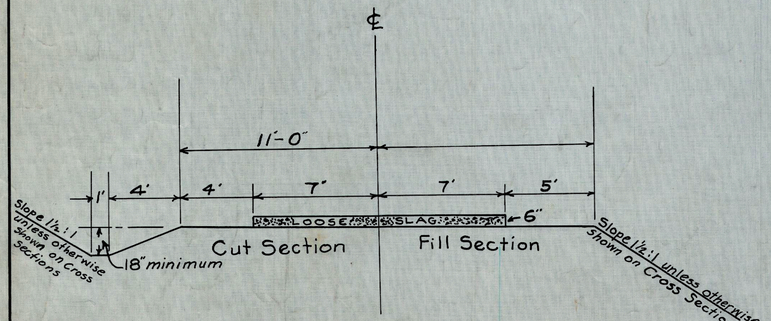
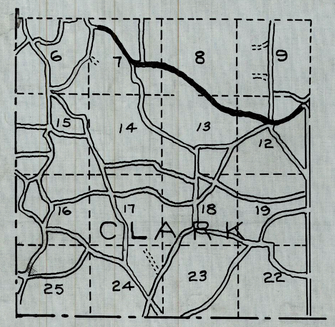
SEC. "D"
MILLERSBURG-CHARM. Rd.
CLARK. Twp.
1/32

HOLMES COUNTY
DIVISION OF CONSTRUCTION
MILLERSBURG – CHARM
ROAD № 76
CLARK TOWNSHIP

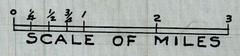


TYPICAL CROSS SECTION
UNLESS
OTHERWISE SHOWN ON CROSS SECTION SHEETS

Slag shall be spread uniformly to thickness shown by staking forms on the sides and using a strike off or by using an adjustable spreader box. Contractor shall keep the placed slag dragged until all the slag has been placed.



LOCATION PLAN



PORTION TO BE IMPROVED ▬▬

SCALES

Plan	1" = 100'
Profile (Vertical)	1" = 100'
Profile (Horizontal)	1" = 10'
Cross Sections	1" = 5'

INDEX OF SHEETS

Title and Standard Sections	Sheet	1
Plans and Profile	"	2-7
Cross Sections	"	8-25
Summary of Quantities	"	31
Culverts and Bridges	"	26-30

The Standard Specifications of the State of Ohio, Division of Highways, in force on August 25th 1925 will govern this improvement unless otherwise shown.

I hereby approve the plans and declare that the making of this improvement will not require the closing to traffic of the Highway

Approved Feb., 7 - 1927.
Karl Snyder

We the Commissioners of Holmes County, hereby approve these plans and certify that the Right-of-Way 60 feet wide is available for the construction, maintenance and repair of the above Highway

Approved Feb., 7 - 1927.
H. H. Allison
J. A. Mullet
G. W. Hanna
County Commissioners.

MILLERSBURG-CHARM RD.
SEC. "D"
CLARK TOWNSHIP.
2/31

ORIGINAL SURVEY — SURVEYED BY, DRAWN BY, TEMPLATE, AREAS, LEGS CHECKED, NOTE BOOK, NO., DATE, BY

FINAL SURVEY — SURVEYED BY, DRAWN BY, TEMPLATE, AREAS, LEGS CHECKED, NOTE BOOK, NO., DATE, BY

+28

LIZZIE MILLER
ANDREW J. MILLER

Sta. 248+00 Build Pipe Culvert as Shown on Culvert Plans

Sta. 247+00 Lay 18' of 10" V.S.P. for drive Left. Fill approach and place 2 c.y. Gravel or Slag.

Sta. 255+92 Place 2 c.y. Gravel or Slag Left.

LANE

Sta. 259+96 Build 5'x3'x34' Conc. Culv. as shown on Culvert Plans.

Iron Post

P.I. 260+08

MOSES. J. S. YODER

Sta. 266+60 Place 2 c.y. Gravel or Slag for approach L.

P.C. 269+76

LANE

MOSES J. S. YODER
Total New R. of Way 0.18

Sta. 278+00 Build Pipe Culvert as Shown on Culvert Plans

P.I. 273+69

Δ 18°-17'
D 2°-24'
Ex. 30.7'
T 384.2'
L. 761.40'

S 72°-15 E

S 23°-45 E

S 42°-02 E

P.C. 275+42

Δ 9°-54'
D. 2°-00'
Ex. 10.75'
T. 248.15'
L 495.00'

P.I. 280+37

Sta. 276+50 Cut new Channel 30' long & bottom 2'-6" Deep 1:1 Slope 24 c.y.

