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STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	2017CPT.10.10.10131.1, etc.	1	
F.A. PROJECT NO.			

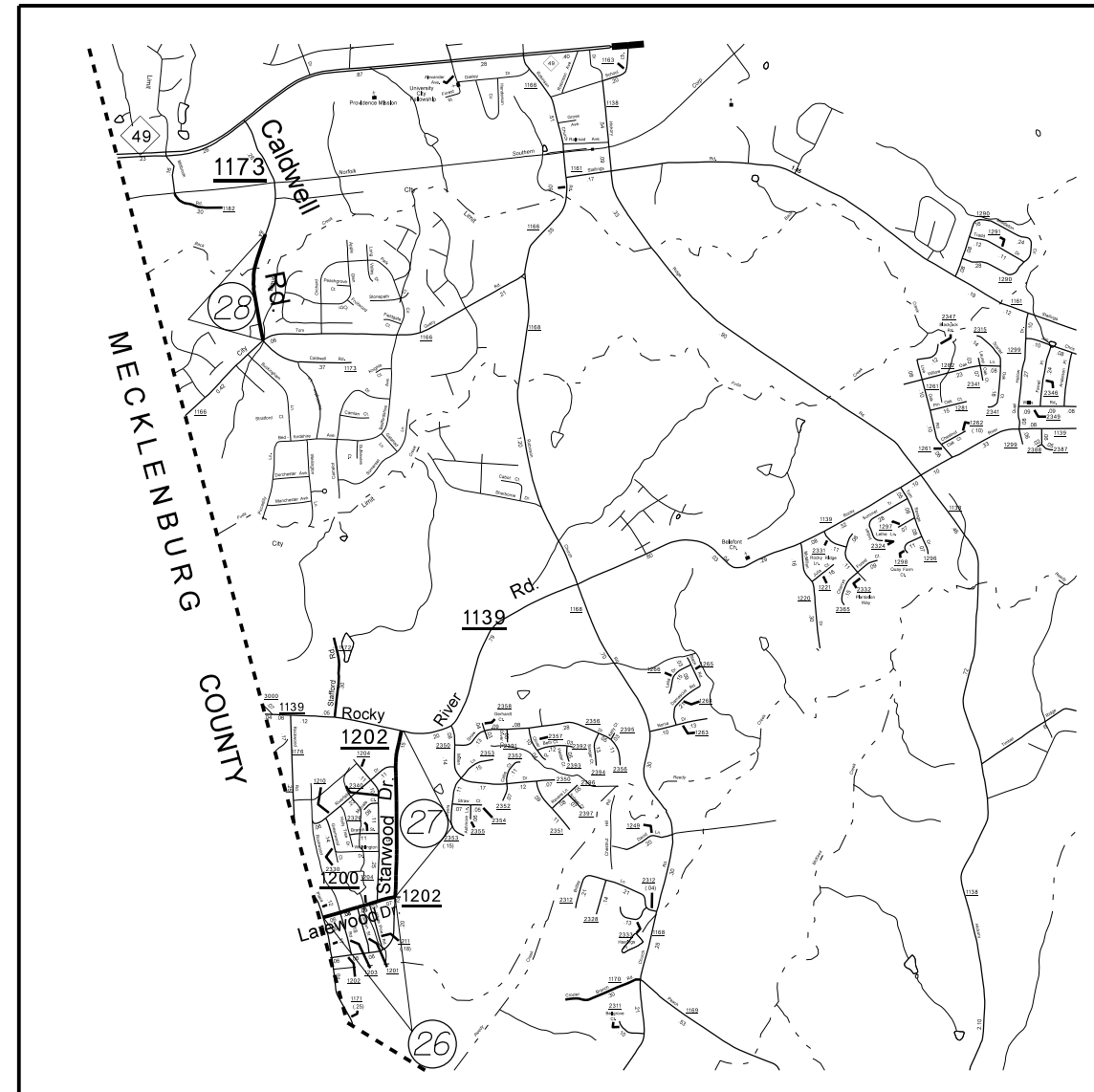
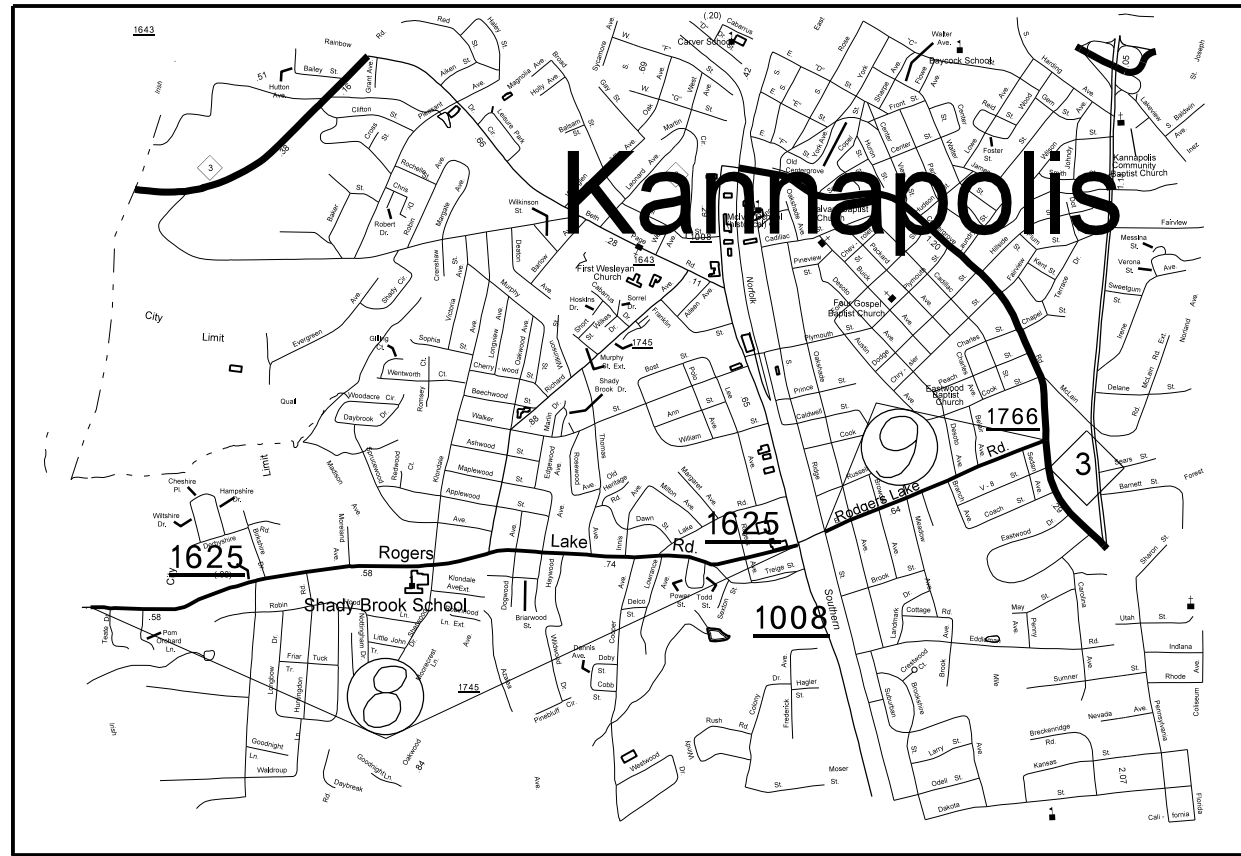


ENLARGED MUNICIPAL AND SUBURBAN AREAS

# CABARRUS COUNTY

NORTH CAROLINA

PREPARED BY THE  
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS - GIS UNIT



STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	2017CPT.10.10.10131.1, ETC.	2	
F.A. PROJECT NO.			

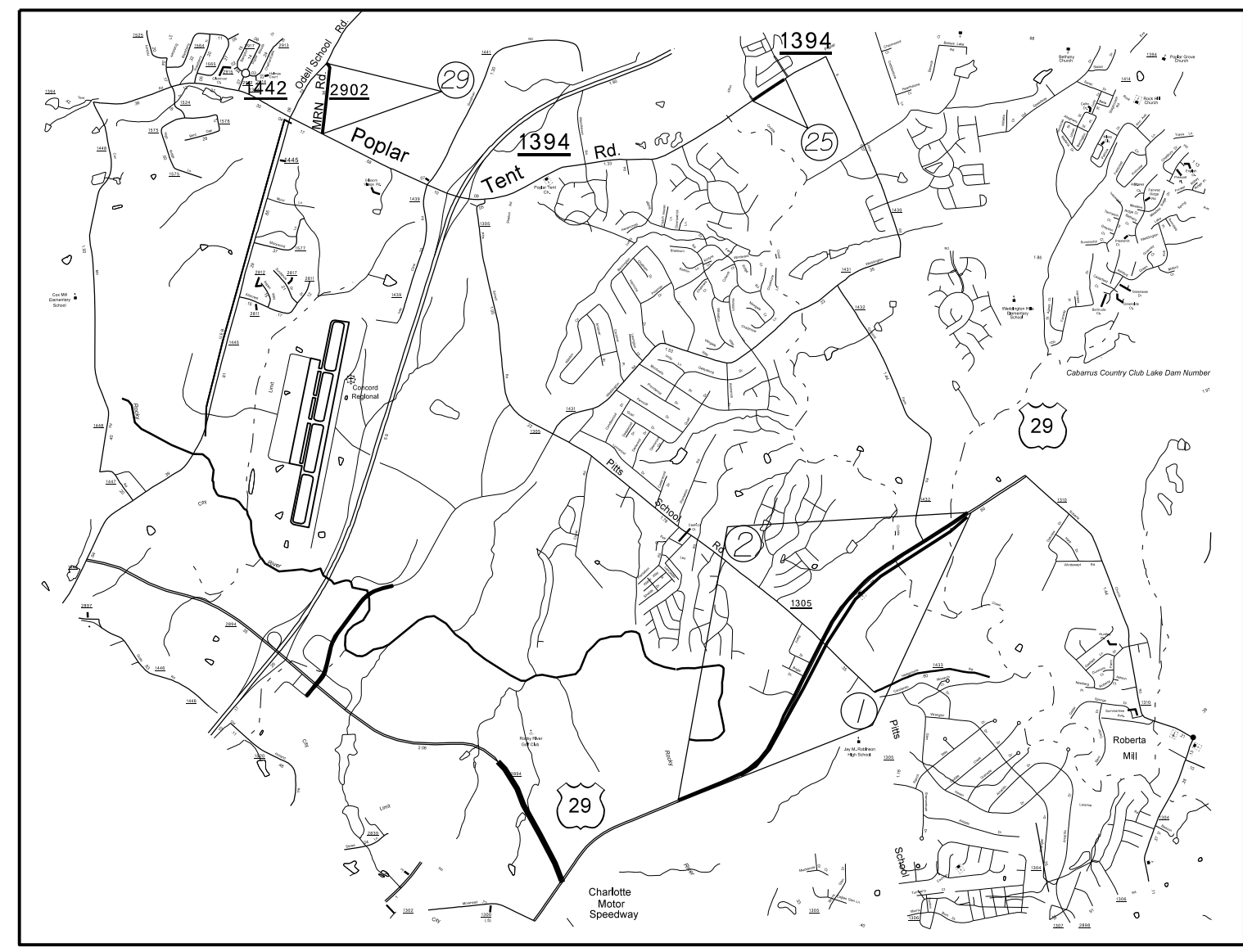
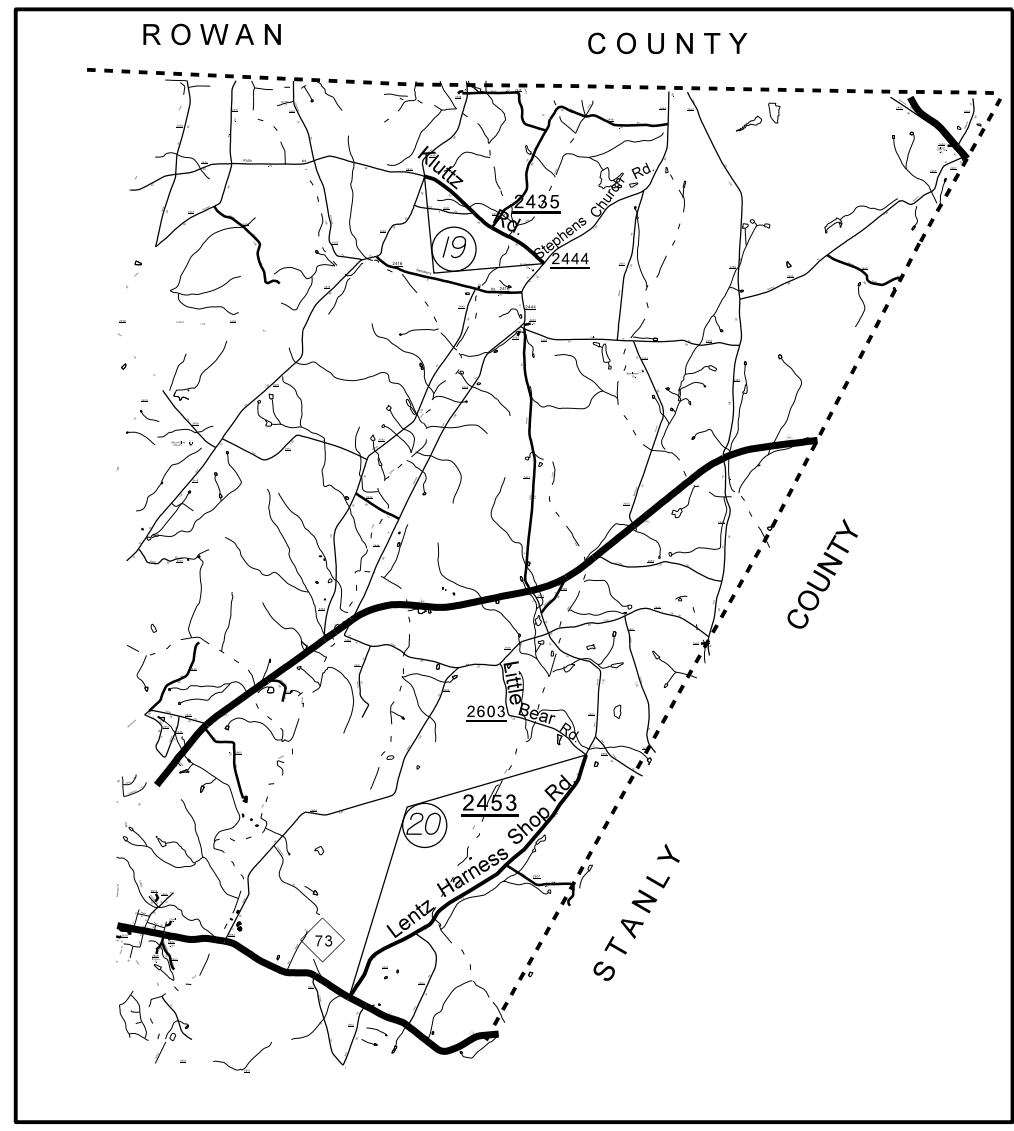


ENLARGED MUNICIPAL AND SUBURBAN AREAS

# CABARRUS COUNTY

NORTH CAROLINA

PREPARED BY THE  
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS - GIS UNIT



STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	2017CPT.10.10.10131.1, etc.	3	
F.A. PROJECT NO.			

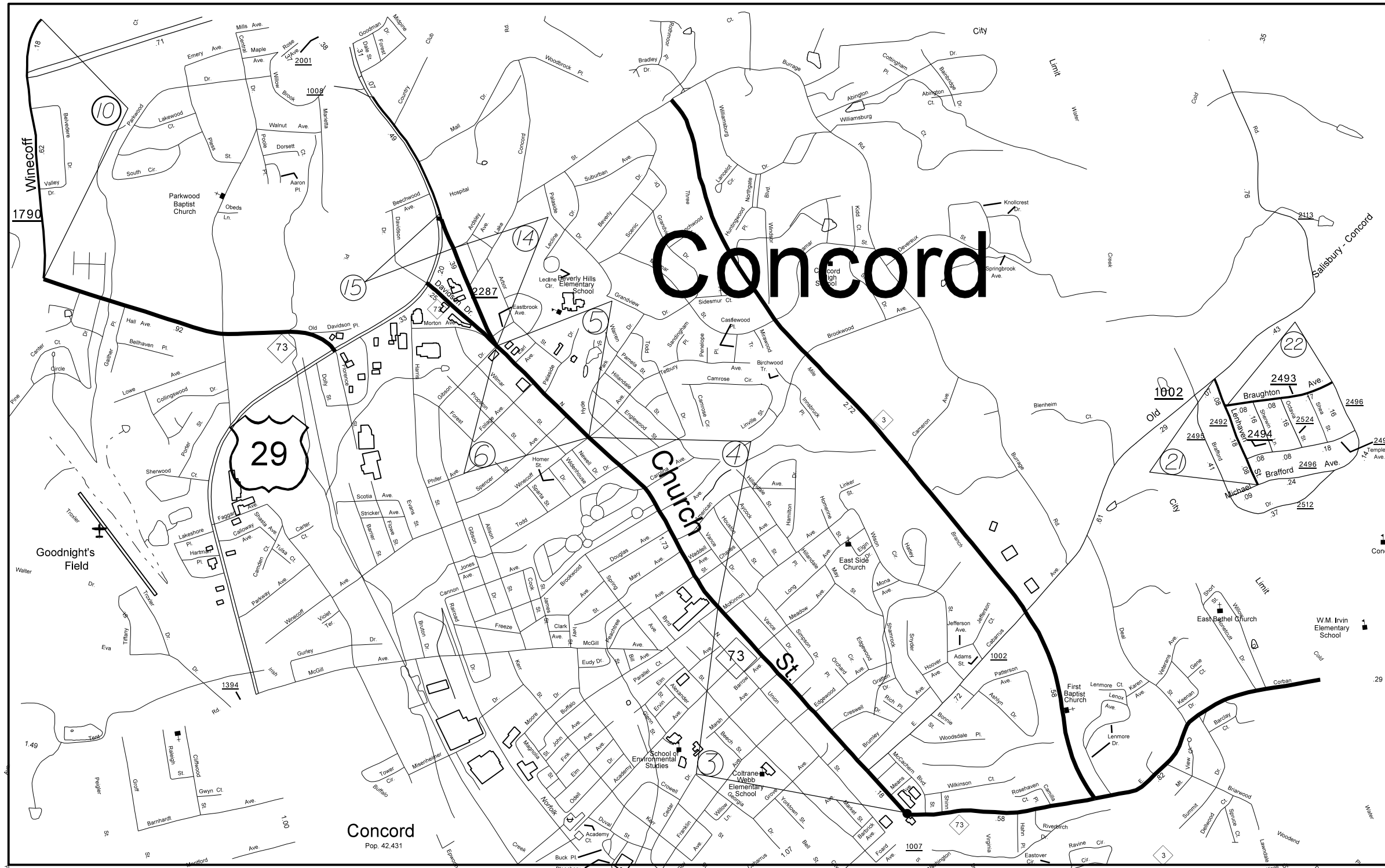


ENLARGED MUNICIPAL AND SUBURBAN AREAS

# CABARRUS COUNTY

NORTH CAROLINA

PREPARED BY THE  
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS - GIS UNIT



Concord  
Pop. 42,431

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	2017CPT.10.10.10131.1, et c.	4	
F.A. PROJECT NO.			

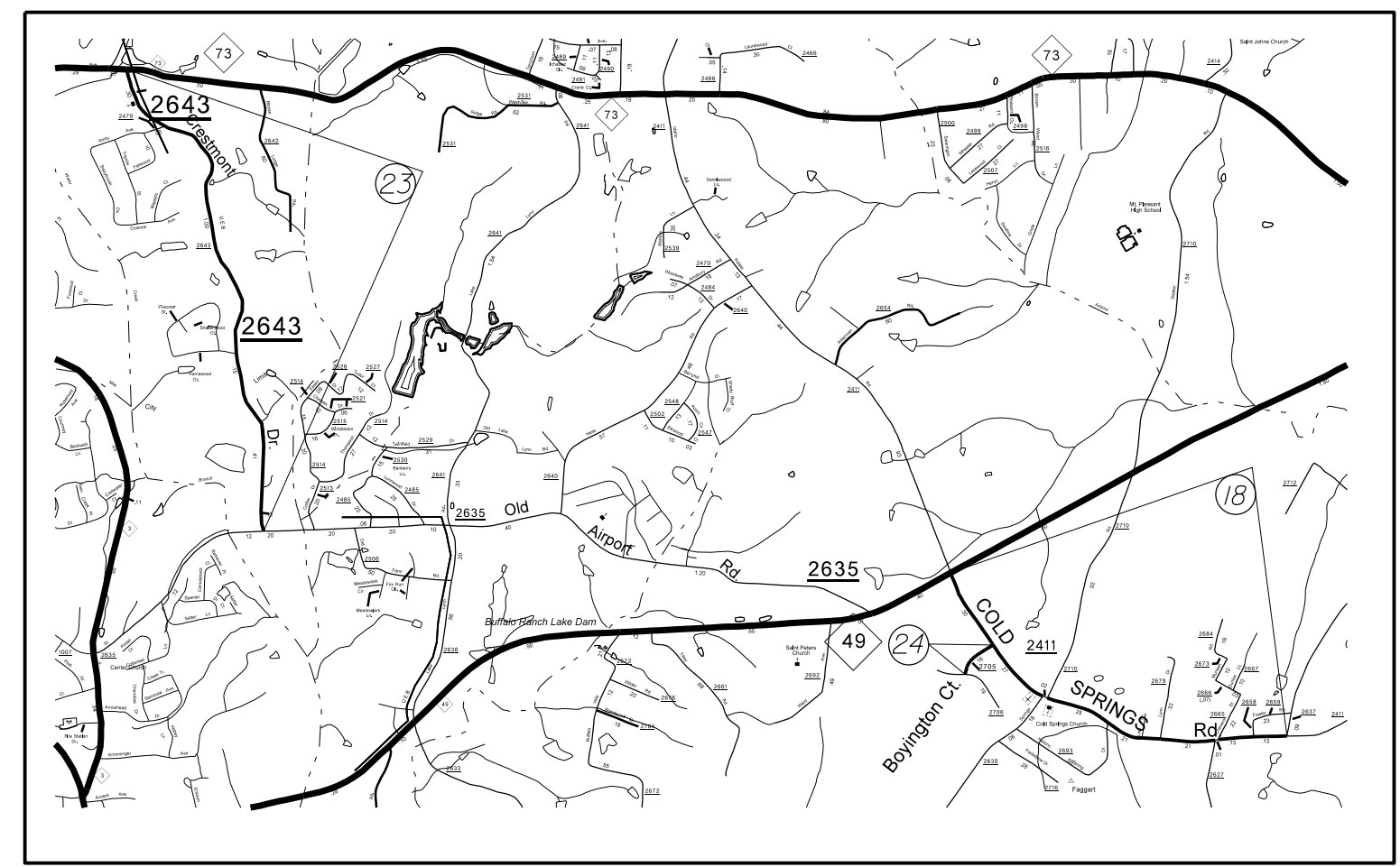
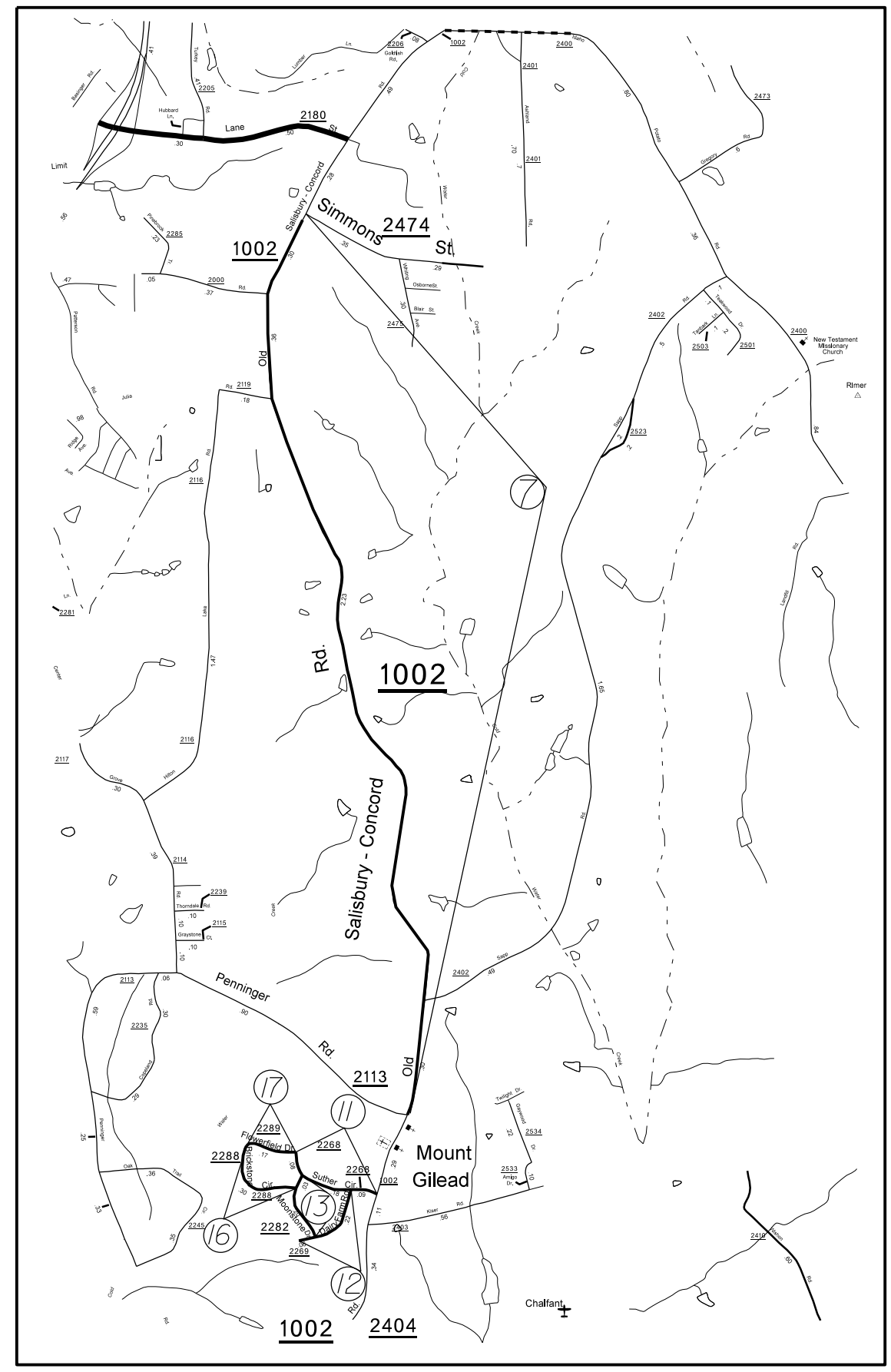


