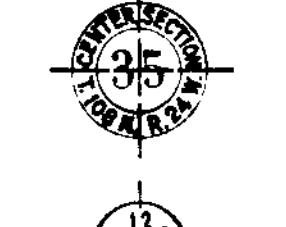


CONVENTIONAL SIGNS

STATE LINE	=====	TIMBER	
COUNTY LINE	=====	BRUSH	
TOWNSHIP OR RANGE LINE	=====	ORCHARD	
SECTION LINE	=====	ROCK LEDE	
QUARTER LINE	=====	SAND	
SIXTEENTH LINE	=====	EDGE OF CUT	
EIGHTH OF MILE LINE	=====	TOP OF EMBANKMENT	
PRESENT ROAD "A" LINE	=====	CATCH BASIN	
PROPERTY LINE (LAMP LINE)	=====	MEANWILE	
VACATED PLATTED PROPERTY	=====	DOOR INLET	
CORPORATE OR CITY LIMITS	=====	FIRE HYDRANT	
TRUNK HIGHWAY CENTER LINE	=====	ARC LAMP	
RETAINING WALL	=====	OTHER LAMPS (DOWN LINE)	
STEAM RAILROAD	=====	RAILROAD CROSSING SIGN	
ELECTRIC RAILROAD	=====	ELECTRIC WARNING SIGN	
RAILROAD BANK-OF-WAY LINE	=====	CROSSING RATE	
RAILROAD CENTER LINE	=====	FAT L E GUARD	
RAILROAD SHOW FENCE	=====	OVERHEAD (Highway Over)	
BOARD OR INTERMEDIATE SHOW FENCE	=====	UNDERPASS (Highway Under)	
STONE WALL OR FENCE	=====	ABUTMENT, WALL & PIER	
RAIL MAIN	=====	BRIDGE	
WATER PIPE	=====	CULVERT	
SEWER PIPE	=====	BUILDING (One Story Frame)	
DRAIN TILE	=====	C-CONCRETE S-STONE T-TILE & BRICK ST-STUCCO	
GRAVEL PIT	=====	WATER	
SAND PIT	=====	IRON PIPE	
CLAY PIT	=====	STONE MONUMENT	
ROCK QUARRY	=====	WOOD STAKE OR PILE	
SPRINGS	=====	MEANDER CORNER	
MARSH	=====		



