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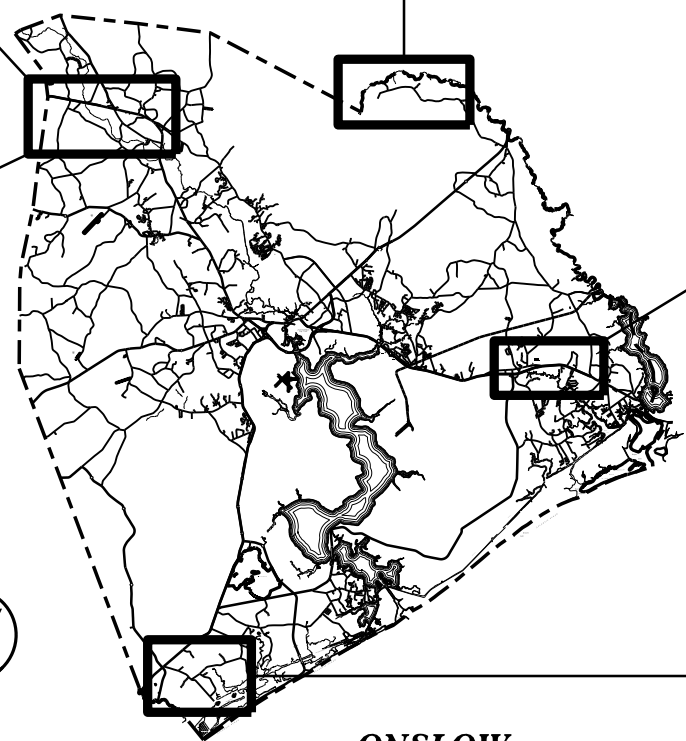
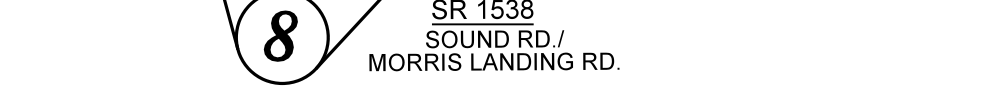
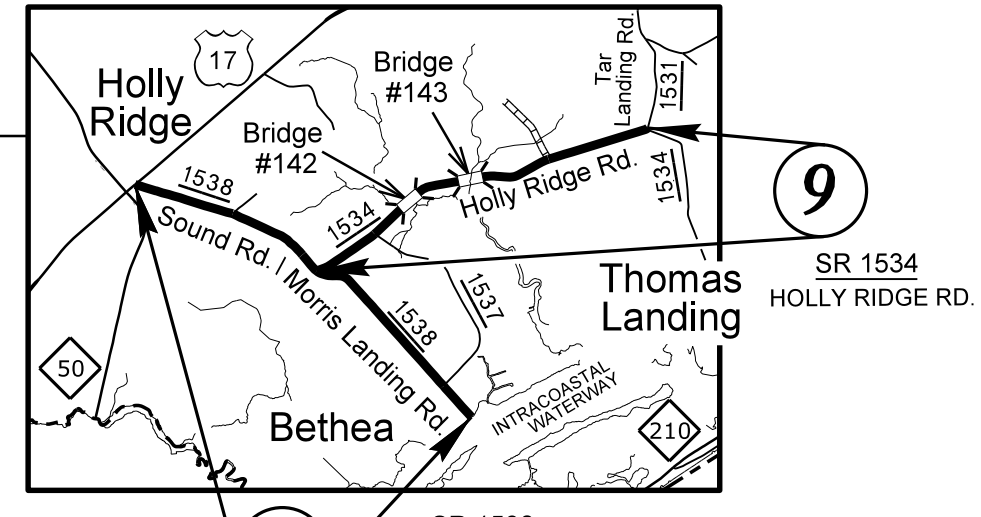
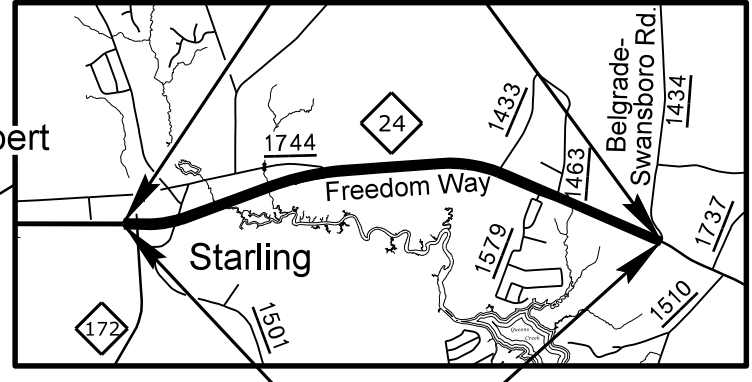
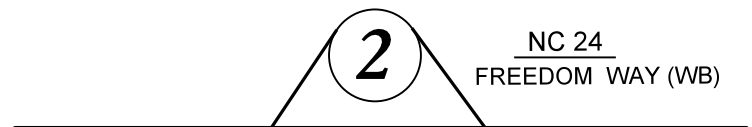
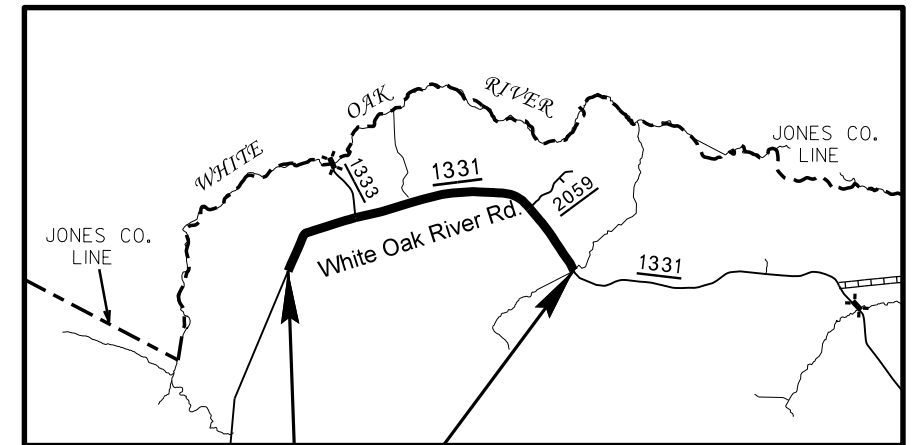
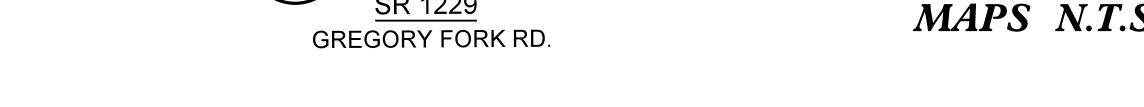
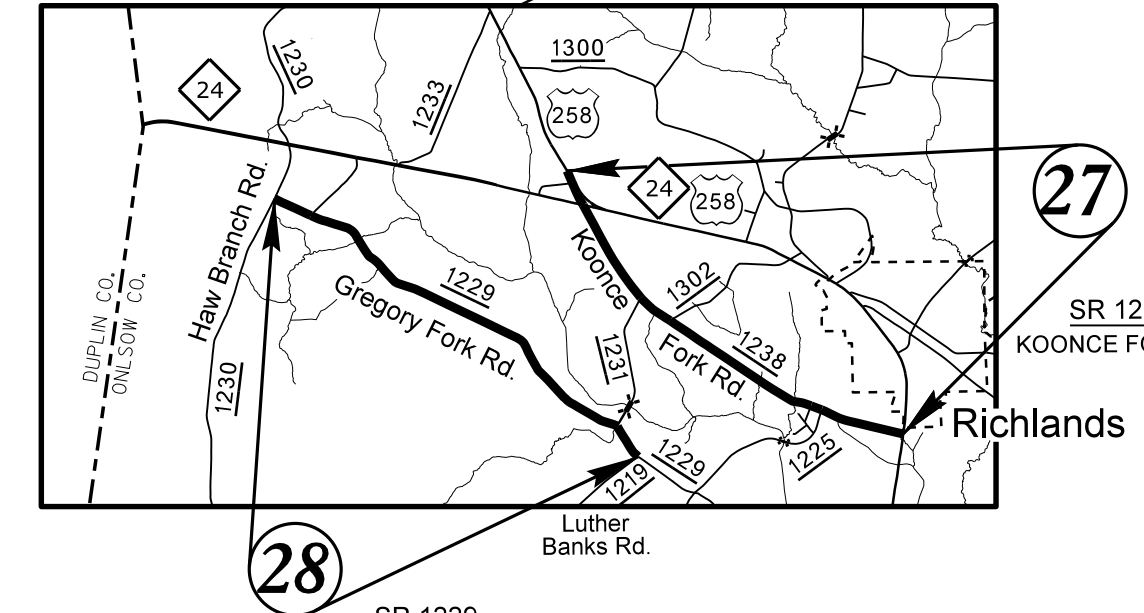
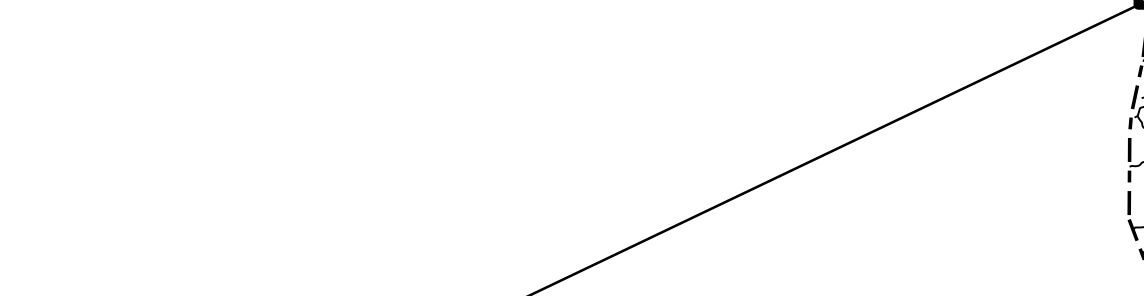
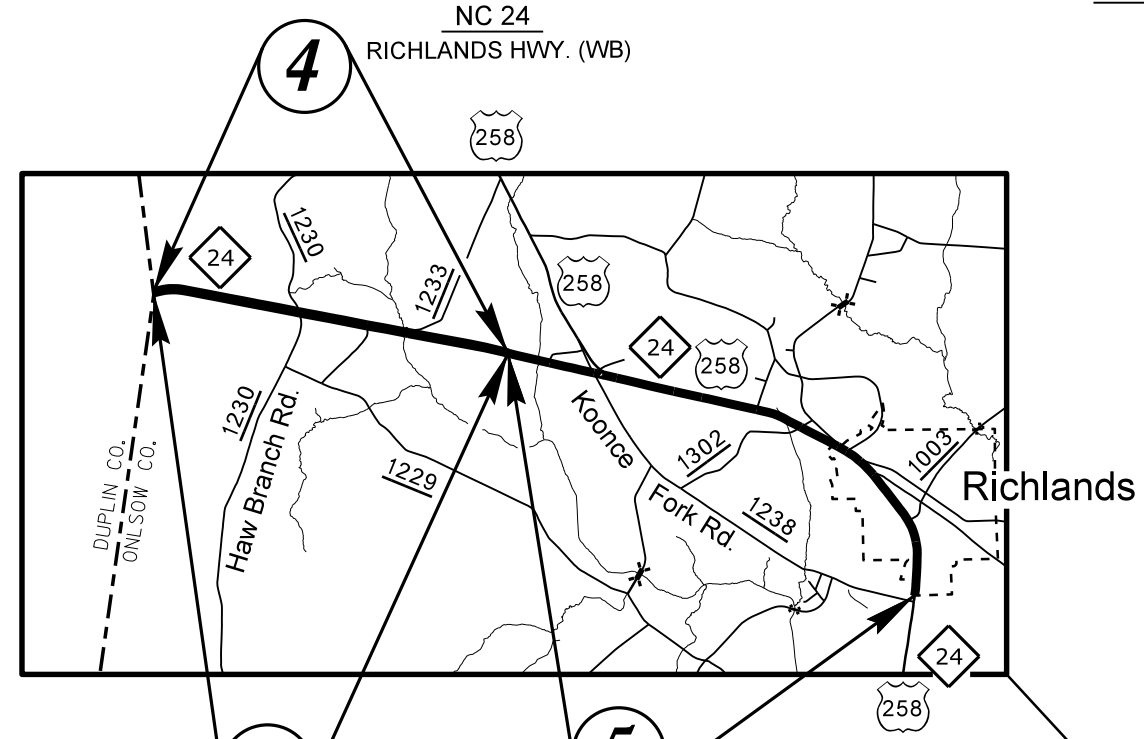
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ONSLOW COUNTY

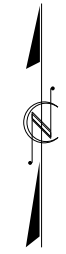
REVISIONS

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 \$\$\$BLSRNAME\$\$\$



ONSLOW COUNTY

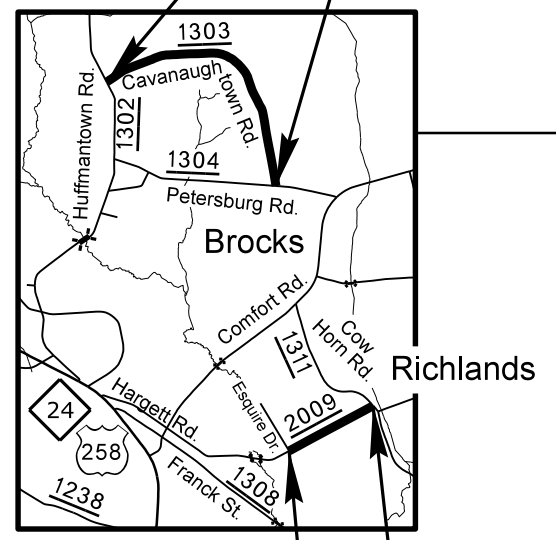
MAPS N.T.S.



ONSLOW COUNTY - CONT.

SR 1303
CAVANAUGHTOWN RD.

32

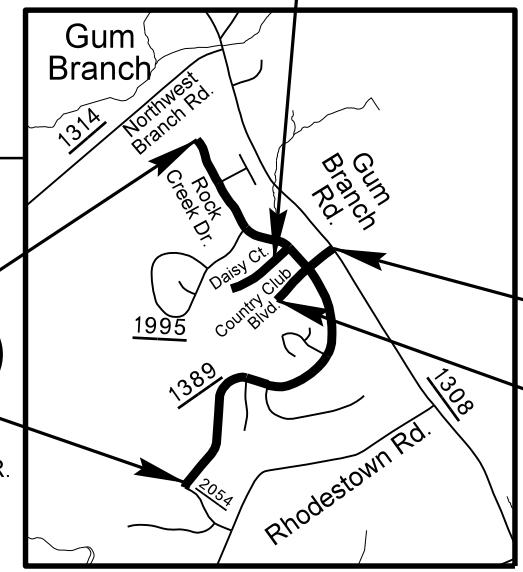


SR 2009
FRANCKTOWN RD.

6

11

SR 1972
DAISY CT.

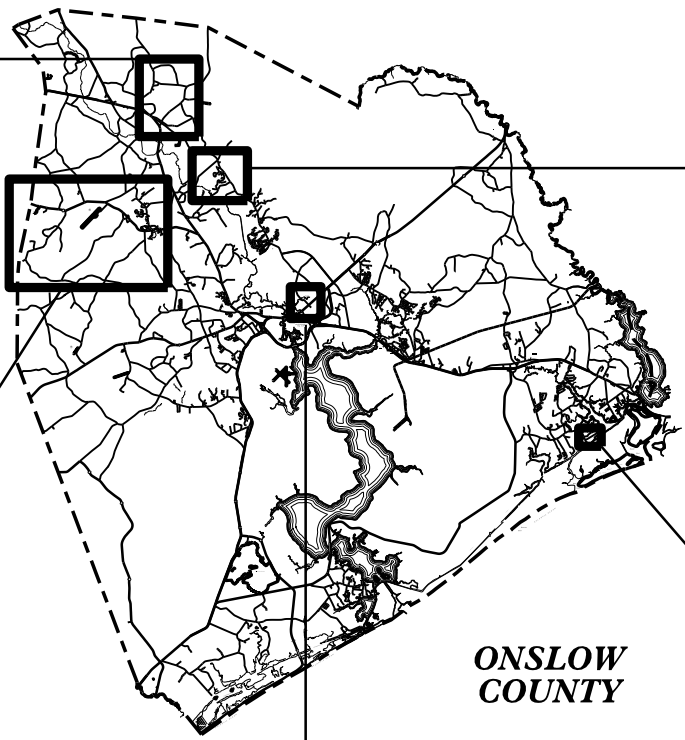


SR 1389
ROCK CREEK DR.

10

12

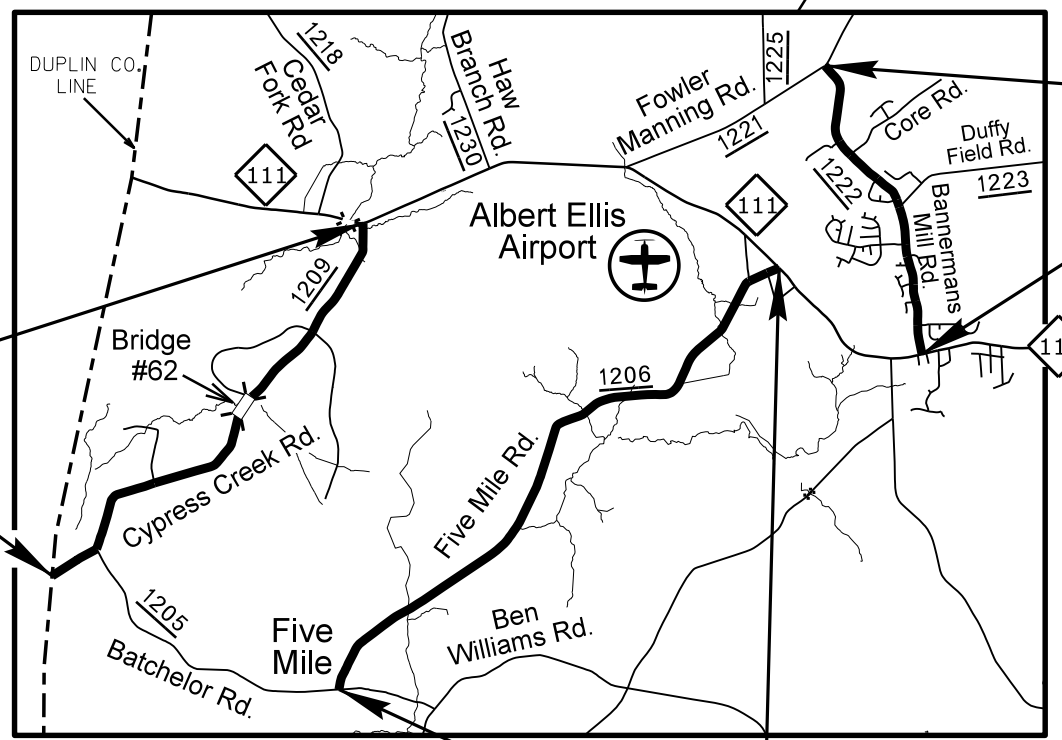
SR 1390
COUNTRY CLUB BLVD.



ONSLOW COUNTY

SR 1209
CYPRESS CREEK RD.

13



SR 1206
FIVE MILE RD.

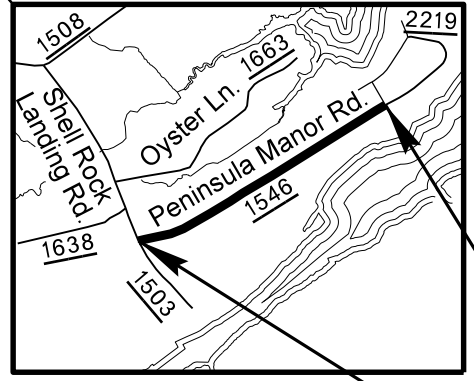
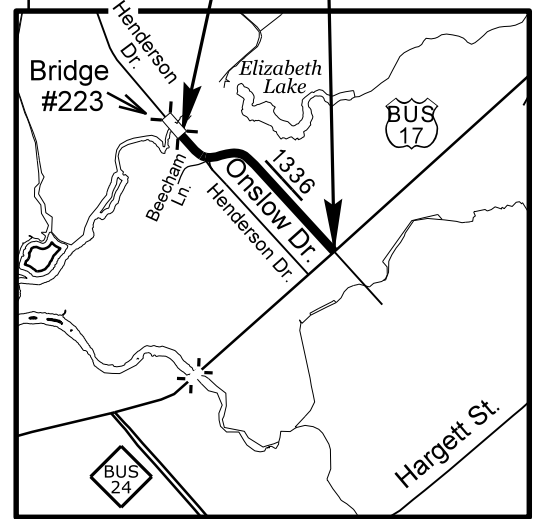
30

31

SR 1222
BANNERMANS MILL RD.

36

SR 1336
ONSLOW DR.



SR 1546
PENINSULA MANOR RD.

35

MAPS N.T.S.

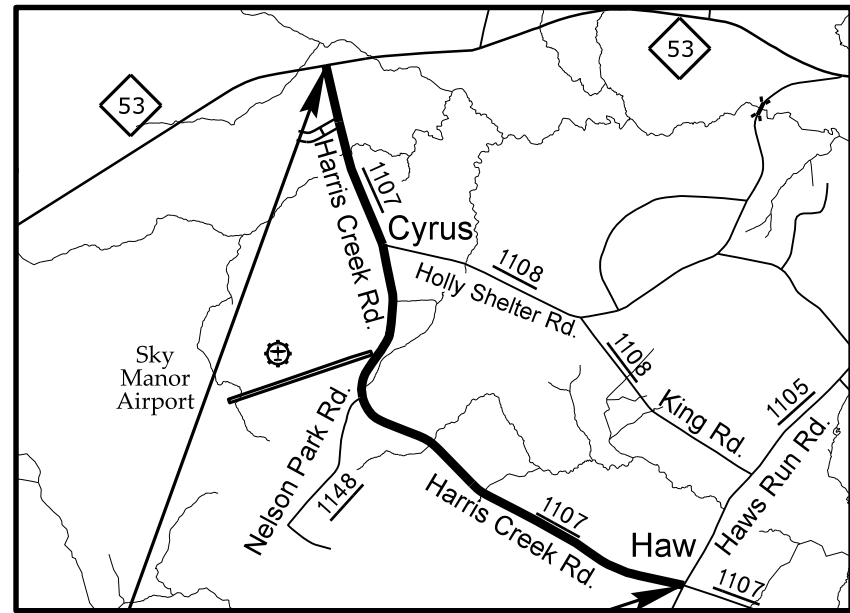
REVISIONS

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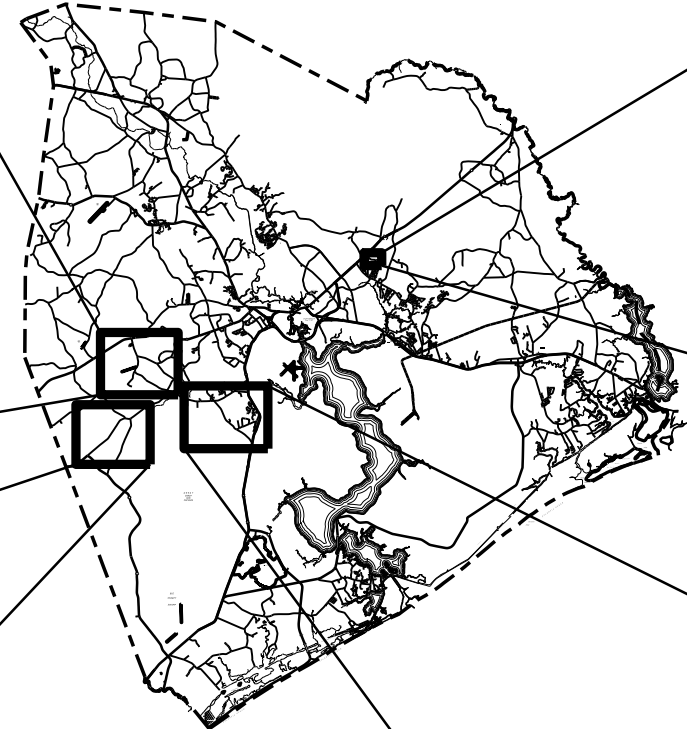
ONSLOW COUNTY - CONT.



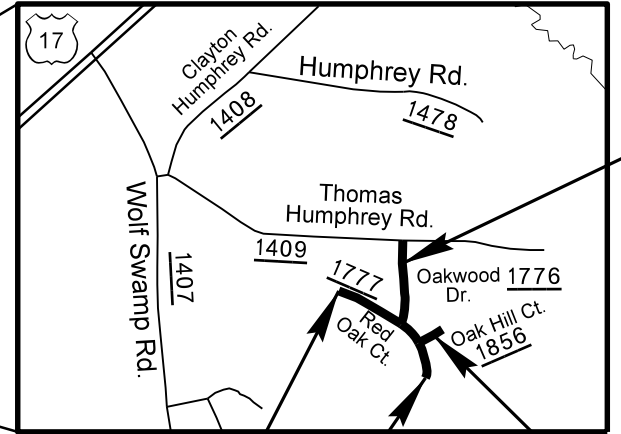
MAPS N.T.S.



33
SR 1107
HARRIS CREEK RD.



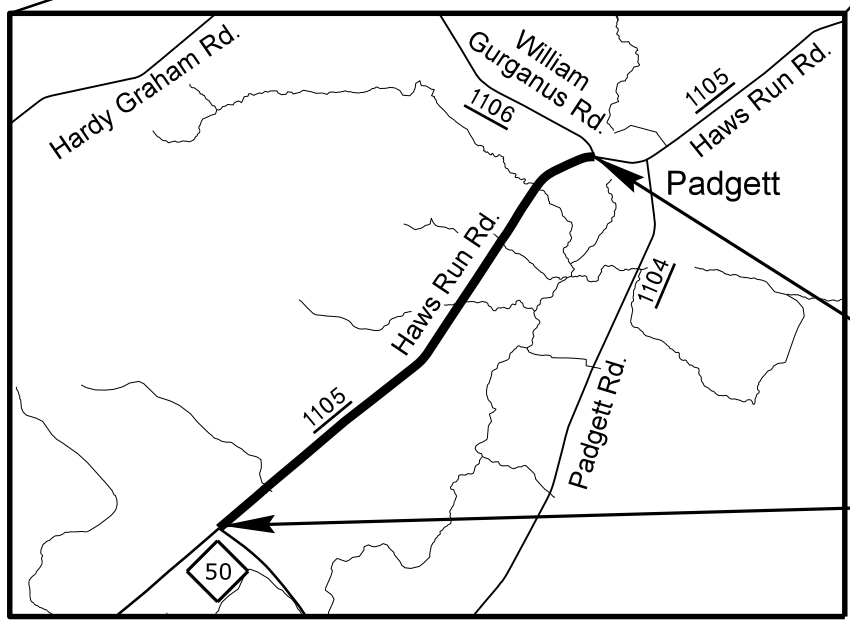
ONSLOW COUNTY



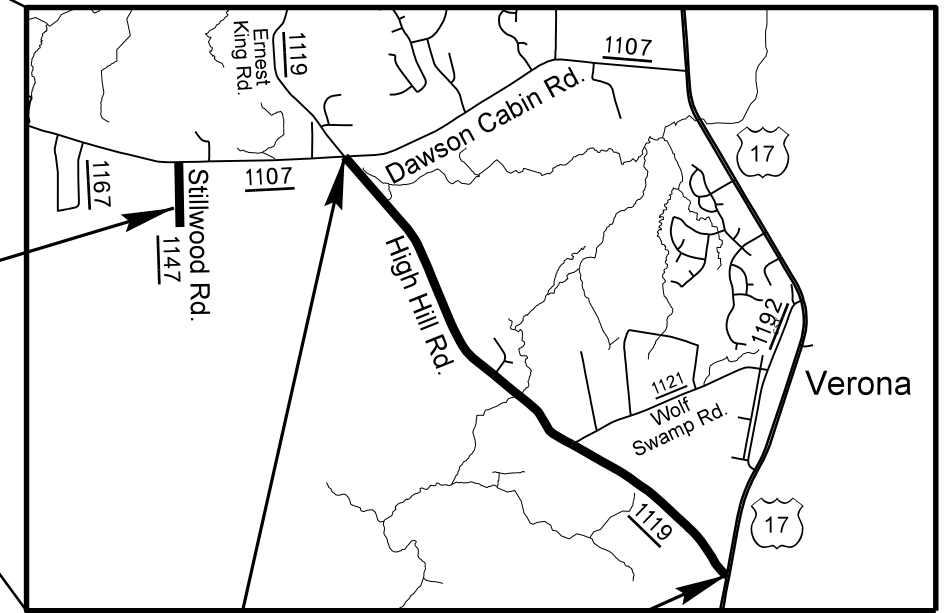
23
SR 1776
OAKWOOD DR.

24
SR 1777
RED OAK CT.

25
SR 1856
OAK HILL CT.



34
SR 1105
HAWS RUN RD.



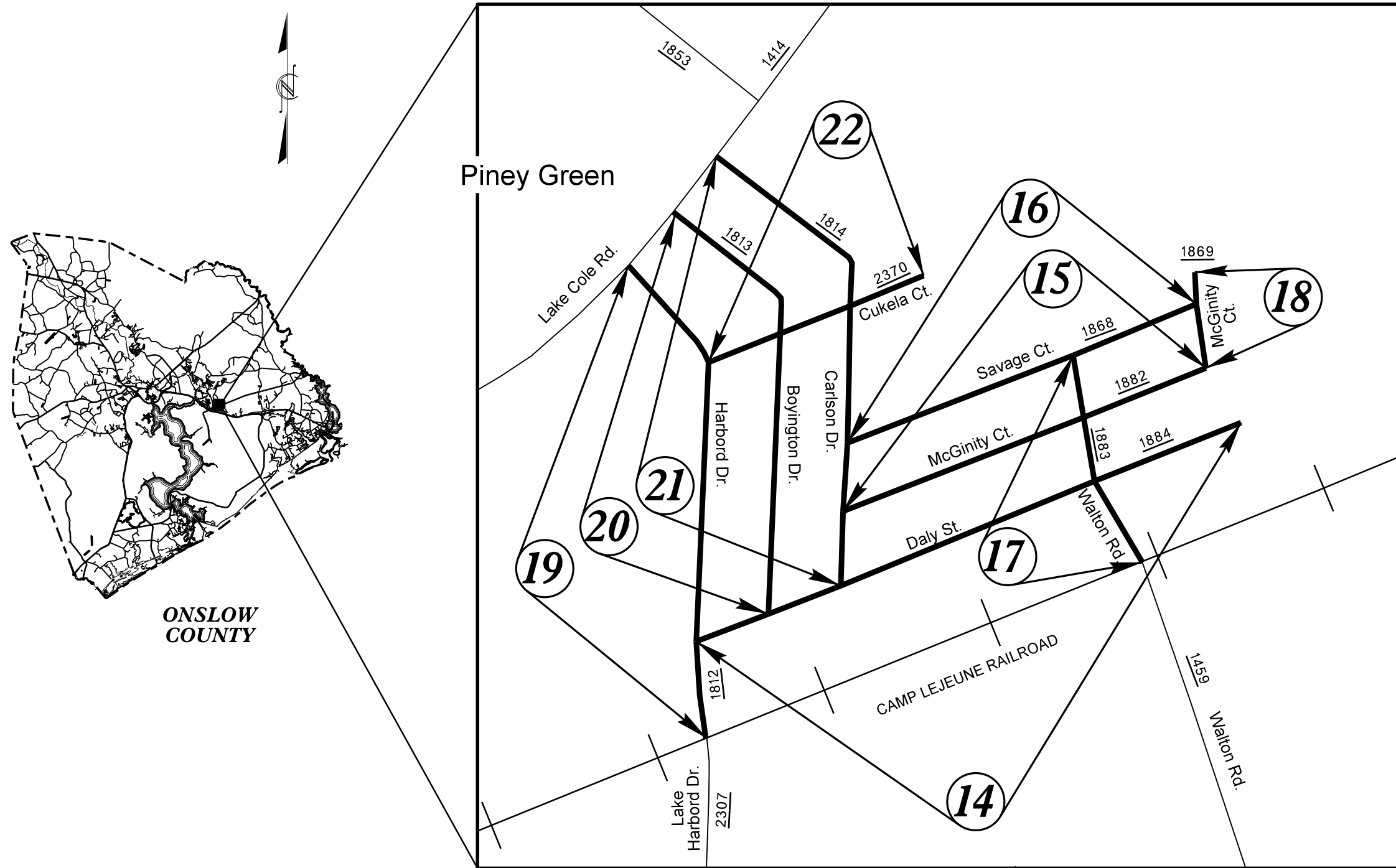
26
SR 1147
STILLWOOD RD.

29
SR 1119
HIGH HILL RD.

REVISIONS

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ONSLOW COUNTY - CONT.

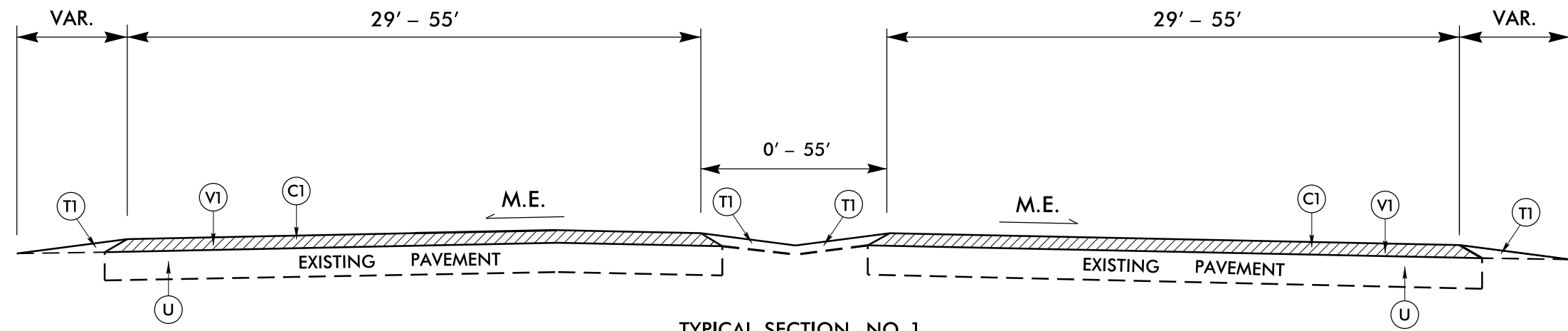


- 14** SR 1884
DALY ST.
- 15** SR 1882
MCGINITY CT.
- 16** SR 1868
SAVAGE CT.
- 17** SR 1883 / SR 1459
WALTON RD.
- 18** SR 1869
MCGINITY CT.
- 19** SR 1812
HARBORD DR.
- 20** SR 1813
BOYINGTON DR.
- 21** SR 1814
CARLSON DR.
- 22** SR 2370
CUKELA CT.

MAPS N.T.S.

REVISIONS

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TYPICAL SECTION NO. 1

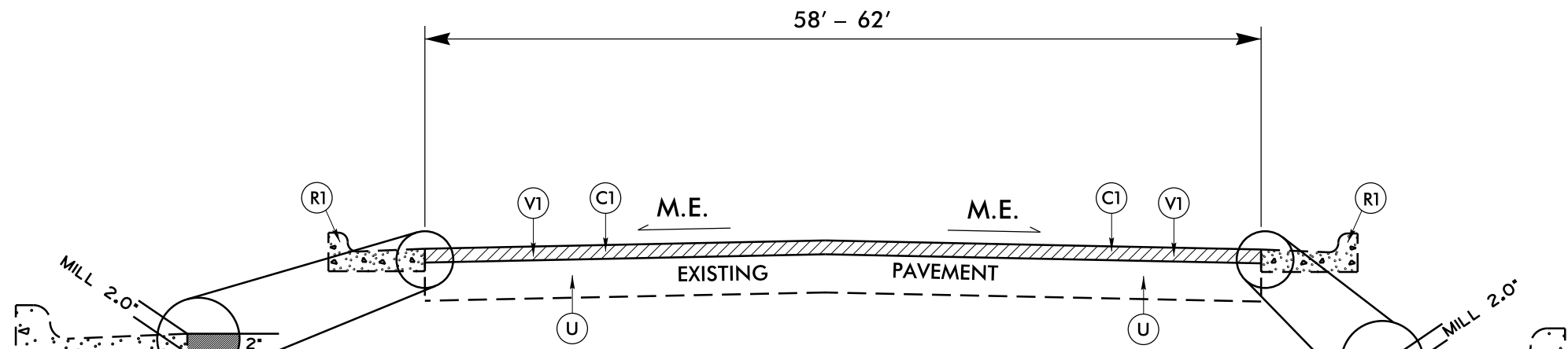
MAP NO. 2 (WB)
NC 24 (FREEDOM WAY)
MP 3.322 – MP 7.665

MAP NO. 1 (EB)
NC 24 (FREEDOM WAY)
MP 32.829 – MP 37.165

MAP NO. 4 (WB)
NC 24 (RICHLANDS HWY.)
MP 37.712 – MP 40.523

MAP NO. 3 (EB)
NC 24 (RICHLANDS HWY.)
MP 0.000 – MP 2.811

NOTE: -Y- LINE TIE-INS WILL BE MILLED 2" AND RESURFACED 2" WITH S9.5C ACSC. SEE SIGNAL PLANS FOR LOOP REPLACEMENTS ON -Y- LINES.



TYPICAL SECTION NO. 2

MAP NO. 5
US 258 /NC 24 (RICHLANDS HWY.)
NC 24: MP 2.811 – MP 3.545
US 258: MP 15.287 – MP 11.987

NOTE: -Y- LINE TIE-INS WILL BE MILLED 2" AND RESURFACED 2" WITH S9.5C ACSC. SEE SIGNAL PLANS FOR LOOP REPLACEMENTS ON -Y- LINES.

EXCEPTION: DO NOT MILL & RESURFACE EXISTING TURN LANES AT WALMART SHOPPING CENTER

PAVEMENT SCHEDULE

C1	PROP. APPROX. 2" DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 224 LBS. PER SQ.YD.
C2	PROP. APPROX. 1½" DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ.YD.
C3	PROP. APPROX. 1" DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 110 LBS. PER SQ.YD.
E1	PROP. APPROX. 4" DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ.YD.
R1	EXISTING CONCRETE 2'-6" CURB & GUTTER
R2	EXISTING ROLLED ASPHALT CURB
R3	EXISTING CONCRETE VALLEY CURB
T1	EARTH MATERIAL (SHOULDER RECONSTRUCTION)
T2	AGGREGATE SHOULDER BORROW (ASB)
U	EXISTING PAVEMENT
V1	MILLING ASPHALT PAVEMENT, 2" DEPTH
V2	MILLING ASPHALT PAVEMENT, 1½" DEPTH

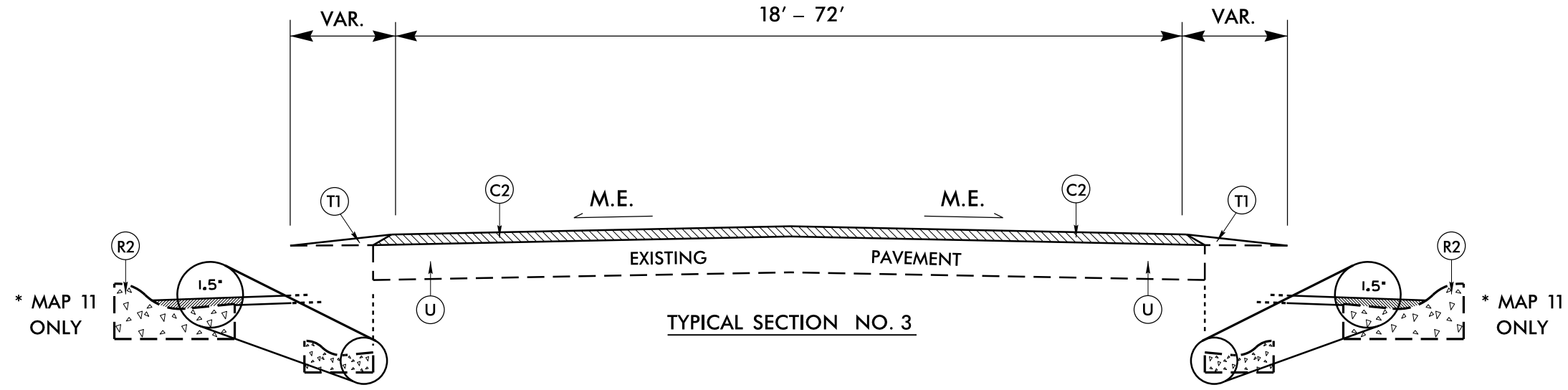
PAVEMENT EDGE SLOPES ARE 1:1, EXCEPT FINAL SURFACE COURSE. SEE SHOULDER WEDGE DETAIL.

