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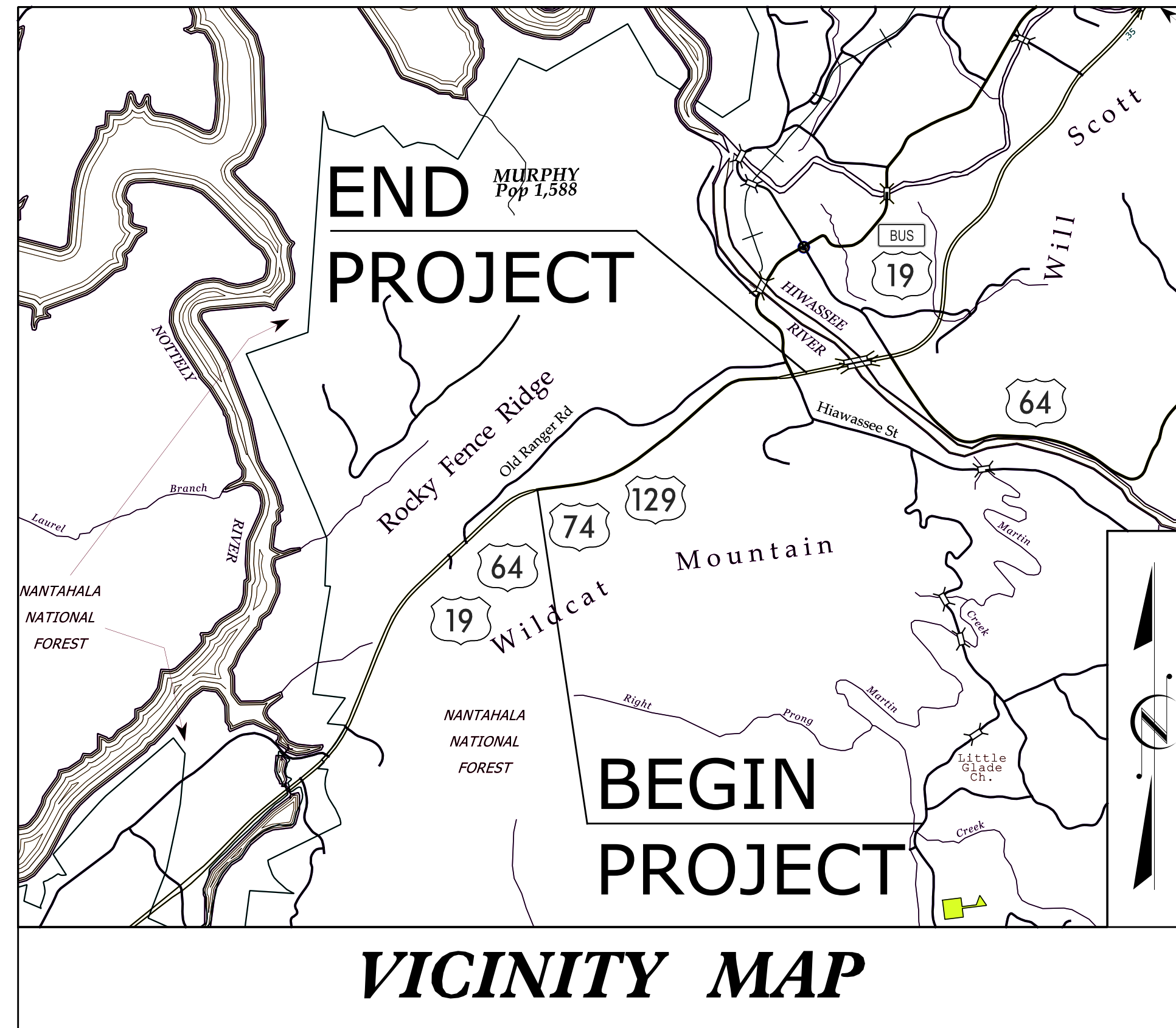
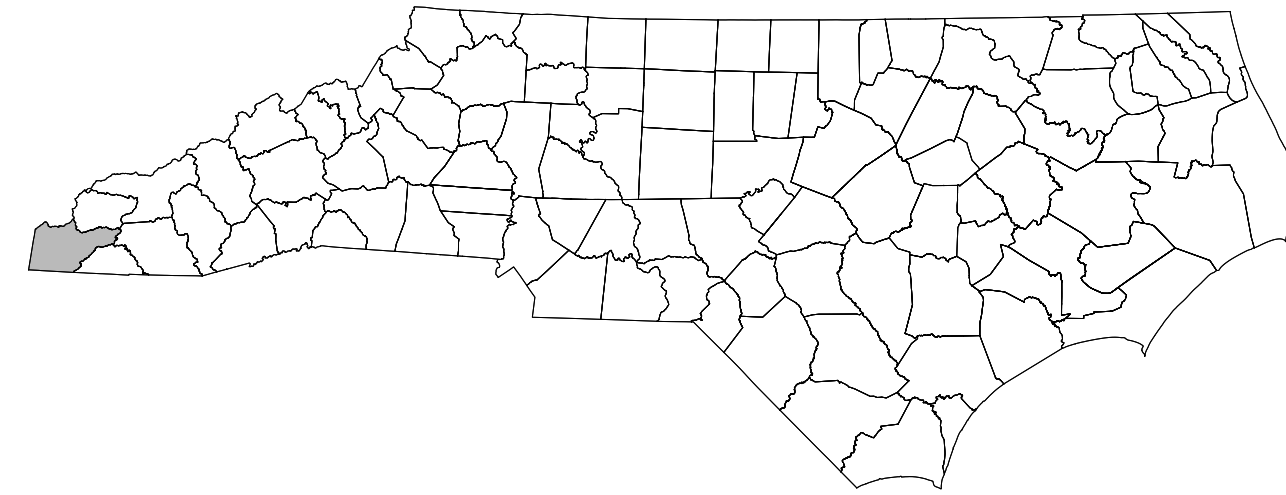
TIP PROJECT: R-5735



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

CHEROKEE COUNTY

DIVISION 14



TIP NO. R-5735	SHEET NO. TMP-1
APPROVED:  5307138EFD0446	
DATE: 4/4/2019	
	
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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:


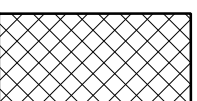
STD. NO.	TITLE
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1101.02	TEMPORARY LANE CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSES
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1205.04	PAVEMENT MARKINGS - INTERSECTIONS
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1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS

LEGEND











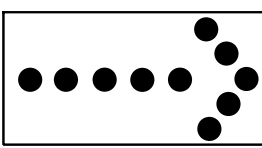
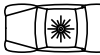
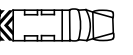



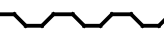


GENERAL

- EXIST. PVMT.
- PROPOSED PVMT.
- ← DIRECTION OF TRAFFIC FLOW


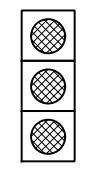

WORK AREAS

-  PROPOSED ROADWAY CONSTRUCTION
-  PAVEMENT REMOVAL

TEMPORARY TRAFFIC CONTROL DEVICES

-  TYPE III BARRICADE
-  PEDESTRIAN CHANNELIZING DEVICES (ADA)
-  CONE
-  DRUM  SKINNY DRUM  TUBULAR MARKER
-  CHANGEABLE MESSAGE SIGN (CMS)
-  FLAGGER
-  AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD)
-  FLASHING ARROW BOARD (TYPE C) 
-  LAW ENFORCEMENT
-  TRUCK MOUNTED ATTENUATOR (TMA)
-  WORK ZONE SIGN-PORTABLE
-  WORK ZONE SIGN-STATIONARY
-  WORK ZONE SIGN-STATIONARY OR PORTABLE
-  TEMPORARY SHORING
-  TEMPORARY CRASH CUSHION
-  PORTABLE CONCRETE BARRIER (PCB)

SIGNALS

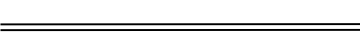

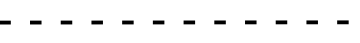
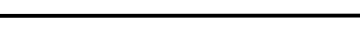

-  EXIST
-  PROPOSED
-  TEMP

TEMPORARY PAVEMENT MARKING LEGEND




PAINT PAVEMENT MARKING LINES			
CODE	COLOR	LINE WIDTH	DESCRIPTION
P2	WHITE	24"	STOPBAR
P8	WHITE	4"	MINISKIP 2FT-6FT
P18	YELLOW	4"	CENTER DOUBLE SOLID SKIP
PA	WHITE	4"	EDGE LINE
PB	YELLOW	4"	EDGE LINE
PC	WHITE	4"	SKIP
PD	WHITE	4"	MINISKIP 3FT-9FT
PE	WHITE	4"	LANELINE
PI	YELLOW	4"	CENTER DOUBLE SOLID/SOLID
PN	WHITE	8"	GORELINE
PO	WHITE	8"	DIAGONAL
PP	YELLOW	8"	DIAGONAL
PQ	WHITE	8"	CROSSWALK LINE
PV	YELLOW	12"	DIAGONAL

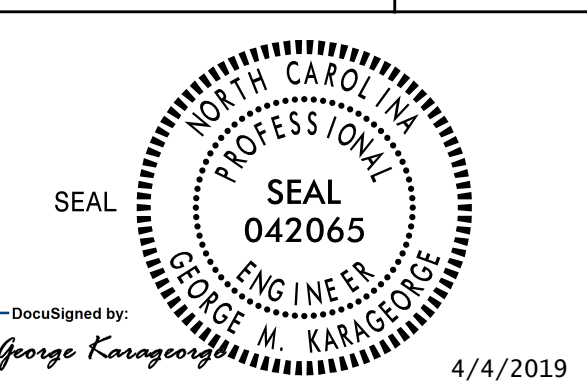

PAINT PAVEMENT MARKING SYMBOLS & CHARACTERS		
CODE	COLOR	DESCRIPTION
QA	WHITE	LEFT TURN ARROW
QB	WHITE	RIGHT TURN ARROW
QC	WHITE	STRAIGHT ARROW
QD	WHITE	LEFT/STRAIGHT ARROW
QE	WHITE	RIGHT/STRAIGHT ARROW
QN	WHITE	24" YIELD LINE TRIANGLE SYMBOL

PAVEMENT MARKING LINES

-  DOUBLE YELLOW CENTER LINE
-  SKIP LINES
-  MINI-SKIP LINES
-  SOLID LINES
-  EXISTING LINES (GRAY)

PAVEMENT MARKING SYMBOLS & CHARACTERS

-  PROPOSED SYMBOLS
-  EXISTING SYMBOLS (HOLLOW)
-  ALPHANUMERIC CHARACTERS

PROJECT REFERENCE NO. R-5735	SHEET NO. TMP-1A
	
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GENERAL NOTES

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.

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE PLAN, STANDARD DETAILS, AND ROADWAY STANDARD DRAWINGS 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.

REFER TO THE NCDOT 2018 STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES FOR ADDITIONAL REQUIREMENTS.

TEMPORARY LANE CLOSURE DAY AND TIME RESTRICTIONS

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

ROAD NAME	DAY AND TIME RESTRICTIONS
US 19	6:00 A.M. - 7:00 P.M. SUNDAY THRU THURSDAY 6:00 A.M. FRIDAY THRU 7:00 P.M. SATURDAY

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

- | ROAD NAME | DAY AND TIME RESTRICTIONS |
|-----------|--|
| ALL ROADS | 1) FOR UNEXPECTED OCCURRENCES THAT CREATE UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
2) FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00 A.M. DECEMBER 31ST TO 7:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 7:00 P.M. THE FOLLOWING TUESDAY.
3) FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 7:00 P.M. MONDAY.
4) FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 7:00 P.M. TUESDAY.
5) FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 7:00 P.M. THE DAY AFTER INDEPENDENCE DAY, IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY; THEN BETWEEN THE HOURS OF 6:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 7:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.
6) FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY AND 7:00 P.M. TUESDAY.
7) FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY TO 7:00 P.M. MONDAY.
8) FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 7:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS DAY. |

TEMPORARY ROAD CLOSURE DAY AND TIME RESTRICTIONS

C) TEMPORARY ROAD CLOSURES ARE NOT ALLOWED EXCEPT AT THE SPECIFIC TIMES STATED IN THE PLANS OR DIRECTED BY THE ENGINEER.

HAULING DAY AND TIME RESTRICTIONS

D) DO NOT CONDUCT SINGLE OR MULTI -VEHICLE HAULING AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
US 19	6:00 A.M. AND 7:00 P.M. MONDAY THRU FRIDAY

E) DO NOT CONDUCT ANY HAULING OPERATIONS AGAINST THE FLOW OF TRAFFIC UNLESS THE HAULING OPERATION IS PROTECTED BY BARRIER OR GUARDRAIL OR AS DIRECTED BY THE ENGINEER.

TEMPORARY LANE AND SHOULDER CLOSURE REQUIREMENTS

F) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE. WHEN A LANE CLOSURE IS NO LONGER NEEDED, OR AS DIRECTED BY THE ENGINEER.

G) WHEN PERSONNEL OR EQUIPMENT ARE LOCATED 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, GUARDRAIL OR A LANE CLOSURE IS INSTALLED.

H) WHEN PERSONNEL OR EQUIPMENT ARE LOCATED 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.

I) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL, CLOSE THE LANE ACCORDING TO THE TRANSPORTATION MANAGEMENT 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.

J) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP, OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.

TEMPORARY ROAD CLOSURE REQUIREMENTS

K) FURNISH AND INSTALL ALL TEMPORARY SIGNING AND TEMPORARY TRAFFIC CONTROL DEVICES REQUIRED FOR TEMPORARY ROAD CLOSURES, INCLUDING TEMPORARY ROUTE SIGNS REQUIRED FOR OFF-SITE DETOURS.

L) COVER OR REMOVE ALL TEMPORARY ROAD CLOSURE SIGNS AND DEVICES WHEN A TEMPORARY ROAD CLOSURE IS NOT IN OPERATION. WHEN A DETOUR IS NOT IN OPERATION, COVER OR REMOVE ALL TEMPORARY DETOUR SIGNS.

M) WHEN CLOSING A ROADWAY, INSTALL/UNCOVER DETOUR AND ROAD CLOSURE SIGNS FIRST, AND INSTALL CLOSURE BARRICADES LAST. WHEN RE-OPENING A ROADWAY, REMOVE CLOSURE BARRICADES FIRST, THEN REMOVE/COVER SIGNS.

PAVEMENT DROP- OFF REQUIREMENTS

N) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPEN TRAVEL LANE THAT HAVE A 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. THERE WILL BE NO DIRECT PAYMENT FOR BACKFILL AS THIS WORK WILL BE CONSIDERED INCIDENTAL TO OTHER ITEMS IN THE CONTRACT.

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

TRAFFIC PATTERN ALTERATIONS

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

TRAFFIC CONTROL DEVICES

Q) ENSURE ALL NECESSARY TRAFFIC CONTROL DEVICES, SIGNS, BARRICADES, MARKINGS, ETC ARE IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

R) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 500 FT IN ADVANCE OF UNEVEN AREA, AS DIRECTED BY THE ENGINEER.

