



**Options for financing port  
infrastructure – Roberts Bank Terminal 2**

ACPA 2017

September 19, 2017

# Overview

What is Roberts Bank Terminal 2

Approach taken to finance and deliver the project

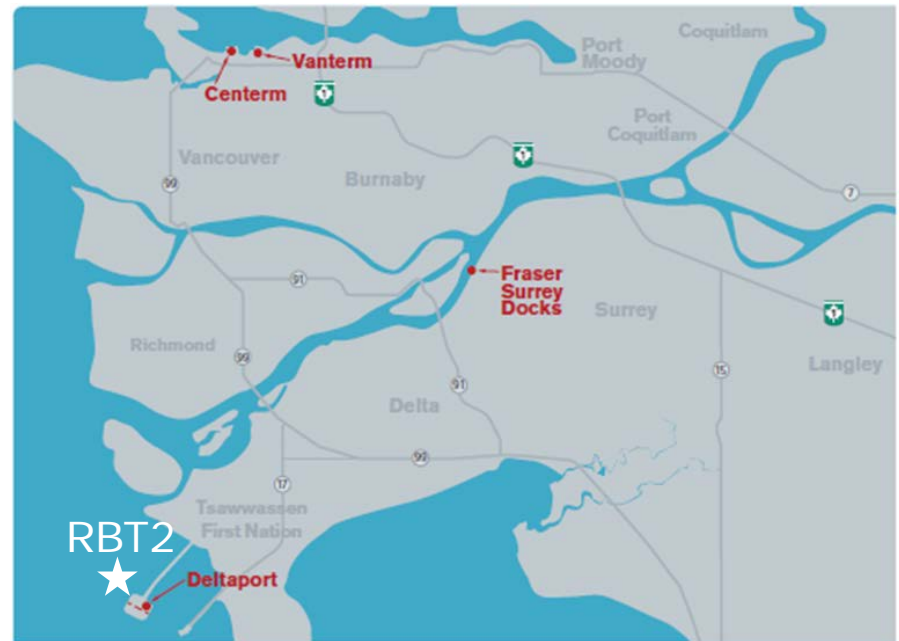
Rationale for the approach

Results and current status of RBT2



# Roberts Bank Terminal 2

- Combined the Port of Vancouver's existing terminals (in red) can handle 3.7 million TEUs per year
- Demand projections show that by 2030 approx. 6.2 million TEUs of handling capability will be required
- Various capacity expansion projects are underway with the largest one being Roberts Bank Terminal 2
- Characteristics of RBT2
  - Additional container capacity of 2.4 million TEUs
  - Estimated cost over \$2 billion
  - Draught of 18 meters
  - Land creation of 115 hectares
  - Terminal length of 1,550 meters, berth length of 1,300 meters



