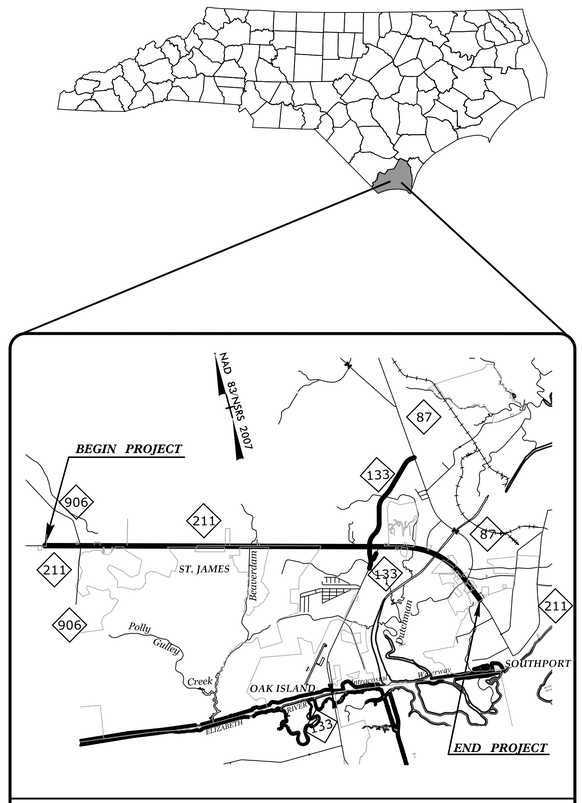
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

BRUNSWICK COUNTY



VICINITY MAP

LOCATION: NC 211 FROM WEST OF NC 906 (MIDWAY ROAD) TO EAST OF NC 87

TYPE OF WORK: GRADING, DRAINAGE, PAVING, STRUCTURES, CULVERTS, SIGNALS, AND RETAINING WALLS

WORK ZONE SAFETY & MOBILITY
"from the MOUNTAINS to the COAST"

PLANS PREPARED BY:

H. SHYU, P.E.
PROJECT ENGINEER

R. B. EARLY, P.E.
PROJECT QC ENGINEER

NCDOT CONTACTS:

JESSI LEONARD, P.E.
DIVISION TRAFFIC ENGINEER

DIVISION OF HIGHWAYS * STATE OF NORTH CAROLINA * DEPARTMENT OF TRANSPORTATION * WORK ZONE TRAFFIC CONTROL

INDEX OF SHEETS

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HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Ste 200
Raleigh, North Carolina 27609
NC License No: C-1554

APPROVED: DocuSigned by: Helen Shyu 0F15975A95E44EF...

DATE: 2/6/2019

SEAL

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 042517 HELEN SHYU

SHEET NO.
TMP-1

R-5021

TIP PROJECT:

2/6/2019
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PROJ. REFERENCE NO.	SHEET NO.
R-5021	TMP-1A

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - CONTRACT STANDARDS AND DEVELOPMENT UNIT - N.C. DEPARTMENT OF TRANSPORTATION RALEIGH, N.C., DATED JANAUARY 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
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW BOARDS
1130.01	DRUMS
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGERS
1160.01	TEMPORARY CRASH CUSHION
1165.01	TRUCK MOUNTED ATTENUATOR
1170.01	PORTABLE CONCRETE BARRIER
1180.01	SKINNY DRUMS
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO LANE AND MULTILANE ROADWAYS
1205.03	PAVEMENT MARKINGS - EXITS AND ENTRANCE RAMPS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.06	PAVEMENT MARKINGS - LANE DROPS
1205.07	PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.12	PAVEMENT MARKINGS - BRIDGES
1205.13	PAVEMENT MARKINGS - LANE REDUCTIONS
1205.14	PAVEMENT MARKINGS - ROUNDABOUTS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - (PERMANENT AND TEMPORARY)
1261.01	GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATORS - TYPES AND MOUNTING
1262.01	GUARDRAIL END DELINEATION

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LEGEND

GENERAL

- DIRECTION OF TRAFFIC FLOW
- DIRECTION OF PEDESTRIAN TRAFFIC FLOW
- EXIST. PVMT.
- NORTH ARROW
- PROPOSED PVMT.
- TEMP. SHORING (LOCATION PURPOSES ONLY)
- WORK AREA
- REMOVAL
- INCIDENTAL STONE
- TEMPORARY GRADE/ LEVELING COURSE
- WEDGE / WIDEN (USING LANE CLOSURES)
- TEMPORARY PAVEMENT
- ONGOING CONSTRUCTION

TRAFFIC CONTROL DEVICES

- BARRICADE (TYPE III)
- CONE
- DRUM SKINNY DRUM TUBULAR MARKER
- TEMPORARY CRASH CUSHION
- FLASHING ARROW PANEL (TYPE C)
- FLAGGER
- LAW ENFORCEMENT
- TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
- CHANGEABLE MESSAGE SIGN

TEMPORARY SIGNING

- PORTABLE SIGN
- STATIONARY SIGN
- STATIONARY OR PORTABLE SIGN

SIGNALS

EXISTING PROPOSED TEMPORARY (T E M P)

PAVEMENT MARKINGS

- EXISTING LINES
- TEMPORARY LINES

PAVEMENT MARKING SYMBOLS

PAVEMENT MARKING SYMBOLS

CUT SECTION SYMBOLS

A / XXA — CUT SECTION # / TMP SHEET REFERENCE

TEMPORARY PAVEMENT MARKING

SYMBOL	DESCRIPTION	PAY ITEM
	PAVEMENT MARKING LINES	
		PAINT (4")
P8	2 FT. - 6 FT./SP WHITE MINISKIP	
P9	2 FT. - 6 FT./SP YELLOW MINISKIP	
PA	WHITE EDGELINE	
PB	YELLOW EDGELINE	
PC	10 FT. WHITE SKIP	
PD	3 FT. - 9 FT./SP WHITE MINISKIP	
PE	WHITE SOLID LANE LINE	
PF	10 FT YELLOW SKIP	
PH	YELLOW SINGLE CENTER LINE	
PI	YELLOW DOUBLE CENTER LINE	
		PAINT (8")
P13	3 FT.-9 FT./SP WHITE MINISKIP	
P17	3 FT.-3 FT./SP WHITE MINISKIP	
PN	WHITE GORELINE	
PO	WHITE DIAGONAL	
PQ	WHITE CROSSWALK LINE	
PP	YELLOW DIAGONAL	
PR	WHITE SOLID LANE LINE	
		PAINT (12")
PU	WHITE DIAGONAL	
PV	YELLOW DIAGONAL	
PS	WHITE GORELINE	
PT	WHITE SOLID LANE LINE	
		PAINT (24")
P2	WHITE STOP BAR	
P3	WHITE CROSSWALK LINE	

PAVEMENT MARKING SYMBOLS & CHARACTERS

QA	LEFT TURN ARROW	QU	FISH-HOOK STRAIGHT ARROW
QB	RIGHT TURN ARROW	QW	FISH-HOOK RIGHT/STRAIGHT ARROW
QC	STRAIGHT ARROW	RA	FISH-HOOK W/CIRCLE LEFT ARROW
QN	24" YIELD LINE TRIANGLE	RB	FISH-HOOK W/CIRCLE LEFT/STRAIGHT ARROW
QP	MERGE ARROW		
QT	U-TURN ARROW		

NOTE: FOR EACH PAINT PAVEMENT MARKING ITEM, REFER TO GENERAL NOTES FOR NUMBER OF APPLICATIONS.

PAVEMENT MARKERS

MH	YELLOW & YELLOW	TEMPORARY RAISED MARKERS
MI	CRYSTAL & RED	TEMPORARY RAISED MARKERS

HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

APPROVED: DocuSigned by: Helen Shyu — OF15975A95E44EF...
DATE: 10/28/2021
SEAL

NORTH CAROLINA PROFESSIONAL SEAL 042517 ENGINEER HELEN SHYU

DIVISION OF HIGHWAYS * STATE OF NORTH CAROLINA * DEPARTMENT OF TRANSPORTATION * WORK ZONE TRAFFIC CONTROL

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TRANSPORTATION MANAGEMENT PLAN

ROADWAY STANDARD DRAWINGS, LEGEND, AND TEMPORARY PAVEMENT MARKING

PROJ. REFERENCE NO.	SHEET NO.
R-5021	TMP-1B

MANAGEMENT STRATEGIES

THE OBJECTIVE OF THIS PROJECT IS TO COMPLETE IMPROVEMENTS TO NC 211 (-L-), INCLUDING GRADE CHANGES AND WIDENING FROM THE EXISTING TWO-LANE, TWO WAY TO A FOUR LANE DIVIDED HIGHWAY.

NOTE: DURING ALL PHASES, LANE CLOSURE OPERATIONS WILL NOT BE ALLOWED DURING PEAK HOURS IN THE OFF-SEASON (FROM SEPTEMBER 16 TO TWO WEEKS BEFORE EASTER) AND WILL ONLY BE ALLOWED AT NIGHT IN THE PEAK SEASON (FROM TWO WEEKS BEFORE EASTER TO SEPTEMBER 15).

PHASE I INCLUDES INTERSECTION WORK AND COMPLETING THE FUTURE WESTBOUND LANES. STAGED CONSTRUCTION AND SHORING IS REQUIRED AT CULVERTS AND LARGE PIPES. ICT'S ARE REQUIRED TO LIMIT THE IMPACTS AT INTERSECTIONS AND MAJOR ACCESS POINTS. AN OFF-SITE DETOUR, INTERMEDIATE PHASING AND STAGE CONTRUCTION IS REQUIRED TO COMPLETE RIVER ROAD (-Y22-) AND NC 211 (-L-) FROM RIVER RD TO THE END OF THE PROJECT. Y-LINES ADJACENT TO CONSTRUCTION ARE COMPLETED AS MUCH AS POSSILBE.

PHASE II BEGINS WITH THE TRAFFIC SHIFTED TO THE FUTURE WESTBOUND LANES AND THE EASTBOUND LANES ARE CONSTRUCTED. CULVERT STAGING BEGUN IN PHASE I ARE COMPLETED. Y-LINES ADJACENT TO CONSTRUCTION ARE COMPLETED AS MUCH AS POSSIBLE.

IN PHASE III, THE EASTBOUND TRAFFIC IS SHIFTED TO THE OUTER MOST EASTBOUND LANE WITH THE LANES ADJACENT TO THE MEDIAN CLOSED IN BOTH DIRECTIONS. ANY REMAINING MEDIAN WORK, CURB AND GUTTER AND ISLAND CONSTRUCTION IS COMPLETED AND FINAL LAYER OF ASPHALT, PAVEMENT MARKINGS AND MARKERS ARE PLACED.

GENERAL NOTES

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

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

TIME RESTRICTIONS

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

ROAD NAME	DAY AND TIME RESTRICTIONS
PEAK SEASON - FROM TWO (2) WEEKS PRIOR TO EASTER THRU SEPTEMBER 15:	
NC 211 (-L-/-LREV-) NC 906 (-YREV-) NC 133 (-Y14A-) SR 1969 (-Y14C-/-Y14D-) DOSHER CUT OFF (-Y19REV-) NC 87 (-Y22-)	MONDAY THRU THURSDAY 6:00 AM - 7:00 PM AND 6:00 AM FRIDAY THRU 7:00 PM SUNDAY
OFF-SEASON - FROM SEPTEMBER 16 THRU TWO (2) WEEKS PRIOR TO EASTER:	
NC 211 (-L-/-LREV-) NC 906 (-YREV-) NC 133 (-Y14A-) SR 1969 (-Y14C-/-Y14D-) DOSHER CUT OFF (-Y19REV-) NC 87 (-Y22-)	MONDAY THRU SUNDAY 6:00 AM - 7:00 PM

GENERAL NOTES

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

ROAD NAME

NC 211 (-L-/-LREV-)
NC 906 (-YREV-)
NC 133 (-Y14A-)
SR 1969 (-Y14C-/-Y14D-)
DOSHER CUT-OFF (-Y19REV-)
NC 87 (-Y22-)

HOLIDAY

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

   IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 6:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 7:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.
6. FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 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.
9. FOR KING MACKEREL TOURNAMENT, BETWEEN THE HOURS OF 6:00 A.M. THE THURSDAY BEFORE THE KING MACKEREL TOURNAMENT AND 7:00 P.M. THE FOLLOWING SUNDAY AFTER THE KING MACKEREL TOURNAMENT.

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.

D) DO NOT STOP TRAFFIC AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS	DURATION AND OPERATION
NC 211 (-L-/-LREV-)	MONDAY-SUNDAY 5:00AM - 12AM (MIDNIGHT)	30 MINUTES FOR GIRDER INSTALLATION
NC 211 (-L-/-LREV-) NC 906 (-YREV-) NC 133 (-Y14A-) SR 1969 (-Y14C-/-Y14D-)	MONDAY-SUNDAY 5:00AM - 12AM (MIDNIGHT)	SIGNAL MAST ARMS
NC 211 (-L-) NC 906 (-YREV-)	5:00AM - 12AM (MIDNIGHT)	30 MINUTES FOR TRAFFIC SHIFT
ALL OTHER ROADS	5:00AM - 12AM (MIDNIGHT) AS DIRECTED BY ENGINEER	

LANE CLOSURE REQUIREMENTS

E) 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.

F) 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.

G) 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.

H) 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 REMAINS WITHIN THE CLOSED TRAVEL LANE.

I) 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.

J) DO NOT INSTALL MORE THAN 2 SIMLUTANEOUS LANE CLOSURES IN ANY ONE DIRECTION ON -L- (NC 211).

K) PROVIDE A MINIMUM OF 1 MILE BETWEEN LANE CLOSURES, MEASURED FROM THE END OF ONE CLOSURE TO THE FIRST SIGN OF THE NEXT LANE CLOSURE.

L) DO NOT INSTALL MORE THAN 2500 FT OF LANE CLOSURE ON -L- (NC 211) MEASURED FROM THE BEGINNING OF THE MERGE TAPER TO THE END OF THE LANE CLOSURE.

PAVEMENT EDGE DROP OFF REQUIREMENTS

M) 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.

N) 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' IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

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

SIGNING

P) 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.

Q) PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRAFFIC CONTROL PLANS.

   PROVIDE SIGNING REQUIRED FOR THE OFF-SITE DETOUR ROUTE AS SHOWN IN THE TRAFFIC CONTROL PLANS.

R) COVER OR REMOVE ALL SIGNS AND DEVICES REQUIRED TO CLOSE THE ROAD WHEN ROAD CLOSURE IS NOT IN OPERATION.

   COVER OR REMOVE ALL SIGNS REQUIRED FOR THE OFF-SITE DETOUR WHEN THE DETOUR IS NOT IN OPERATION.

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

T) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 500' IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

APPROVED: DocuSigned by: Helen Shyu — 0F15975A95E44EF...

DATE: 9/9/2021

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 042517 ENGINEER HELEN SHYU

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DIVISION OF HIGHWAYS * STATE OF NORTH CAROLINA * DEPARTMENT OF TRANSPORTATION * WORK ZONE TRAFFIC CONTROL

TRANSPORTATION MANAGEMENT PLAN

MANAGEMENT STRATEGIES & GENERAL NOTES

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GENERAL NOTES

TRAFFIC BARRIER

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

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

ONCE TEMPORARY BARRIER IS INSTALLED AT ANY LOCATION AND NO WORK IS PERFORMED BEHIND THE TEMPORARY BARRIER FOR A PERIOD LONGER THAN TWO (2) 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.

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

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

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

TRAFFIC CONTROL DEVICES

W) 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 OPENED TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES), AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.

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

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

PAVEMENT MARKINGS AND MARKERS

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

ROAD NAME	MARKING	MARKER
ALL ROADS	PAINT	TEMPORARY

AA) 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.

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

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

DD) TRACE THE PROPOSED MONOLITHIC ISLAND LOCATIONS WITH PROPER COLOR PAVEMENT MARKINGS PRIOR TO INSTALLATION. PLACE DRUMS TO DELINEATE ANY PROPOSED MONOLITHIC ISLANDS BEFORE INSTALLATION.

MISCELLANEOUS

EE) PROVIDE AND OPERATE 2 ADDITIONAL CMS's TO BE USED AS DIRECTED BY THE ENGINEER.

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

GG) IN THE EVENT A TIE-IN CANNOT BE MADE IN ONE DAYS 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) 500 FT AND 1000 FT RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG UNPAVED AREAS.

HH) 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.

II) FOR REMOVAL OF PAINT PAVEMENT MARKING LINES, CONTRACTOR SHALL USE THE WATERBLASTING METHOD FOR PM REMOVAL ON CONCRETE AND BLACK PAINT FOR PM REMOVAL ON ASPHALT.

JJ) NOTIFY THE OVERSIZE/OVERWEIGHT PERMIT GROUP TWENTY ONE (21) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

LOCAL NOTES

LN-1 COORDINATE INSTALLATION OF DRAINAGE WITH PROPERTY OWNER/LOCAL BUSINESSES.

LN-2 USING RSD AND FLAGGERS AS NEEDED, REPLACE TEMPORARY GUARDRAIL AND/OR PCB, WHEN NO LONGER NEEDED, WITH DRUMS.

HNTB

HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

APPROVED: DocuSigned by: Helen Shyu 0F15975A95E44EF

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DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

TRANSPORTATION MANAGEMENT PLAN

GENERAL NOTES AND LOCAL NOTES

2/6/2019
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PROJ. REFERENCE NO.	SHEET NO.
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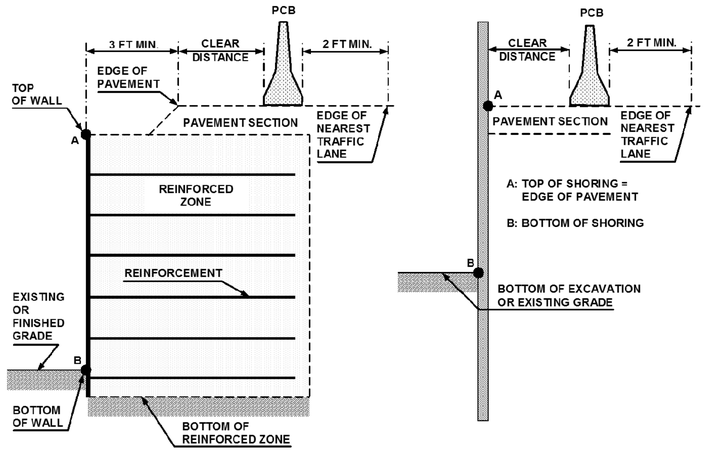

NOTE: WALL OR SHORING HEIGHT = A - B

FIGURE A

NOTES

1- REFER TO THE TRAFFIC CONTROL PLANS FOR TEMPORARY SHORING LOCATIONS AND NOTES.

2- REFER TO THE "TEMPORARY SHORING" PROJECT SPECIAL PROVISION FOR INFORMATION ABOUT TEMPORARY SHORING AND PORTABLE CONCRETE BARRIER (PCB).

3- 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).

4- 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.

5- 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.

6- USE NCDOT PORTABLE CONCRETE BARRIER (PCB) IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1170.01 AND SECTION 1170 OF THE STANDARD SPECIFICATIONS.

7- PCB REQUIREMENTS FOR TEMPORARY WALLS APPLY TO TEMPORARY MECHANICALLY STABILIZED EARTH (MSE) WALLS AND TEMPORARY SOIL NAIL WALLS.

8- 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.

9- 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.

10- 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

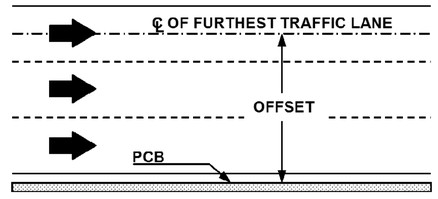

FIGURE B

APPROVED: Helen Shyu — 2/6/2019
DATE: 2/6/2019
SEAL

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 042517 HELEN SHYU

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DIVISION OF HIGHWAYS — STATE OF NORTH CAROLINA — DEPARTMENT OF TRANSPORTATION — WORK ZONE TRAFFIC CONTROL

TRANSPORTATION MANAGEMENT PLAN

PORTABLE CONCRETE BARRIER AT TEMPORARY SHORING LOCATIONS

HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

2/6/2019
...\TCP\R5021-tc_barrierSTD.dgn
HNTB

PROJ. REFERENCE NO.	SHEET NO.
R-5021	TMP-2A

① TO M4-5 24″ X 12″
211 M1-5 30″ X 24″
M5-1 L 21″ X 15″

② TO M4-5 24″ X 12″
211 M1-5 30″ X 24″
M6-1 L 21″ X 15″

③ TO M4-5 24″ X 12″
211 M1-5 30″ X 24″
M6-1 21″ X 15″

④ DETOUR M4-8 24″ X 12″
RIVER ROAD SP-1 54″ X 18″
M6-1 L 21″ X 15″

⑤ DETOUR M4-8 24″ X 12″
RIVER ROAD SP-1 54″ X 18″
M6-1 21″ X 15″

⑥ END DETOUR M4-8 A 24″ X 18″

⑦ TO M4-5 24″ X 12″
87 M1-5 30″ X 24″
M6-1 L 21″ X 15″

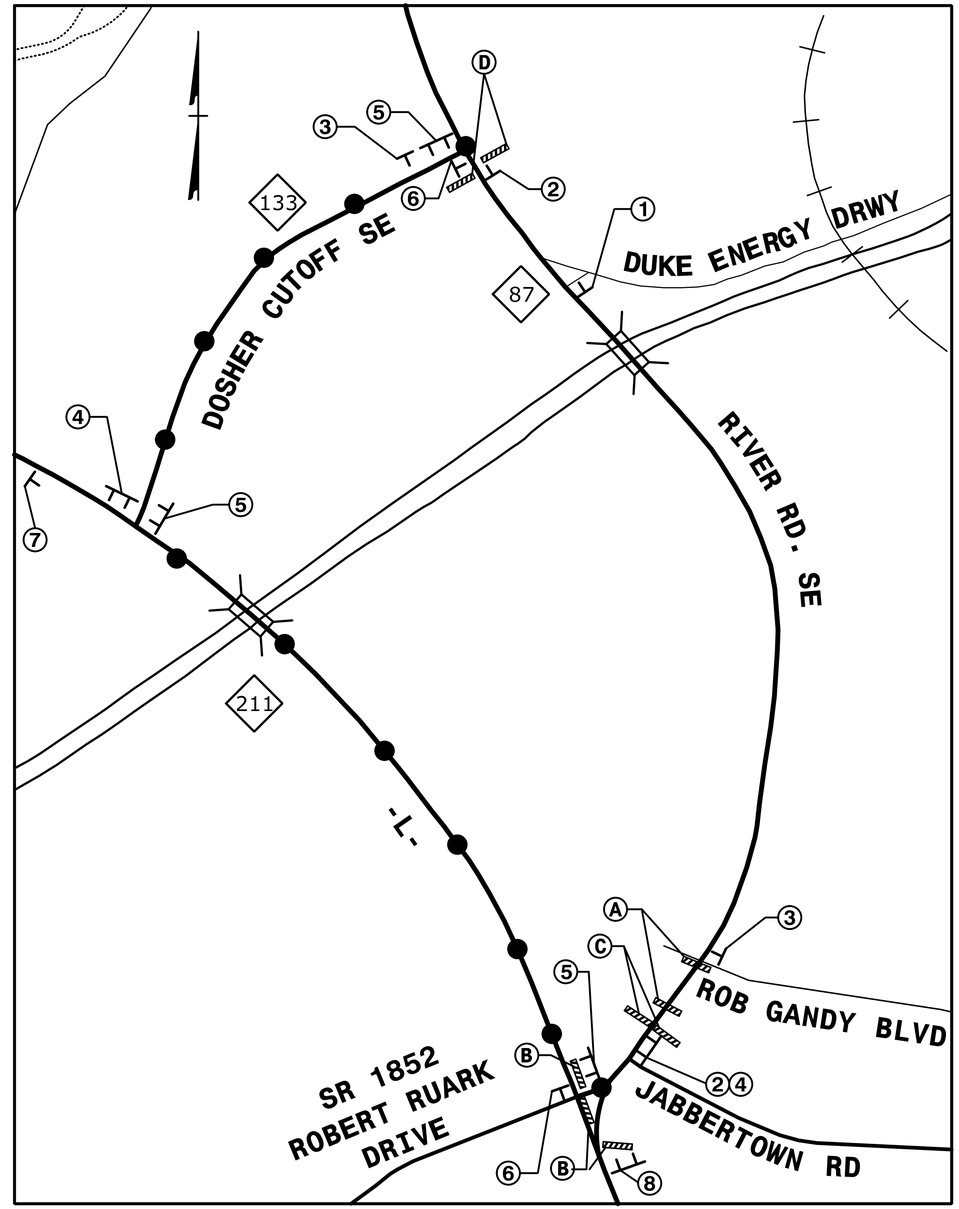
⑧ DETOUR M4-8 24″ X 12″
RIVER ROAD
M6-3 21″ X 15″

