STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS



STATE PROJECT REFERENCE NO. SHEET NO. TCP-1

PLAN FOR PROPOSED TRAFFIC CONTROL, MARKING & DELINEATION

FORSYTH COUNTY

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS"-PROJECT SERVICES UNIT-N.C. DEPARTMENT OF TRANSPORTATION-RALEIGH, N.C., DATED JANUARY 2002 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD 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 PANELS
1135.01	CONES
1150.01	FLAGGING DEVICES
1160.01	TEMPORARY CRASH CUSHION
1165.01	TRUCK MOUNTED IMPACT ATTENUATOR
1170.01	PORTABLE CONCRETE BARRIER
1180.01	SKINNY-DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES & OFFSETS
1205.02	PAVEMENT MARKINGS - 2 LANE & MULTILANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.06	PAVEMENT MARKINGS - THRU LANE DROPS
1205.07	PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS
1205.08	PAVEMENT MARKINGS - SYMBOLS & WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1250.01	PAVEMENT MARKER SPACING
1251.01	RAISED PAVEMENT MARKERS (TEMPORARY & PERMANENT)
1261.01	GUARDRAIL & BARRIER DELINEATOR SPACING
1261.02	GUARDRAIL & BARRIER DELINEATOR TYPES
1262.01	GUARDRAIL END DELINEATION

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TCP-12 THRU TCP-14	TEMPORARY PAVEMENT MARKING PLANS
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TCP-16	REPLACEMENT DETAIL FOR RSD 1130.01
TCP-17	REPLACEMENT DETAIL FOR RSD 1145.01
PM-1 THRU PM-3	FINAL PAVEMENT MARKING PLANS

[LEGEND]

GENERAL

DIRECTION OF TRAFFIC FLOW

NORTH ARROW

--- PROPOSED PVMT. ----- EXIST. PVMT.

WORK AREA



REMOVAL OF EXISTING PAVEMENT

TRAFFIC CONTROL DEVICES

T TYPE I BARRICADE

TYPE III BARRICADE

CONE

■ DRUM ⑤ SKINNY DRUM

FLASHING ARROW PANEL (TYPE C)

- STATIONARY SIGN

PORTABLE SIGN

STATIONARY OR PORTABLE SIGN

WARNING FLAGS

---- CRASH CUSHION

CHANGEABLE MESSAGE SIGN

TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)

POLICE

■ FLAGGER

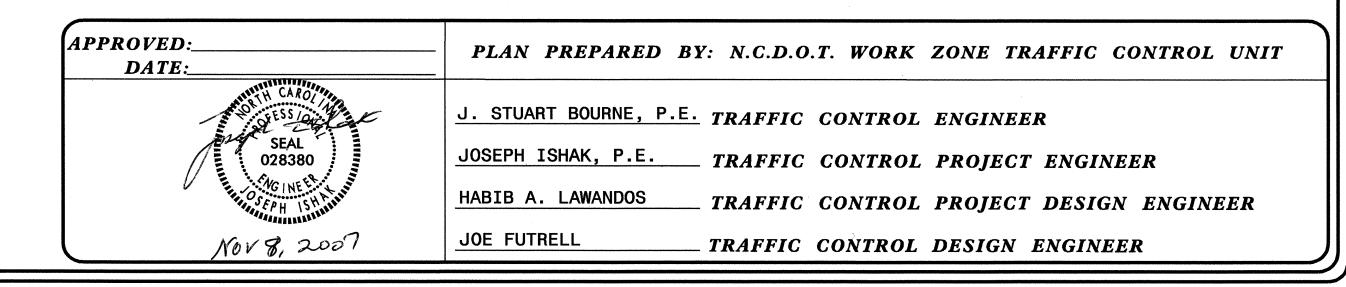
PAVEMENT MARKINGS

CRYSTAL/CRYSTAL PAVEMENT MARKER

◆ YELLOW/YELLOW PAVEMENT MARKER

CRYSTAL/RED PAVEMENT MARKER

PAVEMENT MARKING SYMBOLS





GENERAL NOTES

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

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

NOTE: THE FOLLOWING DAY, TIME AND HOLIDAY RESTRICTIONS WILL BE APPLIED ON SR 1103 -L- ONLY WHEN TRAFFIC IS ON A 2 LANE 2 WAY TRAFFIC PATTERN.

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

ROAD NAME

DAY AND TIME RESTRICTIONS

SR 1103(LEWISVILLE-CLEMMONS RD.)

MONDAY THRU SUNDAY, 7:00AM TO 7:00PM

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

ROAD NAME

SR 1103(LEWISVILLE-CLEMMONS RD.)

HOLIDAY

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

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

- 6. FOR LABOR DAY, BETWEEN THE HOURS OF 7:00 P.M. FRIDAY AND 7:00 A.M. THE FOLLOWING TUESDAY.
- 7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 7:00 P.M. TUESDAY TO 7:00 A.M. THE FOLLOWING MONDAY.

- 8. FOR CHRISTMAS, BETWEEN THE HOURS OF 7:00 P.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 7:00 A.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.
- 9. FOR VARSITY AND JUNIOR VARSITY FOOTBALL GAMES OCCURING AT WEST FORSYTH HIGH SCHOOL, BETWEEN 2(TWO) HOURS BEFORE THE START OF THE GAME AND 1 (ONE) HOUR AFTER THE END OF THE GAME.
- DO NOT STOP TRAFFIC FOR MORE THAN 15 MINUTES AS FOLLOWS:

ROAD NAME

OPERATIONS

TIME RESTRICTIONS

TRAFFIC SHIFT 6:00AM TO 12:00AM(MIDNIGHT) SR 1103 (LEWISVILLE-CLEMMONS RD.)

LANE AND SHOULDER CLOSURE REQUIREMENTS

- 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.
- WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 5m 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.
- WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 1.5m 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 3m 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 WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.
- DO NOT WORK SIMULTANEOUSLY WITHIN 5m ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.
- DO NOT INSTALL MORE THAN ONE LANE CLOSURE, IN ANY ONE DIRECTION, ON LEWISVILLE-CLEMMONS RD..
- PROVIDE TRAFFIC CONTROL FOR APPROPRIATE LANE CLOSURES FOR SURVEYING DONE BY THE DEPARTMENT.

PAVEMENT EDGE DROP OFF REQUIREMENTS

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 50mm ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.

BACKFILL DROP-OFFS THAT EXCEED 75mm 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.

DO NOT EXCEED A DIFFERENCE OF 50mm IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 40mm. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 150m IN ADVANCE AND A MINIMUM OF ONCE EVERY MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

M) NOTIFY THE ENGINEER TWENTY ONE (21) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

SIGNING

N) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 12m FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.

WHEN NO WORK IS BEING CONDUCTED FOR A PERIOD LONGER THAN ONE WEEK, REMOVE OR COVER ALL ADVANCE WORK ZONE WARNING SIGNS, AS DIRECTED BY THE ENGINEER, AT NO COST TO THE DEPARTMENT.

- O) PROVIDE PERMANENT SIGNING.
- P) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.
- Q) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) 150m IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.
- INSTALL BLACK ON ORANGE "BUMP" SIGNS (W8-1) 150m IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

TRAFFIC BARRIER

S) INSTALL TEMPORARY BARRIER ACCORDING TO THE TRAFFIC CONTROL PLANS A MAXIMUM OF TWO (2) WEEKS PRIOR TO BEGINNING WORK IN ANY LOCATION. ONCE MOVABLE/PORTABLE CONCRETE BARRIER IS INSTALLED AT ANY LOCATION, PROCEED IN A CONTINUOUS MANNER TO COMPLETE THE PROPOSED WORK IN THAT LOCATION UNLESS OTHERWISE STATED IN THE

DATE:_ DESIGN BY: JLF REVIEWED BY: HAL

PROJECT NOTES

NONE 4/07 JLF

REVISIONS

PROJECT NOTES CONTINUED



PROJ. REFERENCE NO. SHEET NO.

U-3119A

TCP-3

GENERAL NOTES

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

ONCE TEMPORARY BARRIER IS INSTALLED AT ANY LOCATION AND NO WORK IS PERFORMED BEHIND THE TEMPORARY BARRIER FOR A PERIOD LONGER THAN TWO (2) MONTHS, REMOVE/RESET TEMPORARY BARRIER AT NO COST TO THE DEPARTMENT UNLESS OTHERWISE STATED IN THE TRAFFIC CONTROL PLANS, 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 UNTIL THE BARRIER IS REMOVED.

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

PROTECT THE APPROACH END OF TEMPORARY BARRIER FROM ONCOMING TRAFFIC AT ALL TIMES BY A TEMPORARY CRASH CUSHION UNLESS THE APPROACH END OF TEMPORARY BARRIER IS OFFSET FROM ONCOMING TRAFFIC AS FOLLOWS OR AS SHOWN IN THE PLANS:

POSTED SPEED LIMIT LESS THAN 80 Km/h 80 Km/h or HIGHER MINIMUM OFFSET
6m

TRAFFIC CONTROL DEVICES

- U) SPACE CHANNELIZING DEVICES IN WORK AREAS EQUAL IN METERS TO 2/3rds
 THE POSTED SPEED LIMIT (MPH), EXCEPT 3m ON-CENTER IN RADII, AND 1m
 OFF THE EDGE OF AN OPEN TRAVELWAY, WHEN LANE CLOSURES ARE NOT IN
 EFFECT. WHEN SKINNY DRUMS ARE ALLOWED, REFER TO SECTION 1180 OF STANDARD
 SPECIFICATIONS FOR ROADS AND STRUCTURES OR AS SHOWN IN THE PLANS.
- V) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.
- W) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 150m CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

PAVEMENT MARKINGS AND MARKERS

X) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS FOLLOWS:

ROAD NAME

MARKING

MARKER

SR 1103(LEWISVILLE-CLEMMONS RD.)

