



Groundbreaking by Design.

MEETING MINUTES

Project: Carol Malone Blvd. Bypass Scoping Study
Grayson, Carter County
Item No. 9-80202

Purpose: Project Team Meeting No. 1

Place: Hybrid Meeting: KYTC District 9 and MSTeams

Meeting Date: October 12, 2022 at 10:30 AM

Prepared By: Qk4

Participants:

Steve Gunnell	KYTC D9
Blake Jones	KYTC D9
Michael Read	KYTC D9
Karen Mynhier	KYTC D9
Jason Blackburn	KYTC CO Planning
Steve DeWitte	KYTC CO Planning
Jay Balaji	KYTC CO Planning
Dave Heil	KYTC CO Planning
Jared Jeffers	KYTC CO Planning
Randy Turner	KYTC CO Design
Doug Pinkerton	FIVCO
Rebecca Thompson	Qk4
Deanna Miller	Qk4
Jeremy Lukat	Qk4
Tom Springer	Qk4

Blake opened the meeting and attendees introduced themselves. The purpose of the meeting is to discuss the existing conditions for the proposed Grayson bypass, identified in the 2018 Small Urban Area (SUA) study. The SUA identified three distinct bypass segments, carrying up to 9,500 vehicles per day (vpd) with a total cost of \$21 million. The current planning effort was set up in phases, with the initial objective primarily a traffic analysis to determine if enough traffic would divert to a potential future bypass to warrant additional consideration.

Numerous other project concepts have been identified in the vicinity. Construction is ongoing along KY 1/7 (Item No. 9-144) and funding is identified in the 2022 Highway Plan for pavement rehab work along I-64.

- The team agreed to simplify the map for the upcoming stakeholder meeting to remove the CHAF concepts beyond the immediate links to the proposed bypass.

Deanna reviewed the existing conditions for KY 1/7 and US 60 within the study area: arterial and collector routes on the state's highway freight network. KY 1/7 has a five-lane typical section with varying shoulder widths. No substandard grades or curves were noted. Three bridges located in the study area are all in fair condition.

KYTC's new Complete Streets Policy requires "appropriate" facilities for all users—including bicyclists and pedestrians. Data from Strava heat maps, StreetLight (KYTC's new big data subscription), and field observations all point to relatively heavy pedestrian volumes along KY 1/7, which has sidewalks south of the interchange. Pedestrian accommodations should be considered if a new bypass route advances.

Reported crashes on state-maintained highways within the study area were assessed, with 451 crashes occurring during 2017-2021. There were no fatalities; 13% were injury collisions. By type, rear end crashes were the most common (34%), followed by angle crashes (29%). Five involved pedestrians and two involved cyclists.

- For an apples-to-apples comparison, observed crash trends should be adjusted per Highway Safety Manual methodologies to reflect the five-lane scenario once the Item 9-144 construction is completed.
- Predictive analysis showed 14 fewer crashes on KY 1/7 within this study area boundary over 5 years, post construction.

Because of the current KY 1/7 construction, fresh traffic data was not collected. Instead, KYTC's new StreetLight big data subscription provided baseline "existing" traffic volumes. Qk4 compared recent KYTC counts, 2016 traffic from the SUA, and StreetLight volumes for both 2019 and 2021. StreetLight shows 7,000-19,200 vpd on KY 1/7 in the study area, which is comparable to recent KYTC counts but shows a substantial increase versus 2019 StreetLight estimates (5,700-15,000). KYTC counts over the past two decades show consistent declines at nearly all nearby count locations. Considering segment-based Level of Service (LOS), the KY 1/7 corridor operates at LOS A/B based on 2021 volumes. The US 60/KY 1/KY 7 intersection operates at LOS C during both peak hours, assuming 2021 traffic using the ultimate lane configuration once construction is completed. Other StreetLight visuals display segment travel speeds and relative congestion.

- Big picture efforts are ongoing to validate StreetLight data versus KYTC counts.
- StreetLight data tends to underestimate turn movements, especially for lower volume routes.
- The team discussed actual versus perceived congestion; regardless of destination, almost all traffic through the city is funneled through the US 60/KY 1/KY 7 intersection. Qk4 will adjust the color scheme on the congestion slide prior to Friday's meeting.

The local officials/stakeholder meeting on October 14 will also include a group discussion about planned/likely development in the vicinity.

- If the county school system is considering consolidation, they are not projecting population growth in the coming decades.
- The purpose/goals should be as need-specific as possible. That is, if the bypass is intended to promote economic development or improve connectivity, the purpose/goals should acknowledge it. Based on the 2021 traffic and operations, it does not seem like congestion is driving this study.

Following input from stakeholders, Qk4 will coordinate with KYTC Modal Group to update the regional travel demand model growth assumptions and produce the future year scenarios. Then, the conversation about feasibility, a possible phase 2 for the planning study, and next steps can occur.

