



U.S. Department of Transportation  
**Maritime Administration**



# Port Planning and Investment Toolkit

## *Funding Strategy Module*



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# 1. Introduction

## 1.1. Funding Strategy Overview

Funding strategy is a primary consideration of any capital investment decision, and a key factor when defining the various port objectives, strategies and timelines for pursuing selected forms of infrastructure investment and delivery. While every port capital investment project is different, and each work plan has unique attributes, ports should generally evaluate and approach investment opportunities using an approach grounded in prudent due diligence and fundamental credit / investment evaluation. Ports function as intermodal facilities for goods and passengers, and they are by necessity public-private partnerships ("P3). As a result, the range of financial needs and solutions for public ports is very broad. In order to make the best use of available funding sources, it is important for ports to understand the full range of potential capital needs and financial solutions, and not be wed to just one potential solution.

The funding strategy processes outlined herein are the very steps that have been undertaken in port project financings, and have been successfully used to attract billions of investment dollars for public port and transportation enterprises. Using the Toolkit modules described in the following sections, once customized to the specific port project, should lead a port through a logical and thorough step-by-step process to make sound investment decisions and then to choose and implement the best and most viable financing alternative. It is important to note that the steps outlined herein do not necessarily occur in a linear fashion; that is, there is often overlap and recurrence of steps. The key is that investment decisions can be made based on certain thought processes, and adapted to specific and changing circumstances of each port project under consideration.



## 1.2. Investment Considerations and Relevance

The port industry is very fragmented from a financial markets perspective. Larger ports tend to have expansive projects and capital improvement plans, along with sophisticated capital structures necessitated by such capital needs. Smaller ports with fewer or smaller projects may rely more on governmental and operating funding sources for ongoing capital improvement plan requirements. Regardless of size and sophistication, port investment considerations include, but are not limited to, the issues listed in Exhibit 1.2 which need to be fully vetted for any financing alternative to be successful, whether "public" or involving a combination of public and private financing such as in a public-private partnership or "P3."

The Toolkit modules may hold varied relevance across the range of cargo types and sizes of ports and projects. From a financing perspective, this requires making a distinction between the type of due diligence information and credit profile that might be needed across this range. For example, a small port relying

Exhibit 1.2

Port Investment Considerations
Physical facilities & current uses, land for development, and any master plan or similar document
Existing tenant lease and use agreements
Historical cargo volumes and revenues by type
Trade lanes data
Market cargo & revenue forecasts
Port financial market environment
Port operating models
Port business/financial models
Outstanding bonded indebtedness amounts and terms
Pro forma cash flow analysis
Financing capacity to address capital needs and new business
Creditworthiness assessment
Investor and capital markets outreach

primarily on governmental or operating sources for funding and without any plans for issuing bonds may find information on the credit rating agencies less relevant to that port's particular financing circumstances. Further, that same port may find value in the discussion on small grant funding to support its capital improvement plan. Hence, while some ports may find relevance in all of the Toolkit modules and sections, certain other ports may find value in limited sections of a particular Toolkit module, depending on port and project requirements.

## 2. Port Profile

### 2.1. Port Profile Overview

A review of all port master and strategic plans as well as legal parameters is needed in order to develop a framework understanding of the project and how capital investment might further the port's strategic goals. The application of any project finance or P3 technique must be in congruence with a port's underlying mission, generally to create positive economic impact through the development and utilization of a port's marine terminal infrastructure. For example, would the port prefer to seek upfront capital from a P3 concession for use on other port facilities, or would maximizing revenue sharing from the project better meet the port's long-term needs? The review should help the port, investors, and other stakeholders to understand the overall strategic guidelines and criteria regarding the identification of appropriate project/P3 opportunities, the utilization of financing structures, and the selection of potential private sector partners. Ultimately, a port's strategic goals for any given project should inform any approach to capital investment.



### 2.2. Information Sources

While different ports may list background and planning information across various sources, typically relevant data regarding the port will be described in an enabling act, master plan and/or strategic plan:

- **Enabling Act:** legislation by which port authorities and other governmental agencies are created and granted powers to carry out certain actions. While enabling acts for port authorities vary widely, key aspects generally include establishment of the port entity; governance and procedures; powers such as ability to enter into contracts, construct projects, transact business, and enter into financing agreements; and reporting requirements.
- **Master Plan:** port document which guides a port's planning, development and management of infrastructure and facilities, with the goal of accommodating future growth and supporting the regional economy. Master plans often include information on port objectives and policies; survey of existing conditions/facilities; assessment of competitive position; land use data; analysis of future demand, capacity, and capacity requirements; capital improvement plan; and operating and financial performance.
- **Strategic Plan:** port document outlining a port's market positioning and strategic direction. Strategic plans may include, among other topics, a competitive assessment relative to other ports; trends in regional, national

and global economies; cargo/passenger analysis; growth strategies; and capital investment recommendations.

Further, many ports utilize policy documents to guide decision processes. Policies relevant to funding strategies may include:

- **Debt/Financing Policy:** establishes guidelines regarding debt issuance for funding capital investment, including capital structure and risk parameters. Some ports will also have a separate swap policy to guide decisions on the use of swaps (for example, interest rate swaps on debt).
- **P3 Policy:** establishes guidelines and criteria regarding the identification of appropriate P3 opportunities, selection of private sector partners, and parameters for entering into related agreements.

Depending on state law and legislation, many ports may utilize state and/or local statutes to guide their internal policy documents. The material and processes included in this Toolkit assume that a port has the legal ability to enter into debt issuance and/or P3 contracts and transactions, without regard to state and/or local statutes of any particular port locality.

Exhibit 2.3

### 2.3. Due Diligence Factors

Port profile factors vary across ports and projects. In addition to reviewing widely available documents such as master and strategic plans, other itemized factors to review may include, but are not limited to, those listed in Exhibit 2.3.

Due Diligence Factors	
<b>Organizational and Regulatory Documents</b>	<b>Legal</b>
<b>Financial</b> Audited financials to include breakout of port costs - 3 Monthly revenue reports, container throughput, and operating statistics - 3 years	Legal basis to pursue P3 and/or other financing options Attorney letters and pending litigation Board minutes
<b>Material Contracts</b> Shipping line 1 Shipping line 2 Shipping line 3 Operator Miscellaneous facility use agreements Purchase and supply agreements	<b>Insurance</b> Summary of coverages Claims - pending and last 3 years
<b>Real Property</b> Maps/photos, as-built drawings, rail layout Intermodal-rail lease agreements Fixed asset inventory Land and building titles/deeds Copies of permits Condition assessments Property management forms	<b>Market Information</b> Market Studies Master plans Port marketing materials Media clips
<b>Labor Contracts</b> Terminal/cranes - policy, staffing, performance State Department of Transportation Policy	<b>Environmental</b> Phase One assessments Permit status, violations, citations
	<b>Historical and projected capital expenditures</b> Historical - past 5 years Projected CapEx
	<b>Expansion Plans</b> Current design Berth & crane capacity analysis Contracting requirements

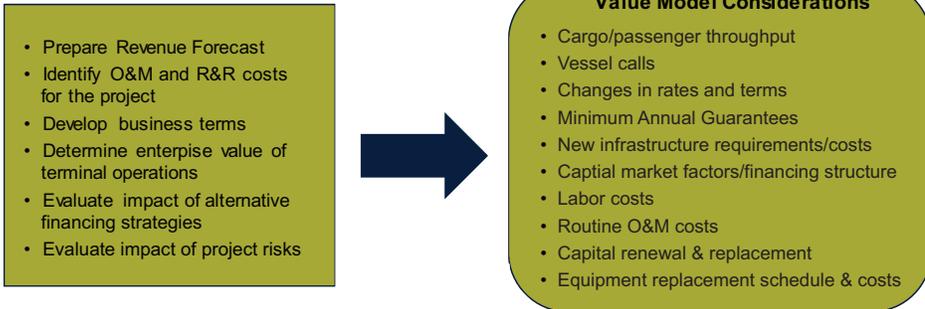
## 3. Project Due Diligence Profile

### 3.1. Project Due Diligence Profile Overview

Due diligence requirements for a given port project vary depending upon the type and size of project/port. For large cargo terminal development projects, for example, there is a need to focus much attention on projected cargo & revenue data given the financing requirements for such new project development and especially for project finance/P3s. However, a port that just wants to finance some capital improvement program projects for existing facilities and/or refinance some outstanding debt might easily use historical audited operating and financial results and a historical revenue over maximum annual debt service Additional Bonds Test under an existing bond indenture to meet new money financing requirements. Therefore, an initial step in project due diligence is to understand the nature of the project and how it fits into the overall port system financing scheme.

For large project developments, cargo demand & revenue studies as well as engineering studies regarding capital requirements and estimated operations & maintenance needed for a terminal or other port facilities are essential to evaluating investment opportunities. For smaller scale projects, a port may not need an outside study of demand & revenue and costs, instead relying on in-house expertise and forecasts. Any capital

Exhibit 3.1 Due Diligence Approach



investment valuation, including conducting successful lease / concession negotiations for a P3, must incorporate a thorough understanding of the underlying business economics. Additionally, the components of such due diligence should incorporate risk analysis which is needed to quantify a range of economic outcomes. A further aspect of project due diligence is an analysis of outstanding debt of the port and how existing capital structures might

impact future investment decisions. For example, some P3 capital investment structures would require the defeasance of pre-existing debt, and the economics of any such defeasance must be factored into the overall evaluation. Thus, the approach to project due diligence (Exhibit 3.1) necessitates extensive engineering, credit rating (if relevant) and capital markets financing experience to adequately address the nuances of any given port project financing.

### 3.2. Feasibility Screening/Key Drivers

An early step in project feasibility screening involves a review of existing demand forecasts and cost data, in order to assess what additional information is needed to make a preliminary determination of project feasibility. As project activities proceed, it is critical to review the costing plan, the financing plan, the operations

& maintenance plan, and the demand & revenue forecast as these elements are key drivers of the economic viability of a project. In most instances, for a project that requires third party public financing to be economically viable, the development of investment-grade demand & revenue and general engineering reports is required.

An investment-grade demand & revenue forecast and cost report for the project is critical to a port's decision-making process and would be an integral part of any final financing plan, assuming access to third party public financing is

desired. Key in this phase will be the work of the demand & revenue consultant and engineering consultant to analyze market and operational data, and to develop projections that will feed into subsequent lease/P3 analyses. Additionally,

Exhibit 3.2

Financial Feasibility Components
<b>Demand &amp; Revenue Report:</b> estimate future cargo/passenger market and operating performance of marine terminal operations under current and alternative operating structures
<ul style="list-style-type: none"> <li>Overview of regional, national and international cargo/ passenger markets</li> <li>Conduct detailed market analysis for the port/terminal of the current and potential cargo/passenger markets</li> <li>Rate and volume measurements and revenue projections - 30+ years</li> <li>Develop capacity measures of cargo/passenger operations</li> <li>Determine market driven capacity enhancements</li> </ul>
<b>Engineering Report:</b> estimate project capital costs, and operating and lifecycle costs of terminal assets, under current and alternative operating structures
<ul style="list-style-type: none"> <li>Existing facilities and operations</li> <li>Project description including: location, regional market, design capacity, and purpose (e.g. support new container business)</li> <li>Recommendations for infrastructure and equipment to meet capacity needs, versus baseline capacity</li> <li>Estimate and itemize capital costs</li> <li>Projected operating &amp; maintenance costs - 30+ years</li> <li>Future renewal &amp; replacement costs - 30+ years</li> </ul>
<b>Plan of Finance:</b> using net revenues and cost estimates from the demand & revenue and engineering reports, develop a preliminary plan of finance
<ul style="list-style-type: none"> <li>Consider various potential business terms</li> <li>Consider enterprise value of port/terminal asset</li> <li>Alternative financing strategies may be necessary to meet investor, creditor, and rating agency thresholds</li> </ul>

it is important for a port and its advisors to be involved in the process of developing and reviewing these projections/reports with an emphasis on credit standards in order to ensure that access to financial markets and partners is achievable for the project.

The feasibility screening tasks outlined in Exhibit 3.2 are overlapping and iterative as capital cost, demand & revenue, and operating & maintenance assumptions as well as market conditions inevitably change. The output from this feasibility assessment can be used to determine if a port should proceed with the project as planned, modify the project requirements to meet market demand and cost limitations, or to discontinue the project altogether.

### 3.3. Risk Analysis

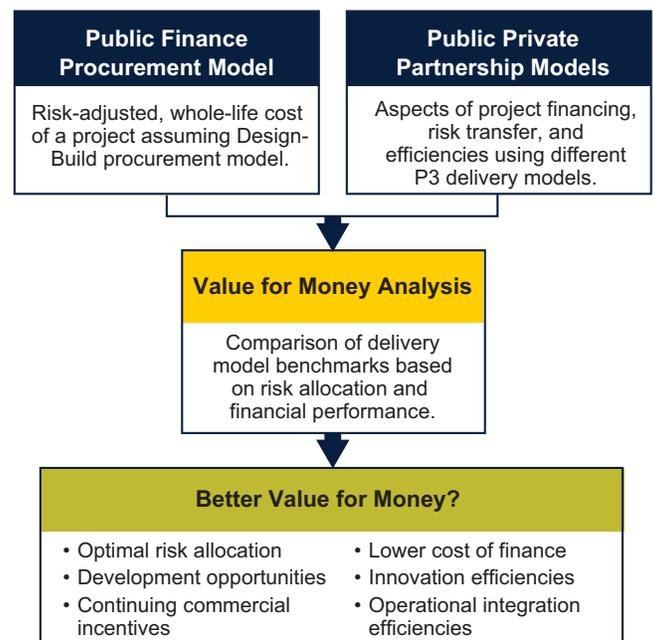
The port and other project team members should develop and evaluate risk factors that could impact the viability of the project. Key inputs to the development of the financing options will be the results of the demand & revenue forecasts, operations & maintenance costing effort, definition of project construction schedules and annual costs and renewal and replacement needs. As such, these inputs should be evaluated to determine potential deviations from estimates. The major elements of this phase of work effort include:

- Define project financing risks and evaluation criteria/measures in order to craft and assess the impact to financial scenarios
- Use risk adjusted demand & revenue forecasts, operations & maintenance cost estimates and construction cost/implementation schedules to test and refine alternative financing strategies
- Identify stress points in the project pro forma cash flow due to the sensitivity analysis
- Develop credit rating and investor risk mitigation strategies and incorporate the same into the plan of finance
- Identify a short list of mitigating financial strategies with key decision makers and project team members

For smaller capital improvement program financings that fit within a port's overall system financing structure, risk analysis may be limited if system net revenues are clearly sufficient to support additional debt service requirements. That is, the risk analysis may be limited to system wide strains on net revenues or an evaluation of how present day financing fits into the system plan of finance if future capital needs are on the horizon, all of which can be analyzed via a port system cash flow model approach. Alternatively for large project developments, all risk assessments and sensitivity scenarios should be evaluated primarily through a project finance model. Many infrastructure investors advocate Value for Money ("VfM") analysis to evaluate project risks, and VfM is used in USDOT major project financial plans. VfM "prices" risk by producing a discounted net present value amount that represents the aggregate impact of the various sensitivities. An assessment of VfM for P3 procurements is a comparative concept, and as such most delivery agencies seek to use a "public sector comparator" approach to evaluating VfM, as shown in Exhibit 3.3.



Exhibit 3.3 Value for Money Public Comparator Approach





While Vfm has its uses for high-level comparative analysis, some market participants believe this methodology has shortcomings when applied to non-recourse project revenue financing. Different risks manifest themselves in different ways depending upon the timing and type of risk as well as the structure of the financial plan. For example, construction risk could result in additional public funds being needed for project completion. Mitigation factors include design-build contracts with fixed prices and liquidated damages for late completion as well as capital cost contingencies and capitalized interest. As a different example, demand & revenue risk would manifest itself as a long term cash flow problem that in true non-recourse financing would be borne by debt holders and not the port. Mitigation factors built into the financial structure for the benefit of debt holders include debt service coverage ratios and various project reserves. A net present value risk analysis does not capture these various nuances. Thus, a project finance modelling approach to risk assessment, which includes debt service coverage levels, reserves, liquidity and other financial targets, may provide a more accurate picture of the year by year potential risk impacts and shows which project stakeholder bears the risk at the various stressed points in the project life cycle.

### 3.4. Outstanding Debt Considerations

Due diligence should be undertaken to understand the nuances of a port's outstanding debt to determine how existing capital structures might impact future investment decisions. For ongoing capital improvement program financings that fit within the context of a port's system capital structure, care must be taken such that investment/financing decisions do not result in breaking through the floors of both bond indenture debt service coverage thresholds as well as rating agency debt service coverage ratio ranges, as relevant. Separately for project finance/P3 undertakings, certain P3 / concession capital investment structures may, for example, require the defeasance of pre-existing debt, and the economics of any such defeasance must be factored into the overall project evaluation. Two key steps are to figure out 1) which of the port's outstanding debt issues should be allocated to which terminal facility, and 2) the cost to defease/terminate this debt and any related interest rate swaps assuming such debt is allocated to the terminal facilities upon which the proposed project will be developed. Outstanding debt that was issued directly for the subject terminal facilities, as well as debt that was partially/indirectly used for the subject terminal facilities, needs to be examined.

Other potential considerations pertain to the ability of a port to issue subordinate debt under an existing bond indenture, or the ability to include additive project net revenues when determining additional bond test thresholds upon the issuance of new project debt secured by port system net revenues. While some ports already have bond indentures structured to accommodate subordinated liens and projected revenues, other ports rely on more limiting bonding parameters in their indentures. Depending on the circumstances, there may be methods to restructure existing bond indentures without harming existing debt holders or jeopardizing credit ratings, including "closing" an existing senior lien indenture and creating a new subordinate lien indenture as the functional indenture going forward, with effective second and third liens. Careful consideration must be made regarding potential impacts to credit ratings and future borrowing capacity.

## 4. Credit/Debt Profile

### 4.1. Credit Overview

Creditworthiness, and thus financial viability, underpins all capital investment decisions, and so ports must develop a thorough understanding of their creditworthiness and traditional debt programs. Traditional debt programs are often the easiest and least expensive to implement, and therefore they should not be overlooked while also considering new project delivery techniques.

Understanding the credit rating process and potential impacts related to any specific project under consideration for capital investment is a key step for two different but important reasons. First, the due diligence and credit profile is utilized to help assess the attractiveness of the project for outside investment. Is the project creditworthy as a stand-alone enterprise outside of a “system” financing? Second, it is critical to determine the impact, if any, on the port’s existing credit ratings. Capital markets financing and P3s can have unintended consequences to a port’s financial operations if not properly structured. As such, analyzing and comprehending the port’s credit/debt profile must be completed with a broad perspective.

### 4.2. Credit Elements of Project Finance

Project finance credits in the transportation sector can require analysis of complex data and project structures. Further, the characteristics of project creditworthiness vary across delivery methods and sub-sectors such as ports. Generally, project finance attributes include the following:

- Non-recourse debt – debt holders cannot look to the general obligation or full faith & credit of the public project sponsor
- Capital financing is secured by project operating revenues
- Construction risk is incorporated into the financing credit
- Operations & maintenance risk is incorporated into the financing credit
- Financial plans typically incorporate a full lifecycle cash flow analysis
- Credit ratings are typically lower due to construction risk, long-term revenue uncertainty, and long-term operating & maintenance cost uncertainty
- More complex & innovative contracting
- More complex & innovative debt structures

Inherent in project finance structures is the notion that a new project will be constructed, and if the construction contracting method chosen involves a third party, such as via a design-build contract, then related considerations and analysis include:

- Detailed description of the contractor’s qualifications and the construction contract terms - The contract discussion should include the price, risks shifted to the contractor, schedule, performance & payment bond requirements and providers, liquidated damages and how those are sized, any warranty period or other terms that the general engineering consultant views as important.



Elements of Credit
<b>Socio-Economic Need</b>
Safety
Environment
Economic development
<b>Economically Justified</b>
Efficient transportation
Generates revenues
Connecting key business/trade regions
<b>Revenue Study</b>
Economic forecast
Demand forecast
Independent and credible
Bond offering disclosure
<b>Construction &amp; Operating Issues</b>
Construction and O&M cost risk
Lump sum/fixed price contracts
Financial strength/performance of construction team
<b>Risk Management Plan</b>
Environmental mitigation
Construction completion
Surety bonds & insurance
<b>Public Support &amp; Public Interest</b>
State and local political support
Federal agencies
Public equity/funding for EIS, design and engineering

- Description and estimate of any port project costs that are outside of the design-build contract such as land purchases or construction management.
- Risk estimates for all port costs and any design-build / concession contract risks assumed by the port - The engineering report should describe these risks and provide both cost and time potential impacts. Following these risks, mitigation measures need to be detailed. Examples of mitigation measures include: contingency funds built into the contract, owner’s provided insurance, capitalized interest beyond construction completion to absorb delays, among other measures.
- A contractor replacement analysis should the contractor go bankrupt - This analysis should show how much incremental time and money would it take to complete the project, net of any payments made by bond providers. A description of how the port would cover these costs is also necessary.

More broadly, elements and sub-elements of credit to consider when evaluating project viability include, but are not limited to, those shown in Exhibit 4.2.

### 4.3. Port Credit Attributes

In addition to general project finance credit elements, port financing approaches, including for both project finance/P3s and ongoing capital

improvement program financings, entail market specific credit criteria for repayment quality. Included below is a brief review of the credit attributes considered important by market analysts. Each of the rating agencies uses their own specific qualitative and quantitative factors in reviewing port credit attributes. The focus below is on port operating revenue attributes, but certainly the introduction of state or local tax-backed sources would change the credit profile somewhat, potentially in a positive way.

#### Market Position

**Competitive dynamics:** Since many ports are engaged in multiple lines of business - containerized, breakbulk or bulk cargo operations; passenger cruise activity; or real estate development - the competitive dynamics of each sub-market must be understood, including the degree of competition from other ports.

**Location and local economy:** Location affects travel time to and from major trade partners, transportation links to inland markets, and local demand for port import products and supply of export products.

**Importers and distribution centers:** Port of entry or exit is increasingly tied to a port’s relationship with importers and its proximity to major distribution centers.

**Measuring demand:** Certain key demand measures and trends include market share, market size, share of discretionary cargo (cargo that is destined for or originates from outside of the port’s Metropolitan Statistical Area), the balance of trade (the ratio of volume of imports to exports), cargo volume (as measured most commonly by twenty-foot- equivalent units, or TEUs), cargo tonnage, and cruise activity.

## Structural and Operational Factors

**Governance structure:** A port's ruling body might be a local or state government, or an independent board. The governance structure may determine if a port must compete with other public entities for public funds, divert port revenues to support non-port operations, and the type of debt a port can issue. Ports may also be operated by a private concessionaire under a long-term agreement with a state or local government.

**Scope and nature of operations:** Considerations for an authority managing multiple business lines include the mix of revenues pledged to the system's debt, and the extent the port operation makes a net revenue contribution to or receives an operating or capital subsidy from the authority's other business lines.

**Operating structure:** There are two basic types of port operating structures: (1) Landlord ports - leased to a private operator, and lease payments are usually based upon a minimum annual guaranteed payment and an amount tied to cargo volumes; and (2) Operator ports - facilities are used on a common carrier basis with the port controlling use of the facilities, and performance is dependent upon cargo volume.

**Facilities, capacity, and transportation infrastructure:** Key factors include (a) depth of main access channel, turning basin, and berths, (b) number and type of cranes, (c) wharfage and dockside facilities, (d) presence of on-dock or near-dock rail facilities, (e) terminal capacity, (f) railroads serving the port, (g) proximity to highway network, and (h) availability of land for storage and expansion.

**Cargo mix:** Diversity in cargo operations generally will have a positive effect on a port's overall credit profile.

**Major trading partners:** The strength and growth prospects for a port's trading partners, including trade route distribution, are an important factor in credit evaluation.

**Major shipping lines and alliances:** A factor in the analysis of ports is the diversity and financial strength of the shipping lines calling at a port. Shipping alliances add another layer of uncertainty for ports - as partners realign, they may radically change the amount of cargo shipped through a port in a relatively short period of time.

