

STATE OF MINNESOTA
DEPARTMENT OF HIGHWAYS

CONSTRUCTION PLAN FOR GRADING, BITUMINOUS, CURB & GUTTER FOR TURN
LANE & INTERSECTION

County State Aid Highway No. 1

Between INTERSTATE 694 And 2100'S OF INTERSTATE 694

From A PT. 710' W. & 150' SO. OF THE N 1/4 COR. OF SEC. 27, T. 30N., R. 24W To A PT. 710' W. & 630' NO. OF THE N 1/4 COR. OF SEC. 27, T. 30N., R. 24W
Give proper reference to Section, Township and Range

GROSS LENGTH 780.00 FEET 0.148 MILES
BRIDGES LENGTH FEET MILES
EXCEPTIONS LENGTH FEET MILES
NET LENGTH 780.00 FEET 0.148 MILES

INDEX OF SHEETS

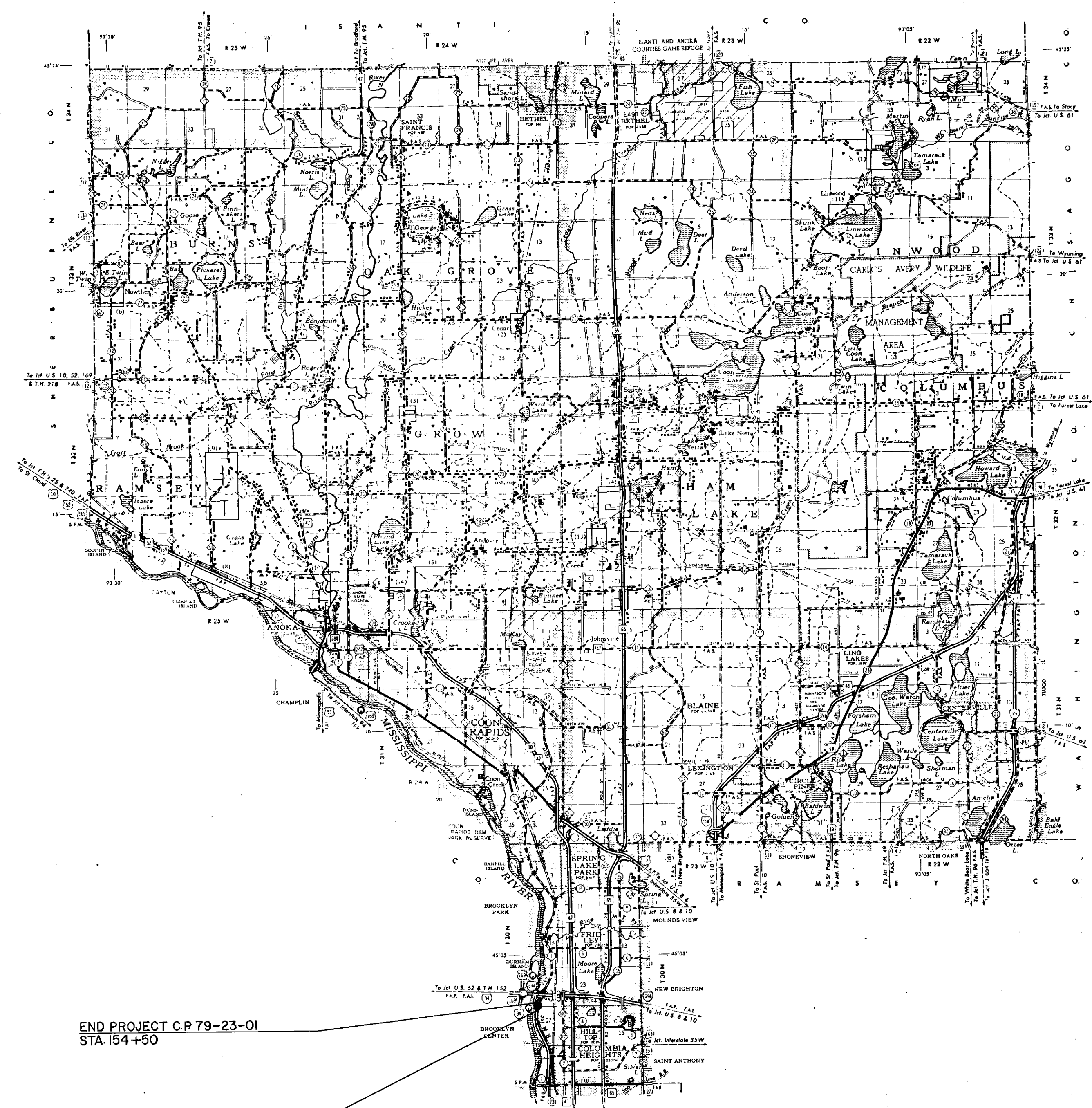
- Sheet No. 1. Title Sheet & Layout Map
- No. 2. Est. Quantities & Typical Sec.
- No. 3. Plan
- No. 4 to 5 Cross Sections
- No. 6 Cross Sections

