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Hawaii P3 Workshop

June 6, 2017

Department of the Navy
Public-Private Ventures (PPV)
Program Overview

Sandra Tanoue
Director, Public Private Ventures
6 June 2017

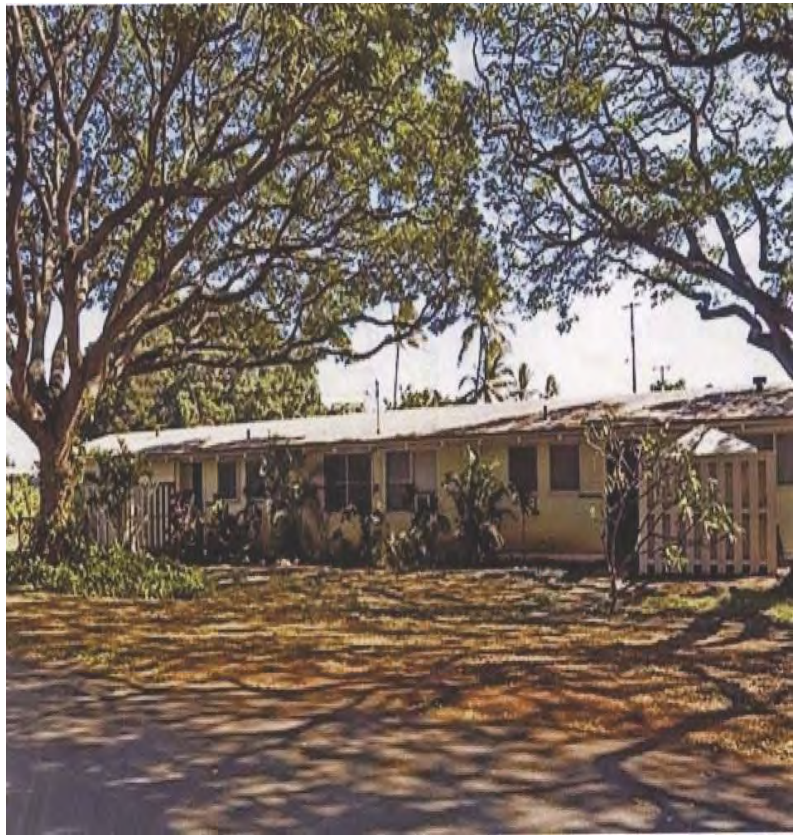
DoN Housing Public - Private Ventures

Halsey Terrace

- Where We Were
- Navy PPV Objectives
- Navy Business Approach
- Business Model
- Economics
- Development
- Portfolio Management

Where We Were

- Housing - Old, not adequately maintained, needed extensive renovating or replacement.
- Cost over $2B and 30 to 40 years
- Needed - Innovation or Transformation



Halsey Terrace, Pearl Harbor, HI

Navy Housing PPV Objectives

- Safe, high-quality and affordable
- Leverage Navy dollars
- Maximize Operations & Maintenance cost avoidance
- Protect value of Navy assets
- Minimize Navy's liability
- Participate in key business decisions
- Maintain flexibility

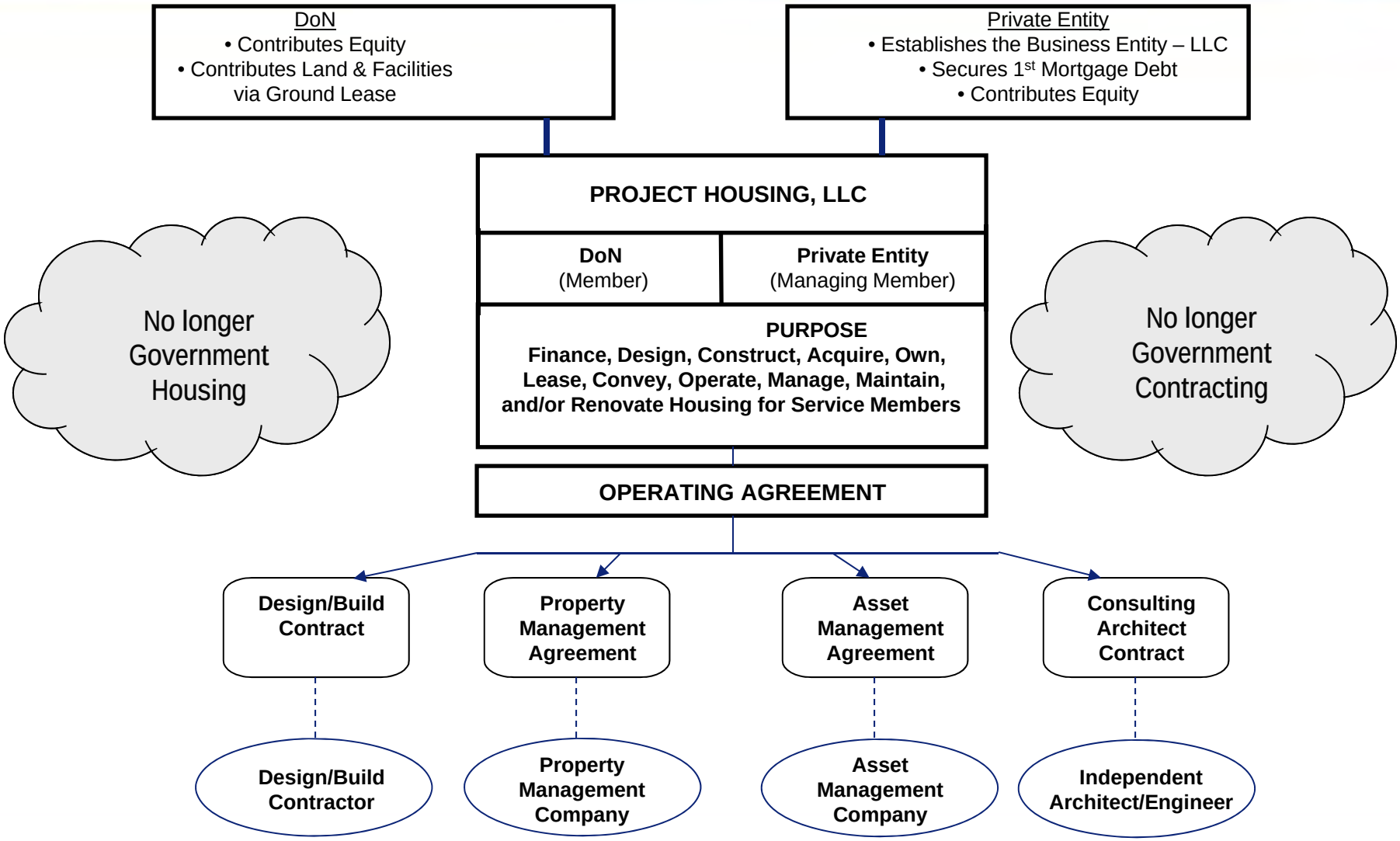
Navy Business Approach

- Partnership
- Investments
- No guarantees

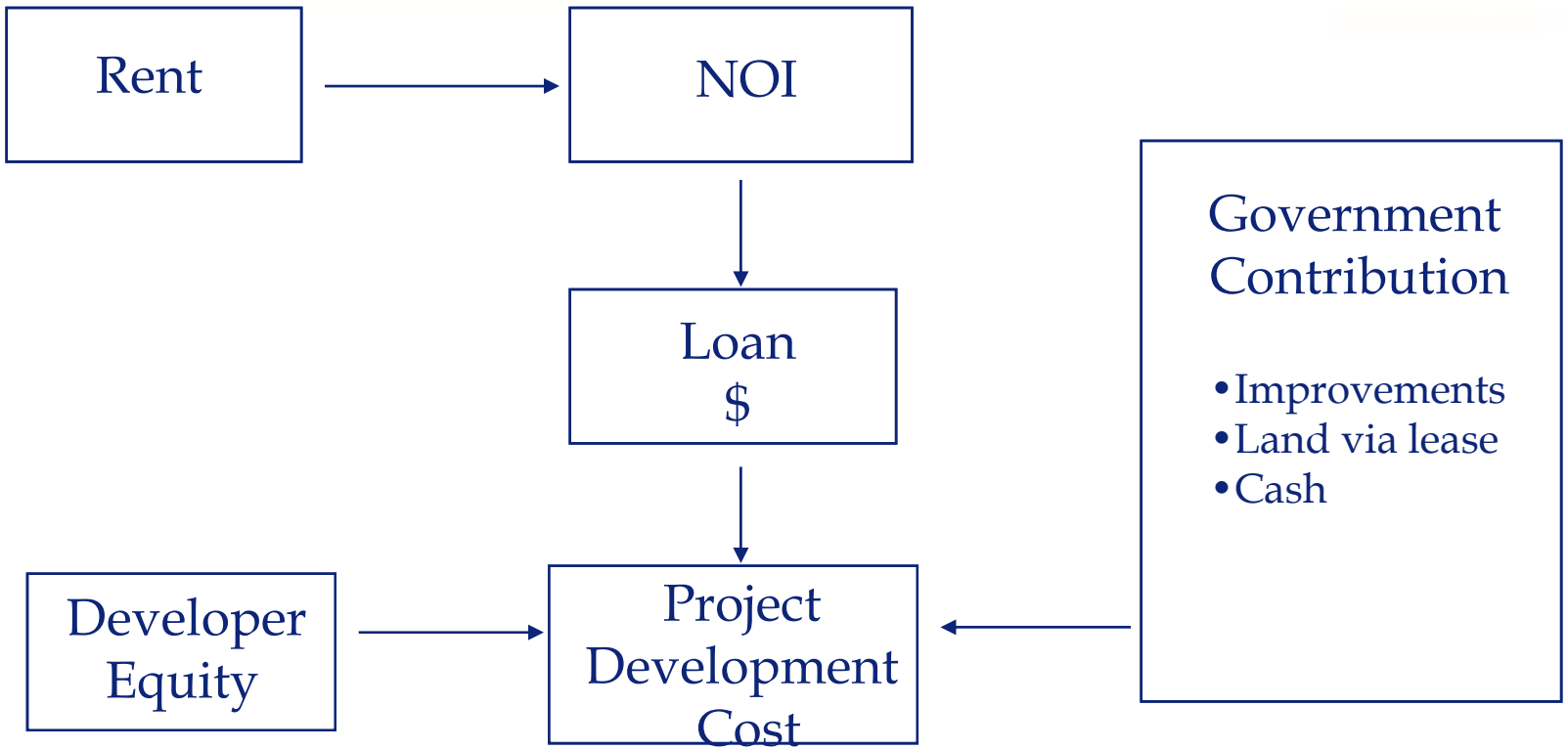
Moanalua Terrace, Pearl Harbor, HI

- Out lease of land to LLC and conveyance of existing property and facilities
- Revitalize existing inventory and address housing deficit

Typical Business Model



Economic Anatomy of a PPV



Development

Renovation
22% of Portfolio

Minor or No Work
43% of Portfolio

Replacement/New
Construction
35% of Portfolio

Images: Luke Filed, Hale Moku and McGrew

Radford Terrace, Pearl Harbor, HI

Neighborhood Amenities

Maintaining Historic Integrity

Hospital Point

Makalapa

Hale Alii

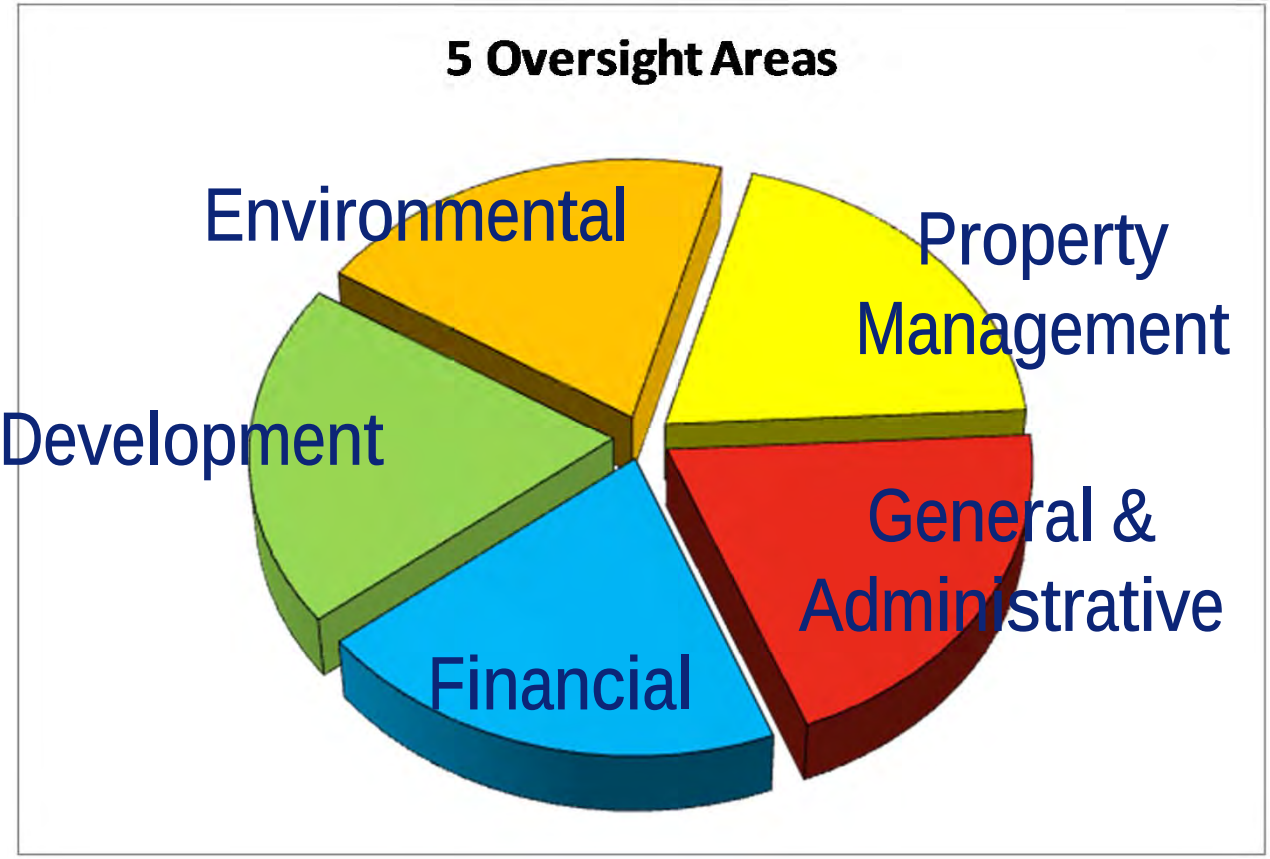
Marine Barracks

Photovoltaic

Halsey Terrace Rooftop

Pearl City Peninsula

Portfolio Monitoring



Questions, Answers and Reference Materials

Visit the Department of Defense's Military Housing Privatization Homepage at http://www.acq.osd.mil/housing

for information on housing projects, references and reporting, and miscellaneous information.

Questions?

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Speakers

Murray Clay
Ulupono Initiative

Seth Miller Gabriel
Director of the Office of Public-Private Partnerships (OP3) for the District of Columbia.

Benjamin Hall
John Laing Investments

Tuyen Mai
Ernst & Young

Tom Mulvihill
KeyBanc

Peter Morris
AECOM

Henry Navnitlal
Kiewit Development Company

Rodney Moss
Hunt Companies

Dr. Joshua Schank
LA County Metropolitan Transportation Authority

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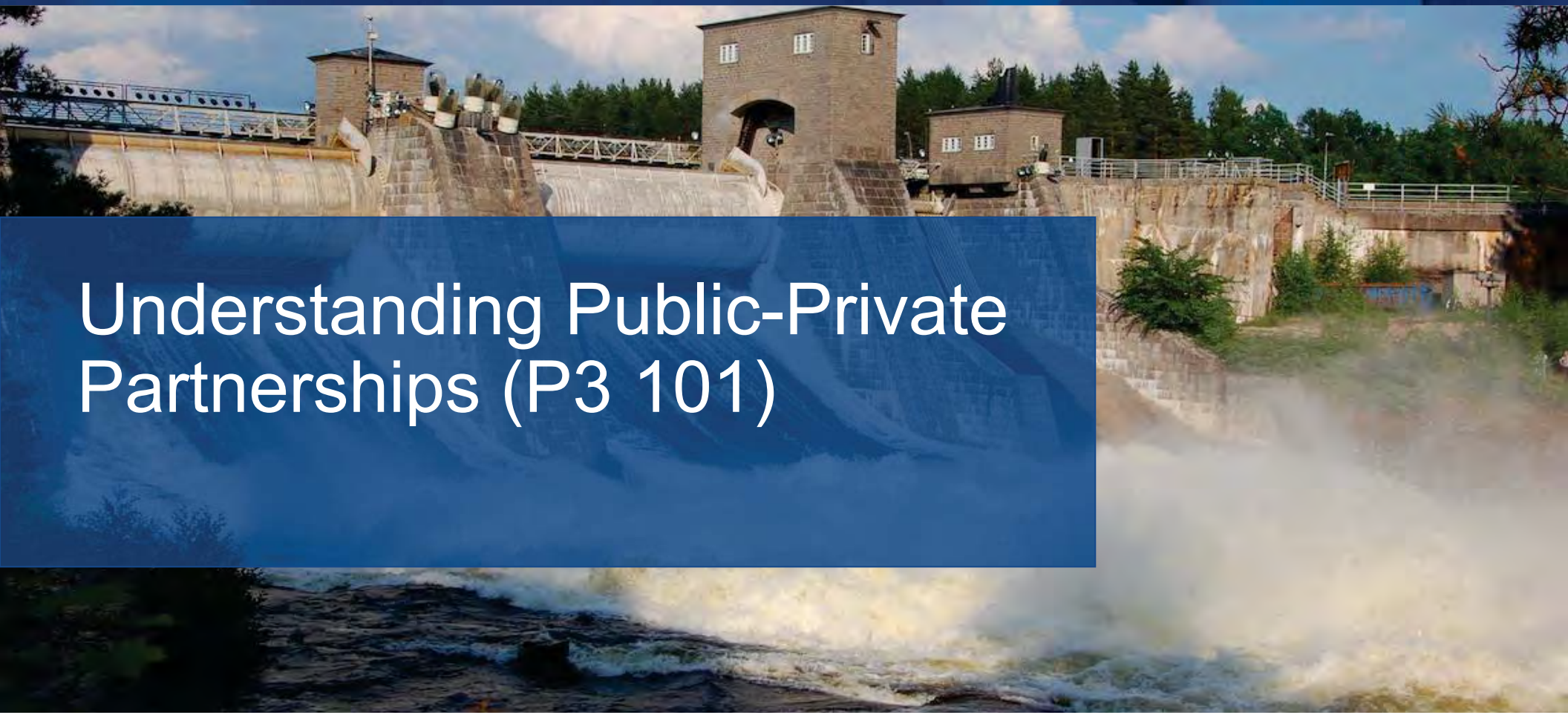

Understanding Public-Private Partnerships (P3 101)

What is a P3?

P3 Defined

- *A Public-Private Partnership (P3) is a contractual agreement between a public agency and a private entity that allows for greater private sector participation in the delivery and financing of a project.*

…but, why?

- Role for the private sector in solving public challenge
- Variety of contract structures + financing
- Performance-based outcome-focused

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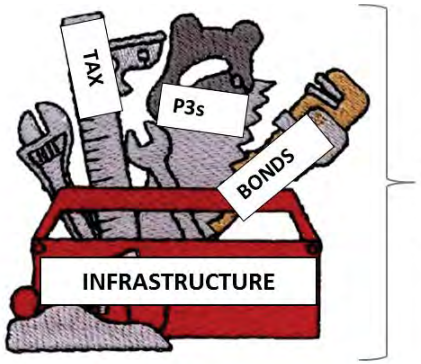
Why Consider a P3?



