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Project Summary Report 0-4808-S
Project 0-4808: Trans-Texas Corridor Right-of-Way Royalty Payment Feasibility
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PROJECT SUMMARY REPORT

Trans-Texas Corridor Right-of-Way Royalty Payment Feasibility: A Summary

Introduction

The Trans-Texas Corridor is a proposed new tolled multimodal transportation system, 4000 miles long, across Texas. The 1200-foot-wide right-of-way (ROW) required is significantly more than that for previous transportation projects. Recent legislation (HB 3588) permits the Texas Department of Transportation (TxDOT) to offer landowners a "corridor participation payment"—a portion of the revenue to be derived from the corridor—for "an interest in real property or a real property right." Such payments (termed "royalty payments" when this research project commenced) are a completely new approach to procurement of ROW for transportation corridors in the United States.

This report presents a summary of the results of research on the feasibility of paying for ROW for the Trans-Texas Corridor with toll revenues. Detailed results were presented in five research products and a comprehensive research report, namely:

- Product 1, An Assessment of Trans-Texas Corridor ROW Acquisition Issues
- Product 2, An Analysis of the Financial Feasibility of Paying for ROW With Toll Revenues
- Product 3, A Study of Landowner Response to the ROW Royalty Concept and Alternatives
- Product 4, A Financial Analysis of Alternative Deferred Payment Options
- Product 5, Royalty Payments Plans And Financial Outcomes
- Report 1, Trans-Texas Corridor ROW Royalty Payment Feasibility

What We Did...

To determine the feasibility of acquiring Trans-Texas Corridor ROW with toll revenue, three major research tasks were undertaken:

- Analyze toll revenue reliability and long-term financial performance
- Study landowner response to deferred payments
- Develop and analyze alternative payment plans

After each major task, the research team met with the TxDOT panel and presented the results. Based on the feedback from the panel, the research effort was modified as necessary.

In the first task we examined the financial history of established tolled corridors, including the systems in New York, New Jersey, California, Oklahoma, and Florida. We focused on roadway systems because there are no examples of multimodal systems comparable to the Trans-Texas Corridor for analysis, and the roadway portion is likely to be built first. The first mode will have to pay for all ROW expenses until new modes are added, and those new modes will be added only if they are independently financially feasible. We then conducted two detailed case studies: the 450-mile Florida Mainline Turnpike opened in 1957, and Texas State Highway 130 (SH 130), currently under construction.

To explore landowner response to receiving toll revenue as payment for ROW, we conducted focus group sessions with four groups: a Fort Stockton group representing rural landowners, two TxDOT district ROW administrator groups role-playing semi-urban

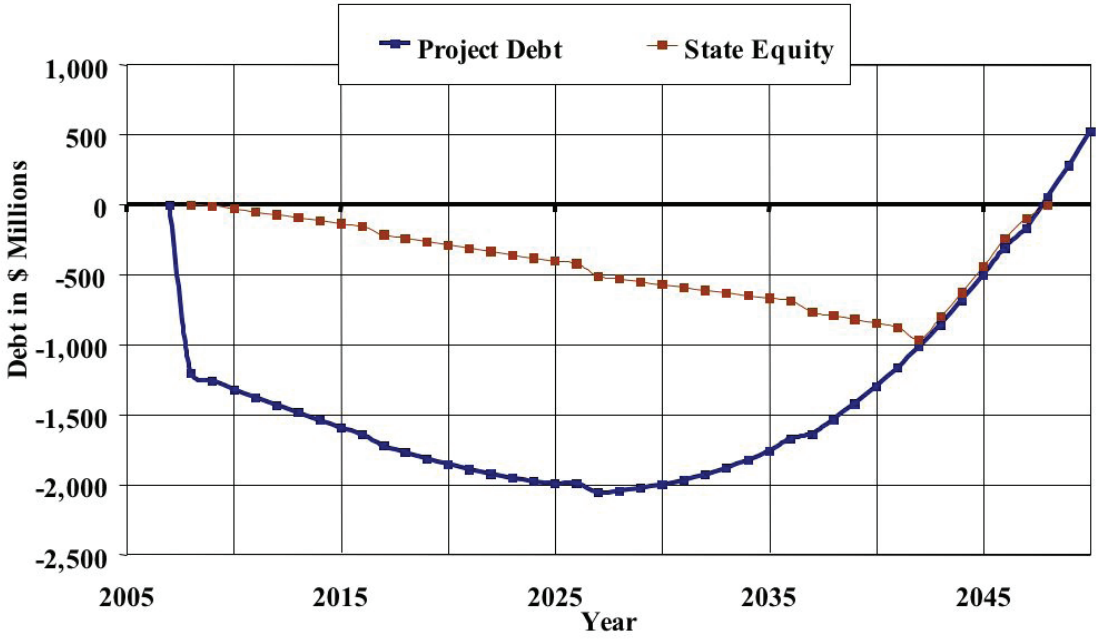

Figure 1: Projected Debt on SH 130 and Required State Equity

landowners, and a Texas Farm Bureau group representing a mix of rural and semi-urban landowners. The case studies and the focus group sessions provided objective and subjective evaluations of the royalty payment concept, and helped in developing several deferred payment plans. We then carried out detailed analyses of the financial outcomes of all alternatives to the State and to landowners.

What We Found...

