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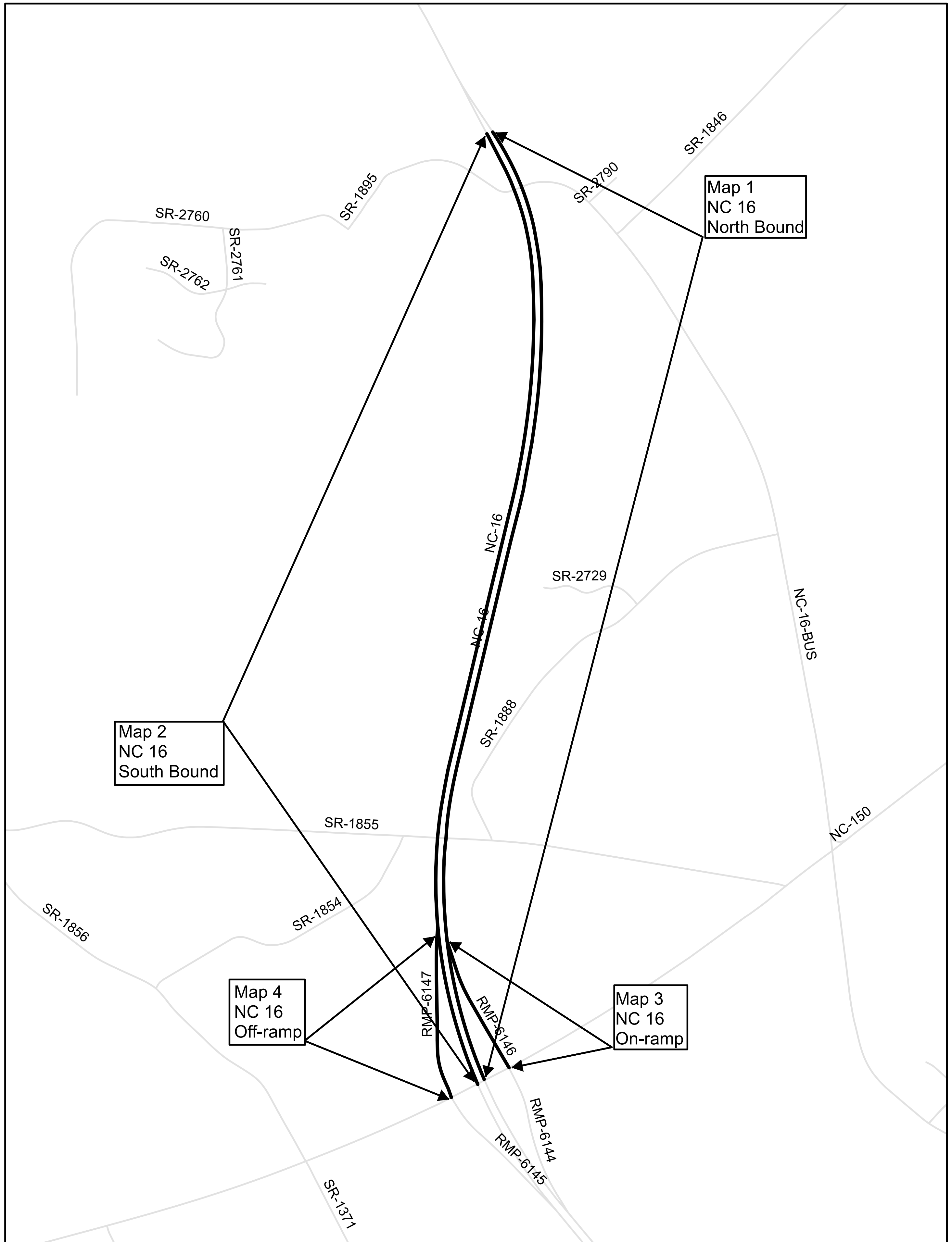
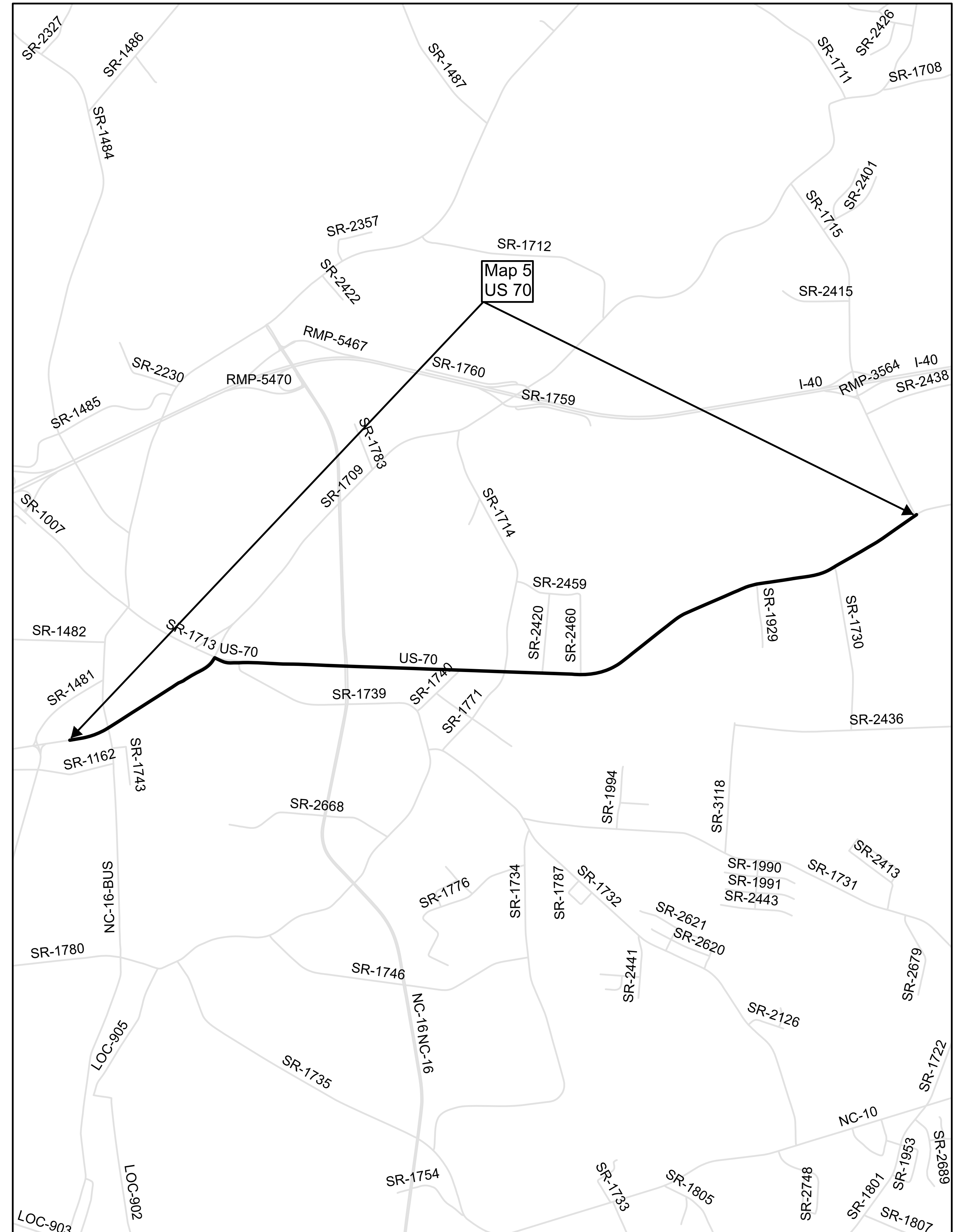
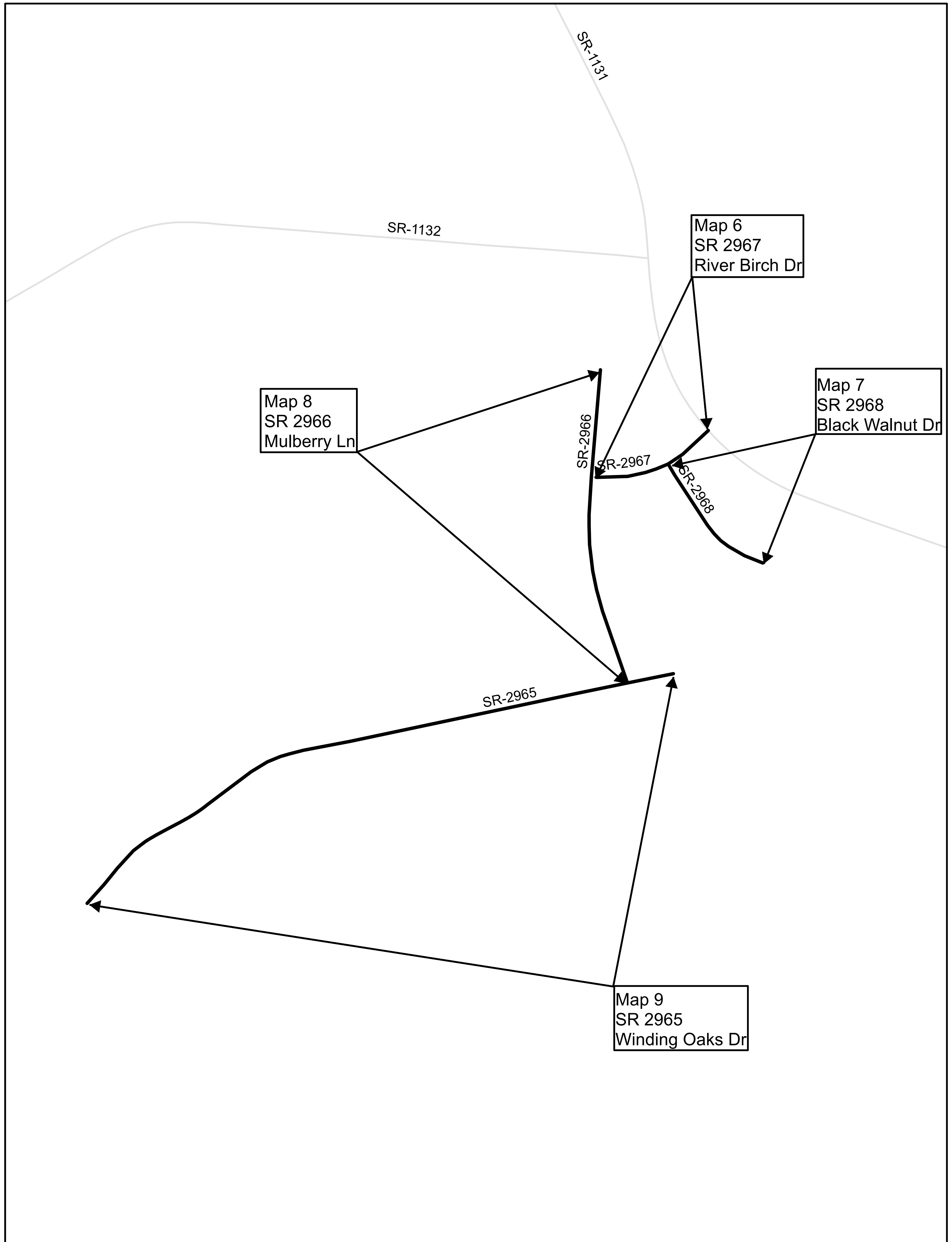
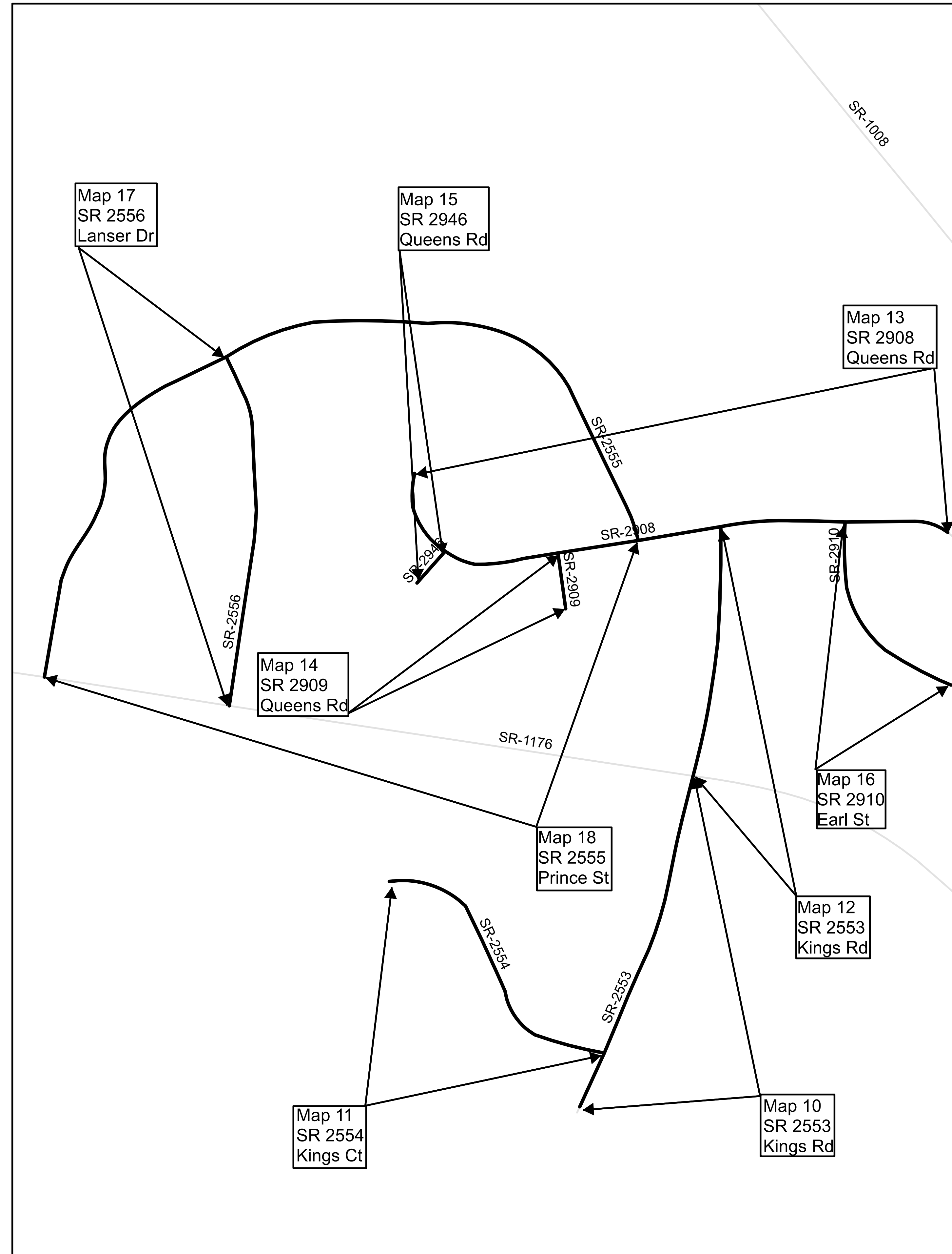



