

R-4045/BR-0012

Concurrence Point 3 Meeting

LEAST ENVIRONMENTALLY DAMAGING PRACTICABLE ALTERNATIVE (LEDPA)/ PREFERRED
ALTERNATIVE Selection

Improvements to US 74 Between Mooresboro and the Shelby Bypass
and Replacement of Bridges 48 and 49 over Sandy Run Creek
Cleveland County

WBS # 34598.1.2



October 12, 2022

North Carolina Department of Transportation
Virtual Meeting

Prepared by

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Purpose of Today's Meeting

The goal of today's meeting is to discuss the costs and impacts of alternatives carried forward for detailed study, and with that information to reach concurrence on a Least Environmentally Damaging Practicable Alternative (LEDPA)/ Preferred Alternative.

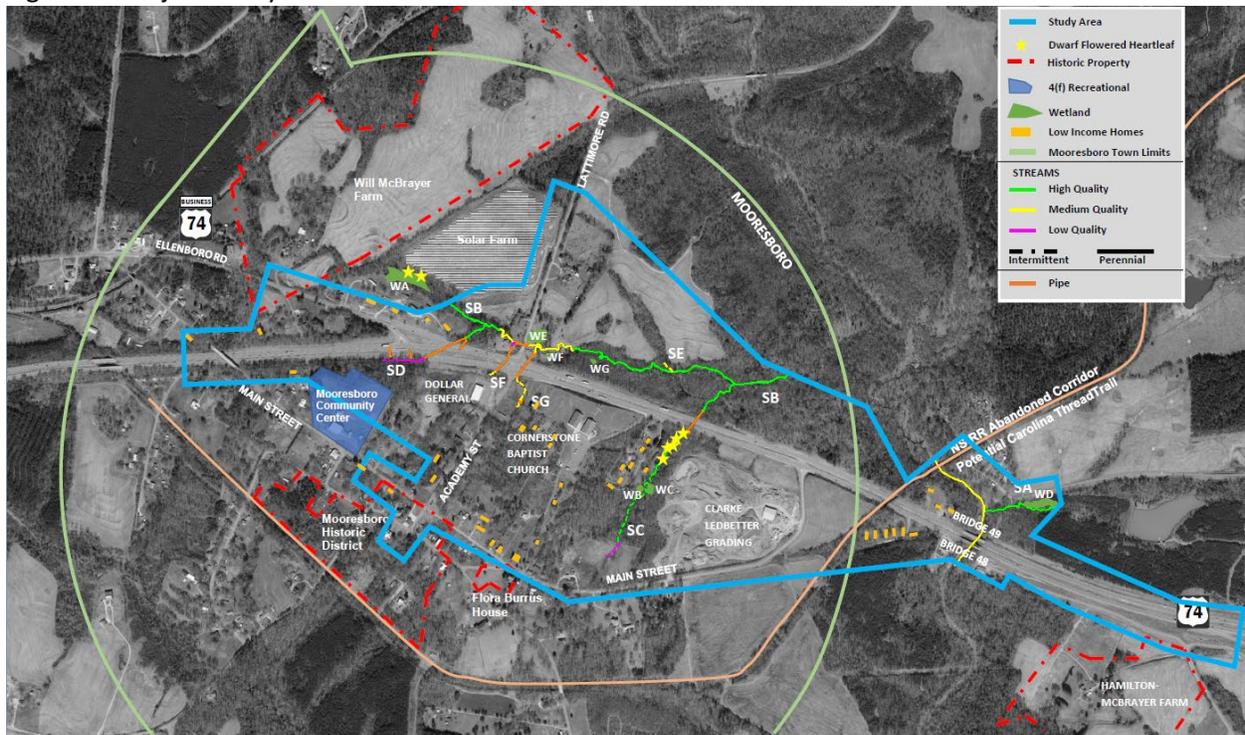
Project Description

The N.C. Department of Transportation proposes to improve U.S. 74 from Mooresboro to the Shelby Bypass in Cleveland County, a distance of approximately 1.2 miles. The proposed work would include:

- Closing driveway access along U.S. 74 along with closing the intersections of E. Main Street and Duncan Road.
- Replacing the current intersection of U.S. 74 and Academy Street/Lattimore Road with an interchange.
- Replacement of the U.S. 74 Bridges over Sandy Run Creek.

The project is federally funded and included in the State Transportation Improvement Program (STIP) as Project Numbers R-4045 and BR-0012.

Figure 1. Project Study Area



NEPA / Section 404 Merger Coordination History

May 2021 Core Merger Team Screening

Project was screened out of Merger because at the time there appeared to be no conflicting resources and it was believed that the project would be below the threshold of an Individual Permit (IP)

March 2022 Core Merger Team Screening II

NCDOT re-approached the Core Merger Team after realizing that stream impacts would exceed the threshold. After discussion, based on the higher stream impacts and the potential for conflicting resources (streams and historic properties), the Core Merger Team agreed to utilize the Merger Process.

May 2022 Concurrence Points 1, 2 and 2a

On 5/19/22, the Merger Team met and concurred with the Purpose and Need, the Alternatives for Detailed Study and Bridging Decisions

August 2022 Public Notice and Public Meeting

The ACOE issued a Public Notice 8/16/22 with a comment deadline of 9/16/22

The NCDOT held both a Local Officials Meeting and a Public Meeting on 8/25/22

A comment period was open on the public meeting until 9/08/22

Purpose and Need

US 74 is currently a 4-lane freeway with a grass median and varying control of access (primarily fully access-controlled). NCDOT and FHWA have functionally classified this portion of US 74 as a Freeway, and NCDOT and their federal/state/regional stakeholders designated it a Strategic Transportation Corridor (Corridor U) for North Carolina. Based upon the NCDOT review of needs in the project vicinity (see memo dated June 2021 and provided to the Merger Team in March 2022), the subject 1.2-mile portion of US 74 does not meet the aforementioned functional classification and is noncompliant with current roadway design requirements. The subject portion of US 74 also does not satisfy the highway network's established long-term vision, and lacks continuity that negatively affect driver expectations and safety. Additionally, NCDOT identified the existing US 74 at-grade intersection at SR 1168 (Academy Street/Lattimore Road) in the 2021 Highway Safety Improvement Program (HSIP) because of the historical pattern of frontal impact crashes, and the relative severity of personal injuries involved in those crashes. **The purpose of the R-4045 project is to provide a consistent facility to meet drivers' expectations for the US 74 corridor (from Kings Mountain to Columbus, NC) by upgrading this portion of US 74 to meet NCDOT freeway standards.**

Bridging Decisions

The Merger Team concurred on 5-19-22 on the use of box culverts for all crossings of Stream B except for the NE quadrant Off-Ramps considered in Alternatives 1 and 2 where both a box culvert and a bridge will be studied. The variations of the primary alternatives in the northern half of the proposed interchange are described in detail in the next section. The primary difference is that Alternatives 1A and 2A are minimization options including steepened slopes and a bridge in the NE quadrant. Decisions on a bridge versus a box culvert at that location were deferred to CP 3.