SCALE

PLAN 50'
CROSS SECTIONS 10'

CONVENTIONAL SIGNS

- STATE LINE
- COUNTY LINE
- TOWNSHIP OR RANGE LINE
- SECTION LINE
- QUARTER LINE
- SIXTEENTH LINE
- RIGHT OF WAY LINE
- PRESENT RIGHT OF WAY LINE
- CONTROL OF ACCESS LINE
- PROPERTY LINE (Except Land Lines)
- VEGETATED PLATTER PROPERTY
- CORPORATE OR CITY LIMITS
- TRUNK HIGHWAY CENTER LINE
- RETAINING WALL
- RAILROAD
- RAILROAD RIGHT OF WAY LINE
- RIVER OR CREEK
- DRY RUN
- DRAINAGE DITCH
- ELECTRIC POWER LINE
- TELEPHONE OR TELEGRAPH LINE
- JOINT TELEPHONE AND POWER
- CONDUIT
- TELEPHONE CABLE - AERIAL
- TELEPHONE CABLE UNDERGROUND
- POWER CABLE UNDERGROUND
- GAS MAIN
- CONDUIT
- COULVERT
- DRAIN TILE
- GUARD RAIL
- BARBED WIRE FENCE
- WOVEN WIRE FENCE
- CHAIN LINK FENCE
- RAILROAD SNOW FENCE
- STONE WALL OR FENCE
- WOODEN POST AND RAIL FENCE
- WATER PIPE
- SEWER PIPE
- DRAIN TILE
- SPRINGS
- MARSH
- TIMBER
- ORCHARD
- BRUSH
- NURSERY
- CATCH BASIN
- MANHOLE
- FIRE HYDRANT
- STREET LIGHT
- RAILROAD CROSSING SIGN
- RAILROAD CROSSING BELL
- ELECTRIC WARNING SIGN
- CROSSING GATE
- CATTLE GUARD
- OVERPASS (Highway Over)
- UNDERPASS (Highway Under)
- BRIDGE
- BUILDING (One Story Frame)
- F. FRAME
- C. CONCRETE
- S. STONE
- T. TILE
- B. BRICK
- ST. STUCCO
- IRON PIPE OR ROD
- MONUMENT (STONE, CONCRETE, OR METAL)
- WOODEN PILE
- GRAVEL PIT
- SAND PIT
- BORROW PIT
- ROCK QUARRY
- MEANDER CORNER



END PROJECT C.P. 79-23-01
STA. 154+50

BEGIN PROJECT C.P. 79-23-01
STA. 146+70

DESIGN DESIGNATION

ADT (CURRENT YEAR) _____
 ADT (FUTURE YEAR) _____
 T (HEAVY COMMERCIAL) 0-150
 9 Ton Design
 Design Speed INTERSECTION
 Design Speed not achieved at:
 STA _____ TO STA _____ MPH
 STA _____ TO STA _____ MPH

SPECIFICATIONS

THE "STANDARD" SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, DATED JAN. 1, 1978, SHALL GOVERN.

ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND ORDINANCES WILL BE COMPLIED WITH, IN THE CONSTRUCTION OF THIS PROJECT.

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Paul K. Lund
COUNTY ENGINEER DATE 10-10-79

ANOKA COUNTY REG. NO. 6549

RECOMMENDED FOR APPROVAL _____ 19
DISTRICT ENGINEER

RECOMMENDED FOR APPROVAL _____ 19

APPROVED _____ 19
STATE AID ENGINEER

Minn. Proj. No. _____ County Proj. No. 79-23-01
State Proj. No. _____ S.A.P.

STATEMENT OF ESTIMATED QUANTITIES

ITEM NO.	ITEM	UNIT	S.P. QUANTITIES		S.P. QUANTITIES		TOTAL ESTIMATED QUANTITIES	TOTAL FINAL QUANTITIES
			EST.	FINAL	EST.	FINAL		
2101.502	CLEARING	TREE					1	
2101.507	GRUBBING	TREE					1	
2104.501	REMOVE CURB AND GUTTER	LIN. FT.					220	
2104.501	REMOVE CULVERT PIPE	LIN. FT.					170	
2105.501	COMMON EXCAVATION	CU. YD.					1648(P)	
2211.501	AGGREGATE BASE, CLASS 5	TON					500	
2341.504	BITUMINOUS MATERIAL FOR MIXTURE	TON					17	
2341.508	WEARING COURSE MIXTURE	TON					120	
2341.510	BINDER COURSE MIXTURE	TON					160	
2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GALLON					75	
2501.521	22" SPAN C.M. PIPE - ARCH CULVERT	LIN. FT.					194	
2501.525	22" SPAN C.M. PIPE - ARCH APRONS	EACH					4	
2531.501	CONCRETE CURB AND GUTTER, DESIGN B-618	LIN. FT.					450	
2575.501	ROADSIDE SEEDING	ACRE					0.6(P)	
2575.502	SEED, MIXTURE 5	POUND					30	
2575.505	SODDING	SQ. YD.					525	
2575.511	MULCH MATERIAL, TYPE 1	TON					1.20	
2575.519	DISC. ANCHORING	ACRE					0.6(P)	
2575.531	COMMERCIAL FERTILIZER, ANALYSIS 10-10-10	TON					0.15	

① WEARING COURSE INCLUDES 10 TON FOR PAVING ISLAND.

