

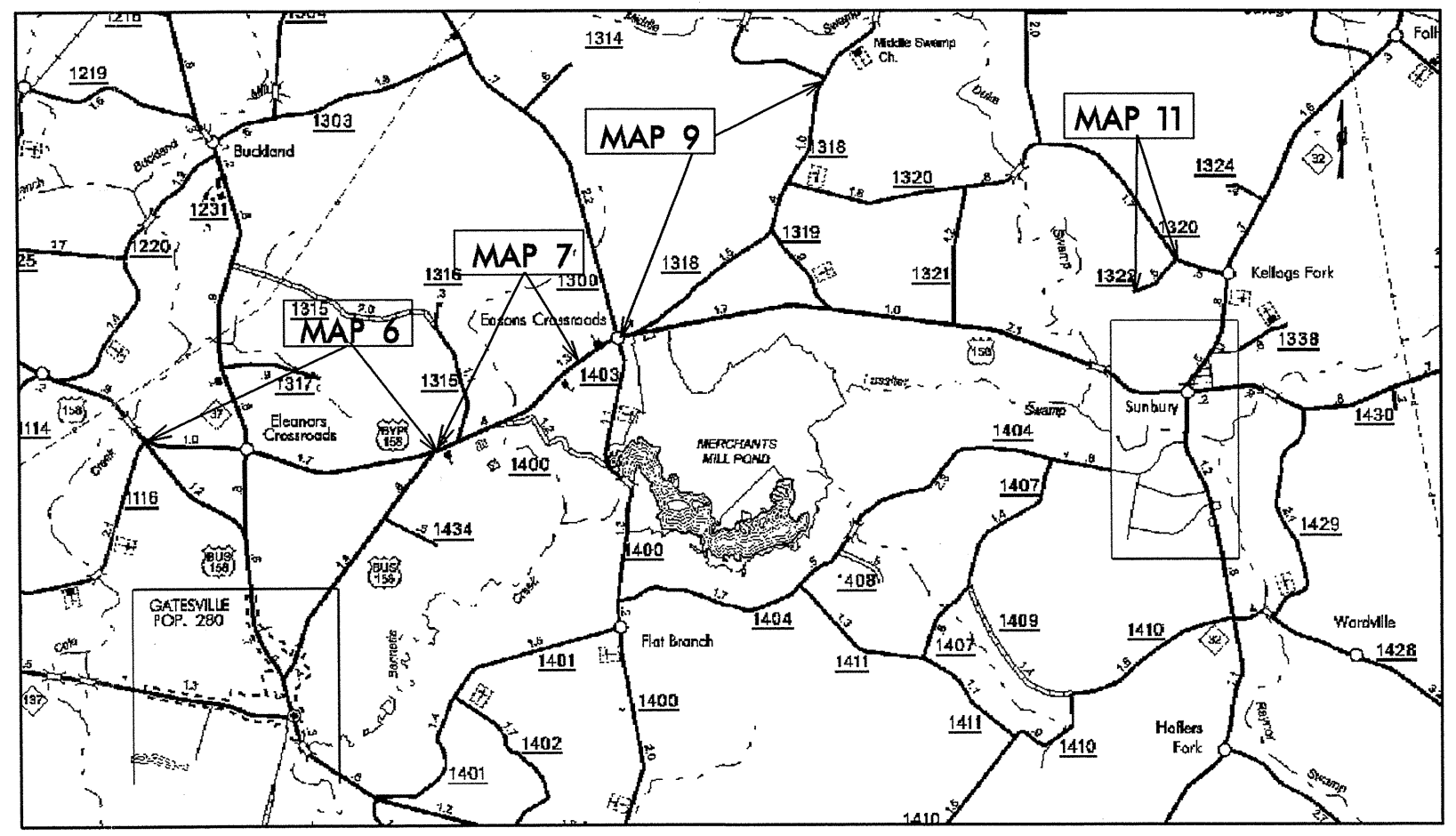
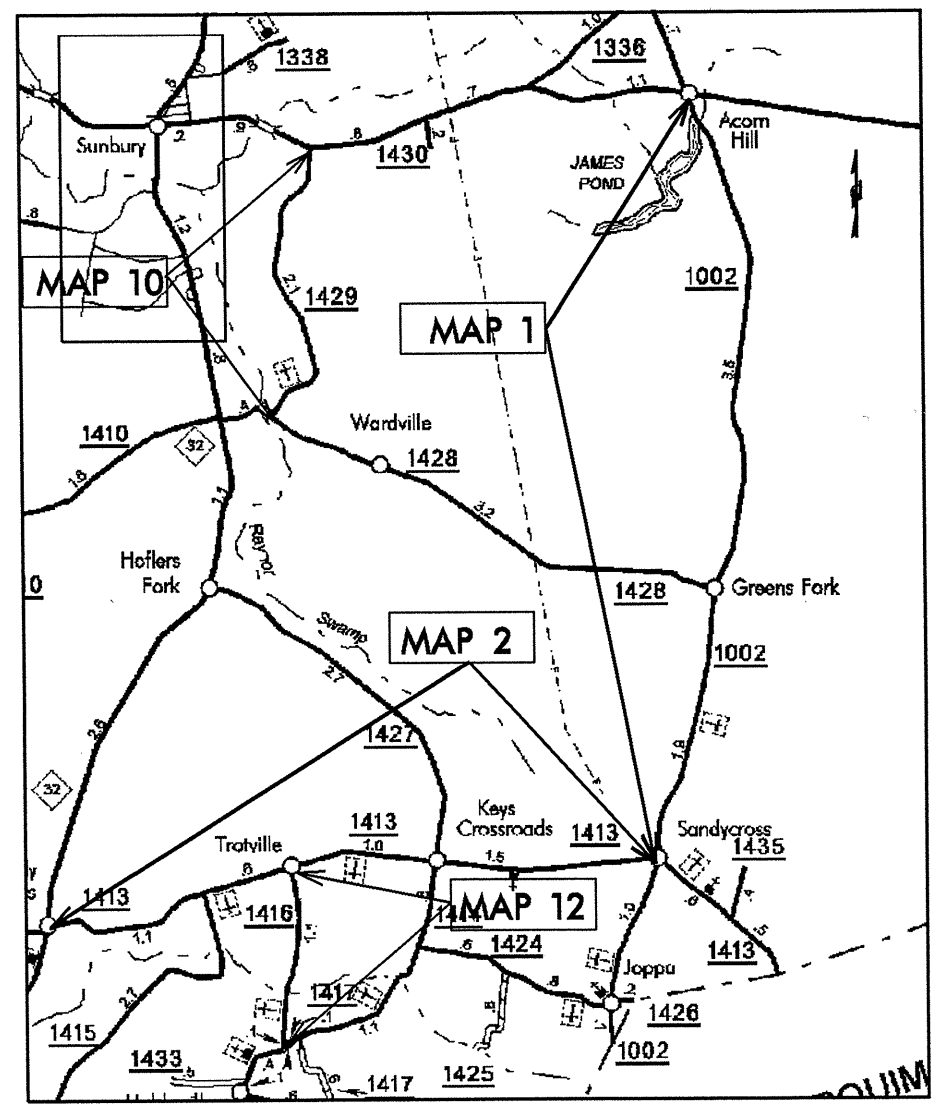
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	1C.037048, ETC	1	10
STATE PROJ. NO.	P.A. PROJ. NO.	DESCRIPTION	
1C.037048		MAP 1	
1C.037049		MAP 2	
1CR.10371.19		MAP 6	
1CR.10371.20		MAP 7	
1CR.20371.29		MAP 9	
1CR.20371.31		MAP 10	
1CR.20371.32		MAP 11	
1CR.20371.33		MAP 12	

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**GATES COUNTY**

**LOCATION:** MAP 1 SR 1002 FROM US HWY 158 TO SR 1413  
 MAP 2 SR 1413 FROM SR 1002 TO NC 32  
 MAP 6 US 158 WEST FROM US 158 BUS TO SR 1116  
 MAP 7 US 158 WEST FROM BEG 3 LANE TO END 3 LANE  
 MAP 9 SR 1318 FROM US 158 TO SR 1312  
 MAP 10 SR 1429 FROM US 158 TO SR 1428  
 MAP 11 SR 1322 FROM SR 1320 TO DEAD END  
 MAP 12 SR 1416 FROM SR 1413 TO SR 1414

**TYPE OF WORK: MILLING, WIDENING, RESURFACING & PAVEMENT MARKINGS**



CONTRACT NO.: C202929 WBS ELEMENT: IC.037048, ETC.