N

Catawba County
2022CPT.12.11.10181



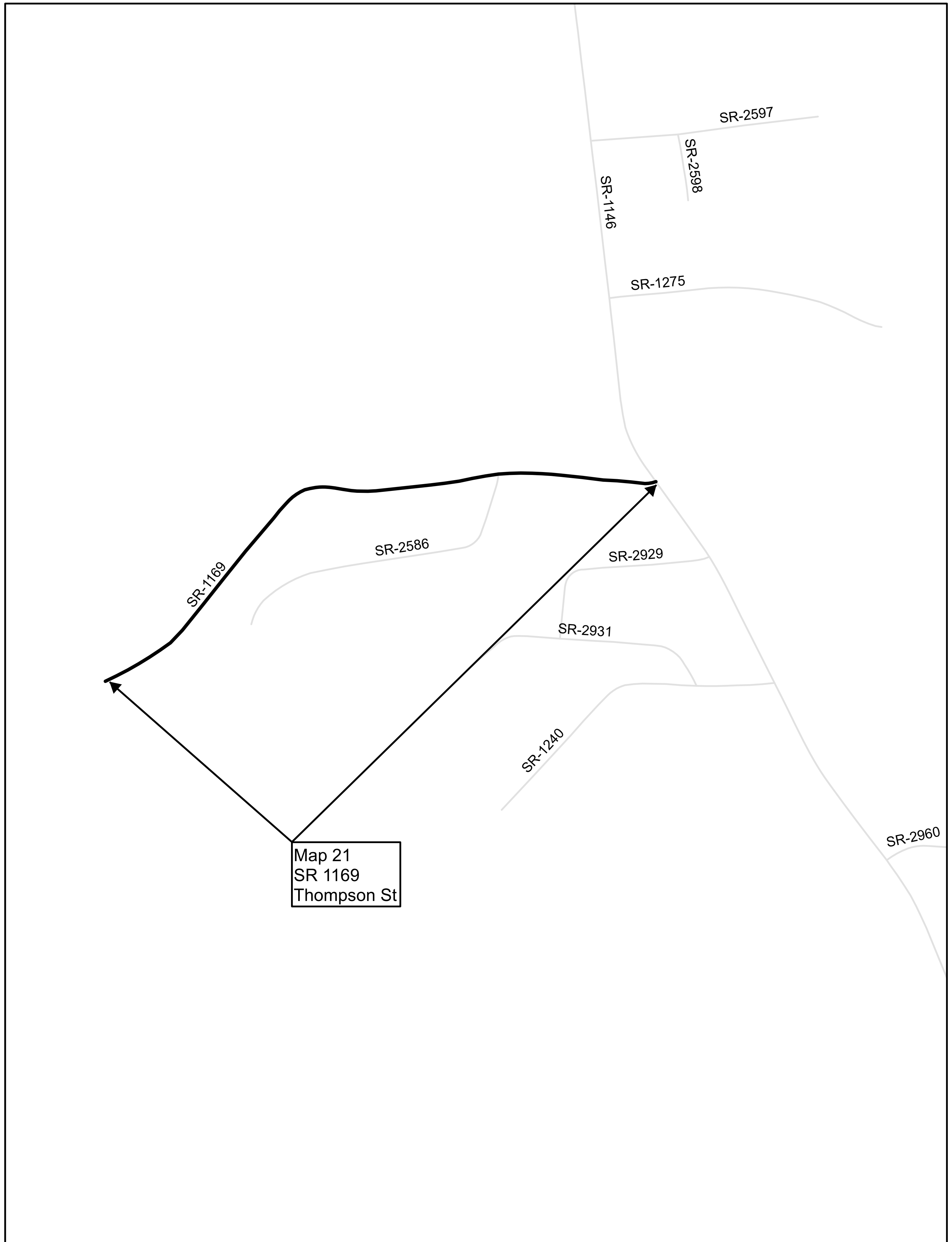



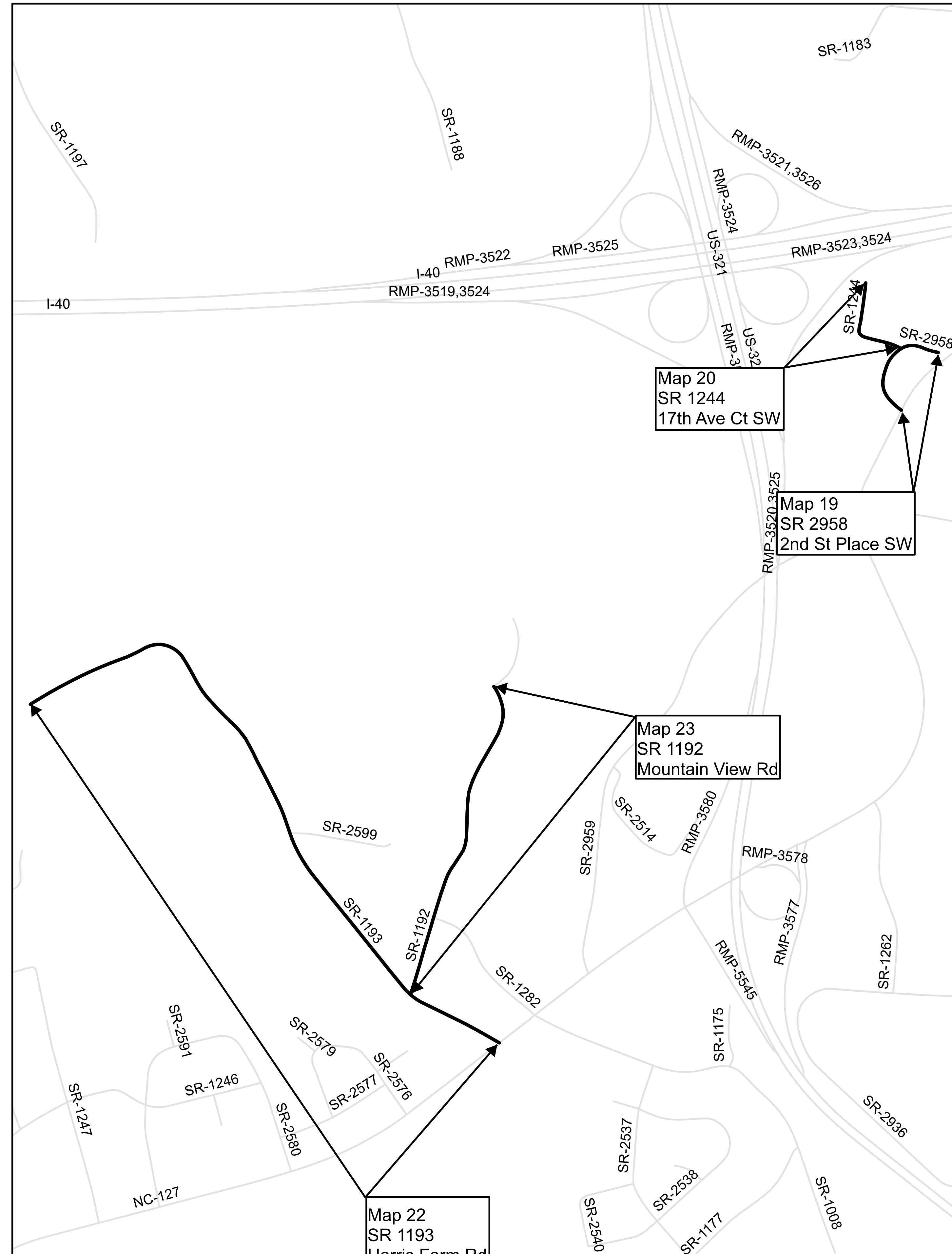

Catawba County

**2022CPT.12.11.20181**

N

**Catawba County**
**2022CPT.12.11.20181**



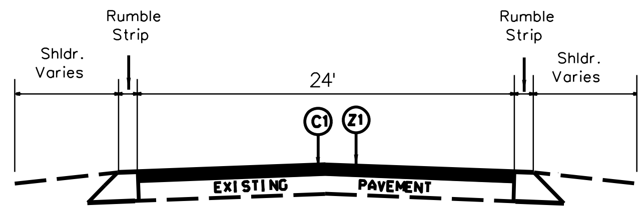




N

| STATE | PROJECT WBS | SHEET NUMBER |
|---|---|---|
| NC | 2022CPT.12.11.10181 | 5 |
| | 2022CPT.12.11.20181 | |

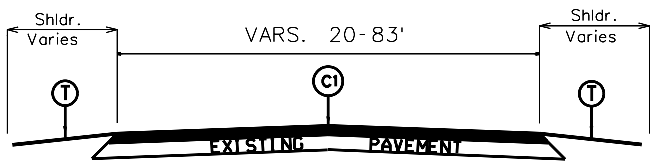
Drawn by: G. Brittain

Checked by:



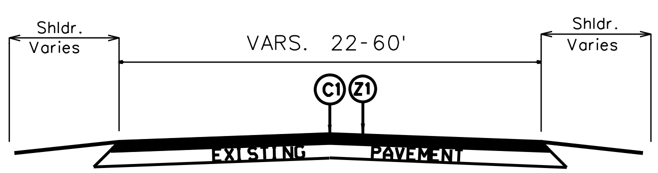

TYPICAL SECTION NO. 1

MAP # 1 - ENTIRE MAP
MAP # 2 - ENTIRE MAP



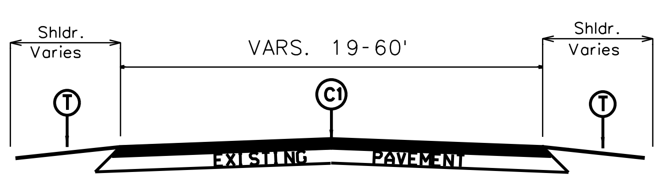

TYPICAL SECTION NO. 2

MAP # 3 - ENTIRE MAP
MAP # 4 - ENTIRE MAP



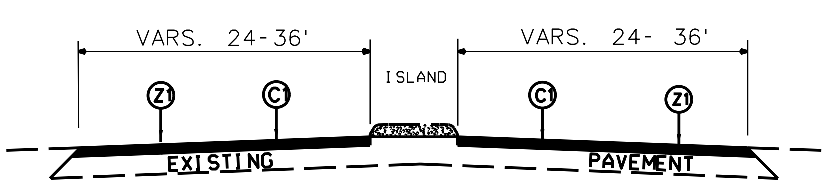

TYPICAL SECTION NO. 3

MAP # 5 - 0+00 to 15+00



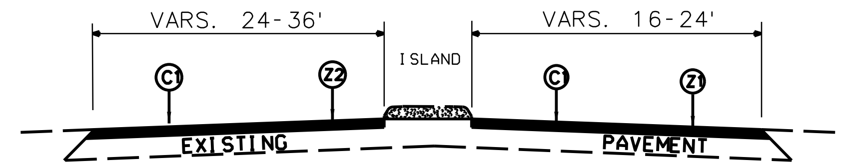

TYPICAL SECTION NO. 4

MAP # 5 - 15+00 to 35+90
MAP # 5 - 50+91 to 67+75
MAP # 5 - 98+89 to 224+84
MAP # 22 - ENTIRE MAP
MAP # 23 - ENTIRE MAP



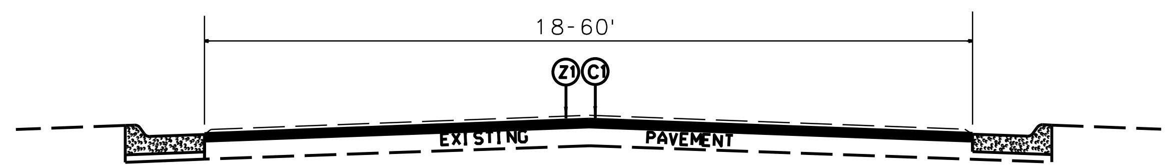

TYPICAL SECTION NO. 5

MAP # 5 - 35+90 to 41+80



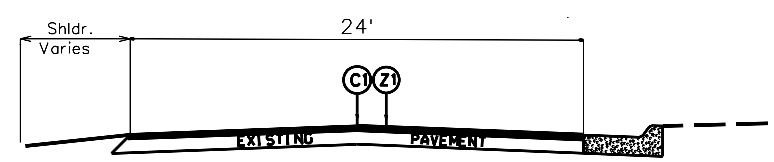

TYPICAL SECTION NO. 6

MAP # 5 - 41+80 to 50+91



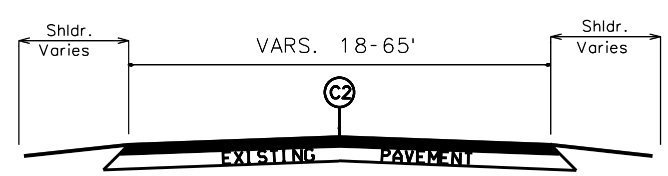

TYPICAL SECTION NO. 7

MAP # 5 - 67+75 to 78+24
MAP # 5 - 224+84 to 227+04
MAP # 6 - ENTIRE MAP
MAP # 7 - ENITRE MAP
MAP # 8 - ENTIRE MAP
MAP # 9 - ENTIRE MAP




TYPICAL SECTION NO. 8

MAP # 5 - 78+24 to 98+89




TYPICAL SECTION NO. 9

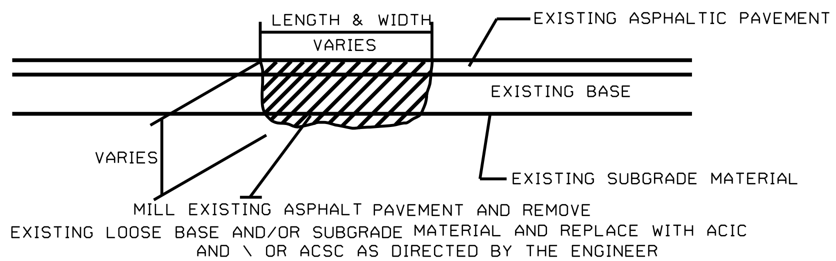
MAP # 10 - ENTIRE MAP
MAP # 11 - ENTIRE MAP
MAP # 12 - ENTIRE MAP
MAP # 13 - ENTIRE MAP
MAP # 14 - ENTIRE MAP
MAP # 15 - ENTIRE MAP
MAP # 16 - ENTIRE MAP
MAP # 17 - ENTIRE MAP
MAP # 18 - ENTIRE MAP
MAP # 19 - ENTIRE MAP
MAP # 20 - ENTIRE MAP
MAP # 21 - ENTIRE MAP

| PAVEMENT SCHEDULE | |
|---|---|
| C1 | PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. |
| C2 | PROP. APPROX. 1" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. |
| Z1 | MILL EXST. ASPHALT PAVMENT APPROX. 1.5" IN DEPTH |
| Z2 | MILL EXST. ASPHALT PAVMENT APPROX. 0 - 1.5" IN DEPTH |
| T | AGGREGATE SHOULDER BORROW (SHOULDER RECONSTRUCTION, WIDTH VARIES 2'-6') |
| Y1 | INCIDENTAL MILLING |

2022-2023
**Catawba County Resurfacing**

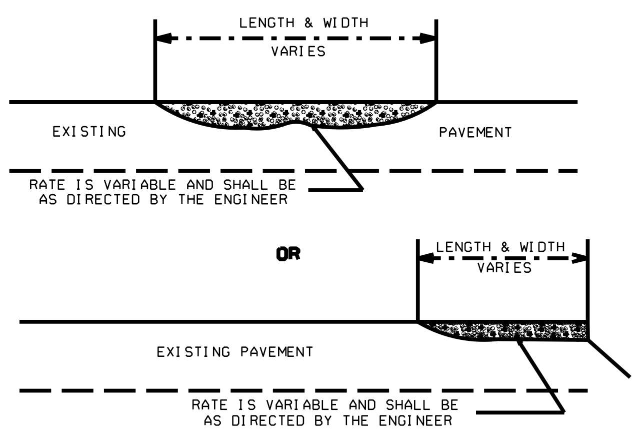
## DETAIL A

### PATCHING EXISTING PAVEMENT



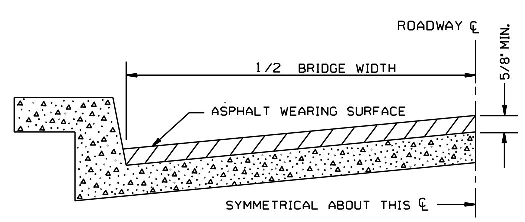

## DETAIL B

### ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B OR S9.5C (LEVELING COURSE)




## DETAIL C

### BRIDGE HALF TYPICAL SECTION




FOR BRIDGES WITH FLOOR DRAINS, CARE SHALL BE EXERCISED IN PLACING THE WEARING SURFACE AROUND FLOOR DRAINS SO AS NOT TO HINDER EFFECTIVE DRAINAGE. ALL DRAINS SHALL BE LEFT OPEN.

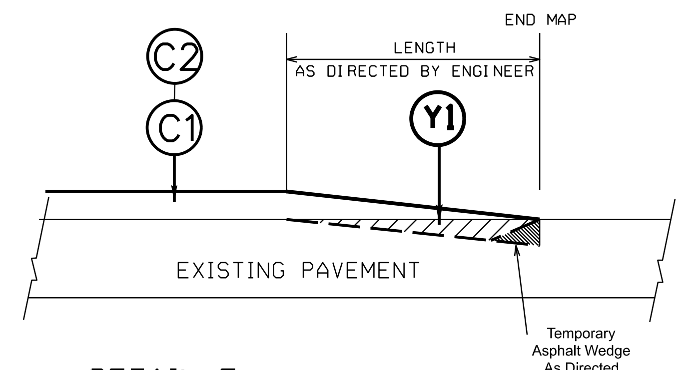
THE PROPOSED WEARING SURFACE SHALL VARY IN THICKNESS AS NECESSARY TO PROVIDE A SMOOTH RIDING SURFACE. A THICKNESS OF NOT LESS THAN 5/8" SHALL BE PROVIDED. THE MAXIMUM THICKNESS SHALL PREFERABLY BE 1-1/2" UNLESS IT IS IMPRACTICAL TO PROVIDE A SMOOTH RIDING SURFACE OTHERWISE.

NOTES

ALL UNPAVED S.R. ROADS TO BE SURFACED 50' FROM EDGE OF PAVEMENT OF MAIN PROJECT.
ALL PAVED S.R. ROADS TO BE RESURFACED TO THE ENDS OF THE RADII, OR AS DIRECTED BY THE ENGINEER.
EDGES, PAVEMENT WIDENING, INTERSECTIONS AND BRIDGE FLARES ARE INCLUDED IN THE TABLE OF QUANTITIES.
SHOULDERS AND DITCHES ARE TO BE CONSTRUCTED BY OTHERS UNLESS OTHERWISE NOTED.
BRIDGES TO BE RESURFACED AT LOCATIONS AND TO DEPTH AS DIRECTED BY THE ENGINEER.