BASIS OF PLANNED QUANTITIES

- 2211 AGGREGATE BASE CLASS - 5, 145 LBS./CU. FT. COMPACTED.
- 2341 PLANT MIXED BINDER COURSE.
BITUMINOUS MIXTURE 110 LBS./S.Y. PER 1" THICKNESS.
BITUMINOUS MATERIAL FOR MIXTURE 5.5% BY WT.
- 2341 PLANT MIXED WEARING COURSE.
BITUMINOUS MIXTURE 165 LBS./S.Y. PER 1/2" THICKNESS.
BITUMINOUS MATERIAL FOR MIXTURE 6.5% BY WT.
- 2357 BITUMINOUS MATERIAL FOR TACK COAT 0.05 GAL. PER S.Y.
- 2575 ROADSIDE SEEDING BASED ON HORIZONTAL MEASUREMENTS PLUS 10%.

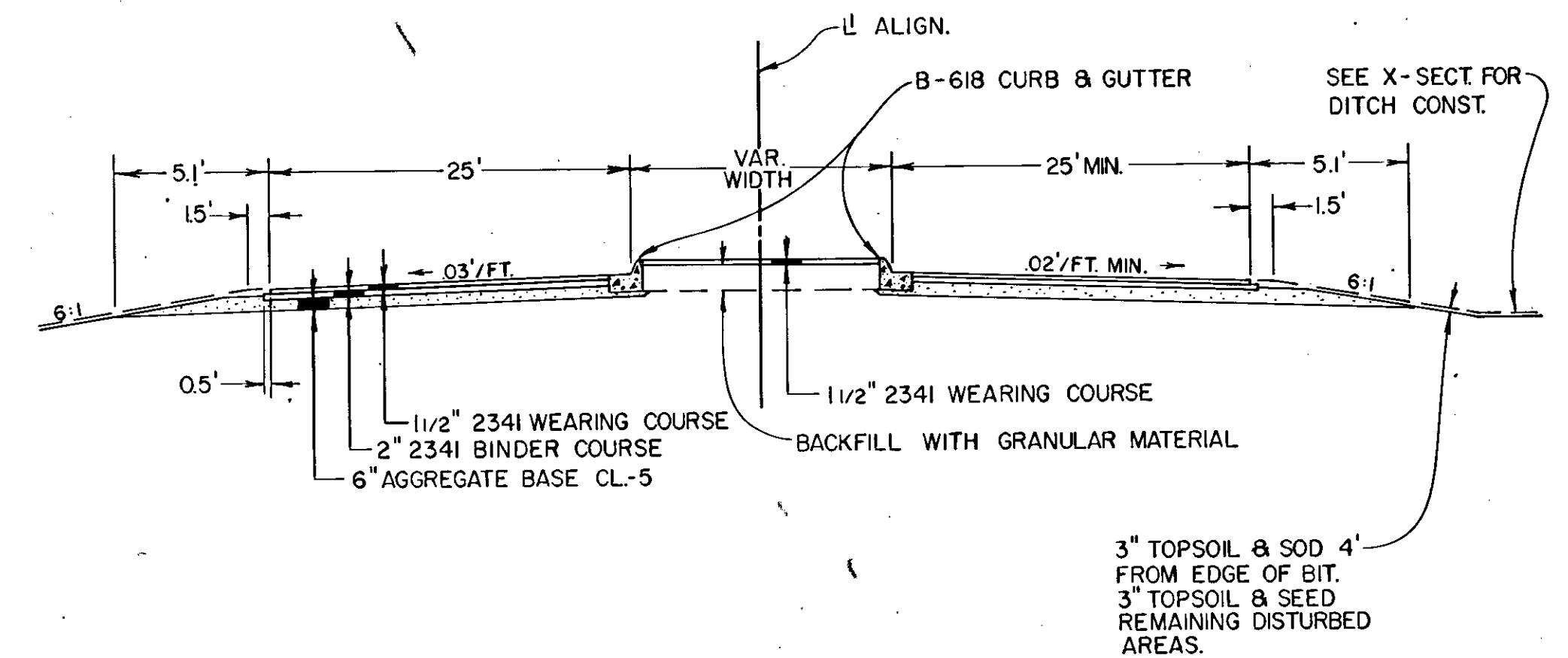
The following Standard Plates, approved by the Federal Highway Administration, shall apply on this project.