End of Minutes



Groundbreaking by Design.

MEETING MINUTES

Project: Carol Malone Blvd. Bypass Scoping Study
Grayson, Carter County
Item No. 9-80202

Purpose: Local Officials and Stakeholders Meeting No. 1

Place: Hybrid Meeting: Grayson City Building and MSTeams

Meeting Date: October 14, 2022 at 10:00 AM

Prepared By: Qk4

Participants:

Duane Suttles	City of Grayson
Michael Harper	Grayson Fire Department/Planning & Zoning
Grant Harper	Grayson Sports Park
Bradley Cherry	Grayson RECC
Roger Dunfee	Grayson Emergency Management
JoAnne Dunfee	Grayson Emergency Management
Paul Green	Carter County Schools
Troy Combs	City of Grayson
Mark Strother	Commercial Bank
Daniel White	Kentucky Christian University
Jill York	Grayson Chamber of Commerce
*Robin Webb	Kentucky State Senator
*Patrick Flannery	Kentucky State Representative
Blake Jones	KYTC D9
Michael Read	KYTC D9
Karen Mynhier	KYTC D9
Darrin Eldridge	KYTC D9
Rebecca Thompson	Qk4
Deanna Miller	Qk4
*Jeremy Lukat	Qk4

**Virtual attendee*

Project Background

In 2018, the Grayson Small Urban Area (SUA) study identified the Grayson Bypass as a “High Priority Project”. The SUA divided the bypass into three distinct segments. Segment 1 begins at the AA Highway extending to C.W. Stevens Blvd.; Segment 2 extends from C.W. Stevens Blvd., crosses over I-64 and Interstate Drive to KY 3297; and Segment 3 extends from KY 3297 to US 60 west, near the US 60/KY 1 intersection. Segment 3 (Item No. 9-80202) currently has design funding apportioned in the 2022 Highway Plan.

The current Grayson Bypass study was initiated after KYTC District Nine personnel thought it prudent to gather more information on the Grayson Bypass as a whole, and specifically Segment 3, before continuing into the project design work phase. Ongoing improvement to Carol Malone Blvd. (CMB) will impact traffic, potentially alleviating the safety/capacity concerns identified in the earlier SUA analysis. The current planning effort was set up in phases, initially to determine if enough traffic would divert to a potential future bypass to warrant additional consideration.

Blake Jones opened the meeting and attendees introduced themselves. The purpose of the meeting is three-fold:

- 1) to present data: to introduce the study and review existing roadway, safety, and traffic conditions
- 2) to gather information on known and anticipated developments, employment numbers, and new traffic generators possibly affecting 2045 traffic flows
- 3) to gauge community leaders' support for the bypass concept

Existing Conditions Presentation

Numerous project concepts have been identified in the Grayson area. Construction is ongoing along KY 1/7 (Item No. 9-144) and funding is identified in the 2022 Highway Plan for pavement rehab work along I-64. Funding is also dedicated to construct new sidewalks and right turn lanes on KY 3297 in the vicinity of East Carter Middle School and Grayson Sports Park.

Deanna reviewed the existing conditions for KY 1/7 and US 60 within the study area: arterial and collector routes on the state's highway freight network. KY 1/7 has a five-lane typical section with varying shoulder widths. No substandard grades or curves were noted. Three bridges located in the study area are all in fair condition.

- One attendee noted drainage concerns at the KY 1/7 intersection with US 60; this should be addressed once the final surface is in place sometime next year.
- Debris builds up under the US 60 bridge.

Reported crashes on state-maintained highways within the study area were assessed, with 451 crashes occurring during 2017-2021. There were no fatalities; 13% were injury collisions. By type, rear end crashes were the most common (34%), followed by angle crashes (29%). Five involved pedestrians and two involved bicyclists.

- One attendee noted crashes are frequent at the KY 1947 intersection.
- Heavy truck traffic accessing the Pilot station and Interstate Drive just south of the interchange back up in the center lane and limit visibility, creating a safety hazard. There are many other driveways in this stretch.

Rebecca presented existing traffic data on study area routes. Because of the current KY 1/7 construction, fresh traffic data was not collected. Instead, KYTC's new StreetLight big data subscription provided baseline "existing" traffic volumes and were deemed comparable with KYTC's historic tube counts. KYTC counts over the past two decades show consistent declines at nearly all area count locations. Considering segment-based Level of Service (LOS), the KY 1/7 corridor operates at LOS A/B based on 2021 volumes. The US 60/KY 1/KY 7 intersection operates at LOS C during both peak hours, assuming 2021 traffic using the ultimate lane configuration once construction is completed. Another StreetLight visual displayed segment travel speeds.

