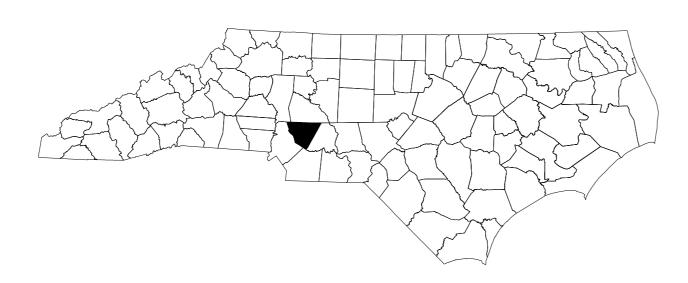
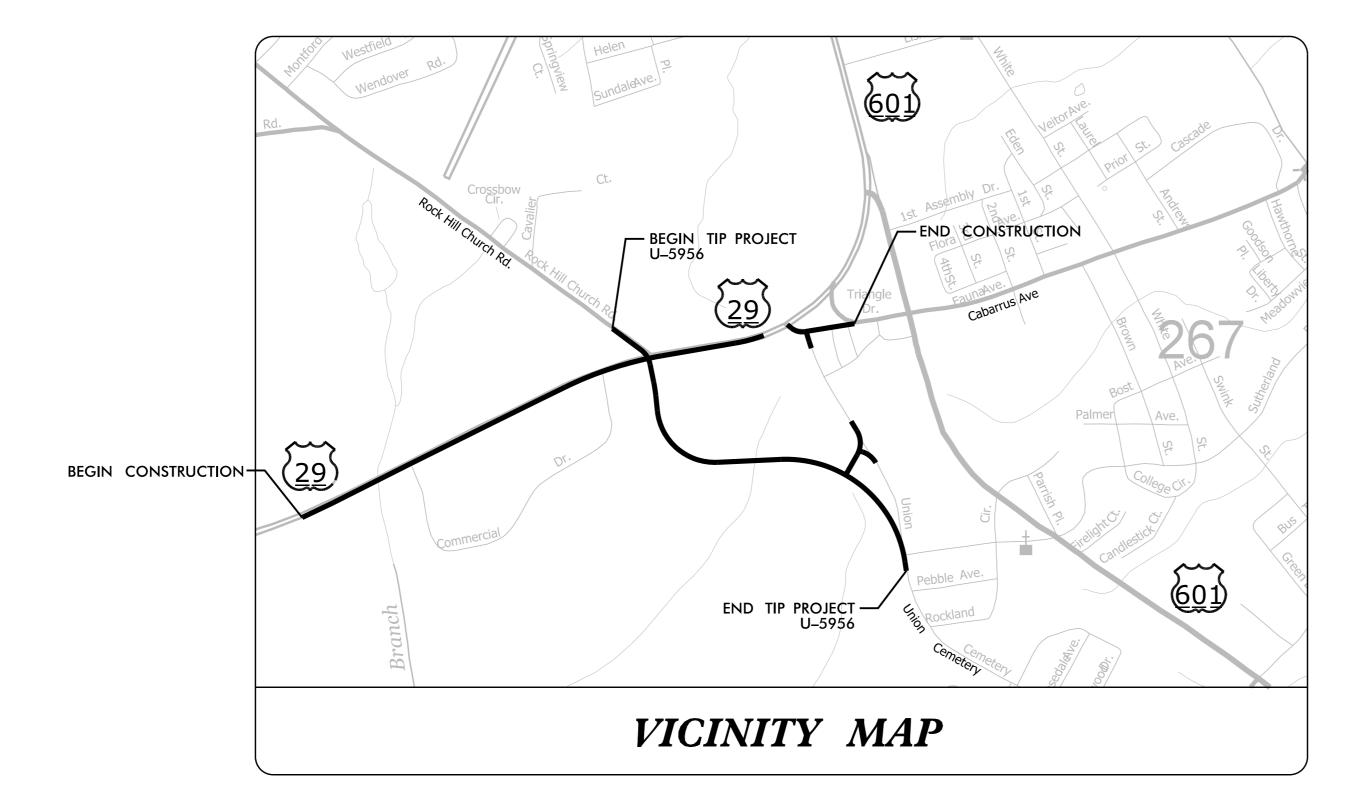
# TRANSPORTATION MANAGEMENT PLAN

# CABARRUS COUNTY

LOCATION: REALIGN UNION CEMETERY ROAD TO INTERSECT US 29 AT ROCK HILL CHURCH ROAD AND CONSTRUCT IMPROVEMENTS ALONG US 29 FROM 0.6 MILE WEST OF ROCK HILL CHURCH ROAD TO JUST EAST OF ROCK HILL CHURCH ROAD





INDEX OF SHEETS

CONSTRUCTION PHASING

SHEET NO.

TMP-1A THRU

TMP-1C

TMP-3

<u>TITLE</u>

TMP - 1 TITLE SHEET, AND INDEX OF SHEETS

LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND, TEMPORARY PAVEMENT MARKINGS, MANAGEMENT STRATEGIES, AND GENERAL NOTES

TEMPORARY DETOUR ROUTES TMP-2

TMP-4 THRU PHASE 1 DETAILS

TMP-6

TMP-7 PHASE 2 DETAILS

TMP-8 THRU TMP-12

PHASE 3 DETAILS

TMP-13 THRU PHASE 4 DETAILS TMP-15

TMP-16 THRU TMP-18

PHASE 5 DETAILS

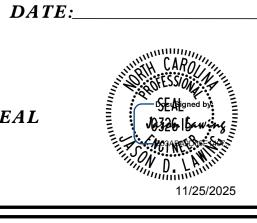
SHEET NO.

TMP-1

200 SOUTH TRYON STREET, SUITE 200 CHARLOTTE, NORTH CAROLINA 28202 PHONE: (704) 333-5131

SEAL

APPROVED:



**DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED**  PLANS PREPARED BY:

JASON D. LAWING, PE PROJECT ENGINEER

EVAN PARROT, PE PROJECT DESIGN ENGINEER NCDOT CONTACTS:

TRAVIS PRESLAR, PE DIVISION 10 – TEAM LEAD

RANDY BOWERS DMSTIP - PROJECT MANAGER

PROJ. REFERENCE NO. TMP-1A U-5956

# ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" -N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2024 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

## STD. NO.

1264.02

#### TITLE

1101.01	WORK ZONE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSES
1101.06	WARNING SIGNS FOR BLASTING ZONES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW BOARDS
1130.01	DRUMS
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1160.01	TEMPORARY CRASH CUSHION
1165.01	TRUCK MOUNTED ATTENUATOR
1170.01	PORTABLE CONCRETE BARRIER
1180.01	SKINNY - DRUMS
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO LANE AND MULTILANE ROADWAYS
1205.03	PAVEMENT MARKINGS - EXITS AND ENTRANCE RAMPS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.06	PAVEMENT MARKINGS - LANE DROPS
1205.07	PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.10	PAVEMENT MARKINGS - SCHOOL AREAS
1205.11	PAVEMENT MARKINGS - RAILROAD CROSSINGS
1205.12	PAVEMENT MARKINGS - BRIDGES
1205.13	PAVEMENT MARKINGS - LANE REDUCTIONS
1205.14	PAVEMENT MARKINGS - ROUNDABOUTS
1205.15	PAVEMENT MARKINGS - SUPERSTREETS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - (PERMANENT AND TEMPORARY)
1261.01	GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATORS - TYPES AND MOUNTING
1262.01	GUARDRAIL END DELINEATION
1264.01	
1001 00	OD LEGT MADIZEDO TAIGTAL LATTON

OBJECT MARKERS - INSTALLATION

# **LEGEND**

#### GENERAL

DIRECTION OF TRAFFIC FLOW

DIRECTION OF PEDESTRIAN TRAFFIC FLOW

----- EXIST. PVMT.

NORTH ARROW

PROPOSED PVMT.

TEMP. SHORING (LOCATION PURPOSES ONLY)

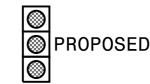
WORK AREA

REMOVAL

WEDGING

## SIGNALS







# PAVEMENT MARKINGS

——EXISTING LINES ----TEMPORARY LINES

# TRAFFIC CONTROL DEVICES

BARRICADE (TYPE III) 

DRUM SKINNY DRUM O TUBULAR MARKER

TEMPORARY CRASH CUSHION

FLASHING ARROW BOARD

FLAGGER

LAW ENFORCEMENT

TRUCK MOUNTED ATTENUATOR (TMA)

CHANGEABLE MESSAGE SIGN

## TEMPORARY SIGNING

PORTABLE SIGN

STATIONARY SIGN

STATIONARY OR PORTABLE SIGN

### PAVEMENT MARKERS

CRYSTAL/CRYSTAL

CRYSTAL/RED

◆ YELLOW/YELLOW

## PAVEMENT MARKING SYMBOLS

PAVEMENT MARKING SYMBOLS

## TEMPORARY PAVEMENT MARKING

## PAVEMENT MARKING LINES

P1	- PAINT	(4" WHITE)	EDGELINE
P2	- PAINT	(4" WHITE)	SOLID LANE LINE
Р3	- PAINT	(4" WHITE)	4" X 10' SKIP
P4	- PAINT	(4" WHITE)	3" X 9' SKIP
P5	- PAINT	(4" WHITE)	2′ x 6′ MINISKIP
P10	- PAINT	(4" YELLOW)	EDGELINE
P11	- PAINT	(4" YELLOW)	SINGLE CENTER LINE
P12	- PAINT	(4" YELLOW)	4" X 10' SKIP
P13	- PAINT	(4" YELLOW)	DOUBLE CENTER LINE
P14	- PAINT	(4" YELLOW)	4" x 2' MINISKIP
P61	- PAINT	(24" WHITE)	STOP BAR

#### PAVEMENT MARKING SYMBOLS

P70 - PAINT (LEFT TURN ARROW) P71 - PAINT (RIGHT TURN ARROW)

P72 - PAINT (STRAIGHT ARROW) P73 - PAINT (COMBINATION STRAIGHT & LEFT TURN ARROW) P74 - PAINT (COMBINATION STRAIGHT & RIGHT TURN ARROW)

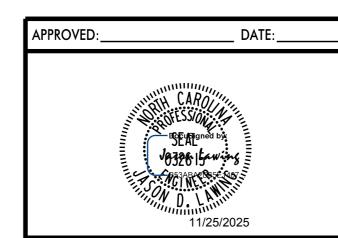
P76 - PAINT (COMBINATION STRAIGHT, RIGHT, & LEFT TURN ARROW)

P90 - PAINT (BICYCLE SYMBOL) P91 - PAINT (BICYCLE STRAIGHT ARROW)

P94 - PAINT (SHARROW)

P100 - PAINT (ALPHANUMERIC CHARACTER)

# **Kimley** » Horn





ROADWAY STANDARD DRAWINGS & LEGEND

#### PROJ. REFERENCE NO. SHEET NO. U-5956 TMP-1B

# **MANAGEMENT STRATEGIES**

PROPOSED IMPROVEMENTS ALONG -L- SR 1414 ROCK HILL CHURCH RD., -L- UNION CEMETERY RD., -Y1- US 29 (CONCORD PKWY), -Y2- EXISTING UNION CEMETERY RD., -Y3- SERVICE RD. 1 AND -Y4- CABARRUS AVE. W. WILL BE CONSTRUCTED WHILE MAINTAINING TRAFFIC AND USING TEMPORARY TRAFFIC PATTERNS WITH TEMPORARY SIGNALS, TEMPORARY ROAD CLOSURES AND TEMPORARY LANE CLOSURES.