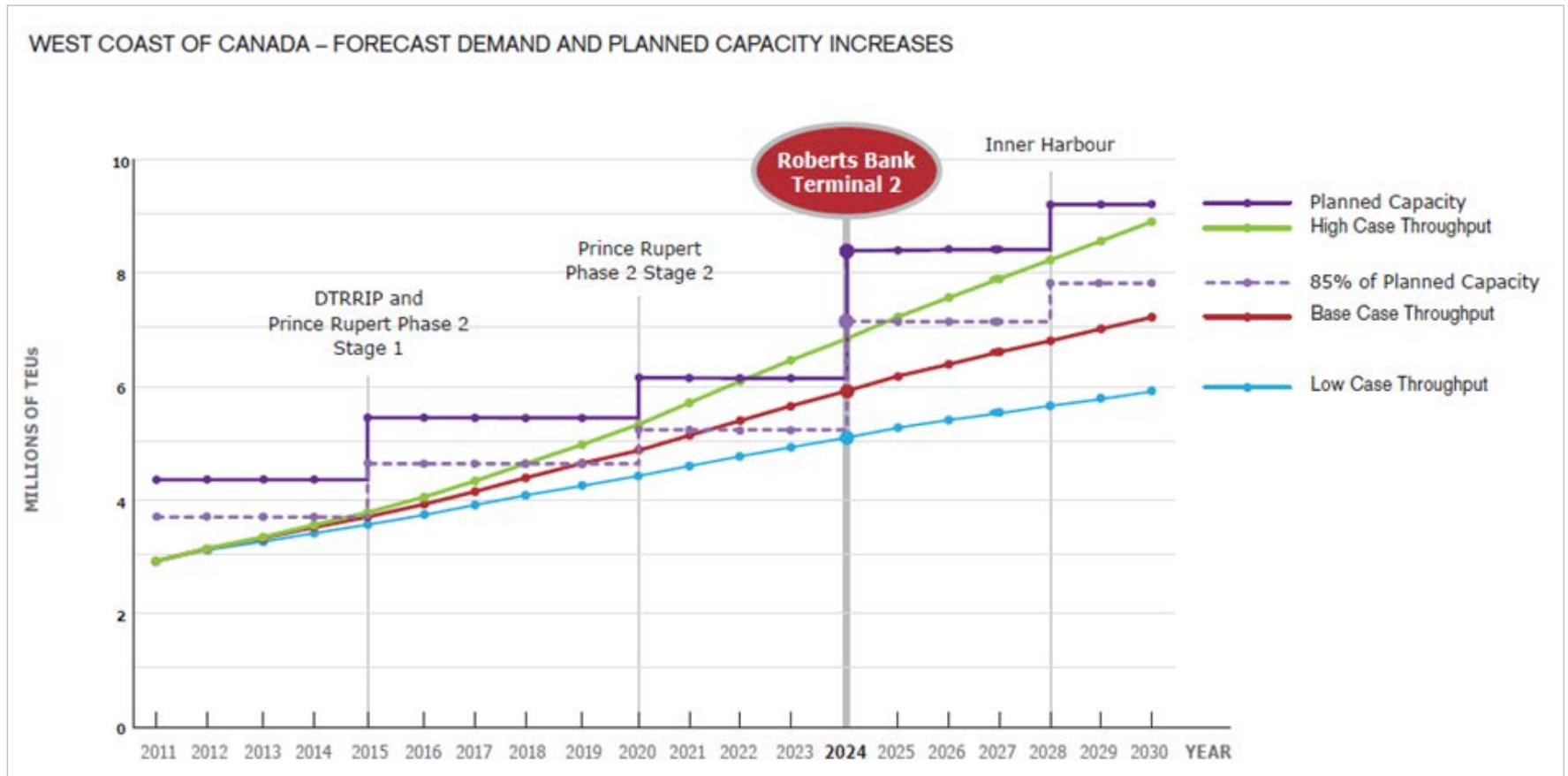
Port Metro Vancouver currently has four marine container terminals.

# Roberts Bank Terminal 2 (cont'd)



# Roberts Bank Terminal 2 (cont'd)

## Capacity and demand forecast



Source: Ocean Shipping Consultants

# Roberts Bank Terminal 2 (cont'd)

## VFPA's Objectives for the project

### 1. T2 Project to be completed to meet market demand

The T2 Project must provide additional capacity when needed by the market.

### 2. Commercial arrangement(s) that limit the risk to VFPA

The VFPA wants to limit its exposure to market demand risk (container volume and revenue risks) as well as eliminate all exposure to construction risks (over-run and delay risks).

### 3. Maintain financial flexibility

The VFPA's preferred commercial arrangement is one that does not unduly reduce its future flexibility to make other investments.

### 4. Utilized system capacity

The VFPA desires a commercial arrangement that incents high utilization of RBT2 while not detracting from the existing container terminal operations in the Port.

### 5. Return on investment

The VFPA is looking to earn commercial level returns on its investment in the project.



