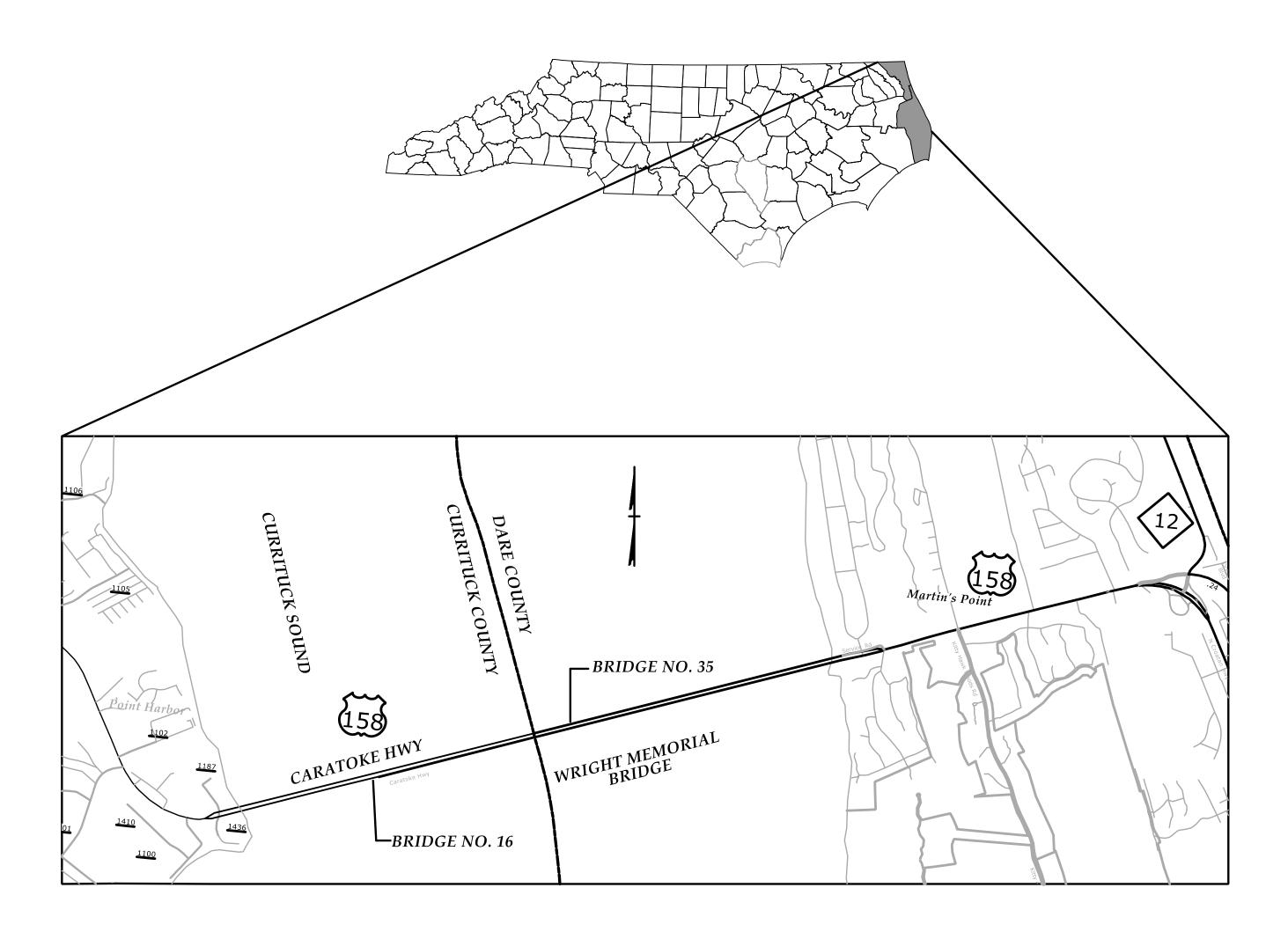
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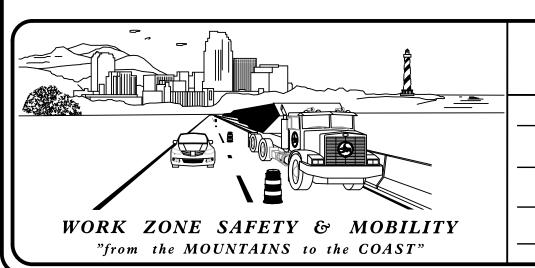
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TRANSPORTATION MANAGEMENT PLAN

