

**INDEX OF SHEETS**

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**VAOT STANDARDS**

- |   |  |  |
|---|--|--|
| <ul style="list-style-type: none"> <li>D-3M TREATED GUTTERS</li> <li>D-6M REINFORCED CONCRETE DROP INLET (DITCHES)</li> <li>D-8M REINFORCED CONCRETE DROP INLET</li> <li>D-9M REINFORCED CONCRETE DROP INLET</li> <li>D-10M REINFORCED CONCRETE DROP INLET</li> <li>D-11M GRATES &amp; COVERS (TYPE A)</li> <li>D-15M CAST IRON GRATE (TYPE D &amp; E)</li> </ul>   | <ul style="list-style-type: none"> <li>06-13-97</li> <li>06-13-97</li> <li>01-03-00</li> <li>06-13-97</li> <li>06-13-97</li> <li>06-13-97</li> <li>06-13-97</li> </ul>   | <ul style="list-style-type: none"> <li>01-02-04</li> <li>01-02-04</li> <li>05-30-03</li> <li>06-30-03</li> <li>05-01-04</li> <li>03-01-04</li> <li>03-01-04</li> <li>06-30-03</li> </ul> |
| <ul style="list-style-type: none"> <li>E-100 CONSTRUCTION APPROACH SIGNS</li> <li>E-100A SIDEROAD CONSTRUCTION APPROACH SIGNS</li> <li>E-101 CONSTRUCTION SIGN DETAILS</li> <li>E-102 CONSTRUCTION SIGN DETAILS</li> <li>E-102A CONSTRUCTION SIGN DETAILS</li> <li>E-103 CONSTRUCTION SIGN DETAILS</li> <li>E-106 TRAFFIC CONTROL - MISCELLANEOUS DETAILS</li> <li>E-107 DELINEATION, BARRICADES AND DETOURS FOR CONSTRUCTION AREAS</li> </ul>  | <ul style="list-style-type: none"> <li>08-08-95</li> <li>08-18-95</li> <li>08-08-95</li> <li>03-11-97</li> <li>03-01-04</li> <li>08-08-95</li> <li>08-08-95</li> <li>05-30-03</li> <li>09-20-95</li> <li>06-15-04</li> <li>09-20-95</li> <li>05-01-04</li> <li>05-01-04</li> <li>05-01-04</li> <li>05-20-99</li> <li>05-20-99</li> <li>02-01-99</li> <li>10-12-00</li> <li>08-18-95</li> </ul> | <ul style="list-style-type: none"> <li>01-03-00</li> <li>06-13-97</li> <li>01-03-00</li> <li>06-13-97</li> <li>11-15-02</li> </ul>   |
| <ul style="list-style-type: none"> <li>E-107A BREAKAWAY BARRICADE DETAILS</li> <li>E-108 CONSTRUCTION ZONE LONGITUDINAL DROP OFFS</li> <li>E-110 MAJOR MAINTAINANCE OPERATION LANE CLOSURE</li> <li>E-111 MAINTENANCE OPERATION APPROACH SIGNS</li> <li>E-119 UTILITY WORK ZONE</li> <li>E-120 STANDARD SIGN PLACEMENT - FREEWAY/EXPRESSWAY</li> <li>E-121 STANDARD SIGN PLACEMENT - RURAL ROADS</li> <li>E-138 MILEMARKER DETAILS - STATE &amp; TOWN HIGHWAYS</li> <li>E-141 REGULATORY SIGN DETAILS</li> <li>E-143 REGULATORY SIGN DETAILS</li> <li>E-146 REGULATORY SIGN DETAILS</li> <li>E-150 WARNING SIGN DETAILS</li> <li>E-151 WARNING SIGN DETAILS</li> <li>E-153 WARNING SIGN DETAILS</li> <li>E-160 FLANGED CHANNEL STEEL SIGN POST</li> <li>E-164 SQUARE STEEL SIGN POST</li> <li>E-191 PAVEMENT MARKING DETAILS</li> <li>E-192 PAVEMENT MARKING DETAILS</li> <li>E-193 PAVEMENT MARKING DETAILS</li> </ul> | <ul style="list-style-type: none"> <li>G-1M STEEL BEAM GUARD RAIL</li> <li>G-1BM BOX BEAM GUARD RAIL</li> <li>G-IDM STEEL BEAM GUARD RAIL</li> <li>G-4M YIELDING MARKER POSTS</li> <li>G-19M GENERIC GRADING PLANS FOR GUARDRAIL END TERMINAL</li> </ul>   | <ul style="list-style-type: none"> <li>01-03-00</li> <li>06-13-97</li> <li>01-03-00</li> <li>06-13-97</li> <li>11-15-02</li> </ul>   |

# STATE OF VERMONT AGENCY OF TRANSPORTATION

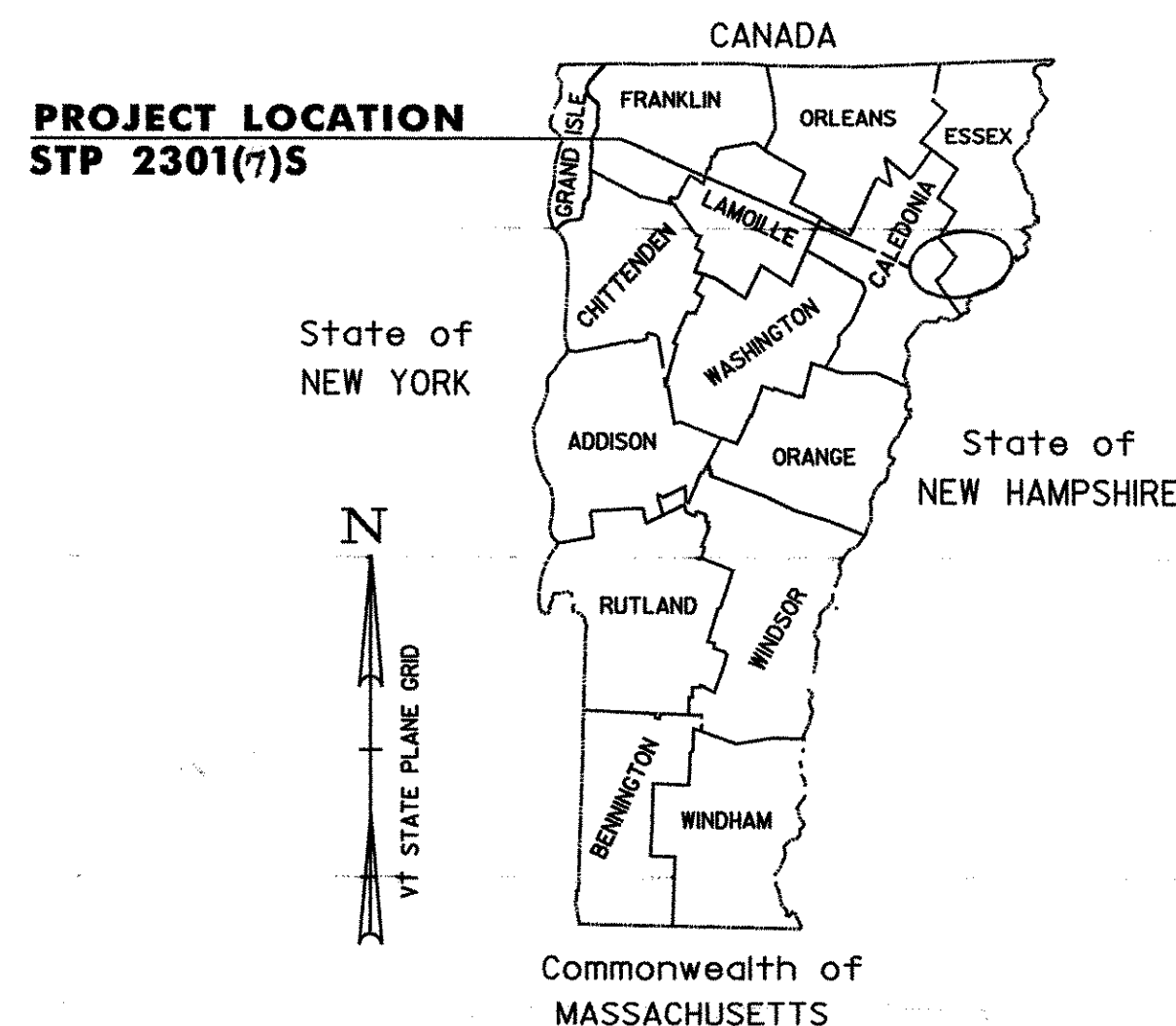
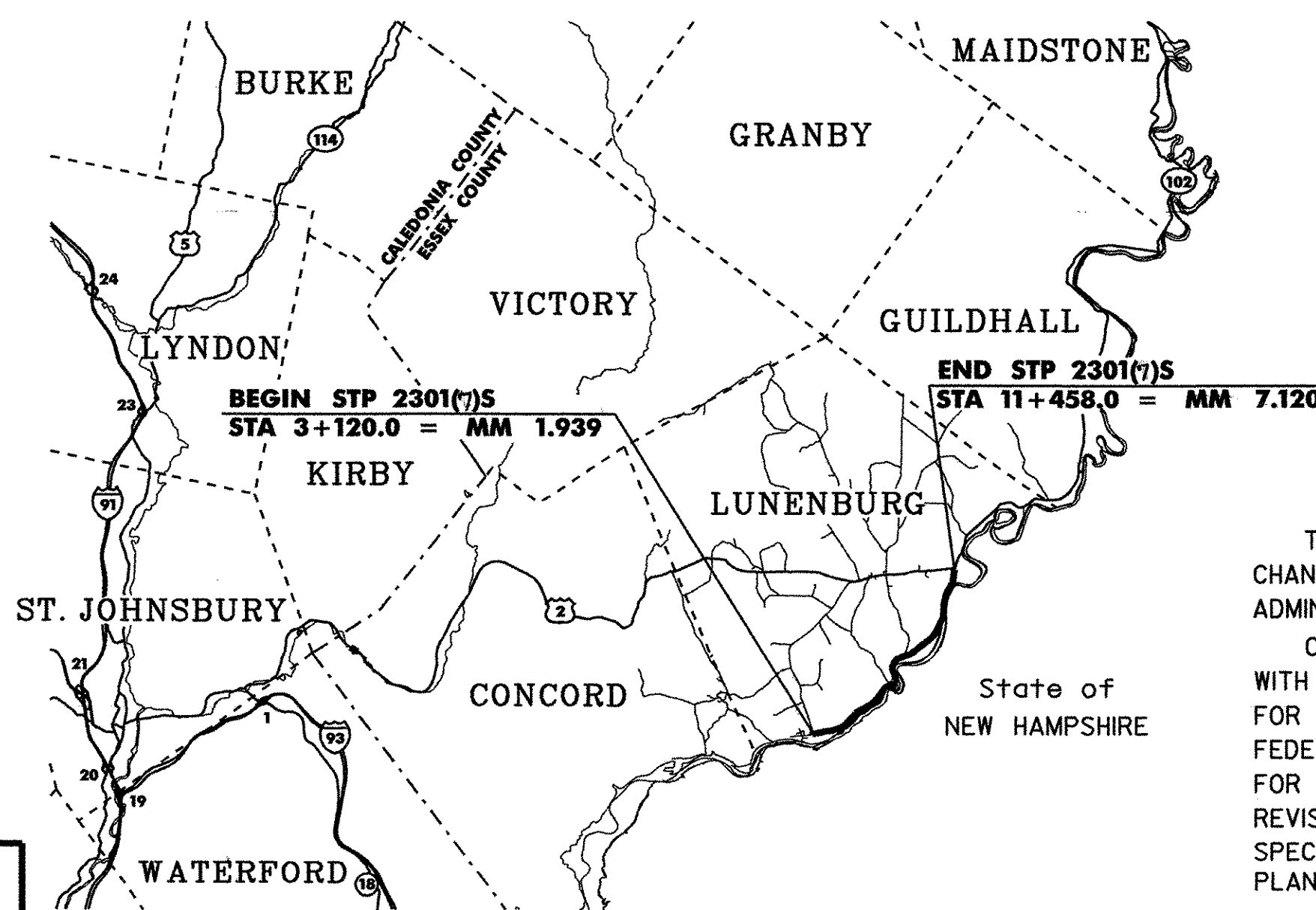


## PROPOSED IMPROVEMENTS TOWN OF LUNENBURG COUNTY OF ESSEX TH #1 (RIVER ROAD)

BEGINNING IN THE TOWN OF LUNENBURG AT STA 3+120.0 (MM 1.939) AND EXTENDING  
EASTERLY ALONG TH #1 (RIVER ROAD) THROUGH THE TOWN OF LUNENBURG FOR A DISTANCE  
OF APPROXIMATELY 8,338.0 METERS (5.181 MILES) TO STA 11+458.0 (MM 7.120),  
APPROXIMATELY 200 METERS WEST OF THE INTERSECTION OF TH #1 AND US ROUTE 2.

	LENGTH	
	(METERS)	(MILES)
TOWN OF LUNENBURG STA 3+120.0 TO STA 11+458.0 (MM 1.939 TO MM 7.120)	8,338.0	5.181
<b>PROJECT TOTALS</b>	<b>8,338.0</b>	<b>5.181</b>

WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES RECLAIMING SECTIONS  
AND RESURFACING OF THE EXISTING HIGHWAY WITH A COMBINATION OF LEVELING,  
BASE, AND WEARING COURSES, NEW PAVEMENT MARKINGS, GUARD RAIL INSTALLATION,  
DRAINAGE IMPROVEMENTS AND INCIDENTAL ITEMS.



RECORD PLANS	
CONTRACTOR:	PIKE INDUSTRIES, INC. - BERLIN, VT
RESIDENT ENGINEER:	CARL FIELDER
CONSTRUCTION BEGAN:	JUNE 1, 2006
CONSTRUCTION COMPLETE:	NOVEMBER 21, 2006
RECORD PLANS BY:	CARL FIELDER & C. PIERCE
I HEREBY CERTIFY THAT ALL THE CONSTRUCTION REQUIRED BY THIS SET OF DRAWINGS HAS BEEN ACCOMPLISHED AS INDICATED HEREIN.	
BY <i>Carl Fielder</i>	RESIDENT ENGINEER
DATE <i>8/22/07</i>	
NOTE: Any further information concerning final quantities, amounts or other details relative to this project may be found at Central Files in the electronic archives.	

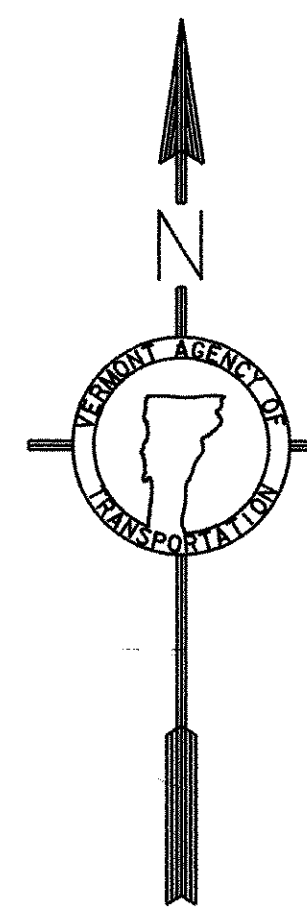
**TRAFFIC DATA**

	ADT		DHV		ESAL'S	ESAL'S
	2005	2015	2005	2015	(2005-2015)	(2005-2025)
BEGINNING OF PROJECT TO TH 2 (FAS 0219) (MM 1.52 TO 4.83)	800	930	120	140	260,000	627,000
TH 2 (FAS 0219) TO END OF PROJECT (US ROUTE 2) (MM 4.83 TO 7.25)	500	580	70	90	231,000	569,000

CONVENTIONAL SIGNS	
COUNTY LINE	---
TOWN LINE	- - - - -
LIMITS OF ACCESS	o---o---o
POINT OF ACCESS	X
FENCE LINE	x---x
STONE WALL	o---o---o
TRAVELED WAY	====
GUARD RAIL	o---o---o
RAILROAD	
SURVEY LINE	+
CULVERT	- - - - -
POWER POLE	o
TELEPHONE POLE	o
TREES	o * o
CONTROL OF ACCESS	///
PROPERTY LINE	---
R.O.W. TAKING LINE	SR
SLOPE RIGHTS	o---o
TOP OF CUT	o---o
TOE OF SLOPE	o---o

DATUM	
VERTICAL	N/A
HORIZONTAL	N/A

**CIVIL ENGINEERING ASSOCIATES, INC.**  
P.O. BOX 468 SHELBURNE, VT 05482  
802-985-2323 FAX: 802-985-2271 e-mails: mail@cea-vt.com



RIGHT-OF-WAY LIMITS, IF APPLICABLE, ARE PROVIDED SOLELY FOR THE CONVENIENCE OF THE STATE AND ITS CONTRACTOR DURING THE COURSE OF THIS PAVING PROJECT. ANY REFERENCES TO OFFSETS ON THESE PLANS ARE APPROXIMATE AND SHOULD NOT BE RELIED UPON FOR ANY OTHER PURPOSES.

UNLESS OTHERWISE NOTED, ALL DRAWINGS AND DETAILS ON THESE PLANS ARE DRAWN "NOT TO SCALE".

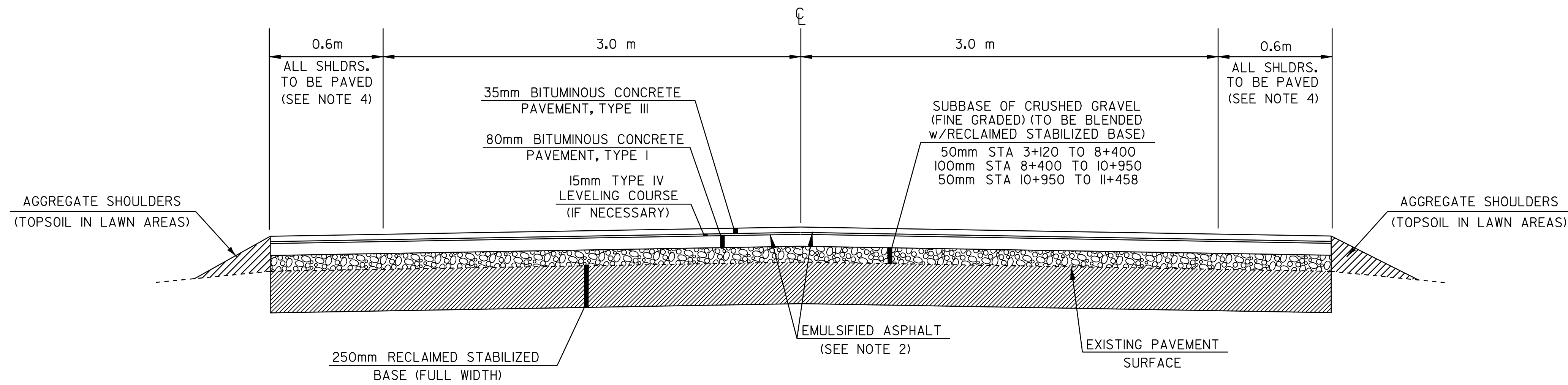
THESE PLANS ARE SUBJECT TO SUCH ENGINEERING CHANGES AS MAY BE REQUIRED BY THE FEDERAL HIGHWAY ADMINISTRATION OR THE DIRECTOR OF PROGRAM DEVELOPMENT. CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2001, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JANUARY 4, 2001 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.



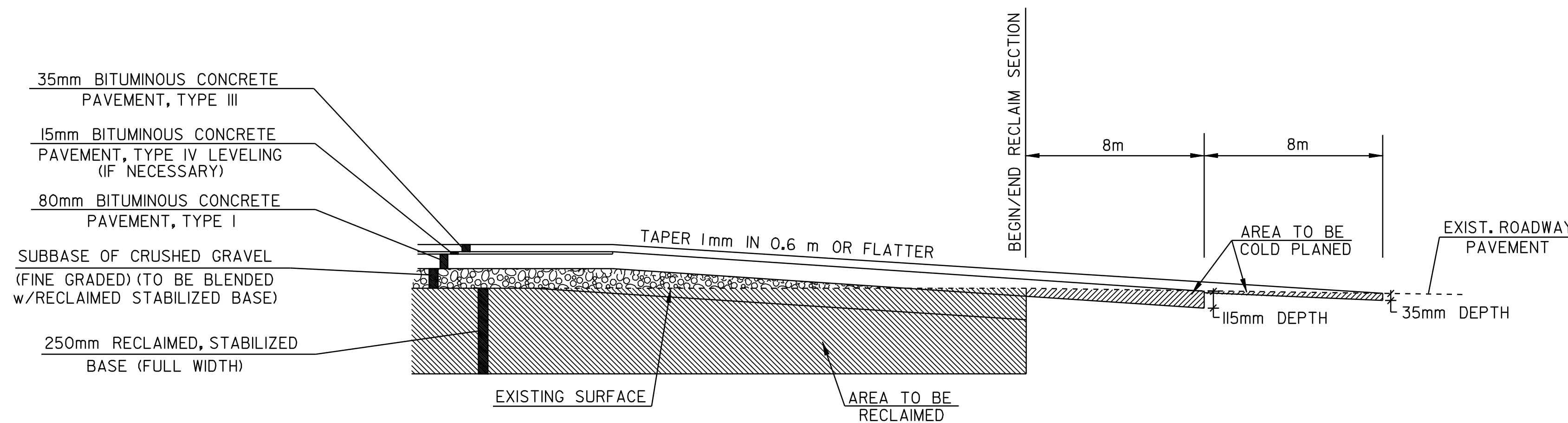
DIRECTOR OF PROGRAM DEVELOPMENT	
APPROVED <i>Mark Woolaver</i>	DATE <i>10-22-05</i>
PROJECT/MANAGER : MARK WOOLAVER	
PROJECT NAME : LUNENBURG	
PROJECT NUMBER : STP 2301(7)S	
SHEET 1 OF 20 SHEETS	

**NOTES**

- THE PAVEMENT WEARING COURSE SHALL BE TYPE III.  
THE LEVELING COURSE SHALL BE TYPE IV UNLESS OTHERWISE DIRECTED BY THE RESIDENT ENGINEER. LEVELING HAS BEEN INCLUDED FOR THE RECLAIMED SEGMENTS OF THE PROJECT TO ELIMINATE ANY IRREGULARITIES PRIOR TO PLACEMENT OF THE WEARING COURSE. A 15mm LIFT HAS BEEN INCLUDED FOR AN ESTIMATED 25% OF THE RECLAIMED SURFACE AREA.  
ALL ASPHALT CEMENT USED IN THE BITUMINOUS CONCRETE PAVEMENT SHALL BE PG 58-34.
- EMULSIFIED ASPHALT SHALL BE APPLIED ON EXISTING PAVEMENT SURFACES (NOT INCLUDING RECLAIMING SURFACE), BETWEEN ALL COURSES OF PAVEMENT AND ON COLD PLANED SURFACES AT THE RATE OF 0.12 L/SM OR AS DIRECTED BY THE RESIDENT ENGINEER.
- BITUMINOUS CONCRETE PAVEMENT TOLERANCE = +/- 5 mm (TOTAL THICKNESS EXCLUDING LEVELING).
- PRIOR TO RECLAIMING, ANY EXISTING SHOULDER MATERIAL DEEMED UNSUITABLE BY THE RESIDENT ENGINEER WILL BE EXCAVATED TO A DEPTH OF 150 mm +/- OR AS DIRECTED BY THE ENGINEER. EXCAVATED MATERIAL WILL BE SPREAD ON THE ADJACENT SLOPES OR REMOVED FROM THE PROJECT, AS DIRECTED BY THE ENGINEER. THIS WORK WILL BE PAID FOR USING THE APPROPRIATE RENTAL ITEMS SUCH AS ALL PURPOSE EXCAVATOR RENTAL, GRADER RENTAL, LOADER RENTAL, TRUCK RENTAL, AND POWER BROOM RENTAL. THE METHOD OF REMOVAL AND THE USE OF RENTAL ITEMS SHALL BE APPROVED BY THE ENGINEER PRIOR TO ANY WORK BEING DONE. MATERIAL REMOVED SHALL BE REPLACED WITH SUBBASE OF CRUSHED GRAVEL (FINE GRADED).
- ONE METER OF BACKING IS REQUIRED BEHIND THE FACE OF GUARD RAIL WITH 1.6m POSTS. IF THIS CANNOT BE OBTAINED THEN 2.1m POSTS SHALL BE USED.
- COLD PLANING TO BE COMPLETED ACCORDING TO THE TYPICAL OR AS NOTED OTHERWISE ON THE PLANS. A FULL DEPTH BUTT JOINT SHALL BE CONSTRUCTED AT ALL SIDE ROAD APPROACHES AS DENOTED ON THE PROJECT PLANS OR AS OTHERWISE DIRECTED BY THE RESIDENT ENGINEER.
- ITEM 604.412 IS AN ESTIMATED QUANTITY AND SHALL BE PERFORMED AT LOCATIONS INDICATED ON THE LAYOUT SHEETS AND AS DIRECTED BY THE RESIDENT ENGINEER. ALL D.I.'S SHALL BE RAISED OR REHABILITATED SUCH THAT THE NEW GRATE ELEVATION IS LEVEL WITH THE SURROUNDING TERRAIN.
- PIPE INLET AND OUTLET AREAS, AND DITCH CLEANING THROUGH THE PROJECT, SHALL BE PERFORMED AT LOCATIONS AS DIRECTED ON THE DITCH CLEANING DETAIL SHEET AND AS DIRECTED BY THE RESIDENT ENGINEER. PAYMENT WILL BE UNDER THE APPLICABLE EQUIPMENT RENTAL ITEM(S).
- ALL DRIVES SHALL RECEIVE A PAVED APRON AS DIRECTED BY THE RESIDENT ENGINEER. ANY AND ALL REQUIRED EXCAVATION IN DRIVE AREAS SHALL BE AS DIRECTED AND WILL BE PAID FOR UNDER THE APPLICABLE RENTAL ITEM(S). IF REQUIRED, A NEW DRIVEWAY SUBBASE SHALL BE CONSTRUCTED AND WILL BE PAID FOR UNDER ITEM 301.28, SUBBASE OF CRUSHED GRAVEL (FINE GRADED). A NEW BITUMINOUS SURFACE SHALL BE CONSTRUCTED AS DIRECTED AND WILL BE PAID FOR UNDER ITEM 406.25. ESTIMATED QUANTITIES OF THE ABOVE ITEMS HAVE BEEN INCLUDED TO PAY FOR THIS WORK.
- ESTIMATED QUANTITIES OF ITEM 608.25, EXCAVATOR RENTAL AND 608.37, TRUCK RENTAL HAVE BEEN INCLUDED FOR THE PROVISION OF CONSTRUCTING GUARD RAIL END SECTIONS WITH EXCAVATED DITCHING MATERIAL. THE GUARD RAIL END SECTIONS SHALL BE CAPPED WITH AN ESTIMATED 75mm DEPTH OF AGGREGATE SHOULDER MATERIAL UNLESS OTHERWISE DIRECTED BY THE RESIDENT ENGINEER. THE QUANTITIES INCLUDED REFLECT 5 TONS OF AGGREGATE SHOULDER MATERIAL FOR EACH GUARD RAIL TERMINAL.
- ITEM 616.47, BITUMINOUS CONCRETE GUTTERS AND TRAFFIC ISLANDS WILL BE PAID ONLY WHERE SPECIFIED IN THE PLANS, OR AT LOCATIONS DIRECTED BY THE RESIDENT ENGINEER. ALL OTHER BITUMINOUS CONCRETE PAVEMENT WORK, WHICH COULD INVOLVE SOME HAND-WORK (SUCH AS DRIVE AND SIDEROAD APPROACHES AND AROUND DRAINAGE/UTILITY STRUCTURES), SHALL BE PAID UNDER THE CONTRACT UNIT PRICE FOR ITEM 406.25, BITUMINOUS CONCRETE PAVEMENT.
- ALL EDGES OF PAVEMENT SHALL BE BACKED UP FULL HEIGHT WITH ITEM 402.12, AGGREGATE SHOULDERS, AS DIRECTED BY THE RESIDENT ENGINEER.
- COMPACTION, GRADING, AND CLEAN UP OF ITEM 301.28, SUBBASE OF CRUSHED GRAVEL, ITEM 402.12, AGGREGATE SHOULDER MATERIAL, AND ITEM 651.35, TOPSOIL, IS TO BE INCLUDED IN THE CONTRACT PRICE OF EACH ITEM.
- STABILIZING AGENT FOR THE RECLAIMED STABILIZED BASE WILL BE WATER. PAYMENT SHALL BE CONSIDERED INCIDENTAL TO ITEM 310.20.
- ESTIMATED QUANTITIES OF CULVERT HAVE BEEN INCLUDED FOR THE PROVISION OF REPLACING AND/OR EXTENDING EXISTING CULVERTS, AS NECESSARY, OR AS DIRECTED BY THE RESIDENT ENGINEER.



