Introduction to Public-Private Partnerships (P3s)

Today's Instructor

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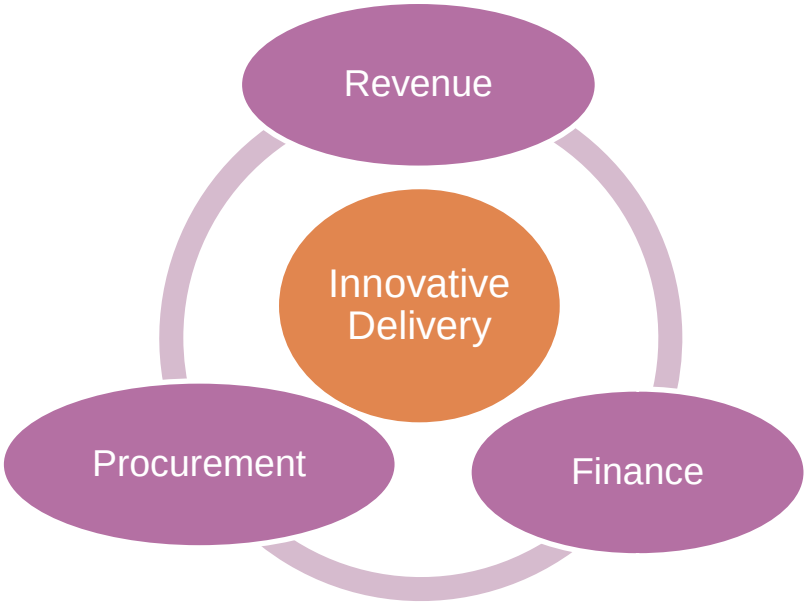
Course Outline

Course Objectives

- Learn what P3s are and how they can play a part in project procurement
- Identify instances where different P3 arrangements have been used for highway projects
- Understand the benefits of P3s and challenges to their use
- Identify key USDOT project finance tools that work in conjunction with P3s and be able to access resources to learn more

OIPD - Role in Transportation P3s

- **Technical Assistance**
- **Educate**
- **Facilitate**



Lesson 1

Definitions

Did You Know?

Q. When were P3s first used in the United States?

A. In 1792, the first turnpike was chartered and became known as the Philadelphia and Lancaster Turnpike in Pennsylvania.

What is a P3?

- Public-Private Partnerships
  - PPPs are contractual agreements between a public agency and a private entity that allow for greater private participation in the delivery of financing of projects

Project Procurement and Delivery

Conventional Projects (design-bid-build)	*P3 Projects* (design-build-finance-operate-maintain)
▪ Public sector burden with all risks	▪ Risk sharing
▪ Succession of separate (and multiple) contracts	▪ Integration of two or more project phases
▪ Public Financing	▪ Private Financing
▪ Lowest bidder	▪ Best suited
▪ Public sector project stewardship (incl. with contract management firm)	▪ Private sector project stewardship

P3's Are Not…

Unregulated spending

The solution to all transportation needs

An endless source of funds

The answer to all State and local problems

Definitions - Terminology

- A **Concession** is a long term lease of public facilities to a private party (concessionaire)
  - Greenfield and Brownfield Facilities
- A **Special Purpose Vehicle (SPV**) is a legal entity created to fulfill narrow, specified tasks
  - Isolates the financial risks from the parent company or companies
- **Leveraging** is the degree to which an investor or business is utilizing borrowed money (debt)
  - If a project is leveraged at 70/30, 70% debt and 30% equity
  - Public sector may use a P3 to “leverage” the assets (physical asset – existing facility or right of way) or funding to construct or rehabilitate a project

Definitions - Terminology

- **Debt** is a bond or loan, with an obligation to pay interest and principal at a later date
  - Obligation has payment priority over equity
  - Includes Private Activity Bonds (PABs) and Transportation Infrastructure Finance and Innovation Act (TIFIA) loans
- **Equity** defines ownership interest in a corporation
  - Requires a higher internal rate of return than debt holders as equity interest is riskier
  - Can be lost in certain instances
- The **Internal Rate of Return** is the percentage return on investment.

Definitions - Terminology

- Greenfield (New Build)
- Brownfield (Existing)
- Hybrid
- Availability Payments
  - Payments made by the public sector sponsor based on particular milestones or facility performance standards
- Shadow Tolls
  - Payments to the Concessionaire or private sector partner based on ridership of a facility

Why P3s Now?

