San Francisco Peninsula Rail Program

Memorandum

To: Executive Steering Committee
From: Alfonso Rodriquez – DTX Project Director, TJPA
Jesse Koehler – Rail Program Manager, SFCTA
Date: December 17, 2021
Re: Item 6 – Action Item: Consider the Integrated Program Management Team's Recommendation to advance the Downtown Rail Extension Project Delivery Alternatives Study to the TJPA Board of Directors

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SUMMARY

The San Francisco Peninsula Rail Program Memorandum of Understanding (MOU) includes a task to "develop a project delivery and contracting strategy" for the Downtown Rail Extension (DTX) Project, referred to herein as the project delivery strategy. In accordance with the MOU, development of the project delivery strategy is the co-lead responsibility of the Transbay Joint Powers Authority (TJPA) and the San Francisco County Transportation Authority (SFCTA), with concurrence from the Metropolitan Transportation Commission (MTC) and input from other MOU partnering agencies. In April 2021, the TJPA and SFCTA began advancing the DTX Project Delivery Alternatives Study (Study), as a foundational step in preparing the project delivery strategy. The Study has developed and evaluated potential delivery options for the DTX that reflect alternative combinations of contract packaging and procurement methods. The options analysis was supported by best practice review, information from other DTX tasks, an industry sounding, and the input of the Integrated Program Management Team (IPMT).

On November 19, 2021, TJPA and SFCTA staff presented the Study to the ESC as an information item. At that time, staff was asked to focus on the following:

- Implementation of an advance enabling works package;
- Role of the operators during project design, procurement, construction, and operations;
- Requirements and considerations for alternatively financed approaches;
- Trade-offs between options and rationale for screening out options;
- Capacity and capability needs for the delivery agency; and
- Relationship of the project delivery strategy to the Funding Plan and Governance Review.

The Study was reviewed by the IPMT on December 7, 2021, to further advance the consideration of the aforementioned issues, with the recommendation that the following broad DTX delivery options be studied further:

1) A conventionally financed delivery approach, consisting of a Progressive Design-Build (PDB) contract for the tunnel and other heavy civil components of the DTX, combined with a Construction Manager/General Contractor (CM/GC) contract for the systems, rail, and station fit out components, with potential variations reflecting refinements to contract

packaging or the use of short-term project finance; and

2) An alternatively financed delivery, through a long-term Design-Build-Finance-Maintain (DBFM) contract, developed via an initial Project Development Agreement (PDA) phase, with a maintenance component limited to non-rail operations components, which would be reserved to the rail operators.

The IPMT has been engaged in developing and concurs with the Study's findings and conclusions to date and provided the following recommendations for advancement by the ESC to the TJPA Board of Directors for approval. Over the next several months, further technical analysis and engagement activities will be pursued to refine the two broad delivery options and finalize an integrated delivery strategy, including coordination with project governance, funding, and operations and maintenance (O&M) considerations.

RECOMMENDATION

Advance the findings and recommendations of the DTX Project Delivery Alternatives Study to the TJPA Board of Directors for approval, including the IPMT's recommendations that:

1. Contracts for delivery of DTX not assign responsibility to the DTX delivery contractor(s) for rail operations, maintenance of rail systems and track, fare collection, or fare revenue risk, with detailed delineation of roles and responsibilities to be defined through further engagement and agreement;
2. A program of enabling works activities be pursued, including but not limited to utility relocations, demolition, and site preparation, with the enabling program to be delivered through a Design-Bid-Build (DBB) approach;
3. A form of early contractor involvement be pursued for the major contract package(s) for DTX, through pre-construction services phase agreement(s) procured via PDB, CM/GC, and/or PDA method(s);
4. Selection of contractor(s) for the major contract package(s) reflect a competitive selection, with commercial elements, and weighted toward qualifications and experience, with pre-construction period(s) leading to negotiated prices, allocation of risk, and final contract terms;
5. The project delivery strategy consider and incorporate, as appropriate, opportunities to generate revenue and leverage other commercial or development opportunities; and
6. The set of potential of delivery options under consideration for the DTX be narrowed to the following broad options:
    a) Conventionally Financed Project (CFP), consisting of a PDB contract for the tunnel and other heavy civil components of the DTX, combined with a CM/GC contract for the systems, rail, and station fit-out components, with potential variations reflecting refined contract packaging and/or the incorporation of short-term construction-period financing; and
    b) Alternatively Financed Project (AFP), consisting of a long-term DBFM contract, developed via an initial PDA phase, with a contractual agreement provision to off-ramp to a non-AFP delivery during the PDA phase.

Further, it is recommended that TJPA staff and SFCTA staff, in coordination with Caltrain staff, work with the IPMT to prepare a complete project delivery strategy, satisfying the requirements

of the MOU and reflecting the integration of funding, governance, and risk analyses, with staff specifically directed to:

1. Conduct further technical analysis to assess the viability, risk, and requirements of the AFP option, including initial analysis of the financial, contractual, and legal structure for this option;
2. Provide inputs to, and coordinate with, the DTX Funding task with respect to funding requirements of the CFP and AFP options;
3. Provide inputs to, and coordinate with, the DTX Governance task with respect to project team roles and responsibilities associated with the CFP and AFP options;
4. Incorporate findings from a planned third industry sounding process;
5. Coordinate with the quantitative risk process and incorporate outputs of this process, as appropriate;
6. Coordinate with the in-progress preliminary design process; and
7. Develop a strategic implementation roadmap for procurement and delivery of the DTX.