**RECLAIMED STABILIZED BASE TYPICAL SECTION**  
**LUNENBURG**  
**STA 3+120 TO 11+458**



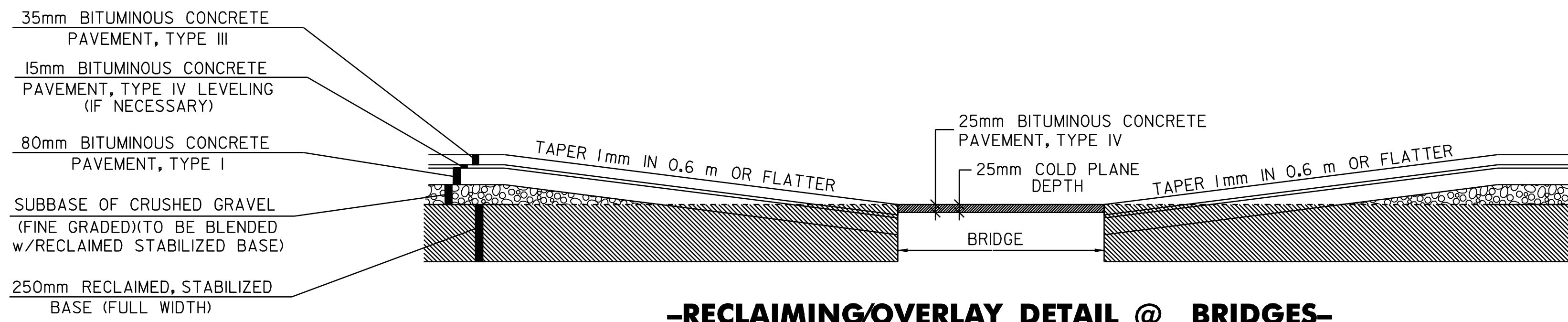
**- APPROACH AREA DETAIL -**  
**LUNENBURG**  
**STA 3+120 (BEGIN PROJECT)**  
**STA 11+458 (END PROJECT)**

**PROJECT PAVING LIMITS**

TOWN & ROUTE	BEGIN STATION	END STATION	LANE TYPICAL	WEARING DEPTH	LEVELING Tons	NOTES
LUNENBURG - TH #1	3+120	8+400	0.6m-3.0m-3.0m-0.6m	35 mm	1370	RECLAIM 250mm, 100mm SUBBASE, LEVEL & PAVE w/80mm TYPE I, & 35mm TYPE III.
	8+400	10+950	0.6m-3.0m-3.0m-0.6m	35 mm	670	RECLAIM 250mm, 200mm SUBBASE, LEVEL & PAVE w/80mm TYPE I, & 35mm TYPE III.
	10+950	11+458	0.6m-3.0m-3.0m-0.6m	35 mm	130	RECLAIM 250mm, 100mm SUBBASE, LEVEL & PAVE w/80mm TYPE I, & 35mm TYPE III.

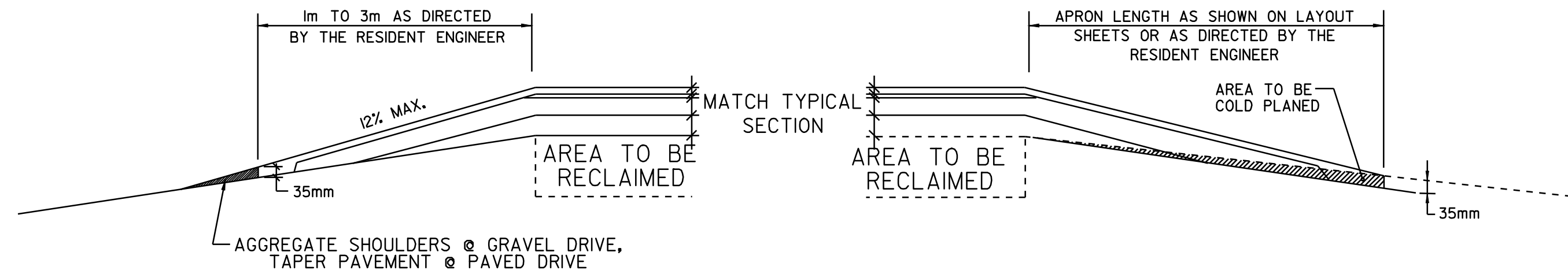


<b>PROJECT TYPICAL SHEET #1</b>	DESIGNED BY <u>BCE/PJM</u> DATE <u>12-01</u>
	DRAWN BY <u>C.E.A., INC.</u> DATE <u>12-01</u>
	DESIGN FILE NO. <u>pave/01cl50/pcl50.dgn</u>
	PRF FILE <u>pcl50+yl.i</u> DATE <u>10-AUG-2007</u>
	PLOTTED <u>10-AUG-2007</u>
PROJ. NAME <b>LUNENBURG</b>	
PROJ. NO. <b>STP 2301(7)S</b>	
SHEET <b>2</b> OF <b>20</b> SHEETS	



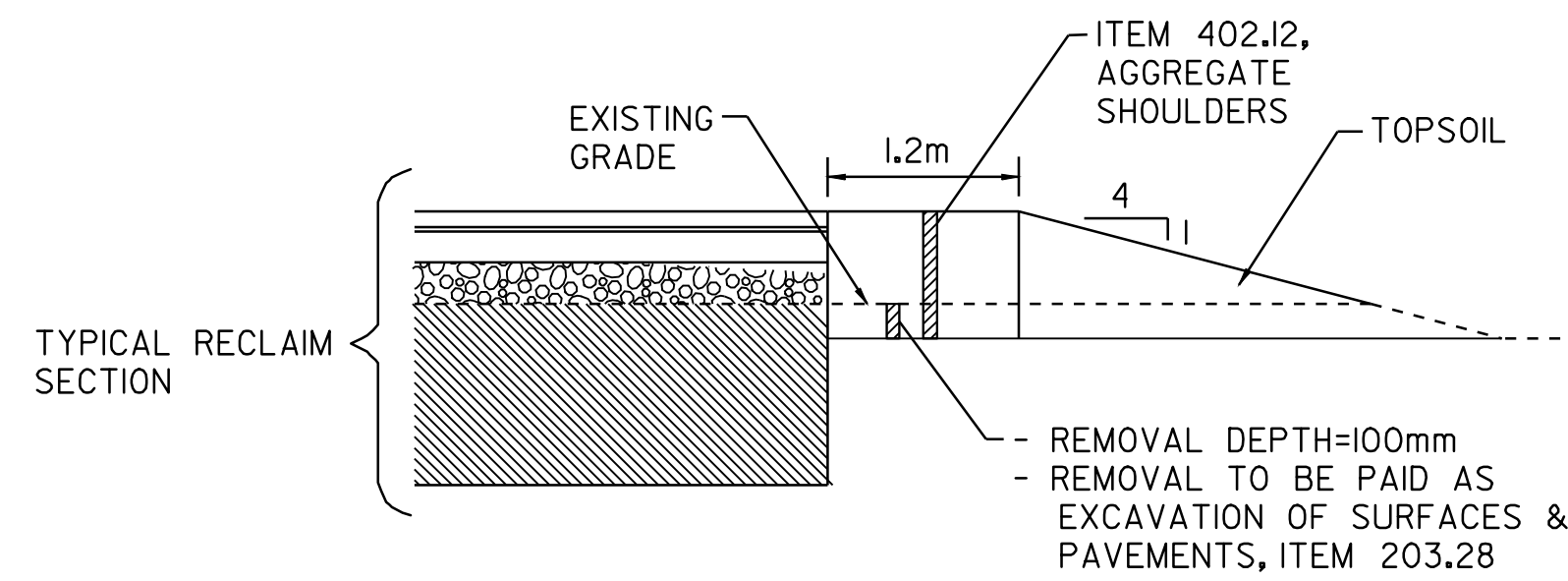
**-RECLAIMING/OVERLAY DETAIL @ BRIDGES-**

LOCATION: LUNENBURG BRIDGE #16 STATION: 7+203 (FIELD MEASURED)



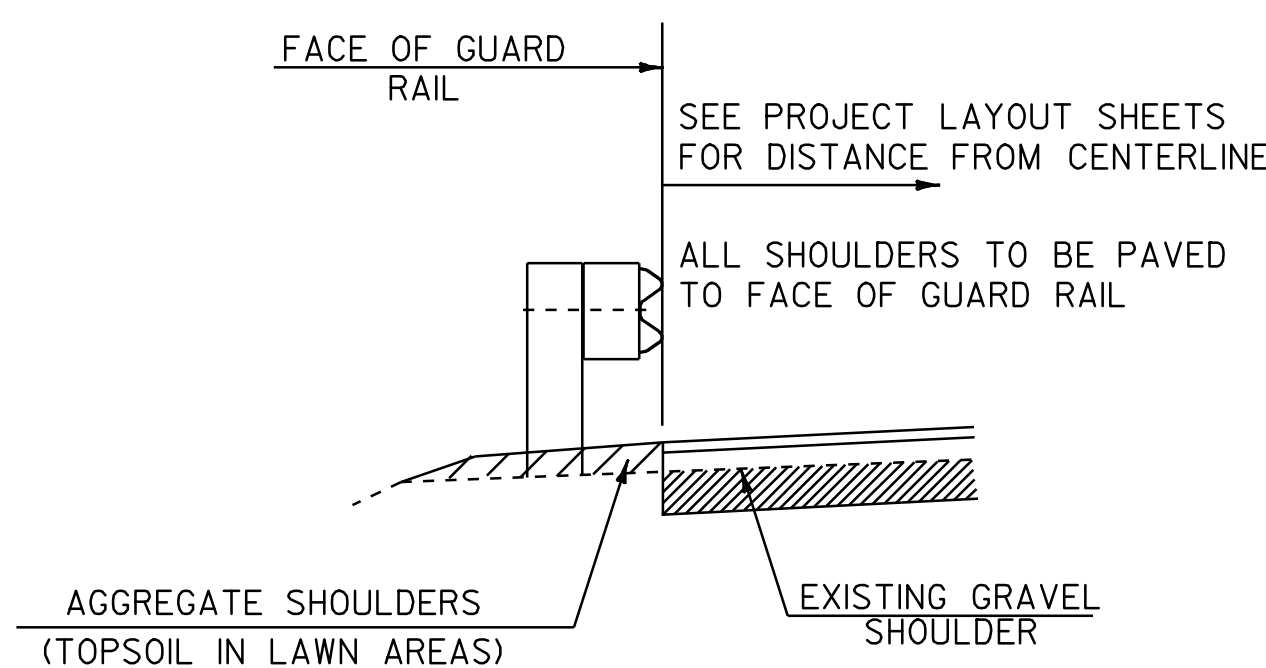
**DRIVEWAY TRANSITION DETAIL @ RECLAIMED STABILIZED BASE AREAS**

**TOWN HIGHWAY TRANSITION DETAIL @ RECLAIMED STABILIZED BASE AREAS**

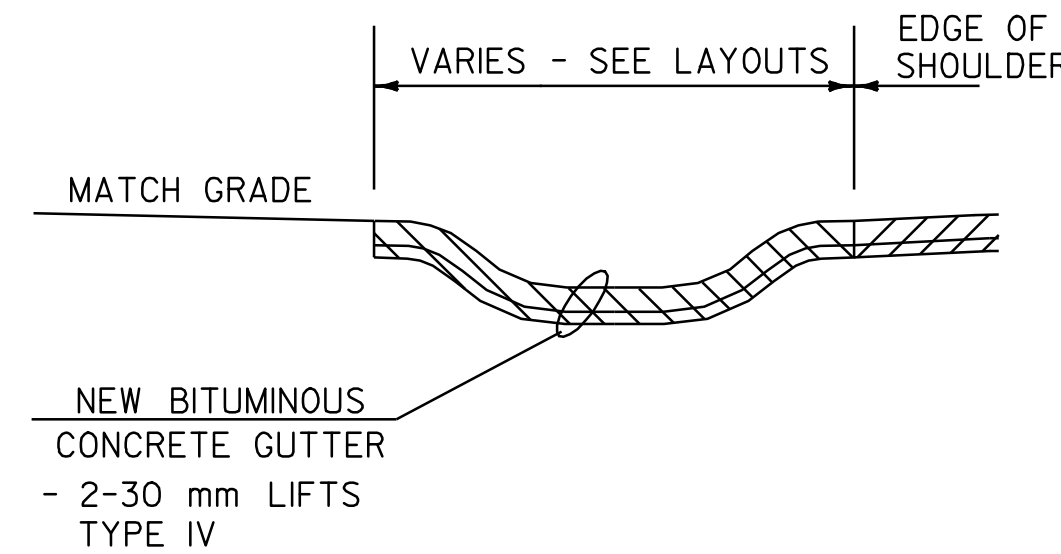


**ROAD SECTION AT RECONSTRUCTED INTERSECTIONS**

**TH#2 LUNENBURG ROAD  
TH#4 COVERED BRIDGE ROAD**

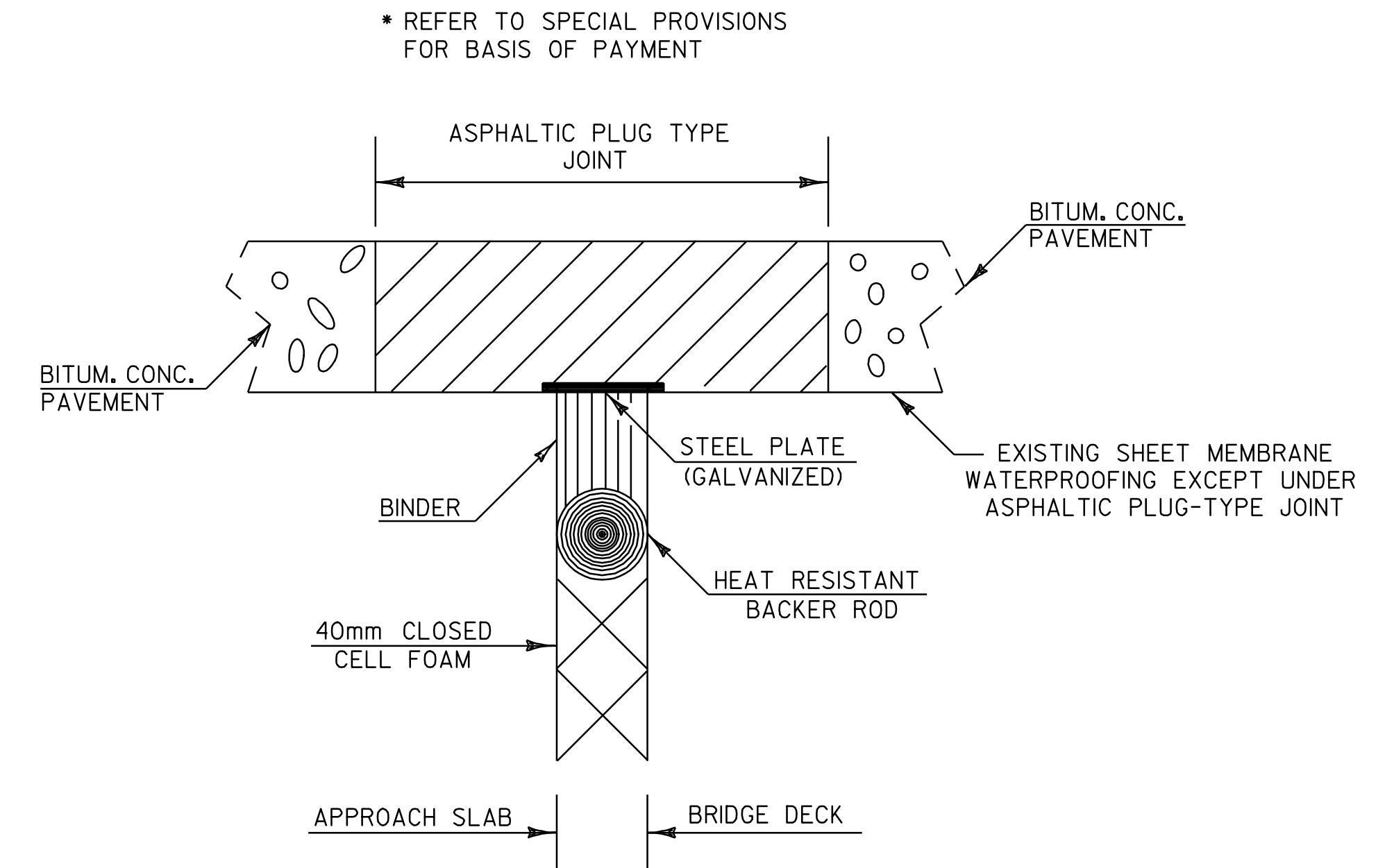


**- TYPICAL SECTION AT GUARD RAIL - RECLAIMING SECTION**



**BITUMINOUS CONCRETE GUTTER DETAIL**

LUNENBURG  
STA 11+254 TO 11+290 LT



**- ASPHALTIC PLUG TYPE JOINT DETAIL -**

LOCATION: LUNENBURG  
BRIDGE #16 (9m) - STA 7+197

**CONSERVATION SEED MIX  
RURAL AREA - SEED MIXTURE**

% WT.	kg/HECTARE	NAME	PUR%	GERM%
38.0	25	CREeping RED FESCUE	98	85
38.0	25	TALL FESCUE	95	90
4.5	3	RED TOP	95	90
15.0	10	BIRDSFOOT TREFOIL	98	85
4.5	3	ANNUAL RYEGRASS	95	85
100.0	66			

SEED MIXTURE:  
SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.

SEED:  
TO BE APPLIED PER SEEDING FORMULAS OR AS DIRECTED BY THE ENGINEER.

FERTILIZER:  
FORMULA 10-20-10, TO BE USED WITH SEED, APPLIED AT THE RATE OF 560 kg/HECTARE. (HYDRO SEEDERS MAY USE 19-19-19 FORMULA)

AGRICULTURAL LIMESTONE:  
TO BE APPLIED AT THE RATE OF 4.5 TONS/HECTARE, OR AS DIRECTED BY THE ENGINEER.

HAY MULCH:  
TO BE PLACED ON EARTH SLOPES AT THE RATE OF 4.5 TONS/HECTARE, OR AS DIRECTED BY THE ENGINEER.

TOPSOIL:  
TO BE USED AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.

MARKER POSTS:  
TO BE PLACED AS INDICATED OR AS DIRECTED BY THE ENGINEER.



<b>PROJECT TYPICAL SHEET #2</b>	DESIGNED BY	BCE/PJM	DATE	12-01
	DRAWN BY	C.E.A., INC.	DATE	12-01
	DESIGN FILE NO.	pave/01c150/pci50.dgn		
	PRF FILE	pci50ty2.i	DATE PLOTTED	10-AUG-2007 14
	PROJ. NAME	LUNENBURG		
PROJ. NO.	STP 2301(7)S			
SHEET	3	OF	20	SHEETS





# ITEM DETAIL SUMMARY SHEET

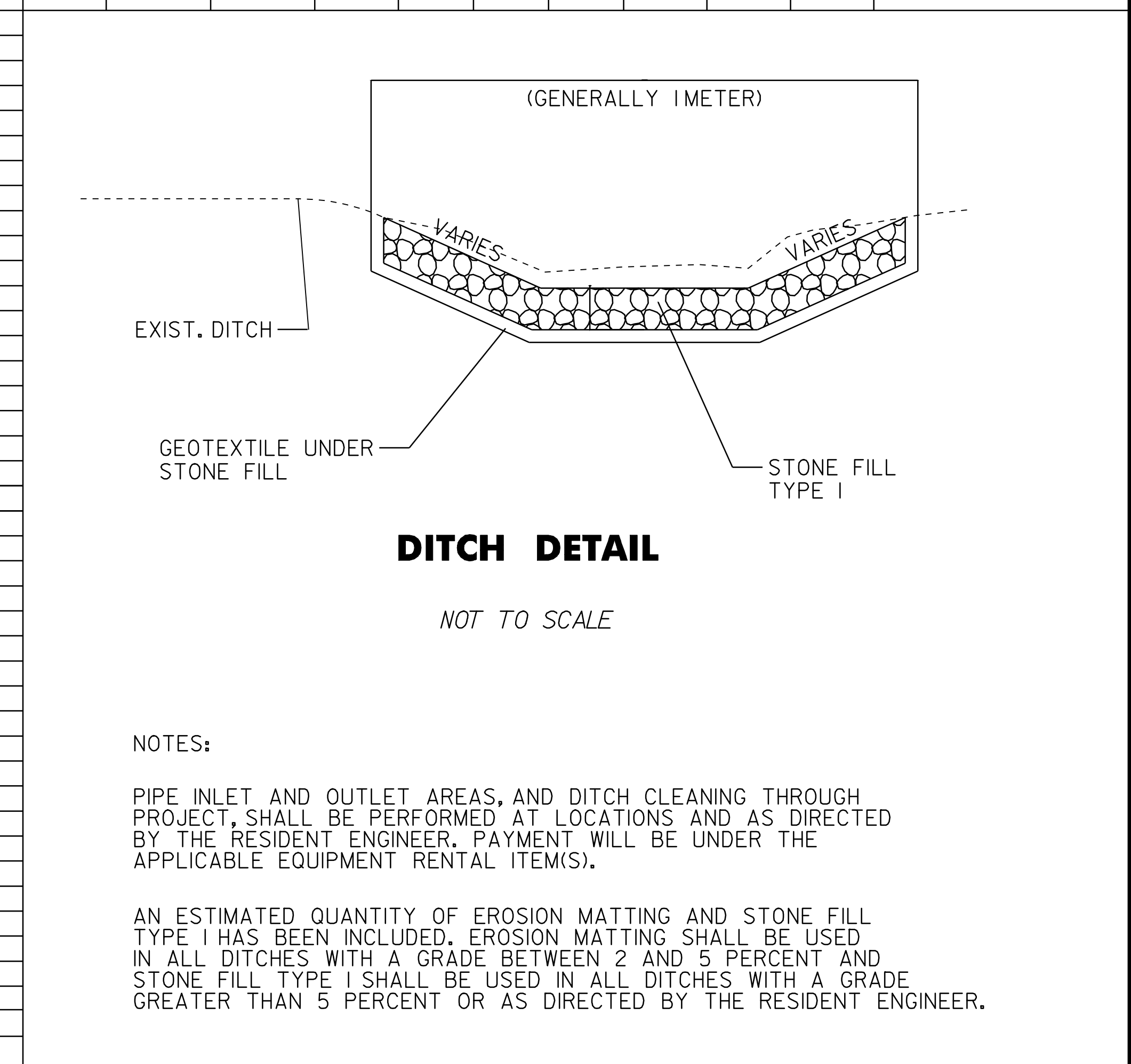


LOCATION			MISCELLANEOUS ITEMS												DRAINAGE ITEMS					GUARD RAIL ITEMS										REMARKS	
STA	STA	POS.	203.15	203.28	203.30	204.20	301.28	402.12	616.20	616.27	616.40	616.41	616.47	618.10	604.42	604.412	613.10 NEW PIPE		619.17	621.30 (MOD.)		621.21 (MOD.)		621.505	621.53	621.60	621.76	621.80	676.10		
			COM. EXCAV.	EXCAV. OF SURFACES & PAVE.	EARTH BORROW	TRENCH EXCAV. OF EARTH	SUBBASE OF CRUSHED GRAVEL	AGG. SHOULD.	GRANITE SLOPE EDGING	C-I-P CONC. CURB TYPE A	REMOVING AND RESETTING CURB	REMOVAL OF EXISTING CURB	B. CONC. GUTTER & TRAF. ISLAND	PORT. CEMENT CONC. WALK (125mm)	CHANGE ELEV. OF SEWER M.H.	REHAB. D.I. CLASS I	STONE FILL TYPE I	DIA.	LENGTH / THCL	YIELD. MARKER POSTS	BOX BEAM G.R.	2.1 M BOX BEAM G.R.	H.D. STEEL BEAM G.R.	2.4M H.D. STEEL BEAM G.R.	MANUF. TERMINAL SECTION	TERMINAL CONN. FOR G.R.	ANCHOR FOR G.R.	REPLACE POST ASSEM.	REMOVE & DISP. OF G.R.		DELINE. WITH STEEL POSTS
			m <sup>3</sup>	m <sup>3</sup>	m <sup>3</sup>	m <sup>3</sup>	T	T	M	M	M	M	T	m <sup>2</sup>	EA	EA	m <sup>3</sup>	mm	M	EA	M	M	M	M	EA	EA	EA	EA	M	EA	
3+120	11+458	LT&RT			1000	1	12,100	5,025							1	3	150			60											ESTIMATED QUANTITIES TO BE USED AS DIRECTED BY THE RESIDENT ENGINEER.
3+120	3+137	LT						10												16.4								6	2	REPLACE EXISTING TIMBER GUARD RAIL.	
3+120	3+137	RT						10												16.4								8	2	REPLACE EXISTING TIMBER GUARD RAIL.	
3+855	4+109	RT						10												129.2	138.0							240	2	REPLACE EXISTING CABLE RAIL.	
4+125	4+298	RT						10																				62	2	REPLACE EXISTING CABLE RAIL.	
4+595	4+649	LT						10																				34	2	REPLACE EXISTING CABLE RAIL.	
4+698	4+859	RT						10																				142	2	REPLACE EXISTING CABLE RAIL.	
4+765	4+842	LT						10																				65	2	REPLACE EXISTING CABLE RAIL.	
4+984	5+184	RT						10																				46	2	REPLACE EXISTING CABLE RAIL.	
5+097	5+125	RT						10																				26	2	REPLACE EXISTING CABLE RAIL.	
5+230	5+414	RT						10																				99	2	REPLACE EXISTING CABLE RAIL (CONNECT TWO EXISTING GUARD RAIL SECTIONS)	
5+455	5+487	RT						10																				6	2	REPLACE EXISTING CABLE RAIL.	
5+588	5+737	RT						10																				54	2	REPLACE EXISTING CABLE RAIL (CONNECT TWO EXISTING GUARD RAIL SECTIONS)	
5+674	5+709	LT						10																				25	2	REPLACE EXISTING CABLE RAIL.	
7+195	7+231	LT						10																1		1		13.3	2	BRIDGE #16, COORDINATE WITH BRIDGE DETAIL SHEETS 1 & 2.	
7+176	7+231	RT						10																2				30.4	2		
7+730	7+780	LT		20				50																							TH #2, CONSTRUCT A "T" INTERSECTION.
7+999	8+042	RT						10																				23	2	REPLACE EXISTING CABLE RAIL.	
8+010	8+049	LT						10																				21	2	REPLACE EXISTING CABLE RAIL.	
9+748	10+205	RT						10																				392	2	REPLACE EXISTING STEEL BEAM GUARD RAIL.	
10+315	10+529	RT						10																					2		NEW GUARD RAIL @ TOP OF BANK.
10+621	10+822	RT						10																				126	2	REPLACE EXISTING STEEL BEAM GUARD RAIL.	
10+871		RT															40														REPAIR SIDESLOPE EROSION.
10+900	11+015	RT		10				25																							TH #4, CONSTRUCT A "T" INTERSECTION.
11+254	11+290	LT	5										5																		CONSTRUCT GUTTER IN FRONT OF STONE WALL. SEE DETAIL ON SHEET 3.
<b>SUB-TOTALS</b>			5	30	1000	1	12,100	5,300					5		1	3	190			60	661.8	1,586.6	44.0		3		1	1,418.7	40		
<b>ROUNDING</b>			--	--	--	--	--	--					--	--	--	--	--			--	3.2	3.4	1.0	--	--		6.3	--			
<b>PROJECT TOTALS</b>			5	30	1000	1	12,100	5,300					5		1	3	190			60	665.0	1,590.0	45.0		3		1	1,425.0	40		