P3s are an additional tool in the toolbox to deliver and maintain infrastructure efficiently

Government Perspective…

1. Accelerate project delivery
2. Efficient transfer of risks
3. Life-cycle cost savings and price certainty
4. Retain ownership of public asset
5. Engage with the local community
6. Vehicle to get needed projects delivered

…Private Sector Perspective

1. Provides and investment opportunity
2. Complete management of project risks
3. Fosters innovation with performance based requirements
4. Competitive process and transparency
5. Secondary market opportunities
6. Vehicle to get needed projects delivered

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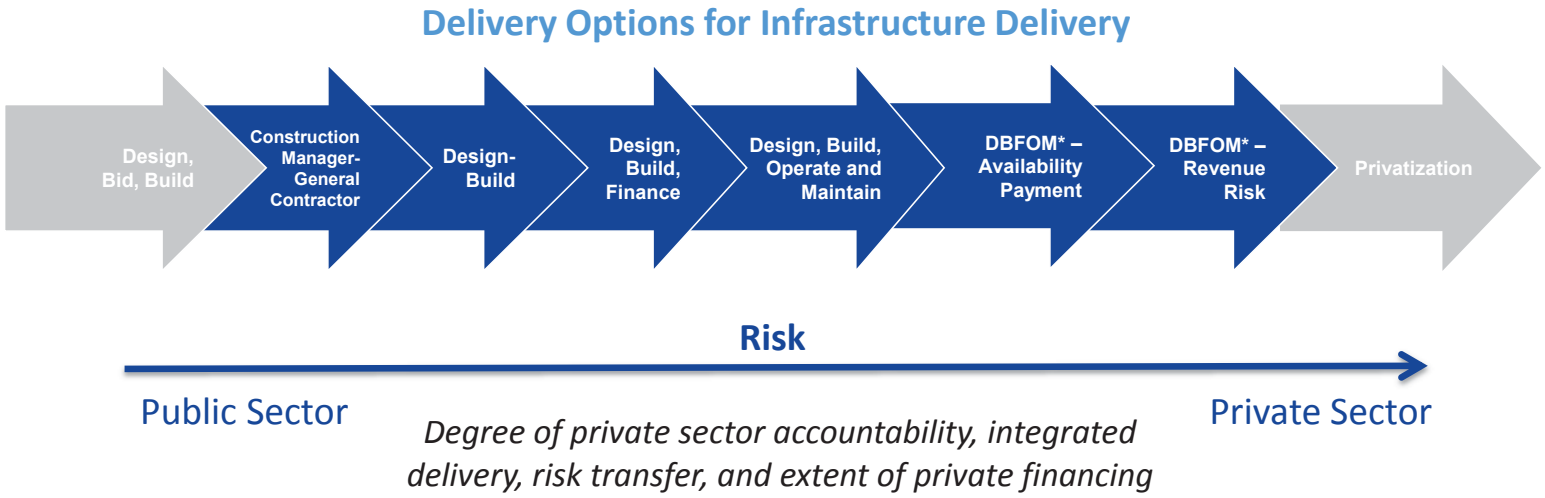
P3 v Traditional Procurement v Privatization

TRADITIONAL DESIGN-BID-BUILD (DBB)	• Public agency retains ownership • All phases of work occur sequentially and under separate contracts • Public agency retains all project risks • Public agency responsible for financing • Focuses on price to achieve a defined scope
P3	• Public agency retains ownership and substantial control, but transfers responsibility for D/B/F/O/M to private partner under a single contract • Contracts may be long-term (often 20-99 years for DBFOM) • Phases of work, such as design and construction, may overlap • Public agency shares or transfers some project risks to private partner • Focuses on “best value” and “performance”
PRIVATIZATION	• Ownership and control of facility is transferred to private sector

Delivery Models



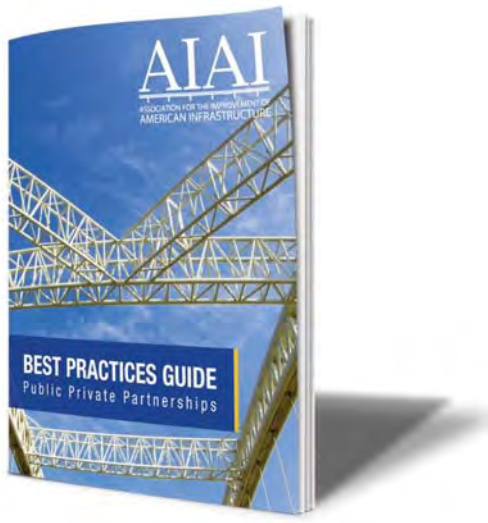
Port of Miami Tunnel

- Twin, 42-ft diameter bored tunnels will allow direct access from Port of Miami to NHS
- 2nd US availability payment-based PPP to reach financial close (during 2009 fin. crisis) at less than half FDOT's engineering estimates
- $900m Project was federalized after award
- Opening in 2014 proved the value of the P3

Identifying a P3

A P3 IS:

- **DESIGN AND CONTRUCTION, FINANCING, OPERATIONS AND MAINTENANCE PARTNERSHIP**
  Public Sector enters into a long-term contract with private sector to deliver assets and services for the benefit of the general public
- **A RISK SHARING APPROACH**
  Private sector assumes financial, technical and operational risk, public sector sets policy and retains ownership
- **LIFECYCLE PROCUREMENT APPROACH THAT GUARANTEES PERFORMANCE**
  By integrating design, construction, and financing, with operations and maintenance, the asset performance is optimized for the long term
- **A TRANSPARENT RELATIONSHIP**
  Public stakeholders have full control and can expect to be regularly updated and informed throughout the project



Qualifying a P3

A P3 IS NOT:

- **PRIVATIZATION**
  Public sector retains ownership and ultimate control of public asset
- **A FUNDING SOLUTION**
  Government agency gains access to private debt and equity financing which may not be available in regular public procurement, but project must still be creditworthy for debt and equity investors
- **A LOW QUALITY DELIVERY MODEL**
  Private entity enters into a performance-based contract with financial penalties imposed by the public agency if availability and quality standards are not met
- **THE RIGHT SOLUTION FOR EVERY PROJECT**
  A Value-for-Money analysis is performed by experienced legal, technical and financial advisors to determine if a P3 is right for your project

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Criteria for Viable P3 Projects

Not every project is suitable for P3!

Legislation	• The owner has the appropriate legislative authority in place to undertake a P3 arrangement
Project Size	• In general, projects with construction costs less than $50 million are not the best candidates for P3 arrangements with financing; however the use of bundling and other methods there are innovative ways to deliver projects
Project Complexity	• In general, projects with higher technical complexity offer relatively higher opportunity for private sector innovation and integration of design, construction, financing, operations and maintenance
Project Duration/Asset's Life	• Generally speaking the value added through a P3 arrangement can increase with a longer duration of the P3 arrangement.
Performance Characteristics	• P3 arrangements are structured primarily around performance based contracts. It is important for owners to evaluate whether it is feasible to clearly define objective performance standards for the project.

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Important Considerations

- P3s do not imply loss of control by owner
- Key is correct alignment of public and private interests and risks
- Not every project is suitable for a P3
- P3s are not “free” - private funding must be repaid
- Will not turn poorly conceived projects into a success
- P3 procurements are not inexpensive to administer, nor are they inexpensive to pursue

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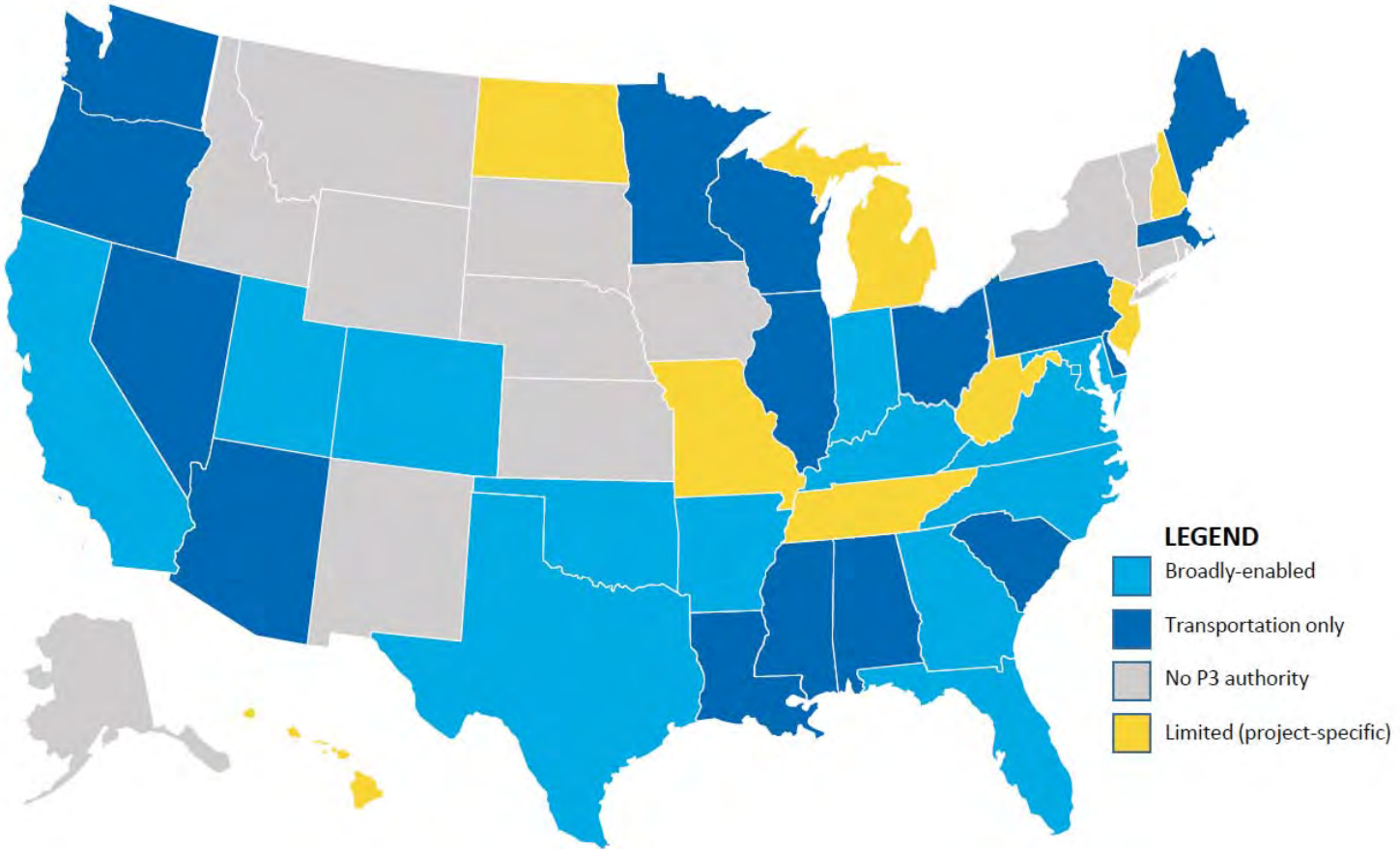
Status of P3-Enabled States | As of May 2017

- 36 states have P3 legislation plus DC & PR
- 13 states have vertical authority plus DC & PR
- 12 states have water authority plus DC & PR



P3 Structure – DBFOM

Project must have revenue stream!

- Typically partially / wholly **financed** by debt leveraging project revenues
  - Revenue streams: Availability Payments and/or some form of direct user fee (toll)
  - Revenues supplemented by money, right-of-way, or other contributions

Sources of Funds

- Private partner *will* make an **equity** investment; in long-term lease structure, likely will make upfront payment
- Public partner *may* need to make upfront payment (e.g., milestone payments) to reduce capital cost financing
- Private partner *may* be required to assume partial or full **revenue risk**
  - Revenue generators (or hybrid)
- May be structured as an **availability payment**
  - Non-revenue generators (or revenue doesn't cover)

Drivers

- Revenue Stream
- Risk Appetite
- Scale
- Market
- Lenders

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P3 Structure – DBFOM

- Provides a **single point of responsibility** for design, construction, operations, and maintenance
- Provides **opportunities for innovations and efficiencies** in design and construction
- Encourages the incorporation of **lifecycle** considerations in the project's design and construction
- "Value-for-Money"
- Often results in the use of preventative maintenance techniques
- **Defers payment without deferring the benefit** of the project – each dollar of deferred maintenance will cost the public ten dollars in the future!

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Best Practices

P3 Legislation should be broadly enabling, allowing government to fully consider the quantitative and qualitative factors for the particular project that create the most value for the taxpayer over the life of the asset.

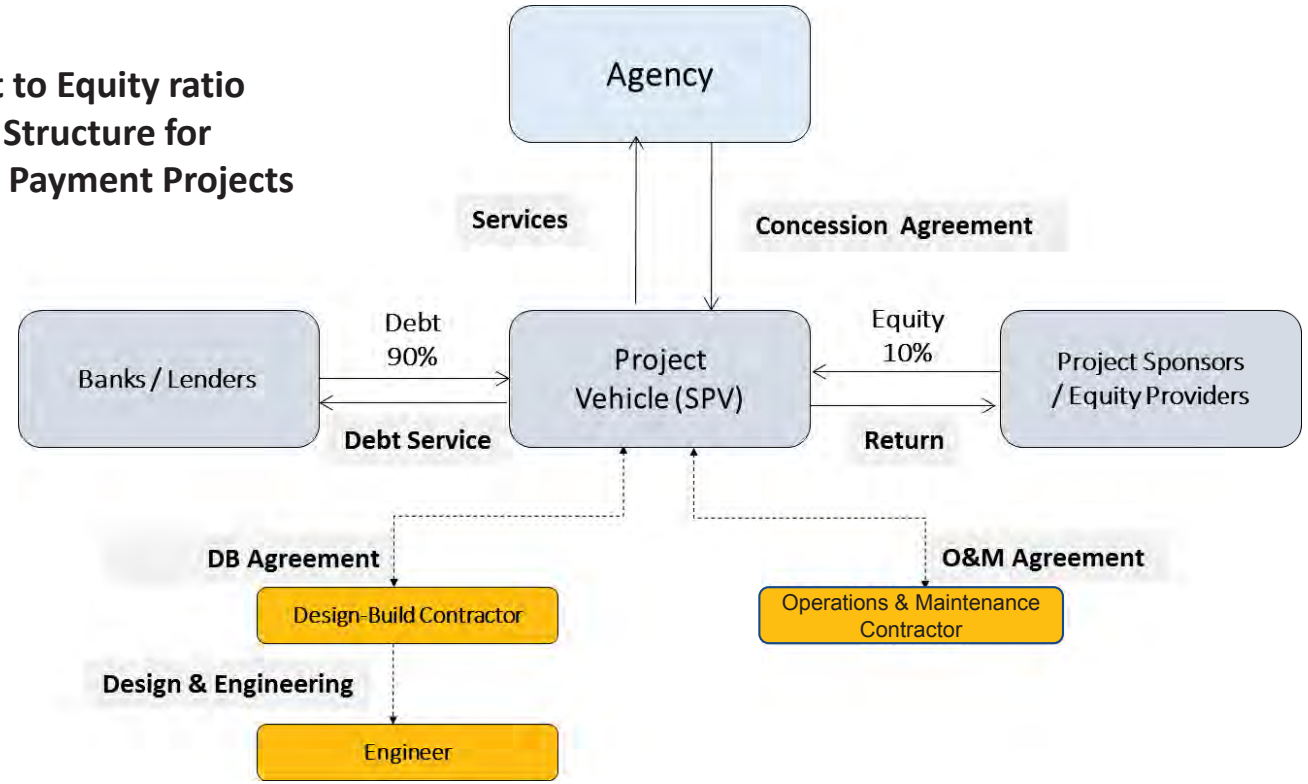
The hallmark of best practice legislation is creation of a center of excellence that provides resources and guidance to properly screen the projects and design the procurement process so that the bidders with the best ideas and best cost of capital are attracted to the project and government is confident that the selection.

P3s for the right project can and should:

- Encourage innovation and creative solutions
- Incentivize local and regional economic impact
- Create opportunity for qualified, locally-based businesses
- Address local job growth and long-term economic stimulation

Typical Structure – Availability Payment Model

90/10 Debt to Equity ratio is a Typical Structure for Availability Payment Projects



P3 Payment Mechanism – Availability Payment

- Under an availability payment mechanism, the government entity will make periodic availability payments to a concessionaire in consideration for the availability of the asset.
- In order to receive payment, the concessionaire must ensure that the asset is completed on time, meets certain performance standards and is available for use by the public.
- The concessionaire recoups its development, financing, construction and maintenance costs from availability payments over the term of the concession, subject to reduction for performance deductions.

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P3 Payment Mechanism – Revenue Based

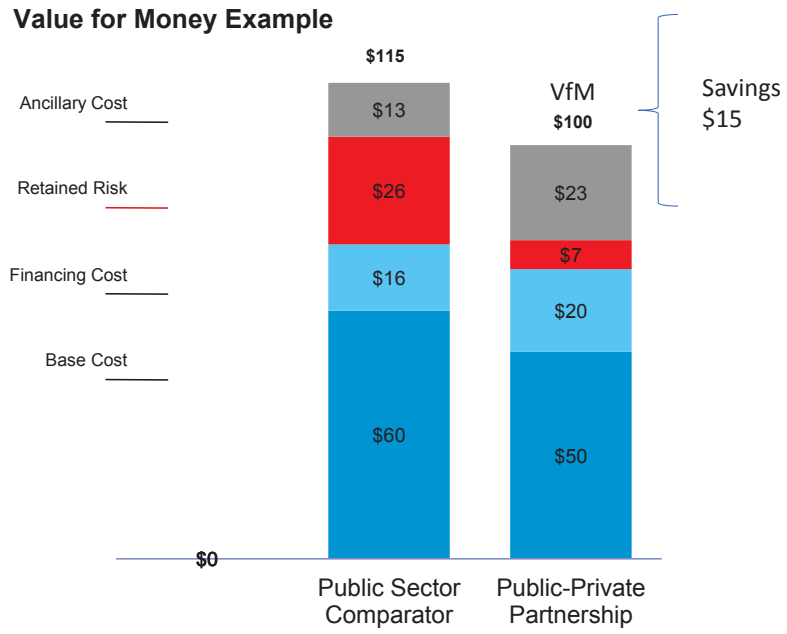
- In a revenue-based payment mechanism, the demand risk resides with the concessionaire.
- Project revenues are captured in a waterfall and applied to operation and maintenance, debt service, reserves, concession payments and investor return on equity.
- Project revenue based payments require a stable base of users who are expected to be willing to pay for use of the asset over the life of the concession.

P3 Financing Packages

- **Traditional Governmental Finance Approach**
  - Governmental Purpose Bonds
  - Risk retention by the government
  - State revolving funds – EPA
  - Federal: WIFIA, USDA, CDBG, BOR, ACE and others
- **Public Private Partnership Approach**
  - Equity 10-30%
  - Debt 70-90%
- **Forms of P3 Debt**
  - Federal Sources Outlined Above plus
  - Private placement market
  - Tax-exempt Private Activity Bonds (PABs) – state cap allocation challenge (for surface transportation only)
  - Club Arrangements of Banks
- **P3 Equity Providers ($300B available in USA)**
  - Private Equity
  - Life Insurance Companies
  - Pension Funds

Value for Money

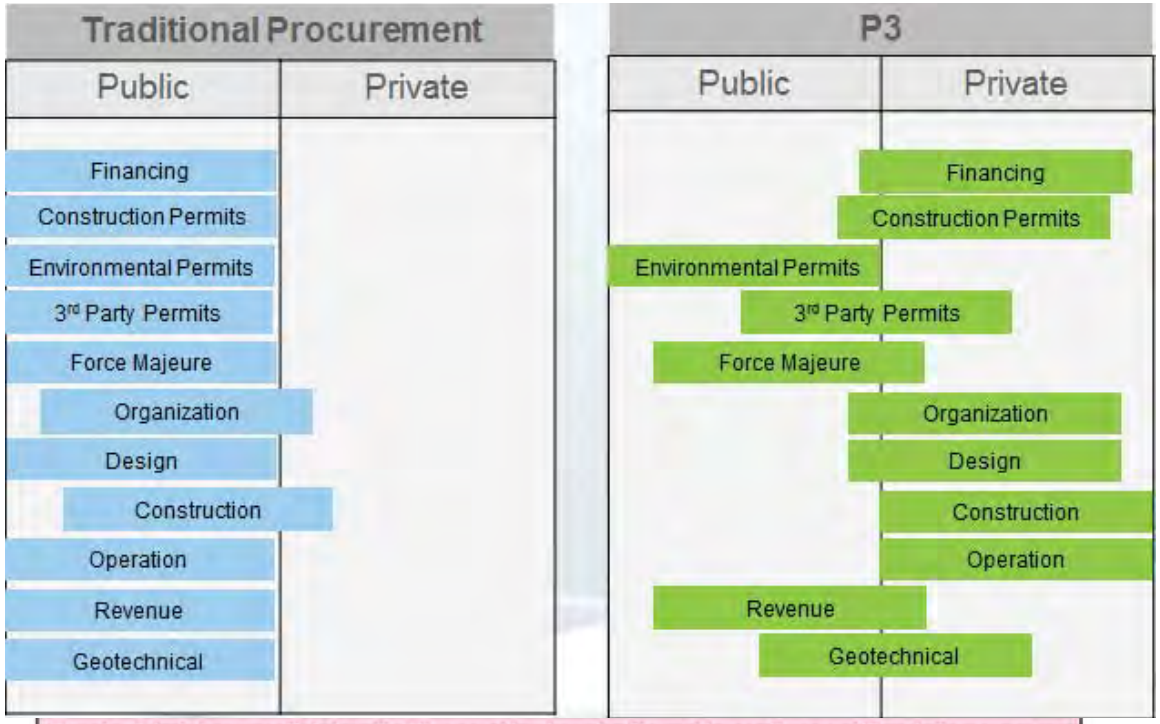
- Value for Money (VfM) analysis is a process used to compare the financial impacts of a P3 project against traditional public delivery alternatives. The process to establish VfM includes:
  - Creating a Public Sector Comparator (PSC), which estimates the whole-life cost of carrying out the project through a traditional approach;
  - Estimating the whole-life cost of the P3 alternative (either as proposed by a private bidder or a hypothetical "shadow bid" at the pre-procurement stage); and
  - Comparing results.
- Value for Money is an industry-accepted decision driver.



Potential Benefits of P3

- SCHEDULE DISCIPLINE
- GREATER BUDGET CERTAINTY
- COST SAVINGS
- GREATER INNOVATION
- LIFE-CYCLE MAINTENANCE
- ACCELERATED DELIVERY
- PUBLIC OWNERSHIP & CONTROL
- EFFECTIVE RISK TRANSFER
- JOB CREATION
- PAYMENT FOR PERFORMANCE / ACCOUNTABILITY

Optimized Allocation of Risk



Each Risk has a "Value". The optimized allocation of specific risks occurs when risk is assigned to the party which can mitigate or manage the risk more efficiently.

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Procurement Process

One of the key drivers for the successful development of a P3 project is a defined, properly structured procurement process that encourages private sector companies to bring forward their best people and ideas. The key stages of the P3 process include:

Issue RFQ	• RFQ document issued inviting teams to submit qualification credentials
Shortlist or Prequalify Proposers	• Shortlist or prequalify teams chosen based on qualification criteria
Issue RFP	• RFP documents released including project agreement and technical requirements
Proposal Period	• Proposers develop comprehensive technical and financial proposals.
Select Preferred Proposer	• Preferred proposer chosen based on evaluation criteria included in RFP
Negotiations	• Negotiate final terms and conditions with preferred Proposer
Commercial & Financial Close	• Preferred proposer executes project documents (commercial close) and closes project financing

Typical Durations for a Procurement

These timelines will vary by project and State legal requirements.

