



## Legislative Fiscal Bureau

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May 31, 2007

Joint Committee on Finance

Paper #785

### **Southeast Wisconsin Freeway Rehabilitation -- I-94 North-South Freeway Reconstruction & Zoo Interchange Reconstruction (DOT -- State Highway Program)**

#### *Bill Agency*

[LFB 2007-09 Budget Summary: Page 542, #1 and Page 543, #2]

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#### **CURRENT LAW**

The southeast Wisconsin freeway rehabilitation program is responsible for the rehabilitation and expansion of freeways in Kenosha, Milwaukee, Ozaukee, Racine, Walworth, Washington, and Waukesha counties. The Department is prohibited from using funds appropriated for the state highway rehabilitation or major highway development programs on these freeways. Projects on the freeways that involve the addition of at least one lane for five or more miles must be enumerated in the statutes prior to construction.

Base funding for the program is \$94,941,700, of which \$30,573,400 is from the program's SEG appropriation and \$64,368,300 is from the FED appropriation. The 2005-07 biennium also provided \$213,100,000 in transportation fund-supported general obligation bonds for the program, specifically for the reconstruction the Marquette Interchange in downtown Milwaukee.

#### **GOVERNOR**

##### *I-94 North-South Freeway Reconstruction*

Provide \$17,084,000 SEG and \$8,125,200 FED in 2007-08 and \$50,485,900 SEG and \$15,723,300 FED in 2008-09 in the southeast Wisconsin freeway rehabilitation appropriations, and provide general obligation bonding authority of \$90,200,000, to begin preliminary work on

the reconstruction of I-94 between the Mitchell Interchange in Milwaukee County and the Illinois state line. Modify the existing statutory bonding authorization for the Marquette Interchange to allow the bonds to also be used on the reconstruction of I-94.

Include the I-94 north-south corridor in a list of reconstruction projects for which DOT may proceed with construction involving the addition of one or more lanes five miles or more in length. Define the "I-94 north-south corridor" as the Mitchell interchange of I-43, I-94, and I-894 in Milwaukee County, I-94 from the Illinois-Wisconsin state line in Kenosha County proceeding northerly through the Mitchell Interchange to Howard Avenue in Milwaukee County, I-43/I-894 from the Mitchell Interchange proceeding westerly to 35th Street in Milwaukee County, the STH 119 Airport Spur Parkway between I-94 and General Mitchell International Airport in Milwaukee County, and all freeways, roadways, shoulders, interchange ramps, frontage roads, and collector road systems adjacent or related to these routes or interchanges.

#### *Zoo Interchange Reconstruction*

Provide \$17,000,000 SEG and 25.0 SEG positions in 2007-08 and \$7,000,000 SEG and 25.0 SEG positions in 2008-09 for preliminary work related to the reconstruction of the Zoo Interchange in Milwaukee County. Include the Zoo Interchange in a list of reconstruction projects for which DOT may proceed with construction involving the addition of one or more lanes five miles or more in length. Define the "Zoo Interchange" as all freeways, including related interchange ramps, roadways, and shoulders, and all adjacent frontage roads and collector road systems, encompassing I-94, I-894, and USH 45 in Milwaukee County within the area bordered by I-894/USH 45 at the Union Pacific railroad underpass near Burnham Street to the south, I-94 at 76<sup>th</sup> Street to the east, I-94 at 116<sup>th</sup> Street to the west, and USH 45 at Center Street to the north.

## **DISCUSSION POINTS**

1. The bill would provide funding, as well as statutory authorization, to begin or continue preliminary activities on two large, southeast Wisconsin freeway reconstruction projects, I-94 between the Mitchell Interchange and the Illinois state line, and the Zoo Interchange in western Milwaukee County. This paper discusses both projects.

2. The segment of highway that would be defined as the I-94 north-south corridor under the bill runs for about 34 miles between the Mitchell Interchange to the Illinois state line, including a spur connecting the mainline freeway to the airport terminal at General Mitchell International Airport. The proposed project involves, at a minimum, complete reconstruction of the freeway, including the system interchanges (intersections with other freeways) and service interchanges (intersections with nonfreeway roads) in the corridor. The Department is in the process of conducting an environmental impact statement (EIS) to determine whether additional improvements are warranted, such as updating the freeway to modern design standards and adding additional lanes, in order to provide four, general purpose lanes in each direction. A draft EIS is

tentatively scheduled to be completed in the fall of 2007.

