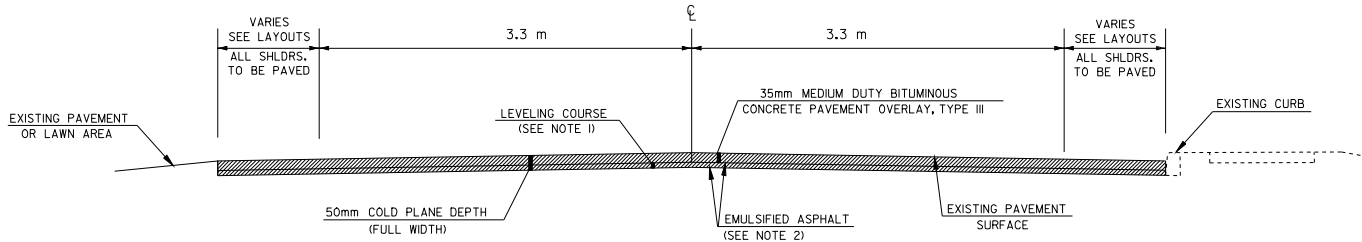


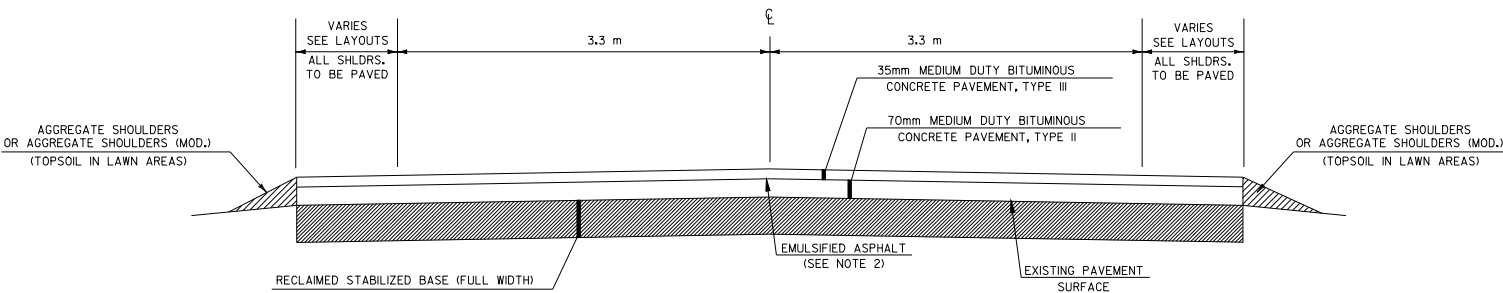
OVERLAY TYPICAL SECTION

MIDDLESEX
STA 0+000 TO 2+430
STA 3+209 TO 5+874
WORCESTER
STA 0+000 TO 0+700
STA 2+940 TO 6+443



COLD PLANED TYPICAL SECTION

WORCESTER
STA 1+025 TO 2+928



300mm STA 2+400 TO 3+209
 200mm STA 0+775 TO 1+025

RECLAIMED STABILIZED BASE TYPICAL SECTION

MIDDLESEX
STA 2+430 TO 3+209
WORCESTER
STA 0+700 TO 1+025

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 TO RESHAPE THE ROADWAY PRIOR TO PAVING THE TOP COURSE ALONG THE OVERLAY AND COLD PLANE TYPICAL SECTIONS. AN ESTIMATED THICKNESS OF 15mm OF ITEM 406.27 HAS BEEN INCLUDED TO COVER THIS PROVISION. 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 AREAS), 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).
- EXISTING SHOULDER MATERIAL DEEMED UNSUITABLE BY THE RESIDENT ENGINEER WILL BE EXCAVATED TO A DEPTH OF 75 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) OR AGGREGATE SHOULDERS (MOD.).
- ONE METER OF BACKING IS REQUIRED BEHIND THE FACE OF GUARD RAIL WITH 1.8m POSTS. IF THIS CANNOT BE OBTAINED THEN 2.4m 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 THE PROJECT BEGINNING/END AND AT ALL SIDE ROAD APPROACHES AS DENOTED ON THE PROJECT PLANS OR AS OTHERWISE DIRECTED BY THE RESIDENT ENGINEER.
- ITEMS 604.40 & 604.412 ARE ESTIMATED QUANTITIES 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 INDICATED ON THE DITCH CLEANING DETAIL SHEET AND AS DIRECTED BY THE RESIDENT ENGINEER. PAYMENT WILL BE UNDER THE APPLICABLE EQUIPMENT RENTAL ITEMS).
- 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 ITEMS). 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 406.27. 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. 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 FOR AT THE CONTRACT UNIT PRICE FOR ITEM 406.27, MEDIUM DUTY BITUMINOUS CONCRETE PAVEMENT.
- ALL EDGES OF PAVEMENT SHALL BE BACKED UP FULL HEIGHT WITH COLD PLANE GRINDINGS AS DIRECTED BY THE RESIDENT ENGINEER AND WILL BE PAID FOR UNDER ITEM 402.12, AGGREGATE SHOULDERS (MOD.). ADDITIONAL MATERIAL REQUIRED AFTER THE COLD PLANE GRINDINGS ARE USED WILL BE PAID FOR UNDER ITEM 402.12, AGGREGATE SHOULDERS.
- GRASS GROWING ADJACENT TO PAVEMENT, OR THROUGH CRACKS IN THE PAVEMENT, WHICH MAY HAMPER THE PLACEMENT OF NEW BITUMINOUS CONCRETE, SHALL BE REMOVED BY THE CONTRACTOR, AS DIRECTED BY THE ENGINEER. PAYMENT FOR THIS WORK WILL NOT BE MADE DIRECTLY, BUT WILL BE CONSIDERED SUBSIDIARY TO ITEM 406.27, MEDIUM DUTY BITUMINOUS CONCRETE PAVEMENT.
- 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.
- AREAS ADJACENT TO THE SHOULDER & BEYOND, WHERE EXISTING GUARD RAIL IS BEING RETAINED, THAT HAVE BUILT UP EXCESS MATERIAL ARE TO BE GRADED IN ORDER TO ALLOW THE SHOULDER TO DRAIN. PAYMENT IS UNDER ITEM 203.99, SHOULDER BERM REMOVAL.

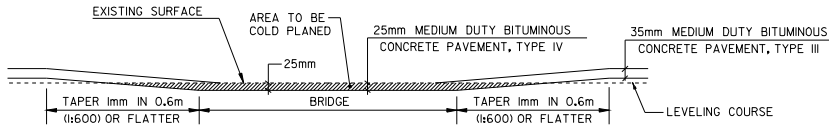
**ARCHIVED
IN DPR**



PROJECT TYPICAL SHEET #1	DESIGNED BY <u>BCE/PJM</u> DATE <u>6-00</u>
	DRAWN BY <u>C.E.A., INC.</u> DATE <u>6-00</u>
	DESIGN FILE NO. <u>pave/98cl04/pcl04.dgn</u>
	PRE FILE <u>pcl04p+1.i</u> DATE <u>PLOTTED 10-APR-2003 15</u>
	PROJ. NAME MIDDLESEX - WORCESTER
PROJ. NO. STP 2111(1)S	
SHEET 2 OF 28 SHEETS	

PROJECT PAVING LIMITS

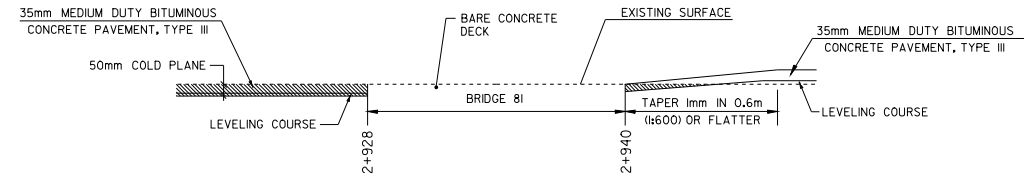
TOWN & ROUTE	BEGIN STATION	END STATION	LANE TYPICAL	WEARING DEPTH	LEVELING Tons	NOTES
MIDDLESEX - VT ROUTE 12	0+000	2+430	VARIES-3.3m-3.3m-VARIES	35 mm	900	LEVEL & PAVE W/35mm TYPE III.
	2+430	3+209	VARIES-3.3m-3.3m-VARIES	35 mm	--	RECLAIM 300mm, LEVEL & PAVE w/70mm TYPE II, & 35mm TYPE III.
	3+209	5+874	VARIES-3.3m-3.3m-VARIES	35 mm	1,100	LEVEL & PAVE W/35mm TYPE III.
WORCESTER - VT ROUTE 12	0+000	0+700	VARIES-3.3m-3.3m-VARIES	35 mm	250	LEVEL & PAVE W/35mm TYPE III.
	0+700	1+025	VARIES-3.3m-3.3m-VARIES	35 mm	--	RECLAIM 200mm, LEVEL & PAVE w/70mm TYPE II, & 35mm TYPE III.
	1+025	2+928	VARIES-3.3m-3.3m-VARIES	35 mm	650	COLD PLANE 50mm, LEVEL & PAVE W/35mm TYPE III.
	2+928	2+940	VARIES-3.3m-3.3m-VARIES	--	--	MAINTAIN BARE CONCRETE DECK.
	2+940	6+443	VARIES-3.3m-3.3m-VARIES	35 mm	1,200	LEVEL & PAVE W/35mm TYPE III.



-COLD PLANING DETAIL @ BRIDGES-

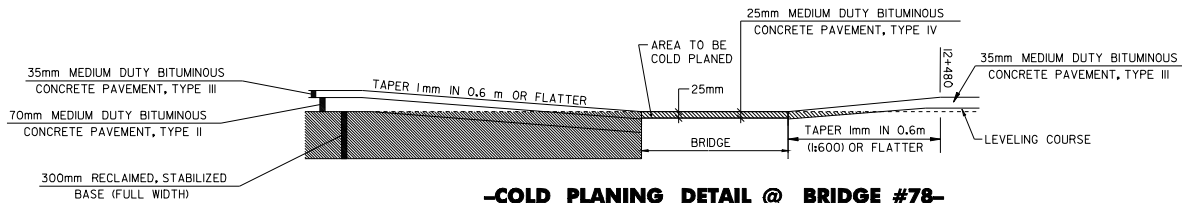
**MIDDLESEX
BRIDGE #77 - STA 0+877**

**WORCESTER
BRIDGE #83 - STA 5+649.5**



- TRANSITION AREA DETAIL @ BRIDGE #81 -

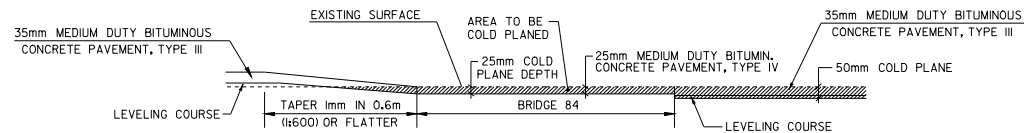
**WORCESTER
STA 2+928 TO 2+940 (END COLD PLANE/BEGIN OVERLAY)**



-COLD PLANING DETAIL @ BRIDGE #78-

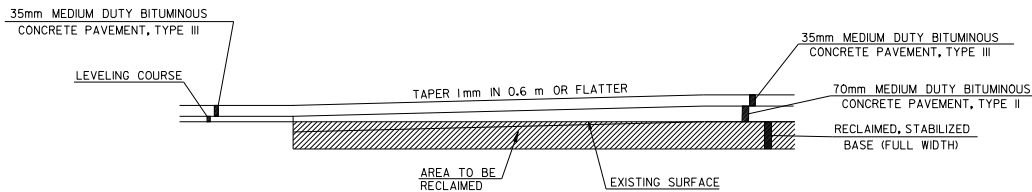
**LOCATION
MIDDLESEX BRIDGE #78**

**STATION
STA 3+232**



- TRANSITION AREA DETAIL -

**WORCESTER
STA 6+394 (BRIDGE #84 TO END PROJECT)**



-TRANSITION AREA DETAIL-

**MIDDLESEX
STA 2+430 (END OVERLAY/BEGIN RECLAIMING)
STA 3+209 (END RECLAIMING/BEGIN OVERLAY)**

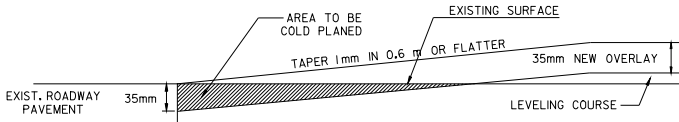
**WORCESTER
STA 0+700 (END OVERLAY/BEGIN RECLAIMING)**

**ARCHIVED
IN DPR**

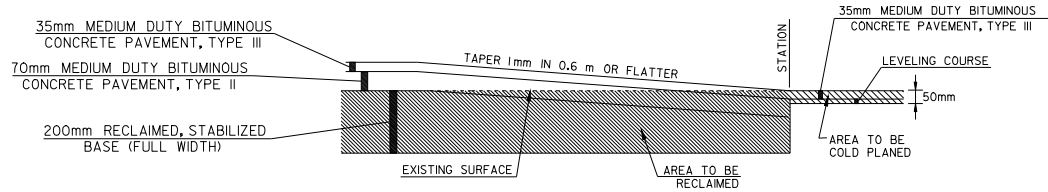
**PROJECT
TYPICAL
SHEET #2**



DESIGNED BY BCE/PJM DATE 6-00
 DRAWN BY C.E.A., INC. DATE 6-00
 DESIGN FILE NO. pave/98cl04/pci04.dgn
 PRE FILE pci04p+2.1 DATE 10-APR-2003 PLOTTED
 PROJ. NAME **MIDDLESEX - WORCESTER**
 PROJ. NO. **STP 2111(1)S**
 SHEET **3** OF **28** SHEETS

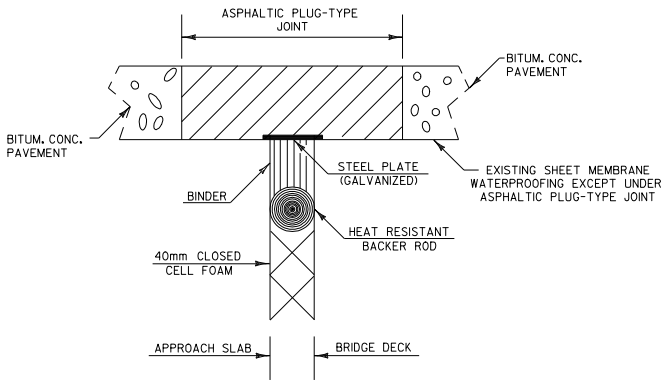


-APPROACH AREA DETAIL-
MIDDLESEX
STA 0+000 TO 0+025 (BEGIN PROJECT)