STANDARD PLATES	
PLATE NO.	DESCRIPTION
0003A	SPECIFICATION REFERENCE TO STANDARD PLATES
3040F	CORRUGATED METAL PIPE CULVERT
3122H	METAL APRON FOR C.M. PIPE-ARCH CULVERT
7100E	CONCRETE CURB AND GUTTER
8000F	STANDARD BARRICADES
9102C	SODDING AT PIPE CULVERT ENDS

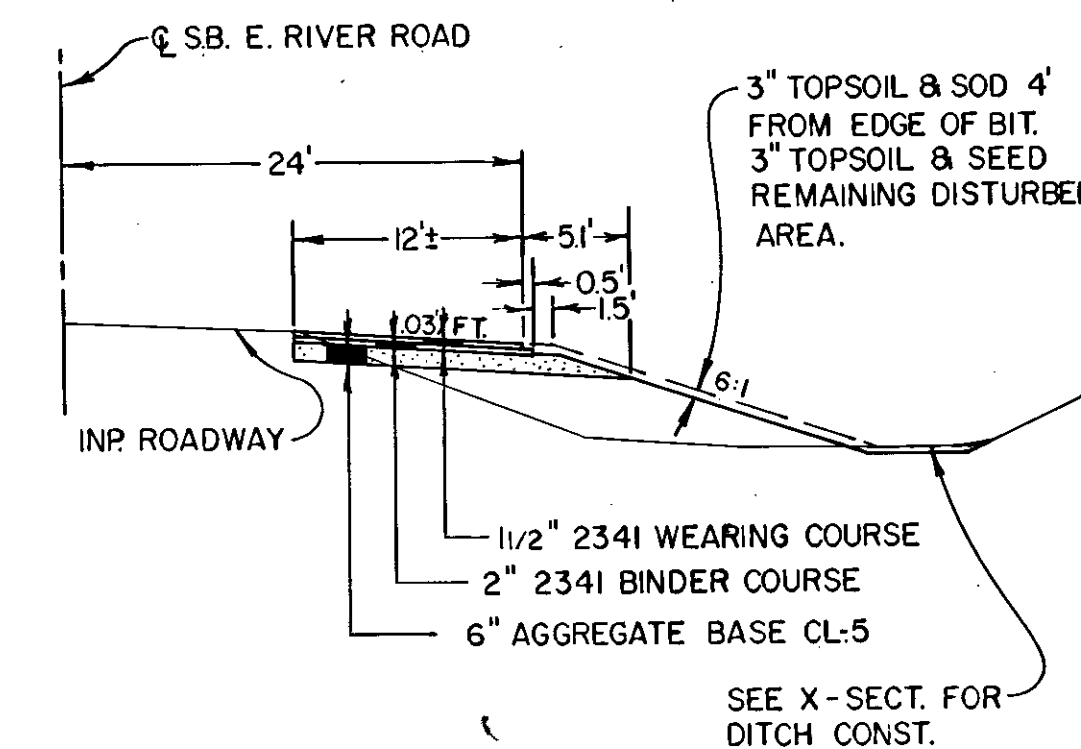
SPECIAL DETAILS

THE CONTRACTOR SHALL REMOVE AND STOCKPILE IF NECESSARY, SUFFICIENT TOPSOIL MATERIAL FROM THE EXCAVATION AREAS AND AREAS ON WHICH EMBANKMENTS WILL BE PLACED FOR TOPSOIL COVERING ON NEW SLOPES AND DITCH BOTTOMS. THIS WILL REQUIRE APPROXIMATELY 260 CU. YDS. TO PROVIDE A MINIMUM COVER OF 3". THIS WORK SHALL BE CONSIDERED AS INCIDENTAL TO COMMON EXCAVATION.