Local Officials Meeting/Public Meeting/404 Public Notice Summary

A Local Officials Meeting was held 8/25/22 at the Mooresboro Community Center. NCDOT presented the two interchange alternatives along with their minimization variants (1A and 2A) as well as the different service roads under consideration. The officials' questions focused on the service roads alternatives. One official expressed concern over the number of relocations associated with work on Main Street and Academy. The same official indicated there was another official who would likely still support improving the intersection. An official position was not expressed.

A Public Meeting was held following the Local Officials Meeting. Comments were received at the meeting and then afterwards and by phone, e-mail and by the project website through 9/08/22. A total of 107 comments were received. Preferences were sought for Alternates 1, 1A, 2 and 2A as follows:

- 77 supported Alt. 1
- 6 supported Alt 1A
- 1 Supported Alt 2
- 7 supported Alt 2A

Preferences were also sought on the three Service Road Options for Duncan Road and the Church.

- 88 supported Option 3
- 2 supported Option 2
- 1 supported Option 1 or 2

There were 6 comments received supporting the construction of a service road from East Main Street to the mobile home park near the bridge and none opposing.

The service road at the NW corner of the bridge would connect two parcels to Redbird Lane. The two parcels have one owner. There are three homes on the two parcels and two of them will be taken by the footprint of the project. The occupants are all connected. The owner has stated a preference to be relocated.

Other comments received that would affect potential project impacts included:

Connect Main Street with Broadway Road – this would require a bridge over Sandy Run Creek that would either be low enough to connect to Broadway Road but would constrict the 100-year flood plain or a bridge high enough to be above the 100-year flood plain but result in raising the grade of Broadway Road and taking the Sandy Run Cycles business. This proposed project modification would also result in taking the six mobile homes sites that the service road at this location was proposed to support to begin with. Because of the costs and impacts to homes and businesses, the Department will not be pursuing this concept.

Move the East End of Service Road Option 3 South to the Property Line – The location of this service road option was chosen because it directly connects with a haul road within the grading company and creates a closest connection of Duncan Road and the Church with Academy Street. Because the proposal to move Option 3 south would increase the cost by extending Duncan Road and the Church driveway down to the new location and because the option was supported

as shown by the vast majority of commenters, Option 3 will be left as it was presented at the public meeting.

Improvements to Main Street and Academy Street – As part of public input, there were six comments voicing the desire to not make improvements to the intersection of Main Street and Academy Street and all six supported Service Road Option 3. There were three comments supporting the improvement to the intersection of Main Street and Academy no matter what alternative is selected. During the public officials meeting, the mayor voiced concern over the relocations associated with the work on Main Street and Academy but suggested that another of the town council members (not present) would likely support the improvement of the intersection. The Town has not put forth an official position on this topic. Further discussion is included in the Preferred Service Roads section at the end of this document.

Alternatives and Impacts

There are two decisions the Merger Team must make for this project at CP 3. The first is regarding the interchange alternative and the second is regarding Service Road options. The two are independent of one another and so the information will be presented separately.

Attached Figures show the public meetings maps for the alternatives below.

Alternative 1

For Alternative 1, the southern half of the interchange will have an on ramp and off ramp connecting at a roundabout. In the NW Quadrant, Ellenboro Rd will connect with Latimore. In the NE Quadrant, A loop will provide access onto U.S. 74 and an off ramp, Ramp A, will allow traffic from U.S. 74 to Latimore Road. A bridge would be constructed over U.S. 74 to connect Latimore Road with Academy Street.

Alternative 1A

Alternative 1A is the same as Alternative 1 except that it uses steeper slopes on all ramps and a bridge on Ramp A instead of a culvert to minimize impacts to the stream in the northern half of the interchange. Ramp A is also slightly longer to allow a better alignment for the bridge to cross the stream.

Alternative 2

Alternative 2 would have an on ramp and off ramp connecting at a roundabout in the southern half of the interchange. In the NW Quadrant, both Ellenboro Rd and an on ramp will connect with another roundabout. In the NE Quadrant, a ramp will provide access from U.S. 74 to Lattimore Road. A bridge would be constructed over U.S. 74 to connect Lattimore Road with Academy Street.

Alternative 2A

Alternative 2A is the same as Alternate 2 except that it uses steeper slopes on all ramps and a bridge on Ramp A instead of a culvert to minimize impacts to the stream in the northern half of the interchange. Ramp A is also slightly longer to allow a better alignment for the bridge.

The following Environmental Justice background draws heavily on the 2022 Community Impact Assessment for this project. The tables below include information on relocations and they are predominantly low-income impacts. EJ can be triggered by either having a disparate impact on a community where the percentages of low income or minority relative the county percentages are high or where the community is predominately either low income or minority or both. This project falls into the second category since over 90% of the population in the study area is low income.

During alternatives discussion, it was noted that It is not possible meet the purpose and need of the project without an interchange and the interchange is located at the only viable location along US 74 to still provide access to the Town of Mooresboro. At this location, tying the ramps into US 74 along with the height of the bridge and tying it back to Academy and Lattimore affects 10 residences and 2 businesses located very close to either US 74 or Academy Street. Nine of the 10 residences are low income. Because the community is predominately (over 90%) low income, it is expected that 9 out of 10 of any impacts would be to low income households. Because the grade of the bridge is much higher than Academy Street, to get back down to the grade of Academy Street, the slope stakes impact 6 of the 10 relocatees. The last two of the low income relocatees are on the ramp and one of them is middle income. The two others are affected by cutting off driveway access to US 74 and they did not prefer to have a service road.

A public meeting was scheduled for August 25, 2022 and advertised by post cards sent two weeks prior to the meeting to everyone in the study area. A plan was developed to targeted low income households with a doorhanger which was placed on doors in early August. For any household that might be a potential relocatee, we made certain to have personal contact as part of the door hanger effort. 109 Academy Street was the exception. The location is a rental. The appearance is that the location is unoccupied but to ensure this multiple visits were made to the site over a periods of three weeks to verify no occupancy.

The community impacted is also substantially benefited by the project. The difficulty of getting onto and off of U.S. 74 safely is not only documented by accident reports but also by overwhelming support of the project by the community and local officials during public involvement.

Table 1 is moved in its entirety to the next page to make comparisons within the table easier.