3. The 2005-07 budget provided a total of \$29.2 million for preliminary activities on the I-94 North-South freeway project. The principal use of this funding was to update an environmental assessment previously completed on the service interchanges on I-94 in Kenosha and Racine counties. The Department also began the EIS on the mainline of the corridor.

4. Most of the funding that would be provided under the bill would be used on the final design and reconstruction of three interchanges in Kenosha County, at CTH C, STH 50, and STH 158. Construction on these interchanges would begin in 2009 and be completed in 2010. The proposed design for these interchanges would modify their current layout, which would require the acquisition of additional real estate. The most significant change would be the elimination of the intersection of the freeway ramps with frontage roads adjacent to the freeway. This so-called "scissors ramp" design is blamed for a high accident rate on many of the Kenosha and Racine county interchanges. Work on eliminating the scissors ramps at the other interchanges in Kenosha and Racine counties may also be started in the 2007-09 biennium, depending upon whether sufficient funding is available after funding is allocated to the complete reconstruction of the three Kenosha County interchanges.

5. Work on the remainder of the I-94 North-South freeway project is tentatively scheduled to begin in 2011 and be completed in 2016. This would include reconstruction of the other service interchanges in the corridor, reconstruction of the mainline of the freeway and the airport spur (STH 119), and reconstruction of the system interchanges at the airport spur and the Mitchell Interchange (I-43, I-94, and I-894). In order to meet this schedule, the Department would begin preliminary engineering on the corridor in the 2007-09 biennium using approximately \$12.7 million of the funds provided under the bill or base funding in the southeast Wisconsin freeway rehabilitation appropriations.

6. Work on the Kenosha County interchanges would begin at about the same time that work on the reconstruction of the Marquette Interchange in downtown Milwaukee is being completed. That project, which began in November of 2004, is currently scheduled to be completed in November of 2008. With about 18 months left on the project, the Department estimates that the final cost will be close to the original estimate of \$810 million. In the 2007-09 biennium, the Department anticipates using \$16.0 million in 2007-08 and \$11.0 million in 2008-09 to complete the project, amounts that would be drawn from base funding in the southeast Wisconsin freeway rehabilitation appropriations.

7. The Department indicates that an estimate of the full cost of the I-94 North-South project will not be known until sufficient progress has been made in the preliminary engineering for the project. However, the Southeastern Wisconsin Regional Planning Commission (SEWRPC) completed a plan for the southeast Wisconsin freeway system in 2003, in which the cost to reconstruct all segments and interchanges on the system was estimated. Although these estimates are not based on the type of detailed engineering analysis done in the preliminary engineering stage of a project, they can provide a sense of the magnitude of particular segments.

8. According to the SEWRPC study, the cost of the I-94 North-South freeway project would vary depending upon the extent of the improvements, decisions that will be made with the completion of the EIS. The cost to replace the freeway and interchanges in-kind, without any changes to conform with modern freeway design standards, would be the least expensive option, estimated at \$494 million. The cost to incorporate modern design standards, to improve safety and traffic movement, was estimated at \$830 million, while the cost to reconstruct the freeway to modern design standards with an additional lane in each direction, the most expensive option, was estimated at \$942 million.

9. The SEWRPC estimates cited in the previous point were calculated in 2000 dollars, and so it could be expected that the cost in current year dollars would be higher. This is particularly the case since the cost of highway construction has increased at a high rate over the past few years. As noted above, however, the SEWRPC study produced planning-level estimates that may not necessarily reflect the final project. DOT indicates, for instance, that it appears that the actual project may not require as much real estate acquisition as SEWRPC assumed in its analysis of the corridor. Additional funding would be needed to proceed with the project in the 2009-11 budget, at which time better estimates of the total cost will be available.

10. The Department's expenditure plan for the 2007-09 budget would dedicate approximately \$245 million for the North-South freeway project (roughly \$85 million in 2007-08 and \$160 million in 2008-09). Of this amount, \$181.6 million would be provided by the bill. The remainder would come from base resources in the southeast Wisconsin freeway rehabilitation appropriations. Base funding for the North-South project would provide \$19.7 million annually (the amount provided for the project in 2006-07) and the rest would be from base funding for the Marquette Interchange project that would not be needed to complete that project.