**Labor relations and productivity:** Successful ports have the advantage of well-managed labor relations and above-average productivity, including the use of new technology to gain efficiencies.

## Financial Factors

**Financial performance:** Key financial factors include revenue stability, revenue diversity, debt service coverage, and expense drivers.

**Balanced operations:** The ability to achieve a balanced bottom line to mitigate variable operating performance is important for the long-run financial health of all ports and becomes critical for those that do not have significant financial reserves.

**Operating and non-operating revenues:** An important consideration is the extent to which a port relies on operating revenues and non-operating revenues, such as



federal grants, state funding sources, or local tax support to cover operating and capital expenditures.

**Revenue stability:** Minimum annual guaranteed payments required by contracts with the port's customers can help insulate a port's financial operations from cargo fluctuations.

**Revenue diversity:** Ports with greater revenue diversity are often financially stronger because of the stability that multiple revenue sources provide. Diversity of revenue stream by business line, such as cargo, cruise, and real estate, and by revenue type, such as wharfage, dockage and lease revenue, determine a port's reliance on any particular income source.

**Debt service coverage:** Debt service coverage calculations measure a port's ability to repay the principal and interest on its debt from net revenues.

**Expense drivers:** Primary port expenses include salaries, administration, security, and cost of operating and maintaining facilities.

### Debt Position and Capital Plan

**Debt levels:** An analysis of the relative leverage of a port's assets or revenues can reveal vulnerabilities to debt service coverage over the life of the bonds.

**Capital and financing plans:** Analysis of a port's credit quality includes a review of the strategic and economic rationale of the capital program, its underlying assumptions relating to market development and cargo growth, and the effect that the program is likely to have on a port's financial and debt position.

**Debt security:** Debt security considerations include the type of pledge (gross revenue or net revenue), the type of revenues pledged (port revenues, tax revenues, lease payments, etc.), availability of other resources (debt service reserve funds and operating and maintenance reserves), and the strength of the bond covenants (rate covenant and additional bonds test, etc.).

**Debt structure:** Debt structure considerations include the mix of variable and fixed-rate debt, whether debt service is level, accelerated or deferred, and whether or not there are any interest rate swap agreements.

### Management and Business Strategy

**Responses to industry risks:** In assessing port management's ability to respond to a variety of risks and opportunities, key indicators include a coherent long-range strategic plan, clearly articulated debt and investment management policies, past record of successfully dealing with industry volatility, and the ability to achieve favorable results such as balanced operations.

**Budgeting practices:** Assessment of budgeting practices includes reviewing a port's method of budgeting and of monitoring the budget to determine whether sufficient flexibility and controls are in place to prevent surprises.



## 4.4. Rating Agency Considerations

Underlying credit ratings are of paramount importance to bond investors, particularly given that bond insurance is currently less widely used to back-stop port bond issues. The rating agencies change their guidance from time to time and it is important to understand how the changes will affect a port's credit rating. Ports need to understand how each rating agency analyzes their credit – while the rating agencies look at similar fundamentals, each agency can have a slightly different view and analytical approach. Additionally, rating agency annual surveillance is an important process in the bond market to ensure ongoing credit transparency.

It is important for project sponsors and/or their advisors to be familiar with rating agency requirements (Exhibit 4.4). Regular discussion regarding credit trends with senior transportation/port analysts at S&P, Moody's and Fitch is imperative to positive credit rating outcomes.

Rating agency outreach efforts can be accomplished through the preparation of presentation materials that provide a comprehensive assessment of key credit strengths such as essentiality and strong economic rate making ability, cargo/passenger demand, financial operations and management, debt service coverage and liquidity, efforts to improve capital assets and serve customer needs as well as initiatives to mitigate and manage risks namely cost containment measures and steps to address the effects of slow economic recovery cycles. Participation in rating meetings and periodic update calls is essential to ensure the rating agencies have a clear understanding of a given port/project.

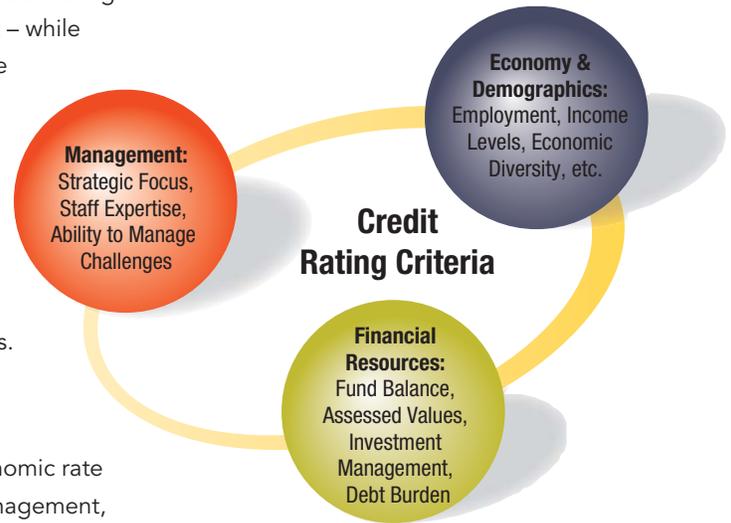
A program of regular communication with the rating agencies is imperative in order to define the rating strategy, prepare relevant presentation materials and participate in meetings with analysts to keep them up to date and address their concerns. Such regular dialog means the port can anticipate and proactively respond to issues to avoid their manifestation into a negative rating action. Similarly, regular dialog about the port's plans and commitments to operate and maintain its infrastructure in a state of good repair, address growing transportation needs and ensure bondholder protection will help reinforce efforts to secure improved ratings.

As part of this effort, stress tests should be conducted consistent with rating agency guidelines to assess the flexibility of the financial strategy to address downside risks. Potential stresses that could be tested include the impacts of cargo declines consistent with recessionary periods, increases in capital plan costs, increases to future financing costs, operating expenses, etc. Based on the results of alternative stress scenarios, potential mitigation strategies can be identified that can be used to demonstrate to the rating agencies the port's wherewithal to address such challenges.

Additional information from the rating agencies can be found on their websites:

- [www.fitchratings.com](http://www.fitchratings.com)
- [www.moody.com](http://www.moody.com)
- [www.standardandpoors.com](http://www.standardandpoors.com)

Exhibit 4.4 Credit Rating Criteria



## 4.5. Debt Profile

A port's debt profile is an important investment / credit consideration as it may determine the ability to use debt to finance infrastructure projects, and also serves as a key component in any repayment analysis. As an example, for an on-balance sheet system financing, existing debt and debt structures may limit additional debt capacity for a project. For an off-balance sheet privately secured financing, the structure of the debt can determine its attractiveness to third party investors. Investors, creditors, and rating agencies may view debt profiles from different vantage points, however the underlying question to be answered - i.e. what is the probability that the capital provider will be fully repaid on time? - remains the same across capital markets participants. Some key features of debt instruments that compose debt portfolios are listed in Exhibit 4.5.1.

Exhibit 4.5.1

Key Features of Debt Instruments
Security for Debt - tax-backed, net operating revenue, lease revenue, etc.
Bond Indenture flow of funds - senior and subordinate repayment structures
Rate Covenant and Additional Bonds Test - debt service coverage levels
Credit Rating
Type of Debt - public, private, government program

In order for ports to attract outside investment, they must maintain constant dialogue with investors, creditors and rating agencies and present clear, concise information on port capital structure. A debt profile summary can be utilized which is a detailed description of an issuer's overall debt portfolio and

credit profile that is updated as changes in capital structure occur. A debt profile summary typically includes all of the relevant information about an issuer's debt including current ratings, debt service graphics, debt service coverage and eligibility for refunding. Exhibit 4.5.2 shows example debt profile components/outputs.



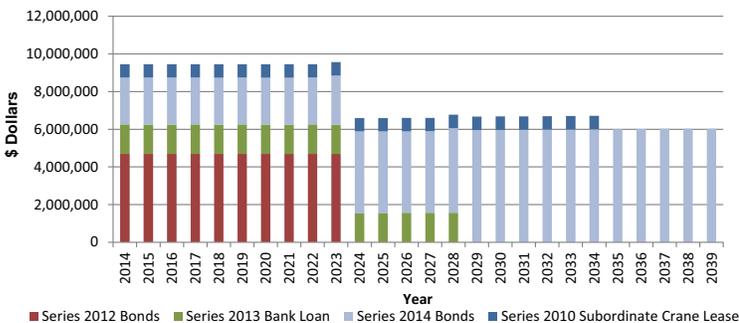
Exhibit 4.5.2 Debt Profile Summary

Year	Series 2012 Bonds			Series 2013 Bank Loan			Series 2014 Bonds			Total Senior Lien Debt Service
	Principal	Interest	Debt Service	Principal	Interest	Debt Service	Principal	Interest	Debt Service	
2014	\$ 3,490,000	\$ 1,200,000	\$ 4,690,000	\$ 935,000	\$ 630,000	\$ 1,565,000	\$ -	\$ 2,490,000	\$ 2,490,000	\$ 8,745,000
2015	3,595,000	1,095,300	4,690,300	965,000	597,275	1,562,275	-	2,490,000	2,490,000	8,742,575
2016	3,700,000	987,450	4,687,450	1,000,000	563,500	1,563,500	-	2,490,000	2,490,000	8,740,950
2017	3,815,000	876,450	4,691,450	1,035,000	528,500	1,563,500	-	2,490,000	2,490,000	8,744,950
2018	3,925,000	762,000	4,687,000	1,070,000	492,275	1,562,275	-	2,490,000	2,490,000	8,739,275
2019	4,045,000	644,250	4,689,250	1,110,000	454,825	1,564,825	-	2,490,000	2,490,000	8,744,075
2020	4,165,000	522,900	4,687,900	1,145,000	415,975	1,560,975	-	2,490,000	2,490,000	8,738,875
2021	4,290,000	397,950	4,687,950	1,185,000	375,900	1,560,900	-	2,490,000	2,490,000	8,738,850
2022	4,420,000	269,250	4,689,250	1,230,000	334,425	1,564,425	-	2,490,000	2,490,000	8,743,675
2023	4,555,000	136,650	4,691,650	1,270,000	291,375	1,561,375	105,000	2,490,000	2,595,000	8,848,025
2024	-	-	-	1,315,000	246,925	1,561,925	1,830,000	2,490,000	4,320,000	5,881,925
2025	-	-	-	1,360,000	200,900	1,560,900	1,905,000	2,417,168	4,322,168	5,883,068
2026	-	-	-	1,410,000	153,300	1,563,300	1,980,000	2,341,223	4,321,223	5,884,523
2027	-	-	-	1,460,000	103,950	1,563,950	2,065,000	2,262,165	4,327,165	5,891,115
2028	-	-	-	1,510,000	52,850	1,562,850	2,315,000	2,179,995	4,494,995	6,057,845
2029	-	-	-	-	-	-	3,865,000	2,094,298	5,959,298	5,959,298
2030	-	-	-	-	-	-	4,025,000	1,940,125	5,965,125	5,965,125
2031	-	-	-	-	-	-	4,195,000	1,779,728	5,974,728	5,974,728
2032	-	-	-	-	-	-	4,370,000	1,612,690	5,982,690	5,982,690
2033	-	-	-	-	-	-	4,550,000	1,438,598	5,988,598	5,988,598
2034	-	-	-	-	-	-	4,740,000	1,257,243	5,997,243	5,997,243
2035	-	-	-	-	-	-	4,935,000	1,068,418	6,003,418	6,003,418
2036	-	-	-	-	-	-	5,140,000	871,708	6,011,708	6,011,708
2037	-	-	-	-	-	-	5,355,000	666,905	6,021,905	6,021,905
2038	-	-	-	-	-	-	5,575,000	453,595	6,028,595	6,028,595
2039	-	-	-	-	-	-	5,790,000	240,285	6,030,285	6,030,285
Total	\$ 40,000,000	\$ 6,892,200	\$ 46,892,200	\$ 18,000,000	\$ 5,441,975	\$ 23,441,975	\$ 62,740,000	\$ 50,014,140	\$ 112,754,140	\$ 183,088,315

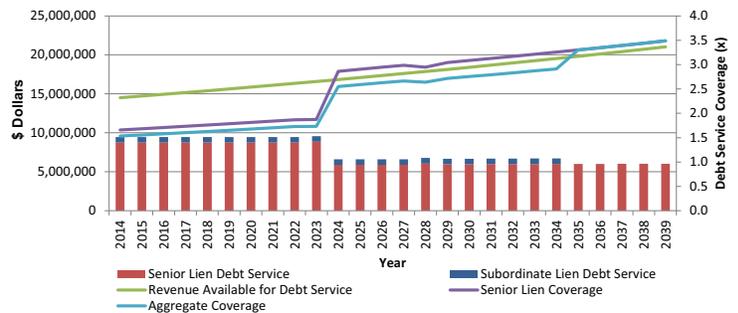
Series 2010 Subordinate Crane Lease			Subordinate Lien Debt Service	Aggregate Debt Service	Revenue Available for Debt Service	Senior Lien Coverage	Aggregate Coverage
Principal	Interest	Debt Service					
\$ 312,801	\$ 400,000	\$ 712,801	\$ 712,801	\$ 9,457,801	\$ 14,500,000	1.66x	1.53x
325,313	387,488	712,801	712,801	9,455,376	14,717,500	1.68x	1.56x
338,326	374,475	712,801	712,801	9,453,751	14,938,263	1.71x	1.58x
351,859	360,942	712,801	712,801	9,457,751	15,162,336	1.73x	1.60x
365,933	346,868	712,801	712,801	9,452,076	15,389,771	1.76x	1.63x
380,570	332,231	712,801	712,801	9,456,876	15,620,618	1.79x	1.65x
395,793	317,008	712,801	712,801	9,451,676	15,854,927	1.81x	1.68x
411,625	301,176	712,801	712,801	9,451,651	16,092,751	1.84x	1.70x
428,090	284,711	712,801	712,801	9,456,476	16,334,143	1.87x	1.73x
445,213	267,588	712,801	712,801	9,560,826	16,579,155	1.87x	1.73x
463,022	249,779	712,801	712,801	6,594,726	16,827,842	2.86x	2.55x
481,543	231,258	712,801	712,801	6,595,869	17,080,260	2.90x	2.59x
500,805	211,996	712,801	712,801	6,597,324	17,336,463	2.95x	2.63x
520,837	191,964	712,801	712,801	6,603,916	17,596,510	2.99x	2.66x
541,670	171,131	712,801	712,801	6,770,646	17,860,458	2.95x	2.64x
563,337	149,464	712,801	712,801	6,672,099	18,128,365	3.04x	2.72x
585,871	126,931	712,801	712,801	6,677,926	18,400,290	3.08x	2.76x
609,305	103,496	712,801	712,801	6,687,529	18,676,295	3.13x	2.79x
633,678	79,124	712,801	712,801	6,695,491	18,956,439	3.17x	2.83x
659,025	53,776	712,801	712,801	6,701,399	19,240,786	3.21x	2.87x
685,386	27,415	712,801	712,801	6,710,044	19,529,398	3.26x	2.91x
-	-	-	-	6,003,418	19,822,339	3.30x	3.30x
-	-	-	-	6,011,708	20,119,674	3.35x	3.35x
-	-	-	-	6,021,905	20,421,469	3.39x	3.39x
-	-	-	-	6,028,595	20,727,791	3.44x	3.44x
-	-	-	-	6,030,285	21,038,708	3.49x	3.49x
\$ 10,000,000	\$ 4,968,822	\$ 14,968,822	\$ 14,968,822	\$ 198,057,137			

Credit Ratings	
Moody's	A1 (stable)
S&P	A+ (stable)
Fitch	A+ (stable)

Outstanding Debt Service



Debt Service Coverage



## 5. Identify Structural Alternatives

### 5.1. Structural Alternatives Overview



Ports need a process to develop a range of structural alternatives to consider before determining the most appropriate structure to move a project forward. Project stakeholders must qualitatively evaluate the advantages and disadvantages of public, hybrid, and P3 operating and financial alternatives as it relates to the port and the project. Some alternatives may prove to be unfeasible or undesirable and would thus be eliminated from further consideration. For example, a port may be interested in availability payment P3s, but if the port doesn't have significant non-operating revenues to make those payments and/or its revenues are already pledged to outstanding indebtedness, then an availability payment structure does not make sense. Thus, a framework is needed for a qualitative analysis of financing structures. The results of a structural alternatives analysis should enable a port to understand the detailed advantages and disadvantages of various financing alternatives before choosing a particular path. One of the more important aspects of investment decisions is to realize that certain finance approaches may not be in the best interest of the port.

### 5.2. Port Business Models

Project development and P3s should be considered strategically within the range of capital alternatives available to ports. U.S. ports have traditionally used capital financing approaches that have corresponded to a variety of operating models. Each financing approach and operating model have associated attributes with respect to key factors such as management control, types of contracts/lease agreements, facilities financed, type of and security for debt, tax status and debt

terms. Each approach can be implemented successfully, and the approach used depends in part on management's preferences and public support. Exhibit 5.2 outlines four approaches most often seen in use today. The private concession/equity approach has received much attention in recent years, spurred on by private equity funds aggressively seeking infrastructure investment alternatives. The P3/long-term landlord approach is a hybrid model involving a long-term single tenant operating and lease agreement, but without the effective transfer of ownership. One of these two models might be the basis for a port's consideration of a new P3 transaction and would help

Exhibit 5.2 Port Operating Models

Financing Approach:	Public Agency Tax -Backed	Public Agency Operating Revenues	Public Private Partnership	Private Concession
<b>Operating Model:</b>	Public Operator	Public Operator/ Landlord	Long Term Landlord	Passive Landlord
<b>Primary Management Control:</b>	Public	Public	Public-Private	Private
<b>Typical Contracts &amp; Lease Agreement:</b>	N/A for Grants & Tax Revenues	Multiple Tenants; Variable Contracts Discretionary Terms	Single Tenant; Long Term Must Cover Debt	Single Tenant; Longest Term to Cover Debt & Equity Return
<b>Typical Facilities Financed:</b>	Public Use; Infrastructure such as Roads and Dredging	Private Activity; Docks, Wharves, Cranes, Warehouses, Buildings, etc.	Private Activity; Docks, Wharves, Cranes, Warehouses, Buildings, etc.	Private Activity; Docks, Wharves, Cranes, Warehouses, Buildings, etc.
<b>Sources of Revenues and Security for Debt:</b>	Grants, Gov't Transfers, Taxes	Tariffs, Throughput Fees, Security Fees, Facility Lease Revenue, etc.	Corporate Rental Minimum Guarantee & Throughput Fees	Tariffs/Lease Revenue, etc. Received by Private Concessionaire
<b>Type of Debt:</b>	Agency Revenue Bonds	Agency Revenue Bonds	Agency Special Purpose Conduit Bonds	Corporate Debt & Private Equity
<b>Tax Status/Term:</b>	Gov't Purpose & AMT Tax-Exempt 10-30 years	Gov't Purpose & AMT Tax-Exempt 10-30 years	AMT Tax-Exempt 20-40 years	Taxable Debt 50-99 years
<b>Primary Private Partners:</b>	Shipping Company, Railroads, Private Haulers/Trucks	Shipping Company, Railroads, Private Haulers/Trucks, Terminal Operator	Terminal Operator/ Corporate Guarantor (likely operator parent and/or shipping co.)	Private Equity Concessionaire

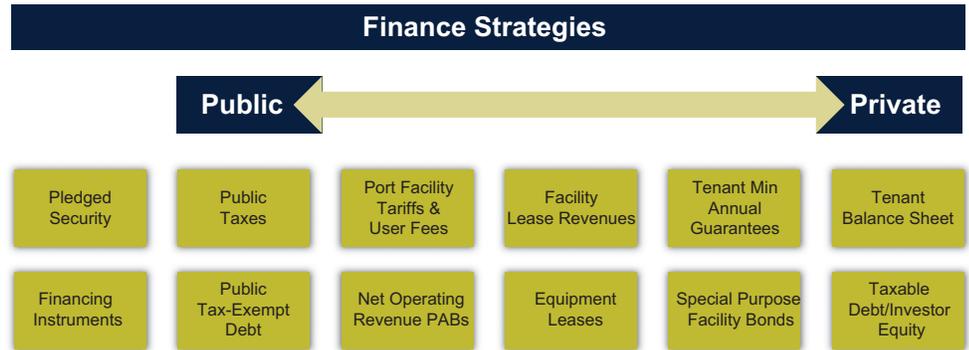
define any negotiation, however, public alternatives should also be evaluated and can provide a comparison by which to measure the P3 alternatives.

In practice, the approaches outlined in Exhibit 5.2 are often used simultaneously for different terminals and different projects by the same governmental port agency. For the port as a whole, there is nothing mutually exclusive about these approaches. Ports can successfully use multiple approaches at once within the entirety of a system of port infrastructure. Port management must strategically decide how broad or narrow its financing approach might be, in particular in the context of both future expansion as well as ongoing capital improvement program needs.

### 5.3. Port Finance Alternatives

Many U.S. ports issue non-recourse net operating revenue supported debt, typically on a “system” approach as opposed to a single project. Compared to P3 concession debt structures, public ports have typically used very conservative debt practices. Many U.S. ports utilize a variety of tenant lease & use agreements by which private partners might construct, finance and/or operate facilities – the related revenues support various types of debt. Exhibit 5.3 shows the range of financing strategies employed by ports, from public to private financing, with various security pledges and financing instruments.

Exhibit 5.3 Port Finance Strategies



### 5.4. Private Activity Bond Features

Private Activity Bonds (“PABs”) are securities issued by or on behalf of a government agency to provide debt financing for projects used most often for a private purpose. Because of the public purpose, Federal tax law provides that most port capital infrastructure is exempt facilities under the code. The use of PABs typically results in reduced financing costs versus conventional private bank financing since interest on the bonds is not subject to federal income taxes (unless more than 10% of the bond proceeds are designated for private use). PABs are typically payable from payments made by the private user of the property financed, although the bond security structure can vary widely. They can be structured and implemented for both traditionally financed port projects as well as projects involving P3 finance strategies.

### 5.5. Commercial Bank Financings

Historically, commercial banks participating in the public finance markets would provide small, general obligation bond financings for “bank qualified issuers” (less than \$10 million of debt in any given calendar year). As the marketplace has changed and as their balance sheets have expanded, banks have begun developing long-term financing tools for larger and larger financings, across a spectrum of security structures. Ports now have greater opportunity to implement bank loan financings at potentially attractive rates with flexible terms and prepayment provisions.

Generally, smaller sized financings with shorter term lengths (15 years or less) are often more efficient when issued as a bank loan, relative to a publicly offered bond

issue, due to lower costs of issuance, fewer disclosure requirements and the ability to be issued in a shorter timeframe. Further, some banks may be willing to take on larger financings in excess of \$100 million at more attractive terms than can be achieved via the public bond market.

When a port considers an upcoming financing need, an analysis should be completed as to whether a publically offered financing or a privately placed bank loan would be more efficient. The port and its advisors should take all factors of the financing into consideration (term, size, principal structure, credit, and market conditions) and summarize the financing alternatives including expectations of what structure and terms could likely be achieved in the current market, as well as a discussion of the pros and cons of each alternative. Exhibit 5.5 provides a brief summary of some of the pros and cons to consider when analyzing a bank loan financing.

Exhibit 5.5 Bank Loan Pros and Cons

Pros	Cons
<ul style="list-style-type: none"> <li>• Does not require transaction be rated or insured</li> <li>• No offering documents or registration required</li> <li>• Banks usually do not require a Debt Service Reserve Fund</li> <li>• Disclosure usually limited to receipt of CAFR and budget (no official statement)</li> <li>• Minimal cost of issuance</li> </ul>	<ul style="list-style-type: none"> <li>• Most banks prefer financings with a term of 10 years or less; some will allow terms up to 15-20 years</li> <li>• Risk of future tax law changes retained by the issuer. Bank loans usually contain interest rate “gross up” language, providing the bank the right to increase the loan rate should tax law changes negatively impact the bank’s after tax yield</li> <li>• Term limited to 20 years and some banks will not provide a fixed rate for the entire term. Instead, the bank would have a “put” option during the term of the loan (e.g. 5, 10, or 15 years). This allows the bank the option to “put” the loan back to the issuer and force them to refinance at current market rates</li> </ul>

## 5.6. Port Project Finance Bond Alternatives

Aside from tax-backed bonds, there are four main security structures that a public port can use to issue debt, either as part of its system of port facilities and/or in a long term lease/P3 scenario:

- Port Net Operating Revenue Bonds
- Port Asset Backed Debt
- Port Special Purpose Facility Bonds, backed by lessee/concessionaire revenue and parent guarantee
- Port Special Purpose Facility Bonds, backed by the net operating revenue of a single terminal concession, i.e. apart from the port’s “system” net operating revenue

The chosen debt security structure is port and project specific, taking into consideration the unique operating and business characteristics of any given port and project.

