Progressive Design Build

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Progressive Design Build

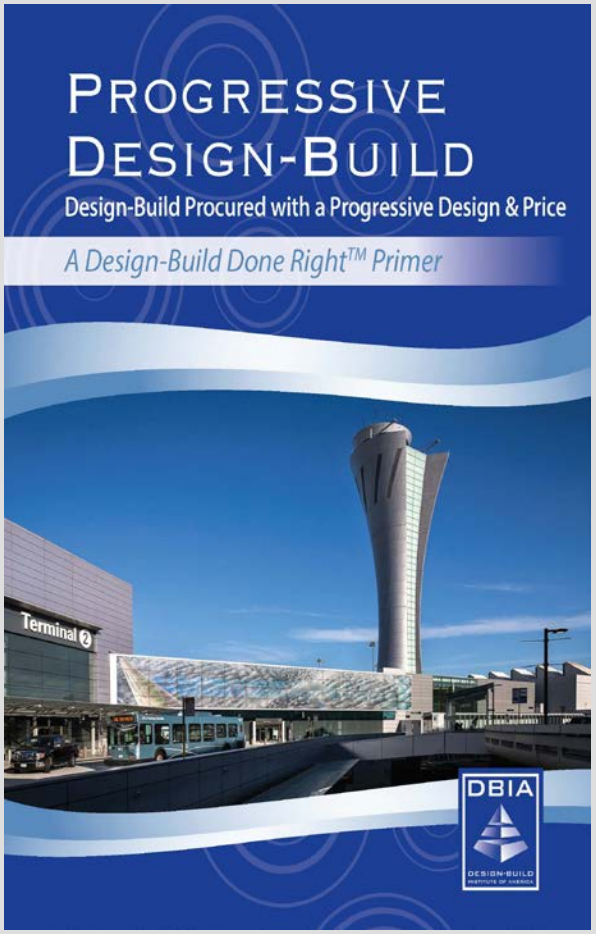
Webinar Briefing

OVERVIEW

- Progressive Design Build delivery
  - Process Framework
  - Two Examples
    - Design Build Project Delivery with Program and Design Criteria
    - Design Build Project Delivery without Program and Design Criteria
    - Importance of Design Build Team Qualification
- Overview of Processes/Procedures/Tools use with one Public & Private Client
- Best Practice
- Lessons Learned

DBIA PRIMER: PROGRESSIVE DESIGN BUILD

- Presentation utilizes concepts and principles of National DBIA Primer
- Progressive Design Build “Done Right”
- DBIA Primer Available online
- Strongly Recommend Reading



PROJECT DELIVERY DEFINED

- Comprehensive Process:
  - Planning, design, construction & other services necessary for organizing, executing and completing a project

- Three Fundamental Owner Decisions:

What Project Delivery System (Method)?	What Procurement Method?	What Contract Format?

Planning the "Acquisition Strategy"
+ Design Process Options

PROJECT DELIVERY METHOD

- Establishes when the parties engaged in a contract,
- Influences the choices for contractual relationship among the parties,
- Influences the programming and design process,
- Influences ownership and impact of changes and modification of project cost & schedule.

GENERAL DESIGN BUILD PROCUREMENT METHODS

- Fixed Price Design Build – (Often Design Competition)
  - Performance Based
    - Programming
    - Criteria
  - Bridging/ Prescriptive

- Progressive Design Build
  - GMP - (Possible to converted to Lump Sum)
  - Cost Plus Fee

FIXED PRICE VS PROGRESSIVE

- Fixed Price
  - Known cost at time of selection
    - Cost may be to a pre-established maximum allowable cost (MAC)
  - Involvement of Design Builder during development of design
  - Benefit of multiple design solution and innovation
  - Owner must define program and design criteria to minimal level
  - Cost significant factor in selection
  - Significant investment by DB Teams in selection process
  - Stipend is required

FIXED PRICE VS PROGRESSIVE (cont'd)

- Progressive
  - Final Cost established after selection of DB Team
    - Target Value Design budget may be established prior to selection
    - GMP or Lump Sum
    - Need to clearly define components of GMP or Lump Sum
  - Involvement of Design Builder during the development of design
  - Lower cost of procurement (Specifically A&E)
  - Open book on cost estimating
  - Cost is not as significant of a factor in selection

FIXED PRICE VS PROGRESSIVE SIMILARITIES & DIFFERENCES

FIXED PRICE DESIGN-BUILD

- Known Cost at time of selection,
- Involvement of Design Builder during development of design – Limited Owner Input
- Benefit of multiple design solution and innovation through competition
- Owner must define program and design criteria to minimal level
- Cost significant factor in selection
- Significant investment by DB Teams in selection process

PROGRESSIVE DESIGN-BUILD

- Final Cost after selection of DB Team, Open book on cost estimating
- Involvement of Design Builder during the development of design
- Owner involved in the design solution options during concept stage
- Design-Builder is engaged at the preliminary planning level
- Cost is not as significant of a factor in selection (Some Owners see this as negative)
- Lower cost of procurement (Specifically A&E)

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PROCUREMENT & CONTRACTUAL RELATIONSHIPS

- Relationship between owner, design professionals, contractors
- Responsibility of each party
- Liability of each party
- What this means to owners
- Design, cost and schedule

