

STIP Project No.: U-5301 Public Meeting

U.S. 64 Improvements From Laura Duncan Road (S.R. 1306) in Apex to U.S. 1 in Cary

June 21, 2018



Wake County

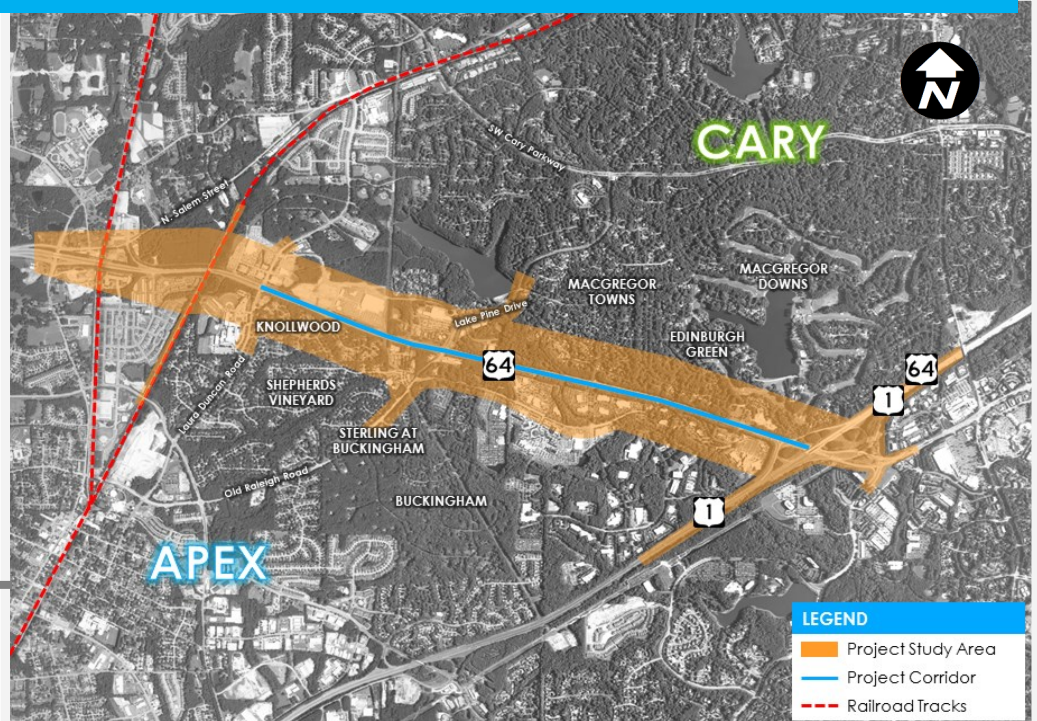
PROJECT DESCRIPTION

NCDOT is currently studying multiple alternatives to address the traffic needs along U.S. 64. A significant number of options will be analyzed for intersections along the corridor to address access needs of surrounding communities and businesses and to reduce the number of crashes.

U.S. 64 will be widened to six-lanes along the corridor.

PROJECT PURPOSE

- Alleviate existing and future congestion and improve mobility along the corridor
- Improve regional mobility
- Improve reliability of the roadway network within the project study area



YOUR INPUT IS IMPORTANT

Public involvement is an important part of the project development process. The NC Department of Transportation encourages citizen involvement on transportation projects, and will consider your suggestions and address your concerns. Today's meeting is another important step in NCDOT's efforts to keep you, the public, involved. Comments should be submitted by **July 21, 2018**.

Comments can be submitted and additional project information can be found on the project website, located at the following link:

<https://publicinput.com/U-5301-US64-Apex-Cary>

PROJECT CONTACTS

NCDOT Project Manager
Bob Deaton, AICP
Central Project Delivery Team
1582 Mail Service Center
Raleigh, NC 27699
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Consultant Project Manager
Ryan L. White, P.E.
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KEY FACTS / NEED FOR THE PROJECT

- **Traffic volumes** currently range from 40,000 to 56,000 vehicles per day (vpd) and are expected to grow by 40% by 2040
 - ◆ **Congestion:** Currently, 6 of 12 intersections operate below acceptable levels.
 - ◆ **Commuter and Regional Traffic:** Nearly half of the traffic along U.S. 64 in the study area travels between U.S. 1 towards Raleigh and U.S. 64 west of Laura Duncan Road.
 - ◆ **Local Traffic:** A considerable amount of traffic is local, traveling on or between Laura Duncan Road and Lake Pine Drive.
- **Crashes: 779** occurred within the project study area between 2012 and 2016
 - ◆ 2 Fatal
 - ◆ 3 Pedestrian Crashes (2 at Laura Duncan Road)
 - ◆ 507 Rear-end Crashes
 - ◆ Crash rate is over twice the statewide rate for all U.S. highway routes
 - ◆ **Primary Crash Locations:**
 - ◇ Laura Duncan Road
 - ◇ Lake Pine Drive
 - ◇ Edinburgh Drive
 - ◇ Intersection approaches

Chatham and Southwestern Wake Counties are experiencing significant growth, while the commercial development along U.S. 64 serves as both a local and regional destination.

