

09/08/19

\$\$\$SYTIME\$\$\$
\$\$\$DGN\$\$\$
\$\$\$USERNAME\$\$\$

WBS NO.: 2023CPT.01.04.20461.1, ETC.

CONTRACT: C204859

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

HERTFORD COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.
N.C.	2023CPT.01.04.20461.1, ETC	1
STATE PROJ. NO.	P.A. PROJ. NO.	DESCRIPTION
2023CPT.01.04.20461.1		PE, CONST
2023CPT.01.04.20462.1		PE, CONST



LOCATION:

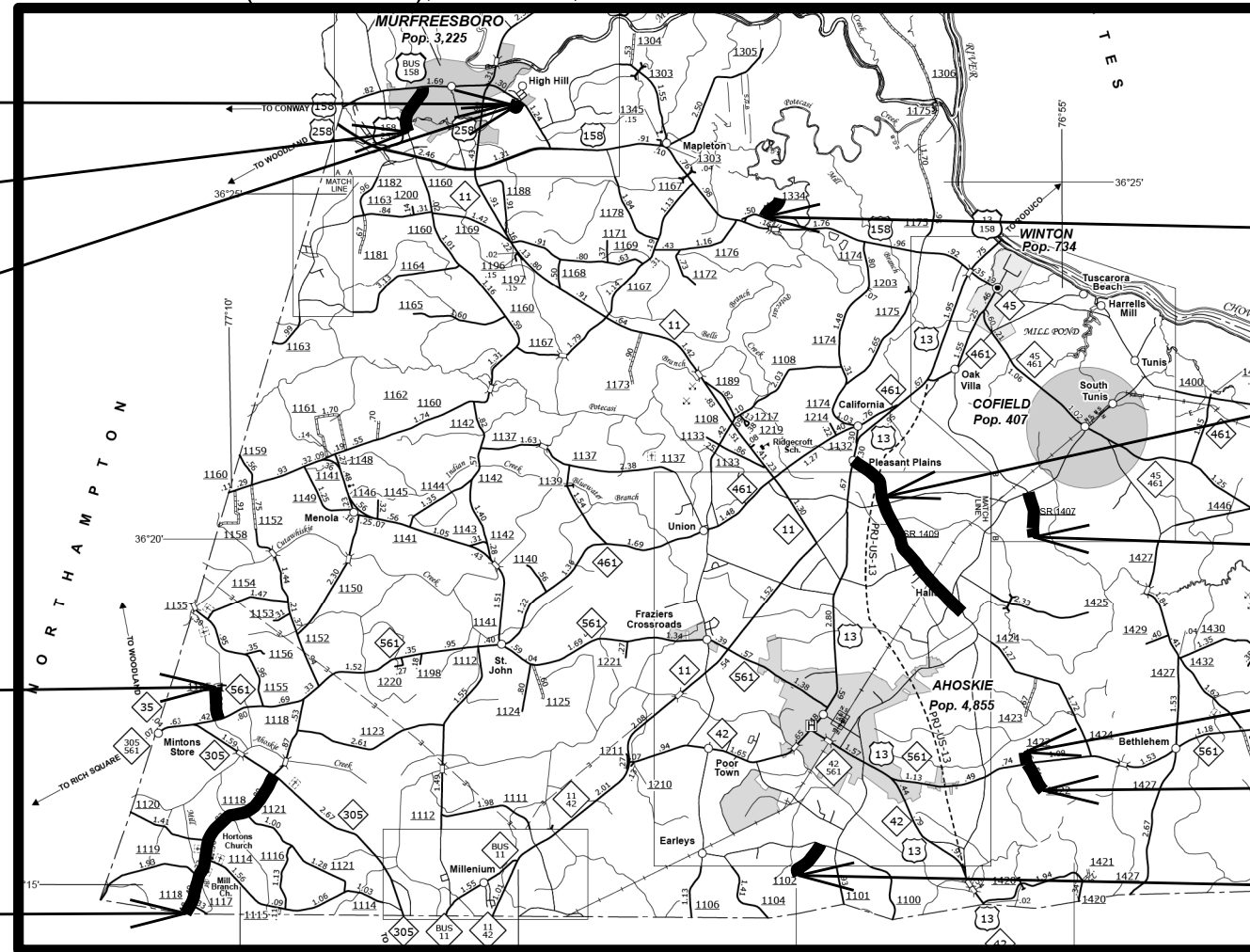
- MAP 1 - SR 1118 (MILL BRANCH CHURCH RD) FROM BERTIE COUNTY LINE TO NC 305
- MAP 2 - SR 1160 (SPRING AVE) FROM END C&G TO US 158 BUS
- MAP 3 - SR 1409 (HALL SIDING RD) FROM SR 1403 TO US 13
- MAP 4 - SR 1102 (FRETWELL RD) FROM DEAD END TO SR 1100
- MAP 5 - SR 1185 (TRI COUNTY AIRPORT RD) FROM NC 561 TO CUL-DE-SAC
- MAP 6 - SR 1199 (CENTER RD) FROM DEAD END TO US 158

- MAP 7 - SR 1228 (OAK RD) FROM DEAD END TO SR 1199 (OAK RD)
- MAP 8 - SR 1334 (SHERIFF RD) FROM SR 1350 TO DEAD END
- MAP 9 - SR 1407 (BLUE FOOT RD) FROM DEAD END TO SR 1403
- MAP 10 - SR 1422 (HICKORY CHAPEL RD) FROM NC 561 TO N. DEAD END
- MAP 11 - SR 1422 (SLAUGHTER RD) FROM S. DEAD END TO NC 561

TYPE OF WORK: AST (MAT COAT), MILLING, RESURFACING AND SHOULDER RECONSTRUCTION

MAP 7
MAP 2
MAP 6

MAP 5
MAP 1



MAP 8
MAP 3
MAP 9
MAP 10
MAP 11
MAP 4

GRAPHIC SCALES

NTS

MAP LENGTH

- MAP 1 = 2.92 MILES
- MAP 2 = 0.56 MILES
- MAP 3 = 3.20 MILES
- MAP 4 = 0.58 MILES
- MAP 5 = 0.54 MILES
- MAP 6 = 0.25 MILES
- MAP 7 = 0.10 MILES
- MAP 8 = 0.40 MILES
- MAP 9 = 0.76 MILES
- MAP 10 = 0.16 MILES
- MAP 11 = 0.51 MILES

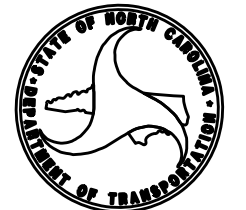
Prepared in the Office of:
DIVISION 1
DIVISION OF HIGHWAYS
113 AIRPORT DR., EDENTON NC, 27932

2018 STANDARD SPECIFICATIONS

W. B. HOBBS, PE
DIVISION PROJECT DEVELOPMENT ENGINEER

CHRIS SLACHTA
DIVISION CONTRACT ENGINEER

S. P. FENWICK, PLS
DIVISION DESIGN ENGINEER



09/08/19

\$\$\$SYTIME\$\$\$
\$\$\$DGN\$\$\$
\$\$\$USERNAME\$\$\$

CONTRACT: C204859 WBS NO.: 2023CPT.01.04.20461.1, ETC.

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

NORTHAMPTON COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.
N.C.	2023CPT.01.04.20461.1, ETC	2
STATE PROJ. NO.	P.A. PROJ. NO.	DESCRIPTION
2023CPT.01.04.20661.1		PE, CONST

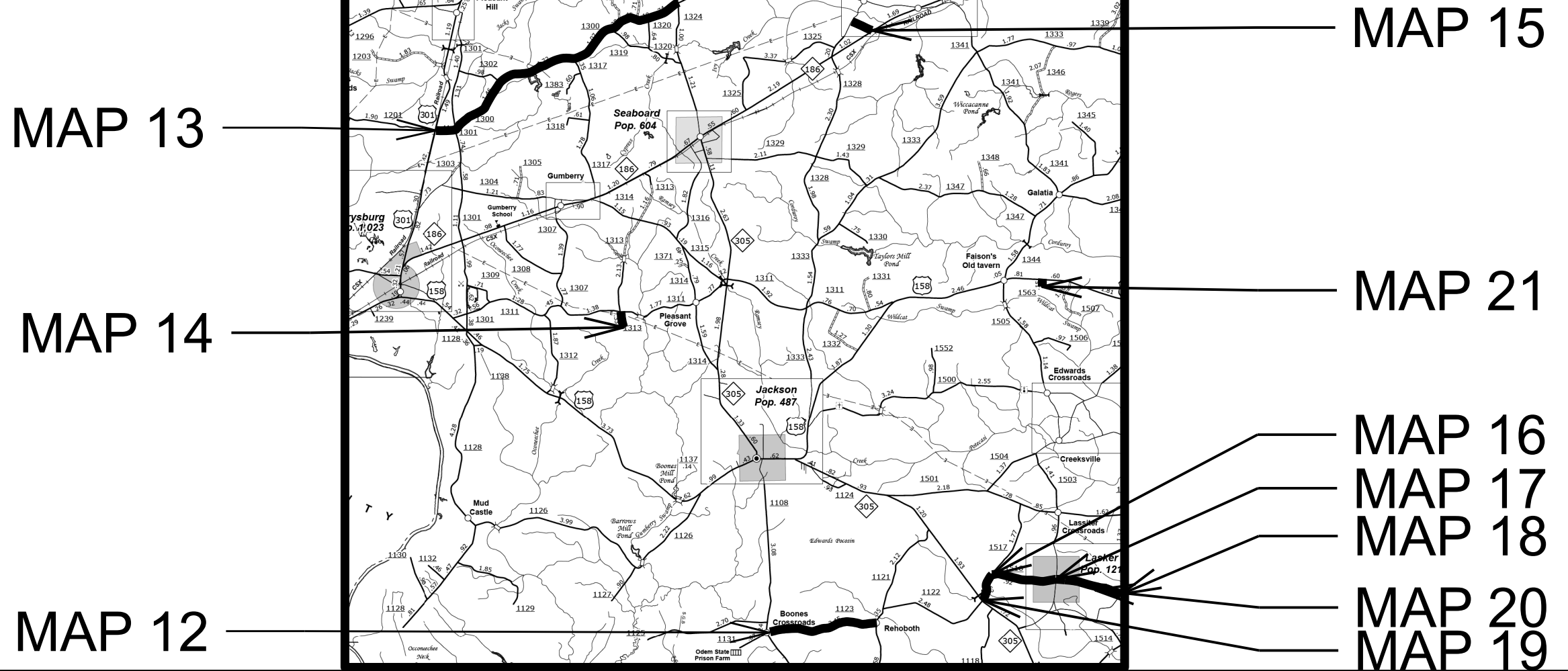


LOCATION:

- MAP 12 - SR 1119 (CUMBO RD) FROM SR 1118 TO SR 1121
- MAP 13 - SR 1300 (BIG JOHN STORE RD) FROM NC 301 TO SR 1324
- MAP 14 - SR 1313 (HARGRAVES RD) FROM DEAD END TO SR 1313 (JACKSON BYPASS)
- MAP 15 - SR 1327 (LONNIE GOODE RD) FROM NC 186 TO SR 1328
- MAP 16 - SR 1516 (LASKER GOLF COURSE RD) FROM SR 1517 TO SR 1503

- MAP 17 - SR 1516 (LASKER GOLF COURSE RD) FROM SR 1503 TO END C&G
- MAP 18 - SR 1516 (LASKER GOLF COURSE RD) FROM END C&G TO SR 1515
- MAP 19 - SR 1517 (LASKER GOLF COURSE RD) FROM NC 305 TO SR 1516
- MAP 20 - SR 1555 (JESSIE WHEELER RD) FROM DEAD END TO SR 1516
- MAP 21 - SR 1563 (MRS MAG RD) FROM DEAD END TO US158

TYPE OF WORK: AST (MAT COAT), MILLING, RESURFACING AND SHOULDER RECONSTRUCTION



GRAPHIC SCALES

NTS

MAP LENGTH

- MAP 12 = 2.23 MILES
- MAP 13 = 6.32 MILES
- MAP 14 = 0.34 MILES
- MAP 15 = 0.49 MILES
- MAP 16 = 1.41 MILES
- MAP 17 = 0.19 MILES
- MAP 18 = 1.28 MILES
- MAP 19 = 0.59 MILES
- MAP 20 = 0.07 MILES
- MAP 21 = 0.15 MILES

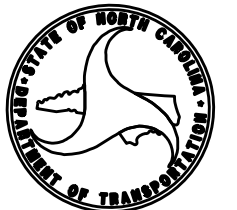
Prepared in the Office of:
DIVISION 1
DIVISION OF HIGHWAYS
113 AIRPORT DR., EDENTON NC, 27932

2018 STANDARD SPECIFICATIONS

W. B. HOBBS, PE
DIVISION PROJECT DEVELOPMENT ENGINEER

CHRIS SLACHTA
DIVISION CONTRACT ENGINEER

S. P. FENWICK, PLS
DIVISION DESIGN ENGINEER

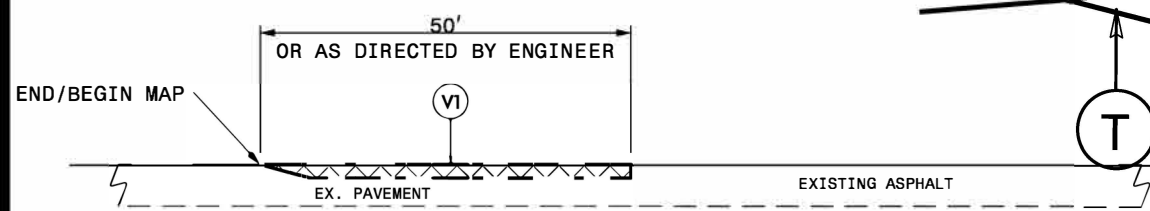


PAVEMENT SCHEDULE

C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S4.75A, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD.
F1	ASPHALT SURFACE TREATMENT, MAT COAT, #67 STONE
T	EARTH MATERIAL
U	EXISTING PAVEMENT.
V1	INCIDENTAL MILLING
V2	MILLING ASPHALT PAVEMENT 1½".

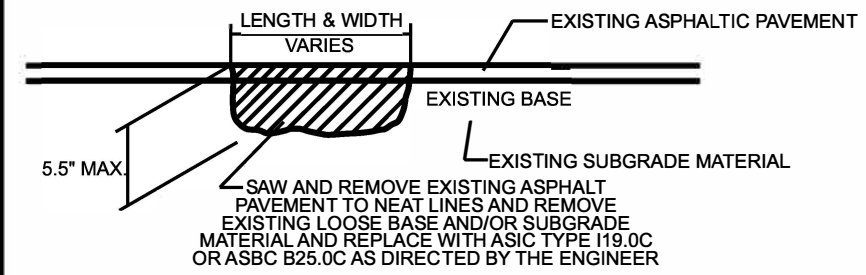
NOTES:

- * ALL INTERSECTING ROADS ARE TO BE RESURFACED TO THE ENDS OF THEIR RADII, THE MAIN LINE RIGHT OF WAY OR AS DIRECTED BY THE ENGINEER. THIS SHALL INCLUDE ANY TAPERS AND TURN LANES LOCATED BOTH ON THE MAIN LINE OR INTERSECTING PAVED ROADWAY.
- * EDGES, PAVEMENT WIDENING, INTERSECTIONS AND BRIDGE FLARES ARE INCLUDED IN THE SUMMARY OF QUANTITIES.
- * ASPHALT SURFACE TREATMENT (MAT COAT) CONSISTS OF: ONE LAYER OF EMULSIFIED ASPHALT GRADE CRS-2L AT A RATE OF 0.38± GAL/SY AND ONE LAYER OF # 67 STONE AT A RATE OF 20-25± LBS/SY.
- * CONSTRUCT THE MAT COAT IN ACCORDANCE WITH SUBARTICLE 660-8(D) OF THE NC DOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES. AFTER THE MAT COAT HAS BEEN SATISFACTORILY APPLIED AND ROLLED, THE APPLICATION OF THE PLANT MIX OVERLAY SHALL BE COMPLETED WITHIN THE SAME DAY.
- * ASPHALT SURFACE TREATMENT, MAT COAT, #67 (GRANITE) STONE SHALL ONLY BE APPLIED TO THE MAINLINE AND NOT TO THE RADIUS OF ANY SIDE ROAD OR DRIVEWAY.
- * THE CONTRACTOR MUST PROVIDE A SPREADER THAT IS AT LEAST 12' WIDE FOR IRREGULAR AREAS ALONG THE MAPS.
- * WHEN CLIPPING OF SHOULDERS IS DETERMINED NECESSARY BY THE DEPARTMENT, THE CONTRACTOR WILL BE RESPONSIBLE FOR CLEAN UP OF THE CLIPPINGS.



