TRI-VALLEY – SAN JOAQUIN VALLEY REGIONAL RAIL AUTHORITY

BOARD OF DIRECTORS MEETING

March 13, 2019

Martinelli Event Center

Livermore, CA

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REGIONAL RAIL AUTHORITY

AGENDA ITEM 5
EXECUTIVE DIRECTOR'S REPORT

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REGIONAL RAIL AUTHORITY

Briefings

- Mayor Rickman (Tracy)
- Mayor Pro Tempore Doug Kuehne (Lodi)
- Assembly Member Susan Eggman
- Assembly Member Rebecca Bauer-Kahan
- City Manager Tim Ogden (Manteca)
- Councilmember Walt Murken (Escalon)
- Supervisor Katherine Miller (San Joaquin County)
- Kris Balaji (SJ County Public Works Director)

Briefings, cont.

- Vice Mayor Dan Wright (Stockton)
- State Senator Steve Glazer
- Assembly Member Jim Frazier
- Senator Cathleen Galgiani
- CalSTA/Caltrans

Workshops and Presentations

- Tracy City Center Association
- Tracy Rotary
- El Concilio Coalition
- Mountain House Public Workshop
- Innovation Tri-Valley Transportation Committee
- City of Tracy Public Workshop

Workshops and Presentations, cont.

- Tracy Winter Farmer's Market
- CenTen Merchants Meeting
- ACE Park & Ride Pop-up (Vasco)
- Las Positas College Club Day
- Central Valley Association of Realtors

Upcoming Workshops and Presentations

- St Patricks Day Festival (Dublin)
- Pleasanton Farmers Market
- Livermore Farmers Market
- Contreras Market pop-up (Livermore)
- Dublin/Pleasanton BART station pop-up
- San Joaquin Partnership Meeting
- Dublin Farmers Market
- Lathrop/River Islands Workshop

Valley Link

Connecting People, Housing, and Jobs

Briefing Book

WINTER/SPRING 2019

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Project Timeline

Project Feasibility Report

Phase 1 | Completed July 2018

- Project goals
- Project alignment
- Stations
- Vehicles
- Service characteristics

Phase 2 | Due June 2019

- Funding plan (Apr/May)
- Project delivery plan (Mar)
- Operator (Apr)
- Construction Schedule (Apr)

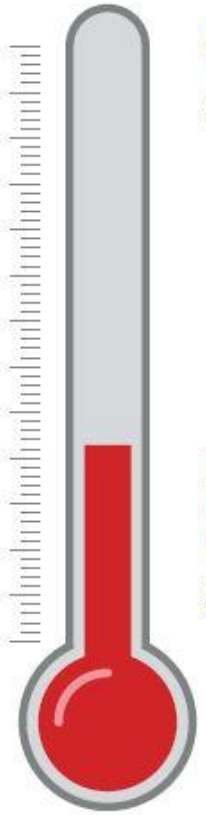
Environmental Review and Design

- MTC $10.2 million funding allocation | Fall 2018
- Environmental scoping | Fall 2018
- Complete environmental clearance & design | Summer 2019

Final Design & Construction begins:

- 2019–2020

Service Begins: 2023–2026



Goal:
$1.8 Billion

Funding Identified:
$588 Million

AGENDA ITEM 6
Treasurer's Report

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AGENDA ITEM 7
Budget Amendment

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AGENDA ITEM 8
Contract for Government Relations, Public Affairs and Community Engagement

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AGENDA ITEM 9
VALLEY LINK PROJECT DELIVERY

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Denver Union Station Transit Center
Denver, Colorado, United States
Architecture, Building Engineering, Transportation, Construction Services, Design-Build