# Options considered for financing and delivering RBT2

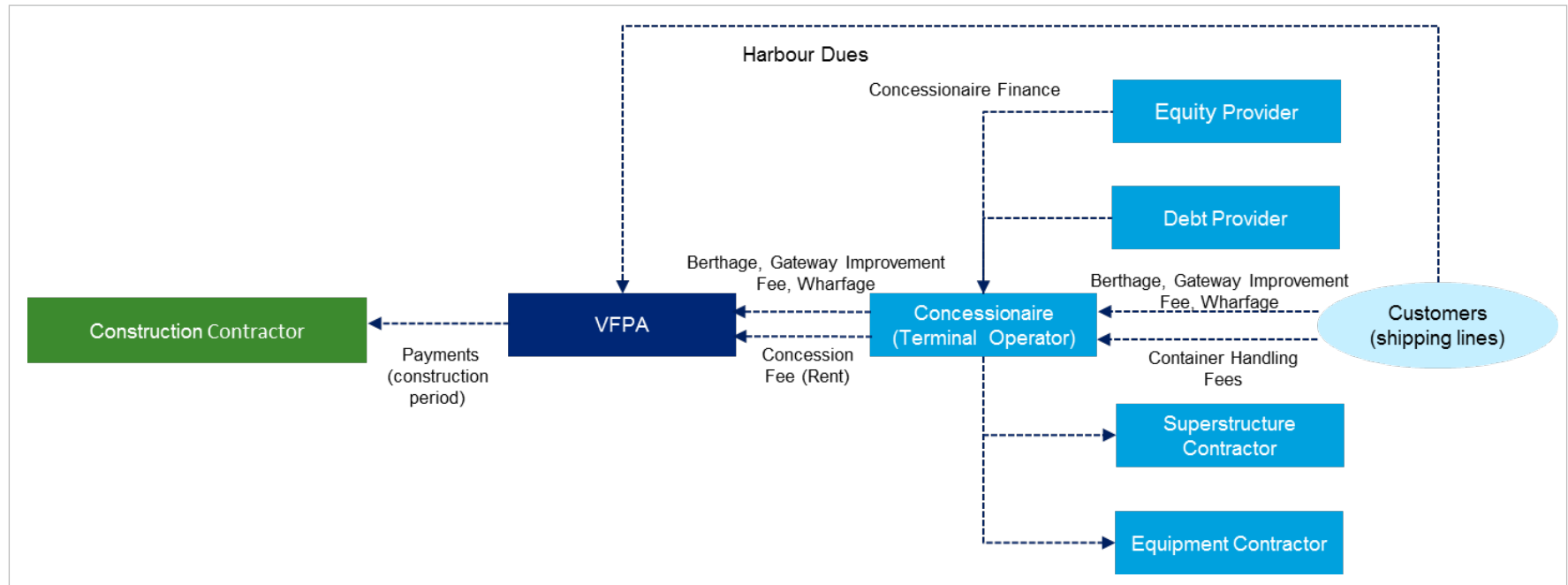
Based in part on a comprehensive jurisdictional scan of similar large reclamation port development projects, and extensive market sounding, the following three models were assessed:

1. Traditional Landlord Model – Design Bid Build (or Design Build) procurement of infrastructure (land mass, access roads), separate procurement of Terminal Operator
2. BOT Model – Single procurement of BOT Concessionaire that develops entire project and operates terminal
3. Revenue supported infrastructure/DBFM – A landlord concession for operations and a Design-Build-Finance-Maintain (“DBFM”) contract for the infrastructure. A Design-Build with short term financing instead of a DBFM is a potential variation of this model