# GENERAL NOTES

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS, AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS OR RESULT IN DUPLICATE OR UNDESIRED OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES AS DIRECTED BY THE ENGINEER.

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT EXCEPT WHEN OTHERWISE NOTED IN THE PLAN OR DIRECTED BY THE ENGINEER.

## TIME RESTRICTIONS

UNION CEMETERY ROAD

A) DO NOT CLOSE OR NARROW TRAVEL LANES AS FOLLOWS:

ROAD NAME DAY AND TIME RESTRICTIONS 6:00 AM TO 7:00 PM ROCK HILL CHURCH ROAD

US 29 (CONCORD PKWY) 6:00 AM TO 7:00 PM CABARRUS AVE. W **MONDAY THRU SUNDAY** 

B) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND SPECIAL **EVENTS AS FOLLOWS:** 

**MONDAY THRU SUNDAY** 

#### ROAD NAME

**ROCK HILL CHURCH ROAD US 29 (CONCORD PKWY)** UNION CEMETERY ROAD CABARRUS AVE. W

#### **HOLIDAY**

- 1. FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC **VOLUMES, AS DIRECTED BY THE ENGINEER.**
- 2. FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00 A.M. DECEMBER 31st TO 7:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 7:00 P.M. THE FOLLOWING TUESDAY.
- 3. FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 7:00 P.M. MONDAY.
- 4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 7:00 P.M. TUESDAY.
- 5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 7:00 P.M. THE DAY AFTER INDEPENDENCE DAY.

IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 6:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 7:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.

6. FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY AND 7:00 P.M. TUESDAY.

## TIME RESTRICTIONS (CONT.)

- 7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY TO 7:00 P.M. MONDAY.
- 8. FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 7:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.
- 9. FOR ANY RACE EVENTS AT THE CHARLOTTE MOTOR SPEEDWAY, ZMAX DRAGWAY, OR THE DIRT TRACK BETWEEN THE HOURS OF 6:00 AM THE WEDNESDAY BEFORE THE FIRST TRACK EVENT UNTIL 7:00 PM THE DAY AFTER THE LAST TRACK EVENT.
- 10. FOR THE CHARLOTTE AUTO FAIR, BETWEEN THE HOURS OF 6:00 AM THE WEDNESDAY OF THE WEEK OF THE FAIR UNTIL 6:00 AM THE FOLLOWING MONDAY AFTER THE FAIR.
- C) DO NOT CLOSE ROADS AS FOLLOWS:

CABARRUS AVE. W

ROAD NAME DAY AND TIME RESTRICTIONS

**ROCK HILL CHURCH ROAD** ANYTIME UNLESS **US 29 (CONCORD PKWY)** OTHERWISE DIRECTED **UNION CEMETERY ROAD** BY THE ENGINEER CABARRUS AVE. W

D) DO NOT STOP TRAFFIC AS FOLLOWS, OR AS OTHERWISE DIRECTED BY THE ENGINEER:

ROAD NAME DAY AND TIME RESTRICTIONS

ROCK HILL CHURCH ROAD 6:00 AM TO 7:00 PM UNION CEMETERY ROAD **MONDAY THRU SUNDAY** 

ROAD NAME DAY AND TIME RESTRICTIONS **DURATION AND OPERATION** US 29 (CONCORD PKWY) FIFTEEN (15) MINUTES 6:00 AM TO 7:00 PM

TRAFFIC SHIFTS\*

\*NO ICT OR LIQUIDATION DAMAGE TO BE ASSOCIATED WITH DURATION AND OPERATION

E) TEMPORARILY SUSPEND ALL WORK OPERATIONS AS FOLLOWS:

FOR EACH PERIOD DESCRIBED BELOW, NO WORK OPERATIONS, LANE CLOSURES, OR ANY DISRUPTION TO TRAFFIC SHALL BE PERMITTED. MOVE ALL EQUIPMENT TO CONSTRUCTION STAGING AREAS, ACCEPTABLE TO THE ENGINEER. PROVIDE PARKING AREAS FOR EVENTS.

MONDAY THRU SUNDAY

- 1. FOR THE COCA-COLA 600 RACE EVENT, THE CONTRACTOR SHALL SUSPEND ALL WORK OPERATIONS BY 12:00AM THE SATURDAY TWO WEEKS BEFORE THE DAY OF THE EVENT AND RESUME WORK OPERATIONS AT 6:00AM THE FOLLOWING TUESDAY AFTER THE EVENT.
- 2. FOR THE BANK OF AMERICA 500 RACE EVENT, THE CONTRACTOR SHALL SUSPEND ALL WORK OPERATIONS BY 12:00AM THE SATURDAY ONE WEEK BEFORE THE DAY OF THE EVENT AND RESUME WORK OPERATIONS AT 6:00AM THE FOLLOWING MONDAY AFTER THE EVENT.
- F) DO NOT CONDUCT ANY HAULING OPERATIONS AGAINST THE FLOW OF TRAFFIC OF AN OPEN TRAVELWAY UNLESS THE HAULING OPERATION IS PROTECTED BY BARRIER OR GUARDRAIL OR AS DIRECTED BY THE ENGINEER.

## LANE AND SHOULDER CLOSURE REQUIREMENTS

- G) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.
- H) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.

# LANE AND SHOULDER CLOSURE REQUIREMENTS (CONT.)

I) WHEN PERSONNEL AND/OR EQUIPMENT ARE WITHIN 5 FT OF AN OPEN TRAVEL LANE ON AN UNDIVIDED FACILITY, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 10 FT OF AN OPEN TRAVEL LANE ON A DIVIDED FACILITY, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

- J) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP, OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.
- K) DO NOT INSTALL MORE THAN ONE LANE CLOSURE IN ANY ONE DIRECTION ON US 29.

# PAVEMENT EDGE DROP OFF REQUIREMENTS

L) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS AN **EDGE OF PAVEMENT DROP-OFF AS FOLLOWS:** 

BACKFILL DROP-OFFS THAT EXCEED 2 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.

BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.

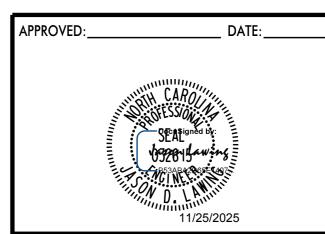
BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.

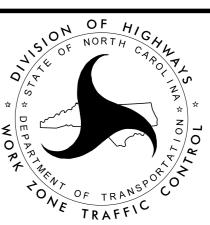
M) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 500 ft IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

#### TRAFFIC PATTERN ALTERATIONS

N) NOTIFY THE ENGINEER AND EMERGENCY MEDICAL SERVICES THIRTY (30) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

**Kimley** » Horn





TRANSPORATION **OPERATIONS** PLAN

PROJ. REFERENCE NO. SHEET NO. U-5956 TMP-1C

# GENERAL NOTES (CONT.)

## **SIGNING**

- O) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- P) PROVIDE SIGNING AND DEVICES
  REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS
  AND TRAFFIC CONTROL PLANS.
- Q) COVER OR REMOVE ALL SIGNS AND DEVICES REQUIRED TO CLOSE THE ROAD WHEN ROAD CLOSURE IS NOT IN OPERATION.
- R) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.
- S) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 500 ft IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

## TRAFFIC CONTROL DEVICES

- T) WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH) EXCEPT, 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES) AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.
- U) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2
  ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.
- V) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES DRUMS PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

## PAVEMENT MARKINGS AND MARKERS

W) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:

ROAD NAME	MARKING	MARKER
ROCK HILL CHURCH RD	PAINT	NONE
UNION CEMETERY RD	PAINT	NONE
CABARRUS AVE W	PAINT	NONE
US 29 (CONCORD PARKWAY)	PAINT	NONE

- X) PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE A SECOND APPLICATION OF PAINT SIX (6) MONTHS AFTER THE INITIAL APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE ENGINEER.
- Y) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- Z) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.
- AA) TRACE THE EXISTING AND PROPOSED MONOLITHIC ISLAND LOCATIONS WITH PROPER COLOR PAVEMENT MARKINGS PRIOR TO REMOVAL AND INSTALLATION. PLACE DRUMS TO DELINEATE ANY EXISTING AND PROPOSED MONOLITHIC ISLANDS AFTER REMOVAL AND BEFORE INSTALLATION

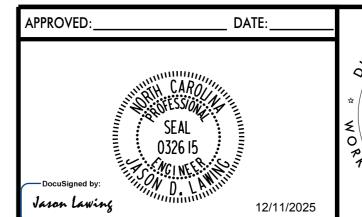
#### **MISCELLANEOUS**

- BB) LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER.
- CC) IN THE EVENT A TIE-IN CANNOT BE MADE IN ONE DAY'S TIME, BRING THE TIE-IN AREA TO AN APPROPRIATE ROADWAY ELEVATION AS DETERMINED BY THE ENGINEER. PLACE BLACK ON ORANGE "LOOSE GRAVEL" SIGNS (W8-7) AND BLACK ON ORANGE "PAVEMENT ENDS" SIGNS (W8-3) AND RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG UNPAVED AREAS.
- DD) ALL WHEELCHAIR RAMP LOCATIONS SHALL BE DERIVED FROM STATIONING SHOWN ON PAVEMENT MARKING PLANS OR AS DIRECTED BY THE ENGINEER IN COORDINATION WITH THE SIGNING AND DELINEATION UNIT.