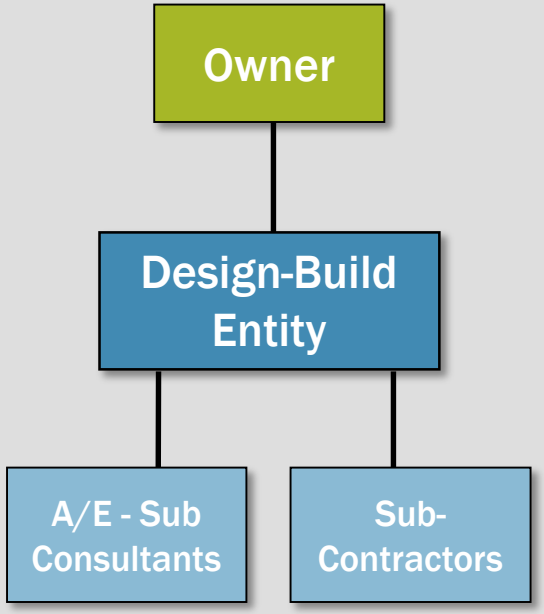
CONTRACT FORMAT

- Lump Sum/Firm Fixed Price
- Cost Reimbursable
  - Cost Plus Fee
  - Guaranteed Maximum Price (GMP)
- Target Price
- Unit Price

DESIGN BUILD CONTRACTUAL RELATIONSHIP

Characteristics

- Integrated process-overlapped design & construction
- Often fast tracked
- Two prime players:
  Owner & Design Build entity
- Entity can take on many forms
- One contract
  - Owner to Design Builder



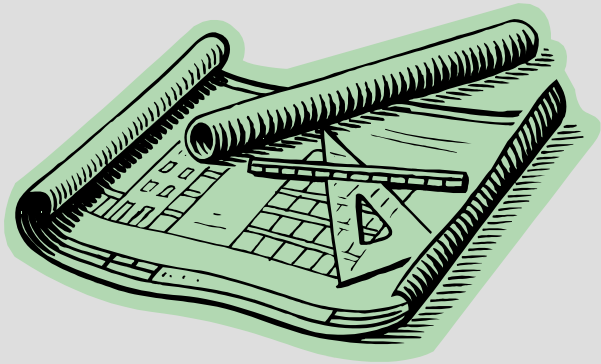
Responsibilities

Owner	Program, design direction, performance requirements, & finance*
Design-Builder	Design & Construction. Can include programming & post construction services

Note: D-B can expand services to include programming, finance, operate, etc.

BUT….HOW TO GET WHAT YOU WANT IN DESIGN BUILD

- Design and Cost
  - Level of design in the RFP
  - Shifting risk
  - Who controls the “details” of the design?
  - Design management
  - Best without “Bridging Documents”
- Selecting your Team
  - Prequalification
- Management & Decision Making
- Risk Strategies
  - Owner Requirements



SINGLE MOST IMPORTANT DISTINCTION

CRITICAL: (Pre) Qualify your Partner/Team

PROGRESSIVE Design Build

Public Project
Private Project

PUBLIC PROCESS SUMMARY

RFP Development

Develop RFP Front End:
- Instruction to Proposers
- Technical Evaluation and Scoring Criteria
- Project Schedule and Phasing
- Fee Structure and Allowances
- Fee Worksheet and Ultimate Cost

Develop Contract Documents:
- General and Supplementary Conditions
- Project Requirements (Division 1)

Develop Scope of Work:
- Project Site, Program, GSF
- Project Budget & Target Value Price/Budget & Process
- Project Deliverables & Expectations

- Lessons Learned from similar projects in-house and others
- Peer / Subject Matter / Counsel Input
- Stakeholders, Facilities Input
- Industry Outreach and Input

