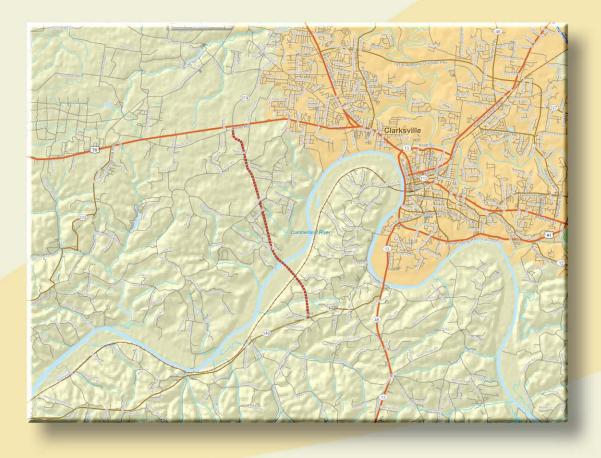


SR 374 Montgomery County Conceptual Toll Feasibility Report







Final

SR 374 Montgomery County

Conceptual Toll Feasibility Report

Prepared For



Tennessee Department of Transportation

Prepared By



February 4, 2009



EXECUTIVE SUMMARY

Across the country, all levels of government are coming to grips with the fiscal challenges created by increased demand for new transportation infrastructure and the need to maintain existing transportation networks within the constraints of existing funding mechanisms. In Tennessee, the public sector has financed transportation infrastructure through a combination of state and local taxes and fees and, for major projects, Federal funding from the allocation of the national motor fuel taxes. These resources have been combined to fund projects on a "pay-as-you-go" basis, meaning that projects have often been built in phases as funds became available over a period of years.

Currently, the state's gas tax revenues are virtually flat and the Tennessee Department of Transportation (TDOT) budget has been impacted by federal rescissions totaling nearly \$238 million since December 2005. These issues coupled with rising construction costs have severely impacted the Department's ability to initiate any new projects. Tennessee is faced with the reality that critical projects may face years of delay before funding is available. Delaying these projects results in hidden costs associated with inflation and unrealized economic development, especially for projects delayed several years. In addition, delaying projects that reduce emissions or eliminate safety hazards has obvious negative impacts on quality of life issues for Tennessee residents.

In recognition of these factors, TDOT retained the firm of Wilbur Smith Associates (WSA) to begin exploring the potential for the use of tolls by the State to advance the completion of SR 374. Once completed, SR 374 will form a link for a circumferential loop around the City of Clarksville, Tennessee. WSA conducted a Sketch Traffic and Revenue Study for the route, which culminated in the preparation of this Conceptual Toll Feasibility Report for SR 374. The findings of this report should be considered conceptual in nature and are conditioned on the statements contained within this report.

In conducting this study, WSA performed three basic analyses: a sketch traffic and revenue study; an opinion of project costs; and a conceptual plan of finance, as discussed more fully within this report. WSA also began applying various quantitative and qualitative criteria to SR 374 to help formulate conclusions concerning the toll feasibility of the route.

Based on the work conducted on SR 374 pursuant to this assignment, WSA does not believe that SR 374 will generate sufficient revenue to be considered a feasible stand-alone toll facility.



Table of Contents

Page Number

Introduction	1
Project Description	2
Evaluation Categories	
Regional Transportation System	4
Environmental	
Right-of-Way	5
Construction/Engineering	5
Corridor Socio-Economics	
Traffic and Revenue	7
Financial Considerations	
Conclusion	

List of Illustrations

Page Number

List of Figures

Page Number

Figure 1, Project Location Map	3
--------------------------------	---



INTRODUCTION

Determining the feasibility of a toll project is an iterative process. The first step is to screen a project to develop an initial understanding of the potential traffic and revenue characteristics of that project. This step usually requires a Sketch Level Analysis and Sketch Traffic and Revenue Study, both of which are considered planning level studies and are designed to assist in furthering the normal planning process required by all transportation projects. Subsequent to a sketch level traffic and revenue study, additional analyses are conducted to consider potential revenues compared to potential project costs to determine whether the subject project is considered conceptually feasible. The Conceptual Toll Feasibility Report normally results in a conclusion and possible recommendations to the developing agency regarding how, and if, the project should proceed.

