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See Sheet 1A For Index of Sheets STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS STATE N.C. 14.102012 14.102212 14.103812 DIVISION 14 14.104412 14.104432 14.104512 14.104532 14.105012 14.105612 LOCATION: VARIOUS LOCATIONS 14.107512 14.107532 ACROSS DIVISION 14 14.108712 14.108812 36111.1.14 TYPE OF WORK: ID/IQ ON-CALL SIGNING HAYWOOD SWAIN HENDERSON GRAHAM JACKSON POLK TRANSY-LVANIA  $\infty$ MACON CHEROKEE CLAY

# STATE STATE PROJECT REFERENCE NO. SHEET NO. TOTAL SHEETS N.C. DN12068218 STATE PROJ. NO. F. A. PROJ. NO. DESCRIPTION 14.102012 14.102212 14.103812 14.104432 14.104512 14.105612 14.107512 14.107532 14.108712 14.108812

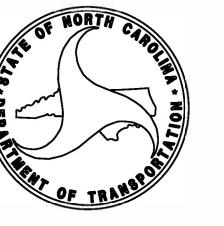
## Prepared in the Office of: DIVISION OF HIGHWAYS 253 WEBSTER RD., SYLVA NC, 28779

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:

LETTING DATE: 6 / 13 / 2023

SPENCER MCDONALD
PROJECT ENGINEER



## INDEX OF SHEETS

SHEET NUMBER SHEET

TITLE SHEET

INDEX OF SHEETS AND STANDARD DRAWINGS 1A

2B-1 THRU 2B-4 **ROADWAY DETAILS** 

## 2018 ROADWAY ENGLISH STANDARD DRAWINGS

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - N. C. Department of Transportation - Raleigh, N. C., Dated January, 2018 are applicable to this project and by reference hereby are considered a part of these plans:

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DIVISION 9 - SIGNING

901.10 Type 'A' Signs - Welded Stud Construction 901.20 Type " Signs - Welded Stud Construction 901.50 Arrows and Shields

901.60 Rivet Spacing for Overlayed Signs
901.70 Sign Stringers and Support Spacing
901.80 Sign Mounting Details - Type 'A' and 'B' Signs
903.10 Ground Mounted Sign Supports
903.20 Wood Sign Post

903.20 Wood Sign Post
903.30 Barrier Sign Support Assembly
903.40 Median Barrier Sign Support and Anchorage
904.10 Orientation of Ground Mounted Signs
904.20 Secondary Sign Mounting
904.30 Supplemental Sign Mounting
904.40 Milepost and Placement
904.50 Mounting of Type 'D', 'E' and 'F' Signs on 'U' Channel Posts
910.10 Highway-Rail Grade Crossings
910.20 Signing School Zone
910.30 Signing for Superstreets
910.40 Signing for Speed Reduction Zones

SHEET NO. DocuS gned by: Motthew V. Spring 3/21/2019 BC60F6E8B584403... 042546

STATE OF 2-19
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C. 2-19

> ENGLISH DETAIL WELDED STUD CONSTRUCT SIGNS

ALUM. STIFFENER BAR 3 REQ'D.(SEE NOTE 8)

DRAWING FOR

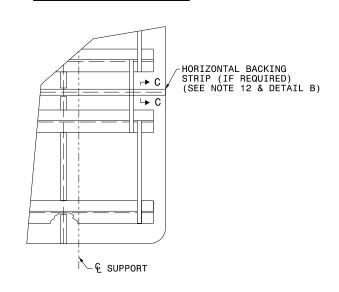
SHEET 1 OF 2 901D10

9" MAX.-9" MAX.TYP. 12" THRU BOLT SEE DETAILS A & C THRU BOLT— SEE DETAILS A & C BACKING STRIP 1½" X 3/8'

