Form 413 Rev. 1959

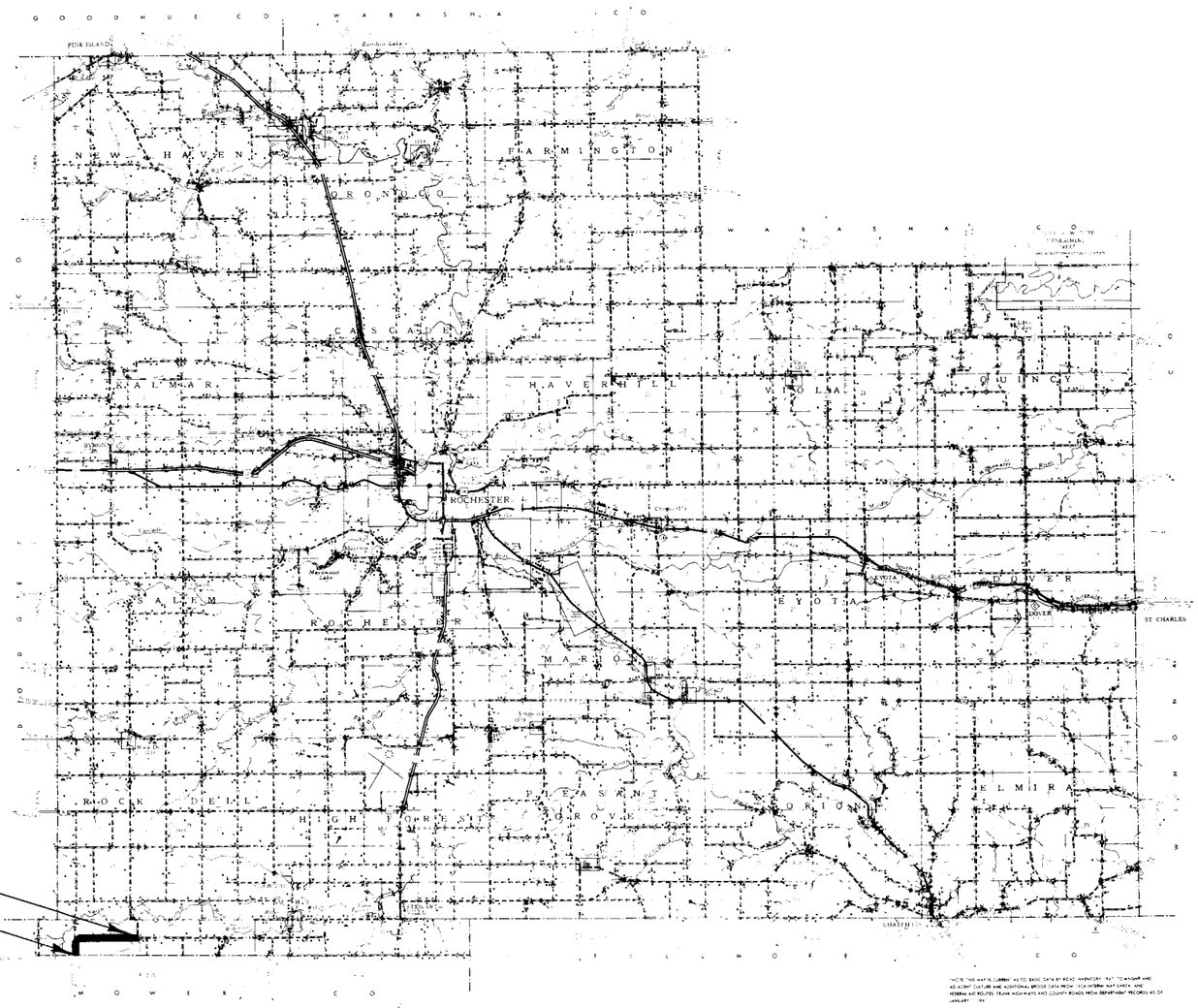
CONVENTIONAL SIGNS

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



NOTE: SECTION NUMBERS READ FROM THE SOUTH



End S.A.P. 55-603-08
Sta. 115+55.92
Begin S.A.P. 55-603-08
Sta. 0+00

STATE OF MINNESOTA
DEPARTMENT OF HIGHWAYS

CONSTRUCTION PLAN FOR Grading and Crushed Rock Base Inplace

County State Aid Highway No. 3

BETWEEN South County Line AND CSAH 6

From Common Corner to Sec 5-6-7-8 T104N-R15W To SW Corner SE 1/4 NE1/4 Sec 4 T104N-R15W