Ⓐ R11-2 48″ x 30″
ROAD CLOSED
TYPE III BARRICADE(S)

Ⓑ R11-4 60″ x 30″
ROAD CLOSED TO THRU TRAFFIC
DETOUR
M4-10L 48″ x 18″
TYPE III BARRICADE

Ⓒ R11-4 60″ x 30″
ROAD CLOSED TO THRU TRAFFIC
TYPE III BARRICADE

Ⓓ R11-3 60″ x 30″
ROAD CLOSED 1 MILE AHEAD LOCAL TRAFFIC ONLY
DETOUR
M4-10R 48″ x 18″
TYPE III BARRICADE



INCLUDE STANDARD ROAD CLOSURE SIGNS AS SHOWN IN RSD 1101.03 (SHEETS 1 & 2 OF 9)

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NC License No: C-1554

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DATE: 9/9/2021
SEAL
NORTH CAROLINA PROFESSIONAL SEAL 042517 ENGINEER HELEN SHYU

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DIVISION OF HIGHWAYS * STATE OF NORTH CAROLINA * DEPARTMENT OF TRANSPORTATION * WORK ZONE TRAFFIC CONTROL

TRANSPORTATION MANAGEMENT PLAN

RIVER RD DETOUR

4:51:36 PM
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$$$$USERNAME$$$$

PROJ. REFERENCE NO.	SHEET NO.
R-5021	TMP-2B

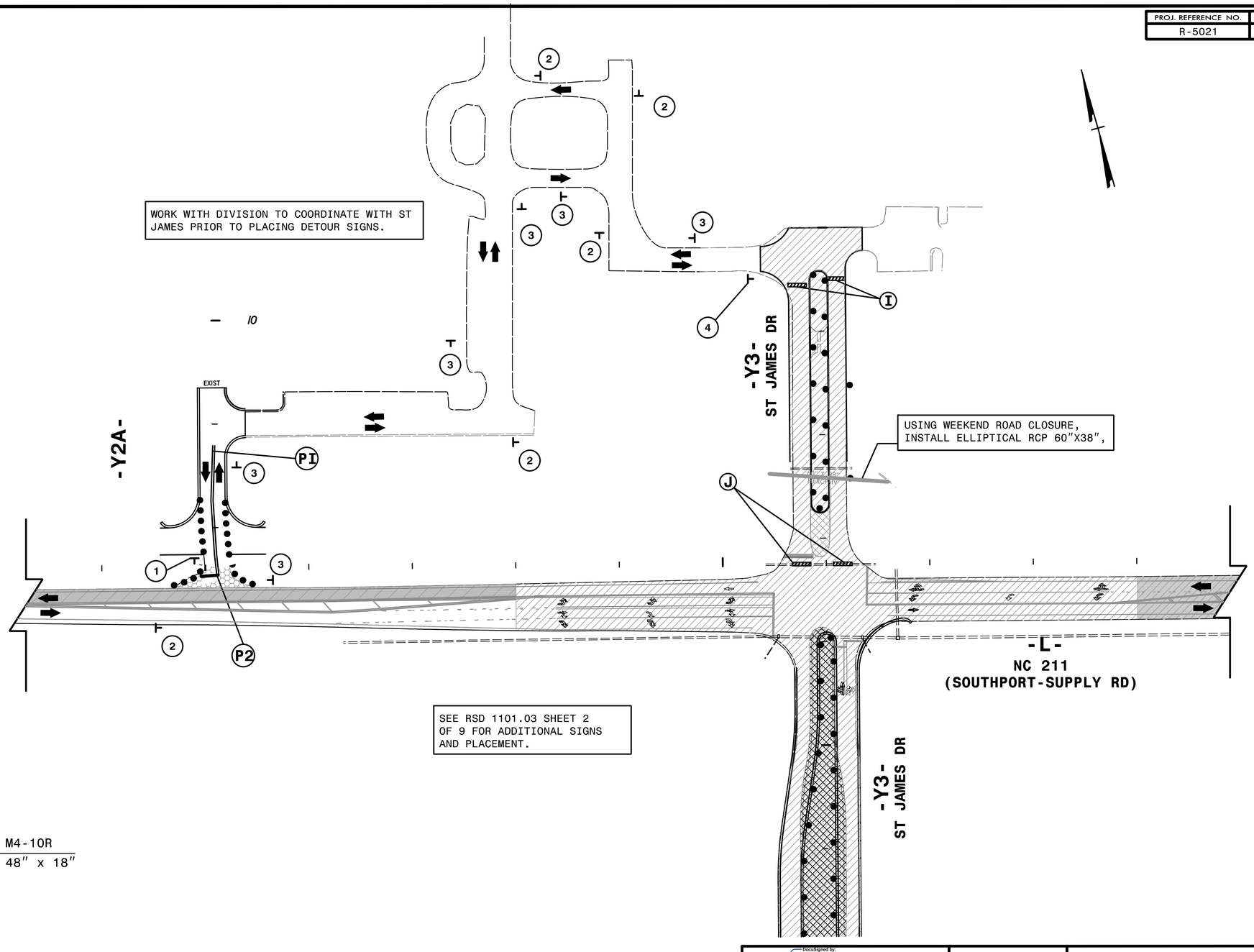
① STOP R1-1

② DETOUR M4-8 24″ X 12″
M6-1 L 21″ X 15″

③ DETOUR M4-8 24″ X 12″
M6-1 21″ X 15″

④ END DETOUR M4-8 A 24″ X 18″

WORK WITH DIVISION TO COORDINATE WITH ST JAMES PRIOR TO PLACING DETOUR SIGNS.



SEE RSD 1101.03 SHEET 2 OF 9 FOR ADDITIONAL SIGNS AND PLACEMENT.

Ⓘ R11-2 48″ x 30″ ROAD CLOSED / DETOUR M4-10R 48″ x 18″
TYPE III BARRICADE

Ⓙ R11-2 48″ x 30″ ROAD CLOSED / DETOUR M4-10L 48″ x 18″
TYPE III BARRICADE

APPROVED: DocuSigned by: Helen Shyu 0F15975A95E44EF...
DATE: 9/9/2021
SEAL
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DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

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TRANSPORTATION MANAGEMENT PLAN

ST JAMES DR DETOUR

4:51:41 PM
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$$$$USERNAME$$$$

PROJ. REFERENCE NO.	SHEET NO.
R-5021	TMP-2C

0.5 MILES

*2 WEEK ADVANCED NOTICE MESSAGE

MESSAGE NO. 1	MESSAGE NO. 2
REGENCY CROSSING CLOSED	STARTING DATE XX/XX/XX

CHANGEABLE MESSAGE SIGN

MESSAGE NO. 1	MESSAGE NO. 2
REGENCY CROSSING CLOSED	DETOUR NEXT RIGHT

CHANGEABLE MESSAGE SIGN

SEE RSD 1101.03 (SHEET 1 AND 2 OF 9) TMP-72 AND TMP-73 FOR SIGN PLACEMENT AND ADDTIONAL SIGNS

*2 WEEK ADVANCED NOTICE MESSAGE

MESSAGE NO. 1	MESSAGE NO. 2
REGENCY CROSSING CLOSED	STARTING DATE XX/XX/XX

CHANGEABLE MESSAGE SIGN

MESSAGE NO. 1	MESSAGE NO. 2
REGENCY CROSSING CLOSED	DETOUR ST JAMES

CHANGEABLE MESSAGE SIGN

-L- NC 211 SOUTHPORT-SUPPLY RD

Oakview

-Y3- ST JAMES DR.

-Y7- REGENCY CROSSING

PLAYERS CLUB DR.

WORK WITH DIVISION TO COORDINATE WITH ST JAMES PRIOR TO PLACING DETOUR SIGNS

① DETOUR M4-8 24″ X 12″ M6-1 21″ X 15″

② DETOUR M4-8 24″ X 12″ M6-1 L 21″ X 15″

③ DETOUR M4-8 24″ X 12″ M6-3 21″ X 15″

④ END DETOUR M4-8 A 24″ X 18″

Ⓘ R11-2 48″ x 30″ ROAD CLOSED DETOUR M4-10R 48″ x 18″
TYPE III BARRICADE

Ⓐ R11-2 48″ x 30″ ROAD CLOSED
TYPE III BARRICADE

Ⓕ R11-3 60″ x 30″ ROAD CLOSED 1 MILE AHEAD LOCAL TRAFFIC ONLY DETOUR M4-10L 48″ x 18″
TYPE III BARRICADE

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343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

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DATE: 9/9/2021

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 042517 ENGINEER HELEN SHYU

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DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

TRANSPORTATION MANAGEMENT PLAN

REGENCY CROSSING DETOUR

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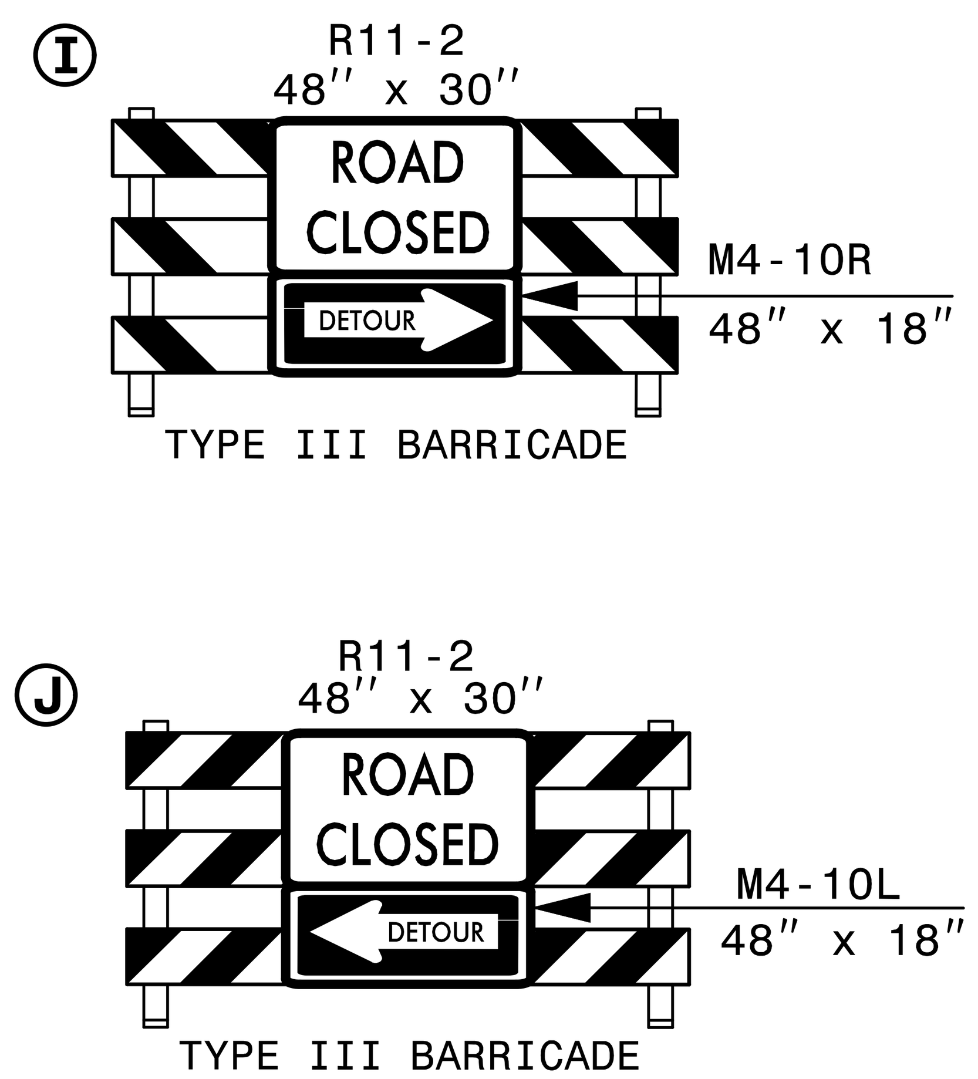
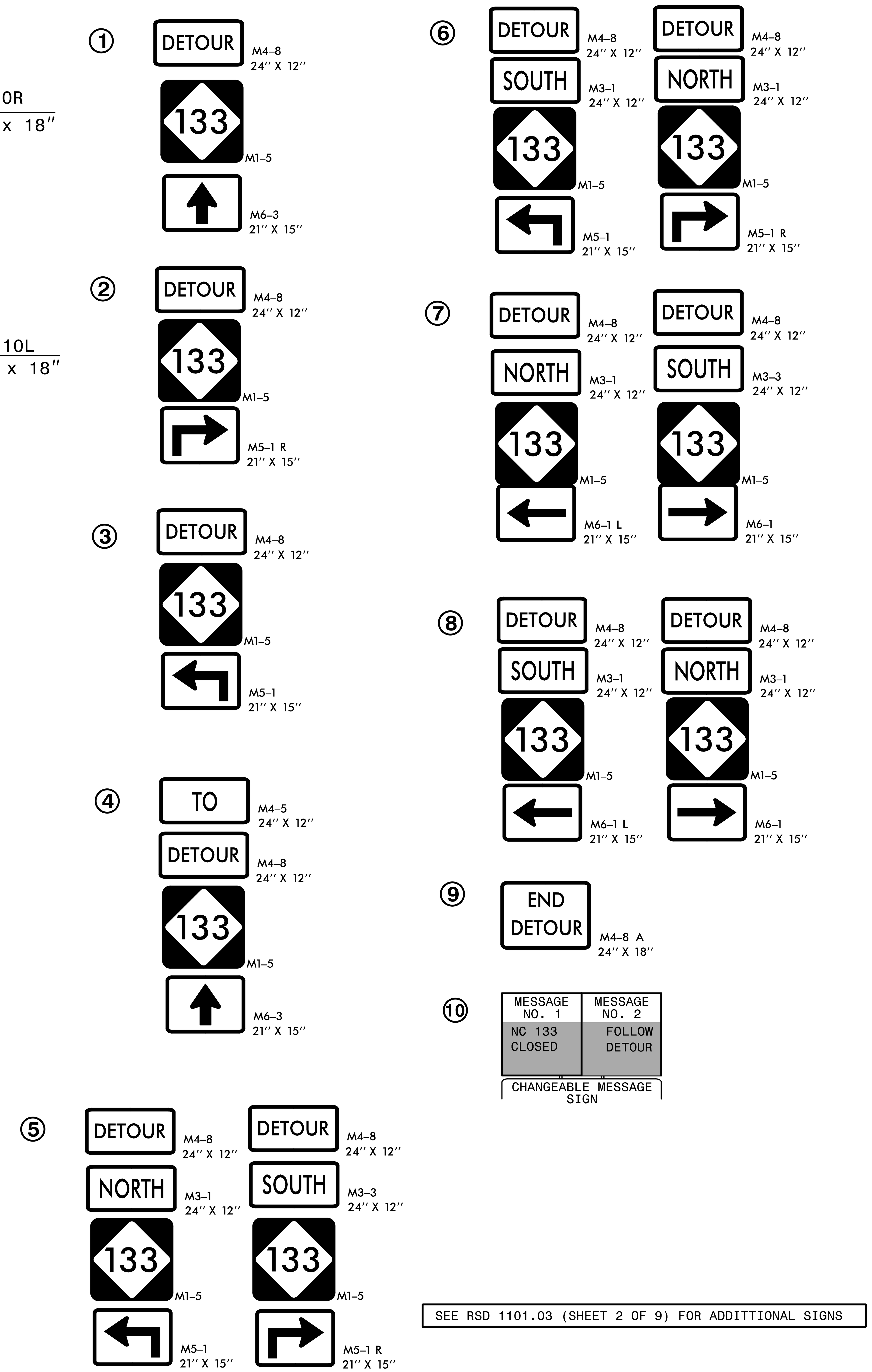
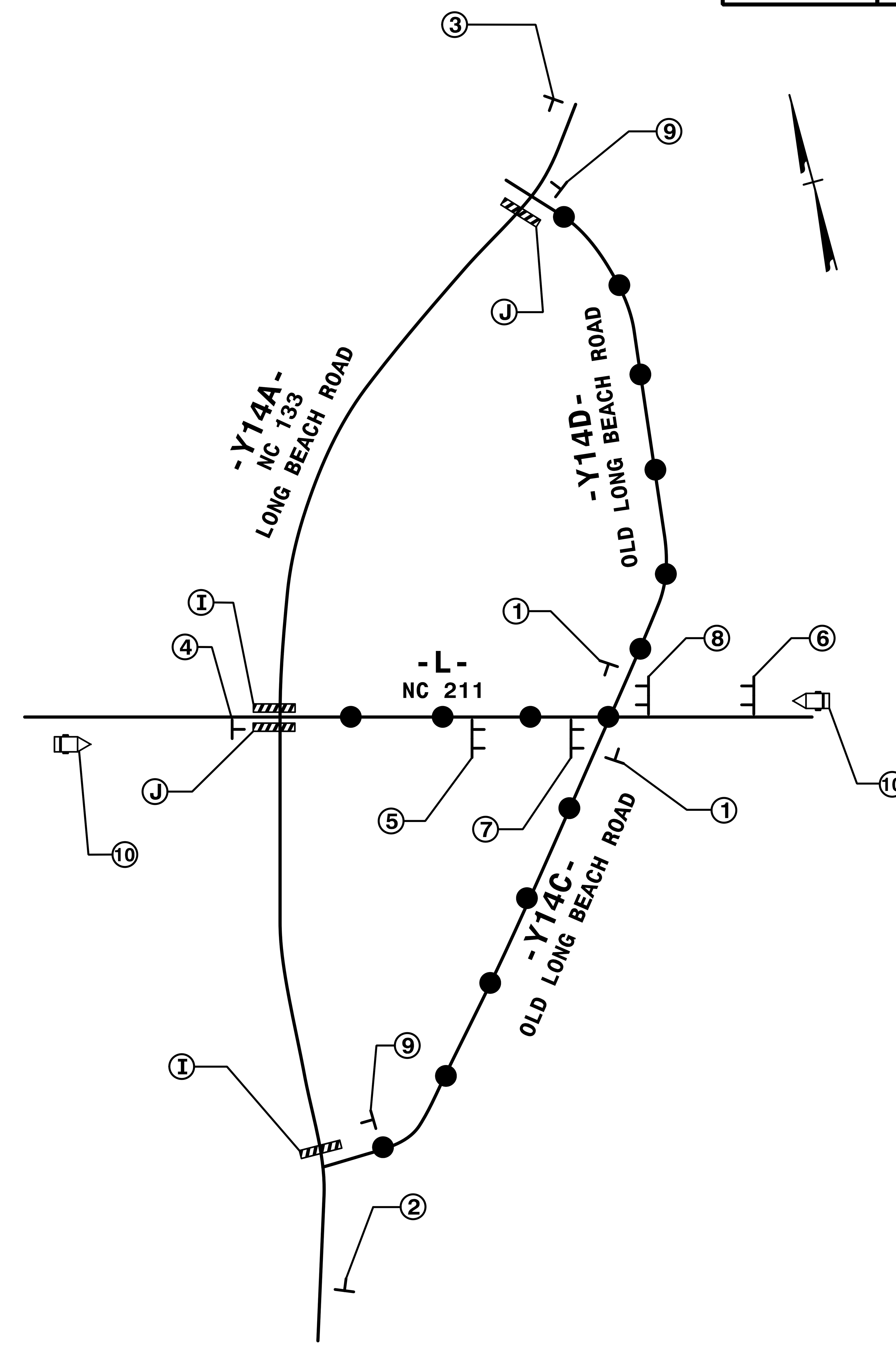
PROJ. REFERENCE NO.	SHEET NO.
R-5021	TMP-2D





1
DETOUR M4-8 24'' X 12''
133 M1-5
M6-3 21'' X 15''
2
DETOUR M4-8 24'' X 12''
133 M1-5
M5-1 R 21'' X 15''
3
DETOUR M4-8 24'' X 12''
133 M1-5
M5-1 21'' X 15''
4
TO M4-5 24'' X 12''
DETOUR M4-8 24'' X 12''
133 M1-5
M6-3 21'' X 15''
5
DETOUR M4-8 24'' X 12''
NORTH M3-1 24'' X 12''
133 M1-5
M5-1 21'' X 15''
DETOUR M4-8 24'' X 12''
SOUTH M3-3 24'' X 12''
133 M1-5
M5-1 R 21'' X 15''
6
DETOUR M4-8 24'' X 12''
SOUTH M3-1 24'' X 12''
133 M1-5
M5-1 21'' X 15''
DETOUR M4-8 24'' X 12''
NORTH M3-1 24'' X 12''
133 M1-5
M5-1 R 21'' X 15''
7
DETOUR M4-8 24'' X 12''
NORTH M3-1 24'' X 12''
133 M1-5
M6-1 L 21'' X 15''
DETOUR M4-8 24'' X 12''
SOUTH M3-3 24'' X 12''
133 M1-5
M6-1 21'' X 15''
8
DETOUR M4-8 24'' X 12''
SOUTH M3-1 24'' X 12''
133 M1-5
M6-1 L 21'' X 15''
DETOUR M4-8 24'' X 12''
NORTH M3-1 24'' X 12''
133 M1-5
M6-1 21'' X 15''
9
END DETOUR M4-8 A 24'' X 18''
10
MESSAGE NO. 1
NC 133 CLOSED
MESSAGE NO. 2
FOLLOW DETOUR
CHANGEABLE MESSAGE SIGN

SEE RSD 1101.03 (SHEET 2 OF 9) FOR ADDITTIONAL SIGNS



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DATE: 2/6/2019

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TRANSPORTATION MANAGEMENT PLAN

LONG BEACH RD DETOUR

2/6/2019
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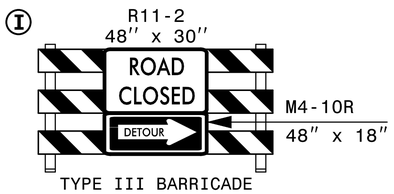
HNTB

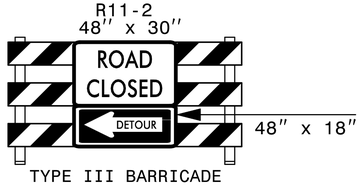
PROJ. REFERENCE NO.	SHEET NO.
R-5021	TMP-2E

Ⓘ



TYPE III BARRICADE

Ⓙ



TYPE III BARRICADE

① DETOUR M4-8 24" X 12" / 211 M1-5 / M5-1 21" X 15"

② DETOUR M4-8 24" X 12" / SOUTH M3-2 24" X 12" / 211 M1-5 / M6-1 21" X 15"

③ DETOUR M4-8 24" X 12" / 211 M1-5 / M6-1 L 21" X 15"

④ DETOUR M4-8 24" X 12" / SOUTH M3-2 24" X 12" / 211 M1-5 / M6-3 21" X 15"

⑤ DETOUR M4-8 24" X 12" / SOUTH M3-2 24" X 12" / 211 M1-5 / M6-1 L 21" X 15"

⑥ DETOUR M4-8 24" X 12" / SOUTH M3-2 24" X 12" / 211 M1-5 / M5-1 21" X 15"

⑦ DETOUR M4-8 24" X 12" / SOUTH M3-2 24" X 12" / 211 M1-5 / M5-1 R 21" X 15"

⑧ END DETOUR M4-8 A 24" X 18"

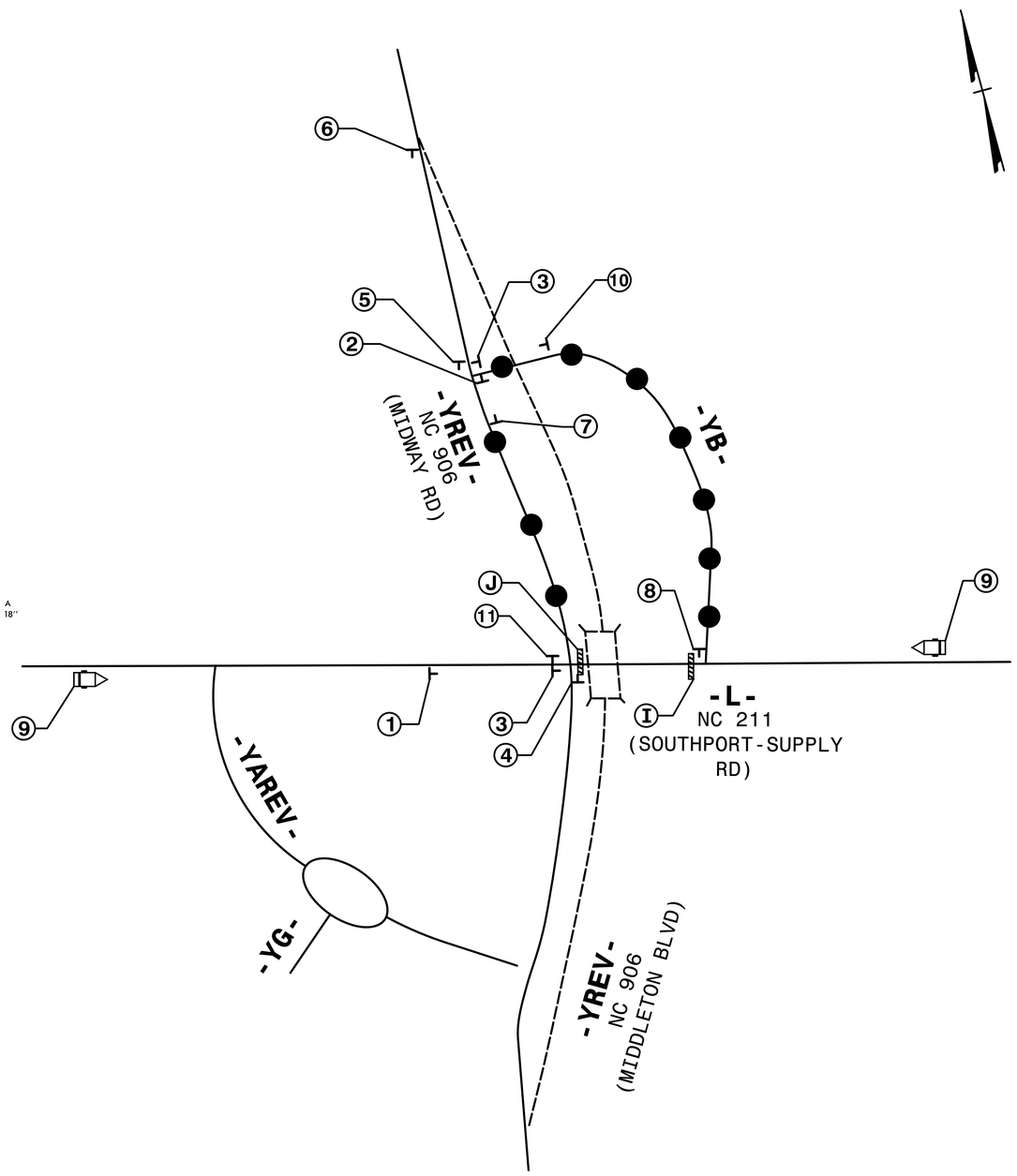
⑨

MESSAGE NO. 1	MESSAGE NO. 2
ROAD CLOSED AHEAD	FOLLOW DETOUR

CHANGEABLE MESSAGE SIGN

⑩ DETOUR M4-8 24" X 12" / NORTH M3-2 24" X 12" / 211 M1-5 / M5-1 21" X 15"

⑪ DETOUR M4-8 24" X 12" / NORTH M3-2 24" X 12" / 211 M1-5 / M6-1 21" X 15"



APPROVED: DocuSigned by: Helen Shyu DF15975A95E44EF...