The history of major tolled systems suggests that they go through four phases in their financial life. The two detailed case studies of the Florida Mainline Turnpike and SH 130 confirmed that these four phases are:

1. Loss phase of 15-25 years: traffic is low, annual revenues are less than annual total expenses, and project debt increases. During the loss phase a toll road may require subsidies or supplementary loans on the order of $50,000 per lane-mile per year (2002 dollars).
2. Stabilization phase of about 10 years: traffic is growing, annual revenues keep up with expenses, but debt is peaking.
3. Breakeven phase of 5-10 years: traffic volume continues to grow, revenues exceed expenses, and debt can be paid down.
4. Profit phase 30-45 years after opening: traffic volume stabilizes or continues to grow, revenues exceed expenses, and debt has been paid off. Ultimate rate of return on investment is about 8-10%, 60 years out.

Figure 1 illustrates the projected debt for SH 130 over time and the required State equity for the project. For this case, 400 feet of ROW is being procured with local government contributions. If the ROW had to be paid for with bonds, the picture would be worse. Figure 2 shows the rate of return on investment in SH 130 if different widths of ROW are paid for upfront. Clearly, the interest rate at which funds can be borrowed would dictate how much ROW can be acquired.

Without an understanding of toll road revenue prospects, many landowners in the focus groups indicated a willingness to accept a share of toll revenue, provided it is paid out of gross revenue (before other expenses), it is paid forever, and there is a guarantee of a minimum payment regardless of revenues. These conditions would set up a conflict with construction bondholders, who generally require first call on revenue and expect the State to finance ROW costs from non-toll funds. When landowners are presented with the historical revenue trends of toll systems, their support for ROW royalties drops off significantly, and most prefer upfront payment or a short-term (5-15 years) bond (reverse mortgage) at an interest rate indexed to mortgage rates.

We found that the royalty payment concept is essentially the same as a stock, and there would be negative publicity for TxDOT if payments do not meet landowner expectations, as is projected for the first 15-25 years of operation. One payment plan could provide an acceptable rate of return to landowners for 1200 feet of ROW: 100% of gross revenue for the first 20 years. However, the researchers concluded

that bondholders would not allow such a plan. Further, the State would have to pay all other expenses for that period, a cost of about $200,000 per mile of corridor per year for 35 years.

We concluded that toll revenues will not be sufficient to pay for construction and operations/maintenance (O&M) costs plus compensate landowners for 1200 feet of ROW within 60 years at an acceptable rate of return. The projected roadway toll revenue from SH 130, potentially one of the most lucrative segments of the corridor, can pay for only about 400 feet of ROW. No mode or segment would be viable if it has to pay for 1200 feet of ROW.

The Researchers Recommend...

Since the corridor will be developed in stages, i.e., a roadway or railway will be built initially in a segment only if that project is independently feasible, that mode should be asked to pay only for the amount of ROW it requires. For example, the roadway mode should pay for 400 feet of ROW. However, to prevent escalation of land values adjacent to the first portion acquired, TxDOT should acquire an option to purchase the remaining portion of the 1200 feet. The researchers recommend a "lease" payment to the landowners on the order of 2.5% of land value paid annually for up to 15 years. When another mode is ready for construction, that new project can pay for its own ROW.

Any deferred payment plan for ROW will be more expensive than upfront payment because landowners want an interest rate comparable to long-term mortgage rates. In any case, many landowners will require a significant payment upfront to clear mortgages or other liens. On the other hand, 35-year toll road bonds are selling at under 6% interest. It is therefore more feasible for the State to float a bond sufficient to pay the landowners upfront. If a landowner wishes to invest in the corridor, he can purchase those bonds.

Most segments of the corridor will require the State to infuse capital in the first 15-25 years of operation to make up the difference between toll revenues and bond payments/O&M expenses/ROW costs. The State will ultimately earn about 3% rate of return on its investment 60 years out, barely sufficient to compensate for inflation. However, the public will enjoy the economic benefits of the corridor, and local governments will derive added property- and sales taxes. Since government entities have a longer financial horizon and would accept a lower rate of return than individual landowners, it would be worthwhile for TxDOT to offer local governments a share of toll revenue as an incentive to finance upfront ROW acquisition.

Finally, the researchers recommend that TxDOT undertake an effort to educate landowners and potential investors on the financial prospects of toll projects before offering a share of toll revenues as payment for equity. We found that there were many misconceptions among landowners regarding the terms of the offer, guarantees, and the risks of low or no royalty payments for many years.

Figure 2: Rate of Return on Investment in SH 130 Toll Road for Different Widths of ROW Acquired

For More Details...

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The research is documented in the following reports:

0-4808-1 *Trans Texas Corridor Right-of-Way Royalty Payment Feasibility* November 2003, Revised June 2004

To obtain copies of a report: CTR Library, Center for Transportation Research, (512) 232-3126, email: ctrlib@uts.cc.utexas.edu

TxDOT Implementation Status January 2005

Based on a study of the financial history of established toll corridors, meetings with landowner focus groups, the recent statutes adopted by the Texas Legislature, a financial analysis of deferred payment options, and Trans-Texas Corridor right of way acquisition issues, this report determined that use of a corridor participation payment will not likely be a viable alternative for most landowners. The participation program will not have broad appeal because of the legal requirement to first deduct bond payments from the gross revenue, as well as the lack of a state guarantee of minimum payments to landowners regardless of whether sufficient revenue is actually generated by the corridor. Participation payments may, however, make sense for large property owners, TxDOT's private equity development partners, or other governmental entities. In order to prevent unrealistic expectations, TxDOT will need to continue to educate the public and landowners on the financial prospects of corridor projects before offering a share of revenue as payment for equity in the project.

The report also identified other alternative financing methods that may be available for more general use. The most practical of these alternatives utilizes a traditional upfront payment for a portion of the 1200-foot-wide corridor while obtaining an option to purchase for the remaining portion that is anticipated to be developed some time in the future.

For more information, contact Sharon Barta, P.E., Research and Technology Implementation Office, at (512) 465-7403 or sbarta@dot.state.tx.us.

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