# LOCAL NOTES

- LN1) MAINTAIN ACCESS TO DRIVEWAY(S) AT ALL TIMES, AS DIRECTED BY ENGINEER.
- LN2) ENSURE COOPERATION WITH LAW ENFORCEMENT AND STATE FORCES IN CONNECTION WITH CHARLOTTE MOTOR SPEEDWAY EVENTS, AS DIRECTED BY ENGINEER.

**Kimley** » Horn

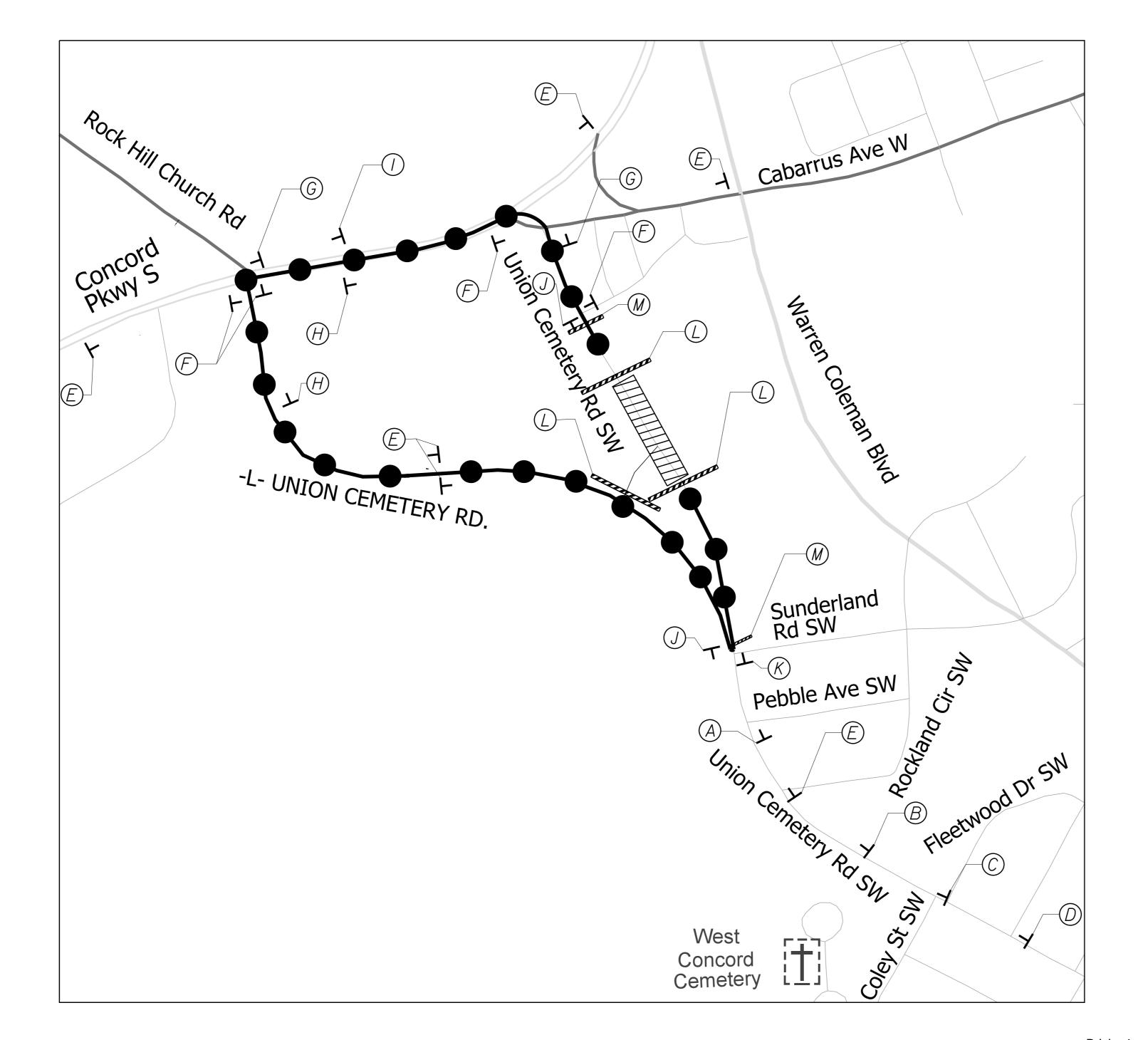


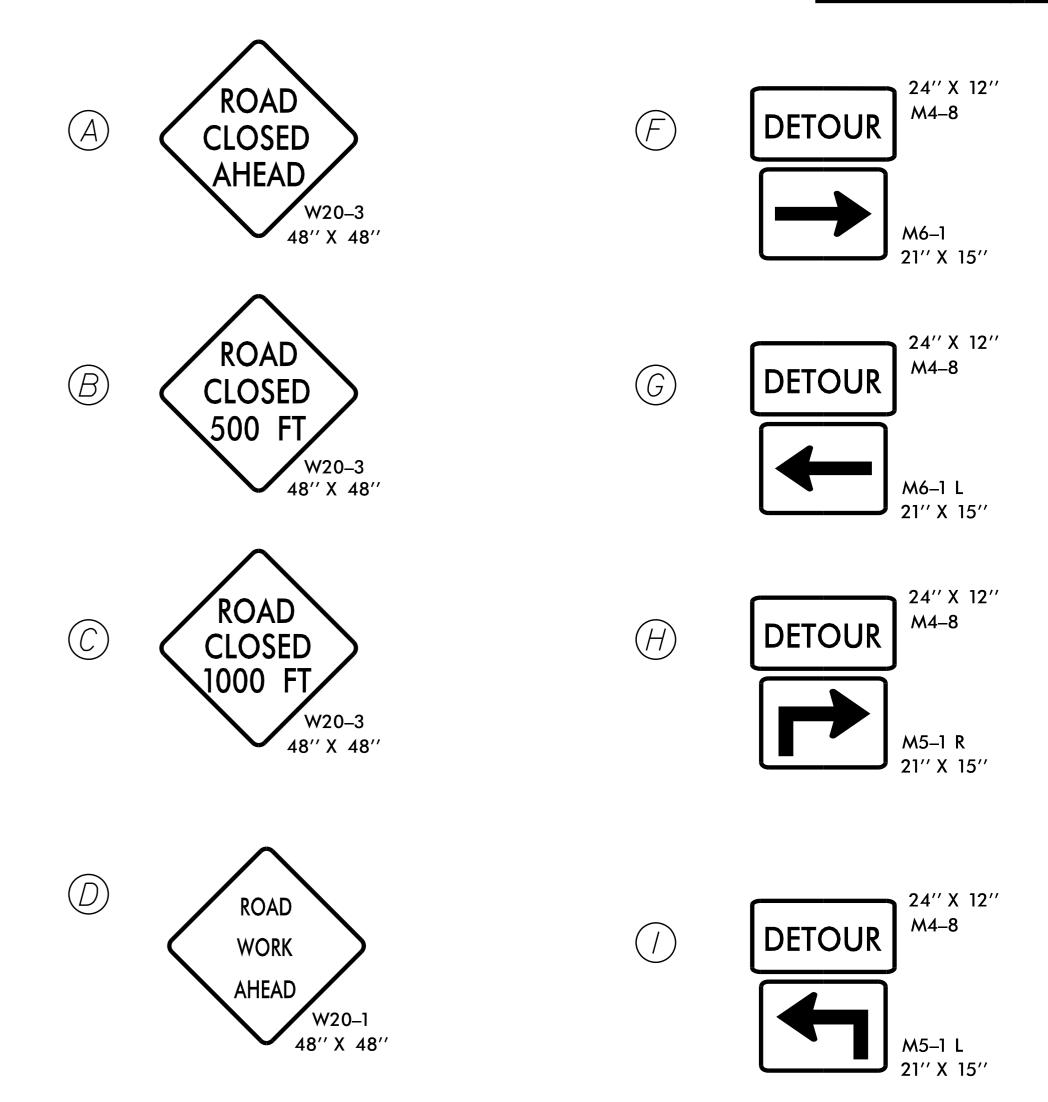


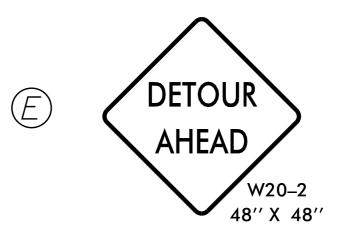
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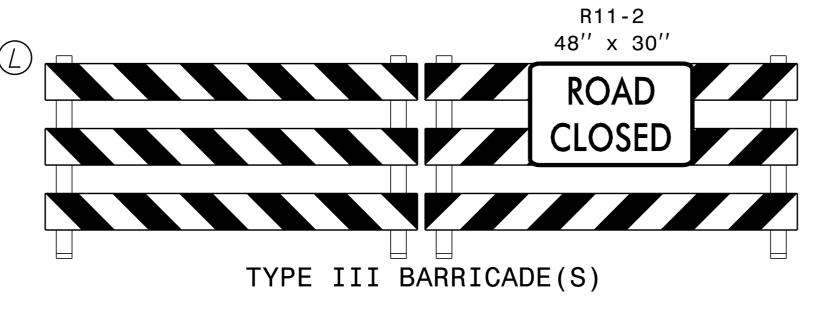
PROJ. REFERENCE NO. SHEET NO. TMP-2