## DETAIL D

### MILLING BRIDGE APPROACHES


## DETAIL E

### TIE-IN (INCIDENTAL) MILLING DETAIL

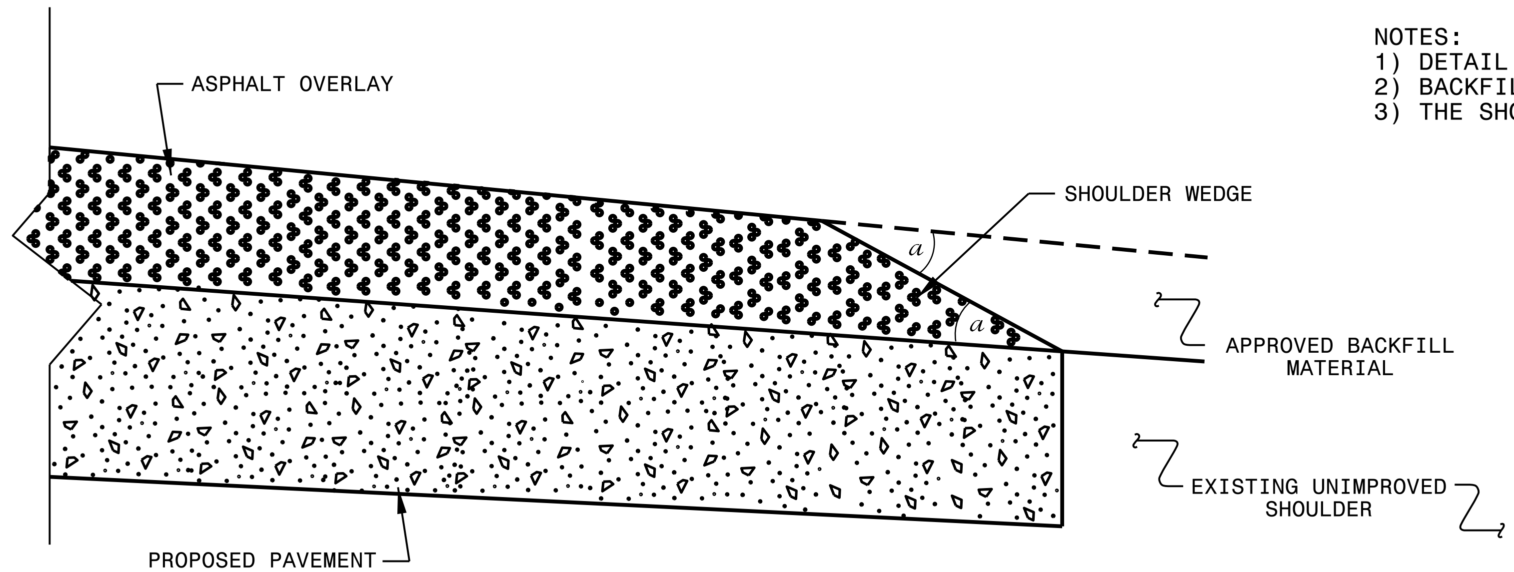
| PAVEMENT SCHEDULE | |
|---|---|
| C1 | PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. |
| C2 | PROP. APPROX. 1" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. |
| Z1 | MILL EXST. ASPHALT PAVMENT APPROX. 1.5" IN DEPTH |
| Z2 | MILL EXST. ASPHALT PAVMENT APPROX. 0 - 1.5" IN DEPTH |
| T | AGGREGATE SHOULDER BORROW (SHOULDER RECONSTRUCTION, WIDTH VARIES 2'-6') |
| Y1 | INCIDENTAL MILLING |

Drawn by: G. Brittain
Checked by:

# 2022-2023
# Catawba County Resurfacing

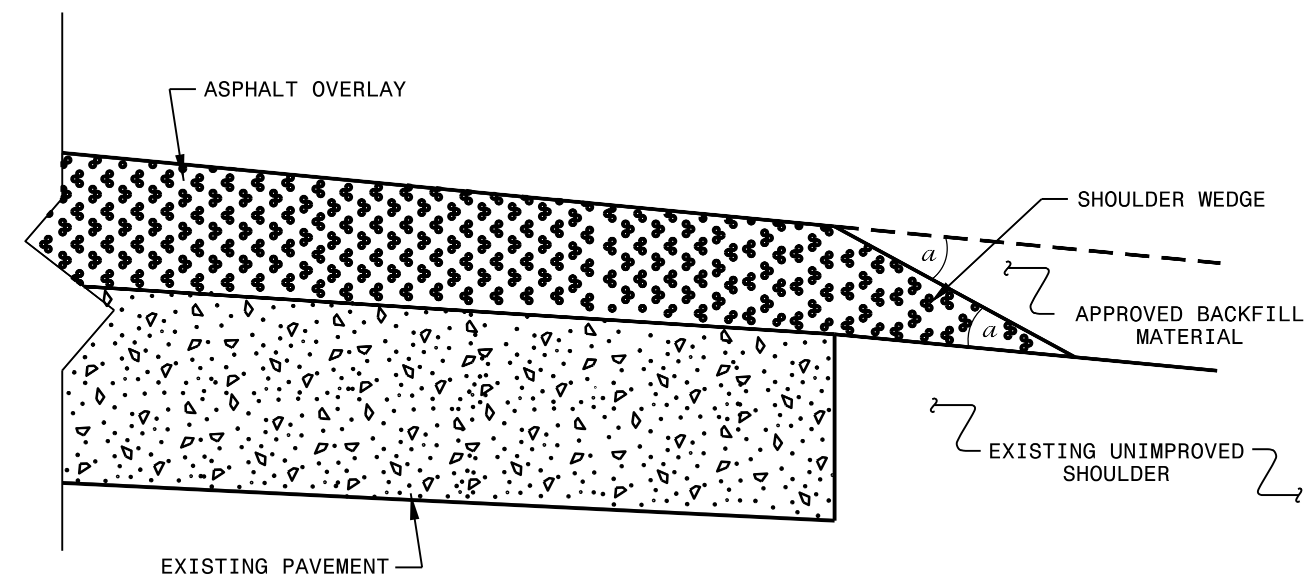
| PROJECT REFERENCE NO. | SHEET NO. |
| --- | --- |
| 2022CPT.12.11.10181 | 7 |

NOTES:
1) DETAIL DOES NOT APPLY TO OGAFC AND ULTRA-THIN BONDED WEARING COURSE.
2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.



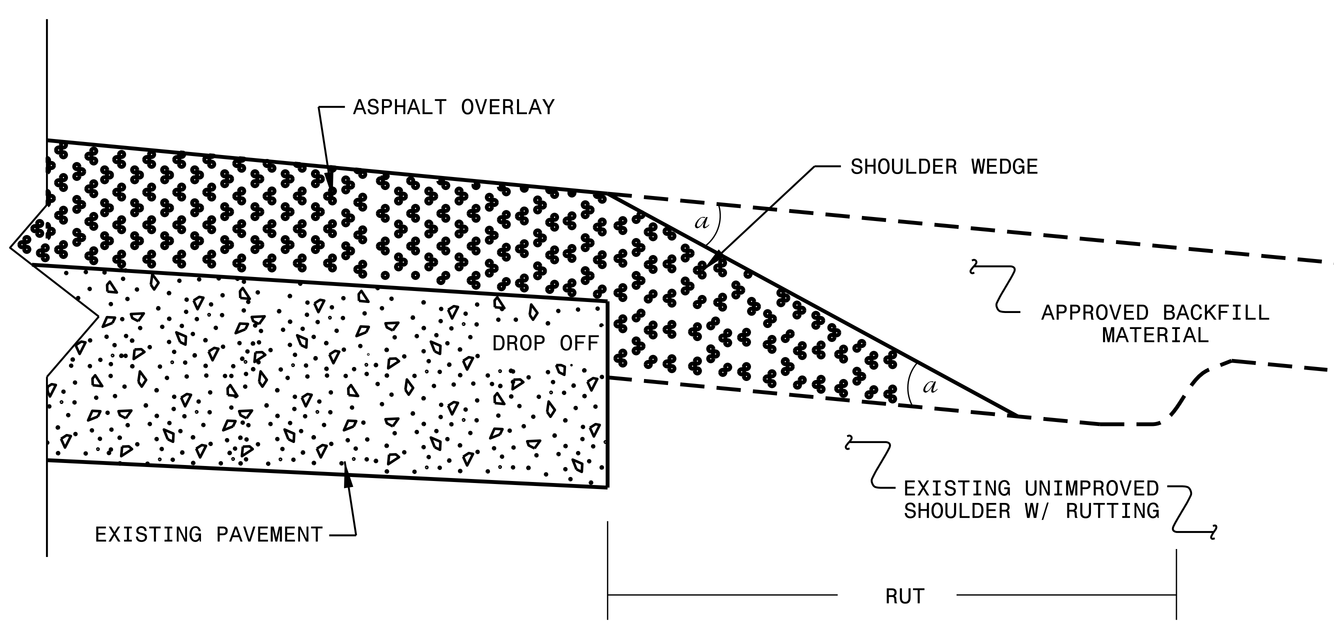

## SHOULDER WEDGE DETAIL

**(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)**

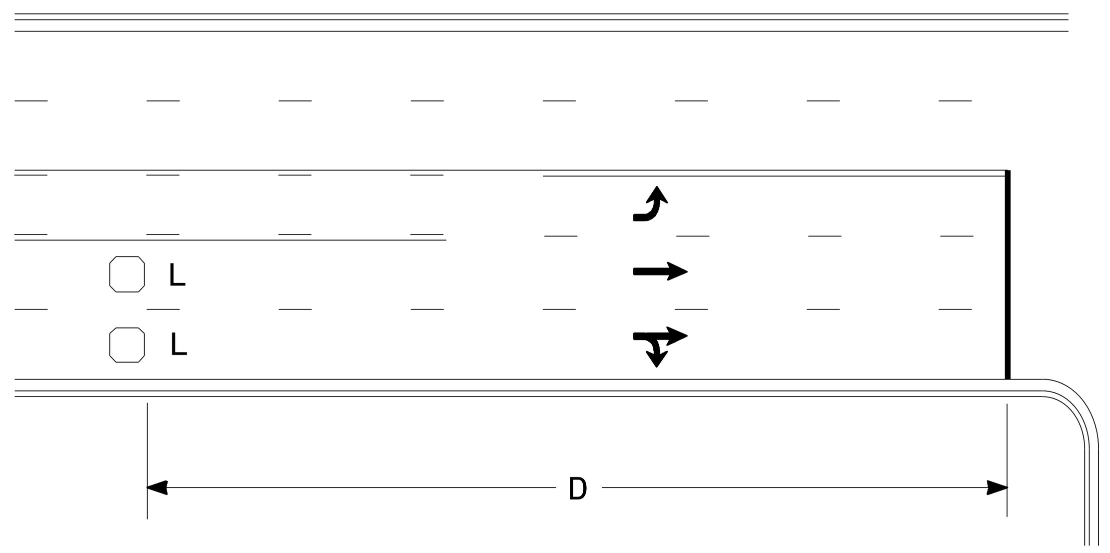
- SHOULDER WEDGE ANGLE = 30°

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

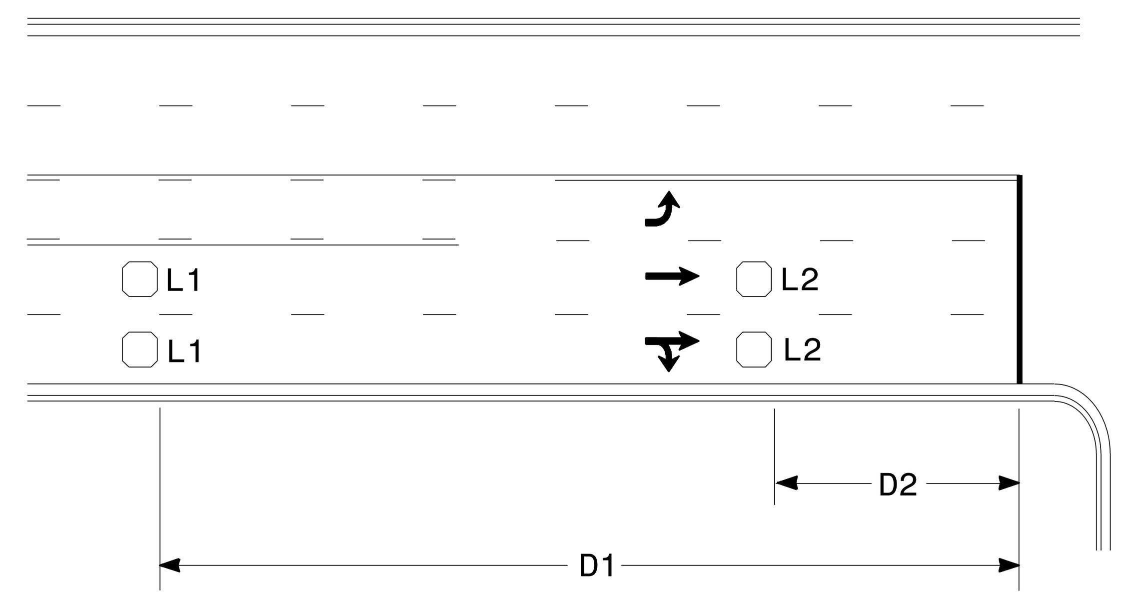
**SHOULDER WEDGE DETAILS**

ORIGINAL BY: T.SPELL DATE: 7-19-11
MODIFIED BY: DATE: 10/16/12
CHECKED BY: DATE:
FILE SPEC.: s:usr/details/stand/shoulderwedgedetail.dgn

## High Speed Detection
(≥40 mph)




OR




| Speed Limit mph | D ft |
|---|---|
| 40 | 250 |
| 45 | 300 |
| 50 | 355 |
| 55 | 420 |

L = 6ft X 6ft
Wired in series for TS1 Controllers
Wired separately for TS2, 170, and 2070L Controllers

Volume Density Operation

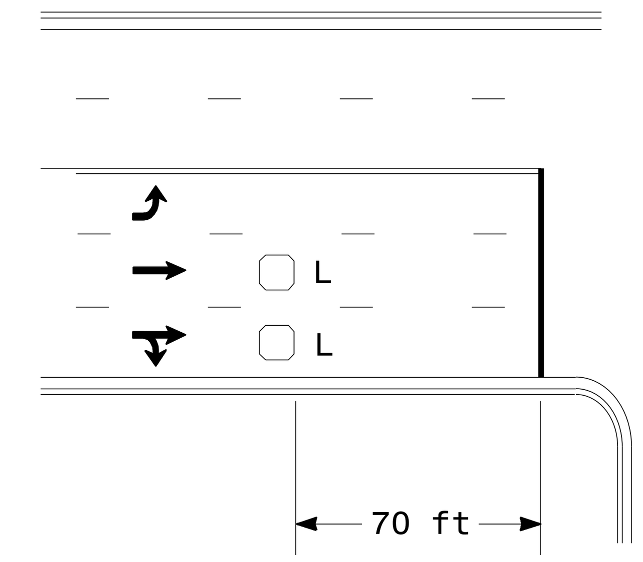
| Speed Limit mph | D1 ft | D2 ft |
|---|---|---|
| 40 | 250 | 80 |
| 45 | 300 | 90 |
| 50 | 355 | 100 |
| 55 | 420 | 110 |

L1 = 6ft X 6ft
Wired in series

L2 = 6ft X 6ft
Wired in series

"Stretch" Operation

## Low Speed Detection
(≤35 mph)

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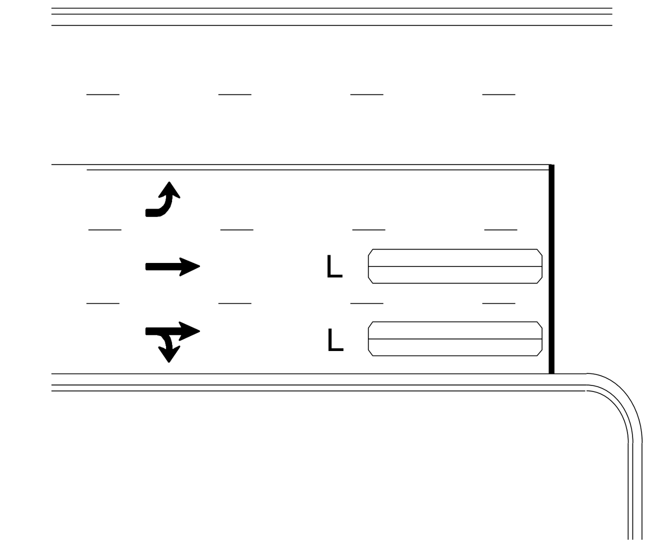
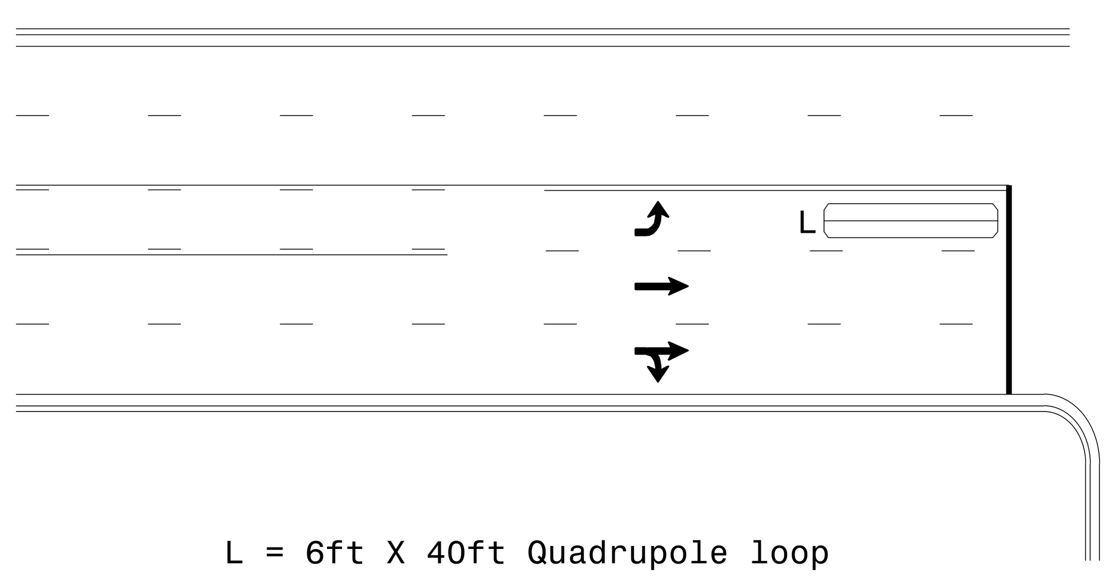