At the request of the Tennessee Department of Transportation (TDOT), Wilbur Smith Associates (WSA) has completed a Sketch Traffic and Revenue Study and this Conceptual Toll Feasibility Report for State Route 374 in Clarksville, Tennessee. The Sketch Traffic and Revenue Study was delivered to TDOT under separate cover on October 1, 2008 and forecast the toll revenue which could be collected by tolling SR 374 between SR 149 and SR 76. This study was conducted to facilitate the planning process required for the proposed transportation facility. Depending upon a number of factors inherent in the transportation planning process, modifications and updates may be needed as competing routes and modes get added to regional plans, project configurations change, and/or land use patterns evolve.

The subject traffic and revenue and toll feasibility studies for SR 374 were to be conducted for the extension of SR 374 from SR 149 to SR 76 in Montgomery County. This approximate 7-mile extension has been identified through the regional transportation planning process of the Clarksville Urbanized Area Metropolitan Planning Organization (Clarksville MPO) and is included in the MPO Long Range Plan.

Traffic and revenue studies, by themselves, do not determine project feasibility, though such studies are significant factors in such an analysis. Subsequent planning steps are usually taken once a sketch traffic and revenue study is completed and it has been determined that a project has the potential to be feasible as a toll facility. This planning process often incorporates an analysis of the project in the context of a regional or statewide transportation plan, major investment study, preferred alignment, environmental review, preliminary design and engineering, and the development of a preliminary plan of finance.

In addition to the traffic and revenue studies, WSA developed an opinion of project costs. This opinion of project costs was used in analyzing SR 374's financial feasibility. Bonding capacity was estimated utilizing a traditional public toll authority financial model. These cost and bonding estimates (contained herein) are conceptual in nature and are provided as inputs into a screening process to help determine the direction that future planning efforts will take for the proposed project.

These three components – traffic and revenue, project cost analysis, and bonding analysis form the basis for the analysis contained within this Conceptual Toll Feasibility Report.



PROJECT DESCRIPTION

SR 374 is an east-west state highway located in Montgomery County, Tennessee which serves as a cross-town arterial road for travelers in the Clarksville, Tennessee region. The roadway's eastern terminus is located in southeast Clarksville (Sango) at U.S. Highway 41A. Currently, SR 374 terminates at U.S. Highway 79 (Dover Road) west of Liberty Church Rd. Between these two points SR 374 is identified by five different street names as follows:

- 1. Richview Road between US 41A and Memorial Drive;
- 2. Warfield Boulevard between Memorial Drive and US 79;
- 3. 101st Airborne Division Parkway between US 79 and US 41A;
- 4. Purple Heart Highway between US 41A and US 79; and
- 5. Paul B. Huff between Lafayette Road and US 79.

The proposed SR 374 Extension is a 6.6 mile major arterial road extending from SR76/US 79 to State Route 149. Once completed, the extension would serve as a link for a circumferential loop around Clarksville comprised of SR 374, SR 149, SR 13, and US 41A. The road will initially be constructed as a four-lane facility opening in 2013. The SR 374 extension includes two at-grade intersections at York Road and Dotsonville Road. Additionally, interchanges will be located at the north and south termini at US 79 and SR 149.

Figure 1 depicts the project location for which WSA was tasked with studying. The tolling location is shown just north of the crossing of the Cumberland River. The at-grade intersections at York and Dotsonville Roads are not tolled. This configuration results in tolls being charged on those vehicles crossing the river. Traffic counts at the two at-grade intersections do not show volumes sufficient to support the cost of installing, operating, and maintaining toll collection equipment.