TYPICAL STUD PLACEMENT

## HORIZONTAL BACKING STRIP

└- @ SUPPORT



I SUPPORT

- 1. USE THE NUMBER AND SIZE OF SUPPORTS SHOWN ON THE SUPPORT CHART IN PROJECT
- 2. FABRICATE SIGN PANEL SECTIONS WITH SHEETS 4'-0" WIDE. WHEN FABRICATING SIGNS WHICH ARE NOT MULTIPLES OF 4'-0" IN WIDTH, DO NOT CUT MORE THAN TWO SHEETS TO LESS THAN 4'-0" IN WIDTH. THESE PANELS SHALL NOT BE LESS THAN 1'-0" IN WIDTH.
- 3. SEE NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES, FOR TYPE OF MATERIAL TO BE USED FOR SIGN PANELS, HANGER ASSEMBLIES, AND SUPPORTS.
- 4. USE GALVANIZED STEEL FOR BACKING PLATES AND MOUNTING BOLTS.
- 5. SEE ROADWAY STANDARD 904.20 WHEN TYPE "B" SECONDARY SIGN MOUNTING
- 6. DETAILS FOR TYPE "A" SECONDARY SIGNS SHALL BE THE SAME AS FOR TYPE "A" SIGNS.
- 7. THE VERTICAL DIMENSION BETWEEN PRIMARY AND SECONDARY SIGNS IS TWO (2) INCHES.
- 8. ADJUST STIFFENERS TO AVOID CONFLICT WITH SUPPORTS.
- 9. SEE ROADWAY STANDARD 901.70 FOR SUPPORT AND "Z" BAR SPACING.
- 10. FABRICATE SIGNS TALLER THAN 12'-0" AS TWO SEPARATE SIGNS WITH A HORIZONTAL SPLICE. LOCATE STRINGERS ON EACH SECTION OF THE SIGN BY THE SIGN STRINGER CHART. (SEE ROADWAY STANDARD 901.70)
- 11. FABRICATE SIGNS TALLER THAN 12'-0" BUT SHORTER THAN 14'-6" WITH A HORIZONTAL SPLICE LOCATED 7'-0" FROM BOTTOM OF SIGN.
- 12. FABRICATE SIGNS 14'-6'' TALL AND TALLER WITH A HORIZONTAL SPLICE. LOCATE THE SPLICE AT LEAST HALF OF THE SIGN HEIGHT FROM THE BOTTOM AND AT LEAST 7'-0'' FROM
- 13. THERE SHALL ONLY BE A  $1\!\!/8"$  GAP BETWEEN THE VERTICAL BACKING STRIP AND THE "Z" BAR.
- 14. SEE ROADWAY STANDARD 901.80 FOR DETAILS SHOWING SIGN MOUNTING TO SUPPORTS.
- 15. PLACE NYLON WASHER UNDER HEAD OF 3/8" THRU BOLTS.
- 16. FABRICATE EACH SIGN WITH 38'' DIA. THRU BOLT, 4'' FROM EACH END OF EACH "Z" BAR THRU SIGN PANEL AND "Z" BAR. SEE DETAILS A & C.
- 17. FABRICATE EACH SIGN WITH 38" DIA.THRU BOLT CENTERED IN EACH PANEL THRU THE TOP AND BOTTOM "Z" BAR. CENTERED THRU BOLT REQUIRED IN END PANELS GREATER THAN 2'-0" WIDE. SEE DETAILS A & C.
- 18. THRU BOLTS WILL HAVE A MINIMUM  $\frac{1}{16}$ " TO MAXIMUM  $\frac{1}{8}$ " GAP