Without the proposed improvements, the project corridor will experience an increase in congestion–related issues.

- There will be a significant increase in travel time for commuters, which will result in longer rush hours.
- Residents living along the corridor will spend considerably more time waiting at traffic signals to enter or cross U.S. 64, which will increase the difficulty of accessing businesses and community resources along the corridor.

Copies of the meeting maps have been made available for public review at the following locations:

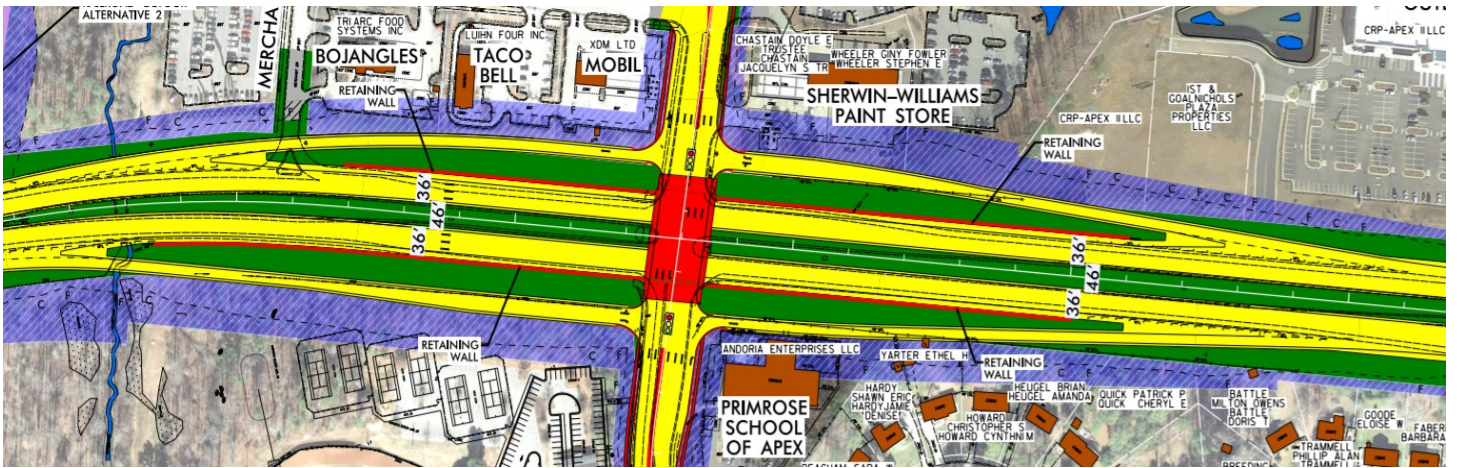
NCDOT Division 5 Office, located at 2612 N. Duke Street, Durham, NC 27704

NCDOT District 1 Office, located at 4009 District Drive, Raleigh, NC 27607

The Town of Cary, located at 316 N. Academy Street, Cary, NC 27513

The Town of Apex, located at 73 Hunter Street, Apex, NC 27502

CONCEPT 1: SUPERSTREET (LAURA DUNCAN ROAD TO LAKE PINE DRIVE)



LAURA DUNCAN ROAD (TIGHT DIAMOND INTERCHANGE)

A tight diamond interchange (TDI), also known as a compressed diamond interchange is sometimes used in areas where there is insufficient right-of-way for a standard diamond interchange. The pair of intersections where the ramps meet the minor road are closely spaced thus the 'tight' designation.