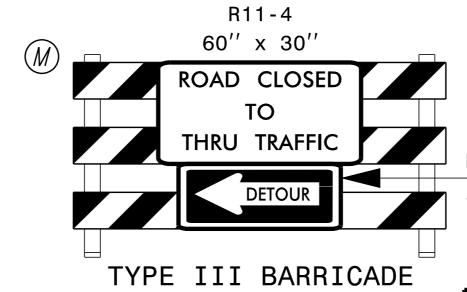


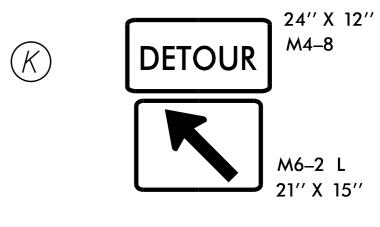


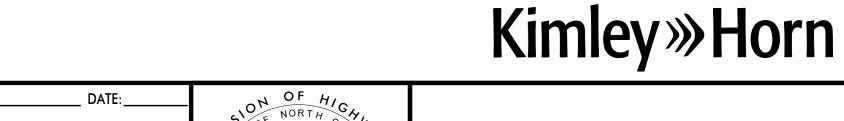


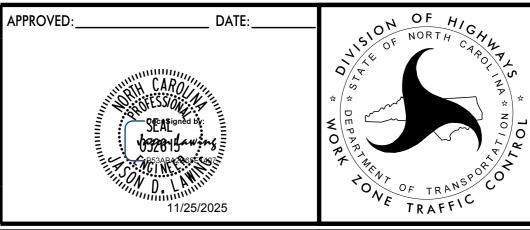
END DETOUR











OFFSITE DETOUR SHEET

UNION CEMETERY RD PHASE 5

7/14/2025

LEGEND

SIGNS

DETOUR ROUTE

WORK AREA

BARRICADES

PRIOR TO BEGINNING ANY CONSTRUCTION THE CONTRACTOR SHALL INSTALL WORK ZONE ADVANCE WARNING SIGNS AS SHOWN IN THE NCDOT ROADWAY STANDARD DRAWING NO. 1101.01

# PHASE I

WHILE MAINTAINING TRAFFIC USING RSD 1101.02 SHEET 3 FOR TEMPORARY LANE CLOSURES AS NECESSARY, PERFORM STEPS 1 AND 2 AS SHOWN ON SHEETS TMP-4 THRU TMP-6:

#### STEP 1:

- INSTALL AND ACTIVATE TEMPORARY SIGNAL 10-0875 (SEE SIGNAL PLANS).

#### STEP 2:

- CONSTRUCT PROPOSED IMPROVEMENTS AND ASSOCIATED DRAINAGE ON RIGHT SIDE OF -Y1- US 29 (CONCORD PARKWAY).
- CONSTRUCT SHOULDER AND DITCH WORK ALONG -Y1- US 29 (CONCORD PARKWAY)
  FROM STA. 30+36 (59' RT.) TO STA. 35+00 (62' RT.) (SEE ROADWAY PLANS).
- CONSTRUCT PROPOSED IMPROVEMENTS AND ASSOCIATED DRAINAGE ON LEFT SIDE OF -L-
- FROM STA. 13+50 TO STA. 18+00.
- CONSTRUCT NEW LOCATION -L- (UNION CEMETERY ROAD) LEFT AND RIGHT FROM STA. 18+00
- TO STA. 21+75.
- PROVIDE WEDGING AS REQUIRED FOR POSITIVE DRAINAGE AND SMOOTH TRANSITIONS BETWEEN EXISTING AND PROPOSED GRADES.

NOTE: CONTRACTOR TO UTILIZE STEEL PLATES FOR DRAINAGE INSTALLATIONS ON CATCH BASINS AND PIPES, WHERE FINAL HEIGHTS CANNOT BE INSTALLED IN TIME, TO MAINTAIN TRAFFIC.
CONTRACTOR TO RELOCATE ANY REGULATORY SIGNS IMPACTED BY CONSTRUCTION.

### PHASE 2

WHILE MAINTAINING TRAFFIC USING RSD 1101.02 SHEET 3 FOR TEMPORARY LANE CLOSURES AS NECESSARY, PERFORM THE FOLLOWING AS SHOWN ON SHEET TMP-7:

#### STEP 1:

- MAINTAIN TEMPORARY SIGNAL 10-0875 (SEE SIGNAL PLANS).
- INSTALL TEMPORARY MARKINGS ON -L- FROM STA. 13+50 TO 18+50.
- CONSTRUCT PROPOSED IMPROVEMENTS AND ASSOCIATED DRAINAGE ON RIGHT SIDE OF
- -L- (ROCK HILL CHURCH ROAD) AND ON RIGHT SIDE OF -L- FROM STA. 13+50 TO 18+50.
- PROVIDE WEDGING AS REQUIRED FOR POSITIVE DRAINAGE AND SMOOTH TRANSITIONS BETWEEN EXISTING AND PROPOSED GRADES.
- PLACE FINAL LAYER OF ASPHALT, FINAL PAVEMENT MARKINGS, MARKERS, AND SIGNAGE ON ROCK HILL CHURCH ROAD.
- PLACE FINAL LAYER OF ASPHALT, FINAL PAVEMENT MARKINGS, MARKERS AND SIGNAGE ON -L- (UNION CEMETERY ROAD) FROM STA. 13+80 TO 21+75.

NOTE: CONTRACTOR TO UTILIZE STEEL PLATES FOR DRAINAGE INSTALLATIONS ON CATCH BASINS AND PIPES, WHERE FINAL HEIGHTS CANNOT BE INSTALLED IN TIME, TO MAINTAIN TRAFFIC.
CONTRACTOR TO RELOCATE ANY REGULATORY SIGNS IMPACTED BY CONSTRUCTION.

## PHASE 3

WHILE MAINTAINING TRAFFIC USING RSD 1101.02 SHEET 3 FOR TEMPORARY LANE CLOSURES AS NECESSARY, PERFORM THE FOLLOWING AS SHOWN ON SHEETS TMP-8 THRU TMP-12.

#### STEP 1:

- INSTALL TEMPORARY MARKINGS AND REMOVE EXISTING CONFLICTING MARKINGS ON -Y1- US 29.
- MODIFY TEMPORARY SIGNAL 10-0875 (SEE SIGNAL PLANS).
- SHIFT TRAFFIC ONTO TEMPORARY PATTERN ON -Y1- US 29.

#### STEP 2:

- CONSTRUCT KEYED-IN CONCRETE MEDIAN ISLANDS AND ASSOCIATED DRAINAGE ALONG -Y1- US 29 (CONCORD PARKWAY). AS SHOWN ON SHEETS TMP-9 THRU TMP-12.

#### STEP 3:

- CONSTRUCT U-TURN BULB-OUTS AS SHOWN ON SHEETS TMP-8 AND TMP-10.

#### STEP 4:

- MAINTAIN TRAFFIC THRU THE INTERSECTION OF -L- UNION CEMETERY ROAD AND -Y1- US 29 (CONCORD PARKWAY) BY UTILIZING FLAGGER CONTROL DURING THE WEDGING OPERATION AS REQUIRED IN THE CENTER TURN LANE ON -Y1- FROM US 29 STA. 42+25 TO STA. 44+45 AS SHOWN ON TMP-11.
- PLACE FINAL LAYER OF ASPHALT, FINAL PAVEMENT MARKINGS AND MARKERS AS SEEN ON SHEET PMP-2, AND SIGNAGE ON -Y1- US 29 (CONCORD PARKWAY).

## PHASE 3 CONT.

#### **STEP 4 CONT.:**

- INSTALL FINAL SIGNAL 10-0875 AT INTERSECTION OF -L- (ROCK HILL CHURCH RD AND UNION CEMETERY RD)
   AND -Y1- (US 29) (SEE SIGNAL PLANS).
- MODIFY FINAL SIGNAL 10-2455 AS SHOWN ON SHEET TMP-8 (SEE SIGNAL PLANS).
- REMOVE TRAFFIC CONTROL DEVICES AND OPEN ALL LANES TO TRAFFIC ON -Y1- US 29 (CONCORD PARKWAY).

NOTE: CONTRACTOR TO UTILIZE STEEL PLATES FOR DRAINAGE INSTALLATIONS ON CATCH BASINS AND PIPES, WHERE FINAL HEIGHTS CANNOT BE INSTALLED IN TIME, TO MAINTAIN TRAFFIC.
CONTRACTOR TO RELOCATE ANY REGULATORY SIGNS IMPACTED BY CONSTRUCTION.

## PHASE 4

WHILE MAINTAINING TRAFFIC USING RSD 1101.02 SHEETS 1 AND 2 AND 1150.01 SHEET 1 FOR TEMPORARY LANE CLOSURES AND FLAGGERS AS NECESSARY WHEN ADJACENT TO NEWLY CONSTRUCTED ROADWAY, PERFORM STEPS 1 THRU 3 AS SHOWN ON SHEET TMP-15.

#### STEP 1:

AWAY FROM TRAFFIC, CONSTRUCT NEW LOCATION -L- UNION CEMETERY ROAD FROM STA 21+75 TO 50+00 TO THE LIMITS THAT DO NOT AFFECT EXISTING TRAFFIC AS SHOWN ON SHEETS TMP-13 THRU TMP-14.

#### STEP 2:

CONSTRUCT RIGHT SIDE OF -L- STA 50+00 TO STA 52+98.19 USING FLAGGER CONTROL AND LANE CLOSURES

## PHASE 5

COMPLETE THE WORK OF PHASE 5. STEP 1 WITHIN 45 CONSCUTIVE CALENDAR DAYS (SEE INTERMEDIATE CONTRACT TIMES AND LIQUIDATED DAMAGES)

WHILE MAINTAINING TRAFFIC USING RSD 1101.02 SHEETS 1 AND 2 AND 1150.01 SHEET 1 FOR TEMPORARY LANE CLOSURES AND FLAGGERS AS NECESSARY WHEN ADJACENT TO NEWLY CONSTRUCTED ROADWAY, PERFORM STEPS 1 THRU 3 AS SHOWN ON SHEETS TMP-16 THRU TMP-18.

