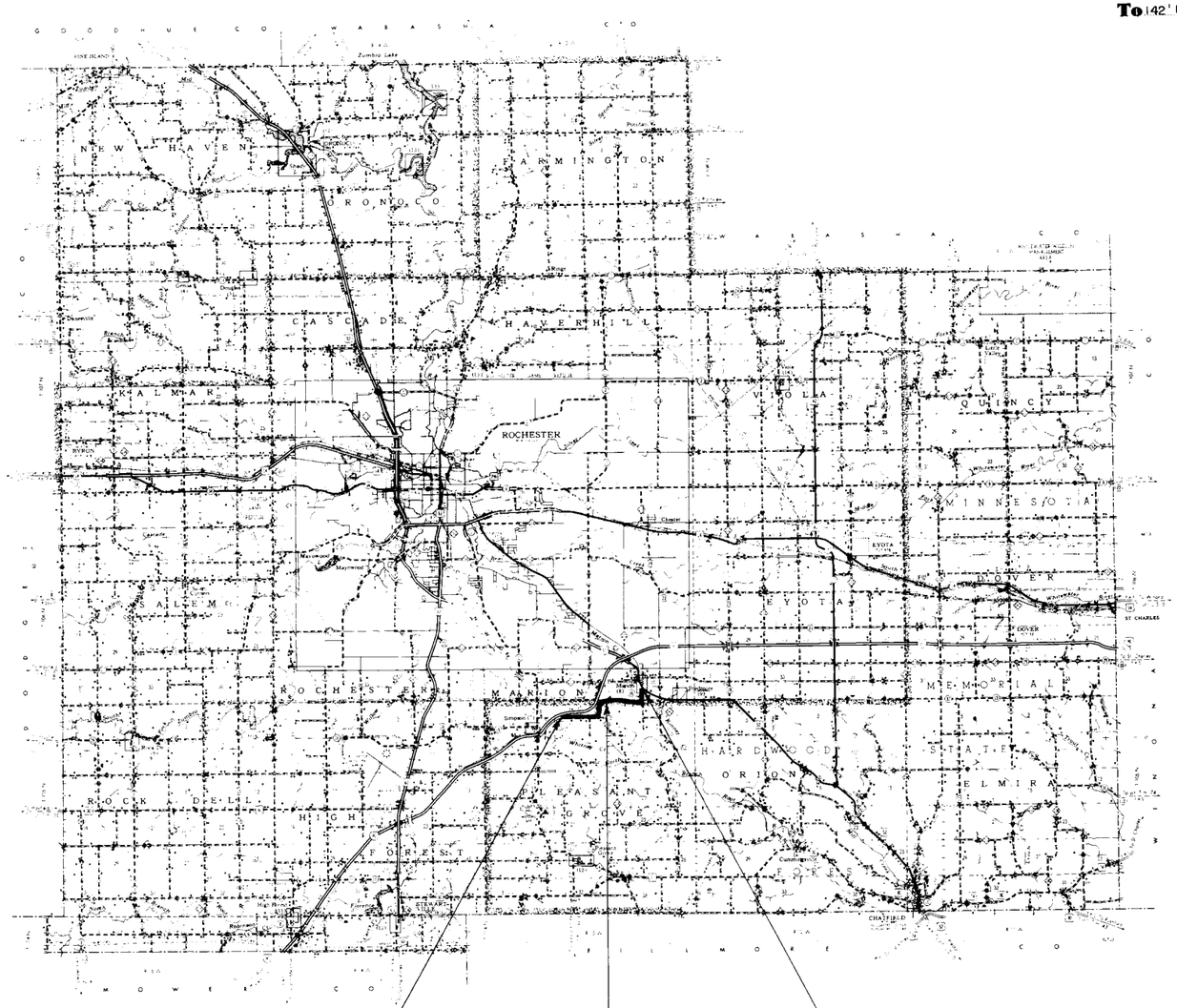
FORM 100-A '65

PLANS SYMBOLS

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)
VACATED PLATTED PROPERTY
CORPORATE OR CITY LIMITS
TRUNK HIGHWAY CENTER LINE
RETAINING WALL
RAILROAD
RAILROAD RIGHT OF WAY LINE
RIVER OR CREEK (NAME)
DRY RUN (SIZE)
DRAINAGE DITCH
DRAIN TILE
CULVERT
DROP INLET
GUARD RAIL
BARBED WIRE FENCE
WOVEN WIRE FENCE
CHAIN LINK FENCE
RAILROAD SNOW FENCE
STONE WALL OR FENCE
HEDGE
RAILROAD CROSSING SIGN
RAILROAD CROSSING BELL
ELECTRIC WARNING SIGN
CROSSING GATE
MEANDER CORNER
SPRINGS
MARSH
TIMBER
ORCHARD
BRUSH
NURSERY
CATCH BASIN C.B.
FIRE HYDRANT
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 HUB
GRAVEL PIT (G)
SAND PIT (S)
BORROW PIT (B)
ROCK QUARRY (R)

UTILITIES SYMBOLS

POWER POLE LINE
TELEPHONE OR TELEGRAPH POLE LINE
JOINT TELEPHONE AND POWER ON POWER POLES
ON TELEPHONE POLES
ANCHOR
STEEL TOWER
STREET LIGHT
PEDESTAL (TELEPHONE CABLE TERMINAL)
GAS MAIN
WATER MAIN
CONDUIT
TELEPHONE CABLE IN CONDUIT
ELECTRIC CABLE IN CONDUIT
TELEPHONE MANHOLE
ELECTRIC MANHOLE
BURIED TELEPHONE CABLE
BURIED ELECTRIC CABLE
AERIAL TELEPHONE CABLE
SEWER, (SANITARY OR STORM)
SEWER MANHOLE



BEGIN: SAP 55-616-05 Sta. 0+00

Sta. 79+68.90= Sta. 79+58.25 EQUATION

END: SAP 55-616-05 Sta. 154+39.10

— SPECIFICATIONS —

MHD STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION DATED JANUARY 1, 1972, AS AMENDED BY SUPPLEMENTAL SPECIFICATIONS DATED APRIL 1, 1976, SHALL GOVERN.