**NTS**

**PROJECT LENGTH**

LENGTH OF ROADWAY PROJECT MAP 1 =	5.32 MI.
LENGTH OF ROADWAY PROJECT MAP 2 =	4.24 MI.
LENGTH OF ROADWAY PROJECT MAP 6 =	2.5 MI.
LENGTH OF ROADWAY PROJECT MAP 7 =	1.1 MI.
LENGTH OF ROADWAY PROJECT MAP 9 =	2.94 MI.
LENGTH OF ROADWAY PROJECT MAP 10 =	2.1 MI.
LENGTH OF ROADWAY PROJECT MAP 11 =	.67 MI.
LENGTH OF ROADWAY PROJECT MAP 12 =	1.23 MI.

Prepared in the Office of:  
**DIVISION OF HIGHWAYS**  
 113 Airport Dr., Edenton NC, 27932

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2012 STANDARD SPECIFICATIONS

**LETTING DATE:**  
 FEBRUARY 21, 2012

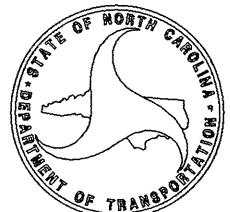
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**W.B. HOBBS, P.E.**  
 DIVISION PROJECT MANAGER

---

**C.E. SLACHTA**  
 DIVISION PROPOSALS ENGINEER

**DIVISION OF HIGHWAYS**  
**STATE OF NORTH CAROLINA**



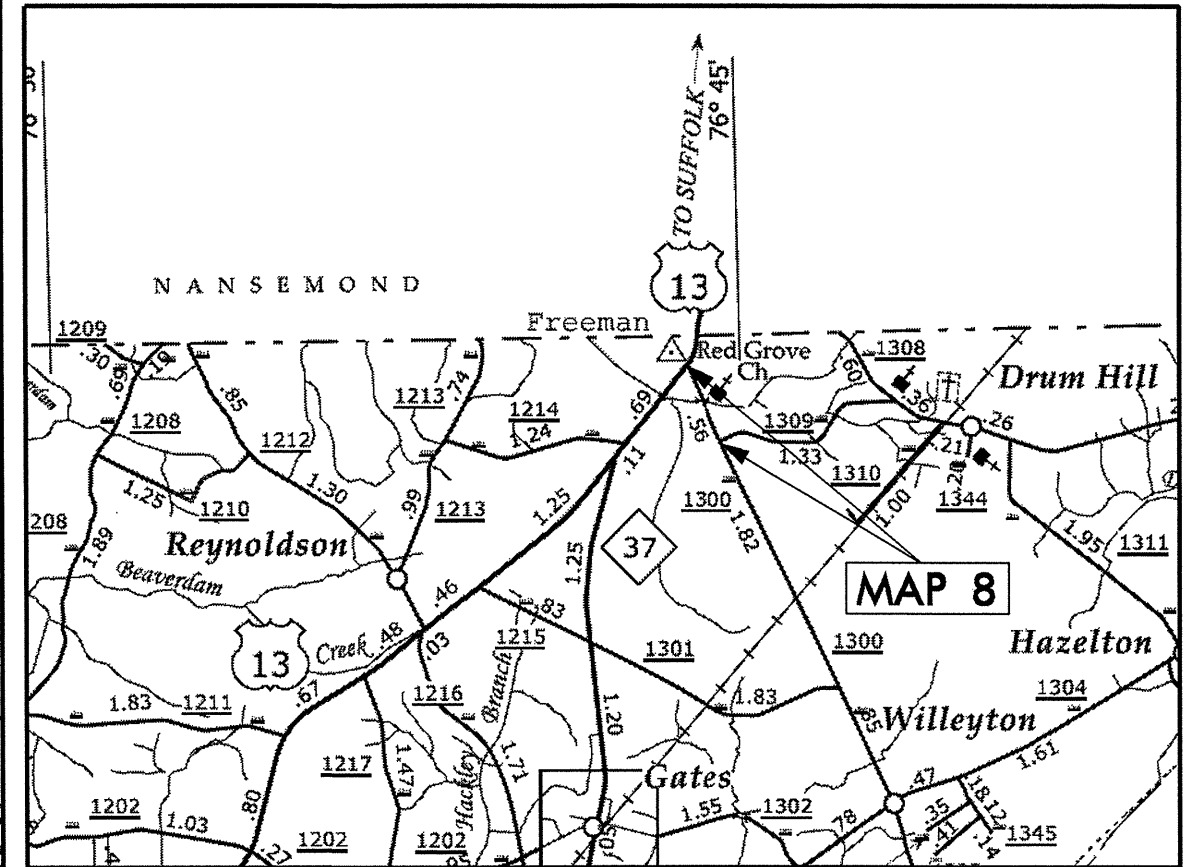
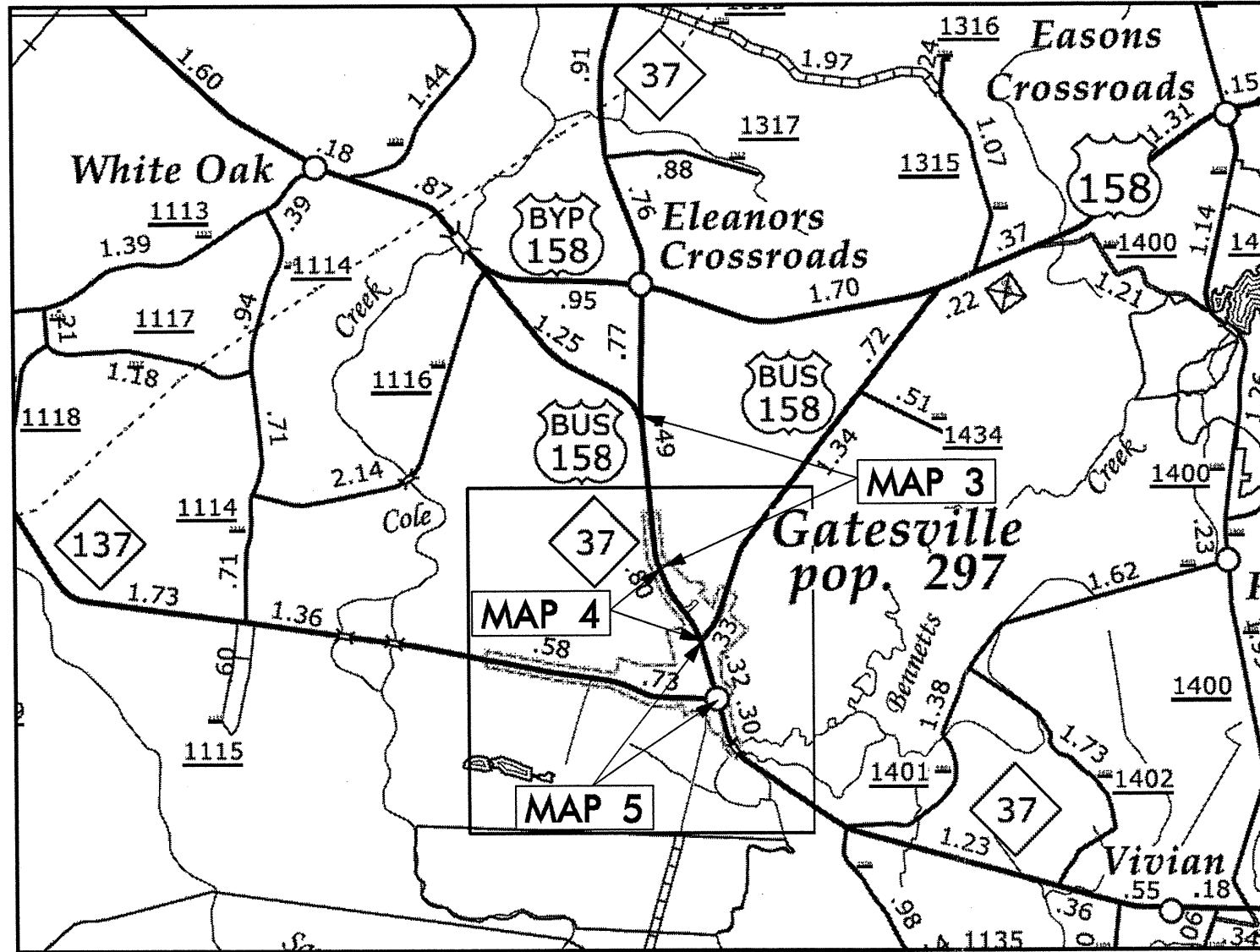
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	1C.037048, ETC	2	10
STATE PROJ. NO.	P.A. PROJ. NO.	DESCRIPTION	
1CR.10371.18		MAP 5	
1CR.10371.17		MAP 3	
1CR.10371.17		MAP 4	
1CR.20371.28		MAP 8	

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**GATES COUNTY**

LOCATION: MAP 5 NC 37 FROM US 158 BUS. TO NC 137  
 MAP 3 US 158 BUS FROM SR 1437 TO NC 37/US 158 BUS  
 MAP 4 US 158 BUS FROM US 158 BUS TO SR 1437  
 MAP 8 SR 1300 FROM US 13 TO SR 1309

TYPE OF WORK: MILLING, RESURFACING & PAVEMENT MARKINGS



CONTRACT NO.: C202929 WBS ELEMENT: IC.037048, ETC.

