Mountain Democrat

County revisits Cameron Park interchange plan

By Mike Roberts | Mother Lode News | April 04, 2010 12:26



TRAFFIC ENGINEERS are putting their heads together to come up with the best plan to alleviate congestion at the Cameron Park-Highway 50 intersection. Democrat photo by Pat Dollins

Noah Briel of El Dorado Hills likes to shop in Cameron Park and knows, at times, it gets congested. In January he was in Springfield, Mo., for work and happened to drive through the nation's first functioning "diverging diamond" interchange. He made his coworker turn their 50-foot delivery truck around and drive back through the interchange.

Seeing how efficiently it worked, and how little right of way was required on either side of the freeway, Briel immediately realized he stumbled on the perfect solution for El Dorado County's miserably tight, underengineered Highway 50 interchanges, specifically the one at Cameron Park Drive.

Later in January he attended a county transportation workshop and told the Board of Supervisors what he'd seen. "It's brilliant," he said. "It speeds everything up, and it's much cheaper to build."

That project was watched closely by traffic engineers across the country, including El Dorado County Department of Transportation Director Jim Ware, who chaired the workshop and offered up a diverging diamond as one of several possible solutions at Cameron Park Drive and Highway 50.

Briel reported that Springfield liked its new direct diamond, built for a measly \$3 million, so much they are planning four more, all at costs half of conventional designs. The second Missouri "DDI" opens in August with a price tag of \$7.5 million, according to Missouri DOT spokesman Jorma Duran.

With some very expensive options on the table for a major upgrade to the Highway 50 interchange at Cameron Park Drive, Ware raised a caution flag to ensure his board and the public understand there are other options that might merit further investigation, and that the resulting project will shape the future of Cameron Park.

Ware was careful to explain that although the road engineering community is excited about the diverging diamond's possibilities, it is just one of the alternatives under consideration. Plus, it's not currently an approved Caltrans design.

The cost of the currently preferred alternative, tentatively scheduled for completion between 2013-18, jumped from \$24 million to \$68 million in 2009, when a traffic study showed the Cameron

Park Drive interchange and the surrounding intersections at Coach Lane and Palmer Drive approaching "Level of Service F," or gridlock, by 2015. Coach Lane is already at "LOS F" during the evening commute.

The price increase is due largely to the fact that the roadway beneath the freeway would have to be widened to eight lanes, requiring the replacement of the highway bridge over Cameron Park Drive.

The county is required to proactively address roads that approach LOS F under the terms of a settlement agreement resulting from a 2004 General Plan lawsuit.

Cameron Park Vision Committee members are quick to point out that their community must decide what it wants to be before finalizing the interchange design. The vision of a "town center" located east of Cameron Park Drive has been tossed around in recent years, but to date has not solidified. "Any new road project should support that," said Ware.

An interchange with issues

Ware's largest challenges at Cameron Park Drive are the new bridge and the gas stations on either side of the freeway that limit potential ramp realignments. The \$68 million Alternative 1 price tag includes buying and relocating several such businesses. It's an expensive proposition.

Other problems include short ramps, which can result in traffic back-ups during peak hours. Sight distance on the eastbound exit prohibits a right turn on red.

The frontage roads are too close to the freeway, engineers agree. Coach Lane is a mere 200 feet away. Country Club Drive is only 100 feet from the westbound entrances.

Three alternatives were investigated as part of a 2008 DOT Project Study Report.

Alternative 1 - \$68 million

The current preferred alternative pushes LOS F out past 2035. It includes widening Cameron Park Drive to eight lanes from Palmer Drive, south under the freeway to Coach Lane. The bridge structures that carry Highway 50 over Cameron Park Drive would be replaced.

Ramps would be lengthened and widened to include carpool lanes and meters. Cameron Park Drive would be widened to seven lanes between Coach Lane and Durock Road.

But what concerned Cameron Park business and civic leaders earlier was the barrier preventing left turns from Coach Lane onto Cameron Park Drive. Without a direct way back onto the freeway, many of the businesses south of Highway 50 could suffer.

The barrier would block the heavily used left turn from Coach Lane (between Taco Bell and Chevron) onto Cameron Park Drive. Instead, freeway-bound shoppers in the southwest quadrant of Cameron Park's commercial center - think Safeway, Burke Junction, Food 4 Less - would have to turn right on Cameron Park Drive, then make a U-turn to get back to the freeway.

Alternatively, Rodeo Road could probably be punched through to Cameron Park Drive opposite Robin Lane, south of Sizzler and Wachovia Bank.

Roughly 50 parcels could be affected, including significant impacts to up to nine current businesses

2 of 5

and four residences.

Alternative 2a - \$51 million

This plan is the same as above but would have only seven lanes under the freeway, so no new bridge would be required. But it pushes LOS F out to only 2025, and doesn't remove the barrier problem.

Alternative 3 - \$96 million

A conventional "single point diamond" intersection is more expensive, but would solve several problems. It achieves greater through-put, eliminates the left turn barrier and pushes LOS F to 2035, but requires a larger right of away and a troublesome lowering of the roadway beneath the freeway.

