

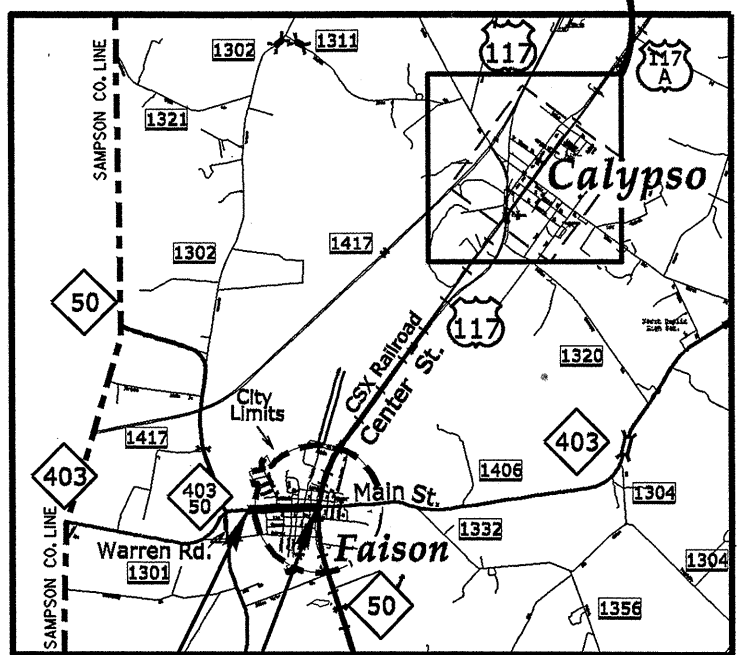
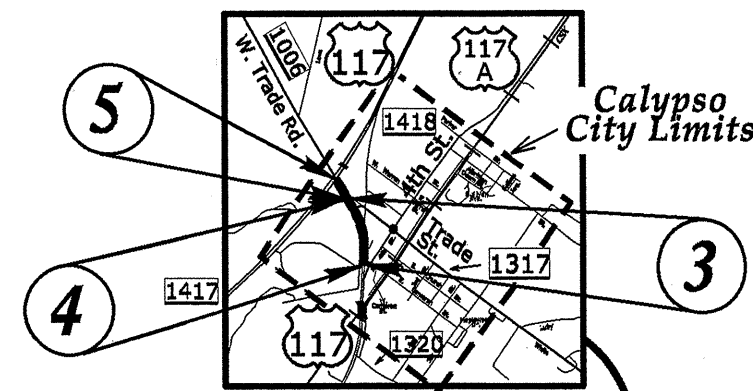
01-SEP-2011 16:41 R:\RDY\DDC\RETREAT\2012\3CR.10311.115_DUPLIN_3CR.10821.115_SAMPSON\ROADWAY\Proj\3CR.10311.115_Rdy_tsh_2012.dgn mtk\mmel AT D3CAD237931

CONTRACT: WBS NO: 3CR.10311.115 & 3CR.10821.115

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

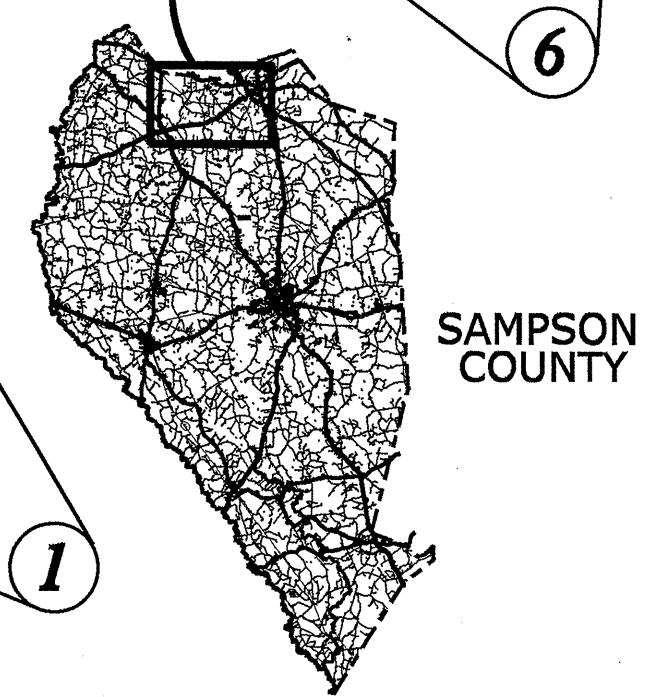
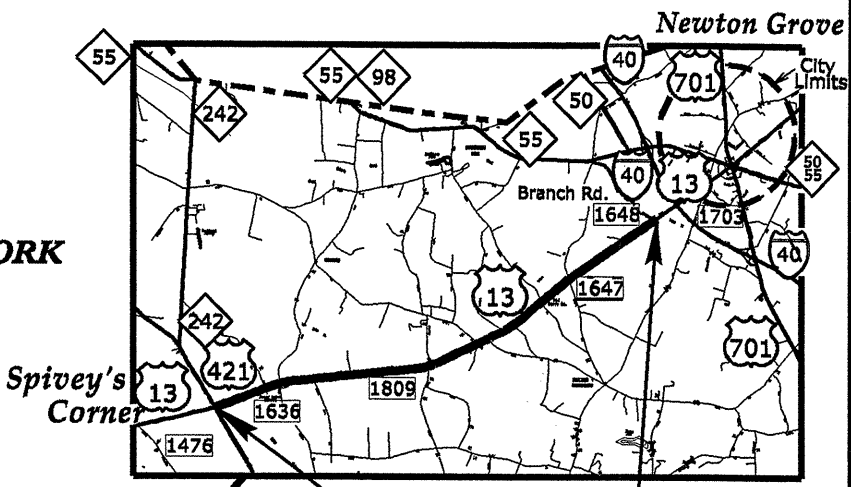
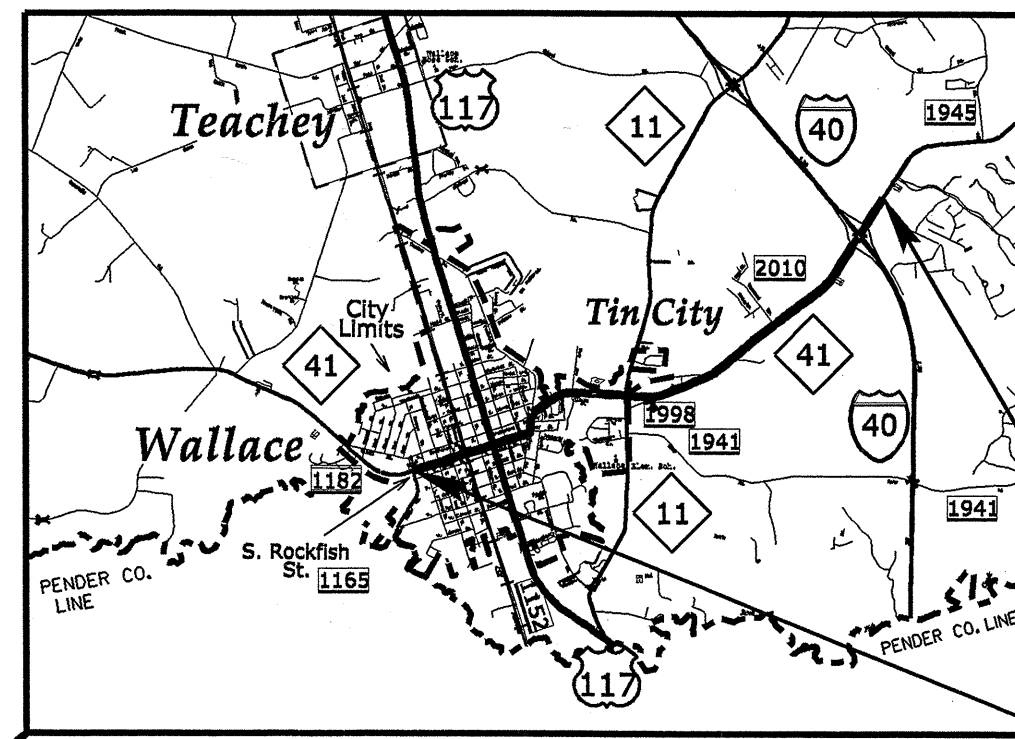
DUPLIN & SAMPSON COUNTIES

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	3CR.10311.115, Etc.	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	



LOCATION: DUPLIN CO.: 3 SECTIONS OF US 117
1 SECTION OF NC 50 / NC 403
1 SECTION OF NC 41
SAMPSON CO.: 1 SECTION OF US 13

TYPE OF WORK:
MILLING, WIDENING, RESURFACING, MISC. CONCRETE WORK
GUARDRAIL ANCHORS, INDUCTIVE LOOP SAWCUT,
PAVEMENT MARKING AND MARKERS, ETC.



NOT TO SCALE

PROJECT LENGTH	
PRIMARY - DUPLIN CO.	PRIMARY - SAMPSON CO.
MAP NO. 1 = 3.82 MI.	MAP NO. 6 = 7.21 MI.
MAP NO. 2 = 0.52 MI.	
MAP NO. 3 = 0.27 MI.	SUB-TOTAL = 7.21 MI.
MAP NO. 4 = 0.28 MI.	
MAP NO. 5 = 0.06 MI.	
SUB-TOTAL = 4.95 MI.	
TOTAL = 12.16 MI.	

Prepared in the Office of: DIVISION OF HIGHWAYS 5501 Barbados Blvd., Castle Hayne, NC 28429	
2012 STANDARD SPECIFICATIONS	
RIGHT OF WAY DATE:	
LETTING DATE:	

HYDRAULICS ENGINEER	
SIGNATURE:	P.E.
ROADWAY DESIGN TECHNICIAN	
SIGNATURE:	DNL
SIGNATURE:	MPK

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA	
---	--

8/17/99

30-NOV-2011 12:24
S:\COTLER\2011\Projects\Resurfacing\Projects\Division 3\dupl\insampson\Revised File October 31 2011\3CR1031115.Rdy..TYPICALS.2012.dgn

PROJECT REFERENCE NO.	SHEET NO.
3CR1031115, ETC.	1-A
ROADWAY DESIGN ENGINEER	

GENERAL NOTES:

2012 SPECIFICATIONS
EFFECTIVE: 01-17-12
REVISED: 07-30-08

GRADE LINE:
GRADING AND SURFACING:

THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. GRADE LINES MAY BE ADJUSTED AT THEIR BEGINNING AND ENDING AND AT STRUCTURES AS DIRECTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.

SIDE ROADS:

THE CONTRACTOR WILL BE REQUIRED TO DO ALL NECESSARY WORK TO PROVIDE SUITABLE CONNECTIONS WITH ALL ROADS, STREETS, AND DRIVES ENTERING THIS PROJECT. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PARTICULAR ITEMS INVOLVED.

DRIVEWAYS:

DRIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. 848.02 USING 3' RADII OR RADII AS SHOWN ON THE PLANS. LOCATIONS OF DRIVES WILL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

STREET TURNOUT:

STREET RETURNS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 848.04 USING THE RADII NOTED ON PLANS.

GUARDRAIL:

THE GUARDRAIL LOCATIONS SHOWN ON THE PLANS MAY BE ADJUSTED DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHOULD CONSULT WITH THE ENGINEER PRIOR TO ORDERING GUARDRAIL MATERIAL.

SUBSURFACE PLANS:

NO SUBSURFACE PLANS ARE AVAILABLE ON THIS PROJECT. THE CONTRACTOR SHOULD MAKE HIS OWN INVESTIGATION AS TO THE SUBSURFACE CONDITIONS.

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS.

EFF. 01-17-12
REV. 11-30-11

2012 ROADWAY ENGLISH STANDARD DRAWINGS















The following Roadway Standards as appear in "Roadway Standard Drawings" Technical Services Branch - N. C. Department of Transportation - Raleigh, N. C., Dated January 17, 2012 are applicable to this project and by reference hereby are considered a part of these plans:

STD.NO.	TITLE
DIVISION 8 - INCIDENTALS	
846.01	Concrete Curb, Gutter and Curb & Gutter
848.01	Concrete Sidewalk
848.02	Driveway Turnout - Radius Type
848.04	Street Turnout
848.05	Curb Ramp - Proposed Curb and Gutter
848.06	Curb Ramp - Existing Curb and Gutter












*S.U.E. = *Subsurface Utility Engineering*

CONVENTIONAL PLAN SHEET SYMBOLS










BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin	----- 
Property Corner	----- 
Property Monument	----- 
Parcel/Sequence Number	----- 
Existing Fence Line	----- 
Proposed Woven Wire Fence	----- 
Proposed Chain Link Fence	----- 
Proposed Barbed Wire Fence	----- 
Existing Wetland Boundary	----- 
Proposed Wetland Boundary	----- 
Existing Endangered Animal Boundary	----- 
Existing Endangered Plant Boundary	----- 
Known Soil Contamination: Area or Site	----- 
Potential Soil Contamination: Area or Site	----- 

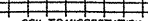

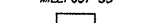
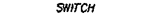
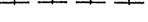
BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or UG Tank Cap	----- 
Sign	----- 
Well	----- 
Small Mine	----- 
Foundation	----- 
Area Outline	----- 
Cemetery	----- 
Building	----- 
School	----- 
Church	----- 
Dam	----- 


















HYDROLOGY:

Stream or Body of Water	-----
Hydro, Pool or Reservoir	-----
Jurisdictional Stream	----- 
Buffer Zone 1	----- 
Buffer Zone 2	----- 
Flow Arrow	----- 
Disappearing Stream	----- 
Spring	----- 
Wetland	----- 
Proposed Lateral, Tail, Head Ditch	----- 
False Sump	----- 










RAILROADS:

Standard Gauge	----- 
RR Signal Milepost	----- 
Switch	----- 
RR Abandoned	----- 
RR Dismantled	----- 





RIGHT OF WAY:


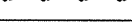
Baseline Control Point	----- 
Existing Right of Way Marker	----- 
Existing Right of Way Line	----- 
Proposed Right of Way Line	----- 
Proposed Right of Way Line with Iron Pin and Cap Marker	----- 
Proposed Right of Way Line with Concrete or Granite Marker	----- 
Existing Control of Access	----- 
Proposed Control of Access	----- 
Existing Easement Line	----- 
Proposed Temporary Construction Easement	----- 
Proposed Temporary Drainage Easement	----- 
Proposed Permanent Drainage Easement	----- 
Proposed Permanent Drainage / Utility Easement	----- 
Proposed Permanent Utility Easement	----- 
Proposed Temporary Utility Easement	----- 
Proposed Aerial Utility Easement	----- 
Proposed Permanent Easement with Iron Pin and Cap Marker	----- 

ROADS AND RELATED FEATURES:

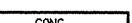



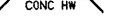



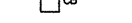
Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	----- 
Proposed Slope Stakes Fill	----- 
Proposed Curb Ramp	----- 
Existing Metal Guardrail	----- 
Proposed Guardrail	----- 
Existing Cable Guiderail	----- 
Proposed Cable Guiderail	----- 
Equality Symbol	----- 
Pavement Removal	----- 

VEGETATION:












Single Tree	----- 
Single Shrub	----- 
Hedge	----- 
Woods Line	----- 

Orchard	----- 
Vineyard	----- 






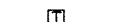

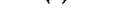
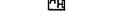
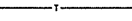
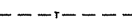


EXISTING STRUCTURES:

MAJOR:	
Bridge, Tunnel or Box Culvert	----- 
Bridge Wing Wall, Head Wall and End Wall	----- 
MINOR:	
Head and End Wall	----- 
Pipe Culvert	----- 
Footbridge	----- 
Drainage Box: Catch Basin, DI or JB	----- 
Paved Ditch Gutter	----- 
Storm Sewer Manhole	----- 
Storm Sewer	----- 








UTILITIES:

POWER:	
Existing Power Pole	----- 
Proposed Power Pole	----- 
Existing Joint Use Pole	----- 
Proposed Joint Use Pole	----- 
Power Manhole	----- 
Power Line Tower	----- 
Power Transformer	----- 
UG Power Cable Hand Hole	----- 
H-Frame Pole	----- 
Recorded UG Power Line	----- 
Designated UG Power Line (S.U.E.*)	----- 









TELEPHONE:

Existing Telephone Pole	----- 
Proposed Telephone Pole	----- 
Telephone Manhole	----- 
Telephone Booth	----- 
Telephone Pedestal	----- 
Telephone Cell Tower	----- 
UG Telephone Cable Hand Hole	----- 
Recorded UG Telephone Cable	----- 
Designated UG Telephone Cable (S.U.E.*)	----- 
Recorded UG Telephone Conduit	----- 
Designated UG Telephone Conduit (S.U.E.*)	----- 
Recorded UG Fiber Optics Cable	----- 
Designated UG Fiber Optics Cable (S.U.E.*)	----- 






WATER:

Water Manhole	----- 
Water Meter	----- 
Water Valve	----- 
Water Hydrant	----- 
Recorded UG Water Line	----- 
Designated UG Water Line (S.U.E.*)	----- 
Above Ground Water Line	----- 







TV:

TV Satellite Dish	----- 
TV Pedestal	----- 
TV Tower	----- 
UG TV Cable Hand Hole	----- 
Recorded UG TV Cable	----- 
Designated UG TV Cable (S.U.E.*)	----- 
Recorded UG Fiber Optic Cable	----- 
Designated UG Fiber Optic Cable (S.U.E.*)	----- 













GAS:

Gas Valve	----- 
Gas Meter	----- 
Recorded UG Gas Line	----- 
Designated UG Gas Line (S.U.E.*)	----- 
Above Ground Gas Line	----- 

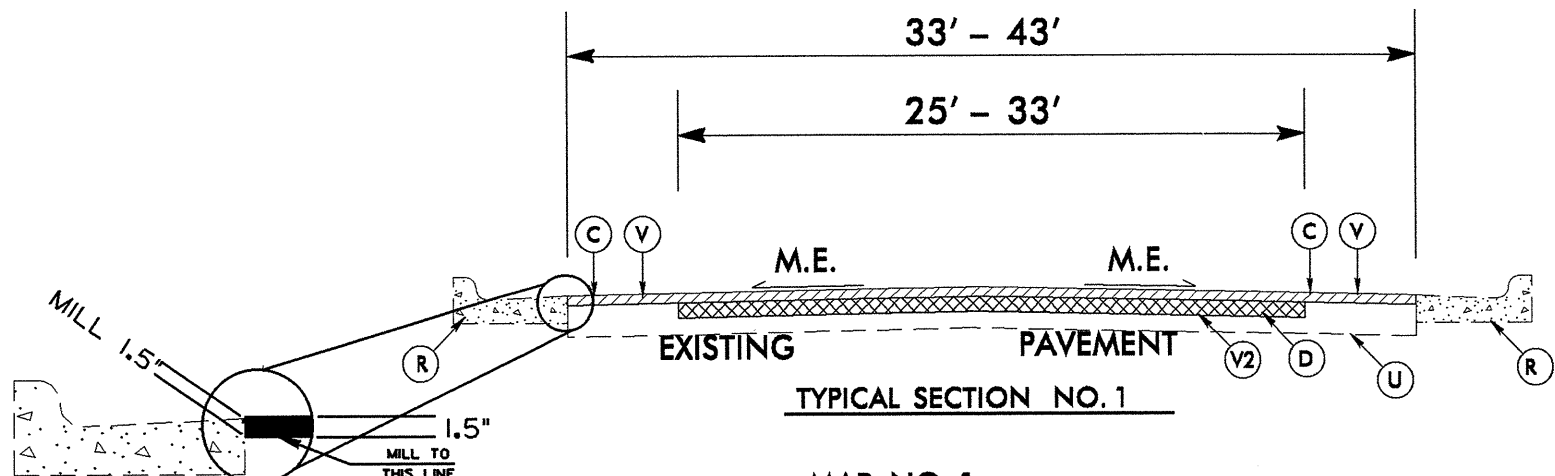
SANITARY SEWER:

Sanitary Sewer Manhole	----- 
Sanitary Sewer Cleanout	----- 
UG Sanitary Sewer Line	----- 
Above Ground Sanitary Sewer	----- 
Recorded SS Forced Main Line	----- 
Designated SS Forced Main Line (S.U.E.*)	----- 

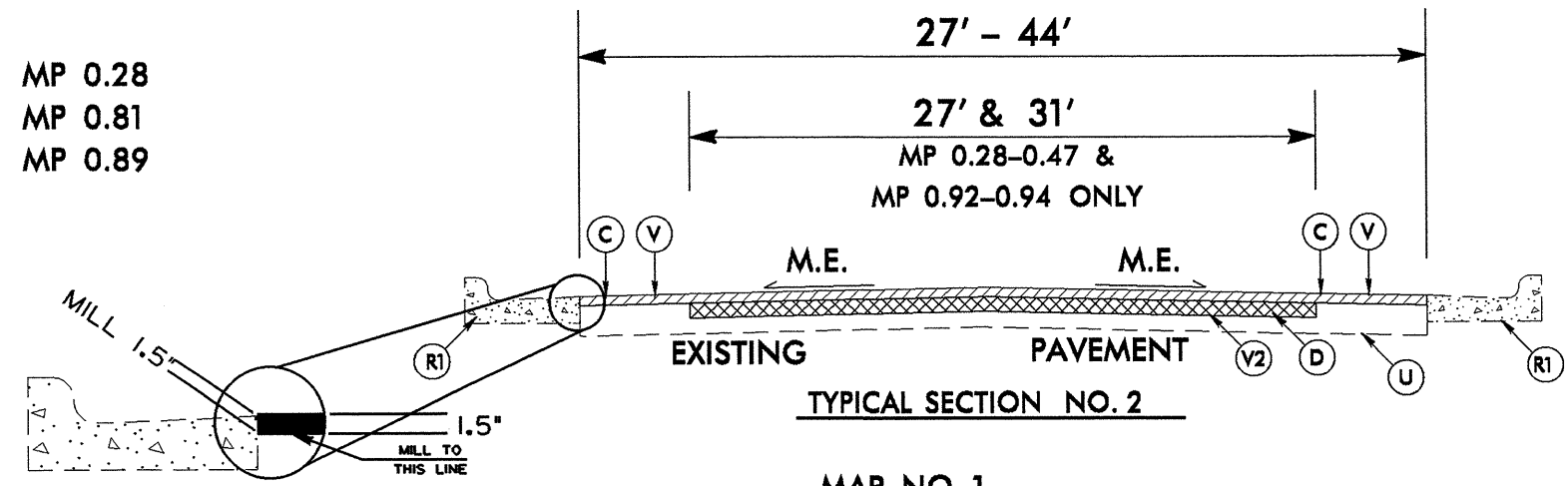
MISCELLANEOUS:

Utility Pole	----- 
Utility Pole with Base	----- 
Utility Located Object	----- 
Utility Traffic Signal Box	----- 
Utility Unknown UG Line	----- 
UG Tank; Water, Gas, Oil	----- 
Underground Storage Tank, Approx. Loc.	----- 
A/G Tank; Water, Gas, Oil	----- 
Geoenvironmental Boring	----- 
UG Test Hole (S.U.E.*)	----- 
Abandoned According to Utility Records	----- 
End of Information	----- 

AATUR
E.O.I.



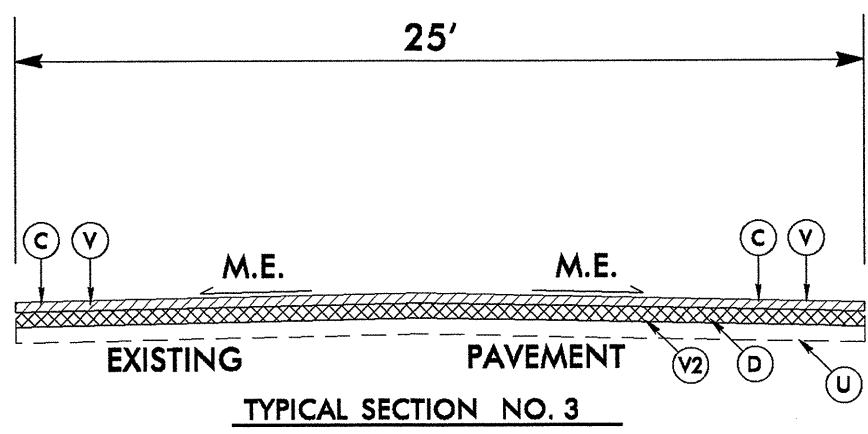
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NC 41
* MP 0.00 TO MP 0.28
* MP 0.47 TO MP 0.81
* MP 0.86 TO MP 0.89



MAP NO. 1
NC 41
* MP 0.28 TO MP 0.47
* MP 0.92 TO MP 0.94
MP 0.94 TO MP 1.60 (NO 2.5\" MILLING,
NO INTERMEDIATE CORSE FOR THIS SECTION.)

- * MILLING & PAVING SEQUENCE SHALL BE DONE AS FOLLOWS:
1.) MILL 1.5\" IN ONE DIRECTION OF TRAVEL ONLY AND THEN MILL 2.5\"
2.) IMMEDIATELY AFTER 2.5\" MILLING, PLACE 2.5\" I19.0B
3.) REPEAT STEPS 1 AND 2 FOR OPPOSITE DIRECTION OF TRAVEL.

ALL MILLING & RESURFACING BETWEEN MP 0.00 TO MP 0.56 SHALL BE DONE FIRST, FOLLOWED BY ALL THE MILLING & RESURFACING BETWEEN MP 0.56 TO MP 0.94.



MAP NO. 1
NC 41
* MP 0.81 TO MP 0.85

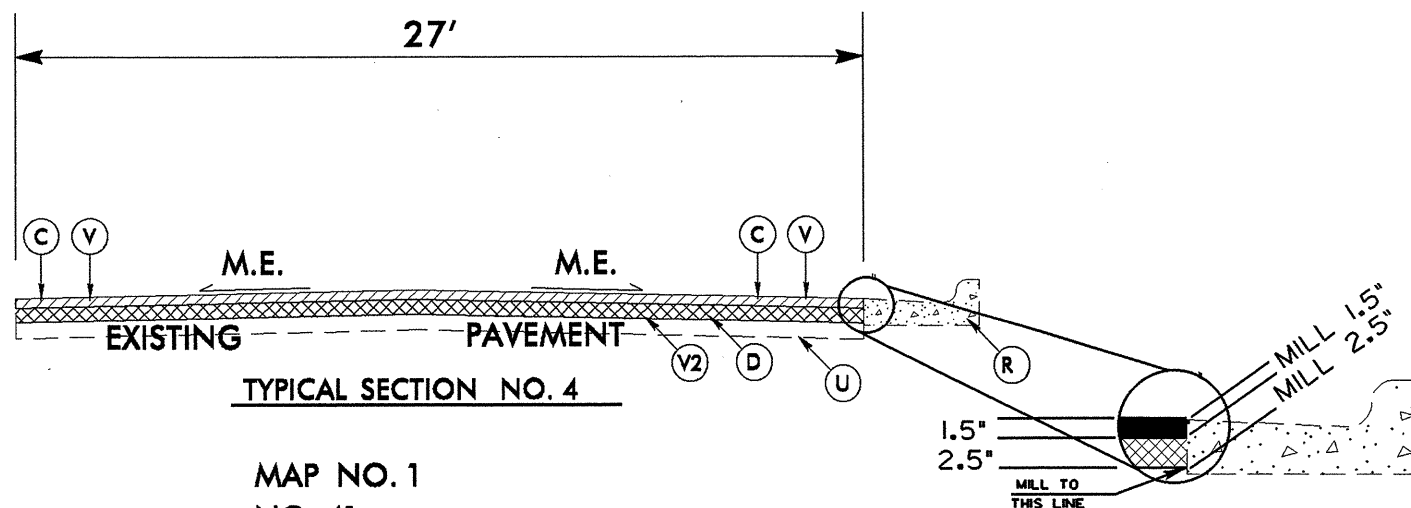
PAVEMENT SCHEDULE			
C	PROP. APPROX. 1 1/2\" DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE 99.0B, AT AN AVERAGE RATE OF 188 LBS. PER SQ. YD.	R2	EXISTING CONC. ISLAND
C1	PROP. APPROX. 2\" DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE 99.0B, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.	T	EARTH MATERIAL (SHOULDER RECONSTRUCTION)
D	PROP. APPROX. 2 1/2\" DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 265 LBS. PER SQ. YD.	U	EXISTING PAVEMENT.
E	PROP. APPROX. 8 1/2\" DEPTH ASPHALT CONCRETE BASE COURSE, TYPE 825.0B, AT AN AVERAGE RATE OF 827 LBS. PER SQ. YD.	V	MILLING BITUMINOUS PAVEMENT. 1 1/2\" DEPTH.
R	EXISTING 2'-0\" CURB & GUTTER	V1	MILLING BITUMINOUS PAVEMENT. 2\" DEPTH.
R1	EXISTING 2'-8\" CURB & GUTTER	V2	MILLING BITUMINOUS PAVEMENT. 2 1/2\" DEPTH.

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.
SEE STD. DRAWING 1205.01, SHEET 2 OF 2, TABLE 1 FOR EDGE LINE OFFSETS.
M.E. = MATCH EXISTING

REVISIONS
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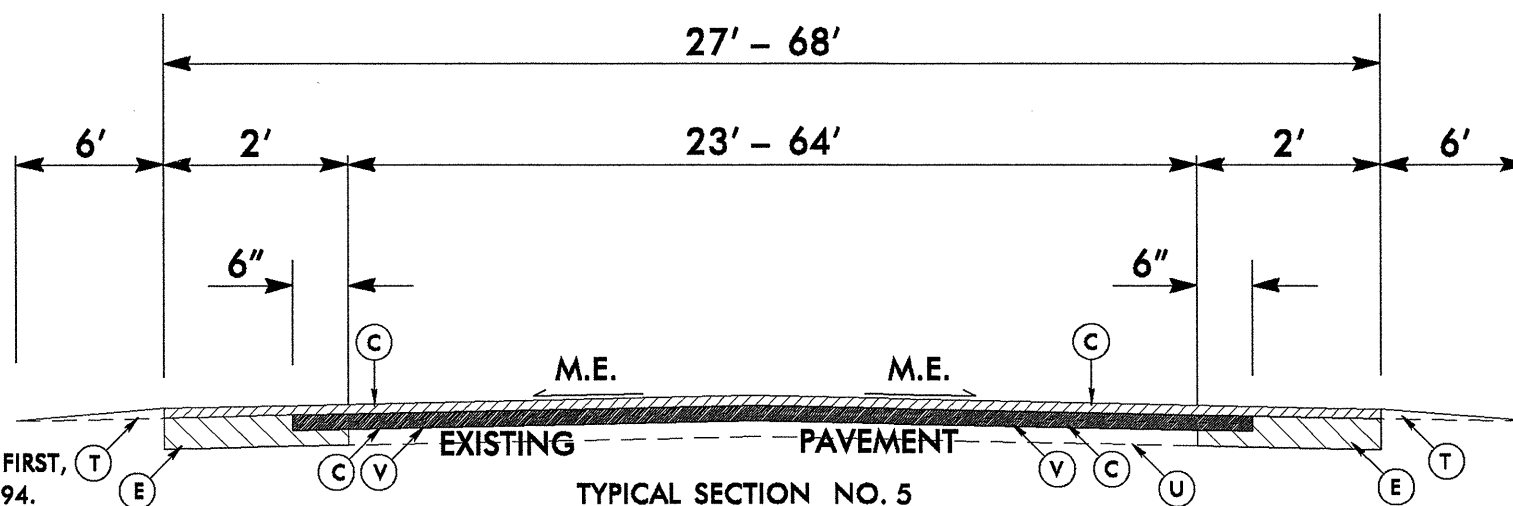
PROJECT REFERENCE NO. 3CR.10311.115, ETC.	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



MAP NO. 1
NC 41
* MP 0.85 TO MP 0.86
* MP 0.89 TO MP 0.92

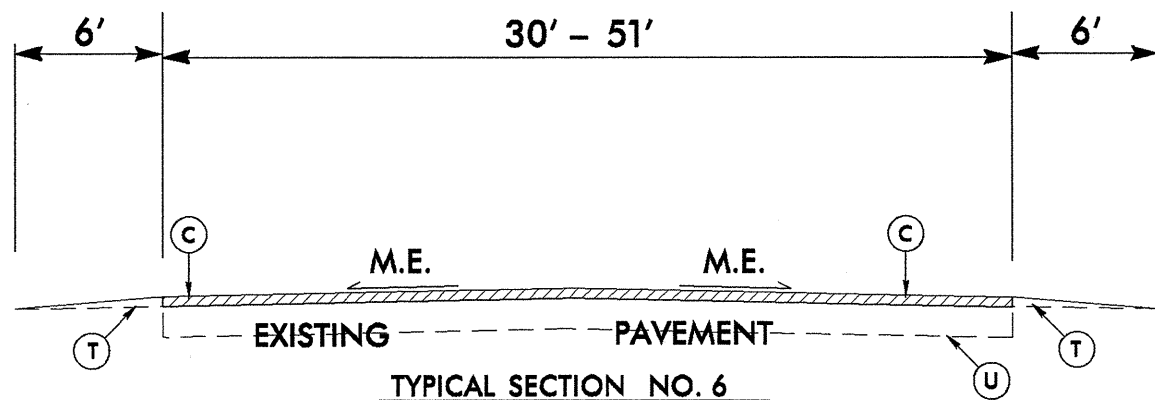
- * MILLING & PAVING SEQUENCE SHALL BE DONE AS FOLLOWS:
1.) MILL 1.5" IN ONE DIRECTION OF TRAVEL ONLY AND THEN MILL 2.5"
2.) IMMEDIATELY AFTER 2.5" MILLING, PLACE 2.5" 119.0B
3.) REPEAT STEPS 1 AND 2 FOR OPPOSITE DIRECTION OF TRAVEL.

ALL MILLING & RESURFACING BETWEEN MP 0.00 TO MP 0.56 SHALL BE DONE FIRST, FOLLOWED BY ALL THE MILLING & RESURFACING BETWEEN MP 0.56 TO MP 0.94.



MAP NO. 1
NC 41
MP 1.60 TO MP 3.40

- SEQUENCE OF WORK:
1. PLACE WIDENING FLUSH.
2. MILL AS SHOWN.
3. PLACE INTERMEDIATE COURSE.
4. RESURFACE ENTIRE ROADWAY.



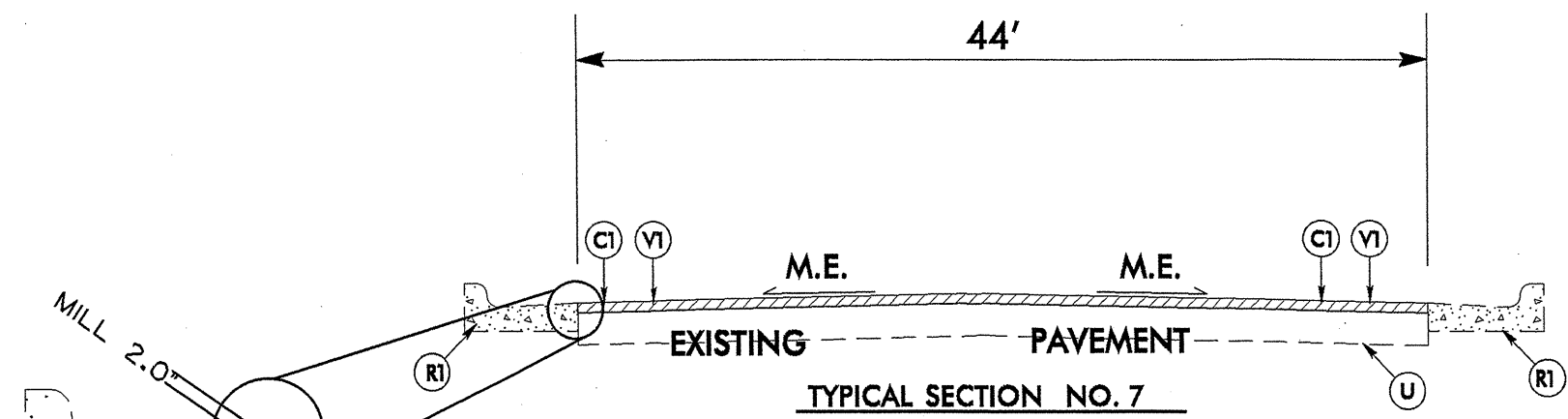
MAP NO. 1
NC 41
MP 3.40 TO MP 3.82

PAVEMENT SCHEDULE			
C	PROP. APPROX. 1 1/2" DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE 88.0B, AT AN AVERAGE RATE OF 166 LBS. PER SQ. YD.	R2	EXISTING CONC. ISLAND
C1	PROP. APPROX. 2" DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE 88.0B, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.	T	EARTH MATERIAL (SHOULDER RECONSTRUCTION)
D	PROP. APPROX. 2 1/2" DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 119.0B, AT AN AVERAGE RATE OF 286 LBS. PER SQ. YD.	U	EXISTING PAVEMENT.
E	PROP. APPROX. 6 1/2" DEPTH ASPHALT CONCRETE BASE COURSE, TYPE 828.0B, AT AN AVERAGE RATE OF 827 LBS. PER SQ. YD.	V	MILLING BITUMINOUS PAVEMENT. 1 1/2" DEPTH.
R	EXISTING 2'-0" CURB & GUTTER	V1	MILLING BITUMINOUS PAVEMENT. 2" DEPTH.
R1	EXISTING 2'-6" CURB & GUTTER	V2	MILLING BITUMINOUS PAVEMENT. 2 1/2" DEPTH.

