FORM 129 A

CONVENTIONAL SIGNS & ABBREVIATIONS

STATE LINE		EXCAVATION	E
COUNTY LINE		EMBANKMENT	F
TOWNSHIP LINE		OVERHAUL	H
SECTION LINE		SURFACING	S
CITY, VILLAGE, OR BOROUGH		GUARD RAIL	G.R.
FENCE LINE		INTERSECTION ANGLE	Δ
RIGHT-OF-WAY LINE		RADIUS	R
TRAVELLED WAY		ELEVATION	El.
RAILROADS		VERTICAL CURVE	V.C.
RETAINING WALL		BENCH MARK	B.M.
BASE OR SURVEY LINE	36 Ties	SECTIONAL CONCRETE CULVERT	P.I.
LEVEE		CORRUGATED METAL CULVERT	C.M.
GRAVEL PIT	G	CULVERT HAUL	P.I.H.
SAND PIT	S	TON MILES	T.M.
CLAY PIT	C	PLACE	P
ROCK QUARRY	Q	IN PLACE	Inp.
CULVERTS —		REPLACE	Rep.
PLAIN		RIGHT	R
WITH FACEWALLS		LEFT	L
WITH WINGWALLS		HAND DITCHING	H.D.
DROP INLET		POINT OF CURVE	P.C.
POWER POLE LINE		POINT OF TANGENT	P.T.
TELEPHONE OR TELEGRAPH LINE		POINT OF INTERSECTION	P.I.
MARSH		SPECIAL EXCAVATION	S.E.
HEDGE, BRUSH, OR TIMBER		SPECIAL PLOWING	S.P.
GROUND ELEVATION	74	TELEPHONE POLE	Tel.P.
GRADE ELEVATION	76		