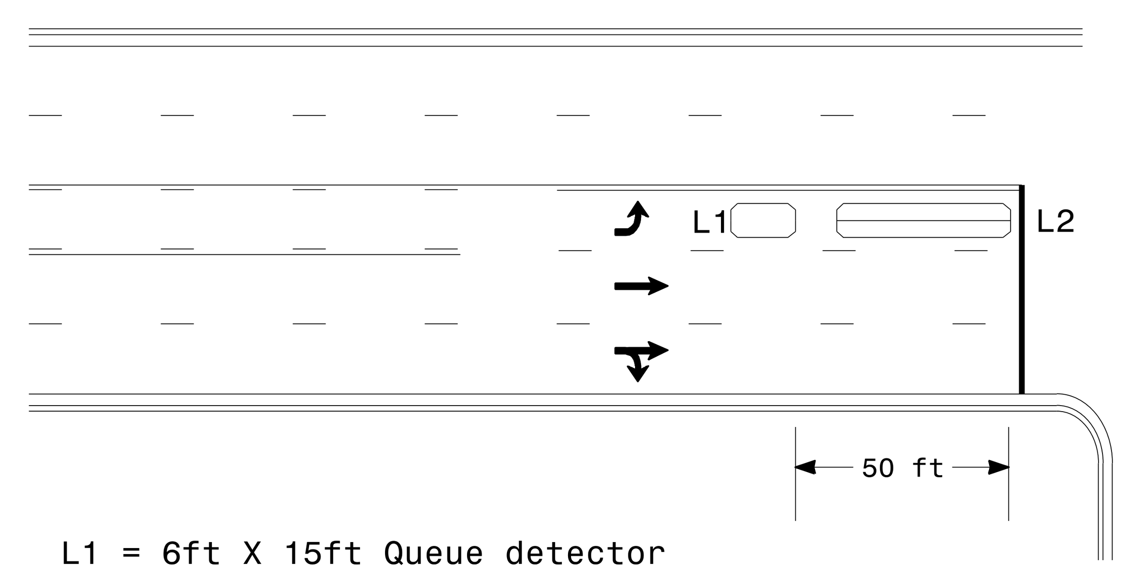

L = 6ft X 6ft
Wired in series

L = 6ft X 40ft
Quadrupole loop, wired separately

## Left Turn Lane Detection




OR



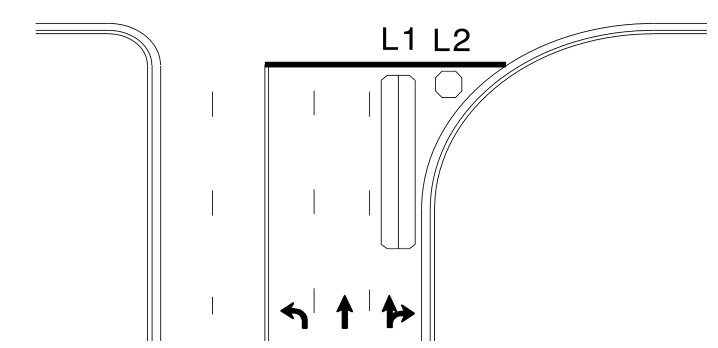

L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

L1 = 6ft X 15ft Queue detector
L2 = 6ft X 40ft Quadrupole loop

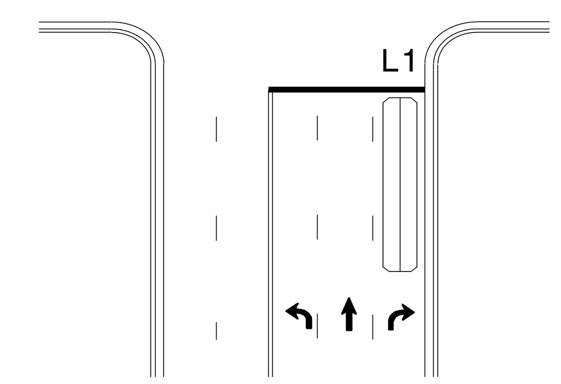
Queue Loop Detection

## Right Turn Lane Detection

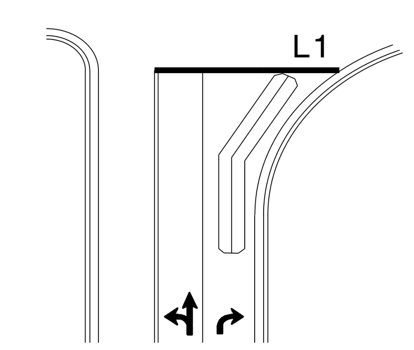



Shared Lane/
Wide Radius Turn

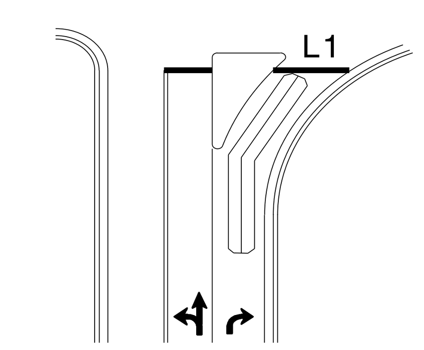
L1 = 6ft X 40ft Quadrupole loop
L2 = 6ft X 6ft [Minimum] Presence loop
Wired separately




Standard Turn

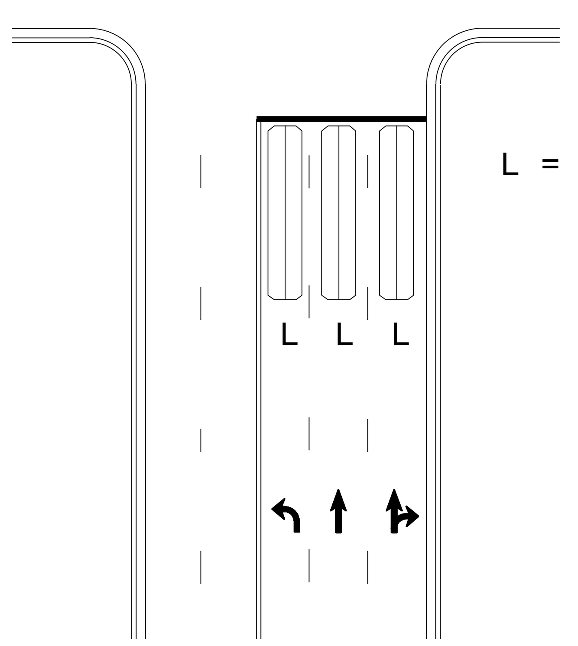



Wide Radius Turn




Channelized Turn

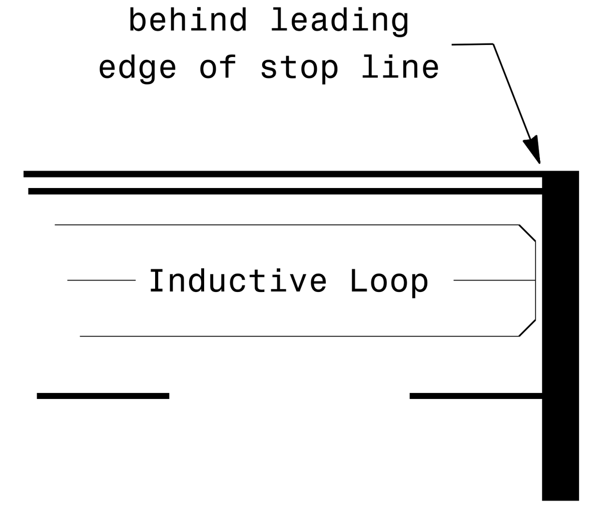
## Side Street Detection




L = 6ft X 40ft
Quadrupole loop
Wired to separate detectors/channels

## Presence Loop Placement at Stop Lines

Locate loop slightly behind leading edge of stop line




Note:
Loop may be located in advance of stop line under any of the following conditions:
1) stop line is greater than 15′ from edge of intersecting roadway
2) loop detects a permissive or protected/permissive left turn
3) for an exclusive right turn lane

## Recommended Number of Turns

Single 6′ X 6′ loop
(when wired separately):

| Length of Lead-in ft | Number of Turns |
|---|---|
| < 250 | 3 |
| 250-375 | 4 |
| 375-525 | 5 |
| > 525 | 6 |

Quadrupole loops: Use 2-4-2 turns

6′ X 15′ Loops:
Lead-in < 150′, use 2 turns
Lead-in > 150′, use 3 turns

Prepared in the Offices of:
Transportation Mobility and Safety Division
Signal Design Section
750 N.Greenfield Pkwy,Garner,NC 27529

Typical Signal Loop Locations

| PLAN DATE: | January 2015 | REVIEWED BY: | JPG |
|---|---|---|---|
| PREPARED BY: | PLA | REVIEWED BY: | |

SCALE
N/A

REVISIONS | INIT. | DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 23489 ENGINEER PAMELA L. ALEXANDER
DocuSigned by: P L Alexander
1/30/2015
DATE
SIG. INVENTORY NO.

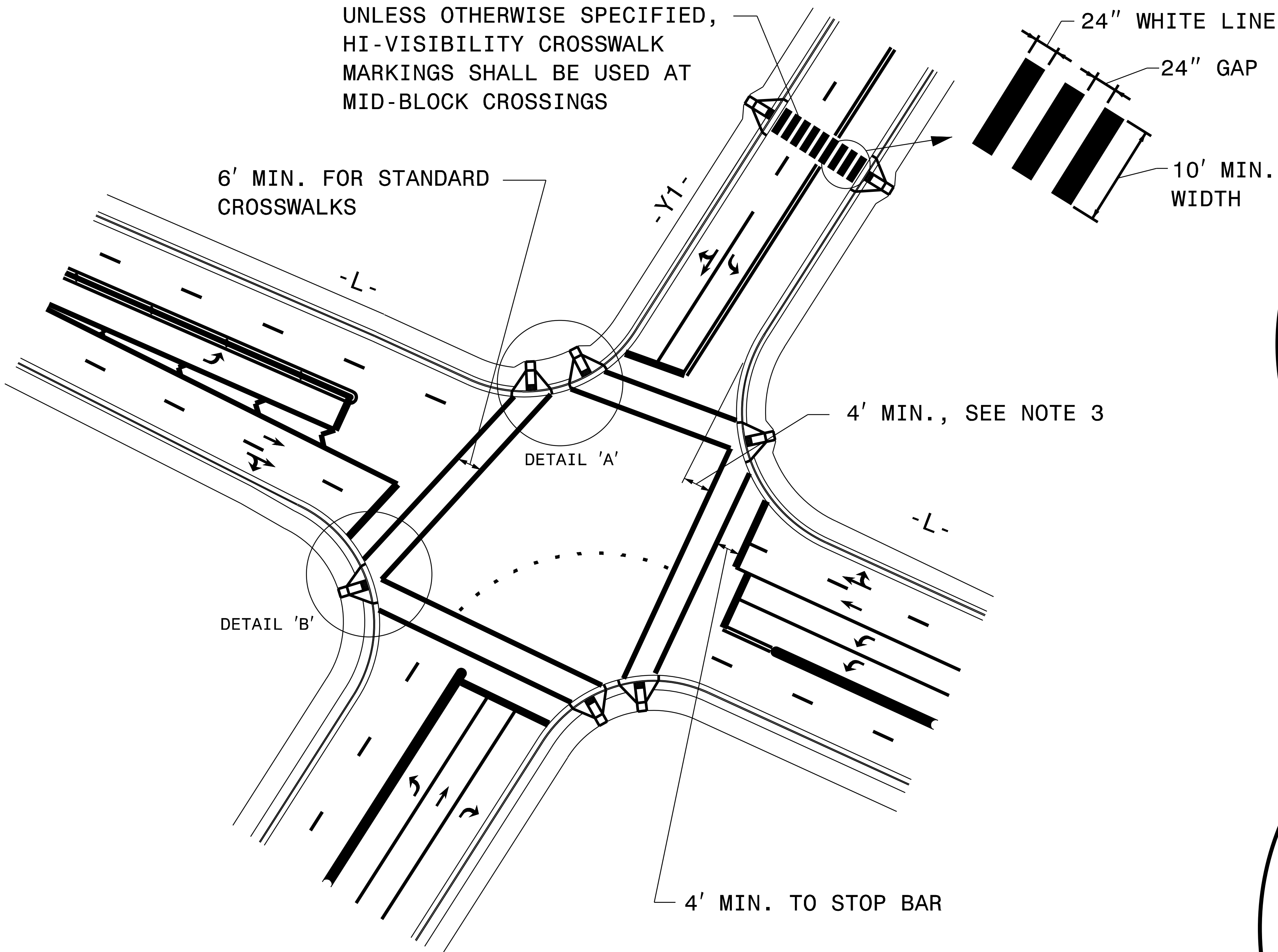
| TIP NO. | SHEET NO. |
| --- | --- |
| 2022CPT.12.11.10181 | 9 |

APPROVED:

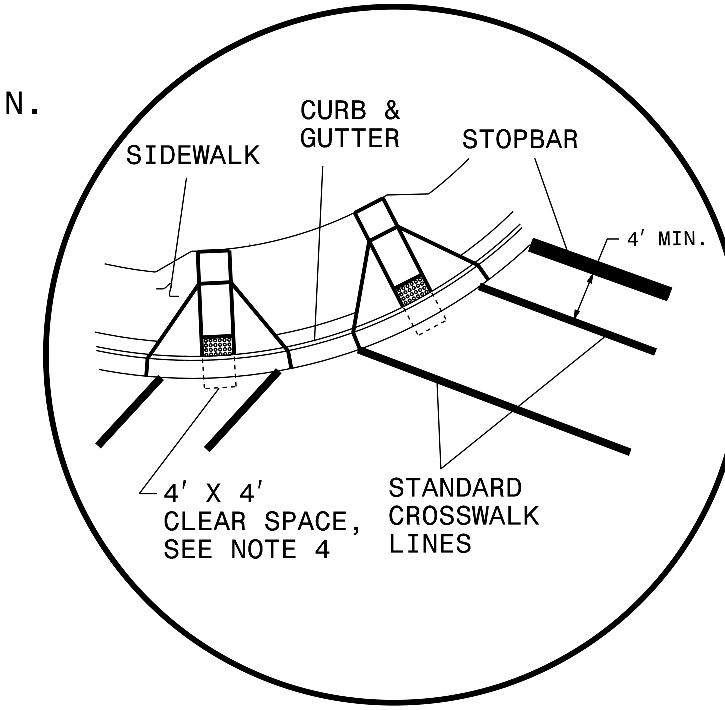
DATE:

SEAL

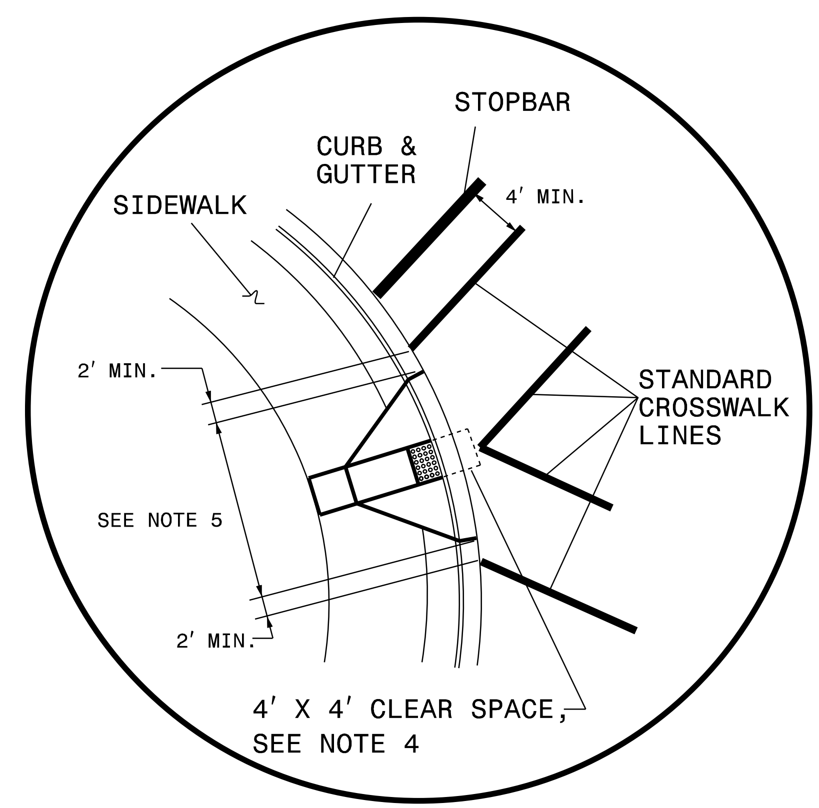
REVISIONS




## GUIDANCE DETAIL FOR CROSSWALK MARKINGS




DETAIL 'A'- DUAL CURB RAMPS




DETAIL 'B'- SINGLE DIAGONAL CURB RAMP

NOTES:

1. USE THE DETAILS ABOVE AND THE FOLLOWING NOTES FOR GUIDANCE IN PLACING CROSSWALK MARKINGS NOT STATIONED ON THE DETAIL SHEETS OR WHEN FIELD ADJUSTMENTS REQUIRED MOVING STATIONED MARKINGS AS DIRECTED BY THE ENGINEER. REFER TO NCDOT ROADWAY STANDARD DRAWINGS, MUTCD AND ADA STANDARDS FOR ADDITIONAL GUIDANCE.

2. THE CROSSWALK MARKINGS SHOWN ON THE ABOVE DETAILS ARE FOR REFERENCE ONLY. ONLY INSTALL CROSSWALK MARKINGS WHERE SHOWN ON THE DETAIL SHEETS OR AS DIRECTED BY THE ENGINEER. THE CROSSWALK MARKING TYPE, STANDARD OR HI-VISIBILITY, SHALL BE INSTALL AS SPECIFIED ON THE DETAIL SHEETS OR AS DIRECTED BY THE ENGINEER.