## 5.7. Port “System” Net Operating Revenue Bonds

**Security for Debt:** Port system net operating revenue, with a Minimum Annual Guaranty and/or revenue sharing from the long-term lease counted as part of the port’s operating revenue.

**Bond Indenture:** Secures revenues for benefit of debt holders. Flow of funds (Exhibit 5.7) specifies the priority of payments for secured revenues; typically

includes provisions for operating expenses, debt service and reserves, renewal & replacement funds, and any lawful purpose. Issuer covenants specified, including:

- *Rate Covenant:* 1.20x-1.50x senior lien debt service coverage, 1.10x-1.25x aggregate debt service coverage.
- *Additional Bonds Test:* 1.25x-1.50x senior lien debt service coverage, 1.10x-1.25x aggregate debt service coverage on a historical and/or projected basis.

**Credit Rating:** Depends on various factors analyzed by the rating agencies including, but not limited to: size, cargo diversification, trade lanes, demand and revenue, ongoing capital improvement requirements, debt structure and debt service levels.

- U.S. port credit ratings are typically in the range from AA to high BBB, with the majority in the A category.

**Type of Debt:** Includes publicly issued bonds, private placements, and government loan programs; with fixed and variable interest rates.

### 5.8. Port Asset Backed Debt

**Security for Debt:** Port system net operating revenue, with a Minimum Annual Guaranty and/or revenue sharing from the long-term lease counted as part of the port's operating revenue.

**Bond Indenture:** Asset-backed debt typically categorized as subordinate debt in the flow of funds (Exhibit 5.8). Subordination of debt accomplished via additional hard asset security such as a crane lease or property mortgage.

- Rate Covenant and Additional Bonds Test the same as in the master indenture (see prior section).

**Credit Rating:** Given the subordinated repayment position in the flow of funds, credit ratings assigned to such debt are generally at least one notch lower relative to the senior lien debt.

- Due to asset backing, lease transactions are often privately placed and thus unrated.

**Term of Debt:** Dependent on life of asset.

- *Crane Lease:* 15-20 years committed funding; 30 year amortization.
- *Property mortgage:* up to 30 years.

**Type of Debt:** Includes publicly issued bonds, private placements, lease financing, and government loan programs (e.g. State Infrastructure Bank loans); with fixed and variable interest rates.

### 5.9. Port Special Purpose Bonds – Lessee Guarantee

**Security for Debt:** Payments of special purpose rent received by the port or the trustee pursuant to an agreement with lessee/concessionaire. Rent/lease payments supported by a corporate guaranty. Additional bond security can be provided with a Letter of Credit backed by lessee/concessionaire corporate guaranty (see Exhibit 5.9).

Exhibit 5.7 Senior Lien

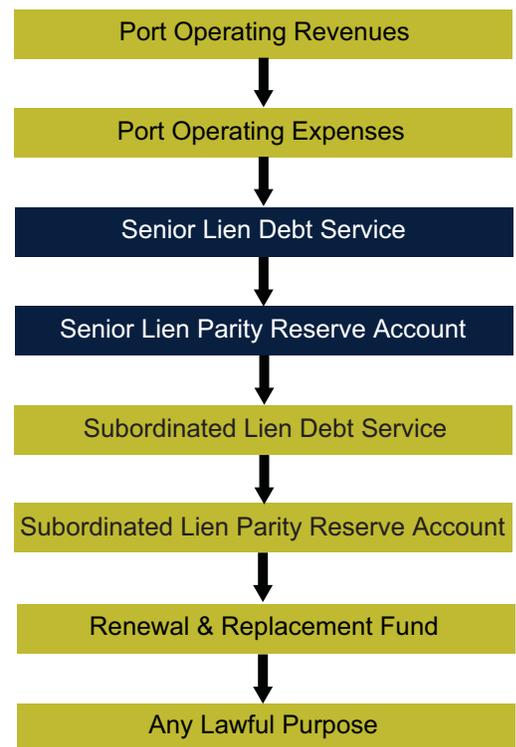
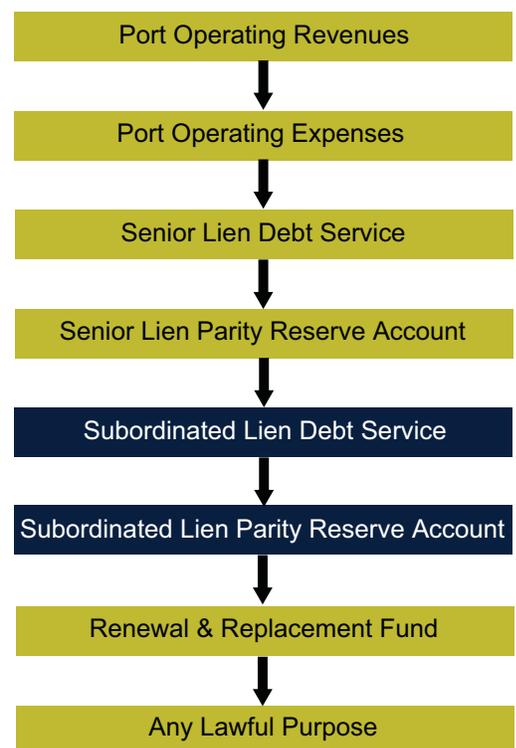
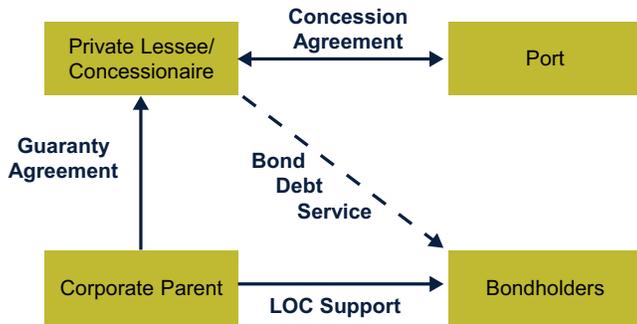


Exhibit 5.8 Subordinate Lien



**Bond Indenture:** Secures lease/concession rent/lease payments for benefit of debt holders. Overarching feature from port's perspective is off-balance sheet debt which is not additive to the port's system debt.

Exhibit 5.9 Lessee Guarantee



- Covenant requirements vary depending upon strength of credit/guarantee, and may include corporate-style parameters for debt and equity in addition to municipal market debt service coverage covenants.

**Credit Rating:** Dependent upon the financial strength of the corporate guaranty, as well as the financial strength of the Letter of Credit provider.

**Type of Debt:** Includes publicly issued bonds and private placements; with fixed and variable interest rates.

### 5.10. Single Terminal Concession: Stand-alone Special Purpose Bonds

**Security for Debt:** Net operating revenue of a single terminal concession.

**Bond Indenture:** Secures concession revenues for benefit of debt holders and also incorporates rent and revenue sharing payments to the port (see Exhibit 5.10).

Overarching feature from port's perspective is off-balance sheet debt.

- Rate covenant and Additional Bonds Test levels typically higher for single terminal net revenue pledge versus port system net revenue pledge (e.g. 1.40x-1.75x senior lien debt service coverage for single terminal pledge).

**Credit Rating:** Ratings depend on the strength of the terminal/concession cash flows and security structure as defined in the financing documents, as well as the terms of the concession agreement. If a single terminal, the size and lack of diversification will likely lead to a BBB rating at best.



**Tax Status of Debt:** Upfront payments not used for eligible facility capital costs could not use Private Activity Bonds and such costs would be funded from taxable debt or equity.

**Equity:** Concession and financing documents would need to provide for distributions to shareholders to pay taxes and provide a return on investment.

### 5.11. Project Revenue Bond Considerations

Project revenue bond structures are unique to the requirements and characteristics of the project being financed. Across revenue bonds, however, a common set of attributes is typically used to structure such bonds in order that such debt both fits issuer parameters and meets marketability requirements for investors/creditors. Exhibit 5.11 lists some bond attributes and strategies frequently found in project financings.



Exhibit 5.10 Payments to Port



Exhibit 5.11

Project Bond Attributes and Strategies	
<b>Security Sources</b>	<ul style="list-style-type: none"> <li>Net Operating Revenues</li> <li>State and Local Taxes</li> <li>Value Capture</li> </ul>
<b>Bond Lien &amp; Structure</b>	<ul style="list-style-type: none"> <li>Senior &amp; Subordinate Debt</li> <li>Diversification of Product</li> <li>Short-Term/Long-Term Mix</li> </ul>
<b>Security Requirements</b>	<ul style="list-style-type: none"> <li>Capitalized Interest</li> <li>Coverage Ratios</li> <li>Reserve Funds</li> </ul>
<b>Issuance Timing</b>	<ul style="list-style-type: none"> <li>Interim Construction Financing</li> <li>Use Public Equity First</li> <li>Bond Best/Highest Rated Credit First</li> </ul>
<b>Credit Enhancement</b>	<ul style="list-style-type: none"> <li>Federal Programs - TIFIA</li> <li>Special tax Supplemental Pledge</li> <li>Bond Insurance/Letter of Credit</li> </ul>
<b>Private Sector Enhancements</b>	<ul style="list-style-type: none"> <li>Deferred Compensation</li> <li>Vendor Concessions/Parking</li> <li>Private Equity</li> </ul>

## 6. Financial Model

### 6.1. Financial Model Overview

This financial modelling module focuses on the components of quality quantitative analyses to support investment decisions and ultimately any capital financing. Using the output and results of all the prior modules, a comprehensive financial model should be developed to evaluate each project and financial alternative of interest to a port. A financial model should be structured to assess the financial impacts of alternative operating, business and financial structures and determine the optimal structure employing Value for Money analyses, as applicable. The financial analysis should incorporate the findings from the credit profile in order to (1) determine the interest rate profile based on current credit spreads, and (2) determine the level of equity and risk a potential private partner could be expected to commit in order to achieve a desired return on investment. The model should be spreadsheet-based and flexible so that risk sensitivities can be evaluated and their impact on outcomes measured.

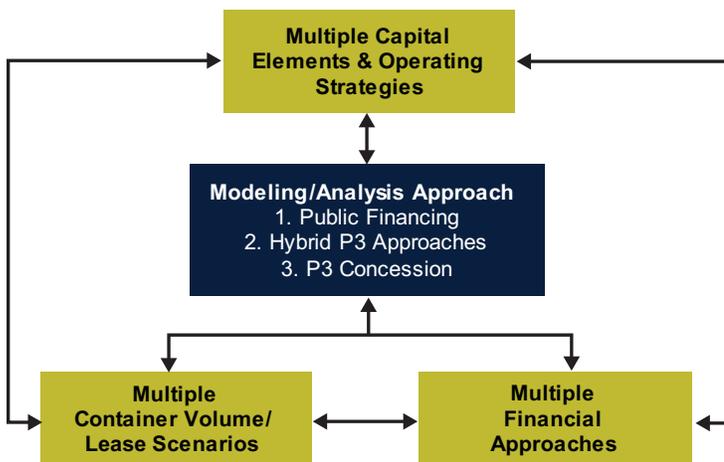


The project financial model should be integrated with a port pro forma cash flow model. The port model should incorporate all projected operating revenues, operating expenses, renewal & rehabilitation, and outstanding debt service. It should have the flexibility to consider incremental revenues, operating & maintenance costs, and debt service associated with the project. Just as important, it should have the flexibility to subtract revenues, expenses, and debt service, as applicable, should the project be pursued as a stand-alone P3 concession. While the economics of a P3 concession or other innovative finance approach may look attractive, the port has to guard against adverse consequences to its ongoing fiscal position. The dual perspective of a system and project model can help to identify such consequences of a project such that a port can adjust its strategy accordingly.

### 6.2. Evaluating Project Finance & Delivery Alternatives

To evaluate project opportunities and financial viability, it is important to identify key project inputs and quantified risk assumptions for projects across various public and P3 delivery alternatives. Thereafter, a detailed project finance & cash flow model (more comprehensive than only using a net present value analysis) can be developed using the approach in Exhibit 6.2 including:

Exhibit 6.2 Modeling Approach



- Multiple types of debt can be incorporated
- More than one security lien can be modelled
- Nuances such as debt service coverage ratios, debt to equity ratios, and reserve/liquidity balances must be maintained
- Risk adjustments can be “stressed” against the base case to determine the severity and/or acceptability of impacts
- Capability to analyze different objectives such as more upfront capital versus increased long-term revenue sharing

As applicable, the model should incorporate various debt financing strategies and products that could be used to make the project financially feasible. Such products might include, but are not limited to, various forms of private activity bonds, leasing programs, tax/fee revenue financing, State Infrastructure Bank loans, Transportation Infrastructure Finance and Innovation Act ("TIFIA") credit, and Railroad Rehabilitation & Improvement Financing ("RRIF") program loans, among others. The use of such strategies should be developed through close communication with port staff and key decision makers to assure that all issues considered important are properly addressed. The goal of the project financial modelling task is to create a sustainable plan of finance that minimizes "public" funding and results in an overall cost of funds that works for the project.

### 6.3. Approach for Development of a Financial Plan

Exhibit 6.3.1

Developing a project financial plan also entails conducting a review of the port's overall financial situation and developing a strategic financial plan related to debt management and infrastructure development, including planning for P3 transactions as needed. A requisite for this task is an understanding of material project finance areas including debt structures and programs, public-private partnerships, and port project development. The plan should be developed through close communication with key port stakeholders to assure that it addresses all issues considered important. Exhibit 6.3.1 provides a general outline for developing a financial plan. This approach will likely build on the port's success in developing prior strategic financial plans. A preliminary list of major topics for the plan include:

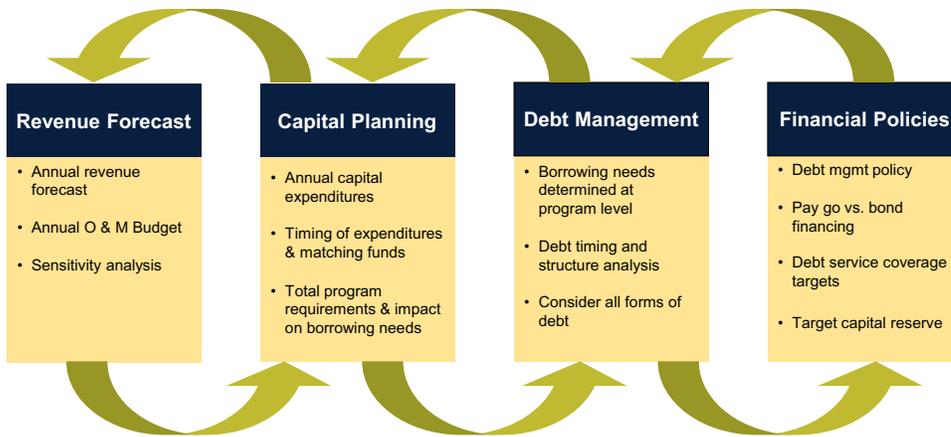
- Credit rating outlook and strategies
- Non-traditional financing approaches including bank debt, Federal and State programs, private equity
- Use of Public-Private Partnerships for construction, financing, and/or operation
- Debt profile including re-structuring/refunding opportunities for existing debt
- Detailed capital project and cash flow modeling, which should incorporate capital costs, projected available revenues and sources, estimated operating & maintenance costs and the timing of potential debt issuance
- Asset-liability management analysis, including potential use of short-term variable rate financing tools
- Investment strategies

Generally for project financings it is necessary to prepare long-term (30+ year) capital planning models for transportation/port organizations. The financial model is used to identify alternatives to meet capital requirements while remaining within certain financial market limitations. An iterative modeling process (Exhibit 6.3.2) allows financial planning to impact project requirements within stated program policy constraints.



The overall result should be a comprehensive analysis and corresponding set of recommendations that will provide a framework for the port's financial management and financial needs for all its projects. The financial recommendations should incorporate and be consistent with the overall strategic direction of the port as well as the development of debt, investment and reserve

Exhibit 6.3.2 Iterative Modelling Process



Financial plans are often used to support credit ratings as well as to support Federal and State grant and loan applications. New or greenfield project financing is very different from tax/fee-backed funding and even from an existing system net revenue financing. An investment-grade plan of finance requires a different approach than traditional municipal bonding programs. It is important to understand the credit and operating profile for these different programs and projects, and to tailor a financial plan for the port's particular needs.

A primary goal of financial planning is to become aware of all of the options at a port's disposal and the consequences of utilizing each of them. Financial planning in and of itself is not intended to make policy choices for the port; rather the intention is to ensure that the port has the appropriate tools to craft a financing strategy that can lead to the lowest cost of borrowing consistent with broader policy and financial objectives. At the outset of the financial planning process, a port should develop a list of basic financial objectives that serves as the foundation for the entire process. Focusing the entire financial team on the port's goals at the outset of the project facilitates moving the team forward in an organized manner.

Another primary goal of the financial planning model is to support bond issuance and other forms of financing. The financial plan helps to determine the amount, timing, and type of financing. It also helps to establish the creditworthiness of any associated bonds. The components of the financial plan listed above are key components to any credit evaluation. A well thought out financial plan indicates sound and prudent fiscal management. Solid credit ratings are essential to minimizing borrowing costs. The rating agencies place value on comprehensive financial plans and will analyze the components carefully as part of their credit assessment. Therefore, a credible financial plan can help to lower the borrowing costs by establishing a solid credit which in turn results in lower interest rates and/or lower costs of credit enhancement.

#### 6.4. Project Finance Model

In analyzing and structuring for a variety of project finance techniques, numerous modelling constructs could potentially be developed to evaluate the viability of a new project. Regardless of the specific construct of the model, it should have the capability to perform complicated financing structures that may provide alternatives to traditional funding techniques including senior and subordinate

structures with a deeply subordinate component, variable rate debt structuring options, deferred payment structures, etc. A base feasibility model should be utilized to evaluate all aspects of a new port project. The model can be utilized at various milestones along the project timeline which can be critical given potentially lengthy development processes. At the outset, models are utilized to evaluate a project's viability for investment interest. When the scope of a project is further developed the model can be used to fine-tune estimates of cash flow, debt coverage, and reserves/liquidity. The model also serves as an important tool for supporting the sensitivity testing and credit rating processes.

With a working group consisting of port staff and financial and technical advisors, a customized financial model should be developed for port projects. The model should be updated to reflect new construction cost and timing estimates as well as legal covenants. The financing and valuation model should be interactive with the ability to provide a range of discounted cash flow valuations as well as to quickly evaluate multiple real-world financing scenarios applicable for new project construction. The model should be anchored by a fundamental knowledge of project finance creditworthiness and the general tenants of a financing type. It should also be able to accommodate a myriad of financial structuring options including, but not limited to federal loans such as TIFIA, project revenue private activity bonds, subordination of operating costs, bank debt and private equity. Optimally managing all of these components is critical to attaining an investment-grade credit, indifferent as to whether the type of financing will be through the tax-exempt municipal market, or a form of private financing. Generally, the financing and valuation model should be based on specific project estimates.

A few of these include:

- Construction costs - either in the form of the annualized year of expenditure or present value costs
- Operating revenues/expenses - can both be inputted as actual estimates or variable transaction counts and revenue/cost factors
- Maintenance capital expenditure costs - in the form of the annualized year of expenditure or present value costs
- Project reserve funds and sub-accounts - flexible input modules allow for various reserve and sub-accounts to be funded through the flow of funds based on project needs and available cash flow

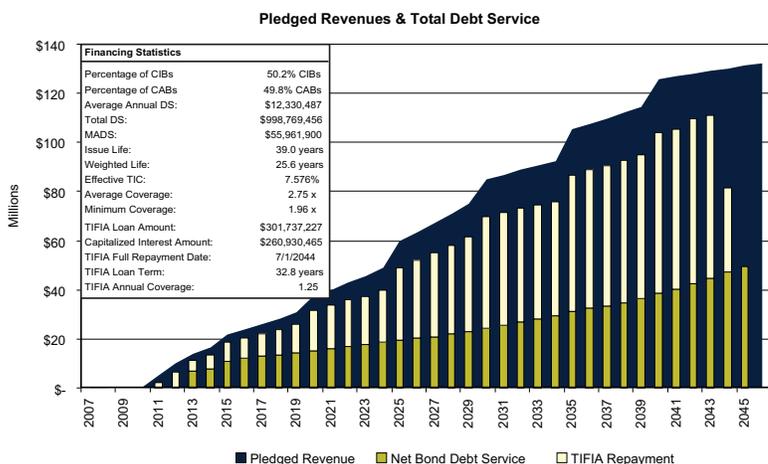
Upon inputting the various project requirements into the model, an understanding of project creditworthiness and financing structures should be used to determine an appropriate range of financing costs and reserve requirements. An understanding of public debt structures and hybrid debt financing tools - such as private activity bonds and TIFIA loans - is helpful in order to create alternative, flexible financing structures based on projected cash flows and the requirements of the facility. Modeling efforts should focus on developing an efficient financing structure which involves creating a balance of innovative financing mechanisms and market acceptable conditions. When creating the project financing model, it is also important to rely on market knowledge and familiarity with credit agency analysis. Armed with this information as well as the requirements and limits of the project, the financing structure can be modeled to meet the port's objectives. Exhibit 6.4 shows sample inputs and outputs from a project finance model.