Table 1. Estimated Impacts of US 74 Construction Alternatives

| Resource | Alt 1 | Alt 1A | Alt 2 | Alt 2A |
|--|--|----------|----------|----------|
| Human Environment | | | | |
| Residential Relocations* | 10 | 10 | 10 | 10 |
| Business Relocations | 2 | 2 | 2 | 2 |
| Environmental Justice (low income or minority communities) | Impacts to minority and low-income populations do not appear to be disproportionately high and adverse. Benefits and burdens resulting from the project are anticipated to be equitably distributed throughout the community. | | | |
| Cultural Resources | There are three historic sites and one historic district within the area. All four of the primary construction alternatives avoid impact to the historic resources. The service road impacts are described in the next section. | | | |
| Farmland Soils | 28 acres | 31 acres | 24 acres | 30 acres |
| Natural Environment | | | | |
| Stream Crossings (number) | 13 | 13 | 12 | 12 |
| Streams Impacts (linear feet) | 2260 | 1500 | 1980 | 1440 |
| Ponds (acres) | 0 | 0 | 0 | 0 |
| Wetlands (acres) | 0.3 | 0.1 | 0.4 | 0.3 |
| Federally Protected Species | There are two T&E Species for the project area. The Northern long-eared bat (NLEB) and the Dwarf flowered heartleaf (DFH). Following coordination with USFWS, the service concurs the project may affect, but is not likely to adversely affect the species. The 4(d) rule is applied to the NLEB. The NLEB is under consideration for changing its status to endangered. If this occurs, the project will be reevaluated to address the new status. | | | |
| Public Involvement | | | | |
| Public Involvement | During public involvement, Alternates 1, 1A, 2 and 2A were presented and the public was requested to express their preferences for each alternative: | | | |
| | 77 | 6 | 1 | 7 |
| Cost (\$millions) | | | | |
| US 74 Construction | 33.7 | 34.4 | 33.7 | 35.3 |
| BR-0012 | 10.7 | 10.7 | 10.7 | 10.7 |
| Utilities | 4.5 | 6.3 | 4.8 | 7.0 |
| ROW | 16.1 | 16.0 | 16.1 | 16.0 |
| Stream Mitigation** | 2.7 | 1.8 | 2.4 | 1.7 |
| Total | 67.7 | 69.2 | 67.7 | 70.6 |

*9 of the 10 residential relocations impact low-income households.

**Based on stream impacts reported above and using \$1200/lf for mitigation costs.

Service Roads

Because of the driveway and roadway closures along U.S. 74, service roads are being studied at three different locations.

Near Redbird Lane

Three residences located near the northwest corner of the bridges over Sandy Run Creek currently have driveway access to U.S. 74 that would be closed as part of the project. Two of the three residences would be taken by work on U.S. 74 but one could potentially remain. With closing the driveway, to restore access would require building a service road from Redbird Lane utilizing a bridge over Sandy Run Creek. (see Figure 1B or Figure 2B)

Near E. Main Street

Seven Mobile Homes currently have a driveway access to U.S. 74 that would be closed as part of the project. Restoring access would require a service road constructed from E. Main Street. (see Figure 1B or 2B)

Near Church and Duncan Road

Duncan Road and the church have driveway access to U.S. 74 that would be closed as part of the project. Duncan Road serves nine residences and the church has a residence connected to it as well. To maintain access would require construction of a service road. There are three options being considered:

Option 1: (see Figure 1A or Figure 2A) A service road would be built following the existing dirt pathway connecting the church to Main Street. A T-Intersecting service road would connect Duncan Road, the church and the properties between the church and Academy Street. The intersection of Academy Street with Main Street would be improved to better accommodate increased truck traffic from the grading business.

Option 2: (see Figure 3A) A service road would be built connecting to Main Street 850 feet east of Burrus Road connecting to Duncan Road. A T-Intersecting service road would connect to the church and the properties immediately west of the church. The intersection of Academy Street with Main Street would be improved to better accommodate increased truck traffic from the grading business.

Option 3: (see Figure 3B) This option would connect a service road from Academy Street, beside the church and Duncan Road to the grading company.

Based on these service road options, potential impacts to Waters of the United States and other resources are listed in Table 2. NCDOT calculated these estimates using preliminary roadway design slope stake limits plus an additional 25 feet. Impacts are shown in attached figures.

Table 2. Estimated Impacts of Service Road Options

| Resource | Church and Duncan Road | | | | |
|--|--|-------------------------------------|---|---|-------------------------------------|
| | Near Redbird Lane | Near East Main Street | Option 1 | Option 2 | Option 3 |
| Human Environment | | | | | |
| Residential Relocations* | 3 | 0 | 9 | 9 | 0 |
| Business Relocations | 0 | 0 | 0 | 0 | 0 |
| Environmental Justice (low income or minority communities) | Impacts to minority and low-income populations do not appear to be disproportionately high and adverse. Benefits and burdens resulting from the project are anticipated to be equitably distributed throughout the community. | | | | |
| Cultural Resources | No Effect on Any Historic Resources | No Effect on Any Historic Resources | No Adverse Effect to Mooresboro Historic District | No Adverse Effect to Mooresboro Historic District | No Effect on Any Historic Resources |
| Farmland Soils (acres) | 1.6 | 2.82 | 7.49 | 8.07 | 6.57 |
| Natural Environment | | | | | |
| Stream Crossings (number) | 0 | 0 | 0 | 0 | 1 |
| Streams Impacts (linear feet) | 0 | 0 | 0 | 0 | 250 |
| Ponds (acres) | 0 | 0 | 0 | 0 | 0 |
| Wetlands (acres) | 0 | 0 | 0 | 0 | 0.05 |
| Federally Protected Species | There are two T&E Species for the project area. The Northern long-eared bat (NLEB) and the Dwarf flowered heartleaf (DFH). Following coordination with USFWS, the service concurs the project may affect, but is not likely to adversely affect the species. The 4(d) rule is applied to the NLEB. The NLEB is under consideration for changing its status to endangered. If this occurs, the project will be reevaluated to address the new status. | | | | |
| Public Involvement | | | | | |
| Supporting Preferences | - | 6 | 1 | 2 | 88 |
| Cost to Build | | | | | |
| Construction | 1,608,000 | 272,000 | 435,000 | 563,000 | 577,000 |
| ROW | 62,000 | 75,000 | 61,000 | 53,000 | 143,000 |
| Intersection Main/Academy | | | 800,000 | 800,000 | 0 |
| Stream Mitigation | | | | | 300,000 |
| TOTAL | \$1,670,000 | \$347,000 | \$1,296,000 | \$1,416,000 | \$1,020,000 |
| ROW Cost to Not Build* | | | | | |
| | \$258,000 | \$370,000 | \$3,600,000 | \$3,600,000 | \$3,600,000 |

*9 of the 9 relocations are low-income households.

**This cost is what NCDOT would have to pay in ROW damages if it did not build service roads and had to relocate all the residents affected by not building the associated service road option.

NCDOT Preferred Interchange Alternative

There are three differentiating factors that affect the interchange alternative selection:

- Public Input
- Stream Impacts
- Costs

Public Input overwhelmingly preferred Alternative 1 which is nearly identical to Alt. 1A except for minimization. There were very few comments received about the reasons for that preference with the few who did comment noting that Alt. 1 was less confusing than Alt. 2. It is assumed therefore that the preference is as much for Alt. 1A as it is for Alt. 1.

Regarding stream impacts Alt. 1A is approximately 760 lf lower impact than Alt. 1 and approximately 480 lf lower than Alt. 2. While the price of Alt 1A is \$1.5 million higher than both Alt 1. and Alt 2., lowering the stream impacts is a good compromise that would allow an interchange configuration strongly preferred by the public but with minimizations to stream impacts.