Sta. 273+13 Build Pipe Culvert Extension as shown on Culvert Plans

Sta. 267+32 Build Pipe Culvert as Shown on Culvert Plans

Sta. 266+46 Remove 18 of 18" Corg. Pipe and relay at 266+60 Left and add 8' of new Corg. Pipe

Sta. 266+13 Build 30" Pipe Culvert as Shown on Culvert Plans

P.I. 267+38

Sta. 263+00 Lay 18' of 10" V.S.P. for drive Right

ANDREW J. MILLER
Total New R. of Way 0.18A.

H. N. MILLER

P.C. 256+22.4

Sta. 255+95 Build Pipe Culvert as Shown on Culvert Plans

LIZZIE MILLER PI. 260+25.87

P.I. 253+03.7

LIZZIE MILLER
ANDREW J. MILLER

New R. of Way 0.30A.

Δ 48°-25'
D 12°-00'
Ex. 46.04'
T. 214.70'
L 403.47'

Δ. 11° 20'
D. 2°-00'
Ex. 14.05'
T. 284.25'
L. 566.67'

Note - Field location 2° Curve
Office location 4° Curve
See Section offsets

Note - Field drives may be changed to location requested by land owner

P.C. 247+36.5

246+08
Beginning of Imp. To Bedford

B.M. STA. 247+10
Bolt in root of 30" Walnut
Elev. 1059.44

B.M. STA 255+85
Spike in root of tree left
Elev.

B.M. Sta. 260+00
□ on right headwall Old Culv.
Elev. 1067.38

B.M. Sta. 273+50
2 nails in Hickory 30' right.
Elev. 1098.23

B.M. Sta. 266+40
2 nails willow Left.
Elev. 1081.52.

B.M. Sta. 275+90
2 nails root maple right.
Elev. 1108.24.

+08 1050.60
1051.30
1052.40 +1%
+34.5 105.50
1051.40
10493
1049.7
1050.1
1054.0
1055.8
1056.2
1055.3
1056.7
1057.4
1058.1
1058.9
1060.7
1061.5
1062.7
+60 1062.7
1062.7
+22.4 1063.6
1064.2
1064.7
1063.7
1065.2
1065.2
1062.2
1061.4
1063.3 #25
1070.5
1074.1
1072.1
1075.1
1077.8
1078.2
1077.5
1079.0
1079.8
1080.2
1080.4
1080.9
1081.5
1082.5
1083.3
1084.6
+75 1088.3
1092.4
1095.7
1099.5
1097.1
+30 1100.4
+69 1101.4
1103.8
1105.5
1106.9
1111.5
1112.7
1113.0
1114.5
1116.3
1118.4

+08 1050.08
1050.50
1051.00
+34.5 1051.37
1051.50
1052.00
1052.60
1053.20
1053.80
1054.40
1055.00
1055.60
1056.20
1056.80
1057.48
1058.33
1059.33
1060.50
1061.66
1062.62
1063.41
1064.00
+22.4 1064.22
1064.44
1064.75
1064.92
1065.00
1065.00
1065.00
1065.22
1065.88
1066.97
1068.50
1070.25
1072.00
1073.66
1075.16
1076.47
1077.62
1078.59
1079.41
1080.04
1080.50
1080.87
1081.25
1081.63
1082.00
1082.50
1083.25
1084.50
1086.25
1088.50
1091.00
1093.50
1095.87
1098.00
1100.00
1102.00
1104.00
1105.92
1107.85
1109.78
1111.40
1112.93
1114.35
1115.68
1117.00

+1.2%
+2.5%
+1.1%
0.0%
+3.5%
+0.75%
+1%
+5%
+4%
+3.85%
+2.65%

P.I. 1058.0
P.I. 1065.0
P.I. 1065.0
P.I. 1077.62
P.I. 1083.5-1084.50
P.I. 1087.0
P.I. 1095.87
P.I. 1111.70

V.C. 200' Ex. 0.33
V.C. 200' Ex. 0.38
V.C. 200 Ex. 0.25
V.C. 200' Ex. 0.88
V.C. = 400' Ex. = 1.38
V.C. = 200' Ex. 1.00
V.C. 100' Ex. 0.13
V.C. = 200' Ex. 0.30