Approvals

Board Review and Approval of RFP Process, Selection and Project Delivery method

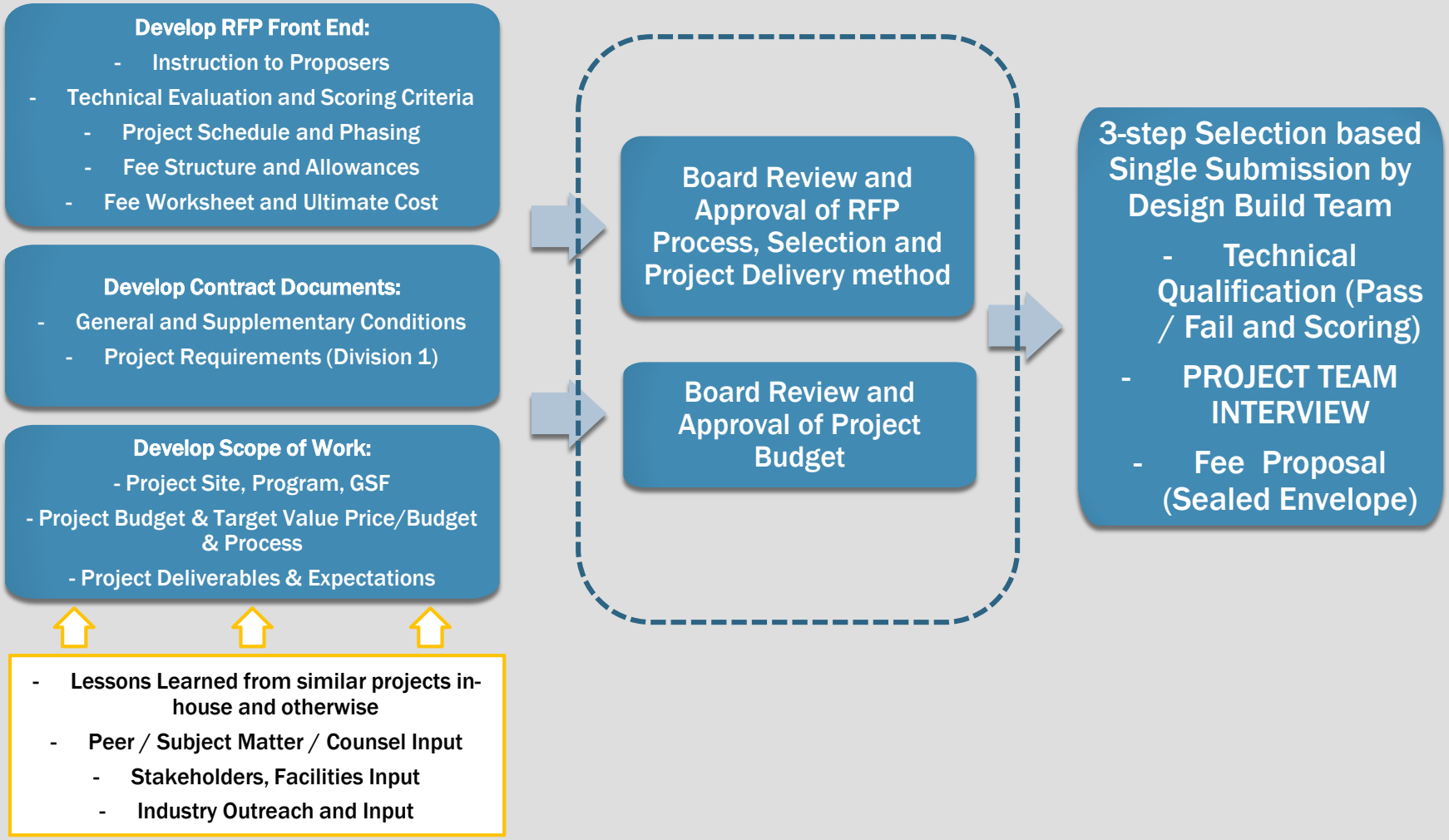
Board Review and Approval of Project Budget

Team Selection

3-step Selection based Single Submission by Design Build Team
- Technical Qualification (Pass / Fail and Scoring)
- PROJECT TEAM INTERVIEW
- Fee Proposal (Sealed Envelope)

Each Public Owner will have a processes or guidelines for Approvals & Team Selection. Adapt process to Owner requirements.

PRIVATE PROCESS SUMMARY



2 STEPS POST SELECTION

Step 1

- Validation of Program
- Alignment of Scope and Budget
- Development of Basis of Design (May be provided by Owner)
- Development of Design to Specified Level (Design Development, 50%, 60%…)
- Development of GMP or ……