Every project is different!

Issue RFQ	• 30-60 days
Shortlist or Prequalify Proposers	• 30-45 days
Issue RFP	• 60-90 days after RFP issued
Proposal period	• 3 to 6 months
Select Preferred Proposer	• 30-60 days
Negotiations	• 30-60 days
Commercial/Financial Close	• 60-90 days

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Advisory Services

Advisory services include:

- Policy and program guidance and development
- Project screening, feasibility, and assessment
- Procurement services
- Contract/agreement administration
- Investor due diligence, life-cycle advisory and asset management

Technical, Legal, Financial

- Key to successful programmatic support
- Lean heavily on experienced advisors

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Principles of Successful P3 Delivery

- Owner-defined scope
- Industry outreach
- Stakeholders outreach and involvement
- Performance-based specifications, open to innovation
- Head-to-head competition
- Transparency
- Fair treatment of bidders
- Inclusivity and Goal Setting
- Timely third-party approvals
- Timely decision making and speed in execution
- Effective and efficient risk transfer

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Essentials for Successful P3 Program

- Committed Political Champion(s)
- Legislation authority and strong regulatory framework
- Critical need for a public facility to be delivered on an accelerated basis
- Agency acceptance of Value for Money/Risk Transfer methodologies
- Credible Analysis of Delivery Options
- Organized, Fair and Transparent Procurement Processes
- Key Stakeholder support and alignment

Lessons Learned on P3 Projects

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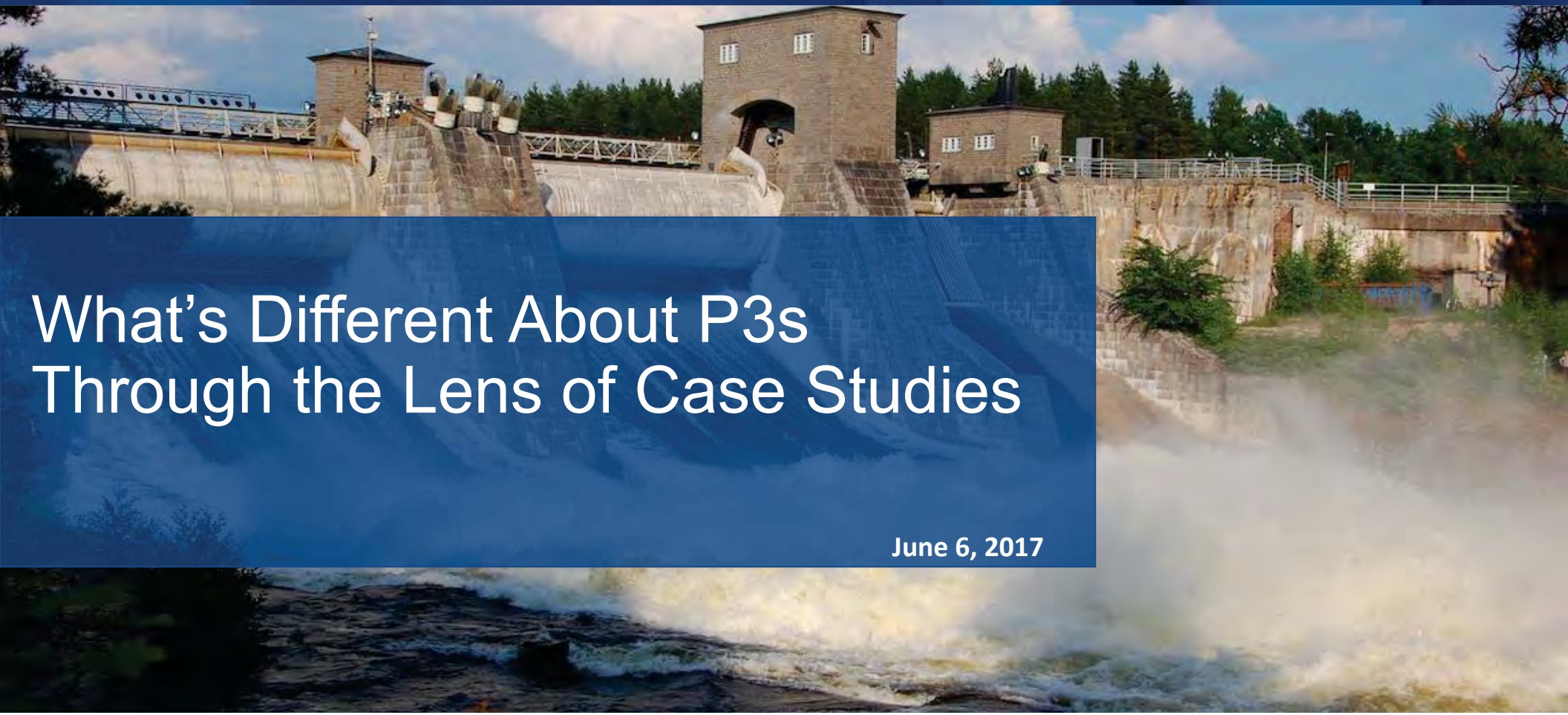

What's Different About P3s Through the Lens of Case Studies

June 6, 2017


OEI
OFFICE OF EXTRAORDINARY
INNOVATION
Metro

Year 1 Unsolicited Proposals (UPs)

In February 2016, **Metro opened its doors to the private sector, at an Industry Forum.**

- Pledged our commitment to pursing agency-wide innovation
- Focus on partnerships-based approach to drive value
- Debuted the Unsolicited Proposal Policy
  - Any company can submit a proposal on any idea
  - Encourages the private sector to tell us what we should do differently
  - Declares intention to implement ideas with financial/technical merit

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Unsolicited Proposals to Date

- **Total of 72 proposals received**
- **10 for Major Capital Projects and Programs**
- **56 completed Phase I Review**
- **16 have advanced to Phase II for detailed analysis**
  - 5 Phase II proposals received
  - Phase II analysis underway for 7 Major Capital projects
- **5 projects currently in implementation**
- **2 being recommended for implementation**

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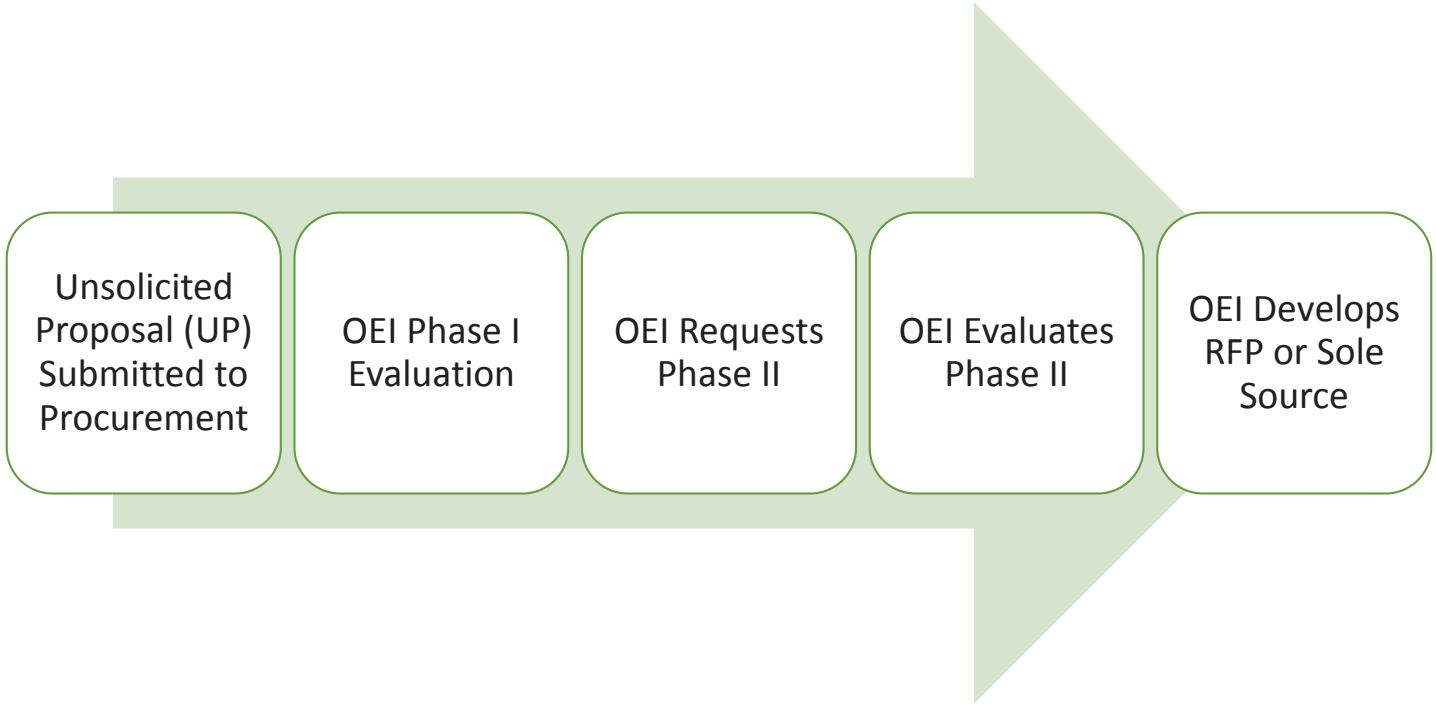
Unsolicited Proposal (UP) Submitted to Procurement
OEI Phase I Evaluation
OEI Requests Phase II
OEI Evaluates Phase II
OEI Develops RFP or Sole Source

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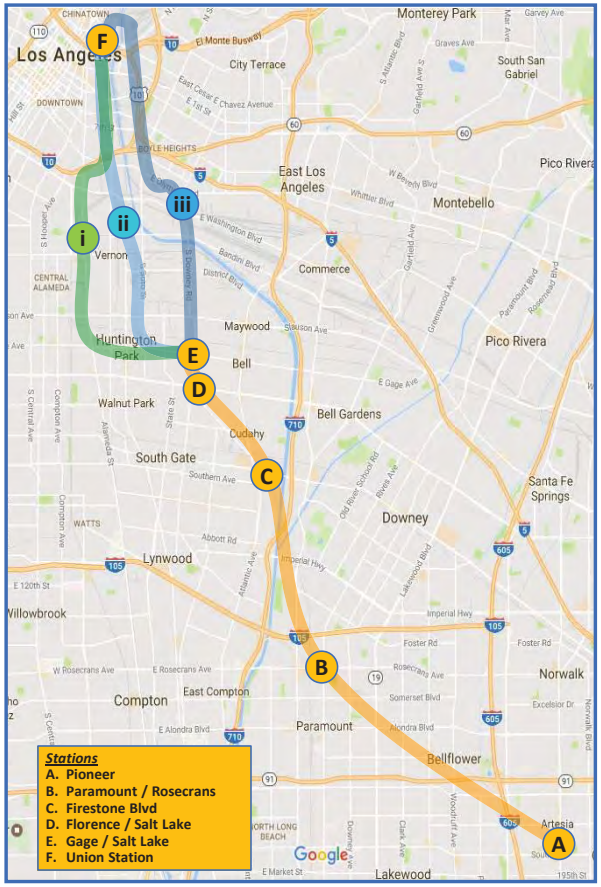
West Santa Ana Branch Corridor



Metro Planned Delivery

- Light rail transit split into two phases:
  - $3.7-$4.5 billion capital cost
  - Groundbreaking in 2022
  - Delivery in 2028 (Phase I) & 2041 (Phase II)

Unsolicited Proposals

- Innovations regarding project delivery and management approach, financing strategies, construction, & O&M
  - Potential benefits include acceleration, risk transfer, performance, and cost savings

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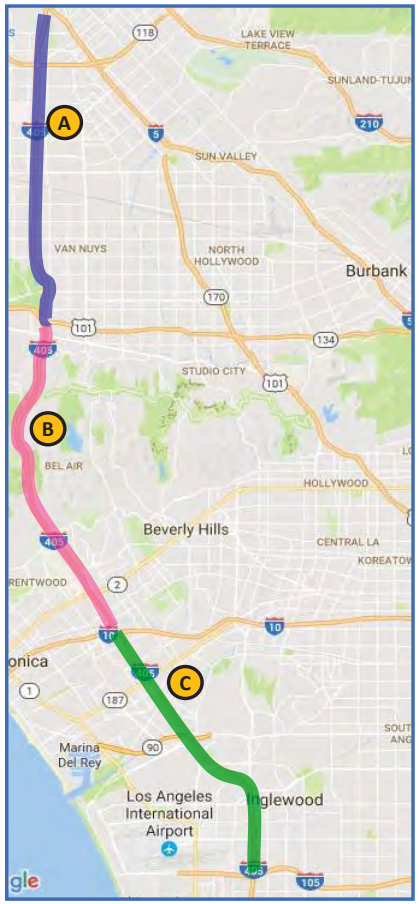
Sepulveda Pass Transit Corridor



Metro Planned Delivery

> Managed lanes through Sepulveda pass with transit element
  - $9.8 billion capital cost
  - Groundbreaking in 2024
  - Delivery in 2026 (Managed Lanes), 2033 (transit element), & 2048 (transit to LAX)

Unsolicited Proposals

> Innovations regarding project development & design, phasing, financing strategies, construction approach, operational strategies, & maintenance
  - Potential benefits include acceleration, risk transfer, construction innovation, performance, and cost savings

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Honolulu Rail Transit Project

P3 Viability Assessment

Hawai‘i P3 Workshop

June 6, 2017

Assessment Background

- The assessment is ***not* a "funding" study**. It looks at finance and delivery options that can accelerate delivery, reduce public sector risk and lower cost
- Preliminary findings are meant to inform stakeholders about potential benefits of Public-Private Partnerships ("P3")
- FTA wants a revised financial plan by the end of April or lose $1.55B federal funding of which $712 MM is already spent
- Expected G.E.T. Surcharge revenues, insufficient to cover costs
- JLL was engaged to undertake an assessment of potential alternative finance and delivery structures, such as P3 to help the City and County of Honolulu, State of Hawai'i, and the Honolulu Authority for Rapid Transportation (HART) deliver the Project in the timeliest and most cost-effective manner possible
- Focus has been primarily on the financing and delivery of the **Section 4 "CCGS*"** (4.2 miles across 8 stations from Kalihi to Ala Moana Center Station), the **Pearl Highlands Transit Center** ($1.63B total including contingency), as well as system-wide O&M

UK Study: P3 vs. Publicly Built

Metric	UK P3 Projects	UK Publicly-Built Projects
Price Certainty (On budget)	80%	17%
Schedule Certainty (On time)	66%	30%

*P3 projects in the UK, on average, showed **estimated cost savings of approximately 17%** against a public sector comparator.***

City Center Guideway and Stations = CCGC (Source: Shendy, Riham, Zachary Kaplan, Peter Mousley. *Toward Better Infrastructure: Conditions, Constraints, and Opportunities in Financing Public-Private Partnerships in Select African Countries*. Washington, DC: The World Bank, 2011. Print. (p. 4 and 7))

Project Background

- **PROJECT SCOPE**
  20.1-mile rail line across 21 stations

- **PROJECT OBJECTIVES**
  Reduce traffic congestion
  According to the Texas A&M 2015 Urban Mobility Scorecard Hawaii is:
  - #53 in Population rank
  - #3 in Stress Index rank

  Affordable public transportation

  Enable transit-oriented development around rail stations

  - Through 2050 vs. Business As Usual TOD can*:
    - Save est. 7,000 acres agricultural land
    - Save est. $7.2B of highway road costs

  Support the State goal of using 100% clean energy by 2045

**Honolulu Transit Oriented Development Study Scenarios results report 2013 Calthrope Associates, Pacific Resource Partnership*

- **HISTORY**
  - Experienced significant delays and cost overruns
    -> Lawsuits and contract disputes
    -> Shortage of available funding
  - Macroeconomic factors: recession and subsequent rapid rise in inflation
    (i.e. in 2014, annual rate of **construction inflation reached 14%**)
  - Cost of utility relocations

Public-Private Partnership (P3) Overview

Infrastructure Delivery Spectrum of Options

- Wide range of structures: Cooperation between public authorities and the private sector to ensure the financing, construction, renovation, management, operation and/or maintenance of an infrastructure facility
- **P3 projects yield 15-25% cost savings* as compared public/traditional procurements (i.e. DBB)**
  **Based on case studies examined*

- **Life-cycle focus** (often includes O&M)
- Payment to the private partner is output and performance based
- Risks shifted to private partner

Case Studies: P3s for Commuter Rail Lines

Evergreen Line (Vancouver, Canada)

Design-Build-Finance (DBF)

- Scope: 6.83 mi extension of existing SkyTrain system (driverless and automated); 28 new SkyTrain Vehicles; 6 stations and provision for 2 potential future stations; Vehicle storage facility
- Total Project Cost: $1.431 billion
- Outcomes/Savings:
  - **Total Project Cost Savings of 15-16%**
  - DBF option reduced project costs by 10% ($134 mn) over Design-Build option and P3 Concessionaire achieved additional 5-6% in cost savings ($70-85 million), below $1.431 bn budget

Eagle P3 (Denver, CO)

Design-Build-Finance-Operate-Maintain (DBFOM)

- First rail DBFOM P3 in the U.S.
- Scope: 40.2 miles for 3 new rail lines; 15 new stations; 54 commuter rail cars; 1 Commuter Rail Maintenance Facility
- Total Project Cost: $2.2 billion
- Outcomes/Savings:
  - Winning P3 bid came in $300 million **(27%) lower than public sector budget estimates**
  - Additional O&M cost savings achieved during operations phase

P3 Potential for Honolulu Rail Line

Alternative Finance and Delivery Structures could be helpful for the following reasons:

- Reduce/transfer cost and schedule risk
- Accelerate delivery
- Eliminate costly delays due to funding shortfalls
- Provide budget predictability
- Allow State and City to pay **ONLY AFTER COMPLETION** (align repayment with delivery of public benefits)
- Potentially reduce capital and/or O&M costs

Challenges to a P3

- Project still fully dependent on public funding
- Project midstream (potential legal challenge)
- Due to small footprint of rail stations, limited commercialization and monetization opportunities
- Overlapping public authorities (State/HART/DTS)
- Limited local P3 track-record
- May need enabling legislation for some options

Value-for-Money Assessment – Summary

- A qualitative and quantitative assessment was undertaken to review whether these alternative structures would provide *value for money* (VFM) or other benefits when compared to DB procurement options
- VFM assessment process included a risk analysis to identify and quantify value of risk transfer under P3 scenarios
- JLL ran 4 scenarios where the capital costs under DBF and DBFOM were discounted by 5%, 10%, 15%, and 20% to reflect P3 efficiencies, as compared to the baseline (DB) scenario
    - Further, the O&M costs under DBFOM were discounted by 15% versus HART estimates
    - The reductions are due to efficiencies gained by the private partner and based on industry averages and case studies
- ***The P3 options show lifecycle cost savings of 6-16% compared to the Baseline (DB) scenario***, which is more modest than earlier stated averages – that P3 projects yield 15-25% cost savings as compared public/traditional procurements (i.e. DBB)

Conclusions and Recommendations

"The Good News"

Design-Build-Finance Structure

- City can address cash flow constraints and defer payments until Project completion
- Reduces cost risk (and the credit impact thereof)
- Most likely enabled under existing legislation
- Does not conflict with existing contracts
- Could accelerate delivery timeline
- Anticipated savings: ~15% versus DB

"The Bad News"

- P3 is NOT free money
- Public funding is required to close the nearly $2B funding gap
- G.E.T. is the convenient funding option
- If funding responsibilities are transferred to the City & County of Honolulu, there is a higher possibility of costly project delays
- Accelerated delivery potential could be eliminated with legal challenge to change in procurement

P3 can potentially deliver the project more efficiently with less risk. However, public funding is still required.

Mahalo!