CURRITUCK & DARE COUNTIES



LOCATION: BRIDGE 16 OVER CURRITUCK SOUND ON US 158 TYPE OF WORK: BRIDGE REHABILITATION



1561 MAIL SERVICE CENTER (MSC) RALEIGH, NC 27699-1561
750 N. GREENFIELD PARKWAY, GARNER, NC 27529 (DELIVERY)
PHONE: (919) 773-2800 FAX: (919) 771-2745 J. S. BOURNE, P.E. STATE TRAFFIC MANAGEMENT ENGINEER J. S. KITE, P.E. TRAFFIC CONTROL PROJECT ENGINEER M. V. SPRINGER, P.E. TRAFFIC CONTROL PROJECT DESIGN ENGINEER S. B. JENNINGS TRAFFIC CONTROL DESIGN ENGINEER

N.C.D.O.T. WORK ZONE TRAFFIC CONTROL



INDEX OF SHEETS

SHEET NO. TITLE

TMP - 1 TITLE SHEET, VICINITY, INDEX OF SHEETS,

AND LIST OF APPLICABLE ROADWAY STANDARD

DRAWINGS

TMP-1A MANAGEMENT STRATEGIES, GENERAL NOTES, AND

LOCAL NOTES

TMP-2 LEGEND, TEMPORARY PAVEMENT MARKING SCHEDULE

AND PHASING

TRAFFIC CONTROL DETAILS TMP-3 THRU

TMP-8

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C. DATED JAN 2012 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

	STD. NO.	<u>TITLE</u>
ı	1101.01	WORK ZONE WARNING SIGNS
ı	1101.02	TEMPORARY LANE CLOSURES
ı	1101.03	TEMPORARY ROAD CLOSURES
ı	1101.11	TRAFFIC CONTROL DESIGN TABLES
ı	1110.01	STATIONARY WORK ZONE SIGNS
ı	1110.02	PORTABLE WORK ZONE SIGNS
ı	1115.01	FLASHING ARROW BOARDS
ı	1130.01	DRUMS
ı	1145.01	BARRICADES
ı	1165.01	WORK ZONE LIGHTING SYSTEMS AND TMA DELINATION
ı	1180.01	SKINNY DRUM
ı	1205.01	PAVEMENT MARKINGS - LINE TYPES & OFFSETS
ı	1205.02	PAVEMENT MARKINGS - 2 LANE & MULTILANE ROADWAYS
ı	1205.04	PAVEMENT MARKINGS - INTERSECTIONS
ı	1205.05	PAVEMENT MARKINGS - TURN LANES
ı	1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
	1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
	1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY

H. SHYU, PE TRAFFIC CONTROL PROJECT ENGINEER R. B. EARLY, PE QUALITY CONTROL ENGINEER J. A. PHILLIPS TRAFFIC CONTROL DESIGN ENGINEER

> **DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED**



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APPROVE Belen Shyu $DAT^{1/2}$: 14/2016

SEAL

SHEET NO.

TMP-1

3

M

OJ. REFERENCE NO.	SHEET NO.
B-5937	TMP-1A

MANAGEMENT STRATEGIES

THE OBJECTIVE OF THIS PROJECT IS TO COMPLETE REHABILITATION TO THE WRIGHT MEMORIAL BRIDGE #16.

- -AWAY FROM TRAFFIC, COMPLETE SUB-STRUCTURE REPAIR FOR BRIDGE #16. MATERIAL MAY BE DELIVERED TO BARGES FROM BRIDGE DECK UTILIZING LANE CLOSURE.
- -DURING ONE OFF-SEASON, SHIFT TRAFFIC TO TWO-LANE, TWO-WAY PATTERN ON TO WRIGHT MEMORIAL BRIDGE #35. REHABILITATE BRIDGE #16 AND RETURN TRAFFIC TO FINAL TRAFFIC PATTERN.

GENERAL NOTES

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

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

TIME RESTRICTIONS

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

ROAD NAME

DAY AND TIME RESTRICTIONS

US 158 (-L-)

MONDAY THRU SUNDAY 7:00 AM - 7:00 PM

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

ROAD NAME

US 158 (-L-)

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 7:00 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 7:00 A.M. THURSDAY AND 7:00 P.M. MONDAY.
- 4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 7:00 A.M. FRIDAY TO 7:00 P.M. TUESDAY.
- 5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 7:00 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 7:00 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 7:00 A.M. FRIDAY TO 7:00 P.M. TUESDAY.

- 7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 7:00 A.M. TUESDAY TO 7:00 P.M. MONDAY.
- 8. FOR CHRISTMAS, BETWEEN THE HOURS OF 7:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 7:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

LANE AND SHOULDER CLOSURE REQUIREMENTS

- C) 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.
- D) 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.
- E) 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.

F) 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.