THERMOPLASTIC

SNOWPLOWABLE

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

ROAD NAME

MARKING

MARKER

SR 1103(LEWISVILLE-CLEMMONS RD.)

PAINT

TEMPORARY RAISED

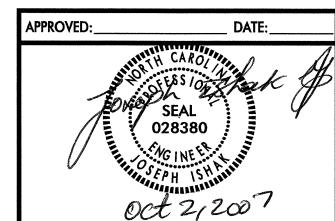
- Z) PLACE TWO APPLICATIONS OF PAINT PAVEMENT MARKINGS ON THE FINAL WEARING SURFACE ON NEW ASPHALT PAVEMENT. PLACE ADDITIONAL APPLICATIONS OF PAINT UPON SUFFICIENT DRYING TIME, AS DETERMINED BY THE ENGINEER.
- AA) PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE A SECOND APPLICATION 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 EDGE OF PROPOSED MONOLITHIC ISLANDS WITH PROPER COLOR PAVEMENT MARKINGS PRIOR TO INSTALLATION OF A PROPOSED MONOLITHIC ISLAND.

MISCELLANEOUS

- EE) POLICE MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR.
 INTERSECTIONS, AS DIRECTED BY THE ENGINEER.
- FF) PLACE CONES TO DELINEATE PROPOSED ISLANDS BEFORE INSTALLATION.

LOCAL NOTES

1) NOTIFY "THE VILLAGE OF CLEMMONS" IN ADVANCE OF ANY TRAFFIC SHIFTS SO THEY CAN INFORM CITIZENS VIA THE PUBLIC ANNOUNCEMENT TELEVISION CHANNEL.



PROJECT NOTES CONTINUED

SCALE: NONE

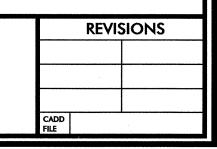
DATE: 4/07

DWG. BY: JLF

DESIGN BY: JLF

REVIEWED BY: HAL





PHASING

#ETRICO

PROJ. REFERENCE NO. SHEET NO.

U-3119A

TCP-4

NOTES:

MAINTAIN ACCESS TO ALL DRIVEWAYS DURING CONSTRUCTION.

AT THE END OF EACH WORK DAY RETURN TRAFFIC TO THE EXISTING TRAFFIC PATTERN ON ALL ROADS UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR LISTED IN THE PHASING.

PHASE I:

CTED 1

USING RSD 1101.02 SHEET 1 OF 7 AND SHEET TCP-10, INSTALL WORK ZONE ADVANCE WARNING SIGNS.

STEP 2:

USING RSD 1101.02 SHEET 1 OF 7, PERFORM THE FOLLOWING: SEE SHEETS TCP-5, 6 & 7 AND ROADWAY PLANS.

- BEGIN DRAINAGE WORK WITHIN THE PROJECT LIMITS.
- BEGIN WIDENING WORK UP TO EDGE AND ELEVATION OF EXISTING ROADWAY ON BOTH SIDES OF SR-1103 (LEWISVILLE-CLEMONS RD) FROM -L- STA. 9+60 +/- TO -L- STA. 13+50 +/- AND FROM -L- STA. 16+50 +/- TO -L- STA. 32+00 +/-. SEE TYPICAL SECTION ON SHEET TCP-7.
- BEGIN PROPOSED CONSTRUCTION ON -Y4- FROM -Y4- STA. 10+00+/- TO -Y4- STA. 11+00 +/-.
- CONSTRUCT THE TEMPORARY PAVEMENT UP TO EDGE AND ELEVATION OF EXISTING PAVEMENT FROM -L- STA. 13+50 +/- TO -L- STA. 16+50 +/-.
- COMPLETE PROPOSED WIDENING ON LEFT SIDE OF -L- UP TO EDGE AND ELEVATION OF EXISTING FROM STA. 13+00 +/- TO -L- STA. 13+50 +/- AND FROM -L- STA. 16+50 +/- TO -L- STA. 16+65 +/-.

STEP 3:

USING RSD 1101.02 SHEET 1 OF 7, PERFORM THE FOLLOWING: SEE SHEET TCP-8 AND ROADWAY PLANS. AT THE END OF THE WORK DAY PLACE SR-1103 TRAFFIC IN A TEMPORARY TWO LANE-TWO WAY TRAFFIC PATTERN ON THE TEMPORARY PAVEMENT.

- 1- PLACE TRAFFIC IN ONE LANE-TWO WAY TEMPORARY TRAFFIC PATTERN ON EXISTING NB SR-1103 FROM -L- STA. 13+50 +/- TO -L- STA. 16+50 +/-.
- 2- TIE IN THE EXISTING SB LANE TO THE TEMPORARY SB LANE OF SR-1103 AT -L- STA. 13+50 +/- AND -L- STA. 16+50 +/-.
- 3- PLACE TRAFFIC IN ONE LANE-TWO WAY TEMPORARY TRAFFIC PATTERN ON TEMPORARY SB SR-1103 FROM -L- STA. 13+20 +/- TO -L- STA. 16+65 +/-.
- 4- TIE IN THE EXISTING NB LANE TO THE TEMPORARY NB LANE OF SR-1103 AT -L- STA. 13+50 +/- AND -L- STA. 16+50 +/-.
- 5- REMOVE THE CONFLICTING PAVEMENT MARKINGS, PLACE TEMPORARY PAVEMENT MARKING (PAINT) AND TEMPORARY PAVEMENT MARKERS (RAISED) FROM -L- STA. 13+20 +/- TO -L- STA. 16+65 +/- AND OPEN SR-1103 ONTO TWO LANE-TWO WAY TEMPORARY TRAFFIC PATTERN.

STEP 4

USING RSD 1101.02 SHEET 1 OF 7, PERFORM THE FOLLOWING: SEE SHEET TCP-8 AND ROADWAY PLANS.

- INSTALL TEMPORARY ANCHORED BARRIER AND CRASH CUSHIONS FROM -L- STA. 13+80 +/- TO -L- STA. 16+20 +/- AND MAINTAIN ACCESS TO THE DRIVEWAY LOCATED RIGHT OF -L- AT -L- STA. 14+50 +/- BEHING THE TEMPORARY BARRIER.
- CONSTRUCT THE PROPOSED CONSTRUCTION UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE FROM -L- STA. 13+50 +/- TO -L- STA. 16+50 +/-.

STEP 5:

USING RSD 1101.02 SHEET 1 OF 7, PERFORM THE FOLLOWING: SEE SHEET TCP-9 AND ROADWAY PLANS.

AT THE END OF THE WORK DAY PLACE SR-1103 TRAFFIC IN A TEMPORARY TWO LANE-TWO WAY TRAFFIC PATTERN ON THE CONSTRUCTED AREA IN STEP 4.

- CONSTRUCT THE TIE IN WORK UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE AT -L- STA. 13+50 +/- AND -L- STA. 16+50 +/-.
- PLACE TEMPORARY PAVEMENT MARKING (PAINT) AND TEMPORARY PAVEMENT MARKERS (RAISED) FROM -L- STA. 12+60 +/- TO -L- STA. 16+90 +/- AS SHOWN ON SHEET TCP-9.
- PLACE DRUMS ON THE LEFT SIDE OF CONSTRUCTED AREA FROM -L- STA. 13+70 +/- TO -L- STA. 15+65 +/- AND SHIFT SR-1103 TRAFFIC TO A TWO LANE-TWO WAY TEMPORARY TRAFFIC PATTERN AS SHOWN ON SHEET TCP-9.

STEP 6: USING RSD 1101.02 SHEET 1 OF 7, PERFORM THE FOLLOWING: SEE SHEET TCP-9 AND ROADWAY PLANS.

- REMOVE DRUMS AND RESET THE TEMPORARY BARRIER AND CRASH CUSHIONS INSTALLED IN STEP 4 TO A NEW LOCATION ON SR-1103 FROM -L- STA. 13+70 +/- TO -L- STA. 15+65+/- AS SHOWN ON SHEET TCP-9.
- REMOVE TEMPORARY PAVEMENT CONSTRUCTED IN STEP 2 FROM -L- STA. 13+50 +/- TO -L- STA. 16+50 +/-.
- CONSTRUCT THE PROPOSED CONSTRUCTION UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE FROM -L- STA. 13+50 +/- TO -L- STA. 16+50 +/-.
- REMOVE TEMPORARY BARRIER AND CRASH CUSHIONS INSTALLED IN THIS STEP FROM -L- STA. 13+70 +/- TO -L- STA. 15+65 +/-.
- COMPLETE DRAINAGE WORK WITHIN THE PROJECT LIMITS.
- COMPLETE PROPOSED CONSTRUCTION UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE ON THE FOLLOWING LOCATIONS:
 - SR 1103 FROM -L- STA. 9+60 +/- TO -L- STA. 32+00 +/-
 - Y4- FROM STA. 10+00 +/- TO STA. 11+00 +/-
 - ALL OTHER -Y- LINES AND THEN OPEN ALL -Y- LINES TO PROPOSED TRAFFIC PATTERN
- CONSTRUCT THE PROPOSED CURB AND GUTTER ON -L- AND ALL -Y- LINES.
- PLACE TEMPORARY PAVEMENT MARKING (PAINT) AND TEMPORARY PAVEMENT MARKERS (TEMPORARY RAISED) FROM -L- STA. 9+60 +/- TO -L- STA. 32+00 +/- ACCORDING TO TEMPORARY PAVEMENT MARKING PLANS (TCP-11 TO TCP-14), TEMPORARY PAVEMENT MARKING SCHEDULE AND REFER TO SHEET TCP-7 TYPICAL SECTION III.
- PLACE TRAFFIC IN THE FINAL TRAFFIC PATTERN ON ALL ROADS.