Exhibit 6.4 Sample Inputs and Outputs from a Public-Private Partnership Model

Public - Private Valuation Statistics	
Investment Amount:	\$220,000,000
Investment as % of Project:	29.38%
Internal Rate of Return:	7.11%
Net Present Value:	(\$0)
Equity Fully Repaid in :	7/1/2040
Years to Equity Repayment:	33.0 years
Average Annual Cash Flow:	\$ 118,204,206
Minimum Annual Cash Flow:	\$ 1,083,729

Facility Inputs (Construction & Revenue Assumptions)	
Construction Assumes:	25% Contingency
Construction Start Date:	12/1/2007
Construction End Date:	12/1/2016
Construction Length (mos):	110 months
Facility Cost (YOE):	2,376,028,569
<u>Facility Revenue</u>	
Revenue Pledge, Gross or Net:	Net
Project Revenue Start Date:	1/1/2017
Other (1) Revenue Start Date:	N/A
Other (2) Revenue Start Date:	N/A
Other (3) Revenue Start Date:	N/A
<u>Revenue/Expenditure Long-Term Growth Rates</u>	
Gross Project Revenues	3.00%
Other Revenue 1	3.00%
Other Revenue 2	3.00%
Other Revenue 3	3.00%
Total O&M	3.00%
Admin Costs	3.00%
Roadway Maintenance	3.00%
Renewal & Replacement Costs	3.00%



Sources and Uses of Cash Flow	
<b>Cash Flow Sources</b>	
Gross Project Revenues	\$53,599,216,248
Construction Fund Interest Earnings	50,891,221
Debt Service Reserve Interest Earnings	71,695,781
Liquidated Debt Service Reserve Fund	55,961,900
Renewal and Replacement Interest Earnings	-
Operations and Maintenance Reserve Interest Earnings	156,208,396
Rate Stabilization Reserve Interest Earnings	-
General Reserve Fund Interest Earnings	-
Equity Refinancing Proceeds	-
Accelerated Loan Proceeds	-
<b>Total Cash Flow Sources</b>	<b>\$53,933,973,546</b>
<b>Cash Flow Uses</b>	
Deposit to Construction Fund (Revenue & Interest)	\$50,891,221
DSRF Interest to Debt Service	127,657,681
Renewal and Replacement Expenses	587,202,075
Deposit to Debt Service Reserve Fund	33,300,792
Deposit to Capitalized Interest Fund	-
Deposit to Renewal and Replacement Fund	-
Deposit to Operations and Maintenance Reserve	155,659,688
Operations and Maintenance Expenses	20,214,957,860
Deposits to Rate Stabilization Reserve Fund	-
Deposits to General Reserve Fund	-
Debt Service Payments	830,250,469
TIFIA Loan Payments	1,144,507,989
Equity to Construction	220,000,000
Income Tax Payments	10,689,210,659
Equity Distributions	19,880,335,113
Equity Refinancing Loan Payments	-
Acceleration Loan Payments	-
<b>Total Cash Flow Uses</b>	<b>\$53,933,973,546</b>

Funds and Subaccounts Assumptions	
<u>Facility Construction Fund</u>	
Gross or Net Fund?	Net
Construction Fund Earning Rate:	5.00%
<u>Debt Service Reserve Fund</u>	
Include Debt Service Reserve Fund?	Yes
Debt Service Reserve Funding Basis:	Gradual MADS
DSRF Interest Earning Rate:	5.50%
<u>Capitalized Interest Fund</u>	
Fund Capitalized Interest?	Yes
Gross or Net Fund?	Net
Capl Fund Earning Rate:	5.00%
<u>Operations &amp; Maintenance Reserve Fund</u>	
Fund Operation & Maintenance Reserve?	Yes
O&M Months in Reserve:	2 months
O&M Subaccount Earning Rate:	5.00%
<u>Renewal and Replacement Reserve Fund</u>	
Fund Renewal & Replacement Reserve?	No
R&R Months in Reserve:	2 months
R&R Subaccount Earning Rate:	5.00%
<u>O&amp;M Loan / Reimbursement Subaccount</u>	
O&M Loan Rate (if Gross Pledge):	5.00%
<u>Rate Stabilization Fund</u>	
Fund Rate Stabilization Reserve?	No
Op Revenue Months in Reserve:	2 months
RS Subaccount Earning Rate:	5.00%
<u>General Reserve Fund</u>	
Fund General Reserve?	Yes
General Fund Earning Rate:	5.00%
Forced Initial Deposit Amount	0
Forced General Deposit (% of Available)	0.00%

## 7. Debt Implementation & Management

### 7.1. Debt Capacity and Issuance for Capital Improvement Programs

Ports of all types and sizes have ongoing capital needs to fund facility improvements and expansion. Further, project finance methods and P3 structures may not be relevant for many smaller, mainstream port improvement projects. Thus, the requirements for demand and revenue forecast data, which are primarily needed for larger, new project developments and project finance/P3s, may not hold the same relevance for a port that just wants to finance some existing facilities improvements under its Capital Improvement Program (“CIP”). In this case, a port can typically use historical audited operating and financial results in order to meet disclosure requirements, and issue new money debt under an existing bond indenture via an additional bonds test (for example a historical net revenue over maximum annual debt service ratio of 1.25x) thereby meeting financial covenant requirements. The new debt would likely be secured primarily by a pledge of a port’s net operating revenues.

Ports are frequently in the process of evaluating, negotiating and potentially implementing both large and small capital projects, including ongoing CIP requirements, that require debt financing. As an example, a port’s CIP might include a refrigerated warehouse development and the procurement of yard cranes, both of which might be smaller pieces of a large port’s overall system CIP and debt program, or for a smaller port the only sizeable components of the CIP. Depending on the size of the CIP and expected debt issuance, the use of public bond markets might be beneficial (less costly for larger borrowings), complemented by alternative forms of debt (e.g. commercial bank loans). Solid investment grade credit ratings are key to structuring publicly issued debt and minimizing interest costs. If the expected amount of additional debt may strain senior lien debt service coverage levels, and thus credit ratings (if relevant), a port may want to consider other forms of financing and lien structures, including junior lien bonds, equipment leases, state infrastructure bank loans, special purpose (conduit) bonds, P3, and cash. Further, if port system operating and financial results are not as strong as expected, any negative credit impacts of the additional debt would be exacerbated. For publicly issued and rated debt, it should be noted that the credit rating agencies look at non-quantitative factors as well such as management, governance, global trade patterns, etc., which are not factored into a quantitative debt capacity analysis.

Actual borrowing capacity for any given project at any given point in time will depend on various factors, including but not limited to tax status of the project contemplated, lien structure of the new debt, financial products used, capital markets environment including interest rates, net revenues from the contemplated project including terms of any proposed project operating leases, and existing system debt service requirements. Tax status of the project asset being financed determines eligibility for the type of debt used. For example, governmental purpose projects are eligible to be financed with tax-exempt Capital Appreciation



Bonds ("CABs"). Convertible Capital Appreciation Bonds ("CCABs") can be used to defer interest and principal payments, with conversion to Current Interest Bonds ("CIBs") so that debt service requirements begin, thus reducing the cost of funds relative to traditional, non-convertible CABs. Private Activity Bonds ("PABs") have Alternative Minimum Tax ("AMT") status and thus are priced at an additional spread relative to non-AMT tax-exempt bonds. Asset-based tax-exempt financing can be used at a subordinate lien given the security of the hard asset.

In addition to any currently contemplated capital projects and debt issuance, a port may have ongoing CIP needs and other capital projects on the horizon. Multi-year capital requirements may necessitate a coordinated approach to a port's overall capital structure and plan of finance as any future CIP requirements above and beyond contemplated one-off capital projects need to be considered when evaluating debt capacity. As much as possible, a port should determine upfront the project(s), capital requirements and net revenues for its CIP.



## 7.2. Debt Refunding for Savings

For Ports both large and small, refunding outstanding bonds and loans can provide for debt service savings and, consequently, greater debt capacity to fund additional projects. The requirement for projected demand and revenue data, which is primarily needed for new project development and especially for project finance/P3s, is less emphasized for a straightforward debt refunding transaction. Rather, a port that simply wants to refinance some outstanding debt can typically use historical audited operating and financial results in order to meet disclosure requirements, and issue refunding debt using an Additional Bonds Test (for example a historical net revenue over maximum annual debt service ratio of 1.25x) required under an existing bond indenture in order to meet financial covenant thresholds.

Ports and/or their advisors should actively monitor port debt portfolios for refunding opportunities to achieve net present value savings and/or cash flow relief. An active approach reduces the likelihood that a port misses market opportunities and can consistently produce significant reductions in interest expense. Certain structural features of a port's bonds are factored into a refunding analysis including the maturity date, coupon, yield, call date and price, and eligibility for refunding under the tax code (current refunding - within 90 days of the call date; advance refunding - more than 90 days to the call date; or forward refunding - locking in the refunding economics more than 90 days from the call date for a current refunding). The recommended savings threshold for a refunding varies depending on the type of refunding structure used (i.e. current refunding, advance refunding, or forward refunding), the risks inherent in the proposed refunding issue, and port preference. Issuer debt policies often require a minimum of 3% net present value savings for refundings, with higher savings thresholds typically recommended for forward delivery or other alternative structures and lower savings thresholds for current refundings with short durations.

Further, an interest rate environment of low short-term rates will likely result in a significant amount of negative arbitrage in most refunding escrows. It is generally not recommended that an issuer proceed with an advance refunding if the negative arbitrage is equal to or exceeds the net present value savings of the refunding. To reduce the impact of the negative arbitrage, refunding issues can be structured to maximize the time between pricing and closing of refunding bonds to shorten the escrow period. Such delayed delivery typically may be available for up to 30 days without any type of forward premium.

Exhibit 7.3.1

### 7.3. Debt Transaction Management

The due diligence, credit and debt profiling, and financial modeling and feasibility steps discussed in prior sections of the Toolkit are the same such steps that are taken leading up to the issuance of bonds/debt. In many instances, developing the plan of finance overlaps with the transaction management process (Exhibit 7.3.1). Once the plan of finance is in place, the transaction management process is worked through to make certain that the necessary actions take place to complete the financing. Transaction execution whereby the port is the issuer of the debt includes, but is not limited to, development of a timetable, bond documents, financing team selection, credit enhancement, rating strategy, investor marketing, pricing and, as relevant, direct purchase and government program loan negotiation. Expertise is required in debt structuring, creating credit structures, managing the rating agency/insurer relationship and pricing bonds in order to complete the financing process in a smooth and cost effective manner.

Financing teams are assembled for each transaction, and while the specific structure of an issuance, among other port specific factors, dictates the team of professionals required for the issuance of bonds, potential key players typically are those summarized in Exhibit 7.3.2.



### Exhibit 7.3.2 Key Players of Municipal Port Financing Transactions

Financing Team	Role	Responsibility
Issuer	The governmental entity that is issuing bonds.	Selecting the financing team, determining the method of sale, assists in the preparation of financing documents, sets debt policies, and determines available financial resources for payment of debt service.
Municipal Advisor	Acts in a fiduciary capacity for the issuer	Develops Request for Proposals (RFP) for underwriters, bond counsel, and other members of the financing team. Develops plan of finance, advises on method of sale, and assists in preparation of rating agency strategy.
Bond Counsel	Provides legal counsel to issuer and prepares offering documents	Drafts bond resolution, indenture, loan agreement, and other bond financing documents. Interprets arbitrage regulations and tax law. Provides guidance in structuring issues related to tax law.
Underwriter	Acts as an intermediary between the issuer and bondholders	Has an "arms-length" relationship with the issuer. Provides proceeds at closing and manages syndicate. Prepares distribution analysis and executes bond purchase agreement on behalf of the syndicate.
Underwriting Syndicate	Assists the underwriter in the placement of the bonds	Has an "arms-length" relationship with the issuer. Shares the risk of underwriting the issue and provides proceeds at closing. Distributes bonds to investors.
Underwriter's Counsel	Provides legal counsel to underwriter and underwriting syndicate	Drafts bond purchase agreement, blue sky memorandum, and agreement among underwriters. Advises underwriters on applicable securities law. Assists in due diligence and provides legal opinion regarding disclosure by the issuer.
Rating Agencies	Issues opinion on the credit quality of the bonds	Issues ratings releases and reports informing investors on its opinion of the credit quality of the bonds. Monitors credit quality trends and adjusts ratings accordingly.
Escrow Agent	Holds funds or securities to pay debt service on refunded bonds	Custodian of funds or securities which will be used to pay principal and interest on refunded bonds.
Trustee (Paying Agent / Registrar)	Holds moneys and transmits payments to bondholders	Disseminates debt service payments to bondholders. Maintains records on behalf of issuer. Holds moneys in the project fund and other funds.
Verification Agent	Verifies sufficiency of cash flows to pay debt service of refunded bonds	Issues verification report calculating the sufficiency of cash flows to pay debt service of refunded bonds.
Other Counsel	Provides legal counsel regarding specific issues	Provides special counsel on complex topics. Includes disclosure counsel, special tax counsel, bank counsel, and borrower's counsel.
Feasibility Consultant	Analyzes viability of projects	Prepares report on the economic viability of projects secured by revenue bonds
Insurers/Credit Enhancers	Issues bond insurance or letters of credit	Improves the credit quality of a security by issuing bond insurance or a letter of credit, for a fee
Printer	Prints offering documents	Prints and/or posts online the preliminary and official statements for distribution into the marketplace.
Auditor	Audits financial statements for the issuer	Compiles and audits financial statements of the issuer and issues opinion.

### Exhibit 7.3.3 Key Documents of Municipal Port Financing Transactions

Document	Summary
Request for Proposal	Used to select providers of debt issuance services (underwriters, bond counsel, etc.)
Bond Resolution	Legal document authorizing a governmental entity to raise money through a bond issuance
Bond Indenture Agreement	Determines the exact nature of the security of the bonds. Establishes guidelines for the trustee and issuer
Loan Agreement	Agreement between an issuer and the holder of a loan specifying covenants and repayment terms
Bond Purchase Agreement	Discloses the agreement between an issuer and underwriting syndicate regarding a bond issuance
Blue Sky Memorandum	Describes the treatment of a new issue under applicable blue sky laws
Agreement Among underwriters	Agreement disclosing liability among underwriters in the syndicate
Escrow Deposit Agreement	Outlines investment and disbursement procedures for escrow agent
Notice of Sale	Alerts investors to an upcoming bond issuance
Preliminary Official Statement	Provides preliminary information regarding the issuance to investors
Official Statement	Provides final information regarding the issuance to investors
Verification Report	Details sufficiency of cash flows in a refunding transaction
Feasibility Report	Details economic viability of a project backed by revenue bonds

The documentation required for the implementation of debt varies across transactions, issuers, and localities. Counsel appropriate for the specific issuer and form of debt can help to guide and manage documentation development and execution. Exhibit 7.3.3 summarizes typical documents for debt implementation, again noting that the particular circumstances of the issuance will determine actual documentation needs.

## 7.4. Post-Issuance Compliance

Issuers of tax-advantaged debt are required to monitor post-issuance compliance throughout the entire period that the bonds remain outstanding. The ongoing monitoring is generally categorized into two types of requirements: (i) the qualified use of proceeds and financed property and (ii) arbitrage rebate and yield restriction compliance.

The Internal Revenue Service ("IRS") encourages issuers to adopt written post-issuance compliance procedures that include the following key elements:

- Regular due diligence reviews;
- Identifying the employee or official responsible for the review;
- Training the responsible employee/official;
- Retaining adequate records that support compliance, such as those relating to the investment and expenditure of bond proceeds;
- Procedures that should identify noncompliance in a timely fashion; and
- Procedures that the issuer will take to correct any form of noncompliance.

By having these written procedures in place, the idea is that issuers should be better able to identify and resolve noncompliance in a timely manner. The IRS encourages adopting these measures because, in general, an issuer that has established written post-issuance compliance procedures and commits to following them is less likely to violate the federal tax requirements than an issuer that does not have such procedures in place.

In addition to meeting legal and regulatory requirements of a bond issue, post-issuance compliance and reporting provides both issuers and investors alike an opportunity to verify the financial health of a port. Do the port's operating and financial statements convey positive or negative trends? Is the port meeting its financial covenant obligations under the bond indenture? For example, a port needing to meet a rate covenant requirement of 1.25x annual debt service under its bond indenture that reports actual fiscal year debt service coverage of 1.39x meets the legal requirements under such bond documents. However, from a credit ratings perspective, if that same port was rated single-A by a rating agency based upon the premise that debt service coverage levels would remain above 1.40x as had been reported in the past, then this most recent reporting metric may be cause for a negative ratings outlook or downgrade. The takeaway from this example is that post-issuance compliance and reporting can be used to convey the operational and financial health of a port to various stakeholders, with different uses of and perspectives on the same information.



## 8. Public-Private Partnerships

### 8.1. P3 as an Extension of Project Finance

Public-private partnerships (“P3”) are one tool that may be used in a comprehensive capital formation strategy. Increasingly, the P3 sector in the U.S. is moving toward the use of municipal market financing tools such as private activity bonds, TIFIA and RRIF loans, and particularly for ports, long term lease & use agreements (i.e. a “concession agreement” in P3 jargon). At the same time, P3 concessionaires and infrastructure equity funds may be willing to commit equity to a project, and private equity investment is entirely compatible with the financing tools mentioned above.



Therefore, it is important that ports understand how these techniques can work together (as well as where there may be conflicts) and to formulate comprehensive strategies for a port’s overall capital needs, debt strategies, and budgetary requirements. If a P3 can fit within and improve the overall financial strategy, then it should be considered. Note that the same due diligence and financial feasibility techniques discussed in prior sections of the Toolkit apply to and are needed for all types of capital, including for a P3 approach. Thus, a P3 approach is by nature an extension of project finance for port capital infrastructure development.

### 8.2. P3 Background and Rationale

Public-Private Partnerships (“P3s”) refer to contractual agreements formed between a public agency and private sector entity that allow for greater private sector participation in the delivery of transportation projects. Traditionally, private sector participation has been limited to separate planning, design or construction contracts on a fee for service basis – based on the public agency’s specifications. Expanding the private sector role allows the public agencies to tap private sector technical, management and financial resources in new ways to achieve certain public agency objectives such as greater cost and schedule certainty, supplementing in-house staff, innovative technology applications, specialized expertise or access to private capital. Some of the primary reasons for public agencies to enter into public-private partnerships include:

- Encouraging private entrepreneurial development and operation of transportation infrastructure and related assets;
- Enhance financing capacity by inviting private sector expertise in accessing and organizing project financing techniques;
- Accelerating the implementation of high priority projects by packaging and procuring services in new ways;
- Increase operational efficiency by allowing the private sector to provide specialized management capacity for large and complex programs; and/or
- Consolidation of similar asset classes under a single management program.

P3s provide benefits by allocating the responsibilities to the party – either public or private – that is best positioned to control the activity that will produce the desired result. With P3s, this is accomplished by specifying the roles, risks and rewards contractually, so as to provide incentives for maximum performance and the flexibility necessary to achieve the desired results. Exhibit 8.2.1 outlines several key objectives of P3s.

P3s have evolved over time and in many ways. It is important to understand that there is an array of P3 methods and techniques used both domestically and internationally. The range of potential P3 options includes design-build ("DB"), where the port engages the private sector to design and construct the project but finances and pays for the construction from its own funds and does not transfer ownership or operations, to a Design Build Finance Operate and Maintain structure ("DBFOM") in which the port enters into a long-term concession with the private sector for the design, construction, financing and operation of the project. Exhibit 8.2.2 summarizes the continuum of P3 approaches from a purely governmental project to a purely private one.

Leverage Private Sector Expertise

- Expand public sector capacity
- Accelerate delivery
- Transfer risk
  - Financial and operational
- Save or reallocate funds
- Reduce debt
- Improve operations
- Transparent regulation of revenues
  - Tariffs, fees

How P3 Approach Can Contribute to Project Delivery

Enhance Financial and Operational Capacity

- Relieve financial pressure(s)
  - Operation support from General Fund, debt capacity, pension costs, OPEB
- Streamline operations
- Expand service
- Transfer capital responsibility
- Launch new program or service
- Manage rate setting process

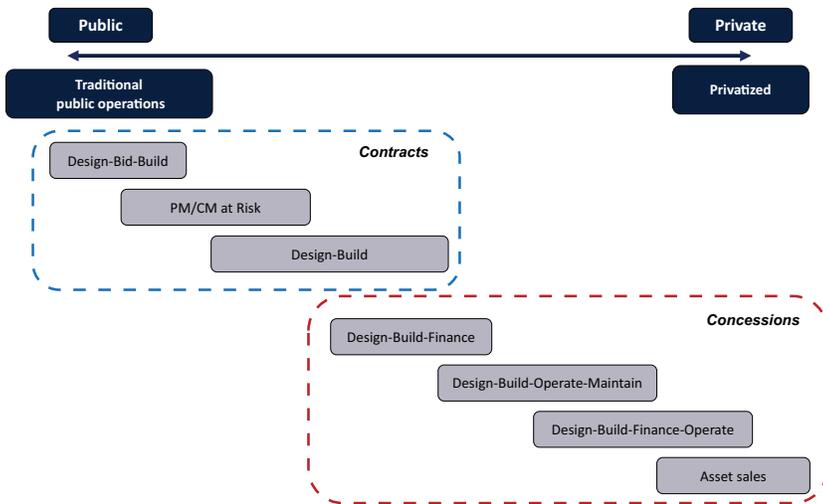


Align Public and Private Interests

- A well structured and executed P3 can:
  - Increase agency operating capacity
  - Heighten accountability
  - Value time and performance
  - Value innovation and efficiency
  - Stimulate competition
  - Enhance revenues

The Value of P3's

Exhibit 8.2.2 Project Delivery Models



Currently, many issuers are evaluating P3 alternatives to help accelerate projects including:

- Design-Build (DB)
- Design-Build-Operate-Maintain (DBOM)
- Availability Payment concessions (DBFOM)
- Revenue Risk concessions

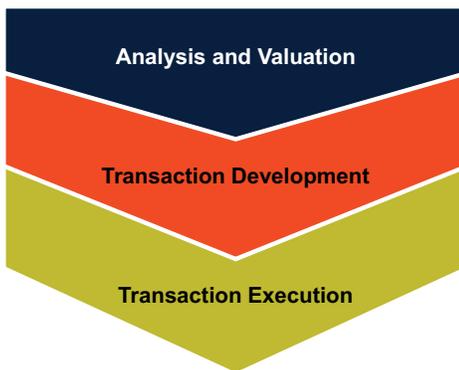
Such P3 alternatives typically utilize various forms of debt including traditional tax-exempt municipal bonds, bank loans, private activity bonds, and/or TIFIA loans. Note that Availability Payments are treated by rating agencies as sponsor tax-backed debt; Issuers should understand how Availability Payment obligations for a specific project will affect the sponsor agency’s debt ratings.

It is important to note that P3s typically utilize various components of project finance, but ports

should be careful not to equate project finance with a P3 concession. P3s are contractual agreements formed between a public agency and a private sector entity that allow for greater private sector participation in the delivery and financing of projects. There are many different P3 structures, and the degree to which the private sector assumes responsibility – including financial risk – differs from one application to another. Additionally, different types of P3s lend themselves to the development of new facilities and others to the operation or expansion of existing assets. The key is to understand the elements of project delivery alternatives and how project finance & P3 techniques can be utilized in various combinations.

P3s provide benefits by allocating the responsibilities to the party – either public or private – that is best positioned to control the activity that will produce the desired result. With P3s, this is accomplished by specifying the roles, risks and rewards contractually, so as to provide incentives for maximum performance and the flexibility necessary to achieve the desired results. At the core, these are often large and complex projects – most often with challenged credit profiles and financial feasibility – for which the risk allocations and risk-reward balance must create acceptable incentives for both the public and private sectors to proceed. But always the issues and methodology remain largely the same. Exhibit 8.2.3 shows the basic steps involved in the P3 process.

Exhibit 8.2.3  
The P3 Process:  
Valuation, Development & Execution

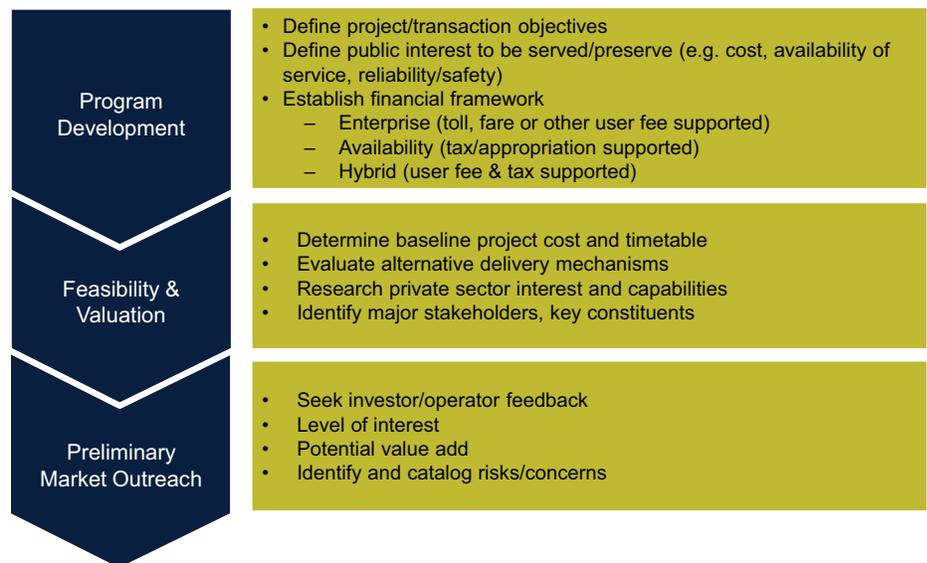


### 8.3. P3 Analysis and Valuation

The modelling of alternative project financing techniques and determining and finalizing preferred structures cuts across the various phases of P3s, i.e. valuation (Exhibit 8.3), development and execution. This integration of P3 stages with other project finance alternatives requires a systematic approach. Note that the same due diligence and financial feasibility techniques discussed in prior sections of the Toolkit apply to and are needed for all types of capital, including for a P3 approach.

Any new stand-alone P3 concession is difficult to value and implement without robust project market data and other financial feasibility information available. This means market, revenue, operating & maintenance and renewal & replacement data must be thorough and up to date for the project comprehensively, not just from the port's vantage point or the P3 partner's perspective. Market environments can change rapidly. Thus, while the current environment may seem viable for a successful competitive solicitation process, it is highly recommended to start any engagement with a thorough market and financial feasibility study to ensure that the port's preferred operating/financial/concession model meets its goals for the project.