OFF RAMP if Owner & Design Builder cannot Align

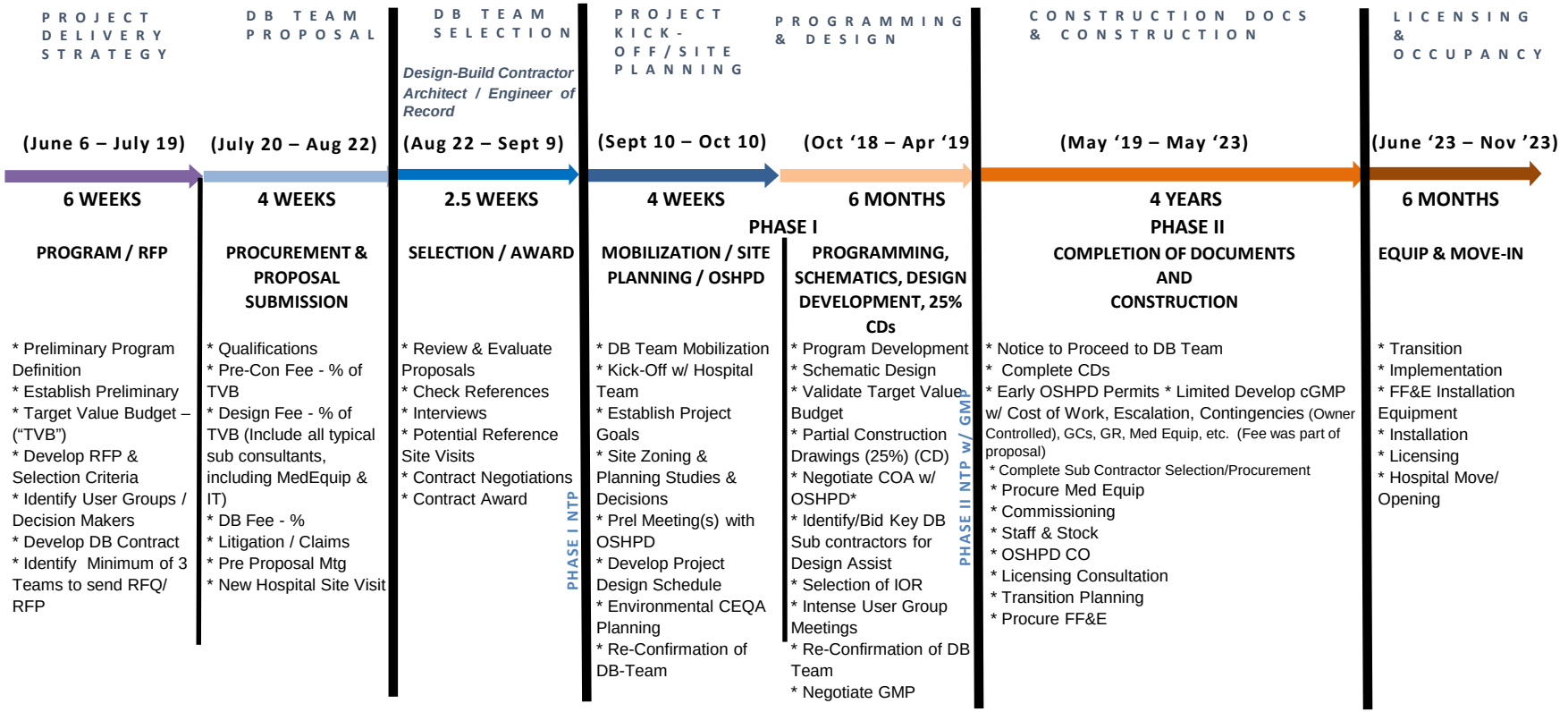
Step 2

- Completion of Design & Construction Documents
- Construction & Commissioning
- Inspection
- All Close-Out & Transition Processes & Requirements

PROJECT ROADMAP (ASSUMING PROGRESSIVE DESIGN BUILD CONTRACT MODEL)

DRAFT 1

KEY PHASES & MILESTONES (Per present level of Information)



Durations shown in Road Map will require expedited decision making

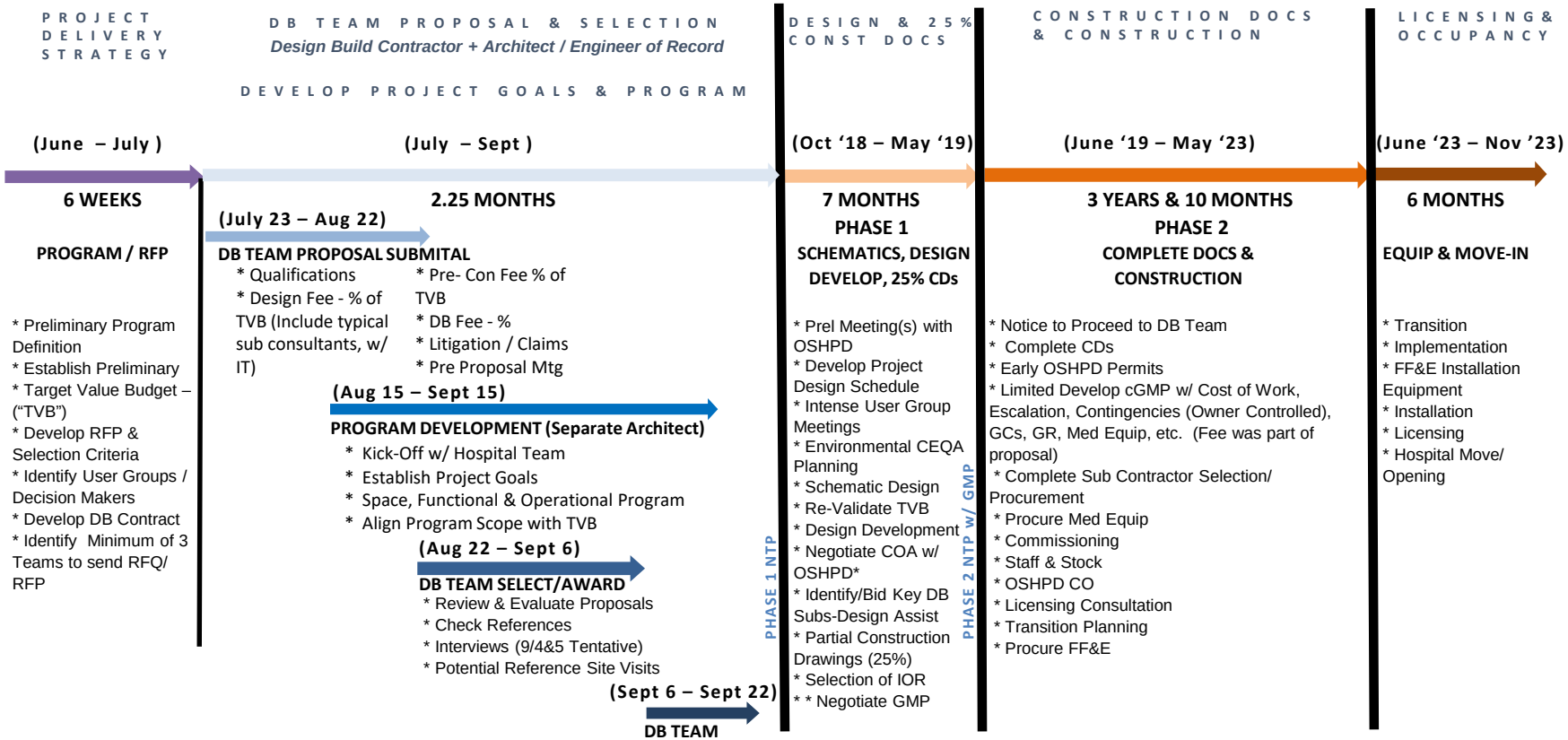
- If No Make-Ready Work, Schedule could be Shortened
- OSHPD is Still "Wild Card" At This Time and will require development of a COA or agreed to schedule of review
- Soil Remediation – Some Boring May Be Required

