FORM 129A REV. '54

CONVENTIONAL SIGNS

STATE LINE
COUNTY LINE
TOWNSHIP OR RANGE LINE
SECTION LINE
QUARTER LINE
SIXTEENTH LINE
RIGHT-OF-WAY LINE
PRESENT ROAD R/W LINE
LIMITED ACCESS
PROPERTY LINE (Except Land Lines)
VACATED PLATTED PROPERTY
CORPORATE OR CITY LIMITS
TRUNK HIGHWAY CENTER LINE
RETAINING WALL
STEAM RAILROAD
ELECTRIC RAILROAD
RAILROAD RIGHT-OF-WAY LINE
CREEK
RAPIDS OR WATERFALL
DRY RUN
DRAINAGE DITCH
HIGH TENSION LINE
POWER POLE LINE
TELEPHONE OR TELEGRAPH LINE
TELEPHONE CONDUIT
GUARD RAIL
WIRE FENCE
RAILROAD SNOW FENCE
BOARD OR HIGHWAY SNOW FENCE
STONE WALL OR FENCE
GAS MAIN
WATER PIPE
SEWER PIPE
DRAIN TILE
GRAVEL PIT
SAND PIT
CLAY PIT
ROCK QUARRY
SPRINGS
MARSH

TIMBER
BRUSH
ORCHARD
ROCK LEDGE
SAND
EDGE OF CUT
TOE OF EMBANKMENT
CATCH BASIN
MANHOLE
DROP INLET
FIRE HYDRANT
ARC LAMP
OTHER LAMPS (State Kind)
RAILROAD CROSSING SIGN
RAILROAD CROSSING BELL
ELECTRIC WARNING SIGN
CROSSING GATE
CATTLE GUARD
OVERHEAD (Highway Over)
UNDERPASS (Highway Under)
ABUTMENT, WALL & PIER
BRIDGE
CULVERT
BUILDING (One Story Frame)
C-CONCRETE S-STONE T-TILE B-BRICK ST.-STUCCO
HEDGE
IRON PIPE
STONE MONUMENT
WOOD STAKE OR HUB
MEANDER CORNER

T.110N. R.24W. 35 36 2 1 T.109N. R.24W.

SECTION 35 T.109N. R.24W.

12 1 4 13

NOTE: SECTION NUMBERS READ FROM THE SOUTH

N

STATE OF MINNESOTA
DEPARTMENT OF HIGHWAYS

CONSTRUCTION PLAN FOR GRADE & CRUSHED ROCK SURFACE

County **State Aid** Hwy **No.** 10

BETWEEN C.S.A.H. # 30 AND County Road "O"

From 3363' North of SE Cor Sec 33 T106N-R11W To SE Cor NE 1/4 NE 1/4 Sec 2 LT106N-R11W

Give proper reference to Sections, Township and Range

GROSS LENGTH 13,919.2 FEET 2.6362 MILES
BRIDGES LENGTH - - - FEET - - - MILES
EXCEPTIONS LENGTH - - - FEET - - - MILES
NET LENGTH 13,919.2 FEET 2.6362 MILES

SCALES
PLAN, 1 Inch = 100 Feet
PROFILE, Horz. 1 Inch = 100 Feet. Vert. 1 Inch = 10 Feet
WORKING PLANS: Horz. 1 Inch = 100 Feet; Vert. 1 Inch = 10 Feet; Cross Section 1 Inch = 10 Feet