For the purpose of this study, it was assumed that SR 374 would open in its entirety to traffic in 2013 and would operate as a four-lane facility. This date is based upon estimated timeframes for key development components including approximately 1 year for further tolling and financial analyses and 2 years for design and construction documents. These timeframes are in agreement with TDOT planning estimates for project development, but are subject to refinement as the project develops.



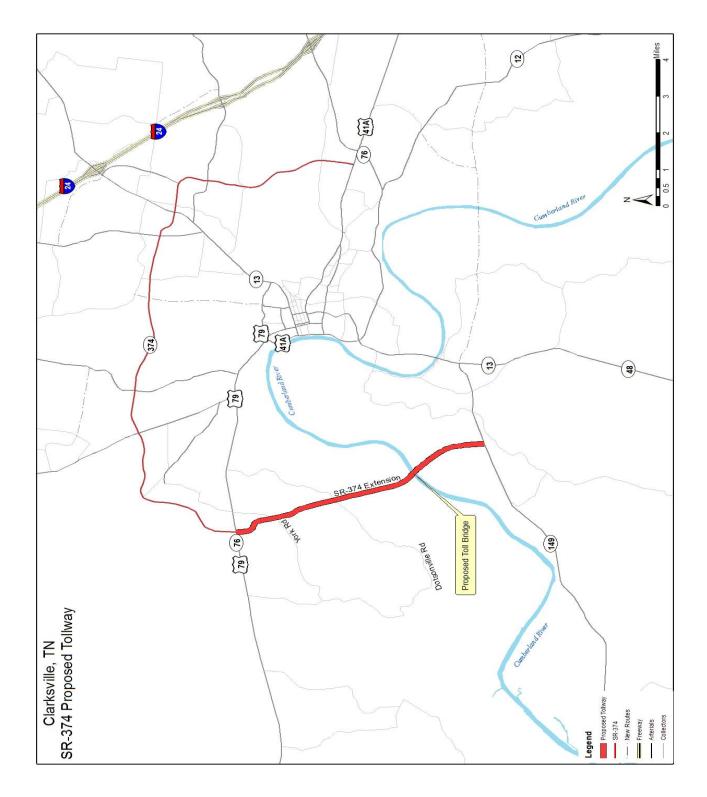


Figure 1 Project Location Map



EVALUATION CATEGORIES

WSA has developed a checklist of items that could impact the feasibility of a new toll facility. These items are listed in *Table 1* and are organized around seven main categories. Each of these main categories contains multiple

subcategories or criteria. To a great extent the items on the checklist are interdependent. It is important to note that the applicability and/or the weight given to a specific factor are dependent upon the characteristics and objectives of the toll project and the sponsoring agency. In the final analysis, toll projects, regardless if developed by a public entity or through a public private partnership, are essentially public assets and are subject to the public policy of the sponsoring entity.

As mentioned above, the applicability and/or weighting of any of the sub-categories contained in Table 1 are dependent upon project-specific factors. This Conceptual Toll Feasibility Report is not intended to provide an extensive analysis of each of these characteristics. The type of analysis needed to determine a project's final feasibility is more appropriately a part of the planning process for a project and would include defining what issues are relevant to a project and the respective weight of each issue.

As such, the analysis of this Conceptual Toll Feasibility Report will be focused on the major categories rather than trying to determine the applicability of each of the sub items.

Regional Transportation System

Toll facilities need to fit within the overall regional transportation system, which, in this case, is overseen by the Clarksville Urbanized Area Metropolitan Planning Organization (Clarksville MPO). The Clarksville MPO's 2030 Long Range Transportation Plan includes the study segment of SR 374.

