

CONVENTIONAL SIGNS

STATE LINE	[Symbol]	TIMBER	[Symbol]
COUNTY LINE	[Symbol]	BRUSH	[Symbol]
TOWNSHIP OR RANGE LINE	[Symbol]	ORCHARD	[Symbol]
SECTION LINE	[Symbol]	ROCK LEDGE	[Symbol]
QUARTER LINE	[Symbol]	SAND	[Symbol]
SIXTEENTH LINE	[Symbol]	EDGE OF CUT	[Symbol]
RIGHT OF WAY LINE	[Symbol]	TOE OF EMBANKMENT	[Symbol]
PRESENT ROAD "W" LINE	[Symbol]	CATCH BASIN	[Symbol]
LIMITED ACCESS	[Symbol]	MANHOLE	[Symbol]
PROPERTY LINE (Elev. Line)	[Symbol]	DRAIN INLET	[Symbol]
VACATED PLATTED PROPERTY	[Symbol]	PIPE HYDRANT	[Symbol]
CORNER OR CITY LIMIT	[Symbol]	ICE LAMP	[Symbol]
TOWNSHIP CENTER LINE	[Symbol]	STREET LAMP (Open Top)	[Symbol]
RETAINING WALL	[Symbol]	RAILROAD CROSSING SIGN	[Symbol]
STEAM RAILROAD	[Symbol]	ELECTRIC WARNING SIGN	[Symbol]
ELECTRIC RAILROAD	[Symbol]	CROSSING GATE	[Symbol]
RAILROAD RIGHT OF WAY LINE	[Symbol]	CATTLE GATE	[Symbol]
CREEK	[Symbol]	OVERHEAD (Highway Over)	[Symbol]
RAPIDS OR WATERFALL	[Symbol]	UNDERPASS (Highway Under)	[Symbol]
DAY RUN	[Symbol]	ABUTMENT, WALL & PIER	[Symbol]
DRAINAGE DITCH	[Symbol]	BRIDGE	[Symbol]
HIGH TENSION LINE	[Symbol]	COVERT	[Symbol]
POWER POLE LINE	[Symbol]	SHEDDING (One Story Frame)	[Symbol]
TELEPHONE OR TELEGRAPH LINE	[Symbol]	C-CONCRETE & STONE FT. L.A. & BRICK ST-STUCCO	[Symbol]
TELEPHONE CONDUIT	[Symbol]	HEDGE	[Symbol]
WIRE FENCE	[Symbol]	IRON PIPE	[Symbol]
RAILROAD SNOW FENCE	[Symbol]	STONE MONUMENT	[Symbol]
BOARD OR HIGHWAY SNOW FENCE	[Symbol]	WOOD STAKE OR "L"	[Symbol]
STONE WALL OR FENCE	[Symbol]	MEANDER CORNER	[Symbol]
GRAVEL PIT	[Symbol]		
SAND PIT	[Symbol]		
CLAY PIT	[Symbol]		
ROCK QUARRY	[Symbol]		
SPRINGS	[Symbol]		
WELLS	[Symbol]		