<b>ITEM DETAIL SHEET</b>	DESIGNED BY <u>BCE/PJM</u> DATE <u>12-01</u>
	DRAWN BY <u>C.E.A., INC.</u> DATE <u>12-01</u>
	DESIGN FILE NO. <u>pave/01cl50/pcl50.dgn</u>
	PRF FILE <u>pcl50idl.i</u> DATE PLOTTED <u>10-AUG-2007 14:</u>
	PROJ. NAME <b>LUNENBURG</b>
PROJ. NO. <b>STP 2301(7)S</b>	
SHEET <b>6</b> OF <b>20</b> SHEETS	

LOCATION				METERS OF DITCHING			MISC. ITEMS			REMARKS
SITE	STATION	STATION	POS.	PERCENT GRADE			654.10	613.10	649.31	
				0-2	2-5	>5	EROS. MATT.	STONE FILL TYP. I	GEOT. UNDER STONE FILL	
TH #1	LUNENBURG						m <sup>2</sup>	m <sup>3</sup>	m <sup>2</sup>	
1	3+865	4+220	LT	245	35	75	35	23	75	
2	4+300	4+485	RT	25	25	135	25	41	135	
3	4+375	4+485	LT	25	25	60	25	18	60	
4	4+540	4+600	LT		50	10	50	3	10	
5	4+540	4+625	RT		35	50	35	15	50	
6	4+665	4+710	LT		45		45			
7	4+730	4+765	LT		35		35			
8	4+860	5+115	LT	175	70		70			
9	4+925		RT	10						CLEANOUT CULVERT END
10	5+190	5+260	LT	70						
11	5+280	5+470	LT	90	100		100			
12	5+490	5+685	LT	150		25		8	25	
13	5+700	6+190	LT	290	200		200			
14	5+940		RT	10						CLEANOUT CULVERT END
15	6+200	6+350	RT	150						
16	6+220	6+300	LT	80						
17	6+400	6+530	LT	130						
18	6+700	6+960	LT	200	60		60			
19	7+550	7+730	LT	180						
20	8+310	8+455	LT	145						
21	9+925	10+200	LT	275						
22	10+310	10+470	LT	160						
23	10+540	10+600	LT	60						
24	10+900	11+254	LT	94	100	160	100	48	160	
25	11+320	11+400	LT	80						
PROJECT SUBTOTALS				2,644	780	515	780	156	515	
ROUNDING				6	20	10	20	4	10	
PROJECT TOTALS				2,650	800	525	800	160	525	

LOCATION				METERS OF DITCHING			MISC. ITEMS			REMARKS
SITE	STATION	STATION	POS.	PERCENT GRADE			654.10	613.10	649.31	
				0-2	2-5	>5	EROS. MATT.	STONE FILL TYP. I	GEOT. UNDER STONE FILL	
							m <sup>2</sup>	m <sup>3</sup>	m <sup>2</sup>	



<b>DITCH CLEANING DETAIL SHEET</b>	PROJECT : LUNENBURG	PROJECT NO. : STP_230I(7)S
	DESIGN FILE NAME: pave/01c150/pci50.dgn	PLOT DATE: 10-AUG-2007 14
	IPARM FILE NAME: pci50di.t	SURVEYED BY: _____ SURVEY DATE: _____
	SQUAD LEADER: _____	DRAWN BY: _____ SHEET: 7 OF 20

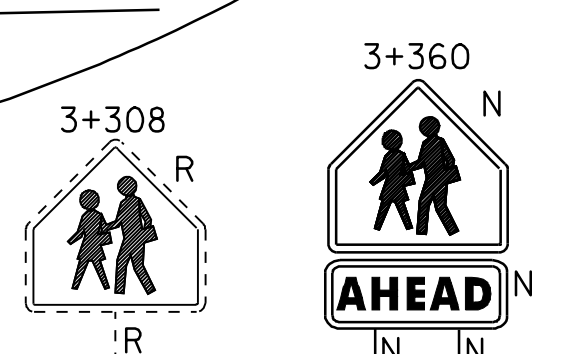
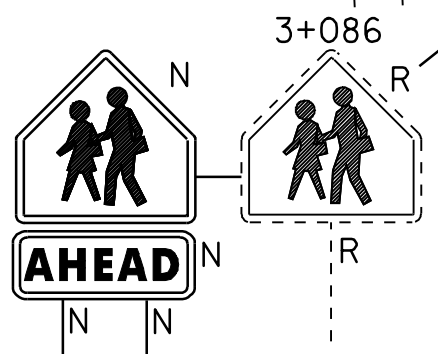
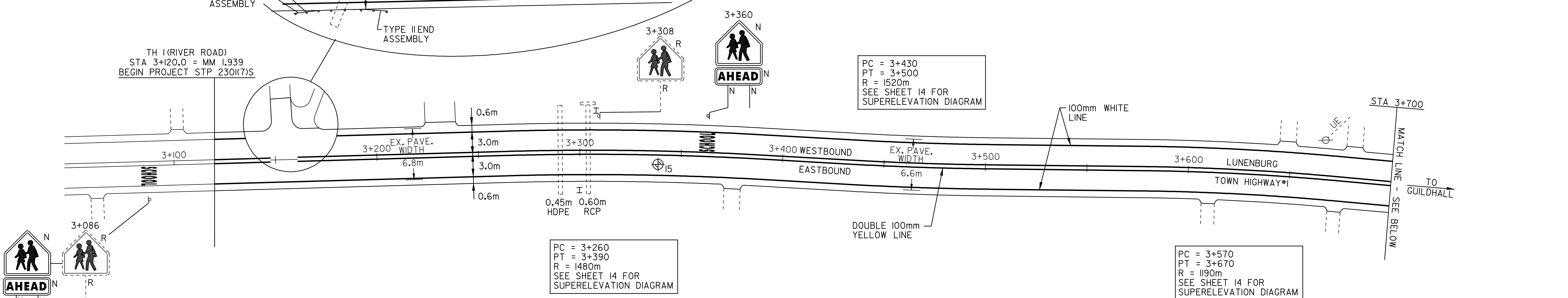
STA 3+130 TO 3+136 LT  
REMOVAL AND DISPOSAL  
OF GUARD RAIL

STA 3+120 TO 3+137 LT  
BOX BEAM GUARD RAIL

STA 3+125 TO 3+133 RT  
REMOVAL AND DISPOSAL  
OF GUARD RAIL

STA 3+120 TO 3+137 RT  
BOX BEAM GUARD RAIL

TH 1 (RIVER ROAD)  
STA 3+120.0 = MM 1.939  
BEGIN PROJECT STP 2301(7)S



PC = 3+430  
PT = 3+500  
R = 1520m  
SEE SHEET 14 FOR  
SUPERELEVATION DIAGRAM

PC = 3+260  
PT = 3+390  
R = 1480m  
SEE SHEET 14 FOR  
SUPERELEVATION DIAGRAM

PC = 3+570  
PT = 3+670  
R = 1190m  
SEE SHEET 14 FOR  
SUPERELEVATION DIAGRAM

REMOVAL AND DISPOSAL OF GUARD RAIL  
STA 3+130 TO 3+136 LT  
STA 3+125 TO 3+133 RT  
STA 3+869 TO 4+109 RT  
STA 4+217 TO 4+279 RT

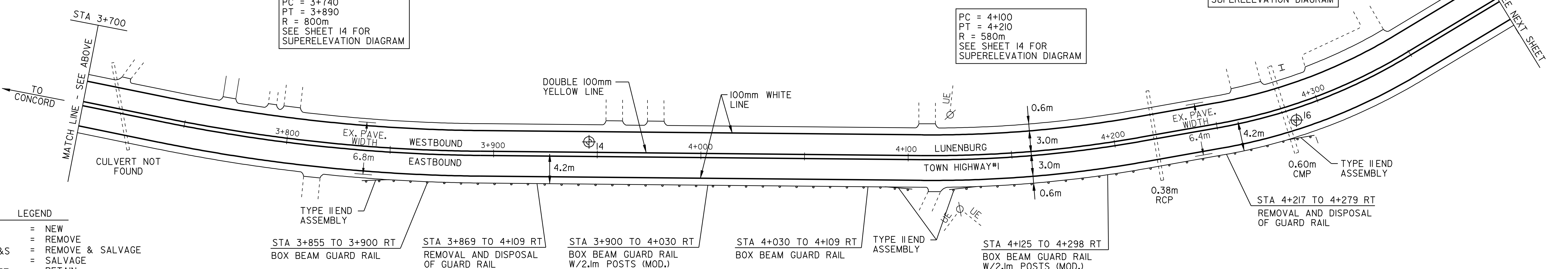
BOX BEAM GUARD RAIL  
STA 3+120 TO 3+137 LT&RT  
STA 3+855 TO 3+900 RT  
STA 4+030 TO 4+109 RT

BOX BEAM GUARD RAIL W/2.1m POSTS (MOD.)  
STA 3+900 TO 4+030 RT  
STA 4+125 TO 4+298 RT

PC = 3+740  
PT = 3+890  
R = 800m  
SEE SHEET 14 FOR  
SUPERELEVATION DIAGRAM

PC = 4+100  
PT = 4+210  
R = 580m  
SEE SHEET 14 FOR  
SUPERELEVATION DIAGRAM

PC = 4+250  
PT = 4+350  
R = 270m  
SEE SHEET 14 FOR  
SUPERELEVATION DIAGRAM



- LEGEND**
- N = NEW
  - R = REMOVE
  - R&S = REMOVE & SALVAGE
  - S = SALVAGE
  - RET = RETAIN
  - B-T-O-B = BACK TO BACK
  - ⊕ □ CATCH BASIN/DI
  - EXISTING THROAT DI
  - ⊕ N.W. CATCH BASIN/DI (NO WORK REQUIRED)
  - ⊙ SEWER MANHOLE
  - ⊙ MARKER POST
  - ⊙ UTILITY POLE
  - ⊙ UTIL. POLE
  - ⊙ W/UNDERGROUND UTIL.
  - ⊙ DRIVE

**PAVEMENT CORES - ⊕**

#	TOTAL DEPTH (mm)	SOLID CORE	STRIPPED	COMMENTS
14	80	YES	NO	75mm SOLID CORE
15	110	YES	1 LAYER	100mm SOLID CORE
16	75	YES	NO	75mm SOLID CORE

**NOTE:**  
 - NO PCC UNDER ANY CORES  
 - NO CORES OVER ASPHALTED  
 - NO SHOULDER CORES  
 - ALL CORES MARKED "NO DRAINABLE BASE"

TEMPORARY AND 100mm YELLOW LINE  
 STA 3+120 TO 4+400 SOLID LT&RT  
 STA 3+154 DOUBLE SOLID LT (WITH CENTERLINE BREAKS FOR TOWN HIGHWAYS)

TEMPORARY AND 100mm WHITE LINE  
 STA 3+120 TO 4+400 SOLID LT&RT (WITH EDGELINE BREAKS FOR TOWN HIGHWAYS)

TEMPORARY AND LETTER OR SYMBOL  
 STA 3+086 RT "SCHOOL"  
 STA 3+154 LT "STOP"  
 STA 3+360 LT "SCHOOL"

TEMPORARY AND 600mm STOP BAR  
 STA 3+154 LT BAPTIST HILL ROAD

REMOVING SIGNS  
 5

YIELDING MARKER POSTS  
 STA 3+304 LT&RT  
 STA 4+283 LT

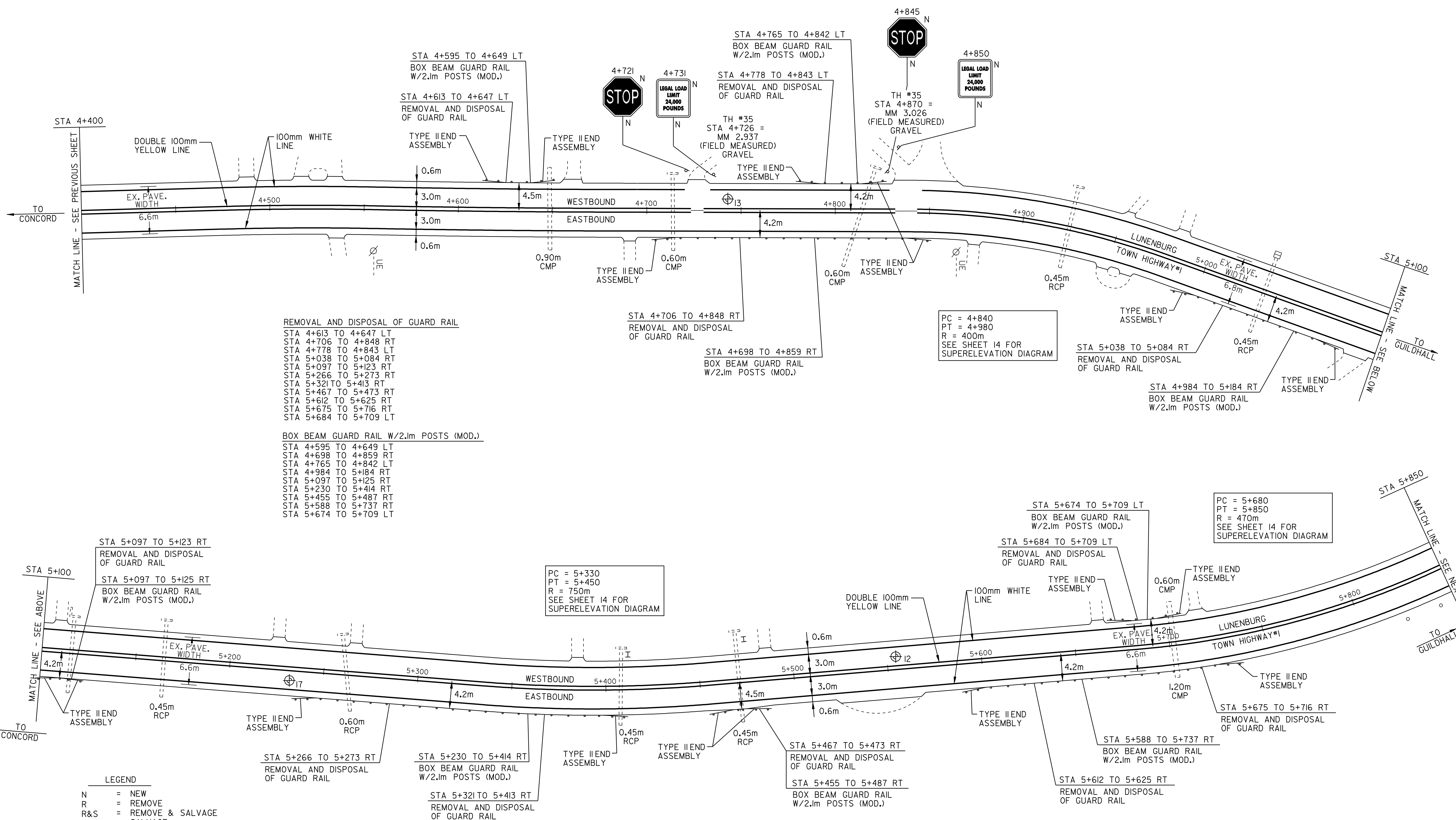
CHANGE ELEVATION OF SEWER MANHOLES  
 STA 3+152 LT

REHABILITATION OF D.I.'S, C.B.'S, OR M.H.'S  
 STA 3+165 LT  
 STA 3+171 LT



**PAVING PROJECT LAYOUT #1**

DESIGNED BY BCE/PJM DATE 9-01  
 DRAWN BY C.E.A., INC. DATE 9-01  
 DESIGN FILE NO. pave/01cl50/pcl50.dgn  
 PRF FILE pcl50p01.l DATE PLOTTED 10-AUG-2007 14:  
 PROJ. NAME **LUNENBURG**  
 PROJ. NO. **STP 2301(7)S**  
 SHEET **8** OF **20** SHEETS



REMOVAL AND DISPOSAL OF GUARD RAIL  
 STA 4+613 TO 4+647 LT  
 STA 4+706 TO 4+848 RT  
 STA 4+778 TO 4+843 LT  
 STA 5+038 TO 5+084 RT  
 STA 5+097 TO 5+123 RT  
 STA 5+266 TO 5+273 RT  
 STA 5+321 TO 5+413 RT  
 STA 5+467 TO 5+473 RT  
 STA 5+612 TO 5+625 RT  
 STA 5+675 TO 5+716 RT  
 STA 5+684 TO 5+709 LT

BOX BEAM GUARD RAIL W/2.1m POSTS (MOD.)  
 STA 4+595 TO 4+649 LT  
 STA 4+698 TO 4+859 RT  
 STA 4+765 TO 4+842 LT  
 STA 4+984 TO 5+184 RT  
 STA 5+097 TO 5+125 RT  
 STA 5+230 TO 5+414 RT  
 STA 5+455 TO 5+487 RT  
 STA 5+588 TO 5+737 RT  
 STA 5+674 TO 5+709 LT

PC = 5+330  
 PT = 5+450  
 R = 750m  
 SEE SHEET 14 FOR  
 SUPERELEVATION DIAGRAM

PC = 4+840  
 PT = 4+980  
 R = 400m  
 SEE SHEET 14 FOR  
 SUPERELEVATION DIAGRAM

PC = 5+680  
 PT = 5+850  
 R = 470m  
 SEE SHEET 14 FOR  
 SUPERELEVATION DIAGRAM

- LEGEND**
- N = NEW
  - R = REMOVE
  - R&S = REMOVE & SALVAGE
  - S = SALVAGE
  - RET = RETAIN
  - B-TO-B = BACK TO BACK
  - ⊕ □ CATCH BASIN/DI
  - EXISTING THROAT DI
  - ⊕ N.W. CATCH BASIN/DI (NO WORK REQUIRED)
  - ⊙ SEWER MANHOLE
  - I MARKER POST
  - ⊕ UTILITY POLE
  - ⊕ UTIL. POLE
  - ⊕ W/UNDERGROUND UTIL.
  - DRIVE

**PAVEMENT CORES - ⊕**

#	TOTAL DEPTH (mm)	SOLID CORE	STRIPPED	COMMENTS
12	160	YES	1 LAYER	TOP 100mm SOLID
13	165	YES	1 LAYER	TOP 140mm SOLID
17	100	YES	1 LAYER	90mm SOLID CORE

**NOTE:**  
 - NO PCC UNDER ANY CORES  
 - NO CORES OVER ASPHALTED  
 - NO SHOULDER CORES  
 - ALL CORES MARKED "NO DRAINABLE BASE"

**PAVING PROJECT LAYOUT #2**

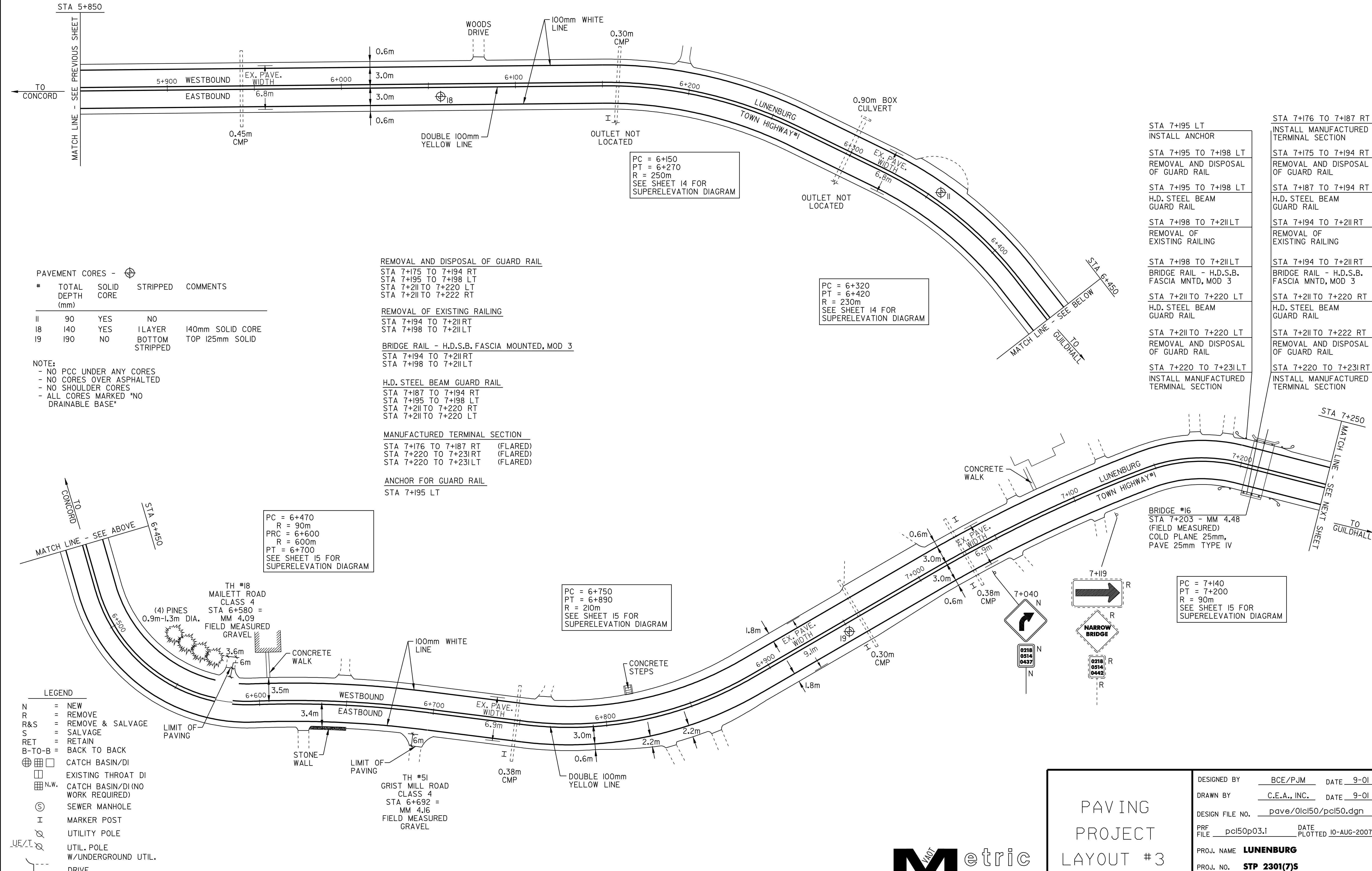
DESIGNED BY BCE/PJM DATE 9-01  
 DRAWN BY C.E.A., INC. DATE 9-01  
 DESIGN FILE NO. pave/01cl50/pcl50.dgn  
 PRF FILE pcl50p02.i DATE 10-AUG-2007 14:  
 PROJ. NAME **LUNENBURG**  
 PROJ. NO. **STP 2301(7)S**  
 SHEET **9** OF **20** SHEETS



TEMPORARY AND 100mm YELLOW LINE  
 STA 5+850 TO 7+250 SOLID LT&RT  
 (WITH CENTERLINE BREAKS FOR TOWN HIGHWAYS)

TEMPORARY AND 100mm WHITE LINE  
 STA 5+850 TO 7+250 SOLID LT&RT  
 (WITH EDGELINE BREAKS FOR TOWN HIGHWAYS)

YIELDING MARKER POSTS  
 STA 6+155 RT  
 STA 6+748 RT  
 STA 6+960 RT  
 STA 7+030 LT&RT  
 REMOVING SIGNS  
 3



PAVEMENT CORES - ⊕

#	TOTAL DEPTH (mm)	SOLID CORE	STRIPPED	COMMENTS
11	90	YES	NO	
18	140	YES	1 LAYER	140mm SOLID CORE
19	190	NO	BOTTOM STRIPPED	TOP 125mm SOLID

NOTE:  
 - NO PCC UNDER ANY CORES  
 - NO CORES OVER ASPHALTED  
 - NO SHOULDER CORES  
 - ALL CORES MARKED "NO DRAINABLE BASE"

REMOVAL AND DISPOSAL OF GUARD RAIL  
 STA 7+175 TO 7+194 RT  
 STA 7+195 TO 7+198 LT  
 STA 7+211 TO 7+220 LT  
 STA 7+211 TO 7+222 RT

REMOVAL OF EXISTING RAILING  
 STA 7+194 TO 7+211 RT  
 STA 7+198 TO 7+211 LT

BRIDGE RAIL - H.D.S.B. FASCIA MOUNTED, MOD 3  
 STA 7+194 TO 7+211 RT  
 STA 7+198 TO 7+211 LT

H.D. STEEL BEAM GUARD RAIL  
 STA 7+187 TO 7+194 RT  
 STA 7+195 TO 7+198 LT  
 STA 7+211 TO 7+220 RT  
 STA 7+211 TO 7+220 LT

MANUFACTURED TERMINAL SECTION  
 STA 7+176 TO 7+187 RT (FLARED)  
 STA 7+220 TO 7+231 RT (FLARED)  
 STA 7+220 TO 7+231 LT (FLARED)

ANCHOR FOR GUARD RAIL  
 STA 7+195 LT

PC = 6+470  
 R = 90m  
 PRC = 6+600  
 R = 600m  
 PT = 6+700  
 SEE SHEET 15 FOR SUPERELEVATION DIAGRAM

PC = 6+750  
 PT = 6+890  
 R = 210m  
 SEE SHEET 15 FOR SUPERELEVATION DIAGRAM

PC = 7+140  
 PT = 7+200  
 R = 90m  
 SEE SHEET 15 FOR SUPERELEVATION DIAGRAM

LEGEND

N	= NEW
R	= REMOVE
R&S	= REMOVE & SALVAGE
S	= SALVAGE
RET	= RETAIN
B-TO-B	= BACK TO BACK
⊕	CATCH BASIN/DI
⊕	EXISTING THROAT DI
⊕ N.W.	CATCH BASIN/DI (NO WORK REQUIRED)
⊙	SEWER MANHOLE
I	MARKER POST
⊗	UTILITY POLE
⊗/I	UTIL. POLE W/UNDERGROUND UTIL.
---	DRIVE