**NTS**

PROJECT LENGTH

LENGTH OF ROADWAY PROJECT MAP 5 = .34 MI.  
 LENGTH OF ROADWAY PROJECT MAP 3 = .87 MI.  
 LENGTH OF ROADWAY PROJECT MAP 4 = .492 MI.  
 LENGTH OF ROADWAY PROJECT MAP 8 = .56 MI.

Prepared In the Office of:  
**DIVISION OF HIGHWAYS**

113 Airport Dr., Edenton NC, 27932

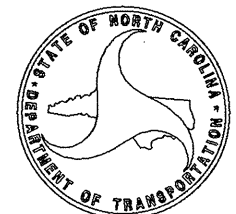
2012 STANDARD SPECIFICATIONS

LETTING DATE:  
FEBRUARY 21, 2012

W.B. HOBBS, P.E.  
DIVISION PROJECT MANAGER

C.E. SLACHTA  
DIVISION PROPOSALS ENGINEER

DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA



PAVEMENT SCHEDULE

C2	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
E1	PROP. APPROX. 5.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD.
T	EARTH MATERIAL
U	EXISTING PAVEMENT.

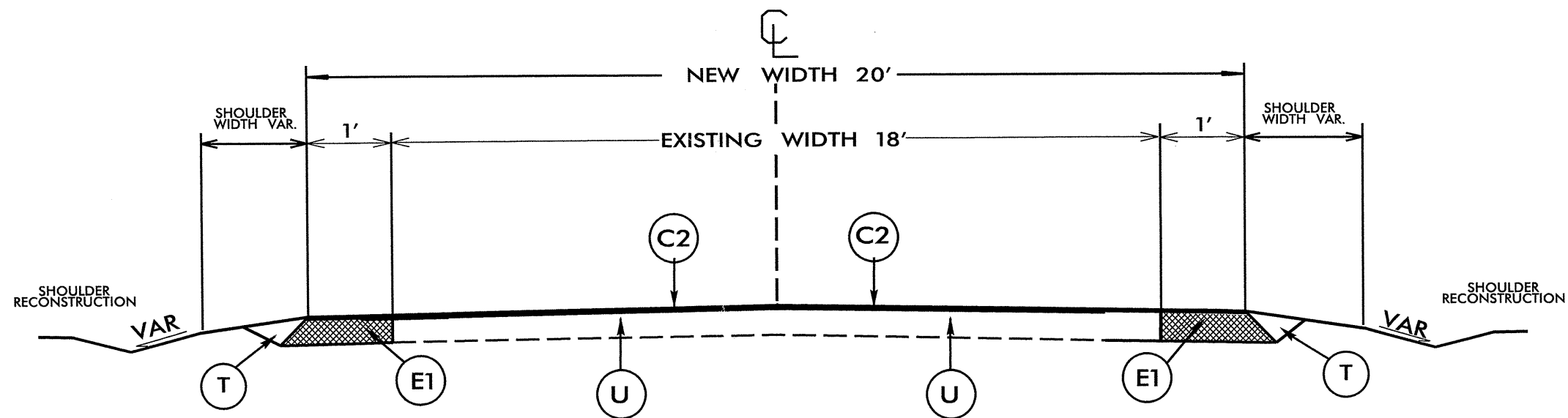
PROJECT REFERENCE NO.	SHEET NO.
1C.037048, ETC	3 OF 10

NOTES:

\*ALL PAVED S.R. ROADS TO BE RESURFACED TO THE ENDS OF THE RADI., OR AS DIRECTED BY THE ENGINEER

\*EDGES, PAVEMENT WIDENING, INTERSECTIONS, AND BRIDGE FLARES ARE INCLUDED IN THE TABLE OF QUANTITIES

\*PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE



TYPICAL SECTION NO.1

USE WITH MAP 2

NTS

PAVEMENT SCHEDULE

C2	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
T	EARTH MATERIAL
U	EXISTING PAVEMENT.

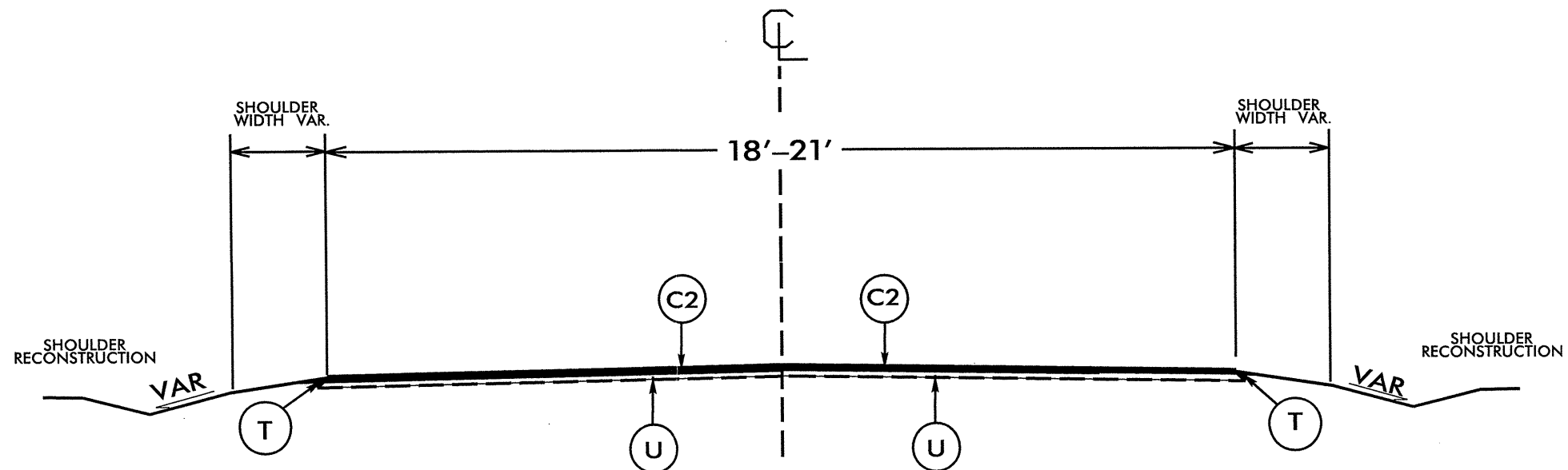
PROJECT REFERENCE NO. <b>IC.037048, ETC</b>	SHEET NO. <b>4 OF 10</b>
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NOTES:

\*ALL PAVED S.R. ROADS TO BE RESURFACED TO THE ENDS OF THE RADI., OR AS DIRECTED BY THE ENGINEER

\*EDGES, PAVEMENT WIDENING, INTERSECTIONS, AND BRIDGE FLARES ARE INCLUDED IN THE TABLE OF QUANTITIES

\*PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE



**TYPICAL SECTION NO.2**

USE WITH MAP 1,8,9,10,11

NTS

\*\*\*\*\*SYTIME\*\*\*\*\*

PAVEMENT SCHEDULE

C3	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
T	EARTH MATERIAL
U	EXISTING PAVEMENT.