NOTE SECTION NUMBERS READ FROM THE SOUTH



STATE OF MINNESOTA
DEPARTMENT OF HIGHWAYS

CONSTRUCTION PLAN FOR
County State Aid Highway No. 24

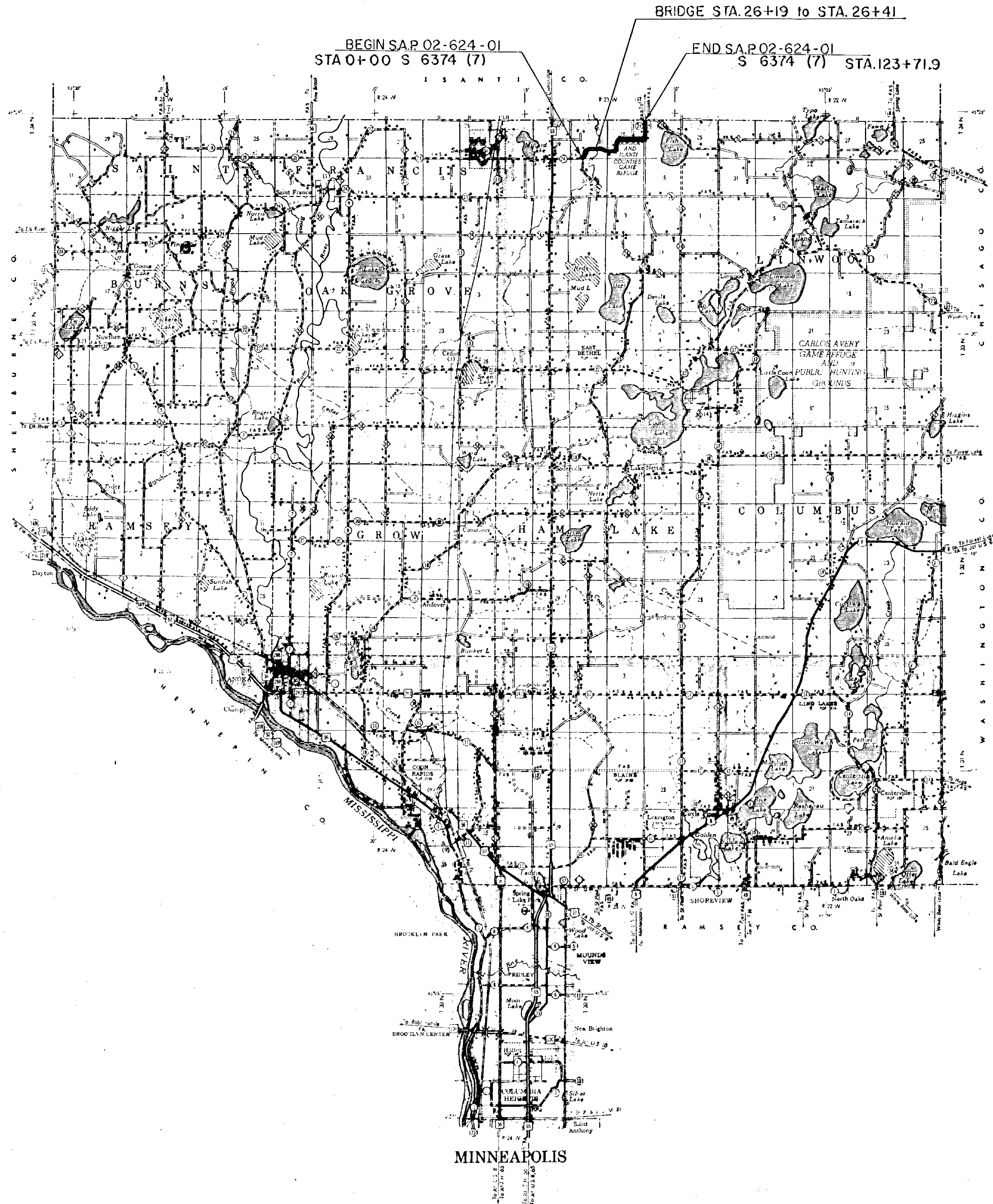
A POINT 1928.55 EAST OF
From N.W. COR. SEC. 33, T-34 N. R-23 W. To N.E. COR. SEC. 27, T-34 N. R-23 W.
Give proper reference to Sections, Township and Range

GROSS LENGTH	12354.7	FEET	2.340	MILES
BRIDGES LENGTH	22.0	FEET	0.004	MILES
EXCEPTIONS LENGTH	22.0	FEET	0.004	MILES
NET LENGTH	12,332.7	FEET	2.336	MILES

SCALES

Plan	1 inch = 200 Feet
PROFILE	Horz. 1 inch = 200 Feet, Vert. 1 inch = 20 Feet
WORKING PLANS	Horz. 1 inch = 100 Feet, Vert. 1 inch = 10 Feet, Cross Section, 1 inch = 10 FEET
LAYOUT	Scale 1 inch = Feet

EQUATION STA. 4+51.23 = STA. 4+68.43



INDEX OF SHEETS

Sheet No. 1.	Title Sheet & Layout Map
No. 2.	Est. Quantities & Typical Sec.
No. 3. To 6.	Plan & Profile
No. 7. To 19.	Cross Sections

DESIGN SPEED 60 M.P.H.

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.