S) DURING PAVEMENT MILLING OPERATIONS PROVIDE "ROUGH ROAD" SIGNS (W8-8) IN ADVANCE OF A MILLED PAVEMENT AREA.

T) WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH), EXCEPT 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY. SPACING OF CHANNELIZING DEVICES SHOWN IN THE PLANS MAY NOT BE TO SCALE. DUE TO HORIZONTAL/VERTICAL CURVATURE AND OTHER ITEMS THAT MAY OBSCURE THE CHANNELIZING DEVICES, IT IS THE CONTRACTORS RESPONSIBILITY TO ADJUST SPACING IN ORDER TO EFFECTIVELY ACCOMPLISH THE INTENDED CHANNELIZATION.

PAVEMENT MARKINGS AND MARKERS

U) 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.

V) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

W) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

X) OUTLINE MONOLITHIC ISLAND LOCATIONS WITH PROPER COLOR PAVEMENT MARKINGS PRIOR TO REMOVING OR INSTALLING AN ISLAND. PLACE DRUMS TO DELINEATE THESE AREAS.

PEDESTRIAN REQUIREMENTS

Y) ALL CURB RAMPS SHALL BE INSTALLED AS SHOWN IN THE PAVEMENT MARKING PLAN, OR AS DIRECTED BY THE ENGINEER.

Z) WHEN CLOSING EXISTING OR NEW SIDEWALKS USE ADA COMPLIANT PEDESTRIAN CHANNELIZING DEVICES AND SIDEWALK CLOSED SIGNS R9-9.

AA) MAINTAIN EXISTING SIDEWALKS UNTIL PROPOSED SIDEWALKS CAN BE USED, IF FEASIBLE. IF CONSTRUCTION OPERATIONS DO NOT ALLOW SIDEWALKS TO STAY OPEN, MAINTAIN AFFECTED SIDEWALK(S) CLOSED.

MISCELLANEOUS

BB) USE LAW ENFORCEMENT TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND OR INTERSECTIONS AS SHOWN IN PLANS OR DIRECTED BY THE ENGINEER.

CC) ALL DIMENSIONS AND STATIONS IN THE TRANSPORTATION MANAGEMENT PLAN ARE APPROXIMATE. REFER TO ROADWAY AND STRUCTURE DESIGN PLANS FOR EXACT DIMENSIONS AND STATIONS.

TEMPORARY CLEAR ZONES

DD) AS A GENERAL GUIDELINE MAINTAIN A 15 FT. TEMPORARY WORK AREA CLEAR ZONE FOR THE DURATION OF THIS PROJECT ON ALL ROADWAYS. DUE TO VARYING FIELD CONDITIONS THIS GUIDELINE MAY BE MODIFIED AS FOLLOWS AND/OR AS DIRECTED BY THE ENGINEER:

WHEN LANE CLOSURES ARE NOT IN EFFECT AND WORK IS NOT BEHIND BARRIER OR GUARDRAIL THE FOLLOWING CLEAR ZONE REQUIREMENTS SHOULD BE MET:

-MOVE OBSTACLES SUCH AS STOCKPILES AND NON-ACTIVE EQUIPMENT AT LEAST 5' AWAY FROM THE BACK OF BARRIER. IN GENERAL, IF STORING MATERIALS OR EQUIPMENT BEHIND ANY TYPE OF BARRIER THE DEFLECTION OF THE BARRIER SHOULD BE ACCOUNTED FOR AND ITEMS SHOULD NOT BE STORED IN THAT AREA.

-EXCAVATIONS OR OTHER IMMOVABLE OBSTRUCTIONS SHALL BE SAFED UP USING METHODS SUCH AS BACK-FILLING, COVERS, DELINEATION, ETC. METHODS MUST BE ACCEPTABLE TO THE ENGINEER.

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GENERAL NOTES

PHASE I

STEP 1:

PRIOR TO ANY CONSTRUCTION OPERATIONS INSTALL WORK ZONE ADVANCE WARNING SIGNS ON PROJECT PER ROADWAY STANDARD DRAWING 1101.01 SHEETS 1, 2 AND 3 OF 3.

BEGIN THE FOLLOWING:

- DRAINAGE. USE TEMPORARY RIGHT/LEFT LANE CLOSURES FOR CROSS-PIPE CONSTRUCTION. REFER TO STD. 1101.02 SHT 3 OF 14 AND TMP-4F TO 4K.
- US 19 (L) OUTSIDE WIDENING AND CURB AND GUTTER LEFT SIDE STA. 27+80 TO 92+00
- US 19 (L) OUTSIDE WIDENING AND CURB AND GUTTER RIGHT SIDE STA. 27+80 TO 50+59 AND STA. 85+00 TO 90+96
- US 19 (L) MILLING AND PAVING. (NOTE: THE FIRST LAYER OF SURFACE COURSE IS TO BE PLACED IN PHASE II FOR THE TRAFFIC SHIFT.)
- SIDEWALKS / CURB RAMPS (MAINTAIN SIDEWALKS CLOSED AS DIRECTED BY THE ENGINEER.)
- REMOVE EXISTING RAISED ISLAND ON US 19 AT THE INTERSECTION OF HIWASSEE ST AND REPLACE WITH PAINTED ISLAND. (TMP-4E)
- TRAFFIC SIGNAL AT US 19/HIWASSEE ST. INTERSECTION.

COMPLETE THE FOLLOWING:

- WIDENING/CURB & GUTTER ALONG OLD RANGER RD (Y1A) AND HIWASSEE ST (Y5) (TMP-4E) USING TEMPORARY LANE CLOSURES PER STD. 1101.02 SHEETS 1, 2, OR 3 OF 14 AS APPLICABLE.
- Y3. CONSTRUCT THRU FINAL SURFACE COURSE, INSTALL TEMPORARY PAINT MARKINGS, AND OPEN TO TRAFFIC. (TMP-4B)

INTERMEDIATE CONTRACT TIME

COMPLETE PHASE I STEP 2 (2A-2C) WITHIN A TIME PERIOD OF EIGHT (8) CONSECUTIVE CALENDAR DAYS

STEP 2: CONSTRUCTION OF HIWASSEE ST./OLD RANGER RD.

2A: CLOSE HIWASSEE ST. AND OLD RANGER RD. (TMP-4L, 4M)

2B: REMOVE EXISTING CONCRETE ISLAND. COMPLETE MILLING, CONSTRUCT MONOLITHIC ISLANDS AND PAVE FINAL SURFACE COURSE ON HIWASSEE ST. AND OLD RANGER RD. UP TO STA. 37+95. (TMP-4M)

2C: INSTALL TEMPORARY PAINT MARKINGS AND OPEN HIWASSEE ST. AND OLD RANGER RD. TO TRAFFIC. (TMP-4N)

PHASE II COMPLETION OF L RIGHT SIDE

COMPLETE THE FOLLOWING WORK BEGUN IN PHASE I:

- US 19 (L) OUTSIDE WIDENING AND CURB AND GUTTER LEFT SIDE STA. 27+80 TO 92+00
- US 19 (L) OUTSIDE WIDENING AND CURB AND GUTTER RIGHT SIDE STA. 27+80 TO 50+59 AND STA. 85+00 TO 90+96

STEP 1:

COMPLETE MILLING, PAVE THE FIRST OF TWO SURFACE LAYERS AND PLACE PAINT MARKINGS SHIFTING US 19 LANES TOWARDS THE LEFT SIDE.

FOR THE ABOVE OPERATIONS USE TEMPORARY LANE CLOSURES PER RDWY. STD. DWG. 1101.02 SHEETS 1, 2, OR 3 OF 14 AS APPLICABLE.

COMPLETE THE FOLLOWING EXCLUDING THE FINAL SURFACE LAYER:

STEP 2:

- US 19 (L) OUTSIDE WIDENING, CURB AND GUTTER RIGHT SIDE STA. 50+59 TO 85+00, AND MONOLITHIC ISLAND ON US 19 AT THE INTERSECTION OF HIWASSEE ST. (TMP-5A TO 5D)
- Y3, Y3A (TMP-5B)

COMPLETE THE FOLLOWING:

STEP 3:

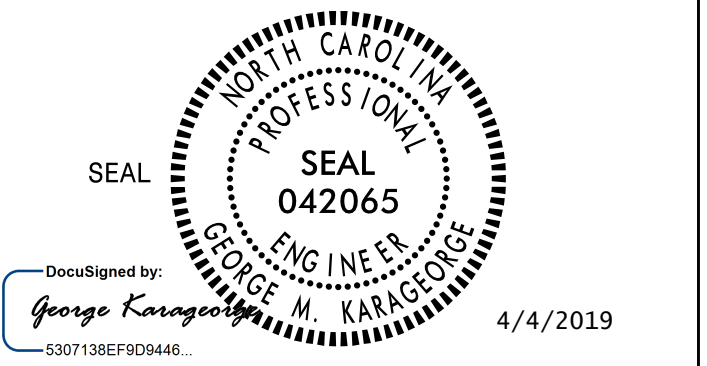
- PAVE FINAL SURFACE COURSE ON PROJECT.
- INSTALL FINAL MARKINGS.
- TRAFFIC SIGNAL AT THE INTERSECTION OF US 19 AND HIWASSEE ST.

FOR THE ABOVE OPERATIONS USE TEMPORARY LANE CLOSURES PER RDWY. STD. DWG. 1101.02 SHEETS 1, 2, OR 3 OF 15 AS APPLICABLE.

PROJECT REFERENCE NO. SHEET NO.

R-5735

TMP-3



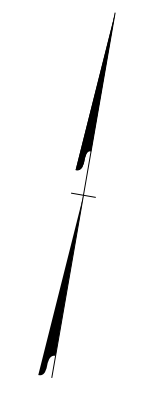
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Michael Baker

INTERNATIONAL

PHASING NARRATIVE

PROJECT REFERENCE NO. R-5735	SHEET NO. TMP-4
DocuSigned by: <i>George Karageorge</i> GEORGE M. KARAGEORGE 4/4/2019	
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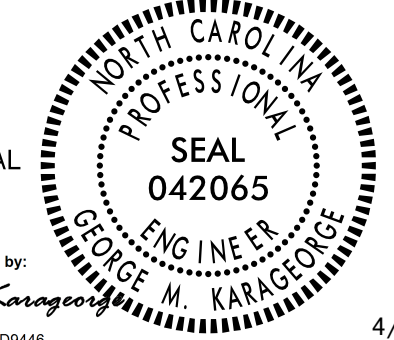