TRAFFIC PATTERN ALTERATIONS

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

SIGNING

- H) 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.
- I) PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRAFFIC CONTROL PLANS.
- J) COVER OR REMOVE ALL SIGNS AND DEVICES REQUIRED TO CLOSE THE ROAD WHEN ROAD CLOSURE IS NOT IN OPERATION.
- K) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

TRAFFIC CONTROL DEVICES

- L) WHEN LANE CLOSURES ARE NOT IN EFFECT, SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH) EXCEPT, 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES) AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.
- M) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.
- N) PLACE ADDITIONAL SETS OF THREE DRUMS PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

PAVEMENT MARKINGS AND MARKERS

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

ROAD NAME	MARKING	MARKER
US 158	COLD APPLIED PLASTIC (TYPE 4- REMOVABLE TAPE)	TEMPORARY RAISED AND TUBULAR (TEMPORARY)

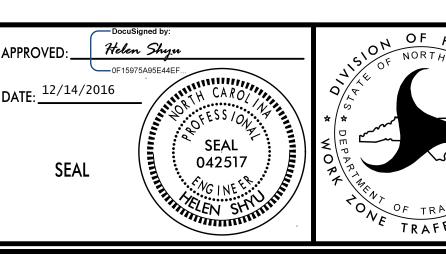
- P) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- Q) REMOVAL/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION. FOR REMOVAL OF PAVEMENT MARKING LINES, CONTRACTOR SHALL USE A METHOD APPROVED BY THE ENGINEER. AVOID DISTRUBING EXISTING RUMBLE STRIPS.

MISCELLANEOUS

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

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TRANSPORTATION MANAGEMENT PLAN

MANAGEMENT STRATEGIES AND GENERAL NOTES

PROJ. REFERENCE NO. SHEET NO. B-5937 TMP-2

TEMPORARY PAVEMENT MARKING

LEGEND

GENERAL

DIRECTION OF TRAFFIC FLOW

DIRECTION OF PEDESTRIAN TRAFFIC FLOW

----- EXIST. PVMT.

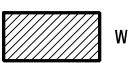
NORTH ARROW

— PROPOSED PVMT.

TEMP. SHORING (LOCATION PURPOSES ONLY)

WORK AREA

REMOVAL



WEDGE / WIDEN

SIGNALS







PAVEMENT MARKINGS

——EXISTING LINES ——TEMPORARY LINES

TRAFFIC CONTROL DEVICES

BARRICADE (TYPE III)

DRUM SKINNY DRUM O TUBULAR MARKER

TEMPORARY CRASH CUSHION **~**

FLASHING ARROW BOARD



FLAGGER



LAW ENFORCEMENT

TRUCK MOUNTED ATTENUATOR (TMA)

CHANGEABLE MESSAGE SIGN

TEMPORARY SIGNING

PORTABLE SIGN

STATIONARY SIGN

STATIONARY OR PORTABLE SIGN

PAVEMENT MARKERS

CRYSTAL/CRYSTAL

CRYSTAL/RED

YELLOW/YELLOW

PAVEMENT MARKING SYMBOLS

PAVEMENT MARKING SYMBOLS

SYMBOL DESCRIPTION

PAVEMENT MARKING LINES

4" COLD APPLIED PLASTIC (TYPE 4)

WHITE EDGELINE YELLOW EDGELINE

WHITE MINISKIP (3 FT - 9 FT/SP)

WHITE SOLID LANE LINE

YELLOW DOUBLE CENTER WHITE MINISKIP (2 FT - 6 FT/SP)

PAVEMENT MARKING SYMBOLS & CHARACTERS

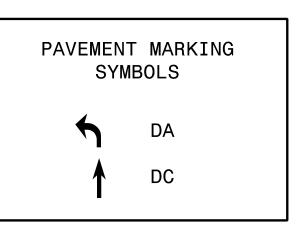
4" COLD APPLIED PLASTIC (TYPE 4)

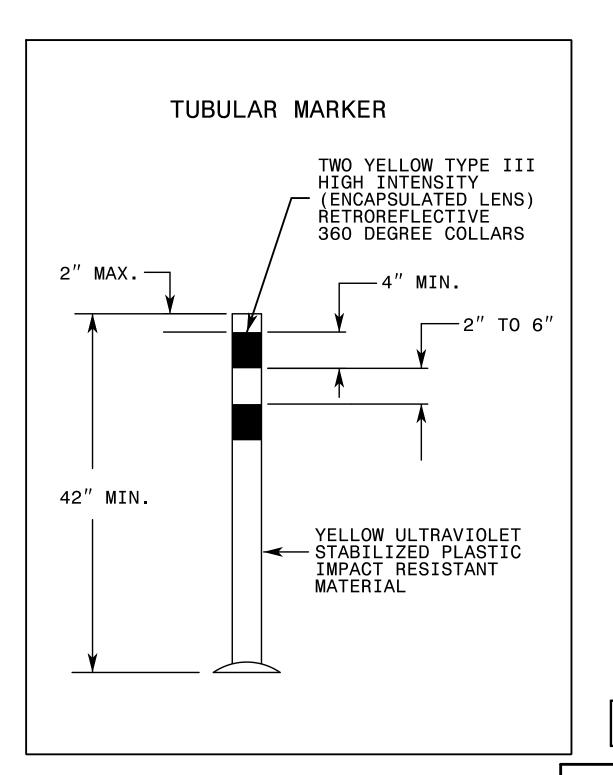
LEFT TURN ARROW DC STRAIGHT ARROW

PAVEMENT MARKERS

TEMPORARY RAISED

CRYSTAL & RED YELLOW & YELLOW





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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.