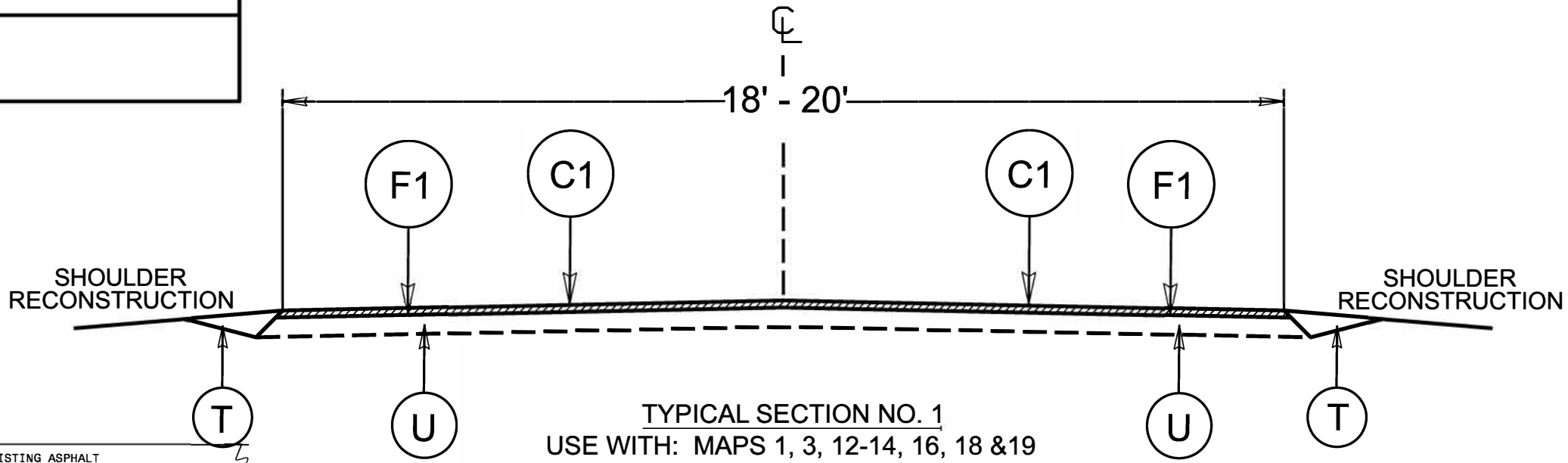
DETAIL 1

- NOTE:**
1. INCLUDES INCIDENTAL MILLING AT THE ENDS OF MAIN LINE SECTIONS, OR AS DIRECTED BY THE ENGINEER.
 2. PAVE TO THE END OF THE MILLED SURFACE TO CREATE A SMOOTH TRANSITION.

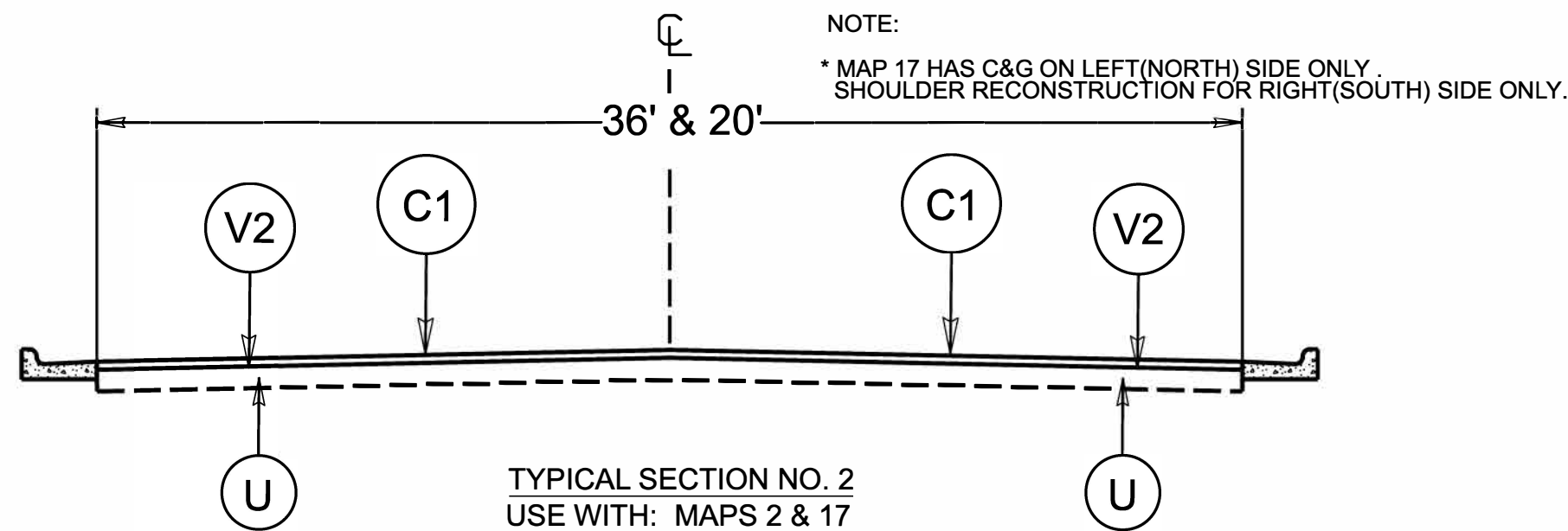


*NOTE: EDGES OF PATCHED AREA ARE TO BE CLEANED OF ALL DEBRIS AND COATED WITH AN APPROVED TACK MATERIAL BEFORE PLACING ASPHALT.

FULL DEPTH PATCHING 0 - 5"



TYPICAL SECTION NO. 1
USE WITH: MAPS 1, 3, 12-14, 16, 18 & 19



TYPICAL SECTION NO. 2
USE WITH: MAPS 2 & 17

NOTE:
* MAP 17 HAS C&G ON LEFT(NORTH) SIDE ONLY. SHOULDER RECONSTRUCTION FOR RIGHT(SOUTH) SIDE ONLY.

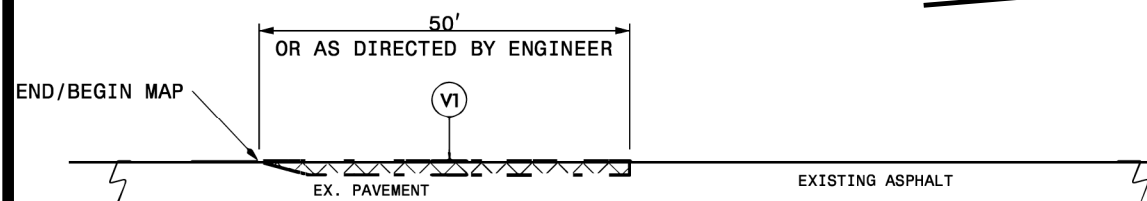
*****SYTIME*****

PAVEMENT SCHEDULE

C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S4.75A, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD.
F1	ASPHALT SURFACE TREATMENT, MAT COAT, #67 STONE
T	EARTH MATERIAL
U	EXISTING PAVEMENT.
V1	INCIDENTAL MILLING
V2	MILLING ASPHALT PAVEMENT 1½".

NOTES:

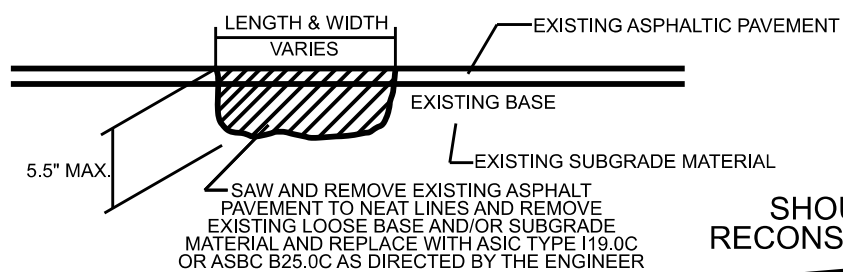
- * ALL INTERSECTING ROADS ARE TO BE RESURFACED TO THE ENDS OF THEIR RADII, THE MAIN LINE RIGHT OF WAY OR AS DIRECTED BY THE ENGINEER. THIS SHALL INCLUDE ANY TAPERS AND TURN LANES LOCATED BOTH ON THE MAIN LINE OR INTERSECTING PAVED ROADWAY.
- * EDGES, PAVEMENT WIDENING, INTERSECTIONS AND BRIDGE FLARES ARE INCLUDED IN THE SUMMARY OF QUANTITIES.
- * ASPHALT SURFACE TREATMENT (MAT COAT) CONSISTS OF: ONE LAYER OF EMULSIFIED ASPHALT GRADE CRS-2L AT A RATE OF 0.38± GAL/SY AND ONE LAYER OF # 67 STONE AT A RATE OF 20-25± LBS/SY.
- * CONSTRUCT THE MAT COAT IN ACCORDANCE WITH SUBARTICLE 660-8(D) OF THE NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES. AFTER THE MAT COAT HAS BEEN SATISFACTORILY APPLIED AND ROLLED, THE APPLICATION OF THE PLANT MIX OVERLAY SHALL BE COMPLETED WITHIN THE SAME DAY.
- * ASPHALT SURFACE TREATMENT, MAT COAT, #67 (GRANITE) STONE SHALL ONLY BE APPLIED TO THE MAINLINE AND NOT TO THE RADIUS OF ANY SIDE ROAD OR DRIVEWAY.
- * THE CONTRACTOR MUST PROVIDE A SPREADER THAT IS AT LEAST 12' WIDE FOR IRREGULAR AREAS ALONG THE MAPS.
- * WHEN CLIPPING OF SHOULDERS IS DETERMINED NECESSARY BY THE DEPARTMENT, THE CONTRACTOR WILL BE RESPONSIBLE FOR CLEAN UP OF THE CLIPPINGS.



DETAIL 1

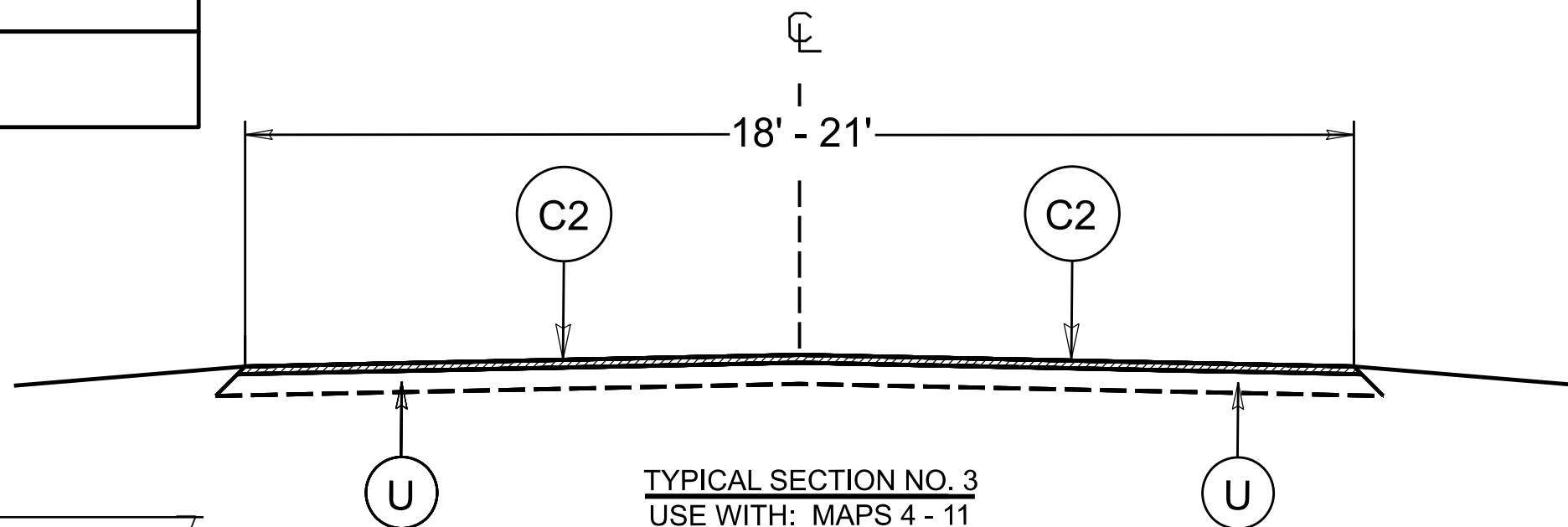
MAIN LINE MILLING

- NOTE:**
1. INCLUDES INCIDENTAL MILLING AT THE ENDS OF MAIN LINE SECTIONS, OR AS DIRECTED BY THE ENGINEER.
 2. PAVE TO THE END OF THE MILLED SURFACE TO CREATE A SMOOTH TRANSITION.

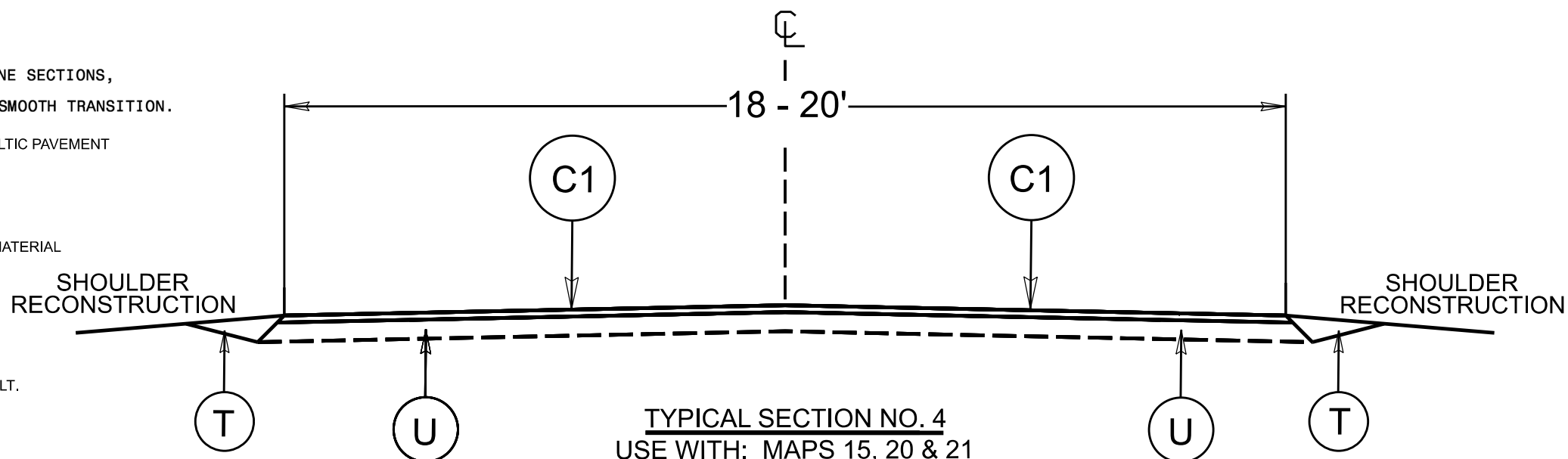


*NOTE: EDGES OF PATCHED AREA ARE TO BE CLEANED OF ALL DEBRIS AND COATED WITH AN APPROVED TACK MATERIAL BEFORE PLACING ASPHALT.

