

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Dated OCT 18 1984

Cooley Corporation
Contractor

Ray Cooley
Signature

Cooley Corp. /President



CONTRACT PLANS

THESE PLANS DO NOT REFLECT
CHANGES MADE ON THE PROJECT.

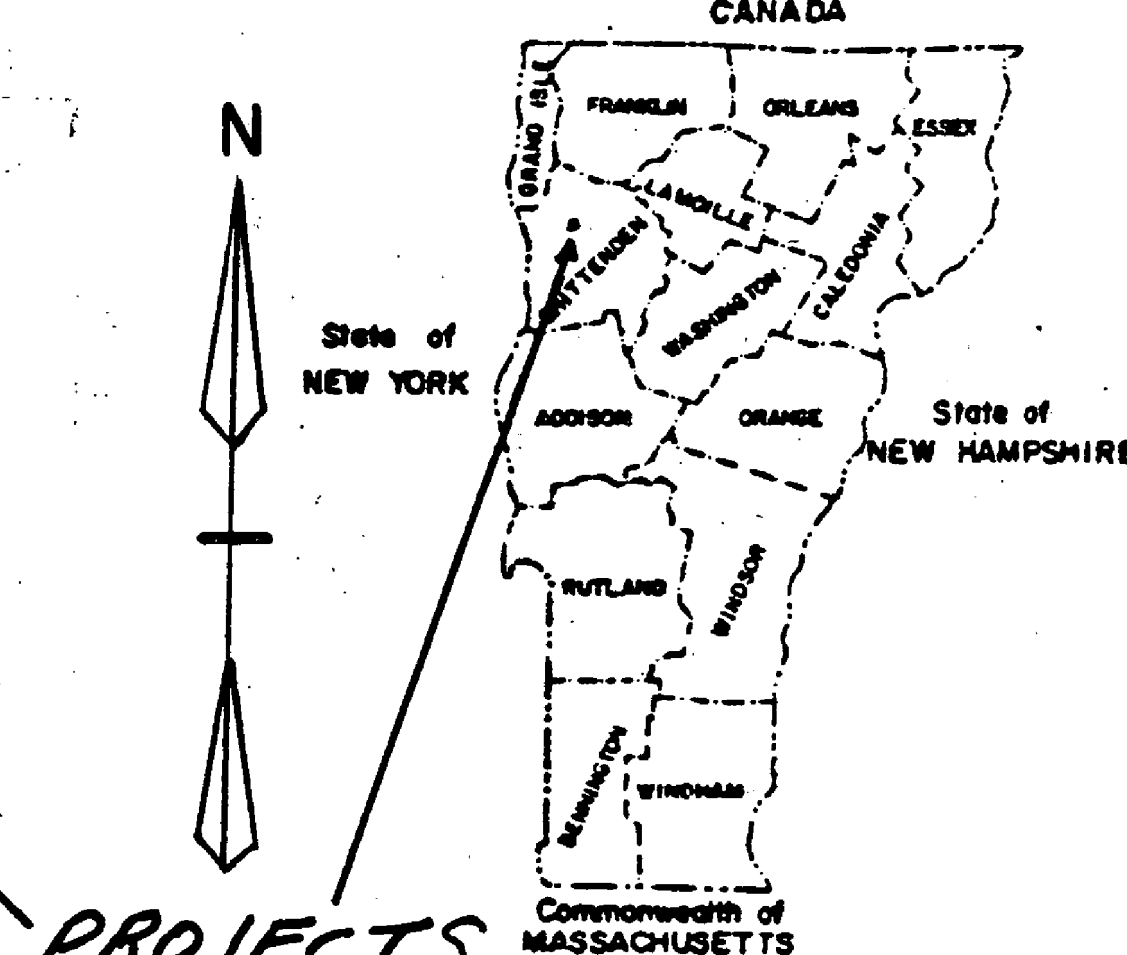
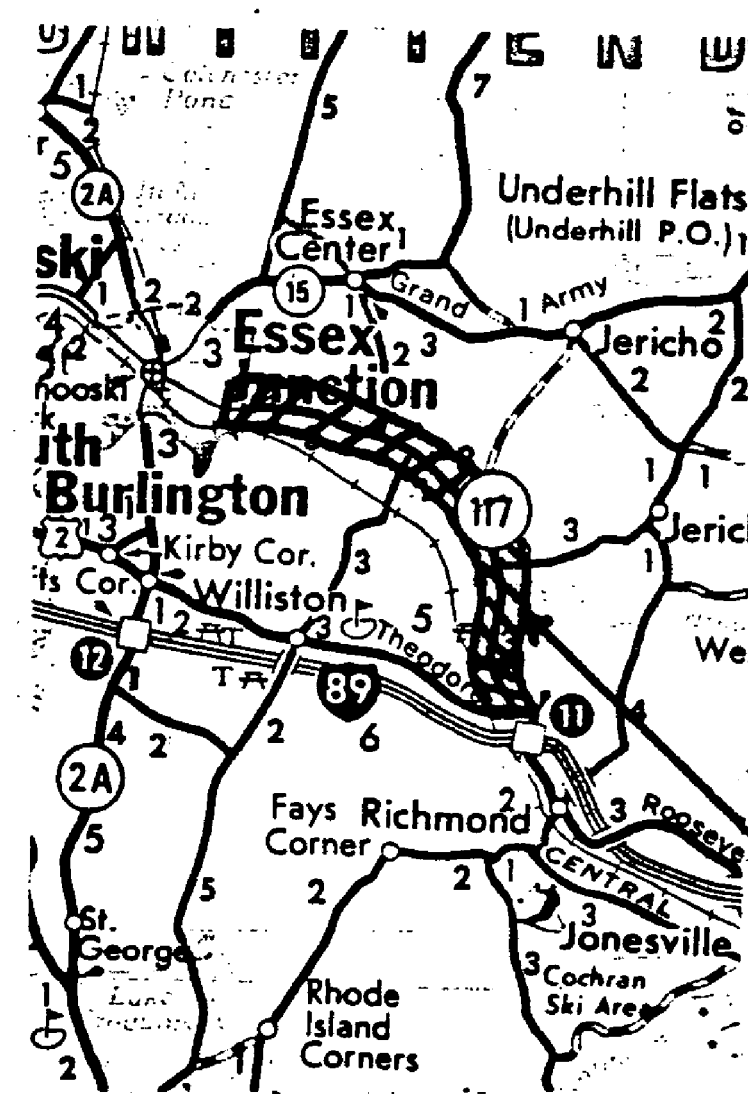
Title
PROPOSED IMPROVEMENT
RESURFACING PROJECT
Transportation Secretary's Signature

TOWNS OF: ESSEX & ESSEX - JERICHO - RICHMOND

COUNTY OF: CHITTENDEN

ROUTE NO: VT. ROUTE 117

ROUTE CLASS: FAU - FAS



PROJECTS



1 INCH REPRESENTS 5 MILES

INDEX OF SHEETS

SEE SHEET TWO

These plans are subject to such engineering changes as may be required by the Federal Highway Administration or the Director of Engineering and Construction.

Construction is to be carried on in accordance with these plans and the Standard Specifications for Highway and Bridge Construction dated March, 1976, as approved by the Federal Highway Administration on October 27, 1976 for use on this project, including all subsequent revisions and such revised specifications and special provisions as are incorporated in these plans.

SUBMITTED BY ORDER OF THE STATE TRANSPORTATION BOARD

APPROVED S. J. Gage P.E. DATE 9-10-84
DIRECTOR OF ENGINEERING AND CONSTRUCTION

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED _____ DATE _____
DIVISION ADMINISTRATOR

PROJECT NO. M 5400 (3) S.
RS 022-113

SHEET 1 OF 60 SHEETS

PROJECT PROCESSED UNDER
SECONDARY ROAD PLAN

STATE OF VERMONT
AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT

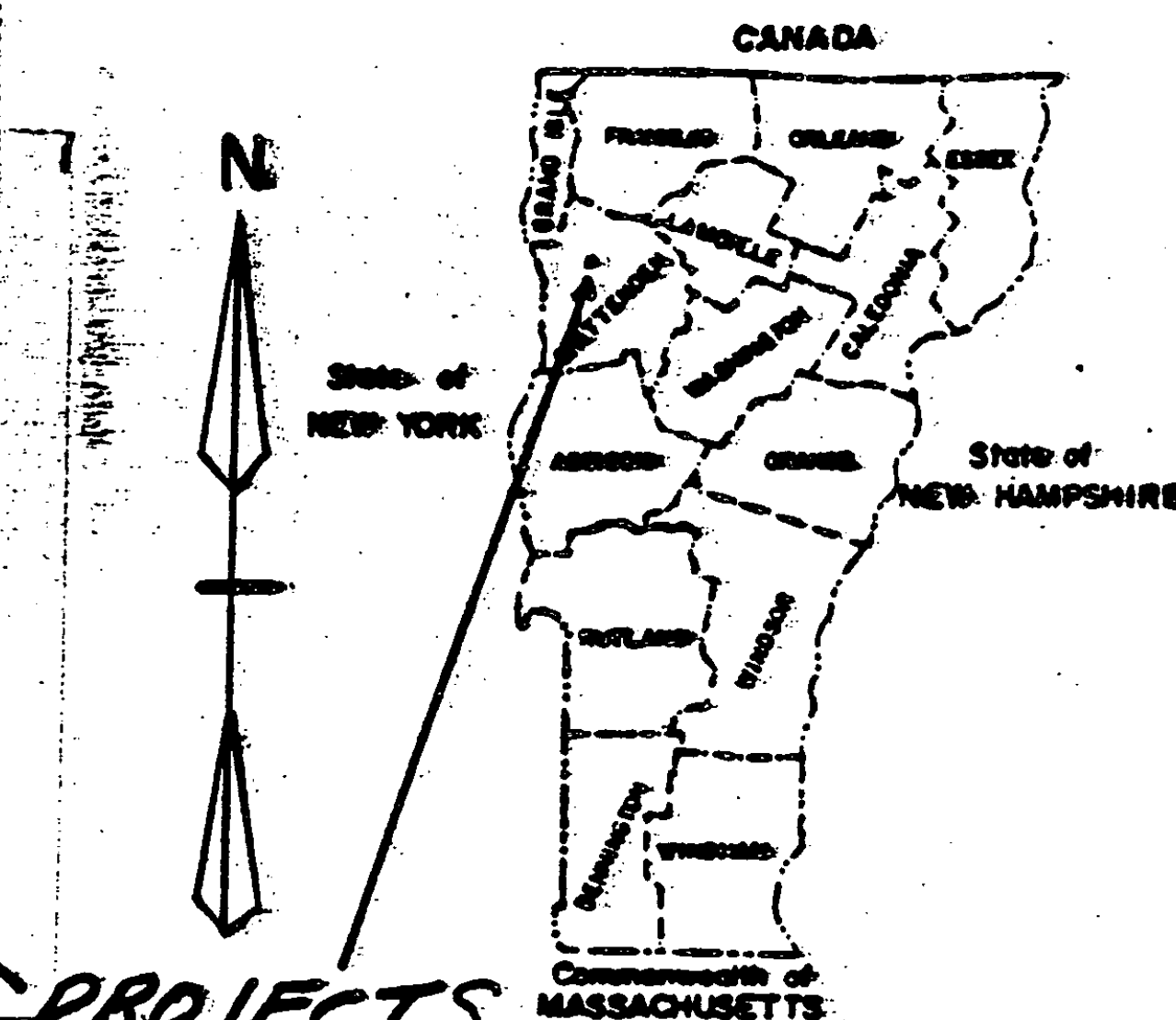
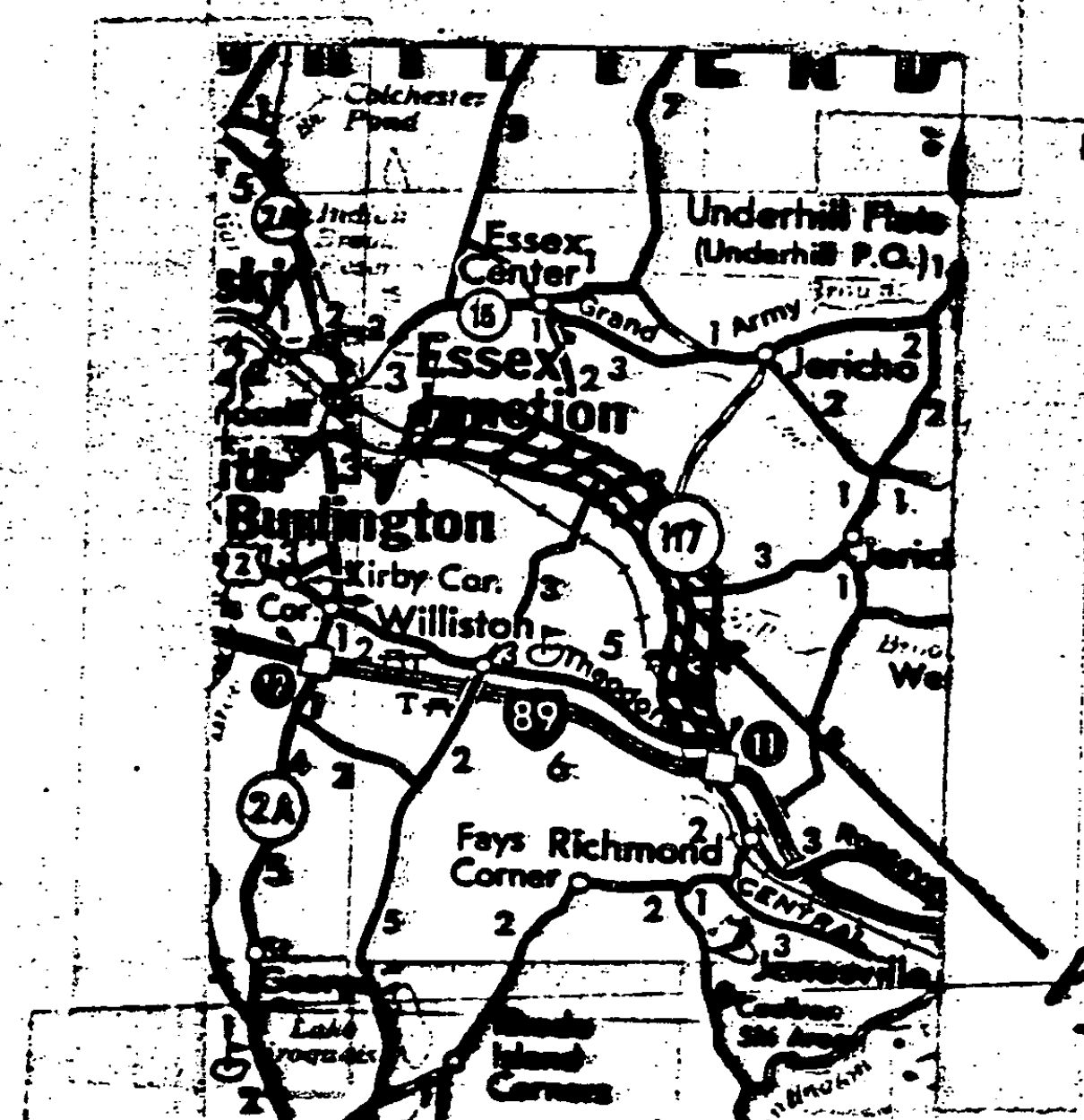
RESURFACING PROJECT

TOWNS OF: ESSEX & ESSEX - JERICHO - RICHMOND

COUNTY OF: CHITTENDEN

ROUTE NO: VT ROUTE 117

ROUTE CLASS: F4U - FAS



PROJECT PROCESSED UNDER
SECONDARY ROAD PLAN

PROJECTS

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5 0 5 10

1 INCH REPRESENTS 5 MILES

INDEX OF SHEETS

SEE SHEET TWO

SUBMITTED BY ORDER OF THE STATE TRANSPORTATION BOARD

APPROVED _____ DATE _____
DIRECTOR OF ENGINEERING AND CONSTRUCTION

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED _____ DATE _____
DIVISION ADMINISTRATOR