M.E. = MATCH EXISTING

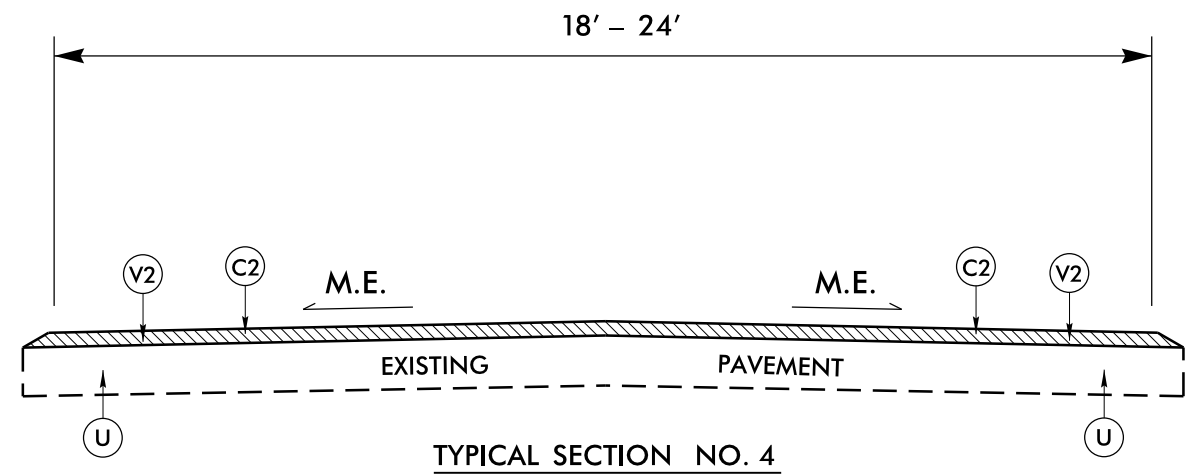
SEE STD. DRAWING 1205.01, SHEET 2 OF 2, TABLE 1 FOR EDGE LINE OFFSETS.

REVISIONS

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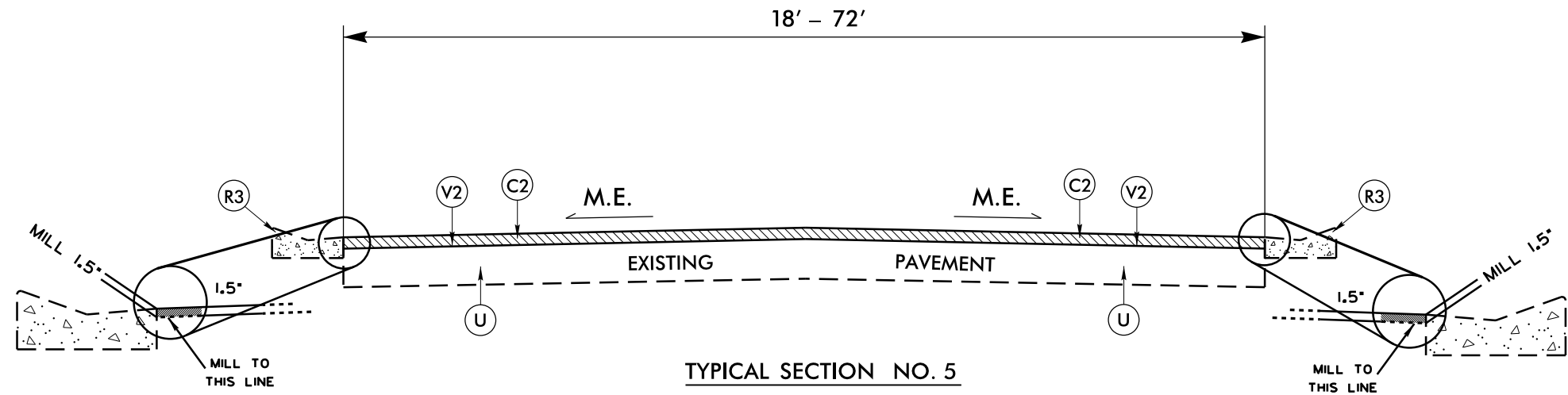
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|---|--|---|--|--|
| MAP NO. 6
SR 2009 (FRANCKTOWN RD.)
MP 1.000 – MP 1.774 | MAP NO. 9
SR 1534 (HOLLY RIDGE RD.)
MP 0.000 – MP 0.605
MP 1.451 – MP 2.862 | *MAP NO. 11
SR 1972 (DAISY COURT)
MP 0.000 – MP 0.219 | MAP NO. 28
SR 1229 (GREGORY FORK RD.)
MP 2.518 – MP 6.083 | MAP NO. 33
SR 1107 (HARRIS CREEK RD.)
MP 0.000 – MP 3.771 |
| MAP NO. 7
SR 1331 (WHITE OAK RIVER RD.)
MP 5.656 – MP 8.386 | NO WORK WIDENED SECTION:
MP 0.605 – MP 1.451
NO PAVING BRIDGE NO. 142
(MP 1.945 – MP 1.955) | MAP NO. 12
SR 1390 (COUNTRY CLUB BLVD.)
MP 0.000 – MP 0.236 | MAP NO. 31
SR 1222 (BANNERMANS MILL RD.)
MP 0.000 – MP 2.492 | MAP NO. 34
SR 1105 (HAWS RUN RD.)
MP 0.000 – MP 2.776 |
| MAP NO. 8
SR 1538 (MORRIS LANDING RD. /SOUND RD.)
MP 0.000 – MP 1.674 | MAP NO. 10
SR 1389 (ROCK CREEK DR.)
MP 0.000 – MP 1.536 | MAP NO. 14
SR 1884 (DALY ST.)
MP 0.000 – MP 0.228 | MAP NO. 32
SR 1303 (CAVANAUGHTOWN RD.)
MP 0.000 – MP 2.094 | MAP NO. 35
SR 1546 (PENINSULA MANOR RD.)
MP 0.000 – MP 0.734 |



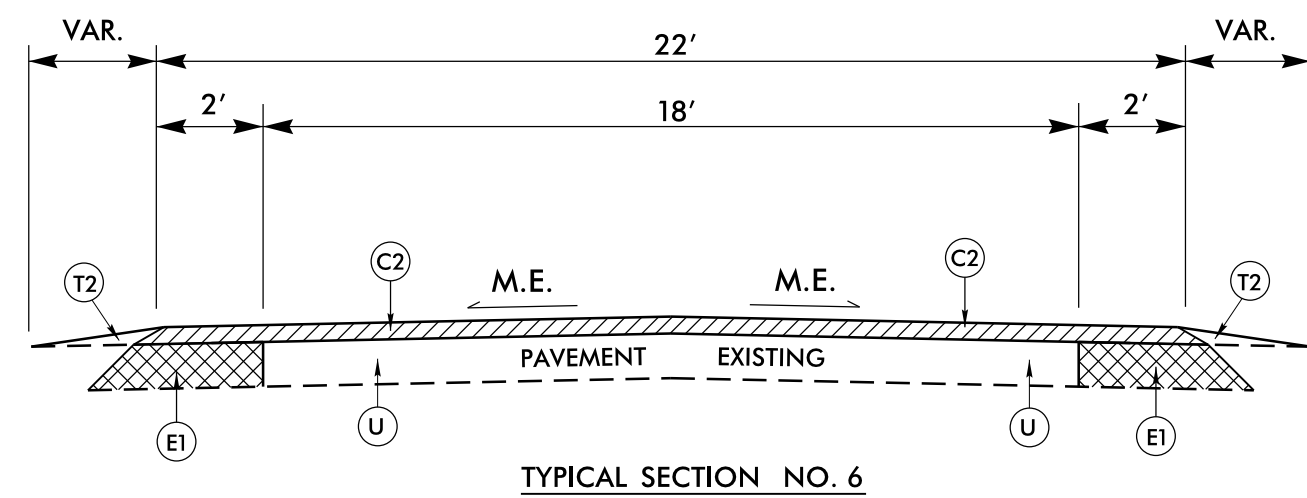
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| MAP NO. 8
SR 1538 (SOUND RD. / MORRIS LANDING RD.)
MP 1.674 – MP 2.863 | MAP NO. 16
SR 1868 (SAVAGE CT.)
MP 0.000 – MP 0.078 | MAP NO. 18
SR 1869 (MCGINITY DR.)
MP 0.032 – MP 0.078 | MAP NO. 20
SR 1813 (BOYINGTON DR.)
MP 0.000 – MP 0.367 | MAP NO. 22
SR 2370 (CUKELA ST.)
MP 0.000 – MP 0.191 |
| MAP NO. 15
SR 1882 (MCGINITY CT.)
MP 0.000 – MP 0.089 | MAP NO. 17
SR 1459 (WALTON RD.)
MP 0.135 – MP 0.177 | MAP NO. 19
SR 1812 (HARBORD DR.)
MP 0.000 – MP 0.300 | MAP NO. 21
SR 1814 (CARLSON DR.)
MP 0.000 – MP 0.402 | MAP NO. 26
SR 1147 (STILLWOOD RD.)
MP 0.000 – MP 0.336 |

PAVEMENT SCHEDULE	
C2	1½" S9.5B
R2	EXIST. ROLLED ASPHALT CURB
T1	SH. RECONSTR.
U	EXISTING PAVEMENT
V2	MILLING 1½" DEPTH

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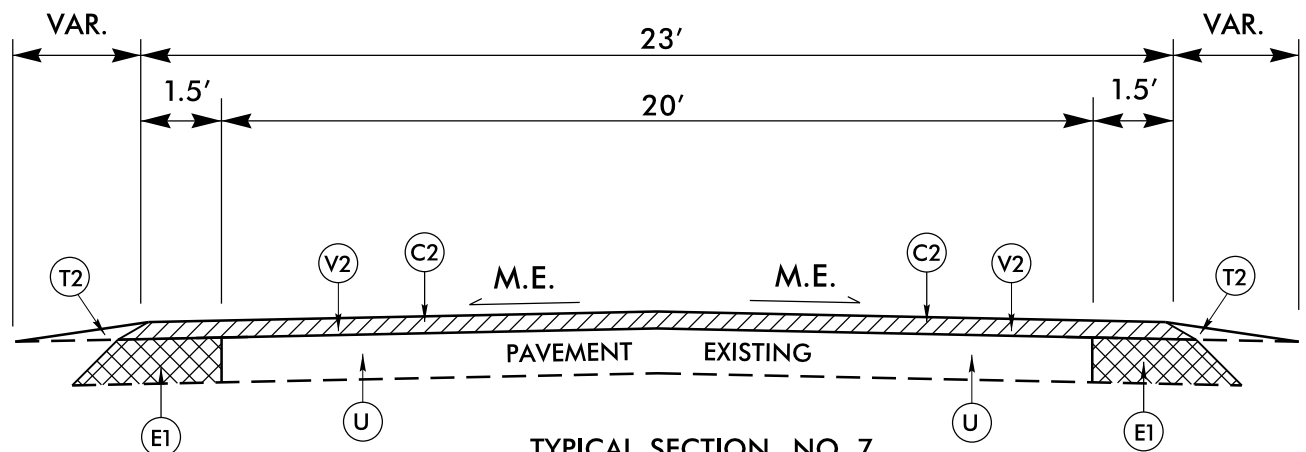
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| MAP NO. 8
SR 1538 (SOUND RD./
MORRIS LANDING RD.)
MP 2.863 – MP 3.263 | MAP NO. 15
SR 1882 (MCGINITY CT.)
MP 0.089 – MP 0.317 | MAP NO. 17
SR 1459 (WALTON RD.)
MP 0.000 – MP 0.135 | MAP NO. 23
SR 1776 (OAKWOOD DR.)
MP 0.000 – MP 0.129 | MAP NO. 25
SR 1856 (OAK HILL COURT)
MP 0.000 – MP 0.043 |
| MAP NO. 14
SR 1884 (DALY ST.)
MP 0.228 – MP 0.474 | MAP NO. 16
SR 1868 (SAVAGE CT.)
MP 0.078 – MP 0.307 | MAP NO. 18
SR 1869 (MCGINITY DR.)
MP 0.000 – MP 0.032 | MAP NO. 24
SR 1777 (RED OAK COURT)
MP 0.000 – MP 0.215 | |



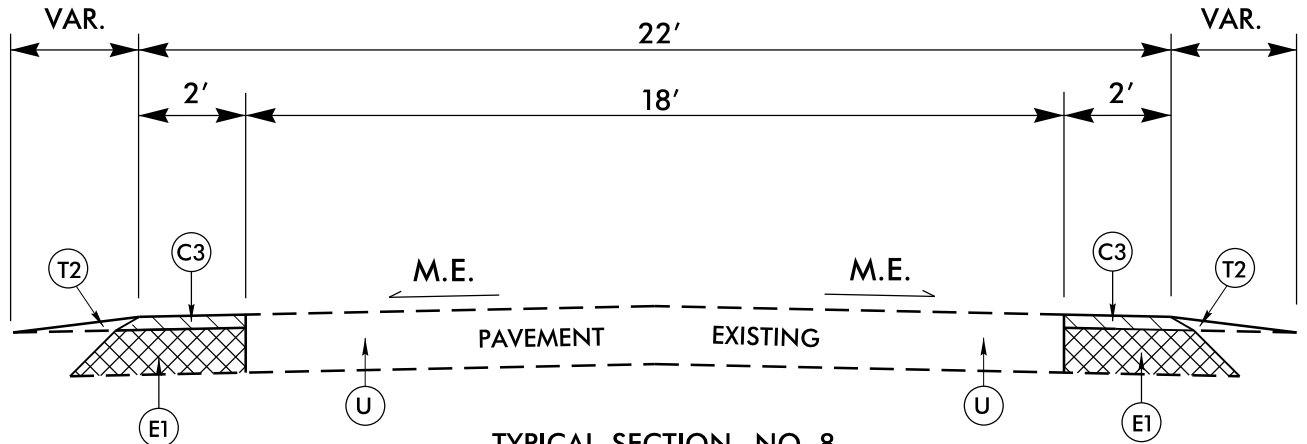
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|--|--|
| MAP 13
SR 1209 (CYPRESS CREEK RD.)
MP 0.000 – MP 3.689
NO PAVING BRIDGE NO. 62
(MP 1.720 – MP 1.727) | MAP 27
SR 1238 (KOONCE FORK RD.)
MP 0.270 – MP 3.500 |
|--|--|

PAVEMENT SCHEDULE	
C2	1½" S9.5B
E1	4" B25.0B
R3	EXIST. VALLEY CURB
T2	AGGREGATE SHOULDER BORROW (ASB)
U	EXISTING PAVEMENT
V2	MILLING 1½" DEPTH

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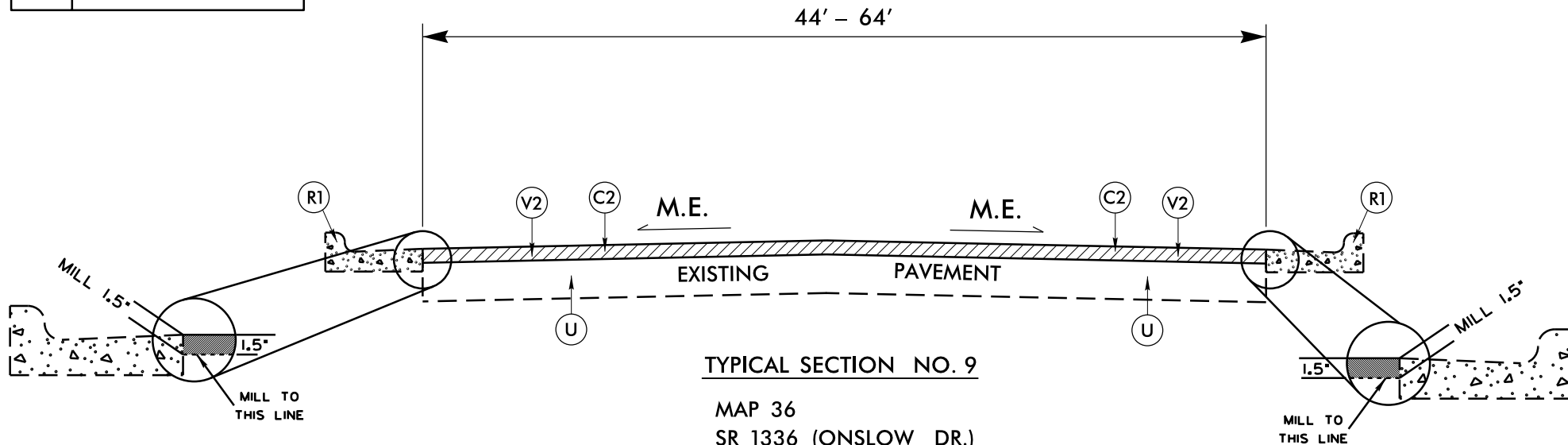


TYPICAL SECTION NO. 7
 MAP 29
 SR 1119 (HIGH HILL RD.)
 MP 0.000 – MP 3.003



TYPICAL SECTION NO. 8
 MAP 30
 SR 1206 (FIVE MILE RD.)
 MP 0.000 – MP 5.030

PAVEMENT SCHEDULE	
C2	1½" S9.5B
C3	1" SF9.5A
E1	4" B25.0B
R1	EXIST. 2'-6" C & G
T2	AGGREGATE SHOULDER BORROW (ASB)
U	EXISTING PAVEMENT
V2	MILLING 1½" DEPTH



TYPICAL SECTION NO. 9
 MAP 36
 SR 1336 (ONSLow DR.)
 MP 2.556 – MP 3.103
 NO PAVING BRIDGE NO. 223
 MP 2.534 – MP 2.556

16-NOV-2016 13:08
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 \$\$\$BLSRNAME\$\$\$

STANDARD DRAWINGS, RESURFACING LIMITS AND 3' CONCRETE GUTTER REMOVAL

EFF.01-17-2012
 REV.02-29-2016

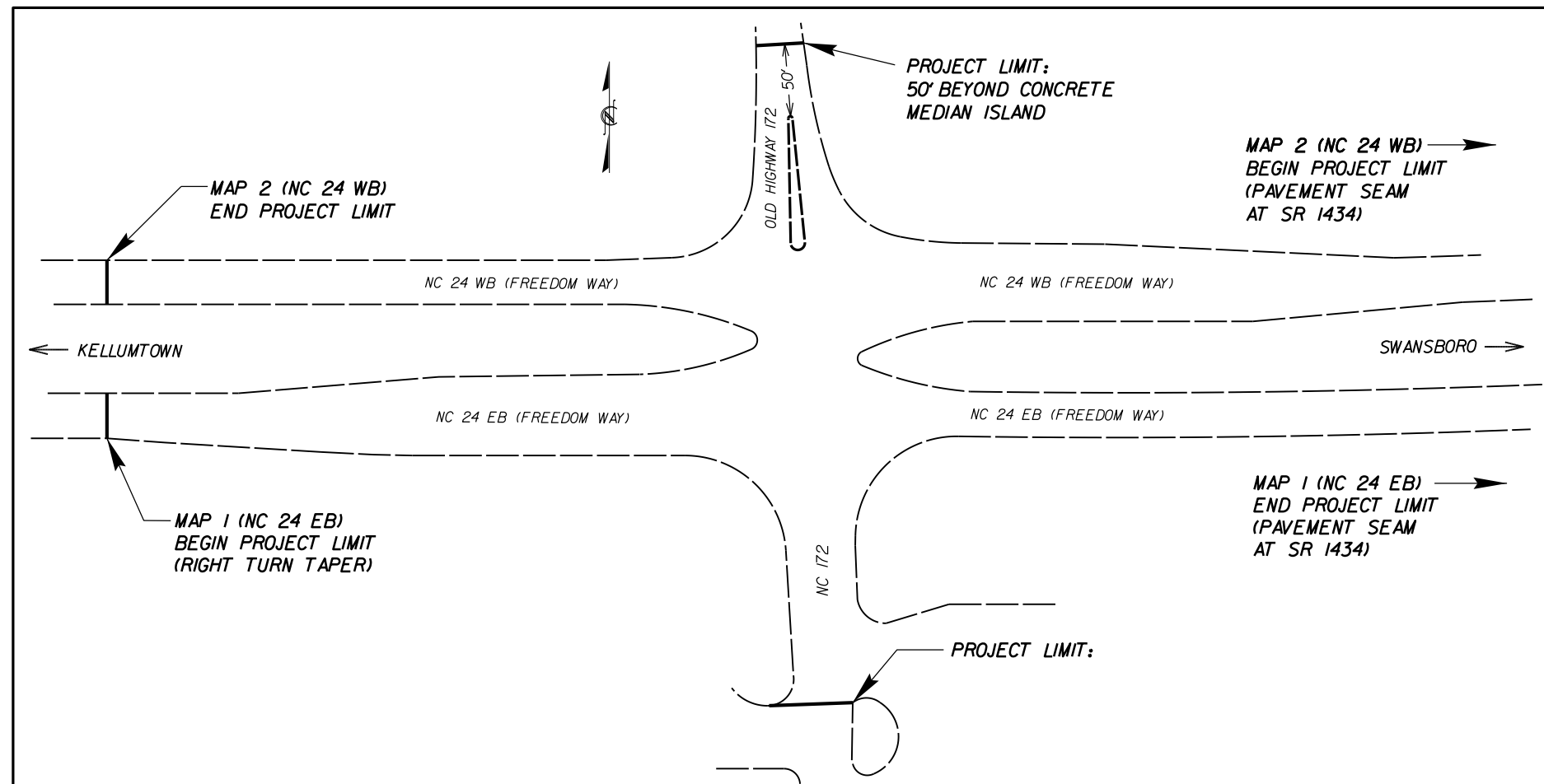
2012 ROADWAY ENGLISH STANDARD DRAWINGS

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - N.C. Department of Transportation - Raleigh, N.C., Dated January, 2012 are applicable to this project and by reference hereby are considered a part of these plans:

STD.NO. TITLE

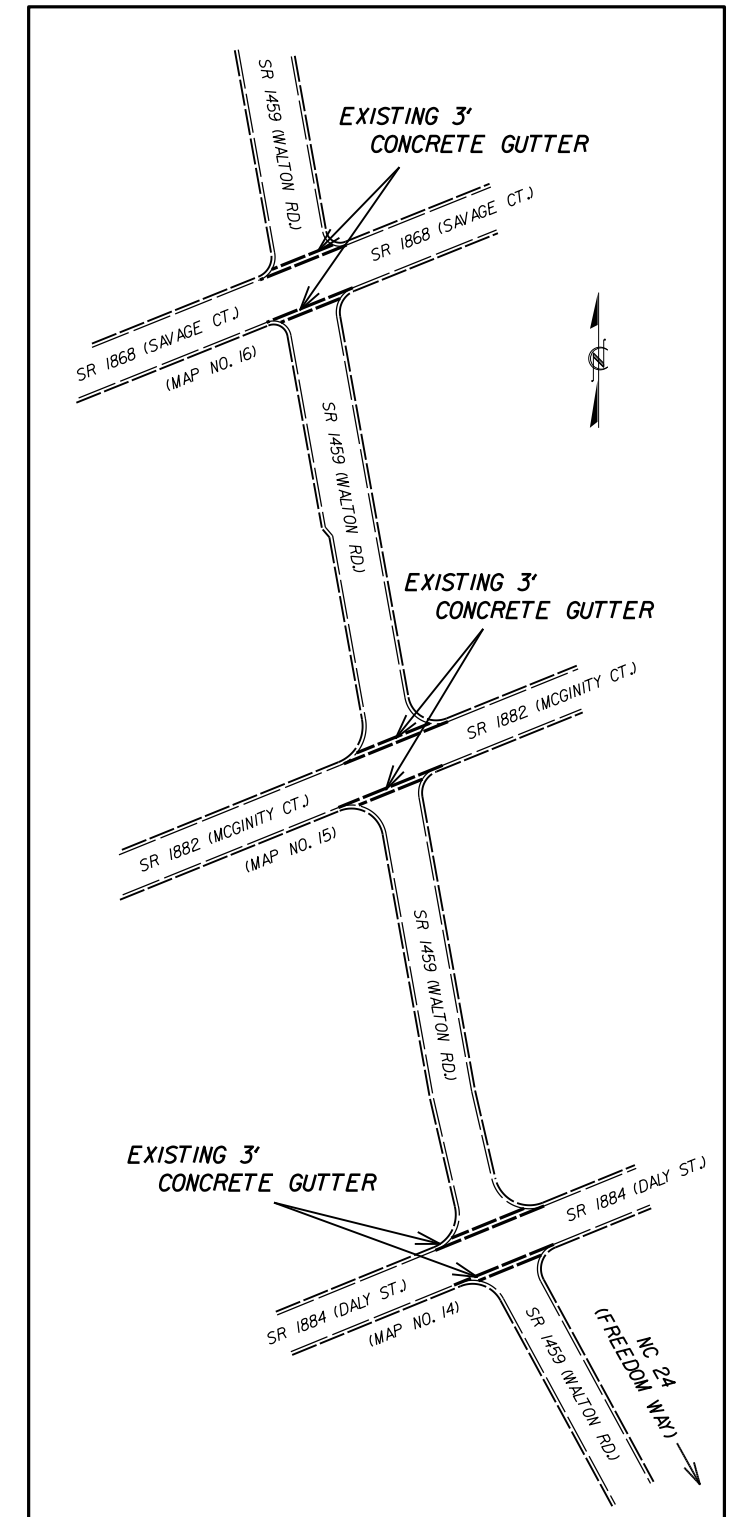
DIVISION 8 - INCIDENTALS

- 846.01 Concrete Curb, Gutter and Curb & Gutter
- 848.01 Concrete Sidewalk
- 848.05 Curb Ramp - Proposed Curb & Gutter
- 848.06 Curb Ramp - Existing Curb & Gutter
- 862.01 Guardrail Placement
- 862.02 Guardrail Installation



MAP NO. 1 & 2: NC 24 EB & WB (FREEDOM WAY)

MILLING & RESURFACING LIMITS (SEE ATTACHED SIGNAL PLANS FOR LOCATION OF STOP BARS)

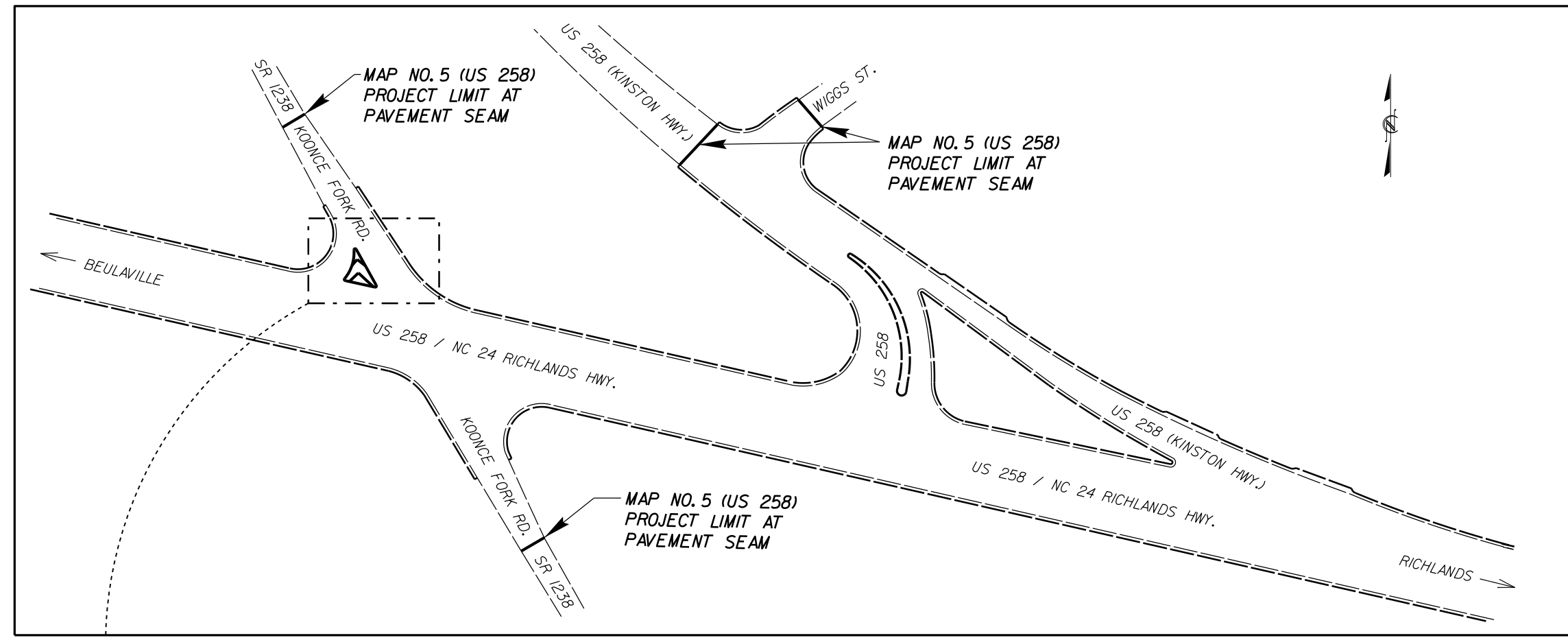


MAP NO. 14 - 16: SR 1884, SR 1882 & SR 1868 REMOVE EXISTING 3' CONCRETE GUTTER AND REPAIR PAVEMENT (SEE ATTACHED CONTRACT SPECIAL PROVISION)

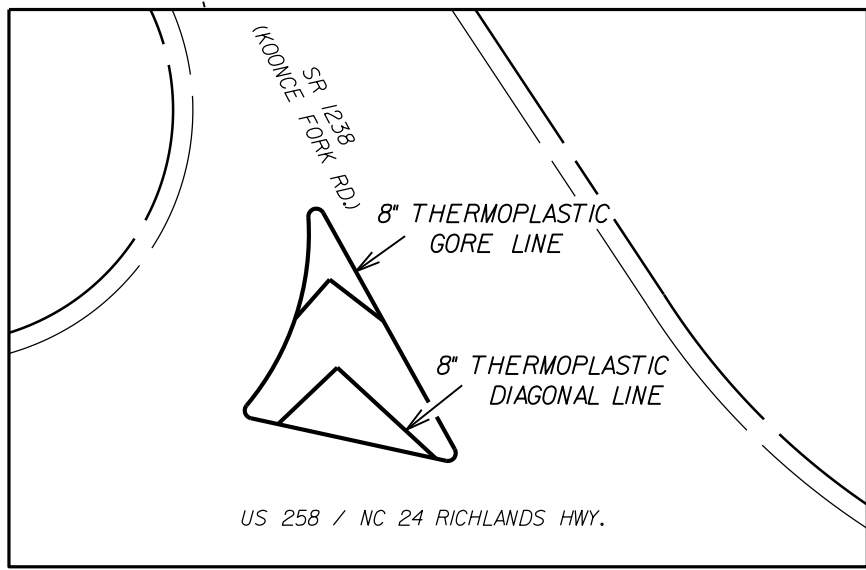
REVISIONS

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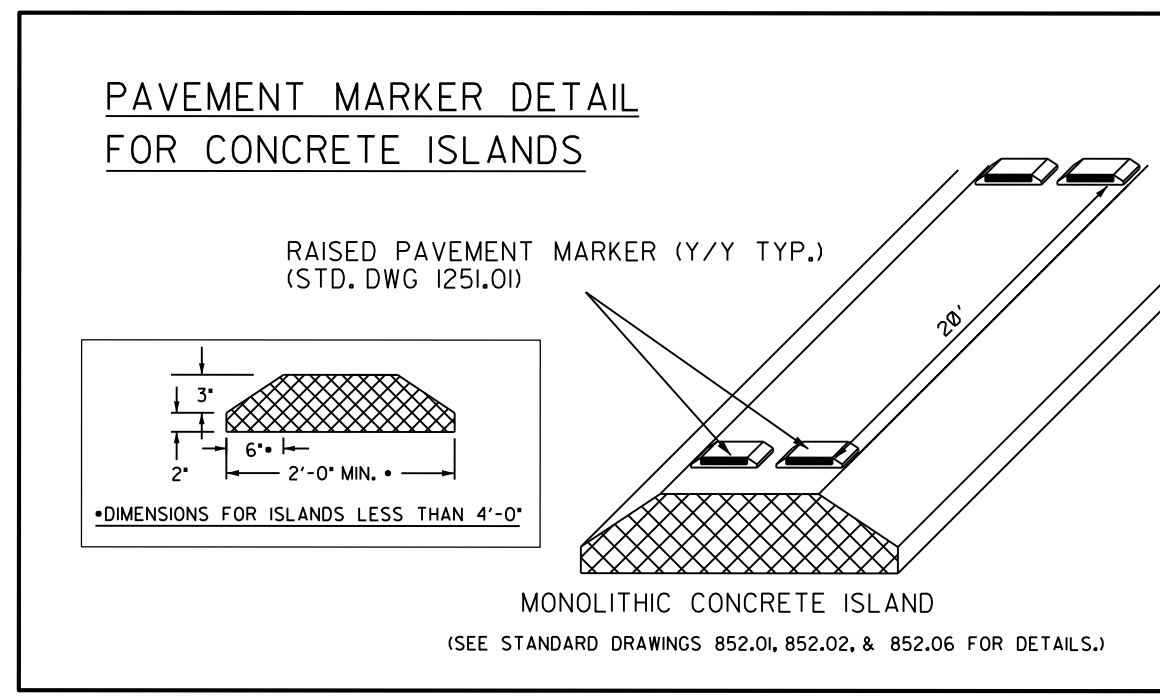
RESURFACING LIMITS, PAVEMENT MARKING AND PAVEMENT MARKER DETAILS



MAP NO. 5: US 258 (RICHLANDS HWY.) – MILLING & RESURFACING LIMITS AND THERMOPLASTIC PAINTED ISLAND

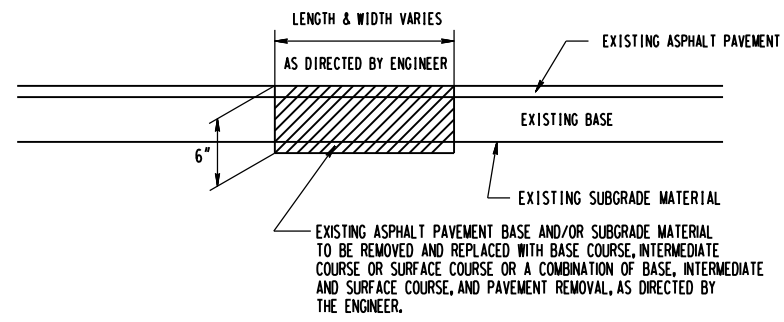


MAP NO. 5: US 258 (RICHLANDS HWY.)
DETAIL OF THERMOPLASTIC PAINTED ISLAND

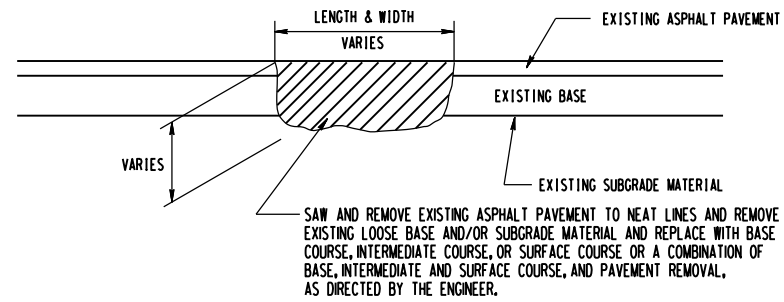


05 NOV 2016 11:00 Resurfacing Data 2017 Resurfacing Data 2017 2017CPT.03.05.10671 US 258, Etc. 2017CPT.03.05.10671, Etc. Rdy., TYP.dgn
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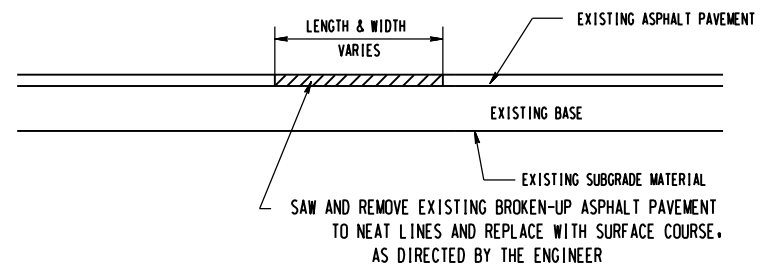
DETAILS OF PATCHING EXISTING PAVEMENT PRIOR TO RESURFACING FOR FULL DEPTH AND MILLING



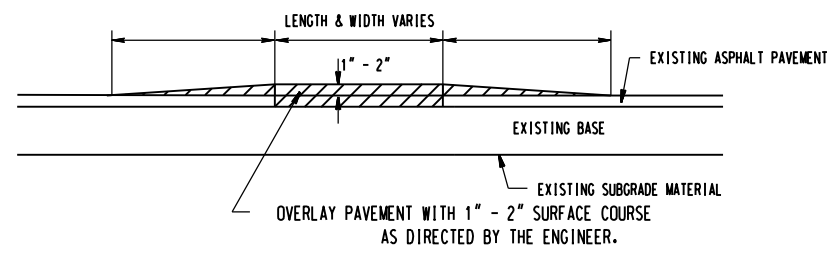
DETAIL NO. 1



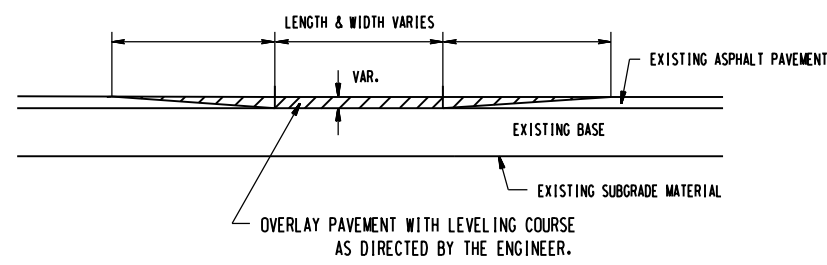
DETAIL NO. 2



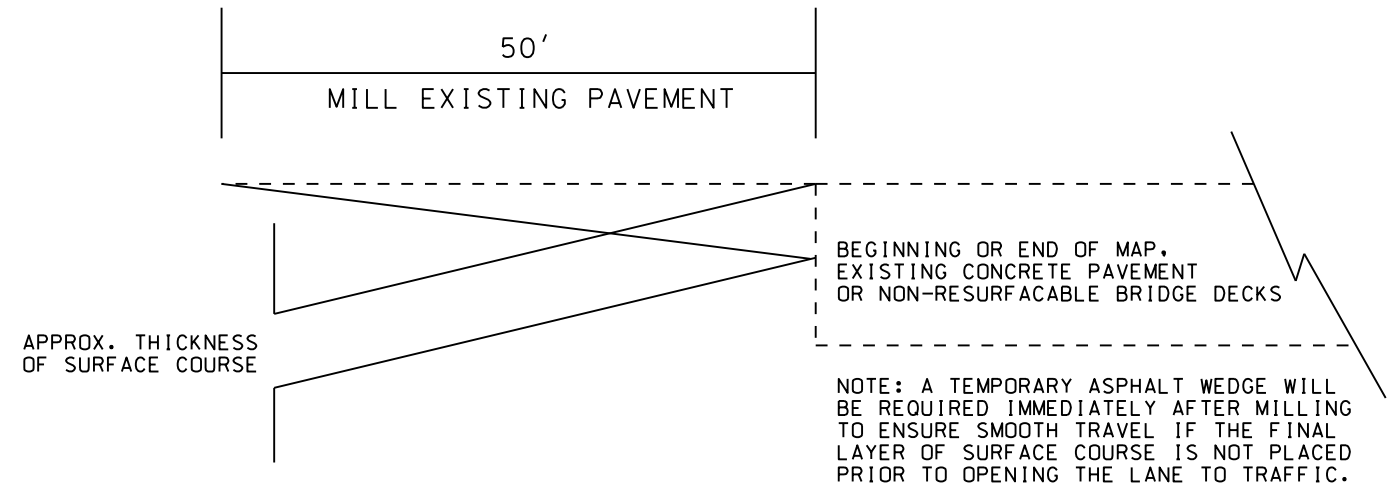
DETAIL NO. 3



DETAIL NO. 4



DETAIL NO. 5



DETAIL FOR 1.5" MILLING OR INCIDENTAL MILLING: MAY BE USED AT THE BEGINNING & END OF MAPS AND AT APPROACH & TRAILING ENDS OF BRIDGES

5/14/99
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 \$\$\$\$SYTIME\$\$\$\$

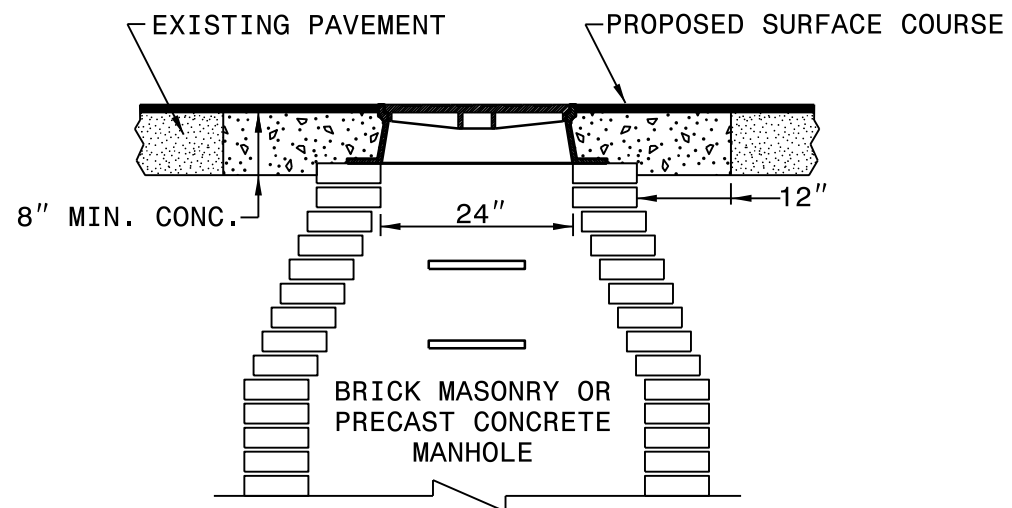
STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR
MANHOLE AND VALVE BOX ADJUSTMENTS

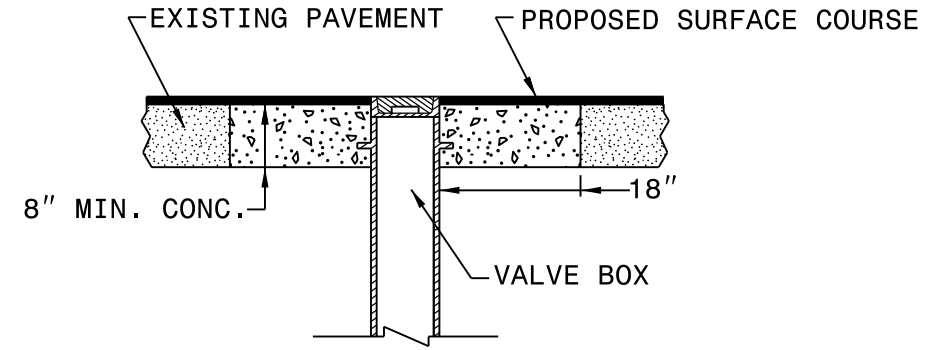
SHEET 1 OF 1
840D55

GENERAL NOTES:

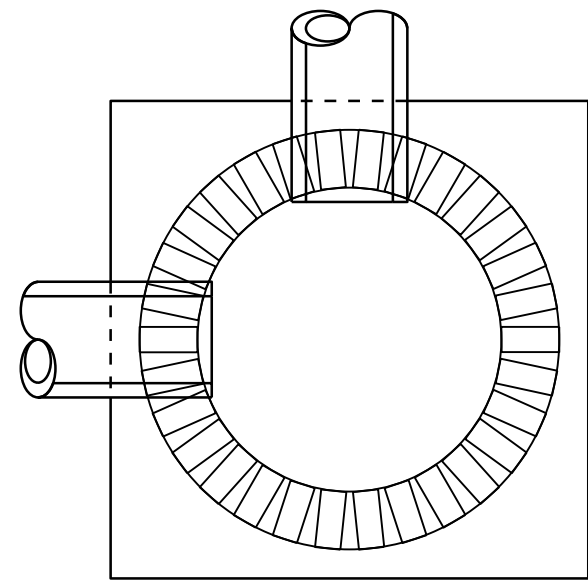
1. USE RAPID SET GROUT, MORTAR, OR CONCRETE THAT WILL TAKE FULL SET AND BECOME LOAD BEARING WITHIN SIXTY MINUTES OF PLACEMENT WITH A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI.
2. REMOVE ALL FAULTY EXISTING BRICKWORK AND REPLACE WITH NEW BRICK MASONRY.
3. SHEER CUT EXCAVATION FOR THE ADJUSTMENT ON ALL SIDES.
4. FILL AREA BELOW 8" DEPTH WITH 78M OR NO. 57 CLEAN STONE.
5. MIX MORTAR TO NCDOT SPECIFICATIONS.
6. MORTAR JOINTS $\frac{1}{2}$ " +/- $\frac{1}{8}$ "
7. CONSTRUCT AN ASPHALT RAMP IN ACCORDANCE WITH SECTION 858-3 OF THE 2012 STANDARD SPECIFICATIONS.