**Completion of Construction Documents will overlap with Construction. This is a critical part of OSHPD Conditions of Approval (COA).*

HOSPITAL PROJECT ROADMAP (ASSUMING PROGRESSIVE DESIGN BUILD CONTRACT MODEL)

DRAFT 2

KEY PHASES & MILESTONES (Per present level of Information)



* Preliminary Program Definition
* Establish Preliminary
* Target Value Budget – ("TVB")
* Develop RFP & Selection Criteria
* Identify User Groups / Decision Makers
* Develop DB Contract
* Identify Minimum of 3 Teams to send RFQ/ RFP

* Qualifications
* Design Fee - % of TVB (Include typical sub consultants, w/ IT)
* Pre- Con Fee % of TVB
* DB Fee - %
* Litigation / Claims
* Pre Proposal Mtg

* Kick-Off w/ Hospital Team
* Establish Project Goals
* Space, Functional & Operational Program
* Align Program Scope with TVB

* Review & Evaluate Proposals
* Check References
* Interviews (9/4&5 Tentative)
* Potential Reference Site Visits

* Contract Negotiations
* Contract Award
* Bonds & Insurances

* Prel Meeting(s) with OSHPD
* Develop Project Design Schedule
* Intense User Group Meetings
* Environmental CEQA Planning
* Schematic Design
* Re-Validate TVB
* Design Development
* Negotiate COA w/ OSHPD*
* Identify/Bid Key DB Subs-Design Assist
* Partial Construction Drawings (25%)
* Selection of IOR
* * Negotiate GMP

* Notice to Proceed to DB Team
* Complete CDs
* Early OSHPD Permits
* Limited Develop cGMP w/ Cost of Work, Escalation, Contingencies (Owner Controlled), GCs, GR, Med Equip, etc. (Fee was part of proposal)
* Complete Sub Contractor Selection/ Procurement
* Procure Med Equip
* Commissioning
* Staff & Stock
* OSHPD CO
* Licensing Consultation
* Transition Planning
* Procure FF&E

* Transition
* Implementation
* FF&E Installation Equipment
* Installation
* Licensing
* Hospital Move/ Opening

NOTES

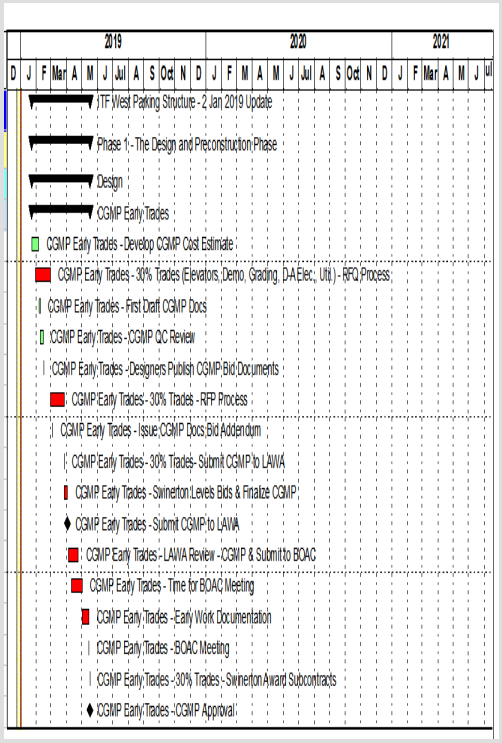
- ***If No Make-Ready Site Work Req'd, Schedule may be Shortened***
- ***OSHPD is Still "Wild Card" At This Time and will require development of a COA or agreed to schedule of review***
- ***Soil Remediation – Final Determination, Additional Boring May Be Required***
- ***Completion of Construction Documents will overlap with Construction. This is a critical part of OSHPD Conditions of Approval (COA) Plan.***
- ***Durations shown in Road Map will require Expedited Decision Making***