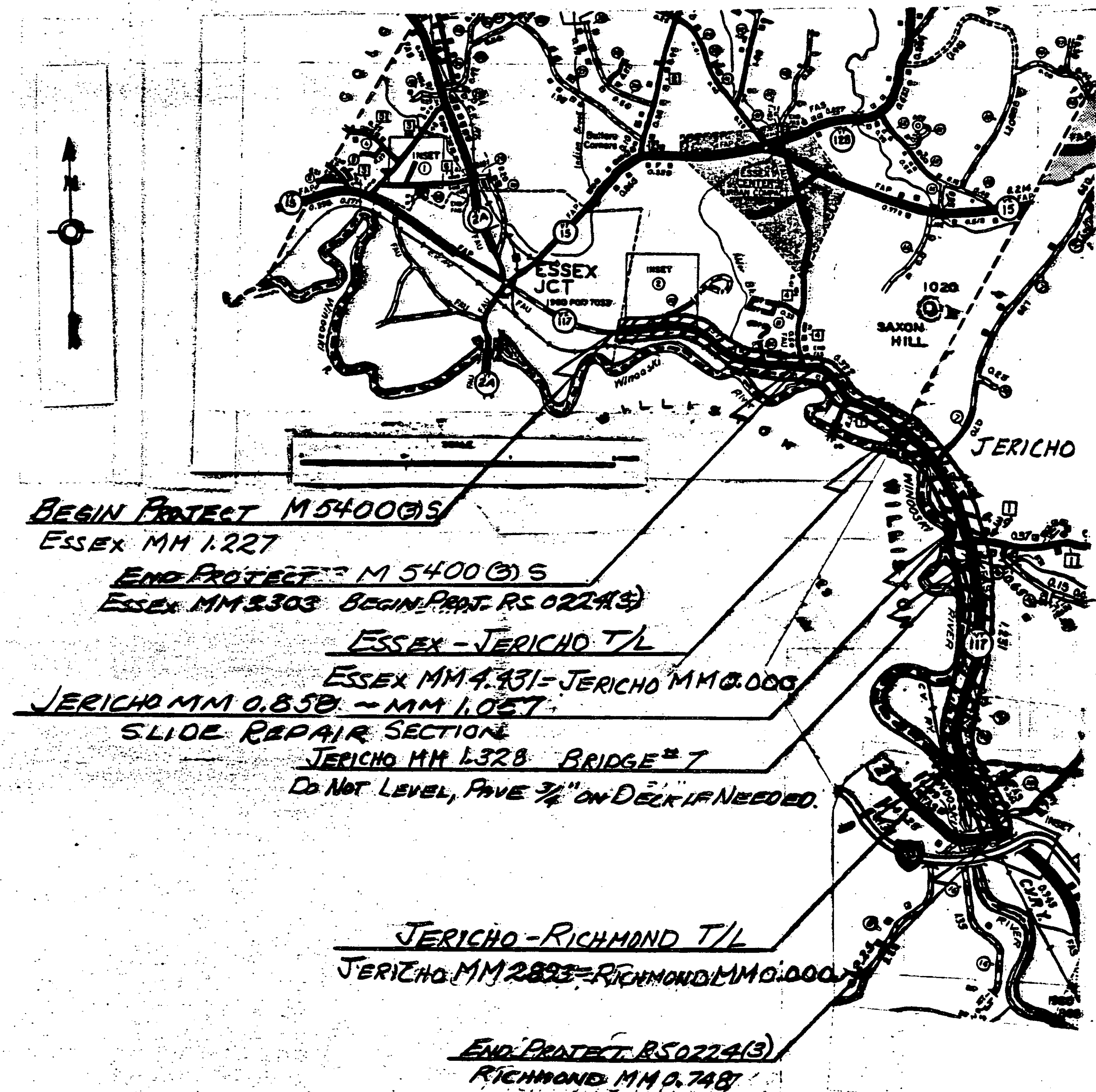
PROJECT NO. M 5400 (3) S -
RS 0224 (3)

SHEET 1 OF 60 SHEETS

INDEX OF SHEETS

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42.	Standard Sheet D-6	04/04/73 R
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44.	Standard Sheet E-2	03/04/81 R
45.	Standard Sheet E-6	04/01/80 R
46.	Standard Sheet E-7A	04/08/82 R
47.	Standard Sheet E-8	11/23/81 R
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51.	Standard Sheet G-1	12/16/80 R
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PROJECT DESCRIPTION AND LOCATION



PROJECT LOCATION

ESSEX

BEGINNING AT MM 1.227 ON VT. 117 IN ESSEX - THE ESSEX JCT VILLAGE LINE - AND PROCEEDING SOUTHEASTERLY 2.076 MILES TO MM 3.303 - THE JCT. WITH TH-4.
PROJECT LENGTH = 10,960' = 2.076 MI.

ESSEX - JERICHO - RICHMOND RS 0224(3)

BEGINNING AT MM 3.303 ON VT. 117 IN ESSEX - THE JCT. WITH TH-4 - AND PROCEEDING SOUTHEASTERLY 4.769 MILES TO RICHMOND MM 0.748 - THE JCT. OF VT. 117 AND US 2.
PROJECT LENGTH = 25,182' = 4.769 MI.

ESSEX

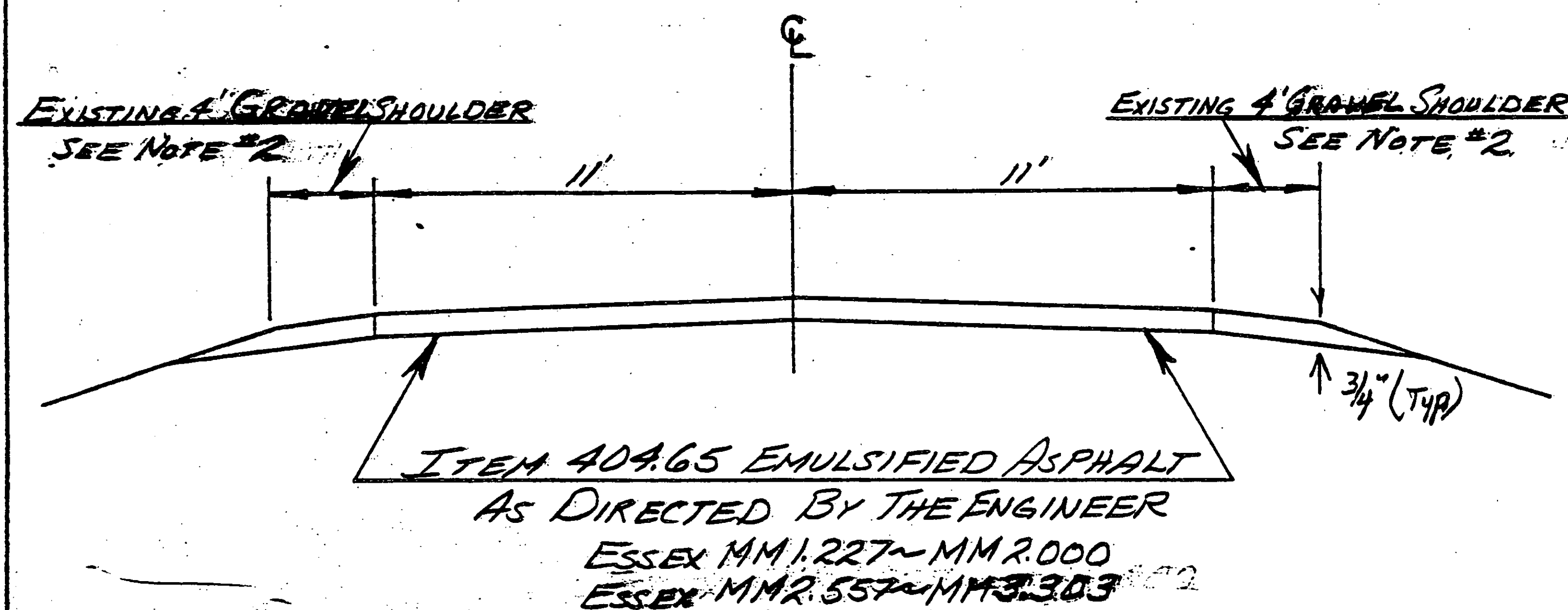
PROJECT ESSEX - JERICHO - RICHMOND

NO. M 5400(3) S
RS 0224(3)

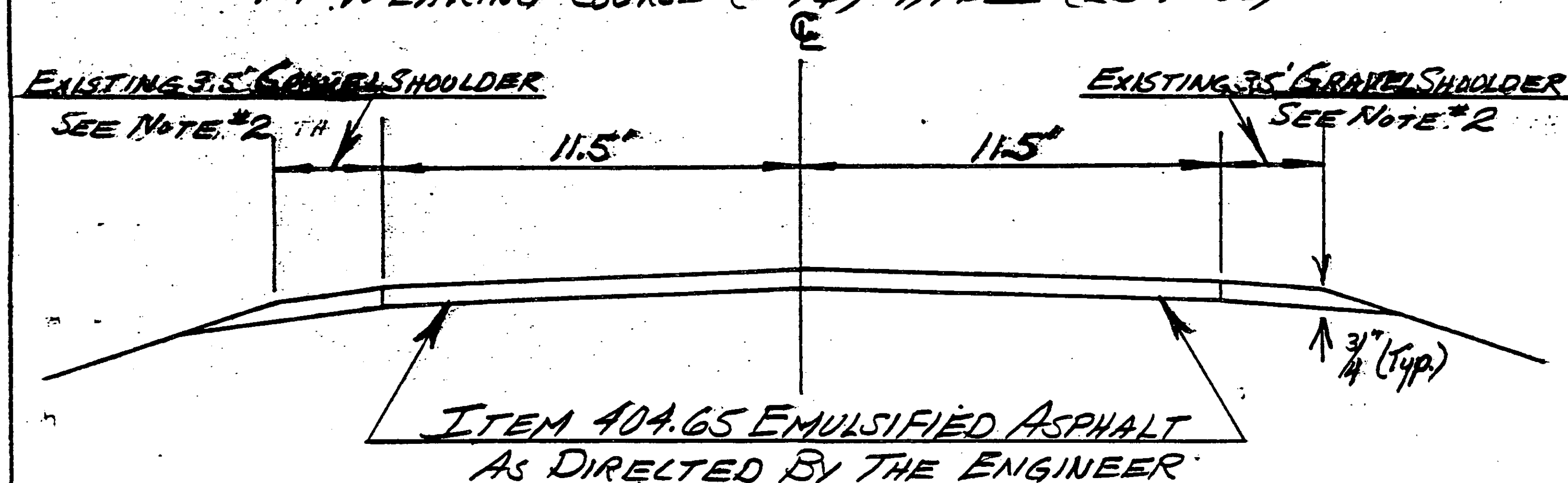
SHEET 3 OF 60 SHEETS

TYPICAL SECTIONS & DESIGN DATA

ITEM 406.25, BITUMINOUS CONCRETE PAVEMENT
LEVELING COURSE, TYPE III OR IV (22' WIDE), EST. 250 TONS/MI.
AS DIRECTED BY THE ENGINEER. *SEE NOTE #1
1 1/4" WEARING COURSE ($\pm 1/4$ ") TYPE III (22' WIDE)



ITEM 406.25, BITUMINOUS CONCRETE PAVEMENT
LEVELING COURSE, TYPE III OR IV (23' WIDE), EST. 250 TONS/MI.
AS DIRECTED BY THE ENGINEER. *SEE NOTE #1
1 1/4" WEARING COURSE ($\pm 1/4$ ") TYPE III (23' WIDE)



ESSEX MM 2.000 ~ MM 2.200

TRAFFIC DATA
1982 ADT = 3950
V = 40

NOTE #1: LEVEL COURSE BASED ON 22' WIDE ROADWAY, QUANTITY FACTORED FOR ACTUAL WIDTH.

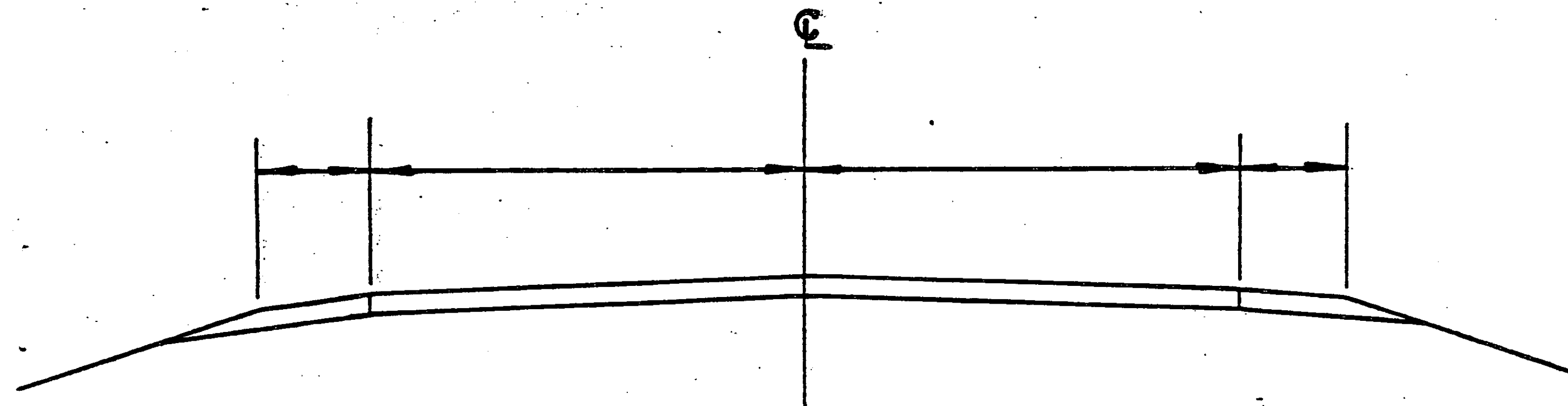
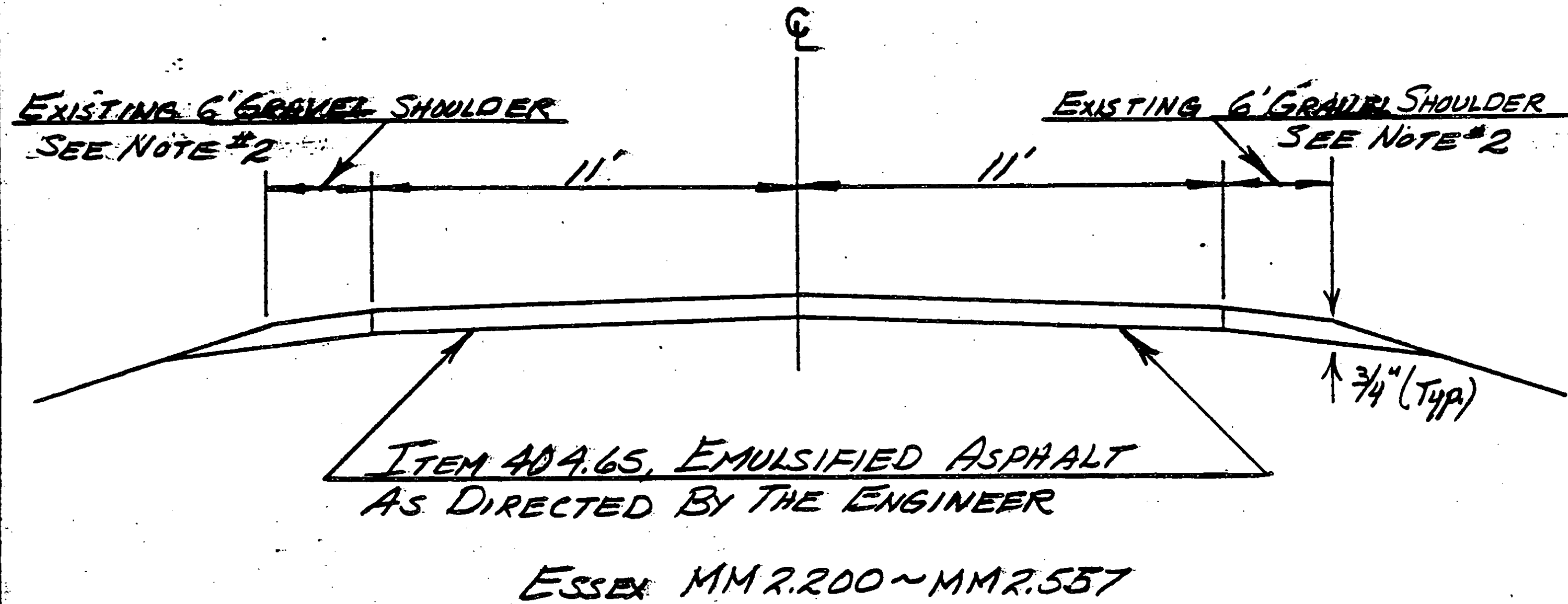
NOTE #2: SHOULDERS TO BE PAVED - REFER TO SHEET 60160 FOR DETAILS.