DATE: 10/28/2021

SEAL

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TRANSPORTATION MANAGEMENT PLAN

MIDWAY BRIDGE GIRDER HANGING DETOUR

3:22:26 PM
C:\50_tc_tmp-02F_midway bridge girder hanging detour.dgn
$$$$USERNAME$$$$

PROJ. REFERENCE NO.	SHEET NO.
R-5021	TMP-2F

SIGN NUMBER: SP-1
TYPE: D
QUANTITY: 1

SIGN WIDTH: 6'-0"
HEIGHT: 2'-0"
TOTAL AREA: 12.0 Sq.Ft.

BORDER TYPE: RECESSED
RECESS: 1"
WIDTH: 1"
RADII: 2"

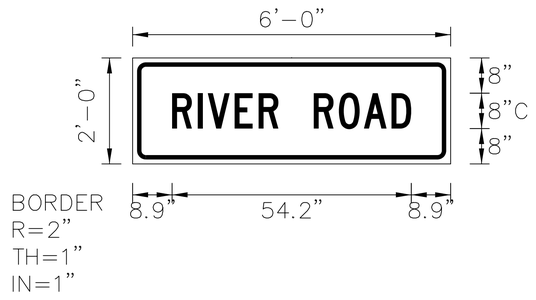
NO. Z BARS: N/A
LENGTH: N/A

BACKG COLOR: Fluorescent Orange
COPY COLOR: Black

SYMBOL	X	Y	WID	HT

MAT'L: 0.125" ALUMINUM

DESIGN BY: TRT
PROJECT ID: R-5021
CHECKED BY: ADK/CAJ
DIV: 03
DATE. April 2018



Spacing Factor is 1 unless specified otherwise

NOTES:

1. Legend and border should be direct applied, black, non-reflective sheeting.
2. Background shall be Grade B, fluorescent orange, retroreflective sheeting.
3. To be mounted with Detour signing.

LETTER POSITIONS

Letter spacings are to start of next letter

		R	I	V	E	R		R	O	A	D															Series/Size Text Length
	8.9	5.8	2.2	6.1	5.4	4.5	8	5.7	5.7	6.2	4.5	8.9														C 2000 54.2

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Raleigh, North Carolina 27609
NC License No: C-1554

APPROVED: DocuSigned by: Helen Shyu 0F1507SA95E44EF
DATE: 2/6/2019
SEAL

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DIVISION OF HIGHWAYS * STATE OF NORTH CAROLINA * DEPARTMENT OF TRANSPORTATION * WORK ZONE TRAFFIC CONTROL *

TRANSPORTATION MANAGEMENT PLAN

SPECIAL SIGN DESIGNS

2/6/2019
X:\CPV\r502l_tc_Detour Signs.dgn
HNTB

PROJ. REFERENCE NO.	SHEET NO.
R-5021	TMP-2G

SHORING NOTES

TEMPORARY SHORING NO. 2 6 11 14 16 AND 20

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.

DESIGN TEMPORARY SHORING NO. 2, 6, 11, 14, 16 AND 20 FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

SHORING NO.	UNIT WEIGHT (γ) (LB/CF)	FRICTION ANGLE (φ) (DEGREES)	COHESION (c) (LB/SF)	GROUNDWATER ELEVATION (FT)
2	120	30	0	40.0
6	120	30	0	41.0
11	120	30	0	40.0
14	120	30	0	39.0
16	120	30	0	26.0
20	120	30	0	14.0

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING NO. 2, 6, 11, 14, 16 AND 20

TEMPORARY SHORING NO. 1, 3 THRU 5, 7 THRU 9, 12, 13, 15, 17 THRU 19, 21, 51 AND 52

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.

DESIGN TEMPORARY SHORING NO. 1, 3 THRU 5, 7 THRU 9, 12, 13, 15, 17 THRU 19, 21, 51 AND 52 FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

SHORING NO.(γ)	UNIT WEIGHT (LB/CF)	FRICTION ANGLE (φ) (DEGREES)	COHESION (c) (LB/SF)	GROUNDWATER ELEVATION (FT)
1	120	30	0	40.0
3	120	30	0	40.0
4	120	30	0	40.0
5	120	30	0	41.0
7	120	30	0	41.0
8	120	30	0	42.0
9	120	30	0	45.0
12	120	30	0	40.0
13	120	30	0	32.0
15	120	30	0	39.0
17	120	30	0	26.0
18	120	30	0	5.0
19	120	30	0	3.5
21	120	30	0	14.0
51	120	30	0	41.0
52	120	30	0	43.0

DO NOT USE CANTILEVER, BRACED OR ANCHORED SHORING FOR TEMPORARY SHORING NO. 1, 3 THRU 5, 7 THRU 9, 12, 13, 15, 17 THRU 19, 21, 51 AND 52.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM TEMPORARY SHORING NO. 1, 3 THRU 5, 7 THRU 9, 12, 13, 15, 17 THRU 19, 21, 51 AND 52. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

THE TEMPORARY SHORING NOTES SHOWN ON THIS SHEET WERE PROVIDED THROUGH SEALED DOCUMENTS FROM THE GEOTECHNICAL ENGINEERING UNIT. THE DOCUMENTS WERE SUBMITTED TO DIVISON 3 ON OCTOBER 25, 2018 BY PROFESSIONAL ENGINEER THEIN TUN ZAN, P.E. LICENSE #030943

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343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

APPROVED: Helen Shyu
0F15975A95E44EE...
DATE: 2/6/2019

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NORTH CAROLINA PROFESSIONAL SEAL 042517 ENGINEER HELEN SHYU

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DIVISION OF HIGHWAYS * STATE OF NORTH CAROLINA * DEPARTMENT OF TRANSPORTATION * WORK ZONE TRAFFIC CONTROL

TRANSPORTATION MANAGEMENT PLAN

TEMPORARY SHORING DATA

2/6/2019
R-5021_tc_TMP02G shoring.dgn
HNTB

PROJ. REFERENCE NO.	SHEET NO.
R-5021	TMP-3

PHASING

NOTES:

REPLACE MARKINGS AND RETURN TRAFFIC TO THE CURRENT TRAFFIC PATTERN AT THE END OF EACH WORK PERIOD UNLESS OTHERWISE NOTED IN THE PHASING OR DIRECTED BY THE ENGINEER.

MAINTAIN VEHICULAR ACCESS TO ALL RESIDENCES AND BUSINESSES DURING THE LIFE OF THE CONTRACT UNLESS OTHERWISE NOTED IN THE PHASING OR DIRECTED BY THE ENGINEER.

COMPLETE ANY PROPOSED WIDENING IN SUCH A MANNER THAT PONDING OF WATER WILL NOT OCCUR IN THE TRAVEL LANE. THIS MAY REQUIRE A COMBINATION OF INSTALLATION OF PROPOSED PIPES, TEMPORARY PIPES, STEEL PLATES, AND TEMPORARY DITCHES.

CONSTRUCT UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE, IN ALL PHASES UNTIL STATED TO INSTALL FINAL LAYER IN THE PHASING.

THE TERM RSD DENOTES "ROADWAY STANDARD DRAWINGS".

-L- EASTBOUND AND WESTBOUND IS BASED ON ROADWAY AND SURVEY FILES.

PHASE I, IA, AND IB (SEE TMP-4 THRU TMP-9 FOR OVERVIEWS)

NOTICE: CONTRACTOR SHOULD ADHERE TO A 548 DAY DELAY OF ENTRY FOR ANY WORK ACTIVITIES OCCURRING ALONG THE FOLLOWING ROADWAYS:

- -L- (NC 211): FROM STA 47+50+/- TO STA 78+00+/- (RT) AND STA 227+00+/- TO STA 432+50;
- -YAREV-, -RAB-, AND -YG-;
- -Y5-, -Y5A, -Y5B-, -Y6-,-Y7-,-Y8-,-Y9-,-Y9A-,-Y10-,-Y11-,-Y12-,-Y13-;
- -Y14, -Y14A-, -Y14B-, -Y14C-, -Y14D-, -Y14E-,-Y14F-, -Y14G-;
- -Y15-, -Y16-, -Y17-, AND -Y17A-;
- -Y18-, -Y19-, -Y20-, -Y21-,-Y22-, -Y22A-, -Y23-, AND -Y24-.

THIS 548 DAY DELAY OF ENTRY BEGINS WHEN THE WORK REQUIRED OF PHASE 1, STEP 2 BEGINS. EXCEPTIONS TO THIS RESTRICTION ARE UTILITY CONSTRUCTION (WATER AND SEWER) ITEMS NOT IN CONFLICT WITH EXISTING UTILITIES.

STEP 1: USING RSD 1101.01 (SHEET 2 AND 3), INSTALL WORK ZONE ADVANCE WARNING SIGNS ON -L-, -YREV-, -Y14A-, -Y14D-, -Y19REV-, AND -Y22-.

NOTE: STEPS 2 THRU 6 MAY BE DONE SIMULTANEOUSLY AND COMPLETED IN ANY ORDER.

STEP 2: AWAY FROM TRAFFIC, CONTRACTOR MAY BEGIN -YAREV- FROM STA 11+25+/- TO STA 21+28+/-, -RAB-, AND -YG-. (TMP-12 AND TMP-34)

STEP 3: -YREV- AND -YB-: COMPLETE STEPS 3.1, 3.1A, AND 3.2 IN ANY ORDER.

3.1: AWAY FROM TRAFFIC, CONTRACTOR MAY BEGIN -YB- FROM -YREV- TO -L- (LT), -YREV- FROM STA 21+66+/- TO STA 26+70+/-, -YC- FROM STA 11+33+/- TO -YREV-, AND -YD- FROM STA 12+39+/- TO -YREV-. (TMP-13 AND TMP-33) INSTALL PHASE II TEMPORARY PAVEMENT MARKINGS SHOWN ON TMP-89 AND 109 AS MUCH AS POSSIBLE.

3.1A: (PHASE 1A) USING RSD 1101.02 (SHEET 1 AND 2 OF 14), WEDGE UP -YREV- AT -YC- AND PROVIDE TEMPORARY GRADE TO TIE BACK TO EXISTING MIDWAY ROAD AT -YREV- STA 20+50+/- AND 23+97+/- AND REPLACE PAVEMENT MARKINGS. (TMP-66)

3.2: USING RSD 1101.02 (SHEET 1 AND 2 OF 14) WEDGE AND WIDEN -YREV- STA 10+69+/- TO 16+58+/-. PROVIDE SMOOTH TRANSITION GRADE FROM -YREV- STA 16+38+/- TO 17+62+/-. (TMP-32)

STEP 4: -YREV- (MIDWAY ROAD): USING RSD 1101.02 (SHEET 1, 2, 3, AND 7 OF 14) AND POLICE AS NEEDED, COMPLETE STEPS 4.1 THRU 4.10 IN ORDER AS STATED BEFORE BEGINNING CONSTRUCTION OF -YREV- BRIDGE OVER -L-:

4.1: REMOVE EXISTING MEDIAN ISLAND ON -L- FROM STA 69+83+/- TO STA 71+72+/-, REPAIR PAVEMENT, AND INSTALL YELLOW DOUBLE CENTER PAVEMENT MARKING. (TMP-12)

4.2: INSTALL TEMPORARY PIPE AT -L- STA 63+90+/-(RT). WIDEN TO THE SOUTH SIDE OF -L- AND PLACE TEMPORARY PAVEMENT FROM STA 60+20+/- TO -YREV- STA 32+36+/-(RT) AT EXISTING ELEVATION MATCHING SUPER-ELEVATION OF -L- EASTBOUND TO ALLOW WATER TO SHEET FLOW TO THE SOUTH. TIE IN TEMPORARY SLOPE TO TEMPORARY DITCHES IN EXISTING RIGHT OF WAY. (TMP-11 AND TMP-12)

4.3: REMOVE EXISTING MEDIAN ISLANDS AND EXISTING DRAINAGE ON -YREV- FROM STA 24+70+/- TO STA 30+76+/-, STA 32+12+/- TO STA 33+91+/-, REPAIR PAVEMENT, AND PLACE DOUBLE YELLOW PAVEMENT MARKING. (TMP-12 AND TMP-33)

4.4: INSTALL AND ACTIVATE TEMPORARY SIGNAL AT -L-/-YREV-. REMOVE EXISTING SIGNALS. (TMP-12)

PHASE I, IA, AND IB (CONTINUED)

4.5: WEDGE EXISTING -L- (EB) TO PROPOSED ELEVATION FROM STA 76+00+/- TO STA 83+05+/- AND CONSTRUCT -L- WB FROM STA 75+00+/- TO STA 83+05+/-. PROVIDE SMOOTH TRANSITION GRADE BACK TO EXISTING TRAVEL LANES ON -L-(EB) AND -YREV- AND CONSTRUCT ADJACENT TEMPORARY PAVEMENT FROM:
- -L- STA 74+00+/- TO 76+00+/- (TMP-12)
- EXISTING -YREV- STA 28+20+/- TO -L- WB (TMP-12)
- EXISTING -YREV- FROM -L- (EB) TO -YREV- STA 33+01+/- (TMP-12)
- -L- STA 82+61+/- TO STA 83+04+/- (TMP-13) (TEMP PAVEMENT)
- -L- STA 83+05+/- TO STA 85+00+/- (TMP-13)
- -YREV- STA 29+80+/- TO STA 30+54+/- (RT) (TEMP PAVEMENT) (TMP-12)
- -YREV- STA 29+57+/- TO STA 30+68+/- (TEMP PAVEMENT) (TMP-12)

4.6: PLACE LEVELING COURSE ON -YREV- NB FROM STA 26+63+/- TO STA 28+20+/-, MATCHING SUPERELEVATION OF -YREV- SB TO ALLOW WATER TO FLOW TO THE WEST. (TMP-12 AND TMP-33)

PLACE LEVELING COURSE ON EXISTING -L- WB FROM STA 55+00+/- TO STA 74+00+/- AND STA 85+00+/- TO STA 93+00+/-, MATCHING SUPERELEVATION OF -L- EB TO ALLOW WATER TO FLOW TO THE SOUTH. (TMP-11 THRU 13)

4.7: INSTALL ANCHORED PCB WITH CRASH CUSHIONS FROM -L- STA 61+95+/- TO 65+75+/-(RT). (TMP-44) PLACE TEMPORARY PAVEMENT MARKINGS ON -L- FROM STA 60+20+/- TO 98+44+/- AND -YREV- FROM STA 28+30+/- TO 34+69+/- AS SHOWN ON TMP-44 THRU 47. SHIFT TEMPORARY SIGNAL HEADS AND SHIFT TRAFFIC TO TEMPORARY PATTERN.

4.7A: (PHASE IA) COMPLETE PHASE I STEP 4.7. USING RSD 1101.02 (SHEET 1 AND 2 OF 14), PLACE DRUMS AND BARRICADES ON -YF- AS SHOWN ON TMP-45 TO RESTRICT VEHICLES FROM DRIVEWAY ACCESSING NC-211. INSTALL ANCHORED PCB WITH CRASH CUSHION FROM -L- STA 66+95+/- TO STA 70+77+/- AND SHOP CURVED TEMPORARY GUARDRAIL. AWAY FROM TRAFFIC, INSTALL SHORING #4, CONSTRUCT -L- WBL FROM -L- STA 66+75+/- TO STA 70+00+/-, TEMPORARY PAVEMENT FROM -L- STA 66+75+/- TO STA 68+50+/- (LT), AND -L- STA 66+75+/- TO STA 69+18+/-. (TMP-44 AND 45) INSTALL PHASE II TEMPORARY PAVEMENT MARKINGS AS MUCH AS POSSIBLE. (SEE TMP-87 AND 88)

4.8: COMPLETE PHASE I STEP 4.7. USING RSD 1101.02 (SHEET 1 AND 2 OF 14), INSTALL THE FOLLOWING ANCHORED PCB WITH CRASH CUSHIONS:
- -L- STA 62+50+/- TO STA 65+00+/- (LT) AND SHOP CURVED TEMPORARY GUARDRAIL (TMP-44)
- -YREV- STA 26+63+/- TO STA 30+50+/- (TMP-12 AND TMP-33)
- -L- STA 82+63+/- TO STA 85+26+/- (TMP-46)

4.8A: (PHASE IA) COMPLETE PHASE I STEP 4.8. AWAY FROM TRAFFIC, INSTALL SHORING #2 AND PARTIALLY REMOVE EXISTING CULVERT. INSTALL SHORING #3 AND CONSTRUCT PROPOSED CULVERT (LEFT). CONSTRUCT -L- WBL FROM -L- STA 55+50+/- TO STA 65+18+/-, TEMPORARY PAVEMENT FROM -L- STA 61+10+/- TO STA 65+18+/- (LT), AND SHORING #1. (TMP-43 AND TMP-44) INSTALL PHASE II TEMPORARY PAVEMENT MARKINGS AS MUCH AS POSSIBLE. (SEE TMP-86 AND 87)

(PHASE IA) COMPLETE PHASE I STEP 4.8 AND AWAY FROM TRAFFIC, INSTALL SHORING #6. PARTIALLY REMOVE EXISTING RCBC AND CONSTRUCT PROPOSED CULVERT (LEFT). CONSTRUCT -L- WBL FROM STA 83+04+/- TO 85+00+/-, INCLUDING SHORING #5 AND #7, AND TEMPORARY PAVEMENT FROM -L- STA 83+12+/- TO STA 85+00+/- (LT). INSTALL PHASE II TEMPORARY PAVEMENT MARKINGS AS MUCH AS POSSIBLE. AWAY FROM TRAFFIC, INSTALL SHOP CURVED GUARDRAIL #AA, TEMPORARY GUARDRAIL ANCHOR UNIT, TEMPORARY PCB FROM -L- STA 83+56+/- TO 87+00+/-, AND SHOP CURVED GUARDRAIL #AB. (TMP-46, 47, AND 89)

4.9: COMPLETE PHASE I STEP 4.8. AWAY FROM TRAFFIC, INSTALL SHORING #51 AND BEGIN -YREV- STA 26+70+/- TO -YREV- STA 30+70+/-, INCLUDING NORTH SIDE BENT OF -YREV- BRIDGE OVER -L-. (TMP-12 AND TMP-33)

4.10: (PHASE IA) USING RSD 1101.02 (SHEET 1 OF 14), WEDGE AND WIDEN -L- FROM STA 47+50+/- TO STA 54+36+/- AND -L- WB TO STA 55+50+/-. PROVIDE SMOOTH TRANSITION GRADE TO EXISTING FROM -L- STA 54+36+/- TO STA 55+50+/-. REPLACE EXISTING PAVEMENT MARKINGS. AWAY FROM TRAFFIC, INSTALL TEMPORARY PAVEMENT AND TEMPORARY DITCH FROM -L- STA 52+60+/- TO STA 55+50+/- (LT). (TMP-43)

4.11: INSTALL AND COVER PROPOSED SIGN 104 "NC 906 OAK ISLAND BOLIVIA TURN RIGHT" SIGN ON TEMPORARY WOODEN POSTS. ALSO INSTALL RELATED PROPOSED SIGN 105 AT STA 108+40+/-. (TMP-89)

STEP 5: -L- AT -Y1-, -Y1C-, -Y2-, -Y2A-, AND -Y3- (ST JAMES DR): CONSTRUCT STEPS 5.1 THRU 5.6A IN ORDER AS STATED.

5.1: USING RSD 1101.02 (SHEET 1, 2, 11 OF 14), PLACE LEVELING COURSE ON -L- WB FROM STA 93+00+/- TO STA 208+00+/- (TMP-13 THRU 16), INSTALL TEMPORARY PAVEMENT FROM -L- STA 147+64+/- TO -L- STA 153+24+/- (TMP-14), REPLACE PAVEMENT MARKINGS, AND INSTALL TEMPORARY ANCHORED PCB FROM -L- STA 147+89+/- TO STA 152+98+/-. (TMP-48)

PHASE I, IA, AND IB (CONTINUED)

5.1A: (PHASE IA) COMPLETE PHASE I STEP 5.1 AND CONSTRUCT -L- WBL FROM STA 85+00+/- TO 98+44+/-, INCLUDING SHORING #8, AND TEMPORARY PAVEMENT FROM -L- STA 85+00+/- TO STA 87+94+/- (LT), AND -L- STA 85+49+/- TO 93+97+/-. (TMP-46 AND 47) INSTALL PHASE II TEMPORARY PAVEMENT MARKINGS AS MUCH AS POSSIBLE. (SEE TMP-89)

USING RSD 1101.02 (SHEET 1 OF 14), WEDGE AND WIDEN -Y1- FROM -L- STA 144+00+/- TO STA 145+80+/- AND PROVIDE SMOOTH TRANSITION GRADE. (TMP-48) AWAY FROM TRAFFIC, INSTALL SHORING #9, AND CONSTRUCT -L- WBL FROM -L- STA 98+44+/- TO STA 204+57+/-, INCLUDING -Y1A- AND -Y1C-. (TMP-47 THRU 49) INSTALL PHASE II TEMPORARY PAVEMENT MARKINGS AS MUCH AS POSSIBLE. (TMP-89 THRU 91)

5.2: COMPLETE STEP 5.1. USING FLAGGER AS NEEDED, CONSTRUCT -Y2A-, -L- WB FROM STA 204+57+/- TO 205+58+/-, AND TEMPORARY PAVEMENT CONNECTOR FROM -L- STA 204+67+/- TO 205+47+/-. (TMP-15)

5.3: COMPLETE STEP 5.2. INSTALL TEMPORARY DETOUR SIGNING AND DEVICES AS SHOWN ON TMP-2B AND COVER. OPEN -Y2A- TO TRAFFIC.

COMPLETE THE REQUIREMENTS OF PHASE I, STEP 5.4 IN ANY ONE (1) WEEKEND, FROM FRIDAY 7:00 PM TO THE FOLLOWING MONDAY 6:00 AM. (SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES)

5.4: UNCOVER DETOUR SIGNS PLACED IN STEP 5.3 AND CLOSE -Y3- TO TRAFFIC. INSTALL CROSS PIPE ON -Y3- AT STA 12+50+/- AND BEGIN CONSTRUCTION OF -Y3- FROM STA 10+00+/- TO -L-. OPEN -Y3- TO TRAFFIC.