3. SET BACK DISTANCE FROM INSIDE CROSSWALK MARKING TO NEAREST EDGE OF TRAVEL IS 4' MIN.

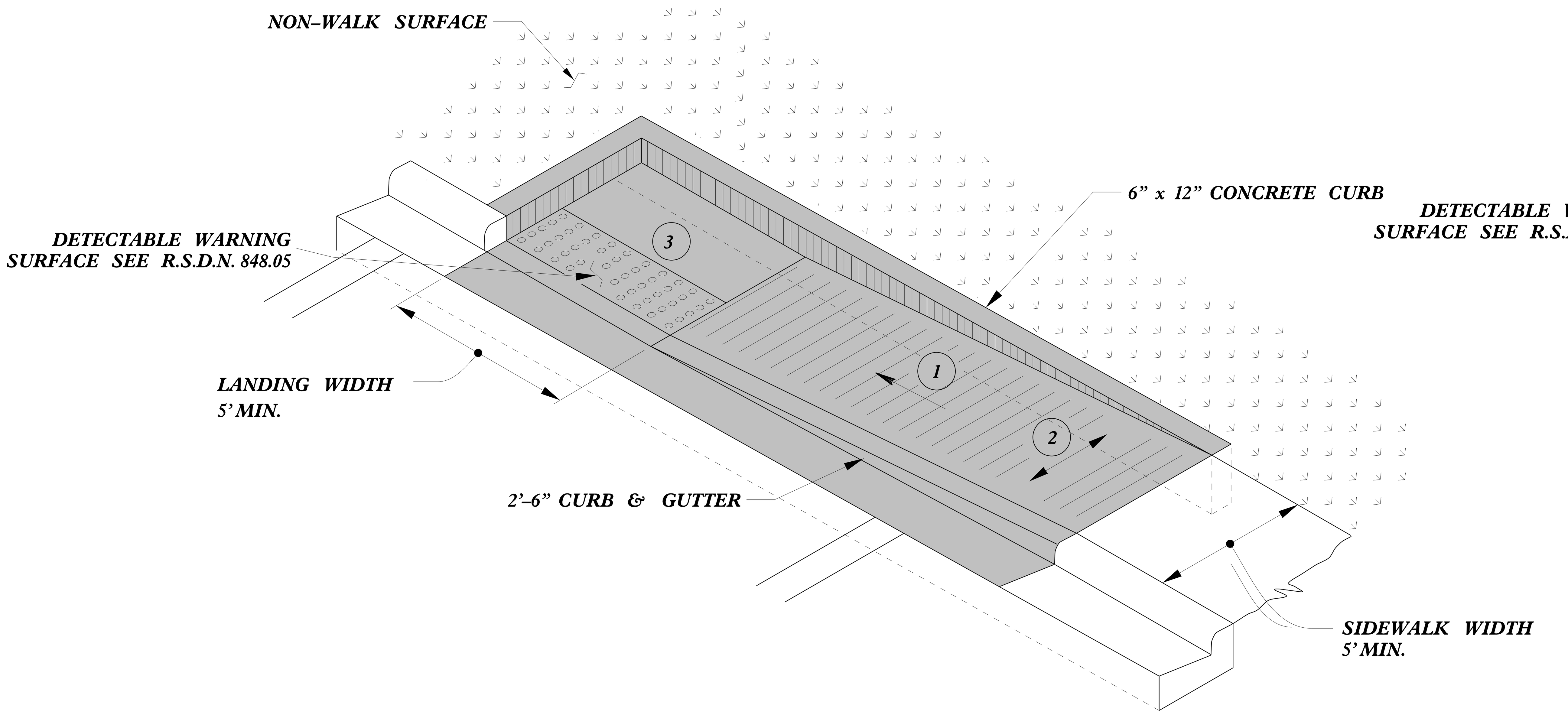
4. BEYOND THE BOTTOM GRADE BRAKE, A CLEAR SPACE OF 4' X 4' MINIMUM SHALL BE PROVIDED WITHIN THE MARKINGS.

5. SINGLE DIAGONAL CURB RAMPS WITH FLARED SIDES SHALL HAVE A SEGMENT OF CURB 2 FEET LONG MINIMUM LOCATED ON EACH SIDE OF THE CURB RAMP AND WITHIN THE MARKED CROSSING, SEE DETAIL 'B'.

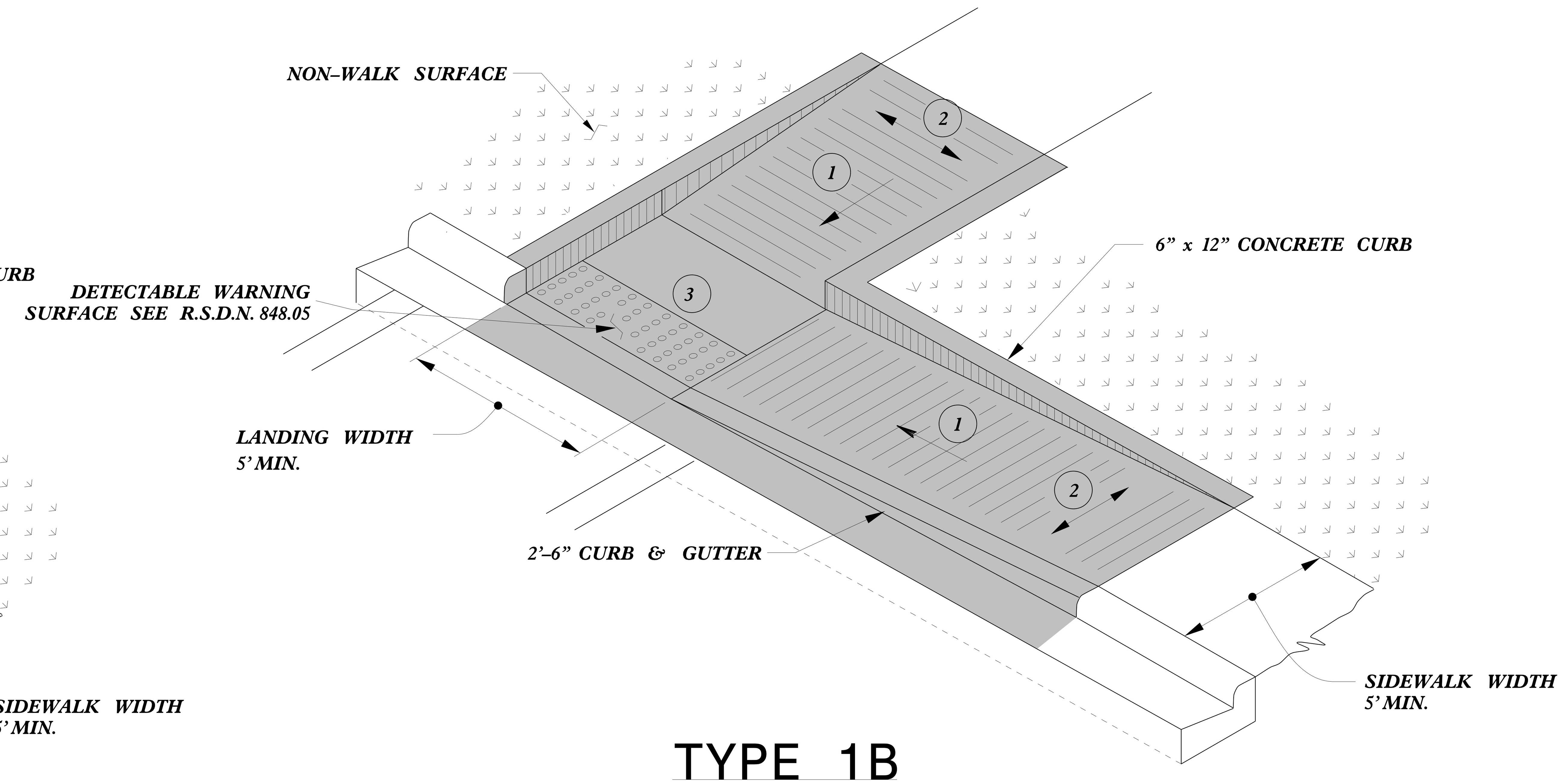
6. CURB RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE TO THE LATEST NCDOT ROADWAY STANDARD DRAWINGS.

**CROSSWALK PAVEMENT MARKING GUIDANCE DETAIL**

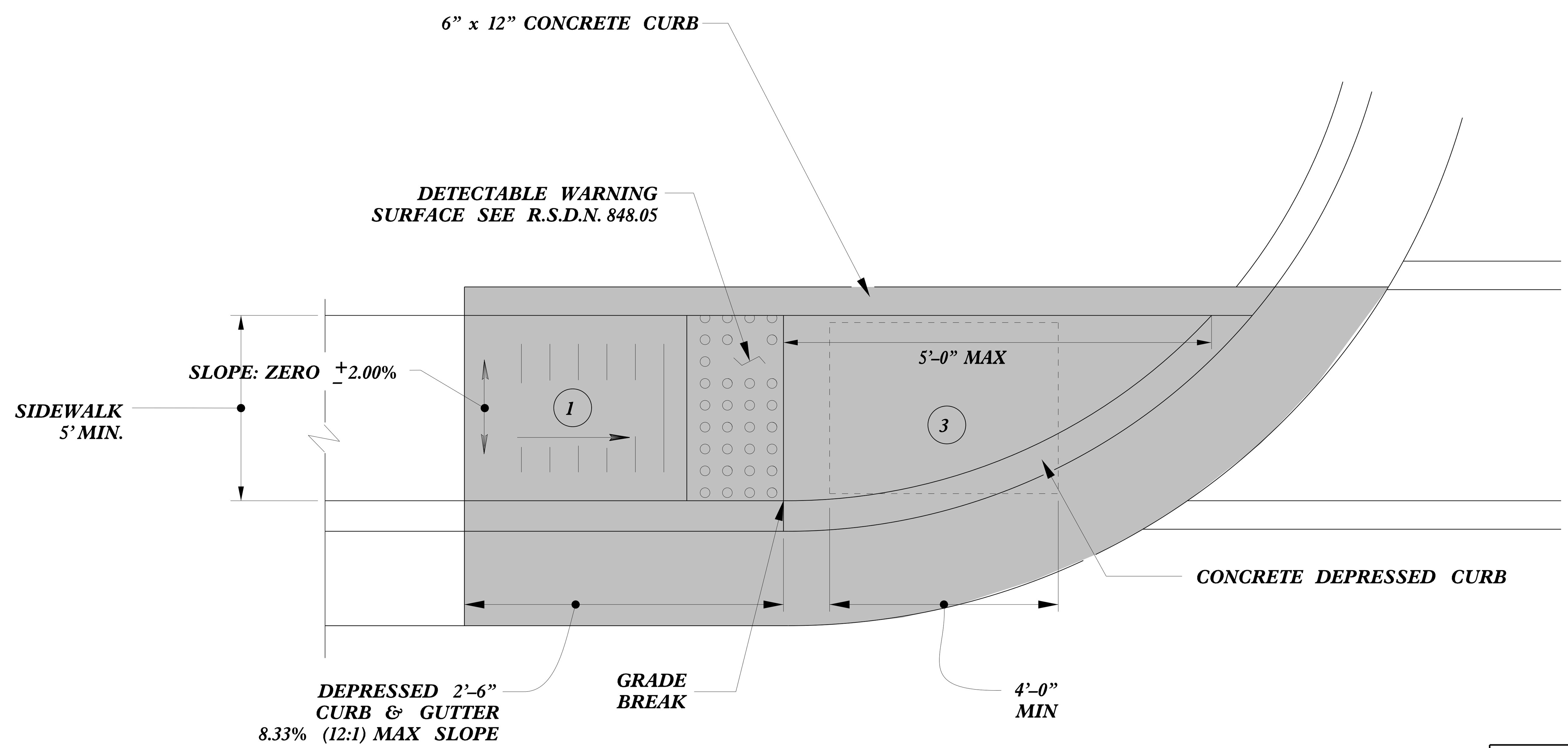
| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| 2022CPT.12.11.10181 | 10 |




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

NORTH CAROLINA PROFESSIONAL SEAL 022966 ENGINEER Joel S. Howerton

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

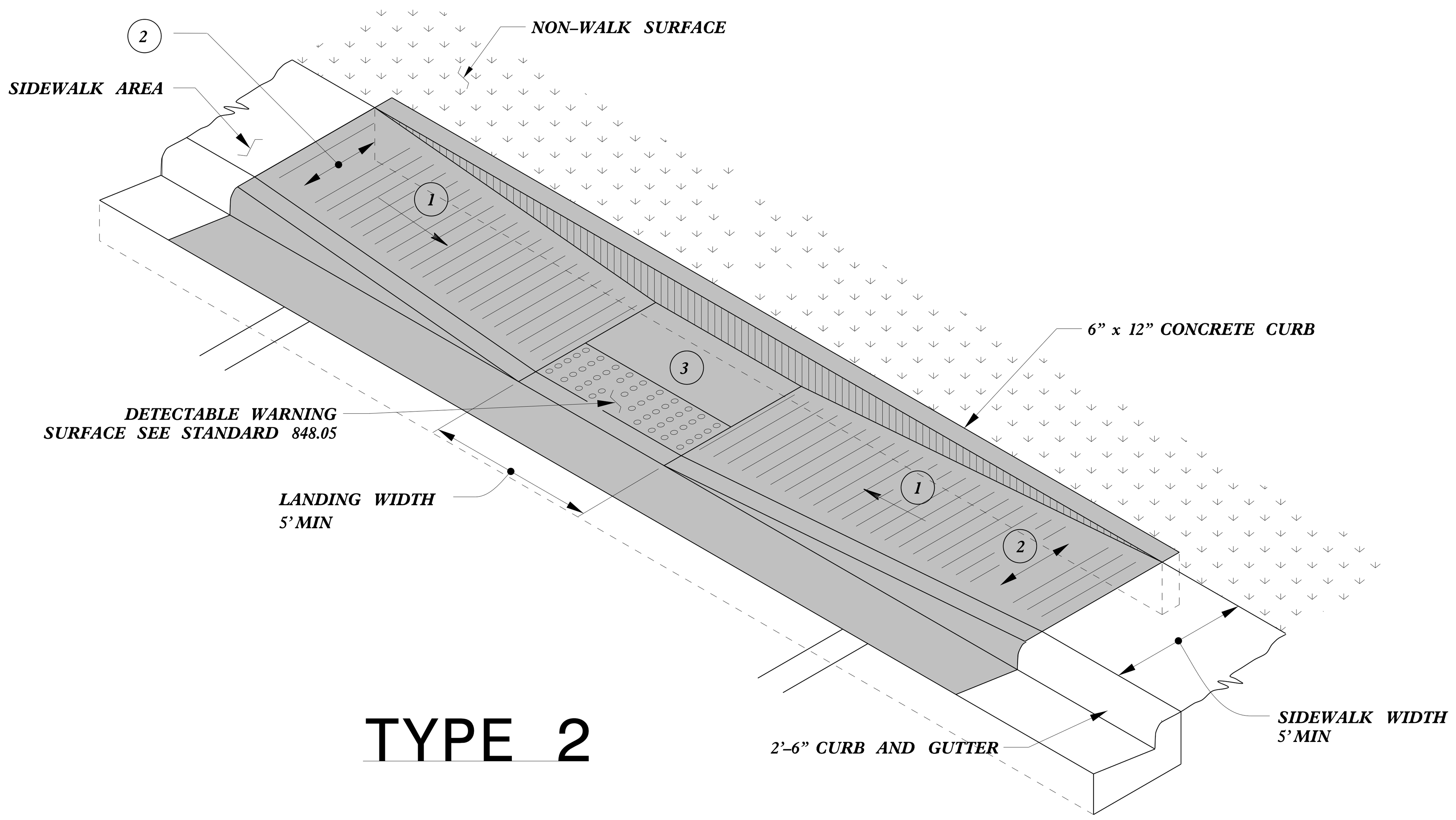
CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

# CURB RAMPS

Directional Ramps

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

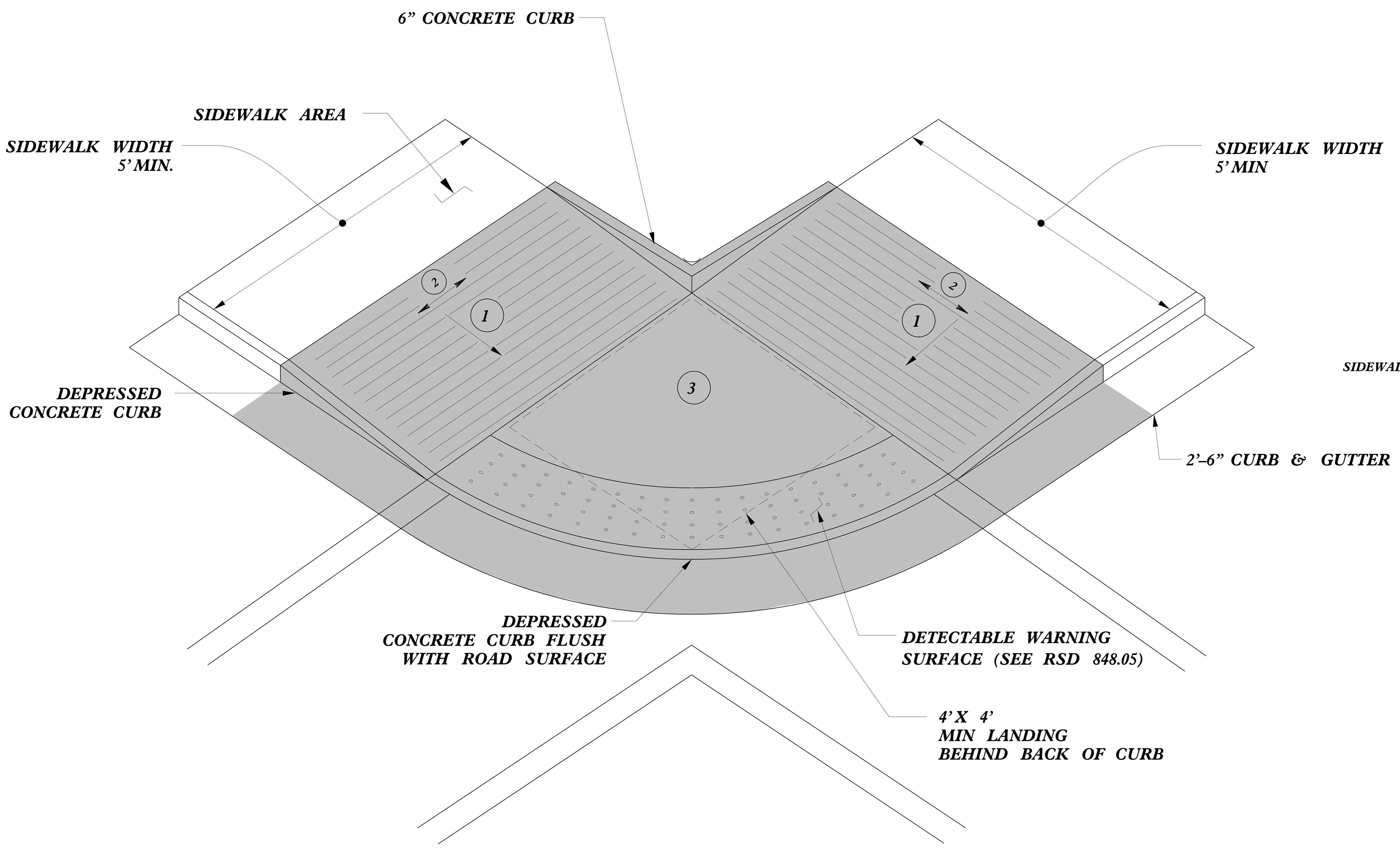
| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| 2022CPT.12.11.10181 | 11 |



