

Procurement Strategies for Streetcars & LRT Systems

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- **Mike Robertson – LRT CM/GC**
- **Greg Benz, PB – LRT / Streetcars P3**

Traditional Design-Bid-Build

- No overlapping processes –Sequential
- Separate contracts for Engineer & Contractor
- 100% design before estimate and bid
- Contractor bids on design and selected on low price
- Best used for non-complex projects

Design Build

- Single entity for design and construction
- Traditionally 30% design included in procurement
- Usually two-step procurement (RFQ/RFP)
- Design & construction overlap
- Design-Builder provides a lump-sum price

Construction Management / General Contractor (CM/GC) - Slide 1

- Integrated approach to Project delivery
- Qualifications based selection
- Contractor and design selected separately

Construction Management / General Contractor (CM/GC) – Slide 2

- Contractor is paid during project development and provides input into the design (designer is still responsible for the design (sign/seal drawings))
- Contractor negotiates Guaranteed Maximum Price (GMP) based on an agreed level of design completion (75-100%)

LRT / Streetcars P3

Typical Contracting Methods

- Design-Bid-Build
- Design-Build
- **Public-Private-Partnership (P3)**

Traditional Design-Bid-Build

Dan Heller

ADVANTAGES

- Designer selected by qualifications
- Competitive bidding leads to lowest initial cost
- Owner's goals & objectives incorporated into the design
- “Comfort Zone” for most owners

Traditional Design-Bid-Build

Dan Heller

DISADVANTAGES

- Likelihood of claims & change orders
- No contractor assistance during design development
- Can lead to adversarial relationship between contractor & owner
- Increased oversight & quality review during construction

Design Build Doug Jackson

ADVANTAGES

- One Team – One Contract
- Speed – Overlap design & construction
- Risk Management – Risk Transfer
- Innovation – ATC process

Design Build

Doug Jackson

DISADVANTAGES

- One Team – designer works for contractor
- Speed – how much does acceleration cost
- Risk Management – third party risk transfer
- Innovation – low bid vs. best value

CM/GC

Mike Robertson

ADVANTAGES

- Pre-construction provides opportunity
 - Constructability and VE can achieve results
 - Priced after risk defined/allocated
 - Early solid price assists funding (FTA)
 - Opportunity to build trust - receive rewards

CM/GC

Mike Robertson

DISADVANTAGES

- Perceived or Actual?
 - Final construction pricing is not competitive
 - It requires a change in well understood design-bid-build culture of an org

Public-Private Partnership (P3)