KYTC's new Complete Streets Policy requires "appropriate" facilities for all users—including bicyclists and pedestrians. Data from Strava heat maps, StreetLight, and field observations all point to relatively heavy pedestrian volumes along KY 1/7, which has sidewalks south of the interchange. Pedestrian accommodations should be considered if a new bypass route advances.

Following the presentation, the floor was opened to group discussion, summarized below.

Group Discussion on Future Development, Employment and Traffic Generators

- Grayson Sports Park currently generates weekend traffic volumes between 1500 and 2000 vpd and higher volumes are expected. Out of town park users need a designated routes to reach the sports complex; all options currently require a left turn without a protected signal phase.
- Four ribbon cuttings will occur in the coming weeks; the area is developing.
- A 200+ room hotel chain may locate near Interstate Drive. Restaurant chains typically follow this hotel.
- A Fat Patty's restaurant will soon be opening on C.W. Stevens Blvd.
- A Walmart has been discussed for decades but does not like the access constrained by the CMB/Interstate Drive intersection.
- Carter County Schools is currently investigating campus sites for a new Career Technology Center and possibly a consolidated county high school near Gregoryville, located west of the study area.

Group Discussion on Community Support for Bypass

- **Stakeholders were unified opposing Segment 3 (Item No. 9-80202), bypassing CMB for the following reasons:**
 - Impacts to the Grayson Sports Park could adversely affect park property and surrounding residential areas.
 - Downtown business owners invested in revitalizing storefronts along Main Street. Owners feel strongly that bypassing CMB would devastate their livelihoods, particularly after weathering the Covid-19 pandemic. Many rely on pass-by traffic.
- Stakeholders had more favorable viewpoints toward Bypass Segments 1 and 2.
 - Segment 1 would open property north of I-64 for Grayson RECC services.
 - Segment 2 would provide Grayson Sports Park with a more direct route into the complex.
 - Segment 2 would open the Interstate Drive area to more commercial development, currently constrained by the unsignalized intersection with CMB in close proximity to the interchange ramps.
 - Neither segment would remove traffic from downtown businesses.
- Stakeholders voiced strong interest in a second I-64 interchange west of Grayson Exit 172.
 - KYTC explained that the bypass study is separate from a potential interchange project. A CHAF for a western interchange exists. If this is a priority of the county, stakeholders should provide a unified voice to the FIVCO ADD transportation committee to elevate the concept during the upcoming KYTC SHIFT cycle.

Group discussion then turned to alternate connections from CMB to KY 3297 south of the interstate. Recognizing it as valuable dialogue, KYTC offered to give the group time to organize their ideas and reach a consensus. A follow-up meeting for the same group to discuss concepts with KYTC has been set for November 15th at the Grayson City Building.

End of Minutes



Groundbreaking by Design.

MEETING MINUTES

Project: Carol Malone Blvd. Bypass Scoping Study
Grayson, Carter County
Item No. 9-80202

Purpose: Local Officials and Stakeholders Meeting No. 1b

Place: Grayson City Building

Meeting Date: November 15, 2022 at 10:30 AM

Prepared By: Qk4

Participants:

Duane Suttles	City of Grayson
Grant Harper	Grayson Sports Park
Roger Dunfee	Grayson Emergency Management
JoAnne Dunfee	Grayson Emergency Management
Troy Combs	City of Grayson
Daniel White	Kentucky Christian University
Jill York	Grayson Chamber of Commerce
Shadow Skaggs	Grayson Chamber of Commerce
Gerald Haney	Grayson Utilities Commission
Willis Johnson	City of Grayson
Doug Pinkerton	FIVCO
Eric Patton	FIVCO
Blake Jones	KYTC D9
Michael Read	KYTC D9
Karen Mynhier	KYTC D9
Darrin Eldridge	KYTC D9
Rebecca Thompson	Qk4
Deanna Miller	Qk4

This meeting represents a follow-up to the October 2022 stakeholder meeting, providing an opportunity for local leaders to coordinate internally and reach a uniform direction regarding local priorities. The current planning study is a more detailed assessment of the Carol Malone Boulevard Bypass concept identified in the 2018 *Grayson Small Urban Area (SUA) Study*. The 2022 Highway Plan includes design funding in the biennium for the southernmost section of the proposed bypass (from KY 3297 Midland Trail to US 60).

Discussions in October suggested that the bypass concept is not supported by locals—especially the southern section—due to anticipated impacts to homes, businesses, and the park. The northern and/or central bypass sections were more palatable and could open areas along Interstate Drive for future development; and replace the current KY 1/Interstate Drive intersection that is busy, unsignalized, and close to the interchange. There are currently no protected left turn signal phases along Carol Malone Boulevard to access areas to the east, including the new park. The group also expressed interest in a new I-64 interchange west of the city, potentially near the current US 60 overpass.

