

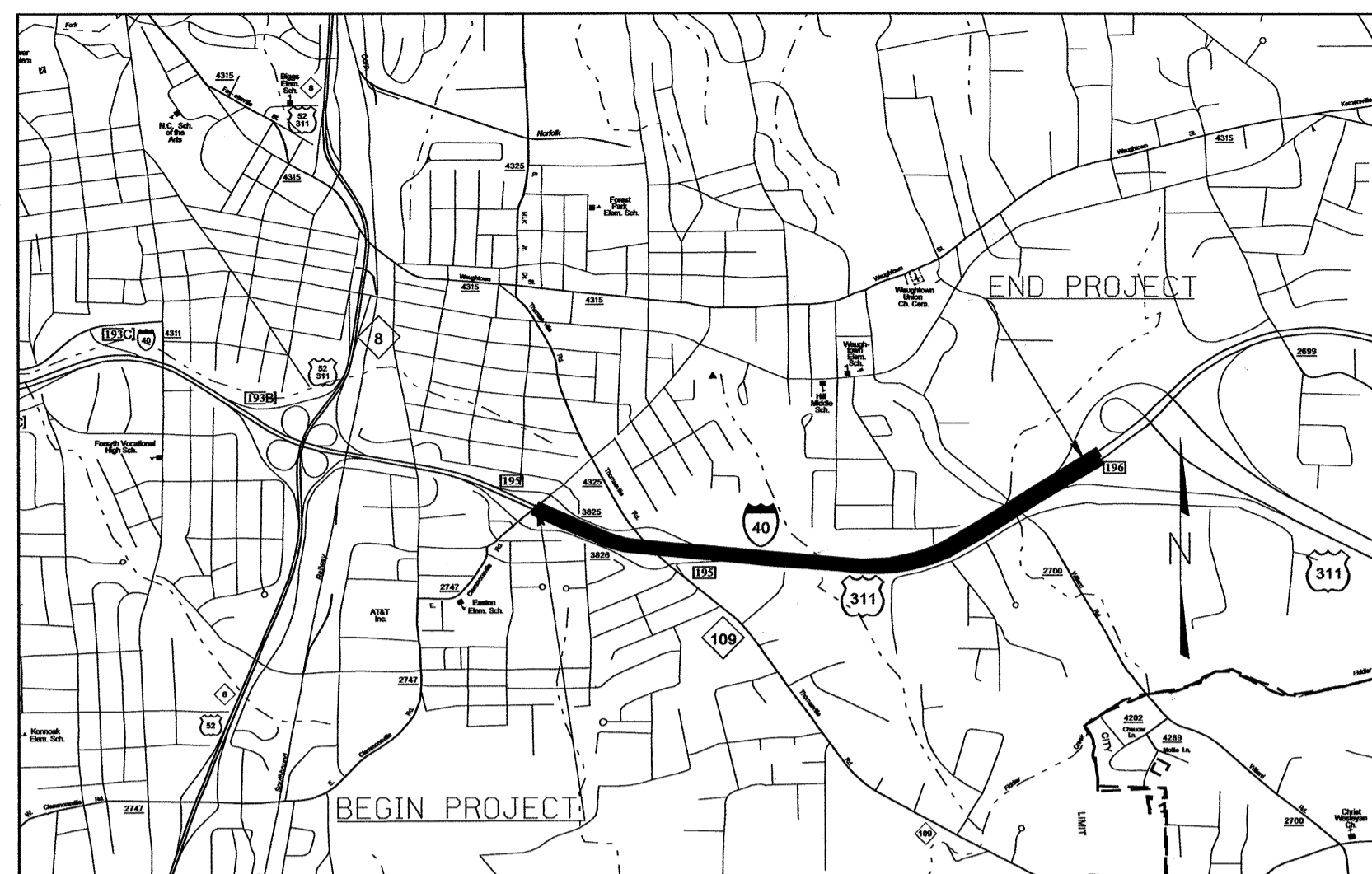
See Sheet 1-A For Index of Sheets

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

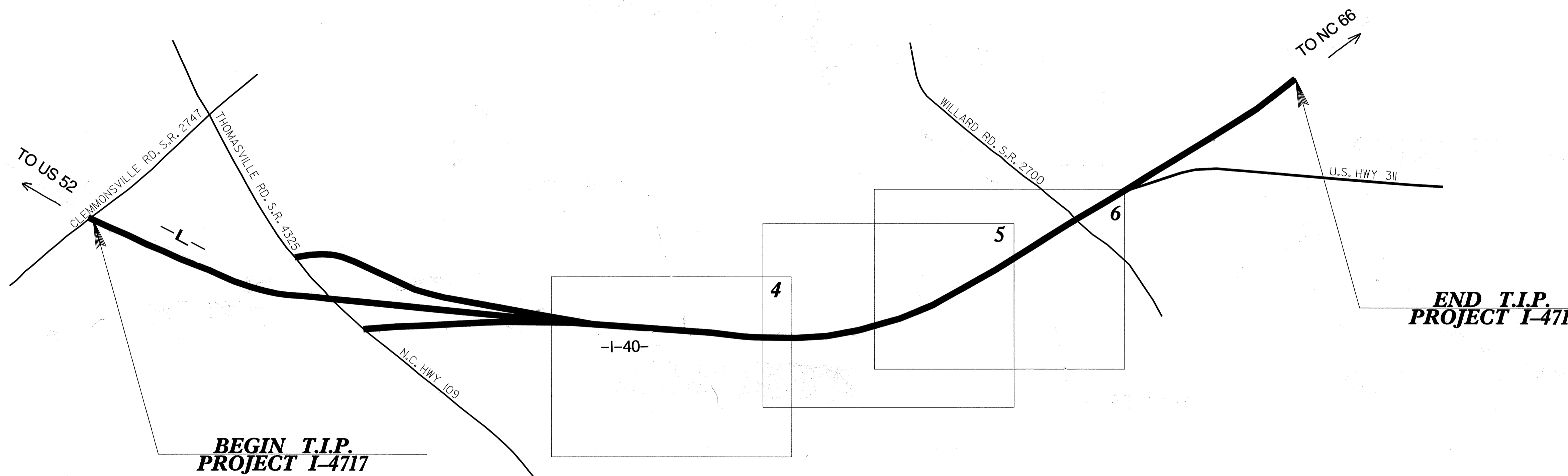
FORSYTH COUNTY

**LOCATION: WINSTON-SALEM I-40 FROM S.R. 2747
(E. CLEMMONSVILLE RD.) TO 1600' EAST
OF S.R. 2700 (WILLARD RD.) INCLUDING RAMPS AT N.C. 109**
TYPE OF WORK: GRADING, PAVING, WIDENING

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-4717	1	
STATE PROJ. NO.	P.A. PROJ. NO.	DESCRIPTION	
38729.1.1	IMS-40-3 (107) 19	PE.	
38729.3.1.ST1		CONST.	