BACKGROUND

The San Francisco Peninsula Rail Program MOU, executed among DTX partnering agencies in 2020, includes a task to develop a project delivery strategy and specifies the following subtasks for preparation of the strategy:

a) Analyze project delivery options based on a business case and risk-adjusted financial analysis, including input from the market sounding;
b) Analyze legal framework and issues for delivery options, procurement, and development of contracts;
c) Develop a strategic implementation roadmap including a procurement and contracting plan, risk management plan, and organizational requirements;
d) Conduct workshops to allocate risk based on risk analysis performed under tasks above, and develop analysis and plans for insurance; and
e) Scope pre-procurement engineering and early works contracts tailored to the delivery options

Under the MOU, the TJPA and SFCTA have co-lead responsibilities to prepare the project delivery strategy, with concurrence from MTC and input from the other partnering agencies. In April 2021, the TJPA and SFCTA began advancing the DTX Project Delivery Alternatives Study (Study) as a foundational step in preparing the project delivery strategy for the DTX. This memorandum summarizes the analysis and recommendations of the Study to date, as well as the planned next steps to develop the complete strategy.

STUDY PURPOSE AND FRAMEWORK

The purpose of the Study was to develop and evaluate a set of potential delivery options for the DTX, with the options reflecting alternative combinations of contract packaging and procurement methods to support an eventual decision on the delivery strategy for the DTX. The Study has been advanced in light of the specific context and requirements of the DTX and the current market context for delivery of transit mega-projects.

The Study identifies the following procurement objectives for the DTX:

- Market interest and competition – Attract sufficient market interest to promote competition among well-qualified contractors;
- Value – Deliver the DTX within the identified budget and support realization of value;
- Flexibility and adaptability – Manage and accommodate change during project development, construction, and operation;
- Risk – Effectively manage and allocate risk;
- Delivery Agency – Identify clear and achievable responsibilities for the delivery agency;
- Schedule – Develop and deliver the DTX on the planned timeline; and
- Procurement Process – Implement a fair and deliberate procurement process.

These objectives guided the Study's evaluation and comparison of delivery options and their strengths, weaknesses, and trade-offs.

PROCUREMENT MODELS AND MARKET CONTEXT

The Study reviewed seven procurement models, as follows:

- DBB – Design-Bid-Build
- DB – Design-Build
- DBF – Design-Build-Finance
- DBFM – Design-Build-Finance-Maintain
- PDB – Progressive Design-Build
- CM/GC – Construction Manager/General Contractor
- PDA – Project Development Agreement

These models were considered individually and in combination, as discussed in the following section. Attachment 1 summarizes these procurement models and their potential applicability to the DTX.

The Study incorporated considerations of the market context for the delivery of transit mega-projects such as the DTX. Over the past several years, there has generally been a shift away from fully consolidated mega-contract DB approaches to more collaborative contracts with early contractor engagement. This shift reflects that some competitively bid large and complex projects awarded based primarily on price have experienced disputes, claims, and increasingly adversarial relationships. In general, the private sector is seeking a more balanced approach to risk, which is reflected in the emergence of collaborative approaches such as PDB, CM/GC, and PDA, whereby a contractor is engaged at an early stage in project development to collaboratively advance design and contract terms. This orientation was evident during the DTX industry sounding sessions undertaken with contractors and developers in 2020 and 2021.

CONTRACT PACKAGING ASSESSMENT

Contract packaging is a balance between the aggregation and disaggregation of work packages. Disaggregation generally allows for potential contractors to be well-aligned to the specialty nature of specific scope elements, whereas aggregation reduces the number of contract interfaces that must be managed during project delivery. The Study assessed a range of potential contract packaging options reflecting varying levels of aggregation.

Key findings of the Study's contract packaging assessment are as follows:

- An advance enabling works package is required to effectively manage risk;
- The ability to disaggregate tunneling works from other civil components is constrained by interface considerations and construction access/staging;
- There is generally a preference to separate tunnel/civil works from systems, track, and station fit-out works;
- A fully aggregated option (excepting enabling works) has trade-offs but should be considered as part of a long-term alternatively financed delivery approach;
- A highly disaggregated approach would shift interface management requirements to the delivery agency.

The specific contract packaging options explored through the Study are presented in Attachment 2.

DELIVERY OPTIONS

The Study developed and evaluated ten potential delivery options for the DTX, with each option reflecting a specific combination of contract packaging and procurement approach. The set of options is presented in Attachment 3. Following a technical evaluation and engagement process, six options are recommended for removal from further consideration. The following table summarizes the basis for the screening of these six options.