BEGIN TIP PROJECT R-5735
 -L- POC Sta. 27+80.00

PHASE I
 STEP 1

3/13/2019
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 Birgit Mackenzie

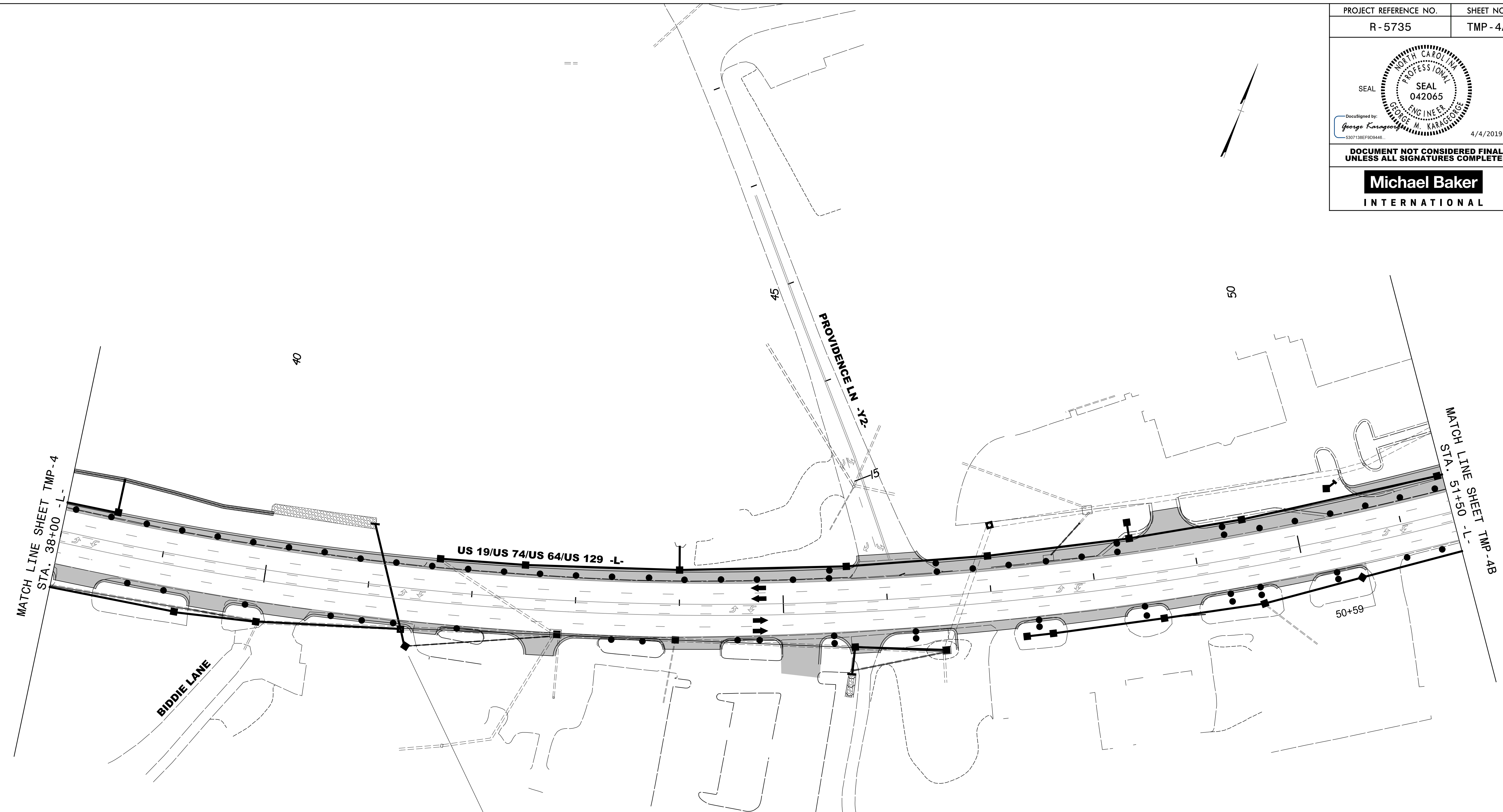
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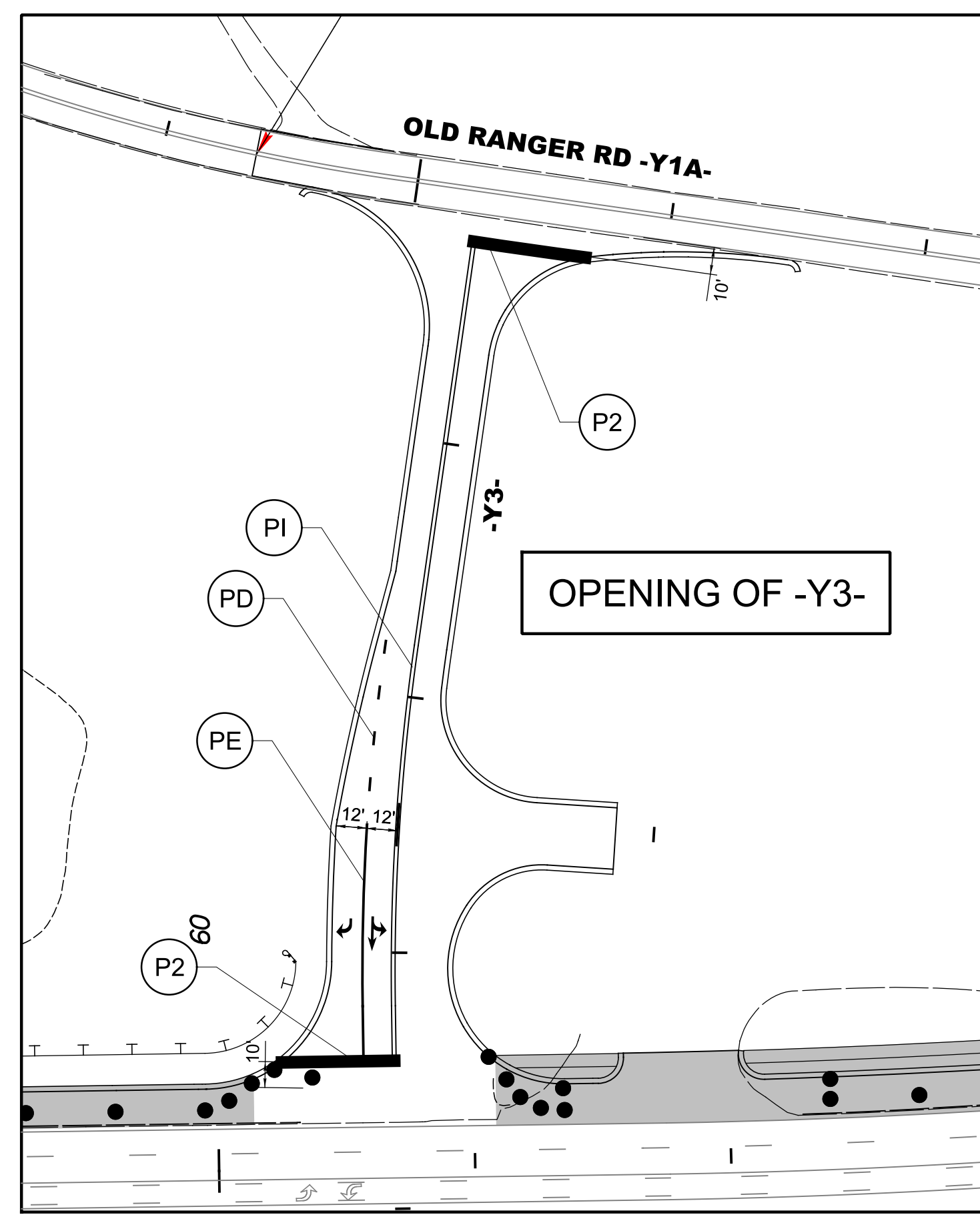
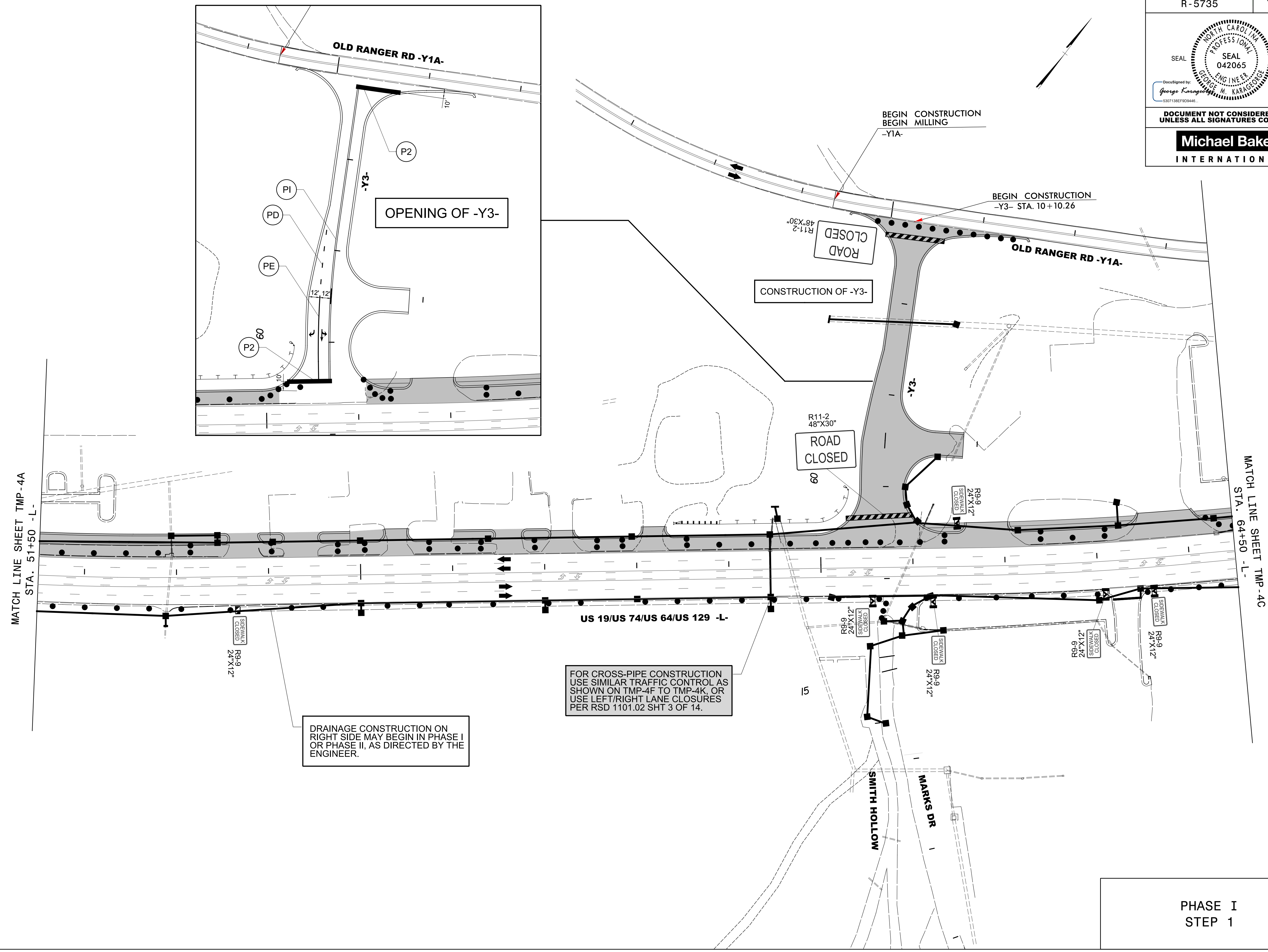


FOR CROSS-PIPE CONSTRUCTION
USE SIMILAR TRAFFIC CONTROL AS
SHOWN ON TMP-4F TO TMP-4K, OR
USE LEFT/RIGHT LANE CLOSURES
PER RSD 1101.02 SHT 3 OF 14.

3/13/2019
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Bridgt.Mackenzie

PHASE I
STEP 1

PROJECT REFERENCE NO. R-5735	SHEET NO. TMP-4B
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Michael Baker INTERNATIONAL	

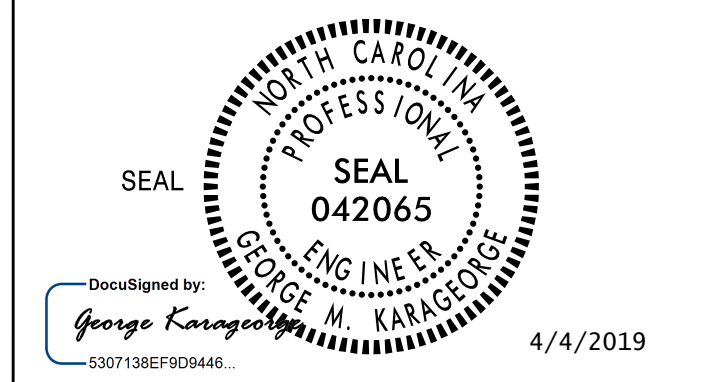


DRAINAGE CONSTRUCTION ON RIGHT SIDE MAY BEGIN IN PHASE I OR PHASE II, AS DIRECTED BY THE ENGINEER.

FOR CROSS-PIPE CONSTRUCTION USE SIMILAR TRAFFIC CONTROL AS SHOWN ON TMP-4F TO TMP-4K, OR USE LEFT/RIGHT LANE CLOSURES PER RSD 1101.02 SHT 3 OF 14.

PHASE I
STEP 1

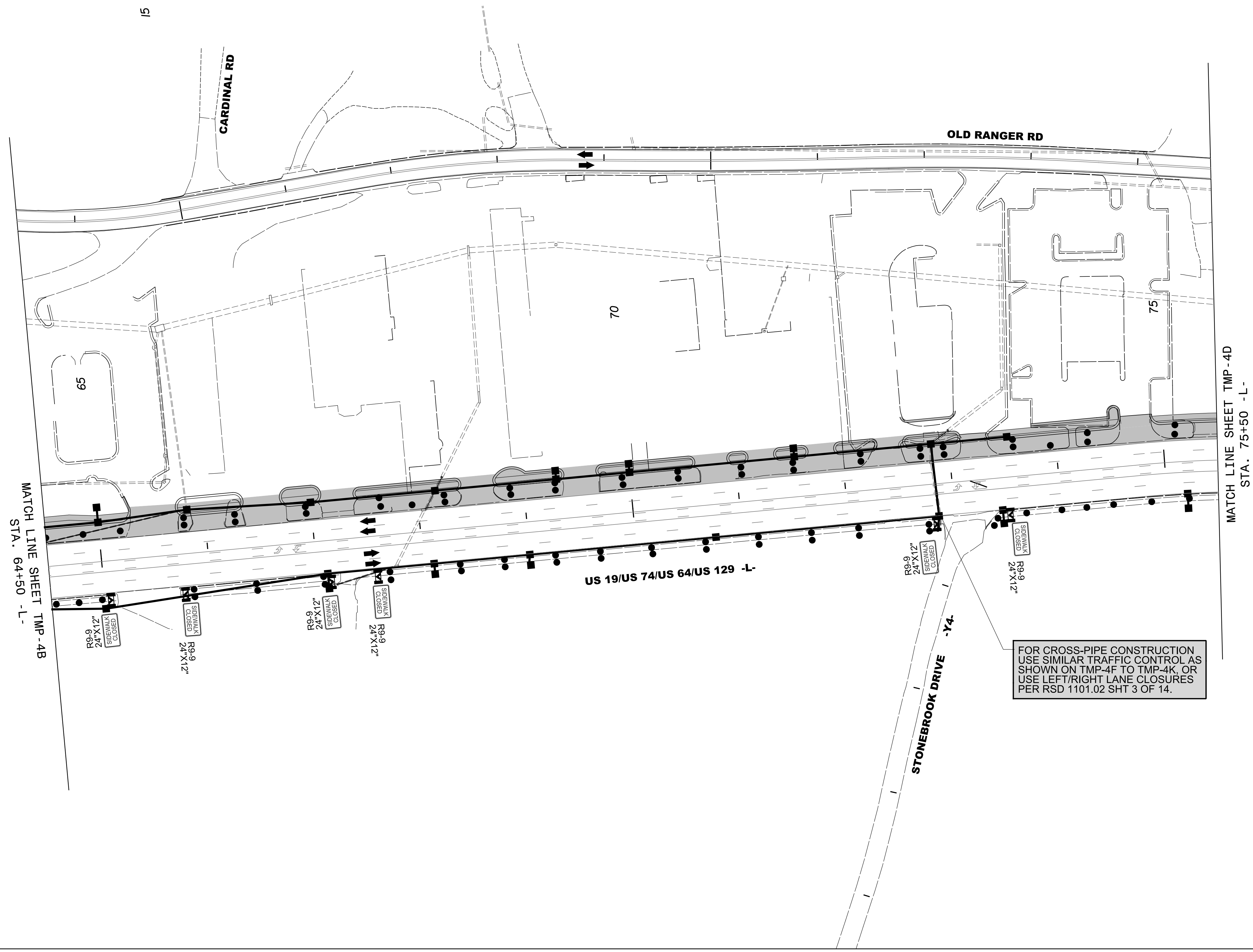
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INTERNATIONAL

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Birgit.Mackenzie



FOR CROSS-PIPE CONSTRUCTION
USE SIMILAR TRAFFIC CONTROL AS
SHOWN ON TMP-4F TO TMP-4K, OR
USE LEFT/RIGHT LANE CLOSURES
PER RSD 1101.02 SHT 3 OF 14.

PHASE I
STEP 1

PROJECT REFERENCE NO.	SHEET NO.
R-5735	TMP-4D
Documented by: George Karageorge 5307138EFD00466	
4/4/2019	
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Michael Baker INTERNATIONAL	

25

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35



FOR CROSS-PIPE CONSTRUCTION
 USE SIMILAR TRAFFIC CONTROL AS
 SHOWN ON TMP-4F TO TMP-4K, OR
 USE LEFT/RIGHT LANE CLOSURES
 PER RSD 1101.02 SHT 3 OF 14.

