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### DIVIDED MEDIANS WITH WIDTHS 46' OR GREATER

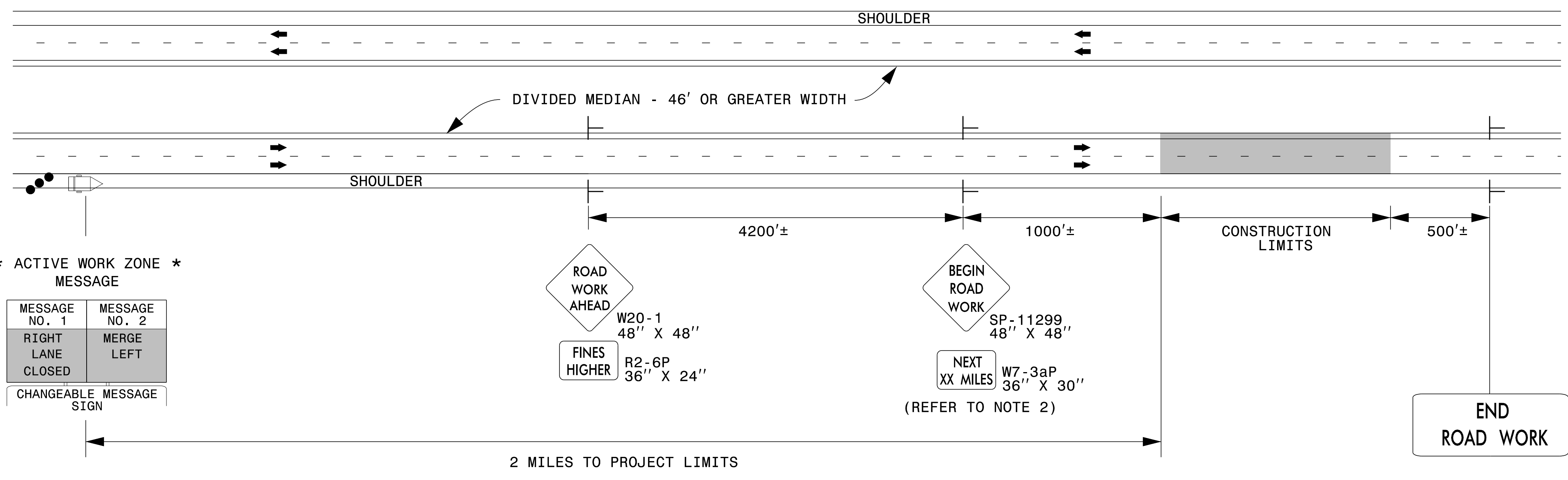
\* NOTE: ADVANCE THIS CMS CONTINUOUSLY AS WORK OPERATIONS PROGRESS.