STATE HIGHWAY DEPARTMENT
OF MINNESOTA
Aid
Plan and Profile of State Road No. 14

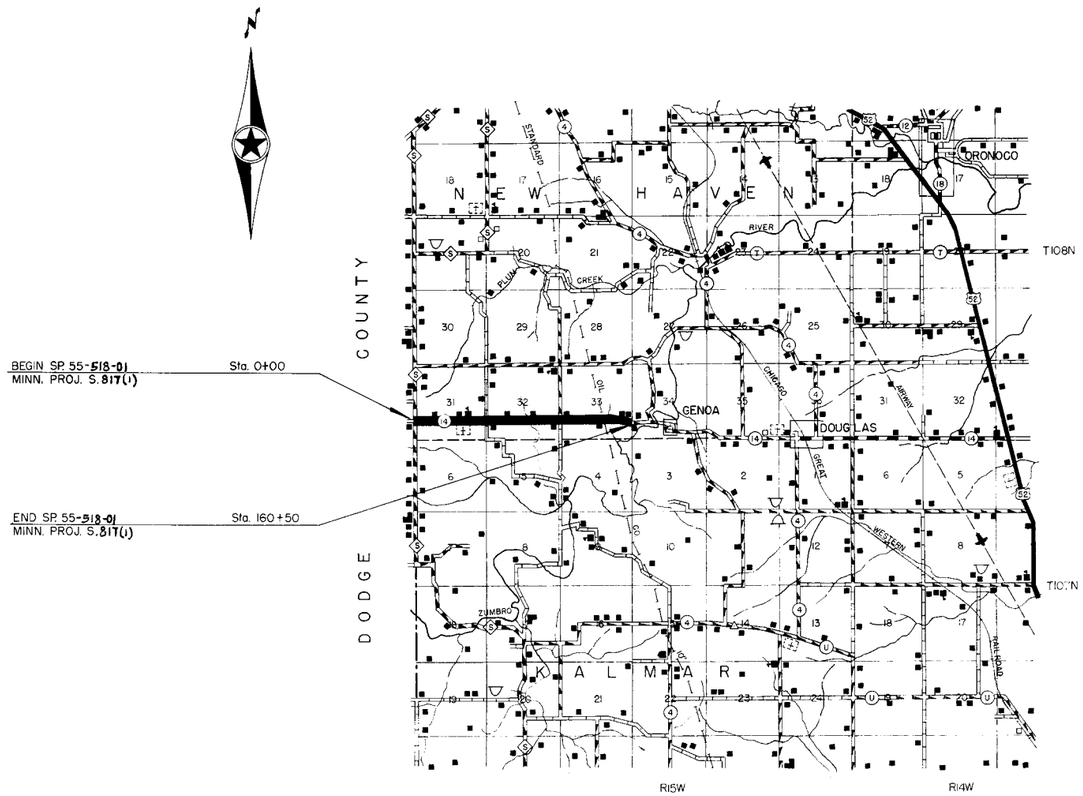
COUNTY OF OLMSTED

From NW. Corner SW¼SW¼ Sec. 31 T108N R15W **To** 5.8' N. & 296' E. NW. Corner SW¼SW¼ Sec. 34 T108N R15W
Give proper references to Section, Township and Range

GROSS LENGTH- 16050 FEET 3.040 MILES
LENGTH OF EXCEPTIONS- FEET MILES
NET LENGTH- 16050 FEET 3.040 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-Sections, 1 = 10 Feet

LAYOUT
SCALE, 1 inch = 5280 Feet



INDEX OF SHEETS

Sheet No. 1.	**Title Sheet and Layout Map**				
" No. 2.	**Typical Cross-Sections and Statement**				
" No. 3.	Tabulation Sheet				
" No. 4.	Plan and Profile	Sta. 0+00	to Sta.	25+00	
Sheet No. 5	Plan and Profile	Sta. 25+00	to Sta.	55+00	
Sheet No. 6	Plan and Profile	Sta. 55+00	to Sta.	81+00	
Sheet No. 7	Plan and Profile	Sta. 81+00	to Sta.	106+00	
Sheet No. 8	Plan and Profile	Sta. 106+00	to Sta.	133+00	
Sheet No. 9	Plan and Profile	Sta. 133+00	to Sta.	160+50	
Sheets No. 10 to 20	Cross Sections				

SPECIFICATIONS

The Specifications for Highway Construction dated July 1, 1947 and submitted for approval by the Division Engineer of the Public Roads Adminstration October 15, 1947, shall govern.

MINN. PROJ. S. 817(1)

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

H J Sullivan

DATE 6-3-51 REG. NO. 1207

Designated State Aid Road No. 14

RECOMMENDED FOR APPROVAL DATE

[redacted]

DISTRICT ENGINEER
BUREAU OF PUBLIC ROADS
DEPARTMENT OF COMMERCE

APPROVED DATE

[redacted]

DIVISION ENGINEER
BUREAU OF PUBLIC ROADS
DEPARTMENT OF COMMERCE

Planned by H J Sullivan

HIGHWAY ENGINEER FOR OLMSTED COUNTY

Recommended for Approval
DIVISION ENGINEER

Recommended for Approval J. W. Evans 7-13-51
ENGINEER OF COUNTY DIVISION

Approved 19* C. G. Edelman
ENGINEER OF PLANS AND SURVEYS

SP 55-518-01 S.817(1)

