractor Ramp-up Prior to Construction
  - Constructability
  - Material / Equipment Availability and Procurement
  - Minimizing Project Risk
- Begin Construction Prior to Design / Permitting Completion
- Ownership / Buy in of Design

### During Construction:

- Schedule
  - Optimized from the Start
- Scope
  - Right Fit
  - Dynamic
- Efficient
  - Less Upfront Engineering
  - Less RFI, Submittals, Misinterpretations



10

GHD | Allan Myers

10

## Example 1 – Denitrification Filter Rehab

### Project Drivers

- Compliance
- Reliability for Next Phase
- Capital Spending Goals
- Lack of Equipment Replacement Information

### Challenges

- Minimal existing drawings and details
  - Required on-the-fly design and fabrication of internals
- Access Restrictions
  - Very tight structure around filter
  - Temporary access
- Operational Outage Duration

### Outcomes

- Met Schedule
  - Construction October to December
  - Minimized Operational Risk
- Extra Scope Same Cost
  - Additional electrical scope
  - VE Containment Scope
- Performance Met with on-the-fly equipment



11

GHD | Allan Myers

11

## Example 2 – Crum WTP Sedimentation Basin

### Drivers

- Cost
  - Capital Cost Goal
  - Reduced Cost Risk - GMP
- Schedule
  - Fast Track Concept to Completion
- Operations
  - Existing System Non-performance
  - High O&M Costs

### Challenges

- Schedule
  - Concept Development November 2023
  - Start-up June 2025

### Outcomes

- Schedule Met
- Budget Beat
- Scope Optimized
- Efficient Preconstruction and Construction



12

GHD | Allan Myers

12



## Example 3 – Lakeside PS and Forcemain

### Drivers

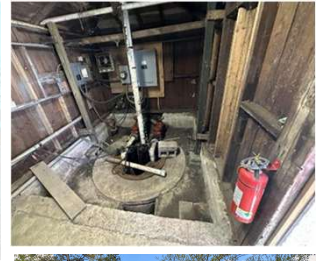
- Partial Design
  - Risk Management
  - Cost Management
  - Collaborative Scope Definition
  - Re-define Owner Objectives
- Operations
  - Existing System Non-performance
  - Safety Concerns
  - Reliability

### Challenges

- Facility Unknowns – abandoned utilities
- Schedule
  - Capital Spend Goal for 2023
  - Electrical and Control Equipment Lead Times

### Outcomes

- Capital Spend Goals Met
- Right Fit for Customer



13

GHD | Allan Myers

13

## Questions to ask as an owner



Is my organization prepared for Alternate Delivery and what legal barriers need to be discussed?



What are my most critical success factors for this project?



What are the drivers that support these success factors?



Are there long lead hurdles that will make this approach more difficult? (property, complex permitting, etc.)

14

GHD | Allan Myers

14



# Questions

**What is the right fit  
for your organization?**

**PRESENTERS:**

**Michael E. Bisignani, PE**  
Business Group Leader  
GHD

**Joseph Koehler**  
Business Development Manager  
Allan Myers, Inc.