Table 1

Regional Transportation System

- a) Traffic movements to be served
- b) Existing Alternative Routes
- Future planned networks c)
- d) Other planned transportation improvements

Environmental

- Major Investment Study a)
- Designation of preferred alignment b)
- Cost implications of mitigation requirements c)
- Projected timeline for environmental clearance d)
- Full EIS versus environmental assessment (FONSI) e)

Right-of-Way

- Number of takes a)
- b) Project costs
- Acquisition timetable c)
- d) 4F Issues
- Utility Issues e)

Construction/Engineering

- Uniqueness of engineering/construction requirements a)
- **Required Permits** b)
- Constructability c)
- d) Construction schedule
- e) Project Costs
- f) Bonding requirements

Corridor Socio-Economic Data

- Land use plans a)
 - Population growth b)
 - c) Projected non-residential activity
 - Income Levels d)
 - Household size e)

Traffic and Revenue

- Project configuration a)
- b) Project interconnectivity
- c) Value of time calculations Time/distance savings
- d)
- e) Corridor share Toll regimes f)
- Typical movements g)

Financial Considerations

- Project financial structure a)
- b) State/Local contribution
- Federal programs c)
- d) General Financial Market Conditions

Environmental

Toll facilities are not exempt from applicable federal and state environmental review requirements. The environmental clearance process has a significant impact on the feasibility of any transportation project, but



especially so in the case of a toll facility. In addition to the typical studies needed for the environmental process, toll projects need to study the economic impact of charging tolls on the facility.

Separate from the Sketch Traffic and Revenue Study and the Conceptual Toll Feasibility Report, TDOT is currently working on the Environmental Impact Statement (EIS) for this section of SR 374. To date, WSA is not aware of any significant environmental issues that are associated with the facility that would affect its potential feasibility as a toll facility.

Right-of-Way

Right-of-way for transportation projects is typically acquired subject to eminent domain procedures. As such the right-of-way acquisition process is conducted according to well established federal and state laws and requirements. In rare cases, landowners will donate or "proctor" right-of-way for toll facilities in order to benefit from increased land values resulting from improved access provided by the facility.

Preliminary design plans are currently being developed for SR 374. Once these plans are completed, right-of-way plans will be developed and right-of-way acquisition will begin. While there are issues associated with acquiring right-of-way for SR 374, these issues appear to be typical for a project of this nature.

Construction and Engineering

For the purposes of this study, WSA conducted conceptual level construction and engineering cost estimates. These estimates are based on TDOT's cost estimate work sheet. This worksheet has been used for several years by TDOT in their planning office to develop engineering, right of way, and construction cost estimates for project planning purposes. The TDOT work sheet can only be used for estimating costs for the at-grade facilities that connect the bridges to the existing roadway infrastructure. In order to develop estimates for the bridge crossings of the Cumberland River and the CSX Railroad, and for grade separated interchanges, WSA utilized historical cost data for similar projects and a conceptual square footage estimating method.

Additional assumptions made in order to utilize the TDOT cost estimate sheet are as follows:

- The proposed route is assumed to be a new 4 lane median divided facility with 10' shoulders and curb and gutter.
- The proposed route is assumed to be in lesser developed areas or in areas where land uses are less intense. The proposed route, has an "area factor" that is considered rural. This assumption is important due to the need to apply "area factors" to each of the corridors in the TDOT cost estimate worksheet.
- The terrain for the proposed route is assumed to be rolling.
- It is assumed that engineering for the proposed route will begin in 2009 and finish in 2010. The construction of the proposed route will begin in 2011 and be completed by the end of 2012 in anticipation of the opening for 2013.



The proposed SR 374 is 6.6 miles long and is currently under design. It begins at the existing interchange of SR 374 and SR 76 (U.S. 79) located to the north and continues in a southeasterly direction crossing the Cumberland River and terminating at a new grade-separated interchange with SR 149. It is assumed that the proposed project's intersections with York and Dotsonville Roads are at-grade. The existing interchange at SR 76 and existing SR 374 is a partial cloverleaf which is assumed to be modified to provide adequate access to the proposed SR 374 traveling south.