\* INACTIVE WORK ZONE MESSAGE

MESSAGE NO. 1	MESSAGE NO. 2
ROAD WORK	2 MILES AHEAD
CHANGEABLE MESSAGE SIGN	

\* ACTIVE WORK ZONE MESSAGE

MESSAGE NO. 1	MESSAGE NO. 2
RIGHT LANE CLOSED	MERGE LEFT
CHANGEABLE MESSAGE SIGN	



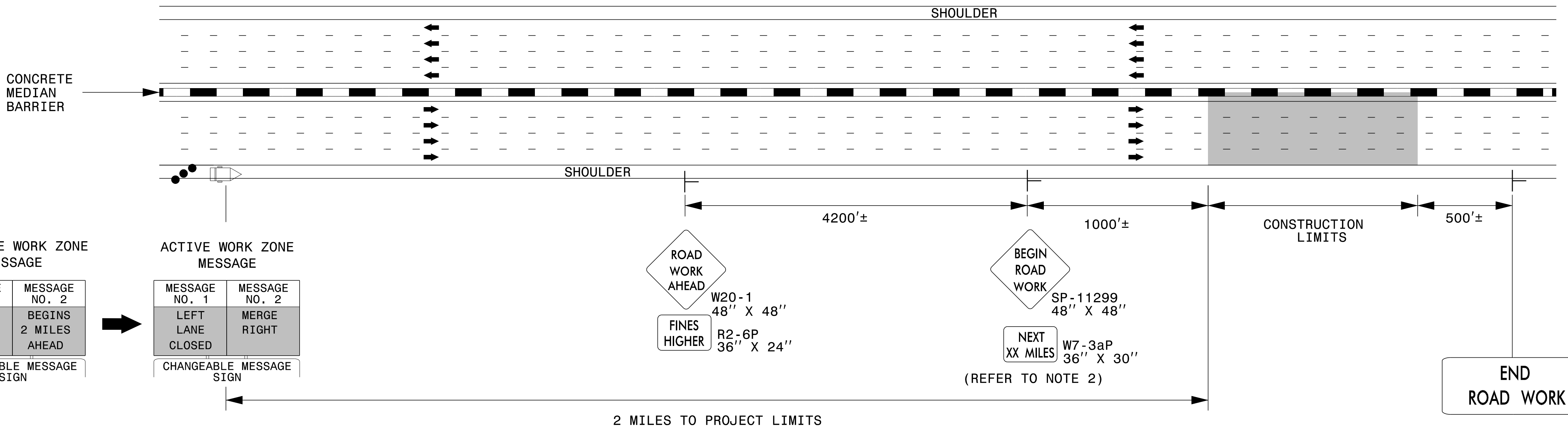
### DIVIDED MEDIANS WITH WIDTHS LESS THAN 46' OR WITH PERMANENT MEDIAN BARRIER

INACTIVE WORK ZONE MESSAGE

MESSAGE NO. 1	MESSAGE NO. 2
ROAD WORK	BEGINS 2 MILES AHEAD
CHANGEABLE MESSAGE SIGN	

ACTIVE WORK ZONE MESSAGE

MESSAGE NO. 1	MESSAGE NO. 2
LEFT LANE CLOSED	MERGE RIGHT
CHANGEABLE MESSAGE SIGN	



#### NOTES

1. THIS DRAWING IS TO BE USED IN CONJUNCTION WITH THE WORK ZONE VARIABLE SPEED LIMIT USING DIGITAL SPEED LIMIT SIGNS FOR INTERSTATE/FREEWAY RESURFACING PROJECTS DETAIL.
2. FOR SIGN W7-3aP, ROUND TO THE NEAREST MILE.
3. FOR ENTRANCE AND EXIT RAMP, REFER TO RSD 1101.01, SHEET 1, DETAIL B & C.
4. FOR ADDITIONAL NOTES, REFER TO RSD 1101.01, SHEET 1.

#### LEGEND

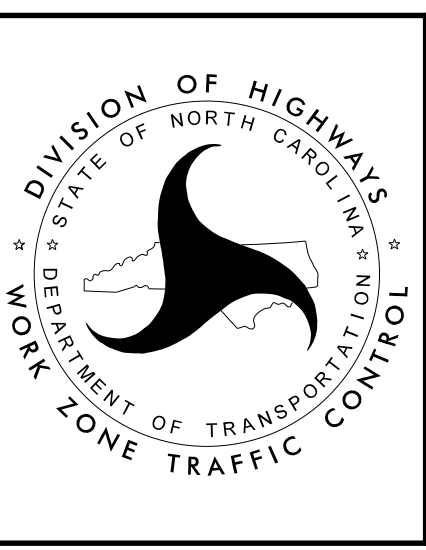
- CHANGEABLE MESSAGE SIGN (CMS)
- STATIONARY SIGN
- DIRECTION OF TRAFFIC FLOW
- TRAFFIC DRUM

APPROVED: *Steve Kite*  
DATE: 2/23/2017

DocuSigned by:  
E27CE30E10FC442...