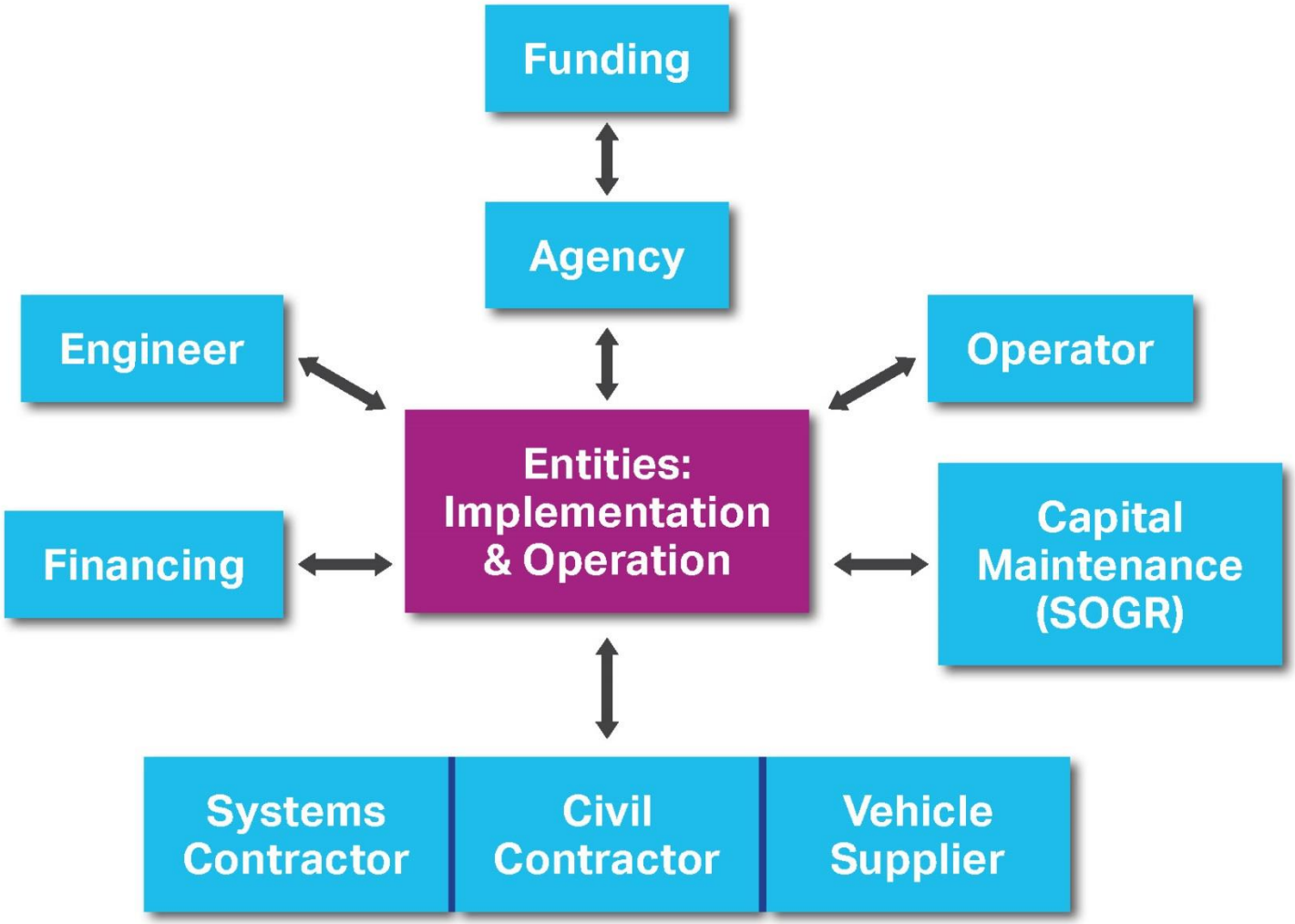
Project Delivery Methods

AECOM Imagine it. Delivered.

Agenda

Decision: Project Delivery Method

Diagram: Relationships Among Project Elements



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PROCESS FOR SELECTING PROJECT DELIVERY METHOD

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How to Decide on Method

TCRP

TRANSIT COOPERATIVE RESEARCH PROGRAM

REPORT 131

A Guidebook for the Evaluation Of Project Delivery Methods

Project G-8
ISSN 1073-4872
ISBN: 978-0-309-11779-1
Library of Congress Control Number 2009903118

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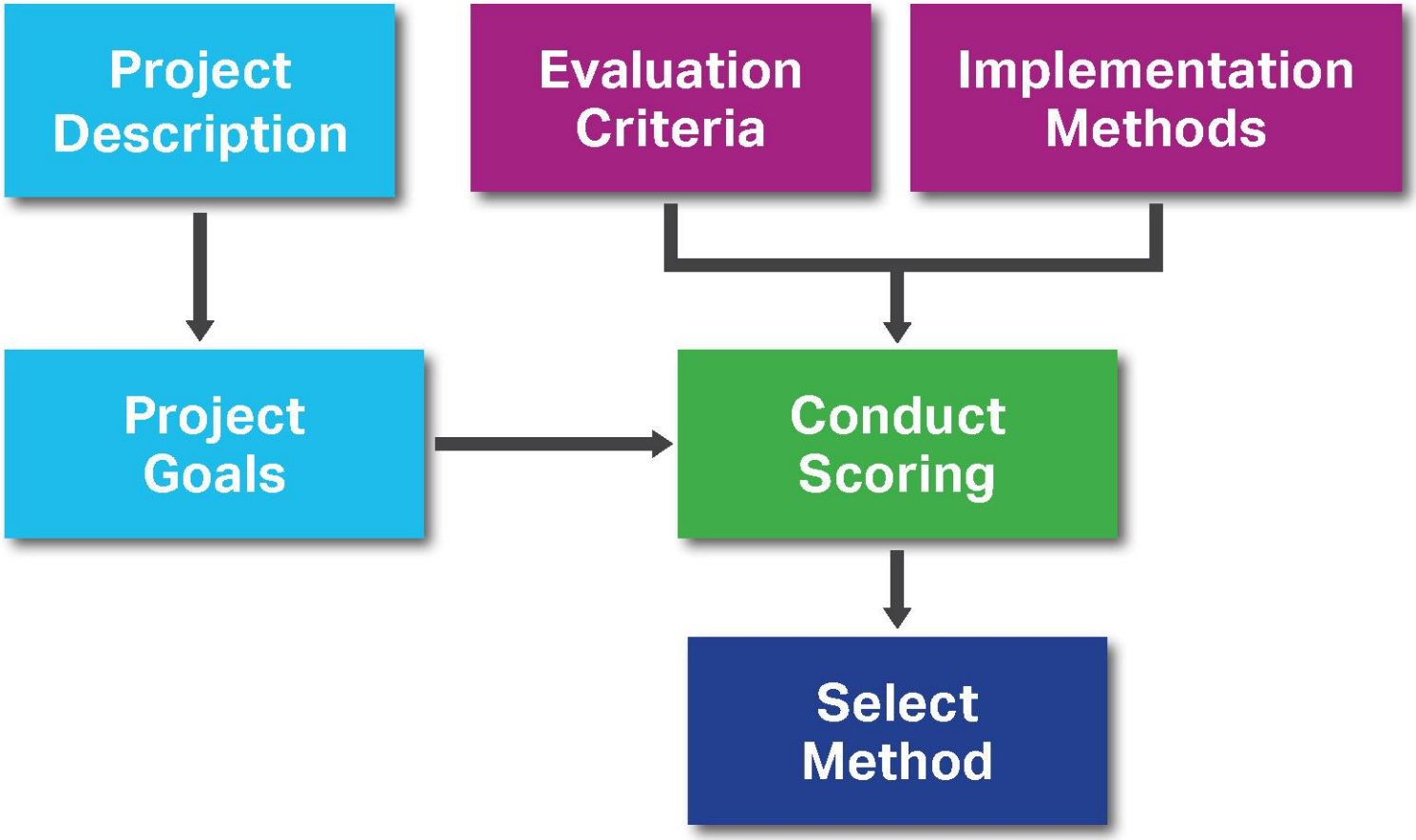
Process for Selecting Implementation Method – Tier 1



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Draft Evaluation Framework of Delivery Methods

Evaluation Criteria	DBB	CM/GC	DB	DBM	DBOM	DBMF	DBOMF
Capital Cost							
O&M Cost							
Schedule							
Risk Management							
Agency Staffing Required							
Agency Control							
Competition							
Stakeholder and Comm. Input							
Innovation							
Other							

Recommended Scoring

Points	Description
5	Highest performance
4	Medium-High
3	Medium
2	Medium-Low
1	Lowest performance

NOTE: Performance measures the degree to which the criterion is satisfied.