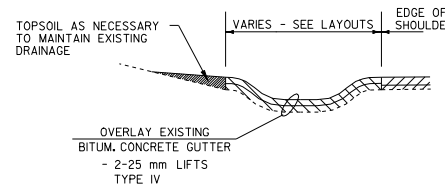
-TRANSITION AREA DETAIL-
WORCESTER
STA 1+025 (END RECLAIMING/BEGIN COLD PLANING)

* REFER TO SPECIAL PROVISIONS FOR BASIS OF PAYMENT

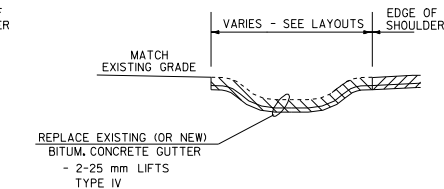


- ASPHALTIC PLUG-TYPE JOINT DETAIL -

LOCATION
MIDDLESEX
 BRIDGE #77 (9.1m) - STA 0+890
WORCESTER
 BRIDGE #83 (2 @ 4.2m) - STA 5+650
 BRIDGE #84 (2 @ 6.2m) - STA 6+394



DRIVEWAY TRANSITION DETAIL
@ RECLAIMED STABILIZED BASE AREAS



TOWN HIGHWAY TRANSITION DETAIL
@ RECLAIMED STABILIZED BASE AREAS

(OVERLAY)
MIDDLESEX
 STA 4+442 TO 4+455 RT
WORCESTER
 STA 2+312 TO 2+348 LT

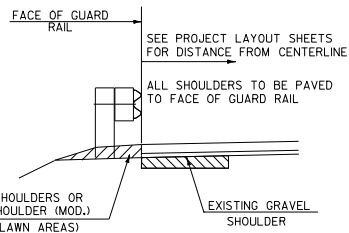
(REPLACE)
WORCESTER
 STA 2+270 TO 2+309 LT

BITUMINOUS CONCRETE GUTTER DETAIL

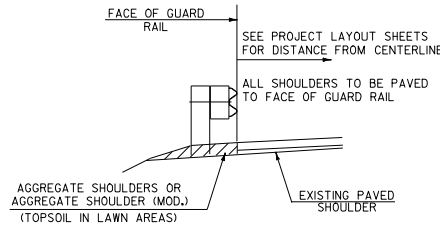
CONSERVATION SEED MIX
 RURAL AREA - SEED MIXTURE

% 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	BIRDFOOT TREFOIL	98	85
4.5	3	ANNUAL RYEGRASS	95	85
100.0	66			

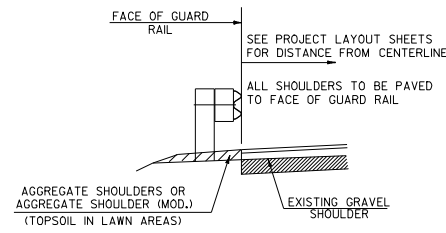
SEED MIXTURE:
 SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.
 SEEDS:
 TO BE APPLIED PER SEEDING FORMULAS OR AS DIRECTED BY THE ENGINEER.
 FERTILIZER:
 FORMULA 10-20-10, TO BE USED WITH SEED, APPLIED AT THE RATE OF 560 kg/HECTARE. (HYDRO SEEDERS MAY USE 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 USED ONLY TO DELINEATE PIPE INLETS AND OUTLETS



- TYPICAL SECTION AT GUARD RAIL -
 (@ EXISTING GRAVEL SHOULDER)



- TYPICAL SECTION AT GUARD RAIL -
 (@ EXISTING PAVED SHOULDER)



- TYPICAL SECTION AT GUARD RAIL -
 RECLAIMING SECTION

**ARCHIVED
 IN DPR**

Metric

**PROJECT
 TYPICAL
 SHEET #3**

DESIGNED BY BCE/PJM DATE 6-00
 DRAWN BY C.E.A., INC. DATE 6-00
 DESIGN FILE NO. pave/98cl04/pci04.dgn
 PRE FILE pci04p+3.1 DATE PLOTTED 10-APR-2003
 PROJ. NAME **MIDDLESEX - WORCESTER**
 PROJ. NO. **STP 2111(1)S**
 SHEET **4** OF **28** SHEETS

ITEM DETAIL SUMMARY SHEET



LOCATION			MISCELLANEOUS ITEMS										DRAINAGE ITEMS						GUARD RAIL ITEMS						REMARKS							
STA	STA	POS.	203.15	203.16	203.30	204.20	204.30	212.20	301.28	402.12	616.27	616.40	616.47	618.10	618.15	604.40	604.412	613.10	NEW PIPE			621.20 (MOD.)		621.21		621.30 (MOD.)		621.54	621.60	621.76	621.77	621.80
			COM. EXCAV.	SOLID ROCK EXCAV.	EARTH BORROW	TRENCH EXCAV. OF EARTH	GRANUL. BACK-FILL FOR STRUC.	SCARIF. PAVE. (MOD.)	SUBBASE OF CRUSHED GRAVEL	AGG. SHOULD. & AGG. SHOULD. (MOD.)	C-I-P CONC. CURB TYPE A	REMOVE & RESET CURB	B. CONC. GUTTER & TRAF. ISLAND	CONC. WALK (125mm)	BIT. CONC. WALK (75mm)	CHANGE ELEV.	REBAR. D.I. CLASS I	STONE FILL TYPE I	DIA.	LENGTH / THCL.	STEEL POST O.R.	24 M STEEL POST O.R.	H. D. STEEL BEAM O.R.	BOX BEAM O.R.	MILT	ANCHOR FOR O.R.	REPLACE POST ASSEAL.	REPLACE BEAM UNIT	REMOVE & DISP. OF O.R.	REMOVE & DISP. OF O.P.		
			m ³	m ³	m ³	m ³	m ³	m ²	T	T	T	M	T	m ²	T	EA	EA	EA	mm	M	M	M	M	M	EA	EA	EA	EA	EA	M	EA	
5+679		LT																			0.6											REPLACE ROUNDED END OF B.C.T.
6+350	6+438	LT								10											22.8		19.8		2					60.8		BRIDGE #84, COORDINATE WITH BRIDGE SHEETS 1 & 2.
6+343	6+427	RT								5											22.8		19.8			1				57		
SHEET #7 SUB-TOTALS			5.5		1	15	10		2,160	15			11.5			5	9	804	450	10	1.63	683.1	2,304.7	39.6	200	22	14	40	20	2,925.9	8	
SHEET #8 SUB-TOTALS			--	--	--	--	--	--	--	2,485	--	--	--	--	--	--	--	--	--	--	--	46.2	--	39.6	--	2	1	--	--	117.8	--	
SUB-TOTALS			5.5		1	15	10		2,160	2,500			11.5			5	9	804	450	10	1.63	729.3	2,304.7	79.2	200	24	15	40	20	3,043.7	8	
ROUNDING			0.5		--	--	--		40	--			0.5			--	--	1	--	--	--	0.7	0.3	0.8	--	--	--	--	1.3	2		
PROJECT TOTALS			6		1	15	10		2,200	2,500			12			5	9	805	450	10	1.63	730	2,305	80	200	24	15	40	20	3,045	10	

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IN DPR

ITEM
DETAIL
SHEET # 2

DESIGNED BY	BCE/PJM	DATE	4-00
DRAWN BY	C.E.A., INC.	DATE	4-00
DESIGN FILE NO.	pave/98cl04/pcl04.dgn		
PRF FILE	pcl04id2.i	DATE PLOTTED	10-APR-2003 15
PROJ. NAME	MIDDLESEX - WORCESTER		
PROJ. NO.	STP 2111(1)S		
SHEET	8	OF	28 SHEETS

TEMPORARY AND DURABLE 100 mm YELLOW LINE
 STA 0+000 TO I+400 SOLID LT&RT
 STA 0+008 DOUBLE SOLID LT
 STA 0+747 DOUBLE SOLID RT
 STA 0+951 DOUBLE SOLID LT
 (WITH CENTERLINE BREAKS FOR TOWN HIGHWAYS)

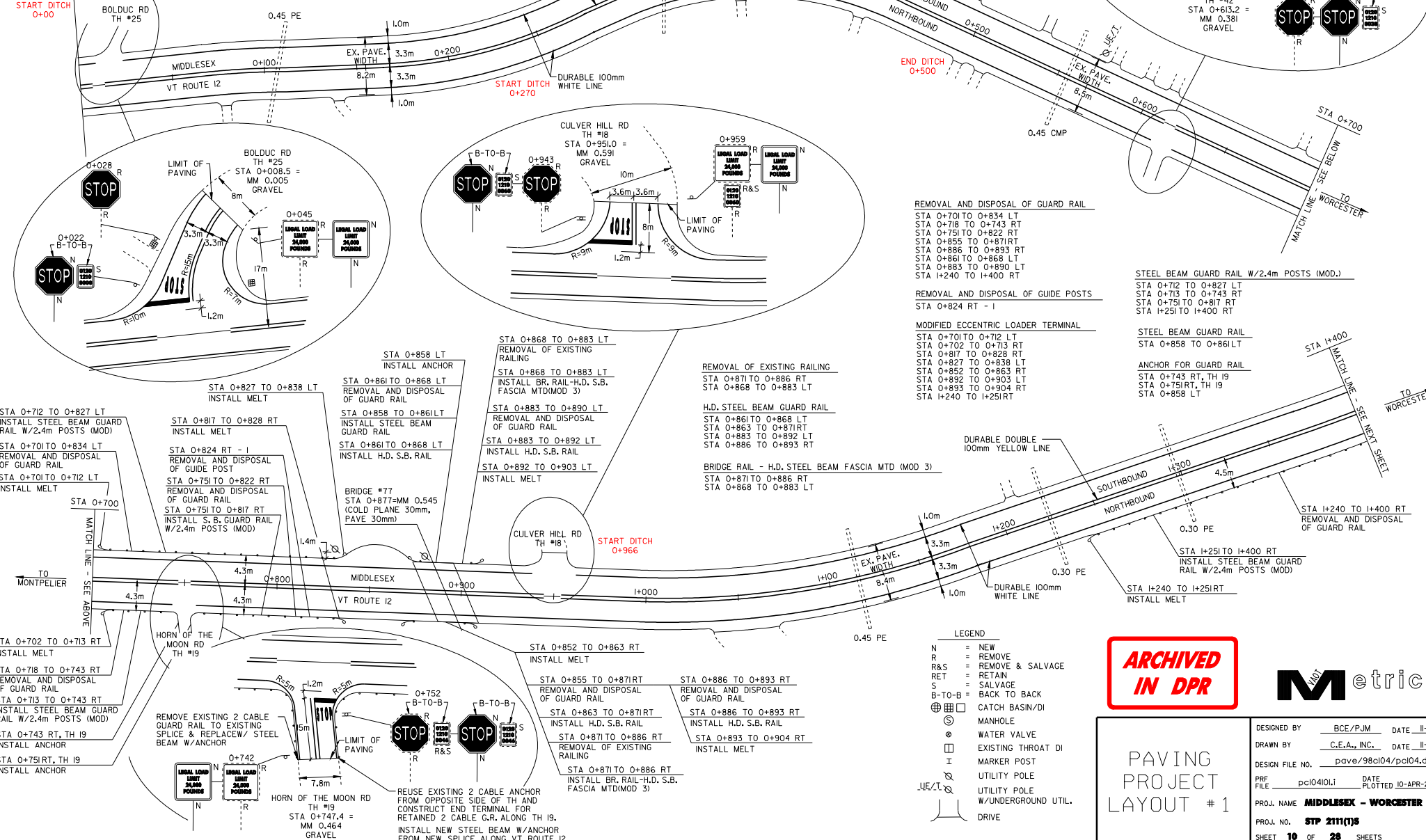
TEMPORARY AND DURABLE 100 mm WHITE LINE
 STA 0+000 TO I+400 SOLID LT&RT
 (WITH EDGELINE BREAKS FOR TOWN HIGHWAYS)

REMOVING SIGNS
 II

TEMPORARY AND DURABLE 600 mm STOP BAR
 STA 0+008 LT BOLDUC RD
 STA 0+747 RT HORN OF THE MOON RD
 STA 0+951 LT CULVER HILL RD

TEMPORARY AND DURABLE LETTER OR SYMBOL
 STA 0+008 LT "STOP"
 STA 0+747 RT "STOP"
 STA 0+951 LT "STOP"

VT ROUTE I2
 STA 0+000 = MM 0.000
 BEGIN PROJECT STP 2111S



REMOVAL AND DISPOSAL OF GUARD RAIL
 STA 0+701 TO 0+834 LT
 STA 0+718 TO 0+743 RT
 STA 0+751 TO 0+822 RT
 STA 0+855 TO 0+871 RT
 STA 0+886 TO 0+893 RT
 STA 0+861 TO 0+868 LT
 STA 0+883 TO 0+890 LT
 STA I+240 TO I+400 RT

REMOVAL AND DISPOSAL OF GUIDE POSTS
 STA 0+824 RT - I

MODIFIED ECCENTRIC LOADER TERMINAL
 STA 0+701 TO 0+712 LT
 STA 0+702 TO 0+713 RT
 STA 0+817 TO 0+828 RT
 STA 0+827 TO 0+838 LT
 STA 0+852 TO 0+863 RT
 STA 0+892 TO 0+903 LT
 STA 0+893 TO 0+904 RT
 STA I+240 TO I+251 RT

STEEL BEAM GUARD RAIL W/2.4m POSTS (MOD.)
 STA 0+712 TO 0+827 LT
 STA 0+713 TO 0+743 RT
 STA 0+751 TO 0+817 RT
 STA I+251 TO I+400 RT

