Are Canadian P3 models being employed in the U.S. an answer to infrastructure challenges?
Jeffrey Fullerton
Director
Are P3 models an answer?

$2.2 \text{ Trillion}

Infrastructure Deficit

- Aviation – D
- Bridges – D
- Parks & Recreation – C
- Roads – D
- Schools – D
- Transit – D
Failing Structures
US P3 Examples

UCSF Sandler Neurosciences Building

Governor George Deukmejian Courthouse

Route 28 Corridor Improvements

GMU Information Technology and Engineering Building
Tim Philpotts
Senior Vice President
## PPP Projects Summary - Canada

<table>
<thead>
<tr>
<th>Sector</th>
<th>Number</th>
<th>Value ($B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation</td>
<td>39</td>
<td>22.6</td>
</tr>
<tr>
<td>Hospitals &amp; Healthcare</td>
<td>63</td>
<td>20.6</td>
</tr>
<tr>
<td>Justice/Corrections</td>
<td>18</td>
<td>5.4</td>
</tr>
<tr>
<td>Energy</td>
<td>5</td>
<td>4.3</td>
</tr>
<tr>
<td>Education</td>
<td>9</td>
<td>1.4</td>
</tr>
<tr>
<td>Defence</td>
<td>1</td>
<td>0.9</td>
</tr>
<tr>
<td>Environmental</td>
<td>21</td>
<td>0.8</td>
</tr>
<tr>
<td>Real Estate</td>
<td>3</td>
<td>0.7</td>
</tr>
<tr>
<td>Recreation &amp; Culture</td>
<td>16</td>
<td>0.5</td>
</tr>
<tr>
<td>Government Services</td>
<td>5</td>
<td>0.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>180</strong></td>
<td><strong>57.4+</strong></td>
</tr>
</tbody>
</table>
Delivery Models
Private Sector Risk vs. Involvement

- Design/Bid/Build
- Design/Build
- Operations & Maintenance
- Design/Build/Finance
- Performance Based Infrastructure
- Design/Build/Finance/Operate/Maintain
- Private Sector Build-to-Suit

100% Government
What PPP is NOT

- Not about the financing
- Not about sale & leaseback or asset sales ("privatization")
- Not about a real estate transaction

- Is about Performance-Based Infrastructure and Facilities, specifically *Risk Transfer*
## Why P3s?

| On-Time & On-Budget Delivery | • Payment triggered by completion  
• P3s have a proven track record |
|-------------------------------|--------------------------------------------------------------------------------|
| Accountability                | • Performance standards  
• One contractor to deal with |
| Risk Transfer                 | • Transfer of key risks to the private sector  
• Design, construction, lifecycle maintenance risks |
| Fiscal planning certainty     | • Foreseeable payments over life of asset  
• Cost certainty for up to 30 years |
| Focus on Outcomes & Core Business | • Enables governments to focus on outcomes, instead of inputs  
• Core competencies of public and private sectors |
| Innovation                    | • Greater scope for creativity and innovation including design, construction, operations, and maintenance |
What kind of Projects Make Good P3s?

- Attract private sector interest
- Complex project with potential for innovation
- Outside the core competency of government
- Ability for appropriate risk transfer
- Output specifications can be identified, articulated, and measured clearly
Applicability to the U.S.

- Huge need for infrastructure
- Financing gap and need for private investment
- Track record of cost pressures on major projects
- Municipal bond market and how to harness
- Multiple stake holders
- Different markets (i.e. healthcare)
Clifford Ham
Principal Architect
Project Overview

- Courtrooms: 31
- Overall Bldg: 531,000 GSF
- Court Space: 416,000 GSF
- County/Commercial: 105,000 GSF
- Design Build Cost: $343,000,000 (approx.)
- Start: January 2011
- Occupancy September 2013
Project Overview

- Design, build, finance, operate and maintain
- Approximately 3-year construction, 35-year operation
- Includes car park operation and commercial/retail leasing
- Strong public counterparties
  - Judicial Council of California (AOC): PBI counterparty
  - LA County: major lease counterparty
Project Overview

