

Feasibility Study

Improvements to the I-26 / US 74 / NC 108 Interchange

Town of Columbus, Polk County

Division 14
FS-0314A



Feasibility Studies Unit
Program Development Branch
N.C. Department of Transportation

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Date

Improvements to the I-26 / US 74 / NC 108 Interchange
Town of Columbus, Polk County

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I. General Description

This feasibility study addresses the proposed improvements to the I-26 / US 74 / NC 108 Interchange just west of Columbus in Polk County. Exhibit 1 shows the project location.

The existing roadways of I-26, US 74, and NC 108 converge just west of the Town of Columbus in the mountainous terrain of Polk County in western North Carolina. The study area is bisected by Horse Creek and one of its tributaries which flow north-south and are each crossed by I-26. Both I-26 and US 74 are controlled access four-lane divided facilities. The land use in the area is primarily adjacent to NC 108 and includes commercial development along NC 108 and municipal government and residential development in downtown Columbus just east of the project. I-26 is classified as a freeway according to the North Carolina Statewide Functional Classified System. US 74 and NC 108 are classified as principal arterial and minor arterial, respectively.

The improvements discussed in this report are intended to increase safety and capacity by reducing the confusion caused by the existing interchange configuration and by providing a means to accommodate truck traffic through the study area without forcing it to use NC 108.

This feasibility study is the initial step in the planning and design process for this project and is not the product of exhaustive environmental or design investigations. The purpose of this study is to describe the proposed project, including costs, and to identify potential problems that may require consideration in the planning and design process.

II. Need for Project

The purpose of the project is to improve the configuration of the interchange area so that all movements are accommodated and that heavy through-truck traffic between I-26 and US 74 is not forced to mix with local traffic on NC 108.

The primary need for improvement in this study area results from the fact that westbound traffic from US 74 to southbound I-26 and vice-versa must travel through at-grade intersections on NC 108. This movement includes a high percentage of heavy trucks (up to 18 percent on I-26) and creates a situation where heavy intrastate through movements and a high proportion of trucks are mixing with local traffic. The crash potential created by this combination is exacerbated by the abundance of commercial driveway accesses along NC 108. The configuration of this interchange creates safety issues and a regional bottleneck that affects I-26, US 74 and NC 108.

The intersections on NC 108 on either side of the I-26 bridge are being converted to roundabouts, under TIP Project No. I-4757, with the purpose of improving traffic flow through the area. The roundabout on the west bridge approach has been completed and the roundabout on the east end is under construction. The 2030 traffic projections anticipate an approximate doubling of traffic volumes through the area. This projected traffic will create substantial pressure on a location that is already deficient from a traffic flow perspective.

There are two programmed projects in the 2006-2012 TIP that would be integrated with this project. As previously discussed, the construction of a roundabout at the NC 108 interchange (TIP No. I-4757) is under construction and was incorporated in this study. NC 108, which is listed as an unfunded project, is proposed for widening to multi-lanes from I-26 to US 74 (TIP No. R-2914). Future coordination between R-2914 and this project will be necessary to insure that sufficient NC 108 improvements are provided to accommodate the efficient and effective operations of the I-26 / NC 108 interchange.

III. Traffic Operations and Safety

Within the study area, the base year (2006) Average Annual Daily Traffic (AADT) along I-26 is estimated to be between 23,300 vehicles per day (vpd) and 30,200 vpd. For the future year 2030, the estimated traffic volumes on I-26 will range from 41,400 vpd to 53,600 vpd. Truck traffic is estimated to make up approximately 18 percent of daily traffic.

The base year AADT along US 74 is estimated to be between 8,100 vehicles per day (vpd) and 14,900 vpd. For the future year 2030, the estimated traffic volumes on US 74 will range from 14,400 vpd to 26,600 vpd. Truck traffic is estimated to make up approximately 12 percent of daily traffic.

The base year AADT along NC 108 is estimated to be between 13,500 vpd and 15,400 vpd. For the future year 2030, the estimated traffic volumes on NC 108 will range from 24,000 vpd to 27,400 vpd. Truck traffic is estimated to make up approximately 6 percent of daily traffic.

Traffic analysis shows that all of the freeway segments are currently operating at acceptable levels-of-service (LOS). For the design year 2030, the freeway segment of US 74 east of I-26 is anticipated to operate at LOS A. In 2030 the freeway segments of I-26 north of US 74, and I-26 south of US 74 are anticipated to operate at LOS E and D, respectively. These sections are outside of the interchange area and are beyond the scope of improvements included in this project.

Analysis of the existing roundabouts at each of the NC 108 bridge approaches shows that the roundabouts currently operate at LOS A but both will deteriorate to LOS F in the design year 2030.

An accident analysis was conducted for the study sections of I-26, US 74, and NC 108 for the period of September 1, 2001 through August 31, 2004. The results for this three year period included:

- For I-26: 46 reported crashes consisting of zero fatal crashes, 14 non-fatal injury crashes, and 32 property damage only crashes. The total crash rate for the studied section of roadway is 76.58 crashes per 100 million vehicle miles compared to the 2001-2003 Statewide crash rate of 72.95 for a rural interstate route.
- For US 74: Two reported crashes consisting of two property damage only crashes. The total crash rate for the studied section of roadway is 28.65 crashes per 100 million vehicle miles compared to the 2001-2003 Statewide crash rate of 71.87 for a four-lane divided rural US route with full control of access.
- For NC 108: 27 reported crashes consisting of zero fatal crashes, 10 non-fatal injury crashes, and 17 property damage only crashes. The total crash rate for the studied section of roadway is 242.35 crashes per 100 million vehicle miles which is substantially higher than the 2001-2003 Statewide crash rate of 179.94 for a two-lane rural state route.

NC 108 exhibited the highest crash rate with the predominant crash types being rear-end/slow/stop collisions. Based on the conditions in this area, the high frequency of rear-end/slow/stop collisions is likely due to the large amount of heavy trucks entering the vehicle mix along NC 108 in combination with the fact that this corridor is lined with access points. Because the traffic volumes are anticipated to increase substantially through the design period, continued high accident rates are expected. Provision of additional lanes and storage for left and right turning movements, access management along NC 108, and removal of through-truck traffic should substantially decrease the potential for accidents along this corridor.

IV. Alternatives

In order to improve the operations and safety through the study area, several long-term alternatives were investigated. Each of the long term alternatives includes replacing the NC 108 bridge over I-26 and widening NC 108 from west of Old Highway 19 to SR 1137 (Walker Road / Houston Road). Exhibit 2 shows the typical sections for the proposed improvements and conceptual plan sheets for each of the alternatives are included at the end of this report. The proposed bridge replacement and improvements to NC 108, which are common to all the alternatives, are summarized below. The summary of improvements to NC 108 is immediately followed by descriptions of the alternatives.

NC 108 Bridge Replacement – The existing NC 108 bridge carries two travel lanes over I-26. The various alternatives evaluated for this report show that to accommodate design year traffic, provide adequate capacity along NC 108, and allow sufficient improvements along NC 108, the ultimate desired cross section for the NC 108 bridge is five-lanes. Replacement of this bridge is therefore included with all of the alternatives and can be phased so that it is either completed before or after construction of the selected alternative. Replacement of the bridge is necessary to complete the NC 108 improvements discussed below.

NC 108 Improvements – Existing NC 108 in the study area is a two-lane roadway crossing I-26 on an existing two-lane bridge. In order to improve traffic flow and safety along NC 108, a four-lane divided section is proposed along NC 108 beginning just west of Old Highway 19 and continuing to SR 1137 (Walker Road / Houston Road) in Columbus. The proposed right-of-way is 100 feet. The proposed median will restrict access to right-in/right-out and limit left turns to the intersections only. In addition, the facility will be full control of access from approximately 500 feet east of the I-26 bridge to approximately 300 feet west of the bridge. The proposed control of access on each side of the bridge terminates at existing access points.

The proposed four-lane section would require the existing roundabouts at each end of the bridge to be two-lanes. This would, in turn, require excessive right-of-way and introduce potentially confusing operations. Therefore, the NC 108 widening includes the conversion of the existing roundabouts back to conventional signalized intersections. The signalized intersections will provide two through lanes in each direction along NC 108.

The improvements to NC 108 are anticipated to result in no residential relocations and five (5) business relocations.

Alternative A - This alternative introduces new directional ramps to accommodate the movements between US 74 to the east and I-26 to the south. The first is a southbound directional ramp from US 74 to I-26 that begins just south of the existing US 74 bridges, crosses over Horse Creek and I-26 on structures, and ties into I-26 southbound just north of the NC 108 bridge. The directional ramp will require relocation of a section of the existing southbound I-26

off ramp to NC 108. Retaining walls will also be needed to accommodate the relocation as the existing I-26/NC 108 ramp and the new US 74/I-26 have different elevations. The existing off-ramp (loop) from US 74 westbound to NC 108 will remain open.