GROSS LENGTH 11555.92 FEET 2.18862 MILES
BRIDGES LENGTH 0.0 FEET 0.00 MILES
EXCEPTIONS LENGTH 0.0 FEET 0.00 MILES
NET LENGTH 11555.92 FEET 2.18862 MILES

MINN. PROJ. _____

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

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 22 Cross Sections

Design Speed 50 M.P.H.
Projected A.D.T. 255

ALL FEDERAL, STATE AND LOCAL LAWS 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

_____ DATE _____
COUNTY ENGINEER

_____ COUNTY REG. NO. _____

RECOMMENDED FOR APPROVAL Harold Tekula 3/27/1964
DISTRICT ENGINEER S.A.

RECOMMENDED FOR APPROVAL L. A. Hoffman 3-25 19 64

APPROVED _____ 19__ _____
STATE AID ENGINEER

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED

_____ _____

—SPECIFICATIONS—

THE "SPECIFICATIONS FOR HIGHWAY CONSTRUCTION" DATED JAN. 1964 SHALL GOVERN.

Minn. Proj. No. _____ State Proj. No. _____ State Aid Project No. 55-603-08

Olmsted County, Minnesota County Proj. No. _____ Plan No. _____ Sheet No. 1 of 22 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	16
2101.507	Grubbing	Tree	46
2104.501	Remove Portable Culverts	Linear Foot	288
2104.520	Remove W 33 X 24" Conc Box Culv (Sta. 10+83)	Structure	One
2104.520	Remove W 33 X 24" Conc Box Culv (315' Lt. Sta. 24+60)	Structure	One
2104.520	Remove W 33 X 37" Conc Box Culv (Sta. 74+34)	Structure	One
2104.520	Remove W 33 X 37" Conc Box Culv (Sta. 81+47)	Structure	One
2105.501	Class A Excavation	Cu. Yd.	33445
2105.504	Class SG Excavation	Cu. Yd.	819
2130.501	Water	M. Gal.	142
2201.527	Gravel Sub-Base in Place (Class 4)	Cu. Yd.	10976
2210.527	Crushed Rock Base in Place	Cu. Yd.	5667
2411.501	Concrete	Cu. Yd.	53.39
2411.511	Structure Excavation (Class U)	Cu. Yd.	82
2411.541	Reinforcement Bars	Lbs.	8088
2501.511	F&I 18" CMP Culverts	Linear Foot	380
2501.521	F&I 24" RCP Culverts Class III	Linear Foot	44
2501.521	F&I 30" RCP Culverts Class III	Linear Foot	122
2501.522	F&I 43 3/4" Span RCP-A Culv. Class III	Linear Foot	100
2515.531	F&I Metal Aprons for 18" CMP	Apron	26
2515.541	F&I Concrete Aprons for 24" SCP	Apron	2
2515.541	F&I Concrete Aprons for 30" SCP	Apron	4
2515.542	F&I Concrete Aprons for 43 3/4" Span SCP-A	Apron	4