- Growing congestion
- Increasing investment requirements
  - Aging infrastructure
  - Increasing construction costs
- Mounting budget pressures
  - Revenue growth slowing
  - Competing spending priorities
  - Voter resistance to tax increases
- Poor long-term system performance

Why Undertake a Project as a P3?

Answer: When the public sector can get more value using P3 approach

- "Value" can be:
  - Lower construction and/or operation costs
  - Time savings in construction and/or delivery
  - Cutting edge technologies or expertise
- Public Sector must assess:
  - Independent traffic and revenue studies
  - Value for Money Analysis
    - Public Sector Comparator

Questions

Submit a question using the chat box

Or

*1 to ask a question by phone

Lesson 2

Benefits and Challenges

P3 Benefits to Public Sector

- Accelerated project start-up and expedited project delivery
- Sharing of risks with private sector
- Improved operational efficiencies
- Increased investment in transportation assets where demand exceeds supply (i.e. where unmet needs are the greatest)

P3 Benefits to Public Sector

- Enhanced cost control
- Leveraging each partner's strengths
- Conserving public sector debt capacity

P3 Benefits to Private Sector

- Private concessionaires are looking for a return on investment that is:
  - Long-term
  - Stable, predictable
- Benefits to private sector are generally more visible – and controversial – than the benefits to the public sector

Challenges of Using of P3s

1. **Enabling legislation**
2. **Organizational Capacity**
   - Knowledge Gap
   - Different oversight/contract management approach required
3. **Private financing**
   - Higher costs
   - Limited access to low cost PABs and TIFIA
4. **Revenue constraints**
   - Federal toll restrictions
   - Lower tax receipts
5. **Flawed traffic and revenue projections**

Challenges of Using of P3s

6. **Pricing of risk and private sector returns**

7. **Long term nature of P3 Agreements**
   - Concern about loss of upside revenue potential to public
   - Inability to anticipate future performance issues or public needs

8. **Proper risk allocation**

Summary: Key Questions for Considering a P3 Approach

- Is there the necessary legal and institutional framework in place to support a P3 arrangement?
- Is the project under consideration as a P3 necessary?
- Does the project have a dedicated revenue stream?
- Does delivery of the project as a P3 represent a value proposition for the public sector?

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Lesson 3

Examples and Types of P3s

Types of P3s

PPP Structure	Design Risk	Constr. Risk	Financial Risk	O&M Risk	Traffic Risk	Revenue Risk
Traditional Design-Bid-Build		X				
Design-Build (DB)	X	X				
Design, Build, Finance, Operate and Maintain (DBFOM)	X	X	X	X	Yes, if toll or traffic-based payment	Yes, if performance -based payment

Risks Associated with P3s

- P3s are designed to allocate different risks to the party best able to manage them
- Types of risk include:
  - **Financing** – Access to capital and cost of capital
  - **Costs** – Construction and O&M
  - **Environmental** – Permitting delays; unknown conditions
  - **Demand** – Less than anticipated traffic
  - **Political** – Lack of public or political support leads to regulatory or financial barriers
  - **Technology** – Failure of unproven tolling and enforcement technologies

Greenfield (New Build) Facilities: Build, Own, Operate, Transfer

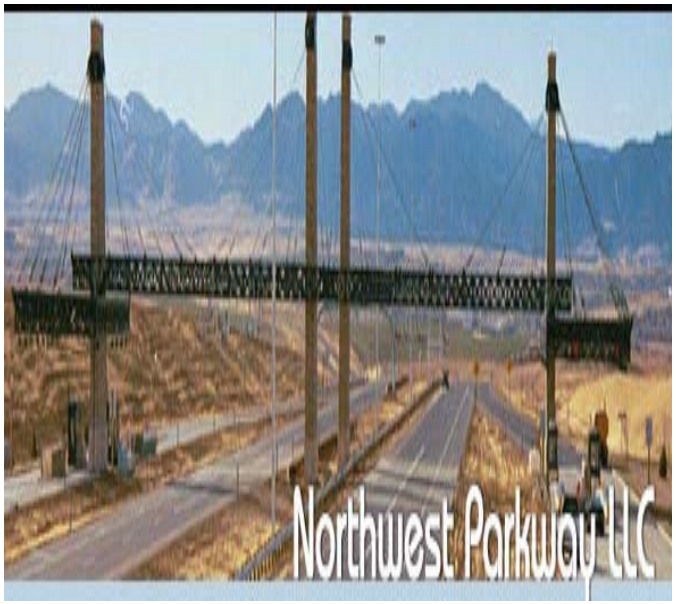
- **Build Own Operate Transfer (BOOT)** - combines the design and construction responsibilities of design-build procurements with financing and ownership of a facility