#### STEP 1:

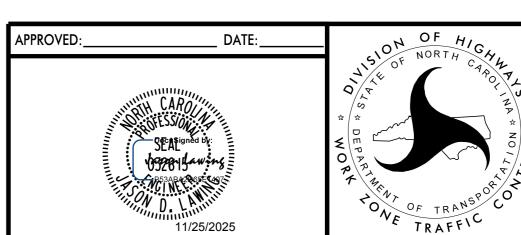
- SHIFT TRAFFIC ONTO NEWLY CONSTRUCTED -L- UNION CEMETERY ROAD.
- INSTALL DETOUR AS SEEN ON SHEET TMP-2.
- COMPLETE REMAINING CURB AND GUTTER, PAVING, STRIPING, AND PAVEMENT REMOVAL AT THE TIE-IN LOCATION OF -L- NEAR SUNDERLAND DRIVE AS SHOWN ON SHEET TMP-16. UTILIZING FLAGGER CONTROL TO COMPLETE WORK, RESTORE TO EXISTING CONDITIONS AT THE END OF THE WORK DAY.
- KEEP NEW LOCATION -Y2- CLOSED TO TRAFFIC AND CLOSE EXISTING -Y2- UNION CEMETERY ROAD AT STA 16+00 (APPROX) AS SHOWN ON SHEET TMP-17.

#### STEP 2:

- COMPLETE REMAINING CURB AND GUTTER, PAVING, STRIPING, AND PAVEMENT REMOVAL AT THE TIE-IN LOCATIONS OF -Y2- AND -Y3-.
- INSTALL TEMPORARY MARKINGS AND REMOVE EXISTING CONFLICTING MARKINGS ON -Y4- CABARRUS AVENUE.
- REMOVE DETOUR AS SEEN ON SHEET TMP-1B
- INSTALL REMAINING CONCRETE ISLANDS AND MEDIAN ON -Y4- CABARRUS AVENUE AND -Y2- EXISTING UNION CEMETERY ROAD.

#### STEP 3:

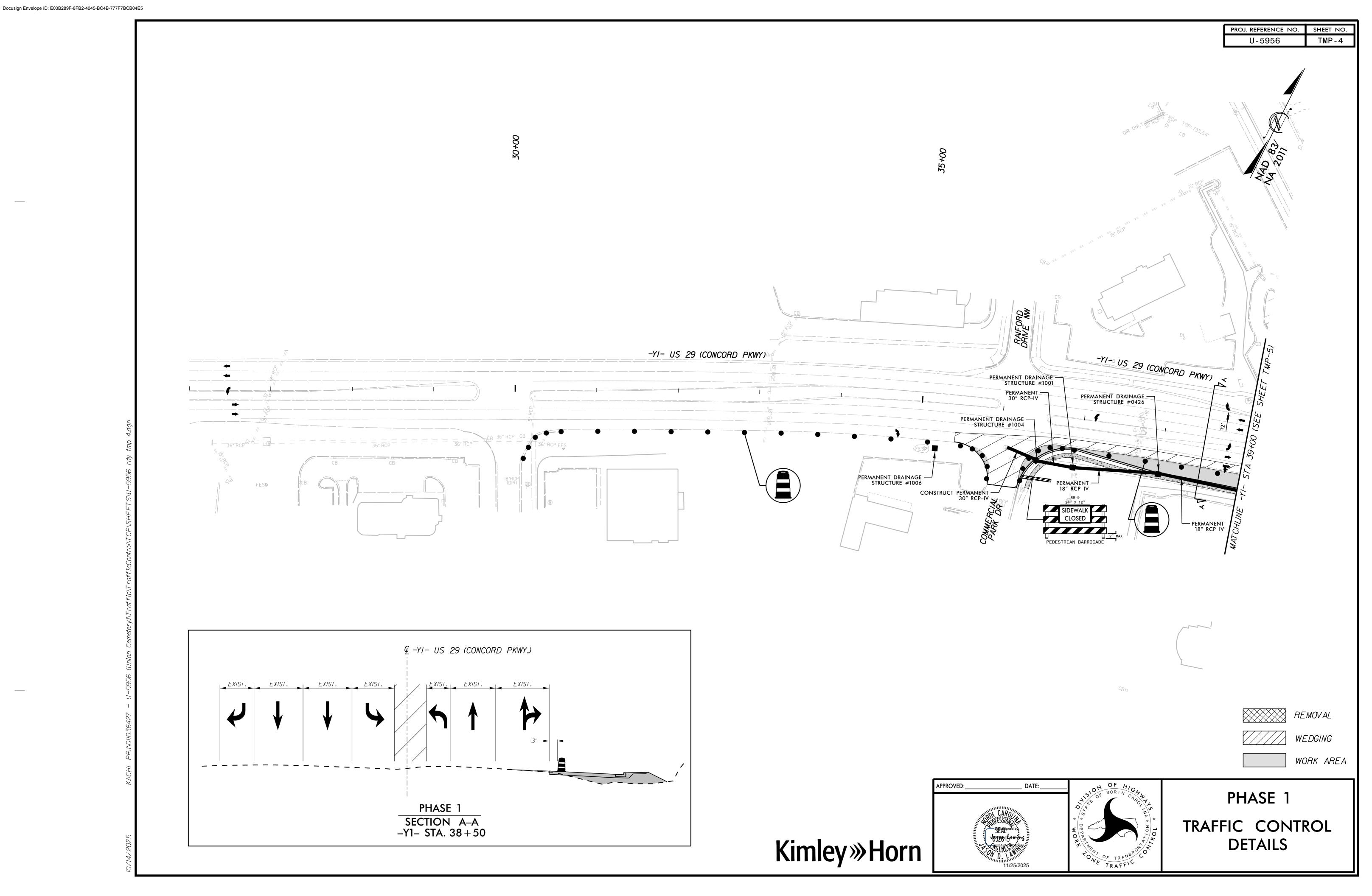
- INSTALL FINAL SIGNAL 10-0702 (SEE SIGNAL PLANS).
- PLACE FINAL LAYER OF ASPHALT, FINAL PAVEMENT MARKINGS, MARKERS, AND SIGNAGE ON ANY REMAINING TIE-IN AREAS.
- REMOVE TRAFFIC CONTROL DEVICES AND OPEN ALL LANES TO TRAFFIC.