Option	Description	Basis of screening
Option 1	DB, PDB, CMGC, DBB	• Complex construction interfaces with two civil contracts • Includes competitively priced lump sum contracts • Limited adoption of early contractor involvement
Option 2	PDB, CMGC, CMGC, CMGC	• Complex construction interfaces with two civil contracts • Retention of the tunnel design by the Delivery Agency
Option 3	PDB, PDB, CMGC, CMGC	• Complex construction interfaces with two civil contracts
Option 4	PDB, PDB, CMGC	• Complex construction interfaces with two civil contracts
Option 8	Consolidated PDB	• Scale of consolidated contract (without long-term private finance) does not align with specialty scope • System design is transferred to the contractor
Option 9	Consolidated PDBF	• Scale of consolidated contract (without long-term private finance) does not align with specialty scope • System design is transferred to the contractor

As a result, the Study has short-listed four options as most viable for the DTX:

- Conventionally-Financed Project (CFP) (option 6), consisting of a PDB contract for the tunnel and other heavy civil components of the DTX, combined with a CM/GC contract for the systems, trackwork, and station fit-out components;
- Alternatively-Financed Project (AFP) (option 10), consisting of a long-term DBFM contract, developed via an initial PDA phase, with the ability to transition to a non-AFP delivery during the PDA phase;
- Variation of the CFP (option 5), in which the systems/track/fit-out CM/GC contract would be split into two separate CM/GC contracts, consisting of core systems/trackwork and supporting systems/station fit-out, respectively; and

- Variation of the CFP (option 7), reflecting the use of short-term, construction-period project financing for the civil contract (Progressive Design-Build-Finance) in combination with CM/GC for systems, trackwork, and station fit-out.

Both the CFP and AFP options reflect an early contractor involvement approach, whereby the contractor(s) would be initially retained in a preconstruction services phase of work, during which time design and requirements would be advanced, leading to the eventual execution of the construction services phase agreement(s).

RELATIONSHIP TO INTEGRATED WORKPLAN

Refinement of the project delivery options will be coordinated with and inform concurrent workplan activities including:

- Design development, updated cost estimate, risk analysis, and the O&M plan;
- Funding plan; and
- Governance review.

While these workplan tasks will be progressed concurrently with the IPMT, they are scheduled to be completed in 2022 as part of the overall Project Development phase of the DTX. The tasks will be coordinated to assist with the logical progression of work and timely decision-making. Attachment 4 shows the relationships of these tasks and their respective decision points. Attachment 5 shows the key milestones for these activities leading to final approval by the TJPA Board.

IPMT ENGAGEMENT AND RECOMMENDATION

The IPMT participated in the development of the Study. Two IPMT workshops were convened in the summer of 2021 to review contract packaging, procurement approaches, and delivery options. The IPMT reviewed and provided input into draft findings and recommendations at meetings on November 9 and December 7, 2021. The IPMT concurs with the Study findings and recommendations described in this memorandum and recommends that they be advanced by the ESC to the TJPA Board for approval.

STUDY RECOMMENDATIONS AND NEXT STEPS

The Study recommends that:

1. Contracts for delivery of the DTX not assign responsibility to the DTX delivery contractor(s) for rail operations, maintenance of rail systems and track, fare collection, or fare revenue risk, with detailed delineation of roles and responsibilities to be defined through further engagement and agreement;
2. A program of enabling works activities be pursued for the DTX, including but not limited to utility relocations, demolition, and site preparation, with the enabling program to be delivered through a DBB approach;
3. A form of early contractor involvement be pursued for the major contract package(s) for the DTX, through preconstruction services phase agreement(s) procured via PDB, CM/GC, and/or PDA methods;
4. Selection of contractor(s) for the major contract package(s) reflect a competitive selection,

with commercial elements, and be weighted toward qualifications and experience, with preconstruction period(s) leading to negotiated prices, allocation of risk, and final contract terms;
5. The project delivery strategy consider and incorporate, as appropriate, opportunities to generate revenue and leverage other commercial or development opportunities; and
6. The set of potential of delivery options under consideration for the DTX be narrowed to the CFP and AFP options described above (including the two potential variations of CFP).

The following next steps should be pursued to complete the project delivery strategy for the DTX:

1. Conduct further technical analysis to assess the viability, risk, and requirements of the AFP option, including initial analysis of the financial, contractual, and legal structure for this option;
2. Provide inputs to, and coordinate with, the DTX Funding task with respect to funding requirements of the CFP and AFP options;
3. Provide inputs to, and coordinate with, the DTX Governance task with respect to project team roles and responsibilities associated with the CFP and AFP options;
4. Incorporate findings from a planned third industry sounding;
5. Coordinate with the quantitative risk process and incorporate outputs of this process, as appropriate;
6. Coordinate with the in-progress preliminary design process; and
7. Develop a strategic implementation roadmap for procurement and delivery of the DTX.