FULL DEPTH PATCHING 0 - 5"



TYPICAL SECTION NO. 3
USE WITH: MAPS 4 - 11

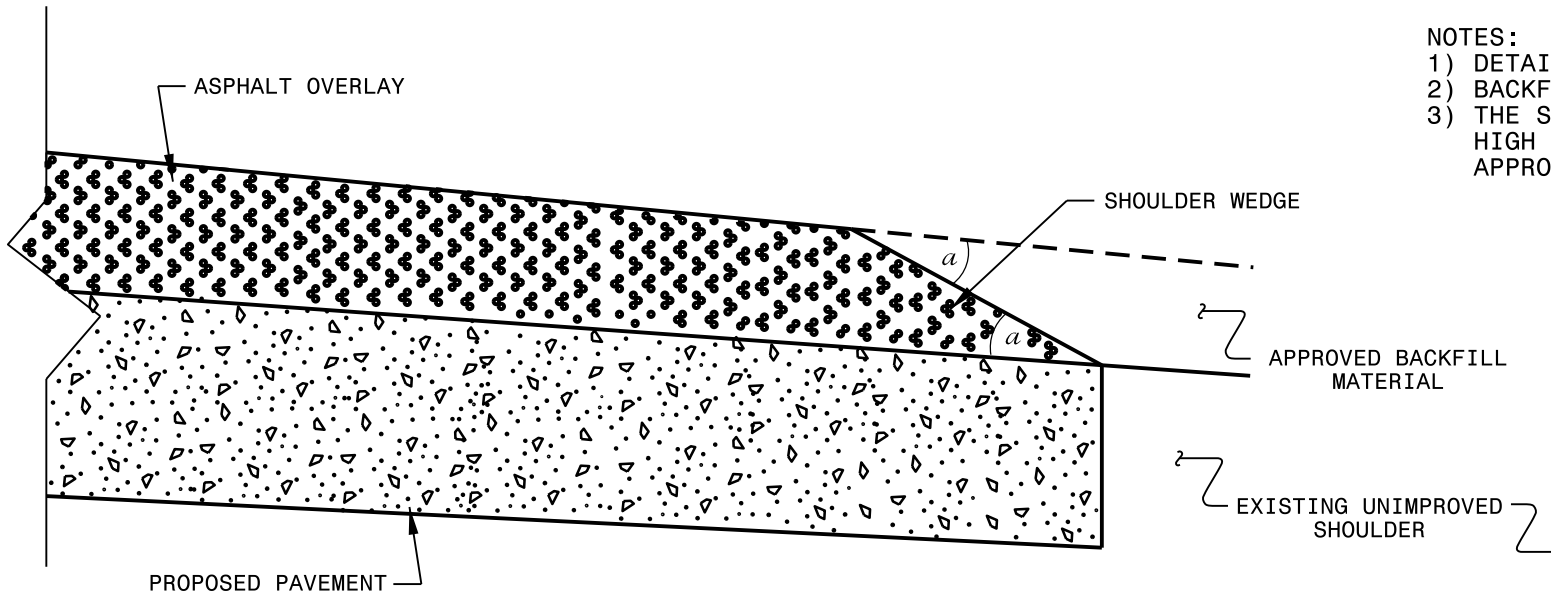


TYPICAL SECTION NO. 4
USE WITH: MAPS 15, 20 & 21

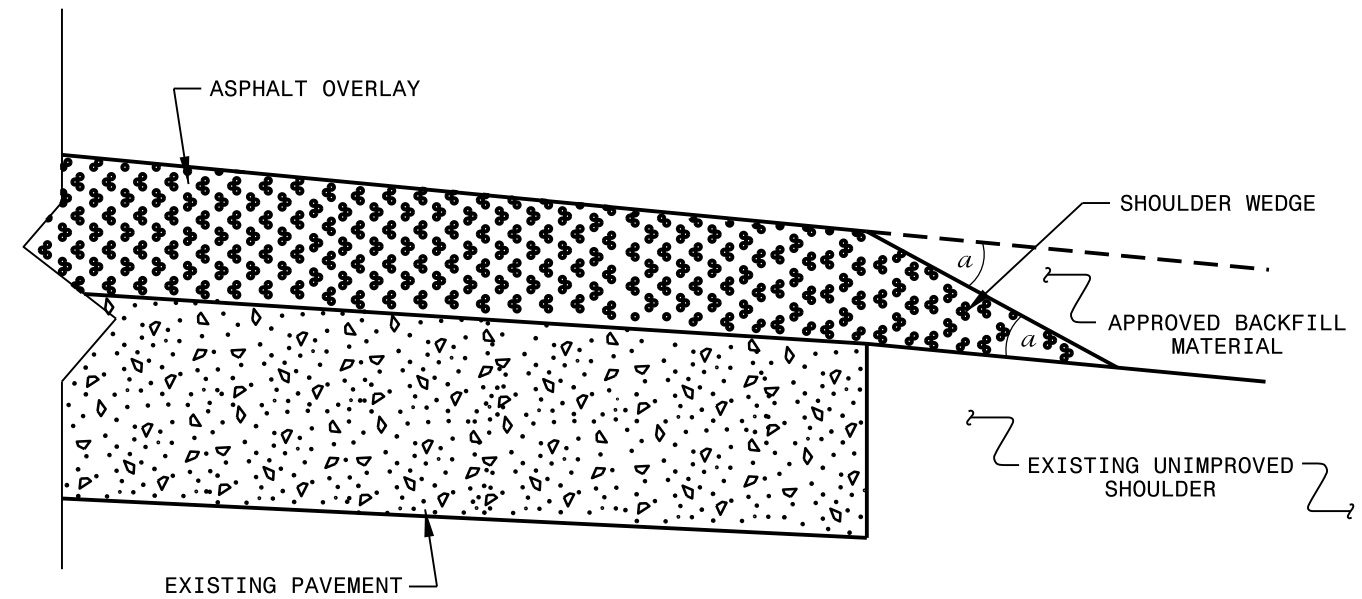
*****SYTIME*****

NOTES:

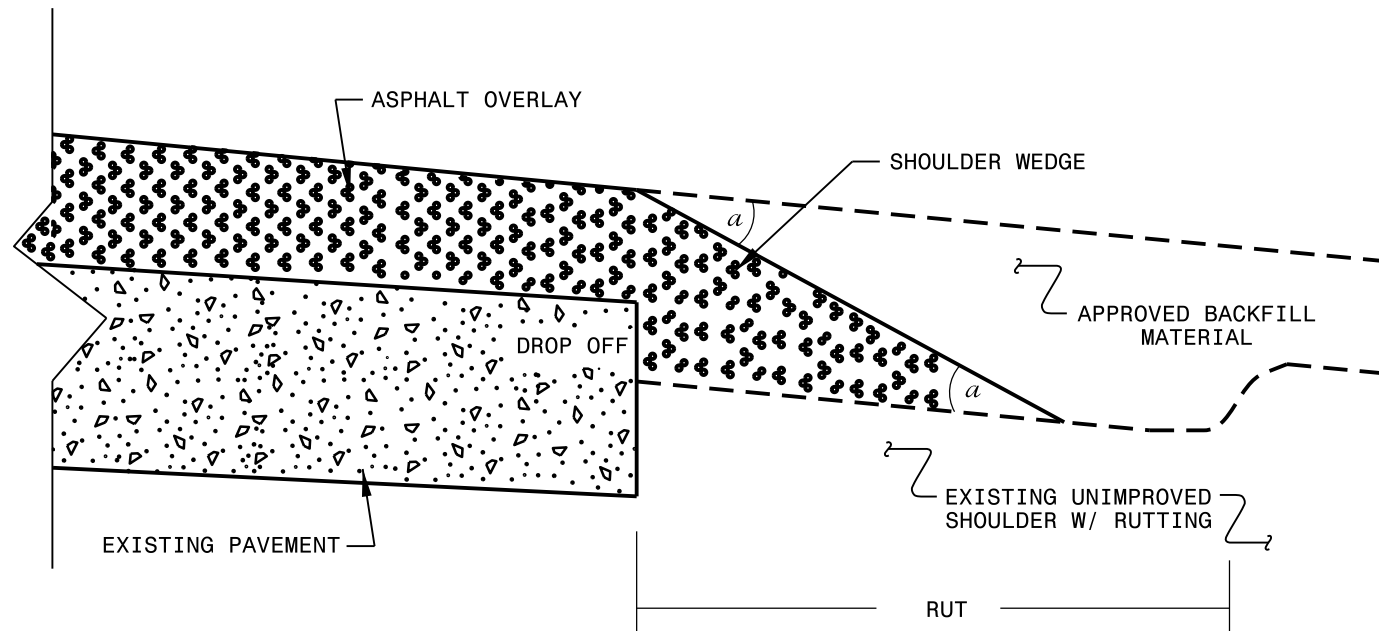
- 1) DETAIL DOES NOT APPLY TO OGAFB AND ULTRA-THIN BONDED WEARING COURSE.
- 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
- 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS, SIDE STREETS, HIGH SHOULDERS, AND OTHER LOCATIONS NOT FEASIBLE TO CONSTRUCT AS APPROVED BY THE ENGINEER.



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



SHOULDER WEDGE DETAIL
(Resurfacing Projects w/ NO Widening)



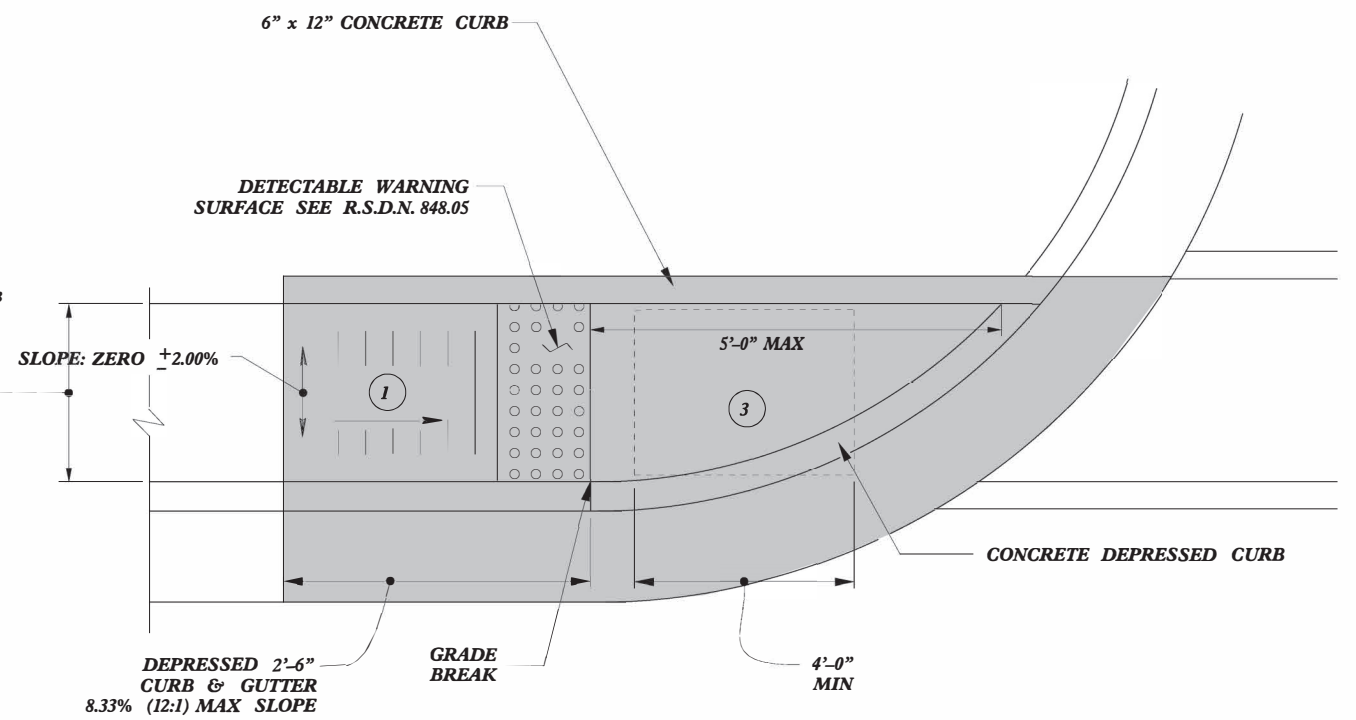
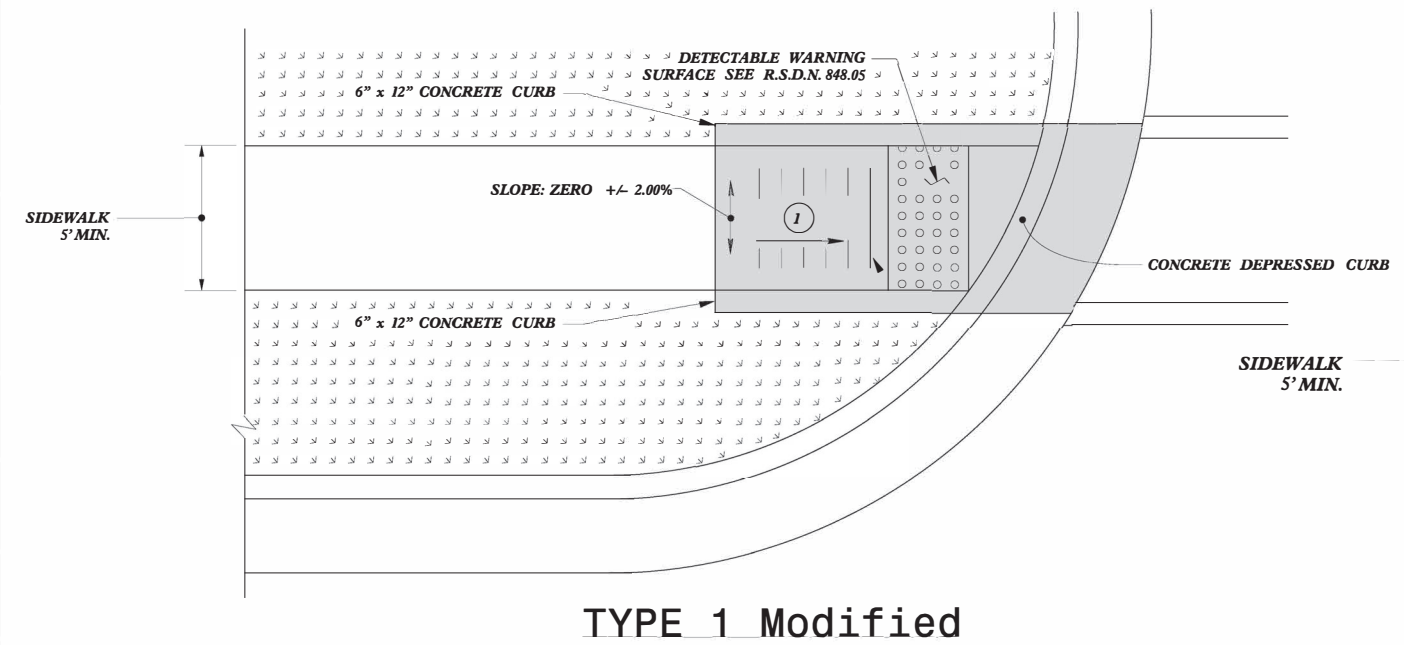
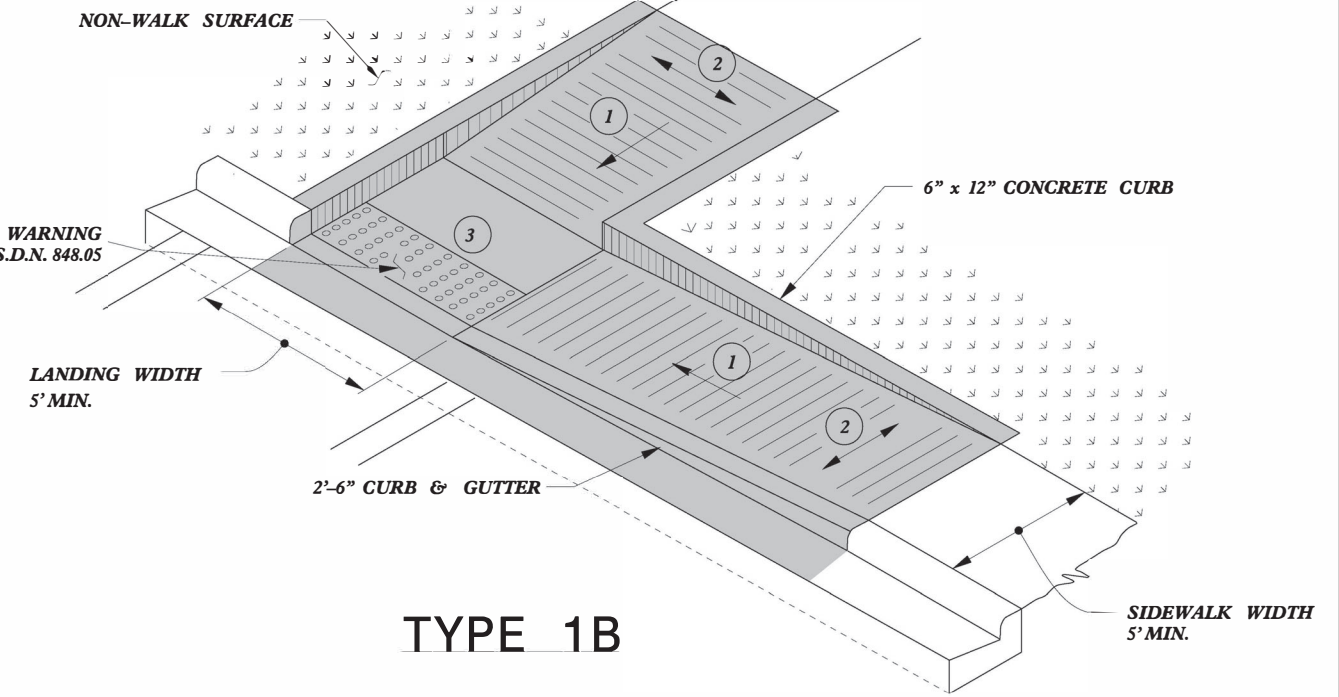
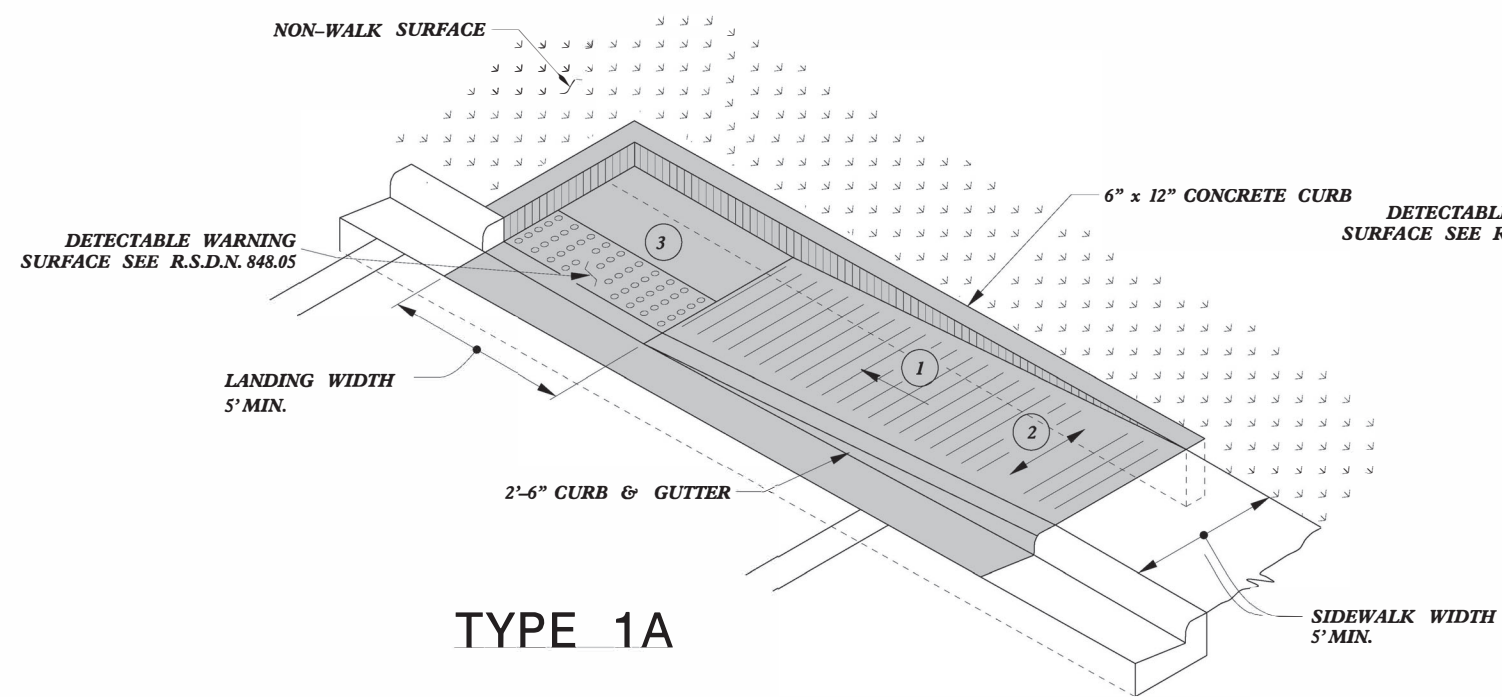
SHOULDER WEDGE DETAIL
(Resurfacing Adjacent to Rutted Shoulder)