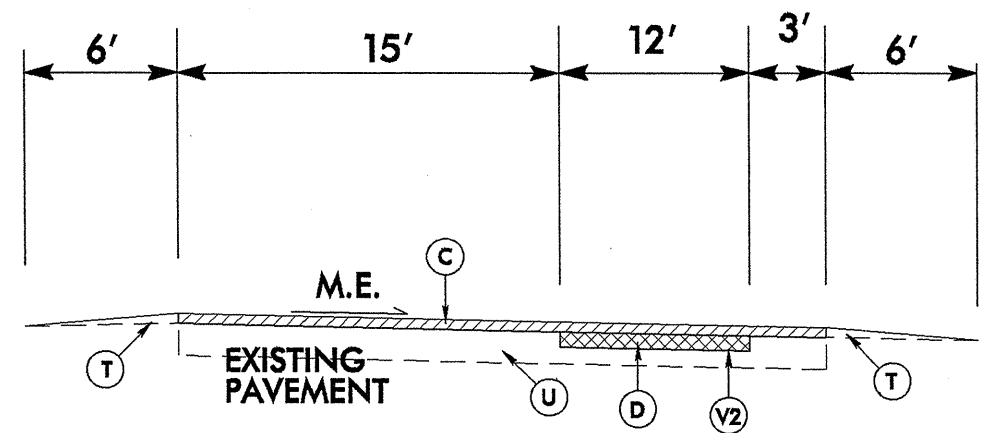
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.
SEE STD. DRAWING 1205.01, SHEET 2 OF 2, TABLE 1 FOR EDGE LINE OFFSETS.
M.E. = MATCH EXISTING

REVISIONS

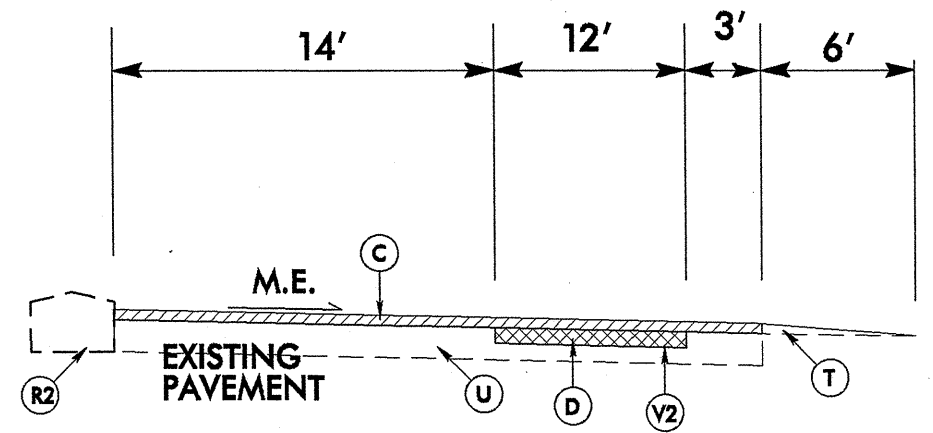
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MAP NO. 2
NC 50/NC 403
MP 0.00 TO MP 0.52



MAP NO. 3
US 117 N.B.L.
MP 0.00 TO MP 0.20



MAP NO. 3
US 117 N.B.L.
MP 0.26 TO MP 0.33

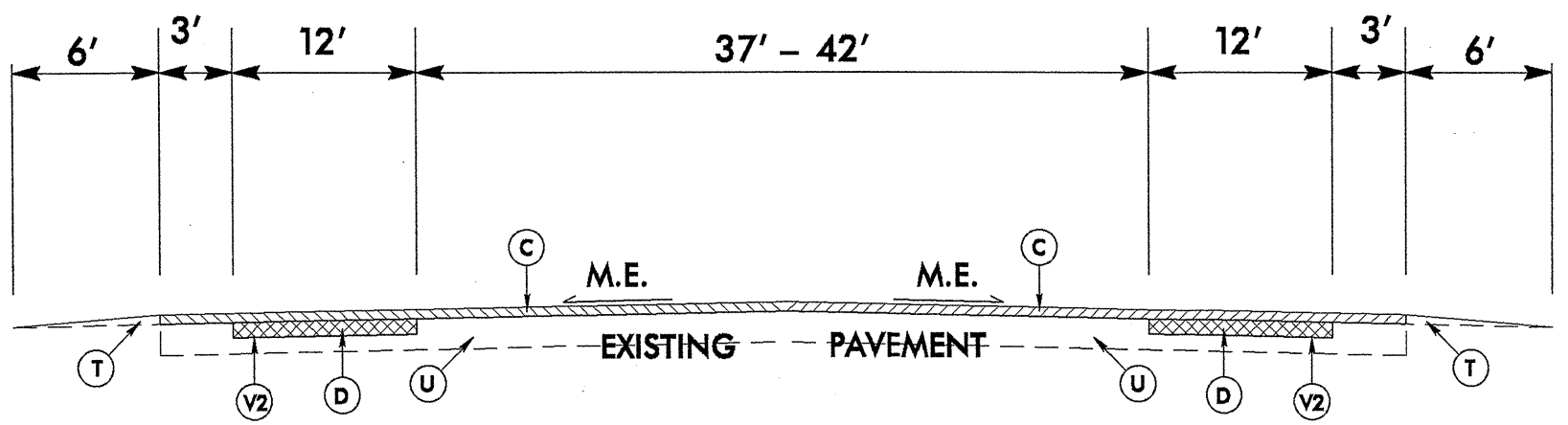
MAP NO. 4
US 117 S.B.L.
MP 0.00 TO MP 0.08

PAVEMENT SCHEDULE			
C	PROP. APPROX. 1 1/2" DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE 90.08, AT AN AVERAGE RATE OF 188 LBS. PER SQ. YD.	R2	EXISTING CONC. ISLAND
C1	PROP. APPROX. 2" DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE 90.08, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.	T	EARTH MATERIAL (SHOULDER RECONSTRUCTION)
D	PROP. APPROX. 2 1/2" DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.08, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.	U	EXISTING PAVEMENT.
E	PROP. APPROX. 5 1/2" DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.08, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD.	V	MILLING BITUMINOUS PAVEMENT. 1 1/2" DEPTH.
R	EXISTING 2'-0" CURB & GUTTER	V1	MILLING BITUMINOUS PAVEMENT. 2" DEPTH.
R1	EXISTING 2'-0" CURB & GUTTER	V2	MILLING BITUMINOUS PAVEMENT. 2 1/2" DEPTH.

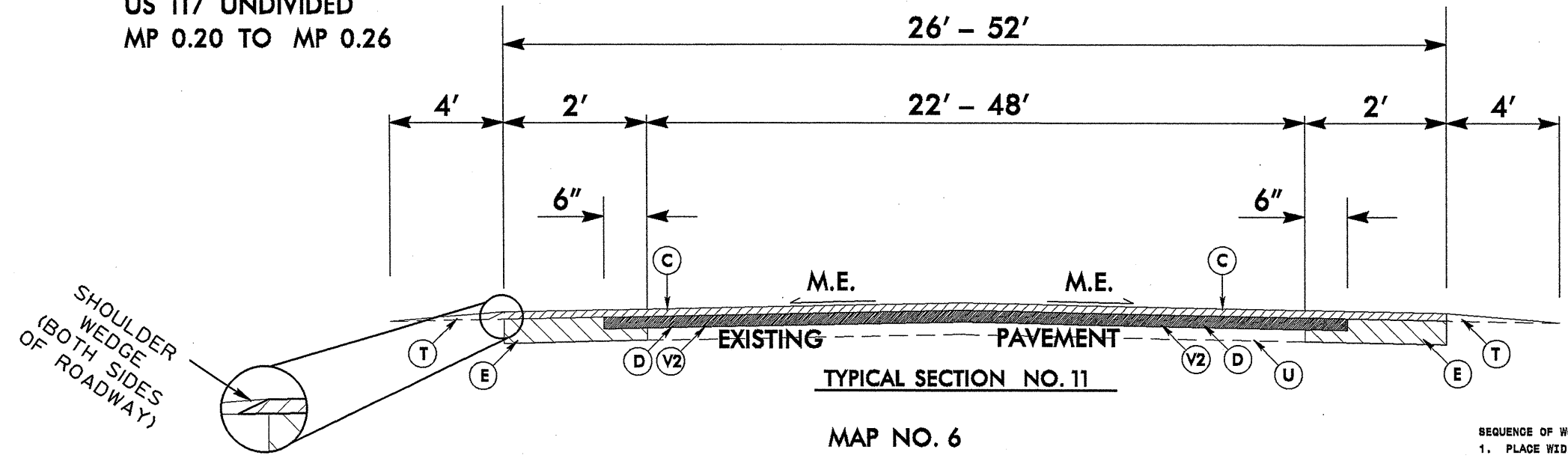
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.
SEE STD. DRAWING 1205.01, SHEET 2 OF 2, TABLE 1 FOR EDGE LINE OFFSETS.
M.E. = MATCH EXISTING

REVISIONS

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 11/15/15



TYPICAL SECTION NO. 10
MAP NO. 5
US 117 UNDIVIDED
MP 0.20 TO MP 0.26



TYPICAL SECTION NO. 11
MAP NO. 6
US 13
MP 0.00 TO MP 7.21
A SHOULDER WEDGE IS REQUIRED ON MAP NO. 6.
SEE SPECIAL PROVISION.

- SEQUENCE OF WORK:**
1. PLACE WIDENING FLUSH.
 2. MILL AS SHOWN.
 3. PLACE INTERMEDIATE CORSE.
 4. RESURFACE ENTIRE ROADWAY.

PAVEMENT SCHEDULE			
C	PROP. APPROX. 1 1/2" DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE 80.8B, AT AN AVERAGE RATE OF 188 LBS. PER SQ. YD.	R2	EXISTING CONC. ISLAND
C1	PROP. APPROX. 2" DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE 80.8B, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.	T	EARTH MATERIAL (SHOULDER RECONSTRUCTION)
D	PROP. APPROX. 2 1/2" DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 119.0B, AT AN AVERAGE RATE OF 288 LBS. PER SQ. YD.	U	EXISTING PAVEMENT.
E	PROP. APPROX. 5 1/2" DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 827 LBS. PER SQ. YD.	V	MILLING BITUMINOUS PAVEMENT. 1 1/2" DEPTH.
R	EXISTING 2'-0" CURB & GUTTER	V1	MILLING BITUMINOUS PAVEMENT. 2" DEPTH.
R1	EXISTING 2'-0" CURB & GUTTER	V2	MILLING BITUMINOUS PAVEMENT. 2 1/2" DEPTH.

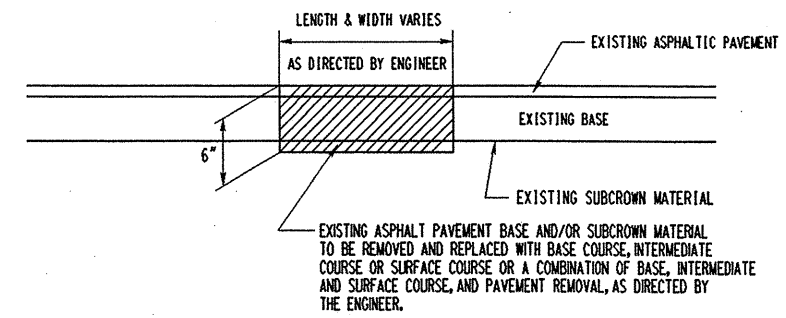
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.
 SEE STD. DRAWING 1205.01, SHEET 2 OF 2, TABLE 1 FOR EDGE LINE OFFSETS.
 M.E. = MATCH EXISTING

REVISIONS

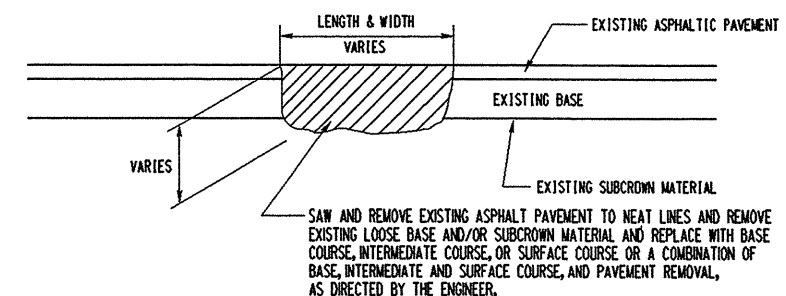
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PROJECT REFERENCE NO. 3CR.10811.115, ETC.	SHEET NO. 7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

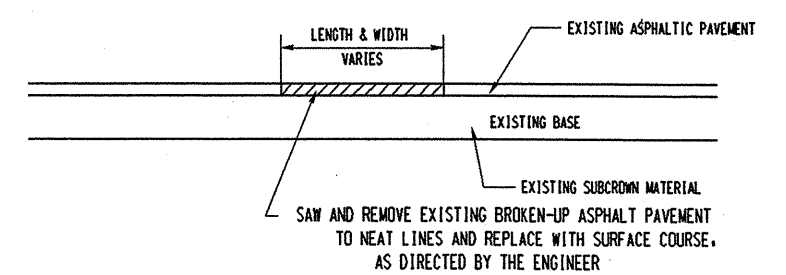
DETAILS OF PATCHING EXISTING PAVEMENT PRIOR TO RESURFACING FOR FULL DEPTH AND MILLING



