



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

MEMOTO: Post-Public Meeting Meeting Attendees

FROM: Kevin Moore, P.E.
Roadway Design Project Engineer

DATE: September 28, 2017

SUBJECT: Project 35993.1.1 (U-4700) Caldwell, Catawba, and Burke Counties
F. A. Project NHF-321(18)
Proposed US 321 Widening from US 70 in Hickory to Southwest Boulevard in Lenoir

**Post-Public Meeting
Meeting Summary**

The post-public meeting meeting was held on September 22, 2017 at NCDOT’s Century Center Roadway Design Conference Room. The purpose of the meeting was to review written comments received during the comment period after the U-4700 Public Meeting held on Thursday, July 27, 2017 at the Western Piedmont Council of Governments in Hickory, NC.

The following people met to discuss the comments:

Name	Agency/Unit
Derrick Weaver	NCDOT – Roadway
Kevin Moore	NCDOT – Roadway
Eugene Tarascio	NCDOT – Project Development
James Dunlop	NCDOT – Congestion Management
Diane Wilson	NCDOT – HES Public Involvement
Michael Pettyjohn*	NCDOT – Division 11
Dean Ledbetter*	NCDOT – Division 11
Mark Stafford*	NCDOT – Division 12
Michael Poe*	NCDOT – Division 12
Colin Frosch	Kimley-Horn – Project Development
Teresa Gresham	Kimley-Horn – Project Development
Brandon McInnis	RK&K – Roadway Design

* *Joined by phone*

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
PROJECT MANAGEMENT UNIT
1582 MAIL SERVICE CENTER
RALEIGH, NC 27610

Telephone: (919) 707-6200
Fax: (919) 250-4036
Customer Service: 1-877-368-4968

Website: www.ncdot.gov

Location:
1000 BIRCH RIDGE DRIVE
RALEIGH, NC 27610

Executive Summary

Project Description:

NCDOT and FHWA propose to widen US 321 to a six lane median divided facility from just north of the US 70 interchange in Hickory (Catawba County) to the Southwest Boulevard (SR 1933) interchange in Lenoir (Caldwell County). The proposed improvements involve approximately 13.5 miles of existing US 321 with a majority of the roadway located in Catawba and Caldwell Counties and 0.3 miles in Burke County. The purpose of the project is to reduce congestion on US 321 in order to achieve level of service D or better in the design year (2040).

More information is available on the project website:

<https://www.ncdot.gov/projects/us321widening/>

Public Meeting Summary:

During the public meeting, a total of 272 people signed in. Written comments (summarized below) were received from a total of 203 citizens at the meeting and in the comment period ending August 18, 2017.

A. SUMMARY OF DESIGN ALTERNATIVES

Grace Chapel Road

NCDOT recommended alternative – NCDOT recommends the **Flyover with superstreet intersection** (modified October 2017) alternative at Grace Chapel Road. This alternative will provide residents on Grace Chapel Road direct access to US 321 north and southbound, and will minimize impacts to local residents and businesses.

Alternatives considered included:

- Flyover with a Superstreet Intersection (shown at the July 2016 public hearing) – An elevated road would be constructed to allow drivers on Grace Chapel Road to proceed directly to US 321 where they will merge with existing traffic. Right turns into and out of Grace Chapel Road, as well as left turns on to Grace Chapel Road will be controlled with an at-grade signalized intersection.



- Trumpet Interchange (shown at the July 2016 public hearing) – This interchange would provide direct connection between US 321 and Grace Chapel Road. A new road would connect Lake Valley Place and the power station.