5.5: USING RSD 1101.02 (SHEET 2 OF 14) CONTINUE CONSTRUCTING -Y3- FROM STA 10+00+/- TO -L-. (TMP-16)

5.6: COMPLETE STEP 5.4. INSTALL AND ACTIVATE TEMPORARY SIGNAL AT INTERSECTION OF -L- AND -Y3-. REMOVE EXISTING SIGNAL. WEDGE -L- FROM STA 208+00+/- TO STA 214+00+/-, -Y3- FROM -L- TO 17+15+/-. PROVIDE SMOOTH TRANSITION GRADE FROM -L- STA 214+00+/- TO 216+00+/-. (TMP-16) REPLACE EXISTING PAVEMENT MARKINGS. (SEE TMP-49)

5.6A: (PHASE IA) COMPLETE PHASE I STEP 5.6. USING RSD 1101.02 (SHEET 1 OF 14) AND POLICE AS NEEDED, CONSTRUCT -L- WB FROM STA 205+58+/- TO -Y3-, TEMPORARY PAVEMENT FROM -L- STA 205+08+/- TO STA 209+14+/-, AND -L- WB FROM -Y3- TO -L- STA 214+00+/-. (TMP-49) AWAY FROM TRAFFIC, INSTALL PHASE II TEMPORARY PAVEMENT MARKINGS AS MUCH AS POSSIBLE. (SEE TMP-91)

STEP 6: 54" RCP AT -L- STA 217+35+/-: COMPLETE STEPS 6.1 AND 6.1A IN ORDER.

6.1: USING RSD 1101.02 (SHEET 1, 2, 11 OF 14), PLACE LEVELING COURSE ON -L- WB FROM STA 216+00+/- TO STA 225+00+/- AND REPLACE PAVEMENT MARKINGS. ADJUST EXISTING GUARDRAIL AS NEEDED. (TMP-16 AND TMP-17)

6.1A: (PHASE IA) COMPLETE PHASE I STEP 6.1. USING RSD 1101.02 (SHEET 1 AND 2 OF 14), EXTEND EXISTING GUARDRAIL FROM -L- STA 217+35+/- TO STA 220+12+/-. AWAY FROM TRAFFIC, CONSTRUCT THE FOLLOWING:
- INSTALL SHORING #11 AND 54" RCP (LEFT SIDE) (TMP-49)
- CONSTRUCT DOUBLE 9' X 8' RCBC AT STA 226+00+/- (LEFT SIDE) (TMP-50)
- CONSTRUCT -L- WBL FROM STA 214+00+/- TO 227+00+/-, INCLUDING SHORING #12 AND #13. (TMP-49 AND TMP-50). INSTALL TEMPORARY ANCHORED PCB FROM -L- STA 213+76+/- TO 218+50+/-. (TMP-91)
- INSTALL TEMPORARY GUARDRAIL AND TEMPORARY GREU FROM -L- STA 225+17+/- TO -L- 226+94+/- ON RIGHT SIDE OF -L- WB. (TMP-50)
- INSTALL PHASE II TEMPORARY PAVEMENT MARKINGS AS MUCH AS POSSIBLE. (SEE TMP-91 AND 92)

HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

APPROVED: DocuSigned by: Helen Shyu 0F15975A95E44EF...

DATE: 11/10/2021

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 042517 ENGINEER HELEN SHYU

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DIVISION OF HIGHWAYS * STATE OF NORTH CAROLINA * DEPARTMENT OF TRANSPORTATION * WORK ZONE TRAFFIC CONTROL

TRANSPORTATION MANAGEMENT PLAN

PHASING

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PROJ. REFERENCE NO.	SHEET NO.
R-5021	TMP-3A

PHASING

PHASE I, IA, AND IB (CONTINUED)

NOTE: STEPS 7 THRU 12 MAY BEGIN AT THE END OF DELAY OF ENTRY, OR PER DIRECTIONS BY THE ENGINEER, FOR ROADWAYS -L- FROM STA 227+00+/- TO STA 366+00+/-, -Y5-, -Y5A-, -Y5B-, -Y6-, -Y7-, -Y8-, -Y9-, -Y9A-, -Y10-, -Y11-, -Y12-, -Y13-, -Y14-, -Y14A- -Y14B-, -Y14C-, -Y14D-, -Y14E-, -Y14F-, -Y14G-, -Y15-, -Y16-, AND -Y17-. ONCE BEGUN, STEPS 7 THRU 12 MAYBE DONE SIMULTANEOUSLY WITH STEPS 2 THRU 6 AND MAY BE COMPLETED IN ANY ORDER (UNLESS STATED OTHERWISE).

STEP 7: COMPLETE STEPS 7.1 AND 7.1A IN ORDER:

7.1: USING RSD 1101.02 (SHEET 1, 2, 3, 7 OF 14), CONSTRUCT THE FOLLOWING AND REPLACE PAVEMENT MARKING AND MARKERS:
- WEDGE AND WIDEN -L- (EB) FROM STA 229+00+/- TO 243+00+/-, INCLUDING -Y5A-, -Y5B-, AND -Y6- (TMP-17 AND 18)
- PROVIDE SMOOTH TRANSITION GRADE FROM -L- STA 243+00+/- TO 244+25+/- (TMP-18)
- CONSTRUCT -L- (WB) FROM STA 230+22+/- TO 232+95+/-, INCLUDING -Y5- (TMP-17 AND 18)
- CONSTRUCT -L- (WB) FROM STA 236+41+/- TO 237+15+/-, INCLUDING DRIVEWAY (TMP-18)

7.1A: (PHASE IA) COMPLETE PHASE I STEP 7.1. AWAY FROM TRAFFIC AND USING RSD 1101.02 (SHEET 1 AND 2 OF 14) AS NEEDED, CONSTRUCT -L- WB:
- FROM STA 277+00+/- TO 230+22+/-,
- TEMPORARY PAVEMENT FROM -L- STA 229+00+/- TO STA 230+22+/-,
- STA 233+00+/- TO STA 236+41+/- AND STA 237+15+/- TO STA 244+25+/-, INCLUDING PROPOSED RETAINING WALLS AND PROPOSED GUARDRAILS,
- TEMPORARY PAVEMENT FROM -L- STA 241+52+/- TO STA 243+28+/- (TMP-51)

INSTALL PHASE II TEMPORARY PAVEMENT MARKINGS AS MUCH AS POSSIBLE. (SEE TMP-92 AND 93)

STEP 8: REGENCY CROSSING: COMPLETE STEPS 8.1 THRU 8.2A IN ORDER.

8.1: USING RSD 1101.02 (SHEET 1, 2, 11 OF 14), PLACE LEVELING COURSE ON -L- WB FROM STA 244+25+/- TO STA 288+50+/-, CONSTRUCT TEMPORARY PAVEMENT ON -L- FROM STA 252+85+/- TO STA 264+96+/-, TEMPORARY DRAINAGE, AND REPLACE PAVEMENT MARKINGS. (TMP-18 THRU TMP-21)

8.2: USING RSD 1101.02 (SHEET 1 OF 14), INSTALL PROPOSED 2 @ 30″ PIPES AT -L- STA 266+00+/-. (TMP-20) INSTALL PIPES ONE AT A TIME IF NEEDED.

8.2A: (PHASE IA) USING RSD 1101.02 (SHEETS 1 AND 2 OF 14), PLACE PCB FROM -L- STA 253+10+/- TO 264+71+/-. AWAY FROM TRAFFIC, CONSTRUCT -L- WB FROM STA 244+25+/- TO STA 288+50+/-, 48″ RCP (LEFT), INSTALL SHORING #14 AND #15, AND TEMPORARY PAVEMENT FROM -L- STA 252+78+/- TO 254+14+/- (TMP-51 THRU 54). INSTALL PHASE II TEMPORARY PAVEMENT MARKINGS AS MUCH AS POSSIBLE (SEE TMP-93 THRU 96), AND INSTALL TEMPORARY ANCHORED PCB BETWEEN -L- STA 253+03+/- AND 263+75+/- AS SHOWN ON TMP-72 AND 73.

STEP 9: -Y8-, -Y9-, -Y9A-: COMPLETE STEPS 9.1 AND 9.1A IN ORDER.

9.1: USING RSD 1101.02 (SHEET 1 AND 2 OF 14), WEDGE -L- FROM STA 290+00+/- TO 307+10+/- INCLUDING -Y8-, -Y9- AND -Y9A-. PROVIDE SMOOTH TRANSITION GRADES FROM STA 288+50+/- TO 290+00+/- AND FROM STA 307+10+/- TO 308+82+/-. REPLACE EXISTING PAVEMENT MARKINGS. (TMP-21 THRU TMP-23)

9.1A: (PHASE IA) USING RSD 1101.02 (SHEET 1 AND 2 OF 14) AS NEEDED, CONSTRUCT -L- WB FROM STA 288+50+/- TO -Y9A-, FROM -Y9A- TO 307+10+/-, AND CONSTRUCT TEMPORARY PAVEMENT FROM -L- STA 290+42+/- TO 300+19+/- (INCLUDING TEMPORARY DRIVEWAYS FOR PHASE II)(TMP-54 AND 55). INSTALL PHASE II TEMPORARY PAVEMENT MARKINGS AS MUCH AS POSSIBLE. (SEE TMP-96 AND 97)

STEP 10: -Y11- AND -Y12-: COMPLETE 10.1 THRU 10.3A IN ORDER AS STATED.

10.1: AWAY FROM TRAFFIC, INSTALL TEMPORARY PIPE AT -L- STA 316+50+/-(RT). (TMP-23)

10.2: USING RSD 1101.02 (SHEET 1, 2, AND 3 OF 14), COMPLETE CONSTRUCTION OF THE FOLLOWING, INCLUDING GUARDRAIL, AND REPLACE EXISTING PAVEMENT MARKINGS:
- PLACE LEVELING COURSE FROM -L- STA 308+82+/- TO 315+00+/- (TMP-23)
- WEDGE AND WIDEN -L- FROM STA 317+95+/- TO 321+00+/-, INCLUDING -L- FROM -Y12- TO STA 321+00+/-, -Y12- (AND TEMPORARY PAVEMENT FROM -Y12- STA 12+37+/- TO -L- STA 317+95+/- TO INSTALL PROPOSED DRAINAGE), PROPOSED GUARDRAIL, AND SMOOTH TRANSITION GRADE FROM -L- STA 315+00+/- TO 317+95+/- (INCLUDING MINIMUM FILL NEEDED FOR 54″ PIPE CROSSING -Y11-, FROM -L- TO -Y11- STA 12+17+/-) (TMP-23)
- CONSTRUCT TEMPORARY PAVEMENT AT EXISTING ELEVATION FROM -L- STA 310+47+/- TO -Y11- STA 12+75+/- (RT), AND -Y11- FROM -L- TO STA 13+10+/- (LT) (TMP-23)

PHASE I, IA, AND IB (CONTINUED)

10.3: USING RSD 1101.02 (SHEET 1, 2 AND 3 OF 14), COMPLETE CONSTRUCTION OF THE FOLLOWING:
- WIDEN -L- FROM STA 321+00+/- TO STA 324+32+/- (RT), INCLUDING -Y14- (TMP-23 AND 24)
- WIDEN -L- FROM STA 321+00+/- TO STA 330+18+/- (LT) (AVOID AFFECTING EXISTING SIGNAL UNTIL READY TO CLOSE -Y14A- IN PHASE II), INCLUDING -Y13- (TMP-23 AND 24)
- CONSTRUCT -Y14B- FROM -Y14B- STA 10+51+/- TO 11+84+/- AND TIE IN TEMPORARILY TO EXISTING -L- (TMP-24)

10.3A: (PHASE IA) USING RSD 1101.02 (SHEET 1 AND 2 OF 14) AS NEEDED, PLACE TEMPORARY PAVEMENT MARKINGS ON -L- FROM STA 310+65+/- TO -L- STA 327+76+/- AND SHIFT -L- TO PHASE 1A TRAFFIC PATTERN SHOWN ON TMP-56 AND TMP-57. USING RSD 1101.02 (SHEET 1 AND 2 OF 14), INSTALL ANCHORED PCB FROM -L- STA 314+90+/- TO STA 317+90+/-. AWAY FROM TRAFFIC, INSTALL SHORING #16, REMOVE EXISTING RCBC (AS MUCH AS POSSIBLE), CONSTRUCT PROPOSED RCBC (LEFT), SHORING #17, AND CONSTRUCT -L- WB FROM STA 307+10+/- TO -Y12-, PROPOSED GUARDRAIL, INCLUDING TEMPORARY PAVEMENT FROM -L- STA 315+02+/- TO STA 318+00+/-. INSTALL PHASE II TEMPORARY PAVEMENT MARKINGS AS MUCH AS POSSIBLE. INSTALL TEMPORARY ANCHORED PCB FROM -L- STA 315+25+/- TO 317+69+/-. (TMP-98)

STEP 11: -Y15- TO -Y17-: COMPLETE STEPS 11.1 AND 11.2 IN ORDER.

11.1: USING RSD 1101.02 (SHEET 1, 2 AND 3 OF 14), COMPLETE CONSTRUCTION OF THE FOLLOWING AND REPLACE EXISTING PAVEMENT MARKINGS:
- WIDEN -L- FROM STA 343+50+/- TO 351+50+/- (LT) (TMP-25 AND 26)
- REMOVE ISLANDS FROM -L- STA 344+88+/- TO 350+30+/- AND REPAIR PAVEMENT (TMP-25 AND 26)
- WIDEN -L- FROM STA 349+25+/- TO 351+50+/- (RT) (TMP-26)
- WEDGE AND WIDEN -L- FROM STA 351+50+/- TO 362+00+/-, INCLUDING -Y15-, -Y16-, AND -Y17-. INSTALL TEMPORARY PAVEMENT MARKINGS AS SHOWN ON TMP-27. INSTALL AND ACTIVATE TEMPORARY SIGNAL AT -Y17-, AND REMOVE EXISTING SIGNAL. (TMP-26 AND 27)

11.2: AWAY FROM TRAFFIC, COMPLETE -Y17-.

STEP 12: -Y14D- (OLD LONG BEACH ROAD): USING RSD 1101.02 (SHEET 1, 2, 3 AND 7 OF 14) AS NEEDED, COMPLETE STEP 12.1 THRU 12.5 IN ORDER AS STATED.

NOTE: STEPS 12.1 THRU 12.3 MAY BE DONE SIMULTANEOUSLY.

12.1: COMPLETE THE FOLLOWING:
- CONSTRUCT -Y14G- EXTENSION FROM 12+18+/- TO STA 13+52+/- AND TIE TO EXISTING. (TMP-25)
- WEDGE AND WIDEN -Y14D- FROM STA 16+58+/- TO 20+00+/- (LT). PROVIDE SMOOTH TEMPORARY GRADE ON -Y14D- FROM STA 15+53+/- TO 16+58+/-. (TMP-36)

12.2: CONSTRUCT -Y14D- EXTENSION FROM STA 20+00+/- TO -Y14A-. (TMP-36) INSTALL PHASE II TEMPORARY PAVEMENT MARKINGS ON -Y14D- AS MUCH AS POSSIBLE. (SEE TMP-100)

12.3: WEDGE AND WIDEN -Y14A- FROM STA 49+34+/- TO -Y14D- (RT), FROM -Y14D- TO STA 66+50+/-, AND PROVIDE SMOOTH TRANSITION GRADE FROM -Y14A- STA 48+67+/- TO 49+34+/-. (TMP-35 THRU 37) INSTALL AND COVER TEMPORARY SIGNAL AT -Y14A- AND -Y14D-.

12.4: COMPLETE STEPS 12.1 AND 12.2. INSTALL AND COVER TEMPORARY SIGNAL AT INTERSECTION OF -Y14D- AND -L- AND COMPLETE THE FOLLOWING IN ORDER:
- USE DRUMS TO CLOSE RIGHT TURN LANE ON -L- WB AS SHOWN ON TMP-39. WEDGE AND WIDEN -L- FROM STA 332+53+/- TO 343+50/-. REMOVE EXISTING MEDIAN CURB FROM -L- STA 340+19+/- TO 344+82+/- AND REPAIR PAVEMENT. (TMP-38 AND 39)
- WEDGE AND WIDEN -Y14D- FROM -L- TO 18+88+/- (RT), INCLUDING -Y14G- FROM -14D- TO STA 12+18+/-. PROVIDE SMOOTH TRANSITION GRADE ON -Y14D- FROM STA 12+79+/- TO STA 13+32+/-. (TMP-39 AND 41)

12.4A: (PHASE IA) COMPLETE STEP 11 AND STEP 12.4. USING RSD 1101.02 (SHEET 3 OF 14) AND POLICE AS NEEDED, INSTALL TEMPORARY SIGNALS AT THE INTERSECTIONS OF -L- AT -Y14D- AND -L- AT -Y17-. USING RSD 1101.02 (SHEET 3 AND 8 OF 14) AND POLICE AS NEEDED, INSTALL TEMPORARY PAVEMENT MARKINGS ON -L- BETWEEN -Y14A- AND -Y17- AS SHOWN ON TMP-57 THRU 60, AND ON -Y14D- AS SHOWN ON TMP-67, INCLUDING -Y14G-. SHIFT TRAFFIC INTO PHASE 1A TRAFFIC PATTERN.

(PHASE IA) USING RSD 1101.02 (SHEET 1, 2, AND 3 OF 14), WIDEN -L- FROM STA 334+04+/- TO -Y14D- AND -Y14D- FROM -L- TO -Y14D- STA 15+24+/-. (TMP-57, 58, AND 67)

12.5: COMPLETE STEP 12.3. INSTALL TEMPORARY PAVEMENT MARKINGS ON -Y14A- AS SHOWN ON TMP-40 THRU 42, ACTIVATE TEMPORARY SIGNAL AT -Y14A- AND -Y14D-, AND SHIFT TRAFFIC TO TEMPORARY PATTERN.

PHASE I, IA, AND IB (CONTINUED)

STEP 13: (PHASE IB) COMPLETE STEPS 13.1 THRU 13.6 IN ORDER.

13.1: COMPLETE STEPS 3, STEPS 4.1 THRU 4.8A, 4.10, AND 4.11, STEPS 5 THRU 11, AND STEP 12.4. INSTALL AND COVER TEMPORARY REGENCY CROSSING DETOUR SIGNS AS SHOWN ON TMP-2C.

INSTALL CMS BOARDS 2 WEEKS IN ADVANCE NOTIFYING THE PUBLIC OF UPCOMING DRIVEWAY CLOSURE OF -YE-, -YF-, AND -Y7-. (SEE TMP-72 AND 73)

COMPLETE THE REQUIREMENTS OF PHASE I STEP 13.2 THRU 13.6 IN THIRTY (30) CONSECUTIVE CALENDAR DAYS. (SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.)

13.2: USING RSD 1101.02 (SHEET 1 OF 14), CLOSE -YE- AND -YF- AS SEEN ON TMP-70 AND TMP-71 AND USE DRUMS TO CLOSE RIGHT TURN LANES AT -YE- AND -YF- ON -L- . USING RSD 1101.02 (SHEET 1 OF 14) AS NEEDED, INSTALL TEMPORARY PAVEMENT MARKING EDGE LINE FROM -L- STA 65+17+/- TO STA 74+98+/- AND EXTEND TEMPORARY PCB FROM -L- STA 65+00+/- TO STA 66+75+/-. (TMP-70 AND 71)

13.3: AWAY FROM TRAFFIC, REMOVE SHOP CURVED TEMPORARY GUARDRAIL #X AND #Y, CONSTRUCT -YE-, TEMPORARY PAVEMENT FROM -L- STA 65+18+/- TO STA 65+67+/-, TEMPORARY PAVEMENT FROM -L- STA 66+33+/- TO STA 66+75+/- (LT), TEMPORARY PAVEMENT FROM -L- STA 66+50+/- TO STA 66+75+/-, AND -L- WBL FROM STA 65+18+/- TO STA 66+75+/- (REMOVE PORTION OF SHORING #4 AS NEEDED). (TMP-70)

AWAY FROM TRAFFIC, INSTALL PHASE II TEMPORARY PAVEMENT MARKINGS AS MUCH AS POSSIBLE. THEN INSTALL TEMPORARY GUARDRAIL FROM -L- STA 59+94+/- TO -L- STA 64+05/-, TEMPORARY GUARDRAIL ANCHOR UNIT, AND TEMPORARY PCB FROM -L- STA 64+05/- TO STA 69+06+/- ALONG MEDIAN. INSTALL TEMPORARY ANCHORED PCB FROM -L- STA 62+95+/- TO STA 64+97+/- (LT), TEMPORARY GUARDRAIL ANCHOR UNIT, AND SHOP CURVED GUARDRAIL #Z. (SEE TMP-87)

AWAY FROM TRAFFIC, CONSTRUCT -YF-, -L- WBL FROM STA 70+00+/- TO STA 75+00+/- (LT)(TMP-71). INSTALL PHASE II TEMPORARY PAVEMENT MARKINGS AS MUCH AS POSSIBLE. (SEE TMP-88)

13.4: INSTALL TEMPORARY PCB -L- STA 80+63+/- TO STA 82+86+/- (AS MUCH AS POSSIBLE AND USE TMA AT UNPROTECTED END), TEMPORARY GUARDRAIL ANCHOR UNIT, AND TEMPORARY GUARDRAIL FROM -L- STA 82+86+/- TO STA 85+50+/-. (TMP-71, 88, AND 89)

13.5: INSTALL CMS BOARDS ALERTING THE PUBLIC OF NEW TRAFFIC PATTERN BETWEEN MIDWAY ROAD INTERCHANGE AND LONG BEACH ROAD INTERCHANGE. USING RSD 1101.02 (SHEET 1, 2, AND 3 OF 14), COMPLETE TEMPORARY PAVEMENT MARKINGS AND MARKERS FROM -L- STA 47+50+/- TO 329+40+/- (TIE -L- EB TO EXISTING -Y14A- SIGNAL APPROACH), ACTIVATE TEMP SIGNALS FOR -L- AT -YREV-, -YREV- AT -YC-, AND -L- AT -Y3-. (TMP-72, 73, 86 THRU 93, AND 96 THRU 99) REMOVE TEMPORARY SIGNALS PLACED IN PHASE IA. UNCOVER PROPOSED SIGNS 104 AND 105. UNCOVER REGENCY CROSSING DETOUR SIGNS SHOWN ON TMP-2C AND DETOUR REGENCY CROSSING TRAFFIC. USING POLICE AT INTERSECTIONS, IN A CONTINUOUS MANNER SHIFT WESTBOUND TRAFFIC TO PHASE II TRAFFIC PATTERN (INCLUDING OPENING OF -YB-, -YE-, AND -YF- TO TRAFFIC), COMPLETE TEMPORARY PCB FROM -L- STA 80+63+/- TO STA 82+66+/- AND SHIFT EASTBOUND TRAFFIC TO PHASE II TRAFFIC PATTERN.

13.6: AWAY FROM TRAFFIC, CONSTRUCT -L- EB FROM STA 253+64+/- TO 262+79+/- (INCLUDING -Y7-) AND REMOVE SHORING #15. INSTALL PHASE II TEMPORARY PAVEMENT MARKINGS AS SHOWN ON TMP-94 AND 95 AS MUCH AS POSSIBLE. USING RSD 1101.02 (SHEET 1 AND 2 OF 14), REMOVE TEMPORARY PCB FROM -L- STA 253+03+/- TO 263+75+/-, COMPLETE PHASE II PAVEMENT MARKINGS, REMOVE DETOUR SIGNS, AND OPEN -Y7- TO TRAFFIC. (TMP-72 AND 73)

HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

APPROVED: DocuSigned by: Helen Shyu — 0F15975A95E44EF...
DATE: 11/10/2021
SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 042517 HELEN SHYU

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DIVISION OF HIGHWAYS — STATE OF NORTH CAROLINA — DEPARTMENT OF TRANSPORTATION — WORK ZONE TRAFFIC CONTROL

TRANSPORTATION MANAGEMENT PLAN

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PROJ. REFERENCE NO.	SHEET NO.
R-5021	TMP-3B

PHASING

PHASE I, IA, AND IB (CONTINUED)

NOTE: STEPS 14 THRU 16 MAY BEGIN AT THE END OF DELAY OF ENTRY, OR PER DIRECTIONS BY THE ENGINEER, FOR ROADWAYS -L- FROM STA 366+00+/- TO STA 432+50, -Y17A-, -Y18-, -Y19, -Y20-, -Y21-, -Y22-, -Y22A-, -Y23-, AND -Y24-. ONCE BEGUN, STEPS 14 THRU 16 MAY BE DONE SIMULTANEOUSLY WITH STEPS 2 THRU 13 AND MAY BE COMPLETED IN ANY ORDER (UNLESS STATED OTHERWISE).

NOTE: STEPS 14.1 AND 14.2 MAY BE DONE SIMULTANEOUSLY AND COMPLETED IN ANY ORDER (UNLESS STATED OTHERWISE).