Blake confirmed that the current study will take a “first look” at traffic volumes associated with a new western interchange, including growth assumptions associated with a new school campus. The remaining discussion, summarized below, focused on two basic concepts: an I-64 overpass (**Figure 1**) and an improved connection east from Carol Malone Boulevard (**Figure 2**).

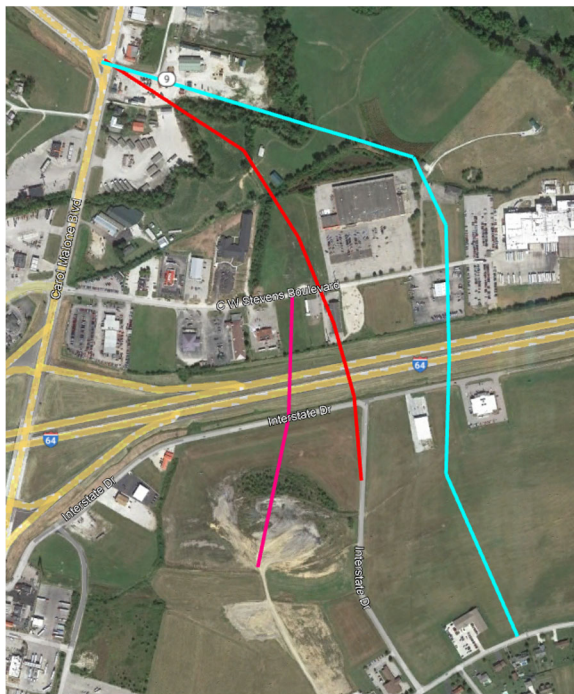


Figure 1



Figure 2

Group Discussion on Local Priorities

- The north and central sections of the proposed bypass concept provide value: benefits for Smithfield traffic to tie directly to KY 1/AA Highway and improved accessibility to the Interstate Drive vicinity to support future development. Any new alignment connection should minimize impacts to existing and developable properties—e.g., following existing Interstate Drive to KY 3297.
- To get sufficient grades to safely clear I-64, the footprint of an overpass/connector will be sizeable. There will be property impacts, even with retaining walls to minimize fill slopes. The project team will present additional details at the next meeting to help visualize the extents.
- Developers have been interested in the “mound” area in the past, limited by the accessibility to Interstate Drive. The Chamber gets calls about the property regularly.

- If locals are just interested in an additional I-64 crossing, could the existing KY 1910 alignment work? KY 1910 is narrow, curvy, and has a very low clearance under I-64. The river is immediately adjacent. Extensive work would be required to improve the corridor to a usable link.
- The connection east from Carol Malone Boulevard (**Figure 2** options) should be signalized; northern connections provide shorter, more direct routing.
- There was no consensus which option(s) represent the highest priority locally. The eastern connection is likely more affordable, making it faster/easier to implement than an interstate overpass. Any recommendations should minimize impacts.
- Any study recommendations should be ready in time to feed into the 2024 SHIFT process, beginning in early 2023.

The project team will take the input from today's meeting and begin to work on Phase II of the study. This group will meet again after the holidays to discuss findings.

End of Minutes



Groundbreaking by Design.

MEETING MINUTES

Project: Grayson Mobility Study
Grayson, Carter County

Purpose: Project Team Meeting No. 2

Place: Hybrid Meeting: KYTC District 9 and MSTeams

Meeting Date: January 27, 2023 at 1:00 PM

Prepared By: Qk4

Participants:

Steve Gunnell	KYTC D9
Darrin Eldridge	KYTC D9
Blake Jones	KYTC D9
Michael Read	KYTC D9
Karen Mynhier	KYTC D9
Jason Blackburn	KYTC CO Planning
Connor Schurman	KYTC CO Planning
Randy Turner	KYTC CO Design
Rebecca Thompson	Qk4
Deanna Miller	Qk4
Jeremy Lukat	Qk4
Courtney Evans	Qk4

The current planning study began as a more detailed assessment of the Carol Malone Boulevard Bypass concept identified in the 2018 Grayson Small Urban Area (SUA) Study. Following discussions with local officials and stakeholders in Fall 2022, the focus of the study shifted to:

1. Determining feasibility of bypass segments 1 and 2 (KY 9 AA Highway to KY 3297 Midland Trail)
2. Developing a new east-west connection between KY 1/7 (Carol Malone Blvd or “CMB”) and KY 3297 (Midland Trail); and
3. Taking a “first look” at traffic volumes for a new western interchange, including growth assumptions associated with a new school campus.

Blake opened the meeting and attendees introduced themselves. The purpose of today’s meeting is to review existing conditions, present proposed improvement concepts, and facilitate project team discussion.

