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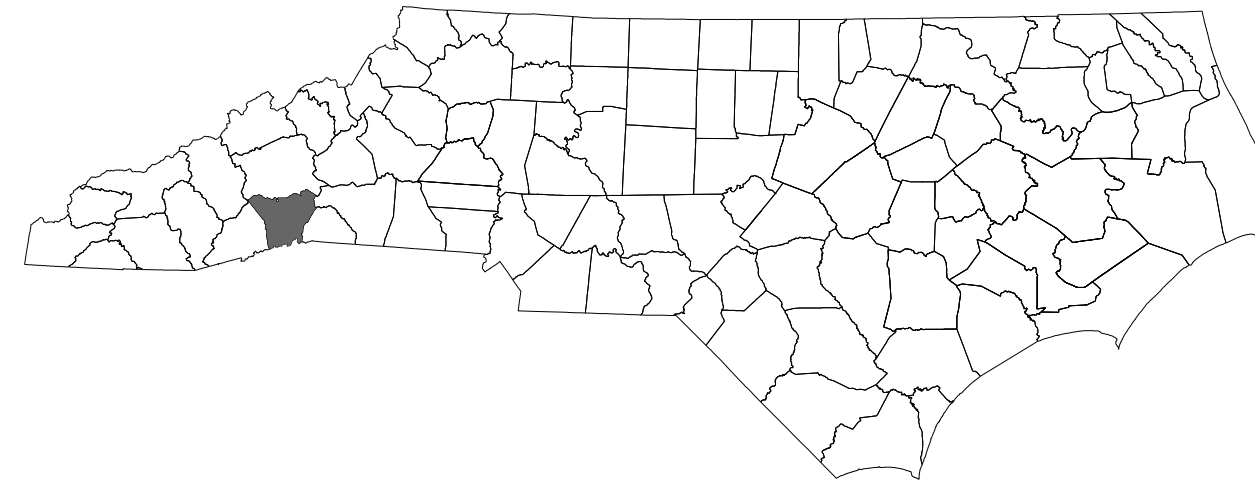
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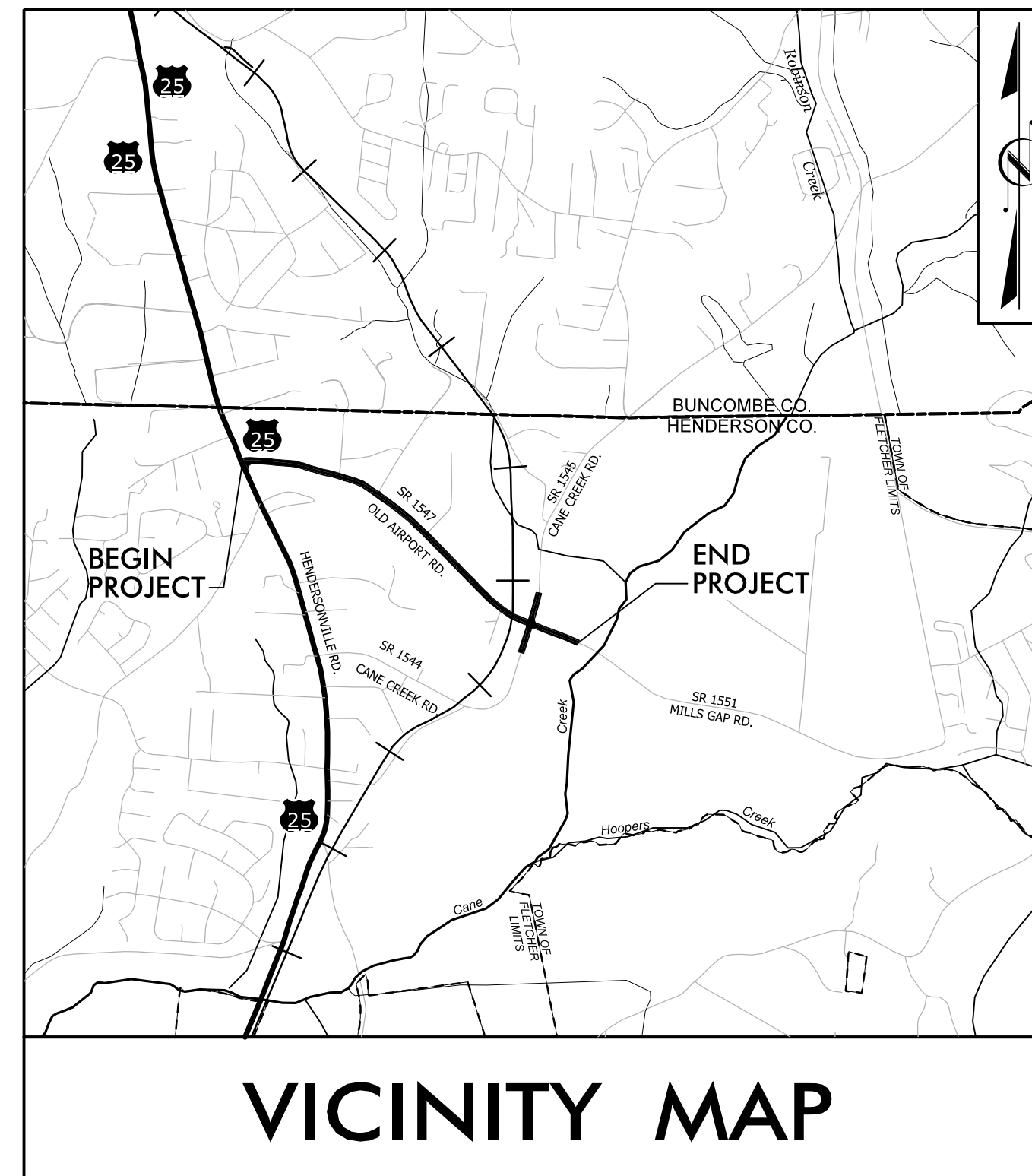
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

HENDERSON COUNTY



**LOCATION: SR 1547 (OLD AIRPORT ROAD) FROM US 25
(HENDERSONVILLE ROAD) TO SR 1551 (MILLS GAP ROAD)**

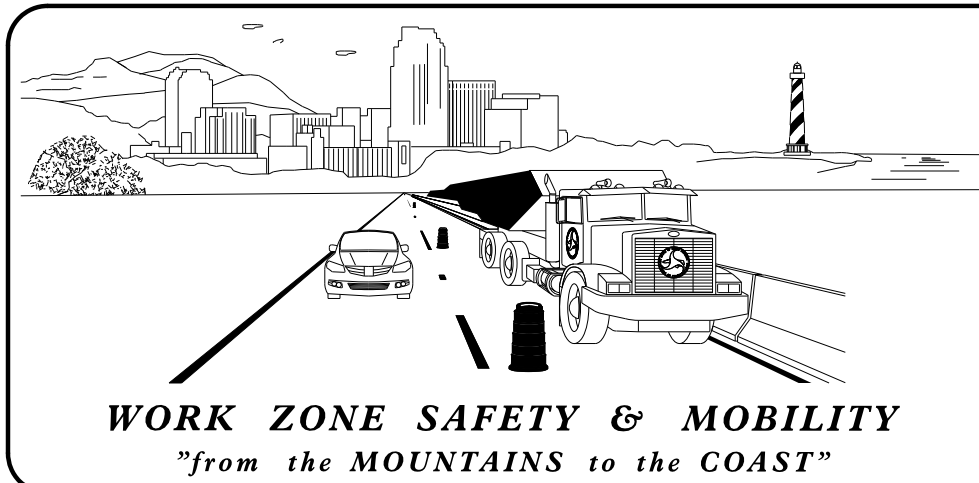


VICINITY MAP

<u>INDEX OF SHEETS</u>	
SHEET NO.	TITLE
TMP-1	TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, AND LEGEND
TMP-1B	TRANSPORTATION OPERATIONS PLAN
TMP-1D	PORTABLE CONCRETE BARRIER AT TEMPORARY SHORING LOCATIONS
TMP-2	TEMPORARY SHORING NOTES
TMP-2A TO TMP-2D	SPECIAL SIGN DESIGN
TMP-3	PHASING NOTES
TMP-4 TO TMP-5	TEMPORARY TRAFFIC CONTROL PHASE I DETAILS
TMP-6 TO TMP-9	TEMPORARY TRAFFIC CONTROL PHASE II DETAILS
TMP-10	OFFSITE DETOUR ROUTE (PHASE III)
TMP-11 TO TMP-13	TEMPORARY TRAFFIC CONTROL PHASE IV DETAILS
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TMP-18	TEMPORARY TRAFFIC CONTROL PHASE VIII DETAILS
TMP-19	OFFSITE DETOUR ROUTE (PHASE VIII)

SHEET NO.
TMP-1

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TRANSPORTATION DESIGNER

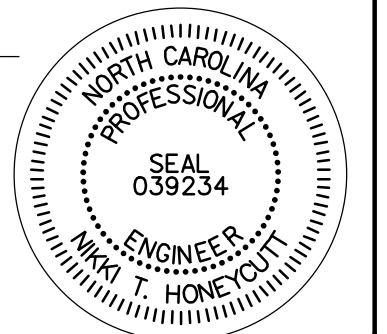
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APPROVED:
DATE: 7/5/2018

SEAL



TIP PROJECT: U-5840



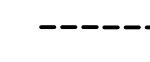

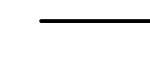
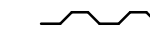
ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - 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:

STD. NO.	TITLE
1101.01	WORK ZONE ADVANCE 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	DRUM
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1160.01	TEMPORARY CRASH CUSHION
1165.01	TRUCK MOUNTED ATTENUATOR
1170.01	POSITIVE PROTECTION
1180.01	SKINNY-DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTI-LANE ROADWAYS
1205.03	PAVEMENT MARKINGS - EXITS AND ENTRANCE RAMP
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
1205.11	PAVEMENT MARKINGS - RAILROAD CROSSINGS
1205.13	PAVEMENT MARKINGS - LANE REDUCTIONS
1261.01	GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING
1261.02	GUARDRAIL & BARRIER DELINEATORS - TYPES AND MOUNTING

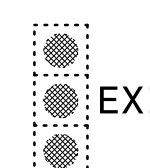
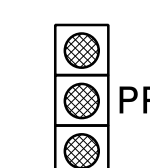
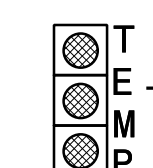
LEGEND

GENERAL

-  DIRECTION OF TRAFFIC FLOW
-  DIRECTION OF PEDESTRIAN TRAFFIC FLOW
-  EXIST. PVMT.
-  NORTH ARROW
-  PROPOSED PVMT.
-  TEMP. SHORING (LOCATION PURPOSES ONLY)








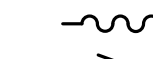





SIGNALS

-  EXISTING
-  PROPOSED
-  TEMPORARY




PAVEMENT MARKINGS

-  EXISTING LINES
-  TEMPORARY LINES




TRAFFIC CONTROL DEVICES

-  BARRICADE (TYPE III)
-  CONE
-  DRUM
-  SKINNY DRUM
-  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

PAINT (4")

- PA WHITE SOLID EDGE LINE
- PB YELLOW SOLID EDGE LINE
- PC 10FT WHITE SKIP
- PD 3FT - 9FT/ SP WHITE MINISKIP
- PE WHITE SOLID LANE LINE
- PF 10 FT YELLOW SKIP
- PH YELLOW SINGLE CENTER
- PI YELLOW DOUBLE CENTER

PAINT (8")

- PP YELLOW DIAGONAL
- PQ WHITE CROSSWALK LINE

PAINT (16")

- P1 WHITE LINE, RR X

PAINT (24")

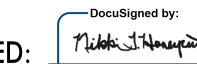
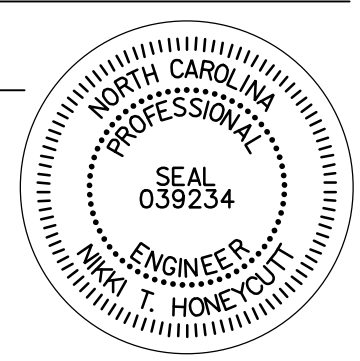
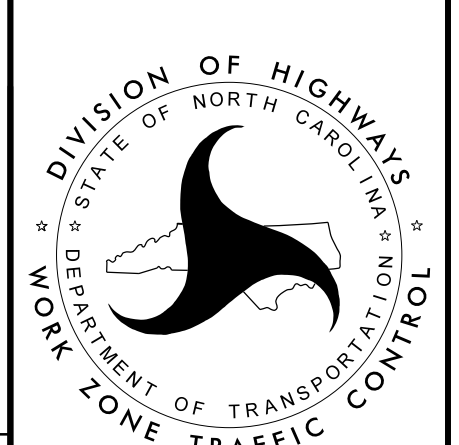
- P2 WHITE STOPBAR
- P3 WHITE CROSSWALK LINE

PAINT MARKING SYMBOLS

- QA LEFT TURN ARROW
- QB RIGHT TURN ARROW
- QC STRAIGHT ARROW
- QD COMBO. LEFT/STRAIGHT ARROW
- QE COMBO. RIGHT/STRAIGHT ARROW
- QG COMBO. LEFT/RIGHT/STRAIGHT ARROW

PAINT MARKING CHARACTERS

- QI ALPHANUMERIC CHARACTERS

APPROVED:  DATE: 7/5/2018 SEAL			ROADWAY STANDARD DRAWINGS & LEGEND
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

MANAGEMENT STRATEGIES

THE PROJECT WILL INCLUDE A ROAD CLOSURE OF SR 1547 (OLD AIRPORT RD) WHERE THROUGH TRAFFIC WILL BE DETOURED AND LOCAL TRAFFIC WILL BE MAINTAINED FOR THE BLUE RIDGE SOUTHERN (BRS) RAILROAD CROSSING SURFACE INSTALLATION, SIGNALS,AND GATES CONSTRUCTION. ADDITIONALLY, THERE WILL BE A ROAD CLOSURE OF SR 1545 (CANE CREEK RD) WHERE THROUGH TRAFFIC WILL BE DETOURED AND LOCAL TRAFFIC WILL BE MAINTAINED FOR SIXTY (60) CONSECUTIVE DAYS FOR THE CULVERT CONSTRUCTION. THE REMAINDER OF THE PROJECT WILL BE CONSTRUCTED AWAY FROM TRAFFIC WHENEVER POSSIBLE. WHERE TRAFFIC IS AFFECTED, A COMBINATION OF LANE CLOSURES AND FLAGGERS WILL BE NECESSARY.

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 UNDESIRE 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
ALL ROADS	MONDAY 6:00 A.M. THRU FRIDAY 9:00 A.M. MONDAY 4:00 P.M. THRU FRIDAY 6:00 P.M. SUNDAY 7:30 A.M. THRU SUNDAY 12:30 P.M.

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

ROAD NAME	HOLIDAY
ALL ROADS	<ol style="list-style-type: none"> FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER. FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00 A.M. DECEMBER 31st TO 6:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 6:00 P.M. THE FOLLOWING TUESDAY. FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 6:00 P.M. MONDAY. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 6:00 P.M. TUESDAY. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 6:00 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 6:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY. FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY AND 6:00 P.M. TUESDAY. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY TO 6:00 P.M. MONDAY. FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 6:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS. FOR THE ANNUAL TOWN OF FLETCHER CHRISTMAS PARADE, BETWEEN TWO HOURS PRIOR TO THE START OF THE PARADE AND TWO HOURS AFTER THE END OF THE PARADE. SEE LOCAL NOTE W.

C) 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

- D) 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.
- E) 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.
- F) 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.
- G) 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.

H) 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

I) 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.

J) 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) 350 ft IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

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

SIGNING

L) 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.

M) PROVIDE SIGNING AND DEVICES REQUIRED FOR THE OFF-SITE DETOUR ROUTE AS SHOWN IN THE TRAFFIC CONRTOL PLANS.

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

TRAFFIC BARRIER

O) 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.

PROJ. REFERENCE NO.	SHEET NO.
U-5840	TMP-1B



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.

TRAFFIC CONTROL DEVICES

P) 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.

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	NONE

MISCELLANEOUS

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

S) 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) 200 FT AND 400 FT RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG UNPAVED AREAS.

T) ALL CURB 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.

U) 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.).

LOCAL NOTES

V) NOTIFY HENDERSON COUNTY EMERGENCY SERVICES AT (828)697-4728 TO MAKE NECESSARY REASSIGNMENTS TO PRIMARY RESPONSE UNITS AND HENDERSON COUNTY PUBLIC SCHOOLS AT (828)697-4739 TO REROUTE SCHOOL BUSES AT LEAST THIRTY DAYS PRIOR TO ROAD CLOSURE.

W) COORDINATE WITH MR. MARK BIBERDORF (828-687-3985), TOWN OF FLETCHER, FOR RESTRICTIONS ASSOCIATED WITH ANNUAL TOWN OF FLETCHER CHRISTMAS PARADE.

APPROVED: DATE: 7/5/2018	SEAL 		TRANSPORTATION OPERATIONS PLAN
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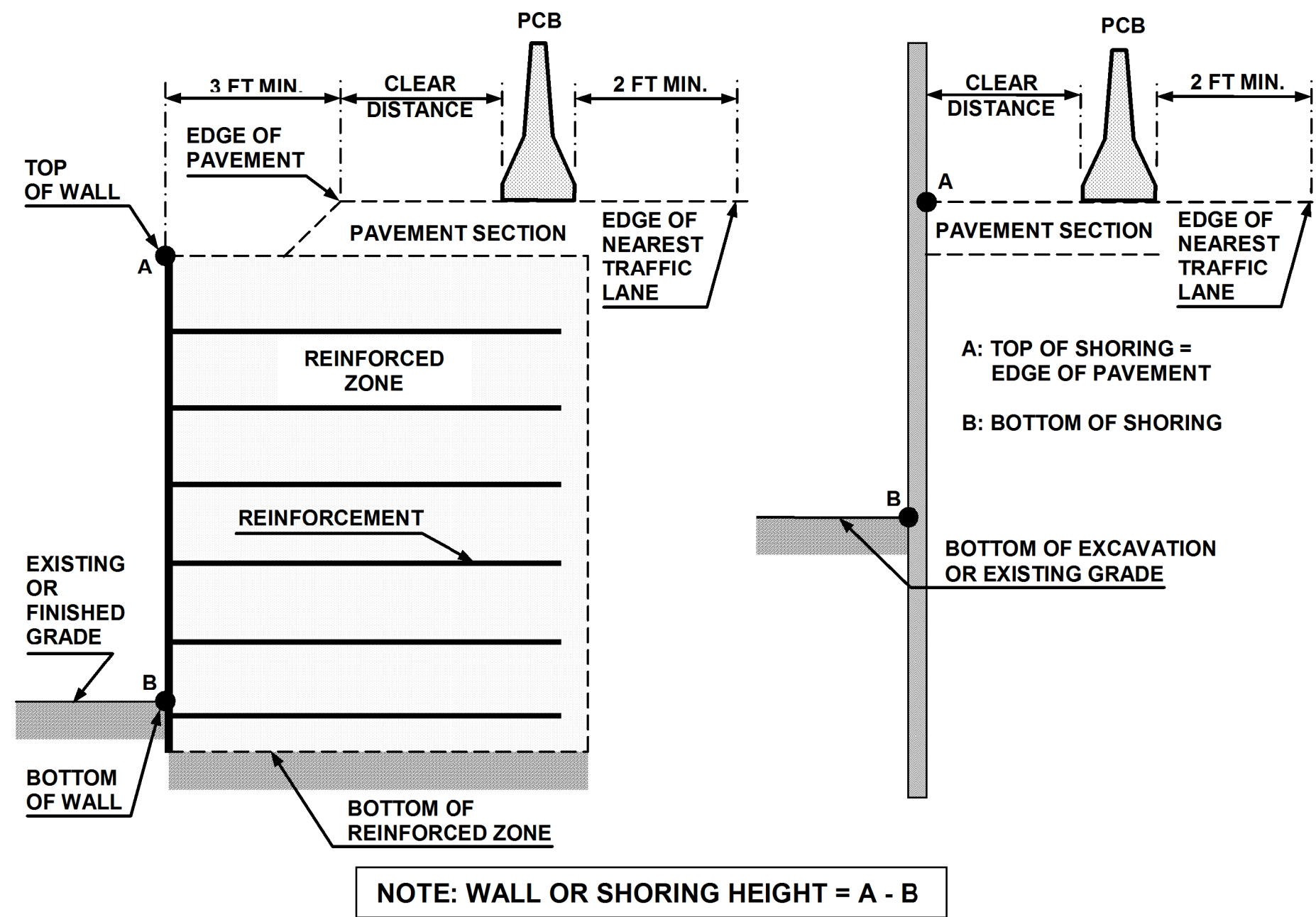


FIGURE A

NOTES

- REFER TO THE TRAFFIC CONTROL PLANS FOR TEMPORARY SHORING LOCATIONS AND NOTES.
- REFER TO THE "TEMPORARY SHORING" PROJECT SPECIAL PROVISION FOR INFORMATION ABOUT TEMPORARY SHORING AND PORTABLE CONCRETE BARRIER (PCB).
- PCB IS REQUIRED IF TEMPORARY SHORING IS LOCATED WITHIN THE CLEAR ZONE IN ACCORDANCE WITH THE AASHTO ROADSIDE DESIGN GUIDE. DO NOT PLACE BARRIER DIRECTLY ON ANY SURFACE OTHER THAN ASPHALT OR CONCRETE. (CONTACT NCDOT PAVEMENT MANAGEMENT UNIT FOR APPLICABLE PAVEMENT DESIGN).
- BASED ON THE CLEAR DISTANCE, OFFSET, DESIGN SPEED AND PAVEMENT TYPE, CHOOSE AN UNANCHORED OR ANCHORED PCB FROM THE TABLE SHOWN IN FIGURE B. CLEAR DISTANCE IS DEFINED AS SHOWN IN FIGURE A AND OFFSET IS DEFINED AS SHOWN IN FIGURE B.
- AT THE CONTRACTOR'S OPTION OR IF THE MINIMUM REQUIRED CLEAR DISTANCE IS NOT AVAILABLE, SET PCB NEXT TO AND UP AGAINST THE TRAFFIC SIDE OF THE TEMPORARY SHORING EXCEPT FOR BARRIER ABOVE TEMPORARY WALLS. PCB WITH THE MINIMUM REQUIRED CLEAR DISTANCE IS REQUIRED ABOVE TEMPORARY WALLS.
- USE NCDOT PORTABLE CONCRETE BARRIER (PCB) IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1170.01 AND SECTION 1170 OF THE STANDARD SPECIFICATIONS.
- PCB REQUIREMENTS FOR TEMPORARY WALLS APPLY TO TEMPORARY MECHANICALLY STABILIZED EARTH (MSE) WALLS AND TEMPORARY SOIL NAIL WALLS.
- SET PCB WITH A MINIMUM HORIZONTAL DISTANCE OF 2 FT BETWEEN THE FRONT FACE OF THE BARRIER AND THE EDGE OF THE NEAREST TRAFFIC LANE AS SHOWN IN FIGURE A UNLESS OTHERWISE SHOWN IN THE PLANS AND OR AS APPROVED BY THE ENGINEER.
- FOR PCB ABOVE AND BEHIND TEMPORARY WALLS, PROVIDE A MINIMUM DISTANCE OF 3 FT BETWEEN THE EDGE OF PAVEMENT AND THE WALL FACE AS SHOWN IN FIGURE A. IF THESE MINIMUM REQUIRED DISTANCES ARE NOT AVAILABLE, CONTACT THE ENGINEER.
- TABLE SHOWN IN FIGURE B IS BASED ON NCDOT RESEARCH PROJECT NO. 2005-010 WITH VEHICLE TYPE USED FOR NCHRP 350 CRASH TESTS. BARRIER DEFLECTIONS AND RESULTING MINIMUM REQUIRED CLEAR DISTANCES MIGHT VARY SIGNIFICANTLY FOR LARGER HEAVIER VEHICLES, RUNS OF BARRIER LESS THAN 200 FT IN LENGTH AND WET OR DRY PAVEMENT.