The proposed SR 374 will require a bridge over the Cumberland River and CSX railroad. In estimating the construction cost of this project the bridge is assumed to be a combination of concrete bulb tee bridges for the dry approaches and steel girder bridges for the channel approaches and main span in the river. The main span will be approximately 400 feet in length. The total bridge length including dry and channel approaches and the main span will be approximately 4200 feet.

Toll equipment costs were also developed for the project and are based on both cash and electronic toll collection systems. Costs were estimated for the anticipated toll equipment, including electronic toll collection (ETC) system components such as the ETC antenna and reader units, the tolling zone controllers, automatic coin machines, vehicle detection and classification devices, vehicle detector loops, traffic signals, overhead canopy lights, various power supplies, violation enforcement system cameras, and traffic control gates (in the automatic lanes).

WSA also estimated the cost of the communications infrastructure that would be required to support the tolling concept. In addition to the direct equipment costs, estimates for the required civil work were prepared, including the cost of procuring and installing tolling gantries at each of the tolling zone locations. Other toll system costs were estimated for toll system design, development, and deployment. These costs include the Toll System Contractor's program management, software development, development of the system design documentation, factory and integration testing, equipment installation, and field testing to confirm that the delivered system meets the toll specification requirements. The capital costs of the toll system host and the other back office subsystems (including ETC account management and violation processing) were also estimated. These are all one-time costs that are associated with the procurement and deployment of the tolling system on the project.

Project construction costs were inflated to 2013, the assumed last year of construction. An inflation rate of 7.5% is applied to the project cost for the first three years through 2010, and a 3% inflation rate is applied to the project cost from 2010 until the year construction is completed. *Table 2* sets forth the estimated project costs for the project by each major cost category.

	Table 2 Project Cost (\$ Million)
	<u>SR 374</u>
Construction	\$141.0
Toll Systems	<u>\$ 4.2</u>
Estimated Project Cost	\$145.2



It is important to note that these estimates exclude environmental, right-of-way, and engineering costs. The working assumption is that these developmental costs will need to be incurred prior to toll revenue debt being issued to pay for the project. These developmental costs would not be paid out of the proceeds generated by the toll revenue financing, but instead would be repaid from toll revenues in excess of operations and maintenance, debt services, and any required reserve requirements. Consequently, for purposes of this study these costs have been excluded from project costs.

As the project becomes better defined during the normal planning process these project costs will need to be refined. Additional factors that could impact these estimates include mitigation costs, subsurface conditions, and miscellaneous materials costs.

Corridor Socio-Economics

The economic growth forecast for the study region is particularly important for a start-up toll facility such as SR 374. The configuration and alignment under study would provide significantly improved access for drivers with origins or destinations in and around Clarksville. As such, assessment of the projected economic activity is particularly important. This data creates the basis to judge the reasonableness of future demand for the toll facility. This future demand is a function of the levels of future congestion on alternative routes and estimates of the public's willingness and ability to pay future tolls. Generally speaking, the larger the population, the greater the level of congestion on free routes and the greater the time savings offered by a toll facility. Also generally speaking, higher levels of income by populace results in increased values of time, which influence the optimal toll levels.

The socioeconomic forecast incorporated in the Clarksville Urbanized Area Metropolitan Planning Organization's travel demand model was used in the Sketch Traffic and Revenue Study and is discussed in greater detail in that report. As part of the Sketch Traffic and Revenue Study, a review of both the historical and forecasted growth in the Clarksville region was completed. Historical trend data was used to check the reasonableness of the forecasts prepared by the Clarksville MPO and incorporated in the travel demand model. These trend data were obtained from various sources including U.S. Census Bureau and the Bureau of Labor Statistics. Overall, from a historical trend perspective, the Clarksville MPO's forecasts of population, household, and employment growth in the region seem reasonable. As the traffic and revenue estimates are based on a sketch level analysis, an independent economic analysis was not conducted.

