1. Why use Alternative Delivery
2. Design-Bid-Build
3. CMAR
4. Lump-Sum Design-Build
5. Progressive Design Build
6. Preconstruction Services & Benefits
7. Schedule Comparison
8. Alternative Delivery- Florida Law
9. Owner Involvement
10. Questions
Why use Alternative Delivery?

Attainment of benefits that match owner project objectives and expectations:

- Faster delivery time
- Better price certainty
- More cost-effective final price; potential for cost savings (capital and O&M)
- Enhanced risk allocation with guarantees contractually bound
- Greater control over scope, quality, price and schedule
- Creates lifecycle focus
- Increased collaboration and not confrontation
- Proper long-term asset protection; O&M considerations
Traditional Design-Bid-Build

Description

• Design engineer prepares plans and specifications
• Lowest bid from general contractor
• Separate design and construction contracts

Diagram:
- Owner
- Designer
- GC
- Suppliers
- Subcontractors

Contract
Communication
Traditional Design-Bid Build

Advantages
• Familiar delivery method
• Owner controls design
• No legal barriers
• Permitting agencies familiar with process
• Owner gets the low competitive price

Disadvantages
• Linear and sequential process
• Costs uncertain until bids received
• Selection based on low bid
• Owner warrants design
• No contractor input into design
• Difficult to make contractor qualifications part of bid
Traditional Design-Bid-Build

Suitable Projects

- Owner wants complete control of design process
- Not time sensitive
- Contractor input not important
- Want project constructed for lowest bid
- Willing to accept risks
Traditional Design-Bid-Build

Schedule
Construction Manager at-Risk (CMAR)

Description

• Qualifications-based selection of CMAR similar to selection of design engineer

• Two-phase delivery process: Preconstruction & Construction

• CMAR develops estimates and schedules as well as constructability reviews at 30%, 60% and 90%

• CMAR’s subcontractors and suppliers are approved by owner

• CMAR cost is direct cost of construction plus fixed or percentage fee

• Guaranteed Maximum Price (GMP) establishes typically at 60% or 90% design

• Contingency included for project risks
Construction Manager at-Risk (CMAR)

**Advantages**
- Best-value procurement process
- Transparent cost accounting
- Cost certainty
- Reduces delivery time
- Early discussion & mitigation of risks

**Disadvantages**
- No single-point accountability
- Requires involvement of owner
- Cost unknown at time of contract signing
Construction Manager at-Risk (CMAR)

Schedule
Design-Build

Description

• Designer and constructor under one contract
• Qualifications- and compensation-based selection
• DB solicits and holds subcontracts as in DBB
• DB contractor may or may not be allowed to self perform construction
Design-Build Delivery Methods

- **Lump Sum Performance Design-Build**
  - RFP generally includes performances requirements, not drawings
  - Standard specifications used
  - Owner selects DB based on price, qualifications and schedule

- **Lump Sum Prescriptive Design-Build**
  - RFP includes 10% to 30% drawings and specifications
  - Owner input during design criteria development
  - Owner selects DB based on price, qualifications and schedule

- **Progressive Design-Build**
  - Owner and DB advance design together with details from owner
  - Lump sum or Guaranteed Maximum Price set between 60% and 90%
  - Owner selects DB based on qualifications
Design-Build Attributes

• Owner engages a DB based on technical requirements, other considerations and price
• DB responsible to complete design and construction for a lump sum price
• Owner has one contract with a DB (JV or single entity)
  • Owner can retain technical advisor
• Single point of accountability for design and construction
• Demonstration that project can achieve defined performance
• Design builder responsible for all subcontractors, vendors, suppliers, etc.
• Design builder responsible for project safety
Advantages

- Single entity responsibility
- Early cost certainty
- Cost, schedule and performance guarantees
- High level of innovation for Performance DB
- Potential for less Change Orders

Disadvantages

- Performance requirements can be difficult to describe
- Prescriptive framework may limit innovation
- Limited owner input into design
- May be higher O&M and life cycle costs
- High cost of proposal may limit interest
- Longer procurement process
- Owner ability to adjust without resulting CO’s
Lump Sum Design-Build

Schedule

DB LUMP SUM (PERFORMANCE OR PRESCRIPTIVE)

- Hire DB Consultant
- Set Criteria
- Bid
- Design
- Build
Description

- Qualifications-based selection of DB contractor
- DB contractor may or may not be allowed to self-perform construction
- GMP set between 60-100% design
- Cost-plus similar to CMAR or Lump Sum after design
Progressive Design-Build Attributes

- Owner engages a design builder based on the qualifications
- Owner and builder collaborate on the design effort and design builder provides preconstruction services
- Design builder is responsible to complete the design and construction typically under a GMP approach
- Design builder undertakes and is responsible for construction through a combination of self perform and competitively bid construction work
- Owner has one contract with design builder
- Implementation closely resembles CMAR
Progressive Design-Build

Advantages
• Single point of responsibility
• Preserves owner control throughout design
• 100% of the equipment and subcontracts are competitively bid similar to CMAR
• Involvement of construction professionals and O&M personnel throughout design
• Shortest schedule for procurement and construction
• Owner has off-ramp prior to GMP approval

Disadvantages
• Construction cost unknown at initial contract signing
• May need public education campaign
Progressive Design-Build

Essence of the Benefits through Collaboration and Integration:

CHARTER TEAM

Preliminary
- Estimate
- Schedule
- Risk and Opportunity

30% GMP and Schedule

30% Design

30% Workshop

60% GMP and Schedule

60% Design

60% Workshop

90% GMP and Schedule

90% Design

90% Workshop

FINAL DESIGN

Owner Involvement

Constructability and O&M Reviews/VE Consideration

Change Management

Estimating

Schedule

Risk
Preconstruction Services and Benefits

• Fosters a collaborative team relationship
• Constructability to reduce costs and save time
• Accurate estimating and scheduling to ensure budgets and schedules are met
• Reduce potential for change orders
• “VE” cost and time savings
• Can include life cycle considerations, operability, ease of maintenance

Reduce Cost

Reduce Time

Reduce Change Orders
Consultants’ Competitive Negotiation Act (CCNA)

CCNA provides for a competitive proposal selection process or qualifications-based procurement and selection process for the acquisition of design build services.

<table>
<thead>
<tr>
<th>Procurement Type</th>
<th>Attributes</th>
</tr>
</thead>
</table>
| Best Value Lump Sum Design Build | • Best value type procurement taking into account project price and other non-price considerations  
• Firm fixed price (lump sum) price proposal  
• Owner design (10%-30% design) required for procurement combined with performance based technical requirements |
| Qualifications based (i.e. Progressive Design Build) | • Qualifications based procurement  
• Guaranteed Maximum Price during preconstruction services  
• No or little design required for procurement |
Owner must have:

- Strong internal advocate for alternative delivery
- Team member with strong understanding of contract method
- A clear understanding of responsibilities
- Desire to participate and communicate

It’s the Owner’s Choice!

Owners have to consider advantages and disadvantages and the relative priority/weight of each and how they match with the project objectives and expectations.
Questions???

Thanks for your time.