STA 7+195 LT INSTALL ANCHOR	STA 7+176 TO 7+187 RT INSTALL MANUFACTURED TERMINAL SECTION
STA 7+195 TO 7+198 LT REMOVAL AND DISPOSAL OF GUARD RAIL	STA 7+175 TO 7+194 RT REMOVAL AND DISPOSAL OF GUARD RAIL
STA 7+195 TO 7+198 LT H.D. STEEL BEAM GUARD RAIL	STA 7+187 TO 7+194 RT H.D. STEEL BEAM GUARD RAIL
STA 7+198 TO 7+211 LT REMOVAL OF EXISTING RAILING	STA 7+194 TO 7+211 RT REMOVAL OF EXISTING RAILING
STA 7+198 TO 7+211 LT BRIDGE RAIL - H.D.S.B. FASCIA MNTD, MOD 3	STA 7+194 TO 7+211 RT BRIDGE RAIL - H.D.S.B. FASCIA MNTD, MOD 3
STA 7+211 TO 7+220 LT H.D. STEEL BEAM GUARD RAIL	STA 7+211 TO 7+220 RT H.D. STEEL BEAM GUARD RAIL
STA 7+211 TO 7+220 LT REMOVAL AND DISPOSAL OF GUARD RAIL	STA 7+211 TO 7+222 RT REMOVAL AND DISPOSAL OF GUARD RAIL
STA 7+220 TO 7+231 LT INSTALL MANUFACTURED TERMINAL SECTION	STA 7+220 TO 7+231 RT INSTALL MANUFACTURED TERMINAL SECTION



**PAVING PROJECT LAYOUT #3**

DESIGNED BY	BCE/PJM	DATE	9-01
DRAWN BY	C.E.A., INC.	DATE	9-01
DESIGN FILE NO.	pave/01cl50/pcl50.dgn		
PRF FILE	pcl50p03.1	DATE PLOTTED	10-AUG-2007 14:
PROJ. NAME	LUNENBURG		
PROJ. NO.	STP 2301(7)S		
SHEET	10	OF	20 SHEETS

TEMPORARY AND 100mm YELLOW LINE  
 STA 7+250 TO 8+750 SOLID LT&RT  
 STA 7+763 DOUBLE SOLID LT  
 (WITH CENTERLINE BREAKS FOR TOWN HIGHWAYS)

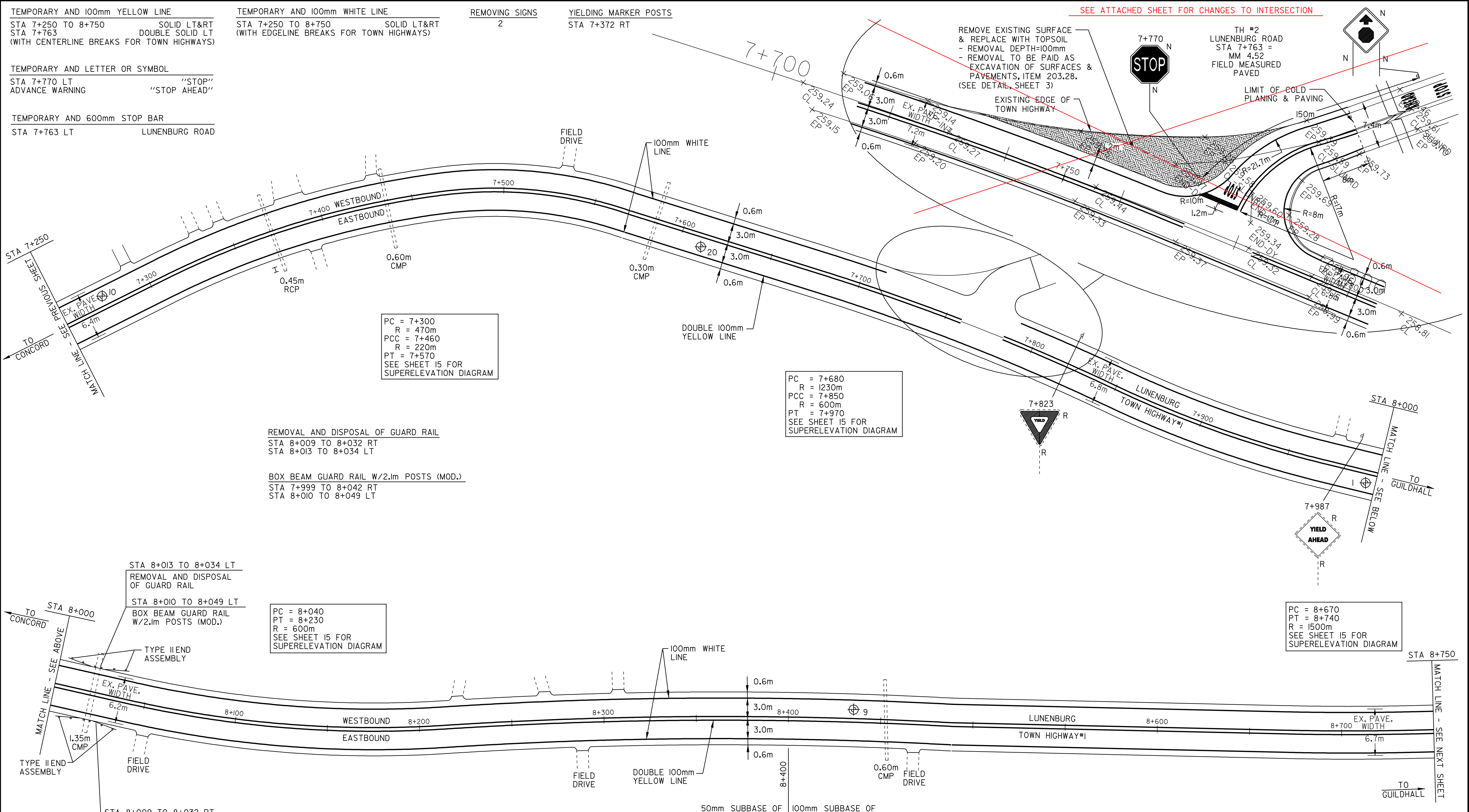
TEMPORARY AND 100mm WHITE LINE  
 STA 7+250 TO 8+750 SOLID LT&RT  
 (WITH EDGELINE BREAKS FOR TOWN HIGHWAYS)

REMOVING SIGNS 2  
 YIELDING MARKER POSTS  
 STA 7+372 RT

TEMPORARY AND LETTER OR SYMBOL  
 STA 7+770 LT "STOP"  
 ADVANCE WARNING "STOP AHEAD"

TEMPORARY AND 600mm STOP BAR  
 STA 7+763 LT LUNENBURG ROAD

SEE ATTACHED SHEET FOR CHANGES TO INTERSECTION



PC = 7+300  
 R = 470m  
 PCC = 7+460  
 R = 220m  
 PT = 7+570  
 SEE SHEET 15 FOR  
 SUPERELEVATION DIAGRAM

PC = 7+680  
 R = 1230m  
 PCC = 7+850  
 R = 600m  
 PT = 7+970  
 SEE SHEET 15 FOR  
 SUPERELEVATION DIAGRAM

REMOVAL AND DISPOSAL OF GUARD RAIL  
 STA 8+009 TO 8+032 RT  
 STA 8+013 TO 8+034 LT

BOX BEAM GUARD RAIL W/2.1m POSTS (MOD.)  
 STA 7+999 TO 8+042 RT  
 STA 8+010 TO 8+049 LT

STA 8+013 TO 8+034 LT  
 REMOVAL AND DISPOSAL  
 OF GUARD RAIL  
 STA 8+010 TO 8+049 LT  
 BOX BEAM GUARD RAIL  
 W/2.1m POSTS (MOD.)

PC = 8+040  
 PT = 8+230  
 R = 600m  
 SEE SHEET 15 FOR  
 SUPERELEVATION DIAGRAM

PC = 8+670  
 PT = 8+740  
 R = 1500m  
 SEE SHEET 15 FOR  
 SUPERELEVATION DIAGRAM

TO CONCORD  
 MATCH LINE - SEE ABOVE  
 STA 8+000  
 TYPE II END ASSEMBLY  
 EX. PAVE. WIDTH 6.2m  
 1.35m CMP  
 FIELD DRIVE

STA 8+009 TO 8+032 RT  
 REMOVAL AND DISPOSAL  
 OF GUARD RAIL  
 STA 7+999 TO 8+042 RT  
 BOX BEAM GUARD RAIL  
 W/2.1m POSTS (MOD.)

PAVEMENT CORES - ⊕

* TOTAL DEPTH (mm)	SOLID CORE	STRIPPED	COMMENTS
1	180	NO	BOTTOM OF CORE BROKEN UP
9	240	NO	115mm SOLID
10	65	YES	NO
20	115	NO	1 LAYER 90mm SOLID

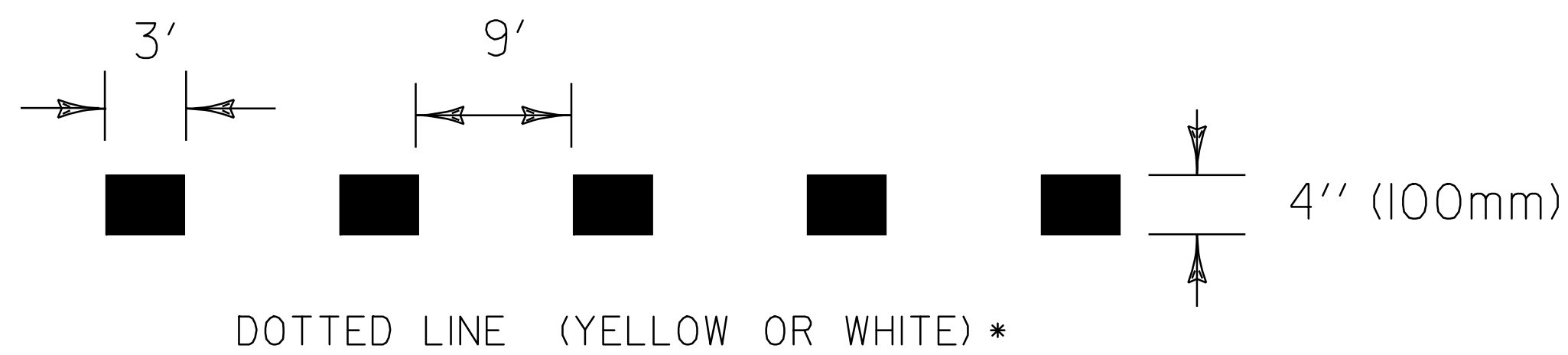
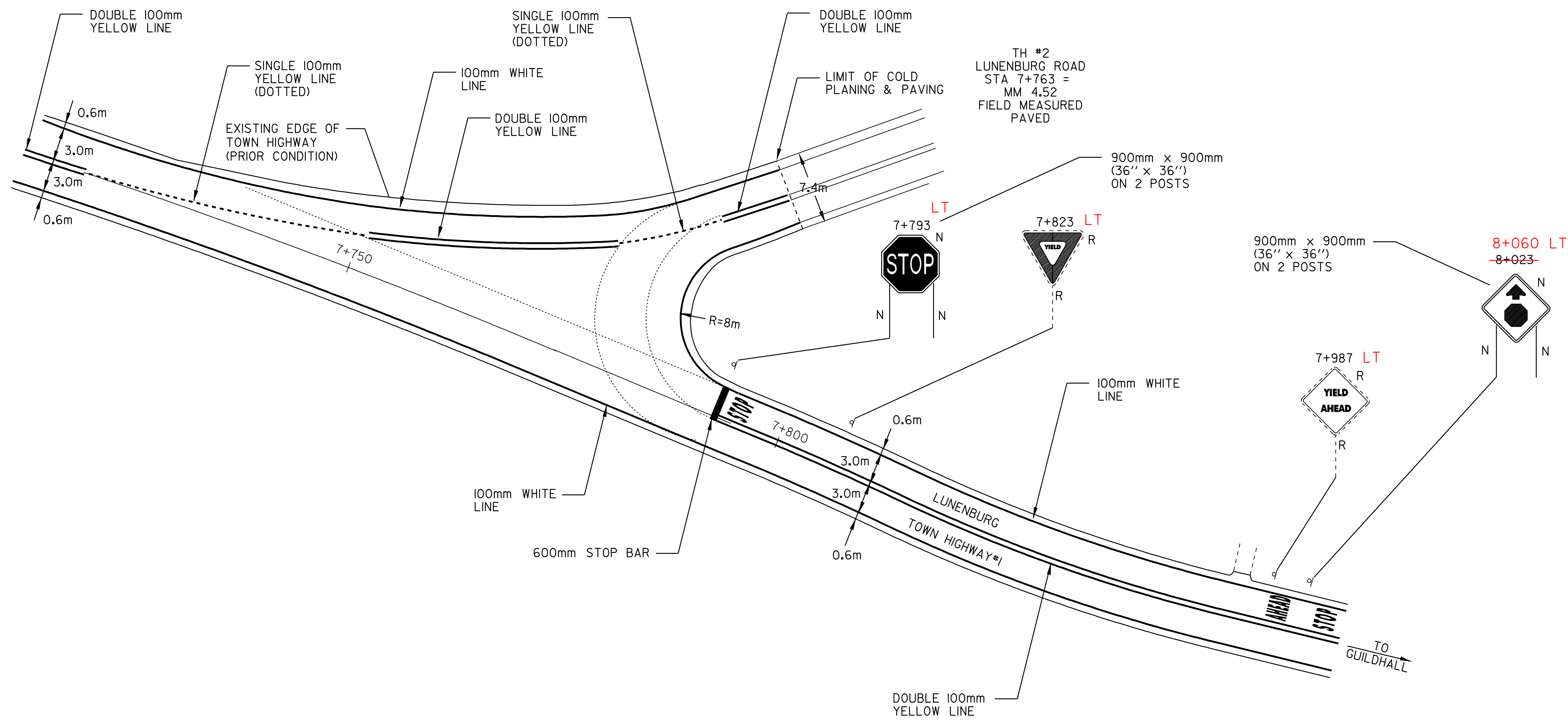
NOTE:  
 - NO PCC UNDER ANY CORES  
 - NO CORES OVER ASPHALTED  
 - NO SHOULDER CORES  
 - ALL CORES MARKED "NO DRAINABLE BASE"

- LEGEND
- N = NEW
  - R = REMOVE
  - R&S = REMOVE & SALVAGE
  - S = SALVAGE
  - RET = RETAIN
  - B-TO-B = BACK TO BACK
  - ⊕ ⊞ ⊠ CATCH BASIN/DI
  - ⊞ EXISTING THROAT DI
  - ⊞ N.W. CATCH BASIN/DI (NO WORK REQUIRED)
  - ⊙ SEWER MANHOLE
  - ⊙ MARKER POST
  - ⊙ UTILITY POLE
  - ⊙ UTIL. POLE W/UNDERGROUND UTIL.
  - ⊙ DRIVE

PAVING PROJECT LAYOUT # 4

DESIGNED BY BCE/PJM DATE 9-01  
 DRAWN BY C.E.A., INC. DATE 9-01  
 DESIGN FILE NO. pave/01cl50/pcl50.dgn  
 PRF FILE pcl50p04.i DATE PLOTTED 10-AUG-2007 14:  
 PROJ. NAME **LUNENBURG**  
 PROJ. NO. **STP 2301(7)S**  
 SHEET **11** OF **20** SHEETS



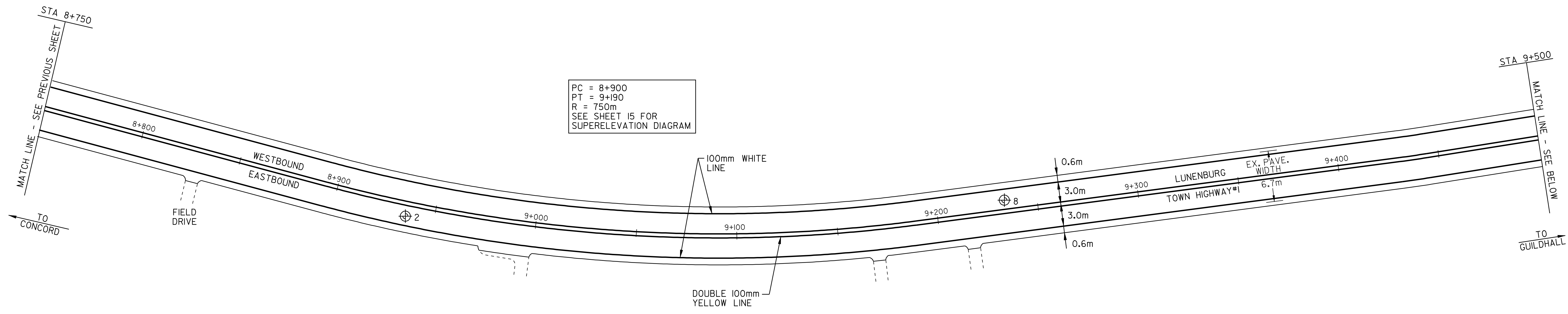


TOWN HWY. # 1  
 ( RIVER RD. )  
 AND  
 TOWN HWY. # 2  
 ( LUNENBURG RD. )  
 INTERSECTION

PROJ. NAME **LUNENBURG**  
 PROJ. NO. **STP 2301(7)S**  
 10-AUG-2007 14:38

TEMPORARY AND 100mm YELLOW LINE  
 STA 8+750 TO 10+200  
 (WITH CENTERLINE BREAKS FOR TOWN HIGHWAYS)

TEMPORARY AND 100mm WHITE LINE  
 STA 8+750 TO 10+200  
 (WITH EDGELINE BREAKS FOR TOWN HIGHWAYS)

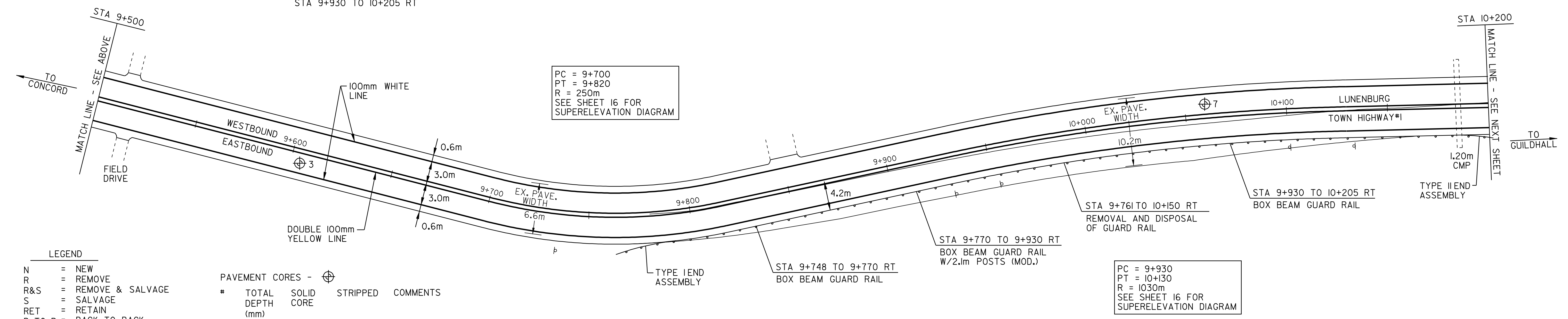


PC = 8+900  
 PT = 9+190  
 R = 750m  
 SEE SHEET 15 FOR  
 SUPERELEVATION DIAGRAM

REMOVAL AND DISPOSAL OF GUARD RAIL  
 STA 9+761 TO 10+150 RT

BOX BEAM GUARD RAIL W/2.1m POSTS (MOD.)  
 STA 9+770 TO 9+930 RT

BOX BEAM GUARD RAIL  
 STA 9+748 TO 9+770 RT  
 STA 9+930 TO 10+205 RT



PC = 9+700  
 PT = 9+820  
 R = 250m  
 SEE SHEET 16 FOR  
 SUPERELEVATION DIAGRAM

PC = 9+930  
 PT = 10+130  
 R = 1030m  
 SEE SHEET 16 FOR  
 SUPERELEVATION DIAGRAM

- LEGEND**
- N = NEW
  - R = REMOVE
  - R&S = REMOVE & SALVAGE
  - S = SALVAGE
  - RET = RETAIN
  - B-TO-B = BACK TO BACK
  - ⊕ □ CATCH BASIN/DI
  - EXISTING THROAT DI
  - ⊕ N.W. CATCH BASIN/DI (NO WORK REQUIRED)
  - ⊙ SEWER MANHOLE
  - ⊙ MARKER POST
  - I UTILITY POLE
  - ⊙ UTIL. POLE
  - ⊙ W/UNDERGROUND UTIL.
  - DRIVE

PAVEMENT CORES - ⊕

#	TOTAL DEPTH (mm)	SOLID CORE	STRIPPED	COMMENTS
2	250	NO	YES	MOST OF CORE DEPTH WAS STRIPPED LAYERS
3	205	NO	YES	CORE WAS MOSTLY STRIPPED, 40mm SOLID
7	100	YES	NO	TAKEN IN NEW TYPICAL SECTION
8	215	NO	YES	75mm SOLID

**NOTE:**

- NO PCC UNDER ANY CORES
- NO CORES OVER ASPHALTED
- NO SHOULDER CORES
- ALL CORES MARKED "NO DRAINABLE BASE"



PAVING  
 PROJECT  
 LAYOUT #5

DESIGNED BY BCE/PJM DATE 9-01  
 DRAWN BY C.E.A., INC. DATE 9-01  
 DESIGN FILE NO. pave/01cl50/pcl50.dgn  
 PRF FILE pcl50p05.i DATE PLOTTED 10-AUG-2007 14:  
 PROJ. NAME **LUNENBURG**  
 PROJ. NO. **STP 2301(7)S**  
 SHEET **12** OF **20** SHEETS

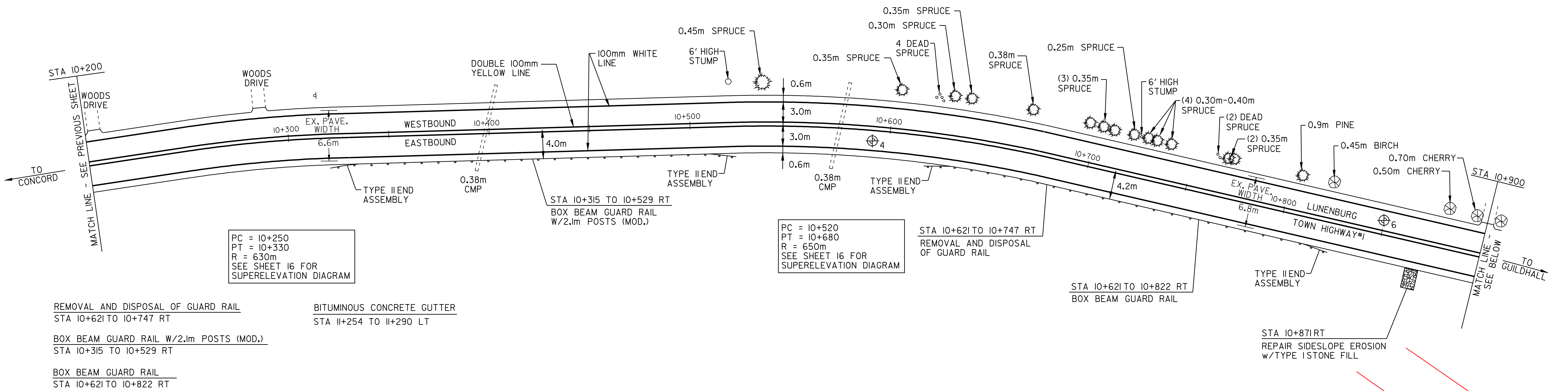
TEMPORARY AND 100mm YELLOW LINE  
 STA 10+200 TO 11+458 SOLID LT&RT  
 STA 11+004 DOUBLE SOLID RT  
 (WITH CENTERLINE BREAKS FOR TOWN HIGHWAYS)

TEMPORARY AND LETTER OR SYMBOL  
 STA 11+004 RT "STOP"

TEMPORARY AND 600mm STOP BAR  
 STA 11+004 RT COVERED BRIDGE ROAD

TEMPORARY AND 100mm WHITE LINE  
 STA 10+200 TO 11+458 SOLID LT&RT  
 (WITH EDGELINE BREAKS FOR TOWN HIGHWAYS)

REMOVING SIGNS



PC = 10+250  
 PT = 10+330  
 R = 630m  
 SEE SHEET 16 FOR SUPERELEVATION DIAGRAM

PC = 10+520  
 PT = 10+680  
 R = 650m  
 SEE SHEET 16 FOR SUPERELEVATION DIAGRAM

STA 10+621 TO 10+747 RT  
 REMOVAL AND DISPOSAL OF GUARD RAIL

STA 10+621 TO 10+822 RT  
 BOX BEAM GUARD RAIL

STA 10+871 RT  
 REPAIR SIDESLOPE EROSION w/TYPE 1 STONE FILL

REMOVAL AND DISPOSAL OF GUARD RAIL  
 STA 10+621 TO 10+747 RT

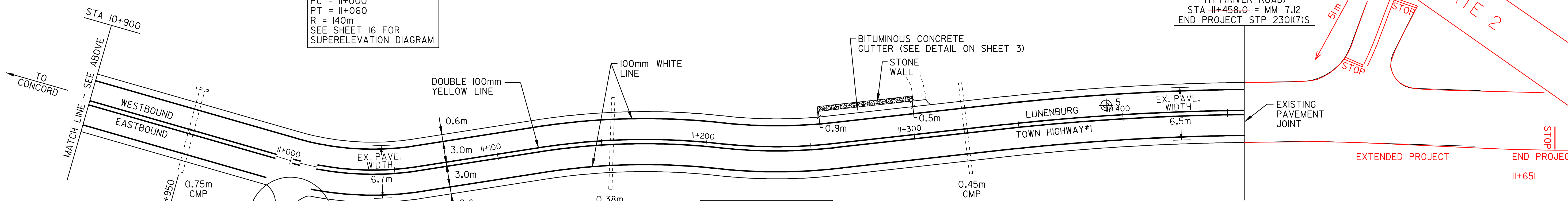
BOX BEAM GUARD RAIL W/2.1m POSTS (MOD.)  
 STA 10+315 TO 10+529 RT