ENLARGED MUNICIPAL AND SUBURBAN AREAS

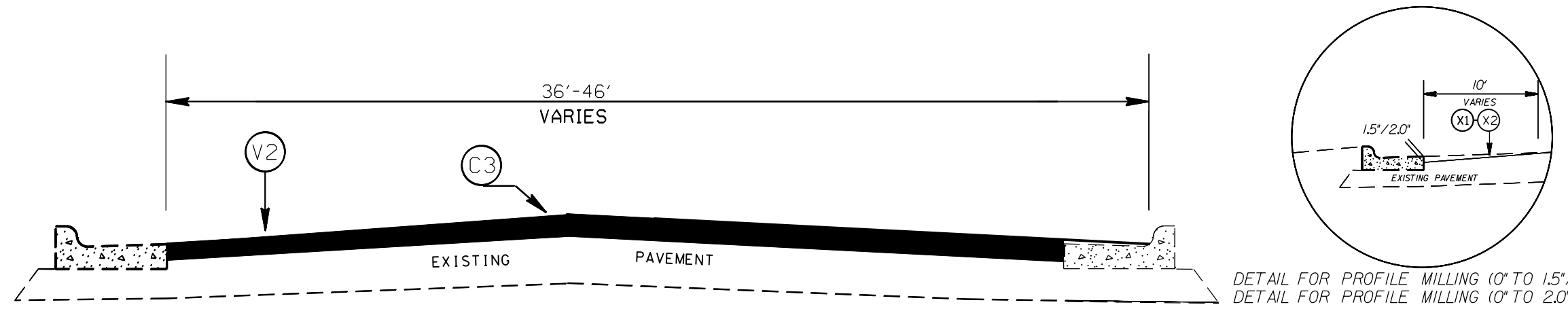
# CABARRUS COUNTY

NORTH CAROLINA

PREPARED BY THE  
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS - GIS UNIT

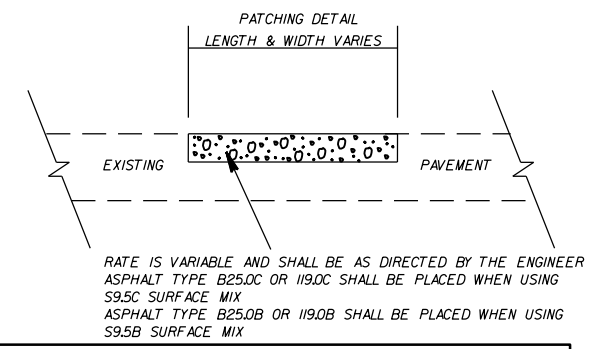


STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	2017CPT.10.10.10131.I.	5	
F.A. PROJECT NO.			



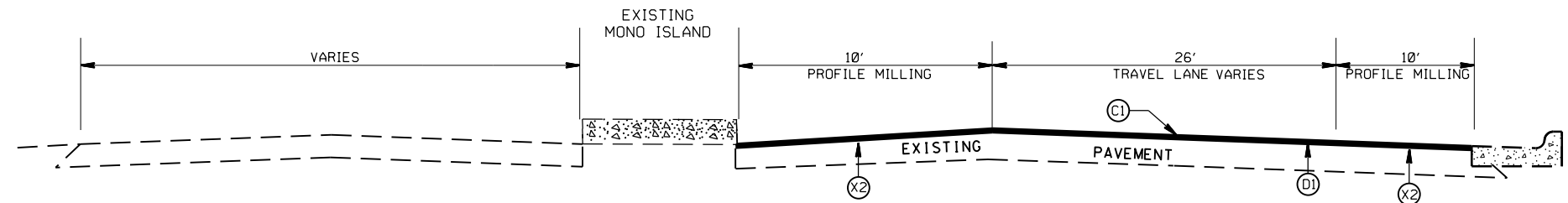
TYPICAL SECTION NO. 4

DETAIL FOR PROFILE MILLING (0" TO 1.5")  
 DETAIL FOR PROFILE MILLING (0" TO 2.0")



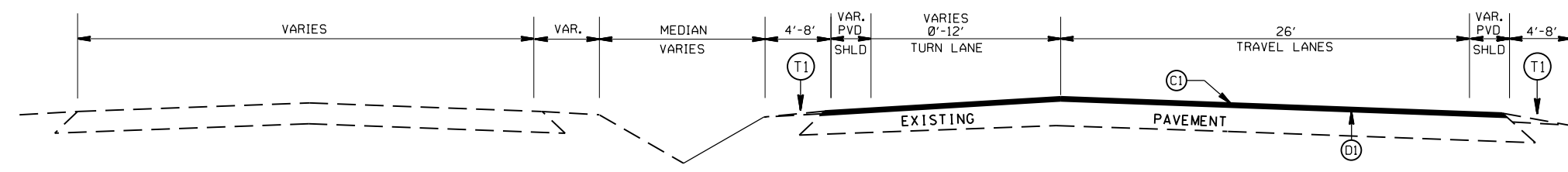
PAVEMENT SCHEDULE

C1	PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C3	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C4	PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C5	PROP. APPROX. 1.0" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD.
C6	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. IN EACH OF TWO LAYERS
C7	PROP. AST DOUBLE SEAL, THE FIRST COAT SHALL BE APPLIED FOR BOTH LANES AT THE END OF DAY TWO (2) RECLAMATION. THE FINAL SEAL BE APPLIED AFTER RECLAMATION OF THE MAP IS COMPLETE.
D1	AST MAT COAT # 67
D2	MAT COAT # 78M
T1	SHOULDER RECONSTRUCTION
V1	MILLING BITUMINOUS PAVEMENT 2.0" DEPTH. AS DIRECTED BY THE ENGINEER
V2	MILLING BITUMINOUS PAVEMENT 1.5" DEPTH.
X1	PROFILE MILLING BITUMINOUS PAVEMENT. 0" TO 1.5"
X2	PROFILE MILLING BITUMINOUS PAVEMENT. 0" TO 2.0"
Z	FULL DEPTH RECLAMATION

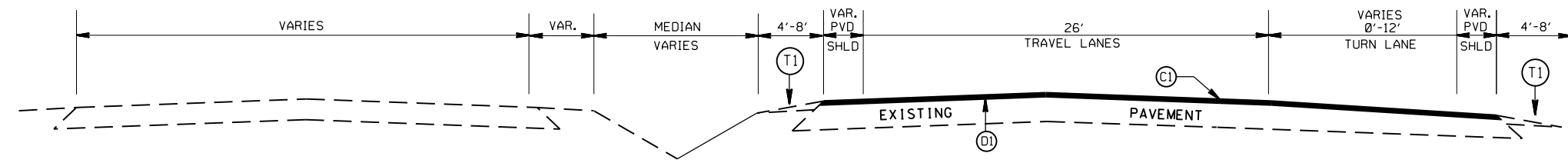


TYPICAL SECTION NO. 3  
FOR LEFT TURNLANES

FOR MAPS 1 AND 2



TYPICAL SECTION NO. 2  
FOR LEFT TURNLANES

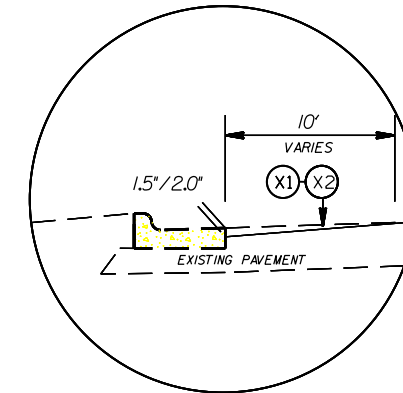
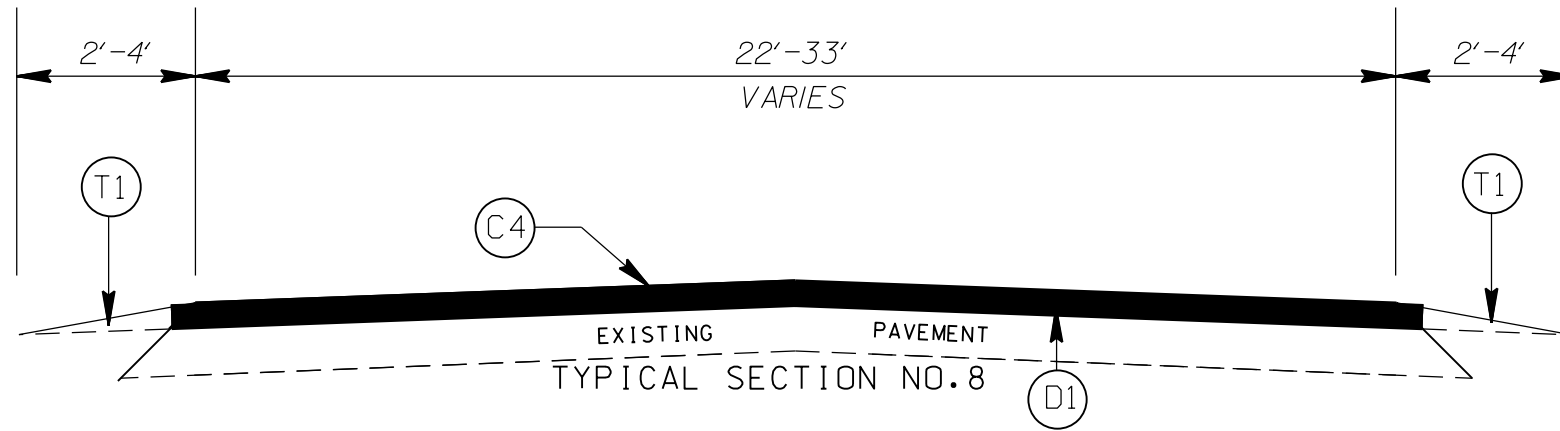


TYPICAL SECTION NO. 1  
FOR RIGHT TURNLANES

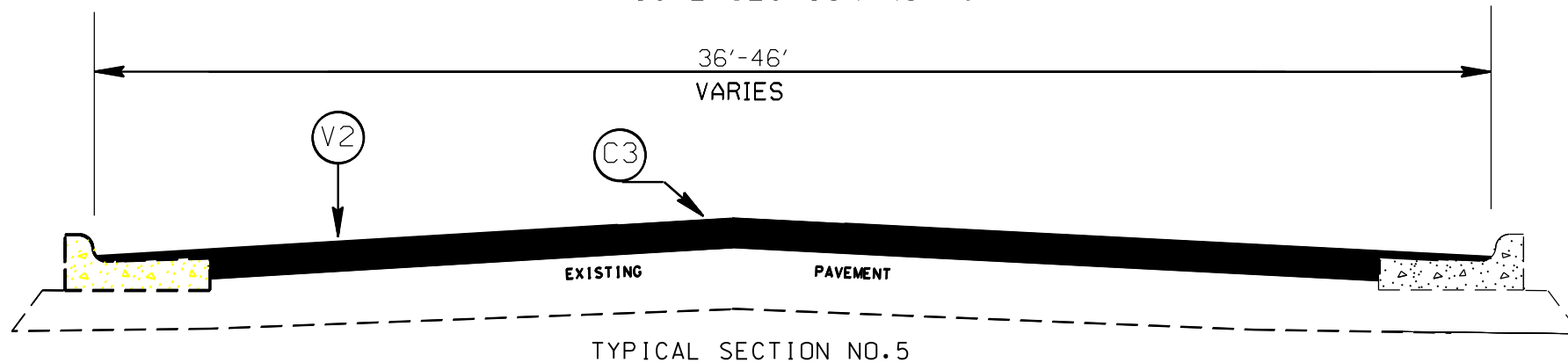
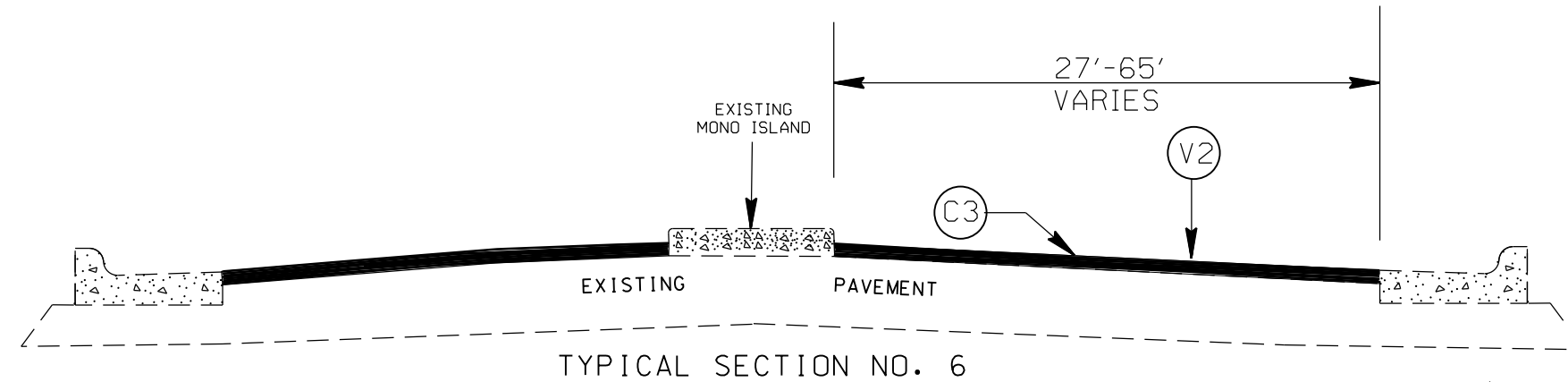
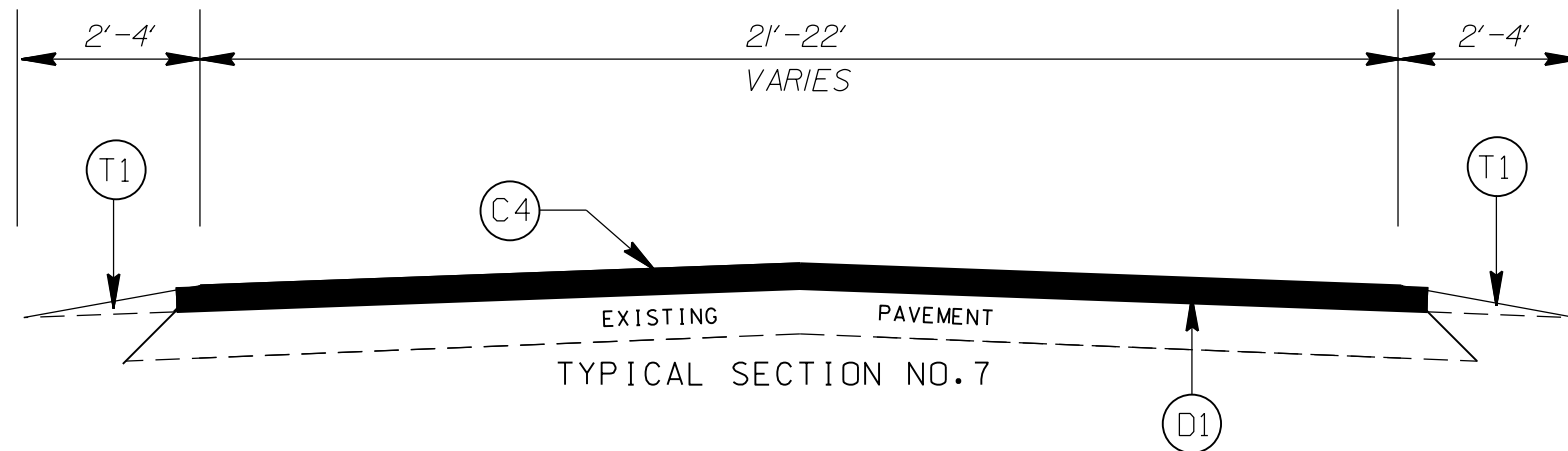
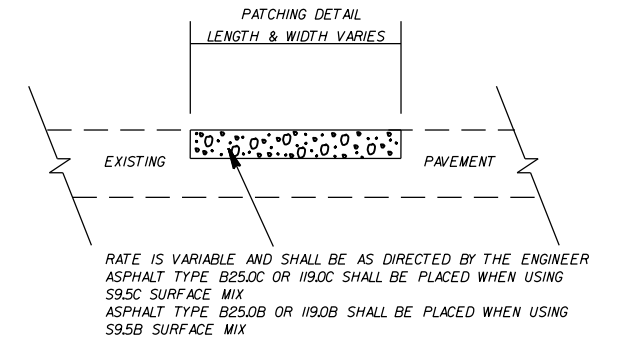
CABARRUS COUNTY  
RESURFACING 2017-2018

SCALE	-NA-		REVISIONS
DATE	1/17		
DWG. BY	JDA		
DESIGN BY	JDA		
APPROVED	MPM		

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	2017CPT.10.10.10131J.	6	
F.A. PROJECT NO.			



DETAIL FOR PROFILE MILLING (0" TO 1.5")  
 DETAIL FOR PROFILE MILLING (0" TO 2.0")



PAVEMENT SCHEDULE	
C1	PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C3	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C4	PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C5	PROP. APPROX. 1.0" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD.
C6	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. IN EACH OF TWO LAYERS
C7	PROP. AST DOUBLE SEAL, THE FIRST COAT SHALL BE APPLIED FOR BOTH LANES AT THE END OF DAY TWO (2) RECLAMATION. THE FINAL SEAL BE APPLIED AFTER RECLAMATION OF THE MAP IS COMPLETE.
D1	AST MAT COAT # 67
D2	MAT COAT # 78M
T1	SHOULDER RECONSTRUCTION
V1	MILLING BITUMINOUS PAVEMENT 2.0" DEPTH. AS DIRECTED BY THE ENGINEER
V2	MILLING BITUMINOUS PAVEMENT 1.5" DEPTH.
X1	PROFILE MILLING BITUMINOUS PAVEMENT. 0" TO 1.5"
X2	PROFILE MILLING BITUMINOUS PAVEMENT. 0" TO 2.0"
Z	FULL DEPTH RECLAMATION

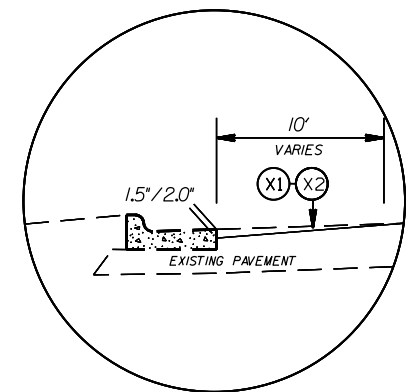
CABARRUS COUNTY  
 RESURFACING 2017-2018

SCALE	-NA-
DATE	1/17
DWG. BY	JDA
DESIGN BY	JDA
APPROVED	MPM

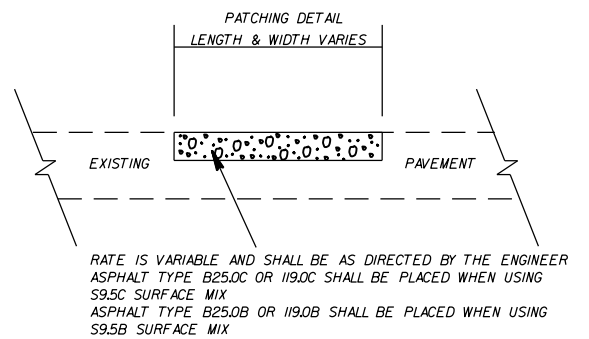


REVISIONS	

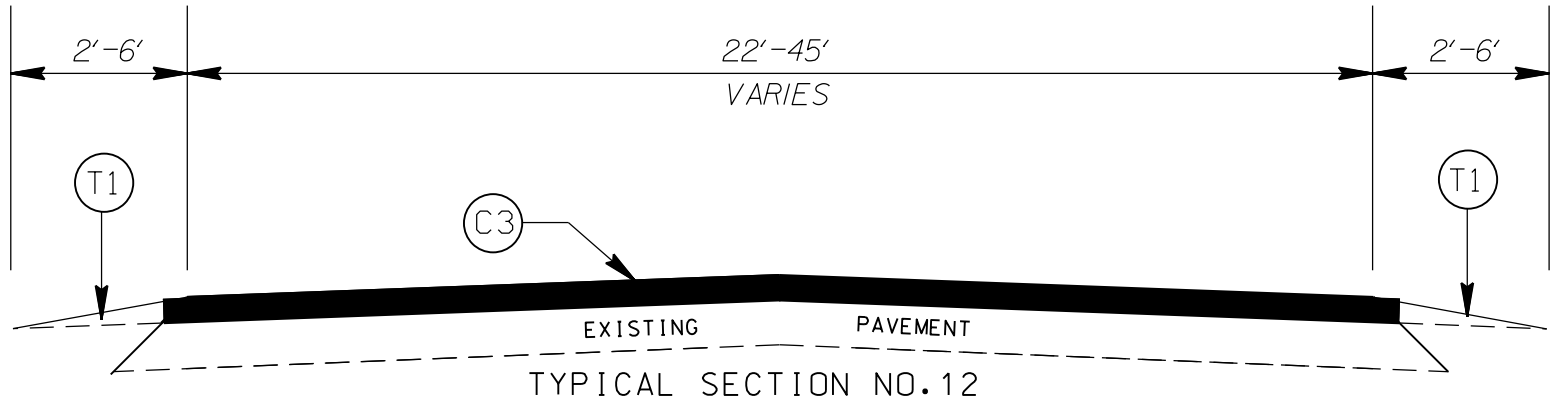
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F.A. PROJECT NO.			