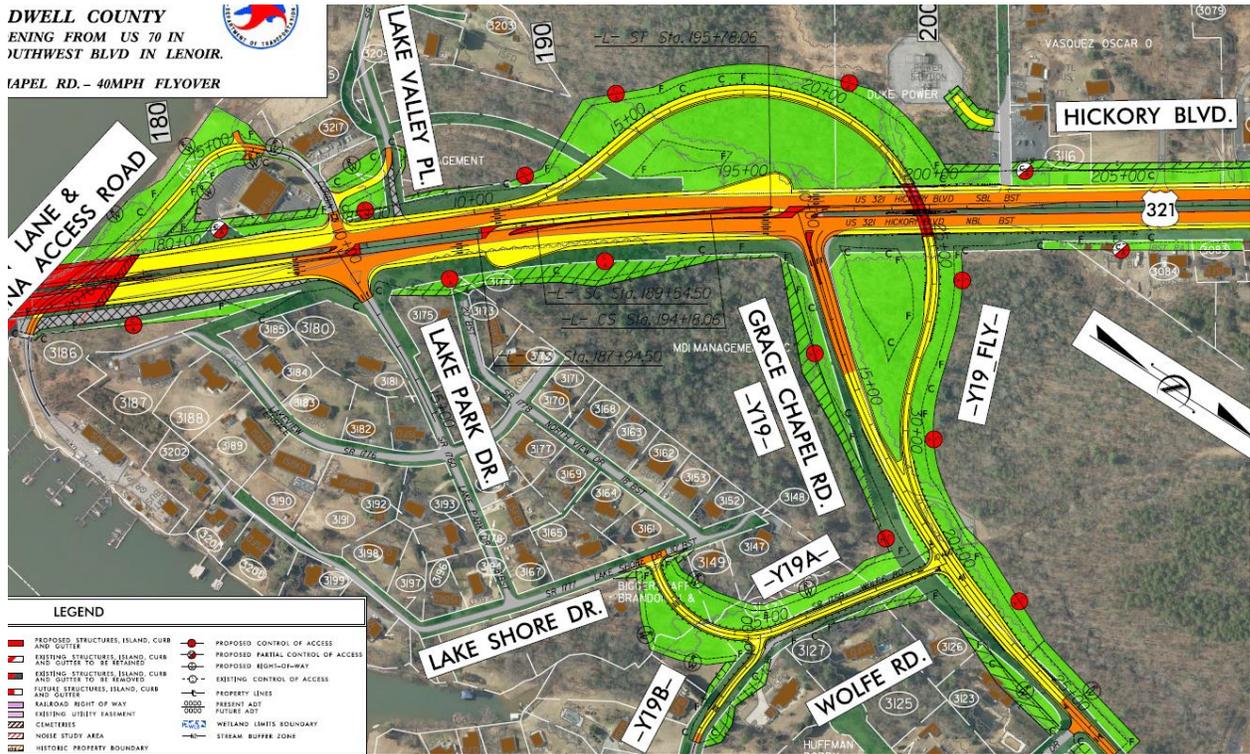
- Reverse Superstreet Intersection (shown at the July 2016 public hearing) – An at-grade intersection would allow left turns from Grace Chapel Road onto southbound US 321, controlled by a traffic signal. Left turns from US 321 South to Grace Chapel Road would be restricted.



- Superstreet Intersection (shown at the 2017 public meeting) – An at-grade intersection would allow left turns from southbound US 321 onto Grace Chapel Road. Left turns from Grace Chapel Road to southbound US 321 would be restricted.



- Flyover with a Superstreet Intersection (modified October 2017) – An elevated road would provide a direct connection from Grace Chapel Road to southbound US 321. All other movements will be controlled with an at-grade signalized intersection. Modification from the Flyover with a Superstreet Intersection Alternative design originally shown in 2016 includes adding a new connector from Lake Shore Drive to Grace Chapel Road via Wolfe Road.