# Options considered for financing and delivering RBT2

## Delivery option #1 – Landlord concession



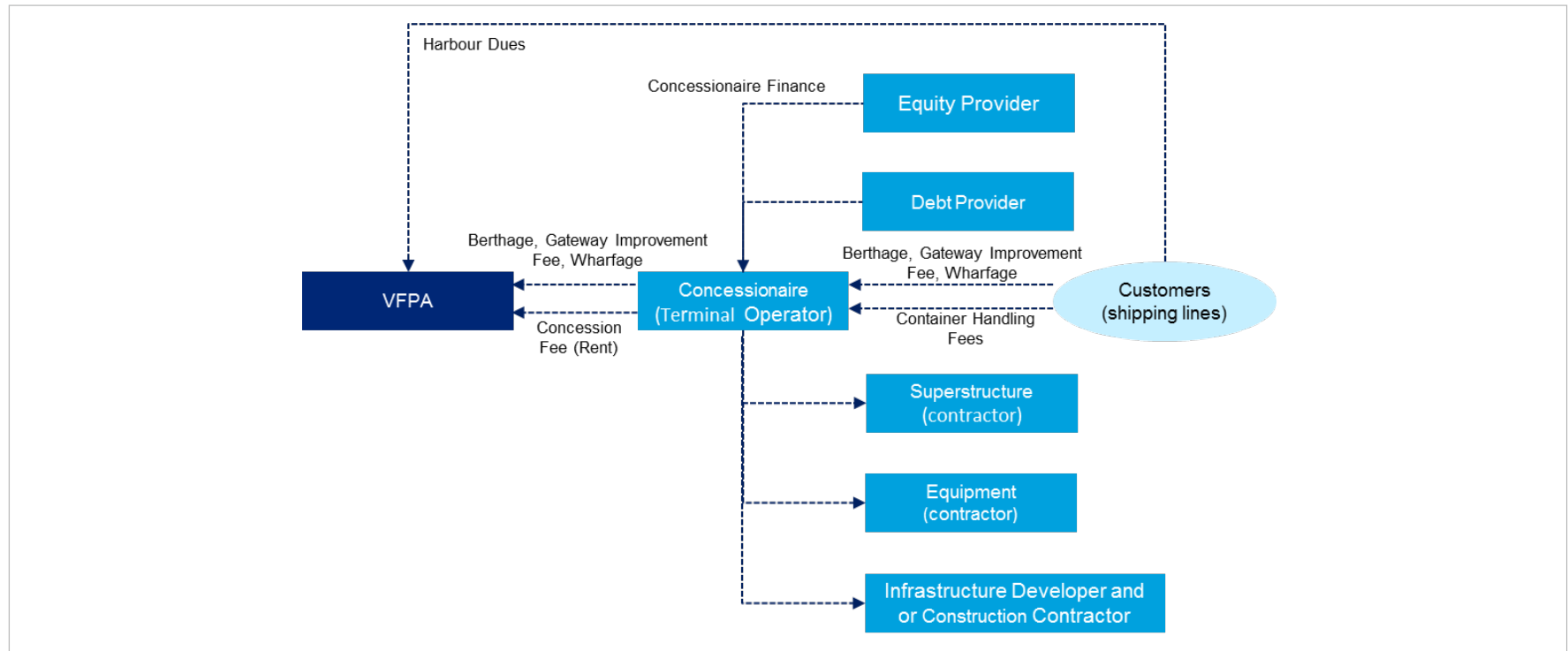
### Key characteristics

- VFPA funds/finances directly the required infrastructure
- Design-Bid-Build or Design-Build approach to construction of the infrastructure
- Construction of the infrastructure procured in advance of Concessionaire (TO) procurement