MANHOLE CONCRETE ENCASEMENT



VALVE BOX CONCRETE ENCASEMENT



ELEVATION VIEW

PLACE BRICK ACCORDING TO ELEVATION VIEW

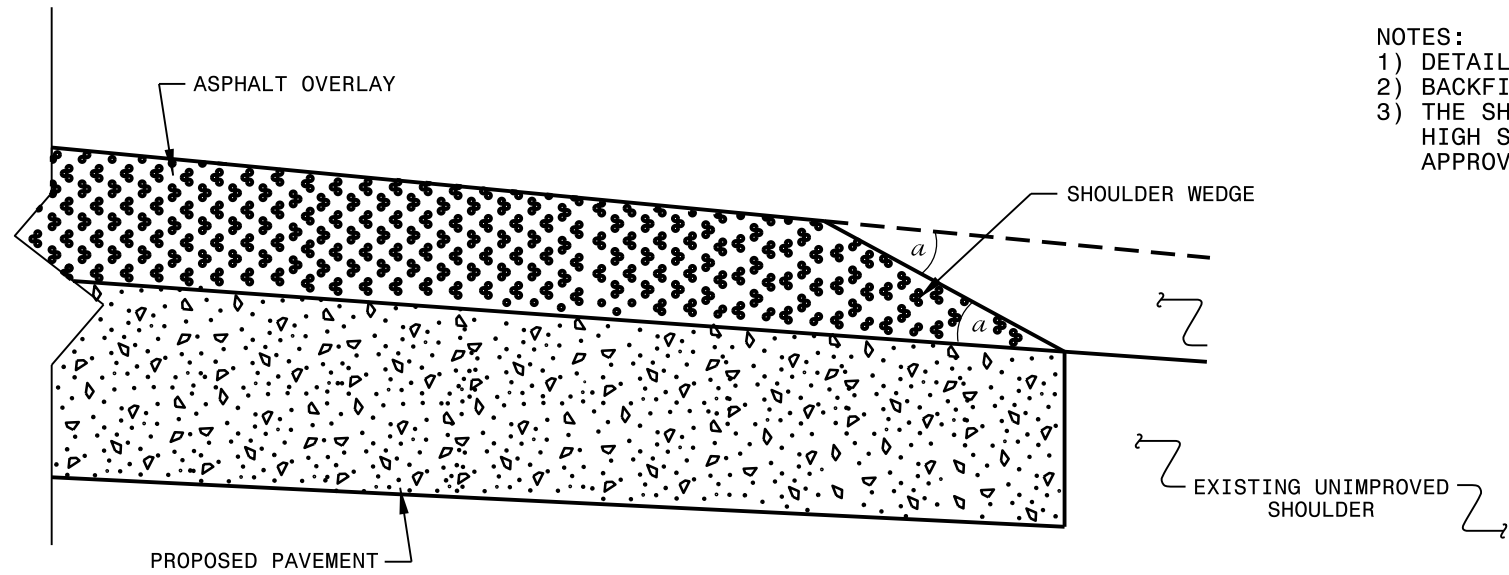
ENGLISH DETAIL DRAWING FOR
MANHOLE AND VALVE BOX ADJUSTMENTS

SHEET 1 OF 1
840D55

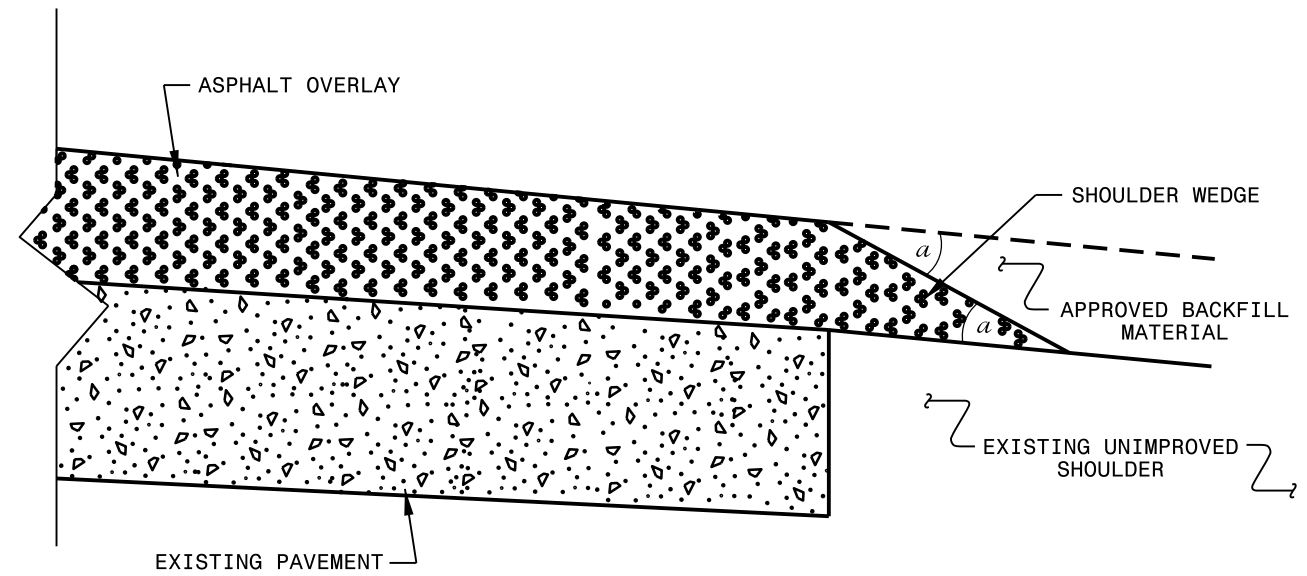
REVISIONS

8/17/99
24-JAN-2016 13:31
C:\Users\yokjmmel\Desktop\DETAIL_PSHS\Microstation Files\MH_Valve_Adjust_2015.dgn
\$\$\$\$\$USERNAME\$\$\$\$\$

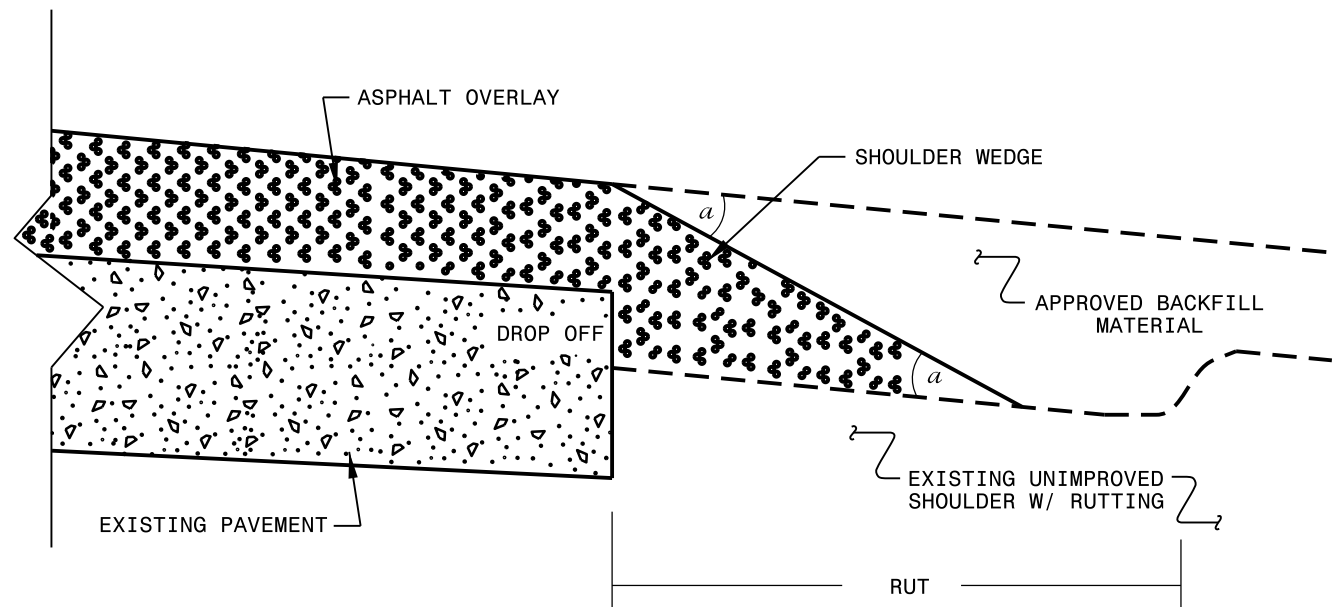
- NOTES:
 1) DETAIL DOES NOT APPLY TO OGAFB AND ULTRA-THIN BONDED WEARING COURSE.
 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS, SIDE STREETS, HIGH SHOULDERS, AND OTHER LOCATIONS NOT FEASIBLE TO CONSTRUCT AS APPROVED BY THE ENGINEER.



SHOULDER WEDGE DETAIL
 (Resurfacing Projects w/ Widening or
 with Existing Paved Shoulder having no dropoffs)



SHOULDER WEDGE DETAIL
 (Resurfacing Projects w/ NO Widening)

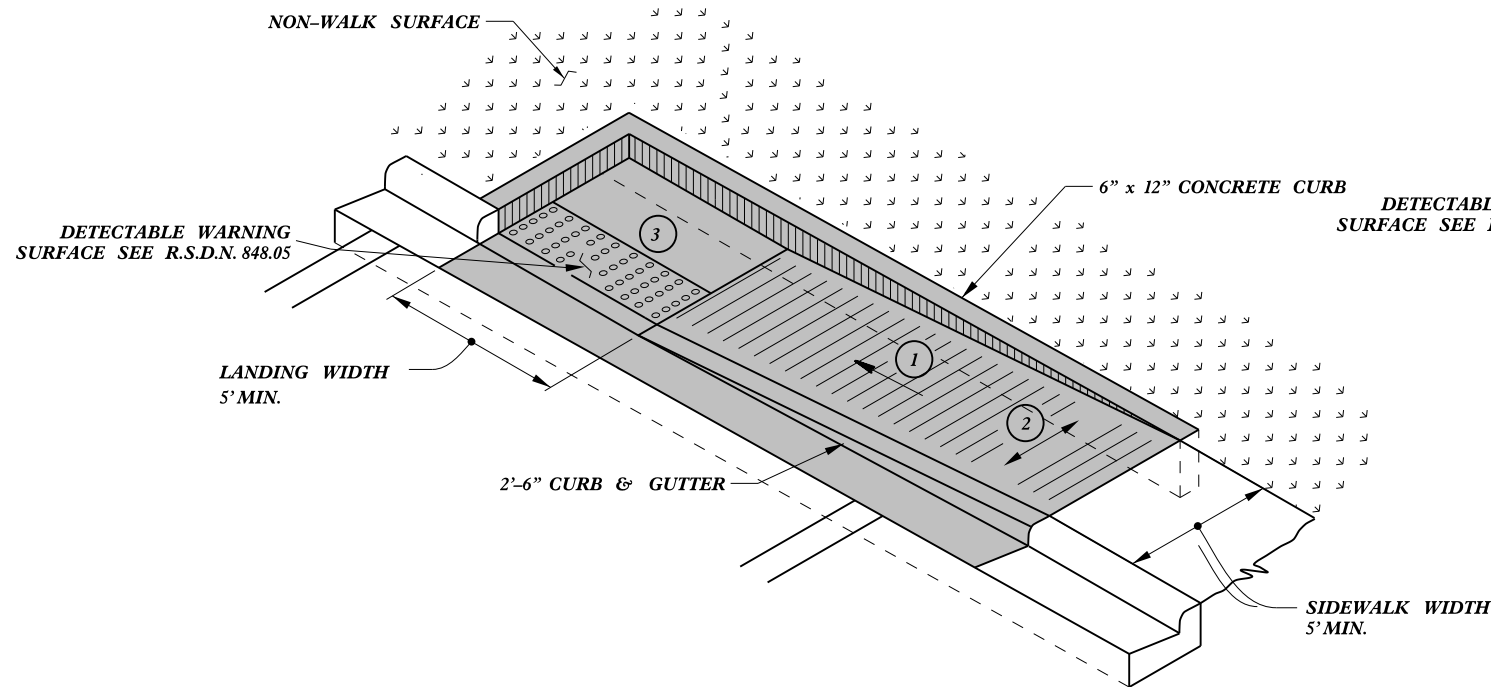


SHOULDER WEDGE DETAIL
 (Resurfacing Adjacent to
 Rutted Shoulder)

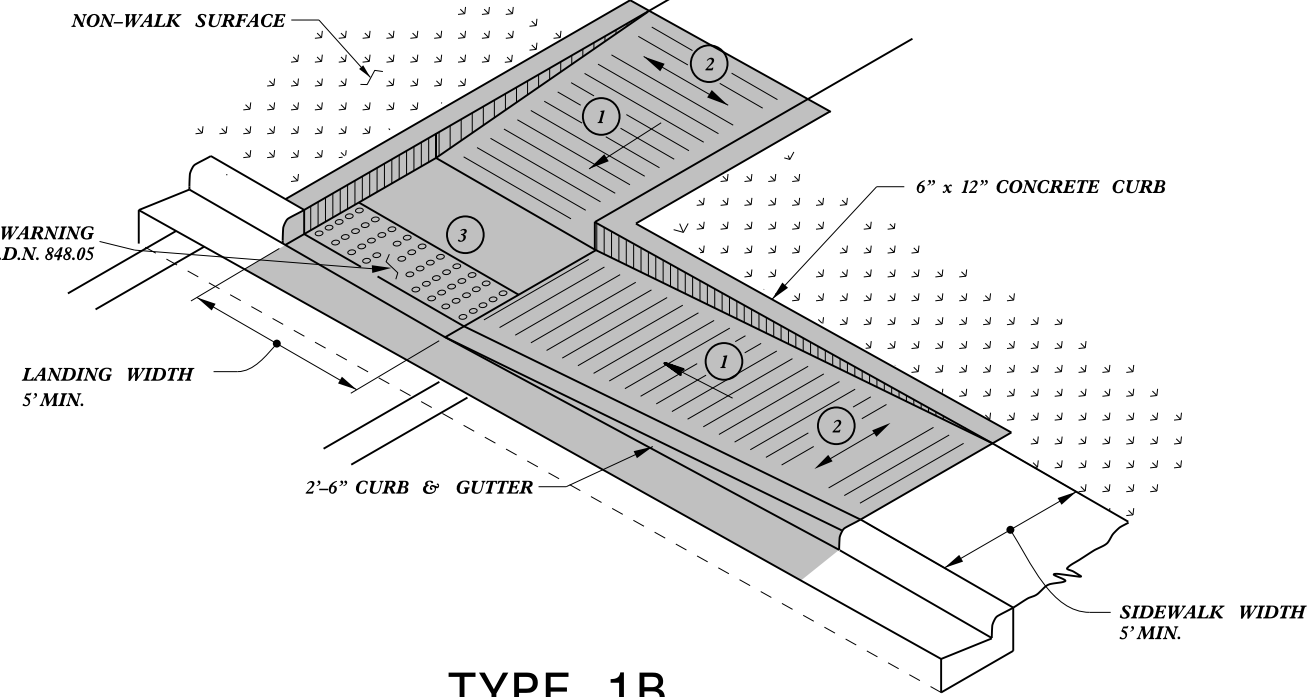
- SHOULDER WEDGE ANGLE = 30°

CONTRACT STANDARDS AND DEVELOPMENT UNIT			
Office 919-707-6950		FAX 919-250-4119	
SHOULDER WEDGE DETAILS			
ORIGINAL BY: T.SPELL	DATE: 7-19-11		
MODIFIED BY:	DATE: 2/2/16		
CHECKED BY:	DATE:		
FILE SPEC.: susr/details/stand/shoulderwedgedetail.dgn			

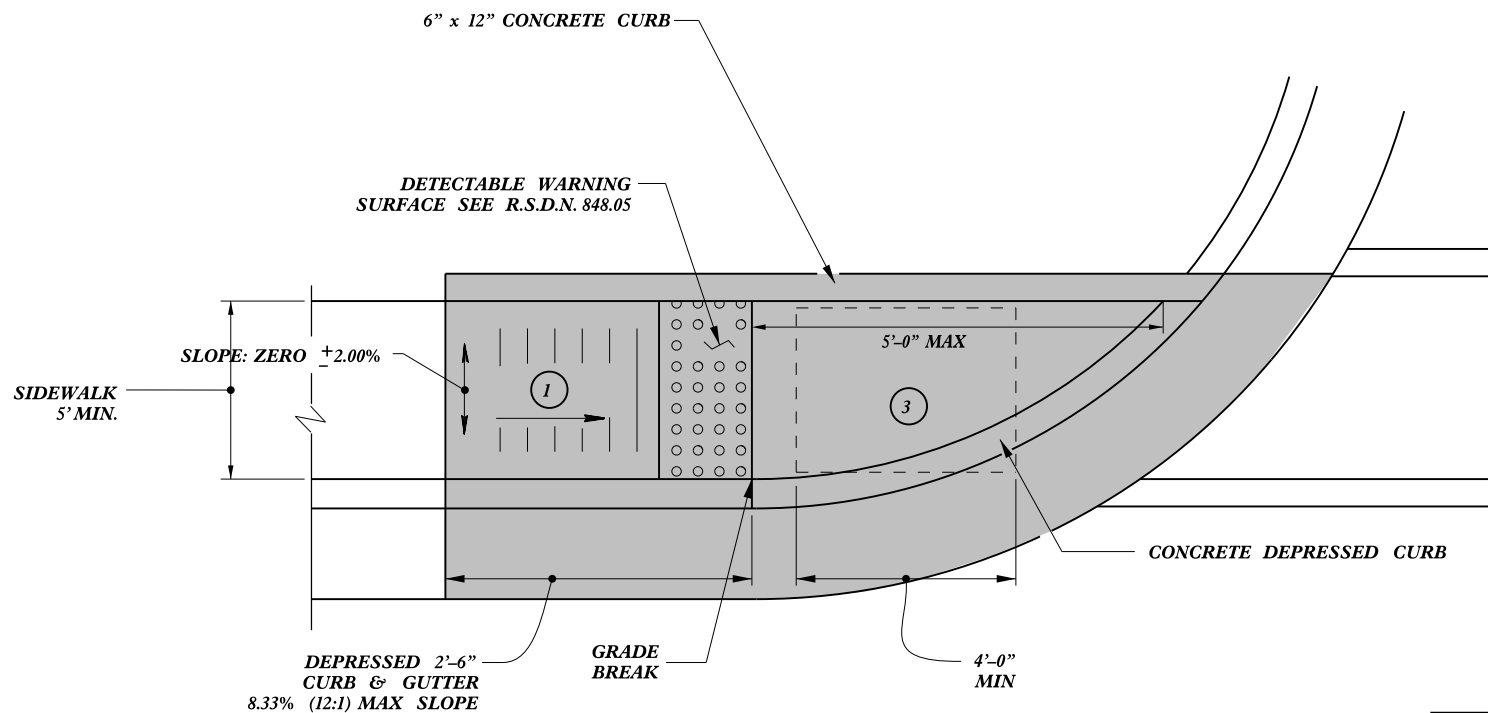
SYSTEMS DESIGN
 USER NAME



TYPE 1A



TYPE 1B

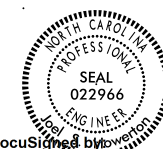


TYPE 1

PAY LIMITS FOR 1 CURB RAMP

- 1 8.33% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 3 CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.

REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES



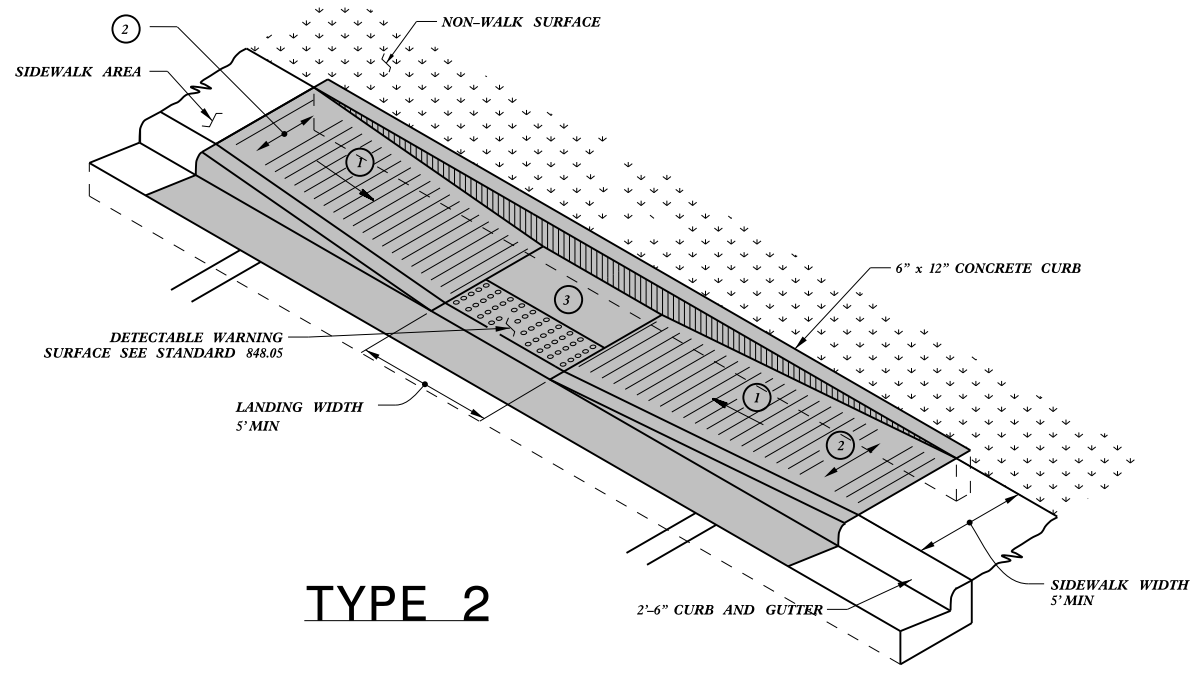
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Joel S. Howerton
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11/18/2015

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950	FAX 919-250-4119
CURB RAMPS	
Directional Ramps	
ORIGINAL BY: J.S. HOWERTON	DATE: 7/7/11
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC: stds/2012CurbRamp/CurbRampDetails.dwg	

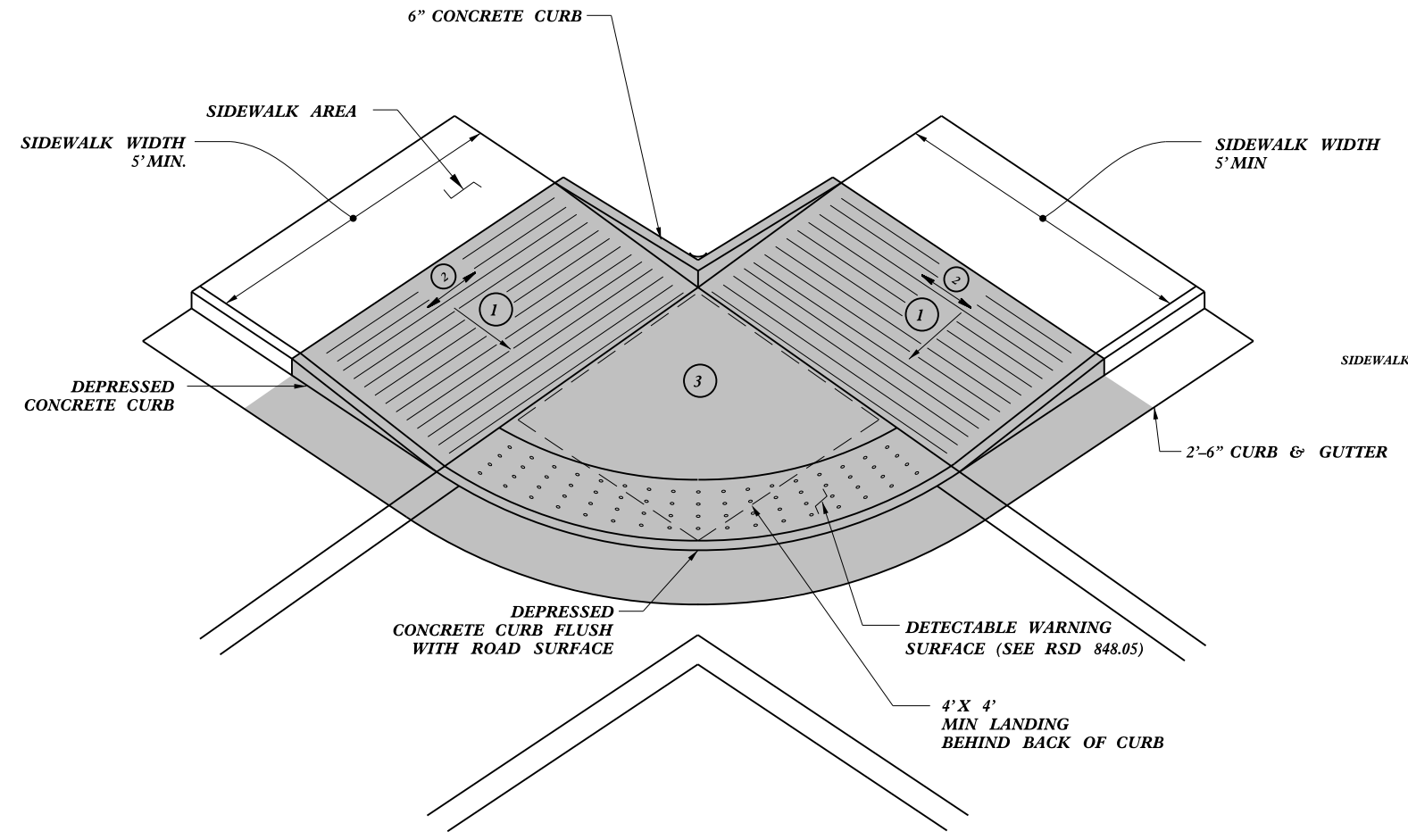
5/14/99
CONSTRUCTION USER NAME
DATE



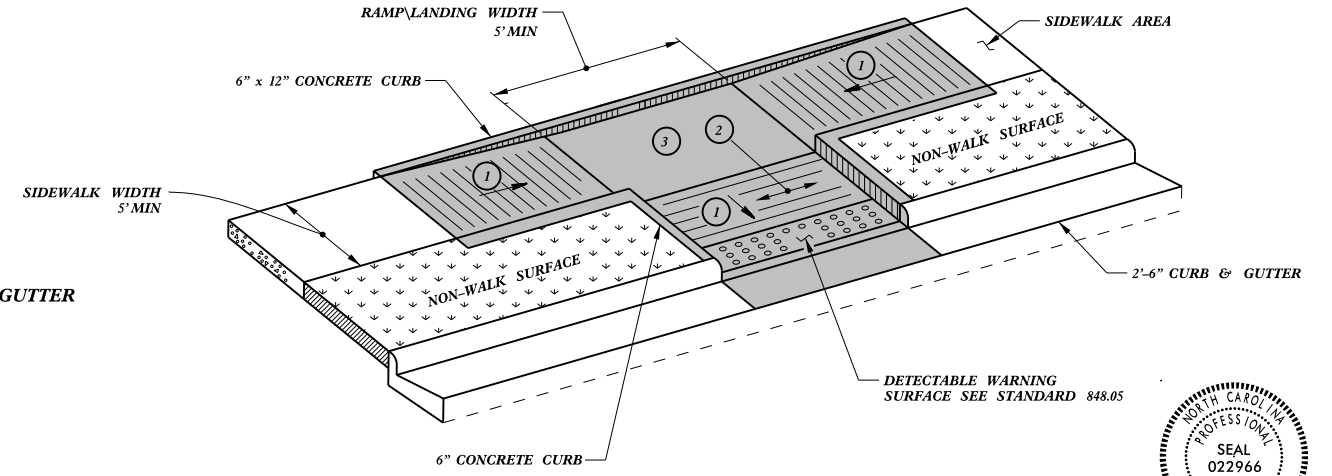
TYPE 2

PAY LIMITS FOR 1 CURB RAMP

- 1 8.33% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 3 CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.



TYPE 2A



TYPE 3



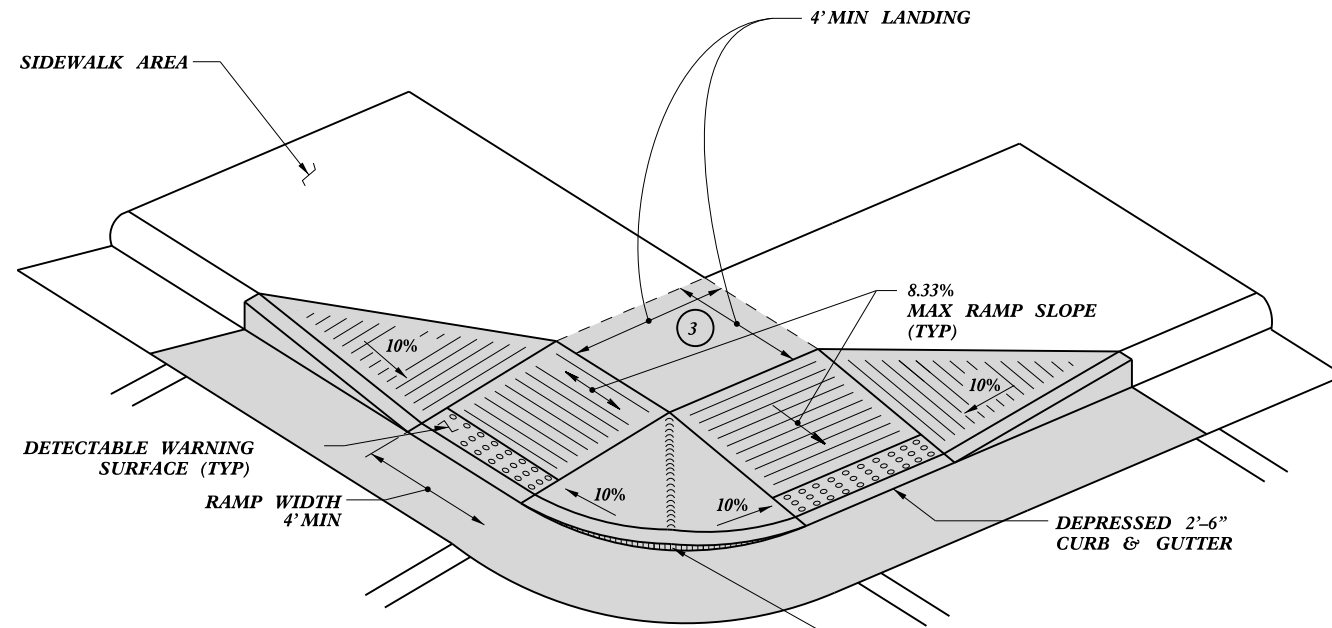
11/18/2015

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 Joel S. Howerton
 449E8E25522144E
 DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED

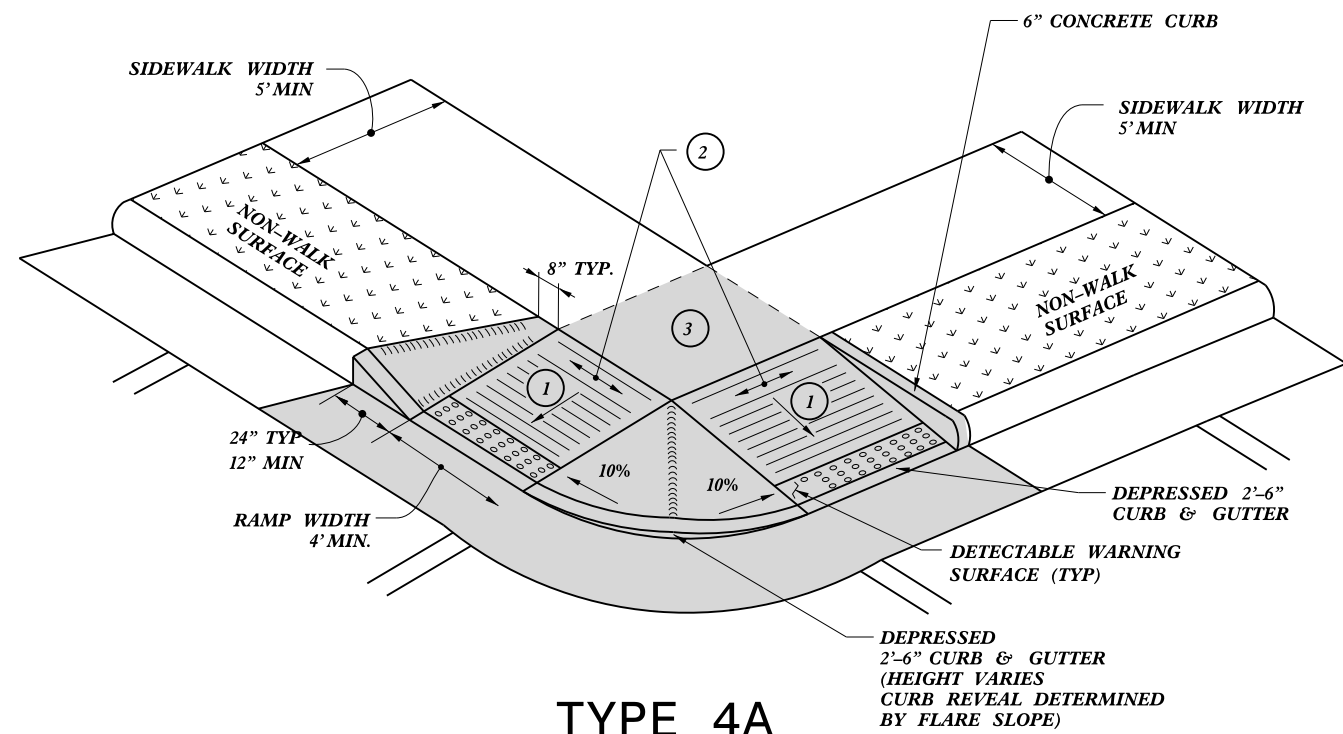
CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950 FAX 919-250-4119	
CURB RAMPS	
Parallel Ramps	
ORIGINAL BY: J.S. HOWERTON	DATE: 7/7/11
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC: stds/2012CurbRamp/CurbRampDetails.dwg	

REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

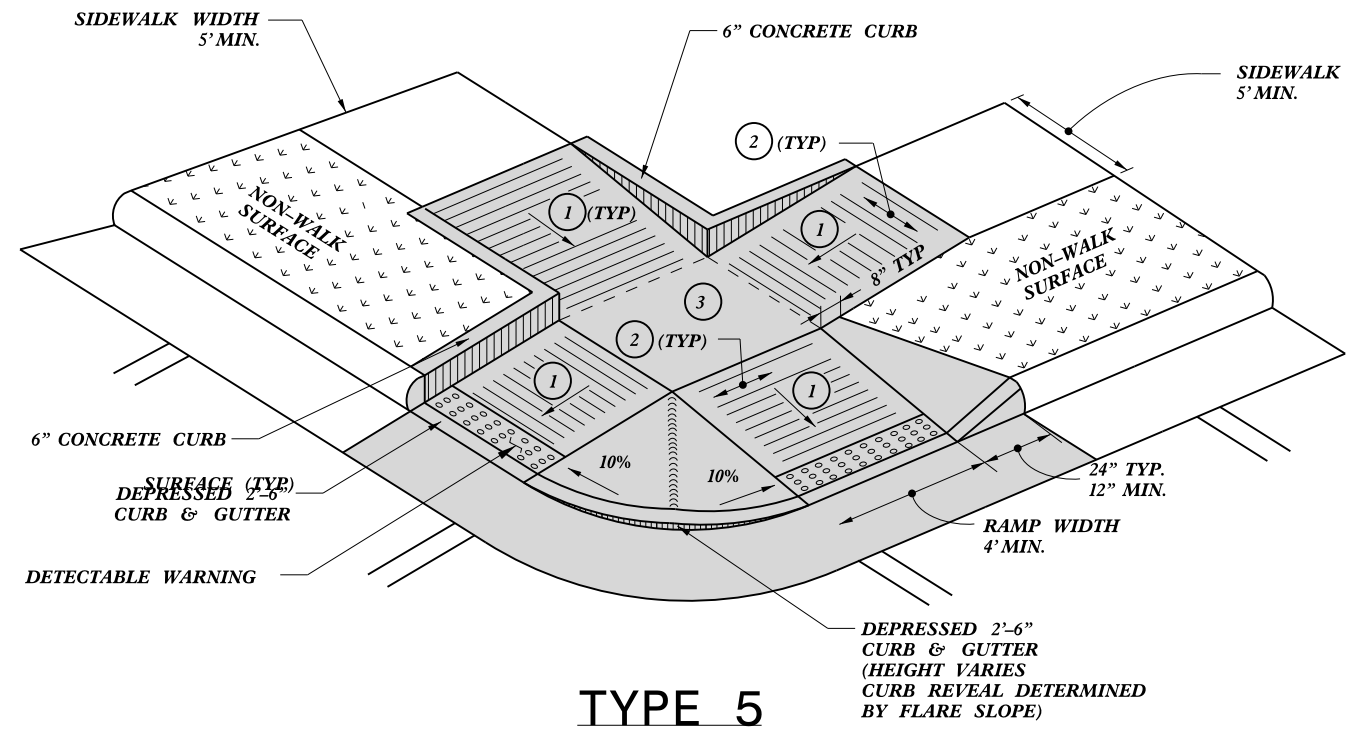
5/14/99



TYPE 4



TYPE 4A



TYPE 5

PAY LIMITS FOR 2 CURB RAMPS

- ① 8.33% (12:1) MAX RAMP SLOPE
- ② CROSS SLOPE: 2.00%
- ③ CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.

