

Innovative Financing Solutions For Rail Transit Projects Using A Public Private Partnership

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ABSTRACT

The Federal share of rail transit projects is continuing to decline as a percentage of capital costs. Facing budget pressures, States find it difficult to supplement this Federal shortfall. To move forward, rail transit projects must reduce their overall capital cost and increase the share of capital and operating subsidies, which can be provided from the private sector and local sources. Fortunately, public-private partnerships (PPP) offer a new approach to project development and contracting, which can both substantially reduce capital costs, compress schedules and provide innovative financing solutions to the growing funding needs of public infrastructure projects.

In order to maximize resources, PPP projects should be structured to let the Public Partner define overall goals and objectives and join with the private sector very early in the project development process. The private partner can provide a development strategy, financial resources, technology, and skills not normally available in the public sector. Properly structured, public-private partnerships can greatly benefit rail transit projects by providing innovative financing techniques, private-sector financing and in-kind investment. This paper addresses a general model for this project finance structure for rail transit projects.

Practical examples of the project development benefits of the PPP approach will be examined based on two current rail transit projects in development, Dulles Rapid Transit in Virginia and Union County Light Rail in New Jersey. Both projects utilize public-private partnerships, which have substantially reduced capital cost and compressed schedules. Both projects had early involvement of a private sector developer, which has successfully applied innovative financing techniques. Preliminary financing plans have identified funding for each project which, in addition to Federal and State programs, also includes the following less traditional funding sources: a broad approach to transit related real estate development; leveraging of existing transportation assets; tax assessment districts, tax increment districts and transportation improvement districts; privatization of parking garages; private sector contributions

of right-of-way and other transportation assets; an airport rental car surcharge; and other minor non-traditional sources of funding. The projects may also access TIFIA loans or loan guarantees and utilize 63-20 organizational structures for tax-exempt financing purposes.

Although this paper focuses on innovative financing, there are actually four components to successful implementation of PPP's: (1) Innovative financing; (2) System configuration and project delivery approaches; (3) Environmental and regulatory requirements, including NEPA; and (4) Advanced procurement strategies to complement Federal requirements and State procurement laws. An analysis of one project delivery strategy that promotes multiple components is progressive design-build-operate-maintain-finance (DBOM&F). The Hudson Bergen Light Rail Project has offered a great deal of lessons learned and best practices in this regard, although the State of New Jersey ultimately performed the financing. The DBOM contract, however, has been quite successfully implemented.

PLANNING FOR INNOVATIVE FINANCE

Maximizing Private Sector And Local Contributions

Financial contributions from the private sector for rail transit development are usually not significant because the investment risk for the private sector is just too high in the early development stages of a transit project to support any substantial, upfront financial commitments. Likewise, financial support for transit projects from local governments is also not significant, because it often relies upon future cashflows from the same uncertain, future economic development. The lack of substantial funding support from the private sector and local government can often be attributed to the simple fact that a lot of the transit related real estate development occurs well after the transit system has been built.

Structurally, the capital markets view potential cashflows from future real estate development, upon which the private

sector and local governments' contributions would be based, as simply too weak of a financial commitment to bond against. Innovative financial structures, such as our lease/leaseback structure, can mitigate the private sector's early stage development risk and offer a solution to the local governments' cashflow timing problems. This should allow for substantial increase in financial support for a transit system's capital costs from both of these sources.

Project Structuring For Innovative Financing

The maximum benefits from a public-private partnership are derived for a transit project when the private partner is involved at the earliest stage in the project's development. The developer can assist the public entity in developing a Plan of Finance which best achieves the goal of building the transit system. With today's funding realities, the Federal share of rail transit projects is continuing to decline. States also face budget pressures, which will focus more efforts on maximizing contributions from both the private sector and local governments. The purpose of a well-structured Plan of Finance is to obtain equitable financial contributions from the many, disparate benefactors of the transit project's development including the State, local counties, cities, local landowners and businesses, the traveling public and the environment.