For more information visit www.ulupono.com

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Real Estate and Value Capture in Infrastructure P3s

Tuyen Mai
Senior Managing Director, EY

Various TOD Available for Rail Infrastructure

SF BART to Silicon Valley Phase II

- $4.7B BART extension from Berryessa to San Jose/Santa Clara
- $2.4B funding gap closing strategy leverages cap and trade, sales tax and TOD mechanisms
- New 30-yr half-cent Measure B sales tax recently approved will contribute $1.5B
- Enhanced Infrastructure Financing District and Community Facilities District will contribute pay-as-you-go and allow capital financing

Downtown Los Angeles Streetcar

- $250M+ redevelopment of historic Downtown Streetcar
- Major funding sources for capital and operations/maintenance include FTA Small Starts and local sales taxes (Measures R and M)
- Special Assessment “Mello-Roos” District to fund up to $85M
- Potential for joint development at the Maintenance Storage Facility

Essential to Major Rail Stations Development

Moynihan Station, New York, NY

- $1B+ redevelopment of the Farley Post Office building adjacent to the existing Penn Station
- Transaction structure combines train hall and real estate development into a single contract including over 700,000 SF of commercial space
- Value capture strategy includes upfront payment from private developer and monetization of over time property taxes to fund train hall costs
- Multiple sponsor agencies include federal, state and local partners

Denver Union Station, Denver, CO

- $500M+ redevelopment of the Denver Union area into a multi-modal hub with adjacent TOD
- Train hall and adjacent hotel and retail space delivered through a PPP
- Value capture strategy combined annual governmental payments with future real estate parcel sales
- First project to combine federal TIFIA and RRIF assistance in capital structure

Civic & Justice Facilities DBFOMs

Long Beach Courthouse

- P3 development of new $490M, 531,000 SF facility with 31 court rooms and administrative and commercial space.
- First US performance-based facilities P3
- Additional parking, retail and lease revenues supplement availability payments
- Project completed 3 years ago and refinanced

Long Beach Civic Center

- P3 development of new $520M civic center for the City and Port of Long Beach, including new City Hall, Port headquarters, and city library. Financial close achieved in April 2016 and completion anticipated in June 2019
- City Hall and Port headquarters designed as separate and distinct buildings, each meeting their own requirements
- ~$20M adjacent site leveraged to buy down availability payment

Los Angeles Civic Center Master Plan

- **5,000 staff spread across City facilities Downtown making 150,000 monthly trips**
- **10+yr development plan to redevelop 3M SF Civic Center facilities around City Hall**
- **Innovative funding strategy**
  - Ground leases fees from residential / retail
  - Sale/termination of existing properties and leases
  - Reduced maintenance and utilities costs
  - Hidden cost of ageing facilities/deferred maintenance
- **Availability Payments P3 considerations for 1.2M SF civic office facilities development**
  - Cost and schedule overrun risk transfer
  - Long-term maintenance budgeting (vs. yr-on-yr)
  - Not booked as debt / counting against 6% debt cap
  - Infrastructure vs. real estate investor distinction
  - Narrow taxable / tax-exempt financing gap

North view


UC Merced
Project 2020
AECOM

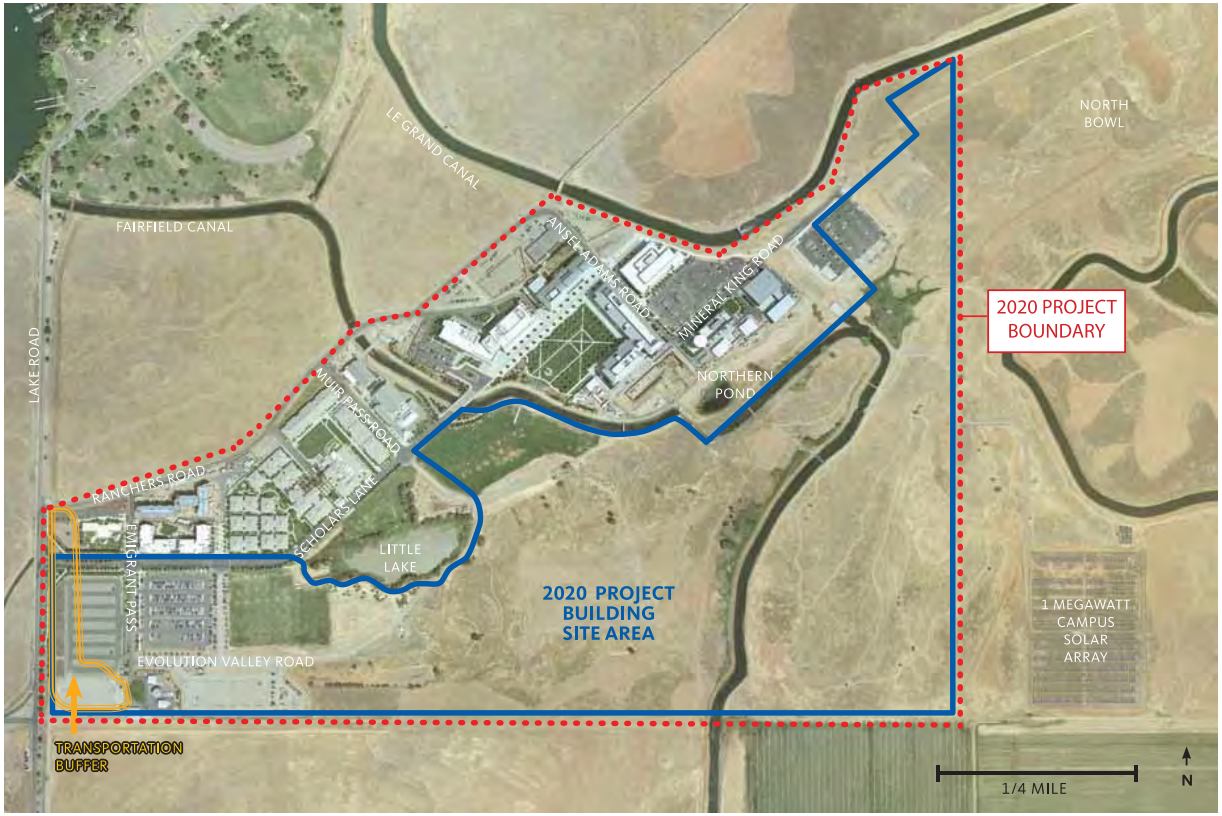
2020 Program Overview

- 10,000 students projected by 2020
- 1 million Assignable Square Feet of additional program
- Program:
  - Academic and Research Space
  - 1,700 built beds
  - Mixed-use, collaborative and sustainable
  - Recreation, dining and student life facilities

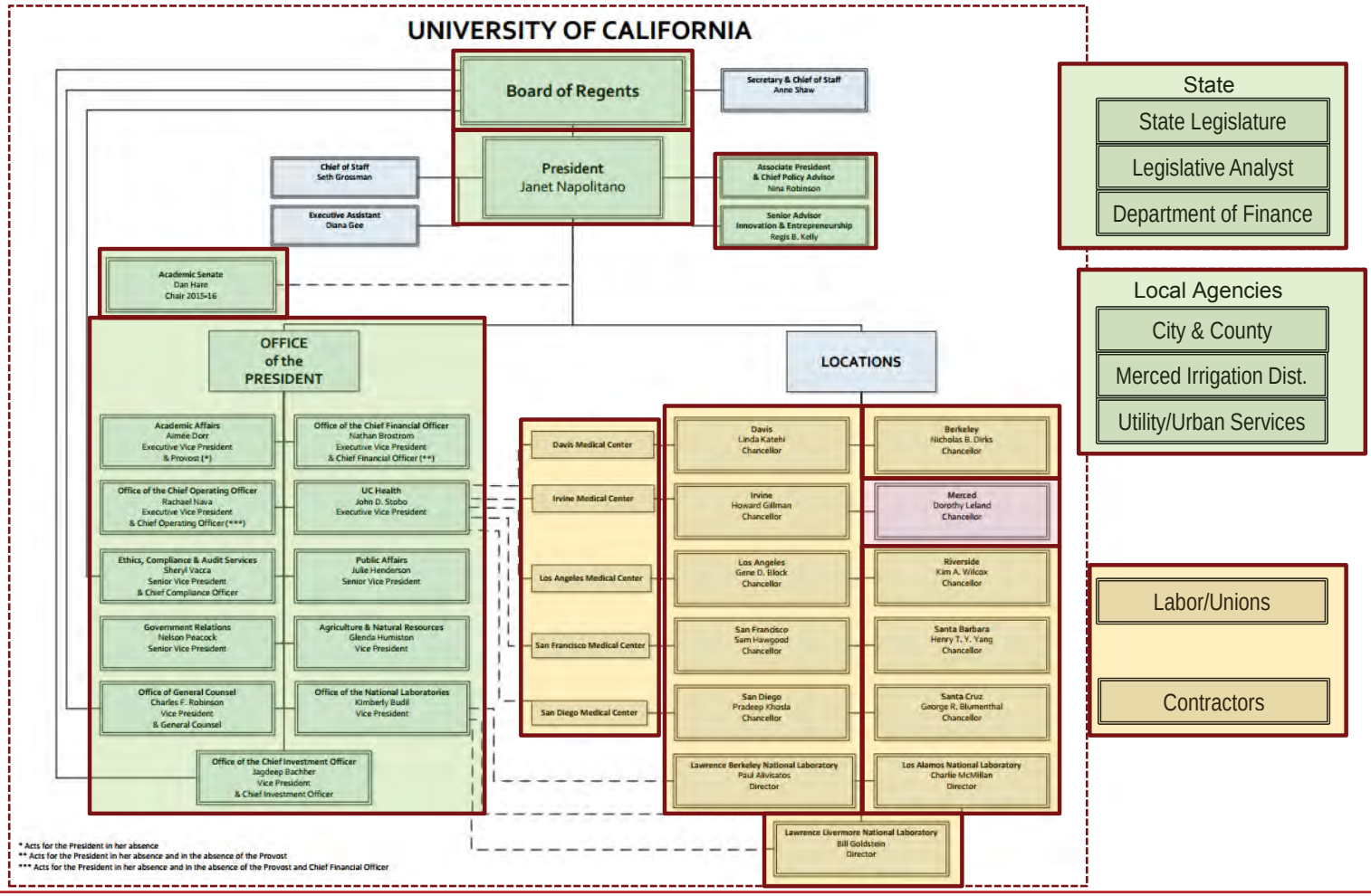
	ASF	GSF
Academic Space	419,212	698,686
Housing & Student Dining	400,992	589,694
Academic Support	164,740	257,646
Athletics and Recreation Buildings	101,520	167,085
Fields	N/A	403,500

Physical Landscape

219-acre Project Site includes 136 acres of undeveloped land



Political Landscape



Policy Landscape

- Draft Physical Design Framework document
- Environmental Impact Report (EIR) Performance Criteria
- Draft Circulation Performance Criteria and Metrics
- Draft Land Use Performance Criteria and Metrics
- “Toolkit” of supporting documents to assist development teams

Physical Design Framework
Reference document
for Design Teams

EIR/EIS Criteria
List of required
mitigation measures

Circulation Criteria
Expert recommendations
for mobility and parking

Land Use Criteria
Best practice metrics for site/
urban design and open space

Content will help shape Request for Proposals Document

UC Merced Goals for ZNE, GHG Neutral, ZLF

UC MERCED
triplezero

zero net energy. zero landfill waste.
zero net greenhouse gas emissions.

UC Merced is Committed to achieve the following sustainability goals by 2020:

Zero Net Energy

- Net energy through efficiency and renewable energy production.

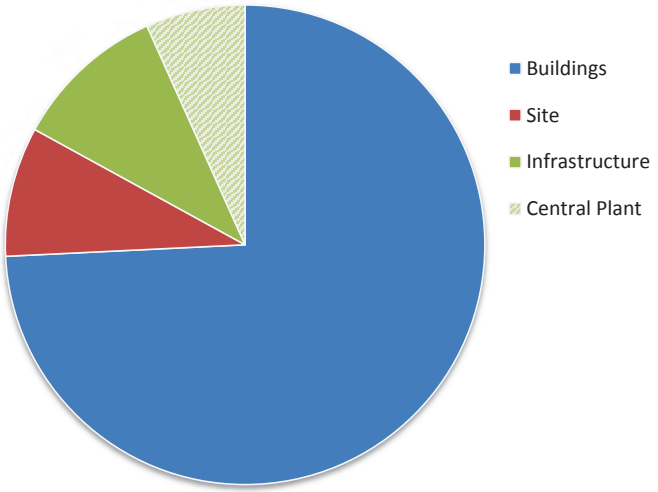
Zero Landfill Waste

- Divert from landfill all campus waste by reducing excess consumption and recycling to the maximum extent feasible

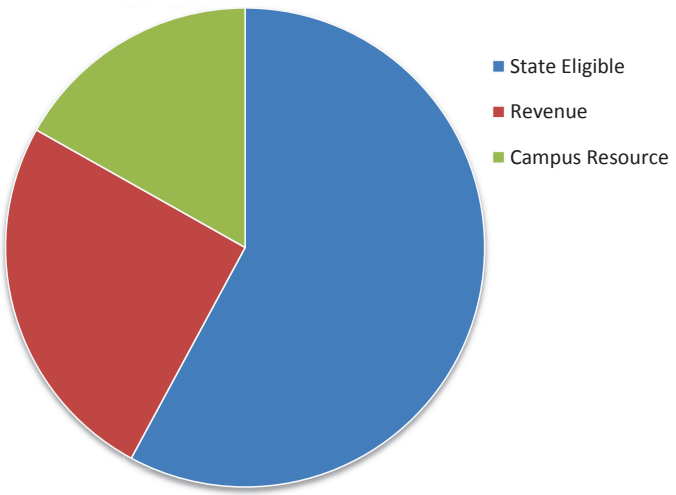
Zero Net Greenhouse Gas Emissions

- Prevent as much carbon emissions as it produces.

2020 Preliminary Capital Cost Distribution



Cost Allocation by Expense Type



Cost Allocation by Revenue

P3 Finance and Commercial Highlights

1st Higher Ed US DBFOM

- $1.3bn capital project delivered through 39-year DBFOM structure
- Financial close in August 2016 – first delivery in Summer 2018
- Hybrid availability payment leveraged UC exceptional muni market access

P3 Structure Drivers

- Long-term affordability was a key risk due to scale of O&M
- Balanced academic program ramp-up focus vs. facilities delivery
- Staggered delivery & LDs structure matching academic year schedule

Financial Strategy

- Subsidized academic facilities trumped housing/dining excess revenues
- Auxiliaries, tuition, state support, other revenues captured at campus-wide level
- RFP price “upset limit” drove affordability

Experience

What Worked Well

- Very strong political commitment
- Good coalition building
- Buy in from stakeholders
- Well organized/small owner team
- Good industry review meetings
- High level of external oversight – forced good defense

Struggles

- Team built in stages – led to a lot of rework
- Lack of initial data (existing space utilization)
- Changes to scope and program
- Very diverse group of stakeholders

Napa Civic Center

Program Overview

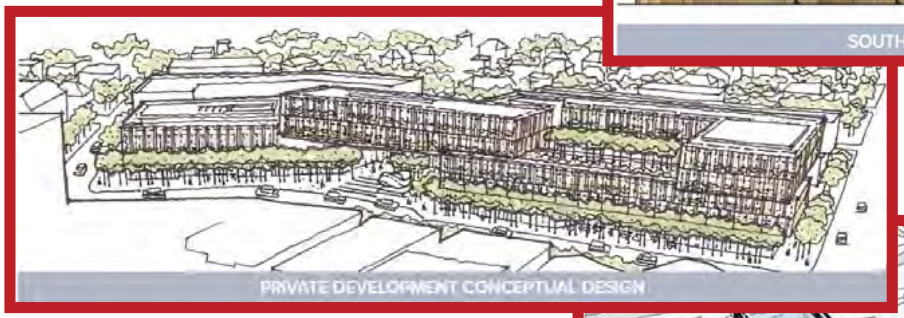
- Existing City operations scattered across several sites
- Facilities mostly 50 – 60 years old, include former retail and residential buildings
- Need:
  - Expanded space
  - Elimination of duplicated space and cost
  - Unified public service points/Improved identity

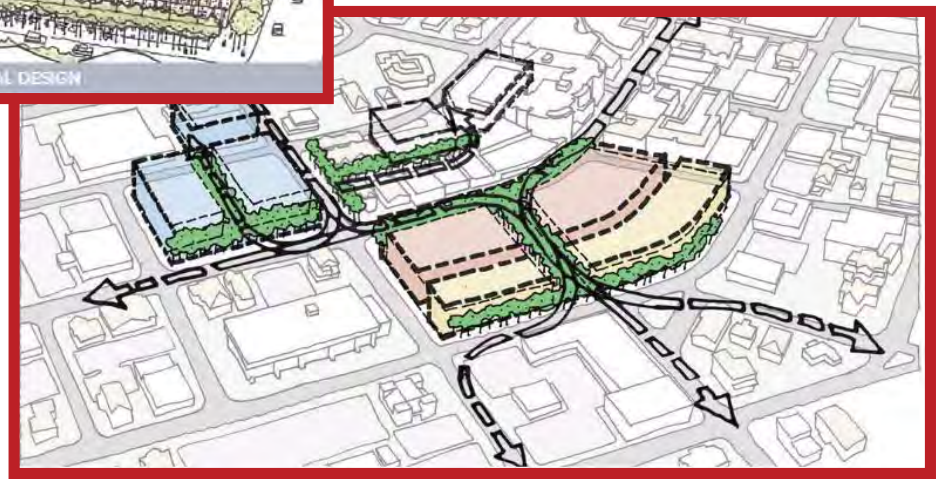
	ASF	GSF
City Hall	31,984	54,500
Public Safety	15,745	23,000
Essential Service	14,544	22,900
Fire Station	8,446	12,900
Public Outdoor Space	N/A	8,000

Physical Landscape

Proposals


SOUTH ELEVATION - CITY OF NAPA CIVIC CENTER


PRIVATE DEVELOPMENT CONCEPTUAL DESIGN




PRIVATE SITE
2 MILES
1 MILE
5 MIN DRIVE
PUBLIC SITE

Experience

What Worked Well

- Well developed program – Clear Vision
- Well organized/small owner team
- Buy in from stakeholders
- Open to innovation/alternatives
- Good industry review meetings
- Good understanding of cost/impact of “no-action” alternative
- Healthy city finances/stable organization
- Two high quality but very different proposals

Struggles

- Small scale of project
- Parking demand
- Affordable/Workforce housing component
- Two high quality but very different proposals

University of California
Student Housing Initiative

AECOM

Physical Landscape

Two campuses in initial program

- UC Santa Cruz
- UC Riverside

Program Overview

- Urgent need for affordable student housing throughout UC System
- Need:
  - Expanded bed count
  - Student Life: Dining, Study, Recreation, Activity, Child Care
  - Affordability

Experience

What Worked Well

- Clearly defined need
- Experienced OP and Campus teams
- Buy in from stakeholders
- Open to innovation/alternatives
- Funding Capacity

Struggles

- Entitlements
- Parking demand
- Affordability
- Utility Infrastructure capacity
- Tension between private and public practices/policies

Colorado State University

C. Wayne McIlwraith Translational Medicine Institute

AECOM

Questions and Answers

Island Palm Communities LLC

An award-winning model for public-private partnerships

June 6, 2017

lendlease

CONTENTS

Section 01
MHPI Overview

DoD housing before privatization

Before privatization, the DoD had ascertained:

- 60% of DoD-owned family housing – approximately 180,000 units – were inadequate
- $20B and 30 years using Military Construction (MILCON)
- Housing was not a core competency of the military or DoD

A public policy solution

MHPI provided the legislative authorities to facilitate real estate transactions between the government and private developers and property managers.

Benefits to the Army:

- Preservation of public capital
- Speed to market
- Technical expertise
- Shared risk
- Efficiency and reliability
- Long-term asset management

The 1996 National Defense Authorization Act passed by Congress gave life to the Military Housing Privatization Initiative (MHPI)

Section 02
Who We Are

Lendlease is an international real estate developer, builder and owner.

In our Communities' business we work with public and private sector partners to provide affordable housing choices.

In-house expertise to design, develop, fund, build, and manage a range of residential options.

Lendlease's global strategy seeks to deliver transformational projects that meet the Lendlease vision

TO CREATE THE BEST PLACES.

LENDLEASE: **BY THE NUMBERS**

Figures as of December 30 2016, US$

INVOLVED WITH **902,965,681** SQUARE FEET

+85,000 RESIDENTIAL & MIXED-USE UNITS

6,542 PROJECTS & PROPERTIES

$148.4 BILLION OF PROJECTS

WE'RE IN HAWAII FOR THE LONG TERM

WE LOOK FORWARD TO PARTNERING WITH PUBLIC AND PRIVATE SECTORS IN HAWAII AND SHARE OUR VISIONS OF CREATING THE BEST PLACES

Since **2003** OPERATING IN **HAWAII**

25 STATES IN OUR RESIDENTIAL PORTFOLIO

10,000+ HOMES IN HAWAII

475 FULL TIME **EMPLOYEES** IN HAWAII

Island Palm Communities is a 50-YEAR PARTNERSHIP between Lendlease and the U.S. Army

ROLE
Owner, developer, asset manager

COMPLETION
2054

PARTNER
U.S. Army

PROJECT SIZE
7,756 homes

CONSTRUCTION
4,725 new home construction
7 community centers
2,515 renovated homes

PROJECT VALUE
$2.3 billion

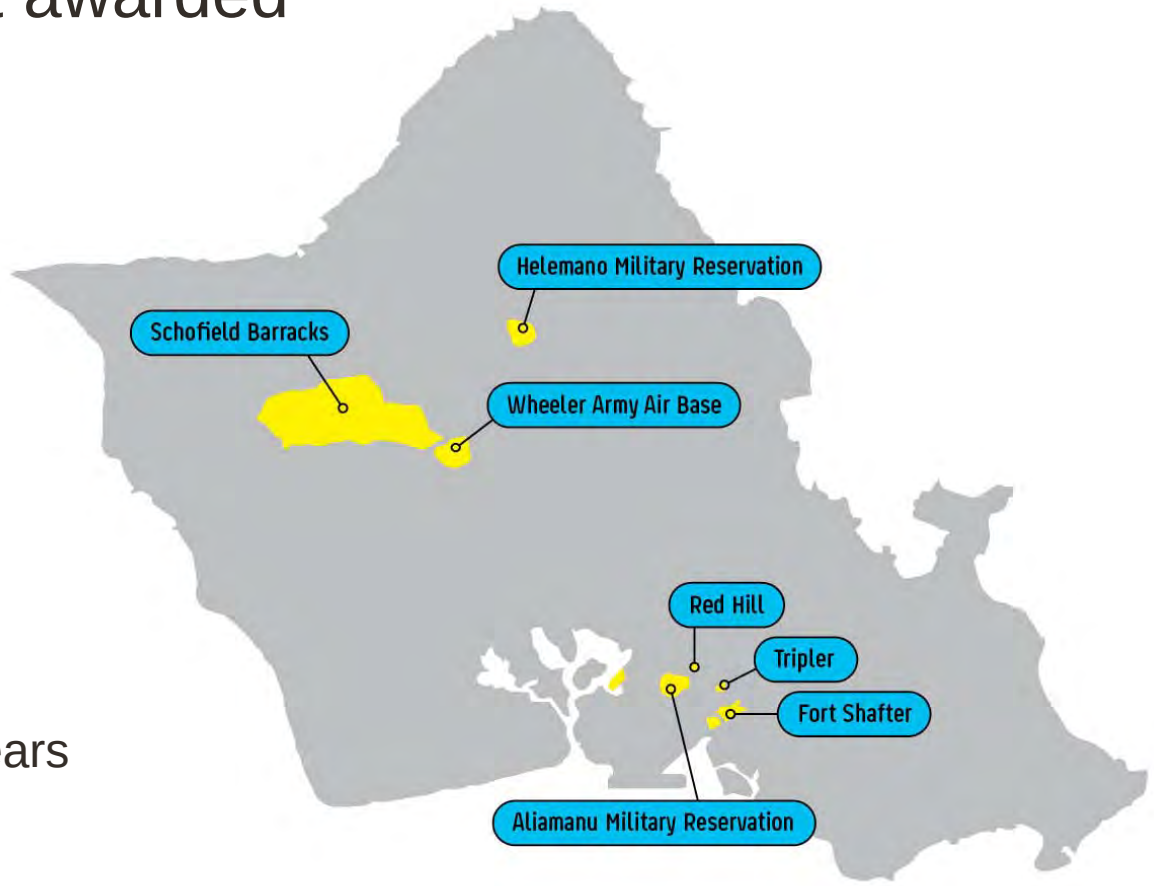
Largest MHPI project awarded by the Army

Operations span seven installations encompassing 1,702 acres.