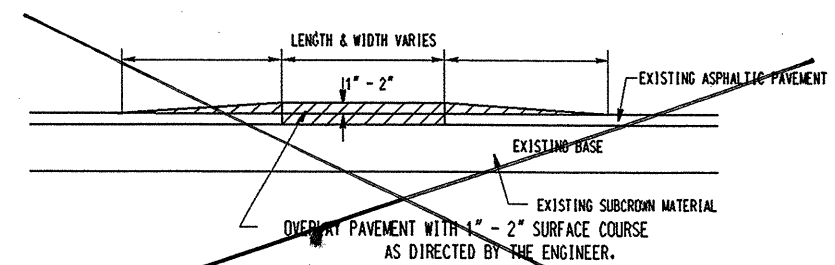
DETAIL NO. 1



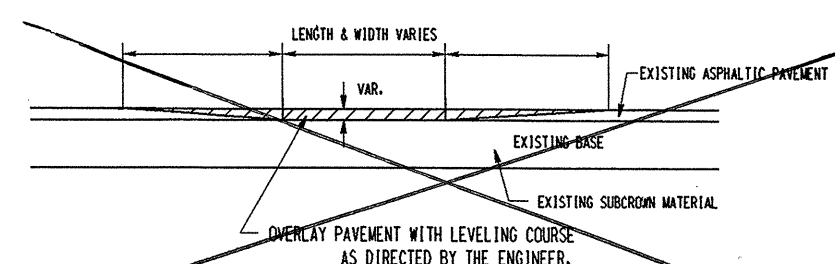
DETAIL NO. 2



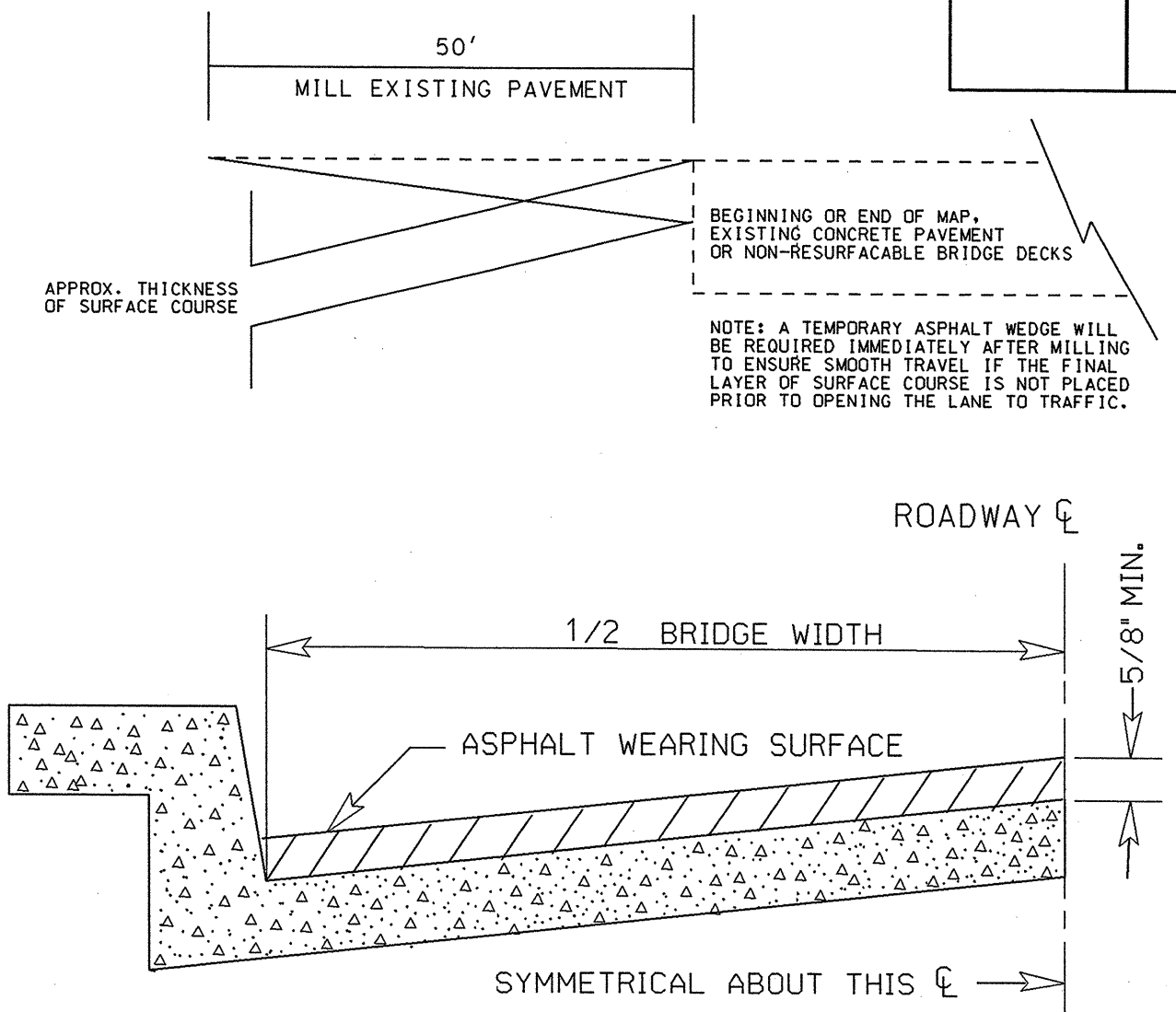
DETAIL NO. 3



DETAIL NO. 4



DETAIL NO. 5



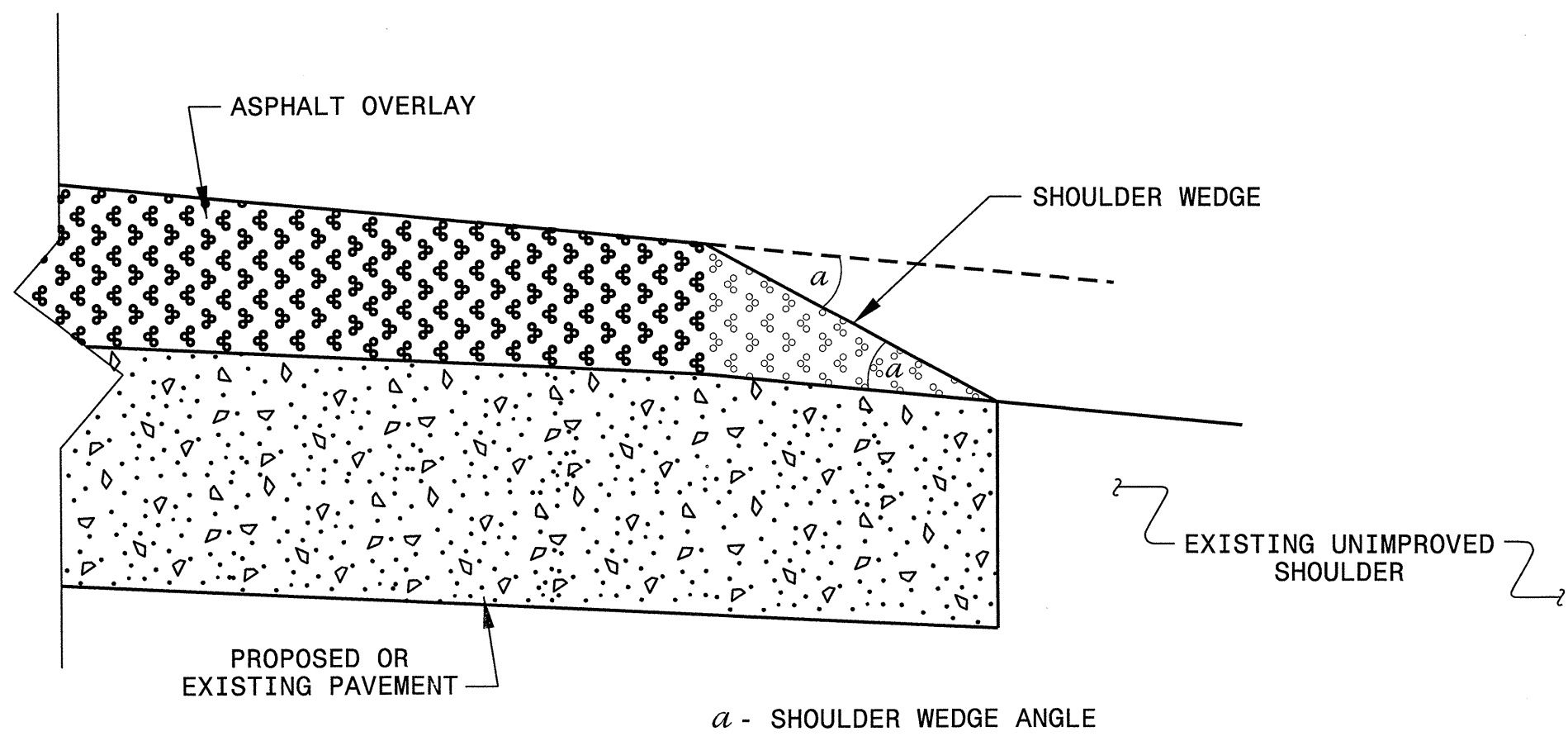
BRIDGE HALF TYPICAL SECTION

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

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

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REVISIONS



SHOULDER WEDGE DETAIL

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 \$\$\$SUBERNAME\$\$\$

CONTRACT STANDARDS AND DEVELOPMENT UNIT			
Office 919-707-6950		FAX 919-250-4119	
SHOULDER WEDGE DETAIL			
ORIGINAL BY: T.SPELL	DATE: 7-19-11		
MODIFIED BY:	DATE:		
CHECKED BY:	DATE:		
FILE SPEC.: s:\usr\details\stand\shoulderwedgedetail.dgn			

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYPE	FINAL SURFACE TESTING REQUIRED	LENGTH MI	WIDTH FT	2'-0" CURB & GUTTER, REMOVE AND REPLACE LF	BORROW EXC. CY	REMOVE & REPLACE SIDEWALK SY	REMOVE ASPHALT ISLAND SY	INC. STONE BASE TONS	SHOULDER RECONST. SMI	1 1/2" MILLING SY	2 1/2" MILLING SY	2" MILLING SY	INC. MILLING SY	BASE COURSE, B25.0B TONS	INT. COURSE, I19.0B TONS	SURFACE COURSE, S9.5B TONS	ASPHALT BINDER FOR PLANT MIX TON	PATCHING EXISTING PAVEMENT (MILL), S9.5B TON	PATCHING EXISTING PAVEMENT (FULL DEPTH) TON	4" CONCRETE SIDEWALK SY	RETROFIT EXISTING CURB RAMPS EA	CONCRETE CURB RAMPS EA	5" MONOLITHIC CONCRETE ISLANDS(SURFACE MOUNTED) SY	INC. CONC SY	2'-6" CURB & GUTTER, REMOVE AND REPLACE LF	REMOVE AND REPLACE CURB RAMPS EA	ADJ. OF MANHOLES EA	ADJ. OF METER OR VALVE BOX EA	GR ANCHOR UNITS, TYPE 350 EA	TEMP. SILT FENCE LF	STONE FOR EC CLASS B TON				
3CR.10311.115	Duplin	1	NC 41	SR 1165 (S. ROCKFISH ST.) TO 0.28 MI. EAST OF I-40, 20 NON-SYSTEM INTERSECTIONS	1	NO	0	25	210		85		100					2,300			200	12	400	200			14		75	850	19	28	40	2	380	95				
				MILL & FILL, FULL WIDTH 43' (MP 0.00-0.28, 0.47-0.56)	1	NO	0.37	43							9,334	7,163				1,130	904	108																		
				MILL & FILL, FULL WIDTH 44' (MP 0.28-0.47, 0.94-1.37, 1.39-1.60)	2	NO	0.83	44							21,425	428				70	2,076	128																		
				MILL & FILL, FULL WIDTH 37' (MP 0.56-0.81)	1	NO	0.25	37							5,427	3,960				626	526	62																		
				MILL & FILL, FULL WIDTH 25' (MP 0.81-0.85)	3	NO	0.04	25							587	587				93	57	8																		
				MILL & FILL, FULL WIDTH 27' (MP 0.85-0.86, 0.89-0.92)	4	NO	0.04	27							634	634				100	61	8																		
				MILL & FILL, FULL WIDTH 33' (MP 0.86-0.89)	1	NO	0.03	33							581	440				70	56	7																		
				MILL & FILL, FULL WIDTH 27' (MP 0.92-0.94)	2	NO	0.02	27							317	317				50	31	4																		
				NO WORK (MP 1.37-1.39)	1	NO	0.02	1																																
				MILL & FILL, WIDEN FROM 41' TO 45' (MP 1.60-1.62)	5	NO	0.02	45			13			0.04	493				17		97	7																		
				MILL & FILL, WIDEN IN VARIOUS TAPERS (MP 1.62-1.64, 1.77-1.83, 1.93-1.95, 2.03-2.06)	5	NO	0.13	44			83			0.26	3,432				112		650	44																		
				MILL & FILL, WIDEN FROM 51' TO 55' (MP 1.64-1.65, 1.70-1.77, 1.95-2.00, 2.01-2.03, 2.10-2.15)	5	NO	0.2	55			127			0.40	6,101				172		1,190	79																		
				MILL & FILL, WIDEN FROM 62' TO 66' (MP 1.65-1.70)	5	NO	0.05	66			32			0.10	1,848				43		358	23																		
				MILL & FILL, WIDEN FROM 36' TO 40' (MP 1.83-1.93, 2.06-2.07)	5	NO	0.11	40			70			0.22	2,388				95		489	34																		
				MILL & FILL, WIDEN FROM 64' TO 68' (MP 2.00-2.01)	5	NO	0.01	68			6			0.02	381				9		74	5																		
				MILL & FILL, WIDEN IN TAPER 35'-40' TO 39'-44' (MP 2.07-2.08)	5	NO	0.01	41.5			6			0.02	226				9		45	3																		
				MILL & FILL, WIDEN IN TAPER 46'-51' TO 50'-55' (MP 2.08-2.10)	5	NO	0.02	52.5			13			0.04	581				17		117	8																		
				MILL & FILL, WIDEN IN TAPER 51'-23' TO 55'-27' (MP 2.15-2.25)	5	NO	0.1	41			64			0.20	2,229				86		456	31																		
				MILL & FILL, WIDEN FROM 23' TO 27' (MP 2.25-3.39)	5	NO	1.14	27			725			2.28	16,051				982		3,428	249																		
				MILL & FILL, WIDEN IN TAPER 23'-34' TO 27'-38' (MP 3.39-3.40)	5	NO	0.01	32.5			6			0.02	173				9		36	3																		
				MILL & FILL, TAPER 34'-51' (MP 3.40-3.43), FULL WIDTH (3.47-3.64)	6	NO	0.2	42.5			127			0.40						483	29																			
				MILL & FILL, FULL WIDTH 51' (MP 3.43-3.47, 3.64-3.65)	6	NO	0.05	51			32			0.10						145	9																			
				MILL & FILL, TAPER 51'-37' (MP 3.65-3.70)	6	NO	0.05	44			32			0.10						125	8																			
				MILL & FILL, FULL WIDTH 37' (MP 3.70-3.76)	6	NO	0.06	37			38			0.12						126	8																			
				MILL & FILL, TAPER 37'-30' (MP 3.76-3.82)	6	NO	0.06	33.5			38			0.12						114	7																			
TOTAL FOR MAP NO. 1							3.82		210	1,412	85		100	4.44	72,208	13,529		2,300	1,551	2,139	11,844	884	400	200		3	14		75	850	19	28	40	2	380	95				
3CR.10311.115	Duplin	2	NC 50 / NC 403	0.54 MI. WEST OF US 117 (BEGIN C&G) TO 0.02 MI. WEST OF US 117 (PAVEMENT JOINT), 13 NON-SYSTEM INTERSECTIONS, FULL WIDTH 44'	7	NO	0.52	44												1,845	111	50	25	60	10	9														
TOTAL FOR MAP NO. 2							0.52															1,845	111	50	25	60	10	9												
3CR.10311.115	Duplin	3	US 117 N.B.L.	0.21 MI. SOUTH OF SR 1317 (TRADE ST.) TO 0.04 MI. SOUTH OF US 117 CONNECTOR, FULL WIDTH 30' (MP 0.00-0.20)	8	NO	0.2	30			127			0.40	1,408					225	341	31	40														90	23		
				FULL WIDTH 29' (MP 0.26-0.33)	9	NO	0.07	29			22			0.14	493					79	116	11	40														90	23		
TOTAL FOR MAP NO. 3							0.27				149			0.54	1,901				350	304	457	42	80																	
3CR.10311.115	Duplin	4	US 117 S.B.L.	0.04 MI. SOUTH OF US 117 CONNECTOR TO 0.021 MI. SOUTH OF SR 1317 (TRADE ST.), FULL WIDTH 29' (MP 0.00-0.08)	9	NO	0.08	29			25			0.16	563					90	132	12	75														28	7		
				FULL WIDTH 30' (MP 0.13-0.33)	8	NO	0.2	30			127			0.40	1,408					225	341	31	40																	
TOTAL FOR MAP NO. 4							0.28				152			0.56	1,971				350	315	473	43	75																28	7
3CR.10311.115	Duplin	5	US 117 UNDIVIDED	END DIVIDED HWY TO BEGIN DIVIDED HWY., TAPER 72'-67' (MP 0.20-0.26)	10	NO	0.06	69.5			38			0.12	845					134	237	21	30													6	2			
TOTAL FOR MAP NO. 5							0.06				38			0.12	845								134	237	21	30													6	2
TOTAL FOR PROJ NO. 3CR.10311.115							4.95		210	1,751	85		100	5.66	72,208	18,246	13,423	4,235	1,551	2,892	14,856	1,101	635	225	60	13	23			75	900	19	37	44	2	504	127			
3CR.10821.115	Sampson	6	US 13	SR 1648 TO US 421		YES	0	12				200	450									150	25													719	180			
				WIDEN FROM 22' TO 26' (MP 0.00-1.44, 1.69-3.09, 3.30-4.28, 4.53-6.07, 6.33-7.21)	11	YES	6.24	26			2,646			12.48		84,198				5,372	13,318	9,239	1,430																	
				WIDEN THRU TAPER 22'-48' TO 26'-52' (MP 1.44-1.54, 1.60-1.69, 6.07-6.17, 6.23-6.33)	11	YES	0.39	39			165			0.78	8,237					336	1,299	865	129																	
				WIDEN FROM 48' TO 52' (MP 1.54-1.60, 6.17-6.23)	11	YES	0.12	52			51			0.24	3,450					103	543	354	52																	
				WIDEN THRU TAPER 22'-36' TO 26'-40' (MP 3.09-3.15, 3.24-3.30, 4.28-4.35, 4.46-4.53)	11	YES	0.26	33			110			0.52	4,576					224	722	488	74																	
				WIDEN FROM 36' TO 40' (MP 3.15-3.24, 4.35-4.46)	11	YES	0.2	40			85																													

SUMMARY OF QUANTITIES

PROJECT NO.	COUNTY	MAP NO.	ROUTE	DESCRIPTION	TYP	FINAL SURFACE TESTING REQUIRED	LENGTH MI	WIDTH FT	SEDIMENT CONTROL STONE TON	TEMP. MULCHING ACR	MATTING (EROSION CONTROL) SY	1/4" HARDWARE CLOTH LF	WATTLE LF	SEED & MULCHING AC	SEED FOR REPAIR SEEDING LB	FERTILIZER FOR REPAIR SEEDING TON	JUNCTION BOX (STANDARD SIZE) EA	INDUCTIVE LOOP LF	LEAD-IN CABLE (14-2) LF
3CR.10311.115	Duplin	1	NC 41	SR 1165 (S. ROCKFISH ST.) TO 0.28 MI. EAST OF I-40, 20 NON-SYSTEM INTERSECTIONS	1	NO	0	25	95	3.80	30	190	60	3.32	190	0.95	5	1,650	3,300
		"	"	MILL & FILL, FULL WIDTH 43' (MP 0.00-0.28, 0.47-0.56)	1	NO	0.37	43											
		"	"	MILL & FILL, FULL WIDTH 44' (MP 0.28-0.47, 0.94-1.37, 1.39-1.60)	2	NO	0.83	44											
		"	"	MILL & FILL, FULL WIDTH 37' (MP 0.56-0.81)	1	NO	0.25	37											
		"	"	MILL & FILL, FULL WIDTH 25' (MP 0.81-0.85)	3	NO	0.04	25											
		"	"	MILL & FILL, FULL WIDTH 27' (MP 0.85-0.86, 0.89-0.92)	4	NO	0.04	27											
		"	"	MILL & FILL, FULL WIDTH 33' (MP 0.86-0.89)	1	NO	0.03	33											
		"	"	MILL & FILL, FULL WIDTH 27' (MP 0.92-0.94)	2	NO	0.02	27											
		"	"	NO WORK (MP 1.37-1.39)		NO	0.02	1											
		"	"	MILL & FILL, WIDEN FROM 41' TO 45' (MP 1.60-1.62)	5	NO	0.02	45											
		"	"	MILL & FILL, WIDEN IN VARIOUS TAPERS (MP 1.62-1.64, 1.77-1.83, 1.93-1.95, 2.03-2.06)	5	NO	0.13	44											
		"	"	MILL & FILL, WIDEN FROM 51' TO 55' (MP 1.64-1.65, 1.70-1.77, 1.95-2.00, 2.01-2.03, 2.10-2.15)	5	NO	0.2	55											
		"	"	MILL & FILL, WIDEN FROM 62' TO 66' (MP 1.65-1.70)	5	NO	0.05	66											
		"	"	MILL & FILL, WIDEN FROM 36' TO 40' (MP 1.83-1.93, 2.06-2.07)	5	NO	0.11	40											
		"	"	MILL & FILL, WIDEN FROM 64' TO 68' (MP 2.00-2.01)	5	NO	0.01	68											
		"	"	MILL & FILL, WIDEN IN TAPER 35'-40' TO 39'-44' (MP 2.07-2.08)	5	NO	0.01	41.5											
		"	"	MILL & FILL, WIDEN IN TAPER 46'-51' TO 50'-55' (MP 2.08-2.10)	5	NO	0.02	52.5											
		"	"	MILL & FILL, WIDEN IN TAPER 51'-23' TO 55'-27' (MP 2.15-2.25)	5	NO	0.1	41											
		"	"	MILL & FILL, WIDEN FROM 23' TO 27' (MP 2.25-3.39)	5	NO	1.14	27											
		"	"	MILL & FILL, WIDEN IN TAPER 23'-34' TO 27'-38' (MP 3.39-3.40)	5	NO	0.01	32.5											
		"	"	MILL & FILL, TAPER 34'-51' (MP 3.40-3.43), FULL WIDTH (3.47-3.64)	6	NO	0.2	42.5											
		"	"	MILL & FILL, FULL WIDTH 51' (MP 3.43-3.47, 3.64-3.65)	6	NO	0.05	51											
		"	"	MILL & FILL, TAPER 51'-37' (MP 3.65-3.70)	6	NO	0.05	44											
		"	"	MILL & FILL, FULL WIDTH 37' (MP 3.70-3.76)	6	NO	0.06	37											
		"	"	MILL & FILL, TAPER 37'-30' (MP 3.76-3.82)	6	NO	0.06	33.5											
TOTAL FOR MAP NO. 1							3.82		95	3.80	30	190	60	3.32	190	0.95	5	1,650	3,300
3CR.10311.115	Duplin	2	NC 50 / NC 403	0.54 MI. WEST OF US 117 (BEGIN C&G) TO 0.02 MI. WEST OF US 117 (PAVEMENT JOINT), 13 NON-SYSTEM INTERSECTIONS, FULL WIDTH 44'	7	NO	0.52	44											
TOTAL FOR MAP NO. 2							0.52												
3CR.10311.115	Duplin	3	US 117 N.B.L.	0.21 MI. SOUTH OF SR 1317 (TRADE ST.) TO 0.04 MI. SOUTH OF US 117 CONNECTOR, FULL WIDTH 30' (MP 0.00-0.20)	8	NO	0.2	30	23	0.90	10	45	20	0.39	45	0.23		200	50
		"	"	FULL WIDTH 29' (MP 0.26-0.33)	9	NO	0.07	29											
TOTAL FOR MAP NO. 3							0.27		23	0.90	10	45	20	0.39	45	0.23		200	50
3CR.10311.115	Duplin	4	US 117 S.B.L.	0.04 MI. SOUTH OF US 117 CONNECTOR TO 0.021 MI. SOUTH OF SR 1317 (TRADE ST.), FULL WIDTH 29' (MP 0.00-0.08)	9	NO	0.08	29	7	0.28	10	14	10	0.41	14	0.07			
		"	"	FULL WIDTH 30' (MP 0.13-0.33)	8	NO	0.2	30											
TOTAL FOR MAP NO. 4							0.28		7	0.28	10	14	10	0.41	14	0.07			
3CR.10311.115	Duplin	5	US 117 UNDIVIDED	END DIVIDED HWY TO BEGIN DIVIDED HWY., TAPER 72'-67' (MP 0.20-0.26)	10	NO	0.06	69.5	2	0.06	10	10	10	0.09	3	0.02			
TOTAL FOR MAP NO. 5							0.06		2	0.06	10	10	10	0.09	3	0.02			
TOTAL FOR PROJ NO. 3CR.10311.115							4.95		127	5.04	60	259	100	4.21	252	1.27	5	1,850	3,350
3CR.10821.115	Sampson	6	US 13	SR 1648 TO US 421		YES	0	12	180	7.19	50	360	110	10.50	360	1.80		170	75
		"	"	WIDEN FROM 22' TO 26' (MP 0.00-1.44, 1.69-3.09, 3.30-4.28, 4.53-6.07, 6.33-7.21)	11	YES	6.24	26											
		"	"	WIDEN THRU TAPER 22'-48' TO 26'-52' (MP 1.44-1.54, 1.60-1.69, 6.07-6.17, 6.23-6.33)	11	YES	0.39	39											
		"	"	WIDEN FROM 48' TO 52' (MP 1.54-1.60, 6.17-6.23)	11	YES	0.12	52											
		"	"	WIDEN THRU TAPER 22'-36' TO 26'-40' (MP 3.09-3.15, 3.24-3.30, 4.28-4.35, 4.46-4.53)	11	YES	0.26	33											
		"	"	WIDEN FROM 36' TO 40' (MP 3.15-3.24, 4.35-4.46)	11	YES	0.2	40											
TOTAL FOR MAP NO. 6							7.21		180	7.19	50	360	110	10.50	360	1.80		170	75
TOTAL FOR PROJ NO. 3CR.10821.115							7.21		180	7.19	50	360	110	10.50	360	1.80		170	75
GRAND TOTAL							12.16		307	12.23	110	619	210	14.71	612	3.07	5	2,020	3,425