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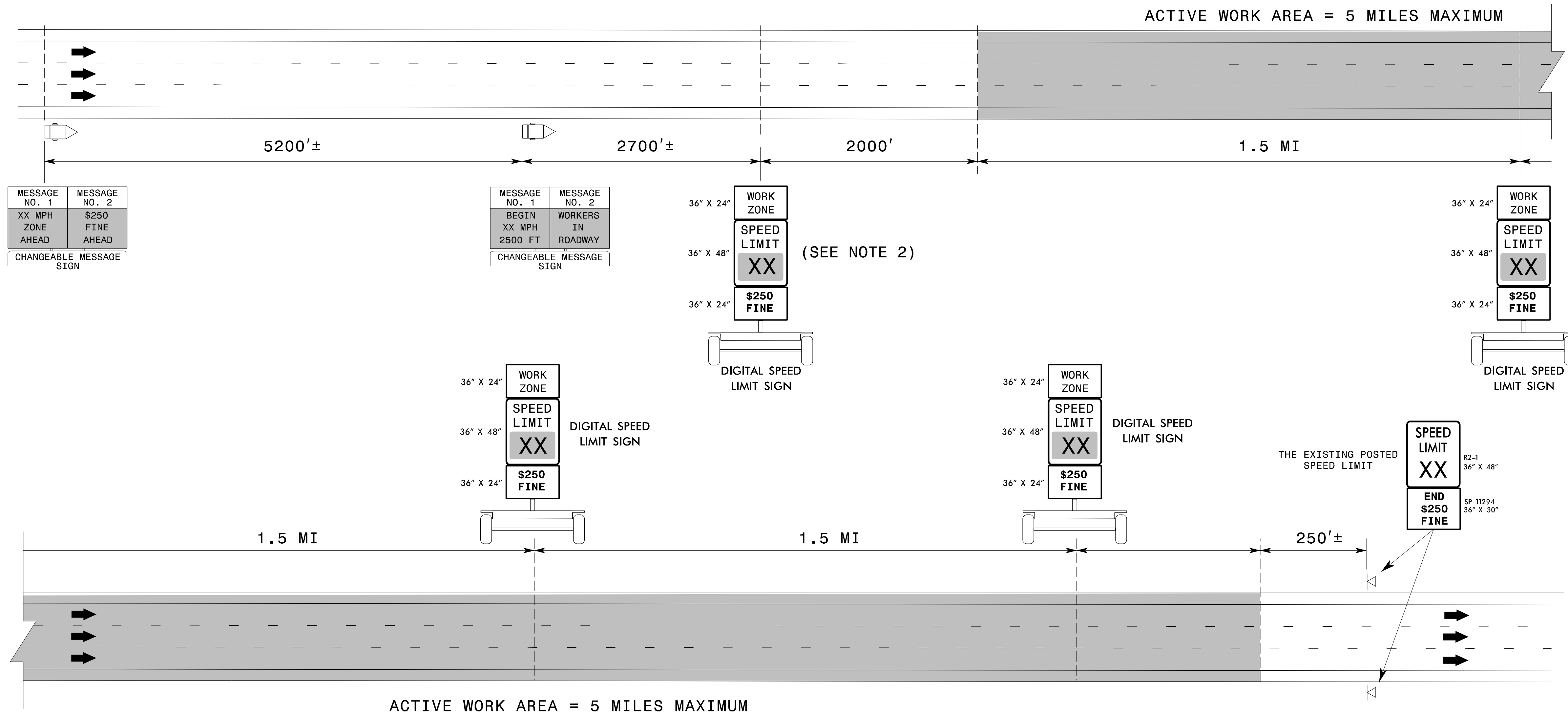
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STATIONARY ADVANCE  
WARNING SIGNS FOR  
INTERSTATE/FREEWAY  
RESURFACING PROJECTS

2/23/2017 S:\TMD\WZTC\DesignGroup3\Squad3B\0ats\Interstate Resurfacing Provisions and Details\Keg\Resurfacing\_AdvWarn\_HSpd.dgn User:kedais

# INTERSTATE RESURFACING OPERATIONS WITH DIGITAL SPEED LIMIT SIGNS



## WHEN THERE IS NOT ACTIVE WORK IN THE TRAVEL LANE

SPEED LIMIT DISPLAY	CONDITIONS	
	DROP-OFFS BETWEEN OPEN TRAVEL LANES	PAVED SHOULDER DROP-OFFS
USE EXISTING SPEED LIMIT	< 1.0"	≤ 3.0"
REDUCE SPEED LIMIT 5 MPH	1.0" - 2.0"	> 3.0"