Fed. Proj. No.

STATE OF MINNESOTA

DEPARTMENT OF HIGHWAYS

CONSTRUCTION PLAN FOR Grading and Aggregate Base.

COUNTY STATE AID HIGHWAY NO. 16

BETWEEN CSAH 1 **AND** T.H. 52

From 1324.65' West Center Sec. 4 T.105N - R.13W
Give proper reference to Sections, Township and Range

To 142' East and 1585.62' North of S¼ Corner Sec. 35 T.106N - R.13W

GROSS LENGTH	15449.75	**FEET**	2.926 **MILES**
BRIDGES-LENGTH	0	**FEET**	0 **MILES**
EXCEPTIONS-LENGTH	0	**FEET**	0 **MILES**
NET LENGTH	15449.75	**FEET**	2.926 **MILES**

INDEX OF SHEETS

Sheet No. 1 Title Sheet & Layout Map
" No. 2 Est Quantities & Typical Sec
" No. 3 To 8 Plan & Profile
" No. 9 To 29 Cross Sections
No. 30 Profile + X Section CR 116 App.
No. 31 Profile + X Section TWP Rd App.

DESIGN SPEED 50 **M. P. H.**

PROJECTED A. D. T. 409

7 **TON DESIGN**

SOIL FACTOR 130

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.

Carl Schildhammer DATE March 30 1976
COUNTY ENGINEER

Olmsted COUNTY REG. NO. 8284

RECOMMENDED FOR APPROVAL G.W. Maidl 4-14 1976
DISTRICT STATE AID ENGINEER

RECOMMENDED FOR APPROVAL Robert O. Ofstedal 5-21 1976

APPROVED 5/21 1976 William M. Hay
STATE AID ENGINEER

Minn. Project No. _____ S.A.P. 55-616-05 State Project No. _____

OLMSTED County, Minnesota. County Proj. No. _____ **Plan No.** _____ Sheet 1 of 31 Sheets

ESTIMATED QUANTITIES

	SPECIFICATION NO	ITEM	UNIT	MUNICIPAL	RURAL	TOTAL ESTIMATED QUANTITIES	
	2101.501	Clearing	Acre		0.50	0.50	
	2101.502	Clearing	Tree		371	371	
	2101.506	Grubbing	Acre		0.50	0.50	
	2101.507	Grubbing	Tree		252	252	
	2104.501	Remove Pipe Culverts	Lin. Ft.		900	900	
	2105.501	Common Excavation	Cu. Yd.		144031	144031	(P)
	2105.503	Rock Excavation	Cu. Yd.		11247	11247	
	2105.507	Subgrade Excavation	Cu. Yd.		10172	10172	
(1)	2123.501	Common Laborers	Hour		16	16	
(1)	2123.503	Motor Grader	Hour		16	16	
(1)	2123.508	15 Cu. Yd. Scraper	Hour		32	32	
(1)	2123.509	Dozer	Hour		48	48	
(2)	2130.501	Water	(M) - Gallons		40	40	
(3)	2211.501	Aggregate Base, Class 2	Ton		16189	16189	
	2211.501	Aggregate Base, Class 5 Modified	Ton		31898	31898	
	2501.511	18" C.S. Pipe Culvert	Lin. Ft.		836	836	
	2501.511	24" C.S. Pipe Culvert	Lin. Ft.		376	376	
	2501.511	30" C.S. Pipe Culvert	Lin. Ft.		32	32	
	2501.511	24" R.C. Pipe Culvert, Class II	Lin. Ft.		74	74	
	2501.511	30" R.C. Pipe Culvert, Class II	Lin. Ft.		208	208	
	2501.511	42" R.C. Pipe Culvert, Class IV	Lin. Ft.		114	114	
	2501.511	48" R.C. Pipe Culvert, Class II	Lin. Ft.		156	156	
	2501.515	18" G.S. Pipe Aprons	Each		50	50	
	2501.515	24" G.S. Pipe Aprons	Each		16	16	
	2501.515	30" G.S. Pipe Aprons	Each		2	2	
	2501.515	24" R.C. Pipe Aprons	Each		2	2	
	2501.515	30" R.C. Pipe Aprons	Each		6	6	
	2501.515	42" R.C. Pipe Aprons	Each		2	2	
	2501.515	48" R.C. Pipe Aprons	Each		4	4	
	2501.521	58" Span C.S. Pipe-Arch Culvert	Lin. Ft.		92	92	
	2501.521	59" Span R.C. Pipe-Arch Culvert Cl. III A	Lin. Ft.		58	58	
	2501.525	58" Span G.S. Pipe-Arch Aprons	Each		6	6	
	2501.525	59" Span R.C. Pipe-Arch Aprons	Each		2	2	

(P) Plan Quantity.

(1.) For obliterating old road.

(2.) To be used as a dust preventative.