# Options considered for financing and delivering RBT2

## Delivery option #2 – Build operate transfer

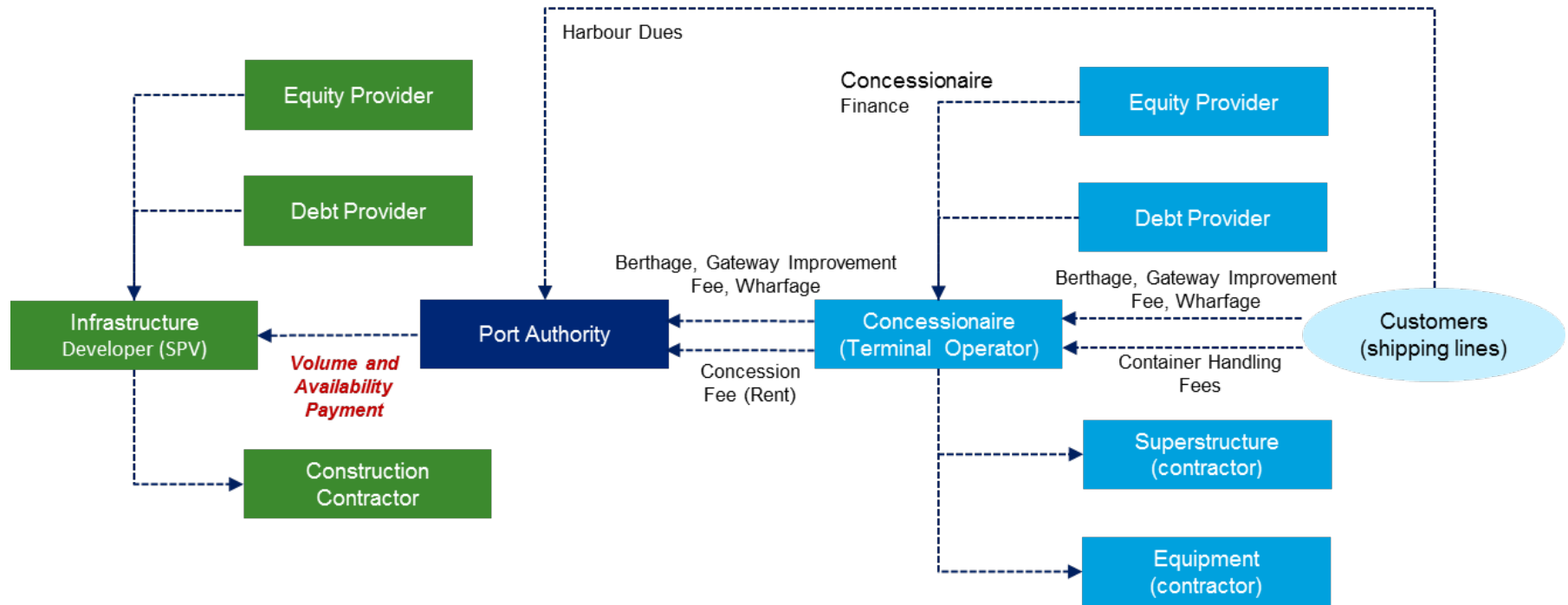


### Key characteristics

- Concessionaire funds/finances directly the required infrastructure
- Typical financing: 60 to 70% debt: 30 to 40% equity
- Single procurement process

# Options considered for financing and delivering RBT2

## Delivery option #3 – Revenue supported infrastructure/DBFM



### Key characteristics

- Infrastructure Developer (ID) finances the required infrastructure
- Typical financing: 90:10 Debt to Equity – VFPA's credit quality harnessed
- Concessionaire (TO) procurement in advance of ID procurement



# Options considered for financing and delivering RBT2

## Risk and responsibility matrix

	Landlord concession	BOT Concession	Revenue supported infrastructure
Port management/regulation	Port authority	Port authority	Port authority
Landmass infrastructure delivery	Port authority	Concessionaire	Infrastructure Developer
Superstructure delivery	Concessionaire	Concessionaire	Concessionaire
Equipment delivery	Concessionaire	Concessionaire	Concessionaire
Operations and maintenance of superstructure and equipment	Concessionaire	Concessionaire	Concessionaire
Revenue and volume risk	Concessionaire, possibly shared with Port Authority	Concessionaire, possibly shared with Port Authority	Concessionaire, possibly shared with Infrastructure Developer and Port Authority
Maintenance of landmass infrastructure	Port Authority	Concessionaire	Infrastructure Developer