One approach to a Plan of Finance, which can achieve the goal of funding transit systems with these challenging funding realities, utilizes an innovative "lease/leaseback" arrangement (see Figure 1). Under this structure, the controlling State transit agency (Public Partner) initially leases the transit system's unimproved right-of-way to a special purpose company (SPC) for a nominal amount. With the lease/leaseback structure in place, a PPP can construct the project under a design, build, operate, maintain and finance contract (DBOM&F) with the Public Partner. Upon completion of the project, the Public Partner will leaseback the improved project. Under the innovative financial structure described, the Public Partner is responsible only for the remaining lease payment for the system after significant contributions from all other benefactors are considered.

This initial land lease should also encompass broad areas around future stations, which would assist real estate developers in pursuing future transit related real estate development. Based upon our innovative financial structure, the future economic value created by developing those areas can then be captured for the benefit of the transit project.

Under the lease/leaseback structure, the Public Partner is ultimately responsible for any portion of the leaseback

payments remaining after contributions from all other sources have been considered, such as, the private sector localities and Federal programs. From a capital markets perspective, the State transit agency is credit enhancing the SPC's lease financing by committing to make-up any shortfall. This financial shortfall should be substantially reduced over time because of real estate development by the private sector and contributions from local governments, which can tax the value of future real estate developments graph. Under the lease/leaseback structure, the State transit agency's initial financial commitment to make-up any leaseback payment shortfalls is also a financial bridge which mitigates the private sector's early stage development risk and offer a solution to the local governments' cashflow timing problems. The lease/leaseback structure should allow a substantial increase in financial support for a transit system's capital costs from both the private sector and local governments.

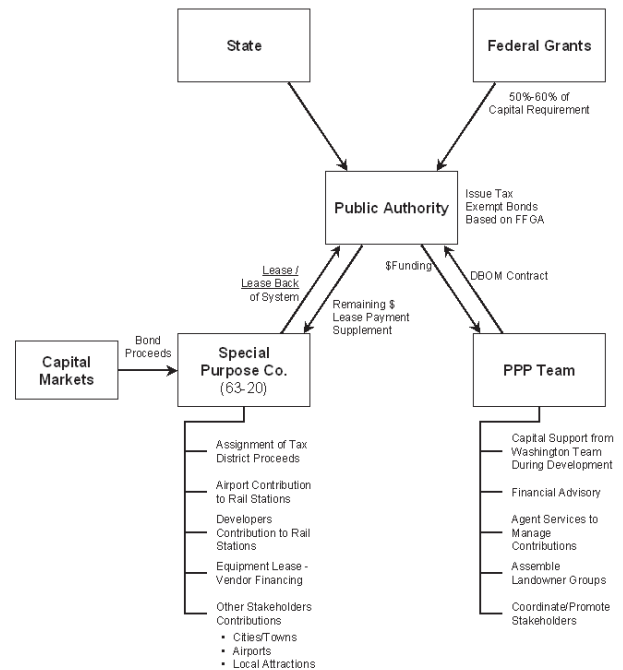


Figure 1. Innovative Financial Structure.

Use of a "63-20" Non-Profit Corporation

The Internal Revenue Code provides that, subject to certain exceptions, interest on the obligations of a State or any other political subdivision is tax-exempt. Federal regulations provide that obligations issued on behalf of a governmental entity by constituted authorities or other entities empowered to issue such obligations are tax-exempt obligations of the governmental entity. Revenue Ruling 63-

20 holds that obligations of a non-profit corporation will be considered issued on behalf of a governmental entity if certain factors are met.

First, the corporation must engage in activities that are essentially public in nature. The corporation cannot be organized for profit, except to the extent of retiring indebtedness. Furthermore, income of the corporation cannot inure to any private person. In addition, the governmental entity must have a beneficial interest in the corporation while the indebtedness is outstanding. The governmental entity must also obtain full legal title to the property of the corporation with respect to which the indebtedness was incurred, upon retirement of the indebtedness. Finally, the specific obligations to be issued by the corporation must have been approved by the governmental entity on whose behalf the obligations are issued.

There are other important practical aspects of using the 63-20 corporation as the funding mechanism for the project. Although different State laws may vary slightly, generally, new legislation is not required to create the corporation. It can be created as a non-stock, non-profit corporation under most existing State statutes. The corporation can own the project during the lifetime of the original indebtedness, but title ultimately must vest in a governmental entity. Also, although bonds issued by the corporation are issued “on behalf of” a governmental entity, they are *not* considered to be the debt of the State or any other political subdivision. Thus, although a governmental entity must approve both the creation of the corporation and its issuance of bonds, the issuance is not subject to the requirements of the State’s finance act.