Alternate 2A has only approximately 60 linear feet less impact than Alternate 1A but at a cost increase of an additional \$1.4 million.

Alternate 1A is therefore the Department's preferred interchange Alternative.

NCDOT Preferred Service Roads

There are three differentiating factors that affect the interchange alternative selection:

- Public Input
- Stream Impacts
- Costs
- Minimizes Low Income Relocations

Near Redbird Lane – Since two of the three homes located on the two parcels that would be serviced by this service road are being taken, the property owner has expressed a preference to be relocated. Given the cost of building service road being 6.5 times greater and the need for a bridge and given the property owner's preference, **a service road will not be built and occupants will be relocated.**

Near East Main Street – Because the public input supports this service road and because there are no impacts to protected resources and because the cost of construction is roughly the same as the cost of relocation, **the Department prefers to construct this service road as part of project.**

Service Road for Duncan Road and the Church – The cost of not constructing a service road is currently estimated to be \$3.6 million and would cut off nine low-income residents on Duncan Road and the church, a community resource that is congregated by and serves many low-income families with ministries such as a food pantry. The cost of constructing

any of the service road options is roughly 1/3 the cost of not constructing a service road, so **the construction of a service road is justified by both cost and need to avoid nine low-income relocations and relocation of the church serving the low-income community.**

During public involvement, Option 3 was overwhelmingly the preference of 88 commenters versus only one commenter supporting Option 1 and one commenter supporting Option 2. The reasons voiced in support of Option 3 were about more direct and quicker access back to US 74. Option 3 does have approximately 250 linear feet of stream impacts, whereas there are no stream impacts for Options 1 or 2. The costs for Options 1 and 2 are \$300-400k higher than Option 3 even when considering stream mitigation.

During the public officials meeting, one Town Council member who also serves with the Volunteer Fire Department, noted that Option 3 has the additional advantage of a faster response time than Options 1 and 2.

As noted earlier, there was a suggestion to consider not including work to improve the intersection of Main Street with Academy. If that work were removed, the cost of Options 1 and 2 would be less than Option 3. However, given that:

- Options 1 and 2 would utilize the intersection of Main Street with Academy Street including additional truck traffic from the grading business and
- given that the intersection does not meet the standard for truck traffic and
- and that there is not a consensus from the public or from public officials to remove consideration of intersection improvements,

the Department feels obliged to leave those improvements in as part of Options 1 and 2.

Service Road Option 3 is the Department's preferred service road option because of:

- **overwhelming support of the low-income community and church,**
- **ten fewer low income relocations along Main Street and Academy Street,**
- **lower costs,**
- **quicker access back to U.S. 74 for both the community and Emergency Services**

**PUBLIC MEETING MAP
ALTERNATE 1**
 TIP NO. R-4045
 CLEVELAND COUNTY
**UPGRADE US 74 FROM Bus. US 74 TO PROPOSED
SHELBY BYPASS TO INTERSTATE STANDARDS**

RK&K
 AUGUST 2022

**ALTERNATE 1A
REDUCED STREAM IMPACT**

| | | | |
|---|--|--|--|
| PI Sta 12192.0 E6 = 5'09" 23.2' D = 265.00' L = 144.06' ST = 72.06' | PI Sta 15166.45 Δ = 19'06" 52.5' (RT) D = 46' 28.7' L = 40.03' R = 202.40' V = 1.20/100' SE = DB | PI Sta 18131.13 E6 = 5'09" 23.2' D = 265.00' L = 144.06' ST = 72.06' | PI Sta 21106.55 Δ = 41' 18" 33.0' (LT) D = 17' 37" 33.0' L = 365.87' R = 588.48' V = 50.000' SE = DB |
|---|--|--|--|



**PUBLIC MEETING MAP
ALTERNATE 1**
 TIP NO. R-4045
CLEVELAND COUNTY

**UPGRADE US 74 FROM Bus. US 74 TO PROPOSED
SHELBY BYPASS TO INTERSTATE STANDARDS**

| | | | | | | |
|---|--|--|---|---|---|---|
| PI Sta 25124.0 E6 = 1'26" 48.7' D = 225.00' L = 150.00' ST = 75.00' | PI Sta 31141.45 Δ = 18' 55" 15.7' (RT) D = 17' 10" 15.7' L = 147.19' R = 742.36' V = 4.45/100' SE = DB | PI Sta 41145.29 E6 = 1'26" 48.7' D = 225.00' L = 150.00' ST = 75.00' | PI Sta 62125.63 E6 = 0'35" 42.0' D = 135.00' L = 90.00' ST = 45.00' | PI Sta 65190.08 Δ = 5'46" 04.3' (RT) D = 150.00' L = 65.14' R = 307.49' V = 6.50/100' SE = DB | PI Sta 69169.98 E6 = 0'35" 42.0' D = 135.00' L = 90.00' ST = 45.00' | PI Sta 84153.32 E6 = 0'32" 13.7' D = 135.00' L = 90.00' ST = 45.00' |
|---|--|--|---|---|---|---|