Traffic and Revenue

Traffic and revenue reports consider known and measurable factors that influence the choices of tens of thousands of daily travel decisions. Sophisticated models are built based on regional travel demand models that reflect socio-economic data, existing and future funded transportation networks, and actual travel time data. This data is used to determine current congestion levels on competing routes. For the purpose of the Sketch Traffic and Revenue Study, the following basic assumptions were made:

- The SR 374 extension would open in its entirety (6.6 miles) to traffic in 2013, as a tolled facility.
- Roadway improvements included in the current TIP and the LRTP were assumed to be implemented, including any programmed widening of competing routes.



- Toll rates and toll plaza locations would be as shown in this report.
- No other competing facilities or additional capacity would be constructed during the project period, other than those currently included in the TIP or the LRTP.
- Economic growth in the project study area, and associated travel demand would occur as represented in the MPO's travel demand model.
- All tolling configurations would be signed and promoted effectively to encourage maximum usage.
- Motor fuel would remain in adequate supply and no national or regional emergency would arise that would abnormally restrict the use of motor vehicles.
- Population, employment, and development activity within the influence area of the project will be generally in accordance with those estimates made by the Clarksville MPO.
- No intermediate interchanges were assumed to be tolled during this study but would be re-evaluated during a preliminary level traffic and revenue study and toll feasibility study.

Any significant departure from these basic assumptions could materially affect traffic and revenue potential for the proposed toll facility.

The toll configuration proposed as part of this project includes one mainline toll plaza located between the Dotsonville Rd and SR 149 intersections at the Cumberland River. The at-grade intersections at Dotsonville Rd and SR 149 were assumed to be toll free and only those patrons crossing the Cumberland River will be charged a toll. Both cash and ETC payments were assumed to be accommodated at the SR 374 toll plaza. The toll plaza configuration assumed in this analysis includes a total of eight lanes (four each direction), with the inside four lanes dedicated to ETC. Cash toll payments would be collected using cash machines rather than human toll collectors to minimize toll collection costs associated with cash payments.

The proposed toll schedule was designed such that tolls are charged based on the vehicle type. In order to account for proportionately higher pavement wear and tear and maintenance costs associated with trucks as compared to passenger cars, commercial vehicle toll rates were assumed to be higher than passenger car toll rates. The passenger car one-way toll rate is \$1.50 one-way. Larger (6 axle or more) commercial vehicles are charged 4X that amount or \$6.00. Toll rates were assumed to be indexed to inflation at 3 percent per year reflecting the historical rate of inflation. Therefore, the resulting revenue estimates and future year tolls are in nominal dollars.

The projected gross revenue, operating expenses, and net revenue for SR 374 are presented in *Table 3*. More detailed discussion of the projections is contained within the technical memo prepared by WSA and dated October 1, 2008.