ANCHOR FOR GUARD RAIL
 STA 0+743 RT, TH I9
 STA 0+751 RT, TH I9
 STA 0+858 LT

REMOVAL OF EXISTING RAILING
 STA 0+868 TO 0+886 RT
 STA 0+868 TO 0+883 LT

H.D. STEEL BEAM GUARD RAIL
 STA 0+861 TO 0+868 RT
 STA 0+863 TO 0+871 RT
 STA 0+883 TO 0+892 LT
 STA 0+886 TO 0+893 RT

BRIDGE RAIL - H.D. STEEL BEAM FASCIA MTD (MOD 3)
 STA 0+871 TO 0+886 RT
 STA 0+868 TO 0+883 LT

REMOVAL AND DISPOSAL OF GUARD RAIL
 STA 0+858 TO 0+868 LT
 STA 0+817 TO 0+828 RT
 STA 0+827 TO 0+838 LT
 STA 0+852 TO 0+863 RT
 STA 0+892 TO 0+903 LT
 STA 0+893 TO 0+904 RT
 STA I+240 TO I+251 RT

STEEL BEAM GUARD RAIL W/2.4m POSTS (MOD.)
 STA 0+712 TO 0+827 LT
 STA 0+713 TO 0+743 RT
 STA 0+751 TO 0+817 RT
 STA I+251 TO I+400 RT

LEGEND

N	= NEW
R	= REMOVE
R&S	= REMOVE & SALVAGE
RET	= RETAIN
S	= SALVAGE
B-T-O-B	= BACK TO BACK
⊕	= CATCH BASIN/DI
⊙	= MANHOLE
⊗	= WATER VALVE
⊠	= EXISTING THROAT DI
I	= MARKER POST
U	= UTILITY POLE
U	= UTILITY POLE
U	= UTILITY POLE W/UNDERGROUND UTIL.
⊞	= DRIVE

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IN DPR**

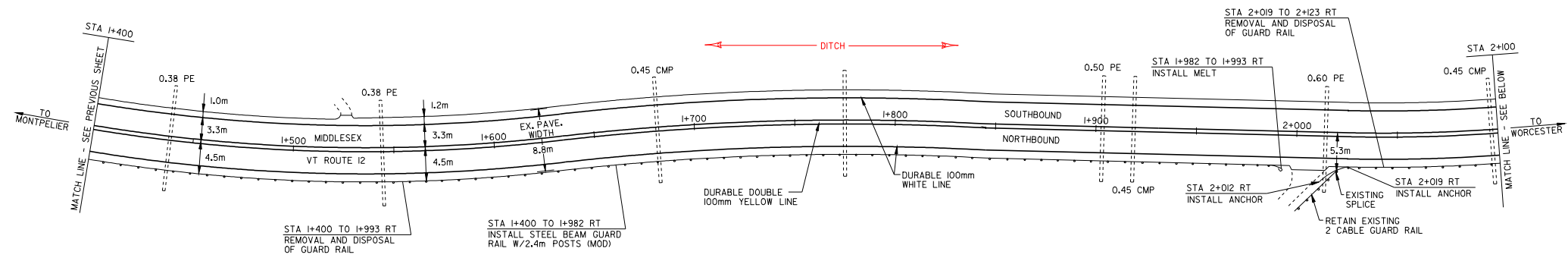
Metric

PAVING
PROJECT
LAYOUT # 1

DESIGNED BY BCE/PJM DATE II-99
 DRAWN BY C.E.A., INC. DATE II-99
 DESIGN FILE NO. pave/98cl04/pci04.dgn
 PRF FILE pci04i01.i DATE PLOTTED 10-APR-2003 15:48
 PROJ. NAME MIDDLESEX - WORCESTER
 PROJ. NO. STP 2111(S)
 SHEET 10 OF 28 SHEETS

TEMPORARY AND DURABLE 100 mm YELLOW LINE
 STA 1+400 TO 1+931 SOLID LT&RT
 STA 1+931 TO 2+124 DASHED LT & SOLID RT
 STA 2+124 TO 2+800 SOLID LT&RT

TEMPORARY AND DURABLE 100 mm WHITE LINE
 STA 1+400 TO 2+800 SOLID LT&RT



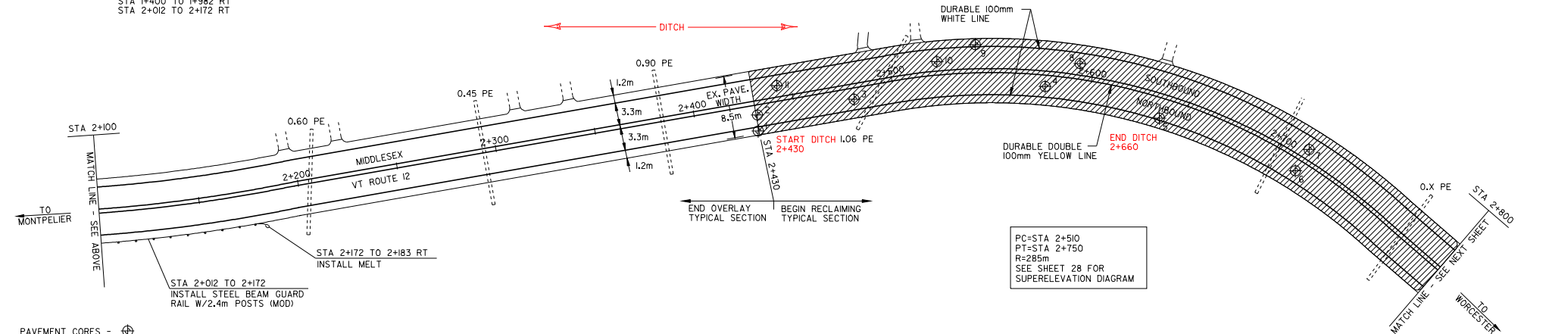
REMOVAL AND DISPOSAL OF GUARD RAIL
 STA 1+400 TO 1+993 RT
 STA 2+019 TO 2+123 RT

REMOVAL AND DISPOSAL OF GUIDE POSTS
 STA 2+125 RT - 1

STEEL BEAM GUARD RAIL W/2.4m POSTS (MOD.)
 STA 1+400 TO 1+982 RT
 STA 2+012 TO 2+172 RT

MODIFIED ECCENTRIC LOADER TERMINAL
 STA 1+982 TO 1+993 RT
 STA 2+172 TO 2+183 RT

ANCHOR FOR GUARD RAIL
 STA 2+012 RT
 STA 2+019 RT



PC=STA 2+510
 PT=STA 2+750
 R=285m
 SEE SHEET 28 FOR SUPERELEVATION DIAGRAM

PAVEMENT CORES - ⊕

#	TOTAL DEPTH (mm)	PCC	COMMENTS
1	180	NO	0.8m FROM EDGE OF PAVEMENT.
2	205	NO	2.4m FROM EDGE OF PAVEMENT.
3	140	NO	NEW CULVERT PATCH, 2.8m OFF-SET.
4	215	NO	2.4m FROM EDGE OF PAVEMENT.
5	230	NO	1.8m FROM EDGE OF PAVEMENT.
6	235	NO	2.4m FROM EDGE OF PAVEMENT.
7	240	NO	2.7m FROM EDGE OF PAVEMENT, 4" SOLID.
8	205+	NO	2.4m FROM EDGE OF PAVEMENT.
9	75+	NO	0.6m FROM EDGE OF PAVEMENT.
10	250+	NO	2.4m FROM EDGE OF PAVEMENT.
11	280	NO	2.3m FROM EDGE OF PAVEMENT.

- LEGEND
- N = NEW
 - R = REMOVE
 - R&S = REMOVE & SALVAGE
 - RET = RETAIN
 - S = SALVAGE
 - B-TO-B = BACK TO BACK
 - ⊕ □ CATCH BASIN/DI
 - ⊙ MANHOLE
 - ⊗ WATER VALVE
 - EXISTING THROAT DI
 - I MARKER POST
 - ⊘ UTILITY POLE
 - ⊘ UTILITY POLE W/UNDERGROUND UTIL.
 - ⊘ DRIVE

**ARCHIVED
IN DPR**

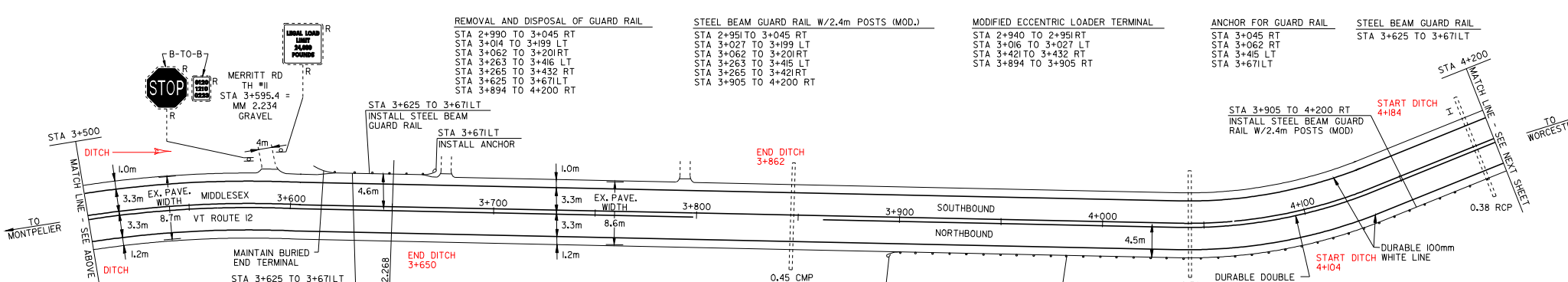
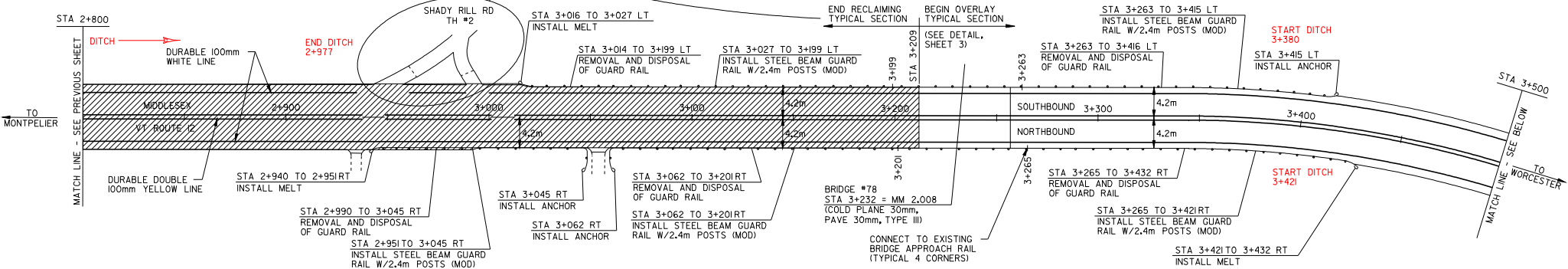
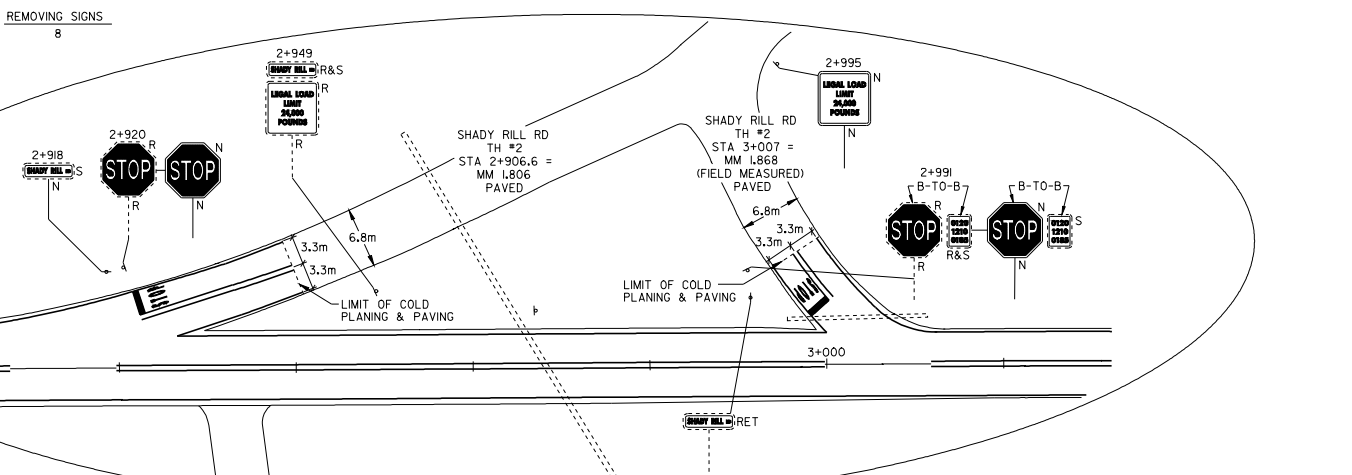
Metric

PAVING PROJECT LAYOUT # 2

DESIGNED BY BCE/PJM DATE 11-99
 DRAWN BY C.E.A., INC. DATE 11-99
 DESIGN FILE NO. pave/98pci04/pci04.dgn
 PRF FILE pci04i02.i DATE 10-APR-2003 15:48
 PLOTTED 10-APR-2003
 PROJ. NAME **MIDDLESEX - WORCESTER**
 PROJ. NO. **STP 2111(1)S**
 SHEET **11** OF **28** SHEETS

- TEMPORARY AND DURABLE 100 mm YELLOW LINE**
- STA 2+800 TO 3+564 SOLID LT&RT
 - STA 2+906 DOUBLE SOLID LT
 - STA 3+000 DOUBLE SOLID LT
 - STA 3+564 TO 3+798 SOLID LT & DASHED RT
 - STA 3+798 TO 3+862 DASHED
 - STA 3+862 TO 4+064 DASHED LT & SOLID RT
 - STA 4+064 TO 4+200 SOLID LT&RT (WITH CENTERLINE BREAKS FOR TOWN HIGHWAYS)
- TEMPORARY AND DURABLE 100 mm WHITE LINE**
- STA 2+800 TO 4+200 SOLID LT&RT (WITH EDGE LINE BREAKS FOR TOWN HIGHWAYS)
- TEMPORARY AND DURABLE 600 mm STOP BAR**
- STA 2+906 LT SHADY RILL RD
 - STA 3+000 LT SHADY RILL RD
- TEMPORARY AND DURABLE LETTER OR SYMBOL**
- STA 2+906 LT "STOP"
 - STA 3+000 LT "STOP"