DocuSigned by:
Joel S Howerton
449E8E25522144F...



11/18/2015

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED


CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

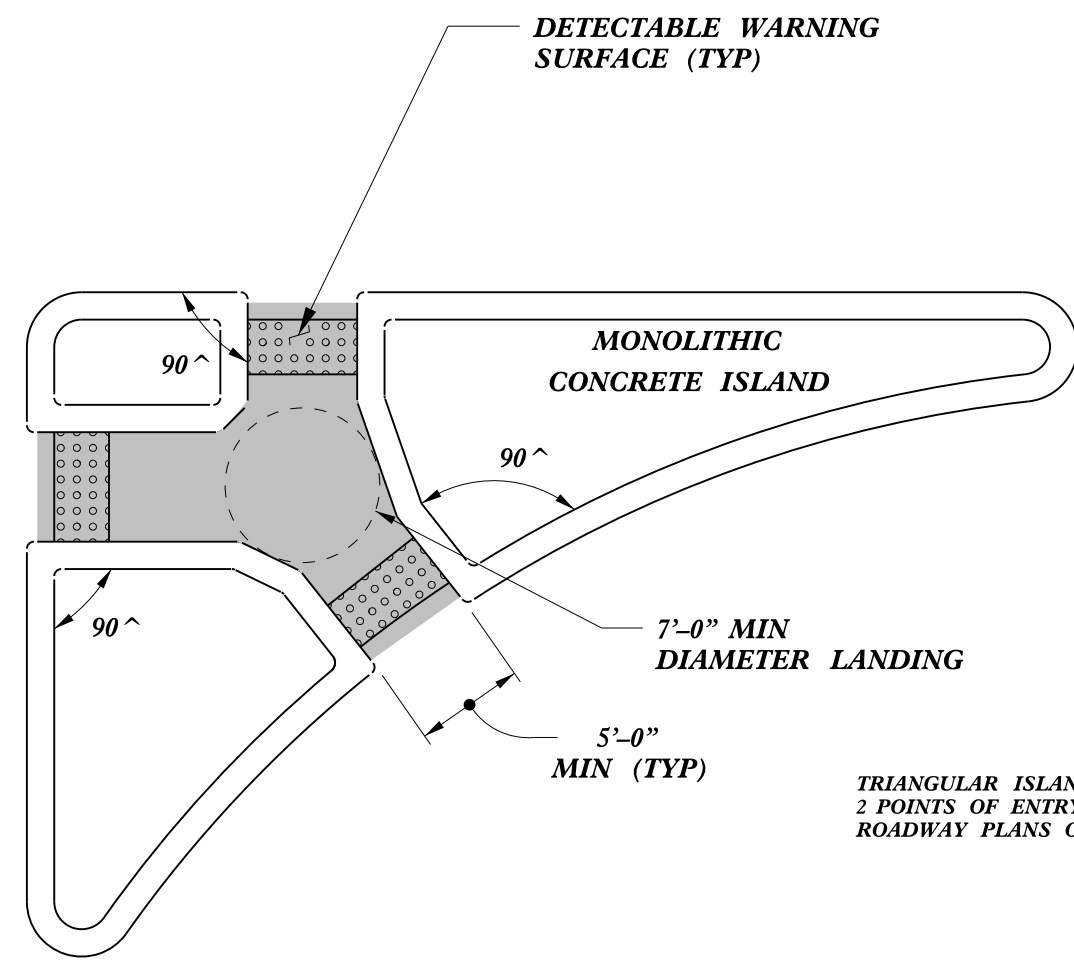
CURB RAMPS
Shared Landing

ORIGINAL BY: J.S. HOWERTON DATE: 7/7/11
MODIFIED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____
FILE SPEC. :stds/2012CurbRamp/CurbRampDetails.dwg

REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

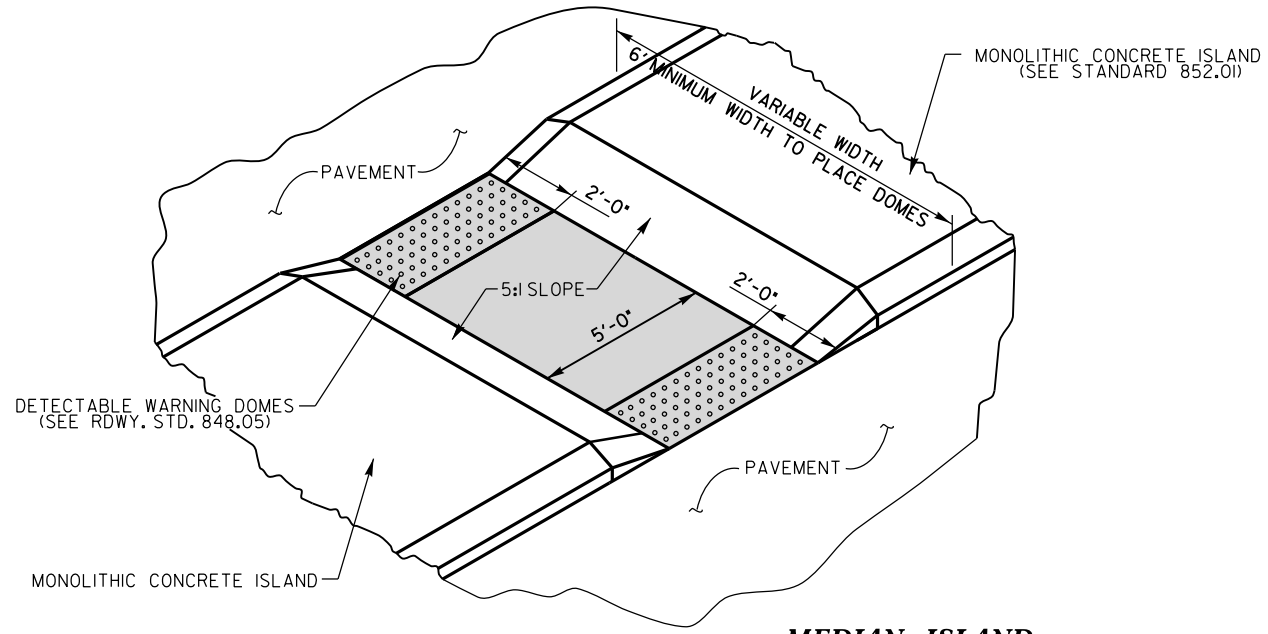
5/14/99
SYTIMECONS/US/STANDARD

 PAY LIMITS FOR 2 OR 3 CURB RAMPS
(CALCULATE BASED ON NUMBER OF
SETS OF TRUNCATED DOMES)

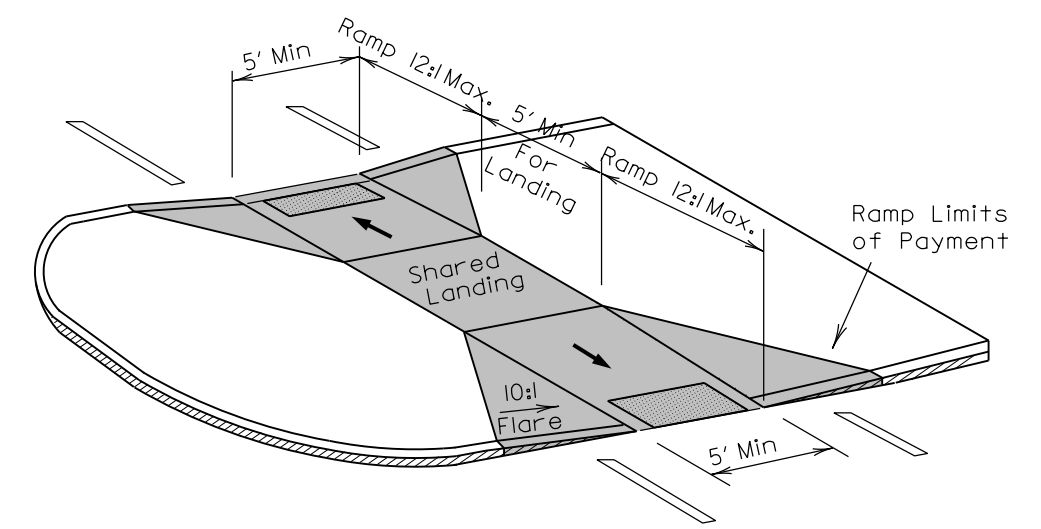


TRIANGULAR ISLANDS MAY BE CONSTRUCTED WITH ONLY
2 POINTS OF ENTRY AND EXIT AS SHOWN IN THE
ROADWAY PLANS OR AS DIRECTED BY THE ENGINEER.

**TRIANGULAR ISLAND
WITH CUT THROUGH**



**MEDIAN ISLAND
WITH CUT THROUGH**



**MEDIAN ISLAND
CURB RAMPS**

5/14/99
SYTIME
SERIAL
DATE
C:\P\2017\2017CPT\03\05\10671\DWG\2017CPT.03.05.10671.DWG
USER: J.S.HOWERTON
PLT: J.S.HOWERTON
PLOT DATE: 11/18/2015 11:18:15 AM
PLOT SCALE: 1.0000
PLOT SHEET: 17
PLOT TOTAL SHEETS: 17

11/18/2015


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Joel S. Howerton
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UNLESS ALL SIGNATURES COMPLETED

CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950	FAX 919-250-4119
CURB RAMPS	
Median or Turn Lane Islands	
ORIGINAL BY: J.S. HOWERTON	DATE: 7/7/11
MODIFIED BY: _____	DATE: _____
CHECKED BY: _____	DATE: _____
FILE SPEC: stds/2012CurbRamp/CurbRampDetails.dwg	

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

1-12

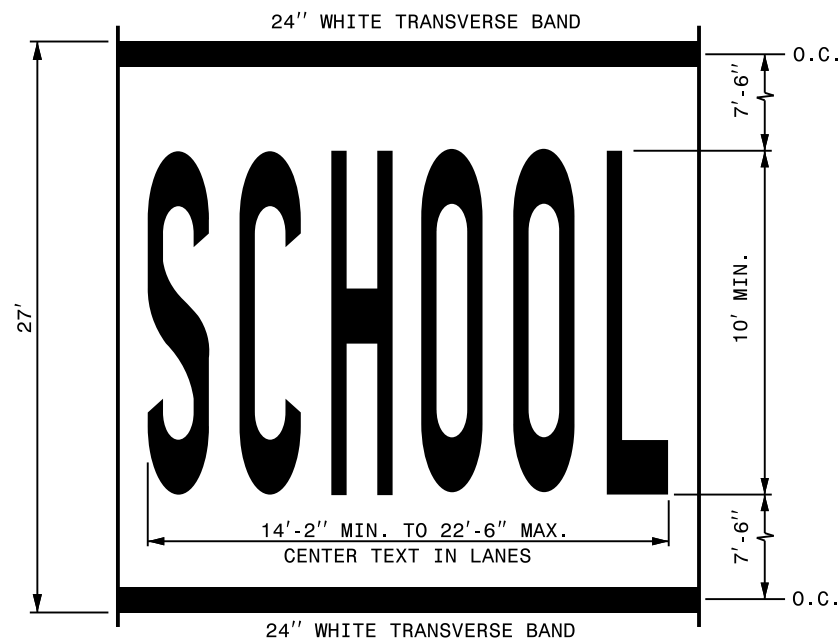
ENGLISH DETAIL DRAWING FOR
PAVEMENT MARKINGS
SYMBOLS AND WORD MESSAGES

REVISED
9/14/11

SHEET 3 OF 8

1205D08

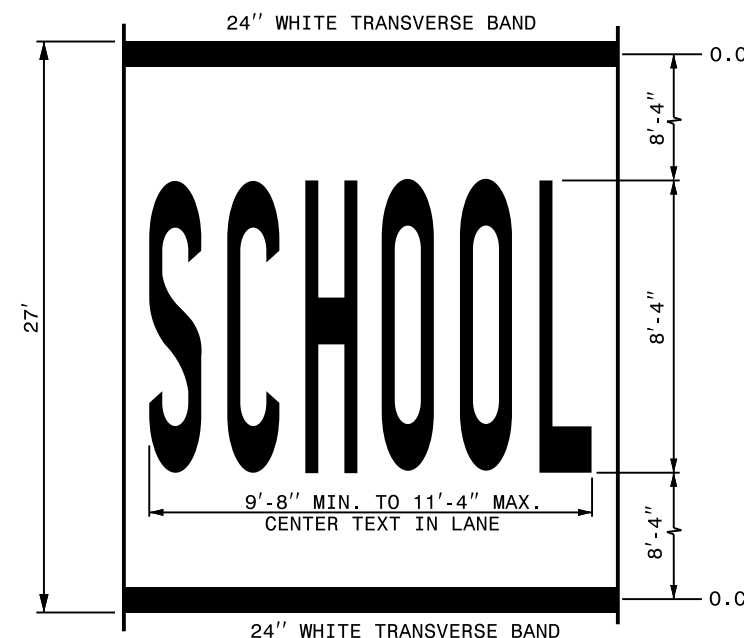
MULTI-LANE WIDTH "SCHOOL"



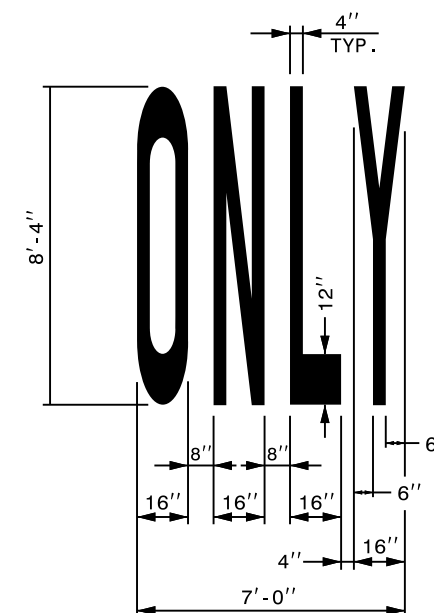
LETTER HEIGHT = 10' MIN.
LETTER WIDTH = 20"
SPACING = 10" MIN./30" MAX. (USE EQUAL SPACING BETWEEN LETTERS)

NOTE: THE TWO-LANE PAVEMENT MARKING DIMENSIONS OF "SCHOOL" SHOWN IN PART 7 OF THE MUTCD MAY ALSO BE USED.

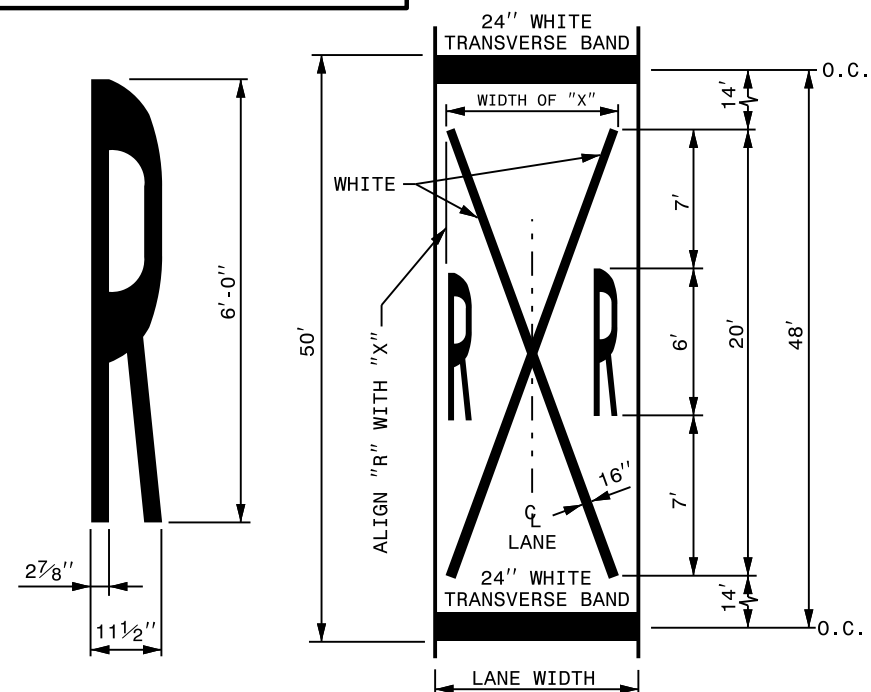
SINGLE LANE WIDTH "SCHOOL"



LETTER HEIGHT = 8'-4"
LETTER WIDTH = 16"
SPACING = 4" MIN./8" MAX. (USE EQUAL SPACING BETWEEN LETTERS)



RAILROAD RXR SYMBOL



LANE WIDTH (FEET)	WIDTH OF "X" (FEET)
8' ≤ W ≤ 9'	7'
9' < W ≤ 12'	8'
W > 12'	10'

GENERAL NOTES:

- 1- THE SCHOOL PAVEMENT MARKING CONSISTS OF SIX (6) CHARACTERS. THE TWO (2) 24" TRANSVERSE BANDS WILL BE PAID FOR UNDER A SEPARATE PAY ITEM. REFER TO ROADWAY STANDARD DRAWING 1205.10 FOR ADDITIONAL PAVEMENT MARKING GUIDANCE.
- 2- PAVEMENT MARKING ADVANCE OF A HIGHWAY-RAIL CROSSING SHALL CONSIST OF TWO (2) CHARACTERS AND TWO (2) 16" LINES (FORMING AN X) WHICH ARE PAID FOR UNDER TWO SEPARATE PAY ITEMS. THE TWO (2) 24" TRANSVERSE BANDS WILL BE PAID FOR UNDER A SEPARATE PAY ITEM. REFER TO ROADWAY STANDARD DRAWING 1205.11 FOR ADDITIONAL PAVEMENT MARKING GUIDANCE.

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

1-12

ENGLISH DETAIL DRAWING FOR
PAVEMENT MARKINGS
SYMBOLS AND WORD MESSAGES

REVISED
9/14/11

SHEET 3 OF 8

1205D08

CONTRACT STANDARDS
AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

SEE TITLE BLOCK

ORIGINAL BY: J. HOWERTON DATE: 10/5/11
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.: s:\oel\12 Stds to Special Details\560d01

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	FERTILIZER FOR TEMP. SEEDING	MATTING FOR EROSION CONTROL	1/4" HARDWARE CLOTH	WATTLE	SEED & MULCHING	SEED FOR REPAIR SEEDING	FERTILIZER FOR REPAIR SEEDING	RESPONSE FOR EROSION CONTROL	UNPAVED TRENCHING (1 CONDUIT, 2 INCH)	DIRECTIONAL DRILL (1 CONDUIT, 2 INCH)	JUNCTION BOX (STANDARD SIZE)	2" RISER WITH WEATHERHEAD	INDUCTIVE LOOP SAWCUT	LEAD-IN CABLE (14-2)	
									TON	SY	LF	LF	AC	LB	TON	EA	LF	LF	EA	EA	LF	LF	
2017CPT.03.05.10671	Onslow	1	NC 24 (FREEDOM WAY) EB	FROM 0.104 MI. WEST OF NC 172 TO SR 1434 AT PVMT. SEAM (MP 32.829 - MP 37.165)	1	2	2WD	NO	1.08	30.00	217	70	3.15	216.80	1.08	2						950	
TOTAL FOR MAP NO. 1																							
2017CPT.03.05.10671	Onslow	2	NC 24 (FREEDOM WAY) WB	FROM SR 1434 AT PVMT. SEAM TO 0.104 MI. WEST OF NC 172 (MP 3.322 - MP 7.665)	1	2	2WD	NO	1.09	30.00	217	70	3.16	217.15	1.09	2						850	400
TOTAL FOR MAP NO. 2																							
2017CPT.03.05.10671	Onslow	3	NC 24 (RICHLANDS HWY.) EB	FROM DUPLIN CO. LINE TO END DIVIDED HWY. (MP 0.000 - 2.811)	1	2	2WD	NO	0.70	20.00	141	50	2.04	140.55	0.70	1							
TOTAL FOR MAP NO. 3																							
2017CPT.03.05.10671	Onslow	4	NC 24 (RICHLANDS HWY.) WB	FROM THE BEGINNING DIVIDED HWY. TO DUPLIN CO. LINE (MP 37.712 - 40.523)	1	2	2WD	NO	0.70	20.00	141	50	2.04	140.55	0.70	1							
TOTAL FOR MAP NO. 4																							
2017CPT.03.05.10671	Onslow	5	US 258/NC 24 (RICHLANDS HWY.) 5 LANE	FROM END OF DIVIDED HWY. TO EASTERN CITY LIMITS RICHLANDS AT PVMT. SEAM (MP 2.811 - 3.545 & MP 15.287-11.987)	2	5	MU	NO									130	300	6		1,910	4,360	
TOTAL FOR MAP NO. 5																							
TOTAL FOR PROJ NO. 2017CPT.03.05.10671																							
2017CPT.03.05.20671	Onslow	6	SR 2009 (FRANCKTOWN RD.)	FROM ESQUIRE DR. TO SR 1311 (MP 1.000- 1.774)	3	2	2WU	NO	0.19	10.00	39	20	0.56	39.00	0.19								
TOTAL FOR MAP NO. 6																							
2017CPT.03.05.20671	Onslow	7	SR 1331 (WHITE OAK RIVER RD.)	FROM EXISTING BOX CULVERT TO END STATE MAINT. (MP 5.656 - 8.386)	3	2	2WU	NO	0.68	20.00	137	50	1.98	137.00	0.68	1							
TOTAL FOR MAP NO. 7																							
2017CPT.03.05.20671	Onslow	8	SR 1538 (MORRIS LANDING RD./SOUND RD.)	FROM END OF MAINTENANCE TO US 17 (MP 0.000 - 3.263)	3-5	2	2WU	NO	0.41	20.00	84	30	1.20	83.70	0.41	1							
TOTAL FOR MAP NO. 8																							
2017CPT.03.05.20671	Onslow	9	SR 1534 (HOLLY RIDGE RD.)	FROM SR 1531 TO SR 1538 (MP 0.00 - MP 0.605; MP 1.451 - MP 2.862) NO WORK IN WIDENED SECT. (MP 0.605 - MP 1.451) NO PAVING BRIDGE NO.142 & 143	3	2	2WU	NO	0.42	20.00	86	30	1.24	86.00	0.42	1							
TOTAL FOR MAP NO. 9																							
2017CPT.03.05.20671	Onslow	10	SR 1389 (ROCK CREEK DR.)	FROM END OF MAINT. SR 1389 TO SR 2054 (MP 0.000 - 1.536)	3	2	2WU	NO	0.38	20.00	76	30	1.12	76.00	0.38	1							
TOTAL FOR MAP NO. 10																							
2017CPT.03.05.20671	Onslow	11	SR 1972 (DAISY COURT)	FROM SR 1389 TO CUL-DA-SAC (MP 0.000 - 0.219)	3	2	2WU	NO															
TOTAL FOR MAP NO. 11																							
2017CPT.03.05.20671	Onslow	12	SR 1390 (COUNRTY CLUB BLVD.)	FROM SR 1308 TO END OF MAINT. (MP 0.000- 0.236)	3	2	2WU	NO	0.06	10.00	12	10	0.17	12.00	0.06								
TOTAL FOR MAP NO. 12																							
2017CPT.03.05.20671	Onslow	13	SR 1209 (CYPRESS CREEK ROAD)	FROM NC 111 TO DUPLIN CO. LINE (MP 0.000 - 3.689) NO PAVING BRIDGE NO. 62 (MP 1.720 - MP 1.727)	6	2	2WU	NO															
TOTAL FOR MAP NO. 13																							
2017CPT.03.05.20671	Onslow	14	SR 1884 (DALY ST.)	FROM SR 1812 TO DEAD END (MP 0.000 - 0.474)	3,5	2	2WU	NO	0.05	10.00	11	10	0.16	11.00	0.05								
TOTAL FOR MAP NO. 14																							
2017CPT.03.05.20671	Onslow	15	SR 1882 (MCGINITY CT.)	FROM SR 1814 TO SR 1869 (MP 0.000- 0.317)	4,5	2	2WU	NO															
TOTAL FOR MAP NO. 15																							
2017CPT.03.05.20671	Onslow	16	SR 1868 (SAVAGE COURT)	FROM SR 1814 TO SR 1869 (MP 0.000- 0.307)	4,5	2	2WU	NO															
TOTAL FOR MAP NO. 16																							
2017CPT.03.05.20671	Onslow	17	SR 1459 (WALTON RD.)	FROM SR 1868 TO RR TRACKS (MP 0.000 - 0.177)	4,5	2	2WU	NO															
TOTAL FOR MAP NO. 17																							
2017CPT.03.05.20671	Onslow	18	SR 1869 (MCGINITY CT.)	FROM SR 1882 TO END MAINT.(MP 0.000- 0.078)	4,5	2	2WU	NO															
TOTAL FOR MAP NO. 18																							
2017CPT.03.05.20671	Onslow	19	SR 1812 (HARBORD DR.)	FROM SR 1414 TO RR TRACKS (MP 0.000- 0.300)	4	2	2WU	NO															
TOTAL FOR MAP NO. 19																							
2017CPT.03.05.20671	Onslow	20	SR 1813 (BOYINGTON DR.)	FROM SR 1414 TO SR 1884 (MP 0.000- 0.367)	4	2	2WU	NO															
TOTAL FOR MAP NO. 20																							

PROJECT NO.	SHEET NO.
2017CPT.03.05.10671, ETC.	24

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	FERTILIZER FOR TEMP. SEEDING TON	MATTING FOR EROSION CONTROL SY	1/4" HARDWARE CLOTH LF	WATTLE LF	SEED & MULCHING AC	SEED FOR REPAIR SEEDING LB	FERTILIZER FOR REPAIR SEEDING TON	RESPONSE FOR EROSION CONTROL EA	UNPAVED TRENCHING (1 CONDUIT, 2 INCH) LF	DIRECTIONAL DRILL (1 CONDUIT, 2 INCH) LF	JUNCTION BOX (STANDARD SIZE) EA	2" RISER WITH WEATHERHEAD EA	INDUCTIVE LOOP SAWCUT LF	LEAD-IN CABLE (14-2) LF	
2017CPT.03.05.20671	Onslow	21	SR 1814 (CARLSON DR.)	FROM SR 1414 TO SR 1884 (MP 0.000-0.402)	4	2	2WU	NO															
TOTAL FOR MAP NO. 21																							
2017CPT.03.05.20671	Onslow	22	SR 2370 (CUKELA ST.)	FROM SR 1812 TO DEAD END (MP 0.000-0.191)	4	2	2WU	NO															
TOTAL FOR MAP NO. 22																							
2017CPT.03.05.20671	Onslow	23	SR 1776 (OAKWOOD DR.)	FROM SR 1409 TO SR 1777 (MP 0.000-0.129)	5	2	2WU	NO															
TOTAL FOR MAP NO. 23																							
2017CPT.03.05.20671	Onslow	24	SR 1777 (RED OAK COURT)	FROM CUL-DA-SAC TO CUL-DA-SAC (MP 0.000-0.215)	5	2	2WU	NO															
TOTAL FOR MAP NO. 24																							
2017CPT.03.05.20671	Onslow	25	SR 1856 (OAK HILL COURT)	FROM SR 1777 TO CUL-DA-SAC (MP 0.000-0.043)	5	2	2WU	NO															
TOTAL FOR MAP NO. 25																							
2017CPT.03.05.20671	Onslow	26	SR 1147 (STILLWOOD RD.)	FROM SR 1107 TO DEAD END (MP 0.000-0.336)	4	2	2WU	NO															
TOTAL FOR MAP NO. 26																							
2017CPT.03.05.20671	Onslow	27	SR 1238 (KOONCE FORK RD.)	FROM US 258 TO US 258 (MP 0.270-3.50)	6	2	2WU	NO															
TOTAL FOR MAP NO. 27																							
2017CPT.03.05.20671	Onslow	28	SR 1229 (GREGORY FORK RD.)	FROM SR 1219 TO SR 1230 (MP 2.518-6.083)	3	2	2WU	NO	0.88	40.00	179	60	2.59	179.00	0.89	1							
TOTAL FOR MAP NO. 28									0.88	40.00	179	60	2.59	179.00	0.89	1							
2017CPT.03.05.20671	Onslow	29	SR 1119 (HIGH HILL RD.)	FROM US 17 TO SR 1107 (MP 0.000-3.003)	7	2	2WU	NO															
TOTAL FOR MAP NO. 29																							
2017CPT.03.05.20671	Onslow	30	SR 1206 (FIVE MILE RD.)	FROM SR 1205 TO NC 111 (MP 0.00-5.030)	8	2	2WU	NO															
TOTAL FOR MAP NO. 30																							
2017CPT.03.05.20671	Onslow	31	SR 1222 (BANNERMANS MILL RD.)	FROM NC 111 TO SR 1221 (MP 0.000-2.492)	3	2	2WU	NO	0.60	20.00	121	40	1.76	121.00	0.60	1							
TOTAL FOR MAP NO. 31									0.60	20.00	121	40	1.76	121.00	0.60	1							
2017CPT.03.05.20671	Onslow	32	SR 1303 (CAVANAUGHTOWN RD.)	FROM SR 1302 TO SR 1304 (MP 0.000-2.094)	3	2	2WU	NO	0.52	20.00	105	40	1.52	105.00	0.52	1							
TOTAL FOR MAP NO. 32									0.52	20.00	105	40	1.52	105.00	0.52	1							
2017CPT.03.05.20671	Onslow	33	SR 1107 (HARRIS CREEK RD.)	FROM NC 53 TO SR 1105 (MP 0.000-3.771)	3	2	2WU	NO	0.94	30.00	188	60	2.74	188.00	0.94	1							
TOTAL FOR MAP NO. 33									0.94	30.00	188	60	2.74	188.00	0.94	1							
2017CPT.03.05.20671	Onslow	34	SR 1105 (HAWS RUN RD.)	FROM NC 50 TO SR 1106 (MP 0.000-2.776)	3	2	2WU	NO	0.69	20.00	138	50	2.00	138.00	0.69	1							
TOTAL FOR MAP NO. 34									0.69	20.00	138	50	2.00	138.00	0.69	1							
2017CPT.03.05.20671	Onslow	35	SR 1546 (PENINSULA MANOR RD.)	FROM SR 1503 TO SR 2219 (MP 0.000-0.734)	3	2	2WU	NO	0.18	10.00	37	20	0.53	36.00	0.18								
TOTAL FOR MAP NO. 35									0.18	10.00	37	20	0.53	36.00	0.18								
2017CPT.03.05.20671	Onslow	36	SR 1336 (ONSLow DR.)	FROM HENDERSON DRIVE (BRIDGE NO. 223) TO US 17 BUS. (MP 2.534-3.103)	9	2	2WU	NO									80		2	1	980	370	
TOTAL FOR MAP NO. 36																	80		2	1	980	370	
TOTAL FOR PROJ NO. 2017CPT.03.05.20671									6.00	250.00	1,213	450	17.57	1,211.70	6.01	9	80		2	1	980	370	
GRAND TOTAL									9.57	350.00	1,929	690	27.96	1,926.75	9.58	15	210	300	8	1	4,690	5,130	

PROJECT NO.	SHEET NO.
2017CPT.03.05.10671, ETC.	26

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	LENGTH	WIDTH	4413000000-E	4457000000-N	4510000000-N	4685000000-E		4686000000-E		4695000000-E		4700000000-E		4705000000-E	4710000000-E	4721000000-E	
										WORK ZONE ADVANCE/GENERAL WARNING SIGNING	TEMPORARY TRAFFIC CONTROL	LAW ENFORCEMENT	4" X 90 M WHITE THERMO	4" X 90 M YELLOW THERMO	4" X 120 M WHITE THERMO	4" X 120 M YELLOW THERMO	8" X 90 M WHITE THERMO	8" X 90 M YELLOW THERMO	12" X 90 M WHITE THERMO	12" X 90 M YELLOW THERMO	16" X 120 M WHITE THERMO	24" X 120 M WHITE THERMO	THERMO MSG SCHOOL 120 M	THERMO RXR 120 M
										SF	LS	HR	LF	LF	LF	LF	LF	LF	LF	LF	LF	EA	EA	
2017CPT.03.05.20671	Onslow	21	SR 1814 (CARLSON DR.)	FROM SR 1414 TO SR 1884 (MP 0.000-0.402)	4	2	2WU	0.402	19	48	0.01													
TOTAL FOR MAP NO. 21										48	0.01													
2017CPT.03.05.20671	Onslow	22	SR 2370 (CUKELA ST.)	FROM SR 1812 TO DEAD END (MP 0.000-0.191)	4	2	2WU	0.191	18		0.01													
TOTAL FOR MAP NO. 22										0.191	0.01													
2017CPT.03.05.20671	Onslow	23	SR 1776 (OAKWOOD DR.)	FROM SR 1409 TO SR 1777 (MP 0.000-0.129)	5	2	2WU	0.129	24	64	0.01													
TOTAL FOR MAP NO. 23										0.129	0.01													
2017CPT.03.05.20671	Onslow	24	SR 1777 (RED OAK COURT)	FROM CUL-DA-SAC TO CUL-DA-SAC (MP 0.000-0.215)	5	2	2WU	0.215	26 - 72		0.01													
TOTAL FOR MAP NO. 24										0.215	0.01													
2017CPT.03.05.20671	Onslow	25	SR 1856 (OAK HILL COURT)	FROM SR 1777 TO CUL-DA-SAC (MP 0.000-0.043)	5	2	2WU	0.043	26 - 70		0.01													
TOTAL FOR MAP NO. 25										0.043	0.01													
2017CPT.03.05.20671	Onslow	26	SR 1147 (STILLWOOD RD.)	FROM SR 1107 TO DEAD END (MP 0.000-0.336)	4	2	2WU	0.336	20	48	0.01													
TOTAL FOR MAP NO. 26										0.336	0.01													
2017CPT.03.05.20671	Onslow	27	SR 1238 (KOONCE FORK RD.)	FROM US 258 TO US 258 (MP 0.270-3.50)	6	2	2WU	3.18	22	480	0.05		33,476		322	25,107				45		38		
TOTAL FOR MAP NO. 27										3.18	0.05		33,476		322	25,107				45		38		
2017CPT.03.05.20671	Onslow	28	SR 1229 (GREGORY FORK RD.)	FROM SR 1219 TO SR 1230 (MP 2.518-6.083)	3	2	2WU	3.565	18	400	0.05		38,438		55	28,830								
TOTAL FOR MAP NO. 28										3.565	0.05		38,438		55	28,830								
2017CPT.03.05.20671	Onslow	29	SR 1119 (HIGH HILL RD.)	FROM US 17 TO SR 1107 (MP 0.000-3.003)	7	2	2WU	3.003	23	336	0.05		31,892		36	23,920								
TOTAL FOR MAP NO. 29										3.003	0.05		31,892		36	23,920								
2017CPT.03.05.20671	Onslow	30	SR 1206 (FIVE MILE RD.)	FROM SR 1205 TO NC 111 (MP 0.00 -5.030)	8	2	2WU	5.03	22	576	0.07		55,970		338	41,975								
TOTAL FOR MAP NO. 30										5.03	0.07		55,970		338	41,975								
2017CPT.03.05.20671	Onslow	31	SR 1222 (BANNERMANS MILL RD.)	FROM NC 111 TO SR 1221 (MP 0.000-2.492)	3	2	2WU	2.492	21	288	0.03		26,400		662	19,800								
TOTAL FOR MAP NO. 31										2.492	0.03		26,400		662	19,800								
2017CPT.03.05.20671	Onslow	32	SR 1303 (CAVANAUGHTOWN RD.)	FROM SR 1302 TO SR 1304 (MP 0.000-2.094)	3	2	2WU	2.094	20	240	0.03		22,070		21	16,553								
TOTAL FOR MAP NO. 32										2.094	0.03		22,070		21	16,553								
2017CPT.03.05.20671	Onslow	33	SR 1107 (HARRIS CREEK RD.)	FROM NC 53 TO SR 1105 (MP 0.000-3.771)	3	2	2WU	3.771	20	416	0.05		39,916		48	19,938								
TOTAL FOR MAP NO. 33										3.771	0.05		39,916		48	19,938								
2017CPT.03.05.20671	Onslow	34	SR 1105 (HAWES RUN RD.)	FROM NC 50 TO SR 1106 (MP 0.000-2.776)	3	2	2WU	2.776	19	304	0.04		29,357		54	22,018								
TOTAL FOR MAP NO. 34										2.776	0.04		29,357		54	22,018								
2017CPT.03.05.20671	Onslow	35	SR 1546 (PENINSULA MANOR RD.)	FROM SR 1503 TO SR 2219 (MP 0.000-0.734)	3	2	2WU	0.734	20	48	0.01		7,710			5,782								
TOTAL FOR MAP NO. 35										0.734	0.01		7,710			5,782								
2017CPT.03.05.20671	Onslow	36	SR 1336 (ONSLow DR.)	FROM HENDERSON DRIVE (BRIDGE NO. 223) TO US 17 BUS. (MP 2.534 - 3.103)	9	2	2WU	0.569	44 - 64	128	0.01	80.00			1,613	6,736						411		
TOTAL FOR MAP NO. 36										0.569	0.01	80			1,613	6,736						411		
TOTAL FOR PROJ NO. 2017CPT.03.05.20671										45.013	0.74	80	412,835		3,551	302,049			125		45	100	534	4
													412,835		3,551	302,049			125		45	100	534	4
GRAND TOTAL										63.348		360	489,410	73,050	41,676	354,124	6,573	125	200	595	100	1,512	12	4
													562,460		395,800	6,698		795				16		