PROJECT ESSEX

NO. M 5400(3) S
SHEET 4 OF 60

TYPICAL SECTIONS & DESIGN DATA

ITEM 406.25, BITUMINOUS CONCRETE PAVEMENT
 LEVELING COURSE, TYPE III OR IV (22' WIDE), EST. 250 TONS/MI.
 AS DIRECTED BY THE ENGINEER *SEE NOTE #1
 1 1/4" WEARING COURSE ($\pm 1/4"$) TYPE III (22' WIDE)



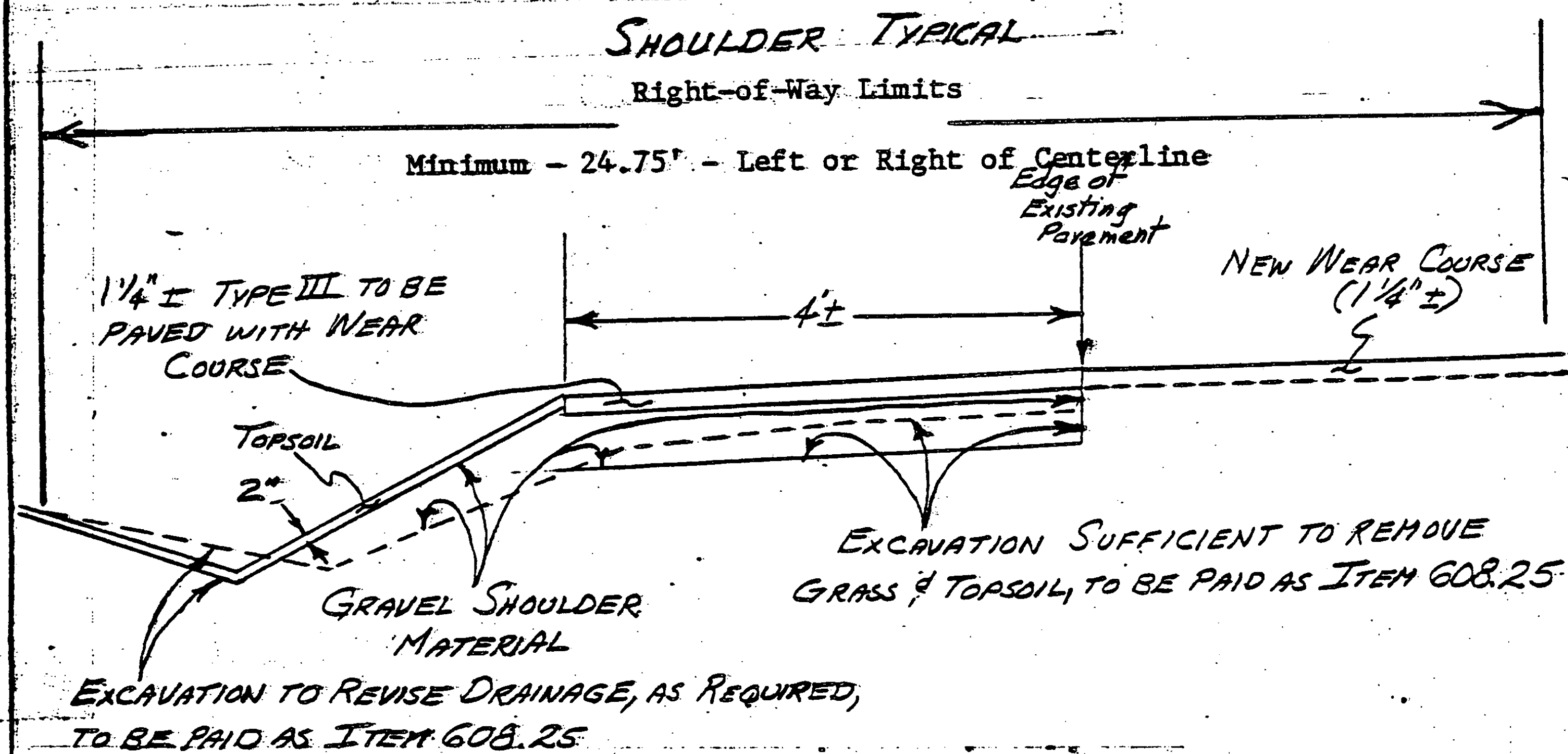
NOTE #1: LEVEL COURSE BASED ON 22' WIDE ROADWAY, QUANTITY FACTORED FOR
 ACTUAL WIDTH

NOTE #2: SHOULDERS TO BE PAVED - REFER TO SHEET 60/60 FOR DETAILS

PROJECT ESSEX

NO. M 5400 (3) S
 SHEET 5 OF 60

TYPICAL SECTIONS & DESIGN DATA



ESSEX - M 5400(3)S

MT 1.227 to MT 3.303

NOTES:

- 1) Where shoulders are less than 4' wide, they may be widened to 4' as long as the existing drainage and a reasonable slope - not greater than 1-1 1/2 - can be maintained. Where a shoulder cannot be reasonably widened to 4', a shoulder as wide as possible will be constructed and paved. Where existing shoulders are wider than 4', the shoulder will be paved as directed by the Engineer and any remainder matched with the item of Shoulder Gravel.
- 2) Where gravel is exposed on the shoulder surface, excavation shall be only to the depth necessary to lay the shoulder pavement.
- 3) If culverts in drives or intersecting roadways are the only reason for not widening the shoulder, there is included a nominal quantity of 50 lf of Item 601.7250- Relaying Pipe Culvert- which will be full compensation for all necessary equipment, materials, and labor to remove the culvert and relay it in the location designated by the Engineer.
However, if the excavated material is unsuitable for use as backfill, suitable backfill will be obtained and it will be paid for at the Contract Price for Gravel Shoulders under whichever option is bid. A nominal quantity of 50 cy has been included in the gravel quantity for this purpose.
- 4) It is expected that the Contractor and/or his employees will use care in excavating any culverts to be relayed or extended. Existing culverts damaged by the Contractor's operations will be replaced at the Contractor's expense.

Shoulder Sheet 1 of 2

NO. M 5400 (3) S

PROJECT ESSEX

SHEET 6 OF 60 SHEETS

TYPICAL SECTIONS & DESIGN DATA

NOTES (continued)

5) In the event that a drive or intersection culvert is designated by the Engineer to be relayed; there are included in the contract three sizes of each of three types of culvert- CGMP, CAACP, or RCP, Class III-which may be used to replace a poor condition culvert designated to be relayed.

6) If it becomes necessary to extend a roadway or other culvert to match new slopes, the work will be paid for in the following manner:

- A) Excavating and backfilling will be paid at the contract price for Item 608.25- All Purpose Excavator Rental.
- B) Backfill material will be paid at the contract price for Gravel Shoulders.
- C) The additional length of culvert will be paid at the contract price for the size and type used, which will be full compensation for furnishing and installing the new culvert at the location of the extension designated by the Engineer.

7) Items 651.10-Seed(Urban Mix), 651.15-Fertilizer, 651.20-Agricultural Limestone, 651.25-Hay Mulch, and 653.10-Topsoil- have been included in the contract to restore lawns and the roadside to an attractive appearance. See sheet 10 of 60 sheets.

8) It is expected that the shoulder work, including excavating, filling, compacting the shoulder gravel, extending and/or relaying culverts, and as much of the Turf Establishment as possible will be done after the level course of pavement is done on the main roadway, so that the wear course may be paved on both the roadway and the shoulders at the same time.

9) Item 608.37-Truck Rental- has been estimated on the basis of using two trucks with the All Purpose Excavator on the shoulder work to complete the work as soon as possible in an effort to minimize the conflict with the traveling Public. This item will not be used to pay for the hauling of Shoulder Gravel or Topsoil.

10) There is included in Item 406.25-Bituminous Concrete Pavement- a quantity of 30 tons to be used to patch pavements in side streets or drives where relaying of culverts is necessary and to build 25' tapers before the beginning point and after the ending point of each section of paved shoulder.

II) Limits of right-of-way is 24.75 feet minimum, left and right of centerline of roadway. Resident Engineer will contact the Agency of Transportation, Right-of-Way Division and property owners before anticipated widening for the four (4) paved shoulders.

- A) Do not exceed right-of-way limits, varies, for ditch widening.
- B) Do not exceed right-of-way limits, varies, for fill slope construction.

Shoulder Sheet 2 of 2

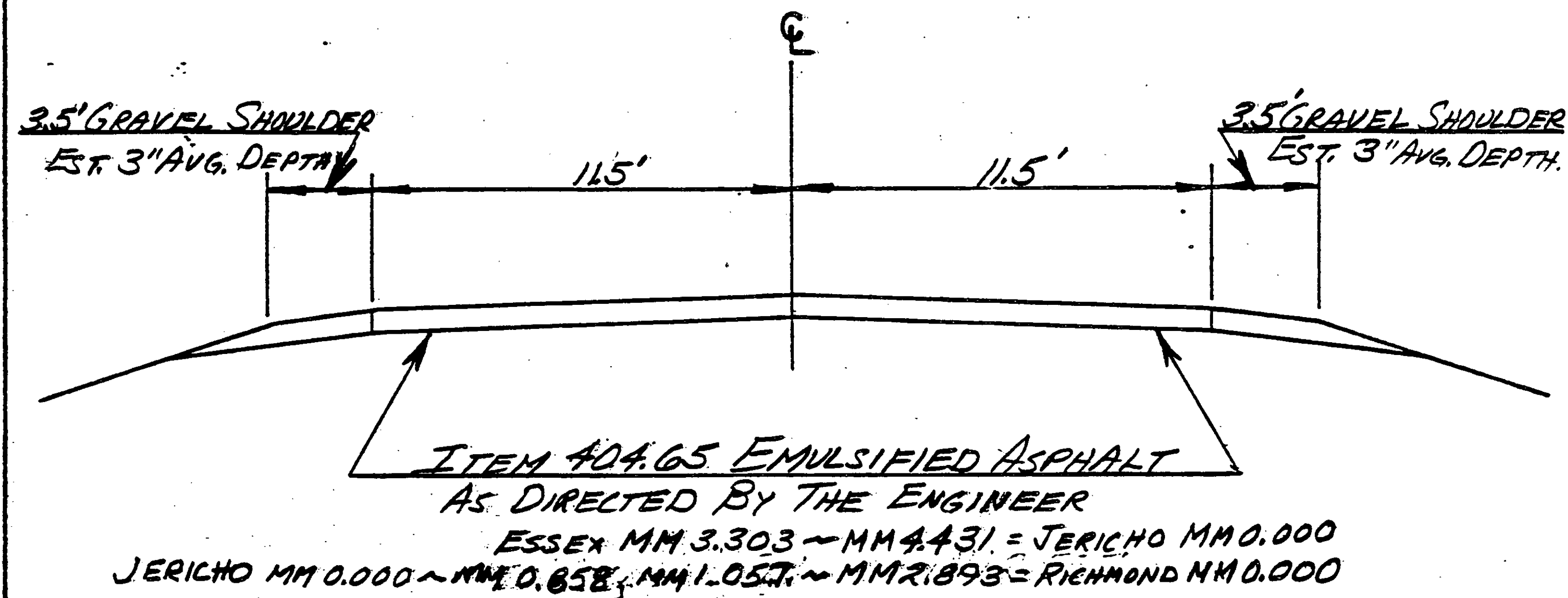
NO. M 5400(3) S

PROJECT ESSEX

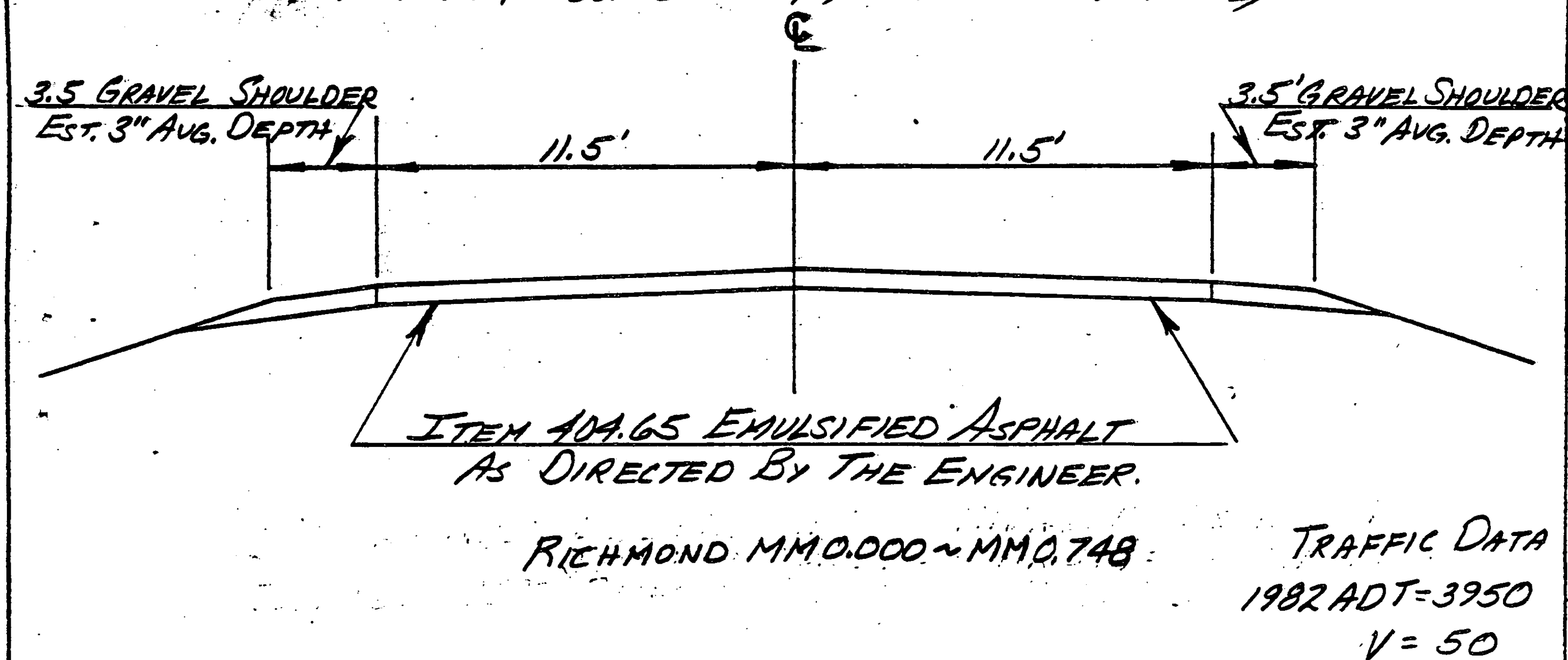
SHEET 7 OF 60 SHEETS

TYPICAL SECTIONS & DESIGN DATA

ITEM 406.25, BITUMINOUS CONCRETE PAVEMENT
LEVELING COURSE, TYPE III OR II (22' WIDE), EST. 150 TONS/MI.
AS DIRECTED BY THE ENGINEER *SEE NOTE #1
1/4" WEARING COURSE ($\pm 1/4"$) TYPE III (23' WIDE)



ITEM 406.25, BITUMINOUS CONCRETE PAVEMENT
LEVELING COURSE, TYPE III OR II (23' WIDE), EST. 250 TONS/MI.
AS DIRECTED BY THE ENGINEER *SEE NOTE #1
1/4" WEARING COURSE ($\pm 1/4"$) TYPE III (23' WIDE)



NOTE #1: LEVEL COURSE BASED ON 22' WIDE ROADWAY, QUANTITY FACTORED FOR ACTUAL WIDTH.

