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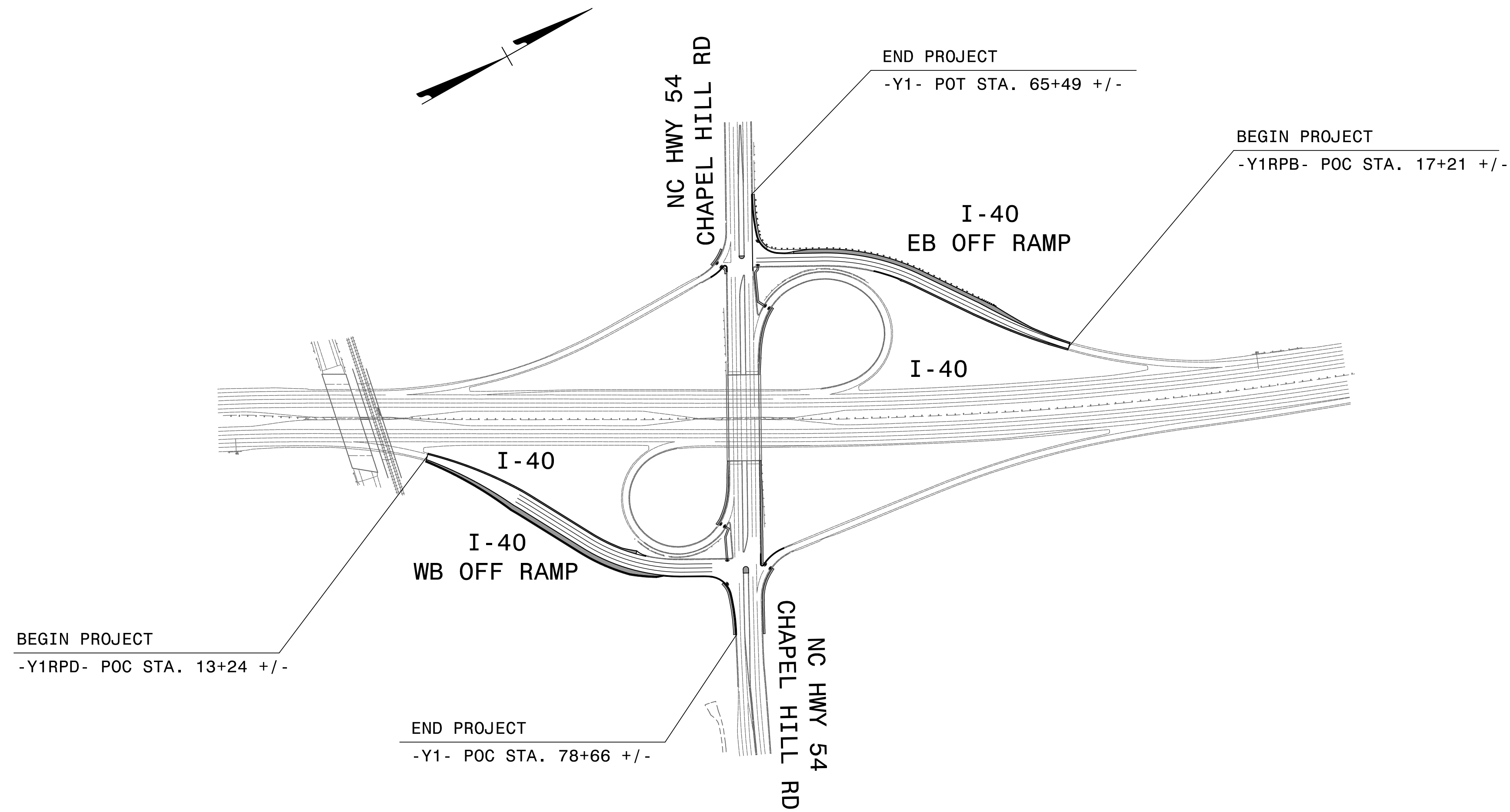
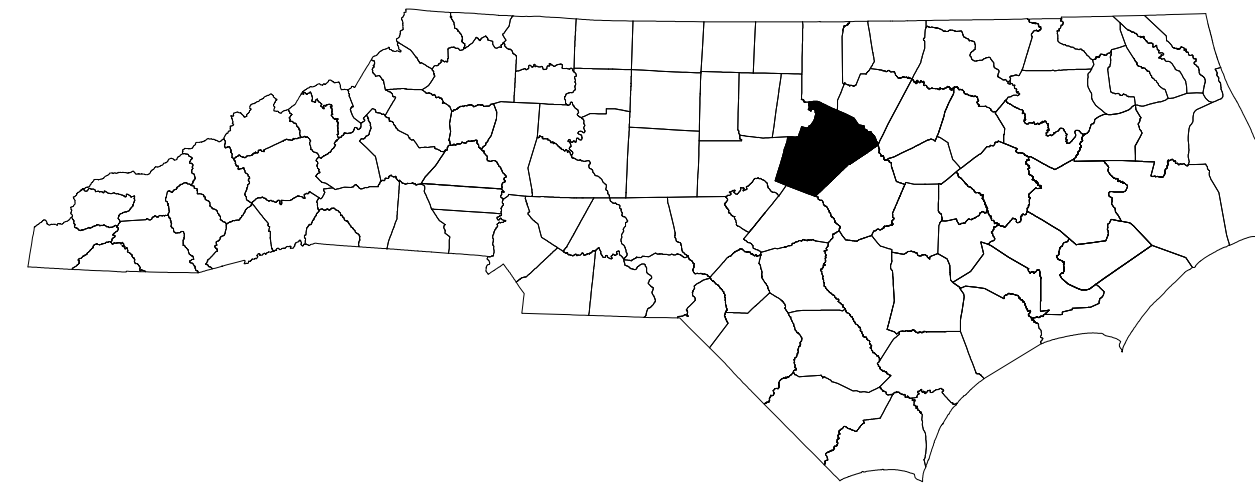
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STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

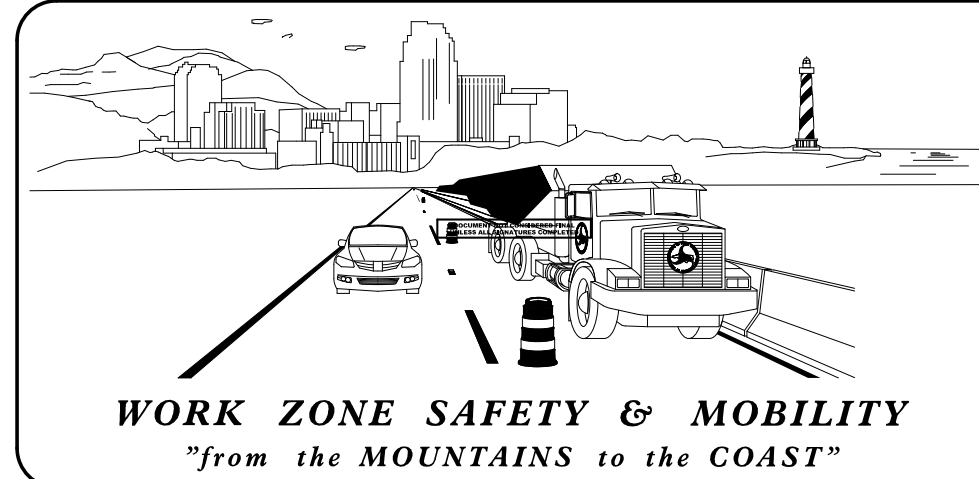
WAKE COUNTY



INDEX OF SHEETS	
<u>SHEET NO.</u>	<u>TITLE</u>
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TMP-1A	ROADWAY STANDARD DRAWINGS AND LEGEND
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TMP-2 THRU TMP-2B	OFF-SITE DETOUR PLANS
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TMP-4 THRU TMP-5	TEMPORARY TRAFFIC CONTROL PHASE III
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SHEET NO.
TMP-1

10/23/2018 14:17:56 - 2012 NCDOT Division On-Call\173561-2012 NCDOT Division On-Call\173561C.02 NC 54 Improvements\TrafficControl\TCP\I-5873_Title_Sheet.dgn Use04421

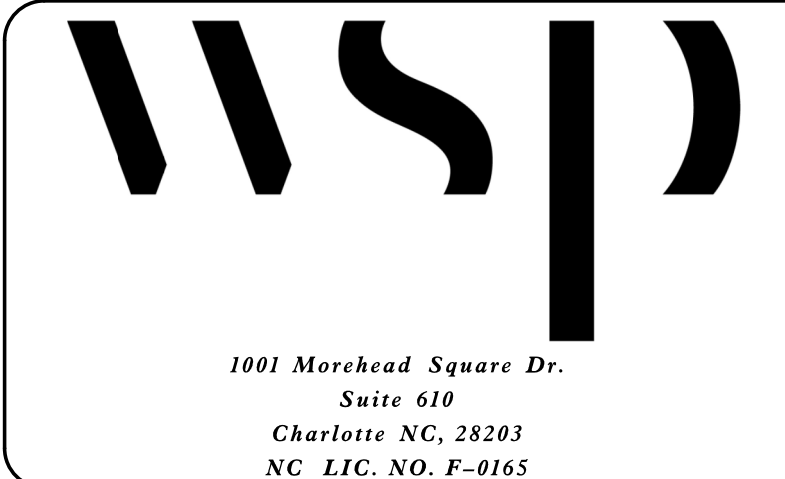


PLANS PREPARED BY:
 DERRICK DOHM, EI
 TRAFFIC ENGINEER
 ERIC BOWMAN, PE
 SR. TRANSPORTATION ENGINEER


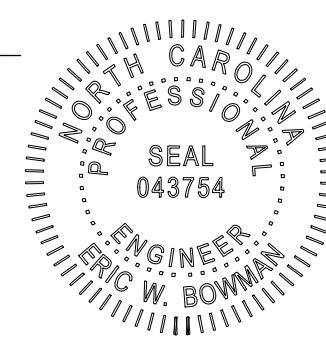
NCDOT CONTACTS:

 PROJECT ENGINEER

 PROJECT DESIGN ENGINEER



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APPROVED: 
 Eric W. Bowman
 AEB328DOCE18488
DATE: 10/23/18
 SEAL


TIP PROJECT: I-5873

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

<u>STD. NO.</u>	<u>TITLE</u>
1101.01	WORK ZONE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
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
1180.01	SKINNY - DRUMS

LEGEND

GENERAL

- DIRECTION OF TRAFFIC FLOW
- DIRECTION OF PEDESTRIAN TRAFFIC FLOW
- EXIST. PVMT.
- NORTH ARROW
- PROPOSED PVMT.

- WORK AREA
- REMOVAL

SIGNALS

- EXISTING
- PROPOSED
- TEMPORARY

PAVEMENT MARKINGS

- EXISTING LINES
- TEMPORARY LINES

TEMPORARY PAVEMENT MARKING

PAINT (24")

P2 WHITE STOPBAR

PAINT (4")

P9 2 FT - 6 FT/SP YELLOW MINISKIP
 PA WHITE EDGELINE
 PB YELLOW EDGELINE

PAINT (6")

P6 WHITE EDGELINE
 P7 YELLOW EDGELINE
 PJ 10 FT WHITE SKIP
 PK 3 FT - 9 FT/SP WHITE MINISKIP
 PL WHITE SOLID LANE LINE

SYMBOLS

QA LEFT TURN ARROW
 QB RIGHT TURN ARROW

TRAFFIC CONTROL DEVICES

- BARRICADE (TYPE III)
- PEDESTRIAN BARRICADE TYPE II ADA W/SAFETY RAIL
- CONE
- DRUM
- SKINNY DRUM
- 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 MARKING SYMBOLS

- PAVEMENT MARKING SYMBOLS

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Eric W. Bowman
AE8326DDCE18488...

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wsp

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Charlotte NC, 28203
NC LIC. NO. F-0165

TRANSPORTATION
 MANAGEMENT PLAN
 ROADWAY STANDARD
 DRAWINGS & LEGEND

MANAGEMENT STRATEGIES

I-5873 CONSISTS OF BRIDGE PRESERVATION AND INTERCHANGE MODIFICATIONS TO I-40 & NC 54 (CHAPEL HILL RD) IN WAKE COUNTY. THE INTERCHANGE MODIFICATIONS INCLUDE ADDITIONAL LANES ON THE RAMPS, AT THE SIGNALIZED INTERSECTIONS.