Ernst J. Lundheim COUNTY ENGINEER DATE 11-30-57
ANOKA COUNTY REG. NO. 2551
RECOMMENDED FOR APPROVAL *[Signature]* DISTRICT ENGINEER 12/1/57
RECOMMENDED FOR APPROVAL *[Signature]* 12/1/57
APPROVED 12-12-1957 *[Signature]* STATE AID ENGINEER

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

DISTRICT ENGINEER _____ DATE _____

MICRO-FILMED

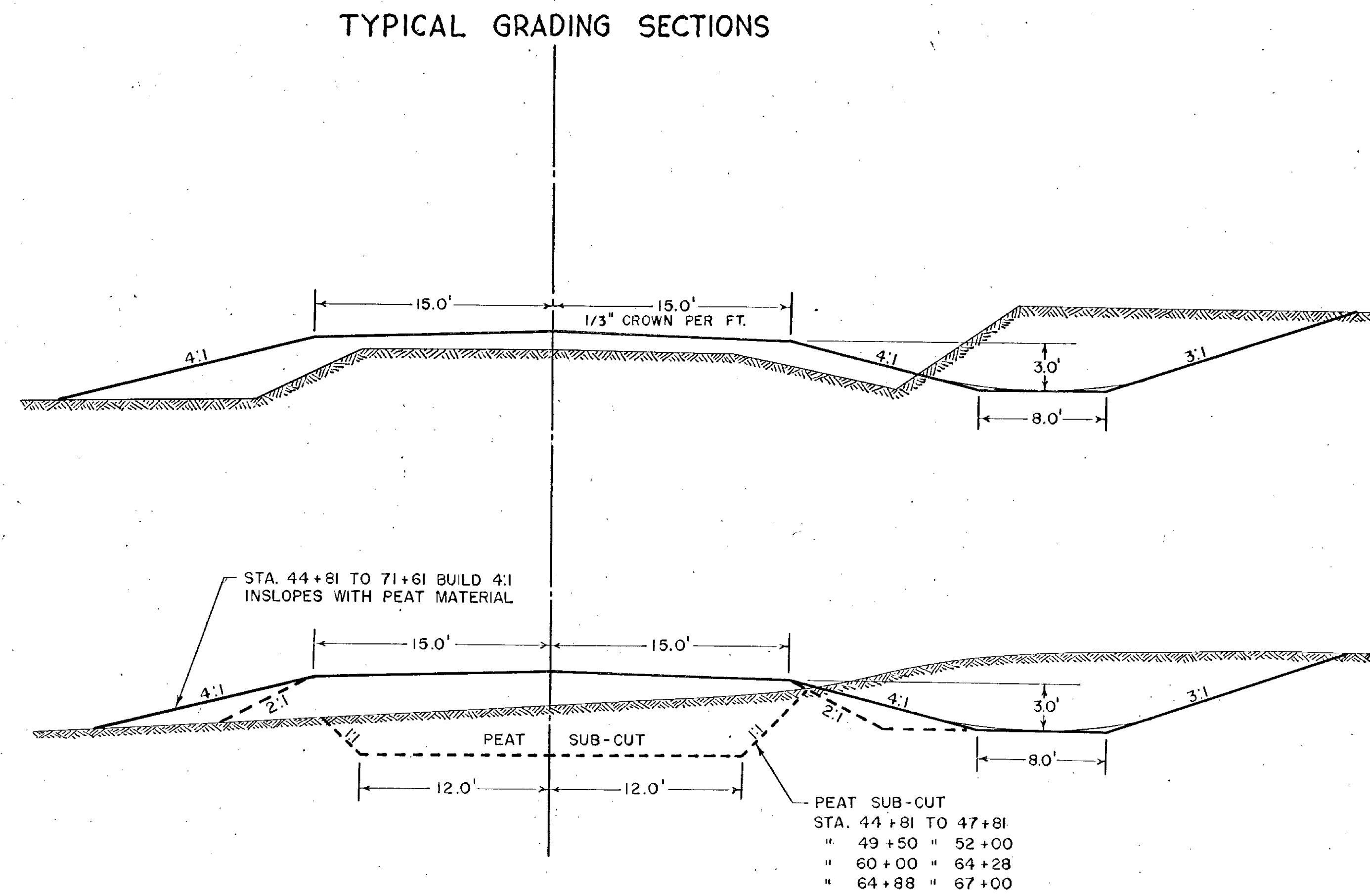
State Aid Project No. 02-624-01

SPECIFICATIONS

THE "SPECIFICATIONS FOR HIGHWAY CONSTRUCTION" DATED MAY 1, 1959, AND SUBMITTED FOR APPROVAL BY THE DIVISION ENGINEER OF THE BUREAU OF PUBLIC ROADS ON MARCH 26, 1959, SHALL GOVERN.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5N	MINN.				

