TRANSMITTAL

TO:     Mike Davis and Tom Pridgen

FROM:   Jerry Sudimick

DATE:   March 3, 2004

I am sending you     [X] Attached
                      [ ] Under Separate Cover

the following item(s) for review and concurrence:

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<td>Design process for Emergency Crossovers with guide drawings</td>
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REMARKS: With the Turnpike's commitment to close in the medians there was a need to develop a process such that all projects were consistent in the design approach for emergency crossovers. The Roadway Department was tasked to develop the process and guide drawings. We have received and incorporated comments from appropriate discipline heads, projects managers and the Office of Toll Operations. The attached is the final version that I recommend be added to the Turnpike's Bulletin Website.

Concurrence: ___________________________ 3/18/04
Michael Davis, P.E., Program Manager

Concurrence: ___________________________ 03/08/04
Thomas Pridgen, P.E., Assistant Turnpike Design Engineer

Date
Median Barrier Openings for Emergency Access

Description:

The purpose of this article is to provide the designer with guidelines for the development of emergency vehicle access through median barriers on the Turnpike's limited access facilities. These guidelines are not to be applied for developing work zone median crossovers.

Design Process:

The information provided below is considered to be a guide. Early on in the design process the designer shall evaluate all the existing locations, accidents and geometrics for relationship to interchanges. From this study the designer shall make recommendations to the Turnpike's Roadway Engineer through the Project Manager for the elimination, relocation, and/or additions of all emergency access crossovers. This recommendation should include all the supporting backup information. The type or form of recommendation will be provided by the Project Manager and the Turnpike's Roadway Engineer.

As the Turnpike covers both rural and urban conditions, compliance with the Guideline Information is not the end to the evaluation. The study may find that interchange spacing is not greater than five (5) miles, however, this does not preclude the designer from considering a turn around at the mid point between the interchanges. Likewise, close spacing of existing access locations may also not be desirable.

The designer shall take into account all issues, aspects and locations before finalizing the initial recommendation.

The Turnpike shall review the recommendation. With an initial plan/approach the Project Manager, in conjunction with supporting disciplines, shall coordinate with FHP and Turnpike Maintenance for concurrence and/or modifications. This meeting will be documented for the project files. Upon concurrence the locations shall be incorporated into the design drawings.

Design guide drawings:

Attached are two examples of emergency accesses. These layouts are not intended to address all applications or locations. The designer may find that the layouts may have to be modified at certain locations.

Guide Line Information:

From 2001 AASHTO Chapter 8 FREeways, General Design Considerations, Medians - to avoid extreme adverse travel for emergency and law-enforcement vehicles, emergency crossovers on rural freeways are normally provided where interchange spacing exceeds 5 miles. Between interchanges, emergency crossovers are spaced at 3 to 4 mile intervals.

Emergency crossovers generally should not be located closer than 1500 feet to the end of a speed-change taper of a ramp or to any structure. Crossovers should be located only where above-minimum stopping sight distance is provided and preferably should not be located on super elevated curves.

From initial direction received from Central Office emergency crossovers should not be located within one mile of an Interchange.
NOTES:
THIS DETAIL REPRESENTS A FOUR LANE FACILITY WITH A 40' MEDIAN

GUIDE 1

EMERGENCY CROSSOVER DESIGN
NOTES:

THIS DETAIL REPRESENTS A FOUR LANE FACILITY WITH A 40' MEDIAN.