- ***Phase 2 Notice to Proceed does not occur without a Negotiated GMP***

BEST PRACTICE

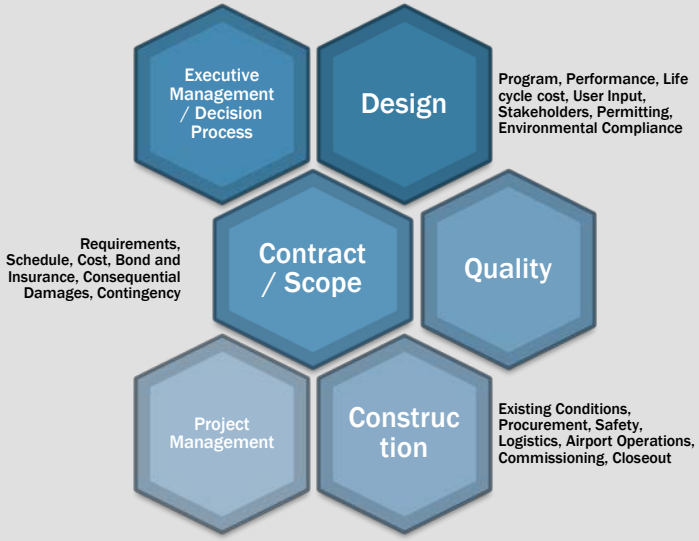
TIMING OF SUB-CONTRACTOR INVOLVEMENT

- Engage Key sub-contractors from the start
  - Identifying key sub-contractor trades depend on type of project.
  - When Possible, engage major sub-contractors during the procurement RFQ/RFP process of the Design-Build Team
  - Ensure key subs are engaged prior to completion of 60% design documents (100% DDs – 50% CDs depending on project type)
- Provides truly integrated design development and best outcome of the Progressive DB Process
  - Higher level of innovation to meet desired performance
  - Better cost control to attain Target Value Budget
  - Lower Risk for unknown/unbought scope with early participate in design assist or design effort



BEST PRACTICE:
COLLABORATIVE 360 DEGREE RISK MANAGEMENT

- Transparent and Collaborative Risk Identification
- Proactive and Continuous Risk Assessment
- Timely and Measurable Risk Mitigation
- Informed Decision Making Process
- Best Practice Tools
- Integrated Workflows
- Decision Making
- Communications



Metrics	Goals	Team	Context
Scope	Expected Outcomes	Team relationships	Stakeholders
Budget	Throughput	Team Performance	Users
Schedule	Performance	Working Environment	Community
Quality	Life Cycle Costs	Safety & Security	The Environment

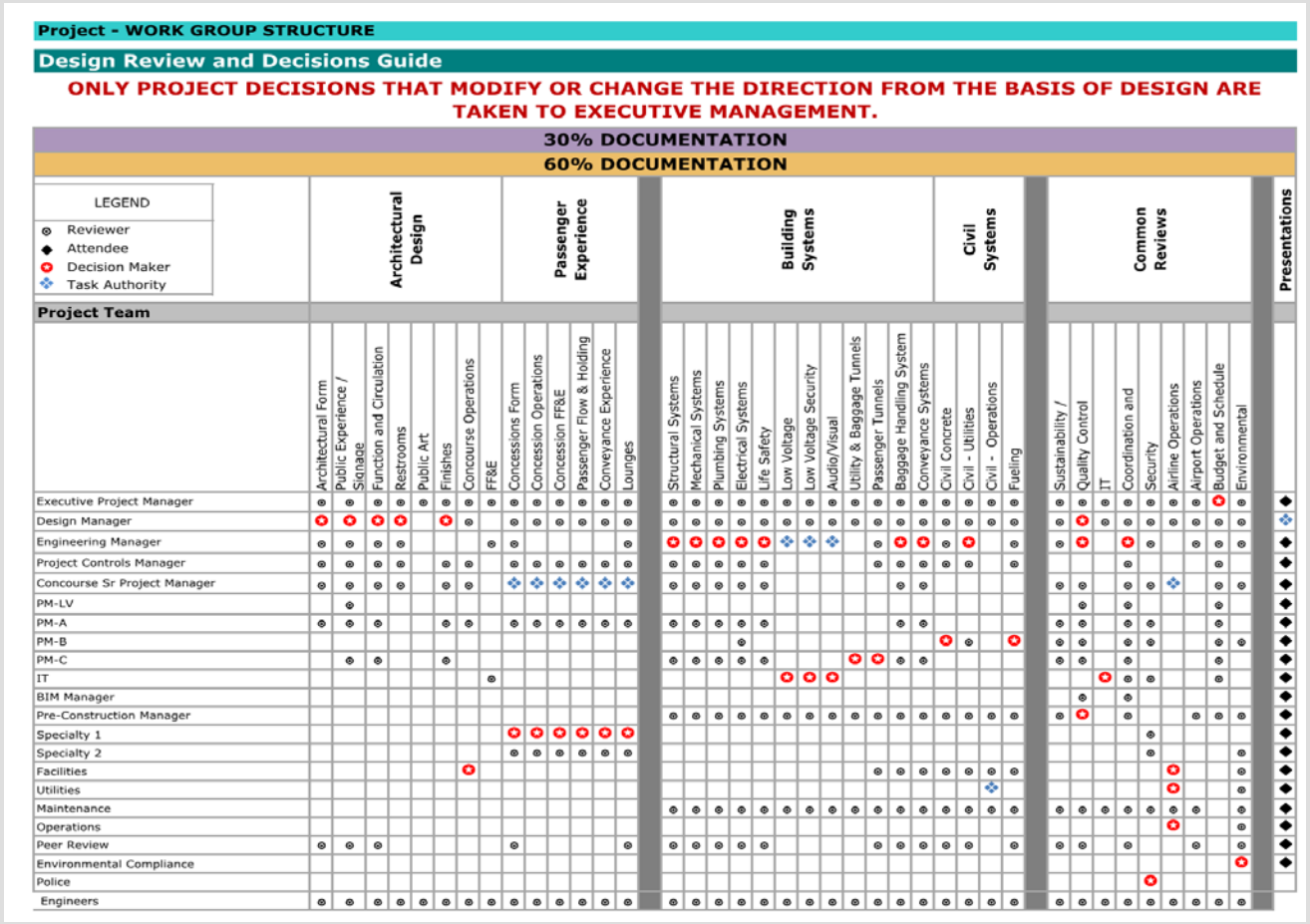
ACTIVE OWNER INVOLVEMENT
BEST PRACTICE: COMMUNICATION

- Include Design Builder in Communications
  - Meetings
  - Emails, Letters, Etc…
- Transparency
  - Design, Budget, Operations, Financial Goals & Commitments all Parties
  - Talk About MONEY
- Who /How Commitments to Owner
  - Respect who has the financial responsibility
  - Don't Team with those you do not like and/or trust
- Isolation is a Problem
  - Physical separation… lets the mind …