NC DOT ROADWAY STANDARD DRAWINGS (RSD) WILL BE USED WHERE POSSIBLE TO PROVIDE UNIFORM GUIDANCE AND REFERENCE FOR MAINTENANCE OF TRAFFIC ACTIVITIES DURING CONSTRUCTION.

NC 54 (-Y1-) BRIDGE PRESERVATION WORK WILL BE PERFORMED UNDER NIGHTLY LANE CLOSURES USING OFF-SITE DETOURS, INCLUDING STAGED CONSTRUCTION FOR EACH DIRECTION OF TRAVEL.

RAMP B (-Y1RPB-) WILL BE CONSTRUCTED UNDER OFF-PEAK LANE CLOSURES USING FLAGGERS AND INTERIM TRAFFIC PATTERN SHIFTS, INCLUDING STAGED CONSTRUCTION OF THE PROPOSED RAMP IMPROVEMENTS.

RAMP D (-Y1RPD-) WILL BE CONSTRUCTED UNDER OFF-PEAK LANE CLOSURES USING FLAGGERS AND INTERIM TRAFFIC PATTERN SHIFTS, INCLUDING STAGED CONSTRUCTION OF THE PROPOSED RAMP IMPROVEMENTS.

THE REMAINING ROADWAY TIE-INS AND DRAINAGE WILL BE BUILT USING A COMBINATION OF FLAGGING, LANE CLOSURES, OFF-SITE DETOURS AND RELOCATIONS.

THE CONTRACTOR SHALL MAINTAIN ACCESS THROUGHOUT THE WORK ZONE AND COORDINATE WITH PROPERTY OWNERS DURING ACTIVITIES THAT WILL IMPACT ACCESS TO RESIDENCES AND PROPERTIES, INCLUDING ROAD CLOSURES DURING CONSTRUCTION.

THE CONTRACTOR SHALL MAINTAIN PEDESTRIAN TRAFFIC BY PEDESTRIAN TRANSPORT VEHICLE SERVICE.

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

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

ROAD NAME	DAY AND TIME RESTRICTIONS
-Y1-, -Y1RPB-, AND -Y1RPD-	MONDAY THRU FRIDAY 6:00 TO 9:00 AM AND 4:00 TO 8:00 PM

LANE AND SHOULDER CLOSURE REQUIREMENTS

B) 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.

C) 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.

D) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, 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 ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

E) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS, OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.

F) 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.

PAVEMENT EDGE DROP OFF REQUIREMENTS

G) 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.

H) 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) 250 FEET IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

I) NOTIFY THE ENGINEER THIRTY (30) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

SIGNING

J) 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.

K) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

TRAFFIC BARRIER

L) INSTALL TEMPORARY BARRIER ACCORDING TO THE TRANSPORTATION MANAGEMENT PLANS A MAXIMUM OF TWO (2) WEEKS PRIOR TO BEGINNING WORK IN ANY LOCATION. ONCE TEMPORARY BARRIER IS INSTALLED AT ANY LOCATION PROCEED IN A CONTINUOUS MANNER TO COMPLETE THE PROPOSED WORK IN THAT LOCATION UNLESS OTHERWISE STATED IN THE TRANSPORTATION MANAGEMENT PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT PLACE BARRIER DIRECTLY ON ANY SURFACE OTHER THAN ASPHALT OR CONCRETE.

ONCE TEMPORARY BARRIER IS INSTALLED AT ANY LOCATION AND NO WORK IS PERFORMED BEHIND THE TEMPORARY BARRIER FOR A PERIOD LONGER THAN TWO (2) MONTHS, REMOVE / RESET TEMPORARY BARRIER AT NO COST TO THE DEPARTMENT UNLESS OTHERWISE STATED IN THE TRANSPORTATION MANAGEMENT PLANS, TEMPORARY BARRIER IS PROTECTING A HAZARD, OR AS DIRECTED BY THE ENGINEER.

INSTALL TEMPORARY BARRIER WITH THE TRAFFIC FLOW BEGINNING WITH THE UPSTREAM SIDE OF TRAFFIC. REMOVE TEMPORARY BARRIER AGAINST THE TRAFFIC FLOW BEGINNING WITH THE DOWNSTREAM SIDE OF TRAFFIC.

INSTALL AND SPACE DRUMS NO GREATER THAN TWICE THE POSTED SPEED LIMIT (MPH) TO CLOSE OR KEEP THE SECTION OF THE ROADWAY CLOSED UNTIL THE TEMPORARY BARRIER CAN BE PLACED OR AFTER THE TEMPORARY BARRIER IS REMOVED.

M) PROTECT THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER AT ALL TIMES DURING THE INSTALLATION AND REMOVAL OF THE BARRIER BY EITHER A TRUCK MOUNTED ATTENUATOR (MAXIMUM 72 HOURS) OR A TEMPORARY CRASH CUSHION.

PROTECT THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER FROM ONCOMING TRAFFIC AT ALL TIMES BY A TEMPORARY CRASH CUSHION UNLESS THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER IS OFFSET FROM ONCOMING TRAFFIC AS FOLLOWS OR AS SHOWN IN THE PLANS: (SEE ALSO 1101.05)

POSTED SPEED LIMIT	MINIMUM OFFSET
40 OR LESS	15 FT
45 - 50	20 FT
55	25 FT
60 MPH or HIGHER	30 FT

TRAFFIC CONTROL DEVICES

N) 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) FOR ADDITIONAL REQUIREMENTS.

O) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.

P) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

PAVEMENT MARKINGS AND MARKERS

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

ROAD NAME	MARKING	MARKER
ALL ROADS	PAINT	RAISED TEMP.

R) 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.

S) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING

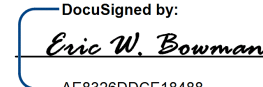
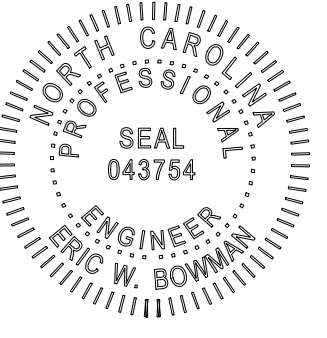

T) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

U) 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

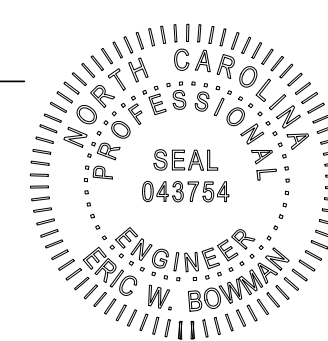

V) LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER.

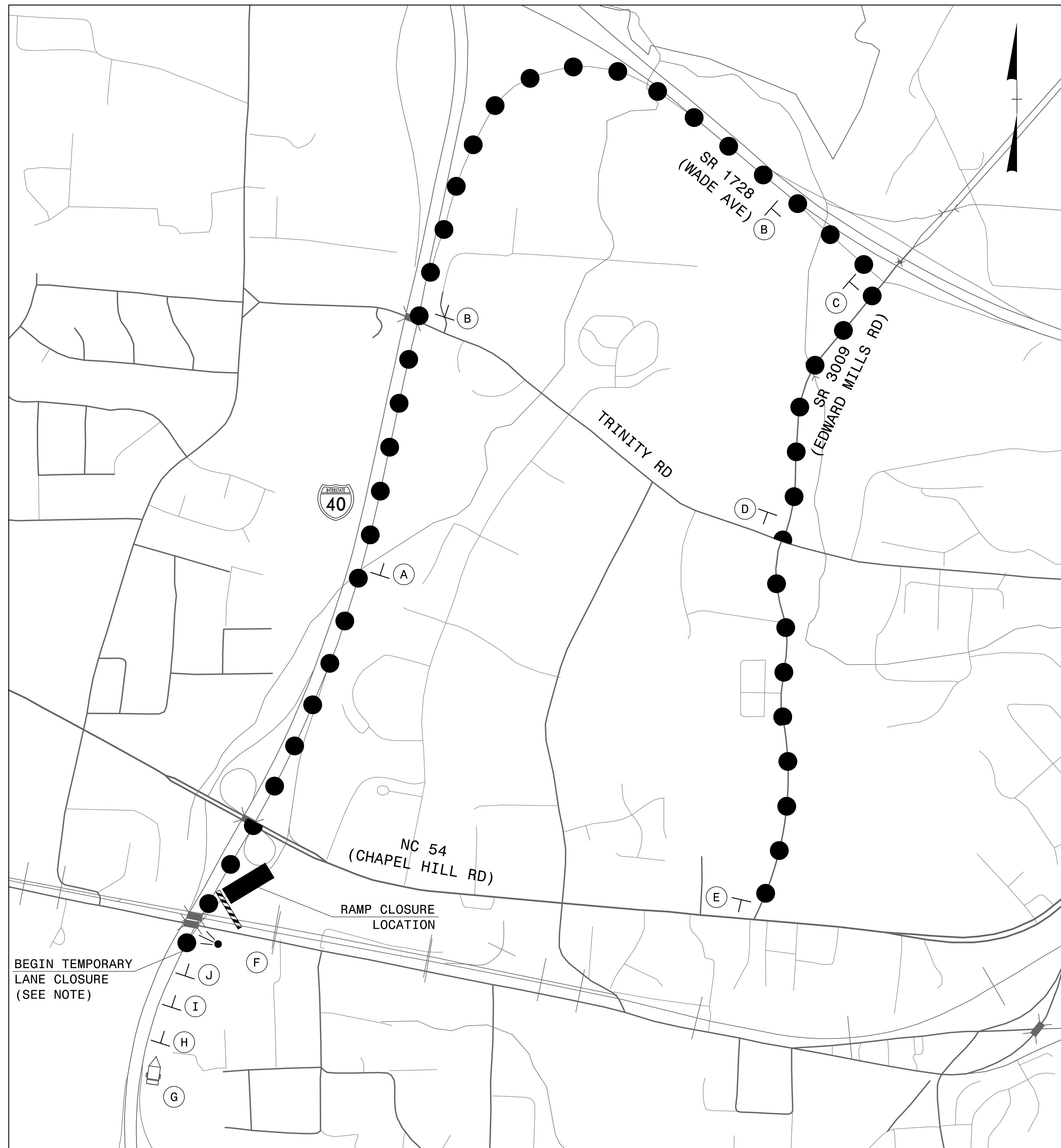
W) CONTRACTOR SHALL MAINTAIN SIDEWALK ACCESS AT ALL TIMES AS STATED IN THE PHASING. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE TEMPORARY SIDEWALKS (CONCRETE, ASPHALT, OR OTHER SUITABLE MATERIAL AS APPROVED BY THE ENGINEER) AT ALL LOCATIONS WHERE THE OPEN PEDESTRIAN TRAVELWAY HAS BEEN REMOVED FOR CONSTRUCTION OPERATIONS (UTILITIES, DRAINAGE, ETC.).