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PROJECT GOALS
VERSUS
PROJECT DELIVERY GOALS
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Project Goals

Purpose & Need Adopted July 2018 Board Meeting

- Rail connectivity between the Bay Area Rapid Transit District's rapid transit system and the Altamont Corridor Express commuter service in the Tri-Valley.
- Project implementation that is fast, cost-effective and responsive to the goals and objectives of the communities it will serve.
- Improves connectivity within the Bay Area Megaregion: connecting people, jobs and housing.
- Supports the vision of the California State Rail Plan to connect the Northern California Megaregion to the State rail system.

Sustainability Policy Adopted December 2018 Board Meeting

- Sustainability: The Valley Link Project will be a model of sustainability in the design, construction and operation of the system.

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Proposed Project Delivery Goals

Why do we need Project Delivery Goals?

- Goals will be converted to selection criteria or requirements
- Robust, defensible contracting process that defends against undesirable outcomes
- Consistent with best practices defined by TCRP 131

Sources:

- Legislative Document
- Valley Link Feasibility Study Phase I
- Notice of Preparation for Project CEQA Document
- Other similar new rail transit investments

Proposed Project Delivery Goals

Goal	Description
Consistent Quality	Commit to a comprehensive and clear approach to maintaining consistently high quality infrastructure and services from the first day of revenue.
Fiscal Responsibility	Deliver a best value investment in transportation infrastructure that recognizes the Owner's fiscal constraints.
Customer Focus	Provide customers with clean, safe, and enjoyable experiences on trains and in stations.
Contextual Compatibility	Provide infrastructure that is compatible with the surrounding communities.
Community Responsibility	Protect and enhance the economic viability of surrounding communities and maintain positive relationships with stakeholders.
Purposeful Innovation	Provide value through innovative design, construction, maintenance and operations techniques and strategies as appropriate to enhance asset value.

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Proposed Project Delivery Goals (cont'd)

Goal	Description
Emphasis on Connectivity	Provide facility designs and schedules that emphasize connectivity to existing and future transit services in the corridor.
Environmental Responsibility	Minimize environmental impacts throughout the Project lifecycle and incorporate principles of sustainability into design, construction, maintenance and operations.
Sustainability	Integrate sustainability into design, construction, maintenance and operations by achieving LEED Silver for appropriate facilities and other physical infrastructure.
Timeliness	Begin Revenue Service in accordance with the Project Schedule.
Risk Management	Optimize risk allocation in procurement and packaging.
SBE/DBE Engagement	Achieve SBE/DBE participation goals through workforce development, particularly in disadvantaged communities.

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PROJECT DELIVERY METHODS

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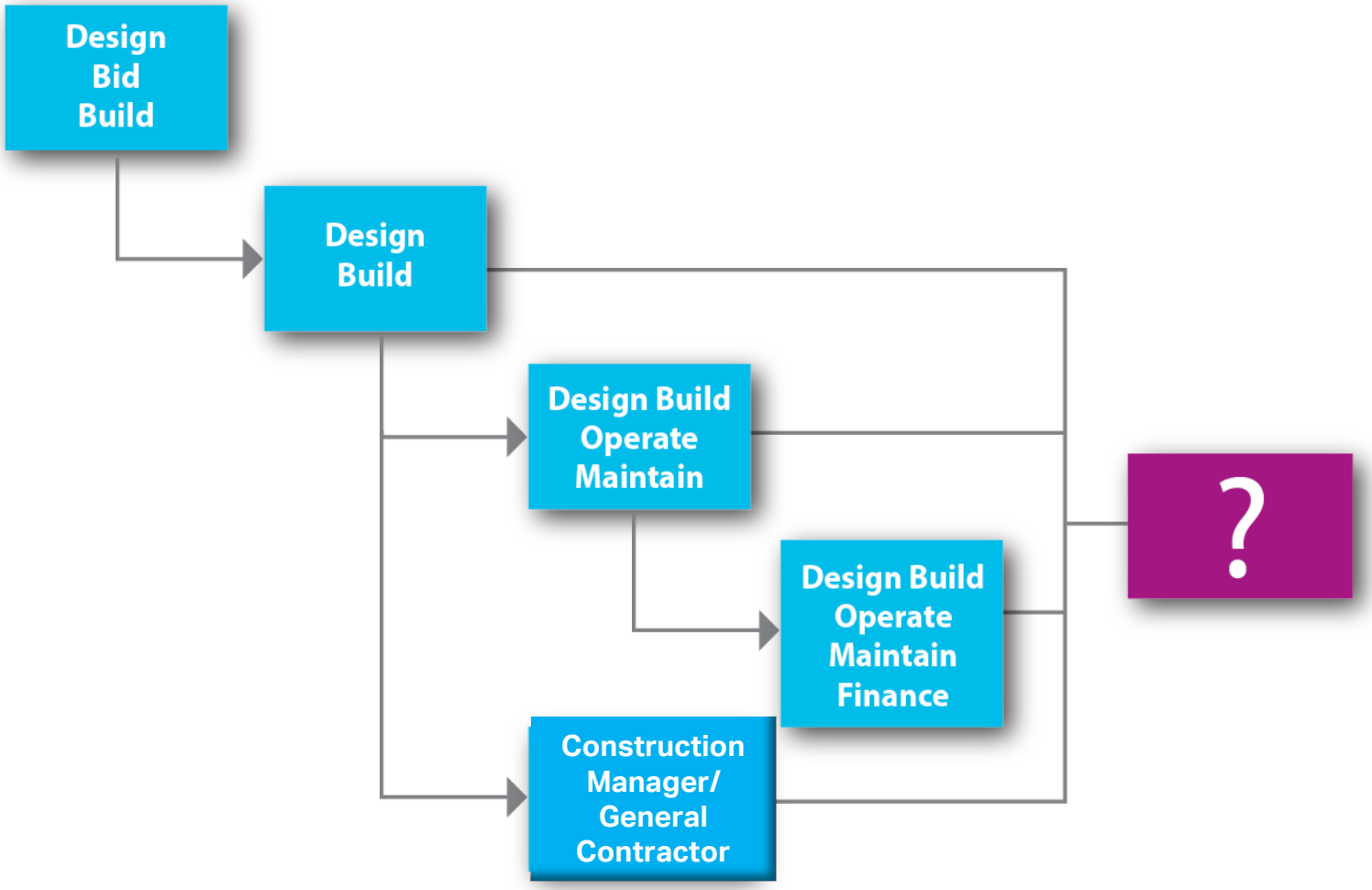
Evolution and Complexity of Project Delivery Methods