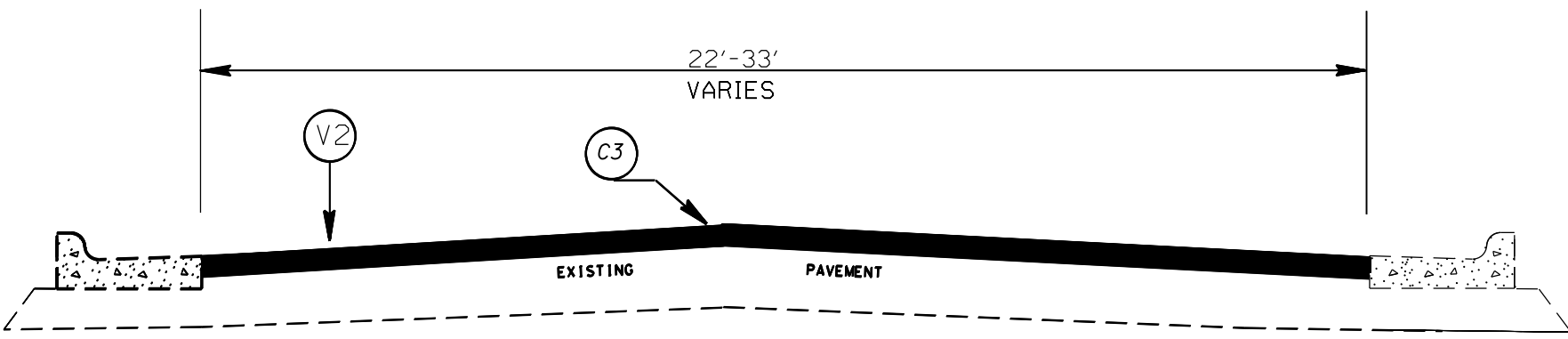
DETAIL FOR PROFILE MILLING (0" TO 1.5")  
 DETAIL FOR PROFILE MILLING (0" TO 2.0")



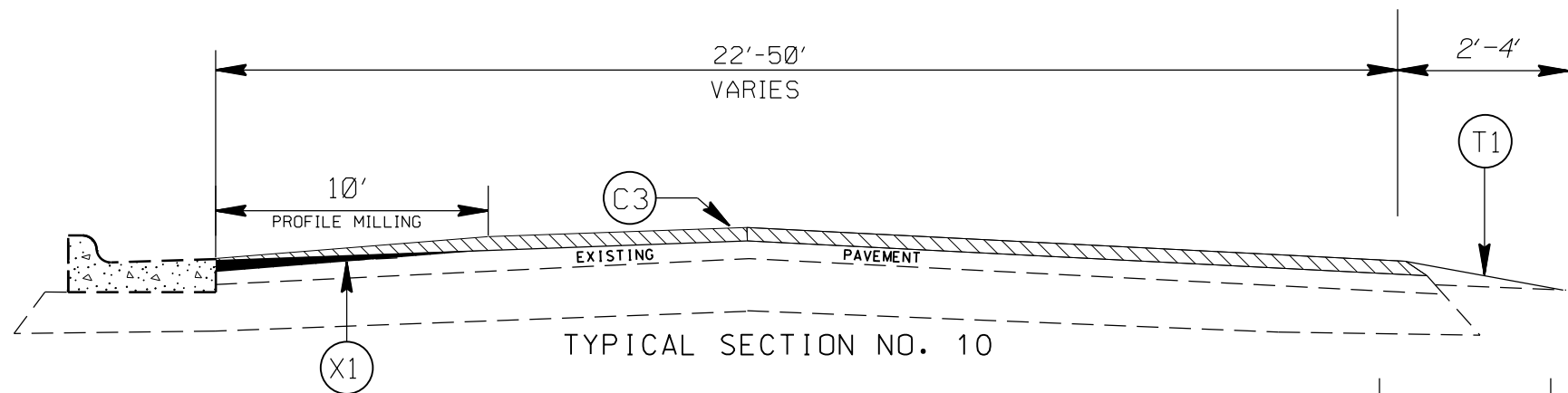
RATE IS VARIABLE AND SHALL BE AS DIRECTED BY THE ENGINEER  
 ASPHALT TYPE B25.0C OR 119.0C SHALL BE PLACED WHEN USING S9.5C SURFACE MIX  
 ASPHALT TYPE B25.0B OR 119.0B SHALL BE PLACED WHEN USING S9.5B SURFACE MIX



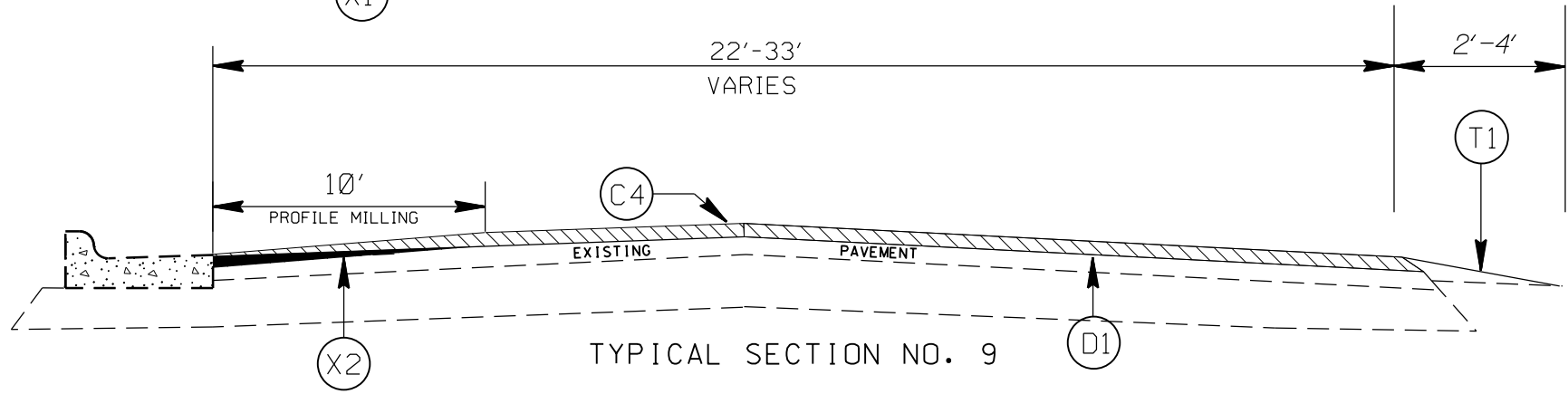
TYPICAL SECTION NO. 12



TYPICAL SECTION NO. 11  
 NOTE: MILL 1.5" AND REPLACE 1.5" @ CURB AND GUTTER SECTION



TYPICAL SECTION NO. 10



TYPICAL SECTION NO. 9

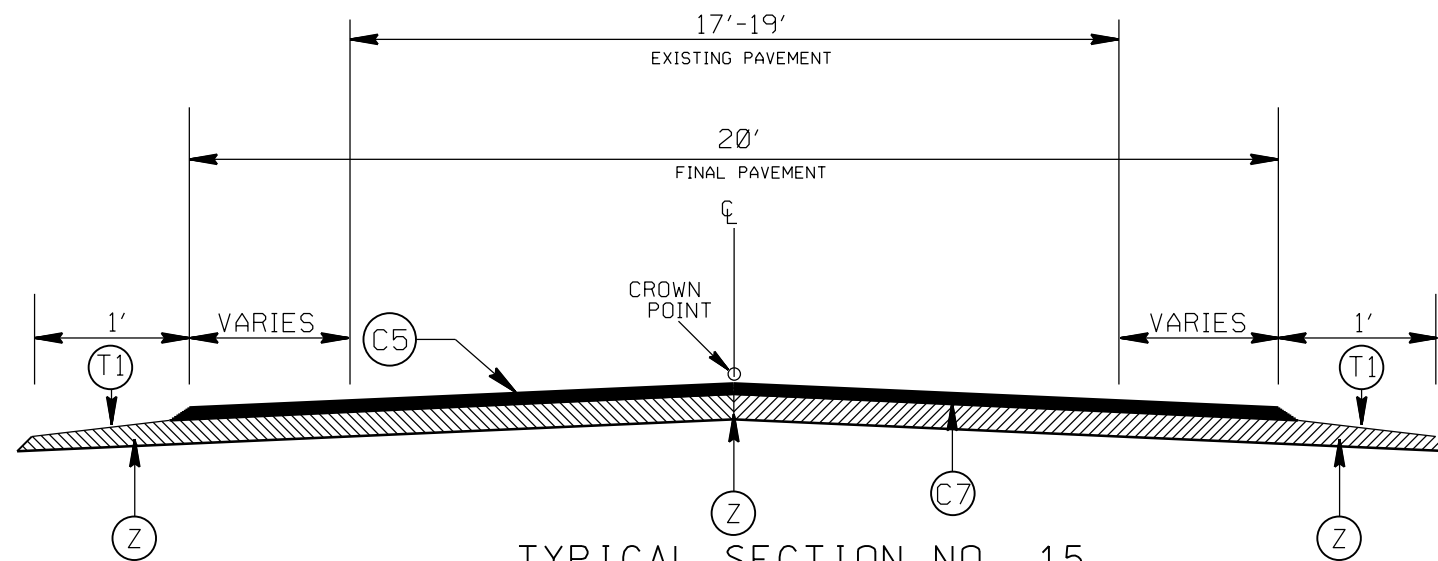
PAVEMENT SCHEDULE	
C1	PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C3	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C4	PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C5	PROP. APPROX. 1.0" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD.
C6	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. IN EACH OF TWO LAYERS
C7	PROP. AST DOUBLE SEAL, THE FIRST COAT SHALL BE APPLIED FOR BOTH LANES AT THE END OF DAY TWO (2) RECLAMATION. THE FINAL SEAL BE APPLIED AFTER RECLAMATION OF THE MAP IS COMPLETE.
D1	AST MAT COAT # 67
D2	MAT COAT # 78M
T1	SHOULDER RECONSTRUCTION
V1	MILLING BITUMINOUS PAVEMENT 2.0" DEPTH. AS DIRECTED BY THE ENGINEER
V2	MILLING BITUMINOUS PAVEMENT 1.5" DEPTH.
X1	PROFILE MILLING BITUMINOUS PAVEMENT. 0" TO 1.5"
X2	PROFILE MILLING BITUMINOUS PAVEMENT. 0" TO 2.0"
Z	FULL DEPTH RECLAMATION

CABARRUS COUNTY  
RESURFACING 2017-2018

SCALE	-NA-		REVISIONS
DATE	1/17		
DWG. BY	JDA		
DESIGN BY	JDA		
APPROVED	MPM		

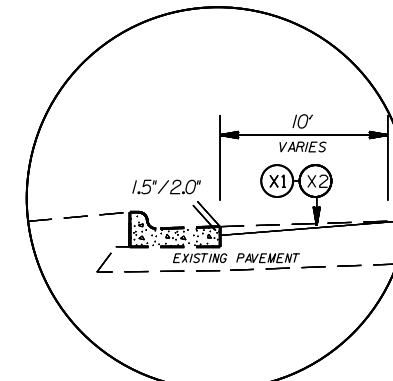


STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
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F.A. PROJECT NO.			

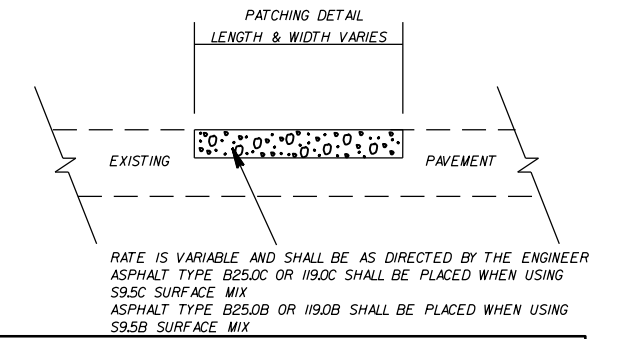


TYPICAL SECTION NO. 15

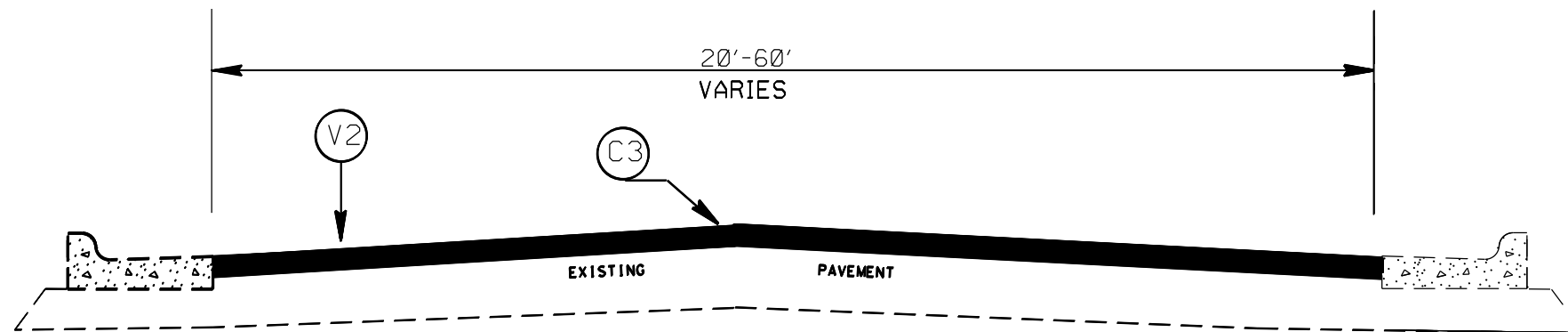
NOTE: DO NOT FDR NEW RESURFACED SECTION OF LENTZ HARNESS SHOP ROAD AT CULVERT OR 0.68 MILE SECTION OF WIDEN ROAD ON LITTLE BEAR CREEK ROAD END



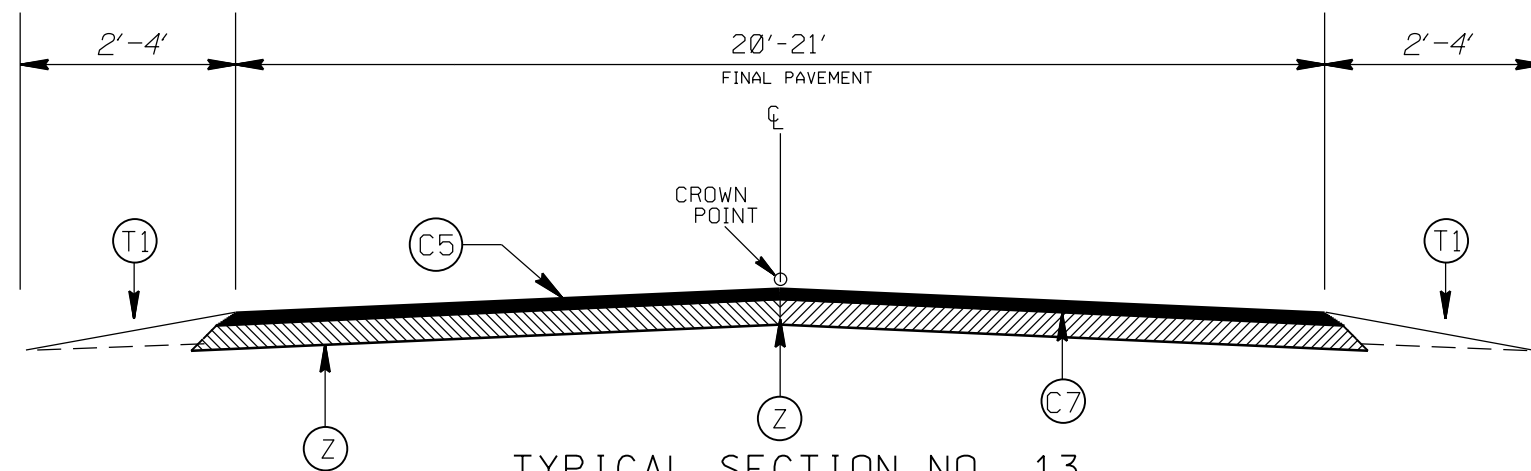
DETAIL FOR PROFILE MILLING (0" TO 1.5")  
DETAIL FOR PROFILE MILLING (0" TO 2.0")



PAVEMENT SCHEDULE	
C1	PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C3	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C4	PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C5	PROP. APPROX. 1.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5A, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD.
C6	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. IN EACH OF TWO LAYERS
C7	PROP. AST DOUBLE SEAL, THE FIRST COAT SHALL BE APPLIED FOR BOTH LANES AT THE END OF DAY TWO (2) RECLAMATION. THE FINAL SEAL BE APPLIED AFTER RECLAMATION OF THE MAP IS COMPLETE.
D1	AST MAT COAT # 67
D2	MAT COAT # 78M
T1	SHOULDER RECONSTRUCTION
V1	MILLING BITUMINOUS PAVEMENT 2.0" DEPTH. AS DIRECTED BY THE ENGINEER
V2	MILLING BITUMINOUS PAVEMENT 1.5" DEPTH.
X1	PROFILE MILLING BITUMINOUS PAVEMENT, 0" TO 1.5"
X2	PROFILE MILLING BITUMINOUS PAVEMENT, 0" TO 2.0"
Z	FULL DEPTH RECLAMATION



TYPICAL SECTION NO. 14



TYPICAL SECTION NO. 13

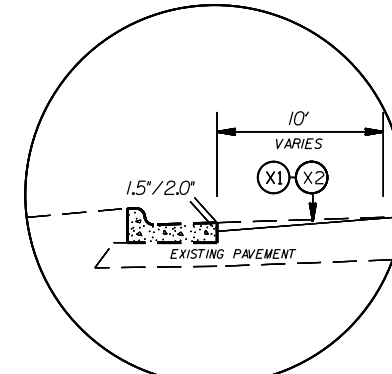
CABARRUS COUNTY  
RESURFACING 2017-2018

SCALE	-NA-
DATE	1/17
DWG. BY	JDA
DESIGN BY	JDA
APPROVED	MPM

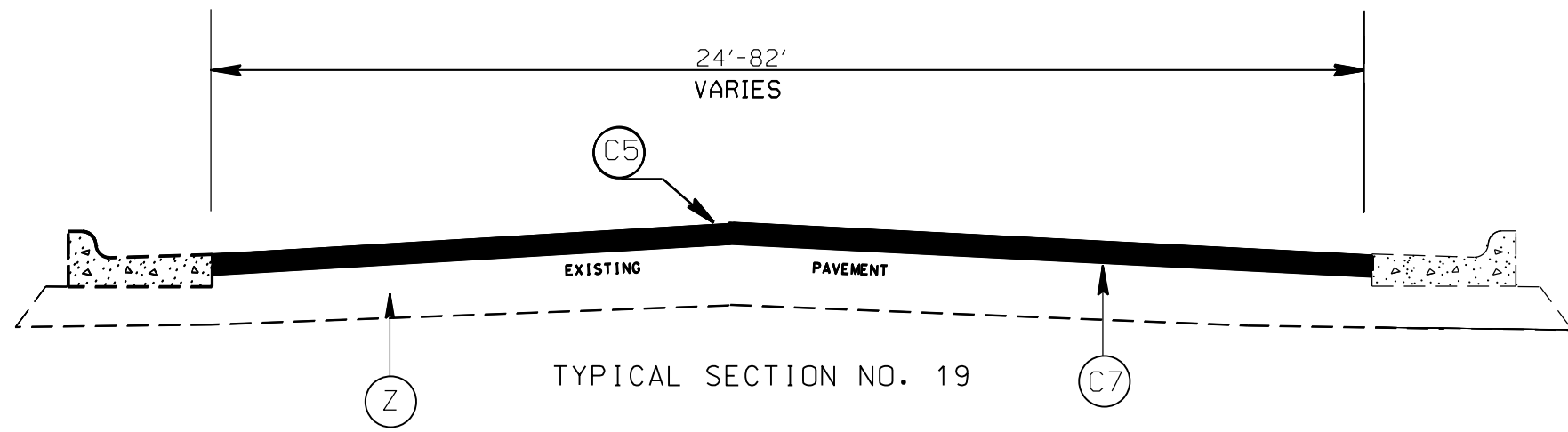
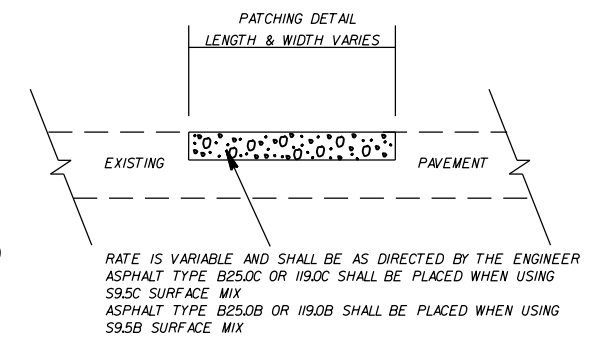


REVISIONS	

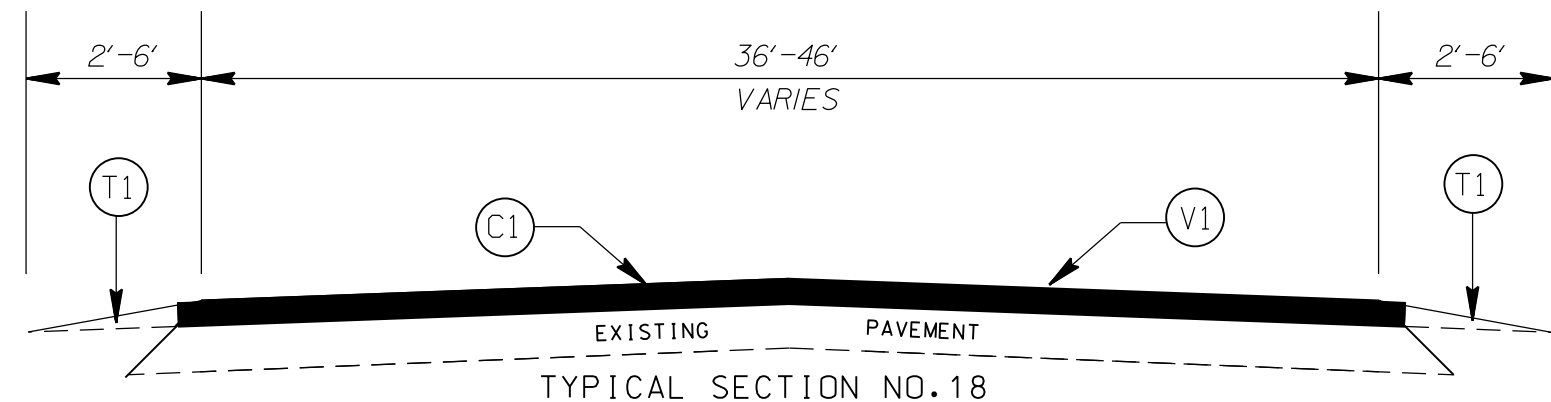
STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	2017CPT.10.10.1031.1	9	
F.A. PROJECT NO.			