MINIMUM REQUIRED CLEAR DISTANCE, inches

Barrier Type	Pavement Type	Offset * ft	Design Speed, mph					
			<30	31-40	41-50	51-60	61-70	71-80
Unanchored PCB	Asphalt	<8	24	26	29	32	36	40
		8-14	26	28	31	35	38	42
		14-20	27	29	34	36	39	43
		20-26	28	31	35	38	40	44
		26-32	29	32	36	39	42	45
		32-38	30	34	38	41	43	46
		38-44	31	34	41	43	45	48
		44-50	31	35	41	43	46	49
		50-56	32	36	42	44	47	50
	>56	32	36	42	45	47	51	
	Concrete	<8	17	18	21	22	25	26
		8-14	19	20	23	25	26	29
		14-20	22	22	24	26	28	31
		20-26	23	24	26	27	30	34
		26-32	24	25	27	28	32	35
		32-38	24	26	27	30	33	36
		38-44	25	26	28	30	34	37
		44-50	26	26	28	32	35	37
50-56		26	26	28	32	35	38	
>56	26	27	29	32	36	38		
Anchored PCB	Asphalt	All Offsets	24 for All Design Speeds					
Anchored PCB	Concrete (including bridge approach slabs)	All Offsets	12 for All Design Speeds					

* See Figure Below

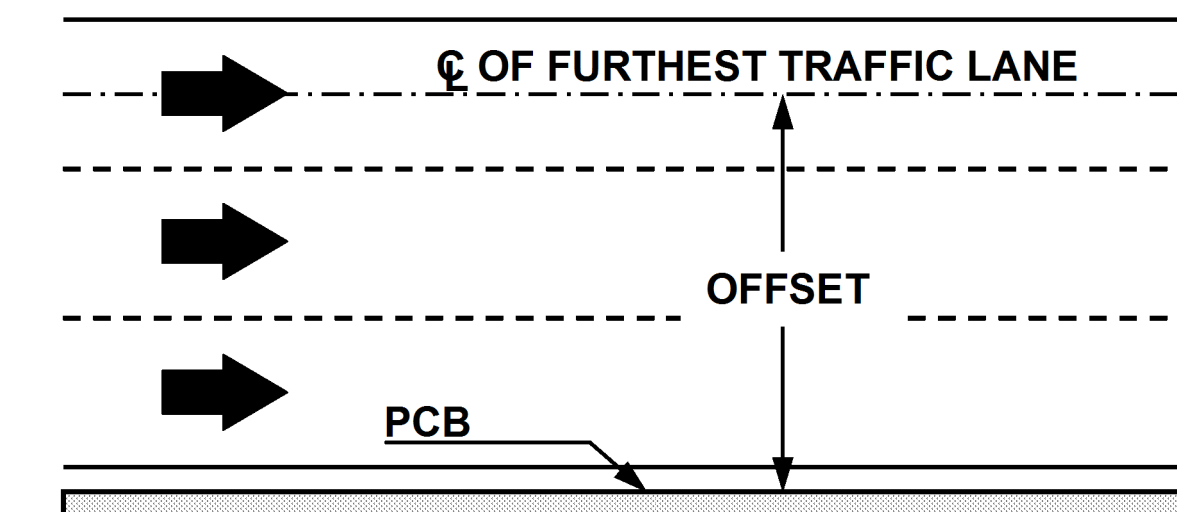
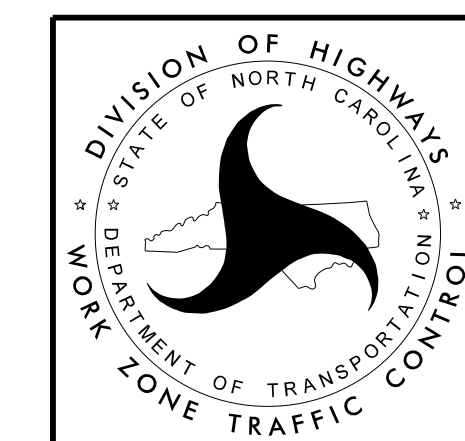


FIGURE B



PORTABLE CONCRETE BARRIER
AT
TEMPORARY SHORING LOCATIONS

PROJ. REFERENCE NO.	SHEET NO.
U-5840	TMP-2



TEMPORARY SHORING NOTES

TEMPORARY SHORING LOCATION ① (SEE SHEET TMP-4)

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

TEMPORARY SHORING IS REQUIRED FOR THE UTILITY INSTALLATION FROM STATION 54+75± -L-, 20FT (RT), TO STATION 55+65± -L-, 15 FT (RT).

DESIGN TEMPORARY SHORING FROM STATION 54+75± -L-, 20 FT (RT), TO STATION 55+65± -L-, 15FT (RT), FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

- UNIT WEIGHT (γ) = 120 LB/CF
- FRICTION ANGLE (ϕ) = 28 DEGREES
- COHESION (c) = 0 LB/SF
- GROUNDWATER ELEVATION = <2,102.1 FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 54+75± -L-, 20 FT(RT), TO STATION 55+65± -L-, 15 FT(LT), THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

TEMPORARY SHORING LOCATION ② (SEE SHEET TMP-4)

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

TEMPORARY SHORING IS REQUIRED FOR THE UTILITY INSTALLATION FROM STATION 56+45± -L-, 10FT (RT), TO STATION -L- 58+20± -L-, 35 (FT) RIGHT.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM STATION 56+45± -L-, 10 FT (RT), TO STATION 58+20± -L-, 35 FT (LT), FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

- UNIT WEIGHT (γ) = 110 LB/CF
- FRICTION ANGLE (ϕ) = 26 DEGREES
- COHESION (c) = 0 LB/SF
- GROUNDWATER ELEVATION = 2,086.4 FT

8/1/2018
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SanderEG

<p>APPROVED: <i>Preston D. McCloud</i> DATE: 8/1/2018</p> <p>SEAL</p> 		<p>TEMPORARY SHORING NOTES</p>
<p>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</p>		

SIGN NUMBER: SP-1 BACKG COLOR: Orange
 TYPE: D COPY COLOR: Black

QUANTITY: See Plans

SIGN WIDTH: 48"
 HEIGHT: 24"
 TOTAL AREA: 8.0 Sq.Ft.

BORDER TYPE: FLUSH
 RECESS: 0.47"
 WIDTH: 0.63"
 RADII: 1.5"

NO. Z BARS: MAT'L: 0.080" (2.0 mm) ALUMINUM
 LENGTH:

SYMBOL	X	Y	WID	HT

DESIGN BY: JCT
 PROJECT ID: U-5840

CHECKED BY: GHM
 DIV: 14

DATE: Feb 23, 2018



BORDER
 R=1.5"
 TH=0.63"
 IN=0.47"

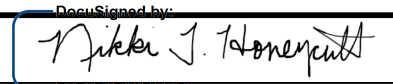
Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter positions are to the lower left corners											Series/Size	
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A	V	E										
18.1	22.3	26.9										C 2000 / 6 11.8

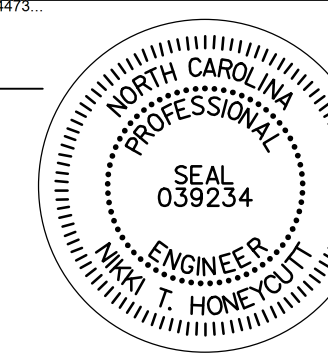
NORTH CAROLINA D.O.T. SIGN DETAIL

3/28/2018
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 philismz

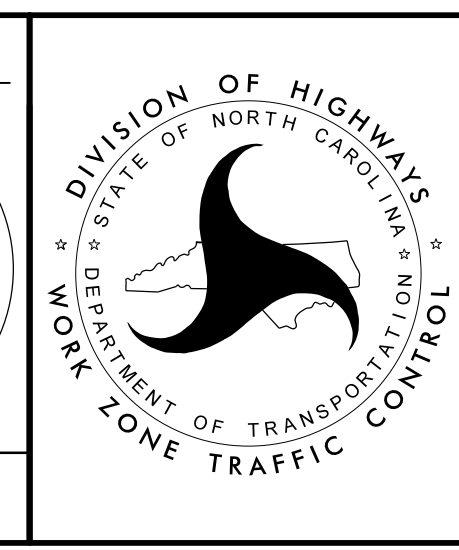
APPROVED: 
ESBSEK4974473

DATE: 3/29/2018

SEAL



DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED



SPECIAL SIGN DESIGN



SIGN NUMBER: SP-1 **BACKG COLOR:** Orange
TYPE: D **COPY COLOR:** Black
QUANTITY: See Plans

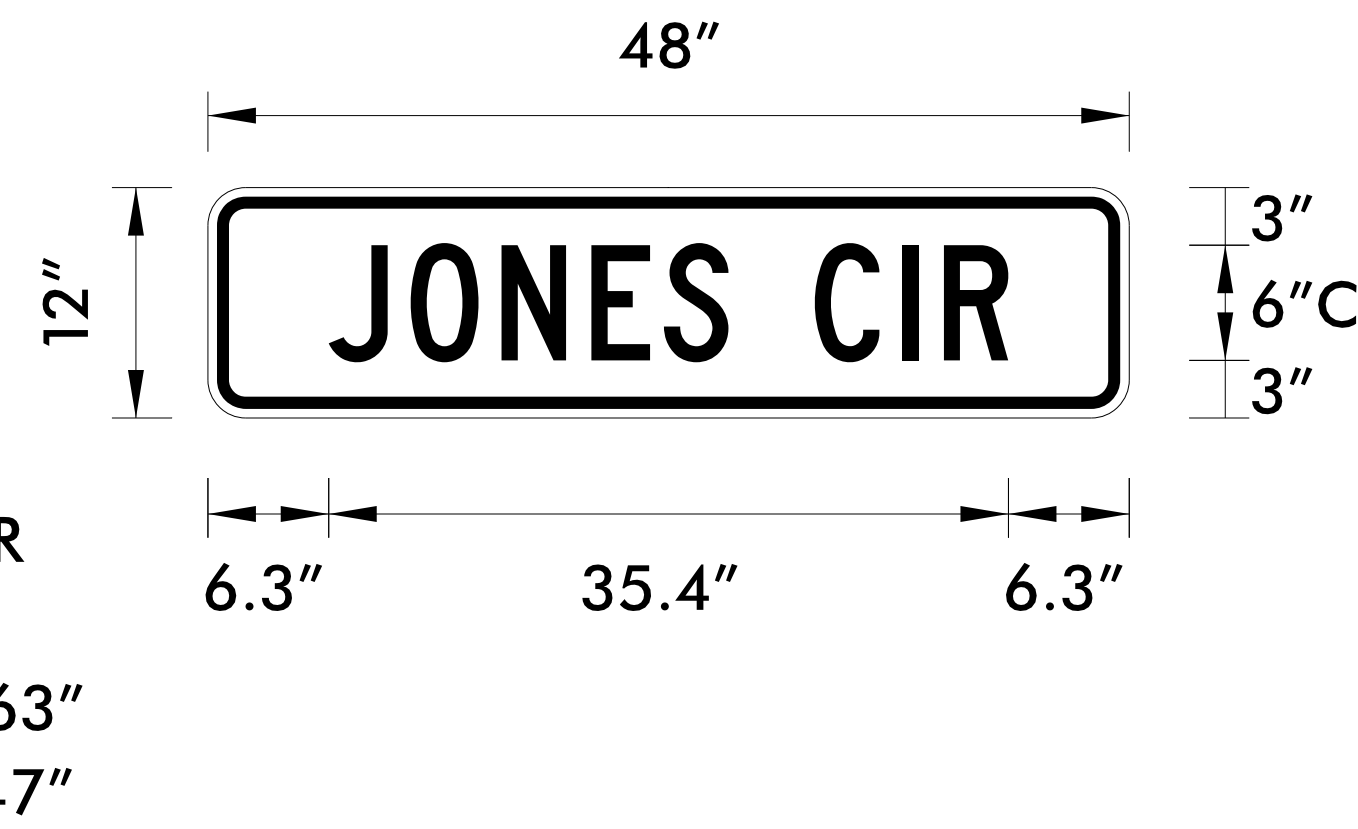
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SIGN WIDTH: 48"
HEIGHT: 12"
TOTAL AREA: 4.0 Sq.Ft.

BORDER TYPE: FLUSH
RECESS: 0.47"
WIDTH: 0.63"
RADII: 1.5"

NO. Z BARS: **MAT'L:** 0.080" (2.0 mm) ALUMINUM
LENGTH:

DESIGN BY: JCT **CHECKED BY:** GHM
PROJECT ID: U-5840 **DIV:** 14 **DATE:** Feb 23, 2018



Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter positions are to the lower left corners										Series/Size
J	O	N	E	S	C	I	R			Text Length
6.3	10.6	15.3	20	23.8	27.1	31.6	36.2	38.3		C 2000 / 6
										35.4

NORTH CAROLINA D.O.T. SIGN DETAIL

3/28/2018 8:11:52 AM R:\TrafficControl\TCP\TMP Sheets\U-5840_TCP_psh_P2B.dgn Philisimz

<p>APPROVED: <i>[Signature]</i></p> <p>DATE: 3/29/2018</p> <p style="text-align: center;">SEAL</p>	<p style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small;">DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL</p>	<h2 style="margin: 0;">SPECIAL SIGN DESIGN</h2>
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		

SIGN NUMBER: SP-1 **BACKG COLOR:** Orange
TYPE: D **COPY COLOR:** Black
QUANTITY: See Plans

SYMBOL	X	Y	WID	HT

SIGN WIDTH: 48"
HEIGHT: 24"
TOTAL AREA: 8.0 Sq.Ft.

BORDER TYPE: FLUSH
RECESS: 0.47"
WIDTH: 0.63"
RADII: 1.5"

NO. Z BARS: **MAT'L:** 0.080" (2.0 mm) ALUMINUM
LENGTH:

DESIGN BY: JCT **CHECKED BY:** GHM
PROJECT ID: U-5840 **DIV:** 14 **DATE:** Sept 27, 2017



BORDER
 R=1.5"
 TH=0.63"
 IN=0.47"

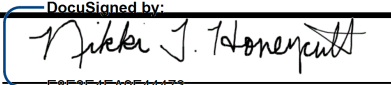
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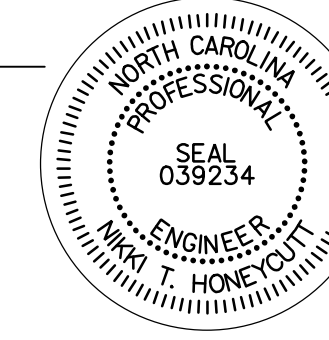
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A	I	R	P	O	R	T	R			D	Text Length
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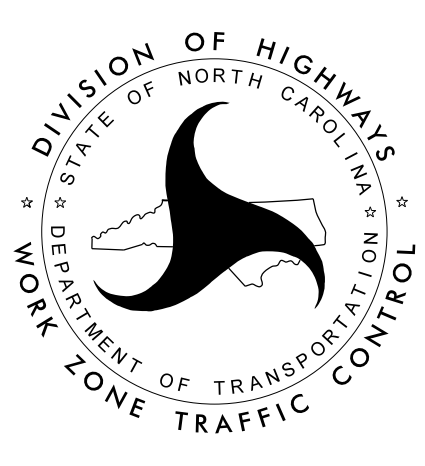
NORTH CAROLINA D.O.T. SIGN DETAIL

3/28/2018
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 philismz

APPROVED: 
 DATE: 3/29/2018

SEAL 

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SPECIAL SIGN DESIGN

SIGN NUMBER: SP-1 **BACKG COLOR: Orange**
TYPE: D **COPY COLOR: Black**
QUANTITY: See Plans

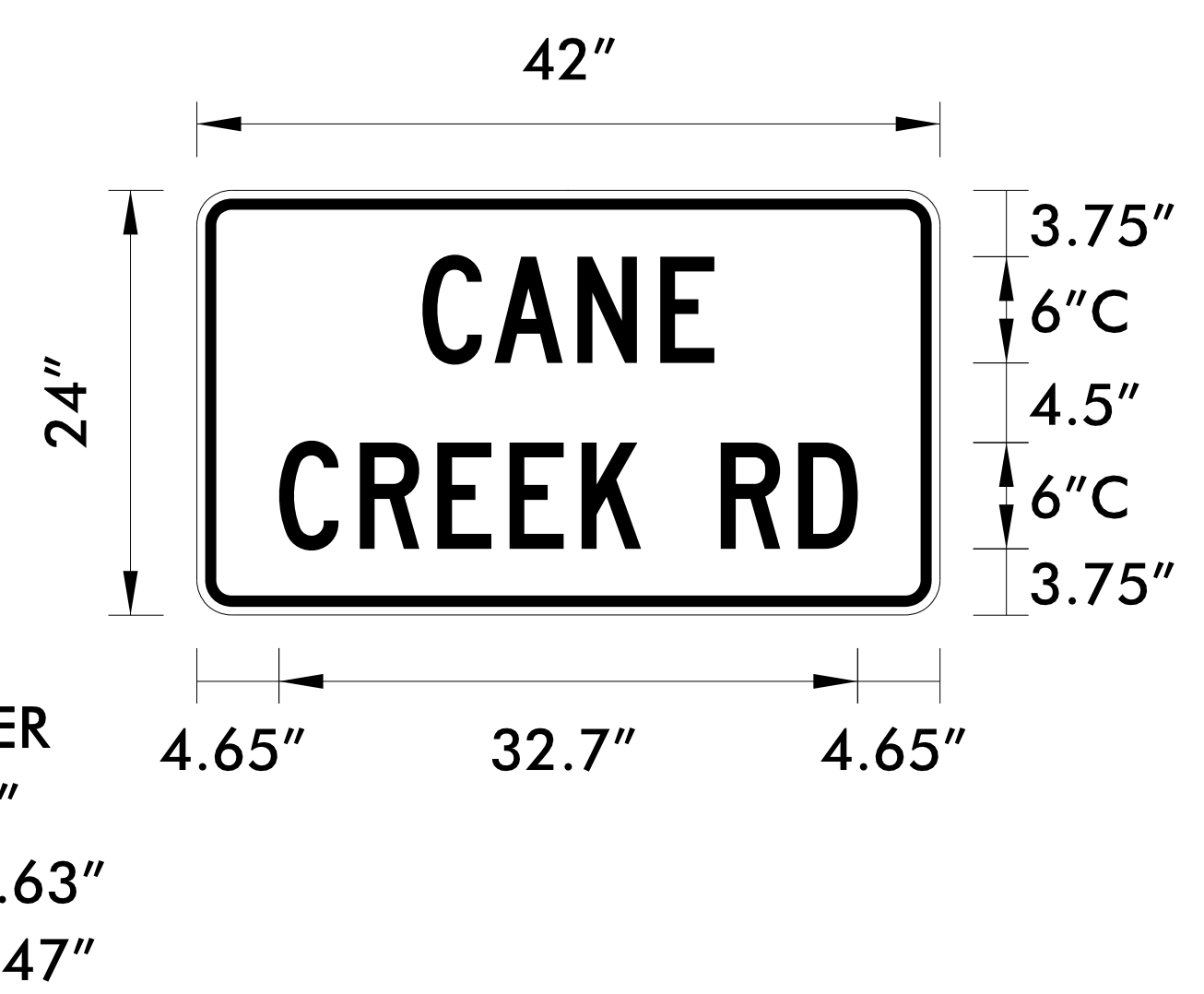
SYMBOL	X	Y	WID	HT

SIGN WIDTH: 42"
HEIGHT: 24"
TOTAL AREA: 7.0 Sq.Ft.

BORDER TYPE: FLUSH
RECESS: 0.47"
WIDTH: 0.63"
RADII: 1.5"

NO. Z BARS: **MAT'L: 0.080" (2.0 mm) ALUMINUM**
LENGTH:

DESIGN BY: SMP **CHECKED BY: GHM**
PROJECT ID: U-5840 **DIV: 14** **DATE: Sept 15, 2016**



Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter positions are to the lower left corners												Series/Size
C	A	N	E									Text Length
12.8	16.8	21.5	26.2									C 2000 / 6 16.5
C	R	E	E	K		R	D					Text Length
4.7	9.2	13.6	17.7	21.8	25.1	29.6	34					C 2000 / 6 32.7

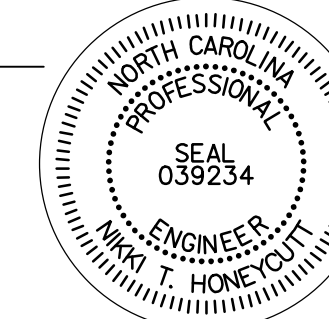
NORTH CAROLINA D.O.T. SIGN DETAIL

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 Philismz

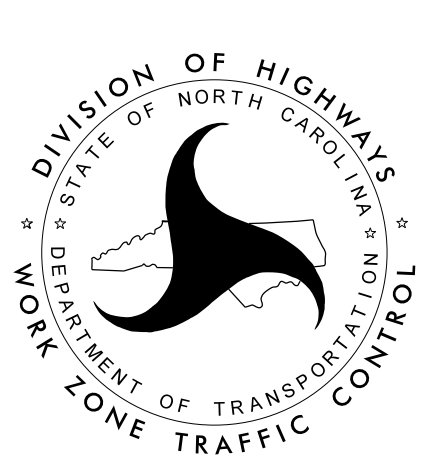
APPROVED: *Nikka J. Honeycutt*

DATE: 3/29/2018

SEAL



**DOCUMENT NOT CONSIDERED FINAL
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SPECIAL SIGN DESIGN

PHASING NOTES

PROJ. REFERENCE NO.	SHEET NO.
U-5840	TMP-3



NOTE:

CONTRACTOR SHALL MAINTAIN ACCESS TO DRIVEWAYS FOR ALL PHASES WITHIN THE PROJECT LIMITS AND COORDINATE AS NECESSARY WITH PROPERTY OWNERS.

CONTRACTOR SHALL MAINTAIN PEDESTRIAN ACCESS UNLESS OTHERWISE NOTED IN THE PLANS OR DIRECTED BY THE ENGINEER.

COORDINATE WITH BRS RAILROAD FOR THE INSTALLATION OF THE CROSSING SURFACE, SIGNALS, AND GATES. THE RAILROAD EQUIPMENT MUST BE IN PLACE AND ACTIVATED PRIOR TO BEGINNING PHASE IV CONSTRUCTION.

PHASE I

STEP 1

INSTALL WORK ZONE ADVANCE WARNING SIGNS ON ALL ROADWAYS WITHIN THE PROJECT LIMITS IN ACCORDANCE WITH ROADWAY STANDARD DRAWING 1101.01, SHEET 1 THRU 3.

STEP 2

- A) USING RSD NO. 1101.02, SHEETS 2 AND 7 OF 14 AS NEEDED TO MAINTAIN TWO WAY TRAFFIC AT ALL TIME DURING CONSTRUCTION, OPEN CUT TO INSTALL PROPOSED 8" WATER LINE ACROSS HENDERSONVILLE RD. BACKFILL TRENCH OR PLACE STEEL PLATE ON EACH OPEN CUT TRENCH SEGMENT DURING CONSTRUCTION INACTIVITY.
- B) AWAY FORM TRAFFIC OR USING RSD NO. 1101.02, SHEETS 1 AND 2 OF 14 AS NEEDED, CONTINUE OPEN CUT TRENCH TO INSTALL 8" WATER LINE FROM -L- STA. 13+00 (RT) TO -L- STA. 32+50 (RT), 10" WATER LINE FROM -L- STA. 39+60 TO -L- STA. 51+00 (RT), AND 16" WATER LINE FROM -Y7- STA. 15+40 TO -Y7- STA. 21+00 (LT). BACKFILL TRENCH OR PLACE STEEL PLATE ON EACH OPEN CUT TRENCH DURING CONSTRUCTION INACTIVITY. SEE UTILITY PLAN FOR DETAILS.

STEP 3

AWAY FROM TRAFFIC OR USING RSD NO. 1101.02, SHEETS 1 AND 2 OF 14 AS NEEDED, PERFORM THE FOLLOWING:

- A) CONSTRUCT TEMPORARY CROSSWALKS AND SIDEWALKS. THEN CONSTRUCT PROPOSED SIDEWALK, CURB RAMP, AND CURB & GUTTER AS SHOWN ON TMP-5 STEP-3A.
- B) CONSTRUCT PROPOSED SIDEWALK, CURB RAMP, AND CURB & GUTTER AS SHOWN ON TMP-5 STEP-3B.

PHASE II

THE CONTRACTOR SHALL COMPLETE THE WORK REQUIRED IN PHASE II STEP 2 WITHIN TEN (10) CONSECUTIVE DAYS. SEE SPECIAL PROVISIONS FOR LIQUIDATED DAMAGES.

THE CONTRACTOR SHALL COMPLETE THE REQUIRED DRIVEWAY CONSTRUCTION IN PHASE II STEP 4 WITHIN (4) CONSECUTIVE DAYS FOR EACH DRIVEWAY. SEE SPECIAL PROVISIONS FOR LIQUIDATED DAMAGES.

STEP 1

USING RSD NO. 1101.02, SHEETS 1 AND 2 OF 14 AS NEEDED, CLOSE TORRINGTON AVENUE AND THEN OPEN CUT TO INSTALL PROPOSED 8" SANITARY SEWER LINE AS SHOWN ON TMP-2A AND TMP-6. BACKFILL TRENCH OR PLACE STEEL PLATE ON EACH OPEN CUT TRENCH DURING CONSTRUCTION INACTIVITY.

STEP 2

- A) INSTALL OFFSITE DETOUR SIGNAGE AND BARRICADES AS SHOWN ON TMP-2B AND TMP-7, AND IN ACCORDANCE WITH ROADWAY STANDARD DRAWINGS 1101.03, SHEET 1 OF 9, CLOSING -Y2- (JONES CIRCLE) TO THRU TRAFFIC. (SEE LOCAL NOTE V)
- B) PLACE WATER FILLED BARRIER AND SHIFT TRAFFIC AS SHOWN ON TMP-2B AND TMP-7. OPEN CUT TO INSTALL 8" SANITARY SEWER LINE AND 8" WATER LINE.
- C) REMOVE ALL DETOUR SIGNS & DEVICES, AND OPEN -Y2- (JONES CIRCLE) TO TRAFFIC.

STEP 3

- A) CONSTRUCT TEMPORARY CROSSWALK. THEN INSTALL PROPOSED TRAFFIC SIGNAL POLE AND PEDESTRIAN CROSSING SIGNAL.
- B) CONSTRUCT PROPOSED ROADWAY IMPROVEMENTS AND DRAINAGE UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE AS SHOWN ON TMP-8

STEP 4

AWAY FROM TRAFFIC OR USING RSD NO. 1101.02, SHEETS 1 AND 2 OF 14 AS NEEDED, PERFORM THE FOLLOWING :

- A) INSTALL TEMPORARY PAVEMENT MARKINGS AS SHOWN ON TMP-9, AND SHIFT TRAFFIC TO THE TEMPORARY PATTERN.
- B) CONSTRUCT PROPOSED ROADWAY IMPROVEMENTS AND DRAINAGE UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE FROM -L- STA. 10+70 TO STA. 23+00 (RT), -Y- STA. 15+35 TO STA. 19+55 (LT) AND -Y7- STA. 15+40 TO STA. 20+00 (LT). UTILIZE PAVEMENT WEDGING IN ORDER TO MAINTAIN POSITIVE DRAINAGE.
- C) CONSTRUCT THE TWO DRIVEWAYS ACCESSING PARCEL 3 ONE AT A TIME USING TWO WEEKDAY + WEEKEND CLOSURE FOR EACH DRIVEWAY.