PROJECT NO.	SHEET NO.
2017CPT.03.05.10671, ETC.	28

THERMOPLASTIC AND PAINT QUANTITIES

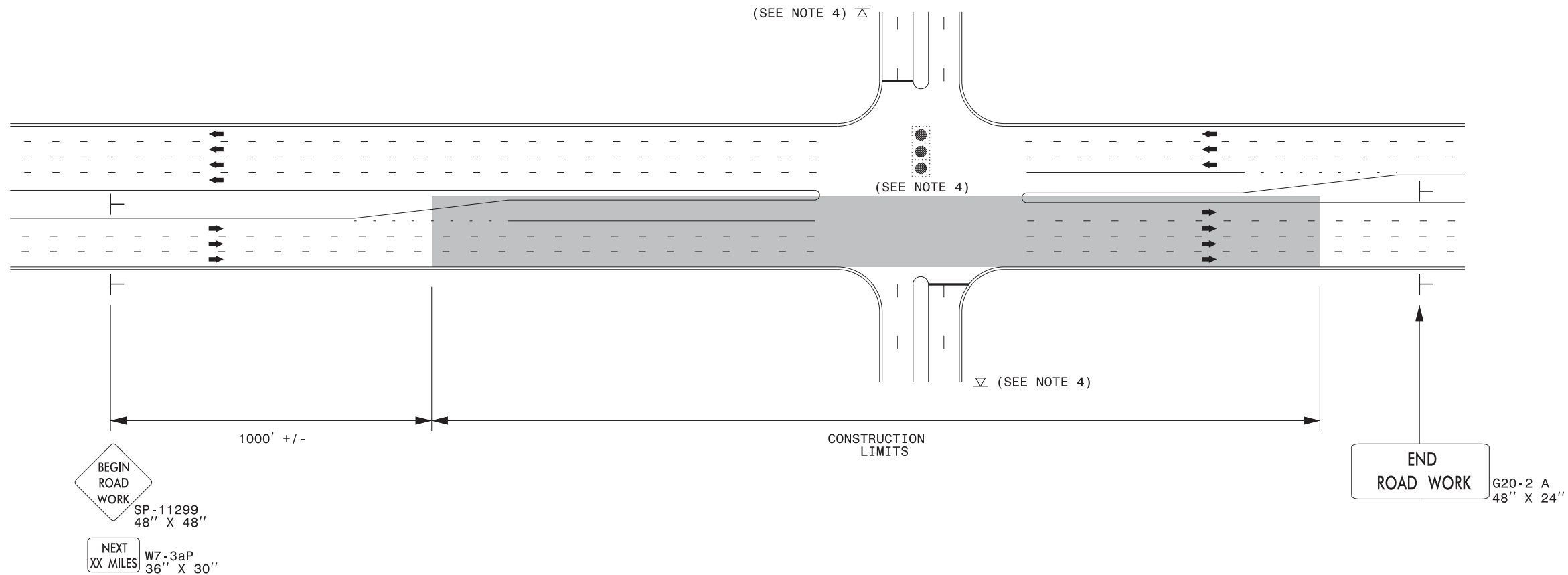
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	4725000000-E						4770000000-E		4810000000-E		4820000000-E		4825000000-E		4835000000-E	4840000000-N				
							THERMO LT ARROW 90 M	THERMO STR ARROW 90 M	THERMO RT ARROW 90 M	THERMO STR & RT ARROW 90 M	THERMO LT STR ARROW 90 M	THERMO U TURN (90 MILS)	THERMO STR & LT ARROW 90 M	MERGE ARROW 90 M	COLD APPLIED PLASTIC PAVEMENT MARKING LINES, TYPE 2 (4") WHITE LF	COLD APPLIED PLASTIC PAVEMENT MARKING LINES, TYPE 2 (4") YELLOW LF	4" WHITE PAINT LF	4" YELLOW PAINT LF	8" WHITE PAINT LF	8" YELLOW PAINT LF	12" WHITE PAINT LF	12" YELLOW PAINT LF	24" WHITE PAINT LF	PAINT MSG SCHOOL EA		
2017CPT.03.05.20671	Onslow	21	SR 1814 (CARLSON DR.)	FROM SR 1414 TO SR 1884 (MP 0.000-0.402)		4	2																			
TOTAL FOR MAP NO. 21																										
2017CPT.03.05.20671	Onslow	22	SR 2370 (CUKELA ST.)	FROM SR 1812 TO DEAD END (MP 0.000-0.191)		4	2																			
TOTAL FOR MAP NO. 22																										
2017CPT.03.05.20671	Onslow	23	SR 1776 (OAKWOOD DR.)	FROM SR 1409 TO SR 1777 (MP 0.000-0.129)		5	2																			
TOTAL FOR MAP NO. 23																										
2017CPT.03.05.20671	Onslow	24	SR 1777 (RED OAK COURT)	FROM CUL-DA-SAC TO CUL-DA-SAC (MP 0.000-0.215)		5	2																			
TOTAL FOR MAP NO. 24																										
2017CPT.03.05.20671	Onslow	25	SR 1856 (OAK HILL COURT)	FROM SR 1777 TO CUL-DA-SAC (MP 0.000-0.043)		5	2																			
TOTAL FOR MAP NO. 25																										
2017CPT.03.05.20671	Onslow	26	SR 1147 (STILLWOOD RD.)	FROM SR 1107 TO DEAD END (MP 0.000-0.336)		4	2																			
TOTAL FOR MAP NO. 26																										
2017CPT.03.05.20671	Onslow	27	SR 1238 (KOONCE FORK RD.)	FROM US 258 TO US 258 (MP 0.270-3.50)		6	2	2		2																
TOTAL FOR MAP NO. 27									2		2															
2017CPT.03.05.20671	Onslow	28	SR 1229 (GREGORY FORK RD.)	FROM SR 1219 TO SR 1230 (MP 2.518 - 6.083)		3	2																			
TOTAL FOR MAP NO. 28																										
2017CPT.03.05.20671	Onslow	29	SR 1119 (HIGH HILL RD.)	FROM US 17 TO SR 1107 (MP 0.000-3.003)		7	2																			
TOTAL FOR MAP NO. 29																										
2017CPT.03.05.20671	Onslow	30	SR 1206 (FIVE MILE RD.)	FROM SR 1205 TO NC 111 (MP 0.00 - 5.030)		8	2			2																
TOTAL FOR MAP NO. 30											2															
2017CPT.03.05.20671	Onslow	31	SR 1222 (BANNERMANS MILL RD.)	FROM NC 111 TO SR 1221 (MP 0.000-2.492)		3	2	1		2																
TOTAL FOR MAP NO. 31									1		2															
2017CPT.03.05.20671	Onslow	32	SR 1303 (CAVANAUGHTOWN RD.)	FROM SR 1302 TO SR 1304 (MP 0.000-2.094)		3	2																			
TOTAL FOR MAP NO. 32																										
2017CPT.03.05.20671	Onslow	33	SR 1107 (HARRIS CREEK RD.)	FROM NC 53 TO SR 1105 (MP 0.000-3.771)		3	2																			
TOTAL FOR MAP NO. 33																										
2017CPT.03.05.20671	Onslow	34	SR 1105 (HAWS RUN RD.)	FROM NC 50 TO SR 1106 (MP 0.000-2.776)		3	2																			
TOTAL FOR MAP NO. 34																										
2017CPT.03.05.20671	Onslow	35	SR 1546 (PENINSULA MANOR RD.)	FROM SR 1503 TO SR 2219 (MP 0.000-0.734)		3	2																			
TOTAL FOR MAP NO. 35																										
2017CPT.03.05.20671	Onslow	36	SR 1336 (ONSLow DR.)	FROM HENDERSON DRIVE (BRIDGE NO. 223) TO US 17 BUS. (MP 2.534 - 3.103)		9	2	8	10	4				60	290	1,613	6,736			125		411				
TOTAL FOR MAP NO. 36									8	10	4			60	290	1,613	6,736			125		411				
TOTAL FOR PROJ NO. 2017CPT.03.05.20671									11	10	8	2			238	468	1,613	6,736			125		411			
											31				706		8,349			125						
GRAND TOTAL									223	146	44	16	3	6	2	2	238	468	116,313	131,861	4,973	125	200	550	1,389	12
											442					706		248,174		5,098		750				

PROJECT NO.	SHEET NO.
2017CPT.03.05.10671, ETC.	30

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	484500000-N							485000000-E	487500000-N	490000000-N		490500000-N				
							PAINT LT ARROW	PAINT STR ARROW	PAINT RT ARROW	PAINT STR & RT ARROW	PAINT LT STR RT ARROW	PAINT U-TURN	PAINT STR & LT ARROW	MERGE ARROW	REMOVAL OF PAVEMENT MARKING LINES (4")	REMOVAL OF PAVEMENT MARKING SYMBOLS & CHARACTERS	PERMANENT RAISED MARKERS Y/Y	PERMANENT RAISED MARKERS C/R	SNOW PLOWABLE MARKERS (C/R)	SNOW PLOWABLE MARKERS (Y/Y)		
EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA					
2017CPT.03.05.20671	Onslow	21	SR 1814 (CARLSON DR.)	FROM SR 1414 TO SR 1884 (MP 0.000-0.402)		4	2															
TOTAL FOR MAP NO. 21																						
2017CPT.03.05.20671	Onslow	22	SR 2370 (CUKELA ST.)	FROM SR 1812 TO DEAD END (MP 0.000-0.191)		4	2															
TOTAL FOR MAP NO. 22																						
2017CPT.03.05.20671	Onslow	23	SR 1776 (OAKWOOD DR.)	FROM SR 1409 TO SR 1777 (MP 0.000-0.129)		5	2															
TOTAL FOR MAP NO. 23																						
2017CPT.03.05.20671	Onslow	24	SR 1777 (RED OAK COURT)	FROM CUL-DA-SAC TO CUL-DA-SAC (MP 0.000-0.215)		5	2															
TOTAL FOR MAP NO. 24																						
2017CPT.03.05.20671	Onslow	25	SR 1856 (OAK HILL COURT)	FROM SR 1777 TO CUL-DA-SAC (MP 0.000-0.043)		5	2															
TOTAL FOR MAP NO. 25																						
2017CPT.03.05.20671	Onslow	26	SR 1147 (STILLWOOD RD.)	FROM SR 1107 TO DEAD END (MP 0.000-0.336)		4	2															
TOTAL FOR MAP NO. 26																						
2017CPT.03.05.20671	Onslow	27	SR 1238 (KOONCE FORK RD.)	FROM US 258 TO US 258 (MP 0.270-3.50)		6	2									244	10					
TOTAL FOR MAP NO. 27																244	10					
2017CPT.03.05.20671	Onslow	28	SR 1229 (GREGORY FORK RD.)	FROM SR 1219 TO SR 1230 (MP 2.518-6.083)		3	2									240						
TOTAL FOR MAP NO. 28																240						
2017CPT.03.05.20671	Onslow	29	SR 1119 (HIGH HILL RD.)	FROM US 17 TO SR 1107 (MP 0.000-3.003)		7	2									199						
TOTAL FOR MAP NO. 29																199						
2017CPT.03.05.20671	Onslow	30	SR 1206 (FIVE MILE RD.)	FROM SR 1205 TO NC 111 (MP 0.00-5.030)		8	2							42,313	2	332	12					
TOTAL FOR MAP NO. 30														42,313	2	332	12					
2017CPT.03.05.20671	Onslow	31	SR 1222 (BANNERMANS MILL RD.)	FROM NC 111 TO SR 1221 (MP 0.000-2.492)		3	2									165	45					
TOTAL FOR MAP NO. 31																165	45					
2017CPT.03.05.20671	Onslow	32	SR 1303 (CAVANAUGHTOWN RD.)	FROM SR 1302 TO SR 1304 (MP 0.000-2.094)		3	2									138						
TOTAL FOR MAP NO. 32																138						
2017CPT.03.05.20671	Onslow	33	SR 1107 (HARRIS CREEK RD.)	FROM NC 53 TO SR 1105 (MP 0.000-3.771)		3	2									249						
TOTAL FOR MAP NO. 33																249						
2017CPT.03.05.20671	Onslow	34	SR 1105 (HAWS RUN RD.)	FROM NC 50 TO SR 1106 (MP 0.000-2.776)		3	2									183						
TOTAL FOR MAP NO. 34																183						
2017CPT.03.05.20671	Onslow	35	SR 1546 (PENINSULA MANOR RD.)	FROM SR 1503 TO SR 2219 (MP 0.000-0.734)		3	2									48						
TOTAL FOR MAP NO. 35																48						
2017CPT.03.05.20671	Onslow	36	SR 1336 (ONSLow DR.)	FROM HENDERSON DRIVE (BRIDGE NO. 223) TO US 17 BUS. (MP 2.534 - 3.103)		9	2	8	10	4				350		53	87					
TOTAL FOR MAP NO. 36									8	10	4			350		53	87					
TOTAL FOR PROJ NO. 2017CPT.03.05.20671									8	10	4			43,019	2	2,805	154					
									22									2,959				
GRAND TOTAL									220	146	40	14	3	6	2	2	43,019	2	3,060	266	2,101	501
									433									3,326		2,602		

URBAN / SUBURBAN WORKZONES

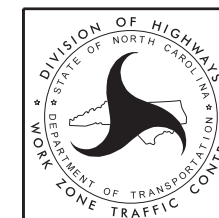


NOTES:

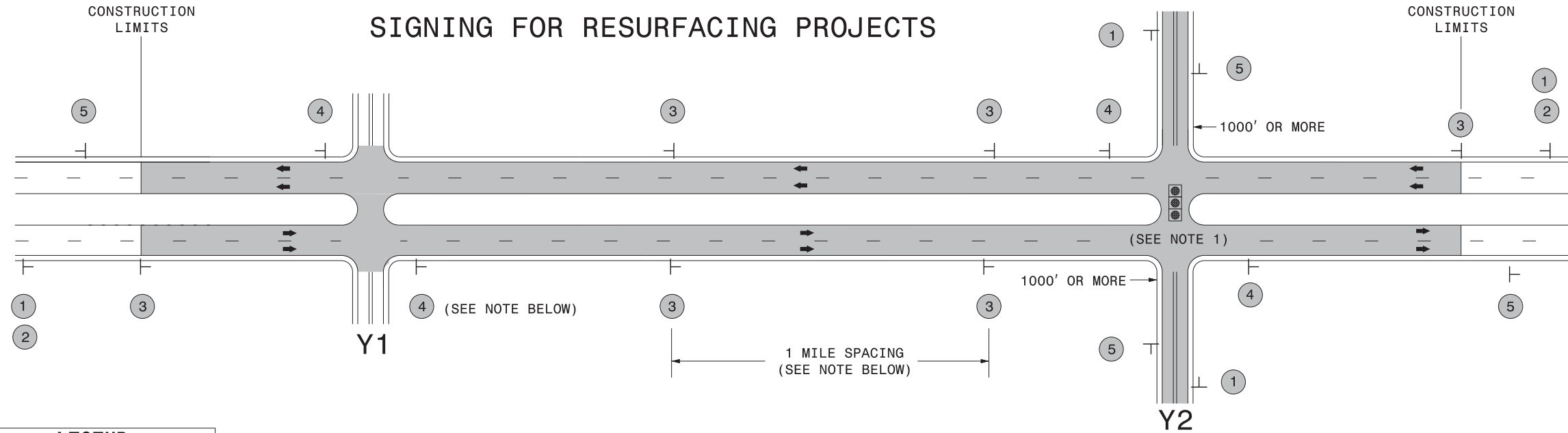
- 1) 48" x 48" SIZED SIGNS (SP- 11299) MAY BE REDUCED TO 36" X 36" ON ROADWAYS WITH SPEED LIMITS OF 40 MPH OR LESS.
- 2) MOUNT SIGNS THAT ARE LARGER THAN 10 SQUARE FEET IN AREA ON TWO OR MORE WOOD OR U-CHANNEL SUPPORTS. PERFORATED SQUARE TUBING SUPPORT SYSTEMS MAY SUPPORT LARGER AREAS ON A SINGLE SUPPORT. FOLLOW MANUFACTURER'S RECOMMENDATIONS. THESE SYSTEMS SHALL BE NCHRP 350 COMPLIANT AND NCDOT APPROVED.
- 3) ADVANCE WARNING SIGNS NOT REQUIRED ON NON-SIGNALIZED SIDE STREETS.
- 4) MAY USE LAW ENFORCEMENT TO CONTROL TRAFFIC AT SIGNALIZED INTERSECTIONS AS DIRECTED BY THE ENGINEER. PROVIDE PORTABLE "ROAD WORK AHEAD" (W20-1) SIGNS 500' IN ADVANCE ALONG BOTH APPROACHES FROM THE SIDE STREETS WHEN PAVING PROCEEDS THROUGH THE INTERSECTION.
- 5) LATERAL CLEARANCE AT ALL SIGN LOCATIONS SHALL BE 2' AS MEASURED FROM THE EDGE OF PAVEMENT OR THE FACE OF THE CURB. WHEN UNABLE TO OBTAIN THE LATERAL CLEARANCE WITHIN THE MEDIAN AREA USE SHOULDER MOUNTS ONLY.
- 6) SIGN MOUNT LOCATIONS SHALL NOT BLOCK SIDEWALKS OR DRIVEWAYS.
- 7) IF STATIONARY GENERAL WARNING SIGNS ARE USED, THEY WILL BE PAID FOR PER SECTION 104 OF THE NCDOT STANDARD SPECIFICATIONS AS EXTRA WORK.
- 8) IF MILLED AREAS ARE NOT PAVED BACK BY THE END OF THE WORK DAY, PORTABLE SIGNS SHALL BE USED TO WARN DRIVERS OF THE PRESENT CONDITIONS. THESE ARE TO INCLUDE, BUT NOT LIMITED TO "ROUGH ROAD" W8-8, "UNEVEN LANES" W8-11, "GROOVED PAVEMENT" W8-15 w/MOTORCYCLE PLAQUE MOUNTED BELOW. THESE ARE TO BE DOUBLE INDICATED ON MULTI-LANE ROADWAYS WITH SPEED LIMITS 45 MPH AND GREATER WHERE LATERAL CLEARANCE CAN BE OBTAINED WITHIN THE MEDIAN AREAS. THESE PORTABLE SIGNS ARE INCIDENTAL TO THE OTHER ITEMS OF WORK INCLUDED IN THE TEMPORARY TRAFFIC CONTROL (LUMP SUM) PAY ITEM.

LEGEND

- ┆ STATIONARY SIGN
- ➔ DIRECTION OF TRAFFIC FLOW



**RESURFACING ADVANCE
WARNING SIGNS FOR
URBAN / SUBURBAN
FACILITIES**



LEGEND
 ┆ STATIONARY SIGN
 ← DIRECTION OF TRAFFIC FLOW

MAINLINE (-L-) SIGNING

-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	 	<p>PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.</p> <p>#2 SIGN ONLY USED WHEN RESURFACING LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER. (NO FRACTIONAL OR DECIMAL NUMBERS)</p>	<p>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</p> <ol style="list-style-type: none"> 1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE 2) SUBDIVISION ROADS 3) DEAD END ROADS <p>WHEN PAVING/CONSTRUCTION ACTIVITIES PROCEED ACROSS AN UNSIGNED -Y- LINE, ADVANCE WARNING PORTABLE SIGNS SHALL BE USED ALONG THE -Y- LINE AS SHOWN BELOW. REMOVE UPON COMPLETION OF WORK.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <small>W20-1 48" X 48"</small> </div> <div style="text-align: center;"> <small>W20-7 A 48" X 48"</small> </div> </div> <p>PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.</p> <p>NOTES:</p> <ol style="list-style-type: none"> 1) MAY USE LAW ENFORCEMENT TO CONTROL TRAFFIC AT SIGNALIZED INTERSECTIONS AS DIRECTED BY THE ENGINEER. PROVIDE PORTABLE "ROAD WORK AHEAD" (W20-1) SIGNS 500' IN ADVANCE ALONG BOTH APPROACHES FROM THE SIDE STREETS WHEN PAVING PROCEEDS THROUGH THE INTERSECTION.
		<p>PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACED 1 MILE APART THEREAFTER. IF NO -Y- LINES EXIST, PLACE 2ND SET 1/2 MILE FROM THE CONSTRUCTION LIMITS AND THEN SPACE 1 MILE THEREAFTER.</p>	
		<p>THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS. DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS. INSTALL 500' +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE. FOR MULTIPLE -Y- LINES THAT ARE SEPARATED BY 0.25 MILES OR LESS, TREAT AS A SINGLE UNIT AND INSTALL WITHIN 500' OF EACH APPROACH. A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN.</p>	
		<p>PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.</p>	

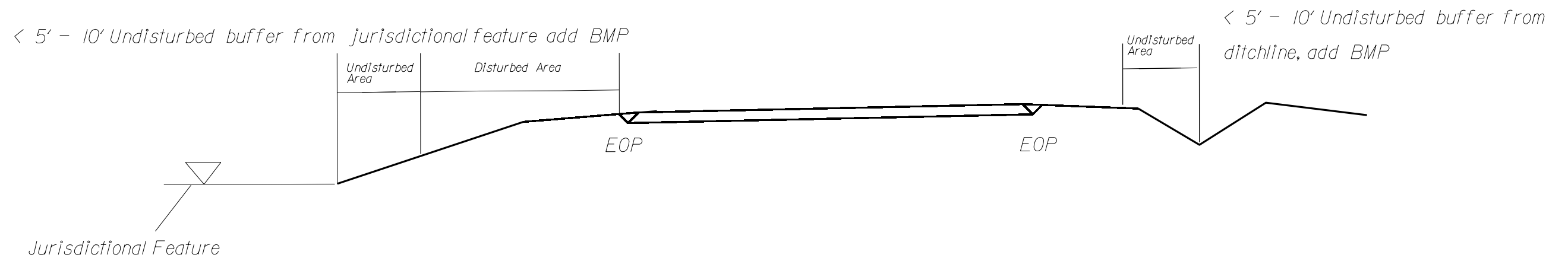
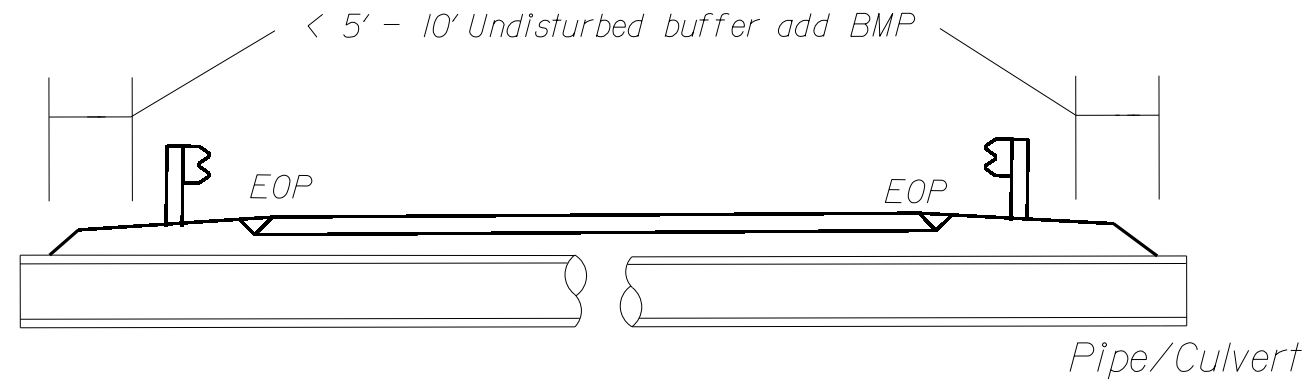
3/23/2015 C:\Users\rmgarrrett\Downloads\Resurfacing_AdvWarn_LrSu_Shldr.dgn User:rmgarrrett

**RESURFACING
ADVANCE WARNING SIGNS
FOR RURAL AND SUBURBAN
MULTI-LANE ROADWAYS
W/ SHOULDER SECTIONS**

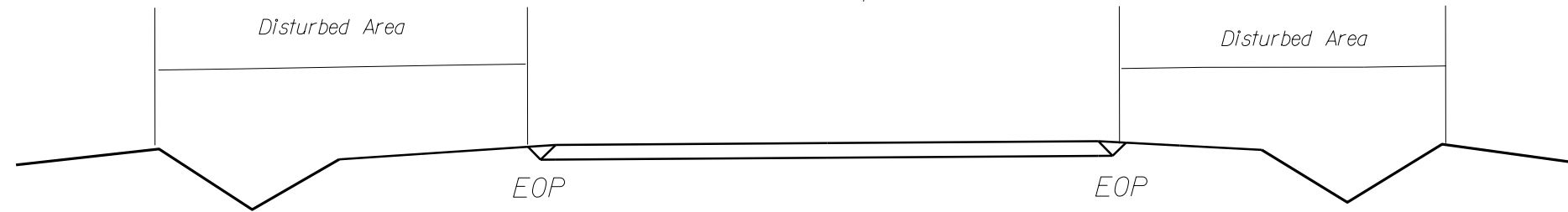
NOTES: Less than 5' - 10' undisturbed buffer from ROW, ditchline, water feature, or drainage inlet, add BMP.

BMP Options: Wattle or Silt Fence

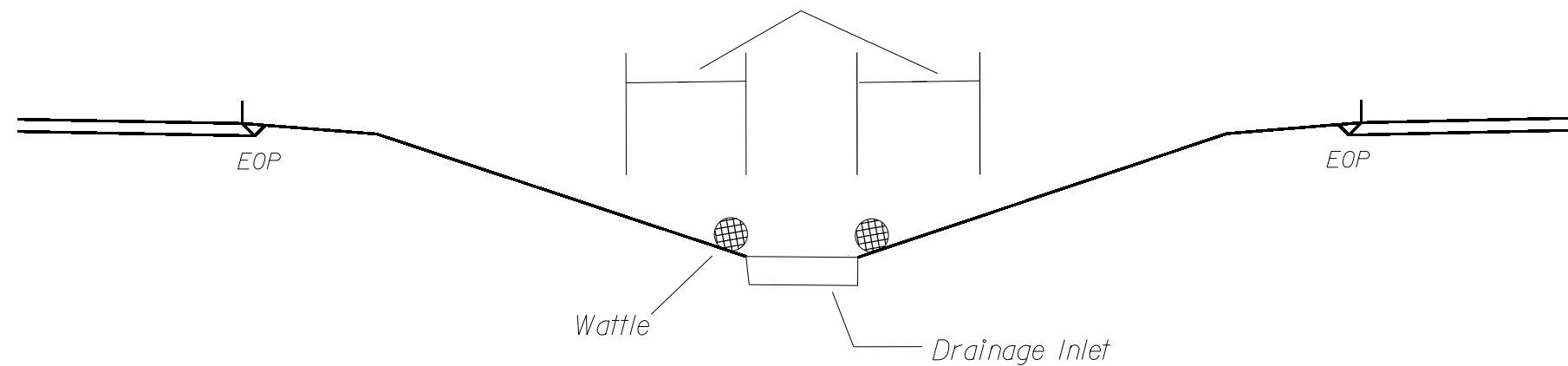
EROSION CONTROL DETAIL



Use BMP's if shoulders and/or frontslopes and/or ditchline and/or backslopes are disturbed

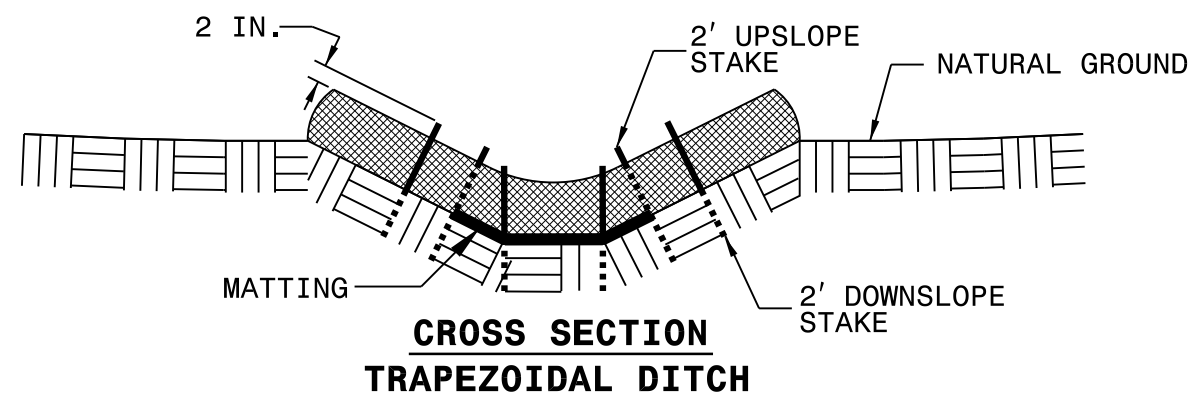
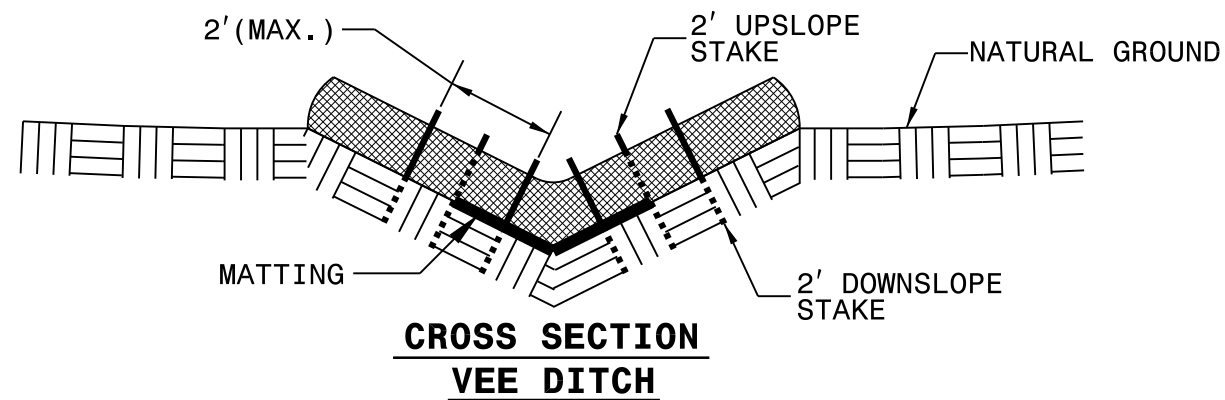
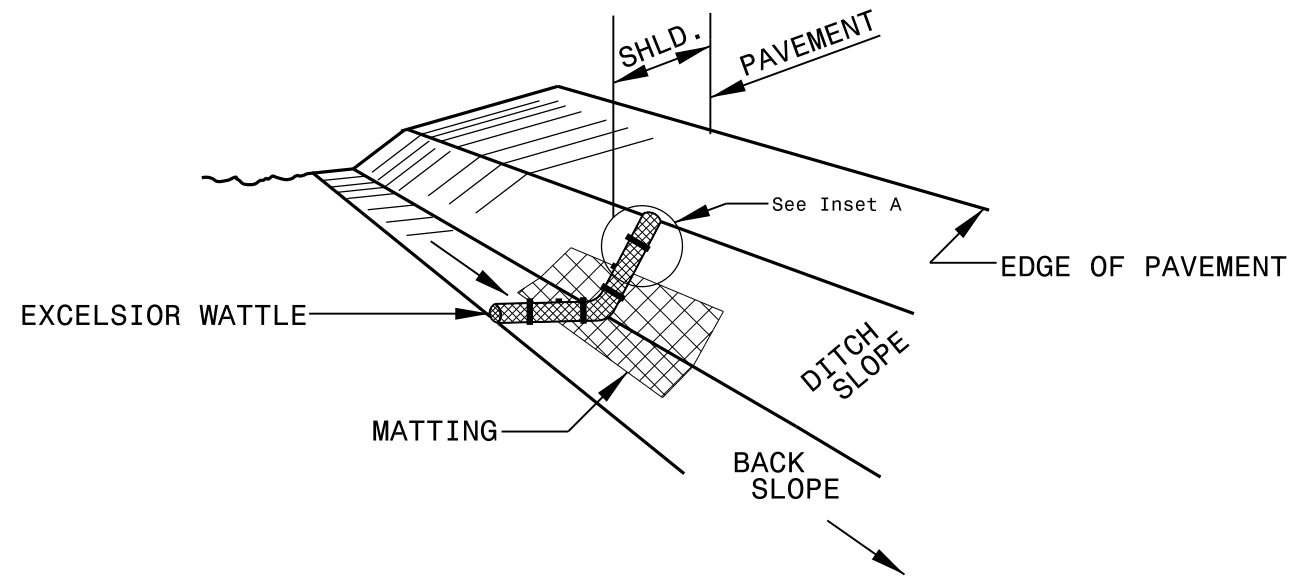


< 5' - 10' Undisturbed buffer from inlet, add wattle



NOT TO SCALE

WATTLE DETAIL



NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

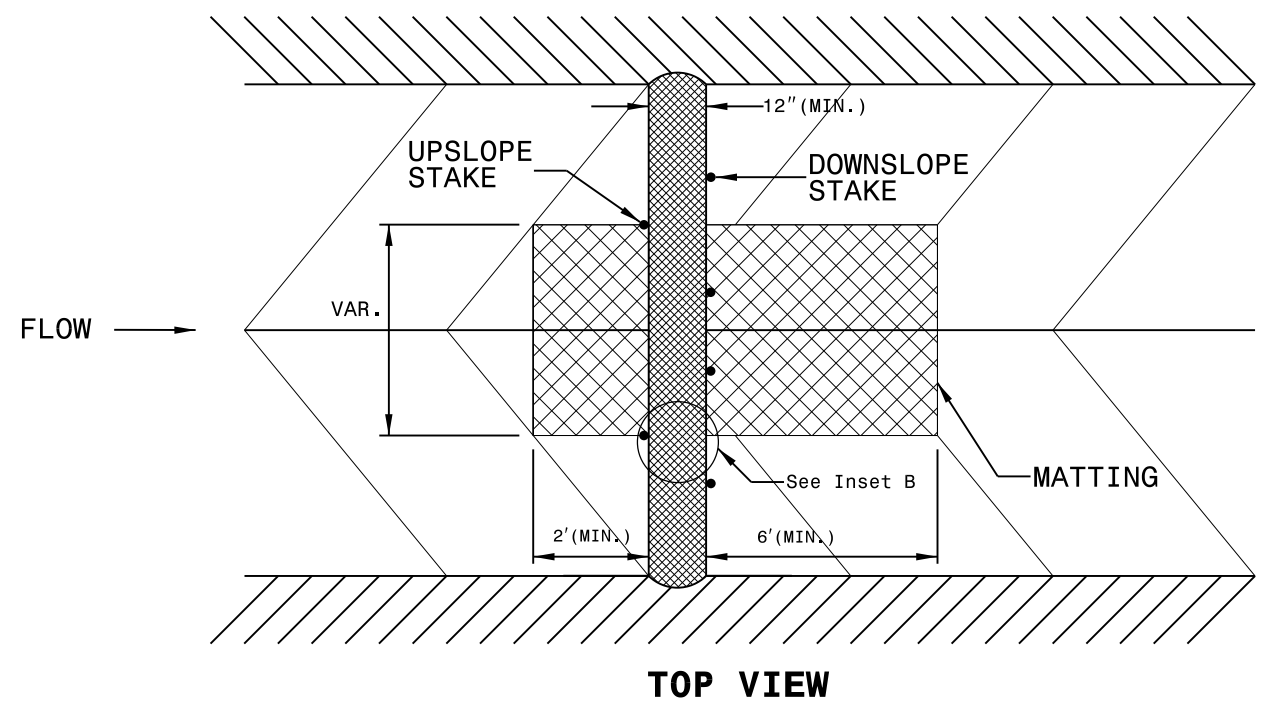
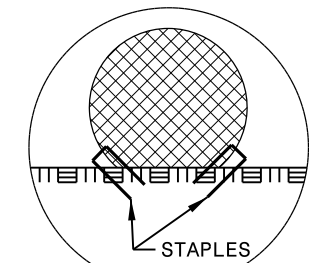
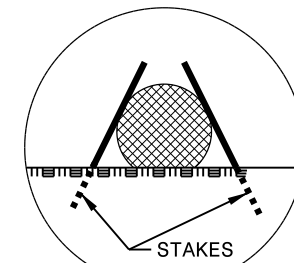
ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.



DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION TIMEFRAMES

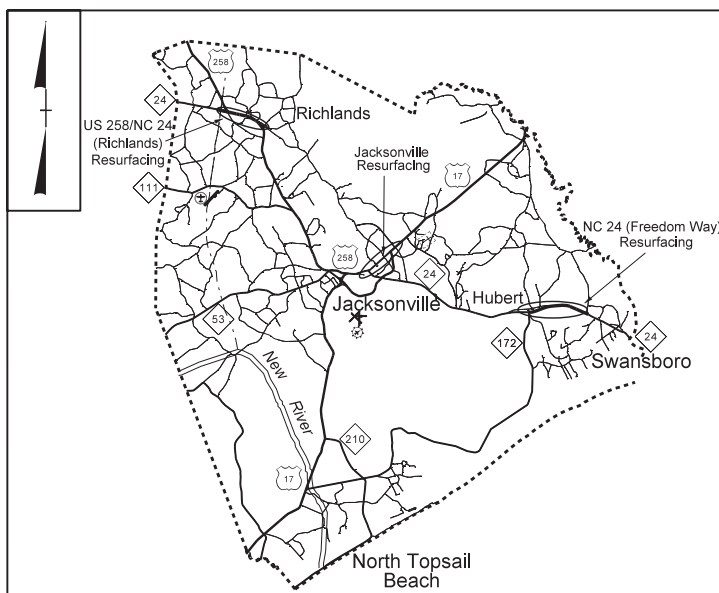
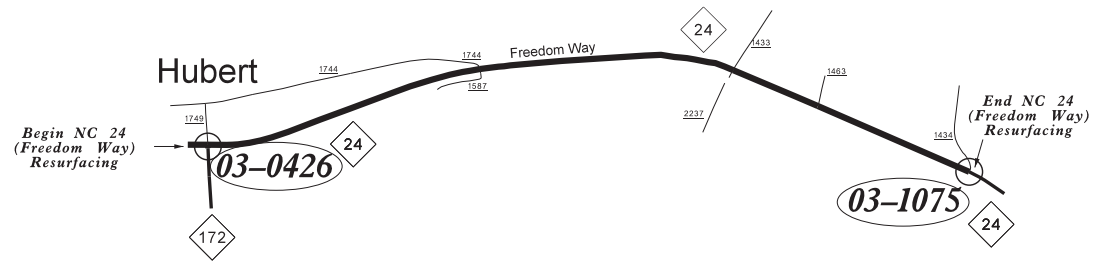
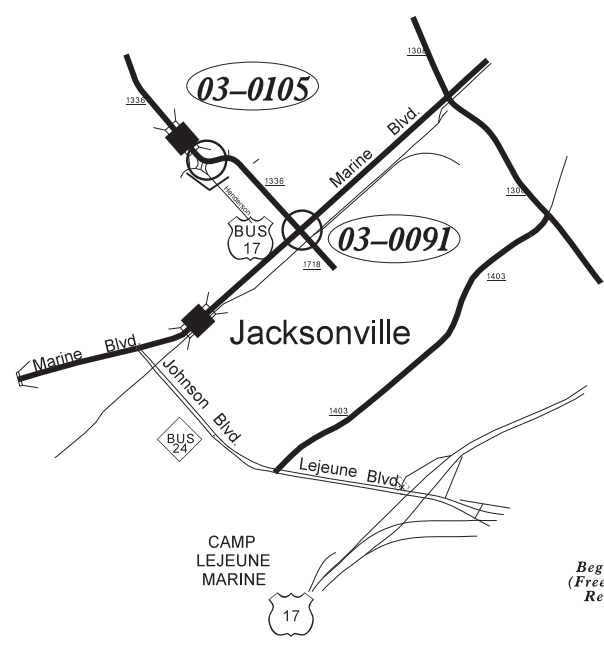
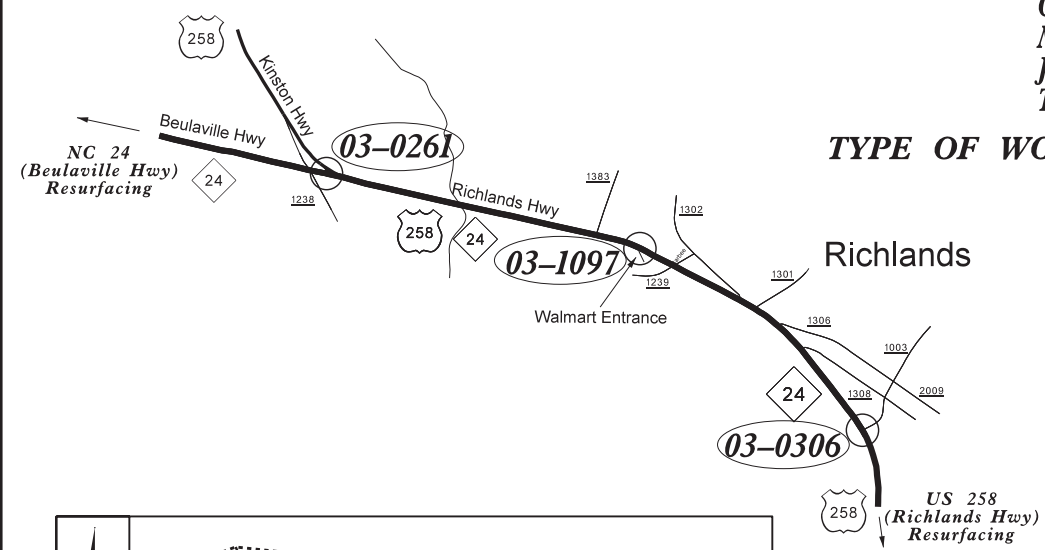
<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

ONSLOW COUNTY

LOCATION: DIVISION 3 - ONSLOW COUNTY: US 258 MILL & RESURF FROM EASTERN CITY LIMITS OF RICHLANDS TO MP 3.54 ON NC 24 (BEULAVILLE HWY); SR 1336 (ONSLOW DRIVE) MILL AND RESURF FROM US 17 BUS. (N. MARINE BLVD) TO HENDERSON DRIVE IN JACKSONVILLE; AND NC 24 (FREEDOM WAY) EB & WB MILL & RESURF FROM NC 172 TO SR 1434

TYPE OF WORK: TRAFFIC SIGNALS



VICINITY MAP

NOT TO SCALE

Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "Standard Specifications for Roads and Structures" dated January 2012.

Sheet #	Reference #	Index of Plans	Location/Description
Sig. 1.0		Title Sheet	
Sig. 2.0-2.1	03-0306	US 258-NC 24 (Richlands Hwy) at Wilmington Street / Fay Avenue	
Sig. 3.0-3.2	03-1097	US 258-NC 24 (Richlands Hwy) at Walmart Entrance	
Sig. 4.0-4.1	03-0261	US 258-NC 24 (Richlands Hwy) at US 258 (Kinston Hwy) / NC 24 (Beulaville Hwy)	
Sig. 5.0-5.1	03-0426	NC 24 (Freedom Way) at NC 172 / SR 1749 (Old NC 172)	
Sig. 6.0-6.1	03-1075	NC 24 (Freedom Way / W Corbett Ave) at SR 1434 (Belgrade-Swansboro Rd)	
Sig. 7.0-7.2	03-0091	US 17 Bus. (Marine Boulevard) at SR 1336 / 1718 (Onslow Dr)	
Sig. 8.0-8.1	03-0105	SR 1336 (Henderson Dr) / (Onslow Dr) at Henderson Drive	

Transportation Mobility and Safety Division
Contacts:
Jason P. Galloway, PE - Eastern Region Signals Engineer
Keith Mims, PE - Signal Equipment Design Engineer

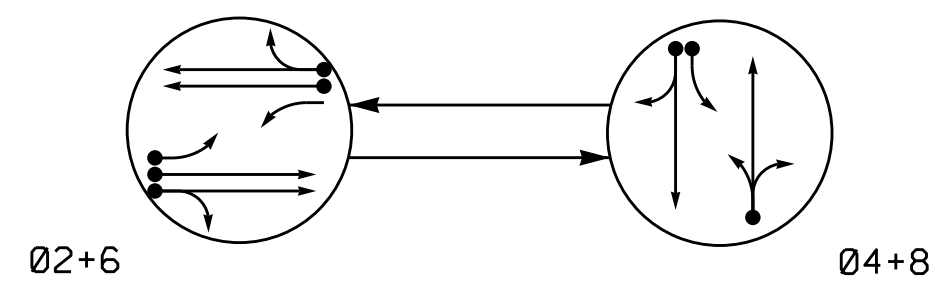
Prepared in the Office of:
DIVISION OF HIGHWAYS
TRANSPORTATION MOBILITY AND SAFETY
DIVISION

18-NOV-2016 10:52 S:\NHS\SU\NHS Signals\SignalDesign Section\Eastern Region\Div-03\Onslow County Resurfacing\3CR-PE tsh_onslow.dgn
 Contract Number: 2017CPT.03.05.10671

Onslow County Resurfacing

Contract Number: 2017CPT.03.05.10671

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

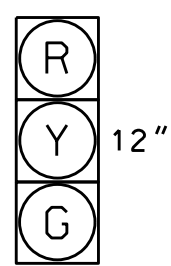
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE		
	Ø 2+6	Ø 4+8	FLIGHT
21, 22	G	R	Y
41, 42	R	G	R
61, 62	G	R	Y
81, 82	R	G	R

SIGNAL FACE I.D.