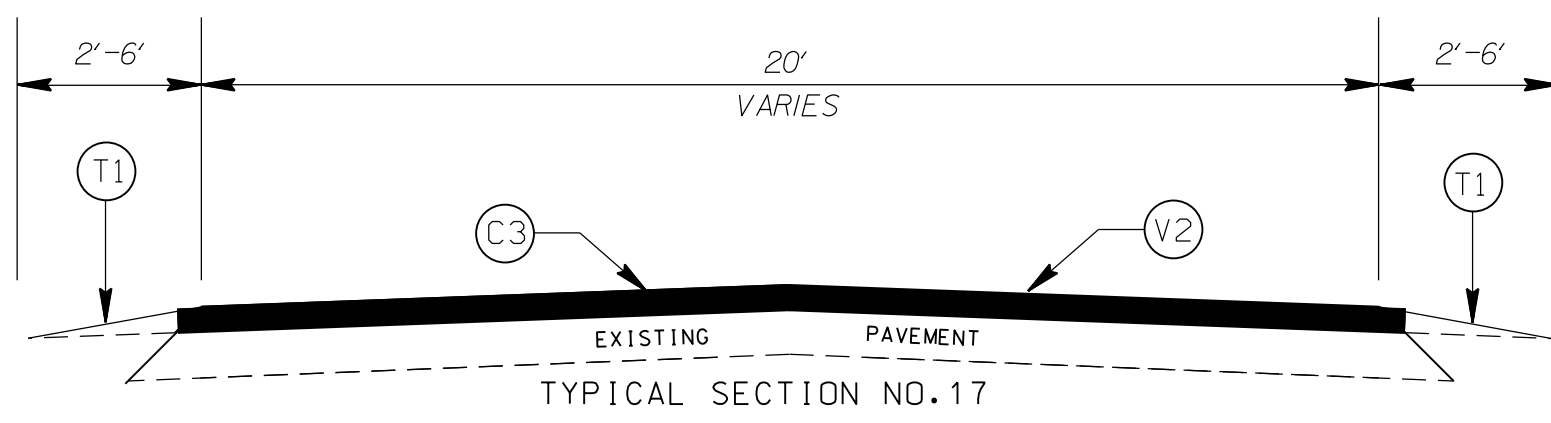
DETAIL FOR PROFILE MILLING (0" TO 1.5")  
 DETAIL FOR PROFILE MILLING (0" TO 2.0")



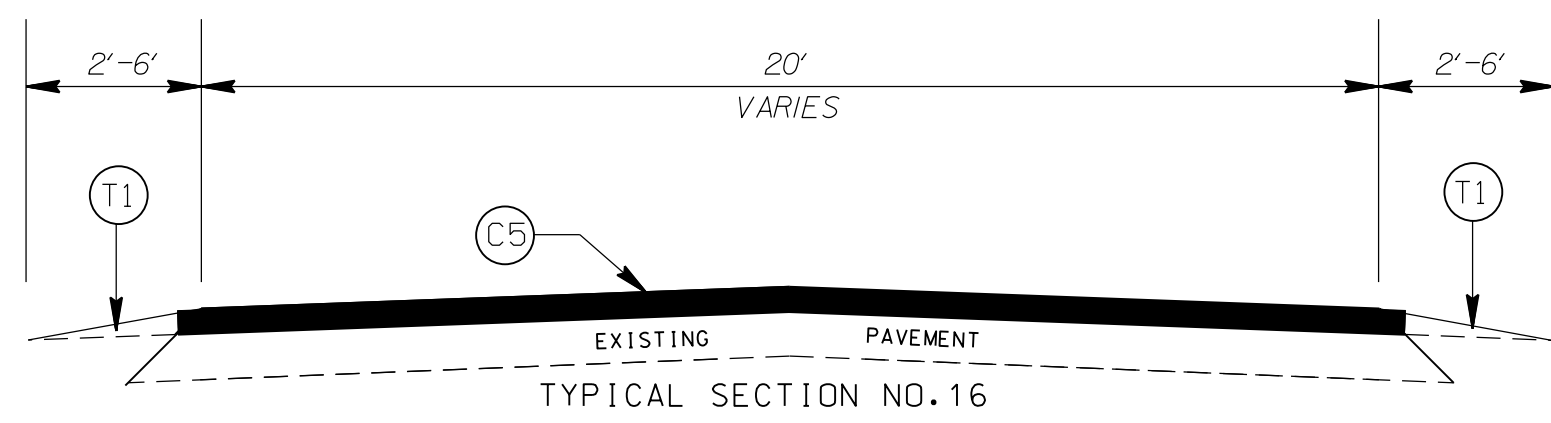
TYPICAL SECTION NO. 19



TYPICAL SECTION NO. 18



TYPICAL SECTION NO. 17



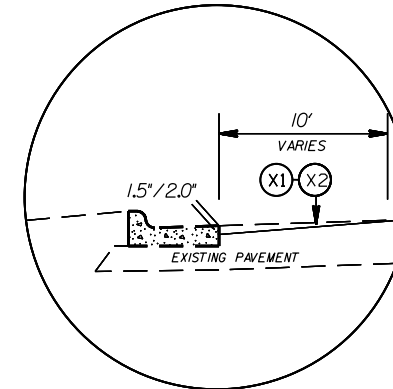
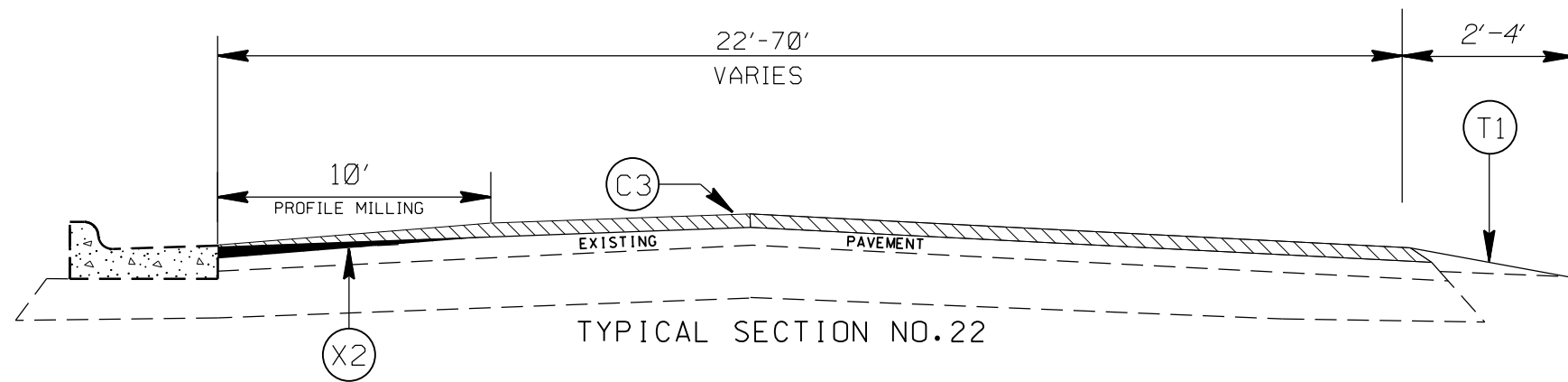
TYPICAL SECTION NO. 16

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C3	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C4	PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C5	PROP. APPROX. 1.0" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD.
C6	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. IN EACH OF TWO LAYERS
C7	PROP. AST DOUBLE SEAL, THE FIRST COAT SHALL BE APPLIED FOR BOTH LANES AT THE END OF DAY TWO (2) RECLAMATION. THE FINAL SEAL BE APPLIED AFTER RECLAMATION OF THE MAP IS COMPLETE.
D1	AST MAT COAT # 67
D2	MAT COAT # 78M
T1	SHOULDER RECONSTRUCTION
V1	MILLING BITUMINOUS PAVEMENT 2.0" DEPTH. AS DIRECTED BY THE ENGINEER
V2	MILLING BITUMINOUS PAVEMENT 1.5" DEPTH.
X1	PROFILE MILLING BITUMINOUS PAVEMENT. 0" TO 1.5"
X2	PROFILE MILLING BITUMINOUS PAVEMENT. 0" TO 2.0"
Z	FULL DEPTH RECLAMATION

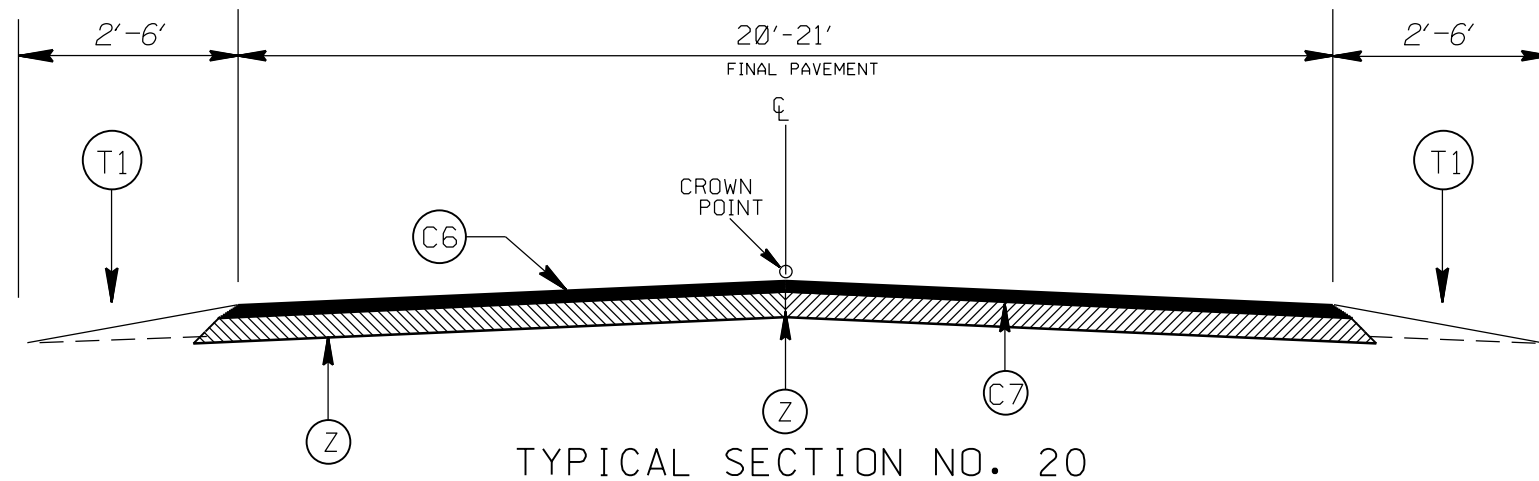
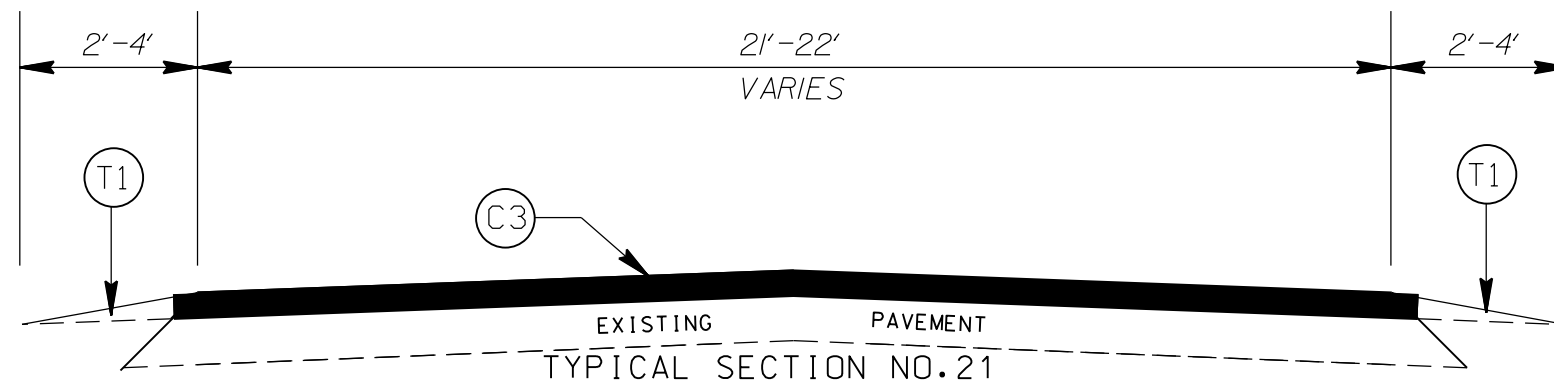
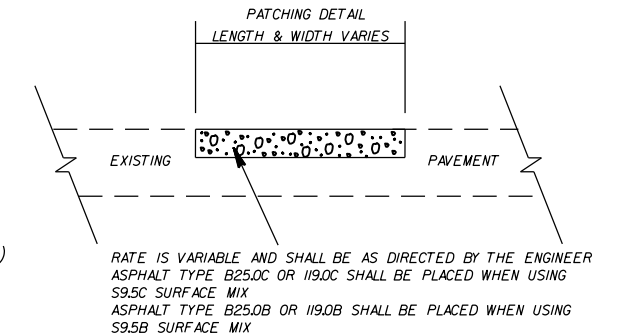
CABARRUS COUNTY  
RESURFACING 2017-2018

SCALE	-NA-		REVISIONS
DATE	1/17		
DWG. BY	JDA		
DESIGN BY	JDA		
APPROVED	MPM		

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	2017CPT.10.10.10131.1	10	
F.A. PROJECT NO.			



DETAIL FOR PROFILE MILLING (0" TO 1.5")  
 DETAIL FOR PROFILE MILLING (0" TO 2.0")

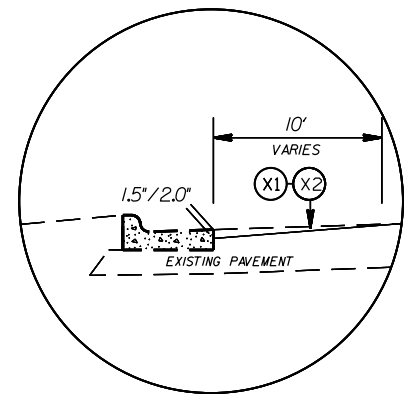
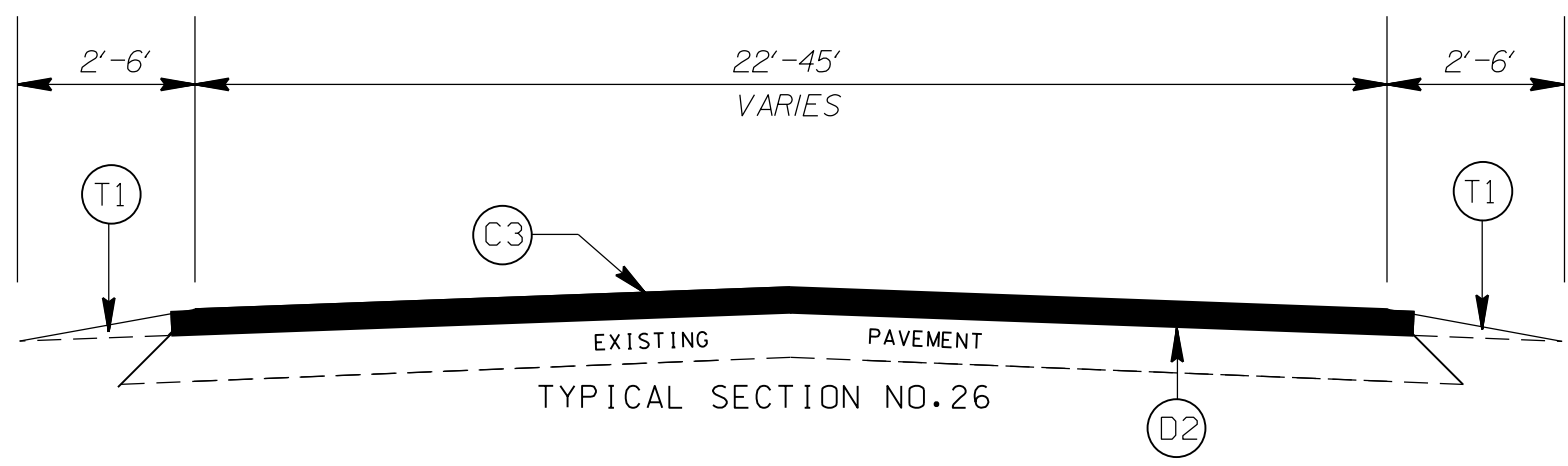


PAVEMENT SCHEDULE	
C1	PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C3	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C4	PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C5	PROP. APPROX. 1.0" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD.
C6	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. IN EACH OF TWO LAYERS
C7	PROP. AST DOUBLE SEAL, THE FIRST COAT SHALL BE APPLIED FOR BOTH LANES AT THE END OF DAY TWO (2) RECLAMATION. THE FINAL SEAL BE APPLIED AFTER RECLAMATION OF THE MAP IS COMPLETE.
D1	AST MAT COAT # 67
D2	MAT COAT # 78M
T1	SHOULDER RECONSTRUCTION
V1	MILLING BITUMINOUS PAVEMENT 2.0" DEPTH, AS DIRECTED BY THE ENGINEER
V2	MILLING BITUMINOUS PAVEMENT 1.5" DEPTH.
X1	PROFILE MILLING BITUMINOUS PAVEMENT, 0" TO 1.5"
X2	PROFILE MILLING BITUMINOUS PAVEMENT, 0" TO 2.0"
Z	FULL DEPTH RECLAMATION

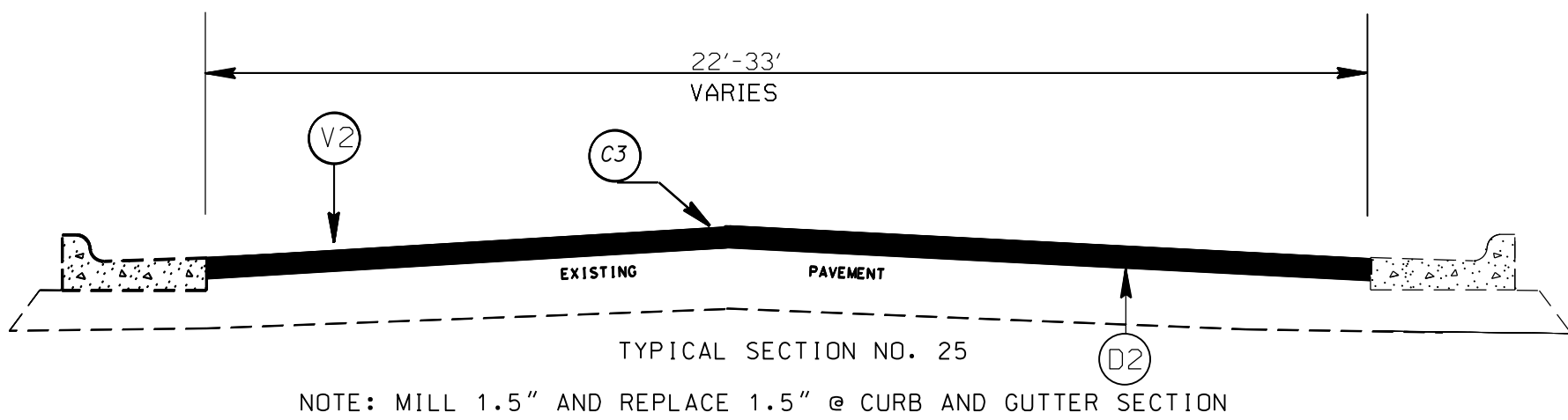
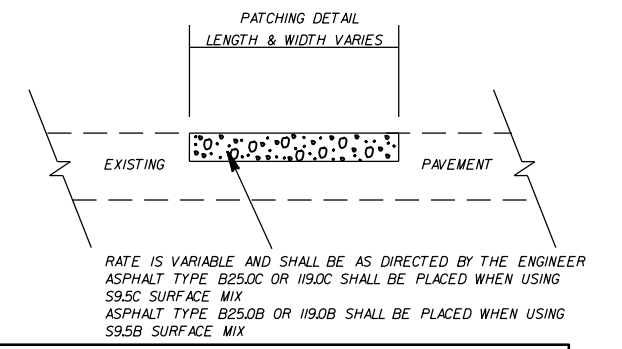
CABARRUS COUNTY  
 RESURFACING 2017-2018

SCALE	-NA-		REVISIONS
DATE	1/17		
DWG. BY	JDA		
DESIGN BY	JDA		
APPROVED	MPM		

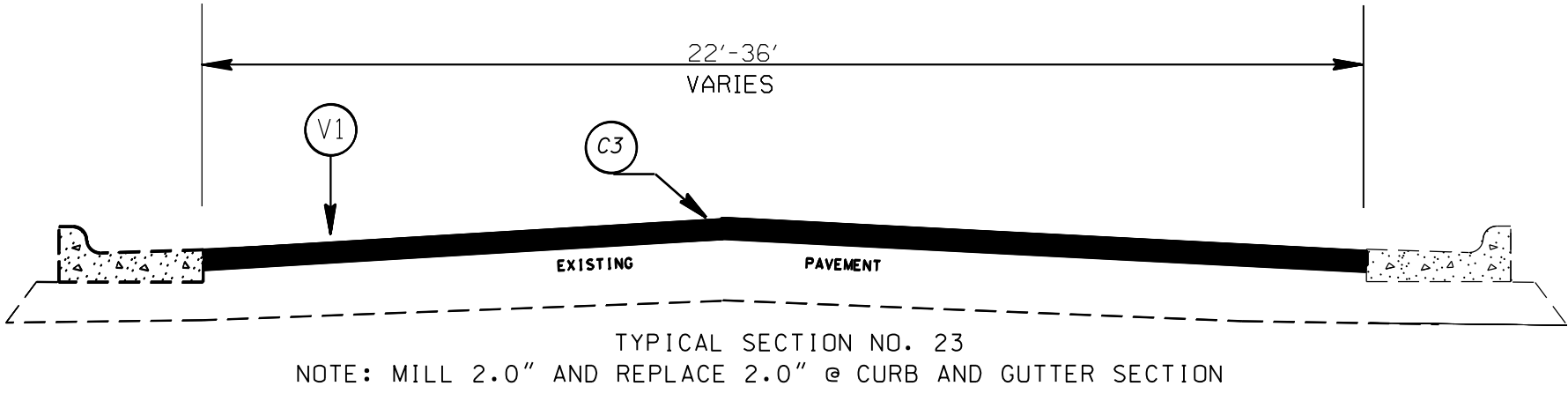
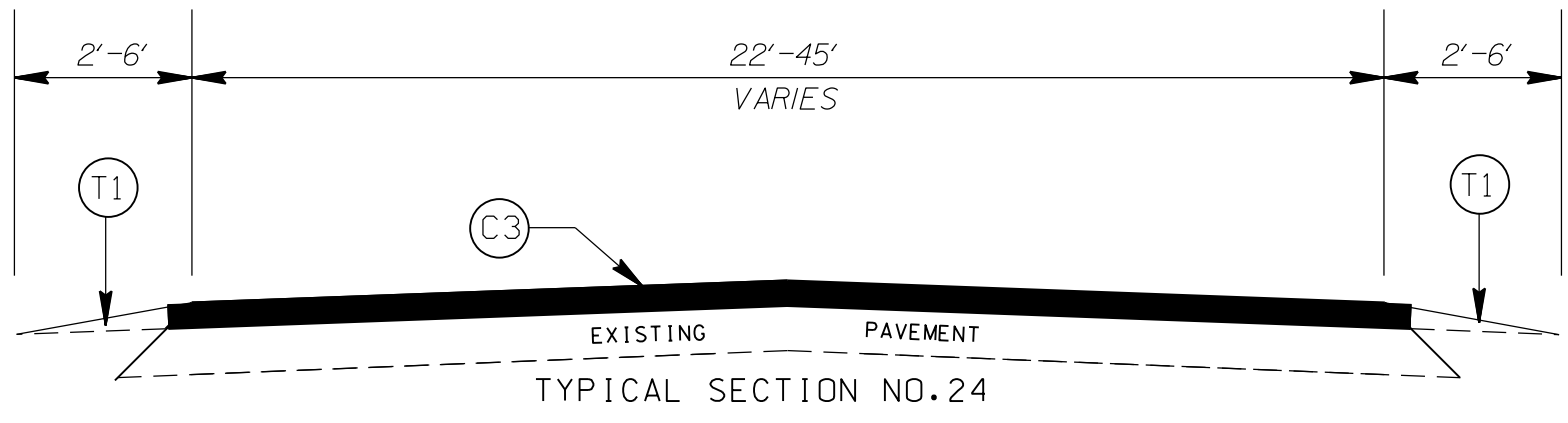
STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	2017CPT.10.10.10131.1	11	
F.A. PROJECT NO.			