THE TERM RSD DENOTES "ROADWAY STANDARD DRAWING".

STEP 1: INSTALL WORK ZONE ADVANCE WARNING SIGNS ON US 158/ CARATOKE HWY/ N. CROATAN HWY ACCORDING TO RSD 1101.01, SHEET 2 OF 3.

STEP 2: AWAY FROM TRAFFIC, BEGIN BRIDGE SUB-STRUCTURE REHAB. USING RSD 1101.02 (SHEET 3 OF 15), MATERIAL MAY BE DELIVERED TO BARGES, EXCEPT BETWEEN STEPS 3-7.

> PLACE & COVER STATIONARY SIGNS SHOWN ON SHEETS TMP-3 & TMP-8.

COMPLETE THE REQUIREMENTS OF STEP 3 THROUGH STEP 7. (SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.)

NOTE: SPEED LIMIT REDUCTION IS ONLY IN EFFECT DURING THE ICT.

STEP 3: UNCOVER SPEED REDUCTION SIGNS AND USING RSD 1101.02 (SHEET 3 OF 15) DURING NIGHT TIME HOURS, SHIFT WESTBOUND TRAFFIC INTO OUTSIDE LANE. INSTALL TEMPORARY PAVEMENT MARKINGS AND PAVEMENT MARKERS ALONG WESTBOUND BRIDGE AND TEMPORARY WESTBOUND PATTERN.

STEP 4: USING RSD 1101.02 (SHEET 3 OF 15) DURING NIGHT TIME HOURS, COMPLETE INSTALLATION OF TEMPORARY PAVEMENT MARKINGS, PAVEMENT MARKERS, AND TRAFFIC CONTROL DEVICES AND SHIFT EASTBOUND US 158 INTO TEMPORARY TRAFFIC PATTERN. USE LAW ENFORCEMENT AS NECESSARY. (SEE TMP-3 THRU TMP-6)

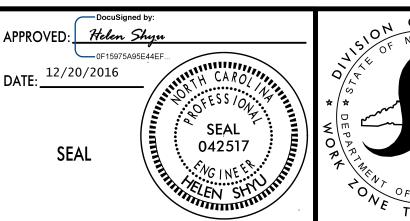
STEP 5: AWAY FROM TRAFFIC, COMPLETE BRIDGE SUPER-STRUCTURE REHABILITATION.

STEP 6: USING DRUMS, SHIFT EASTBOUND TRAFFIC TO OUTSIDE LANE OF FINAL PATTERN DURING NIGHT TIME HOURS. USING RSD 1101.02 (SHEET 3 OF 15) DURING NIGHT TIME HOURS, REMOVE CONFLICTING TEMPORARY MARKINGS AND MARKERS AND PLACE TEMPORARY MARKINGS AND MARKERS IN FINAL LOCATION . OPEN ALL EASTBOUND LANES TO FINAL PATTERN. REMOVE ALL EASTBOUND TEMPORARY SIGNS AND DEVICES, EXCEPT FOR ADVANCE WARNING SIGNS W-20-1, SP-11299 & G-20-2A.