NOTE SECTION NUMBERS READ FROM THE SOUTH



STATE OF MINNESOTA
DEPARTMENT OF HIGHWAYS
CONSTRUCTION PLAN FOR GRADING

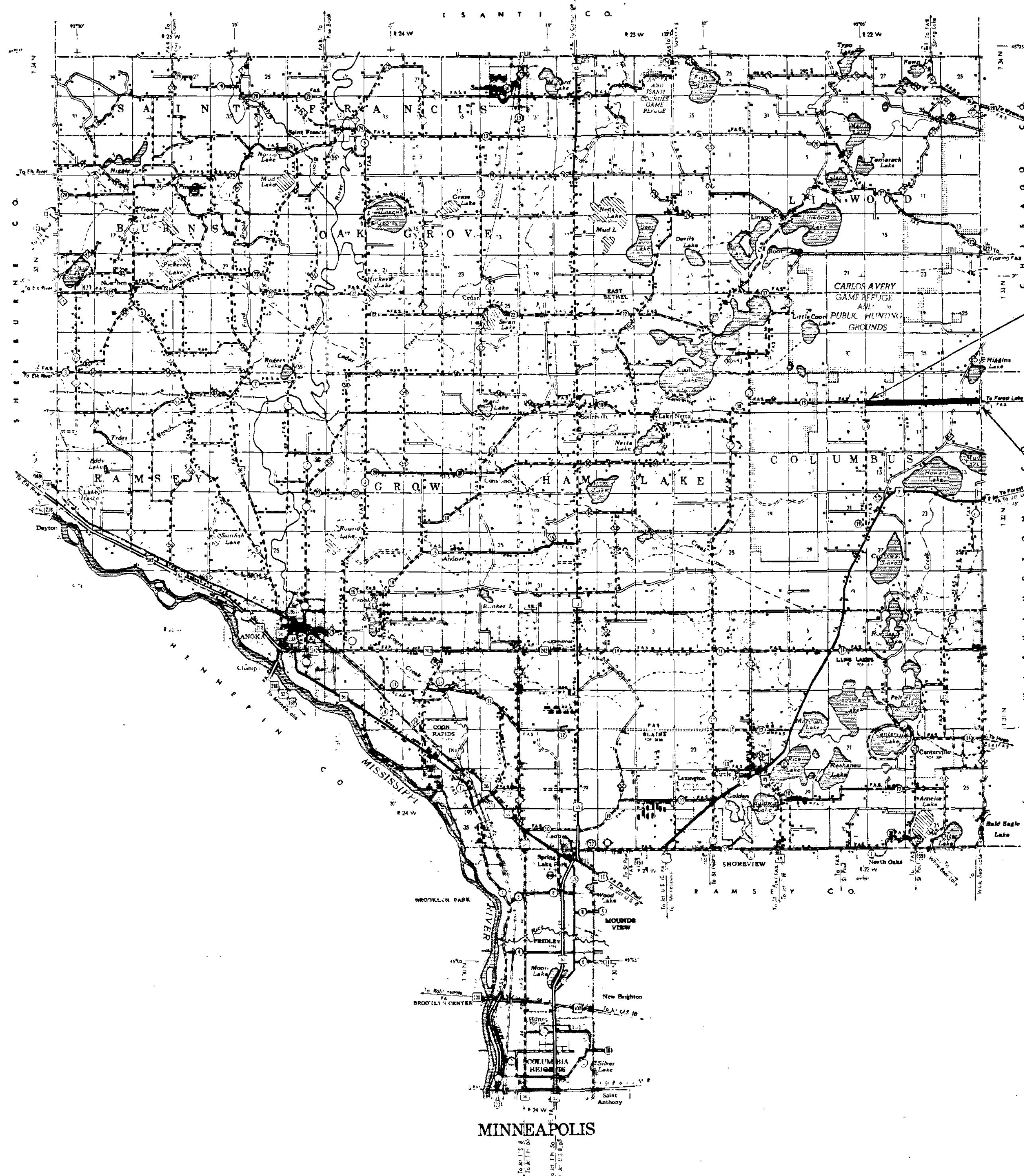
County State Aid Highway No. 18

BETWEEN CSAH NO. 19 AND THE EAST COUNTY LINE
From A POINT 1311.65' SOUTH OF THE WEST QUARTER CORNER SEC. 3 T-32 N. R-22 W To A POINT 1308.45' NORTH OF THE SOUTHEAST CORNER SEC. 1 T-32 N. R-22 W
Give proper reference to sections, Township and Range

GROSS LENGTH	15,713.9 FEET	2.976 MILES
BRIDGES LENGTH	0 FEET	0 MILES
EXCEPTIONS LENGTH	0 FEET	0 MILES
NET LENGTH	15,713.9 FEET	2.976 MILES

DESIGN SPEED
50 M.P.H.

SCALES
 Plan 1 inch = 100 Feet
 PROFILE: Horiz. 1 inch = 100 Feet, Vert. 1 inch = 10 Feet
 WORKING PLANS: Horiz. 1 inch = 100 Feet, Vert. 1 inch = 10 Feet
 Cross-Section 1 inch = 10 FEET
 LAYOUT
 Scale 1 inch = 100 Feet



BEGIN S.P. 02-618-01 STA. 500+00
S-6353 (3)

MINN. PROJ. S-6353 (3)

END S.P. 02-618-01 STA. 657+13.9
S-6353 (3)

INDEX OF SHEETS
 Sheet No. 1. Title Sheet & Layout Map
 " No. 2. Est. Quantities & Typical Sec.
 " No. 3. To 5. Plan & Profile
 " No. 6. To 21. Cross Sections

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.

Edwin J. Lundholm COUNTY ENGINEER DATE 2-6-61
 ANOKA COUNTY REG. NO. 2551
 RECOMMENDED FOR APPROVAL *Edna E. Pearson* 2-6-61 DISTRICT ENGINEER
 RECOMMENDED FOR APPROVAL *J. H. Williams* 7/18, 1961
 APPROVED 7-18, 1961 *E. M. Swann* STATE AID ENGINEER

MICRO-FILMED

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.