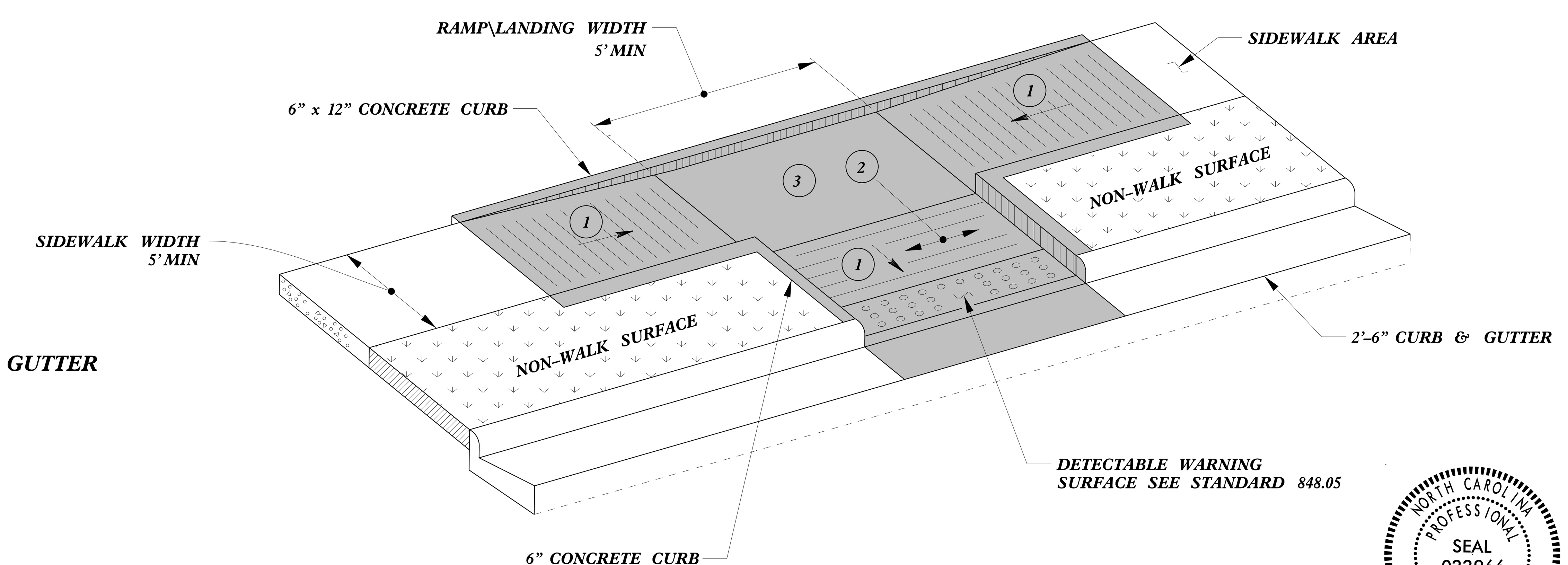

TYPE 2

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

NORTH CAROLINA PROFESSIONAL SEAL 022966 ENGINEER Joel S. Howerton

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

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

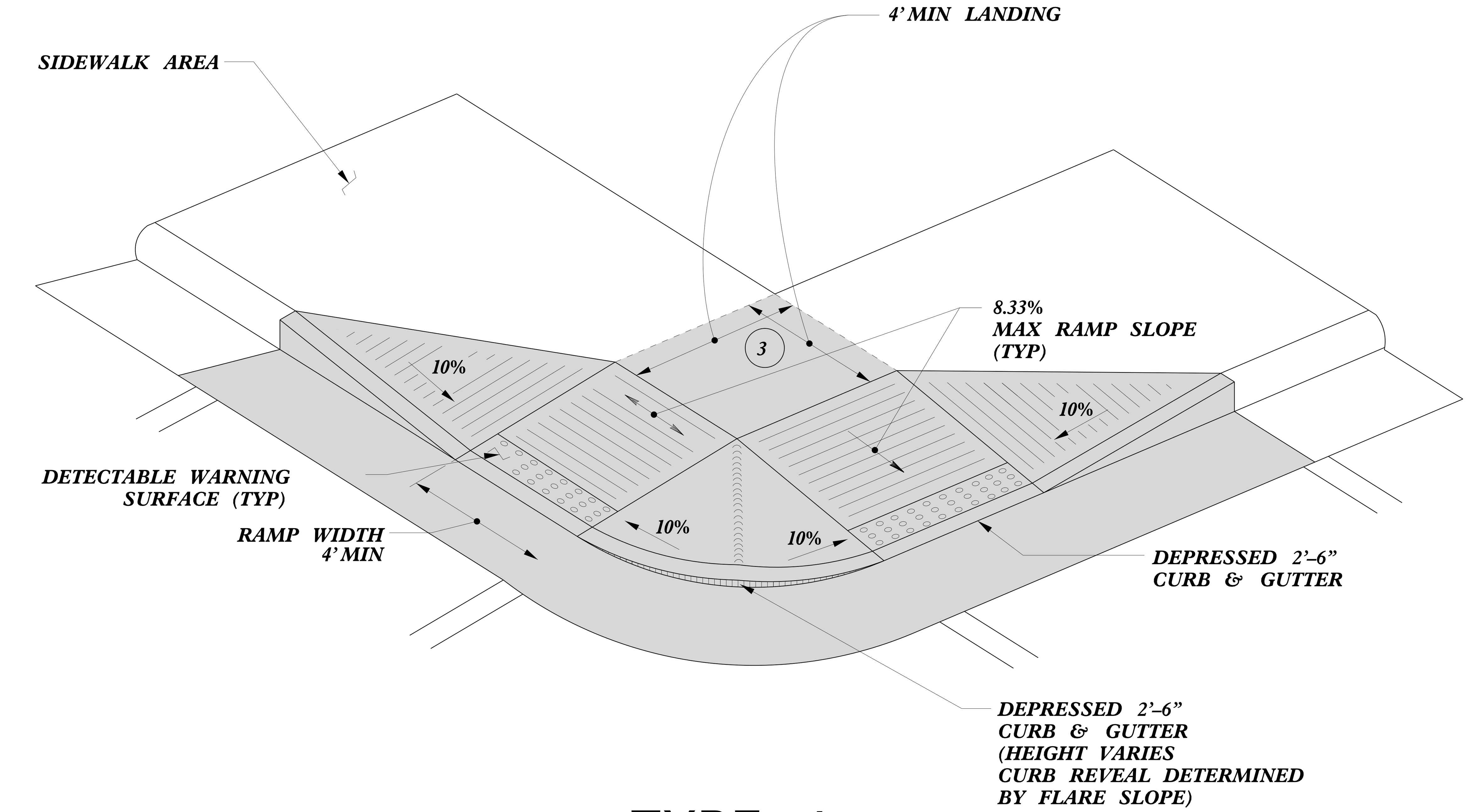
# CURB RAMPS

## Parallel Ramps

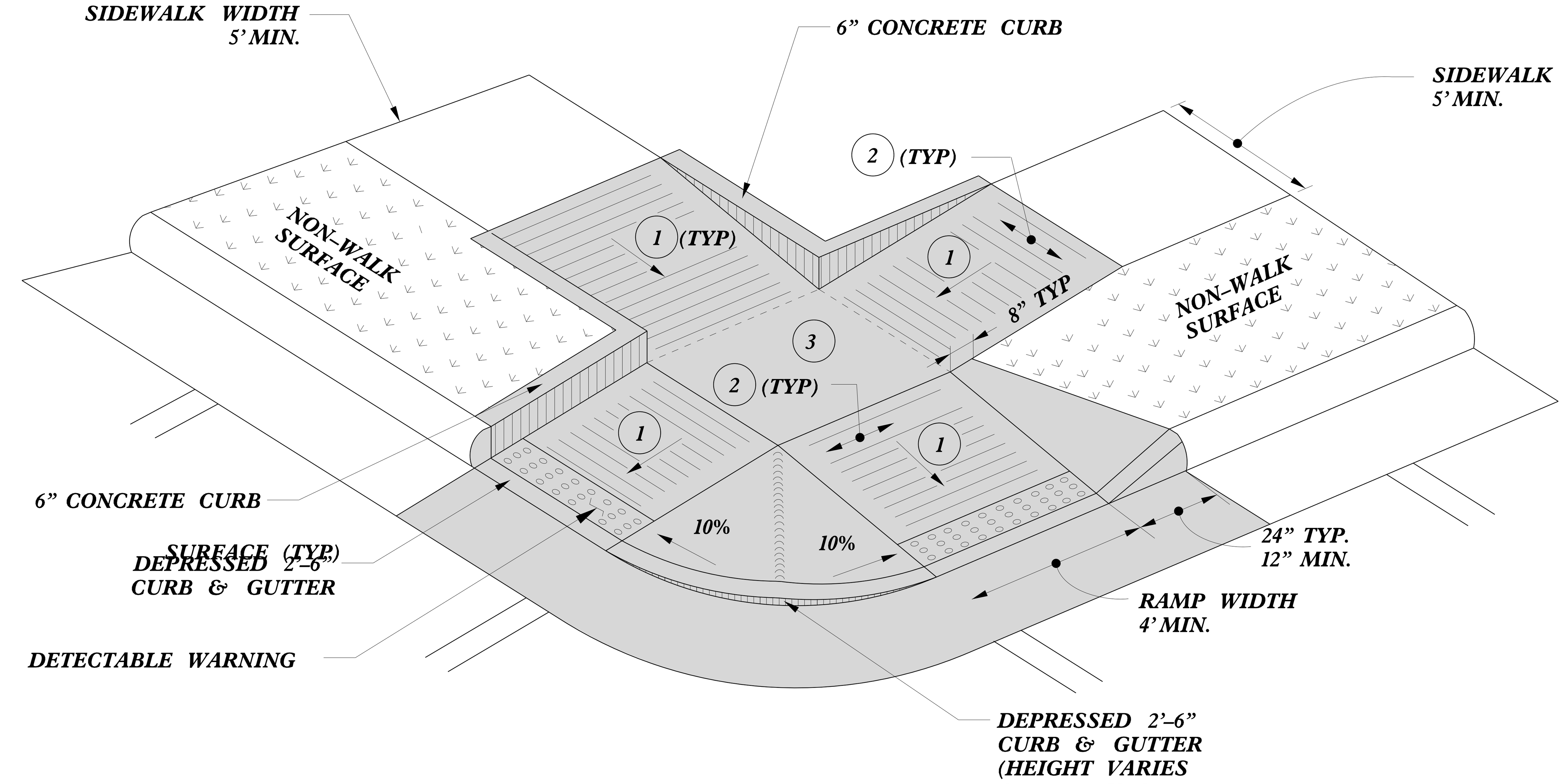
ORIGINAL BY: J.S. HOWERTON DATE: 7/7/11
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.: stds/2012CurbRamp/CurbRampDetails.dgn

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| 2022CPT.12.11.10181 | 12 |

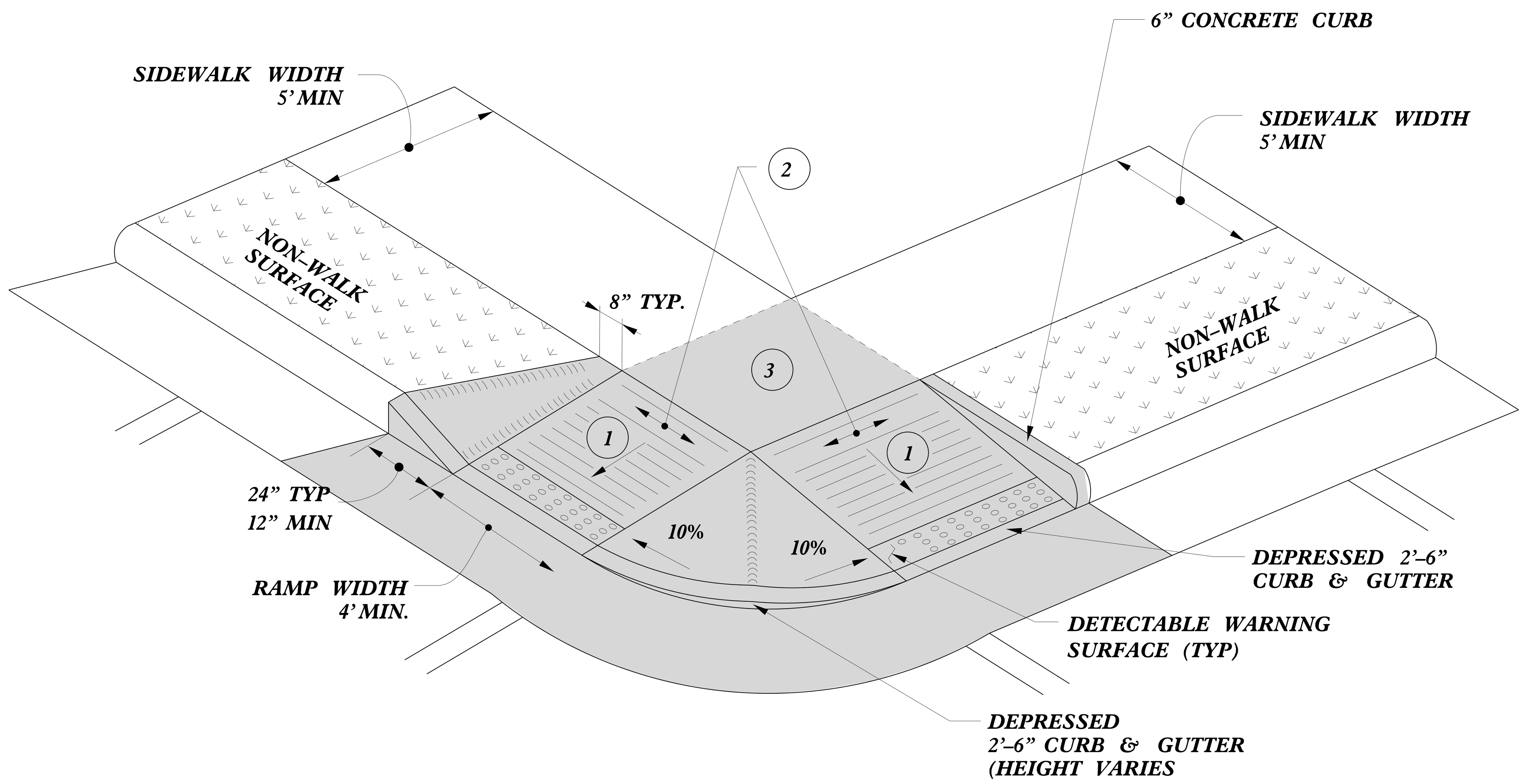
PAY LIMITS FOR 2 CURB RAMPS




TYPE 4




TYPE 5




TYPE 4A

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

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 022966 Joel S. Howerton

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.dgn

$$$$$$SYSTIME$$$$$ $$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$ $$$$USERNAME$$$$ 5/14/99