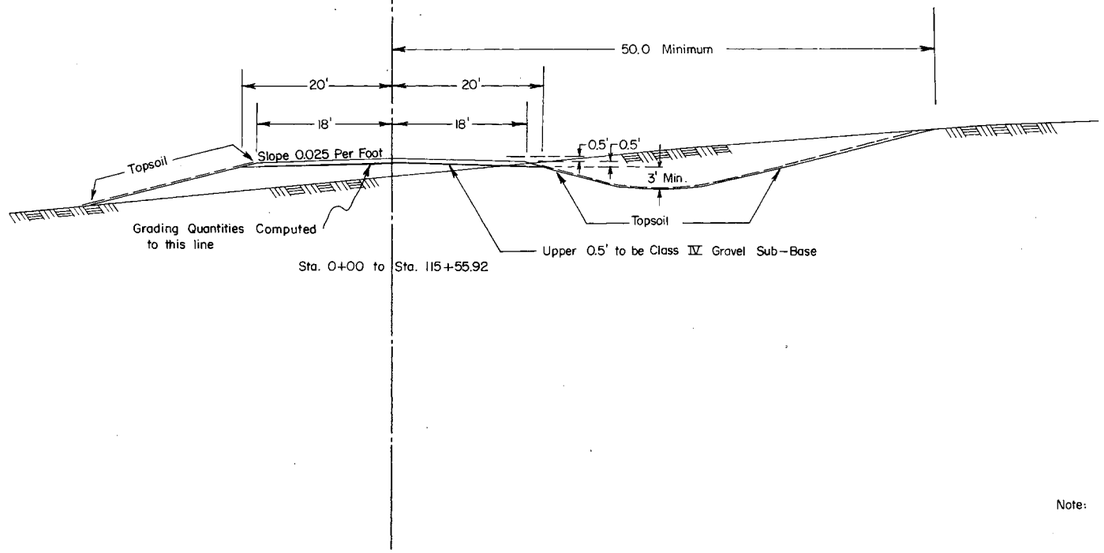
Note: Item No. 2210.527 Includes 195 Cu. Yds. for F.Ent. and 76 Cu. Yds. for TWP Road.

STANDARD DETAIL PLATES

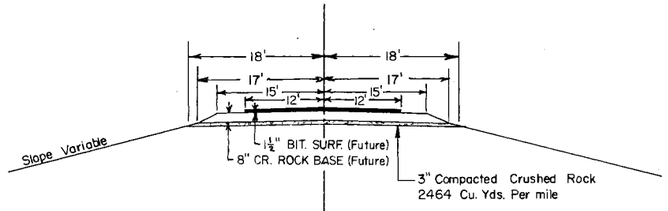
THE FOLLOWING STANDARD DETAIL PLATES, APPROVED BY THE BUREAU OF PUBLIC ROADS, SHALL APPLY ON THIS PROJECT

PLATE NO.	DESCRIPTION
3000 B	Reinforced Concrete Pipe
3014 A	Reinforced Concrete Pipe-Arch
3065 A	Connection Bet. Existing Culv. & New "C" Culv. Barrel
3100 C	Concrete Apron for Reinforced Concrete Pipe
3102 B	
3110 A	
3112 A	Concrete Apron for Reinforced Concrete Pipe Arch
3123 A	Metal Apron for CMP Pipe

TYPICAL GRADING SECTIONS



TYPICAL BASE & SURFACE SECTIONS



Sta. 0+00 to Sta. 115+55.92

SPECIAL DETAILS

Note: Material from the upper 1.0' of the natural topsoil shall not be used in the upper 1.0' of the roadway. Part of this material shall be uniformly spread on slopes 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 above provided 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 will be considered incidental, and will be under unit price for "Furnish and Install Culvert Pipe."

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 SG Excavation. Backfill with select material from R.O.W. Tapers shall be 50:1 in all cases.

Note: Place Sectional Concrete Pipe in Class "A" Bedding.

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

DAHMS PHOTO PRINT CO. MPLS. 1, MINN.