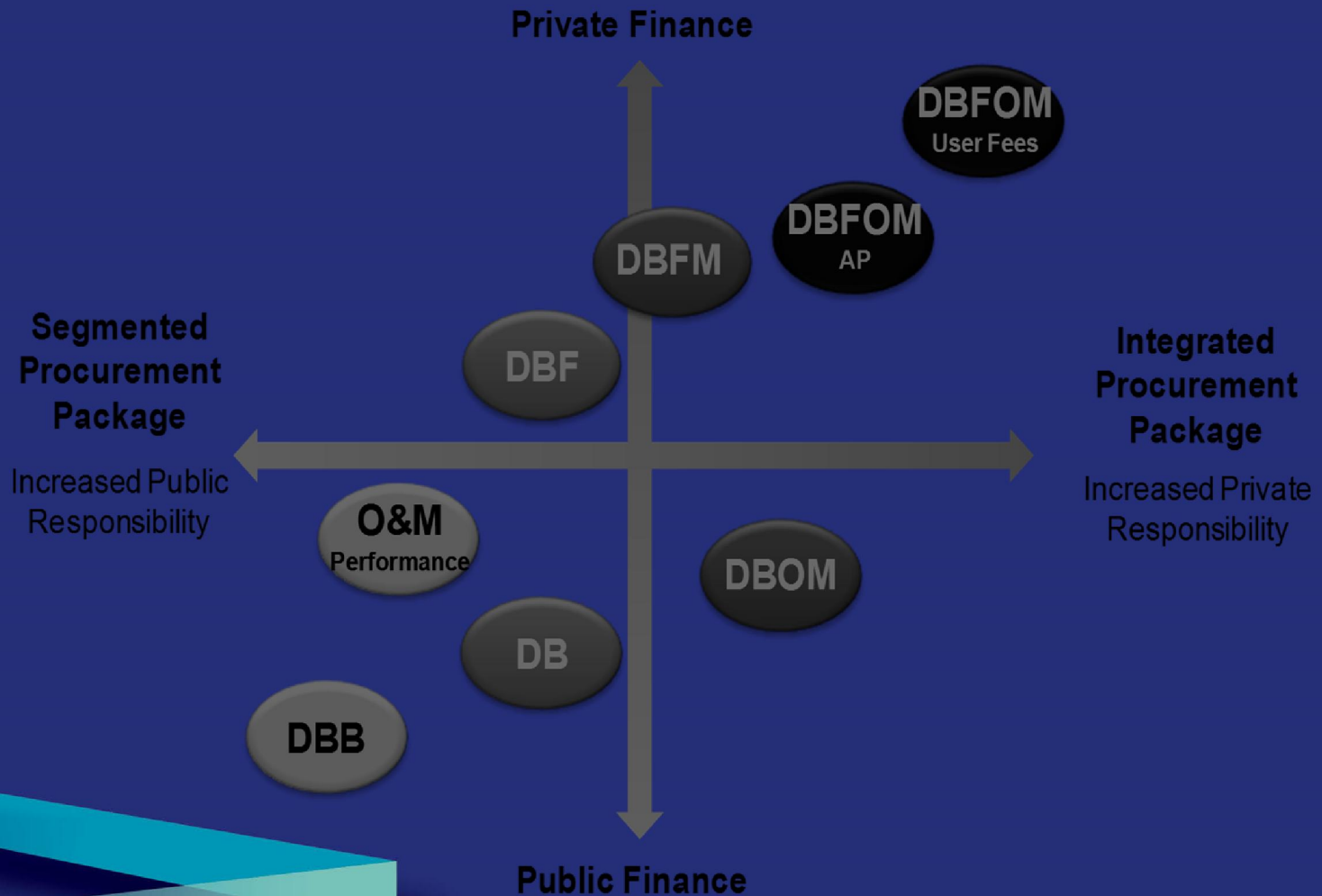
Greg Benz

- Combines the design, construction, and partial or full financing of a project into one umbrella contract
- Sometimes includes long-term operations and maintenance (O&M)
- Always places additional risk on the private contractor which in turn brings value to the public agency and citizens
- Contractual agreement between public agency and private party
- True partnership: Each party shares risk and rewards of the assets and services