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	LENGTH	WIDTH	441500000-N	442000000-N	448000000-N	468500000-E		468600000-E		469500000-E	469700000-E	470500000-E	472100000-E		472500000-E				481000000-E		482000000-E	483000000-E	483500000-E	484000000-N					
							FLASHING ARROW BOARD	PORTABLE CHANGEABLE MESSAGE SIGNS	TMA	4" X 90 M WHITE THERMO	4" X 90 M YELLOW THERMO	4" X 120 M WHITE THERMO	4" X 120 M YELLOW THERMO	8" X 90 M YELLOW THERMO	8" X 120 M WHITE THERMO	16" X 120 M WHITE THERMO	24" X 120 M WHITE THERMO	THERMO RXR 120 M	THERMO MSG ONLY 120 M	THERMO LT ARROW 90 M	THERMO STR & RT ARROW 90 M	THERMO STR ARROW 90 M	THERMO RT ARROW 90 M	THERMO STR & LT ARROW 90 M	4" WHITE PAINT	4" YELLOW PAINT	8" YELLOW PAINT	16" WHITE PAINT	24" WHITE PAINT	PAINT MSG RXR	PAINT MSG ONLY		
EA	EA	EA	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA					
3CR.10311.115	Duplin	1	NC 41	SR 1165 (S. ROCKFISH ST.) TO 0.28 MI. EAST OF I-40, 20 NON-SYSTEM INTERSECTIONS	0	25																											
				MILL & FILL, FULL WIDTH 43' (MP 0.00-0.28, 0.47-0.56)	0.37	43					4,168	3,907			50	135	2																
				MILL & FILL, FULL WIDTH 44' (MP 0.28-0.47, 0.94-1.37, 1.39-1.60)	0.83	44					10,956	17,530			50	73	2		5	5													
				MILL & FILL, FULL WIDTH 37' (MP 0.56-0.81)	0.25	37					2,640	3,300							6		6												
				MILL & FILL, FULL WIDTH 25' (MP 0.81-0.85)	0.04	25				422		422																					
				MILL & FILL, FULL WIDTH 27' (MP 0.85-0.86, 0.89-0.92)	0.04	27				211		422																					
				MILL & FILL, FULL WIDTH 33' (MP 0.86-0.89)	0.03	33						317																					
				MILL & FILL, FULL WIDTH 27' (MP 0.92-0.94)	0.02	27				106		211																					
				NO WORK (MP 1.37-1.39)	0.02	1																											
				MILL & FILL, WIDEN FROM 41' TO 45' (MP 1.60-1.62)	0.02	45				211		106	211						2		2												
				MILL & FILL, WIDEN IN VARIOUS TAPERS (MP 1.62-1.64, 1.77-1.83, 1.93-1.95, 2.03-2.06)	0.13	44				1,373		92	2,746	100																			
				MILL & FILL, WIDEN FROM 51' TO 55' (MP 1.64-1.65, 1.70-1.77, 1.95-2.00, 2.01-2.03, 2.10-2.15)	0.2	55					2,112		1,320	2,640					8		5	10											
				MILL & FILL, WIDEN FROM 62' TO 66' (MP 1.65-1.70)	0.05	66					528		70	528					4		1	3											
				MILL & FILL, WIDEN FROM 36' TO 40' (MP 1.83-1.93, 2.06-2.07)	0.11	40					1,162		2,323	200																			
				MILL & FILL, WIDEN FROM 64' TO 68' (MP 2.00-2.01)	0.01	68					53		53																				
				MILL & FILL, WIDEN IN TAPER 35'-40' TO 39'-44' (MP 2.07-2.08)	0.01	41.5					106		21	211																			
				MILL & FILL, WIDEN IN TAPER 46'-51' TO 50'-55' (MP 2.08-2.10)	0.02	52.5					211		28	422	100																		
				MILL & FILL, WIDEN IN TAPER 51'-23' TO 55'-27' (MP 2.15-2.25)	0.1	41					1,056		1,197	2,112	100				2		2	2											
				MILL & FILL, WIDEN FROM 23' TO 27' (MP 2.25-3.39)	1.14	27					12,038		12,038																				
				MILL & FILL, WIDEN IN TAPER 23'-34' TO 27'-38' (MP 3.39-3.40)	0.01	32.5					106		211																				
				MILL & FILL, TAPER 34'-51' (MP 3.40-3.43), FULL WIDTH (3.47-3.64)	0.2	42.5					2,112		1,056	4,224	100				3		5	2											
				MILL & FILL, FULL WIDTH 51' (MP 3.43-3.47, 3.64-3.65)	0.05	51					528		264	1,056	100				5		7	2											
				MILL & FILL, TAPER 51'-37' (MP 3.65-3.70)	0.05	44					528		1,056	100																			
				MILL & FILL, FULL WIDTH 37' (MP 3.70-3.76)	0.06	37					634		792						2														
				MILL & FILL, TAPER 37'-30' (MP 3.76-3.82)	0.06	33.5					634		1,267	100																			
TOTAL FOR MAP NO. 1					3.82						24,131		21,971	57,946	900				39	5	29	19											
3CR.10311.115	Duplin	2	NC 50 / NC 403	0.54 MI. WEST OF US 117 (BEGIN C&G) TO 0.02 MI. WEST OF US 117 (PAVEMENT JOINT), 13 NON-SYSTEM INTERSECTIONS, FULL WIDTH 44'	0.52	44							5,491	5,491																			
TOTAL FOR MAP NO. 2					0.52								5,491	5,491																			
3CR.10311.115	Duplin	3	US 117 N.B.L.	0.21 MI. SOUTH OF SR 1317 (TRADE ST.) TO 0.04 MI. SOUTH OF US 117 CONNECTOR, FULL WIDTH 30' (MP 0.00-0.20)	0.2	30	1	1	1	1,056	1,056	264								3	3												
				FULL WIDTH 29' (MP 0.26-0.33)	0.07	29					370	370	462	50							3	2											
TOTAL FOR MAP NO. 3					0.27		1	1	1	1,426	1,426	726			50						3	3	3	2									
3CR.10311.115	Duplin	4	US 117 S.B.L.	0.04 MI. SOUTH OF US 117 CONNECTOR TO 0.021 MI. SOUTH OF SR 1317 (TRADE ST.), FULL WIDTH 29' (MP 0.00-0.08)	0.08	29					422	422	106																				
				FULL WIDTH 30' (MP 0.13-0.33)	0.2	30					1,056	1,056	264																				
TOTAL FOR MAP NO. 4					0.28						1,478	1,478	370																				
3CR.10311.115	Duplin	5	US 117 UNDIVIDED	END DIVIDED HWY TO BEGIN DIVIDED HWY., TAPER 72'-67' (MP 0.20-0.26)	0.06	69.5					634		158	1,267					4	2													
TOTAL FOR MAP NO. 5					0.06						634		158	1,267						4	2												
TOTAL FOR PROJ NO. 3CR.10311.115					4.95		1	1	1	27,669	2,904	28,716	64,704	900	50	150	1,411	6	8	41	8	38	22	2			64,884	67,608	900	150	1,387	6	8
										30,573		93,420						14			111					132,492					14		
3CR.10821.115	Sampson	6	US 13	SR 1648 TO US 421	0	12																											
				WIDEN FROM 22' TO 26' (MP 0.00-1.44, 1.69-3.09, 3.30-4.28, 4.53-6.07, 6.33-7.21)	6.24	26					65,894		65,894																				
				WIDEN THRU TAPER 22'-48' TO 26'-52' (MP 1.44-1.54, 1.60-1.69, 6.07-6.17, 6.23-6.33)	0.39	39					4,118		275	8,237																			
				WIDEN FROM 48' TO 52' (MP 1.54-1.60, 6.17-6.23)	0.12	52					1,267		634	2,534					8		8	4											
				WIDEN THRU TAPER 22'-36' TO 26'-40' (MP 3.09-3.15, 3.24-3.30, 4.28-4.35, 4.46-4.53)	0.26	33					2,746		1,373	5,491	500																		
				WIDEN FROM 36' TO 40' (MP 3.15-3.24, 4.35-4.46)	0.2	40					2,112		1,056	2,112																			
TOTAL FOR MAP NO. 6					7.21						76,137		3,338	84,268	500					14		12	4										
TOTAL FOR PROJ NO. 3CR.10821.115					7.21						76,137		3,338	84,268	500					14		12	4										
										76,137		87,606																					
GRAND TOTAL					12.16		1	1	1	103,806	2,904	32,054	148,972	1,400	50	150	1,411	6	8	55	8	50	26	2			142,352	151,876	900	150	1,387	6	8
										106,710		181,026						14			141					294,228						14	

PROJECT NO.	SHEET NO.	TOTAL NO.
3CR.10311.115, 3CR.10821.115	12	

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	LENGTH	WIDTH	484500000-N					490500000-N				
							PAINT LT ARROW	PAINT STR ARROW	PAINT RT ARROW	PAINT STR & RT ARROW	PAINT STR & LT ARROW	SNOW PLOWABLE MARKERS (Y/Y) EA	SNOW PLOWABLE MARKERS (C/R) EA			
3CR.10311.115	Duplin	1	NC 41	SR 1165 (S. ROCKFISH ST.) TO 0.28 MI. EAST OF I-40, 20 NON-SYSTEM INTERSECTIONS	0	25										
		"	"	MILL & FILL, FULL WIDTH 43' (MP 0.00-0.28, 0.47-0.56)	0.37	43							24	65		
		"	"	MILL & FILL, FULL WIDTH 44' (MP 0.28-0.47, 0.94-1.37, 1.39-1.60)	0.83	44	5	5					110	110		
		"	"	MILL & FILL, FULL WIDTH 37' (MP 0.56-0.81)	0.25	37	6	6					66	132		
		"	"	MILL & FILL, FULL WIDTH 25' (MP 0.81-0.85)	0.04	25							3			
		"	"	MILL & FILL, FULL WIDTH 27' (MP 0.85-0.86, 0.89-0.92)	0.04	27							3			
		"	"	MILL & FILL, FULL WIDTH 33' (MP 0.86-0.89)	0.03	33							2			
		"	"	MILL & FILL, FULL WIDTH 27' (MP 0.92-0.94)	0.02	27							1			
		"	"	NO WORK (MP 1.37-1.39)	0.02	1										
		"	"	MILL & FILL, WIDEN FROM 41' TO 45' (MP 1.60-1.62)	0.02	45	2	2					1	5		
		"	"	MILL & FILL, WIDEN IN VARIOUS TAPERS (MP 1.62-1.64, 1.77-1.83, 1.93-1.95, 2.03-2.06)	0.13	44	2	1					17	23		
		"	"	MILL & FILL, WIDEN FROM 51' TO 55' (MP 1.64-1.65, 1.70-1.77, 1.95-2.00, 2.01-2.03, 2.10-2.15)	0.2	55	8	5	10				53	66		
		"	"	MILL & FILL, WIDEN FROM 62' TO 66' (MP 1.65-1.70)	0.05	66	4	1	3				3	18		
		"	"	MILL & FILL, WIDEN FROM 36' TO 40' (MP 1.83-1.93, 2.06-2.07)	0.11	40							15			
		"	"	MILL & FILL, WIDEN FROM 64' TO 68' (MP 2.00-2.01)	0.01	68								3		
		"	"	MILL & FILL, WIDEN IN TAPER 35'-40' TO 39'-44' (MP 2.07-2.08)	0.01	41.5							1	5		
		"	"	MILL & FILL, WIDEN IN TAPER 46'-51' TO 50'-55' (MP 2.08-2.10)	0.02	52.5							3	7		
		"	"	MILL & FILL, WIDEN IN TAPER 51'-23' TO 55'-27' (MP 2.15-2.25)	0.1	41	2	2	2				13	88		
		"	"	MILL & FILL, WIDEN FROM 23' TO 27' (MP 2.25-3.39)	1.14	27							150			
		"	"	MILL & FILL, WIDEN IN TAPER 23'-34' TO 27'-38' (MP 3.39-3.40)	0.01	32.5							1			
		"	"	MILL & FILL, TAPER 34'-51' (MP 3.40-3.43), FULL WIDTH (3.47-3.64)	0.2	42.5	3	5	2				26	53		
		"	"	MILL & FILL, FULL WIDTH 51' (MP 3.43-3.47, 3.64-3.65)	0.05	51	5	7	2				7	13		
		"	"	MILL & FILL, TAPER 51'-37' (MP 3.65-3.70)	0.05	44							7			
		"	"	MILL & FILL, FULL WIDTH 37' (MP 3.70-3.76)	0.06	37	2						16			
		"	"	MILL & FILL, TAPER 37'-30' (MP 3.76-3.82)	0.06	33.5							8			
TOTAL FOR MAP NO. 1					3.82		39	34	19				530	588		
3CR.10311.115	Duplin	2	NC 50 / NC 403	0.54 MI. WEST OF US 117 (BEGIN C&G) TO 0.02 MI. WEST OF US 117 (PAVEMENT JOINT), 13 NON-SYSTEM INTERSECTIONS, FULL WIDTH 44'	0.52	44							34			
TOTAL FOR MAP NO. 2					0.52								34			
3CR.10311.115	Duplin	3	US 117 N.B.L.	0.21 MI. SOUTH OF SR 1317 (TRADE ST.) TO 0.04 MI. SOUTH OF US 117 CONNECTOR, FULL WIDTH 30' (MP 0.00-0.20)	0.2	30		3		3					13	
		"	"	FULL WIDTH 29' (MP 0.26-0.33)	0.07	29			3		3	2			5	
TOTAL FOR MAP NO. 3					0.27			3	3	3		2			18	
3CR.10311.115	Duplin	4	US 117 S.B.L.	0.04 MI. SOUTH OF US 117 CONNECTOR TO 0.021 MI. SOUTH OF SR 1317 (TRADE ST.), FULL WIDTH 29' (MP 0.00-0.08)	0.08	29									5	
		"	"	FULL WIDTH 30' (MP 0.13-0.33)	0.2	30									13	
TOTAL FOR MAP NO. 4					0.28										18	
3CR.10311.115	Duplin	5	US 117 UNDIVIDED	END DIVIDED HWY TO BEGIN DIVIDED HWY., TAPER 72'-67' (MP 0.20-0.26)	0.06	69.5	2	6					8	8		
TOTAL FOR MAP NO. 5					0.06		2	6					8	8		
TOTAL FOR PROJ NO. 3CR.10311.115					4.95		41	43	22	3	2		572	632		
							111						1,204			
3CR.10821.115	Sampson	6	US 13	SR 1648 TO US 421	0	12										
		"	"	WIDEN FROM 22' TO 26' (MP 0.00-1.44, 1.69-3.09, 3.30-4.28, 4.53-6.07, 6.33-7.21)	6.24	26							412			
		"	"	WIDEN THRU TAPER 22'-48' TO 26'-52' (MP 1.44-1.54, 1.60-1.69, 6.07-6.17, 6.23-6.33)	0.39	39							51	68		
		"	"	WIDEN FROM 48' TO 52' (MP 1.54-1.60, 6.17-6.23)	0.12	52	8	8	4				16			
		"	"	WIDEN THRU TAPER 22'-36' TO 26'-40' (MP 3.09-3.15, 3.24-3.30, 4.28-4.35, 4.46-4.53)	0.26	33							34			
		"	"	WIDEN FROM 36' TO 40' (MP 3.15-3.24, 4.35-4.46)	0.2	40	6	4					13	53		
TOTAL FOR MAP NO. 6					7.21		14	12	4				526	121		
TOTAL FOR PROJ NO. 3CR.10821.115					7.21		14	12	4				526	121		
							30						647			
GRAND TOTAL					12.16		55	55	26	3	2		1,098	753		
							141						1,851			

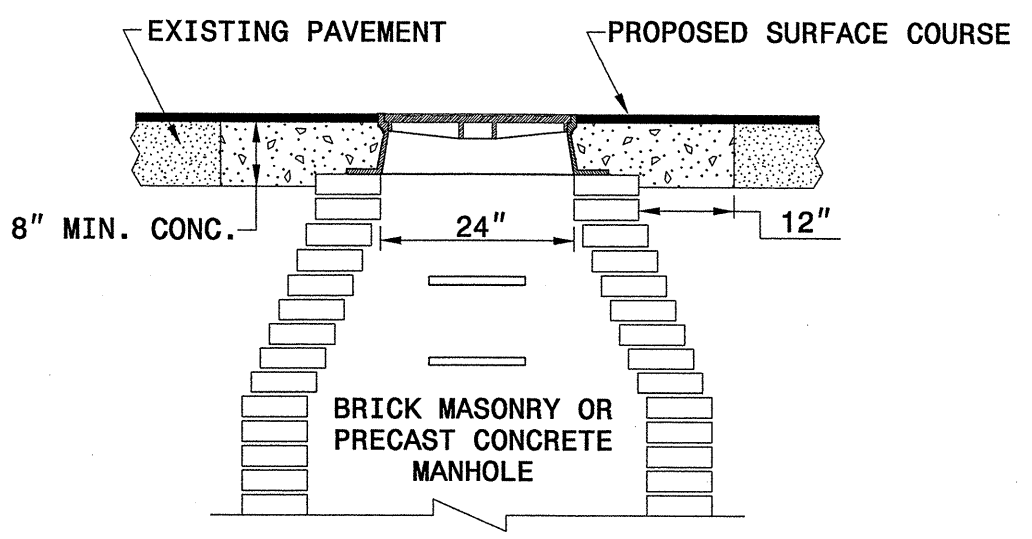
STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR
MANHOLE AND VALVE BOX ADJUSTMENTS