Attachments:
1 – Procurement Models
2 – Contract Packaging Options
3 – Long List of Delivery Options
4 – 2022 Integrated Work Program
5 – Work Plan Milestones

ATTACHMENT 1 – PROCUREMENT MODELS

Model	Description	Applicability to DTX
Design-Bid-Build (DBB)	• Owner retains responsibility for design and contract interface management. • Design is largely complete prior to approaching the construction market. • Contractors are engaged through a competitive process. • Contract is awarded based on the lowest cost.	Applicable to enabling works; also evaluated for rail/system and station fit-out
Design-Build (DB)	• Contractor takes responsibility for design. • The design is transferred at 30-60% through a competitive procurement process. • Selection of contractor is based on price or "best-value," which assigns weighting to technical and price components.	Anticipated limited applicability; evaluated for civil packages
Design-Build-Finance (DBF)	• Same as design-build but where owner wishes to have the contractor provide short-term financing during construction. • Invokes the additional procurement and contract features of public-private partnership (P3).	Anticipated limited applicability; evaluated for civil packages
Design-Build-Finance-Maintain (DBFM)	• The addition of financing and typically long-term maintenance to a DB is provided by a Project Company (the concession entity). • For the project, the developer finance component would be recovered through a long-term availability payment.	Potentially applicable when developed via a PDA to attract market interest and develop a bankable project
Progressive Design-Build (PDB)	• Contractor takes on responsibility for design. • Two phases: 1) pre-construction services phase; and 2) construction phase after agreement on contract terms and lump-sum price. • Off-ramp is available to the owner following the pre-construction services phase.	Under consideration for packages where design is closely tied to construction means and methods
Construction Manager / General Contractor (CM/GC)*	• Owner retains responsibility for design. • The contractor is engaged early in design and is selected based on qualifications with some commercial elements. • Two phases: 1) pre-construction services phase; and 2) construction phase after agreement on/negotiation of contract terms and a lump sum.	Under consideration for packages where there is preference for the owner to retain design
Project Development Agreement (PDA)	A collaborative form of DBFM, whereby a developer and their contractor is engaged to progress design, with constructability input, similar to a PDB, while also providing finance and delivering a component of the maintenance and rehabilitation scope.	Potential method for developing a DBFM, structured with non-financed option

* For purposes of this Study, CM/GC varies from the approach taken by TJPA for Phase 1 of the Transbay Program. For DTX, CM/GC reflects an approach whereby the contractor would be permitted to self-perform a significant component of the scope, aligned with their core competencies, provided that the negotiated construction cost is fair and reasonable. This definition of CM/GC is analogous to the model adopted by Sound Transit in the delivery of its transit program.

ATTACHMENT 2 – CONTRACT PACKAGING OPTIONS

<table>
<tr><th rowspan="2">Scope</th><th colspan="4">Contract Packaging Options</th></tr>
<tr><th>Option A</th><th>Option B</th><th>Option C</th><th>Option D</th></tr>
<tr><td></td><td>Less Aggregated
2x civil
2x rail/ systems</td><td>1x civil
2x rail/
systems</td><td>1x civil
1x rail/
systems</td><td>Aggregated</td></tr>
<tr><td>Enabling Works</td><td>1</td><td>1</td><td>1</td><td>1</td></tr>
<tr><td>General Civil</td><td>2</td><td rowspan="2">2</td><td rowspan="2">2</td><td rowspan="6">2</td></tr>
<tr><td>Tunneling</td><td>3</td></tr>
<tr><td>Stations Fit-out</td><td rowspan="2">4</td><td rowspan="2">3</td><td rowspan="4">3</td></tr>
<tr><td>Supporting Systems</td></tr>
<tr><td>Core Systems</td><td rowspan="2">5</td><td rowspan="2">4</td></tr>
<tr><td>Trackwork</td></tr>
<tr><td colspan="5">Note: Fully disaggregated contract to facilitate a design-bid-build approach (not shown above) would consist of approximately nine contract packages.</td></tr>
</table>

ATTACHMENT 3 – LONG LIST OF DELIVERY OPTIONS

Long-list of Options

Scope	1	2	3	4	5	6	7	8	9	10
Enabling	**DBB**	**DBB**	**DBB**	**DBB**	**DBB**	**DBB**	**DBB**	**DBB**	**DBB**	**DBB**
General Civil	DB	PDB	PDB	PDB	PDB	PDB	PDBF	PDB	PDBF	PDA-DBFM
Tunnel	PDB	CMGC	PDB	PDB						
Station Fit-out & Supporting Systems	CMGC	CMGC	CMGC	CMGC	CMGC	CMGC	CMGC			
Core Systems & Trackwork	DBB	CMGC	CMGC		CMGC					