<u>Year</u>	Gross Toll Revenue	O&M Costs	<u>Net Toll Revenue</u>
2013	\$1,367,272	\$1,203,728	\$163,544
2014	\$1,434,390	\$1,193,442	\$240,948
2015	\$1,501,490	\$1,182,623	\$318,867
2016	\$1,572,894	\$1,171,610	\$401,284
2017	\$1,674,467	\$1,161,429	\$513,038
2018	\$1,780,337	\$1,192,808	\$587,529
2019	\$1,886,207	\$1,225,073	\$661,134
2020	\$1,997,535	\$1,258,396	\$739,139
2021	\$2,289,133	\$1,295,549	\$993,584
2022	\$2,586,188	\$1,334,020	\$1,252,168
2023	\$2,883,244	\$1,373,604	\$1,509,640
2024	\$3,189,013	\$1,414,662	\$1,774,351
2025	\$3,477,355	\$1,456,241	\$2,021,114
2026	\$3,774,411	\$1,499,360	\$2,275,051
2027	\$4,071,466	\$1,543,724	\$2,527,742
2028	\$4,380,490	\$1,589,810	\$2,790,680
2029	\$4,665,578	\$1,636,333	\$3,029,245
2030	\$4,976,229	\$1,684,652	\$3,291,577
2031	\$5,111,512	\$1,726,768	\$3,384,744
2032	\$5,279,282	\$1,770,465	\$3,508,817
2033	\$5,422,803	\$1,814,185	\$3,608,618
2034	\$5,585,487	\$1,859,540	\$3,725,947
2035	\$5,753,052	\$1,906,029	\$3,847,023
2036	\$5,941,878	\$1,954,263	\$3,987,615
2037	\$6,103,413	\$2,002,521	\$4,100,892
2038	\$6,286,515	\$2,052,584	\$4,233,931
2039	\$6,475,111	\$2,103,899	\$4,371,212
2040	\$6,687,636	\$2,157,140	\$4,530,496
2041	\$6,869,445	\$2,210,409	\$4,659,036
2042	\$7,075,528	\$2,265,669	\$4,809,859
2043	\$7,287,794	\$2,322,311	\$4,965,483
2044	\$7,526,994	\$2,381,079	\$5,145,915
2045	\$7,731,621	\$2,439,878	\$5,291,743
2046	\$7,963,569	\$2,500,875	\$5,462,694
2047	\$8,202,476	\$2,563,397	\$5,639,079
2048	\$8,471,697	\$2,628,266	\$5,843,431
2049	\$8,702,007	\$2,693,169	\$6,008,838
2050	\$8,963,068	\$2,760,498	\$6,202,570
2051	\$9,231,960	\$2,829,510	\$6,402,450
2052	\$9,534,970	\$2,901,114	\$6,633,856

Table 3SR 374 Annual Net Revenue Stream



Financial Considerations

Preliminary bonding capacity analysis was performed for SR 374. The analysis was performed to estimate the amount of project costs that could be paid with proceeds from bonds supported by toll revenues. This analysis is based on the revenue numbers forecast in the Sketch Traffic and Revenue Study and presented above in *Table 3*. This analysis utilizes a bond sizing model typical of financings for other toll roads within the United States that have been recently issued by public authorities.

Given the instability and uncertainty of the current credit markets it is extremely difficult to estimate indicative interest rates. After talking with several investment bankers who specialize in these types of transactions, the consensus is that by the time debt on this project would be issued in 2011 the markets should stabilize.

It should be noted that the recent financial market turmoil has resulted in a significant reduction in the number of firms which have the ability to provide bond insurance, one of the financial mechanisms utilized to reduce effective interest rates paid on start-up, or greenfield, toll roads such as SR 374. Again, after discussion with participants in the capital markets, it was generally felt that by 2011 some form of risk transfer mechanism would be in place allowing for lower effective interest rates.

As a result of these conversations, the bonding capacity analysis contained herein relies upon rates very similar to those utilized in studies prior to the recent financial market turmoil. The actual direction of the credit markets and the availability of credit, and its associated costs, remains a significant unknown. Once the financial markets stabilize the actual cost of credit could result in a material change in WSA conclusions on the toll feasibility of SR 374.

Changes in financial market conditions are based upon factors outside the control of either WSA or TDOT.

Potential bonding capacity was calculated for both a net and a gross revenue pledge. Under a net pledge, operations and maintenance are paid prior to debt services. This pledge provides comfort level that the facility will be operated and revenues collected.

Under a gross revenue pledge, debt service is paid prior to operations and maintenance being paid. This results in an increase in bonding capacity. For a gross pledge to be financeable, TDOT or some other entity would have to guarantee to pay the operations and maintenance costs should toll revenue be insufficient to pay debt service and operations and maintenance. These costs would be subject to reimbursement from future revenue.

Table 4 sets forth the estimated bonding capacity of a tolled SR 374. These estimates are net of financing costs, capitalized interest, and a debt services reserve; typical costs and reserves which are either paid or funded out of proceeds from financings.