Exhibit 8.3 P3 Analysis and Valuation Steps



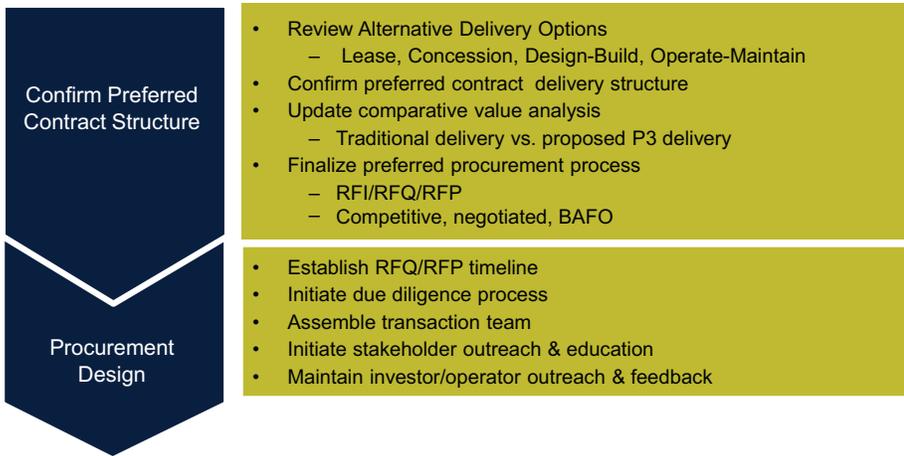
If pursuing a stand-alone P3 concession, one approach may be to start with existing market, revenue, operating & maintenance costs, and related feasibility materials and use them to the greatest extent possible to save both time and money. However, all market and feasibility materials must be current and meet market scrutiny and credit standards for an investment-grade credit rating. Further, the ongoing operations & maintenance requirements and capital renewal & replacement requirements are significant components of the overall project financial feasibility as well as the concession agreement negotiations. Different projects have different requirements, and different engineers may have different perspectives. Formulating operating & maintenance and renewal & replacement plans to meet industry standards and financial feasibility requirements is especially important for longer term concessions such as 50 years as well as concessions that might include future expansion.

The key to a successful solicitation and concession implementation, including financial closing, is a robust financial feasibility assessment. Market information should be vetted to a point that it can generate the maximum market interest. Modeling efforts should focus on developing an efficient financing structure that involves creating a balance of innovative financing mechanisms and market acceptable conditions. When creating a P3 valuation and financing model, it is also important that the project team have considerable market knowledge and familiarity with credit agency analysts. Armed with this information as well as the requirements and limits of the project, the financing structure is modeled to create a financing structure meeting the purpose of the port – construction and operation of the project in the most effective manner.

## 8.4. P3 Transaction Development

The project financial model and feasibility techniques discussed in prior sections of the Toolkit continue to overlap with the P3 process in the P3 transaction development phase (Exhibit 8.4.1). Model inputs continue to be refined for changing market circumstances, and preferred delivery structures are further compared.

Exhibit 8.4.1 P3 Transaction Development Steps



For each component of the P3 transaction development phase, the insight and interest of investors, contractors, and engineers will add value. The global infrastructure community is vast, thus it is prudent to promptly contact those entities that have expressed interest in a port's infrastructure projects or reach out to other enterprises that can bring value to the project. P3 procurements can attract bids from some of the largest funds and financial institutions in the infrastructure space. In addition to their own insights and due diligence measures,

investors look to the port and its advisors to define the best procurement path for a project. The objective is for investors to more readily disclose their willingness to assume risk and share benefit in the interest of establishing a win-win environment for both public and private sector participants. Engaging investors, contractors and others from the start in developing a port's P3 procurement process and in then compiling the information needed to compare and value P3 alternatives is of critical importance to moving a project forward.

During the transaction development phase, the financing team continues to analyze different project delivery vehicles and secures market feedback and insight to help establish their relative value and limitations. At the center of this comparison lie issues of risk transfer – how much responsibility should the port be willing to transfer to established and experienced private entities. Legal and operational considerations need to be reviewed in detail and procurement alternatives best suited for the projects and the port need to be identified. A transaction schedule needs to be developed and/or modified to account for changing delivery and procurement methods since the start of the valuation process. Exhibit 8.4.2 is a sample timeline for a P3 process.



Exhibit 8.4.2 Sample P3 Schedule

PERIOD COMMENCING (2015)	2015					2016								
	0	1	2	3	4	5	6	7	8	9	10	11	12	13
	N	D	J	F	M	A	M	J	J	A	S	O	N	D
	<b>Project Start</b>					<b>Execute Lease</b>								
<b>PRE-DEVELOPMENT PHASE</b>														
<b>Initial Operating/Financial Alternatives; Valuation</b>														
Initial Meetings to discuss P3 Models	■													
Develop Financial Model for Preliminary Evaluation	■	■	■											
Evaluation by Financial Team/Advisor	■	■	■											
Team Meeting; Present Preferred Model			◆											
Conduct Soft Market Test			■	■										
Confirmation of Preferred Model				■										
Port Commission & Team Meetings				◆										
Sign-off from Port				■										
<b>Data Collection/Ongoing Transaction Preparation</b>														
Demand & Revenue		■	■	■	■	■								
Engineering/Construction		■	■	■	■	■								
Operations & Maintenance Requirements		■	■	■	■	■								
Insurance & Legal Requirements		■	■	■	■	■								
Ongoing Review of Financial Model Assumptions		■	■	■	■	■								
<b>SOLICITATION &amp; FINANCING PHASE</b>														
<b>Request for Qualifications Phase</b>														
Develop Project Term Sheet			■	■										
Review Timing with Port and Advisors			■	■										
Develop List of Potential Partners			■	■										
Develop/Release Information & Request for Qualifications			■	■										
Team Meeting and/or Calls; Approve RFQ & Review RFP				◆										
Response due from Potential Partners					■	■								
Review RFQs - Conference Calls as needed						■	■							
<b>Request for Proposals Phase</b>														
Develop RFP with Scope of Services - Calls as needed			■	■	■	■								
Develop Form of Proposed P3/Capital Lease Agreement			■	■	■	■								
Team Meeting; RFQ Shortlist & Approve RFP						◆								
Release RFP						■	■							
Data Room						■	■	■						
Meetings with Potential Offerers for Q&A							■	■	■					
Receive & Evaluate Proposals								■	■					
Selection and Negotiation of Final Terms									■	■	■			





## 8.5. Business/Financial Term Sheet Overview

After working through the qualitative and quantitative assessments of financial investment alternatives, a port is in position to begin market outreach and implementation. A suggested first step is to create an outline of parameters or term sheet regarding 1) bond/financing documentation and covenants, 2) the construction contract and risk mitigation, and 3) the concession agreement (as applicable) to serve as a useful tool to guide the financing. Bond trust indentures and lease / concession agreements can be large and complex documents, and it is very important that they support the desired investment but also equally important that they are complimentary to the port's existing facilities, other capital improvements, operational attributes, legal framework, and credit profile. For complex procurements such as for a P3 concession, the term sheet needs to incorporate significant detail regarding any final environmental, design, engineering, construction, operations, and financing of the project, as applicable for the project and the alternative chosen. Financial and business terms should be drafted to a level that will support a logical negotiation process and a feasible credit assessment.

## 8.6. Key Terms

In a P3 approach, in addition to completing the physical infrastructure and providing operational services, the contractor may provide an equity interest and service debt to finance the construction which remains at risk throughout the early

years of the project. The port needs to clearly understand all project aspects to be covered by the concession. As examples, who will be responsible for equipment maintenance and replacement, future terminal capital expansion, contracting with shipping lines, etc.? Presumably the private concessionaire, but no two concessions or projects are the same, thus it is important to clearly understand the port's preferences. Additionally, a number of contracting approaches are possible including, for example, an operating & use lease agreement, design-build (DB) construction for expansion, and design-build-finance-operate-maintain (DBFOM). Further, key terms vary widely across project type, size, and complexity, which necessitates building the appropriate features into a summary project term sheet and ultimately into a P3 contract. Exhibit 8.6 shows a suggested list of terms that may serve as a basis for further customization.

Exhibit 8.6

Key Business and Financial Terms
Lessor
Description of Property for the Project
Capacity
Financial Expectation fro the Private Partner(s)
Project Construction
Financing Assistance
Lease Agreement
Term
Ownership of Project Land
Ownership of Project Infrastructure, Cranes and Equipment
Business Development
Existing Significant Contracts
Security
Environmental
Labor
Expansion
Schedule

## 8.7. Term Sheet Sample

Exhibit 8.7 is an example term sheet which focuses on the concession of a marine terminal facility. While the unique characteristics of any given port project will determine the informational categories and specific language for a term sheet, this example may serve as a starting point for customizing solicitation documents consistent with port objectives and policy constraints.

## Exhibit 8.7 Sample Term Sheet

### AAPA Port Administration Term Sheet for Public-Private Partnership

The AAPA Port Administration (APA) operates the USA Marine Terminal (UMT) at the Port of Anywhere. UMT is the primary container terminal at the Port and serves a regional population of over 10 million consumers and market in excess of 29 million within a five hour drive.

APA believes that, with the scheduled opening of the expanded Panama Canal in 2015, UMT must have at least one 50 foot berth capable of handling larger vessels that will be transiting the Canal by that time. APA has decided to explore the possibility of a public-private partnership under which APA would lease UMT exclusively to private partner(s) and the private partner(s) would invest in a new berth, equipment, and other infrastructure at UMT, and provide a revenue stream to APA.

APA is seeking private partner(s) who are willing and able to commit to an investment that will meet the Administration's objectives of a new 50 foot berth and increased international waterborne container volumes at UMT. The private partner(s) would be required to meet a minimum annual guarantee and would be fully responsible for Berth construction as well as all operations and equipment at UMT during the lease term. The private partner(s) would also pay APA for existing terminal and waterside improvements at UMT. APA is willing to offer tax-exempt debt issuance on behalf of the private partner(s), if so desired, or the private partner(s) may put in place other financing as appropriate. Finally, the private partner(s) will be responsible for providing APA with an ongoing revenue stream during the term of the lease. In exchange, APA will grant the private partner(s) a long-term lease to operate UMT, and the private partner(s) will have exclusive operating rights for UMT during the term of the lease. The private partner(s) would be awarded the portfolio of business currently under contract to APA. Proposed key terms are outlined below.

Key Term	Description
1. Lessor	AAPA Port Administration
2. Description of Property for the Project	A modern and productive intermodal container terminal known as the USA Marine Terminal (UMT), Port of Anywhere, USA, consisting of approximately 150 acres.
3. Capacity	2014 total capacity is estimated to be 1.5 million TEU's. Based on current operating methods, approximately half of the capacity of the UMT facility is covered under long-term contracts.
4. Financial Expectation from the Private Partner(s)	1) Funding for an construction of the Berth, including new cranes & all necessary equipment. Private partner(s) shall provide satisfactory evidence of secured obligation to finance and construct Berth by 2016. 2) Payment for existing terminal and waterside improvements and equipment. It is preferred that this take the form of funds at financial close; however, fixed annual payments or a combination of both may be considered. 3) An annual revenue stream to the APA for the term of the lease based on land rental and revenue sharing beyond 2014 container volumes
5. Berth Construction	Private partner(s) shall construct a 1,750 foot long by 170 foot wide reinforced concrete, earth filled, pile supported low level marginal wharf with 100-foot gauge gantry crane rail along the River. Private partner(s) shall install a portion of sheet pile toe wall to the West at Other Berth and a mooring dolphin east of the wharf terminus, with a minimal dredging at the face of the wharf.
6. Financing Assistance	APA may assist in project financing by facilitating the issuance of tax-exempt private activity bonds. APA may provide the private partner(s) with access to private activity tax exempt financing via the issuance of conduit Special Purpose Facility Revenue Bonds. Private partner(s) should be aware that they may not be able to take depreciation or other tax benefits in any infrastructure and equipment financed via tax-exempt private activity bonds.
7. Lease Agreement	Lease agreement will constitute a "full net lease" which means that the private partner(s), during the lease term, is responsible for keeping the facilities in good order at its own expense, including ongoing systems preservation and repair and replacement of existing equipment and infrastructure. Required operating and other standards will be set forth in the lease agreement.
8. Term	Minimum of 30 years from the lease commencement date.
9. Ownership of UMT Land	Land at UMT will remain APA owned.
10. Ownership of UMT Infrastructure, Cranes, and Equipment	All infrastructure, improvements, and equipment will be owned by the private partner(s) during the lease term. The private partner(s) shall purchase the existing 5 ship to shore cranes and 9 rubber tired gantry cranes, and will own any additional equipment it purchases.
11. Business Development	Private partner(s) will be responsible for business development and would maintain control over operations and shipping contracts. An estimate of the size of the container market within Anywhere's cost effective truck hinterland, along with projected volumes based on historical national and gulf coast growth, is available for review by private party.
12. Existing Significant Contracts	Private partner(s) to assume long-term ocean carrier contracts related to UMT. APA has the significant contracts listed below. A summary of these contracts has been prepared separately from this Term Sheet, and all UMT contacts are available for review by qualified short-listed offerors. 1) Gulf Shipping - Contract through 10/1/2016 2) Atlantic Shipping - Contract through 12/31/2017
13. Security	The APA will be responsible for security under the current Facility Security Plan.
14. Environmental	Private partner(s) must operate the terminal in full compliance with all applicable environmental laws and regulations, and will strive to operate with no or minimal environmental impact.
15. Labor	USA Marine Terminal is serviced by the International Longshoremen's Association. Existing crane and facility maintenance is currently performed by State employees who are members of AFSCME.
16. Expansion	Property known as the ICTF consisting of approximately 50 acres and South Coast Railroad, consisting of approximately 12 acres, could become the subject of future negotiation.
17. Schedule	APA seeks financial close by early 2015.

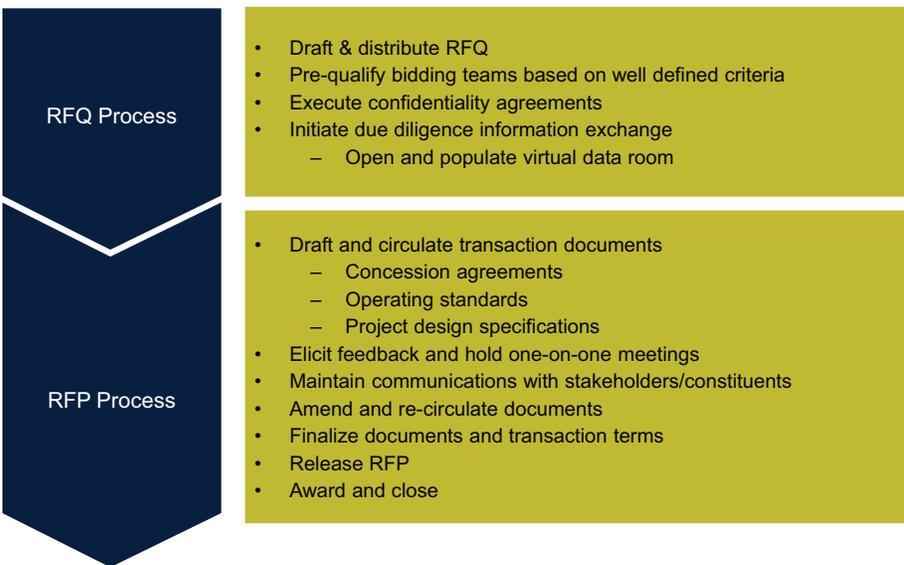
## 8.8. Solicitation Overview

A solicitation process may be conducted depending on the applicable project structure chosen in order to identify a private partner and investors for P3 project delivery. Without getting into any legalities and procurement rules, which are port specific, the following sections include a template for the types of qualifications that should be requested of respondents as well as evaluation factors. Basic contents of RFQs and RFPs are identified and put into outline format. Solicitation documents and management of solicitation processes are far too port and project specific to have an off-the-shelf form of RFQ or RFP available, or other solicitation form such as a request for letters of intent (“RLOI”). Rather, the goal in the following sections is to create an understanding and framework for how to conduct a thorough and productive solicitation.

## 8.9. P3 Transaction Execution

The project financial model continues to overlap with the P3 process in the P3 transaction execution phase (Exhibit 8.9). As part of the RFP process, the financial model is used to prepare “shadow” evaluations of any negotiated financial terms so that the port has an independent economic perspective. Model inputs continue to be refined for changing market circumstances, as relevant.

Exhibit 8.9 P3 Transaction Execution



Once the Authority has considered and chosen an operating/business/financial model to pursue its goals, the financial analysis has determined feasibility, and a term sheet has been created, the solicitation process follows and typically includes the following steps:

- **Market Teaser** – The port and its advisors reach out to a wide variety of private market participants to generate interest in the upcoming solicitation. The market teaser contains a brief overview of the project’s positive attributes and the upcoming opportunity. The contents should be short enough for senior

executives to read, and designed to attract interest. The market teaser invites interested parties to contact the port for the Request for Qualifications (“RFQ”).

- **RFQ Evaluation and Shortlisting** – The project team reviews and comments on the RFQ to be sent to industry participants. Upon receipt and review of qualifications from interested parties, criteria for shortlisting are established.
- **Draft Concession Agreement (“Agreement”)** – The port and its advisors establish business parameters to guide the development phase of the project and provide a framework for drafting legal documents. Basic terms include cost sharing during the development work phase, a determination

of which operating and financing structures will be considered for the project, and a risk allocation. The form of the Agreement is prepared by counsel.

- **RFP Development including Approval of Evaluation Criteria and Certification of Useful Life Determination** – The financial team and legal counsel send the port a useful life determination, the proposed final RFP, evaluation criteria, and project financial plan.
- **P3 and Proposal Evaluation** – After the port approves the solicitation items listed above, the final RFP will be sent to qualified shortlisted proposers, with emphasis on the selection criteria and financial underpinnings. The RFP responses need to be reviewed and interviews (first and possibly second rounds) with the proposers shortlisted will take place via calls/meetings.
- **Best and Final Offers (“BAFO”)** – No matter the quality of the solicitation process, proposers will likely try to bend any draft terms and conditions toward their preferences and advantages. So a BAFO process and/or final negotiations with the preferred proposer are recommended so that any contractual grey areas can be clarified. It should be noted that if an acceptable agreement cannot be reached, the port can formally end negotiations with a proposer and, in its discretion, either reject all proposals, modify the RFP and begin again the submission of proposals, or proceed to the next most highly ranked proposal and attempt to negotiate an agreement with that entity.

While overall responsibility for a project under a P3 arrangement is often shifted to the private partner, the success of the project begins with well-developed contractual documents that are structured to satisfy the owner’s objectives for the project. While certain risks are appropriate for a P3 contractor to manage, those risks may be hard to quantify or manage within a P3 contractor’s scope and will inevitably result in higher percentages of contingency pricing and more difficult financing terms, both of which drive costs up. In addition to balanced risk allocation, appropriate owner’s rights and responsibilities must be structured to support the contractor’s success in implementing and operating the project. There are inherent risks in complex port terminal projects that can result in substantial financial impacts if not correctly managed. Risk should be allocated appropriately among the concessionaire and public participants to avoid high contingency costs and to minimize impacts. Concession documentation must be drafted to ensure risk allocation meets both port preferences and market acceptability.



The financial package of the preferred proposer must be incorporated into the concession and related documents. Different types of investors and different types of credit instruments have different covenants and documentation requirements. Most importantly, it should all be consistent with and fit within the context of the port's overall system. The port's solicitation process should allow for all types of investors and credit products, and these can be conformed within the concession documentation after other business and operating terms are settled.

After final award has been made to a bidding team and the required good faith deposit has been made, the closing process must still be managed to ensure that all steps are taken and documentation requirements are met to bring the transaction to a smooth commercial and financial close. The effective date of a concession should be contingent upon the successful financial closing, as relevant. Requiring a hard bid with committed financing would cause proposers to incorporate risk premiums due to any uncertainties and grey areas they see in the draft concession agreement as well as cost to hold financial commitments in uncertain markets as the concession is being finalized. By finalizing all detailed negotiations before getting committed financing, risk is reduced and the likelihood of success improved.

Exhibit 8.10.1

<b>RFQ Contents</b>	
<b>EXECUTIVE SUMMARY</b>	
<b>PORT AUTHORITY GOVERNANCE AND OVERSIGHT</b>	
<b>TERMINAL INVESTMENT HIGHLIGHTS</b>	
	CURRENT OPERATIONS
	MARKET
	INLAND ACCESS
	Highway
	Rail
	FUTURE OUTLOOK/EXPANSION
<b>MARINE TERMINAL OVERVIEW</b>	
	MARINE TERMINAL CURRENT PHYSICAL FEATURES
	DRAWING OF MARINE TERMINAL
	ICTF CURRENT PHYSICAL FEATURES
	DESCRIPTION OF WAREHOUSE PROPERTY
	MARINE TERMINAL FINANCIALS
<b>PROJECT TERMS AND CONDITIONS</b>	
	BERTH CONSTRUCTION
	FUNDING CONSTRUCTION
	OWNERSHIP AND DEPRECIATION
	LEASE AGREEMENT
	LEASE PAYMENTS TO PORT AUTHORITY
	BUSINESS DEVELOPMENT
	EXISTING CONTRACTS
	LABOR
	ENVIRONMENT
	SECURITY
<b>EVALUATION PROCESS AND CRITERIA</b>	
	OVERALL PROCESS
	Responses to the Request for Qualification (RFQ)
	Confidential Request for Proposals (RFP)
	Evaluation Criteria
	SOLICITATION SCHEDULE
<b>SUBMISSION REQUIREMENTS</b>	
	ADVISORS TO PORT AUTHORITY
	PROPRIETARY/CONFIDENTIAL INFORMATION
	NO LIABILITY FOR COSTS
	FORMAT
	REQUIRED RESPONSES AND ORGANIZATION
	Organizational Information
	Qualifications and Experience
	Responder's Approach to the Terminal Project
	SUBMITTAL REQUIREMENTS
<b>PORT AUTHORITY'S RESERVED RIGHTS</b>	
<b>APPENDIX A - TRANSMITTAL LETTER FORM</b>	
<b>APPENDIX B - STATEMENTS OF QUALIFICATION AFFIDAVIT</b>	

## 8.10. RFQ & RFP Contents and Evaluation Factors

The successful use of the P3 approach requires a well marshalled procurement process – where clear project expectations and the understanding of roles is built among the participants, the owner, prospective vendors and stakeholders. All solicitation materials should clearly communicate the preferred transaction structure and desired outcomes. This will minimize downstream negotiations and revisions. The port's advisors and legal team need to identify issues and craft solicitation documents designed to improve the likelihood of success. A two-step process is recommended which first seeks a request for qualifications ("RFQ") before issuing a project request for proposals ("RFP"). A suggested approach is to start with qualifications, but also include the term sheet with the RFQ so that all parties have a clear understanding of what is expected. Qualified firms should be given access to the data room and invited to propose. The RFP should include the draft concession agreement, again so that complete transparency is maintained with respect to the port's intentions for the project.

Every port and project will have a unique set of circumstances to be addressed by the RFQ and RFP processes. Exhibit 8.10.1 outlines the general contents of RFQs and RFPs for a marine terminal P3 concession, noting again that specific project needs will drive actual contents.

RFP contents tend to align materially with RFQ contents, with the inclusion of fine-tuned details as needed. For example, the RFP may require the submission of detailed documentation regarding the project, as listed in Exhibit 8.10.2.

Exhibit 8.10.2

RFQ/RFP evaluation factors (Exhibit 8.10.3) for P3s are set by the ports that issue them and their team of advisors. Considerations may be broadly defined in the RFQ/RFP in order to allow for a wide range of responses, and may include professional experience, technical competence, operating capability, and financial resources to complete a proposed project, among others.