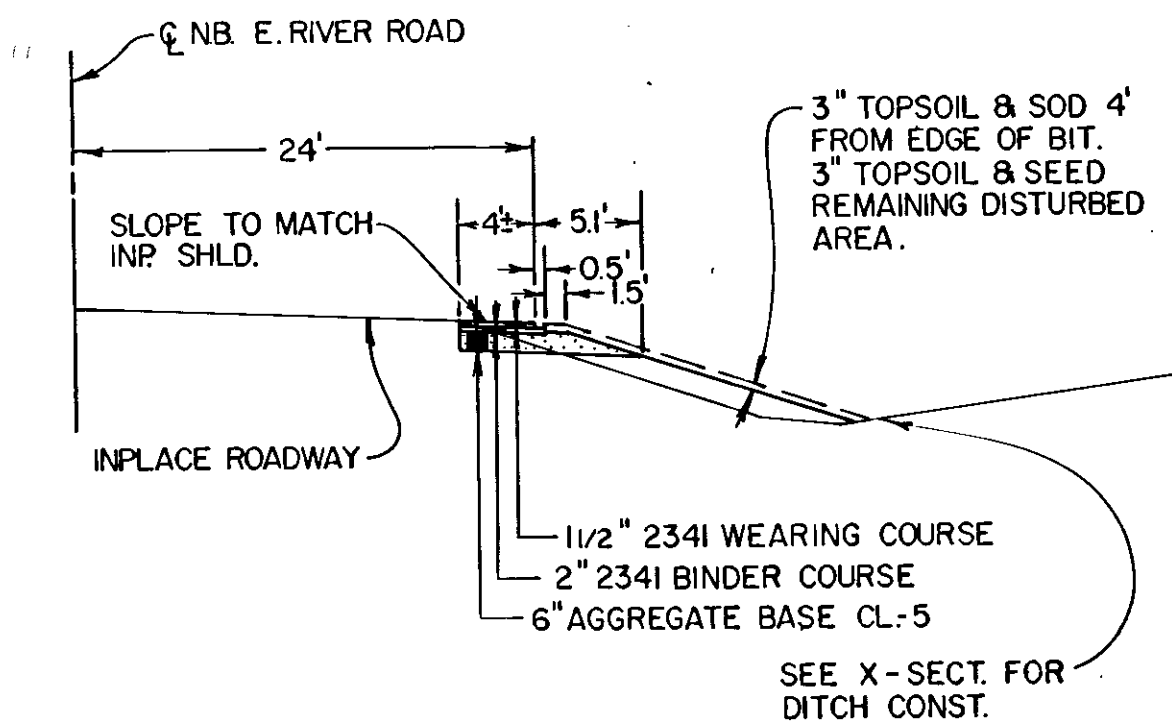
MEDIAN TYPICAL SECTION
NB. E. RIVER ROAD TO SERVICE RD.



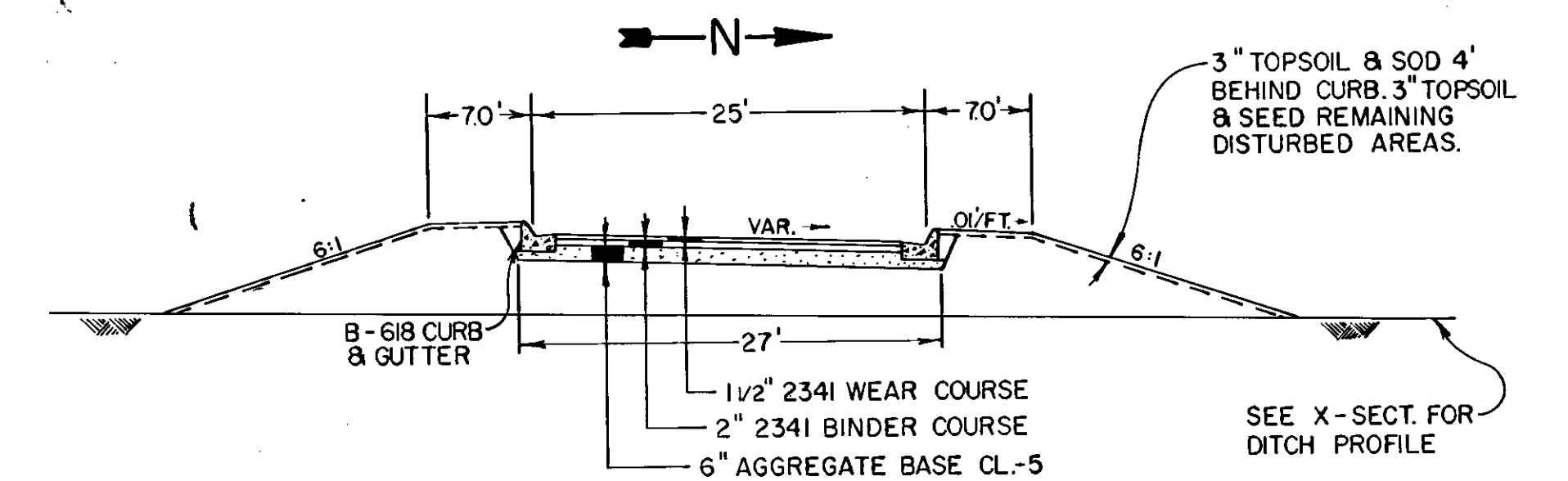
TURN LANE TYPICAL
STA. 151+65 - STA. 153+05



TURN LANE TYPICAL
STA. 146+70 - STA. 150+00



MEDIAN TYPICAL SECTION
S.B. LT. TURN LANE E. RIVER RD.





BEGIN CONSTRUCTION
STA. 146+70 RT.

END CONSTRUCTION
STA. 154+50

F & I. 22' SPAN X 78' CMP ARCH
F & I. 2 - APRONS

P.O.C. 151+05 =
L POT. 0+00

POT. 157+45.2

CONSTRUCT 12' TURN LANE

REMOVE 170' CMP CULV. WITH CROSSING REMOVAL

CL S.B. CSAH I

CL NB. CBAH I

E. RIVER ROAD

E. RIVER ROAD

BEGIN BITUMINOUS TURN LN. CONST.