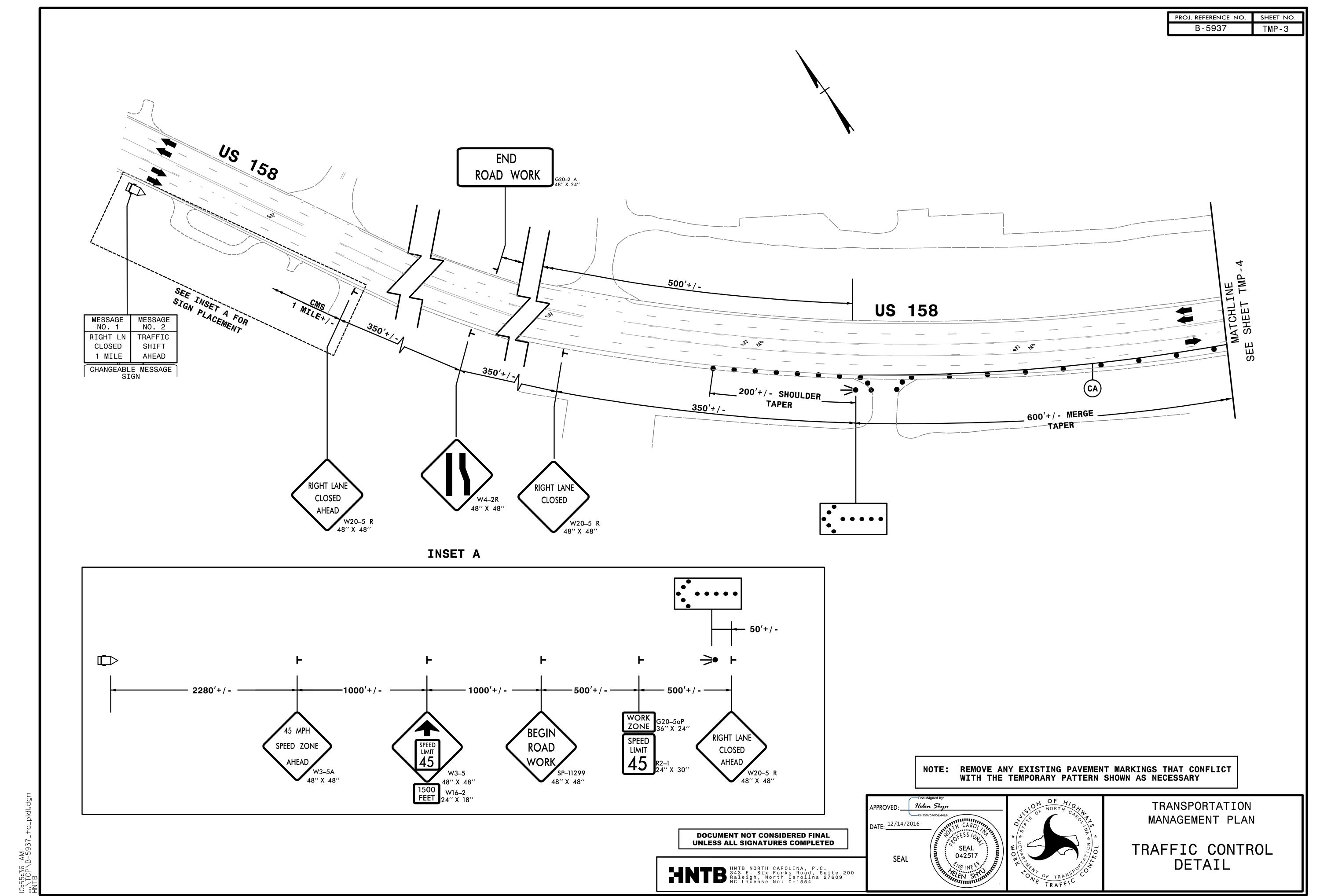
STEP 7: USING DRUMS, KEEP WESTBOUND TRAFFIC IN OUTSIDE LANE OF ORIGINAL PATTERN DURING NIGHT TIME HOURS. USING RSD 1101.02 (SHEET 3 OF 15) DURING NIGHT TIME HOURS, REMOVE CONFLICTING TEMPORARY MARKINGS & MARKERS AND PLACE TEMPORARY MARKINGS AND MARKERS IN FINAL LOCATION. OPEN ALL LANES TO FINAL PATTERN. REMOVE ALL WESTBOUND TEMPORARY SIGNS AND DEVICES, EXCEPT FOR ADVANCE WARNING SIGNS W-20-1, SP-11299 & G-20-2A.

STEP 8: COMPLETE BRIDGE SUB-STRUCTURE REHAB BEGUN IN STEP 2.