Incremental RFP Contents versus RFQ Contents
Additional information regarding the proposer's qualifications and demonstrated technical competence
Feasibility of developing the project as proposed
Detailed engineering or architectural designs
Proposer's ability to meet schedules
Detailed financial plan, including costing methodology, cost proposals, and project financing approach
Any other information the port considers relevant or necessary

Exhibit 8.10.3

Sample RFQ/RFP Evaluation Criteria
Safely, efficiently and productively manage and operate Marine Terminal during lease term, including, but not limited to:
<ul style="list-style-type: none"> <li>Providing a proven management team</li> <li>Providing and operating a state-of-the-art effective Terminal Operating System</li> <li>Adhering to Port Authority required operating standards, including, but not limited to, systems preservation, environmental, tenant alteration, security, policing and risk management standards</li> <li>Working successfully with union labor ILA, particularly the ILA or ILWU</li> </ul>
Design and construct a safe and efficient Berth and cranes by 2017 capable of handling, at least, the New Panamax vessels during the lease term
Provide for total funding requirements, some of which may be facilitated by tax-exempt Private Activity Bond financing issued by the Port Authority, with private lessee payments backed by a private party guarantee
Provide a sound and profitable marketing plan for the Marine Terminal that results in ongoing economic benefit for the state



## 9. Positioning Ports for Grant Funding and Government Loan Programs

### 9.1. Grant Funding Overview

Grant funding continues to be a key factor for ports in meeting capital investment requirements. Grants can be used to fund projects that either produce no direct revenue, and thus have no basis for other private capital sources, or for projects for which large capital requirements render the project financially unfeasible on a self-supporting basis. Ports must approach the grant funding process using various positioning strategies to effectively compete for limited grant monies:

- Projects that compete well for grant funding are those that promote economic competitiveness, generate significant public benefit, are difficult to fund via other means, leverage private investment, and are ready to proceed in an expeditious manner
- A comprehensive grant application must be developed which clearly addresses, among other things, project eligibility, environmental impacts and permitting, project risks, plan of finance, and an analysis of project benefits versus costs
- Application requirements vary across programs, so specific grant selection criteria must be adhered to in developing the application package

Combining this grant funding module with the other Investment Toolkit modules, ports will be better equipped to position their projects for competitive grant funding while at the same time enabling the ports to leverage more innovative sources of investment capital.

### 9.2. Federal Grant Programs

Grant programs and funding levels change from year to year, as government revenue levels vary and political support fluctuates. So while there may be many different federal, state and local grant programs available to ports at any given time, providing an itemized universe of grant programs is likely not lasting information. As such, the focus of this section is on a select couple of programs available at the time of this Toolkit version, primarily the US Department of Transportation (“USDOT”) Transportation Investment Generating Economic Recovery (“TIGER”) discretionary grant program, which ports might utilize for funding infrastructure development. Other programs, such as the US Department of Homeland Security’s Port Security Grant Program, are additionally available to ports. Further, it is suggested that port managers and industry practitioners explore available state and local grant programs as potential funding sources. Such programs may have matching requirements, for example, the provision of grant monies to be applied towards half of the project cost if the port is able to find funding for the other half. Examples of the use of such grant programs are included in the Project Profiles section of this Funding Strategy Module. Discretionary allocations arising from state or local government budgets may also provide sources of funding - such allocations are specific to the relevant government of a port’s locality, .

USDOT TIGER discretionary grants are awarded on a competitive basis for capital investments in surface transportation projects that will have a significant impact on the nation, a metropolitan area or a region. The Fiscal Year 2014 round of the



TIGER program, which included the Ladders of Opportunity Initiative, made available \$600 million of grant funds, with minimum grant sizes of not less than \$10 million (except in rural areas) and not greater than \$200 million. No more than 25 percent (\$150 million) of the funds made available for TIGER may be awarded to projects in a single state. Ports should verify the specific terms that apply to each new round of TIGER, which may change from round to round. These are provided in the Notice of Funding Availability announcement for each TIGER round, which is published in the Federal Register. Projects generally eligible for TIGER discretionary grants are shown in Exhibit 9.2.1.

Beyond basic project eligibility guidelines, specific selection criteria guide funding determinations. Grants are awarded based on both primary and secondary selection criteria as outlined in Exhibit 9.2.2.

The above discussion and parameters of TIGER provide an introductory view of the program and are not all encompassing. Additional resources can be found on the USDOT’s website [www.dot.gov/tiger](http://www.dot.gov/tiger).

Projects Eligible for TIGER Discretionary Grants
Highway or bridge projects eligible under title 23, United States Code
Public transportation projects eligible under chapter 53 of title 49, United States Code
Passenger and freight rail transportation projects
Port infrastructure investments, including projects that connect ports to other modes of transportation and improve the efficiency of freight movement

Source: [www.dot.gov/tiger](http://www.dot.gov/tiger)

Grant Selection Criteria
<b>Primary Selection Criteria</b>
Priority is given to projects that have a significant impact on desirable long-term outcomes for the Nation, a metropolitan area, or a region
<b>State of Good Repair:</b> Improving the condition of existing transportation facilities and systems, with particular emphasis on projects that minimize life-cycle costs.
<b>Economic Competitiveness:</b> Contribution to the economic competitiveness of the United States over the medium- to long-term.
<b>Quality of Life:</b> Creating affordable and convenient transportation choices through place-based policies and investments that increase transportation choices and access to transportation services for people in communities across the United States.
<b>Environmental Sustainability:</b> Improving energy efficiency, reducing dependence on oil, reducing greenhouse gas emissions and benefiting the environment.
<b>Safety:</b> Improving the safety of U.S. transportation facilities and systems.
<b>Secondary Selection Criteria</b>
<b>Innovation:</b> Using innovative strategies to pursue the long-term outcomes outlines above.
<b>Partnerships:</b> Demonstrating strong collaboration among a broad range of participants and/or integration of transportation with other public service efforts.

Source: [www.dot.gov/tiger](http://www.dot.gov/tiger)

### 9.3. Positioning Ports for Grant Funding

Grant funding is competitive and so it is imperative that projects requesting funding provide a succinct story in the grant application and also to the various stakeholders of the project. Oftentimes, extraordinary infrastructure needs and reasons for funding and development are the overriding factors in winning project grant monies, as well as the delivery of projects that provide important public benefits (e.g. reduced noise, reduced emissions, reduced traffic congestion, improved safety, and other positive “externalities” for communities). Note that the first five rounds of the TIGER grant program awarded only about five percent of applications received. With that success rate as the backdrop for consideration, the basic characteristics for competitive applications include, but are not limited to, those listed in Exhibit 9.3.

Projects that Compete Well for Grants
Demonstrated strength in at least 2-3 of the primary selection criteria
State of Good Repair
Economic Competitiveness
Quality of Life
Environmental Sustainability
Safety
Projects which are difficult to fund elsewhere
Strong partnership and matches, private funds from benefiting private entities and demonstrated leveraging of other funds
Projects or planning activities which are ready to proceed in the statutory timeframe
Presents a clear story and project impact

Source: [www.dot.gov/tiger](http://www.dot.gov/tiger)

Further project strengths that may provide a competitive edge include: multimodal projects, including coordinated investment from other sources and programs; demonstrate improved connectivity between users and centers of employment, education, and services; new partnerships and multi-jurisdictional cooperation; problem statement and opportunity for plan clearly defined in application; plan should be actionable and include appropriate risk analysis, mitigation estimates, National Environmental Policy Act (“NEPA”) requirements, etc.; public private partnerships and support (source: [www.dot.gov/tiger](http://www.dot.gov/tiger)).

While the focus of this section is on TIGER, these same parameters for successful grant applications can be applied across other localized funding programs. Again,

it is imperative to follow the specific guidelines of the particular funding program being applied to.



## 9.4. Government Loans Overview

Government loan programs, particularly the USDOT Transportation Infrastructure Finance and Innovation Act (“TIFIA”) program but also various State Infrastructure Bank (“SIB”) programs, have become very important tools for U.S. infrastructure financing. TIFIA has become a key tool for many highway and transit projects, although there is some applicability for ports, especially with respect to intermodal rail connections, and also for highway access within and outside of ports (e.g. the Port of Miami Tunnel project financing included a \$341 million TIFIA loan as part of a comprehensive funding package – further information on the project is at [http://www.fhwa.dot.gov/ipd/project\\_profiles/fl\\_port\\_miami\\_tunnel.aspx](http://www.fhwa.dot.gov/ipd/project_profiles/fl_port_miami_tunnel.aspx)). These programs require a formal application process, so as with grant funding, projects that compete well for loans and credit enhancement are those that promote economic competitiveness, are difficult to fund via other means, leverage dedicated revenue sources, and are ready to proceed in an expeditious manner. However, unlike with grants, these programs do require repayment and thus creditworthiness is a key eligibility factor. In this regard, the other Toolkit modules with their focus on creditworthiness and attracting investment are also applicable to government loans.

## 9.5. Government Loan Programs

As with grant funding, government loan programs and funding levels change from year to year as government resource levels adjust. So while a port may have several federal, state and/or local loan programs available to fund infrastructure, providing an itemized universe of loan programs is outside the scope of this Toolkit. As such, the focus of this section is on the USDOT Transportation Infrastructure Finance and Innovation Act (“TIFIA”) program as well as State Infrastructure Bank (“SIB”) programs. However, other programs such as the Railroad Rehabilitation & Improvement Financing (“RRIF”) program can also be used for port-related projects.

TIFIA and SIB Loans are typically structured as “bonds” secured under a trust indenture. Loan negotiations require an understanding of the credit concerns of the specific loan provider/program. Given their features as debt obligations, ongoing rating agency surveillance for both TIFIA and SIBs is required. In addition, TIFIA has ongoing reporting requirements, including an annual financial plan update, coverage compliance, and annual credit rating surveillance.

Exhibit 9.5.1

TIFIA Eligible Project Cost Percentages
TIFIA line of credit: up to 33%
TIFIA loan: up to 49% (or, if the loan does not receive an investment grade rating, up to the amount of senior project obligations); applicant must submit a justification for amount in excess of 33%
TIFIA loan and TIFIA line of credit, combined: up to 49%
Total Federal assistance (grants and loans) to a project receiving a TIFIA loan: up to 80%

Source: [www.fhwa.dot.gov/map21/factsheets/tifia.cfm](http://www.fhwa.dot.gov/map21/factsheets/tifia.cfm)

### TIFIA

The TIFIA loan program provides federal credit assistance to nationally/regionally significant surface transportation projects including highway, transit and rail, with some applicability to port intermodal projects. TIFIA offers flexible loan repayment at attractive interest rates for subordinate debt. In addition to direct

loans, credit assistance offered through the program includes loan guarantees and lines of credit. TIFIA credit assistance may cover portions of total project cost as listed in Exhibit 9.5.1.

The Federal Fiscal Year 2014 TIFIA budget authority was \$1 billion, which translates roughly into \$10 billion of loans. For Federal FY 2013, Letters of Interest were submitted for \$48 billion of projects. To receive TIFIA assistance, a project must have costs that equal or exceed at least one of those in Exhibit 9.5.2.

Additionally, TIFIA includes the key guidelines shown in Exhibit 9.5.3.

Projects generally eligible for TIFIA credit assistance are shown in Exhibit 9.5.4.

TIFIA eligibility requirements and selection criteria guide funding determinations. Successful TIFIA applications are supported by a market acceptable and creditworthy project plan of finance, among other considerations. The TIFIA application requires the eligibility factors listed in Exhibit 9.5.5.

Under USDOT guidance, transportation projects are required to submit a Major Project Financial Plan if any of the following apply: 1) Recipient of Federal financial assistance for a Title 23 project with a minimum cost of \$500 million, 2) identified by the USDOT Secretary as a major project and 3) applying for TIFIA assistance. Thus with any application for a TIFIA loan, a port would need to submit a Major Project Financial Plan. The detailed information required includes the following:

- Separate financing/debt discussion including issuance costs, interest costs, and other financial details of the bonds
- Detailed pro forma cash flow to demonstrate sufficiency of cash available to cover all project costs including debt service and related reserves
- In the case of TIFIA, long term credit ratings are required for both the project obligations as well as the TIFIA loan itself
- Public Private Partnership (P3) Assessment

TIFIA Minimum Project Costs
\$50 million
For a rural infrastructure project, \$25 million
For an intelligent transportation system (ITS) project, \$15 million
1/3 of the most recently-completed fiscal year's formula apportionments for the State in which the project is located

Source: [www.fhwa.dot.gov/map21/factsheets/tifia.cfm](http://www.fhwa.dot.gov/map21/factsheets/tifia.cfm)

Exhibit 9.5.3

TIFIA Key Guidelines
Repayment via dedicated revenue sources that secure project obligations, such as tolls, other user fees, or payments received under a public-private partnership agreement
Repayment must begin by five years after substantial project completion
Interest rates no less than yields on US treasuries rate of final term (e.g. 20 or 30 years) applies to entire loan
Loans to rural infrastructure projects are at 1/2 the Treasury interest rate
Maximum maturity is 35 years after project's substantial completion
A project's senior debt obligations must receive an investment grade credit rating
Eligible costs are defined to include development phase activities, construction and Right of Way acquisition, capitalized interest, reserve funds and cost of issuance expenses

Source: [www.fhwa.dot.gov/map21/factsheets/tifia.cfm](http://www.fhwa.dot.gov/map21/factsheets/tifia.cfm)

Exhibit 9.5.4

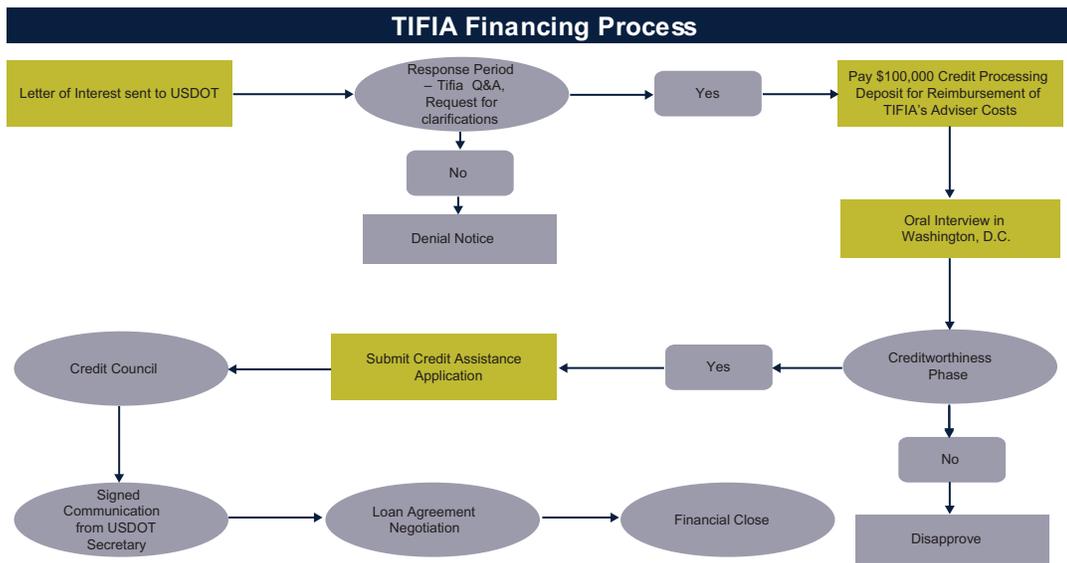
TIFIA Eligible Projects
Projects eligible for assistance under title 23 or chapter 53 of title 49
International bridges and tunnels
Intercity passenger bus or rail facilities and vehicles, including those owned by Amtrak
Public freight rail projects
Private freight rail projects that provide public benefit for highway users by way of direct highway-rail freight interchange (a refinement of the SAFETEA-LU eligibility criterion)
Intermodal freight transfer facilities
Projects providing access to, or improving the service of, the freight rail projects and transfer facilities described above
Surface transportation infrastructure modifications necessary to facilitate direct intermodal interchange, transfer and access into and out of a port

Source: [www.fhwa.dot.gov/map21/factsheets/tifia.cfm](http://www.fhwa.dot.gov/map21/factsheets/tifia.cfm)

Exhibit 9.5.5

TIFIA Eligibility Requirements
Creditworthiness (rate covenant, coverage requirements, investment grade rating(s))
Foster Partnerships that Attract Public and Private Investment
Enable Project to Proceed at an Earlier Date or with Reduced Lifecycle Costs
Reduce the Contribution of Federal Grant Assistance
Environmental Review (NEPA)
Permits and Approvals
Transportation Planning and Programming Process Approvals (STIP and TIP)
Construction Contracting Process Readiness
Project Schedule
Other title 23 or chapter 53, title 49 requirements, as applicable

Source: [www.fhwa.dot.gov/map21/factsheets/tifia.cfm](http://www.fhwa.dot.gov/map21/factsheets/tifia.cfm)



The TIFIA application and credit process needs to be incorporated into the overall project schedule to ensure that a port can meet its time schedule for project delivery and financial close. The TIFIA application and credit process is generally outlined in Exhibit 9.5.6.

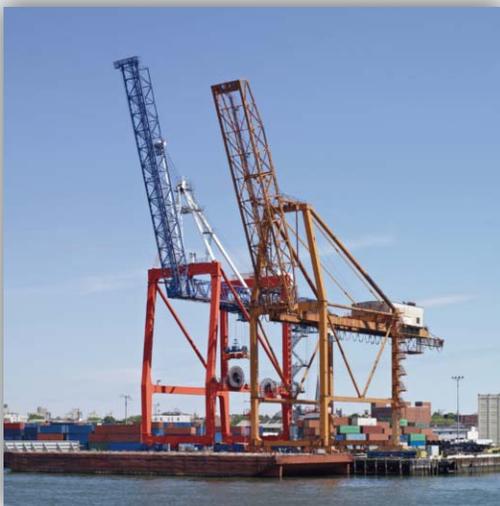
The above discussion and parameters of TIFIA provide an introductory view of the program and are not all encompassing. Additional resources for TIFIA as well as project delivery, project finance, and P3 can be found on FHWA's Innovative Program Delivery website at [www.fhwa.dot.gov/ipd/](http://www.fhwa.dot.gov/ipd/).

### SIB

Several states have recognized the need for a transportation State Infrastructure Bank ("SIB") funded at a greater level from state-only sources and with more flexibility relative to a SIB receiving Federal funding. A non-Federal or state-only SIB can expedite project completion times, and provide for other specific advantages such as:

- Enhanced senior lien debt service coverage for project bonds by financing a portion of a project on a long-term subordinate basis
- Provide low cost pre-construction financing on a short-term basis. The SIB loan could be repaid from the proceeds of the permanent construction financing and then be loaned again
- Pay the interest on other project indebtedness during construction and the early years of operations. That is, the SIB loan could fund capitalized interest
- A SIB program is continuously re-capitalized by loan repayments and can be leveraged to increase overall transportation funding

Exhibit 9.5.7 gives a general overview of how a direct loan program would work (i.e. excluding the "Bonds" portion of the graph), and how a leveraged loan program would work (i.e. including the "Bonds" portion of the graph).



SIBs generally operate as revolving loan funds to alleviate, in part, a critical need for additional funding for the design and construction of roads and highways and other transportation facilities, such as port infrastructure. Direct loans are made to public entities with eligible transportation improvement projects; SIBs may also make grants to projects with no other viable source of funding. Over time additional capitalization could be derived from the repayment of loan principal and interest, investment income on SIB fund balances, and any other revenues appropriated. The specific characteristics and eligibility requirements of any SIB program vary from state to state.

### 9.6. Positioning Ports for Government Loans

Government loan programs can be competitive and so it is imperative that project sponsors requesting funding provide a succinct story in the loan application and also to the various stakeholders of the project. For state and local loan programs, competitiveness and eligibility requirements vary. As such, it is important for project sponsors to have an understanding of how the particular government loan fits into the overall project plan of finance. For the TIFIA program, the requirements can be demanding and the process lengthy. Therefore, before embarking on a path to procure a TIFIA loan, and dedicating extensive time and resources to the process, it is prudent to be aware of a project’s likely chances of being approved for credit assistance. Many of the project strengths discussed in this Toolkit that help in soliciting grant funding also apply to government loans. Projects that have been successful in gaining TIFIA assistance have generally exhibited the strengths in Exhibit 9.6.

Aside from the specifics of the TIFIA program, other more general factors that can help ports to position projects for government funding include experienced management team and technical advisors, reputation of private partners, public support of the project, and legislation and regulations in place to accommodate the project and private investment.

Exhibit 9.5.7 SIB Program Structure

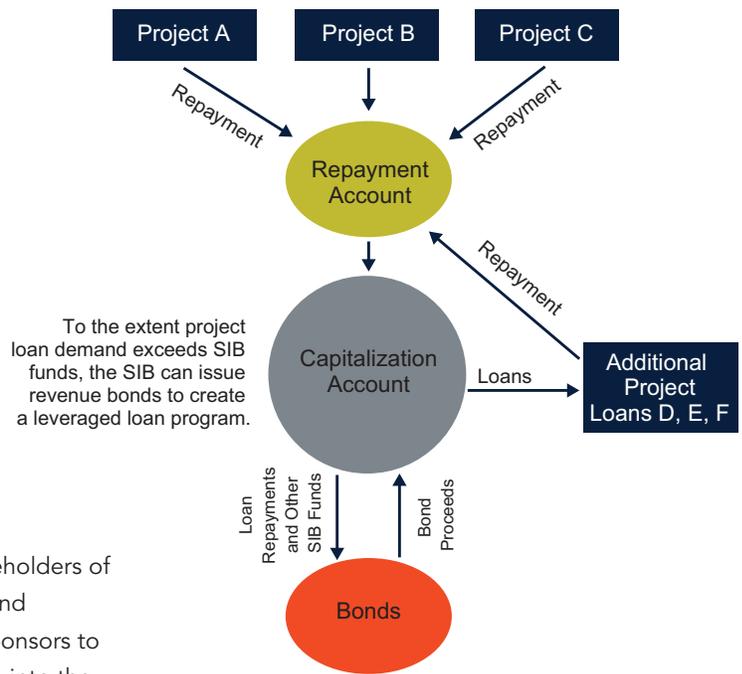


Exhibit 9.6

TIFIA Project Strengths	
<b>Significance:</b>	The extent to which the project is nationally or regionally significant, in terms of generating economic benefits, supporting international commerce, or otherwise enhancing the national transportation system
<b>Private Participation:</b>	The extent to which assistance would foster innovative public-private partnerships and attract private debt or equity investment
<b>Environment:</b>	The extent to which the project helps maintain or protect the environment
<b>Project Acceleration:</b>	The likelihood that assistance would enable the project to proceed at an earlier date than the project would otherwise be able to proceed
<b>Creditworthiness:</b>	The creditworthiness of the project, including a determination that any financing for the project has appropriate security features, such as a rate covenant, to ensure repayment
<b>Use of Technology:</b>	The extent to which the project uses new technologies, including intelligent transportation systems, that enhance the efficiency of the project
<b>Consumption of the Budget Authority:</b>	The amount of budget authority consumed in funding the requested Federal credit instrument
<b>Reduced Federal Grant Assistance:</b>	The extent to which assistance would reduce the contribution of Federal grant assistance to the project

## 10. Project Profiles

### 10.1. Project Profiles Overview

The project profiles included in this Toolkit module represent a range of port projects which have utilized various funding techniques to move those projects towards successful completion. The profiles included are not meant to be an exhaustive list, rather a sampling of the myriad of project transaction structures that have been implemented at ports across the U.S. While each project and port has unique attributes, the strategies used to acquire project funding follow the principles outlined in this Investment Toolkit.

### 10.2. New Container Terminal for a Dedicated Carrier

**PROJECT:** Mitsui/TraPac Project - New Container Terminal

**LOCATION:** Jacksonville, Florida

**PROJECT SPONSOR/BORROWER:** Jacksonville Port Authority (JaxPort or JPA)

#### DESCRIPTION

A long term concession-like Operating Lease & Use Agreement with Mitsui MOL and Trans Pacific Container Corp for the development and financing of a new container terminal expected to eventually throughput 800,000 containers per year. The Agreement sets forth the business and financing terms for the new terminal including a multi-tiered plan of finance and a 30-year operating lease. Because Mitsui is directly or indirectly responsible for all debt service, the project forecast improved JPA's net operating revenues and overall financial position. Some relevant terms and attributes of the Agreement are summarized below:

- JaxPort will own the facility during and after construction. Both parties have representatives on a construction committee to oversee the planning and construction of the project.
- Mitsui/TraPac will lease the premises from JaxPort and operate the container terminal. The term of the lease is 30 years from date of beneficial occupancy of the facility.
- Mitsui/TraPac will have exclusive right to use the facilities during the lease.
- Mitsui/TraPac will pay JaxPort a throughput fee per container.
- Additional Rent under the lease will equal amounts payable to JaxPort for the various components of the financing arranged by JPA.
- The Operating and Lease Agreement constitutes a "full net lease" which means that Mitsui/TraPac, during the lease term, is responsible for keeping the facilities in good working order at its own expense, including insurance, repairs, security, etc.