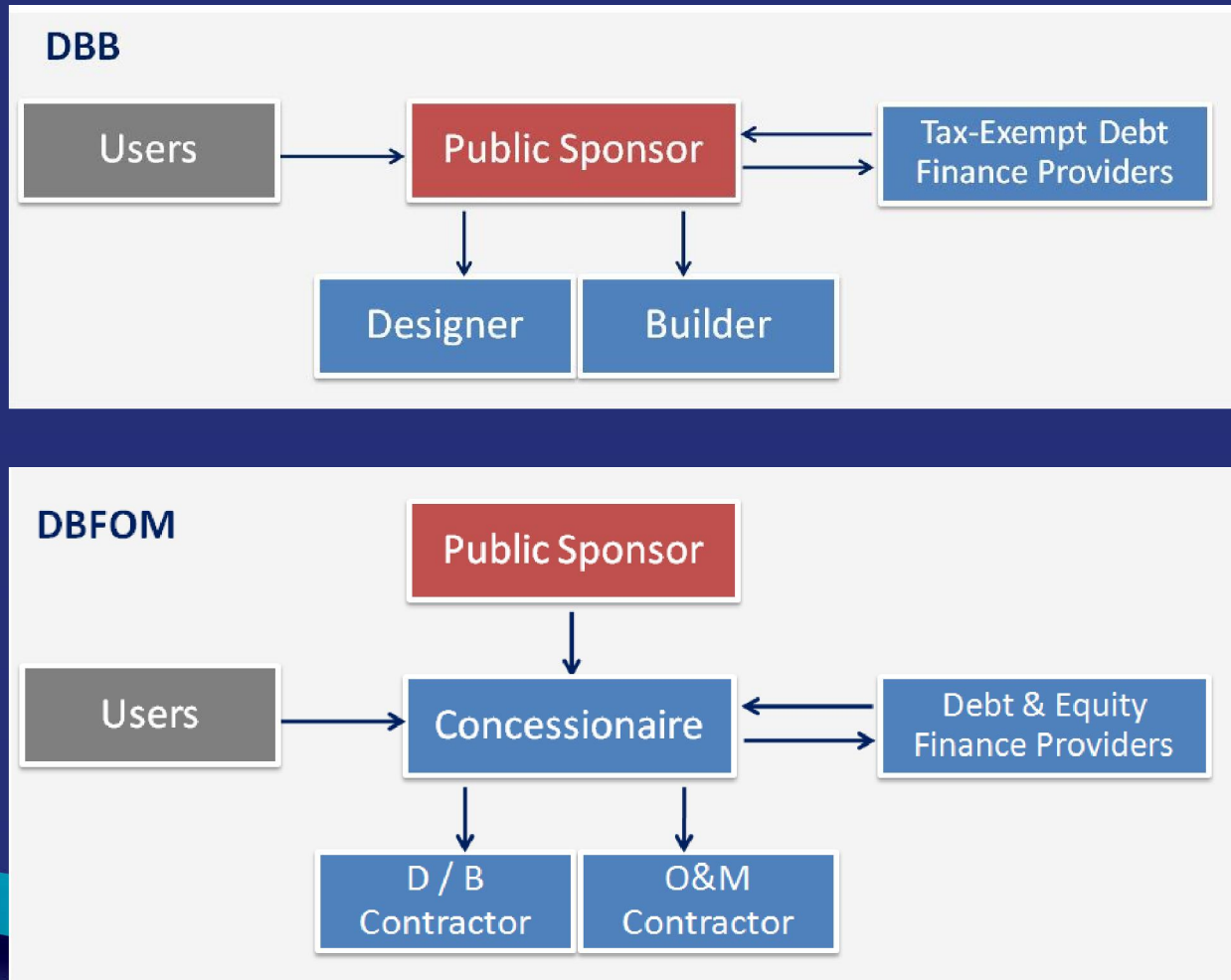
Public – Private Partnerships

- Only Two in US So Far
 - Denver Eagle
 - Maryland Purple Line
- Several Canadian Examples
 - Ottawa LRT (Ottawa)
 - Waterloo LRT (Waterloo/Kitchener)
 - Eglinton LRT (Greater Toronto)
 - Viva Bus BRT (Greater Toronto)
 - Edmonton LRT (Edmonton)
 - Canada Line (Vancouver)
 - Evergreen Line (Vancouver)
 - Union - Pearson - Airport Line (Toronto)


Where P3 Fits within Project Implementation Options



Traditional DBB Relationship Structure Compared to DBFOM



Benefits of P3 Concession Approach

- Private investors and bond/debt holders add strong oversight to the contractors
 - “skin in the game”
 - More effective transfer of system integration and performance risk to the private sector
 - Fully optimize the design for O&M as well as construction
 - Single point of contact and accountability throughout the entire contract term
 - Construction contractor(s) and equipment supplier(s) in case of rail projects
 - Bidders need to optimize the lowest combination of construction cost, O&M cost, and finance over the life cycle
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Challenges of P3 Concession Approach

- **Enabling Legislation**
 - **Meeting Key Objectives**
 - **Service Quality & Reliability**
 - **Station Planning/Aesthetics**
 - **Community Commitments**
 - **3rd Party Agreements**
 - **ROD Commitments**
 - **Public and Stakeholder Perceptions and Misunderstandings**
 - **Organizational Structures and Resources Required**
 - **FTA New Starts Process**
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Procurement Strategies

DISCUSSION



13th National Light Rail & Streetcar Conference