ACTIVE OWNER INVOLVEMENT
BEST PRACTICE: MORE COMMUNICATION

- Engage in Informal Conversation
  - Coffee, Water Cooler, Parking Lot…
  - Change the Scenery
- Confirmation Documents
  - Importance of Document Control and Written Communication
  - Confirm commitments (Confirming RFI's, Timely Decisions, Agreements…)
  - Don't hide behind Email
- Work Sessions vs Meetings
  - Strategic Group side for better efficiency
  - Decision Makers in the Room
  - Meeting Size a Challenge on large jobs with complex stakeholder structure

ACTIVE OWNER INVOLVEMENT BEST PRACTICE TOOLS



Project - WORK GROUP STRUCTURE

Design Review and Decisions Guide

ONLY PROJECT DECISIONS THAT MODIFY OR CHANGE THE DIRECTION FROM THE BASIS OF DESIGN ARE TAKEN TO EXECUTIVE MANAGEMENT.

30% DOCUMENTATION

60% DOCUMENTATION

LEGEND
- Reviewer
- Attendee
- Decision Maker
- Task Authority

Project Team	Architectural Design									Passenger Experience							Building Systems												Civil Systems				Common Reviews									Presentations
	Architectural Form	Public Experience / Signage	Function and Circulation	Restrooms	Public Art	Finishes	Concourse Operations	FF&E	Concessions Form	Concession Operations	Concession FF&E	Passenger Flow & Holding	Conveyance Experience	Lounges	Structural Systems	Mechanical Systems	Plumbing Systems	Electrical Systems	Life Safety	Low Voltage	Low Voltage Security	Audio/Visual	Utility & Baggage Tunnels	Passenger Tunnels	Baggage Handling System	Conveyance Systems	Civil Concrete	Civil - Utilities	Civil - Operations	Fueling	Sustainability /	Quality Control	IT	Coordination and	Security	Airline Operations	Airport Operations	Budget and Schedule	Environmental	
Executive Project Manager	⊙	⊙	⊙	⊙	⊙		⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	◆
Design Manager	⊖	⊖	⊖	⊖		⊖	⊙		⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊖	⊙	⊙	⊙	⊙	⊙	⊙	✣
Engineering Manager	⊙	⊙	⊙	⊙				⊙	⊙					⊙	⊖	⊖	⊖	⊖	⊖	✣	✣	✣			⊖	⊖	⊙	⊖		⊙	⊙	⊖		⊙	⊙		⊙	⊙	⊙	◆
Project Controls Manager	⊙	⊙	⊙	⊙		⊙	⊙		⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙					⊙	⊙	⊙				⊙				⊙						◆
Concourse Sr Project Manager	⊙	⊙	⊙	⊙		⊙	⊙		✣	✣	✣	✣	✣	✣	⊙	⊙	⊙	⊙	⊙						⊙	⊙					⊙	⊙		⊙	✣			⊙	⊙	◆
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Facilities							⊖																						⊙	⊙					⊖				⊙	◆
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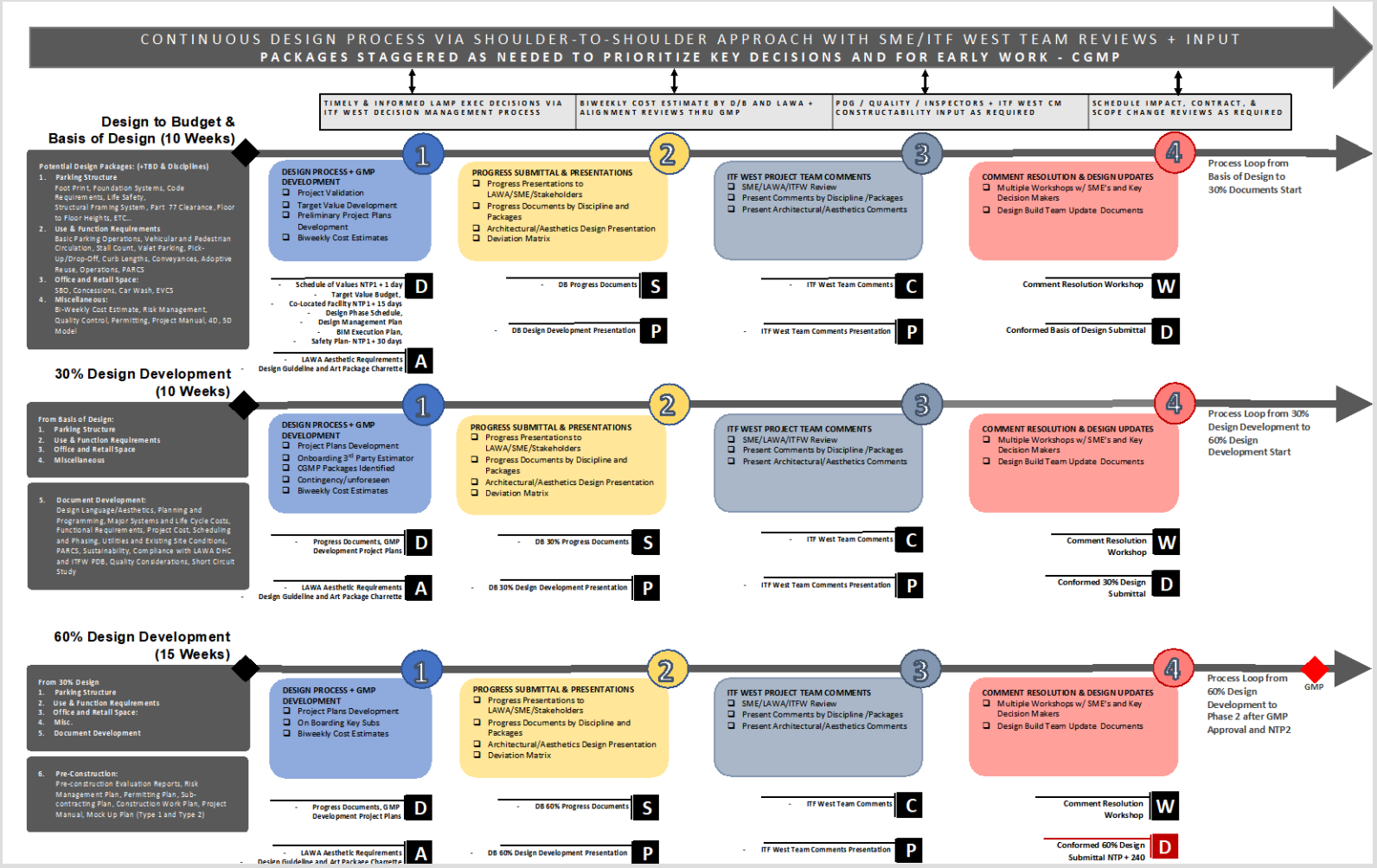
Environmental Compliance																																						⊖		◆
Police																																		⊖						
Engineers	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	