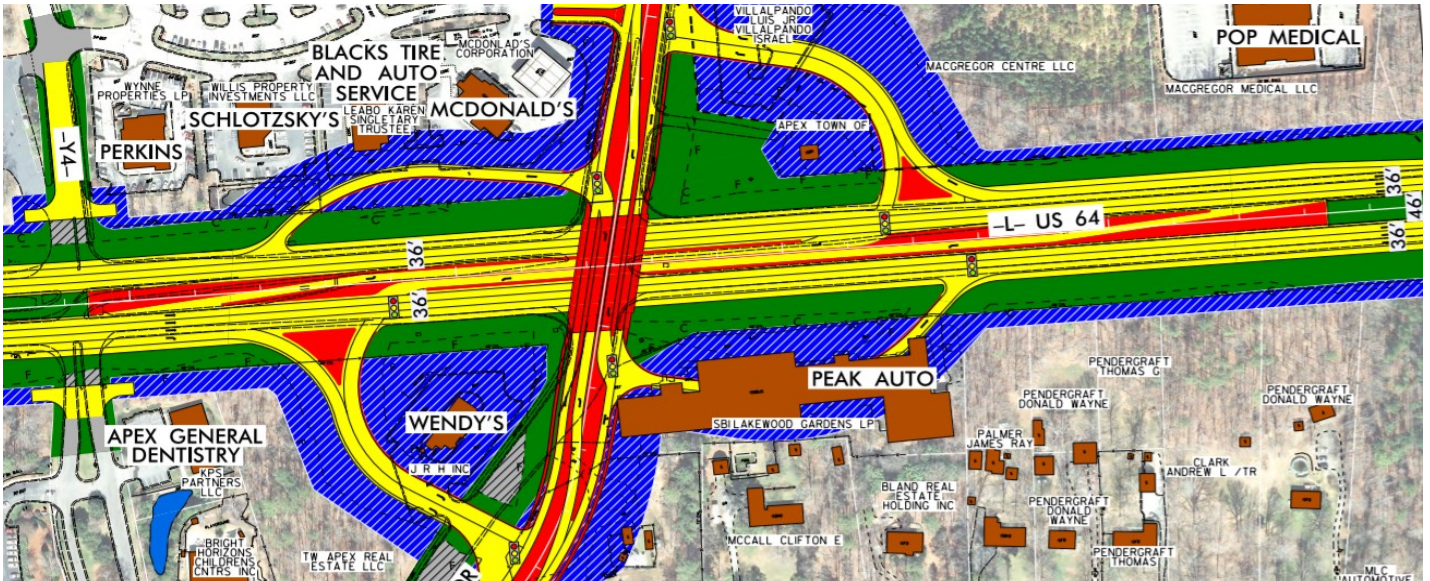
Laura Duncan Road will cross over U.S. 64 on a new bridge.

- Laura Duncan Road will be raised and U.S. 64 will be lowered.
- The bridge will be six-lanes wide, providing two through-lanes and one left-turn lane in each direction.
- Connections between U.S. 64 and Laura Duncan Road will be via on/off-ramps.
- Traffic signals will control traffic between Laura Duncan Road and the U.S. 64 on/off-ramps.
- The bridge over U.S. 64 will include sidewalks along both sides.
 - ◆ Pedestrians will be required to cross the signalized on/off-ramps.
- The interchange footprint is reduced by minimizing the spacing between ramps compared to other interchange concepts.

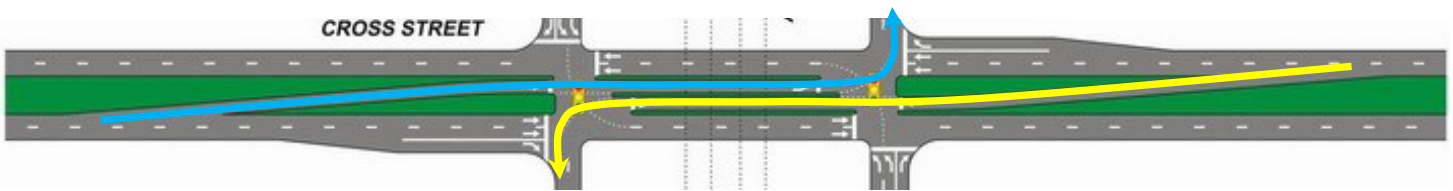
Other considerations

- Access to/from U.S. 64 from Knollwood Drive and the Nichols Plaza (Costco) will be removed.
- Access to/from U.S. 64 from Merchant Drive will be removed.
- Laura Village Road will provide right-in/right-out access only to/from southbound Laura Duncan Road.

CONCEPT 1: SUPERSTREET (LAURA DUNCAN ROAD TO LAKE PINE DRIVE)



LAKE PINE DRIVE (DOUBLE CONTRAFLOW INTERSECTION)



Contraflow intersections provide for left turn movements to 'cross over' on designated left turn lanes. Double Contraflow means that this will happen both on Lake Pine Drive and U.S. 64.