DETAIL FOR PROFILE MILLING (0" TO 1.5")  
 DETAIL FOR PROFILE MILLING (0" TO 2.0")



PAVEMENT SCHEDULE	
C1	PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C3	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C4	PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C5	PROP. APPROX. 1.0" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD.
C6	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. IN EACH OF TWO LAYERS
C7	PROP. AST DOUBLE SEAL, THE FIRST COAT SHALL BE APPLIED FOR BOTH LANES AT THE END OF DAY TWO (2) RECLAMATION. THE FINAL SEAL BE APPLIED AFTER RECLAMATION OF THE MAP IS COMPLETE.
D1	AST MAT COAT # 67
D2	MAT COAT # 78M
T1	SHOULDER RECONSTRUCTION
V1	MILLING BITUMINOUS PAVEMENT 2.0" DEPTH. AS DIRECTED BY THE ENGINEER
V2	MILLING BITUMINOUS PAVEMENT 1.5" DEPTH.
X1	PROFILE MILLING BITUMINOUS PAVEMENT. 0" TO 1.5"
X2	PROFILE MILLING BITUMINOUS PAVEMENT. 0" TO 2.0"
Z	FULL DEPTH RECLAMATION

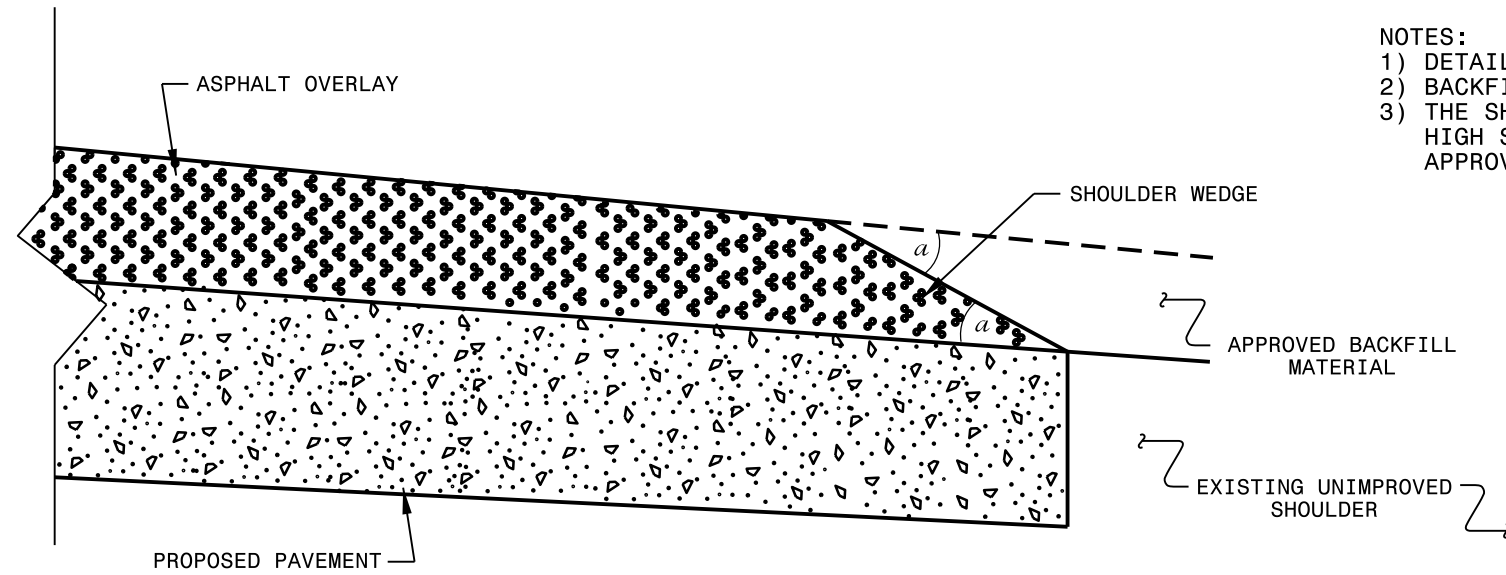


CABARRUS COUNTY  
RESURFACING 2017-2018

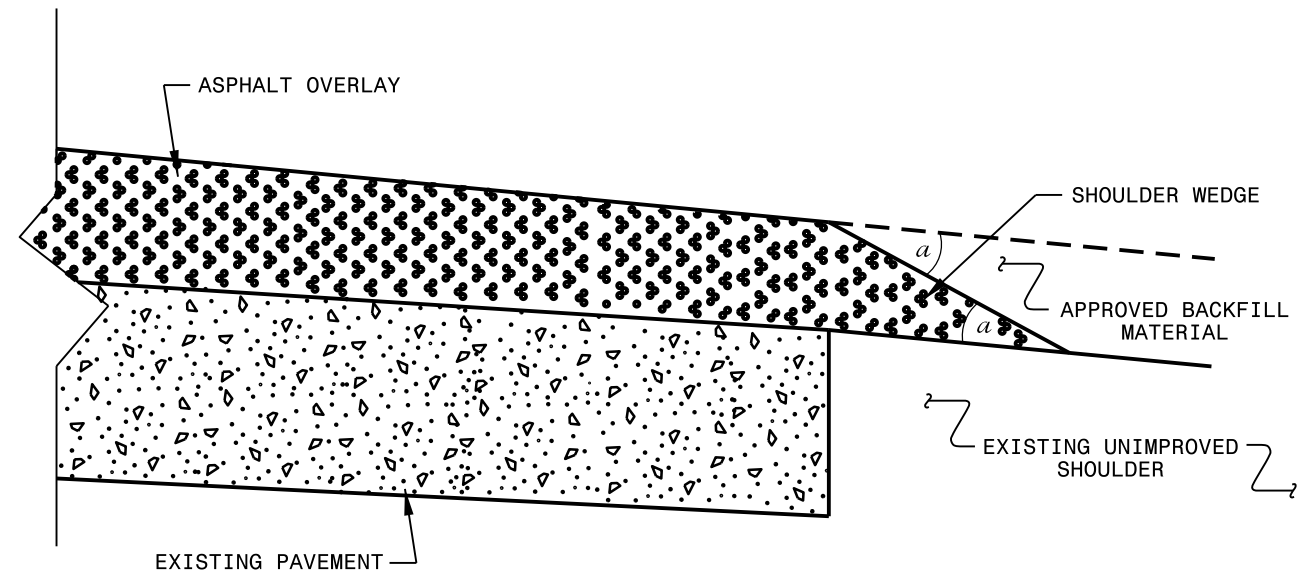
SCALE	-NA-		REVISIONS
DATE	1/17		
DWG. BY	JDA		
DESIGN BY	JDA		
APPROVED	MPM		

**NOTES:**

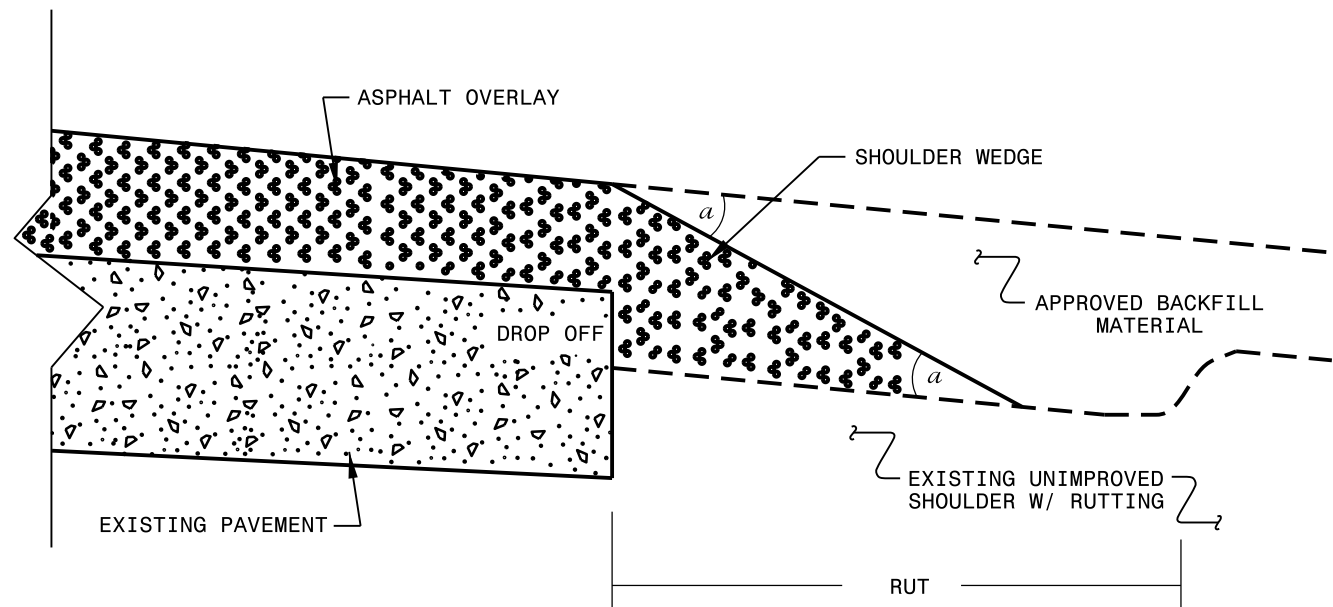
- 1) DETAIL DOES NOT APPLY TO OGAFB AND ULTRA-THIN BONDED WEARING COURSE.
- 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
- 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS, SIDE STREETS, HIGH SHOULDERS, AND OTHER LOCATIONS NOT FEASIBLE TO CONSTRUCT AS APPROVED BY THE ENGINEER.



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



**SHOULDER WEDGE DETAIL**  
(Resurfacing Projects w/ NO Widening)

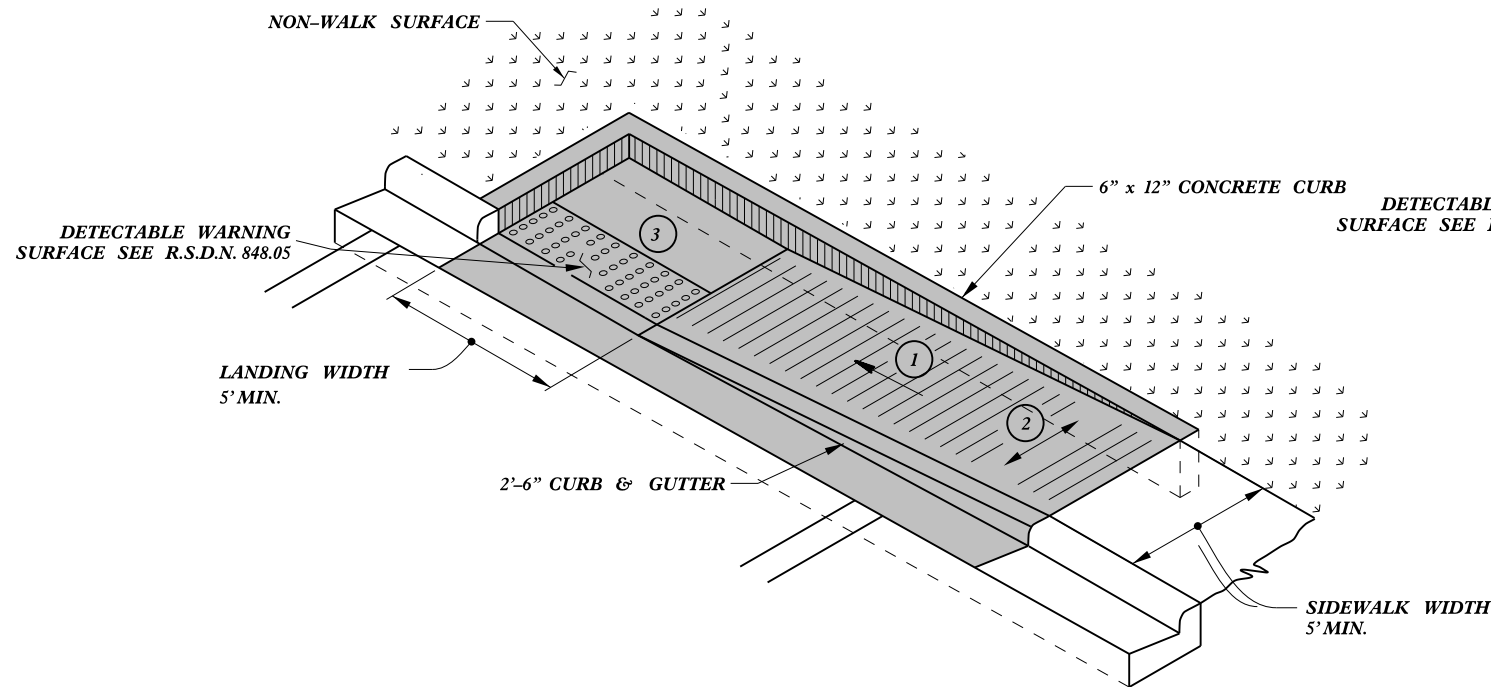


**SHOULDER WEDGE DETAIL**  
(Resurfacing Adjacent to  
Rutted Shoulder)

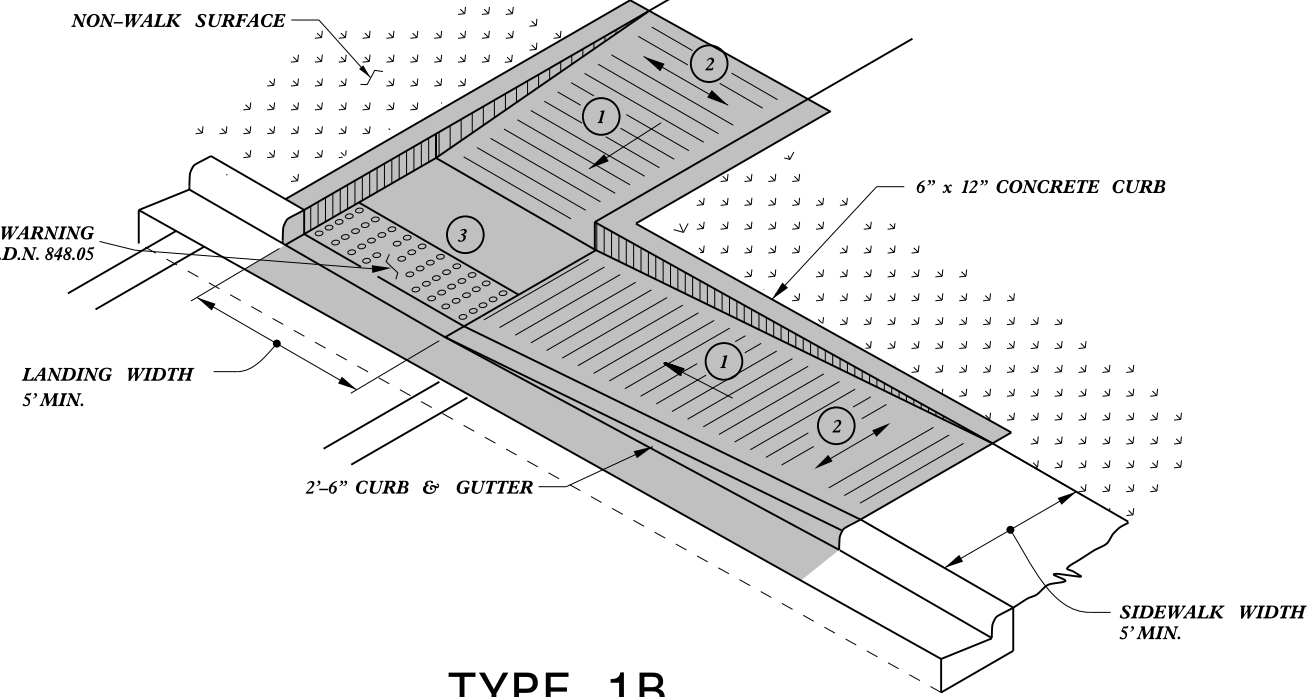
- SHOULDER WEDGE ANGLE = 30°

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

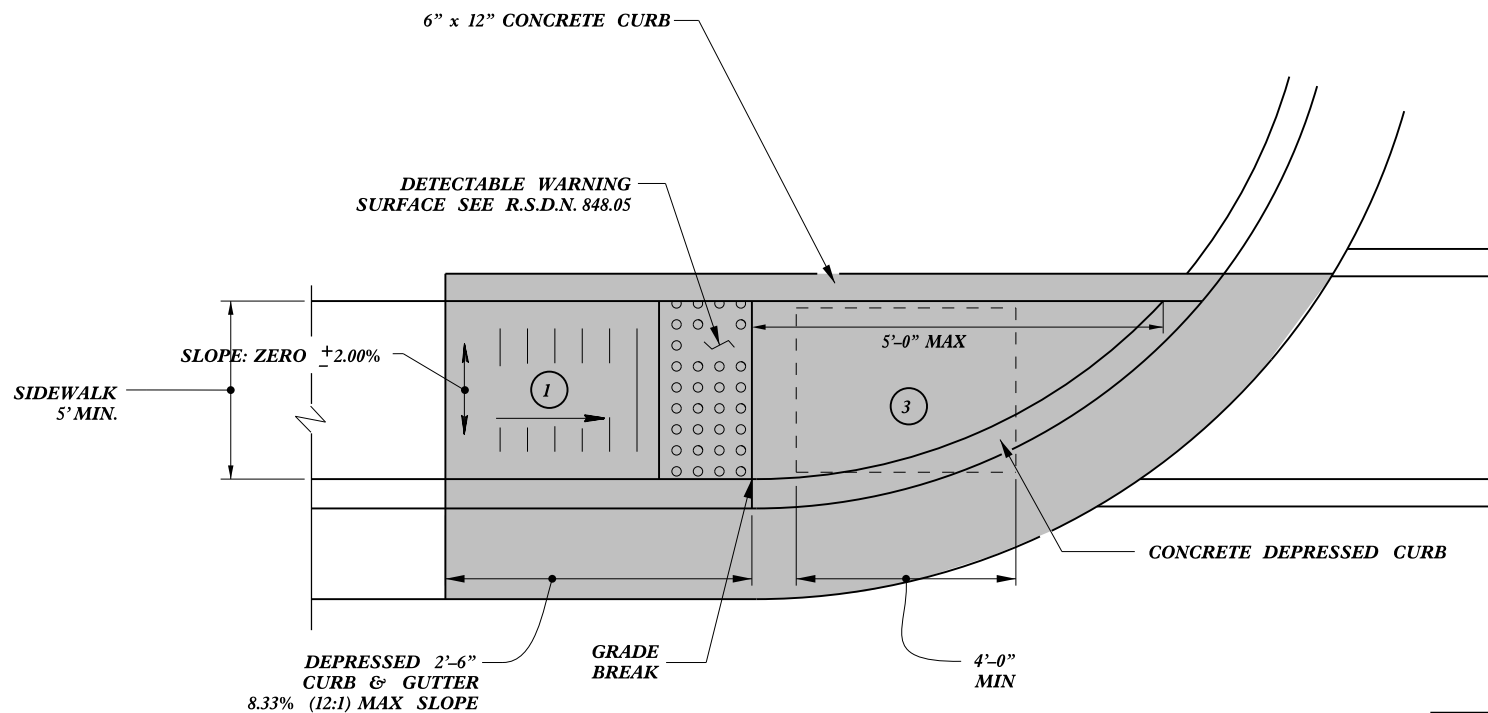
06-FEB-2017 09:20 S:\Contracts\Resurfacing\Projects\Shoulder Wedge Details\Revised Shoulder Wedge Detail.dgn



**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



DocuSign  
Joel S. Howerton

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11/18/2015

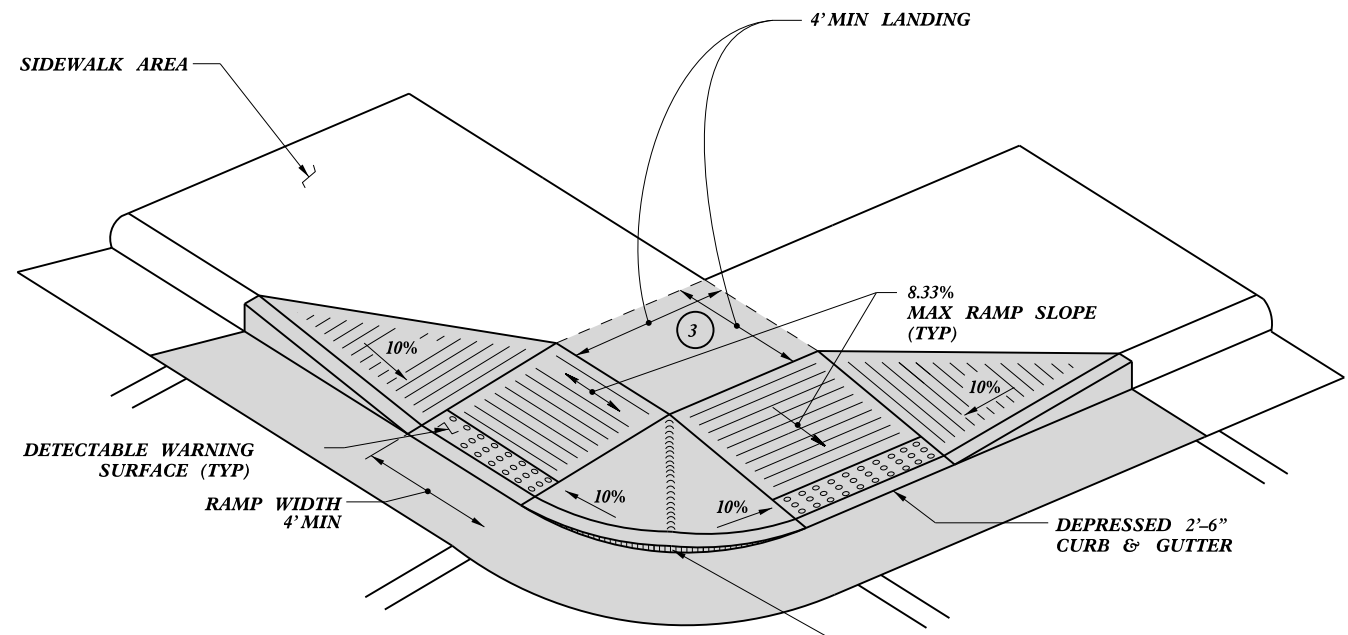
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