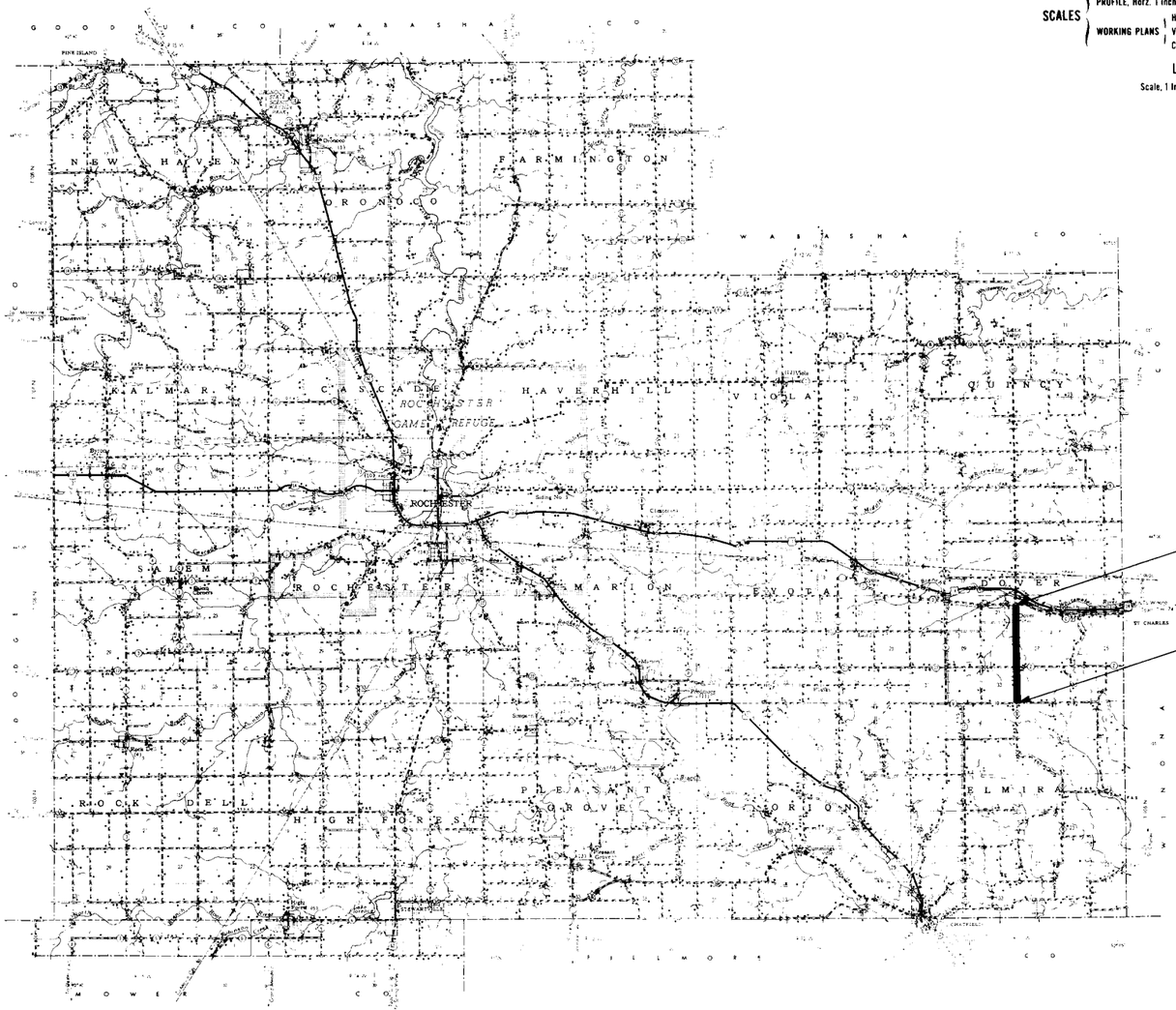
LAYOUT
Scale, 1 Inch = 10560 Feet

MINN. PROJ. _____

INDEX OF SHEETS

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

Design Speed 60 M.P.H.



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

OLMSTED COUNTY HIGHWAY ENGINEER

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

COUNTY ENGINEER DATE

COUNTY REG. NO

RECOMMENDED FOR APPROVAL _____ 19 __
DISTRICT ENGINEER

RECOMMENDED FOR APPROVAL [illegible] 19 [illegible]

APPROVED _____ 19 _____
STATE AID ENGINEER

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED

DISTRICT ENGINEER DATE

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. Proj. No. _____ S.A.P. No. 55-610-01

Olmsted County, Minnesota County Proj. No. _____ Plan No. _____ Sheet No. 1 of 19 Sheets