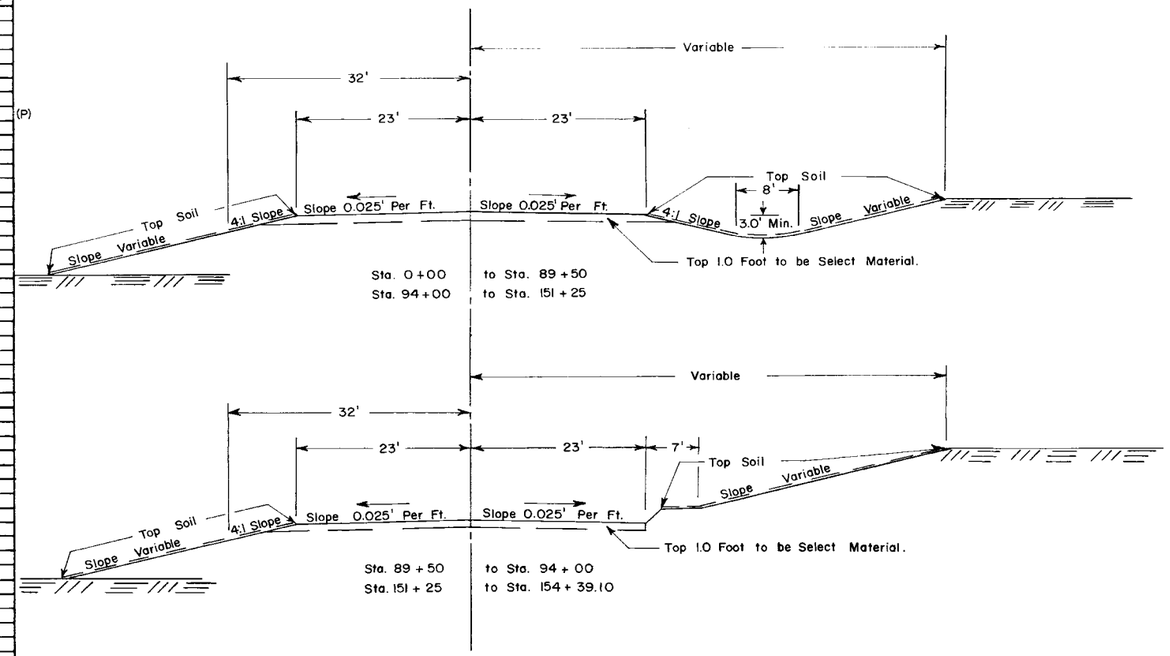
(3.) Includes 1,015 Tons for Field Entrances, 900 Tons for Residential Drives, 750 Tons for Public Roads and 2980 Tons for use in a 1/4 mile control section inplace of Class 5 Modified.

STANDARD PLATES

THE FOLLOWING STANDARD PLATES APPROVED BY THE DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION SHALL APPLY ON THIS PROJECT.

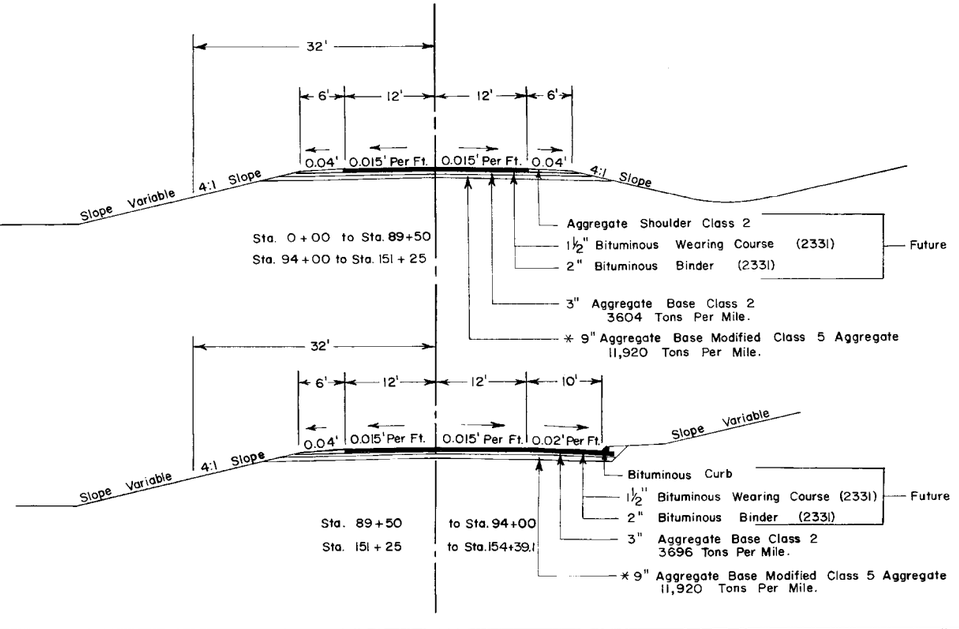
PLATE NO	DESCRIPTION
0002 A	SPECIFICATION REFERENCE TO STANDARD PLATES
3000 F	REINFORCED CONCRETE PIPE
3014 G	REINFORCED CONCRETE PIPE ARCH DETAIL
3040 D	CORRUGATED METAL PIPE
3100 F	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
3110 D	CONCRETE APRON FOR REINFORCED CONCRETE PIPE-ARCH
3122 G	METAL APRON FOR C.M. PIPE-ARCH CULVERT
3123 G	METAL APRON FOR C.M. PIPE
3124 A	METAL APRON CONNECTION
3145 A	CONCRETE PIPE JOINT TIES U BOLT TIE
8000 F	STANDARD BARRICADES
9000 B	APPROACHES AND ENTRANCES

TYPICAL GRADING SECTIONS



SPECIAL DETAILS

TYPICAL BASE AND SURFACE SECTIONS



Note: Material from the upper 1.0' of the natural topsoil shall be used in the upper 1.0' of the roadway. Part of this material shall be uniformly spread on slopes, and each bottoms to a depth of 3". No payment in addition to the contract price for Common Excavation will be made for spreading the topsoil as above provided, nor will any undercutting made in excess to prior to placing the topsoil be measured for payment.

Note: Corrugated Steel and Reinforced Concrete pipe culvert excavation will be considered incidental, and will be under unit price for "Pipe Culvert."

Note: Subgrade Treatment:
Excavate 1.0' below profile grade for compaction, as shown on the plan and profile sheets. Excavation has been computed and is listed as Subgrade Excavation. Backfill with select material from R/W borrows shall be 50 Ft in all cases.

Note: Place Sectional Concrete Pipe in Class "B" and Class "C" Bedding. All bedding to be considered as incidental and no direct compensation shall be made therefor.

Note: All dimensions and slopes shown on typical sections are approximate.