PHASE II

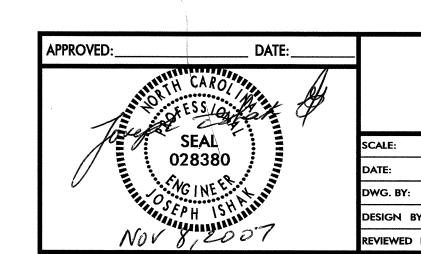
STEP 1:

USING RSD 1101.02 SHEET 1 OF 7 FOR -Y- LINES AND SHEET 3 OF 7 FOR -L- LINE, PERFORM THE FOLLOWING: SEE SHEET TCP-7, FINAL PAVEMENT MARKING PLANS, AND ROADWAY PLANS.

- CONSTRUCT THE PROPOSED MEDIAN CONCRETE ISLANDS. SEE TYPICAL SECTION IV ON SHEET TCP-7 AND ROADWAY PLANS.
- PLACE FINAL LAYER OF SURFACE COURSE ON ALL ROADS.
- PLACE FINAL PAVEMENT MARKINGS (THERMOPLASTIC) AND FINAL MARKERS (SNOWPLOWABLE)
 ON ALL ROADS. SEE TYPICAL SECTION V ON SHEET TCP-7 AND FINAL PAVEMENT MARKING PLANS.

STEP 2:

USING RSD 1101.02 SHEETS 1 OF 7 AND 3 OF 7 REMOVE TRAFFIC CONTROL DEVICES AND OPEN ALL ROADS TO FINAL TRAFFIC PATTERN.



PHASING

DATE: 4/07

DWG. BY: JLF

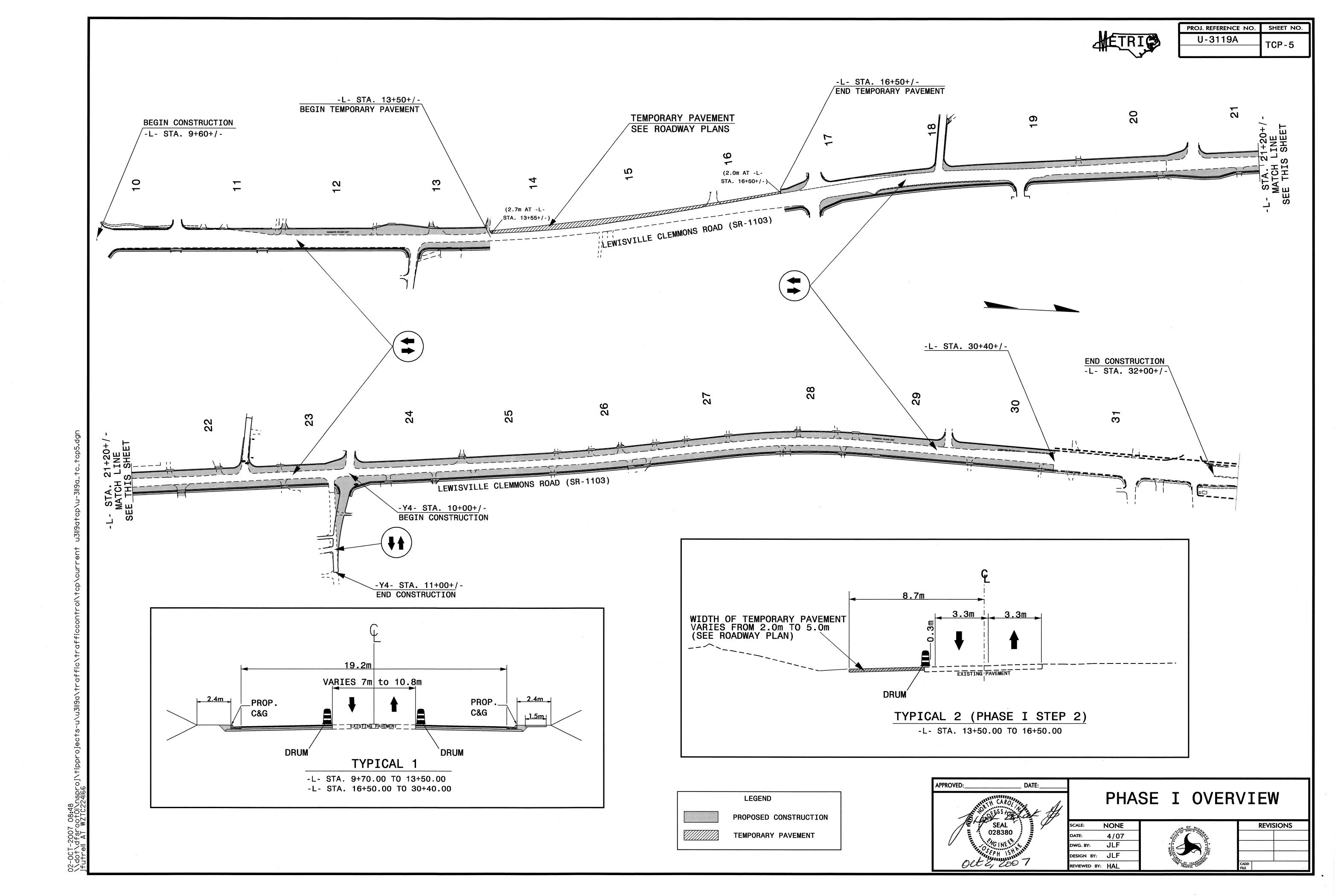
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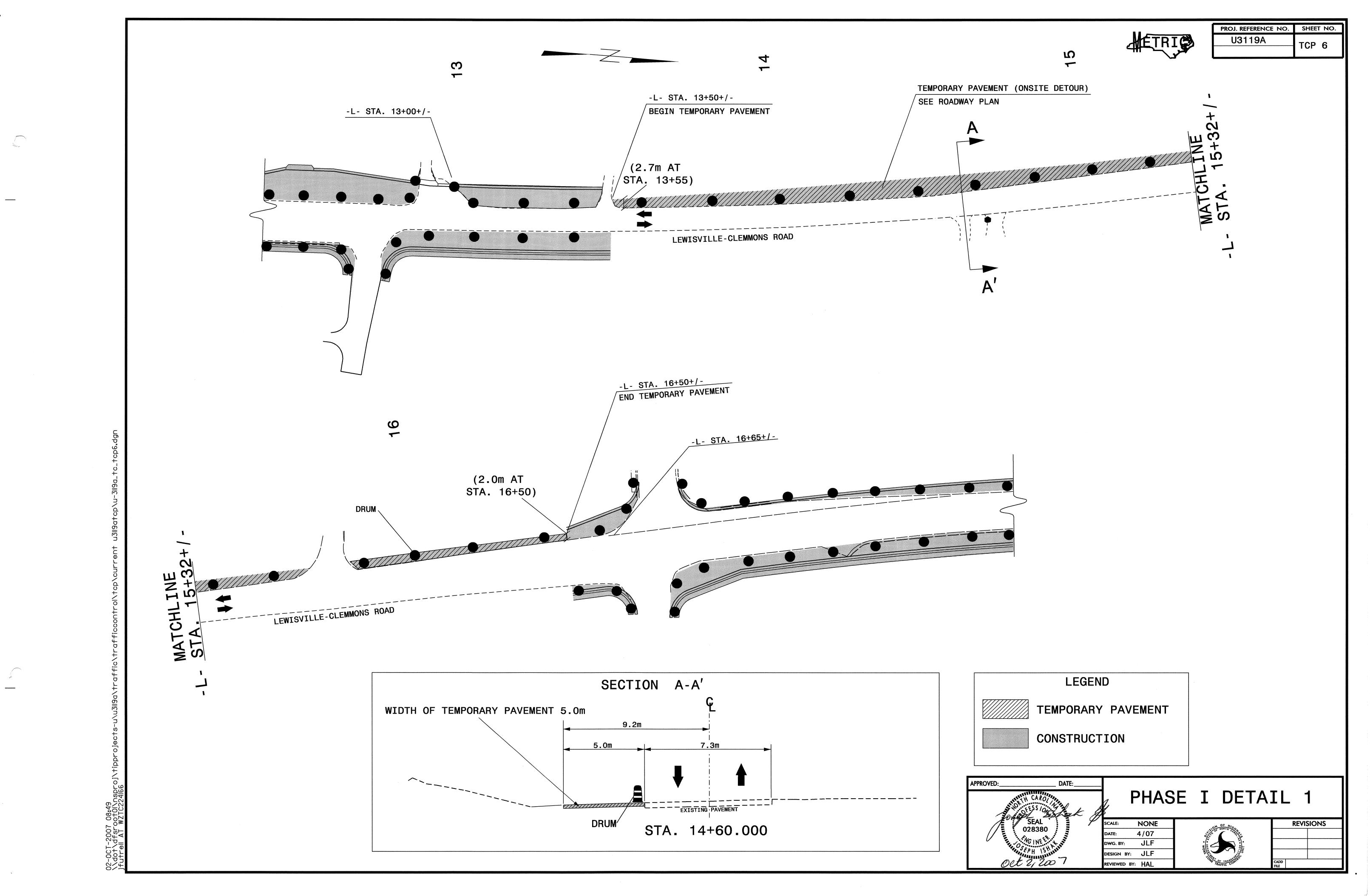
REVIEWED BY: HAL

OF TRANSPORTOR

REVISIONS

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PAVING SEQUENCE FOR PROPOSED SR 1103

FROM -L- STA. 9+60 +/- TO -L- STA. 13+50 +/-FROM -L- STA. 16+50 +/- TO -L- STA. 32+00 +/-



PROJ. REFERENCE NO. U3119A TCP 7

USE RSD 1101.02 SHEET 1 OF 9 TO CONSTRUCT THE WIDENING WORK UP TO EDGE AND ELEVATION OF EXISTING ROADWAY ON THE RIGHT & LEFT SIDE OF -L-(SR 1103).