PHASE III

(RAILROAD CROSSING SURFACE AND SIGNAL INSTALLATION)

STEP 1

CONTRACTOR IS TO COORDINATE WITH BLUE RIDGE SOUTHERN RAILROAD TO ESTABLISH THE DATE (WHICH IS TO BEGIN ON A THURSDAY AT 9:00PM) BRS RAILROAD ELECTS TO BEGIN CONSTRUCTION OF THE PROPOSED TRACK CROSSING SURFACE AND SIGNALS. ONCE BEGUN, SAID WORK SHALL BE PURSUED IN A CONTINUOUS MANNER AND END NO LATER THAN 6:00 AM THE FOLLOWING MONDAY.

STEP 2

UPON APPROVAL FROM THE ENGINEER, THE CONTRACTOR SHALL INSTALL OFFSITE DETOUR SIGNAGE AND BARRICADES AS SHOWN ON TMP-2C AND TMP-10; AND IN ACCORDANCE WITH ROADWAY STANDARD DRAWING 1101.03, SHEET 1 OF 9, CLOSE -L- (OLD AIRPORT ROAD) TO THRU TRAFFIC. (SEE LOCAL NOTE V)

STEP 3

CONTRACTOR SHALL CONSTRUCT PAVEMENT TIE-IN AND RESTORE ANY DAMAGED PAVEMENT AND PAVEMENT MARKINGS DURING THE RAILROAD CROSSING SURFACE INSTALLATION. THEN REMOVE ALL DETOUR SIGNS & DEVICES, AND OPEN -L- (OLD AIRPORT ROAD) TO TRAFFIC.

PHASE IV

STEP 1

INSTALL TEMPORARY PAVEMENT MARKINGS AS SHOWN ON TMP-11 THRU TMP-13, AND SHIFT TRAFFIC TO THE TEMPORARY PATTERN.

STEP 2

USING RSD NO. 1101.02, SHEETS 1 AND 2 OF 14 AS NEEDED, CONSTRUCT PROPOSED ROADWAY IMPROVEMENTS, DRAINAGE, AND RETAINING WALLS 1 AND 2 UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE FROM -L- STA. 12+00 TO STA. 65+00 (LT) AND -Y7- STA. 15+40 TO STA. 20+00 (RT). UTILIZE PAVEMENT WEDGING IN ORDER TO MAINTAIN POSITIVE DRAINAGE.

PHASE V

USING RSD NO. 1101.02, SHEETS 1 AND 2 OF 14, INSTALL TEMPORARY CONCRETE BARRIER AND WATER FILLED BARRIER.

STEP 1

INSTALL PROPOSED WATER LINE ON OLD AIRPORT RD. FROM -L- STA. 51+00 TO STA. 58+20 (RT) AS SHOWN ON TMP-14. SEE UTILITY PLAN FOR DETAILS.

STEP 2

CONSTRUCT PROPOSED RETAINING WALL 4.

NOTE:

1) PHASE IV MUST BE COMPLETED BEFORE STARTING PHASE V CONSTRUCTION.

PHASE VI

STEP 1

INSTALL TEMPORARY PAVEMENT MARKINGS AS SHOWN ON TMP-15 THRU MP-17, AND SHIFT TRAFFIC TO THE TEMPORARY PATTERN.

STEP 2

AWAY FROM TRAFFIC OR USING RSD NO. 1101.02, SHEETS 1 AND 2 OF 14 AS NEEDED, CONSTRUCT PROPOSED ROADWAY IMPROVEMENTS, DRAINAGE, AND RETAINING WALL 3 UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE FROM -L- STA. 23+00 TO STA. 65+00 (RT) AND -Y7- STA. 20+00 TO STA. 20+50 (LT & RT).

PHASE VII

STEP 1

USING RSD 1101.02 SHEETS 1 AND 2 OF 14 AS NEEDED IN ORDER TO COMPLETE THE FOLLOWING:

- A) WEDGE AND PLACE FINAL LAYER OF SURFACE COURSE ALONG L, Y, AND Y7 FROM STA. 15+40 TO 21+75.
- B) CONSTRUCT MONOLITHIC CONCRETE ISLANDS. (-L- STA. 12+15± TO STA. 12+60± AND -L- STA. 25+45± TO STA. 25+75±)
- C) INSTALL FINAL PAVEMENT MARKINGS ON L, Y, AND Y7 FROM STA. 15+40 TO 20+50. (SEE PAVEMENT MARKING PLANS.)
- D) ADJUST TRAFFIC SIGNALS TO FINAL CONFIGURATION AT INTERSECTIONS.
- E) OPEN -L- TO TRAFFIC IN ITS FINAL PATTERN.

PHASE VIII

(CANE CREEK ROAD CULVERT INSTALLATION)

THE CONTRACTOR SHALL COMPLETE THE WORK REQUIRED IN PHASE VIII, STEPS 1 THRU 4 IN SIXTY (60) CONSECUTIVE DAYS. SEE SPECIAL PROVISIONS FOR LIQUIDATED DAMAGES.

STEP 1

INSTALL OFFSITE DETOUR SIGNAGE AND BARRICADES AS SHOWN ON TMP-2D, TMP-18 AND TMP-19, AND IN ACCORDANCE WITH ROADWAY STANDARD DRAWINGS 1101.03, SHEET 1 OF 9, CLOSING -Y7- (CANE CREEK ROAD) TO THRU TRAFFIC. (SEE LOCAL NOTE V)

STEP 2

CONSTRUCT CULVERT, WATER LINE, AND PROPOSED ROADWAY IMPROVEMENTS UP THROUGH THE FINAL LAYER OF SURFACE, AS SHOWN ON TMP-18; AND INSTALL FINAL PAVEMENT MARKINGS. (SEE PAVEMENT MARKING PLANS.)

STEP 3

REMOVE ALL DETOUR SIGNS & DEVICES, AND OPEN -Y7- (CANE CREEK ROAD) TO TRAFFIC.

STEP 4

REMOVE ALL REMAINING SIGNS & DEVICES, AND OPEN ALL ROADS TO TRAFFIC.

ICT


ICT

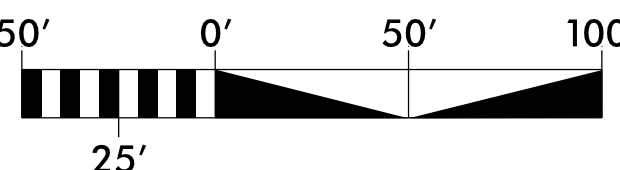
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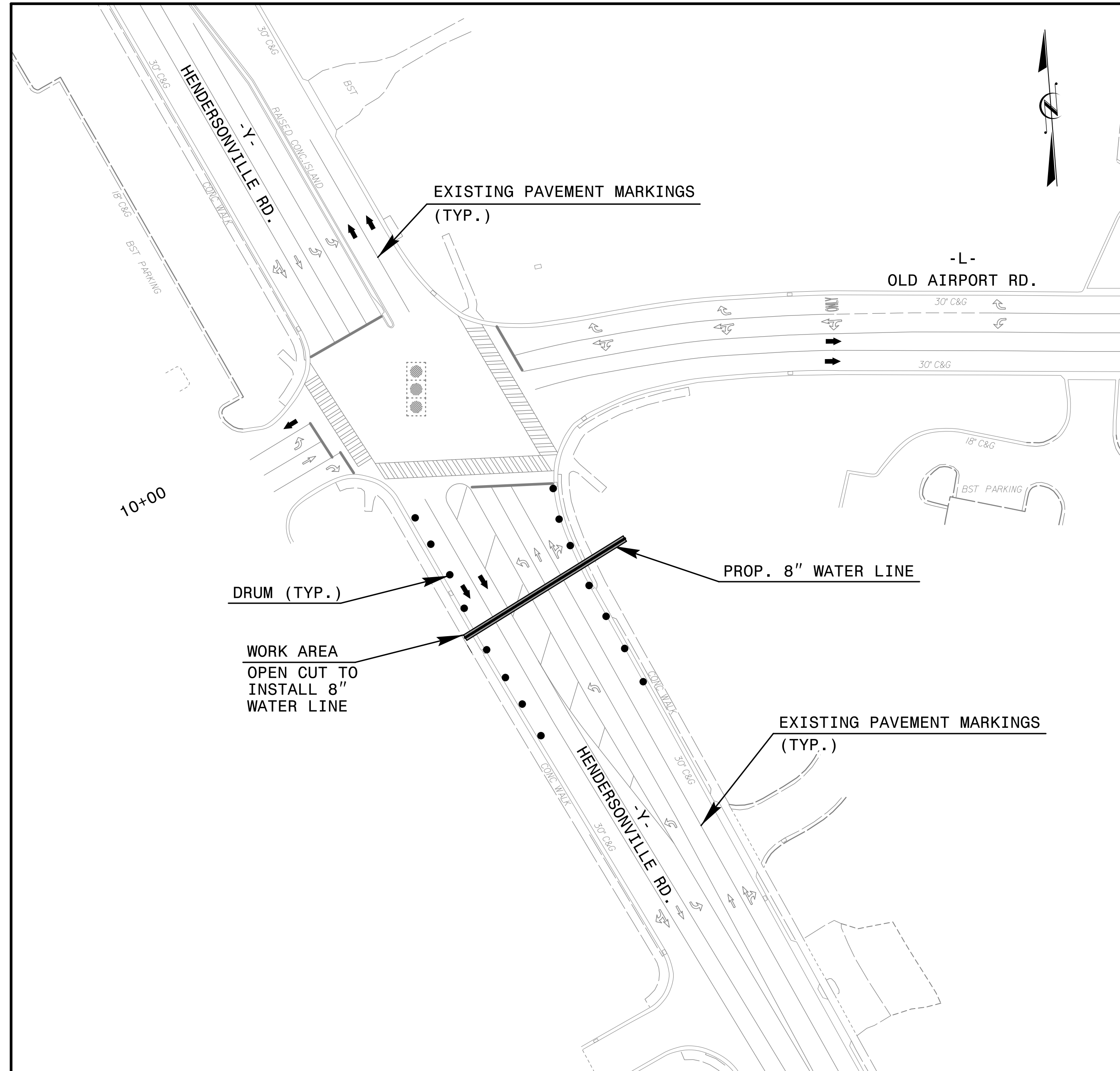
<p>APPROVED: </p> <p>DATE: 11/15/2018</p> <p style="text-align: center;">SEAL</p>			<p>TEMPORARY TRAFFIC CONTROL PHASING NOTES</p>
<p>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</p>			

PROJ. REFERENCE NO.	SHEET NO.
U-5840	TMP-4

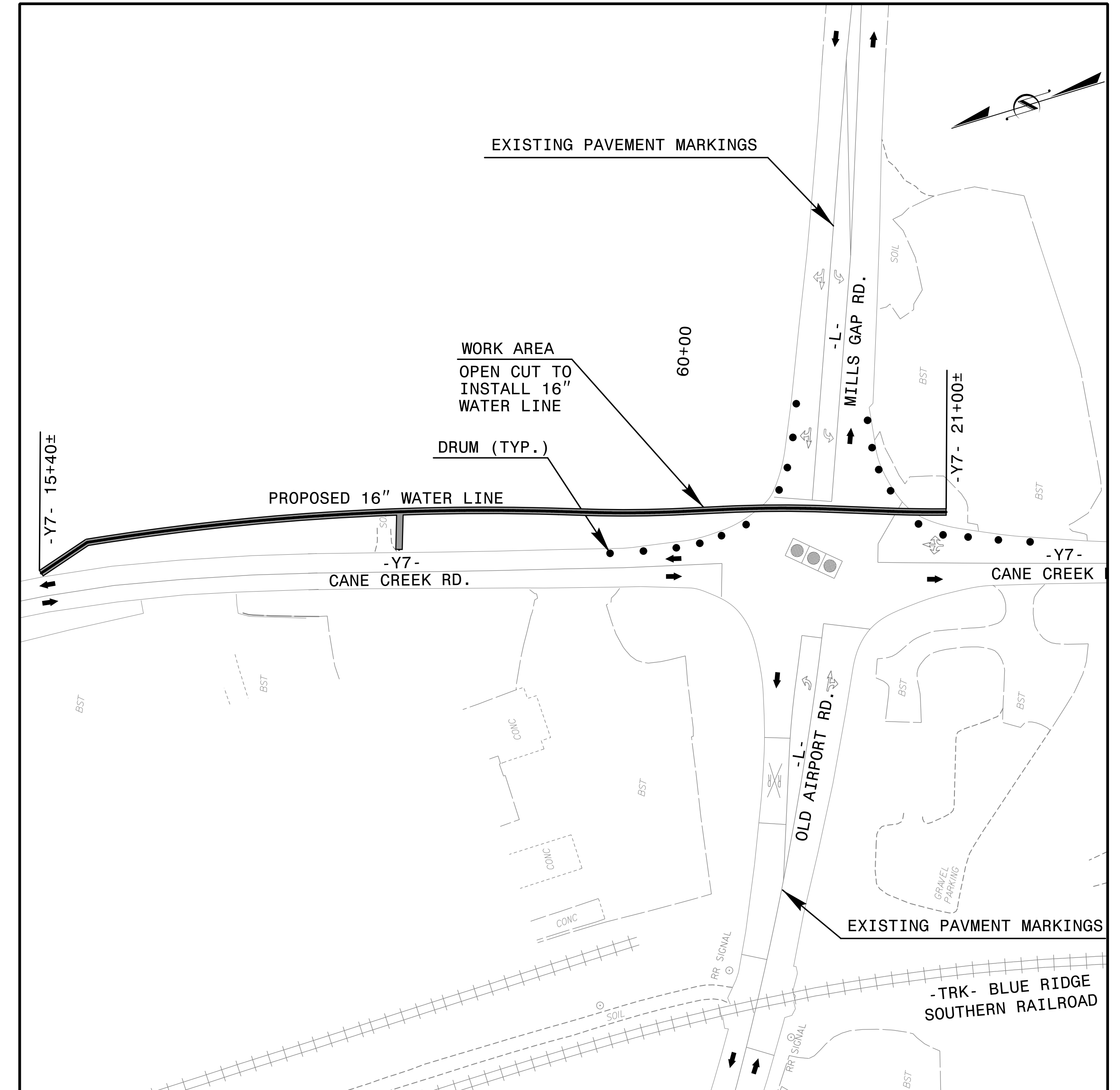

STV Engineers, Inc.
 300 West Trade St., Suite 715
 Charlotte, NC 28202
 NC License Number F-0991



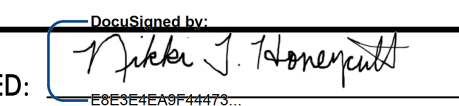
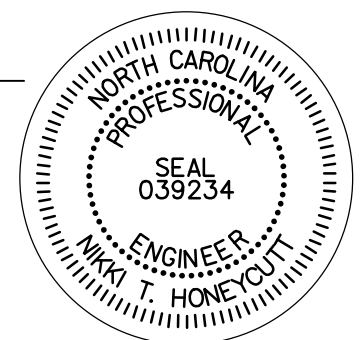
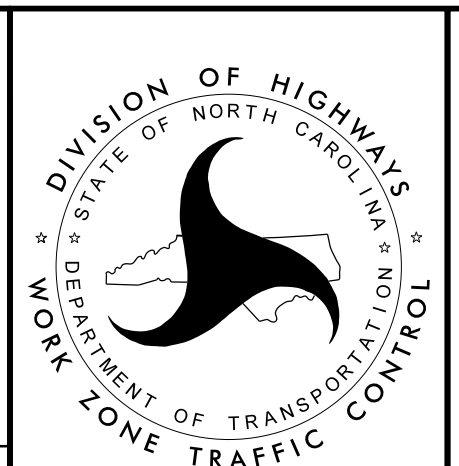
STEP 2A



STEP 2B

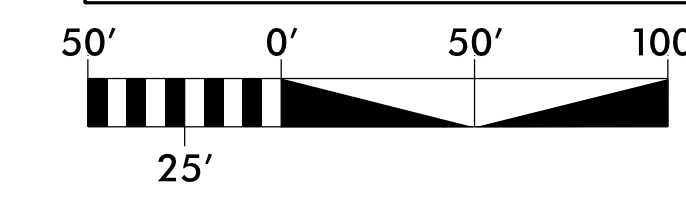


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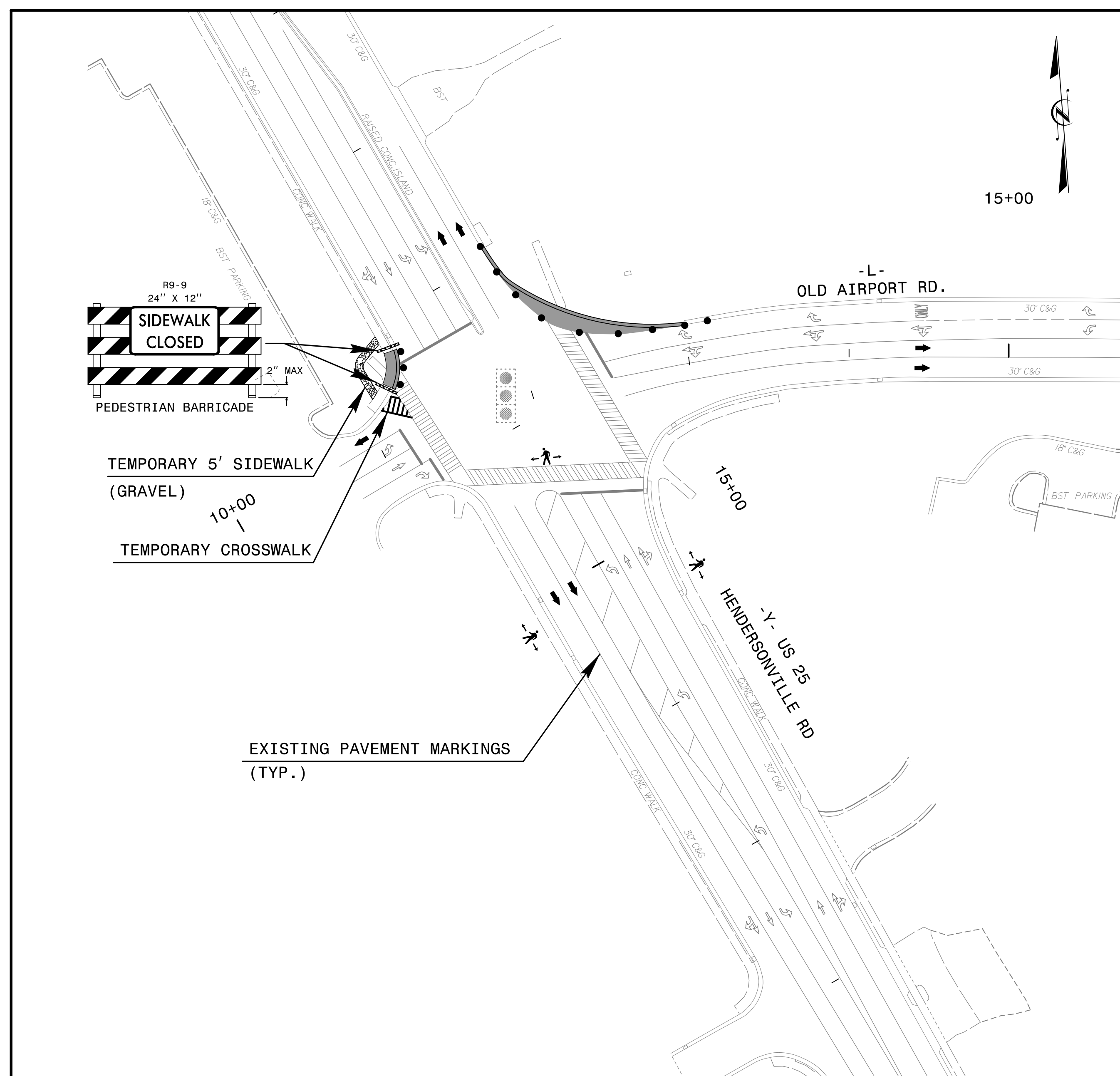
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U-5840	TMP-5

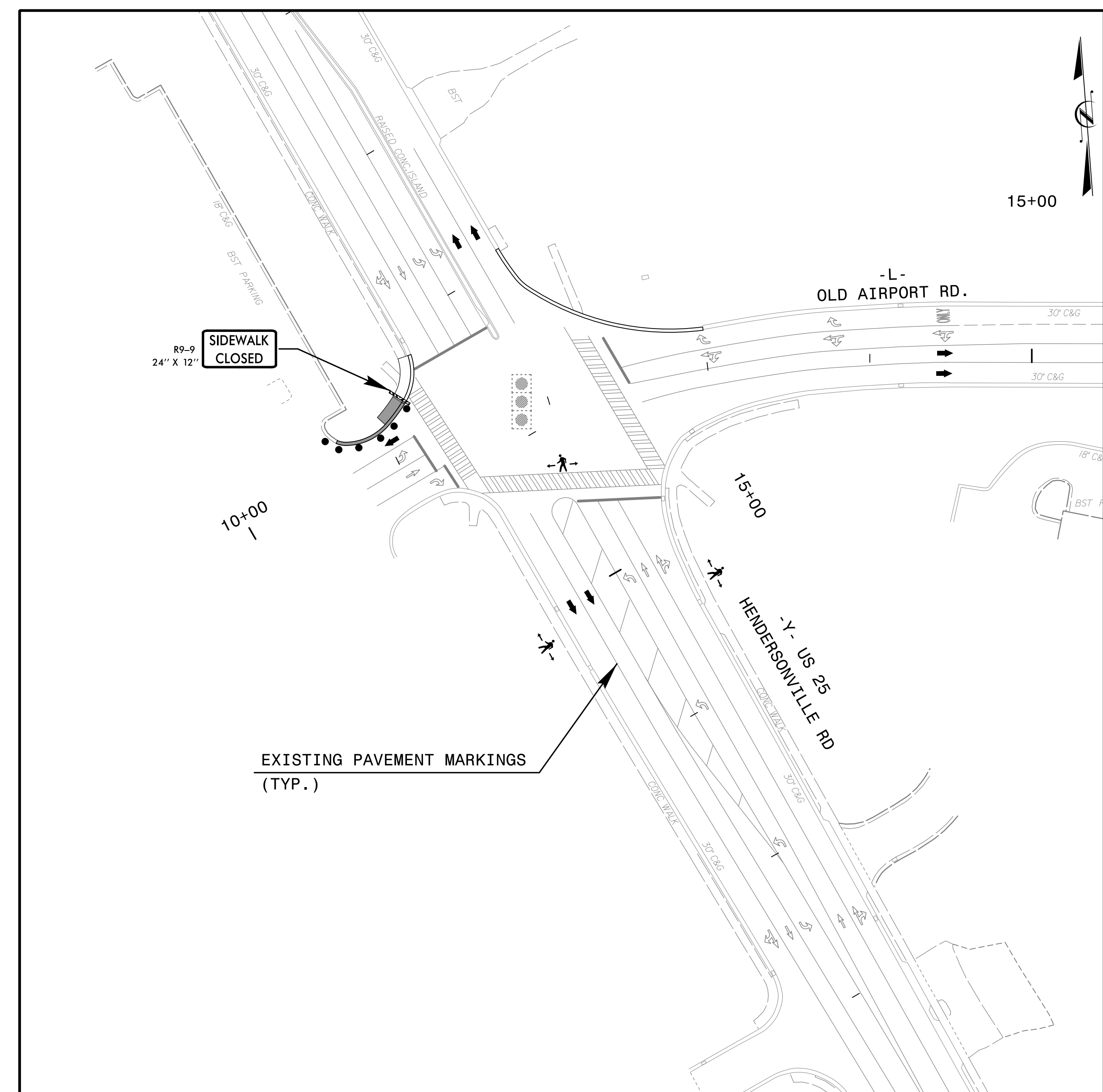
STV 100 STV Engineers, Inc.
 900 West Trade St., Suite 715
 Charlotte, NC 28202
 NC License Number F-0991



STEP 3A

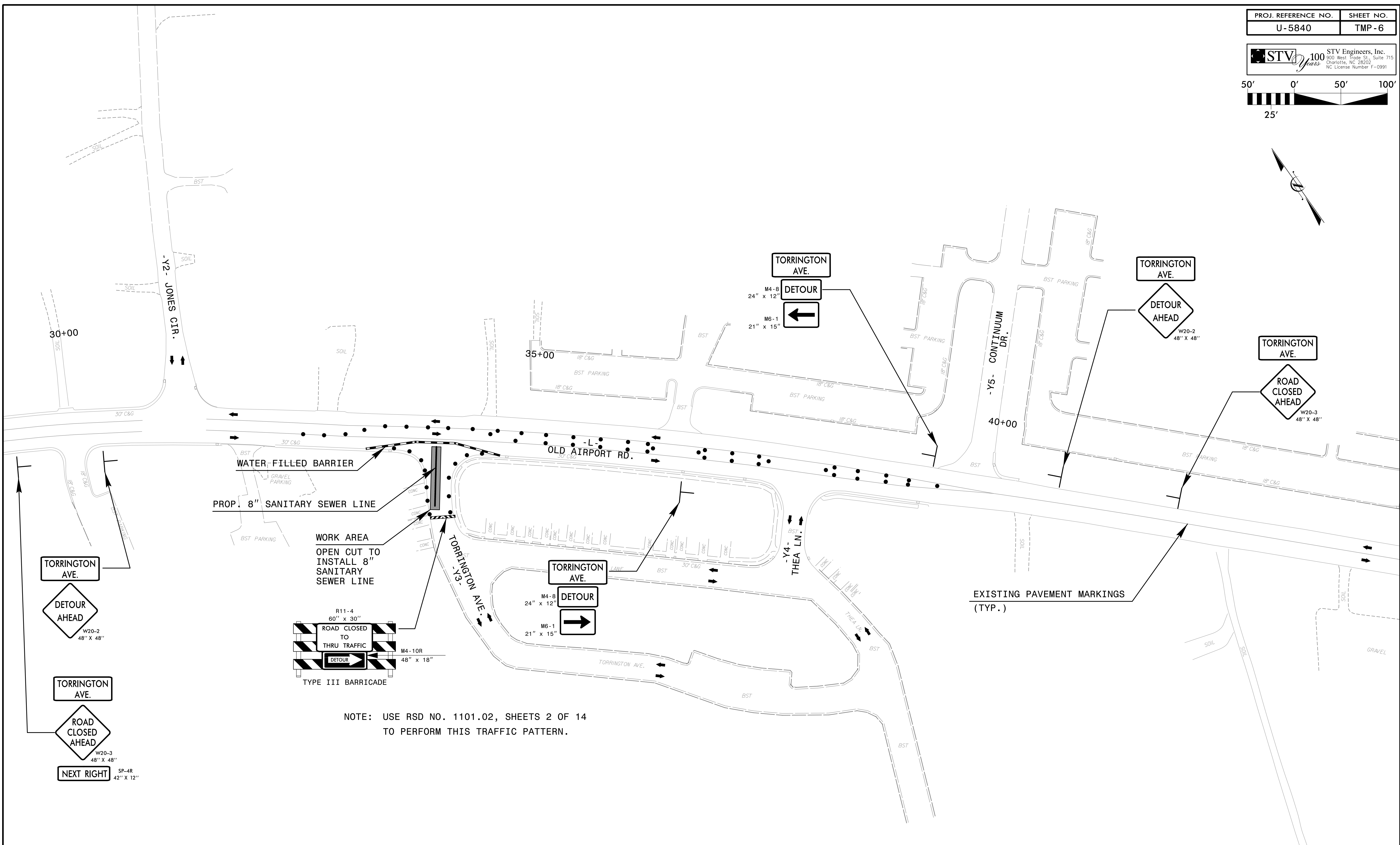


STEP 3B



3/28/2018
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<p>APPROVED: <i>[Signature]</i> <small>EDGEE4E48F4447D</small></p> <p>DATE: 3/29/2018</p> <p>SEAL</p> <p>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</p>		<p>TRANSPORTATION MANAGEMENT PLAN PHASE I DETAILS</p>
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WATER FILLED BARRIER
 PROP. 8" SANITARY SEWER LINE

WORK AREA
 OPEN CUT TO
 INSTALL 8"
 SANITARY
 SEWER LINE

R11-4
 60" x 30"
 ROAD CLOSED
 TO
 THRU TRAFFIC
 M4-10R
 48" x 18"
 TYPE III BARRICADE

NOTE: USE RSD NO. 1101.02, SHEETS 2 OF 14
 TO PERFORM THIS TRAFFIC PATTERN.