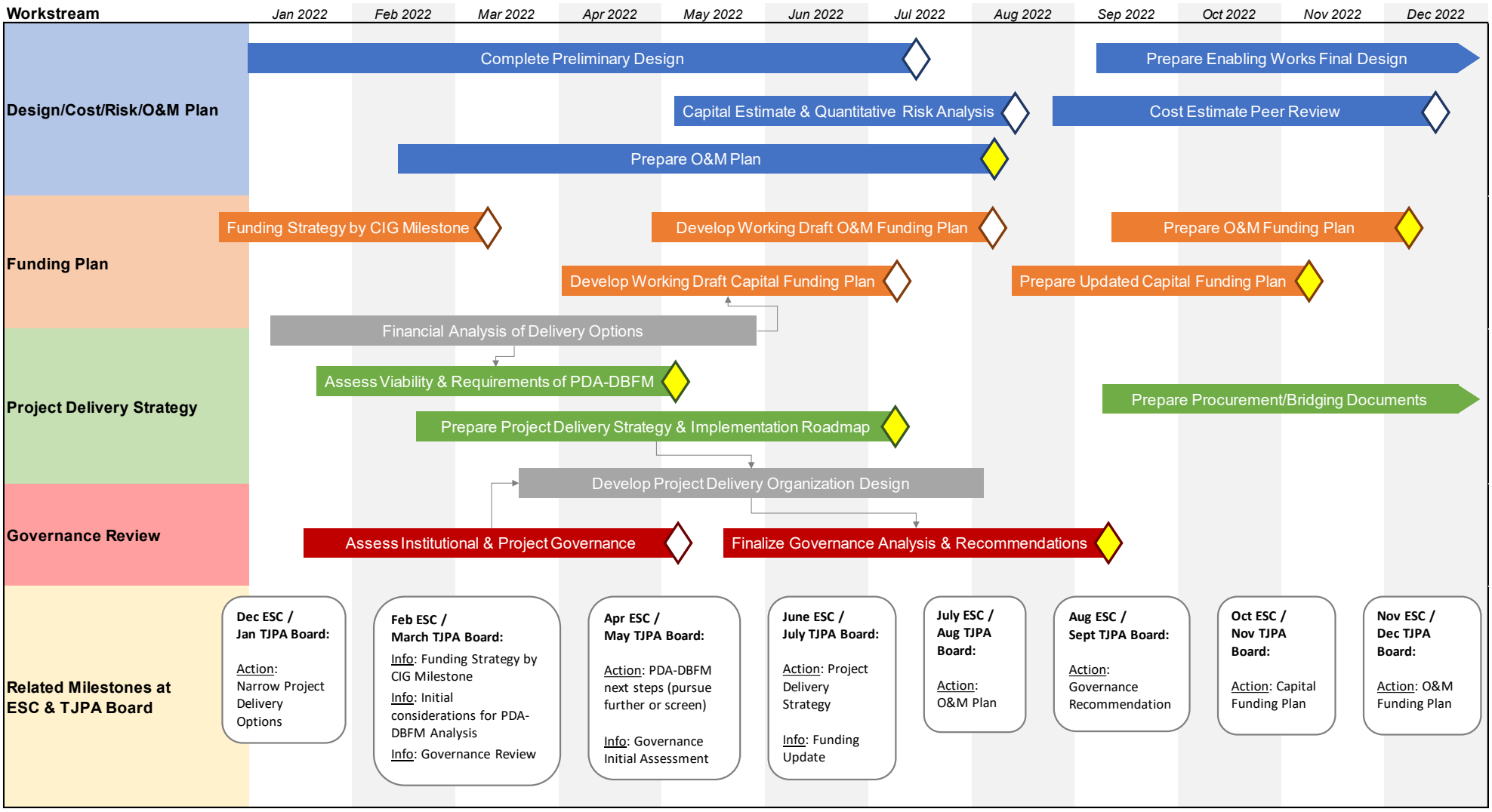
Legend:

Design transferred

Design retained

Includes finance

ATTACHMENT 4 – 2022 INTEGRATED WORK PROGRAM



ATTACHMENT 5 – WORK PLAN MILESTONES

Planned Milestones for Input, Direction, or Decision

Milestone #1

Project Delivery Study – ESC/Board **Action**:

- Narrow Delivery Options
- Next Steps

ESC: Dec
TJPA Board: Jan

Milestone #2

- Funding:
  - Funding Strategy by CIG milestone
- Delivery Strategy:
  - Considerations for assessing PDA-DBFM
  - Further analysis of conventional options
- Governance:
  - Context
  - Study approach

ESC: Feb
TJPA Board: Mar

Milestone #3

- Delivery Strategy:
  - Assessment of PDA-DBFM and **Next Steps** (pursue further or screen)
  - Report out from Industry Sounding #3
- Governance
  - Institutional governance – initial assessment
  - Project-level governance – initial assessment

ESC: Apr
TJPA Board: May

Milestone #4

- **Decision** on Delivery Method
- Funding: Status update on funding plan

ESC: Jun
TJPA Board: Jul

Further Milestones

- O&M Plan **approval**
- Recommendation / **decision** on Governance
- **Action** to adopt updated Funding Plan

O&M Plan:
- ESC: Jul
- TJPA Board: Aug

Governance:
- ESC: Aug
- TJPA Board: Sep

Capital Funding Plan:
- ESC: Oct
- TJPA Board: Nov

San Francisco Peninsula Rail Program: Downtown Rail Extension (DTX)

Item 6 – Consider the Integrated Program Management Team's Recommendation to advance the Downtown Rail Extension Project Delivery Alternatives Study to the TJPA Board of Directors

Executive Steering Committee

December 17, 2021

San Francisco Peninsula Rail Program Memorandum of Understanding (MOU)