R9.9
 24" X 12"
 MANHOLE
 CLOSURE

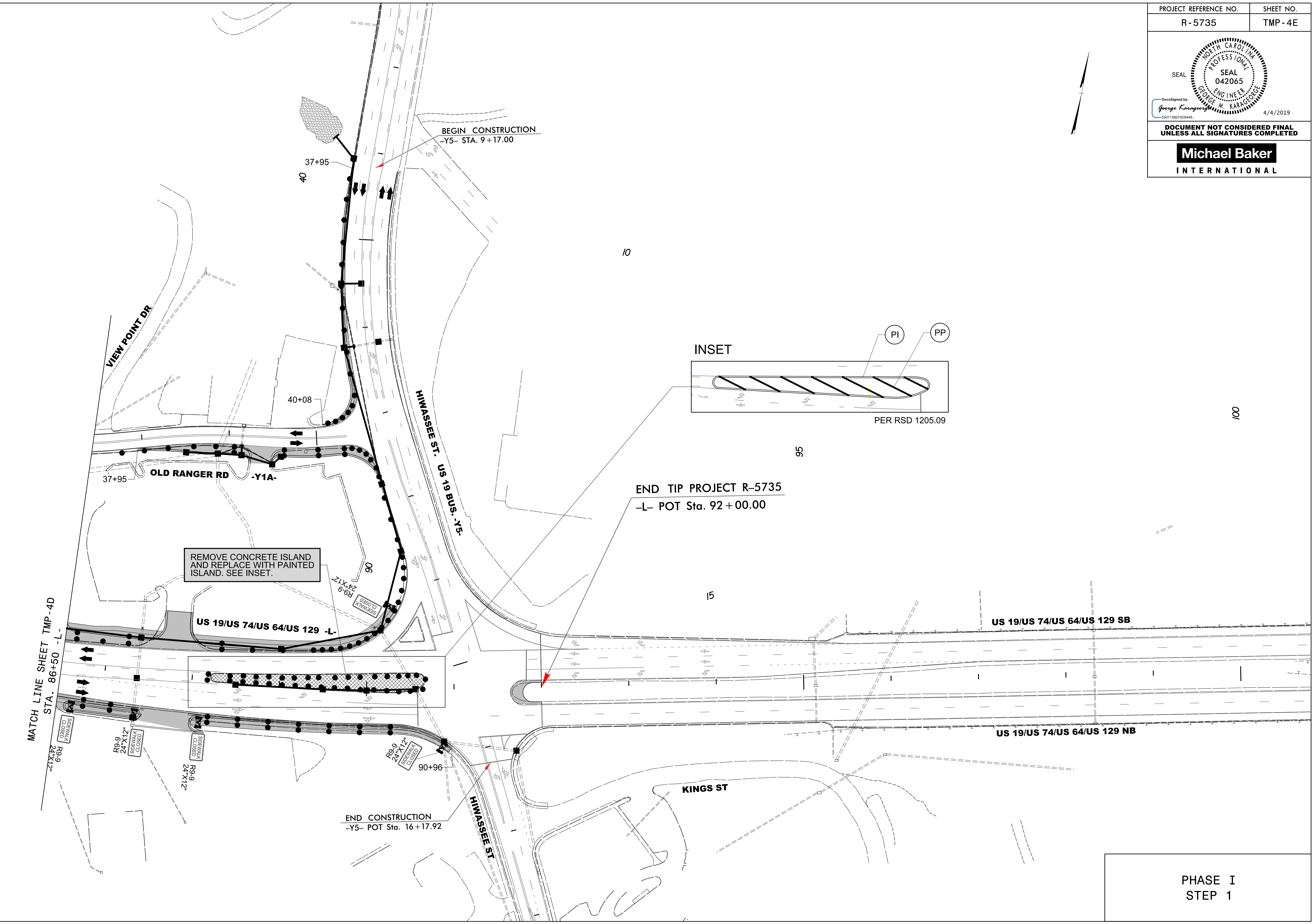
MATCH LINE SHEET TMP-4C
 STA. 75+50 - L-

MATCH LINE SHEET TMP-4E
 STA. 86+50 - L-

PHASE I
 STEP 1

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PROJECT REFERENCE NO. R-5735	SHEET NO. TMP-4E
Documented by: George Karageorge 4/4/2019	
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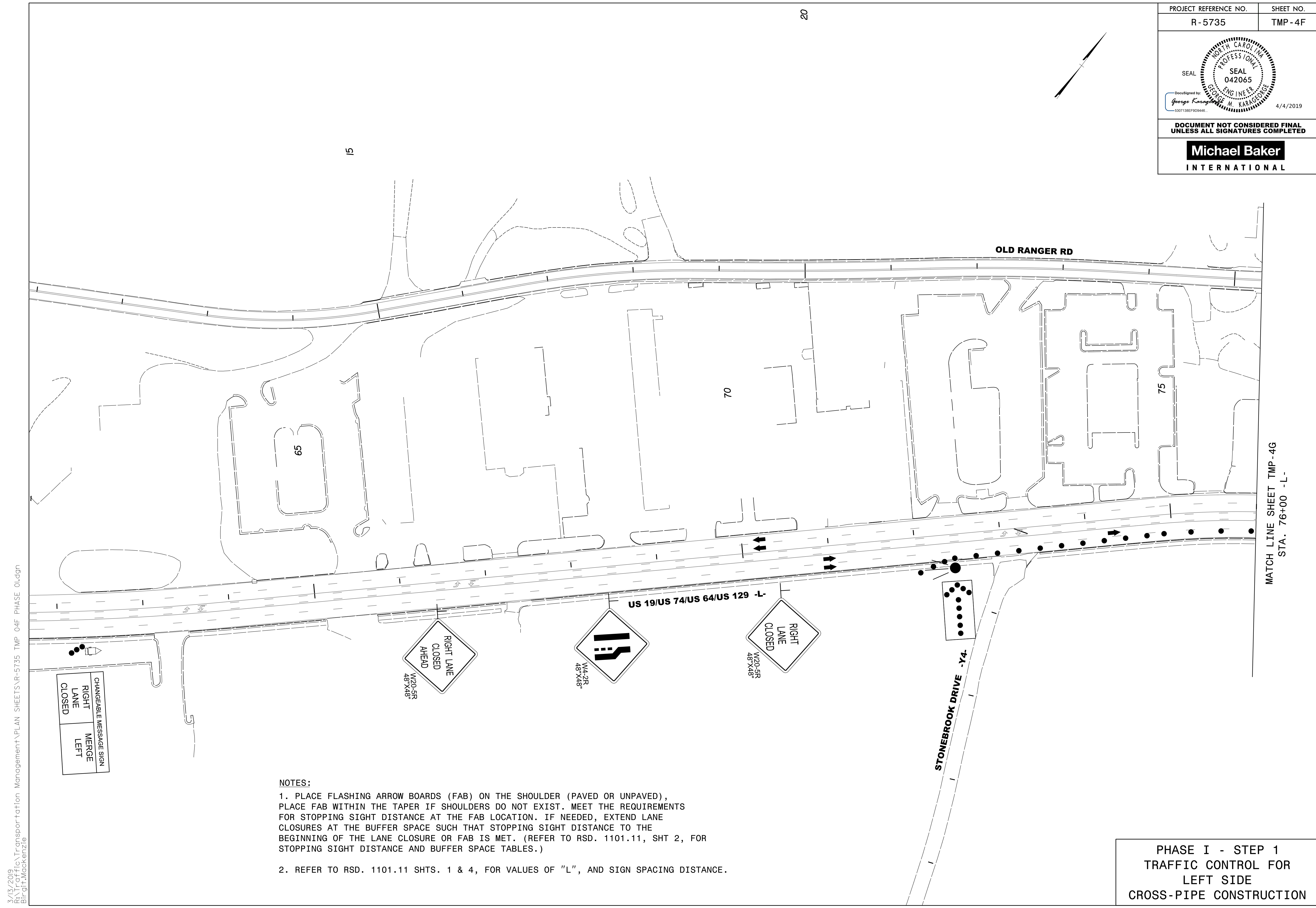
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**PHASE I
STEP 1**

SEAL
 042065
 ENGINEER
 GEORGE M. KARAGEORGE
 4/4/2019

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**Michael Baker
INTERNATIONAL**



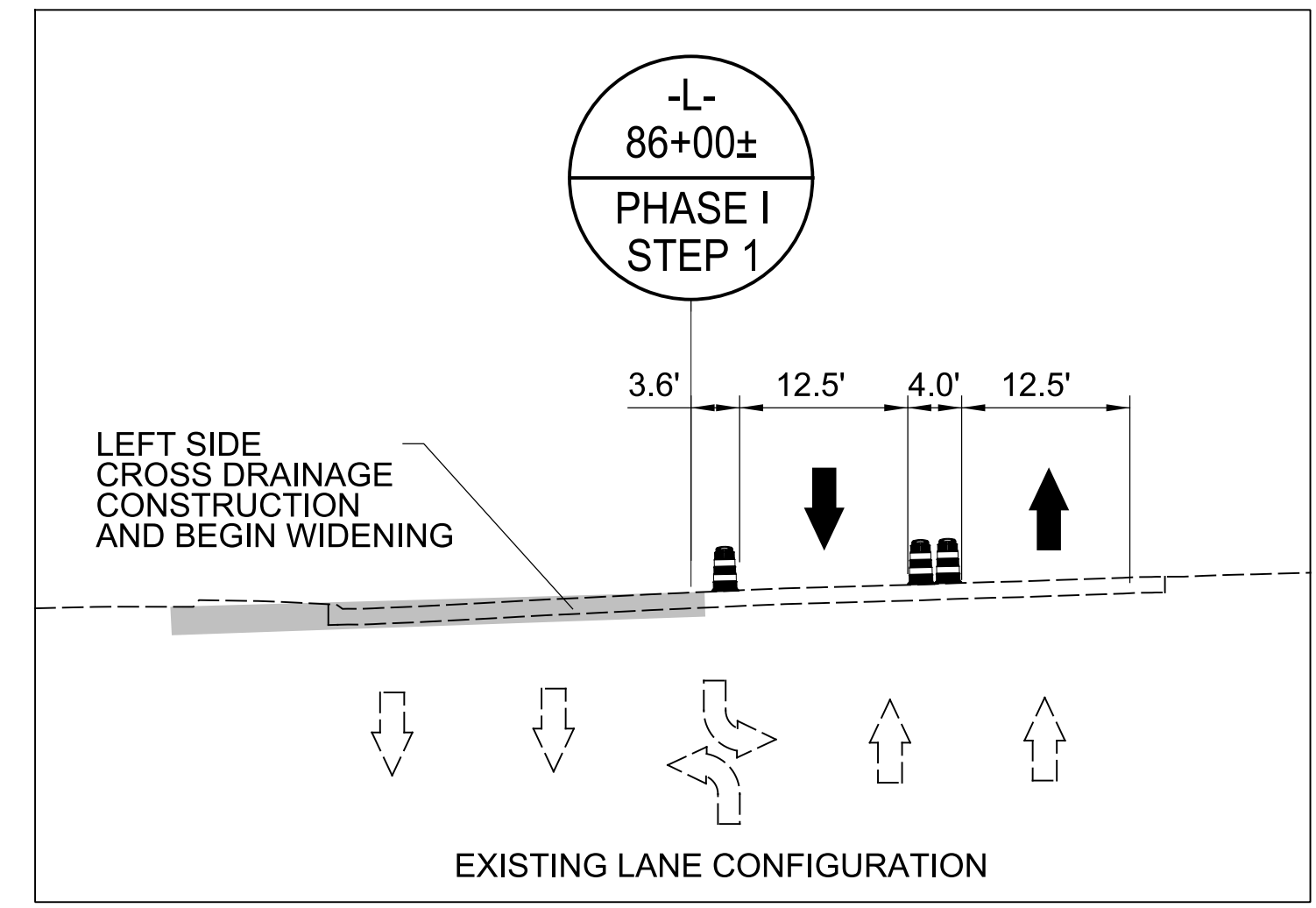
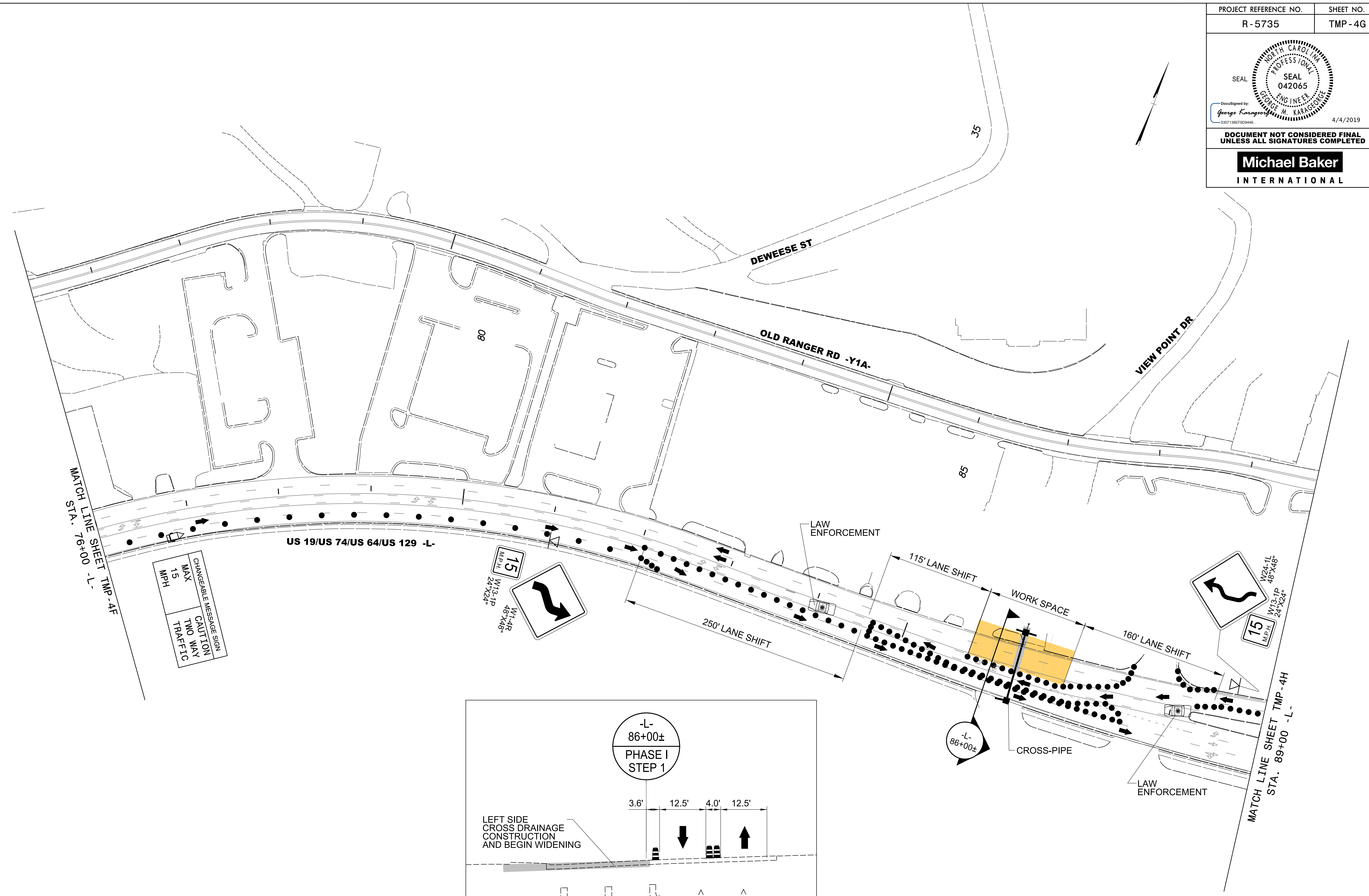
- NOTES:**
1. PLACE FLASHING ARROW BOARDS (FAB) ON THE SHOULDER (PAVED OR UNPAVED), PLACE FAB WITHIN THE TAPER IF SHOULDERS DO NOT EXIST. MEET THE REQUIREMENTS FOR STOPPING SIGHT DISTANCE AT THE FAB LOCATION. IF NEEDED, EXTEND LANE CLOSURES AT THE BUFFER SPACE SUCH THAT STOPPING SIGHT DISTANCE TO THE BEGINNING OF THE LANE CLOSURE OR FAB IS MET. (REFER TO RSD. 1101.11, SHT 2, FOR STOPPING SIGHT DISTANCE AND BUFFER SPACE TABLES.)
 2. REFER TO RSD. 1101.11 SHTS. 1 & 4, FOR VALUES OF "L", AND SIGN SPACING DISTANCE.