Over 7,900 homes under management.

$2.3B 12 year initial development period

$5.35B Over remaining 37 years



Highlights and achievements

$1.77B in construction and **$65M** in renovations contracts awarded to date. Over 90% awarded to local businesses.

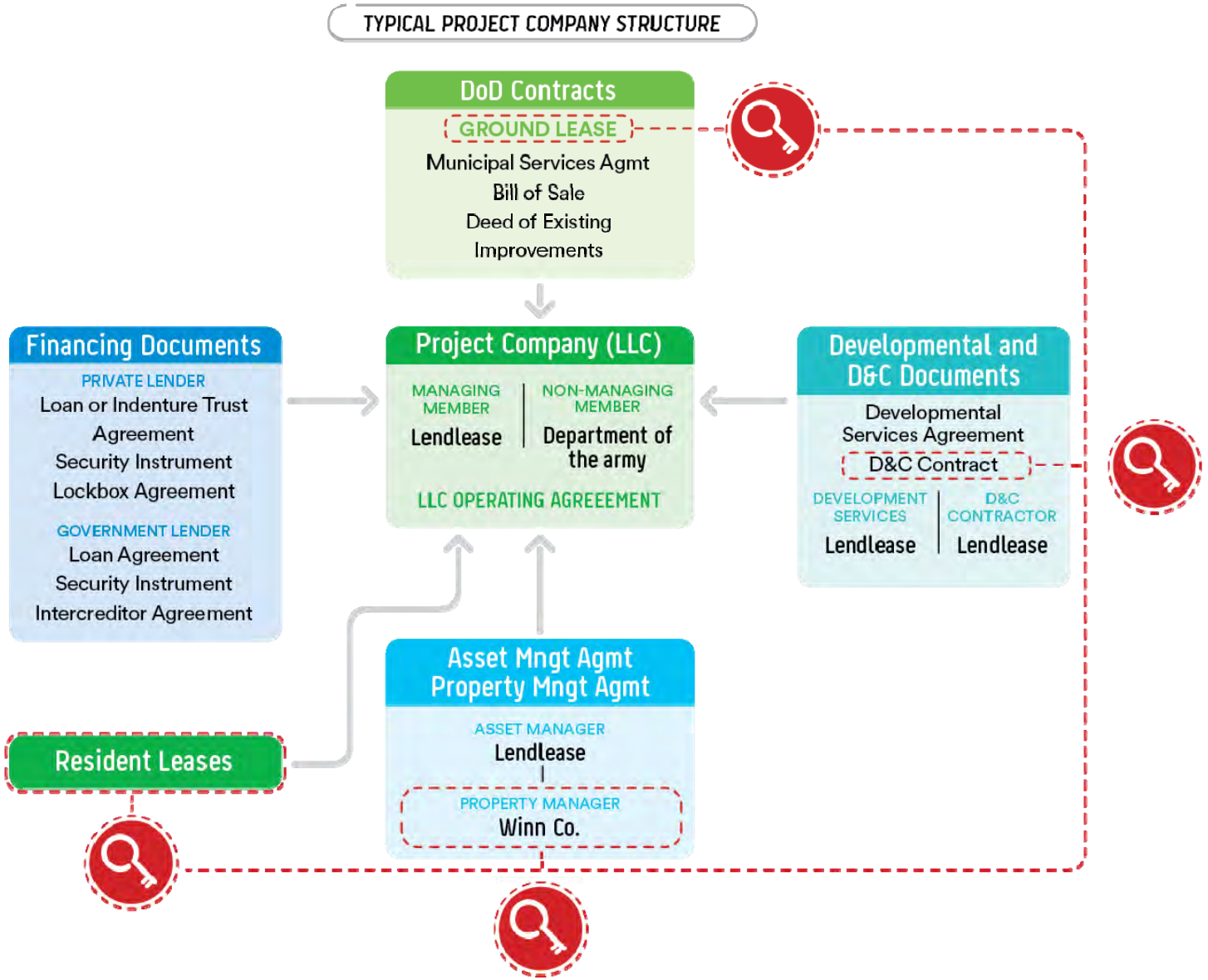
Nearly **$20M** in contracts awarded annually by property operations.

Significant job creation:

- 1,000 plus local tradesmen and tradeswomen on site at peak of construction
- PLA with local unions; no inquiries to date
- Asset and property operations offer long term employment opportunities for 400+ Hawaii residents

- North American Public-Private Partnership Deal of the Year - Project Finance Magazine, 2005
- Award-winning tree preservation program, The Outdoor Circle, 2005
- 18MW rooftop photovoltaic system
- LEED Certified Neighborhood Development
- Building Energy Management System
- Established Kunia Agricultural Park in partnership with the Hawaii Agricultural Foundation and Monsanto.
- More than $200k donated locally through corporate 501(c)3 non-profits

Section 03
Project Structure


TYPICAL PROJECT COMPANY STRUCTURE
DoD Contracts
GROUND LEASE
Municipal Services Agmt
Bill of Sale
Deed of Existing Improvements
Financing Documents
PRIVATE LENDER
Loan or Indenture Trust Agreement
Security Instrument
Lockbox Agreement
GOVERNMENT LENDER
Loan Agreement
Security Instrument
Intercreditor Agreement
Project Company (LLC)
MANAGING MEMBER
Lendlease
NON-MANAGING MEMBER
Department of the army
LLC OPERATING AGREEEMENT
Developmental and D&C Documents
Developmental Services Agreement
D&C Contract
DEVELOPMENT SERVICES
Lendlease
D&C CONTRACTOR
Lendlease
Asset Mngt Agmt
Property Mngt Agmt
ASSET MANAGER
Lendlease
PROPERTY MANAGER
Winn Co.
Resident Leases

Section 04
Challenges and Keys to Success

Partnership Challenges

Approval process and timing

Changes to base assumptions

Complex legal structure

Army Challenges

Perception of contractor v. partner

Private sector profit motive

Changes in local leadership

Established early on an agreed and executed shared vision.

Developed a culture of mutual trust and transparency.

Fostered a willingness of everyone to learn.

Instituted clear processes.

Agreed on roles and responsibilities.

Adopted a partnership mentality.

Section 05
Lessons Learned

Identify the Revenue Stream is Key

Choose Partners Wisely

Deal Structuring is Not a Governmental Function

Manage for the Long Term

Managing Project Control

THANK YOU

lendlease

AIAI
Association for the Improvement of American Infrastructure

Together, we move P3s forward.

Financing Models and Risk Management

June 6, 2017

Infrastructure – An Investment Worth Making

We cannot afford to wait.

- ***The Cost of Doing Nothing***
  - Deferred Maintenance
  - Inflation
  - Increased Congestion / Limited Capacity
  - Closures / Systemic Failures

- ***The Need to Address Critical Infrastructure***
  - You need a place to live
  - Your house needs a roof

- ***Stretching Dollars Further Utilizing P3***
  - Accelerated Project Delivery
  - More Efficient Project Management
  - Greater Innovation
  - Lower Life Cycle Cost

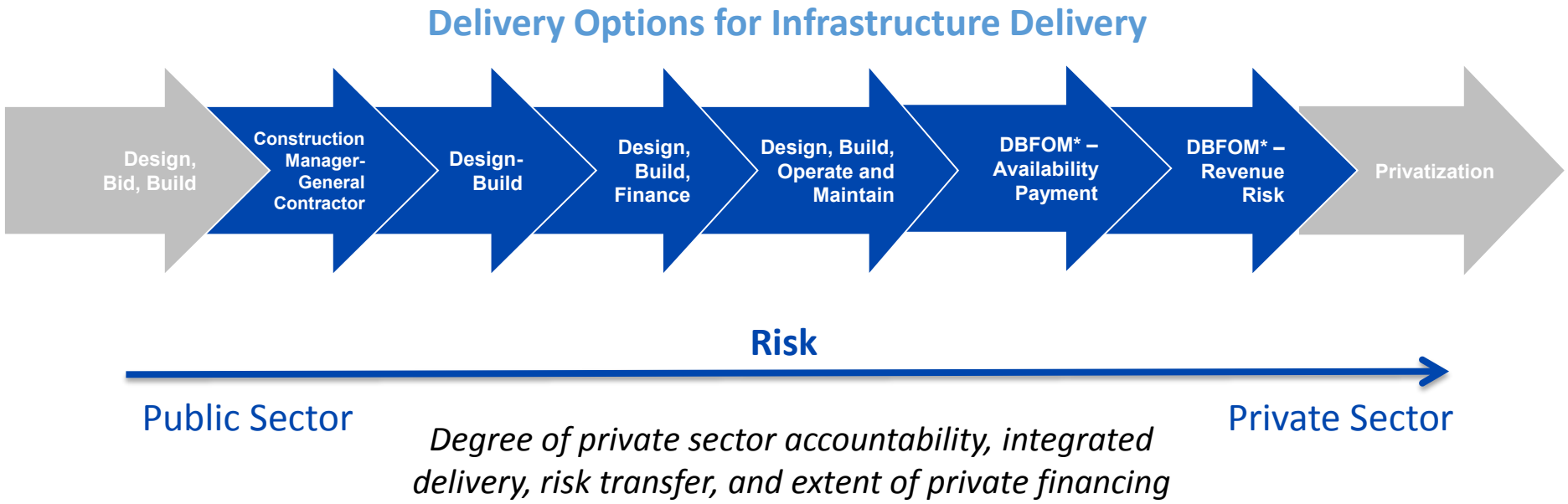
P3 Basics
Key Considerations

- Typically partially / wholly **financed** by debt leveraging project revenues
  - Revenue streams: lease payments, some form of direct user fee (toll)
  - Revenues supplemented by money, right-of-way, or other contributions
- Private partner *will* make an **equity** investment; in long-term lease structure, likely will make upfront payment
- Public partner *may* need to make upfront payment (e.g., milestone payments) to reduce capital cost financing
- Private partner *may* be required to assume partial or full **revenue risk**
  - Revenue generators (or hybrid)
- May be structured as an **availability payment**
  - Non-revenue generators (or revenue doesn't cover)
- May be structured as **lease-leaseback (long-term lease)**

- **<u>Drivers</u>: Revenue Stream, Risk Appetite, Scale, Market, Lenders**

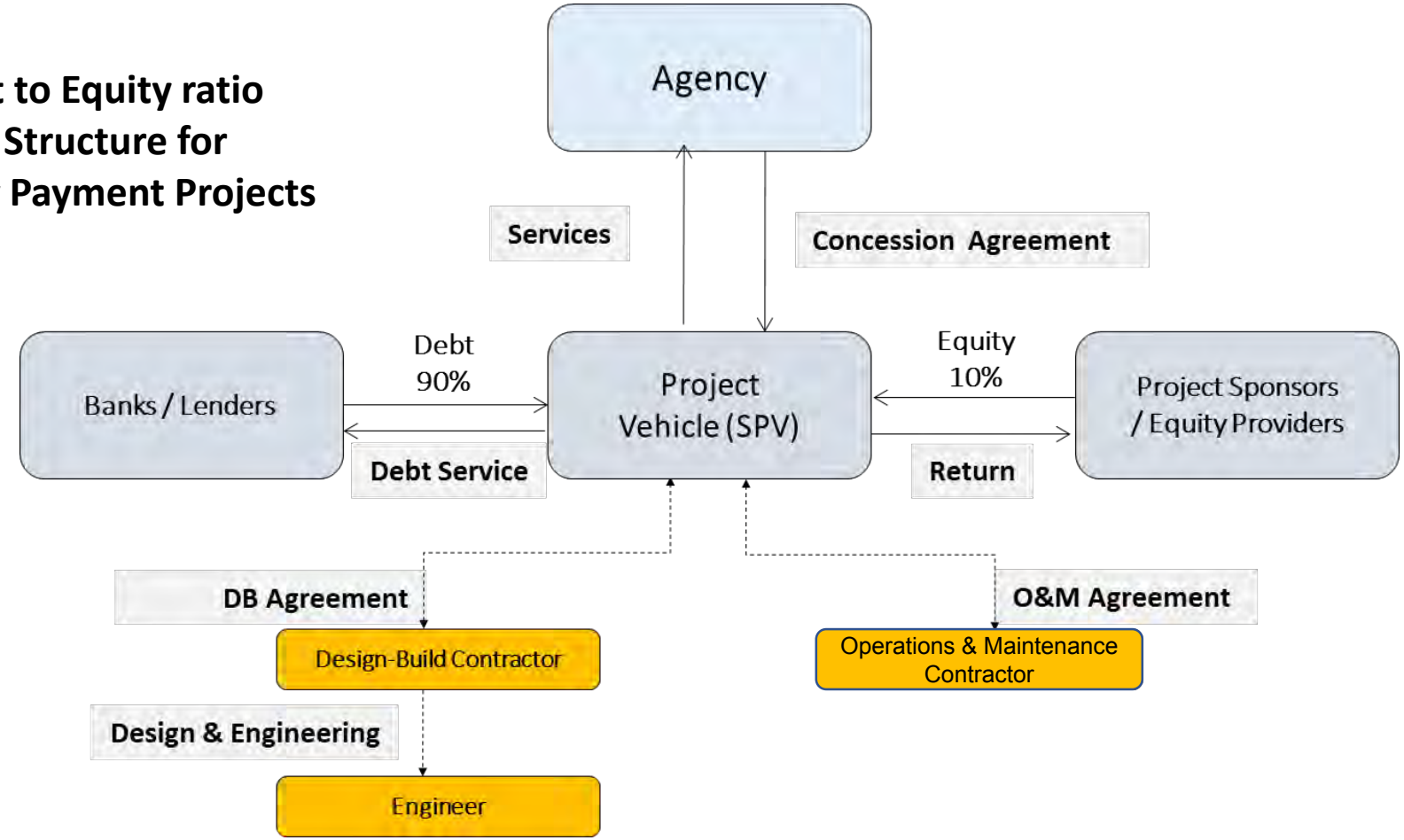
AIAI

P3 Basics
Delivery Models



P3 Basics
Typical Structure: Availability Payment Model

90/10 Debt to Equity ratio is a Typical Structure for Availability Payment Projects



P3 Basics
Funding vs. Financing

Funding

Public money made available to the project. This contributed capital is not intended to be repaid or carry a cost (i.e. interest or return on investment). Typical sources include:

- Availability Payments
- User Fee Revenue
  - Tolls
  - Fees/charges
  - Rent

Financing

Money provided by private investors to pay for construction costs, concession payments and other large project costs. This capital is intended to be repaid and does carry a cost (i.e. interest and return on investment). Typical sources include:

- Debt
- Equity

A Framework for Innovation

- Set the parameters
  - Counterparty Credit Quality
  - Appropriations Risk
  - Affordability and other Limits

- Be receptive to innovation
  - Establish a framework to assess alternate concepts

- Don’t be too prescriptive – allow the market to innovate
  - Funding types
  - Financing profiles

P3 Financing Packages

- **Traditional Governmental Finance Approach**
  - Governmental Purpose Bonds – Qualified Management Contract requirement means limited private involvement
  - Risk retention by the government
  - State revolving funds – EPA
  - Federal: WIFIA, USDA, CDBG, BOR, ACE and others
- **Public Private Partnership Approach**
  - Equity 10-30%
  - Debt 70-90%
- **Forms of P3 Debt**
  - Federal Sources Outlined Above plus
  - Private project finance market
  - Tax-exempt Private Activity Bonds (PABs) – state cap allocation challenge
  - Club Arrangements of Banks
- **P3 Equity Providers ($300B available in USA)**
  - Private Equity
  - Life Insurance Companies
  - Pension Funds

Repayment Methods

Revenue Risk	Availability Payments
Private partner directly dependent upon sources of revenue collected by the operation of an asset to offset the capital investments made to deliver the asset	Project owner repays private partner for operating and maintaining that level of performance, throughout the life cycle of that asset
Private partner directly collects fees, fares or tolls	Project owner sets rates and retains all revenues
Private partner unable to collect revenue if asset is unavailable	Project owner levies punitive measure for non-availability
Private sector may see an “upside” and benefit from usage; or, may experience a “downside” if there isn’t sufficient usage of the asset	No private sector “upside” or downside and no private benefit from usage because the project owner retains demand risk
Examples: • 495 HOTLanes and I-95 Express, Virginia • Texas A&M University, Texas • North Tarrant Expressway, Texas	Example: • I-595, Florida • Goethals Bridge, PANY&NJ

Standard Terms – Revenue User Fees

REVENUE | DEMAND RISK	EXAMPLE	DESCRIPTION	RISKS & CONTROL
FIXED-USE CHARGE FOR UTILIZATION OF ASSET	Fees, Fares, Taxes or Tolls	- A ship is charged for the use of a port. - A car is charged a toll for using a bridge or tunnel.	Demand risk can be taken by the public or private entity or both. Typically, risks are borne by the private sector as this is how investment returns are achieved. Functional daily control of the asset can be outsourced to experts if desired. Ownership ALWAYS remains with the public entity.
AGREED UPON FEES FOR SERVICES PROVIDED	Campus Housing	Students pay for their room and board, and this “fee for service” is collected and directed to offset capital investments made to restore or modernize or build new campus housing.	
VARIABLE USAGE FEES (MILEAGE-BASED, TIME-OF-USE BASIS)	Managed Lanes	Access to converted HOV (High occupancy Vehicle) lanes to ease congestion or provide alternative lanes for travelers, where a car is charged according to predetermined amounts, based on length of segment or time of day usage on managed lanes	

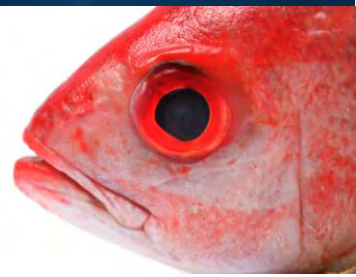
Standard Terms – Availability

AVAILABILITY RISK	EXAMPLE	DESCRIPTION	RISKS & CONTROL
MILESTONE PAYMENTS FOR REACHING AGREED UPON DESIGN, PRE-CONSTRUCTION OR CONSTRUCTION GOALS.	Design drawings completed to specified level to initiate construction.	Payments to the construction company and/or sponsor come due once a bridge is complete. The public sector takes minimal construction risk, but if project is completed as agreed, payments are made.	In availability projects, the construction, and at times performance risk of an asset is shifted to private sector. Public funds are only paid when construction is complete or services are delivered. Control typically transfer to public entity once construction requirements are met. Ownership ALWAYS remains with public entity.
PAYMENTS FOR PROVIDING A FACILITY IN AN ACCEPTABLE CONDITION.	Ensuring that facility meets performance and acceptable use standards.	Payments to concessionaire can be structured in a managed service contract. Private sector takes on responsibility for a single, fully integrated service solution for security, building maintenance, management of all day-to-day operations, and would only be paid when services are delivered.	

Standard Terms – Availability

HYBRID MODELS	EXAMPLE	DESCRIPTION	RISKS & CONTROL
REVENUE RISK FOR OPERATIONAL PHASE ASSUMED BY PUBLIC SECTOR.	Fare box revenue to offset investments, in DBFM when operations remain with public sector.	Availability to perform operations determines payment to private sector, while public partner takes on fare or fee collection.	Risks can be shared or remain with either the public or private entity, depending on the project and needs of the owner (public entity, sponsor).
LAND VALUE EXCHANGE (AIR RIGHTS, FAR OR DEVELOPMENT RIGHTS, TAX INCREMENT FINANCING (TIF)).	Off balance sheet transaction value to provide capital cash offset.	Sale of excess city land parcels to accommodate a consolidation of municipal facilities..	