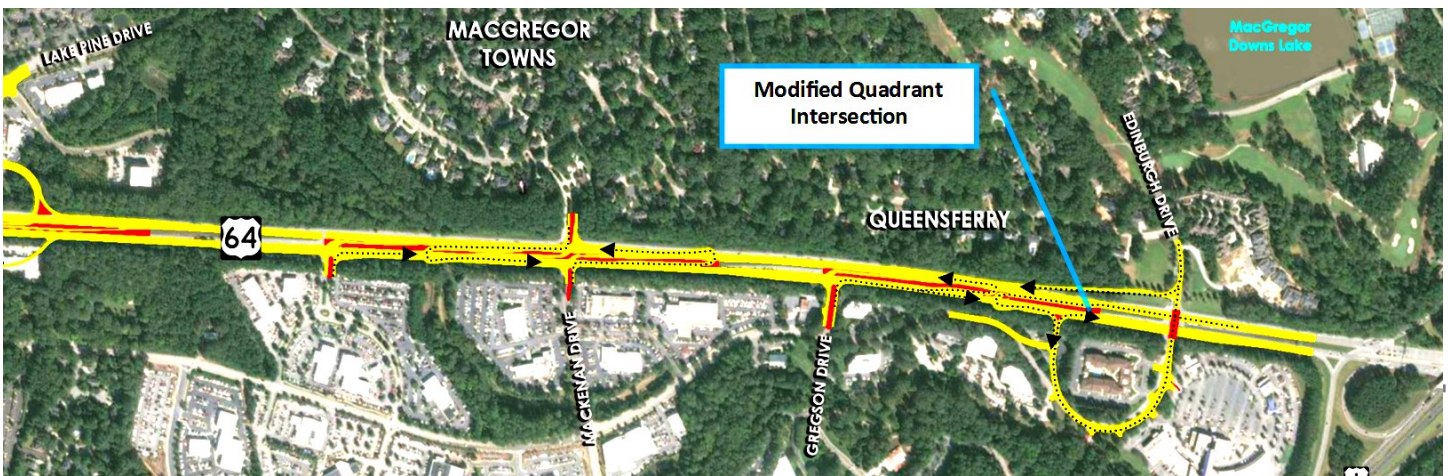
Lake Pine Drive will cross over U.S. 64 on a new bridge.

- Lake Pine Drive will be raised and U.S. 64 will be lowered.
- The bridge will be four-lanes wide to accommodate one through lane and one left-turn lane in each direction.
- Connections between U.S. 64 and Lake Pine Drive will be via on/off-ramps.
- Signalized left-turn lanes will be located on U.S. 64 (eastbound) to Lake Pine Drive (north) and for U.S. 64 (westbound) for Lake Pine Drive (south).
- Traffic signals will control traffic between Lake Pine Drive and the U.S. 64 on/off-ramps.

Other considerations

- Access to /from U.S. 64 from Shepherds Vineyard Drive will be removed.
- Allows direct access to /from U.S.64 westbound to Costco to be retained.
- Includes sidewalks along both sides of Lake Pine Drive.
- ◆ Pedestrians will cross the signalized on/off-ramps.

CONCEPT 1: EXPRESSWAY—SUPERSTREET (LAKE PINE DRIVE TO U.S. 1)



AUTOPARK BOULEVARD

- Access from U.S. 64 east and west to Autopark Boulevard will be retained.
- Autopark Boulevard traffic destined for U.S. 64 west, will turn right and then utilize a U-turn to head west.

CHALON DRIVE / MACKENAN DRIVE

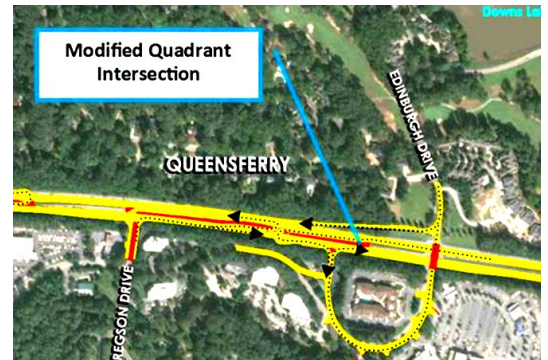
- Traffic to U.S. 64 from Chalon Drive/Mackenan Drive will be limited to right-turns only.
- Chalon Drive traffic to U.S. 64 east will make a right-turn then utilize a U-turn movement to head east .
- Mackenan Drive traffic to U.S. 64 west will make a right-turn then utilize a U-turn movement to head west.

GREGSON DRIVE

- Traffic from Gregson Drive will have access to U.S. 64 east via a signalized right-turn.
- Traffic destined for U.S. 64 west will turn right, utilize a signalized U-turn and then continue west.

EDINBURGH DRIVE (MODIFIED QUADRANT INTERSECTION)

- Edinburgh Drive will cross over U.S. 64 on a new two-lane bridge.
 - ◆ U.S. 64 will be lowered. Edinburgh Drive will remain at its current elevation at the MacGregor Downs entrance.
- Traffic from Edinburgh Drive (north and south of U.S. 64) will have direct access to U.S. 64 westbound via a ramp on the north side of the new bridge.
- Traffic from Edinburgh Drive (MacGregor Downs) to U.S. 64 east will cross over the new bridge and access U.S. 64 east via a new direct connector from Edinburgh S. Drive.
- U.S. 64 west traffic destined for MacGregor Village or MacGregor Downs will utilize a signalized U-turn movement to access a new direct connector to Edinburgh S. Drive. Traffic destined for MacGregor Downs will continue over the new bridge.
- U.S. 64 east traffic destined for MacGregor Village or MacGregor Downs will turn right via a new direct connector to Edinburgh S. Drive. Traffic destined for MacGregor Downs will continue over the new bridge.