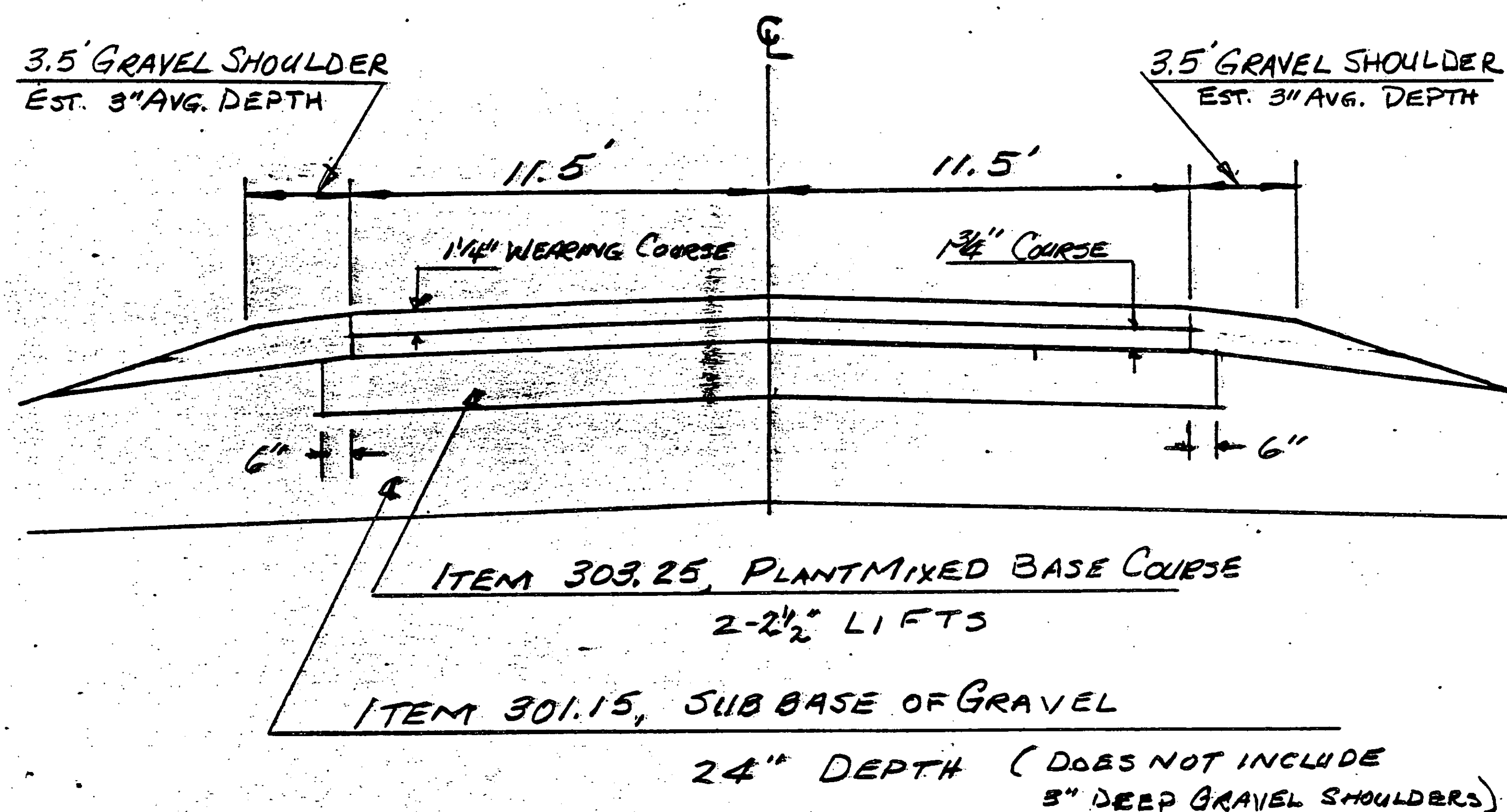
TYPICAL SECTIONS & DESIGN DATA

ITEM 406.25, BITUMINOUS CONCRETE PAVEMENT
3" DEPTH - TO BE LAID IN TWO COURSES - 23' WIDE

1 - 1 3/4" COURSE (1 1/4") TYPE II

1 - 1 1/4" WEARING COURSE (1 1/4") TYPE III

NOTE: ESTIMATE FOR THIS SECTION DOES NOT
INCLUDE 1 1/4" WEARING COURSE OR GRAVEL SHOULDERS
THESE ARE TO BE CONTINUOUS WITH ADJACENT
AREAS. SEE SHEET 20 OF 60.



JERICO MM 0.858 ~ MM 1.057

TRAFFIC DATA

1982 ADT 3340

V 50

SEEDING FORMULA, ITEM 651.10
URBAN AREAS

% WT	LBS/A	NAME	PUR%	GERM%
37.50	30	· CREEPING RED FESCUE (VAR. PENNLAWN)	98	85
31.25	25	KENTUCKY BLUEGRASS (VAR. COMMON)	85	75
31.25	25	PERENIAL RYE GRASS (VAR. PENNFINE)	95	90
100.00	80 LBS/ACRE			

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

HAY MULCH, ITEM 651.25 TO BE PLACED ON ALL EARTH SLOPES AT THE RATE OF TWO TONS PER ACRE

FERTILIZER, ITEM 651.15, SHALL BE MIXED AS FOLLOWS: (SAND FORMULA)

NITROGEN 10%

PHOSPHORUS 20%

POTASH 20%

FERTILIZER SHALL BE DELIVERED IN BAGS NOT TO EXCEED 100LBS EACH AND IS TO BE APPLIED AT RATE OF 500LBS. PER ACRE.

AGRICULTURAL LIMESTONE, ITEM 651.20, TO BE APPLIED TO ALL EARTH SLOPES AT THE RATE OF TWO TONS PER ACRE OR AS DIRECTED BY THE ENGINEER.

TOPSOIL, ITEM 653.10 TO BE USED WITH SEED, ITEM 651.10 IN RESIDENTIAL AREAS, AS DIRECTED BY THE ENGINEER.

PROJECT ESSEX

NO M 5400(3)S

SHEET 10 OF 60

SEED, ITEM 651.10
TO BE APPLIED AS DIRECTED BY THE ENGINEER

%WT	LBS/A	NAME	PUR%	GERM%
3.33	2	CROWN VETCH	97	75
50.00	30	CREeping RED FESCUE	98	85
8.33	5	TIMOTHY	99	85
16.67	10	PERENNIAL RYE GRASS(VAR. PENNFINE)	95	85
8.34	5	ALFALFA (VAR. SARANAC)	99	85
8.33	5	BIRDSFOOT TREFOIL (VAR. EMPIRE)	98	85
5.00	3	HIGHLAND BENT GRASS	92	85
100.00	60 LBS/ACRE			

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

MARKER POSTS, (WOOD OR STEEL AS SPECIFIED)
TO BE PLACED AS DIRECTED BY THE ENGINEER.

FERTILIZER, ITEM 651.15 (STANDARD FORMULA)
FORMULA 10-20-10 TO BE USED WITH SEED, ITEM 651.10.
ITEM 651.15 APPLIED AT THE RATE OF 500 LBS/ACRE.

AGRICULTURAL LIMESTONE, ITEM 651.20
TO BE APPLIED AT RATE OF 2 TONS/ACRE
OR AS DIRECTED BY THE ENGINEER.

HAY MULCH, ITEM 651.25
TO BE PLACED ON EARTH SLOPES AT THE RATE OF
2 TONS/ACRE.

TOPSOIL, ITEM 653.10
TO BE USED WITH SEED, ITEM 651.10 IN RESIDENTIAL
AREAS, AS DIRECTED BY THE ENGINEER.

PROJECT LENGTHS AND ITEM QUANTITIES

ITEM DESCRIPTION	ITEM QUANTITIES																REMARKS
	LENGTH	WIDTH	OVERLAY DEPTH	STABILIZED BASE	GRAVEL SHOULDERS	EMULSIFIED ASPHALT	BITUMINOUS CONCRETE PAVEMENT	CHANGE ELEV. OF CB, DI, OR MI	ALL PURPOSE EXC. RENTAL, TYPE I	POWER BROOM RENTAL	EXTRAINED TRAFFIC OFFICERS	MOBILIZATION	TEMPORARY PAVEMENT MARKING - WHITE	TEMP. PATT. MARKING - YELLOW			
ITEM NUMBER	311.10	402.10	402.11	404.65	406.25	604.40	608.25	608.30	630.10	630.15	635.10	646.35	646.36				
UNIT	FEET	FT	INCH	S.Y.	CY	TON	CWT	TON	EA	HR	HP	HR	HP	LS	LF		
LOCATION																	
COMPOSITE ESTIMATE																	
ESSEX H 5400(3)S	10,960	22	1 1/4		2300	3795	85	3600	5	120	120	300	300		21,950	30,500	
ESSEX JER. - RICHMOND RS 0224(3)	25,182	23	1 1/4		2330	3845	170	5550	2	10	45	150	150		50,400	79,600	
JERICHO RS0224								135				26	26			SLIP AREA 1 3/4" TYPE II, BINDER	
TOTALS - PAGE	36,142				4,630	7640	255	9285	7	130	160	476	476	1	72,350	110,100	
PROJECT <u>ESSEX JERICHO RICHMOND</u> NUMBER <u>RS 0224(3)</u> SHEET <u>12</u> OF <u>60</u>																	

PROJECT LENGTHS AND ITEM QUANTITIES

ITEM DESCRIPTION		PROJECT LENGTHS AND ITEM QUANTITIES																		REMARKS
ITEM NUMBER	UNIT	FT	HR	LB	LB	TON	TON	CY	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF		
LOCATION																				
ESSEX																				
H. 5400(3)S			200	120	1000	4	4	400	150	50	50	50	50	50	50	50	50	50		
ESSEX-JER-RICHMOND																				
RS 0224 (3)																				
JERICHU RS0224(3)						3	3											SLIP AREA		
																		SLIP AREA		
JERICHU RS0224 (3)							3											TEMP EROSION CONT.		
TOTALS PAGE			200	120	1000	7	10	400	150	50	50	50	50	50	50	50	50	50		

PROJECT LENGTHS AND ITEM QUANTITIES

ITEM DESCRIPTION	ITEM NUMBER	UNIT	FEET	FT	LENGTH	WIDTH	REMOVAL AND DISPOSAL OF EXISTING GUARD RAIL	COMMON EXCAVATION	SAND BORROW	GRANULAR BORROW	ROCK BORROW	GRAY DUFFILL FOR SLOPE STAB.	TRENCH EXCAV. OF EARTH	SUBBASE OF ROCK	PLANT MIXED GRAVEL	CONCRETE BASE COURSE	REINFORCING STEEL	18" ACCOMP .064	24" ACCOMP .064	18" RCP CLASS III	CAST IRON GRATE	W/FRAME TYPE A	REMARKS
					202.40	203.15	203.31	203.32	203.33	203.35	204.20	204.21	301.15	303.25	501.25	507.15	601.1552	601.1572	601.2413	604.45			
					LF	CY	CY	CY	CY	CY	CY	CY	TON	CY	LB	LF	LF	LF	EA				
					COMPOSITE ESTIMATE																		
Essex M/5400(3)S																							
Essex, Jer- Richmond RS 0224(31																							
Jericho RS0224(3)					737	8700	350	6500	14000	550	80	10	3000	800	5	296	78	12	8	1			SLIP AREA
																							NOTE: FOR DETAILED SUMMARY OF QUANT. IN SLIP AREA SEE SHEETS 24 & 25 of 60.
TOTALS PAGE					737	8700	350	6500	14000	550	80	10	3000	800	5	296	78	12	8	1			

PROJECT LENGTHS AND ITEM QUANTITIES

ITEM DESCRIPTION	ITEM NUMBER																		REMARKS
UNIT	FEET	FT	CY	LF	EA	EA	LF	EA	LF	EA	SY	LB	LB	LB	LF	LF	LS		

PROJECT LENGTHS AND ITEM QUANTITIES

ITEM DESCRIPTION

LENGTH

WIDTH

TEMP. BARRIER RAIL

DURABLE 4" REFL. YELLOW LINE

DURABLE 8" REFL. WHITE LINE

DURABLE PAVEMENT MARKINGS

TRAFFIC SIGN POSTS TYPE A

REMOVING SIGNS

SETTING SALV. POSTS

ERECTING SALV. SIGNS TYPE A

REMOVE AND REPLACE DELINEATORS TYPE A

GUARD RAIL

ITEM NO

UNIT

LOCATION

621.36

646.61

646.62

646.70

675.35

675.53

675.55

675.60

676.13

LF

LF

LF

SF

LB

EA

EA

SF

EA

COMPOSITE

ESSEX M 5400(3)S
MM 1.45 ~ MM 218 RT
MM 2.58 ~ MM 269 RT

140

15

10

80

58

M 540(3)S

ESSEX - JERICHO -
RICHMOND RS0224(3)

550

60

200

140

10

5

40

1000

SLIP AREA (EST)

1000

550

60

200

280

25

15

120

58

ESSEX

M 5400(3)S

PROJECT ESSEX - JERICHO - RICHMOND

NO. RS 0224(3)

SHEET 14 OF 60

PROJECT LENGTHS AND ITEM QUANTITIES

ITEM DESCRIPTION		OPTION														REMARKS
ITEM NUMBER	UNIT	FEET	FT	INCH	C.Y.	TON	CWT	TON	EA	HR	HR	HR	HR	LS	L.F.	
LOCATION																
Essex MM1.227~MM1.800	4080	22					25	213								LEVELING @250 TONS/Mi.
		22	1 1/4					623								WEAR COURSE
Essex MM2.000~MM2.200	1056	23					7	58								LEVELING @250 TONS/Mi.
		23	1 1/4					187								WEAR COURSE
Essex MM2.200~MM2.557	1883	22					11	98								LEVELING @250 TONS/Mi.
		22	1 1/4					320								WEAR COURSE
Essex MM2.557~MM3.303	3941	22					24	205								LEVELING @250 TONS/Mi.
		22	1 1/4					669								WEAR COURSE
DRIVES & APPROACHES					100	165		250								
PROJECT (EST)								1100	5	20	17	62	62	0	21922	SEE SHEET 60160 FOR DETAILS
SHOULDERS - PROJECT					2200	3630	15	806*		90	100	200	200			*INCLUDES ALLOWANCE FOR TAPERS & PATCHING
ROUNDING							3	101		10	3	38	38		28	
TOTALS PAGE	10,960				2300	3795	85	3600	5	120	120	300	300	0	21950	

PROJECT LENGTHS AND ITEM QUANTITIES

ITEM DESCRIPTION	ITEM NUMBER																			REMARKS
	646.36	608.37	651.10	651.15	651.20	651.25	653.10	601.7250	601.1802	601.1822	601.1833	601.2052	601.2072	601.2083	601.2623	601.2643	601.2653			
UNIT	L.F.	FT	HR	LB	LB	TON	TON	CY	LF	LF	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.		
LOCATION																				
PROJECT EST.	30,485																			
SHOULDERS - PROJECT			180	120	1000	4	4	400	150	50	50	50	50	50	50	50	50	50		
ROUNDING	15		20																	
TOTALS PAGE	30,500		200	120	1000	4	4	400	150	50	50	50	50	50	50	50	50	50		