Financing Costs – a P3 Red Herring



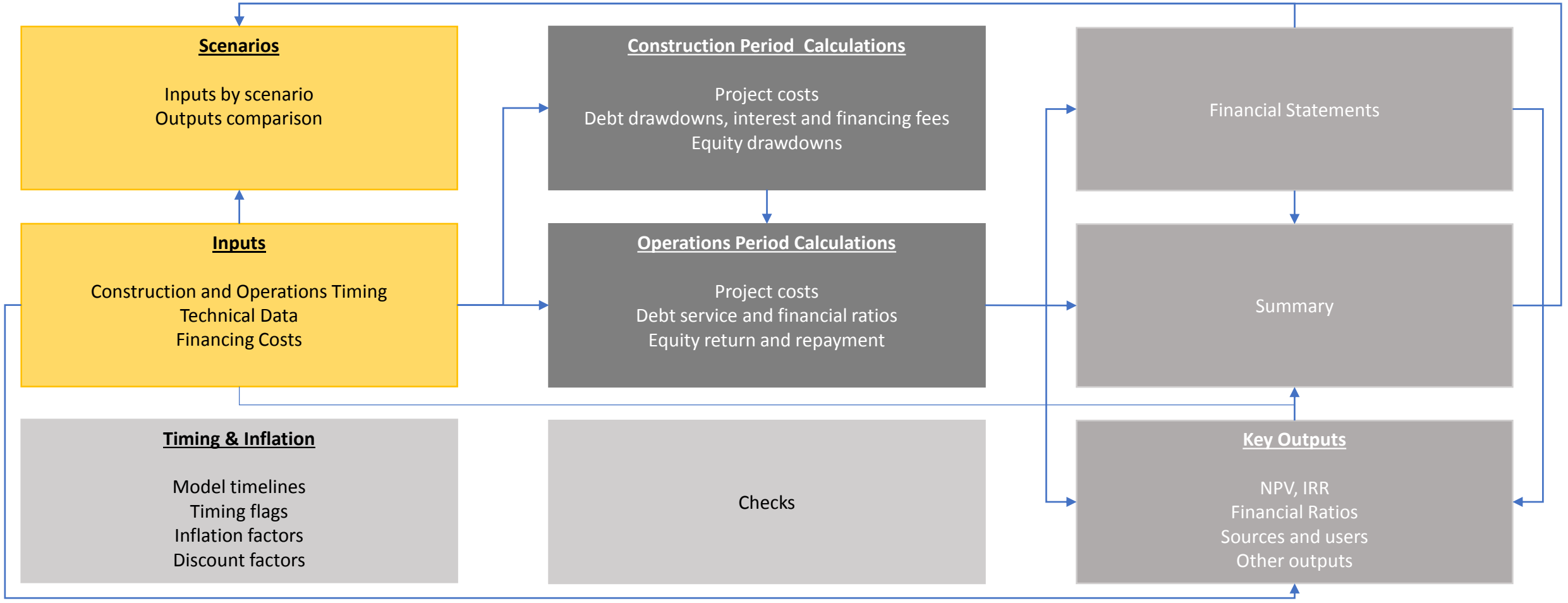
Focusing on finance costs alone misses the significant advantages that a P3 structure offers the public sector:

1. Risk Transfer and Innovation;
2. Short and Long Term Budget Certainty; and
3. Matching long term revenues (tax or user fees) with long term expenses (availability payments)

There is no free lunch –

costs and benefits need to be balanced

How the Model Works



Example Screenshot of Input Tab

Row	Label	Constant	Unit	Total	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
2	Financial year ending	-	*Error checks*		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
3	PSC - Timeline label	5	*Alerts*		Pre-Constr.	Pre-Constr.	Construction	Construction	Construction	Construction	Operations	Operations	Operations	Operations	Op
4	P3 - Timeline label				Pre-Constr.	Pre-Constr.	Construction	Construction	Construction	Operations	Operations	Operations	Operations	Operations	Op
5	Delayed PSC - Timeline label				Delayed	Delayed	Delayed	Delayed	Delayed	Pre-Constr.	Pre-Constr.	Construction	Construction	Construction	Cons
6	Model column counter	Constant	Unit	Total	1	2	3	4	5	6	7	8	9	10	
49	**P3 - SERIES INPUTS**														
50															
51	**P3 - PRE-CONSTRUCTION**														
52															
53	P3 - Pre-construction period timeline	-	labels	- -	Year 1	Year 2									
54	P3 - Pre-construction period year #	-	year #	- -	2015	2016									
55	P3 - Pre-construction cost 1 - Profile		%	100.00%	50.00%	50.00%									
56	P3 - Pre-construction cost 2 - Profile		%	100.00%	50.00%	50.00%									
57	P3 - Public procurement costs (including compensation of losing bids) - Profile		%	100.00%	50.00%	50.00%									
58	P3 - Private procurement costs (costs of winning bid) - Profile		%	100.00%	50.00%	50.00%									
59	P3 - Private procurement costs (cost of non-compensated losing bids, only considered in PDBC/		%	100.00%	50.00%	50.00%									
60															
61															
62	**P3 - CONSTRUCTION**														
63															
64	P3 - Construction period timeline	-	labels	- -	Year 1	Year 2	Year 3								
65	P3 - Construction period year #	-	year #	- -	2017	2018	2019								
66	P3 - Construction cost 1 - Profile		%	100.00%	33.00%	33.00%	34.00%								
67	P3 - Construction cost 2 - Profile		%	100.00%	33.00%	33.00%	34.00%								
68	P3 - Construction cost 3 - Profile		%	100.00%	33.00%	33.00%	34.00%								
69	P3 - Construction cost 4 - Profile		%	100.00%	33.00%	33.00%	34.00%								
70	P3 - Construction cost 5 - Profile		%	100.00%	33.00%	33.00%	34.00%								
71	P3 - Construction cost 6 - Profile		%	100.00%	33.00%	33.00%	34.00%								
72	P3 - Construction cost 7 - Profile		%	100.00%	33.00%	33.00%	34.00%								
73	P3 - Quality assurance - Profile		%	100.00%	33.00%	33.00%	34.00%								
74															
75															
76	**P3 - TRAFFIC RAMP UP**														
77															
78	P3 - Operations period timeline	-	labels	- -	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	
79	P3 - Operations period year #	-	year #	- -	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	
80	P3 - Traffic ramp up - Profile		%		50.00%	60.00%	70.00%	90.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	1
81															
82															
83	**P3 - SUBSIDY / MILESTONE PAYMENT**														
84															
85	P3 - Subsidy / milestone payment period timeline	-	labels	- -	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	

Example Screenshot of Output Tab

Key Project Dates

Item	Start	End	Term (Yrs)
Construction	1 Jan 10	30 Sep 12	2.8
Operations	1 Oct 12	30 Sep 42	30.0
Senior Debt	1 Oct 12	30 Sep 30	18.0
Mezzanine Debt	1 Oct 12	30 Sep 22	10.0

Model Information

Summary Page Updated	8/12/2009 16:07
Last Printed	8/12/2009 16:07
Checks	OK

Funding Terms

Type	Financing Fee	Facility Fee	Rates Base	Rates Margin	Rates All in
Construction Facility	1.0 %	0.5 %	3.8 %	4.5 %	8.3 %
Senior Debt	n/a	n/a	3.8 %	3.5 %	7.3 %
Mezzanine Debt	n/a	n/a	3.8 %	8.0 %	11.8 %
Working Capital	n/a	0.5 %	n/a	n/a	6.8 %

Macroeconomic Assumptions

	Per Annum
Inflation	2.5 %
Tax Rate (Project)	30.0 %
GST/VAT Rate	10.0 %

Debt Ratios

Debt	ICR Min	DSCR Min	DSCR Lockup	Lockup Periods	LLCR Min	Av Years Outstanding
Senior	1.7	1.3	Disabled	Disabled	-	12.3
All		1.1	Disabled	Disabled	-	7.4

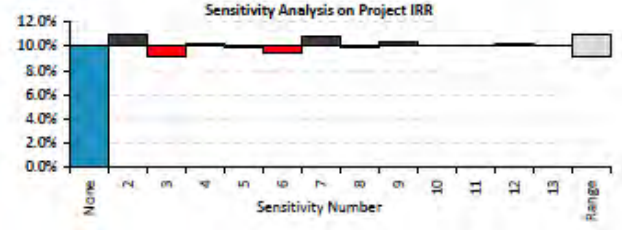
Sources & Uses of Funds

Sources	$'000	
Senior Debt	106,391	72.5 %
Mezzanine Debt	7,337	5.0 %
Shareholder Loan	19,811	13.5 %
Equity	13,207	9.0 %
Total	146,747	100.0 %

Uses	$'000	
Construction Costs	117,248	79.9 %
Up Front Costs	3,000	2.0 %
Advisory Fee	3,731	2.5 %
Interest During Construction	15,082	10.3 %
Financing Fees	1,450	1.0 %
Cash Accounts	6100	4.2 %
GST/VAT timing	136	0.1 %
Total	146,747	100.0 %

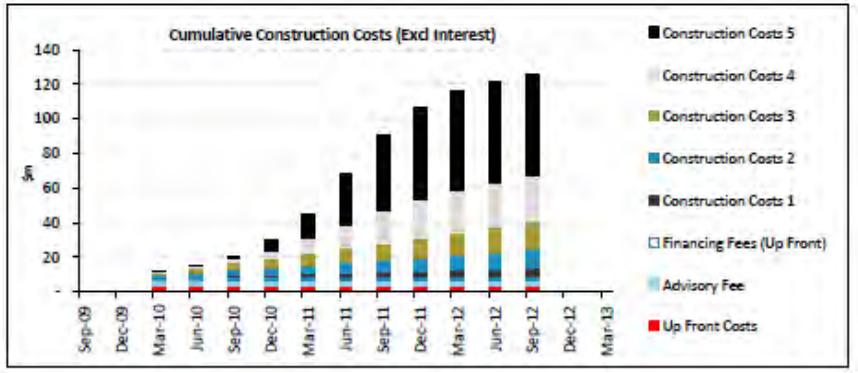
Project and Equity Returns

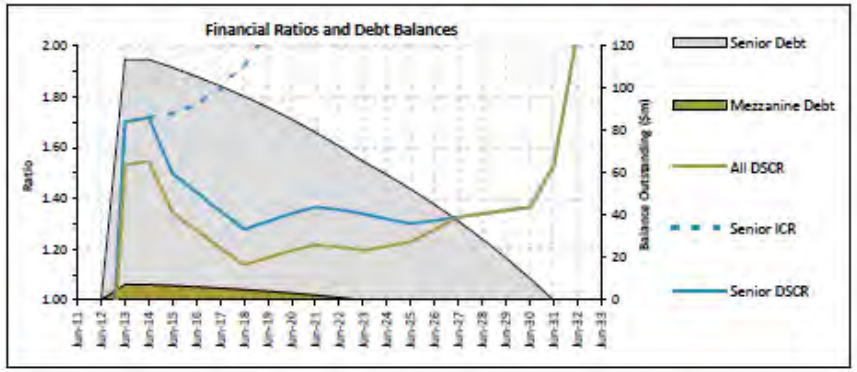
	Base Case	Case 1	Case 2	Case 3	Case 4
Project IRR, post-tax	10.1 %	-	-	-	-
Equity IRR, post-tax	13.0 %	-	-	-	-
Equity IRR, pre-tax	13.2 %	-	-	-	-
Payback Years	13.0	-	-	-	-
Terminal Value	5.0 x	No	No	No	No
Terminal Value $m	131	-	-	-	-

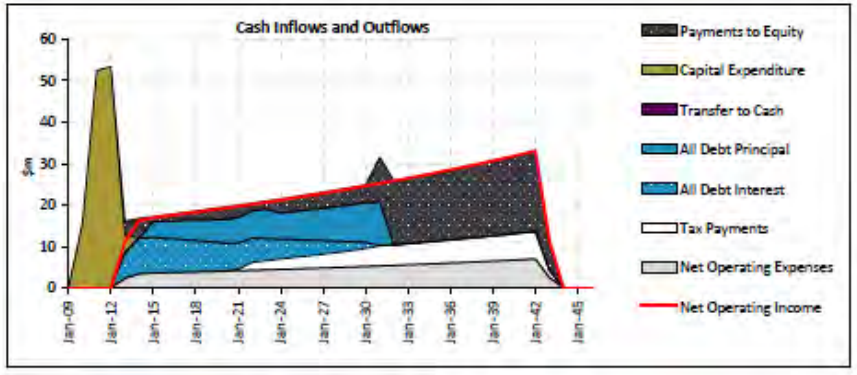


Sensitivities

	Sensitivity	Project IRR
1	None	10.1%
2	CPI +1%	11.0%
3	CPI -1%	9.2%
4	Debt Base Rate +1%	10.2%
5	Debt Base Rate -1%	10.0%
6	Construction Costs +10%	9.4%
7	Construction Costs -10%	10.9%
8	Operating Costs +10%	9.9%
9	Operating Costs -10%	10.3%
10	Debt Margins +20 bp	10.1%
11	Debt Margins -20 bp	10.1%
12	Senior Debt Ratio +5%	10.2%
13	Senior Debt Ratio -5%	10.0%
	Range	1.9%







Identifying and Allocating Risks

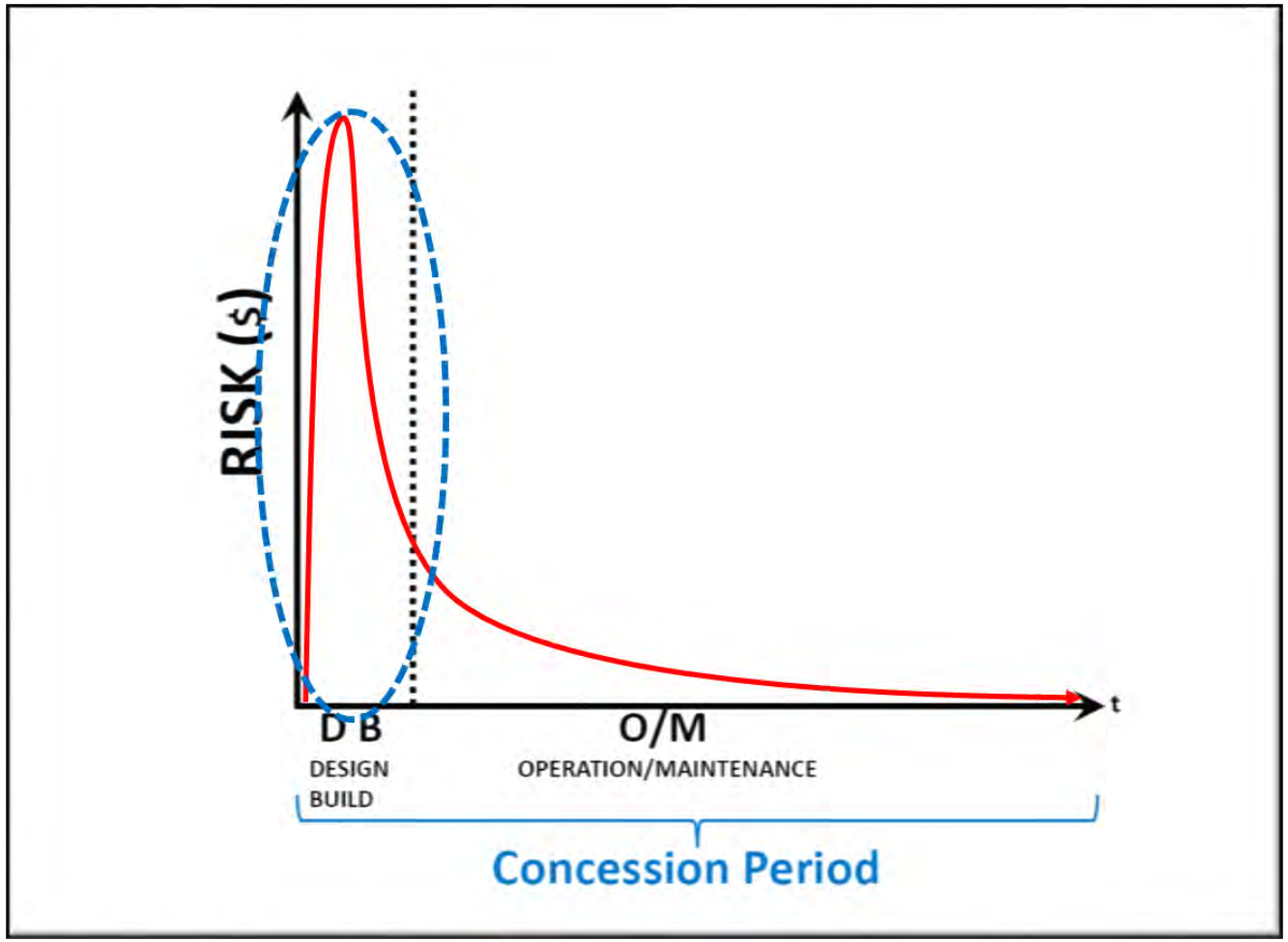
- **Risk sharing is a key component and feature of P3s**
  - Partners exercise greater control and responsibility
  - Integrated function (mitigates risk, creates efficiencies)
  - Spreads risk over time (life cycle of asset)

- **Private Partner prices its risks**
  - VfM: assessing costs of transfer of risks to experts who can (best) manage
  - Macro-economic risks, project risks, participants' risks
  - There are market-tested allocations, know them

- **Allocate parties better positioned to manage, or share**
  - Assign to third party (i.e., insurers)

- **Risk Management Best Practices**

Risk Distribution



Risk Opportunities

- The financial elements and long term obligations provide risk opportunities that differ from other alternative contracting approaches

- Risk allocation is at the core of P3s:

  Risk transfer = Innovation Incentive

- Transferring too little risk diminishes potential VfM

- Transferring too much risk (a risk that is unmanageable) results in contingency additives diminishing the VfM

Risk Opportunities

- Phased construction may lower overall costs or at least defer capital expenditures until actually required

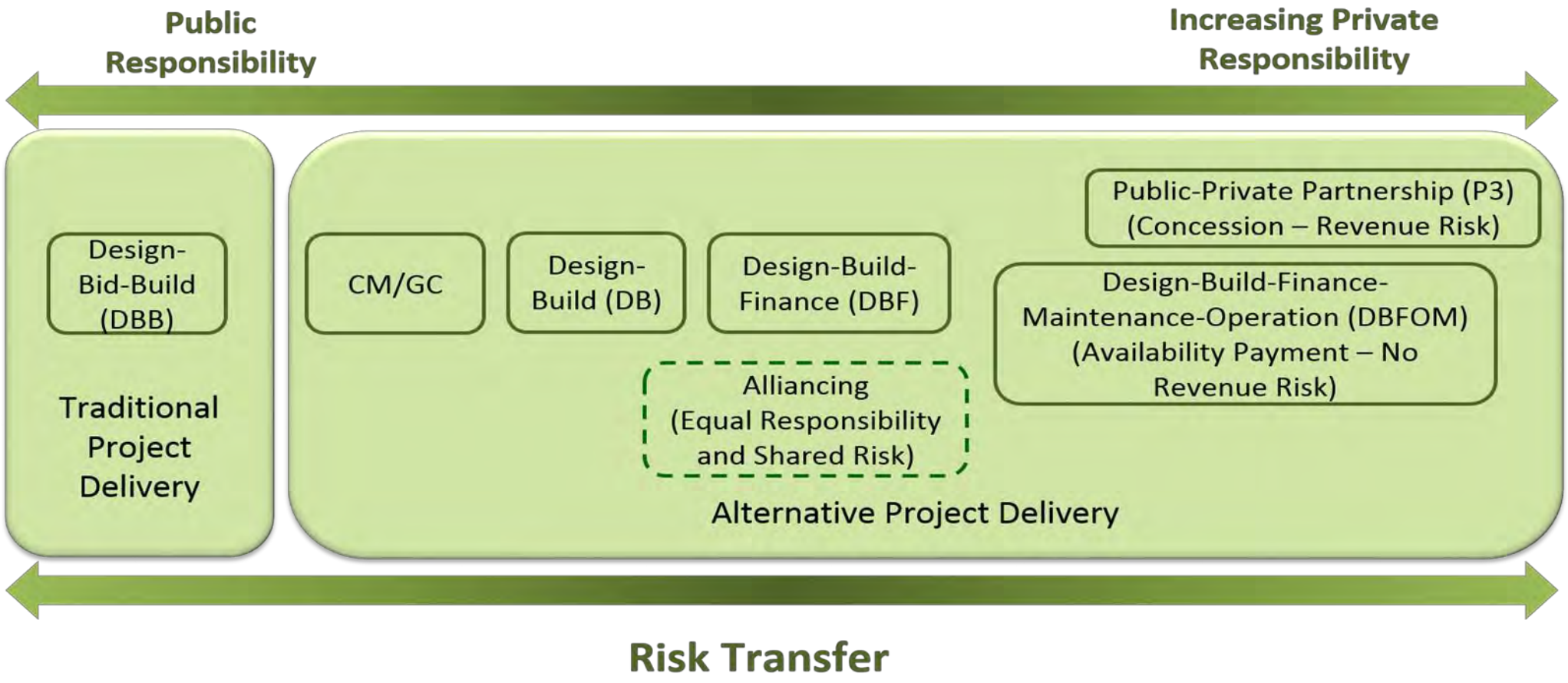
- Higher capital costs may result in lower life cycle costs providing an overall better project at lower cost

- Higher capital costs may result in a better overall project – for example (toll project):

    - *Better mobility solution/enhanced traffic access*
    - *Higher revenue/stronger financial feasibility.*

- Construction challenges with unique solutions may result in a lower cost yet result in a positive level of product performance that could not have been met with traditional risk/contracting approaches

Risk Analysis and Management



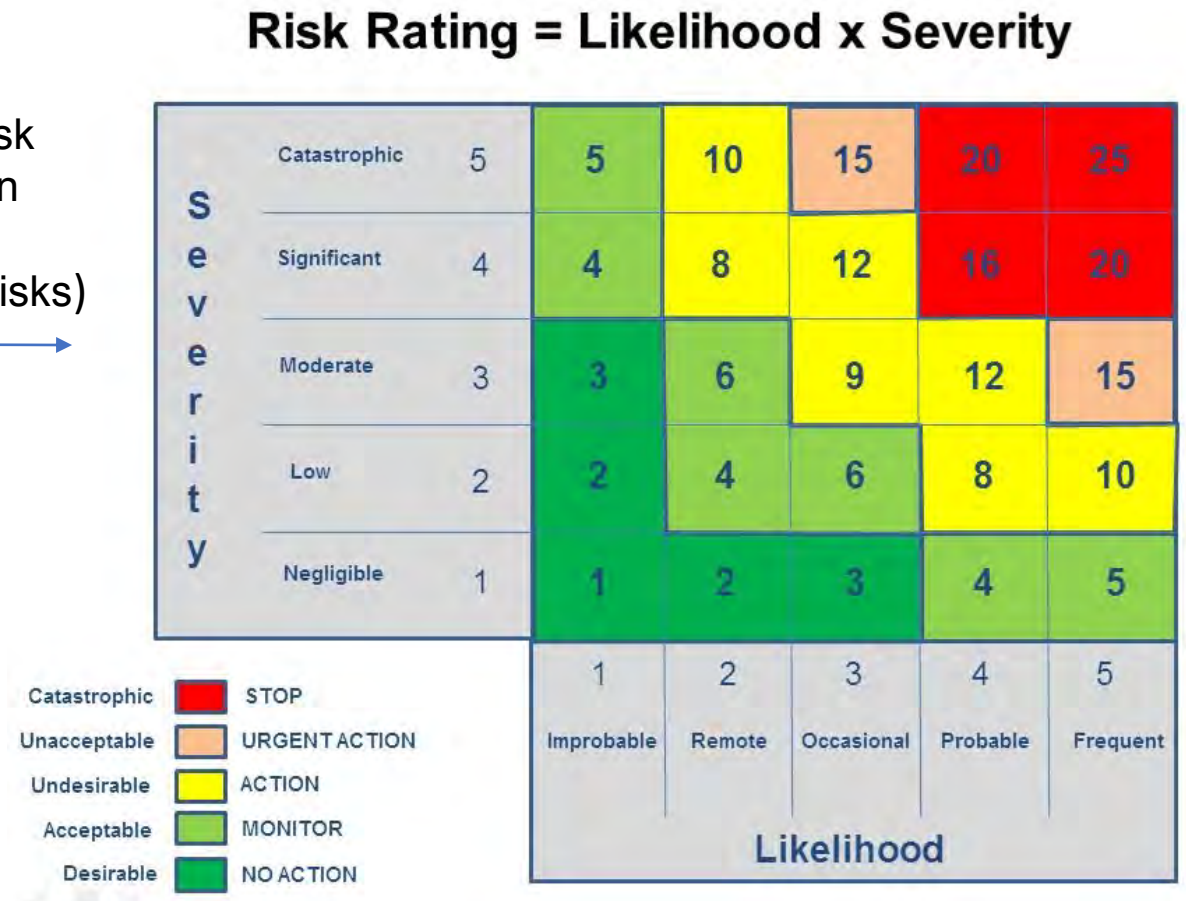
Risk Analysis and Management

Typical Risk Allocations between public/private

- Construction
  - Accuracy and Design Completion
  - Environmental policy requirements
  - Labor Agreements
  - Scope Changes
  - Cost Growth
- Financial
  - Schedule
  - Interest Rate
- Operational
  - Revenue
  - Level of Service

Risk Analysis and Management

Standard Example Risk Matrix (with discussion around valuing likelihood/severity of risks)



★ Preferred approach:

Dividing severity into two 5 point components of cost impact and schedule impact for a possible score of 10 with likelihood of 5 points and a total possible of 50 tends to provide a better analysis.