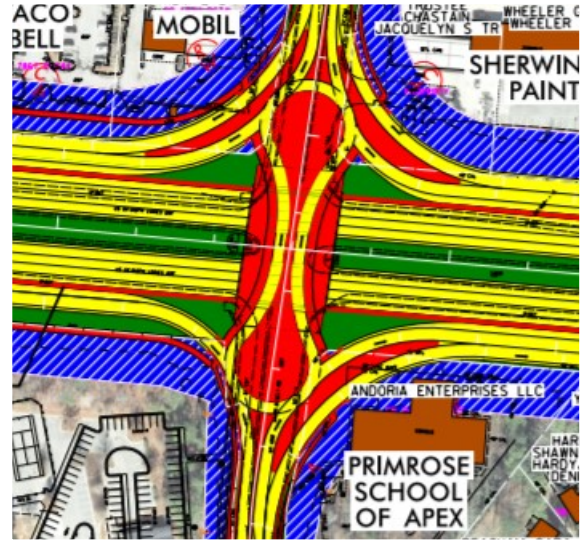
Other considerations

- Completely eliminates the Edinburgh Drive traffic signal, allowing traffic from U.S. 1 South to U.S. 64 west to flow freely.
- Eliminates the eight-phase signals at Gregson Drive and Chalon Drive/Mackenan Drive and replaces them with three two-phase signals, improving traffic flow along U.S. 64 and the connecting streets by reducing delays at intersections.

CONCEPT 2A: EXPRESSWAY—SUPERSTREET (LAURA DUNCAN ROAD TO LAKE PINE DRIVE)

LAURA DUNCAN ROAD (TEARDROP INTERCHANGE)

- Laura Duncan Road will cross over U.S. 64 on a new two-lane bridge.
 - ◆ Connections between U.S. 64 and Laura Duncan Road will be via on/off-ramps.
 - ◆ Includes “slip lanes in northeast, northwest, and southeast quadrants to improve traffic flow to/from the on and off-ramps.
 - ◆ One-lane roundabouts are located on each end of the bridge to manage the flow of traffic between Laura Duncan Road and the U.S. 64 on/off-ramps. This eliminates the need for traffic signals.
 - ◆ Laura Duncan Road to be raised and U.S. 64 to be lowered.



Other considerations

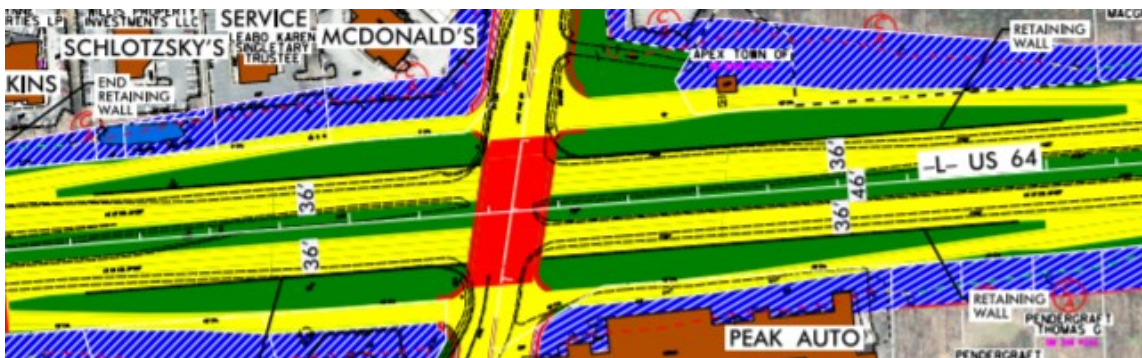
- Access to/from Laura Village Road to Laura Duncan Road will be eliminated. Access to businesses will be via Merchant Drive to Pine Plaza Drive.
- Access to/from U.S. 64 from Knollwood Drive and the Nichols Plaza (Costco) will be eliminated. Access to/from U.S. 64 from Merchant Drive will be eliminated.
- A pedestrian bridge west of Laura Duncan Road will be constructed to allow pedestrians to cross U.S. 64 without having to cross the ramps to/from the roundabouts

LAKE PINE (TIGHT DIAMOND INTERCHANGE)