The second directional ramp begins at I-26 northbound just north of the NC 108 bridge, crosses an unnamed tributary to Horse Creek with a culvert, then crosses Horse Creek and US 74 southbound on a single structure. The northbound US 74 ramp will be relocated to tie into the new directional ramp east of US 74. Additional right-of-way will be required both west and east of I-26. In addition to the roadway construction, this alternative will require two new bridges, two new culverts, and retaining walls in two locations. The attached exhibits show this alternative with the NC 108 improvements; bridge replacement and roadway widening.

Alternative A is anticipated to result in no residential relocations and five (5) business relocations (associated with the NC 108 widening).

Alternative B - This alternative has the same proposed ramp configuration for northbound I-26 to US 74 eastbound as Alternative A. This configuration is a flyover from I-26 northbound just north of the NC 108 bridge which crosses an unnamed tributary to Horse Creek with a culvert, then crosses Horse Creek and US 74 southbound on a single structure. The northbound US 74 on ramp will be relocated to tie into the directional ramp east of US 74. The existing off-ramp (loop) from US 74 westbound to NC 108 will remain open.

In addition to the previously described flyovers, Alternative B includes a new loop configuration northwest of the study area to facilitate the movement from US 74 westbound to I-26 southbound. The eastbound I-26 off-ramp will be relocated slightly to the south to accommodate the proposed loop. The loop approach diverges from US 74 westbound and crosses existing US 74 and I-26 with two new bridges. The loop then ties into I-26 just west of the existing interchange.

Additional right-of-way will be required both west and east of I-26. In addition to the roadway construction, this alternative will require three new bridges, and one new culvert. The attached exhibits show this alternative with the NC 108 improvements; bridge replacement and roadway widening.

Alternative B is anticipated to result in no residential relocations and five (5) business relocations (associated with the NC 108 widening).

Alternative C - This alternative has the same proposed ramp configuration for northbound I-26 to US 74 eastbound as Alternative A. This configuration is a directional ramp from I-26 northbound just north of the NC 108 bridge which crosses an unnamed tributary to Horse Creek with a culvert, then crosses Horse Creek and US 74 southbound on a single structure. The northbound US 74 on ramp will be relocated to tie into the directional ramp east of US 74. The existing off-ramp (loop) from US 74 westbound to NC 108 will remain open.

In addition to the previously described directional ramps, Alternative C includes a new loop west of the existing interchange to facilitate the movement from US 74 westbound to I-26 southbound. This loop is located on the north side of I-26 and crosses back over I-26 on a proposed bridge. South of the proposed bridge the loop transitions back into the I-26 southbound off ramp. A new connection is also proposed that ties the southbound I-26 off ramp back into southbound I-26 north of the NC 108 bridge, eliminating the need for traffic to pass through the NC 108 interchange.

Additional right-of-way will be required north, west, and east of I-26. In addition to the roadway construction, this alternative will require two new bridges, one new culvert, and one retaining wall. The attached exhibits show this alternative with the NC 108 improvements; bridge replacement and roadway widening.

Alternative C is anticipated to result in two (2) residential relocations (associated with the new ramps) and five (5) business relocations (associated with the NC 108 widening).

Alternative D – Alternative D relocates the intersection just east of the NC 108 bridge. This intersection is shifted approximately 1,200 feet east of its existing location and a new connection is proposed that connects directly to the northbound I-26 off ramp. A new I-26 northbound off-ramp is also proposed. Both of these new ramps intersect at a proposed roundabout to facilitate traffic flow. The existing off-ramp (loop) from US 74 westbound to NC 108 will remain open.

Additional right-of-way will be required east of I-26. In addition to the roadway construction, this alternative will require two new culverts. The attached exhibits show this alternative with the NC 108 improvements; bridge replacement and roadway widening.

Alternative D is anticipated to result in no residential relocations and five (5) business relocations (associated with the NC 108 widening).

Alternative E - Alternative E has the same proposed roundabout and NC 108 intersection relocation as Alternative D. In addition, a directional ramp is proposed from US 74 southbound to I-26 southbound that would diverge just south of the existing US 74 bridges and tie back in to I-26 just south of NC 108. The alignment of this proposed ramp necessitates the relocation of a portion of the I-26 southbound off-ramp.

Additional right-of-way will be required west and east of I-26. In addition to the roadway construction, this alternative will require one new bridge, three new culverts, and retaining walls in two locations. The attached exhibits show this alternative with the NC 108 improvements; bridge replacement and roadway widening.

Alternative E is anticipated to result in no residential relocations and five (5) business relocations (associated with the NC 108 widening).

A summary of the cost and impacts for each of the alternatives is provided in the Cost Comparison of Alternatives Table on the following page.

V. Recommendations

As described in Section IV, there are five ramp alternatives for this project. In addition, each of the alternatives includes replacing the NC 108 bridge over I-26 and widening a section of NC 108.

Alternative B and Alternative C were both eliminated because they require traffic to travel a substantial distance west of the interchange before turning in the opposite direction to return and travel through the interchange area. Alternatives B and C also have the highest estimated construction costs.

TABLE: COST COMPARISON OF ALTERNATIVES

| | Alt. A (Recommended) | Alt. B | Alt. C | Alt. D | Alt. E |
|---|---------------------------------|--------------|--------------|--------------|--------------|
| Ramp Improvements | | | | | |
| Construction | \$9,300,000 | \$10,300,000 | \$13,900,000 | \$3,800,000 | \$7,500,000 |
| Utilities | 0 | 0 | 0 | \$50,000 | \$50,000 |
| Right-of-way | \$800,000 | \$1,000,000 | \$1,200,000 | \$550,000 | \$850,000 |
| Sub-Total: Ramp Improvements | \$10,100,000 | \$11,300,000 | \$15,100,000 | \$4,400,000 | \$8,400,000 |
| NC 108 Improvements | | | | | |
| Construction NC 108 Bridge | \$2,900,000 | \$2,900,000 | \$2,900,000 | \$2,900,000 | \$2,900,000 |
| Construction NC 108 Widening | \$3,200,000 | \$3,200,000 | \$3,200,000 | \$3,200,000 | \$3,200,000 |
| Utilities & RW NC 108 Widening | \$4,100,000 | \$4,100,000 | \$4,100,000 | \$4,100,000 | \$4,100,000 |
| Sub-Total: NC 108 Improvements | \$10,200,000 | \$10,200,000 | \$10,200,000 | \$10,200,000 | \$10,200,000 |
| Total Cost: Ramp & NC 108 Improvements | \$20,300,000 | \$21,500,000 | \$25,300,000 | \$14,600,000 | \$18,600,000 |

Alternative D and Alternative E were eliminated because they both introduce a roundabout into the junction of two ramps. Although this feature does allow the desired movements to be accommodated and provides relatively lower cost alternatives, the roundabout configuration at this location may still introduce driver confusion and create difficulties for the heavy trucks attempting to turn through the roundabouts.

Alternative A, which includes proposed directional ramps to facilitate the movement between US 74 east of the study area and I-26 south of the study area, was selected as the recommended alternative. Alternative A was chosen because it provides the least confusing configuration for vehicles, and accommodates through trucks without forcing them through at-grade intersections. Alternative A is cost-reasonable in comparison with the other alternatives and requires the least utility impacts. It is recommended that the ultimate solution include the widening of NC 108 and the replacement of the NC 108 bridge in order to satisfy design year traffic demands.

The recommended improvements (Alternative A) have a total estimated cost for construction and right-of-way of \$20,300,000. The recommended improvements and associated cost estimate include the following items plus the replacement of the NC 108 bridge and the widening of NC 108:

- a southbound directional ramp from US 74 to I-26 that begins just south of the existing US 74 eastbound bridge and ties into I-26 southbound just north of the NC 108 bridge,
- a partial relocation of the US 74 eastbound on ramp,
- relocation of a section of the existing I-26 southbound ramp to NC 108,
- retaining walls on both sides of the proposed southbound US 74 directional ramp,
- a northbound directional ramp from I-26 just north of the NC 108 bridge to US 74 eastbound,
- two bridges, one over I-26 and one over US 74,
- two culverts, and
- a channel relocation for a reach of Horse Creek.

Because the recommended alternative may take some time to fund and implement, consideration could be given to the construction of the Temporary Fix. This will provide short-term relief to NC 108 by restricting left turns from commercial driveways via the installation of a median.

VI. Other Alternatives Considered

Temporary Fix – The Temporary Fix is designed to provide a relatively low-cost option that will result in short-term relief for the section of NC 108 in the vicinity of I-26. It is important to note that this is a short-term solution, or “band-aid”, and will not provide significant relief for the design year traffic volumes. Based on traffic projections, it is anticipated that the Temporary Fix will provide adequate traffic operations until the year 2015. For 2015 and beyond, the Temporary Fix will not provide adequate traffic flow (LOS D or better) along the study section of NC 108.