ESTIMATED QUANTITIES			
SPECIFICATION NO.	ITEM	UNIT	TOTAL ESTIMATED QUANTITIES
2101.501	CLEARING	ACRE	6.22
2101.502	CLEARING	TREE	9
2101.506	GRUBBING	ACRE	6.22
2101.507	GRUBBING	TREE	10
2104.501	REMOVE PORT. CULV.	LIN. FT.	81
2104.510	REMOVE FENCE	LIN. FT.	6,098
1557.621	RESET FENCE	LIN. FT.	5,479
2108.501	SPECIAL SWAMP EXCAVATION	CU. YDS.	4,902
2105.501	CLASS "A" EXCAVATION	CU. YDS.	48,565
** 2105.510	TOP SOIL COVERING	CU. YDS. (V.M.)	59
2414.501	CATTLE PASS EXCAVATION	CU. YDS.	147
2414.511	F&I. P-C.CONC. CATTLE PASS 60" HIGH	LIN. FT.	38
2414.512	F&I. P-C.CONC. CATTLE PASS 60" HIGH	LIN. FT.	38
	END SECTIONS	SECTION	2
2414.531	SAND GRAVEL SUBFOUNDATION	CU. YD. (V.M.)	45
2501.501	PIPE CULV. EXCAVATION	CU. YD.	160
2501.511-15	F&I. 15" C.M.P. CULV.	LIN. FT.	148
2501.511-18	F&I. 18" C.M.P. CULV.	LIN. FT.	80
2501.521-24	F&I. 24" SCP CULV. CLASS IV	LIN. FT.	32
2501.521-24	F&I. 24" SCP CULV. CLASS III	LIN. FT.	102
2501.521-36	F&I. 36" SCP CULV. CLASS III	LIN. FT.	50
2501.681	SAND GRAVEL SUBFOUNDATION	CU. YD. (V.M.)	187
2515.531-18	F&I. APRONS FOR 18" C.M.P. CULV.	APRON	2
2515.541-24	F&I. APRONS FOR 24" SCP CULV.	APRON	6
2515.541-36	F&I. APRON FOR 36" SCP CULV.	APRON	2
* 2574.501	ROADSIDE SEEDING	ACRE	15.9
2575.501	SURFACE MULCHING TYPE 1 (7)	TON	14.7
2575.506	SURFACE MULCHING TYPE 6 (7)	GALLON	1,470
2576.501	SODDING	SO. YD.	869
2130.501	WATER	M-GAL.	4.75



SPECIAL DETAILS

ROAD BED TO BE BLADED TO 1/3" PER FT. PITCH DURING FINISHING OPERATIONS

ALL CURVES SHALL BE SUPERELEVATED IN ACCORDANCE WITH DESIGN STANDARDS DURING CONSTRUCTION

THE UPPER 1.0' OF NATURAL SOIL IS CONSIDERED UNSUITABLE FOR USE IN THE UPPER 1.0' OF ROADWAY. THIS PORTION SHALL BE PLACED BELOW THE UPPER 1.0' OF THE EMBANKMENT.