All Heads L.E.D.



21, 22
41, 42
61, 62
81, 82

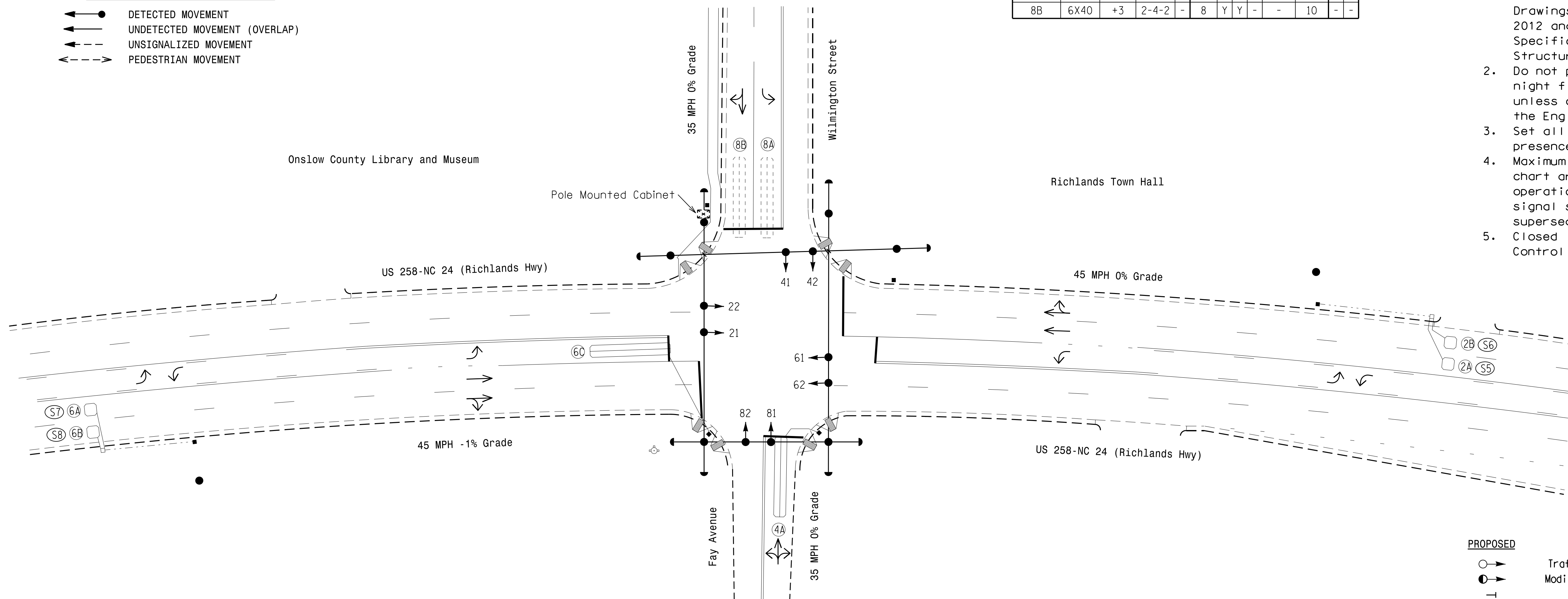
OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	DETECTOR PROGRAMMING							
					PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
2A/S5	6X6	300	5	Y	2	Y	Y	-	-	-	Y	-
2B/S6	6X6	300	5	Y	2	Y	Y	-	-	-	Y	-
4A	6X40	0	2-4-2	Y	4	Y	Y	-	-	10	-	-
6A/S7	6X6	300	5	Y	6	Y	Y	-	-	-	Y	-
6B/S8	6X6	300	5	Y	6	Y	Y	-	-	-	Y	-
6C	6X40	0	2-4-2	Y	6	Y	Y	Y	-	3	-	-
8A	6X40	+3	2-4-2	-	8	Y	Y	-	-	3	-	-
8B	6X40	+3	2-4-2	-	8	Y	Y	-	-	10	-	-

2 Phase
Fully Actuated
US 258-NC 24 Richlands CLS

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "Standard Specifications for Roads and Structures" dated January 2012.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Set all detector units to presence mode.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
- Closed loop system data:
Controller Asset #: 0306



OASIS 2070 TIMING CHART

FEATURE	PHASE			
	2	4	6	8
Min Green 1 *	12	7	12	7
Extension 1 *	6.0	2.0	6.0	2.0
Max Green 1 *	90	20	90	20
Yellow Clearance	4.5	3.8	4.6	3.8
Red Clearance	1.0	1.5	1.0	1.8
Red Revert	-	-	-	-
Walk 1 *	-	-	-	-
Don't Walk 1	-	-	-	-
Seconds Per Actuation *	1.8	-	1.8	-
Max Variable Initial *	34	-	34	-
Time Before Reduction *	15	-	15	-
Time To Reduce *	30	-	30	-
Minimum Gap	3.0	-	3.0	-
Recall Mode	MIN RECALL	-	MIN RECALL	-
Vehicle Call Memory	YELLOW	-	YELLOW	-
Dual Entry	-	ON	-	ON
Simultaneous Gap	ON	ON	ON	ON

* These values may be field adjusted. Do not adjust Min Green and Extension times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

LEGEND

- | PROPOSED | EXISTING |
|----------|----------|
| | |
| | N/A |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| N/A | |
| | |
| N/A | |

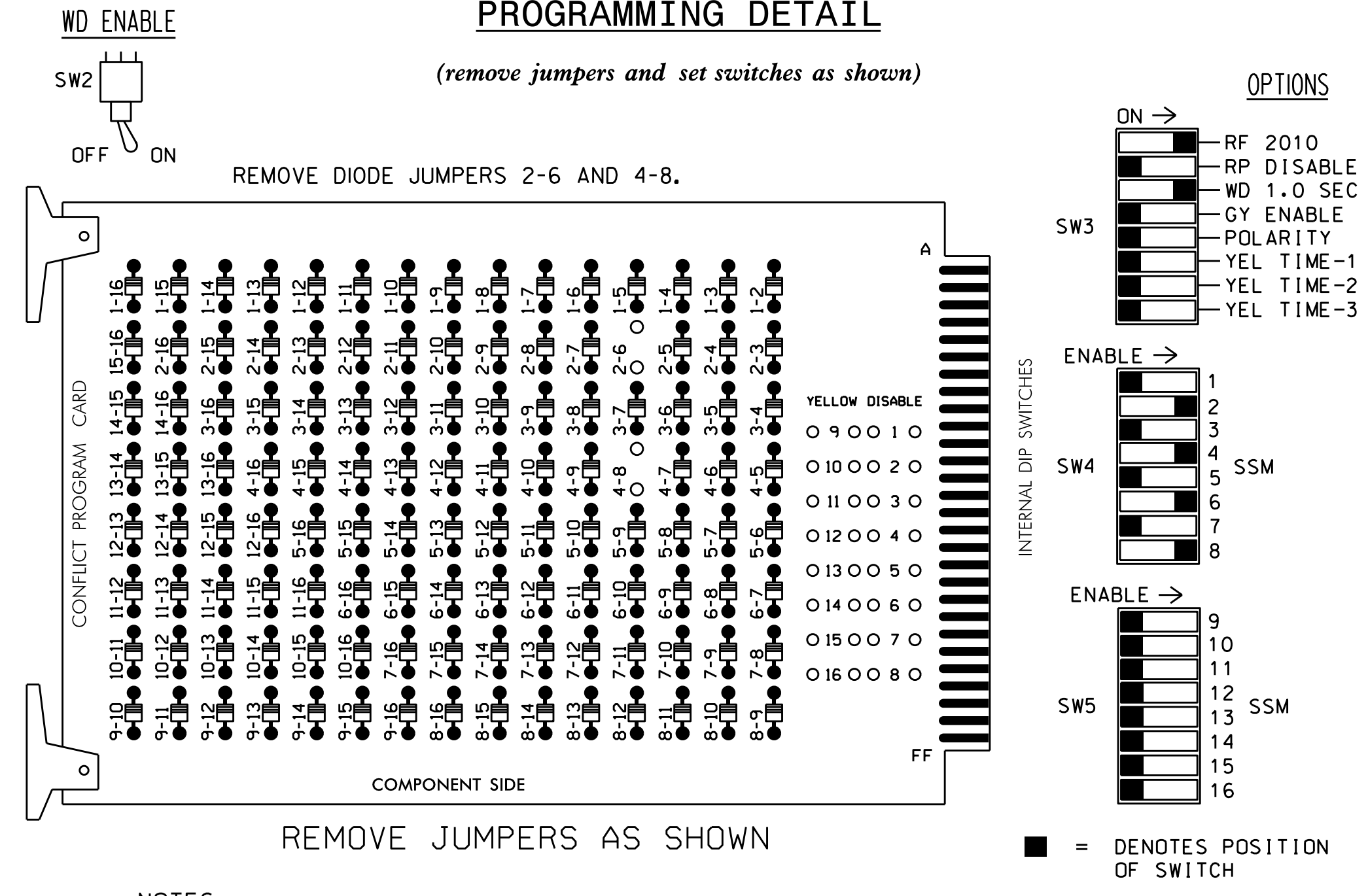
Signal Upgrade

	US 258-NC 24 (Richlands Hwy) at Wilmington Street/Fay Avenue	
	Division 3 Onslow County Richlands PLAN DATE: February 2016 REVIEWED BY: PLA PREPARED BY: Devin Smith REVIEWED BY:	REVISIONS INIT. DATE
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		SEAL PROFESSIONAL ENGINEER ALEXANDER 4/21/2016 DATE SIG. INVENTORY NO. 03-0306

C:\Users\jg16\OneDrive\Documents\Signal Design\Section\Eastern Region\03-0306-0306\0306.sig.dwg, 2016mdd.dgn
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 JG16

EDI MODEL 2010ECL CONFLICT MONITOR

PROGRAMMING DETAIL



NOTES:

1. Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
2. Make sure jumpers SEL2-SEL5 are present on the monitor board.

NOTES

1. To prevent "flash-conflict" problems, insert red flash program blocks for all unused vehicle load switches in the output file. The installer shall verify that signal heads flash in accordance with the Signal Plans.
2. To prevent red failures on unused monitor channels, see Red Monitor Board Programming Detail this sheet.
3. Program phases 2 and 6, on the controller unit, for Start Up In Green.
4. Enable Simultaneous Gap-Out, on the controller unit, for all phases.
5. Program phases 4 and 8, on the controller unit, for Dual Entry.
6. Program phases 2 and 6, on the controller unit, for Variable Initial and Gap Reduction.
7. The cabinet and controller are part of the US 258-NC 24 Richlands Closed Loop System.

FIELD CONNECTION HOOK-UP CHART

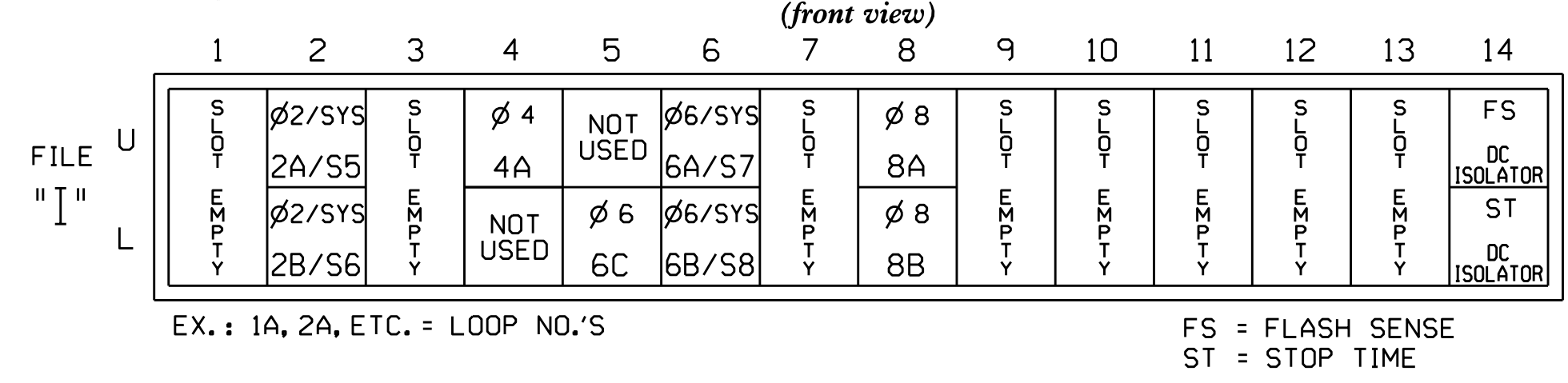
LOAD SWITCH NO.	S1	S2	S2P	S3	S4	S4P	S5	S6	S6P	S7	S8	S8P
PHASE	1	2	2 PED	3	4	4 PED	5	6	6 PED	7	8	8 PED
SIGNAL HEAD NO.	NU	21,22	NU	NU	41,42	NU	NU	61,62	NU	NU	81,82	NU
RED		128			101			134			107	
YELLOW		129			102			135			108	
GREEN		130			103			136			109	
RED ARROW												
YELLOW ARROW												
GREEN ARROW												

NU = NOT USED

EQUIPMENT INFORMATION

CONTROLLER.....EAGLE TYPE 2070L
 CABINETMcCAIN/CONTROL TECHNOLOGIES (DWG.NO.9500-336-NCDDT)
 SOFTWAREECONOLITE OASIS
 CABINET MOUNT.....POLE
 OUTPUT FILE POSITIONS...12
 LOAD SWITCHES USED.....S2,S4,S6,S8
 PHASES USED.....2,4,6,8
 OVERLAPS.....NONE

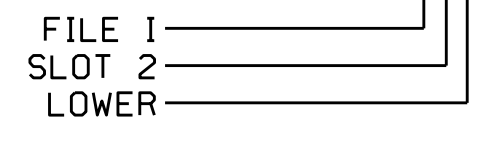
INPUT FILE POSITION LAYOUT



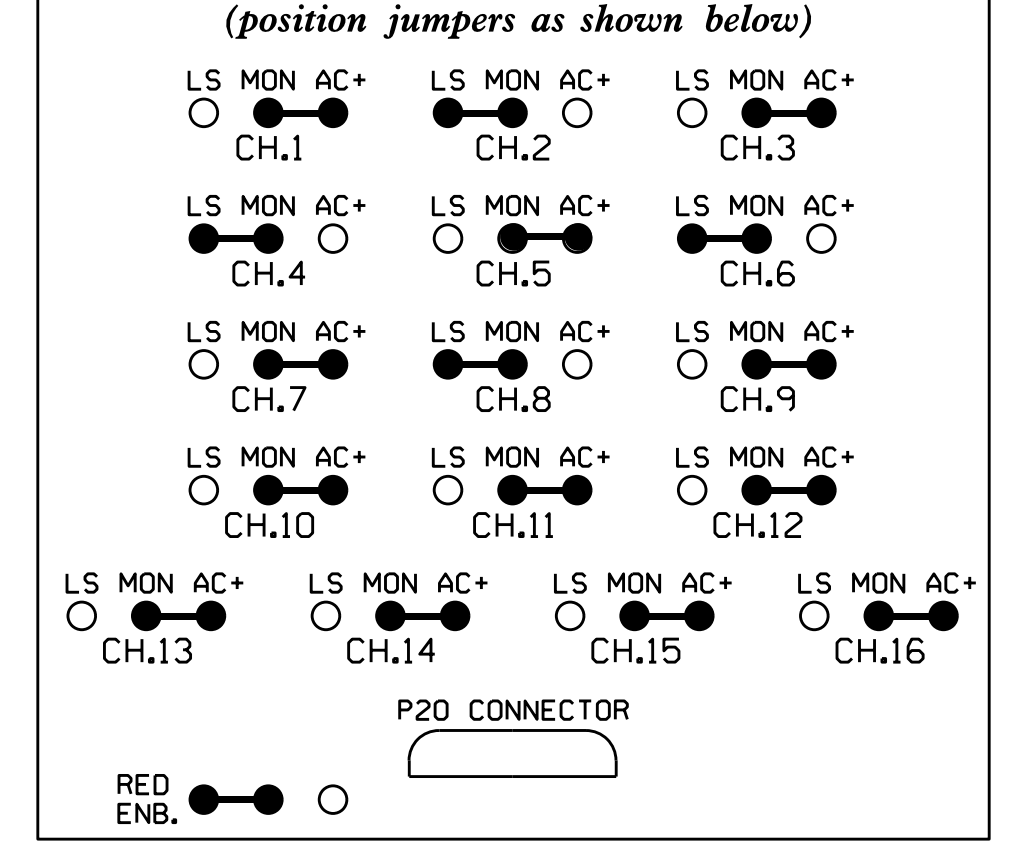
INPUT FILE CONNECTION & PROGRAMMING CHART

LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	INPUT ASSIGNMENT NO.	DETECTOR NO.	NEMA PHASE	CALL	EXTEND	FULL TIME DELAY	STRETCH TIME	DELAY TIME
2A/S5	TB21-3,4	I2U	39	1	2	2/SYS	Y	Y			
2B/S6	TB23-3,4	I2L	43	5	12	2/SYS	Y	Y			
4A	TB21-7,8	I4U	41	3	4	4	Y	Y			10
6A/S7	TB21-11,12	I6U	40	2	6	6/SYS	Y	Y			
6B/S8	TB23-11,12	I6L	44	6	16	6/SYS	Y	Y			
6C	TB23-9,10	I5L	48	10	26	6	Y	Y	Y		3
8A	TB22-1,2	I8U	42	4	8	8	Y	Y			3
8B	TB24-1,2	I8L	46	8	18	8	Y	Y			10

INPUT FILE POSITION LEGEND: I2L



RED MONITOR BOARD PROGRAMMING



THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 03-0306
 DESIGNED: February 2016
 SEALED: 4/21/2016
 REVISED: N/A

Electrical Detail

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISION SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 KEITH M. MIMS
 4/22/2016

Prepared in the Offices of:
 NORTH CAROLINA PROFESSIONAL ENGINEER
 JAMES PETERSON
 750 N. Greenfield Pkwy, Garner, NC 27529

US 258-NC 24 (Richlands Hwy) at Wilmington Street/Fay Avenue
 Division 3 Onslow County Richlands
 PLAN DATE: FEBRUARY 2003 REVIEWED BY: T. JOYCE
 PREPARED BY: JAMES PETERSON REVIEWED BY: BAS
 REVISIONS INIT. DATE
 Program loads 2A,2B,6A,6B for system operation. GCB 07/11/07
 Set YEL TIME-1 and YEL TIME-2 switches to "OFF" position. CES 07/06/07, DJV 07/11/07
 Removed loop 2C, revised monitor SEL jumpers. JWS/KMM 4/22/2016

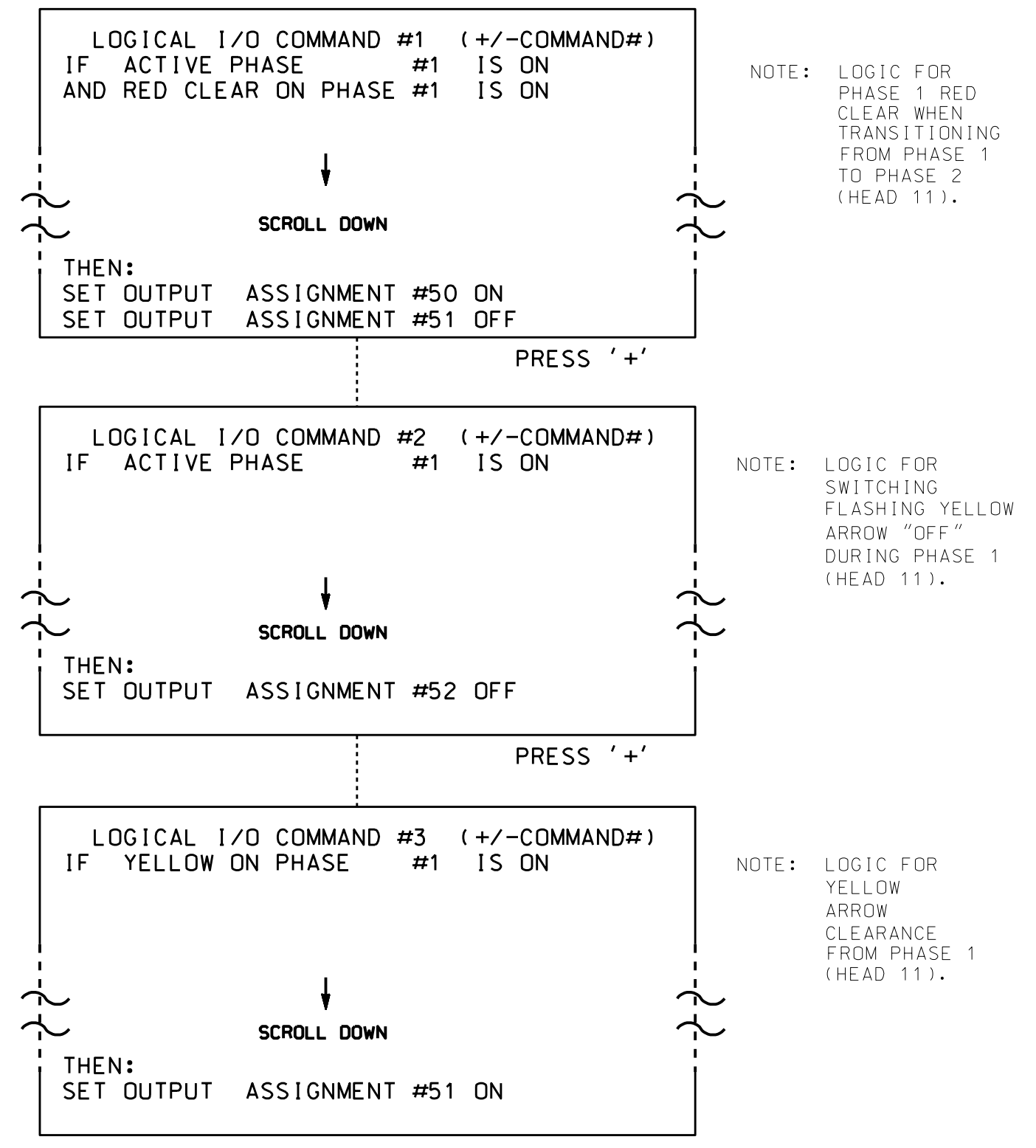
Not a certified document as to the Original Document but only as to the Revisions - This document originally issued and sealed by George C. Brown, #022013, on 7/11/07. This document is only certified as to the revisions.
 SIGNATURE DATE
 SIG. INVENTORY NO. 03-0306

2017CPT.03.05.10671.dgn
 C:\Users\jpeterson\Documents\Signal\Work\Projects\030306_Sm.e\03-xxx.dgn
 3/21/2016 10:15:15 AM
 3/21/2016 10:15:15 AM

LOGICAL I/O PROCESSOR PROGRAMMING DETAIL TO PRODUCE SPECIAL FYA-PPLT SIGNAL SEQUENCE

(program controller as shown below)

1. FROM MAIN MENU PRESS '2' (PHASE CONTROL), THEN '1' (PHASE CONTROL FUNCTIONS). SCROLL TO THE BOTTOM OF THE MENU AND ENABLE ACT LOGIC COMMANDS 1, 2, AND 3.
2. FROM MAIN MENU PRESS '6' (OUTPUTS), THEN '3' (LOGICAL I/O PROCESSOR).



OUTPUT REFERENCE SCHEDULE	
OUTPUT 50 =	Overlap A Red
OUTPUT 51 =	Overlap A Yellow
OUTPUT 52 =	Overlap A Green

OVERLAP PROGRAMMING DETAIL

(program controller as shown below)

FROM MAIN MENU PRESS '8' (OVERLAPS), THEN '1' (VEHICLE OVERLAP SETTINGS).

```

PAGE 1: VEHICLE OVERLAP 'A' SETTINGS
PHASE:      12345678910111213141516
VEH OVL PARENTS: XX
VEH OVL NOT VEH:
VEH OVL NOT PED:
VEH OVL GRN EXT:
STARTUP COLOR:  _ RED  _ YELLOW  _ GREEN
FLASH COLORS:  _ RED  _ YELLOW X GREEN
SELECT VEHICLE OVERLAP OPTIONS: (Y/N)
FLASH YELLOW IN CONTROLLER FLASH?...Y
GREEN EXTENSION (0-255 SEC).....0
YELLOW CLEAR (0=PARENT,3-25.5 SEC)..0.0
RED CLEAR (0=PARENT,0.1-25.5 SEC)..0.0
OUTPUT AS PHASE # (0=NONE, 1-16)....0
    
```

← NOTICE GREEN FLASH

OVERLAP PROGRAMMING COMPLETE

▽ THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 03-1097
DESIGNED: February 2016
SEALED: 4/21/2016
REVISED: N/A

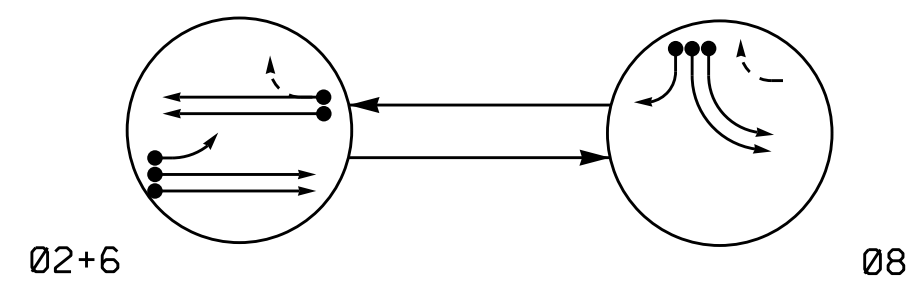
21-Apr-2016 10:34
S:\MITS\15\Sig\15\work\hgr\cdus\sig\Map\Mstr\trng\031007_sm.ele.xxx.dgn
s01mstr.rng

Electrical Detail - Sheet 2 of 2

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

REVISION SEAL	ELECTRICAL AND PROGRAMMING DETAILS FOR:	US 258-NC 24 (Richlands Hwy) at Walmart Entrance	SEAL
		Division 3 Onslow County Richlands	Not a certified document as to the Original Document but only as to the Revisions - This document originally issued and sealed by Jason Hamilton, #32396, on 11/6/2014. This document is only certified as to the revisions.
DocuSigned by: <i>Keith M. Mims</i> 4/22/2016	750 N. Greenfield Pkwy, Garner, NC 27529	PLAN DATE: October 2014 REVIEWED BY: WJ Hamilton	SIGNATURE DATE
DATE	DATE	PREPARED BY: NE Burns REVIEWED BY:	SIG. INVENTORY NO. 03-1097
		REVISIONS Corrected 6A to 6B for Det. No. 16 in chart. (WSA)	

PHASING DIAGRAM



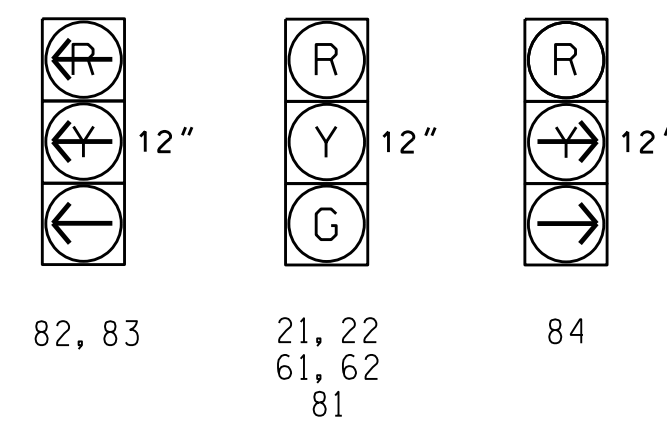
PHASING DIAGRAM DETECTION LEGEND

- ● → DETECTED MOVEMENT
- — → UNDETECTED MOVEMENT (OVERLAP)
- - - - → UNSIGNALIZED MOVEMENT
- - - - → PEDESTRIAN MOVEMENT

SIGNAL FACE	PHASE		
	2	6	8
21, 22	G	R	Y
61, 62	G	R	Y
81	R	G	R
82, 83	R	-	R
84	R	-	R

SIGNAL FACE I.D.

All Heads L.E.D.

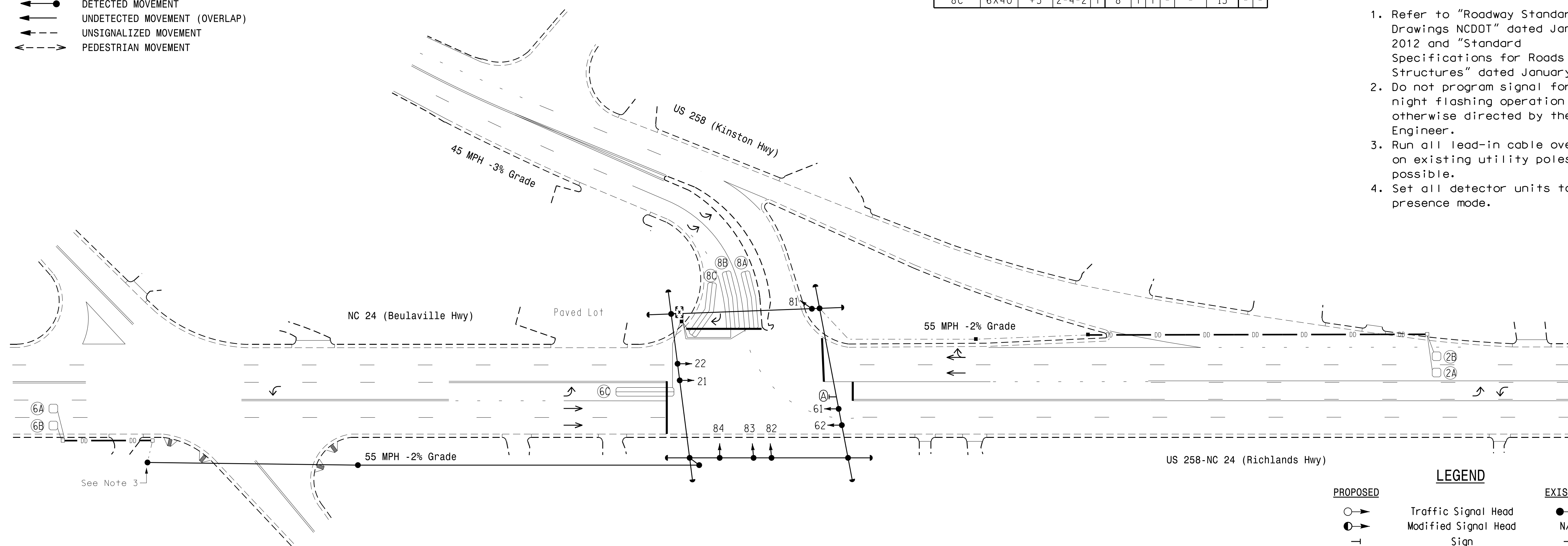


OASIS 2070 LOOP & DETECTOR INSTALLATION CHART											
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	DETECTOR PROGRAMMING						
					PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP
2A	6X6	420	5	Y	2	Y	Y	-	-	-	-
2B	6X6	420	5	Y	2	Y	Y	-	-	-	-
6A	6X6	420	5	Y	6	Y	Y	-	-	-	-
6B	6X6	420	5	Y	6	Y	Y	-	-	-	-
6C	6X40	+5	2-4-2	Y	6	Y	Y	-	-	-	Y
8A	6X40	0	2-4-2	Y	8	Y	Y	-	-	-	-
8B	6X40	0	2-4-2	Y	8	Y	Y	-	-	-	-
8C	6X40	+5	2-4-2	Y	8	Y	Y	-	-	15	-

2 Phase Fully Actuated Isolated

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "Standard Specifications for Roads and Structures" dated January 2012.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Run all lead-in cable overhead on existing utility poles where possible.
- Set all detector units to presence mode.



OASIS 2070 TIMING CHART			
FEATURE	PHASE		
	2	6	8
Min Green 1 *	14	14	7
Extension 1 *	6.0	6.0	2.0
Max Green 1 *	90	90	25
Yellow Clearance	5.4	5.4	3.0
Red Clearance	1.1	1.2	2.8
Red Revert	-	-	-
Walk 1 *	-	-	-
Don't Walk 1	-	-	-
Seconds Per Actuation *	1.8	1.8	-
Max Variable Initial *	46	46	-
Time Before Reduction *	15	15	-
Time To Reduce *	30	30	-
Minimum Gap	3.4	3.4	-
Recall Mode	MIN RECALL	MIN RECALL	-
Vehicle Call Memory	YELLOW	YELLOW	-
Dual Entry	-	-	-
Simultaneous Gap	ON	ON	ON

* These values may be field adjusted. Do not adjust Min Green and Extension times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

PROPOSED	EXISTING
○ →	● →
○ →	N/A
⊥	⊥
⊥	⊥
○ →	○ →
○ →	○ →
⊗	⊗
□	□
- - -	- - -
N/A	N/A
→	→
- - -	- - -
⊗	⊗

Signal Upgrade

Prepared in the Offices of:

750 N. Greenfield Pkwy, Garner, NC 27529

US 258-NC 24 (Richlands Hwy) at US 258 (Kinston Hwy) / NC 24 (Beulaville Hwy)

Division 3 Onslow County Richlands

PLAN DATE: February 2016 REVIEWED BY: PLA

PREPARED BY: Devin Smith REVIEWED BY:

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL

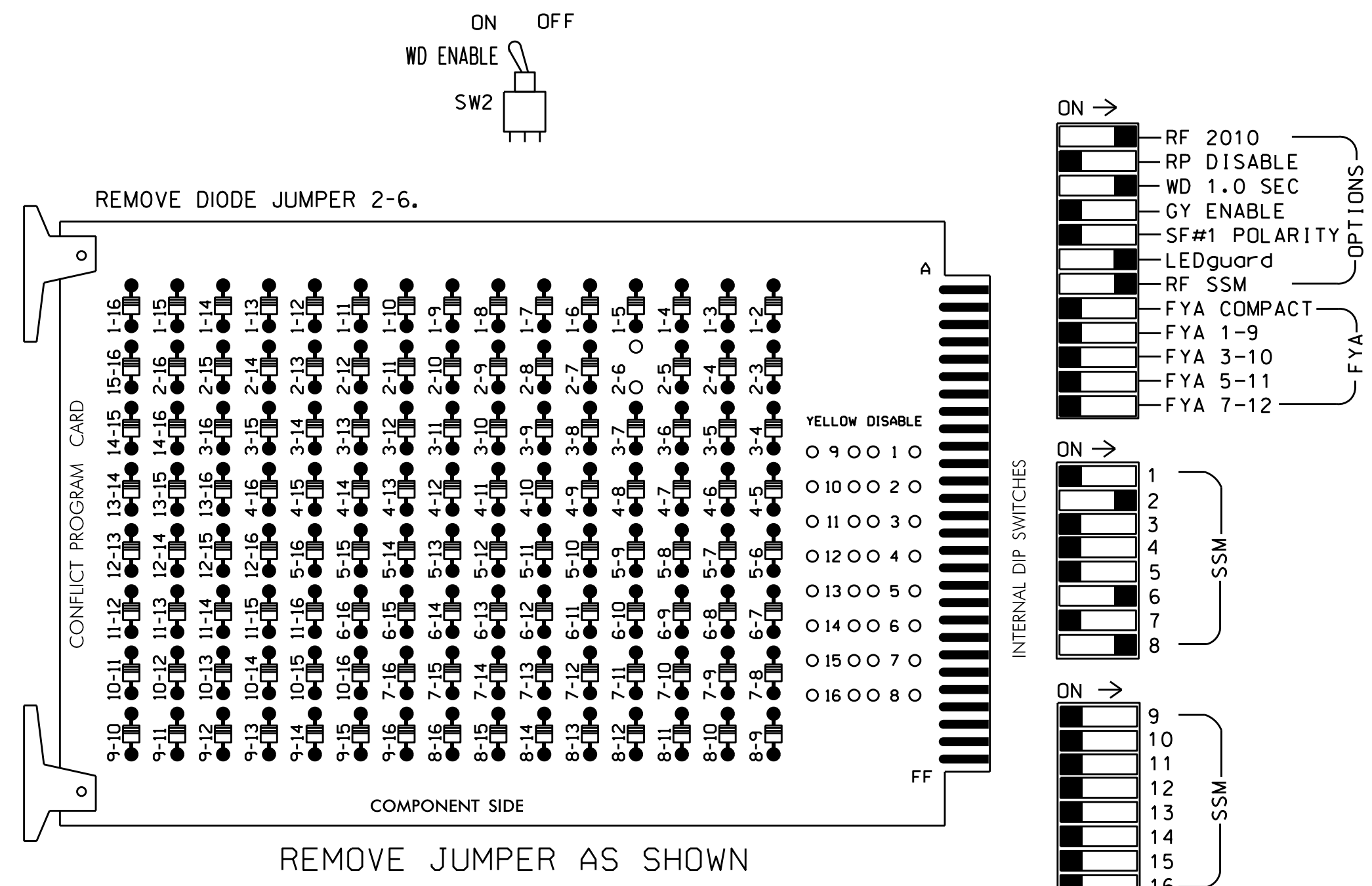
4/21/2016

SIG. INVENTORY NO. 03-0261

2017CPT.03.05.10671.dgn
 S:\2017CPT\03\05\10671\SIGNAL\Signal Design\Section\Eastern Region\03-05-10671.dgn
 2017CPT.03.05.10671.dgn
 2017CPT.03.05.10671.dgn
 2017CPT.03.05.10671.dgn

EDI MODEL 2010ECL-NC CONFLICT MONITOR PROGRAMMING DETAIL

(remove jumper and set switches as shown)



NOTES:

- Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
- Make sure jumpers SEL2-SEL5 are present on the monitor board.

■ = DENOTES POSITION OF SWITCH

NOTES

- To prevent "flash-conflict" problems, insert red flash program blocks for all unused vehicle load switches in the output file. The installer shall verify that signal heads flash in accordance with the Signal Plans.
- To prevent red failures on unused monitor channels, see Red Monitor Board Programming Detail this sheet.
- Enable Simultaneous Gap-Out for all phases.
- Program phases 2 and 6 for Variable Initial and gap Reduction.
- Program phases 2 and 6 for Start Up In Green.
- Program phases 2 and 6 for Yellow Flash.