VICINITY MAP

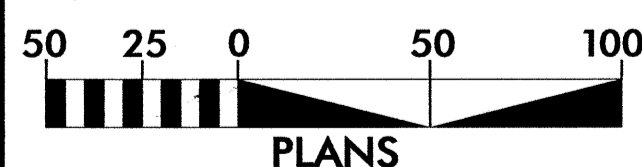


TIP PROJECT: I-4717

CONTRACT: C202045

13-FEB-2009 07:42
s:\ddc\1-4717\14717_files_sent_to_raleigh\14714_rdy_tsh.dgn
T:\marlon AT D9CAD249267

GRAPHIC SCALES



DESIGN DATA

ADT 2005 = 81000
ADT 2025 = 120500
DHV = 10 %
D = 60 %
T = 16 % *
V = 70 MPH
* TTST 12% DUAL 4%

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT I-4717 = 1.75 MILES
TOTAL LENGTH TIP PROJECT I-4717 = 1.75 MILES

Prepared In the Office of:
DIVISION OF HIGHWAYS
NINTH DIVISION DESIGN/CONSTRUCT OFFICE
375 SILAS CREEK PARKWAY, WINSTON-SALEM, N.C. 27043
2006 STANDARD SPECIFICATIONS

J. Brett Abernathy, P.E., P.L.S.
PROJECT ENGINEER

LETTING DATE:
21 APRIL 09

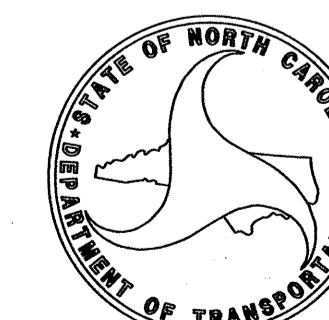
Diane K. Hampton, P.E.
PROJECT DESIGN ENGINEER

DIVISION DESIGN ENGINEER


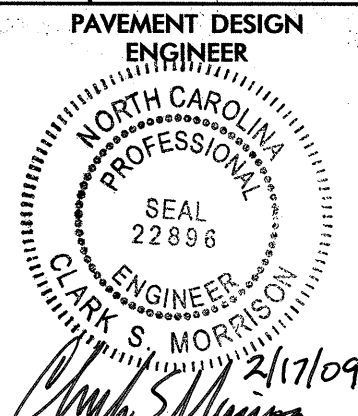


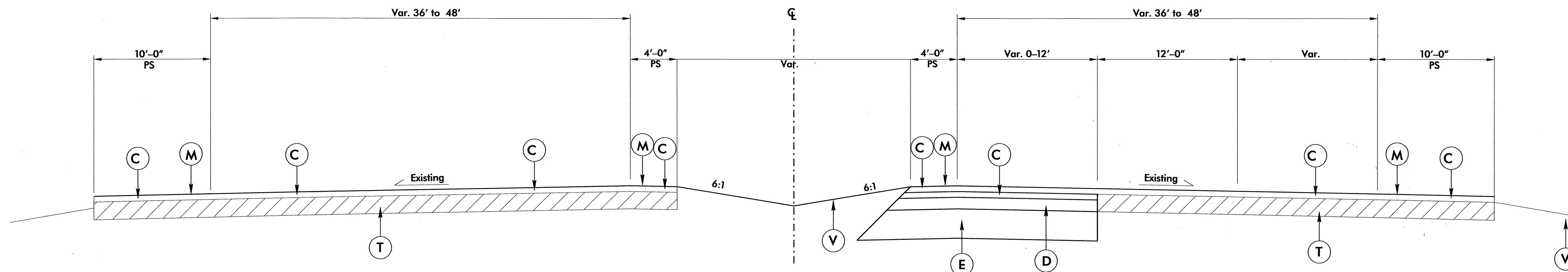
SIGNATURE: *Diane K. Hampton* P.E.
2-113109

**DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA**



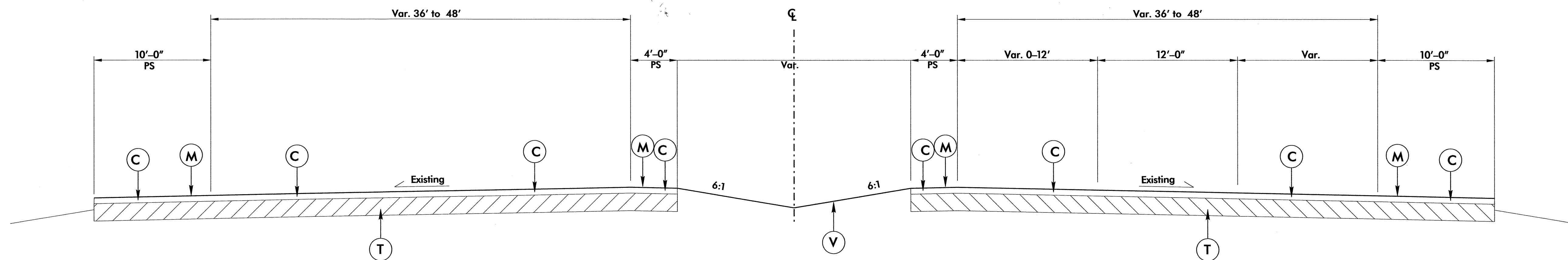
STATE HIGHWAY DESIGN ENGINEER P.E.