Minn. Project No. S-6353 (3) State Project No. 02-618-01

ANOKA County, Minnesota. County Proj. No. Plan No. Sheet 1 of 21 Sheets

1-5 sheets for 1/16/61

July 16
RSAB

ESTIMATED QUANTITIES

SPECIFICATION NO.	ITEM	UNIT	MUNICIPAL	RURAL	TOTAL ESTIMATED QUANTITIES
2101.501	CLEARING	ACRE			2.3
2101.502	CLEARING	TREE			33
2101.506	GRUBBING	ACRE			2.7
2101.507	GRUBBING	TREE			57
2104.501	REMOVE PORTABLE CULV.	LIN. FT.			308
2104.510	REMOVE FENCE	LIN. FT.			13,809
957.621	RESET FENCE	LIN. FT.			12,952
2109.501	SPECIAL SWAMP EXC.	CU. YD.			7610
2109.501	CLASS "A" EXC.	CU. YD.			59206
2109.514	SALVAGED BIT MIX. ON ROAD	CU. YD. (VM)			5474
2501.501	PIPE CULV. EXC.	CU. YD.			413.7
2501.511-12	F. & I. 12" C.M.P. CULV.	LIN. FT.			24
2501.511-15	F. & I. 15" C.M.P. CULV.	LIN. FT.			574
2501.511-18	F. & I. 18" C.M.P. CULV.	LIN. FT.			40
2501.511-24	F. & I. 24" C.M.P. CULV.	LIN. FT.			38
2501.511-36	F. & I. 36" C.M.P. CULV.	LIN. FT.			58
2501.511-48	F. & I. 48" C.M.P. CULV.	LIN. FT.			128
2501.512-43	F. & I. 43" (SPAN) C.M.P.-ARCH CULV.	LIN. FT.			48
501.681	SAND GRAVEL SUB-FOUNDATION	CU. YD. (VM)			230.4
2501.521-24	F. & I. 24" S.C.P. CULV. CL-III	LIN. FT.			150
2501.521-24	F. & I. 24" S.C.P. CULV. CL-IV	LIN. FT.			78
2501.531	INSTALL C.M. CULV.	LIN. FT.			67
2515.531-15	F. & I. APRONS 15" C.M.P. CULV.	APRON			2
2515.531-18	F. & I. APRONS 18" C.M.P. CULV.	APRON			4
2515.531-24	F. & I. APRONS 24" C.M.P. CULV.	APRON			2
2515.531-36	F. & I. APRONS 36" C.M.P. CULV.	APRON			2
2515.532-43	F. & I. APRONS 43" ARCH CULV.	APRON			2
2515.531-48	F. & I. APRONS 48" C.M.P. CULV.	APRON			4
2515.541-24	F. & I. APRONS 24" S.C.P. CULV.	APRON			10
* 2574.501	ROADSIDE SEEDING	ACRE			23.3
** 2575.501	SURFACE MULCHING TYPE 1 (7)	TON			12.0
** 2575.506	SURFACE MULCHING TYPE 6 (7)	GALLON			12.00
2130.501	WATER	M-GALLON			38.7
** 2576.501	SODDING	SQ. YD.			2197

* COUNTY WILL FURNISH SEED ON PROJECT (60 LBS. PER. ACRE)

** ALL AREAS TO BE SODDED WILL BE COVERED WITH MINIMUM OF 3 INCHES OF TOPSOIL OR CLAY FOUND WITHIN LIMITS OF PROJECT. THIS WILL BE CONSIDERED INCIDENTAL TO CLASS "A" EXC.