APPROVED:  <small>DocuSigned by: Eric W. Bowman AE832DDCE18488...</small> DATE: 10/23/18 SEAL		 1001 Morehead Square Dr. Suite 610 Charlotte NC, 28203 NC LIC. NO. F-0165	TRANSPORTATION MANAGEMENT PLAN TRANSPORTATION OPERATIONS PLAN
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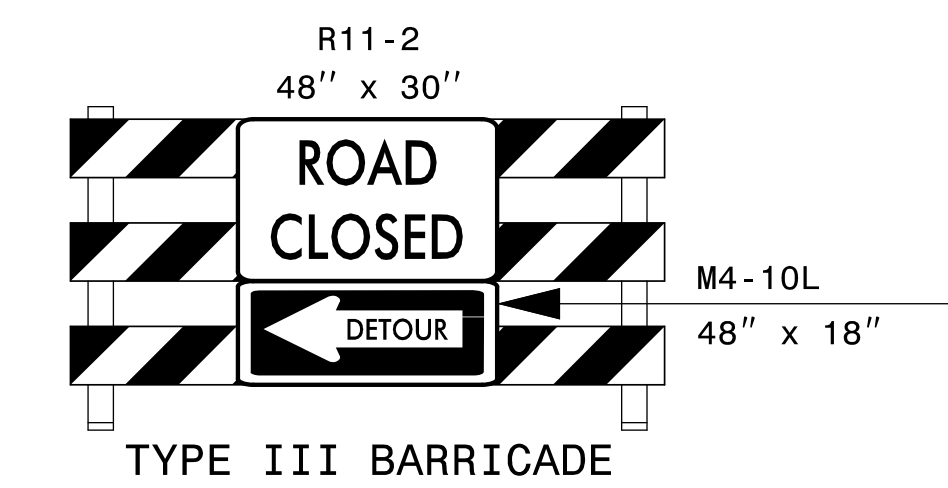
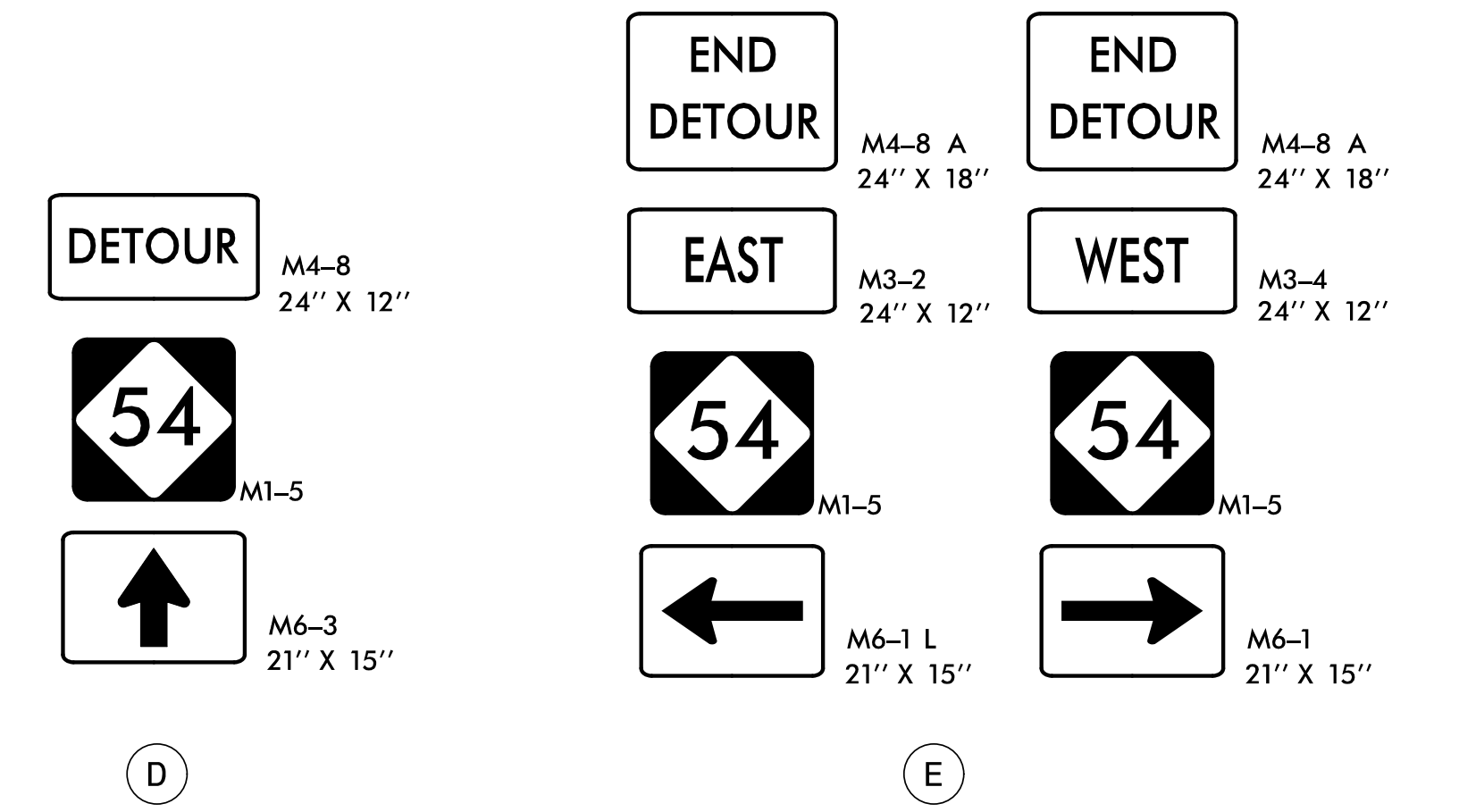
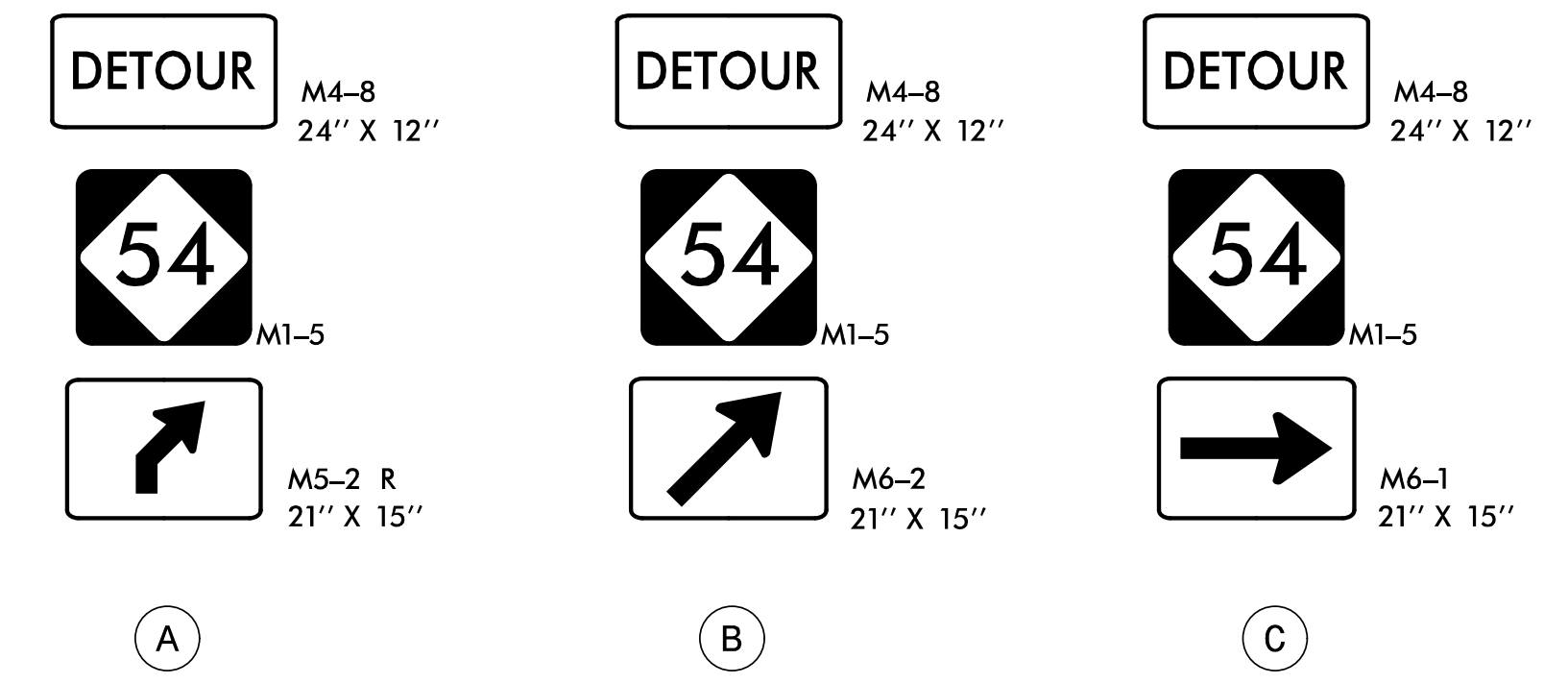
LOCAL NOTES

- 1) CONTRACTOR SHALL MAINTAIN ACCESS TO ALL RESIDENCES AND BUSINESSES AT ALL TIMES.
- 2) ALL DRAINAGE CROSS PIPES SHALL BE INSTALLED USING FLAGGERS AS NEEDED. STEEL PLATES SHALL BE USED WHERE INSTALLATION EXCEEDS THE TIME RESTRICTIONS IDENTIFIED PREVIOUSLY.
- 3) ENGINEER SHOULD LOCATE SAFE PICK-UP AND DROP-OFF LOCATIONS FOR PEDESTRIANS AND COORDINATE WITH PEDESTRIAN TRANSPORT VEHICLE SERVICE FOR PEDESTRIAN SHUTTLE ACROSS THE WORK ZONE WHEN THE TYPE II ADA (SAFETY RAIL) BARRICADES ARE INSTALLED.
- 4) THE CONTRACTOR SHALL COORDINATE WITH THE TOWN OF CARY FOR THE LOCATION OF TRAFFIC SIGNAL AND COMMUNICATION CABLES, CONDUITS, AND JUNCTION BOXES. THE CONTRACTOR SHALL MAINTAIN ACCESS TO AND MODIFY JUNCTION BOXES, AS NEEDED, TO BE FLUSH WITH ALL FINAL SURFACE GRADES AND SIDEWALKS, AS APPROVED BY THE ENGINEER.

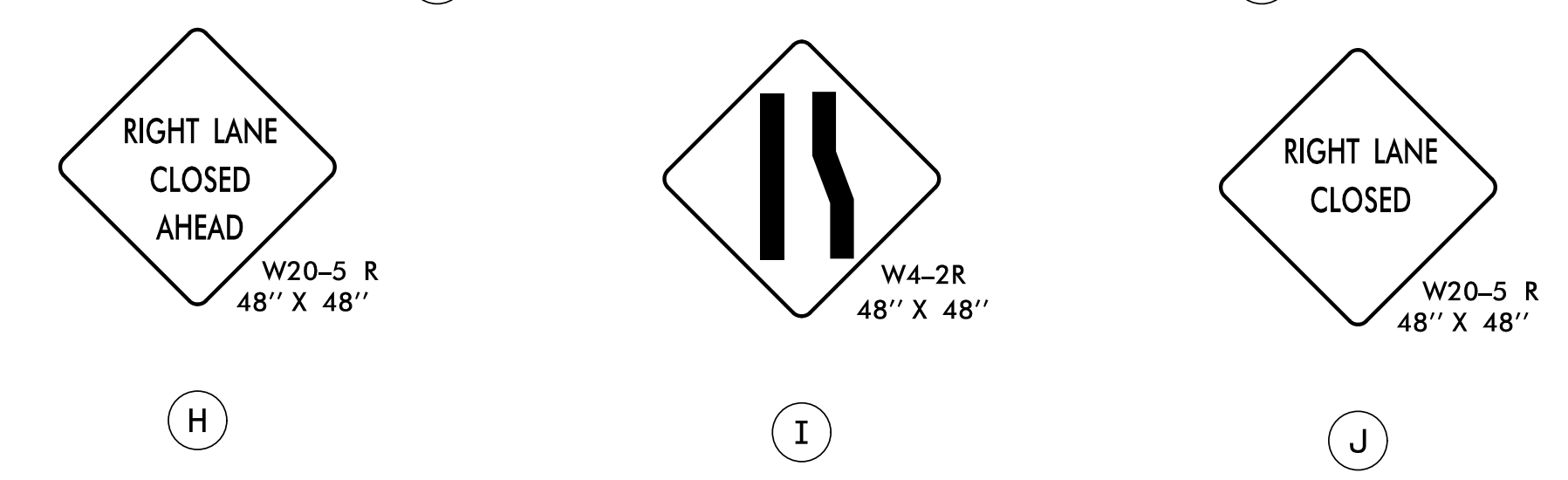
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NOTE: USING ROADWAY STANDARD DRAWING 1101.02, SHEET 3 OF 14 (TEMPORARY LANE CLOSURES) CLOSE AUXILIARY LANE BEFORE THE EXIT. FIELD ADJUST WARNING SIGNS AS NEEDED AND COORDINATE WITH ENGINEER ON EXACT LOCATION.