PROJECT LENGTHS AND ITEM QUANTITIES

ITEM DESCRIPTION

LENGTH

WIDTH

TRAFFIC SIGN POSTS, TYPE A

REMOVING SIGNS

SETTING SALVAGED POSTS

ERECTING SALV. SIGNS, TYPE A

REMOVE AND REPLACE GUARD RAIL DEW EATORS, TYPE A

ITEM NO

UNIT

LOCATION

PROJECT EST

675.35

675.53

675.53

675.60

676.13

LB

EA

EA

SF

140

15

10

80

58

NOTE: SEE SHEET 37 OF 60
FOR DETAILS REGARDING
ITEMS ON THIS SHEET

TOTAL

140

15

10

80

58

PROJECT ESSEX

NO. M5400(3) S

SHEET 19 OF 60

PROJECT LENGTHS AND ITEM QUANTITIES

ITEM DESCRIPTION		OPTION														REMARKS
ITEM NUMBER	UNIT	FEET	FT	INCH	C.Y.	TON	CWT	TON	EA	HR	HR	HR	HR	LS	L.F.	
LOCATION																
ESSEX MM 3.303 ~ MM 4.431		10486	23				67	312								LEVEL 150T/M1
JERICHO MM 0.000 ~ MM 0.858			23	1 1/4				1860								WEAR COURSE
					680	1122										3.5' GRAVEL SHOULDERS
JERICHO MM 0.858 ~ MM 1.057		1052	23				7	0								NO LEVEL IN SLIP AREA -
			23	1 1/4				187								WEAR COURSE TO BE
					68	113										PAVED CONTINUOUS
JERICHO MM 1.057 ~ MM 2.893		9694	23				61	288								LEVEL 150T/M1
			23	1 1/4				1719								WEAR COURSE
					628	1036										3.5' GRAVEL SHOULDERS
RICHMOND MM 0.000 ~ MM 0.748		3950	23				25	196								LEVEL @ 250T/M.
			23	1 1/4				701								WEAR COURSE
					841	1388										3.5' GRAVEL SHOULDERS
DRIVES & APPROACHES					100	165		200								
PROJECT (EST)								50*	2	10	38	139	139		50,361	* FOR CURBS & GUTTERS
ROUNDING					13	21	10	37			2	11	11		39	
TOTALS PAGE		25182			2330	3845	170	5550	2	10	40	150	150		50400	

PROJECT LENGTHS AND ITEM QUANTITIES

ITEM DESCRIPTION	ITEM NUMBER	LENGTH WIDTH TEMPORARY PAVEMENT MARKING YELLOW DURABLE 24" STOP BAR DURABLE LETTER IN WORD MARKING DURABLE 4" REFL. YELLOW LINE DURABLE 8" REFL. WHITE LINE DURABLE 24" STOP BAR TRAFFIC PAVEMENT MARKINGS REMOVING SIGNS SETTING SALVAGED POSTS ELECTING SALV. SIGNS TYPE A														REMARKS
		UNIT	FEET	FT	L.F.	L.F.	EA	LF	LF	LF	SF	LB	EA	EA	SF	
PROJECT EST					79,572	50		550	60	50	200	140	10	5	40	
							13									
ROUNDING					28											
TOTAL PAGE					79,600	50	13	550	60	50	200	140	10	5	40	1000

RTE 2 & 17
STOP & STOP AHEAD
RICHMOND MM 0.60 RT

NOTE: FOR DETAILS REGARDING
ITEMS 675.35, 675.53, 675.55
& 675.60 SEE SHEET 37 OF 60

NOTE: SEE SHEETS 24 & 25
OF 60 FOR MORE
ITEMS.

PROJECT ESSEX-JERMANO-RICHMOND

NUMBER RS 0224(3)

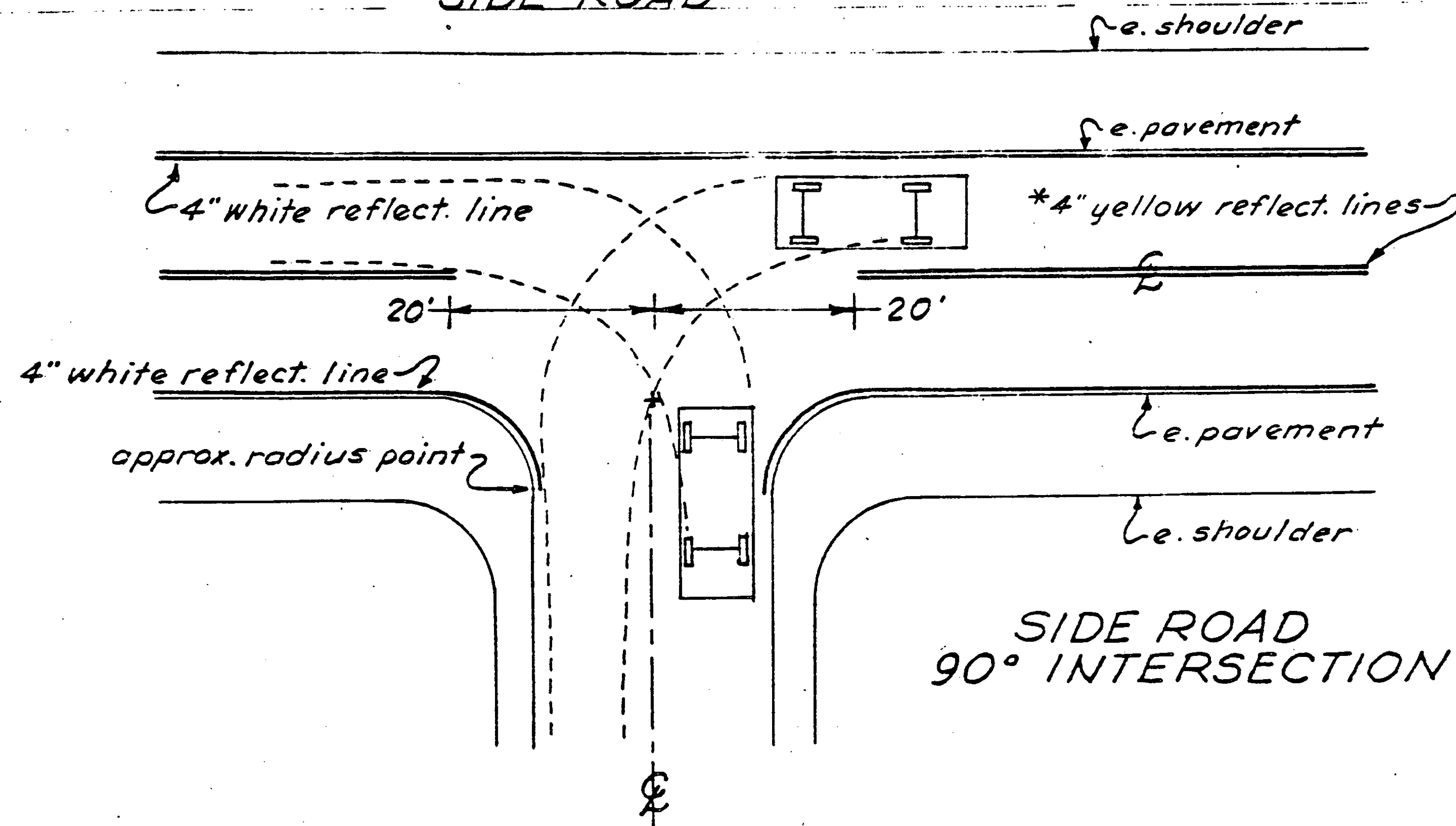
SHEET 21 OF 60

NOTE:

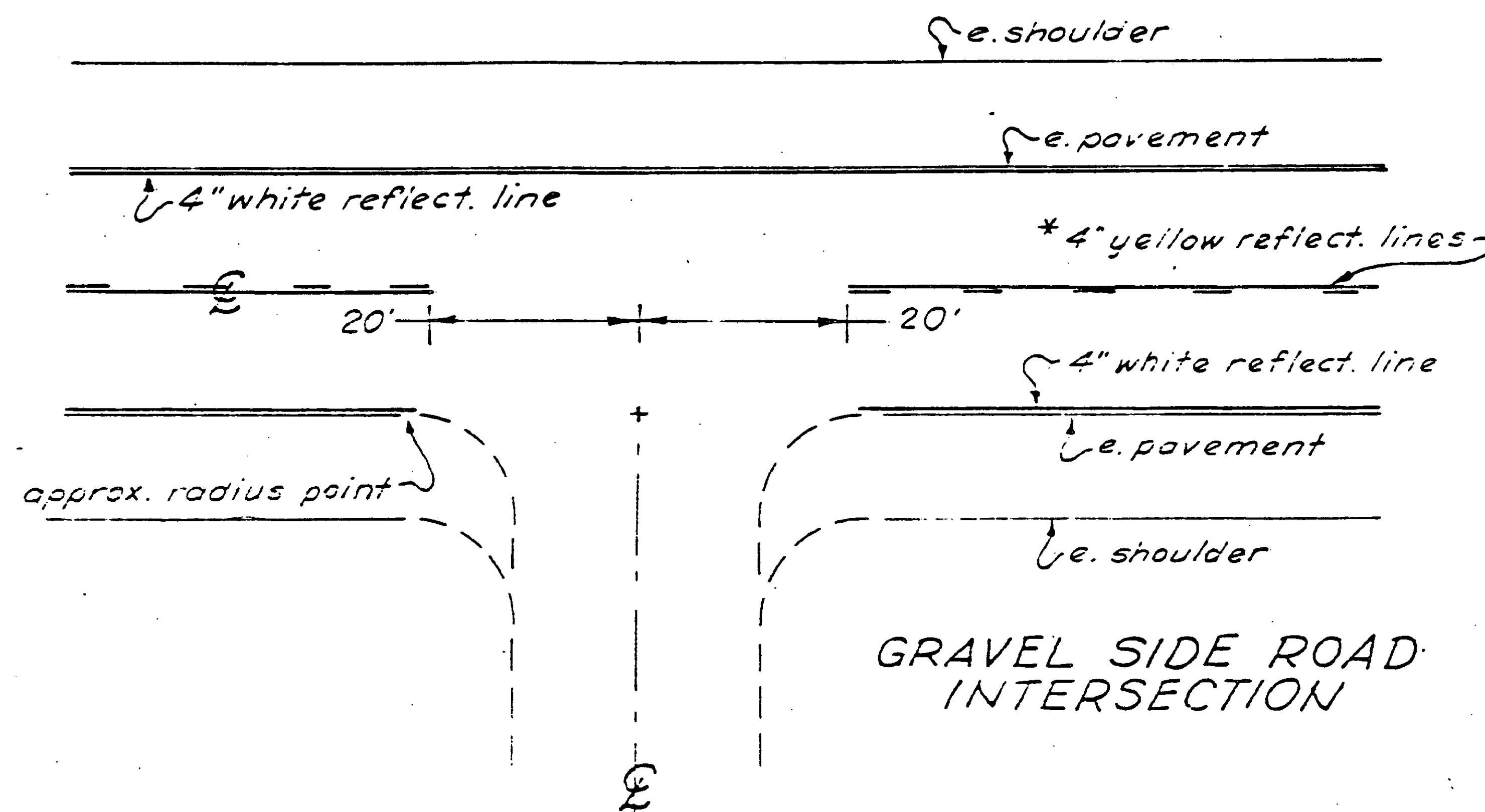
If signs and posts are within the shoulder reconstruction area, they shall be relocated according to Standard Sheet E-29 or the M.U.T.C.D. Payment for removing signs and posts shall be Item 675.53 Removing Signs, EA. Payment for reinstalling signs and post shall be Item 675.60 Erecting Salvaged Signs, Type A, S.F. and Item 675.55 Setting Salvaged Posts, EA. If a new post of adequate length is required, Item 675.35, Traffic Sign Posts Type A, LB. Quantities for this work is estimated. Traffic Design personnel will assist the Resident Engineer in sign placement, if requested.

Essex M 5400(3) S
Essex-Jericho-Richmond RS 0224(3)

Sheet 37 of 60



* Centerline treatment shall consist of a minimum of 400 feet of solid line in advance of the intersection and shall be paired with either a solid or dashed line depending on sight distance availability in the opposing lane.



GUIDELINES FOR MINIMUM INTERIM PAVEMENT MARKINGS
IN CONSTRUCTION ZONES ON FEDERAL-AID PROJECTS

- A. CENTERLINE AND GORE AREA MARKINGS SHALL BE APPLIED AT THE END OF EACH WORKING DAY. THE FOLLOWING LAYOUT REQUIREMENTS SHALL BE MET:

NO PASSING BARRIER

SOLID STRIPES.

DASHED LINE

10-FOOT SOLID LINE WITH 30-FOOT GAP.

SOLID LINE - (GORE AREAS TO INCLUDE CHANNELIZING LINE AND DASHED LINE)

PER STANDARD SHEET E-50.

EDGE LINES

WHERE SPECIFIED EDGE LINES ARE NOT REQUIRED UNTIL COMPLETION OF THE PROJECT. ON INTERSTATE PROJECTS, TEMPORARY EDGE LINES SHOULD BE APPLIED WHERE TRAFFIC VOLUMES AND SPEEDS ARE HIGH AND DELAY OF SEVERAL DAYS IS ANTICIPATED.

- B. TEMPORARY MARKINGS MAY CONSIST OF PAINT, TAPE OR RAISED PAVEMENT MARKERS (RPM'S). THE TAPE SHALL BE A RETRO-REFLECTIVE FILM ON A CONFORMABLE METALIC BACKING THAT CAN BE PAVED OVER. TAPE MAY BE USED ON THE FINAL SURFACE COURSE IF IT WILL NOT INTERFERE WITH THE FINAL MARKING APPLICATION. THE RPM'S SHALL HAVE A SELF-ADHESIVE BACKING EASILY REMOVED BEFORE PAVING AND SHALL CONFORM TO THE FOLLOWING LAYOUT PATTERN: TEMPORARY TAPE MARKINGS WILL BE OFFSET AND REMOVED WHEN PROJECT IS FINISHED AND FINAL CENTERLINE PAINTED.

NO PASSING BARRIER

NO RPM'S ALLOWED.

DASHED LINE

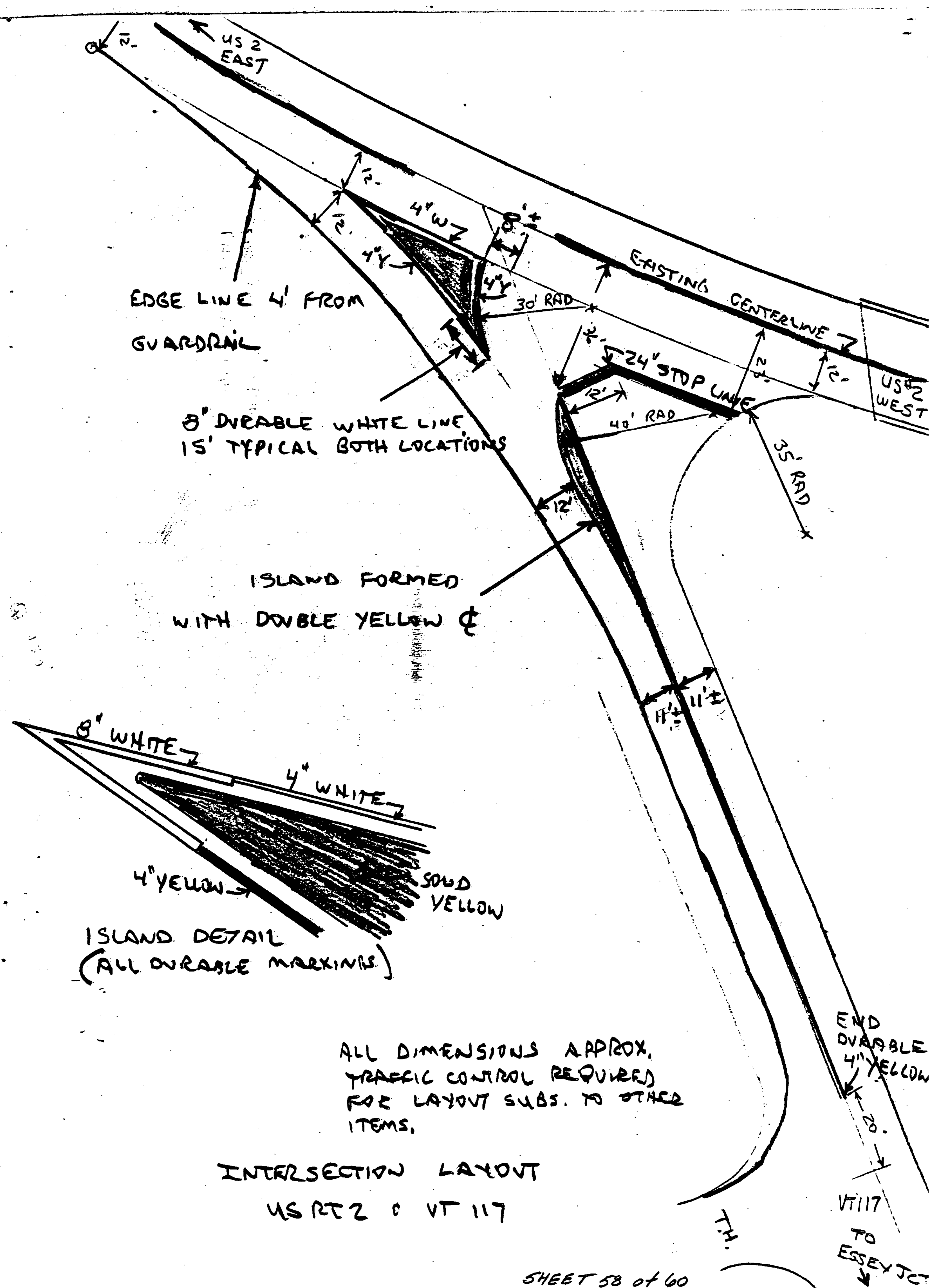
FOUR RETRO-REFLECTIVE RPM'S ON 3 1/2 FOOT CENTERS WITH A 30 FOOT GAP.