*** 2575.501 & 2575.506 TO BE USED FOR TYPE 7 MULCHING ON INSLOPES NOT COVERED BY PEAT.

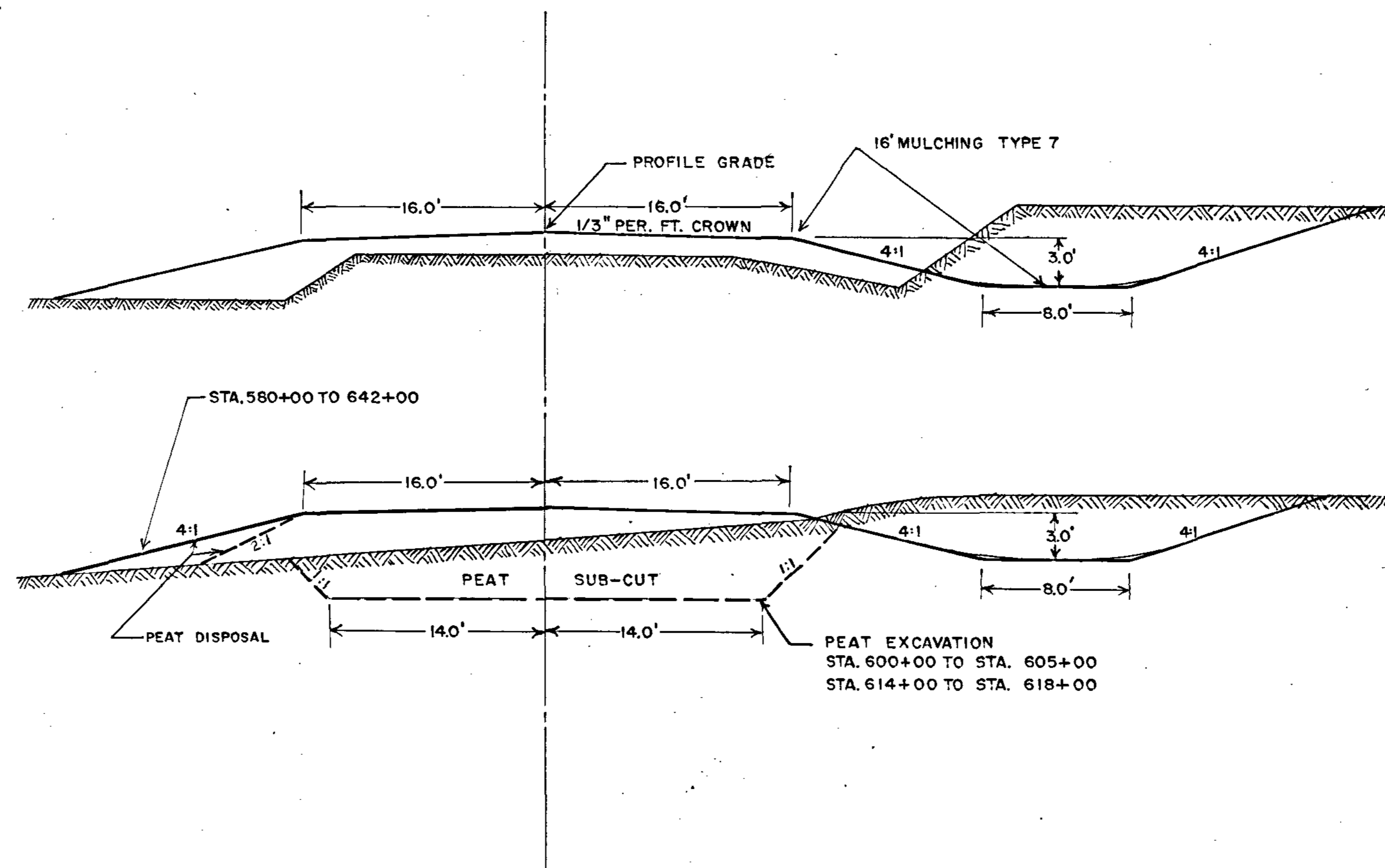
Δ INCLUDES 2 APRONS

STANDARD DETAIL PLATES

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

PLATE NO.	DESCRIPTION
3000 B	SCP CLASS 3 & 4
3040	C.M.P. PIPE ARCH
3122 A	METAL APRON - C.M.P. ARCH CULV.
3102 A & 3100 B	CONC. APRON
8000 A, 8001	STANDARD SIGNS & BARRICADES
8003, 8008 A	" " " "
9000	APPROACHES & ENTRANCES