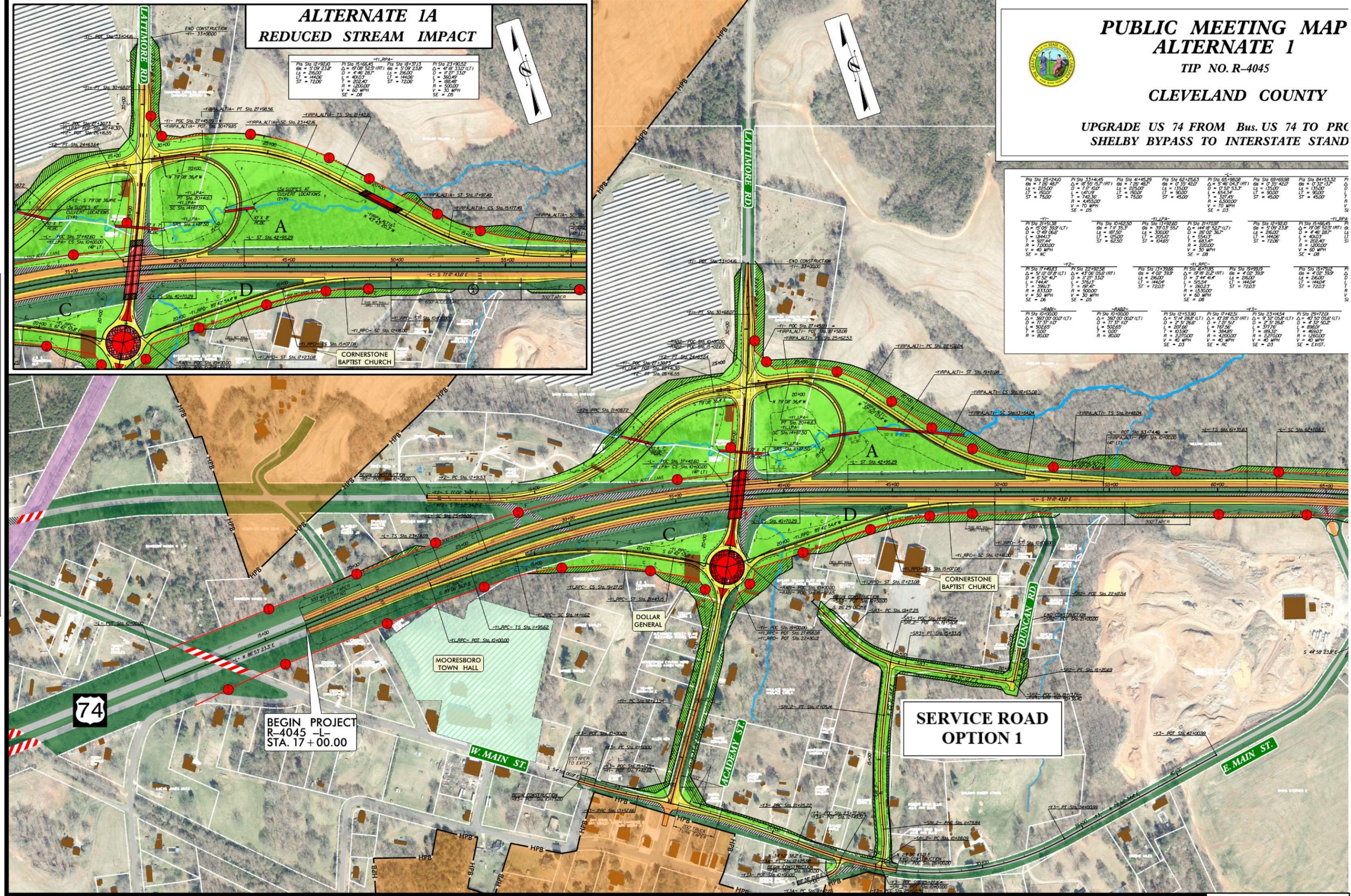


FIGURE 1A

PUBLIC MEETING MAP ALTERNATE 1

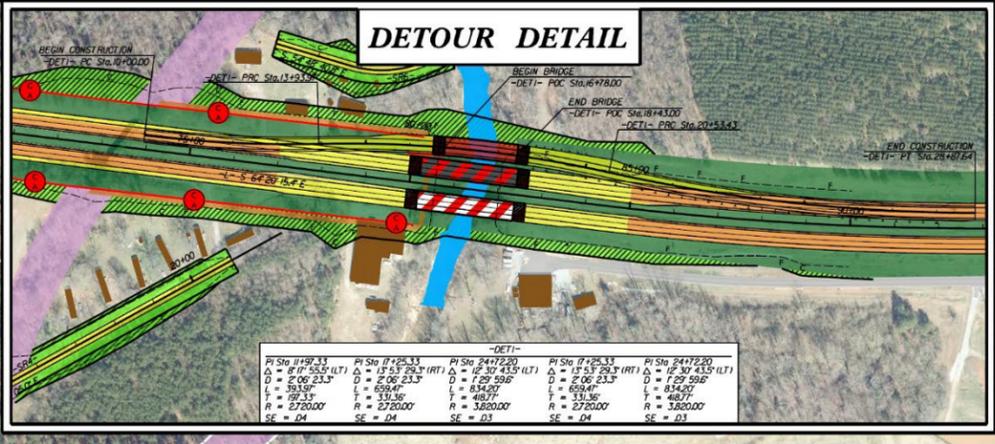
TIP NO. R-4045

CLEVELAND COUNTY

GRADE US 74 FROM Bus. US 74 TO PROPOSED
HELBY BYPASS TO INTERSTATE STANDARDS

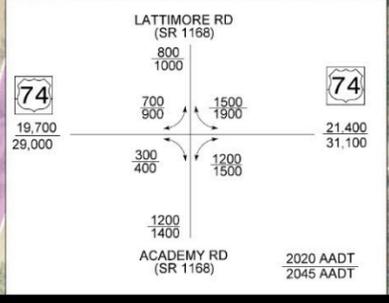
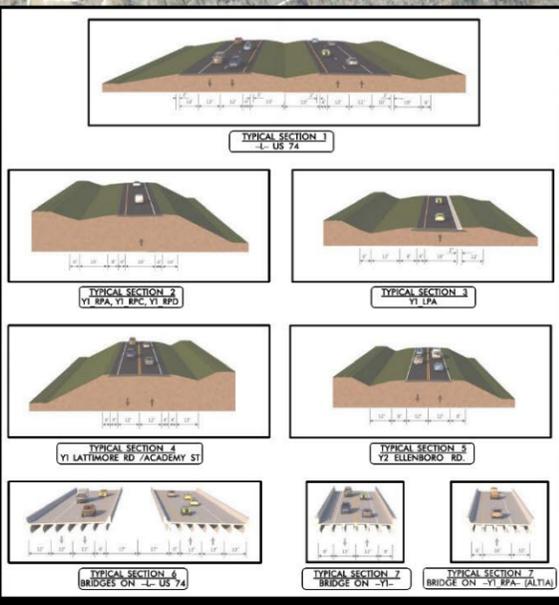
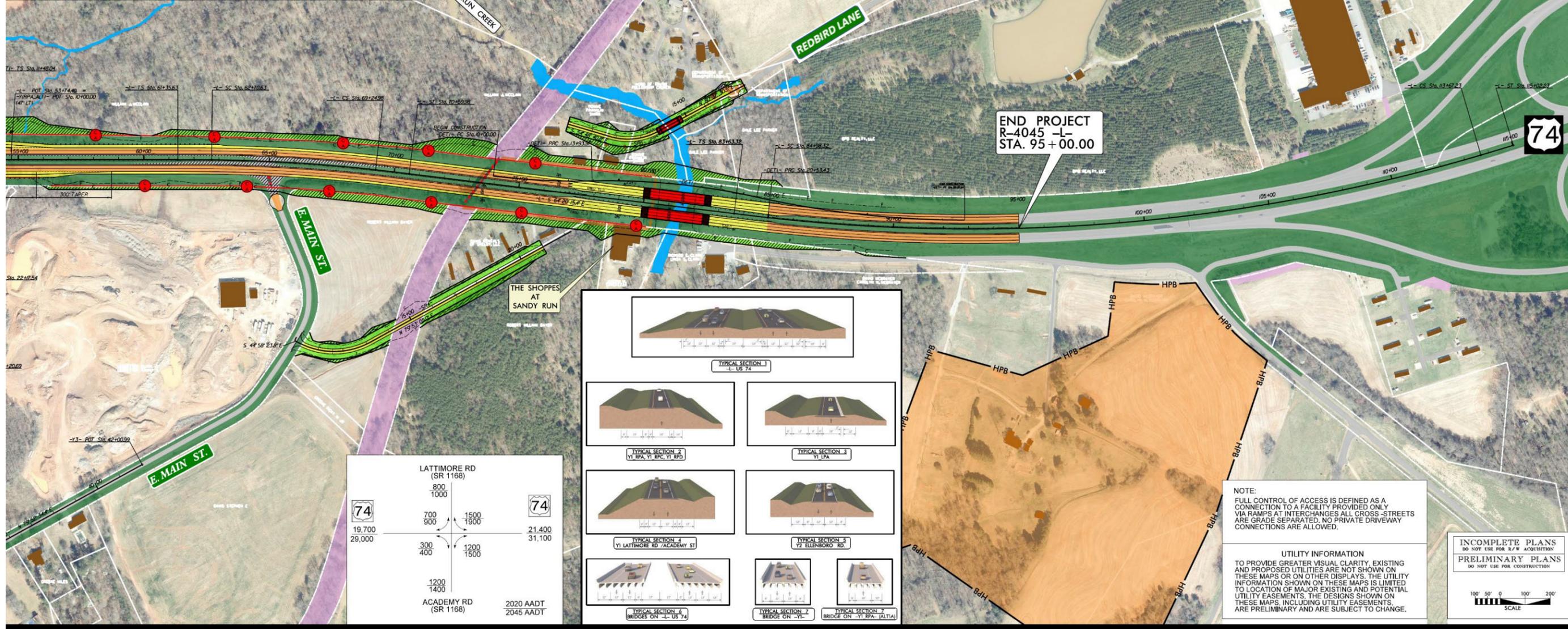