Excav. 817 c.y.
Emb. + 21% 817 " "

Excav. 623 c.y.
Emb. + 24% 623 " "

Excav. 858 c.y.
Emb + 22% 858 " "

Excav. 492 c.y.
Emb + 25% 490 " "

Excav. 1028 c.y.
Emb + 25% 1024 " "

Exc. 442
Emb. 437
+5%

Excav. 767 c.y.
Emb + 21% 765 " "

246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278

SEC. "D"
MILLERSBURG-CHARM Rd.
CLARK TWP.

M.J.S. YODER
H.N. MILLER

MOSES J.S. YODER
NOAH N. MILLER

PT. 280+37.0
PC. 280+62.5

Δ 15°-58
D. 5°-00
Ex 11.2'
T. 160.7'
L 319.33

P.T. 283+81.83

Sta. 281+70 Build Pipe Culvert as shown on Culvert Plans

Sta. 282+60 cut channel back on right 4' bottom width 1:1 Slope 55' long to level of old Run. 40 cu.Yd.

Δ 77°-29'
D. 10°-30'
Ex. 154'
T 437.85'
L 731.94'

P.C. 284+15.2

NOAH N. MILLER
New R. of Way 0.21 A.

Sta. 286+40 Build Pipe Culvert as shown on Culvert Plans.
Sta. 286+25 Lay 18' of 10" V.S Pipe Left.

H.N. MILLER
NEW R. of way 0.98 A.

Sta. 288+87 Build Pipe Culvert as shown on Culvert Plans

Sta. 291+10 Build Pipe Culvert as shown on Culvert Plans

P.T. 291+53.14

NOAH N. MILLER
+48 LEVI N. MILLER

H.N. MILLER
+48 LEVI N. MILLER

Sta. 292+55 Build Pipe Culvert Left as shown on Culvert Plans

Sta. 297+00 Lay 18' of 10" V.S.P. Right and fill drive

P.C. 295+81

Δ 18°-58'
D. 4°-00
Ex 19.8'
T 239.4'
L 474.16'

P.T. 300+55.16

LEVI N. MILLER
New R. of Way 0.36 A.

Sta. 301+95 Build Culvert as shown on Culvert Plans

St Sta. 304+25 Lay 24' of 10" V.S. Pipe on Right

Sta. 304+16 Build Pipe Culvert as shown on Culvert Plans

Sta. 304+39 remove 20' of 10" corugated pipe and relay at 311+44 Left.

LEVI N. MILLER
+37 MOSES S. MILLER

Δ 2°-37'
D 1°-00'
Ex 1.54
T 130.9'
L 261.6

LEVI N. MILLER
MOSES S. MILLER

Sta. 308+00 Build Pipe Culvert as shown on Culvert Plans

Sta. 311+44 Lay 20' of 10" corrugated Pipe taken upat Sta. 304+39 for drive Left.

Sta. 311+54 Lay 20' of 10" Corugated Pipe Left.

Lane

B.M. Sta 279+00
Spike in root of Red Oak Left.
Elev. 1122.31

B.M. Sta. 282+00
2 nails W. Oak 30' Left.
Elev. 1128.65

B.M. Sta. 286+00.
N.E. Cor. E. headwall.
Old. Culv. El. 1133.34

B.M. Sta. 288+00
2 nails W. Oak 36' R.
Elev. 1162.52.

B.M. Sta. Sta. 291+53
X on rock 30' Left.
Elev. 1172.19

B.M. Sta. 298+15
2 nails top gatepost Left.
Elev. 1197.79

B.M. Sta. 304+20
N.E. Cor. Conc. watertrough
Elev. 1180.22

B.M. Sta 309+60
2 nails in root of Ash Left.
Elev. 1176.66

Excv. 259 c.y.
Emb+25% 259 " "

Excav. 1374 c.y.
Emb+20% 1374 " "

Excav. 1280 c.y.
Emb+20% 1272 " "

Excv. 299 c.y.
Emb+2% 299 " "

Excav. 1300 c.y.
Emb +21% 1294 " "

Excav. 1602 c.y.
Emb+20% 1601 " " "

Excav. 392 c.y.
Emb+21% 392 " "

Excav. 303 c.y.
Emb+20% 300 c.y.