Existing Conditions

In 2021, CMB carried 7,000-19,200 vehicles per day (vpd). Considering segment-based Level of Service (LOS), the KY 1/7 corridor operates at LOS A/B based on 2021 volumes. The US 60/KY 1/KY 7 intersection operates at LOS C during both peak hours, assuming 2021 traffic using the ultimate lane configuration once ongoing Item 9-144 construction is completed. KYTC counts over the past two decades show negative growth at nearly all nearby count locations.

A 0.65% annual growth rate was used to determine 2045 future traffic volumes, resulting in volumes between 8,100 and 22,100 vpd. Future traffic operations are projected to degrade to LOS E or F in PM peak hours at the signalized intersection at C.W. Stevens Blvd. and at stop-controlled approaches at Interstate Drive and Academic Parkway.

Reported crashes on state-maintained highways within the study area were assessed, with 451 crashes occurring during 2017-2021. There were no fatalities; 13% were injury collisions. By type, rear end crashes were the most common (34%), followed by angle crashes (29%). Five involved pedestrians and two involved cyclists.

New Western I-64 Interchange

Assuming new 1,300 student school(s) west of town, traffic models showed combined 2045 ramp volumes to be 2,800 vpd with 1,000 vpd added to the CMB corridor.

Discussion items:

- Forecasts are conservatively high as trips to/from existing schools remained as-is, reflecting to-be-determined future use of the facilities. Assumptions will be explained in future meeting with local officials and stakeholders.
- D9 recently determined the proposed school site to be unacceptable with the existing roadway configuration. Additional improvements along US 60 (e.g., turn lanes) would be required.
- There is no set traffic threshold when an interchange is warranted; federal guidance is based on not having a “significant adverse impact on the safety and operation of the Interstate facility ... or local street network.” Based on projections, KYTC does not support a new interchange at this time.

Cross-I-64 Connections

Six alignment options were developed to illustrate ranges of cost and impacts for a new link over I-64, reflecting segments 1-2 of the SUA bypass. Each alignment assumes two 12-foot-wide lanes with 4-foot-wide paved shoulders, plus an option to add a 5-foot-wide sidewalk. A 16.5-foot vertical clearance over I-64 is assumed. Build models show 2,700-2,900 vpd on a new connection with 2,000 vpd using CMB. Footprints and key metrics are included as **Table 1** and **Figure 1**.

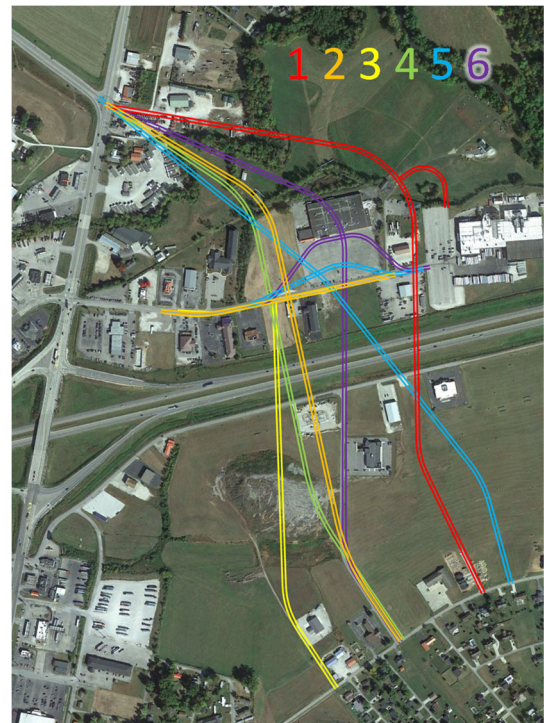


Figure 1: Cross-64 Connection Options 1-6

Table 1: Cross-64 Connector Comparison

Metric	1 East	2 Central	3 West	4 Bridge	5 Skew	6 Shift
North Endpoint	AA Hwy	AA Hwy	CW Stevens	AA Hwy	AA Hwy	AA Hwy
Link to CW Stevens <small>Add dual left turn lanes at KY 1 signal</small>	No	Yes	Yes	No	Yes	Yes
Projected ADT	2,900	2,900	2,700	2,900	2,900	2,900
Construction Cost (with SW)	\$44.8M	\$48.0M	\$33.4M	\$59.2M	\$44.5M	\$46.1M
Bridge Length	420 ft	410 ft	340 ft	850 ft	500 ft	450 ft
Max Grade (mainline)	6%	4%	7.5%	4%	4.5%	6%
Grade on CW Stevens	-	+ 20 ft	+ 12 ft	-	Shifts + 6 ft	Shifts
Property Impacts	3	4	Driveways	2	1-3	1-3

Discussion items:

- Is 16.5 feet vertical bridge clearance adequate? What do other overpasses nearby provide? According to the 2009 FHWA Memo on Vertical Clearance on the Interstate System,¹ vertical clearance on rural section of interstate routes shall not be less than 16 feet.
- All options should be shared with local officials/stakeholders. This represents the range of options discussed during Fall 2022, excluding a far east option at the KY 1910/I-64 crossing, which would carry less traffic and increase costs/impacts versus Concepts 1-6.
- For future discussions, more user-friendly graphics to illustrate grades would be helpful. Non-technical audiences may struggle to interpret plan and profile views separately.
- Concepts that connect to C.W. Stevens Blvd. add traffic to its already congested intersection with CMB. An additional left turn lane and signal timing adjustments would be necessary to improve traffic flow, which are not reflected in current estimates.
- Based on current costs, impacts, and benefits, KYTC does not support an improved cross-I-64 connection at this time.