OLMSTED County, Minnesota. County Proj. No. Plan No. Sheet 1 of 20 Sheets

FORM 129 C - #2 Rev. '46

ESTIMATED QUANTITIES

SPECIFICATION NO.	ITEM	UNIT	MILE 1 Sta 0+00 To Sta 48+40	MILE 2 Sta 48+40 To Sta 105+22	MILE 3 Sta 105+22 To Sta 160+50	MILE Sta To Sta	MILE Sta To Sta	MILE Sta To Sta	MILE Sta To Sta	MILE Sta To Sta	MILE Sta To Sta	MILE Sta To Sta	TOTAL ESTIMATED QUANTITIES
2101.502	Clearing	Tree	23	16	149								188
2101.507	Grubbing	Tree	29	24	143								196
2105.501	Class A Excavation	Cu. Yd	20923	27571	41430								89924
2105.502	Class B Excavation	Cu. Yd.			9730								9730
2104.501	Remove Portable Culverts	Lin. Ft.	172	136	314								622
2442.501	Remove Old Structure Sta. 46+81	Structure	1										1
2442.501	Remove Old Structure Sta. 141+30	Structure			1								1
2442.501	Remove Old Structure Sta. 157+50	Structure			1								1
2501.511	F. & I. CMP Culvert 18"	Lin. Ft	220	246	112								578
2501.511	F. & I. CMP Culvert 24"	Lin. Ft.	30	64	88								182
2501.521	F. & I. SCP Culvert 24"	Lin. Ft.	32	40									72
2501.521	F. & I. SCP Culvert 48"	Lin. Ft.	36										36
2515.531	F. & I. Aprons for C.M.P 18"	Apron	16	18	8								42
2515.531	F. & I. Aprons for C.M.P 24"	Apron	2	4	4								10
2515.541	F. & I. Conc. Aprons for SCP 24"	Apron	2	2									4
2515.541	F. & I. Conc. Aprons for SCP 48"	Apron	2										2
2414.511-72"	F. & I. P-C Conc. Cattle Pass	Lin. Ft.			42								42
2414.512-72"	F. & I. P-C Conc. Cattle Pass End Sections	End Sec.			2								2
2414.511-60"	F & I P.C. Conc. Cattle Pass	Lin. Ft.	30										30
2414-512-60"	F & I P.C. Conc. Cattle Pass End Sections	End Sec.	2										2
2411.501	Concrete	Cu. Yd.			97								97
2411.541	Reinforcement Bars	Pound			18900								18900
2411.525	Class U Excavation	Cu. Yd.			349								349
2252.527	Crushed Rock Wearing Course in Place	Cu. Yd.	1726	2192	1943								5861

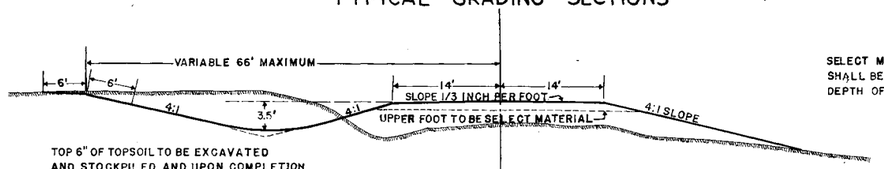
STANDARD DETAIL PLATES

Standard Detail Plates issued October 1, 1947 and submitted for approval by the Division Engineer of the Public Roads Administration October 15, 1947, shall govern.

PLATE NO.	STANDARD DETAIL PLATES
3000 & 3001	Sectional Concrete Culvert Pipe
3020	Precast Concrete Cattle Pass
3100A & 3102	Concrete Apron for Reinforced Sectional Concrete Culvert
3123	Metal Apron for C.M. Pipes
3021	Precast Concrete Cattle Pass

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

TYPICAL GRADING SECTIONS

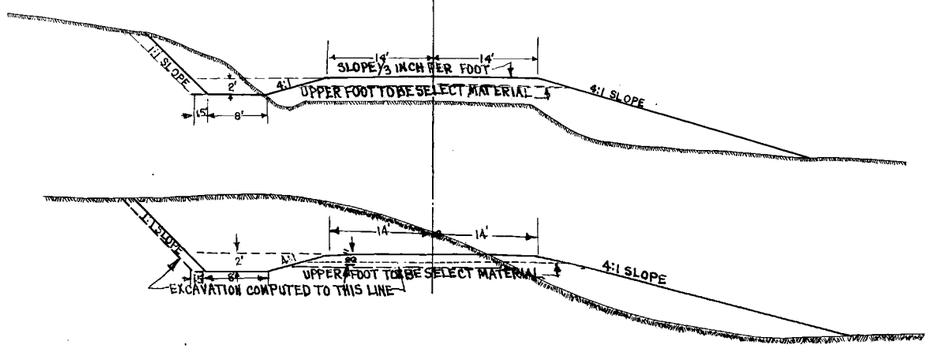


TOP 6" OF TOPSOIL TO BE EXCAVATED AND STOCKPILED AND UPON COMPLETION OF GRADING TO BE PLACED UNIFORMLY ON SLOPES AND DITCHES