H. A. ROGERS CO. Minneapolis

FORM 129 C - # 1 Rev. '46

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
2101.502	Clearing	Tree	81
2101.507	Grubbing	Tree	116
2104.501	Remove Portable Culverts	Linear Foot	1101
2105.501	Class "A" Excavation	Cubic Yard	63576
2501.511-18"	F&I C.M.P. Culverts-18"	Linear Foot	580
2501.511-24"	F&I C.M.P. Culverts-24"	Linear Foot	32
2501.511-36"	F&I C.M.P. Culverts-36"	Linear Foot	60
2501.521-24"	F&I S.C.P. Culverts - 24" (Class 3)	Linear Foot	134
2501.521-36"	F&I S.C.P. Culverts - 36" (Class 3)	Linear Foot	48
2501.521-48"	F&I S.C.P. Culverts - 48" (Class 3)	Linear Foot	38
2501.522-48"	F&I S.C.P. Arch Culverts-48"	Linear Foot	42
2515.531-18"	F&I Metal Aprons For C.M.P.-18"	Apron	40
2515.531-24"	F&I Metal Aprons For C.M.P.-24"	Apron	2
2515.531-36"	F&I Metal Aprons For C.M.P.-36"	Apron	4
2515.541-24"	F&I Conc. Aprons For S.C.P.-24"	Apron	4
2515.541-36"	F&I Conc. Aprons For S.C.P.-36"	Apron	2
2515.541-48"	F&I Conc. Aprons For S.C.P.-48"	Apron	2
2515.542-48"	F&I Conc. Aprons For S.C.P. Arch - 48"	Apron	2
2252.527	Crushed Rock Wearing Course In Place	Cubic Yards (Y.M.)	6303

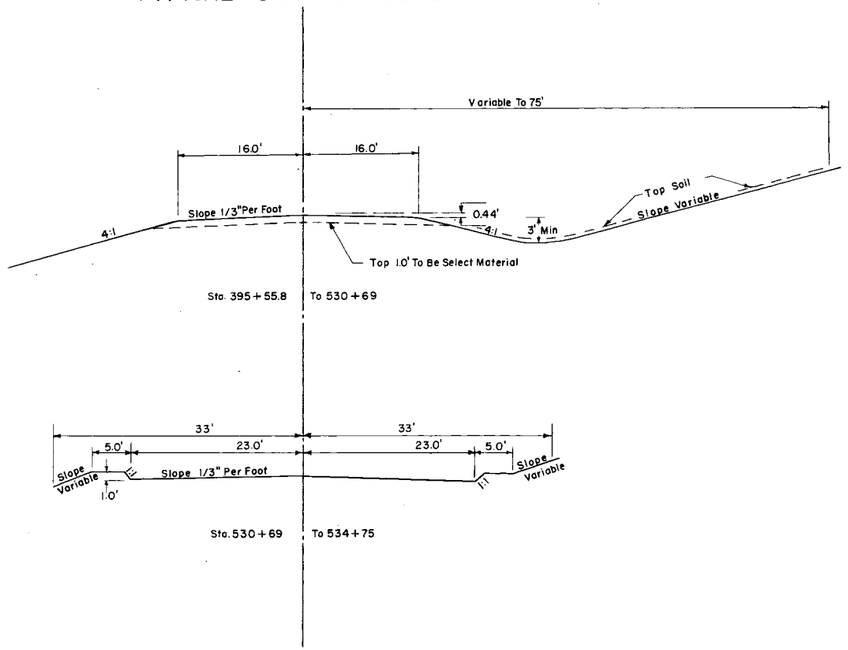
NOTE: Item 2252.527 Includes 470 Cubic Yards For Approaches and 60 Cubic Yards For Twp. Roads.

STANDARD DETAIL PLATES

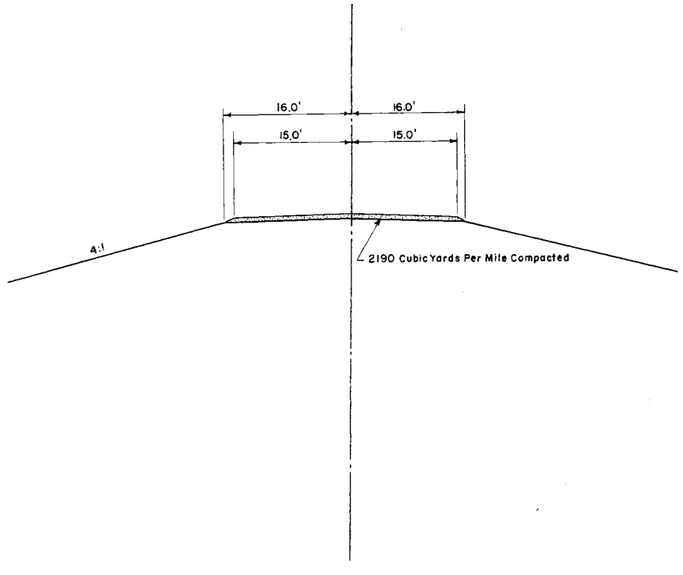
THE FOLLOWING STANDARD DETAIL PLATES, APPROVED BY THE BUREAU OF PUBLIC ROADS, SHALL APPLY ON THIS PROJECT