BOX BEAM GUARD RAIL  
 STA 10+621 TO 10+822 RT

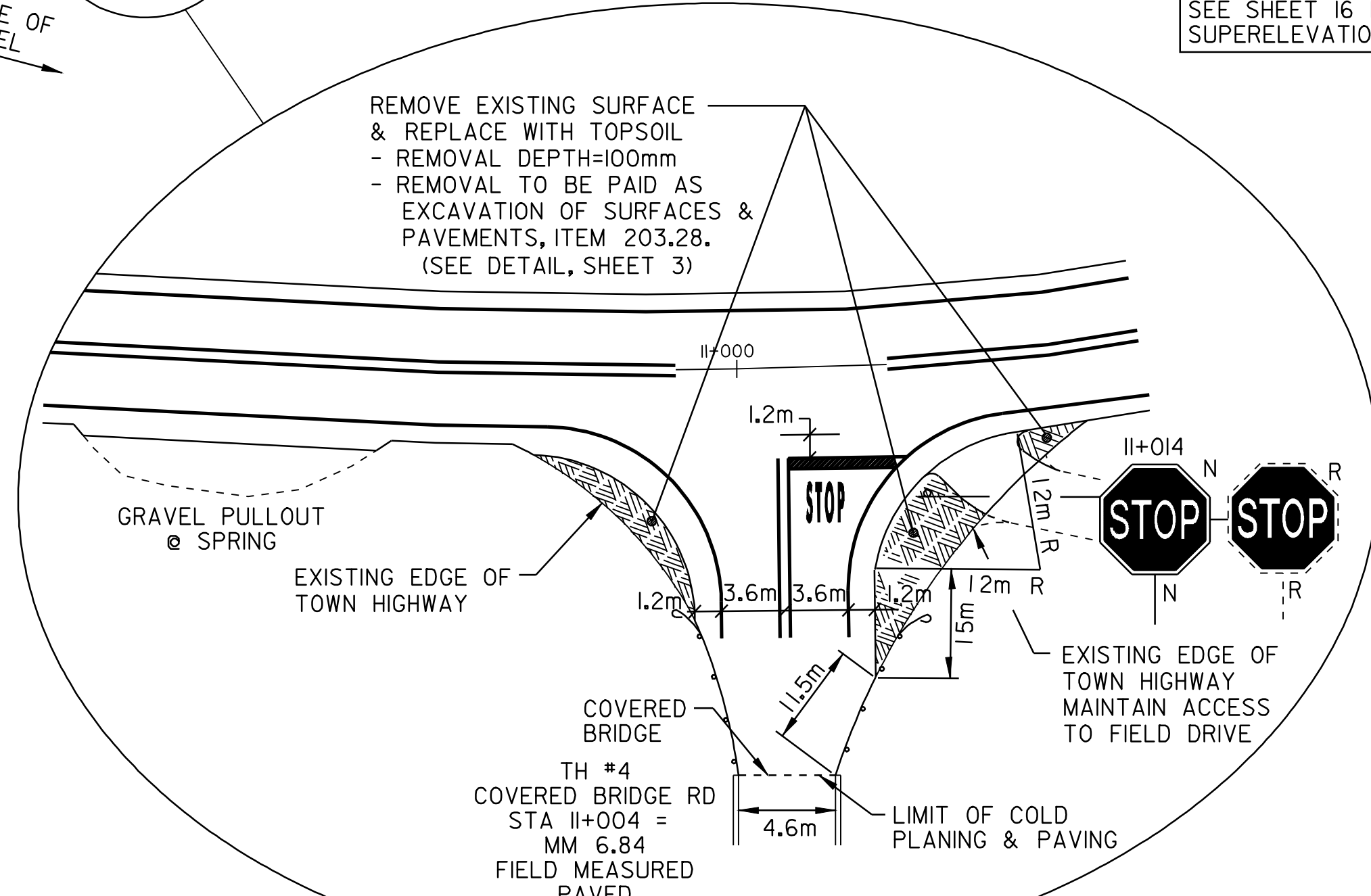
BITUMINOUS CONCRETE GUTTER  
 STA 11+254 TO 11+290 LT

PC = 11+000  
 PT = 11+060  
 R = 140m  
 SEE SHEET 16 FOR SUPERELEVATION DIAGRAM

PC = 11+120  
 R = 330m  
 PRC = 11+210  
 R = 250m  
 PT = 11+260  
 SEE SHEET 16 FOR SUPERELEVATION DIAGRAM



REMOVE EXISTING SURFACE & REPLACE WITH TOPSOIL  
 - REMOVAL DEPTH=100mm  
 - REMOVAL TO BE PAID AS EXCAVATION OF SURFACES & PAVEMENTS, ITEM 203.28. (SEE DETAIL, SHEET 3)



- LEGEND
- N = NEW
  - R = REMOVE
  - R&S = REMOVE & SALVAGE
  - S = SALVAGE
  - RET = RETAIN
  - B-TO-B = BACK TO BACK
  - ⊕ □ CATCH BASIN/DI
  - EXISTING THROAT DI
  - ⊕ n.w. CATCH BASIN/DI (NO WORK REQUIRED)
  - ⊙ SEWER MANHOLE
  - I MARKER POST
  - ⊗ UTILITY POLE
  - ⊗ UTIL. POLE
  - ⊗ W/UNDERGROUND UTIL.
  - ⊗ DRIVE

PAVEMENT CORES - ⊕

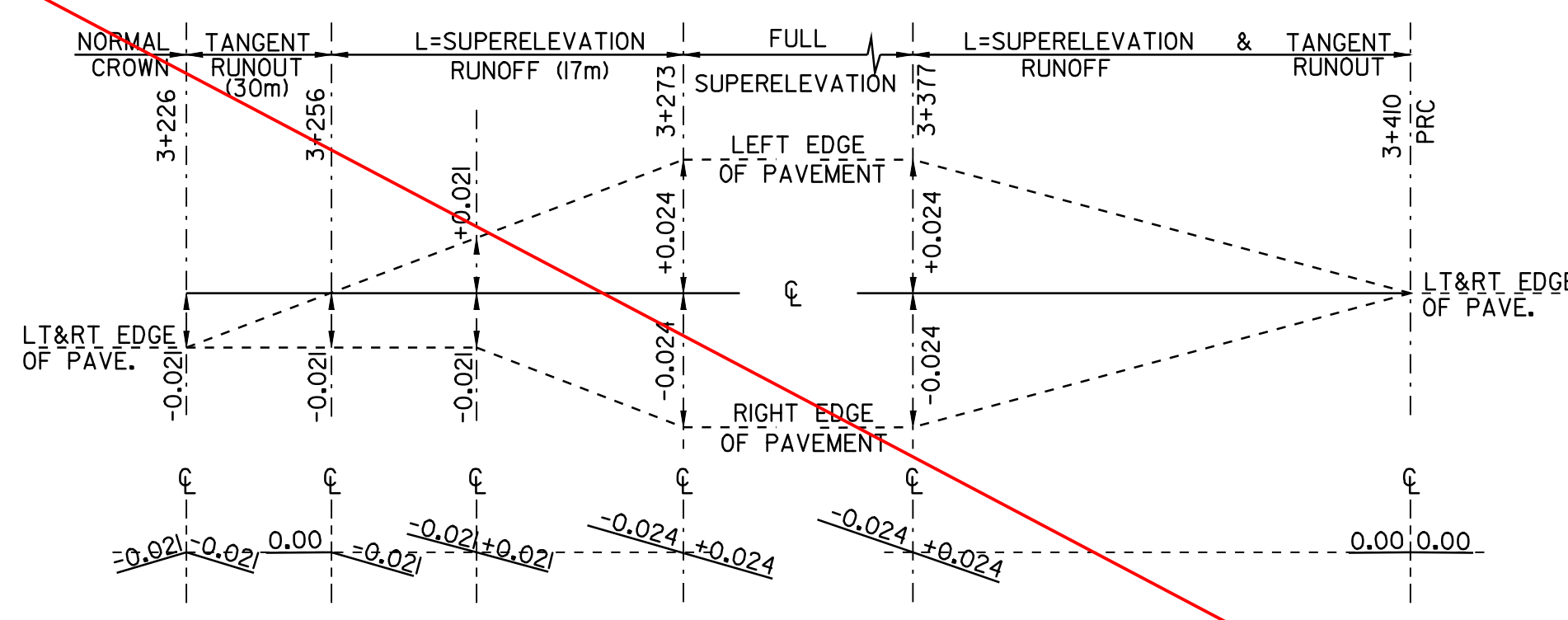
#	TOTAL DEPTH (mm)	SOLID CORE	STRIPPED	COMMENTS
4	180	NO	YES	125mm OF SOLID CORE
5	230	NO	YES	SOME STRIPPED, 165mm SOLID
6	140	NO	YES	115mm OF SOLID CORE

NOTE:  
 - NO PCC UNDER ANY CORES  
 - NO CORES OVER ASPHALTED  
 - NO SHOULDER CORES  
 - ALL CORES MARKED "NO DRAINABLE BASE"

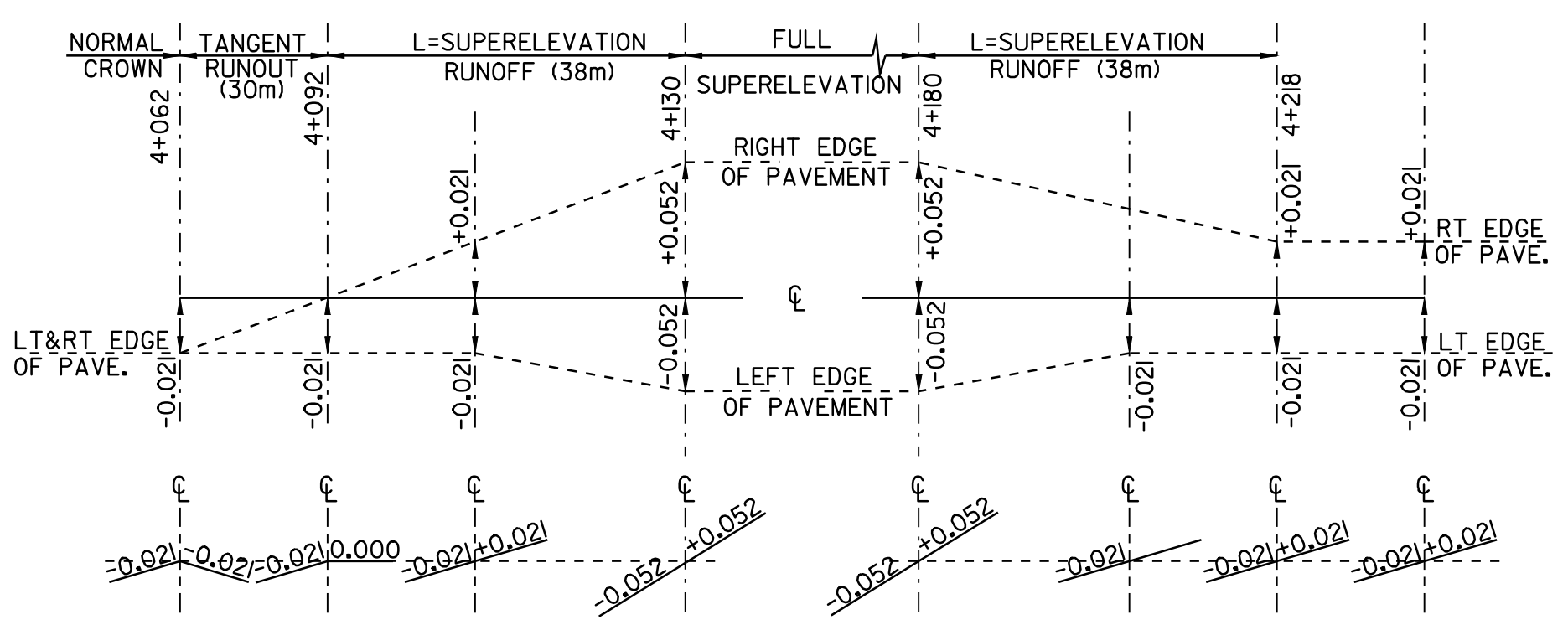


**PAVING PROJECT LAYOUT #6**

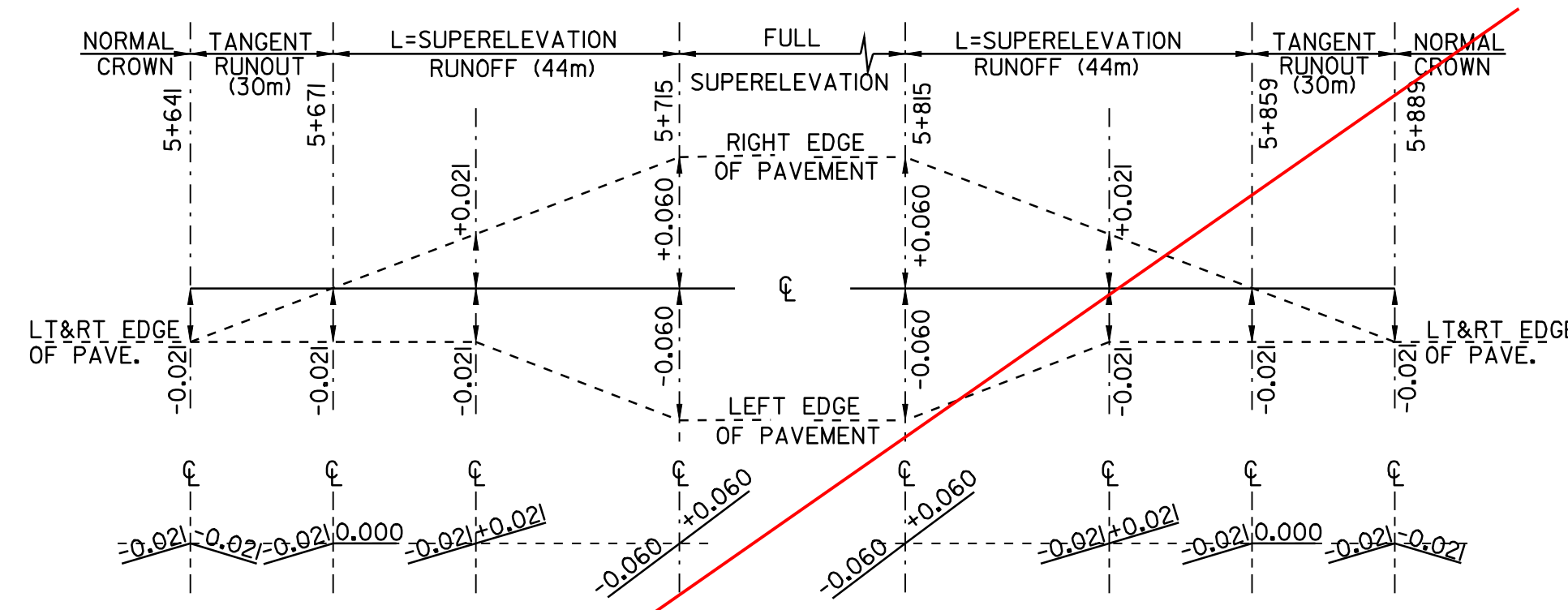
DESIGNED BY BCE/PJM DATE 9-01  
 DRAWN BY C.E.A., INC. DATE 9-01  
 DESIGN FILE NO. pave/01cl50/pcl50.dgn  
 PRF FILE pcl50p06.i DATE PLOTTED 10-AUG-2007 14:  
 PROJ. NAME **LUNENBURG**  
 PROJ. NO. **STP 2301(7)S**  
 SHEET **13** OF **20** SHEETS



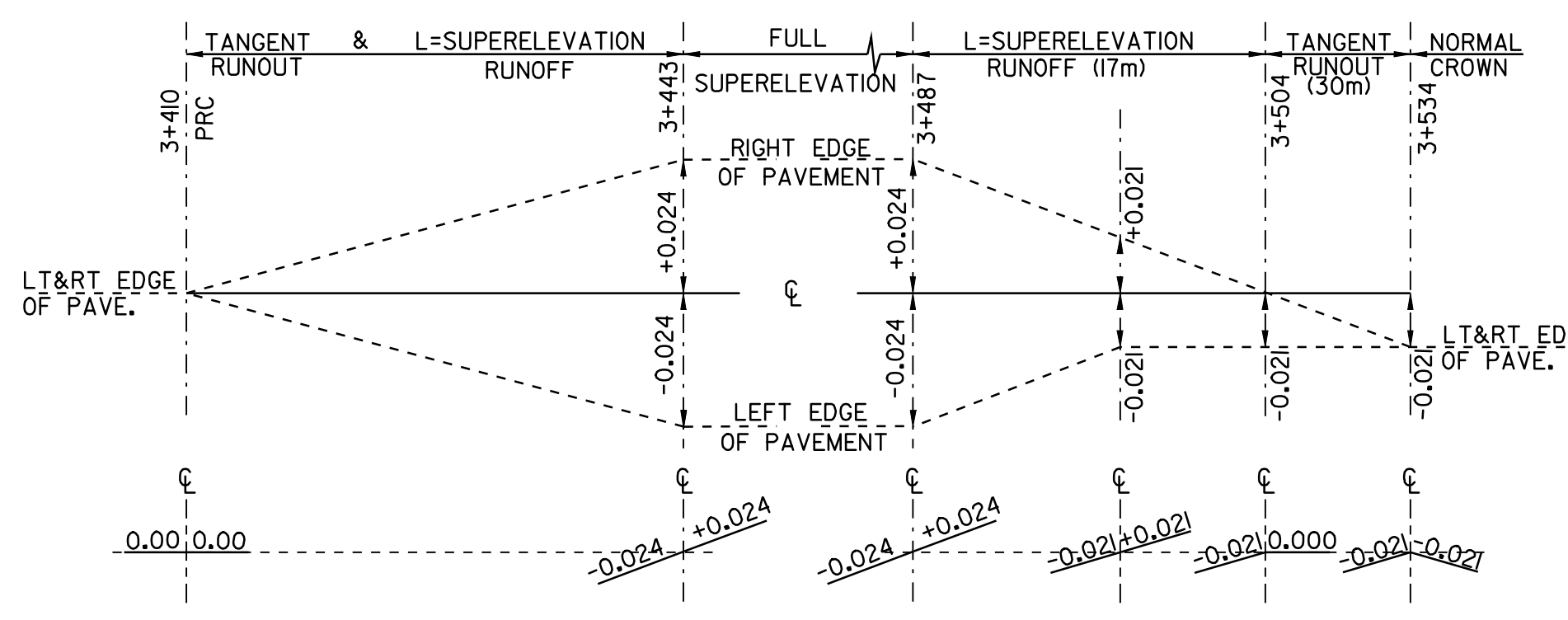
**SUPERELEVATION DIAGRAM**  
NTS  
**LUNEBURG**  
PC=3+260 R=1480m  
PT=3+390 V=80 km/h



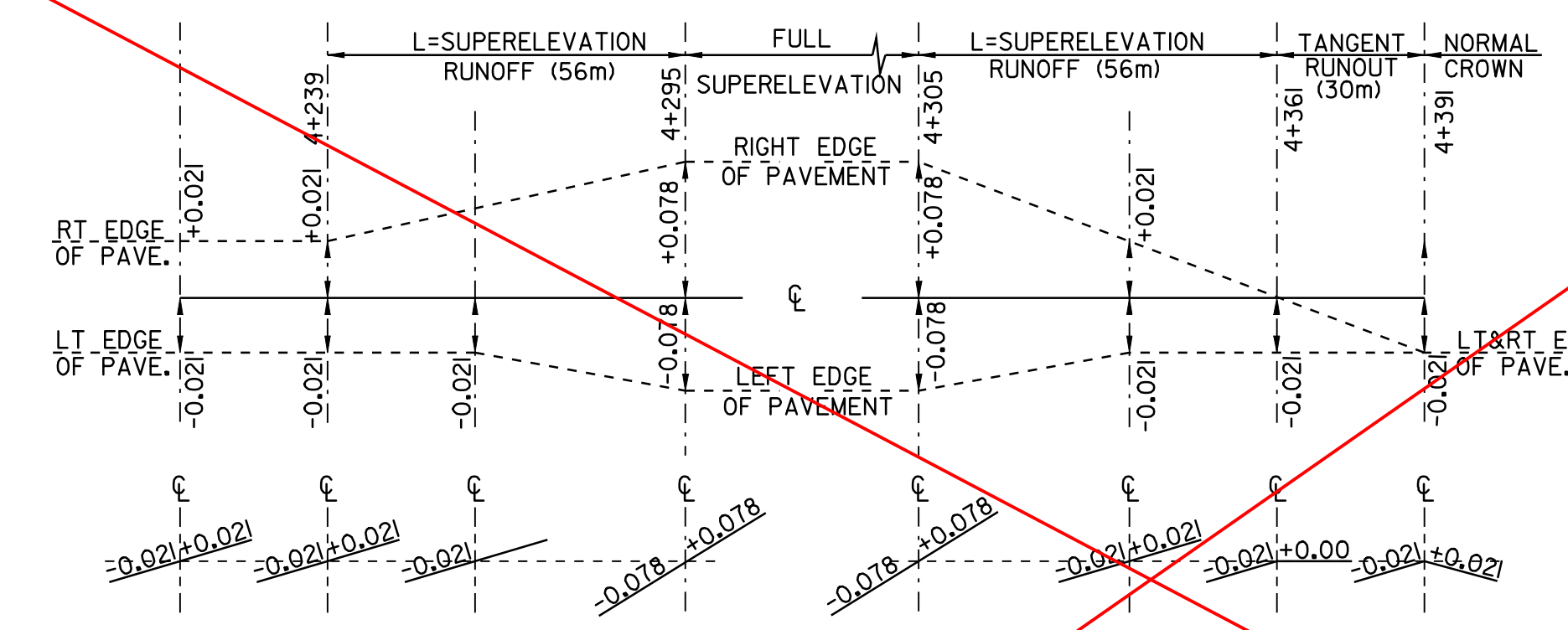
**SUPERELEVATION DIAGRAM**  
NTS  
**LUNEBURG**  
PC=4+100 R=580m  
PT=4+210 V=80 km/h



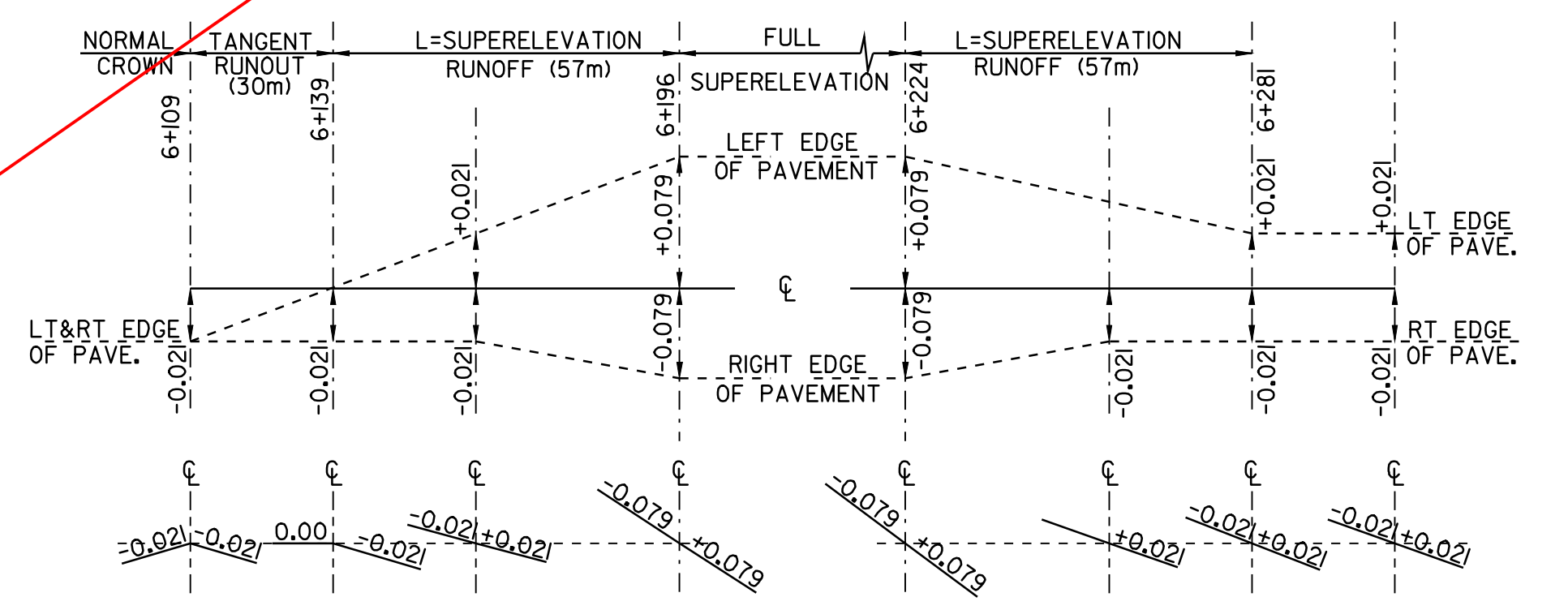
**SUPERELEVATION DIAGRAM**  
NTS  
**LUNEBURG**  
PC=5+680 R=470m  
PT=5+850 V=80 km/h



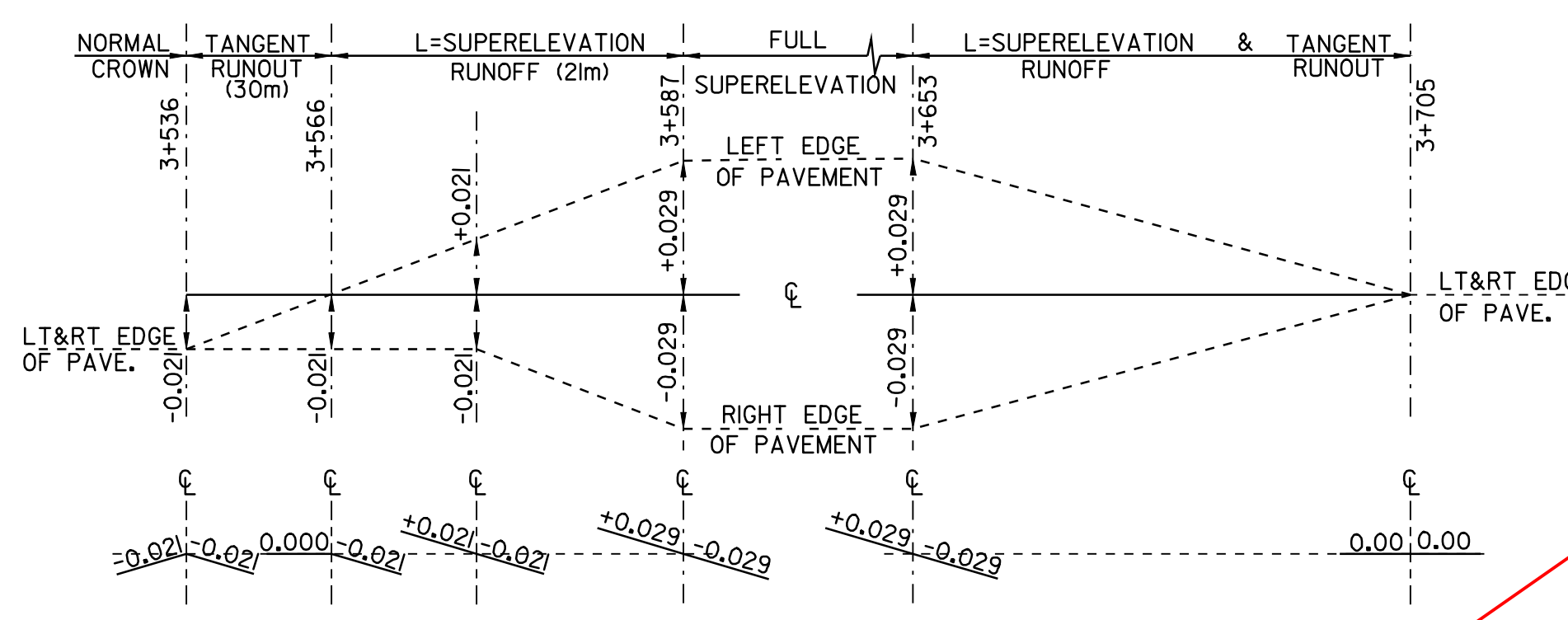
**SUPERELEVATION DIAGRAM**  
NTS  
**LUNEBURG**  
PC=3+430 R=1520m  
PT=3+500 V=80 km/h