The 63-20 corporation’s governing board may include representatives of all the public and private stakeholders in the project. The corporation can contract with public and private entities to design, construct, operate and maintain the project. The corporation may also receive Federal credit assistance (direct loan, loan guarantee or line of credit) pursuant to the Transportation Infrastructure Finance and Innovation Act (TIFIA). Equally as important, the corporation can enter into a continuing service contract with special transportation tax district(s) created in the project corridor, under which the corporation would receive payment of the proceeds from the special taxes levied.

ALTERNATIVE SOURCES OF FUNDS

Private Sector Participation - Pre-Construction Financing

The Private Partner may be willing to share the cost of development activities and support the Project during the pre-construction phase. The pre-construction phase is defined as all activities that occur between the issuance of a notice-to-proceed and the close of financing. This financial support can be provided in the form of a “credit” during the pre-construction phase, which may then be reimbursed at financial close through the payment of a success fee.

Pre-construction financial support is an example of private-sector contribution, which has worked successfully for the Private Partner and its clients in the past. During the pre-construction phases, the Private Partner could provide its services on a cost-sharing basis with the Public Partner. These services would be provided subsequent to the execution of a mutually acceptable public-private-partnership agreement. The Private Partner could provide conceptual and preliminary engineering services, as well as right-of-way acquisition, environmental, permitting, utility coordination, hazardous materials investigations, and cost estimating services to support the Plan of Finance, and develop the segments to the point of financing. The cost of subconsultants, such as those required for an investment grade ridership and revenue study, could be shared between the Public Partner and the Private Partner.

Financial Contributions from Project Benefactors

Private Partner can provide critical financial services during all phases of the Project, as well as, developing interim financing options for Public Partner. The Private Partner will work closely with the Public Partner to maximize prioritized financial contributions from the following project benefactors so that the remaining lease payment due to the SPC from Public Partner will be as small as possible.

Operating Revenues

The Private Partner will operate the Project under contract with Public Partner, the terms of which will incentivize The Private Partner to maximize operating revenues and profits from the system. Profits from the system will have first priority as a contribution to the benefit of the lease payment due on the system. Preliminary ridership studies must be conducted to indicate whether the operating revenues could generate a net present value in excess of the operating and maintenance costs over the period of the financing.

Station Capital Cost

The Private Partner can work closely with private developers to maximize station area development so that private developers will contribute the capital cost of the system’s stations to the project. The capital cost of each station can be estimated and calculated for determination of a private sector contribution.

Station Area Development Rights

Private developers will contribute the capital cost of a station, only if the total projected real estate development proximate to the station will support this additional cost. The Private Partner can suggest that density offsets and bonuses be awarded to station area developers to incentivize them to maximize development proximate to the stations. The Project can benefit from that development through lease revenues tied directly to real estate valuations.

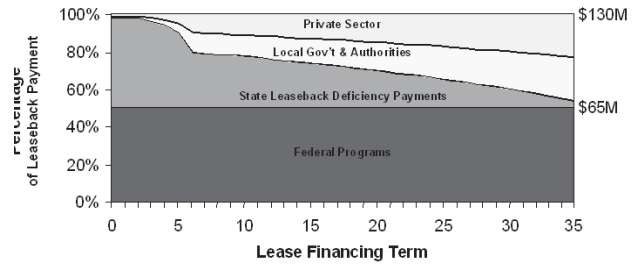
Tax Assessment Districts

The Private Partner can research the formation of tax assessment, tax increment or special improvement districts along the Project Corridor, especially in those cities served directly by the Project. Based on other relevant project finance experience, this element could contribute significantly to the Project and could be done through various alternatives, a few of which are listed below.

- Assessment Districts could involve the formation of one or more tax assessment or special improvement districts within a prescribed distance along the corridor’s alignment.
- Tax Increment Financing (TIF) could be used to direct a portion of future tax revenues within a sphere of influence for rail stimulated development to pay for infrastructure and other improvements.
- Special Improvement Districts raise revenue primarily through the special assessment process. They do not levy property taxes. Special assessments are charges applied to individual properties in the amount of the “special benefit” conferred on such property by the rail improvements.