V.C. 100'
Ex 0.40

V.C. 200'
Ex. 0.88

V.C. 200'
Ex. 1.85

V.C. 100'
Ex 0.16

V.C. 260'
Ex. 4.40

V.C. 200
Ex. 2.75

V.C. 100
Ex. 0.25

V.C. 100
Ex. 0.56

V.C. 150'
Ex 1.86

279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311

SEC "D"
MILLERSBURG-CHARM Rd.
CLARK TWP.

FINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
	TRACED		
NOTE BOOK	AREAS		
NO.	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
	TRACED		
NOTE BOOK	AREAS		
NO.	AREAS CHECKED		

St 327+00 Lay 18' of 18" corrugated Pipe for drive Left.

Sta. 329+00 Build Box Culvert as shown on Culvert Plans

Sta. 330+695 Build Culvert as shown on Culvert Plans

Sta. 331+59 Build Culvert as shown on Culvert Plans

Sta. 332+60 Build Culvert as shown on Culvert Plans

Sta. 336+92 Build Culvert as shown on Culvert Plans.

Sta. 337+52 Build Culvert as shown on Culvert Plans.

Sta. 338+55 Build Culvert as shown on Culvert Plans

Sta 340+54 Build Box Culvert as shown on Culvert Plans.

Sta 340+79 Lay 18 of 12" V.S. Pipe for drive Left.

MOSES S. MILLER

ENOS D. RABER

Garden

LANE

Lane

ENOS D. RABER

JONAS S. YODER

JONAS S. YODER

ENOS D. RABER

MOSES S. MILLER

ENOS D. RABER

MOSES S. MILLER

ENOS D. RABER

℄ OLD ROAD

S72°-19E

S48°-49E

Δ. 23°-30'
D. 5-00
Ex. 24.5
T 238.4
L 470.0

Δ 8-44
D. 3°-00'
Ex. 5.6'
T. 145.8'
L 291.11'

PC 313+32.6

PT 318+02.6

PC +282
JONAS S. YODER

PT +193

MOSES S MILLER
New Right of way 0.47 A.

ENOS D. RABER
New Right of way 0.74 A.

B.M. Sta. 316+20
nail in root chestnut tree 27' L
Elev. 1218.50

B.M. Sta. 323+40
nail in Apple tree R.
Elev. 1160.81

B.M. Sta. 328+90
2 nails chestnut 60' Left.
Elev 1127.69

B.M. Sta. 331+87
Spike N.W. Cor. Wagonhouse
Elev. 1118.63

B.M. Sta. 337+10
Cor. Stone Washhouse L. 2' up
Elev. 1106.32

B.M. Sta 340+75
Top lower hinge gate post L.
Elev. 1104.12.

Excav. 1562 c.y. Emb +21½% 1562 " "

Excav. 2425 c.y. Emb +19% 2425 " "

Excav. 973 c.y. Emb. +20% 973 " "

Excav. 936 c.y. Emb +25% 936 c.y.

Excav. 674 c.y. Emb +20% 677 " "

Excav. 553 c.y Emb +21% 553 " "

312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344

SEC. "D"
MILLERSBURG-CHARM Rd.
CLARK Twp.
5
31a

PC 343+98
Δ 2°-24'
D 1°-00
Ex. 1.24'
T. 118.3
L 236.66

S 85 E

PT 346+34.7
Jonas S. Yoder.
Enos N. Mast

Sta. 348+52 Bld. Pipe Culvert as shown on Culvert Plans

Jonas S. Yoder
Enos N. Mast

PT 345+16.3

S 43°-22 E

Jonas S. Yoder. +83.3
Enos N. Mast.

Ditch
Δ 17°-00 30' R. Sta. 349+00
D 6°-00
Ex. 10.6
T 142.7

Extra Right of Way 0.54 A.
Enos N Mast.
Right-of-Way Road 0.09 A.

PC 349+89.2
Rt. of Way 50'

Right of way.