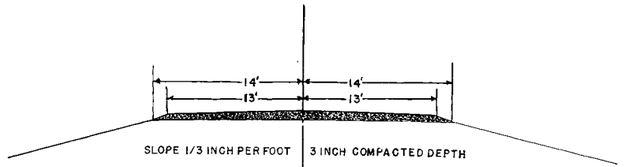
SPECIAL DETAILS

SELECT MATERIAL FOR THE TOP 1 FOOT OF EMBANKMENT SHALL BE OBTAINED FROM ADJACENT CUTS BETWEEN A DEPTH OF 1 FOOT AND 3 FEET BELOW THE NATURAL SURFACE

TYPICAL ROCK SECTIONS



TYPICAL BASE & SURFACE SECTIONS



NOTE: CRUSHED ROCK COMPUTED AT RATE OF 1665 CU. YDS. PER MILE. 200 CU. YDS. ALLOWED FOR APPROACHES AND CROSS ROADS.

S.P. 55-518-01 S. 817(1)

OLMSTED County, Minn. Proj. No. 55 Plan No. Sheet No. 2 of 20 Sheets.

DAHMS PHOTO PRINT CO. MPLS. 1, MINN.

TABULATION OF ESTIMATED QUANTITIES

CLEARING & GRUBBING

Plan Sheet No.	STATION TO STATION		CLEAR	GRUB
4	12+00	16+00	8	9
5	28+00	29+00	1	6
5	34+00	35+00	7	7
5	37+00	41+00	7	7
6	54+00	66+00	6	6
6	79+00	80+00	10	18
8	111+96	114+96	43	36
8	127+00	135+00	76	76
9	137+00	144+00	24	24
9	149+00	152+00	4	4
9	157+00	158+00	2	2
		TOTAL	168	196

FENCE

Plan Sheet No.	STATION TO STATION		LT.	RT.	REMOVE Lin. Ft.	RESET Lin. Ft.
		TOTAL				

MISCELLANEOUS

Plan Sheet No.	STATION	ITEM		QUAN.
5	48+81 ℄	Remove Old Structure		1
9	141+30 ℄	Remove Old Structure		1
9	157+50 ℄	Remove Old Structure		1
9	156+00 ℄	Pl. CBSX86'X45°		
		Concrete	Cu. Yds.	970
		Reinforcement Bars.	Pound	189.00
		Class 'U' Excavation	Cu. Yds.	349

EXCAVATION

Plan Sheet No.	STATION TO STATION			CU.YD.
4	0+00	13+00		9013
4	13+00	22+72		3848
4	22+72	26+00		1918
5	26+00	37+36		4493
5	37+36	48+40		9650
6	48+40	64+00		5965
6	64+00	68+00		1684
6	68+00	75+00		3392
7	75+00	81+00		2046
7	81+00	98+00		10092
7	98+00	105+22		3312
7	105+22	113+07		5312
8	113+22	122+25		5316
8	122+25	138+88	A	10063
8	122+25	138+88	B	9730
9	139+88	144+85		4389
9	144+85	150+50		4450
		TOTAL		89924 89730