Direct Benefactor Contributions

In some cases, it may be more efficient for certain private or public benefactors to make direct contributions of capital to the benefit of the Project. Airports.



Leaseback Payment: Assuming a \$2 billion total capital cost, the gross annual lease back payment would be approximately \$130M.

Figure 2. Conceptual Allocation of Annual Leaseback Payments.

System could make direct capital contributions based on their ability to raise funds against passenger facility charges or PFC’s. Major metropolitan areas served by the system, could similarly be incentivized to make a direct contribution to the project. Private benefactors such as shopping centers or private entertainment parks may also find a direct contribution more appropriate. This element could easily contribute substantial amounts to the Project.

Equipment Leases

The Private Partner can negotiate an equipment lease for the rolling stock used on the System with a rail car supplier, which would also be a member of the Team. Such equipment leases negotiated with equipment vendors can carry beneficial terms and conditions.

Non-Traditional Revenue Opportunities

The Private Partner can conduct financial and legal analysis of the feasibility of pursuing non-traditional revenue opportunities, such as, naming rights, advertising, concessions, parking and express parcel service.

Federal Funding

Federal funding is almost always a key component of the Plan of Finance for any transit project. Federal Funding would likely take the form of a Full Funding Grant Agreement (“FFGA”) under the Federal Transit Administration’s New Starts Program. Federal funding requires significant political support from State agencies to insure Federal Funding at an appropriate level. The next Reauthorization of the Transportation Bill will be considered in 2003. Although the existing legislation permits 80% funding, the current appropriations bill limits Federal funding to 60%. Perhaps, a more realistic assumption for planning purposes is Federal funding of no more than 50%.

Use of a public-private partnership offers advantages in the national competition for limited Federal transportation funds and other resources:

- TIFIA - Use of public-private partnerships is one of the eight selection criteria.
- New Starts - Federal regulations require consideration of the use of innovative financing techniques in evaluating the project.
- Congressional Reauthorization - Public-private “demonstration” aspects of project may result in increased congressional support for the project.

There are other potential Federal funding sources, which may be utilized, as appropriate and will add wherever possible to the funding sources. These include: The High Speed Rail Assistance Program which provides up to 50% of the publicly financed costs of corridor planning activities and full cost of technology improvements; High Speed Rail Grade Crossing Improvement Program funded to reduce or eliminate hazards at grade crossings; The Proposed High Speed Rail Investment Act of 2001 which add bonding authority, currently proposed at between \$7 billion and \$12 billion, to Amtrak or its offshoots; the Transportation Infrastructure and Innovation Act of 1988; and the proposed Rail Infrastructure Development Act.

State Support

Under Private Partner’s Plan of Finance, our innovative lease/leaseback structure would initially draw upon, and attempt to maximize, all of the private sector and direct beneficiaries’ capital contributions. Federal funding, as well, would be maximized and hopefully earmarked for the project in the next Transportation bill. Under such a lease-back structure, the Private Partner would ask the State to contribute to the lease payment, only that amount remaining after funds from all other sources are contributed. The State and Public Partner are thus responsible for the residual capital cost of the system, which would likely get smaller through time as the system’s performance improves and development along the right-of-way matures.

Based on the certain assumptions, costs, revenues and benefits, a financial analysis can be performed which produces a viable financing plan. The analysis must indicate whether the long term revenues from rail operations will cover the operating and maintenance costs. In order to cover the initial operating shortfall as ridership builds, the State will need to guarantee any potential operating shortfalls. The capital costs will thus come from a combination of Federal grants (50-60%), private and local beneficiaries contributions

(20-30% are not unrealistic for some projects) and lease payments from the Public Partner to account for the balance of the funding.

FEDERAL CREDIT INSTRUMENTS

The Transportation Infrastructure Finance and Innovation Act of 1998 (TIFIA), which was enacted as part of TEA-21, is geared toward large surface transportation projects with national significance. TIFIA can fulfill an important goal of securing innovative financing to overcome the public funding shortfall. TIFIA authorized, for the first time, a national program for the use of Federal credit instruments for transportation projects. This program includes secured loans, loan guarantees, and lines of credit described below.