The existing section of NC 108 transitions from a two-lane to a three-lane section just west of the I-26 bridge. The Temporary Fix includes minor widening of NC 108 to provide a consistent 36-foot paved section which will accommodate a 12-foot raised concrete median from the intersection of NC 108 with Old Highway 19 to the existing roundabout just west of the bridge over I-26. The median will eliminate left-turn movements from the adjacent commercial development to improve safety and traffic flow along this segment.

The Temporary Fix also includes replacing the existing conventional intersection of NC 108 at Old Highway 19 with a roundabout. By eliminating stop-delays associated with the existing traffic signal, the roundabout will reduce delay and queuing along this segment of NC 108. Due to the existing cemetery north of NC 108, the roundabout is proposed with an offset to the south. This segment of NC 108 is proposed as a partial control of access with right-in/right-out access only. No additional right-of-way is required for the minor widening to accommodate the median. Some additional right of way around the Old Highway 19 intersection will be required in order to construct the roundabout.

The Temporary Fix is anticipated to result in no residential relocations and no business relocations. The total estimated cost for this option is approximately \$500,000 comprised of \$280,000 for construction and \$220,000 for right-of-way and utilities.

VII. Additional Comments

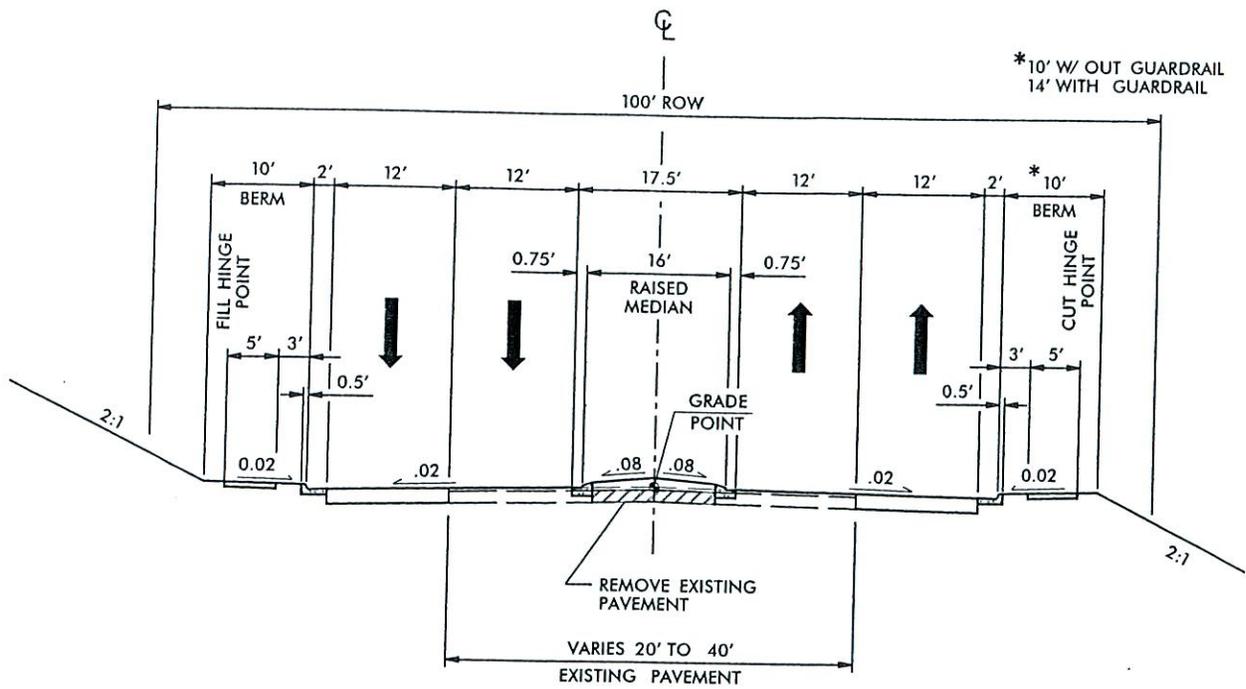
An exhaustive environmental screening was not conducted for this study. However, the following information summarizes conclusions about the project study area based on existing data.

There are two known historic properties within the project study area that are currently listed on the National Register of Historic Properties. However these properties are in the Town of Columbus and are not in the immediate vicinity of the proposed improvements. There are no known archaeological sites within the project study area. Therefore no impacts to known historic properties or archaeological sites are anticipated. One property, located at the corner of NC 108 and SR 1137 (Walker Road) has been identified for the study list for historic architecture and would need to be evaluated should the improvements along NC 108 from the I-26 bridge to SR 1137 be implemented.

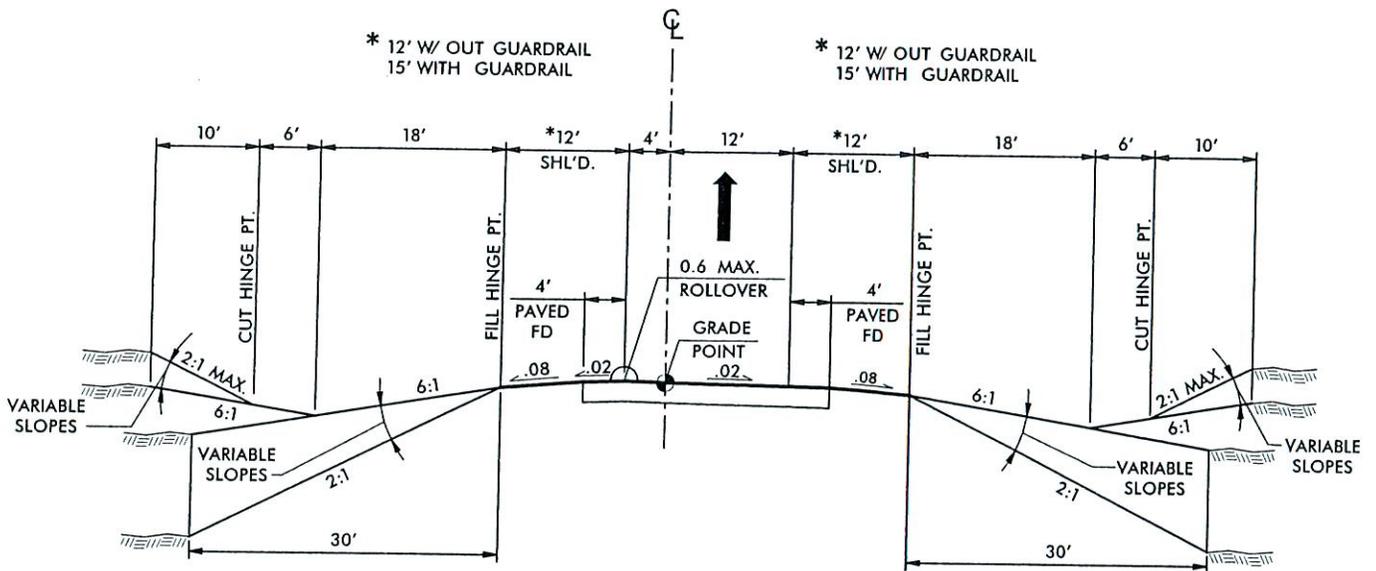
According to the Natural Heritage Program (NHP) GIS database, there are two federally protected species listed for Polk County. The species are both plants (Dwarf-flowered heartleaf, White irisette). Surveys will most likely be required during detailed planning stages to evaluate the presence of these species in the study area. The NHP database does not contain any recorded occurrences of threatened or endangered species within the project study area.

According to the National Wetlands Inventory (NWI), there are no wetlands in the study area, so no substantial direct impacts to wetlands are anticipated with the proposed improvements.

The proposed improvements include two crossings of Horse Creek and one crossing of an unnamed tributary to Horse Creek. A channel relocation, approximately 1,500 feet in length, is also proposed for a reach of Horse Creek east of I-26. Options for bridge and culvert design would need to be evaluated further during the detailed planning phase in order to minimize impacts to water quality. It is anticipated that a Section 404 permit will be required due to stream impacts.