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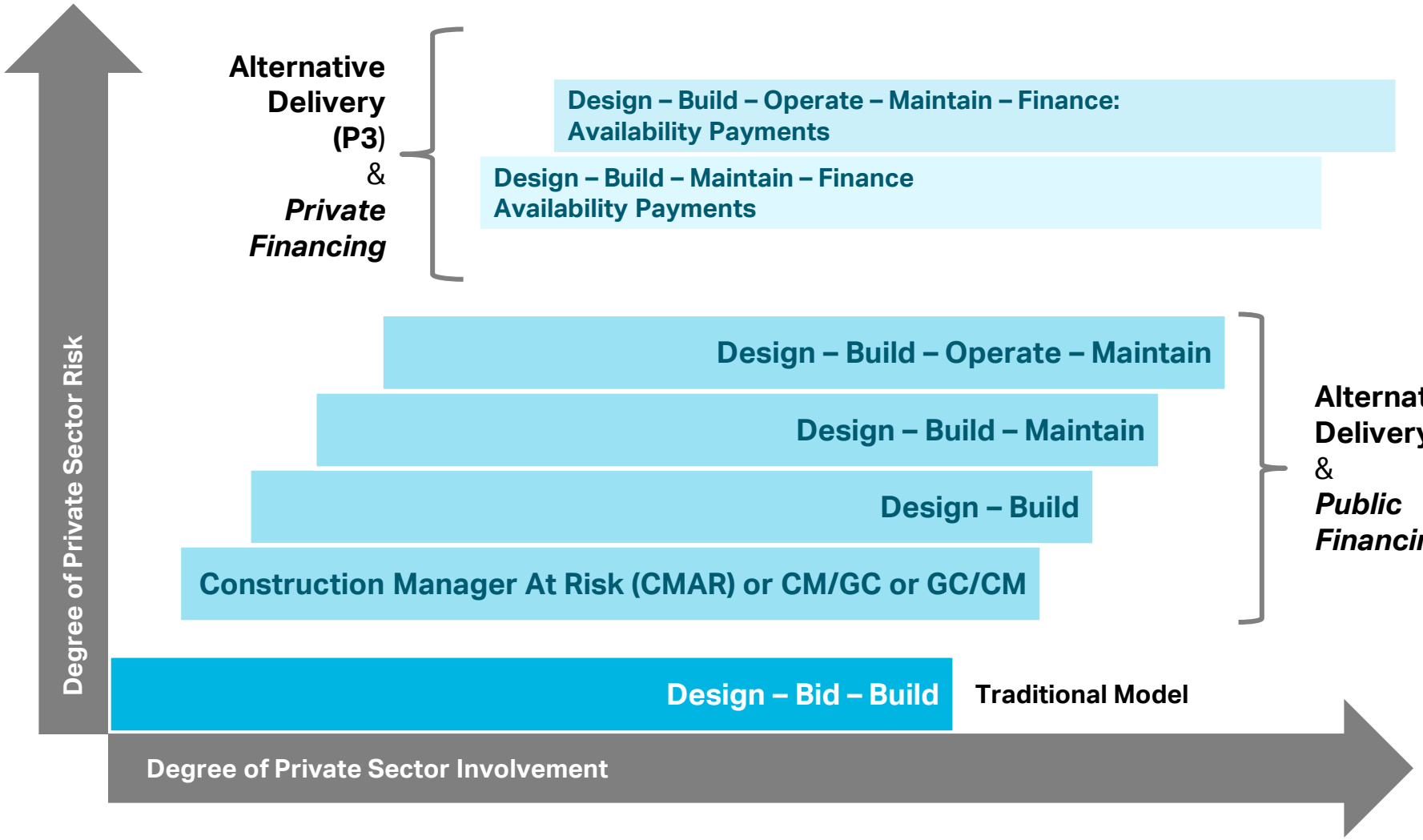
Project Delivery Methods



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Examples of Cost Savings for Delivery Projects

Project	Alt. Delivery Type	Engineer Estimate (billion)	Bid Price (billion)	Difference from Eng. Est.
Ohio River Bridges – East End Bridge	DBMF	$1.0	$0.76	- 24%
Ohio River Bridges – Downtown Bridge	DB	$0.95	$0.86	- 10%
Tappan Zee Bridge	DB	$4.1	$3.14	- 23%
Port of Miami Tunnel (POMT)	DBOMF	$1.2	$0.65	- 46%
I-635 (LBJ Expressway)	DBOMF	$2.7	$2.6	- 4%
North Tarrant Expressway	DBOMF	$2.05	$2.0	- 2%
Florida I-4	DBMF	$4.0	$2.6	- 35%
Florida I-595	DBMF	$1.08	$0.58	- 46%
I-35 East (Dallas Horseshoe)	DB	$0.82	$0.80	- 3%
I-285/GA 400 Interchange	DBF	$1.1	$0.46	- 58%
TOTAL		$19.0	$14.4	- 24%

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Design Bid Build (DBB)

Characteristics

- Retains maximum control by the agency
- Has the ability to refine/modify the design without construction Change Orders up to bidding
- No collaboration between contractor/engineer to reduce cost and schedule
- After the short warranty period is over, the contractor's liability is over
- All of the capital maintenance risk is retained by the agency
- Requires large technical and administrative staff commitment

Design Bid Build – Documents for Southwest LRT in Minneapolis

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Construction Manager / General Contractor (CM / GC)