TORRINGTON AVE.
 DETOUR AHEAD
 W20-2
 48" X 48"

TORRINGTON AVE.
 ROAD CLOSED AHEAD
 W20-3
 48" X 48"

NEXT RIGHT
 SP-4R
 42" X 12"

TORRINGTON AVE.
 DETOUR
 M4-8
 24" x 12"
 M6-1
 21" x 15"

TORRINGTON AVE.
 DETOUR AHEAD
 W20-2
 48" X 48"

TORRINGTON AVE.
 ROAD CLOSED AHEAD
 W20-3
 48" X 48"

TORRINGTON AVE.
 DETOUR
 M4-8
 24" x 12"
 M6-1
 21" x 15"

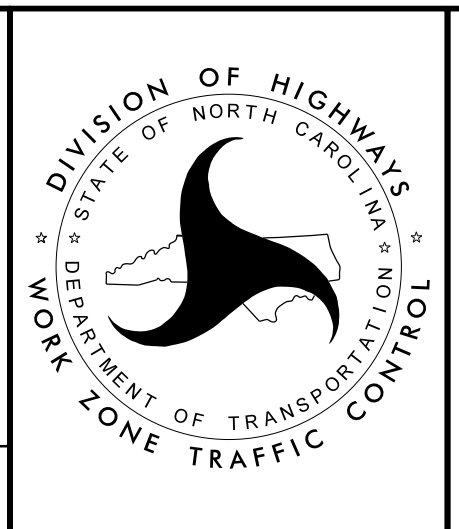
EXISTING PAVEMENT MARKINGS
 (TYP.)

3/28/2018 R:\TrafficControl\TCP\TMP Sheets\U-5840_TCP_psh_P6.dgn

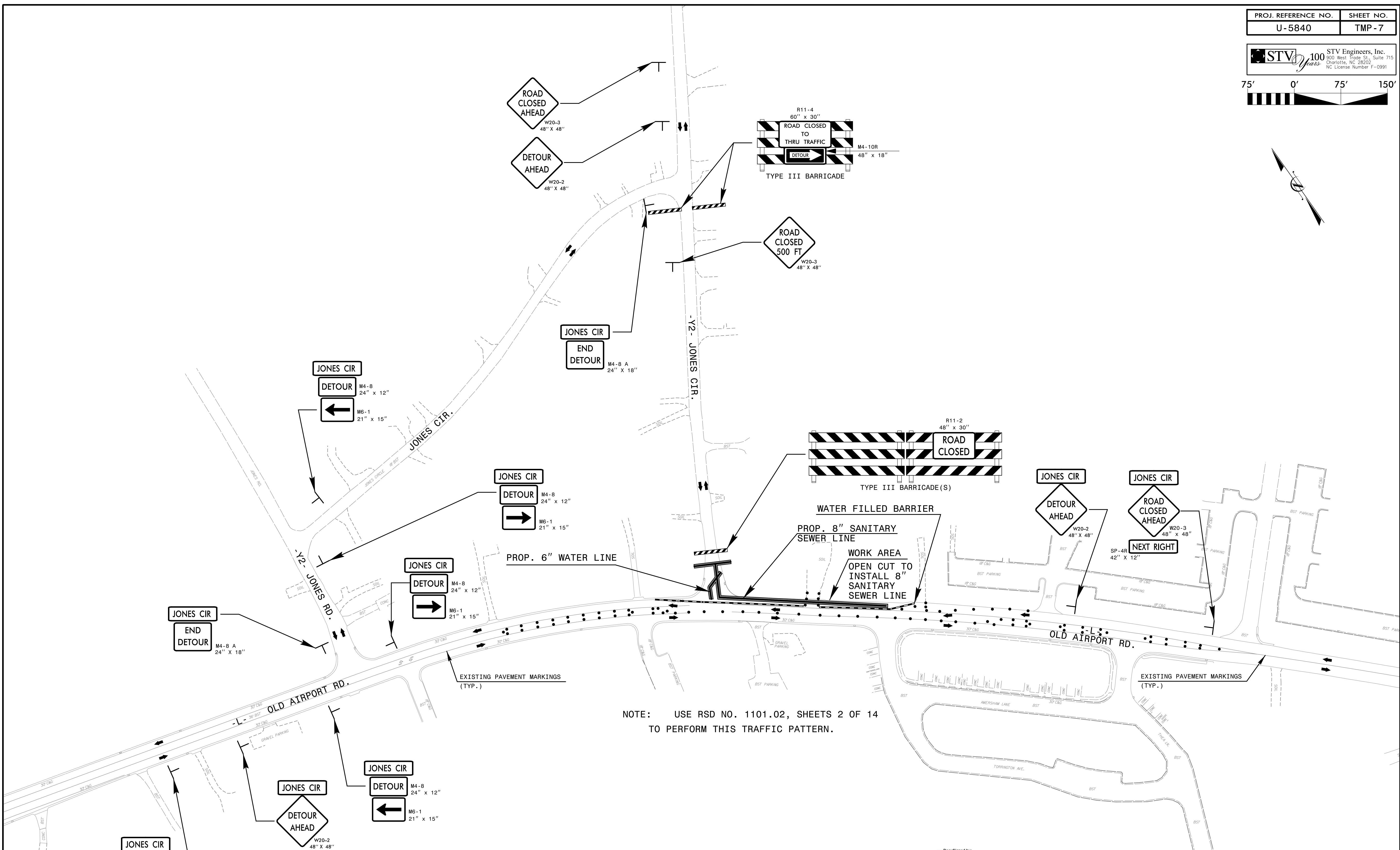
APPROVED: *[Signature]*
 DATE: 3/29/2018

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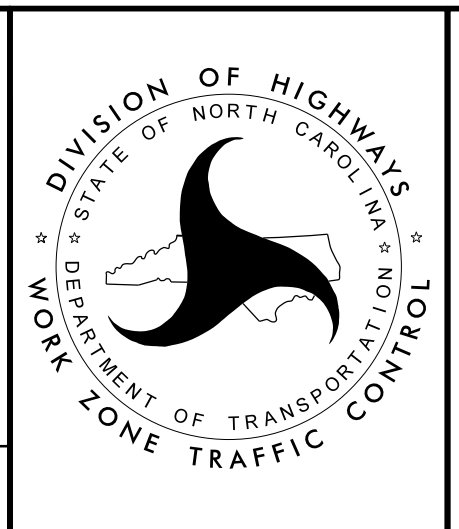
TRANSPORTATION
 MANAGEMENT PLAN
 PHASE II DETAILS



NOTE: USE RSD NO. 1101.02, SHEETS 2 OF 14 TO PERFORM THIS TRAFFIC PATTERN.

3/28/2018 R:\TrafficControl\TCP\TMP Sheets\U-5840_TCP_psh_P1.dgn


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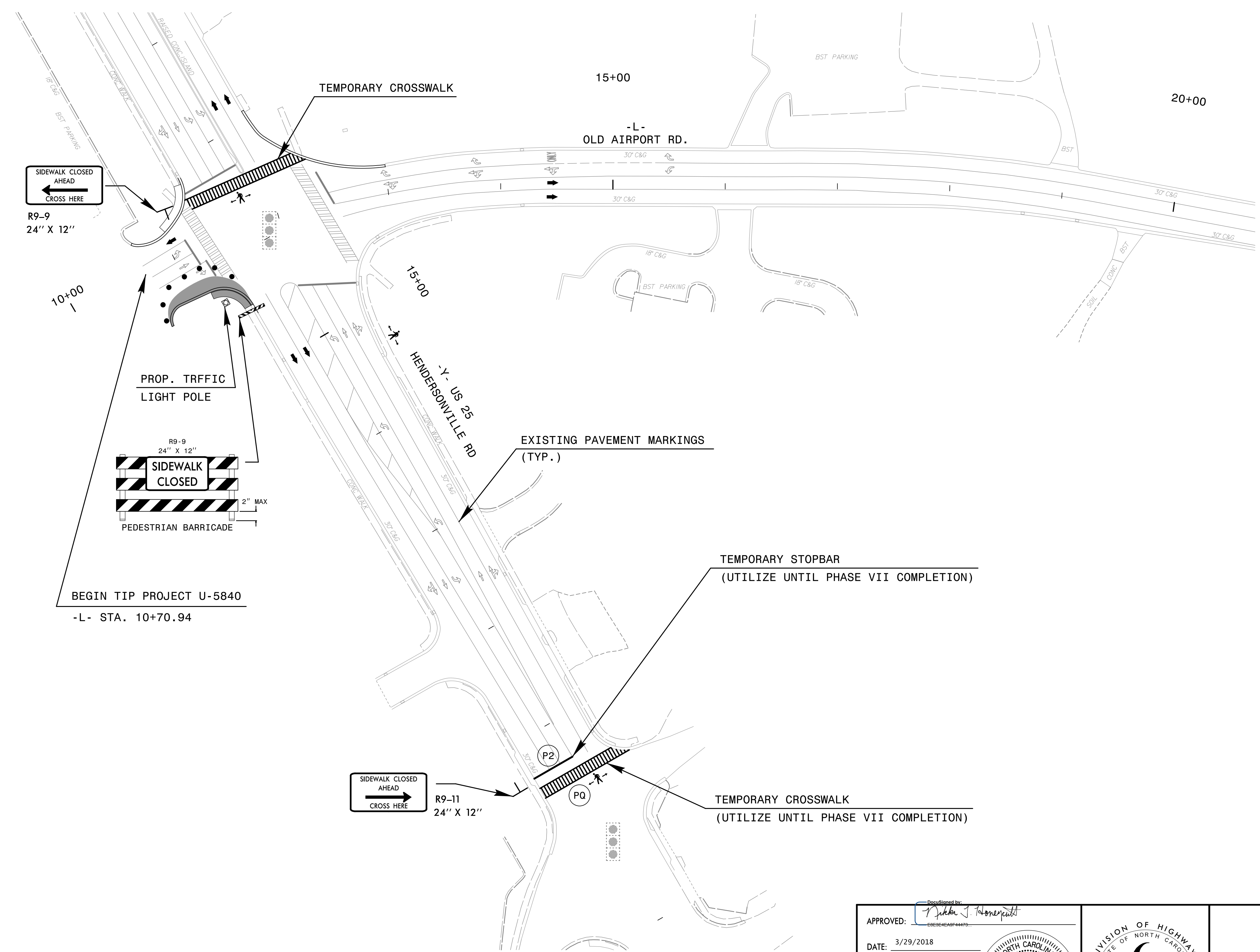
**TRANSPORTATION
MANAGEMENT PLAN
PHASE II DETAILS**

PROJ. REFERENCE NO. U-5840	SHEET NO. TMP-8
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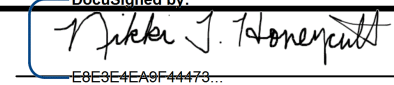
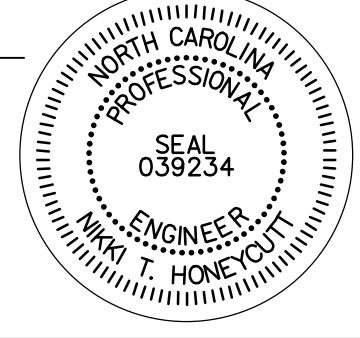
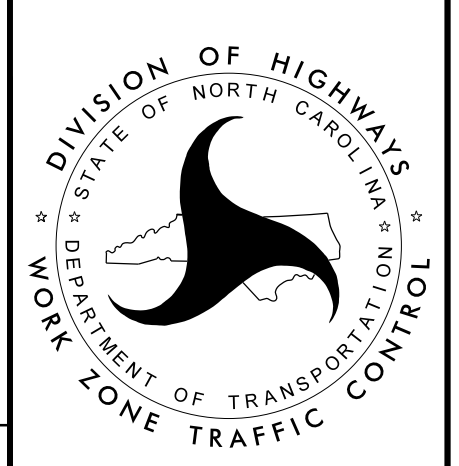

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50' 0' 50' 100'

 25'





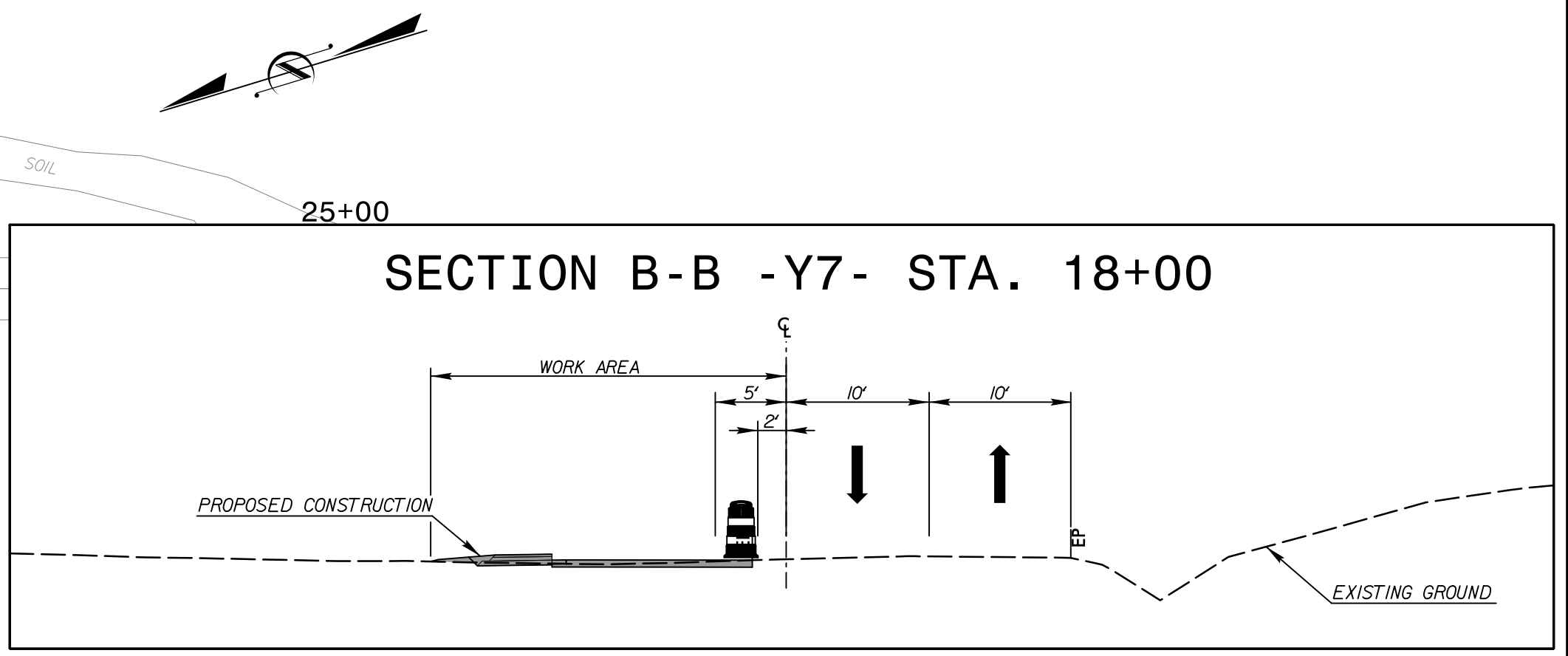
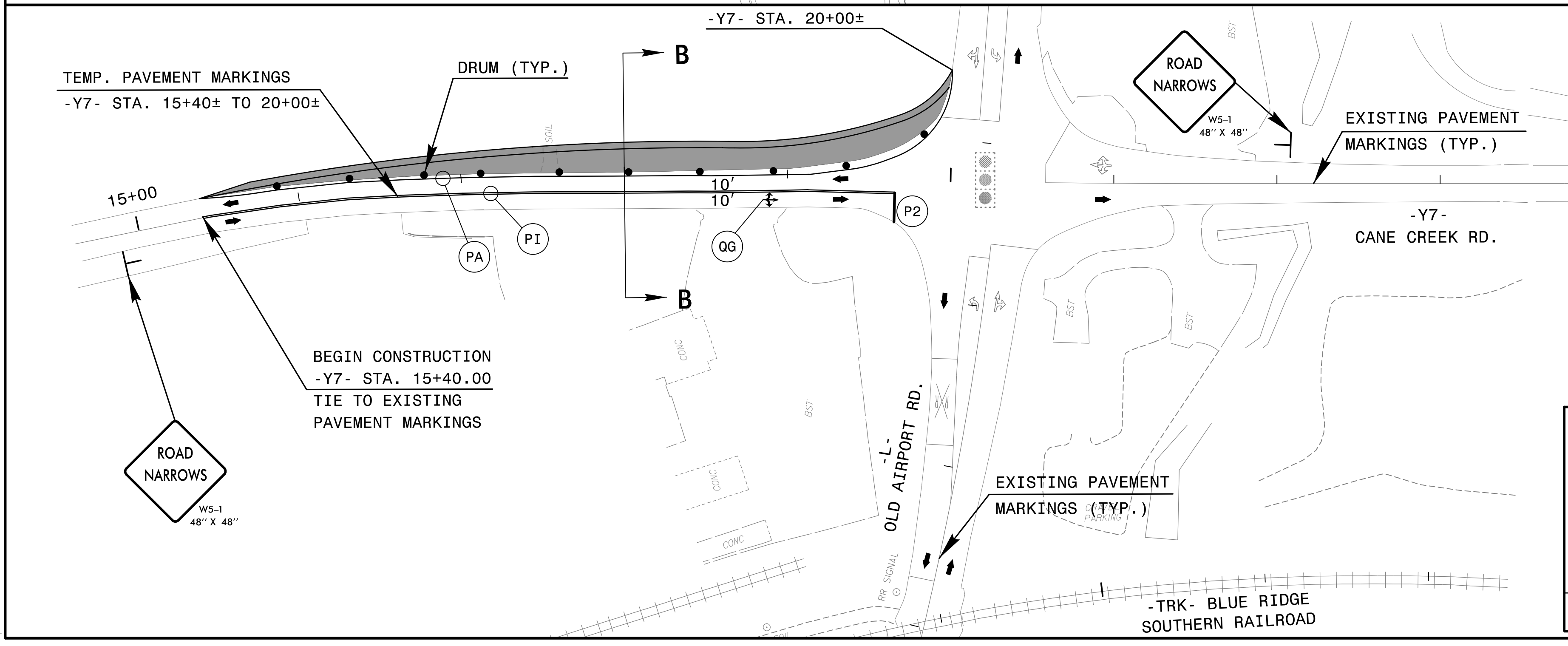
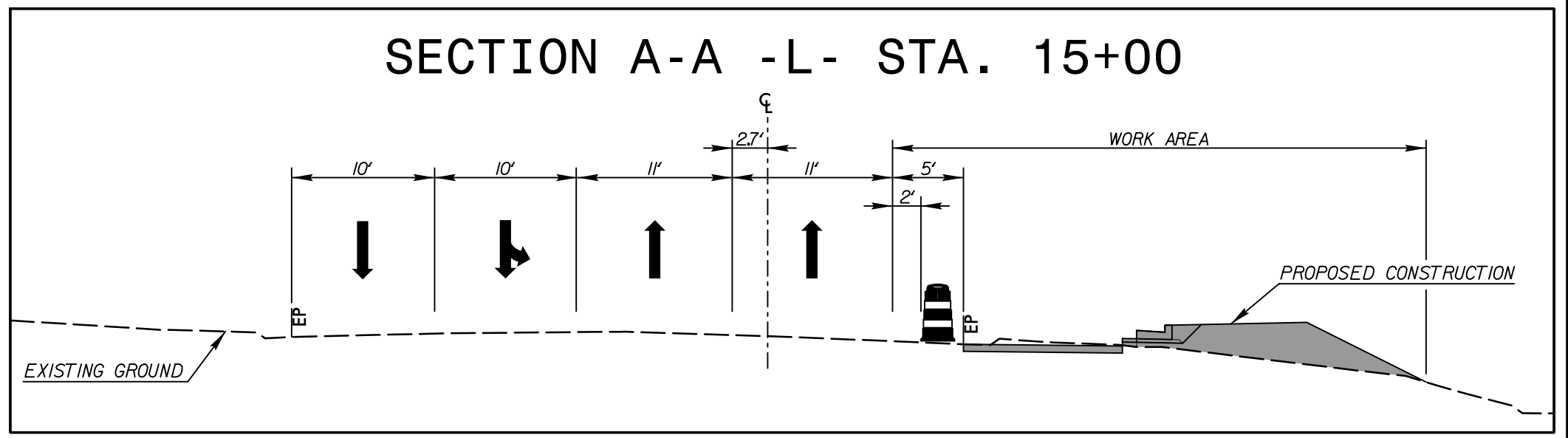
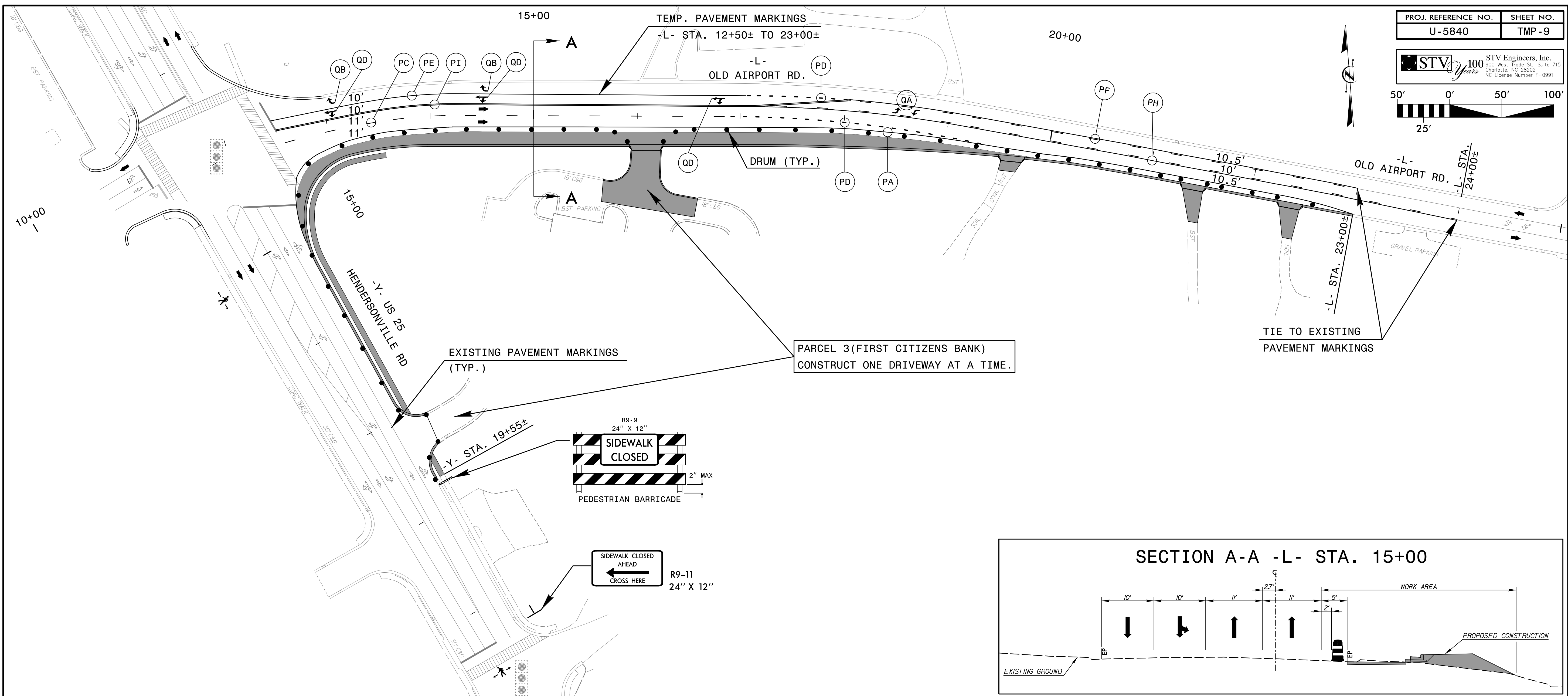
3/28/2018 R:\TrafficControl\TCP\TMP Sheets\U-5840_TCP_psh_P8.dgn