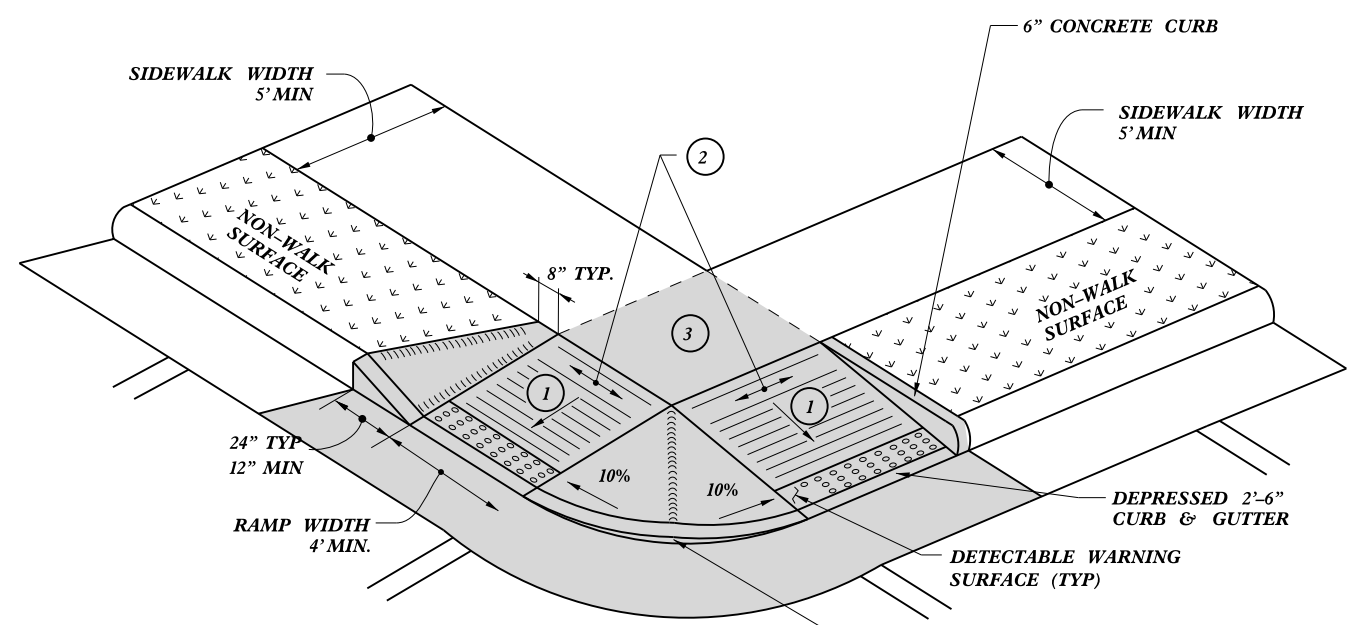
5/14/99  
CONSTRUCTION USER NAME



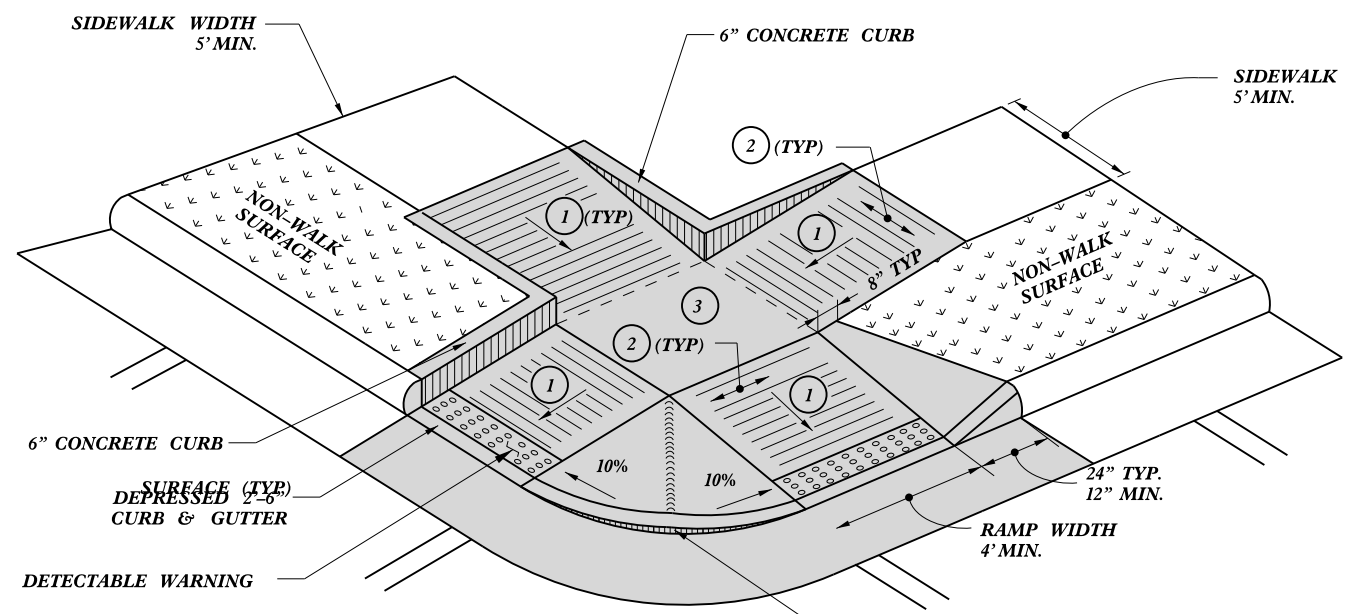




**TYPE 4**



**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

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

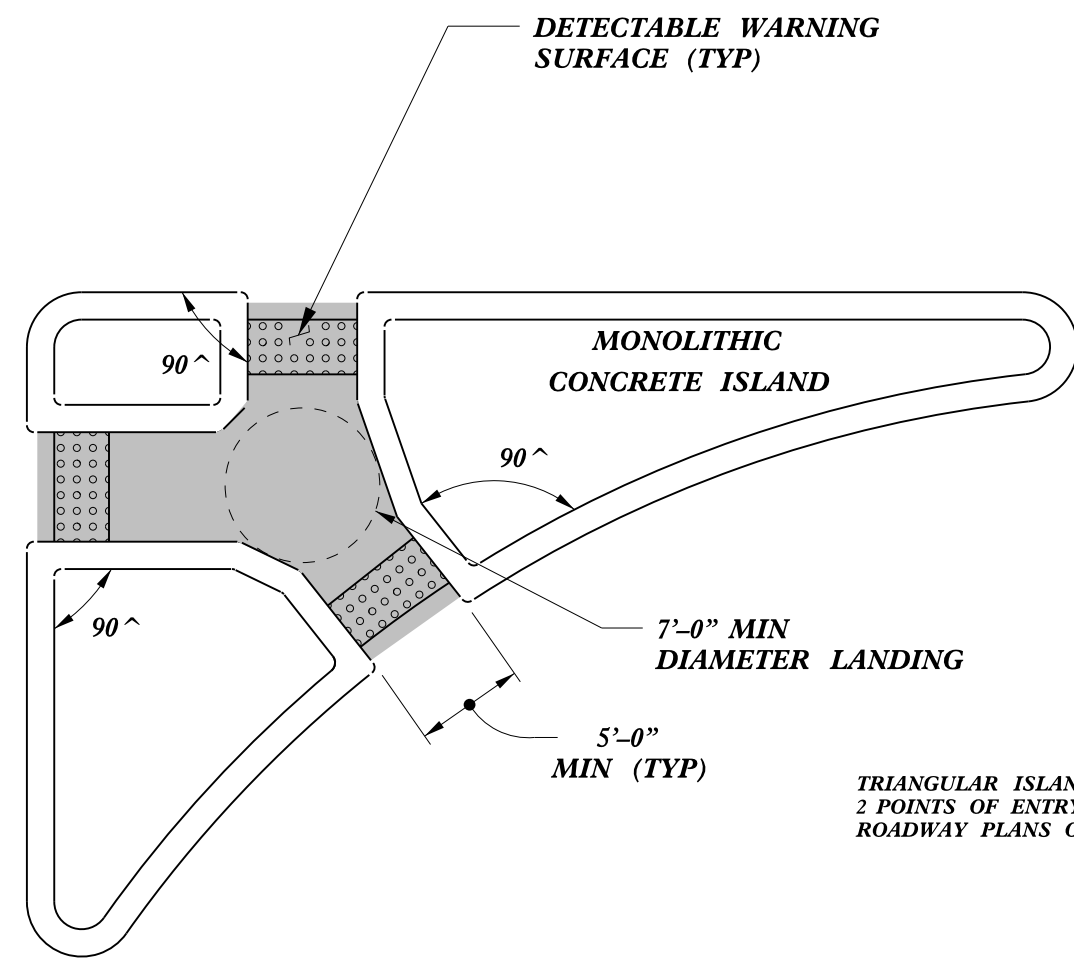
REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

5/14/99  
SYTIMECONSUNSERNAME



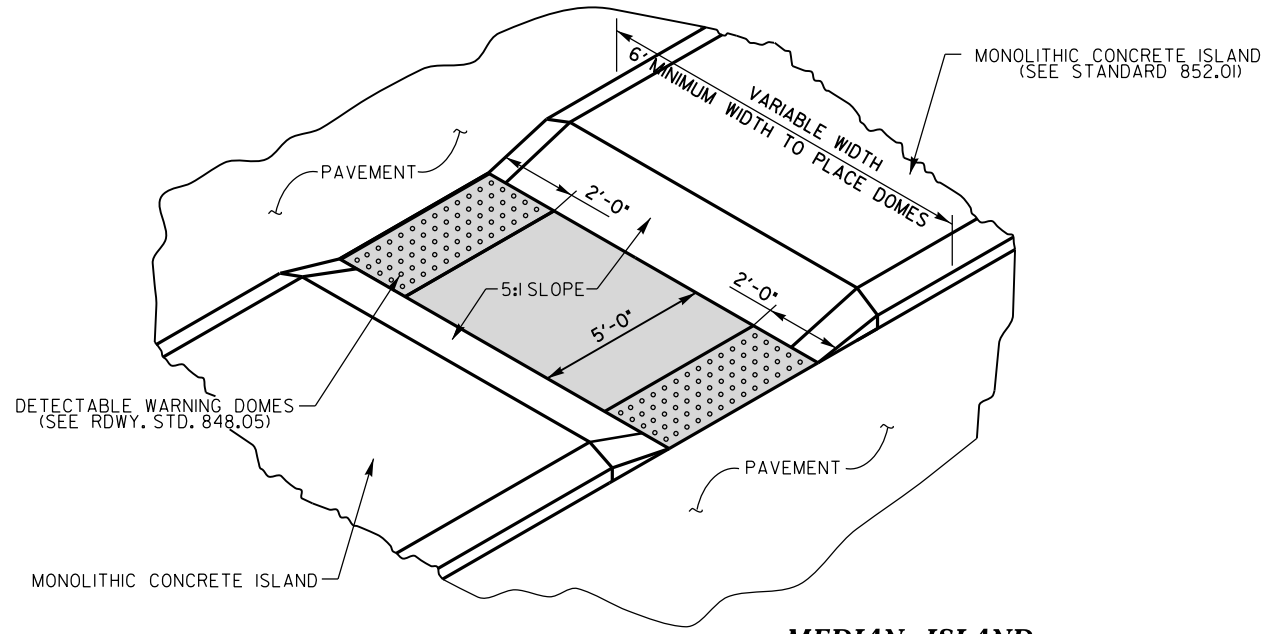


PAY LIMITS FOR 2 OR 3 CURB RAMPS  
(CALCULATE BASED ON NUMBER OF  
SETS OF TRUNCATED DOMES)

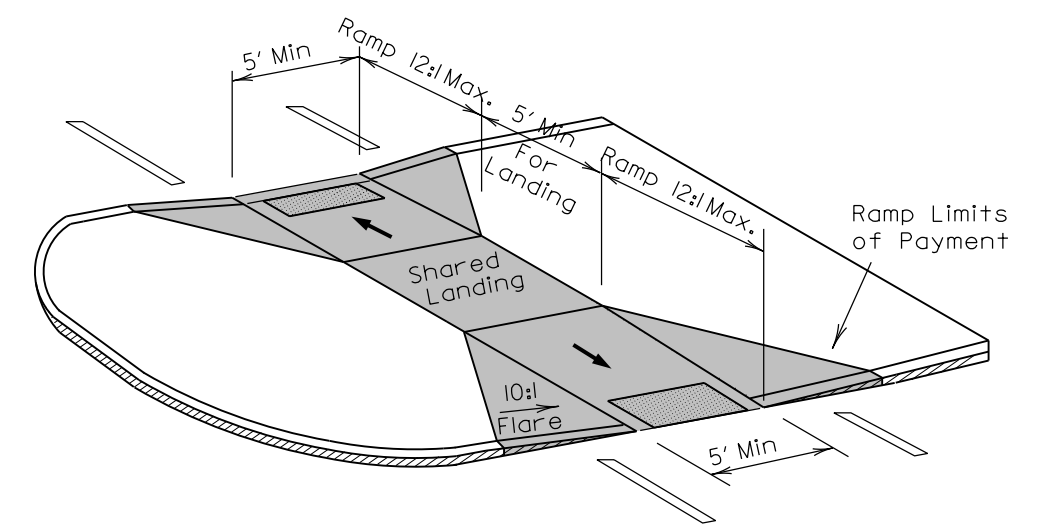


TRIANGULAR ISLANDS MAY BE CONSTRUCTED WITH ONLY  
2 POINTS OF ENTRY AND EXIT AS SHOWN IN THE  
ROADWAY PLANS OR AS DIRECTED BY THE ENGINEER.

**TRIANGULAR ISLAND  
WITH CUT THROUGH**



**MEDIAN ISLAND  
WITH CUT THROUGH**



**MEDIAN ISLAND  
CURB RAMPS**

5/14/99  
SYTIME  
SERIAL  
DATE  
C:\P\2017\2017CPT\2017CPT.10.10.10131.1\DWG\2017CPT.10.10.10131.1\_17.dwg  
J.S.HOWERTON  
11/18/2015 11:18:15 AM

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

<b>CONTRACT STANDARDS AND DEVELOPMENT UNIT</b>	
Office 919-707-6950	FAX 919-250-4119
<b>CURB RAMPS</b>	
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	

11/18/2015

DocuSign  
 Joel S. Howerton

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PROJECT NO.	SHEET NO.	TOTAL NO.
2017CPT.10.10.10131.1, ETC.	18	

### SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH MI	WIDTH FT	BORROW CY	SOIL CEMENT BASE (FULL DEPTH RECLAMATION) SY	PORTLAND CEMENT FOR SOIL CEMENT BASE TON	INCIDENTAL STONE BASE TONS	SHOULDER RECON. SMI	2" MILLING SY	1 1/2" MILLING SY	0" TO 2" MILLING SY	0" TO 1.5" MILLING SY	INCIDENTAL MILLING SY	SURFACE COURSE, S9.5B TONS	LEVELING COURSE, S9.5B TONS	SURFACE COURSE, S9.5C TONS	LEVELING COURSE, S9.5C TONS	SURFACE COURSE, SF9.5A TONS	LEVELING COURSE, SF9.5A TONS	ASPHALT BINDER FOR PLANT MIX TONS	
2017CPT.10.10.10131.1	Cabarrus	1	US 29 (NORTHBOUND LANES)	FROM GEORGES LILES BLVD. TO PAVEMENT JOINT AT SPEEDWAY MP 3.50 TO MP 1.50	1,2,3	2		NO	NO	2	26	759				3.30	2,400		3,667		200		4,773	200				295	
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.10131.1</b>										<b>2</b>		<b>759</b>				<b>3.30</b>	<b>2,400</b>		<b>3,667</b>		<b>200</b>		<b>4,773</b>	<b>200</b>				<b>295</b>	
2017CPT.10.10.10131.2	Cabarrus	2	US 29 (SOUTHBOUND LANES)	PAVEMENT JOINT AT GEORGE LILES BLVD TO PAVEMENT JOINT AFTER BRIDGE MP 3.50 TO 1.50	1,2,3	2		NO	NO	2	26	759				3.30	2,400		1,670		400		4,800	200				296	
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.10131.2</b>										<b>2</b>		<b>759</b>				<b>3.30</b>	<b>2,400</b>		<b>1,670</b>		<b>400</b>		<b>4,800</b>	<b>200</b>				<b>296</b>	
2017CPT.10.10.10131.3	Cabarrus	3	NC 73 (CHURCH STREET)	FROM CORBIN STREET TO BUFFALO STREET MP 11.47 TO 10.62	4,5	2		NO	NO	0.83	36											1,757						105	
2017CPT.10.10.10131.3	Cabarrus	4	NC 73 (CHURCH STREET)	FROM BUFFALO STREET TO WINECOFF MP 10.62 TO 9.79	4,5	2		NO	NO	0.83	40											1,641						98	
2017CPT.10.10.10131.3	Cabarrus	5	NC 73 (CHURCH STREET) (SOUTHBOUND LANES)	FROM WINECOFF STREET TO DAVIDSON DRIVE MP 9.79 TO MP 9.35	6	2		NO	NO	0.44	26											799						48	
2017CPT.10.10.10131.3	Cabarrus	6	NC 73 (CHURCH STREET) (NORTHBOUND LANES)	WINECOFF STREET TO DAVIDSON DRIVE MP 14.05 TO MP 14.49	6	2		NO	NO	0.44	24											828						50	
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.10131.3</b>										<b>2.54</b>									<b>52,571</b>			<b>5,025</b>						<b>301</b>	
2017CPT.10.10.20131.2	Cabarrus	7	SR 1002 (OLD SALISBURY CONCORD RD)	FROM SR 2474 (SIMMONS RD) TO SR 2113 (PENNINGER RD) MP 0.80 TO MP 4.00	7	2		NO	NO	3.2	24	736				6.40					350	5,727	600					383	
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20131.2</b>										<b>3.2</b>		<b>736</b>				<b>6.40</b>						<b>350</b>	<b>5,727</b>	<b>600</b>					<b>383</b>
2017CPT.10.10.20131.3	Cabarrus	8	SR 1625 (ROGERS LAKE RD)	FROM PAVEMENT JOINT BEFORE SR 1008 (SOUTH MAIN ST TO BRIDGE MP 0.03 TO MP 1.78	8,9	2		NO	NO	1.75	22	771			171	3.29			944		800	3,070	200					197	
2017CPT.10.10.20131.3	Cabarrus	9	SR 1766 (ROGERS LAKE RD)	FROM NC 3 TO SR 1008 (SOUTH MAIN ST) MP 0.14 TO MP 0.64	21	2		NO	NO	0.5	23	115			38	1.00					455	627	75					42	
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20131.3</b>										<b>2.25</b>		<b>886</b>			<b>209</b>	<b>4.29</b>			<b>944</b>		<b>1,255</b>	<b>3,697</b>	<b>275</b>					<b>239</b>	
2017CPT.10.10.20131.4	Cabarrus	10	SR 1790 (WINECOFF RD)	FROM NC 73 TO SR 1778 (ORPHANGE RD) MP 1.50 TO MP 0.70	10,11,12	2		NO	NO	0.8	22	115				1.04		2,000		333	1,350	1,273	100					83	
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20131.4</b>										<b>0.8</b>		<b>115</b>				<b>1.04</b>		<b>2,000</b>		<b>333</b>	<b>1,350</b>	<b>1,273</b>	<b>100</b>					<b>83</b>	
2017CPT.10.10.20131.5	Cabarrus	11	SR 2268 (SUTHER RD)	FROM SR 1002 (OLD SALSI.CONCORD RD) TO SR 2289 (FLOWERFIELD DR)MP 0.00 TO MP 0.35	13	2		NO	NO	0.35	20	54				0.70					100					304		20	
2017CPT.10.10.20131.5	Cabarrus	12	SR 2269 (DIARY FARM RD)	FROM SR 2268 (SUTHER RD) TO END MAINT. MP 0.00 TO MP 0.26	13	2		NO	NO	0.26	20	40				0.52										185		12	
2017CPT.10.10.20131.5	Cabarrus	13	SR 2282 (MOONSHINE DR)	FROM SR 2268 (SUTHER RD) TO SR 2269 (DIARY FARM RD) MP 0.00 TO MP 0.23	13	2		NO	NO	0.23	20	35				0.46										164		11	
2017CPT.10.10.20131.5	Cabarrus	16	SR 2288 (BRICKSTONE DR)	FROM SR 2282 (MOONSHINE DR) TO SR 2289 (FLOWERFIELD DR) MP 0.00 TO MP 0.30	13	2		NO	NO	0.3	20	35				0.62						222				250		17	
2017CPT.10.10.20131.5	Cabarrus	17	SR 2289 (FLOWERFIELD DR)	FROM SR 2288 (BRICKSTONE CIRCLE) TO SR 2269 (DIARY FARM RD) MP 0.00 TO 0.17	13	2		NO	NO	0.17	20	26				0.34										121		8	
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20131.5</b>										<b>1.31</b>		<b>190</b>				<b>2.64</b>						<b>322</b>				<b>1,024</b>		<b>68</b>	
2017CPT.10.10.20131.6	Cabarrus	14	SR 2287 (CHURCH ST)	FROM NC 73 BUS. TO US 29 MP 0.41 TO MP 0.07	14	2		NO	NO	0.34	60								11,237			1,108						66	
2017CPT.10.10.20131.6	Cabarrus	15	SR 2287 (CHURCH ST)	FROM US 29 TO NC 73 MP 0.38 TO MP 0.27	14	2		NO	NO	0.11	20											137						8	
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20131.6</b>										<b>0.45</b>												<b>1,245</b>						<b>74</b>	
2017CPT.10.10.20131.7	Cabarrus	18	SR 2411 (COLD SPRINGS RD)	FROM NC 49 TO SR 1006 (MOUNT PLEASANT RD) MP 6.65 TO MP 8.20	7	2		NO	NO	1.45	22	363				2.90					400	2,516	350					174	
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20131.7</b>										<b>1.45</b>		<b>363</b>				<b>2.90</b>						<b>400</b>	<b>2,516</b>	<b>350</b>					<b>174</b>
2017CPT.10.10.20131.8	Cabarrus	19	SR 2435 (KLUTZ RD)	FROM SR 2444 (ST STEVENS CH RD) TO SR 2446 (MT OLIVE RD) MP 0.00 TO MO 1.27	15	2		NO	NO	1.27	20	150				2.54										905	200	73	
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20131.8</b>										<b>1.27</b>		<b>150</b>				<b>2.54</b>										<b>905</b>	<b>200</b>	<b>73</b>	
2017CPT.10.10.20131.9	Cabarrus	20	SR 2453 (LENTZ HARNESS SHOP RD)	FROM NC 73 TO PAVEMENT JOINT AT SR 2603 (LITTLE BEAR CREEK RD) MP 0.00 TO MP 2.97	15	2		NO	NO	2.97	21	855				5.70						650				2,322	200	168	
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20131.9</b>										<b>2.97</b>		<b>855</b>				<b>5.70</b>						<b>650</b>				<b>2,322</b>	<b>200</b>	<b>168</b>	