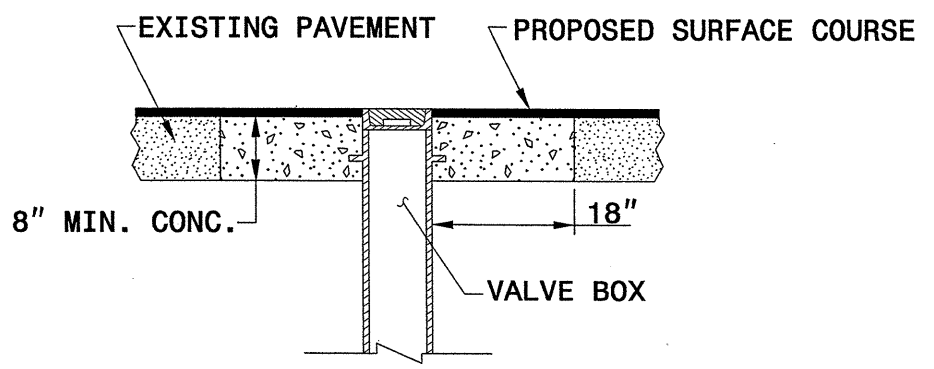
SHEET 1 OF 1
840D55

GENERAL NOTES:

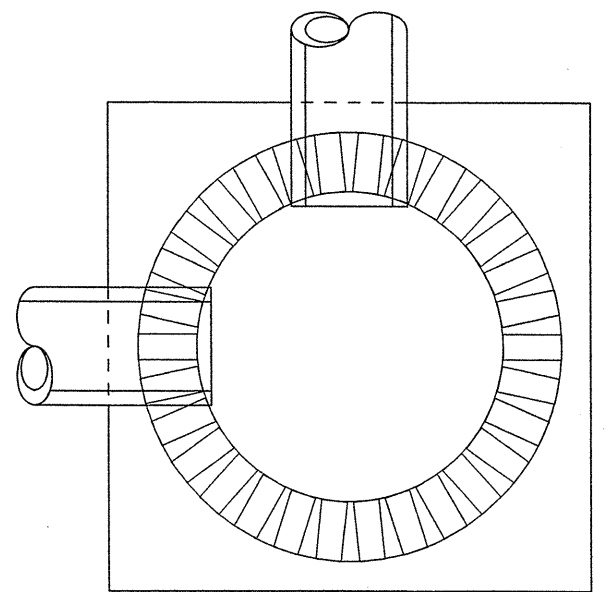
1. USE RAPID SET GROUT, MORTAR, OR CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI.
2. REMOVE ALL FAULTY EXISTING BRICKWORK AND REPLACE WITH NEW BRICK MASONRY.
3. SHEER CUT EXCAVATION FOR THE ADJUSTMENT ON ALL SIDES.
4. FILL AREA BELOW 8" DEPTH WITH 78M OR NO. 57 CLEAN STONE.
5. MIX MORTAR TO NCDOT SPECIFICATIONS.
6. MORTAR JOINTS 1/2" +/- 1/8"



MANHOLE CONCRETE ENCASEMENT



VALVE BOX CONCRETE ENCASEMENT



ELEVATION VIEW

PLACE BRICK ACCORDING TO ELEVATION VIEW

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

ENGLISH DETAIL DRAWING FOR
MANHOLE AND VALVE BOX ADJUSTMENTS

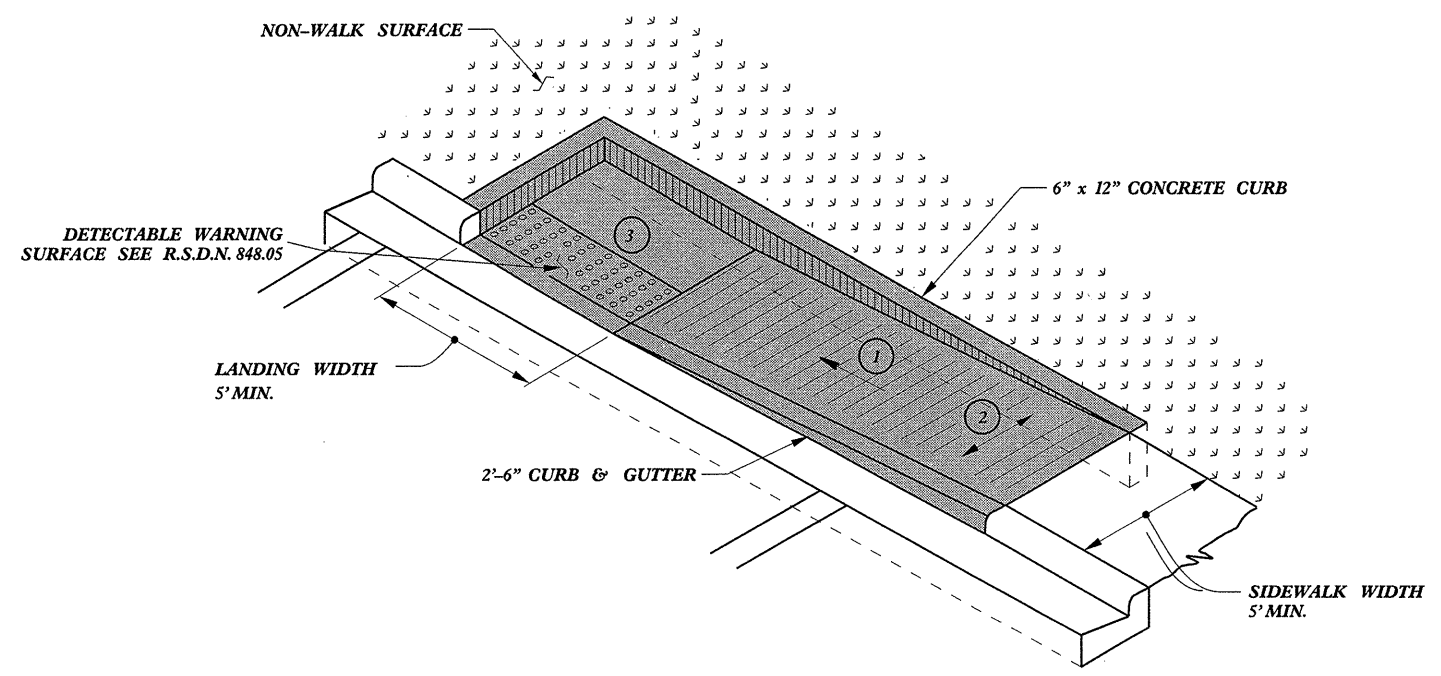
SHEET 1 OF 1
840D55

PROJECT SERVICES UNIT
STANDARDS AND SPECIAL DESIGN
Office 919-250-4128 FAX 919-250-4119

SEE PLATE FOR TITLE

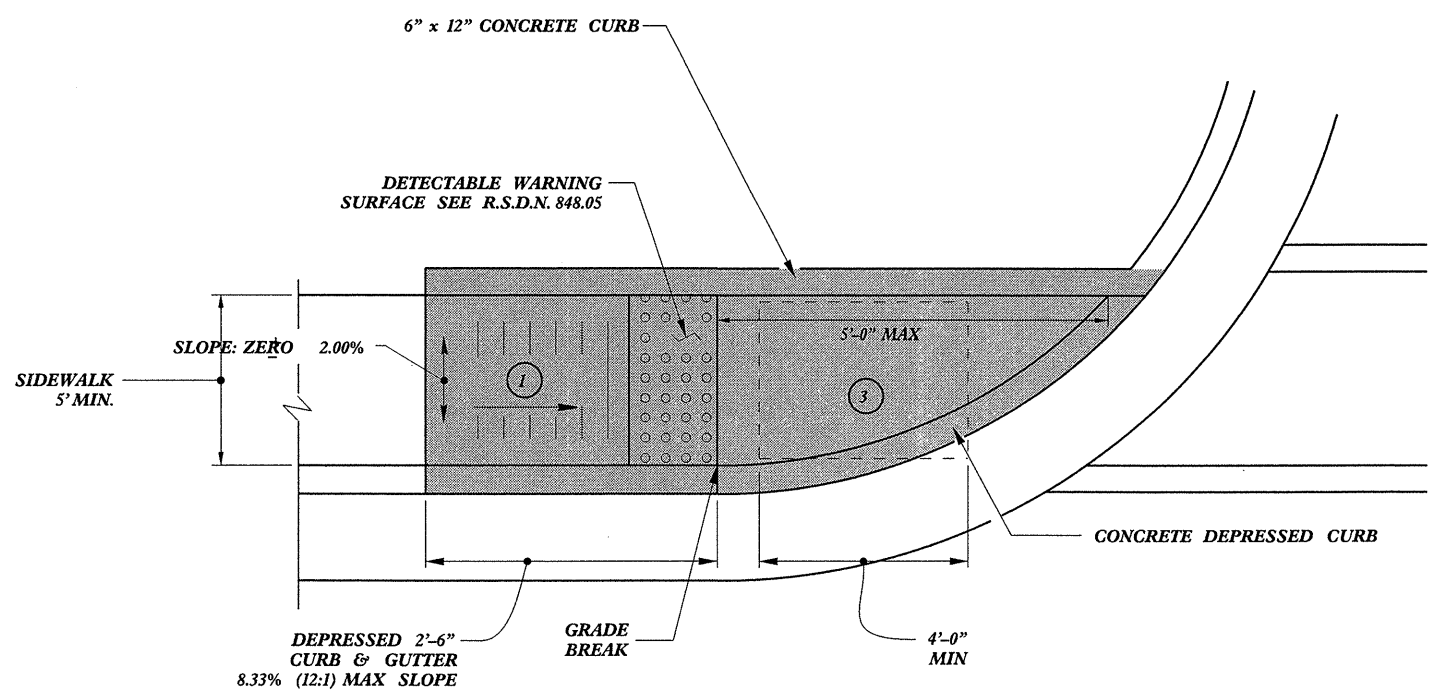
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MODIFIED BY: E.E. WARD DATE: _____
CHECKED BY: _____ DATE: _____
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TYPE 1A

PAY LIMITS FOR CURB RAMP



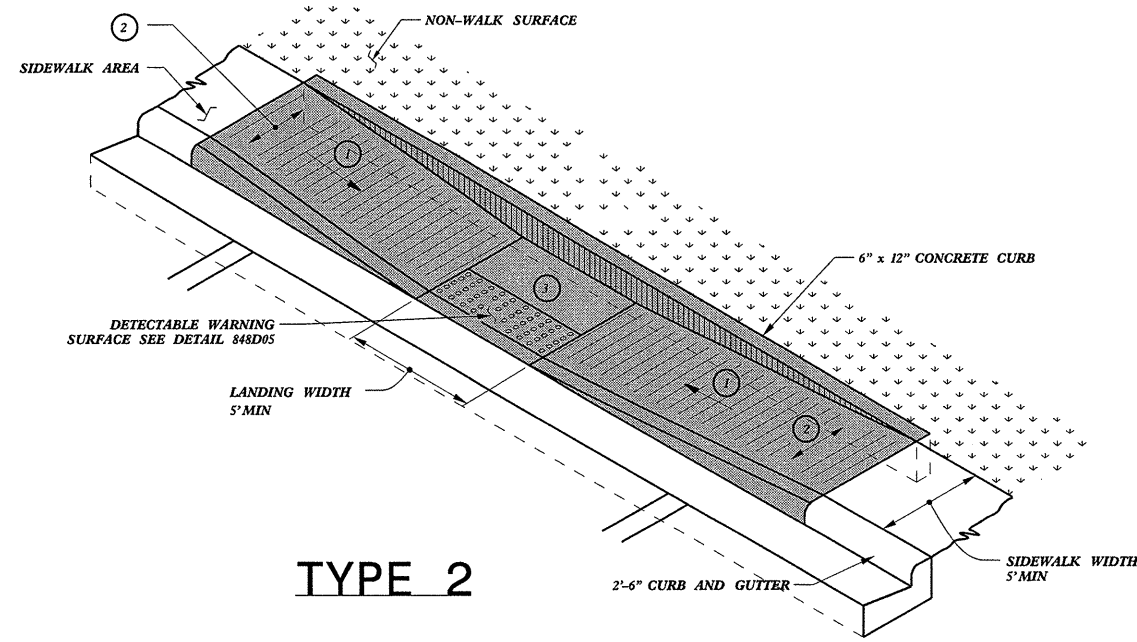
TYPE 1

- 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

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

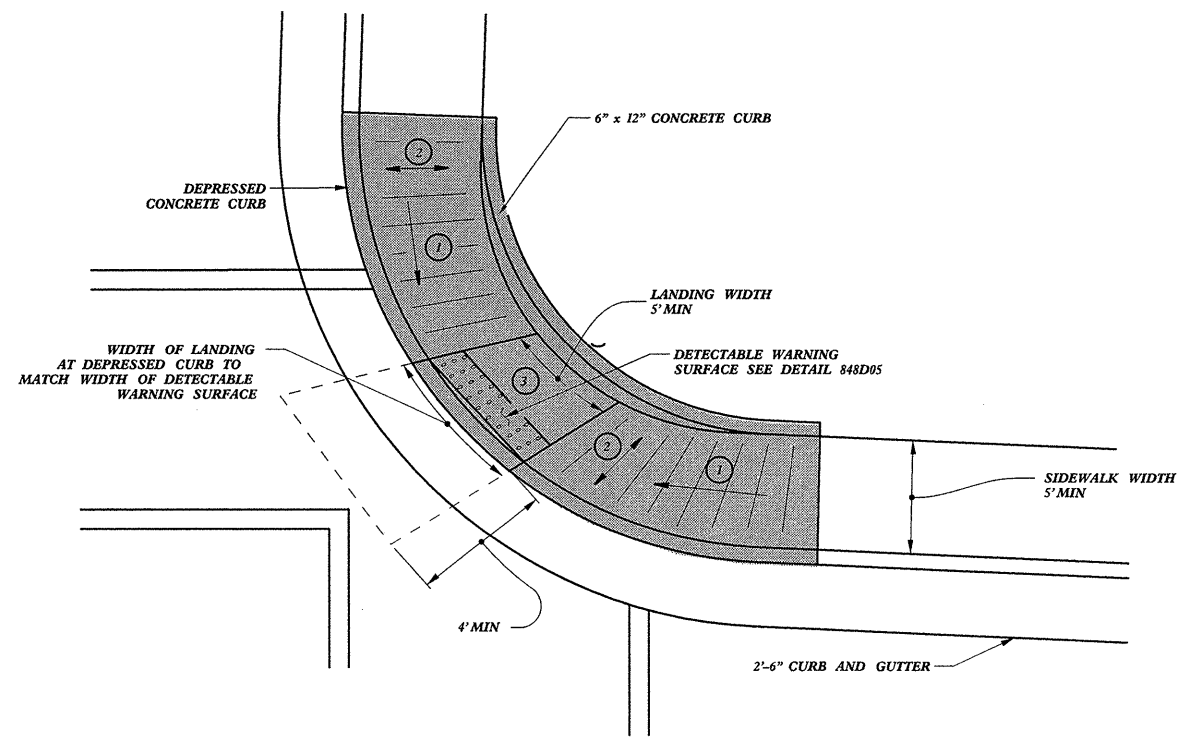
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 JHowerton