0+20 FE Lt
Inpl 15"X 24' CMP
Remove
F&I 18"X 28' CMP
F&I 2-18" Metal Aprons
For CMP

18+21 FE Lt
Inpl 15"X 24' CMP
Remove
F&I 18"X 28' CMP
F&I 2-18" Metal Aprons
For CMP

Remove and Use Material
to Const. TWP Rd Connection

Twp Rd
Inpl W 33 X 24'
Remove

Inpl 1/2" Rod over
Pipe Monument

Const. TWP Rd Connection Thus

Construct
50' Shoulder
Radius

Remove and Use Material
to Const. TWP Rd Connection

Begin S.A.P. 55-603-08
Sta. 0+00

R.O.T. 6+00

0+00
Rdl over 3/4" Pipe Monument

Northern
Natural Gas
Marker 36.67'
16" LINE

P.I. 26+54.30
Δ Rt 89°21'30"
Dc 7°00'
Ls 250'
Ts 937.69'
Lc 937.32'
Rc 249.42'
Ec 12.7

T.S. 17+16.71

S.C. 19+66.71

C.S. 29+93.38

1+48 ℄ Box Culv
Inpl W64 X30' Conc.
Extend
9' Lt & 10' Rt
Conc 21.33 Cu.Yds.
Reinf. Bars 3243 lbs
Class U Exc. 37.65 Cu.Yds.

3+77 FE Rt
No Culv Inpl
F&I 18"X 28' CMP
F&I 2-18" Metal Aprons
For CMP

5+50 FE Rt
No Culv Inpl
F&I 18"X 32' CMP
F&I 2-18" Metal Aprons
For CMP

10+83 ℄ Box Culv
Inpl W33X 24' Conc.
Remove
F&I 26⅝" Rise X 43¾" Span X 44' RCP-A Class III
F&I 2-26⅝" Rise X 43¾" Span Conc Aprons
For SCP-A
Class B Bedding
Place Ditch Block

24+49 ℄ Culv
Inpl 30"X 40" CMP
Remove
F&I 26⅝" Rise X 43¾" Span X 56' RCP-A Class III
F&I 2-26⅝" Rise X 43¾" Span Conc Aprons
For SCP-A
Class B Bedding

B.M. Elev. 1291.97'
Spk in PP Rt
Beginning of Project

B.M. Elev. 1283.76'
Spk in PP 31' Rt
Sta. 19+05

Cl. 14 Gr. 44

Finished ℄ Grades

Present ℄ Grades

Profile 75' Lt

Profile 75' Rt

P.I.+00
Elev. 91.7
400' V.C.
M=2.4

-3.2%

+1.6%

Inlet Elev. 87.7
Outlet Elev. 87.5

P.V.T.+50
P.V.C.+50

P.I.+00
Elev. 98.9
500' V.C.
M=1.875

Elev. 94.9

Elev. 95.4

-1.4%

P.V.T.+50

P.V.C.+00

P.I.+00
Elev. 90.5
400' V.C.
M=0.35

Elev.

Elev. 88.1

Inlet Elev. 86.8
Outlet Elev. 86.3

-0.7%

P.V.T.+00

Elev. 83.06923

P.I.+61.53846
Elev. 81.66923
400' V.C.
M=0.65'

Elev. 82.86923

+0.6%

Inlet Elev. 77.6
Outlet Elev. 77.3

P.V.C.+61.53846

P.V.T.+61.53846

EXC 1763
Class 4 708
EMB 1087

+45

EXC 493
Class 4 308
EMB 308

+69

EXC 239
Class 4 129
EMB 147

+05

EXC 3159
Class 4 1306
EXC 3500 (Existing Twp Rd)

EMB 1962
EMB 2500 (Construct Twp Road Connection)

PLAN
SURVEYED
PLOTTED
NOTE BOOK
NO.
ALIGNMENT CHECKED
RT. OF WAY CHECKED

PROFILE
SURVEYED
PLOTTED
NOTE BOOK
NO.
GRADES CHECKED
ALIGNMENT CHECKED
STRUCTURE NOTATIONS CHKD.

DATE
BY

SINGLE PLAN & PROFILE - 0 TIED
ENABLE BROWNS COMPANY INC.