TYPICAL SECTION NO. 1
WIDENING EXISTING NC 108



TYPICAL SECTION NO. 2
RAMP



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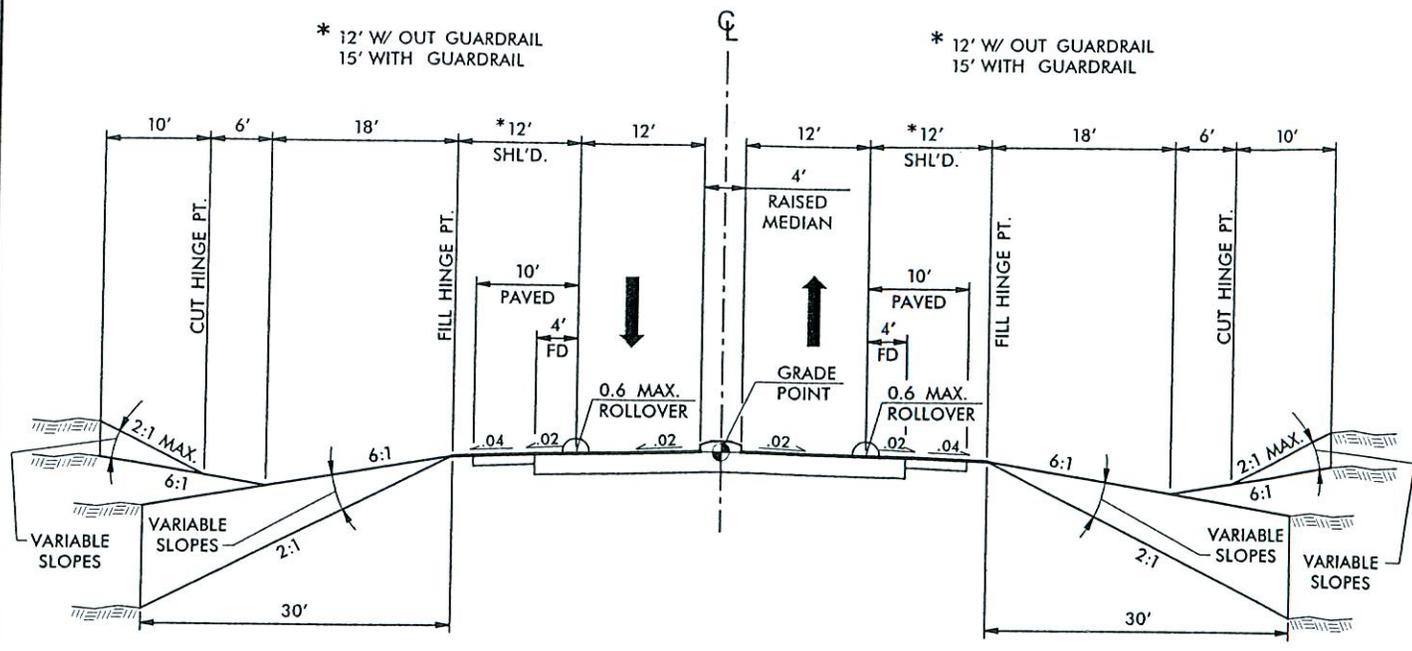
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Interchange

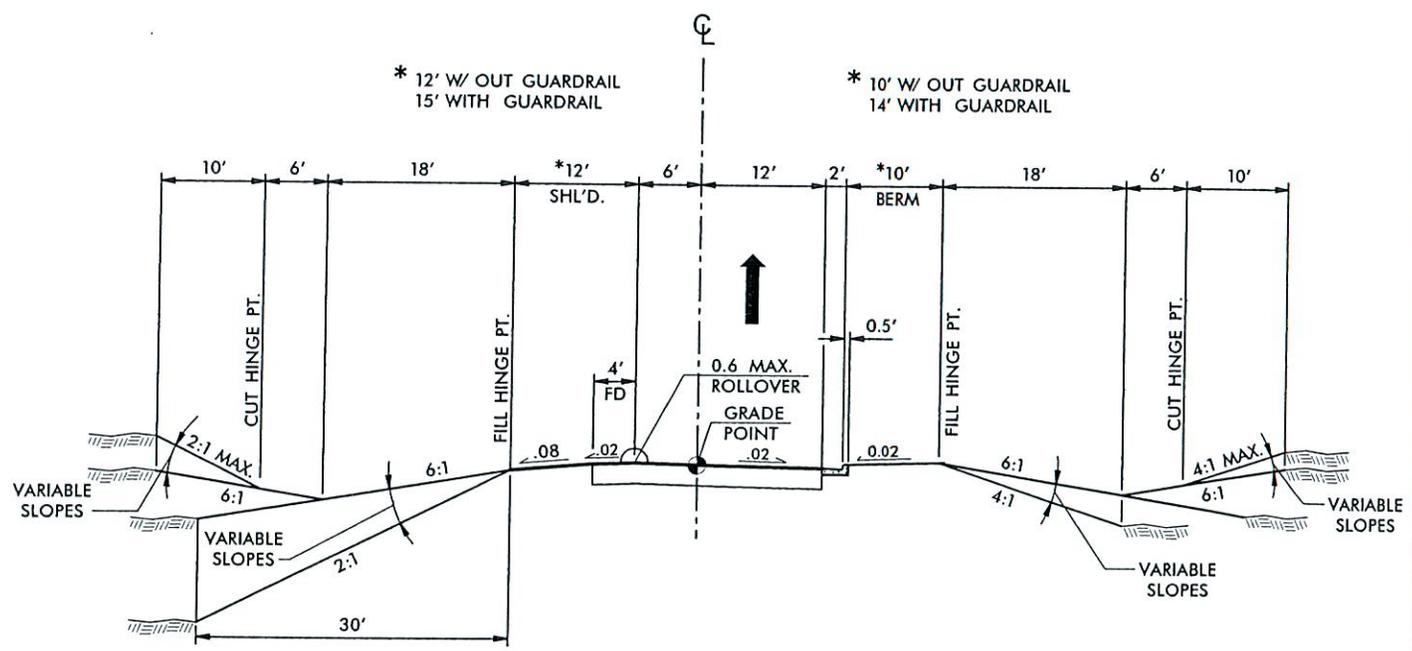
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Exhibit 2