Characteristics

- Contractor selected based on qualifications
- Engineer selected based on qualifications
- Takes advantage of contractor/engineer collaboration to reduce cost and schedule
- Separately selected engineer and contractor may not always agree on solutions
- No “real” competition for pricing
- Reduces change orders
- Early maximum allowable price
- Contractor assumes price and schedule risk
- Supports workforce development (e.g., within disadvantaged communities)

CM / GC: Phoenix South Central LRT Extension

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Design Build (DB)

Characteristics

- Takes advantage of contractor/engineer collaboration to reduce cost and schedule
- Transfers design/construction interface risks to the contractor; reduces change orders
- Requires less agency staff to manage the project, but requires specialized expertise
- Encourages contractor to develop alternative technical concepts (ATCs)
- After the short warranty period is over, the contractor's liability is over
- All of the capital maintenance risk is retained by the agency

DB: LA Metro Gold Line LRT Extension

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Design Build Maintain (DBM)

Characteristics

- Takes advantage of contractor/engineer collaboration to reduce cost and schedule
- Transfers design/construction interface risks to the contractor; reduces change orders
- Requires less agency staff to manage the project, but requires specialized expertise
- Encourages contractor to develop alternative technical concepts (ATCs)
- **Transfers capital maintenance risk to the contractor for 30 – 40 years; encourages life cycle cost approach**

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DBM: WMATA Silver Line Extension

The Washington Post

Transportation

Concrete problems continue to plague Silver Line's second phase

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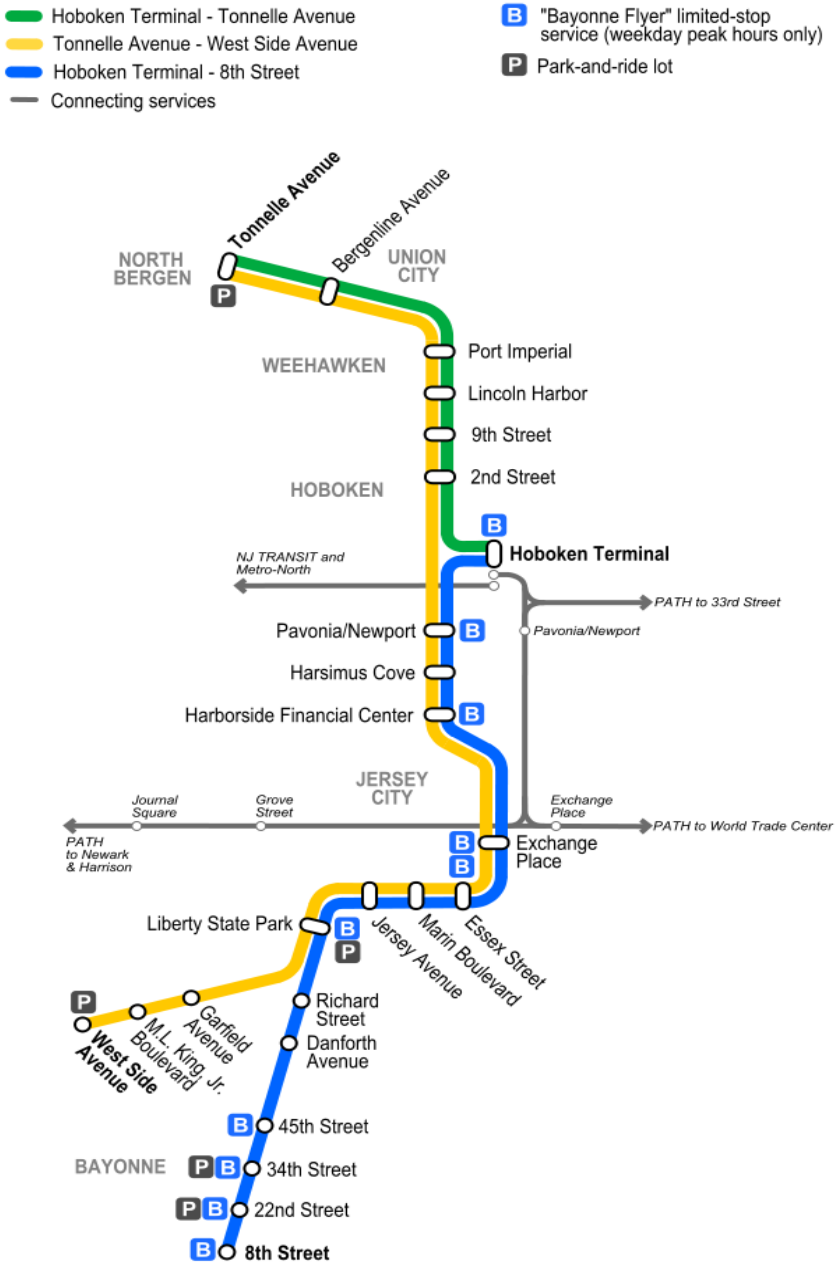
Design Build Operate Maintain (DBOM)

Characteristics

- Takes advantage of contractor/engineer collaboration to reduce cost and schedule
- Transfers design/construction interface risks to the contractor; reduces change orders
- Requires less agency staff to manage the project, but requires specialized expertise
- Encourages contractor to develop alternative technical concepts (ATCs)
- Transfers capital maintenance risk to the contractor for 30 – 40 years; encourages life cycle cost approach
- **Operation requires an independent system/technology**
- **Transfers vehicle maintenance and operations risk to contractor**

DBOM: Hudson-Bergen LRT



Design Build Maintain Finance (DBMF)

Characteristics

- Takes advantage of contractor/engineer collaboration to reduce cost and schedule
- Transfers design/construction interface risks to the contractor; reduces change orders
- Requires less agency staff to manage the project, but requires specialized expertise
- Encourages contractor to develop alternative technical concepts (ATCs)
- Transfers capital maintenance risk to the contractor for 30 – 40 years; encourages life cycle cost approach
- **Equity at-risk provides capital financing for the project and a strong incentive to perform**

DBMF: Florida I-595 Reconstruction

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Design Build Operate Maintain Finance (DBOMF)

