

WJ 6/30/11



MEMORANDUM

June 30th, 2011

TO: Paul Frost, Chief, Road Design Engineer *DJ. 7/11/11*

FROM: *for* Chris Petersen, Project Coordinator *Chris Petersen*

SUBJECT: Preliminary Design Field Study Report

PIN: 73657 **Project:** NH-580-1(030) **PCEMS:** 1-31216
Location: I-580 at Moana Lane Interchange
Milepost limits: Off System (WA 22.69) **Project type:** Capacity
Demography: Urban **System:** NHS **Functional Class:** Interstate
Design Criteria: Dv= 75MPH (I-580) Dv= 35MPH (Moana)
AADT=130,000(I-580), 30,000(Moana Ln.) CCZ=30-34Ft.(I-580), 14-16Ft.(Moana Ln.)
Scope: Reconstruct Existing Interchange.

Current DOC date: [January 8th, 2013]

A PDFS was held on Tuesday, **March 1st, 2011**, in order to facilitate the development of the final project scope. The PDFS team consisted of the following personnel:

- Nick Johnson, Roadway Design
- Dennis Faulkner, Roadway Design
- Michon Reede, Roadway Design
- Jeff Lerud, Project Management
- Dean Morton, Traffic Signals/Lighting
- Mike Mayberry, Structural Design
- Abbas Bafghi, Geotechnical
- Lucy Joyce, Landscape Architecture
- Matt Nussbaumer, Hydraulics
- Jim Moore, Hydraulics
- Kris Kammerzell, Bridge Maintenance
- Jason Peard, Maintenance
- Jason Marty, Maintenance
- Bhupinder Sandhu, Construction
- Bob Martin, R/W Utilities
- Bill Ray, R/W
- Ray Luciani, R/W
- Hoang Hong, Traffic Operations
- Lisa Ouellette, Traffic
- Wil Young, Materials
- Jerry Conners, District II
- Jerry Hoover, R/W
- Anita Lyday, District II Traffic
- Doug Maloy, RTC

Scope details:

Roadway Scope- Reconstruct existing diamond interchange configuration to a Diverging Diamond Interchange.

The project is scheduled to be constructed following the RTC's Moana Lane widening project. The Moana Lane widening project is scheduled to end construction early spring 2013.

Roadway design and Traffic Operations have developed and evaluated three alternatives for this interchange: no-build option, SPUI (Single Point Urban Interchange), and DDI (Diverging Diamond Interchange). From the operation analysis, the DDI was determined to be the best alternative from the standpoint of traffic operations, costs, and safety.

Additional items of work not included in the original estimate are: Retaining walls, traffic loops, cold milling entire length of all ramps, landscaping treatments to be installed within the interchange, ITS, and guide signs.


- Moana Lane is designated as a bicycle facility on the local Bicycle Plan.
- The current estimate for this portion of the project is \$5,000,000 for original roadway scope.

The following is a list of comments and items discussed during the PDFS meeting and field review:

- The RTC is continuing to work on the locally funded Moana Lane Widening Project (S. Virginia St. to I-580 ramps). This project is independent of interchange improvements that NDOT is planning.
- Road construction on the Moana Lane Widening project is scheduled to begin in the 1st Quarter of 2012 and be completed by the 1st Quarter of 2013.
- The NDOT and RTC are coordinating with FHWA on a change in control of access at I-580. A meeting was held on March 8th with FHWA.
- The interchange footprint will need to be designed to stay within newly acquired right of way by RTC. The right of way acquired by the RTC using local funds is planned to accommodate the Diverging Diamond Concept plan prepared by Stantec and provided to NDOT Design. Changes in the design that would extend outside the footprint of the proposed required R/W by RTC could result in the need for additional right of way that would need to be acquired by NDOT.
- The NDOT and RTC will coordinate the improvements within the existing control of access should there need to be temporary improvements prior to the NDOT project.
- The traffic signals within the DDI will likely be maintained by the City of Reno and should be designed with input from the City of Reno.
- Interlocal agreements with the RTC and City of Reno will be needed.
- All signs will be replaced.

- Traffic Control and Limitation of Operations. Traffic Control plans will need to be developed for the project.
- Snow Removal may be an issue at the intersection.
- Roadway Design will need to coordinate and discuss the feasibility of providing bike lanes through the interchange with Bill Story, RTC and the State Bicycle Advisory Board.

ISSUE 1	Snow Removal Through the Intersections	
	<p>Recommendation: District II maintenance had concerns with trying to get their snow plows through the intersection since a DDI does not have a through movement from off-ramp to on-ramp. Design recommends a more in-depth investigation for solutions. Meetings with District staff and other state DOT's will be needed.</p>	
COST:	\$ To Be Determined	
SCHEDULE:	Not affected	
<input checked="" type="checkbox"/> Approved	<input type="checkbox"/> Disapproved	<input type="checkbox"/> More Information Needed
COMMENTS:		

ISSUE 2	Current Pavement Conditions of Existing Ramps	
	Recommendation: Design and Materials divisions recommend a mill and fill of all ramps from the intersection to the physical gores. Materials recommends 3-3/4" mill and replace with 3" PBS plus 3/4" open grade.	
	COST:	\$ 130,000
SCHEDULE:	Not affected	
<input checked="" type="checkbox"/> Approved	<input type="checkbox"/> Disapproved	<input type="checkbox"/> More Information Needed
COMMENTS:		

If there are disagreements with any of the decisions contained in this final report, please contact your division head or district engineer who will work with the chief road design engineer in an effort to resolve.

CP:MR:II

Copies to: Attendees

Thor Dyson, District Engineer
 Dave Titzel, Assistant District Engineer, Maintenance
 Pete Booth, Assistant District Engineer, Construction
 Casey Connor, Principal Design Engineer
 Tom Moore, Acting Chief Traffic, Safety & ITS Engineer
 Jeff Shapiro, Chief Construction Engineer
 Sharon Foerschler, Assistant Chief Construction Engineer
 Steve Cooke, Chief Environmental Services
 Paul Saucedo, Chief Right-of-Way
 Charles Wolf, Chief Hydraulics Engineer
 Reid Kaiser, Chief Materials Engineer
 Chuck Reider, Safety
 Ken Mammen, Safety
 Mylinh Lidder, Traffic Signals & Lighting
 Dave Partee, Signing, Traffic Control & Striping
 Kristena Shigenaga, Assistant Chief Roadway Design
 Natalie Caffaratti, Scoping
 John Eiche, Standards Compliance Engineer
 Bill Story, Pedestrian and Bicycles