PROJECT NO.	SHEET NO.	TOTAL NO.
2017CPT.10.10.10131.1, ETC.	19	

### SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH MI	WIDTH FT	PATCHING EXISTING PAVEMENT TONS	ASPHALT SURFACE TREATMENT, MATCOAT, #67 STONE SY	ASPHALT SURFACE TREATMENT, MATCOAT, #78M STONE SY	ASPHALT SURFACE TREATMENT, DOUBLE SEAL SY	EMULSION FOR ASPHALT SURFACE TREATMENT GAL	CONCRETE CURB RAMPS EA	6" DRIVEWAYS SY	RETROFIT EXISTING CURB RAMPS EA	ADJ. OF MANHOLES EA	ADJ. OF METER OR VALVE BOX EA	PORTABLE LIGHTING LS	TEMPORARY SILT FENCE LF	WATTLE LF	
2017CPT.10.10.10131.1	Cabarrus	1	US 29 (NORTHBOUND LANES)	FROM GEORGES LILES BLVD. TO PAVEMENT JOINT AT SPEEDWAY MP 3.50 TO MP 1.50	1,2,3	2		NO	NO	2	26	350	38,500			15,400						1	400	320	
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.10131.1</b>										<b>2</b>		<b>350</b>	<b>38,500</b>			<b>15,400</b>						<b>1</b>	<b>400</b>	<b>320</b>	
2017CPT.10.10.10131.2	Cabarrus	2	US 29 (SOUTHBOUND LANES)	PAVEMENT JOINT AT GEORGE LILES BLVD TO PAVEMENT JOINT AFTER BRIDGE MP 3.50 TO 1.50	1,2,3	2		NO	NO	2	26	350	38,900			15,560						*			
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.10131.2</b>										<b>2</b>		<b>350</b>	<b>38,900</b>			<b>15,560</b>									
2017CPT.10.10.10131.3	Cabarrus	3	NC 73 (CHURCH STREET)	FROM CORBIN STREET TO BUFFALO STREET MP 11.47 TO 10.62	4,5	2		NO	NO	0.83	36	300					1		5	6	6	*			
2017CPT.10.10.10131.3	Cabarrus	4	NC 73 (CHURCH STREET)	FROM BUFFALO STREET TO WINECOFF MP 10.62 TO 9.79	4,5	2		NO	NO	0.83	40	300								4	4	*			
2017CPT.10.10.10131.3	Cabarrus	5	NC 73 (CHURCH STREET) (SOUTHBOUND LANES)	FROM WINECOFF STREET TO DAVIDSON DRIVE MP 9.79 TO MP 9.35	6	2		NO	NO	0.44	26	150								5	5	*			
2017CPT.10.10.10131.3	Cabarrus	6	NC 73 (CHURCH STREET) (NORTHBOUND LANES)	WINECOFF STREET TO DAVIDSON DRIVE MP 14.05 TO MP 14.49	6	2		NO	NO	0.44	24	150					1		5	18	18	*			
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.10131.3</b>										<b>2.54</b>		<b>900</b>					<b>1</b>		<b>5</b>	<b>18</b>	<b>18</b>				
2017CPT.10.10.20131.2	Cabarrus	7	SR 1002 (OLD SALISBURY CONCORD RD)	FROM SR 2474 (SIMMONS RD) TO SR 2113 (PENNINGER RD) MP 0.80 TO MP 4.00	7	2		NO	NO	3.2	24	1,600	45,056			18,022							300	560	
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20131.2</b>										<b>3.2</b>		<b>1,600</b>	<b>45,056</b>			<b>18,022</b>							<b>300</b>	<b>560</b>	
2017CPT.10.10.20131.3	Cabarrus	8	SR 1625 (ROGERS LAKE RD)	FROM PAVEMENT JOINT BEFORE SR 1008 (SOUTH MAIN ST TO BRIDGE MP 0.03 TO MP 1.78	8,9	2		NO	NO	1.75	22	500	24,744			8,660				1	1		200	240	
2017CPT.10.10.20131.3	Cabarrus	9	SR 1766 (ROGERS LAKE RD)	FROM NC 3 TO SR 1008 (SOUTH MAIN ST) MP 0.14 TO MP 0.64	21	2		NO	NO	0.5	23	150								1	1		300	160	
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20131.3</b>										<b>2.25</b>		<b>650</b>	<b>24,744</b>			<b>8,660</b>				<b>2</b>	<b>2</b>		<b>500</b>	<b>400</b>	
2017CPT.10.10.20131.4	Cabarrus	10	SR 1790 (WINECOFF RD)	FROM NC 73 TO SR 1778 (ORPHANGE RD) MP 1.50 TO MP 0.70	10,11,12	2		NO	NO	0.8	22	200							2				400	280	
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20131.4</b>										<b>0.8</b>		<b>200</b>							<b>2</b>				<b>400</b>	<b>280</b>	
2017CPT.10.10.20131.5	Cabarrus	11	SR 2268 (SUTHER RD)	FROM SR 1002 (OLD SALSI CONCORD RD) TO SR 2289 (FLOWERFIELD DR) MP 0.00 TO MP 0.35	13	2		NO	NO	0.35	20				4,107	2,259								320	
2017CPT.10.10.20131.5	Cabarrus	12	SR 2269 (DIARY FARM RD)	FROM SR 2268 (SUTHER RD) TO END MAINT. MP 0.00 TO MP 0.26	13	2		NO	NO	0.26	20				3,051	1,678								160	
2017CPT.10.10.20131.5	Cabarrus	13	SR 2282 (MOONSHINE DR)	FROM SR 2268 (SUTHER RD) TO SR 2269 (DIARY FARM RD) MP 0.00 TO MP 0.23	13	2		NO	NO	0.23	20				2,699	1,484									
2017CPT.10.10.20131.5	Cabarrus	16	SR 2288 (BRICKSTONE DR)	FROM SR 2282 (MOONSHINE DR) TO SR 2289 (FLOWERFIELD DR) MP 0.00 TO MP 0.30	13	2		NO	NO	0.3	20	75			3,637	2,000									
2017CPT.10.10.20131.5	Cabarrus	17	SR 2289 (FLOWERFIELD DR)	FROM SR 2288 (BRICKSTONE CIRCLE) TO SR 2269 (DIARY FARM RD) MP 0.00 TO 0.17	13	2		NO	NO	0.17	20				1,995	1,098								480	
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20131.5</b>										<b>1.31</b>		<b>75</b>			<b>15,489</b>	<b>8,519</b>									
2017CPT.10.10.20131.6	Cabarrus	14	SR 2287 (CHURCH ST)	FROM NC 73 BUS. TO US 29 MP 0.41 TO MP 0.07	14	2		NO	NO	0.34	60	120								2	2	*			
2017CPT.10.10.20131.6	Cabarrus	15	SR 2287 (CHURCH ST)	FROM US 29 TO NC 73 MP 0.38 TO MP 0.27	14	2		NO	NO	0.11	20	40								2	1	*			
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20131.6</b>										<b>0.45</b>		<b>160</b>								<b>4</b>	<b>3</b>				
2017CPT.10.10.20131.7	Cabarrus	18	SR 2411 (COLD SPRINGS RD)	FROM NC 49 TO SR 1006 (MOUNT PLEASANT RD) MP 6.65 TO MP 8.20	7	2		NO	NO	1.45	22	700	19,001			7,600							300	320	
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20131.7</b>										<b>1.45</b>		<b>700</b>	<b>19,001</b>			<b>7,600</b>								<b>300</b>	<b>320</b>
2017CPT.10.10.20131.8	Cabarrus	19	SR 2435 (KLUTZ RD)	FROM SR 2444 (ST STEVENS CH RD) TO SR 2446 (MT OLIVE RD) MP 0.00 TO MO 1.27	15	2		NO	NO	1.27	20				14,902	8,196							300	240	
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20131.8</b>										<b>1.27</b>					<b>14,902</b>	<b>8,196</b>								<b>300</b>	<b>240</b>
2017CPT.10.10.20131.9	Cabarrus	20	SR 2453 (LENTZ HARNESS SHOP RD)	FROM NC 73 TO PAVEMENT JOINT AT SR 2603 (LITTLE BEAR CREEK RD) MP 0.00 TO MP 2.97	15	2		NO	NO	2.97	21	200			28,213	15,517							300	280	
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20131.9</b>										<b>2.97</b>		<b>200</b>			<b>28,213</b>	<b>15,517</b>								<b>300</b>	<b>280</b>

PROJECT NO.	SHEET NO.	TOTAL NO.
2017CPT.10.10.10131.1	20	
ETC.		

### SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH MI	WIDTH FT	BORROW CY	SOIL CEMENT BASE (FULL DEPTH RECLAMATION) SY	PORTLAND CEMENT FOR SOIL CEMENT BASE TON	INCIDENTAL STONE BASE TONS	SHOULDER RECON. SMI	2" MILLING SY	1 1/2" MILLING SY	0" TO 2" MILLING SY	0" TO 1.5" MILLING SY	INCIDENTAL MILLING SY	SURFACE COURSE, S9.5B TONS	LEVELING COURSE, S9.5B TONS	SURFACE COURSE, S9.5C TONS	LEVELING COURSE, S9.5C TONS	SURFACE COURSE, SF9.5A TONS	LEVELING COURSE, SF9.5A TONS	ASPHALT BINDER FOR PLANT MIX TONS		
2017CPT.10.10.20131.10	Cabarrus	21	SR 2492 (LENHAVER ST)	FROM SR 1002 (OLD SALIS/CONCORD RD) TO SR 2496 (MICHAEL AVE) MP 0.00 TO MP 0.35	16	2		NO	NO	0.35	20	60			25	0.70											277	100	25	
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20131.10</b>										<b>0.35</b>		<b>60</b>			<b>25</b>	<b>0.70</b>					<b>222</b>					<b>277</b>	<b>100</b>	<b>25</b>		
2017CPT.10.10.20131.11	Cabarrus	22	SR 2493 (BRAUGHTON AVE)	FROM SR 2492 (LENHAVER ST) TO SR 2496 (MICHAEL AVE) MP 0.00 TO MP 0.33	16	2		NO	NO	0.33	20	55				0.66											444	257	100	23
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20131.11</b>										<b>0.33</b>		<b>55</b>				<b>0.66</b>					<b>444</b>					<b>257</b>	<b>100</b>	<b>23</b>		
2017CPT.10.10.20131.12	Cabarrus	23	SR 2643 (CRESMONT DR)	FROM SR 2635 (OLD AIRPORT RD TO NC 73) MP 1.97 TO MP 0.00	25,26	2		NO	NO	1.97	22	836				1.67						2,693	500						194	
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20131.12</b>										<b>1.97</b>		<b>836</b>				<b>1.67</b>					<b>525</b>	<b>2,693</b>	<b>500</b>					<b>194</b>		
2017CPT.10.10.20131.13	Cabarrus	24	SR 2705 (BOYINGTON CT)	FROM SR 2411 (COLD SPRINGS RD TO SR 2706 (NAVION PL) MP 0.00 TO MP 0.16	17	2		NO	NO	0.16	20	40				0.32													14	
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20131.13</b>										<b>0.16</b>		<b>40</b>				<b>0.32</b>						<b>233</b>							<b>14</b>	
2017CPT.10.10.20131.14	Cabarrus	25	SR 1394 (POPLAR TENT RD)	PAVEMENT JOINT SOUTH OF SR 1430 (GEORGE LILES PARKWAY) TO PAVEMENT JOINT NEAR BURCK DRIVE MP 3.54 TO MP 3.22	18	2		NO	NO	0.22	39	80				0.34	5,000													37
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20131.14</b>										<b>0.22</b>		<b>80</b>				<b>0.34</b>	<b>5,000</b>							<b>623</b>					<b>37</b>	
2017CPT.10.10.20131.1	Cabarrus	26	SR 1200 (LAREWOOD DR)	SR 2973 (PLAZA RD) TO PAST SR 1202 (STARWOOD RD)RMP 0.00 TO MP 0.29	19	2		NO	NO	0.29	24																270		18	
2017CPT.10.10.20131.1	Cabarrus	27	SR 1202 (STARWOOD DR)	FROM SR 1139 (ROCKY RIVER RD) TO SR 1200 (LAREWOOD DR) MP 0.00 TO MP 0.64	19	2		NO	NO	0.64	30																700		47	
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20131.1</b>										<b>0.93</b>																	<b>970</b>		<b>65</b>	
2017CPT.10.10.20131.15	Cabarrus	28	SR 1173 (CALDWELL ROAD)	FROM SR 1166 (TOM QUERY ROAD TO RAILROAD PROJECT. MP 0.38 TO MP 1.09	23,24	2		NO	NO	0.35	24	40				0.28	4,000													54
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20131.15</b>										<b>0.35</b>		<b>40</b>				<b>0.28</b>	<b>4,000</b>					<b>133</b>	<b>798</b>	<b>100</b>					<b>54</b>	
2017CPT.10.10.20131.16	Cabarrus	29	SR 2902 (MRN ROAD)	FROM SR 1394 (POPLAR TENT ROAD) TO SR 1442 (ODELL SCHOOL ROAD) MP 0.00 TO MP 0.35	20	2		NO	NO	0.35	24	100				0.70														55
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20131.16</b>										<b>0.35</b>		<b>100</b>				<b>0.70</b>						<b>267</b>	<b>925</b>						<b>55</b>	
2017CPT.10.10.20132.1	Cabarrus	11	SR 2268 (SUTHER RD)	FROM SR 1002 (OLD SALSI.CONCORD RD) TO SR 2289 (FLOWERFIELD DR)MP 0.00 TO MP 0.35	13	2		NO	NO	0.35	20		4,312.00	130.00																
2017CPT.10.10.20132.1	Cabarrus	12	SR 2269 (DIARY FARM RD)	FROM SR 2268 (SUTHER RD) TO END MAINT. MP 0.00 TO MP .26	13	2		NO	NO	0.26	20		3,204.00	96.00																
2017CPT.10.10.20132.1	Cabarrus	13	SR 2282 (MOONSHINE DR)	FROM SR 2268 (SUTHER RD) TO SR 2269 (DIARY FARM RD) MP 0.00 TO MP 0.23	13	2		NO	NO	0.23	20		2,833.00	85.00																
2017CPT.10.10.20132.1	Cabarrus	16	SR 2288 (BRICKSTONE DR)	FROM SR 2282 (MOONSHINE DR) TO SR 2289 (FLOWERFIELD DR) MP 0.00 TO MP 0.30	13	2		NO	NO	0.3	20		3,820.00	120.00																
2017CPT.10.10.20132.1	Cabarrus	17	SR 2289 (FLOWERS FIELD DR)	FROM SR 2288 (BRICKSTONE CIRCLE) TO SR 2269 (DIARY FARM RD) MP 0.00 TO 0.17	13	2		NO	NO	0.17	20		2,095.00	63.00																
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20132.1</b>										<b>1.31</b>			<b>16,264.00</b>	<b>494.00</b>																
2017CPT.10.10.20132.2	Cabarrus	20	SR 2453 (LENTZ HARNESS SHOP RD)	FROM NC 73 TO SOUTH OF SR 2603 (LITTLE BEAR CREEK RD)	15	2		NO	NO	2.97	21		29,213.00	1,052.00																
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20132.2</b>										<b>2.97</b>			<b>29,213.00</b>	<b>1,052.00</b>																
2017CPT.10.10.20132.3	Cabarrus	19	KLUTZ ROAD	FROM SAINT STEVENS TO MOUNT OLIVE ROAD MP 0.00 TO MP 1.27	15	2		NO	NO	1.27	20		16,500.00	685.00																
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20132.3</b>										<b>1.27</b>			<b>16,500.00</b>	<b>685.00</b>																
2017CPT.10.10.20131.1	Cabarrus	26	SR 1200 (LAREWOOD DR)	SR 2973 (PLAZA RD) TO PAST SR 1202 (STARWOOD RD)RMP 0.00 TO MP 0.29		2		NO	NO	0.29	24		4,444.00	155.00																
2017CPT.10.10.20131.1	Cabarrus	27	SR 1202 (STARWOOD DR)	FROM SR 1139 (ROCKY RIVER RD) TO SR 1200 (LAREWOOD DR) MP 0.42 TO MP 1.0		2		NO	NO	0.58	30		11,563.00	400.00																
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20131.1</b>										<b>0.87</b>			<b>16,007.00</b>	<b>555.00</b>																
2017CPT.10.10.20132.4	Cabarrus	29	SR 2902 (MRN ROAD)	FROM SR 1394 (POPLAR TENT ROAD) TO SR 1442 (ODELL SCHOOL ROAD) MP 0.00 TO MP 0.35	20	2		NO	NO	0.35	24		5,000.00	175.00																
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20132.4</b>										<b>0.35</b>			<b>5,000.00</b>	<b>175.00</b>																
<b>GRAND TOTAL</b>										<b>31.67</b>		<b>6,024</b>	<b>82,984.00</b>	<b>2,961.00</b>	<b>254</b>	<b>36.78</b>	<b>13,800</b>	<b>74,963</b>	<b>6,281</b>	<b>333</b>	<b>6,518</b>	<b>24,132</b>	<b>1,925</b>	<b>10,196</b>	<b>400</b>	<b>5,755</b>	<b>600</b>	<b>2,621</b>		

PROJECT NO.	SHEET NO.	TOTAL NO.
2017CPT.10.10.10131.1, ETC.	21	

## SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH MI	WIDTH FT	PATCHING EXISTING PAVEMENT TONS	ASPHALT SURFACE TREATMENT, MATCOAT, #67 STONE SY	ASPHALT SURFACE TREATMENT, MATCOAT, #78M STONE SY	ASPHALT SURFACE TREATMENT, DOUBLE SEAL SY	EMULSION FOR ASPHALT SURFACE TREATMENT GAL	CONCRETE CURB RAMPS EA	6" DRIVEWAYS SY	RETROFIT EXISTING CURB RAMPS EA	ADJ. OF MANHOLES EA	ADJ. OF METER OR VALVE BOX EA	PORTABLE LIGHTING LS	TEMPORARY SILT FENCE LF	WATTLE LF	
2017CPT.10.10.20131.10	Cabarrus	21	SR 2492 (LENHAVEN ST)	FROM SR 1002 (OLD SALIS/CONCORD RD) TO SR 2496 (MICHAEL AVE) MP 0.00 TO MP 0.35	16	2		NO	NO	0.35	20	125											200	320	
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20131.10</b>										<b>0.35</b>		<b>125</b>											<b>200</b>	<b>320</b>	
2017CPT.10.10.20131.11	Cabarrus	22	SR 2493 (BRAUGHTON AVE)	FROM SR 2492 (LENHAVER ST) TO SR 2496 (MICHAEL AVE) MP 0.00 TO MP 0.33	16	2		NO	NO	0.33	20	100												160	
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20131.11</b>										<b>0.33</b>		<b>100</b>													<b>160</b>
2017CPT.10.10.20131.12	Cabarrus	23	SR 2643 (CRESMONT DR)	FROM SR 2635 (OLD AIRPORT RD TO NC 73) MP 1.97 TO MP 0.00	25,26	2		NO	NO	1.97	22	600		29,140		10,199		100					400	480	
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20131.12</b>										<b>1.97</b>		<b>600</b>		<b>29,140</b>		<b>10,199</b>		<b>100</b>					<b>400</b>	<b>480</b>	
2017CPT.10.10.20131.13	Cabarrus	24	SR 2705 (BOYINGTON CT)	FROM SR 2411 (COLD SPRINGS RD TO SR 2706 (NAVION PL) MP 0.00 TO MP 0.16	17	2		NO	NO	0.16	20	15													
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20131.13</b>										<b>0.16</b>		<b>15</b>													
2017CPT.10.10.20131.14	Cabarrus	25	SR 1394 (POPLAR TENT RD)	PAVEMENT JOINT SOUTH OF SR 1430 (GEORGE LILES PARKWAY) TO PAVEMENT JOINT NEAR BURCK DRIVE MP 3.54 TO MP 3.22	18	2		NO	NO	0.22	39	240											*		
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20131.14</b>										<b>0.22</b>		<b>240</b>													
2017CPT.10.10.20131.1	Cabarrus	26	SR 1200 (LAREWOOD DR)	SR 2973 (PLAZA RD) TO PAST SR 1202 (STARWOOD RD)RMP 0.00 TO MP 0.29	19	2		NO	NO	0.29	24				4,444	2,444				1	1				
2017CPT.10.10.20131.1	Cabarrus	27	SR 1202 (STARWOOD DR)	FROM SR 1139 (ROCKY RIVER RD) TO SR 1200 (LAREWOOD DR) MP 0.00 TO MP 0.64	19	2		NO	NO	0.64	30				11,563	634				1	1				
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20131.1</b>										<b>0.93</b>					<b>16,007</b>	<b>3,078</b>				<b>2</b>	<b>2</b>				
2017CPT.10.10.20131.15	Cabarrus	28	SR 1173 (CALDWELL ROAD)	FROM SR 1166 (TOM QUERY ROAD TO RAILROAD PROJECT. MP 0.38 TO MP 1.09	23,24	2		NO	NO	0.35	24	200							4	2	2		300		
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20131.15</b>										<b>0.35</b>		<b>200</b>							<b>4</b>	<b>2</b>	<b>2</b>		<b>300</b>		
2017CPT.10.10.20131.16	Cabarrus	29	SR 2902 (MRN ROAD)	FROM SR 1394 (POPLAR TENT ROAD) TO SR 1442 (ODELL SCHOOL ROAD) MP 0.00 TO MP 0.35	20	2		NO	NO	0.35	24				5,000	2,750								160	
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20131.16</b>										<b>0.35</b>					<b>5,000</b>	<b>2,750</b>									<b>160</b>
2017CPT.10.10.20132.1	Cabarrus	11	SR 2268 (SUTHER RD)	FROM SR 1002 (OLD SALS.CONCORD RD) TO SR 2289 (FLOWERFIELD DR)MP 0.00 TO MP 0.35	13	2		NO	NO	0.35	20														
2017CPT.10.10.20132.1	Cabarrus	12	SR 2269 (DIARY FARM RD)	FROM SR 2268 (SUTHER RD) TO END MAINT. MP 0.00 TO MP .26	13	2		NO	NO	0.26	20														
2017CPT.10.10.20132.1	Cabarrus	13	SR 2282 (MOONSHINE DR)	FROM SR 2268 (SUTHER RD) TO SR 2269 (DIARY FARM RD) MP 0.00 TO MP 0.23	13	2		NO	NO	0.23	20														
2017CPT.10.10.20132.1	Cabarrus	16	SR 2288 (BRICKSTONE DR)	FROM SR 2282 (MOONSHINE DR) TO SR 2289 (FLOWERFIELD DR) MP 0.00 TO MP 0.30	13	2		NO	NO	0.3	20														
2017CPT.10.10.20132.1	Cabarrus	17	SR 2289 (FLOWERS FIELD DR)	FROM SR 2288 (BRICKSTONE CIRCLE) TO SR 2269 (DIARY FARM RD) MP 0.00 TO 0.17	13	2		NO	NO	0.17	20														
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20132.1</b>										<b>1.31</b>															
2017CPT.10.10.20132.2	Cabarrus	20	SR 2453 (LENTZ HARNESS SHOP RD)	FROM NC 73 TO SOUTH OF SR 2603 (LITTLE BEAR CREEK RD)	15	2		NO	NO	2.97	21														
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20132.2</b>										<b>2.97</b>															
2017CPT.10.10.20132.3	Cabarrus	19	KLUTZ ROAD	FROM SAINT STEVENS TO MOUNT OLIVE ROAD MP 0.00 TO MP 1.27	15	2		NO	NO	1.27	20														
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20132.3</b>										<b>1.27</b>															
2017CPT.10.10.20131.1	Cabarrus	26	SR 1200 (LAREWOOD DR)	SR 2973 (PLAZA RD) TO PAST SR 1202 (STARWOOD RD)RMP 0.00 TO MP 0.29		2		NO	NO	0.29	24														
2017CPT.10.10.20131.1	Cabarrus	27	SR 1202 (STARWOOD DR)	FROM SR 1139 (ROCKY RIVER RD) TO SR 1200 (LAREWOOD DR) MP 0.42 TO MP 1.0		2		NO	NO	0.58	30														
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20131.1</b>										<b>0.87</b>															
2017CPT.10.10.20132.4	Cabarrus	29	SR 2902 (MRN ROAD)	FROM SR 1394 (POPLAR TENT ROAD) TO SR 1442 (ODELL SCHOOL ROAD) MP 0.00 TO MP 0.35	20	2		NO	NO	0.35	24														
<b>TOTAL FOR PROJ NO. 2017CPT.10.10.20132.4</b>										<b>0.35</b>															
<b>GRAND TOTAL</b>										<b>31.67</b>		<b>6,465</b>	<b>166,201</b>	<b>29,140</b>	<b>79,611</b>	<b>113,501</b>	<b>1</b>	<b>100</b>	<b>11</b>	<b>28</b>	<b>27</b>	<b>1</b>	<b>3,400</b>	<b>4,000</b>	