**COST:** \$220 million

#### FUNDING SOURCES

- \$25 million State of Florida PRPA/Commonwealth grants
- \$45 million JPA Revenue Bonds secured by net operating revenues and highly rated given additional revenue support by the City of Jacksonville pursuant to an Interlocal Agreement



- \$50 million Florida PRPA/Commonwealth state infrastructure bank (SIB) loan secured on a subordinate lien basis by JPA
- \$100 million Special Purpose Facility Revenue Bonds issued by JPA but secured and paid by Mitsui

Exhibit 10.2 Jaxport Funding Sources

**PROJECT DELIVERY/CONTRACT METHOD:**

Design-Build-Finance-Operate-Maintain

**PRIVATE PARTNER:** Dedicated carrier (Mitsui/TraPac)

**PROJECT ADVISORS/CONSULTANTS**

- Office of General Counsel of the City of Jacksonville – Issuer’s counsel
- Foley & Lardner LLP - Bond & disclosure counsel
- Public Financial Management - Financial advisor
- Martin Associates – Demand & revenue consultant

**LENDERS:** Bondholders, FDOT SIB

**DURATION/STATUS:** Terminal opened January 12, 2009

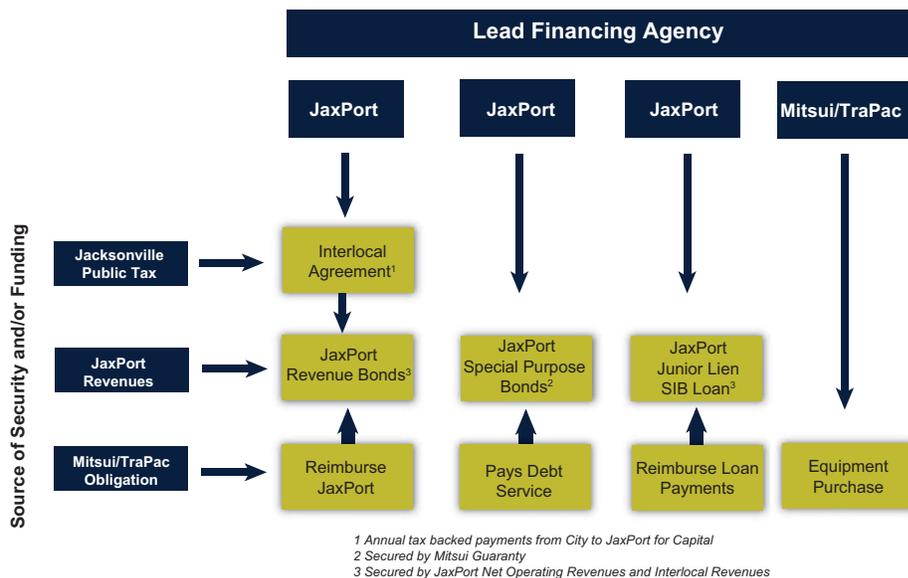
**FINANCIAL STATUS/FINANCIAL PERFORMANCE**

All three debt financing components have been completed. The \$100 million Special Purpose Facility Revenue Bonds, which were sold as variable rate demand bonds and swapped back to a fixed rate at 3.90%, closed April 11, 2007. The SPFR Bonds are guaranteed by Mitsui which helped to attract a low cost Letter of Credit from Sumitomo Mitsui Bank. The \$50 million FDOT SIB loan agreement is secured by JaxPort on a subordinate lien basis with loan repayments reimbursed to JaxPort by Mitsui. The SIB loan closed in July 2007. The final financing component, \$45 million of JaxPort Revenue Bonds, were issued April 2008 as part of a larger JaxPort bond offering, again with debt service reimbursed to JaxPort by Mitsui.

**INNOVATIONS/SPECIAL FEATURES**

- Typical concession financing using bank debt was replaced with public finance structure providing high credit quality, low cost, tax exempt debt which Mitsui could not obtain on its own
- Jaxport willing to serve as conduit issuer, and Mitsui used a parent corporate guaranty

**RELATED LINKS/ARTICLES:** [www.jaxport.com](http://www.jaxport.com)





### 10.3.

## Single Marine Terminal Concession by Third Party Operator

**PROJECT:** Seagirt Marine Terminal

**LOCATION:** Baltimore, Maryland

**PROJECT SPONSOR/BORROWER:** Maryland Port Administration (MPA)

#### **DESCRIPTION**

MPA, a department of the Maryland DOT, sought a P3 arrangement related to the existing Seagirt Marine Terminal and expansion thereof. This was the first project in Maryland to be undertaken as a P3 project. As a first task, the different forms of concession, lease and financing arrangements were laid out so that MPA could determine the basic transaction framework with which to proceed. Using this framework, a financing structure and project valuation was developed working with the cargo forecasting and engineering consultants. This financial analysis helped to show MPA and the Maryland Transportation Authority (MDTA), which owns Seagirt and leases it to MPA, that they could meet their collective business and economic goals for the P3. The framework to enable a proper and competitive P3 solicitation process for the project was then developed. The next steps were to begin the solicitation process. A request for qualifications was drafted for the project, which was made available to interested parties in April 2009 with responses due back June 2009. The data room for the project was managed in-house by the financial advisor, saving MPA a significant project expense and providing better control of data room content. Statements of Qualifications were received and evaluated, with two teams being shortlisted. The request for offers was then drafted that was released to firms shortlisted from the RFQ process. The RFO included all concession/lease terms considered of material importance to MPA and MDTA, as well as a full description of Seagirt, its operations, its physical condition, and the terminal expansion project.

In September 2009, the RFO produced a bid from Ports America with an upfront offer that was vigorously negotiated using financial analysis. The analysis showed that if MPA assisted Ports America with a tax-exempt financing, the overall value of the concession would increase. After negotiations were completed, the offer was \$245 million including a \$140 million upfront payment and \$105 million for an additional berth at Seagirt. The offer also included both fixed and volume based payments to MPA over time as well as capital improvements to Seagirt Marine Terminal, both of which significantly increase the total value of the transaction. The Lease and Concession Agreement ("Concession") has a term of 50 years and includes the upfront payment, the expansion of Seagirt, ongoing fixed and variable payments to MPA, a commitment by Ports America to invest in the capital needs of Seagirt, and the return of leased property to MPA that Ports America holds at the adjacent Dundalk Marine Terminal. The upfront payment was negotiated up to \$140 million from \$110 million, a significant increase from the original offer, contingent on a tax-exempt financing.

**COST:** \$245 million

#### **FUNDING SOURCES**

MPA facilitated the tax-exempt financing through the Maryland Economic Development Corporation (MEDCO) which issued two series of bonds, the \$167

million Revenue Bonds Series A that were used to reimburse MDTA for tax-exempt qualified projects and the \$82 million Revenue Bonds Series B, tax-exempt private activity bonds which were used to pay for a portion of the Seagirt expansion. Equity contribution of \$75 million was provided by Highstar Capital.

Exhibit 10.3 MPA Funding Sources

**PROJECT DELIVERY/CONTRACT METHOD**

Design-Build-Finance-Operate-Maintain

**PRIVATE PARTNER:** Third party operator (Ports America)

**PROJECT ADVISORS/CONSULTANTS**

- Cleary Gottlieb Steen & Hamilton LLP – General counsel
- Orrick, Herrington & Sutcliffe - Bond counsel
- Laurene B. Mahon - Financial advisor to MPA
- Public Financial Management - Financial advisor to MPA
- Martin Associates – Demand & revenue consultant
- AECOM – Engineering consultant

**LENDERS:** Bondholders

**DURATION/STATUS:** Concession in effect as of January 12, 2010

**FINANCIAL STATUS/FINANCIAL PERFORMANCE**

MEDCO sold the project revenue bonds on January 6, 2010 and closing was on January 12, 2010, at which time the Concession went into effect. Bonds received a rating of Baa3 from Moody's.

**INNOVATIONS/SPECIAL FEATURES**

Concession financial model used tax-exempt debt to lower costs and increase the upfront value to MPA as well as the ROI to the private partner

**RELATED LINKS/ARTICLES:** [www.mpa.maryland.gov](http://www.mpa.maryland.gov)

**10.4. Crane Lease Financing**

**PROJECT:** Crane Financing

**LOCATION:** Wilmington, North Carolina

**PROJECT SPONSOR/BORROWER**

North Carolina State Ports Authority ("NCSPA" or the "Authority")

**DESCRIPTION**

NCSPA sought financing to refinance certain port facilities improvements including container cranes. In an effort to maintain competitive advantage and proactively plan for future development, the Authority upgraded and improved the capacity of its current container yard at the Port of Wilmington. The first phase of the improvements were broken down into 2 categories: 1) the purchase of four (4) new 100-foot gauge ship to shore container handling cranes and 2) the improvements to the capital infrastructure to accommodate these new cranes. Improvements to the capital infrastructure as part of phase two included: the installation of the 100-foot gage landside crane rail, repairs and improvements to Berth 9, and the installation of the power distribution system for the new 100-foot gauge container cranes (Phases 1 and 2 collectively referred to as, the "Project"). The Project was acquired / constructed at a cost of approximately \$42 million including

Sources and Uses				
Sources	Series A Bonds	Series B Bonds	Equity Contribution	Total
Par Amount of Series 2010 Bonds	\$ 166,920,000	\$ 81,755,000	\$ -	\$ 248,675,000
(Original Issue Discount)	(2,496,249)	(1,223,653)	-	(3,719,902)
Equity Contribution	-	-	75,000,000	75,000,000
<b>Total Sources</b>	<b>\$ 164,423,751</b>	<b>\$ 80,531,347</b>	<b>\$ 75,000,000</b>	<b>\$ 319,955,097</b>
Uses				
Authority Project Costs	\$ 140,151,028	\$ -	\$ -	\$ 140,151,028
Terminal Project Costs	-	66,412,602	39,542,766	105,955,367
Debt Service Reserve Requirement	15,048,225	7,487,100	-	22,535,325
Capitalized Interest	5,022,018	5,022,018	-	10,044,037
Capital Reserve Account	-	-	7,750,000	7,750,000
Operating Reserve Account	-	-	4,750,000	4,750,000
Deposit to Start-up Operations	-	-	12,525,682	12,525,682
Costs of Issuance and Other	4,202,479	1,609,627	10,431,553	16,243,658
<b>Total Uses</b>	<b>\$ 164,423,751</b>	<b>\$ 80,531,347</b>	<b>\$ 75,000,000</b>	<b>\$ 319,955,097</b>



engineering, design certification, and quality control. The acquisition / construction were initially financed through the use of NCSPA's short-term line of credit, and NCSPA desired to refinance such equipment on a long-term basis. The reasonably expected useful life of the Project is at least 30 years.

**COST:** \$32 million (cranes)

**FUNDING SOURCES**

\$32 million equipment lease financing issued via four schedules (one for \$10 million; three for \$7.3 million each) under Master Lease Agreement

**PROJECT DELIVERY/CONTRACT METHOD:** Master Lease Agreement

**PRIVATE PARTNER:** N/A

**PROJECT ADVISORS/CONSULTANTS:**

- Office of State Attorney General – Issuer counsel
- Womble Carlyle Sandridge & Rice - Lease counsel
- Public Financial Management - Financial advisor

**LENDERS:** SunTrust Equipment Finance and Leasing Corp.

**DURATION/STATUS:** Operational

**FINANCIAL STATUS/FINANCIAL PERFORMANCE:** Lease financing closed April 2008

**INNOVATIONS/SPECIAL FEATURES**

Legal and security structures include a subordinate lien on the net revenues of the Authority's Port Facilities pursuant to the terms of a Subordinated Trust Agreement, and a security interest in the cranes / equipment

**RELATED LINKS/ARTICLES:** [www.ncports.com](http://www.ncports.com)



## 10.5. CIP Funding with Port System Revenue Bonds and Grants

**PROJECT:** Capital Improvement Program (FY 2013)

**LOCATION:** Jacksonville, Florida

**PROJECT SPONSOR/BORROWER:** Jacksonville Port Authority ("JaxPort" or "JPA")

**DESCRIPTION**

The FY 2013 Capital Program consists of the following projects:

- Blount Island Projects: primarily the "Wharf Rehabilitation and Upgrade Project" consisting of structural rehabilitation and upgrades to approximately 5,200 linear feet of the existing marginal wharf structure, bulkhead, and associated structures in order to replace or otherwise repair ballasted deck, pile caps, bulkhead, and other structural members and to restore the cargo terminal to fully operational status
- Dames Point Projects: primarily includes completion of the Intermodal Container Transfer Facility ("ICTF")
- Talleyrand Projects: rehabilitation of wharf structures and other improvements
- Improvements to Bartram Island Dike
- Acquisition of Land for expansion purposes
- Mile Point: harbor project to improve the flow of the St. Johns River at Mile Point, where intra-coastal and river currents pose navigational hindrances for deep draft vessels during certain tidal conditions

**COST:** \$117 million

**FUNDING SOURCES**

- \$19 million Series 2012 port system revenue bonds
- \$5 million JPA operating funds
- \$4 million JPA line of credit
- \$73 million State of Florida grants
- \$16 million Federal grants

**PROJECT DELIVERY/CONTRACT METHOD:** Traditional public contracts

**PRIVATE PARTNER:** N/A

**PROJECT ADVISORS/CONSULTANTS**

- Office of General Counsel of the City of Jacksonville – Issuer’s counsel
- Foley & Lardner LLP - Bond & disclosure counsel
- Public Financial Management - Financial advisor

**LENDERS:** Bondholders

**DURATION/STATUS:** Ongoing capital improvement program

**FINANCIAL STATUS/FINANCIAL PERFORMANCE:** Bond financing closed in 2012

**INNOVATIONS/SPECIAL FEATURES**

Port system revenue bonds additionally secured by Interlocal Agreement  
Revenues received from the City of Jacksonville

**RELATED LINKS/ARTICLES:** [www.jaxport.com](http://www.jaxport.com)

## 10.6. Marine Terminal Expansion using State Port Fund Bonds

**PROJECT:** Craney Island Eastward Expansion

**LOCATION:** Portsmouth, Virginia

**PROJECT SPONSOR/BORROWER:** Virginia Port Authority (“VPA” or the “Authority”)

**DESCRIPTION**

The 522 acre Craney Island Marine Terminal is expected to be constructed in four phases. Pursuant to the Authority’s present plan, Phase I of the marine terminal is scheduled to become operational in 2026 and will consist of approximately 220 acres of terminal yard, 3,000 linear feet of wharf, 8 Suez-Class container cranes, an on-terminal Intermodal Container Transfer Facility and a capacity of approximately 1.3 million TEUs. Additional phases will be completed between 2030 and 2038 in response to growth in demand. Road and rail access will be provided through a dedicated corridor to Route 164. The Craney Terminal has also been designed to accept an interchange from the proposed Third Harbor Crossing, which is a major transportation goal for the Hampton Roads region.

The proceeds of the Series 2011 Bonds were used to pay, either directly or indirectly through repayment of a Treasury Loan, the costs of the Craney Island Eastward Expansion, including: South and Division Cross Dikes; real estate acquisition; environmental mitigation; utility relocation; road and rail connections; other related construction; and all associated engineering, testing, and management.

**COST:** \$60 million (related to the Series 2011 Bonds)



**FUNDING SOURCES**

Debt service on the Series 2011 Bonds is payable from the Port Fund, a special non-reverting fund established as part of the Transportation Trust Fund of the Commonwealth of Virginia

**PROJECT DELIVERY/CONTRACT METHOD:** Various traditional public contracts

**PRIVATE PARTNER:** N/A

**PROJECT ADVISORS/CONSULTANTS**

- Related to Series 2011 Bonds issuance:
- Moffatt & Nichol – Consulting engineer
- Williams Mullen, P.C. - Bond counsel
- Public Financial Management - Financial advisor

**LENDERS** Bondholders

**DURATION/STATUS:** Under construction

**FINANCIAL STATUS/FINANCIAL PERFORMANCE:** Financing closed in 2011

**INNOVATIONS/SPECIAL FEATURES**

\$14 million borrowed from the Virginia Department of Treasury served as interim funding and was repaid with the proceeds of the Series 2011 Bonds.

**RELATED LINKS/ARTICLES:** [www.portofvirginia.com](http://www.portofvirginia.com)



## 10.7. Shorepower Installation at Cruise Ship Terminals

**PROJECT**

Shorepower Installation at B Street and Broadway Cruise Ship Terminals (completed December 2010)

**LOCATION:** San Diego, CA

**PROJECT SPONSOR/BORROWER:** San Diego Unified Port District (Port of San Diego)

**DESCRIPTION**

- CA Air Resources Board (CARB) regulations on shorepowering of cruise ships to begin in January 2014. Regulations required cruise ships with at least 5 calls to use Shorepower for at least 50% of their calls and if a ship had the Shorepower capability, they must 'plug in'.
- 2006 air inventory showed ½ air emission particulates were generated from ships. Of that, ½ were from cruise ships and ½ of those emissions were hoteling emissions.
- Regulations will increase to 70% in 2017 and 80% in 2020.
- When the project was completed, San Diego was 2nd in CA to install Shorepower. Only 5 had been installed globally.
- Port of San Diego received a 2008 Carl Moyer Program Grant (State program) award that provided a portion of funding for shore-side equipment. The project completion was three years ahead of regulations.
- Because of the high power demand and cost of infrastructure, the project was designed to power one ship at a time. Flexibility was built into the system by providing the infrastructure to power three berths. Additional power can be added in the future to allow simultaneous connection of 2 vessels.

- Obligations to grant for emissions reductions were based on volume of ship calls from 2006, when the cruise business was at its highest.

### **Challenges**

- Because shorepower was still a newer technology and the cruise ships required a system that was flexible in how it switched power, a proprietary system was chosen. This system was one that most cruise lines were using and comfortable with. Because a cruise ship is equivalent to a floating hotel, the switch from ship-power to shorepower must be seamless and not affect the passenger's experience. The switch must be synchronized to not disrupt certain services or impact passengers.
- At time of installation and deployment, there were no set standards for ship or shore-side. Systems had to be flexible to accommodate connection location on the ship-side.
- Decline in cruise business caused a decrease in air reductions received from Shorepowering, which did not meet the grant obligation.
- In 2013, CARB granted a ten-year extension to the grant to meet air reductions.
- Meeting grant regulations over the next 10 years may be challenging due to slow return of cruise business
- Cruise growth projections show that by the 2017 increase to 70%, the ability to power two ships simultaneously will be required. This will necessitate another multi-million dollar investment.
- Because the Port of San Diego could only power one ship at a time, an additional operational expense is incurred each time the jib (connection) is moved to accommodate a ship at one of the three potential berths.
- At start up, the Port of San Diego and utility company had not come to an agreed upon Shorepower rate. San Diego has some of the highest utility rates in the country. The difference in utility rates at different ports results in different costs to vessel operators in different ports. Although the existing rate structure is acceptable to cruise lines, that rate structure will end in 2016. Increased rates are difficult for the cruise lines and the return of the cruise lines to San Diego.
- Port of San Diego is not part of a municipality, so does not qualify for reduced rates.
- Port of San Diego will work to develop a Shorepower rate and obtain California Public Utilities Commission approval.

**COST:** \$7.1 million

### **FUNDING SOURCES**

- \$2.4 million – Carl Moyer Grant Program
- \$4.7 million Port of San Diego's Capital Improvement Program

### **PROJECT DELIVERY/CONTRACT METHOD**

Sole Source Contract – system was specific to cruise ships. Vendor designed, procured, installed and maintains equipment. Infrastructure was provided through traditional Public Works contracting.

**PRIVATE PARTNER:** N/A

**PROJECT ADVISORS/CONSULTANTS**

- Cochrane Electric for equipment/system design and installation;
- Engineering Partners, Inc. for infrastructure design
- SDG&E (local utility) for infrastructure and power supply

**LENDERS:** N/A

**DURATION/STATUS**

9 month construction/installation (2007 – 2009 planning and design)

**FINANCIAL STATUS/FINANCIAL PERFORMANCE**

Grant program performance period expired in 2010; however a ten-year extension has been granted for reporting of emissions. Because this was regulatory by the state, no ROI will be realized.

**INNOVATIONS/SPECIAL FEATURES**

Cost for utility service supply design and infrastructure construction (\$2 million). Portion of this cost is planned to be refunded to the port of San Diego over 7 years if threshold use of power is met. As of today received \$150,000 in the first year of use, but then decreased to approximately \$40,000 - \$50,000 per year due to the decline in cruise business. The cruise business decline was caused by the economic recession and perceived violence in Mexico, which is the primary market for San Diego's cruise business.

**RELATED LINKS/ARTICLES:** [www.portofsandiego.org](http://www.portofsandiego.org)

## 10.8. Construction of Inset River Harbor

**PROJECT:** South Harbor

**LOCATION:** Madison, Illinois on the Mississippi River

**PROJECT SPONSOR/BORROWER:** America's Central Port (ACP)

**DESCRIPTION**

The South Harbor project at America's Central Port is the construction of a new, inset river harbor located on the left descending bank of the Mississippi River approximately three miles north of downtown St. Louis, Missouri. The project consists of several components including:

- Lease of property from the US Army Corps of Engineers
- Clearing and grubbing of trees
- Excavation of 750,000 cubic yards of sand and clay material
- Placement of rip rap for bank stabilization
- Construction of a clay cutoff wall and clay blanket for levee protection
- Construction of 10 new levee relief wells for levee and flood protection
- Construction of 9,600 lineal feet of rail track that will serve the South Harbor
- Construction of a 400' long open cell sheet pile wall
- Construction of a 30' diameter closed cell, two 19' diameter closed cells and four mooring dolphins
- Construction of a rail/truck terminal, including conveyor and loadout, for handling dry bulk commodities
- Purchase of two captive deck barges for terminal operations
- Acquisition and mitigation of nearly 100 acres of land for wetlands mitigation purposes



- As added options, construction of dry bulk storage, liquid pipelines and liquid storage tanks.

**COST:** \$50 million

**FUNDING SOURCES**

- \$5 million - Port operating and capital development funds
- \$26.5 million - loan funds
- \$4 million - State of Illinois grant
- \$14.5 million - Federal grant (TIGER I)

**PROJECT DELIVERY/CONTRACT METHOD**

Traditional public contracts, and design/build

**PRIVATE PARTNER:** N/A

**PROJECT ADVISORS/CONSULTANTS**

Numerous rail and terminal design consultants, survey and geotechnical engineers

**LENDERS:** Regions Bank

**DURATION/STATUS**

Construction is being completed in stages; all construction is scheduled to be complete by September 2015

**FINANCIAL STATUS/FINANCIAL PERFORMANCE**

Loan for \$16.5 million closed in July 2014

**INNOVATIONS/SPECIAL FEATURES**

Only one of two inset harbors in the entire St. Louis metropolitan area: allows terminal operations to occur outside of the navigation channel. The most northerly ice-free and lock free port on the Mississippi River

**RELATED LINKS/ARTICLES:** [www.americascentralport.com](http://www.americascentralport.com)



# 11. Appendices

## 11.1. Funding Strategy Checklist

A port funding strategy checklist is provided with this Toolkit via a separate link, for both experienced and inexperienced port industry professionals alike for use as a general guide in making port capital investment decisions and implementing corresponding financing structures. While the unique characteristics of any given port project and financing will determine the specific tasks to be performed and sequence, the checklist aims to enable port professionals to understand and navigate the project financing process at a broad-based level. For additional information, the checklist contains references to sections of the Toolkit where further background discussion on a particular topic can be found. Throughout the capital investment process a port should consult with its various advisors (technical, financial, legal, etc.) in an effort to utilize best practices for its projects.

## 11.2. Financial Model Sample

Both port system pro forma cash flow models and project finance models are user and project specific. As such, included with this Toolkit via a separate link is a sample model to be used for illustrative purposes only. For port system pro forma models, existing system net revenues can be augmented by off balance sheet project revenue streams, both of which factor into the port's system debt service coverage levels and fund balances. For the project finance components of a model, as project revenues flow through the various operating, debt, and reserve requirements, the model should solve for the cash flows available for private partner payments. A model can be made to further solve for the discounted cash flows and calculate the equity Internal Rate of Return in order to determine the full value of a concession agreement to a potential private partner.