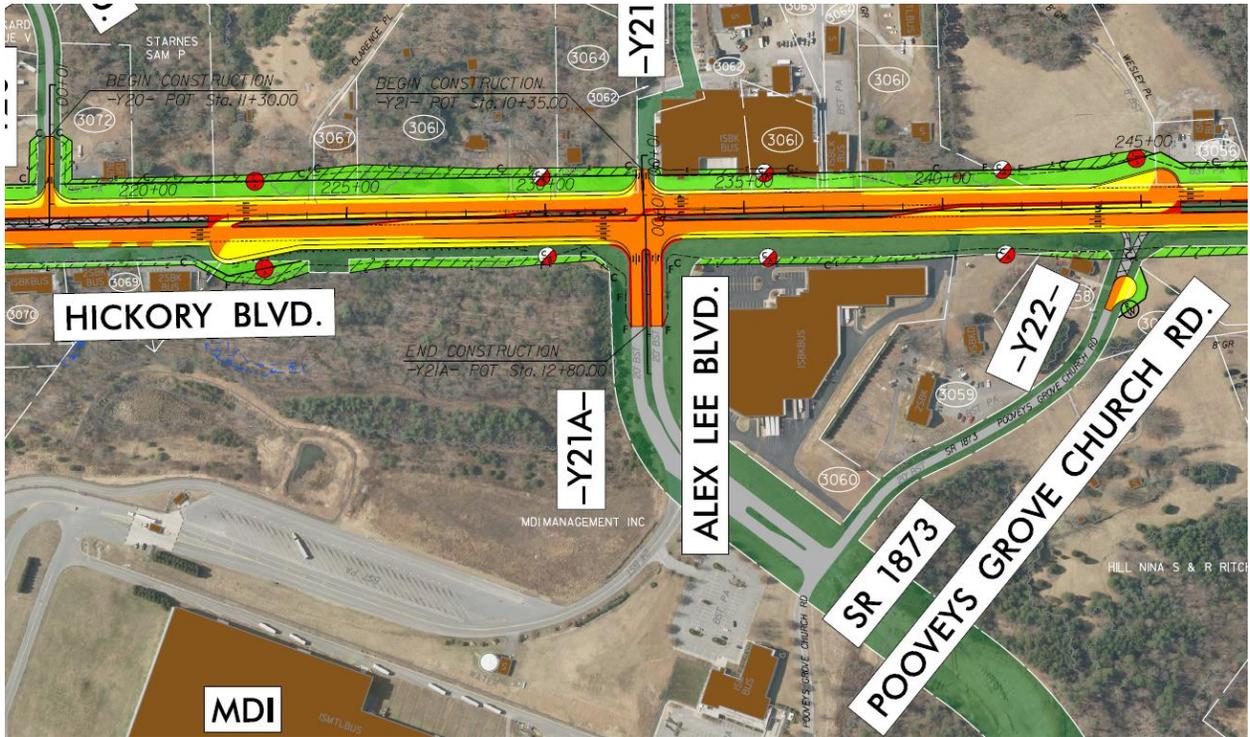


Alex Lee Boulevard

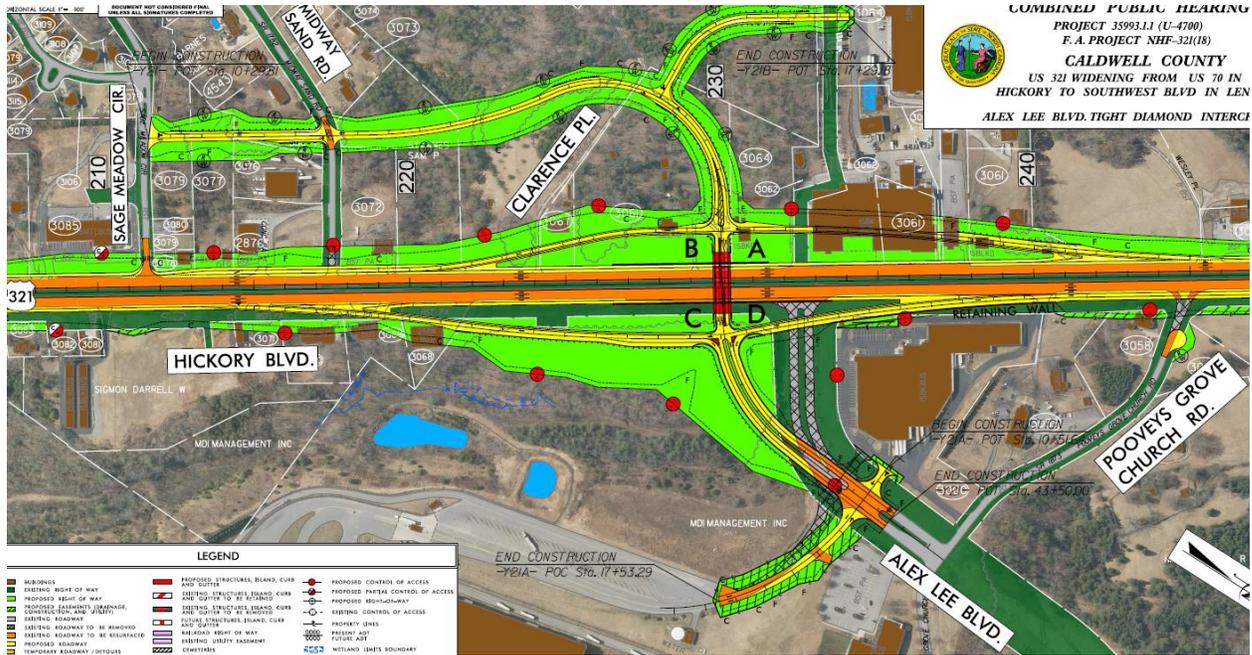
NCDOT recommended alternative – NCDOT recommends a **tight diamond interchange** at Alex Lee Boulevard.

Alternatives considered included:

- Superstreet intersection (shown at the 2016 public hearing) – A superstreet intersection would allow left turns from US 321 onto Alex Lee Boulevard. Left turns from Alex Lee Boulevard to US 321, and on Alex Lee Boulevard across US 321, would be restricted.



- Tight Diamond Interchange (shown at the October 2017 public meeting) – This interchange would have ramps in all four quadrants. In addition, a new road would connect Sage Meadow Circle, Midway Sand Road, and the new interchange.



Falls Avenue

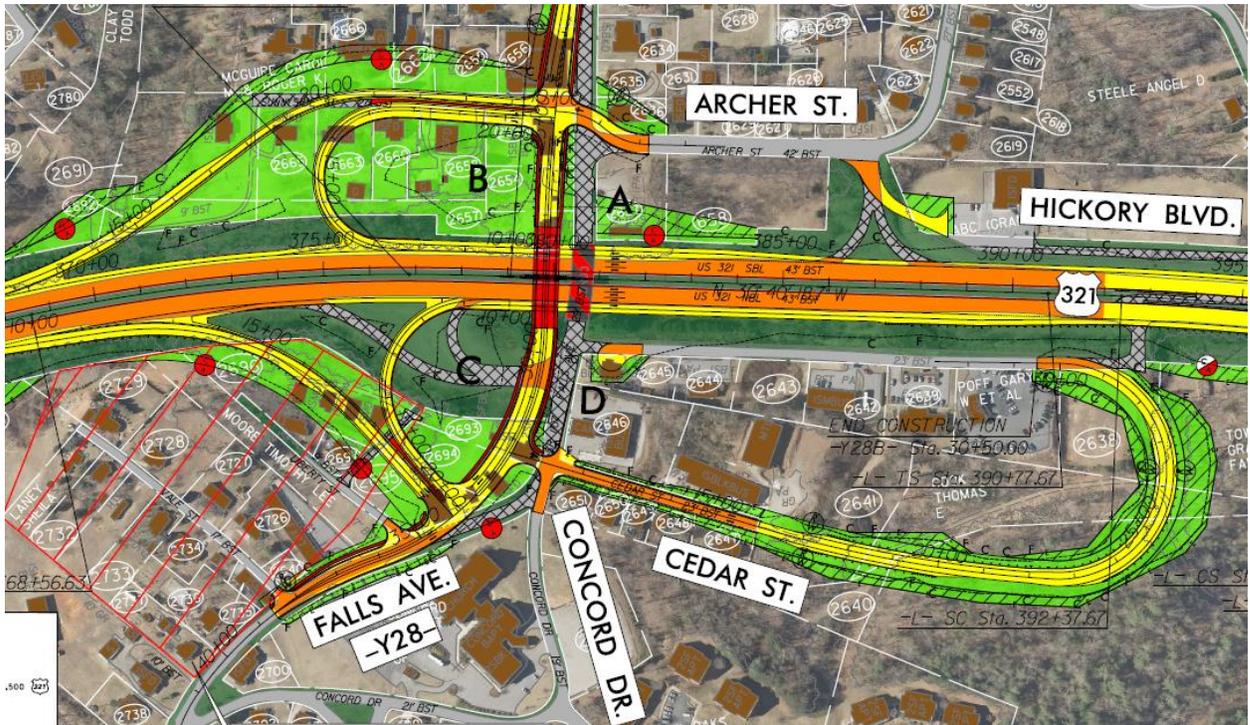
NCDOT recommended alternative – NCDOT recommends a **tight diamond interchange** at Falls Avenue.