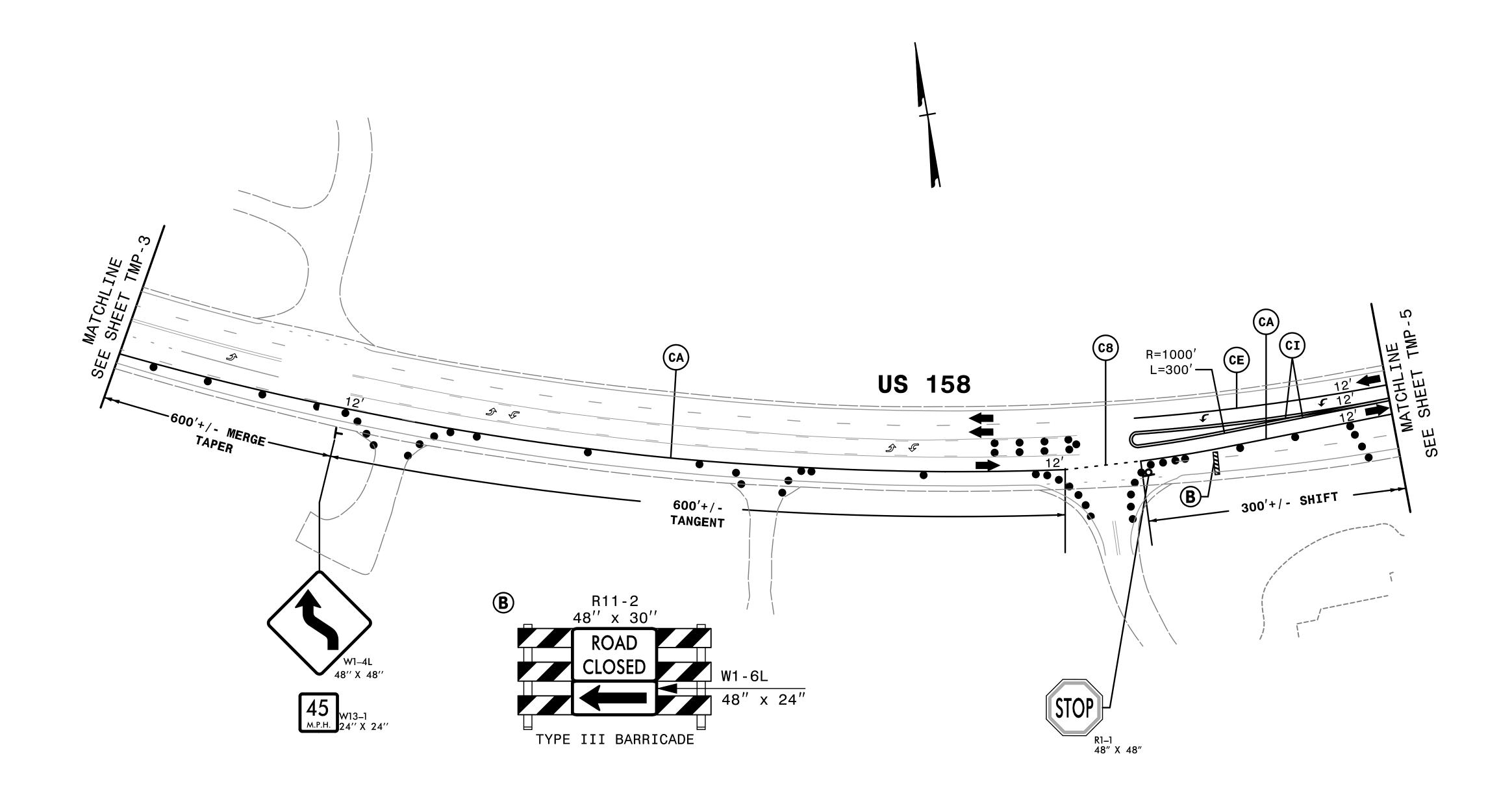
STEP 9: USING RSD 1101.02 (SHEET 12 OF 15), PLACE FINAL PAVEMENT MARKINGS IN THE FINAL TRAFFIC PATTERN. REMOVE ALL TEMPORARY SIGNS AND DEVICES.



TRANSPORTATION MANAGEMENT PLAN LEGEND, TEMPORARY PAVEMENT MARKING SCHEDULE AND PHASING



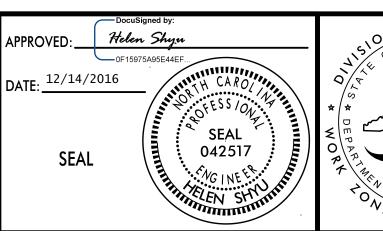
PROJ. REFERENCE NO. SHEET NO. B-5937 TMP-4



NOTE: REMOVE ANY EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH THE TEMPORARY PATTERN SHOWN AS NECESSARY

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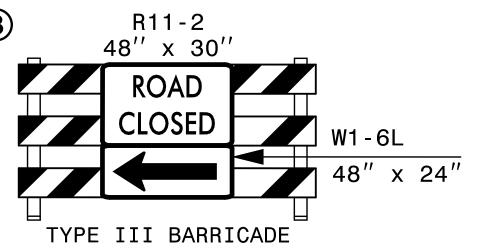
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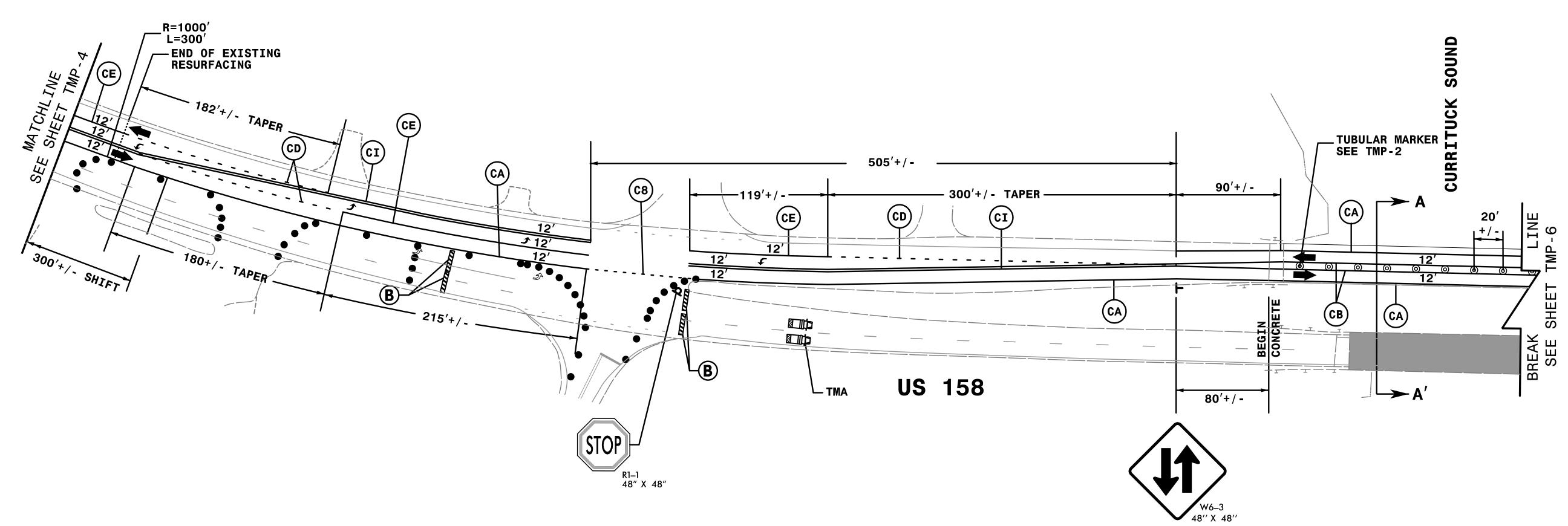
TRANSPORTATION MANAGEMENT PLAN