## 11.3. Glossary

**Additional Bonds Test** - The financial test, sometimes referred to as a "parity test," that must be satisfied under the bond contract securing outstanding revenue bonds or other types of bonds as a condition to issuing additional bonds. Typically, the test would require that historical revenues (plus, in some cases, future estimated revenues) exceed projected debt service requirements for both the outstanding issue and the proposed issue by a certain ratio. <sup>1</sup>

**Advance Refunding** - For purposes of certain tax and securities laws and regulations, a refunding in which the refunded issue remains outstanding for a period of more than 90 days after the issuance of the refunding issue. <sup>1</sup>

**Alternative Minimum Tax (AMT)** - Taxation based on an alternative method of calculating federal income tax under the Internal Revenue Code. Interest on certain private activity bonds is subject to the AMT. <sup>1</sup>

**Amortization** - The process of paying the principal amount of an issue of securities by periodic payments either directly to bondholders or to a sinking fund for the benefit of bondholders. <sup>1</sup>

**Arbitrage Rebate** - A payment made by an issuer to the federal government in connection with an issue of tax-exempt or other federally tax-advantaged bonds.

The payment represents the amount, if any, of arbitrage earnings on bond proceeds and certain other related funds, except for earnings that are not required to be rebated under limited exemptions provided under the Internal Revenue Code. An issuer generally is required to calculate, once every five years during the life of its bonds, whether or not an arbitrage rebate payment must be made. <sup>1</sup>

**Asset-Backed Debt** - Debt having hard asset security such as a crane lease or property mortgage, in addition to the security of pledged revenues.

**Availability Payment** - A means of compensating a private concessionaire for its responsibility to design, construct, operate, and/or maintain an infrastructure facility for a set period of time. These payments are made by a public project sponsor (a port authority, for example) based on particular project milestones or facility performance standards. <sup>2</sup>

**Best and Final Offers (BAFO)** - In government contracting, a vendor's response to a contracting officer's request that vendors submit their last and most attractive bids to secure a contract for a particular project. Best and final offers are submitted during the final round of negotiations. <sup>3</sup>

**Bond Indenture** - A contract between the issuer of municipal securities and a trustee for the benefit of the bondholders. The trustee administers the funds or property specified in the indenture in a fiduciary capacity on behalf of the bondholders. The indenture, which is generally part of the bond contract, establishes the rights, duties, responsibilities and remedies of the issuer and trustee and determines the exact nature of the security for the bonds. The trustee is generally empowered to enforce the terms of the indenture on behalf of the bondholders. <sup>1</sup>

**Call Date** - The date on which bonds may be called for redemption as specified by the bond contract. <sup>1</sup>

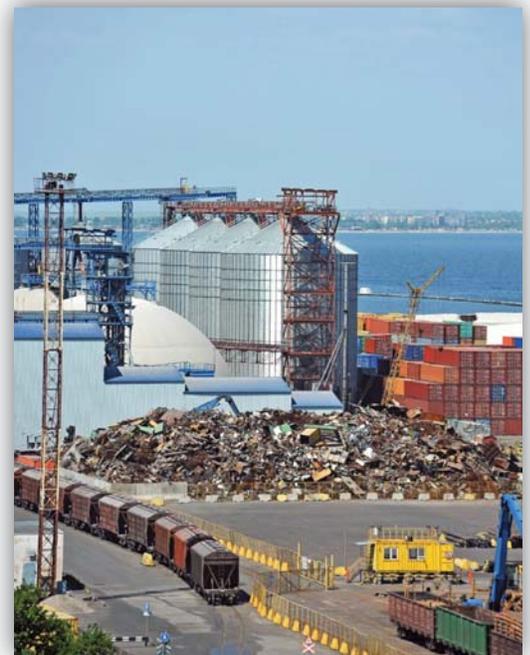
**Capital Appreciation Bonds (CABs)** - A municipal security on which the investment return on an initial principal amount is reinvested at a stated compounded rate until maturity. At maturity the investor receives a single payment (the "maturity value") representing both the initial principal amount and the total investment return. CABs typically are sold at a deeply discounted price with maturity values in multiples of \$5,000. <sup>1</sup>

**Capital Improvement Program (CIP)** - A schedule, typically covering a period of less than ten years, which outlines expenditures for capital projects on an annual basis and corresponding funding sources.

**Capital Structure** - The mix of an issuer's or a project's short and long-term debt and equity, including the terms of such financing and repayment requirements.

**Capitalized Interest** - A portion of the proceeds of an issue that is set aside to pay interest on the securities for a specified period of time. Interest is commonly capitalized for the construction period of a revenue-producing project, and sometimes for a period thereafter, so that debt service expense does not begin until the project is expected to be operational and producing revenues. <sup>1</sup>

**Concession** - An alternative method for a public sector entity to deliver a public-purpose project through long-term contracting with a private sector entity. A concession agreement typically covers the objectives of the asset concession, compensation, and duration of concession.



**Convertible Capital Appreciation Bonds (CCABs)** - Capital Appreciation Bonds with a convertibility feature at a future date to Current Interest Bonds. CCABs can be used to defer interest and principal payments, with conversion to Current Interest Bonds so that debt service requirements begin, thus reducing the cost of funds relative to traditional, non-convertible Capital Appreciation Bonds.

**Coupon** - The periodic rate of interest, usually calculated as an annual rate payable on a security expressed as a percentage of the principal amount. The coupon rate, sometimes referred to as the "nominal interest rate," does not take into account any discount or premium in the purchase price of the security. <sup>1</sup>

**Covenants** - Contractual obligations set forth in a bond contract. Covenants commonly made in connection with a bond issue may include covenants to charge fees sufficient to provide required pledged revenues (called a "rate covenant"); to maintain casualty insurance on the project; to complete, maintain and operate the project; not to sell or encumber the project; not to issue parity bonds or other indebtedness unless certain tests are met ("additional bonds" or "additional indebtedness" covenant); and not to take actions that would cause tax-exempt interest on the bonds to become taxable or otherwise become arbitrage bonds ("tax covenants"). <sup>1</sup>

**Credit Rating** - An opinion by a rating agency of the credit-worthiness of a bond. <sup>1</sup>

**Current Interest Bonds (CIBs)** - A bond on which interest payments are made to the bondholders on a periodic basis. This term is most often used in the context of an issue of bonds that includes both Capital Appreciation Bonds and Current Interest Bonds. <sup>1</sup>

**Current Refunding** - A refunding transaction where the municipal securities being refunded will all mature or be redeemed within 90 days or less from the date of issuance of the refunding issue. <sup>1</sup>

**Debt Profile** - A detailed description of an issuer's overall debt portfolio and credit profile that is updated as changes in capital structure occur. A debt profile typically includes all of the relevant information about an issuer's debt including but not limited to current ratings, debt service requirements, debt service coverage ratios and eligibility for refunding.

**Debt Service Coverage Ratio** - The ratio of available revenues available annually to pay debt service over the annual debt service requirement. This ratio is one indication of the availability of revenues for payment of debt service. <sup>1</sup>

**Debt Service Reserve** - A fund in which funds are placed to be applied to pay debt service if pledged revenues are insufficient to satisfy the debt service requirements. The debt service reserve fund may be entirely funded with bond proceeds at the time of issuance, may be funded over time through the accumulation of pledged revenues, may be funded with a surety or other type of guaranty policy (described below), or may be funded only upon the occurrence of a specified event (e.g. upon failure to comply with a covenant in the bond contract) (a "springing reserve"). Issuers may sometimes authorize the provision of a surety bond or letter of credit to satisfy the debt service reserve fund requirement in lieu of cash. If the debt service reserve fund is used in whole or part to pay debt service, the issuer usually is required to replenish the fund from the first available revenues, or in periodic repayments over a specified period of time.



**Defeasance** - Termination of certain of the rights and interests of the bondholders and of their lien on the pledged revenues or other security in accordance with the terms of the bond contract for an issue of securities. This is sometimes referred to as a "legal defeasance." Defeasance usually occurs in connection with the refunding of an outstanding issue after provision has been made for future payment of all obligations related to the outstanding bonds, sometimes from funds provided by the issuance of a new series of bonds. In some cases, particularly where the bond contract does not provide a procedure for termination of these rights, interests and lien other than through payment of all outstanding debt in full, funds deposited for future payment of the debt may make the pledged revenues available for other purposes without effecting a legal defeasance. This is sometimes referred to as an "economic defeasance" or "financial defeasance." If for some reason the funds deposited in an economic or financial defeasance prove insufficient to make future payment of the outstanding debt, the issuer would continue to be legally obligated to make payment on such debt from the pledged revenues. <sup>1</sup>



**Demand & Revenue Study** - A professionally prepared forecast and report of the market demand for a port's cargo, and the ensuing revenue as a result of charging rates/fees for such cargo moving through a port. Demand & revenue data is used as input in developing plans of finance and evaluating investment opportunities.

**Design-Build (DB)** - A project delivery method that combines two, usually separate services into a single contract. With design-build procurements, owners execute a single, fixed-fee contract for both architectural/engineering services and construction. The design-build entity may be a single firm, a consortium, joint venture or other organization assembled for a particular project. <sup>4</sup>

**Design-Build-Finance-Operate-Maintain (DBFOM)** - A method of project delivery in which the responsibilities for designing, building, financing and operating are bundled together and transferred to private sector partners. <sup>4</sup>

**Design-Build-Operate-Maintain (DBOM)** - An integrated partnership that combines the design and construction responsibilities of design-build procurements with operations and maintenance. These project components are procured from the private sector in a single contract with financing secured by the public sector. <sup>4</sup>

**Equity** - A funding contribution to a project having an order of repayment occurring after debt holders in a flow of funds per the bond indenture securing such funding contribution.

**Escrow** - A fund established to hold funds pledged and to be used solely for a designated purpose, typically to pay debt service on an outstanding issue in an advance refunding. <sup>1</sup>

**Flow of Funds** - The order and priority of handling, depositing and disbursing pledged revenues, as set forth in the bond contract. Generally, pledged revenues are deposited, as received, into a general collection account or revenue fund established under the bond contract for disbursement into the other accounts established under the bond contract. Such other accounts generally provide for payment of the costs of debt service, debt service reserve deposits, operation and maintenance costs, renewal and replacement and other required amounts. <sup>1</sup>

**Forward Refunding** - An agreement, usually between an issuer and the underwriter, whereby the issuer agrees to issue bonds on a specified future date and an underwriter agrees to purchase such bonds on such date. The proceeds of such bonds, when issued, will be used to refund the issuer's outstanding bonds. Typically, a forward refunding is used where the bonds to be refunded are not permitted to be advance refunded on a tax-exempt basis under the Internal Revenue Code. In such a case, the issuer agrees to issue, and the underwriter agrees to purchase, the new issue of bonds on a future date that would effect a current refunding. <sup>1</sup>

**Interest Rate Swap** - A specific derivative contract entered into by an issuer or obligor with a swap provider to exchange periodic interest payments. Typically, one party agrees to make payments to the other based upon a fixed rate of interest in exchange for payments based upon a variable rate. The swap contract may provide that the issuer will pay to the swap counter-party a fixed rate of interest in exchange for the counter-party making variable payments equal to the amount payable on the variable rate debt. <sup>1</sup>

**Internal Rate of Return (IRR)** - The discount rate often used in capital budgeting that makes the net present value of all cash flows from a particular project equal to zero. Generally speaking, the higher a project's internal rate of return, the more desirable it is to undertake the project. <sup>3</sup>

**Investment-Grade** - A security that, in the opinion of the rating agency, has a relatively low risk of default. <sup>1</sup> Alternatively, the level of comprehensiveness and market readiness for investment-grade security issuance in referring to a demand & revenue report or engineering report supporting such security issuance.

**Letter of Credit** - An irrevocable commitment, usually made by a commercial bank, to honor demands for payment of a debt upon compliance with conditions and/or the occurrence of certain events specified under the terms of the letter of credit and any associated reimbursement agreement. A letter of credit is frequently used to provide credit and liquidity support for variable rate demand obligations and other types of securities. Bank letters of credit are sometimes used as additional sources of security for issues of municipal notes, commercial paper or bonds, with the bank issuing the letter of credit committing to pay principal of and interest on the securities in the event that the issuer is unable to do so. <sup>1</sup>

**Liquidated Damages** - Present in certain legal contracts, this provision allows for the payment of a specified sum should one of the parties be in breach of contract. <sup>3</sup>

**Liquidity** - In the context project finance, the build-up of cash reserve balances which are viewed favorably given the ability to use such reserves to cover debt service and other obligations under a bond indenture should expected project cash flows not materialize for any given period.

**Major Project Financial Plan** - Under U.S. Department of Transportation (USDOT) guidance, transportation projects are required to submit a Major Project Financial Plan if any of the following apply: 1) recipient of Federal financial assistance for a Title 23 project with a minimum cost of \$500 million, 2) identified by the USDOT Secretary as a major project and 3) applying for TIFIA assistance.

**Maximum Annual Debt Service (MADS)** - Maximum annual debt service refers to the amount of debt service for the year in which the greatest amount of debt



service payments are required and is often used in calculating required reserves and in additional debt tests. <sup>1</sup>

**Negative Arbitrage** - Investment of bond proceeds and other related funds at a rate below the bond yield. <sup>1</sup>

**Net Present Value (NPV)** - The difference between the present value of cash inflows and the present value of cash outflows. NPV is used in capital budgeting to analyze the profitability of an investment or project. <sup>3</sup>

**Net Revenue** - The amount of money available after subtracting from gross revenues such costs and expenses as may be provided for in the bond contract. The costs and expenses most often deducted are operations and maintenance expenses. <sup>1</sup>

**Operating & Use Lease Agreement** - A contract that allows for the use of an asset, but does not convey rights of ownership of the asset. An operating lease is not capitalized; it is accounted for as a rental expense in what is known as "off balance sheet financing." For the lessor, the asset being leased is accounted for as an asset and is depreciated as such. Operating leases have tax incentives and do not result in assets or liabilities being recorded on the lessee's balance sheet, which can improve the lessee's financial ratios. <sup>3</sup>

**Operations & Maintenance (O&M)** - Refers to expenses incurred for operating and maintaining a project asset. O&M is a key input in determining project cash flows, often placed after gross revenues in the flow of funds of a bond indenture.

**Payment Bond** - Deposit or guaranty (usually 20 percent of the bid amount) submitted by a successful bidder as a surety that (upon contract completion) all sums owed by it to its employees, suppliers, subcontractors, and others creditors, will be paid on time and in full. <sup>5</sup>

**Performance Bond** - A written guaranty from a third party guarantor (usually a bank or an insurance company) submitted to a principal (client or customer) by a contractor on winning the bid. A performance bond ensures payment of a sum (not exceeding a stated maximum) of money in case the contractor fails in the full performance of the contract. Performance bonds usually cover 100 percent of the contract price and replace the bid bonds on award of the contract. Unlike a fidelity bond, a performance bond is not an insurance policy and (if cashed by the principal) the payment amount is recovered by the guarantor from the contractor. <sup>5</sup>

**Price** - The amount to be paid for a bond, usually expressed as a percentage of par value but also sometimes expressed as the yield that the purchaser will realize based on the dollar amount paid for the bond. The price of a municipal security moves inversely to the yield. <sup>1</sup>

**Private Activity Bonds (PABs)** - A municipal security of which the proceeds are used by one or more private entities. A municipal security is considered a private activity bond if it meets two sets of conditions set out in Section 141 of the Internal Revenue Code. A municipal security is a private activity bond if, with certain exceptions, more than 10 percent of the proceeds of the issue are used for any private business use (the "private business use test") and the payment of the principal of or interest on more than 10 percent of the proceeds of such issue is secured by or payable from property used for a private business use (the "private security or payment test"). A municipal security also is a private activity bond if,



with certain exceptions, the amount of proceeds of the issue used to make loans to non-governmental borrowers exceeds the lesser of 5 percent of the proceeds or \$5 million (the “private loan financing test”). Interest on private activity bonds is not excluded from gross income for federal income tax purposes unless the bonds fall within certain defined categories (“qualified bonds” or “qualified private activity bonds”). Most categories of qualified private activity bonds are subject to the alternative minimum tax. <sup>1</sup>

**Private Placement** - A primary offering in which a placement agent sells a new issue of municipal securities on behalf of the issuer directly to investors on an agency basis rather than by purchasing the securities from the issuer and reselling them to investors. Investors purchasing privately placed securities often are required to agree to restrictions as to resale and are sometimes requested or required to provide a private placement letter to that effect. The term Private Placement is often used synonymously with the term “direct loan,” which more specifically is a loan to a municipal issuer from a banking institution or another lender. Such obligations may constitute municipal securities. <sup>1</sup>

**Project Finance** - The financing of long-term infrastructure, industrial projects and public services based upon a non-recourse or limited recourse financial structure where project debt and equity used to finance the project are paid back from the cashflow generated by the project. <sup>3</sup>

**Public-Private Partnership (P3)** - A generic term for a wide variety of financial arrangements whereby governmental and private entities agree to transfer an ownership interest of, or substantial management control over, a governmental asset to the private entity in exchange for upfront or ongoing payments. <sup>1</sup>

**Publicly Issued** - The sale of bonds or other financial instruments by an organization to the public in order to raise funds for infrastructure expansion and investment (contrast with privately placed financial instruments including directly placed loans with a financial institution/lender).

**Put Bond** - A bond that allows the holder to force the issuer to repurchase the security at specified dates before maturity. The repurchase price is set at the time of issue, and is usually par value. <sup>3</sup>

**Railroad Rehabilitation & Improvement Financing (RRIF)** - Under this program the Federal Railroad Administration Administrator is authorized to provide direct loans and loan guarantees up to \$35.0 billion to finance development of railroad infrastructure. Up to \$7.0 billion is reserved for projects benefiting freight railroads other than Class I carriers. The funding may be used to (a) acquire, improve, or rehabilitate intermodal or rail equipment or facilities, including track, components of track, bridges, yards, buildings and shops; (b) refinance outstanding debt incurred for the purposes listed above; and (c) develop or establish new intermodal or railroad facilities. Direct loans can fund up to 100% of a railroad project with repayment periods of up to 35 years and interest rates equal to the cost of borrowing to the government. Eligible borrowers include railroads, state and local governments, government-sponsored authorities and corporations, joint ventures that include at least one railroad, and limited option freight shippers who intend to construct a new rail connection. <sup>6</sup>



**Rate Covenant** - A covenant to charge fees sufficient to provide required pledged revenues. <sup>1</sup>

**Renewal & Replacement (R&R)** - Funds to cover anticipated expenses for major repairs of the issuer's facilities or a project whose revenues are pledged to the bonds or for repair and replacement of related equipment. <sup>1</sup>

**Request for Letters of Intent (RLOI)** - Document used to solicit Letters of Intent, an interim agreement that summarizes the main points of a proposed deal, or confirms that a certain course of action is going to be taken. Normally, it does not constitute a definitive contract but signifies a genuine interest in reaching the final agreement subject to due diligence, additional information, or fulfillment of certain conditions. The language used in writing a letter of intent is of vital importance, and determines whether it is only an expression of intent or an enforceable undertaking.<sup>5</sup>

**Request for Proposals (RFP)** - Document used in sealed-bid procurement procedures through which a purchaser advises the potential suppliers of (1) statement and scope of work, (2) specifications, (3) schedules or timelines, (4) contract type, (5) data requirements, (6) terms and conditions, (7) description of goods and/or services to be procured, (8) general criteria used in evaluation procedure, (9) special contractual requirements, (10) technical goals, (11) instructions for preparation of technical, management, and/or cost proposals. RFPs are publicly advertised and suppliers respond with a detailed proposal, not with only a price quotation. They provide for negotiations after sealed proposals are opened, and the award of contract may not necessarily go to the lowest bidder. <sup>5</sup>

**Request for Qualifications (RFQ)** - Document used in a procurement process to solicit qualifications of professional providers of goods or services for a given project. The objective of the RFQ is to pre-qualify bidding teams based on well-defined criteria.

**Security for Debt** - The specific revenue sources or assets of an issuer or borrower that are pledged or available for payment of debt service on a series of bonds, as well as the covenants or other legal provisions protecting the bondholders. <sup>1</sup>

**Senior Lien Debt** - Bonds having the priority claim against pledged revenues superior to the claim against such pledged revenues or security of other obligations. <sup>1</sup>

**Special Purpose Facility Bonds** - Bonds issued by a governmental entity to finance facilities supporting private sector activity, and secured by payments of special purpose rent received by the port or the trustee pursuant to an agreement with lessee/concessionaire. Such bonds are issued by the governmental entity as the conduit issuer to achieve tax-exempt (or Alternative Minimum Tax) status on the bonds.

**State Infrastructure Bank (SIB)** - A state or multi-state revolving fund that provides loans, credit enhancement, and other forms of financial assistance to transportation infrastructure projects. <sup>2</sup>

**Subordinate Lien Debt** - Bonds that have a claim against pledged revenues or other security subordinate to the claim against such pledged revenues or security of other obligations. <sup>1</sup>



**Transportation Infrastructure Finance and Innovation Act (TIFIA)** - As part of its 1998 enactment of the Transportation Equity Act for the 21st Century (TEA 21), Congress established a Federal credit program for large transportation projects. Sections 1501 to 1504 of TEA 21, collectively the Transportation Infrastructure Finance and Innovation Act of 1998 (TIFIA), authorize the Department of Transportation (DOT) to provide three forms of credit assistance - secured (direct) loans, loan guarantees and standby lines of credit - to surface transportation projects of national or regional significance. A specific goal of TIFIA is to leverage private co-investment. Because the program offers credit assistance, rather than grant funding, potential projects must be capable of generating revenue streams via user charges or have access to other dedicated funding sources. In general, a project's eligible costs must be reasonably anticipated to total at least \$50 million. Credit assistance is available to: projects eligible for assistance under title 23 or chapter 53 of title 49; international bridges and tunnels; intercity passenger bus or rail facilities and vehicles, including those owned by Amtrak; public freight rail projects; private freight rail projects that provide public benefit for highway users by way of direct highway-rail freight interchange (a refinement of the SAFETEA-LU eligibility criterion); intermodal freight transfer facilities; projects providing access to, or improving the service of, the freight rail projects and transfer facilities described above; and surface transportation infrastructure modifications necessary to facilitate direct intermodal interchange, transfer and access into and out of a port. The TIFIA credit assistance is limited to 49 percent of eligible project costs.<sup>4</sup>

**Transportation Investment Generating Economic Recovery (TIGER)** - U.S. Department of Transportation TIGER discretionary grants are awarded on a competitive basis for capital investments in surface transportation projects that will have a significant impact on the nation, a metropolitan area or a region.

**Value for Money (VfM)** - A technique used to evaluate and quantify project risks. VfM "prices" risk by producing a discounted net present value amount that represents the aggregate impact of various sensitivities applied to the variable inputs of a project. An assessment of VfM for P3 procurements is a comparative concept, and as such most delivery agencies seek to use a "public sector comparator" approach to evaluating VfM.

**Yield** - The annual rate of return on an investment, based on the purchase price of the investment, its coupon rate and the length of time the investment is held. The yield of a municipal security moves inversely to the price.<sup>1</sup>

**Yield Restriction** - A general requirement under the Internal Revenue Code that proceeds of tax-exempt bonds not be used to make investments at a higher yield than the yield on the bonds. The Internal Revenue Code provides certain exceptions, such as for investment of bond proceeds for reasonable temporary periods pending expenditure and investments held in "reasonably required" debt service reserve funds.<sup>1</sup>



*Note: Sources for the glossary include (1) [www.msrb.org](http://www.msrb.org), (2) [www.transportation-finance.org](http://www.transportation-finance.org), (3) [www.investopedia.com](http://www.investopedia.com), (4) [www.fhwa.dot.gov/ipd](http://www.fhwa.dot.gov/ipd), (5) [www.businessdictionary.com](http://www.businessdictionary.com), and (6) [www.fra.dot.gov](http://www.fra.dot.gov).*



