Memorandum

To: Margaret Haines, PE, Assistant Traffic Engineer NMDOT D-3

From: Philip A. Gallegos, PE, Senior Transportation Engineer

CC: Robert Luna, PE, PTOE, Traffic Engineering Practice Lead, SW Region

Date: 9/16/2025

Re: TA Land Housing Development TIA Review Comments

Wilson and Company has reviewed the DRAFT TIS dated June 2025 for the TA Land Housing Development prepared by Lee Engineering and has the following comments. Please let me know if you have any questions or require further information.

GENERAL COMMENTS

1. The report states that it is understood that NMDOT has a future, comprehensive study programmed to evaluate the NM 500 corridor that encompasses the study area and per the pre-scoping meeting notes, no mitigation of corridor intersections is required as part of this study. Horizon year analyses under existing network conditions have been provided in the report and a 10-year analysis after site opening has been performed and a mitigation scenario analyzed, for NMDOT reference only. This should not have been assumed as no construction funds are tied to any improvements that may be recommended from that study. No assumptions can be made pertaining to the study.

2. 1.5% systemwide growth rate was used. Provide more detail on how this was determined. NM 500 shows an average annual growth rate that is higher.

3. Only the Aspire Development improvements at the Unser and Coors Blvd. intersections were utilized in the report analysis. The 2036 Horizon Year mitigations for the NM 500 corridor are provided. No 2026 or 2029 Build Year Phases were analyzed for the NMDOT intersections on NM 500. 2031 Background conditions were also not analyzed for the NMDOT intersections although they were analyzed for the 2031 Total Phase 3 Conditions. The developer shall provide analysis for both the 2026 Phase 1 and 2029 Phase 2 and 2031 Background Conditions for the NMDOT intersections. The Horizon Year should be 10 years from the date of Phase 3 being completed which should be 2041.

4. Auxiliary lanes for the NM 500 corridor were not analyzed since the NMDOT is planning a comprehensive study of the corridor. A auxiliary lane analysis shall be conducted for the all of the NMDOT intersections as they were utilized as mitigations in the 2031 and 2036 Scenarios.

5. No signal warrant analysis was completed for Condershire Drive although it is recommended that a signal warrant analysis be completed due to the excessive queuing and delays outlined in the report. Construction funds are imminent and auxiliary lanes and signal will be constructed in the near future.

REPORT COMMENTS

1. **NM 500 and 98th Street (Signalized)**

- Figures 6, 7 and 8 Background and Site Generated Traffic numerical values should be used where no traffic is anticipated for the northbound movements. 0 (zero) traffic on NM 98 northbound movements is unrealistic as a business does exist at SE of the intersection. This may be minimal but should be shown.
- There are significant queueing and delay issues for this intersection in the 2031 and 2036 Phase 3 Opening Year Scenarios. Auxiliary lanes are shown but were not in the Auxiliary lane analysis. Where did a 900-foot auxiliary lane come from since it wasn't included in table 19 2031 Mitigated Total Conditions? This lane needs to be analyzed and shown in the report.
- The report states in several narratives that several overall intersections as operating below LOS E but are actually LOS F and shall be corrected.
- Mitigations for both the 2031 Phase 3 Total Conditions and 2036 Horizon Year shall be completed by the developer.

2031 Total Conditions Mitigation Recommendations

1. A second southbound left-turn lane on 98th Street is recommended.
2. An eastbound receiving acceleration lane on NM 500 is recommended. The acceleration lane should be 550 feet in length, including a 170-foot taper per SAMM Table 18.K-1.
3. Signal retiming conducted by a licensed traffic engineer is recommended.

2036 Horizon Year Recommendations (based on a six lane facility)

1. A third southbound left-turn lane on 98th Street is recommended.
2. A second eastbound left-turn lane and a second westbound left-turn lane on NM 500 are recommended.
3. Signal retiming conducted by a licensed traffic engineer is recommended.