MESSAGE NO. 1	MESSAGE NO. 2
EXIT 290 NC 54 CLOSED	USE EXIT 289 DETOUR
CHANGEABLE MESSAGE SIGN	

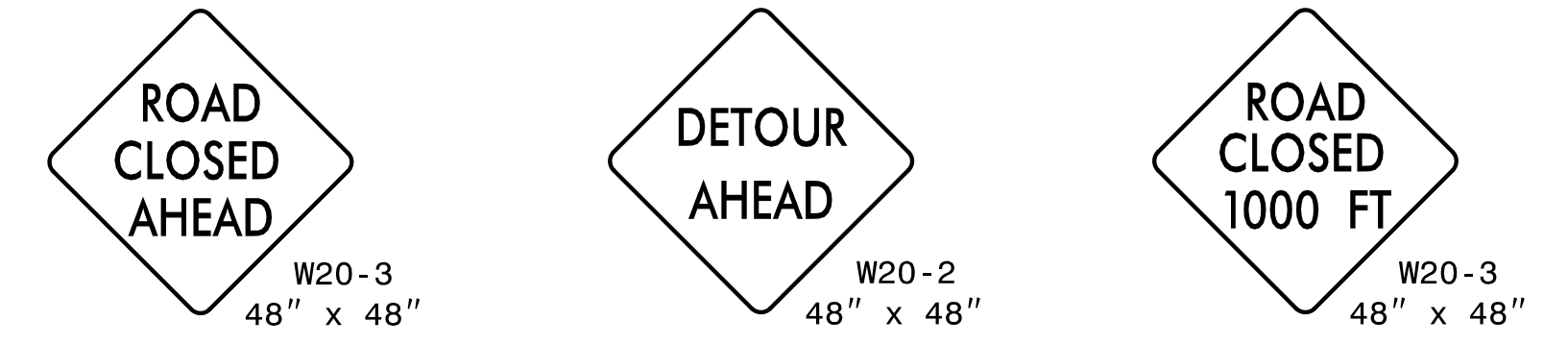
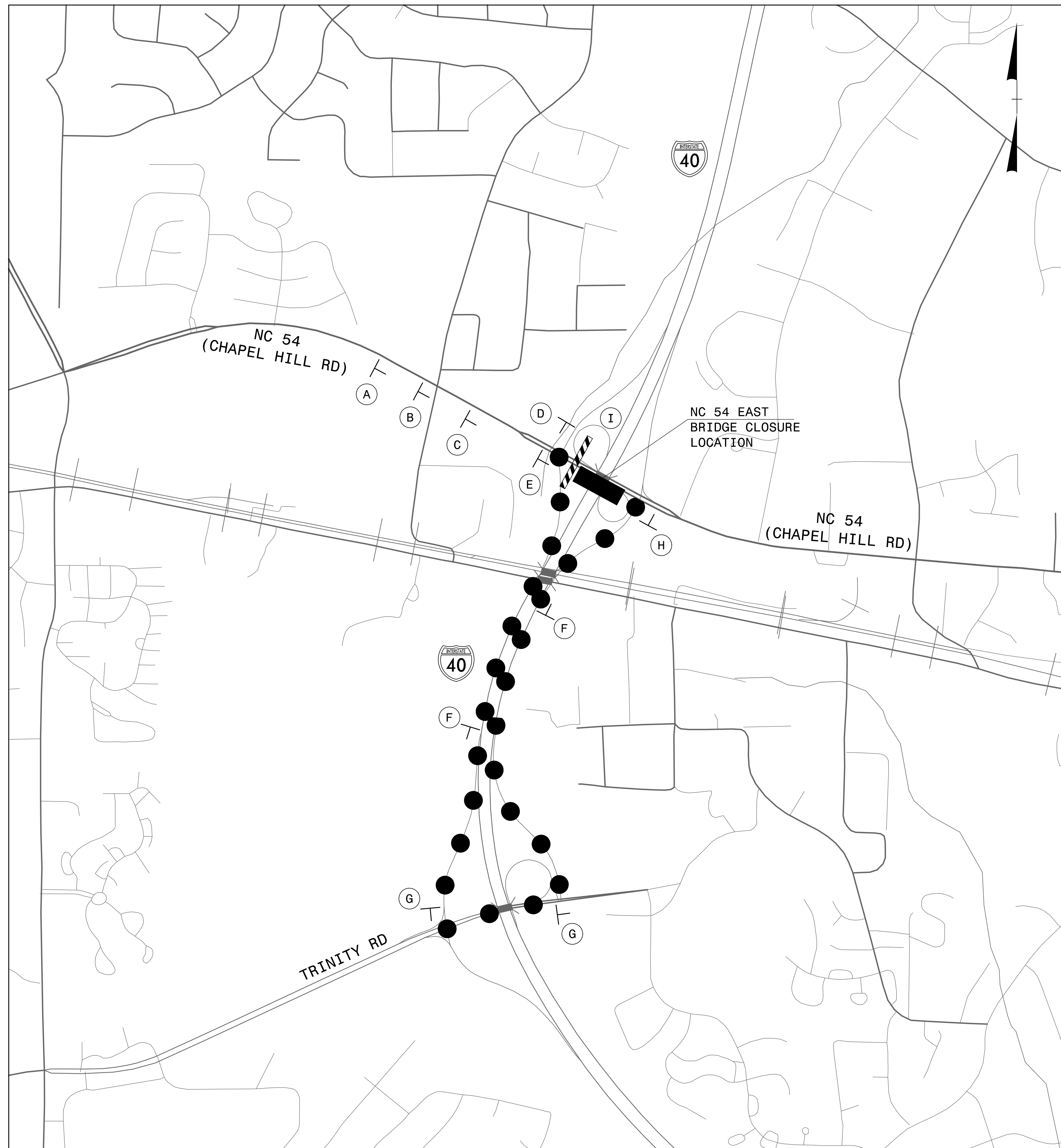


SIGN LOCATIONS SHOWN ARE APPROXIMATE. FIELD ADJUST AS NEEDED AND COORDINATE WITH ENGINEER ON EXACT LOCATION.

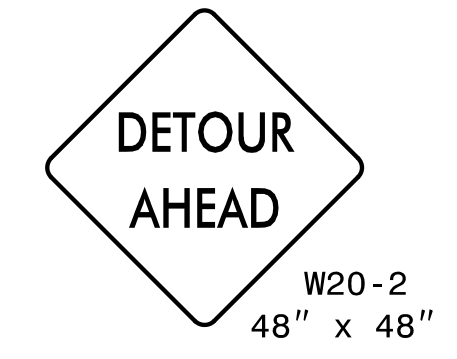
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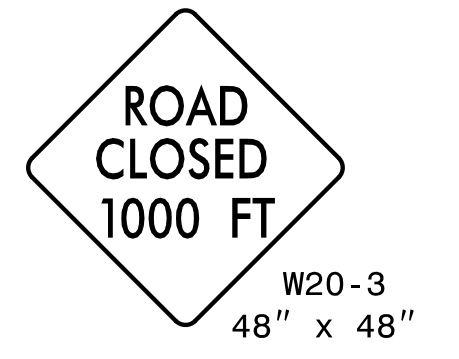
TRANSPORTATION MANAGEMENT PLAN
 OFF-SITE DETOUR
 (EXIT 290, I-40 WB RAMP)



(A)



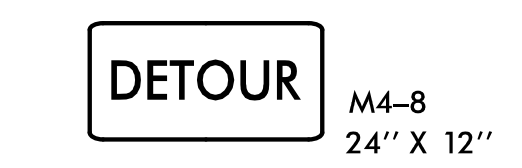
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(D)



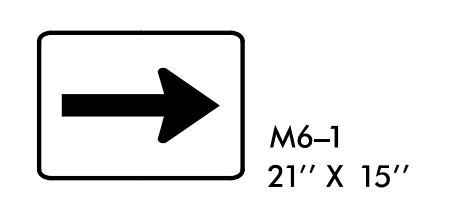
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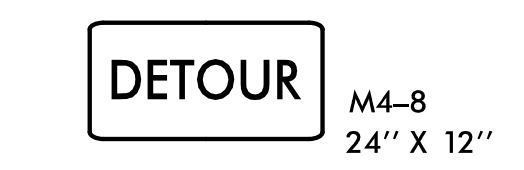
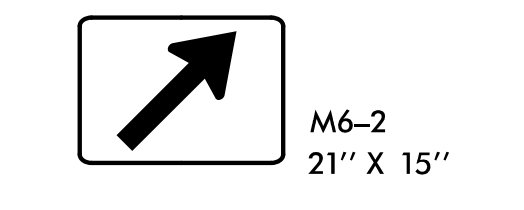
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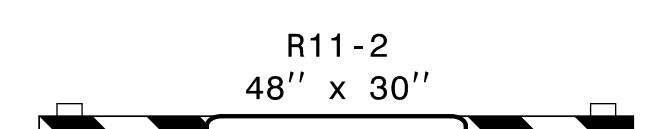
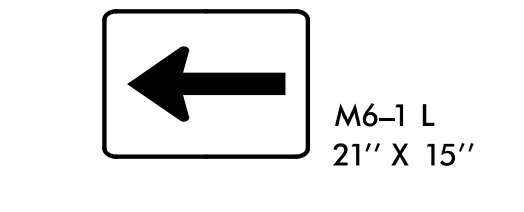
(G)



(H)



(I)



TYPE III BARRICADE

SIGN LOCATIONS SHOWN ARE APPROXIMATE. FIELD ADJUST AS NEEDED AND COORDINATE WITH ENGINEER ON EXACT LOCATION.