APPROVED:  DATE: 3/29/2018 SEAL 		<p align="center">TRANSPORTATION MANAGEMENT PLAN PHASE II DETAILS</p>
<p align="center">DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</p>		

PROJ. REFERENCE NO. U-5840	SHEET NO. TMP-9
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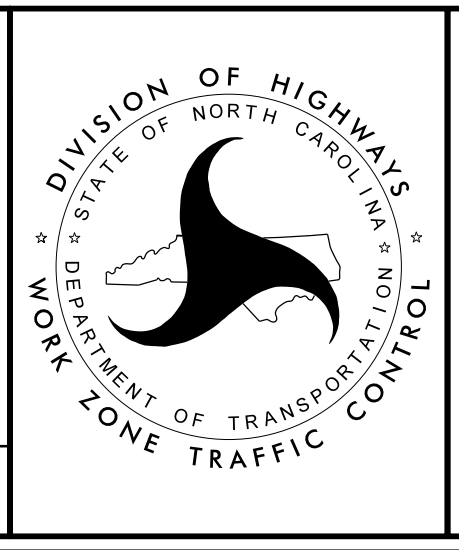
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25'



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DATE: 9/13/2018

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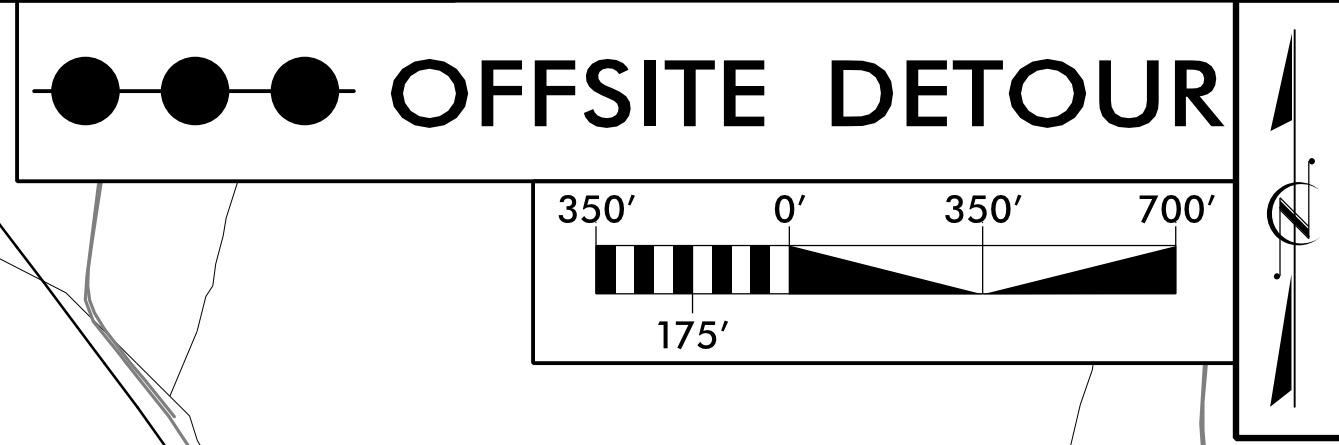
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WORK ZONE TRAFFIC CONTROL

TRANSPORTATION
MANAGEMENT PLAN
PHASE II DETAILS

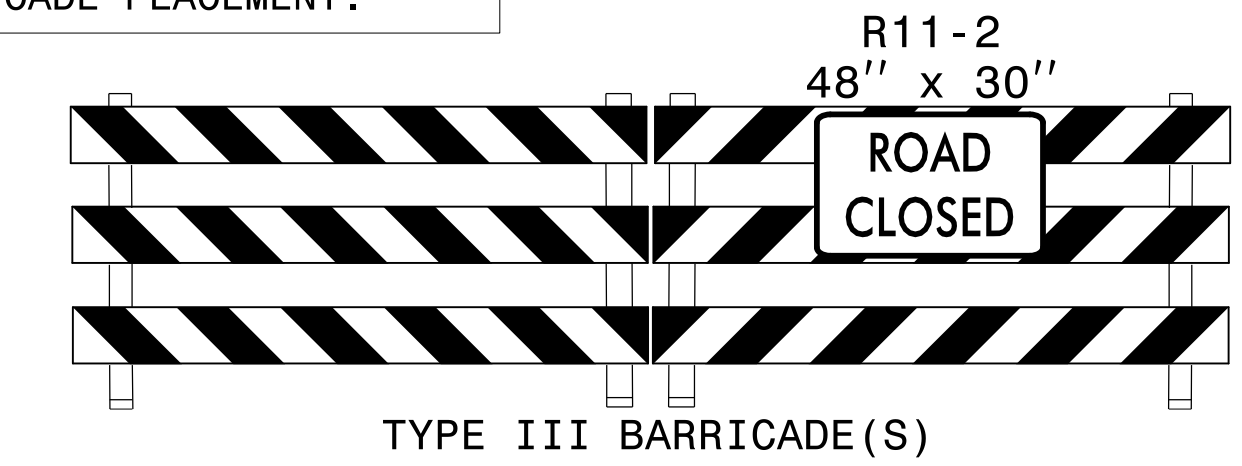
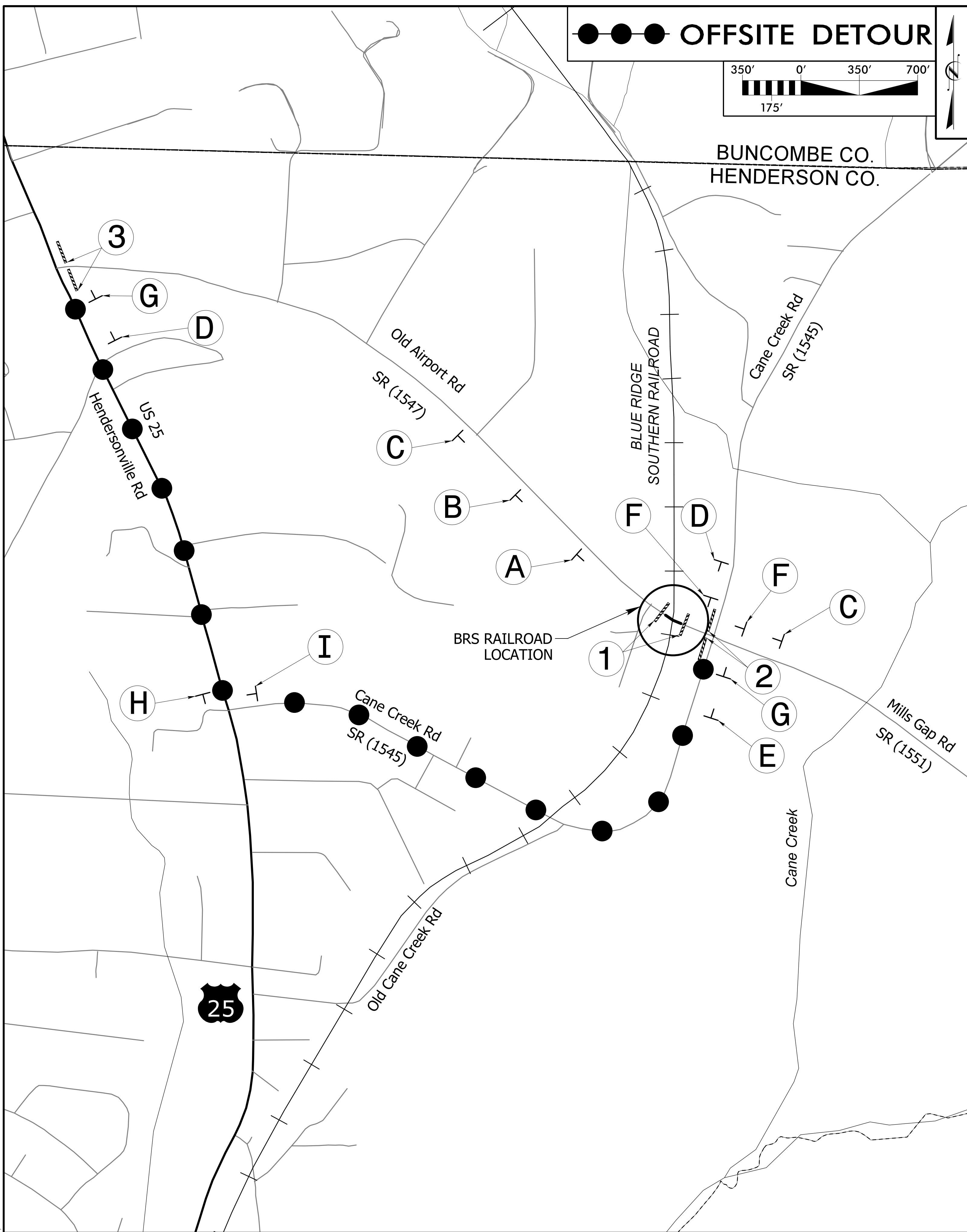
9/13/2018 R:\Road\Fic\TrafficControl\TCP\TMP Sheets\U-5840_TCP_psh_P9.dgn



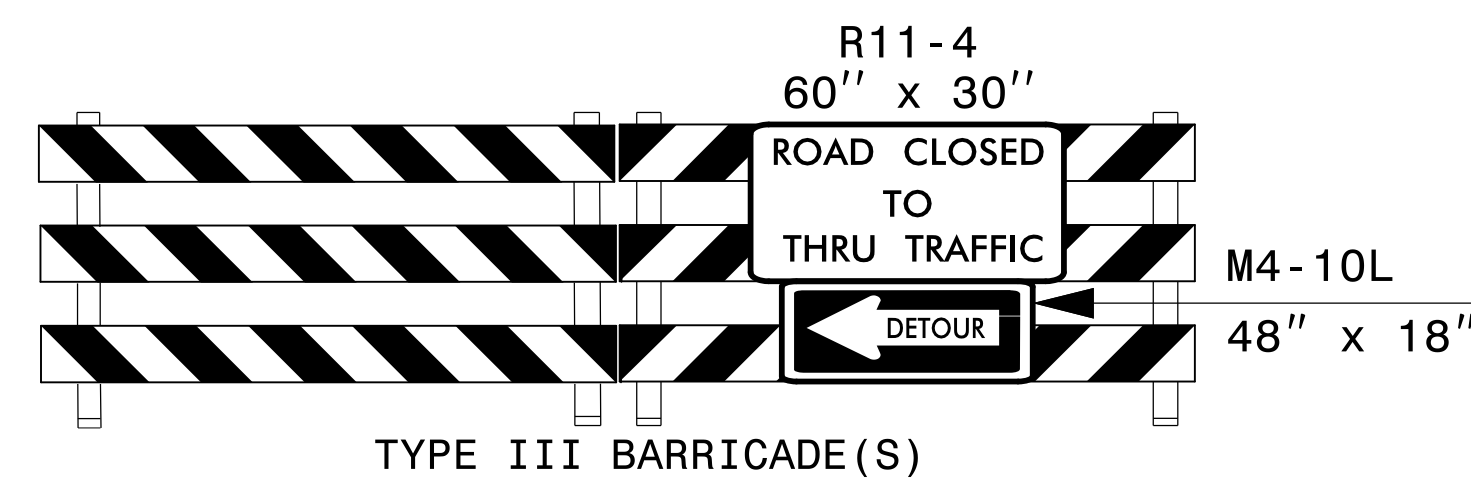
SEE ROADWAY STD DWG 1101.03, SHEET 1 OF 9 FOR ADVANCE WARNING AND BARRICADE PLACEMENT.

PROJ. REFERENCE NO.	SHEET NO.
U-5840	TMP-10

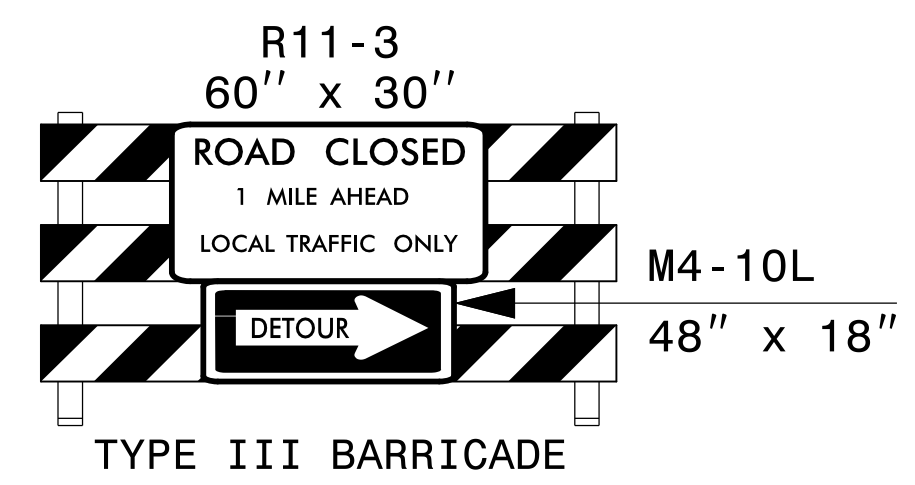
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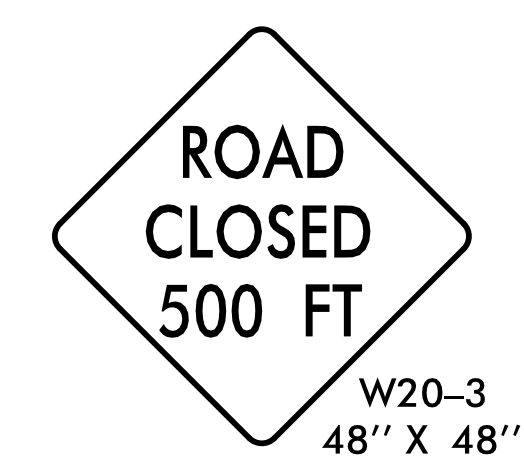
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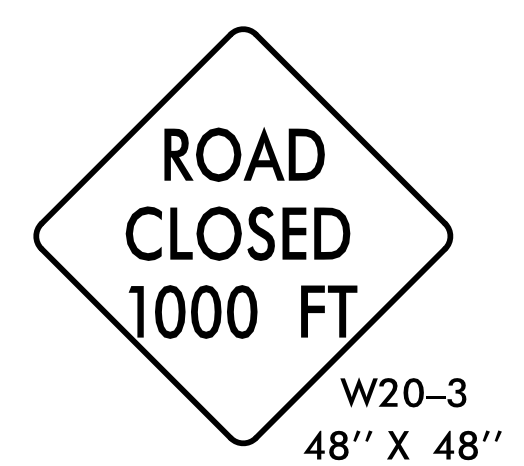
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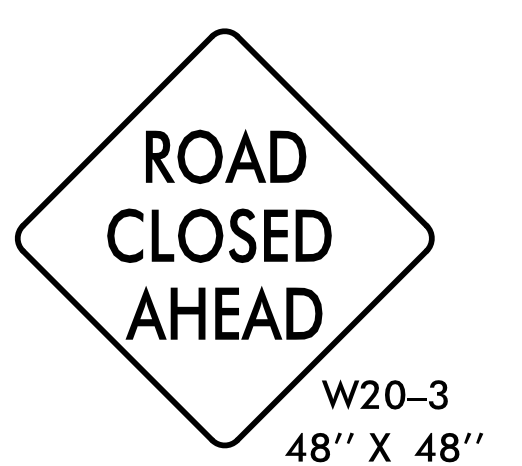
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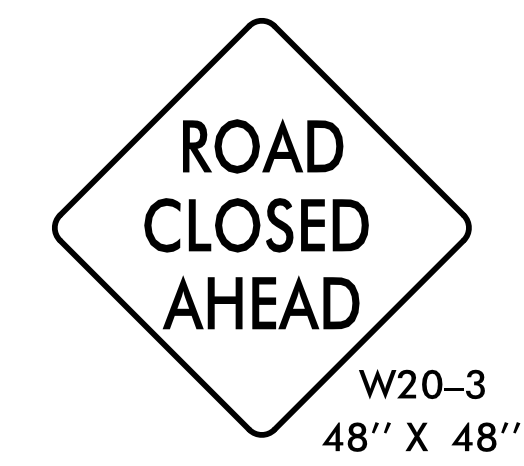
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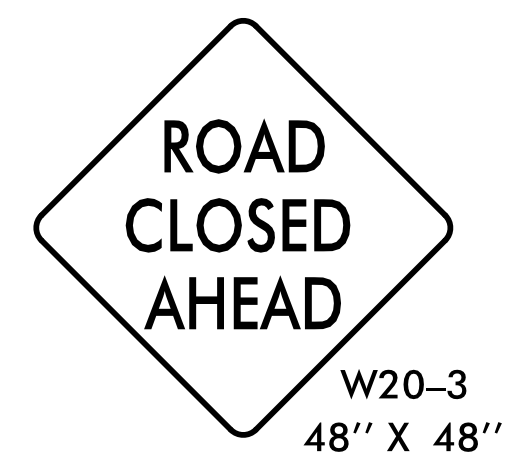
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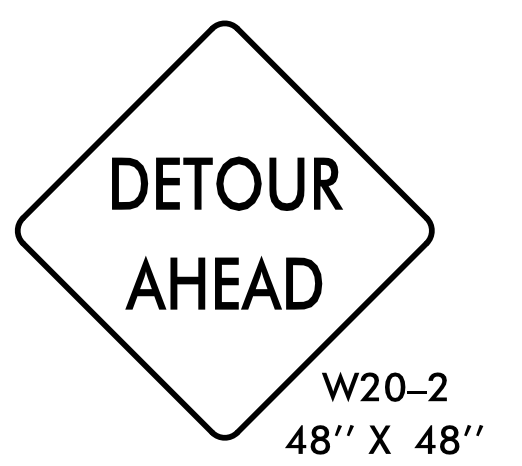
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D (2 EA)



E (1 EA)



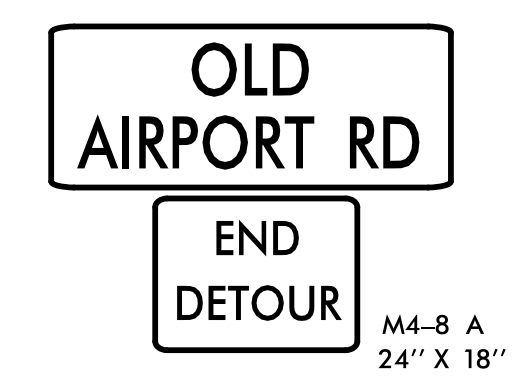
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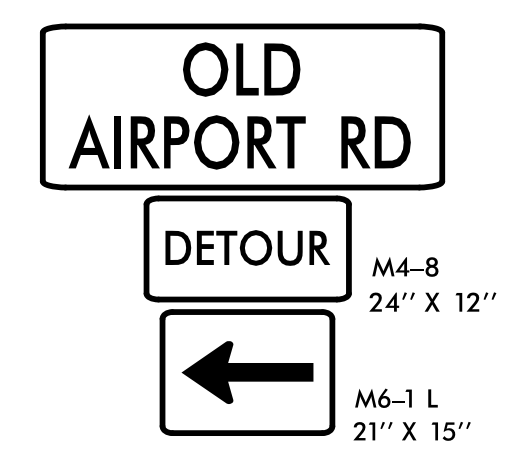
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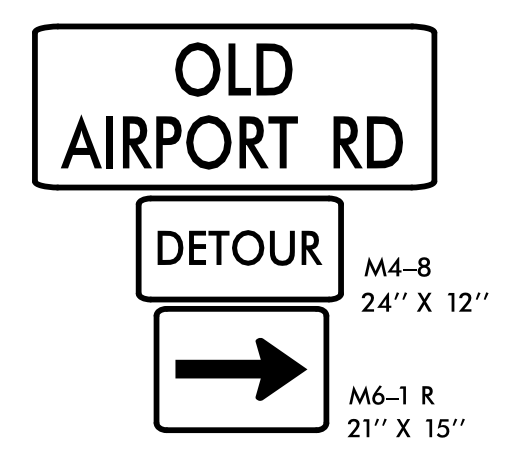
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G (2 EA)

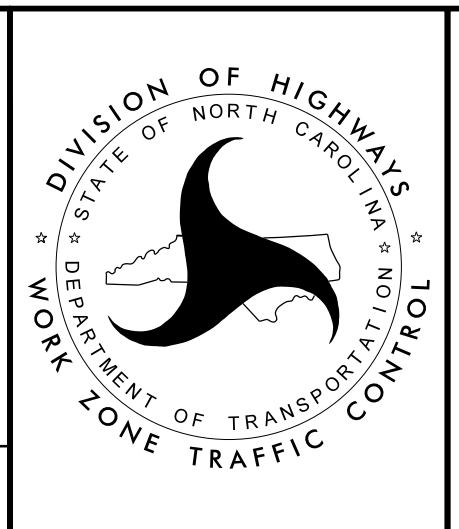


H (1 EA)



I (1 EA)