MOU Task #16: Develop a project delivery and contracting strategy:

a) Analyze project delivery options based on a business case and risk-adjusted financial analysis, including input from the market sounding

b) Analyze legal framework and issues for delivery options, procurement, and development of contracts

c) Develop a strategic implementation roadmap including a procurement and contracting plan, risk management plan, and organizational requirements

d) Conduct workshops to allocate risk based on risk analysis performed under tasks above, and develop analysis and plans for insurance

e) Scope pre-procurement engineering and early works contracts tailored to the delivery options

MOU Task #16 Roles

Co-Leads: TJPA & SFCTA

Concur: MTC

Contribute: Caltrain, CHSRA, CCSF

Approve: TJPA Board

Key Feedback from November 2021 ESC Meeting

ESC Member discussion at the November 19, 2021, meeting regarding Delivery Options included a focus on the following issues:

- Support for use of enabling works package
- Role of the operators during project design, procurement, construction, and operations
- Requirements and considerations for alternative-financed approaches
- Trade-offs between options and rationale for screening out options
- Capacity and capability needs for the delivery agency
- Relationship of Delivery Strategy to Funding Plan and Governance Review

IPMT Work Underway

- Further analysis of Delivery Options to recommend screening / narrowing of options
- Initial development of organizational structure concepts, to be further refined in coordination with Governance task
- Development of cash-flow/funding requirements for narrowed options, and preparation for initial financial analysis of delivery options
- Preparation of integrated 2022 work program for related project development activities, including Delivery Strategy, Governance Review, and Funding Plan

Long List of DTX Delivery Options

Delivery Options are a combination of contract packaging approach and procurement method(s). A spectrum of DTX-specific delivery options were evaluated to consider relative strengths, weaknesses, and risks.

<table>
<tr><th>Scope</th><th>1</th><th>2</th><th>3</th><th>4</th><th>5</th><th>6</th><th>7</th><th>8</th><th>9</th><th>10</th></tr>
<tr><td>Enabling</td><td>DBB</td><td>DBB</td><td>DBB</td><td>DBB</td><td>DBB</td><td>DBB</td><td>DBB</td><td>DBB</td><td>DBB</td><td>DBB</td></tr>
<tr><td>General Civil</td><td>DB</td><td>PDB</td><td>PDB</td><td>PDB</td><td rowspan="2">PDB</td><td rowspan="2">PDB</td><td rowspan="2">PDBF</td><td rowspan="4">PDB</td><td rowspan="4">PDBF</td><td rowspan="4">PDA-DBFM</td></tr>
<tr><td>Tunnel</td><td>PDB</td><td>CMGC</td><td>PDB</td><td>PDB</td></tr>
<tr><td>Station Fit-out & Supporting Systems</td><td>CMGC</td><td>CMGC</td><td>CMGC</td><td rowspan="2">CMGC</td><td>CMGC</td><td rowspan="2">CMGC</td><td rowspan="2">CMGC</td></tr>
<tr><td>Core Systems & Trackwork</td><td>DBB</td><td>CMGC</td><td>CMGC</td><td>CMGC</td></tr>
</table>

Design transferred

Design retained

Includes private finance

Screening of the Long-List of Delivery Options

Six options are recommended for removal from further consideration:

Option	Description	Basis of screening
Option 1	DB, PDB, CMGC, DBB	• Complex construction interfaces with **two civil contracts** • Includes competitively priced **lump sum contracts** • Limited adoption of **early contractor involvement**
Option 2	PDB, CMGC, CMGC, CMGC	• Complex construction interfaces with **two civil contracts** • **Retention of the tunnel design** by the Delivery Agency
Option 3	PDB, PDB, CMGC, CMGC	• Complex construction interfaces with **two civil contracts**
Option 4	PDB, PDB, CMGC	• Complex construction interfaces with **two civil contracts**
Option 8	Consolidated PDB	• Scale of **consolidated contract** (without long-term private finance) does not align with specialty scope • **System design is transferred** to the contractor
Option 9	Consolidated PDBF	• Scale of **consolidated contract** (without long-term private finance) does not align with specialty scope • **System design is transferred** to the contractor