PLATE NO.	DESCRIPTION
3100 B	Concrete Aprons For Reinforced Concrete Pipe
3123 A	Metal Aprons For C.M. Pipes
3110	Concrete Apron For Reinforced Concrete Pipe-Arch
8000A, 8001, 8003 & 8008A	Standard Signs & Barricades

TYPICAL GRADING SECTIONS



TYPICAL BASE & SURFACE SECTIONS



SPECIAL DETAILS

Note: Material from the top 1.0' of the Natural topsoil shall not be used in the upper 1.0' of the Roadway. Part of this material shall be spread uniformly on the slope and ditch-bottoms to a depth of 3". No payment in addition to the Contract Price for Class "A" Excavation will be made for spreading the topsoil as provided above, nor will any undercutting made in excavation prior to placing the topsoil be measured for payment.

Note: Corrugated Metal and Sectional Concrete Pipe Culvert excavation shall be considered incidental and will be paid under unit Price for Furnish and Install Culvert Pipe.

Note: Subgrade Treatment
Excavation 1.0' below Profile Grade for compaction as shown on plan and Profile Sheets. Excavation has been computed and is included in Balance Quantities. Backfill with Select Material from R.O.W. Taper shall be 50:1 in all cases.

Note: Place Sectional Concrete Pipe on Class C Bedding.

DAHN'S PHOTO PRINT CO.
MPLS. 1, MINN.

P.C. 386+49.1

Pl. 392+19.5
Δ Lt. 89° 40'
D 10°
T 569.7
L 896.7

Sta 396+62 FE. Lt.
Inpl 18"x 24' C.M.P
Remove
No Culv. Req'd

Sta 400+52 ℄
Inpl. 24" 46' C.M.P
Remove
F&I 24"x76' S.C.P - Class III
F&I 2-24" S.C.P Aprons

Sta 408+42 FE. Lt
Inpl. 15"x 24' C.M.P
Remove
F&I 18"x 28' C.M.P
F&I 2-18" C.M.P Aprons

Sta 413+09 FE. Lt.
Inpl. 18"x 24' C.M.P
Remove
F&I 18"x 32' C.M.P
F&I 2-18" C.M.P Aprons

Sta 415+14 FE. Lt.
Inpl. 15" 42' C.M.P
Remove
F&I 18"x 32' C.M.P
F&I 2-18" C.M.P Aprons

Sta 419+83 FE. Lt.
Inpl. 15"x 24' C.M.P
Remove
F&I 18"x 28' C.M.P
F&I 2-18" C.M.P Aprons

P.T. 395+55.8

Beg. S.P. 55-610-01
Sta. 395+55.8

T 10 S
R 3 W
Sec 33
3 4

Sta 396+68 FE. Rt
Inpl. 18" 24' C.M.P
Remove
No Culv. Req'd.

Sta 408+42 FE. Rt.
Inpl. 15" 24' C.M.P
Remove
F&I 18"x 28' C.M.P
F&I 2-18" C.M.P Aprons

Sta 410+70 FE. Rt
Inpl. 15" 24' C.M.P
Remove
F&I 18"x 28' C.M.P
F&I 2-18" C.M.P Aprons

Sta 414+10 FE. Rt
Inpl. 15" 24' C.M.P
Remove
No Culv. Req'd.