Decision Making Matrix

COLLABORATIVE DESIGN MANAGEMENT PROGRESSIVE DB PROCESS EXAMPLE



LESSONS LEARNED

LESSONS LEARNED

- Assess appropriateness of Project Definition Documents for Project & Owner
- Understand Procurement Limitations
- Co-Location – Project Management Office
- Maintain momentum after Major Owner Decisions
- Streamline Workflows to Accommodate Leadership schedules
- Engage Building & Safety upfront and pitch innovations early to ensure compliance
- It's never too early to innovate or engage stakeholders, industry experts and subcontractors
- Develop trust early
- Transparency
- Collaborative Risk management Strategy
- Consider Risk Sharing
- True understanding of Design to Budget requirements.
- Adopt processes/ procedures & tools as a team
- Ensure Executive decisions and agreements are conveyed to the whole team
- DB must have strong Cost Estimator
- Early decision on Subcontractor procurement/role/involvement
- Can TEAM (People) TRUST

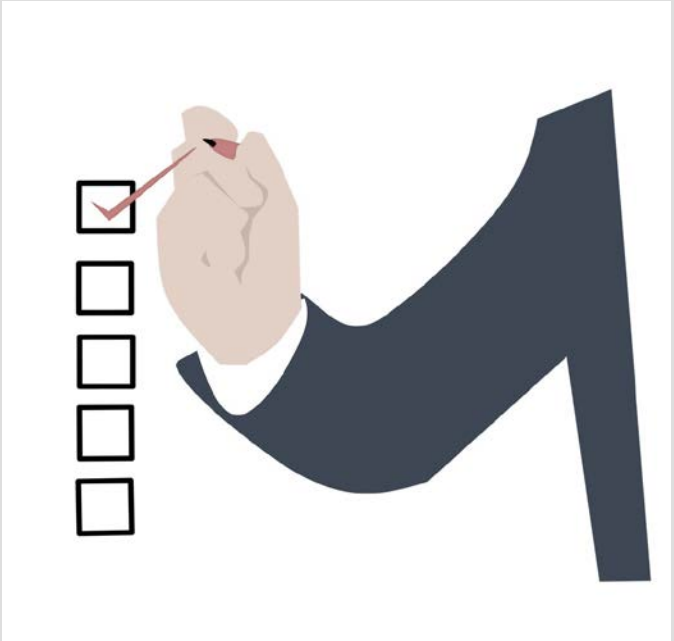
TOP CRITICAL SUCCESS FACTORS

Owner Factors:

1. OWNER center leadership
2. Complete program requirements & design decisions
3. Program change policy
4. Director's leadership role in design, budget and schedule management
5. Clear project governance structure and mechanism; clear locus of authority

Project Management Factors:

1. Design-Build experience and knowledge
2. Partnerships – *Pre-qualifications*
3. Applied lessons learned
4. Utilize technology
5. Early selection of equipment
6. Budget and schedule management (including realistic alignment with scope expectations)



WPR DBIA PROGRESSIVE DESIGN BUILD

DISCUSSION