- YIELDING MARKER POST**
- STA 4+190 LT



- LEGEND**
- N = NEW
 - R = REMOVE
 - R&S = REMOVE & SALVAGE
 - RET = RETAIN
 - S = SALVAGE
 - B-T-O-B = BACK TO BACK
 - ⊕ ⊖ = CATCH BASIN/DI
 - = EXISTING THROAT DI
 - I = MARKER POST
 - ⊙ = UTILITY POLE
 - ⊙ = UTILITY POLE
 - W = UNDERGROUND UTIL.
 - = DRIVE

**ARCHIVED
IN DPR**

DESIGNED BY BCE/PJM DATE 11-99
 DRAWN BY C.E.A., INC. DATE 11-99
 DESIGN FILE NO. pave/98cl04/pci04.dgn
 PRF FILE pci04i03.i DATE 10-APR-2003
 PLOTTED 10-APR-2003
 PROJ. NAME MIDDLESEX - WORCESTER
 PROJ. NO. STP 2111(1)5
 SHEET 12 OF 28 SHEETS



TEMPORARY AND DURABLE 100 mm YELLOW LINE
 STA 4+200 TO 4+650
 STA 4+612
 SOLID LT&RT
 DOUBLE SOLID RT
 (WITH CENTERLINE BREAKS FOR TOWN HIGHWAYS)

TEMPORARY AND DURABLE 100 mm WHITE LINE
 STA 4+200 TO 4+650
 STA 4+200 TO 4+650
 SOLID LT&RT
 (WITH EDGELINE BREAKS FOR TOWN HIGHWAYS)

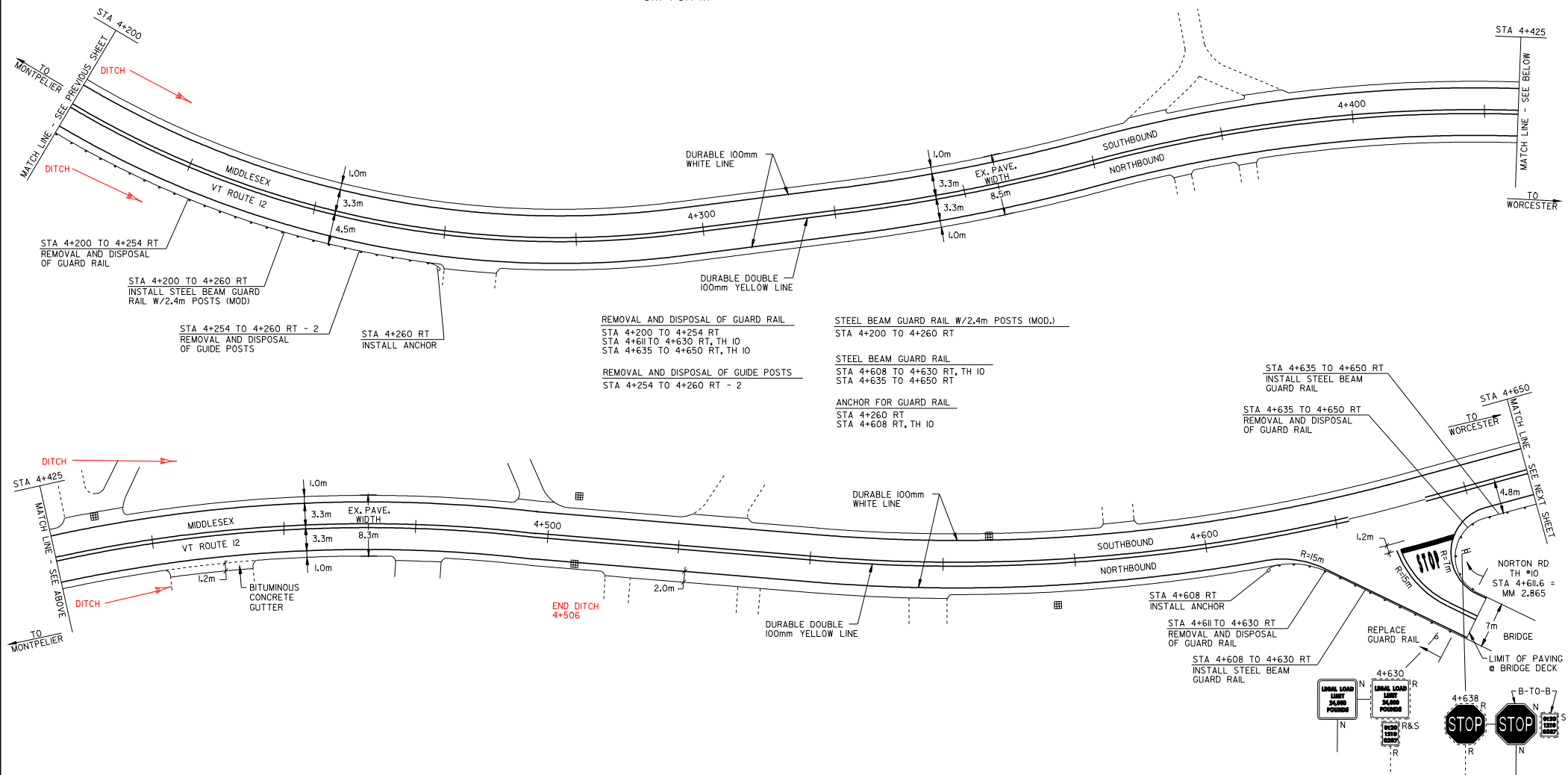
REMOVING SIGNS
 3

TEMPORARY AND DURABLE LETTER OR SYMBOL
 STA 4+612 RT
 "STOP"

TEMPORARY AND DURABLE 600 mm STOP BAR
 STA 4+612 RT
 NORTON RD

BITUMINOUS CONCRETE GUTTER
 STA 4+442 TO 4+455 RT

REHABILITATION OF D.I.'S, C.B.'S, OR M.H.'S
 STA 4+432 LT
 STA 4+504 RT
 STA 4+562 LT
 STA 4+577 RT



- LEGEND**
- N = NEW
 - R = REMOVE
 - R&S = REMOVE & SALVAGE
 - R = RETAIN
 - S = SALVAGE
 - B-T-O-B = BACK TO BACK
 - ☐ = CATCH BASIN/DI
 - ⊙ = MANHOLE
 - ⊗ = WATER VALVE
 - ⊠ = EXISTING THROAT DI
 - I = MARKER POST
 - ⊕ = UTILITY POLE
 - ⊕/T = UTILITY POLE W/UNDERGROUND UTIL.
 - = DRIVE

ARCHIVED
IN DPR

PAVING
PROJECT
LAYOUT # 4

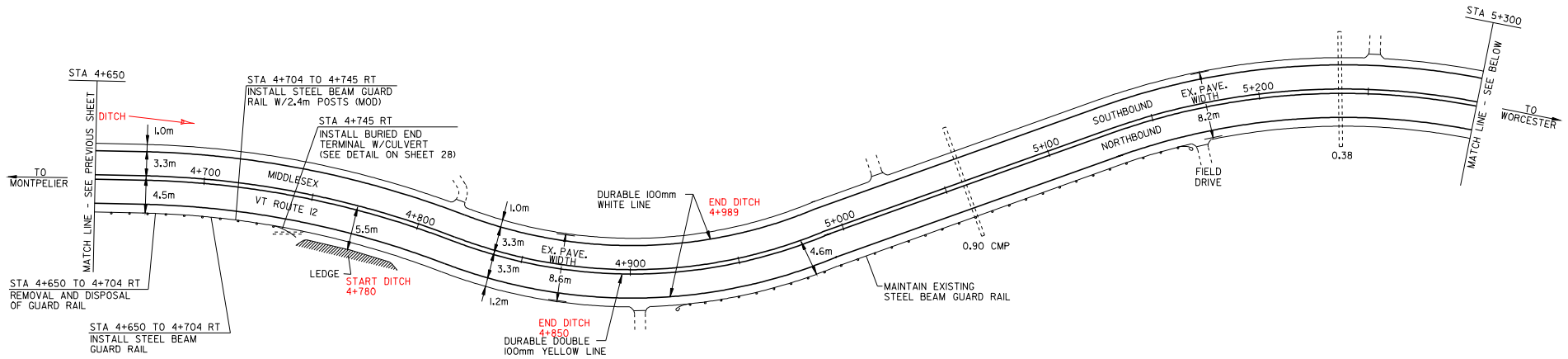
DESIGNED BY BCE/PJM DATE 11-99
 DRAWN BY C.E.A., INC. DATE 11-99
 DESIGN FILE NO. pave/98cl04/pci04.dgn
 PRF FILE pci04i04.i DATE PLOTTED 10-APR-2003 15:58
 PROJ. NAME **MIDDLESEX - WORCESTER**
 PROJ. NO. **STP 2111(1)S**
 SHEET **13** OF **28** SHEETS



TEMPORARY AND DURABLE 100 mm YELLOW LINE
STA 4+650 TO 5+874 SOLID LT&RT

TEMPORARY AND DURABLE 100 mm WHITE LINE
STA 4+650 TO 5+874 SOLID LT&RT

YIELDING MARKER POSTS
STA 5+841LT&RT

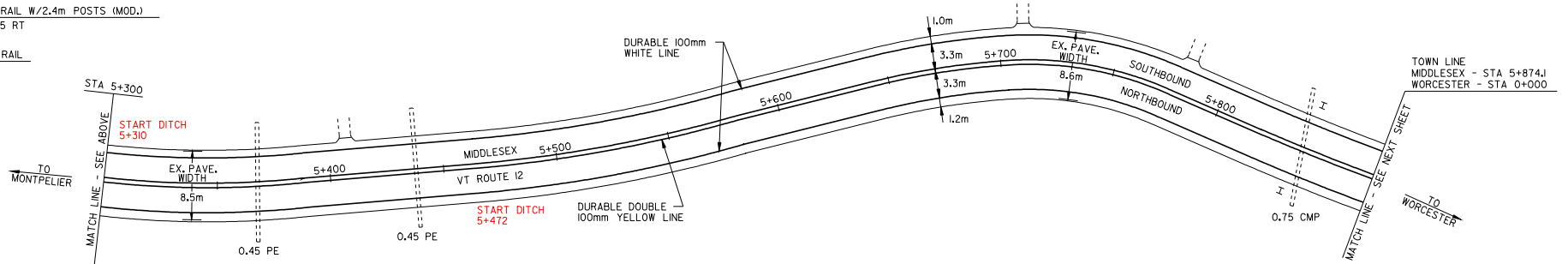


REMOVAL AND DISPOSAL OF GUARD RAIL
STA 4+650 TO 4+704 RT

STEEL BEAM GUARD RAIL
STA 4+650 TO 4+704 RT

STEEL BEAM GUARD RAIL W/2.4m POSTS (MOD.)
STA 4+704 TO 4+745 RT

ANCHOR FOR GUARD RAIL
STA 4+745 RT - 2



LEGEND

- N = NEW
- R = REMOVE
- R&S = REMOVE & SALVAGE
- RET = RETAIN
- S = SALVAGE
- B-TO-B = BACK TO BACK
- ☒ = CATCH BASIN/DI
- ⊙ = MANHOLE
- ⊙ = WATER VALVE
- ⊠ = EXISTING THROAT DI
- I = MARKER POST
- ⊘ = UTILITY POLE
- ⊘/I = UTILITY POLE W/UNDERGROUND UTIL.
- = DRIVE

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IN DPR

PAVING
PROJECT
LAYOUT # 5

Metric

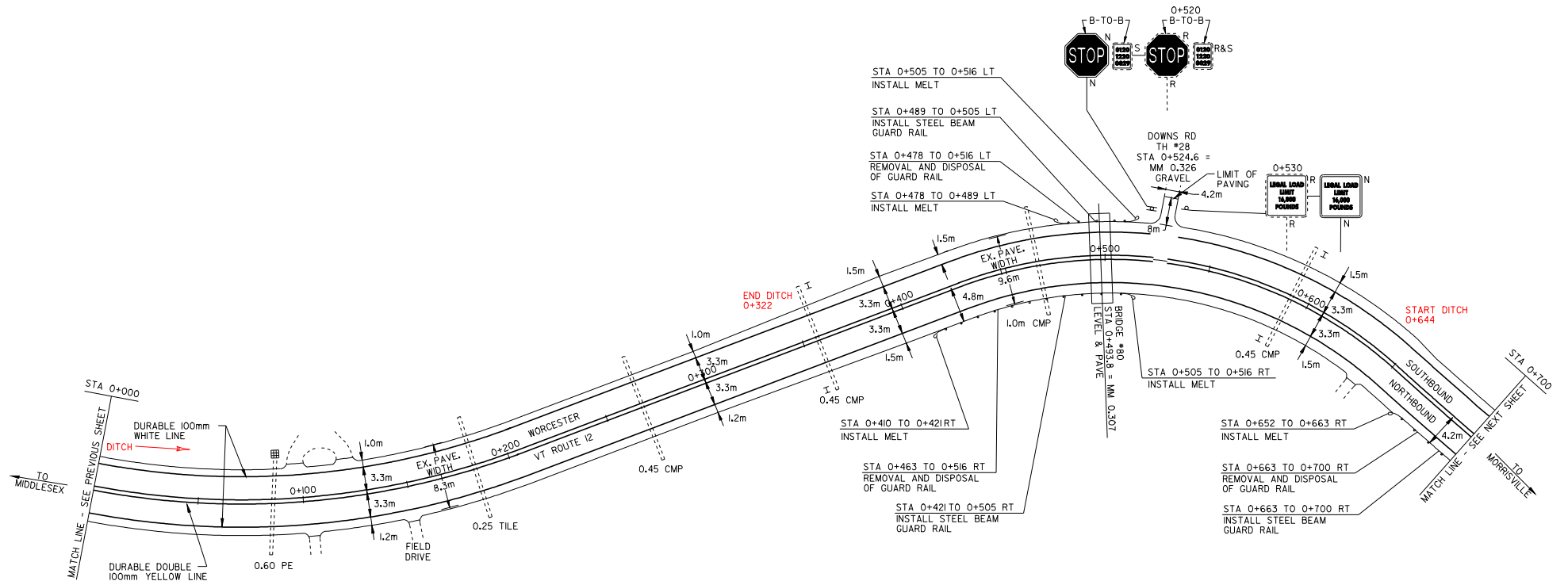
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DRAWN BY	C.E.A., INC.	DATE	11-99
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PRF FILE	pcl04i05.i	DATE PLOTTED	10-APR-2003 15:54
PROJ. NAME	MIDDLESEX - WORCESTER		
PROJ. NO.	STP 2111(1)S		
SHEET	14	OF	28 SHEETS