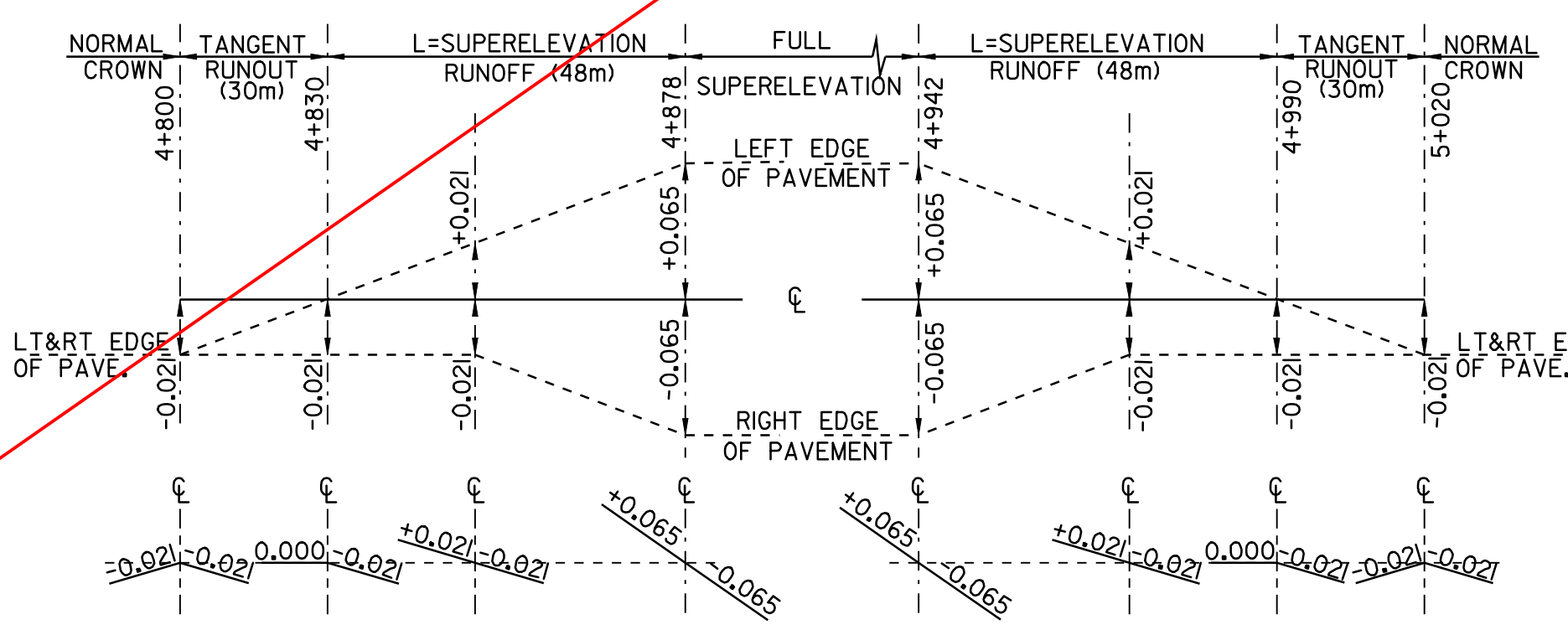
**SUPERELEVATION DIAGRAM**  
NTS  
**LUNEBURG**  
PC=4+250 R=270m  
PT=4+350 V=80 km/h



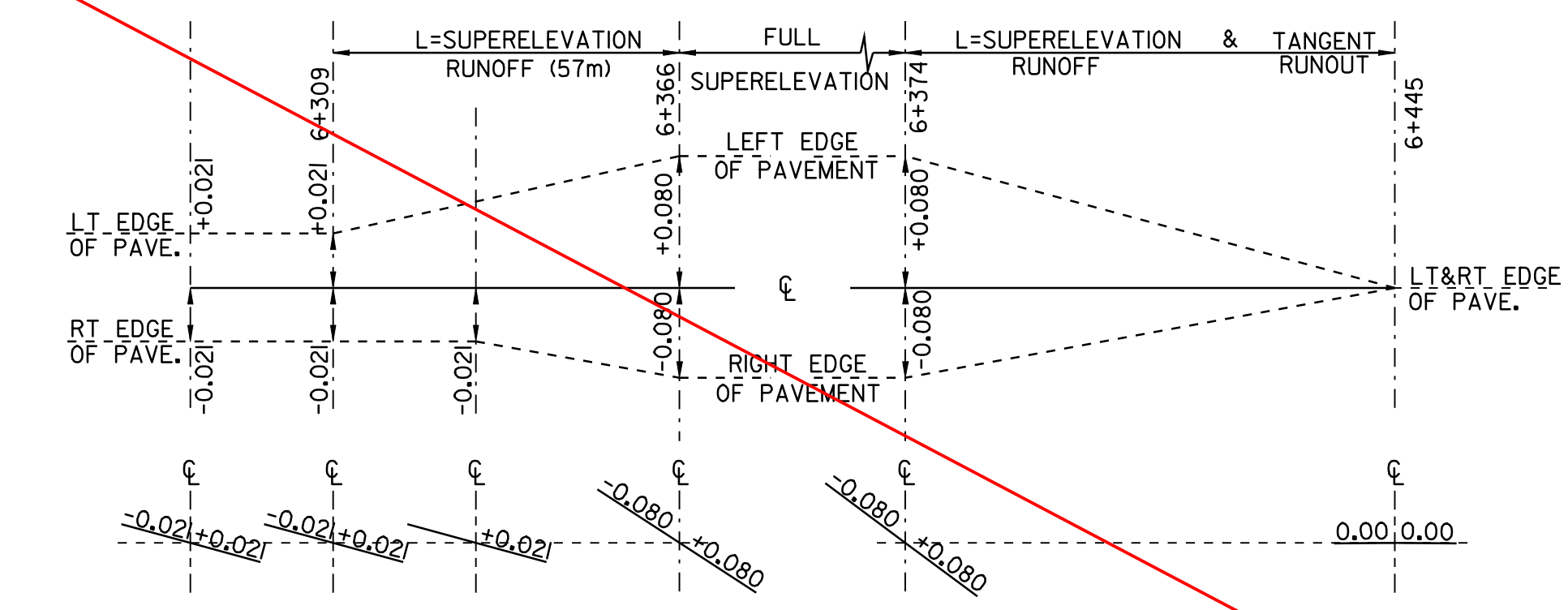
**SUPERELEVATION DIAGRAM**  
NTS  
**LUNEBURG**  
PC=6+150 R=250m  
PT=6+270 V=80 km/h



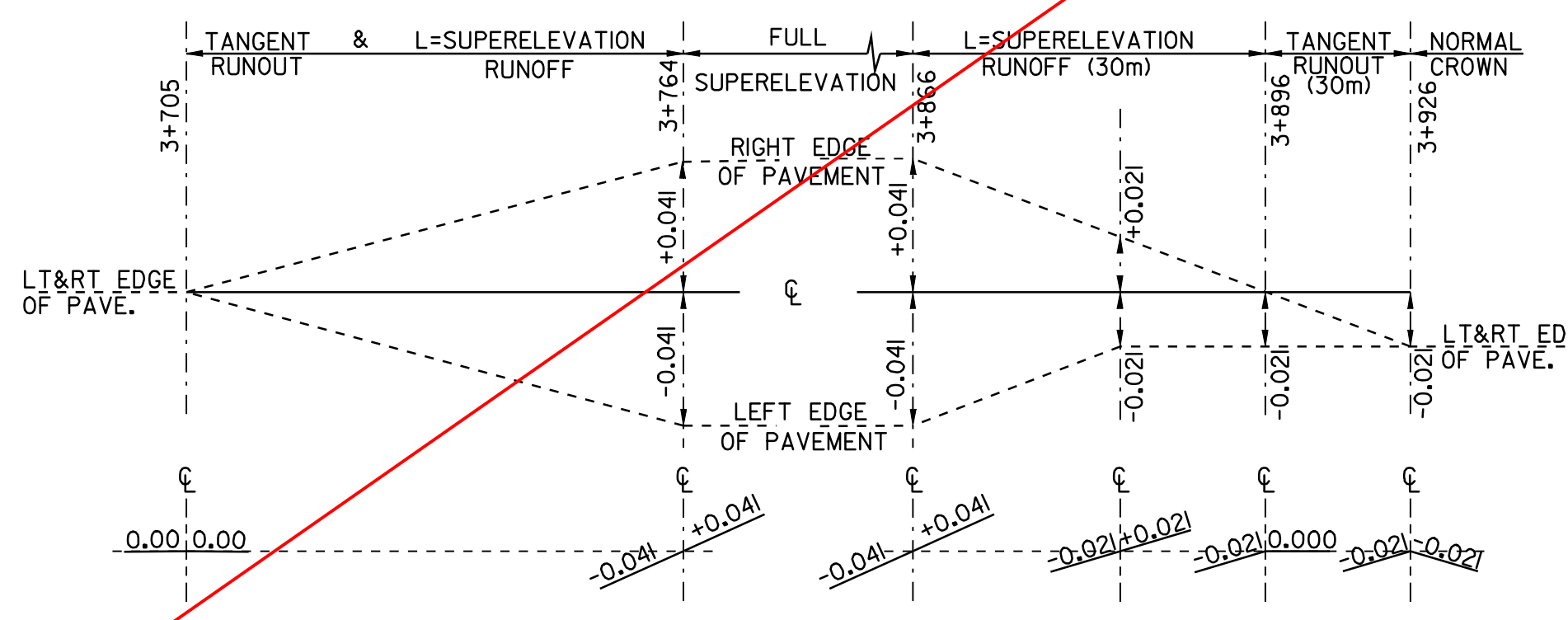
**SUPERELEVATION DIAGRAM**  
NTS  
**LUNEBURG**  
PC=3+570 R=1190m  
PT=3+670 V=80 km/h



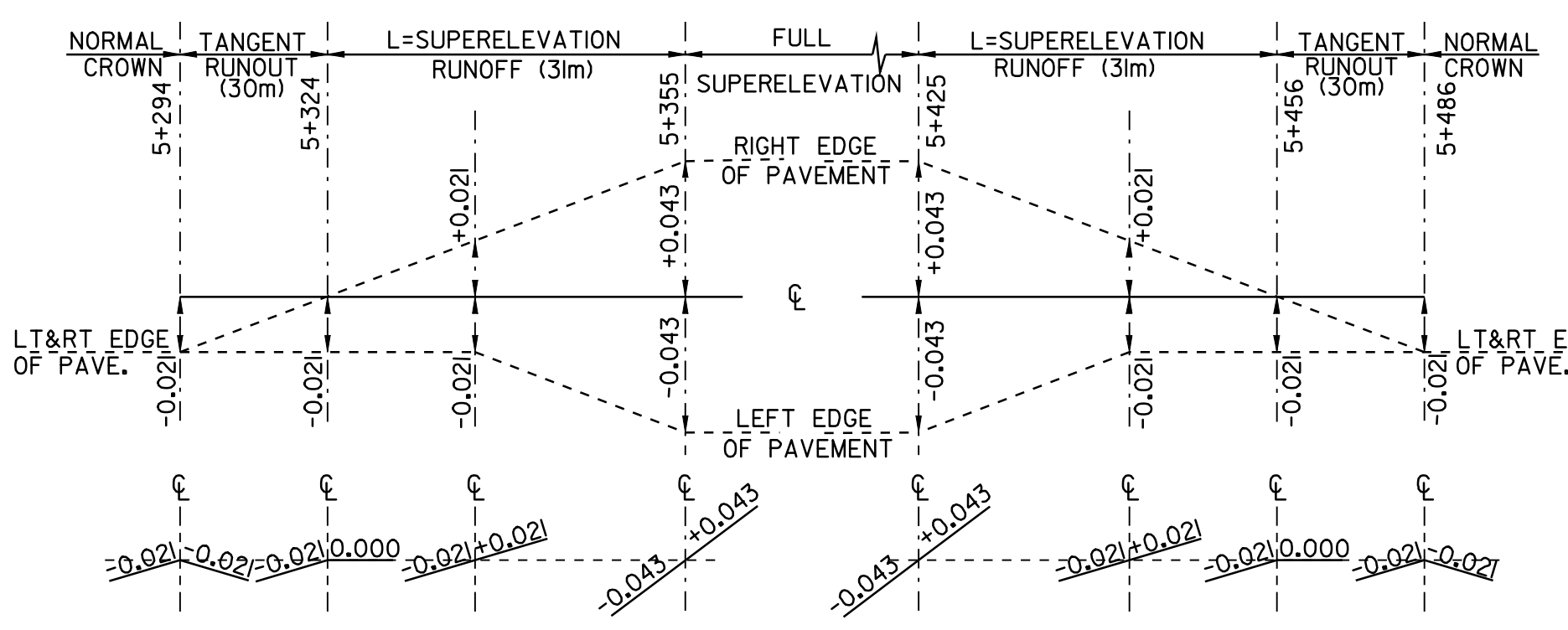
**SUPERELEVATION DIAGRAM**  
NTS  
**LUNEBURG**  
PC=4+840 R=400m  
PT=4+980 V=80 km/h



**SUPERELEVATION DIAGRAM**  
NTS  
**LUNEBURG**  
PC=6+320 R=230m  
PT=6+420 V=80 km/h



**SUPERELEVATION DIAGRAM**  
NTS  
**LUNEBURG**  
PC=3+740 R=800m  
PT=3+890 V=80 km/h



**SUPERELEVATION DIAGRAM**  
NTS  
**LUNEBURG**  
PC=5+330 R=750m  
PT=5+450 V=80 km/h

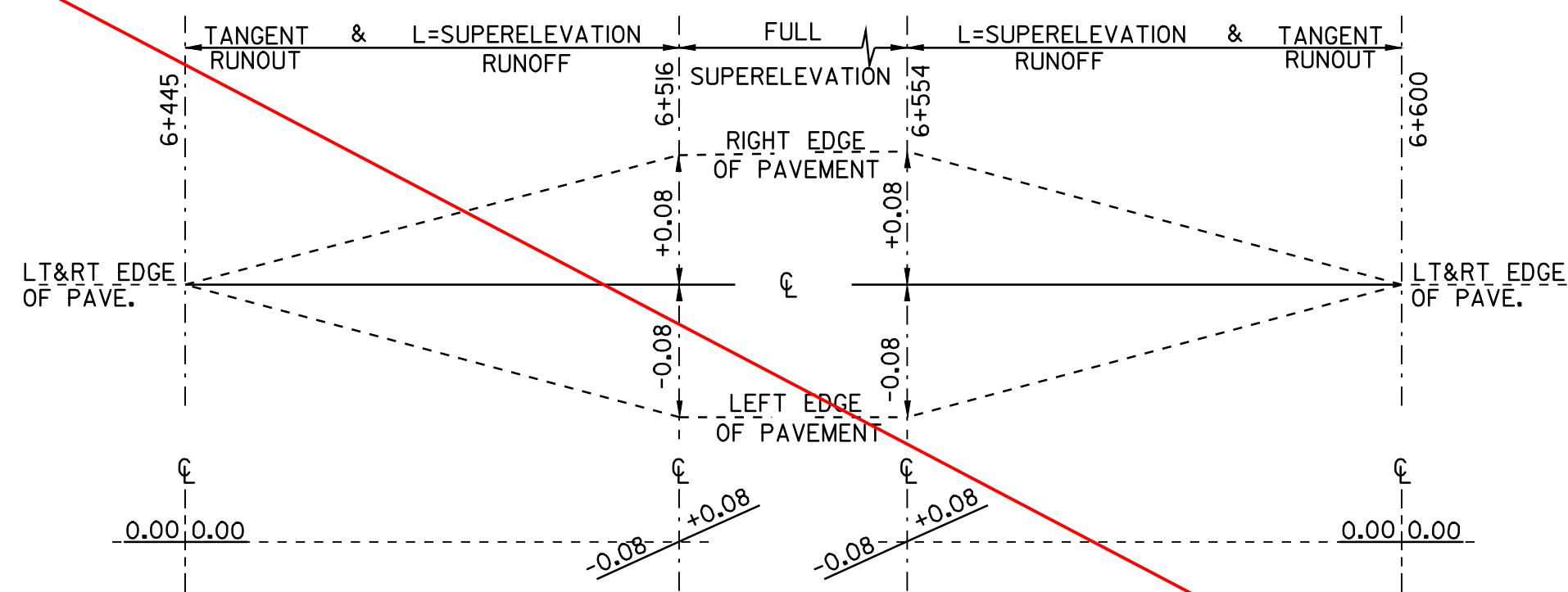
NOTE:  
THE CONTRACTOR IS RESPONSIBLE FOR THE ENGINEERING WORK  
REQUIRED TO LAYOUT AND MAINTAIN THE CROSS SLOPES IN THE  
REGRADEING OF THE RECLAIMED AREAS.



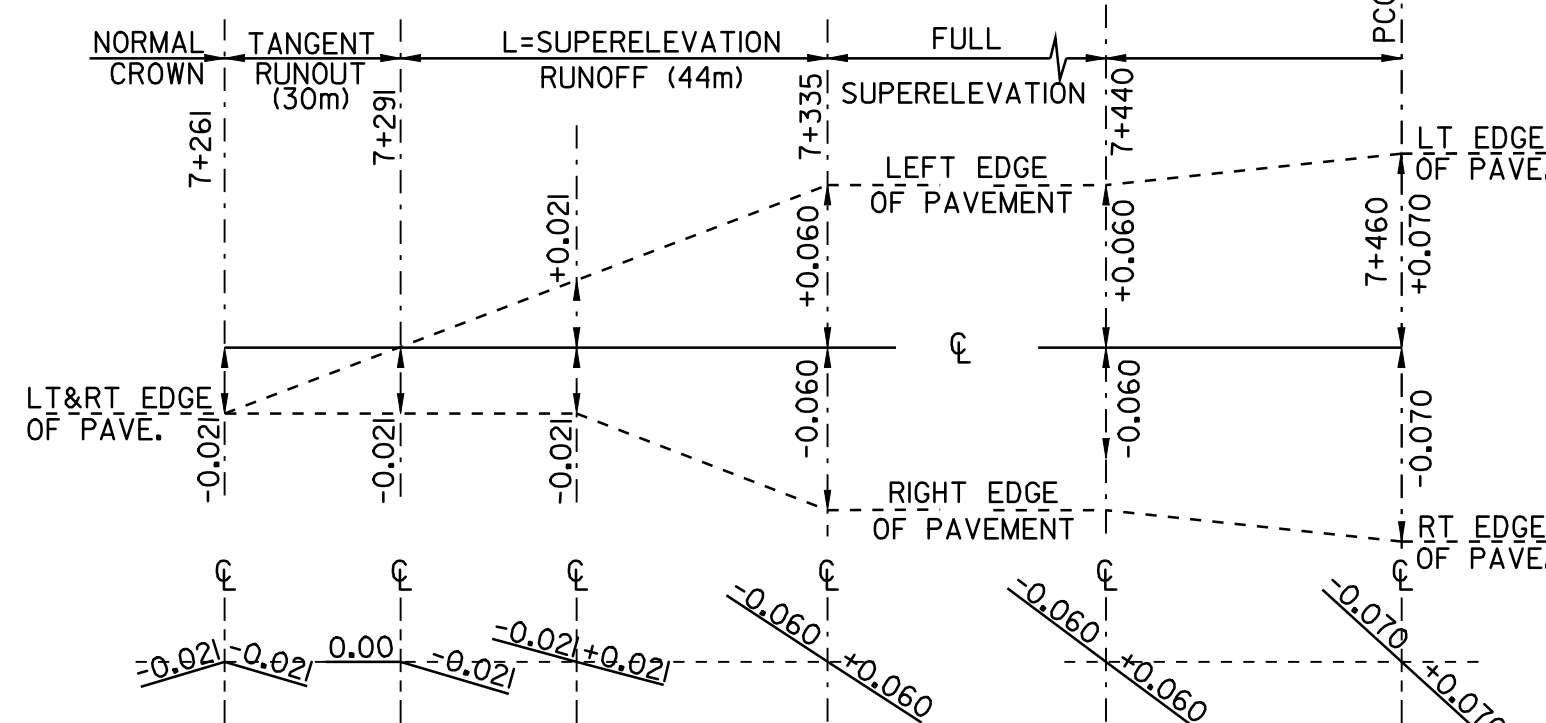
SUPERELEVATION  
BANKING DIAGRAM  
SHEET #1

DESIGNED BY	BCE/PJM	DATE	10-01
DRAWN BY	C.E.A., INC.	DATE	10-01
DESIGN FILE NO.	pave/01cl50/pcl50.dgn		
PRF FILE	pcl50bd1.l	DATE PLOTTED	10-AUG-2007
PROJ. NAME	LUNEBURG		
PROJ. NO.	STP 2301(7)S		
SHEET	14	OF	20 SHEETS

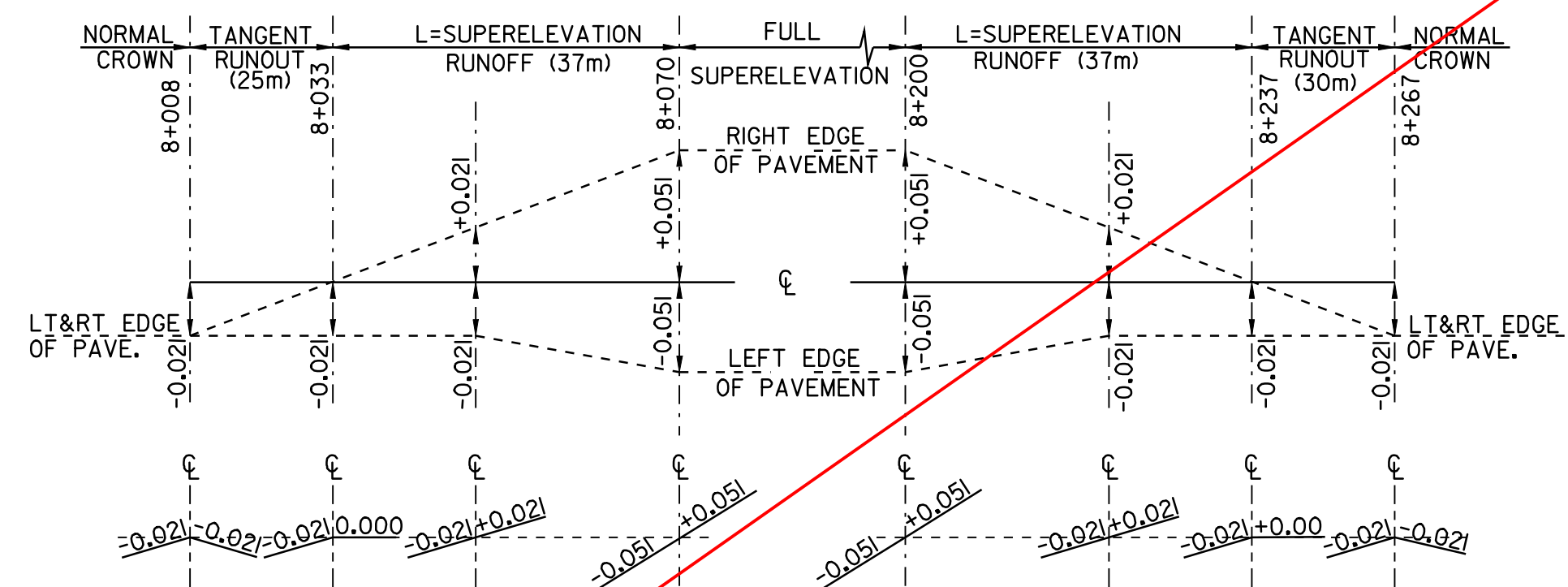
SEE REVISED BANKING SHEETS



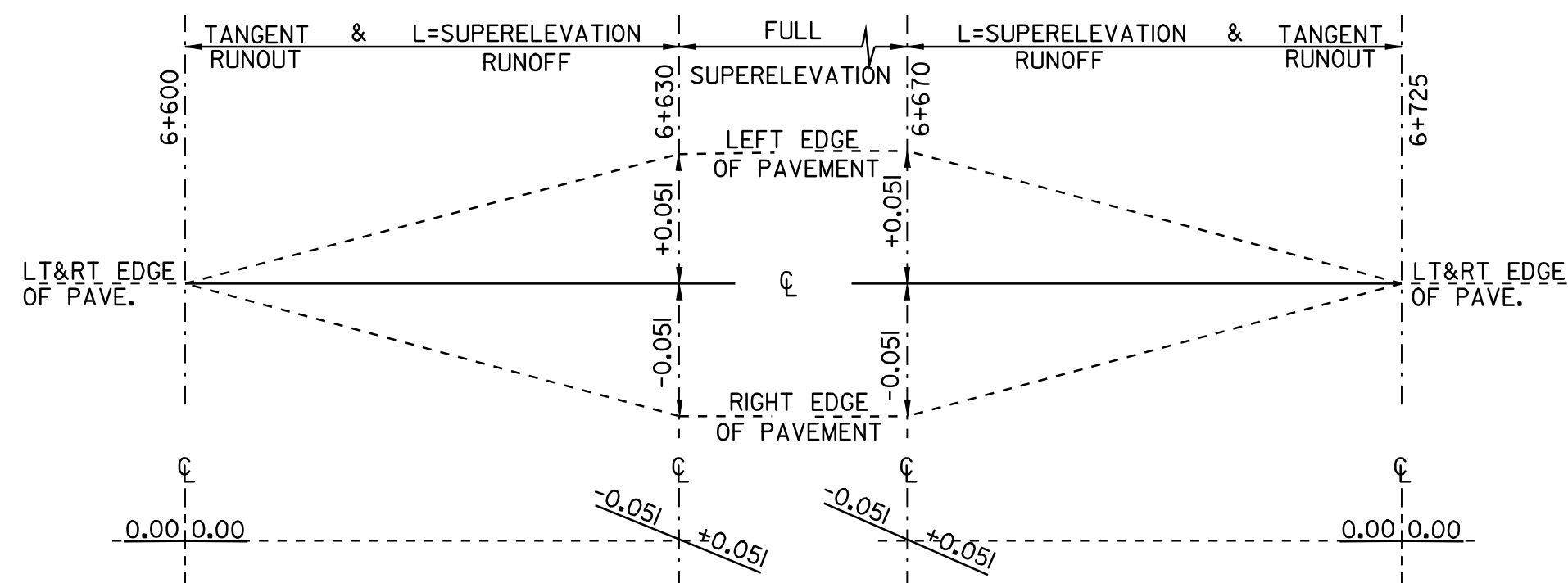
**SUPERELEVATION DIAGRAM**  
NTS  
**LUNEBURG**  
PC=6+470 R=90m  
PRC=6+600 V=80 km/h



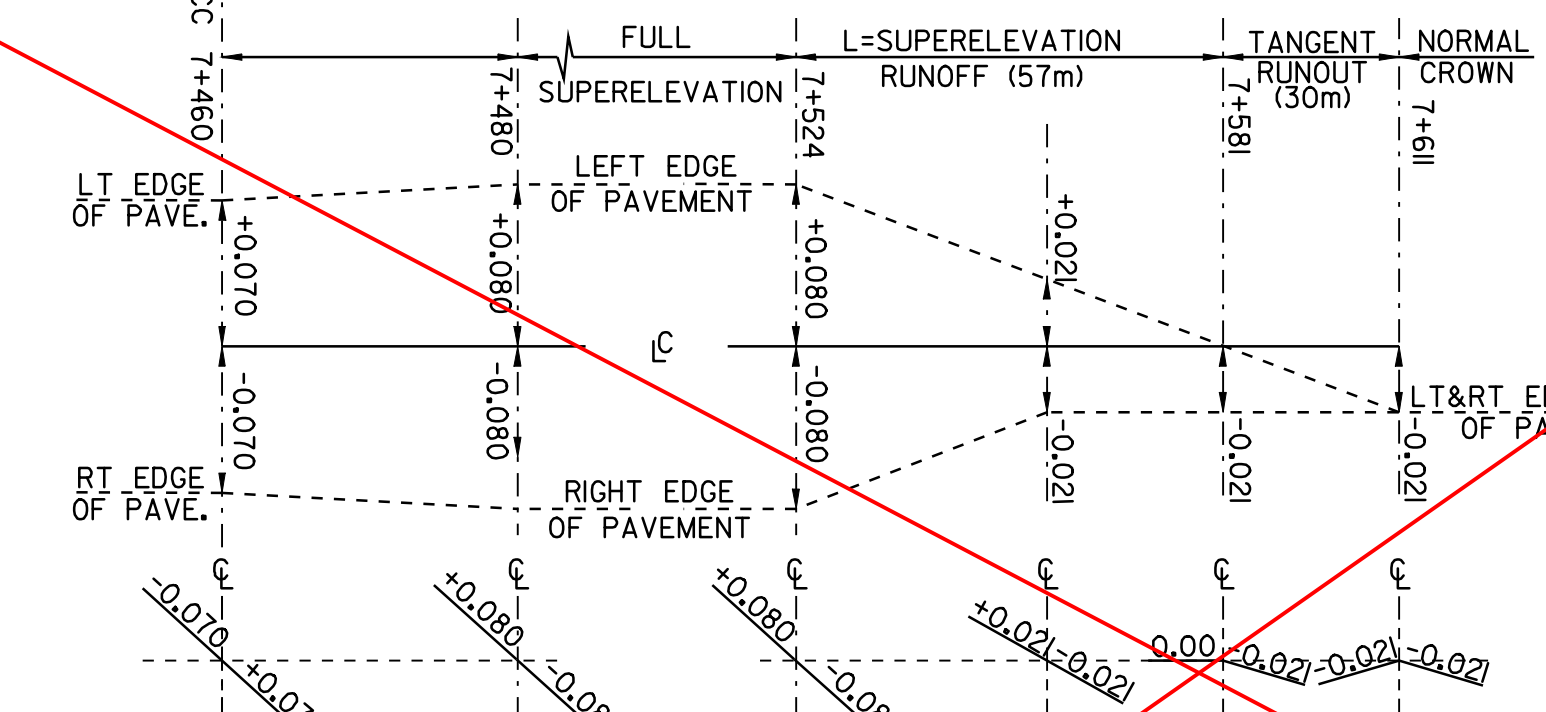
**SUPERELEVATION DIAGRAM**  
NTS  
**LUNEBURG**  
PC=7+300 R=470m  
PCC=7+460 V=80 km/h