| | | | | | | |
|---|--|--|--|--|--|--|
| PVI Sta 41+45.29 Δ = 1.2° 48' 48" L = 250.00' T = 150.00' ST = 75.00' | PVI Sta 62+25.63 Δ = 0° 35' 42" L = 135.00' T = 67.50' ST = 45.00' | PVI Sta 65+98.08 Δ = 144° 05' 52" (RT) D = 5° 46' 04.3" (LT) L = 65.43' T = 32.715' R = 6300.00' V = 70 MPH SE = 03 | PVI Sta 69+68.98 Δ = 0° 35' 42" L = 135.00' T = 67.50' ST = 45.00' | PVI Sta 84+53.32 Δ = 0° 32' 13" L = 135.00' T = 67.50' ST = 45.00' | PVI Sta 99+52.06 Δ = 22° 49' 48.3" (LT) L = 115.00' T = 57.50' ST = 45.00' | PVI Sta 104+22.23 Δ = 0° 32' 13" L = 135.00' T = 67.50' ST = 45.00' |
| -Y1 LPA- PVI Sta 10+82.50 Δ = 1° 15' 33" L = 300.00' T = 150.00' ST = 75.00' | PVI Sta 13+82.50 Δ = 144° 05' 52" (RT) D = 300.00' L = 150.00' T = 75.00' ST = 45.00' | -Y1 RPA- PVI Sta 17+92.50 Δ = 144° 05' 52" (RT) D = 300.00' L = 150.00' T = 75.00' ST = 45.00' | PVI Sta 18+92.50 Δ = 0° 35' 42" L = 135.00' T = 67.50' ST = 45.00' | -Y1 RPA- PVI Sta 18+92.50 Δ = 144° 05' 52" (RT) D = 300.00' L = 150.00' T = 75.00' ST = 45.00' | PVI Sta 21+92.50 Δ = 0° 32' 13" L = 135.00' T = 67.50' ST = 45.00' | PVI Sta 23+92.50 Δ = 0° 32' 13" L = 135.00' T = 67.50' ST = 45.00' |
| -Y1 RPA- PVI Sta 11+302.6 Δ = 4° 02' 39.9" L = 260.00' T = 130.00' ST = 72.03' | -Y1 RPA- PVI Sta 17+42.51 Δ = 0° 32' 13" L = 135.00' T = 67.50' ST = 45.00' | -Y1 RPA- PVI Sta 21+44.54 Δ = 0° 32' 13" L = 135.00' T = 67.50' ST = 45.00' | -Y1 RPA- PVI Sta 29+72.01 Δ = 0° 32' 13" L = 135.00' T = 67.50' ST = 45.00' | -Y1 RPA- PVI Sta 11+47.85 Δ = 56° 29' 00.2" (LT) L = 83.79' T = 41.895' R = 85.00' V = 40 MPH SE = 03 | -Y1 RPA- PVI Sta 11+47.85 Δ = 56° 29' 00.2" (LT) L = 83.79' T = 41.895' R = 85.00' V = 40 MPH SE = 03 | -Y1 RPA- PVI Sta 11+47.85 Δ = 56° 29' 00.2" (LT) L = 83.79' T = 41.895' R = 85.00' V = 40 MPH SE = 03 |



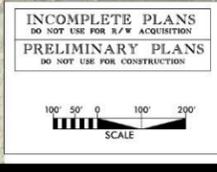
LEGEND

- BUILDINGS
- EXISTING RIGHT OF WAY
- PROPOSED RIGHT OF WAY
- PROPOSED EASEMENTS (DRAINAGE, CONSTRUCTION, AND UTILITY)
- EXISTING ROADWAY
- EXISTING ROADWAY TO BE RESURFACED
- EXISTING ROADWAY TO BE REMOVED
- PROPOSED ROADWAY
- TEMPORARY ROADWAY / DETOURS
- PROPOSED STRUCTURES, ISLAND, CURB AND GUTTER
- EXISTING STRUCTURES, ISLAND, CURB AND GUTTER TO BE RETAINED
- EXISTING STRUCTURES, ISLAND, CURB AND GUTTER TO BE REMOVED
- LAKES, RIVER, STREAMS AND PONDS
- RAILROAD RIGHT OF WAY
- EXISTING UTILITY EASEMENT
- PROPOSED GRADED PATH
- PROPOSED CONTROL OF ACCESS
- PRESENT ADT
- FUTURE ADT
- PROPERTY LINES
- PARKS
- HISTORIC PROPERTY BOUNDARY



NOTE:
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UTILITY INFORMATION
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**PUBLIC MEETING MAP
ALTERNATE 1**