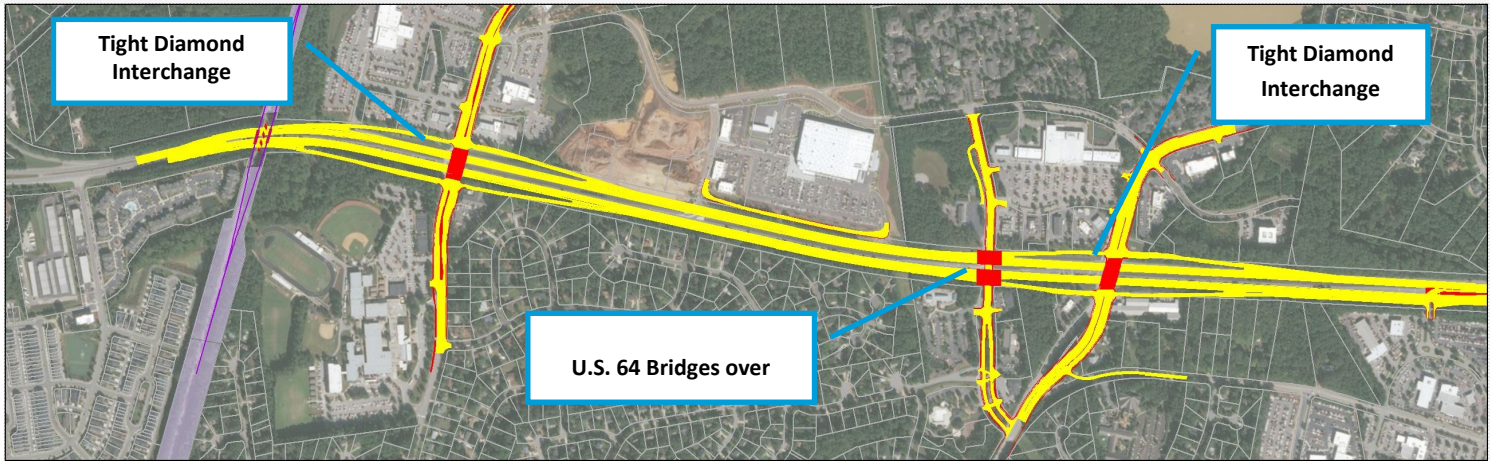
- Lake Pine Drive will cross over U.S. 64 on a new bridge.
 - ◆ Requires Lake Pine Drive to be raised and U.S. 64 to be lowered.
 - ◆ The bridge will be six-lanes wide, provide two through lanes and one left-turn lane in each direction.
 - ◆ Connections between U.S. 64 and Lake Pine Drive will be via on/off-ramps.
 - ◆ The interchange footprint is reduced by minimizing the spacing between ramps compared to other interchange concepts.

Other considerations

- Access to/from U.S. 64 from Shepherds Vineyard Drive will be eliminated. Shepherds Vineyard Drive will be lowered to cross under U.S.64, providing an additional connection between Lake Pine Drive and Pine Plaza Drive.
- Direct access from/to U.S. 64 westbound to Costco to be eliminated.
- Includes sidewalks along both sides of Lake Pine Drive.



CONCEPT 2B: EXPRESSWAY—SUPERSTREET (LAURA DUNCAN ROAD TO LAKE PINE DRIVE)



LAURA DUNCAN ROAD (TIGHT INTERCHANGE)

- Laura Duncan Road will cross over U.S. 64 on a new bridge.
 - ◆ Laura Duncan Road to be raised and U.S. 64 to be lowered.
 - ◆ The bridge will be six-lanes wide, providing two through lanes and one left-turn lane in each direction.
 - ◆ Connections between U.S. 64 and Laura Duncan Road will be via on/off-ramps.
 - ◆ Traffic signals will control traffic between Laura Duncan Road and the U.S. 64
 - ◆ The bridge over U.S. 64 will include sidewalks along both sides. Pedestrians will be required to cross the signalized on/off-ramps.
- Ramps are “squeezed” tight to the highway lanes, resulting in a smaller interchange footprint compared to other interchange concepts.

Other considerations

- Access to/from U.S. 64 from Knollwood Drive and the Nichols Plaza (Costco) will be eliminated. Access to/from U.S. 64 from Merchant Drive will be eliminated.
- Laura Village Road will only provide right-in/right-out access to/from southbound Laura Duncan Road.