New connector from KY 1 to KY 3297

Five alignment options were developed to illustrate costs and impacts to construct a new link between CMB and KY 3297. Each alignment assumes two 11-foot-wide lanes. Concept A has a rural template with 4-foot-wide paved shoulders and Concepts B-E have curb and gutter. All include 5-foot-wide sidewalks and are assumed to be signalized at their CMB intersection. Initial concepts are summarized and illustrated in **Table 2** and **Figure 2**.

Discussion items:

- One of the main stakeholder concerns was to have a protected left-turn signal phase to the new link. To meet volume warrants requires about 100 southbound lefts (SBL) during the PM peak hour, more than projected at any single intersection. Interstate Drive has the highest SBL volumes, which could shift to a new nearby link—especially if it were signalized or changes in access control were implemented. Crash history at College or 3rd streets may justify dedicated left turn phases.
- Concepts represents an opportunity to increase access management along CMB. Several options were discussed, focusing on a right-in/right-out at Interstate Drive. Future conversations with local officials/stakeholders should clarify this option will be considered with any Concept A-E. With Concept A, bollards or Quick Kurb north of the new link may further restrict turns.

¹ Online at https://www.fhwa.dot.gov/design/design_standards.cfm

Table 2: Initial CMB-to-Midland Link Comparison

Metric	A McClave	B Super 8	C Academic	D UTC	E College
Length	2,200 ft	1,800 ft	1,400 ft	1,100 ft	700 ft
Distance: KY 1/Interstate Dr to Park	0.65 mi	0.55 mi	0.53 mi	0.60 mi	0.72 mi
KY 1 Connection	+	T	Offset	T	+ at Signal
Construction Cost	\$3.9M	\$3.2M	\$2.8M	\$2.3M	\$1.6M
Property Impacts: Businesses	Love's Parking Truck Lot	Church	DQ	Old Pizza Hut	Bowling Lot Sign Business
Property Impacts: Homes	0	4	2-4	3-5	0

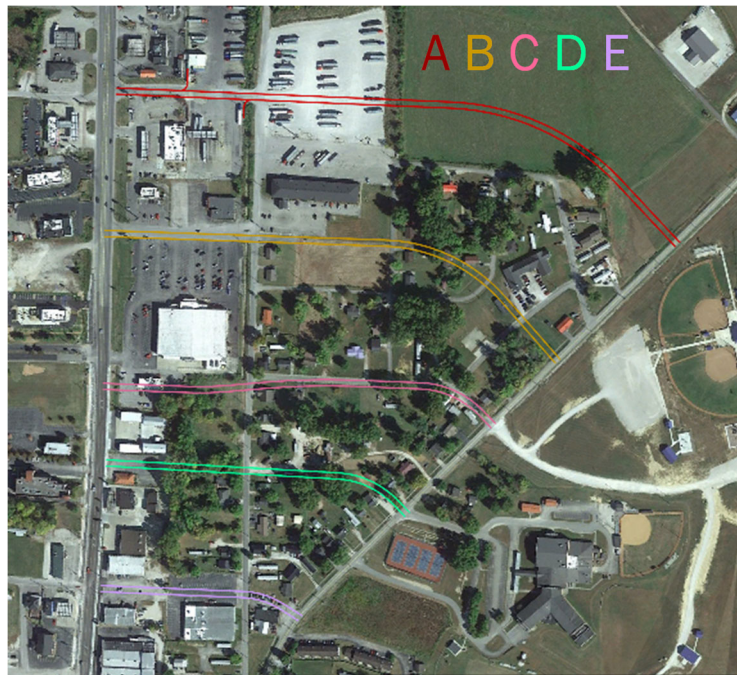


Figure 2: Initial CMB-to-Midland Concepts A-E

- For Concepts A and B, an improved section of Rupert Lane will be added, breaking Interstate Drive just west of the new intersection. Estimates will be revised to reflect these changes.
- A new FHWA emphasis on semi-truck parking affects Concept A since it bisects an existing truck lot. Likely, additional truck parking would need to be added to make this a viable option.
- Concept B would likely face legal challenges, extending costs and implementation timelines. It would impact the church's adjacent trailer, which is necessary to avoid impacting the adjacent park.
- With Concept C, the east end of Academic Pkwy. could be realigned to eliminate an offset CMB intersection. There has been local interest in signaling this intersection for years.
- Potential environmental justice issues are present with Concepts B-D, which has been an emphasis area for FHWA.
- All CMB-to-Midland concepts should be shared with local officials and stakeholders to gather feedback. Anonymous polling may be a good solution to engage with more attendees.