11. Of the \$181.6 million for the project in the bill, \$90.2 million would be transportation fund-supported, general obligation bonds. This would amount to just under one-half of the total funding provided for the project by the bill and just over one-third of the total funding that the Department would allocate to the project in the 2007-09 biennium. When fully issued, annual debt service payments on these bonds would be approximately \$7.2 million. The case for using bonds on a highway improvement project rests on the payment of debt service over a period of 20 years, which effectively spreads out the cost over a longer portion of the life of the project. If no bonding were used, the costs would be paid entirely in just a few years, reducing the number of highway improvement projects that could be done with current resources.

12. Since the bonds would be used for construction on the Kenosha County interchanges, and since this work would not begin until late in the biennium, the Department of Administration assumed that no debt service would be paid on the bonds in the 2007-09 biennium. The first payments would occur in 2009-10.

13. For a more complete discussion of the impact of the use of transportation bonds on the state's ability to maintain a stable transportation finance strategy, see LFB Issue Paper #788. Included in that paper is a discussion of an alternative to require the Department to prepare a

biennial long-range transportation bonding analysis. Such an analysis could assist the Governor and Legislature in developing a financing strategy for this and other transportation projects.

14. In addition to providing funding for the I-94 North-South freeway project, the bill would also provide \$17,000,000 in 2007-08 and \$7,000,000 in 2008-09 to begin preliminary engineering and an environmental assessment of the proposed Zoo Interchange reconstruction project. The bill would define the Zoo Interchange to include the intersection of I-94, I-894, and USH 45 in western Milwaukee County, extending approximately one mile or slightly more to the west, east, and south, and about three miles to the north.

15. According to the SEWRPC 2003 freeway study, the cost of reconstructing the Zoo Interchange is estimated (in 2000 dollars) at \$126 million to replace in-kind, \$398 million to update the interchange to current design standards, and \$412 million to update the design and add lanes. As with the estimate of the I-94 North-South freeway project, it could be expected that the cost of this project would be higher in current dollars. The environmental assessment would, among other issues, identify various design alternatives and propose a preferred alternative. The Department indicates that if the preferred alternative involves the construction of additional lanes, the Federal Highway Administration may direct the Department to conduct an environmental impact statement, which would require a more detailed analysis of the impacts of the proposed alternatives. This work is tentatively scheduled to be conducted in 2007 and 2008.

16. Provided that the environmental study is completed on schedule and funding is available, the construction on the Zoo Interchange is tentatively scheduled for 2012 to 2016, which would be at substantially the same time as the construction on the I-94 North-South freeway. Without the funding in the bill, the Department indicates that this schedule would likely be delayed.

17. The funding in the bill for the Zoo Interchange project would be used to hire engineering consultants and for the salary and related costs of 25.0 new DOT positions. The new DOT staff and consultants would cooperate in the preparation of the environmental assessment and would continue to work on subsequent design work for the project. The Department indicates that additional positions would be intended to eventually establish an even balance between the work done by consultants and in-house staff on the Zoo Interchange. Initially, however, consultants would do more of the work until the new positions could be fully utilized. As the design phase of the Marquette Interchange has been completed, DOT staff working on that project have generally been transitioned to working on the I-94 North-South freeway project. Conducting the Zoo Interchange project simultaneously, therefore, would require additional staff.

18. The decision as to whether to proceed with the construction of both the I-94 North-South freeway project and the Zoo Interchange project at the same time will likely depend upon whether the Legislature is able to provide sufficient funding for the projects in the 2009-11 biennial budget. However, the amount of additional funding that is required to undertake both projects will also depend upon how much base funding is made available in 2008-09 to carry forward for the remainder of the proposed construction period. Under the bill, there would be about \$167 million in 2008-09 allocated for both projects (\$160 million for the North-South freeway and \$7 million for

the Zoo Interchange). Of this amount, about \$107 million would be SEG and FED funds in the 2008-09 base. If this amount is carried forward for the next seven years (the proposed years for final design and construction), there would be a total of \$749 million in base funds available for the projects in those years. Any remaining funding needed to complete the projects would have to be provided through additional bonding or above-base increases in the SEG or FED appropriations. If, however, the Legislature were to provide an additional \$30 million in SEG and FED funds in 2008-09 (substituted for bonding), the amount of base funds available over the next seven years would be \$959 million, or \$210 million higher than under the bill's funding scenario.

19. If the funding for the I-94 North-South freeway or the Zoo Interchange project is not provided, the progress on the projects would be delayed. Ultimately, given the high cost of both projects, above-base increases of either bonds or cash appropriations would be needed to make any significant progress toward their completion.