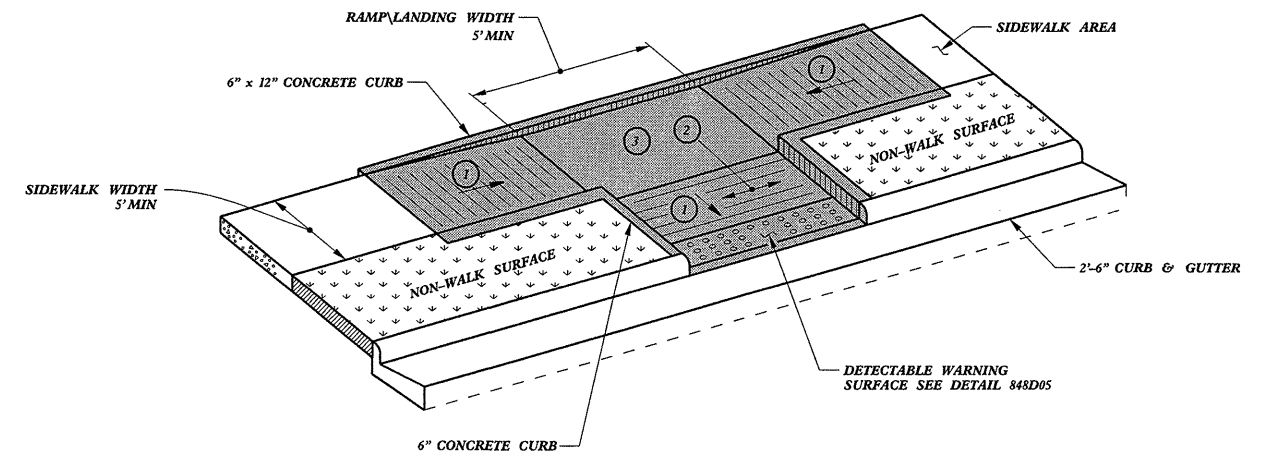
TYPE 2

 PAY LIMITS FOR CURB RAMP

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



TYPE 2A

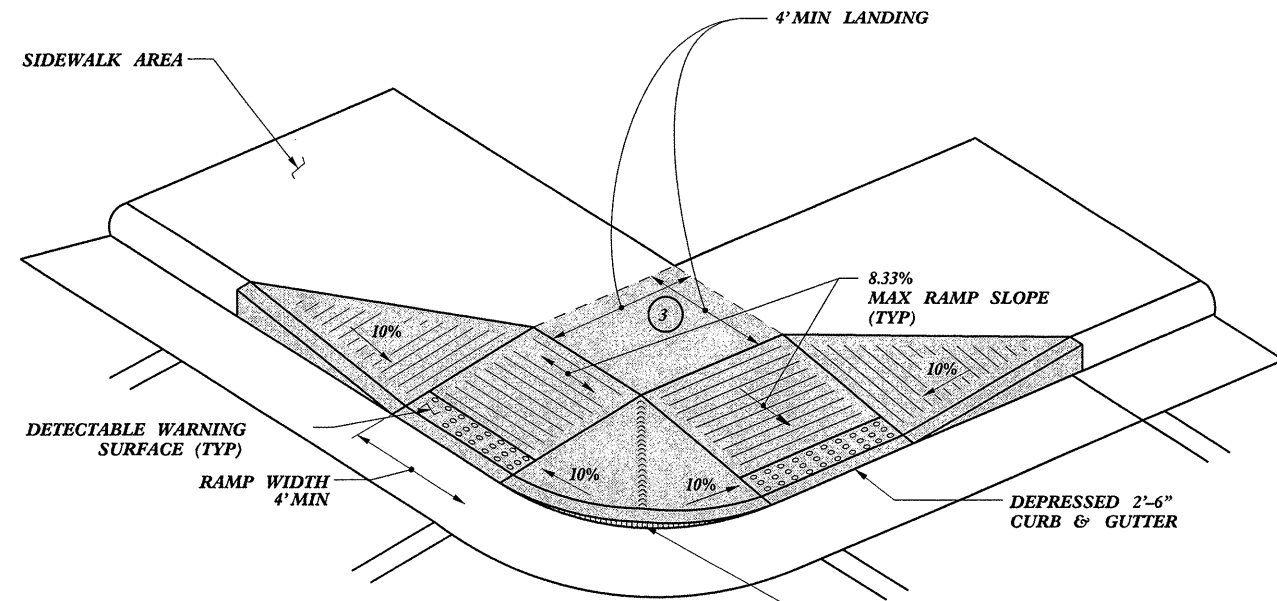


TYPE 3

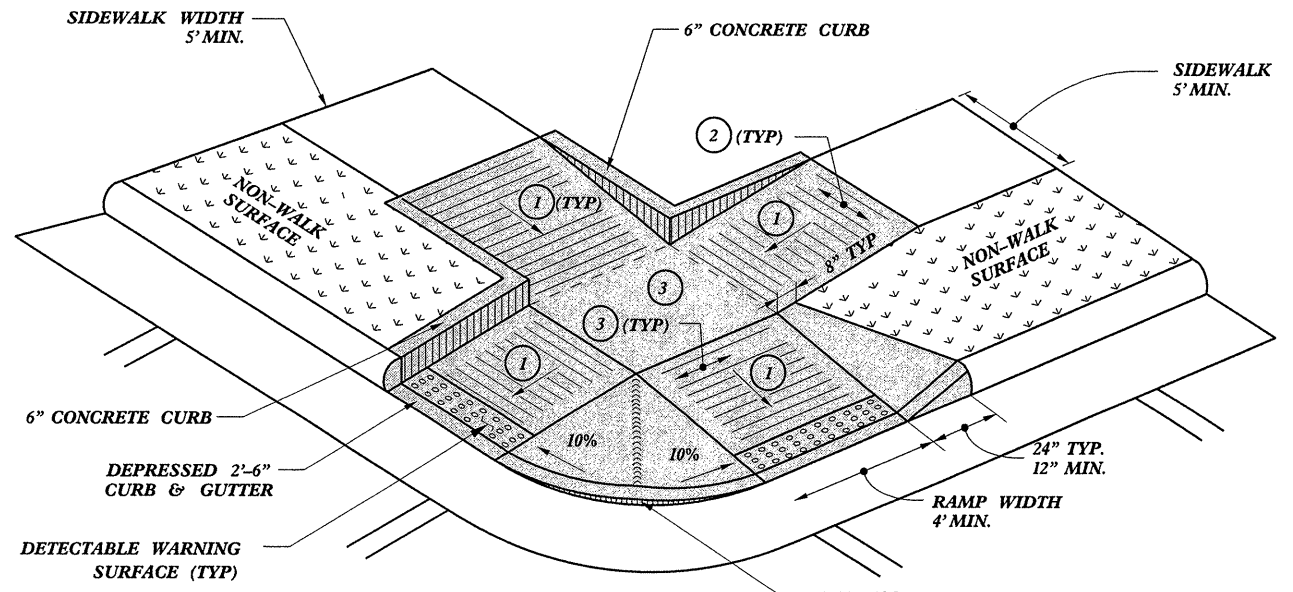
REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

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

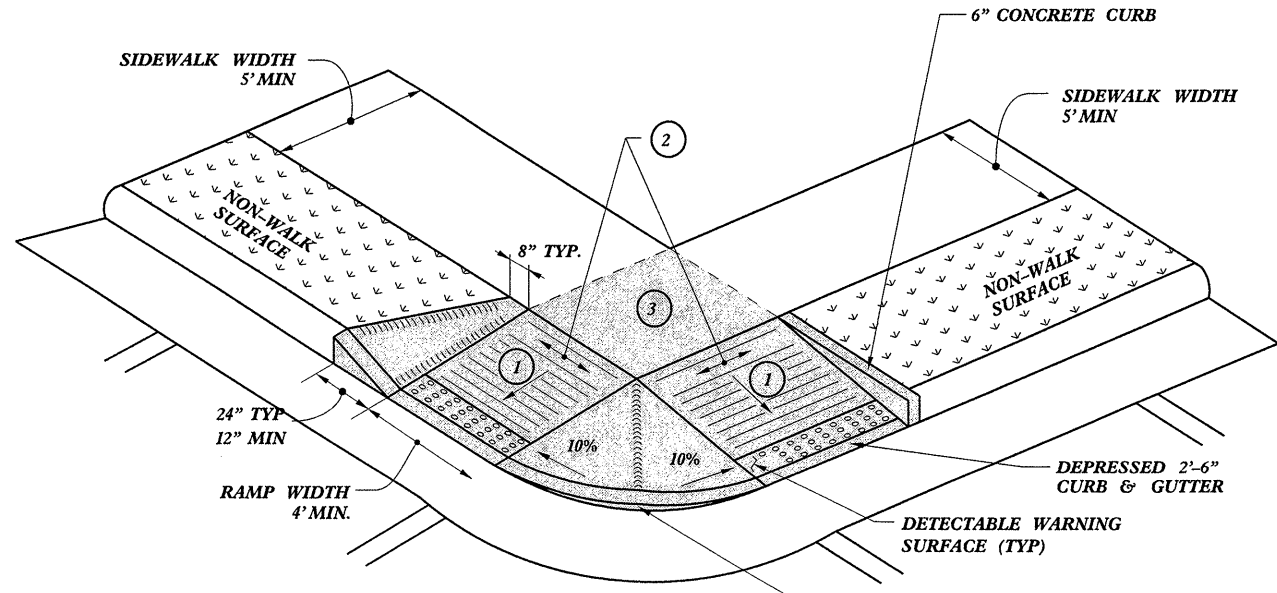
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TYPE 4



TYPE 5



TYPE 4A

PAY LIMITS FOR 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.

CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950 FAX 919-250-4119	
CURB RAMPS	
Shared Landing	
ORIGINAL BY: J.S. HOWERTON	DATE: 7/7/11
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
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REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

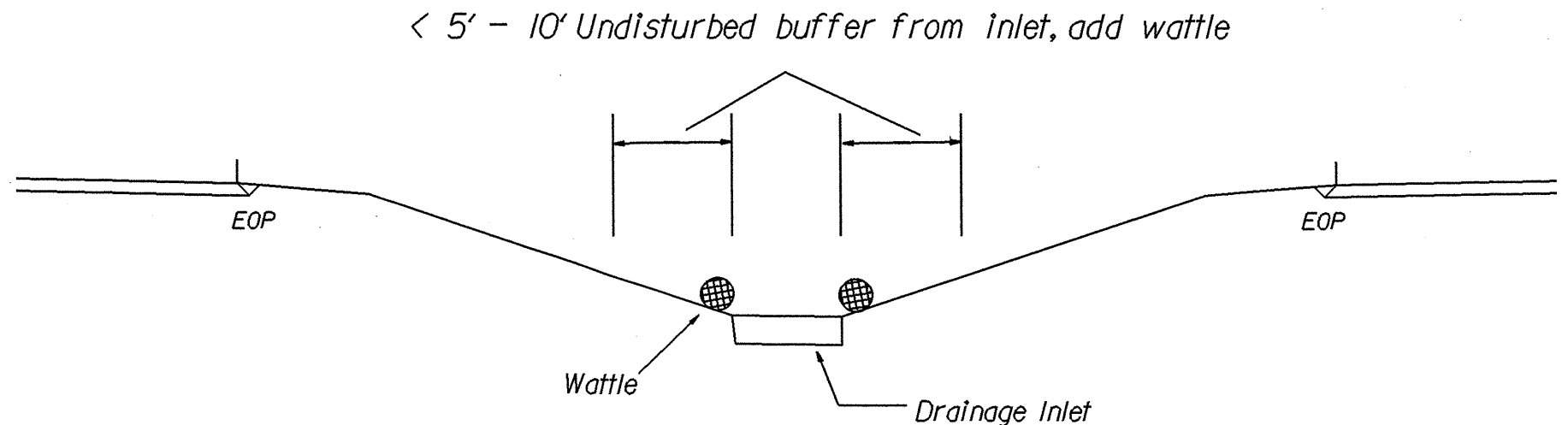
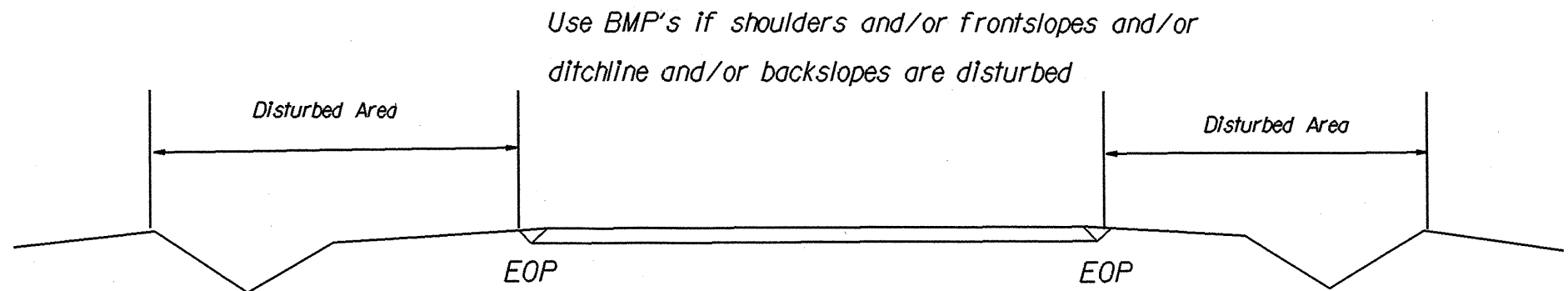
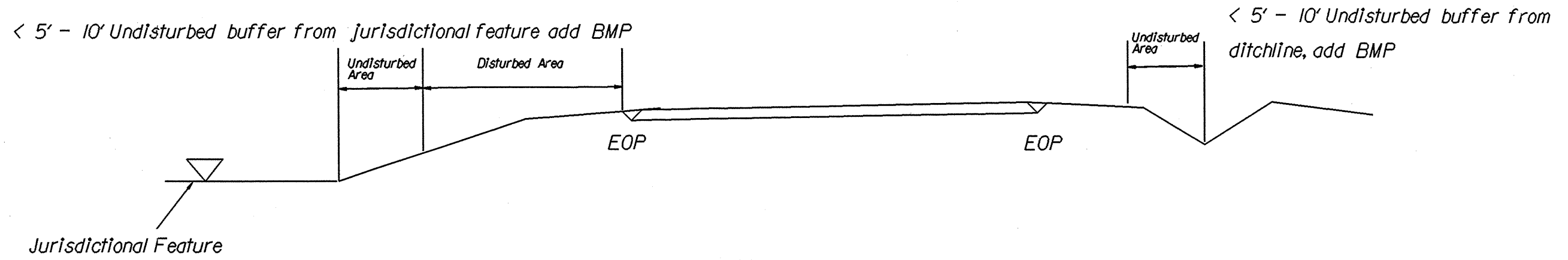
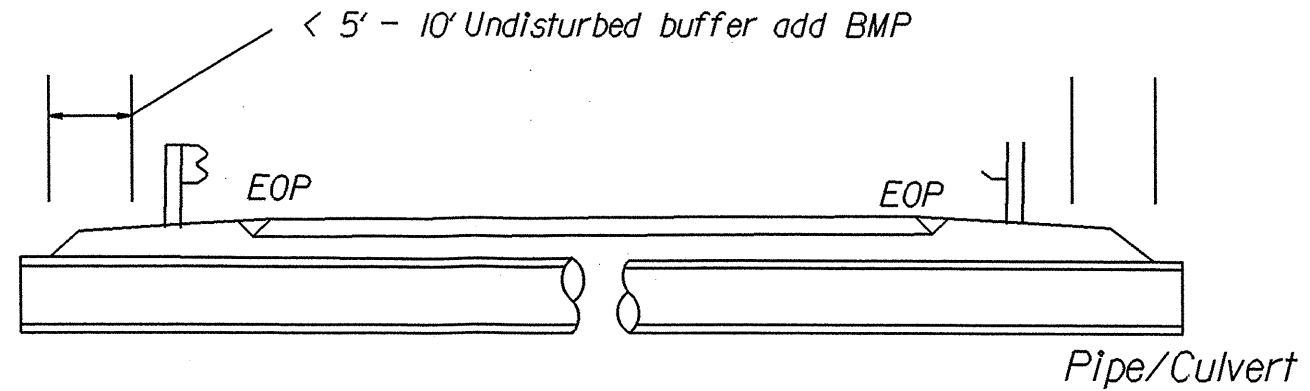
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J.Howerton

PROJECT REFERENCE NO. 3CR.10311.115, ETC.	SHEET NO. EC-1
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



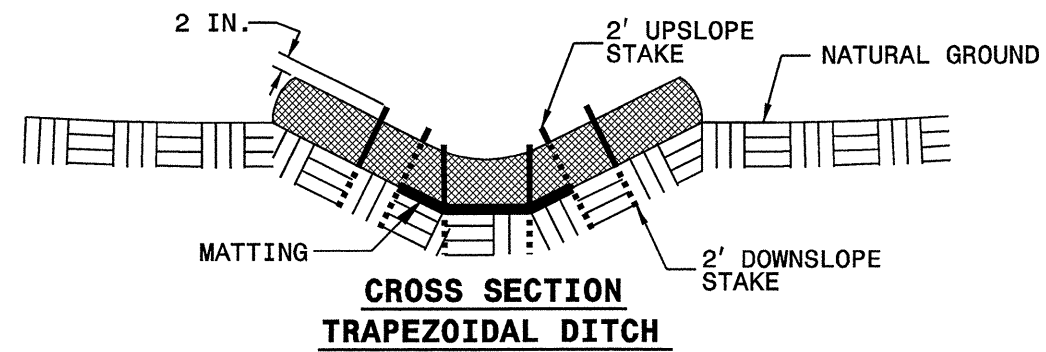
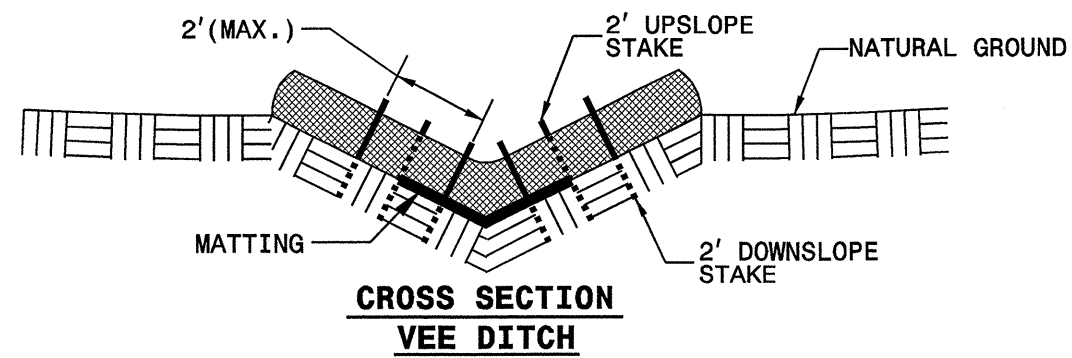
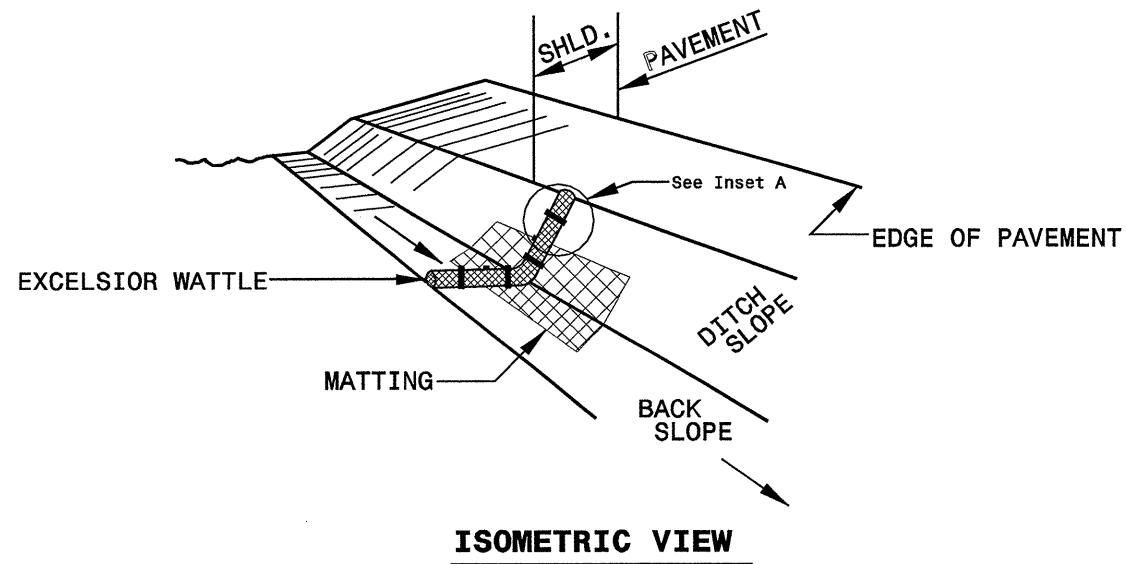
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3CR.10311.115, etc.

PROJECT REFERENCE NO.	SHEET NO.
	EC-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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.