Construct Run Channel. - See Sections

Δ 12°-34'
D. 4°-00
Ex. 8.65'
T. 157.73
L 314.17'

Sta. 353+03.37 Bld. Pipe Culvert as shown on Culvert Plans

PT 353+03.37
Rt. of way 55'

cut outlet

S 30-48 E

PC 355+22.3

Δ 27°-20'
D 8°-00'
Ex. 20.9'
T. 172.91'
L. 341.67'

Sta. 355+67 Build Pipe Culvert as shown on Culvert Plans

cut outlet

Ditch
Δ 25°-30 R 30' P.I. Rd.
D 20°
Ex 7.24
T 64.8

PT 358+63.9

B

D

Yard.

S 58°-08 E

Enos N. MAST.

Sta. 359+53 Build Pipe Culvert as shown on Culvert Plans.

B.M. Sta. 345+50
2 nails in root Ash. R.
Elev. 1098.46

B.M. Sta. 346+90
2 nails in root Maple R.
Elev. 1092.04

B.M. Sta. 353+20
2 nails root 30" ash 26' L.
Elev. 1077.57

B.M. Sta. 360+00
2 nails root 12" Maple 23' L
Elev 1073.71

1103.84 | 1103.68 P.I. 1104.00 | 1102.88 | 1101.75 | 1100.37 | 1098.44 P.I. 1099.50 | 1096.00 | 1093.00 | 1089.75 | 1086.50 | 1084.29 P.I. 1083.75 | 1082.67 | 1081.58 | 1080.50 | 1079.85 | 1079.20 | 1078.55 | 1077.90 | 1077.25 | 1076.60 | 1075.95 | 1075.30 | 1074.65 | 1074.00 | 1073.75 P.I. 1073.50 | 1074.00 | 1074.50 | 1074.75 | 1074.91 | 1074.90 P.I. 1075.25 | 1074.71 | 1073.90 | 1073.00 | 1072.10 | 1071.20 | 1070.41 P.I. 1070.30

-2.25%

V.C. 100'
Ex 0.32

1102.9 | 1101.9 | 1100.3 | 1098.9

V.C. 200
Ex 1.06

-6.5%

1091.6 | 1087.5 | 1085.1

V.C. 100'
Ex. 0.54

-2.167%

+52 1082.6 | 1082.0 | 1080.2 | 1079.15 | 1078.2 | 1077.3 | 1077.0 | 1076.35 | 1074.8 | 1073.95 | 1073.5 | 1073.2 | 1072.9 | +67 1073.2 | 1073.7 | 1074.7 | 1075.1 | 1075.0 | 1073.6 | 1072.4 | 1071.5 | 1070.6 | 1069.75

-1.3%

-1%

+1%

V.C. 100
Ex. 0.25

V.C. 100'
Ex 0.35

-1.8%

V.C. 100'
Ex. 0.11

1080.00 | 1078.75 | 1077.50 | 1076.25 | 1075.00 | 1074.50 | 1074.00 | 1073.50 | 1073.00 | 1072.50 | 1072.00 | 1071.50 | 1071.00 | 1070.50 | 1070.00 | 1069.50 | +67 69.33 | 1069.00 | 1068.75 | 1068.50 | +25 | 1068.25 | 1068.00

-2.5%

-1%

-1%

0.5%

Grade line for Ditch See Sections

Excav. 601 c.y.
Emb + 20% 626 " "
Channel Excav. 251 c.y.
Use 25 c.y. Channel Excav.

Excav. 229 cu. yd.
Emb. + 20% 1529 " "
Channel Excav. 1648 c.y.
Use 1300 c.y. Channel Excv.

Excav 210 c.y.
Emb + 24% 210 " "

344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360

PLATE 4—CROSS SECTION PAPER
KEUFFEL & ESSER CO. NEW YORK

ORIGINAL SURVEY
SURVEYED
PLOTTED
TEMPLATE
NOTE BOOK
AREAS CHECKED
NO.
BY
DATE

SEC.-"D"
MILLERSBURG-CHARM RD.
CLARK TWP.

Sta 362+22 Remove 20'of 12" C.I.P. and relay for drive Sta. 385+00 Left.

Sta. 362+27 Build Pipe Culvert as shown on Culvert Plans.

Δ 11°-17'
D 4°-0'
Ex 7.0
T. 141.5
L 282.08'

PC. 363+14.8

Sta 364+80 grade Approach Left.