TYPICAL SECTION NO. 3
2 - LANES, 2 - WAY RAMP

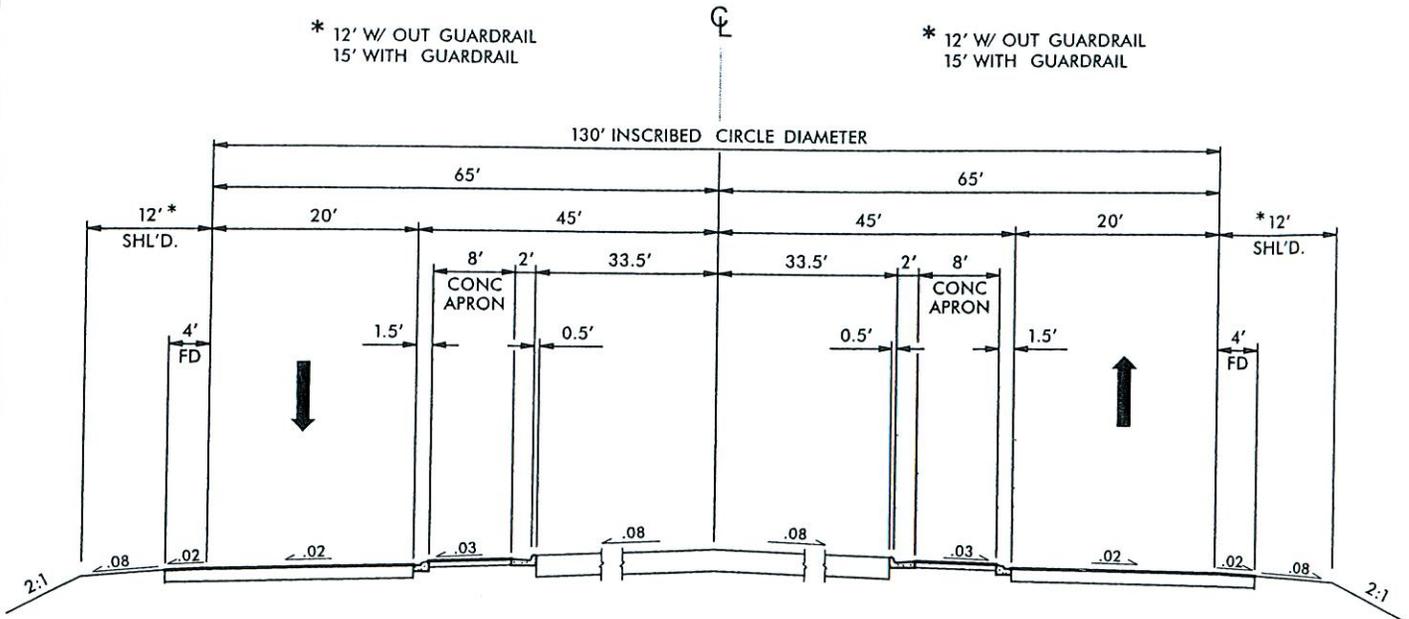


TYPICAL SECTION NO. 4
LOOPS

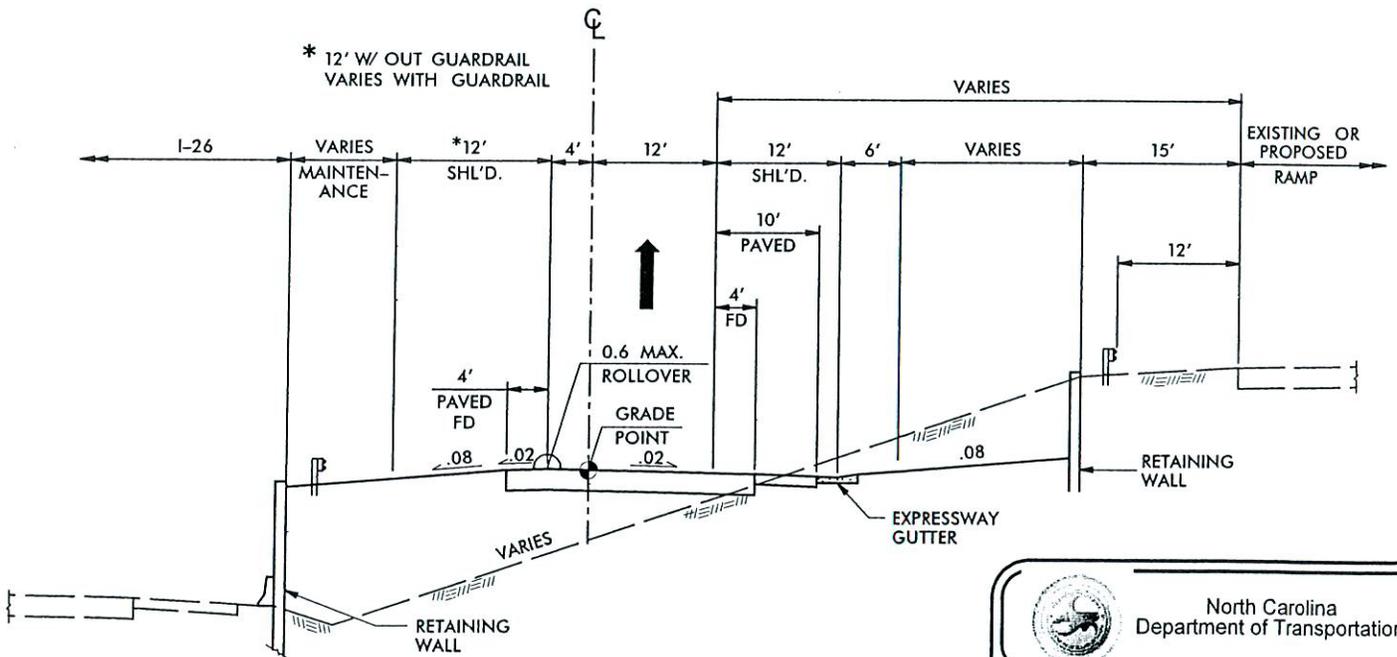


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TYPICAL SECTION NO. 5
ROUNDBOUTS



TYPICAL SECTION NO. 6
SLIP RAMP



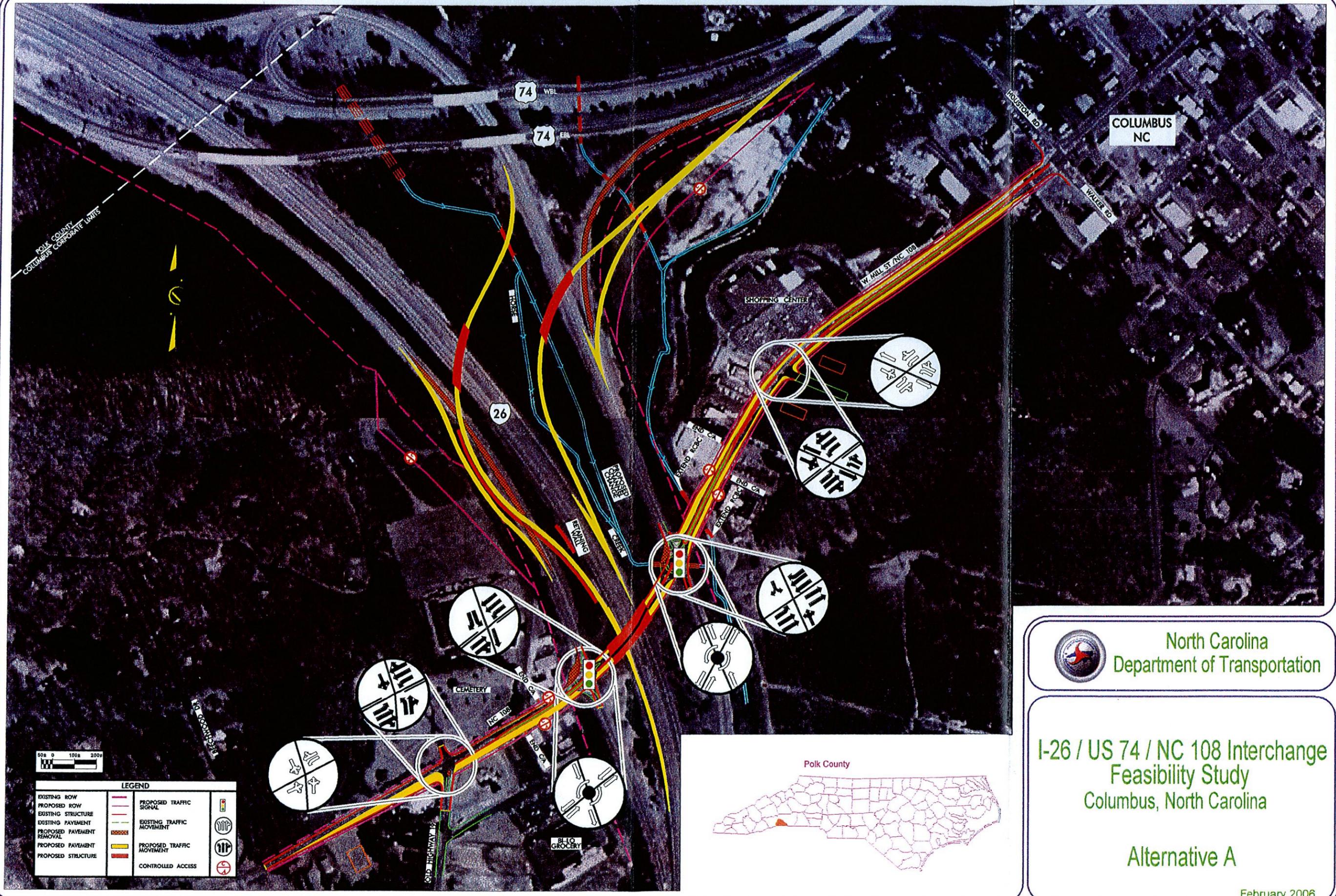
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Exhibit 2