This approach allows mitigation planning to reduce all three categories and reflect a truer adjusted score.

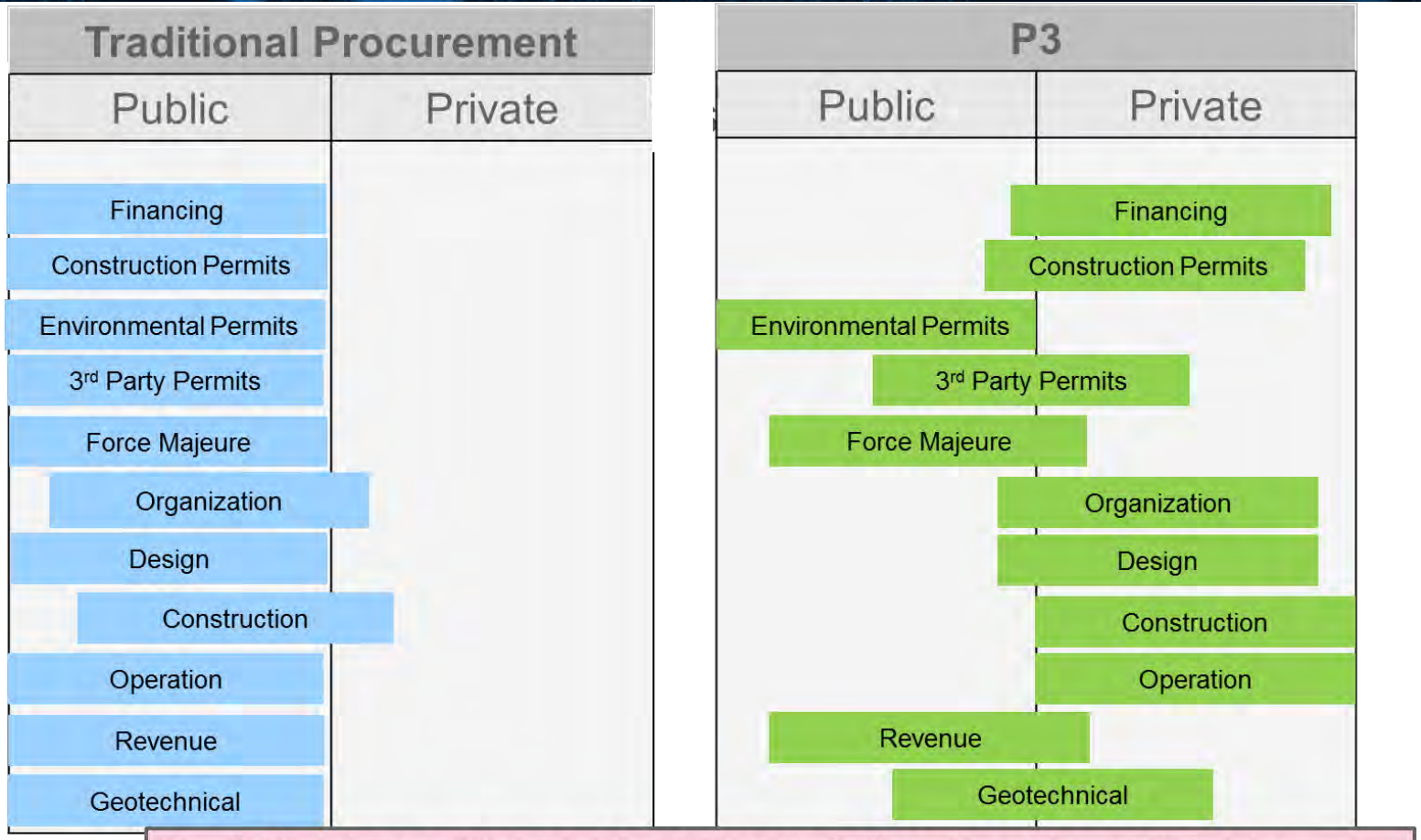
Value for Money – What matters to you

- There are many ways to achieve effective risk transfer through the use of private funding tools.

- Identify what matters for each project:
  - Risk management, transfer or elimination
  - Minimize project costs
  - Maximize project scope

- Select from the vast toolkit of available models
  - Balance the amount, timing and type of public funding

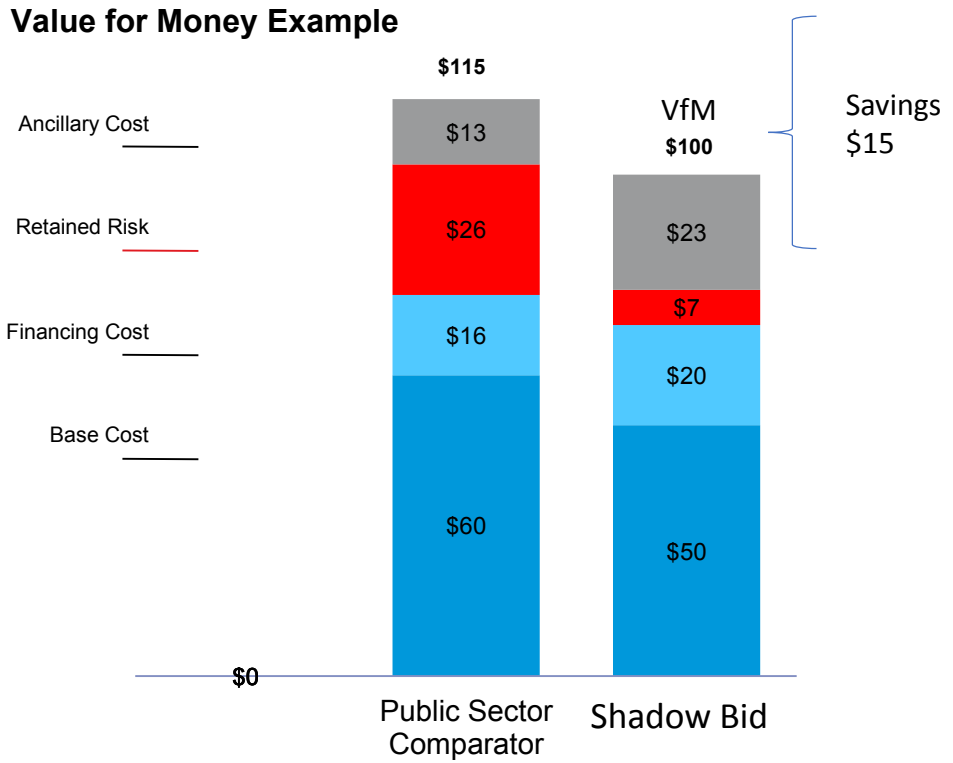
Value for Money (VFM)



Each Risk has a “Value”. The optimized allocation of specific risks occurs when risk is assigned to the party which can mitigate or manage the risk more efficiently.

Value for Money

- Value for Money (VfM) analysis is a process used to compare the financial impacts of a P3 project against traditional public delivery alternatives. The process to establish VfM includes:
  - Creating a Public Sector Comparator (PSC), which estimates the whole-life cost of carrying out the project through a traditional approach;
  - Estimating the whole-life cost of the P3 alternative (either as proposed by a private bidder or a hypothetical “shadow bid” at the pre-procurement stage); and
  - Comparing results.
- Value for Money is an industry-accepted decision driver.



Questions

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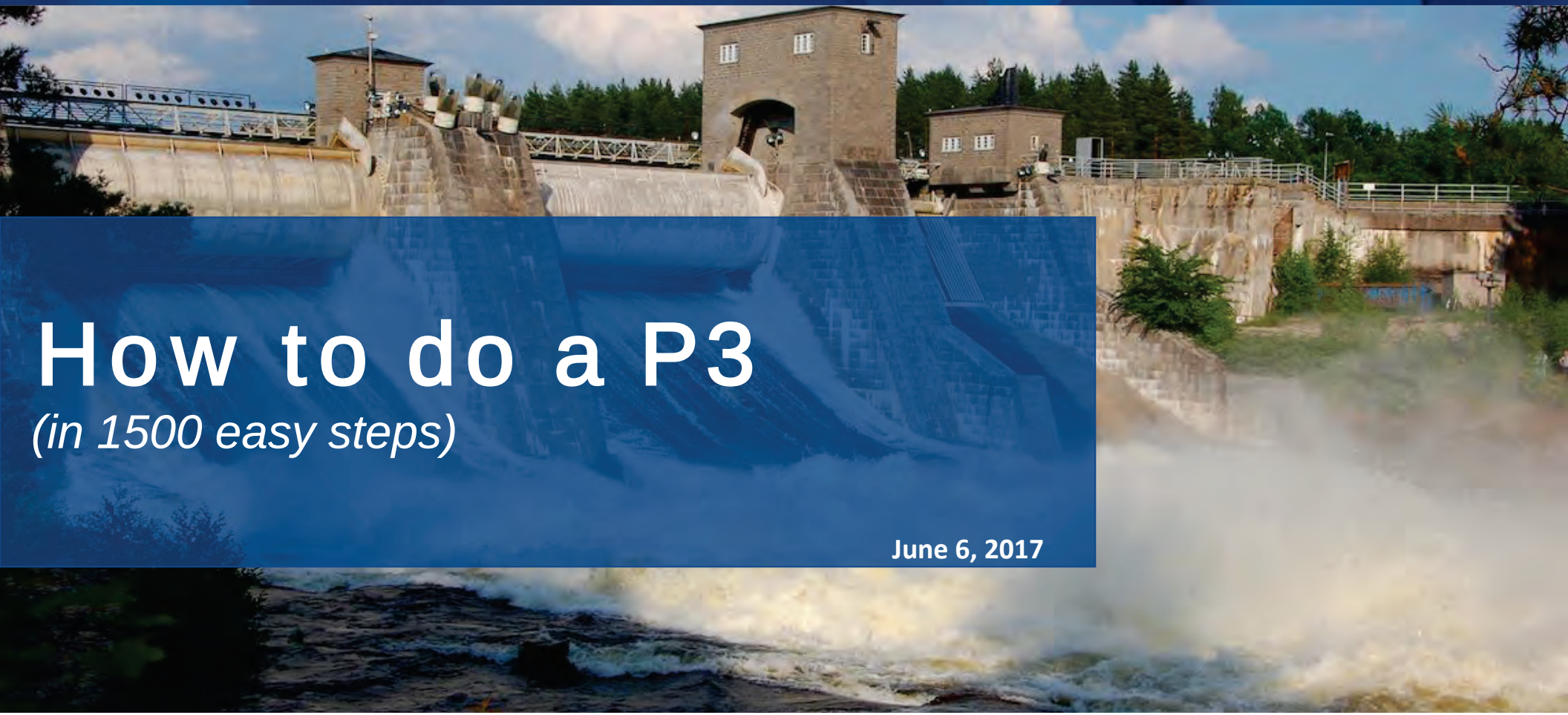
Association for the Improvement of American Infrastructure

Together, we move P3s forward.



How to do a P3

(in 1500 easy steps)

June 6, 2017

What is the process?

First:

Is it a good project?

Good projects make good P3 projects

The P3 procurement process cannot save a bad project idea!

Public Asset Types Delivered via P3

EXAMPLES OF GOOD P3 PROJECT CANDIDATES:

ADMINISTRATIVE

City Halls, Government Offices

AVIATION

Terminals, Maintenance Facilities, Parking Structures

CIVIC

Convention Centers, Performing Arts

EDUCATION

Schools, Academic Buildings, Housing, Research

JUSTICE

Police Stations, Prisons, Courthouses, Jails

HEALTH CARE

Hospitals, Clinics, Labs

While most P3s in the United States have been revenue-based (toll roads) the P3 model as worked well in the social infrastructure space.

Governments just need to be prepared to work with the private sector to identify good projects and agree to a long-term partnership.

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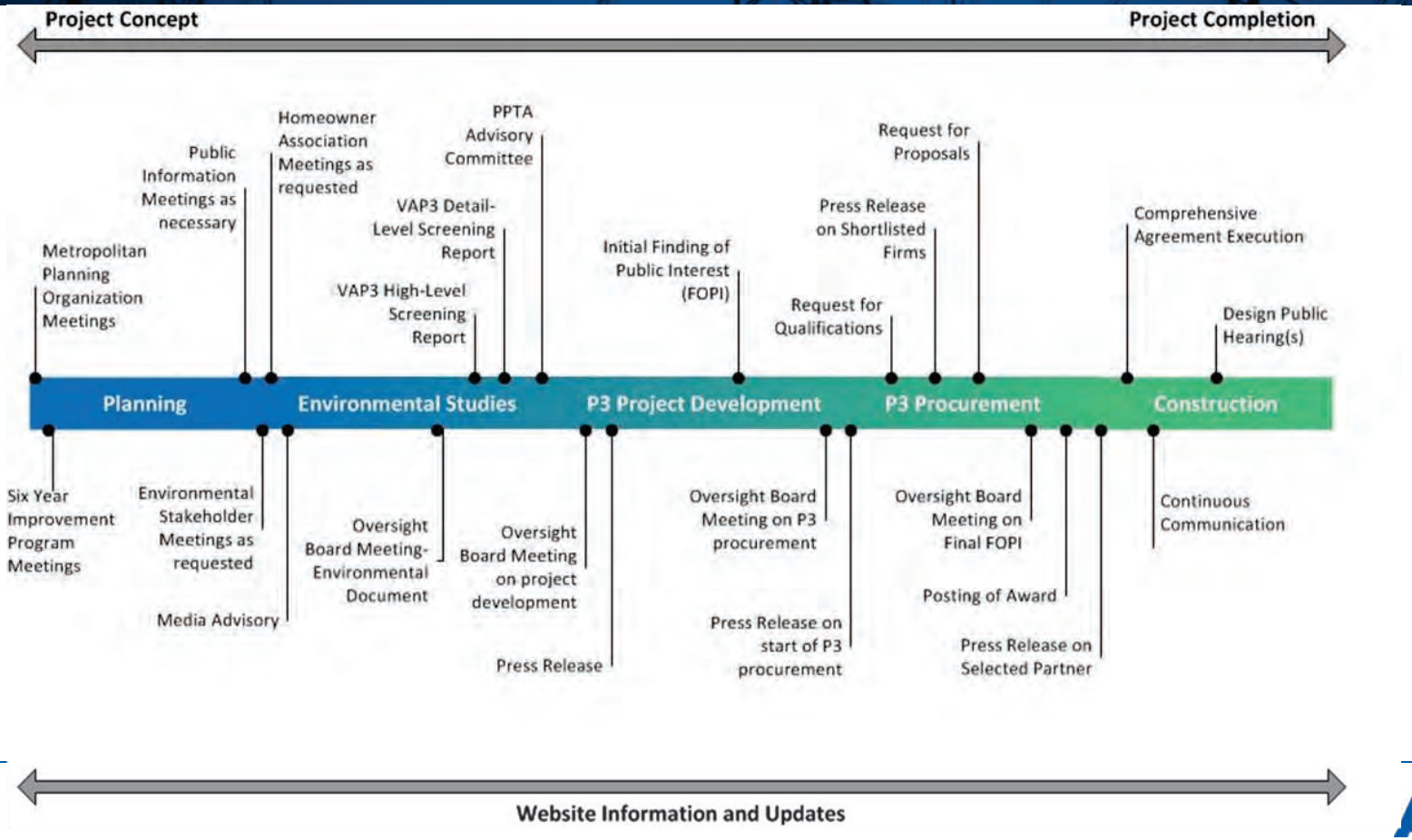
P3 Public Engagement Opportunities



What is the process?

MAKING THE RIGHT PROJECT APPROACH DECISIONS AT THE RIGHT TIME REQUIRES THE RIGHT PROCESS

START HERE

HAVE SOLID P3 FRIENDLY LEGISLATION IN PLACE

Clear definition in statute or guidelines of the types of P3 contracts allowed

Clear definition of the specific types of projects allowed

Clear definition of the procurement methods allowed

ONCE ENABLING LEGISLATION IS IN PLACE, PROCEED >

CLEARLY DEFINE THE PROJECT INTENT

Who does it benefit?

How likely is public support?

What is the long term value to the public?

AFTER THE PROJECT INTENT HAS BEEN CLEARLY ESTABLISHED, PROCEED >

IS P3 RIGHT FOR THIS PROJECT?

This is your first opportunity to evaluate P3 as a viable option for this project. **Does it still sound like the right solution?**

YES PROCEED >

NO Stop & pursue other delivery method

ESTABLISH A DECISION MAKING AUTHORITY AND PROCUREMENT PROCESS

Identify a public sector champion

Put together a P3 Council

Set up a Center of Excellence

Define an interactive and transparent procurement process

Develop preliminary Request for Information (RFI)

Use council/authority as sounding board to develop structure

ONCE THE AUTHORITY AND PROCUREMENT PROCESS HAS BEEN PUT IN PLACE, PROCEED >

CONDUCT DELIVERY OPTIONS ANALYSIS

(P3 vs. traditional methods)

Identify revenue source to support the project, determine whether it is affordable

Perform Value-for-Money Analysis (VFM)

Perform Risk Analysis

Determine which method will provide best overall value to public

Engage experienced financial, legal and technical advisors

ONCE DELIVERY OPTIONS ANALYSIS IS COMPLETE, PROCEED >

PRELIMINARY P3 GO/NO GO

You now have a broad view of the options. **Does a P3 still make sense for this project?**

YES PROCEED >

NO Stop & pursue other delivery method

GET INDUSTRY AND KEY STAKEHOLDERS ENGAGED

Conduct market sounding with identified subject matter experts

Hold an Industry Forum with wider selection of interested parties

Identify issues and critical challenges

Gather relevant feedback and adjust scope if necessary

ONCE INPUT IS GATHERED AND SCOPE REVISED, PROCEED >

FINAL P3 GO/NO GO

You now have enough information to make an educated decision. **Is it a go or not?**

YES PROCEED >

NO Stop & pursue other delivery method

BEGIN SOLICITATION PROCESS

Develop Request for Qualifications (RFQ)

Define shortlist - 3-4 teams with superior experience and expertise

Draft Request for Proposal (RFP) for industry review and input

Conduct one-on-one meetings with short list

Final RFP Issuance

ONCE ENABLING LEGISLATION IS IN PLACE, PREPARE TO LEAD A SUCCESSFUL P3 PROCUREMENT

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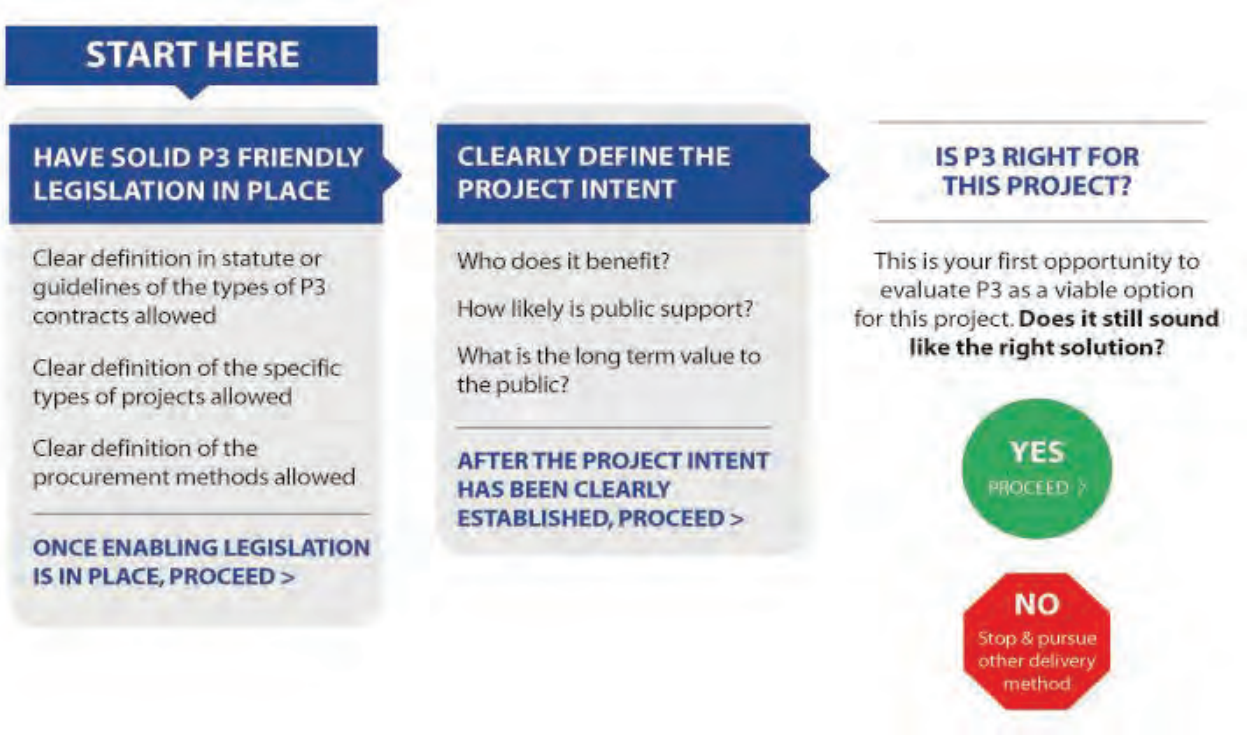
What is the Process?