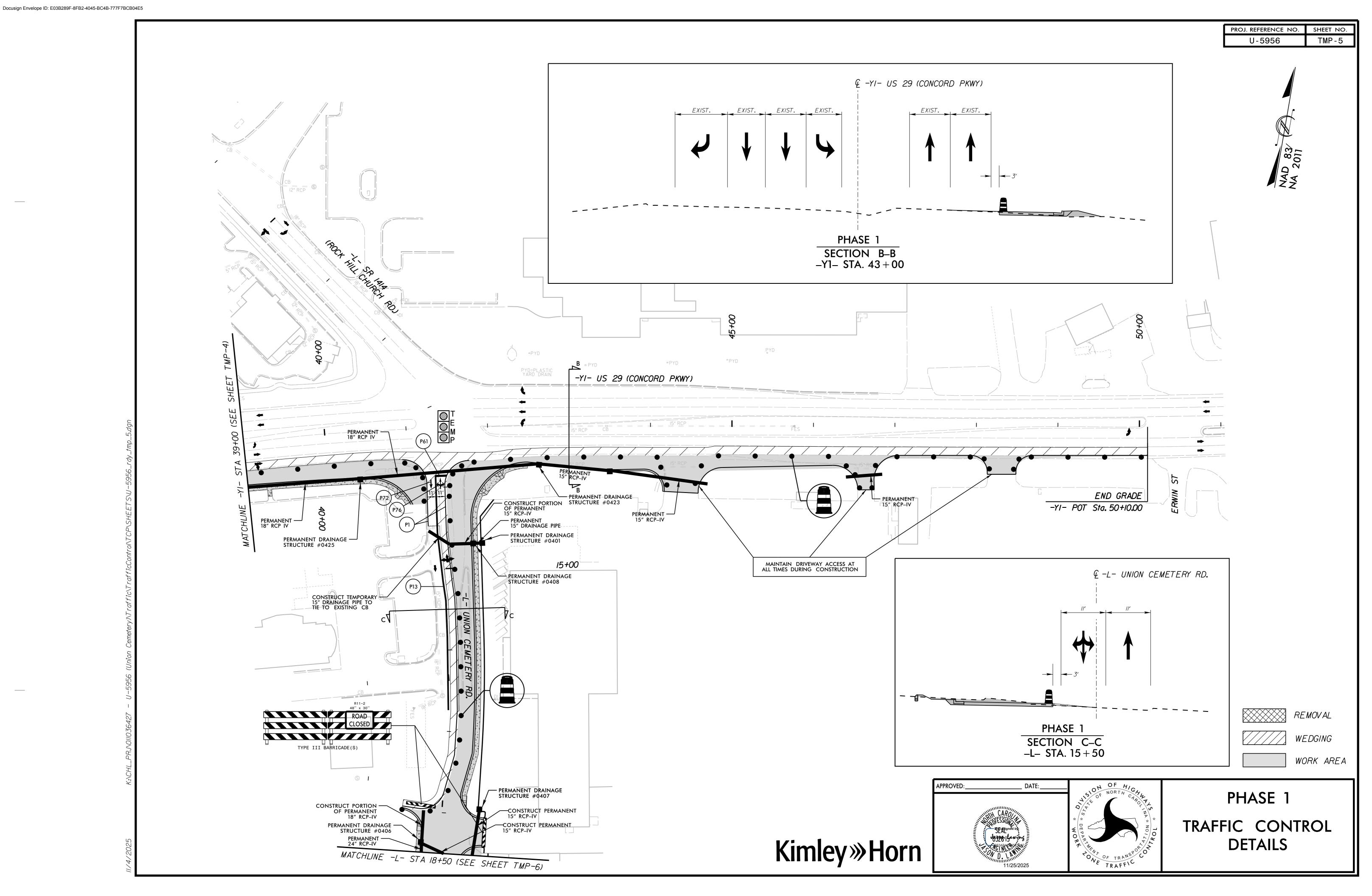


**PHASING** 

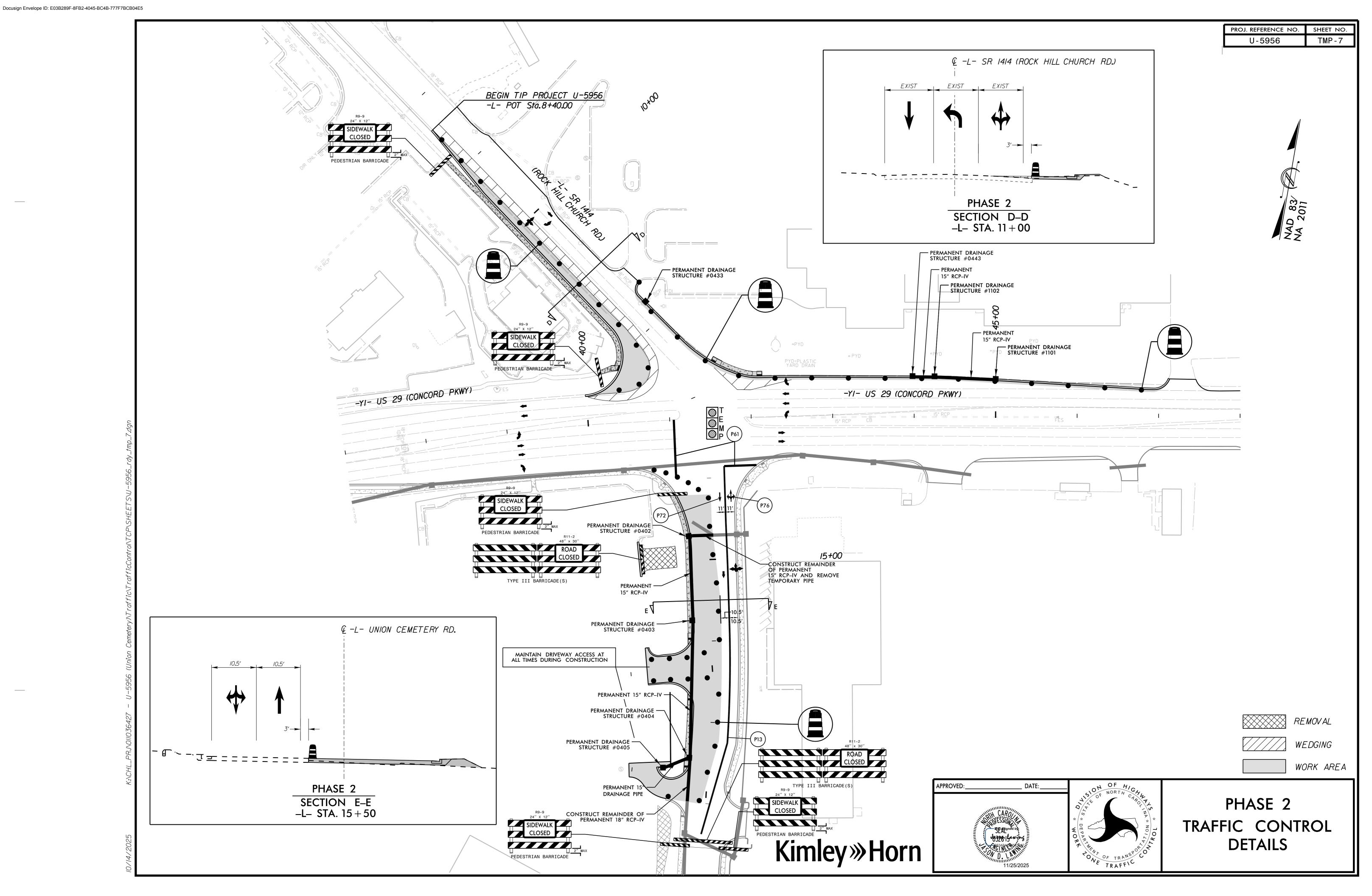
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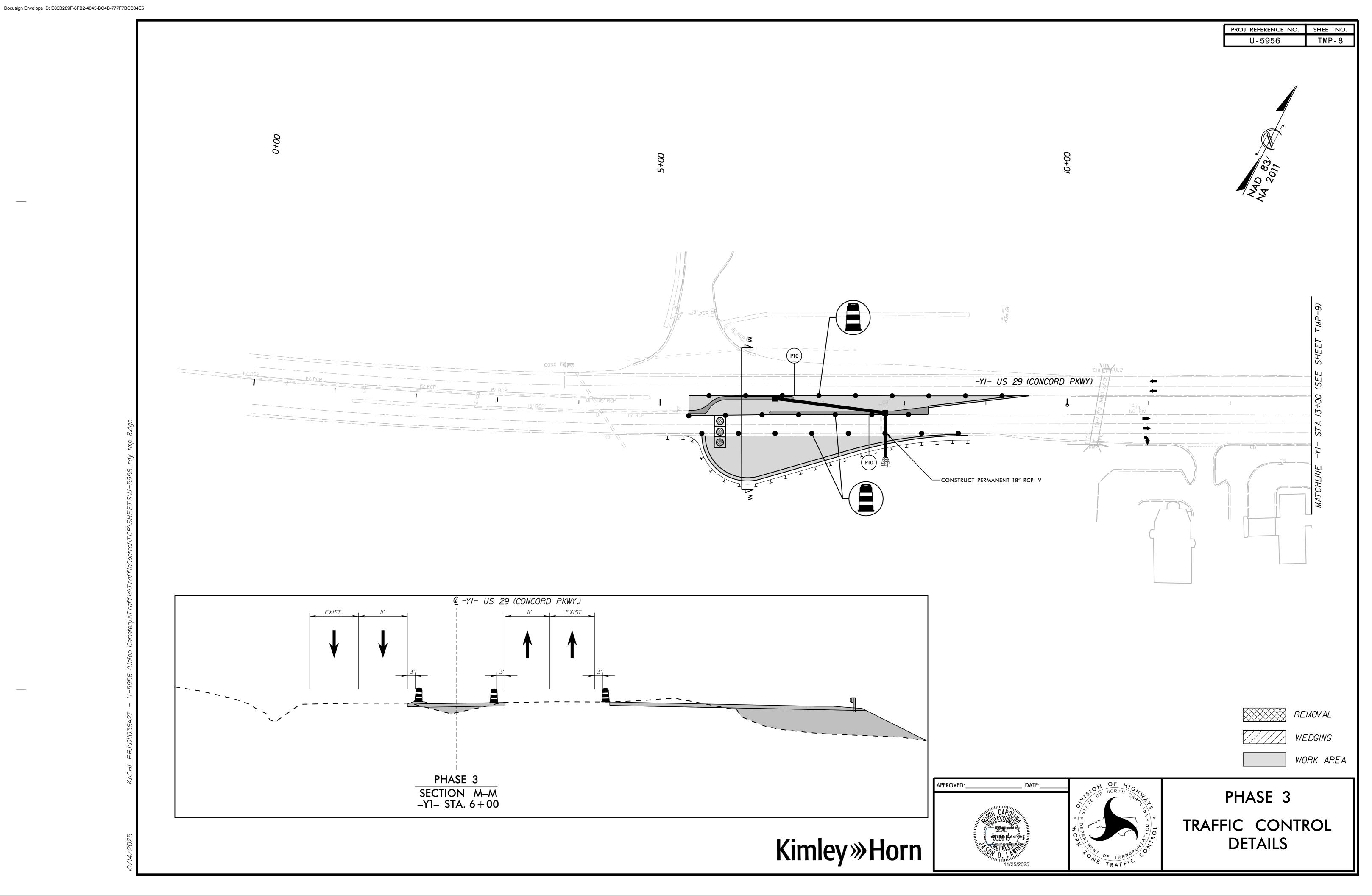
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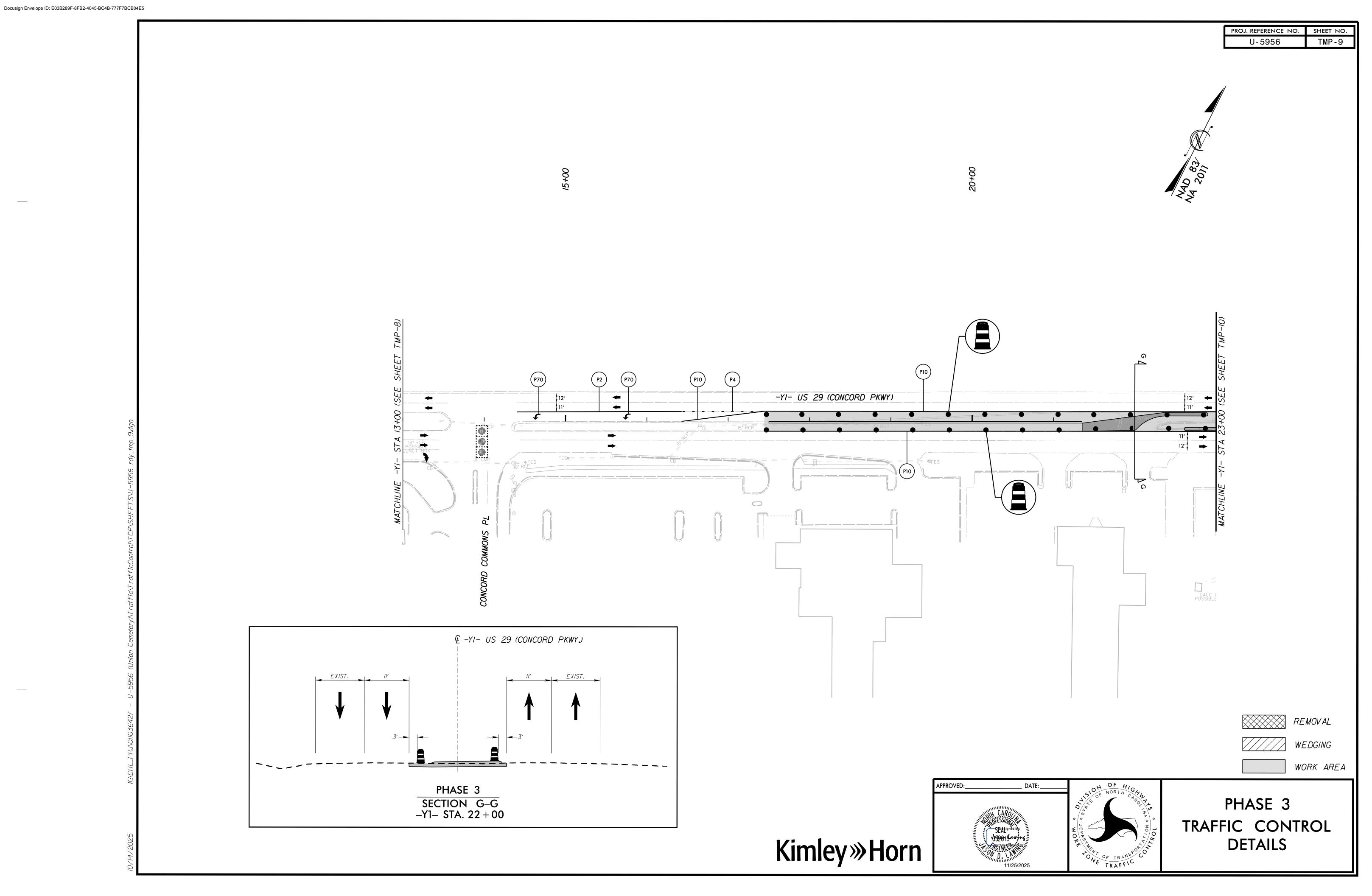