AT THE END OF EACH WORK DAY RETURN TRAFFIC TO THE EXISTING PATTERN ON EXISTING SR 1103.

(SEE GENERAL NOTES FOR LANE AND SHOULDERS CLOSURE REQUIREMENTS, AND FOR PAVEMENT DROP OFF REQUIREMENTS)

USE RSD 1101.02 SHEET 1 OF 9, COMPLETE CONSTRUCTION OF -L- UP TO BUT NOT INCLUDING FINAL SURFACE COURSE, INCLUDING CURB AND GUTTER.

AT THE END OF EACH WORK DAY RETURN TRAFFIC TO THE EXISTING PATTERN ON EXISTING SR 1103.

USE RSD 1101.02 SHEET 1 OF 9 AND REFER TO TEMPORARY PAVEMENT MARKING PLANS, TCP-11 THRU TCP-14, PLACE TEMPORARY PAVEMENT MARKINGS (PAINT), MARKERS (TEMPORARY RAISED) AND PAINTED ISLANDS ON SR 1103 AND OPEN SR 1103 TO FINAL TRAFFIC PATTERN.

NOTE: THIS TYPICAL TO BE COMPLETED IN CONJUNCTION WITH PHASE I STEP 6.

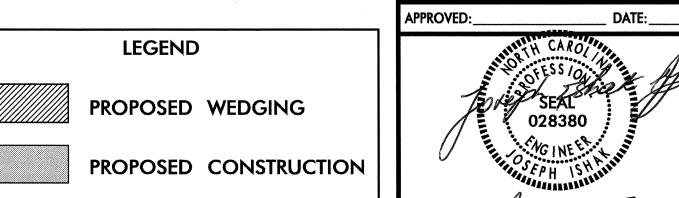
USE RSD 1101.02 SHEET 3 OR 4 OF 9 AND ROADWAY PLANS TO CONSTRUCT THE MEDIAN CONCRETE WORK.

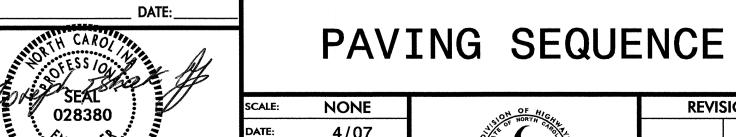
AT THE END OF EACH WORK DAY RETURN TRAFFIC TO THE CURRENT TRAFFIC PATTERN ON PROPOSED SR 1103.

(SEE GENERAL NOTES FOR LANE AND SHOULDERS CLOSURE REQUIREMENTS, AND FOR PAVEMENT DROP OFF REQUIREMENTS)

USE RSD 1101.02 SHEET 3 OR 4 OF 9 PERFORM THE FOLLOWING:

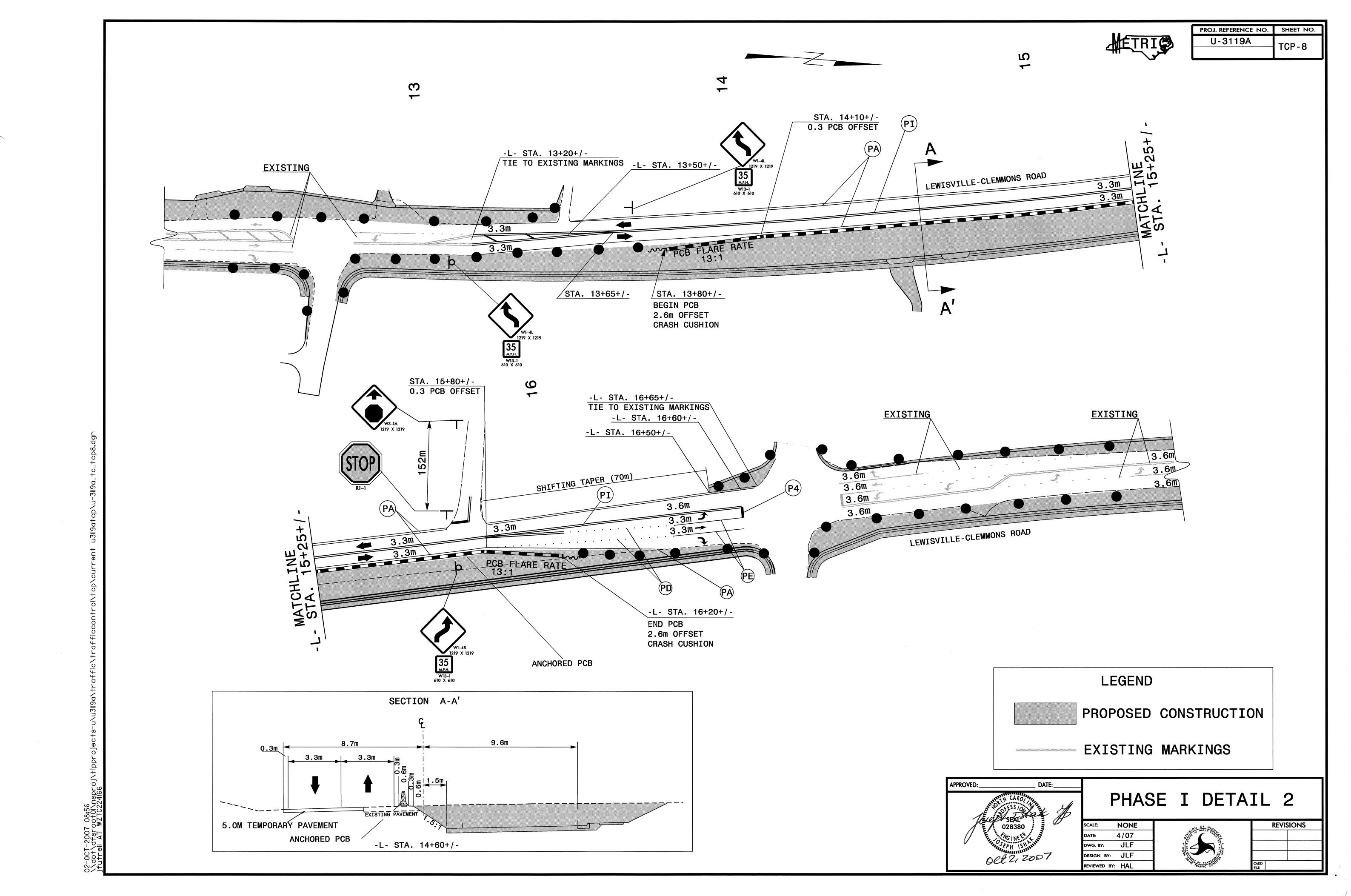
- PLACE FINAL LAYER OF SURFACE COURSE
- PLACE FINAL PAVEMENT MARKINGS (THERMOPLASTIC) AND MARKERS (SEE PAVEMENT MARKING PLANS)
- OPEN SR 1103 TO FINAL TRAFFIC PATTERN