TIP NO. R-4045
 CLEVELAND COUNTY

**UPGRADE US 74 FROM Bus. US 74 TO PROPOSED
SHELBY BYPASS TO INTERSTATE STANDARDS**

RK&K

AUGUST 2022

FIGURE 1B

PUBLIC MEETING MAP ALTERNATE 2

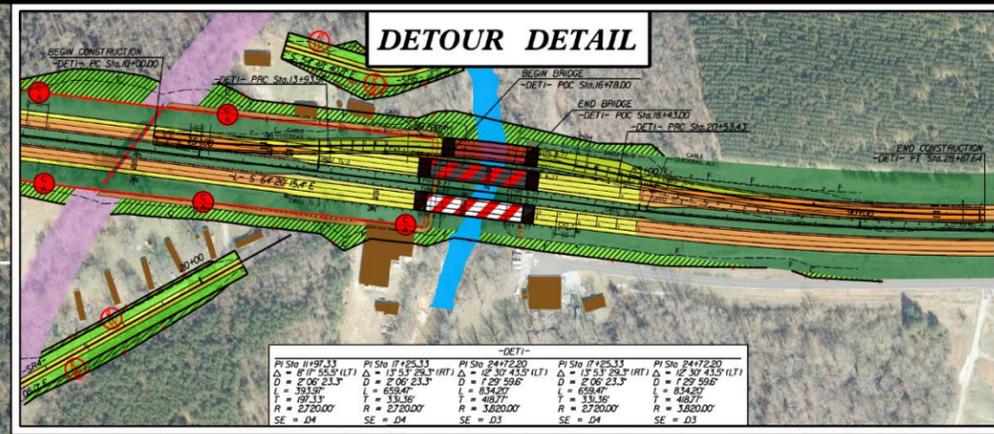
TIP NO. R-4045

CLEVELAND COUNTY

RADE US 74 FROM Bus. US 74 TO PROPOSED
ELBY BYPASS TO INTERSTATE STANDARDS

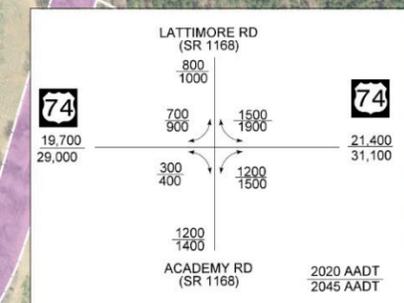
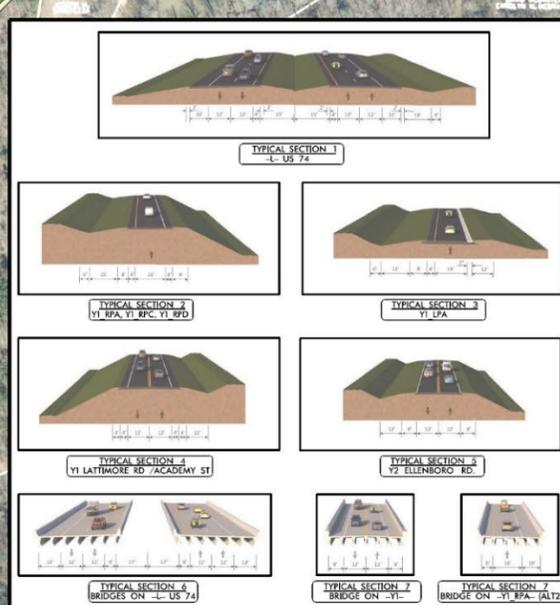
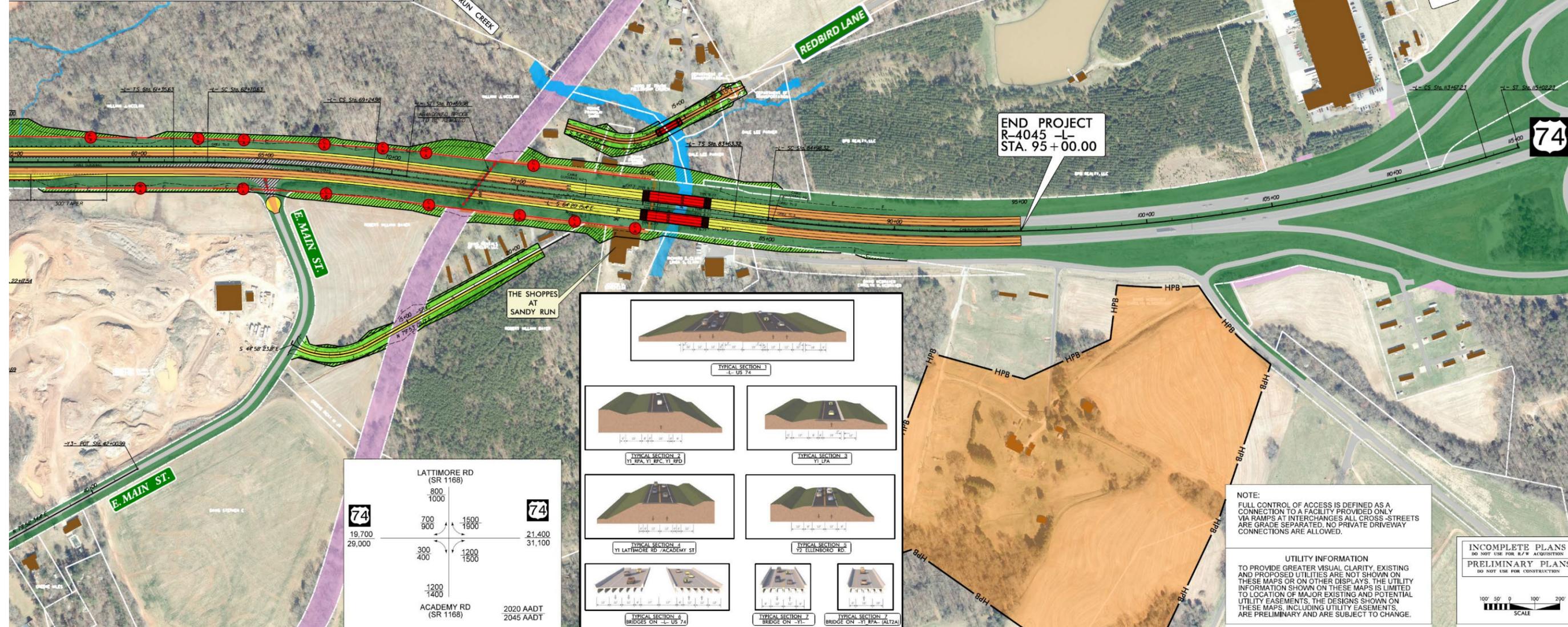