PORTABLE CULVERT REQUIREMENTS

Plan Sheet No.	STATION	LOCATION ℄	LOCATION LT.	LOCATION RT.	REMOVE Size	REMOVE Length	REMOVE Type	* Install C.M. Culvert Size	* Install C.M. Culvert Length	* Install S.C. Culvert Size	* Install S.C. Culvert Length	Furnish & Install Corrugated Metal Pipe Diameter and Length of Barrell 18"	24"	C.M. Apron	Pipe Culvert Excav.	Furnish & Install Sectional Concrete Pipe Diameter and Length of Barrell 24"	48"	S.C. Apron	Cattle Pass	Conc. Apron
4	0+70		X		15"	24'	CM					26'		2		32'		2	60"x48"	2
4	14+38	X			18"	26'	CM					30'		2			36'	2	30"x60"	2
4	16+08		X		12"	20'	CM					26'		2		40'		2		
4	17+45		X		15"	20'	CM					26'		2						
4	17+47			X	15"	20'	CM					26'		2						
5	27+64			X	12"	20'	CM					30'		2						
5	38+36			X	12"	16'	CM					30'		2						
5	40+55	X			18"	28'	CM						30'	2						
5	52+11		X		24"	34'	CM					28'		2						
5	58+11			X	18"	32'	CM						32'	2						
6	65+50		X		12"	24'	CM						32'	2						
6	77+19	X			18"	30'	CM					26'		2						
6	80+35			X	12"	20'	CM					30'		2						
8	118+10			X	12"	20'	CM					26'		2						
8	118+74		X		12"	20'	CM					26'		2						
8	131+91	X			24"	40'	CM					28'		2						
8	133+27	X			18"	30'	CM					30'		2						
8	136+66			X	15"	44'	CM					26'		2						
9	141+00	X			30"	80'	CM					30'		2						
9	146+00		X		15"	20'	CM					26'		2						
9	152+05		X		12"	54'	CM					30'		2						
9	159+45		X		15"	26'	CM					26'		2						
													45'	2						
													42'	2						
												30'		2						
												26'		2						
	TOTAL	622										578	182	52		72	36	72	4	

Remarks

* Length Includes Aprons.

S.P. 55-518-01 S.817(1)

OLMSTED County, Minnesota. S.P. _____ Minn.Proj.No. _____ Sheet 3 of 20 Sheets.

F.E. 0+70 Lt.
Inplace
15"X24' C.M.P.
Remove
F&I 18" x 26' CMP
F&I 2 Aprons for CMP 18"

14+38 ℄
Inplace
18"X28' C.M.P.
Remove
Sta 15+00 ℄
F&I 24"x32' SCP
F&I 2 Aprons for SCP 24"

F.E. 16+08 Lt.
Inplace
12"X20' C.M.P.
Remove
F&I 18"x30' CMP
F&I 2 Aprons for CMP 18"

F.E. 17+45 Lt.
Inplace
12"X20' C.M.P.
Remove
F&I 18"x26' CMP
F&I 2 Aprons for CMP 18"

COUNTY — COUNTY

Cultivated — Farmyard — Garden — Barnyard — Cultivated — Cultivated

Cultivated — Pasture — Cultivated — Pasture

DODGE — OLMSTED

0+00 Lt & Rt.
C.A. Road S
No Culvs. inplace

Sta. 16+50 ℄
F&I P.C. Conc. Cattle Pass 60"x30'
F&I 2 End Sections
For 60" P.C. Conc. Cattle Pass.

F.E. 17+47 Rt.
Inplace
12"X20' C.M.P.
Remove
F&I 18"x26' C.M.P.
F&I 2 Aprons for CMP 18"

F.E. 27+64 Rt.
Inplace
12"X20' C.M.P.

1320 TO SECTION CORNER — 1320 TO QUARTER CORNER

STONE MON.

T.10 N. R.18 W. — 36 31 1 6

B.M. Elev. 1242.11
Spike in Root 24" Maple
47' Rt. Sta. 0+50

U.S.G.S. B.M. W 24 1933
Elev. 1077.406
At Douglas, Minn.

B.M. Elev. 1247.28
Spike in 24" Oak
100' Rt. Sta. 28+05

Clear & Trees Grub & Trees

1260 / 50 / 40 / 1230

+1.4 — -1.2 — -0.3 — +3.0 — -2.6 — -0.4

75' Lt — 75' Rt

Inl 37.2 Out 37.1

Inl 36.1 Out 35.9

PI +50 EL 46.9
400' VC
M=1.3

PI +00 EL 42.7
300' VC
M=0.3375

PI +00 EL 40.3
400' VC
M=1.65

PI +00 EL 58.3
500' VC
M 3.5

PI + 04.5455 EL. 46.4818
300' VC
M=0.825

EXC 5013 { TS 595 / A 4418
EMB 3325

EXC 3848 { TS 445 / A 3403
EMB 2545

EXC 1918 { TS 208 / A 1710
EMB 1338

S.P. 55-518-01 S.817(1)