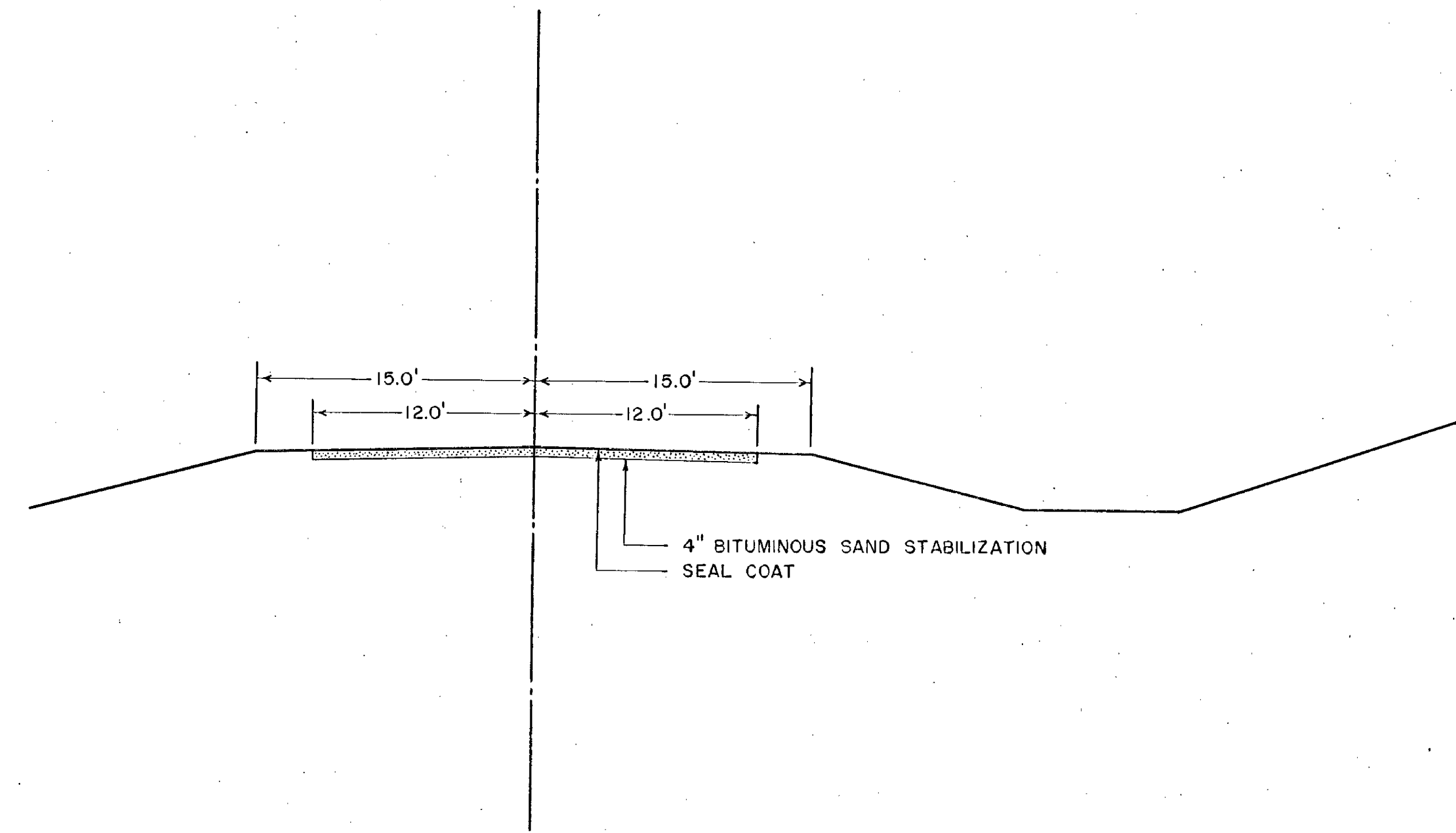
STA. 44+81 TO 71+61 BUILD ROAD INSLOPES AT A 2:1 SLOPE. COMPLETE TO 4:1 INSLOPE WITH PEAT EXCAVATION

* SEED TO BE FURNISHED BY COUNTY ON PROJECT SITE (60 LBS. PER. ACRE)

** TO BE USED SODDING AREAS

2575.501 & 2575.506 TO BE USED AS TYPE 7 MULCH

TYPICAL BASE & SURFACE SECTIONS



STANDARD DETAIL PLATES

THE FOLLOWING STANDARD DETAIL PLATES, APPROVED BY THE BUREAU OF PUBLIC ROADS, SHALL APPLY ON THIS PROJECT.

PLATE NO.	DESCRIPTION
3.000	APPROACHES & ENTS.
3.000-B	SCP CULV. CLASS 3
3.102-A	CONC. APRON
3.000A-8001	STANDARD SIGNS & BARRICADES
3.003 & 3.003A	"
3.016	METAL APRON
3.021	PRE CUST. CONCRETE CATTLE PASS

BM. NO.1 SPIKE IN 15" OAK
100' E STA. 0+00
ELEV. 90.53

FE STA. 10+29 LT.
F&I. 15" X 46' G.M.P.

FE STA. 13+96 LT.
F&I. 15" X 30' G.M.P.

STA. 18+00 C
F&I. 24" X 52" S.O.P. CLASS III
F&I. 2' X 24" APRONS
PIPE CULV. EXC. 32 CU. YDS.
SAND GRAVEL BACKFILL 25 CU. YDS.

FE STA. 4+68 LT.
F&I. 15" X 36' G.M.P.

STA. 13+11 C
INR. 12" X 41'
REMOVE

STA. 15+00 C
F&I. 4' X 5' X 38' PRE. CAST. CONC. CATTLE PASS.
F&I. 2' END SECTIONS
CATTLE PASS EXC. 147 CU. YDS.
SAND GRAVEL SUBFOUNDATION 45 CU. YDS.