Alternatives considered included:

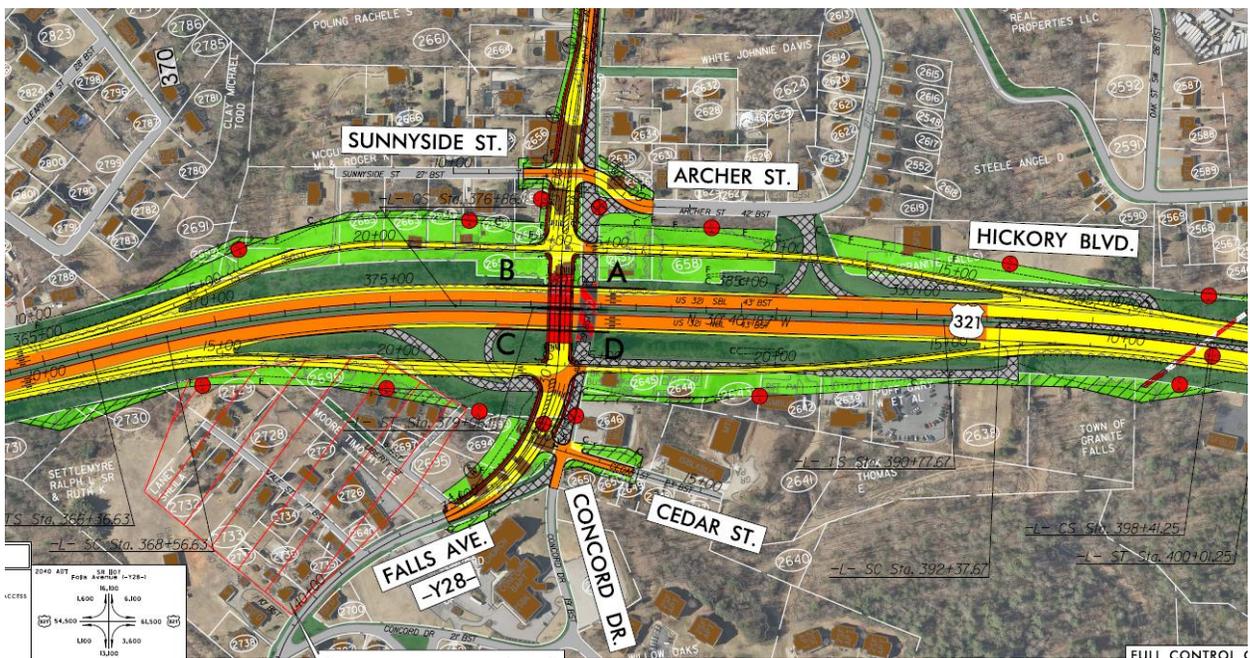
- Superstreet (shown at the 2016 public hearing) – A superstreet intersection would allow left turns from US 321 onto Falls Avenue. Left turns from Falls Avenue to US 321, and on Falls Avenue across US 321, would be restricted.



- Partial Clover Interchange (shown at the 2016 public hearing) – This interchange would have ramps and loops in the southwest and southeast quadrants. New roads would connect Falls Avenue to the existing streets parallel with US 321.



- Tight Diamond Interchange (shown at the 2016 public meeting) – This interchange would have direct on and off-ramps in all four quadrants.