Recommended Short List of DTX Delivery Options

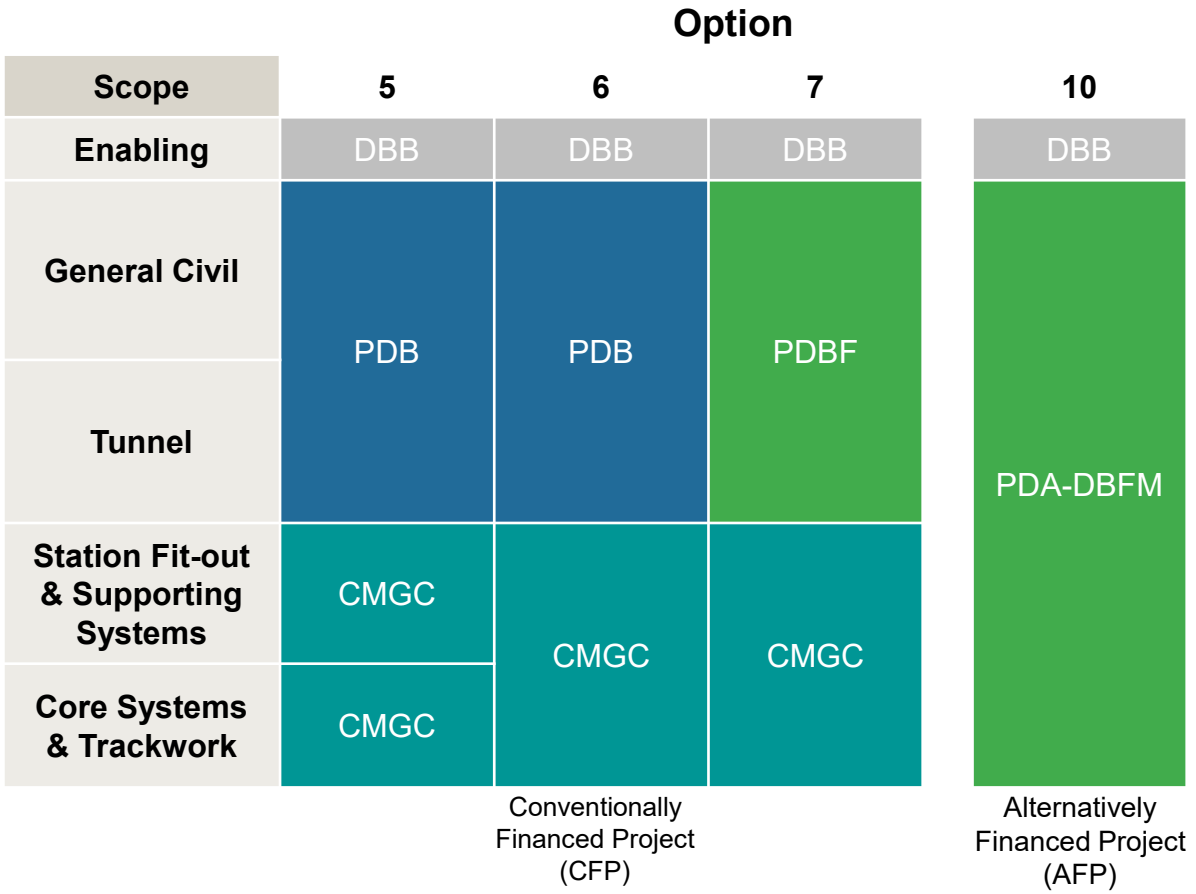
The long list analysis short listed four potential delivery options for the DTX:

Option 6: Conventionally Financed Project (CFP)

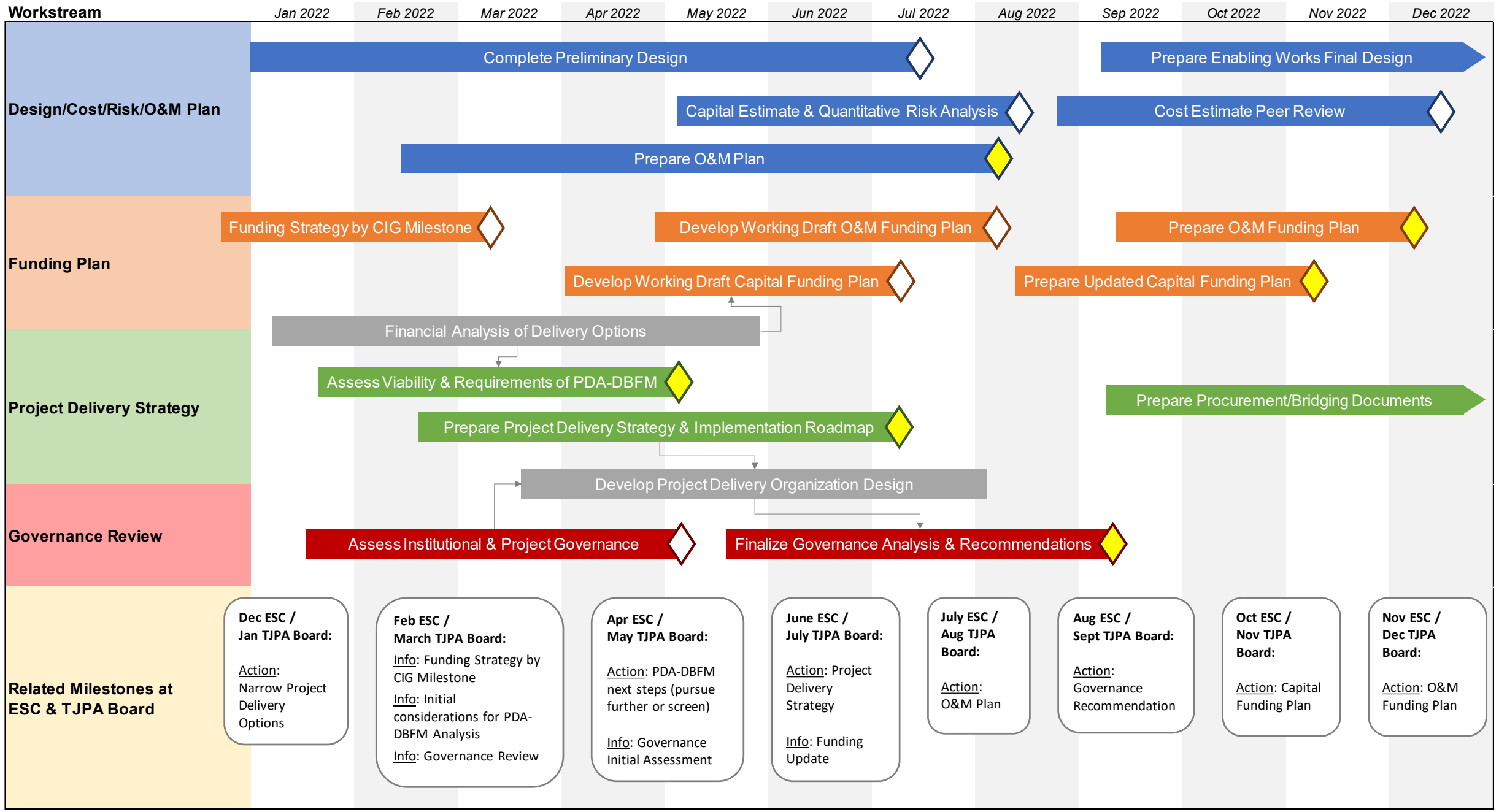
- PDB contract for the tunnel and other heavy civil components
- Construction Manager-General Contractor (CMGC) contract for the systems, rail, and station fit out components.
- Variations:
  - **Option 5** – Refined contract packaging based on further technical analysis and market engagement
  - **Option 7** – Inclusion of short-term finance