Sta 417+92 ℄
Inpl. 18" 46' C.M.P
Remove
F&I 24"x 58' S.C.P Class III
F&I 2-24" S.C.P Aprons
Place Ditch Block

B.M. Elev. 1328.06
Drag Tooth in T.P
40' Rt. 394+50

B.M. Elev. 1317.40
Spike in P.P
33' Lt. 407+40

Clear 31
Grub 51

Profile 75' Lt
Profile 75 Rt

+0.8%
-0.5%
+1.0%
-0.6%
-2.1%

590' V.C.
M=.85

800' V.C.
M=1.5

INLET 12.5
OUTLET 07.5

INLET 93.0
OUTLET 89.0

Sub-grade Treatment
Exc. 1.0' Below Grade
Sta 395+55.8 to 396+50

Subgrade Treatment
Exc. 1.0 Below Grade
Sta 403+50 to 414+30

EXC. 10,798
FILL 8,001

EXC. 4,629
FILL 3,424

S.A.P. 55-610-01

SHEET 3 OF 19 SHEETS

Sta 424+49 FE. Lt.
Inpl 15"x24' C.M.P
Remove
F&I 15"x28' C.M.P.
F&I 2-18" C.M.P Aprons

Sta. 443+46 Twp. Rd-Lt.
Inpl. 18"x68' C.M.P
Remove
F & I 18"x 36' C.M.P
F & I 2-18" C.M.P Aprons

Sta 443+58 FE. Lt
Inpl. 15"x 24' C.M.P
Remove
F&I 18"x28' C.M.P.
F&I 2-18" C.M.P Aprons

Sta 423+68 FE. Rt.
Inpl. 15"x 24' C.M.P
Remove
F&I 15"x28' C.M.P.
F&I 2-18" C.M.P Aprons

Sta 432+63 ℄
Inpl. 30"x 38' C.M.P
Remove
F&I 36"x48' S.C.P.
F&I 2-36" S.C.P. Aprons

Sta 438+84 FE. Rt.
Inpl. 15"x 24' C.M.P
Remove
F&I 18"x28' C.M.P.
F&I 2-18" C.M.P Aprons

Sta. 443+46 C.S.A.H No. 29 Rt.
Inpl. 24"x 66' C.M.P.
Remove
No Culv. Req'd

Sta 449+00 FE. Rt.
Inpl. 15"x 24' C.M.P
Remove
F&I 18"x 28' C.M.P.
F&I 2-18" C.M.P. Aprons

T. 6 N. R. 7 W. 4th P.M. SEC. 33 28 27

B.M. Elev. 1268.76
Spike in P.P
32' Lt. 429+02

B.M. Elev. 1265.10
Spike in T.P
33' Rt 442+14

U.S.G.S.
B.M. Elev. 1258.60
33' Lt. 446+21

-2.1%
-2.5%
+0.44%
-7.8%

600' V.C.
M=0.30
C=0.0333

600' V.C.
M=2.205
C=0.245

600' V.C.
M=1.68
C=0.1967

Subgrade Treatment
Exc. 1.0' Below Grade
Sta 417+52 to 426+10

Subgrade Treatment
Exc. 1.0' Below Grade
Sta 433+75 to 443+25

INLET 63.0
OUTLET 58.7

EXC. 8,810
FILL 6,527

Sta. 455+35 F.E. Lt.
Inpl. 15" x 20' C.M.P.
Remove
F&I 18" x 28' C.M.P.
F&I 2-18" C.M.P. Aprons

Sta. 465+49 Culv. Inpl.
48" x 40' C.M.P. Arch
Remove
F&I 48" x 42' S.C.P.-A
F&I 2-48" Conc. Aprons For S.C.P.-A
Pt. Ditch Block

Sta. 466+47 F.E. Lt.
No Culv. Inpl.
No Culv. Req'd

PI 468+79.15
Δ Lt. 0°1'30"

Sta. 475+13 F.E. Lt.
Inpl. 36" x 22' C.M.P.
Remove
F&I 36" x 32' C.M.P.
F&I 2-36" C.M.P. Aprons

Sta. 478+76 F.E. Lt.
Inpl. 36" x 22' C.M.P.
Remove
F&I 36" x 28' C.M.P.
F&I 2-36" C.M.P. Aprons

Sta. 454+36 F.E. Rt.
Inpl. 15" x 24' C.M.P.
Remove
F&I 18" x 32' C.M.P.
F&I 2-18" C.M.P. Aprons