SOLID LINE - EDGE LINES

INTERSTATE MEDIAN SIDE-RETRO-REFLECTIVE RPM'S ON 4 TO 5 FOOT CENTER. DRIVERS RIGHT SIDE-RPM'S NOT ALLOWED.

- C. WHEN PAINT IS USED FOR TEMPORARY MARKING, AN ALTERNATE MATERIAL SUCH AS TAPE OR RPM'S SHALL BE ON HAND IN THE EVENT RAIN PREVENTS THE PAINT APPLICATION FROM BEING COMPLETED. ALL PAINT SHALL BE REFLECTORIZED.
- D. PAYMENT FOR PAINT AND TAPE SHALL BE COMPUTED ON A LINEAR FOOT BASIS AS IF PAINT WAS USED. PAYMENT FOR THE RPM'S SHALL BE COMPUTED AS IF AN EQUIVALENT PAINT LINE WAS USED. (FOR EXAMPLE, DASHED LINE PAID AS 10 FEET OF PAINT, SOLID LINE PAID AS THE TOTAL DISTANCE COVERED WITH THE MARKERS).
- E. PRIOR TO ACCEPTANCE, THE FINAL PAVEMENT MARKINGS SHALL BE COMPLETED FOR THE ENTIRE PROJECT BY THE CONTRACTOR AS DETAILED ON THE PLANS OR AS DIRECTED BY THE RESIDENT ENGINEER

REVISED
12/22/83



PROJECT Essex

ROUTE VA 117

PROJECT NUMBER.

(M 5400(3) S)

TEMPORARY 4" REFLECTORIZED YELLOW LINE

- By MJB 1-18-84

[illegible]

TEMPORARY 4" REFLECTORIZED WHITE LINE

[illegible]

TEMPORARY 4" REFLECTORIZED YELLOW LINE

✓ by MTB 1-18-84

	MILE	MILE	LT	RT	Quan. Lt.	Quan. Rt.	
	3.303	3.92	Solid	Solid	3257	3257	6514
	3.92	4.09	Solid	Dash	898	224	1122
	4.09	4.12	Dashed		40		40
	4.12	4.28	Dash	Solid	211	845	1056
	4.28	4.431	Solid		797	797	1594
Essex	4.431	0.000					
T/L	0.00	1.32	Solid		6970	6970	13,940
	1.32	1.53	Solid	Dash	1109	277	1386
	1.53	1.54	Dashed		13		13
	1.54	1.68	Dash	Solid	185	739	924
	1.68	1.88	Solid		1056	1056	2112
	1.88	2.00	Solid	Dash	634	158	792
	2.00	2.16	Dash	Solid	211	845	1056
	2.16	2.893	Solid		3870	3870	7740
Jericho	2.893	0.000					
T/L	0.000	0.03	Solid		158	158	316
	0.03	0.16	Solid	Dash	686	172	858
	0.16	0.22	Dashed		79		79
	0.22	0.39	Dash	Solid	224	898	1122
	0.39	0.48	Solid		475	475	950
	0.48	0.66	Dash	Solid	238	950	1188
	0.66	0.748	Solid		465	465	930
Richmond							
							43,732
							- 720
							43,012
	3.303	To End = 43,012 @ 85% = 36,560 (Loss for leveling) + 36,560					79,572
							Rndg. 28
							Total 79,600
Although not indicated on this sheet, the E. shall be broken at all intersecting Town Highways as shown on the plan detail sheet. The Resident Engineer shall verify the PASSING ZONE pavement markings in the field in accordance with the "Guideline on marking of centerlines", BEFORE APPLICATION							

TEMPORARY 4" REFLECTORIZED WHITE LINE

	MILE	MILE	LT	RT			60 of 60
	3.303	4.431	Solid		5956 x 2 =		11,912
T/L	0.000	2.893	Solid		15,275 x 2 =		30,550
T/L	0.000	0.748	Solid		3949 x 2 =		7898
							50,360
					+ Rndg = 39		Total 50,400

REMOVAL AND DISPOSAL OF
EXISTING GUARD RAIL

Lt
14+72 ~ 22+09

GUARD RAIL, STANDARD STEEL BEAM
WITH WOOD POSTS, TYPE II

Lt
13+58 ~ 22+62.5

BREAKAWAY CABLE TERMINAL FOR
GUARD RAIL, STEEL BEAM w/ WOOD
POSTS, TYPE II

Lt
22+62.5 ~ 22+67.5

TEMPORARY BARRIER RAIL
WILL BE INSTALLED AS
DIRECTED BY THE ENGINEER

CONSTRUCT SHEAR KEY

Lt
15+50 ~ 20+00

STRUCTURE EXCAVATION

Lt
14+75 ~ 20+00

ROCK BORROW

Lt
14+75 ~ 20+00

GRAVEL BACKFILL FOR
SLOPE STABILIZATION

Rt
15+25 ~ 20+50

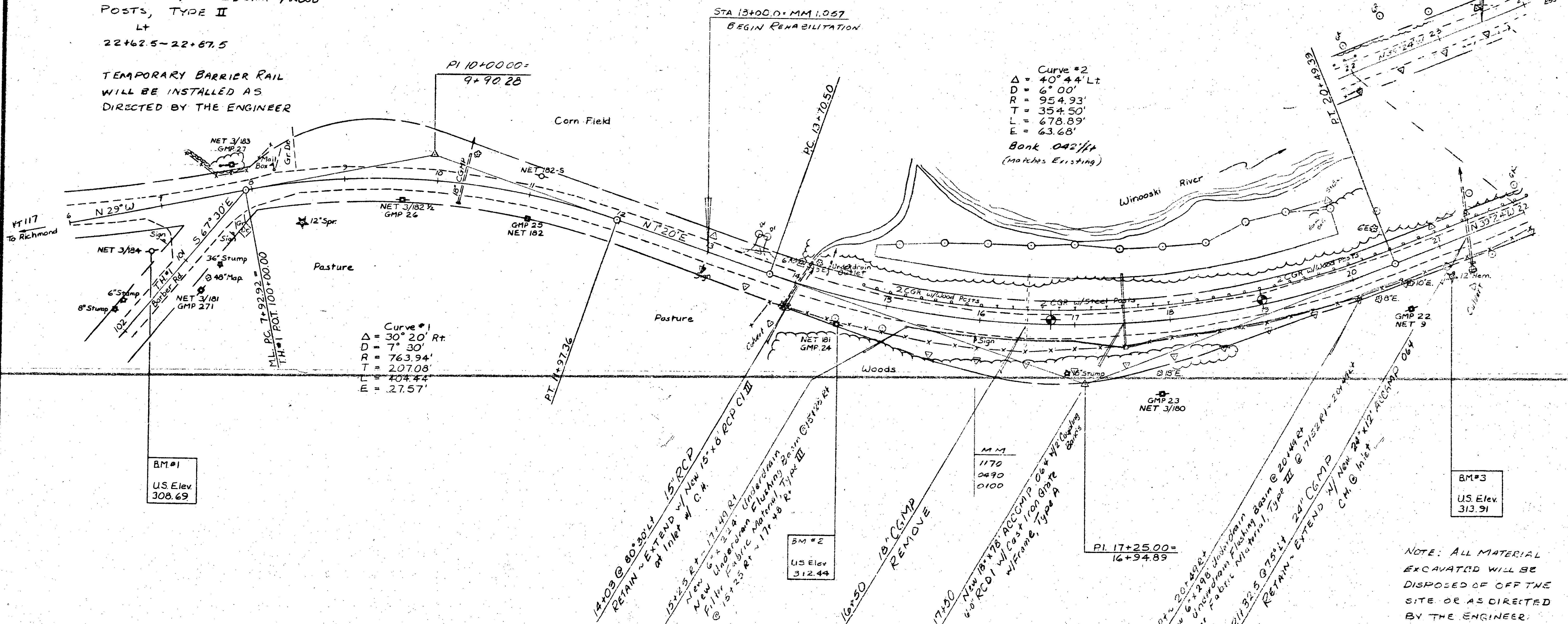
CONSTRUCT FIELD DRIVE

Lt
13+50

REMOVING AND RESETTNG FENCE

Rt
13+80 ~ 23+50

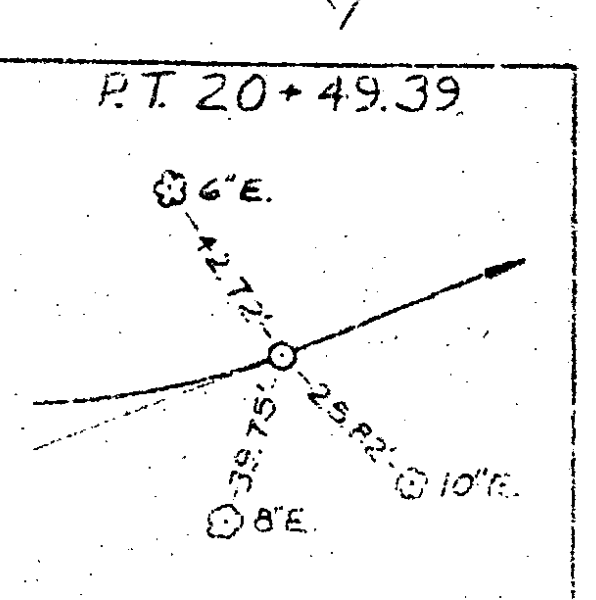
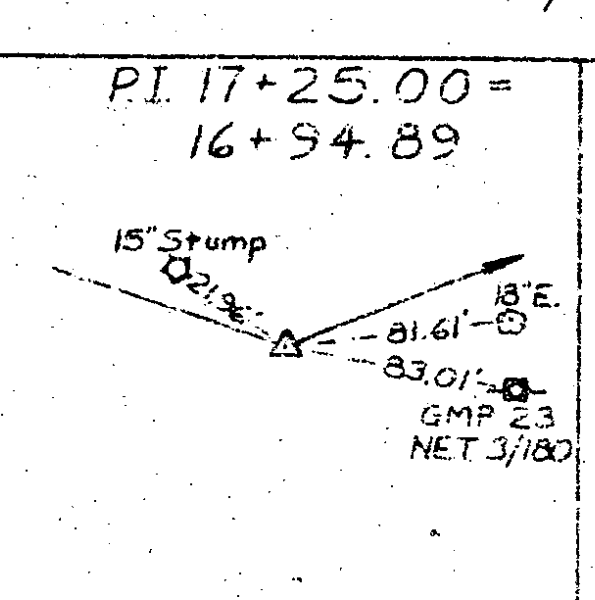
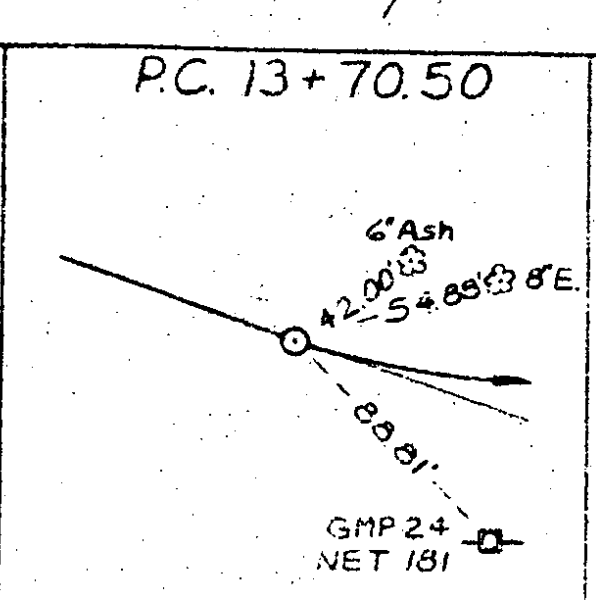
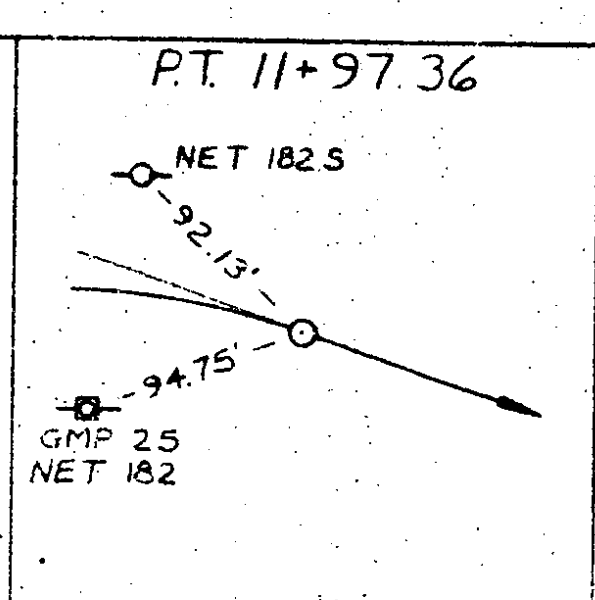
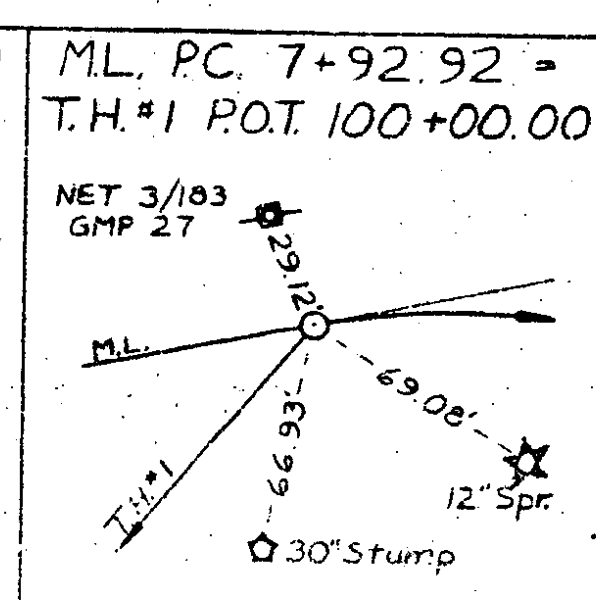
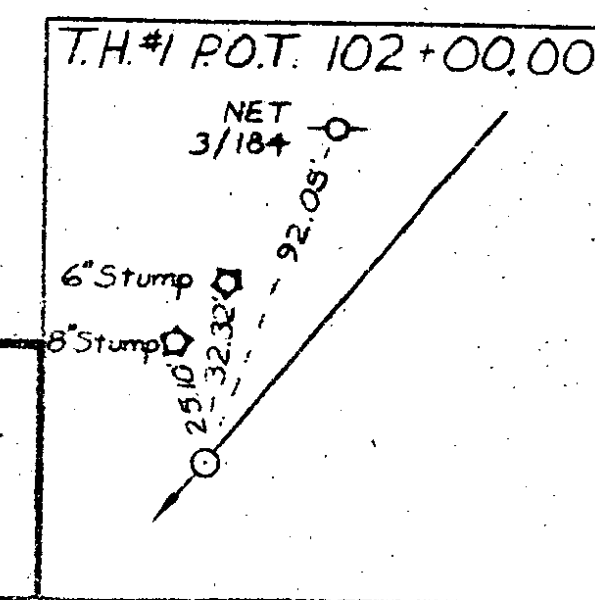
STA 23+50.0 = MM 0.658
END REHABILITATION