OLMSTED COUNTY, MINN. Sheet No. 4 of 20 Sheets

F.E. 36+53 Lt.
No. Culv. inplace
F&I 18"x30' CMP
F&I 2 Aprons for CMP 18"

School Ent. 41+50 Lt.
No Culv. inplace
F&I 24"x30' CMP
F&I 2 Aprons for CMP 18"

46+81 ℄
Inplace
3'X1.5'X18'
Conc. Culv.
Remove
F&I 48"x36' SCP
F&I 2 Aprons for SCP 48"

52+11 Lt.
Township Road
Inplace 24"X34' C.M.P.
Remove
F&I 24"x32' CMP
F&I 2 Aprons CMP 24"

Cultivated | Farmyard | Garden | Schoolyard | Cultivated | Cultivated

PI 32+11.0
Δ Rt. 0°8'16"

Pasture | Cultivated | OTHELLO CEMETERY | Cultivated | Pasture | Pasture | Pasture

F.E. 27+64 Rt.
Inplace 12"X20' C.M.P.
Remove
F&I 18"x26' CMP
F&I 2 Aprons for CMP 18"

38+36 Rt.
Cemetery Ent.
Inplace 12"X14' C.M.P.
Remove
F&I 18"x30' CMP
F&I 2 Aprons for CMP 18"

40+55 ℄
Inplace
18"X26' C.M.P.
Remove
No Culv Req'd

F.E. 41+80 Rt.
No Culv. Inplace
F&I 18"x26' CMP
F&I 2 Aprons for CMP 18"

52+11 Rt.
Township Road
Inplace 18"X32' C.M.P.
Remove
F&I 24"x32' CMP
F&I 2 Aprons for CMP ~~24"~~

1/2 TO QUARTER CORNER

1/2 TO SECTION CORNER

T108N R18W
31 32
6 5
R18W T107N

B.M. Elev. 1247.28
Spike in 24" Oak
100' Rt. Sta. 28+05

B.M. Elev. 1229.95
Spike in Twin Cottonwood
75' Rt. Sta. 52+40

Clear 1 Tree Grub 0 Trees
Clear 7 Trees Grub 7 Trees
Clear 7 Trees Grub 7 Trees

1260
50
40
30
1220

-0.4
+0.00
PI +0.00
EL. 41.9
400' VG
M=0.9
75' Lt
75' Rt
-2.2
PI +0.00
EL. 19.6
500' VG
M=3.0
+2.6
+0.50
Inl. 18.2
Out 16.5

+00
EXC 4493 {TS 496 / A 3997
EMB 3142
+36
EXC 5651 {TS 475 / A 5176
EMB 4257
+40

S.P. 55-518-01 S. 817(1)

OLMSTED COUNTY, MINN. Sheet No. 5 of 20 Sheets

F.E. 66+50 Lt.
Inplace 12"X20' C.M.P.
Remove
F&I 18"x30' C.M.P
F&I 2 Aprons for C.M.P 18"

77+19 ℄
Inplace
18"X30' C.M.P.
Remove
F&I 24"x40' S.C.P
F&I 2 Aprons for S.C.P. 24"

Cultivated
Farmyard
Barnyard
HOUSE
SHED
POT. 66+00
POT. 79+00
Woodlot
Pasture

F.E. 65+21 Rt
No Culv. inplace
F&I 18"x26' C.M.P.
F&I 2 Aprons for C.M.P. 18"

F.E. 80+35 Rt.
Inplace 12"X20' C.M.P.
Remove
F&I 18"x26' C.M.P.
F&I 2 Aprons for C.M.P. 18"

UNITED QUARTER CORNER

3 2 4

B.M. Elev. 1229.95
Spike in Twin Cottonwood
75' Rt. Sta. 52+40

B.M. Elev. 1199.00
X on NE. Corner N. Hdwl.
W46X51 Sta. 84+98

Clear 6 Trees
Grub 6 Trees

Clear 10 Trees
Grub 18 Trees

P.I. +00 EL 40.7
300' V.C.
M=0.375

500' V.C.
M=2.75

P.I. +50 EL 51.6
400' V.C.
M=1.7

400' V.C.
M=2.7

P.I. +00 EL 14.1889

P.I. +00 EL 19.7
400' V.C.
M=2.8

EXC 5965
EMB 4352
TS 699
A 5266

EXC 1664
EMB 1194
TS 177
A 1487

EXC 3392
EMB 2204
TS 464
A 2928

EXC 2946
EMB 2077
TS 261
A 2685

OLMSTED COUNTY MINNESOTA

JOB NO. ..... PLAN NO. .....