Objectives

One of the key objectives of TIFIA is to facilitate access to private capital markets. Private capital investors, particularly from subordinate and secondary sources, are frequently concerned about the perceived risks and uncertainties associated with large, complex projects. The Federal government can alleviate these concerns by providing long-term assistance to transportation projects. Another objective of TIFIA is to assist those projects that can generate their own revenue streams through such sources as tax increment financing, user or vehicle fees, tolls or fares, congestion fees, or special benefit district assessments.

Under TIFIA, Federal credit assistance is limited to 33% of the project’s costs. As a result, the majority of funding must come from the private sector. This market discipline through selection of projects with acceptable risk profiles and strong financial feasibility is ensured. TIFIA seeks to ensure acceptable project risks by making investment grade ratings a prerequisite to receiving Federal credit.

Eligibility

To be eligible for Federal credit assistance under TIFIA, a project must be included in a State transportation plan or program. Projects undertaken by private entities must be publicly sponsored. In addition, the project must reasonably be anticipated to cost at least \$100 million or \$30 million when the project principally involves the installation of an intelligent transportation system.

Among other projects, the Federal credit instruments are available to mass transit facilities, commuter and intercity facilities and intermodal facilities. TIFIA directs the U.S.

Secretary of Transportation (DOT) to develop selection criteria and provides for eight factors that must be included in the criteria. One important factor is the extent to which the assistance would foster innovative public/Private Partnerships and attract private debt or equity investment.

Secured Loans

Under TIFIA, the DOT can make a secured loan to finance eligible project costs or refinance interim construction financing of eligible project costs. The length of the loan cannot exceed 35 years after substantial completion. Moreover, loan repayment must commence within five years after substantial completion.

The secured loan may be subject to any lien securing project obligations. However, secured loans cannot be subordinated to the claims of any holder of project obligations in the event of the bankruptcy, insolvency, or liquidation of the obligor. Repayment of the loans can also be deferred if the project does not generate sufficient revenue. Interest, however, will continue to accrue. This flexible loan payment would allow senior debt to demonstrate higher coverage margins and obtain investment grade bond ratings.

Loan Guarantees

TIFIA also allows DOT to provide a loan guarantee to the project. The loan guarantee terms must be consistent with the secured loan terms except for the rate on the loan guarantee and any prepayment features that must be negotiated items with DOT. In the event of revenue shortfalls, repayment could be deferred in a similar manner to the direct loan program.

Lines of Credit

DOT may also provide a line of credit to eligible projects. The line of credit can be used to pay debt service on project obligations issued to finance eligible project costs, extraordinary repair and replacement costs, operation and maintenance expenses, and costs associated with unexpected Federal or State environmental restrictions. The line of credit is available for not more than 10 years after substantial completion. Such draws are limited to no more than 20% of the total credit line in any one-year, i.e., 6.6% of eligible project costs. Draws are treated as direct loans and must be repaid with interest within 30 years after substantial completion.

PROJECT DELIVERY THROUGH DBOMF AND CONTRACTING

The Design-Build-Operate-Maintain-Finance (“DBOM&F”) project delivery system has been used for the implementation of large transportation and infrastructure projects throughout Europe and Asia for more than twenty years. A typical Team Structure is indicated at Figure 3. The DBOM approach has recently been emerging in the United States for transit projects. The 1996 contract award for the Hudson-Bergen Light Rail Transit project (“HBLRT”) in New Jersey was one of the first examples of DBOM contracting for new rail starts in the United States. Although the financing of the Project was eliminated at the time of award, the use of a DBOM at HBLRT has provided some valuable lessons on the benefits. The HBLRT project in New Jersey completed construction of the first segment in April 2000 and is into its third year into the operating and maintenance phase.

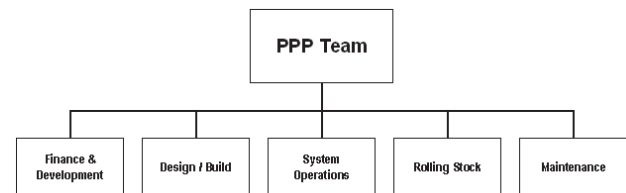


Figure 3. Public Private Partnership (PPP) Team Structure.