PROJECT REFERENCE NO.		SHEET NO.	
1-4717		2	
ROADWAY DESIGN ENGINEER		PAVEMENT DESIGN ENGINEER	
 DIANE K. HAMPTON 2/13/09		 CLARK S. MORRISON 2/13/09	



TYPICAL SECTION

-L- STA. 179+70.31 - 199+13.28



TYPICAL SECTION

EAST CLEMMONSVILLE ROAD TO -L- 179+70.31
 -L- 199+13.28 TO 1600' EAST OF S.R. 2700 WILLARD ROAD

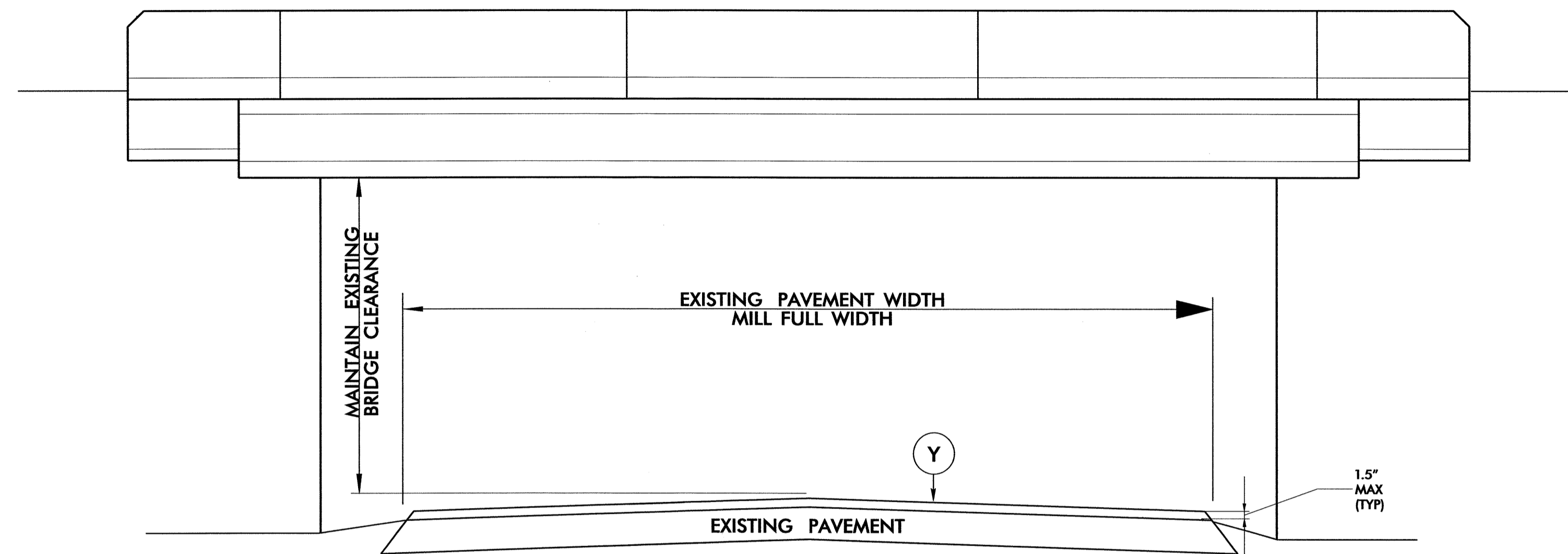
- * NOTE:
- REMOVE AND RESET GUARDRAIL WHERE NECESSARY AS DETERMINED BY ENGINEER.
 - RECONSTRUCT SHOULDER WHERE NECESSARY AS DETERMINED BY ENGINEER.
 - MILL APPROACHES TO BRIDGES AND TIE-INS AS DETERMINED NECESSARY BY ENGINEER.
 - REMOVE EXISTING SHOULDER PRIOR TO WIDENING.
 - 1 1/2" OVERLAY "C" FOR PROJECTS LIMITS.
 - MILL UNDER BRIDGES AS DIRECTED BY THE ENGINEER.

PAVEMENT SCHEDULE

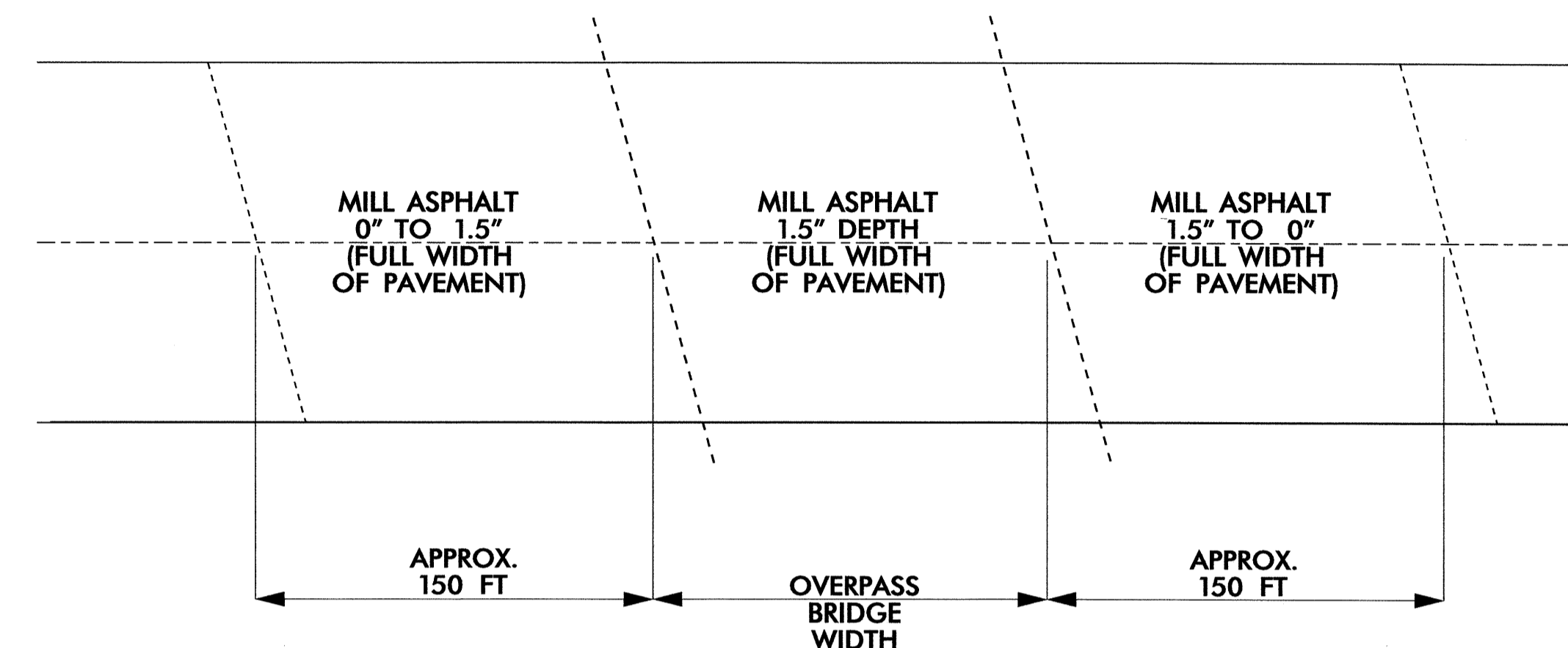
C	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	T	EXISTING PAVEMENT.
D	PROP. APPROX. 3" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.	V	SHOULDER RECONSTRUCTION
E	PROP. APPROX. 1 3/4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 513 LBS. PER SQ. YD. IN EA OF THREE(3) LAYERS.	Y	MILL ASPHALT PAVEMENT, 0" TO 1.5" DEPTH
M	MILLED RUMBLE STRIP.		