COLUMBUS
NC

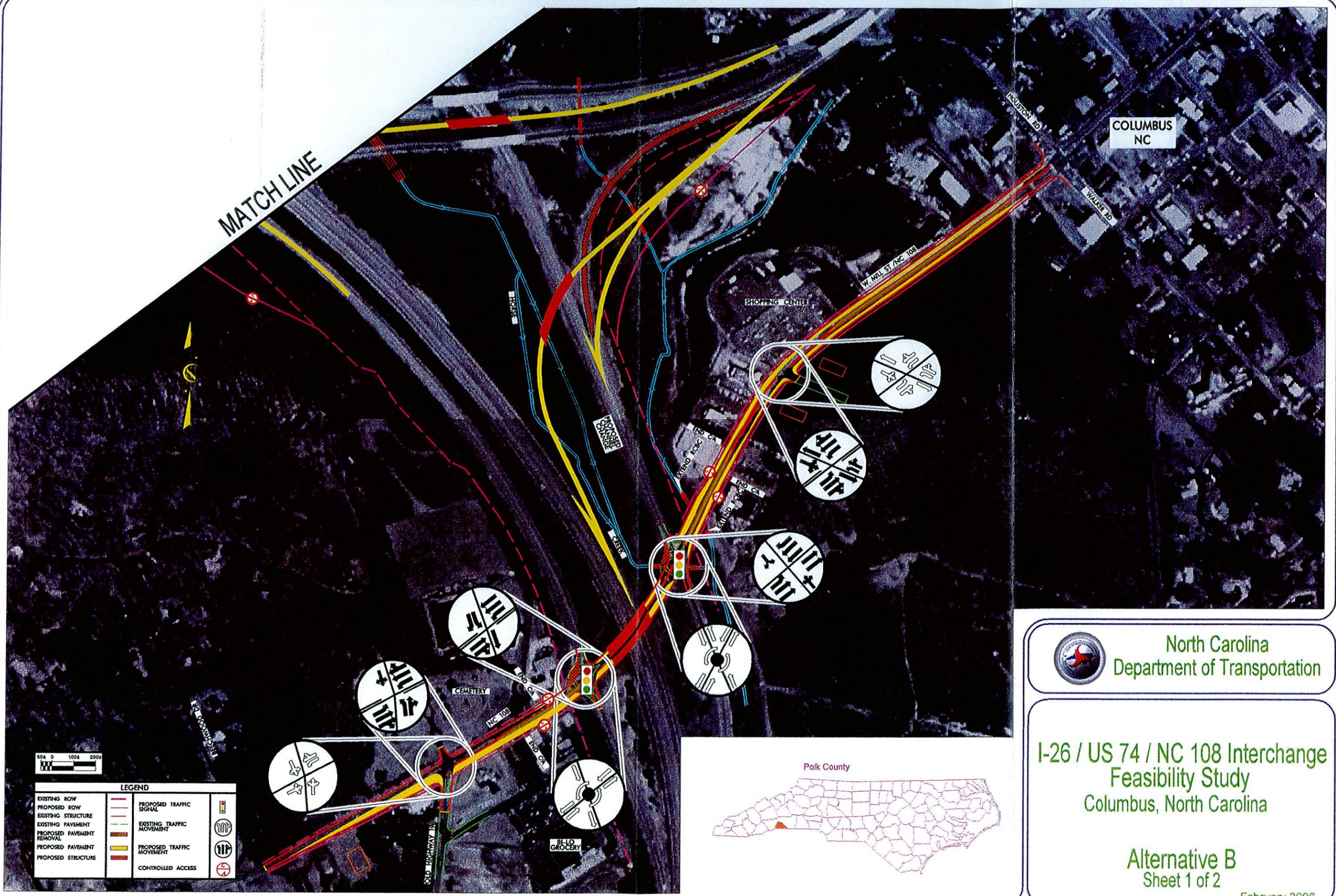


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Alternative A

February 2006



50' 0 100' 200'

| LEGEND | | |
|---------------------------|-----|---------------------------|
| EXISTING ROW | — | PROPOSED TRAFFIC SIGNAL |
| PROPOSED ROW | — | EXISTING TRAFFIC MOVEMENT |
| EXISTING STRUCTURE | — | PROPOSED TRAFFIC MOVEMENT |
| EXISTING PAVEMENT | — | CONTROLLED ACCESS |
| PROPOSED PAVEMENT REMOVAL | --- | |
| PROPOSED PAVEMENT | --- | |
| PROPOSED STRUCTURE | --- | |

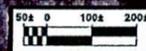
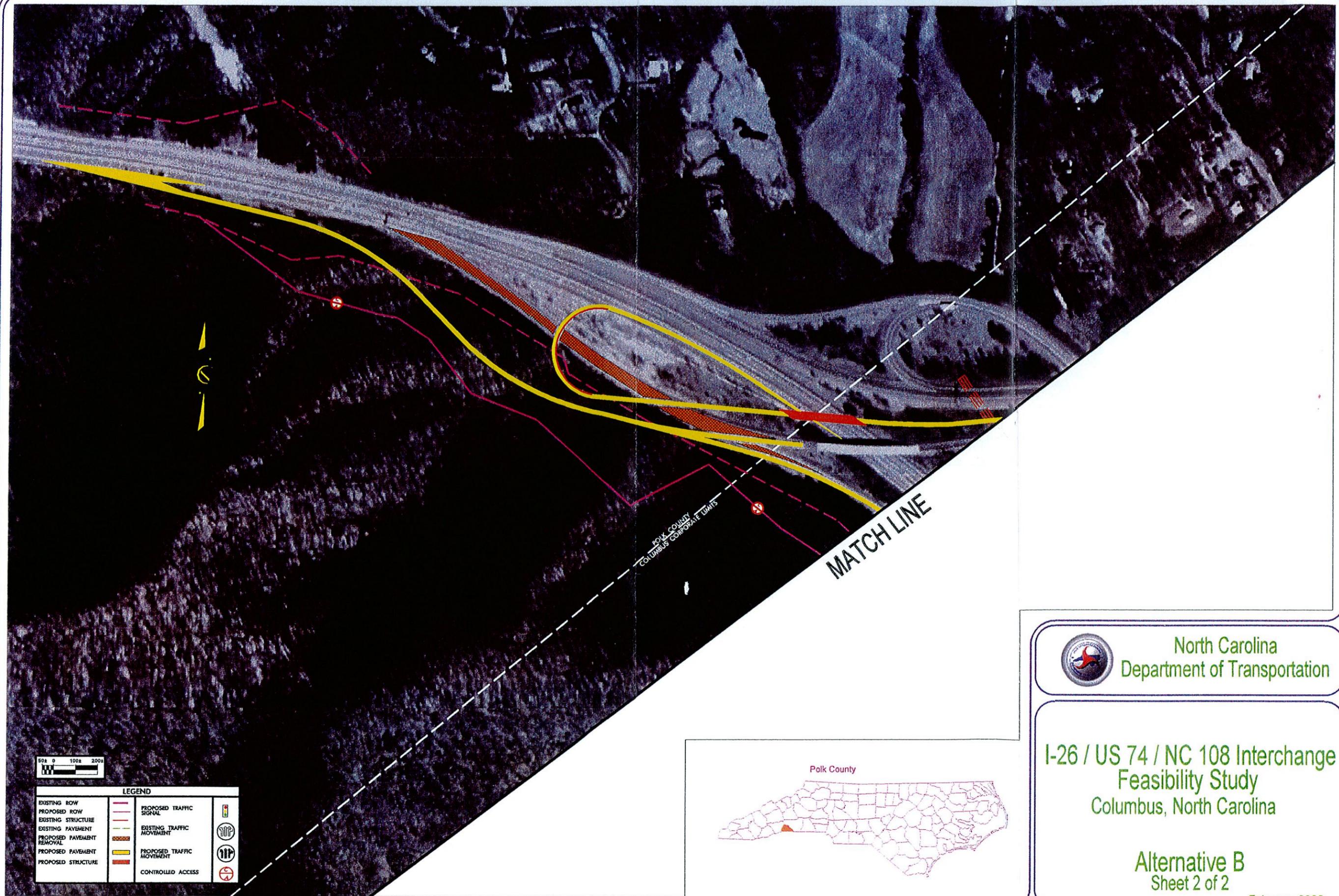


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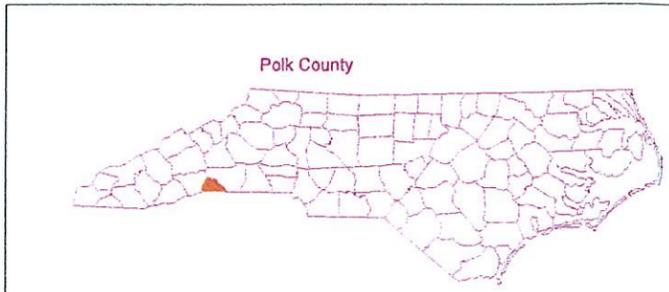
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Alternative B
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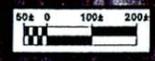
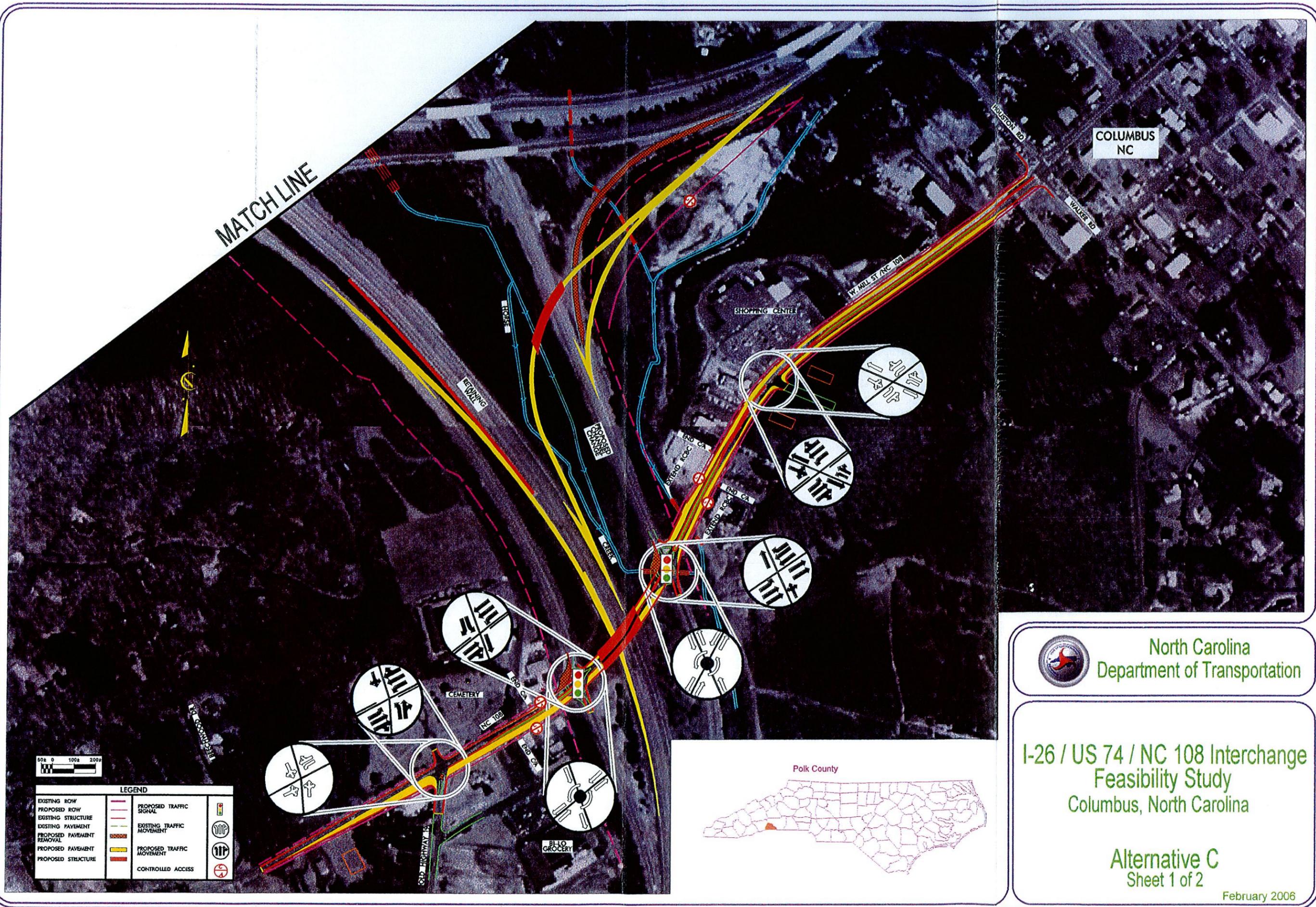
| LEGEND | |
|---------------------------|---------------------------|
| EXISTING ROW | PROPOSED TRAFFIC SIGNAL |
| PROPOSED ROW | EXISTING TRAFFIC MOVEMENT |
| EXISTING STRUCTURE | PROPOSED TRAFFIC MOVEMENT |
| EXISTING PAVEMENT | CONTROLLED ACCESS |
| PROPOSED PAVEMENT REMOVAL | |
| PROPOSED PAVEMENT | |
| PROPOSED STRUCTURE | |