TYPICAL GRADING SECTIONS



SPECIAL DETAILS

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

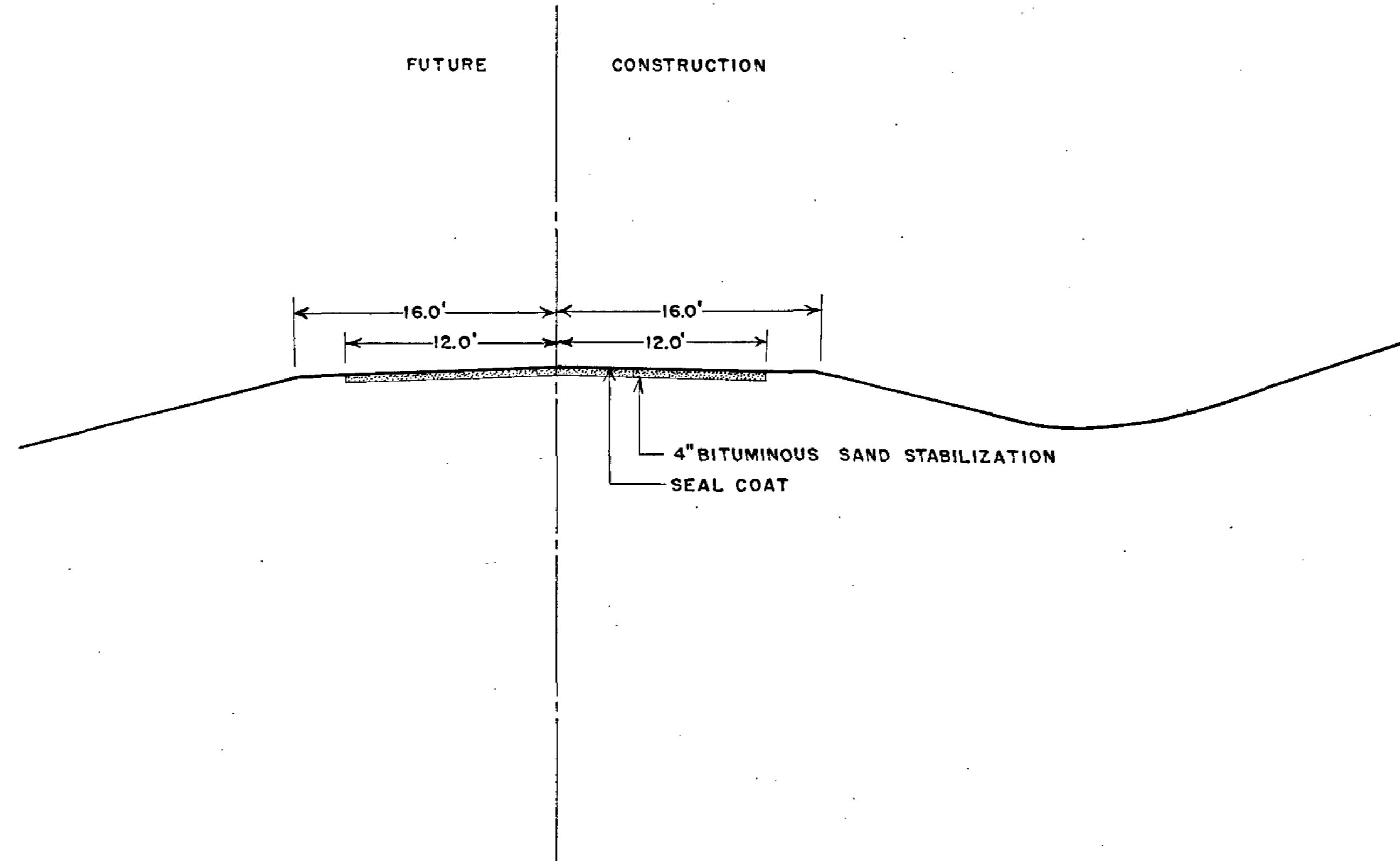
THE UPPER 1.0' OF NATURAL SOIL IS CONSIDERED UNSUITABLE FOR USE IN THE UPPER 1.0' OF ROADBED THIS PORTION SHALL BE PLACED BELOW THE UPPER 1.0' OF EMBANKMENT DURING CONSTRUCTION.