Next Steps

- Qk4 will provide KMZs of concepts for D9 to generate right-of-way and utility estimates.
- Qk4 will adjust Concepts A-B to improve Rupert Lane and close a section of Interstate Drive.
- A draft traffic forecast report will be available in the coming weeks.
- The team will schedule the next local officials and stakeholders meeting in the coming weeks. Qk4 will share draft materials for review prior to the meeting.

End of Minutes



Groundbreaking by Design.

MEETING MINUTES

Project: Grayson Mobility Study
Carter County

Purpose: Final Local Officials and Stakeholders Meeting

Place: Hybrid Meeting: Grayson City Building and MSTeams

Meeting Date: March 14, 2023 at 10:30 AM

Prepared By: Qk4

Participants:

Daniel White	Kentucky Christian University
Grant Harper	Grayson Sports Park
Jennifer McGlone	Grayson City Council
JoAnne Dunfee	Grayson Emergency Management
Paul Green	Carter County Schools
Roger Dunfee	Grayson Emergency Management
Shadow Skaggs	Grayson Tourism
Terry Stamper	Grayson City Council
Troy Combs	City of Grayson
Doug Pinkerton	FIVCO ADD
Blake Jones	KYTC D9
Michael Read	KYTC D9
Karen Mynhier	KYTC D9
Darrin Eldridge	KYTC D9
Steve DeWitte	KYTC Planning
Rebecca Thompson	Qk4
Deanna Miller	Qk4

Project Background

Blake opened the meeting and attendees introduced themselves. The purpose of today's meeting is to present proposed improvement concepts and facilitate discussion.

The current planning study began as a more detailed assessment of the Carol Malone Boulevard Bypass concept identified in the 2018 Grayson Small Urban Area (SUA) Study. A closer look as part of this study showed higher costs and lower traffic projections than anticipated in the earlier regional study. Locally, stakeholders expressed concerns about impacts to businesses should a full bypass (AA Highway to US 60) advance during a meeting in November 2022. Accordingly, the focus of this study shifted to:

1. Determining feasibility of bypass segments 1 and 2 (AA Highway to Midland Trail)
2. Developing a new east-west connection between KY 1/7 (Carol Malone Blvd) and KY 3297 (Midland Trail); and
3. Taking a first look at traffic volumes for a new western interchange, including growth assumptions associated with a new school campus.

Existing Conditions

Reported crashes on state-maintained highways within the study area were assessed, with 451 crashes occurring during 2017-2021. There were no fatalities; 13% were injury collisions. By type, rear end crashes were the most common (34%), followed by angle crashes (29%). In 2021, Carol Malone Boulevard through the study area carried 7,000-19,200 vehicles per day (vpd). Considering segment-based Level of Service (LOS), the KY 1/7 corridor operates at LOS A/B. A 0.65% annual growth rate was used to determine 2045 future traffic volumes, resulting in corridor volumes between 8,100 and 22,100 vpd.

Build Concepts: Western Interchange

Assuming new 1,300 student school(s) west of town, the traffic model conservatively showed combined 2045 ramp volumes to be 2,800 vpd. While there is no numeric threshold to justify an interchange, benefits (e.g., crash reductions, travel time savings, congestion reduction) would not outweigh costs for a new interchange. Therefore, KYTC does not recommend an interchange at this time.

- One attendee found the traffic results “disappointing” but the travel demand model represents the best tool available for this level of forecasting. It examines existing socioeconomic projections (i.e., households and jobs) for small geographic zones today and in a future horizon year, assigning trips to the highway network based on available connections, development patterns, origin-destination pairs, trip lengths, etc.
- The Federal Highway Administration (FHWA) has approval authority for new interstate access; it is not just a state decision.
- Land use and transportation influence each other: you don’t need an interchange until the land develops but you don’t get development until an area is accessible. It’s possible the new school(s) pulls additional development to the area; traffic could be reassessed in the future.

Build Concepts: Cross-64 Connection

Six alignment options were developed to illustrate ranges of cost and impacts for a new link over I-64, reflecting segments 1-2 of the SUA bypass. Each alignment assumes two 12-foot-wide lanes with 4-foot-wide paved shoulders, plus 5-foot sidewalk on one side. Elevations to get enough height over I-64 limit options, leading to steep grades and/or raising the profile along C.W. Stevens Boulevard. Build models show 2,700-2,900 vpd on a new connection with 2,000 vpd diverted away from Carol Malone.