Characteristics

- Takes advantage of contractor/engineer collaboration to reduce cost and schedule
- Transfers design/construction interface risks to the contractor; reduces change orders
- Requires less agency staff to manage the project, but requires specialized expertise
- Encourages contractor to develop alternative technical concepts (ATCs)
- Transfers capital maintenance risk and operating risk to the contractor for 30 – 40 years; encourages life cycle cost approach
- Equity at-risk provides capital financing for the project and a strong incentive to perform
- **Operation requires an independent system/technology**
- **Transfers vehicle maintenance and operations risk to contractor**

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DBOMF: Maryland MTA Purple Line

- DBOMF Concessionaire for a 36-year term at a total of $5.6 billion
- SPV consortium comprised of three equity partners:
  - Meridiam Infrastructure (70%)
  - Fluor Enterprises (15%)
  - Star America Fund (15%)
- Consortium committed to holding equity and being a part of the project for the full 36-year term
- Fluor will maintain infrastructure for full term
- MDOT/MTA will retain ownership of the asset and accountability
- Specific handback requirements for returning the Purple Line System to MTA at the end of the 36-year term

EVALUATION CRITERIA

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Draft Evaluation Framework of Delivery Methods

Evaluation Criteria	DBB	CM/GC	DB	DBM	DBOM	DBMF	DBOMF
Capital Cost							
O&M Cost							
Schedule							
Risk Management							
Agency Staffing Required							
Agency Control							
Competition							
Stakeholder and Comm. Input							
Innovation							
Other							

Project Delivery Method Evaluation Criteria

Criteria		Description
1	**Capital Costs**	This criterion includes several aspects of project capital cost, such as ability to handle budget restrictions, early and precise cost estimation, and consistent control of project costs.
2	**Operations & Maintenance Costs**	This criterion includes several aspects of project operations and maintenance costs, such as ability to handle budget restrictions, early and precise cost estimation, and consistent control of project costs.
3	**Schedule**	This criterion includes two aspects of project schedule—the ability to shorten the schedule and the opportunity to control and prevent time growth (keeping the duration of the project within the expected timeframe).
4	**Risk Management**	This criterion involves methods for coping with project uncertainties that are inherent in each delivery method as each project delivery method has characteristics that affect risk allocation. The overarching goal should be to select the project delivery method that assigns project risks to the parties in the best position to manage them.

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Agency Level Evaluation Criteria

Criteria		Description
5	**Agency Staffing Required**	This criterion ultimately concerns the amount of owner involvement required by each delivery method. The total number of owner employees is one measure of the extent of owner involvement. Another important measure for the owners is the variation in the number of staff required throughout the project development process.
6	**Agency Control of Project**	The owner's ability to control the details of design and construction varies with each project delivery method. (Note that discussion of cost control and time control is included in other consideration descriptions.)

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Public Policy / Regulatory Evaluation Criteria

Criteria		Description
7	**Competition**	Each delivery method may affect the level of competition, and thus the effect of each delivery method on competition must be evaluated. Alternative project delivery methods allow agencies to package projects in sizes that can effectively enhance or reduce competition.
8	**Stakeholder/ Community Input**	This criterion addresses the opportunity for stakeholder involvement afforded by each delivery method.

Other Evaluation Criteria

Criteria		Description
9	**Innovation**	The degree to which each delivery method encourages the introduction of innovations to accomplish project elements.

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SCORING MATRIX

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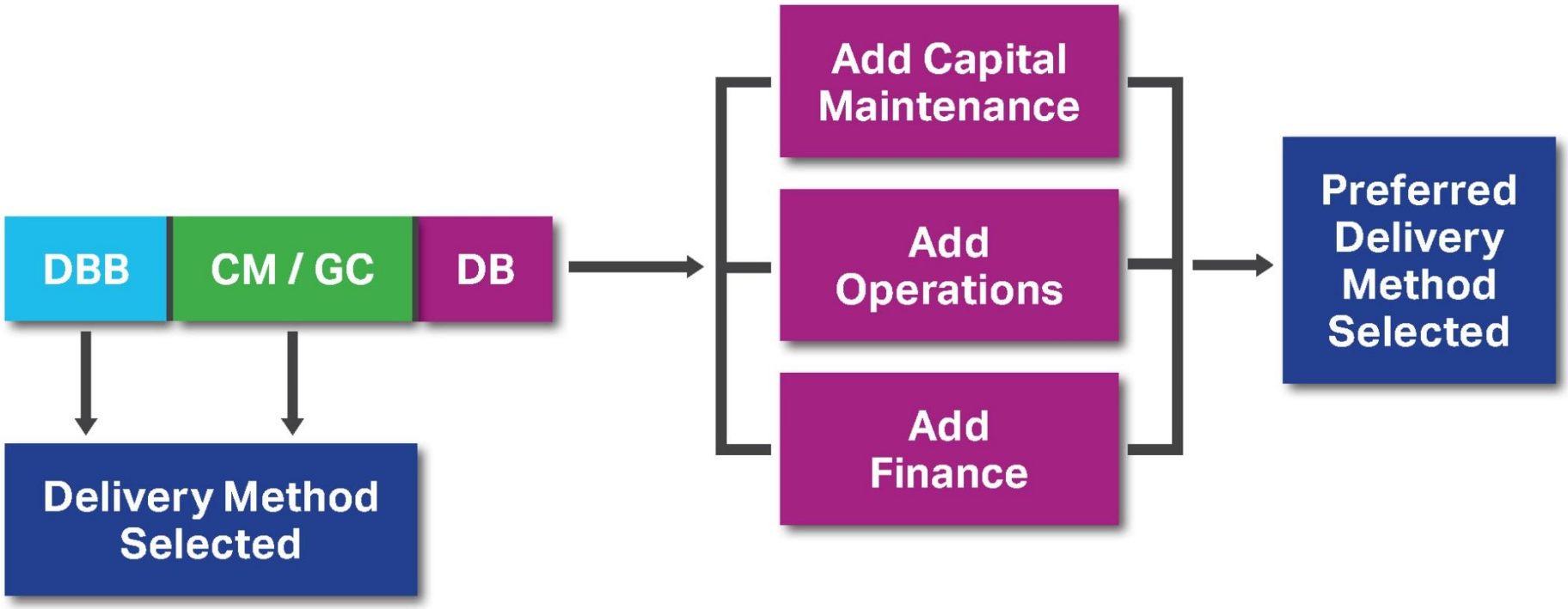
Delivery Methods – Scoring Matrix