Sta. 466+25 ℄ Cross Culv.
Inpl. 24" x 30' C.M.P.
Remove

Sta. 466+27 ℄ Cross Culv.
Inpl. 24" x 30' C.M.P.
Remove

Sta. 466+36 F.E. Rt.
No Culv. Inpl.
No Culv. Req'd

Sta. 480+56 F.E. Rt.
Inpl. 18" x 24' C.M.P.
Remove
F&I 24" x 32' C.M.P.
F&I 2-24" C.M.P. Aprons

B.M. Elev. 1223.57
Spike in T.P.
32' Rt. 462+75

B.M. Elev. 1180.49
"X" In N.W. Cor. of Culv.
18' Left 485+38

Cl. 4
Gr. 7

Cl. 17
Gr. 18

-1.8%
600' V.C.
M=1.125
-0.33%
600' V.C.
M=0.975
2.0%
600' V.C.
M=0.3
800' V.C.
M=3.4
1.6%

+00 P.V.C. El. 484.1
+00 P.I. El. 480.0
+00 P.V.T. El. 331.4
Inlet 08.0
Outlet 06.2
+00 P.V.C. El. 88.5
+00 P.V.T. El. 100.0
+00 P.V.T. El. 94.0
+00 P.V.C. El. 98.0
+00 P.I. El. 92.0
+00 P.V.C. El. 89.0
+00 P.V.T. El. 87.2
+00 P.V.T. El. 77.6

EXC. 6,397
FILL 4,738

EXC. 8,329
FILL 6,170

Subgrade Treatment
Exc. 1.0' Below Grade
Sta. 452+80 To 463+20

Subgrade Treatment
Exc. 1.0' Below Grade
Sta. 467+50 To 475+50

Subgrade Treatment
Exc. 1.0' Below Grade
Sta. 480+70 To 486+25

455 460 465 470 475 480

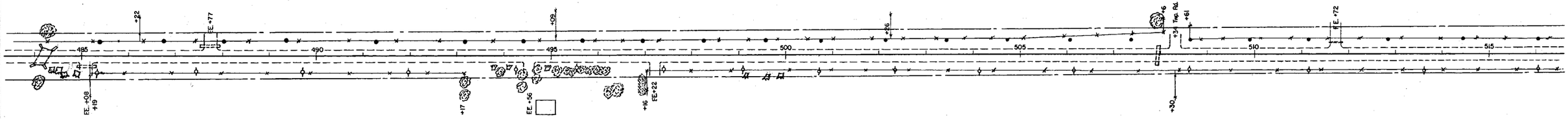
Sta. 484+17 ℄ Culv.
Double 6'x10'x39'
No Change

Sta. 487+77 F.E. Lt.
Inpl. 15"x26' C.M.P.
Remove
F & I 18"x28' C.M.P.
F & I 2-18" C.M.P. Aprons

Pl. 495-0645
Δ Rt. 0°09'

Sta. 50+34 Twp. Rd. Lt.
No Culv. Inpl.
No Culv. Reqd

Sta. 512+72 F.E. Lt.
Inpl. 18"x24' C.M.P.
Remove
F & I 18"x28' C.M.P.
F & I 2-18" C.M.P. Aprons

