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Date: June 3, 2022

TO: Carl Vermillion, BHI

FROM: Margaret Haynes, NMDOT Assistant District 3 Traffic Engineer 

SUBJECT: Upper Petroglyph Phases (1-7) Traffic Impact Study  
North of I-40, West of Atrisco Vista Blvd.  
Albuquerque, Bernalillo County, New Mexico

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The NMDOT received the DRAFT TIS dated March 1, 2022. District Three's comments are below.

***General comments:***

There were a set of comments dated July 20, 2020 sent on the last draft TIS. Can you provide a resolution matrix to include if any of those comments were address or are still relevant? Specifically comments related to the lane utilization at I-40 and NM 500 intersections.

Please include a 2045 horizon year analysis in your report.

Was the existing signal timing for Central and Atrisco Vista? Please include in appendix. For proposed full build analyses were existing and proposed signalized intersections coordinated?

I need a queue summary that gives me existing turn bay lengths, proposed queue at each no build and build analysis years. It appears to be missing for all signalized intersection analyses. Please note that SAMM compliance is queue plus deceleration, therefore a storage bay that does not meet these requirements is not SAMM compliant.

Can you include a mitigated section at the end of each intersection analysis and refer to appendix. Create a mitigated analysis appendix for its reference. It is unclear what is mitigated in the mitigated analyses in the appendix. Is signal timing adjustments always included? Did this study provide a mitigated analysis for any scenarios that deliver a lane movement LOS E or LOS F in the build scenario that is not in the no build scenario? Please include signal phasing recommendations for 2024 full build recommendations. This will also be requested for future TIS updates.

Does mitigated analysis signal timing recommendations include a coordinated NM 500 signal timing system?

NMDOT concurs with the additional TIS reports on a regular frequency of UP buildout. For all of the future studies, a full signal warrant study is required for any proposed signalized intersections warranted at full build scenarios.

A crash summary is missing from this report.

Can you provide a conceptual drawing of UP recommendations at each build year? (i.e. signals, roadway widening, roadway connections?)

Can you add roadway connections to your report and assumptions of diverted traffic to new connections?

For multiple period analysis the analysis should start when v/c is less than one and end when v/c is less than one.

***Report Comments:***

Page 1 – Are the “other large economic development projects” within the UP masterplan? What is the timeframe for those projects?

Page 2 – It would be helpful to have a map that identifies the existing and future intersections.

Page 19 – Can you include roadway jurisdiction and boundaries? NMDOT roadways and jurisdictional boundaries include:

- I-40
- Atrisco Vista is NM 500 at study intersections Central to North frontage.
- 98<sup>th</sup> includes the on/off ramps of I-40.
- Unser includes the on/off ramps of I-40.
- Central from NM 500 (MP 0) to MP 2.

Page 26 – In Figure 4 it's hard to tell what is included in the phases. There is type, there is handwriting, and other black outlined areas. What is included? Can you add a key?

Page 27 – In Figure 5 can you add a key?

Page 28 – Atrisco Vista and Arroyo Vista are proposed to be connected in 2024. Please show on map and in what phase.

Page 50 – The detailed traffic analysis at Atrisco Vista included UP, Amazon and all developments who submitted TIAs through the year 2021. I would say that signalization of the interchange ramps and frontage road intersections is the recommended alternative.

The no build analysis sheets in the appendix have “Adj” in the description. What does this mean?

Page 51 – Can you include the approach LOS for each table in the no build and build scenarios? This comment applies to all NMDOT intersections.

Page 58 – Please include a intersection LOS for each unsignalized intersection summary results in addition to the movements in each table. This applies to all results tables for unsignalized analysis.

Page 60 – At I-40 EB off ramp and NM 500, was a signal warrant analysis checked in the 2027 build analysis year?

Page 62 – Please provide mitigated signal timing adjustments for I-40 and AV EB ramps.

Page 62 – Was the I-40 EB offramp laneage configuration completed by Amazon included as a part of the existing conditions analysis?

Page 66 – The NMDOT study did not recommend a triple right configuration for I-40 WB offramp intersection. NMDOT does not concur with installation of a triple right.

Page 66 – I-40 WB off-ramp and NM 500 can you provide conceptual of pre-left configuration.

Page 82 – Please include all lane movements which are LOS E or LOS F in summary table.

Page 84 – Where is 98th and EB ramps analysis section. Please include after or before Arroyo Vista and WB ramps. In the report can you indicate Arroyo Vista/98<sup>th</sup> Street. In the appendix analysis sheets are called 98<sup>th</sup> and WB off-ramp, which is the same as Arroyo Vista and WB off-ramp. Was any signal warrant analysis completed for any of these scenarios?

Page 93 – I-40 EB and Unser need a full signal warrant analysis in 2019 condition. Study assumed signal for all other analysis years. Please provide a full signal warrant analysis to verify that signal will be warranted/installed by NMDOT for your future assumption analysis years.

Page 99 – Table 82 please include the movements which are LOS E or LOS F in the table. This comment applies to all no build and build tables for NMDOT intersections.

Page 128 – Can you provide an overall map with the freeway segments labeled.

Page 138 – The NMDOT study provides recommendations of the type of intersection controls for the intersection at and adjacent to NM 500 at I-40, however it does not provide timelines for improvements. Those improvements are as warranted by the development.

Page 139 – NMDOT will perform a full signal warrant analysis for I-40 eastbound off-ramp at Unser to verify if a signal is warranted at its existing condition. NMDOT requires more than the single peak hour warrant for signal installation.

Page 140 – Two-stage left turns not an acceptable turn movement.

Page 140 – A full signal warrant analysis is requested for any signals warranted in its build year. This analysis will be required as a part of the updated TIS in the future as recommended at an approximate frequency of every 4 years.

Page 141 – At Atrisco Vista and I-40 westbound off-ramp what are the recommended striping changes. Please include here.

Page 144 – Please provide conceptual drawing of how an additional eastbound lane will be implemented on I-40 between Arroyo Vista and Unser.

Page 144 – At I-40 westbound off-ramp and NM 500 the analysis proposed a triple westbound right. NMDOT's study analysis indicated that a dual WBR was sufficient. The recommendations does not include any of this work.

Page 144 – At I-40 eastbound off-ramp and NM 500, what is proposed and analyzed for the signal timing phasing with the introduction of a second southbound left? Protected only? Also, in lieu of a pre-left, can the SBL be served twice with the proposed signals and signal timing coordination?

CC:

File

Nancy Perea, NMDOT

Julie Luna, BC

Richard Meadows, BC

Jeanne Wolfenbarger, COA

Matt Grush, COA