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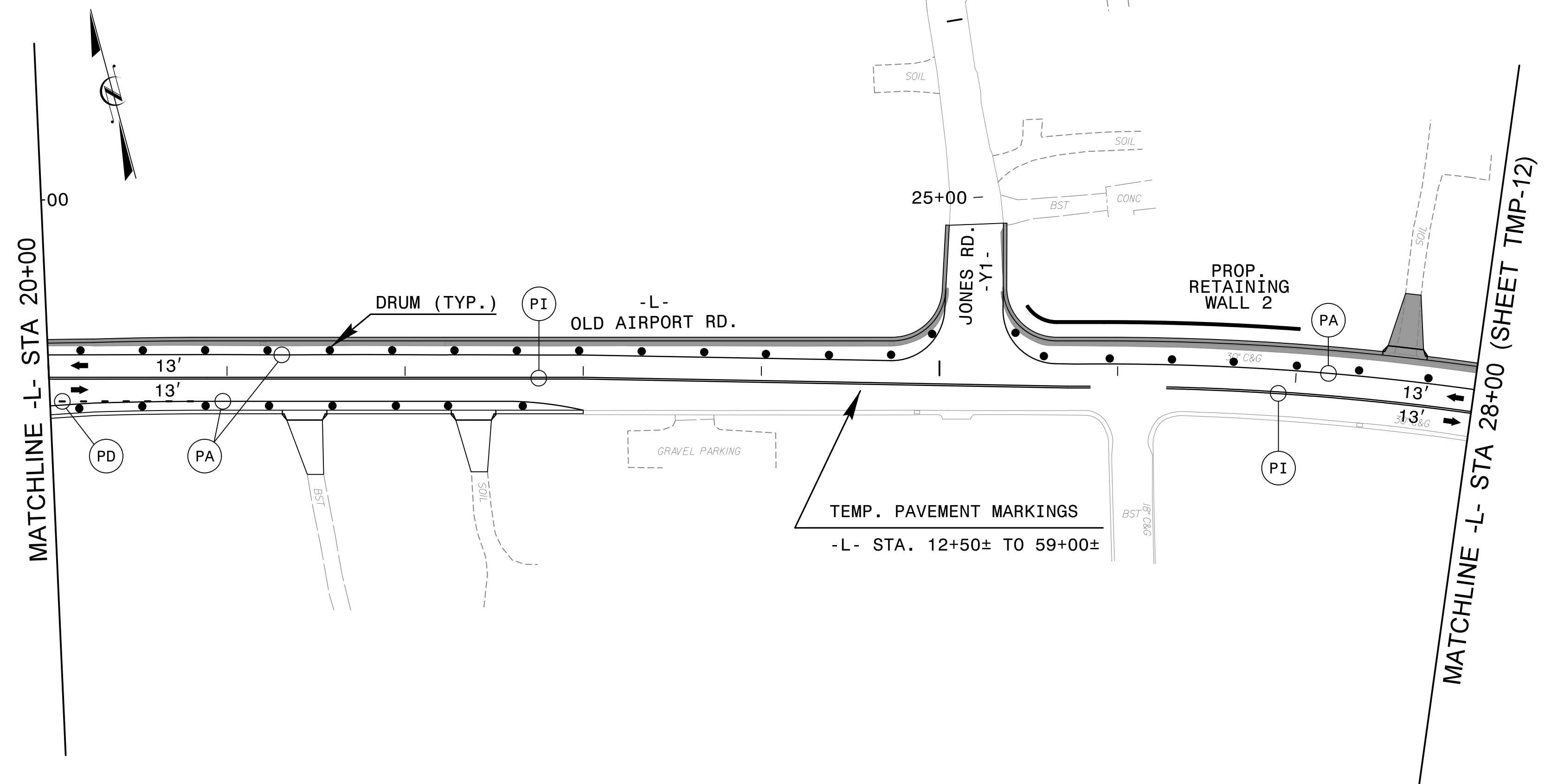
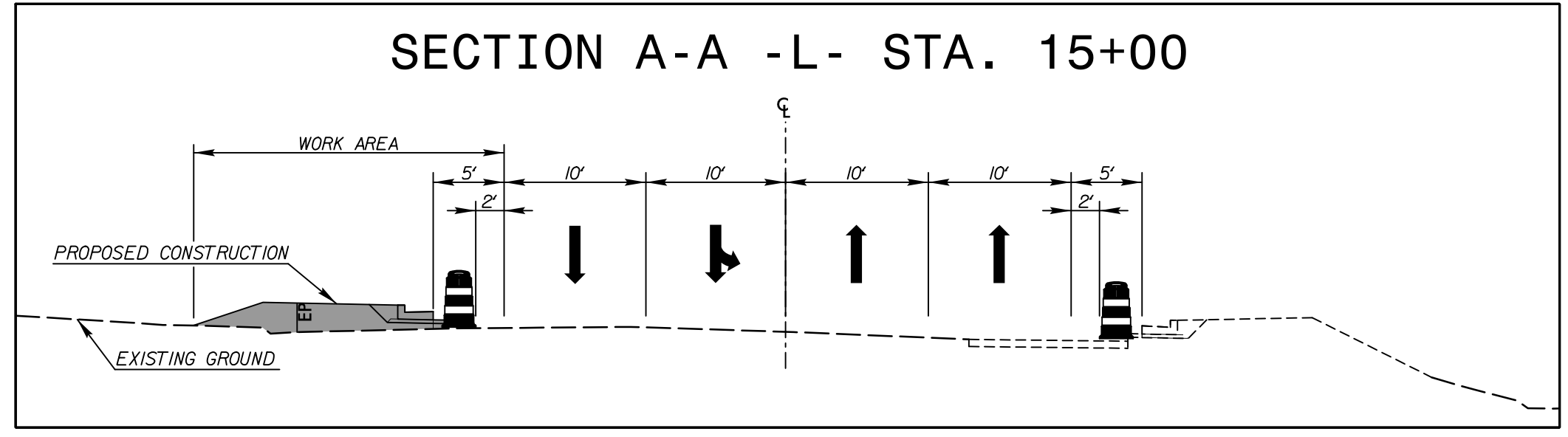
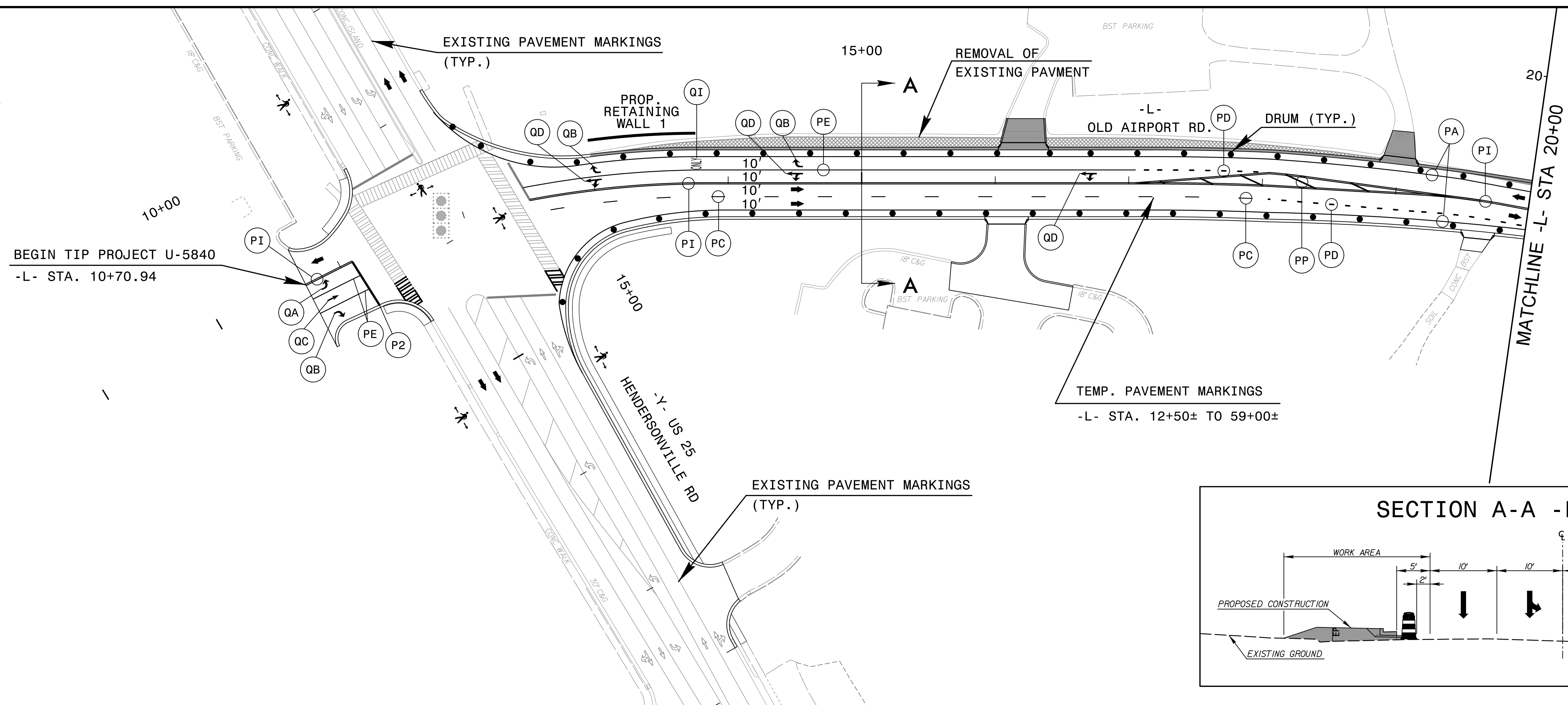
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 WORK ZONE TRAFFIC CONTROL

PHASE III
 OFFSITE DETOUR ROUTE
 (RAILROAD CROSSING
 SURFACE INSTALLATION)

3/28/2018
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 pnllismz

PROJ. REFERENCE NO. U-5840	SHEET NO. TMP-11
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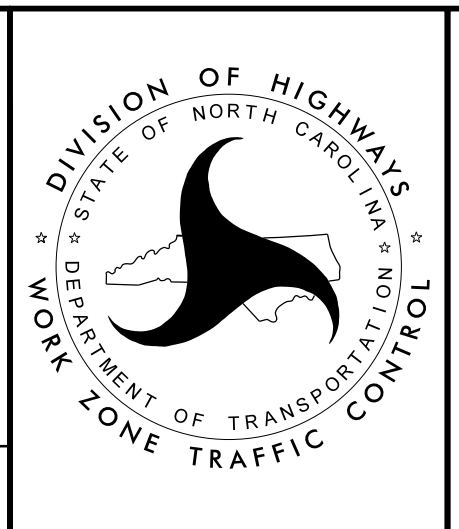
STV 100 STV Engineers, Inc.
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Charlotte, NC 28202
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DATE: 9/13/2018

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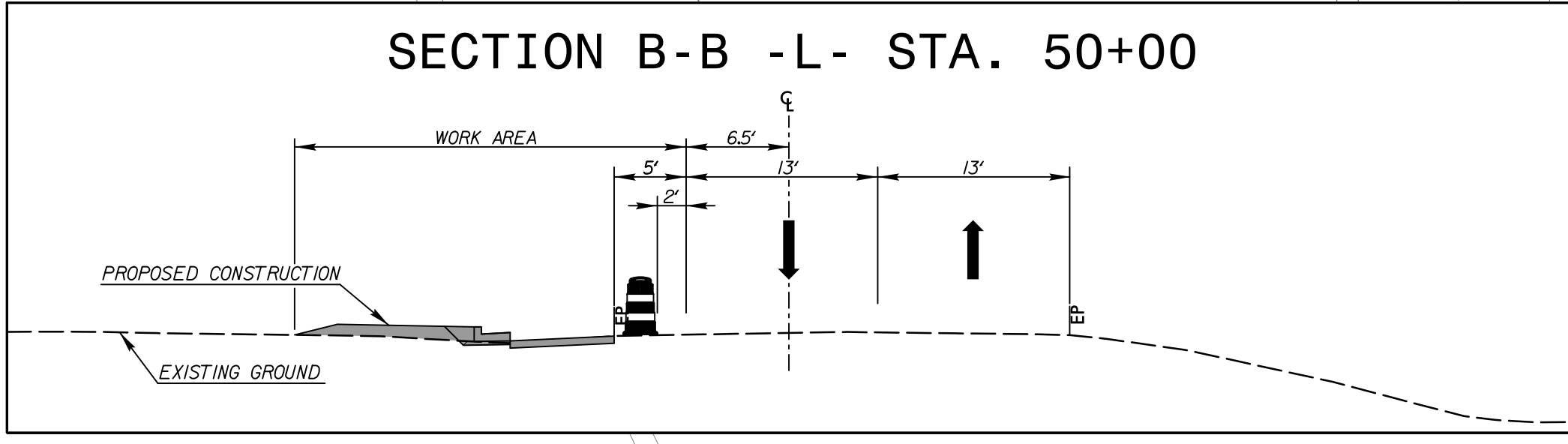
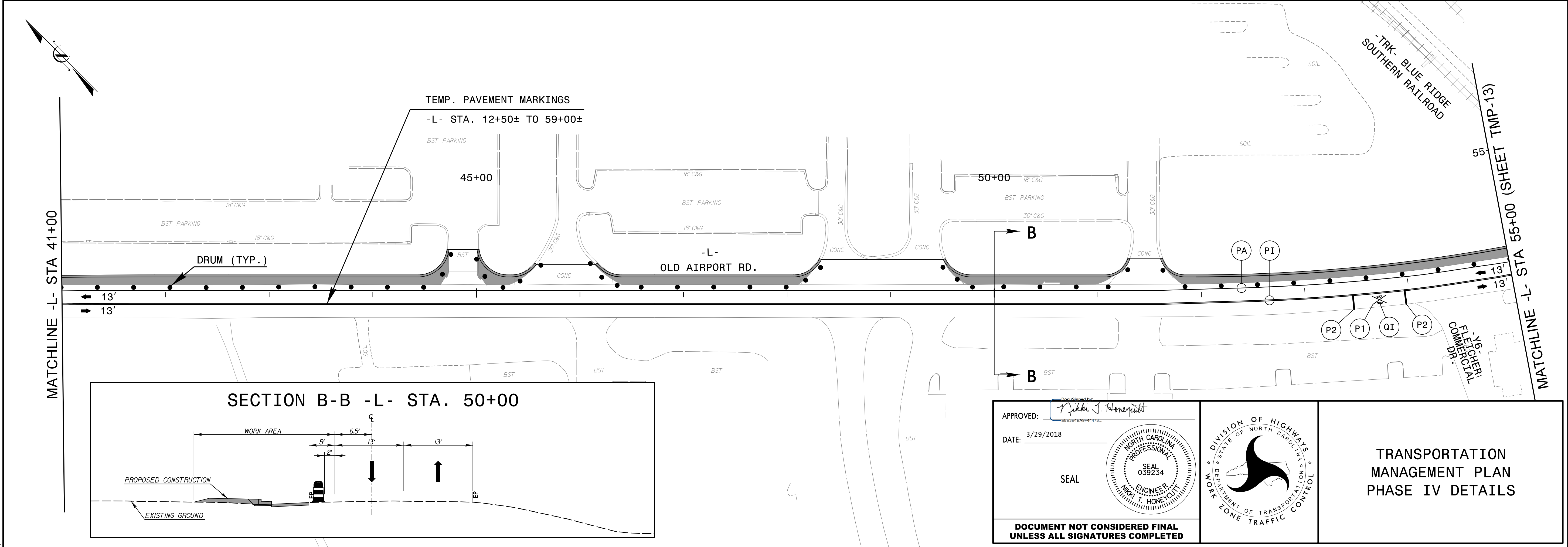
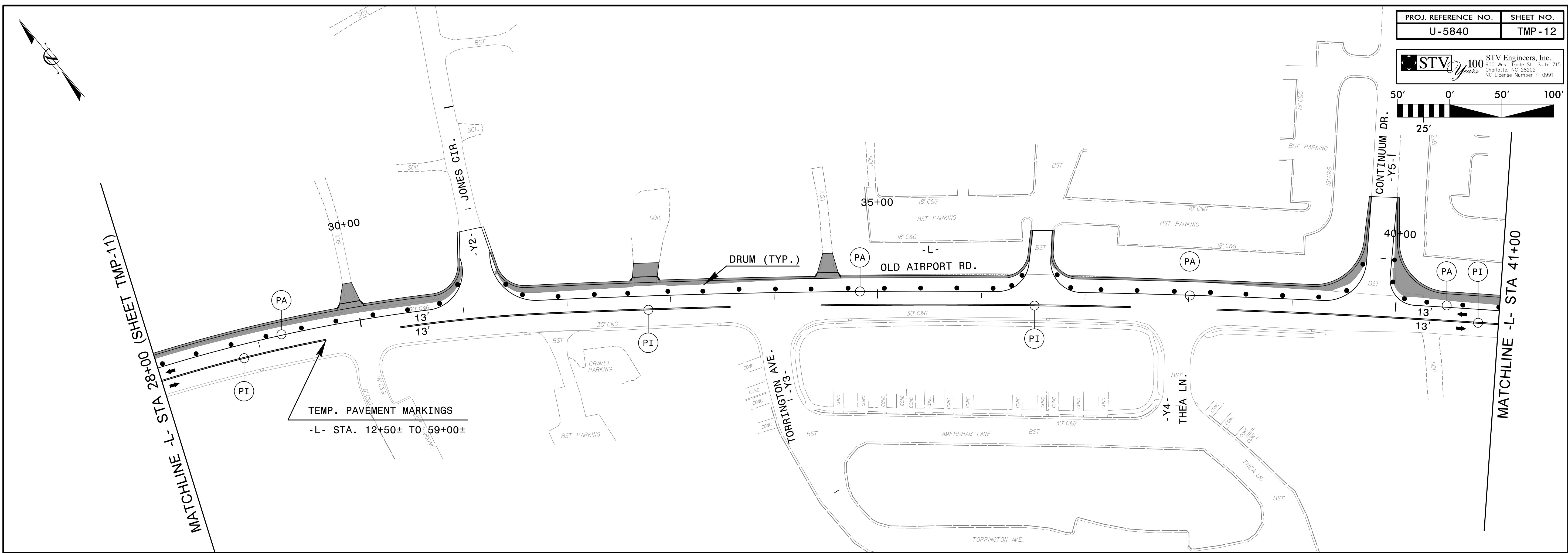


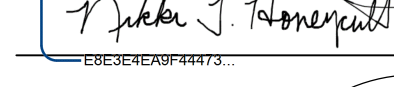
TRANSPORTATION
MANAGEMENT PLAN
PHASE IV DETAILS

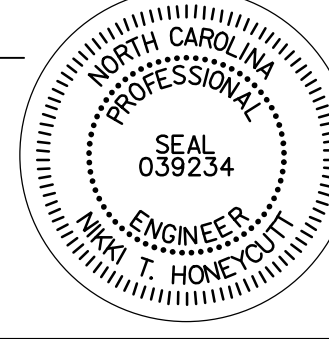
9/13/2018
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PROJ. REFERENCE NO. U-5840	SHEET NO. TMP-12
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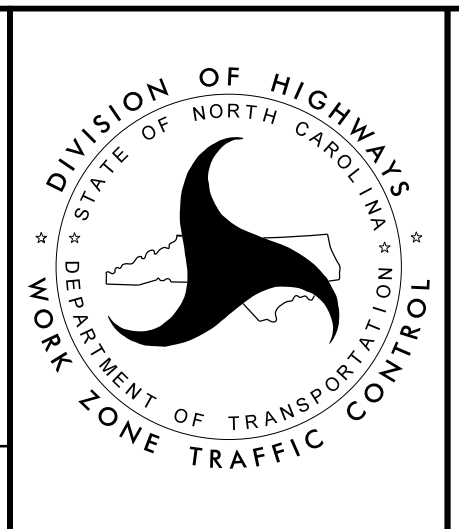

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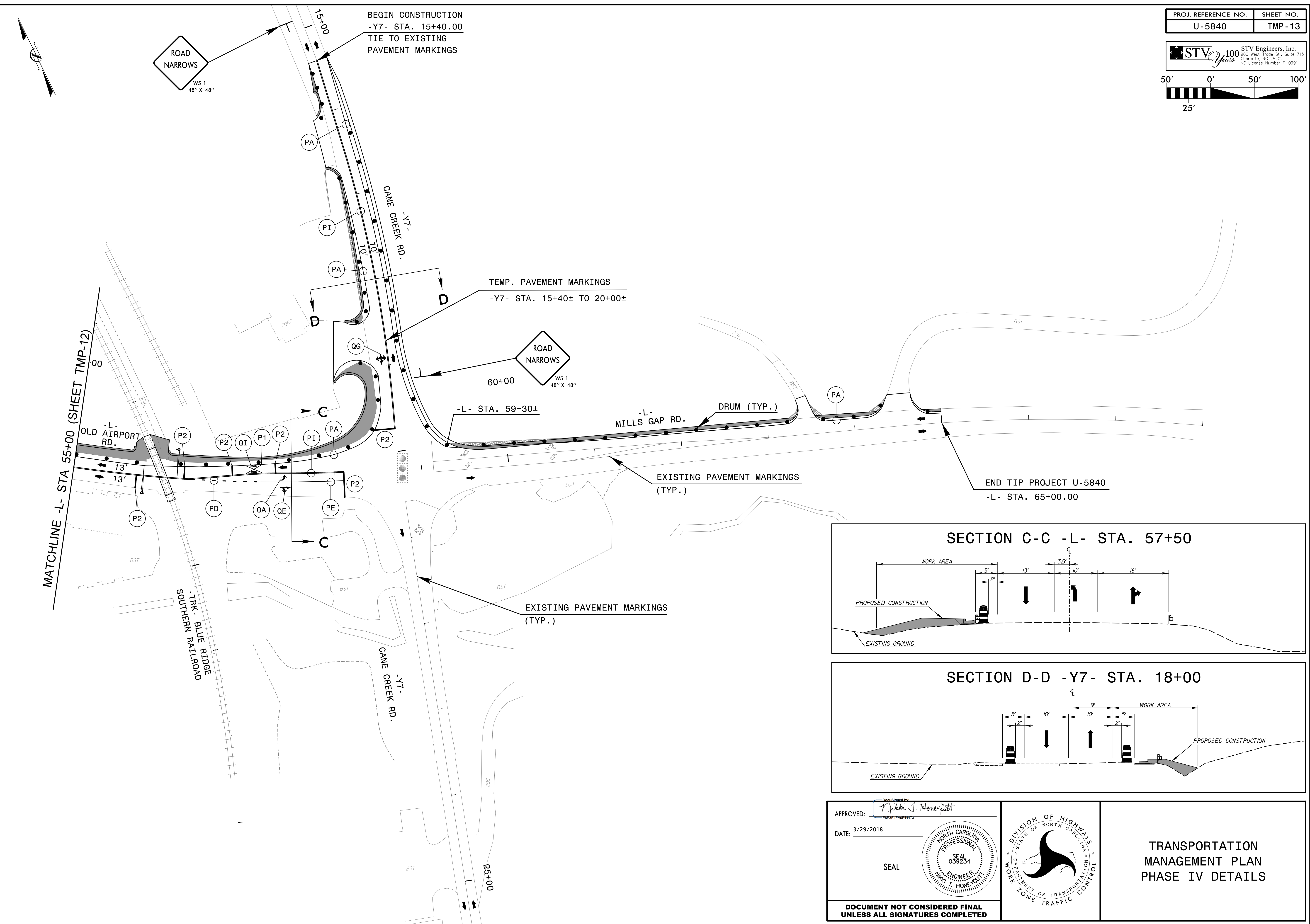