2-19 STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

FOR

CONSTRUCTION DRAWING SIGNS ENGLISH DETAIL TYPE 'A' STUD WELDED

SHEET 1 OF 2 901D10

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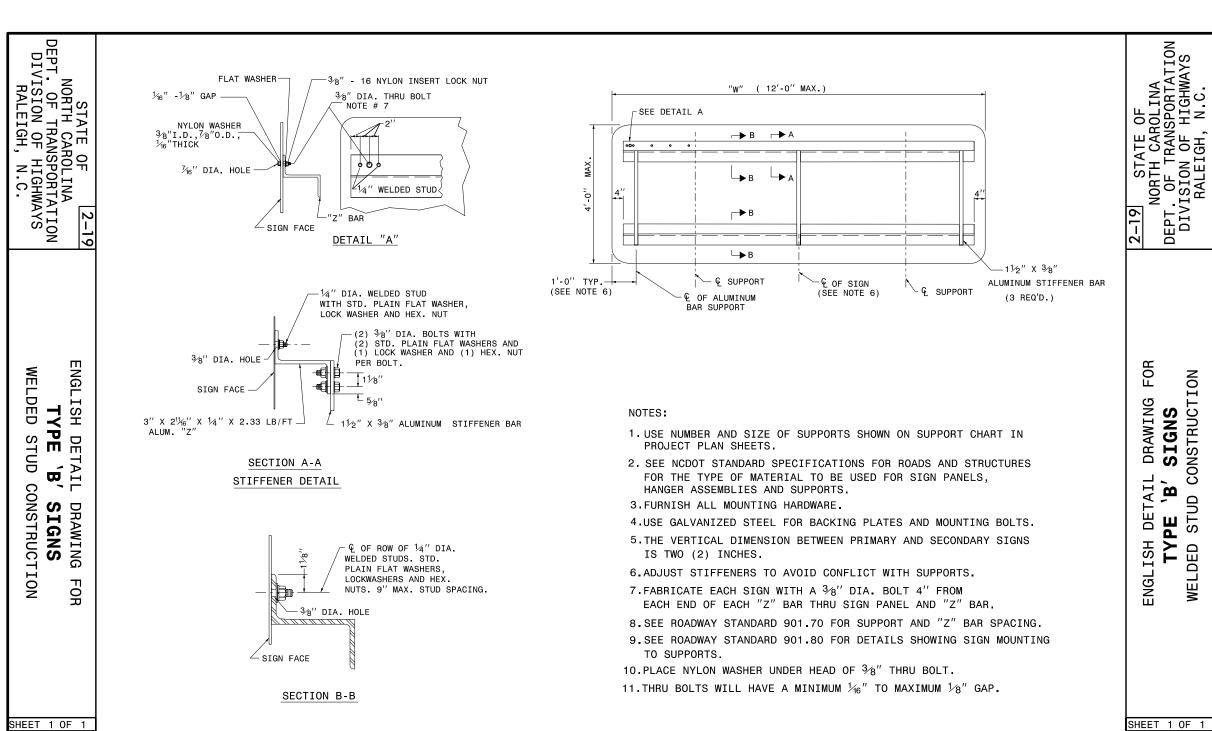
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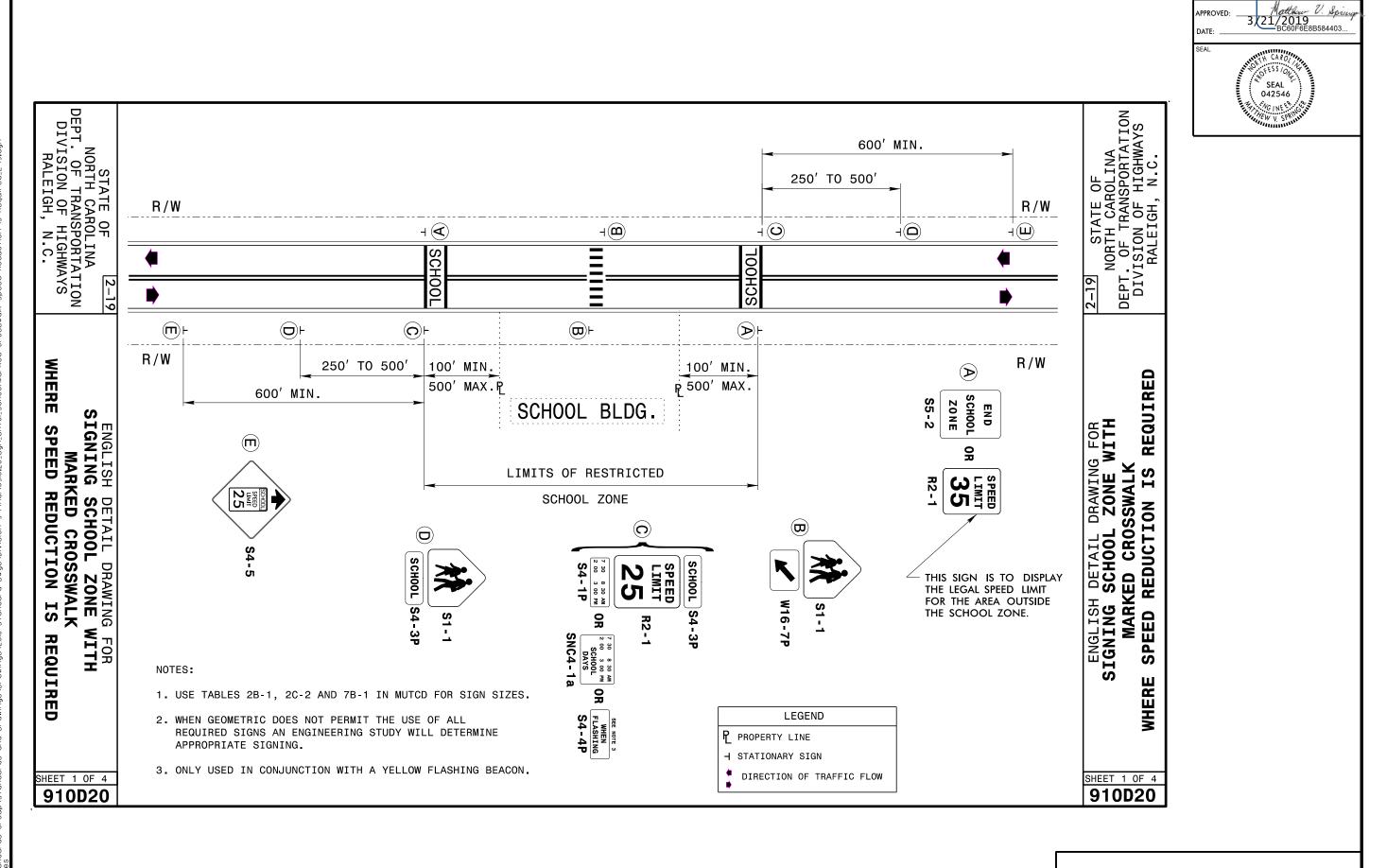
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901D20