Δ 13°-41'
D 5°-00
Ex. 8.22
T. 137.5
L 273.66

PT. 365+96.88

PC. 369+05.9

ENOS N. MAST
DANIEL BARKMAN
+62

P.T. 371+79.56

Sta. 371+04 Build Pipe Culvert As shown on Culvert Plans.

Sta. 374+90 Bld. Pipe Culvert as Shown on Culvert Plans.

Sta. 380+50 Lay 27'of 16" Pipe remover at Sta. 348+52

LANE

Δ 23°-30'
D. 3°-00
Ex. 40.86
T. 397.3
L 783.33

P.T.

Sta. 385+00 Lay 20'of CIP removed Sta. 362+22 and Fill approach. 30 C.Y.

L'0"
Sta. 386+00

DANIEL BARKMAN
DANIEL J. YODER
P.L.
+35

Sta 391+00
48' R of way

P.T. 391+54.2

Sta 393+90 Lay 18'of 10" V.S. Pipe for drive Left.

PLS
LANE
P.L.+90
ENOS N MAST
JONAS S. YODER

JONAS S YODER
DANIEL BARKMAN

DANIEL BARKMAN
R. of way 0.28A.

P.C. 378+07.7

Sta. 384+15 Bld. 20'x20' Conc. Brdg as shown Brdg Plans

P.T. 385+91.3

Sta. 388+51 Bld. Pipe Culvert as shown on Culvert Plans.

P.C. 389+48.16

Δ 2-03
D 0°-30
Ex 1.85
T 205.04
L 410.0

P.L.+11
DANIEL BARKMAN
DANIEL J. YODER

P.T. 393+58.16

B.M. Sta. 370+60
2 nails 36" W. Oak. Right
Elev. 1066.23

B.M. Sta. 380+85
+ On. Stone 30'L. at Mail Box.
Elev 1055.82

B.M. Sta. 386+75
2 nails. root of 40" Maple 50'L
Elev. 1053.63

B.M. Sta. 391+75
2 nails in root of 24" Maple 25'R.
Elev. 1043.21

1069.84
1069.38
1068.92
1068.63
1068.67 PI 1066.00
1069.04
1069.75
1070.43
1070.71 PI 1071.50
1070.60
1070.10
1069.40
1068.70
1068.00
1067.60
1067.20
1066.80
1066.40
1066.00
1065.60
1065.20
1064.80
1064.40
1064.00
1063.90
1063.80
1063.70
1063.60
1063.35
1063.10
1062.85
1062.60
1062.35
1062.10
1061.70
1061.19
1060.45
1059.49 PI 1060.50
1058.30
1056.89
1055.25
1053.50
1051.75
1050.25 PI 1050.00
1049.25
1048.70 P.I. 1048.50
1048.50
1048.50 PI 1048.50
1048.25
1047.75 PI 1047.75
1047.55
1047.35
1047.15
1046.95
1046.75
1046.55
1046.35
1046.15 PI 1046.15
1045.88
1045.60
1045.32
1045.05 PI 1045.15
1044.45
1044.05
1043.55
1043.05
1042.69
1042.25 P.I. 1042.00
1042.06

-0.92%
+1.75%
-1.4%
-0.8%
-0.2%
-0.5%
-0.8%
-3.5%
-1.5%
0.0%
-1.0%
-0.4%
-0.55%
-1%

V.C. 200'
Ex 0.67

V.C. 200'
Ex 0.79

V.C. 300'
Ex 1.01

V.C 100'
Ex 0.25

V.C 100'
Ex 0.20

V.C 200'
Ex 0.25

1068.9
1067.3
+27 1067.8
1068.5
1068.9
1069.5
1069.40
1070.6
1069.8
1068.8
1067.2
1066.7
1065.8
1065.3
1064.4
1063.9
1061.8
1062.5
1062.9
1063.1
1063.2
1062.9
1062.4
1061.75
1061.0
1060.7
1060.0
1059.1
1057.3
1054.7
1054.8
1050.8
1049.1
1048.3
1047.65
1047.3
1048.4
1045.6
1045.2
1044.52
1045.8
+35 45.7
1044.1
1043.8
1044.2
70 1046.1
104.64
1045.0
1042.9
1041.6
60 1044.8
1044.5
+60 1044.45
1044.05
+40 1042.69
+50 1042.06

Excav. 566 c.y.
Emb+20% 566 c.y.