35+97 ℄ Culv
Inpl 24"X 32' CMP
Remove
F&I 24"X 44' RCP Class III
F&I 2-24" Conc Aprons
For SCP
Class B Bedding

49+77 FE Lt
No Culv Inpl
No Culv. Req'd

59+14 FE Lt
Inpl 15"X 30' CMP
Remove
F&I 18"X 28' CMP
F&I 2-18" Metal Aprons
For CMP

CENTER SECTION 5 T104N R13W

P.I. 49+54.94
Δ Rt 0°03'30" Incl 3.4° Rad

C.S. 29+95.38

ST. 32+48.38

Construct F.E Rt 34+00
F&I 18"X 28' CMP
F&I 2-18" Metal Aprons
For CMP

35+84 FE Rt
No Culv Inpl
Remove F.E.

49+71 FE Rt
No Culv Inpl
No Culv Req'd

56+40 ℄ Box Culv
Inpl W46X 29'
Extend
18' Lt & 16' Rt
Conc 32.06 Cu.Yds.
Reinf. Bars 4845 Lbs.
Class U Exc. 44.17 Cu.Yds.

PLAN
SURVEYED
PLOTTED
GRADES CHECKED
R/W NOTED
STRUCTURES NOTATING CHKD
NOTE BOOK
NO.
BY
DATE

B.M. Elev. 1288.85
Spk in PP 30' Rt
Sta. 34+79

B.M. Elev. 1321.28'
Spk in PP 32' Rt
Sta. 49+55

Finished ℄ Grades
Present ℄ Grade
Profile 75' Lt
Profile 75' Rt

P.I.+50
Elev. 88.8
400' V.C.
M=0.9

+0.6%
+2.4%
-1.4%
+2.6%

Elev. 87.6
Elev. 93.6
Elev. 160.8421
Elev. 185.8421
Elev. 149
Elev. 173
Elev. 199

P.V.C.+50
P.V.T.+50
P.V.C.+86.84210
P.V.T.+86.84210
P.V.C.+50
P.V.T.+50
P.V.C.+50

Inlet Elev. 87.0
Outlet Elev. 86.8

P.I.+36.84210
Elev. 22.08421
500' V.C.
M=2.375

P.I.+50
Elev. 12.1
400' V.C.
M= 2.0

Inlet Elev. 03.5
Outlet Elev. 02.5

Subgrade Treatment
Excavate 1.0 Below Profile Grade
Sta. 47+00 to 53+25

EXC	Class A	5482	
	Class 4	2138	
	SG	123	
EMB		3405	

EXC	Class A	2556	
	Class 4	702	
	SG	696	
EMB		1588	

+31

+70

PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
R/W NOTED
STRUCTURES NOTATING CHKD
NOTE BOOK
NO.
BY
DATE

SINGLE FLOW & PROFILE - SECTION
CHARLES BROWN COMPANY, INC.

65+12 FE Lt
No Culv Inpl
F&I 18"X 32' CMP
F&I 2-18" Metal Aprons
For CMP

66+45 FE Lt
Inpl 12"X 24' CMP
Remove
F&I 18"X 28' CMP
F&I 2-18" Metal Aprons
For CMP

69+23 FE Lt
Inpl 15"X 20' CMP
Remove
F&I 18"X 28' CMP
F&I 2-18" Metal Aprons
For CMP

74+34 ℄ Box Culv
Inpl W33 X 37'
Remove
F&I 30"X 62' RCP Class III
F&I 2-30° Conc Aprons
For SCP
Class B Bedding

81+47 ℄ Box Culv
Inpl W33X37'
Remove
F&I 30" X 60' RCP Class III
F&I 2-30° Conc Aprons
For SCP
Class B Bedding
Place Ditch Block

84+64 FE Lt
No Culv Inpl
No Culv Req'd

65+12 FE Rt
Inpl 12"X 24' CMP
Remove
F&I 18"X 28' CMP
F&I 2-18" Metal Aprons
For CMP

5 1/4

P.I. 75+92.87
Δ Rt 000°30" Inpl 3/4" Rod

PLAN — SURVEYED; PLOTTED; ALIGNMENT CHECKED; RT OF WAY CHECKED; NOTE BOOK NO.; DATE; BY

PROFILE — SURVEYED; PLOTTED; GRADES CHECKED; ROAD NO. IS M.S. NOTED; STRUCTURE NO. & PATH'S CHKD.; NOTE BOOK NO.; DATE; BY