* At the time of construction the County Highway Engineer will choose a 1/4 mile section in which Class 5 Aggregate will be used inplace of Class 5 Aggregate Modified.
TEST SECTION STA. 40 TO STA. 60

Minn. Proj. No. _____ S.A.P. 55-616-05 State Project No. _____

Olmsted County, Minn. Proj. No. _____ Plan No. _____ Sheet No. 2 of 31 Sheets

ALBINSON, INC. MINNEAPOLIS

Fed. Proj. No.

FE Lt. 6+61
No Culv. Inpl.
18"X 28' C.S. Pipe Culv.
2-18"G.S. Pipe Aprons

Res. Drive Lt. 19+32
No Culv. Inpl.
18" X 32' C.S.Pipe Culv.
2-18 "G.S. Pipe Aprons

Res. Drive Lt. 21+34
Inpl. 18"X 34' CMP
Remove
18"X 32' C.S. Pipe culv.
2-18"G.S.Pipe Aprons

Res. Drive Lt. 23+60
Inpl. 18" X 28' CMP
Remove
18"X 32' C.S. Pipe culv.
2-18"G.S. Pipe Aprons

0+32
FE Lt. ~~26+32~~
Inpl. 15" X 30' CMP
Remove
18"X 28' C.S. Pipe culv.
2-18"G.S. Pipe Aprons

℄ Culv. 27+85
Inpl. 30" X 34' CMP
Remove
30" X 76' R.C.Pipe culv. Cl. II
2-30" R.C.Pipe culv. Aprons
Place culv. on "B" Bedding
F & I. Approved Joint Ties

Pl. 0+00
Δ Lt. 0°05'15"
16 d nail

Transmisson Line

R.O.W. Marker

R.O.W. Marker

Cable Marker

Cable Marker

Pl. 13+24.65
1-1/4" Pipe
Δ Rt. 0°26'30"

Sewer Outlet

Lilac

Ho.

Cable Marker

Cable Marker

Stone Shrine

Pl. 26+39.19
1/2" Reinf. Rod
No 7

BEGIN SAP 55-616-05
STA. 0+00

0+32
FE Rt. ~~41+30~~
No Culv. Inpl.
18" X 28' C.S. Pipe Culv.
2-18" G.S. Pipe Aprons

Res. Drive Rt. 10+78
Inpl. 18" X 18' CMP
Remove
18"X 32' C.S.Pipe Culv.
2-18" G.S. Pipe Aprons

F.E. Rt. 13+36
Inpl. 18" X 26' CMP
Remove
18" X 28' C.S. Pipe Culv.
2-18"G.S.Pipe Aprons

℄ Culv. 18+56
Inpl. 30" X 36' CMP
Remove
30"X 66' R.C.Pipe Culv. Cl. II
2-30" R.C.Pipe Culv. Aprons
Place culv. on "B" Bedding
F & I Approved Joint Ties

Res. Drive Rt. 26+22
Inpl. 18" X 28' CMP
Remove
18" X 32' C.S. Pipe Culv.
2-18"G.S. Pipe Aprons

CL. 6 — GR. 2

CL. 59 — GR. 55

BM Elev. 1274.36
Spk. in PP 28' Lt.
Sta. 0+93

BM Elev. 1256.67
Spk. in PP 31' Lt.
Sta. 11+91

B.M. Elev. 1243.11
Spk. in PP 35' Rt.
Sta. 26+32

℄ Subgrade Elev.

73.95 73.60 72.98 71.88 70.46 68.7 66.9 65.1 63.3 61.5 59.7 57.9 56.1 54.3 52.5 50.69 49.3 43.4 43.1 43.2 48.5 48.8 49.05 48.81 48.00 46.61 44.7 42.7 41.26 40.95 41.76

Elev. 73.8

Elev. 69.6

0.3%

P.V.C. +50

P.I. + 50
Elev. 13.2
400' V.C.
M = 0.75

P.V.T. +50

1.8%

P.I. + 76.19047
Elev. 47.32858
400' V.C.
M = 1.05

P.V.C. +76.19047
Elev. 51.12858

P.V.T. +76.19047
Elev. 48.12857

+0.3%

P.V.C. +56.52173
Elev. 48.96956

P.I. +56.52173
Elev. 49.56956
400' V.C.
M = 1.15

P.V.T. +56.52173
Elev. 45.56958

-2.0%

P.V.C. + 00
Elev. 42.7

P.I. + 00
Elev. 38.7
400' V.C.
M = 2.25

Profile 75' Lt. ----
Profile 75' Rt. ——

Subgrade Treatment:
Excavate 1.0 Below Profile Grade
Sta. 0+00 to Sta. 13+30

Subgrade Treatment:
Excavate 1.0' Below Profile Grade
Sta. 23+50 to Sta. 25+50

COMMON EXC. 11,259 Cu.Yd. EMB 7,725 Cu.Yd.

SUBGRADE EXC. ~~1,923~~ 2,345 Cu.Yd.

VERTICAL CONTROL
Elevations shown in this plan are based on Mean Sea-Level Datum, 1929 adj. and tied to the 1930 level net.
Location: SE corner of bridge No. 55806, on I90 at CSAH 1 and CSAH 16.
BM No. 5580AD. Elev. 1261.47
Location: NE corner of bridge No. 55810, on I90 at T.H. 52 interchange.
BM No. 5580AR Elev. 1132.53

Inlet elev. 44.2
Outlet elev. 42.0

Inlet elev. 36.0
Outlet elev. 33.0

1280 70 60 50 40 1230

+00 +65 +38 +30 +57 +60 +41 +70 +43 +10 +35 +47 +47 +80 +50 +49

1275.3 74.4 73.3 72.2 70.7 1269.0 67.6 66.1 64.2 62.9 1262.1 61.5 60.6 57.3 56.0 54.1 53.2 51.5 1250.1 48.8 47.6 47.2 47.4 47.7 1248.0 48.3 48.4 48.3 48.4 48.5 48.2 47.4 1246.8 45.6 43.6 43.3 42.3 41.8 40.0 39.1 38.9 38.7 38.5 39.0 39.5 1240.4

0 5 10 15 20 25 30

OLMSTED COUNTY, MINN. State Proj. No. SAP 55-616-05 CSAH 16 Sheet No. 3 of 31 Sheets

Fed. Proj. No.