**PHASE I - STEP 1
TRAFFIC CONTROL FOR
LEFT SIDE
CROSS-PIPE CONSTRUCTION**

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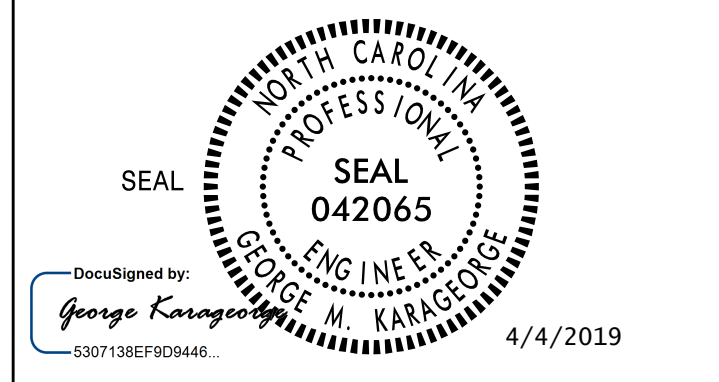
MATCH LINE SHEET TMP-4G
 STA. 76+00 -L-

PROJECT REFERENCE NO. R-5735	SHEET NO. TMP-4G
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**PHASE I - STEP 1
TRAFFIC CONTROL FOR
LEFT SIDE
CROSS-PIPE CONSTRUCTION**

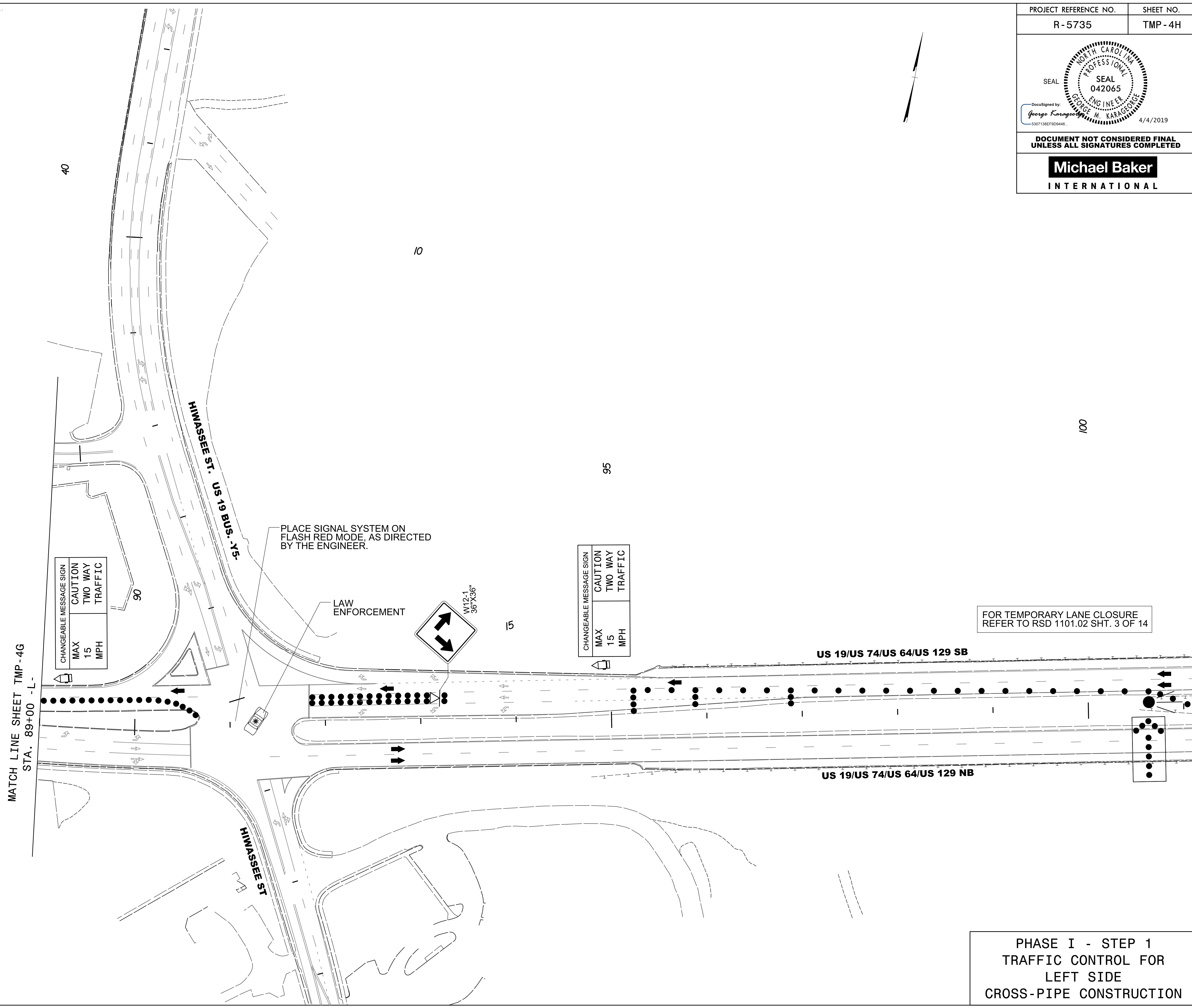
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FOR TEMPORARY LANE CLOSURE
REFER TO RSD 1101.02 SHT. 3 OF 14

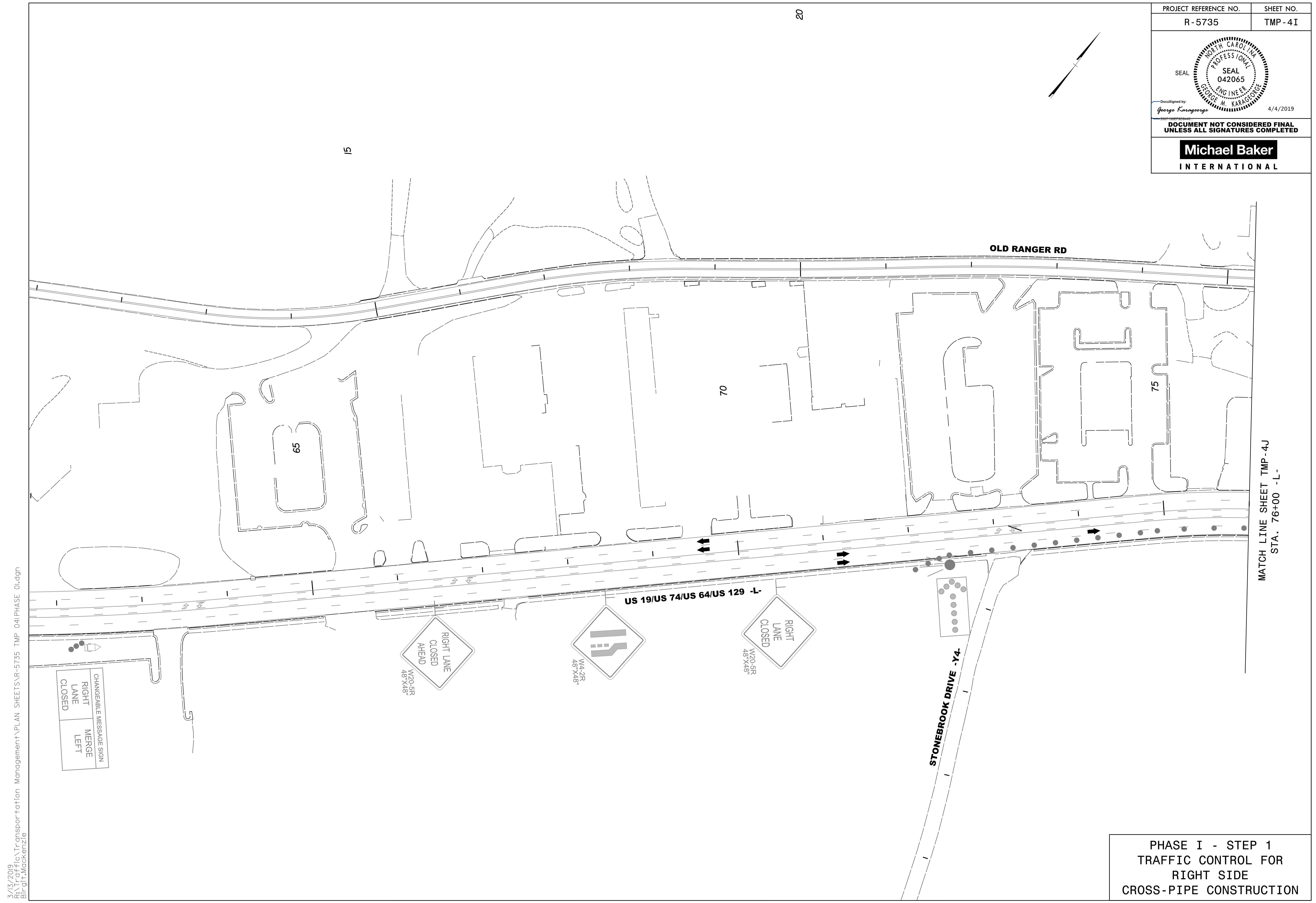
PHASE I - STEP 1
TRAFFIC CONTROL FOR
LEFT SIDE
CROSS-PIPE CONSTRUCTION

SEAL

DocuSigned by:
George Karageorge 4/4/2019

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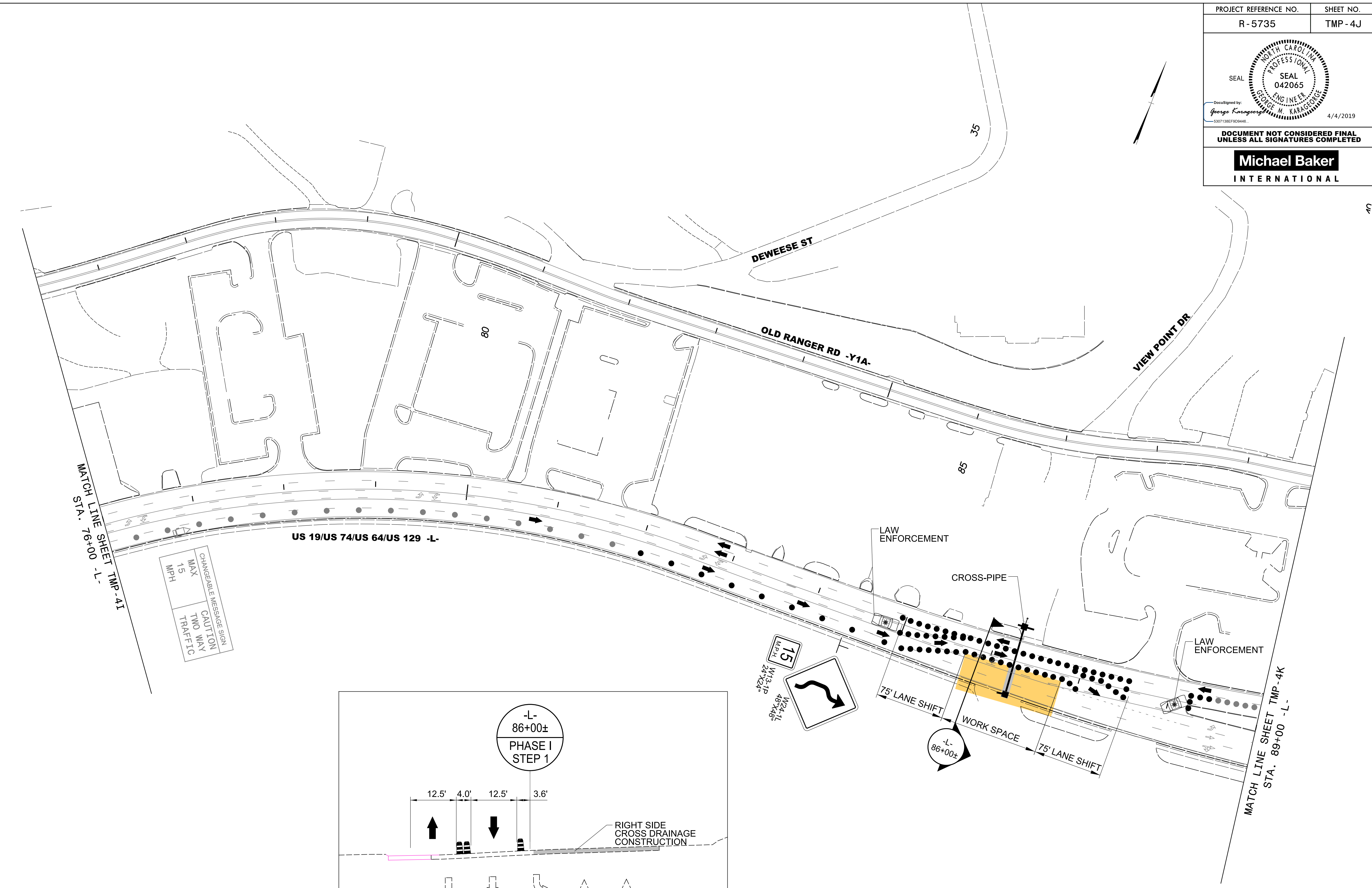
Michael Baker
INTERNATIONAL



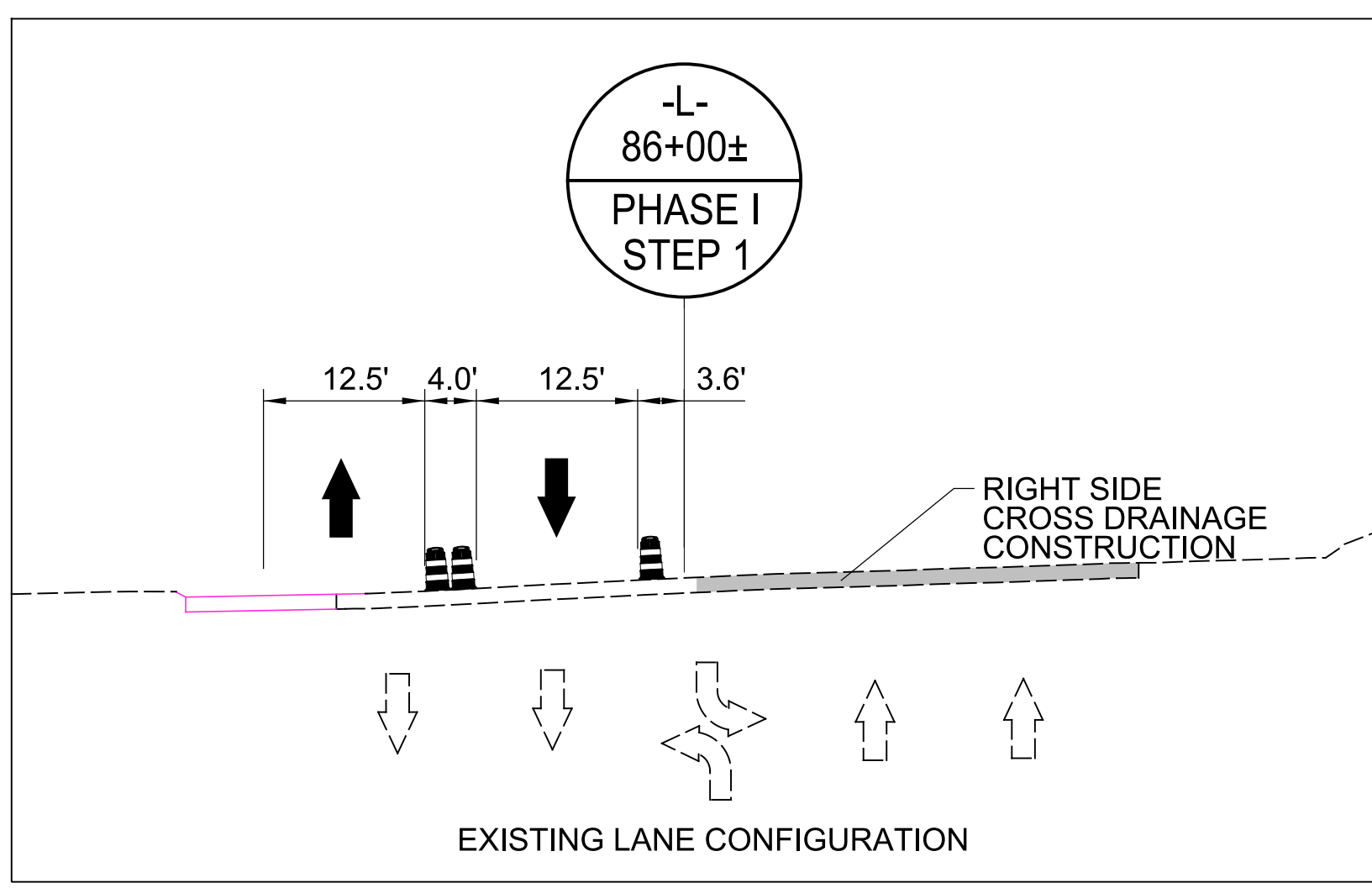
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PHASE I - STEP 1
TRAFFIC CONTROL FOR
RIGHT SIDE
CROSS-PIPE CONSTRUCTION