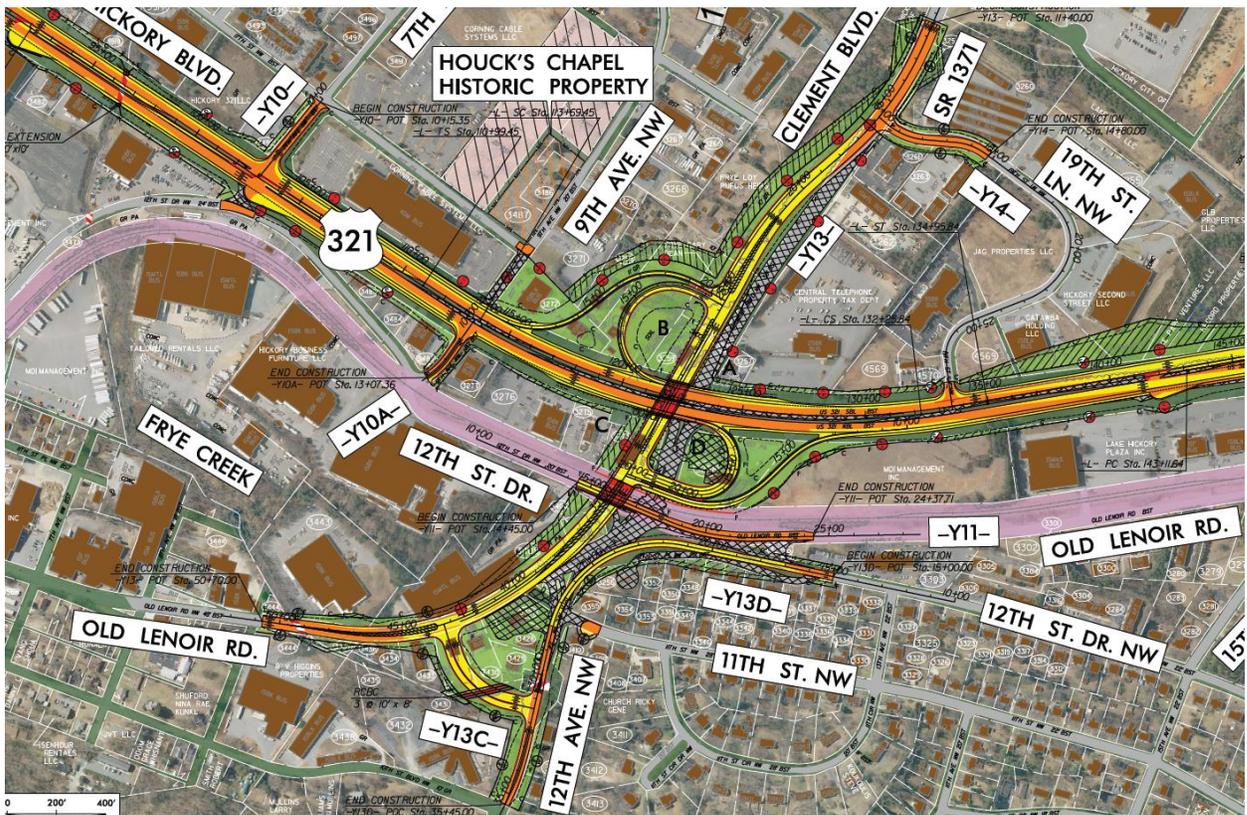


Clement Boulevard

NCDOT recommended alternative – NCDOT recommends a superstreet intersection at Clement Boulevard.

Alternatives considered included:

- Partial Cloverleaf Interchange (shown at the 2016 public hearing): This interchange would have ramps and loops in the southwest and north east quadrants. Due to the proximity to the railroad, Clement Boulevard/Old Lenoir Road would be grade separated over the railroad, and the adjacent street network will be modified to connect with the new elevation of Clement Boulevard/Old Lenoir Road.



- Superstreet intersection (shown at the July 2017 public meeting) – A superstreet intersection would allow left turns from US 321 onto Clement Boulevard. Left turns from Clement Boulevard to US 321, and on Clement Boulevard across US 321, would be restricted.



B. WRITTEN COMMENTS AND NCDOT RESPONSES

Comments Related to Grace Chapel, MDI, and Walmart Intersections

1. **Comment:** The new design benefits MDI and not residents.

Response: Based on the updated forecast, none of these three intersections (Grace Chapel Road, MDI/Alex Lee Boulevard, Walmart/New Farm Road) require an interchange to address traffic operations or congestion concerns. At the July 2017 meeting, the interchange was proposed at a central location (Alex Lee Boulevard) to provide direct access for all users in this area. The recommended alternative proposes a flyover from Grace Chapel Road to US 321 South, and an interchange on US 321 at Alex Lee Boulevard/MDI.

2. **Comment:** A large proportion of this area’s arterial street traffic routinely turns left.

Response: While a superstreet option provides a safe and efficient operation for motorists, the reverse superstreet and interchange alternatives initially presented in July 2016 would provide direct movements for the heaviest turn movement Grace Chapel Road, and the interchange presented in July 2017 would provide direct movements for the heaviest turn movements via Alex Lee Boulevard. Since Grace

Chapel Road and Alex Lee Boulevard intersect east of US 321, traffic from this area could use either route. The recommended alternative proposes a flyover at Grace Chapel Road and an interchange at Alex Lee Boulevard, providing a direct movement for left-turning vehicles from both roads onto US 321 Southbound.

3. **Comment:** It will be difficult to access US 321 from Grace Chapel Road, Lakeview Park, and River Bend/New Farm Road.