← Cl. 2 Gr. 2 →

B.M. Elev. 1325.58'
Spk in PP 32' Rt
Sta. 64+50

B.M. Elev. 1302.83'
Spk in PP 34' Rt
Sta. 75+40

B.M. Elev. 1303.13'
Spk in PP 32' Rt
Sta. 82+89

Finished ℄ Grades

Present ℄ Grades

Profile 75' Lt

Profile 75' Rt

Elev. 19.9

+2.6%

P.I.+00
Elev. 29.0
700' V.C.
M=4.4625

P.V.C.+50

P.V.T.+50

Elev. 20.25

-2.5%

Elev. 09.18519

P.V.C. +92.59259

P.I.+92.59259
Elev. 01.68519
600' V.C.
M=2.025

Elev. 02.28519

P.V.T. +92.59259

Inlet Elev. 98.5
Outlet Elev. 96.0

+0.2%

Inlet Elev. 99.5
Outlet Elev. 96.0

Elev. 04.325

P.V.C. +12.50

P.I.+12.5
Elev. 04.7250
400' V.C.
M = 0.8

+00

+00

+20

EXC Class A 5841
Class 4 1264
EMB 3664

EXC Class A 2977
Class 4 950
EMB 1857

EXC Class A 1830
Class 4 779
EMB 1142

EXC Class A 1405
Class 4 626
EMB 878

Olmsted County S.A.P. 55-603-08 Sheet No. 5 of 22 Sheets

SINGLE PLAN & PROFILE - DOTTED
CHARLES BRUNING COMPANY, INC.

100+43 FE Lt
Inpl 15"X 22' CMP
Remove
F&I 18"X32' CMP
F&I 2-18" Metal Aprons
For CMP

CENTER SECTION 4 NEW RISER

PI 102+37.26 Inpl 5/8" Rod
Δ Rt 0°20'

PI 115+55.92
Inpl Conc Monument

End S.A.P 55-603-08
Sta. 115+55.92

CSAH 3

CSAH 6 66'

96+44 FE Rt
No Culv Inpl
No Culv Req'd

100+43 FE Rt
Inpl 15"X 24" CMP
Remove
F&I 18"X 28' CMP
F&I 2-18" Metal Aprons
For CMP

102+16 FE Rt
Inpl 15"X 24' CMP
Remove
F&I 18"X32' CMP
F&I 2-18" Metal Aprons
For CMP

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

B.M. Elev. 1312.96'
Spk in PP 35' Rt
Sta. 93+90

B.M. Elev. 1276.12'
Spk in PP 34' Rt
Sta. 115+92

Profile 75' Lt
Profile 75' Rt

Elev. 08.325
+1.8%
P.V.T. +12.5
Elev. 12.8636
P.V.C. +63.90909
P.I. +65.90909
Elev. 18.28637
600' V.C.
M=3.30
Elev. 10.48637
P.V.T. +65.90909
-2.6%
P.I. +00
Elev. 94.0
200' V.C.
M=0.2
Elev. 96.6
P.V.C. +00
Elev. 92.2
P.V.T. +00
-1.8%
P.I. +00
Elev. 77.8
400' V.C.
M=1.30
Elev. 81.4
P.V.C. +00
Elev. 79.4
P.V.T. +00
+0.8%

EXC Class A 3898
Class 4 1763
EMB 2375

EXC Class A 302
Class 4 305
EMB 186

Finished Grades
Present Grades
PROFILE
SURVEYED
PLOTTED
NOTE BOOK
NO.
GRADES CHECKED
ALIGNMENT
STRUCTURE NOTATNS CHKD
BY
DATE

Olmsted County S.A.P. 55-603-08 Sheet No. 6 of 22 Sheets

SINGLE PLAN & PROFILE - DOTTED
CHARLES BRUNING COMPANY INC.