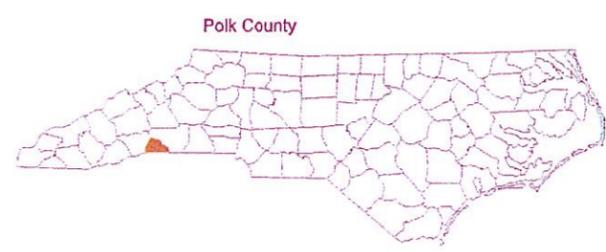

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| LEGEND | |
|---------------------------|---------------------------|
| EXISTING ROW | PROPOSED ROW |
| EXISTING STRUCTURE | PROPOSED STRUCTURE |
| EXISTING PAVEMENT | PROPOSED PAVEMENT |
| PROPOSED PAVEMENT REMOVAL | PROPOSED PAVEMENT REMOVAL |
| PROPOSED PAVEMENT | PROPOSED PAVEMENT |
| PROPOSED STRUCTURE | PROPOSED STRUCTURE |
| PROPOSED TRAFFIC SIGNAL | PROPOSED TRAFFIC SIGNAL |
| EXISTING TRAFFIC MOVEMENT | EXISTING TRAFFIC MOVEMENT |
| PROPOSED TRAFFIC MOVEMENT | PROPOSED TRAFFIC MOVEMENT |
| CONTROLLED ACCESS | CONTROLLED ACCESS |

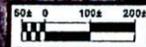
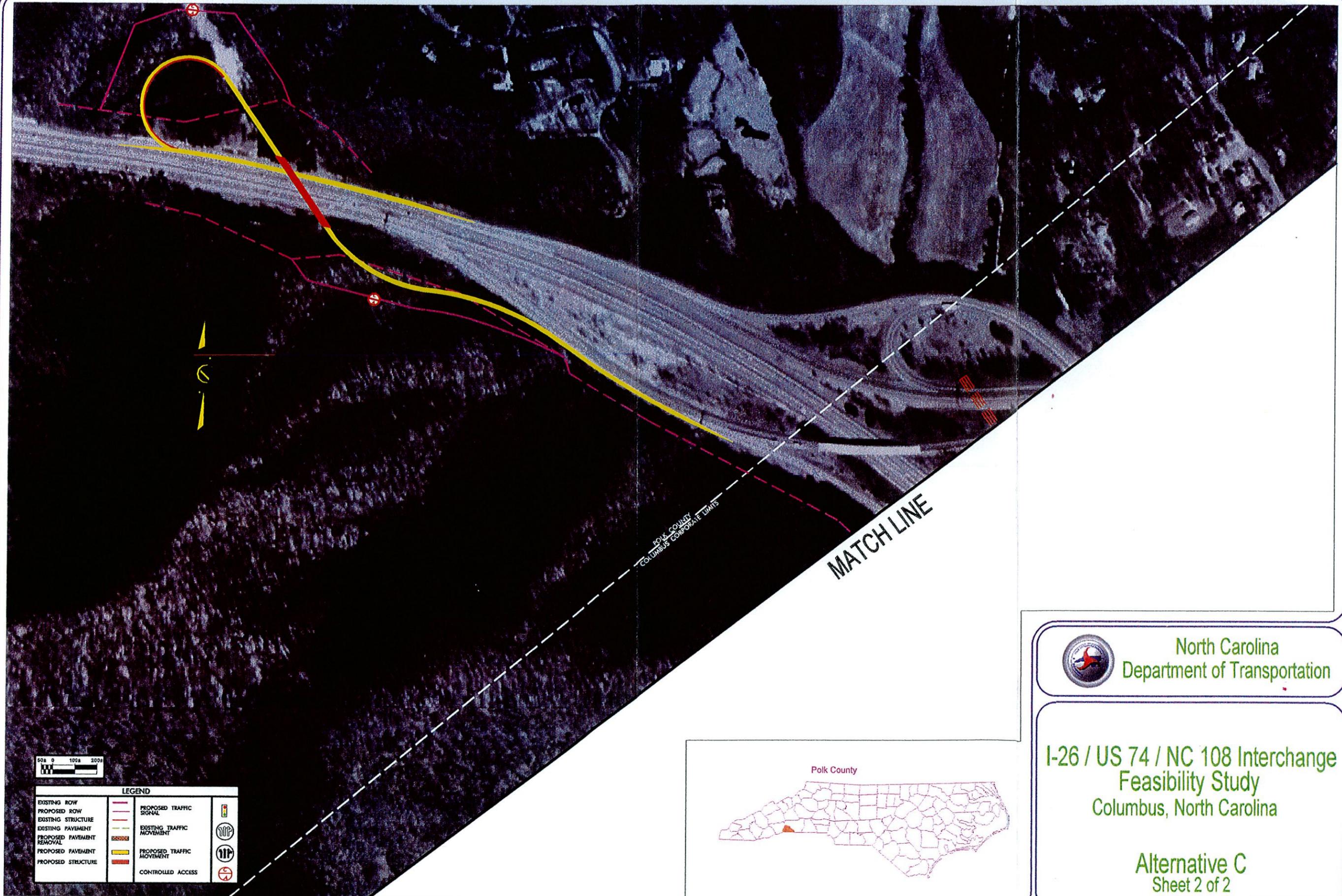


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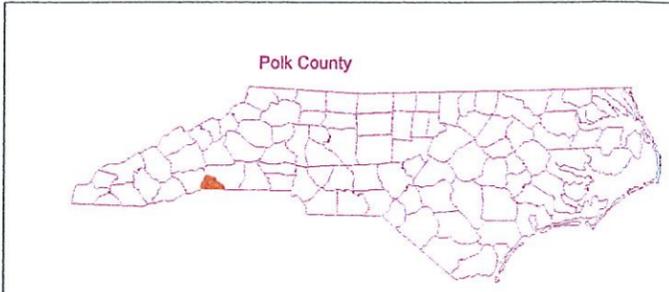
Alternative C
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LEGEND

| | | | | | |
|---------------------------|--------------------|---------------------------|---------------------------|---------------------------|-------------------|
| EXISTING ROW | PROPOSED ROW | PROPOSED TRAFFIC SIGNAL | EXISTING TRAFFIC MOVEMENT | PROPOSED TRAFFIC MOVEMENT | CONTROLLED ACCESS |
| EXISTING STRUCTURE | PROPOSED STRUCTURE | EXISTING TRAFFIC MOVEMENT | PROPOSED TRAFFIC MOVEMENT | CONTROLLED ACCESS | |
| EXISTING PAVEMENT | PROPOSED PAVEMENT | EXISTING TRAFFIC MOVEMENT | PROPOSED TRAFFIC MOVEMENT | CONTROLLED ACCESS | |
| PROPOSED PAVEMENT REMOVAL | | EXISTING TRAFFIC MOVEMENT | PROPOSED TRAFFIC MOVEMENT | CONTROLLED ACCESS | |
| PROPOSED PAVEMENT | | EXISTING TRAFFIC MOVEMENT | PROPOSED TRAFFIC MOVEMENT | CONTROLLED ACCESS | |
| PROPOSED STRUCTURE | | EXISTING TRAFFIC MOVEMENT | PROPOSED TRAFFIC MOVEMENT | CONTROLLED ACCESS | |