1/6/09

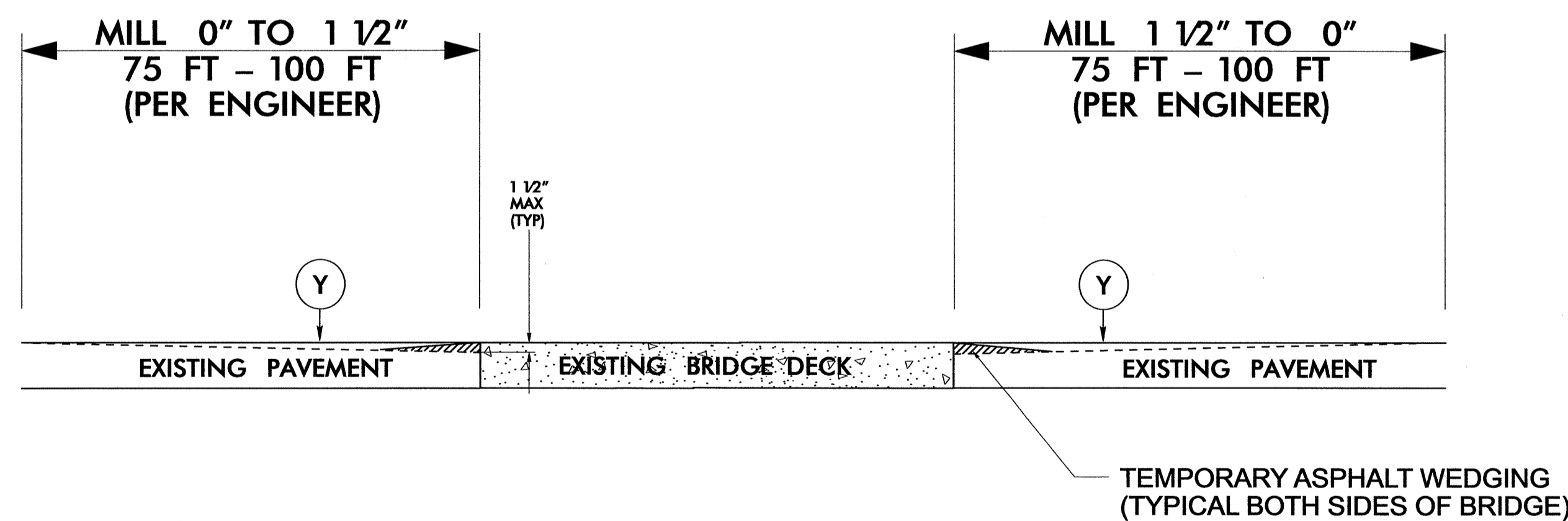
PROJECT REFERENCE NO. 1-4717	SHEET NO. 2A
ROADWAY DESIGN ENGINEER DANE K. HAMPTON SEAL No. 26109 2/13/09	PAVEMENT DESIGN ENGINEER C. TRAVIS MORRISON SEAL 22896 2/16/09