Other options

Other alternatives nibble at the edges of the interchange, or add new ramps and roads east or west of it. These options haven't been studied in detail, but would likely reduce congestion at the Cameron Park Drive interchange significantly, according to traffic engineers.

- Alternative 2b&c would connect Wild Chaparral Drive to Palmer Drive north of Highway 50, connecting to a new north-south road over the freeway to Durock Road. LOS benefit would likely be less than with other alternatives.
- Alternative 9 has drivers enter and exit the freeway via roundabouts located north and south of Highway 50, where businesses are currently located. The LOS benefit is unknown. Caltrans hasn't approved dual roundabouts, but they may be eligible for demonstration grants.
- Alternative 13 closes current freeway ramps and builds an entirely new interchange between Cameron Park Drive and Ponderosa Road. This option might support a new "town center" concept, and apparently would provide good access to developable land north and south of the freeway. But current businesses on Cameron Park Drive would suffer with no freeway access, experts agree.
- Alternative 8, the diverging diamond, is the "rock star" of the interchange alternatives, according to Briel.

DOT Deputy Director Craig McKibbin reported calls from traffic engineers offering their services on a diverging diamond project. "They just want to be a part of it, to be the first ones in the state to do this."

He said the design would likely be eligible for demonstration grants.

Here's how it would work: Cameron Park Drive's lanes would cross on either side of the freeway, putting drivers on the left side of the road for roughly 100 feet beneath the freeway. As cars approach the interchange on Cameron Park Drive they could turn right to get directly onto Highway 50 in one direction. The lanes would then cross at a signalized intersection, after which a protected left would allow freeway access in the other direction.

Getting off the freeway would be similarly protected. Ramps can be shorter and tighter to the freeway.

Traffic moves through the interchange more efficiently because the direct diamond has only two

places where traffic stops, thus reducing conflict points and improving safety.

Regional vs. local

Several speakers at the January workshop argued that Ponderosa Road to the east is a far more regional interchange than Cameron Park Drive. Others said the presence of three major supermarkets off Cameron Park Drive draw traffic from Lotus, Gold Hill, Coloma, Rescue and even the Latrobe area.

El Dorado County District 3 Supervisor Jack Sweeney made it clear that non-traditional interchange designs should be considered, but said he doesn't want to spend the time or money for a full consultant report. He asked Ware to bring back some "back of the napkin" estimates for the alternatives.

District 1 Supervisor John Knight and District 2 Supervisor Ray Nutting framed the issue in light of the hundreds of acres of undeveloped land in the area that would be served by the eventual solution. Both worried that the potential combined residential and commercial growth in the area doesn't justify the high price tags of conventional interchange designs.

District 4 Supervisor Ron Briggs said he'd support connecting Wild Chaparral to Palmer Drive, but would "volunteer for a lobotomy" before backing a new interchange to the east.

District 5 Supervisor Norma Santiago confirmed that \$68 million "seems to be a heart attack number," and directed Ware to look at other alternatives in the surrounding interchanges to see how to address the problem without replacing the bridge.

"We need to identify the commercial nodes, and build the roads to support those areas," she said, reminding the board that, "Measure Y says we can live with LOS F with board approval."

The LOS F predictions for each alternative are based on the General Plan's population projections, which assume a residential buildout by 2025, followed by a 2035 commercial buildout. Ware reminded the board that those projections don't factor in the current recession.

Endangered plants in the area are a concern to all involved, but Ware reported that DOT has recently purchased 20 acres north of the freeway that might at least partially mitigate that impact.

Cameron Park-Shingle Springs Chamber of Commerce Director Judy Mathat encouraged Ware to consider all three interchanges in the area, and to remember, "The most developable land in this county is between Bass Lake Road and Ponderosa."

She added that many thousands of homes have yet to be built off South Shingle Road.

Mathat insisted Cameron Park Drive is not a regional interchange, and that slip lanes and other less expensive work can address the looming problem. The regional interchange would become Ponderosa Road, where commercial properties would bring jobs and traffic to the county, she predicted.

Noah Briel, a resident of El Dorado Hills known as a proponent for mixed-use development locally, suggested the cost of the diverging diamond would come in so low that the Cameron Park Drive interchange and its easterly and westerly neighbors can all be modernized. "All we have to do is clunk a couple old men's heads together at Caltrans to make this happen," he said with a chuckle.

Opponents of the design have cited concern that drivers might bear right at the crossovers, despite geometric, marking and signage cues to induce them to stay left.

The Federal Highway Administration tested these concerns and concluded that the direct diamond is considerably safer than more conventional alternatives. Of 1,041 simulations, no participants bore right at the crossovers or turned into an oncoming traffic lane. The speed reduction in a direct diamond suggests that should drivers make errors, the severity of the resulting crashes would likely be less than with a conventional interchange.

Ware will return to the board later this year with some better cost information on the interchange alternatives, and a report of his meetings with the community.

The Mountain Democrat Newspaper is published Monday, Wednesday, Thursday & Friday by Mountain Democrat Inc.

All images and text within these cyberpages are copyrighted by the Mountain Democrat © 1360 Broadway, P.O. Box 1088, Placerville, CA 95667 (530) 622-1255 Fax (530) 622-7894 Powered by PHPography