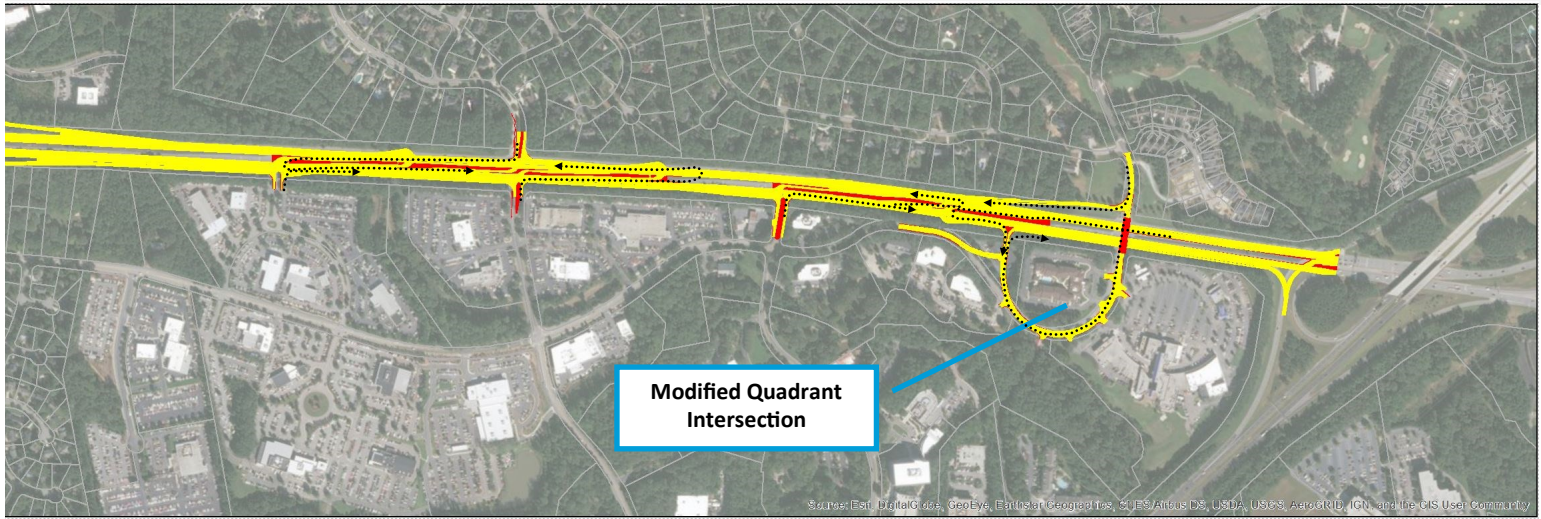
LAKE PINE (TIGHT DIAMOND INTERCHANGE)

- Lake Pine Drive will cross over U.S. 64 on a new bridge.
 - ◆ Requires Lake Pine Drive to be raised and U.S. 64 to be lowered.
 - ◆ The bridge will be six-lanes wide, provide two through lanes and one left-turn lane in each direction.
 - ◆ Connections between U.S. 64 and Lake Pine Drive will be via on/off-ramps.
 - ◆ The interchange footprint is reduced by minimizing the spacing between ramps compared to other interchange concepts..

Other considerations

- Access to/from U.S. 64 from Shepherds Vineyard Drive will be eliminated. Shepherds Vineyard Drive will be lowered to cross under U.S.64, providing an additional connection between Lake Pine Drive and Pine Plaza Drive.
- Direct access from/to U.S. 64 westbound to Costco to be eliminated
- Includes sidewalks along both sides of Lake Pine Drive.
- Direct access from/to U.S. 64 westbound to Costco to be eliminated

CONCEPT 2A & B: EXPRESSWAY—SUPERSTREET (LAKE PINE DRIVE TO U.S. 1)



AUTOPARK BOULEVARD

- Access from U.S. 64 east and west to Autopark Boulevard will be retained.
- Autopark Boulevard traffic destined for U.S. 64 west, will turn right and then utilize a U-turn to head west.

CHALON DRIVE / MACKENAN DRIVE

- Traffic to U.S. 64 from Chalon Drive/Mackenan Drive will be limited to right-turns only.
 - ◆ Chalon Drive traffic to U.S. 64 east will make a right-turn then utilize a U-turn movement to head east.
 - ◆ Mackenan Drive traffic to U.S. 64 west will make a right-turn then utilize a U-turn movement to head west.

GREGSON DRIVE

- Traffic from Gregson Drive will have access to U.S. 64 via a right-turn only (signalized). Traffic destined for U.S. 64 west will turn right, utilize a signalized U-turn and then continue west.

EDINBURGH DRIVE (MODIFIED QUADRANT INTERSECTION)

- Edinburgh Drive will cross over U.S. 64 on a new two-lane bridge
 - ◆ U.S. 64 will to be lowered. Edinburgh Drive will remain at its current elevation at the MacGregor Downs entrance.
 - ◆ Traffic from Edinburgh Drive (north and south of U.S. 64) will have direct access to U.S. 64 westbound via a ramp north of the new bridge.
 - ◆ Traffic from Edinburgh Drive (MacGregor Downs) to U.S. 64 east will cross over the new bridge and access U.S. 64 east via a new direct connector from Edinburgh S. Drive.
 - ◆ U.S. 64 west traffic destined for MacGregor Village or MacGregor Downs will utilize a signalized U-turn movement to access a new direct connector to Edinburgh S. Drive. Traffic destined for MacGregor Downs will continue over the new bridge.
 - ◆ U.S. 64 east traffic destined for MacGregor Village or MacGregor Downs will turn right via a new direct connector to Edinburgh S. Drive. Traffic destined for MacGregor Downs will continue over the new bridge.