ELEVATION FOR BRIDGE NO. 29



PLAN VIEW FOR MILLING ASPHALT PAVEMENT UNDER OVERPASS



MILLING BRIDGE APPROACHES

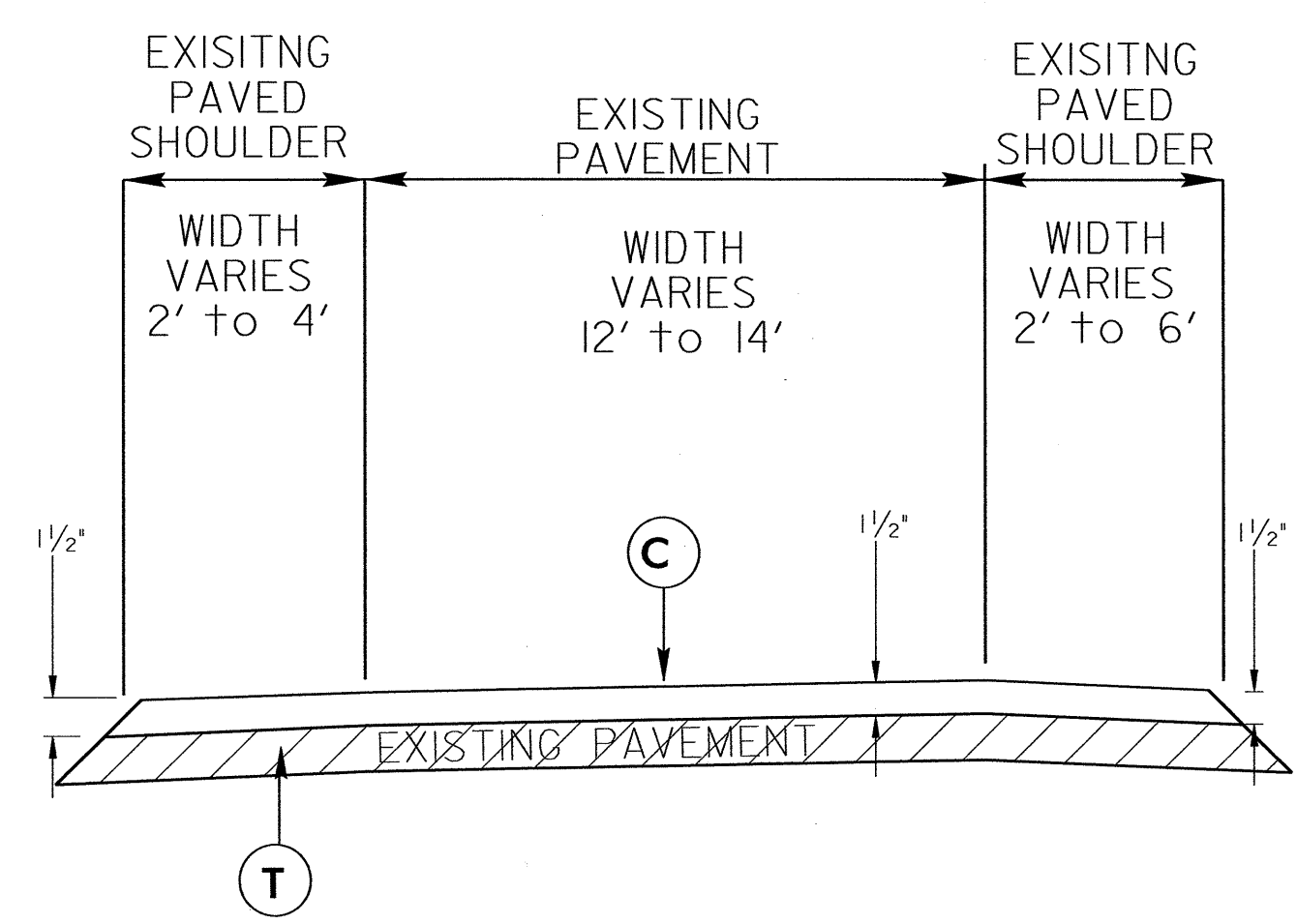
- * NOTE:
1. REMOVE AND RESET GUARDRAIL WHERE NECESSARY AS DETERMINED BY ENGINEER.
 2. RECONSTRUCT SHOULDER WHERE NECESSARY AS DETERMINED BY ENGINEER.
 3. MILL APPROACHES TO BRIDGES AND TIE-INS AS DETERMINED NECESSARY BY ENGINEER.
 4. REMOVE EXISTING SHOULDER PRIOR TO WIDENING.
 5. 1 1/2" OVERLAY "C" FOR PROJECTS LIMITS.
 6. MILL UNDER BRIDGES AS DIRECTED BY THE ENGINEER.

PAVEMENT SCHEDULE

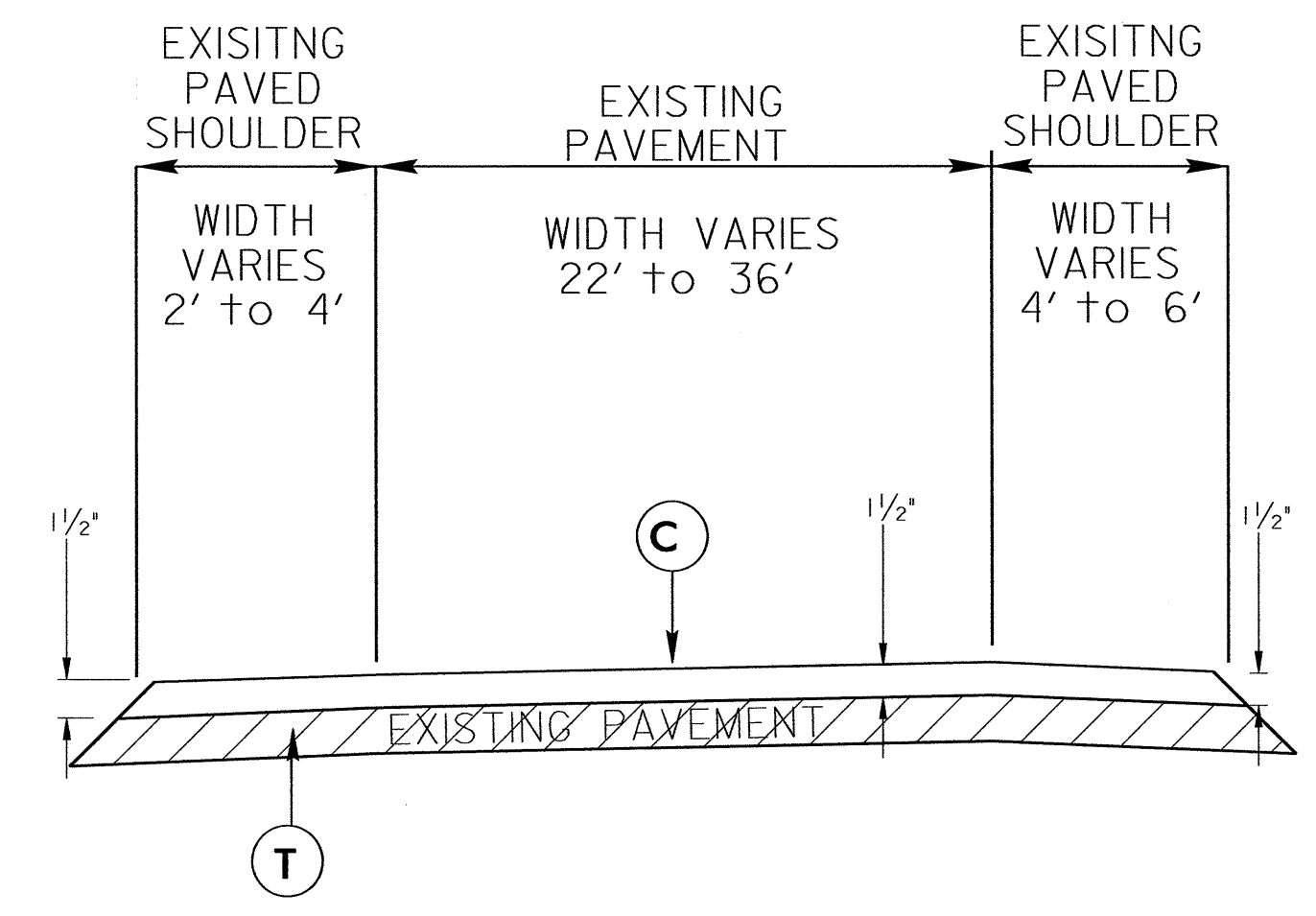
C	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	T	EXISTING PAVEMENT.
D	PROP. APPROX. 3" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.	V	SHOULDER RECONSTRUCTION
E	PROP. APPROX. 13 1/2" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 513 LBS. PER SQ. YD. IN EA OF THREE(3) LAYERS.	Y	MILL ASPHALT PAVEMENT, 0" TO 1.5" DEPTH
M	MILLED RUMBLE STRIP.		