STA. 580+00 TO STA. 642+00 BUILD ROAD INSLOPES AT A 2:1 SLOPE COMPLETE TO 4:1 INSLOPE WITH PEAT EXCAVATION.

STA. 500 TO STA. 657+13.9 BURIED TELE. CABLE APPROX. 2' SOUTH OF PRESENT BIT. MAT. AT A DEPTH OF 2' TO 3FT. UTILITY COMPANY WILL MOVE PORTIONS DURING CONTR. CONTRACTOR SHALL CO-ORDINATE OPERATIONS WITH UTILITY COMPANY.

NOTE: ALL DIMENSIONS & SLOPES SHOWN ON TYPICAL SECTION ARE APPROXIMATE ONLY.

TYPICAL BASE & SURFACE SECTIONS



Minn. Project No. S-6353 (3) S.A.P. State Project No. 02-618-01



B.M. NO. 1 - SPIKE IN
12" OAK 75' RT.
STATION 499+30
ELEVATION 100.00
TO OBTAIN M.S.L. 1929
ELEV. ADD 806.10

1311-65' TO EAST
QUARTER CORNER
SECTION 3 T32N R22W

STATION 509+29
INP. 36" X 40' C.M.P.
REMOVE

STA 509+29
PIPE CULV. EXC. 1066 CU. YDS.
SAND GRAVEL SUBFOUNDATION 49.5 CU. YDS.

STATION 524+23
INP. 12" X 29' C.M.
REMOVE

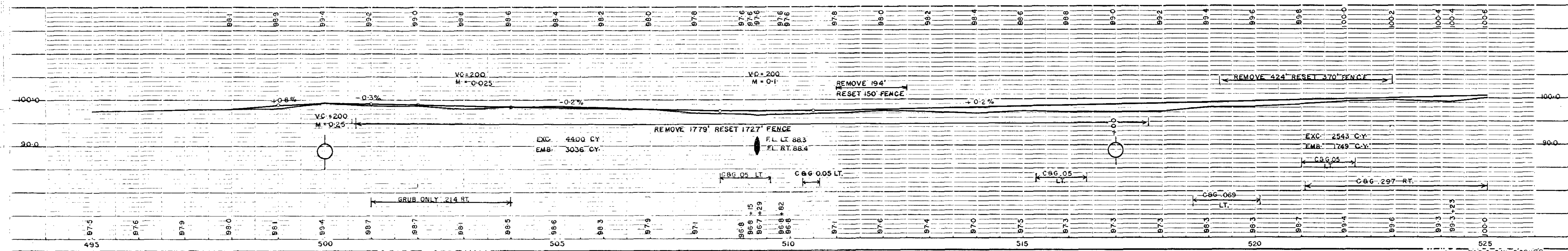
BEG. S.P. 02-618-01
S 6353(3)

ENT 507+50
F&I 15" X 34' C.M.P.

ENT 515+00 DRY

ENT 523+15 DRY

ENT 520+80
F&I 15" X 34' C.M.P.