BM#1
U.S. Elev.
308.69

BM#2
U.S. Elev.
312.44

BM#3
U.S. Elev.
313.91



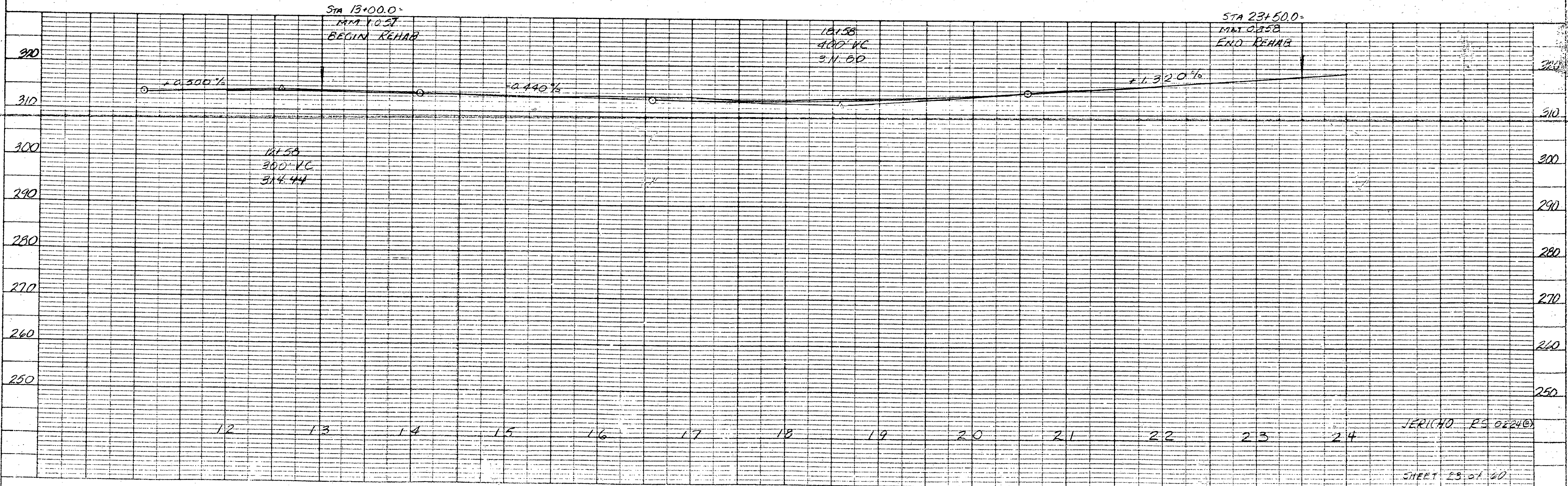
PAVING NOTE:
ESTIMATE FOR THIS SECTION
(MM 0.658 ~ MM 1.057) INCLUDES
BASE COURSE & BINDER
WEAR COURSE & GRAVEL SHOULDERS
ARE ESTIMATED IN PAVING SECTION

NOTE: ALL MATERIAL
EXCAVATED WILL BE
DISPOSED OF OFF THE
SITE OR AS DIRECTED
BY THE ENGINEER.
TWO WAY TRAFFIC
WILL BE MAINTAINED
DURING HOURS OF
DARKNESS

SURVEYED BY: Beard DATE: 1/84
DRAWN BY: Kastner DATE: 1/84
TRACED BY: Kastner DATE: 1/84
PROJECT: VT 117
SHEET: 22 OF 60

PLAN	SURVEYED	DATE
	PLOTTED	
	CHECKED	
	BY	

PROFILE	SURVEYED	DATE
	PLOTTED	
	CHECKED	
	BY	



STATE OF VERMONT
AGENCY OF TRANSPORTATION

17 OCT 73

STATE OF VERMONT
AGENCY OF
TRANSPORTATION

[illegible]

PC 13170.50
D- 6°
Bank 0.42/ft
(to match existing)

13+58 Lt
Begin Guard Rail (Standard Spacing)
Beam w/ Wood Posts, Type II
Item 621.28

ROW
24.75

13+50 Lt
Construct Drive

Note: All Embankment will be Granular
Borrow, Item 203.32 unless
labeled otherwise.

13+00-
MM 1.05
Begin Common Excavation, Item 203.13
Begin Subbase of Gravel, Item 301.15
Begin 5" Plant Mixed Base Course Item 303.25
Begin 1 1/4" Course of Bituminous Concrete Pavement, Type D, Item 406.25

Note: All Material Excavated will be Disposed of
Off the Site or as Directed by the Engineer.
Two Way Traffic Will Be Maintained During
The Hours of Darkness.

* NOTE: All Elevation and dimensions shown on Sheet Key.
Sections may be revised at the discretion of the Engineer.

15+50 L - 17+50 L
All Stone Fill to
be excavated and
disposed of prior
to excavating for
Rock Borrow Shrink
Key.
Excavation to be paid as
Common Excavation,
Item 202.15

170
1170
0400
0100

Rock Borrow Item 203.33

STRUCTURE EXCAV.
LIMITS OF ITEM 204.25
12.0' 50' 51' 52' MTW to 19 St.
CNRF
14.58
15.58 24' 30'

15+50

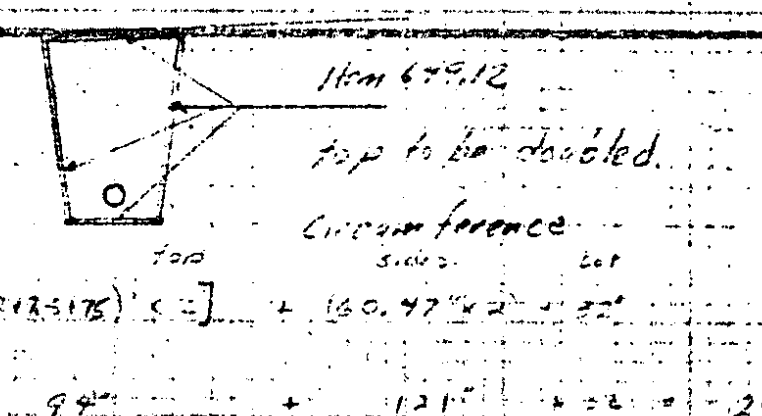
15+25 R
Begin Gravel Backfill for
Slope Stabilization, Item 203.35
15+25 R to 17+49 R
Now 6' 2" 224' - 11.00 drains, Item 605.101

15+25 R Underdrain Flushing Basin, Item 605.45
15+25 R to 17+49 R Filter Material, Type III, Item 649.12

200' CI MTW
800' CI (51' Sat)
35.5' Coarse Gravel (Sat)
CNRF
15+50 R to 20'
1950

From B / F = 638
649.155 39
SB 74

DETAIL FOR Item 649.12
with Underdrain



Shrink Exc. 201' 17+49 R to 15+42
RB - 405' 0" 15+50
Filter B 17

15+50 L
Begin Filter Fabric Material
Type II, Item 649.12

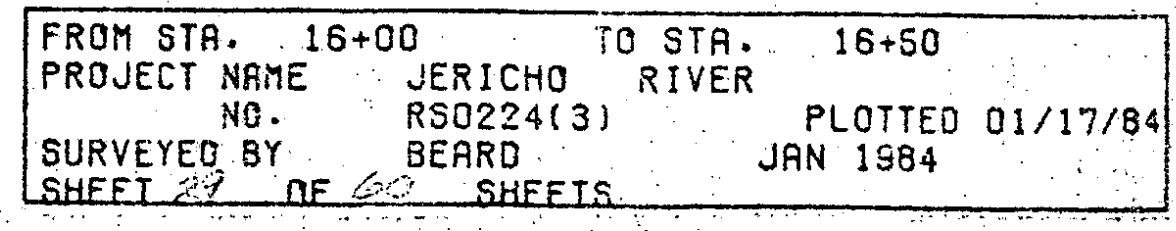
Rock Borrow
Item 203.33
236.0'

LIMITS OF STRUCTURE EXCAV.
Item 204.25

15+00

14+75 L
Begin Rock Borrow, Item 203.33
Begin Structure Excavation, Item 204.25

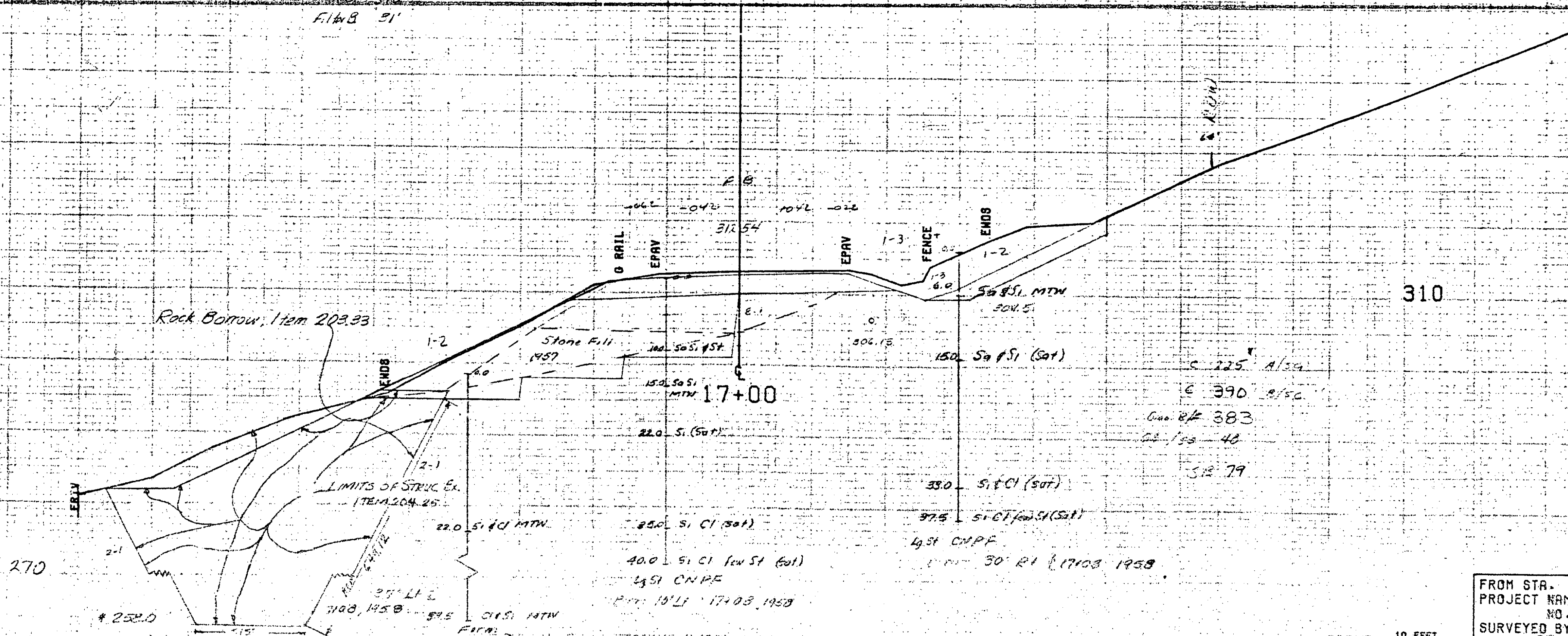
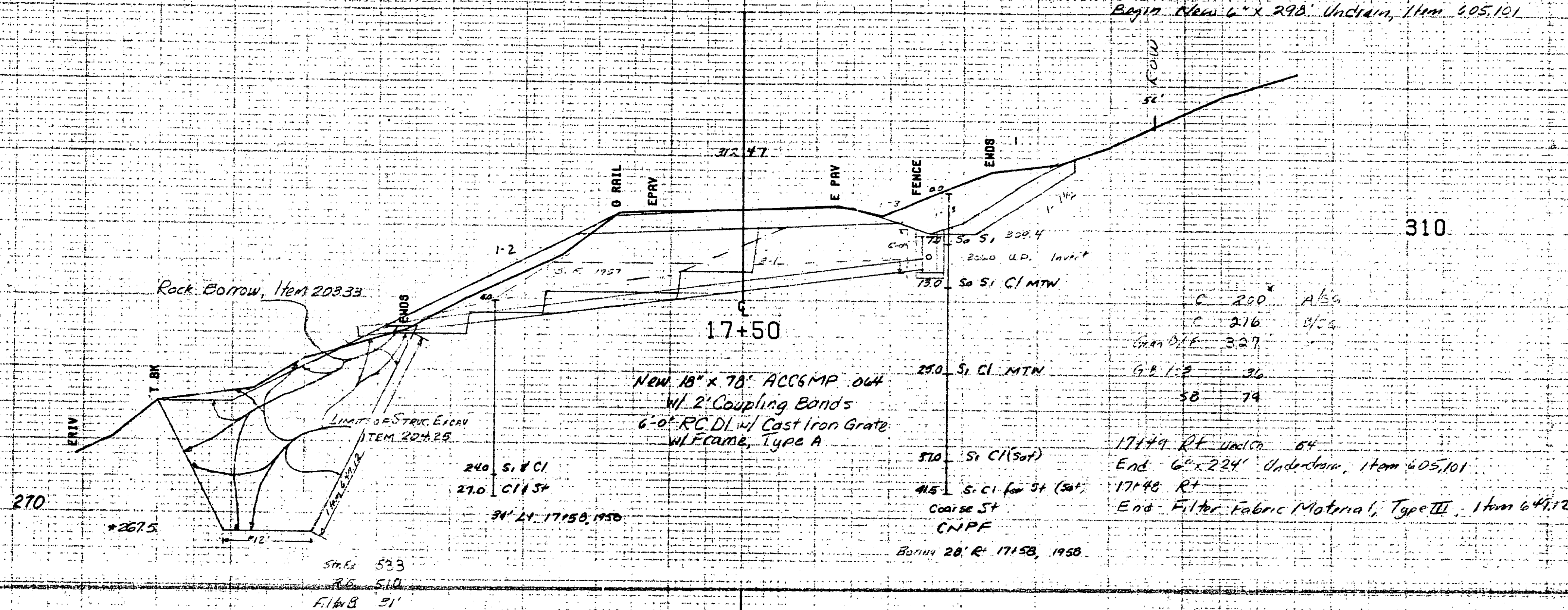
Struct Exc. 38
RB 106



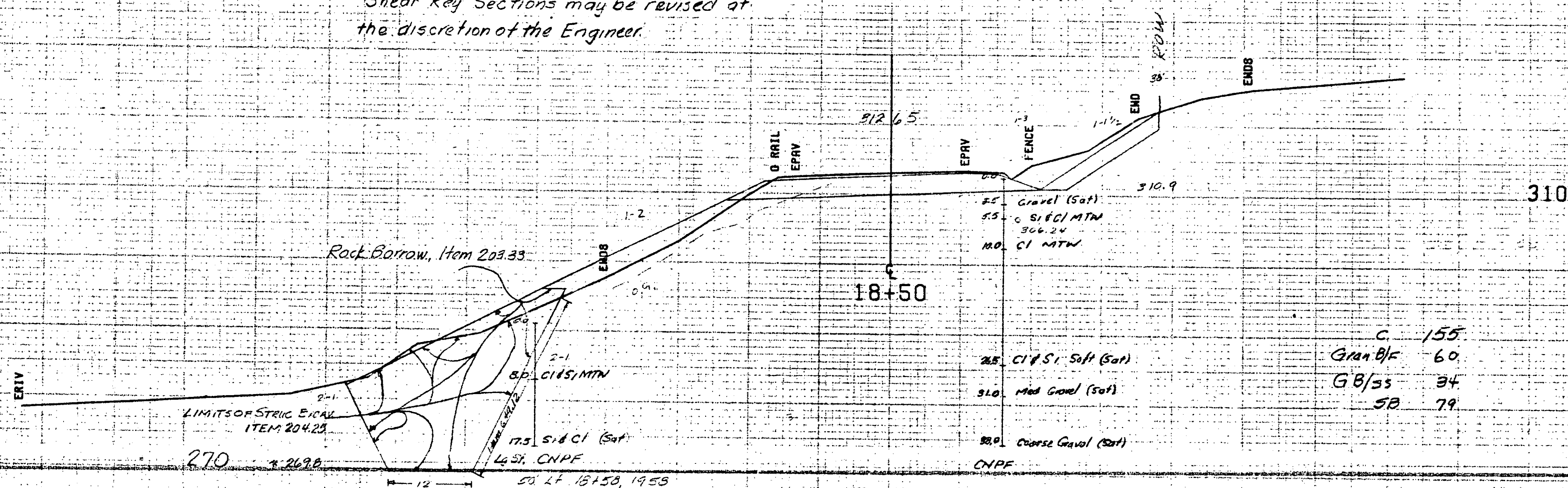
* NOTE: All Elevations and Dimensions shown on Shear Key.
Sections may be revised at the discretion of the Engineer.