Option 10: Alternatively Financed Project (AFP)

- A long-term DBFM contract.
- Developed via an initial PDA phase, with the ability to "off-ramp" to a non-AFP delivery during the PDA phase.



2022 Integrated Work Program: DTX Delivery, Governance, and Funding



Planned Milestones for Input, Direction, or Decision

Milestone #1

Project Delivery Study – ESC/Board **Action**:

- Narrow Delivery Options
- Next Steps

ESC: Dec
TJPA Board: Jan

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- Funding:
  - Funding Strategy by CIG milestone
- Delivery Strategy:
  - Considerations for assessing PDA-DBFM
  - Further analysis of conventional options
- Governance:
  - Context
  - Study approach

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Milestone #4

- **Decision** on Delivery Method
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ESC: Jun
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Further Milestones

- O&M Plan **approval**
- Recommendation / **decision** on Governance
- **Action** to adopt updated Funding Plan

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IPMT Recommendation to ESC

Advance the findings and recommendations of the Downtown Rail Extension Project Delivery Alternatives Study to the TJPA Board of Directors for approval, including the recommendations that:

- Contracts for delivery of DTX not assign responsibility to the DTX delivery contractor(s) for rail operations, maintenance of rail systems and track, fare collection, or fare revenue risk, with detailed delineation of roles and responsibilities to be defined through further engagement and agreement.
- A program of “enabling works” activities be pursued, including but not limited to utility relocations, demolition, and site preparation, with the enabling program to be delivered through a Design-Bid-Build (DBB) approach;
- A form of early contractor involvement be pursued for the major contract package(s) for DTX, through pre-construction services phase agreement(s) procured via PDB, CMGC, and/or PDA method(s);
- Selection of contractor(s) for the major contract package(s) reflect a competitive selection, with commercial elements, weighted toward qualifications and experience, and with pre-construction period(s) leading to negotiated prices, allocation of risk, and final contract terms;
- The Delivery Strategy consider and incorporate, as appropriate, opportunities to generate revenue and leverage other commercial or development opportunities; and
- The set of potential of delivery options under consideration for DTX be narrowed to the following broad options:
    - Conventionally Financed Project (CFP), consisting of a Progressive Design-Build contract for the tunnel and other heavy civil components of the Project, combined with a Construction Manager-General Contractor contract for the systems, rail, and station fit out components, with potential variations reflecting refined contract packaging and/or the incorporation of short-term construction-period financing; and
    - Alternatively Financed Project (AFP), consisting of a long-term Design-Build-Finance-Maintain contract, developed via an initial Project Development Agreement phase, with the ability to “off-ramp” to a non-AFP delivery during the PDA phase.

Next Steps

TJPA and SFCTA staff, in coordination with Caltrain staff, work with IPMT to prepare a complete Project Delivery Strategy, to satisfy the MOU and reflect the integration of funding, governance, and risk tasks, including activities to:

- Conduct further technical analysis to assess the viability, risk, and requirements of the AFP option, including initial analysis of the financial, contractual, and legal structure for this option
- Provide inputs to, and coordinate with, the DTX Funding task with respect to funding requirements of the CFP and AFP options
- Provide inputs to, and coordinate with, the DTX Governance task with respect to project team roles and responsibilities associated with the CFP and AFP options
- Incorporate findings from a planned third industry sounding process
- Coordinate with the quantitative risk process and incorporate outputs of this process, as appropriate
- Coordinate with the in-progress preliminary design process
- Develop a strategic implementation roadmap for procurement and delivery of the Project

Thank you.