Canebreak West Revised Study Comments

1. The “Recommended Site Mitigation Improvements” on pages E-4 and 48 of the revised study does not include the recommendations for a deceleration lane for Site Driveway 1 and for a left turn lane for Site Driveway 2 that were listed in the previous traffic study. However, the “Auxiliary Lane Analysis” on page 40 of the revised study states that the warrants for those lanes are met at both access points.

   The GDOT analysis for turn lanes were included as a default standard. Cole Lake Road is not a state road. Given the ADT of the roadway and number of trips that would be generated during the study AM and PM peak hours, we recommended a left turn lane at Site Driveway 1 and a right turn lane at Site Driveway 2. If the County recommends a right turn lane and left turn lane at both site driveways, we are agreeable to that condition.

2. Why is there no mention about a portion of West Avenue being a one-way roadway between Trailside Drive and 361 Westside Avenue on page 7 where Westside Avenue is described?

   A description has been added to the study attached.

3. How did the level of service delay numbers change for “No-Build” intersection operations in the future in Table 6 for the revised study versus the original study? It appears that intersections 2, 10, 13, 14 have changed.

   Intersection 2: SR 120 (Scoggins Road/Hiram Sudie Road) @ SR 61
   Intersection 10: Jimmy Campbell Parkway @ SR 61 (Nathan Dean Blvd)
   Intersection 13: SR 61 (Nathan Dean Blvd) @ Henry Y Holland Dirve
   Intersection 14: SR 61 (Nathan Dean Blvd) @ Thomas B Murphy Drive

   The delays for these intersections changed by a few seconds between the old study and the new study. However, the LOS remained the same. I have confirmed that the lane geometry and traffic volumes are the same. The minor differences in delay were due to phasing not being accurate in the older study. The revised study includes the correct phasing in Synchro.

4. Can you explain specifically how this development is consistent with the vision and goals assigned to the City of Dallas at the bottom of page 22 “to coordinate infrastructure expansion with land use to encourage the expansion of infrastructure networks that are guided by the future development map”? It appears that all of the physical roadway improvements proposed by the traffic study are either inside the development or at the entrances to the development.

   The traffic study also identifies system improvements at locations other than the site driveway.

5. What basis does the study use for assuming the SR 61 widening project (PI # 0013702) will be complete before the development is finished in 2026?

   GeoPi has the project listed online with a program year for construction of 2025. This was also discussed in the methodology meeting and later over the phone with George.

6. Were any 48 hour tube counts done to determine the average daily traffic (ADT) on any of the study roads? It does not appear that any ADT counts were included in the appendix.

   No, this was not included in the scope of the methodology.

7. How does Cole Lake Road at Buchanan Highway (SR 120) operate at an acceptable level of service in the future improved condition with the development built? The Synchro analysis found on page 251 of the study in the appendix shows that there will be 25 vehicles stacked up on the northbound Buchanan Highway (SR 120) approach to Jimmy Campbell Pkwy (US 278). If you assume 25 feet for each vehicle and the space between vehicles then that would equate to a queue length of 625 feet which is past Cole Lake Road at Buchanan Highway (SR 120). If you have some heavy trucks in the queue aforementioned on the northbound Buchanan Highway (SR 120) approach to Jimmy Campbell Pkwy (US 278) then the queue will be longer than 625 feet. This is one issue with relying on just a macro simulation model such as Synchro alone where blocking and queuing issues are identified. The Synchro macro simulation model has well documented limitations when it comes to measuring the full impact of queuing and blocking. Recommend a microsimulation analysis such as Sim Traffic in all areas within the study network where Synchro indicates that queueing from one study intersection may block another study intersection.

   After reviewing SimTraffic results and the maximum queue reports (attached), the maximum queue lengths or NB approach is reported at 402 ft in the AM peak hour and 178 ft in the PM peak hour. The link length on SR 120 between US 278 and Cole Lake Road is 398 ft. In the AM peak hour, the NB approach queues do not extend past Cole Lake Road. SimTraffic animation appears to indicate no operational problems.