Schedule

Financial Close

Start Design

Design

Construction

Schedule

2011

Q1 | Q2 | Q3 | Q4

50% DD

100% DD

50% CD + Structure

95% CD

100% CD

2012

Q1 | Q2 | Q3 | Q4

Start of Concrete Foundation Complete

Start of Steel

Curtain Wall complete

2013

Q1 | Q2 | Q3

Ground Breaking

Top Out

Complete

Start Design

Close
Revenue Stream

- Service Fee (Availability Payment)
- Payable by the AOC Once Occupancy Achieved
- Performance Based (Subject to Deductions)
- Service Fee Comprises:
  - Fixed Capital Charge Component
  - Indexing Operating Charge Component (CPI Indexed)
- 91.5% of Total Revenue
Value for Money Analysis

AOC Annual Cost under PBI Option with Retained Risks Financed

- Lease costs
- Utility costs
- Retained Operating period risks
- AOC operating costs
- Tenant improvement costs
- Financed retained construction period risks
- Annual service fee
Value for Money Analysis

Traditional Procurement - Annualized Cost Basis including Retained Risks

- Tenant improvement costs
- Lifecycle costs
- Insurance & Taxes
- Retained Operating period risks
- Capital costs - planning & development
- Additional leased space cost - operating
- Financed retained construction period risks
- Facilities management costs
- Capital costs - debt service

Project Year

$ Thousands

Value for Money Analysis

Traditional Procurement:
- Base project cost: $247
- Ancillary costs: $157
- Risk retained: $25
- Total: $49 million

Alternative Financing and Procurement:
- Base project cost: $334
- Ancillary costs: $0
- Risk retained: $0
- Total: $334

Value For Money

Legend:
- Ancillary costs
- Risk retained
- Base project cost
## Project Risk Assignments

<table>
<thead>
<tr>
<th>Project Risk</th>
<th>Mitigant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Risk</td>
<td>Passed down to Contractor under a fixed time, fixed price contract and supported by robust security package</td>
</tr>
<tr>
<td>O&amp;M Risk</td>
<td>Passed down to Facilities Manager under a fixed price long term contract and supported by a robust security package</td>
</tr>
</tbody>
</table>
| Interface Risk    | • Facilities Manager involved in design decisions and in commissioning  
                    • Interface agreement b/n Contractor and Facilities Manager         |
| Change in Law     | Risk sharing with the AOC                                               |
| Force Majeure     | Insurance and risk sharing with the AOC                                  |
Performance
Sean Maher, P.E.

Business Development Director - P3 Americas
Facilities Management Component

- 1.8 Billion square feet under Facilities Management contracts
- 18 P3s in North America
  - Courthouses
  - Data Centers
  - Healthcare
  - Corrections
- $2.8 Billion P3 FM Portfolio
Guaranteed Operating Costs

Includes:

- Facility Management Costs
  - Hard and/or Soft Services + Ancillary Services
  - Fixed for term with CPI Index

- Energy Consumption Guarantees
  - Either Day 1 or Bedding In Period Guarantees
  - Painshare Gainshare Concepts

- Lifecycle (aka CapEx, Refresh)
  - Guaranteed for Contract Term
  - Includes Timing Risk
  - Handback or Expiry Expectation and Risk
P3 Facility Maintenance Requirements

Key Performance Indicators (Examples)
- Calls Responded to in 15 minutes
- % of Scheduled Monthly PMs Completed
- Asset Value maintained above threshold

Availability Concept
- Facility Maintained in Required tolerances
- Linked Functional Units

Availability Deduction Example

The project agreement includes a full schedule of values for unavailability deductions