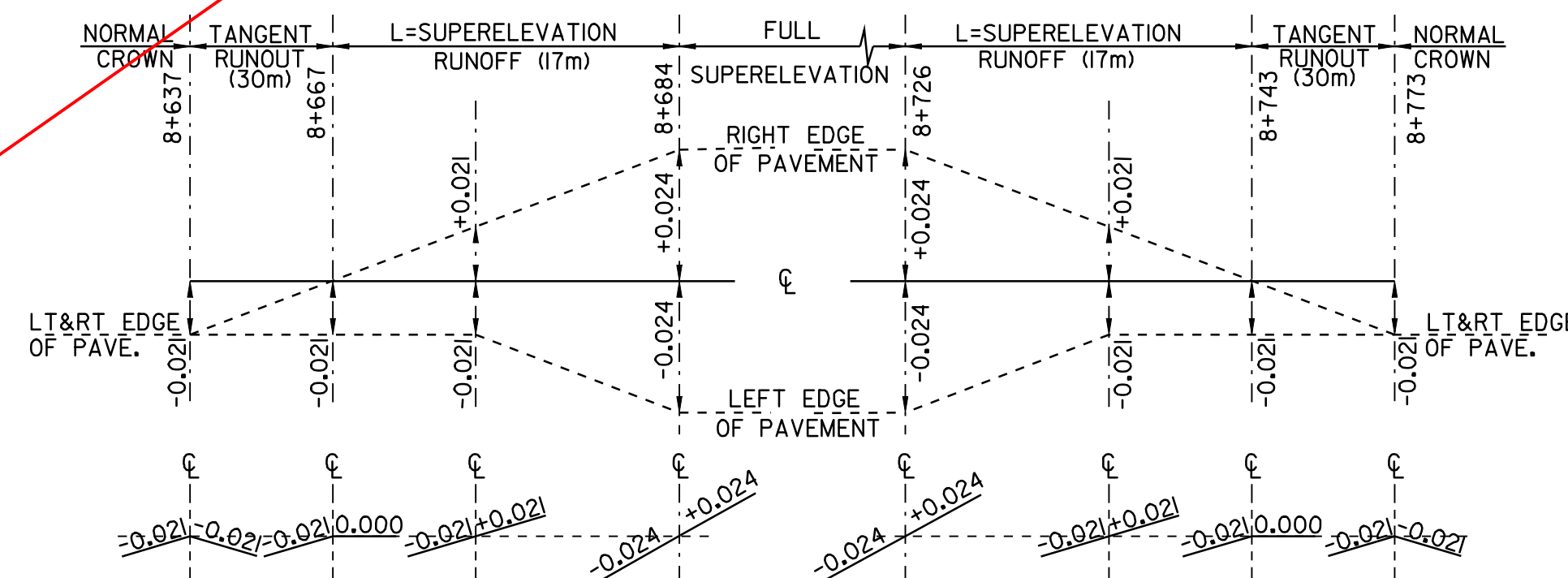
**SUPERELEVATION DIAGRAM**  
NTS  
**LUNEBURG**  
PC=8+040 R=600m  
PT=8+230 V=80 km/h



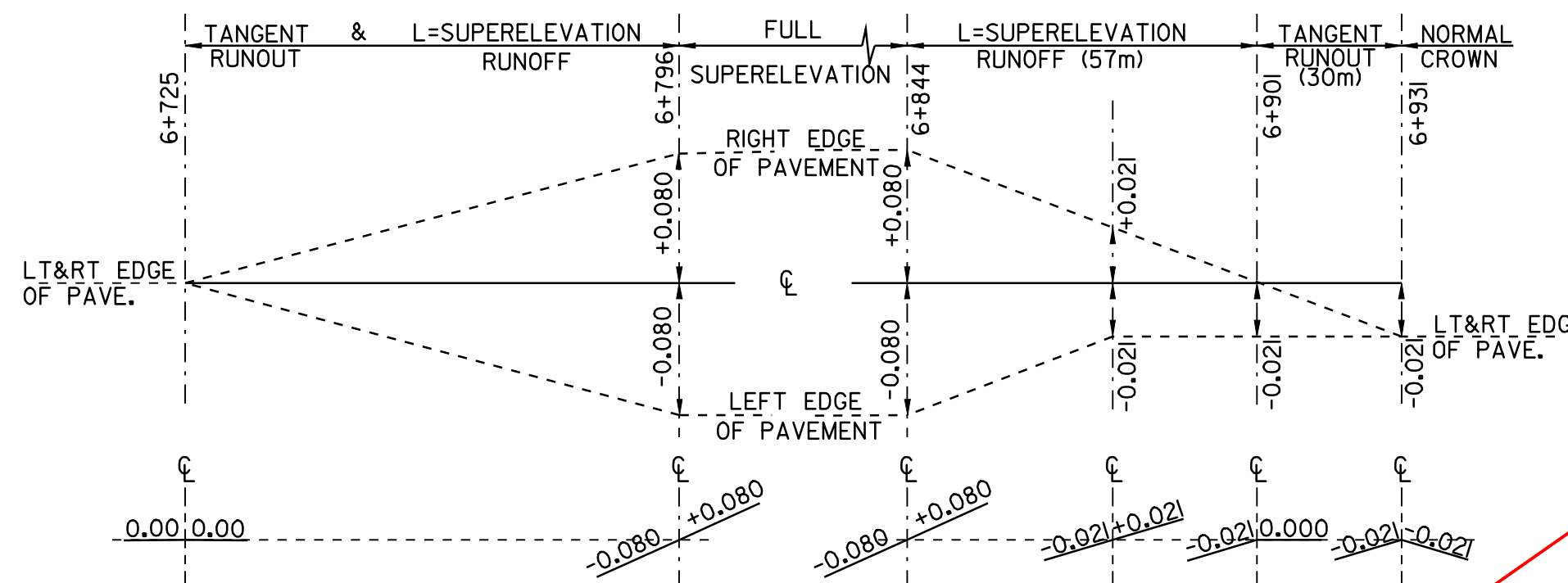
**SUPERELEVATION DIAGRAM**  
NTS  
**LUNEBURG**  
PRC=6+600 R=600m  
PT=6+700 V=80 km/h



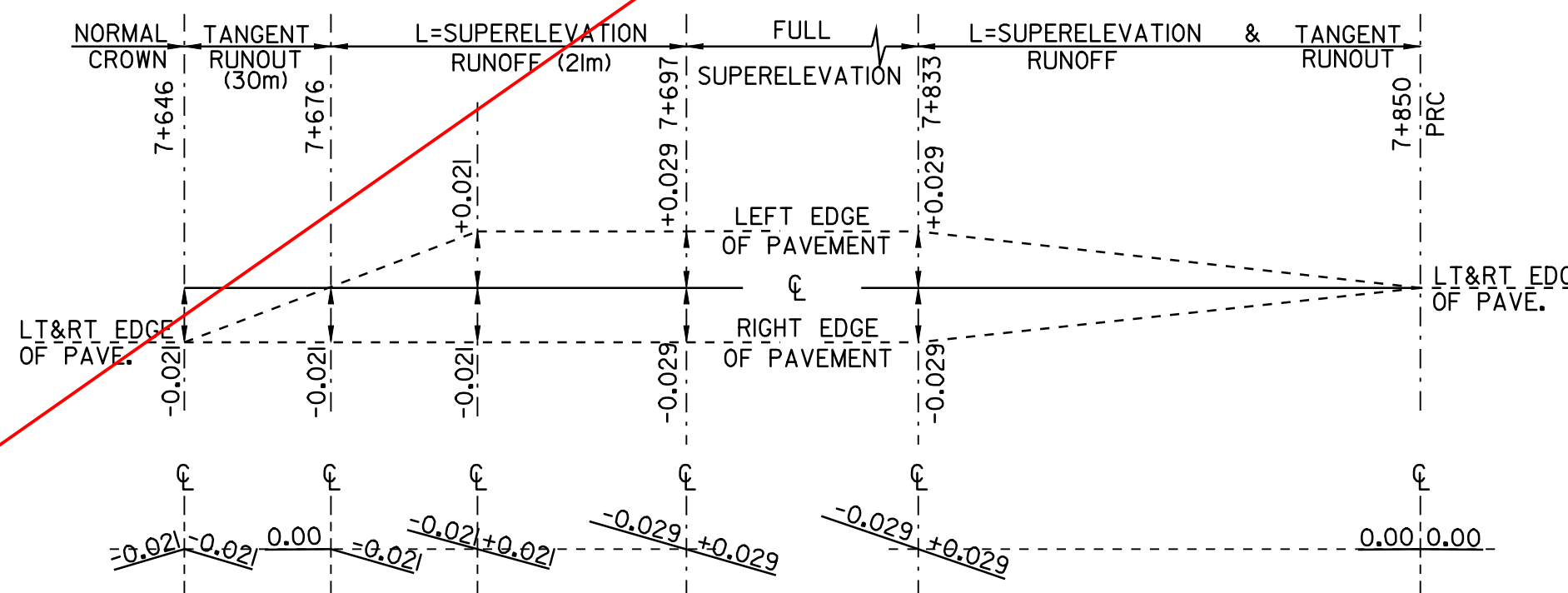
**SUPERELEVATION DIAGRAM**  
NTS  
**LUNEBURG**  
PCC=7+460 R=220m  
PT=7+570 V=80 km/h



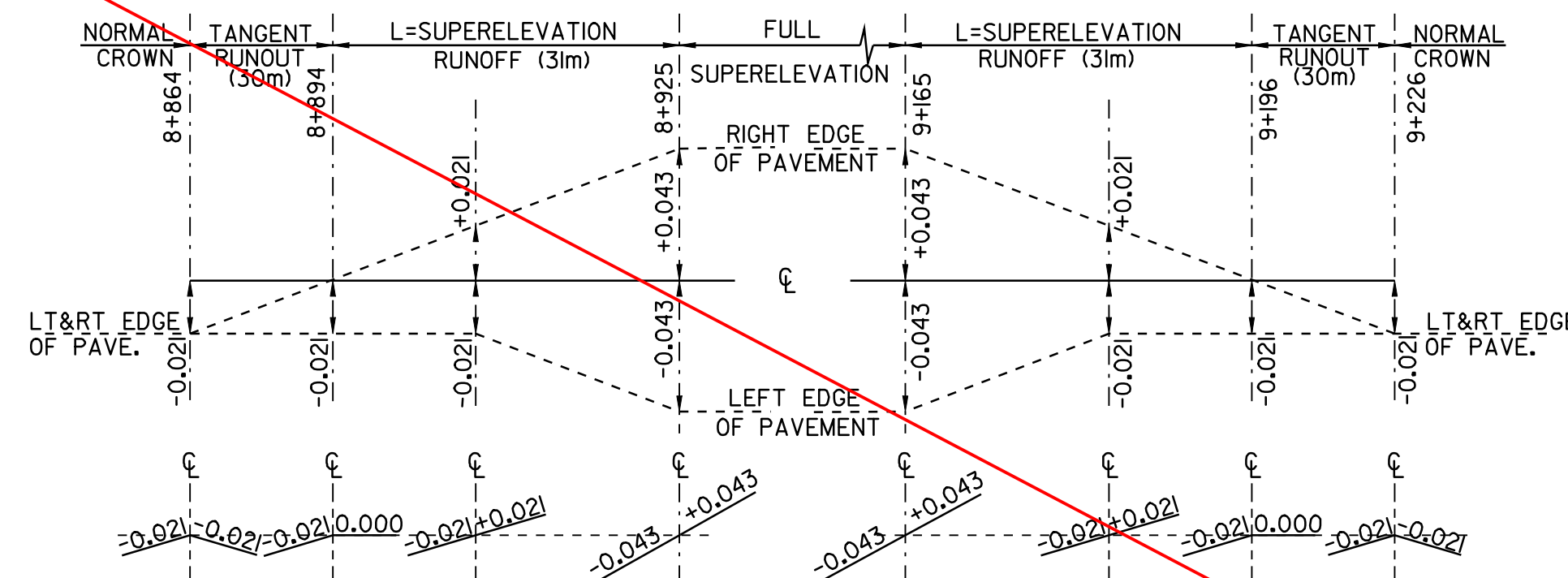
**SUPERELEVATION DIAGRAM**  
NTS  
**LUNEBURG**  
PC=8+670 R=1500m  
PT=8+740 V=80 km/h



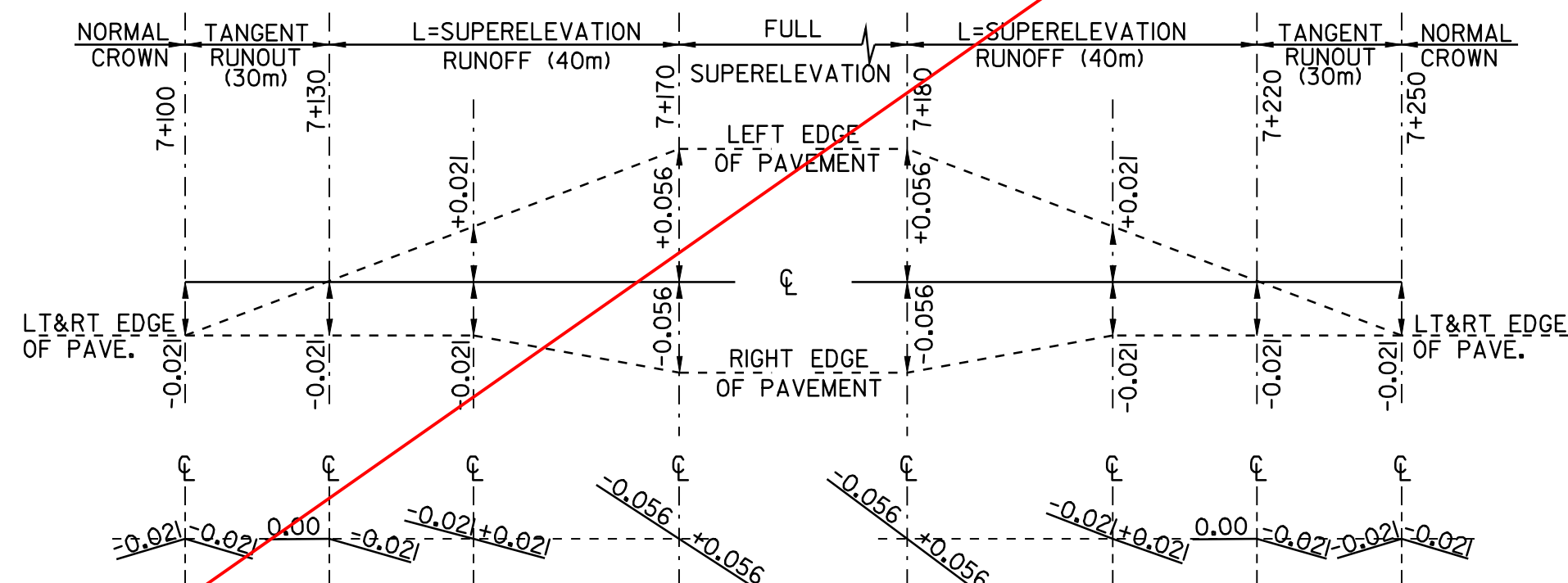
**SUPERELEVATION DIAGRAM**  
NTS  
**LUNEBURG**  
PC=6+750 R=210m  
PT=6+890 V=80 km/h



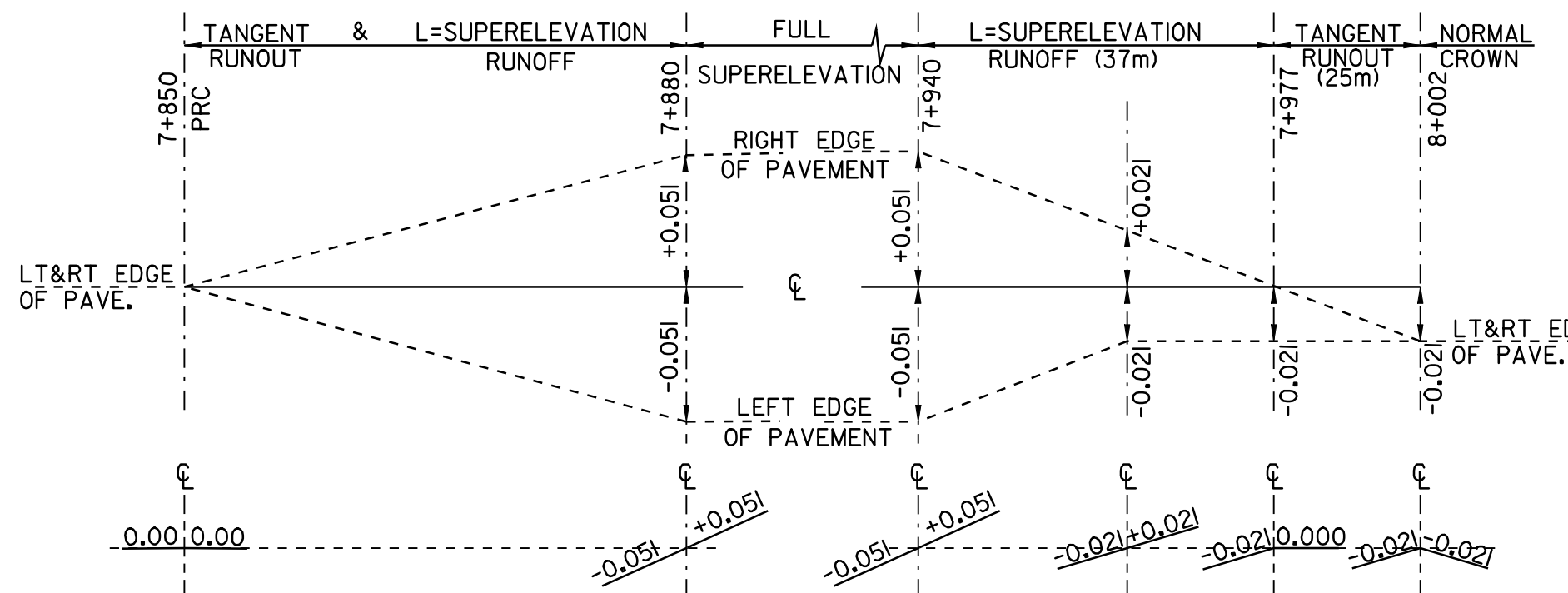
**SUPERELEVATION DIAGRAM**  
NTS  
**LUNEBURG**  
PC=7+680 R=1230m  
PRC=7+850 V=80 km/h



**SUPERELEVATION DIAGRAM**  
NTS  
**LUNEBURG**  
PC=8+900 R=750m  
PT=9+190 V=80 km/h



**SUPERELEVATION DIAGRAM**  
NTS  
**LUNEBURG**  
PC=7+140 R=90m  
PT=7+200 V=80 km/h



**SUPERELEVATION DIAGRAM**  
NTS  
**LUNEBURG**  
PC=7+850 R=600m  
PT=7+970 V=80 km/h

NOTE:  
THE CONTRACTOR IS RESPONSIBLE FOR THE ENGINEERING WORK  
REQUIRED TO LAYOUT AND MAINTAIN THE CROSS SLOPES IN THE  
REGRADEING OF THE RECLAIMED AREAS.

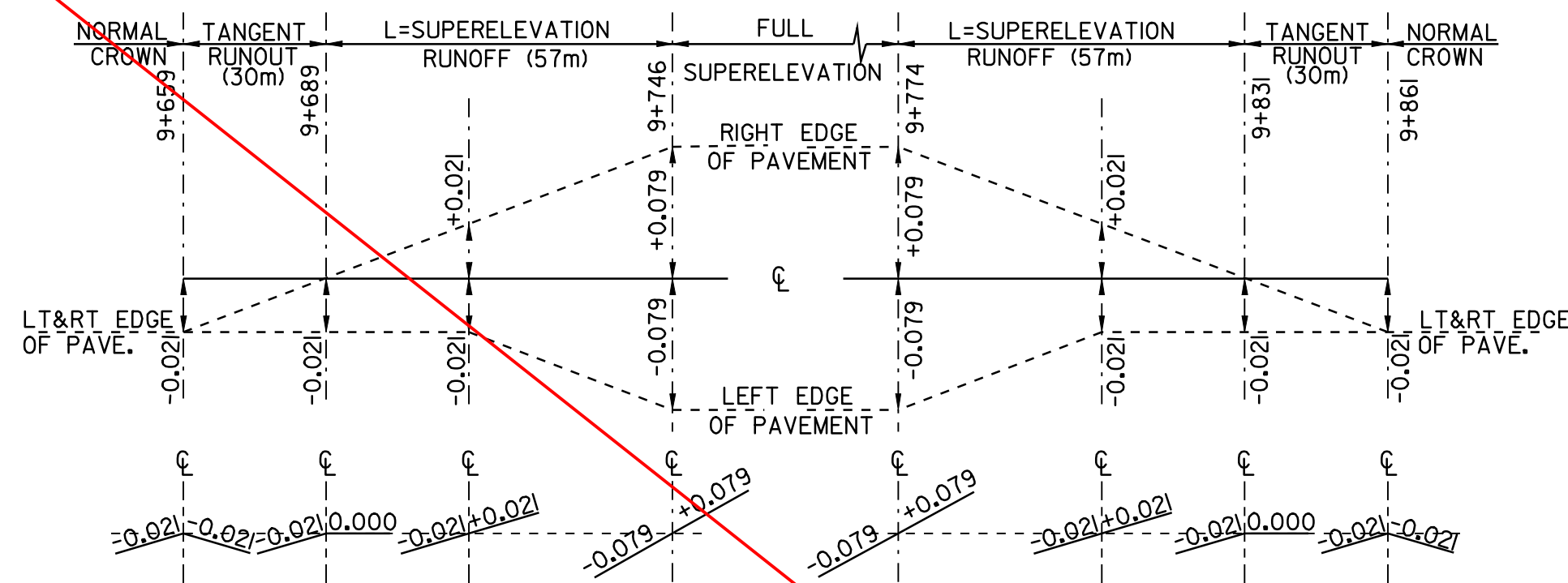


SUPERELEVATION  
BANKING DIAGRAM  
SHEET #2

DESIGNED BY	BCE/PJM	DATE	10-01
DRAWN BY	C.E.A., INC.	DATE	10-01
DESIGN FILE NO.	_pave/01c150/pcl50.dgn		
PRF FILE	pcl50bd2.1	DATE PLOTTED	10-AUG-2007
PROJ. NAME	<b>LUNEBURG</b>		
PROJ. NO.	<b>STP 2301(7)S</b>		
SHEET	15	OF	20 SHEETS