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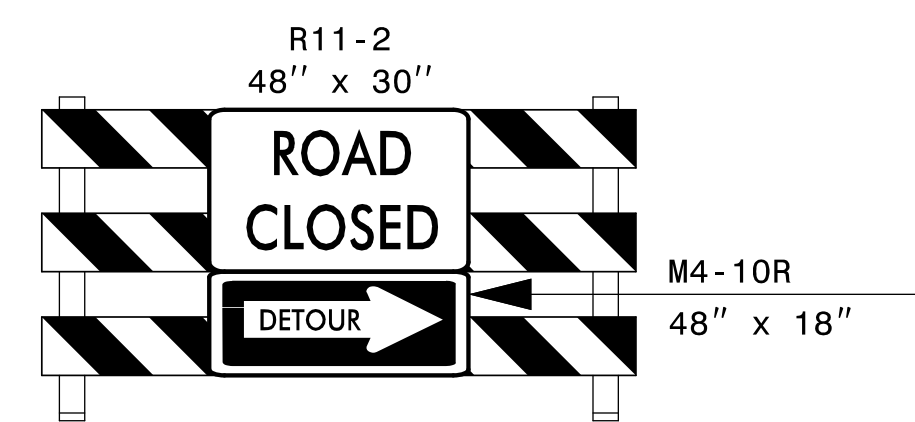
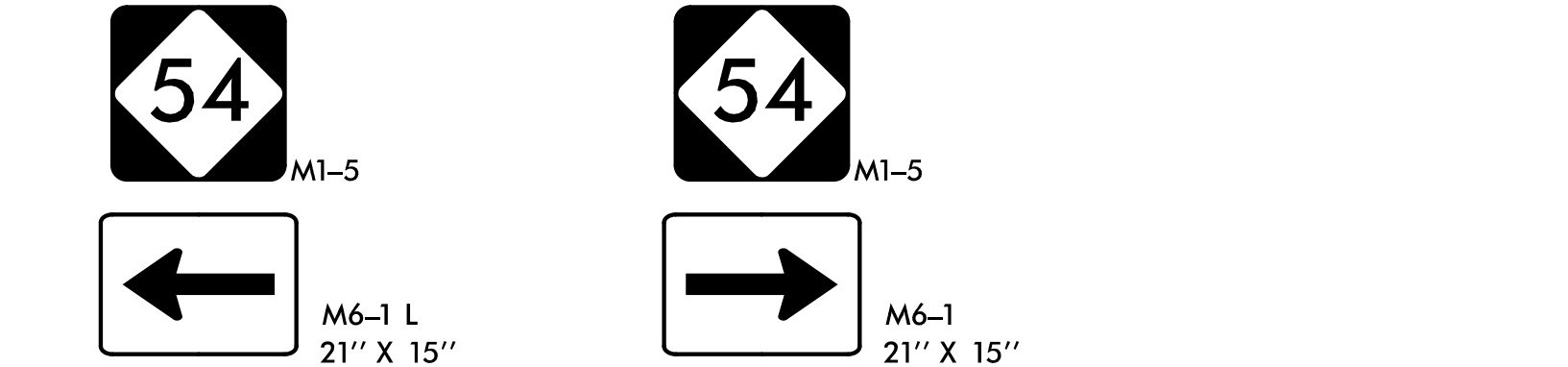
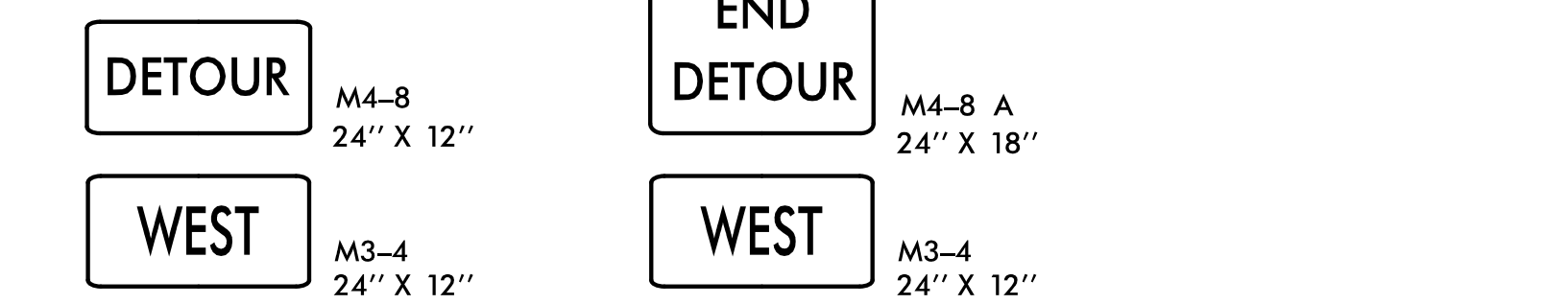
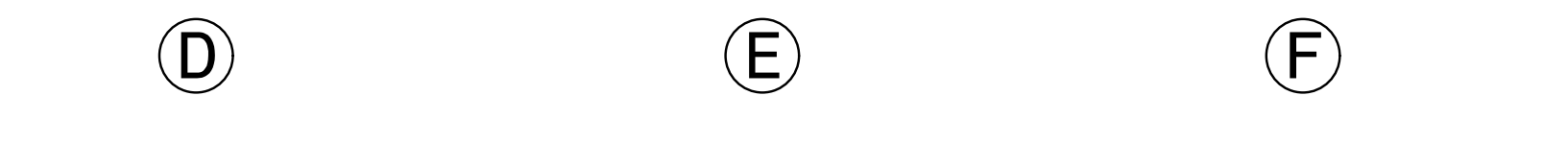
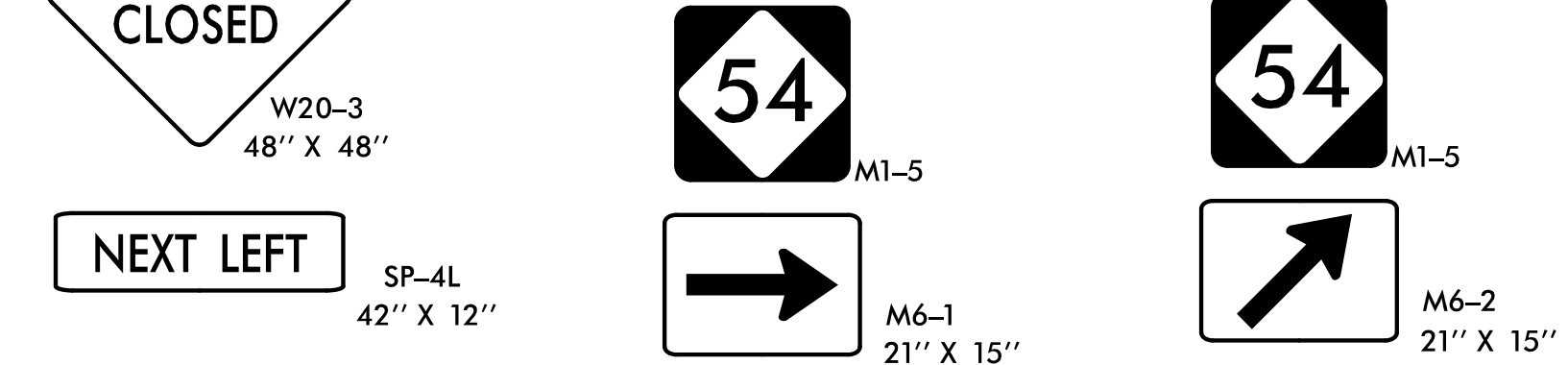
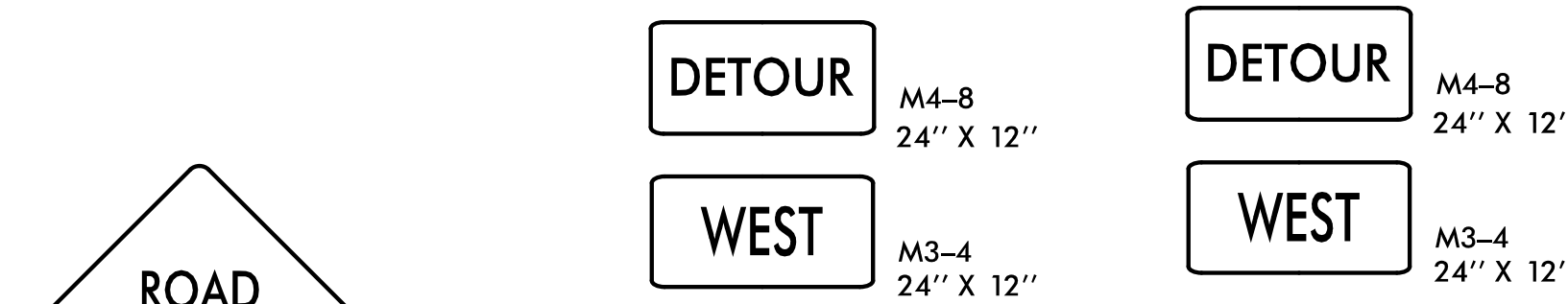
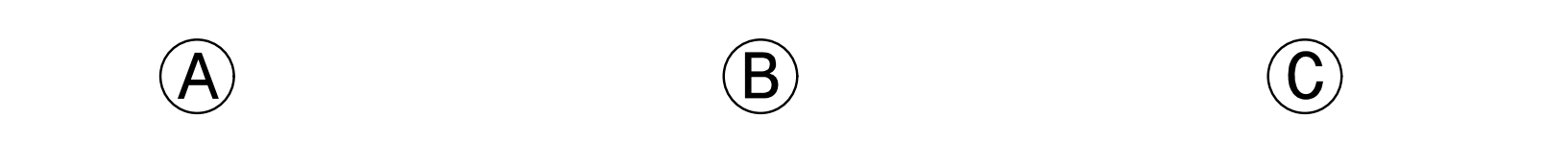
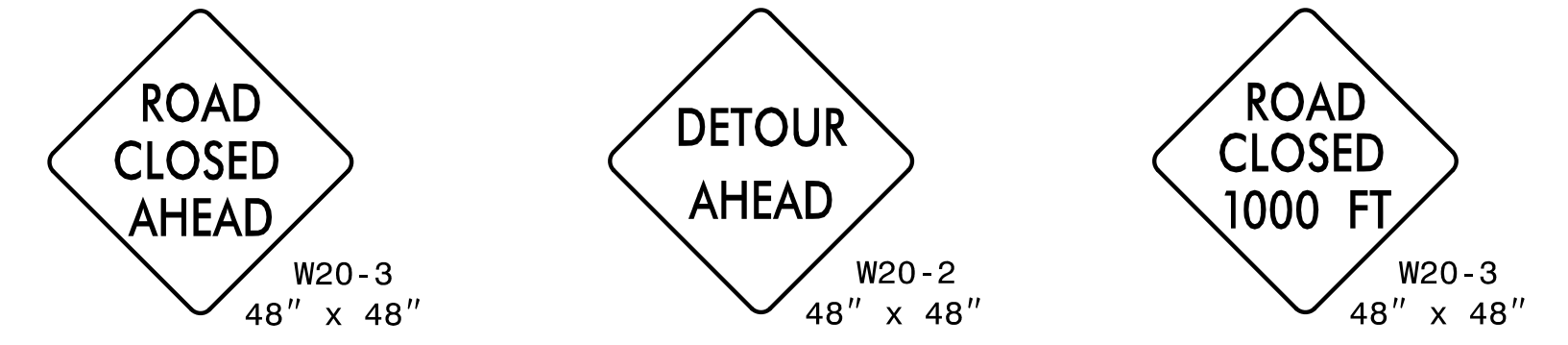
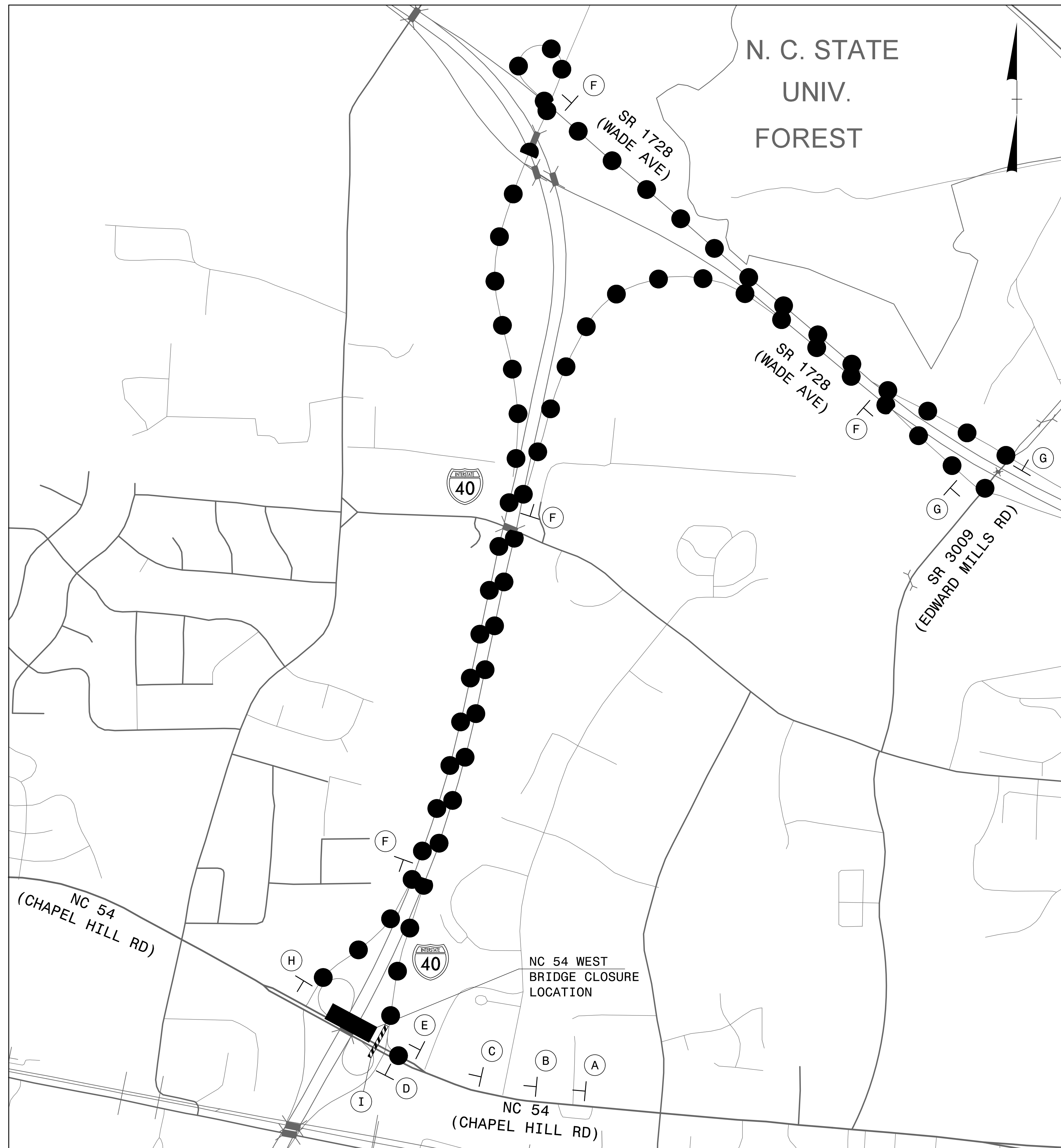
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 NC LIC. NO. F-0165

TRANSPORTATION
 MANAGEMENT PLAN
 OFF-SITE DETOUR
 (NC 54 EASTBOUND)



SIGN LOCATIONS SHOWN ARE APPROXIMATE. FIELD ADJUST AS NEEDED AND COORDINATE WITH ENGINEER ON EXACT LOCATION.