| PROJECT NO. | SHEET NO. | TOTAL NO. |
|---|---|---|
| 2022CPT.12.11.10181,<br>2022CPT.12.11.20181 | 13 | 18 |

# SUMMARY OF QUANTITIES

| PROJECT NO | COUNTY | MAP NO | ROUTE | DESCRIPTION | TYP NO | LANES | LANE TYPE | FINAL SURFACE TESTING REQUIRED | WARM MIX ASPHALT REQUIRED | LENGTH | WIDTH | 1220000000-E INCIDENTAL STONE BASE | 1245000000-E SHOULDER RECONSTRUCTION | 1260000000-E AGGREGATE SHOULDER BORROW | 1297000000-E 1½" MILLING | 1308000000-E 0" TO 1.5" MILLING | 1330000000-E INCIDENTAL MILLING | 152300000-E SURFACE COURSE, S9.5C | 1524000000-E LEVELING COURSE, S9.5C | 151900000-E SURFACE COURSE, S9.5B | 152000000-E LEVELING COURSE, S9.5B | 1575000000-E ASPHALT BINDER FOR PLANT MIX | 1704000000-E PATCHING EXISTING PAVEMENT | 1840000000-E MILLED RUMBLE STRIPS | 2605000000-N CONCRETE CURB RAMPS | 2800000000-N CATCH BASIN | 2830000000-N MANHOLES | 2845000000-N METER OR VALVE BOX | 2850000000-N OVERSIZED MANHOLES | 7444000000-E INDUCTIVE LOOP | 7456000000-E LEAD-IN CABLE | 7324000000-N JUNCTION BOX (STD.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | MI | FT | TONS | SMI | TON | SY | SY | SY | TONS | TONS | TON | TONS | TONS | TONS | LF | EA | EA | EA | EA | EA | LF | LF | EA |
| 2022CPT.12.11.10181 | Catawba | 1 | NC 16 NORTH BOUND | FROM PROJECT LIMITS (C203800) TO LINCOLN CO | 1 | 2 | 2WD | NO | NO | 1.98 | 24 | | | | 27,900 | | 700 | 2,468 | 100 | | | 165 | | | | | | | | | | |
| 2022CPT.12.11.10181 | Catawba | 2 | NC 16 SOUTH BOUND | FROM PROJECT LIMITS (C203800) TO NC 150 | 1 | 2 | 2WD | NO | NO | 1.98 | 24 | | | | 27,900 | | 700 | 2,468 | 100 | | | 165 | | | | | | | | | | |
| 2022CPT.12.11.10181 | Catawba | 3 | NC 16 ONRAMP | FROM NC 150 TO END OF TAPER | 2 | 2 | MD | NO | NO | 0.23 | 20-83 | 100 | 0.46 | 23 | | | 75 | 263 | | | | 18 | | | | | | | | | | |
| 2022CPT.12.11.10181 | Catawba | 4 | NC 16 OFF RAMP | END OF TAPER TO NC 150 | 2 | 2 | MD | NO | NO | 0.31 | 20-83 | | 0.62 | 32 | | | 60 | 368 | | | | 25 | | 165 | | | | | | 285 | 200 | |
| 2022CPT.12.11.10181 | Catawba | 5 | US 70 | FROM PVMNT JOINT TO SR 1715 (N. OXFORD ST) | 3,4,5,6,7,8 | 2 | 2WU | NO | NO | 4.30 | 24-60 | | 3.10 | 150 | 18,200 | 450 | 5,000 | 5,616 | | | | 376 | 150 | | 2 | 1 | 5 | 3 | 1 | 1,300 | 500 | 1 |
| **TOTAL FOR PROJ NO. 2022CPT.12.11.10181** | | | | | | | | | | **8.80** | | **100** | **4.18** | **205** | **74,000** | **450** | **6,535** | **11,183** | **200** | | | **749** | **150** | **165** | **2** | **1** | **5** | **3** | **1** | **1,585** | **700** | **1** |
| | | | | | | | | | | | | | | | | | | **11,183** | **200** | | | | | | | | | | | | | |
| 2022CPT.12.11.20181 | Catawba | 6 | SR 2967 (RIVER BIRCH DR) | FROM SR 1131 (PITTSTOWN RD) TO SR 2966 (MULBERRY LN) | 7 | 2 | 2WU | NO | NO | 0.074 | 24 | | | | 1,200 | | | 95 | | | | 6 | 20 | | | | | | | | | |
| 2022CPT.12.11.20181 | Catawba | 7 | SR 2968 (BLACK WALNUT DR) | FROM SR 2967 (RIVER BIRCH DR) TO CUL-DE-SAC | 7 | 2 | 2WU | NO | NO | 0.09 | 18 | | | | 1,275 | | | 116 | | | | 8 | 20 | | | | | | | | | |
| 2022CPT.12.11.20181 | Catawba | 8 | SR 2966 (MULBERRY LN) | FROM SR 2965 (WINDING OAKS DR) TO CUL-DE-SAC | 7 | 2 | 2WU | NO | NO | 0.20 | 24 | | | | 3,200 | | | 284 | | | | 19 | 20 | | | | | | | | | |
| 2022CPT.12.11.20181 | Catawba | 9 | SR 2965 (WINDING OAKS DR) | FROM CUL-DE SAC TO CUL-DE-SAC | 7 | 2 | 2WU | NO | NO | 0.41 | 24 | | | | 6,560 | | | 578 | | | | 39 | 30 | | | | | | | | | |
| 2022CPT.12.11.20181 | Catawba | 10 | SR 2553 (KINGS RD) | FROM SR 1176 (BETHEL CH RD) TO CUL-DE-SAC | 9 | 2 | 2WU | NO | NO | 0.15 | 21 | | | | | | | | | 110 | 5 | 7 | | | | | | | | | | |
| 2022CPT.12.11.20181 | Catawba | 11 | SR 2554 (KINGS CT) | FROM SR 2553 (KINGS RD) TO CUL-DE-SAC | 9 | 2 | 2WU | NO | NO | 0.14 | 20 | | | | | | | | | 105 | 5 | 7 | | | | | | | | | | |
| 2022CPT.12.11.20181 | Catawba | 12 | SR 2553 (KINGS RD) | FROM SR 1176 (BETHEL CH RD) TO SR 2908 (QUEENS RD) | 9 | 2 | 2WU | NO | NO | 0.11 | 21 | | | | | | | | | 84 | | 6 | | | | | | | | | | |
| 2022CPT.12.11.20181 | Catawba | 13 | SR 2908 (QUEENS RD) | FROM CUL-DE-SAC TO CUL-DE-SAC | 9 | 2 | 2WU | NO | NO | 0.28 | 22 | | | | | | | | | 222 | 10 | 15 | 75 | | | | | | | | | |
| 2022CPT.12.11.20181 | Catawba | 14 | SR 2909 (QUEENS RD) | FROM SR 2908 (QUEENS RD) TO CUL-DE-SAC | 9 | 2 | 2WU | NO | NO | 0.024 | 46 | | | | | | | | | 42 | | 3 | | | | | | | | | | |
| 2022CPT.12.11.20181 | Catawba | 15 | SR 2946 (QUEENS RD) | FROM SR 2908 (QUEENS RD) TO CUL-DE-SAC | 9 | 2 | 2WU | NO | NO | 0.02 | 65 | | | | | | | | | 47 | | 3 | 20 | | | | | | | | | |
| 2022CPT.12.11.20181 | Catawba | 16 | SR 2910 (EARL ST) | FROM SR 2908 (QUEENS RD) TO CUL-DE-SAC | 9 | 2 | 2WU | NO | NO | 0.1 | 21 | | | | | | | | | 79 | | 5 | | | | | | | | | | |
| 2022CPT.12.11.20181 | Catawba | 17 | SR 2556 (LANSER DR) | FROM SR 1176 (BETHEL CH RD) TO SR 2555 (PRINCE ST) | 9 | 2 | 2WU | NO | NO | 0.16 | 21 | | | | | | | | | 121 | 5 | 8 | | | | | | | | | | |
| 2022CPT.12.11.20181 | Catawba | 18 | SR 2555 (PRINCE ST) | FROM SR 1176 (BETHEL CH RD) TO SR 2908 (QUEENS RD) | 9 | 2 | 2WU | NO | NO | 0.43 | 22 | | | | | | | | | 326 | 15 | 22 | 20 | | | | | | | | | |
| 2022CPT.12.11.20181 | Catawba | 19 | SR 2958 (2ND ST PLACE SW, BROOKFORD) | FROM NC 127 END MAINT | 9 | 2 | 2WU | NO | NO | 0.16 | 19 | 50 | | | | | | | | 105 | 5 | 7 | 50 | | | | | | | | | |
| 2022CPT.12.11.20181 | Catawba | 20 | SR 1244 (17TH AVE CT SW, BROOKFORD0 | FROM SR 2958 (2ND ST PL SW) TO END MAINT | 9 | 2 | 2WU | NO | NO | 0.15 | 19 | 20 | | | | | | | | 100 | 5 | 7 | 30 | | | | | | | | | |
| 2022CPT.12.11.20181 | Catawba | 21 | SR 1169 (THOMPSON ST) | FROM SR 1146 (ROBINSON RD) TO CUL-DE-SAC | 9 | 2 | 2WU | NO | NO | 0.55 | 19 | 40 | | | | | 110 | | | 378 | 20 | 25 | 150 | | | | | | | | | |
| 2022CPT.12.11.20181 | Catawba | 22 | SR 1193 (HARRIS FARM RD) | FROM NC 127 TO END MAINT | 4 | 2 | 2WU | NO | NO | 1.05 | 19 | 30 | 2.10 | 105 | | | 160 | 1,040 | 50 | | | 70 | | | | | | | | | | |
| 2022CPT.12.11.20181 | Catawba | 23 | SR 1192 (MOUNTAIN VIEW RD) | FROM SR 1193 (HARRIS FARM RD) TO END MAINT | 4 | 2 | 2WU | NO | NO | 0.65 | 19 | 20 | 1.30 | 65 | | | 180 | 641 | 25 | | | 43 | | | | | | | | | | |
| **TOTAL FOR PROJ NO. 2022CPT.12.11.20181** | | | | | | | | | | **4.748** | | **160** | **3.40** | **170** | **12,235** | | **450** | **2,754** | **75** | **1,719** | **70** | **300** | **435** | | | | | | | | | |
| **GRAND TOTAL** | | | | | | | | | | **13.548** | | **260** | **7.58** | **375** | **86,235** | **450** | **6,985** | **13,937** | **275** | **1,719** | **70** | **1,049** | **585** | **165** | **2** | **1** | **5** | **3** | **1** | **1,585** | **700** | **1** |

| Project No. | SHEET NO. | TOTAL NO. |
|---|---|---|
| 2022CPT.12.11.10181 | 14 | 18 |
| 2022CPT.12.11.20181 | | |

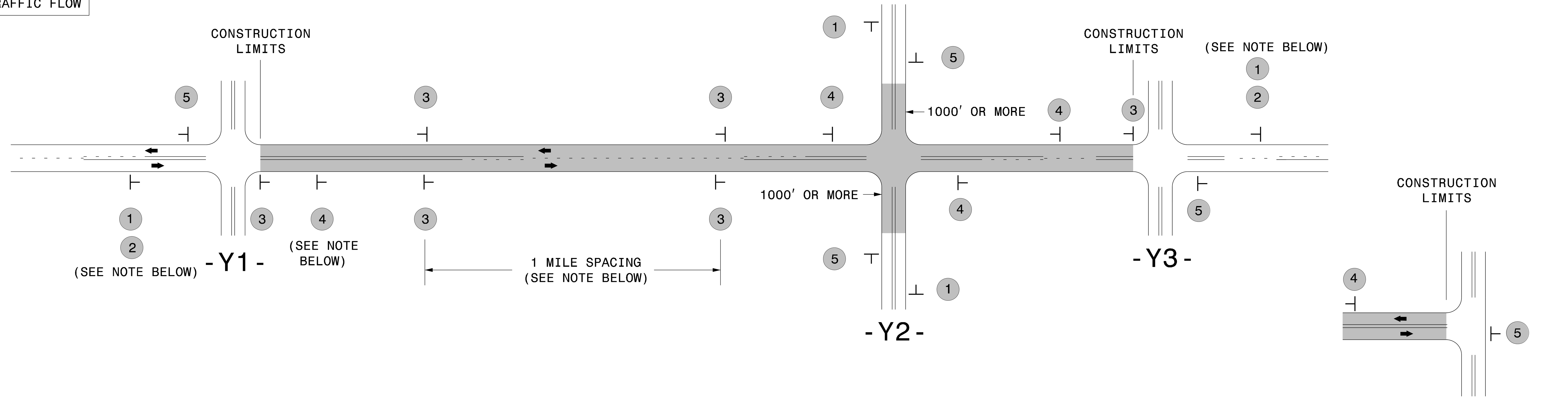
# THERMOPLASTIC AND PAINT QUANTITIES

| | | | | | | | | | | 4413000000-E | 4447000000-E | 4457000000-N | 4510000000-N | 4600000000-N | 4697000000-E | 4710000000-E | 4721000000-E | 4725000000-E | | | | | | | 4847010000-E | | 4810000000-E | | 4905000000-N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PROJECT NO | COUNTY | MAP NO | ROUTE | DESCRIPTION | TYP NO | LANES | LANE TYPE | LENGTH | WIDTH | WORK ZONE ADVANCE WARNING SIGNS (STA) | PEDESTRIAN CHANNELIZING DEVICES | TEMP. TRAFFIC CONTROL | LAW ENFORCEMEN T | RAMP / LOOP CLOSURE | 8" X 90 M WHITE THERMO | 24" X 90 M WHITE THERMO | THERMO MSG ONLY 120 M | THERMO RT ARROW 90 M | THERMO LT ARROW 90 M | THERMO MERGE ARROW (90 MILS) | THERMO STR & RT ARROW 90 M | THERMO STR ARROW 90 M | THERMO STR & LT ARROW 90 M | YIELD SYMBOL (90 MILS) | 4" WHITE POLYUREA (HIGHLY REFLECTIVE ELEMENTS) | 4" YELLOW POLYUREA (HIGHLY REFLECTIVE ELEMENTS) | 4" WHITE PAINT | 4" YELLOW PAINT | SNOW PLOWABLE MARKERS |
| | | | | | | | | MI | FT | SF | | LS | HR | EA | LF | LF | EA | EA | EA | EA | EA | EA | EA | EA | LF | LF | LF | LF | EA |
| 2022CPT.12.11.10181 | Catawba | 1 | NC 16 NORTH BOUND | FROM PROJECT LIMITS (C203800) TO LINCOLN CO | 1 | 2 | 2WD | 1.98 | 24 | 150 | | * | 60 | | 200 | | | 3 | 6 | 6 | | | | | 13,000 | 10,450 | 13,000 | 10,450 | 210 |
| 2022CPT.12.11.10181 | Catawba | 2 | NC 16 SOUTH BOUND | FROM PROJECT LIMITS (C203800) TO NC 150 | 1 | 2 | 2WD | 1.98 | 24 | 150 | | * | 60 | | 130 | | | 2 | 6 | | | | | | 13,000 | 10,450 | 13,000 | 10,450 | 210 |
| 2022CPT.12.11.10181 | Catawba | 3 | NC 16 ONRAMP | FROM NC 150 TO END OF TAPER | 2 | 2 | MD | 0.23 | 20-83 | 32 | | * | 15 | 1 | | 14 | | | | | | | | | 1,250 | 1,250 | 1,250 | 1,250 | 10 |
| 2022CPT.12.11.10181 | Catawba | 4 | NC 16 OFF RAMP | END OF TAPER TO NC 150 | 2 | 2 | MD | 0.31 | 20-83 | 24 | | * | 15 | 1 | | 42 | | | 1 | | 1 | | | | 1,650 | 1,650 | 1,650 | 1,650 | 10 |
| 2022CPT.12.11.10181 | Catawba | 5 | US 70 | FROM PVMNT JOINT TO SR 1715 (N. OXFORD ST) | 3,4,5,6,7,8 | 2 | 2WU | 4.3 | 24-60 | 325 | 30 | * | | | | 500 | 8 | 2 | 22 | 9 | 8 | 7 | 2 | 6 | 40,000 | 42,500 | 40,000 | 42,500 | 300 |
| **TOTAL FOR PROJ NO. 2023CPT.12.10181** | | | | | | | | **8.8** | | **681** | **30** | ***** | **150** | **2** | **330** | **556** | **8** | **7** | **35** | **15** | **9** | **7** | **2** | **6** | **68,900** | **66,300** | **68,900** | **66,300** | **740** |
| | | | | | | | | | | | | | | | | | | **81** | | | | | | | **135,200** | | **135,200** | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2022CPT.12.11.20181 | Catawba | 6 | SR 2967 (RIVER BIRCH DR) | FROM SR 1131 (PITTSTOWN RD) TO SR 2966 (MULBERRY LN) | 7 | 2 | 2WU | 0.074 | 24 | 32 | | * | | | | | | | | | | | | | | | | | |
| 2022CPT.12.11.20181 | Catawba | 7 | SR 2968 (BLACK WALNUT DR) | FROM SR 2967 (RIVER BIRCH DR) TO CUL-DE-SAC | 7 | 2 | 2WU | 0.09 | 18 | | | * | | | | | | | | | | | | | | | | | |
| 2022CPT.12.11.20181 | Catawba | 8 | SR 2966 (MULBERRY LN) | FROM SR 2965 (WINDING OAKS DR) TO CUL-DE-SAC | 7 | 2 | 2WU | 0.2 | 24 | | | * | | | | | | | | | | | | | | | | | |
| 2022CPT.12.11.20181 | Catawba | 9 | SR 2965 (WINDING OAKS DR) | FROM CUL-DE SAC TO CUL-DE-SAC | 7 | 2 | 2WU | 0.41 | 24 | | | * | | | | | | | | | | | | | | | | | |
| 2022CPT.12.11.20181 | Catawba | 10 | SR 2553 (KINGS RD) | FROM SR 1176 (BETHEL CH RD) TO CUL-DE-SAC | 9 | 2 | 2WU | 0.15 | 21 | 24 | | * | | | | | | | | | | | | | | | | | |
| 2022CPT.12.11.20181 | Catawba | 11 | SR 2554 (KINGS CT) | FROM SR 2553 (KINGS RD) TO CUL-DE-SAC | 9 | 2 | 2WU | 0.14 | 20 | | | * | | | | | | | | | | | | | | | | | |
| 2022CPT.12.11.20181 | Catawba | 12 | SR 2553 (KINGS RD) | FROM SR 1176 (BETHEL CH RD) TO SR 2908 (QUEENS RD) | 9 | 2 | 2WU | 0.11 | 21 | 24 | | * | | | | | | | | | | | | | | | | | |
| 2022CPT.12.11.20181 | Catawba | 13 | SR 2908 (QUEENS RD) | FROM CUL-DE-SAC TO CUL-DE-SAC | 9 | 2 | 2WU | 0.28 | 22 | | | * | | | | | | | | | | | | | | | | | |
| 2022CPT.12.11.20181 | Catawba | 14 | SR 2909 (QUEENS RD) | FROM SR 2908 (QUEENS RD) TO CUL-DE-SAC | 9 | 2 | 2WU | 0.024 | 46 | | | * | | | | | | | | | | | | | | | | | |
| 2022CPT.12.11.20181 | Catawba | 15 | SR 2946 (QUEENS RD) | FROM SR 2908 (QUEENS RD) TO CUL-DE-SAC | 9 | 2 | 2WU | 0.02 | 65 | | | * | | | | | | | | | | | | | | | | | |
| 2022CPT.12.11.20181 | Catawba | 16 | SR 2910 (EARL ST) | FROM SR 2908 (QUEENS RD) TO CUL-DE-SAC | 9 | 2 | 2WU | 0.1 | 21 | | | * | | | | | | | | | | | | | | | | | |
| 2022CPT.12.11.20181 | Catawba | 17 | SR 2556 (LANSER DR) | FROM SR 1176 (BETHEL CH RD) TO SR 2555 (PRINCE ST) | 9 | 2 | 2WU | 0.16 | 21 | 24 | | * | | | | | | | | | | | | | | | | | |
| 2022CPT.12.11.20181 | Catawba | 18 | SR 2555 (PRINCE ST) | FROM SR 1176 (BETHEL CH RD) TO SR 2908 (QUEENS RD) | 9 | 2 | 2WU | 0.43 | 22 | 24 | | * | | | | | | | | | | | | | | | | | |
| 2022CPT.12.11.20181 | Catawba | 19 | SR 2958 (2ND ST PLACE SW, BROOKFORD) | FROM NC 127 END MAINT | 9 | 2 | 2WU | 0.16 | 19 | 48 | | * | | | | | | | | | | | | | | | 1,200 | 1,200 | |
| 2022CPT.12.11.20181 | Catawba | 20 | SR 1244 (17TH AVE CT SW, BROOKFORD0 | FROM SR 2958 (2ND ST PL SW) TO END MAINT | 9 | 2 | 2WU | 0.15 | 19 | | | * | | | | | | | | | | | | | | | | | |
| 2022CPT.12.11.20181 | Catawba | 21 | SR 1169 (THOMPSON ST) | FROM SR 1146 (ROBINSON RD) TO CUL-DE-SAC | 9 | 2 | 2WU | 0.55 | 19 | | | * | | | | | | | | | | | | | | | | | |
| 2022CPT.12.11.20181 | Catawba | 22 | SR 1193 (HARRIS FARM RD0 | FROM NC 127 TO END MAINT | 4 | 2 | 2WU | 1.05 | 19 | 60 | | * | | | | | | | | | | | | | | | 22,200 | 22,200 | |
| 2022CPT.12.11.20181 | Catawba | 23 | SR 1192 (MOUNTAIN VIEW RD) | FROM SR 1193 (HARRIS FARM RD) TO END MAINT | 4 | 2 | 2WU | 0.65 | 19 | 24 | | * | | | | | | | | | | | | | | | 13,750 | 13,750 | |
| **TOTAL FOR PROJ NO. 2022CPT.12.11.20181** | | | | | | | | **4.748** | | **260** | | ***** | | | | | | | | | | | | | | | **37,150** | **37,150** | |
| | | | | | | | | | | | | ***** | | | | | | | | | | | | | | | **74,300** | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **GRAND TOTAL** | | | | | | | | **13.548** | | **941** | **30** | **1** | **150** | **2** | **330** | **556** | **8** | **7** | **35** | **15** | **9** | **7** | **2** | **6** | **68,900** | **66,300** | **106,050** | **103,450** | **740** |
| | | | | | | | | | | | | | | | | | | **81** | | | | | | | **135,200** | | **209,500** | | |