20. The bill would include the I-94 North-South freeway and the Zoo Interchange projects in a statutory section that allows the Department to proceed with adding lanes to the freeways, similar to statutory enumeration for projects under the major highway development program. As noted above, the draft environmental studies will identify various design alternatives for the projects, including adding lanes, while the final studies will specify the preferred alternatives. Enumerating the projects would allow the Department to proceed with the construction of additional lanes on the projects if that is the final recommendation of the studies.

21. Under current law, proposed major highway development projects are not considered for enumeration until after the final environmental study is completed. To be consistent with the policy for these projects, the Committee could decide to delete the provisions allowing the Department to proceed with the construction of additional lanes and then reconsider the issue upon completion of the environmental studies, if the preferred alternatives involve capacity expansion. In the case of the I-94 North-South freeway project, the Department indicates that if the preferred alternative involves capacity expansion, it may be necessary to enumerate the project prior to the passage of the 2009-11 budget to allow the final design to begin on schedule. Consequently, if the project is not enumerated in the bill, the Legislature may have to pass separate legislation in the spring of 2008 to allow the Department to proceed with the project, if additional lanes are to be included in the project. The design for the service interchanges in Kenosha County would be able to accommodate additional lanes if the decision is made to proceed with capacity expansion on the project. Since the Department would not undertake any final design on the Zoo Interchange in the 2007-09 biennium, the decision on whether or not to enumerate that project could be delayed to the 2009-11 biennium without affecting the construction schedule.

## **ALTERNATIVES TO BILL**

### **A. Funding for the I-94 North-South Freeway Project**

1. Approve the Governor's recommendation to: (a) provide \$17,084,000 SEG and

\$8,125,200 FED in 2007-08 and \$50,485,900 SEG and \$15,723,300 FED in 2008-09 in the southeast Wisconsin freeway rehabilitation appropriations, and provide general obligation bonding authority of \$90,200,000, to begin preliminary work on the reconstruction of I-94 between the Mitchell Interchange in Milwaukee County and the Illinois state line; (b) modify the existing statutory bonding authorization for the Marquette Interchange to allow the bonds to also be used on the reconstruction of I-94; and (c) create a statutory definition for the project.

<b>ALT A1</b>	<b>Change to Bill Funding</b>	<b>Change to Base Funding</b>
SEG	\$0	\$67,569,900
FED	0	23,848,500
BR	<u>0</u>	<u>90,200,000</u>
Total	\$0	\$181,618,400

2. Modify the Governor's recommendation to provide an additional \$30,000,000 SEG in 2008-09 to increase the amount of base funds available for the project, and reduce the bonding authorization by \$30,000,000 to maintain the same overall funding level. [This alternative could be modified by replacing different amounts of bonding with SEG or FED funds.]

<b>ALT A2</b>	<b>Change to Bill Funding</b>	<b>Change to Base Funding</b>
SEG	\$30,000,000	\$97,569,900
FED	0	23,848,500
BR	<u>- 30,000,000</u>	<u>60,200,000</u>
Total	\$0	\$181,618,400

3. Delete provision.

<b>ALT A3</b>	<b>Change to Bill Funding</b>	<b>Change to Base Funding</b>
SEG	- \$67,569,900	\$0
FED	- 23,848,500	0
BR	<u>- 90,200,000</u>	<u>0</u>
Total	- \$181,618,400	\$0

## **B. Funding and Positions for the Zoo Interchange Project**

1. Approve the Governor's recommendation to provide \$17,000,000 SEG and 25.0 SEG positions in 2007-08 and \$7,000,000 SEG and 25.0 SEG positions in 2008-09 for the Zoo Interchange reconstruction project and create a statutory definition for the project.

ALT B1	Change to Bill		Change to Base	
	Funding	Positions	Funding	Positions
SEG	\$0	0.00	\$24,000,000	25.00

2. Delete provision.

ALT B2	Change to Bill		Change to Base	
	Funding	Positions	Funding	Positions
SEG	-\$24,000,000	- 25.00	\$0	0.00

### C. Enumeration of Additional Freeway Lanes

1. Approve the Governor's recommendation to enumerate the I-94 north-south corridor and the Zoo Interchange in a list of Southeast Wisconsin freeway projects for which DOT may proceed with construction involving the addition of one or more lanes five miles or more in length.
2. Modify the Governor's recommendation by adopting one or both of the following:
  - a. Delete the provision that would enumerate the I-94 North-South freeway project.
  - b. Delete the provision that would enumerate the Zoo Interchange project.

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