| -I-1-1-1- | | | -I-1-1-1- | | | -I-1-1-1- | | | -I-1-1-1- | | |
|-----------|------------|-------|-----------|------------|-------|-----------|------------|-------|------------|------------|-------|
| PI STA | LS | ST | PI STA | LS | ST | PI STA | LS | ST | PI STA | LS | ST |
| 41+48.29 | 66 = 12.50 | 15.00 | 65+190.00 | 66 = 12.50 | 15.00 | 69+69.98 | 66 = 12.50 | 15.00 | 64+143.32 | 66 = 12.50 | 15.00 |
| 42+50.00 | 66 = 12.50 | 15.00 | 70+00.00 | 66 = 12.50 | 15.00 | 75+00.00 | 66 = 12.50 | 15.00 | 79+52.06 | 66 = 12.50 | 15.00 |
| 43+50.00 | 66 = 12.50 | 15.00 | 75+00.00 | 66 = 12.50 | 15.00 | 80+00.00 | 66 = 12.50 | 15.00 | 84+143.32 | 66 = 12.50 | 15.00 |
| 44+50.00 | 66 = 12.50 | 15.00 | 80+00.00 | 66 = 12.50 | 15.00 | 85+00.00 | 66 = 12.50 | 15.00 | 89+52.06 | 66 = 12.50 | 15.00 |
| 45+50.00 | 66 = 12.50 | 15.00 | 85+00.00 | 66 = 12.50 | 15.00 | 90+00.00 | 66 = 12.50 | 15.00 | 94+143.32 | 66 = 12.50 | 15.00 |
| 46+50.00 | 66 = 12.50 | 15.00 | 90+00.00 | 66 = 12.50 | 15.00 | 95+00.00 | 66 = 12.50 | 15.00 | 99+52.06 | 66 = 12.50 | 15.00 |
| 47+50.00 | 66 = 12.50 | 15.00 | 95+00.00 | 66 = 12.50 | 15.00 | 100+00.00 | 66 = 12.50 | 15.00 | 104+143.32 | 66 = 12.50 | 15.00 |
| 48+50.00 | 66 = 12.50 | 15.00 | 100+00.00 | 66 = 12.50 | 15.00 | 105+00.00 | 66 = 12.50 | 15.00 | 109+52.06 | 66 = 12.50 | 15.00 |
| 49+50.00 | 66 = 12.50 | 15.00 | 105+00.00 | 66 = 12.50 | 15.00 | 110+00.00 | 66 = 12.50 | 15.00 | 114+143.32 | 66 = 12.50 | 15.00 |
| 50+50.00 | 66 = 12.50 | 15.00 | 110+00.00 | 66 = 12.50 | 15.00 | 115+00.00 | 66 = 12.50 | 15.00 | 119+52.06 | 66 = 12.50 | 15.00 |



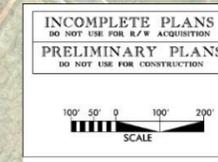
LEGEND

- BUILDINGS
- EXISTING RIGHT OF WAY
- PROPOSED RIGHT OF WAY
- PROPOSED EASEMENTS (DRAINAGE, CONSTRUCTION, AND UTILITY)
- EXISTING ROADWAY
- EXISTING ROADWAY TO BE RESURFACED
- EXISTING ROADWAY
- PROPOSED ROADWAY / DETOURS
- TEMPORARY ROADWAY / DETOURS
- PROPOSED STRUCTURES, ISLAND, CURB AND GUTTER
- EXISTING STRUCTURES, ISLAND, CURB AND GUTTER
- EXISTING STRUCTURES, ISLAND, CURB AND GUTTER
- LAKES, RIVER, STREAMS AND PONDS
- RAILROAD RIGHT OF WAY
- EXISTING UTILITY EASEMENT
- PROPOSED GRADED PATH
- PROPOSED CONTROL OF ACCESS
- PRESENT ADT
- FUTURE ADT
- PROPERTY LINES
- PARKS
- GREEN
- HISTORIC PROPERTY BOUNDARY



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**PUBLIC MEETING MAP
ALTERNATE 2**

TIP NO. R-4045
CLEVELAND COUNTY

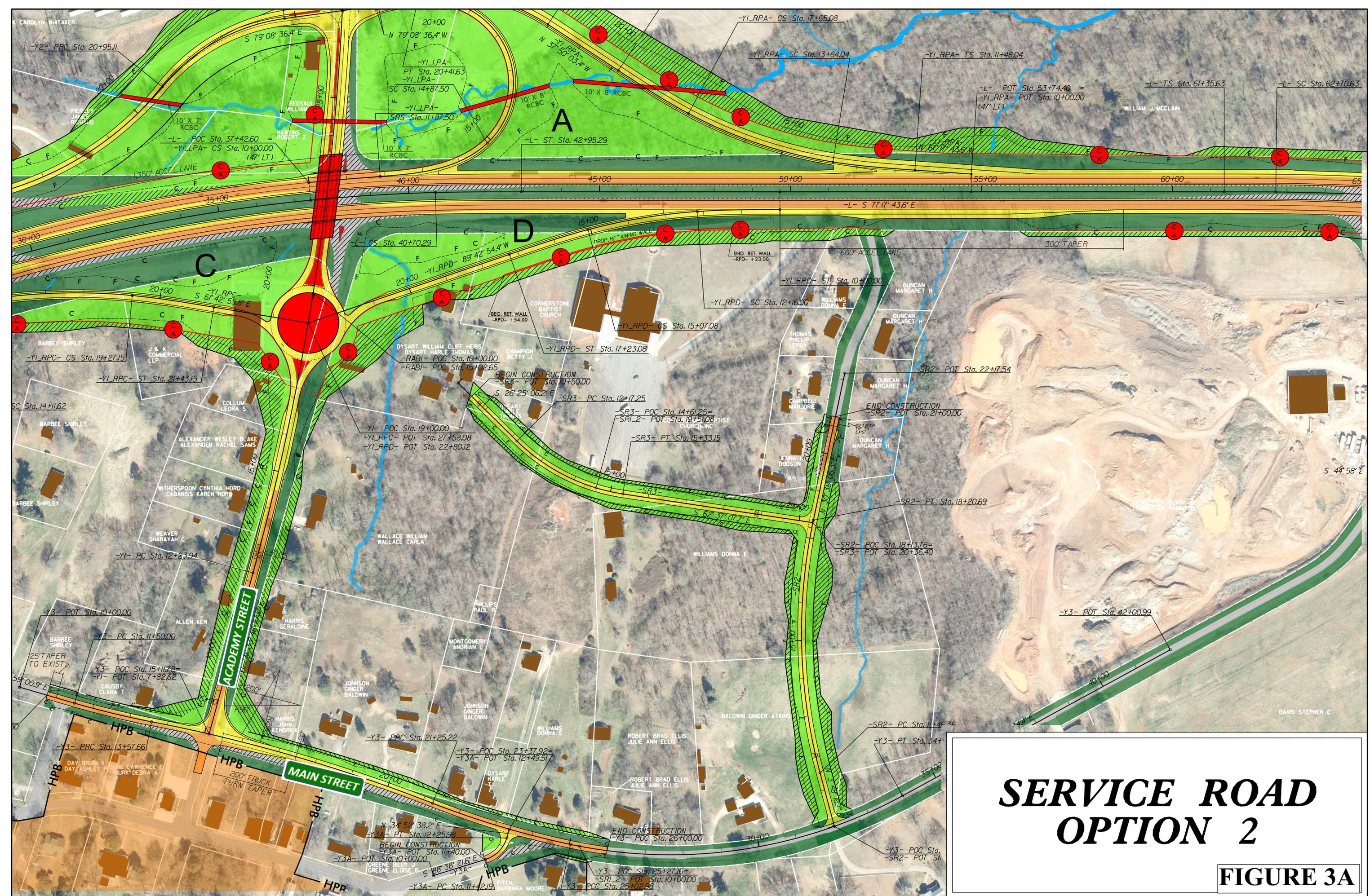
**UPGRADE US 74 FROM Bus. US 74 TO PROPOSED
SHELBY BYPASS TO INTERSTATE STANDARDS**



RK&K

AUGUST 2022

FIGURE 2B



SERVICE ROAD OPTION 2

FIGURE 3A