- 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: s:\usr\detat11s\stand\shoulderwedgedeta11.dgn		

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

\$\$\$\$SYTIME\$\$\$\$
\$\$\$\$USERNAME\$\$\$\$



- 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.

PAY LIMITS FOR 1 CURB RAMP

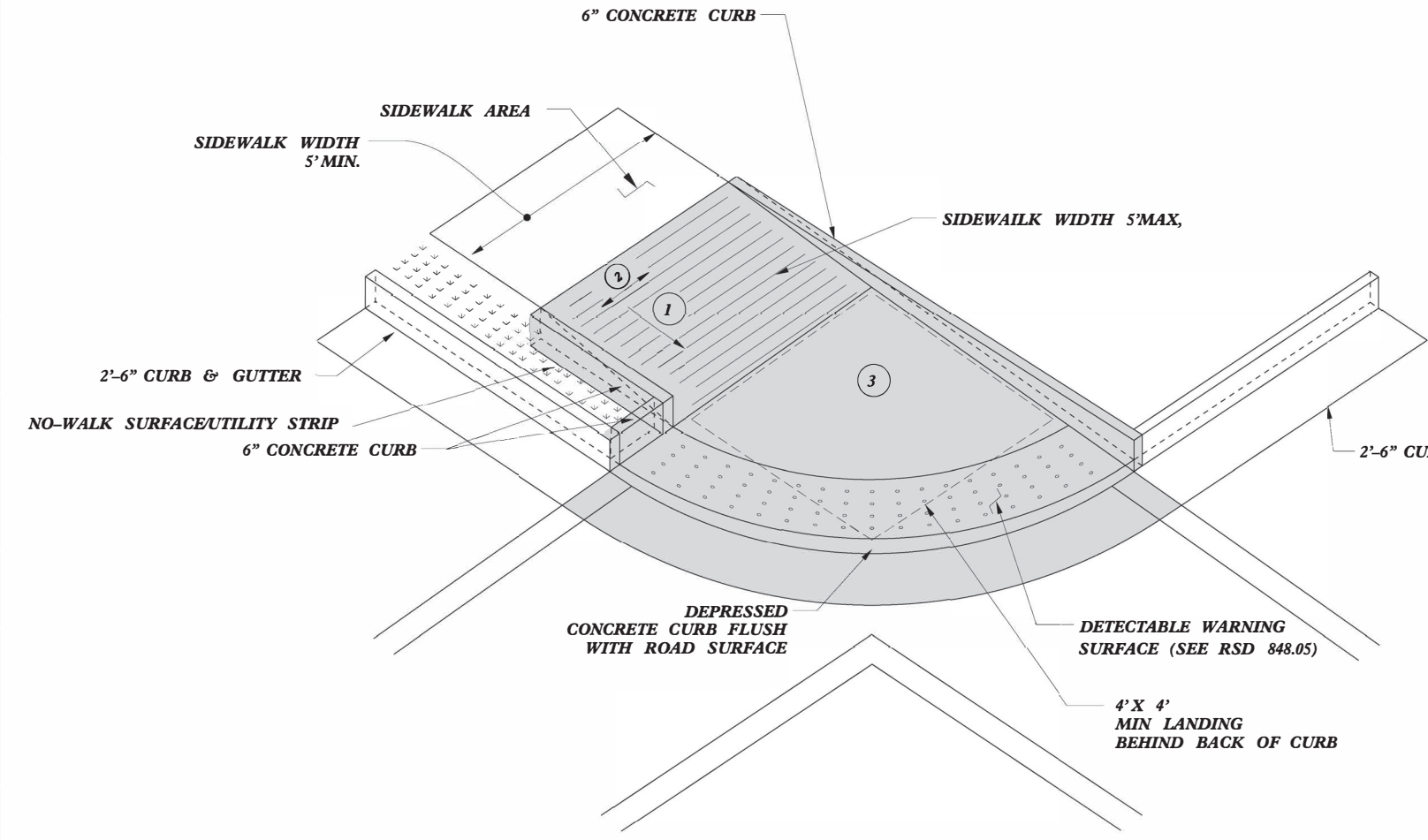
REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES



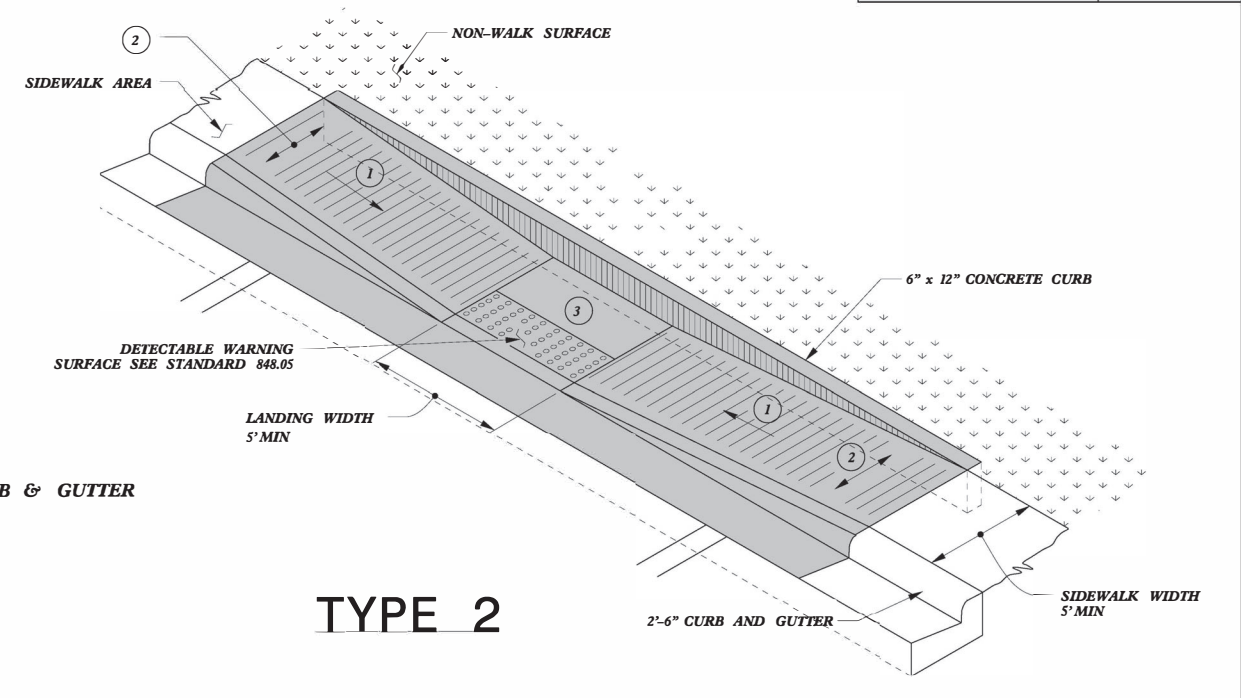
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

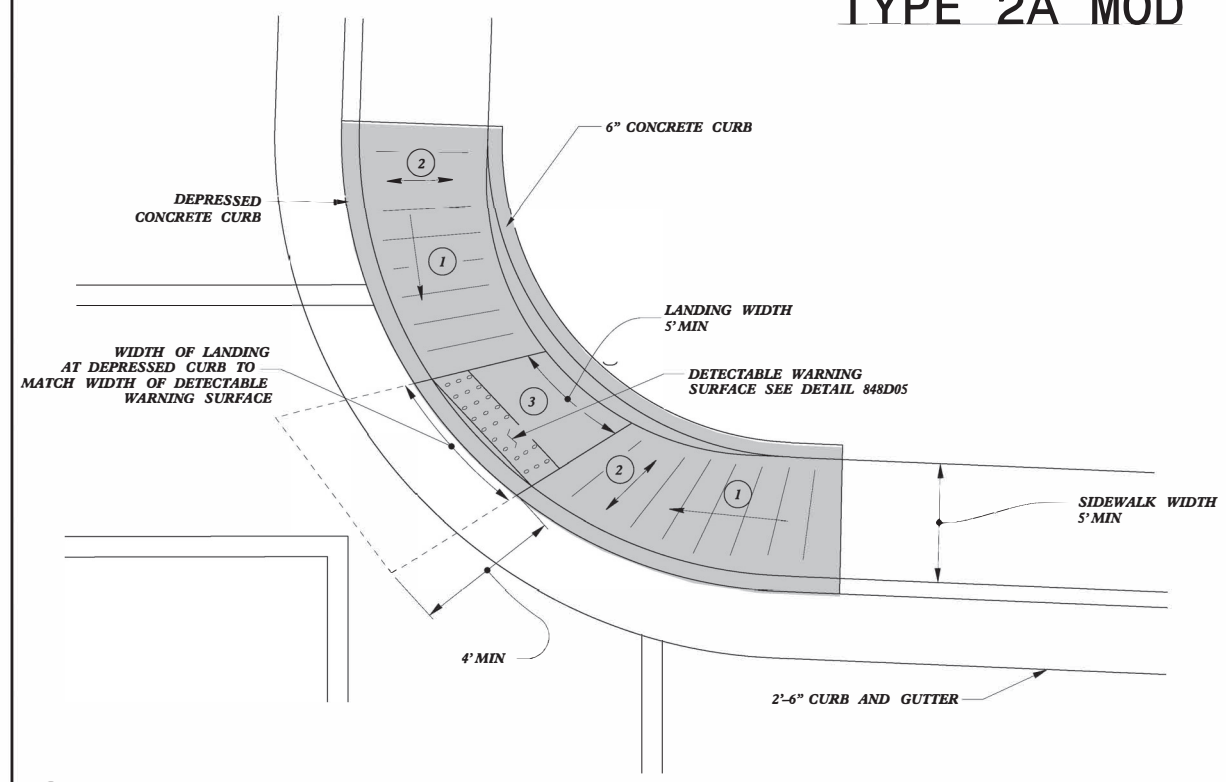
5/14/99
SYTIME
CON
SERNAME



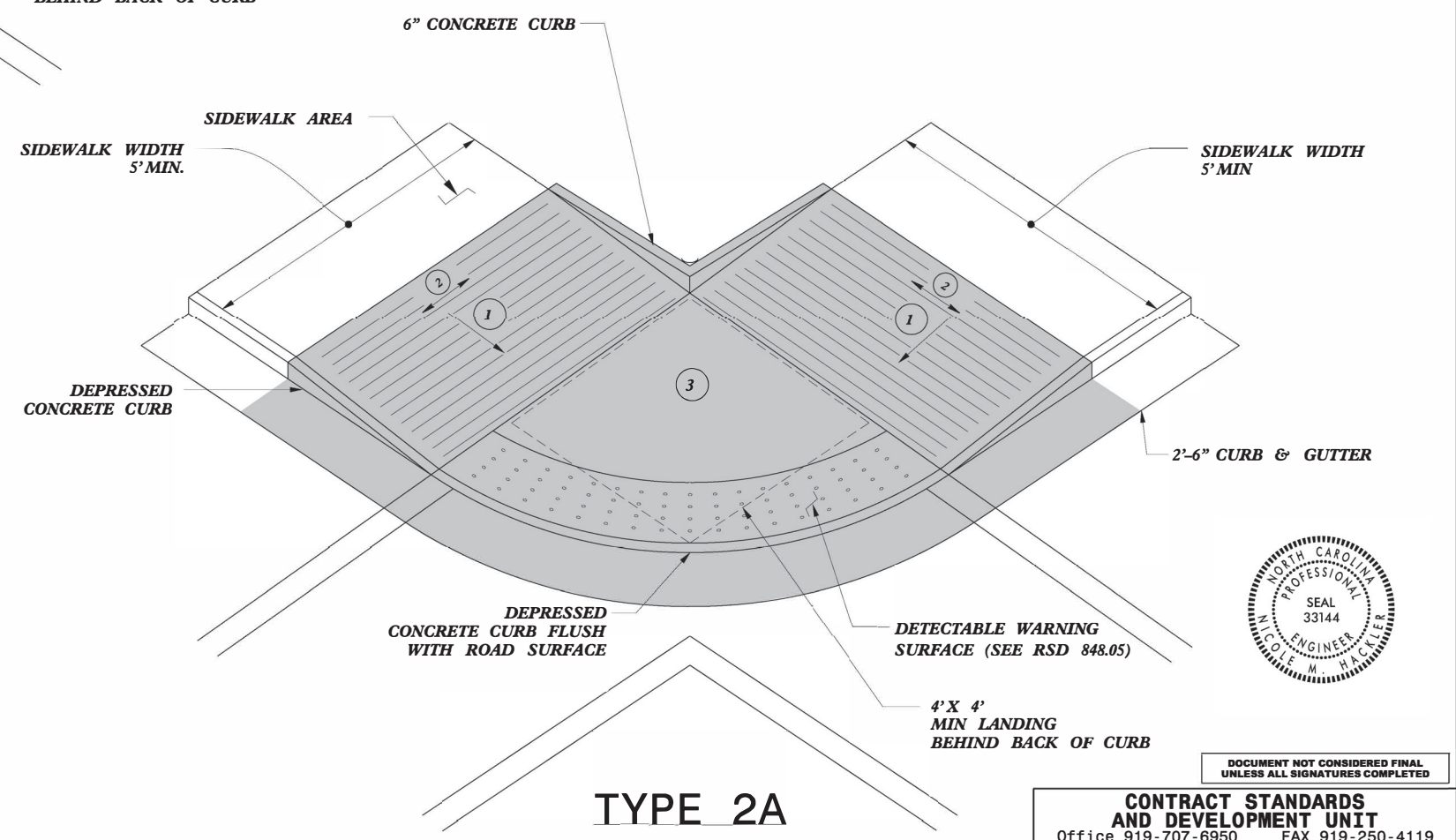
TYPE 2A MOD



TYPE 2



TYPE 2B



TYPE 2A

- 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.