STEP 14: DOSHER CUTOFF AND DUTCHMAN CREEK BRIDGE: COMPLETE STEPS 14.1 AND 14.3A.

14.1: AWAY FROM TRAFFIC, CONTRACTOR MAY BEGIN BRIDGE AND APPROACHES OVER DUTCHMAN CREEK ON -L- FROM STA 368+60+/- TO STA 370+68+/-. (TMP-27)

14.1A: (PHASE IA) COMPLETE STEP 12.4A. USING RSD 1101.02 (SHEET 1 AND 2 OF 14) AS NEEDED, INSTALL GUARDRAIL FROM -L- STA 366+50+/- TO 369+17+/- (USE TMA IF NEEDED), INSTALL SHORING #18, AND CONSTRUCT -L- WB FROM -Y17- TO BRIDGE APPROACH AT -L- STA 368+60+/-. (TMP-60)

14.2: INSTALL AND ACTIVATE TEMP SIGNAL AT -Y19REV- AND -LREV-. (TMP-28) REMOVE EXISTING SIGNAL.

14.3: COMPLETE STEP 14.2 USING RSD 1101.02 (SHEET 1, 2 AND 3 OF 14) AND POLICE AS NEEDED, COMPLETE THE FOLLOWING AND REPLACE PAVEMENT MARKINGS:
- WEDGE AND WIDEN -LREV- FROM STA 376+51+/- TO 384+51+/-, INCLUDING -Y19REV-, AND TEMPORARY PAVEMENT FROM -LREV- STA 372+96+/- TO 376+51+/- (TMP-28)
- PROVIDE SMOOTH TRANSITION GRADE FROM -LREV- STA 372+93+/- TO 376+51+/-, AND FROM -L- STA 384+44+/- TO 385+45+/- (TMP-28)

14.3A: (PHASE IA) COMPLETE PHASE I STEP 14.3. USING RSD 1101.02 (SHEET 1 AND 2 OF 14) AS NEEDED, PLACE TEMPORARY PAVEMENT MARKINGS AS SHOWN ON TMP-60 AND 61. INSTALL AND ACTIVATE TEMP SIGNAL AT -Y19REV- AND -LREV-, AND SHIFT TRAFFIC TO PHASE IA PATTERN. AWAY FROM TRAFFIC, INSTALL SHORING #19 AND CONSTRUCT -L-/-LREV- WB FROM BRIDGE APPROACH -L- STA 370+68+/- TO -LREV- STA 376+51+/- AND PROVIDE SMOOTH TRANSITION GRADE FROM STA 375+65+/- TO 376+04+/-. INSTALL PHASE II TEMPORARY PAVEMENT MARKINGS AS MUCH AS POSSIBLE. (SEE TMP-102 AND 103)

STEP 15: BRIDGE OVER CP&L CANAL: COMPLETE STEPS 15.1 THRU 15.2A IN ORDER.

15.1: USING RSD 1101.02 (SHEETS 1 AND 2 OF 14) AND POLICE AS NEEDED, CONSTRUCT THE FOLLOWING:
- TEMPORARY PAVEMENT FROM -LREV- STA 386+98+/- TO -L- STA 388+49+/-
- REMOVE ISLANDS AND REPAIR PAVEMENT AT -L- STA 402+00+/-
- PLACE LEVELING COURSE ON -L- FROM STA 391+75+/- TO 403+00+/- AND TEMPORARY PAVEMENT FROM -L- STA 391+75+/- TO -L- STA 393+07+/-
(TMP-29 THRU 30)

15.2: INSTALL TEMPORARY PCB FROM -LREV- STA 387+23+/- TO -L- STA 392+82+/-. (TMP-62) AWAY FROM TRAFFIC, BEGIN CONSTRUCTING THE BRIDGE OVER CP&L CANAL FROM -L- STA 388+00+/- TO 392+00+/-.

15.2A: (PHASE IA) AWAY FROM TRAFFIC, CONSTRUCT -L-/-LREV- WB FROM -LREV- STA 384+51+/- TO -L- STA 403+83+/-, INCLUDING TEMPORARY PAVEMENT FROM -L- STA 395+50+/- TO STA 403+83+/-. (TMP-61 THRU 63) INSTALL PHASE II TEMPORARY PAVEMENT MARKINGS AS MUCH AS POSSIBLE. (SEE TMP-103 THRU 105)

PHASE I, IA, AND IB (CONTINUED)

STEP 16: RIVER ROAD: COMPLETE STEPS 16.1 THRU 16.6 IN ORDER AS STATED.

16.1: INSTALL AND COVER TEMPORARY DETOUR SIGNING AND DEVICES AS SHOWN ON TMP-2A.

NOTE: STEPS 16.2 AND 16.3 MAY BE DONE SIMULTANEOUSLY.

COMPLETE THE REQUIREMENTS OF PHASE I, STEP 16.2 FROM SUNDAY 7:00 PM TO FRIDAY 6:00 AM, DURING THE OFF-SEASON. (SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.)

16.2: UNCOVER DETOUR SIGNS IN STEP 16.1 AND CLOSE -Y22- (NC 87/RIVER ROAD) TO THROUGH TRAFFIC. INSTALL 54″ PIPE NEAR -Y22- STA 23+16+/-. (TMP-31) REMOVE DETOUR SIGNING AND OPEN -Y22- TO TRAFFIC.

16.3: USING RSD 1101.02 (SHEET 1 AND 2 OF 14) AND POLICE AS NEEDED, INSTALL AND ACTIVATE TEMPORARY SIGNAL AT -L- AND -Y22-. REMOVE EXISTING SIGNAL. REMOVE CONCRETE ISLAND AT INTERSECTION OF -L- AND -Y22- AND PAVE ISLAND WITH TEMPORARY PAVEMENT FROM -Y22- STA 33+39+/- TO STA 34+88+/-. (TMP-31)

16.3A: (PHASE IA) COMPLETE PHASE I STEP 16.3. CONSTRUCT IMPROVEMENTS IN CORNER PROPERTY OF -L- AND -Y22- FROM -L- STA 422+50+/- TO -Y22-. (TMP-64 AND 65) CLOSE EXISTING FREE FLOW RIGHT TURN LANE ONTO -Y22- (NC 87/RIVER ROAD). INSTALL AND ACTIVATE TEMPORARY SIGNAL AND REMOVE PREVIOUS TEMPORARY SIGNAL. USING RSD 1101.02 (SHEET 1, 2, 3, 7 AND 11 OF 14) AS NEEDED, WEDGE AND WIDEN -Y22- (NC 87/ RIVER ROAD) FROM STA 14+00+/- TO -L- (INCLUDING -Y23- AND -Y24-). (TMP-65, 68, AND 69)

USING RSD 1101.02 (SHEET 1, 2, 3, 7, AND 11 OF 14) WEDGE AND WIDEN -L- WB FROM STA 403+83+/- TO STA 426+90+/-, INCLUDING -Y21- FROM STA 10+25+/- TO -L-. (TMP-63 THRU 65)

COMPLETE THE REQUIREMENTS OF PHASE I, STEP 16.4 IN FOURTEEN (14) CONSECUTIVE CALENDAR DAYS DURING THE OFF-SEASON. (SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.)

16.4: (PHASE IB) COMPLETE STEPS 16.4A AND 16.4B IN ORDER.

16.4A: COMPLETE STEP 16.3A AND USING RSD 1101.02 (SHEET 1 AND 2 OF 14) AND POLICE AS NEEDED, INSTALL TEMPORARY PAVEMENT MARKINGS AND MARKERS AND SHIFT TRAFFIC TO PATTERN AS SHOWN ON TMP-74 AND 75, AS WELL AS TMP-114 AND 115 FOR -Y22-, THEN ACTIVATE TEMPORARY SIGNAL AND REMOVE PREVIOUS TEMPORARY SIGNAL. USING RSD 1101.02 (SHEET 1 AND 2 OF 14) AND POLICE AS NEEDED, INSTALL TEMPORARY ANCHORED PCB BETWEEN -L- STA 427+98+/- AND STA 429+10+/-. AWAY FROM TRAFFIC, INSTALL TEMPORARY SHORING #20 AND #21, INSTALL PROPOSED CULVERT (LT), AND WEDGE AND WIDEN -L- WB FROM STA 426+90+/- TO 430+98+/-. (TMP-75)

16.4B: USING RSD 1101.02 (SHEET 1 AND 2 OF 14) AS NEEDED, INSTALL TEMPORARY PAVEMENT MARKINGS AND MARKERS. AWAY FROM TRAFFIC, INSTALL TEMPORARY ANCHORED PCB FROM -L- STA 427+60+/- TO STA 429+30+/- (AS MUCH AS POSSIBLE AND USE TMA AT UNPROTECTED END). ACTIVATE TEMPORARY SIGNAL, REMOVE EXISTING TEMPORARY SIGNAL, SHIFT TRAFFIC TO LEFT OF PCB, AND COMPLETE PCB INSTALLATION. AWAY FROM TRAFFIC, COMPLETE PROPOSED CULVERT. (TMP-76) USING RSD 1101.02 (SHEET 1 AND 2 OF 14) AS NEEDED, WEDGE AND WIDEN -L- EB FROM STA 426+60+/- AND STA 431+00+/-, REMOVE SHORING AS NEEDED. REMOVE TEMPORARY PCB, INSTALL PAVEMENT MARKINGS AND MARKERS AS SHOWN ON TMP-78, ACTIVATE TEMPORARY SIGNAL, AND SHIFT TRAFFIC TO NEW TRAFFIC PATTERN.

COMPLETE THE REQUIREMENTS OF PHASE I STEP 16.5 IN ANY TWO (2) CONSECUTIVE WEEKENDS, FROM FRIDAY 7:00 PM TO MONDAY 6:00 AM OF THE SECOND WEEKEND. (SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES)

16.5: (PHASE IB) COMPLETE STEPS 16.5A AND 16.5B IN ORDER.

16.5A: USING RSD 1101.02 (SHEET 1 AND 2 OF 14) AND POLICE AS NEEDED, INSTALL AS MUCH OF 60 INCH PIPE ACROSS -Y22- AS POSSIBLE WITH A TRENCHBOX AND A STEEL PLATE. REPAIR PAVEMENT AND RETURN TRAFFIC TO TEMPORARY PATTERN FOR THE WEEKDAY. (TMP-78)

16.5B: USING RSD 1101.02 (SHEET 1 AND 2 OF 14) AND POLICE AS NEEDED, FINISH INSTALLATION OF 60 INCH PIPE ACROSS -Y22- WITH A TRENCHBOXAND CONNECT TO PROPOSED JUNCTION BOX WITH MANHOLE.

16.6: (PHASE IB) COMPLETE STEP 16.5. USING RSD 1101.02 (SHEET 1 AND 2 OF 14) AND POLICE AS NEEDED,WEDGE AND WIDEN -L- (RT) FROM STA 418+65+/- TO STA 426+71+/- AND -Y22- FROM -L- TO -Y22- STA 42+50+/-. (TMP-77 AND 78)

PHASE II

(SEE TMP-79 THRU TMP-84 FOR OVERVIEWS)

NOTE: PHASE II STEPS 1 THRU 5 MAY BE DONE SIMULTANEOUSLY AND COMPLETED IN ANY ORDER (UNLESS STATED OTHERWISE)

STEP 1: COMPLETE PHASE I STEP 13. AWAY FROM TRAFFIC, CONSTRUCT THE FOLLOWING:
- -L- EB FROM STA 78+92+/- TO 144+00+/-, INCLUDING COMPLETION OF RCBC AT STA 83+50+/-. REMOVE SHORING AS NEEDED. (LN-2) (TMP-89 AND 90)
- -L- EB FROM STA 145+80+/- TO 209+14+/-, INCLUDING -Y2-. (TMP-90 AND 91)
- -L- EB AND WB FROM STA 211+73+/- TO 229+00+/-, INCLUDING -Y4-, 54″ RCP AT STA 217+20+/-, AND RCBC AT 226+00+/-. REMOVE SHORING AS NEEDED. (LN-2) (TMP-91 AND 92)
- -L- EB FROM STA 243+00+/- TO 253+64+/- (TMP-93 AND 94)
- -L- EB FROM STA 262+79+/- TO 290+00+/- (TMP-95 AND 96)
- -L- EB FROM STA 307+10+/- TO 308+52+/- (TMP-97 AND 98)
- -L- EB FROM STA 309+42+/- TO 312+90+/- (TMP-98)
- -L- EB FROM STA 316+00+/- TO 317+95+/-, INCLUDING COMPLETION OF RCBC AT 315+60+/-. REMOVE SHORING AS NEEDED. (LN-2) (TMP-98)

COMPLETE PHASE I STEP 13. USING RSD 1101.02 (SHEET 1, 2, AND 3 OF 14) AS NEEDED, CONSTRUCT THE FOLLOWING:
- -L- EB FROM STA 144+00+/- TO -Y1- AND FROM -Y1- TO -L- STA 145+80+/- (RT). (TMP-90)
- -L- EB FROM STA 208+00+/- TO -Y3- (RT) (TMP-91)
- -L- EB FROM -Y8- TO STA 296+41+/- (TMP-96 AND 97)
- -L- EB FROM STA 307+10+/- TO 309+42+/-, INCLUDING -Y10- (TMP-97 AND 98)
- -L- EB FROM STA 312+90+/- TO 316+00+/-, INCLUDING -Y11-, AND INSTALL WATERFILLED BARRIER. (TMP-98)

STEP 2: -YREV-: COMPLETE PHASE I STEP 13, THEN COMPLETE PHASE II STEPS 2.1 THRU 2.4 IN ORDER. STEP 2.5 MAY BE DONE SIMULTANEOUSLY AS STEPS 2.1 THRU 2.4.

2.1: USING RSD 1101.02 (SHEET 3 OF 14), REMOVE EXISTING ISLAND AND CONSTRUCT TEMPORARY PAVEMENT IN MEDIAN ON -YREV- FROM STA 33+86+/- TO STA 36+80+/- AND FROM -YREV- STA 44+23+/- TO STA 46+26+/-. REPLACE EXISTING PAVEMENT MARKINGS. (TMP-88 AND TMP-110)

2.2: USING RSD 1101.02 (SHEET 3 OF 14), WEDGE AND WIDEN -YREV- FROM STA 46+26+/- TO 52+25+/-. REPLACE EXISTING PAVEMENT MARKINGS. (TMP-110 AND 111)

2.3: USING RSD 1101.02 (SHEET 3 OF 14), CLOSE RIGHT TURN LANE ON MIDDLETON BLVD WITH TEMPORARY PAVEMENT MARKINGS FROM -YREV- STA 34+69+/- TO 41+34+/- AND TEMPORARY ANCHORED PCB FROM -YREV- STA 32+05+/- TO 36+72+/-. (TMP-88 AND TMP-110)

2.4: AWAY FROM TRAFFIC, CONSTRUCT -YREV- SOUTHERN BRIDGE BENT, TEMPORARY SHORING #52, AND APPROACH FROM -YREV- STA 32+82+/- TO 47+67+/-, INCLUDING -YAREV- FROM -YREV- TO -YAREV- STA 22+72+/- (TMP-88 AND 110). USING TMP-2E, DETOUR -L- TRAFFIC IF NEEDED TO HANG GIRDERS AT NIGHT ONLY (SEE GENERAL NOTE D FOR TIME RESTRICTIONS). COMPLETE BRIDGE AND TEMPORARY PAVEMENT MARKING FOR PHASE III AS MUCH AS POSSIBLE. (SEE TMP-154 AND TMP-155)

2.5: COMPLETE PHASE I STEP 13. USING RSD 1101.02 (SHEET 1 AND 2 OF 14) AS NEEDED, CONSTRUCT -YREV- FROM STA 16+58+/- TO STA 21+66+/- (LT). (TMP-108 AND 109)

HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

APPROVED: DocuSigned by: Helen Shyu -0F15975A9E44EF...
DATE: 11/10/2021
SEAL
NORTH CAROLINA PROFESSIONAL SEAL 042517 ENGINEER HELEN SHYU

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DIVISION OF HIGHWAYS * STATE OF NORTH CAROLINA * DEPARTMENT OF TRANSPORTATION * WORK ZONE TRAFFIC CONTROL

TRANSPORTATION MANAGEMENT PLAN

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R-5021	TMP-3C

PHASING

PHASE II (CONTINUED)

STEP 3: LONG BEACH ROAD BRIDGE: COMPLETE PHASE I STEP 12, THEN COMPLETE STEPS 3.1 THRU 3.3 IN ORDER.

3.1: INSTALL AND COVER TRAFFIC CONTROL DEVICES ON TMP-2D.

COMPLETE THE REQUIREMENTS OF PHASE II STEPS 3.2 THRU 3.4 BETWEEN SEPTEMBER 16 OF ANY YEAR THE CONTRACTOR ELECTS TO BEGIN WORK AFTER THE DELAY OF AVAILABILITY AND AUGUST 15 OF THE FOLLOWING YEAR THAT THE CONTRACTOR ELECTS TO BEGIN WORK. (SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.)

3.2: USING RSD 1101.02 (SHEET 3 AND 7 OF 14) AND POLICE AS NEEDED, INSTALL TEMPORARY PAVEMENT MARKINGS ON -Y14A- AND -Y14C- AS SHOWN ON TMP-113, INSTALL TEMPORARY PAVEMENT MARKINGS ON -Y14D- AS SHOWN ON TMP-100 AND 112. INSTALL AND ACTIVATE TEMPORARY SIGNALS AT -Y14D- AND -Y14A- AND AT -Y14A- AND -Y14C- INTERSECTIONS, UNCOVER TRAFFIC CONTROL DEVICES INSTALLED IN PHASE II STEP 3.1, OPEN -Y14D- TO TRAFFIC BETWEEN -L- AND -Y14A-, AND CLOSE -Y14A- TO TRAFFIC BETWEEN -Y14D- AND -Y14C-. REMOVE PREVIOUS SIGNALS AT INTERSECTIONS OF -Y14A- AT -Y14D-, -Y14A- AT -L-, -Y14A- AT -Y14C-, AND -14D- AT -L-.

3.3: USING RSD 1101.02 (SHEET 3 AND 7 OF 14), INSTALL TEMPORARY PAVEMENT MARKINGS ON -L- FROM STA 330+01+/- TO -Y14D-, TEMPORARY PCB FROM -L- STA 330+45+/- TO 334+10+/-, TEMPORARY PCB FROM -L- STA 330+39+/- TO 334+94+/-, TEMPORARY GUARDRAIL ANCHOR UNIT, AND TEMPORARY SHOP CURVED GUARDRAIL AC. (TMP-99) AWAY FROM TRAFFIC, BEGIN CONSTRUCTION OF LONG BEACH ROAD BRIDGE AND -Y14A- APPROACHES FROM -Y14D- TO -Y14C-, INCLUDING -Y14E- (CLOSE ACCESS WITH BARRICADE AS SHOWN ON PHASE II OVERVIEW), AND INSTALL PHASE III TEMPORARY PAVEMENT MARKINGS AS MUCH AS POSSIBLE. (SEE TMP-144 AND TMP-160) CLOSE -L- (30 MINUTES MAX) TO HANG GIRDERS. USING RSD 1101.02 (SHEET 3 OF 14), CONSTRUCT -L- EB FROM STA 326+50+/- TO -Y14A- AND REMOVE PAVEMENT.

3.4: USING RSD 1101.02 (SHEET 3 AND 7 OF 14) AND POLICE AS NEEDED, INSTALL TEMPORARY SIGNALS FOR -L- AT -Y14D-, -Y14A- AT -Y14C-, AND -Y14A- AT -Y14D-, INSTALL TEMPORARY PAVEMENT MARKINGS ON -L- FROM STA 331+55+/- TO 340+85+/- AND -Y14D- FROM -Y14A- TO -Y14C-. OPEN -Y14A- TO PHASE III TEMPORARY PATTERN (ACROSS BRIDGE), SHIFT (-L-) TO PHASE III TEMPORARY PATTERN. REMOVE PREVIOUS TEMPORARY SIGNALS. (TMP-144, 145, AND 157 THRU 160)

NOTE: PHASE II STEP 4 MAY BEGIN AT THE END OF DELAY OF ENTRY, OR PER DIRECTIONS BY THE ENGINEER, FOR ROADWAYS -L- (NC 211): FROM STA 47+50+/- TO STA 78+00+/- (RT) AND -YAREV- FROM STA 10+03+/- TO STA 11+25+/- AND STA 21+28+/- TO STA 23+19.75+/-. ONCE BEGUN, PHASE II STEP 4 MAY BE DONE SIMULTANEOUSLY WITH PHASE II STEPS 1 THRU 3 AND 5 AND MAY BE COMPLETED IN ANY ORDER (UNLESS STATED OTHERWISE)

STEP 4: -YAREV-: COMPLETE PHASE I STEP 13 AND PHASE II STEP 3.3, THEN COMPLETE STEPS 4.1 THRU 4.6 IN ORDER.

4.1: -L- EBL BETWEEN -L- STA 55+00+/- AND -L- STA 76+00+/-, INCLUDING COMPLETION OF RCBC AT STA 64+00+/- AND -YAREV- FROM -L- TO -YAREV- STA 11+25+/-. REMOVE SHORING AS NEEDED. (LN-2) (TMP-86 THRU 88) COMPLETE PROPOSED SLOPE AND DITCH FROM -L- STA 47+50 TO STA 55+00+/- (RT). PLACE PHASE III TEMPORARY PAVEMENT MARKINGS AS MUCH AS POSSIBLE. (SEE TMP-128 THRU TMP-130)

4.2: COORDINATE WITH OVERSIZE/OVERWEIGHT DIVISION BEFORE STARTING STEP 4.3.

COMPLETE THE REQUIREMENTS OF PHASE II STEPS 4.3 THRU 4.6 IN EIGHTEEN (18) CONSECUTIVE CALENDAR DAYS DURING THE OFF-SEASON. (SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.)

4.3: USING RSD 1101.02 (SHEET 1, 2, AND 3 OF 14), CLOSE ONE LANE ON -YREV- (MIDDLETON BLVD) SOUTHBOUND BY INSTALLING TEMPORARY PAVEMENT MARKINGS FROM -L- STA 77+67+/- TO -YREV- 52+25+/-. SHIFT -YREV- TRAFFIC TO TEMPORARY TWO LANE TWO WAY PATTERN. (TMP-116 THRU 118)

4.4: AWAY FROM TRAFFIC, CONSTRUCT -YREVTCP1- FROM -YREV- STA 36+79+/- TO 44+24+/- (SEE SHEET 2B-9) AND TEMPORARY GRADE TO -YAREV- UP TO -YAREV- STA 21+28+/-. (TMP-117) INSTALL TEMPORARY PAVEMENT MARKINGS AS SHOWN ON TMP-120 AS MUCH AS POSSIBLE.

4.5: USING RSD 1101.02 (SHEET 1 OF 14), INSTALL TEMPORARY PAVEMENT MARKINGS FROM -YREV- STA 33+00+/- TO 52+25+/- AND SHIFT -YREV- TRAFFIC ONTO -YREVTCP1-. (TMP-119 THRU 121) AWAY FROM TRAFFIC, CONSTRUCT -YAREV- FROM -YREV- TO -YAREV- STA 22+72+/- AND -YREV- FROM STA 40+85+/- TO 48+48+/-. (TMP-120 AND 121) INSTALL PROPOSED SIGNAL POLES AT INTERSECTION OF -YREV- AND -YAREV- AS MUCH AS POSSIBLE.

4.6: USING POLICE AT SIGNALIZED INTERSECTIONS OF -L- AT -YREV-, -YREV- AT -YB-, -L- AT -YB-, AND -L- AT -Y3- AND FLAGGERS AS NEEDED, COMPLETE ANY REMAINING TEMPORARY PAVEMENT MARKINGS, CLOSE -YREV- (30 MINUTES MAX), SHIFT (-L-) TO PHASE III TEMPORARY PATTERN FROM -L- STA 47+50+/- TO 331+55+/-, CLOSE -YD-, OPEN -YREV-, -YAREV-, AND -YB- TO PHASE III TEMPORARY PATTERN (ACROSS BRIDGE), AND ACTIVATE NEW SIGNALS. (TMP-128 THRU 144, 153 THRU 156)

PHASE II (CONTINUED)

STEP 5: COMPLETE PHASE I STEP 10, 12, 14, 15, AND 16.6, THEN COMPLETE STEPS 5.1 AND 5.2 IN ORDER.