**TRANSPORTATION
 MANAGEMENT PLAN
 PHASE IV DETAILS**

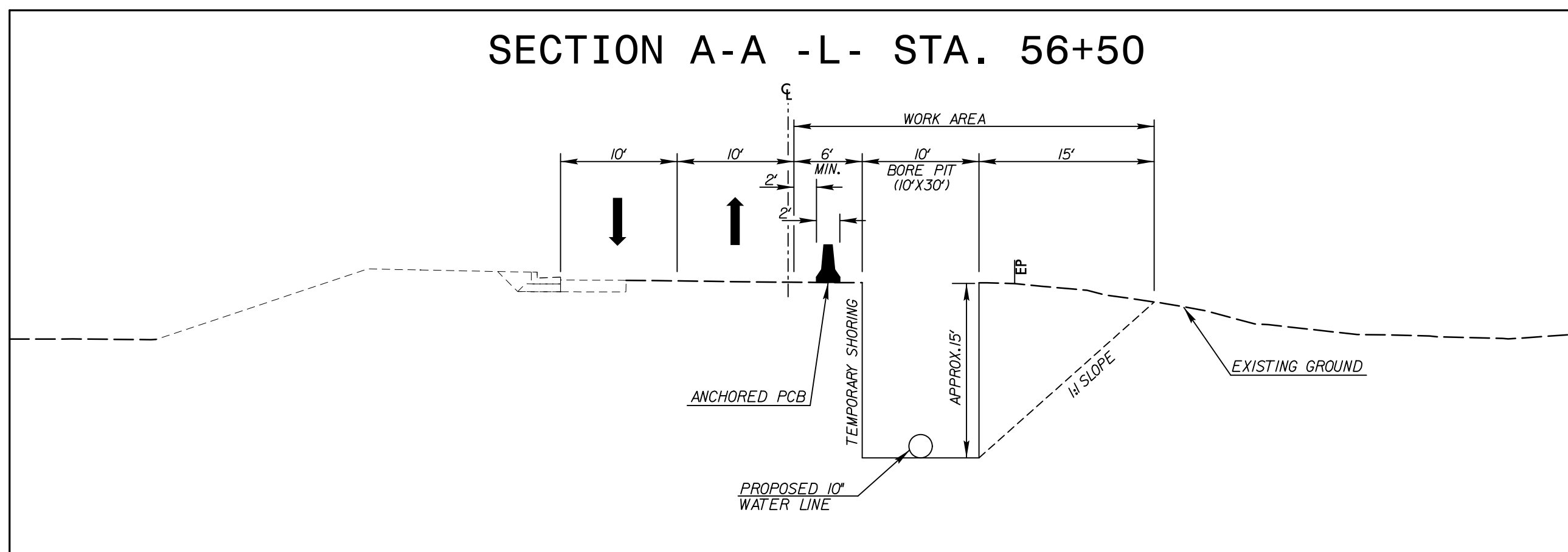
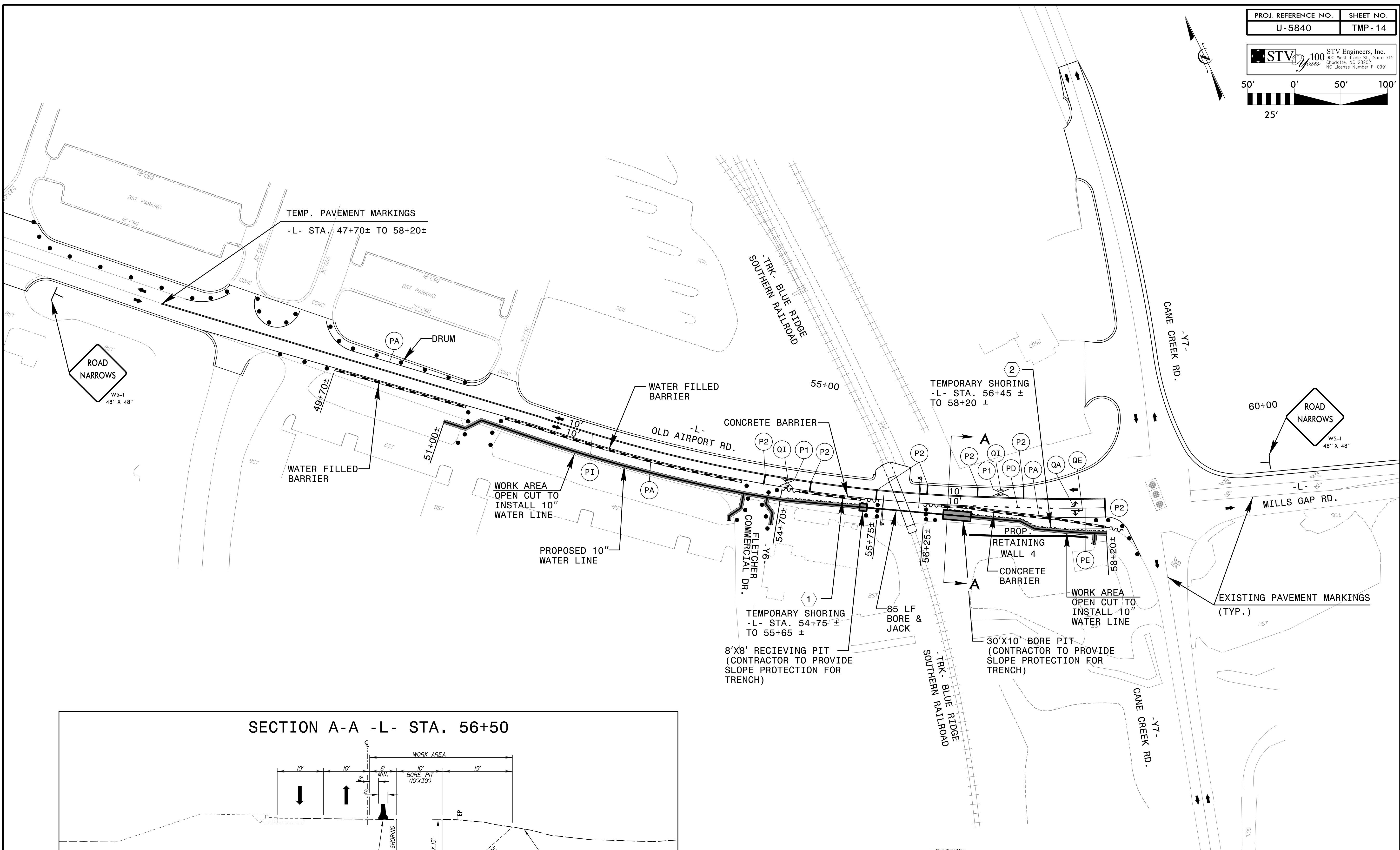
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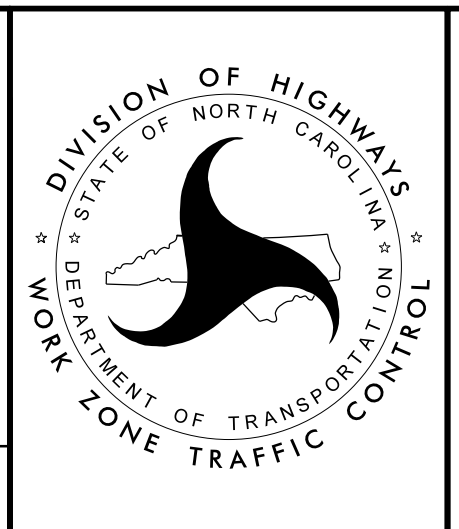
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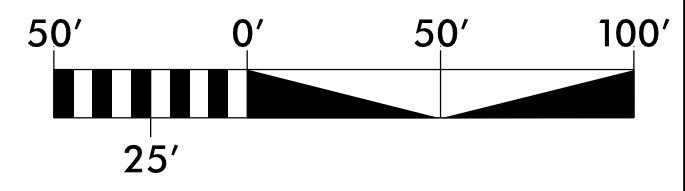
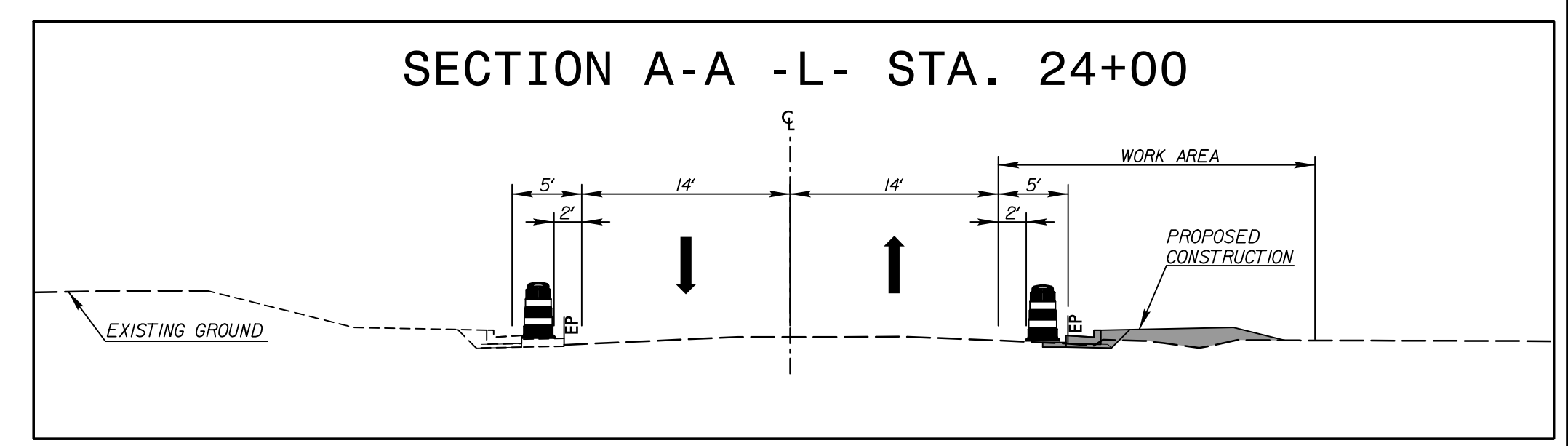
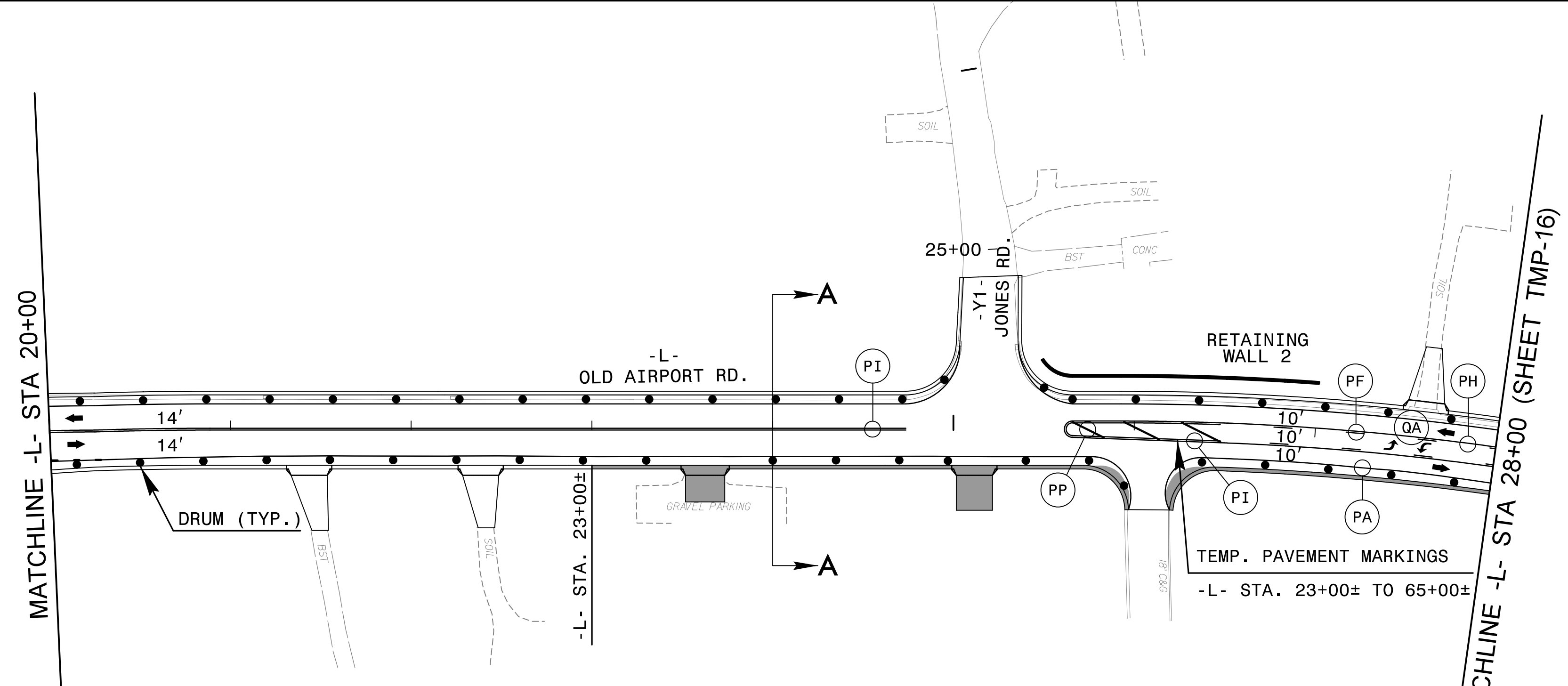
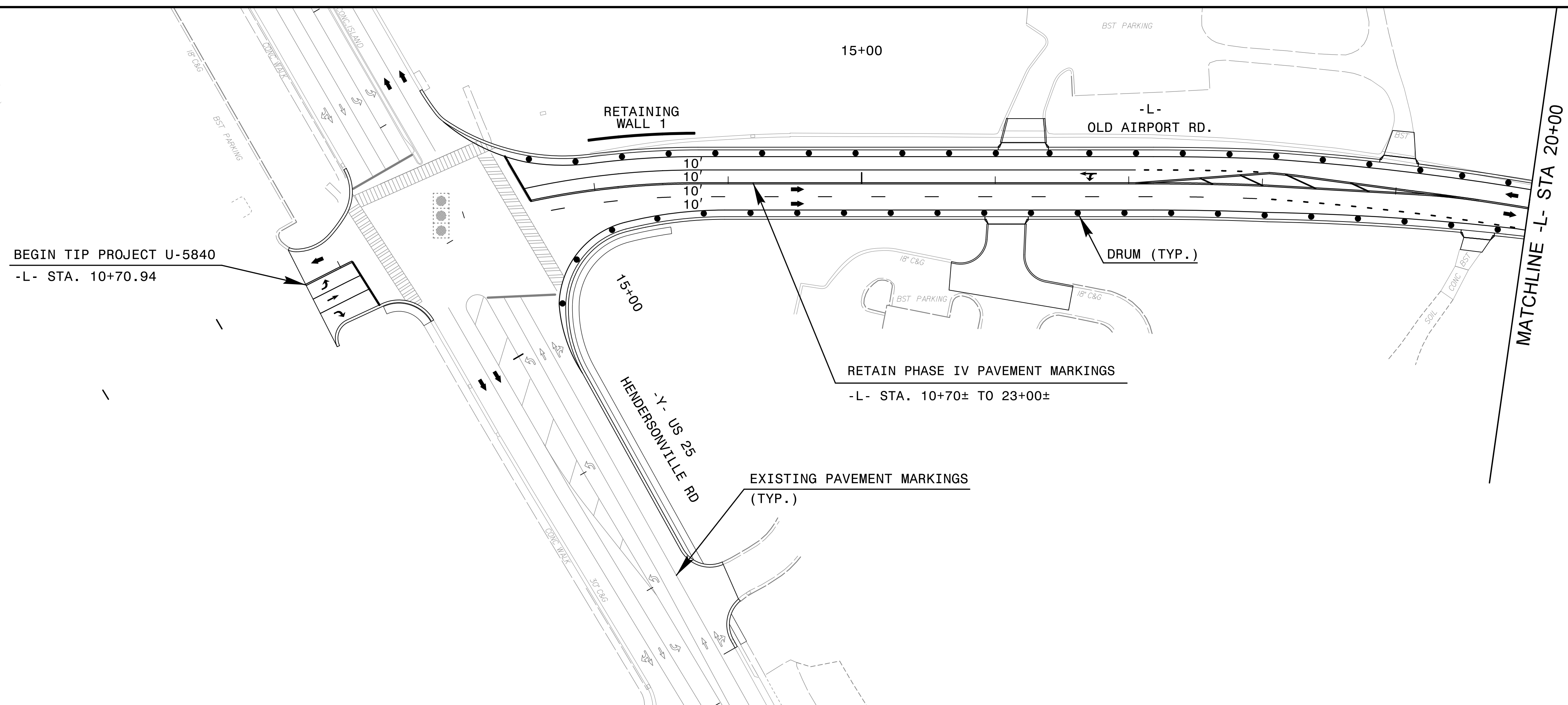


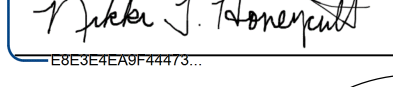
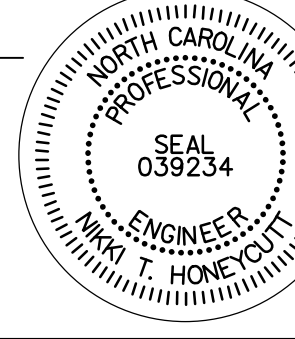
**TRANSPORTATION
MANAGEMENT PLAN
PHASE V DETAILS**

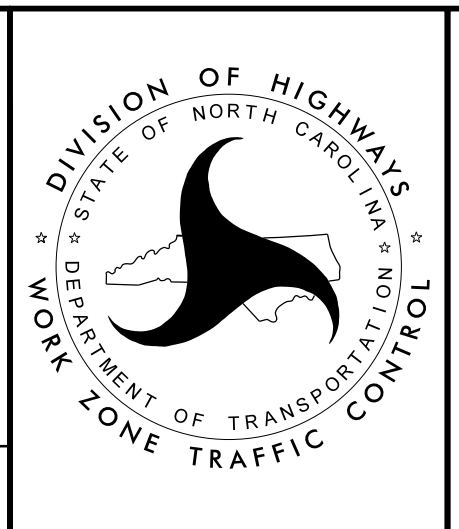
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PROJ. REFERENCE NO. U-5840	SHEET NO. TMP-15
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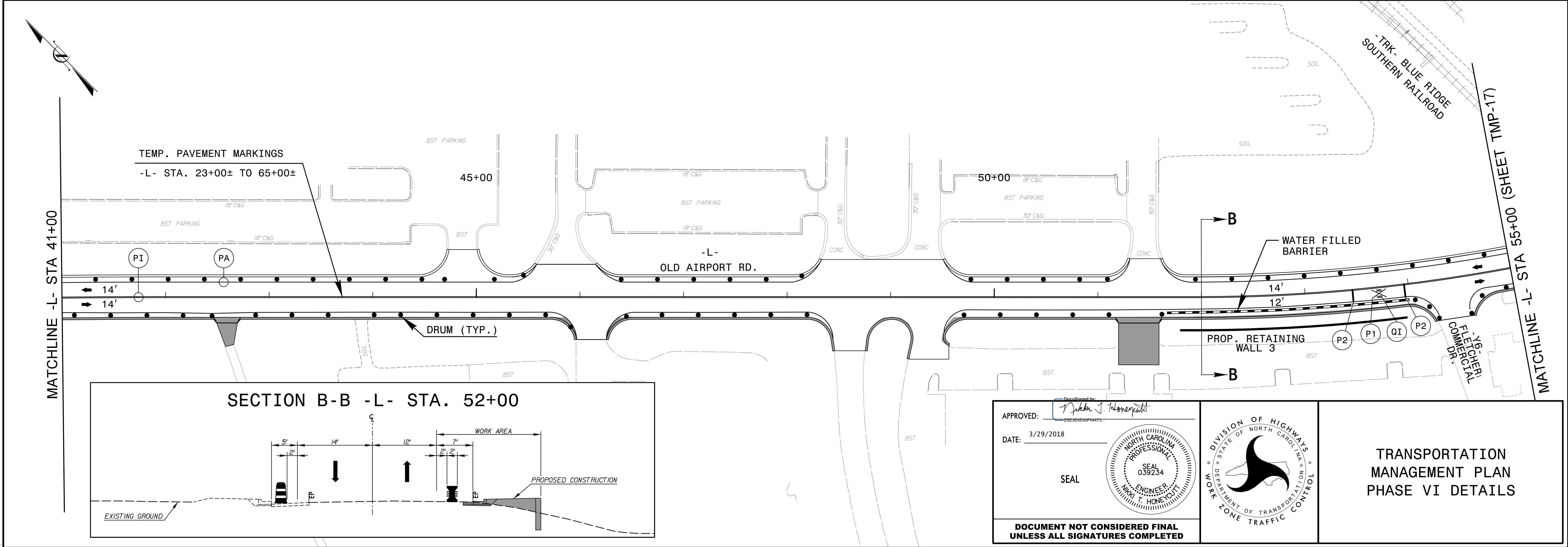
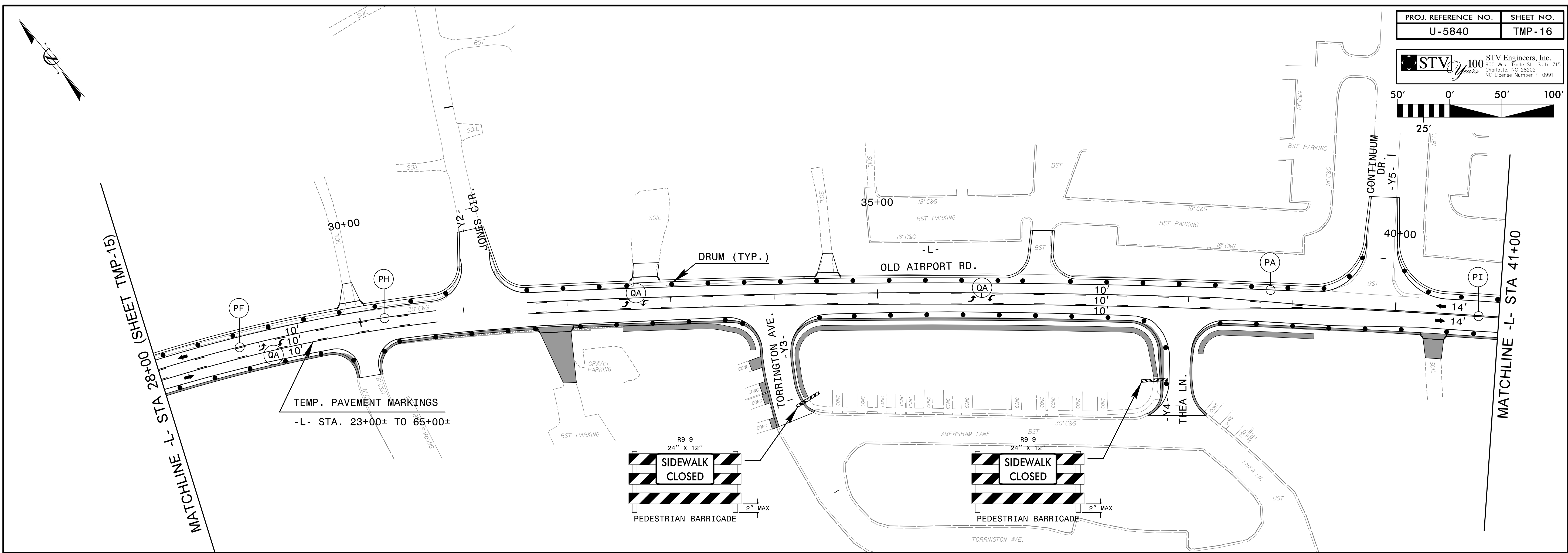



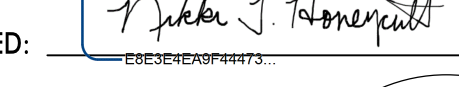
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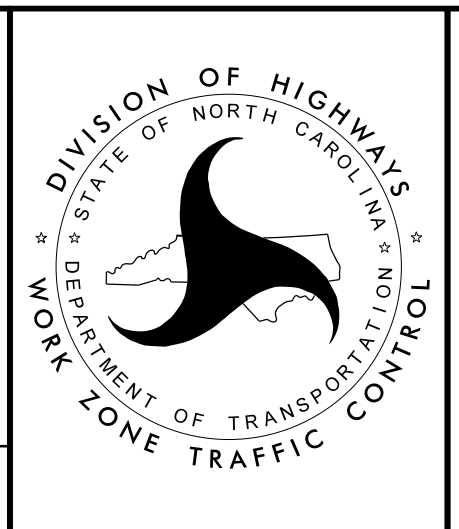


TRANSPORTATION
 MANAGEMENT PLAN
 PHASE VI DETAILS

9/13/2018
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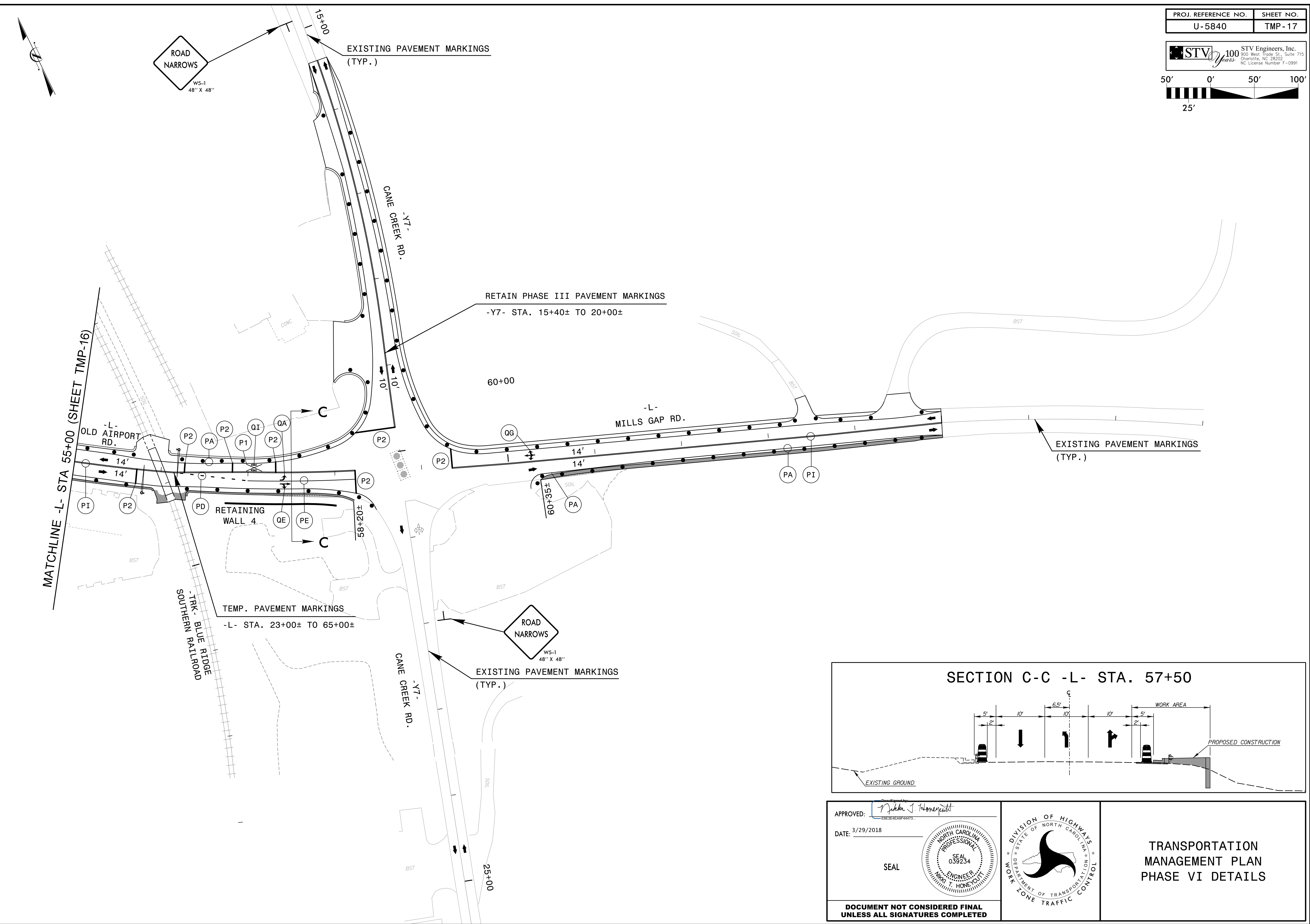
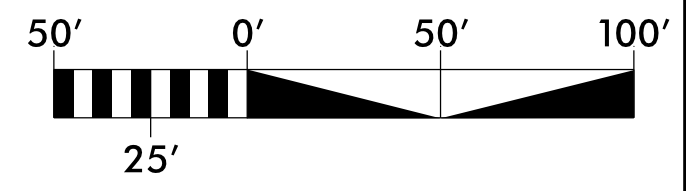