Example: Dulles Greenway, Virginia

- Privately financed and constructed for $350 million
- Opened in 1995, Refinanced in 1999, Purchased in 2005
- Expanded from 4 to 6 lanes
- Features variably priced tolls

Brownfield (Existing) Facilities: Long-Term Lease

- Involves the lease of existing, publicly-financed toll facilities to a private sector concessionaire for a prescribed concession period during which they have the right to collect tolls on the facility



Example: Northwest Parkway, Colorado

- November 2007, agreement signed
- 99 years, $543 million to authority
- Responsible for O&M, receives all toll revenue

Hybrid: Operate-Maintain-Develop

The project sponsor grants a private operator/developer a long-term lease to operate and expand an existing facility

Example: Pocahontas Parkway, Virginia

- Transurban acquired right to enhance, manage, operate, maintain, and collect tolls for 99 years on the existing facility.
- Defeased debt of development costs and committed to constructing Richmond Airport Connector, a 1.6 mile, 4-lane toll road.

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Lesson 4

Financing Tools

USDOT Financing Tools Supporting P3s

Federal tools to address the risks inherent in private sector participation include:

- **TIFIA:** Flexible, low-cost lending that addresses challenges such as revenue and ramp up risk
- **PABs:** Lower-cost financing that addresses high interest rates generally paid by private sector
- **Other Innovative Financing Tools:**
  - State Infrastructure Banks
  - Section 129 Loans
  - Grant Anticipation Revenue Vehicles (GARVEEs)

I-595 Corridor Roadway Improvements

- 10.5-mile managed lanes project in Southeast Florida
- Reconstruction and widening of I-595 and frontage roads and ramps
- Construction of 3 reversible express toll lanes known as 595Express
- Lanes will be operated as managed lanes with variable tolls to optimize traffic flow, and will reverse directions in peak travel times.

I-595 Corridor Roadway Improvements

- **Objective: to reduce corridor congestion**
- **35-year concession for Design, Build, Finance, Operate, Maintain (DBFOM)**
  - Congestion-priced, reversible HOT lanes (also BRT)
  - Improvements to free lanes, ramps and access roads
- **First availability-payment-based PPP in the US**
  - No public money paid to the concessionaire until the project is complete
  - FDOT retains and sets tolls, and provides oversight
  - Project completion advanced15 years
  - Series of annual and monthly payments subject to adjustment based on performance
- **Substantial cost savings**
- **Successful financing despite economic crisis**

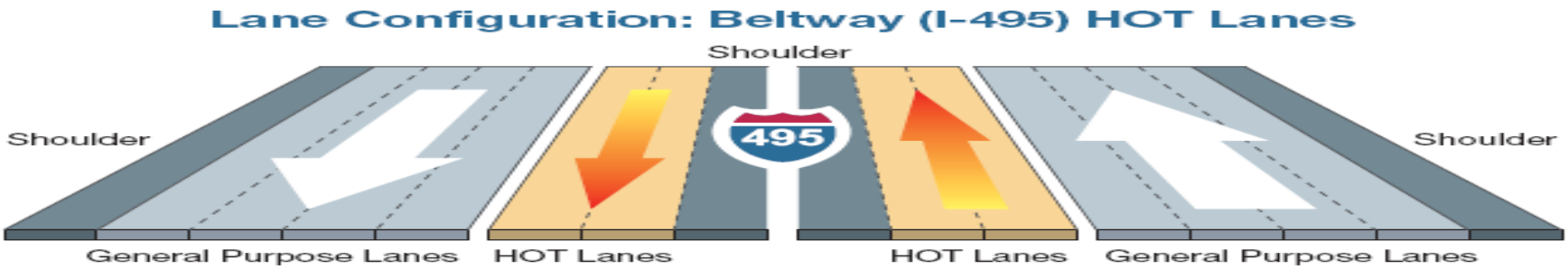
I-595 - Project Financing

Source	Amount ($000s)
Tranche A – Senior Bank Debt	525,537
Tranche B – Senior Bank Debt	255,630
TIFIA	603,441
Equity	207,703
Revenues	10,374
TIFIA Capitalized Interest	74,881
Total Sources	1,677,567