5.1: USING RSD 1101.02 (SHEET 1, 2, AND 3 OF 14) AND POLICE AS NEEDED, INSTALL PHASE II PAVEMENT MARKINGS FROM -L- STA 348+38+/- TO -L- STA 432+28+/-, INCLUDING Y-LINES AND DRIVEWAYS. INSTALL TEMPORARY SIGNALS FOR -L- AT -Y17-, -L- AT -Y19REV-, -L- AT -Y21-, AND PROPOSED SIGNAL FOR -L- AT -Y22-. SHIFT TRAFFIC INTO PHASE II PATTERN AND REMOVE PREVIOUS SIGNALS. (TMP-101 THRU 107)

5.2: USING RSD 1101.02 (SHEET 1, 2, AND 3 OF 14) AS NEEDED, CONSTRUCT THE FOLLOWING:
- -L- EB FROM -Y17- TO -LREV- STA 376+50+/-, INCLUDING -L- WB FROM STA 362+00+/- TO 366+54+/-, AND BRIDGE AT -LREV- STA 369+50+/-. REMOVE SHORING AS NEEDED. (TMP-102 AND 103)
- -LREV- EB FROM STA 384+44+/- TO -L- STA 396+50+/-, INCLUDING BRIDGE AT STA 390+00+/- (TMP-103 AND 104)
- -L- EB FROM STA 396+50+/- TO 419+99+/-, INCLUDING -Y20- AND -Y21- (TMP-104 THRU 106)

PHASE III (SEE TMP-122 THRU TMP-126 FOR OVERVIEWS)

NOTE: PHASE III STEPS 1 THRU 4 CAN BE DONE IN ANY ORDER AND SIMULTANEOUSLY

STEP 1: COMPLETE PHASE II STEP 4. THEN USING RSD 1101.02 (SHEET 1, 2, AND 3 OF 14) AND POLICE AS NEEDED, COMPLETE PHASE III STEPS 1.1 THRU 1.3 IN ORDER:

1.1: CONSTRUCT THE FOLLOWING:
- -YREV- FROM STA 16+37+/- TO 20+99+/- (TMP-153 AND 154)
- -YC- FROM 10+25+/- TO 11+60+/- (TMP-154)
- -YD- AND -DRW01- (TMP-154) AND REMOVE EXISTING PAVEMENT AND TEMPORARY SHORING AS NEEDED ON -YREV-
- -YASLIP- FROM STA 11+21+/- TO -YREV- 46+27+/- (TMP-155)
- COMPLETE SIGNAL INSTALLATION FOR -YREV- AT -YAREV- (COVER SIGNAL)

1.2: PLACE TEMPORARY PAVEMENT MARKINGS AND MARKERS AS SHOWN ON TMP-161 THRU TMP-166, ACTIVATE SIGNAL FOR -YREV- AT -YAREV-, AND OPEN -YAREV-, -RAB- AND -YG- TO FINAL TRAFFIC PATTERN. SHIFT -YREV- INTO FINAL PATTERN. CLOSE LEFT TURN LANE AND MEDIAN CROSSING FOR -L- AT -YB- AND REMOVE TEMPORARY SIGNAL.

1.3: CONSTRUCT -L- MEDIAN AT -YB-. USING NARROW LANES, CONSTRUCT MEDIAN CONCRETE ISLAND ON -YB-.

STEP 2: COMPLETE PHASE II STEP 5. USING RSD 1101.02 (SHEET 3 AND 7 OF 14), CONSTRUCT -L- MEDIAN AND ISLANDS FROM -Y14D- TO -L- STA 428+39+/-. (TMP-145 THRU TMP-152) USING RSD 1101.02 (SHEET 1, 2 AND 3 OF 14), CONSTRUCT PROPOSED ISLANDS ON ALL -Y- LINES AND DRIVEWAYS.

STEP 3: COMPLETE PHASE II STEP 4, THEN COMPLETE STEPS 3.1 THRU 3.3 IN ANY ORDER:

3.1: USING RSD 1101.02 (SHEET 1, 2, 3 AND 7 OF 14) IF NEEDED, CONSTRUCT THE FOLLOWING MEDIAN AND ISLANDS:
- -L- FROM STA 51+11+/- TO 81+79+/- (TMP-128 THRU 131)
- -L- STA 83+04+/- TO 331+55+/- (TMP-131 THRU 144)

3.2: USING NARROW LANES AND DRUMS AS NEEDED TO CHANNELIZE -L- WB TRAFFIC, REMOVE TEMPORARY PAVEMENT AND COMPLETE SHOULDER IMPROVEMENTS FROM:
- -L- STA 52+60+/- TO 58+50+/- (AS DIRECTED BY THE ENGINEER) (TMP-128 AND 129)

3.3: USING RSD 1101.02 (SHEET 3 OF 14), REMOVE TEMPORARY PAVEMENT AND COMPLETE REMAINING CONSTRUCTION:
- -L- STA 61+10+/- TO -YE- (LT) (TMP-129)
- -L- FROM -YE- TO STA 68+50+/- (LT) (TMP-129)
- -L- FROM STA 66+51+/- TO STA 69+18+/- (TMP-129)
- -L- EB FROM STA 76+00+/- TO 78+92+/- (TMP-130)
- -L- FROM -YB- TO STA 87+94+/- (LT), REMOVE SHORING AS NEEDED. (TMP-131)

STEP 4: COMPLETE PHASE II STEP 3, THEN USING RSD 1101.02 (SHEET 3 OF 14), CONSTRUCT MEDIAN AND ISLANDS ON -L- FROM STA 331+55+/- TO -Y14D-, -Y14A-, AND -Y14D-. (TMP-144, 145, 157 THRU 160)

PHASE IV

STEP 1: COMPLETE ALL REMAINING WORK.

USING RSD 1101.02 (SHEETS 1, 2, 3, 5, AND 6 OF 14) AS NEEDED, PLACE FINAL LAYER OF SURFACE AND FINAL PAVEMENT MARKINGS AND MARKERS.

STEP 2: REMOVE ALL TRAFFIC CONTROL DEVICES.

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TRANSPORTATION MANAGEMENT PLAN

PHASING

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PROJ. REFERENCE NO.	SHEET NO.
R-5021	TMP-4

USING FLAGGERS, WEDGE & WIDEN -YREV-.
PROVIDE SMOOTH TRANSITION TO EXISTING.

-YREV-
NC 906
(MIDWAY RD)

SHORING 51

TEMPORARY
PAVEMENT
EST 990 SF

AWAY FROM TRAFFIC, CONSTRUCT
-YB-, -YC-, -YD-, and -YREV-

ICT
CLOSE ACCESS
AND CONSTRUCT WB

-YB-

TEMP

TEMPORARY
PAVEMENT
EST 420 SF

SHORING 5

SHORING 7

TEMPORARY
PAVEMENT
EST 1,730 SF

SHORING 8

AWAY FROM TRAFFIC,
CONSTRUCT WB LANES

TEMPORARY
PAVEMENT
EST 1,845 SF

TEMPORARY
PAVEMENT
EST 459 SF

TEMPORARY
PAVEMENT
EST 241 SF

SHORING 1

TEMPORARY
PAVEMENT
EST 3,291 SF

TEMPORARY
PAVEMENT
EST 1094 SF

AWAY FROM TRAFFIC
CONSTRUCT WB LANES

-L- STA 47+50+/-
BEGIN PROJECT

TEMPORARY
PAVEMENT
EST 4,443 SF

-YE-

-YF-

SHORING 3

-L-
NC 211

MATCHLINE
-L- STA 97+00+/-
SEE SHEET TMP-5

TEMPORARY PAVEMENT
759 SF

SHORING 4

-YAREV-

-YG-

-YREV-
NC 906
(MIDDLETON BLVD)

-L-
NC 211

TEMPORARY
PAVEMENT
EST 4,833 SF

SHORING 6

DBL 8' x 6' RCBC @ STA 83+76-/-
(SEE CULVERT STAGING)
PCB & SHORING ARE REQUIRED.

TEMPORARY
PAVEMENT
EST 335 SF

USING FLAGGERS
WEDGE AND WIDEN.

USING FLAGGERS, WIDEN -L- RT
WITH TEMPORARY PAVEMENT.

10' x 5' RCBC @ STA 64+15+/-
(SEE CULVERT STAGING)
PCB, SHORING & TEMPORARY
PIPE REQUIRED.

SHORING 2

TEMPORARY PAVEMENT
EST 13,750 SF

TEMPORARY PAVEMENT
EST 328 SF

TEMPORARY PAVEMENT
2,508 SF

AWAY FROM TRAFFIC
CONSTRUCT WB LANES

USING FLAGGERS, LANE CLOSURES, AND POLICE
AS NEEDED, WEDGE & WIDEN TO PROPOSED GRADE
(NOT INCLUDING FINAL LAYER). PROVIDE SMOOTH
TRANSITION TO EXISTING.

AWAY FROM TRAFFIC,
CONSTRUCT -YAREV-,
-RAB-, AND -YG-

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TRANSPORTATION
MANAGEMENT PLAN

PHASE I
OVERVIEW

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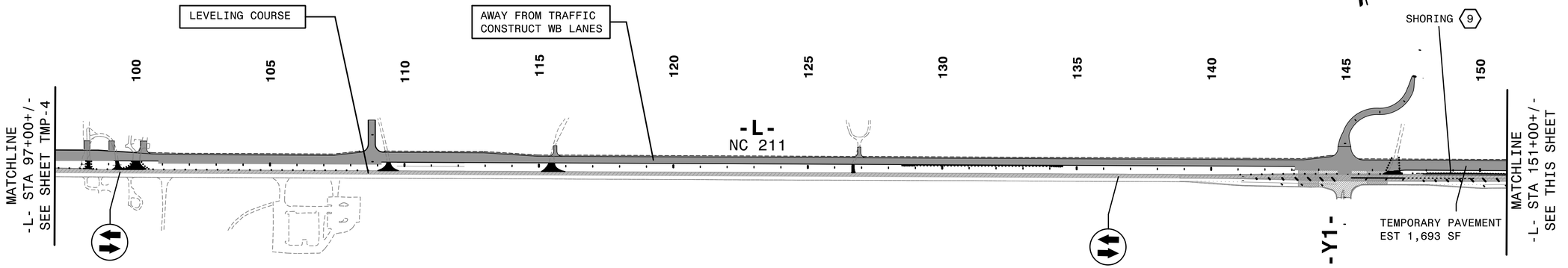
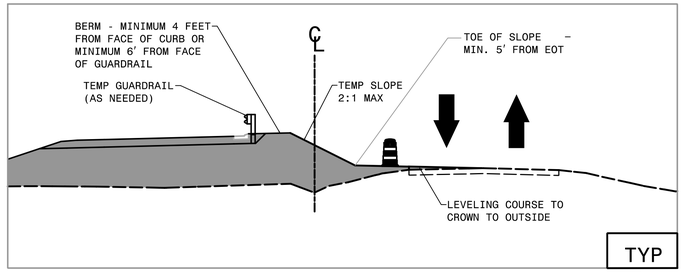
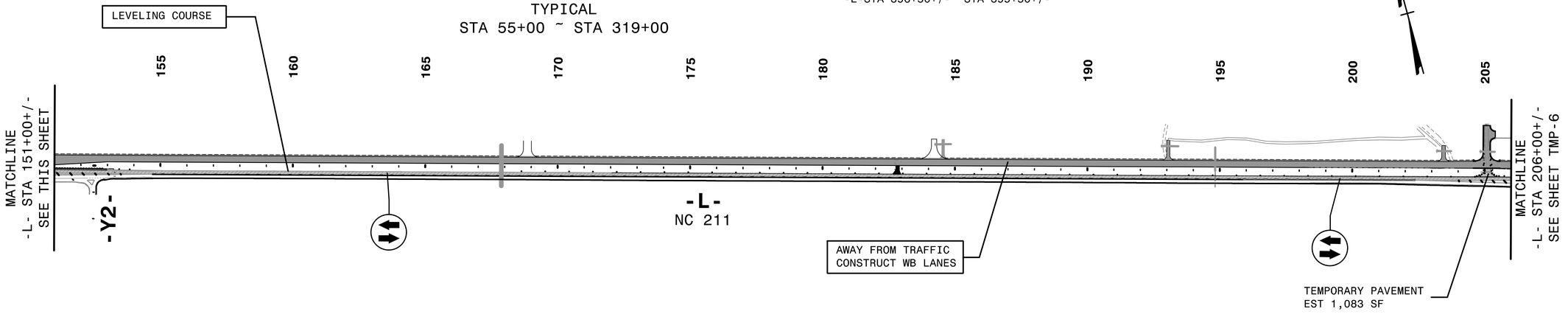
PROJ. REFERENCE NO.	SHEET NO.
R-5021	TMP-5





TYPICAL
STA 55+00 ~ STA 319+00

FABRIC REINFORCED 2:1 TEMPORARY SLOPE NEEDED AT:
-L-STA 55+50+/- ~ STA 56+00+/-
-L-STA 60+00+/- ~ STA 63+00+/- (AND TEMPORARY GUARDRAIL)
-L-STA 64+68+/- ~ STA 65+00+/-
-L-STA 67+00+/- ~ STA 73+00+/-(AND TEMPORARY GUARDRAIL)
-L-STA 103+00+/- ~ STA 109+15+/-
-L-STA 129+50+/- ~ STA 134+00+/-(AND TEMPORARY GUARDRAIL)
-L-STA 146+00+/- ~ STA 148+00+/-
-L-STA 184+50+/- ~ STA 191+00+/-(AND TEMPORARY GUARDRAIL)
-L-STA 244+00+/- ~ STA 245+50+/-
-L-STA 254+00+/- ~ STA 254+50+/-
-L-STA 292+50+/- ~ STA 299+00+/-(AND TEMPORARY GUARDRAIL)
-L-STA 300+50+/- ~ STA 305+50+/-
-L-STA 307+00+/- ~ STA 307+50+/-
-L-STA 376+50+/- ~ STA 378+50+/-
-L-STA 396+50+/- ~STA 399+50+/-



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TRANSPORTATION MANAGEMENT PLAN

PHASE I OVERVIEW

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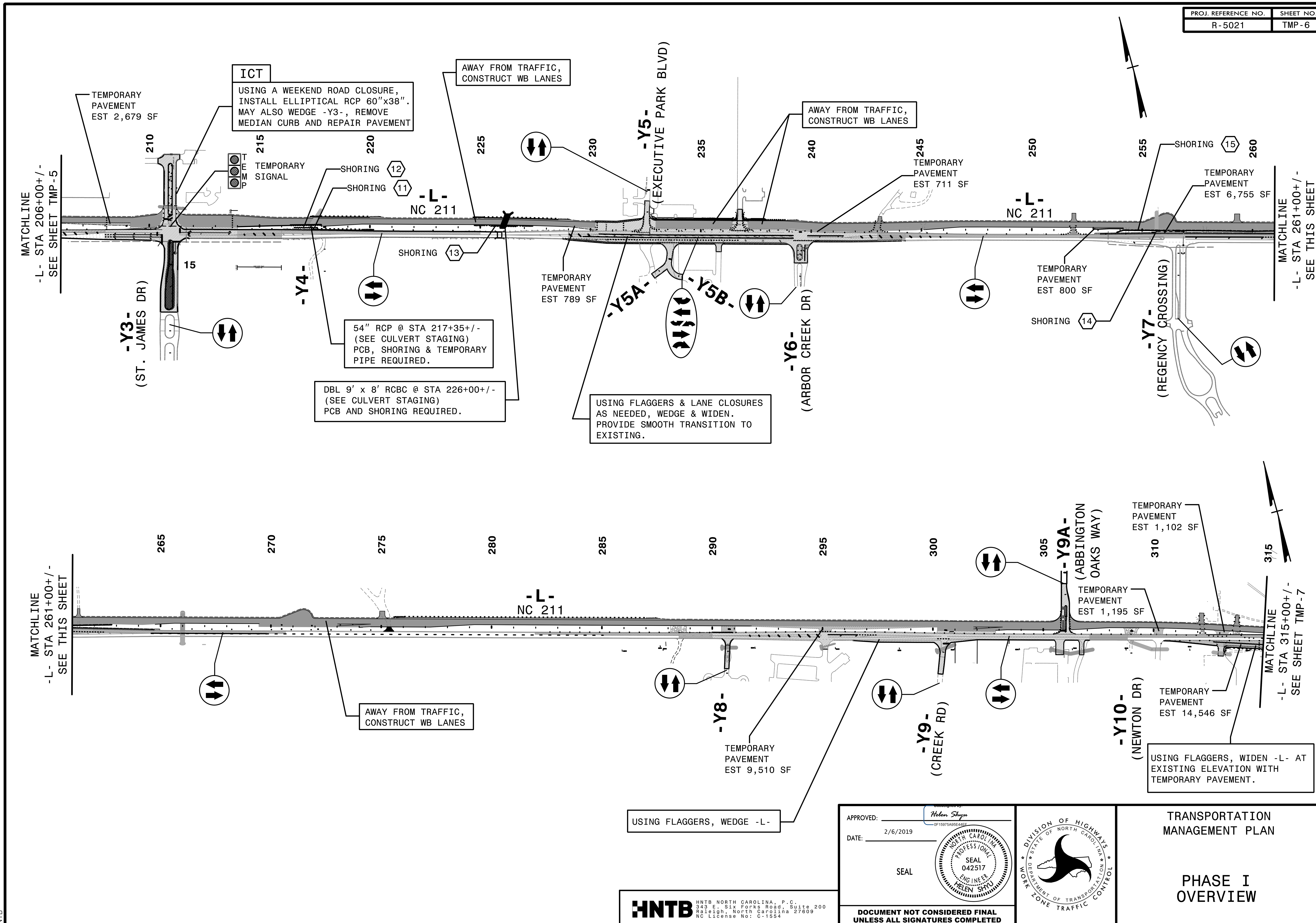
PROJ. REFERENCE NO. R-5021
SHEET NO. TMP-6
ICT
USING A WEEKEND ROAD CLOSURE, INSTALL ELLIPTICAL RCP 60"x38". MAY ALSO WEDGE -Y3-, REMOVE MEDIAN CURB AND REPAIR PAVEMENT
TEMPORARY PAVEMENT EST 2,679 SF
AWAY FROM TRAFFIC, CONSTRUCT WB LANES
TEMPORARY SIGNAL
SHORING 12
SHORING 11
SHORING 13
-L-
NC 211
MATCHLINE -L- STA 206+00+/- SEE SHEET TMP-5
-Y3- (ST. JAMES DR)
-Y4-
54" RCP @ STA 217+35+/- (SEE CULVERT STAGING) PCB, SHORING & TEMPORARY PIPE REQUIRED.
DBL 9' x 8' RCBC @ STA 226+00+/- (SEE CULVERT STAGING) PCB AND SHORING REQUIRED.
-Y5- (EXECUTIVE PARK BLVD)
-Y5A-
-Y5B-
TEMPORARY PAVEMENT EST 789 SF
USING FLAGGERS & LANE CLOSURES AS NEEDED, WEDGE & WIDEN. PROVIDE SMOOTH TRANSITION TO EXISTING.
AWAY FROM TRAFFIC, CONSTRUCT WB LANES
TEMPORARY PAVEMENT EST 711 SF
-Y6- (ARBOR CREEK DR)
TEMPORARY PAVEMENT EST 800 SF
SHORING 14
SHORING 15
TEMPORARY PAVEMENT EST 6,755 SF
-Y7- (REGENCY CROSSING)
MATCHLINE -L- STA 261+00+/- SEE THIS SHEET
210 215 220 225 230 235 240 245 250 255 260
MATCHLINE -L- STA 261+00+/- SEE THIS SHEET
265 270 275 280 285 290 295 300 305 310 315
-L-
NC 211
AWAY FROM TRAFFIC, CONSTRUCT WB LANES
-Y8-
TEMPORARY PAVEMENT EST 9,510 SF
USING FLAGGERS, WEDGE -L-
-Y9- (CREEK RD)
-Y9A- (ABBINGTON OAKS WAY)
TEMPORARY PAVEMENT EST 1,195 SF
TEMPORARY PAVEMENT EST 1,102 SF
-Y10- (NEWTON DR)
TEMPORARY PAVEMENT EST 14,546 SF
USING FLAGGERS, WIDEN -L- AT EXISTING ELEVATION WITH TEMPORARY PAVEMENT.
MATCHLINE -L- STA 315+00+/- SEE SHEET TMP-7
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PHASE I OVERVIEW
2/6/2019
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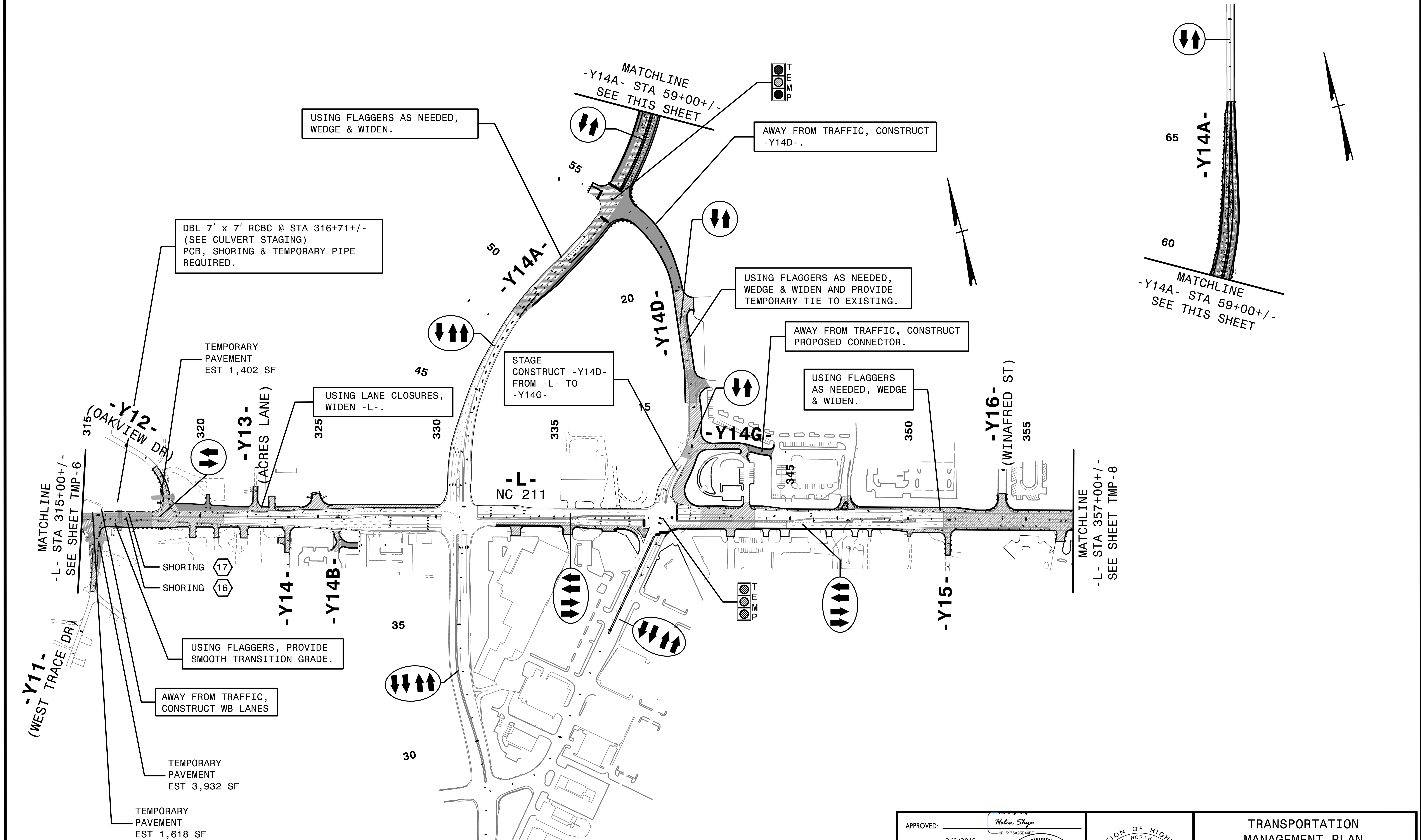
PROJ. REFERENCE NO.	SHEET NO.
R-5021	TMP-7