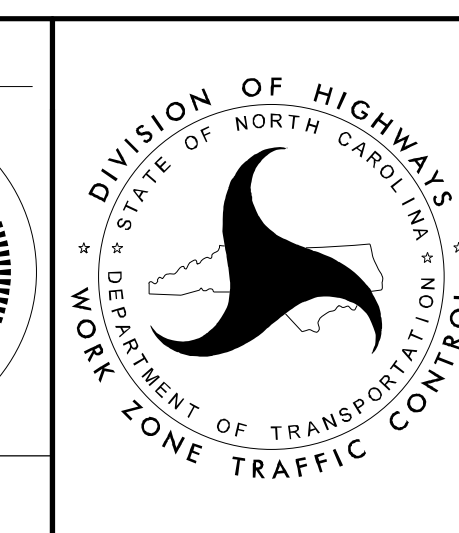
DROP-OFFS BETWEEN OPEN TRAVEL LANES SHOULD NOT EXCEED 2.0"

- ### NOTES
1. THE SPEED LIMITS DISPLAYED WITHIN THE ACTIVE WORK AREA MAY VARY BETWEEN 55 MPH AND 70 MPH, DEPENDENT UPON ROAD WORK CONDITIONS AND THE EXISTING SPEED LIMIT. 55 MPH IS ONLY DISPLAYED DURING ACTIVE LANE CLOSURE OPERATIONS.
  2. AT THE FIRST DIGITAL SPEED LIMIT LOCATION, PLACE A DIGITAL SPEED LIMIT SIGN ON BOTH THE INSIDE AND OUTSIDE SHOULDERS, UNLESS DIRECTED OTHERWISE BY THE ENGINEER WHEN THERE IS NOT ENOUGH ROOM ON THE INSIDE SHOULDER DUE TO NARROW MEDIAN AND PERMANENT MEDIAN BARRIER. AT SUBSEQUENT LOCATIONS DOWNSTREAM, PLACE A SINGLE DIGITAL SPEED LIMIT SIGN ON THE OUTSIDE SHOULDER.
  3. THE ENGINEER MAY DETERMINE TO INSTALL THE DIGITAL SPEED LIMIT SIGNS ON THE OUTSIDE SHOULDER OR ON THE MEDIAN SIDE IF THE SIGNS ARE NOT HIGHLY VISIBLE TO ALL MOTORISTS.
  4. THIS APPLICATION IS FOR SHORT-TERM ACTIVITIES. THE MAXIMUM ACTIVE WORK AREA IS 5 MILES.
  5. THE DIGITAL SPEED LIMIT SIGNS TAKE PRECEDENCE OVER EXISTING SPEED LIMIT SIGNS. ALL EXISTING SPEED LIMIT SIGNS SHALL BE COVERED OR REMOVED.
  6. THE DIGITAL SPEED LIMITS SIGNS WILL BE INSTALLED (TRAILER MOUNTED OR STATIONARY MOUNTED) IN ADVANCE AND SPACED APPROXIMATELY 1.5 MILES THROUGHOUT THE ACTIVE WORK AREA, UNLESS DIRECTED OTHERWISE.
  7. NCDOT HAS SOLE AUTHORITY OF THE SPEED LIMITS DISPLAYED ON THE DIGITAL SPEED LIMIT SIGNS.
  8. THE WORK ZONE VARIABLE SPEED LIMIT AND THE \$250 SPEEDING PENALTY ARE SEPARATE ORDINANCES THAT MUST BE SIGNED BY THE STATE TRAFFIC ENGINEER TO BE VALID AND ENFORCEABLE. WITHOUT A SIGNED ORDINANCE, THE SPEED LIMIT ON A FACILITY SHALL REMAIN UNCHANGED.