PI = 526+04.4
Δ = 0°10' LT

B.M. NO. 2 - SPIKE IN
18" OAK 60' RT.
STATION 526+04
ELEVATION 102.38

B.M. NO. 3 - TOP B'S'E CORNER
(LOW POINT) SLAB 15' F.
STATION 531+50 LT.
ELEVATION 104.67

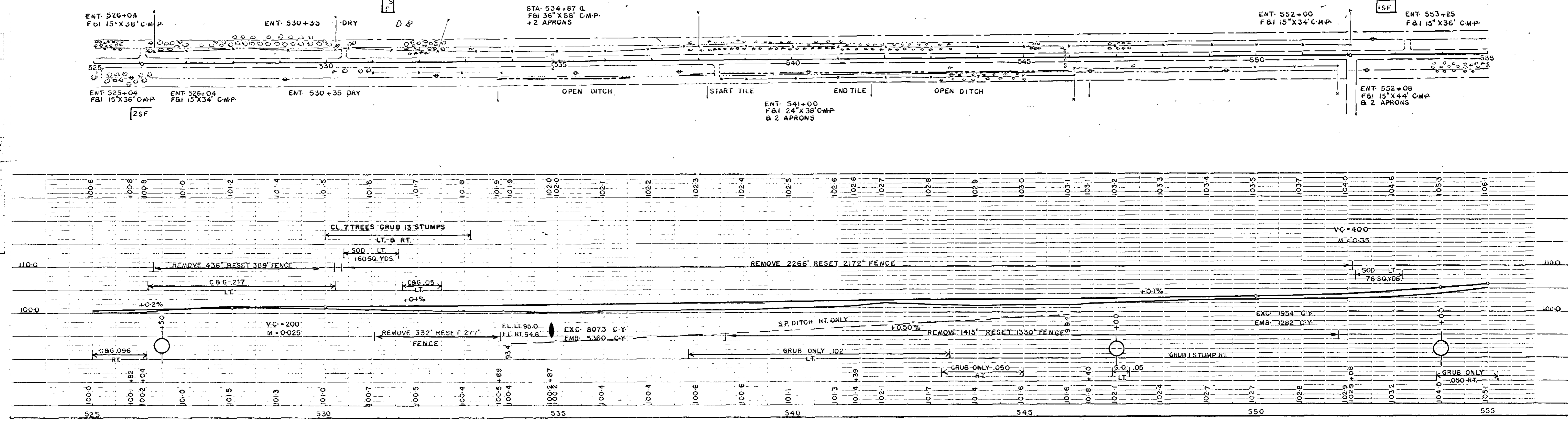
STATION 534+87
INP. 24" X 44'
REMOVE

STA 534+87
PIPE CULV. EXC. 74.0 CU. YDS.
SAND GRAVEL SUB FOUNDATION 40.6 CU. YDS.

STATION 545+90
INP. 12" X 28' C.M.
REMOVE

PI = 552+08.4
Δ = 0°14' LT

B.M. NO. 4 - TOP B'S'W CORNER
TOP CONCRETE STEP 15' F.
STATION 552+98 LT.
ELEVATION 104.49



PLEASE REFER TO SHEET S-6353(2) FOR PREVIOUS WORK

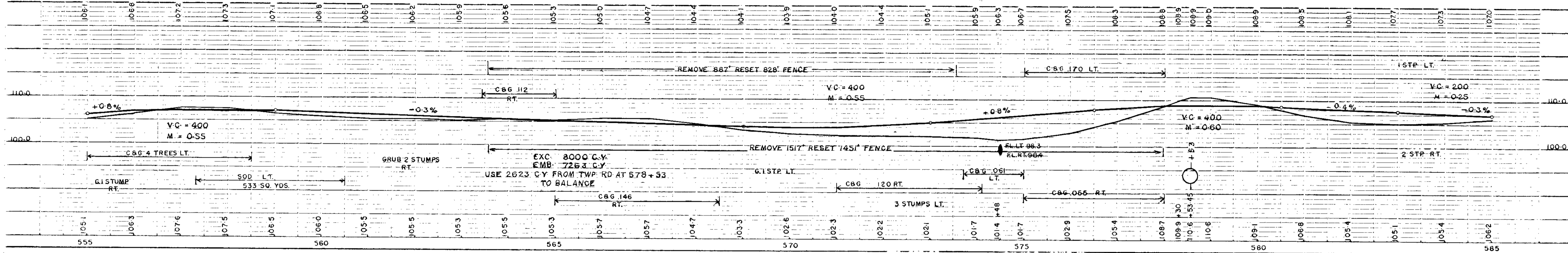
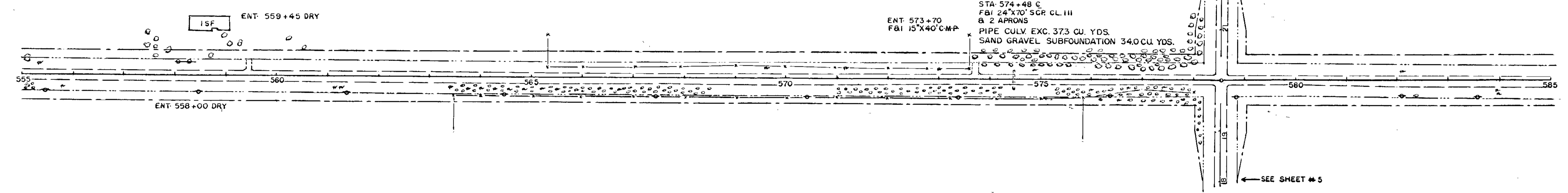