Sheet No. 6 of 20 Sheets

S.P. 55-518-01 S. 8170)

F.E. 84+32 Lt.
No Culv. inplace
F&I 18"x 26' C.M.P.
F&I 2 Aprons for C.M.P 18"

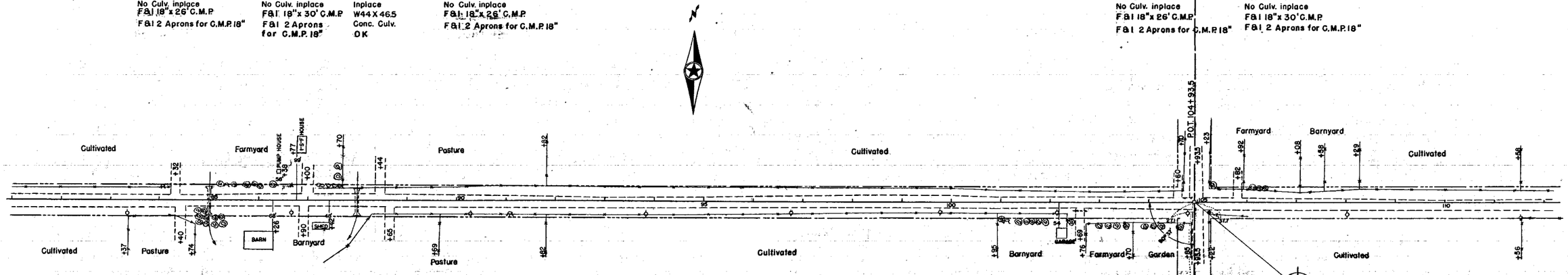
F.E. 87+00 Lt.
No Culv. inplace
F&I 18"x 30' C.M.P.
F&I 2 Aprons for C.M.P. 18"

88+00 ℄
Inplace
W44 X 46.5
Conc. Culv.
OK

F.E. 88+44 Lt.
No Culv. inplace
F&I 18"x 26' C.M.P.
F&I 2 Aprons for C.M.P 18"

F.E. 104+60 Lt.
No Culv. inplace
F&I 18"x 26' C.M.P.
F&I 2 Aprons for C.M.P 18"

F.E. 106+82 Lt.
No Culv. inplace
F&I 18"x 30' C.M.P.
F&I 2 Aprons for C.M.P. 18"


Cultivated
Farmyard
Pasture
Cultivated
Barnyard
Cultivated
Farmyard
Barnyard
Cultivated
Cultivated
Pasture
Pasture
Cultivated
Barnyard
Farmyard
Garden
Cultivated
POT 104+93.5
BARN
SHED
GARAGE
GRAIN BIN
TANK
TANK
TANK

F.E. 118+74 Lt.
Inplace 12"X 20' C.M.P.
Remove
F&I 18"x 26'C.M.P
F&I 2 Aprons for C.M.P 18"

P.I. 122+00
ΔLt 13°16'
D 2°00'
T 333.2
L 663.3
R 2864.79

F.E. 136+28 Lt.
No Culv. inplace
No Culv. Req'd

Barnyard | Cultivated | Woodlot | Cultivated | Pasture

P.C. 118+66.8

P.T. 125+30

P.C. 130+56.2

POST 131+67.2

P.I. 132+36.7
ΔRt 17°51'
D 5°00'
T 180.0
L 352.0
R 1145.92

P.T. 134+13.7

Cultivated | Cultivated | Cultivated | Pasture

F.E. 118+10 Rt.
Inplace 12"X 20' C.M.P.
Remove
No Culv. Req'd

131+91 ℄
Inplace
24"X 40' C.M.P.
Remove
No Culv. Req'd

133+27 ℄
Inplace
18"X 30' C.M.P.
Remove
F&I 24"x 46' C.M.P
F&I 2 Aprons for C.M.P 24"
P.L. Ditch Block