APPROVED: *Steve Kite*  
DATE: 5/23/2017

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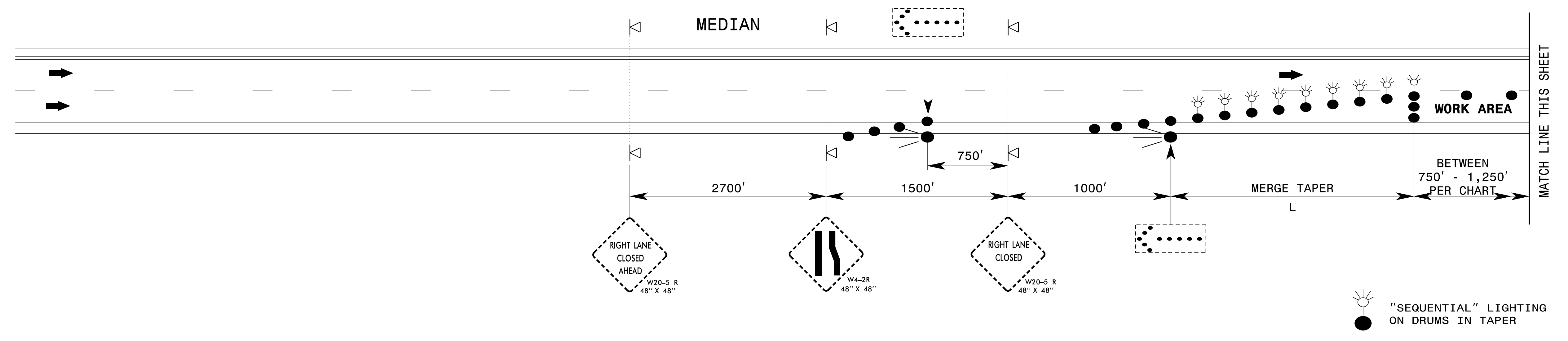
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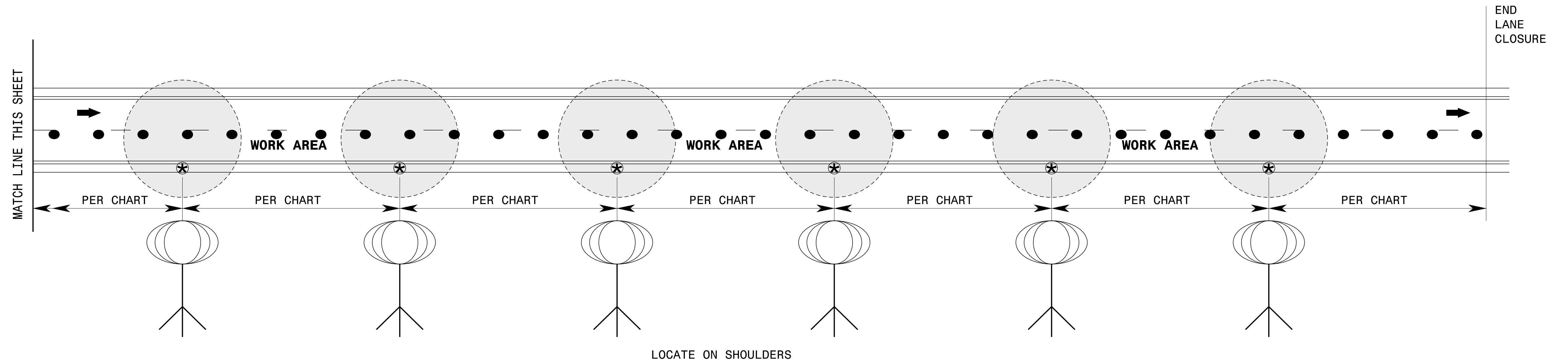
DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
WORK ZONE TRAFFIC CONTROL

WORK ZONE "VARIABLE" SPEED LIMIT USING DIGITAL SPEED LIMIT SIGNS FOR INTERSTATE/FREWAY RESURFACING PROJECTS

### ADVANCE WARNING AREA



### WORK ZONE AREA



### SPACING CHART

LIGHT OUTPUT (LUMENS)	MINIMUM LIGHTED FIXTURE AREA (SQUARE FEET)	MAXIMUM SPACING (FEET)	LIGHT UNITS (PER MILE)
50,000 TO 65,000	5.5	750'	6
66,000 TO 80,000	5.5	1,000'	5
81,000 TO 100,000	36	1,250'	4