4/07 JLF DESIGN BY: JLF REVIEWED BY: HAL

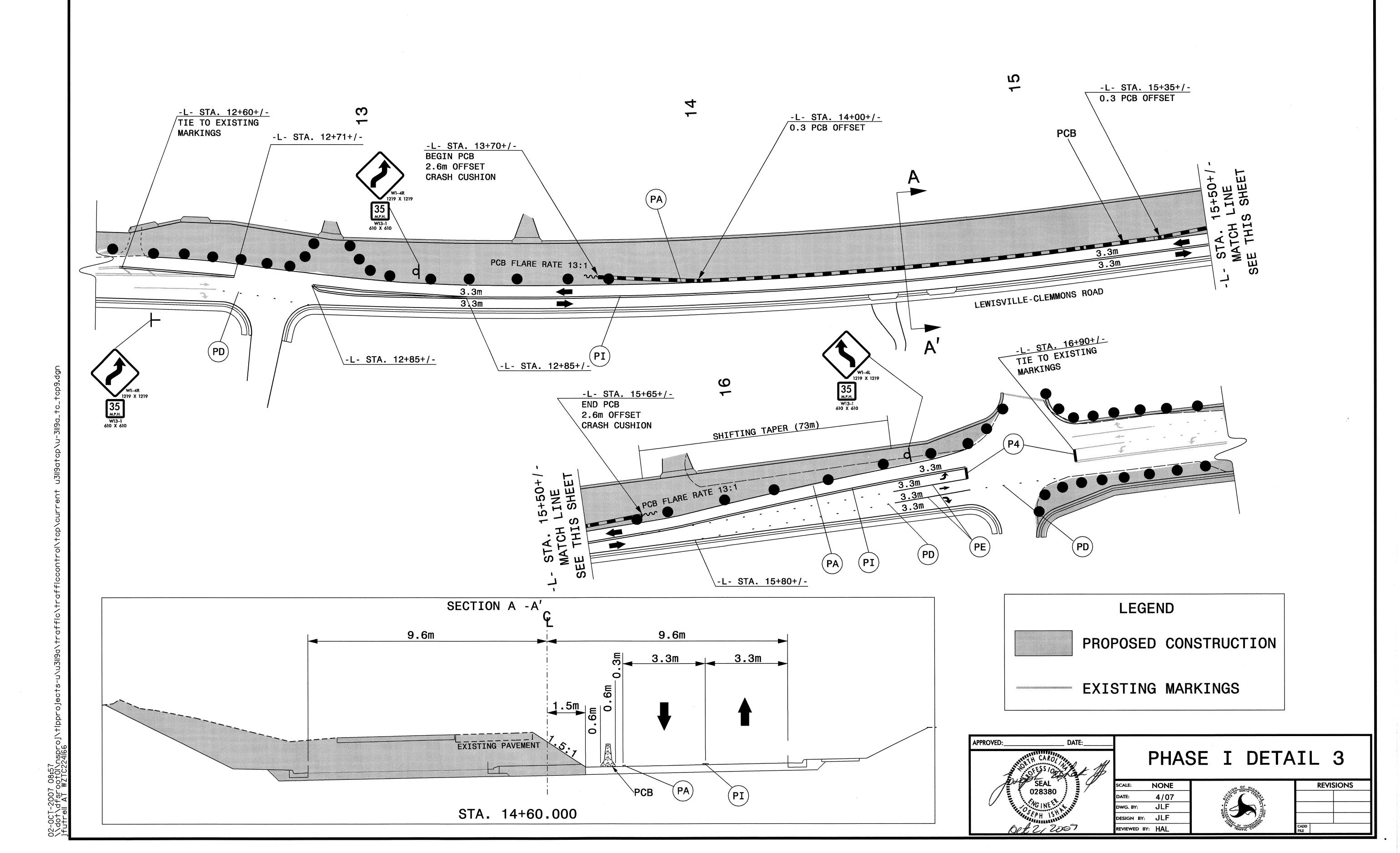
REVISIONS



ETRIC

PROJ. REFERENCE NO. SHEET NO.

U3119A
TCP-9



HIGHWAYS

OF

IGH

TRANSPORTATION

0F

CAROLINA

NORTH

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STATE

TWO-WAY UNDIVIDED ** (L-LINES)

HIGHWAY WORK ZONE

ROAD WORK

G20-2a
1219x610

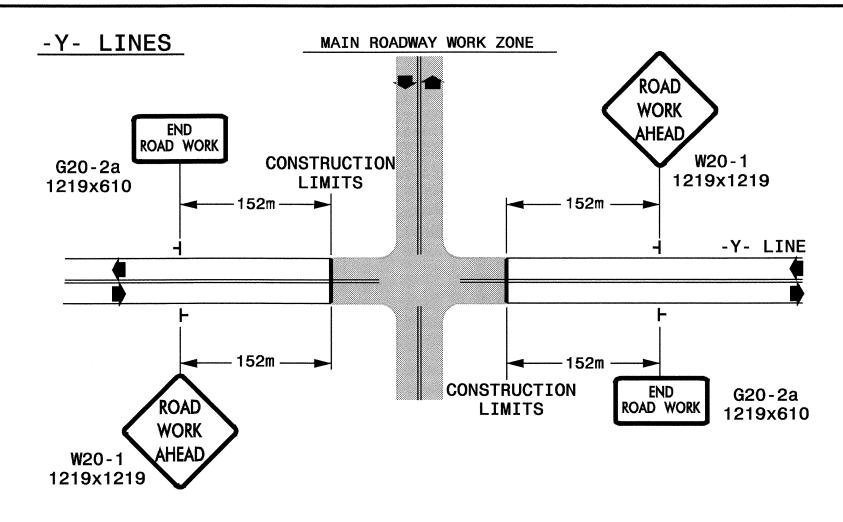
CONSTRUCTION LIMITS

ROAD
WORK

ROAD WORK

G20-2a
1219x610

ROADWAYS INTERSECTING ALONG 2 WAY UNDIVIDED WORK ZONE (Y-LINES)



GENERAL NOTES

- USE FLUORESCENT ORANGE SHEETING (TYPE VII OR HIGHER) ON ALL ADVANCED WORK ZONE SIGNS.
- DO NOT INSTALL ADVANCE WARNING SIGNS MORE THAN 3 DAYS PRIOR TO BEGINNING OF WORK.
- SIGNS SHOWN ARE REQUIRED FOR WORK ZONES THAT WILL REMAIN IN EFFECT OVERNIGHT. FOR SHORT-TERM DAILY MAINTENANCE TYPE OPERATIONS, THIS SIGNING APPLICATION IS OPTIONAL; MAY USE ONLY APPLICABLE ROADWAY STANDARD DRAWINGS INSTEAD. HOWEVER, IF THIS SIGNING APPLICATION IS USED, SIGNS MAY BE PORTABLE MOUNTED.
- ALL SIGN SPACING DIMENSIONS ARE APPROXIMATE, FIELD ADJUST AS NECESSARY OR AS DIRECTED.
- USE 1.4Kg STEEL U-CHANNEL POST OR 90mm X 90mm WOOD POST FOR ALL WORK ZONE SIGNS. 1.4Kg STEEL U-CHANNEL POSTS MUST MEET THE REQUIREMENTS OF STANDARD SPECIFICATION SECTION 1094-1(B), MAY BE GALVANIZED STEEL, OR MAY BE PAINTED GREEN BY THE POST MANUFACTURER. SQUARE STEEL TUBING POSTS HAVING EQUIVALENT STRENGTH OF THE 1.4Kg STEEL U-CHANNEL POST ARE ALSO ACCEPTABLE FOR USE. ERECT SIGNS PER ROADWAY STANDARD DRAWING 1110.01. PAYMENT FOR WOOD POSTS, 1.4Kg STEEL U-CHANNEL AND SQUARE STEEL TUBING POSTS WITH SIGNS WILL BE MADE ACCORDING TO STANDARD SPECIFICATION "WORK ZONE SIGNS" SECTION 1110.
- WHEN NECESSARY, USE SPLICING IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1110.01. REMOVE ENTIRE POST WHEN REMOVING SIGNS WITH SPLICED POSTS.
- DO NOT BACK BRACE SIGN SUPPORTS.
- ** TWO-WAY UNDIVIDED ADVANCE WARNING SIGN CONFIGURATION MAY BE USED ON URBAN MULTI-LANE FACILITIES WHERE CONDITIONS LIMIT THE USE OF DUAL MOUNTED SIGNS AS DETERMINED BY THE ENGINEER.

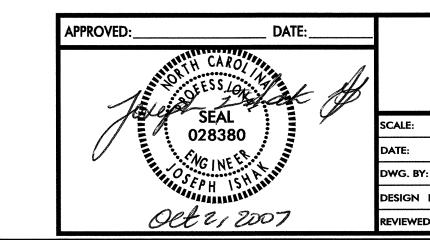
LEGEND

├ STATIONARY SIGN

■ DIRECTION OF TRAFFIC FLOW

SHEET 1 OF 1

DET/ TW0



DETAIL	DRAW	/ING F	FOR '	TWO - W	IAY	
UNDIVIDE	ED A	ND UR	BAN	FREEV	NAYS	
ADVANCED	WORK	ZONE	WAR	NING	SIGNS	3

ì	NONE	
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BY:	JLF	
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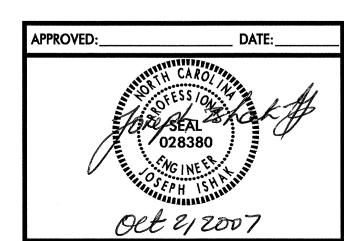
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SYMBOL	DESCRIPTION	PA	PAY ITEM QUANTITY BREAKDOWN				NTITY	
		FINAL						
		PAVEMENT MARKINGS						
Τ.	WHITE EDOEL THE	THERMOPLASTIC(100MM, 2.3MM)	750	14				
TA	WHITE EDGELINE		750	M Total	750	M		
		THERMOPLASTIC(100MM, 3.1MM)		IOIAL	730	IVI		
TC	3 M. WHITE SKIP	THERMOPEASTIC (TOOMIN, S. TWIN)	1087	M				
TD	0.5 M. WHITE MINISKIP		87	M				
TE	WHITE SOLID LANE LINE		773	M				
TI	YELLOW DOUBLE CENTER		384	M				
				TOTAL	2331	M		
		THERMOPLASTIC(600MM, 3.1MM)						
T2	WHITE STOPBAR		53	M				
				TOTAL	53	M		
		THERMOPLASTICPAVEMENT MARKING SYMBOLS (2.3	MM)					
UA	LEFT TURN ARROW		30	EA				
UC	STRAIGHT ARROW		33	EA				
UE	COMBO.STRAIGHT/RIGHT		11	EA				
				TOTAL	74	EA		
		MARKERS						
MF	CRYSTAL & RED	SNOWPLOWABLE RAISED PAVEMENT MARKERS	221	EA				
ME	YELLOW & YELLOW	SNOWPLOWABLE RAISED PAVEMENT MARKERS	8	EA				
				TOTAL	229	EA		