PROJECT REFERENCE NO. R-5735	SHEET NO. TMP-4J
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CHANGEBLE MESSAGE SIGN
 MAX 15 MPH
 CAUTION TWO WAY TRAFFIC



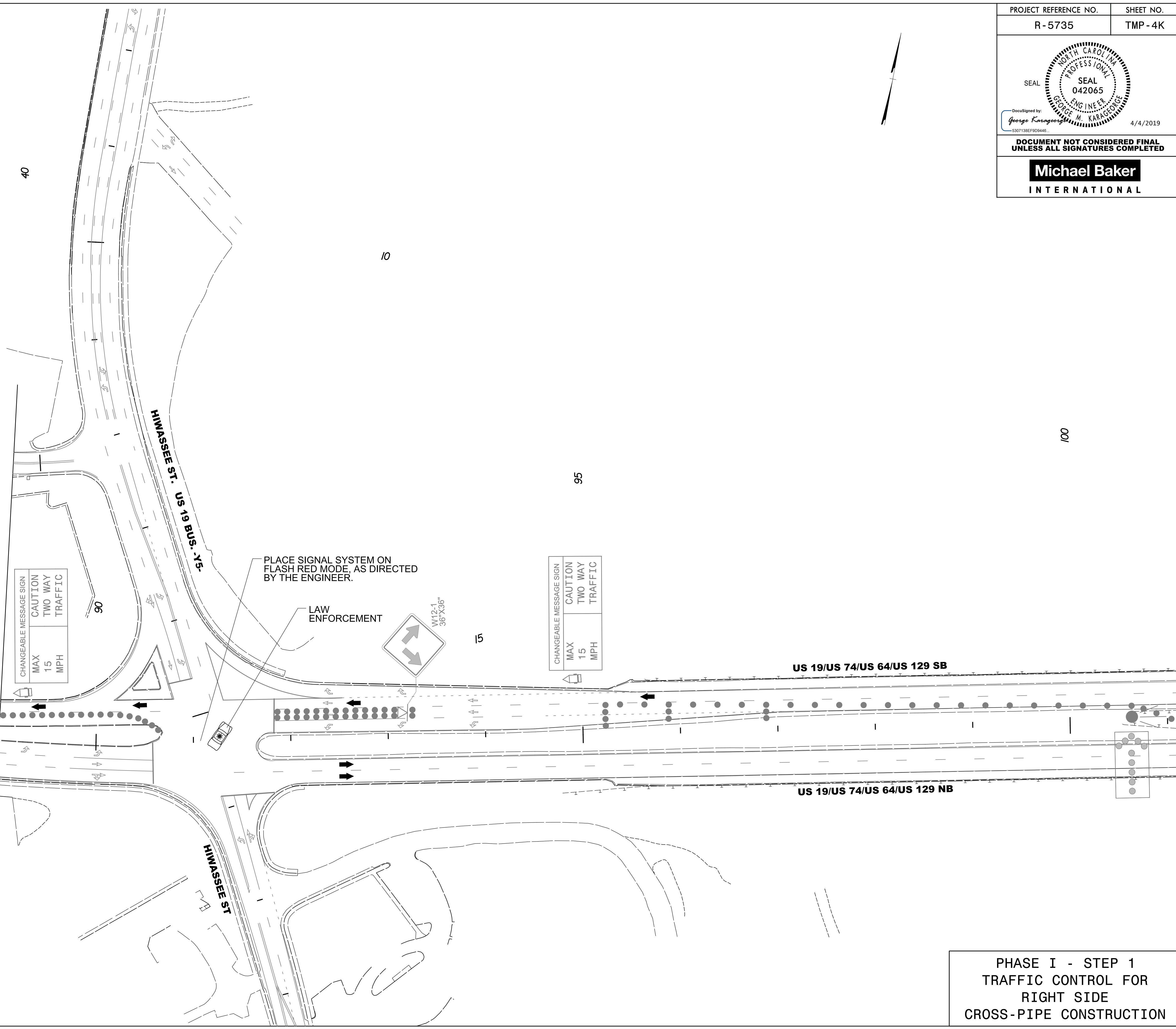
**PHASE I - STEP 1
 TRAFFIC CONTROL FOR
 RIGHT SIDE
 CROSS-PIPE CONSTRUCTION**

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PROJECT REFERENCE NO.	SHEET NO.
R-5735	TMP-4K
	
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MATCH LINE SHEET TMP-4J
STA. 89+00 - L -



PHASE I - STEP 1
TRAFFIC CONTROL FOR
RIGHT SIDE
CROSS-PIPE CONSTRUCTION

PROJECT REFERENCE NO. R-5735	SHEET NO. TMP-4L
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SIGN LEGEND

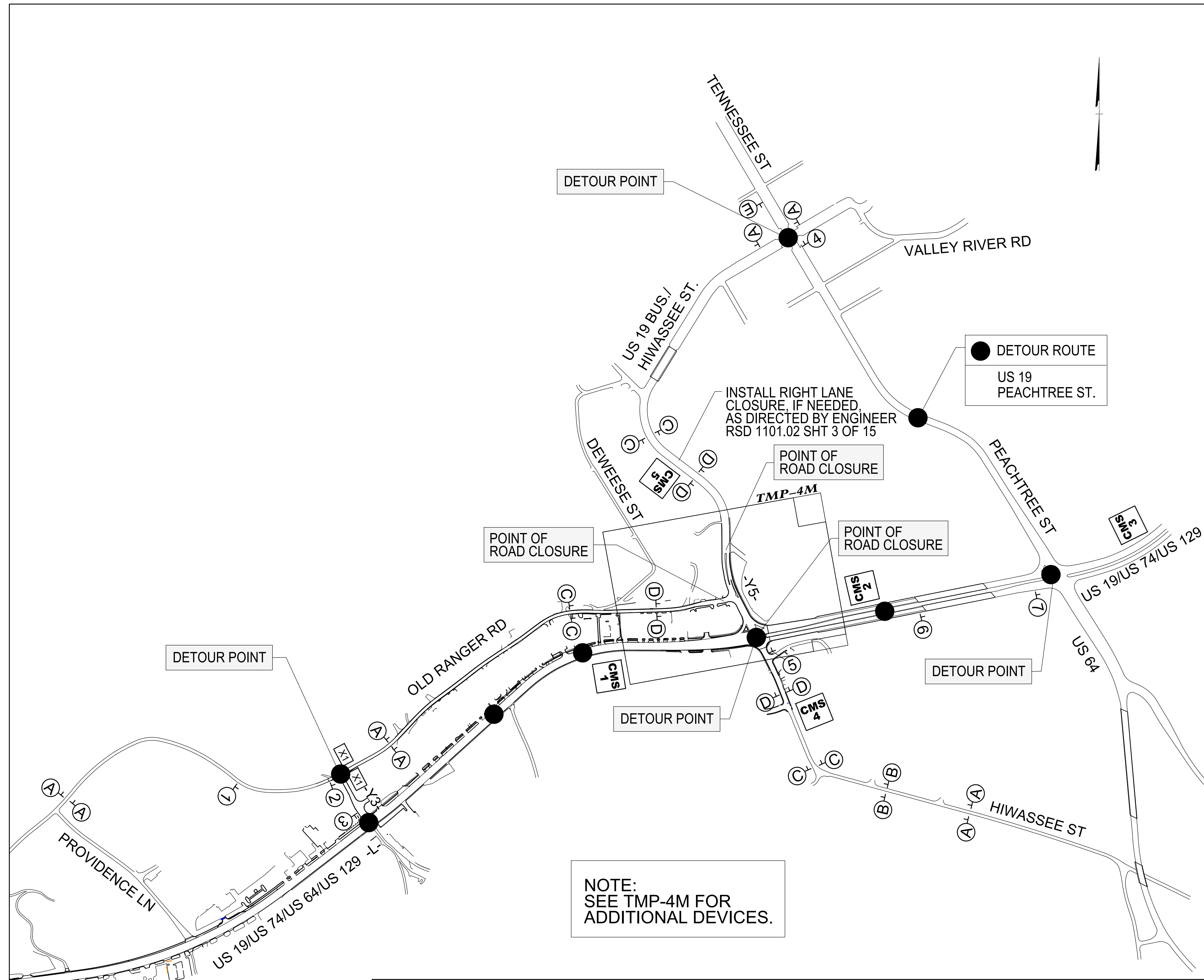
A W20-3 48" X 48"	B W20-2 48" X 48"
C W20-3 48" X 48"	D W20-3 48" X 48"
E W20-3 48" X 48" SP-4R 48" X 12"	

1 M4-5 24" X 12" M4-3 24" X 12" M1-4 24" X 24" M5-1R 21" X 15"	2 M4-5 24" X 12" M4-3 24" X 12" M1-4 24" X 24" M6-1 21" X 15"	3 M4-5 24" X 12" M4-3 24" X 12" M1-4 24" X 24" M6-1L 21" X 15"	4 M4-8a 24" X 18" M4-3 24" X 12" M1-4 24" X 24"
5 M4-8 24" X 12" M4-3 24" X 12" M1-4 24" X 24" M6-1 21" X 15"	6 M4-8 24" X 12" M4-5 24" X 12" M4-3 24" X 12" M1-4 24" X 24" M5-1 21" X 15"	7 M4-8 24" X 12" M4-5 24" X 12" M4-3 24" X 12" M1-4 24" X 24" M6-1L 21" X 15"	

R11-4 (60" x 30")

X1 ROAD CLOSED TO THRU TRAFFIC

M4-10R (48" x 18")
TYPE III BARRICADE



NOTE:
SEE TMP-4M FOR
ADDITIONAL DEVICES.

CMS MESSAGES PRIOR TO ROAD CLOSURE

CMS 1 CHANGEABLE MESSAGE SIGN

US19 BUS	MM/DD
ROAD	TO
CLOSING	MM/DD

CMS MESSAGES PRIOR TO ROAD CLOSURE

CMS 2 CHANGEABLE MESSAGE SIGN

US19 BUS	MM/DD
ROAD	TO
CLOSING	MM/DD

CMS MESSAGES PRIOR TO ROAD CLOSURE

CMS 4 CHANGEABLE MESSAGE SIGN

US19 BUS	MM/DD
ROAD	TO
CLOSING	MM/DD

CMS MESSAGES PRIOR TO ROAD CLOSURE

CMS 5 CHANGEABLE MESSAGE SIGN

US19 BUS	MM/DD
ROAD	TO
CLOSING	MM/DD

CMS MESSAGES DURING ROAD CLOSURE

CHANGEABLE MESSAGE SIGN

US19 BUS	DETOUR
CLOSED	2ND
	LEFT

CMS MESSAGES DURING ROAD CLOSURE

CMS 3 CHANGEABLE MESSAGE SIGN

US19 BUS	DETOUR
CLOSED	NEXT
	RIGHT

CMS MESSAGES DURING ROAD CLOSURE

CHANGEABLE MESSAGE SIGN

US19 BUS	DETOUR
CLOSED	AHEAD
	RIGHT

CMS MESSAGES DURING ROAD CLOSURE

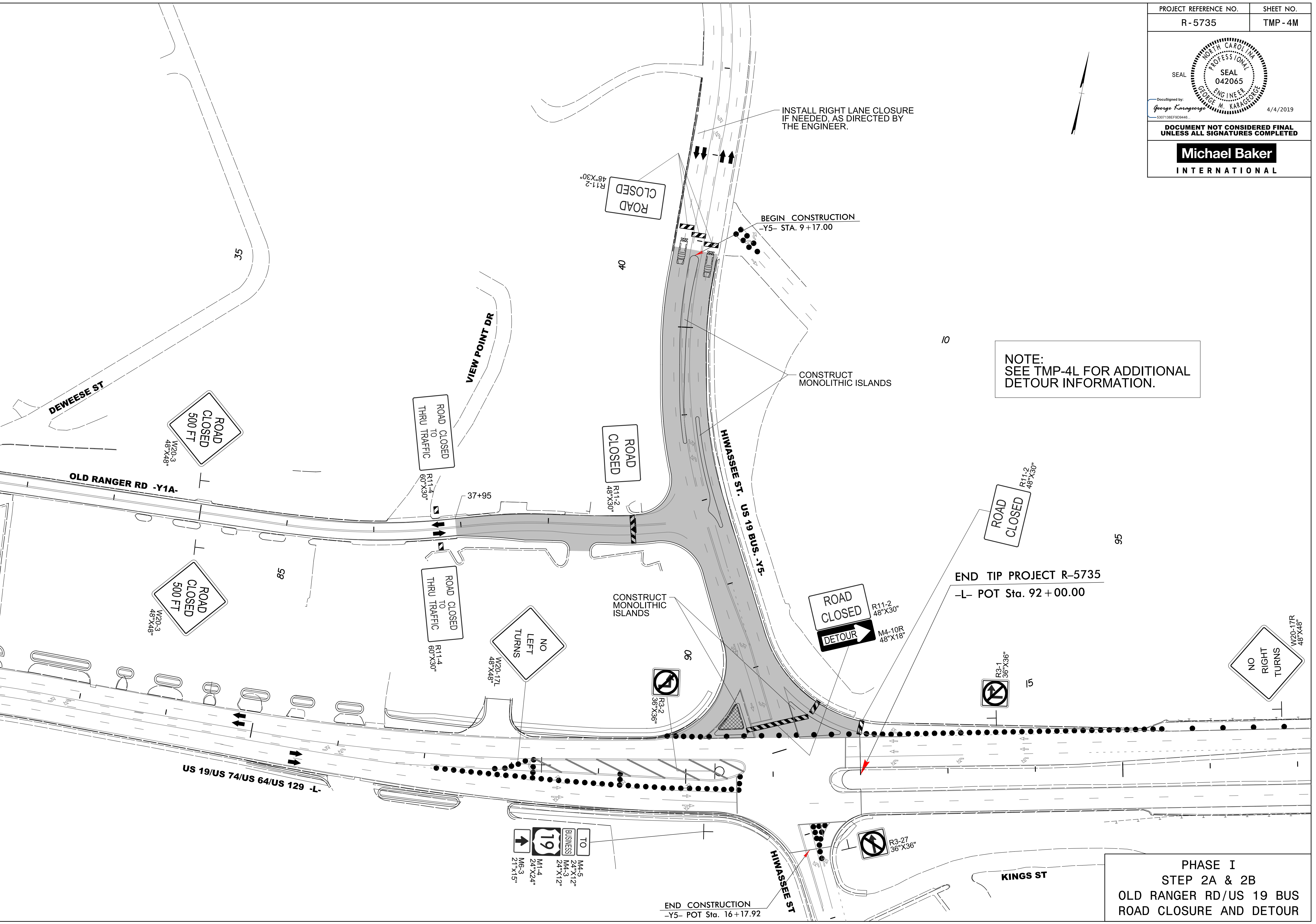
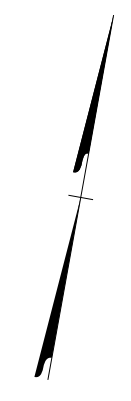
CHANGEABLE MESSAGE SIGN