FE STA. 20+94 RT.
DRY

BEGINS A P 02-624-01
STA. 0+00

STA. 0+00 LT.
F&I. 18" X 44' G.M.P.
F&I. 2 APRONS

PI = 0+00
Δ = 30° 59' RT.
D = 5° 00'
TS = 468.43'
LS = 300.0'
LC = 319.66'

PI = STA. 14+54.08
Δ = 65° 20' RT.
D = 5° 00'
TS = 886.76
LS = 300.0'
LC = 1,006.7'

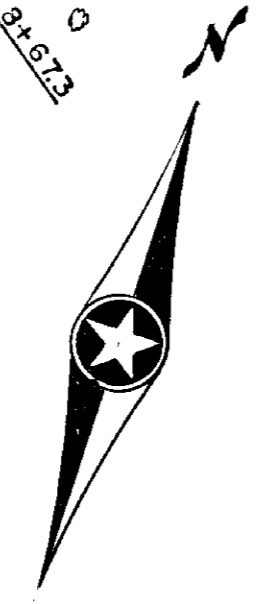
FE. 17+30 RT.
F&I. 15" X 36' G.M.P.

STA. 17+59 C
INR. 18" X 40' S.C.P.
REMOVE

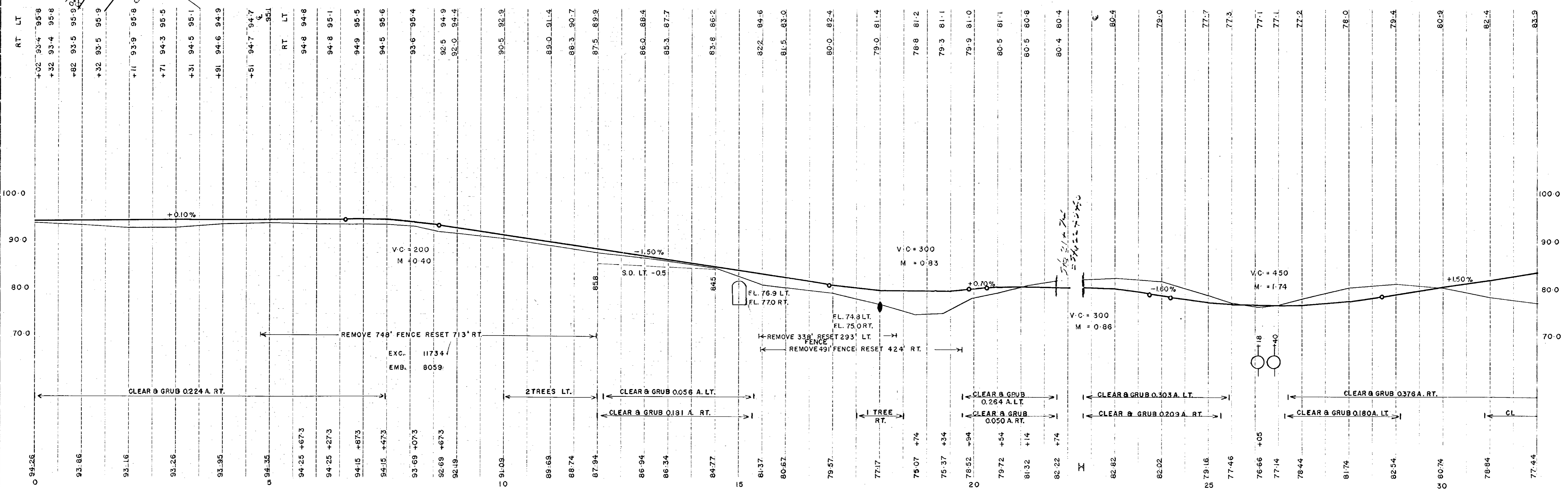
STA. 26+29 C.L.
INR. TIMBER LAMINATED BRIDGE
22' SPAN
20' ROADWAY
TO REMAIN
COUNTY SHALL F&I.
NARROW BRIDGE SIGNS &
DELINEATOR PLATES
(M.H.D. 18" X 36")