25:1 TAPER

150' CONST. B-618 C&G

-4.26% GRADE

TC. 83588

TC. 83536

TC. 83559 - GUTTER

TC. 83646

TC. 83623

TC. 83549

TC. 83537

TC. 83510

TC. 83393

FL. 832.40

FL. 831.67

FL. 834.00

FL. 835.04

FL. 834.29

FL. 835.60

FL. 834.29

FL. 835.04

FL. 834.29

FL. 835.04

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FL. 835.04

FL. 834.29

CONST. 4' ADDITIONAL WIDTH

F & I. 22' SPAN X 116' CMP ARCH
F & I. 2 - APRONS

REMOVE 220' CURB & GUTTER

CROSSING REMOVAL INCLUDED WITH COMMON EXCAVATION

CONST. B-618 C&G. (REMOVE BIT. SURFACE TO ALLOW ROOM FOR C&G FORMS)

SERVICE ROAD

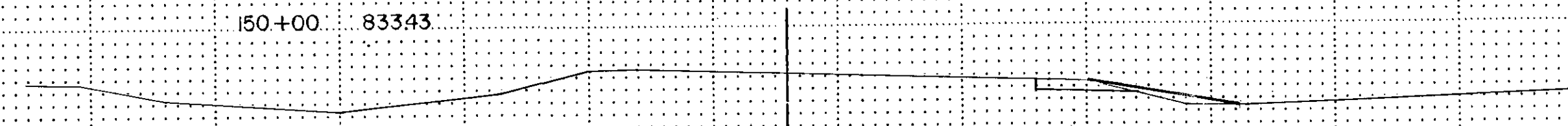
PI 149+71.2
Δ = 17°32' RT.
Dc = 1°30'
Ls = 150'
Ts = 664.1'
Es = 45.5'
Δc = 15°17'
Lc = 1,018.9'