03-FEB-2009 14:06:17 f:\188\pnt to raleigh\4717_rdy_typ.e.1.14.09.dgn

PROJECT REFERENCE NO. 1-4717	SHEET NO. 2B
ROADWAY DESIGN ENGINEER DANE K. HAMPTON 2/19/09	PAVEMENT DESIGN ENGINEER CLARK S. MORRISON 2/26/09



EASTBOUND RAMP
FROM NC 109
TO I-40



WESTBOUND RAMP
FROM I-40 TO NC 109

- NOTE:**
1. REMOVE AND RESET GUARDRAIL WHERE NECESSARY AS DETERMINED BY ENGINEER.
 2. RECONSTRUCT SHOULDER WHERE NECESSARY AS DETERMINED BY ENGINEER.
 3. MILL APPROACHES TO BRIDGES AND TIE-INS AS DETERMINED NECESSARY BY ENGINEER.
 4. REMOVE EXISTING SHOULDER PRIOR TO WIDENING.
 5. 1 1/2" OVERLAY "C" FOR PROJECTS LIMITS.
 6. MILL UNDER BRIDGES AS DIRECTED BY THE ENGINEER.

PAVEMENT SCHEDULE

C	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	T	EXISTING PAVEMENT.
D	PROP. APPROX. 3" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.	V	SHOULDER RECONSTRUCTION
E	PROP. APPROX. 1 3/2" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 513 LBS. PER SQ. YD. IN EA OF THREE(3) LAYERS.	Y	MILL ASPHALT PAVEMENT, 0" TO 1.5" DEPTH
M	MILLED RUMBLE STRIP.		

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SUMMARY OF QUANTITIES

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
ROADWAY SUMMARY OF QUANTITIES FOR CONTRACT - C202045

ItemNumber	Sec #	Quantity	Unit	Description
0000100000-N	800	Lump Sum		MOBILIZATION
0043000000-N	226	Lump Sum		GRADING
0057000000-E	226	650	CY	UNDERCUT EXCAVATION
0080000000-E	SP	1,150	TON	CLASS IV SUBGRADE STABILIZATION
0196000000-E	270	1,850	SY	FABRIC FOR SOIL STABILIZATION
1245000000-E	SP	5.47	SMI	SHOULDER RECONSTRUCTION
1297000000-E	607	1,640	SY	MILLING ASPHALT PAVEMENT, **** DEPTH (1-1/2")
1308000000-E	607	13,310	SY	MILLING ASPHALT PAVEMENT, **** TO ***** DEPTH (0" TO 1-1/2")
1491000000-E	610	1,231	TON	ASPHALT CONC BASE COURSE, TYPE B25.0C
1503000000-E	610	274	TON	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0C
1523000000-E	610	10,964	TON	ASPHALT CONC SURFACE COURSE, TYPE S9.5C
1560000000-E	620	66	TON	ASPHALT BINDER FOR PLANT MIX, GRADE PG 64-22
1565000000-E	620	658	TON	ASPHALT BINDER FOR PLANT MIX, GRADE PG 70-22
1840000000-E	665	37,000	LF	MILLED RUMBLE STRIPS (ASPHALT CEMENT CONCRETE)
2752000000-E	SP	50	LF	GENERIC PAVING ITEM REMOVE CONCRETE MEDIAN BARRIER
2815000000-N	858	3	EA	ADJUSTMENT OF DROP INLETS
3030000000-E	862	2,600	LF	STEEL BM GUARDRAIL
3345000000-E	864	6,300	LF	REMOVE & RESET EXISTING GUARDRAIL
3389200000-E	865	100	LF	CABLE GUIDERAIL
4400000000-E	1110	748	SF	WORK ZONE SIGNS (STATIONARY)
4405000000-E	1110	965	SF	WORK ZONE SIGNS (PORTABLE)
4415000000-N	1115	4	EA	FLASHING ARROW PANELS, TYPE C
4420000000-N	1120	6	EA	CHANGEABLE MESSAGE SIGN
4430000000-N	1130	370	EA	DRUMS

ItemNumber	Sec #	Quantity	Unit	Description
4465000000-N	1160	1	EA	TEMPORARY CRASH CUSHIONS
4480000000-N	1165	2	EA	TMA
4485000000-E	1170	387	LF	PORTABLE CONCRETE BARRIER
4495000000-E	1170	387	LF	PORTABLE CONCRETE BARRIER (DRAINAGE)
4510000000-N	SP	1,000	HR	POLICE
4516000000-N	1180	74	EA	SKINNY DRUM
4650000000-N	1251	38	EA	TEMPORARY RAISED PAVEMENT MARKERS
4688000000-E	1205	36,000	LF	THERMOPLASTIC PAVEMENT MARKING LINES (6", 90 MILS)
4690000000-E	1205	32,600	LF	THERMOPLASTIC PAVEMENT MARKING LINES (6", 120 MILS)
4700000000-E	1205	2,100	LF	THERMOPLASTIC PAVEMENT MARKING LINES (12", 90 MILS)
4710000000-E	1205	24	LF	THERMOPLASTIC PAVEMENT MARKING LINES (24", 120 MILS)
4725000000-E	1205	8	EA	THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS)
4815000000-E	1205	169,163	LF	PAINT PAVEMENT MARKING LINES (6")
4855000000-E	1205	5,821	LF	REMOVAL OF PAVEMENT MARKING LINES (6")
4875000000-N	1205	6	EA	REMOVAL OF PAVEMENT MARKING SYMBOLS & CHARACTERS
4905000000-N	1253	500	EA	SNOWPLOWABLE PAVEMENT MARKERS
5255000000-N	1413	Lump Sum		PORTABLE LIGHTING
6000000000-E	1605	100	LF	TEMPORARY SILT FENCE
6009000000-E	1610	50	TON	STONE FOR EROSION CONTROL, CLASS B
6012000000-E	1610	50	TON	SEDIMENT CONTROL STONE
6015000000-E	1615	1	ACR	TEMPORARY MULCHING
6036000000-E	1631	500	SY	MATTING FOR EROSION CONTROL
6042000000-E	1632	100	LF	1/4" HARDWARE CLOTH
6084000000-E	1660	5	ACR	SEEDING & MULCHING
6090000000-E	1661	50	LB	SEED FOR REPAIR SEEDING