EQUIPMENT INFORMATION

CONTROLLER.....2070L
CABINET.....McCain/CONTROL TECHNOLOGIES
(DWG.NO.9500-332-NC DOT)
SOFTWARE.....ECONOLITE OASIS
CABINET MOUNT.....BASE
OUTPUT FILE POSITIONS...12
LOAD SWITCHES USED.....S2,S6,S8
PHASES USED.....2,6,8
OVERLAPS.....NONE

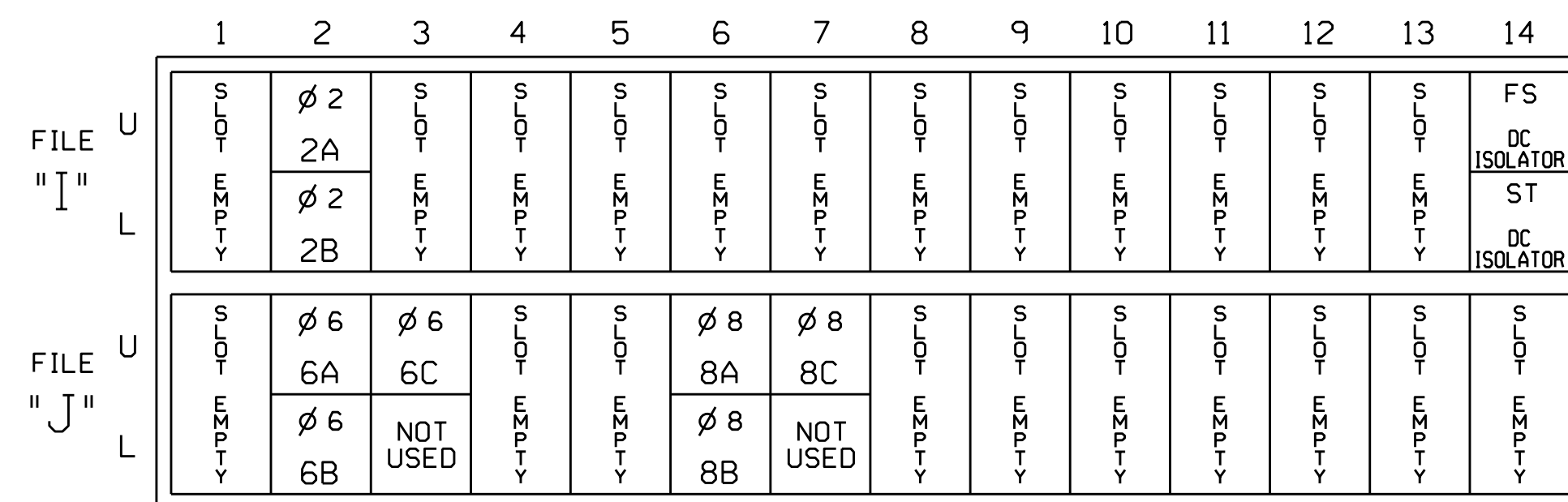
SIGNAL HEAD HOOK-UP CHART

LOAD SWITCH NO.	S1	S2	S2P	S3	S4	S4P	S5	S6	S6P	S7	S8	S8P
PHASE	1	2	2 PED	3	4	4 PED	5	6	6 PED	7	8	8 PED
SIGNAL HEAD NO.	NU	21,22	NU	NU	NU	NU	NU	61,62	NU	NU	81, 82, 83	84
RED		128						134			107	107
YELLOW		129						135			108	
GREEN		130						136			109	
RED ARROW											107	
YELLOW ARROW											108	108
GREEN ARROW											109	109

NU = Not Used

INPUT FILE POSITION LAYOUT

(front view)



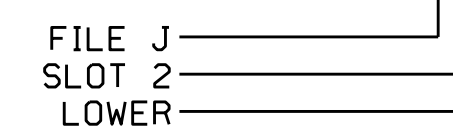
EX.: 1A, 2A, ETC. = LOOP NO.'S

FS = FLASH SENSE
ST = STOP TIME

INPUT FILE CONNECTION & PROGRAMMING CHART

LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	INPUT ASSIGNMENT NO.	DETECTOR NO.	NEMA PHASE	CALL	EXTEND	FULL TIME DELAY	STRETCH TIME	DELAY TIME
2A	TB2-5,6	I2U	39	1	2	2	Y	Y			
2B	TB2-7,8	I2L	43	5	12	2	Y	Y			
6A	TB3-5,6	J2U	40	2	6	6	Y	Y			
6B	TB3-7,8	J2L	44	6	16	6	Y	Y			
6C	TB3-9,10	J3U	64	26	36	6	Y	Y			
8A	TB5-9,10	J6U	42	4	8	8	Y	Y			
8B	TB5-11,12	J6L	46	8	18	8	Y	Y			
8C	TB7-1,2	J7U	66	28	38	8	Y	Y			15

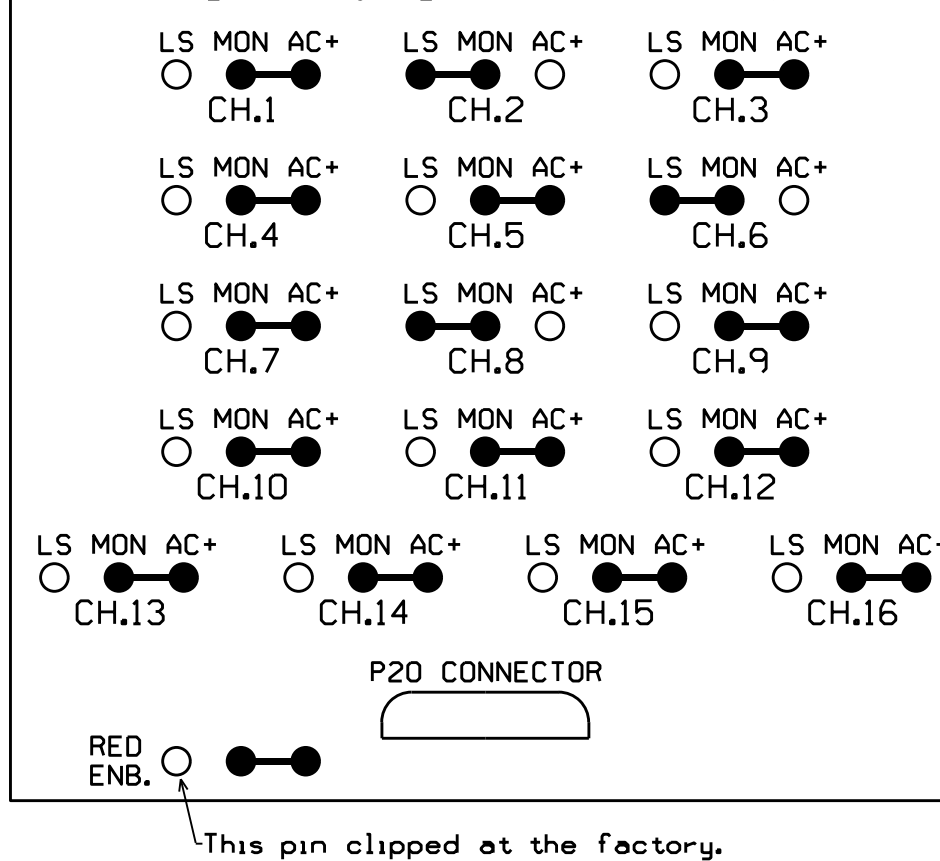
INPUT FILE POSITION LEGEND: J2L



THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 03-0261
DESIGNED: February 2016
SEALED: 4/21/2016
REVISED: N/A

RED MONITOR BOARD PROGRAMMING

(position jumpers as shown below)



Electrical Detail

Electrical and Programming Details For: US 258-NC 24 (Richlands Hwy) at US 258 (Kinston Hwy)/ NC 24 (Beulaville Hwy)

Division 3 Onslow County Richlands

PLAN DATE: March 2016 REVIEWED BY:
PREPARED BY: S. Armstrong REVIEWED BY:

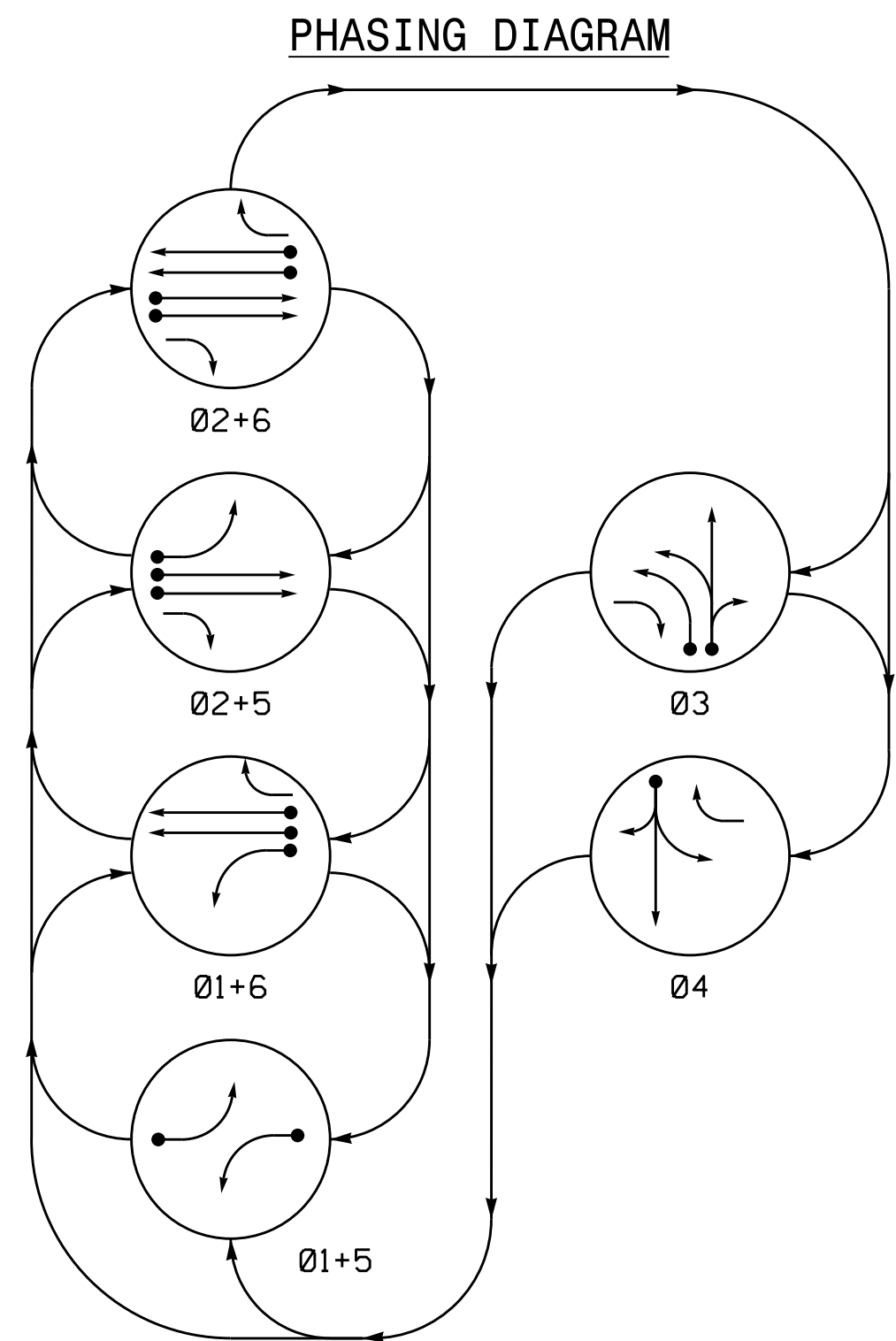
REVISIONS INIT. DATE

750 N. Greenfield Pkwy, Garner, NC 27529

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

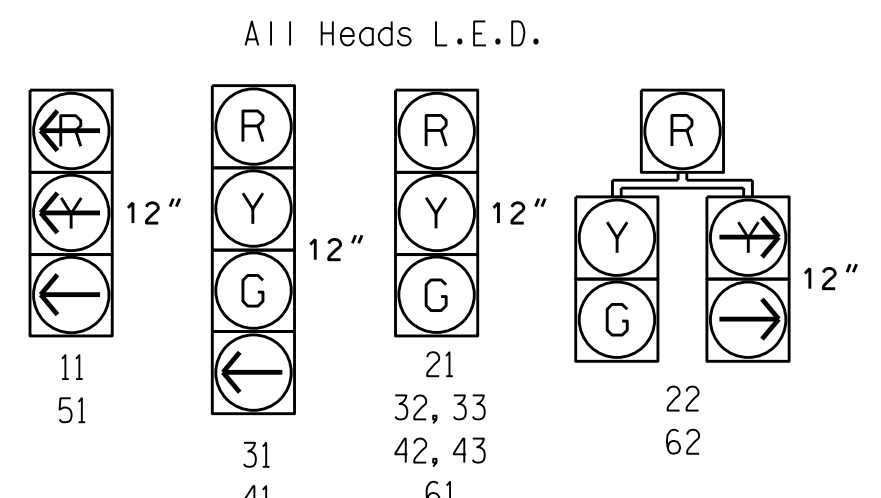
SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
KEITH M. MINS
4/22/2016

SIG. INVENTORY NO. 03-0261



SIGNAL FACE	PHASE					
	01+5	01+6	02+5	02+6	03	04
11	—	—	—	—	—	—
21	R	R	G	G	R	Y
22	R	R	G	G	R	Y
31	R	R	R	R	G	R
32, 33	R	R	R	R	G	R
41	R	R	R	R	G	R
42, 43	R	R	R	R	G	R
51	—	—	—	—	—	—
61	R	G	R	G	R	Y
62	R	G	R	G	R	Y

SIGNAL FACE I.D.

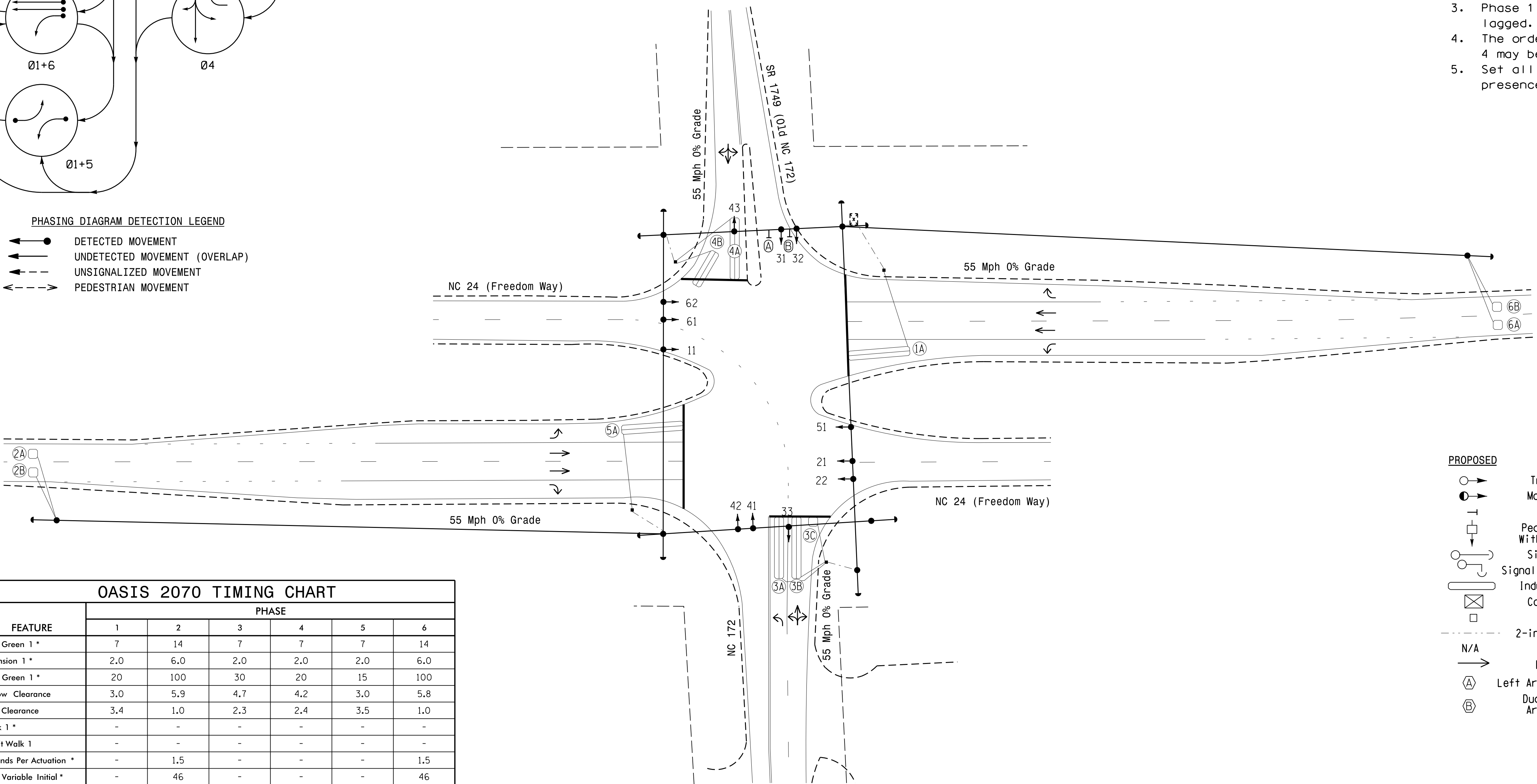
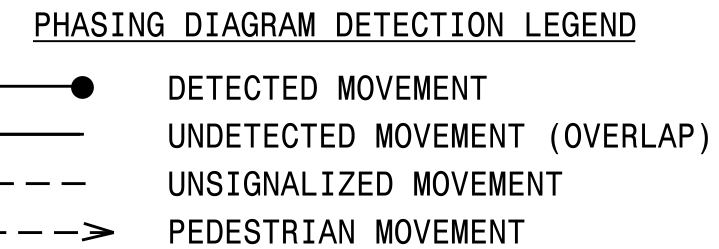


LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	DETECTOR PROGRAMMING									
				NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD	
1A	6X40	0	2-4-2	Y	1	Y	Y	-	-	-	-	-	-
2A, 2B	6X6	420	5	Y	2	Y	Y	-	-	-	-	-	-
3A	6X40	+5	2-4-2	Y	3	Y	Y	-	-	3	-	-	-
3B	6X40	+5	2-4-2	Y	3	Y	Y	-	-	5	-	-	-
3C	6X40	0	2-4-2	Y	3	Y	Y	-	-	15	-	-	-
4A	6X40	+5	2-4-2	Y	4	Y	Y	-	-	5	-	-	-
4B	6X25	+5	2-4-2	Y	4	Y	Y	-	-	15	-	-	-
5A	6X40	0	2-4-2	Y	5	Y	Y	-	-	-	-	-	-
6A, 6B	6X6	420	5	Y	6	Y	Y	-	-	-	-	-	-

6 Phase Fully Actuated Isolated

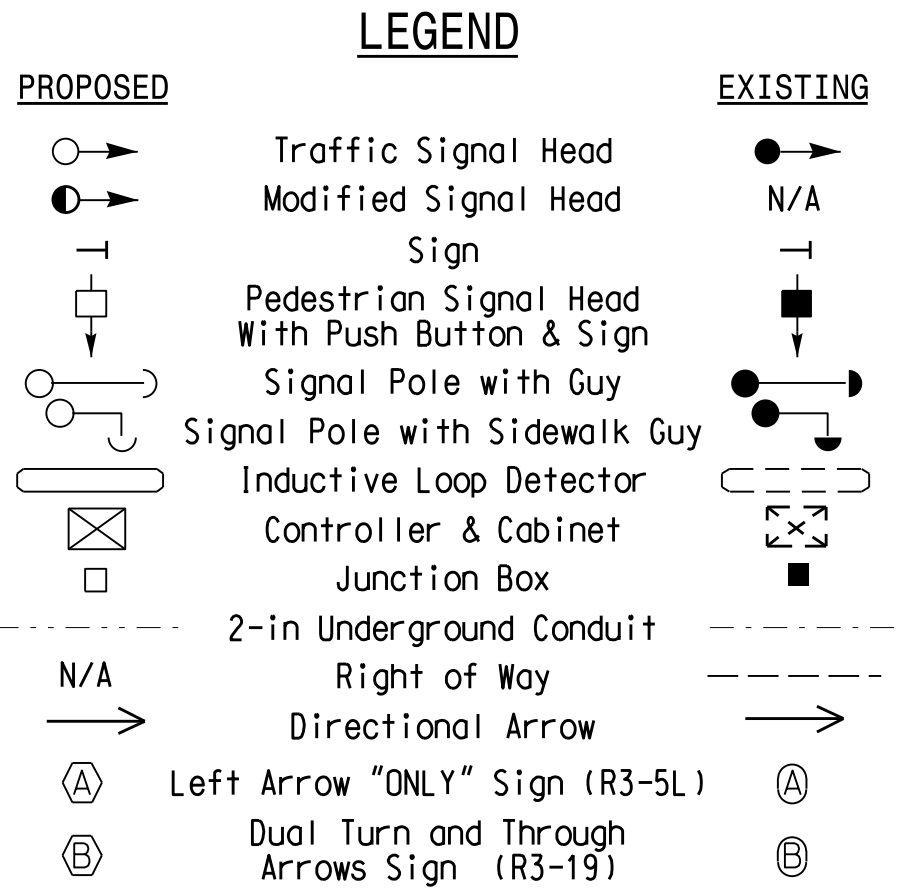
NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "Standard Specifications for Roads and Structures" dated January 2012.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 1 and/or phase 5 may be lagged.
- The order of phase 3 and phase 4 may be reversed.
- Set all detector units to presence mode.



FEATURE	PHASE					
	1	2	3	4	5	6
Min Green 1 *	7	14	7	7	7	14
Extension 1 *	2.0	6.0	2.0	2.0	2.0	6.0
Max Green 1 *	20	100	30	20	15	100
Yellow Clearance	3.0	5.9	4.7	4.2	3.0	5.8
Red Clearance	3.4	1.0	2.3	2.4	3.5	1.0
Walk 1 *	-	-	-	-	-	-
Don't Walk 1	-	-	-	-	-	-
Seconds Per Actuation *	-	1.5	-	-	-	1.5
Max Variable Initial *	-	46	-	-	-	46
Time Before Reduction *	-	15	-	-	-	15
Time To Reduce *	-	30	-	-	-	30
Minimum Gap	-	3.4	-	-	-	3.4
Recall Mode	-	MIN RECALL	-	-	-	MIN RECALL
Vehicle Call Memory	-	YELLOW	-	-	-	YELLOW
Dual Entry	-	-	-	-	-	-
Simultaneous Gap	ON	ON	ON	ON	ON	ON

* These values may be field adjusted. Do not adjust Min Green and Extension times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.



Signal Upgrade

750 N. Greenfield Pkwy, Garner, NC 27529

NC 24 (Freedom Way) at NC 172/SR 1749 (Old NC 172)

Division 3 Onslow County Hubert

PLAN DATE: February 2016 REVIEWED BY: PLA

PREPARED BY: Braden Walker REVIEWED BY:

SEAL

4/19/2016

SCALE 0 40

1"=40'

REVISIONS	INIT.	DATE

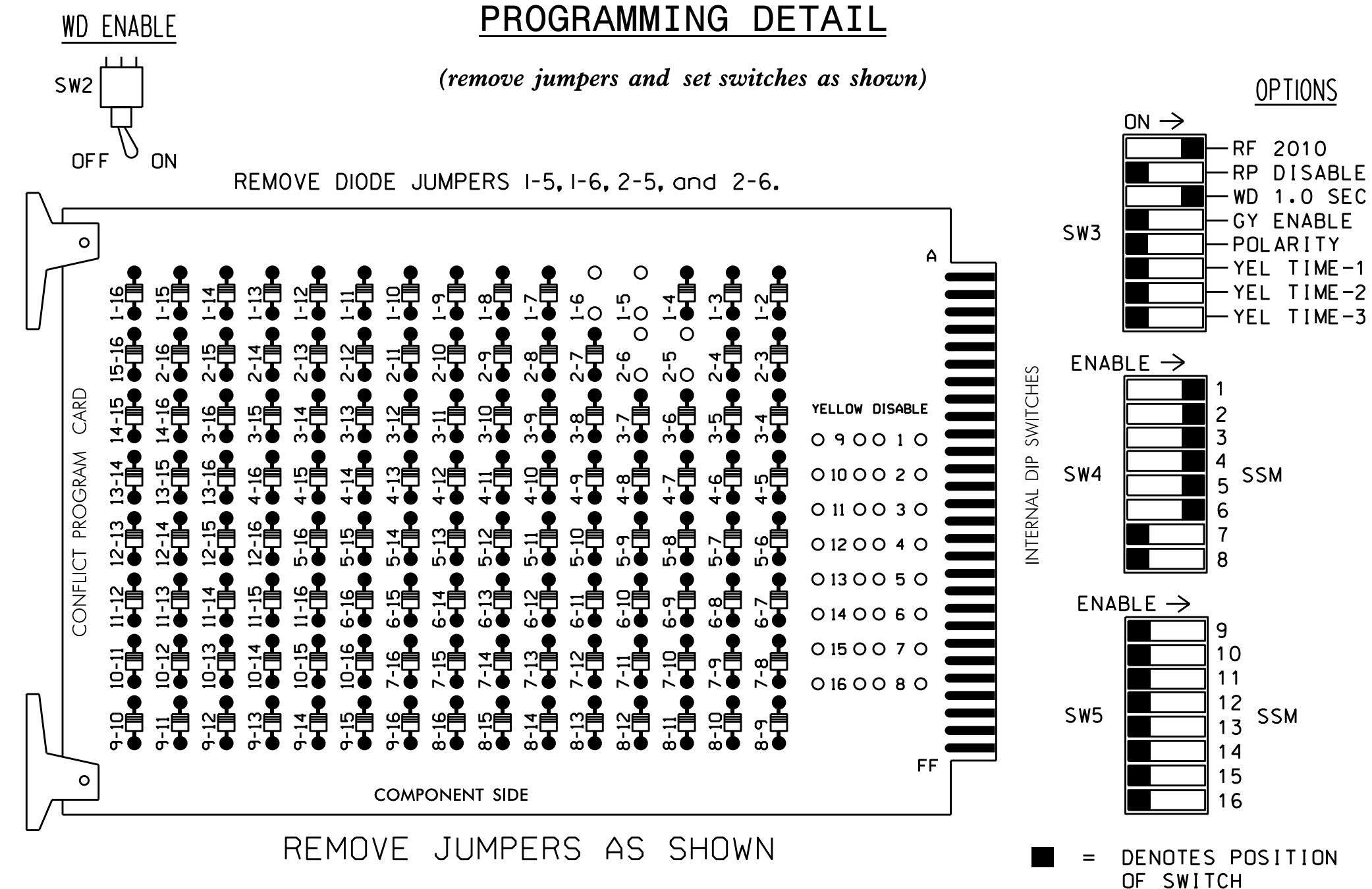
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SIG. INVENTORY NO. 03-0426

10-0496-2016 15:58
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 pal_alexander

EDI MODEL 2010ECL CONFLICT MONITOR

PROGRAMMING DETAIL



NOTES:

- Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
- Make sure jumpers SEL2-SEL5 are present on the monitor board.

NOTES

- To prevent "flash-conflict" problems, insert red flash program blocks for all unused vehicle load switches in the output file. The installer shall verify that signal heads flash in accordance with the Signal Plans.
- Ensure that Red Enable is active at all times during normal operation. To prevent Red Failures on unused monitor channels, tie unused red monitor inputs 7,8, 9,10,11,12,13,14,15 & 16 to load switch AC+ per the cabinet manufacturer's instructions.
- Enable Simultaneous Gap-Out for all phases.
- Program phases 2 and 6 for Variable Initial and Gap Reduction.
- Program phases 2 and 6 for Start Up In Green.
- Program phases 2 and 6 for Yellow Flash.

EQUIPMENT INFORMATION

CONTROLLER.....2070L
 CABINET.....332
 SOFTWARE.....ECONOLITE OASIS
 CABINET MOUNT.....BASE
 OUTPUT FILE POSITIONS...12
 LOAD SWITCHES USED.....S1,S2,S3,S4,S5,S6
 PHASES USED.....1,2,3,4,5,6
 OVERLAPS.....NONE

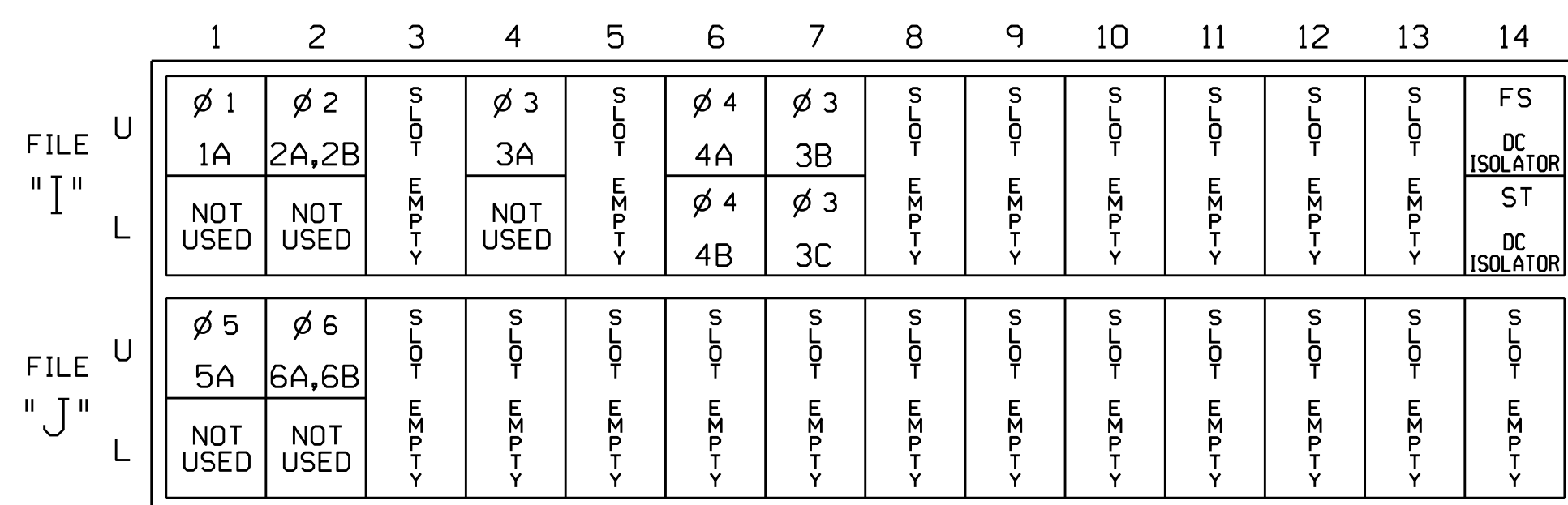
SIGNAL HEAD HOOK-UP CHART

LOAD SWITCH NO.	S1	S2	S2P	S3	S4	S4P	S5	S6	S6P	S7	S8	S8P				
PHASE	1	2	2 PED	3	4	4 PED	5	6	6 PED	7	8	8 PED				
SIGNAL HEAD NO.	11	21,22	NU	22	31	32,33	41	42,43	62	NU	51	61,62	NU	NU	NU	NU
RED		128		116	116	101	101					134				
YELLOW		129		117	117	102	102					135				
GREEN		130		118	118	103	103					136				
RED ARROW	125											131				
YELLOW ARROW	126			117			102		132							
GREEN ARROW	127			118	118	103	103		133							
Hand icon																
Person icon																

NU = Not Used

INPUT FILE POSITION LAYOUT

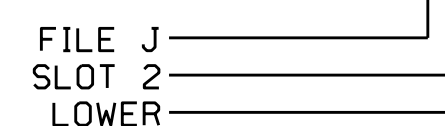
(front view)



INPUT FILE CONNECTION & PROGRAMMING CHART

LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	INPUT ASSIGNMENT NO.	DETECTOR NO.	NEMA PHASE	CALL	EXTEND	FULL TIME DELAY	STRETCH TIME	DELAY TIME
1A	TB2-1,2	I1U	56	18	1	1	Y	Y			
2A,2B	TB2-5,6	I2U	39	1	2	2	Y	Y			
3A	TB4-1,2	I4U	47	9	22	3	Y	Y			3
3B	TB6-1,2	I7U	65	27	34	3	Y	Y			5
3C	TB6-3,4	I7L	78	40	44	3	Y	Y			15
4A	TB4-9,10	I6U	41	3	4	4	Y	Y			5
4B	TB4-11,12	I6L	45	7	14	4	Y	Y			15
5A	TB3-1,2	J1U	55	17	5	5	Y	Y			
6A,6B	TB3-5,6	J2U	40	2	6	6	Y	Y			

INPUT FILE POSITION LEGEND: J2L



THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 03-0426
 DESIGNED: February 2016
 SEALED: 4-19-16
 REVISED: N/A

Signal Upgrade

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISION SEAL

DocuSigned by: Keith M. Mims 4/20/2016

ELECTRICAL AND PROGRAMMING DETAILS FOR:

Prepared in the Offices of:

750 N. Greenfield Pkwy, Garner, NC 27529

NC 24 (Freedom Way) at NC 172/SR 1749 (Old NC 172)

Division 3 Onslow County Hubert

PLAN DATE: February 2010 REVIEWED BY: T. Joyce

PREPARED BY: S. Armstrong REVIEWED BY:

REVISIONS: No change to electrical detail. (UP)

DATE: 4/20/2016

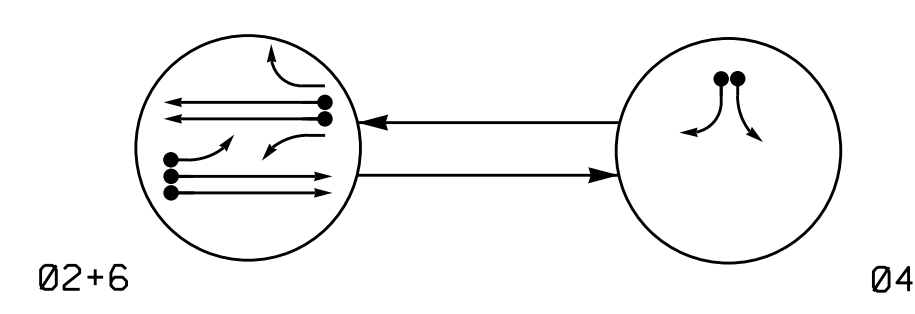
SEAL

Not a certified document as to the Original Document but only as to the Revisions - This document originally issued and sealed by George C. Brown, PE #022013, on 2-25-10. This document is only certified as to the revisions.

SIGNATURE: DATE: SIG. INVENTORY NO. 03-0426

2017CPT.03.05.10671.dgn
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 T. Peterson

PHASING DIAGRAM



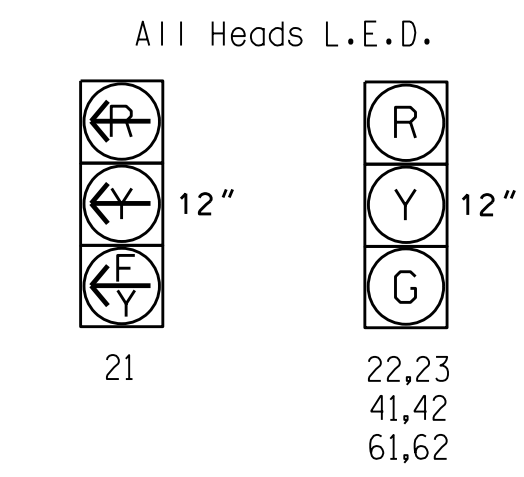
PHASING DIAGRAM DETECTION LEGEND

- ←● DETECTED MOVEMENT
- ← UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- ←--- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE		
	02+6	04	F L EOP
21	F	R	Y
22,23	G	R	Y
41,42	R	G	R
61,62	G	R	Y

SIGNAL FACE I.D.



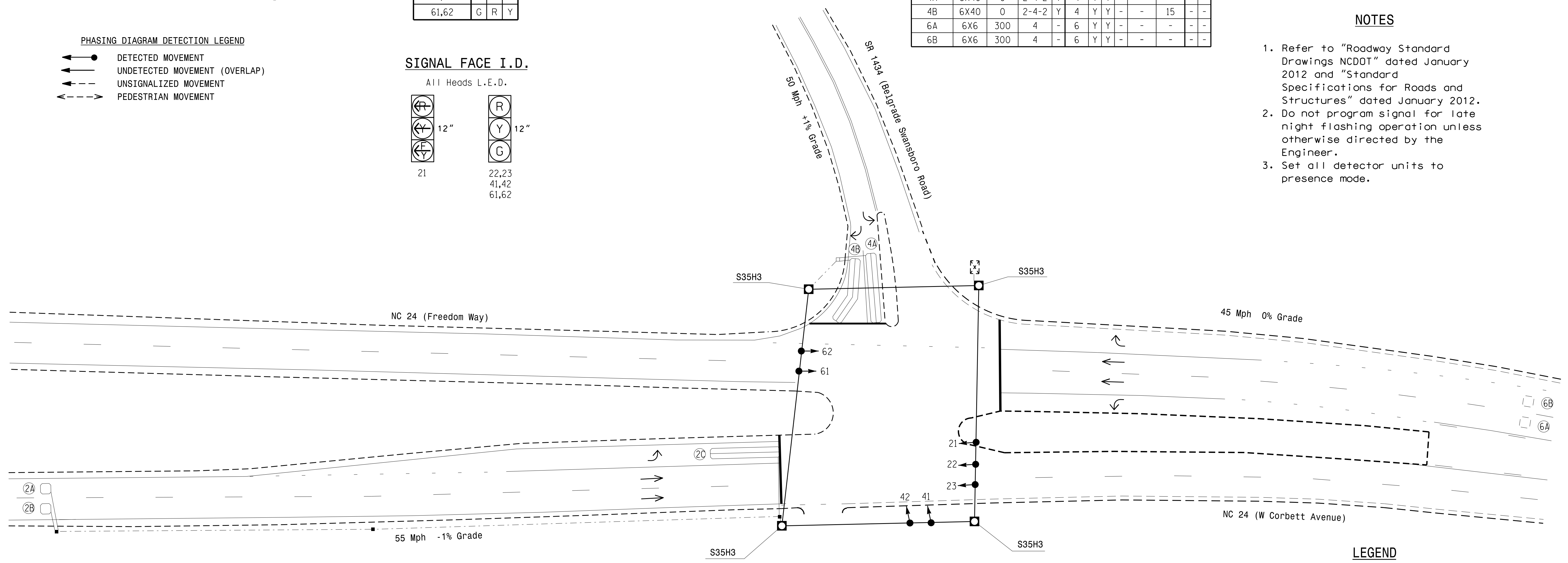
OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	DETECTOR PROGRAMMING						
					PHASE	CALLING	EXTENSION	STRETCH TIME	DELAY TIME	LOOP SYSTEM	NEW CARD
2A	6X6	420	6	Y	2	Y	Y	-	-	-	-
2B	6X6	420	6	Y	2	Y	Y	-	-	-	-
2C	6X40	0	2-4-2	Y	2	Y	Y	Y	-	3	-
4A	6X40	0	2-4-2	Y	4	Y	Y	-	-	-	-
4B	6X40	0	2-4-2	Y	4	Y	Y	-	-	15	-
6A	6X6	300	4	-	6	Y	Y	-	-	-	-
6B	6X6	300	4	-	6	Y	Y	-	-	-	-

2 Phase Fully Actuated Isolated

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "Standard Specifications for Roads and Structures" dated January 2012.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Set all detector units to presence mode.



OASIS 2070 TIMING CHART

FEATURE	PHASE		
	2	4	6
Min Green 1 *	14	7	12
Extension 1 *	6.0	2.0	6.0
Max Green 1 *	90	20	90
Yellow Clearance	5.3	3.0	5.3
Red Clearance	1.9	3.2	1.9
Walk 1 *	-	-	-
Don't Walk 1	-	-	-
Seconds Per Actuation *	1.5	-	1.5
Max Variable Initial *	46	-	34
Time Before Reduction *	15	-	15
Time To Reduce *	30	-	30
Minimum Gap	3.4	-	3.0
Recall Mode	MIN RECALL	-	MIN RECALL
Vehicle Call Memory	YELLOW	-	YELLOW
Dual Entry	-	-	-
Simultaneous Gap	ON	ON	ON

* These values may be field adjusted. Do not adjust Min Green and Extension times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

LEGEND

PROPOSED	EXISTING
○ → Traffic Signal Head	● → N/A
● → Modified Signal Head	○ → Sign
⊥ Pedestrian Signal Head	⊥
○ ⊥ Signal Pole with Guy	● ⊥
○ ⊥ Signal Pole with Sidewalk Guy	● ⊥
□ ⊥ Inductive Loop Detector	□ ⊥
□ ⊥ Controller & Cabinet Junction Box	□ ⊥
□ ⊥ 2-in Underground Conduit	□ ⊥
→ Right of Way	→
→ Directional Arrow	→
○ Metal Strain Pole	○

Signal Upgrade

Prepared in the Offices of:

NC 24 (Freedom Way) / (W Corbett Avenue) at SR 1434 (Belgrade-Swansboro Rd)

Division 3 Onslow County Swansboro

PLAN DATE: February 2016 REVIEWED BY: PLA

PREPARED BY: Braden Walker REVIEWED BY:

REVISIONS INIT. DATE

SCALE 0 30 1"=30'

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL NORTH CAROLINA PROFESSIONAL ENGINEER PAMELA L. ALEXANDER ENGINEER 023489

DocuSigned by: P. Alexander 4/19/2016

SIG. INVENTORY NO. 03-1075

19-APR-2016 16:10 S:\PROJECTS\Signal Design\Section\Eastern\Reg\01\03\03\1075\sig_dsn_2016madd.dgn p:\alexander

OVERLAP PROGRAMMING DETAIL

(program controller as shown below)

FROM MAIN MENU PRESS '8' (OVERLAPS), THEN '1' (VEHICLE OVERLAP SETTINGS).

PAGE 1: VEHICLE OVERLAP 'A' SETTINGS
PHASE: 12345678910111213141516
VEH OVL PARENTS: X
VEH OVL NOT VEH:
VEH OVL NOT PED:
VEH OVL GRN EXT:
STARTUP COLOR: RED YELLOW GREEN
FLASH COLORS: RED YELLOW GREEN
SELECT VEHICLE OVERLAP OPTIONS: (Y/N)
FLASH YELLOW IN CONTROLLER FLASH?..N
GREEN EXTENSION (0-255 SEC)...0.0
YELLOW CLEAR (0=PARENT,3-25.5 SEC)..0.0
RED CLEAR (0=PARENT,0.1-25.5 SEC)...0.0
OUTPUT AS PHASE # (0=NONE, 1-16)...0

PRESS '+'

PAGE 1: VEHICLE OVERLAP 'B' SETTINGS
PHASE: 12345678910111213141516
VEH OVL PARENTS: X
VEH OVL NOT VEH:
VEH OVL NOT PED:
VEH OVL GRN EXT:
STARTUP COLOR: RED YELLOW GREEN
FLASH COLORS: RED YELLOW GREEN
SELECT VEHICLE OVERLAP OPTIONS: (Y/N)
FLASH YELLOW IN CONTROLLER FLASH?..N
GREEN EXTENSION (0-255 SEC)...0.0
YELLOW CLEAR (0=PARENT,3-25.5 SEC)..0.0
RED CLEAR (0=PARENT,0.1-25.5 SEC)...0.0
OUTPUT AS PHASE # (0=NONE, 1-16)...0

PRESS '+' TWICE

PAGE 1: VEHICLE OVERLAP 'D' SETTINGS
PHASE: 12345678910111213141516
VEH OVL PARENTS: X
VEH OVL NOT VEH:
VEH OVL NOT PED:
VEH OVL GRN EXT:
STARTUP COLOR: RED YELLOW GREEN
FLASH COLORS: RED YELLOW GREEN
SELECT VEHICLE OVERLAP OPTIONS: (Y/N)
FLASH YELLOW IN CONTROLLER FLASH?..N
GREEN EXTENSION (0-255 SEC)...0.0
YELLOW CLEAR (0=PARENT,3-25.5 SEC)..0.0
RED CLEAR (0=PARENT,0.1-25.5 SEC)...0.0
OUTPUT AS PHASE # (0=NONE, 1-16)...0

OVERLAP PROGRAMMING COMPLETE

EMERGENCY VEHICLE PREEMPTION PROGRAMMING DETAIL

(program controller as shown below)

From Main Menu press 'A' (Preemption), then '1' (Standard Preemptions). Press 'NEXT' as needed to advance to Preempts 3, 4 and 5.