PROJECT REFERENCE NO.  
**1C.037048, ETC**

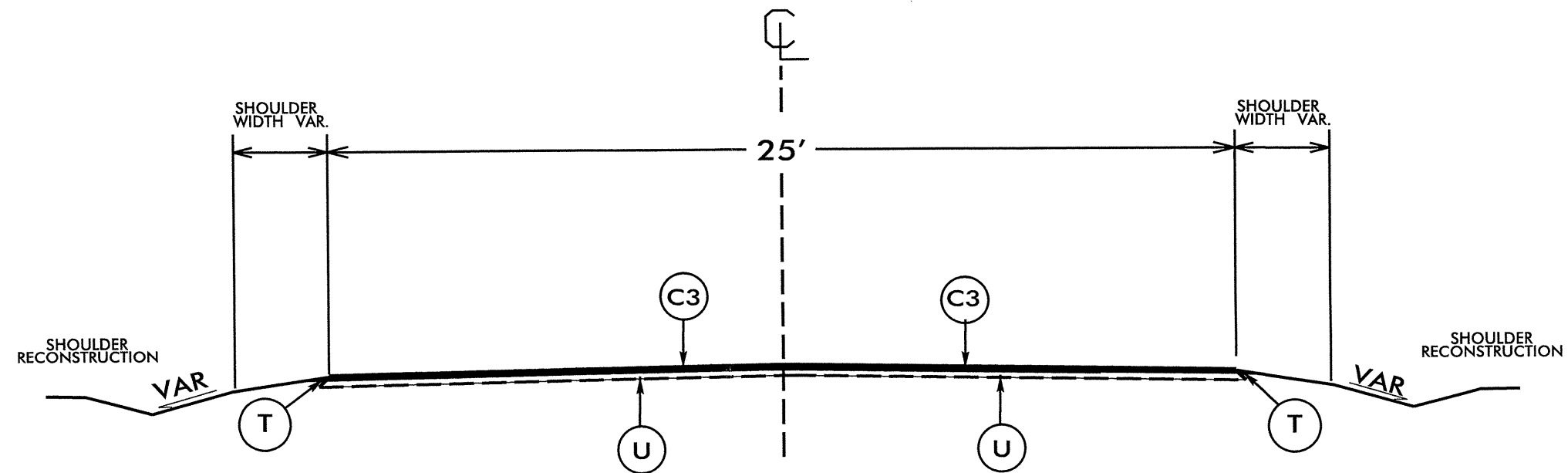
SHEET NO.  
**5 OF 10**

NOTES:

\*ALL PAVED S.R. ROADS TO BE RESURFACED TO THE ENDS OF THE RADI., OR AS DIRECTED BY THE ENGINEER

\*EDGES, PAVEMENT WIDENING, INTERSECTIONS, AND BRIDGE FLARES ARE INCLUDED IN THE TABLE OF QUANTITIES

\*PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE



**TYPICAL SECTION NO.3**

USE WITH MAP 3,6

NTS

STRUCTURE

PAVEMENT SCHEDULE

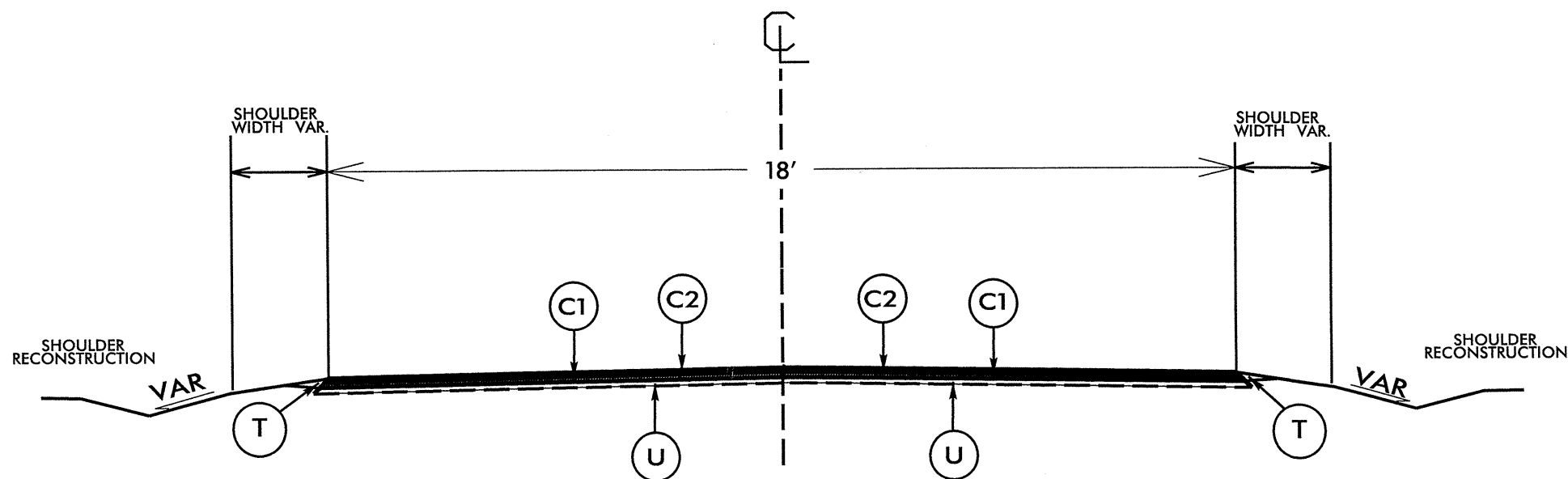
C1	PROP. APPROX. .75" ASPHALT CONCRETE SURFACE COURSE, TYPE S4.75A, AT AN AVERAGE RATE OF 75 LBS. PER SQ. YD.
C2	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
T	EARTH MATERIAL
U	EXISTING PAVEMENT.

NOTES:

\*ALL PAVED S.R. ROADS TO BE RESURFACED TO THE ENDS OF THE RADI., OR AS DIRECTED BY THE ENGINEER

\*EDGES, PAVEMENT WIDENING, INTERSECTIONS, AND BRIDGE FLARES ARE INCLUDED IN THE TABLE OF QUANTITIES

\*PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE



**TYPICAL SECTION NO.4**

USE WITH MAP 12

NTS

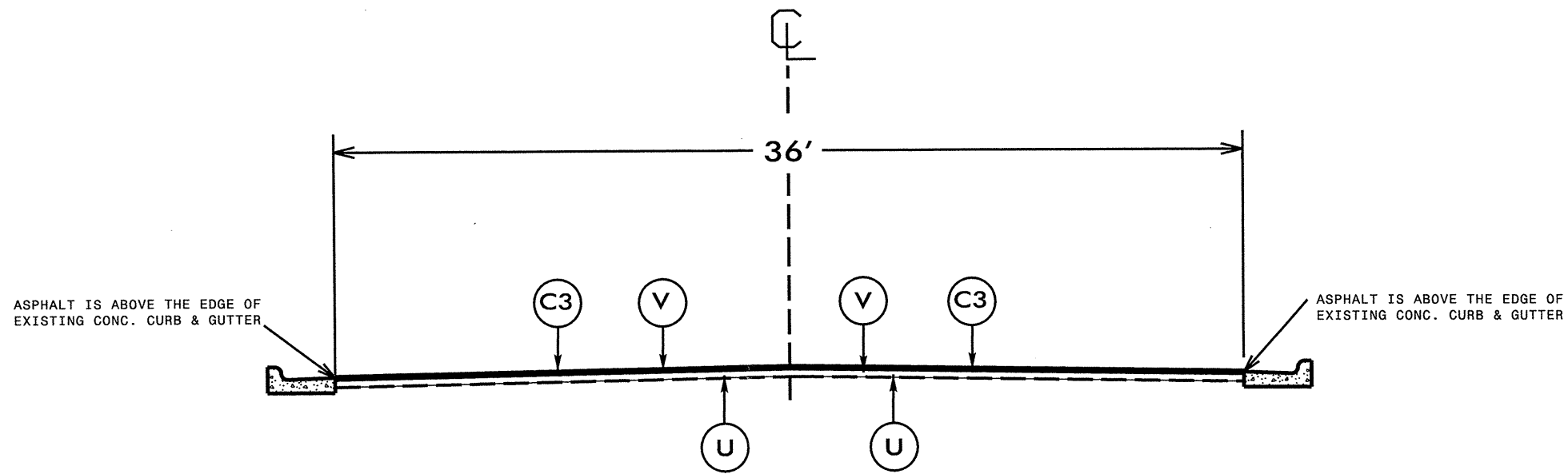
\*\*\*\*\*SYSTEM\*\*\*\*\*

PAVEMENT SCHEDULE

C3	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
U	EXISTING PAVEMENT.
V	MILLING BITUMINOUS PAVEMENT. 0" TO 3" IN DEPTH.