Uses	Amount ($000s)
Construction Expenses	1,197,000
O&M Expenses	123,142
Transaction Costs and Fees	69,255
Interest during Construction	253,267
Reserve Funding	34,902
Total Uses	1,677,567

Route 495 HOT Lanes in Virginia Project (Capital Beltway HOT Lanes)

Design, Build, Finance, Operate, Maintain



- 14-mile segment of beltway based on a fixed-price, fixed-time, design-built contract, 80-year concession
- Two new HOT lanes in each direction with variable tolls, HOV3 free
- Congestion-free network for transit service
- Replacement of more than $260 million of aging infrastructure, including more than 50 bridges and overpasses
- Use of PABs and TIFIA loans
- Cost = $1.9 billion

Route 495 - Project Financing

Source	Amount ($000s)
PABs	589,000
TIFIA	588,922
VDOT Contribution	408,895
Equity	348,695
Interest Income During Construction	70,793
Total Sources	2,006,305

Uses	Amount ($000s)
Construction Costs, Oversight and Other Admin Fees	1,508,477
Development Costs	65,936
Net Financing Costs	152,798
Ramp up Reserve	30,000
Revenue Stabilization Reserve	50,000
Capex Reserve	19,000
Debt Service Reserve	58,900
Project Enhancement Fund	15,000
Contingency	106,193
Total Uses	2,006,304

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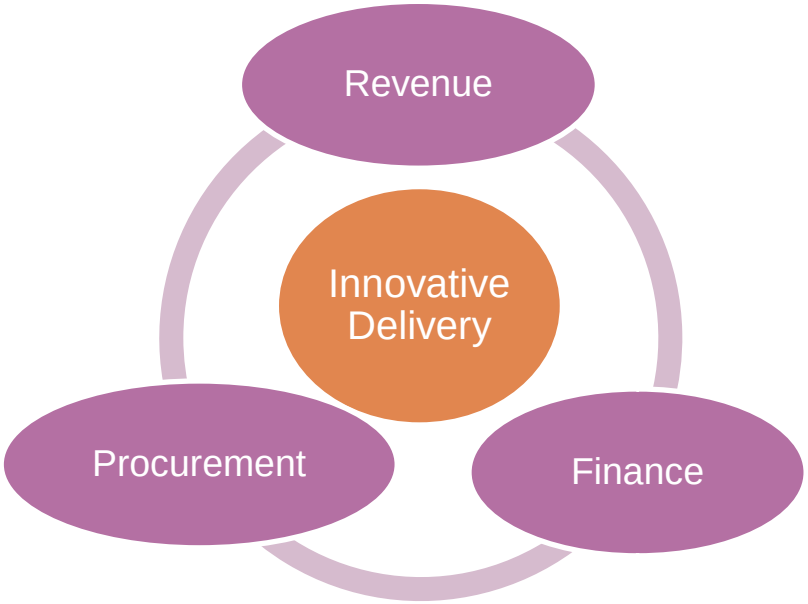


For More Information

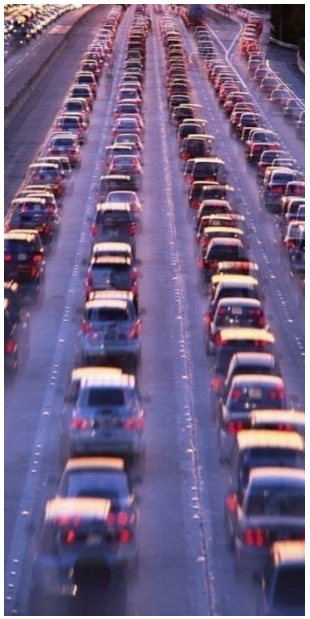
IPD Website:
www.fhwa.dot.gov/ipd

IPD P3 Website:
www.fhwa.dot.gov/ipd/p3/

IPD Academy Staffnet Website:
http://staffnet.fhwa.dot.gov/ipd/academy.htm

AASHTO Center for Excellence in Project Finance:
www.transportation-finance.org

By Email:
Thay.Bishop@dot.gov



Upcoming IPD Academy Webinars

- November 16: Section 129 Loans
- November 28: Bonding 101
- December 7: Advanced Bonding Concepts
- January 11: GARVEE Bonds 101
- January 19: SIB 101
- January 25: GARVEE 201, State of the Practice
- February 16: Intro to P3s
- February 23: SIB 201, State of the Practice

Contact Information

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