TEMPORARY PAVEMENT MARKING SCHEDULE

SYMBOL	DESCRIPTION	TEMPORARY PAVEMENT MARKINGS		ITEM QUANTITY BREAKDOWN		TOTAL QUANTITY	
		PAINT(100MM)					
PA	WHITE EDGELINE (2X)			1700	M		
PC	3 M. WHITE SKIP (2X)			2173	M		
PD	0.5 M. WHITE MINISKIP (2X)			175	M		
PE	WHITE SOLID LANE LINE (2X)			1546	M		
ΡI	YELLOW DOUBLE CENTER (2X)		18	8000	M		
					TOTAL	23594	M
		PAINT(200MM)					
PV	YELLOW DIAGONAL (1X)			460	M		
					TOTAL	460	M
		PAINT(600MM)					
P4	WHITE STOPBAR (2X)			106	M		
					TOTAL	106	M
		PAINTMARKING SYMBOLS					
QA	LEFT TURN ARROW (2X)			60	EA		
QC	STRAIGHT ARROW (2X)			66	EA		
QE	COMBO.STRAIGHT/RIGHT (2X)			22	EA		
					TOTAL	148	EA
		MARKERS					
MH	YELLOW & YELLOW	TEMPORARY RAISED PAVEMENT MARKERS		8	EA		,
MI	CRYSTAL & RED	TEMPORARY RAISED PAVEMENT MARKERS		60	EA		
					TOTAL	68	EA
	FOR EACH PAINT PAVEMENT MARKING 3X IMPLIES THREE APPLICATIONS.	ITEM, 1X IMPLIES A SINGLE APPLICAT	TION 2X	[IMPL]	ES TWO AP	PLICATIONS	, AND



FINAL AND TEMPORARY PAVEMENT MARKING SCHEDULE

SCALE: NONE

DATE: 4/07

DWG. BY: JLF

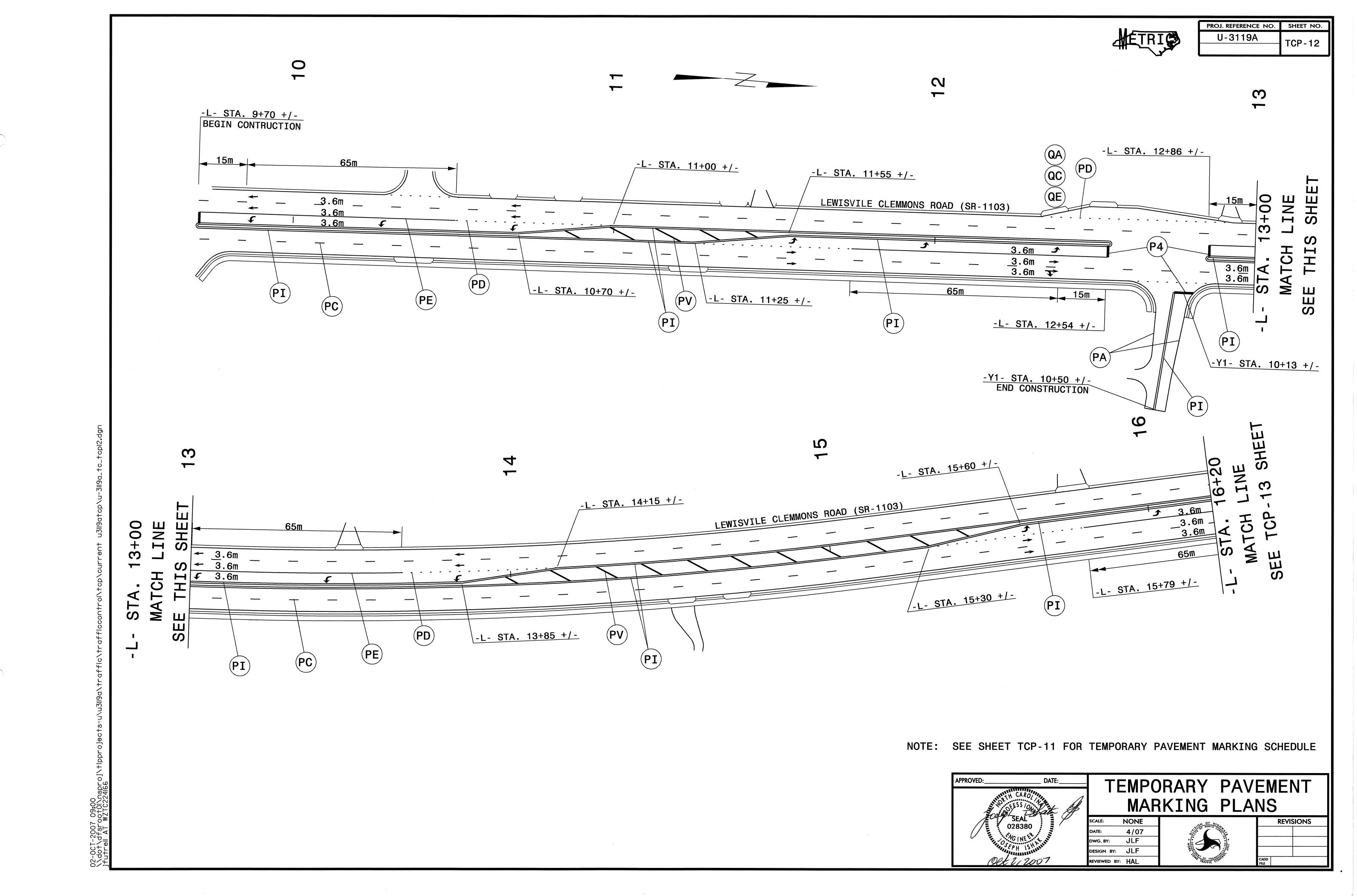
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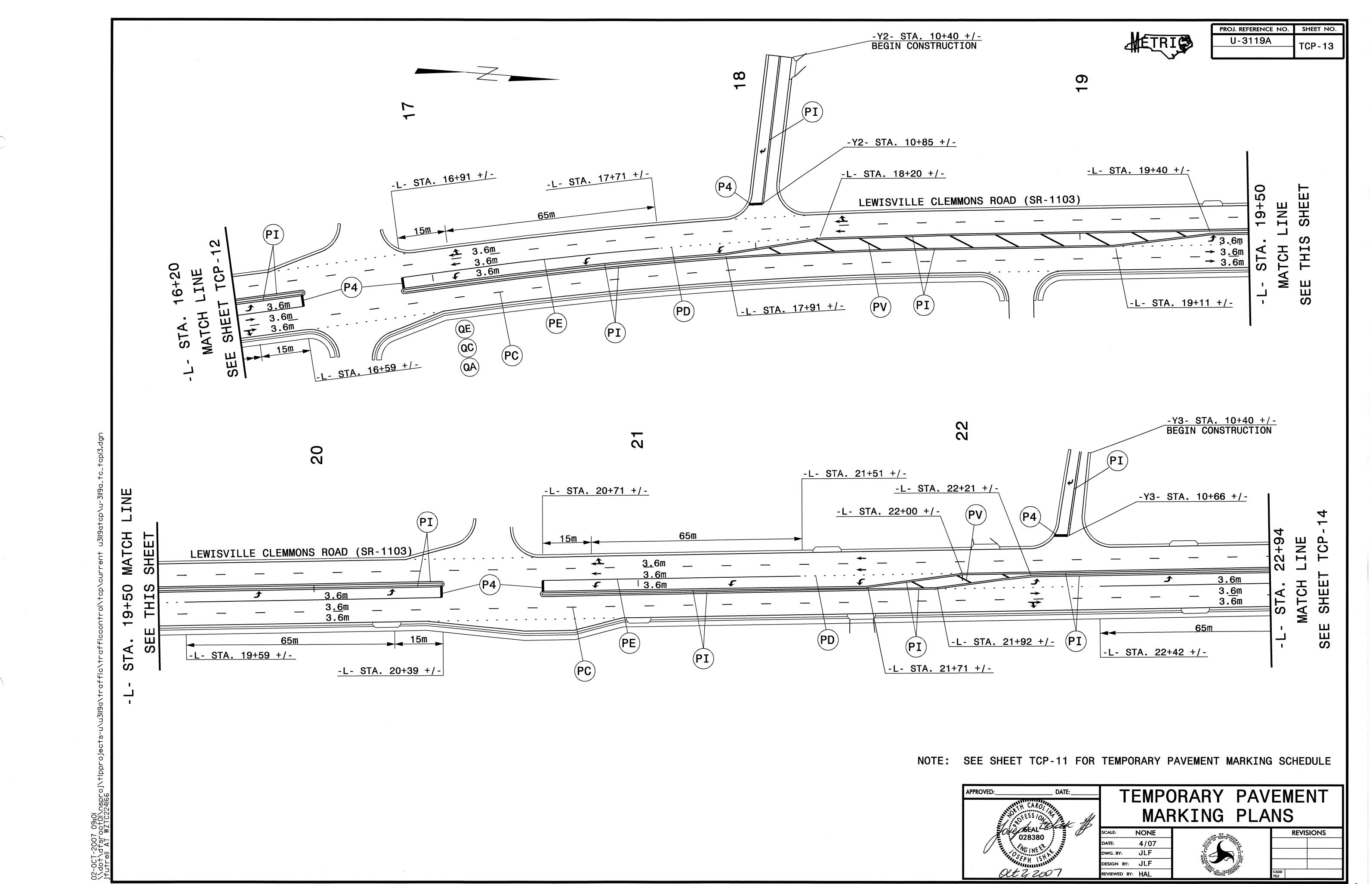
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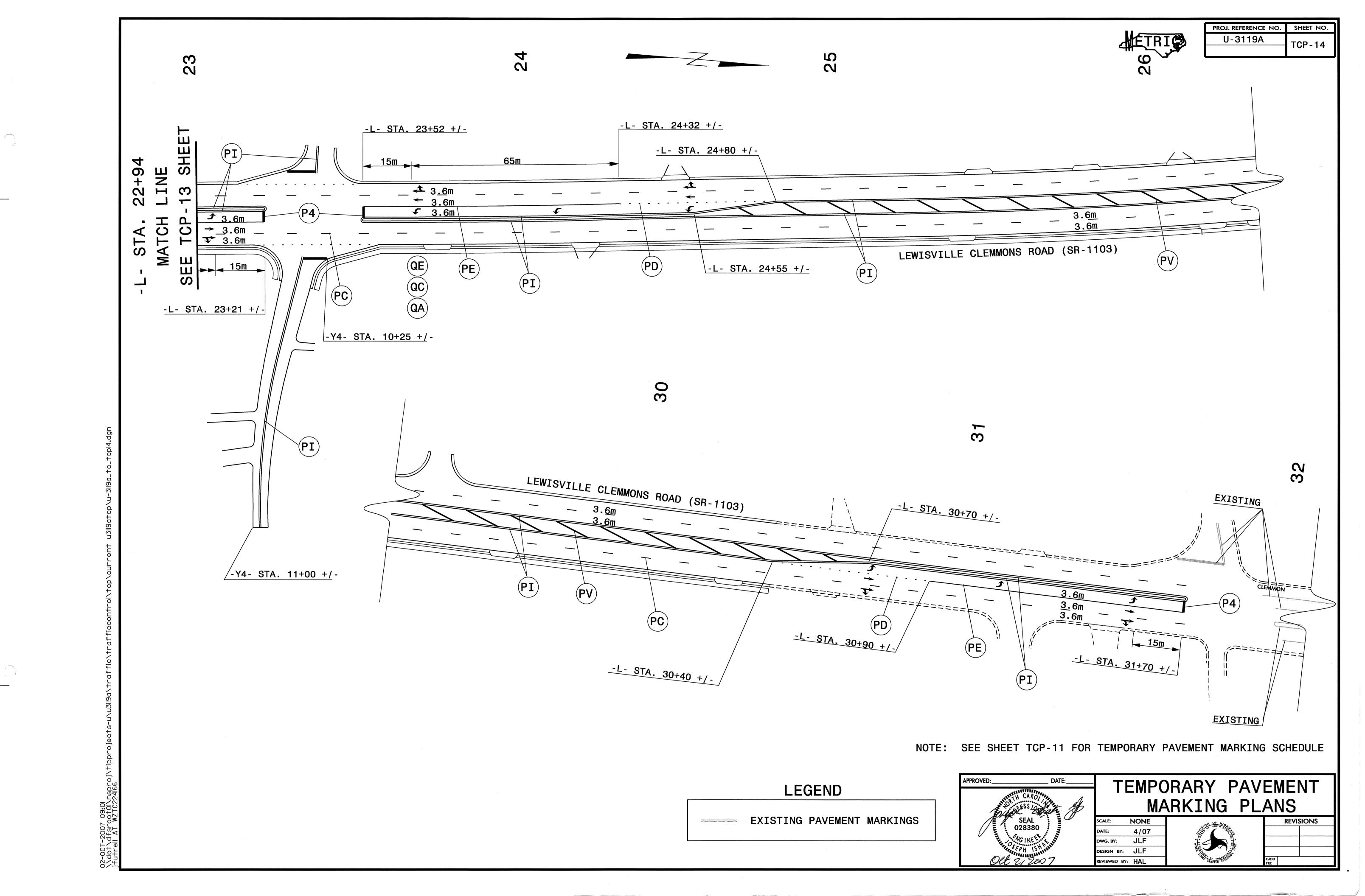
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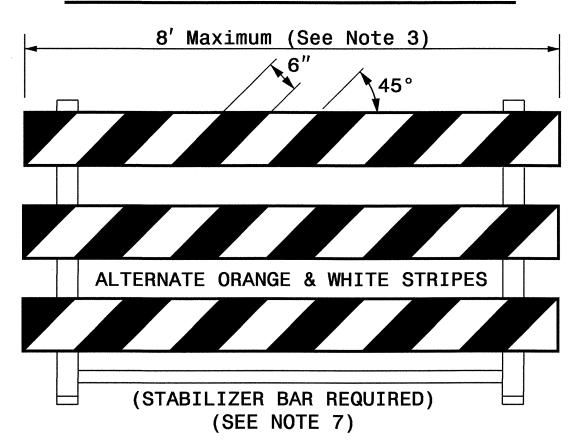
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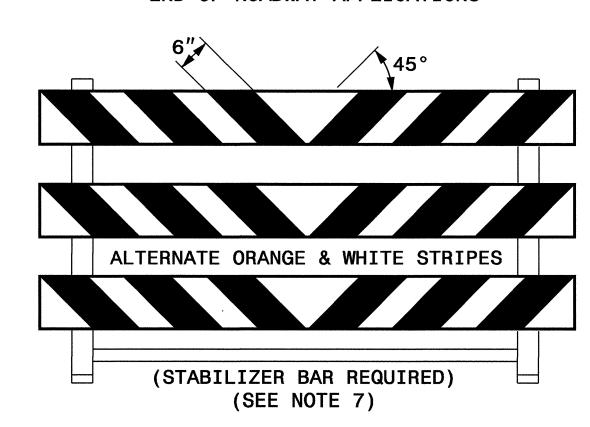