Evaluation Criteria	DBB	CM/GC	DB	DBM	DBOM	DBMF	DBOMF
Capital Cost							
O&M Cost							
Schedule							
Risk Management							
Agency Staffing Required							
Agency Control							
Competition							
Stakeholder and Comm. Input							
Innovation							
Other							

Flow Chart of Project Delivery Method Selection



Project Delivery Methods – Scoring Matrix

Evaluation Criteria	DBB	CM/GC	DB
Capital Cost	1	2	3
O&M Cost	2	2	2
Schedule	1	1	3
Risk Management	1	2	3
Agency Staffing Required	1	1	2
Agency Control	5	5	3
Competition	5	1	4
Stakeholder and Comm. Input	5	5	2
Innovation	1	2	3
TOTAL	**22**	**21**	**25**

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Design Build Project Delivery Methods – Scoring Matrix

Evaluation Criteria	DB	DBM	DBOM	DBMF	DBOMF
Capital Cost	3	5	5	5	5
O&M Cost	2	2	5	2	5
Schedule	3	3	3	5	5
Risk Management	3	3	4	4	5
Agency Staffing Required	2	3	5	4	5
Agency Control	3	2	1	2	1
Competition	4	3	2	1	1
Stakeholder and Comm. Input	2	2	2	2	2
Innovation	3	4	4	4	5
TOTAL	**25**	**27**	**31**	**29**	**34**

Considerations:

- Funding Not Defined
- Rail Vehicle Competition
- Local Capital Maintenance Capacity

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Findings

- DBB is most applicable in dense urban settings where control is important; this is not case for Valley Link. The large agency staff required to manage this delivery method does not exist.

- DB provides advantages over DBB in reduced cost and a shorter implementation schedule. It is the standard delivery method for: DART, LA Metro, RTD, and other transit agencies.

- CM/GC provides few overall advantages. There are better ways to gain contractor ideas on how to build a major transit project. The lack of price competition is a major problem.

- Adding capital maintenance responsibility for 35-40 years mitigates the expiration of contractor warranties and reduces costs due to life-cycle approach.

- Adding operating responsibility has potential to reduce costs.

Findings (cont'd)

- Using DBMF or DBOMF could enhance ability of Agency to secure funding through federal financing programs, e.g. TIFIA, PAB, etc.

- Bundling of projects into a DBOM(F) approach does not always provide the best value for each individual component, only the best value for whole team.

- In proceeding with any form of DB, the following must be addressed:
  - Right-of-way and easements
  - Utility relocations
  - Permits
  - Legislation
  - Funding/Financing Plan
  - Identification of "escape valves" for long-term O&M contracts
  - Vehicles – determine separate or bundled
  - UP negotiations

Recommendations

- Drop DBB from further consideration.
- Drop CM/GC from further consideration.
- DB should be the minimum approach for Project Delivery to meet the cost, schedule, and innovation project goals.
- Capital maintenance of the civil infrastructure (e.g. track) should be considered for inclusion in the preferred delivery method to take advantage of life cycle costing and to transfer State of Good Repair risks to the contractor.
- Defer O&M decision until further development of the design
- Defer the decision on including a private equity requirement and financing until the sources of funding are confirmed.
- After project approval, initiate the drafting of the procurement documents (to complement the 30% drawings) with a focus on Key Performance Indicators (KPIs), risk allocation, and general responsibilities.

Action

- Drop DBB from further consideration.
- Drop CM/GC from further consideration.
- DB should be the minimum approach for Project Delivery to meet the cost, schedule, and innovation project goals.
- Capital maintenance of the civil infrastructure (e.g. track) should be considered for inclusion in the preferred delivery method to take advantage of life cycle costing and to transfer State of Good Repair risks to the contractor.
- Defer O&M decision until further development of the design
- Defer the decision on including a private equity requirement and financing until the sources of funding are confirmed.
- After project approval, initiate the drafting of the procurement documents (to complement the 30% drawings) with a focus on Key Performance Indicators (KPIs), risk allocation, and general responsibilities.

QUESTIONS & DISCUSSION

Project Delivery Methods – Scoring Matrix

Evaluation Criteria	DBB	CM/GC	DB	DBM	DBOM	DBMF	DBOMF
Capital Cost	1	2	3	5	5	5	5

1 - DBB – no opportunity to consider contractor Alternative Technical Concepts (ATCs) to reduce costs.

2 - CM/GC – construction contractor may have opportunity to suggest alternate approaches to the designer, but there is no price competition when entering into the construction contract.

3 - DB approaches have consistently been the least expensive.

5 - Adding maintain, operate, and/or finance responsibilities tends to influence the design-builder's investment decisions.

Project Delivery Methods – Scoring Matrix

Evaluation Criteria	DBB	CM/GC	DB	DBM	DBOM	DBMF	DBOMF
O&M Cost	2	2	2	2	5	2	5

2 - All except DBOM and DBOMF have comparable pricing for O&M because the public agency provides the O&M.

5 - DBOM and DBOMF build O&M into the design-build contract, which incentivizes the contractor to design and build the system with the intent of operating and maintaining the system at a lower cost.

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Project Delivery Methods – Scoring Matrix

Evaluation Criteria	DBB	CM/GC	DB	DBM	DBOM	DBMF	DBOMF
Schedule	1	1	3	3	3	5	5

1 - DBB and CM/GC offer no incentives to expedite project delivery.

3 - DB, DBM, and DBOM - A design-builder is incentivized to deliver a project as early as possible because:
- they will make more money under a lump sum contract if they complete the project early
- they will receive the retainage that was withheld from each invoice
- they will minimize the amount of expensive field labor.

5 - DBMF and DBOMF – including financing responsibilities provides an additional incentive, because the earlier the project is completed, the earlier the equity investors can get their loans to the project paid back.

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Project Delivery Methods – Scoring Matrix

Evaluation Criteria	DBB	CM/GC	DB	DBM	DBOM	DBMF	DBOMF
Risk Management	1	2	3	3	4	4	5

1 - DBB – since the owner is responsible for the design and construction of the project, the owner carries all of the risk for the project.