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**TRANSPORTATION
 MANAGEMENT PLAN
 PHASE VI DETAILS**

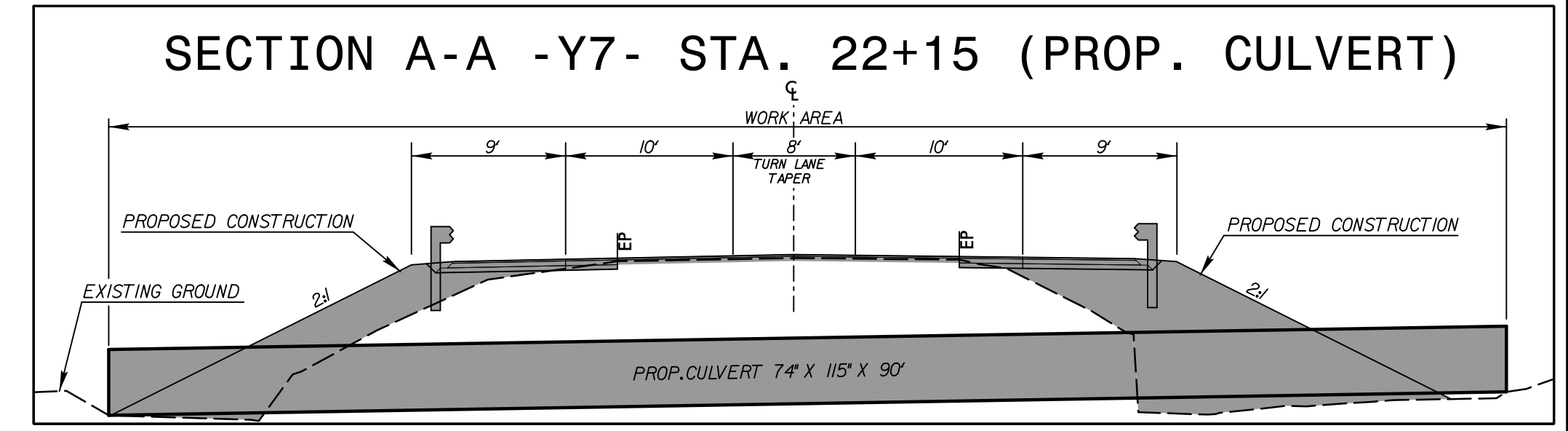
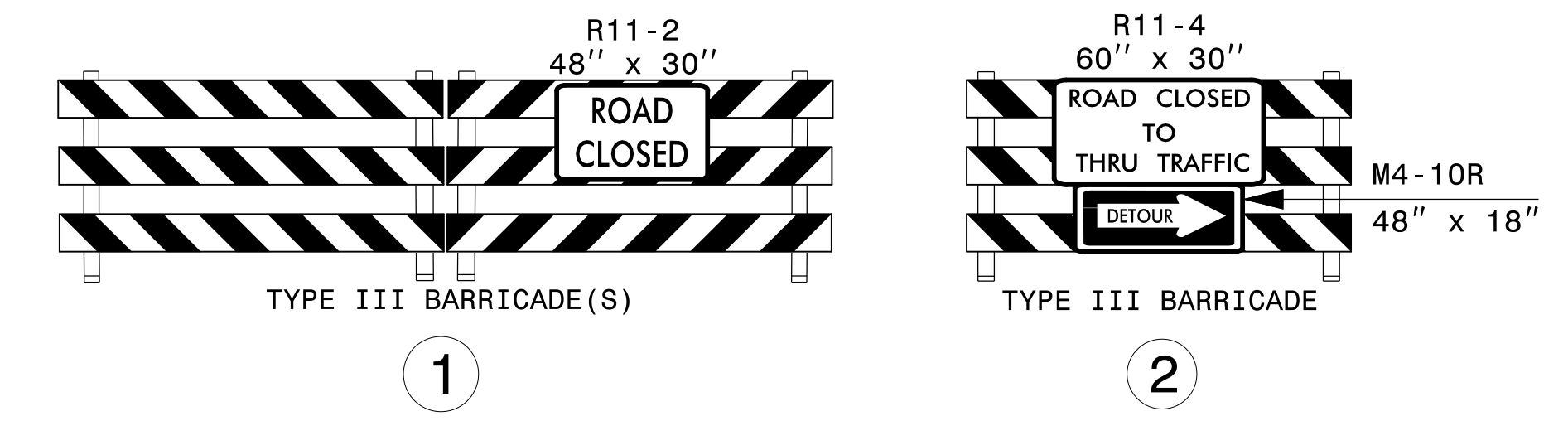
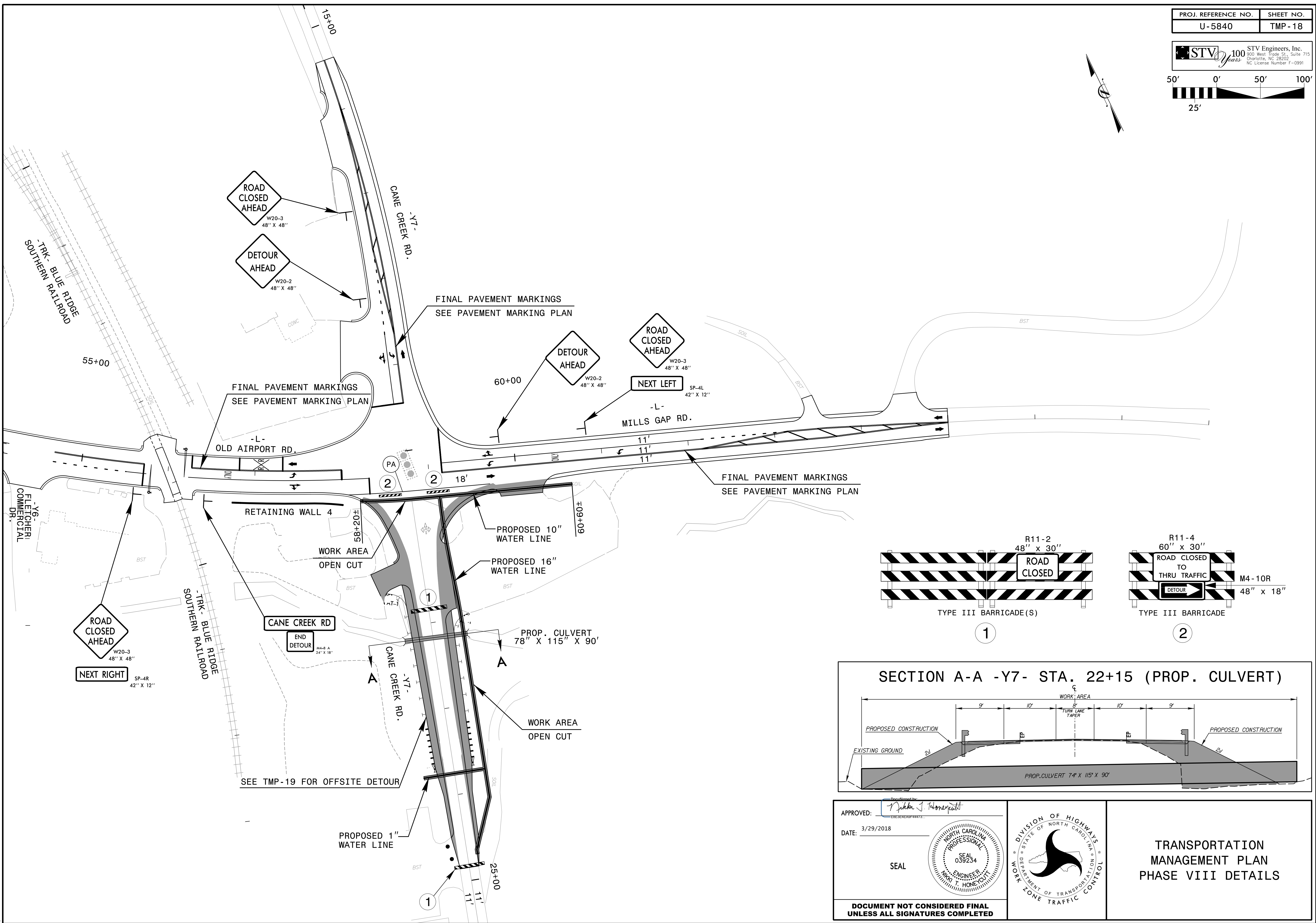
3/28/2018
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 dmh11sm2



3/28/2018
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PROJ. REFERENCE NO. U-5840	SHEET NO. TMP-18
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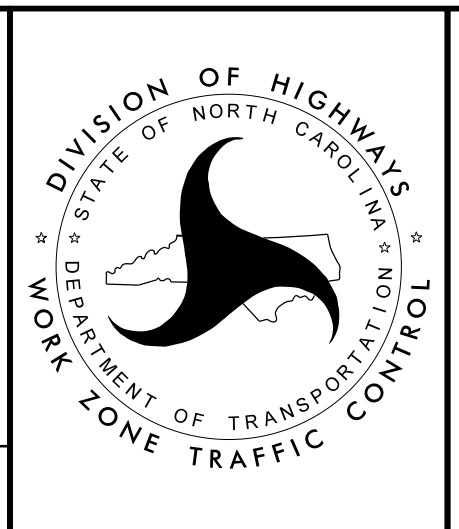
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Charlotte, NC 28202
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DATE: 3/29/2018

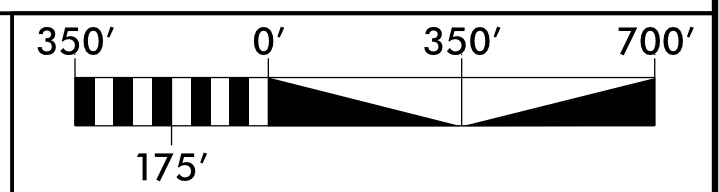
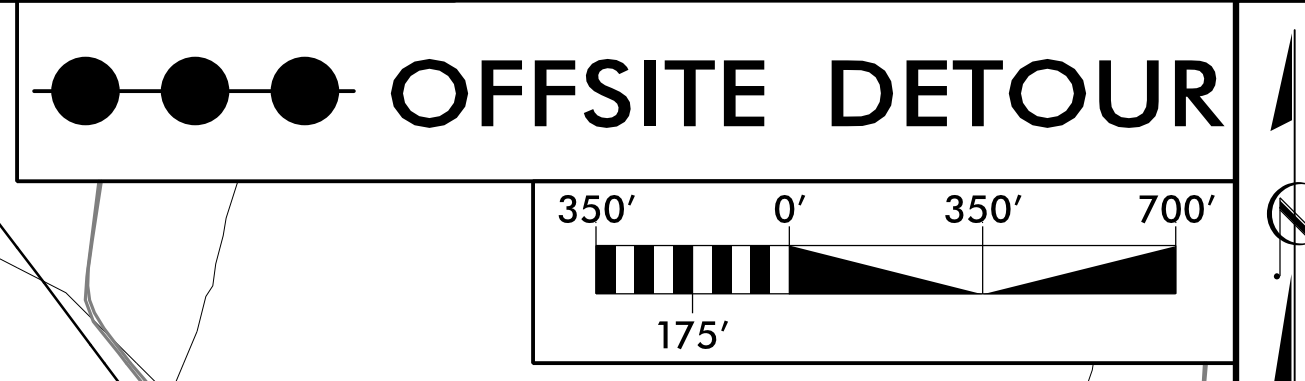
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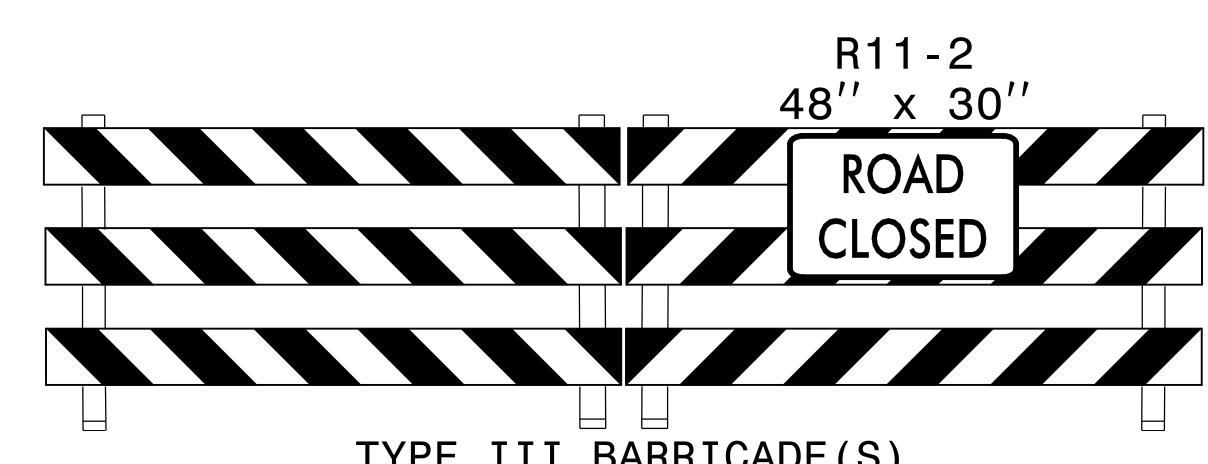
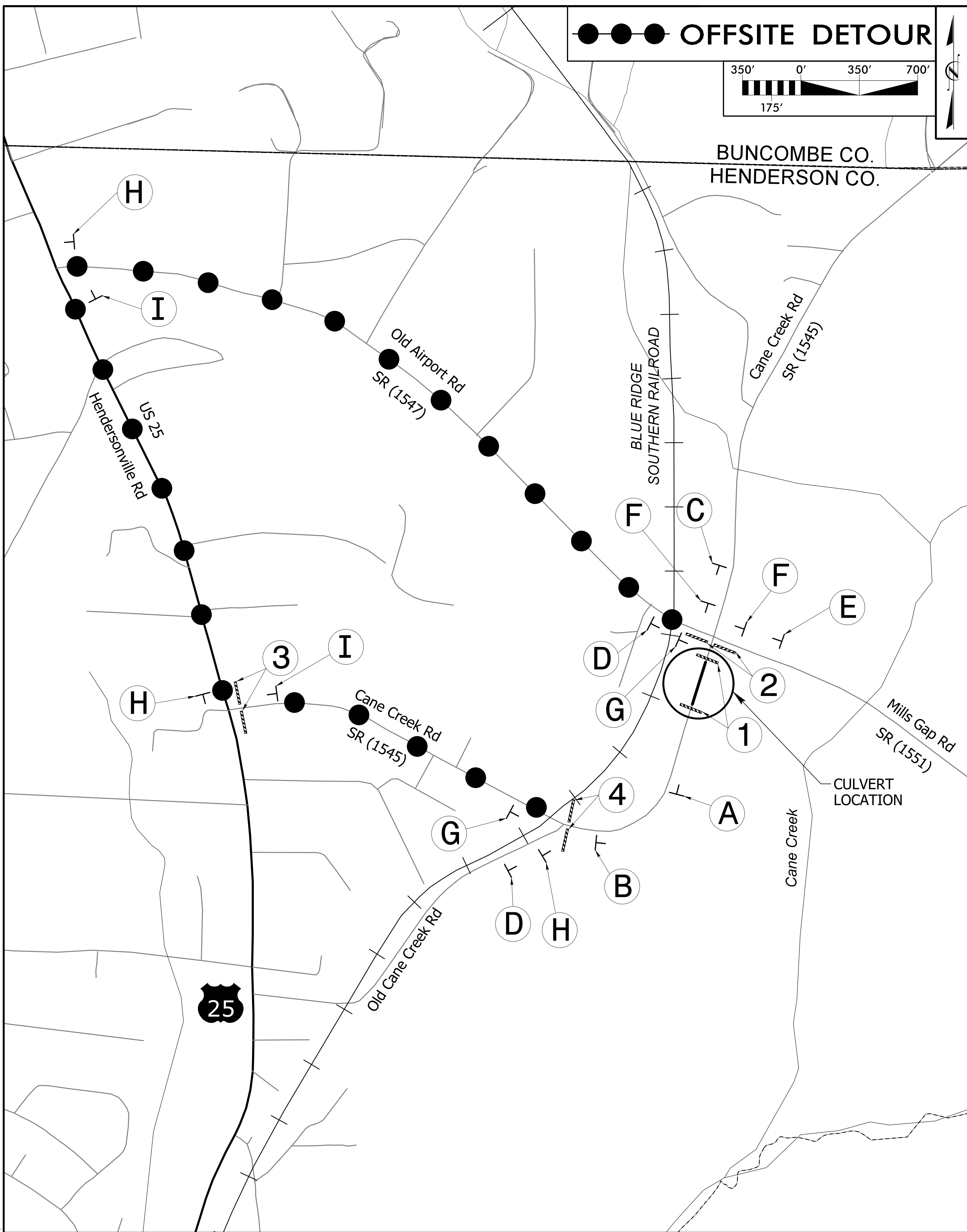
**TRANSPORTATION
MANAGEMENT PLAN
PHASE VIII DETAILS**

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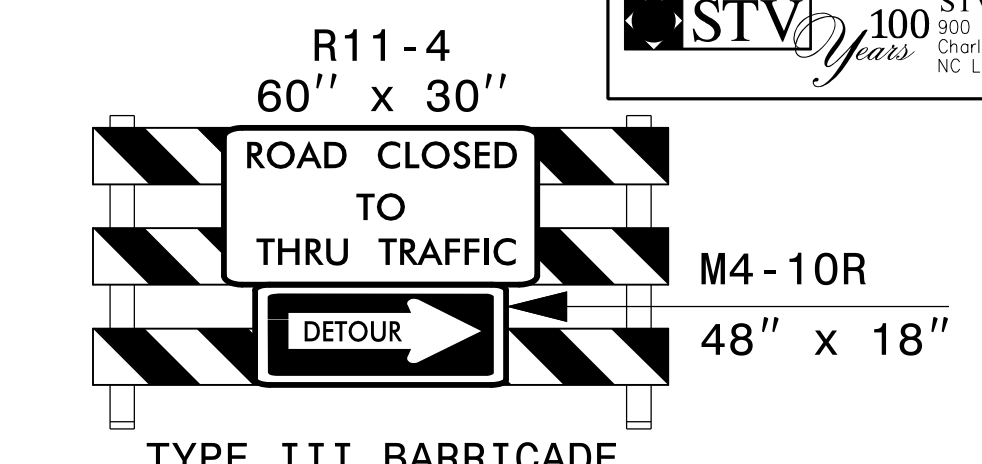
SEE ROADWAY STD DWG 1101.03, SHEET 1 OF 9 FOR ADVANCE WARNING AND BARRICADE PLACEMENT.

PROJ. REFERENCE NO.	SHEET NO.
U-5840	TMP-19



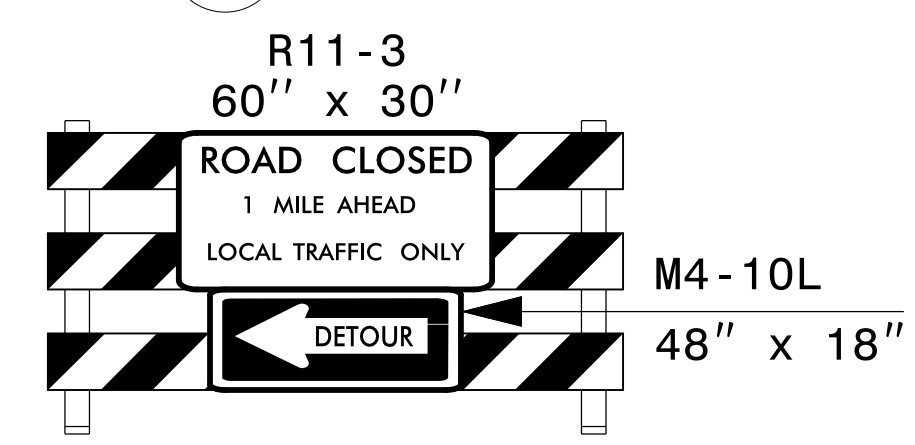
TYPE III BARRICADE(S)

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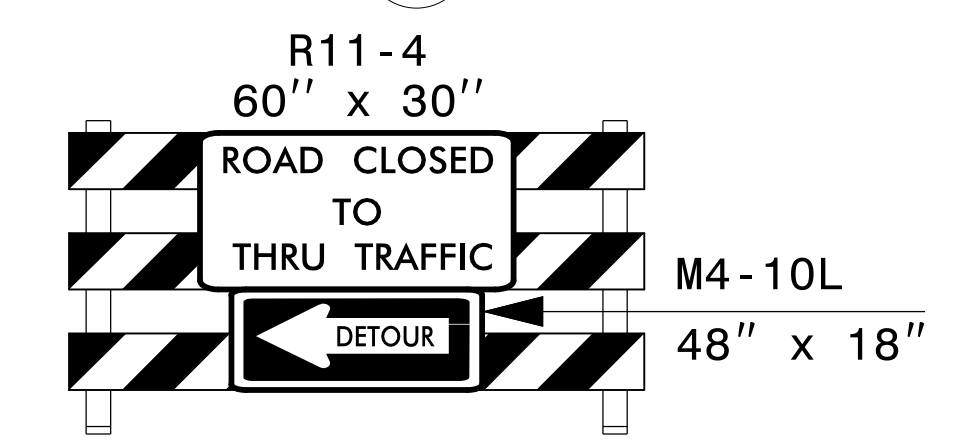
TYPE III BARRICADE

2 (2 EA)



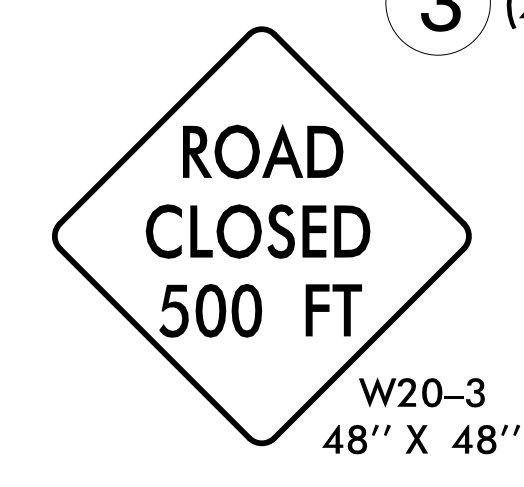
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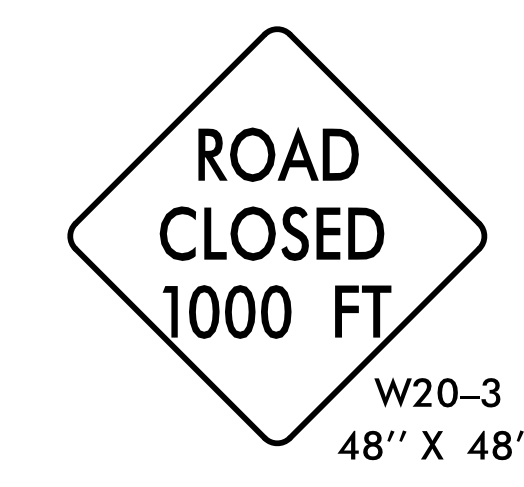


TYPE III BARRICADE

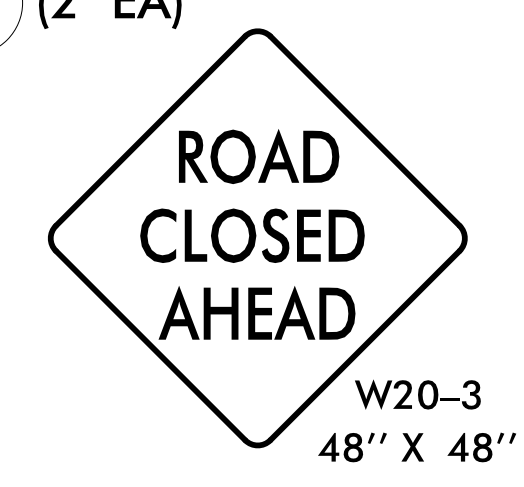
4 (2 EA)



A (1 EA)



B (1 EA)



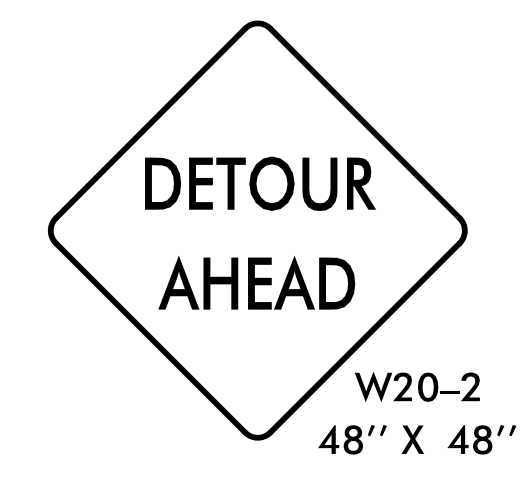
C (1 EA)



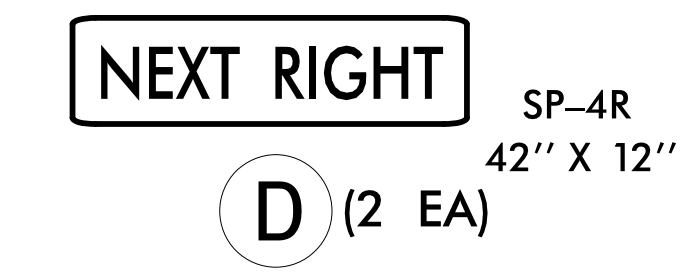
D (2 EA)



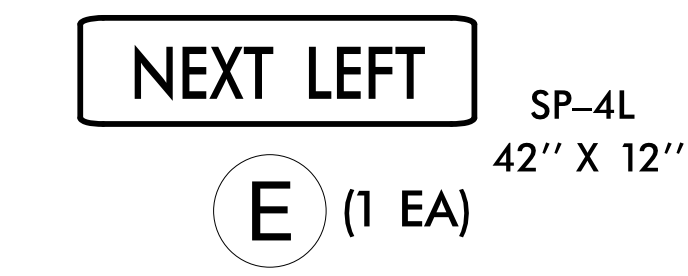
E (1 EA)



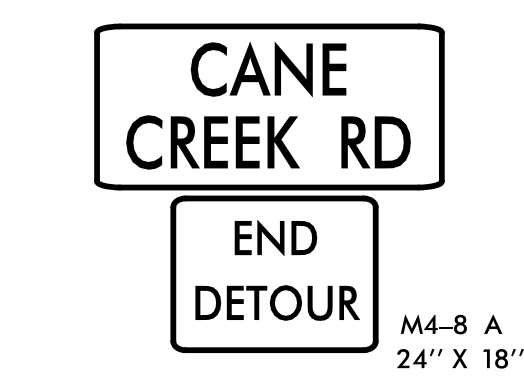
F (2 EA)



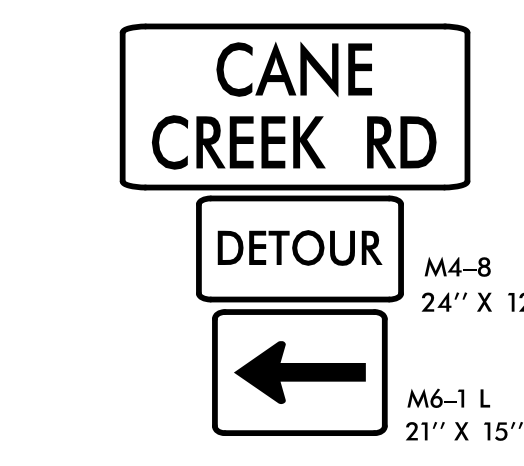
D (2 EA)



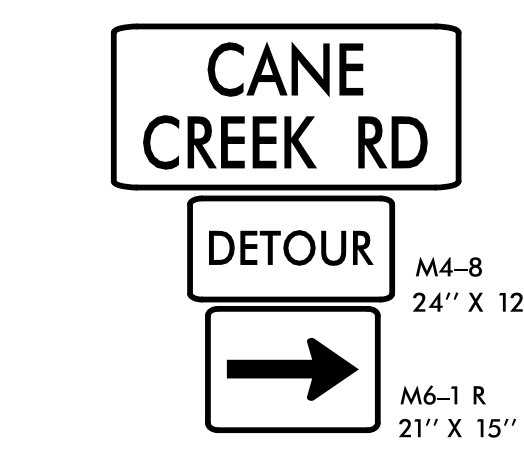
E (1 EA)



G (2 EA)

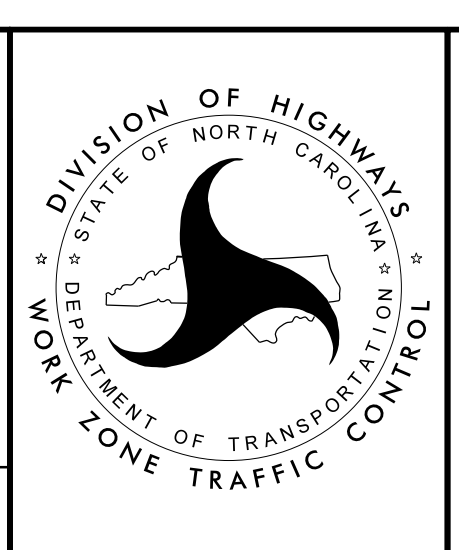


H (3 EA)



I (2 EA)

APPROVED: *[Signature]*
DATE: 3/30/2018
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DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

PHASE VIII
OFFSITE DETOUR
ROUTE

3/29/2018 R:\TrafficControl\TCP\TMP Sheets\U-5840_TCP_psh_P19.dgn