Response: Although the route is slightly different, travel time would be on average shorter for the new alternatives compared with the existing roadway configuration. The reverse superstreet and interchange alternatives initially presented in July 2016 would address left turn demand more directly. The recommended alternative proposes a flyover at Grace Chapel Road. New Farm Road connects with Grace Chapel Road.

4. **Comment:** It will be difficult to access Walmart and New Farm Road.

Response: The current design proposes allowing left and right turns into Walmart/New Farm Road, which retains the same ingress movements that exist today.

5. **Comment:** Will residents have access to Alex Lee Boulevard to reach 321?

Response: Residents will be able to access US 321 from Grace Chapel Road via a flyover to US 321 South and a traditional superstreet intersection for the other movements; via a full tight diamond interchange at Alex Lee Boulevard, and via a traditional superstreet intersection at New Farm Road. Alex Lee Boulevard, New Farm Road, and Grace Chapel Road intersect east of US 321.

6. **Comment:** The proposed design is ignoring a large population that lives near Grace Chapel Road and uses it to access 321.

Response: The forecast and analysis accounted for this population and driving volumes.

7. **Comment:** There will be reduced access to Lakeview Park and Lake Park Drive, which is a concern for increased emergency response time and ease of daily traffic.

Response: The design will be evaluated to determine if a more direct connection is feasible to this area.

8. **Comment:** Keep the 2016 plans.

Response: There were three options at Grace Chapel Road presented at the 2016 public hearing, based on the 2011 traffic forecast. This forecast assumed all traffic would be concentrated on Grace Chapel Road because New Farm Road was not in place at that time. Based on an updated traffic forecast (2017), a fourth option (a traditional superstreet) was added for consideration, and presented during the July 2017 public meeting. The recommended alternative proposes a flyover at Grace Chapel Road.

9. **Comment:** Leave the signal at Grace Chapel Road.

Response: With a traditional traffic signal, the intersection Grace Chapel Road at US 321 is projected to operate with long delays. Also, leaving the existing traffic signal at this location would interrupt the signal timing progression along US 321, affecting travel time and delay for all drivers on the corridor. With addition of a superstreet or a reverse superstreet, a signal would still be included to ensure drivers had sufficient gaps to get onto US 321. With the preferred alternative, a southbound flyover to US 321, a signal is proposed to remain at the at-grade intersection of Grace Chapel Road and US 321 to ensure drivers have sufficient gaps to turn right from Grace Chapel Road onto US 321, and to turn left from US 321 onto Grace Chapel Road.

Comments Related to the Clement Boulevard Intersection

- 10. Comment:** Bond money is currently allocated to build a corridor connecting downtown to the lake for bike and pedestrian use. This will need to be accessed by Clement Boulevard.

Response: This has been accommodated in the current design.

- 11. Comment:** Traffic to/from Crawdads Stadium will be disrupted during construction and upon completion of construction.

Response: The project team will continue to coordinate with the Crawdads, and will look at accommodating the heaviest movements through traffic signal timing. Traffic counts are being collected at the stadium for this study. Access during construction will be evaluated during the final design period.

- 12. Comment:** The superstreet will negatively affect surrounding businesses, baseball stadium, airport, etc. There is a group of investors looking at the large building next to the stadium and at creating an arts/innovation district south of Clement Boulevard on US 321. The superstreet will disrupt these projects.

Response: Overall travel time is better with superstreets than with traditional intersections. There is no evidence to indicate that conversion from a traditional signalized median-divided facility to a superstreet corridor negatively impacts businesses.

- 13. Comment:** Traffic currently crossing US 321 will be inconvenienced and travel time increased with a superstreet compared with an interchange.

Response: An interchange, which had previously been proposed at this location, is no longer needed based on the updated traffic forecast.

- 14. Comment:** There is too much volume present on the cross-streets at this location to be acceptable for a super street.

Response: Based on the capacity analysis, the proposed superstreet design will provide acceptable operations.

Comments Related to Other Locations

Impact Concerns

These impacts were noted and discussed by the NCDOT and taken in to consideration when the preferred alternative was chosen.

- 15. Comment:** The proposed option puts Jack B. Quick out of business.
- 16. Comment:** The business Sunlife Center will be severely negatively impacted with loss of driveway and 2/3 of parking, and lose direct access to US 321. (Received twice)
- 17. Comment:** The proposed plan will take some of my yard on Falls Avenue. I don't believe the widening is necessary.
- 18. Comment:** The proposed design will take my entire business on Poovey Drive in Granite Falls. Can the widening be moved to the north side?
- 19. Comment:** Design requires "Your Home Furnishings" to close
- 20. Comment:** Impacts Teff Hair Design Studio tremendously.
- 21. Comment:** Business will be negatively affected by the closing of Sage Meadow Circle.
- 22. Comment:** Accessibility to 321-Alternative will be decreased.
- 23. Comment:** No longer will have direct access to Midway Sand Road. (Received twice)
- 24. Comment:** Residents and businesses on Midway Sand Road will be severely negatively impacted.
- 25. Comment:** A temporary bridge should have been used while the Falls Avenue Bridge (near Grace Chapel Road) is replaced.