FE. 29+38 RT.
DRY

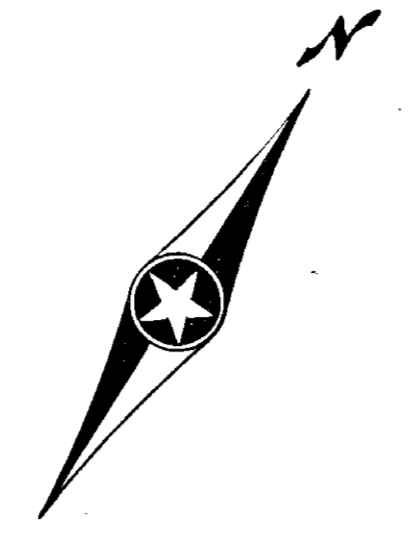
BM. NO. 3 WESTMOST
BOLT (UP&DOWN)
NORTH WHEEL GUARD
BRIDGE
ELEV. 77.49



BM. NO. 2 SPIKE IN
24" LT. STA. 11+90
ELEV. 91.62



1. ALL WORK SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 1988 EDITION, AS AMENDED.
 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.
 3. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ADJACENT PROPERTIES AND UTILITIES AT ALL TIMES.
 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES AND STRUCTURES.
 5. THE CONTRACTOR SHALL MAINTAIN ADEQUATE DRAINAGE THROUGHOUT THE PROJECT.
 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND RESTORATION OF ALL ENVIRONMENTAL FEATURES.
 7. THE CONTRACTOR SHALL MAINTAIN ADEQUATE EROSION CONTROL MEASURES THROUGHOUT THE PROJECT.
 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND RESTORATION OF ALL HISTORIC AND CULTURAL RESOURCES.
 9. THE CONTRACTOR SHALL MAINTAIN ADEQUATE SAFETY MEASURES THROUGHOUT THE PROJECT.
 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND RESTORATION OF ALL NEARBY ECOSYSTEMS.



STA. 46+01 C
 FBI. 24" X 50' S.C.P.
 FBI. 2 24" APRONS
 PIPE CULV. EXC. 36 CU. YDS.
 SAND GRAVEL 50 CU. YDS.

PI = STA. 50+90.75
 Δ = 65°00' LT.
 DC = 8°00'
 TS = 60938'
 LS = 300.0'
 LC = 512.50'

STA. 56+50 LT.
 ROAD APPR.
 DRY

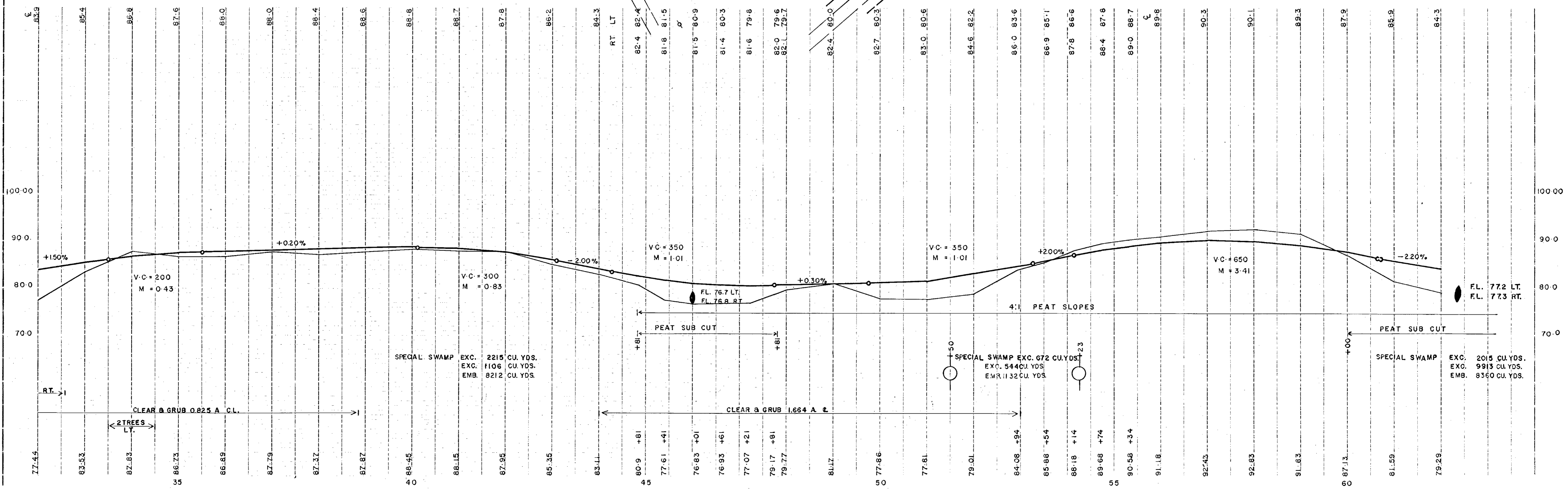
STA. 62+42+0
 FBI. 36" X 50' S.C.P.
 FBI. 2 36" APRONS
 PIPE CULV. EXC. 80 CU. YDS.
 SAND GRAVEL 112 CU. YDS.