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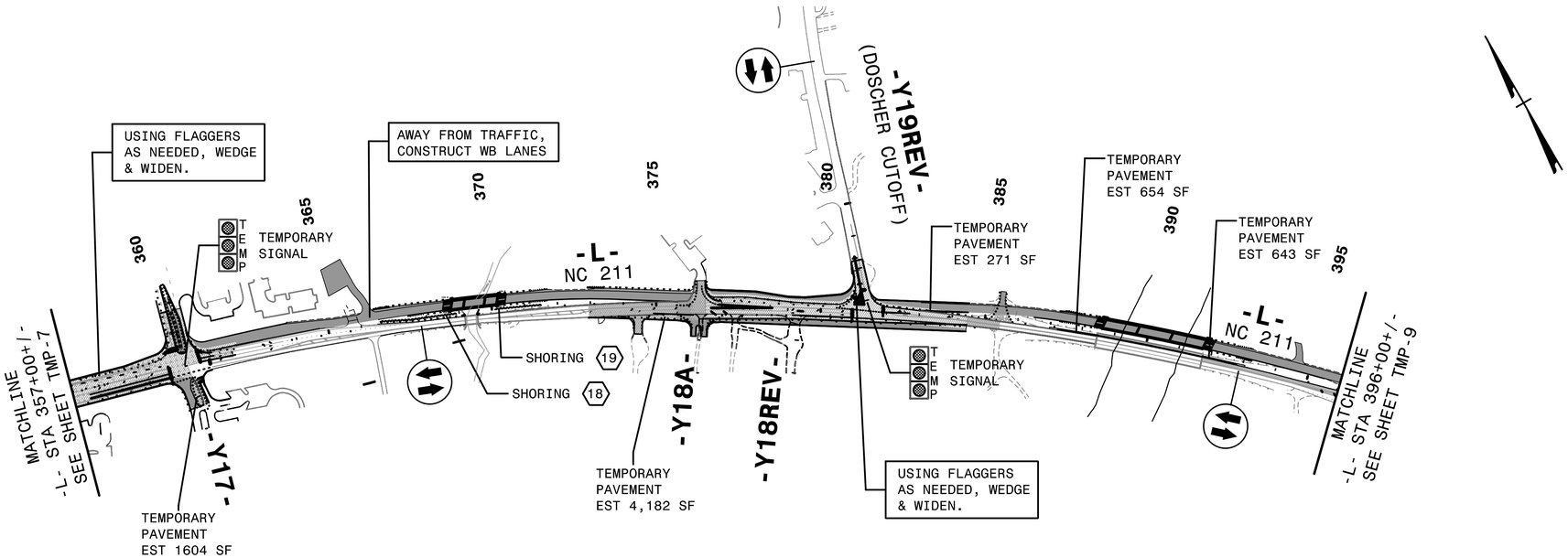
PROJ. REFERENCE NO.	SHEET NO.
R-5021	TMP-8



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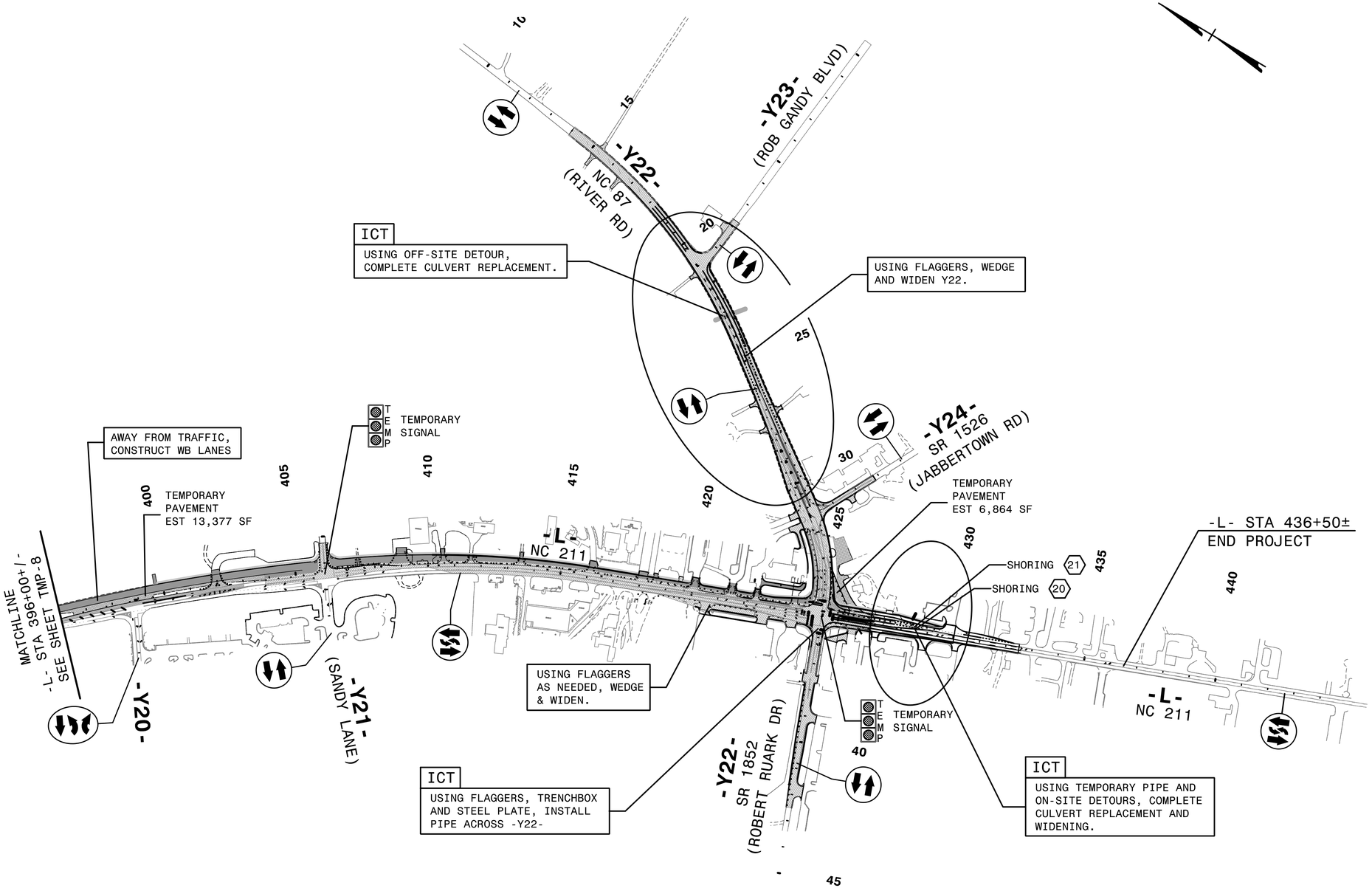
PROJ. REFERENCE NO.	SHEET NO.
R-5021	TMP-9



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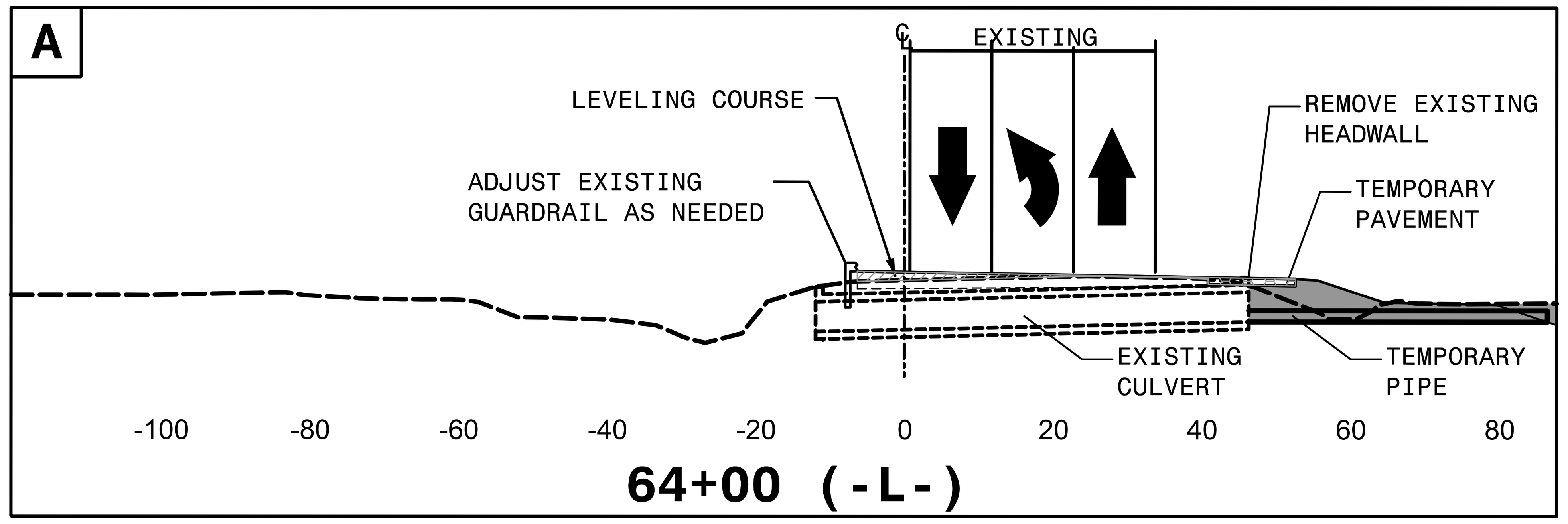
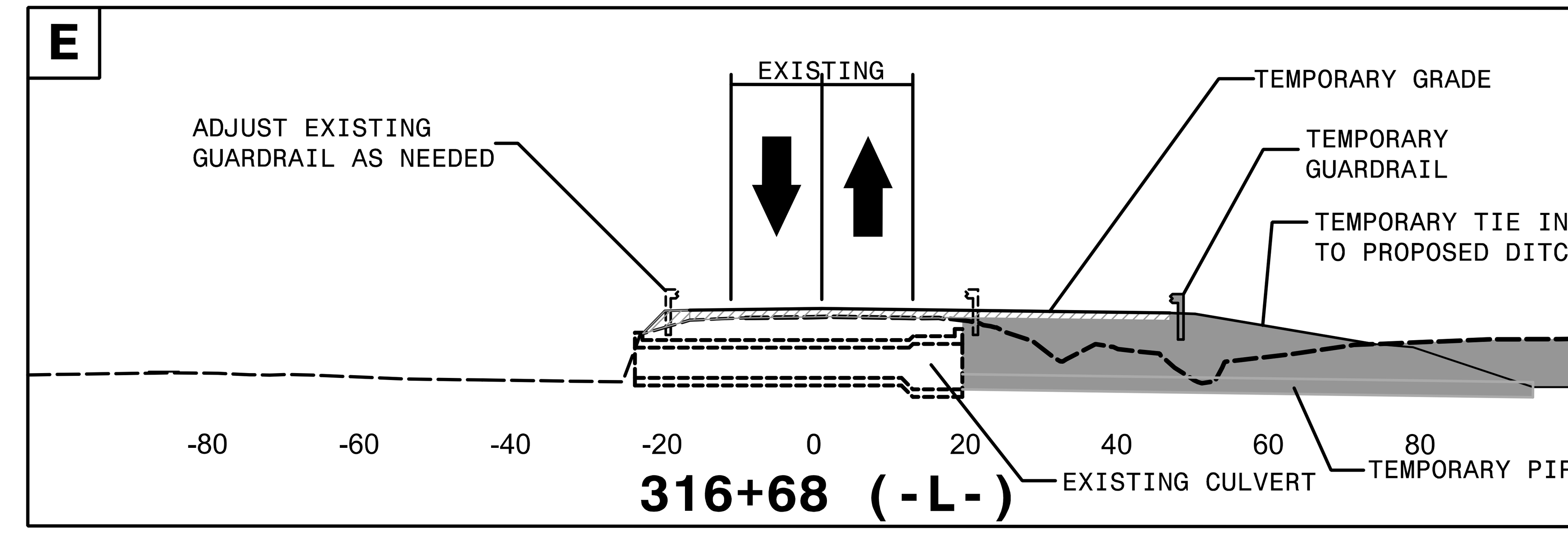
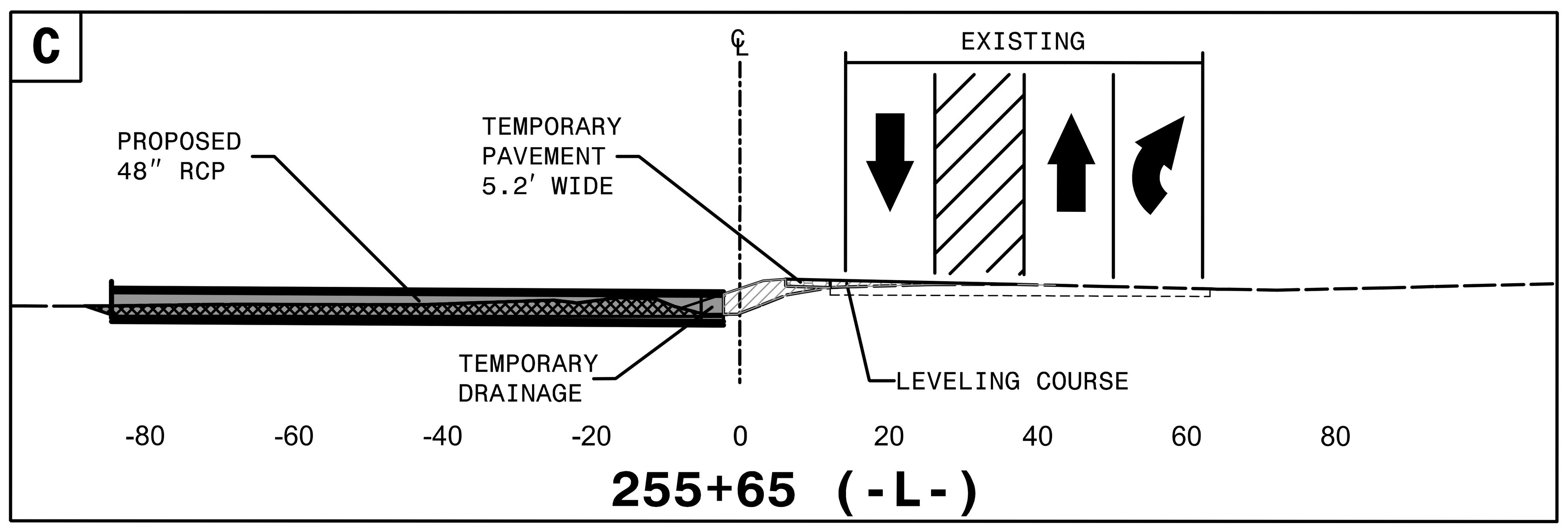
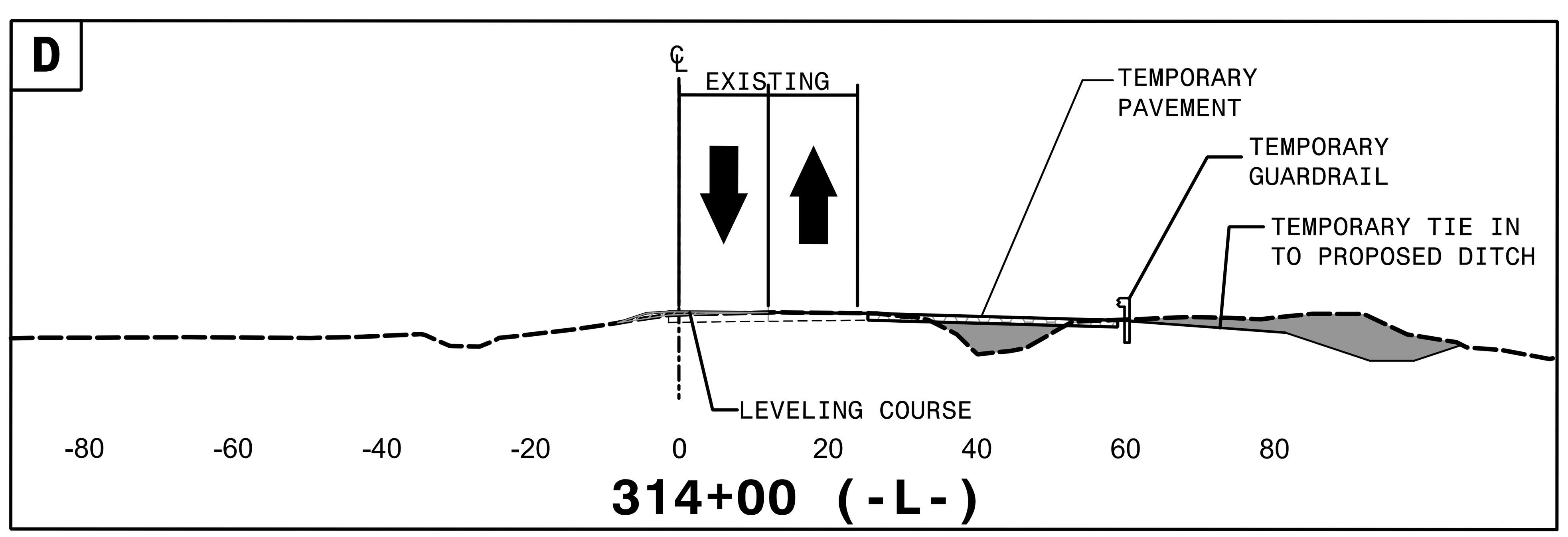
PROJ. REFERENCE NO.	SHEET NO.
R-5021	TMP-10





B: -YREV- STA 29+00+/-, SEE TMP-12





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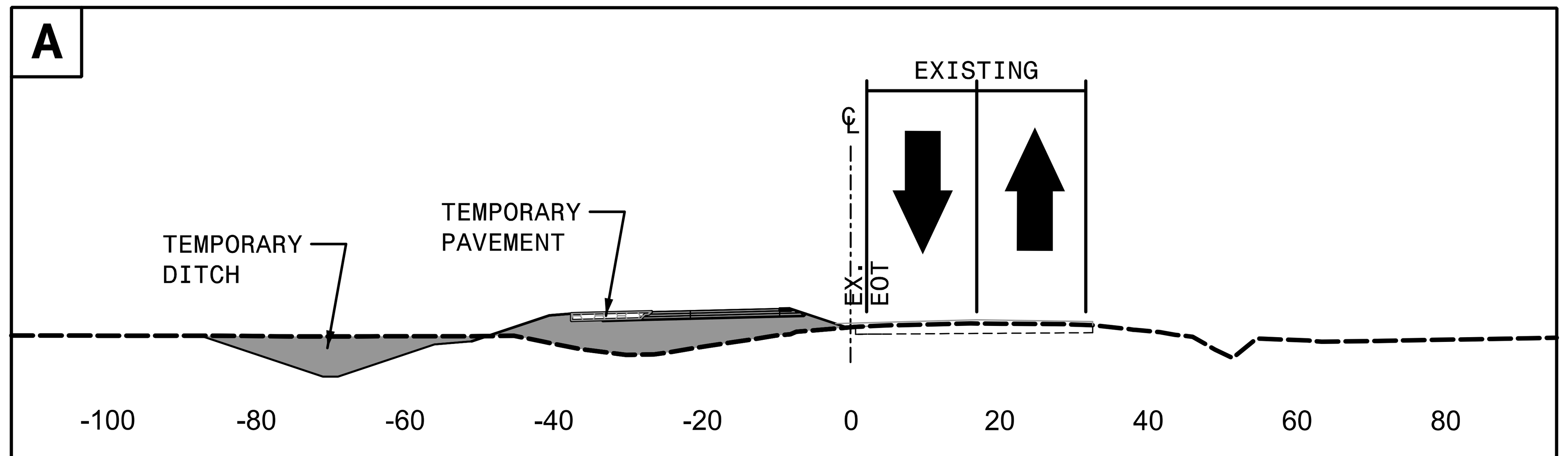
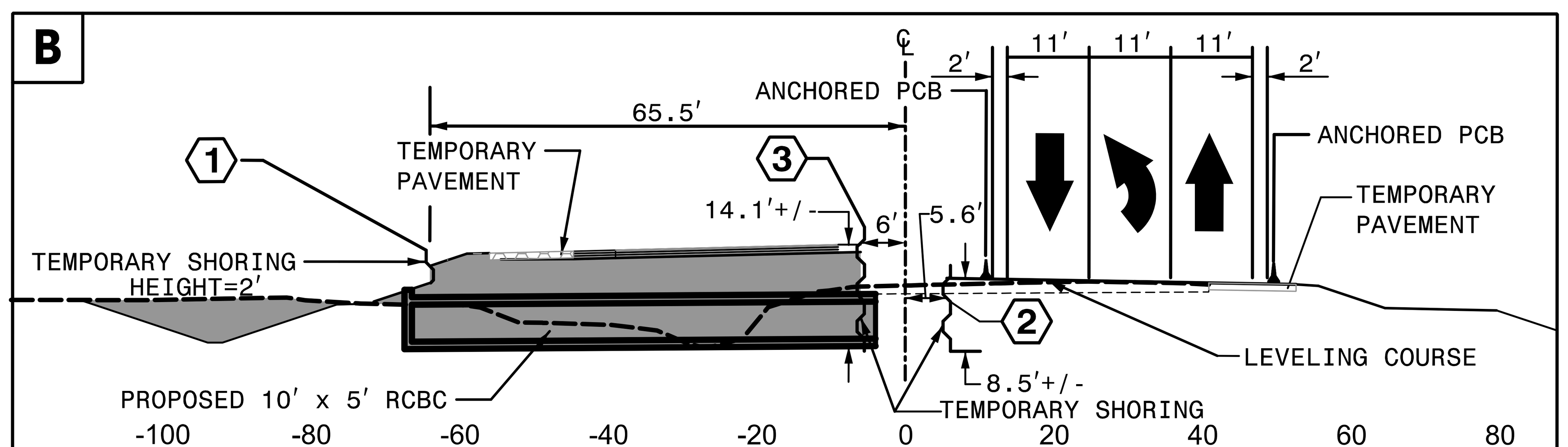
PHASE I
CUT SECTIONS

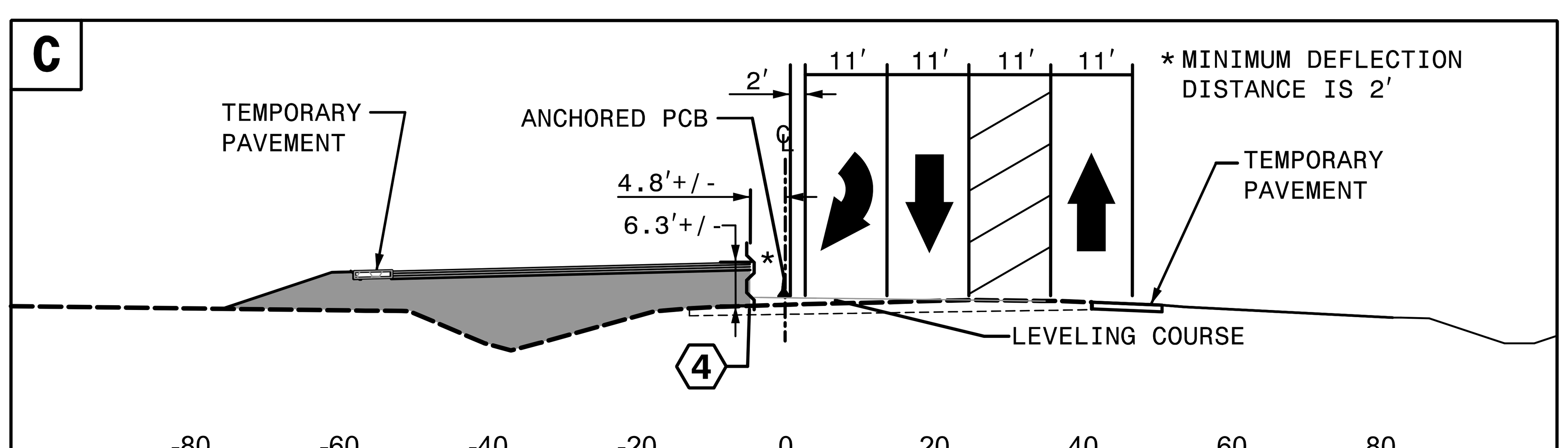
PROJ. REFERENCE NO.	SHEET NO.
R-5021	TMP-10A



55+00 (-L-)



64+00 (-L-)



68+00(-L-)

D: -L- STA 83+75+/-, SEE TMP-46
E: -L- STA 86+00+/-, SEE TMP-46
F: -L- STA 150+00+/-, SEE TMP-48
G: -L- STA 217+35+/-, SEE TMP-49
H: -L- STA 226+00+/-, SEE TMP-50
I: -L- STA 255+65+/-, SEE TMP-52
J: -L- STA 316+68+/-, SEE TMP-56
K: -L- STA 368+00+/-, SEE TMP-60
L: -L- STA 370+50+/-, SEE TMP-60

PHASE IB

M: -L- STA 428+35+/-, SEE TMP-75
N: -L- STA 428+35+/-, SEE TMP-76

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PHASE IA AND IB CUT SECTIONS

PROJ. REFERENCE NO.	SHEET NO.
R-5021	TMP-11

60

65

-YE-

-L-
NC 211
(SOUTHPORT-SUPPLY RD)

48" RCP

CHANGE SUPERELEVATION, RESET EXISTING GUARDRAIL AND REPLACE PAVEMENT MARKING IN EXISTING PATTERN.