Design Questions or Comments

- 26. Comment:** I use Woodlane Avenue to access US 321, and there are sight distance issues at this intersection.

Response: Woodlane St. which is just south of Falls Ave will be maintained as is per the preliminary design, the intersection will maintain the leftover design that is existing. Construction will be tied into existing Woodlane St. per NCDOT standards. In final design, appropriate intersection sight distances will be checked and accommodated.

- 27. Comment:** I am concerned with the elimination of traffic control stop lights at the intersection of Mission road and US 321.

Response: Mission Road has been identified as needing a traffic signal based on the 2040 traffic forecast.

- 28. Comment:** Why is 9th Avenue NW Closed? I propose it be a right-in-right-out intersection. My business will be negatively impacted.

Response: This road was initially closed because of the interchange at Clement Boulevard. After removing the interchange, we looked at the spacing of the intersections in the area and determined there were several intersections closely spaced in this area. We will take a look at this area again and see if we can allow access at 9th Avenue NW.

29. Comment: Please check noise levels at 528 11th Street SW. We believe study levels are low.

Response: A final noise study will be conducted during final design. However, the project limits do not extend to 528 11th St. NW along US 321 and this property is unlikely to be within the noise study area for this project.

30. Comment: I want to know the impact to the property at 5171 Lake Park Drive, the only property between Limbaugh Lane and Grace Chapel Road.

Response: There are no construction impacts to the parcel for 5171 Lake Park Drive.

31. Comment: How exactly will I be getting on and off Whispering Pines Drive?

Response: Whispering Pines Drive will have right in/right out access. There are U-turn bulbs located along US 321 on either side of Whispering Pine Drive that will provide areas to U-turn for access to Whispering Pines Drive.

32. Comment: Will access to parcel 5919 on 321 South be changed? If so, it will be landlocked.

Response: Yes, access to US 321 will be maintained from parcel 5919.

33. Comment: Will 12th Street Place NW have the option to turn left onto 12th Street Drive NW and then left onto Old Lenoir Road?

Response: By changing the proposed design from an interchange to a superstreet at Clement Boulevard, no work will be done at these intersections, and they will continue to operate as they do today.

34. Comment: Can the cul-de-sac shown on the 321 plan at the east end of 1st Ave (where the bridge is eliminated) be a hammerhead with one leg serving as a drive entrance?

Response: Access will be given to the parcel from the cul-de-sac. The cul-de-sac is for vehicles to turnaround without going through the parking lot. Access to parcels will be finalized in final design and the cul-de-sac may be adjusted to help provide better access.

35. Comment: Will there be a connection off 2nd Avenue onto 15th St SW where circled?

Response: Currently access is not given off of 2nd Avenue. However, the Team will revisit this area and see if access is possible.

36. Comment: Will 15th Street SW be two way as shown instead of the current one way street?

Response: 15th Street SW is currently two way and will remain two way for this project.

37. Comment: The Town of Granite Falls is concerned about accessing Falls Avenue for emergency travel times and has adopted a resolution to support alternative design #3 – Tight Diamond Interchange.

Response: NCDOT recommends the tight diamond interchange alternative at this interchange.

38. Comment: Easy access will be cut off to the Town of Granite Falls.

Response: The Town of Granite Falls will be accessed from US 321 via a diamond interchange, retaining similar movements as the current interchange.

39. Comment: In the 2016 meetings Dudley Shoals Avenue intersection was not mentioned, why is it now added?

Response: The queuing issue from Dudley Shoals Avenue onto US 321 was identified following the 2016 public hearing. A revision to the design is recommended based on that need.

General Concerns about Superstreet Design

40. Comment: There is a short distance to merge over 3 lanes to reach the U-turn lane.

Response: The current proposed design provides for safe and efficient operation now and through the 2040 design year. Signals along the corridor help provide gaps for turning traffic. Right on red may also be allowed, which would shorten delays further.

41. Comment: Drivers will potentially need to wait through up to three signals instead of one to turn left and drive towards Hickory.

Response: That is correct. However, the signals will operate more efficiently than the current signalized traditional intersection and therefore the overall travel time will be reduced.

42. Comment: The proposed U-Turn lanes are too short for the traffic demand which will cause a queue to extend to the through lanes.

Response: Based on the capacity analysis, the design provides adequate queue space for vehicles in the peak period for 2040 traffic. The queues with the superstreet will be shorter than current queues because the superstreet design is a more operationally efficient design.

43. Comment: U-Turns are dangerous.

Response: Studies have shown that U-Turns do not increase accidents.

44. Comment: There will be an increase to travel time for drivers and emergency vehicles.

Response: There will be an overall lower travel time with the proposed designs during peak periods.

45. Comment: There will be a negative impact on businesses and residents in the area.

Response: Superstreets have an overall positive impact on the community because of reduced congestion and improved safety. There is no evidence to indicate that conversion from a traditional signalized median-divided facility to a superstreet corridor negatively impacts businesses.

46. Comment: More accidents will occur due to U-turns.

Response: Superstreets are safer than traditional streets, primarily because the design reduces potential conflict points between vehicles moving in different directions.