?

- Can you do this?

?

- Does anyone want this?

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What is the Process?

ESTABLISH A DECISION MAKING AUTHORITY AND PROCUREMENT PROCESS

Identify a public sector champion

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Define an interactive and transparent procurement process

Develop preliminary Request for Information (RFI)

Use council/authority as sounding board to develop structure

ONCE THE AUTHORITY AND PROCUREMENT PROCESS HAS BEEN PUT IN PLACE, PROCEED >

CONDUCT DELIVERY OPTIONS ANALYSIS
(P3 vs. traditional methods)

Identify revenue source to support the project, determine whether it is affordable

Perform Value-for-Money Analysis (VfM)

Perform Risk Analysis

Determine which method will provide best overall value to public

Engage experienced financial, legal and technical advisors

ONCE DELIVERY OPTIONS ANALYSIS IS COMPLETE, PROCEED >

PRELIMINARY P3 GO/NO GO

You now have a broad view of the options.
Does a P3 still make sense for this project?

YES
PROCEED >

NO
Stop & pursue other delivery method

?

- How should you do this?

?

- Can you afford this?

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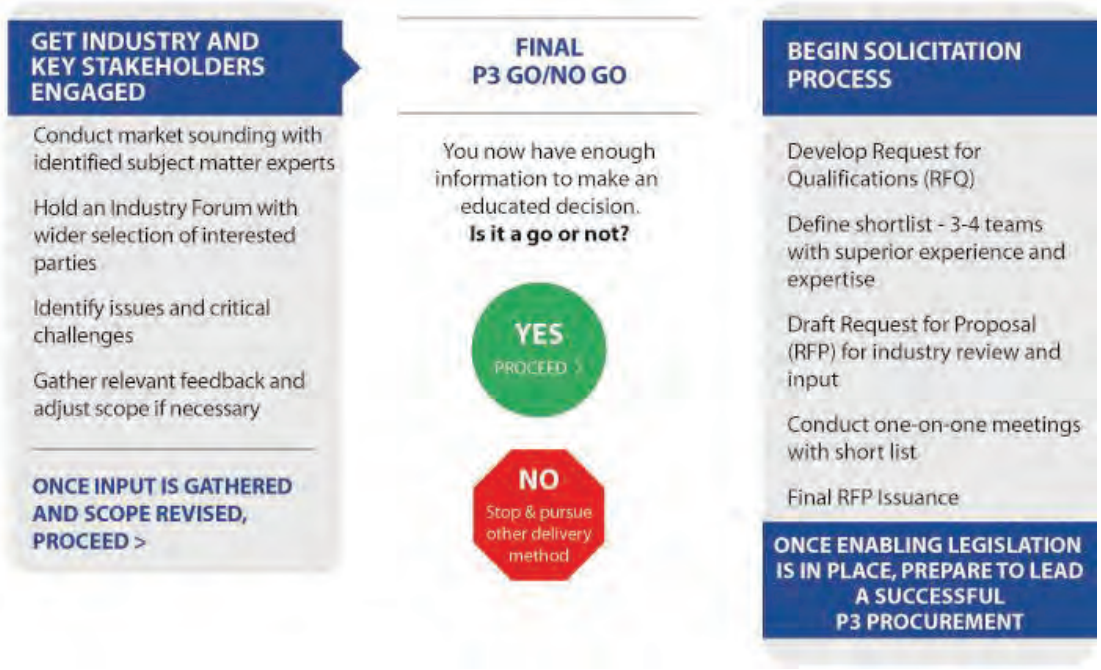
What is the Process?



?

- Is there interest in the market?

?

- Did you find the right partner?

Procurement Process

One of the key drivers for the successful development of a P3 project is a defined, properly structured procurement process that encourages private sector companies to bring forward their best people and ideas. The key stages of the P3 process include:

Issue RFQ	• RFQ document issued inviting teams to submit qualification credentials
Shortlist or Prequalify Proposers	• Shortlist or prequalify teams chosen based on qualification criteria
Issue RFP	• RFP documents released including project agreement and technical requirements
Proposal Period	• Proposers develop comprehensive technical and financial proposals.
Select Preferred Proposer	• Preferred proposer chosen based on evaluation criteria included in RFP
Negotiations	• Negotiate final terms and conditions with preferred proposer
Commercial & Financial Close	• Preferred proposer executes project documents (commercial close) and closes project financing

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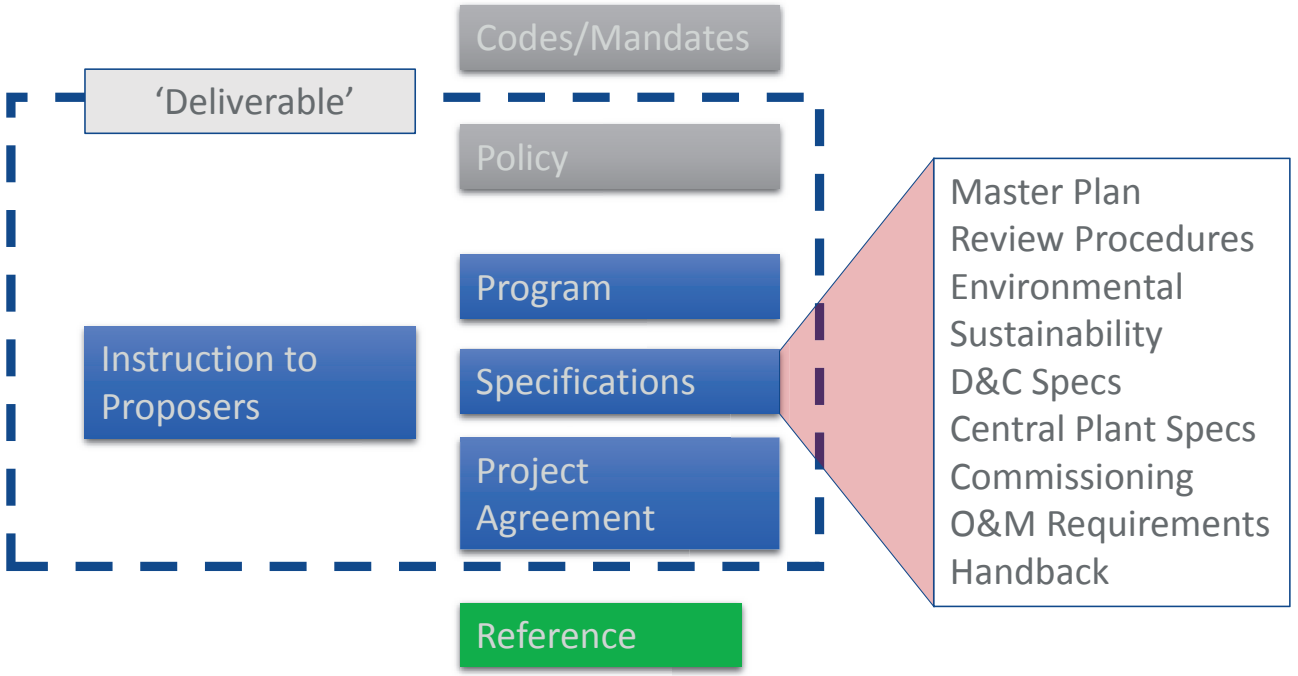
Contractual Landscape

Contract Documents



P3 Structure

Public Agency Owner

- May be required to pay private partner a fixed fee over term; Fee may be subject to incentives or deductions based on performance
- Monitors private partner's performance for term of contract
- Owner of project

Concessionaire (Private Partner)

- Responsible for financing, design, construction, operations and maintenance
- May be responsible for future capital improvements
- May pay public agency owner an up-front fee for concession

Investors

- Provide equity investment

Lenders

- Provide debt financing to the concessionaire

Lenders Technical Advisor(s)

- Provide technical advisory services to lenders

Contractors, Consultants Suppliers, & Operator

Typical Durations for a Procurement

- Issue RFQ – 30-60 days
- Shortlist or Prequalify Proposers – 30-45 days
- Issue RFP – 60-90 days after RFP issued
- Proposal period – 3 to 6 months
- Select Preferred Proposer – 30-60 days
- Negotiations – 30-60 days
- Commercial/Financial Close – 60-90 day

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CRITICAL POINTS TO REMEMBER

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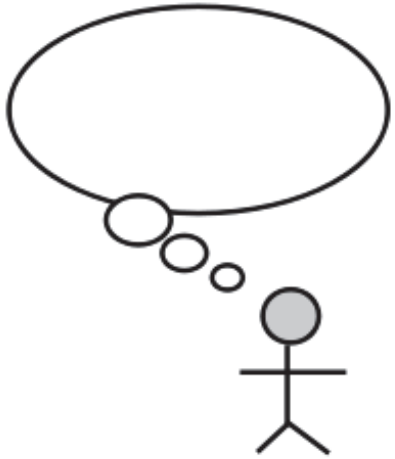
Thoughts on Procurement

- "*What are we trying to do here*"
- Public Sector habits: quality, no risk, specificity, low price
- Private Sector wants: payment certainty, capped risks, transparency, full public/political buy-in
- P3 procurement and negotiation:
  - Focus on performance (rather than specificity)
  - ***Priceable*** risks
  - ***Reliable*** payment stream
  - ***Reduced*** political risk – think statutory solutions before the start!
  - Partner attitude
  - Chance at the upside
- Guiding principles lead to **procurement best practices**



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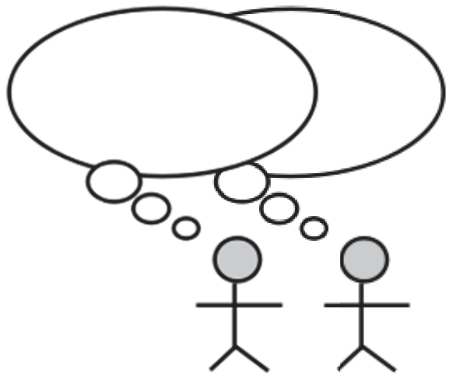
More Thoughts on Procurement

- Industry Days; RFIs
- Qualifications
- Draft Documents with Proposal instructions
- Hard look at regulatory, conventional requirements
- Industry Review during Procurement, with one-on-ones
- ATC process (there are others)
- Separate financial and technical evaluations
- Stipends (are they needed for the project?)



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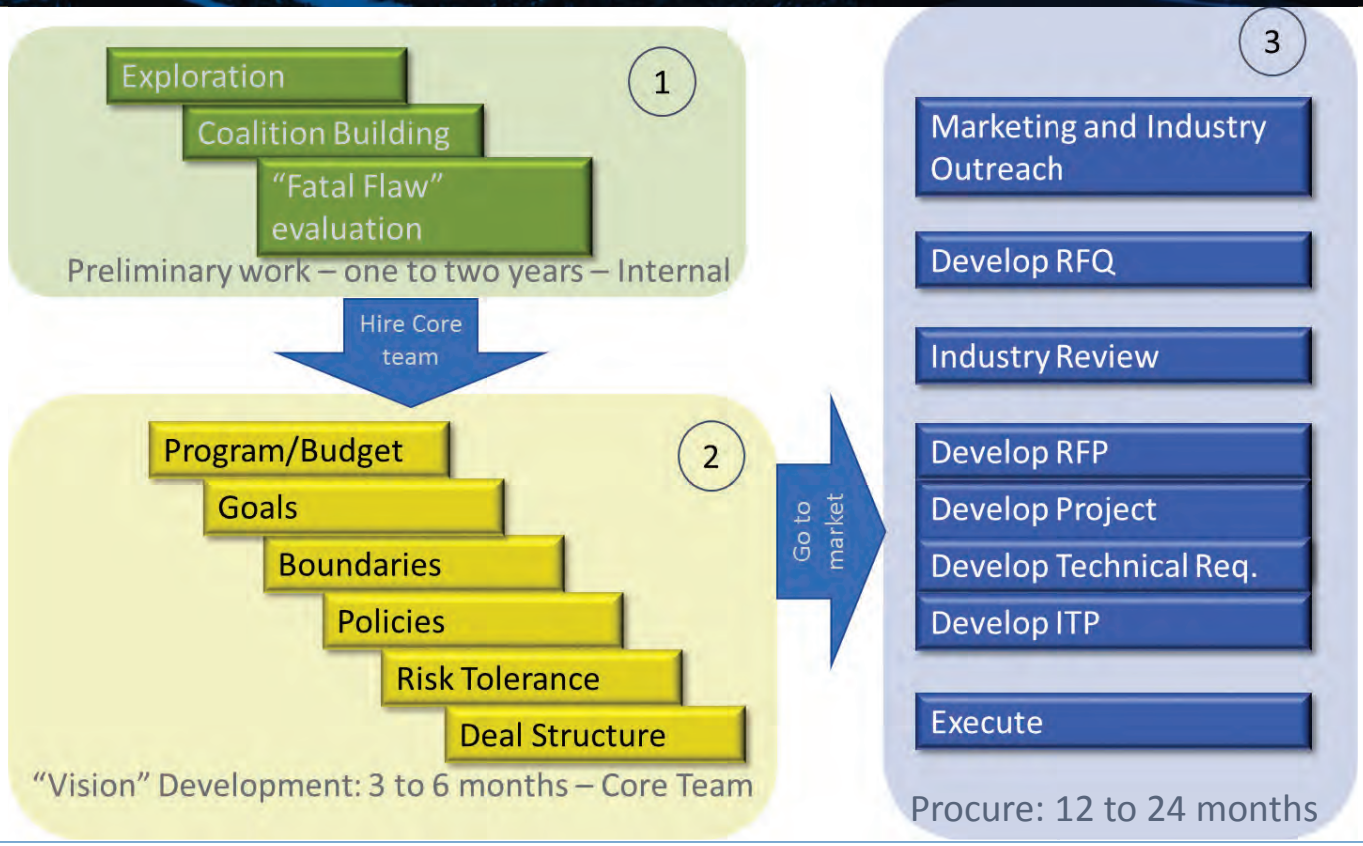
Lessons Learned



Lessons Learned

Know what you want	Get the right advisors	Have a clearly defined process
• Establish clear goals and success criteria • Develop a strong program with clear output specifications • What do you want the partner to do? • What risk will you assume? • Benchmark costs and establish targets • Evaluate Financing strategies	• Real Estate and Development Advisory • Capital formation strategies and analysis • Legal and legislative • Public procurement process expertise • Expertise in complex evaluation and contract negotiations • Design and construction oversight • Communication and public outreach	• Transaction structure including financing considerations • Attainable schedule and milestones identified • Clear goals, expectations & evaluation criteria • Clearly defined design process • Clearly defined performance specifications • Construction oversight • Ensure transparency and accountability in process • Communication plan for internal and external stakeholders

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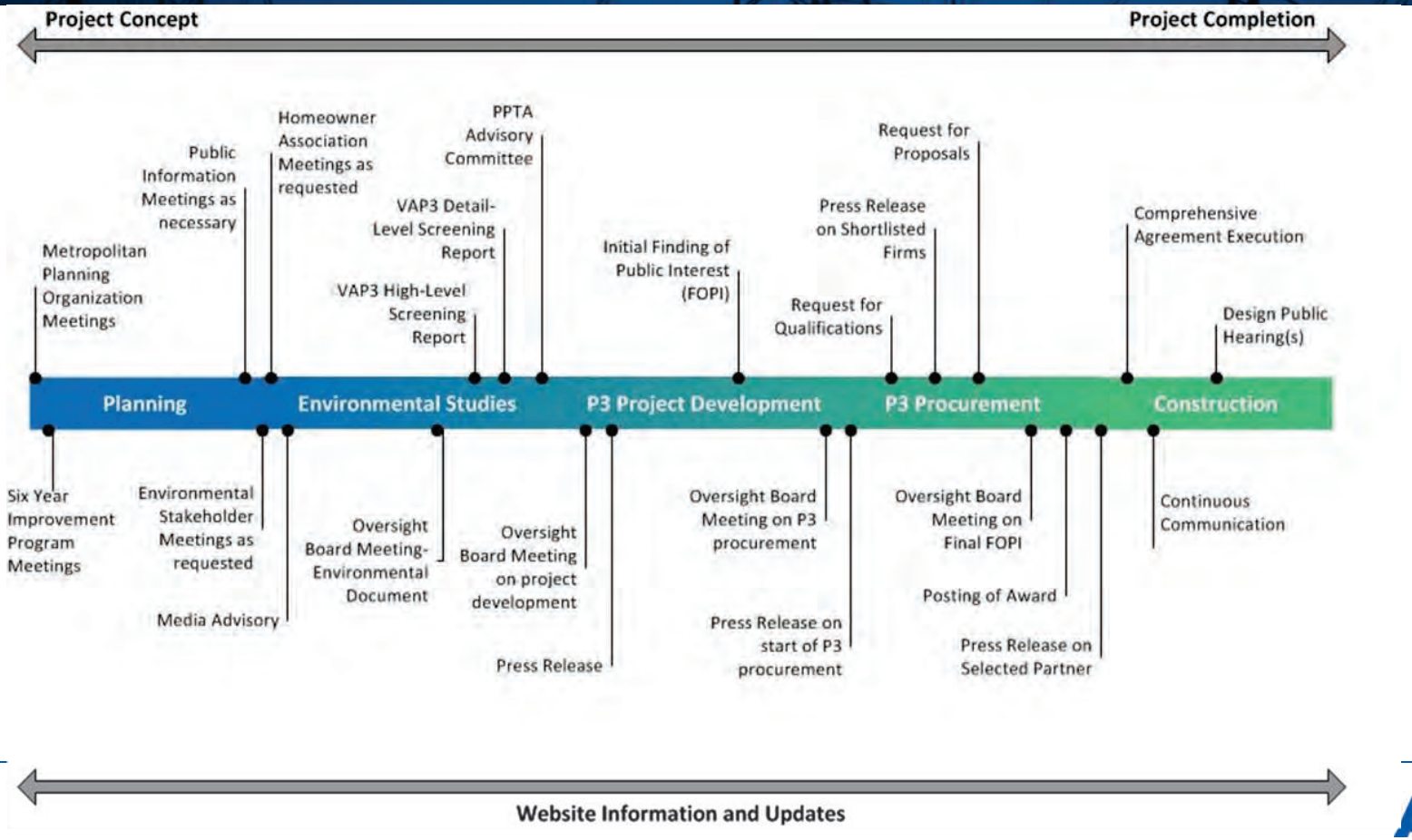
P3 Public Engagement Opportunities



Questions & Answers

Contact:

T: 516-277-2950

E: readytowork@aiai-infra.org

W: AIAI-Infra.org

P3Direct is an AIAI partnership program which seeks to create a connection between experienced P3 industry professionals (our members) and public sector representatives across agencies at every level. The program is active throughout the year and has a strong presence at the annual P3 Conference (Feb. 27 - Mar. 5, 2017 in Dallas).

WHO IS P3DIRECT RIGHT FOR?

- Public officials/administrators who have some interest in P3s but aren't entirely clear on the benefits or details of this delivery method
- Those who have tried to institute P3s in their districts or states, but have not succeeded
- Those who think P3s might be a good option for their projects, but have no idea where to start

PROGRAM BENEFITS

- A base understanding of how to navigate the complex process of P3s
- An informal relationship where P3-centric questions can be asked and complexities clarified
- An introduction to current trends, challenges, and opportunities in the P3 market
- Introductions to other participants and organizations

INTERESTED IN PARTICIPATING?

In order for us to make P3Direct as effective as possible, we need your input. Please answer a few quick questions and also to be considered as a participant:

Together, we move P3s forward.

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