

# Abstract Submission Form



## 2010 ITE Western District Annual Meeting

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Paper Title:

Techniques for Controlling Two Closely-Spaced Signalized Intersections Using One Signal Controller

Relevant Session/Topic:

Traffic Signals, Traffic Operations and Management

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Abstract: 250 words maximum. Use 12 point Arial font, single space.

Two closely spaced signalized intersections often exhibit operational problems such as “queue spillback” between them. This problem is often caused by the lack of coordination at all times when each signal is independently controlled by an individual controller. Even when the two signals are under some coordination plans, progression cannot be guaranteed for all the movements unless a fixed signal timing mode is implemented. In fact, many such closely spaced intersections possess some unique geometric layouts and traffic flow patterns. For example, the two intersections can be T-type intersections, intersections at a diamond interchange or at a partial cloverleaf interchange. Such paired closely spaced intersections generally have a limited number of traffic movements at each intersection and there generally exist some unique relationships among the traffic movements. Diamond interchange strategies using one-controller control have been studied extensively; however, very limited studies have been focused on closely-spaced T-type intersections and at partial cloverleaf interchanges. This paper presents some case studies at such intersection locations in Reno, Nevada, and demonstrates how diamond interchange strategies can be applied at such locations using one signal controller to control both intersections.

**Abstracts are due by 5:00pm on Monday, January 11, 2010.**

e-mail your abstracts to:

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