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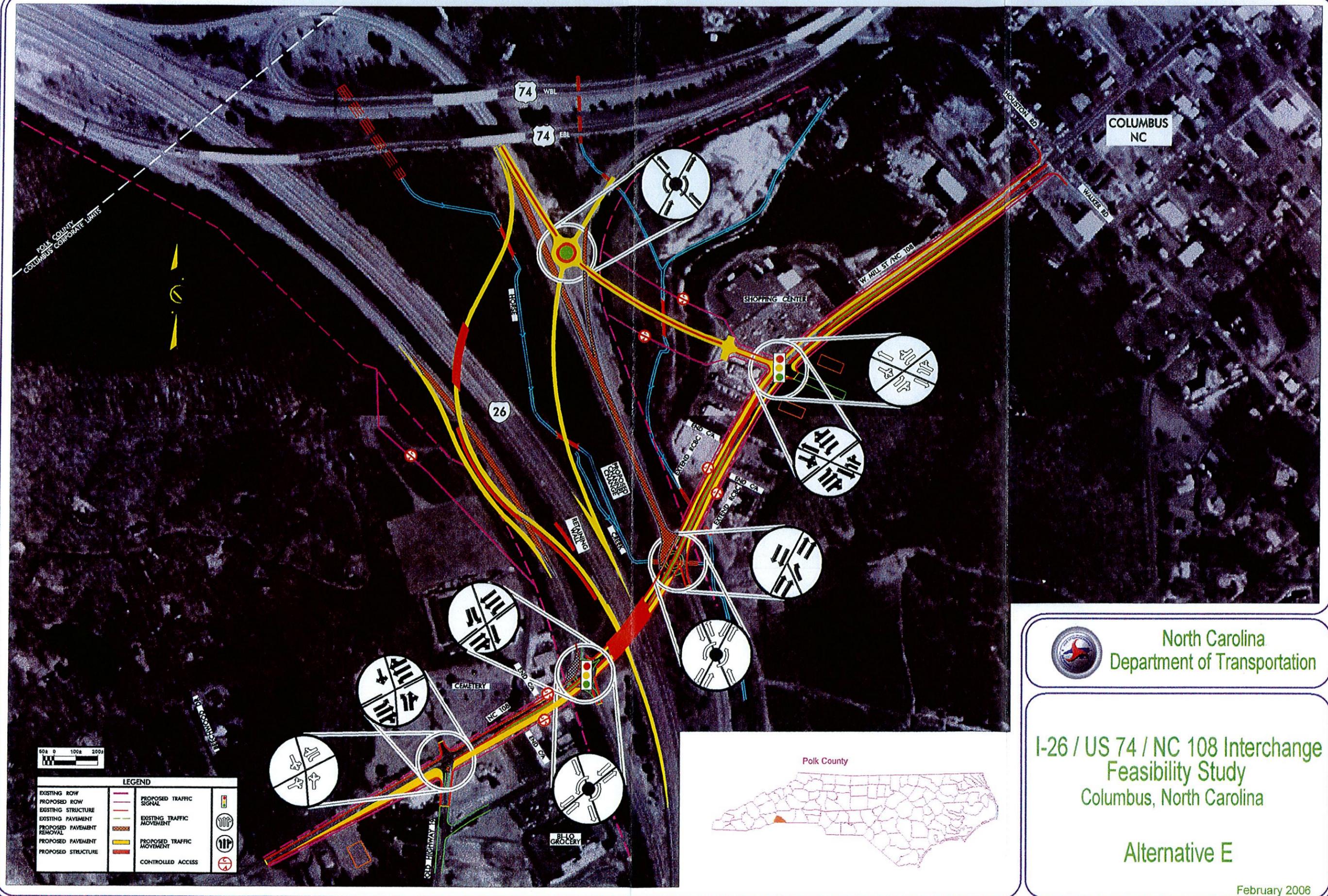


North Carolina
Department of Transportation

I-26 / US 74 / NC 108 Interchange
Feasibility Study
Columbus, North Carolina

Alternative D

February 2006

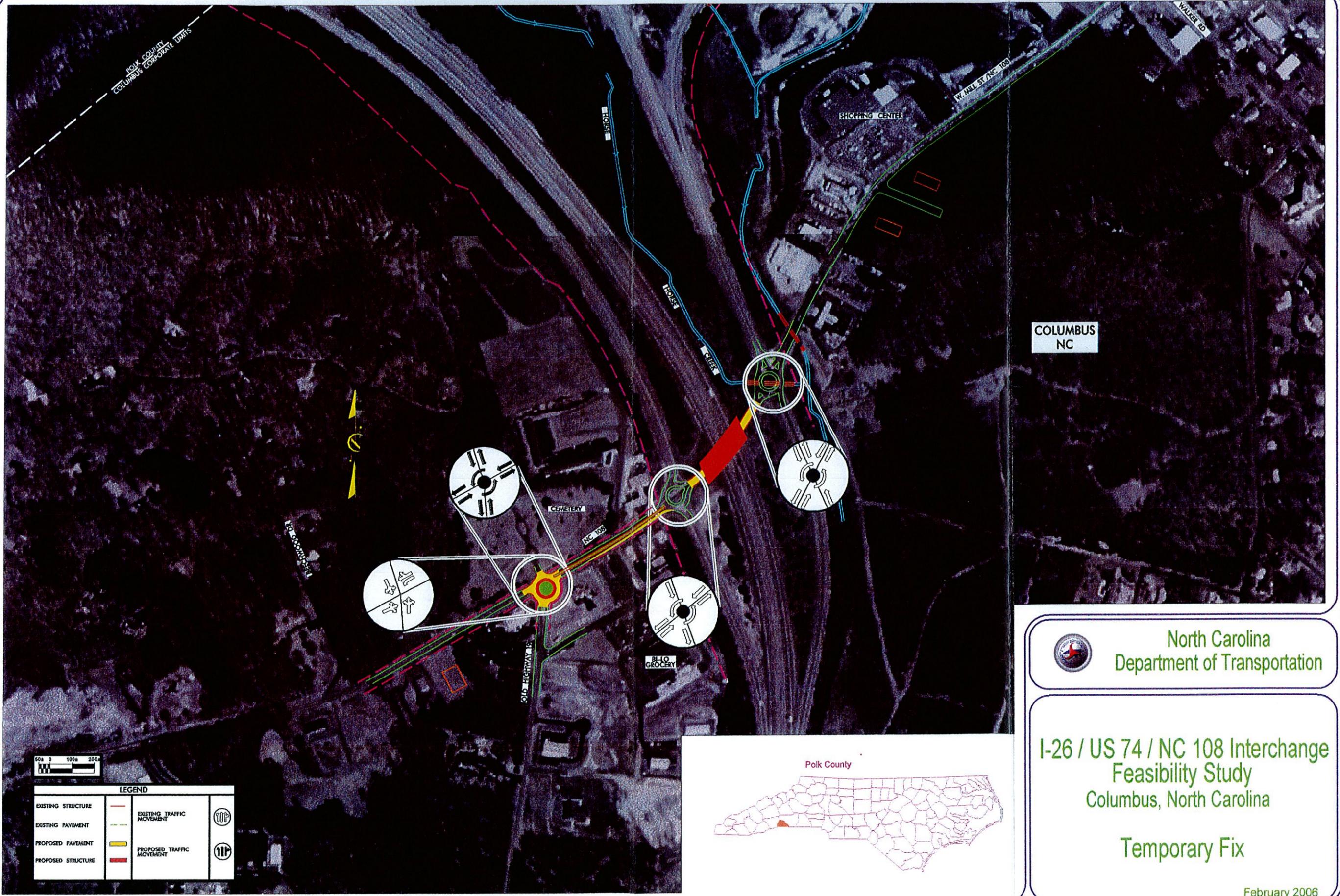



 North Carolina
 Department of Transportation

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 Feasibility Study
 Columbus, North Carolina

Alternative E

February 2006



COLUMBUS
NC



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Department of Transportation

I-26 / US 74 / NC 108 Interchange
Feasibility Study
Columbus, North Carolina

Temporary Fix

February 2006