APPROVED: *Eric W. Bowman*
AE832900CE19488

DATE: 10/23/18

SEAL

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

1001 Morehead Square Dr.
 Suite 610
 Charlotte NC, 28203
 NC LIC. NO. F-0165

TRANSPORTATION MANAGEMENT PLAN
 OFF-SITE DETOUR
 (NC 54 WESTBOUND)

PHASING

INSTALL WORK ZONE ADVANCE WARNING SIGNS PER ROADWAY STANDARD DRAWING 1101.01, SHEET 2 OF 3.

USING TYPE II ADA BARICADES WITH AUDIBLE WARNING DEVICES CLOSE SIDEWALK ON SOUTH SIDE OF CHAPEL HILL ROAD AS SHOWN IN TMP-4 THROUGH TMP-7.

UNLESS OTHERWISE NOTED BELOW, MAINTAIN ACCESS TO ALL -Y- LINES THROUGHOUT THE DURATION OF CONSTRUCTION.

ICT: COMPLETE THE WORK REQUIRED IN PHASE I STEP 1 THROUGH STEP 4 IN A PERIOD OF TEN CONSECUTIVE NIGHTS BETWEEN THE HOURS OF 9:00 PM AND 6:00 AM. SEE INTERMEDIATE CONTRACT TIME FOR LIQUIDATED DAMAGES.

PHASE I: BRIDGE PRESERVATION

USING ROADWAY STANDARD DRAWING 1101.02, SHEET 3 OF 14 (TEMPORARY LANE CLOSURES) AND OFFSITE DETOUR CLOSE -Y1- (NC 54 CHAPEL HILL RD) TO THROUGH TRAFFIC AS SHOWN IN TMP-2A (NC 54 WESTBOUND DIRECTION) AND TMP-2B (NC 54 EASTBOUND DIRECTION) AND COMPLETE THE FOLLOWING:

STEP 1: WITH ROADWAY CLOSED (EASTBOUND DIRECTION) TO TRAFFIC COMPLETE BRIDGE PRESERVATION WORK AS SHOWN IN STRUCTURE PLANS (S-1 THRU S-7).

- -Y1- (NC-54 EASTBOUND DIRECTION): AS SHOWN ON TMP-2A

STEP 2: ONCE BRIDGE PRESERVATION WORK IS COMPLETE, OPEN -Y1- (NC 54 EASTBOUND DIRECTION) ROAD CLOSURE TO EXISTING TRAFFIC.

STEP 3: WITH ROADWAY CLOSED (WESTBOUND DIRECTION) TO TRAFFIC COMPLETE BRIDGE PRESERVATION WORK AS SHOWN IN STRUCTURE PLANS (S-1 THRU S-7).

- -Y1- (NC-54 WESTBOUND DIRECTION): AS SHOWN ON TMP-2B

STEP 4: ONCE BRIDGE PRESERVATION WORK IS COMPLETE, OPEN -Y1- (NC 54 WESTBOUND DIRECTION) ROAD CLOSURE TO EXISTING TRAFFIC.

ICT: COMPLETE THE WORK REQUIRED IN PHASE II STEP 1 THROUGH STEP 3 IN ONE NIGHT BETWEEN THE HOURS OF 9:00 PM AND 6:00 AM. SEE INTERMEDIATE CONTRACT TIME FOR LIQUIDATED DAMAGES.

PHASE II: OPEN-CUT DRAINAGE INSTALLATION

USING ROADWAY STANDARD DRAWING 1101.02, SHEET 3 OF 14 (TEMPORARY LANE CLOSURES) AND OFFSITE DETOUR CLOSE -L- (I-40 WESTBOUND AUXILIARY LANE) AND -Y1RPD- (EXIT 290, I-40 WESTBOUND RAMP) TO THROUGH TRAFFIC AS SHOWN IN TMP-2 AND COMPLETE THE FOLLOWING.

STEP 1: WITH ROADWAY CLOSED TO TRAFFIC INSTALL PERMANENT DRAINAGE STRUCTURE AS SHOWN IN IN CONSTRUCTION PLANS.

- -Y1RPD- (I-40 WESTBOUND EXIT RAMP): AS SHOWN ON TMP-5

STEP 2: ONCE DRAINAGE STRUCTURE IS INSTALLED BACKFILL AND PAVE, IF REQUIRED, UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT.

STEP 3: OPEN -Y1RPD- ROAD CLOSURE (I-40 WESTBOUND EXIT RAMP) TO EXISTING TRAFFIC.

PHASE III

STEP 1: USING ROADWAY STANDARD DRAWING 1101.02, SHEET 3 OF 14, AS NEEDED, INSTALL FINAL SIGNAL POLE, SPAN WIRE AND SIGNAL HEADS IN TEMPORARY CONDITION (SEE TEMPORARY SIGNAL PLANS) AT THE FOLLOWING:

- -Y1- & -Y1RPD- : AS SHOWN ON SIG 1.0 (TEMPORARY DESIGN 1)
- -Y1- & -Y1RPB- : AS SHOWN ON SIG 4.0 (TEMPORARY DESIGN 1)

STEP 2: USING ROADWAY STANDARD DRAWING 1101.02, SHEET 3 OF 14, AS NEEDED, INSTALL TEMPORARY PAVEMENT MARKINGS, SHIFT EXISTING SIGNAL HEADS TO TEMPORARY PATTERN AND ACTIVATE TEMPORARY SIGNAL. SHIFT TRAFFIC TO TEMPORARY PATTERN, AS SHOWN ON TMP-4 AND TMP-5.

STEP 3: USING ROADWAY STANDARD DRAWING 1101.02, SHEET 3 OF 14, AS NEEDED, INSTALL PORTABLE CONCRETE BARRIER AND CONSTRUCT PHASE III IMPROVEMENTS, UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE.

- -Y1RPB-: AS SHOWN IN THE LOCATIONS ON TMP-4
- -Y1RPD-: AS SHOWN IN THE LOCATIONS ON TMP-5
- -Y1-: AS SHOWN IN THE LOCATIONS ON TMP-4 AND TMP-5

PHASE IV

STEP 1: USING ROADWAY STANDARD DRAWING 1101.02, SHEET 3 OF 14, AS NEEDED, REMOVE EXISTING CONCRETE ISLANDS ALONG THE FOLLOWING:

- -Y1-: AS SHOWN IN THE LOCATIONS ON TMP-6 AND TMP-7

STEP 2: USING ROADWAY STANDARD DRAWING 1101.02, SHEET 3 OF 14, AS NEEDED, ADJUST SIGNAL HEADS IN TEMPORARY CONDITION (SEE TEMPORARY SIGNAL PLANS) AT THE FOLLOWING:

- -Y1- & -Y1RPD- : AS SHOWN ON SIG 2.0 (TEMPORARY DESIGN 2)
- -Y1- & -Y1RPB- : AS SHOWN ON SIG 5.0 (TEMPORARY DESIGN 2)

STEP 3: USING ROADWAY STANDARD DRAWING 1101.02, SHEET 3 OF 14, AS NEEDED, INSTALL TEMPORARY PAVEMENT MARKINGS AND ACTIVATE TEMPORARY SIGNAL. SHIFT TRAFFIC TO TEMPORARY PATTERN, AS SHOWN ON TMP-6 AND TMP-7.

STEP 4: USING ROADWAY STANDARD DRAWING 1101.02, SHEET 3 OF 14, AS NEEDED, CONSTRUCT PHASE IV IMPROVEMENTS INCLUDING CURB AND GUTTER EXTENSIONS AND SIDEWALK, UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE, AS SHOWN ON SHEETS TMP-6 THRU TMP-7 ALONG THE FOLLOWING:

- -Y1RPB-: AS SHOWN IN THE LOCATIONS ON TMP-6
- -Y1RPD-: AS SHOWN IN THE LOCATIONS ON TMP-7
- -Y1-: AS SHOWN IN THE LOCATIONS ON TMP-6 AND TMP-7

STEP 5: USING ROADWAY STANDARD DRAWING 1101.02, SHEET 3 OF 14, AS NEEDED, INSTALL MONOLITHIC CONCRETE ISLANDS ALONG THE FOLLOWING:

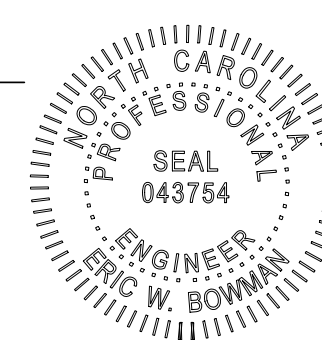

- -Y1-: AS SHOWN IN THE LOCATIONS ON TMP-6 AND TMP-7

PHASE V

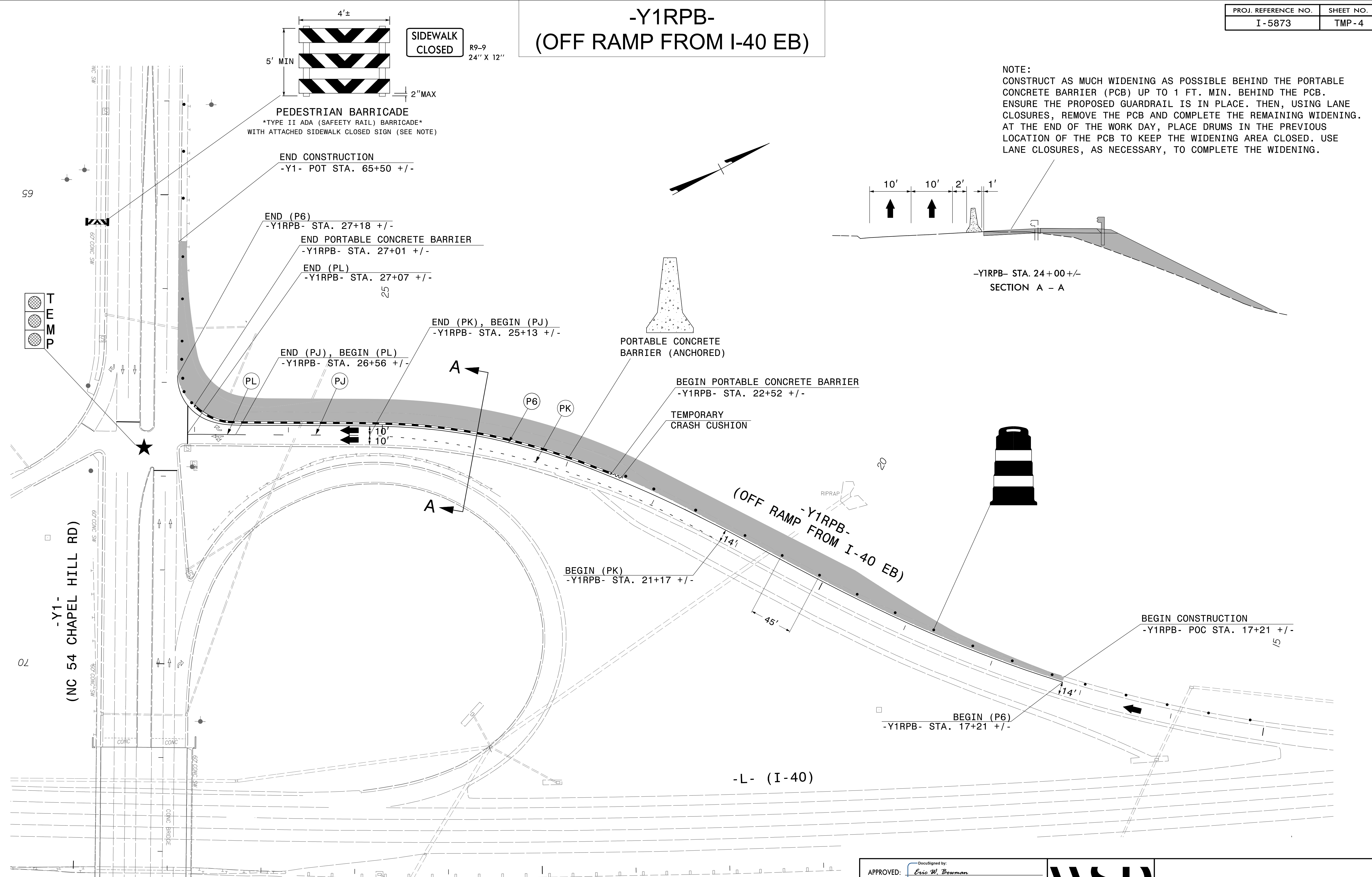
STEP 1: USING ROADWAY STANDARD DRAWING 1101.02, SHEET 3 OF 14, AS NEEDED, MILL EXISTING ROADWAY INSTALL FINAL LAYER OF SURFACE COURSE PAVEMENT, FINAL PAVEMENT MARKINGS AND PEDESTRIAN SIGNAL HEADS. SHIFT SIGNAL HEADS TO FINAL PATTERN (SEE FINAL SIGNAL PLANS) AT THE FOLLOWING:

- -Y1- & -Y1RPD- : AS SHOWN ON SIG 3.0 (FINAL DESIGN)
- -Y1- & -Y1RPB- : AS SHOWN ON SIG 6.0 (FINAL DESIGN)

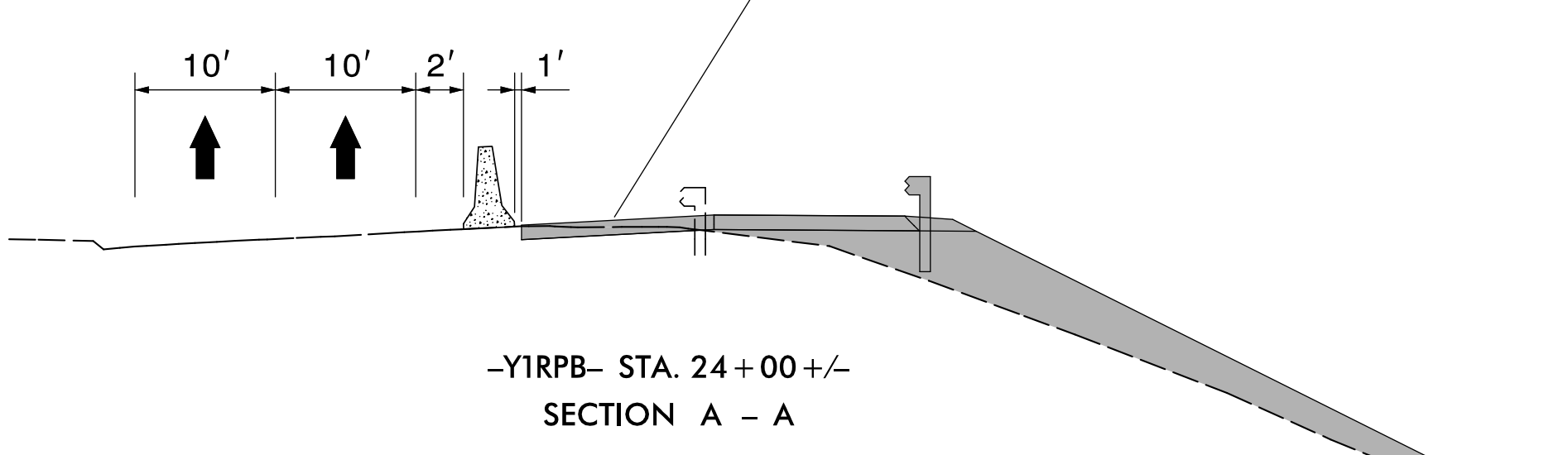
STEP 2: ONCE ALL CONSTRUCTION IS COMPLETE, OPEN SIDEWALK TO PEDESTRAIN TRAFFIC, PLACE TRAFFIC IN THE FINAL PATTERN AND REMOVE ALL WORK ZONE SIGNS AND DEVICES.

APPROVED: <i>Eric W. Bowman</i> <small>ASE328DCE18488</small> DATE: 10/23/18 SEAL 	 1001 Morehead Square Dr. Suite 610 Charlotte NC, 28203 NC LIC. NO. F-0165	TRANSPORTATION MANAGEMENT PLAN WRITTEN PHASING
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-Y1RPB- (OFF RAMP FROM I-40 EB)



NOTE:
 CONSTRUCT AS MUCH WIDENING AS POSSIBLE BEHIND THE PORTABLE CONCRETE BARRIER (PCB) UP TO 1 FT. MIN. BEHIND THE PCB. ENSURE THE PROPOSED GUARDRAIL IS IN PLACE. THEN, USING LANE CLOSURES, REMOVE THE PCB AND COMPLETE THE REMAINING WIDENING. AT THE END OF THE WORK DAY, PLACE DRUMS IN THE PREVIOUS LOCATION OF THE PCB TO KEEP THE WIDENING AREA CLOSED. USE LANE CLOSURES, AS NECESSARY, TO COMPLETE THE WIDENING.



ALL PAVEMENT MARKINGS ARE EXISTING UNLESS OTHERWISE NOTED. ALL LANE WIDTHS ARE 11' UNLESS OTHERWISE NOTED. SEE GENERAL NOTES FOR LANE CLOSURE TIME RESTRICTIONS.

NOTE:
 TO MAINTAIN PEDESTRIAN TRAFFIC CLOSE EXISTING SIDEWALKS WITH TYPE II ADA (SAFETY RAIL) BARRICADE ALONG WITH SIDEWALK CLOSED SIGN AND AUDIBLE WARNING DEVICE ATTACHED TO BARRICADE WHILE UTILIZING THE PEDESTRIAN TRANSPORT VEHICLE SERVICE.

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AE832600CE18488...
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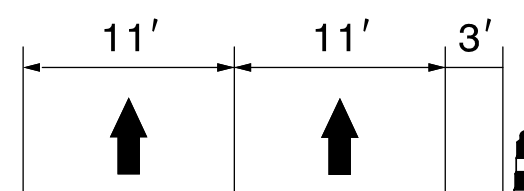
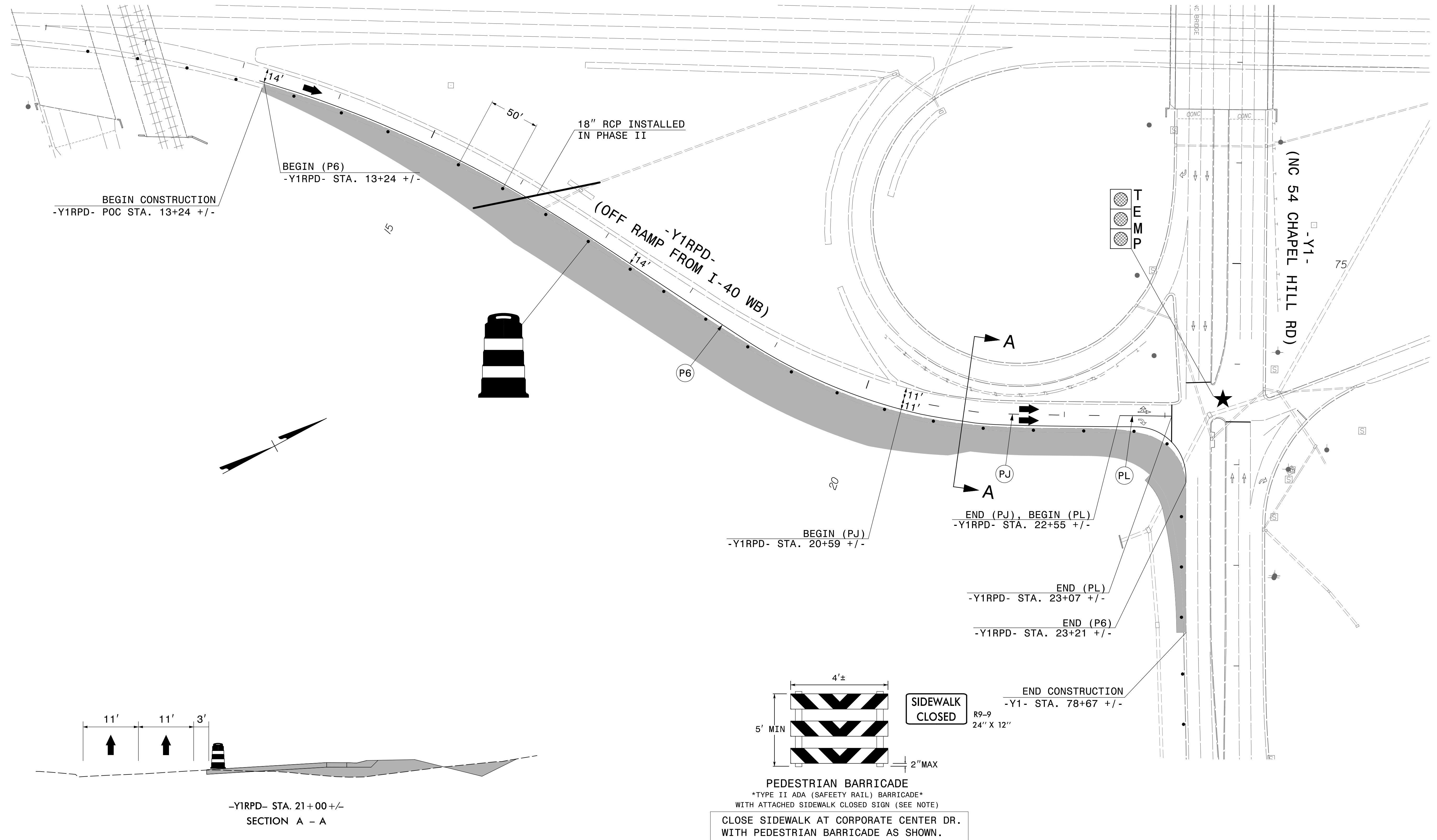
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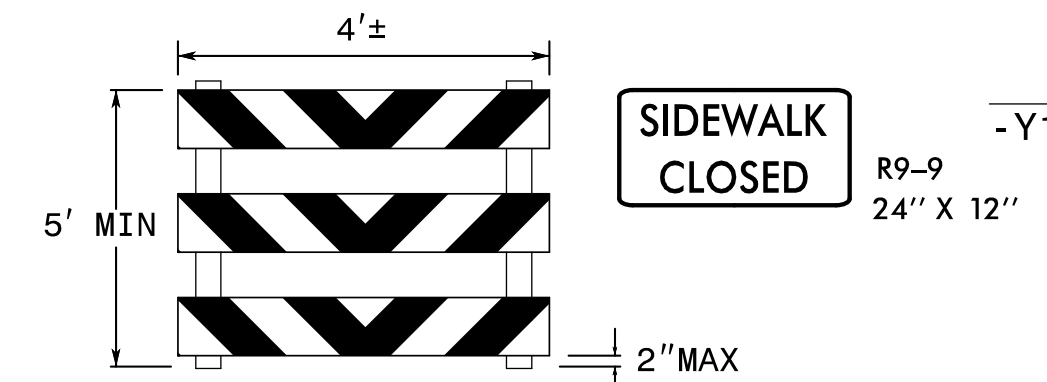
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TRANSPORTATION
 MANAGEMENT PLAN
 TEMPORARY TRAFFIC CONTROL
 PHASE III

**-Y1RPD-
(OFF RAMP FROM I-40 WB)**



-Y1RPD- STA. 21+00 +/-
SECTION A - A



PEDESTRIAN BARRICADE
TYPE II ADA (SAFETY RAIL) BARRICADE
WITH ATTACHED SIDEWALK CLOSED SIGN (SEE NOTE)
**CLOSE SIDEWALK AT CORPORATE CENTER DR.
WITH PEDESTRIAN BARRICADE AS SHOWN.**

ALL PAVEMENT MARKINGS ARE EXISTING UNLESS OTHERWISE NOTED. ALL LANE WIDTHS ARE 11' UNLESS OTHERWISE NOTED. SEE GENERAL NOTES FOR LANE CLOSURE TIME RESTRICTIONS.

NOTE:
TO MAINTAIN PEDESTRIAN TRAFFIC CLOSE EXISTING SIDEWALKS WITH TYPE II ADA (SAFETY RAIL) BARRICADE ALONG WITH SIDEWALK CLOSED SIGN AND AUDIBLE WARNING DEVICE ATTACHED TO BARRICADE WHILE UTILIZING THE PEDESTRIAN TRANSPORT VEHICLE SERVICE.