TEMPORARY AND DURABLE 100 mm YELLOW LINE
 STA 0+000 TO 0+700
 (WITH CENTERLINE BREAKS FOR TOWN HIGHWAYS)

TEMPORARY AND DURABLE 100 mm WHITE LINE
 STA 0+000 TO 0+700
 (WITH EDGELINE BREAKS FOR TOWN HIGHWAYS)

REMOVING SIGNS
 3

YIELDING MARKER POST
 STA 0+357 LT&RT
 STA 0+591 LT&RT



REMOVAL AND DISPOSAL OF GUARD RAIL
 STA 0+463 TO 0+516 RT
 STA 0+478 TO 0+516 LT
 STA 0+663 TO 0+700 RT

MODIFIED ECCENTRIC LOADER TERMINAL
 STA 0+410 TO 0+421 RT
 STA 0+478 TO 0+489 LT
 STA 0+505 TO 0+516 RT
 STA 0+505 TO 0+516 LT
 STA 0+652 TO 0+663 RT

STEEL BEAM GUARD RAIL
 STA 0+421 TO 0+505 RT
 STA 0+489 TO 0+505 LT
 STA 0+663 TO 0+700 RT

- LEGEND
- N = NEW
 - R = REMOVE
 - R&S = REMOVE & SALVAGE
 - RET = RETAIN
 - S = SALVAGE
 - B-TO-B = BACK TO BACK
 - ⊕ □ = CATCH BASIN/DI
 - ⊙ = MANHOLE
 - ⊗ = WATER VALVE
 - = EXISTING THROAT DI
 - I = MARKER POST
 - ⊗ = UTILITY POLE
 - ⊗ = UTILITY POLE W/UNDERGROUND UTIL.
 - ⌒ = DRIVE

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IN DPR

Metric

PAVING PROJECT LAYOUT # 6

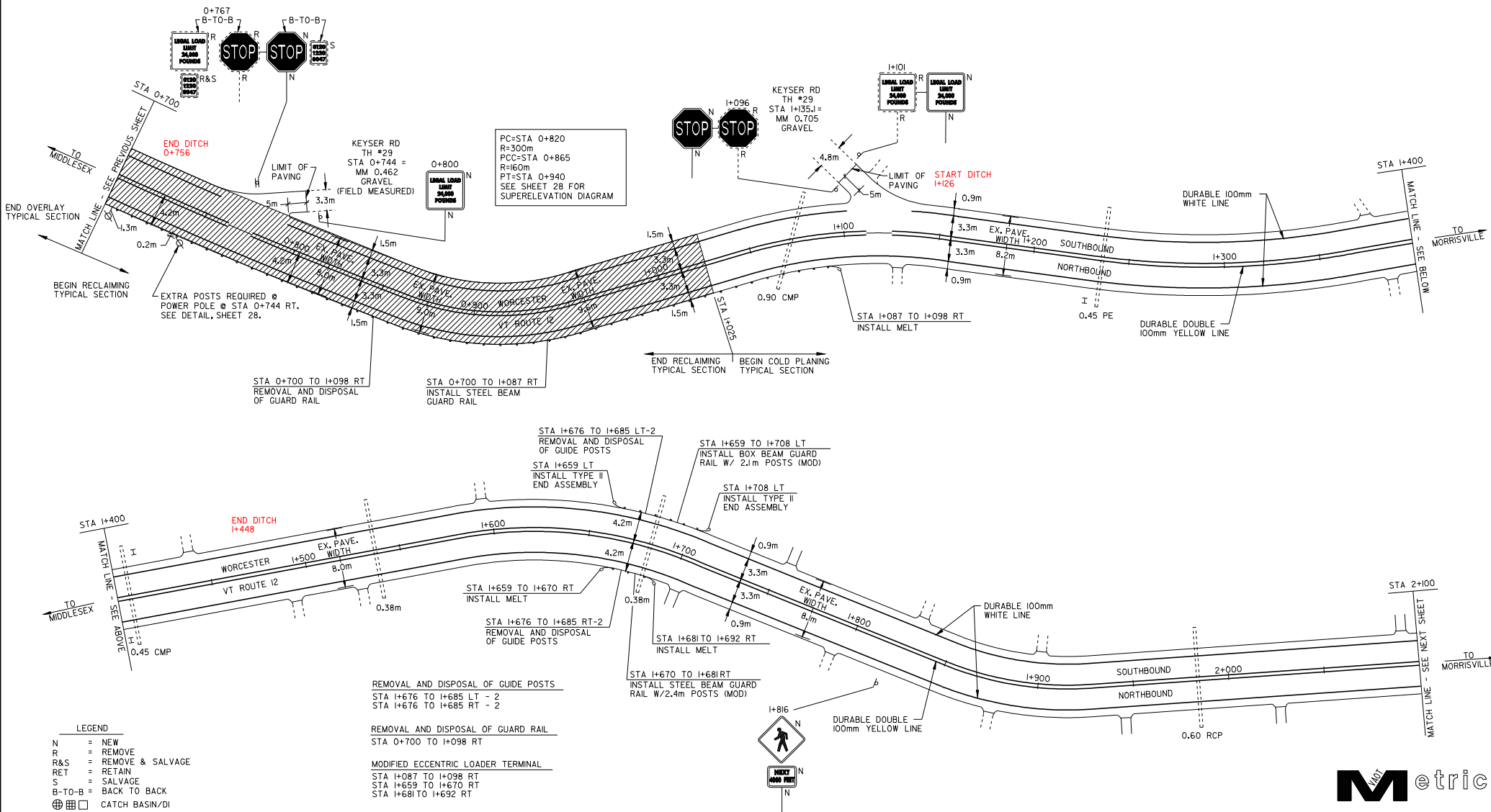
DESIGNED BY BCE/PJM DATE 11-99
 DRAWN BY C.E.A., INC. DATE 11-99
 DESIGN FILE NO. pave/98pci04/pci04.dgn
 PRF FILE pci04106.i DATE 10-APR-2003 15:45
 PLOTTED 10-APR-2003 15:45
 PROJ. NAME **MIDDLESEX - WORCESTER**
 PROJ. NO. **STP 2111(1)5**
 SHEET **15** OF **28** SHEETS

TEMPORARY AND DURABLE 100 mm YELLOW LINE
 STA 0+700 TO 2+100
 SOLID LT&RT
 (WITH CENTERLINE BREAKS FOR TOWN HIGHWAYS)

TEMPORARY AND DURABLE 100 mm WHITE LINE
 STA 0+700 TO 2+100
 SOLID LT&RT
 (WITH EDGELINE BREAKS FOR TOWN HIGHWAYS)

REMOVING SIGNS
 5

YIELDING MARKER POST
 STA I+236 RT
 STA I+407 LT&RT



- LEGEND**
- N = NEW
 - R = REMOVE
 - R&S = REMOVE & SALVAGE
 - RET = RETAIN
 - S = SALVAGE
 - B-TO-B = BACK TO BACK
 - ☐ = CATCH BASIN/DI
 - ⊙ = MANHOLE
 - ⊗ = WATER VALVE
 - ⊠ = EXISTING THROAT DI
 - I = MARKER POST
 - ⊕ = UTILITY POLE
 - ⊖ = UTILITY POLE W/UNDERGROUND UTIL.
 - = DRIVE

- REMOVAL AND DISPOSAL OF GUIDE POSTS
 STA I+676 TO I+685 LT - 2
 STA I+676 TO I+685 RT - 2
- REMOVAL AND DISPOSAL OF GUARD RAIL
 STA 0+700 TO I+098 RT
- MODIFIED ECCENTRIC LOADER TERMINAL
 STA I+087 TO I+098 RT
 STA I+659 TO I+670 RT
 STA I+681 TO I+692 RT
- STEEL BEAM GUARD RAIL
 STA 0+700 TO I+087 RT
- STEEL BEAM GUARD RAIL W/2.4m POSTS (MOD.)
 STA I+670 TO I+681RT
- BOX BEAM GUARD RAIL W/2.1m POSTS
 STA I+659 TO I+708 LT

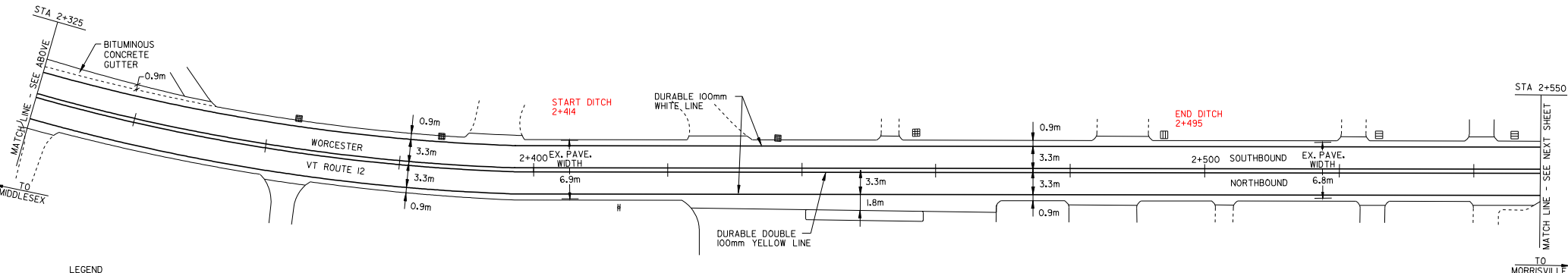
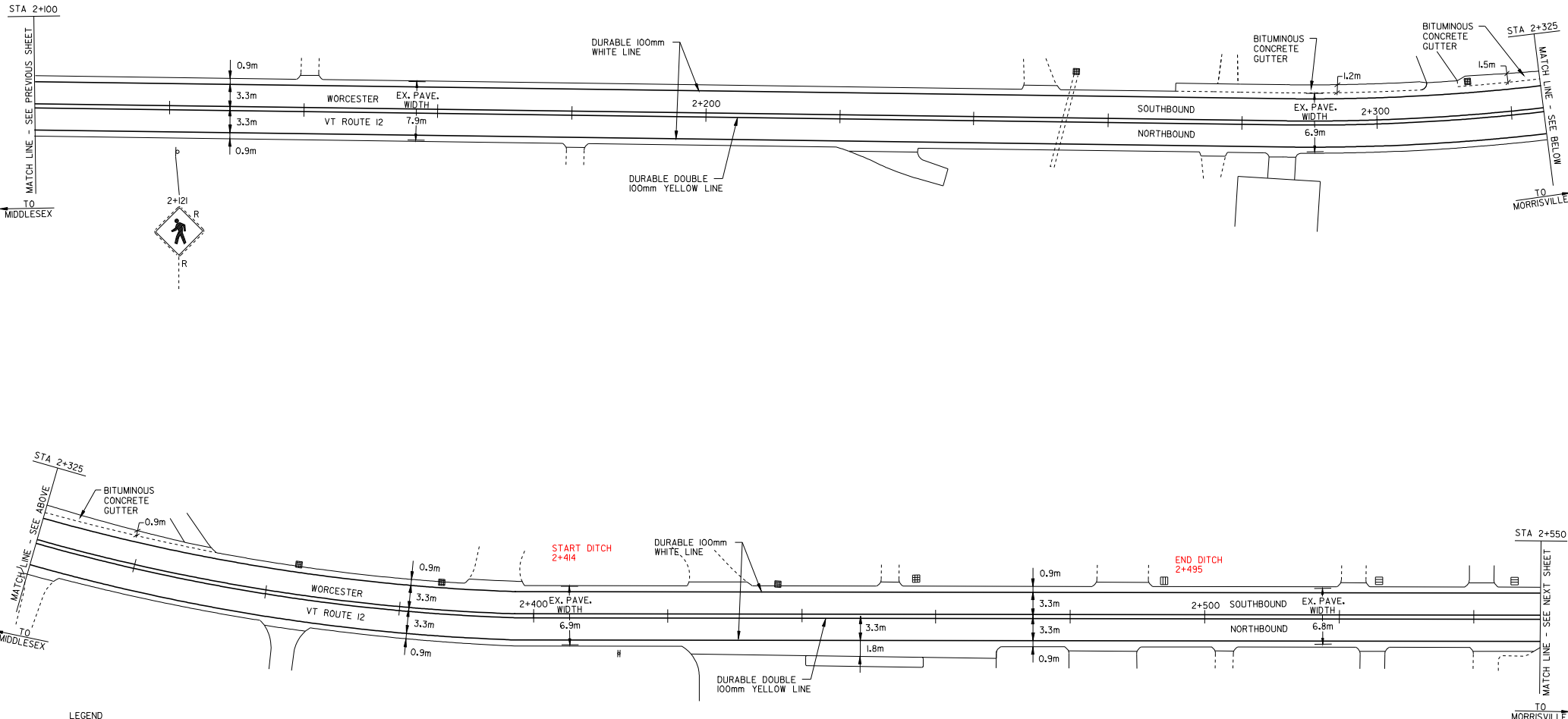
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IN DPR

PAVING PROJECT LAYOUT # 7

DESIGNED BY BCE/PJM DATE 11-99
 DRAWN BY C.E.A., INC. DATE 11-99
 DESIGN FILE NO. pave/98cl04/pci04.dgn
 PRF FILE pci04107.i DATE 10-APR-2003
 PROJ. NAME **MIDDLESEX - WORCESTER**
 PROJ. NO. **STP 2111(1)S**
 SHEET **16** OF **28** SHEETS