31+57
FE Lt. ~~34+70~~
No Culv. Inpl.
18"X28' C.S.Pipe culv.
2-18' G.S Pipe Aprons

45+68
FE Lt. ~~44+27~~
No Culv. Inpl.
18"X44' C.S. Pipe culv.
2-18" G.S. Pipe Aprons

Const. ℄ Culvert Sta. 55+00
48"X72' R.C.P. Culv. CL. II
2-48"R.C.P Culv. Aprons
Place culv. on "B" Bedding
F & I Approved Joint Ties

57+17
FE Lt ~~66+87~~
No Culv. Inpl.
24"X28' C.S.Pipe culv.
2-24" G.S. Pipe Aprons.

FE Lt. 39+71
18"X30' INPL. CULV. REMOVE
18"X28' C.S.P. CULV.
2-18" G.S. APRONS

MATCH LINE
P.T. 57+42.05

TEST SECTION STA. 40 TO STA. 60

P.I. 52+74.90
Δ Lt. 90° 42'
D 7°00'
T 828.57'
L 1295.72'
E 346.17'

P.I. 39+55.15
Δ Lt. 0°02'00"

P.C. 44+46.33

Cable Marker

Cable Box

Twp. Rd. +53

OBLITERATE OLD ROAD

MATCH LINE

R.O.W. Marker

℄ Culv. Old Road Rt. Sta. 53+40
Inpl. 42"X40' CMP
Remove

32+00
FE ~~36+30~~
No Culv. Inpl.
18"X28' C.S. Pipe Culv.
2-18" G.S. Pipe Aprons

Twp. Rd. Rt. 39+53
Inpl. 18"X36' CMP
Remove
18"X36' C.S. Pipe Culv.
2-18" G.S. Pipe Aprons

℄ Culv. 43+65
Inpl. 30"X34' CMP
Remove
48"X84'R.C.P. Culv. CL. II
2-48" R.C.P. Culv. Aprons
Place Culvert on "B" Bedding
F & I Approved Joint Ties

FE Rt. 45+53
No Culv. Inpl.
No ent. Required

Const. F.E. Rt. Sta. 47+~~00~~
No culv. Required

Res. Drive 47+26
No Culv. Inpl.
18"X32' C.S. Pipe Culv.
2-18" G.S. Pipe Aprons

P.I. 10+00
Δ 45°0'
D = 15°
T = 158.22
L = 300.0'
R = 381.97

End Grading Sta. 8+50

Construct CR. 116 Approach Rt. Sta. 50+00
18"X72' C.S. Pipe Culv.
2-18" G.S. Pipe Aprons

OMITTED

CL. 2 GR. 2 — CL. 16 GR. 19 — CL. 15 GR. 15

B.M. Elev. 1238.77
Spk. in PP North of Intersection

℄ Subgrade Elev.

Profile 75' Lt. ----
Profile 75' Rt. ——

P.V.T. +00
P.V.C. +00

Elev. 43.7

+2.5%

P.I. +50
Elev. 54.95
900' V.C.
M = 7.425

Elev. 36.5

-4.5%

P.I. +00
Elev. 28.3
400' V.C.
M = 2.4

Elev. 29.7
Elev. 29.82499

+0.7%

P.I. + 92.85714
Elev. 31.75
550' V.C.
M = 2.8875

P.V.T. +67.85714
Elev. 33.8501
22.18501

-3.5%

P.I. + 47.5
Elev. 01.83750
600' V.C.
M = 6.00

Elev. 12.3995
Elev. 12.3995

Elev. 15.3375

+4.5%

P.V.T. 47.5

Subgrade Treatment:
Excavate 1.0' Below Profile Grade
Sta. 31+30 to Sta. 39+71

COMMON EXC. 3460 Cu. Yds.
SUBGRADE EXC. 268 Cu. Yds.
EMB 2386 Cu. Yds.

Inlet elev. 19.5
Outlet elev. 17.0

COMMON EXC. 30,417 Cu. Yds.
SUBGRADE EXC. 1,687 Cu. Yds.
EMB 21,218 Cu. Yds.

Subgrade Treatment:
Excavate 1.0' Below Profile Grade
Sta. 46+50 to Sta. 52+50

Inlet elev. 01.8
Outlet elev. 99.8

COMMON EXC. 2813 C.Y.
EMB 1,965 Cu. Yds.

OLMSTED COUNTY, MINN.

State Proj. No. SAP- 55-616-05 CSAH 16 Sheet No. 4 of 31 Sheets

AS BUILT PLANS

Fed. Proj. No.

FE Lt. 60+80
No Culv. Inpl.
18" x 28' C.S.P. Culv.
2-18" G.S.P. Aprons

FE Lt. 78+~~37~~ 20
Inpl. 18" X 28' CMP
2 Aprons
Remove
18" x 28' C.S.P. Culv.
2-18" G.S.P. Aprons

℄ Culv. 83+13
Inpl. 24" X 34' CMP
Remove
30" x 66' R.C.P. Culv. Cl. II
2-30" R.C.P. Aprons
Place Culv. on "B" Bedding.
F+I Approved Joint Ties.