SAWCUT

C.S. 154+26.0

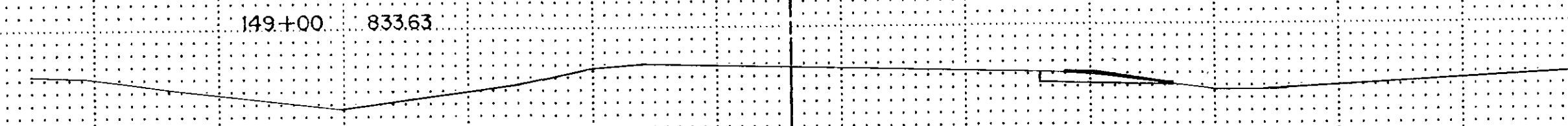
S.T. 155+26.0

150+00 833.43



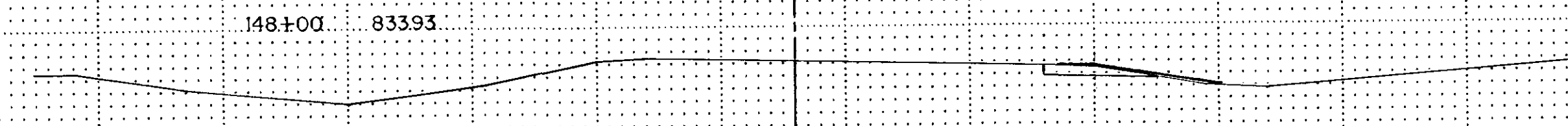
19.7

149+00 833.63



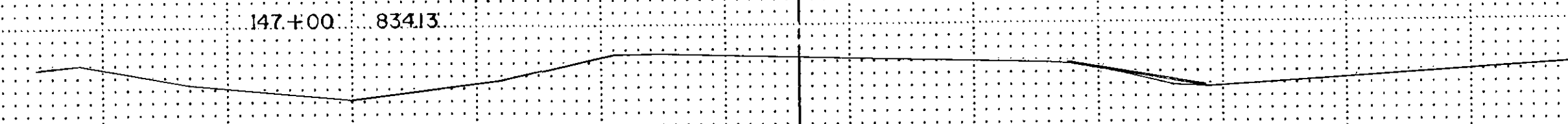
17.2

148+00 833.93

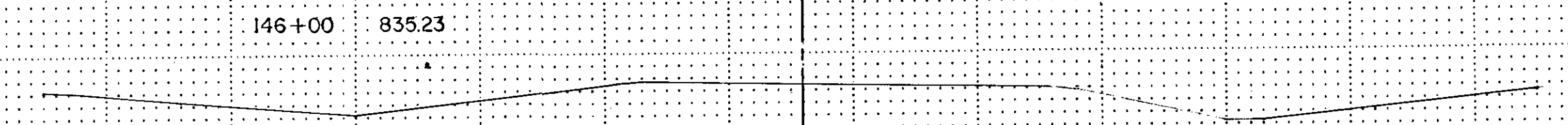


9.6

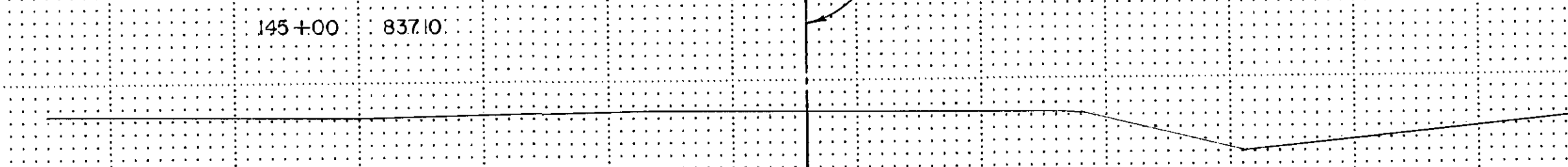
147+00 834.13



146+00 835.23



145+00 837.10



Q NB EAST RIVER ROAD

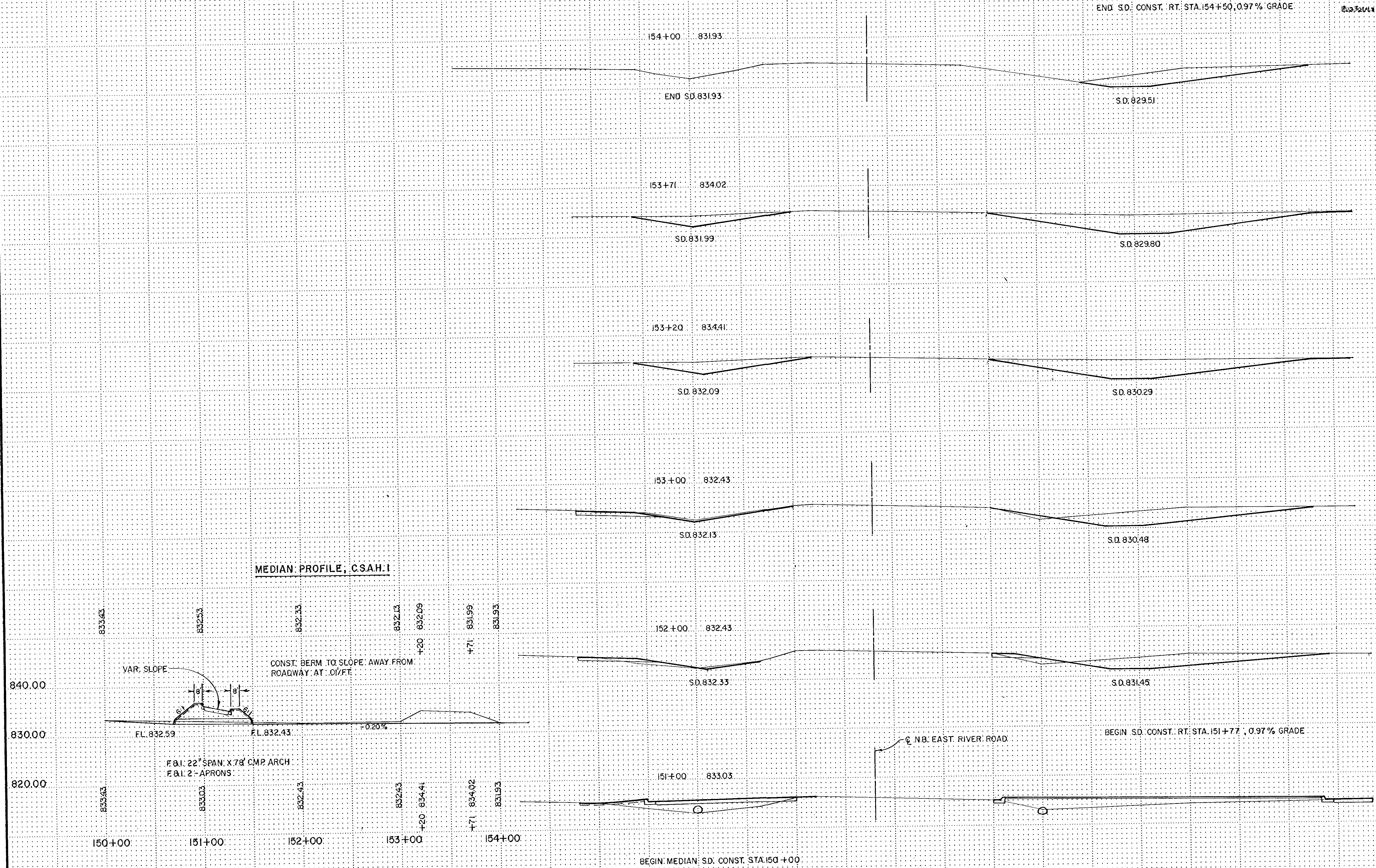
BALANCE

COMMON EXCAVATION	1,648 CY.
EMBANKMENT	- 919 CY.
EXCESS COMMON EXC.	729 CY.