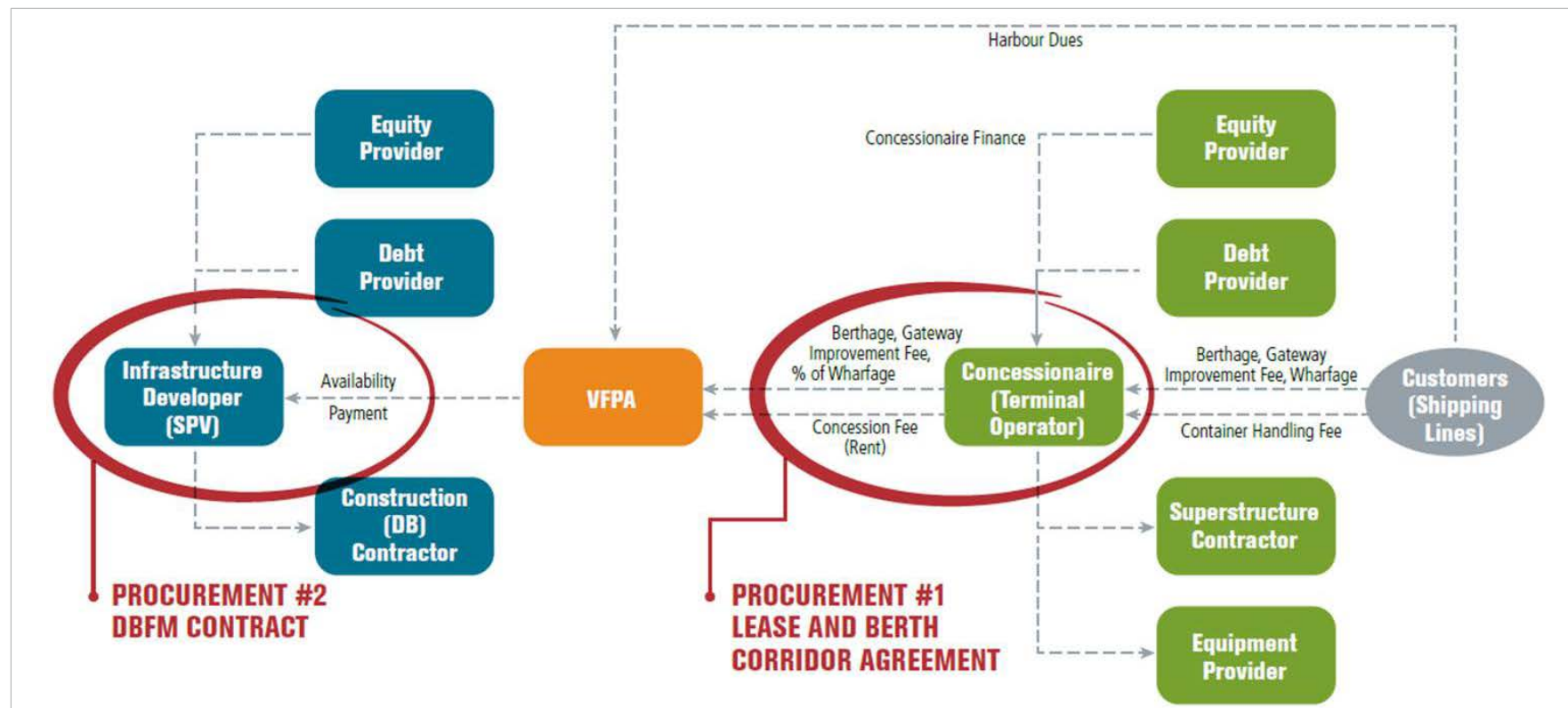
# Options considered for financing and delivering RBT2

## Multiple criteria assessment

<b>Objective</b>	<b>Revenue Supported/DBFM Compared to Traditional Landlord</b>	<b>BOT Model Compared to Traditional Landlord</b>
<b>Objective #1</b> – T2 to be complete to meet demand	<b>Better</b>	<b>Same</b>
<b>Objective #2</b> – Limit risk to VFPA	<b>Better +</b>	<b>Better</b>
<b>Objective #3</b> – Maintain financial flexibility	<b>Same</b>	<b>Better</b>
<b>Objective #4</b> – Manage system capacity	<b>Same</b>	<b>Worse</b>
<b>Objective #5</b> – Return on investment for VFPA	<b>Better</b>	<b>Worse</b>
<b>Objective #6</b> – Level of control for VFPA	<b>Same</b>	<b>Worse</b>

# Approach taken to the financing and delivery of RBT2

## Revenue supported infrastructure/DBFM



### Refinements

- No volume risk passed on to Infrastructure Developer
- Some land base infrastructure scope moved to Terminal Operator
- Optimization of Land Base design

# Approach taken to the financing and delivery of RBT2

## Current status

### Terminal Operator Procurement

- In 2015, more than 10 potential bidders responded to the VFPA's RFQ in the competitive process to select a terminal operator for the Roberts Bank Terminal 2 Project
- In January 2016, the Vancouver Fraser Port Authority issued a Request for Proposals (RFP) to five shortlisted teams, with submissions due in the fall of 2016
- This process, which was monitored by a fairness advisor, is ongoing and commercially confidential negotiations with the preferred proponent have begun. The conclusion of an agreement is anticipated in 2017

### Infrastructure Developer Procurement

- The port authority anticipates releasing the Infrastructure Developer RFQ in the spring/summer of 2018





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