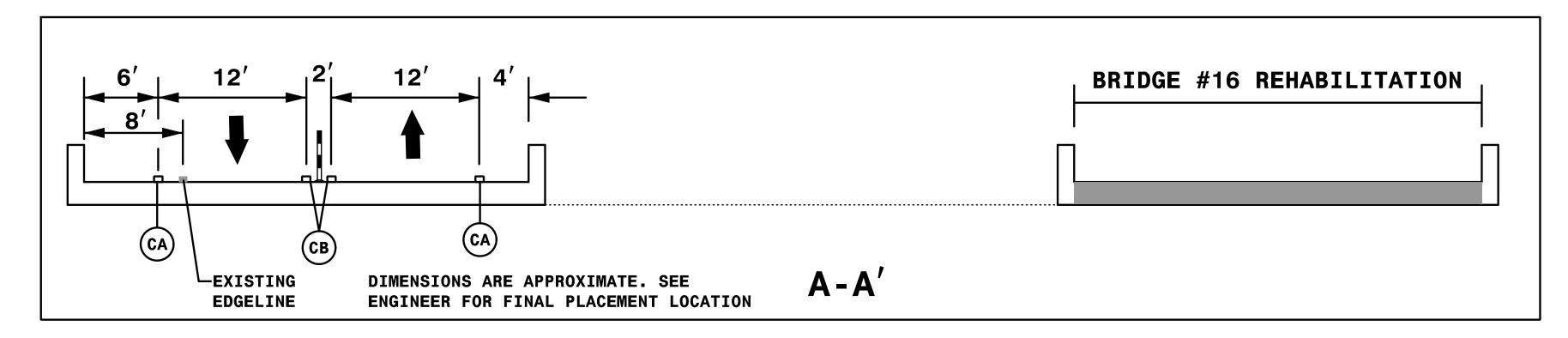
TRAFFIC CONTROL DETAIL

PROJ. REFERENCE NO. SHEET NO. B-5937 TMP-5





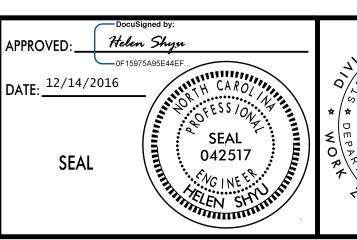




NOTE: REMOVE ANY EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH THE TEMPORARY PATTERN SHOWN AS NECESSARY

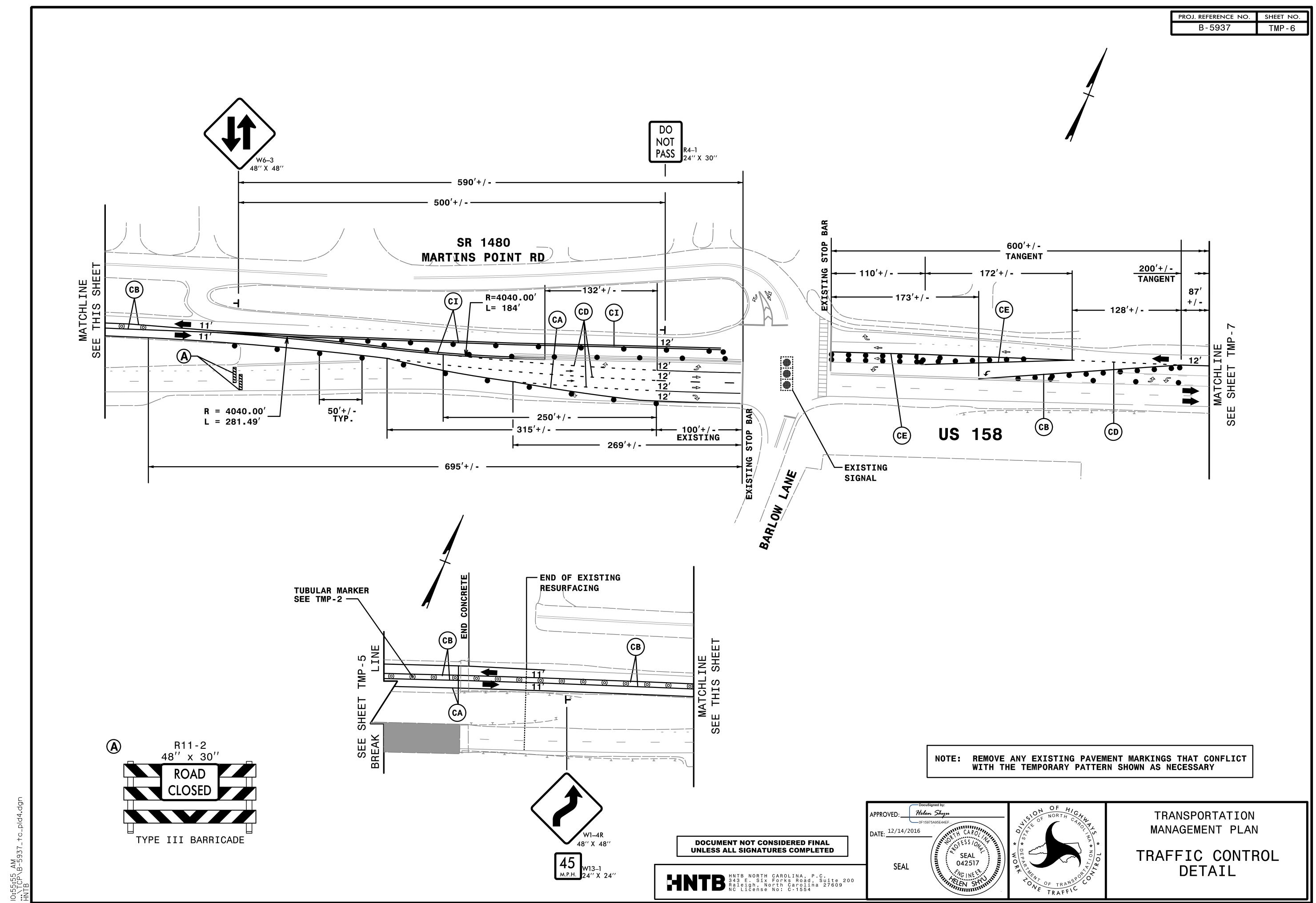
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TRANSPORTATION MANAGEMENT PLAN

TRAFFIC CONTROL DETAIL

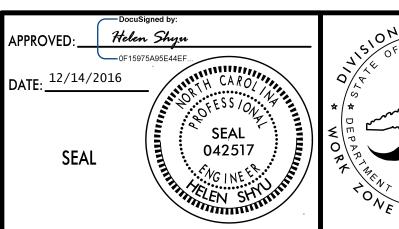


PROJ. REFERENCE NO. SHEET NO. B-5937 TMP-7 CLOSED 350'+/-- 350′+/ **-** — 600'+/-TANGENT 600'+/- MERGE TAPER 200'+/-TANGENT 200'+/-— BUFFER 87'+/- | 58'+/- | 56' +/-**50**′+/-MATCHLINE SHEET TMF SEE **US** 158 500′+/-NOTE: REMOVE ANY EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH THE TEMPORARY PATTERN SHOWN AS NECESSARY TRANSPORTATION DATE: 12/14/2016 MANAGEMENT PLAN DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED TRAFFIC CONTROL DETAIL HNTB NORTH CAROLINA, P.C.
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Raleigh, North Carolina 27609
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PROJ. REFERENCE NO. B-5937 TMP-8 SEE INSET B FOR SIGN PLACEMENT **DOGWOOD** TRAIL 350′+/-<u>350'+/-</u> **CMS** 1 MILE+/--EXISTING SIGNAL TRAFFIC CHANGEABLE MESSAGE SIGN **US** 158 MATCHLINE E SHEET TMF 500'+/-END ROAD WORK WOODS **ROAD** INSET B — 1000'+/**-**— — 1000′+/**-** — · 2280'+/- — WORK ZONE 36" X 24" SPEED ROAD LIMIT W3-5 48" X 48" 1500 W16-2 FEET 24" X 18" TRANSPORTATION

NOTE: REMOVE ANY EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH THE TEMPORARY PATTERN SHOWN AS NECESSARY

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED HNTB NORTH CAROLINA, P.C. 343 E. Six Forks Road, Suite 200 Raleigh, North Carolina 27609 NC License No: C-1554



MANAGEMENT PLAN

TRAFFIC CONTROL DETAIL