2 - CM/GC – a little better than DBB, due to contractor involvement in design process.

3 - DB – the design-build project delivery methods assign risk to the entity that can best manage the risks.

4 - DBOM and DBMF – assigning operating or financing to an outside entity further reduces risk borne by the owner.

5 - DBOMF – assigning both operating and financing to an outside entity results in the least amount of risk borne by the owner.

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Project Delivery Methods – Scoring Matrix

Evaluation Criteria	DBB	CM/GC	DB	DBM	DBOM	DBMF	DBOMF
Agency Staffing Required	1	1	2	3	5	4	5

1 - DBB – the agency is responsible for the complete design of the project and then ensuring that the project is constructed in accordance with the design. High staffing levels are required to provide the necessary management and oversight. CM/GC requires staffing levels similar to DBB, because the agency retains responsibility for design and construction.

2 - The design-build delivery methods share risk with the design-builder, requiring less agency management and more contractor management.

3 - DBM – assigning maintenance responsibility to the design-builder requires less agency management than DB.

4 - DBMF – assigning financing responsibility to the design-builder requires less agency management than DBM.

5 - DBOM and DBOMF – assigning both operations and maintenance to the design-builder requires the least agency management.

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Project Delivery Methods – Scoring Matrix

Evaluation Criteria	DBB	CM/GC	DB	DBM	DBOM	DBMF	DBOMF
Agency Control	5	5	3	2	1	2	1

1 - DBOM and DBOMF – the agency contracts to have the project designed, delivered, operated and maintained through a consortium of firms, giving up control over all of these activities. However, the consortium is subject to performance requirements stipulated by the agency.

2 - DBM and DBMF – the agency retains control of operations, but the consortium is responsible for design, construction and maintenance.

3 - DB – the agency retains control of operations and maintenance.

5 - DBB and CM/GC – the agency is responsible for the design, construction, operations and maintenance and therefore maintains maximum control over these activities.

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Project Delivery Methods – Scoring Matrix

Evaluation Criteria	DBB	CM/GC	DB	DBM	DBOM	DBMF	DBOMF
Competition	5	1	4	3	2	1	1

Many factors influence the competitiveness of the market: sharing of risk, contract size, and the bundling of contracts. These determine the number of interested contractors.

1 - CM/GC, DBMF, and DBOMF – these delivery methods require the most complexity and specialization from contractors, resulting in the greatest contractor risk and the fewest competitors.

2 - DBOM – without finance responsibility, the contractor carries less risk and more contractors are willing to compete.

3 - DBM – without operating responsibility, the contractor carries less risk and more contractors are willing to compete.

4 - DB – without maintenance responsibility, the contractor carries less risk and more contractors are willing to compete.

5 - DBB has been the most common project delivery up until recently. The agency is responsible for most of the risk, and contracts are procured based on discipline. Contractor risk is low, resulting in the greatest competition.

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Project Delivery Methods – Scoring Matrix

Evaluation Criteria	DBB	CM/GC	DB	DBM	DBOM	DBMF	DBOMF
Stakeholder and Comm. Input	5	5	2	2	2	2	2

2 - The design-build methods leave the agency with less opportunity for stakeholder and community input; however, the owner can include community allowance or provide incentives for community and stakeholder involvement.

5 - DBB and CM/GC – allows the agency to have maximum control, giving the greatest opportunity for stakeholder and community input

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Project Delivery Methods – Scoring Matrix

Evaluation Criteria	DBB	CM/GC	DB	DBM	DBOM	DBMF	DBOMF
Innovation	1	2	3	4	4	4	5

1 - DBB – based exclusively on specifications prepared by an engineer under the direction of the agency; will reflect only the agency's experience and not a contractor's experience

2 - CM/GC – contractor/engineer collaboration allows for some innovation outside of the agency's experience.

3 - DB - the design-build methods incentivize contractor innovation. Specifications are based on performance requirements and do not prescribe how the project is executed. During procurement the contractor can propose alternative technical concepts to accomplish project requirements. Thus, the contractor has the opportunity to include innovations in their proposal and design.

4 - DBM, DBOM and DBMF – adding maintenance, operation, or finance responsibilities allows the contractor to innovate in these areas.

5 - DBOMF – provides the maximum opportunity for innovation.

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Design Build Project Delivery Methods – Scoring Matrix

Evaluation Criteria	DB	DBM	DBOM	DBMF	DBOMF
Capital Cost	3	5	5	5	5
O&M Cost	2	2	5	2	5
Schedule	3	3	3	5	5
Risk Management	3	3	4	4	5
Agency Staffing Required	2	3	5	4	5
Agency Control	3	2	1	2	1
Competition	4	3	2	1	1
Stakeholder and Comm. Input	2	2	2	2	2
Innovation	3	4	4	4	5
TOTAL	**25**	**27**	**31**	**29**	**34**

Considerations:

- Funding Not Defined
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Project Delivery Methods – Scoring Matrix

Evaluation Criteria	DBB	CM/GC	DB
Capital Cost	1	2	3
O&M Cost	2	2	2
Schedule	1	1	3
Risk Management	1	2	3
Agency Staffing Required	1	1	2
Agency Control	5	5	3
Competition	5	1	4
Stakeholder and Comm. Input	5	5	2
Innovation	1	2	3
TOTAL	**22**	**21**	**25**

AECOM

Project Delivery Methods – Scoring Matrix

Evaluation Criteria	DBB	CM/GC	DB	DBM	DBOM	DBMF	DBOMF
Capital Cost	1	2	3	5	5	5	5
O&M Cost	2	2	2	2	5	2	5
Schedule	1	1	3	3	3	5	5
Risk Management	1	2	3	3	4	4	5
Agency Staffing Required	1	1	2	3	5	4	5
Agency Control	5	5	3	2	1	2	1
Competition	5	1	4	3	2	1	1
Stakeholder and Comm. Input	5	5	2	2	2	2	2
Innovation	1	2	3	4	4	4	5
TOTAL	**22**	**21**	**25**	**27**	**31**	**29**	**34**