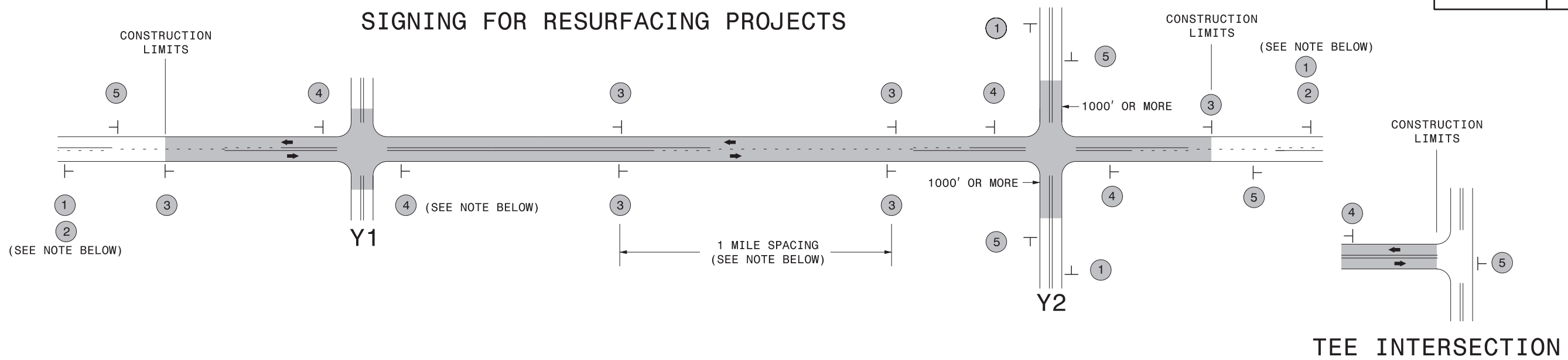








# SIGNING FOR RESURFACING PROJECTS



LEGEND	
┆	STATIONARY SIGN
←	DIRECTION OF TRAFFIC FLOW

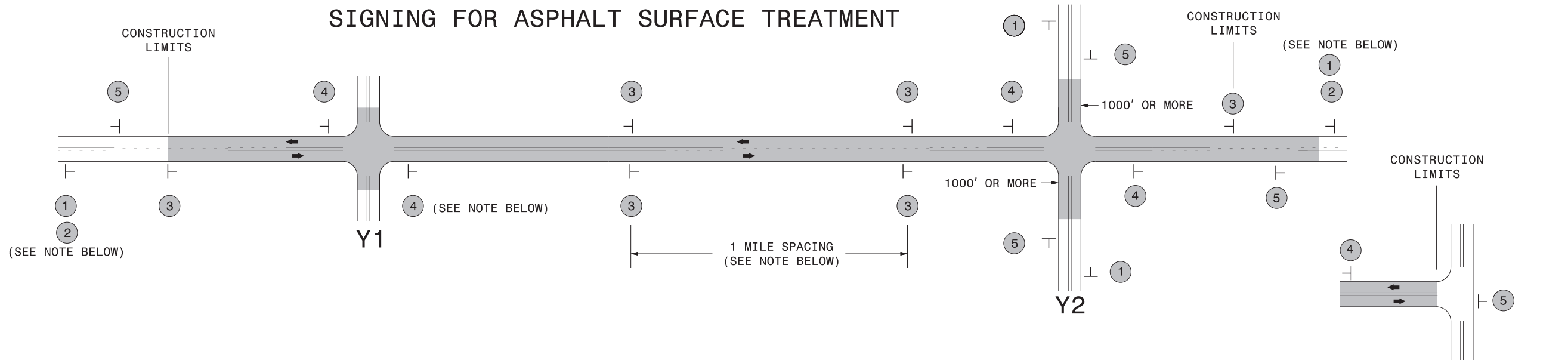
## MAINLINE (-L-) SIGNING

## -Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	1	<p>W20-1 48" X 48"</p>	PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.	<p>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</p> <ol style="list-style-type: none"> <li>1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE</li> <li>2) SUBDIVISION ROADS</li> <li>3) DEAD END ROADS</li> </ol> <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> <p>W20-1 48" X 48"</p> <p>W20-7 A 48" X 48"</p> <p>PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.</p>
	2	<p>W7-3aP 24" X 18"</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)	
	3	<p>SP 13107 48" X 48"</p>	<ul style="list-style-type: none"> <li>- PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACE 1 MILE APART THEREAFTER.</li> <li>- AT TEE INTERSECTIONS INSTALL INITIALLY 0.5 MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER.</li> </ul>	
	4	<p>SP 13106 48" X 48"</p>	<ul style="list-style-type: none"> <li>- THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS. DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS.</li> <li>- INSTALL 500' +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE.</li> <li>- 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.</li> <li>- A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN.</li> <li>- FOR TEE INTERSECTIONS, INSTALL WITHIN 500' +/- OF THE INTERSECTION ALONG -L- LINE.</li> </ul>	
	5	<p>G20-2 A 48" X 24"</p>	PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION.	

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**RESURFACING  
ADVANCE WARNING SIGNS  
FOR  
RURAL AND SUBURBAN  
2 LANE ROADWAYS**



**LEGEND**  
 | STATIONARY SIGN  
 ← DIRECTION OF TRAFFIC FLOW

**MAINLINE (-L-) SIGNING**

**-Y- LINE SIGNING**

SIGNING NOTES AND PLACEMENT PER DIRECTION	1		PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE. #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		- ALTERNATE THE FOLLOWING TWO SIGNS: - STARTING WITH "LOOSE GRAVEL" (W8-7) FOLLOWED BY "UNMARKED PAVEMENT". - PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACED 1 MILE APART THEREAFTER. - AT TEE INTERSECTIONS INSTALL INITIALLY 0.5 MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER.
	4		- 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. - FOR TEE INTERSECTIONS, INSTALL WITHIN 500' +/- OF THE INTERSECTION ALONG -L- LINE.
	5		PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION.

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

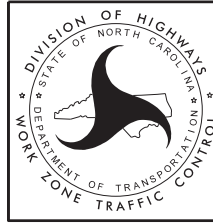
- 1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE
- 2) SUBDIVISION ROADS
- 3) DEAD END ROADS

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.

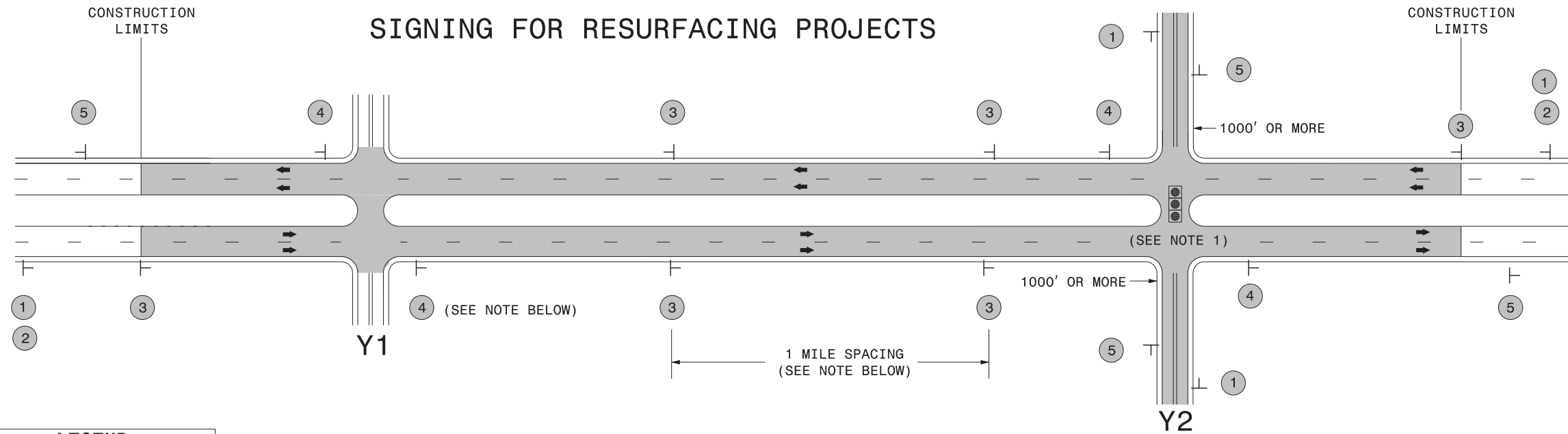
W20-1  
 48" X 48"

W20-7 A  
 48" X 48"

PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.



ADVANCE WARNING SIGNS FOR ASPHALT SURFACE TREATMENTS 2 LANE ROADWAYS



**LEGEND**  
 ┆ STATIONARY SIGN  
 ← DIRECTION OF TRAFFIC FLOW

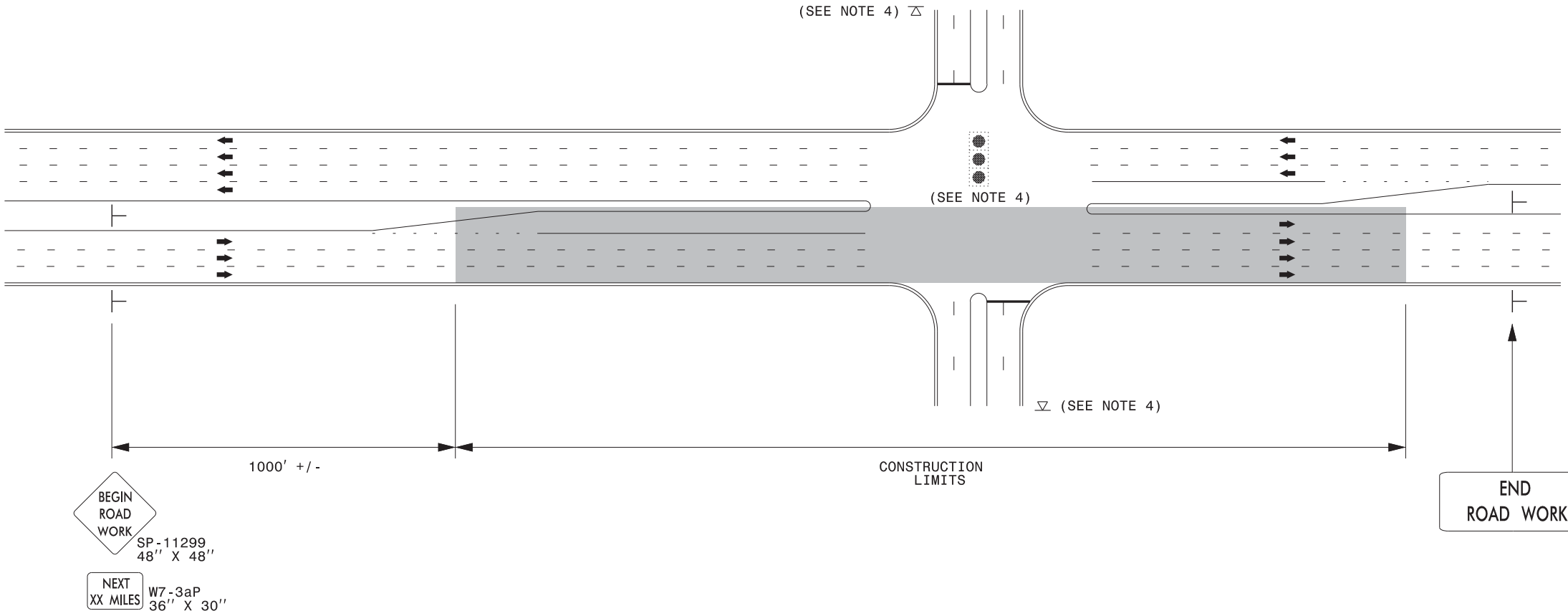
**MAINLINE (-L-) SIGNING**

**-Y- LINE SIGNING**

<b>SIGNING NOTES AND PLACEMENT PER DIRECTION</b>	 	<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><b>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</b></p> <ol style="list-style-type: none"> <li>1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE</li> <li>2) SUBDIVISION ROADS</li> <li>3) DEAD END ROADS</li> </ol> <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; align-items: center;"> <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><b>NOTES:</b></p> <ol style="list-style-type: none"> <li>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.</li> </ol>
		<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>	

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

# 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

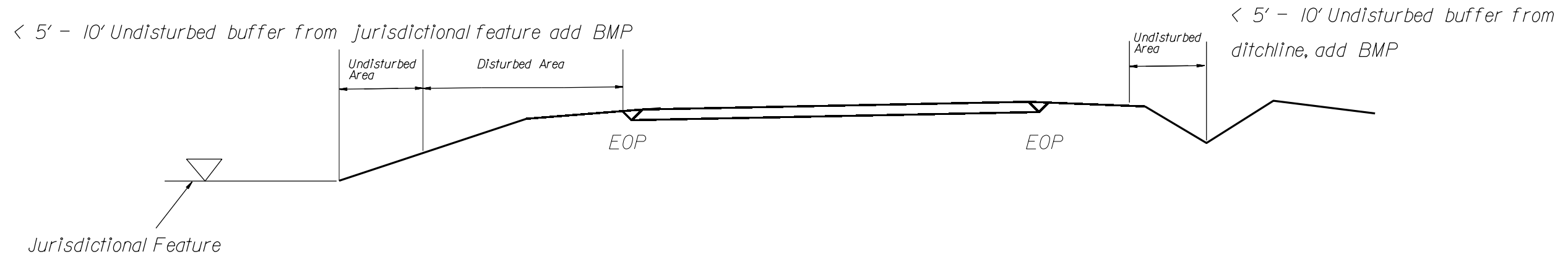
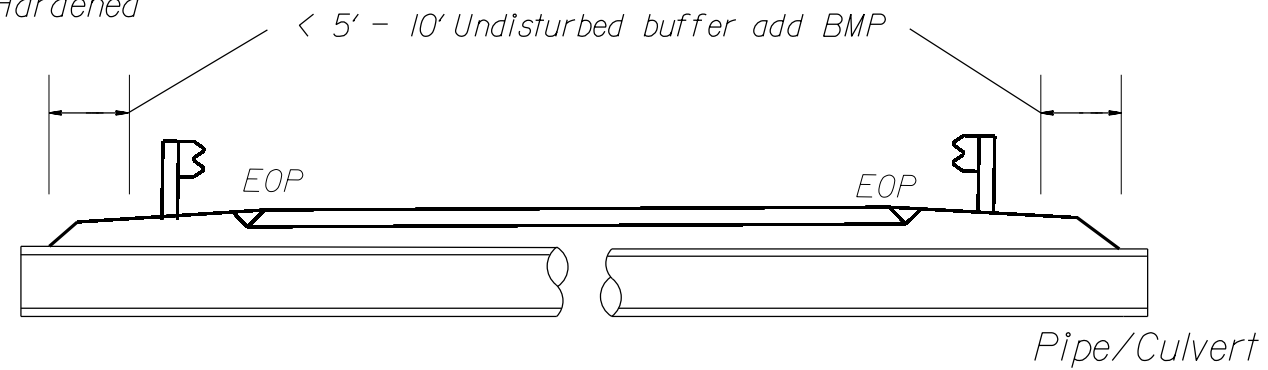


**RESURFACING ADVANCE  
WARNING SIGNS FOR  
URBAN / SUBURBAN  
FACILITIES**

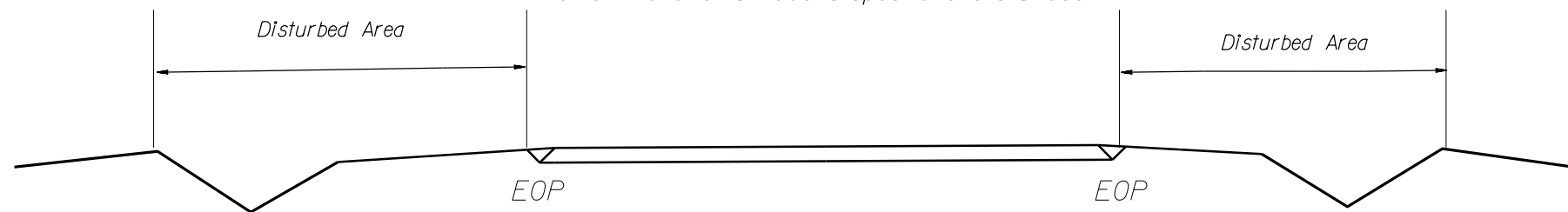
NOTES: Less than 5' - 10' undisturbed buffer from ROW, ditchline, water feature, or drainage inlet, add BMP.

BMP Options: Wattle, Silt Fence or Hardened Aggregate.

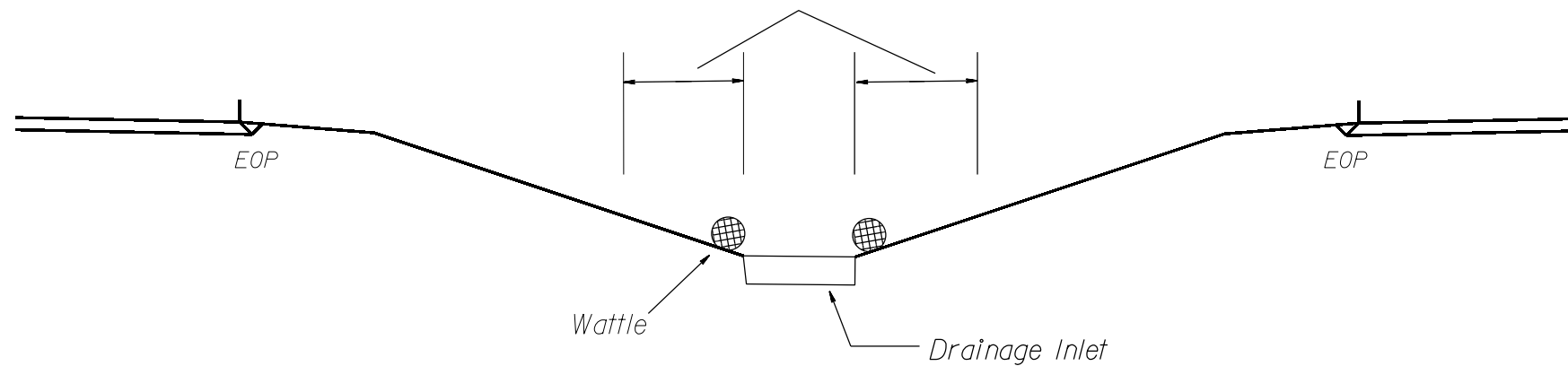
# EROSION CONTROL DETAIL



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

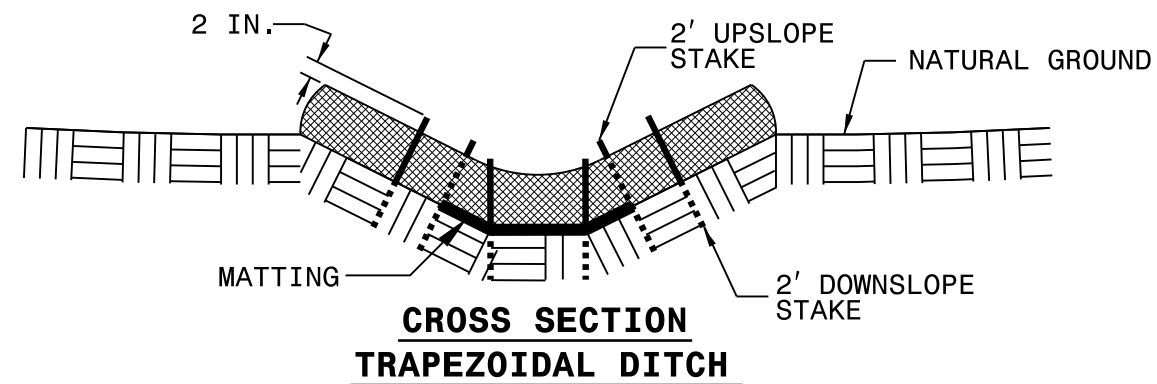
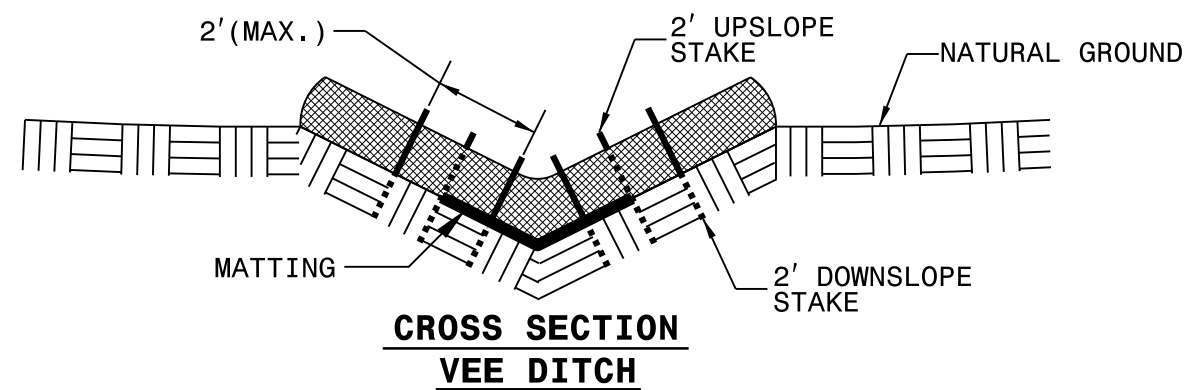
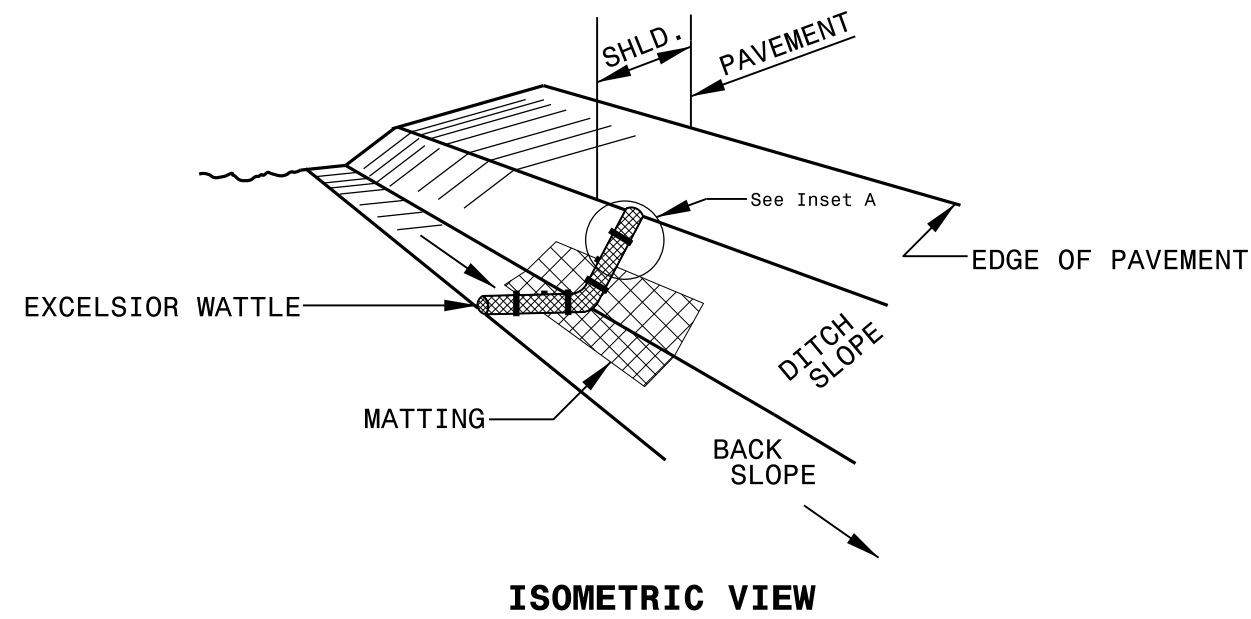


< 5' - 10' Undisturbed buffer from inlet, add wattle



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.