F. Ent. Lt. 84+~~40~~ 55 DOUBLE
No. Culv Inpl. 56'
24" x ~~28'~~ C.S.P. Culv.
2-24" G.S.P. Aprons

MATCH LINE

FE. RT. STA. 61+85
18" X 48' G.S.P. CULV.
2-18" G.S. APRONS

FE Lt. 67+61
No Culv. Inpl.
No Change

Res. Drive Rt. 66+04
Inpl. 18" X 42' CMP
2 Aprons
No Change

FE Rt. 68+64
No Culv. Inpl.
No Change

Office Revision
P.I. 75+15.25
Δ Rt. 92°09'
D 7°12'
T 826.21'
L 1279.86'
E 351.34'

~~P.I. 75+15.25~~
~~Δ Rt. 92°09'~~
~~D 7°00'~~
~~T 849.82'~~
~~L 1316.42'~~
~~E 361.38'~~

FE. RT. STA. 78+20
NO CULV. REQ'D

EQUATION
P.T. 79+68.90 =
P.O.T. 79+58.25
~~P.T. 79+84.66~~

210'± 4" AGRI-TILE
INSTALLED BY COUNTY

TILE JUCTION BOX
STA. 83+43 ± 32' RT.
4" TILE FROM ADJIONING FARM
TIES IN

4" SOLID PLASTIC PIPE

P.C. 88+70.77

OMITTED
FE Rt. 84+48
No Culv. Inpl.
No Culv. Req'd.

OMITTED
F Ent. Rt. Sta. 86+30
No Culv. Inpl.
No Culv. Req'd.

PC. 66+89.04
~~P.C. 66+66.43~~

B.M. Elev. 1210.99
Spk. in P.P. 28' Rt.
Sta. 84+77

Grading Exception:
From Sta. 63+00 to Sta. 73+00

+4.5%
-3.7%
+1.6%

P.I. + 56.60377
Elev. 11.90567
400' V.C.
M = 2.65

P.C. 79+ 68.90 =
P.O.T. 79+58.25
EQUATION
P.V.C. + 56.60377
Elev. 19.30569
P.V.T. + 56.60377
Elev. 15.10564
P.V.C. +00
Elev. 19.0

Inlet. Elev. 09.9
Outlet. Elev. 08.0

Subgrade Excavation:
Excavate 10' Below Profile Grade
Sta. 73+00 to Sta. 82+50

Profile 75' Lt
Profile 75' Rt

COMMON EXC. 3894 CU. YDS.
SUBGRADE EXC. 1077 CU. YDS.
EMB. 2633 CU. YDS.

COMMON EXC. 15041 CU. YDS.
SUBGADE EXC. ~~1057~~ 1,568 CU. YDS.
EMB. 9651 CU. YDS.

OLMSTED COUNTY, MINN.

State Proj. No. SAP 55-616-05 CSAH 16

Sheet No. 5 of 31 Sheets

AS BUILT PLANS

Fed. Proj. No.

P.I. 92+54.20
Δ Lt. 3°04'
D 0°24'
T 383.43
L 766.67
E 0.52

Drive Lt. 92+58
No Culv. Inpl.
No Culv. Req'd.

Drive Lt. Sta. 93+62
Inpl. 15" X 24 C.M.P.
Remove
No Culv. Req'd.

DRIVE & SERVICE ROAD LT. STA. 89+15
NO CULV. REQ'D

Field Ent. Lt. ~~101+55~~ 99+12
No Culv. Inpl.
24" x ~~82'~~ L C.S.P. Culv.
2-24" G.S.P. Aprons

Field Ent. Lt. 110+~~93~~ 74
No Culv. Inpl.
18" x 28' C.S.P. Culv.
2-18" G.S.P. Aprons

Const. F. Ent. Lt. Sta. 112+~~00~~ 53
18" x 28' C.S.P. Culv.
2-18" G.S.P. Aprons

P.C. 88+70.77

P.T. 96+37.44

Ho.

Woods

Woods

OBLITERATE OLD ROAD

P.O.T. 99+70.60

P.O.T. 102+11.45

P.C. 107+05.80

P.T. 114+04.29

P.I. 110+56.25
Δ R.t. 11°38'30"
D 1°40'
T 350.45
L 698.49
E 17.82

FE. RT. STA. 90+18
NO CULV. REQ'D

F. Ent. R.t. Sta ~~93+78~~ 91+35
No Culv. Inpl.
18" x 28' C.S.P. Culv.
2-18" G.S.P. Aprons

F. Ent. R.t. ~~101+63~~ 99+12
No Culv. Inpl. 44'
24" x ~~94'~~ C.S.P. Culv.
2-24" G.S.P. Aprons

℄ Culv. 102+46
Inpl. 36" X 30' C.M.P.
Remove
42" x 114' R.C.P. Culv. Cl. IV
2-42" R.C.P. Aprons
Place Culv. on "B" Bedding.
F+I Approved Joint Ties.

Res. Drive Rt. 106+90
No Culv. Inpl.
30" x 32' C.S.P. Culv.
2-30" G.S.P. Aprons

℄ Culv. Old Road R.t. Sta. 113+60
Inpl. 18" X 40' C.M.P.
Remove
No Culv. Req'd.

CL. 28 — GR. 10 | CL. 40 — GR. 25 | CL. 13 — GR. 18 | CL. 2 GR. 1 — CL. 0.2 Acre GR. 0.2 Acre

℄ Subgrade Elev.

B.M. Elev 1228.97
Spk. Cor. F.P. Left
Sta. 111+03

75' Right
75' Left

P.I. + 00
Elev. 27.0
1000' V.C.
M = 9.625

-6.1%

Subgrade Treatment:
Excavate 1.0' Below Profile Grade
Sta. 88+50 to Sta. 97+85

COMMON EXC. 3959 CU. YDS.
SUBGRADE EXC. 210 CU. YDS.

EMB. 2738 CU. YDS.

P.I. + 50
Elev. 62.95
900' V.C.
M = 13.5

Inlet Elev. 58.0
Outlet Elev. 56.0

P.I. + 00
Elev. 24.90
700' V.C.
M = 4.725

+5.9%

+0.5%

Elev. 26.65

Subgrade Treatment:
Excavate 1.0' Below Profile Grade
Sta. 105+90 to Sta. 108+50
Sta. 111+50 to Sta. 116+55

COMMON EXC. ~~36934~~ 47129 CU. YDS.
~~ROCK EXC. 11247 CU. YDS.~~ NO ROCK
SUBGRADE EXC. ~~602~~ 1250 YDS.

EMB. 35887 CU. YDS.