PAY LIMITS FOR 1 CURB RAMP



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

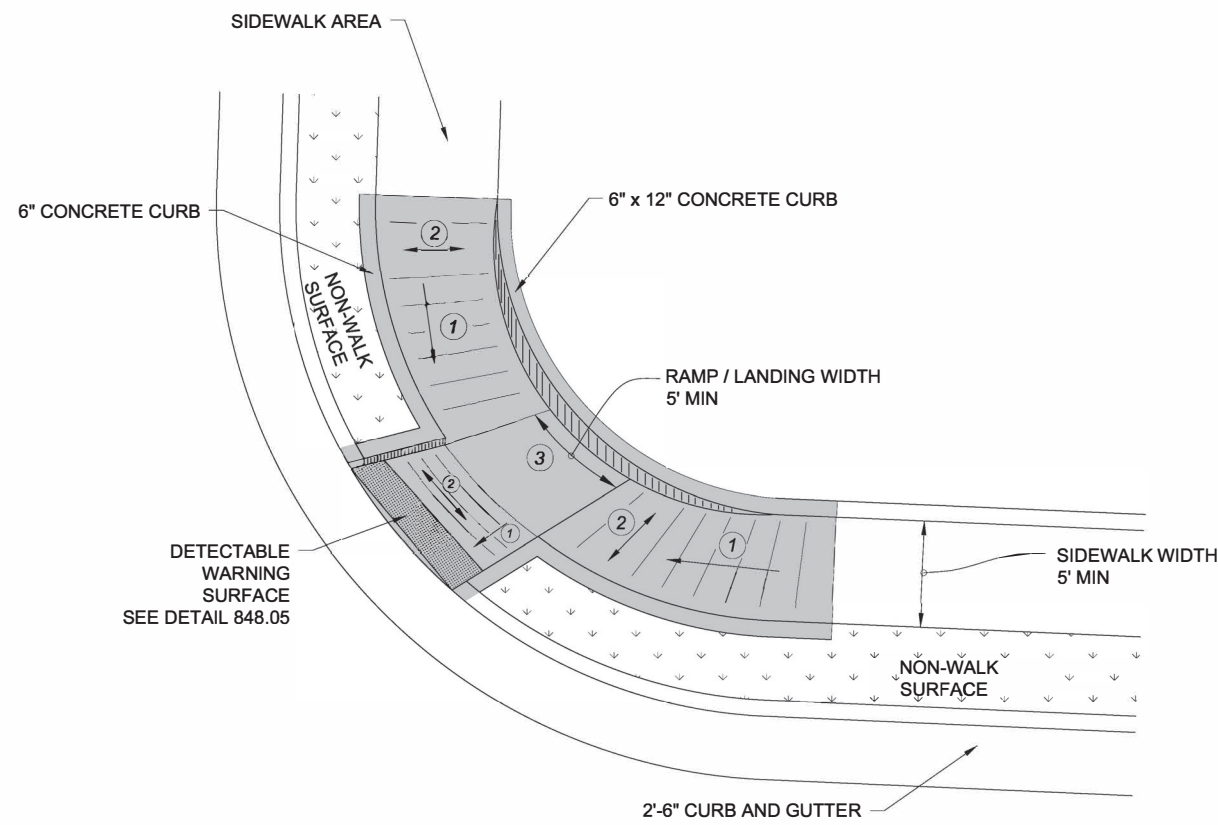
CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

CURB RAMPS

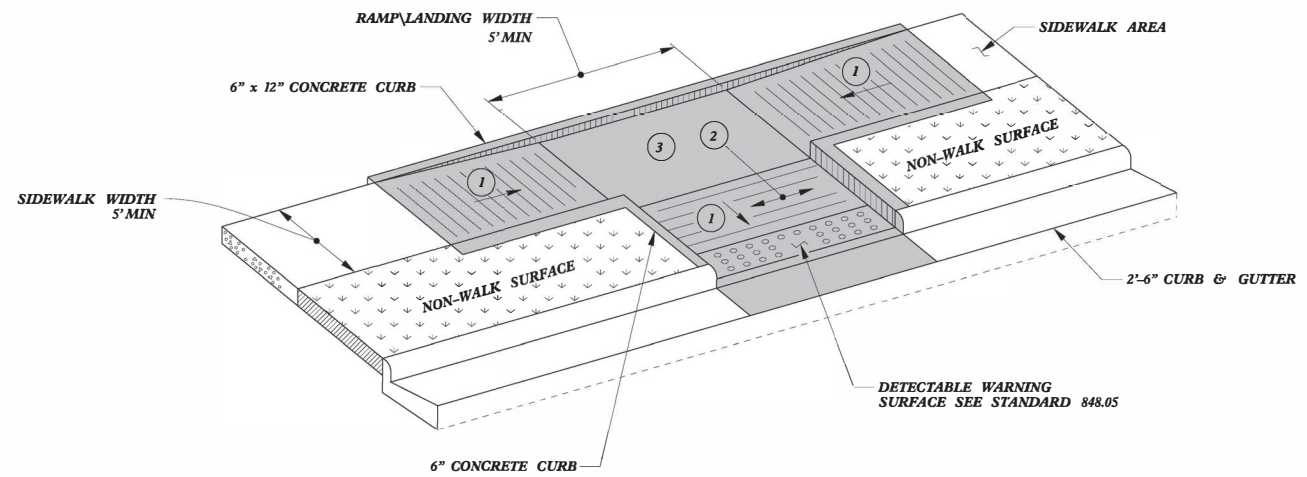
ORIGINAL BY: J.S. HOWERTON DATE: 7/7/11
 MODIFIED BY: DATE:
 CHECKED BY: DATE:
 FILE SPEC: sids/2012CurbRamp/CurbRampDetails.dgn

5/7/4/99
 PLT: J.S.H. DATE: 7/7/11
 C:\Users\jsh\OneDrive\Documents\2023CPT.01.04.20461.1\2023CPT.01.04.20461.1.dwg
 PLOT: 7/7/11 11:00:00 AM
 1/16 11:00:00 AM

PAY LIMITS FOR 1 CURB RAMP



**TYPE 3 MODIFIED
INSTALLATION IN A RADIUS**



TYPE 3

- 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.



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

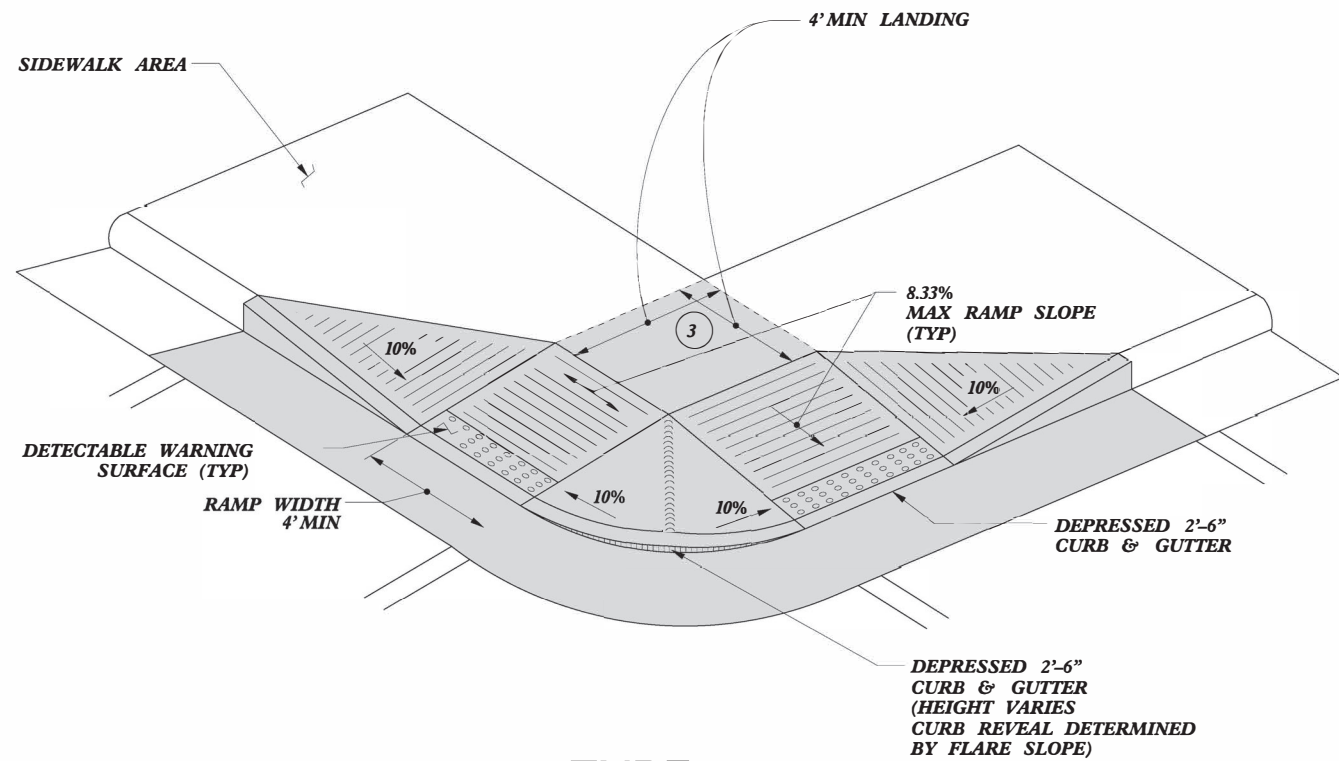
**CONTRACT STANDARDS
AND DEVELOPMENT UNIT**
Office 919-707-6950 FAX 919-250-4119

CURB RAMPS

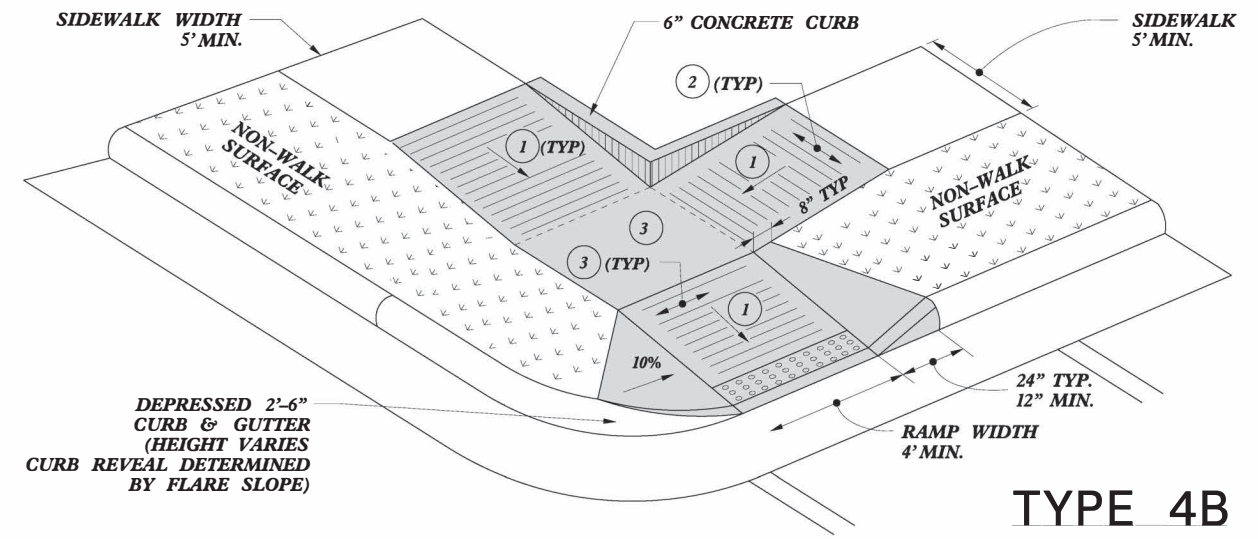
ORIGINAL BY: J.S. HOWERTON DATE: 7/7/11
 MODIFIED BY: DATE:
 CHECKED BY: DATE:
 FILE SPEC: stds/2012CurbRamp/CurbRampDetails.dgn

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

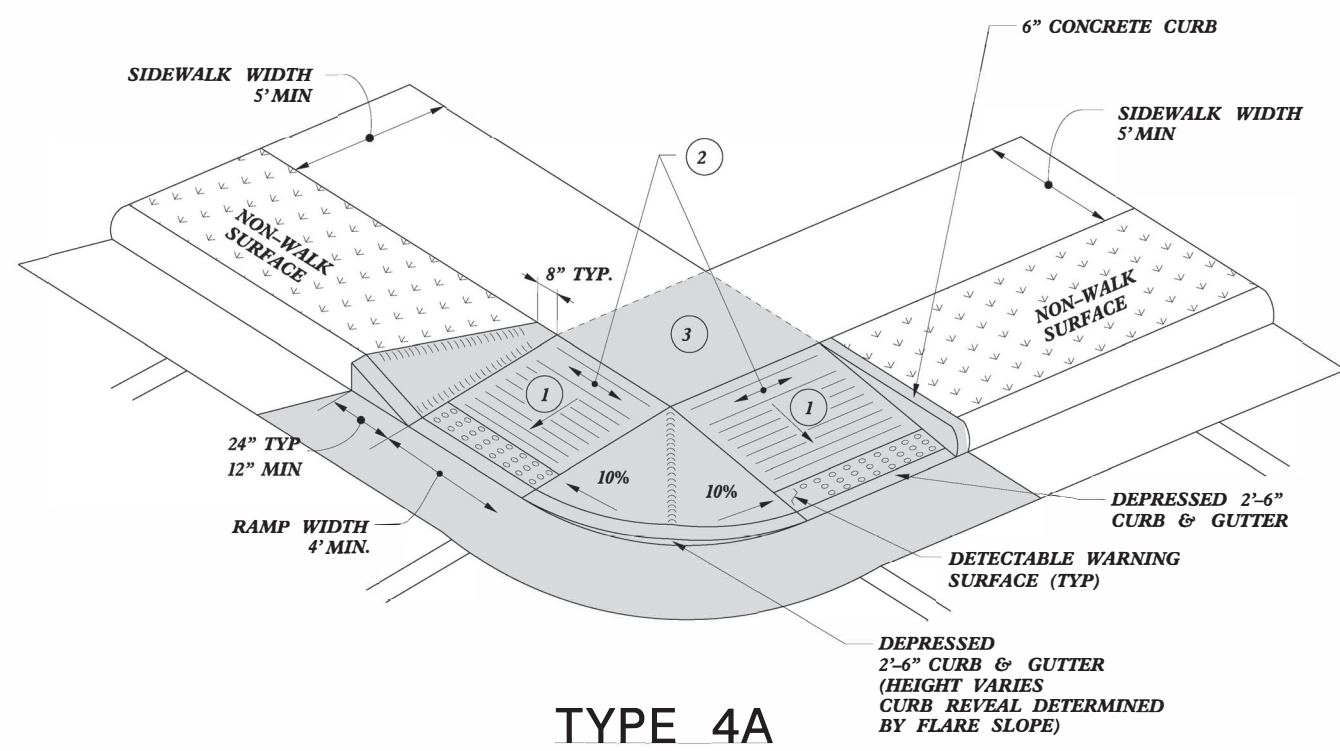
PAY LIMITS FOR 1 OR 2 CURB RAMPS
(CALCULATE BASED ON NUMBER OF SETS
OF TRUNCATED DOMES)



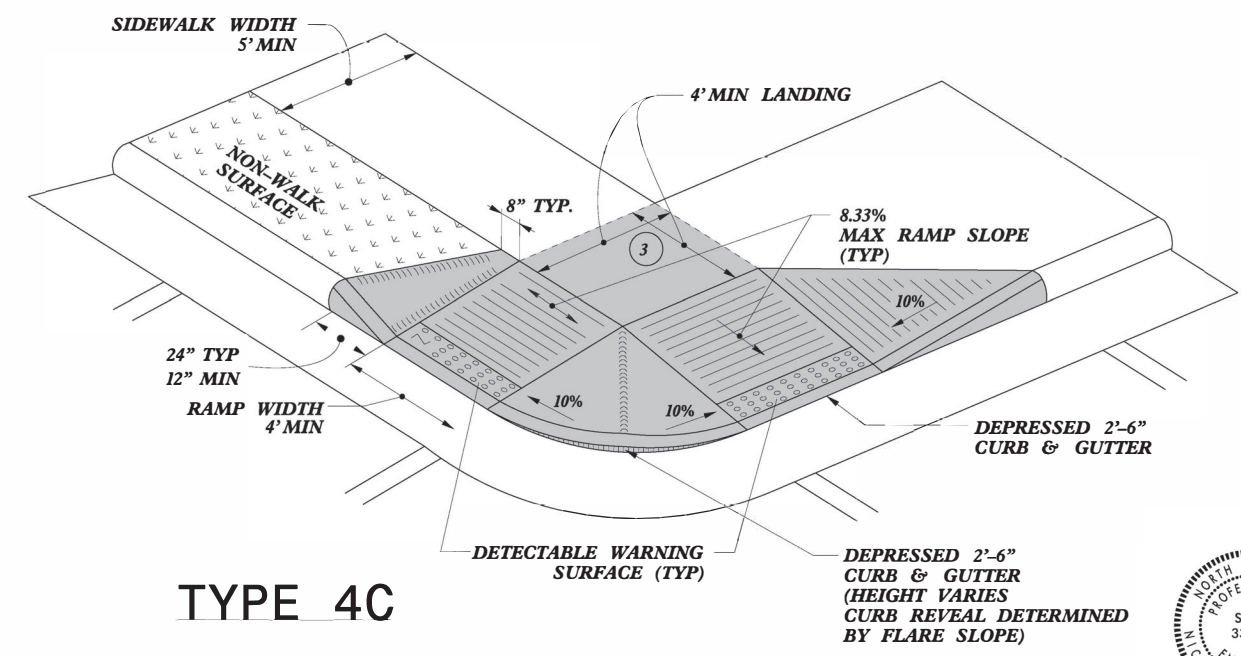
TYPE 4



TYPE 4B



TYPE 4A



TYPE 4C

- 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.