### NOTES

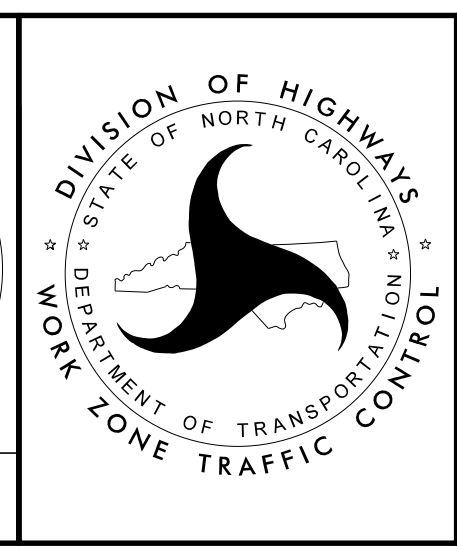
- 1) SPACE LIGHT UNITS ACCORDING TO THE CHART.
- 2) EACH LIGHT UNIT SHALL BE CAPABLE OF ELEVATING TO A MINIMUM HEIGHT OF 14' ABOVE THE PAVEMENT.
- 3) PLACE ON PAVED SHOULDER IF POSSIBLE.

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DATE: 3/17/2017

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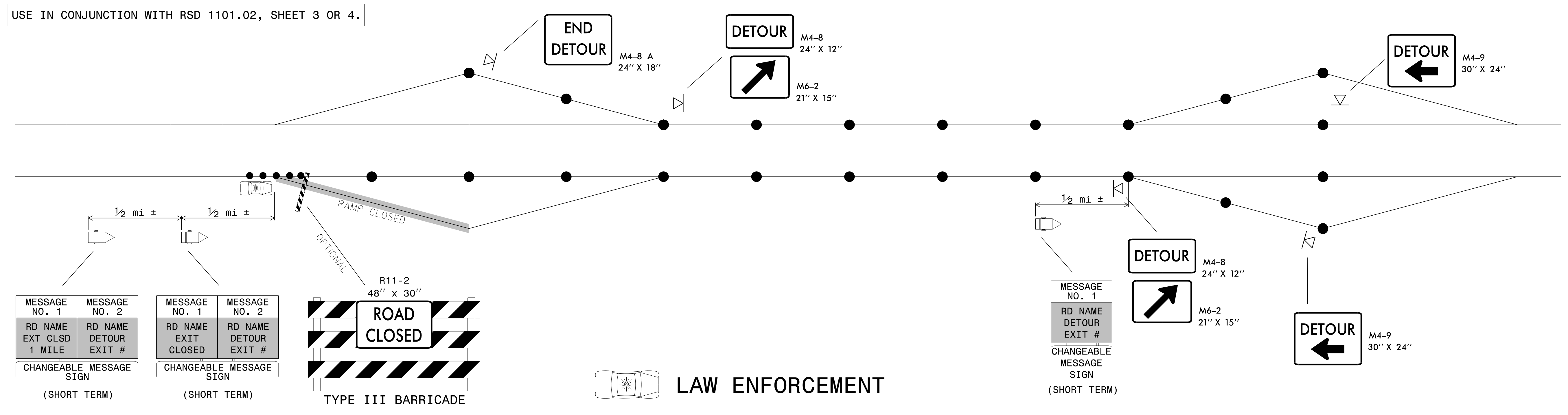
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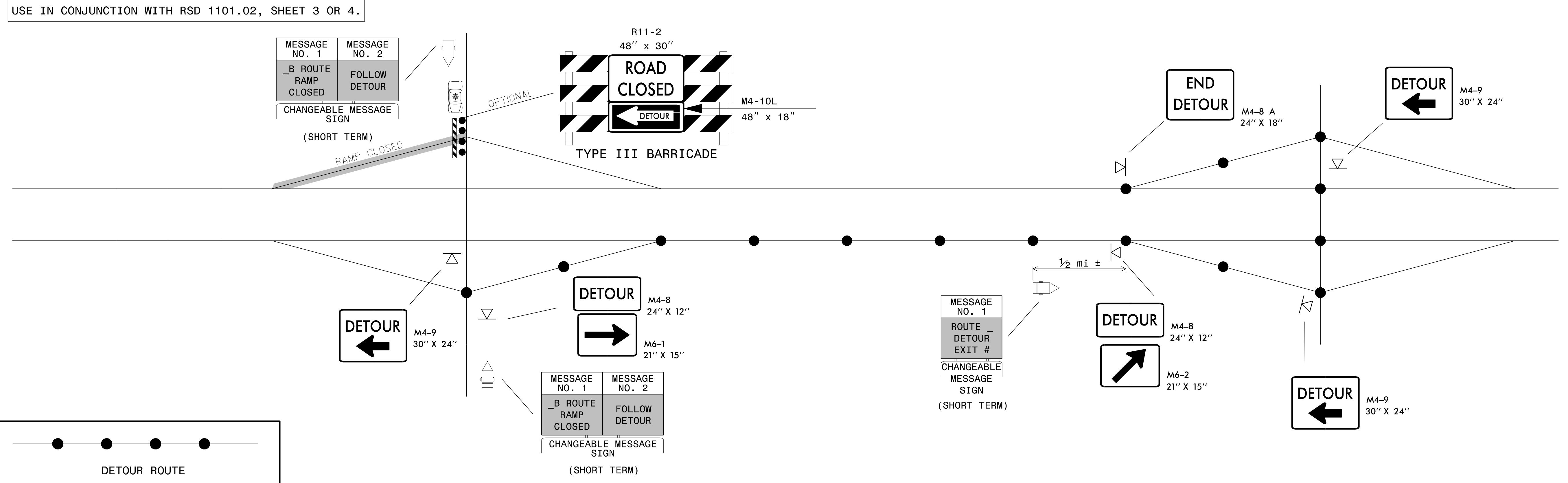
SEQUENTIAL FLASHING  
WARNING LIGHTS  
AND  
WORK ZONE  
PRESENCE LIGHTING