Excav. 614 c.y.
Emb.+20% 611 " "

Excv. 431 c.y.
Emb +23% 431 " "

Exc 539 C.Y
Emb+20% 289 C.Y.
Haul to next Div. 250 C.Y.

Excv. 353 C.Y.
Emb.+20% 603 C.Y.
Haul from rear Div 250 C.Y.

Excav. 1604 cu.yd.
Emb.+ 20% 1591 " "

361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394

FINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

SEC. "D"
MILLERSBURG-CHARM Rd.
CLARK TWP.
7/36
Sta. 394+25 Build Concrete Box Culvert as shown on Culvert Plans and cut channel 175 ft.
DANIEL J. YODER
DANIEL J. YODER
Sta. 397+50 Lay 18' of 10" V.S. Pipe Left and fill approach
P.C. 397+97
ROAD No
Sta. 398+33 Build Pipe Culvert as shown on Culvert Plans
ROAD No. Place 5 yd. Slag
Sta. 399+04 to Sta. 399+58 Lay 54' of 10" V.S. Pipe Left
P.T. 400+56.4
Sta. 400+16 to Sta. 400+54 Lay 38' of 10" V.S. Pipe Left
Sta. 399+00 Build Pipe Culvert as shown on Culvert Plans
ROAD No
Δ 36°-19'
D 14°-00
T. 134.24
Ex 21.5
L 259.4
Sta. 399+04 to Sta. 400+00 Lay 96' of 12" C.I. Pipe Culv. See Culv. Plans
WINKELMAN
E. M. MILLER
S 93-42 E
Sta. 405+30 Lay 18' of 10" V.S. Pipe and fill approach Left
Sta. 405+78.6 Build Concrete Culvert Extension and repair old Culvert as shown on Culvert Plans
P.C. 406+44
Sta. 303+80 Lay 18' of 10" V.S. Pipe for drive R.
E. M. MILLER
Δ 29°-46'
D 5-00
T 304.6'
Ex 39.8'
L 595.34'
405+22 Grade Approach R.-L. 16' Wide See Sections
Sta. 409+29 Build Pipe Culvert as shown on Culvert Plans.
Orchard
P.T. 412+39.34
Hog Lot
Note - from Sta. 406+44 to Sta. 412+44 Place Slag 20' wide
E. M. MILLER
Sta. 413+50 Build Pipe Culvert as shown on Culvert Plans.
Sta. 413+50 Lay 18' of 15" Corrugated Pipe Right + fill approach
S 56-32 E
P.C. 415+70
E. M. MILLER
Δ 15°-42'
D. 4°-00
Ex 13.5'
T. 197.5'
L 392.5'
P.T. 419+61.9
SEC. D End of Improvement SEC. B.
Sta. 421+85.9
M. C. MILLER
Δ 8°-14
D 3°-00
T. 137.47
Ex. 4.9
L. 274.4
B.M. Sta. 399+10 Top of wing wall at S.W. Cor. Cheese Cellar 3.7' below Siding Elev. 1048.30
B.M. Sta. 408+65 Top of Conc. Porch Pillar 2nd from S.W. Cor. Elev. 1055.67
B.M. Sta. 405+7.5 2 nails in Willow 100 R. Elev. 1043.04
B.M. Sta. 417+20 2 nails in root at locust R. Elev. 1135.30
B.M. Stare in Farmerstown S.W. Cor. of Conc. Porch Wall Elev. 1160.73
Excav. 499 C.Y. Emb+25% 494 C.Y.
Excav. 431 C.Y. Emb+20% 427 C.Y.
Excav. 1009 C.Y. Emb. +20% 1009 " "
Excav. 3571 C.Y. Emb. +20% 3571 " "
Excav. 354 C.Y. Emb+20% 354 " "
V.C. 200' Ex. 1.50
V.C. 200' Ex. 3.18
V.C. 360' Ex. 6.89
V.C. 200 Ex. 1.71
+6%
-6.7%
+8.6%
+8.6%
+1.75%
+2.5%
-0.05
.00%
P.T. 1042.00
PI 1063.00
+30 P.T. 1037.50
P.T. 1151.59
P.T. 1148.35
395
396
397
398
399
400
401
402
403
404
405
406
407
408
409
410
411
412
413
414
415
416
417
418
419
420
421
422

SEC. "D"
MILLERSBURG-CHARM. Rd.
CLARK TP.