TEMPORARY AND DURABLE 100 mm YELLOW LINE STA 2+100 TO 2+550	TEMPORARY AND DURABLE 100 mm WHITE LINE STA 2+100 TO 2+550	REMOVING SIGNS I	CHANGE ELEVATION OF D.I.'S, C.B.'S, OR M.H.'S STA 2+314 LT STA 2+364 LT STA 2+437 LT STA 2+527 LT STA 2+546 LT	REHABILITATION OF D.I.'S, C.B.'S, OR M.H.'S STA 2+387 LT STA 2+399 LT STA 2+457 LT STA 2+494 LT	BITUMINOUS CONCRETE GUTTER STA 2+270 TO 2+309 LT STA 2+312 TO 2+348 LT
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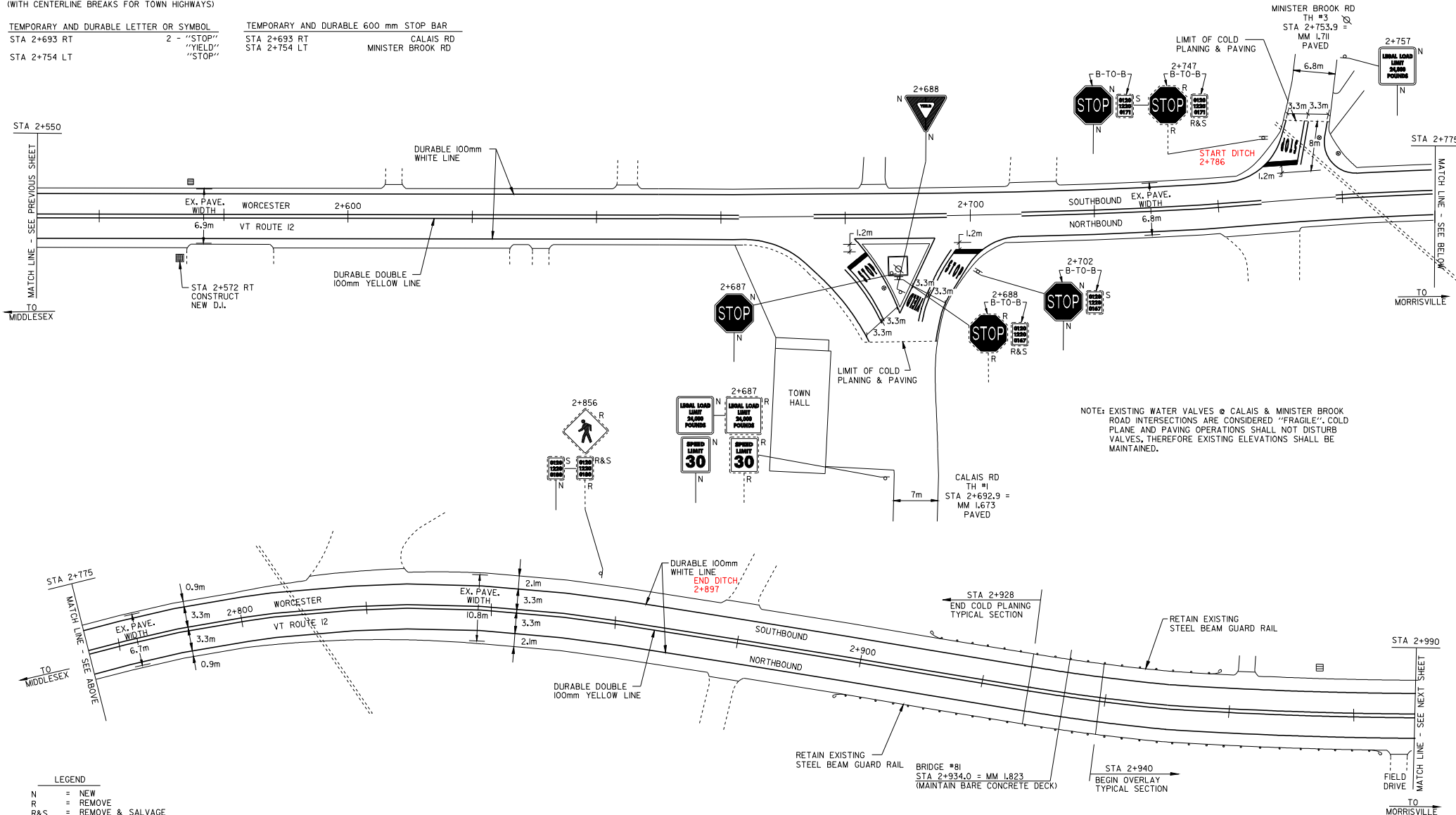
- LEGEND**
- N = NEW
 - R = REMOVE
 - R&S = REMOVE & SALVAGE
 - RET = RETAIN
 - S = SALVAGE
 - B-TO-B = BACK TO BACK
 - ☒ = CATCH BASIN/DI
 - ⊙ = MANHOLE
 - ⊕ = WATER VALVE
 - = EXISTING THROAT DI
 - I = MARKER POST
 - ⊗ = UTILITY POLE
 - ⊗ = UTILITY POLE
 - W/ = UTILITY POLE UNDERGROUND UTIL.
 - = DRIVE



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IN DPR

PAVING PROJECT LAYOUT # 8	
DESIGNED BY	BCE/PJM DATE 11-99
DRAWN BY	C.E.A., INC. DATE 11-99
DESIGN FILE NO.	pave/98cl04/pcl04.dgn
PRF FILE	pcl04108.1 DATE PLOTTED 10-APR-2003 15:48
PROJ. NAME	MIDDLESEX - WORCESTER
PROJ. NO.	STP 2111(1)S
SHEET	17 OF 28 SHEETS

TEMPORARY AND DURABLE 100 mm YELLOW LINE	TEMPORARY AND DURABLE 100 mm WHITE LINE	REMOVING SIGNS	REHABILITATION OF D.I.'S, C.B.'S, OR M.H.'S
STA 2+550 TO 2+950 STA 2+693 DOUBLE SOLID RT - 2 STA 2+754 DOUBLE SOLID LT (WITH CENTERLINE BREAKS FOR TOWN HIGHWAYS)	STA 2+550 TO 2+950 STA 2+693 RT (WITH EDGELINE BREAKS FOR TOWN HIGHWAYS)	8	STA 2+575 LT
TEMPORARY AND DURABLE LETTER OR SYMBOL	TEMPORARY AND DURABLE 600 mm STOP BAR		
STA 2+693 RT 2 - "STOP" STA 2+754 LT "YIELD" "STOP"	STA 2+693 RT CALAIS RD STA 2+754 LT MINISTER BROOK RD		



NOTE: EXISTING WATER VALVES @ CALAIS & MINISTER BROOK ROAD INTERSECTIONS ARE CONSIDERED "FRAGILE". COLD PLANE AND PAVING OPERATIONS SHALL NOT DISTURB VALVES, THEREFORE EXISTING ELEVATIONS SHALL BE MAINTAINED.

LEGEND

- N = NEW
- R = REMOVE
- R&S = REMOVE & SALVAGE
- RET = RETAIN
- S = SALVAGE
- B-T-O-B = BACK TO BACK
- ☐ = CATCH BASIN/DI
- ⊙ = MANHOLE
- ⊗ = WATER VALVE
- ⊠ = EXISTING THROAT DI
- I = MARKER POST
- ⊕ = UTILITY POLE
- ⊕/I = UTILITY POLE W/UNDERGROUND UTIL.
- = DRIVE

ARCHIVED
IN DPR

Metric

DESIGNED BY	BCE/PJM	DATE	11-99
DRAWN BY	C.E.A., INC.	DATE	11-99
DESIGN FILE NO.	pave/98cl04/pci04.dgn		
PRF FILE	pci04109.i	DATE PLOTTED	10-APR-2003 15:48
PROJ. NAME	MIDDLESEX - WORCESTER		
PROJ. NO.	STP 2111(1)S		
SHEET	18	OF	28 SHEETS

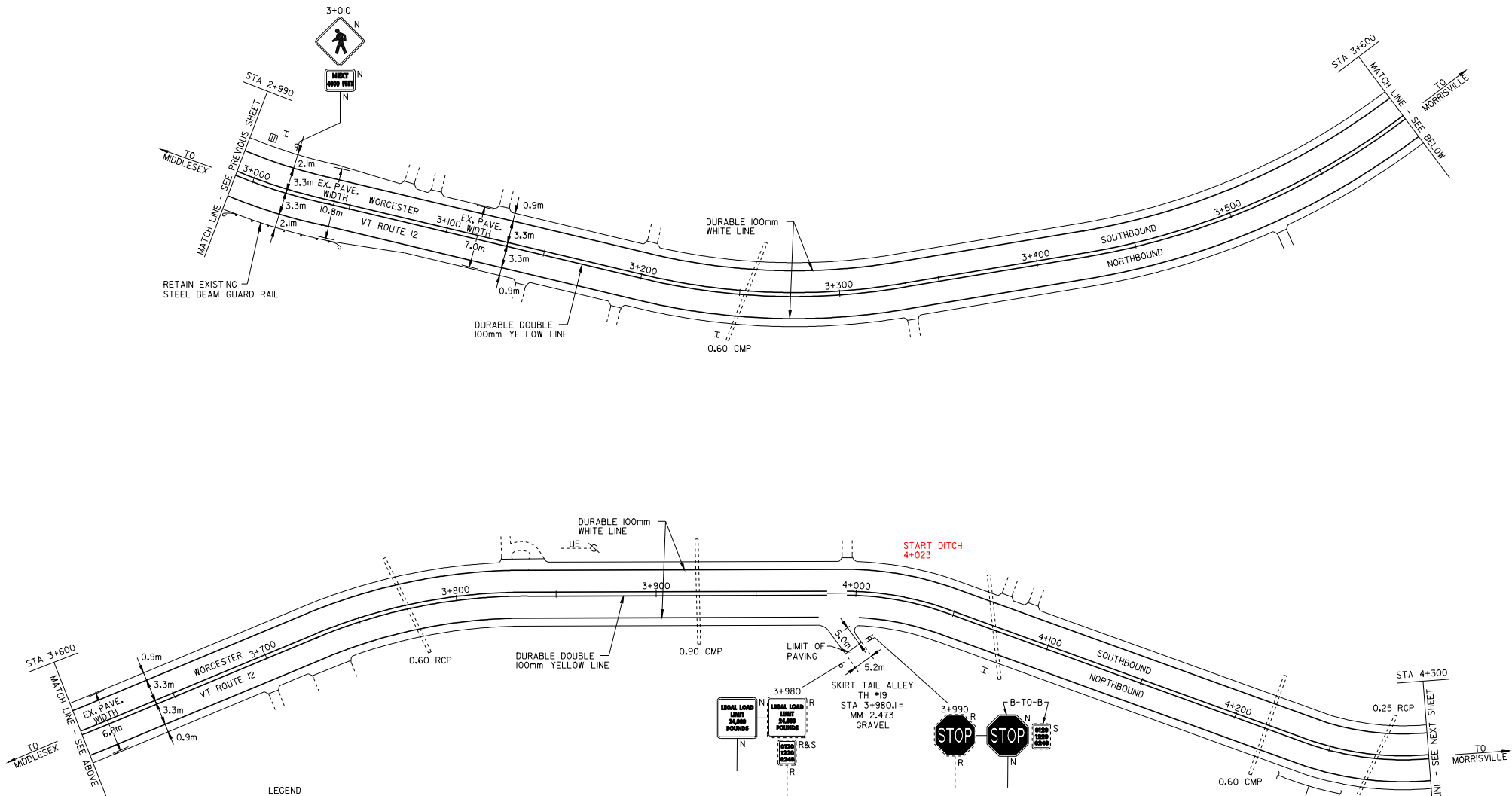
PAVING
PROJECT
LAYOUT # 9

TEMPORARY AND DURABLE 100 mm YELLOW LINE
 STA 2+990 TO 4+300
 SOLID LT&RT
 (WITH CENTERLINE BREAKS FOR TOWN HIGHWAYS)

TEMPORARY AND DURABLE 100 mm WHITE LINE
 STA 2+990 TO 4+300
 SOLID LT&RT
 (WITH EDGELINE BREAKS FOR TOWN HIGHWAYS)

REMOVING SIGNS
 3

YIELDING MARKER POST
 STA 3+001 L
 STA 3+253 RT
 STA 4+072 RT



- LEGEND**
- N = NEW
 - R = REMOVE
 - R&S = REMOVE & SALVAGE
 - RET = RETAIN
 - S = SALVAGE
 - B-TO-B = BACK TO BACK
 - ⊕ = CATCH BASIN/DI
 - ⊙ = MANHOLE
 - ⊗ = WATER VALVE
 - = EXISTING THROAT DI
 - I = MARKER POST
 - U = UTILITY POLE
 - U/I = UTILITY POLE W/UNDERGROUND UTIL.
 - = DRIVE