MATCHLINE
-L- STA 56+50+/-
SEE THIS SHEET

-L- STA 60+20+/-
BEGIN TEMPORARY PAVEMENT
40.7' RT

-L- STA 61+41+/-
44.7' RT

-L- STA 61+74+/-
51.2' RT

-L- STA 62+41+/-
49.0' RT

-L- STA 63+50+/-
52.6' RT

INSTALL
TEMPORARY PIPE

-L- STA 66+02+/-
50.6' RT
52.6' RT

CONSTRUCT TEMPORARY
PAVEMENT AND
TEMPORARY DITCH IN
EXISTING RIGHT OF WAY

MATCHLINE
-L- STA 69+50+/-
SEE SHEET TMP-12

55

-L- STA 54+00+/-
BREAK LINE

-L- STA 55+00+/-
BEGIN SUPERELEVATION
CHANGE

MATCHLINE
-L- STA 56+50+/-
SEE THIS SHEET

SEE CULVERT PHASING
ON EC-5A/CONST. 5

64+00+/-

A
10

REPLACE PAVEMENT MARKING IN EXISTING PATTERN.

APPROVED: DocuSigned by: Helen Shyu 0F15975A95E44EF...

DATE: 11/10/2021

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 042517 ENGINEER HELEN SHYU

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DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

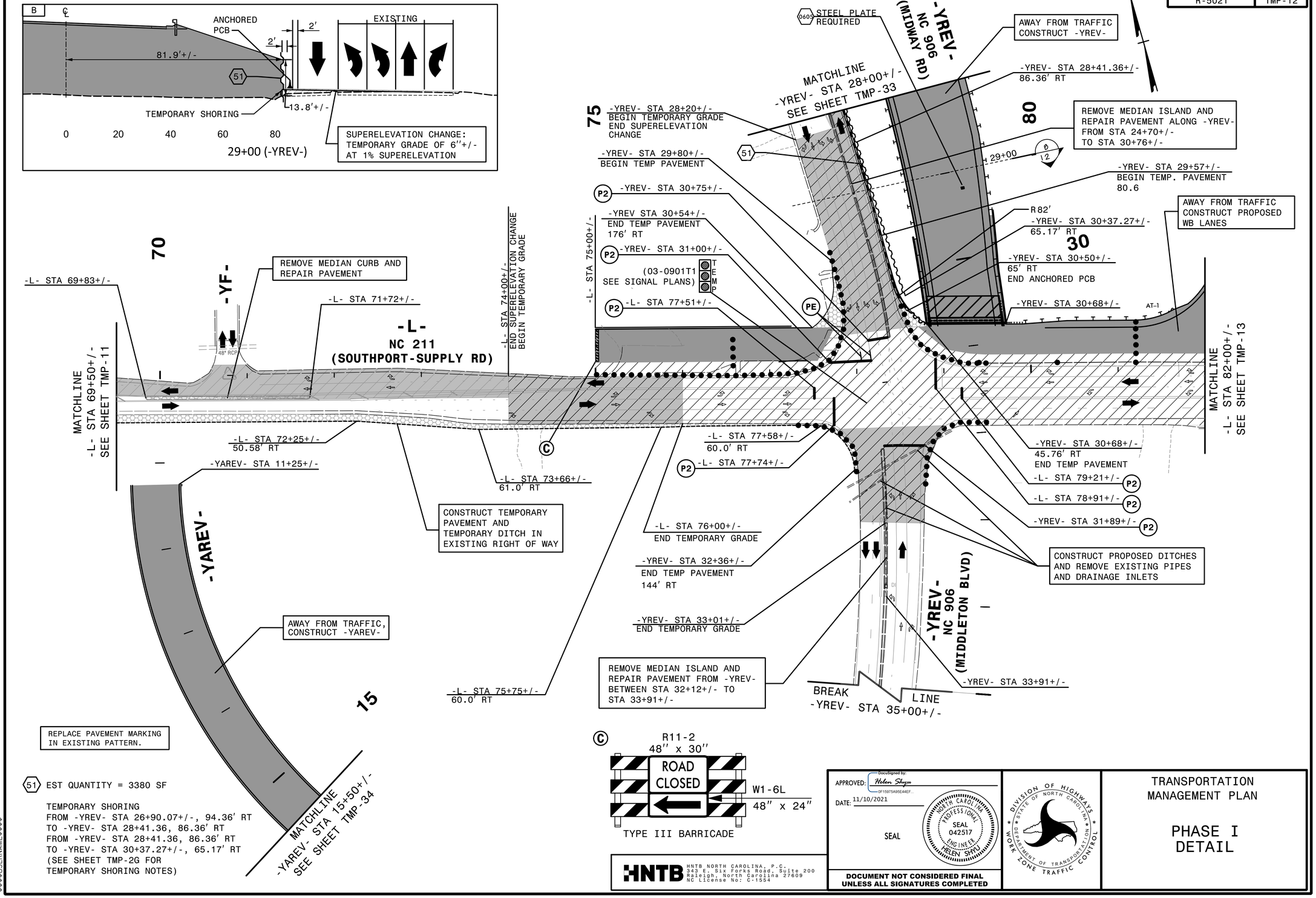
TRANSPORTATION MANAGEMENT PLAN

PHASE I
DETAIL

HNTB
HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

5:17:32 PM
\\TCP\r-5021_Tc_pld2.dgn
$$$$USERNAME$$$$

PROJ. REFERENCE NO.	SHEET NO.
R-5021	TMP-12



51 EST QUANTITY = 3380 SF

TEMPORARY SHORING
FROM -YREV- STA 26+90.07+/-, 94.36′ RT
TO -YREV- STA 28+41.36, 86.36′ RT
FROM -YREV- STA 28+41.36, 86.36′ RT
TO -YREV- STA 30+37.27+/-, 65.17′ RT
(SEE SHEET TMP-2G FOR TEMPORARY SHORING NOTES)

TYPE III BARRICADE

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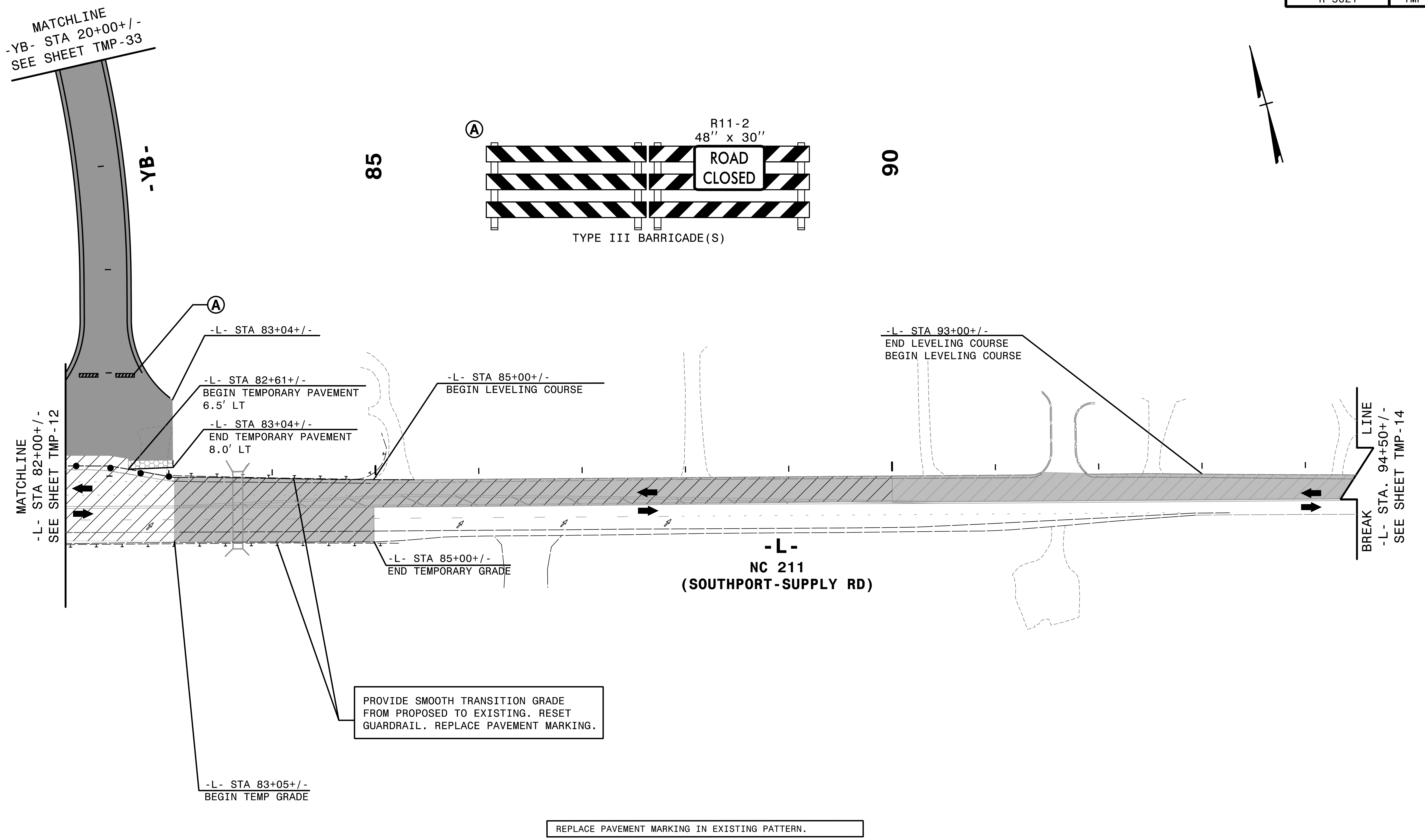
$$$$USERNAME$$$$

PROJ. REFERENCE NO.	SHEET NO.
R-5021	TMP-13


MATCHLINE
-YB- STA 20+00+/-
SEE SHEET TMP-33
-YB-
85
90
A
R11-2
48" x 30"
ROAD
CLOSED
TYPE III BARRICADE(S)
A
-L- STA 83+04+/-
-L- STA 82+61+/-
BEGIN TEMPORARY PAVEMENT
6.5' LT
-L- STA 83+04+/-
END TEMPORARY PAVEMENT
8.0' LT
-L- STA 85+00+/-
BEGIN LEVELING COURSE
-L- STA 93+00+/-
END LEVELING COURSE
BEGIN LEVELING COURSE
MATCHLINE
-L- STA 82+00+/-
SEE SHEET TMP-12
BREAK LINE
-L- STA. 94+50+/-
SEE SHEET TMP-14
-L- STA 85+00+/-
END TEMPORARY GRADE
-L-
NC 211
(SOUTHPORT-SUPPLY RD)
PROVIDE SMOOTH TRANSITION GRADE
FROM PROPOSED TO EXISTING. RESET
GUARDRAIL. REPLACE PAVEMENT MARKING.
-L- STA 83+05+/-
BEGIN TEMP GRADE
REPLACE PAVEMENT MARKING IN EXISTING PATTERN.

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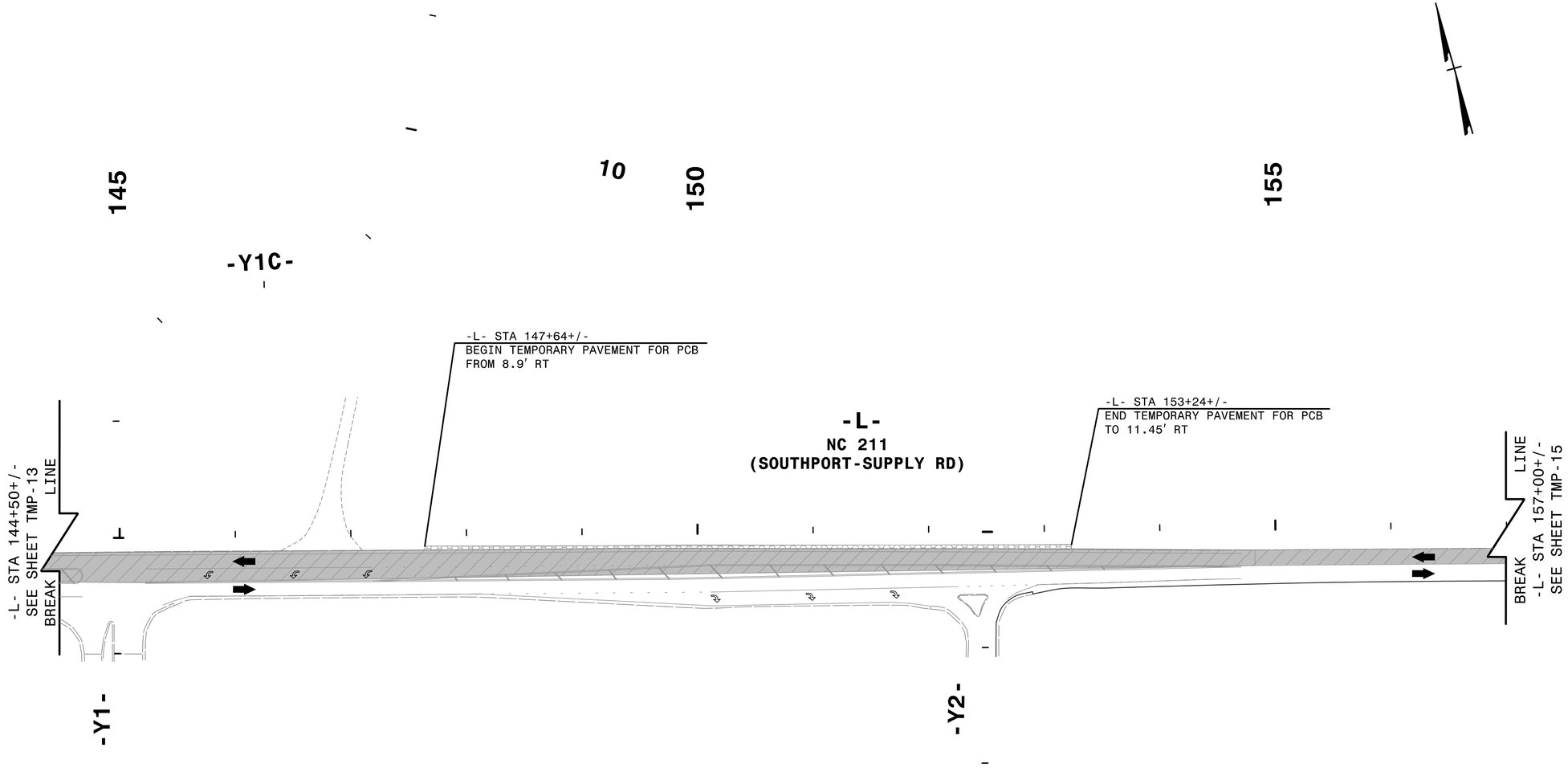
PROJ. REFERENCE NO.	SHEET NO.
R-5021	TMP-14



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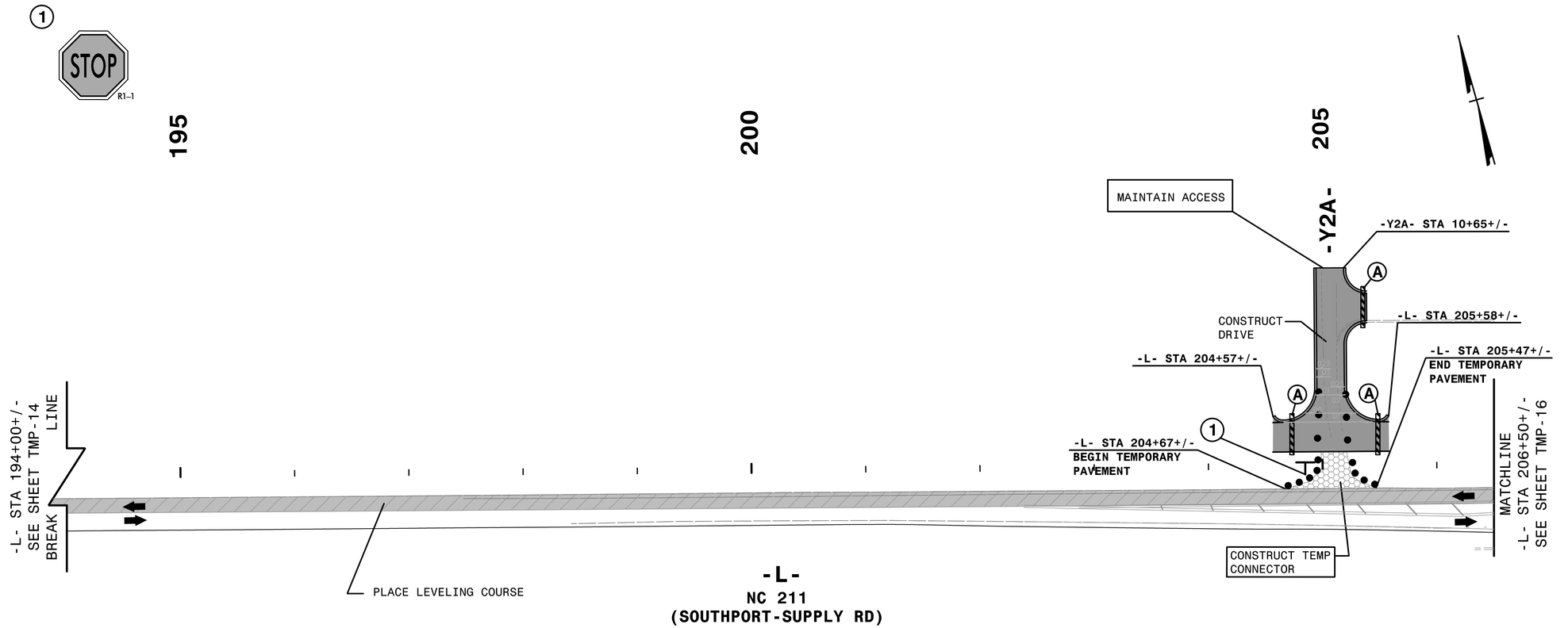
PROJ. REFERENCE NO.	SHEET NO.
R-5021	TMP-15



REPLACE PAVEMENT MARKINGS IN EXISTING PATTERN.

Ⓐ R11-2
48'' x 30''
ROAD CLOSED
TYPE III BARRICADE

APPROVED: Helen Shyu
DATE: 2/6/2019
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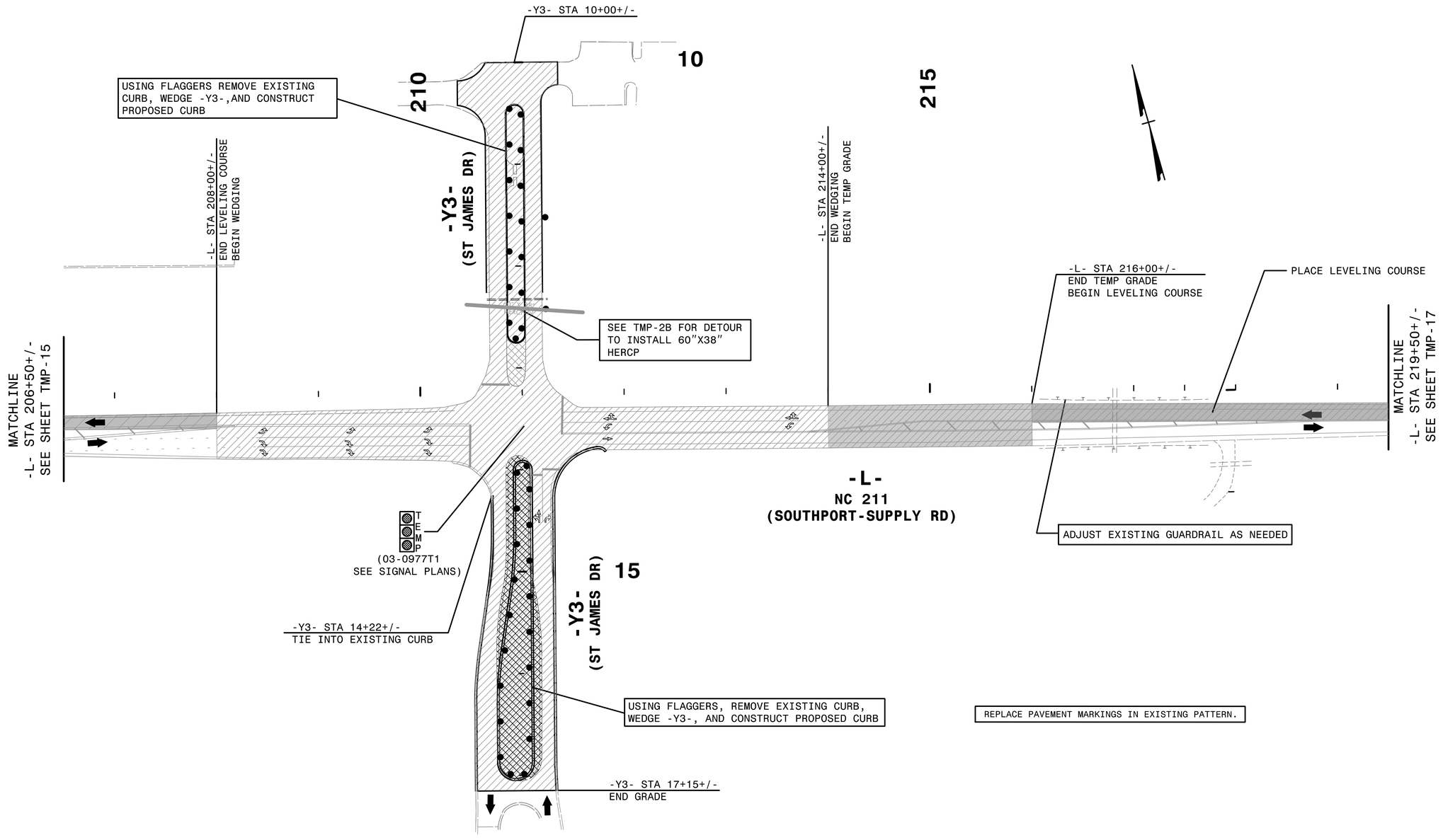
PROJ. REFERENCE NO.	SHEET NO.
R-5021	TMP-16



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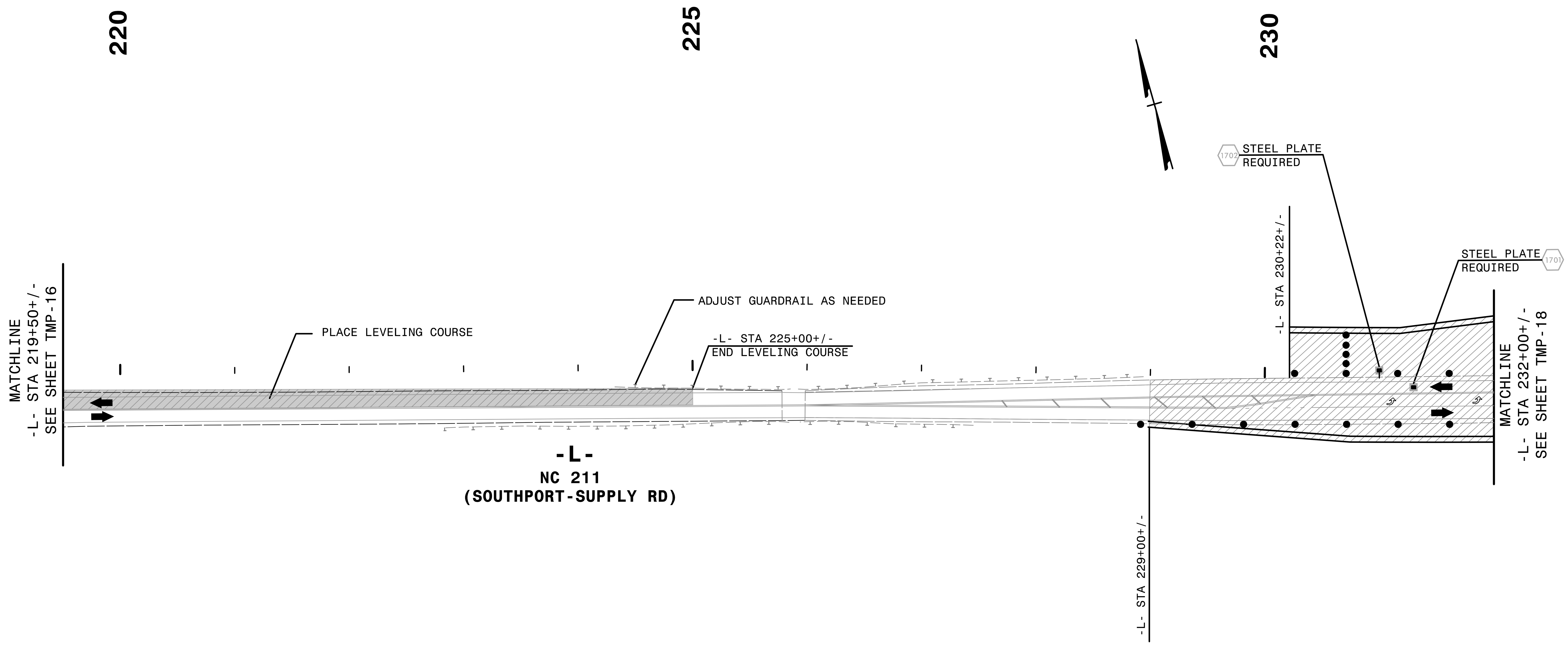
PROJ. REFERENCE NO.	SHEET NO.
R-5021	TMP-17



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