The DBOM process provides for cost-certain and date-certain project delivery as well as a long-term warranty and operating commitment. Construction of a major portion of the initial operating segment (valued at approximately \$450 million) of the Hudson-Bergen Light Rail system was completed in 40 months and revenue service began within 42 months. If traditional contracting processes were employed, estimates are that the same portion of the light rail project could have taken another six years and an additional \$435 million dollars to complete.

DBOM's Benefits in Preliminary Engineering (PE)

In the pre-construction phase, the DBOM can perform the preliminary engineering (PE) in a manner that reduces the extent (cost) of PE required. As the design-builder, DBOM will only perform PE necessary

1. to satisfy the Owner that their standards and performance specifications will be met and
2. to provide adequate engineering in order to provide a firm fixed price to the Public Agency to complete design and to construct the project.

On other similar projects developed by the team members, this reduction in required PE was an order of

magnitude less than would have been required under a more traditional approach saving millions of dollars.

Other benefits from the DBOM performing the PE include: more opportunity for the DBOM to incorporate construction efficiencies and value engineering into the PE (lowers cost; increases quality); a reduction in the possibility of disputes and claims during construction since the DBOM will be the single source of responsibility for PE and design-build (reduces contractor's risk exposure); and more confidence in the firm fixed price for the DBOM Contract (resulting in lower cost and less contingency).

DBOM's Ability to Provide a Firm Fixed Price

In proceeding in the PPP process, the DBOM will provide the Public Partner with fixed priced agreements for an agreed to scope for the remaining phases of the Project. This will greatly limit the price risk to the Public Partner and the other stakeholders. This firm fixed pricing would include performing the balance of the development, financial structuring, engineering and construction for the Project. The same project economizing and fixed price risk management will be performed for the financial planning and development activities. Finally, the DBOM would have the ability under its proposal to provide an early firm fixed price for the total project completion of the final design and construction phase of the project allowing for accelerated financing.

Use of a public-private partnership, and DBOM&F Contract, provides a single point of accountability for project development, engineering, construction and financing. This streamlined approach integrates each of these critical components by incorporating a design-build project into a comprehensive transit development and financing program. Functions that the DBOM&F would perform include: coordinating various non-Federal revenue sources through a 63-20; coordinating project plans, schedule and development with landowners through a tax district; Integrating constructability and financing issues at every stage of the project, providing opportunity for reduced cost for the total program; and limiting P.E. cost to that required for firm fixed price for the design-build phase of the program.

As a partner with the public entity, the DBOM&F contractor can invest its own capital in the early at-risk stages of the program, to assure the program's success while sharing the risk of elements of the program in a negotiated comprehensive agreement with the Public entity. The DBOM&F can support the following activities on a negotiated-shared cost basis:

- Developing an initial funding plan and the Program Finance Plan.
- Facilitating the activities of the landowners group leading to a tax district.
- Conducting constructability reviews prior to PE and throughout the Program.
- Developing and implementing a 63-20.
- Conducting PE.
- Developing the ongoing opportunity for creative transit-oriented development.
- Providing support for the Full Funding Grant Agreement.
- Providing support for the other pre-construction development stages of the Program.

CONCLUSION

This was a brief overview of the application of an innovative financing and DBOM&F Contract Delivery that can provide the Public Transit Authority with an affordable, financable fast-track delivery system for rail infrastructure. The Hudson-Bergen Light Rail Transit System clearly demonstrates what can be accomplished in long-term public/Private Partnerships using the DBOM approach. In particular DBOM can produce efficiencies in the transition from build out to long term operations. Union County and Dulles are showing that when PPP's include an innovative financing element, new sources of local support and funding can be achieved.

These achievements can be reproduced on other properties for a firm fixed price and a date certain delivery, with the right public/Private Partnership using a qualified DBOM&F contractor. The issues discussed and the lessons learned warrant serious consideration, and where appropriate, public transit agencies should incorporate them into their DBOM&F contract. The object of these recommendations is to allow the DBOM&F contractor to rapidly progress the financing, design, construction and start up, rather than being encumbered with unnecessary procedures that degrade the DBOM&F contractor's performance without any benefit to the public transit agency.

Although there is no "one size fits all" for project finance or contracting, under the appropriate conditions DBOM&F can be a highly effective project delivery approach that should be considered among the various alternatives.

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