F.E. 133+72 Rt.
No Culv. inplace

F.E. 136+66 Rt.
Inplace 15"X 44' C.M.P.
Remove
F&I 24"x 42' C.M.P.
F&I 2 Aprons for C.M.P 24"

1320' TO QUARTER CORNER

3,3
4

B.M. Elev 1241.81
Spike in 12" Oak
24' Lt Sta. 112+06

Clear 43 Trees Grub 36 Trees

Clear 76 Trees Grub 76 Trees

P.I. +53.5714
EL. 1148.57

400' V.C.
M=1.4'

600' V.C.
M=6.66

75'Rt

75'Lt

-10.0

Horiz. Scale 1"=100'
Vert. Scale 1"=20'

+07

EXC 5316
EMB 3793
{TS 411
A 4905

+25

EXC 19793
EMB 16445
{TS 648
A 9415
B 9730

PLAN
REVISED
PLOTTED
NOTE BOOK
NO
ALIGNMENT CHECKED
RT. OF WAY CHECKED
DATE
BY

PROFILE
REVISED
PLOTTED
NOTE BOOK
NO
GRADE LINE CHECKED
RT. OF WAY CHECKED
DATE
BY

S.P. 55-518-01 S. 817(1)

CLAY STED COUNTY MINNESOTA — JOB NO. ..... PLAN NO. .....

Sheet No. 3 of 20 Sheets

F.E. 136+28Lt.
No Culv. inplace

F.E. 146+00Lt.
Inplace 15"X20'C.M.P.
Remove
F&I 18"x30' C.M.P.
F&I 2 Aprons For C.M.P. 18"

F.E. 152+05Lt.
Inplace 12"X34'C.M.P.
Remove
No Culv. Reqd

F.E. 157+63Lt.
No Culv. inplace
No Ent. Reqd

F.E. 159+45Lt.
Inplace 15"X26'C.M.P.
Remove
F&I 18"x26' C.M.P.
F&I 2 Aprons For C.M.P. 18"

Pasture
Cultivated
Farmyard
Garden
Pasture
Cultivated
Farmyard
Pasture
Farmyard
Pasture
Farmyard
Standard Oil Co. Pipe Line
160+50 end

F.E. 136+66Rt.
Inplace 15"X44'C.M.P.

141+00℄
Inplace
2-30"X40'C.M.P
Remove

141+30℄
Inplace
3.5X6X16'
Conc. Culv.
Remove
F&I PC Conc Cattle Pass x 42'
F&I 2 PC Conc Cattle Pass End Sec's

156+00℄
PL. C86x 86+45°
Conc. 97.0 cys
Steel 18900 lbs
Class U Exc 349 cys

157+50℄
Inplace
10'X9'X16'
Stone Arch Culv.
Remove

F.E. 159+87Rt.
No Culv. inplace
No Culv Reqd

TOWN 104 N RGE 13 W
33 34
4 3

B.M. Elev. 1046.47
Spike in 24" Maple
40' Lt. Sta 148+25

Clear 24 Trees Grub 24 Trees

Clear 4 Trees Grub 5 Trees

B.M. Elev. 1024.19
Spike in 36" Elm
24' Lt. Sta 157+30

Clear 2 Trees
Grub 2 Trees

P.I.+50
El. 77.85
400' V.C.
M=3.55

Int 59.1
Out 57.1

75 Rt

75 Lt

EXC 4389 {TS 206
EMB 2856 A 4183

P.I.+50
EL. 40.15
400' V.C.
M=0.55

Int. 18.8
Out 17.3

P.I.+11.9048
EL. 22.8357
400' V.C.
M=1.05

EXC 16350 {TS 857
EMB 1064-6 A 14081
CH EXC 1412 to be used to fill old channel

S.P. 55-518-01 S. 817 (1)

OLMSTED COUNTY MINNESOTA

JOB NO. PLAN NO.

Sheet No. 9 of 20 Sheets