<table>
<thead>
<tr>
<th>Functional Unit</th>
<th>Linked Functional Unit</th>
<th>Deduction Value</th>
<th># of Units</th>
<th>Sessions Unavailable</th>
<th>Total Deduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trial Courtrooms</td>
<td>✓</td>
<td>$320</td>
<td>2</td>
<td>2</td>
<td>$1,280</td>
</tr>
<tr>
<td>Courtroom Entry Vestibule</td>
<td>✓</td>
<td>$133</td>
<td>2</td>
<td>2</td>
<td>$532</td>
</tr>
<tr>
<td>Holding Cells between Courtrooms</td>
<td>✓</td>
<td>$160</td>
<td>1</td>
<td>2</td>
<td>$320</td>
</tr>
<tr>
<td>Interview Room @ Courtroom</td>
<td>✓</td>
<td>$107</td>
<td>2</td>
<td>2</td>
<td>$428</td>
</tr>
<tr>
<td>Video Remand Booth</td>
<td>✓</td>
<td>$133</td>
<td>2</td>
<td>2</td>
<td>$532</td>
</tr>
<tr>
<td>Courtroom Waiting Area</td>
<td>✓</td>
<td>$80</td>
<td>1</td>
<td>2</td>
<td>$160</td>
</tr>
<tr>
<td>Total Unavailability Deduction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$3,252</td>
</tr>
</tbody>
</table>

Example: One courtroom holding area is unavailable for one full day (2 court sessions)
Lifecycle
To include or Not Include?

- California - $500 Billion by 2026 in Deferred Maintenance (Deloitte)

- California K-12 Budgets - $155MM/Year for Emergency Cap Ex (CA DGS)

- Wisconsin - $64 Billion to upgrade schools, transportation, water & energy (Deloitte)

- Oklahoma - $583 MM Transportation Maintenance Backlog

Moody’s Medians for Private Universities Show Decline in Capital Spending for 2008 to 2010
Lynn Graydon
Vice President Infrastructure Finance
John Laing’s Portfolio

- Holdings in 74 infrastructure projects
- Direct Investments
  - **43 financially closed** PPP Projects
    - 25 fully operational
    - 9 partially operational
    - 9 in construction
    - 1 commercially closed
    - 4 preferred bidder
- Invested via JLIF
  - **31 JLIF projects** Purchased from John Laing

As at 28 September 2012

*John Laing Infrastructure Fund*
Typical Project Structure

- **Owner/Client**
  - Agreement & Payment
  - Interest in Land

- **Lenders**
  - Senior Debt

- **Equity Provider**
  - Equity

- **Design/Construction**
- **Facilities Maintenance**
- **Capital Replacement**

**Agreement & Payment**
**Senior Debt**
**Equity**
**Sub-contracts**
Denver Eagle P3 Project

- Involves the design, build, finance, maintenance and operation of two new commuter rail lines in the Denver Metropolitan area
  - East Line, 23 mile route to Airport
  - Gold Line, 11 mile route to western suburbs
- Scope of project is to deliver and operate the entire rail system, from civil works and structures right through to the rolling stock and related systems

Client: Regional Transportation District, Colorado
John Laing equity stake: 45%
Value: USD1,400m
Contract: 30 years after 6 years construction
Project phase: Construction
Denver Eagle P3 Project

Key Characteristics

- A true DBFOM – 1st rail US PPP
- Largely typical P3 structure
- Appropriate risk transfer
  - Availability based payment mechanism
  - ROW acquisition by RTD
  - Performance Deductions – Service Start Order Program Points
  - Traction Power Adjustment
  - Operations, maintenance and rehab
- Motivated and knowledgeable client team
- A solution to TABOR
- Federal support – Penta P programme
- PABS solution
## Existing P3 Projects in North America

<table>
<thead>
<tr>
<th>Project</th>
<th>Capex</th>
<th>Financial close</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denver Eagle P3 Project</td>
<td>$1,400m</td>
<td>Jul 2010</td>
</tr>
<tr>
<td>Kelowna and Vernon Hospitals</td>
<td>$433m</td>
<td>Aug 2008</td>
</tr>
<tr>
<td>Abbotsford Regional Hospital and Cancer Centre</td>
<td>$355m</td>
<td>Dec 2004</td>
</tr>
<tr>
<td>The Gordon and Leslie Diamond Healthcare Centre, Vancouver General Hospital</td>
<td>$95m</td>
<td>Sept 2004</td>
</tr>
</tbody>
</table>
Questions?

Jeff Fullerton  
Director – Edgemoor Infrastructure & Real Estate

Tim Philpotts  
Senior VP – Ernst & Young

Clifford Ham  
Principal Architect – Administrative Office of the Courts

Sean Maher  
Director of Business Development – Johnson Controls

Lynn Graydon  
VP of Infrastructure Finance – John Laing