TYPE III BARRICADE



TYPE III BARRICADE

END-OF-ROADWAY APPLICATIONS



GENERAL NOTES

1) HORIZONTAL RAILS FOR TYPE-III BARRICADES MAY BE HOLLOW/CORRUGATED EXTRUDED RIGID POLYOLEFIN, HIGH DENSITY POLYETHYLENE, OR OTHER NCDOT APPROVED RAILS. BARRICADE RAILS OF FRANGIBLE PLASTICS SUCH AS PVC MAY NOT BE USED. IF APPROVED PLASTIC TYPE RAILS ARE USED, THEY MUST BE FLAME TREATED BY THE MANUFACTURER SO THAT REFLECTIVE SHEETING MAY ADHERE PROPERLY.

2) BARRICADES AND BARRICADE RAILS ARE APPROVED AS A SINGLE UNIT.

3) BARRICADE SHALL BE LIMITED TO A MAXIMUM LENGTH OF 8 FT UNLESS NCHRP 350 CRASH TESTED AND NCDOT APPROVED.

4) ONLY NCDOT APPROVED COMPOSITE AND ROLL-UP SIGNS MAY BE MOUNTED ON THE BARRICADE.

5) SIGNS MOUNTED ON BARRICADES SHOULD NOT COVER MORE THAN 50 PERCENT OF THE TOP TWO RAILS OR 33 PERCENT OF THE TOTAL AREA OF THE THREE RAILS.

6) USE TYPE VII, VIII OR IX SHEETING ON BOTH SIDES OF THE RAILS.

7) BARRICADE MUST BE NCHRP 350 AND NCDOT APPROVED WITH STABILIZER BAR OR ADEQUATE LATERAL BRACING.

8) ASSEMBLY OF THE GENERIC BARRICADES MUST BE SELF CERTIFIED BY THE ASSEMBLER.

9) BARRICADES USED TO CLOSE A ROADWAY SHALL EXTEND ACROSS THE ENTIRE ROADWAY. WHERE LOCAL TRAFFIC MUST BE MAINTAINED, THEY MAY BE PLACED IN A STAGGERED PATTERN.

10) STRIPES ON WORK ZONE BARRICADE RAILS SHALL BE ALTERNATE ORANGE AND WHITE RETROREFLECTIVE STRIPES, SLOPED DOWNWARD TOWARDS THE SIDE WHICH TRAFFIC IS TO PASS OR TURN IN DETOURING. WHERE NO TURNS ARE INTENDED, THE STRIPES SHOULD SLOPE DOWNWARD TOWARD THE CENTER OF THE BARRICADE OR BARRICADES. USE RED AND WHITE STRIPES FOR PERMANENT BARRICADES.

11) SEE APPROVED PRODUCTS LIST FOR MANUFACTURERS OF APPROVED BARRICADES.

12) PLACE MANUFACTURER'S NAME AND FEDERAL HIGHWAY ADMINISTRATION'S NCHRP 350 APPROVAL LETTER NUMBER ON BARRICADE.

13) USE SANDBAGS PLACED ON THE LOWER PART OF THE FRAME FOR BALLASTING. DO NOT PLACE SANDBAGS ON TOP OF A STRIPED RAIL. DO NOT BALLAST BARRICADES BY HEAVY OBJECTS SUCH AS ROCKS, CHUNKS OF CONCRETE OR OTHER ITEMS THAT WOULD CAUSE DAMAGE IF THE BARRICADE IS STRUCK BY A VEHICLE.