ItemNumber	Sec #	Quantity	Unit	Description
6093000000-E	1661	0.25	TON	FERTILIZER FOR REPAIR SEEDING

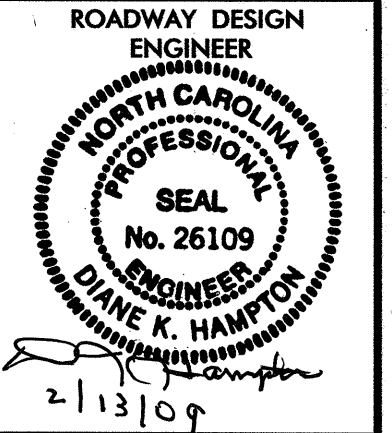
5/28/99
28-JAN-2009 15:45
4717 files sent to raleigh\4717-summ-of-quantities.sht-3.dgn
4717 files sent to raleigh\4717-summ-of-quantities.sht-3.dgn
4717 files sent to raleigh\4717-summ-of-quantities.sht-3.dgn

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SUMMARY OF PAVEMENT REMOVAL
IN SQUARE YARDS

LINE	STATION	STATION	LOCATION	SQUARE YARDS
- L -	186+73	199+68	RT.	990
- L -	186+15	200+13	LT.	510
Total				1500
Say				1500

Note: Approximate quantities only.
Unclassified Excavation, Fine Grading,
and Removal of Existing Pavement will
be paid for at the contract lump sum
price for "Grading."