47. Comment: U-turns will add traffic to US 321.

Response: Additional turning traffic has been accounted for in the traffic analysis and design. The proposed design accommodates these movements.

General Questions or Comments

48. Comment: When will residents know which option has been chosen?

Response: NCDOT and other state and federal agencies anticipate selecting a preferred alternative this winter. Information about the updated design and schedule will be provided on the project website and in local newspapers.

49. Comment: There is insufficient traffic demand for the widening to be warranted. There are only 2-3 congested hours of traffic congestion per day.

Response: This project was supported by local and state agencies and has been prioritized and funded for many years. A 4-lane design wouldn't work in part because of the 60/40 traffic directional split. The project is being designed to accommodate projected 2040 traffic volumes, which will be higher than current volumes.

50. Comment: The proposed design change is based on a new forecast, why is the new forecast determined to be reliable?

Response: The 2011 forecast was based on information at the time. The 2016 forecast update is based on current information, including new and proposed roads and land uses provided by the local counties and municipalities.

51. Comment: Displeased with the format of the public meeting, process, etc.

Response: No response necessary.

52. Comment: There was too short of a comment time following the public meeting.

Response: Comments will be received throughout the duration of the project. The two-week comment period used is a standard response time following public meetings. Due to the level of responses following the 2017 public meeting, the comment period was extended before a summary was prepared.

Petition:

Stop the Caldwell County Hwy 321 Superstreet's Alex Lee Blvd Interchange

US Highway 321 in southern Caldwell County certainly has a traffic problem. Before relying on an experimental, unproven super street design to solve this issue, we encourage county officials, state representatives and the NCDOT to research alternatives to alleviate traffic in a safer & more efficient manner.

US Highway 321 in southern Caldwell County has a high-volume of vehicles entering & exiting to access many large Retail Centers, Businesses & Neighborhoods adjacent to Hwy 321. Residents, school buses and emergency personnel should be able to safely navigate this area.

Traffic backs up terribly at several large intersections now. With the new Superstreet design - those wanting to turn left to access Hwy 321 will be expected to enter & merge left across 3 lanes of traffic, into new U-turn bulbs. With the backups at those intersections now, sending them to these new U-Turn bulbs will create potential (& probable) dangerous backups onto US Highway 321 instead.

The current, July 2017 plans by the NCDOT provides only 1 interchange through this area at Alex Lee Blvd (not Grace Chapel Road or Wal-Mart/US 321-A). The traffic counts for Alex Lee Blvd (MDI) is no where near the traffic counts for Grace Chapel Road or WalMart/US321-A.

We are proposing the NCDOT replaces this Alex Lee Blvd Interchange with the 2016 proposed Flyover at Grace Chapel road. We are proposing that the NCDOT replaces this Alex Lee Blvd Interchange with a Flyover at WalMart/US321-A. This would greatly reduce backups at those U-Turn bulbs in those areas and increase the safety of the drivers. This would also reduce the amount of property, residents & businesses hurt by the proposed Alex Lee Blvd / MDI Interchange. And we feel this would be the most efficient & cost-effective manner to alleviate traffic concerns for US Highway 321 in southern Caldwell County.

Response: At the July 2016 public hearing, three options were proposed based on the 2011 traffic forecast: a flyover, an interchange, and a reverse superstreet.

The traffic forecast was updated in February 2017. Based on the updated forecast, none of these three intersections (Grace Chapel Road, MDI/Alex Lee Boulevard, Walmart/New Farm Road) require an interchange to address traffic operations or congestion concerns.

At the July 2017 public meeting, an interchange was proposed at a central location (Alex Lee Boulevard) to provide direct access for all users in this area. Although an interchange is not needed, the centralized interchange was proposed based on a desire from residents and businesses to more directly accommodate the left turn movement

from the area onto US 321. Grace Chapel Road, Alex Lee Boulevard, and New Farm Road intersect east of US 321, allowing traffic from this area to use any of the intersections.

The recommended alternative proposes a flyover from Grace Chapel Road to US 321 South, and an interchange on US 321 at Alex Lee Boulevard/MDI.

C. SELECTION OF A RECOMMENDED ALTERNATIVE

Following review of public comments, impacts, and anticipated costs, NCDOT recommends the design shown at the July 2017 public meeting with the following exceptions:

- Recommend a flyover ramp from Grace Chapel Road to US 321 South (Alternative 2 shown at the July 2016 public hearing)
- Recommend a tight diamond interchange on US 321 at Alex Lee Boulevard, with several design modifications to minimize impacts to properties and access (as shown at the October 17th public meeting).
- Recommend a tight diamond interchange at Falls Avenue (Alternative 3 shown at the July 2016 public hearing)

D. UPCOMING DATES

- October 12, 2017 – Public Meeting (Open House) hosted by NCDOT at Broyhill Center in Lenoir 4:00-7:00 pm
- October 16, 2017 – Public Meeting hosted by Caldwell County Commissioners at Broyhill Center in Lenoir beginning at 6:00 pm with presentation and formal Q&A session

If anyone has any questions or comments regarding this information, please contact Kevin Moore, PE, Roadway Design Project Engineer at 919-707-6287.

KM/cmf

cc:

Attendees