**ARCHIVED
 IN DPR**

Metric

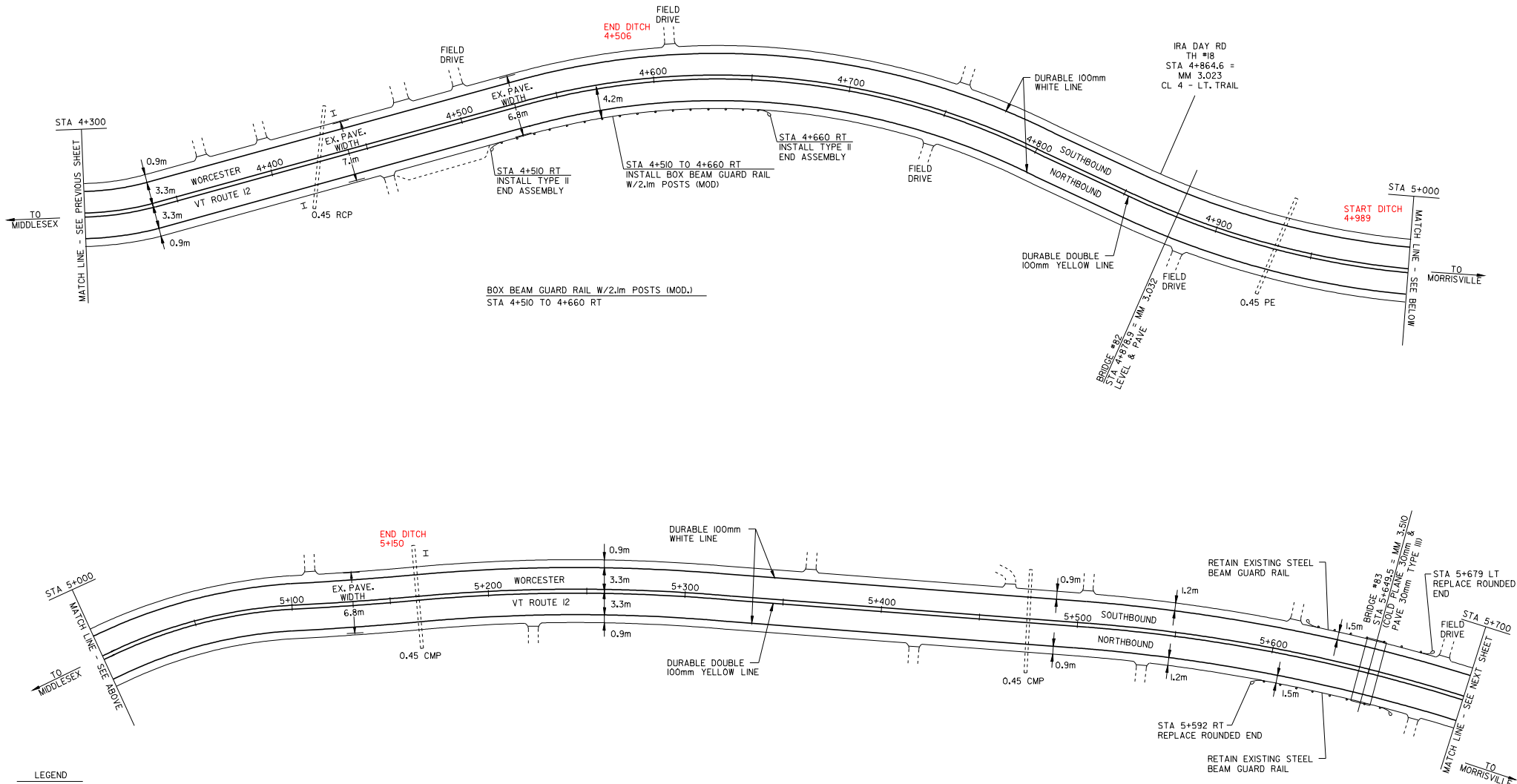
**PAVING PROJECT
 LAYOUT # 10**

DESIGNED BY	BCE/PJM	DATE	11-99
DRAWN BY	C.E.A., INC.	DATE	11-99
DESIGN FILE NO.	pave/98cl04/pci04.dgn		
PRF FILE	pci0410.i	DATE PLOTTED	10-APR-2003 15:48
PROJ. NAME	MIDDLESEX - WORCESTER		
PROJ. NO.	STP 2111(1)S		
SHEET	19	OF	28 SHEETS

TEMPORARY AND DURABLE 100 mm YELLOW LINE
STA 4+300 TO 5+700
SOLID LT&RT

TEMPORARY AND DURABLE 100 mm WHITE LINE
STA 4+300 TO 5+700
SOLID LT&RT

YIELDING MARKER POST
STA 4+425 LT&RT
STA 5+164 LT



- LEGEND
- N = NEW
 - R = REMOVE
 - R&S = REMOVE & SALVAGE
 - RET = RETAIN
 - S = SALVAGE
 - B-TO-B = BACK TO BACK
 - ⊕ □ CATCH BASIN/DI
 - ⊙ MANHOLE
 - ⊗ WATER VALVE
 - EXISTING THROAT DI
 - I MARKER POST
 - ⊗ UTILITY POLE
 - ⊗ UTILITY POLE
 - ⊗ W/UNDERGROUND UTIL.
 - DRIVE

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PAVING PROJECT LAYOUT # 11		DESIGNED BY <u>BCE/PJM</u> DATE <u>11-99</u>
		DRAWN BY <u>C.E.A., INC.</u> DATE <u>11-99</u>
		DESIGN FILE NO. <u>pave/98cl04/pci04.dgn</u>
PRF FILE <u>pci04ll.1</u>	DATE <u>10-APR-2003 15:</u>	
PROJ. NAME MIDDLESEX - WORCESTER		
PROJ. NO. STP 2111(1)S		
SHEET 20 OF 28 SHEETS		

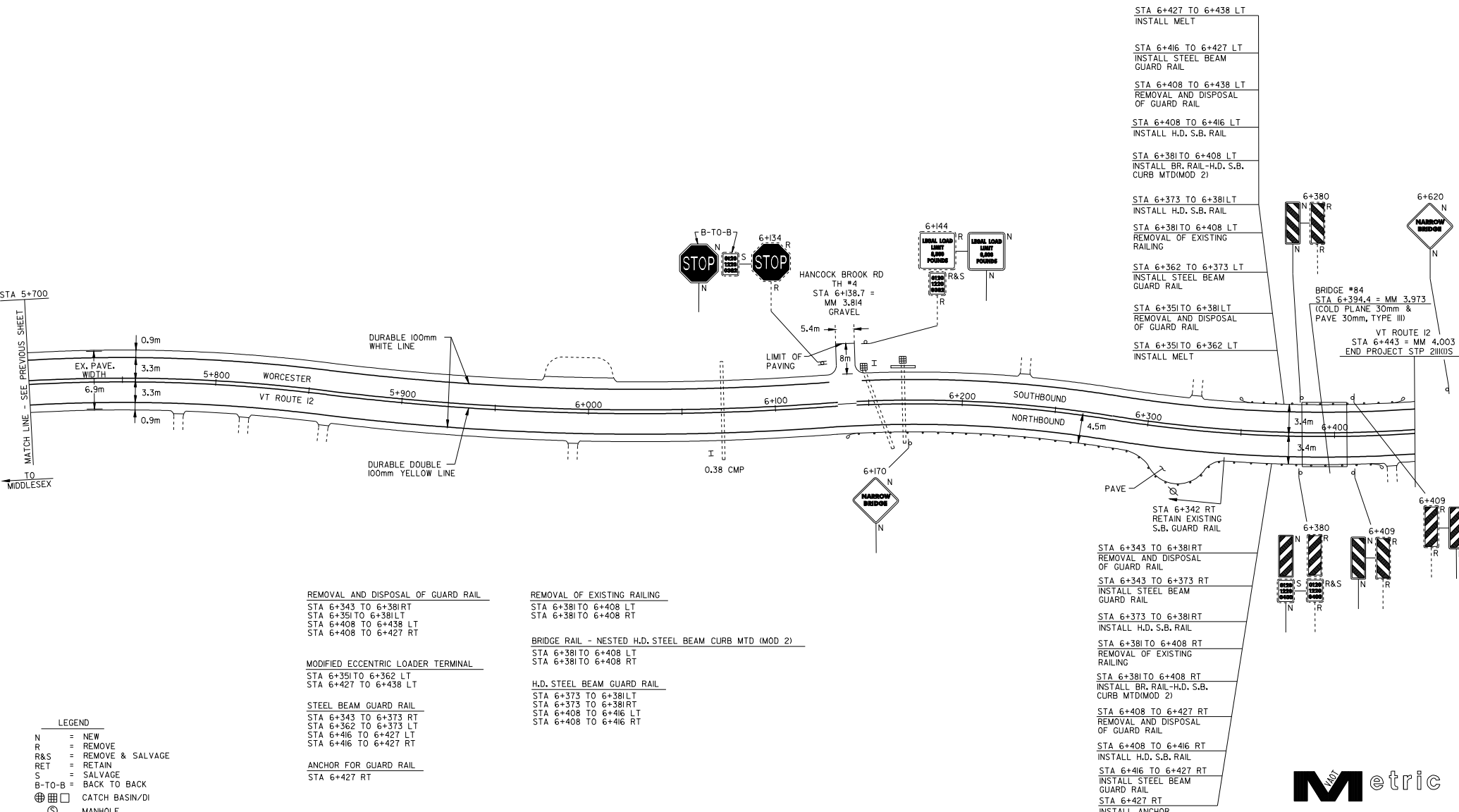


TEMPORARY AND DURABLE 100 mm YELLOW LINE
 STA 5+700 TO 6+443 SOLID LT&RT
 (WITH CENTERLINE BREAKS FOR TOWN HIGHWAYS)

TEMPORARY AND DURABLE 100 mm WHITE LINE
 STA 5+700 TO 6+443 SOLID LT&RT
 (WITH EDGE LINE BREAKS FOR TOWN HIGHWAYS)

REMOVING SIGNS
 8

YIELDING MARKER POST
 STA 6+072 RT
 STA 6+146 LT



REMOVAL AND DISPOSAL OF GUARD RAIL
 STA 6+343 TO 6+381 RT
 STA 6+351 TO 6+381 LT
 STA 6+408 TO 6+438 LT
 STA 6+408 TO 6+427 RT

MODIFIED ECCENTRIC LOADER TERMINAL
 STA 6+351 TO 6+362 LT
 STA 6+427 TO 6+438 LT

STEEL BEAM GUARD RAIL
 STA 6+343 TO 6+373 RT
 STA 6+362 TO 6+373 LT
 STA 6+416 TO 6+427 LT
 STA 6+416 TO 6+427 RT

ANCHOR FOR GUARD RAIL
 STA 6+427 RT

REMOVAL OF EXISTING RAILING
 STA 6+381 TO 6+408 LT
 STA 6+381 TO 6+408 RT

BRIDGE RAIL - NESTED H.D. STEEL BEAM CURB MTD (MOD 2)
 STA 6+381 TO 6+408 LT
 STA 6+381 TO 6+408 RT

H.D. STEEL BEAM GUARD RAIL
 STA 6+373 TO 6+381 LT
 STA 6+373 TO 6+381 RT
 STA 6+408 TO 6+416 LT
 STA 6+408 TO 6+416 RT

STA 6+427 TO 6+438 LT
 INSTALL MELT

STA 6+416 TO 6+427 LT
 INSTALL STEEL BEAM
 GUARD RAIL

STA 6+408 TO 6+438 LT
 REMOVAL AND DISPOSAL
 OF GUARD RAIL

STA 6+408 TO 6+416 LT
 INSTALL H.D. S.B. RAIL

STA 6+381 TO 6+408 LT
 INSTALL BR. RAIL-H.D. S.B.
 CURB MTD(MOD 2)

STA 6+373 TO 6+381 LT
 INSTALL H.D. S.B. RAIL

STA 6+381 TO 6+408 LT
 REMOVAL OF EXISTING
 RAILING

STA 6+362 TO 6+373 LT
 INSTALL STEEL BEAM
 GUARD RAIL

STA 6+351 TO 6+381 LT
 REMOVAL AND DISPOSAL
 OF GUARD RAIL

STA 6+351 TO 6+362 LT
 INSTALL MELT

STA 6+343 TO 6+381 RT
 REMOVAL AND DISPOSAL
 OF GUARD RAIL

STA 6+343 TO 6+373 RT
 INSTALL STEEL BEAM
 GUARD RAIL

STA 6+373 TO 6+381 RT
 INSTALL H.D. S.B. RAIL

STA 6+381 TO 6+408 RT
 REMOVAL OF EXISTING
 RAILING

STA 6+381 TO 6+408 RT
 INSTALL BR. RAIL-H.D. S.B.
 CURB MTD(MOD 2)

STA 6+408 TO 6+427 RT
 REMOVAL AND DISPOSAL
 OF GUARD RAIL

STA 6+408 TO 6+416 RT
 INSTALL H.D. S.B. RAIL

STA 6+416 TO 6+427 RT
 INSTALL STEEL BEAM
 GUARD RAIL

STA 6+427 RT
 INSTALL ANCHOR

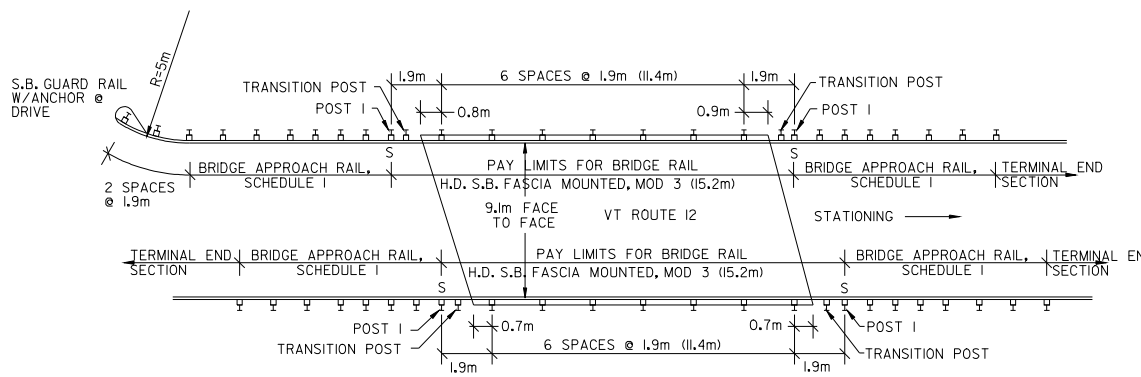
- LEGEND
- N = NEW
 - R = REMOVE
 - R&S = REMOVE & SALVAGE
 - RET = RETAIN
 - S = SALVAGE
 - B-TO-B = BACK TO BACK
 - ⊕ □ CATCH BASIN/DI
 - ⊙ MANHOLE
 - ⊗ WATER VALVE
 - EXISTING THROAT DI
 - ⊥ MARKER POST
 - ⊥ UTILITY POLE
 - ⊥ UTILITY POLE
 - ⊥ UTILITY POLE
 - ⊥ W/UNDERGROUND UTIL.
 - DRIVE

ARCHIVED
IN DPR

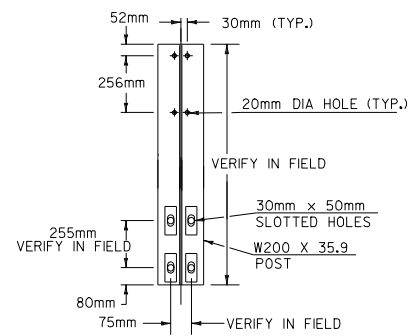
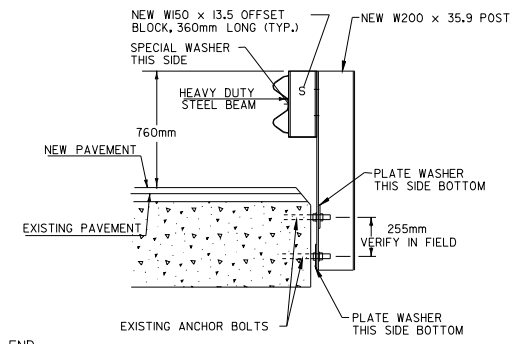
PAVING
PROJECT
LAYOUT # 12



DESIGNED BY BCE/PJM DATE 11-99
 DRAWN BY C.E.A., INC. DATE 11-99
 DESIGN FILE NO. pave/98cl04/pci04.dgn
 PRF FILE pci04112.i DATE PLOTTED 10-APR-2003 15:51
 PROJ. NAME MIDDLESEX - WORCESTER
 PROJ. NO. STP 2111(1)S
 SHEET 21 OF 28 SHEETS



MIDDLESEX - BRIDGE #77
STA 0+893 = MM 0.555



POST DETAILS

NOTES:
 1. BOLTS, NUTS & WASHERS SHALL BE GALVANIZED AND CONFORM TO SECTION 714.05.