2. **NM 500 and Unser Blvd (Signalized)**

- Figures 6, 7 and 8 Background and Site Generated Traffic no traffic is shown on the westbound through movement. This may be minimal but should be shown.
- The 2036 Horizon No Build and Build scenarios have significant queuing and delays for the EB approach.
- Report recommends more green time during peak hours for the 2031 Mitigated scenario to address the EBT queuing issues although the movement operates at LOS B in the am and pm.

- There were 50 crashes in the 5 year reporting period with rear end and fixed object collisions as the two major contributing factors. No mitigation measures were presented in the Crash Analysis Section of the report to reduce the crash rate. Was AASHTO Safety Wear Utilized?
- Suggested Mitigations are below mitigations and numbers should show what, how and why does it deteriorate from this scenario to several failing movements in the 2036 Horizon Year Scenarios.

2031 Total Conditions and 10 Year Horizon Year Recommendations

1. A second southbound left-turn lane on Unser Boulevard is recommended, similar to the Aspire TIS recommendations.
2. An eastbound receiving acceleration lane on NM 500 is recommended, similar to the Aspire TIS recommendations. The acceleration lane should be 550 feet in length, including a 170-foot taper per SAMM Table 18.K-1.
3. Signal retiming conducted by a licensed traffic engineer is recommended with upgraded controllers and flashing yellow arrows where warranted.

3. NM 500 and Condershire Drive (Stop-Controlled)

- Figures 6, 7 and 8 Background and Site Generated Traffic no traffic is shown for the southbound and northbound movements although it may be minimal. These movements should not be left blank.

4. NM 500 and Coors Blvd. (Signalized)

- Figures 6, 7 and 8 Background and Site Generated Traffic no traffic is assigned to the southbound movements and is left blank and should be shown.
- The 2031 Mitigated Scenario shows this intersection operating at an acceptable LOS C in the am and pm conditions but deteriorate significantly in the 2036 Scenarios. This needs to be explained. The mitigations are below need completed by the developer.

2031 Total Conditions

1. A second northbound left-turn lane is recommended.
2. A second westbound receiving acceleration lane on NM 500 is recommended. The acceleration lane should be 550 feet in length, including a 170-foot taper per SAMM Table 18.K-1.
3. A second westbound left-turn lane is recommended, similar to the Aspire TIS recommendations.
4. Signal retiming conducted by a licensed traffic engineer is recommended with upgraded controllers and flashing yellow arrows where warranted.

10-year 2036 Recommendations in addition to improvement made by Aspire and Ceja Vista

1. A third eastbound left-turn lane on NM 500 is recommended. This assumes a six lane facility.
2. A northbound receiving acceleration lane on Coors Boulevard. The acceleration lane should be 380 feet in length, including a 150-foot taper per SAMM Table 18.K-1.
3. A second westbound left-turn lane is recommended.

- There were 289 crashes with crash types vary including rear-end collision, "Other Vehicle - From Same Direction/Both Going Straight", and Other Vehicle - One Left Turn/Entering At Angle." With no definitive crash type determined.

In Summary

1. The report states that it is understood that NMDOT has a future, comprehensive study programmed to evaluate the NM 500 corridor that encompasses the study area and per the pre-scoping meeting notes, no mitigation of corridor intersections is required as part of this study. Horizon year analyses under existing network conditions have been provided in the report and a 10-year analysis after site opening has been performed and a mitigation scenario analyzed, for NMDOT reference only**. This should not have been assumed as no construction funds are tied to any improvements that may be recommended from that study. No assumptions can be made pertaining to the study.**

2. 1.5% systemwide growth rate was used. Provide more detail on how this was determined. NM 500 shows an average annual growth rate that is higher.