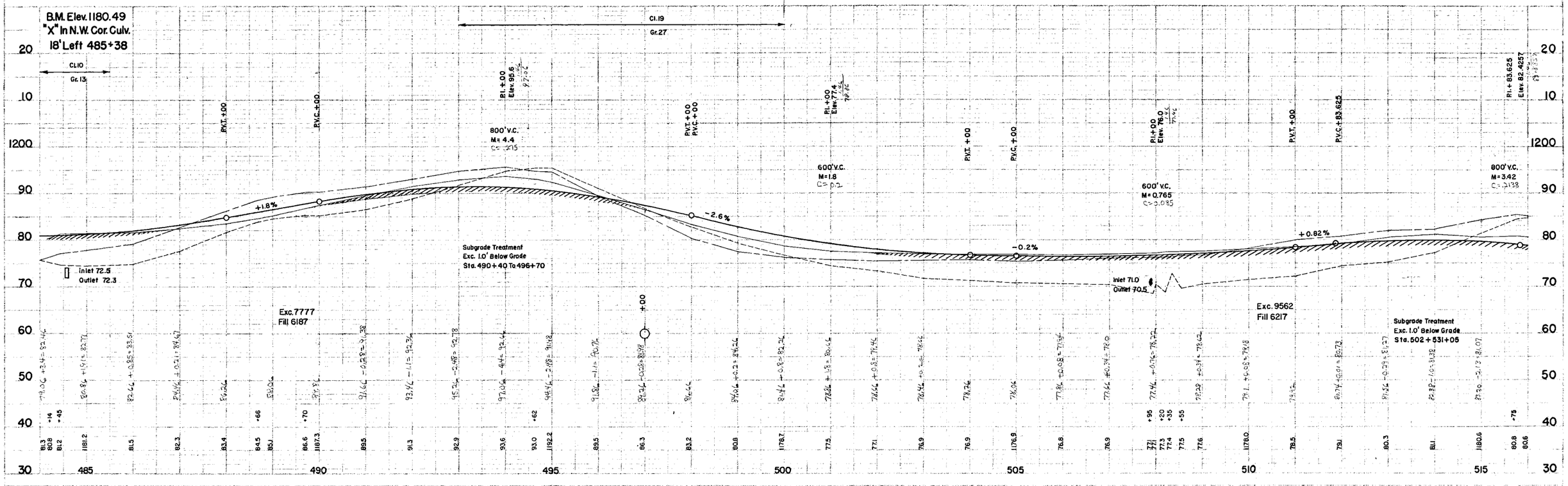


Sta. 485+08 F.E. Rt.
Inpl. 15" x 30' C.M.P.
Remove
F & I 18"x 28' C.M.P.
F & I 2-18" Metal Aprons

Sta. 494+56 F.E. Rt.
No Culv. Inpl.
No Culv. Reqd

Sta. 497+22 F.E. Rt.
No Culv. Inpl.
F & I 18"x 28' C.M.P.
F & I 2-18" C.M.P. Aprons

Sta. 507+96 ℄ Culv.
Inpl. 48"x 38' C.M.P.
Remove
F & I 48"x 38' S.C.P.
F & I 2-48" S.C.P. Aprons



Sta. 521+41 F.E.Lt.
Inpl. 15"x28' C.M.P
Remove
F&I 18"x28' C.M.P
F&I 2-18" C.M.P Aprons

Sta. 531+02 Street Lt.
Inpl. 18"x28' C.M.P.
Remove
No Culv. Req'd

Sta. 532+63 Drwy. Lt.
Inpl. 12x20 Tile
Remove
No Culv. Req'd

Sta. 534+52 ℄
Inpl. 2.5'x1'x47' Conc. Box Culv.
No Change

Sta. 534+75 County Rd "O" Lt.
No Culv. Inpl.
No Change

P.I. 521+53.05
Δ Lt. 0° 31'

P.I. 547+58.73
Δ Rt. 0° 08'

End S.P. 55-610-01
Sta. 534+75

Sta. 521+44 F.E. Rt.
Inpl. 15"x28' C.M.P
Remove
F&I 18"x28' C.M.P
F&I 2-18" C.M.P Aprons

Sta. 531+05 Street Rt.
Inpl. 2.4'x1'x31' Conc. Box Culv.
Remove
No Culv. Req'd

Sta. 532+64 Drwy. Rt.
Inpl. 12"x18" Tile
Remove
No Culv. Req'd

Sta. 534+75 County Road "O" Rt.
No Culv. Inpl.
No Change

B.M. Elev. 1154.12
E. Bolt on Fire Hyd.
18' Lt. 531+31

B.M. Elev. 1147.07
On Tire Curb
20.6 Rt. 547+60

P.V.T.+83.625
P.V.C.+00
P.I.+00
Elev. 83.8
600' V.C.
M=0.975
-2.6%
P.V.T.+00
P.V.C.+55.556
P.I.+55.5556
Elev. 55.2778
600' V.C
M=0.675
-1.3%
P.V.T.+55.5556
P.V.C.+00
P.I.+00
Elev.
400' V.C.
M=1.9
-2.2%
+1.6%

Exc. 1986
Fill 1466

Exc. 5288
Fill 3917

+10
+40
+75