COMMON EXC. 2879 CU. YDS.
SUBGRADE EXC. 540 CU. YDS.

EMB. 1988 CU. YDS.

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Const. F. Ent. Lt. Sta. ~~133+60~~ 134+60
No Culv. Req'd.

Const. TWP Road Approach Rt. Sta. 136+~~00~~ 14
18" x 72' C.S. Pipe Culv.
2-18" G.S. Pipe Aprons

P.I. 137+95.28
Δ Lt. 100° 14' 15"
D 7°
T 979.58'
L 1431.96'
E 458.02'

MATCH LINE

RT. STA. 11+65
Const. F. Ent. East TWP Rd. App.
18" x 28' C.S.P. Culv.
2-18" G.S.P. Aprons
NO CULV. REQ'D.

Res. Drive Lt. 142+87
Inpl. 15" X 26' C.M.P.
Remove
24" x 32' C.S.P. Culv.
2-24" G.S.P. Aprons

F. Ent. Lt. 144+23
Inpl. 24" X 30' C.M.P.
Remove
24" x 28' C.S.P. Culv.
2-24" G.S.P. Aprons.

F. Ent. Lt. 147+41
Inpl. 24" X 30' C.M.P.
Remove
58" Span x 28' C.S.P. Arch Culv.
2-58" Span G.S.P. Arch Aprons.

℄ Culv. Old Rd.
Inpl. 24" X 40' C.M.P.
Remove
24" x 52' C.S.P. Culv.
2-24" G.S.P. Aprons

Res. Drive Lt. 143+75
Inpl. 15" x 20' C.M.P.
Remove
24" x 32' C.S.P. Culv.
2-24" G.S.P. Aprons

P.C. 128+15.70

P.I. 10+00
Δ 46° Lt.
D 12°
T 202.67'
L 383.33'
E 41.23'
R 477.46'

Woods

OBLITERATE OLD ROAD

OBLITERATE OLD RD.

TP

2% GRADE

FE. LT. STA. 8+40 TWP. RD.
NO CULV. REQ'D.

TWP Road

End Grading Sta. 7+00

P.O.T. 124+41.39

P.T. 142+47.66

MATCH LINE

OBLITERATE OLD ROAD

F. Ent. Rt. Old Rd. ~~121+00~~ +46
No Culv.
18" x 28' C.S.P. Culv.
2-18" G.S.P. Aprons

℄ Culv. Old Rd. 123+37
Inpl. 24" X 40' C.M.P.
Remove
24" x 74' R.C.P. Culv. CL. II
2-24" R.C.P. Culv. Aprons
Place Culv. on "B" Bedding.
F+I Approved Joint Ties.

℄ Culv. Old Rd. 127+80
Inpl. 18" X 38' C.M.P.
Remove
No Culv. Req'd.

F. Ent. Rt. 129+50
No Culv.
18" x 28' C.S.P. Culv.
2-18" G.S. Pipe Aprons

F. Ent. Rt. 133+00
No Culv.
Remove F. Ent.

F. Ent. Rt. 137+25
No Culv.
Remove F. Ent.

OMITTED
Double F. Ent. 143+86
Inpl. 15" X 34' C.M.P.
Remove
No Culv. Req'd.

CL. 8 GR. 8 CL. 0.3 acres GR. 0.3 acres | CL. 1 GR. 1 | CL. 29 GR. 10 | CL. 80 — GR. 59 | CL. 72 — GR. 27 | CL. 0 — GR. 0

B.M. Elev. 1212.93
Spk. in T.P. Rt.
Sta. 137+65

℄ Subg. Elev.

+0.5%

Inlet elev. 25.0

Outlet elev. 20.2

Subgrade Treatment:
Excavate 1.0' Below Profile Grade
Sta. 119+00 to Sta. 122+00
Sta. 123+70 to Sta. 130+60
Sta. 134+40 to Sta. 141+60

Profile 7.5' Lt. - - - - -
Profile 7.5' Rt. ———

P.V.C. +07.81250
Elev. 34.93906

P.I. +07.81250
Elev. 34.93906
1200' V.C.
M 9.6

Elev. 99.53909

P.V.T. +07.81250

5.9%

P.V.C. + 41.07142
Elev. 73.97681

P.I. + 91.07142
Elev. 59.22679
500' V.C.
M 3.5

Note: Approximately 2300 Cu. Yds. Common Excavation from Balance Sta. 131+65 to Sta. 137+81 to be Wasted in Old Road Location.

COMMON EXC. 4,096 CU. YDS.
SUBGRADE EXC. 117 CU. YDS.
EMB. 2819 CU. YDS.

COMMON EXC. 1880 CU. YDS.
SUBGRADE EXC. 45 CU. YDS.
EMB. 1296 CU. YDS.

COMMON EXC. 1992 CU. YDS.
SUBGRADE EXC. 168 CU. YDS.
EMB. 1369 CU. YDS.

COMMON EXC. 4351 CU. YDS.
SUBGRADE EXC. 533 CU. YDS.
EMB. 3000 CU. YDS.

COMMON EXC. 9590 CU. YDS.
SUBGRADE EXC. 624 CU. YDS.
EMB. 5,008 CU. YDS.