ROAD	DEAD
CLOSED	END

PHASE I
STEPS 2A & 2B
OLD RANGER ROAD/US 19 BUS
ROAD CLOSURE AND DETOUR

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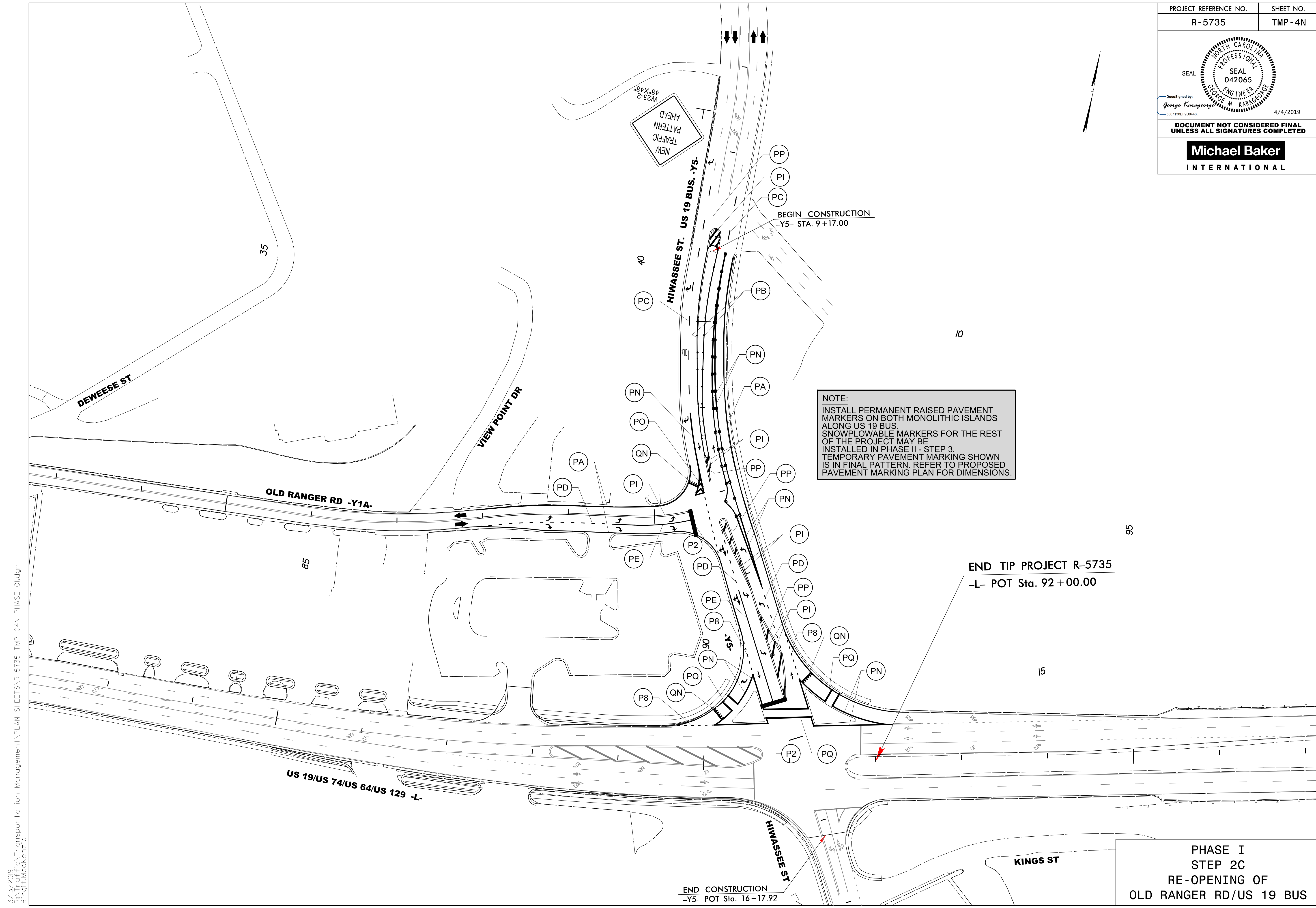


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TO	M4-5	24"X12"
BUSINESS	M4-3	24"X12"
↓	M1-4	24"X24"
	M6-3	21"X15"

**PHASE I
STEP 2A & 2B
OLD RANGER RD/US 19 BUS
ROAD CLOSURE AND DETOUR**

PROJECT REFERENCE NO. R-5735	SHEET NO. TMP-4N
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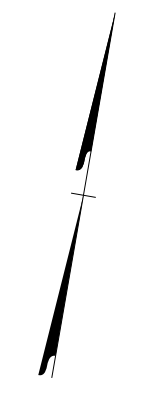


NOTE:
 INSTALL PERMANENT RAISED PAVEMENT MARKERS ON BOTH MONOLITHIC ISLANDS ALONG US 19 BUS. SNOWPLOWABLE MARKERS FOR THE REST OF THE PROJECT MAY BE INSTALLED IN PHASE II - STEP 3. TEMPORARY PAVEMENT MARKING SHOWN IS IN FINAL PATTERN. REFER TO PROPOSED PAVEMENT MARKING PLAN FOR DIMENSIONS.

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 Birdt, Mackenzie

**PHASE I
 STEP 2C
 RE-OPENING OF
 OLD RANGER RD/US 19 BUS**

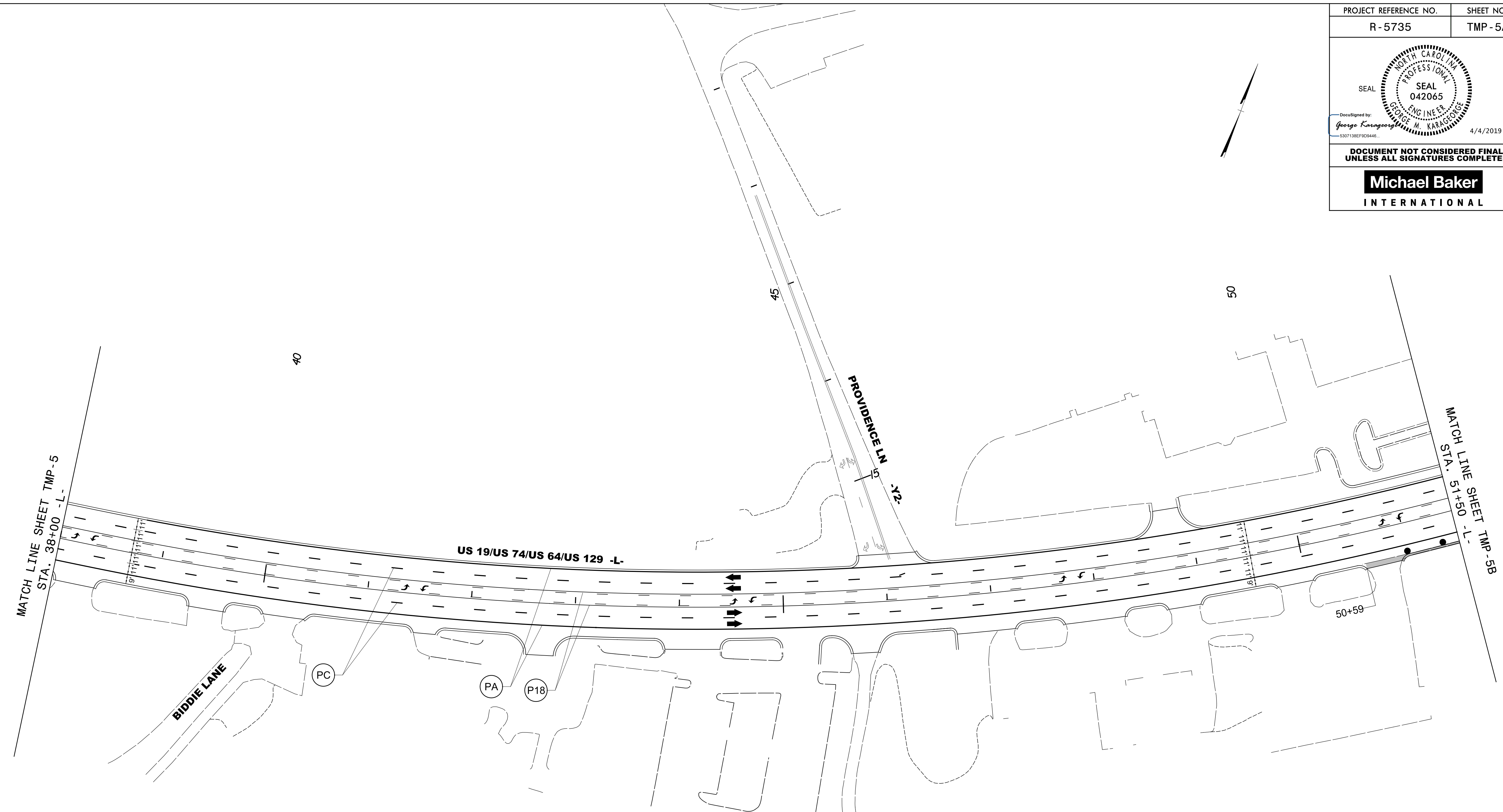
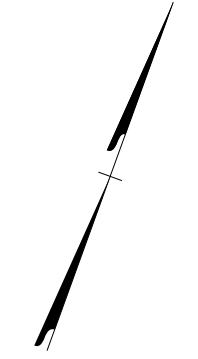
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PHASE II

PROJECT REFERENCE NO. R-5735	SHEET NO. TMP-5A
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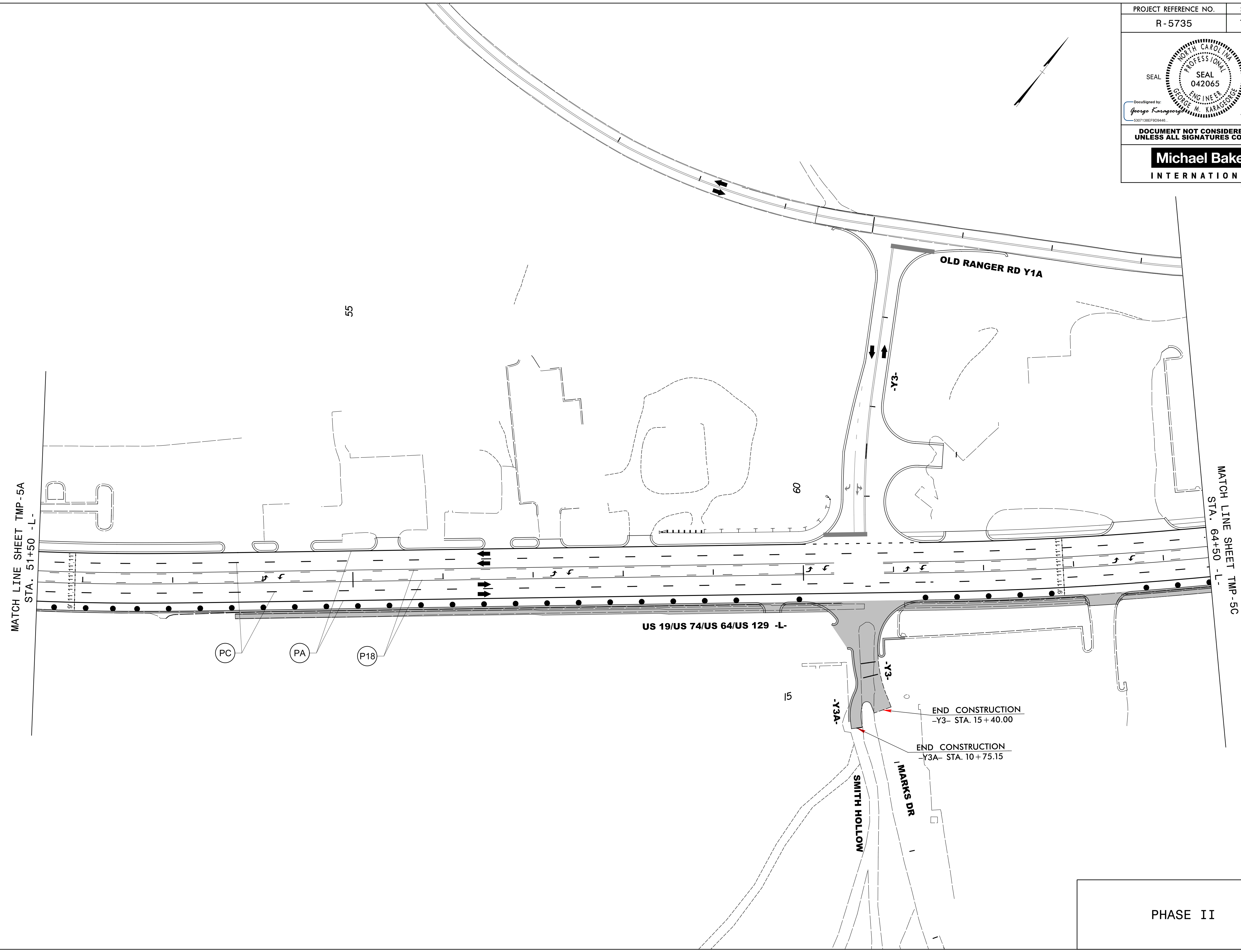
PHASE II