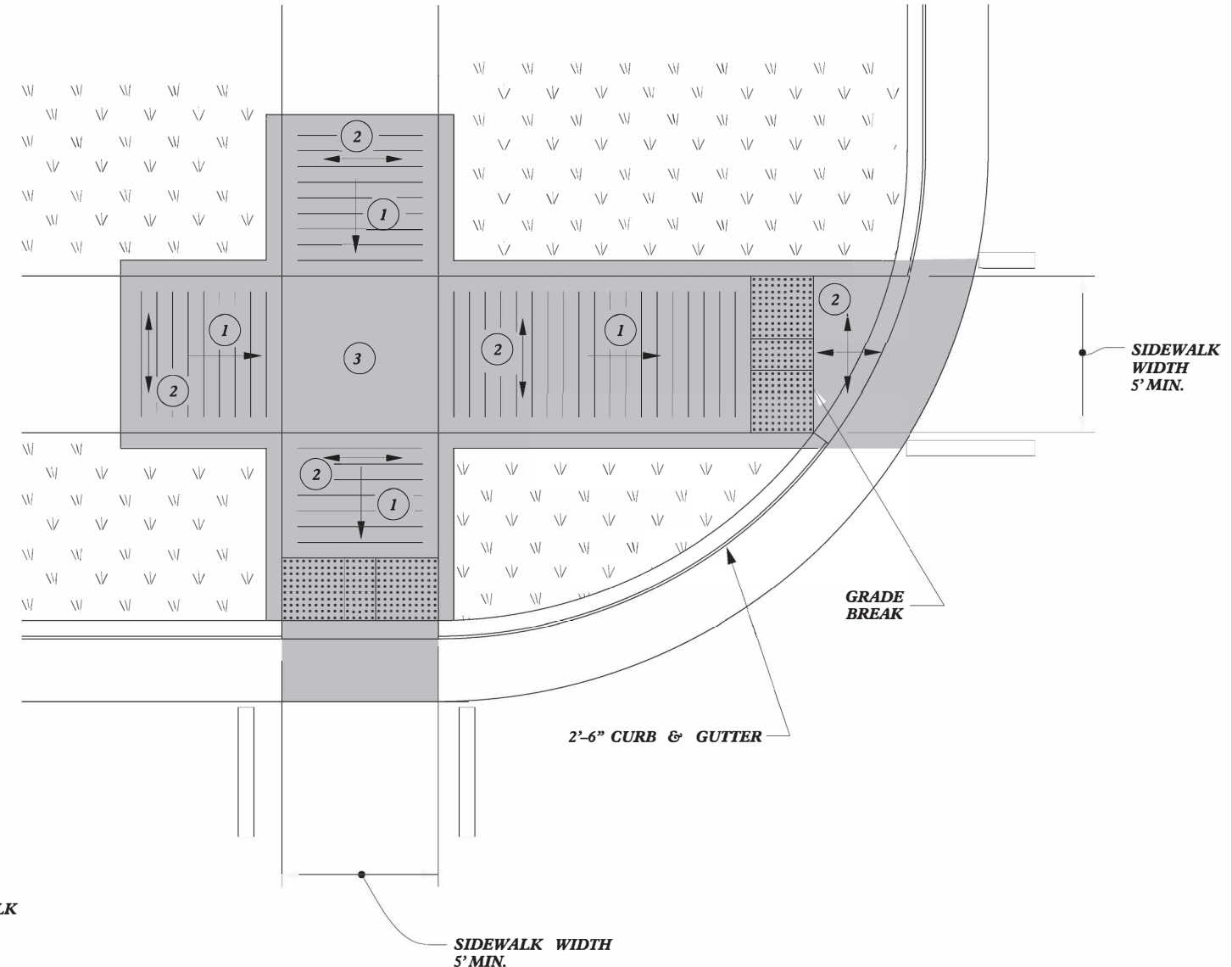
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

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

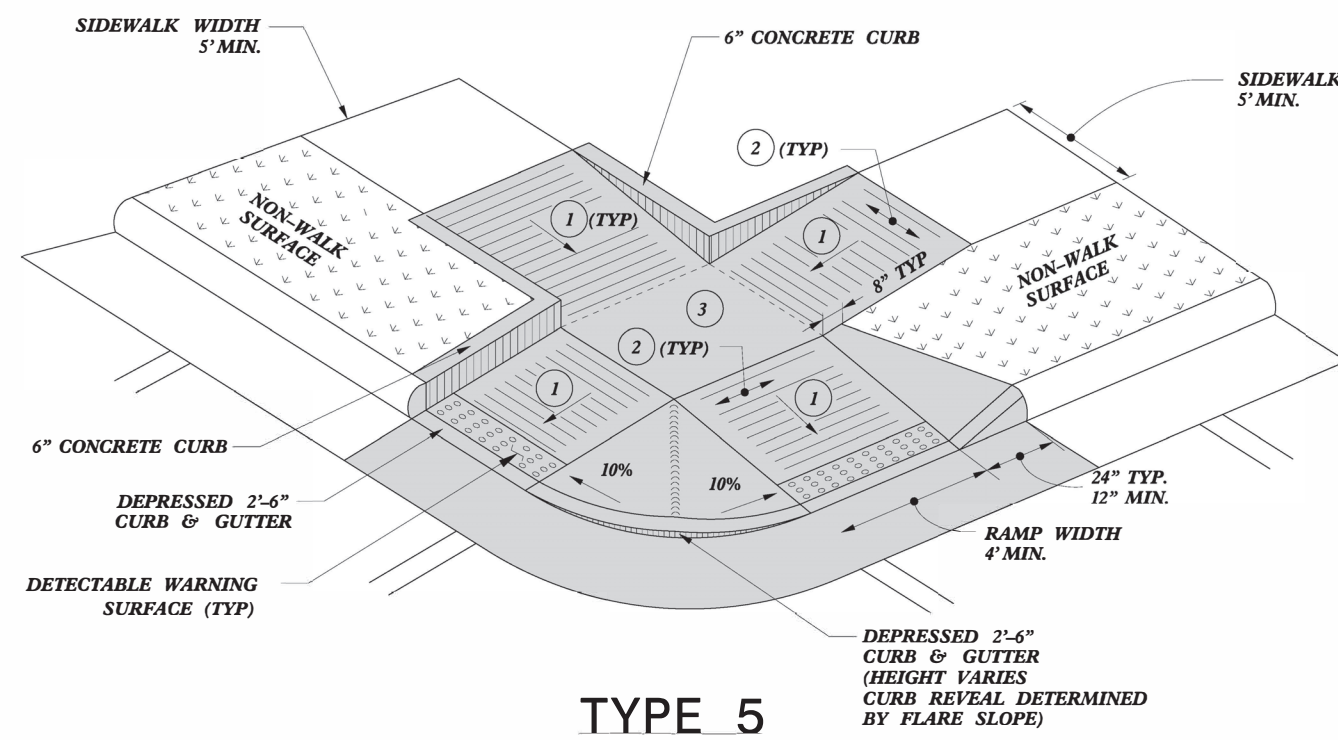
REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

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

**PAY LIMITS FOR 1 OR 2 CURB RAMPS
(CALCULATE BASED ON NUMBER OF SETS
OF TRUNCATED DOMES)**



TYPE 5A



TYPE 5

- 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.



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

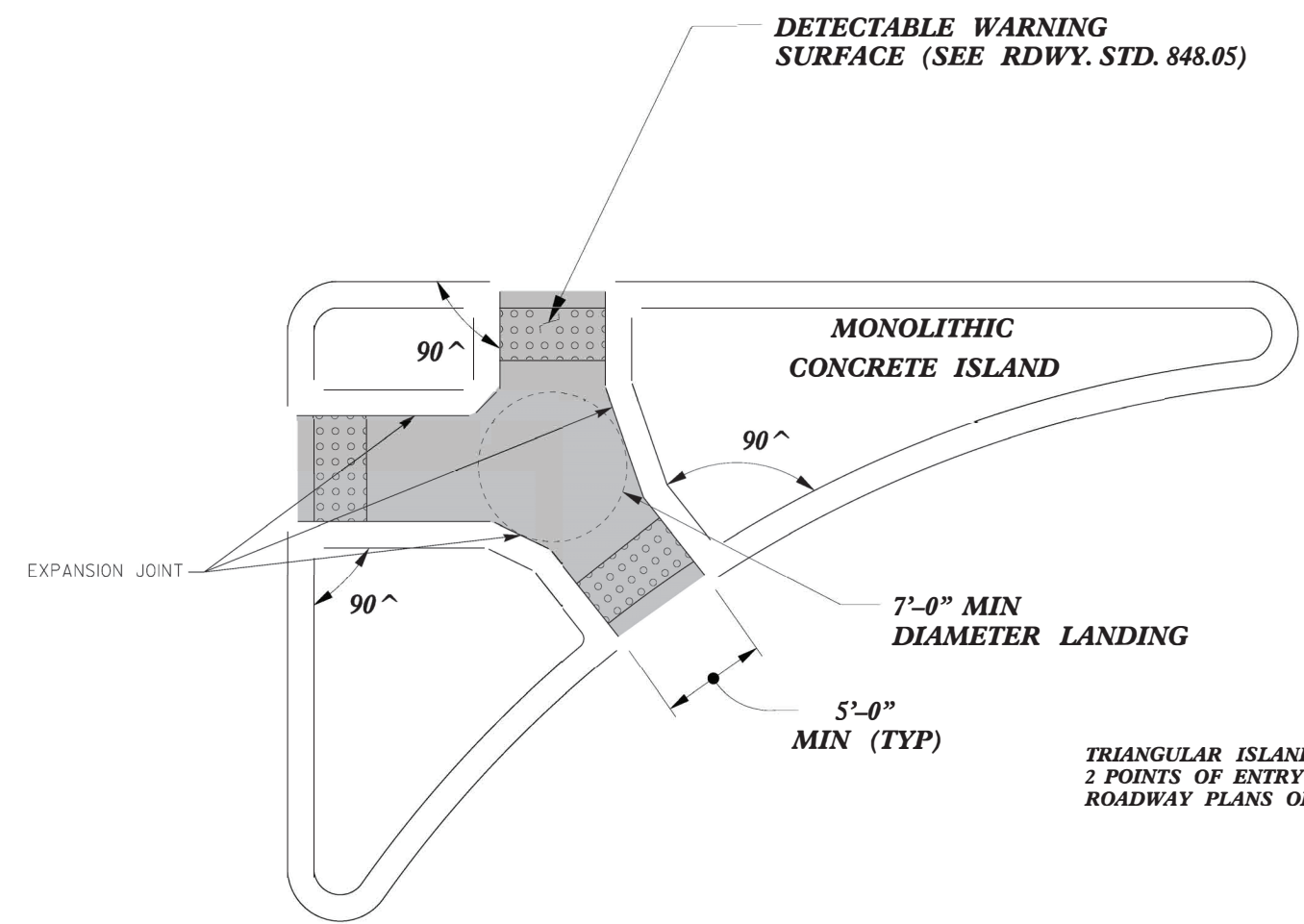
CURB RAMPS

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

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

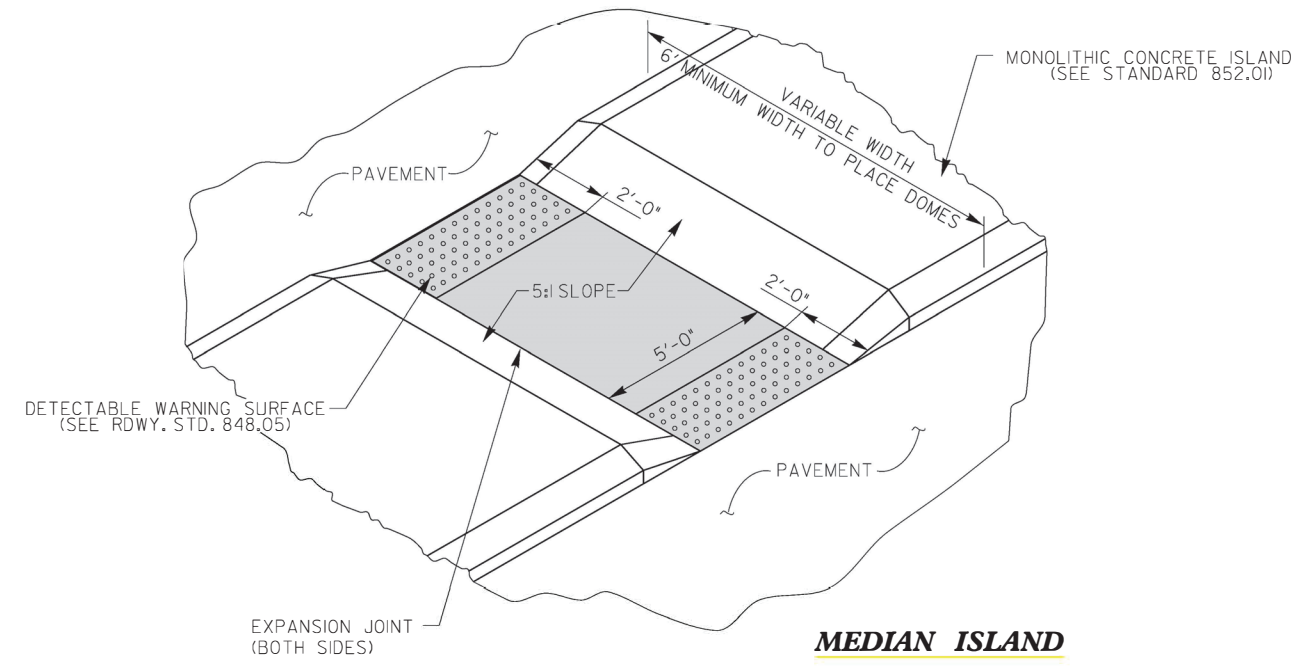
5/14/99
 \$\$\$\$\$\$SYTIME\$\$\$\$\$\$
 \$\$\$\$\$\$SUCERNAME\$\$\$\$\$\$

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

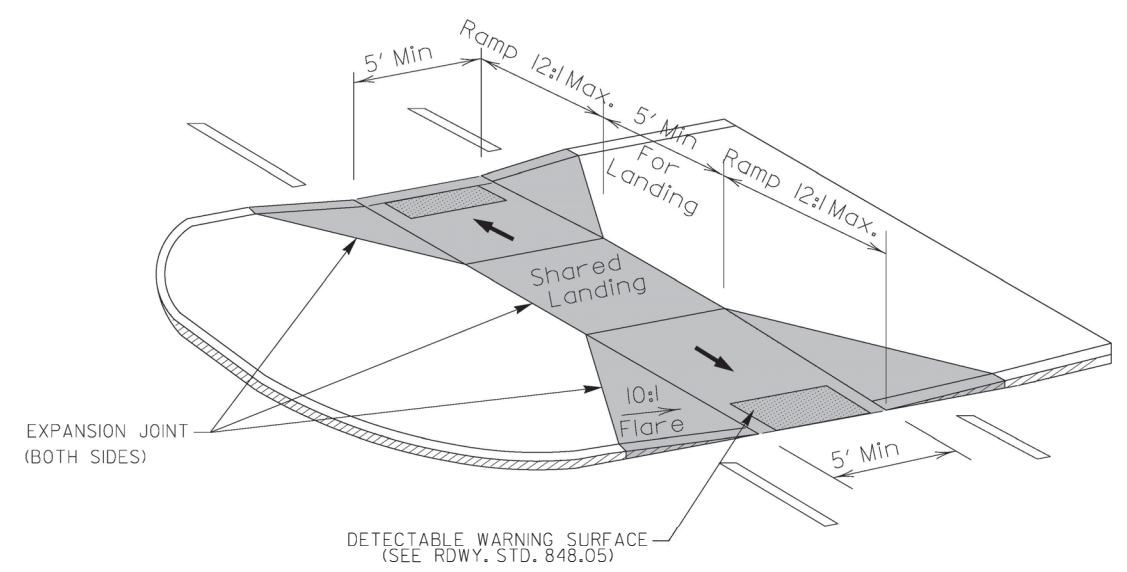


TRIANGULAR ISLANDS MAY BE CONSTRUCTED WITH ONLY 2 POINTS OF ENTRY AND EXIT AS SHOWN IN THE ROADWAY PLANS OR AS DIRECTED BY THE ENGINEER.