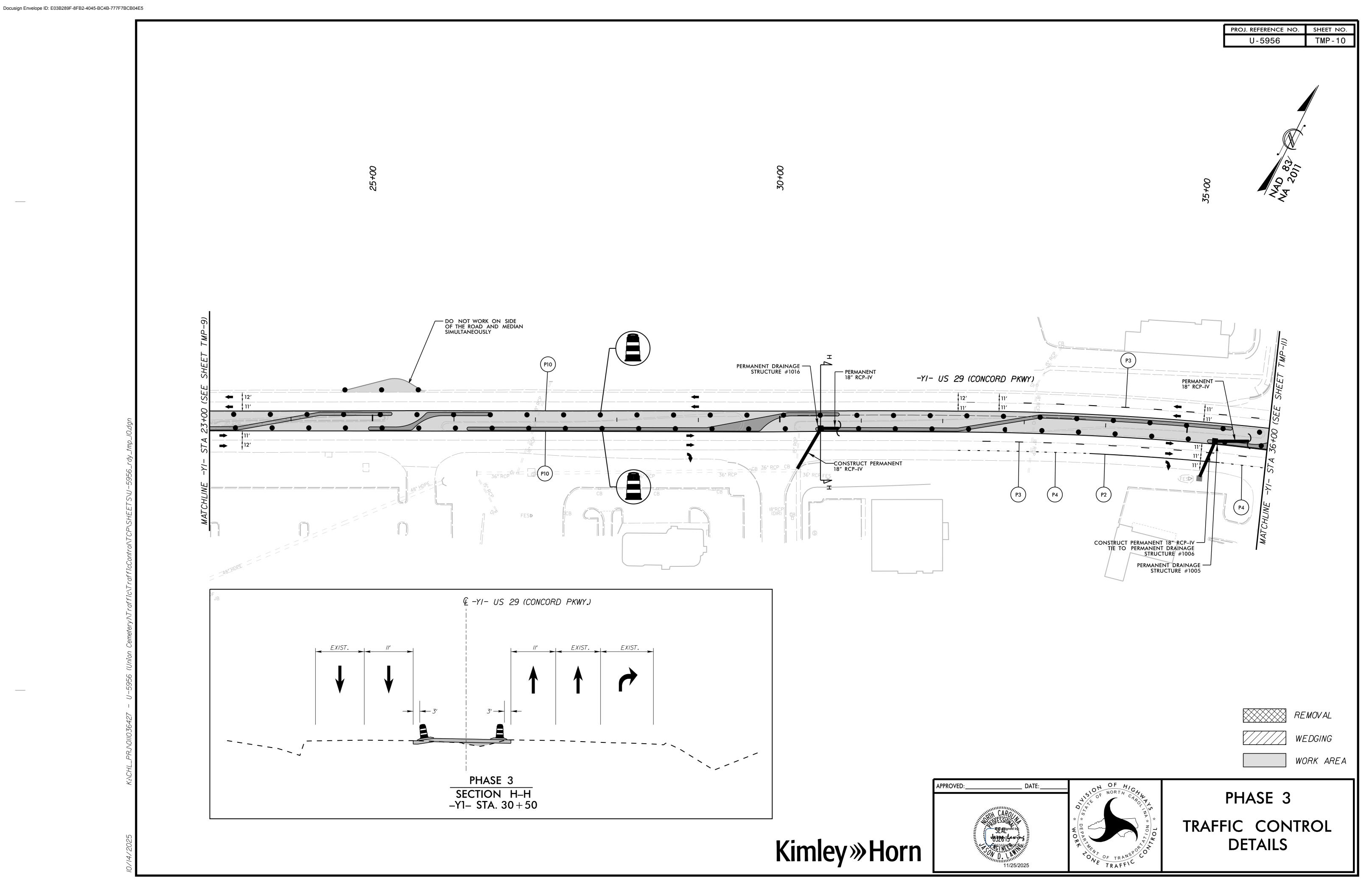


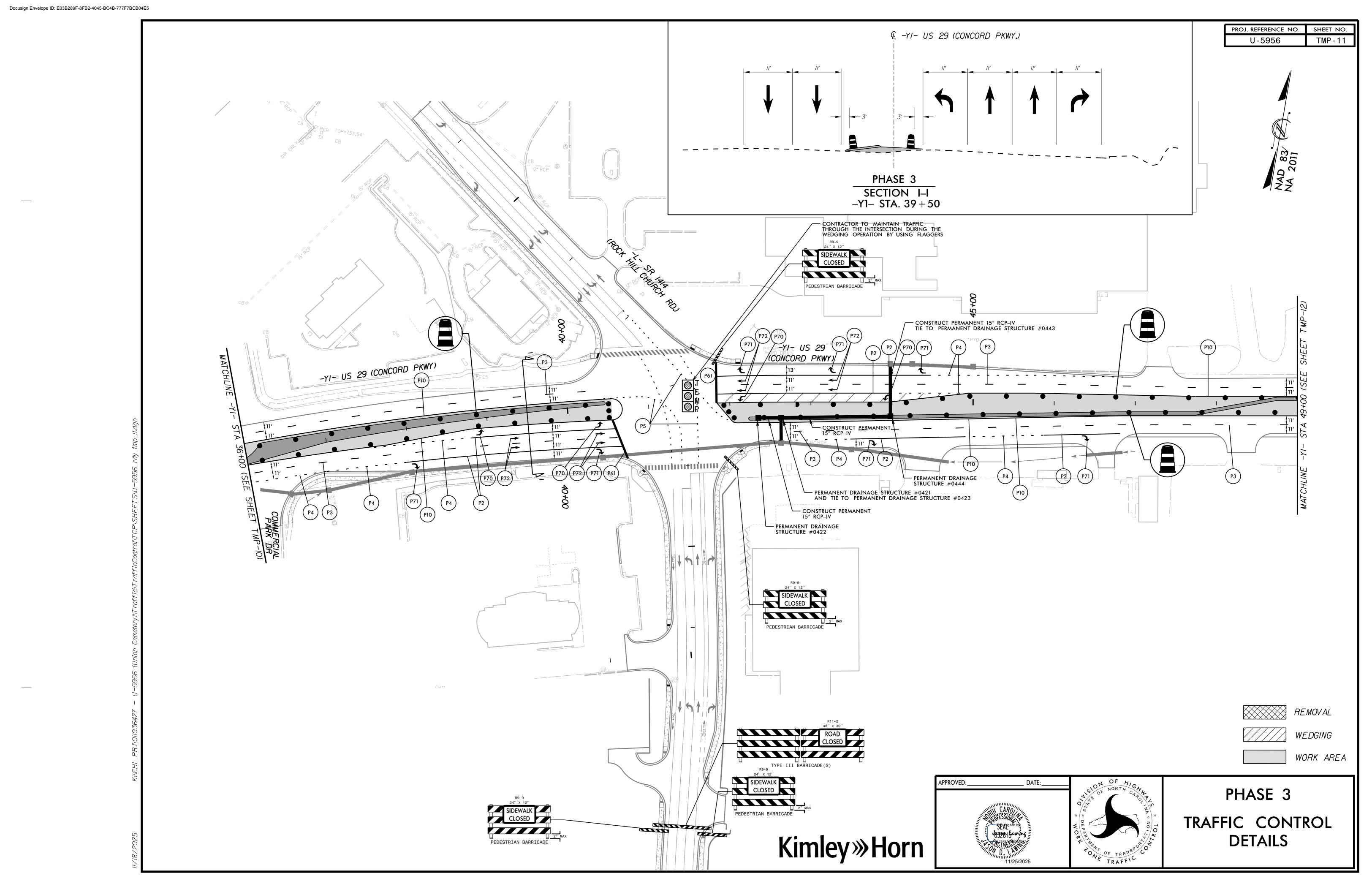
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STRUCTURE #0505 PERMANENT 36" DRAINAGE PIPE REMOVAL WEDGING WORK AREA PHASE 1 TRAFFIC CONTROL DETAILS **Kimley** » Horn