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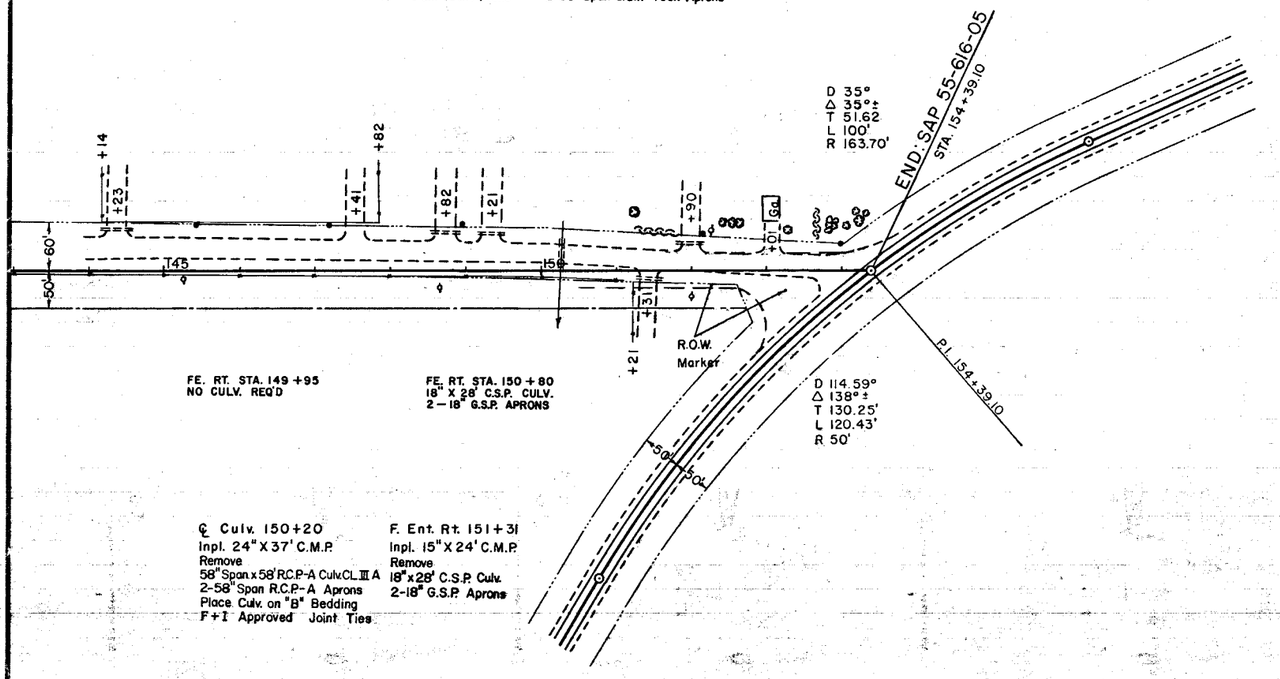
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Res. Drive Lt. 148+82
Inpl. 24"X 26' C.M.P.
Remove
58" Span x 32' C.S.P.-Arch Culv.
2-58" Span G.S.P.-Arch Aprons

Res. Drive Lt. 149+21
Inpl. 24"X26' C.M.P.
Remove
58' Span x 32' C.S.P.-Arch Culv.
2-58" Span G.S.P.-Arch Aprons

Res. Drive Lt. 151+90
Inpl. 24"X 24' C.M.P.
Remove
No Culv. Req'd.

Res. Drive Lt. 152+40 ~~153+01~~
No Culv.
No Culv. Req'd.



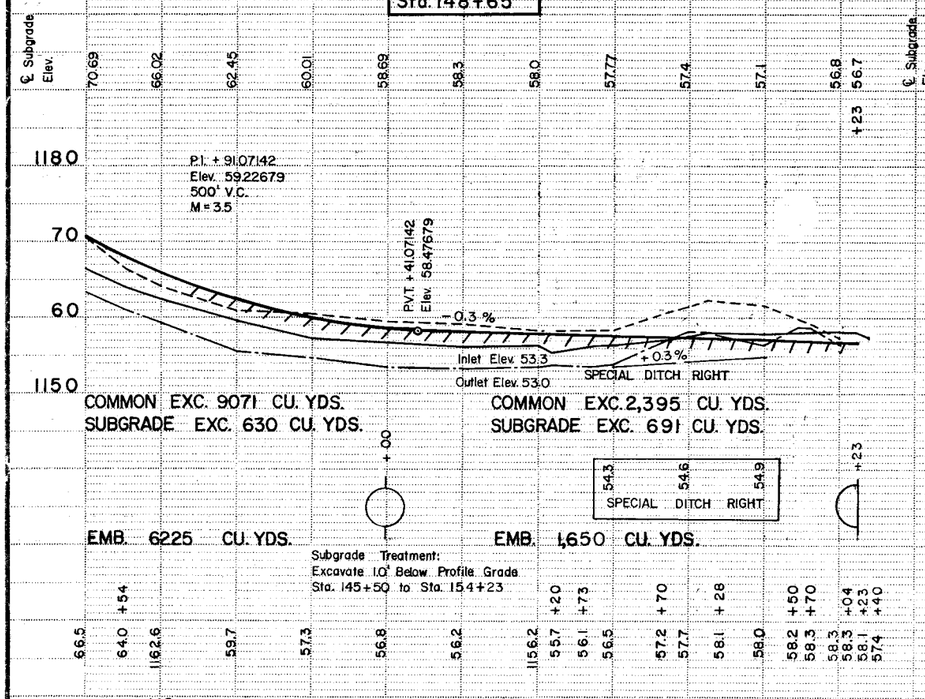
FE. RT. STA. 149+95
NO CULV. REQ'D

FE. RT. STA. 150+80
18" X 28' C.S.P. CULV.
2-18" G.S.P. APRONS

℄ Culv. 150+20
Inpl. 24"X 37' C.M.P.
Remove
58" Span x 58' R.C.P.-A Culv. CL. III A
2-58" Span R.C.P.-A Aprons
Place Culv. on "B" Bedding
F+I Approved Joint Ties

F. Ent. Rt. 151+31
Inpl. 15"X 24' C.M.P.
Remove
18"x28' C.S.P. Culv.
2-18" G.S.P. Aprons

B.M. Elev. 1156.54
Spk. in P.P. Rt.
Sta. 148+65



COMMON EXC. 9071 CU. YDS.
SUBGRADE EXC. 630 CU. YDS.

COMMON EXC. 2,395 CU. YDS.
SUBGRADE EXC. 691 CU. YDS.

EMB. 6225 CU. YDS.

EMB. 1,650 CU. YDS.

Subgrade Treatment:
Excavate 1.0' Below Profile Grade
Sta. 145+50 to Sta. 154+23

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