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SHEET 1 OF 1 1145D01

REPLACEMENT DETAIL FOR RSD 1145.01

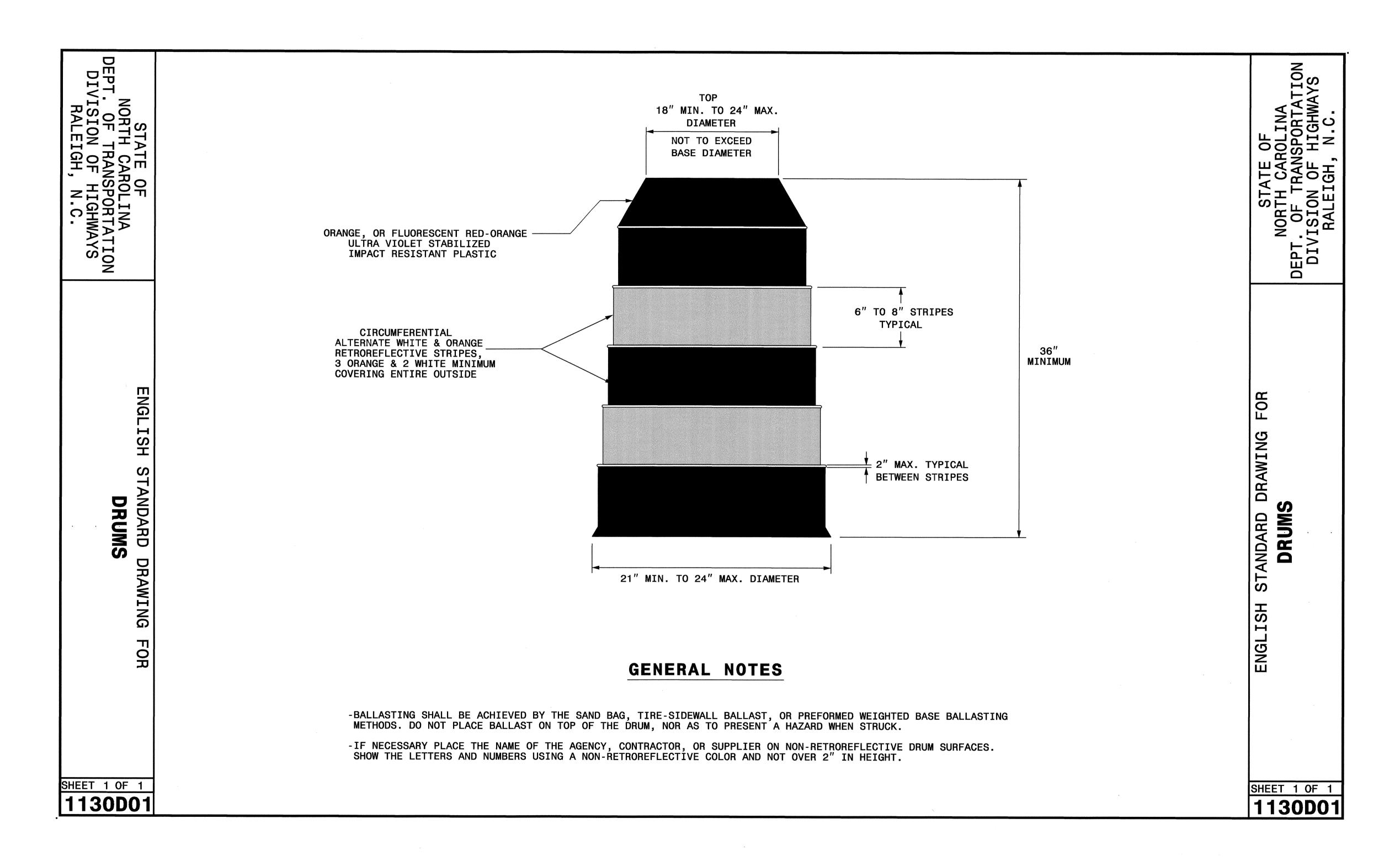
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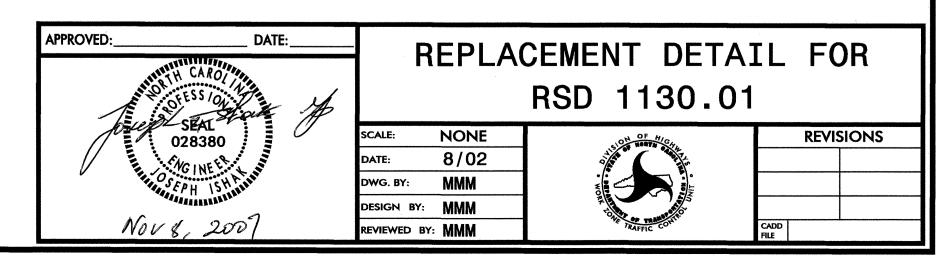
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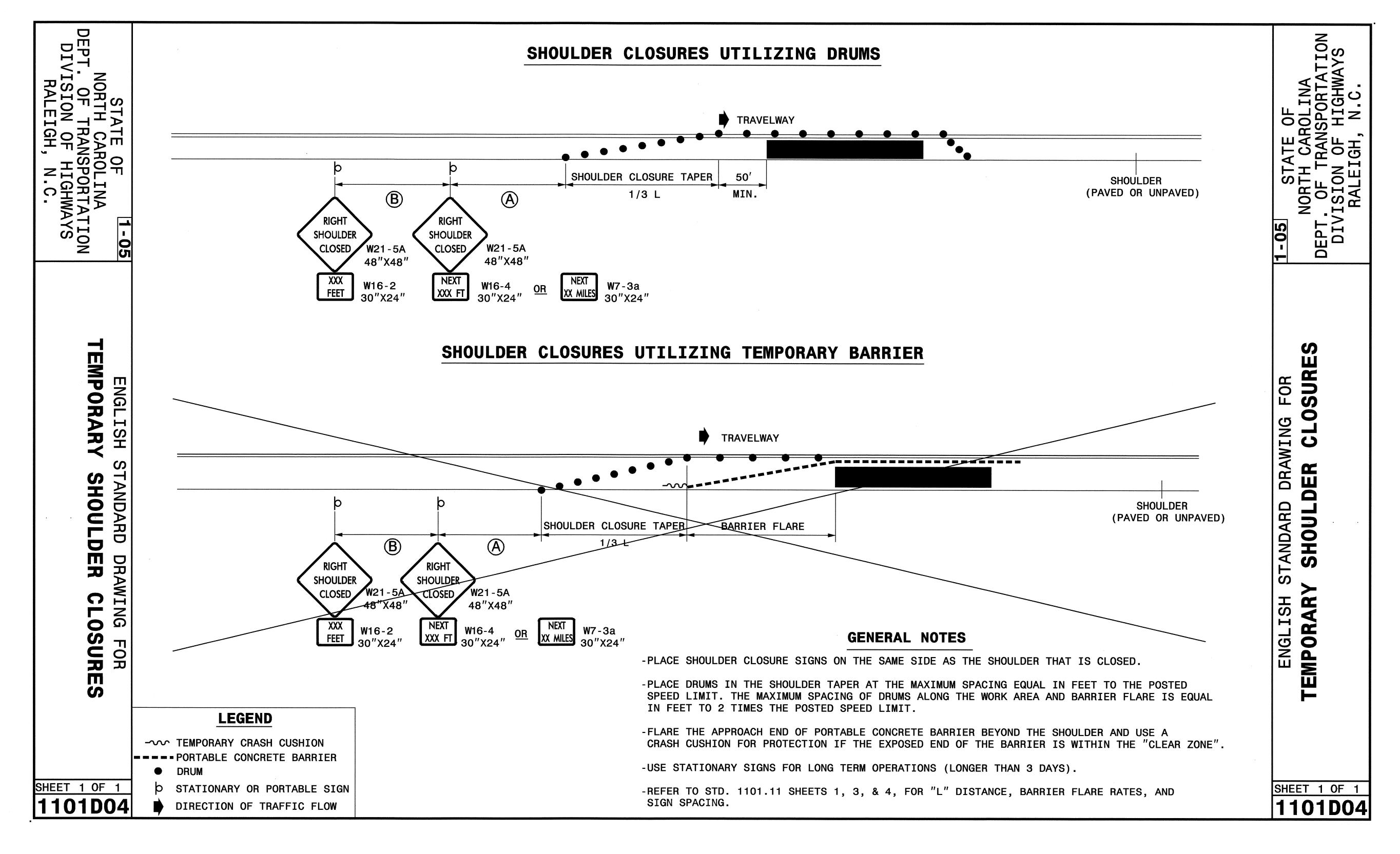
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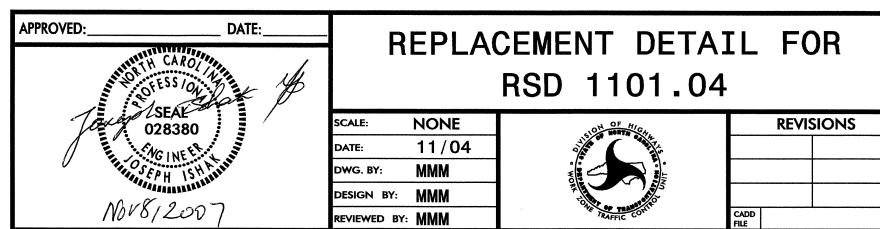




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