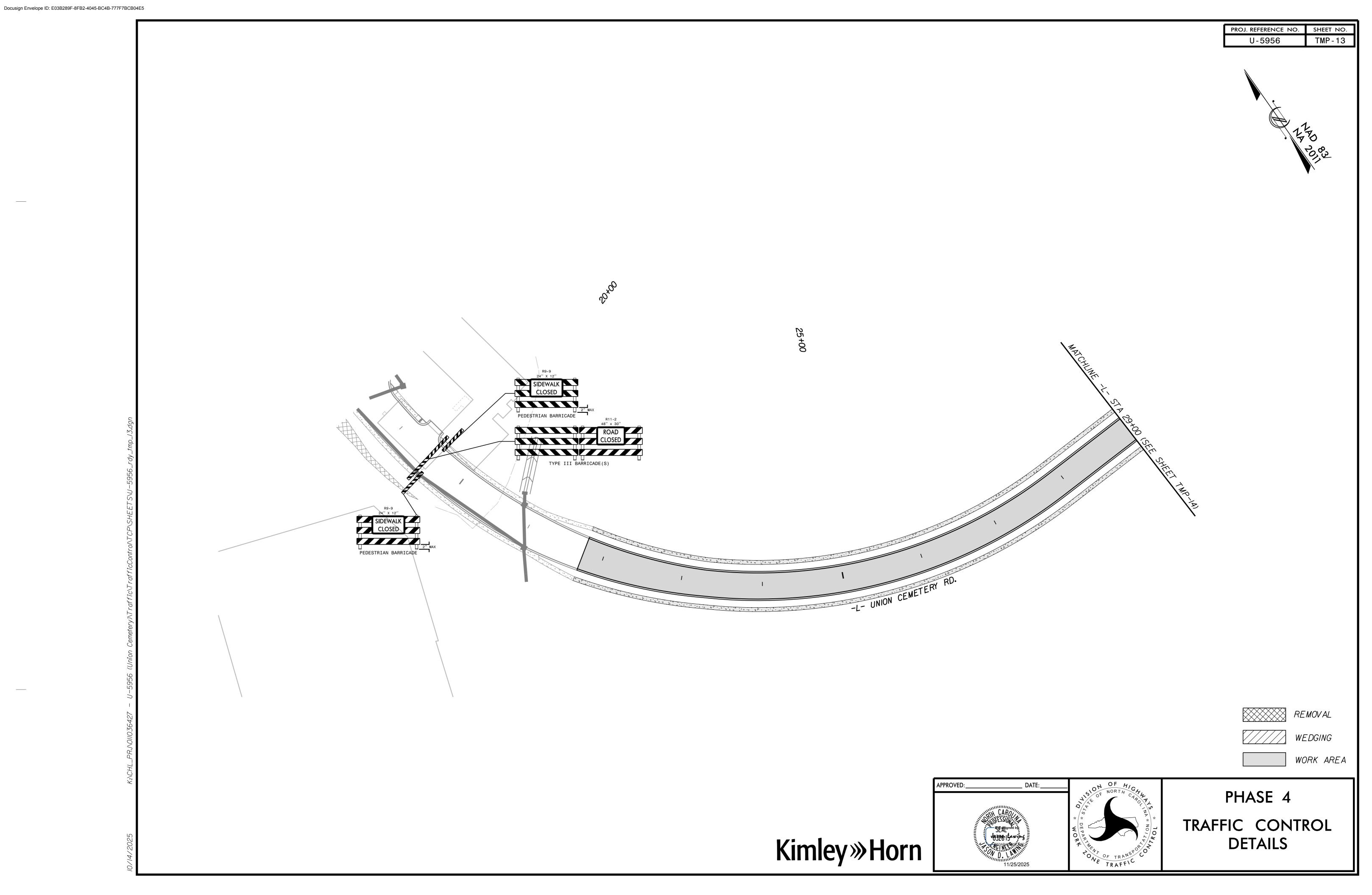


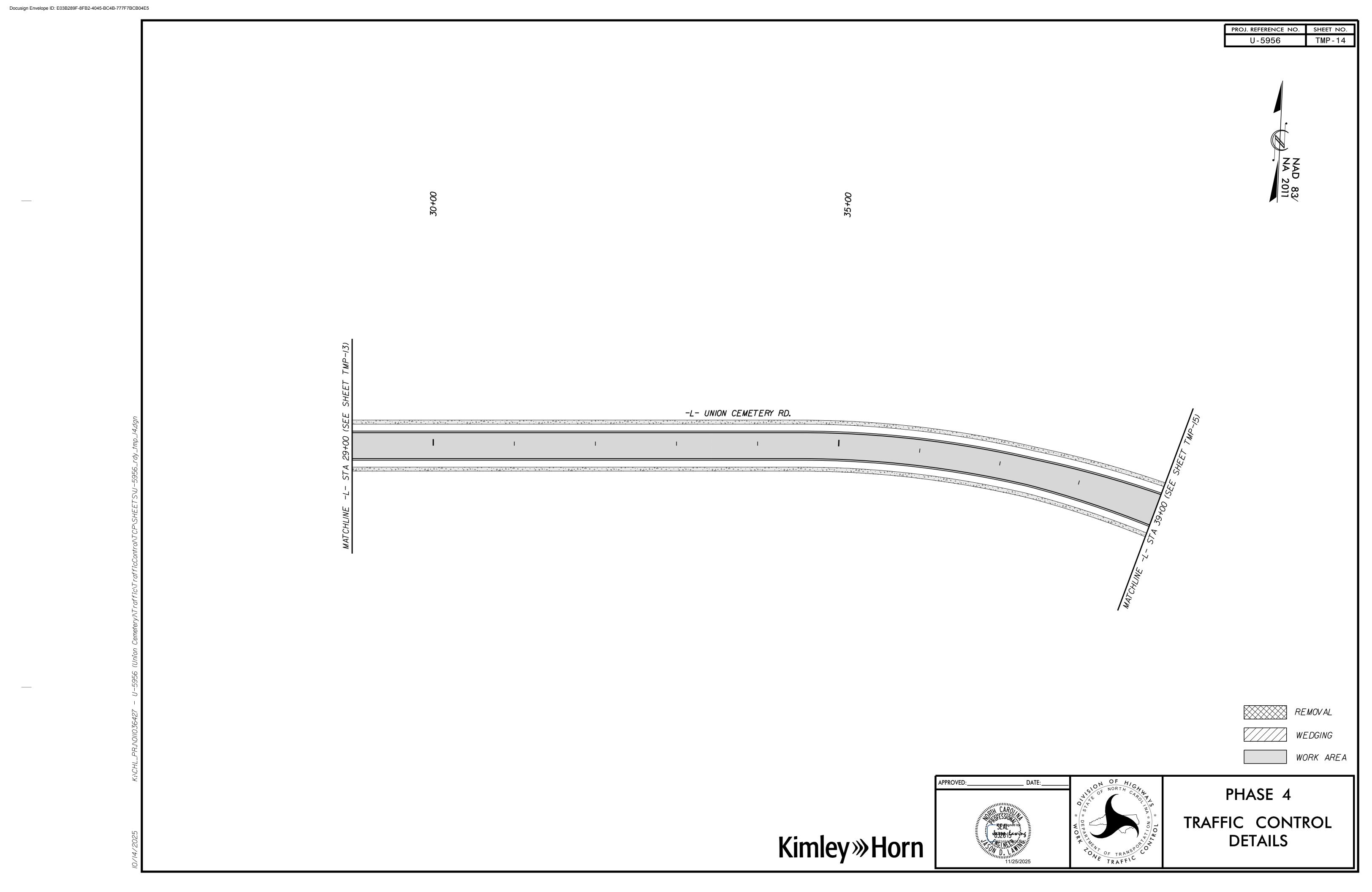






Docusign Envelope ID: E03B289F-8FB2-4045-BC4B-777F7BCB04E5 PROJ. REFERENCE NO. U-5956 TMP-12 -Y4- SR 1002 CABARRUS AVE W € -YI- US 29 (CONCORD PKWY.) EXIST. EXIST. REMOVAL WEDGING WORK AREA PHASE 3 SECTION J–J –Y1– STA. 51 + 00 PHASE 3 TRAFFIC CONTROL **DETAILS Kimley** » Horn





Docusign Envelope ID: E03B289F-8FB2-4045-BC4B-777F7BCB04E5 PROJ. REFERENCE NO. SHEET NO. U-5956 TMP-15 - FLAGGER CONTROL AT NIGHT (TYP.) PEDESTRIAN BARRICADE ROAD CLOSED TYPE III BARRICADE(S) CONSTRUCT PERMANENT SHOULDER WORK ROAD CLOSED TYPE 1:11 BARRICADE(S) PERMANENT DRAINAGE -STRUCTURE #0711 PERMANENT 15" RCP-V INSET A -Y2- EXISTING - FLAGGER CONTROL R11-2
48" x 30"

ROAD
CLOSED

TYPE III BARRICADE(S) REMOVAL PHASE 4 WEDGING TRAFFIC CONTROL WORK AREA **DETAILS Kimley** » Horn

Docusign Envelope ID: E03B289F-8FB2-4045-BC4B-777F7BCB04E5 PROJ. REFERENCE NO. SHEET NO. U-5956 TMP-16 FLAGGER CONTROL AT NIGHT (TYP.) PEDESTRIAN BARRICADE - COMPLETE CURB AND GUTTER AND PAVED SHOULDERS USING TEMPORARY LANE CLOSURES. DO NOT WORK SIMULTANEOUSLY ON BOTH SIDES OF THE ROAD FLAGGER CONTROL —/
AT NIGHT (TYP.) € -L- UNION CEMETERY RD. END TIP PROJECT U-5956 -L- POT Sta.53+85.00 FLAGGER CONTROL — AT NIGHT (TYP.) -L- POT Sta. 55+89.65 REMOVAL NOTE: CONTRACTOR TO MAINTAIN TRAFFIC UTILIZING WEDGING FLAGGER CONTROL AND RESTORE THE ROAD TO EXISTING CONDITIONS AT END OF EACH WORK DAY UNTIL WORK IS COMPLETE. WORK AREA PHASE 5 PHASE 5 TRAFFIC CONTROL SECTION K-K -L- STA. 52 + 50 **Kimley** » Horn **DETAILS** 

Docusign Envelope ID: E03B289F-8FB2-4045-BC4B-777F7BCB04E5 PROJ. REFERENCE NO. SHEET NO. U-5956 TMP - 17 END MILLING AND RESURFACING -Y2- STA 17+25.00 TIE TO EXISTING GRADE MAINTAIN DRIVEWAY ACCESS
AT ALL TIMES DURING
CONSTRUCTION BEGIN MILLING AND RESURFACING -Y2- STA 16+22.00 ROAD CLOSED SIDEWALK CLOSED TYPE III BARRICADE(S) 2" M PEDESTRIAN BARRICADE -Y2- POT Sta. 12+89.65 END CONSTRUCTION PERMANENT DRAINAGE STRUCTURE #0708 -Y3- POT Sta. 10+00.00 -Y3- PT Sta. 12+21.88 ROAD CLOSED ROAD CLOSED TYPE III BARRICADE(S) TO THE WAY BEGIN PAVEMENT REMOVAL TYPE III BARRICADE(S) PERMANENT -15" RCP-IV -Y3- POC Sta.15+83.00 PERMANENT DRAINAGE — STRUCTURE #0709 -Y3- SERVICE ROAD, CONSTRUCT PERMANENT 15" RCP-V — TO TIE TO PERMANENT DRAINAGE STRUCTURE #0711 -Y2- EXISTING ROAD CLOSED

TYPE III BARRICADE(S) ; UNION RD REMOVAL WEDGING WORK AREA PHASE 5 TRAFFIC CONTROL **DETAILS Kimley** » Horn