NOTES:

- \*ALL PAVED S.R. ROADS TO BE RESURFACED TO THE ENDS OF THE RADI., OR AS DIRECTED BY THE ENGINEER
- \*EDGES, PAVEMENT WIDENING, INTERSECTIONS, AND BRIDGE FLARES ARE INCLUDED IN THE TABLE OF QUANTITIES
- \*PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE
- \* CONTRACTOR SHALL MILL 1.5" BELOW EXISTING EDGE OF CONC. CURB & GUTTER



**TYPICAL SECTION NO.5**

USE WITH MAP 5

NTS

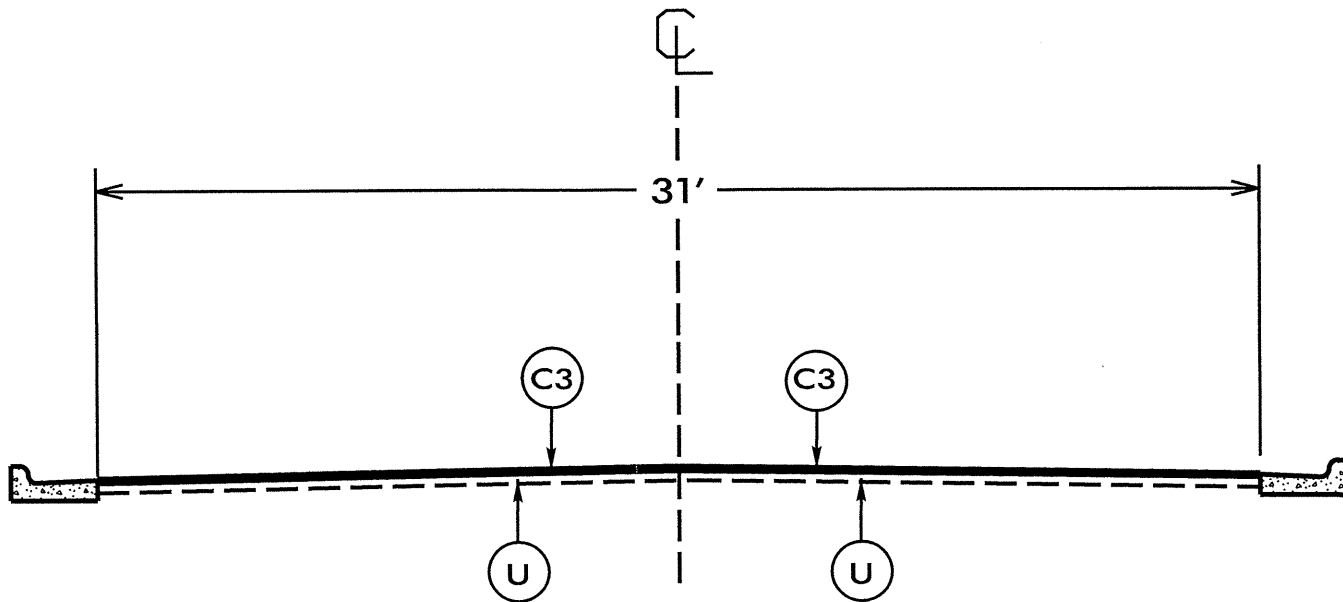
\*\*\*\*\*SYTIME\*\*\*\*\*  
\*\*\*\*\*DON\*\*\*\*\*

PAVEMENT SCHEDULE

C3	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
U	EXISTING PAVEMENT.

NOTES:

- \*ALL PAVED S.R. ROADS TO BE RESURFACED TO THE ENDS OF THE RADI., OR AS DIRECTED BY THE ENGINEER
- \*EDGES, PAVEMENT WIDENING, INTERSECTIONS, AND BRIDGE FLARES ARE INCLUDED IN THE TABLE OF QUANTITIES
- \*PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE



**TYPICAL SECTION NO.6**  


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**USE WITH MAP 4**

NTS

\*\*\*\*\*SYTIME\*\*\*\*\*  
 \*\*\*\*\*CONS\*\*\*\*\*



PAVEMENT SCHEDULE

C3	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
T	EARTH MATERIAL
U	EXISTING PAVEMENT.
V1	MILLING BITUMINOUS PAVEMENT. 1½" DEPTH.

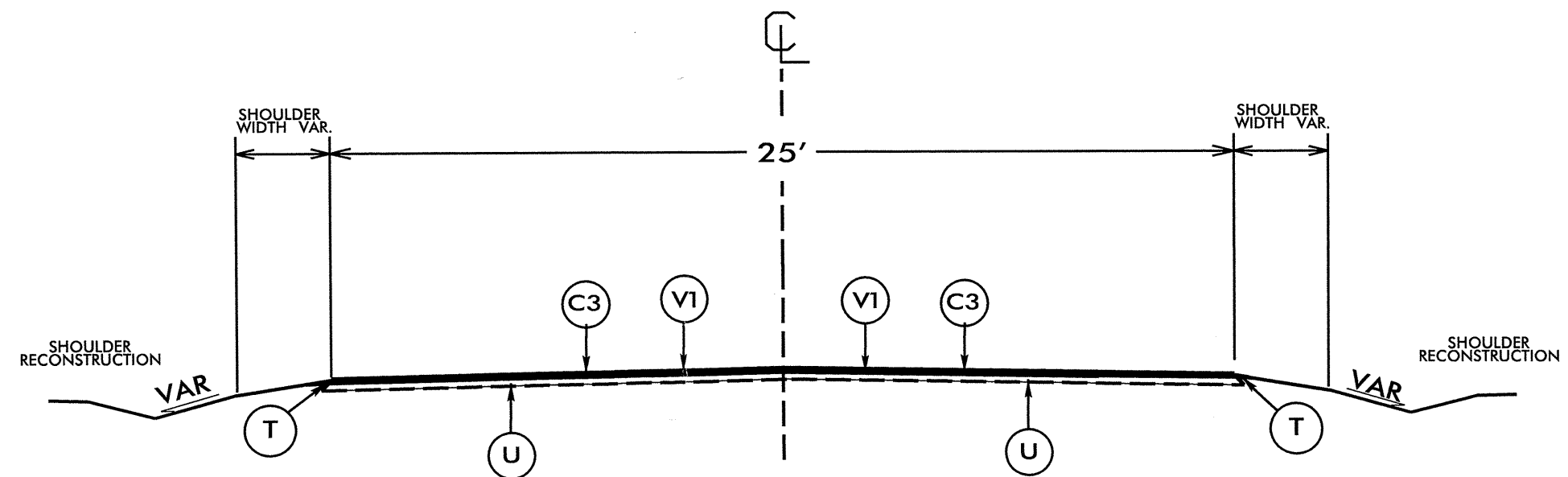
PROJECT REFERENCE NO.	SHEET NO.
IC.037048, ETC	9 OF 10

NOTES:

\*ALL PAVED S.R. ROADS TO BE RESURFACED TO THE ENDS OF THE RADII., OR AS DIRECTED BY THE ENGINEER

\*EDGES, PAVEMENT WIDENING, INTERSECTIONS, AND BRIDGE FLARES ARE INCLUDED IN THE TABLE OF QUANTITIES

\*PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE



**TYPICAL SECTION NO.7**

USE WITH MAP 7

NTS

\*\*\*\*\*SYTIME\*\*\*\*\*

PROJECT NO.	SHEET NO.	TOTAL NO.
1C.037048, ETC.	10	10

**SUMMARY OF QUANTITIES**

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	FINAL SURFACE TESTING REQUIRED	LENGTH MI	WIDTH FT	MOBILIZATION LS	BORROW CY	INCIDENTAL STONE BASE TON	SHOULDER RECONSTRUCTION SMI	0" TO 3" MILLING SY	1 1/2" MILLING SY	BASE COURSE, B25.0B TON	SURFACE COURSE, S9.5B TON	SURFACE COURSE, SF9.5A TON	SURFACE COURSE, S4.75A TON	ASPHALT BINDER FOR PLANT MIX TON	RETROFIT EXISTING CURB RAMP EA	ADI. OF METER OR VALVE BOX EA	TEMPORARY SILT FENCE LF	MATTING FOR EROSION CONTROL SY	WATTLE LF	POLYACRYLAMIDE (PAM) LB	SEED & MULCHING ACR
1C.037048	Gates	1	SR 1002	FROM US 158 TO SR 1413	2	NO	5.320	21	1	300	60	10.60					5,914		396		3	1,000	32	720	7	6.50
1C.037049	Gates	2	SR 1413	FROM SR 1002 TO NC 32	1	NO	4.240	20	*	300	60	8.50			1,917		4,800		406		2	1,000	32	230	7	5.10
1CR.10371.17	Gates	3	US 158 BUS	FROM SR 1437 TO NC 37/US 158 B	3	NO	0.870	25	*	150	20	1.80				1,277		77		2	1	200	32	80	7	1.00
1CR.10371.17	Gates	4	US 158 BUS	FROM US 158 BUS TO SR 1437	6	NO	0.492	31	*		20					855		51		2	6					
1CR.10371.18	Gates	5	NC 37	FROM US 158 BUS TO NC 137	5	NO	0.340	36	*		20		8,000			755		45		3						
1CR.10371.19	Gates	6	US 158 WEST	FROM US 158 BUS TO SR 1116	3	NO	2.500	25	*	300	25	5.00				3,250		195				200	32	80	7	3.00
1CR.10371.20	Gates	7	US 158 WEST	FROM BEG 3 LANE TO END 3 LANE	7	NO	1.100	25	*	120	10	2.70		11,500		2,027		122				200	32	80	7	1.70
1CR.20371.28	Gates	8	SR 1300	FROM US 13 TO SR 1309	2	NO	0.560	21	*	60	7	1.13					584		39			100	32	80	7	0.55
1CR.20371.29	Gates	9	SR 1318	FROM US 158 TO SR 1312	2	NO	2.940	20	*	300	25	5.88					3,054		205		3	50	32	80	7	2.85
1CR.20371.31	Gates	10	SR 1429	FROM US 158 TO SR 1428	2	NO	2.100	18	*	240	20	4.20					1,862		125		2	200	32	80	7	2.00
1CR.20371.32	Gates	11	SR 1322	FROM SR 1320 TO DEAD END	2	NO	0.670	18	*	60	6	1.34					601		40		1	50	32	80	7	0.65
1CR.20371.33	Gates	12	SR 1416	FROM SR 1413 TO SR 1414	4	NO	1.230	18	*	150	5	2.46					1,100	513	109		1	100	32	80	7	1.19
<b>GRAND TOTAL</b>							<b>22.362</b>		<b>1</b>	<b>1,980</b>	<b>278</b>	<b>43.61</b>	<b>8,000</b>	<b>11,500</b>	<b>1,917</b>	<b>8,164</b>	<b>17,915</b>	<b>513</b>	<b>1,810</b>	<b>4</b>	<b>22</b>	<b>3,100</b>	<b>320</b>	<b>1,590</b>	<b>70</b>	<b>24.54</b>

**THERMOPLASTIC AND PAINT QUANTITIES**

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TEMPORARY TRAFFIC CONTROL LS	4" X 90 M WHITE THERMO LF	4" X 120 M YELLOW THERMO LF	24" X 120 M WHITE THERMO LF	THERMO MSG SCHOOL 120 M EA	THERMO LT ARROW 90 M EA	4" YELLOW PAINT LF	24" WHITE PAINT LF	PAINT MSG SCHOOL EA	YELLOW & YELLOW MARKERS EA	CRYSTAL & RED MARKERS EA
1C.037048	Gates	1	SR 1002	FROM US 158 TO SR 1413	1	56,202	30,371	12			30,371	12			
1C.037049	Gates	2	SR 1413	FROM SR 1002 TO NC 32	*	45,622	29,071				29,071				
1CR.10371.17	Gates	3	US 158 BUS	FROM SR 1437 TO NC 37/US 158 B	*		4,350				4,350			57	
1CR.10371.17	Gates	4	US 158 BUS	FROM US 158 BUS TO SR 1437	*		5,200	100	12		5,200	100	12	32	
1CR.10371.18	Gates	5	NC 37	FROM US 158 BUS TO NC 137	*	3,600	3,600				3,600			22	
1CR.10371.19	Gates	6	US 158 WEST	FROM US 158 BUS TO SR 1116	*	26,900	13,040	50	6		13,040	50	6	165	
1CR.10371.20	Gates	7	US 158 WEST	FROM BEG 3 LANE TO END 3 LANE	*	14,650	10,130	100	12	3	10,130	100	12	73	73
1CR.20371.28	Gates	8	SR 1300	FROM US 13 TO SR 1309	*	6,026	3,696				3,696				
1CR.20371.29	Gates	9	SR 1318	FROM US 158 TO SR 1312	*	31,634	19,404				19,404				
1CR.20371.31	Gates	10	SR 1429	FROM US 158 TO SR 1428	*	22,596	13,860				13,860				
1CR.20371.32	Gates	11	SR 1322	FROM SR 1320 TO DEAD END	*		7,100				7,100				
1CR.20371.33	Gates	12	SR 1416	FROM SR 1413 TO SR 1414	*	13,235	8,118				8,118				
<b>GRAND TOTAL</b>					<b>1</b>	<b>220,465</b>	<b>147,940</b>	<b>262</b>	<b>30</b>	<b>3</b>	<b>147,940</b>	<b>262</b>	<b>30</b>	<b>349</b>	<b>73</b>
															<b>422</b>

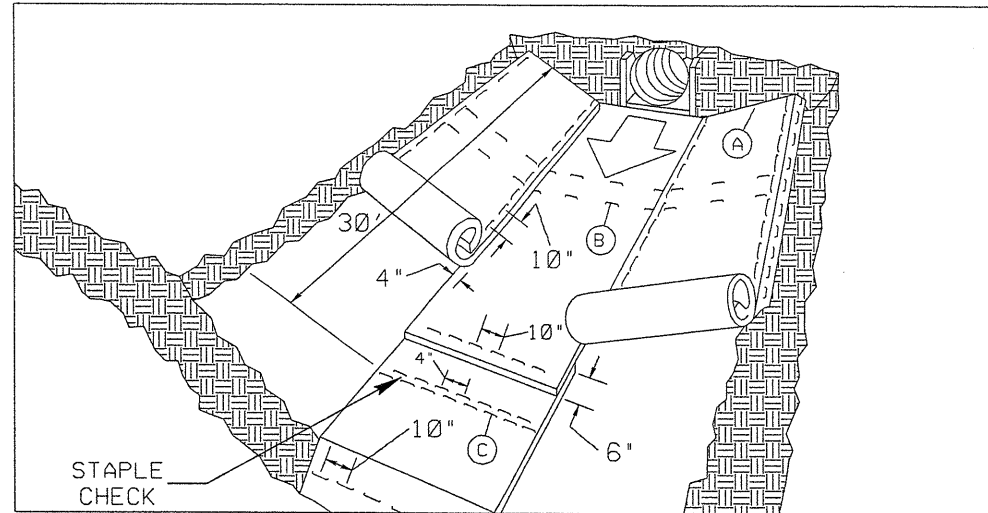
**2012 ROADWAY ENGLISH STANDARD DRAWINGS**

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

STD.NO. TITLE  
 DIVISION 8 - INCIDENTALS  
 848.06 Curb Ramp - Existing Curb & Gutter

PROJECT REFERENCE NO. <b>IC.03704B, ETC.</b>	SHEET NO. <b>62-1</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# MATTING INSTALLATION DETAIL