3. Only the Aspire Development improvements at the Unser and Coors Blvd. intersections were utilized in the report analysis. The 2036 Horizon Year mitigations for the NM 500 corridor are provided. No 2026 or 2029 Build Year Phases were analyzed for the NMDOT intersections on NM 500. 2031 Background conditions were also not analyzed for the NMDOT intersections although they were analyzed for the 2031 Total Phase 3 Conditions. **The developer shall provide analysis for both the 2026 Phase 1 and 2029 Phase 2 and 2031 Background Conditions for the NMDOT intersections. The Horizon Year should be 10 years from the date of Phase 3 being completed which should be 2041.**

4. Auxiliary Lanes for the NM 500 corridor were not analyzed since the NMDOT is planning a comprehensive study of the corridor. **An auxiliary lane analysis shall be conducted for the all of the NMDOT intersections as they were utilized as mitigations in the 2031 and 2036 Scenarios.**

5. Analyze and show where the auxiliary lanes in Table 19 for the NMDOT Intersections since they were not included in table 19 2031 Mitigated Total Conditions? Auxiliary lanes need to be analyzed and shown in the report.

6. The report states in several narratives that several overall intersections as operating below LOS E but are actually LOS F and shall be corrected.
7. Mitigations for both the 2031 Phase 3 Total Conditions and 2036 Horizon Year shall be completed by the developer as shown above since the intersections deteriorate from the additional traffic generated by the development.
8. Explain why several of the intersections movements deteriorate so badly in the 2036 Scenario Years and what mitigations were used to determine this difference.
9. Mitigation measures to address the crash rates shall be presented in the Crash Analysis Section of the report.
10. Where Signal retiming conducted by a licensed traffic engineer is recommended, upgraded controllers and flashing yellow arrows shall be installed where warranted.

RECOMMENDATIONS To be Completed by the Developer

At the signalized intersection of NM 500 and 98th Street

2031 Total Conditions

1. A second southbound left-turn lane on 98th Street is recommended.
2. An eastbound receiving acceleration lane on NM 500 is recommended. The acceleration lane should be 550 feet in length, including a 170-foot taper per SAMM Table 18.K-1.
3. Where Signal retiming conducted by a licensed traffic engineer is recommended, upgraded controllers and flashing yellow arrows shall be installed where warranted.

10 Year 2036 Recommendations in addition to improvement made by Aspire and Ceja Vista

1. NM 500 cross-section is recommended to be a 6-lane roadway consisting of 3 lanes in each direction.
2. A third southbound left-turn lane on 98th Street is recommended.
3. A second eastbound left-turn lane and a second westbound left-turn lane on NM 500 are recommended.
4. Where Signal retiming conducted by a licensed traffic engineer is recommended, upgraded controllers and flashing yellow arrows shall be installed where warranted.

At the signalized intersection of NM 500 and Unser Boulevard

2031 Total Conditions

1. A second southbound left-turn lane on Unser Boulevard is recommended, similar to the Aspire TIS recommendations.
2. An eastbound receiving acceleration lane on NM 500 is recommended, similar to the Aspire TIS recommendations. The acceleration lane should be 550 feet in length, including a 170-foot taper per SAMM Table 18.K-1.
3. Signal retiming conducted by a licensed traffic engineer is recommended.

10 year 2036 Recommendations in addition to improvement made by Aspire and Ceja Vista

1. A second eastbound left-turn lane on NM 500 is recommended.

2. Where Signal retiming conducted by a licensed traffic engineer is recommended, upgraded controllers and flashing yellow arrows shall be installed where warranted.

<u>At the signalized intersection of NM 500 and Coors Boulevard</u>

2031 Total Conditions

1. A second northbound left-turn lane is recommended.
2. A second westbound receiving acceleration lane on NM 500 is recommended. The acceleration lane should be 550 feet in length, including a 170-foot taper per SAMM Table 18.K-1.
3. A second westbound left-turn lane is recommended, similar to the Aspire TIS recommendations.
4. Where Signal retiming conducted by a licensed traffic engineer is recommended, upgraded controllers and flashing yellow arrows shall be installed where warranted.

10-year 2036 Recommendations in addition to improvement made by Aspire and Ceja Vista

1. A third eastbound left-turn lane on NM 500 is recommended. This assumes a six lane facility.
2. A northbound receiving acceleration lane on Coors Boulevard. The acceleration lane should be 380 feet in length, including a 150-foot taper per SAMM Table 18.K-1.
3. A second westbound left-turn lane is recommended.

Sincerely,

Philip A Gallegos, PE

Digitally signed by Philip A Gallegos, PE
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