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

June 6, 2017
Year 1 Unsolicited Proposals (UPs)

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

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

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

Unsolicited Proposals
> Innovations regarding project delivery and management approach, financing strategies, construction, & O&M
  o Potential benefits include acceleration, risk transfer, performance, and cost savings
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
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 Hawaiʻi, 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

<table>
<thead>
<tr>
<th>Metric</th>
<th>UK P3 Projects</th>
<th>UK Publicly-Built Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price Certainty (On budget)</td>
<td>80%</td>
<td>17%</td>
</tr>
<tr>
<td>Schedule Certainty (On time)</td>
<td>66%</td>
<td>30%</td>
</tr>
</tbody>
</table>

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

---

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 to 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)
- **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
  o Further, the O&M costs under DBFOM were discounted by 15% versus HART estimates
  o 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

Jill Jamieson
Managing Director
Jones Lang LaSalle
jill.jamieson@am.jll.com

Murray Clay
Managing Partner
Ulupono Initiative
mclay@ulupono.com
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

<table>
<thead>
<tr>
<th>Moynihan Station, New York, NY</th>
<th>Denver Union Station, Denver, CO</th>
</tr>
</thead>
<tbody>
<tr>
<td>► $1B+ redevelopment of the Farley Post Office building adjacent to the existing Penn Station</td>
<td></td>
</tr>
<tr>
<td>► Transaction structure combines train hall and real estate development into a single contract including over 700,000 SF of commercial space</td>
<td></td>
</tr>
<tr>
<td>► Value capture strategy includes upfront payment from private developer and monetization of over time property taxes to fund train hall costs</td>
<td></td>
</tr>
<tr>
<td>► Multiple sponsor agencies include federal, state and local partners</td>
<td></td>
</tr>
<tr>
<td>► $500M+ redevelopment of the Denver Union area into a multi-modal hub with adjacent TOD</td>
<td></td>
</tr>
<tr>
<td>► Train hall and adjacent hotel and retail space delivered through a PPP</td>
<td></td>
</tr>
<tr>
<td>► Value capture strategy combined annual governmental payments with future real estate parcel sales</td>
<td></td>
</tr>
<tr>
<td>► First project to combine federal TIFIA and RRIF assistance in capital structure</td>
<td></td>
</tr>
</tbody>
</table>
## 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
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

<table>
<thead>
<tr>
<th></th>
<th>ASF</th>
<th>GSF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Space</td>
<td>419,212</td>
<td>698,686</td>
</tr>
<tr>
<td>Housing &amp; Student Dining</td>
<td>400,992</td>
<td>589,694</td>
</tr>
<tr>
<td>Academic Support</td>
<td>164,740</td>
<td>257,646</td>
</tr>
<tr>
<td>Athletics and Recreation Buildings</td>
<td>101,520</td>
<td>167,085</td>
</tr>
<tr>
<td>Fields</td>
<td>N/A</td>
<td>403,500</td>
</tr>
</tbody>
</table>
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

Content will help shape Request for Proposals Document
UC Merced Goals for ZNE, GHG Neutral, ZLF

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.
Financial Landscape

2020 Preliminary Capital Cost Distribution
$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

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

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
Lessons Learned

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
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

<table>
<thead>
<tr>
<th></th>
<th>ASF</th>
<th>GSF</th>
</tr>
</thead>
<tbody>
<tr>
<td>City Hall</td>
<td>31,984</td>
<td>54,500</td>
</tr>
<tr>
<td>Public Safety</td>
<td>15,745</td>
<td>23,000</td>
</tr>
<tr>
<td>Essential Service</td>
<td>14,544</td>
<td>22,900</td>
</tr>
<tr>
<td>Fire Station</td>
<td>8,446</td>
<td>12,900</td>
</tr>
<tr>
<td>Public Outdoor Space</td>
<td>N/A</td>
<td>8,000</td>
</tr>
</tbody>
</table>
Physical Landscape
Proposals
Proposals
Lessons Learned

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
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
Lessons Learned

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