**MATTING IN DITCHES**

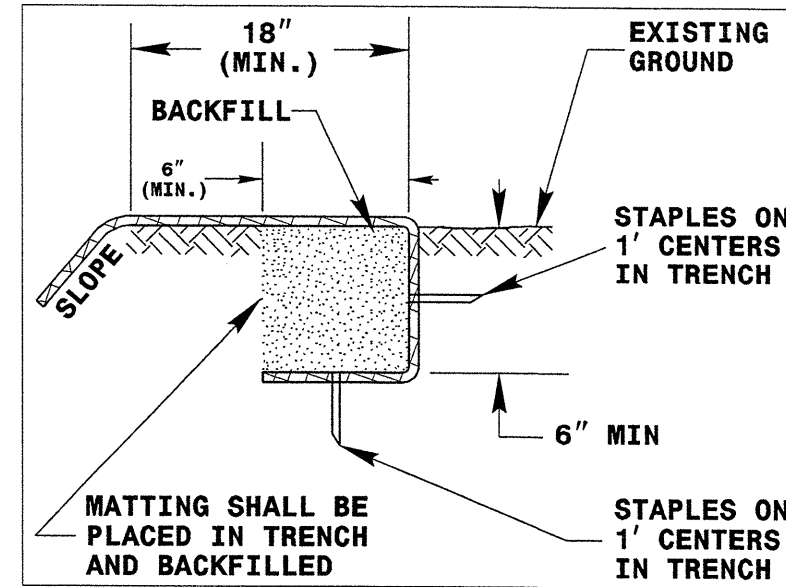
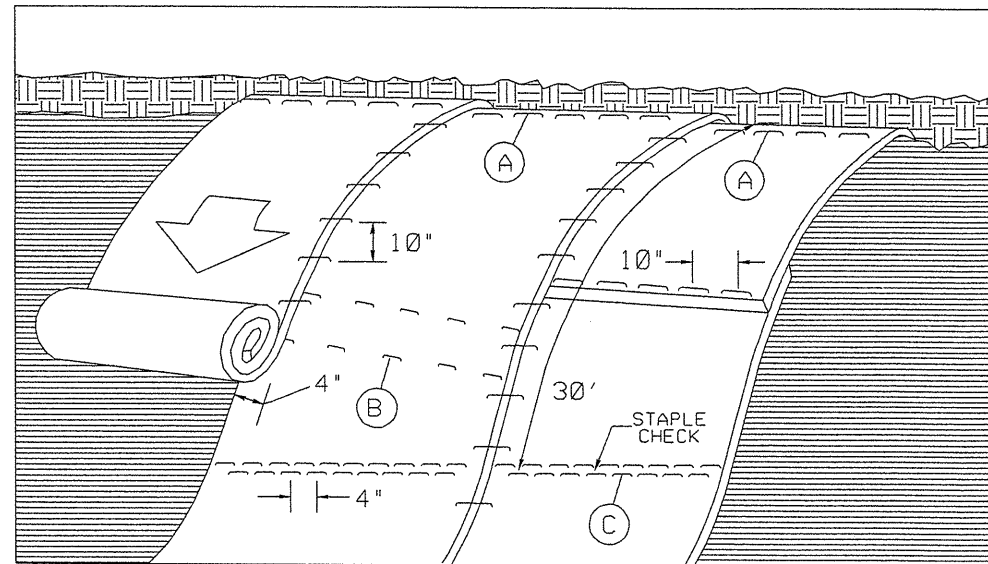


DIAGRAM (A)



**MATTING ON SLOPES**

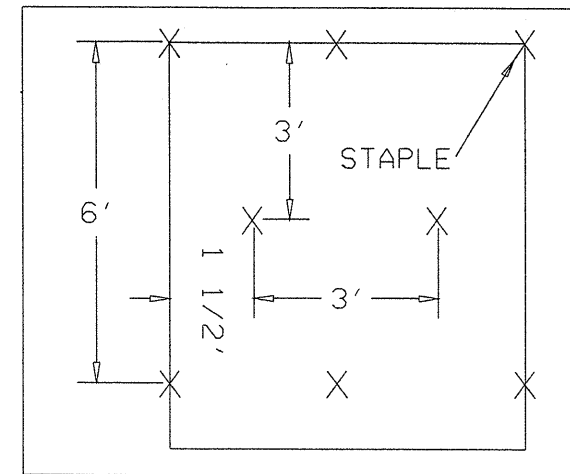


DIAGRAM (B)

STAPLE CHECK PATTERN

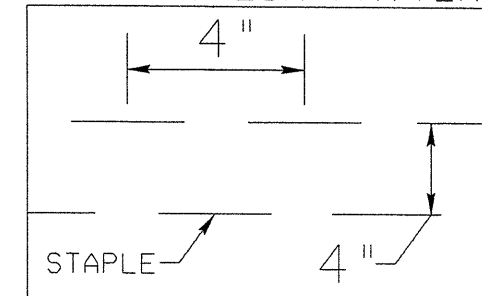


DIAGRAM (C)

**NOTES:**

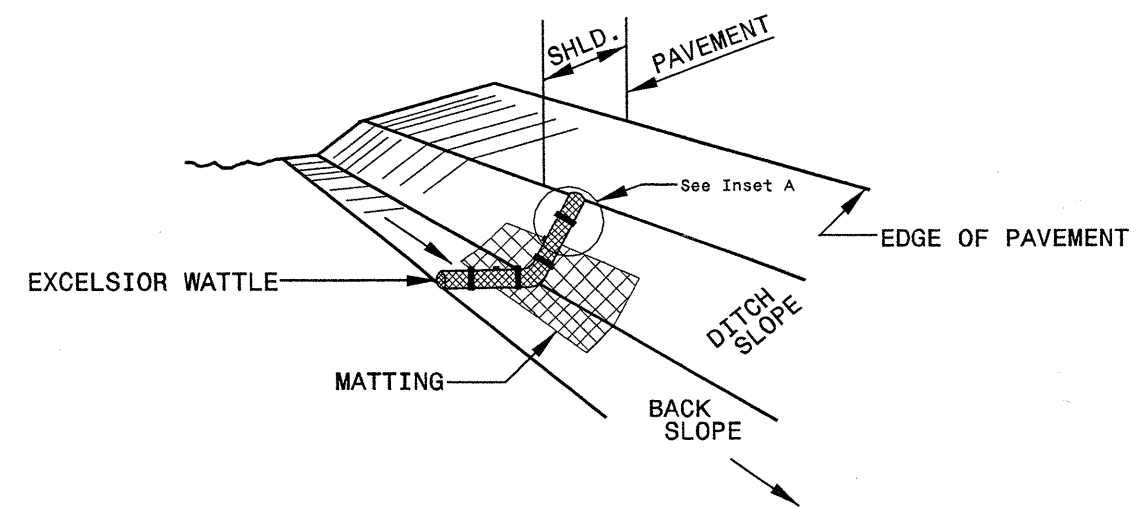
THIS DETAIL APPLIES TO STRAW, EXCELSIOR, AND PERMANENT SOIL REINFORCEMENT MAT (PSRM) INSTALLATION.

STAPLES SHALL BE NO. 11 GAUGE STEEL WIRE FORMED INTO A "U" SHAPE WITH A MINIMUM THROAT WIDTH OF 1 INCH AND NOT LESS THAN 6 INCHES IN LENGTH.

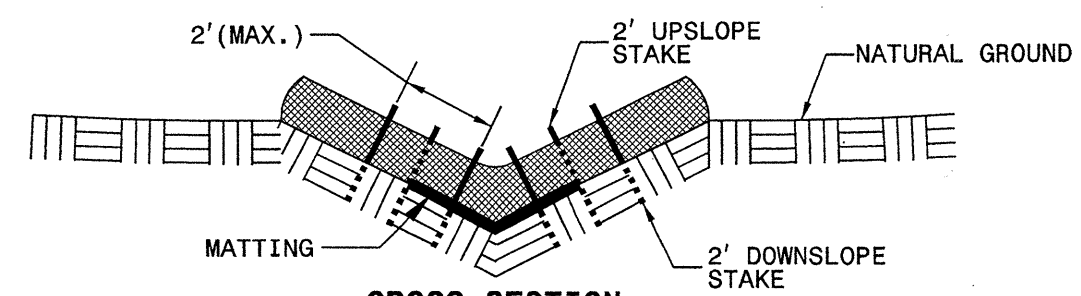
NOT TO SCALE

PROJECT REFERENCE NO. <b>IC-037048, ETC</b>	SHEET NO. <b>E-7</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

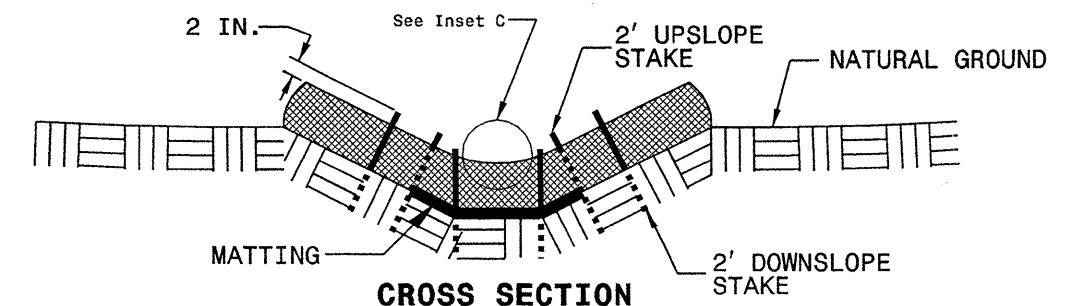
# WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