TRIANGULAR ISLAND WITH CUT THROUGH
TYPE 6



MEDIAN ISLAND WITH CUT THROUGH
TYPE 7



MEDIAN ISLAND CURB RAMPS
TYPE 8

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

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



CURB RAMPS
Median or Turn Lane Islands

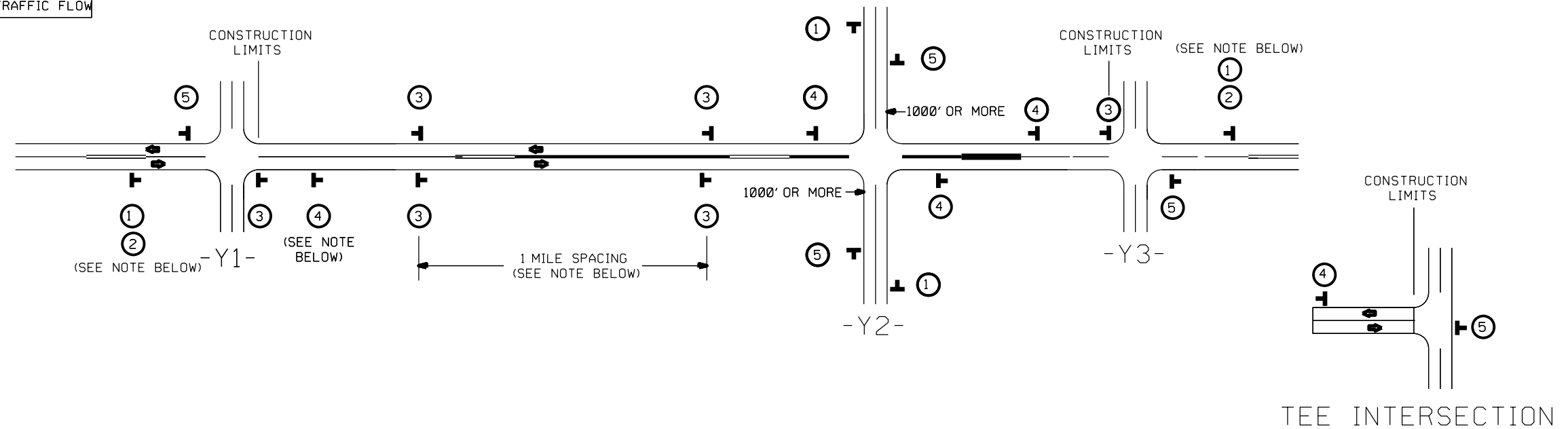
ORIGINAL BY: J.S. HOWERTON DATE: 7/7/11
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC: stds/2012CurbRamp/CurbRampDetails.dgn



5/14/99
SYSTEMS
SERVICES


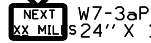






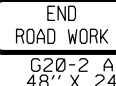
SIGNING FOR RESURFACING PROJECTS

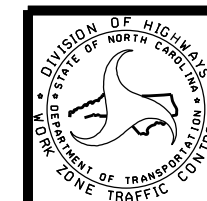
LEGEND
 STATIONARY SIGN
 DIRECTION OF TRAFFIC FLOW



MAINLINE (-L-) SIGNING

-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	<p>1  PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.</p> <p>2  *2 SIGN ONLY USED WHEN CONSTRUCTION LIMITS ARE 2 OR MORE MILES IN LENGTH. (NO FRACTIONAL OR DECIMAL NUMBERS)</p>	<p>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</p> <p>1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE 2) SUBDIVISION ROADS 3) DEAD END ROADS</p> <p>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.</p> <div style="display: flex; justify-content: space-around;"> <div>  W20-1 48" X 48" PLACED 500' IN ADVANCE OF FLAGGER. </div> <div>  W20-7 A 48" X 48" </div> </div>
	<p>3  - ALTERNATE THE FOLLOWING TWO SIGNS:</p> <p> - PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACE 1 MILE APART THEREAFTER.</p> <p> - AT TEE INTERSECTIONS INSTALL INITIALLY 1/2 MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER.</p>	
	<p>4  - THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS.</p> <p>- DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS.</p> <p>- INSTALL 500' +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE.</p> <p>- 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.</p> <p>- 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>- FOR TEE INTERSECTIONS, INSTALL WITHIN 500' +/- OF THE INTERSECTION ALONG -L- LINE.</p>	
	<p>5  PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION.</p>	
	<p>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.</p>	
<p>MAPS LESS THAN 2 MILES</p>	<p>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 WARNING SIGNS.</p>	



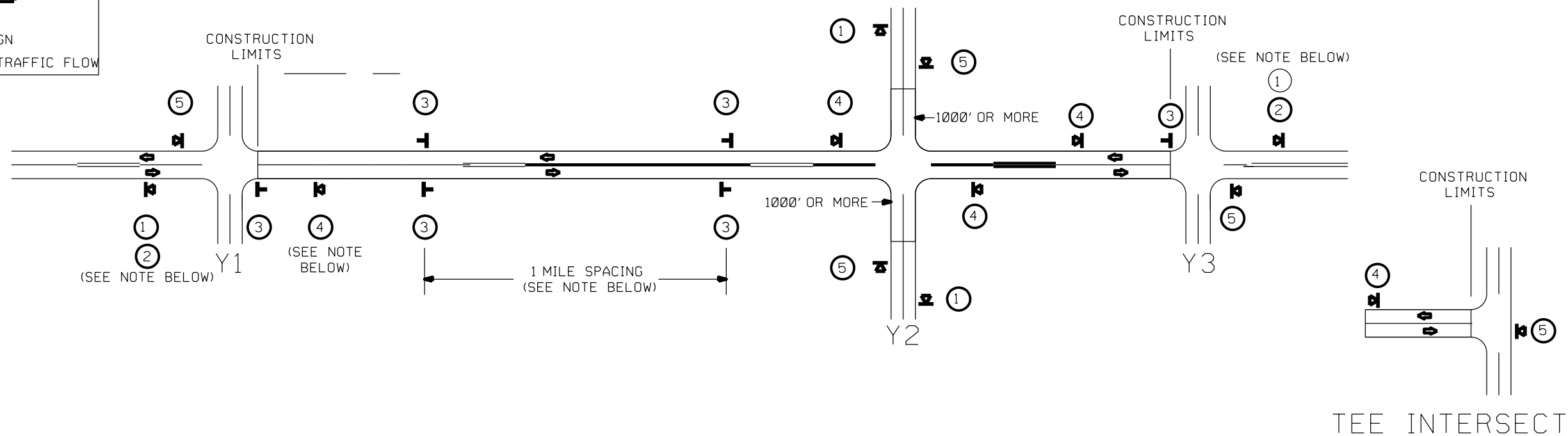
ADVANCE WARNING SIGNS FOR RURAL AND SUBURBAN 2-LANE ROADWAY RESURFACING

\$\$\$\$\$SYSTEM\$\$\$\$\$
 \$\$\$SYSDATE\$\$\$\$\$
 \$\$\$SYSDAY\$\$\$\$\$
 \$\$\$SYSMON\$\$\$\$\$
 \$\$\$SYSSER\$\$\$\$\$

SIGNING FOR ASPHALT SURFACE TREATMENT

LEGEND

- PORTABLE SIGN
- STATIONARY SIGN
- DIRECTION OF TRAFFIC FLOW



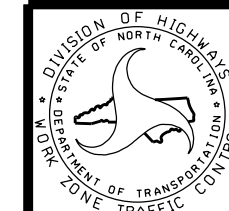
MAINLINE (-L-) SIGNING

-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	<p>① ②</p>	<p>- PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.</p> <p>- SIGN #2 ONLY USED WHEN RESURFACING LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO THE NEAREST WHOLE NUMBER. DO NOT USE FRACTIONAL OR DECIMAL NUMBERS.</p>	<p>STATIONARY SIGNING NOT REQUIRED FOR THE FOLLOWING -Y- LINE CONDITIONS:</p> <p>1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE 2) SUBDIVISION ROADS 3) DEAD END ROADS</p> <p>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.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>PLACED 500' IN ADVANCE OF FLAGGER.</p> </div> <div style="text-align: center;"> <p>PLACED 250' IN ADVANCE OF FLAGGER.</p> </div> </div>
	<p>③</p>	<p>- ALTERNATE THE FOLLOWING TWO SIGNS:</p> <p>- STARTING WITH "LOOSE GRAVEL" (W8-7) FOLLOWED BY "UNMARKED PAVEMENT".</p> <p>- PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACED 1 MILE APART THEREAFTER.</p> <p>- AT TEE INTERSECTIONS INSTALL INITIALLY 0.5 MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER.</p>	
	<p>④</p>	<p>- THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS. DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS.</p> <p>- INSTALL 500' +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE.</p> <p>- 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.</p> <p>- 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>⑤</p>	<p>PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION.</p>	
	<p>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.</p>		

MAPS LESS THAN 2 MILES

FOR AST RESURFACING MAPS WITH CONSTRUCTION LIMITS LESS THAN 2 MILES IN LENGTH, USE A STATIONARY "LOOSE GRAVEL" SIGN AT THE BEGINNING CONSTRUCTION LIMIT FOLLOWED BY AN "UNMARKED PAVEMENT" SIGN MIDWAY THROUGH AND AN "END ROAD WORK" SIGN AT THE END CONSTRUCTION LIMIT.

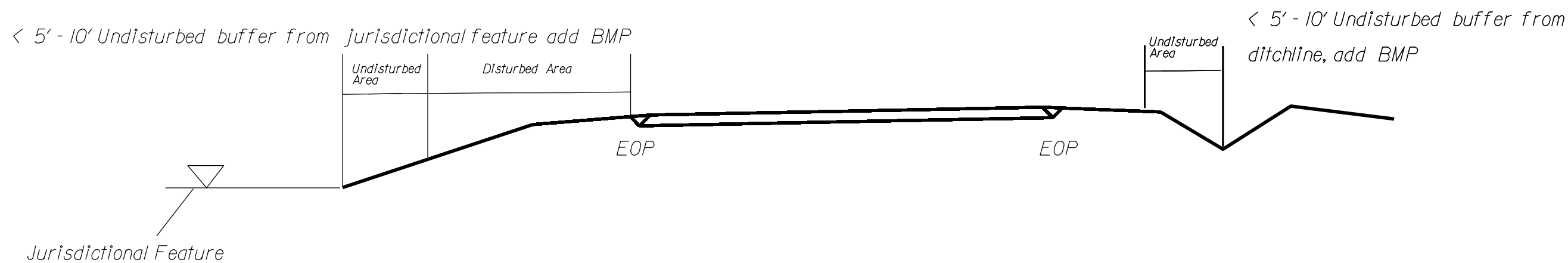
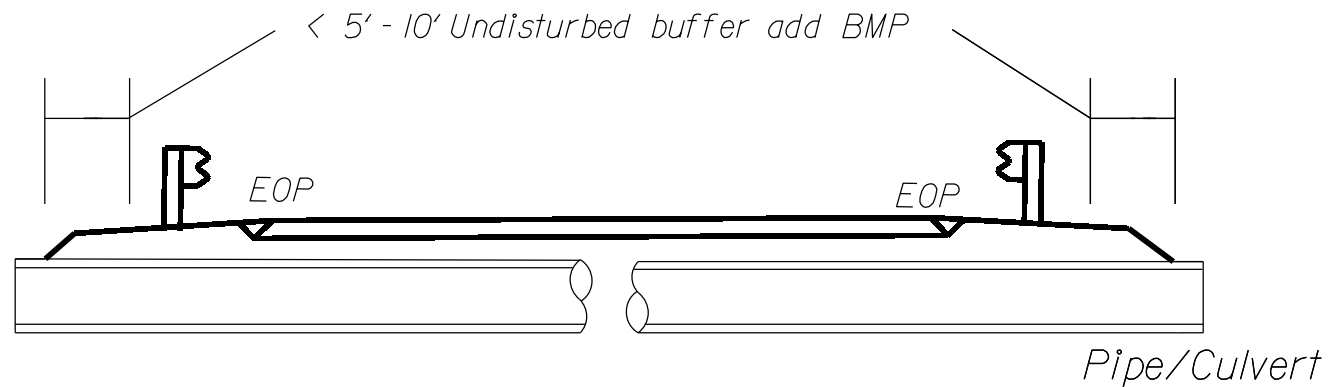


ADVANCE WARNING SIGNS FOR 2-LANE ROADWAY ASPHALT SURFACE TREATMENT

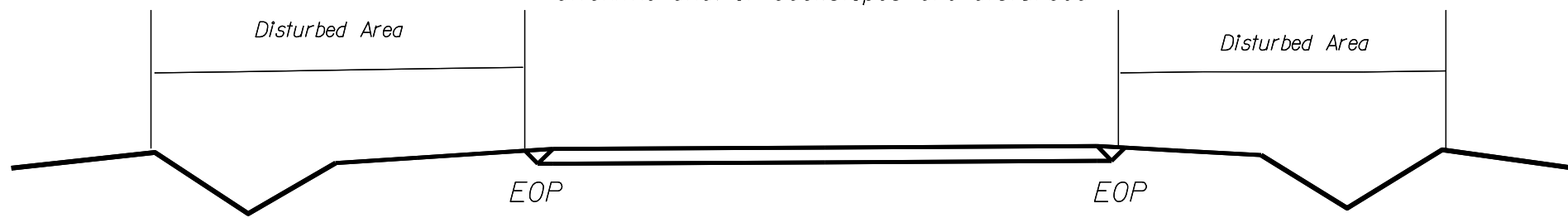
NOTES: Less than 5' - 10' undisturbed buffer from ROW, ditchline, water feature, or drainage inlet, add BMP.