Table SR 37 Bonding C (Million	74 apacity	
	<u>Net</u> <u>Pledge</u>	<u>Gross</u> Pledge
Bonding Capacity	\$32.1	\$39.0
Financial Costs and Reserves	<u>\$3.9</u>	<u>\$8.0</u>
Net Bonding Capacity	\$28.2	\$31.0

The bonding capacity analyses were based on the following major assumptions:

- Project bonds are a combination of Current Interest Bonds and Capital Appreciation Bonds with 40 year maturities
- Both series of project bonds are issued at parity (i.e. both have equal claims to revenue)
- Project bonds have debt service coverage ratios of 1.75X for both series
- Both series have investment grade ratings
- All reserve funds are invested at 2% per annum
- The project is open for traffic as indicated in *Table 3*
- Interest is capitalized during the assumed construction period
- Financing costs assumed to equal 2.5% of bond size
- Debt Service Reserve is funded at closing from proceeds and estimated to equal 10% of total bond size

The bonding capacity analysis is provided for planning purposes only and is not intended to supplant the analysis that will be required by a financial advisor or underwriter as part of the financing process. The analysis is based on prevailing market rates and conditions for similar revenue bond offerings as of the date of this report. Changes in financial market conditions and further refinements by a financial advisor could materially alter the results of the bond sizing model.

A project's financial feasibility is dependent upon total available funding sources being adequate to pay for project costs. *Table 5* sets forth the conceptual plans of finance for SR 374. These conceptual plans of finance are based on the estimated project costs shown in *Table 2*, revenue and operating costs set forth in *Table 3*, and bonding capacities shown in *Table 4*.



	Table 5 SR 374 l Plans of Finance	
	<u>Net Pledge</u>	Gross Pledge
Sources		
Bonding Capacity	\$31.3	\$38.1
Investment Earnings	\$0.8	\$0.8
Public Contribution	\$117.1	\$114.2
Total Sources	\$149.2	\$153.1
Uses		
Project Costs	\$145.2	\$145.2
Financing Costs	\$0.8	\$4.1
Debt Service Reserve	\$3.2	\$3.8
Total Uses	\$ 149.2	\$153.2

Each of the line items shown in the conceptual plans of finance is discussed below:

Bonding Capacity:	The amount of debt that can be supported from a given revenue stream
Investment Earnings:	Interest and earnings on unused bond proceeds. Bond proceeds are held in trust and drawn down over time to pay for project costs
Public Contribution:	Public funding needed to cover difference, if any, between net bonding capacity and project costs
Project Costs:	Estimated engineering, construction, and toll system costs of a project
Financing Costs:	Transaction costs of a financing paid to underwriters, bond counsel, rating agencies, etc. This line item includes interest paid to bondholders during the construction of a project
Debt Service Reserve:	Reserve account funded out of proceeds of a bond offering to provide funds to cover unforeseen circumstances resulting in operational deficiencies

Low traffic volumes on the proposed SR 374 extension result in correspondingly low revenue levels. As a result, the project has insufficient bonding capacity for it to be feasible as a stand-alone, toll-revenue-financed project. As indicated in Table 5 above, a significant level of public contributions or other additional funding mechanisms are needed in order to cover the shortfall in funding. Toll revenue can fund approximately 20% of the total



project costs. Public or non-toll revenue sources will need to be identified to pay for the remaining approximately 80%.

CONCLUSION

Based on the analysis contained within this Conceptual Toll Feasibility Report, it is WSA's conclusion that as studied the proposed SR 374 Extension cannot be financed with toll revenue. Further, public contributions or other non-toll revenue funding mechanisms will be needed to pay for almost 80% of the total project costs. WSA does not feel that additional analysis and refinement of the project as studied is warranted.

This conclusion is based on the information and data which form the basis for the analysis contained within this report.