**ISOMETRIC VIEW**

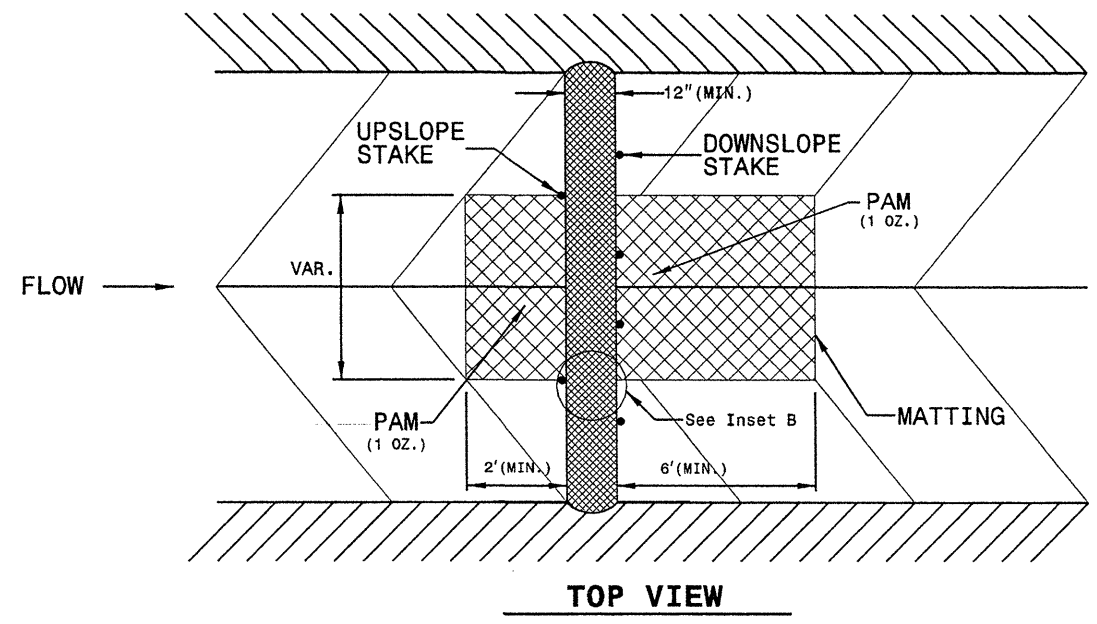
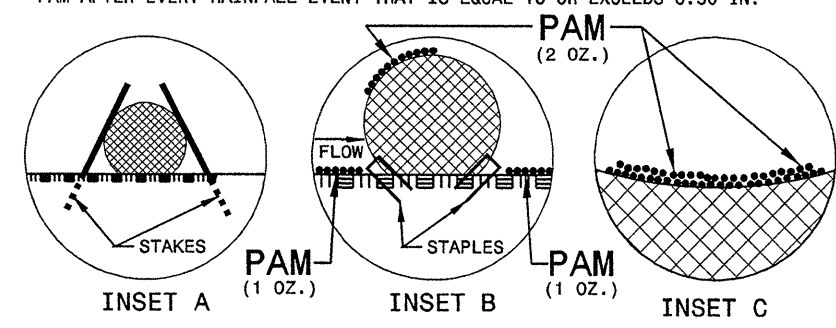


**CROSS SECTION VEE DITCH**



**CROSS SECTION TRAPEZOIDAL DITCH**

- 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.
  - PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.
  - INITIALLY APPLY 2 OUNCES OF ANIONIC OR NEUTRALLY CHARGED PAM OVER WATTLE WHERE WATER WILL FLOW AND 1 OUNCE OF PAM ON MATTING ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.



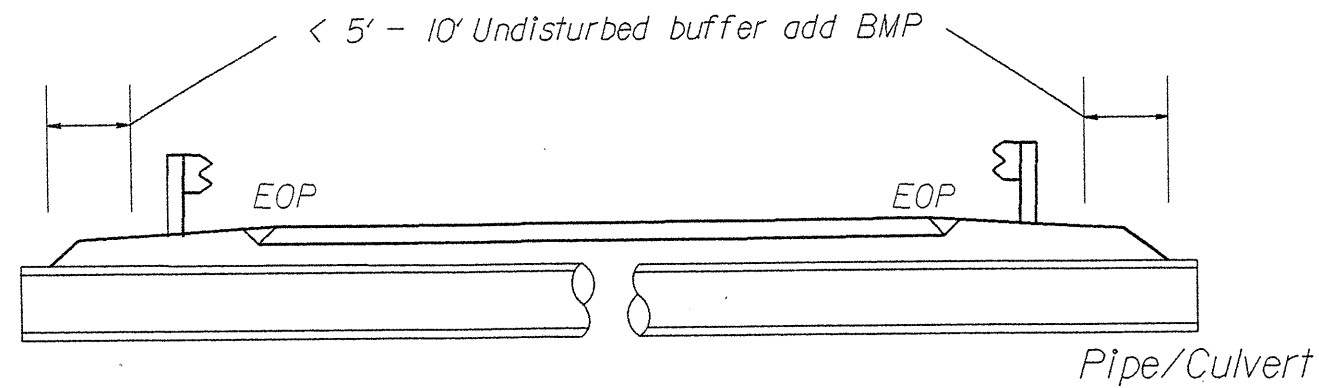
**TOP VIEW**

PROJECT REFERENCE NO. <b>1C.037048, ETL</b>	SHEET NO. <b>EC-3</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

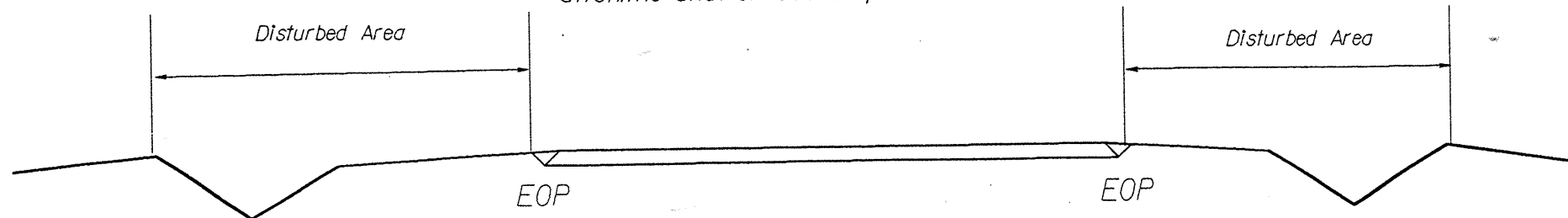
NOTES: Less than 5' - 10' undisturbed buffer from ROW, ditchline, water feature, or drainage inlet, add BMP.

BMP Options: Wattle or Silt Fence

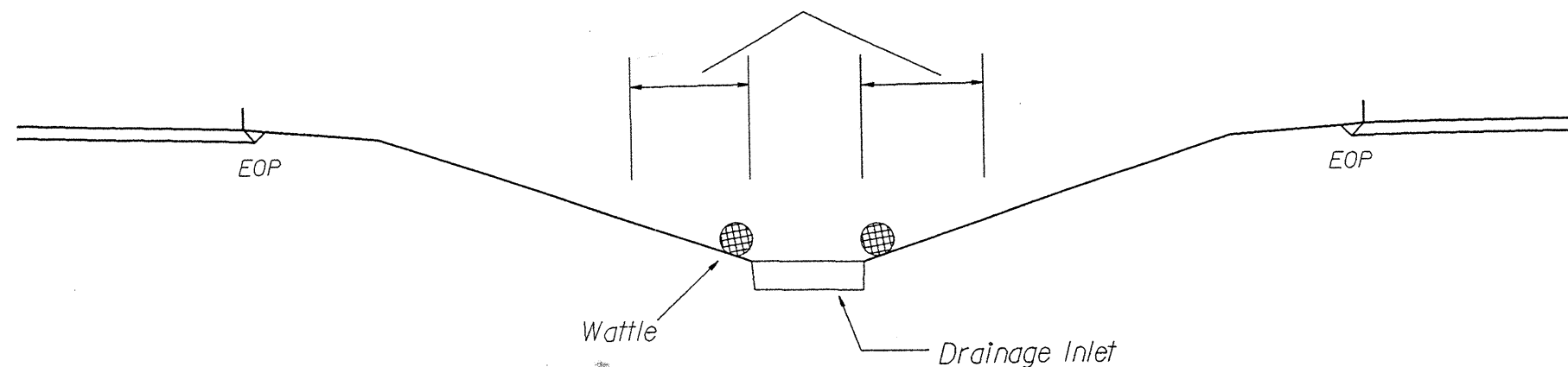
# EROSION CONTROL DETAIL



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