3/17/2017 S:\TMD\WZTC\DesignGroup3\Squad3B\Drawings\Sequential\and\_Presence Lighting\_20170227.dgn User:kedais

### SHORT TERM CLOSURE AND DETOUR OF OFF-RAMP TO ADJACENT INTERCHANGE



### SHORT TERM CLOSURE AND DETOUR OF ON-RAMP TO ADJACENT INTERCHANGE



**GENERAL NOTES:**

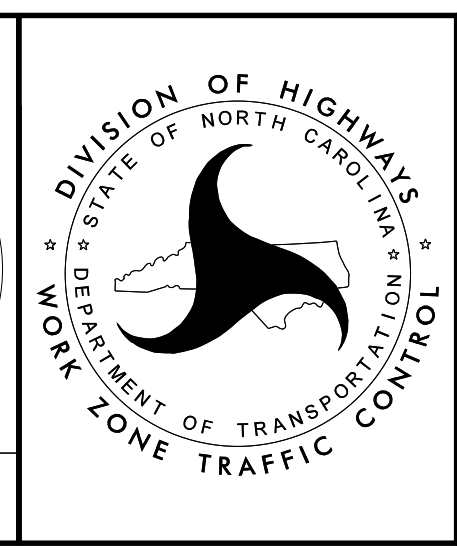
1. THIS DRAWING IS INTENDED FOR USE DURING SHORT TERM CLOSURES OF INTERSTATE AND FREEWAY RAMPS.
2. RAMP CLOSURES SHALL BE APPROVED BY THE ENGINEER.
3. IF RAMP CLOSURE RESTRICTIONS APPLY, SEE SPECIAL PROVISION, "INTERMEDIATE CONTRACT TIMES AND LIQUIDATED DAMAGES".
4. ADDITIONAL CHANGEABLE MESSAGE SIGNS AND POSSIBLE DETOUR SIGNS MAY BE NECESSARY FOR MORE COMPLEX CLOSURES/DETOURS. COMPENSATION FOR ADDITIONAL DEVICES SHALL BE MADE BASED ON THE UNIT BID PRICE FOR THE RESPECTIVE DEVICE.

APPROVED: *Steve Kite*  
DATE: 2/23/2017

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**SHORT TERM CLOSURE  
AND DETOUR OF  
INTERSTATE/FREEWAY  
RAMPS**

2/23/2017 S:\TMU\WZTC\DesignGroup3\Squad3B\0Data\Interstate Resurfacing Provisions and Details\TypicalOff-Ramp Detour.dgn User:keddis