BMP Options: Wattle or Silt Fence

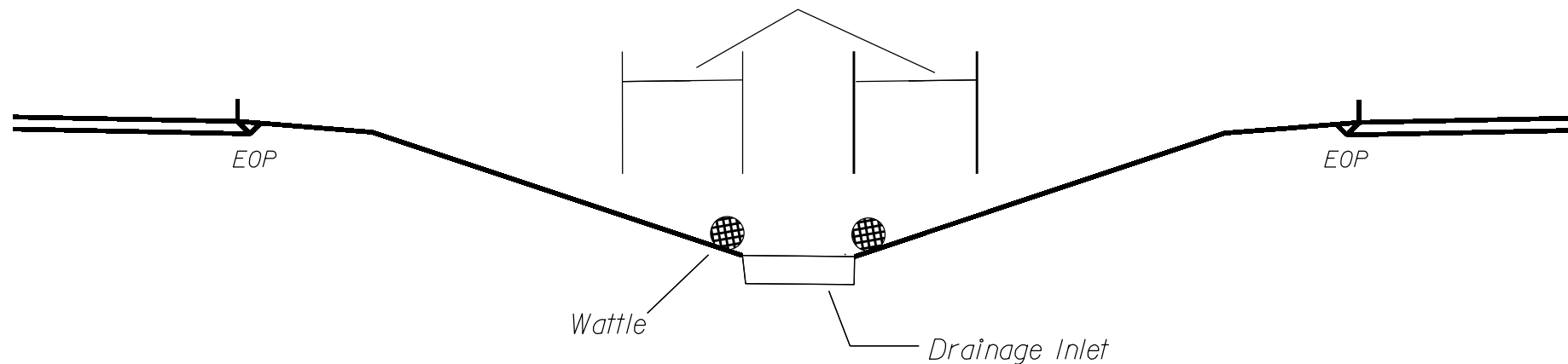
EROSION CONTROL DETAIL



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

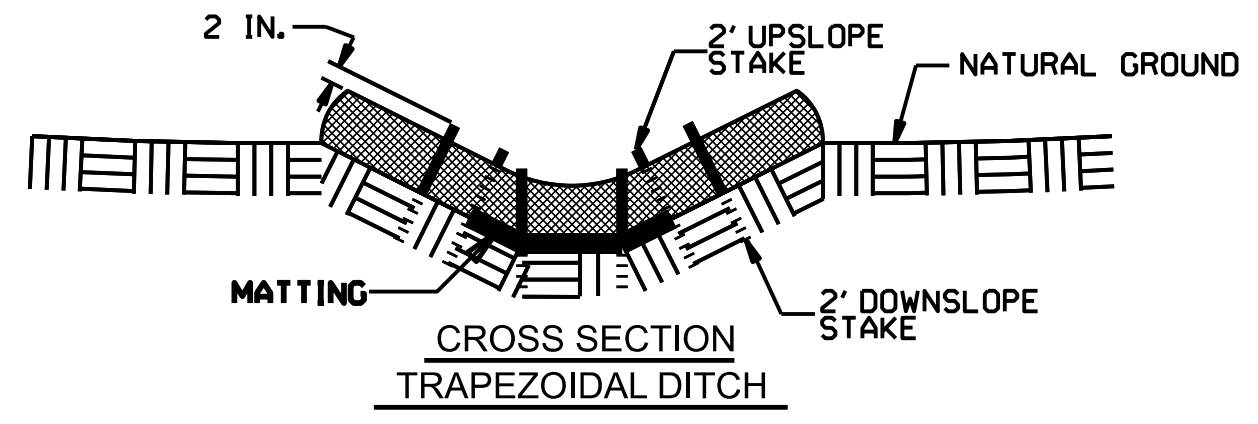
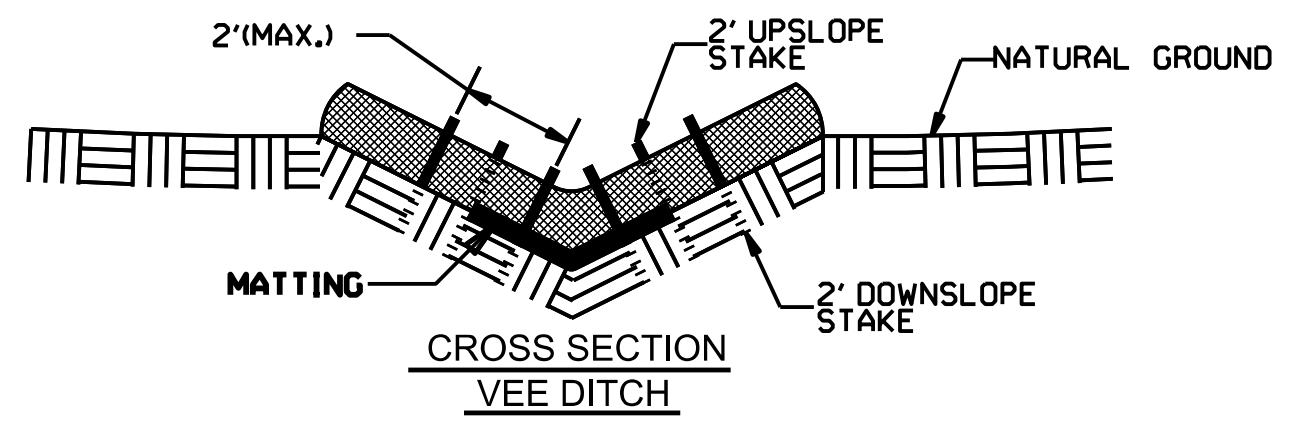
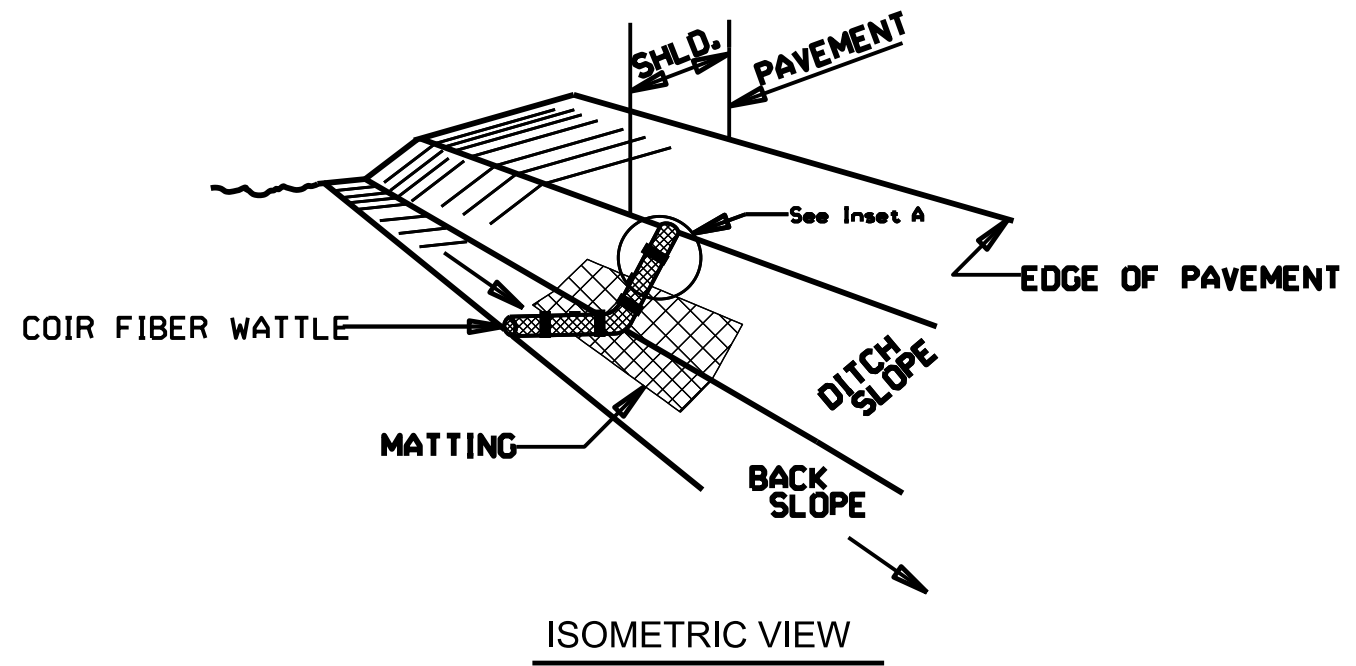


< 5' - 10' Undisturbed buffer from inlet, add wattle



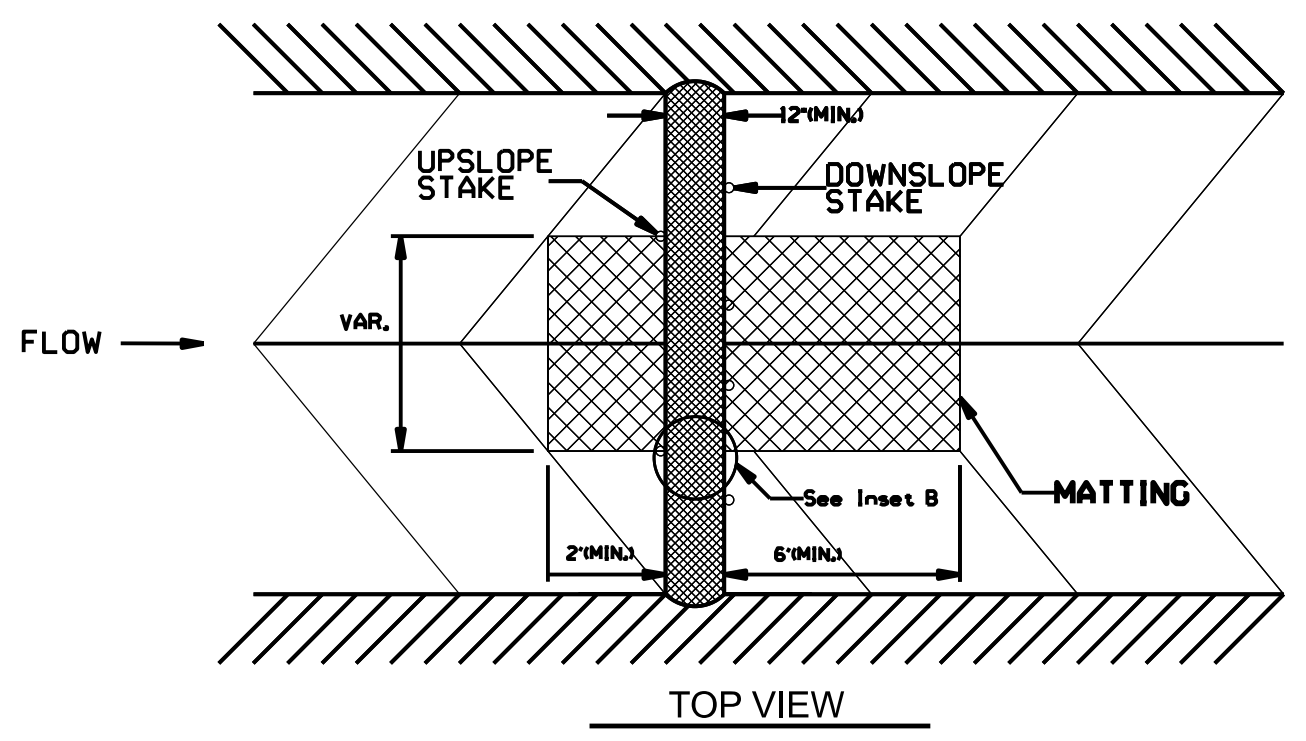
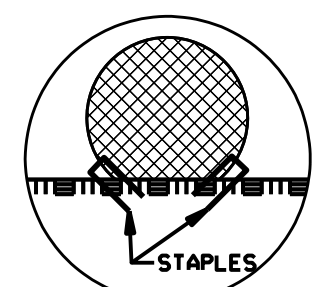
NOT TO SCALE

COIR FIBER WATTLE DETAIL



NOTES:

- USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) 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.

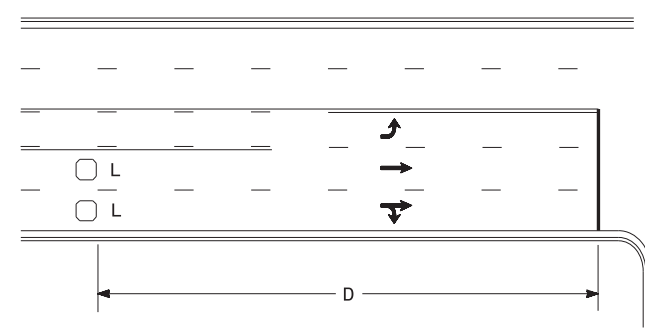


**DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA**

SOIL STABILIZATION TIMEFRAMES

SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
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.

High Speed Detection (≥40 mph)

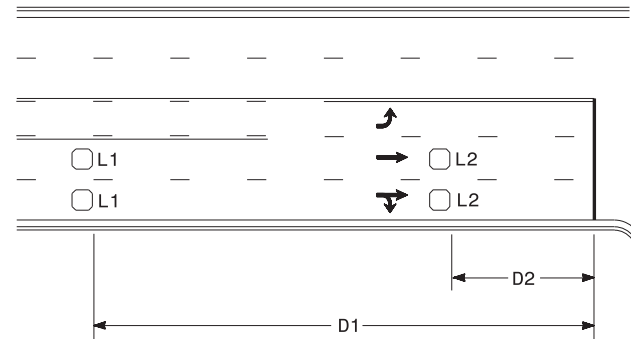


Speed Limit mph	D ft
40	250
45	300
50	355
55	420

L = 6ft X 6ft
Wired separately

Volume Density Operation

OR

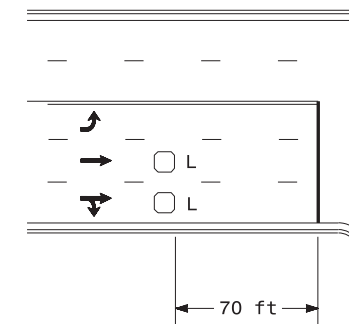


Speed Limit mph	D1 ft	D2 ft
40	250	80
45	300	90
50	355	100
55	420	110

L1 = 6ft X 6ft
Wired in series
L2 = 6ft X 6ft
Wired in series

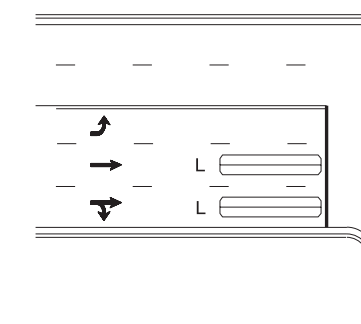
"Stretch" Operation

Low Speed Detection (≤35 mph)



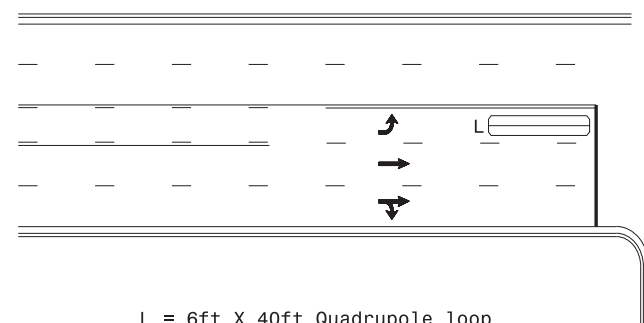
L = 6ft X 6ft
Wired in series

OR



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

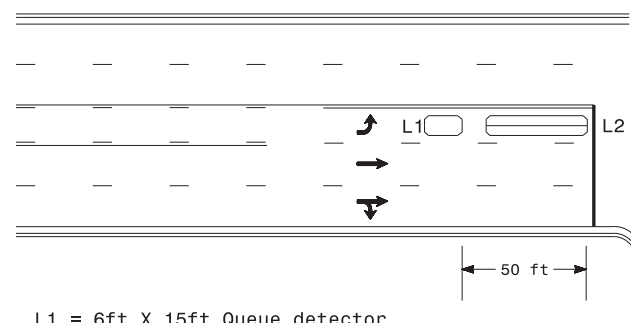
Left Turn Lane Detection



L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

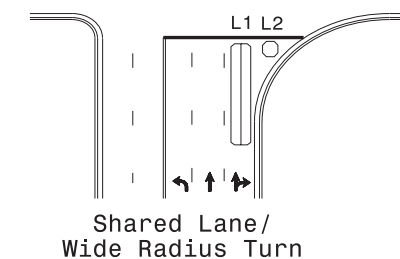
OR



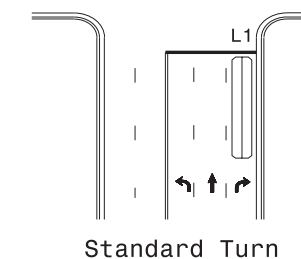
L1 = 6ft X 15ft Queue detector
L2 = 6ft X 40ft Quadrupole loop

Queue Loop Detection

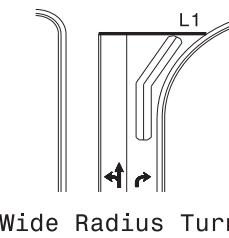
Right Turn Lane Detection



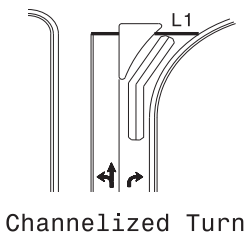
L1 = 6ft X 40ft Quadrupole loop
L2 = 6ft X 6ft [Minimum] Presence loop
Wired separately



Standard Turn

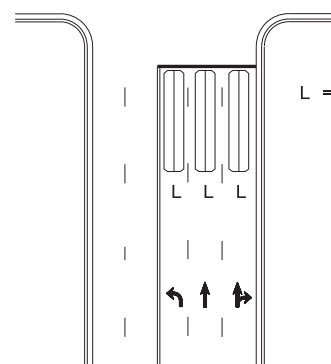


Wide Radius Turn



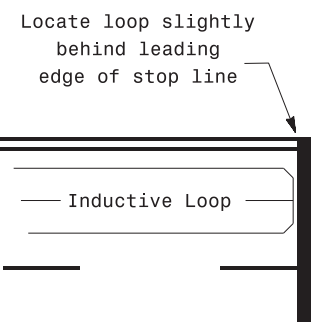
Channelized Turn

Side Street Detection



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

Presence Loop Placement at Stop Lines



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

750 N. Greenfield Pkwy, Garner, NC 27529

Prepared In the Offices of:

Typical Signal Loop Locations	
PLAN DATE: September 2020	REVIEWED BY: JPG
PREPARED BY: PLA	REVIEWED BY:
SCALE: N/A	DATE:
REVISIONS:	INIT. DATE:

9/8/2020
DATE
SIG. INVENTORY NO.