APPROVED: *Eric W. Bowman*
DATE: 10/23/18

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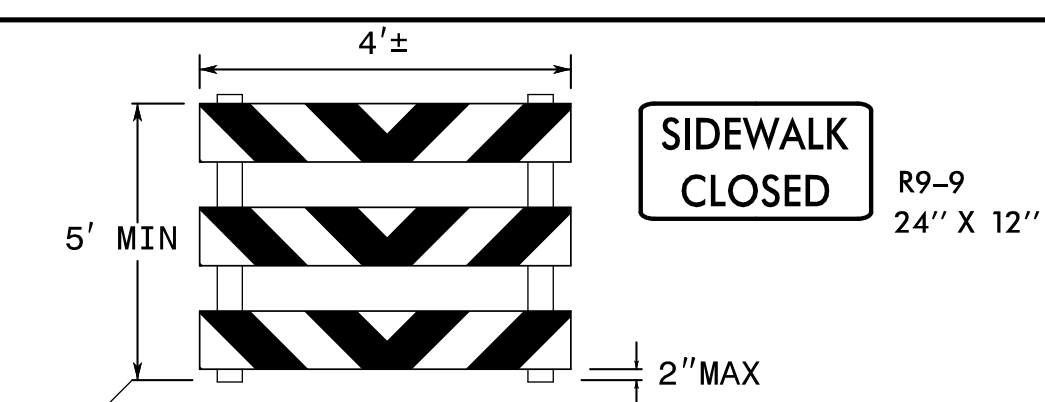
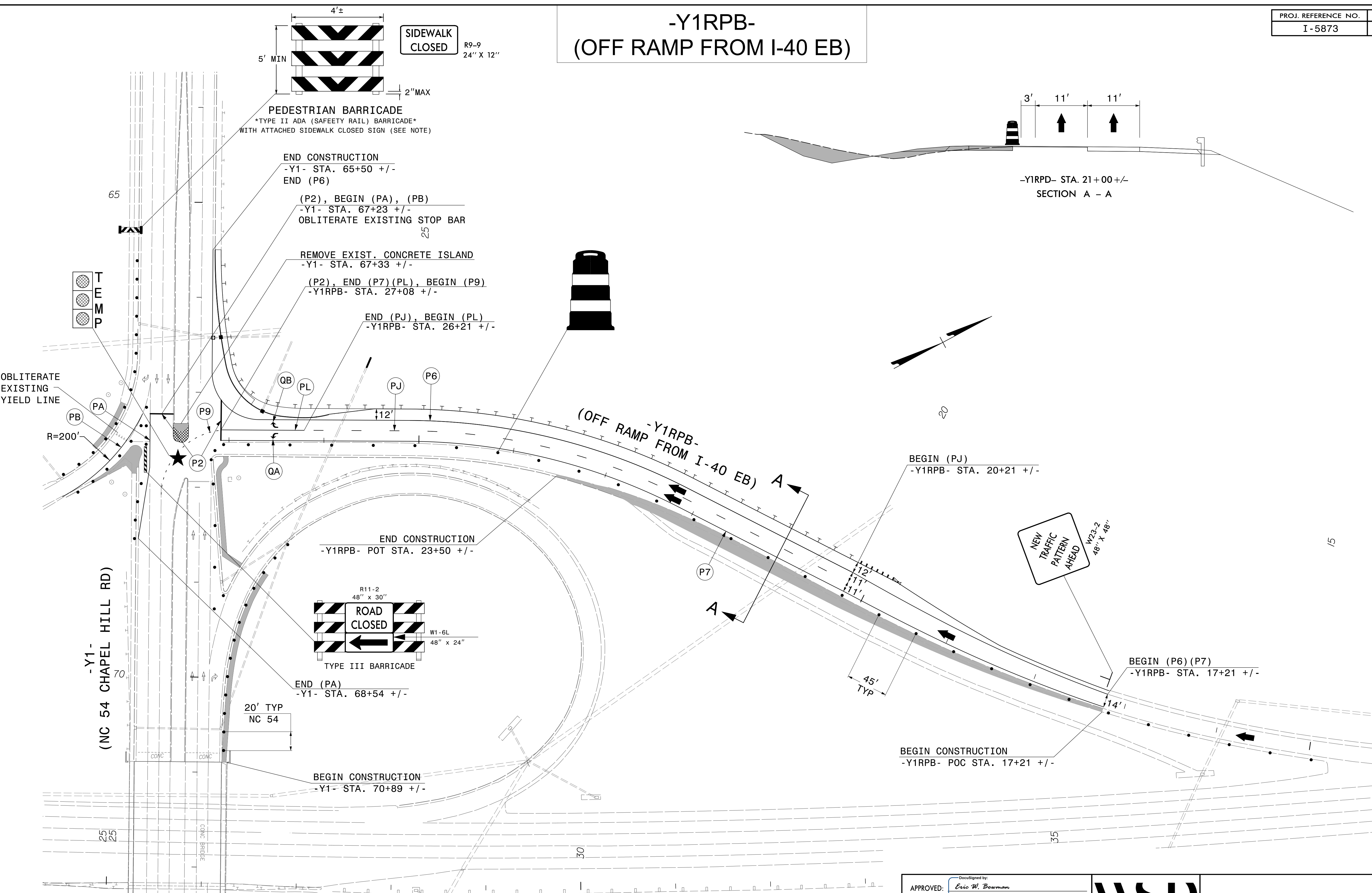
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**TRANSPORTATION
MANAGEMENT PLAN
TEMPORARY TRAFFIC CONTROL
PHASE III**

-Y1RPB- (OFF RAMP FROM I-40 EB)



PEDESTRIAN BARRICADE
 TYPE II ADA (SAFETY RAIL) BARRICADE
 WITH ATTACHED SIDEWALK CLOSED SIGN (SEE NOTE)

END CONSTRUCTION
 -Y1- STA. 65+50 +/-
 END (P6)

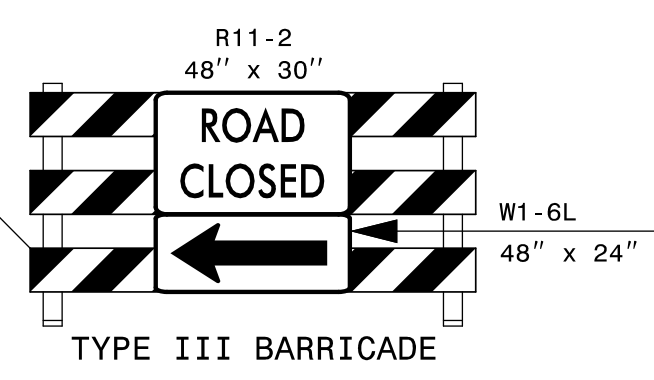
(P2), BEGIN (PA), (PB)
 -Y1- STA. 67+23 +/-
 OBLITERATE EXISTING STOP BAR

REMOVE EXIST. CONCRETE ISLAND
 -Y1- STA. 67+33 +/-

(P2), END (P7)(PL), BEGIN (P9)
 -Y1RPB- STA. 27+08 +/-

END (PJ), BEGIN (PL)
 -Y1RPB- STA. 26+21 +/-

END CONSTRUCTION
 -Y1RPB- POT STA. 23+50 +/-



END (PA)
 -Y1- STA. 68+54 +/-

BEGIN CONSTRUCTION
 -Y1- STA. 70+89 +/-

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NOTE:
 TO MAINTAIN PEDESTRIAN TRAFFIC CLOSE EXISTING SIDEWALKS WITH TYPE II ADA (SAFETY RAIL) BARRICADE ALONG WITH SIDEWALK CLOSED SIGN AND AUDIBLE WARNING DEVICE ATTACHED TO BARRICADE WHILE UTILIZING THE PEDESTRIAN TRANSPORT VEHICLE SERVICE.

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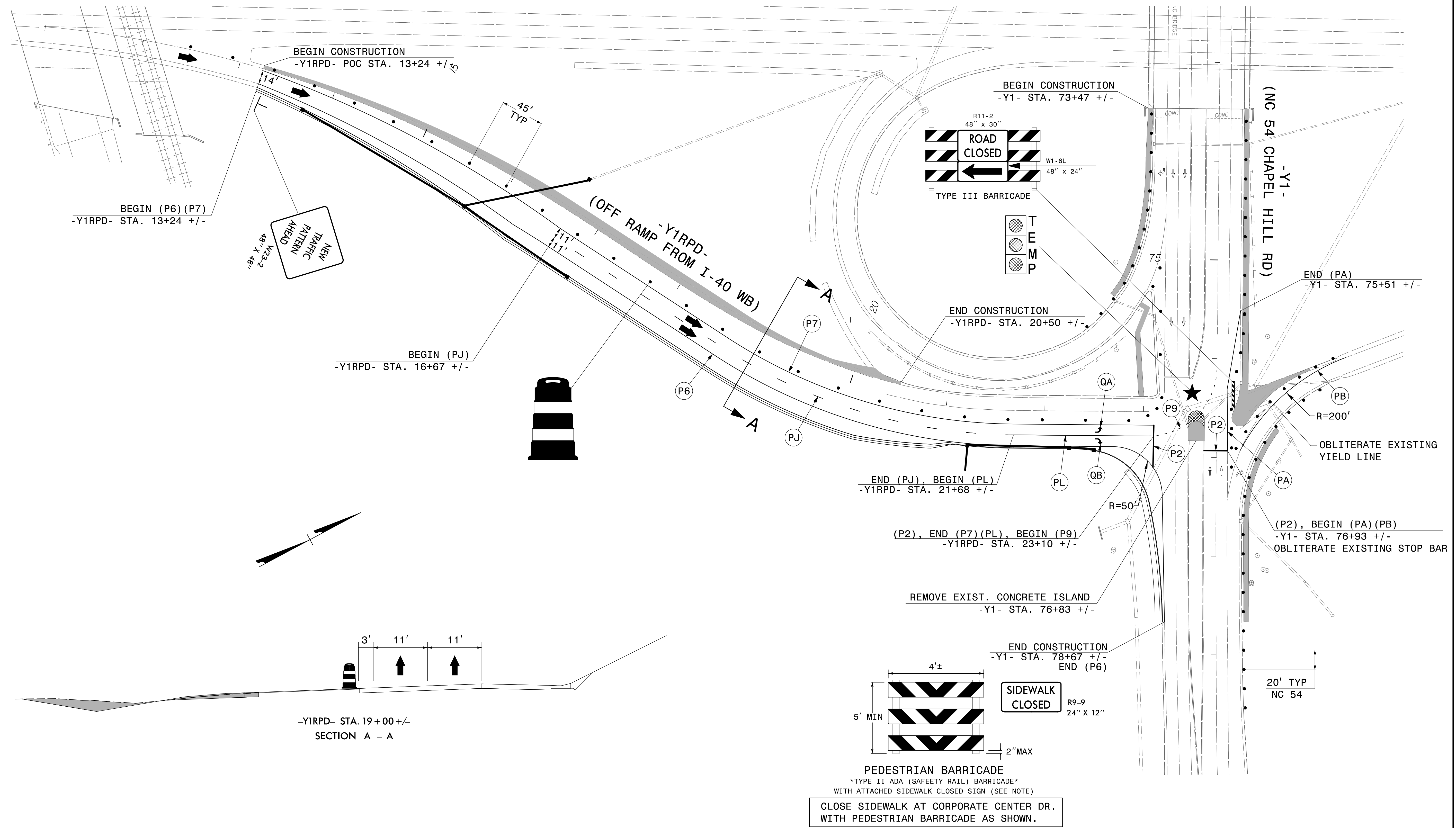
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**TRANSPORTATION
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TEMPORARY TRAFFIC CONTROL
PHASE IV**

**-Y1RPD-
(OFF RAMP FROM I-40 WB)**



ALL PAVEMENT MARKINGS ARE EXISTING UNLESS OTHERWISE NOTED. ALL LANE WIDTHS ARE 11' UNLESS OTHERWISE NOTED. SEE GENERAL NOTES FOR LANE CLOSURE TIME RESTRICTIONS.

NOTE:
TO MAINTAIN PEDESTRIAN TRAFFIC CLOSE EXISTING SIDEWALKS WITH TYPE II ADA (SAFETY RAIL) BARRICADE ALONG WITH SIDEWALK CLOSED SIGN AND AUDIBLE WARNING DEVICE ATTACHED TO BARRICADE WHILE UTILIZING THE PEDESTRIAN TRANSPORT VEHICLE SERVICE.

CLOSE SIDEWALK AT CORPORATE CENTER DR. WITH PEDESTRIAN BARRICADE AS SHOWN.

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**TRANSPORTATION
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PHASE IV**