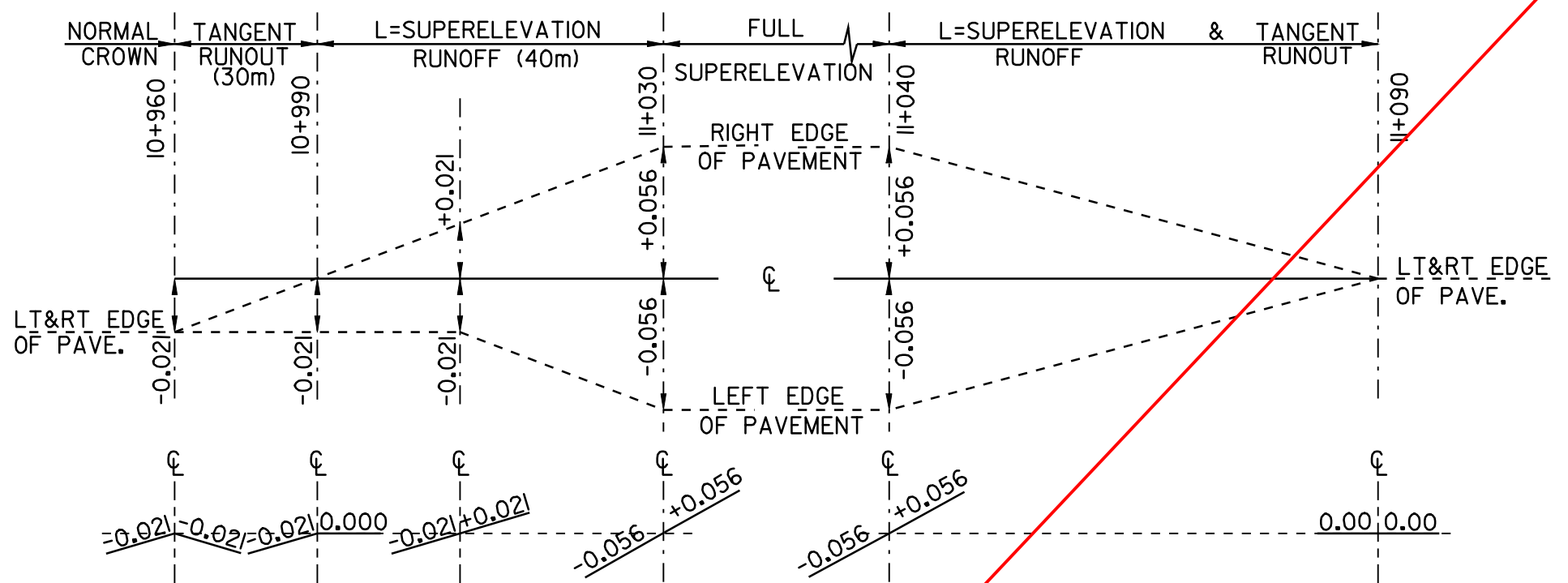
SEE REVISED BANKING SHEETS

SEE WRITTEN ORDER #1



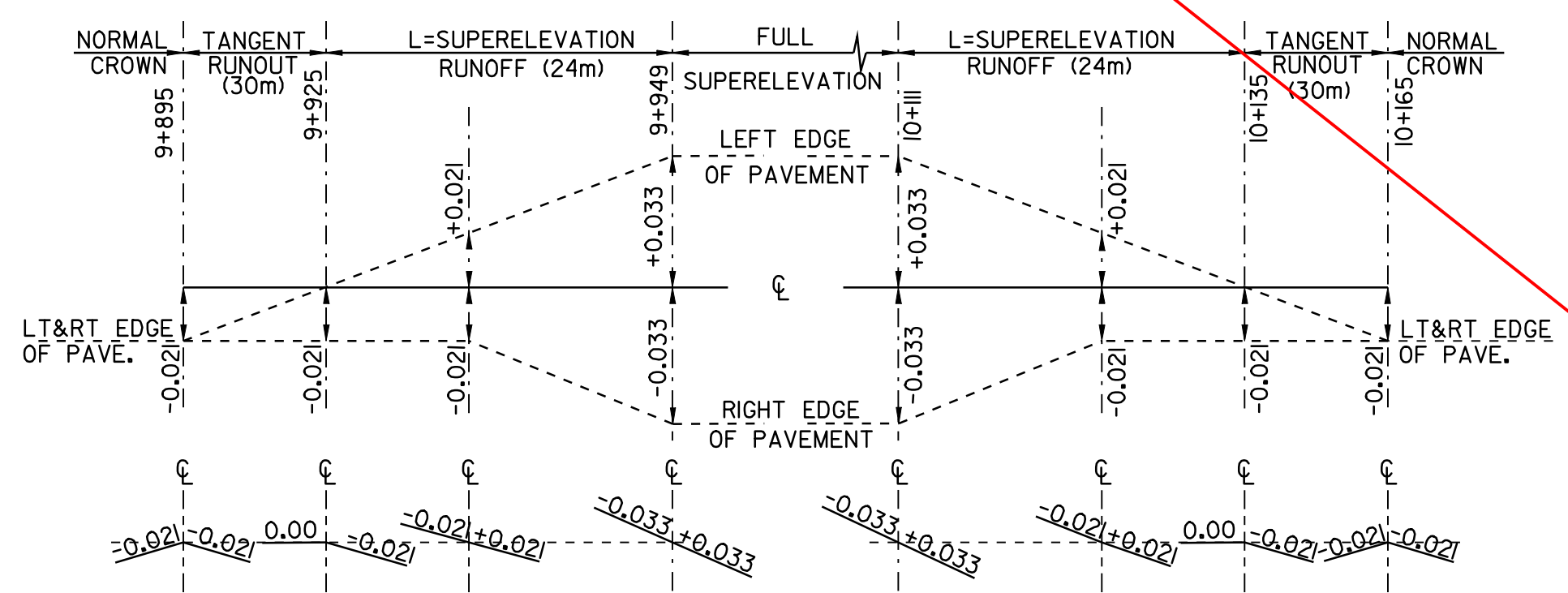
**SUPERELEVATION DIAGRAM**  
NTS

**LUNEBURG**  
PC=9+700 R=250m  
PT=9+820 V=80 km/h



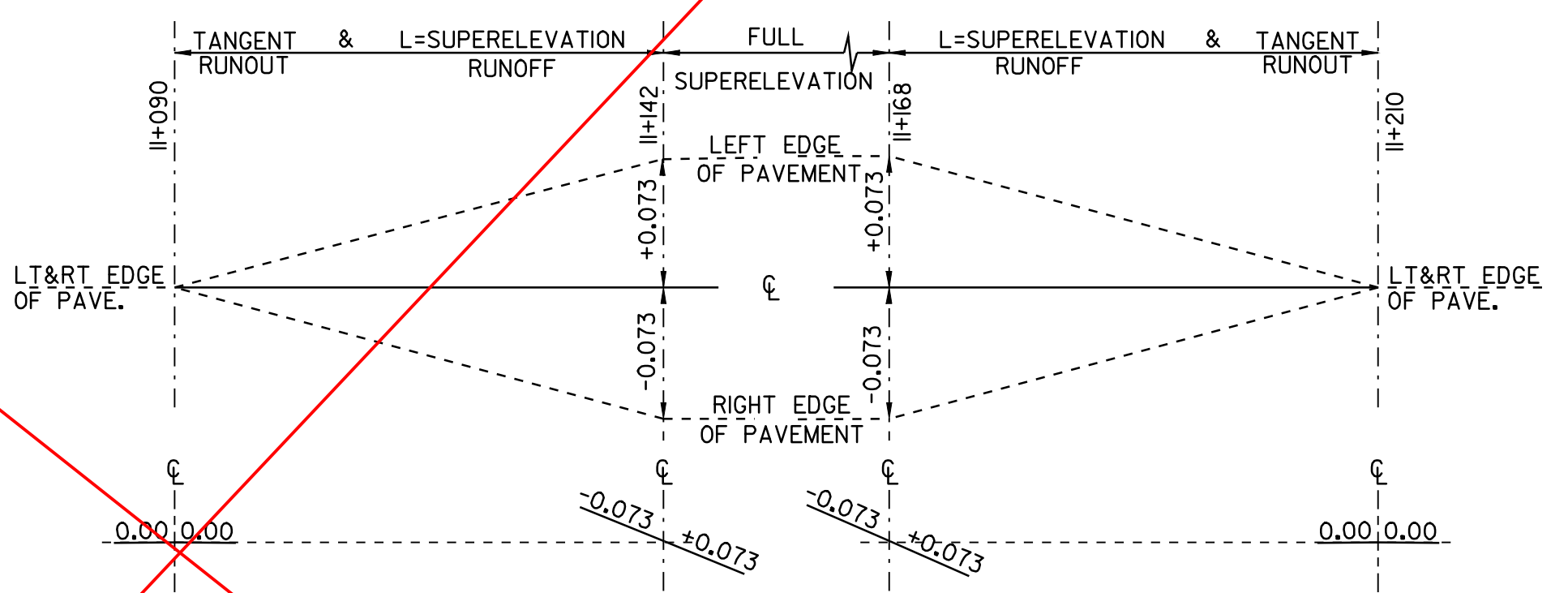
**SUPERELEVATION DIAGRAM**  
NTS

**LUNEBURG**  
PC=11+000 R=140m  
PT=11+060 V=80 km/h



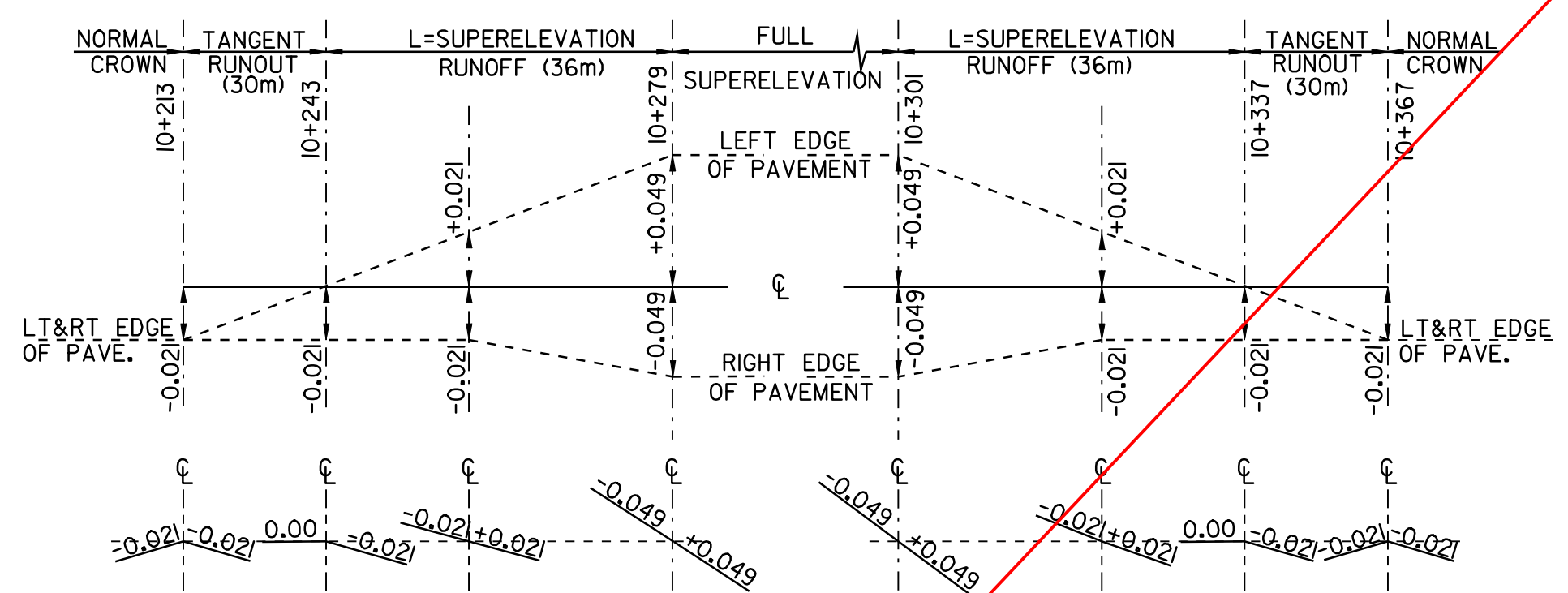
**SUPERELEVATION DIAGRAM**  
NTS

**LUNEBURG**  
PC=9+930 R=1030m  
PT=10+130 V=80 km/h



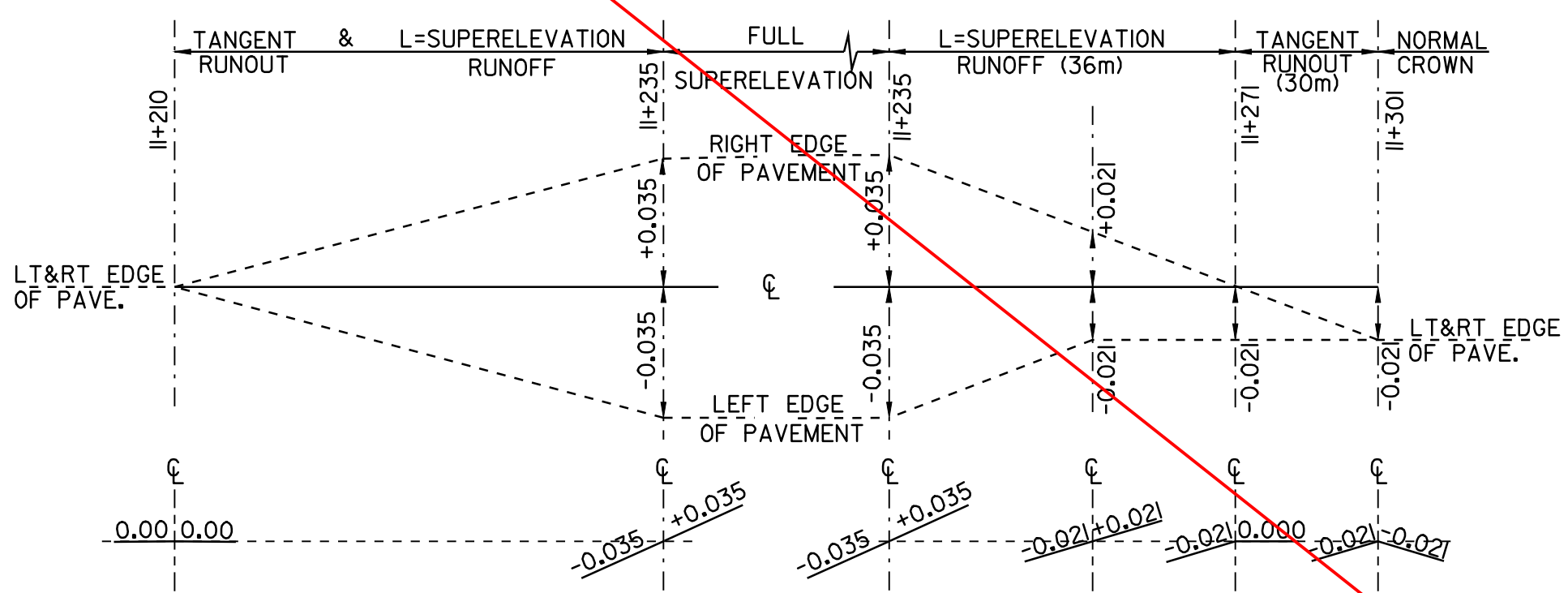
**SUPERELEVATION DIAGRAM**  
NTS

**LUNEBURG**  
PC=11+120 R=330m  
PT=11+210 V=80 km/h



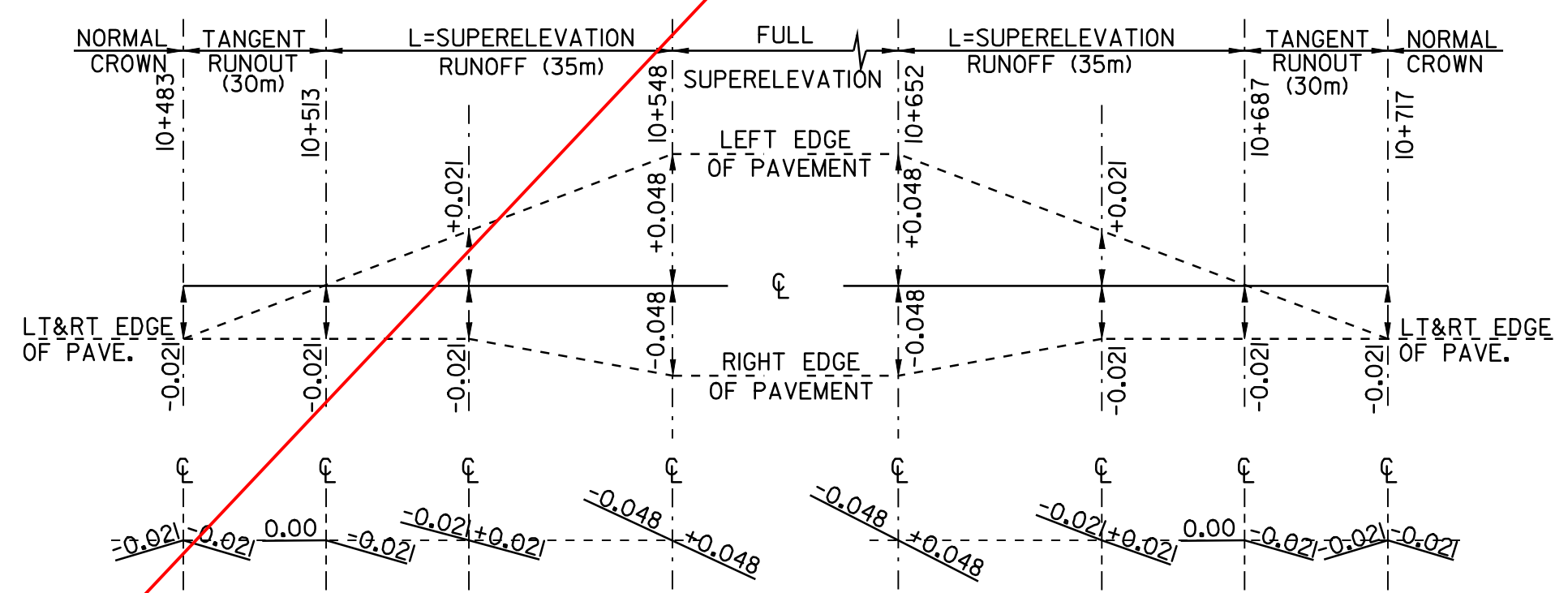
**SUPERELEVATION DIAGRAM**  
NTS

**LUNEBURG**  
PC=10+250 R=630m  
PT=10+330 V=80 km/h



**SUPERELEVATION DIAGRAM**  
NTS

**LUNEBURG**  
PC=11+210 R=250m  
PT=11+260 V=80 km/h



**SUPERELEVATION DIAGRAM**  
NTS

**LUNEBURG**  
PC=10+520 R=650m  
PT=10+680 V=80 km/h

NOTE:  
THE CONTRACTOR IS RESPONSIBLE FOR THE ENGINEERING WORK  
REQUIRED TO LAYOUT AND MAINTAIN THE CROSS SLOPES IN THE  
REGRAVING OF THE RECLAIMED AREAS.



SUPERELEVATION  
BANKING DIAGRAM  
SHEET #3

DESIGNED BY	BCE/PJM	DATE	10-01
DRAWN BY	C.E.A., INC.	DATE	10-01
DESIGN FILE NO.	_pave/01cl50/pcl50.dgn		
PRF FILE	pcl50bd3.1	DATE PLOTTED	10-AUG-2007
PROJ. NAME	LUNEBURG		
PROJ. NO.	STP 2301(7)S		
SHEET	16	OF	20 SHEETS

KILOMETER MARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS		NEW & SALVAGED SIGNS				EXIST POST	NO. OF POSTS	NEW SIGN POSTS												REMARKS	SIGN DETAIL					
		EA	WIDTH (mm)	HEIGHT (mm)	"A"	"B" REM	SALV SIGN			SALV TIS	FLANGED CHANNEL			SQUARE STEEL (mm)			TUBULAR ALUMINUM Ø (mm)			TUBULAR STEEL Ø (mm)				W-SHAPE STEEL		DETAIL ON SHEET NUMBER	STD. SHEET NUMBER	
											1.7	3.0	4.5	44	50	63	75	100	100 MOD	75	89		100	125	600 mm			750 mm

OPTION ITEMS																														
LUNENBURG 3+086 RT			900	900	0.81					2	4.1		X															FLORESCENT YELLOW - GREEN BACKGROUND		E-153
			900	500	0.45																							FLORESCENT YELLOW - GREEN BACKGROUND	20	
3+149 LT			750	750	0.56		mm				3.8		X																	E-143
3+159 LT			600	750	0.45						3.8		X														REFER TO STANDARD E-121 FOR PLACEMENT.		E-141	
3+360 LT			900	900	0.81					2	3.6		X														FLORESCENT YELLOW - GREEN BACKGROUND		E-153	
			900	500	0.45																							FLORESCENT YELLOW - GREEN BACKGROUND	20	
7+823 LT	YIELD																													
7+987 LT	YIELD AHEAD																													
4+721 LT			750	750	0.56						3.9		X																	E-143
4+731 LT			600	750	0.45						3.6		X														REFER TO STANDARD E-121 FOR PLACEMENT.		E-141	
4+845 LT			750	750	0.56						3.8		X																	E-143
4+850 LT			600	750	0.45						4.5		X														REFER TO STANDARD E-121 FOR PLACEMENT.		E-141	
7+040 RT			750	750	0.56	2					4.5		X																	E-151
			150	200	0.03																									E-138
7+793 LT			750	750	0.56						4.26		X																	E-143
ADVANCED WARNING TH #2 8+060 LT			900	900	0.81					2	3.0		X																	E-150
SPUR	STOP																													
11+014 RT			750	750	0.56						4.12		X																	E-143

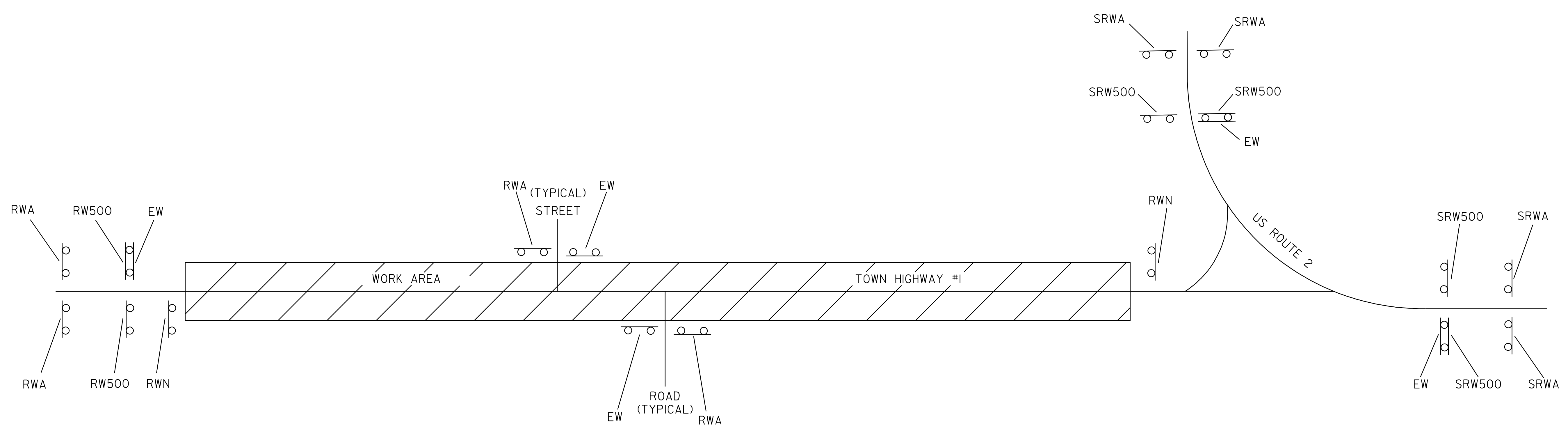
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE TRAFFIC & SAFETY DIVISION'S "SIGN POST DESIGN GUIDELINE."	<b>SHEET TOTALS</b>	m <sup>2</sup>	8.07	m <sup>2</sup>	10	EA.	3	m <sup>2</sup>		m	m	m	m	m	m	EA.	kg	kg	kg	EA.	kg	kg	kg	kg	EA.	EA.	kg	PROJECT: LUNENBURG		PROJECT NO.: STP 2301(7)5	
	<b>ROUNDING</b>	-0.93		--						-1.0																		DATE: 12-01			
	<b>PROJECT TOTALS</b>	8.07	10	3							-70.0	57.68																DESIGN FILE NAME: pave/01cl50/pcl50.dgn		PLOT DATE: 10-AUG-2007 14:39	

DESIGN FILE NAME: pave/01cl50/pcl50.dgn  
IPARM FILE NAME: pcl50tsl.i  
SURVEYED BY:  
SQUAD LEADER:

PLOT DATE: 10-AUG-2007 14:39  
SURVEY DATE:  
DRAWN BY: C.E.A., INC.  
SHEET: 17 OF 20







- LEGEND**
- RWA = ROAD WORK AHEAD
  - RW500 = ROAD WORK 500 FEET
  - SRWA = SIDE ROAD WORK AHEAD
  - SRW500 = SIDE ROAD WORK 500 FEET
  - EW = END WORK
  - RWN = ROAD WORK NEXT 5/4MILES

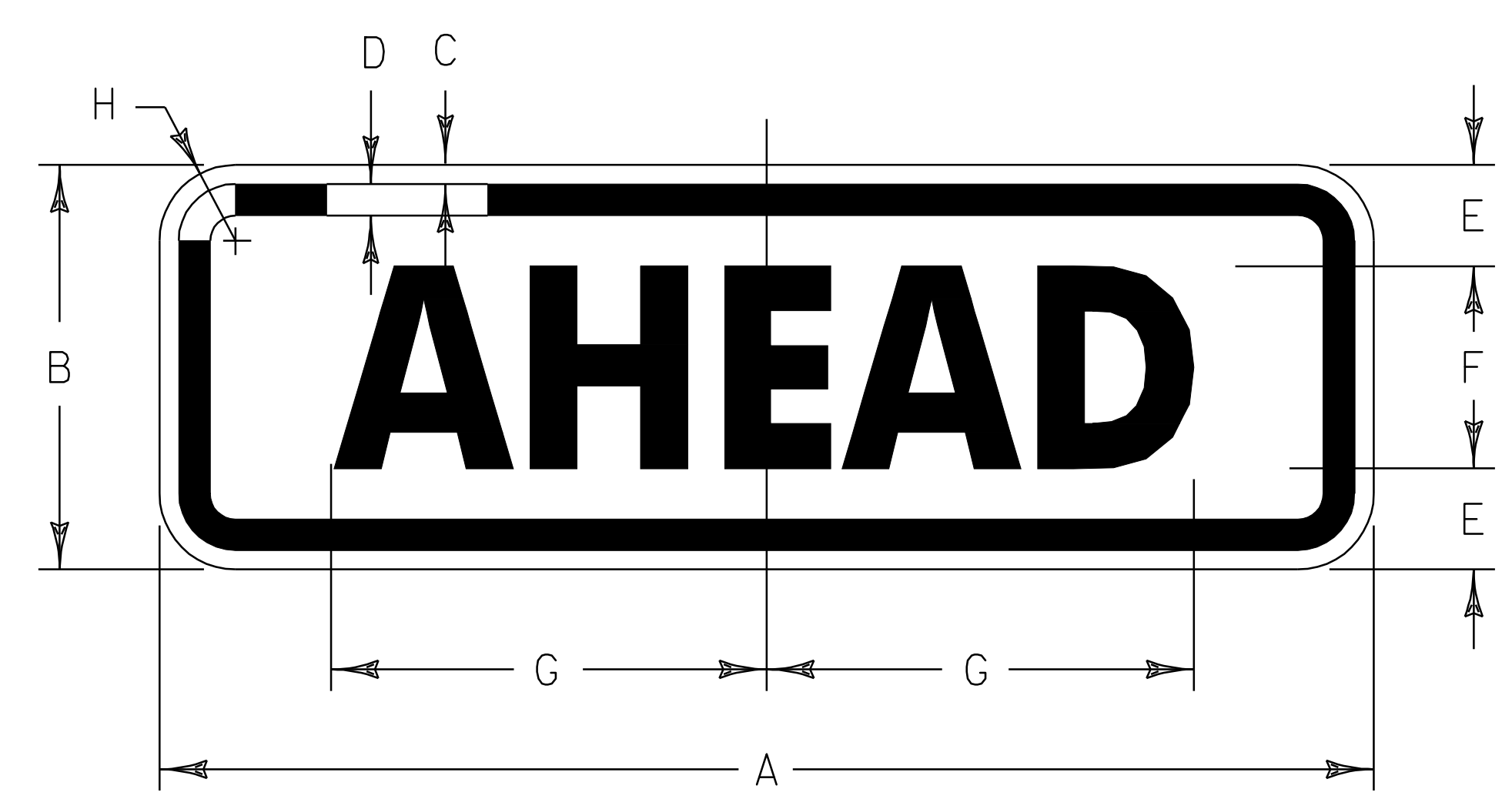
LIST OF CONSTRUCTION SIGNS

TOWN HIGHWAY	RWA	RW500	SRWA	SRW500	EW	RWN
LUNENBURG						
BEGIN PROJECT	2	2				1
BAPTIST HILL RD	1				1	
TH #35	1				1	
TH #35	1				1	
MAILETT RD	1				1	
GRIST MILL RD	1				1	
LUNENBURG RD	1				1	
COVERED BRIDGE RD	1				1	
END PROJECT			4	4	2	1
TOTALS	9	2	4	4	10	2

**CONSTRUCTION APPROACH SIGNING**

SEE STD. E-100 AND E-103 FOR SIGN PLACEMENT

RESIDENT ENGINEER, AT HIS OR HER DISCRETION, MAY ELIMINATE CONSTRUCTION APPROACH SIGNING AT DEAD END LOCATIONS



SIGN	DIMENSIONS (mm)							
	A	B	C	D	E	F	G	H
	900	500	15	25	162.5	175D	375	60

FLORESCENT YELLOW - GREEN BACKGROUND

W1 6-9P

CONSTRUCTION APPROACH  
SIGNING & SIGN  
DETAIL SHEET



DESIGNED BY BCE/PJM DATE 12-01  
 DRAWN BY C.E.A., INC. DATE 12-01  
 DESIGN FILE NO. pave/01cl50/pcl50.dgn  
 PRF FILE pcl50cas.i DATE 10-AUG-2007 14:  
 PLOTTED  
 PROJ. NAME **LUNENBURG**  
 PROJ. NO. **STP 2301(7)S**  
 SHEET **20** OF **20** SHEETS

DATUM  
 VERTICAL N/A  
 HORIZONTAL N/A