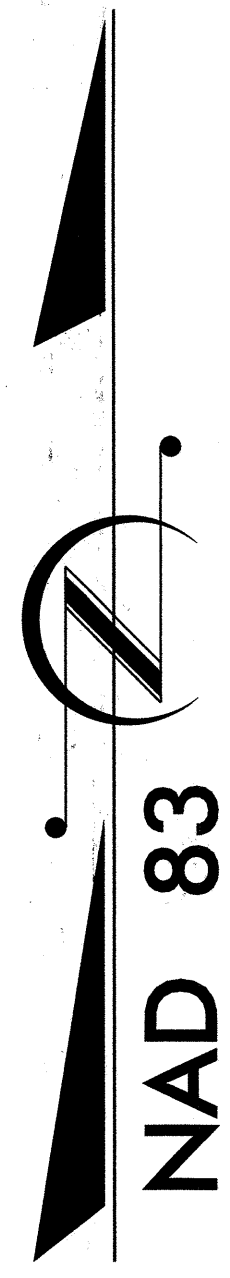


8/17/99

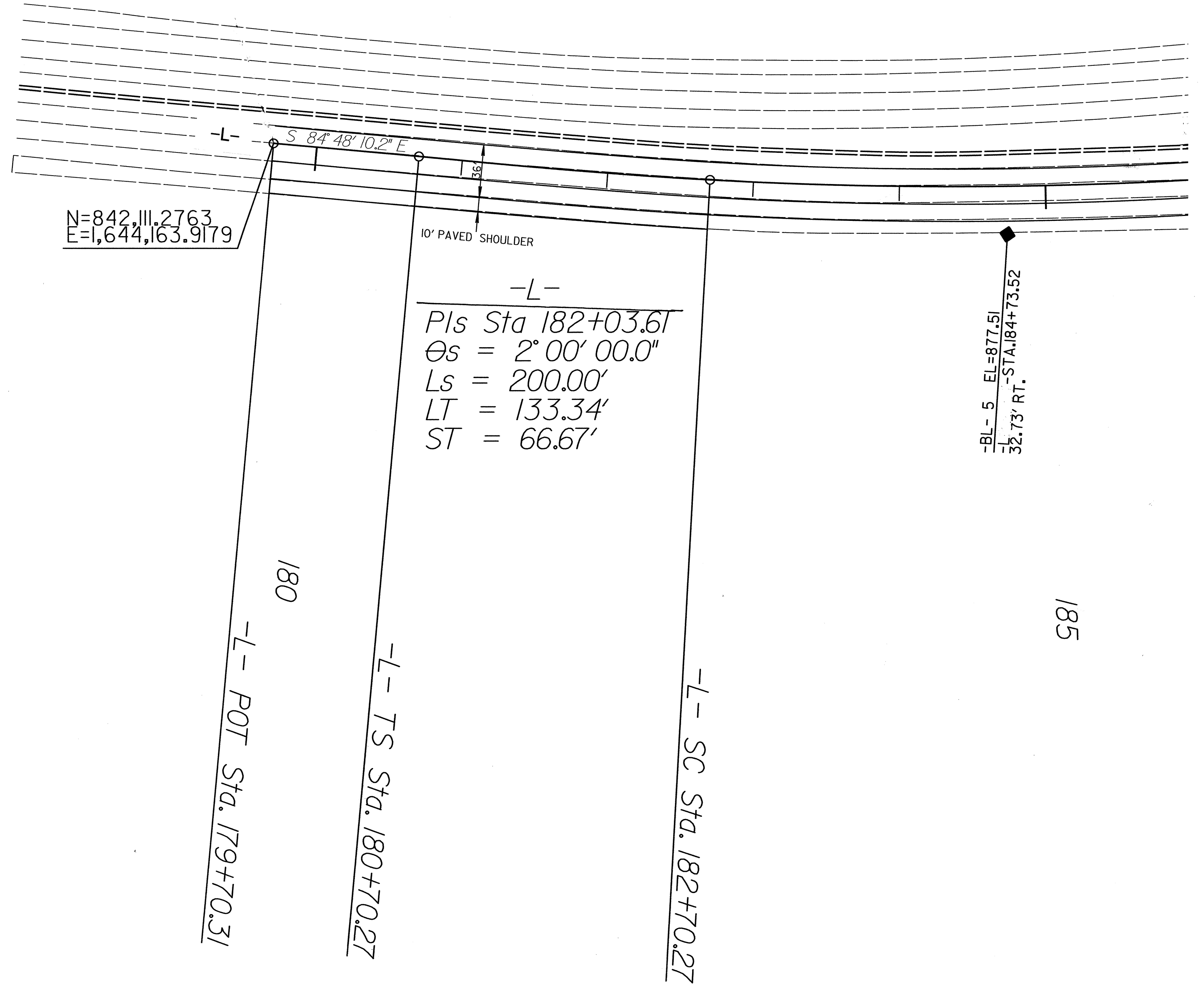
REVISIONS

13-LEB-2009_08122
 17
 A:\101\101245267.dgn
 2/13/09

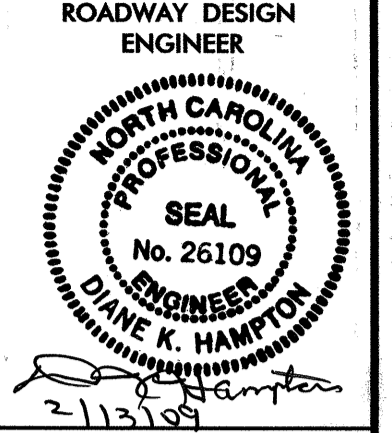
-BL- 4 EL=877.82'
 N=842,125.7197
 E=1,643,442.2346



BEGIN TIP PROJECT I-4717
 AT CLEMMONSVILLE RD

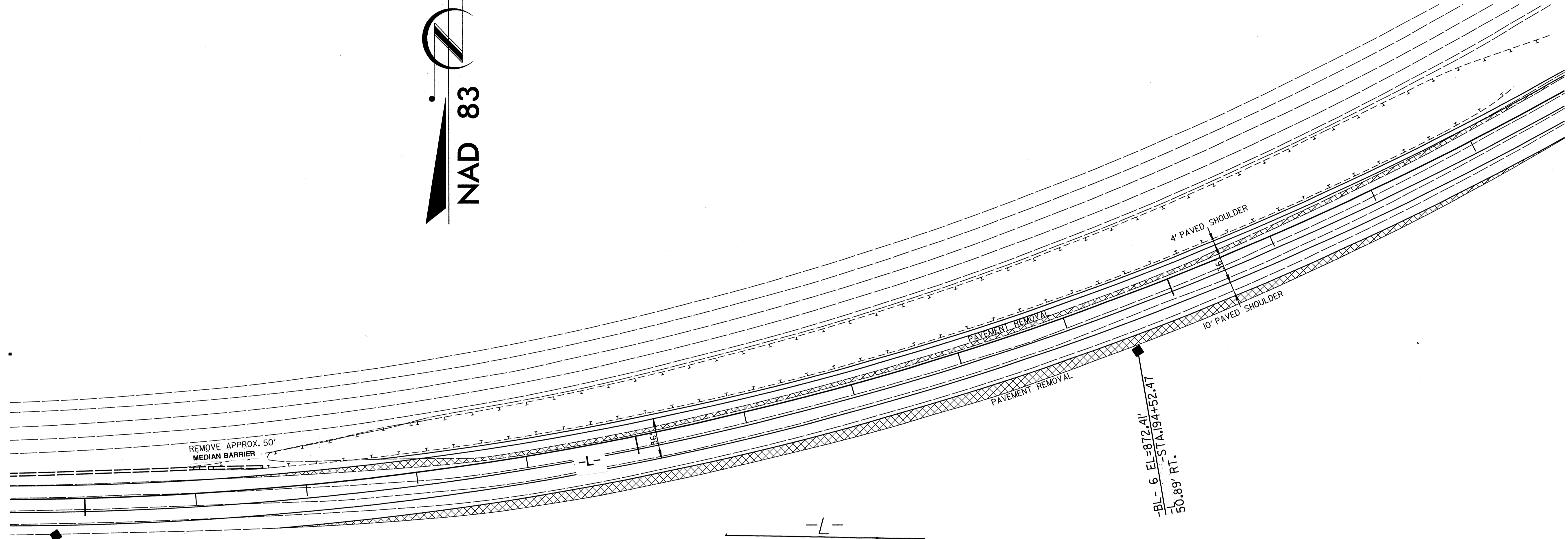
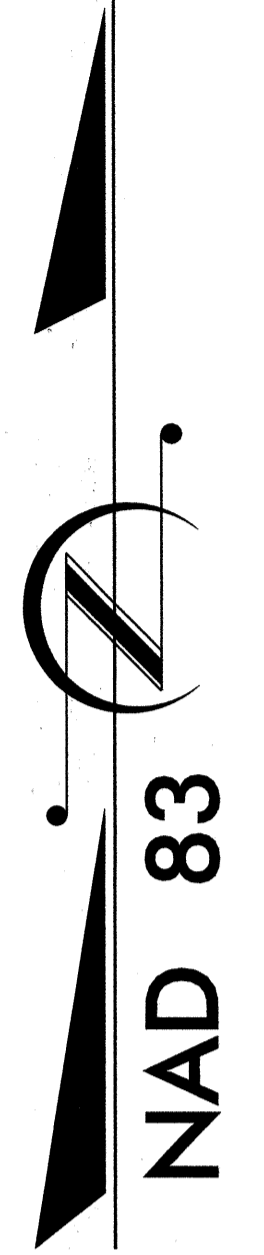


PROJECT REFERENCE NO.	SHEET NO.
1-4717	5
RW SHEET NO.	



1/15/09

REVISIONS



-L-

PI Sta 191+15.06
 $\Delta = 32^\circ 51' 37.0''$ (LT)
 $D = 2^\circ 00' 00.0''$
 $L = 1,643.01'$
 $T = 844.79'$
 $R = 2,864.79'$

185

190

195

B:\FEB-2009_08123
 13-2009-4717
 1-1-10.dwg
 2/15/09