STA. 37+50 RT.
 ROAD APPR.
 DRY

B.M. NO. 4 SPIKE IN
 POWER POLE 106 RT.
 STA. 38+83
 ELEV. 89.21

STA. 51+50 RT.
 ROAD APPR.
 DRY

B.M. NO. 5 SPIKE IN
 POWER POLE 70' LT.
 STA. 53+77
 ELEV. 85.85

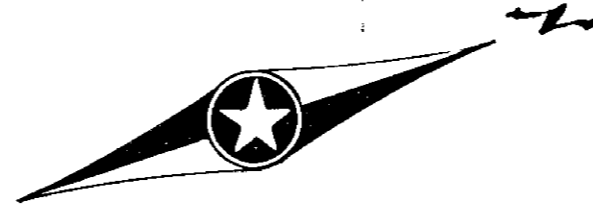


NOTE BOOK
 DATE
 TIME
 NAME

STA. 99+10 RT.
 ROAD APPR.
 DRY

P.I. = STA. 100+78.03
 $\Delta = 91^\circ 56'$ LT.
 $D = 8^\circ 00'$
 $TS = 895.93'$
 $LS = 300.0'$
 $LC = 849.17'$

FE. STA. 106+61 LT.
 DRY



ENDS.A.P. 02-624-01
 STA. 123+71.9

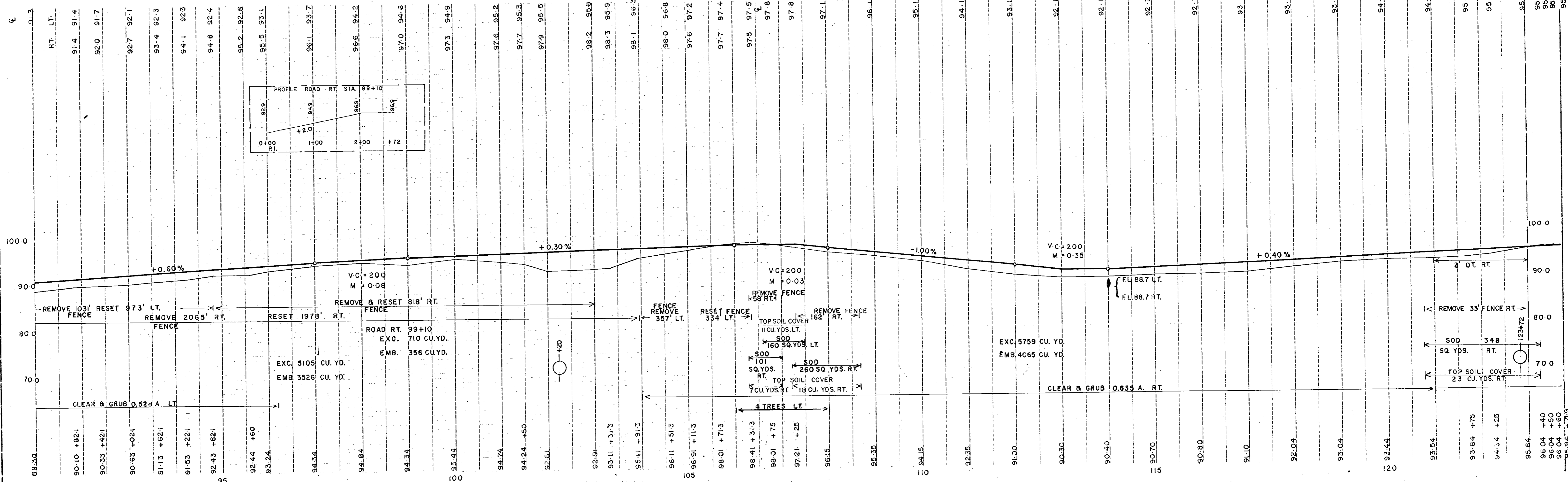
STA. 114+00 C
 F&I. 24" X 32" S.C.P. CLASS IV.
 F&I. 2-24" APRONS
 PIPE CULV. EXC. 12 CU. YD.

FE. STA. 107+09 RT.
 DRY

B.M. NO. 8 SPIKE IN
 POWER-POLE
 153' RT. STA. 98+00
 ELEV. 94.05

B.M. NO. 9 SPIKE IN
 POWER-POLE LT.
 STA. 108+82
 ELEV. 94.98

B.M. NO. 10 SPIKE IN
 NORTH GATE POST
 RT. STA. 122+00
 ELEV. 93.75



2-11 12-111113-111 1-1111 3-111