| PROJ. REFERENCE NO. | SHEET NO. |
|---|---|
| 2022CPT.12.11.10181 | 15 |

# SIGNING FOR RESURFACING PROJECTS

**LEGEND**
- ⊢ STATIONARY SIGN
- ← DIRECTION OF TRAFFIC FLOW




TEE INTERSECTION

## MAINLINE (-L-) SIGNING

| SIGNING NOTES AND PLACEMENT PER DIRECTION | | | |
|---|---|---|---|
| | 1 | ROAD WORK AHEAD W20-1 48" X 48" | PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE. |
| | 2 | NEXT XX MILES W7-3aP 24" X 18" | #2 SIGN ONLY USED WHEN CONSTRUCTION LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER.(NO FRACTIONAL OR DECIMAL NUMBERS) |
| | 3 | LOW/SOFT SHOULDER SP 13107 48" X 48" | - PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACE 1 MILE APART THEREAFTER.<br>- AT TEE INTERSECTIONS INSTALL INITIALLY ½ MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER. |
| | 4 | ROAD UNDER CONST SP 13106 48" X 48" | - THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS.<br>- DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS.<br>- INSTALL 500' +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE.<br>- 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.<br>- A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN.<br>- FOR TEE INTERSECTIONS, INSTALL WITHIN 500' +/- OF THE INTERSECTION ALONG -L- LINE. |
| | 5 | END ROAD WORK G20-2 A 48" X 24" | PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION. |

THE ABOVE SIGNS ARE ALL THAT ARE REQUIRED FOR A CONTRACTOR TO BEGIN A RESURFACING CONTRACT. ANY ADDITIONAL SIGNS REQUESTED BY NCDOT DIVISIONS SHALL BE INSTALLED WITHIN 7 BUSINESS DAYS OF THE START OF CONTRACT WORK.

| MAPS LESS THAN 2 MILES | FOR RESURFACING MAPS WITH CONSTRUCTION LIMITS LESS THAN 2 MILES IN LENGTH, NO STATIONARY SIGNS ARE REQUIRED. USE PORTABLE "ROAD UNDER CONSTRUCTION" OR "ROAD WORK AHEAD" SIGNS IN LIEU OF STATIONARY ADVANCE WARNINGS SIGNS. |
|---|---|

## -Y- LINE SIGNING

NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:

1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE
2) SUBDIVISION ROADS
3) DEAD END ROADS

WHEN PAVING/CONSTRUCTION ACTIVITIES PROCEED ACROSS AN UNSIGNED -Y- LINE, PORTABLE ADVANCE WARNING SIGNS SHALL BE USED ALONG THE -Y- LINE AS SHOWN BELOW. REMOVE UPON COMPLETION OF WORK.

ROAD WORK AHEAD W20-1 48" X 48"
PLACED 500' IN ADVANCE OF FLAGGER.

W20-7 A 48" X 48"
PLACED 250' IN ADVANCE OF FLAGGER.

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

ADVANCE WARNING SIGNS FOR RURAL AND SUBURBAN 2-LANE ROADWAY RESURFACING

5/15/2017
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| PROJ. REFERENCE NO. | SHEET NO. |
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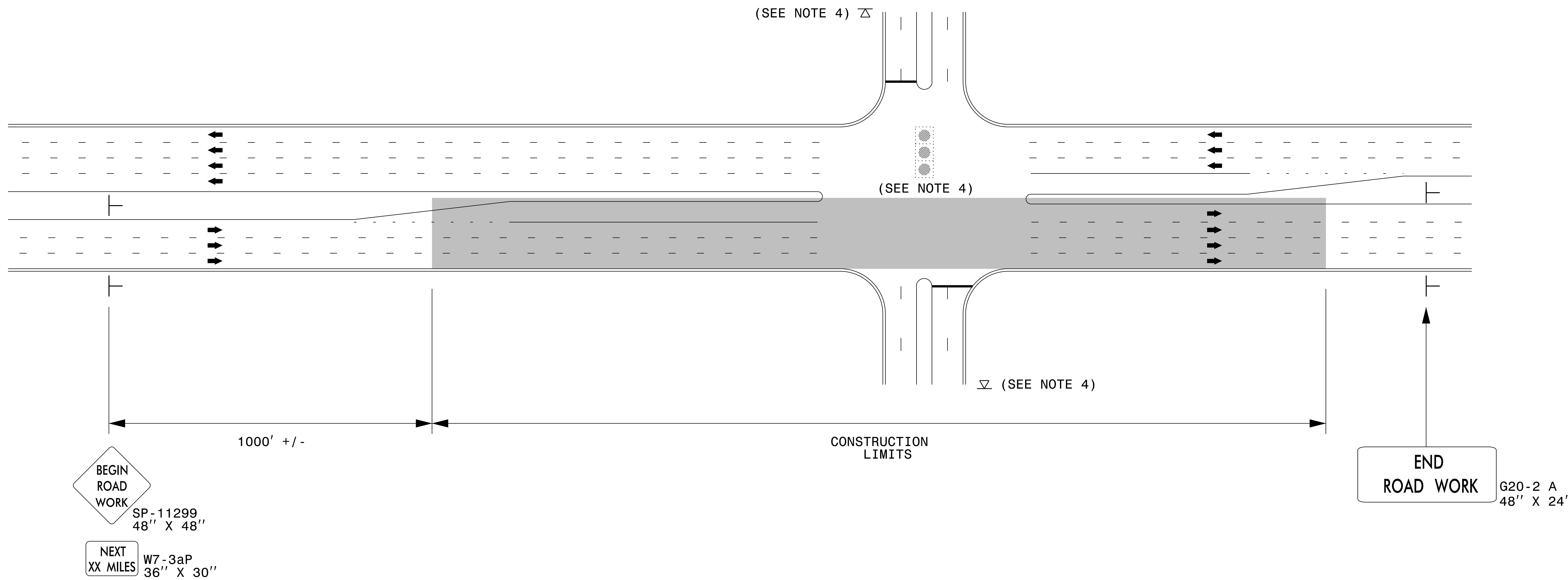
| 2022CPT.12.11.10181 | 16 |

# 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

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

RESURFACING ADVANCE WARNING SIGNS FOR URBAN / SUBURBAN FACILITIES

4/8/2015
C:\Users\rmgarrett\Downloads\Resurfacing_AdvWarn_UrSu (2).dgn
User:rmgarrett

| PROJ. REFERENCE NO. | SHEET NO. |
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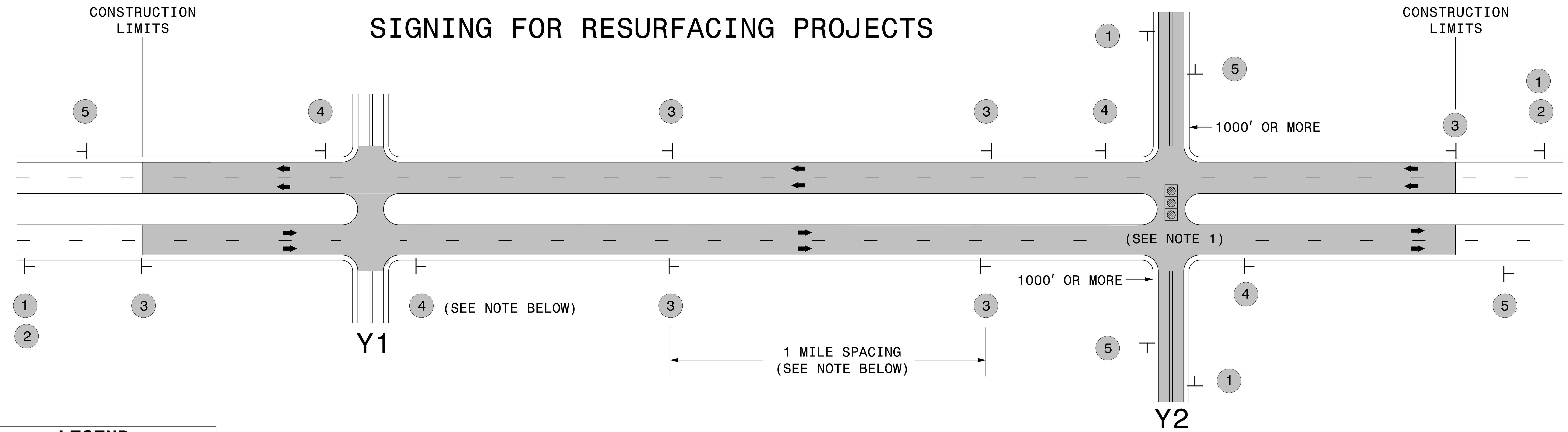
| 2022CPT.12.11.10181 | 17 |

# SIGNING FOR RESURFACING PROJECTS




**LEGEND**

├ STATIONARY SIGN

← DIRECTION OF TRAFFIC FLOW

## MAINLINE (-L-) SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION

| | | |
|---|---|---|
| 1 | ROAD WORK AHEAD — W20-1 48″ X 48″ | PLACE 1000′ PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000′ ALONG -Y- LINE. |
| 2 | NEXT XX MILES — W7-3aP 24″ X 18″ | #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) |
| 3 | LOW/SOFT SHOULDER — SP 13107 48″ X 48″ | PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACED 1 MILE APART THEREAFTER. IF NO -Y- LINES EXIST, PLACE 2ND SET ½ MILE FROM THE CONSTRUCTION LIMITS AND THEN SPACE 1 MILE THEREAFTER. |
| 4 | ROAD UNDER CONST — SP 13106 48″ X 48″ | 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. |
| 5 | END ROAD WORK — G20-2 A 48″ X 24″ | PLACE 500′ FOLLOWING THE END OF CONSTRUCTION LIMITS. |

## -Y- LINE SIGNING

NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:

1) LESS THAN 1000′ OF RESURFACING ALONG -Y- LINE
2) SUBDIVISION ROADS
3) DEAD END ROADS

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.

| ROAD WORK AHEAD — W20-1 48″ X 48″ | W20-7 A 48″ X 48″ |
|---|---|
| PLACED 500′ IN ADVANCE OF FLAGGER. | PLACED 250′ IN ADVANCE OF FLAGGER. |

NOTES:

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.

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

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

| PROJ. REFERENCE NO. | SHEET NO. |
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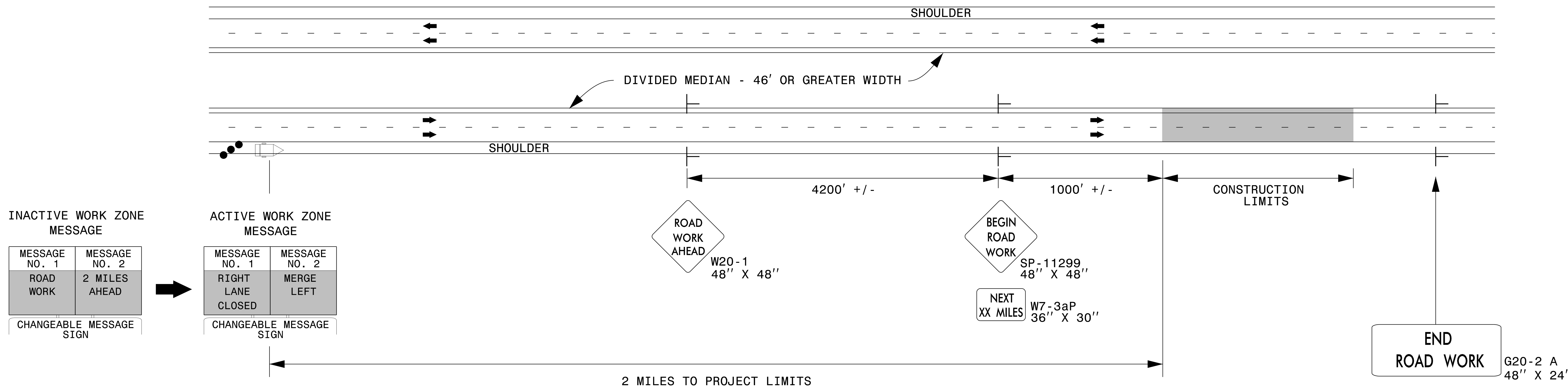
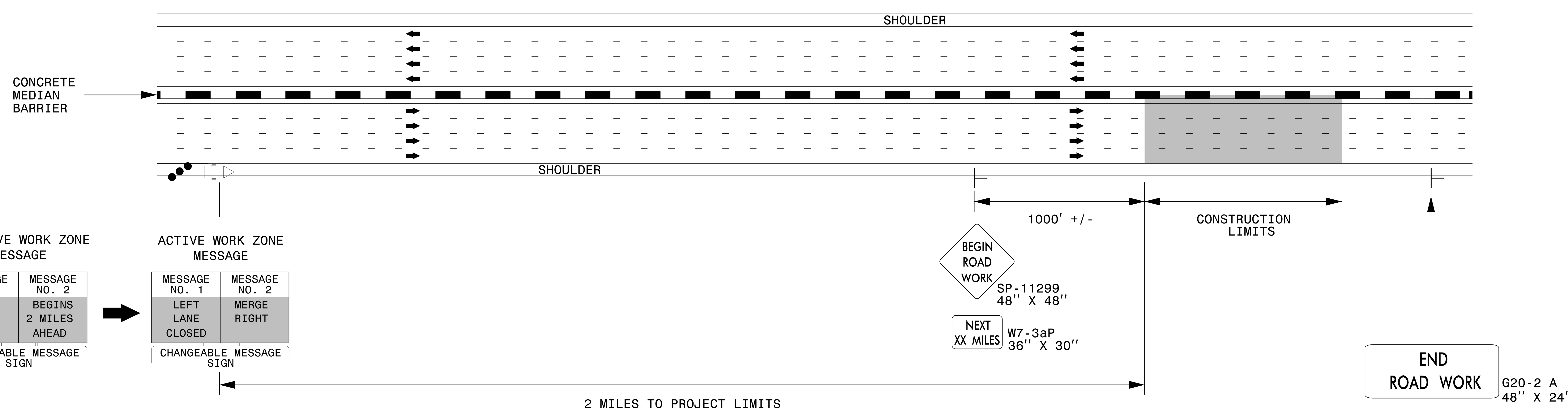
| 2022CPT.12.11.10181 | 18 |

## DIVIDED MEDIANS WITH WIDTHS 46′ OR GREATER




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




### LEGEND

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

### NOTES:

1) LATERAL CLEARANCE AT ALL SIGN LOCATIONS SHALL BE 6′ AS MEASURED FROM THE EDGE OF PAVEMENT.
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) FOR MEDIAN WIDTHS LESS THAN 46′ (MEASURED EDGELINE TO EDGELINE) USE THE BOTTOM DRAWING.
4) IF STATIONARY GENERAL WARNING SIGNS ARE USED, THEY WILL BE PAID FOR PER SECTION 104 OF THE NCDOT STANDARD SPECIFICATIONS AS EXTRA WORK.
5) INSTALL "ROAD WORK AHEAD"(W20-1) ALONG ENTRANCE RAMPS 500′ PRIOR TO RAMP TERMINAL, AND "END ROAD WORK" (G20-2a) AT THE END OF EXIT RAMPS WITHIN THE WORK ZONE.
6) 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 AND WITH DIVIDED MEDIANS OF 46′ OR GREATER. THESE PORTABLE SIGNS ARE INCIDENTAL TO THE OTHER ITEMS OF WORK INCLUDED IN THE TEMPORARY TRAFFIC CONTROL (LUMP SUM) PAY ITEM.

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

RESURFACING ADVANCE WARNING SIGNS FOR HIGH SPEED FACILITIES ≥ 60 MPH