PREEMPTION #3 SETTINGS (NEXT:1-10)
INTERVAL/TIMING CLEAR/DWELL PHASES
GRN YEL RED 12345678910111213141516
1 255 0.0 0.0 X X
2 0 0.0 0.0
3 0 0.0 0.0
4 0 0.0 0.0
5 0 0.0 0.0
EXIT CALLS
OPTIONS
PRIORITY (Y/N TO SELECT)MED
DELAY TIMER (0-255 SEC)0
MIN GREEN BEFORE PRE (0= DEFAULT)...1
PED CLEAR BEFORE PRE (0= DEFAULT)...0
YELLOW CLEAR BEFORE PRE (0= DEFAULT).0.0
RED CLEAR BEFORE PRE (0= DEFAULT)...0.0
DWELL MIN TIMER (0-255 SEC)12
DWELL MAX TIMER (0=OFF,1-255MIN)0
DWELL HOLD-OVER TIMER (0-255)0
LATCH CALL?N
LINK TO NEXT PREEMPT?N
ENABLE BACKUP PROTECTION?N
HOLD CLEAR 1 PHASES DURING DELAY? ..N
FAST GREEN FLASH DWELL PHASES?N
PED CLEARANCE THROUGH YELLOW?Y
INHIBIT OVERLAP GREEN EXTENSION? ..N
SERVICE DURING SOFTWARE FLASH?N
REST IN RED DURING DWELL INTERVAL? ..N
FLASH DWELL INTERVAL?N
ALLOW PEDS IN DWELL INTERVAL?N
RE-TIME DWELL INTERVAL?N
OVERLAPS: ABCDEFGHIJKLMNPO
DWELL INT FLASH YELLOW
OMIT OVERLAPS: X

PRESS 'NEXT'

PREEMPTION #4 SETTINGS (NEXT:1-10)
INTERVAL/TIMING CLEAR/DWELL PHASES
GRN YEL RED 12345678910111213141516
1 255 0.0 0.0 X X
2 0 0.0 0.0
3 0 0.0 0.0
4 0 0.0 0.0
5 0 0.0 0.0
EXIT CALLS
OPTIONS
PRIORITY (Y/N TO SELECT)MED
DELAY TIMER (0-255 SEC)0
MIN GREEN BEFORE PRE (0= DEFAULT)...1
PED CLEAR BEFORE PRE (0= DEFAULT)...0
YELLOW CLEAR BEFORE PRE (0= DEFAULT).0.0
RED CLEAR BEFORE PRE (0= DEFAULT)...0.0
DWELL MIN TIMER (0-255 SEC)12
DWELL MAX TIMER (0=OFF,1-255MIN)0
DWELL HOLD-OVER TIMER (0-255)0
LATCH CALL?N
LINK TO NEXT PREEMPT?N
ENABLE BACKUP PROTECTION?N
HOLD CLEAR 1 PHASES DURING DELAY? ..N
FAST GREEN FLASH DWELL PHASES?N
PED CLEARANCE THROUGH YELLOW?Y
INHIBIT OVERLAP GREEN EXTENSION? ..N
SERVICE DURING SOFTWARE FLASH?N
REST IN RED DURING DWELL INTERVAL? ..N
FLASH DWELL INTERVAL?N
ALLOW PEDS IN DWELL INTERVAL?N
RE-TIME DWELL INTERVAL?N
OVERLAPS: ABCDEFGHIJKLMNPO
DWELL INT FLASH YELLOW
OMIT OVERLAPS: X

PRESS 'NEXT'

PREEMPTION #5 SETTINGS (NEXT:1-10)
INTERVAL/TIMING CLEAR/DWELL PHASES
GRN YEL RED 12345678910111213141516
1 255 0.0 0.0 X X
2 0 0.0 0.0
3 0 0.0 0.0
4 0 0.0 0.0
5 0 0.0 0.0
EXIT CALLS
OPTIONS
PRIORITY (Y/N TO SELECT)MED
DELAY TIMER (0-255 SEC)0
MIN GREEN BEFORE PRE (0= DEFAULT)...1
PED CLEAR BEFORE PRE (0= DEFAULT)...0
YELLOW CLEAR BEFORE PRE (0= DEFAULT).0.0
RED CLEAR BEFORE PRE (0= DEFAULT)...0.0
DWELL MIN TIMER (0-255 SEC)7
DWELL MAX TIMER (0=OFF,1-255MIN)0
DWELL HOLD-OVER TIMER (0-255)0
LATCH CALL?N
LINK TO NEXT PREEMPT?N
ENABLE BACKUP PROTECTION?N
HOLD CLEAR 1 PHASES DURING DELAY? ..N
FAST GREEN FLASH DWELL PHASES?N
PED CLEARANCE THROUGH YELLOW?Y
INHIBIT OVERLAP GREEN EXTENSION? ..N
SERVICE DURING SOFTWARE FLASH?N
REST IN RED DURING DWELL INTERVAL? ..N
FLASH DWELL INTERVAL?N
ALLOW PEDS IN DWELL INTERVAL?N
RE-TIME DWELL INTERVAL?N
OVERLAPS: ABCDEFGHIJKLMNPO
DWELL INT FLASH YELLOW
OMIT OVERLAPS: X

PROGRAMMING COMPLETE

Program extend time on optical detector unit for 2.0 seconds.

THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 03-0091
DESIGNED: October 2016
SEALED: 10-20-16
REVISED: N/A

Electrical Detail -Sheet 2 of 2

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

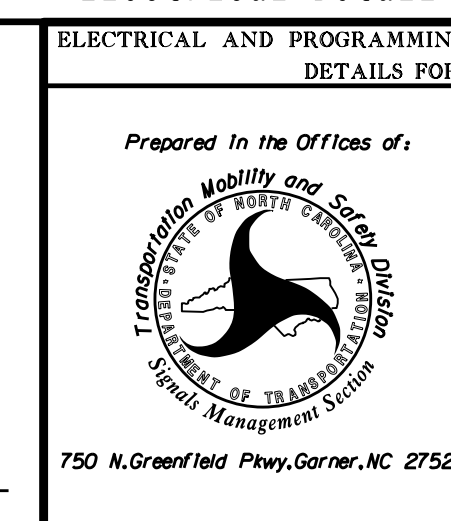
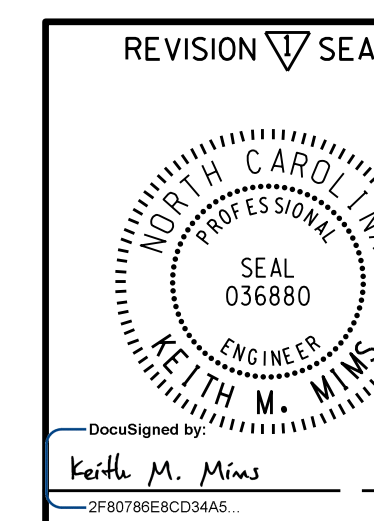
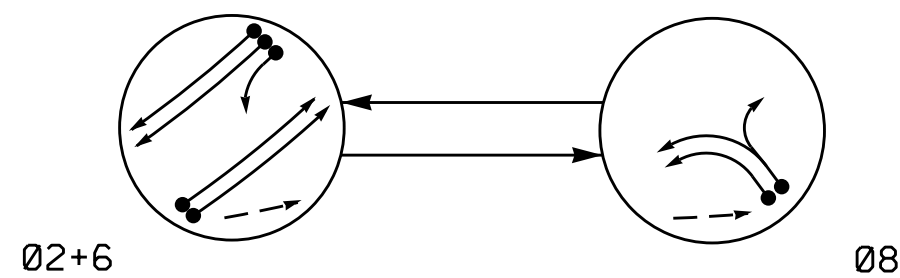


Table with project details: US 17 Bus. (Marine Boulevard) at SR 1336/1718 (Onslow Dr). Includes plan date (5-5-11), prepared by (D.H. Spaulding), and a table for revisions with columns for number, date, and description.

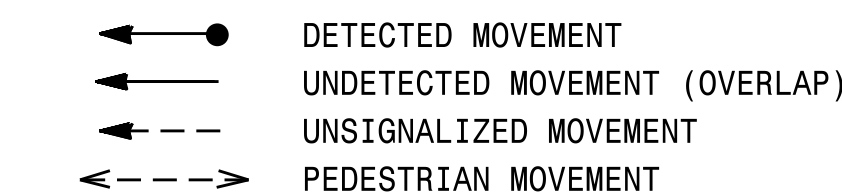
Signature and date box for the certifying professional, including the text: 'Not a certified document as to the Original Document but only as to the Revisions - This document originally issued and sealed by George C. Brown, PE #022013, on 5-27-11. This document is only certified as to the revisions.'

Vertical text on the left margin: 2/4/2016 11:37 S:\ITS\ASU\ITS_Sig\m\work\hgc\bus\sig_m\m\m\m\emp#030091_sml.e 20161110.dgn

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND



EV PREEMPT PHASES
(Medium Priority)

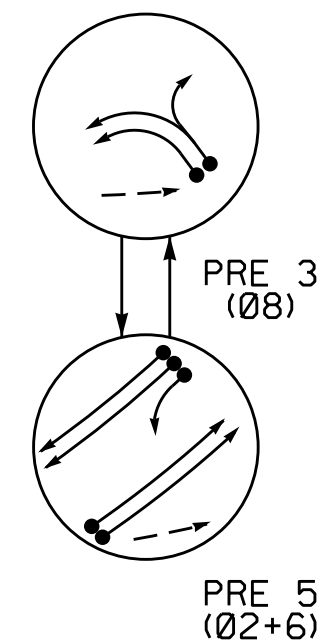
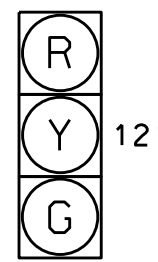


TABLE OF OPERATION		PHASE				
SIGNAL FACE	Ø 2+6	Ø 8	PRE 3	PRE 5	FLASH	
21,22	G	R	R	G	Y	
61,62	G	R	R	G	Y	
81,82,83	R	G	G	R	R	

SIGNAL FACE I.D.

All Heads L.E.D.



21, 22
61, 62
81, 82, 83

OASIS 2070 LOOP & DETECTOR INSTALLATION CHART												
INDUCTIVE LOOPS				DETECTOR PROGRAMMING								
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SIGNAL LOOP	NEW CARD
2A,2B	6X6	70	4	Y	2	Y	Y	-	-	-	-	-
6A,6B	6X6	70	4	Y	6	Y	Y	-	-	-	-	-
6C	6X40	0	2-4-2	Y	6	Y	Y	-	-	-	-	Y
8A	6X40	0	2-4-2	-	8	Y	Y	-	-	3	-	-
8B	6X40	0	2-4-2	-	8	Y	Y	-	-	5	-	-

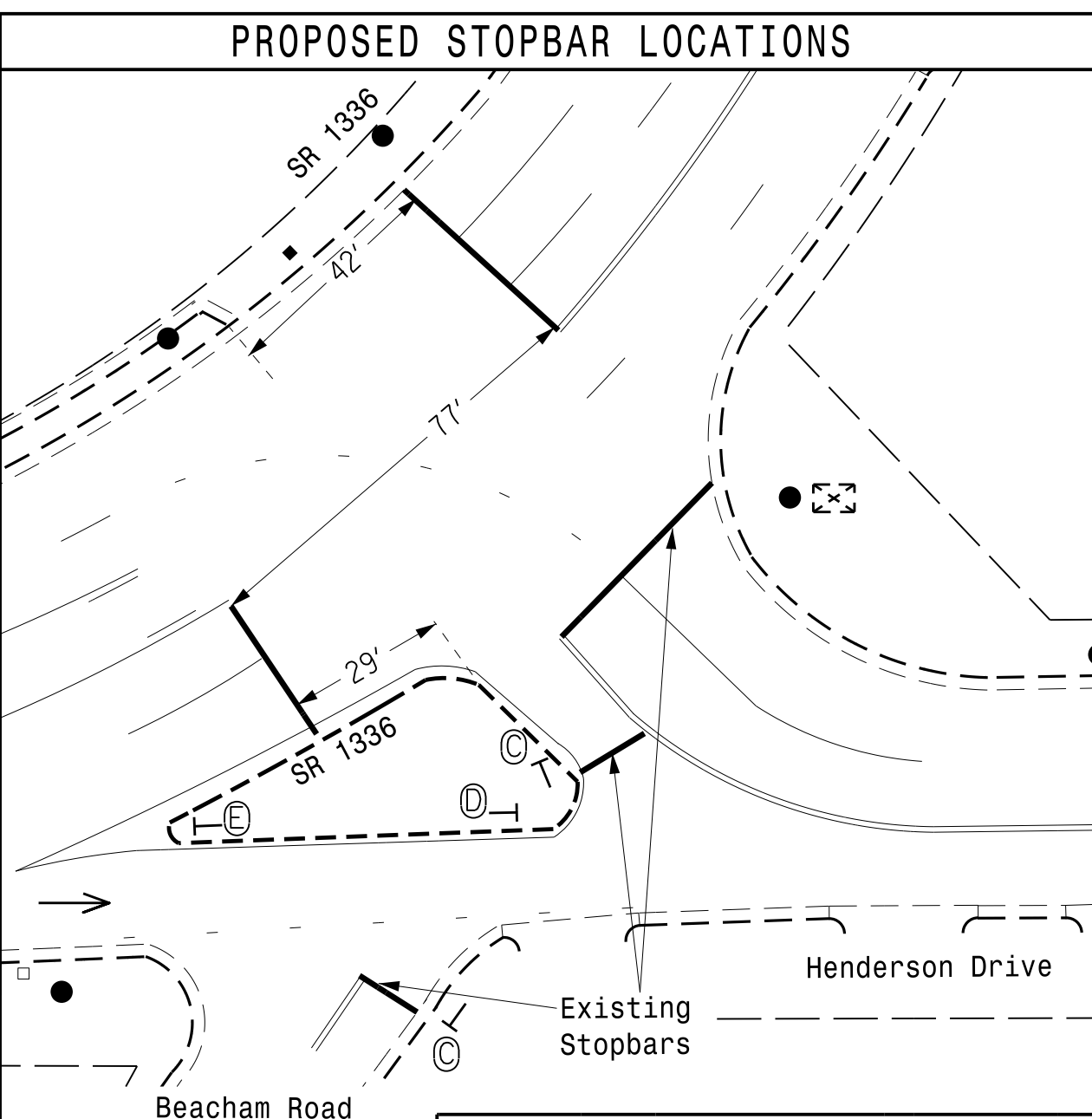
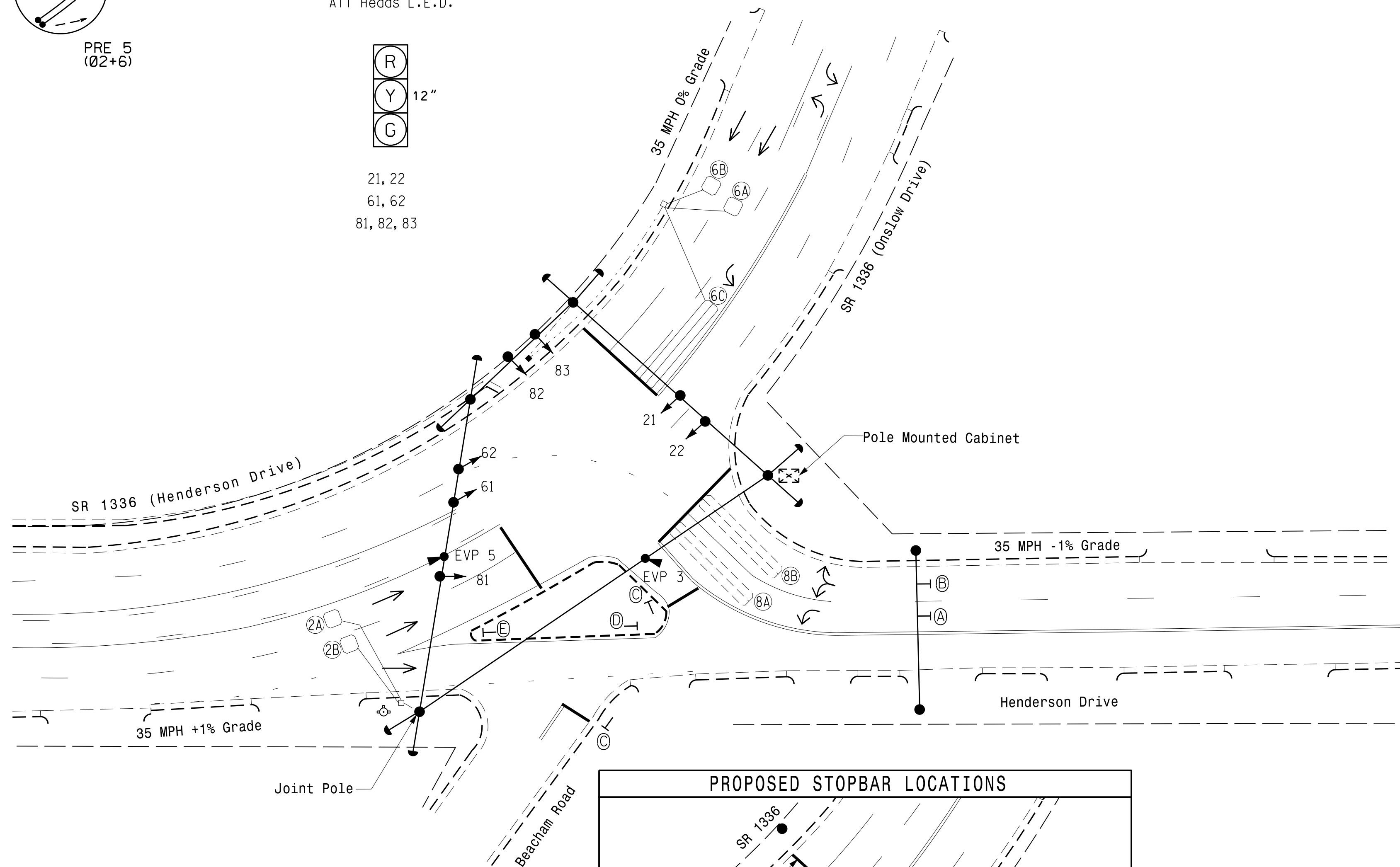
2 Phase
Fully Actuated w/EV Preempt
Jacksonville Signal System

NOTES

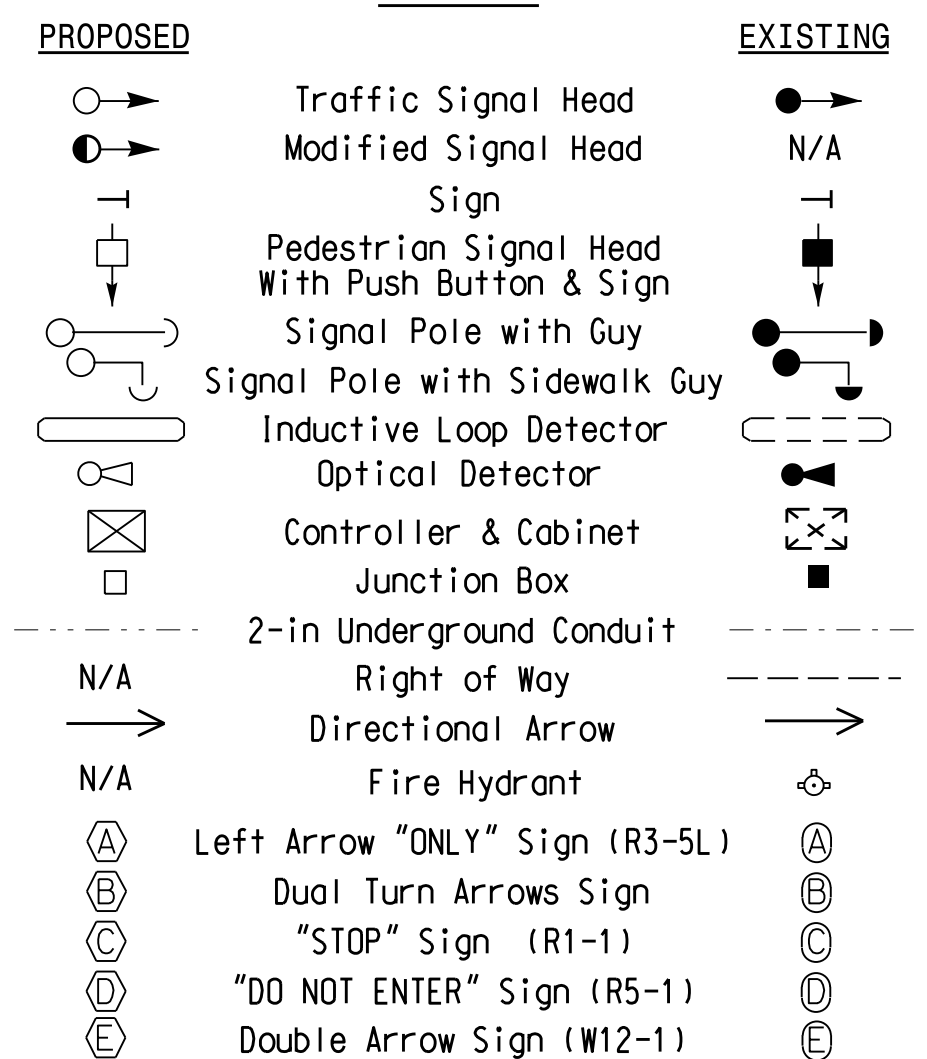
1. Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "Standard Specifications for Roads and Structures" dated January 2012.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Set all detector units to presence mode.
4. This intersection features an optical preemption system. Shown locations of optical detectors are conceptual only.
5. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
6. Controller Asset #0105.

OASIS 2070 EV PREEMPTION		
FUNCTION	PRE 3	PRE 5
Interval 1 - Dwell Green	255	255
Interval 1 - Dwell Yellow	0.0*	0.0*
Interval 1 - Dwell Red	0.0*	0.0*
Interval 5 - Exit Green	0	0
Interval 5 - Yellow	0.0	0.0
Interval 5 - Red	0.0	0.0
Priority	MEDIUM	MEDIUM
Delay Time	0.0	0.0
Min Green Before Pre	1	1
Ped Clear Before Pre	0 *	0 *
Yellow Clear Before Pre	0.0*	0.0*
Red Clear Before Pre	0.0*	0.0*
Dwell Min Time	7	10
Enable Backup Protection	N	N
Ped Clear Through Yellow	N	N
Preempt Extend**	2	2
Omit Overlaps	-	-

* Time defaults to time used for phase during normal operation
** Program Timing on Optical Detection Unit



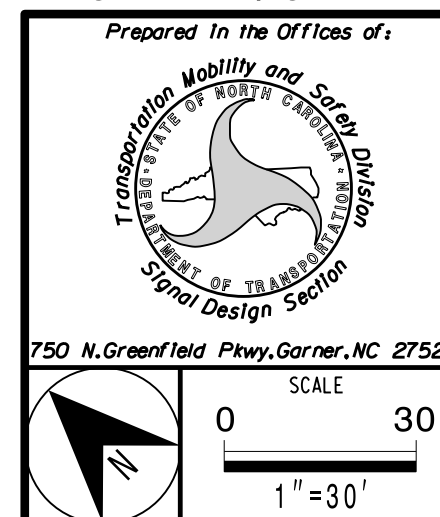
LEGEND



OASIS 2070 TIMING CHART			
FEATURE	PHASE		
	2	6	8
Min Green 1 *	10	10	7
Extension 1 *	3.0	3.0	2.0
Max Green 1 *	30	30	25
Yellow Clearance	3.8	3.8	3.0
Red Clearance	1.7	1.7	3.3
Walk 1 *	-	-	-
Don't Walk 1	-	-	-
Seconds Per Actuation *	-	-	-
Max Variable Initial *	-	-	-
Time Before Reduction *	-	-	-
Time To Reduce *	-	-	-
Minimum Gap	-	-	-
Recall Mode	MIN RECALL	MIN RECALL	-
Vehicle Call Memory	YELLOW	YELLOW	-
Dual Entry	-	-	-
Simultaneous Gap	ON	ON	ON

* These values may be field adjusted. Do not adjust Min Green and Extension times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

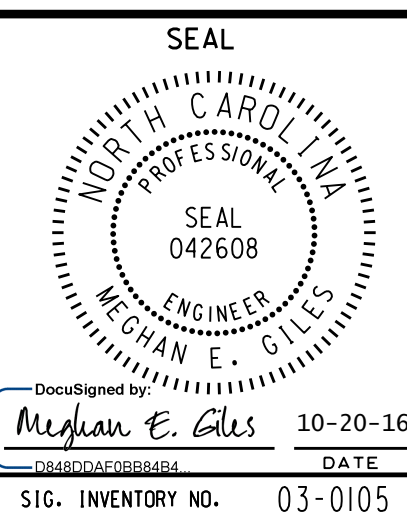
Signal Upgrade



SR 1336 (Henderson Dr)/(Onslow Dr)
at
Henderson Drive
Division 3 Onslow County Jacksonville

PLAN DATE: October 2016 REVIEWED BY: M.E.Giles, PE
PREPARED BY: EM Minshew REVIEWED BY:

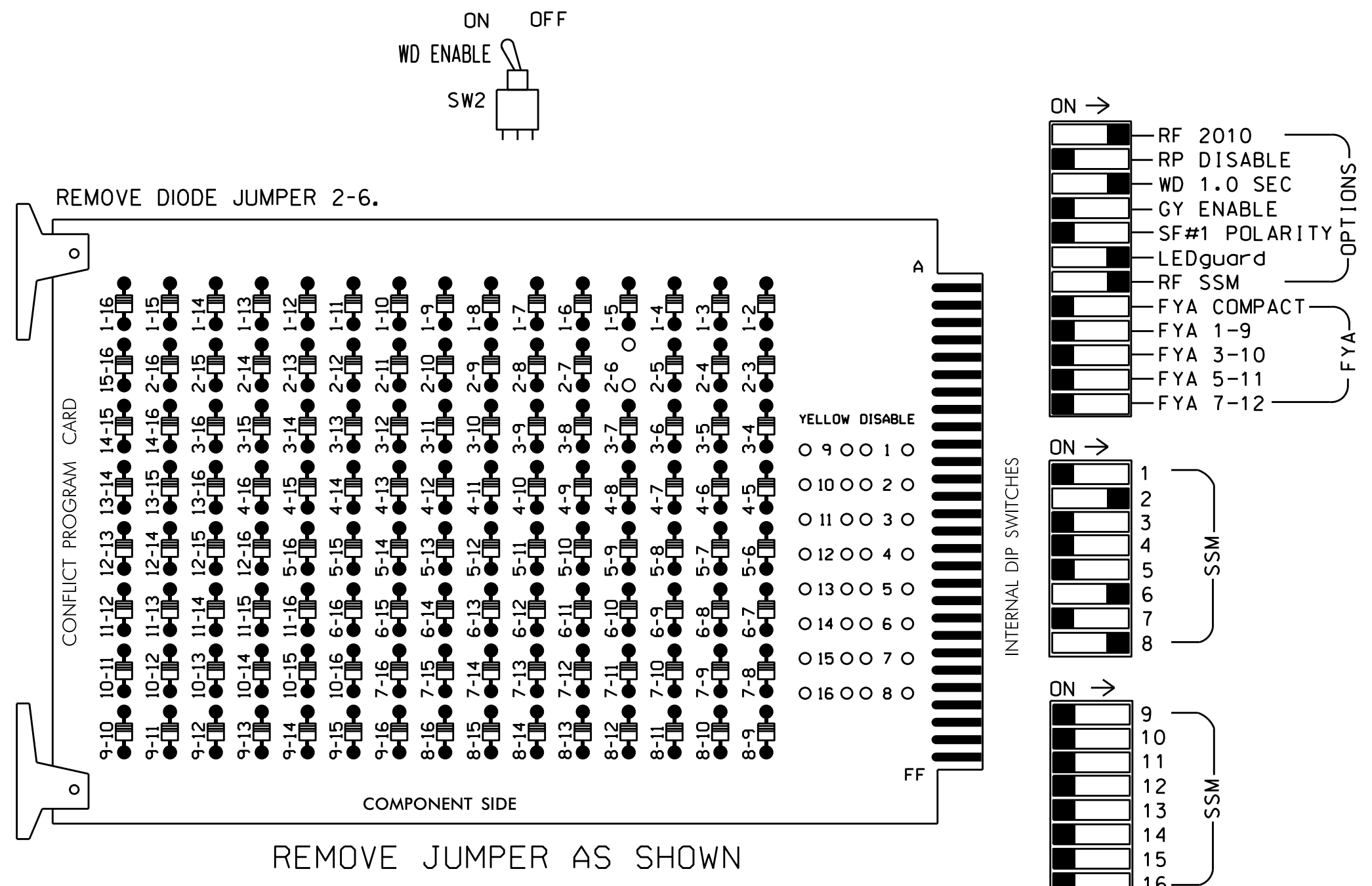
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



Sig. Inventory No. 03-0105

EDI MODEL 2010ECL-NC CONFLICT MONITOR PROGRAMMING DETAIL

(remove jumper and set switches as shown)



- NOTES:**
- 1. Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
 - 2. Make sure jumpers SEL2-SEL5 are present on the monitor board.

NOTES

- To prevent "flash-conflict" problems, insert red flash program blocks for all unused vehicle load switches in the output file. The installer shall verify that signal heads flash in accordance with the Signal Plans.
- Ensure that Red Enable is active at all times during normal operation. To prevent Red Failures on unused monitor channels, tie unused red monitor inputs 1,3,4,5, 7,9,10,11,12,13,14,15 & 16 to load switch AC+ per the cabinet manufacturer's instructions.
- Enable Simultaneous Gap-Out for all phases.
- Program phases 2 and 6 for Start Up In Green.
- Program phases 2 and 6 for Yellow Flash.
- The cabinet and controller are part of the Jacksonville City Signal System.

SIGNAL HEAD HOOK-UP CHART

LOAD SWITCH NO.	S1	S2	S2P	S3	S4	S4P	S5	S6	S6P	S7	S8	S8P
PHASE	1	2	2 PED	3	4	4 PED	5	6	6 PED	7	8	8 PED
SIGNAL HEAD NO.	NU	21,22	NU	NU	NU	NU	NU	61,62	NU	NU	81, 82,83	NU
RED		128						134			107	
YELLOW		129						135			108	
GREEN		130						136			109	
RED ARROW												
YELLOW ARROW												
GREEN ARROW												

NU = Not Used

EQUIPMENT INFORMATION

CONTROLLER.....2070L
 CABINET.....336
 SOFTWARE.....ECONOLITE OASIS (3.03. 32E or later approved version)
 CABINET MOUNT.....POLE
 OUTPUT FILE POSITIONS...12
 LOAD SWITCHES USED.....S2,S6,S8
 PHASES USED.....2,6,8
 OVERLAPS.....NONE

EMERGENCY VEHICLE PREEMPTION PROGRAMMING DETAIL

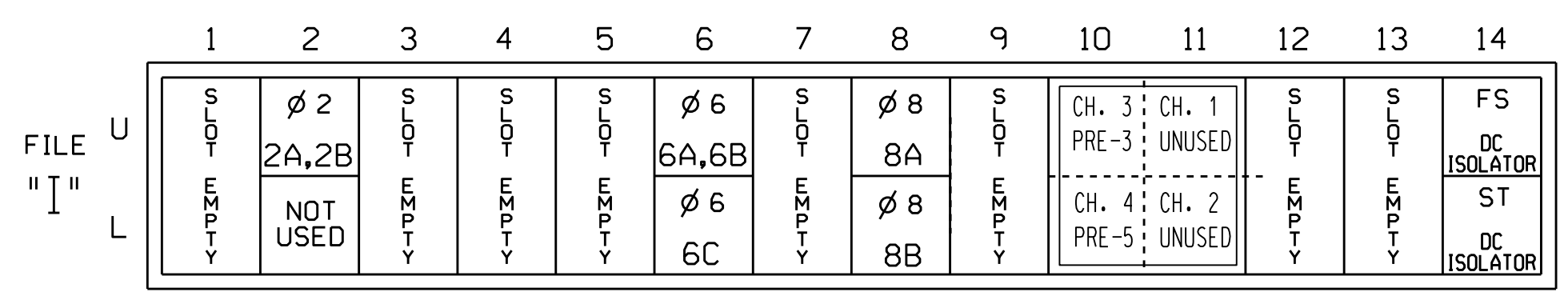
From Main Menu press 'A' (Preemption), then '1' (Standard Preemptions). Press the 'Next' key 2-times to advance to Preempt #3.

EVP 3 :

PREEMPTION #3 SETTINGS (NEXT:1-10)	PREEMPTION #5 SETTINGS (NEXT:1-10)
INTERVAL/TIMING : CLEAR/DWELL PHASES	INTERVAL/TIMING : CLEAR/DWELL PHASES
GRN YEL RED : 12345678910111213141516	GRN YEL RED : 12345678910111213141516
1 255 0.0 0.0	1 255 0.0 0.0
2 0 0.0 0.0	2 0 0.0 0.0
3 0 0.0 0.0	3 0 0.0 0.0
4 0 0.0 0.0	4 0 0.0 0.0
5 0 0.0 0.0	5 0 0.0 0.0
EXIT CALLS	EXIT CALLS
OPTIONS	OPTIONS
PRIORITY (Y/N TO SELECT)MED	PRIORITY (Y/N TO SELECT)MED
DELAY TIMER (0-255 SEC)0.0	DELAY TIMER (0-255 SEC)0
MIN GREEN BEFORE PRE (0= DEFAULT).....1	MIN GREEN BEFORE PRE (0= DEFAULT).....1
PED CLEAR BEFORE PRE (0= DEFAULT).....0	PED CLEAR BEFORE PRE (0= DEFAULT).....0
YELLOW CLEAR BEFORE PRE (0= DEFAULT).....0	YELLOW CLEAR BEFORE PRE (0= DEFAULT).....0
RED CLEAR BEFORE PRE (0= DEFAULT).....0	RED CLEAR BEFORE PRE (0= DEFAULT).....0
DWELL MIN TIMER (0-255 SEC)7	DWELL MIN TIMER (0-255 SEC)7
DWELL MAX TIMER (0=OFF,1-255MIN)0	DWELL MAX TIMER (0=OFF,1-255MIN)0
DWELL HOLD-OVER TIMER (0-255)0	DWELL HOLD-OVER TIMER (0-255)0
LATCH CALL?N	LATCH CALL?N
LINK TO NEXT PREEMPT?N	LINK TO NEXT PREEMPT?N
ENABLE BACKUP PROTECTION?N	ENABLE BACKUP PROTECTION?N
HOLD CLEAR 1 PHASES DURING DELAY?N	HOLD CLEAR 1 PHASES DURING DELAY?N
FAST GREEN FLASH DWELL PHASES?N	FAST GREEN FLASH DWELL PHASES?N
PED CLEARANCE THROUGH YELLOW?N	PED CLEARANCE THROUGH YELLOW?N
INHIBIT OVERLAP GREEN EXTENSION?N	INHIBIT OVERLAP GREEN EXTENSION?N
SERVICE DURING SOFTWARE FLASH?N	SERVICE DURING SOFTWARE FLASH?N
REST IN RED DURING DWELL INTERVAL? ..N	REST IN RED DURING DWELL INTERVAL? ..N
FLASH DWELL INTERVAL?N	FLASH DWELL INTERVAL?N
ALLOW PEDS IN DWELL INTERVAL?N	ALLOW PEDS IN DWELL INTERVAL?N
RE-TIME DWELL INTERVAL?N	RE-TIME DWELL INTERVAL?N
OVERLAPS: ABCDEFGHIJKLMNP	OVERLAPS: ABCDEFGHIJKLMNP
DWELL INT FLASH YELLOW	DWELL INT FLASH YELLOW
OMIT OVERLAPS:	OMIT OVERLAPS:

PROGRAMMING COMPLETE

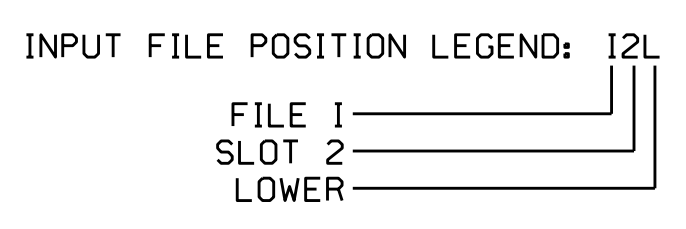
INPUT FILE POSITION LAYOUT (front view)



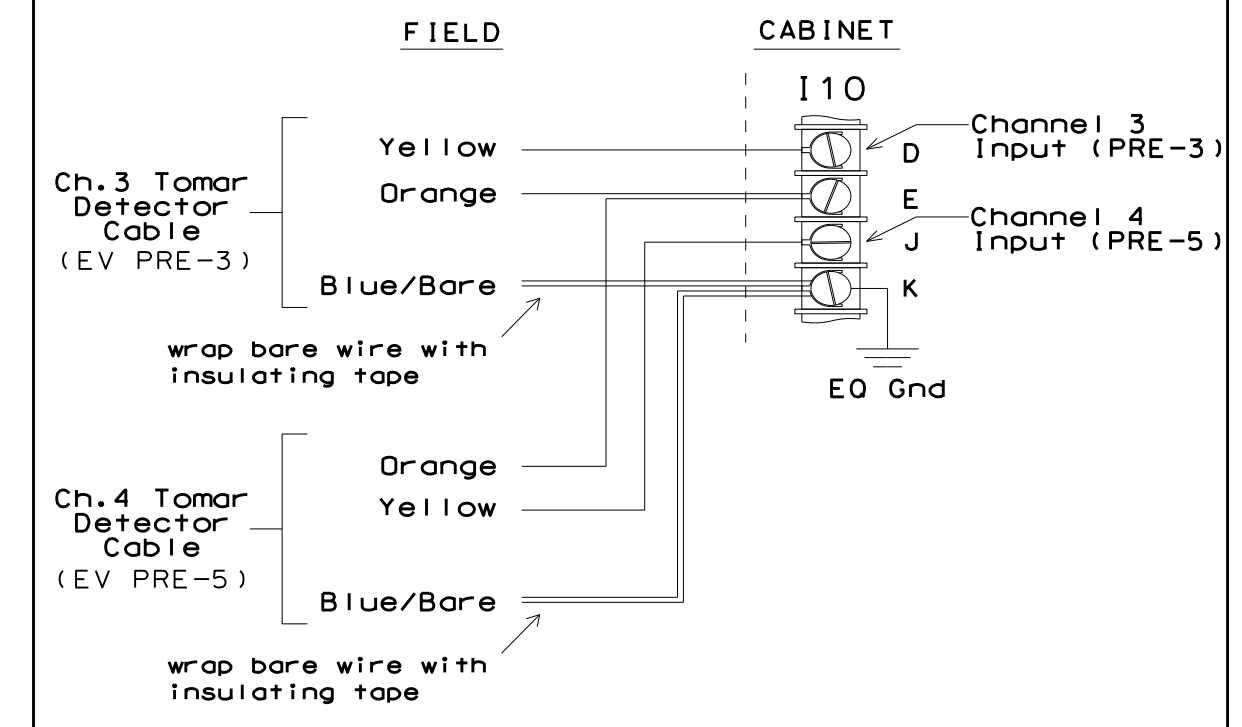
EX.: 1A, 2A, ETC. = LOOP NO.'S
 FS = FLASH SENSE
 ST = STOP TIME
 PRE 3&5 = EV PREEMPTS
 4 CHANNEL OSP CARD INSERT CARD INTO SLOT 111.

INPUT FILE CONNECTION & PROGRAMMING CHART

LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	INPUT ASSIGNMENT NO.	DETECTOR NO.	NEMA PHASE	CALL	EXTEND	FULL TIME DELAY	STRETCH TIME	DELAY TIME
2A,2B	TB21-3,4	I2U	39	1	2	2	Y	Y			
6A,6B	TB21-11,12	I6U	40	2	6	6	Y	Y			
6C	TB23-11,12	I6L	44	6	16	6	Y	Y			
8A	TB22-1,2	I8U	42	4	8	8	Y	Y			3
8B	TB24-1,2	I8L	46	8	18	8	Y	Y			5



TYPICAL FIELD WIRE DETAIL (input file, rear view)



THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 03-0105
 DESIGNED: October 2016
 SEALED: 10-20-16
 REVISED: N/A

Electrical Detail

REVISION SEAL
 Keith M. Mims
 11-10-16

ELECTRICAL AND PROGRAMMING DETAILS FOR: SR 1336 (Henderson Drive) / (Onslow Drive) at Henderson Drive
 Prepared in the Office of: Jacksonville Signal Management System
 PLAN DATE: February 2011 REVIEWED BY: JTR
 PREPARED BY: James Peterson REVIEWED BY:

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED
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 This document is only certified as to the revisions.
 SIG. INVENTORY NO. 03-0105

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 20161110-03.dgn
 Keith M. Mims