A connection near KY 1910 was discussed initially but dismissed as it increases travel times, costs, and impacts. Options shown are constructible though some present challenges (e.g., steep grades) that make them undesirable. Costs range from \$60-80 million and would have relocate some existing businesses. Some increase traffic on C.W. Stevens Boulevard, requiring further improvements at its intersection with Carol Malone Boulevard.

Based on costs, impacts, and anticipated traffic volumes, KYTC does not recommend any of the Cross-64 Connections at this time. However, each bypass segment has a CHAF form and could be sponsored in future SHIFT cycles if there were local support.

Attendees were polled to gauge support between different concepts: four of five participants agreed the No-Build option was preferred.

Table 1: Cross-64 Connector Comparison

Metric	1 East	2 Central	3 West	4 Bridge	5 Skew	6 Shift
North Endpoint	AA Hwy	AA Hwy	CW Stevens	AA Hwy	AA Hwy	AA Hwy
Link to CW Stevens <small>Add dual left turn lanes at KY 1 signal</small>	No	Yes	Yes	No	Yes	Yes
Projected ADT	2,900	2,900	2,700	2,900	2,900	2,900
DRUC Cost (with SW)	\$63M	\$82M	\$62M	\$80M	\$72M	\$78M
Bridge Length	420 ft	410 ft	340 ft	850 ft	500 ft	450 ft
Max Grade (mainline)	6%	4%	7.5%	4%	4.5%	6%
Grade on CW Stevens	-	+ 20 ft	+ 12 ft	-	Shifts + 6 ft	Shifts
Business Impacts	3-4	3-4	3-5 Driveways	2-3	3-5	4-5

Build Concepts: East-West Linkage

Five alignment options were developed to illustrate costs and impacts to construct a new link between KY 1 and KY 3297. Each alignment assumes two 11-foot-wide lanes. Concept A has a rural template with 4-foot-wide paved shoulders and Concepts B-E have curb and gutter. All include 5-foot-wide sidewalk on one side and are assumed to be signalized at their KY 1 intersection.

Table 2: Initial CMB-to-Midland Link Comparison

Metric	A McClave	B Super 8	C Academic	D UTC	E College
Length	2,200 ft + 800 ft Rupert	1,800 ft + 1,300 ft Rupert	1,400 ft	1,100 ft	700 ft
Distance: KY 1/Interstate Dr to Park	0.65 mi	0.55 mi	0.53 mi	0.60 mi	0.72 mi
KY 1 Connection	X	T	Offset	T	X at Signal
DRUC Cost	\$15.5M	\$10.6M	\$8.0M	\$6.1M	\$6.6M
Property Impacts: Businesses	Love's Parking Truck Lot	Church	DQ	Old Pizza Hut	Bowling Lot Sign Business
Property Impacts: Homes	0	4	2-4	3-5	0

Concept A removes truck parking, which is an emphasis area nationally and would have to be mitigated. Concepts B, C, and D lead to neighborhood impacts, representing potential environmental justice concerns. Group discussion followed. Any options would include access management along Carol Malone Boulevard, potentially with Concepts A-B eliminating a portion of Interstate Drive.

- Build concepts were generally favored over No-Build, with more northern options preferred.
- There is interest in a signal at KY 1/Academic Parkway, independent of this project.
- Is the spacing between Concept A and the interchange feasible? It is 520 feet to the closest ramp, with 600-foot or more preferred in urban areas. Reducing the number of driveways—or reconfiguring

entrances to eliminate left turns—in this section would help improve safety. Shifting truck queues south increases storage length versus current conditions.

Attendees were polled to gage support between different concepts; responses from six participants are shown in **Figure 1**.

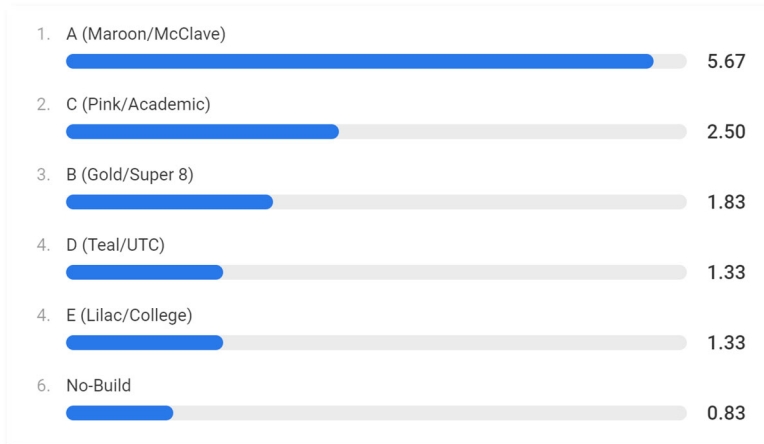


Figure 1: Ranked Preferences for East-West Linkages

End of Minutes