Other considerations

- Completely eliminates the Edinburgh Drive traffic signal, allowing traffic from U.S. 1 South to U.S. 64 west to flow freely.
- Eliminates the eight-phase signals at Gregson Drive and Chalon Drive/Mackenan Drive and replaces them with three two-phase signals, improving traffic flow along U.S. 64 and the connecting streets by reducing delays at intersections.

COST ESTIMATES

	Estimated Cost
Project Development and Design	\$ 2,000,000
Property Acquisition	\$ 11,300,000
Construction	\$ 100,500,000
Total Cost	\$ 113,800,000

NEXT STEPS/KEY MILESTONES

ACTIVITY	2018					2019				
	W	S	S	F	W	W	S	S	F	W
Traffic Studies	■									
Focus Group Meetings	■									
Conceptual Design	■									
Public Meeting		★								
Alternative Selection			★							
Preliminary Design				■						
Public Hearing					★					
Complete Environmental Document							★			

- Right of Way Acquisition: July 2020
- Construction: July 2022



Connecting people, products and places safely and efficiently with customer focus, accountability

Ryan L. White, PE
RE: TIP Project # U-5301
Stantec Consulting
801 Jones Franklin Rd. Suite 300
Raleigh, NC 27699-1598

TITLE VI PUBLIC INVOLVEMENT FORM

Completing this form is **completely** voluntary. You are not required to provide the information requested in order to participate in this meeting.

Meeting Type: Public Meeting	Date: June 21, 2018
Location: Summit Church, 3000 Lufkin Road, Apex, NC	
TIP No.: U-5301	
Project Description: U.S. 64 Improvements from Laura Duncan Road in Apex to U.S. 1 in Cary.	

In accordance with Title VI of the Civil Rights Act of 1964 and related authorities, the N.C. Department of Transportation assures that no person(s) shall be excluded from participation in, denied the benefits of, or subjected to discrimination under any of the Department's programs, policies, or activities, based on their race, color, national origin, disability, age, income, or gender.

Completing this form helps meet our data collection and public involvement obligations under Title VI and NEPA, and will improve how we serve the public. Please place the completed form in the designated box on the sign-in table, hand it to an NCDOT official or mail it to the Environmental Analysis Unit, 1598 Mail Service Center, Raleigh, NC 27699-1598.

All forms will remain on file at the NCDOT as part of the public record.

Zip Code: _____	Gender: <input type="checkbox"/> Male <input type="checkbox"/> Female
Street Name: (i.e. Main Street) _____	Age: <input type="checkbox"/> Less than 18 <input type="checkbox"/> 45-64 <input type="checkbox"/> 18-29 <input type="checkbox"/> 65 and older <input type="checkbox"/> 30-44
Total Household Income: <input type="checkbox"/> Less than \$12,000 <input type="checkbox"/> \$47,000 – \$69,999 <input type="checkbox"/> \$12,000 – \$19,999 <input type="checkbox"/> \$70,000 – \$93,999 <input type="checkbox"/> \$20,000 – \$30,999 <input type="checkbox"/> \$94,000 – \$117,999 <input type="checkbox"/> \$31,000 – \$46,999 <input type="checkbox"/> \$118,000 or greater	Have a Disability: <input type="checkbox"/> Yes <input type="checkbox"/> No
Race/Ethnicity: <input type="checkbox"/> White <input type="checkbox"/> Black/African American <input type="checkbox"/> Asian <input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Native Hawaiian/Pacific Islander <input type="checkbox"/> Hispanic/Latino <input type="checkbox"/> Other (please specify): _____	National Origin: (if born outside the U.S.) <input type="checkbox"/> Mexican <input type="checkbox"/> Central American: _____ <input type="checkbox"/> South American: _____ <input type="checkbox"/> European: _____ <input type="checkbox"/> Chinese <input type="checkbox"/> Vietnamese <input type="checkbox"/> Korean <input type="checkbox"/> Other (please specify): _____

How did you hear about this meeting? (newspaper advertisement, flyer, and/or mailing) _____

For more information regarding Title VI or this request, please contact the NCDOT Title VI Section at (919) 508-1808 or toll free at 1-800-522-0453, or by email at sddickens@ncdot.gov. Thank you for your participation!



NCDOT - Environmental Analysis Unit
Attn: Diane Wilson, Public Involvement Officer
1598 Mail Service Center
Raleigh, NC 27699-1598