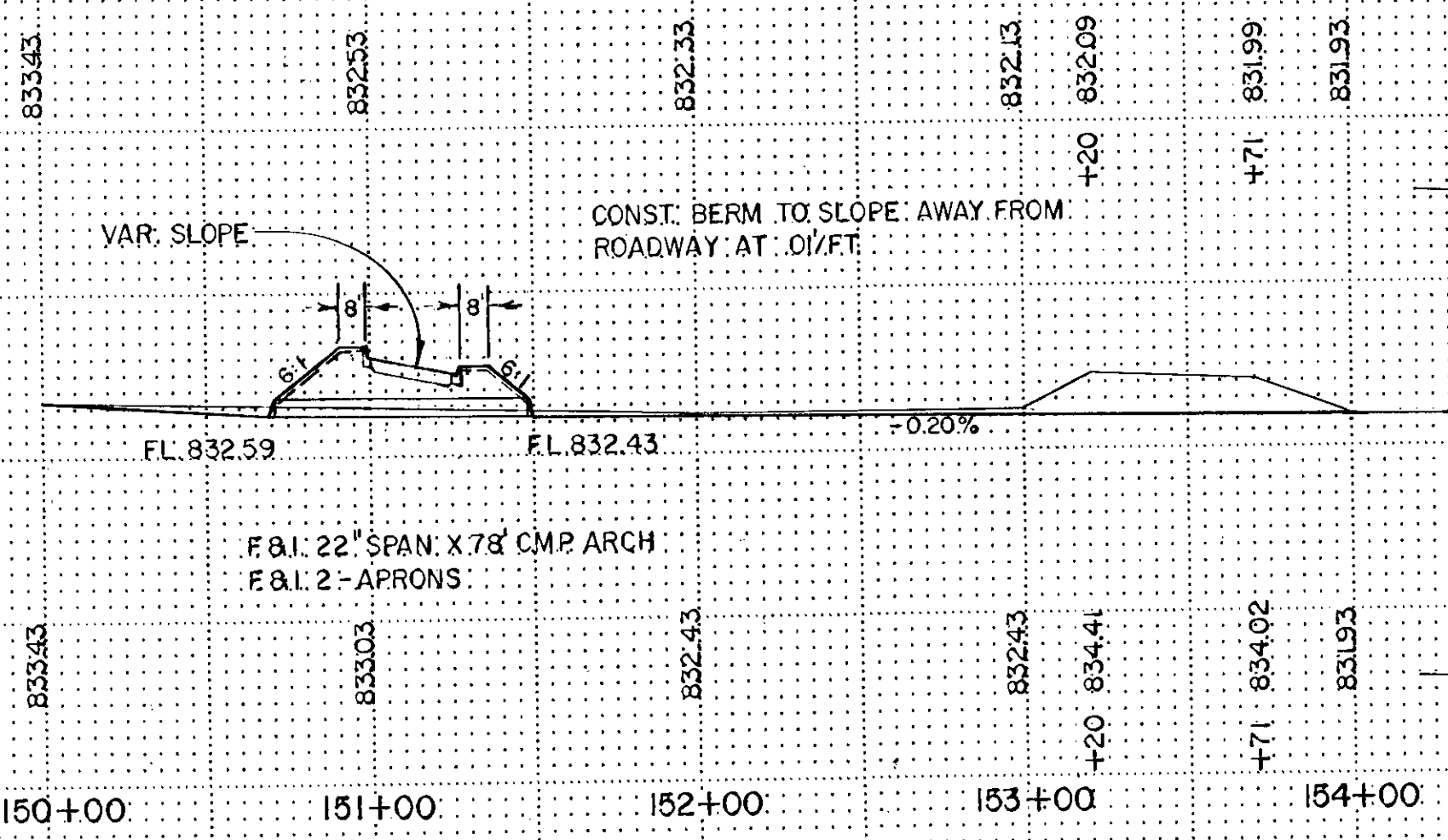
MEDIAN Q NB EAST RIVER ROAD, CSAH #1
STA. 145+00 - STA. 150+00

TELETYPE POST CROSS SECTION UNIT 9/76

EXCAVATION	EMBANKMENT
12	0
152	0
381	0
113	2
376	33
180	107
0	43



MEDIAN PROFILE, CSAH 1



TELEPHONE POST CROSS SECTION 10/11 1/76

MEDIAN OF E. RIVER ROAD, CSAH 1
STA. 151+00 - STA. 154+00

0+61 835.04

2+00 835.43

EXCAVATION		EMBANKMENT	
Excavation	Emb.	Exc.	Emb.

0+24 836.22

1+75 834.38

0+00 833.13

1+56 834.72

1+37 834.51

165 12

1+00 834.03

1' DITCH

SD 8330

116 125

0+70 833.03

← N →

-0.97% DTE GR.

FL. 831.67

FL. 832.4

F&I 21' SPAN X 16' C.M.P. ARCH. CULVERT
 F&I 2' C.M. ARCH. APRONS

NOTE: CULVERT INSTALLED AT A SKEW TO MATCH
 NEW DITCH CONSTRUCTION

118 35

ROAD APPROACH
 STA. 0+00 - STA. 2+00