151.731 ~ 171.581
All Stone Fill to be
excavated and disposed
of prior to excavating
for Rock Borrow.
Shear Key.

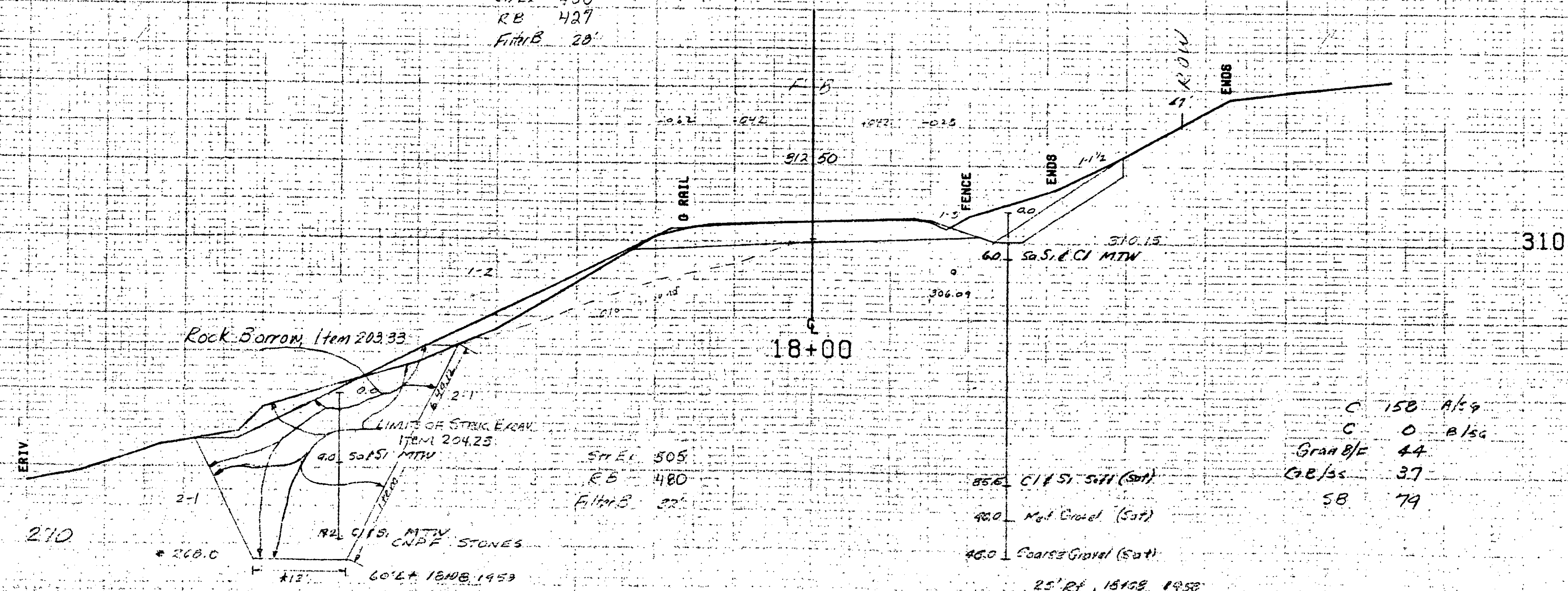
171.52 RT ~ 204.9 R
New Filter Fabric Material, Type III. Item 604.12
171.51 RT ~ 201.49 R
Begin New 6" x 298' Underdrain, Item 605.101



* Note: All Elevations and Dimensions Shown on
Shear Key Sections may be revised at
the discretion of the Engineer.

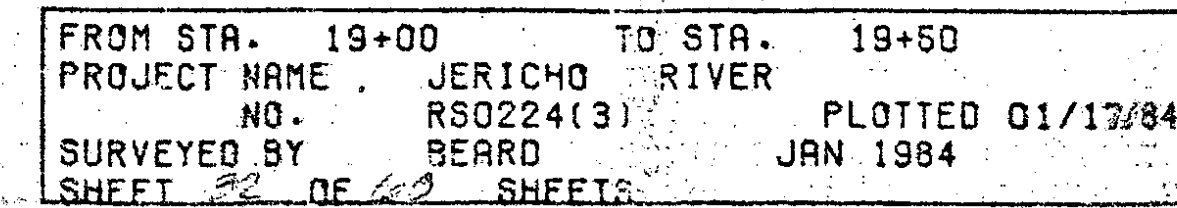


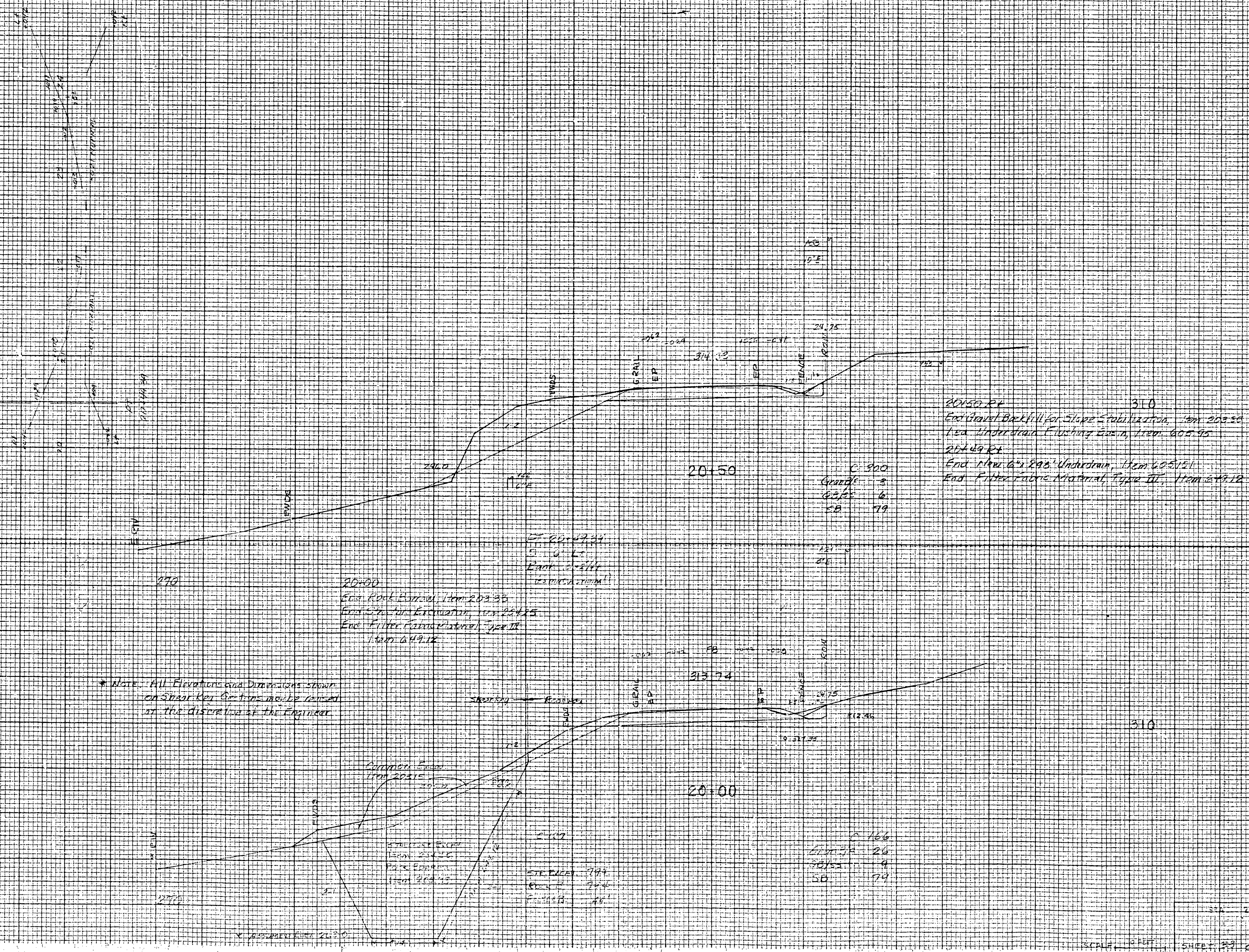
Stn El. 400
RB 427
Ft. 20'

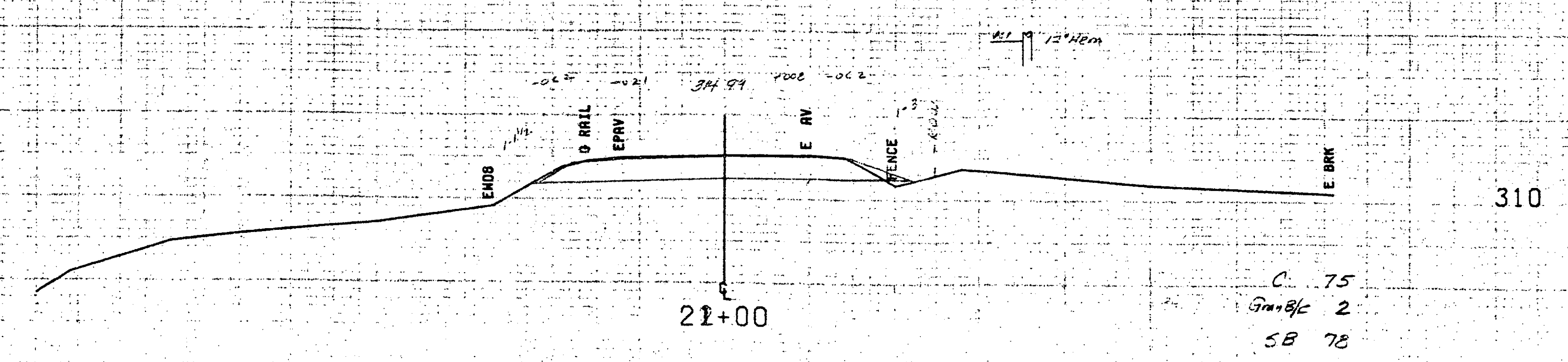
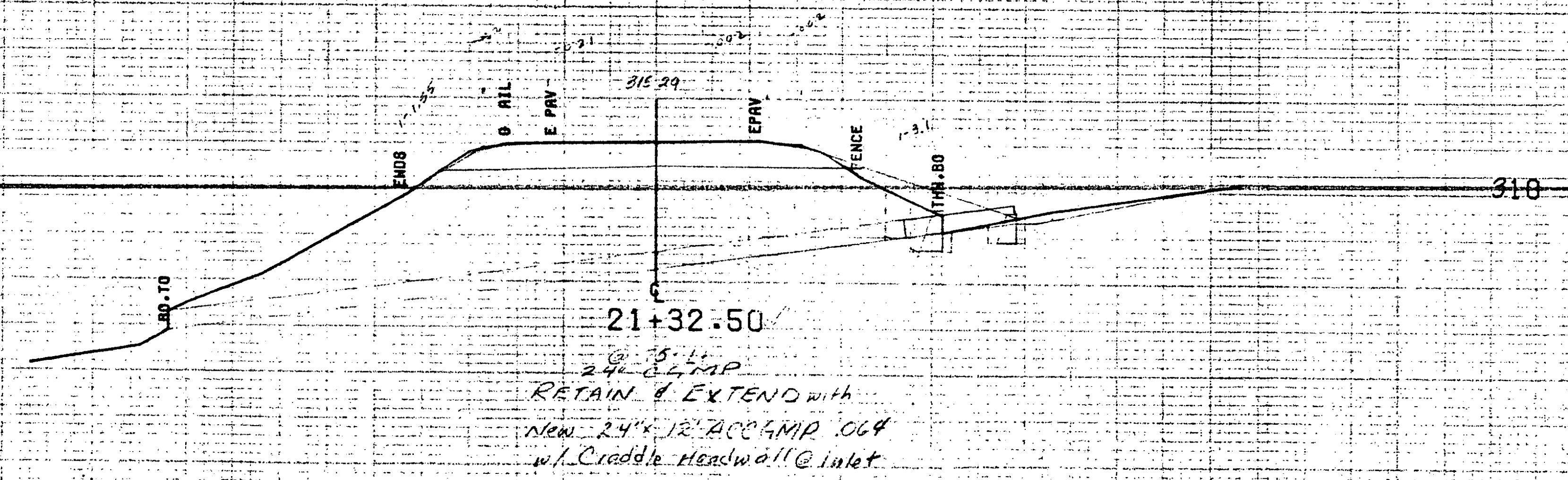
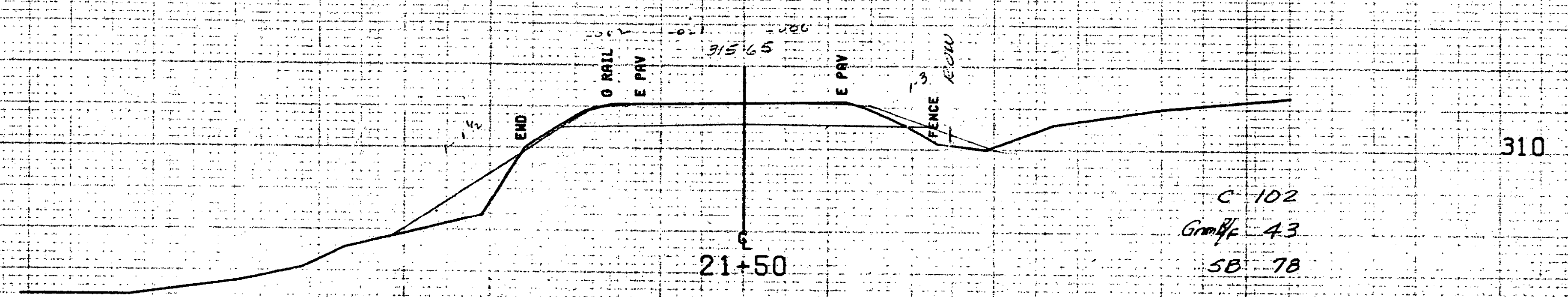


Stn El. 505
RB 480
Ft. 22'

1977041
END UNCLASSIFIED CHANNEL
EXCAVATION ITEM 203.27







22+47
End Granber Backfill, from

22+62.5 Lt - 22+87.5 Lt
Break away Cable Terminal
for Guard Rail, Steel Beam
w/ Wood Posts, Type II
Item 621.77

22+62.5 Lt
End Guard Rail, Standard Steel
Beam w/ Wood Posts, Type II
Item 621.26

22+09 Lt
End Removal and Disposal
of Existing Guard Rail
Item 202.40

23+00

22+50

22+00

310

310

310

C 86
Granber 11
SB 72

C 64
Granber 42
SB 72

C 100
Granber 16
SB 74

FROM STA. 22+00 TO STA. 23+00
PROJECT NAME JERICHO RIVER
R00224(3) PLOTTE 01/17/84
SU VE ED BY BEARD J N 984
SHEE 23 OF 40 SHEETS

SCALE 10 FEET