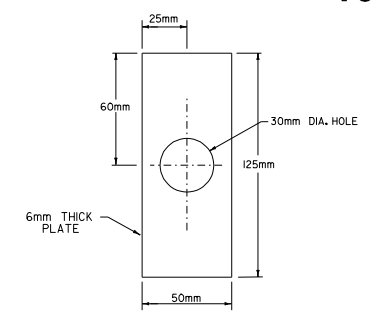
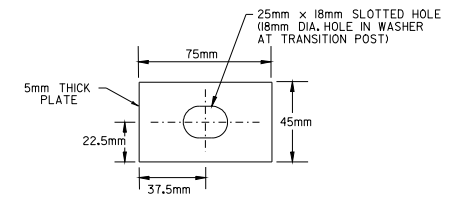


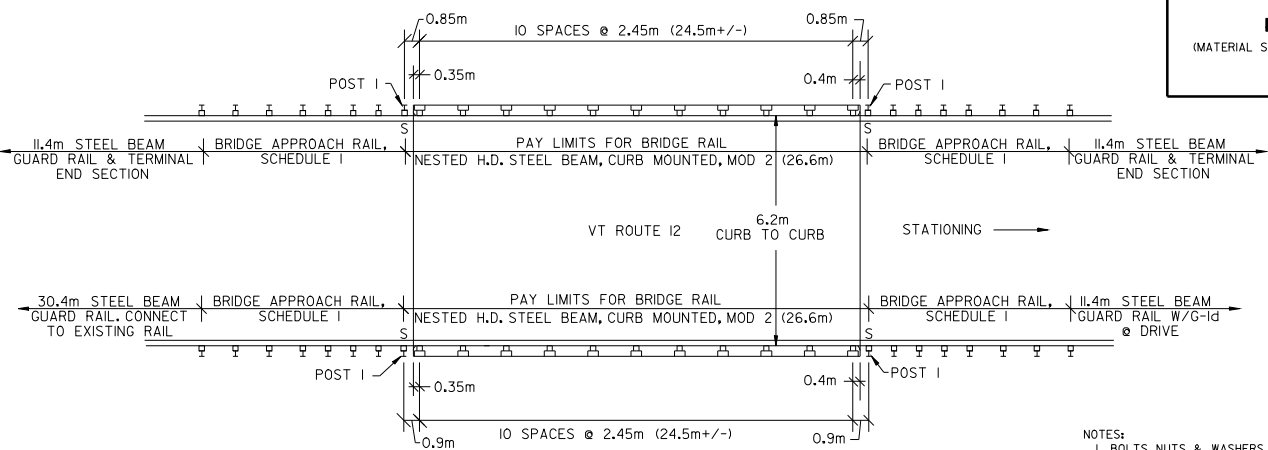
PLATE WASHER DETAIL

(MATERIAL SHALL MEET AASHTO M270/M270 GRADE 345W)



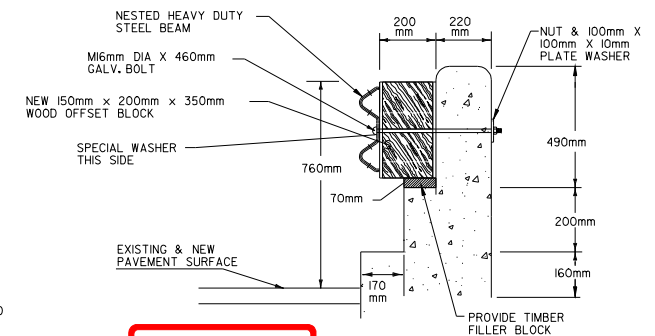
SPECIAL WASHER DETAIL

(MATERIAL SHALL MEET AASHTO M270/M270 GRADE 345W)



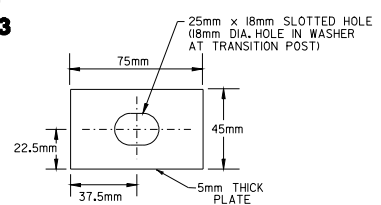
WORCESTER - BRIDGE #84
STA 6+394.4 = MM 3.973

NOTES:
 1. BOLTS, NUTS & WASHERS SHALL BE GALVANIZED AND CONFORM TO SECTION 714.05.



POST DETAIL

**ARCHIVED
 IN DPR**



SPECIAL WASHER DETAIL

(MATERIAL SHALL MEET AASHTO M270/M270 GRADE 345W)

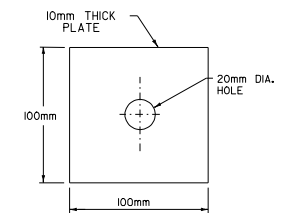


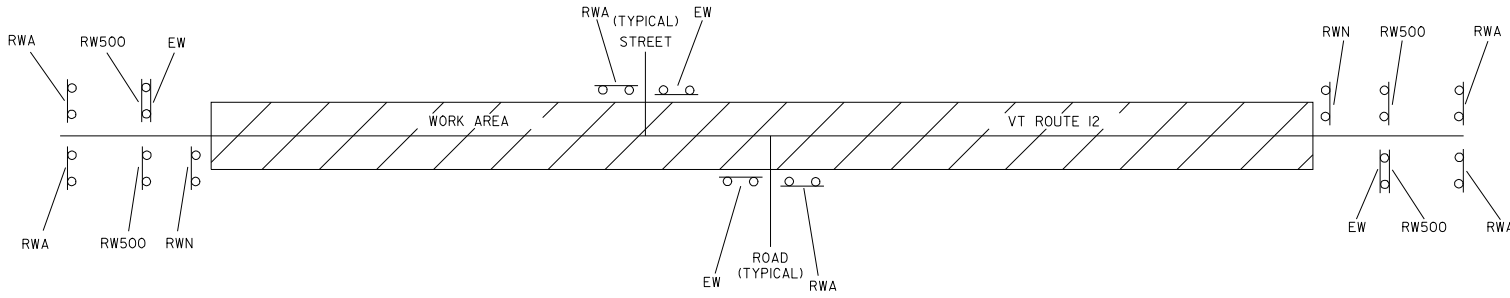
PLATE WASHER DETAIL

(MATERIAL SHALL MEET AASHTO M270/M270 GRADE 345W)

BRIDGE
 DETAIL
 SHEET
 # 2

Metric

DESIGNED BY	BCE/PJM	DATE	5-00
DRAWN BY	C.E.A., INC.	DATE	5-00
DESIGN FILE NO.	pave/98ci04/pci04.dgn		
PRF FILE	pci04bd2.i	DATE PLOTTED	10-APR-2003
PROJ. NAME	MIDDLESEX - WORCESTER		
PROJ. NO.	STP 2111(1)S		
SHEET	27	OF	28 SHEETS



LEGEND
 RWA = ROAD WORK AHEAD
 RW500 = ROAD WORK 500 FEET
 EW = END WORK
 RWN = ROAD WORK NEXT 7 1/2 MILES

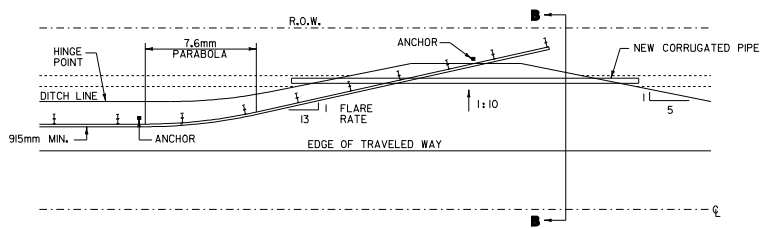
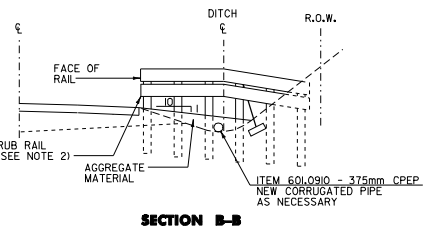
CONSTRUCTION APPROACH SIGNING

SEE STD. E-100M FOR SIGN PLACEMENT

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

LIST OF CONSTRUCTION SIGNS

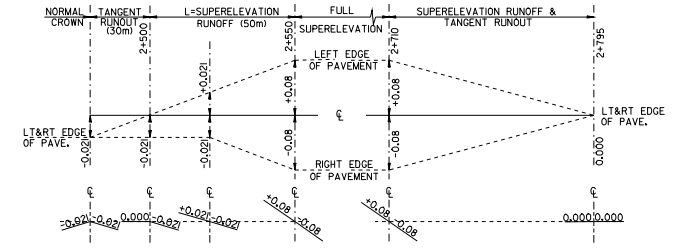
TOWN HIGHWAY	RWA	RW500	EW	RWN
- MIDDLESEX -				
BEGIN PROJECT	2	2		1
BOLDUC RD				
BOLIO RD				
HORN OF THE MOON RD				
CULVER HILL RD				
SHADY HILL RD				
NORTON RD				
- WORCESTER -				
DOWNES RD				
KEYSER RD				
KEYSER RD				
CALAIS RD				
MINSTER BROOK RD				
SKIRT TAIL ALLEY				
HANCOCK BROOK RD				
END PROJECT	2	2		1
TOTALS	17	4	15	2



DETAIL FOR BURIED GUARDRAIL ENDS INTO BACKSLOPES

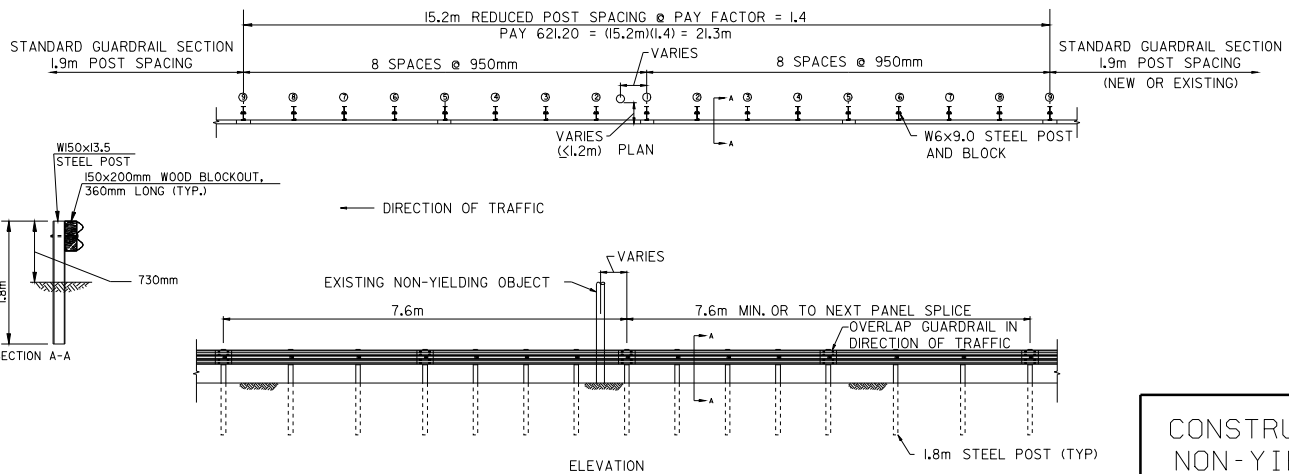
NOT TO SCALE
 STA 4+745 RT MIDDLESEX

NOTES:
 1. PRIMARY RAIL SHALL REMAIN AT A CONSTANT HEIGHT RELATIVE TO ROADWAY GRADE TO POINT OF DITCH BOTTOM.
 2. ADDITION OF RUB RAIL IS REQUIRED WHEN OPENING BENEATH PRIMARY RAIL EXCEEDS 450mm. RUB RAIL EXTENDS FROM THE EDGE OF SHOULDER TO THE BACK SLOPE.



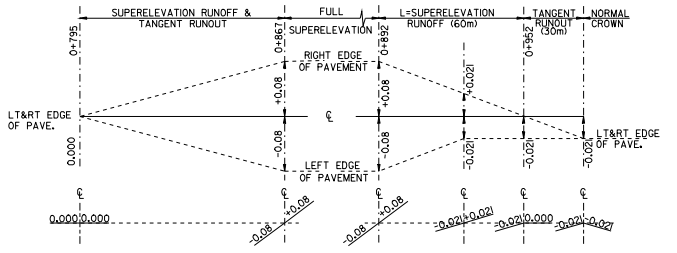
SUPERELEVATION DIAGRAM NTS

MIDDLESEX
 PC=2+510 R=285m
 PT=2+750 V=80 km/h



NON-YIELDING OBJECT APPROACH DETAIL

WORCESTER
 STA 0+744 RT



SUPERELEVATION DIAGRAM NTS

WORCESTER
 PC=0+820 R=300m
 PCC=0+865 R=160m
 PT=0+940 V=80 km/h

ARCHIVED IN DPR



CONSTRUCTION APPROACH SIGNING, NON-YIELDING OBJECT APPROACH DETAILS, BURIED END GUARD RAIL DETAILS & SUPERELEVATION BANKING DIAGRAMS

DATUM _____
 VERTICAL _____ N/A
 HORIZONTAL _____ N/A

DESIGNED BY BCE/PJM DATE 5-00
 DRAWN BY C.E.A., INC. DATE 5-00
 DESIGN FILE NO. Dave/98c104/pcl04.dgn
 PRF FILE pcl04cas.1 DATE PLOTTED 10-APR-2003 15
 PROJ. NAME MIDDLESEX - WORCESTER
 PROJ. NO. STP 2111(1)5
 SHEET 28 OF 28 SHEETS