B.M. NO. 5 - S.W. CORNER
SIDEWALK SLAB ISF LT.
STA. 558+40
ELEVATION 109.12

STATION 574+48
INP. 15" X 28" C.M.
REMOVE

B.M. NO. 6 - SPIKE IN
14" OAK 75' RT.
STA. 578+10
ELEVATION 113.43

PI = 578+53.45
Δ = 0°43' LT.



PI = 592+98.50
Δ = 0°29' RT.

B.M. NO. 7 - N.W. CORNER
HOUSE FOUNDATION RT.
STATION 592+95
ELEVATION 109.89

STA. 602+53
INP. 18" X 32" C.M.
REMOVE

B.M. NO. 8 - SPIKE IN
18" OAK 150' RT.
STA. 604+85
ELEVATION 100.84

STA. 589+00 C
FBI 24" X 38" S.C.P.
B 2 APRONS (CL. IV)
PIPE CULV. EXC. 13.0 CU. YDS.
SAND GRAVEL SUBFOUNDATION NOT NEEDED

STA. 602+53
FBI 43" X 27" X 46" C.M.P.A.
B 2 APRONS
PIPE CULV. EXC. 45.5 CU. YDS.
SAND GRAVEL SUBFOUNDATION 28.0 CU. YDS.

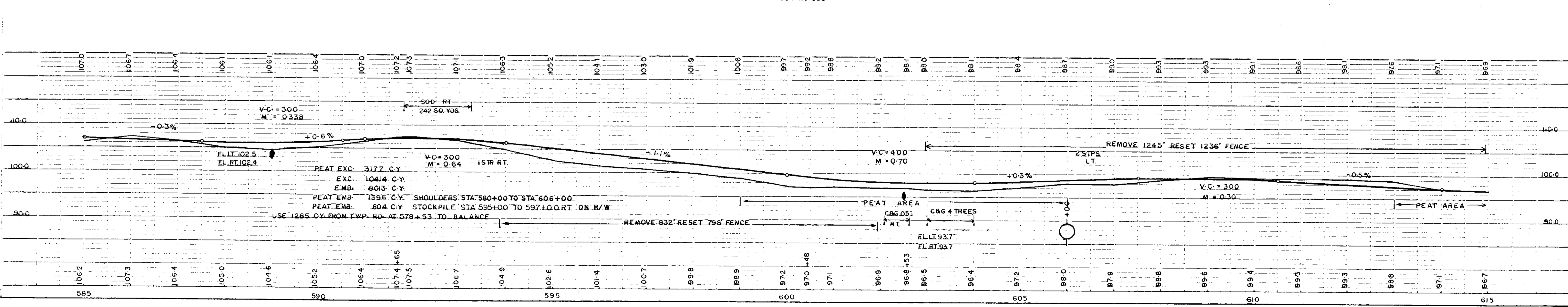
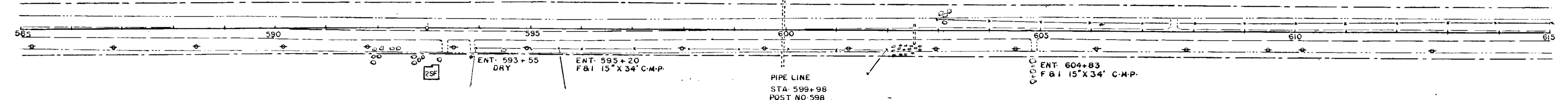


PLATE 1 PLAN PROFILE & ELEVATION STANDARD
MUTUAL & LIFE INSURANCE CO.
KANSAS CITY, MO.