SEAL
 042065
 ENGINEER
 GEORGE M. KARAGEORGE
 NORTH CAROLINA

Documented by:
 George Karageorge
 5307138EP909446 4/4/2019

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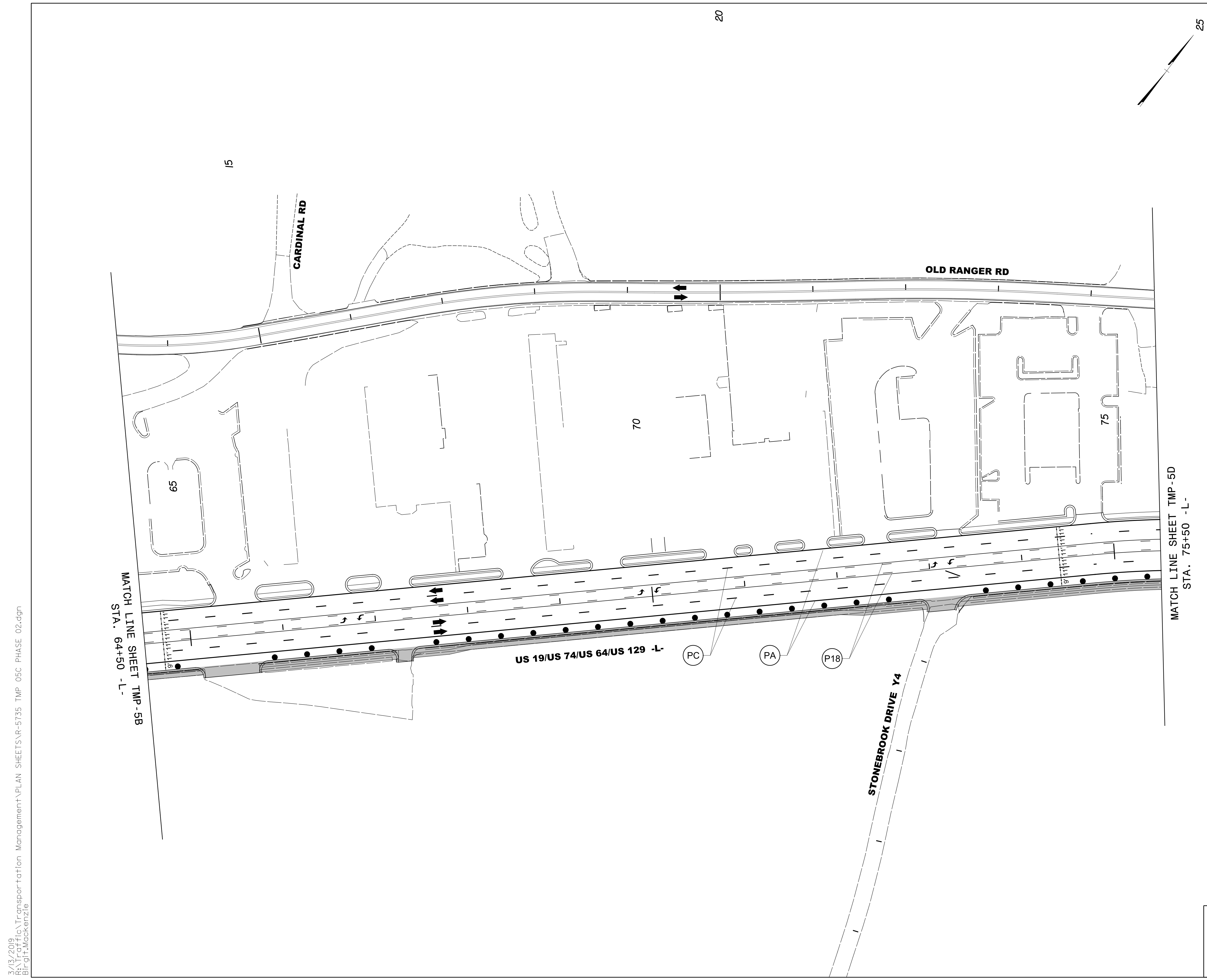
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PHASE II

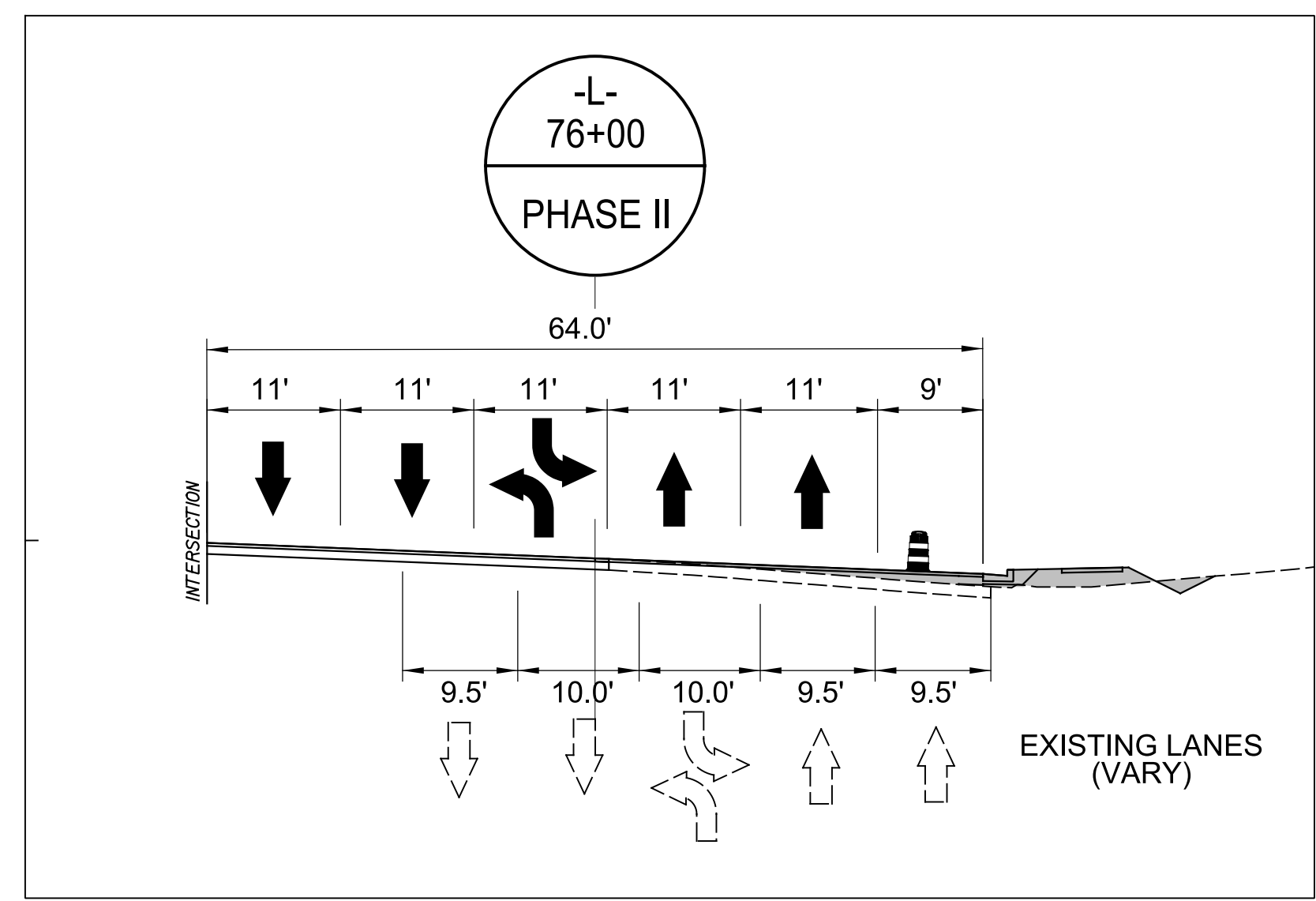
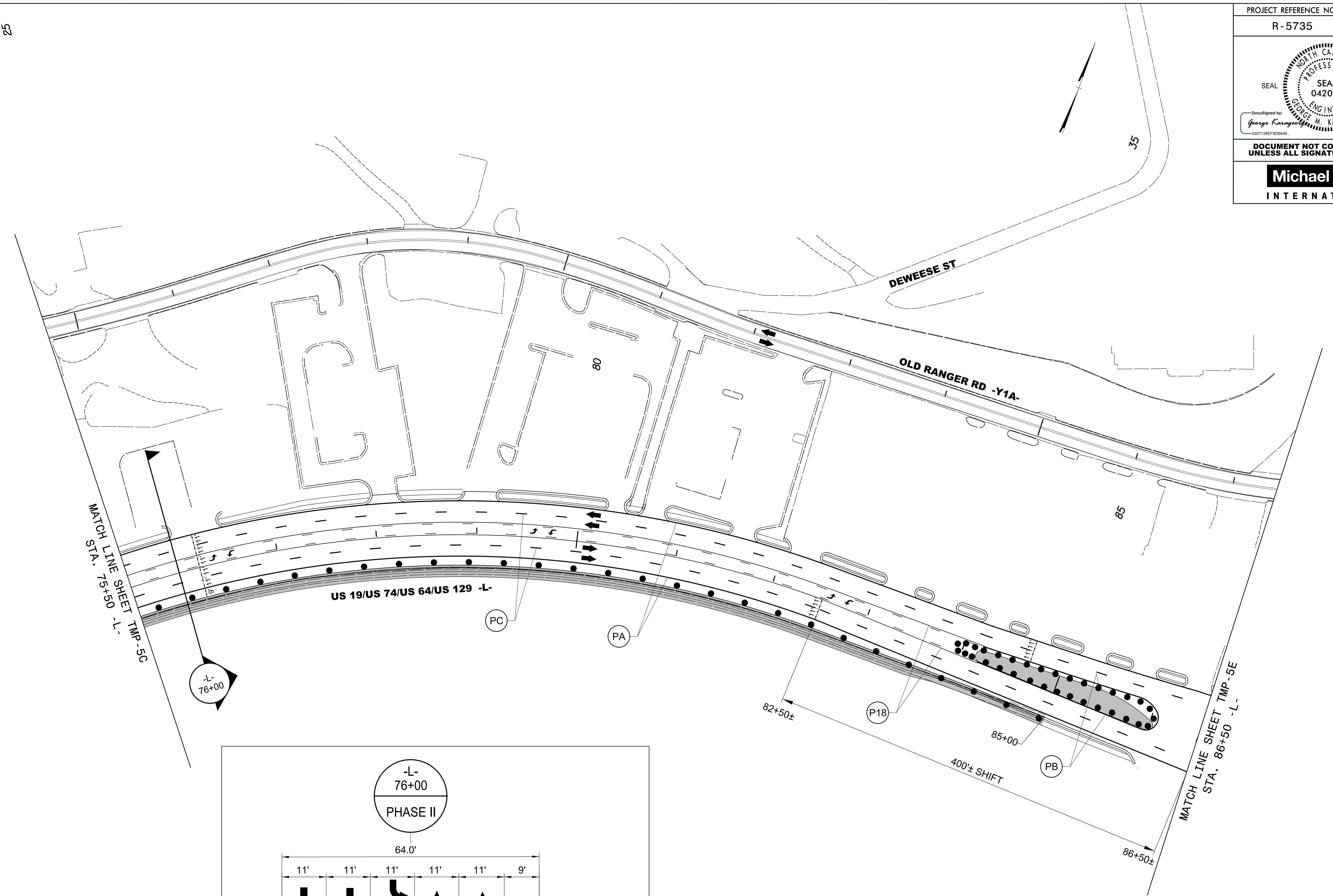
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<small>Documented by: George Karageorge, 5307138EFD0446</small>	
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PHASE II

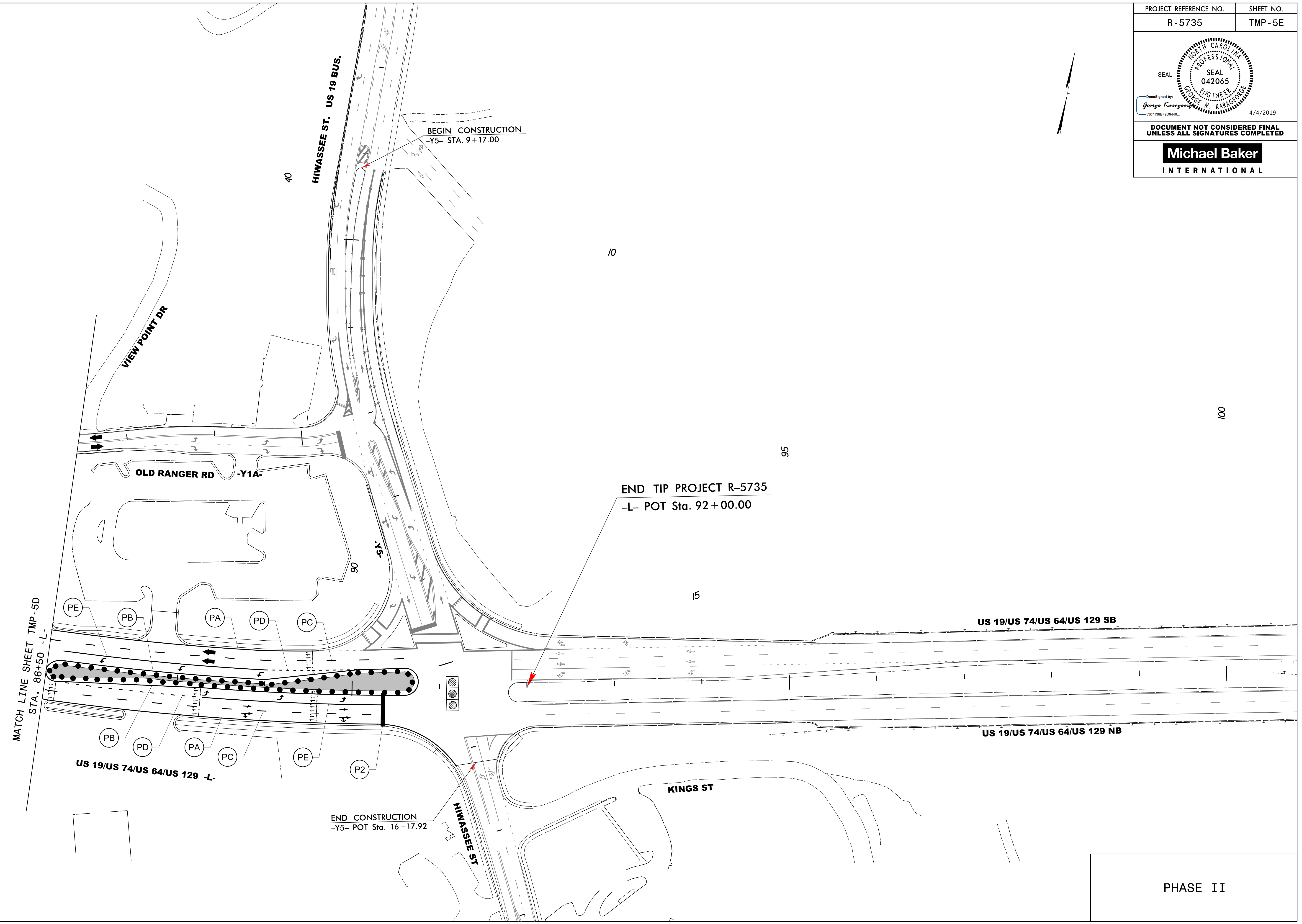
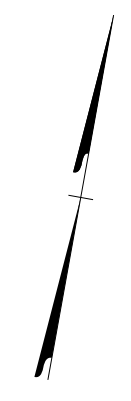
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Documented by: <i>George Karageorge</i> 5307138EFD09448	
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PHASE II

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PROJECT REFERENCE NO. R-5735	SHEET NO. TMP-5E
Documented by: <i>George Karageorge</i> <small>5307138EP909446</small>	
4/4/2019	
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PHASE II

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