   This information and SimTraffic queuing reports were provided to Paulding County staff on August 11, 2022 via email. A copy of the email is attached.

8. How were the trips generated distributed between the two access points for the development? What were the percent split between the two and what was the percentages based on?

   Site generated trips were distributed between the two site driveways based on the site plan density and proximity to the access points. Of site generated trips, 53% of trips were distributed to Site Driveway 1 and 47% of trips were distributed to Site Driveway 2. At Site Driveway 1, 30% of trips made a westbound left turn and 70% of trips made a westbound right turn. At Site Driveway 2, 70% of trips made a westbound left turn and 30% of trips made a westbound right turn.

9. Were any direct observations made of how intersections operate now during either the am or pm peak hours that are listed as currently having approaches operate at level of service D or E or any of the intersections that have questioned previously such as Cole Lake Road at Buchanan Highway or Henry Y Holland Drive at Nathan Dean Boulevard?

Yes, we have been out there during peak hours to make observations during the data collection phase.

10. Section 3.2.3.4 of the GRTA Review Procedures requires at a minimum that the 4 hour signal warrants analysis be done per MUTCD standards where a traffic signal is suggested to mitigate the LOS on a failing approach. It does not appear that a signal warrants analysis was done for the intersection of Nathan Dean Boulevard and Henry Y Holland Drive as prescribed in the GRTA standards.

    A limited signal warrant analysis was completed for this intersection and warrants were not met based on side street left turns. We have analyzed the MUTCD major street left turn option. At this time, warrants are not met but appear to be close to the threshold. This is something that can be considered for the future if and when MUTCD signal warrants are met.

11. How were the signal timing inputs used in the Synchro model for signalized intersections determined? There appears to be differences in the signal timings input into the Synchro model for Existing and No-Build Conditions versus what is actually programmed in the controllers at the existing signalized intersections in the study network. Section 3.2.3.1 of the GRTA Review Procedures requires that no changes shall be made to traffic signal timing including sequences, splits, offsets, phases, and cycles between the existing and no-build conditions unless modifications are required to accurately model a programmed transportation project. This can have an impact on 95th percentile queue lengths, with the possibility of queue lengths exceeding available storage. There appears to be no evidence presented that the SR 61 widening project (P.I. #0013702) will be complete before 2026.

    Signal timings inputs varied to account for operations with increases in traffic over time.

12. Section 3.2.2.4 of the GRTA Review Procedures requires that an improvements analysis be done to improve any approach that does not meet the defined LOS standard (LOS D) in the No Build Condition. What improvement analysis was done for the failing northbound and southbound approaches to the intersection of Nathan Dean Boulevard (SR 61) at Merchants Drive (SR 6 Business)? Which approach or approach direction is being referred to when it is stated on page 36 of the study to “Convert the existing shared through left turn to a dual left with shared through movement in one lane”? How do you just convert one existing shared through left turn lane into two lanes that provides dual left with shared through movements?

    This was discussed during the teams meeting organized by GRTA on August 10, 2022. Refer to Figure 8C on page 46 of the study. The system recommendation is shown graphically. The intersection will need to be widened to accommodate the additional lane on Nathan Dean Boulevard and a receiving lane will need to be provided on Merchant Drive.

13. It appears that there were additional trips placed on the eastbound Scoggins Road approach to SR 61 comparing the trips shown for the Future Build Condition in the revised study versus the original study. Why are the additional trips shown as being eastbound through trips only during the peak hours? What is the distribution for that eastbound approach by movement?

General trip distribution was revised in agreement with the City and County to increase site generated traffic distribution on the eastbound approach at Scoggins Road. In the original study, there were more trips heading in the westbound direction on Scoggins Road. Site generated trips for each movement at the eastbound approach at Scoggins Road and SR 61 are shown in Figure 5C on Page 26 of the latest study.