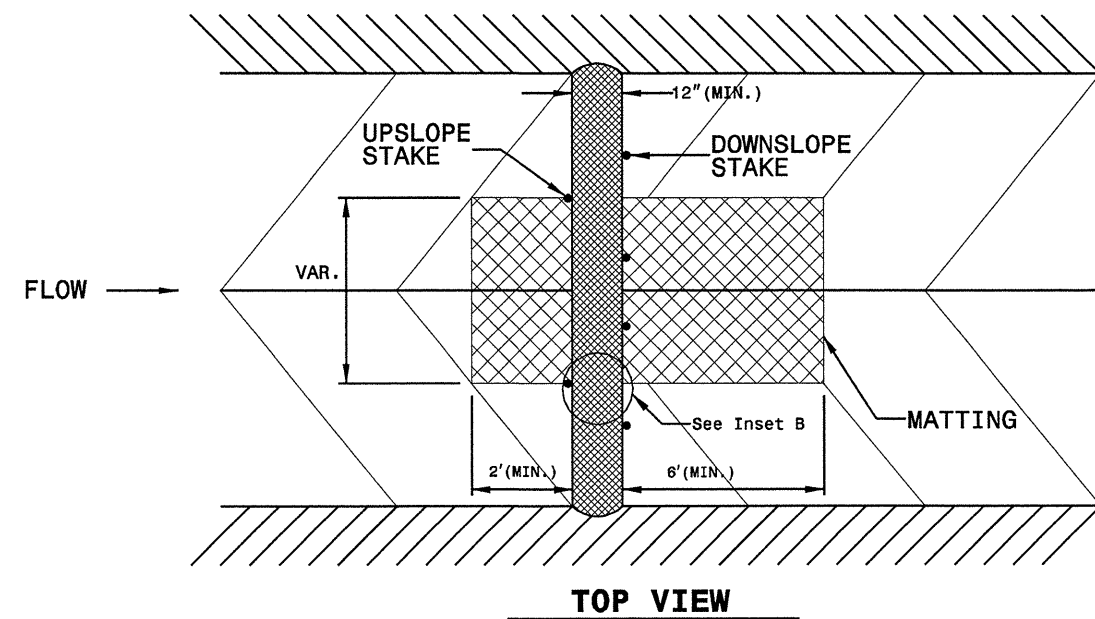
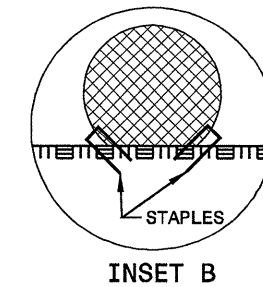
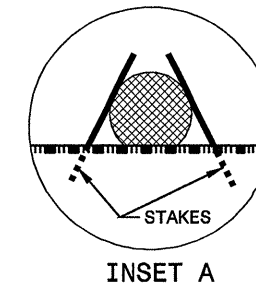
ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

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.



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 RALEIGH, N.C.

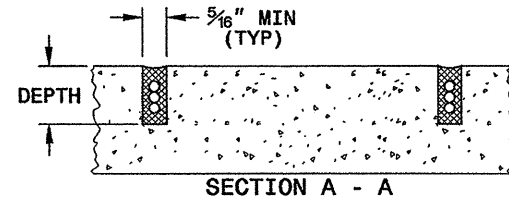
11-08

ENGLISH DETAIL DRAWING FOR
 INDUCTIVE DETECTION LOOPS

SHEET 1 OF 3
 1725D01

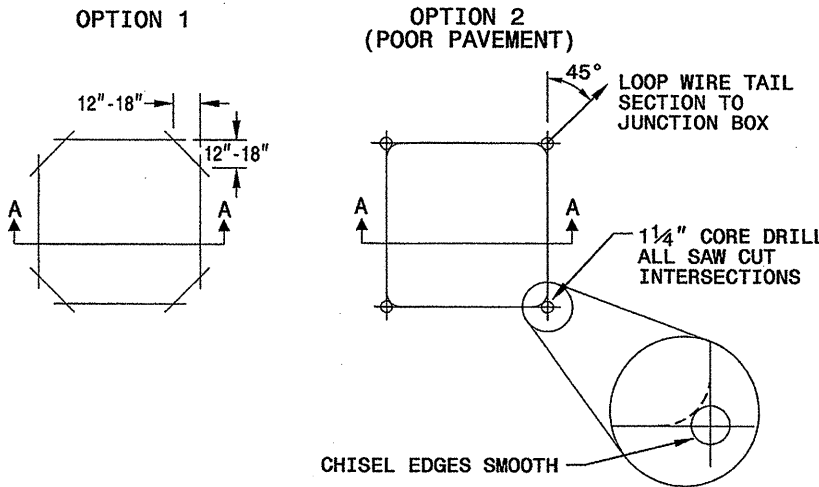
SAW SLOT DEPTH CHART

DEPTH (IN)	NO. OF WIRE TURNS				
	2	3	4	5	6
CONCRETE	2.0	2.0	2.5	2.5	3.0
ASPHALT	2.0	2.5	3.0	3.0	3.0

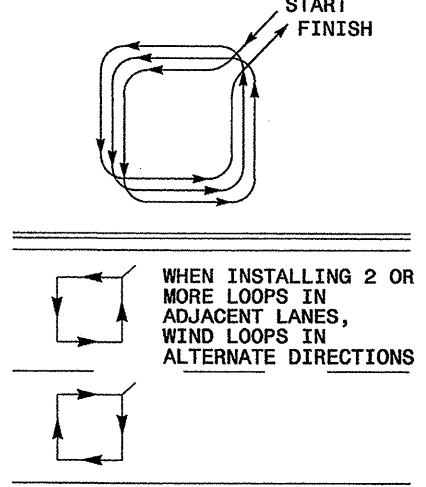


CONVENTIONAL 4-SIDED LOOP

SAW CUT OPTIONS



LOOP WINDING METHOD



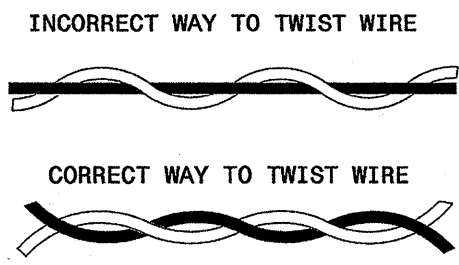
11-08

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

ENGLISH DETAIL DRAWING FOR
 INDUCTIVE DETECTION LOOPS

SHEET 1 OF 3
 1725D01

LOOP WIRE TWISTING METHOD

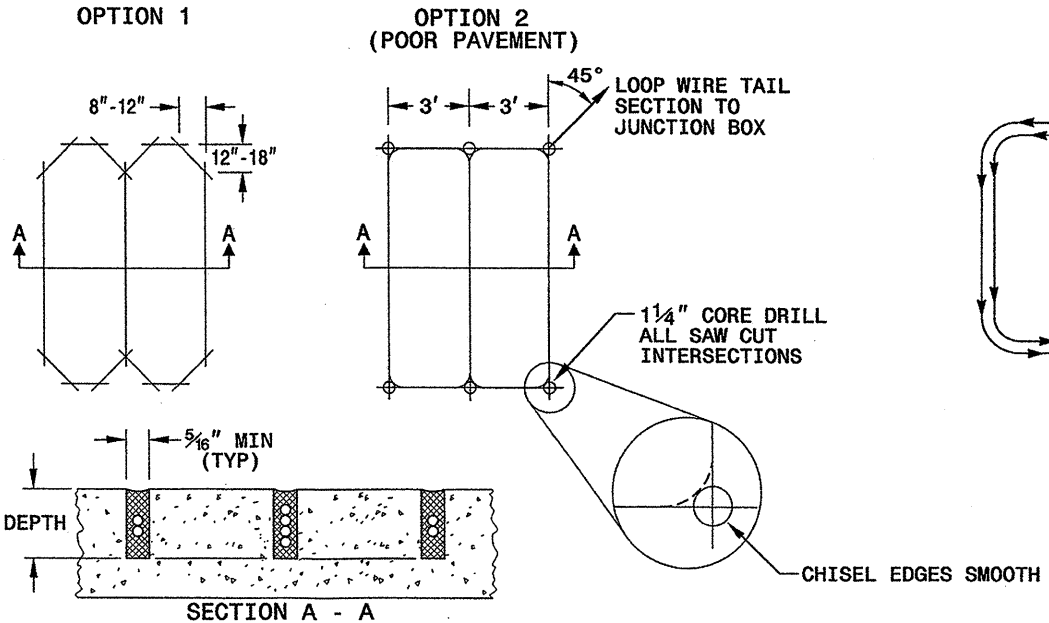


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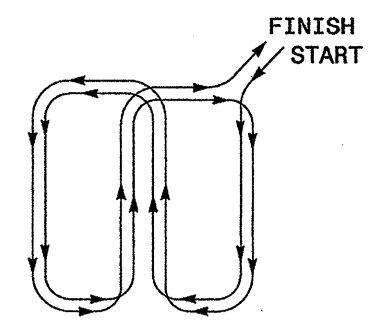
1. OVERLAP SAW CUTS AT CORNERS AND INTERSECTION POINTS TO ENSURE UNIFORM SAW SLOT DEPTH.
2. MAINTAIN 12" SPACING BETWEEN LOOP WIRE TAIL SECTIONS.
3. WIRE LOOPS CONNECTED TO THE SAME DETECTOR CHANNEL IN SERIES.
4. LOCATE LOOPS IN CENTER OF LANES UNLESS OTHERWISE SHOWN ON PLANS OR APPROVED BY ENGINEER.

QUADRUPOLE LOOP

SAW CUT OPTIONS



LOOP WINDING METHOD



DEPTH IS 2.5" FOR CONCRETE AND 3.0" FOR ASPHALT

See Plate for Title

Prepared in the Offices of:
 Intelligent Transportation Systems & Signals Unit
 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
 750 N. Greenfield Parkway
 Garner, NC 27529

SEAL
 NORTH CAROLINA PROFESSIONAL SEAL 16286
 ENGINEER
 WILTON DEAN
 Signature: *Wilton Dean* 11/24/08
 DATE

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 2/11/16

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

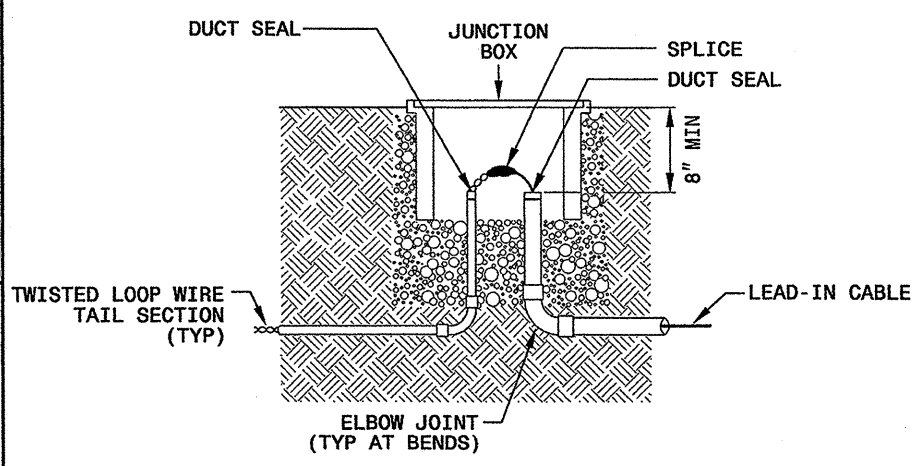
11-08

ENGLISH DETAIL DRAWING FOR
INDUCTIVE DETECTION LOOPS
 LOOP WIRE DETAILS

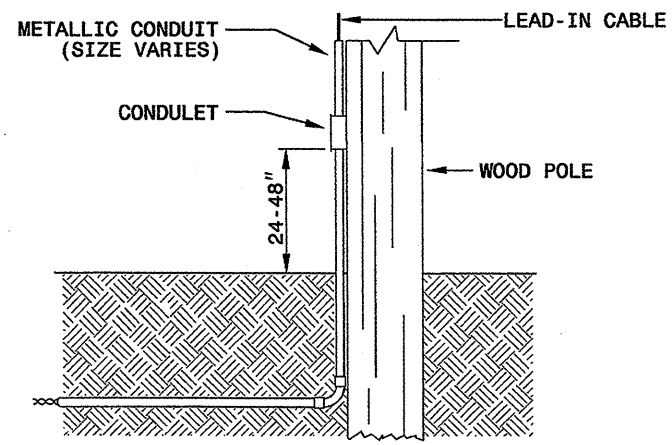
SHEET 2 OF 3
1725D01

LOOP WIRE SPLICE POINT DETAILS

LOOP WIRE AT JUNCTION BOX



LOOP WIRE AT POLE

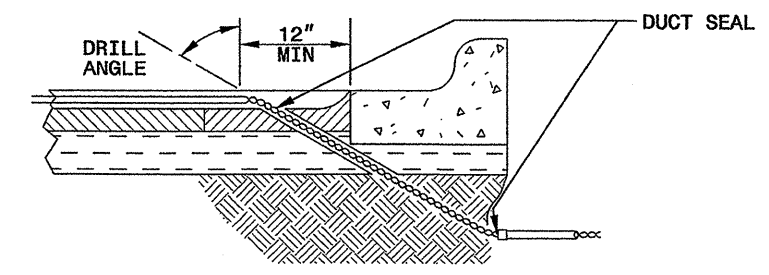


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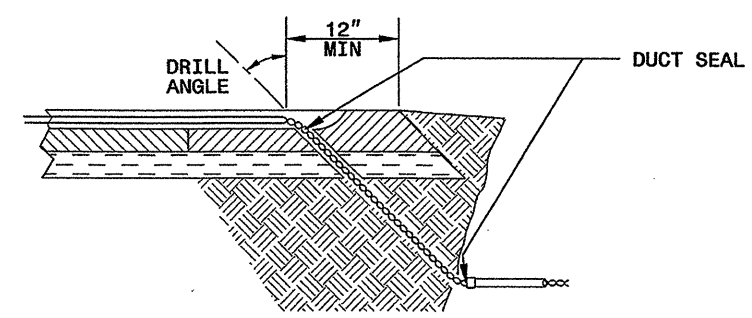
SPLICE ALL LOOP WIRE TAIL SECTIONS/LEAD-IN CABLE IN JUNCTION BOXES OR APPROVED CONDULETS.

LOOP WIRE PAVEMENT EDGE DETAILS

LOOP WIRE AT CURB & GUTTER SECTION



LOOP WIRE AT PAVEMENT SECTION



NOTES

- DO NOT EXCAVATE UNDER CURB AND GUTTER SECTIONS FOR CONDUIT INSTALLATION.
- TWIST LOOP WIRE TAIL SECTIONS FROM WHERE LOOP WIRE TAIL LEAVES SAW CUT TO JUNCTION BOX, INCLUDING THROUGH CONDUIT.
- BEFORE SEALING LOOPS, INSTALL DUCT SEAL WHERE LOOP WIRE TAIL SECTION LEAVES SAW CUT IN PAVEMENT AND AT ENTRANCE OF CONDUIT TO JUNCTION BOX.

11-08

ENGLISH DETAIL DRAWING FOR
INDUCTIVE DETECTION LOOPS
 LOOP WIRE DETAILS

SHEET 2 OF 3
1725D01

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

See Plate for Title

Prepared in the Offices of:

750 N. Greenfield Parkway
 Garner, NC 27529

SEAL

Milton I. Dean 11/24/08
 SIGNATURE DATE

3CR.10311.115
 3CR.10821.115

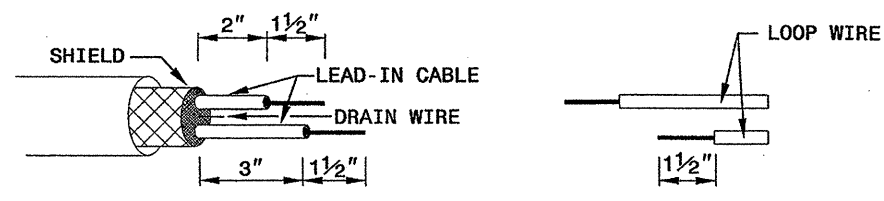
STATE OF NORTH CAROLINA
 DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 RALEIGH, N.C.

11-08

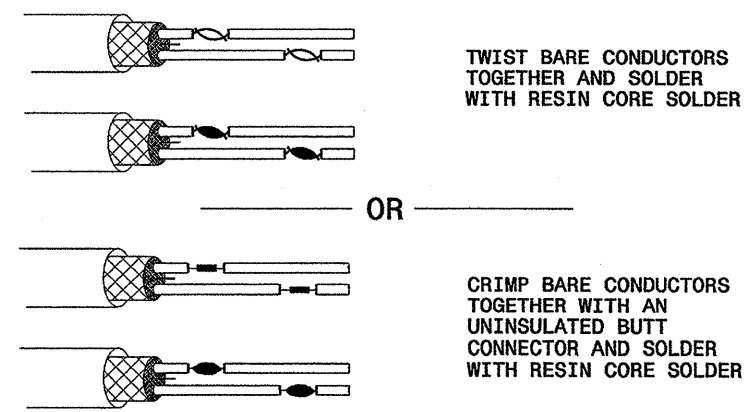
ENGLISH DETAIL DRAWING FOR
INDUCTIVE DETECTION LOOPS
 SPLICING FOR LEAD-IN CABLE AND LOOP WIRE

SHEET 3 OF 3
1725D01

STEP 1. STRIP LOOP WIRE AND LEAD-IN CABLE

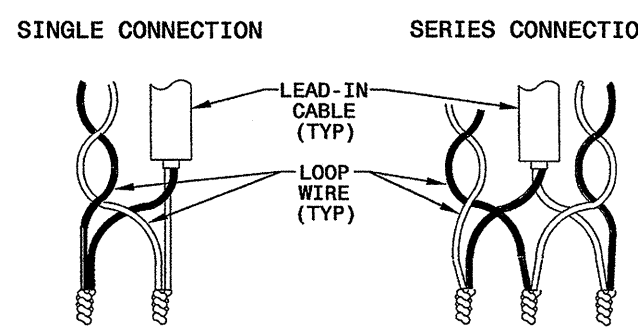


STEP 2. CONNECT AND SOLDER

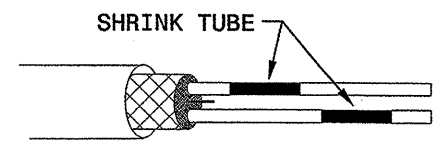


BOND SHIELD DRAIN WIRE AT SPLICE SECTIONS (DO NOT GROUND)

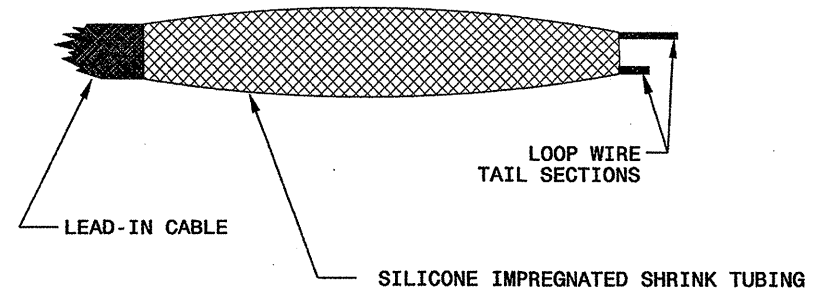
LOOP WIRE AND LEAD-IN CABLE CONNECTION DETAILS



STEP 3. INSULATE EACH SOLDER JOINT SEPARATELY



STEP 4. ENVIRONMENTALLY PROTECT SPLICE



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

11-08

ENGLISH DETAIL DRAWING FOR
INDUCTIVE DETECTION LOOPS
 SPLICING FOR LEAD-IN CABLE AND LOOP WIRE

SHEET 3 OF 3
1725D01

See Plate for Title

Prepared in the Offices of:

750 N. Greenfield Parkway
 Garner, NC 27529

SEAL

Milton I. Dean 1/24/08
 SIGNATURE DATE

24 JUN 2008 09:35
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