REVISED SIGNING ROADWAY STANDARD DRAWING

901D20



REVISED SIGNING ROADWAY STANDARD DRAWING

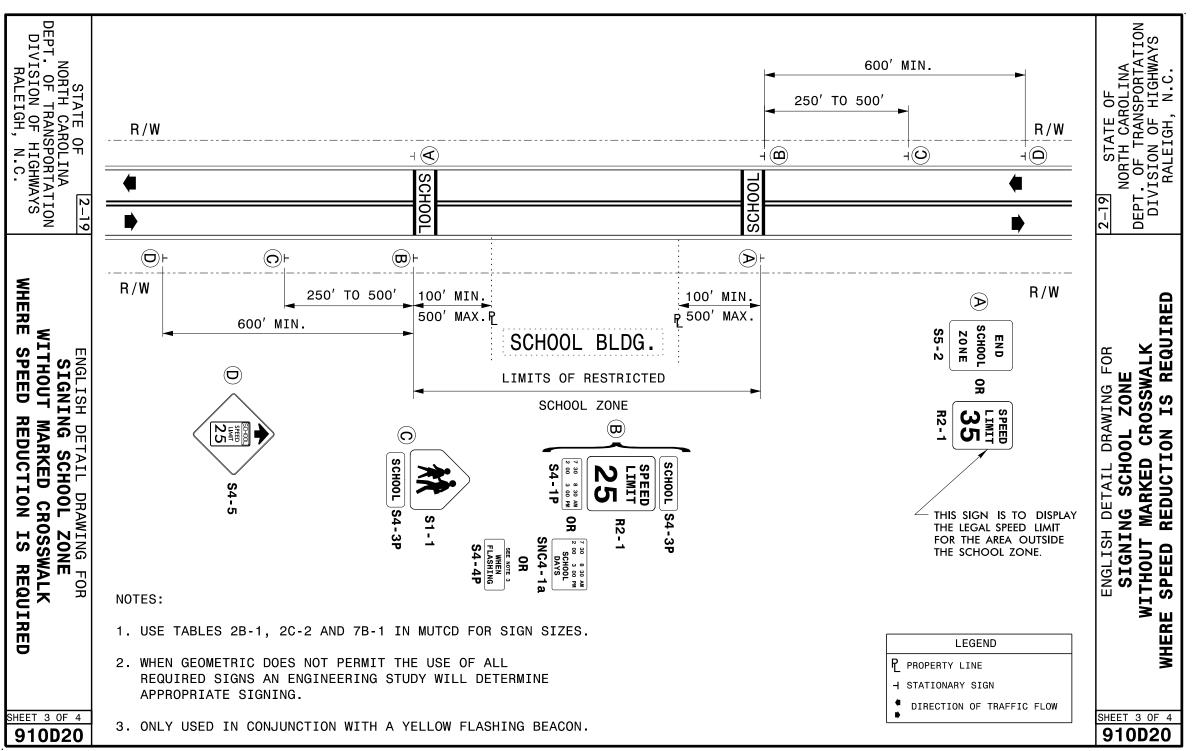
APPROVED:

APPROVED:

Moddlaw U. Springer
3/21/2019

DATE:

SEAL



REVISED SIGNING ROADWAY STANDARD DRAWING