End Area C	End Area F	Cu yds C	Cu yds F
32	6		
		54	22
26	18		
		59	82
37	70		
		89	144
60	85		
		130	165
80	94		
		117	144
46	61		
		111	78
49	6		
		59	3
40	0		
		59	0
Drive			10
23	0		
		19	0

1055.00
250+50
1055.80

1054.40
250+00
1054.00

1053.80
249+50
1050.10

1053.20
249+00
1049.70

1052.60
248+50
1049.80

1052.00
248+00
1051.35

Center line offset to 4° Curve.

1051.37
P.C. 247+36.5
1052.50

1051.00
247+00
1052.40

1050.50
246+50
1051.30

30 20 10 ℄ 10 20 30

End Area C	End Area F	Cu yds C	Cu yds F
8	41		
		11	61
7	43		
		22	80
13	28		
		32	45
21	20		
		24	52
6	35		
		35	74
13	5		
		22	8
12	3		
		26	8
10	3		
		22	6
15	3		
		41	6
30	2		
		57	8

6350 6376

256+00
1062.70

1063.54
255+60
1062.70

1062.62
255+00
1061.50

1061.66
254+50
1060.70

1060.50
254+00
1058.90

1058.33
253+00
1058.10

1057.48
252+50
1057.40

1056.80
252+00
1056.70

1056.20
251+50
1055.30

1055.60
251+00
1056.20

30 20 10 ℄ 10 20 30

63.75 63.75 64.75 65.75

1064.15
257+00
1064.20

1064.22
P.C. 256+22.4
1063.60

End Areas C	End Areas F	Cu yds C	Cu yds F
25	2		
		33	35
9	22		
		8	24

PLATE 3—CROSS SECTION U. S. P. R. & R. S. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

SEC. "D"
MILLERSBURG-CHARM. Rd.
CLARK. TP.

End Area C	End Area F	Cu. yd C	Cu. yd F
53	2		
		164	20
36	9		
		134	41
37	13		
		161	43
50	10		
		37	124
0	91		
		0	115
0	150		
		9	243
20	113		
		133	119
116	14		
		290	8
198	0		
		231	37
52	40		
		68	54
22	17		
		41	19

1077.62
264+00
1077.80

1075.16
263+00
1075.10

1072.25
262+00
1074.10

1068.50
261+00
1070.30

66.88 65.88
1066.38
P.T. = +25.9
1063.30

66.63 65.13
1065.88
260+00
1061.40

67.17 64.71
1065.44
259+50
1062.20

66.00 64.00
1065.00
259+00
1065.20

+60

66.00 64.00
1065.00
258+50
1065.20

66.00 64.00
1065.00
258+00
1063.70

65.94 63.94
1064.94
257+50
1064.70

30 0 10 ℄ 10 20 30

End Area C	End Area F	Cu. yd C	Cu. yd F
30	60		
		52	94
26	42		
		62	80
40	43		
		58	72
22	35		
		59	72
43	43		
		56	78
18	38		
		9	82
0	50		
		9	67
15	22		
		144	65
63	13		
		215	28

1086.25
270+00
1084.60

1083.25
269+00
1082.50

1082.50
268+50
1081.50

1082.00
268+00
1080.90

1081.63
267+50
1080.40

1081.25
267+00
1080.20

1080.88
266+50
1079.80

1080.50
266+00
1079.00

1079.41
265+00
1077.50
℄

30 20 10 ℄ 10 20 30

1079.75
270+75
1087.00
℄

30 20 10 ℄ 10 20 30

End Area C	End Area F	Cu. yd C	Cu. yd F
30	80	83	94

PLATE 3—CROSS SECTION C. P. R. & B. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

SEC. "D"
MILLERSBURG-CHARM-Rd.
CLARK-TP.

End Area Cut	End Area Fill	Cu. yd. Cut	Cu. yd. Fill
81	75		
		75	113
21	92		
		4	130
0	280		
		2	85
5	72		
		17	30
57	32		
		113	28
119	9		
		252	9
154	0		
		352	120
40	65		
		33	67

+15

1102.76
P.T. = +69
1101.40

1101.20
273+30
1100.40

1100.52
273+13
1090.40

1100.00
273+00
1097.10

1099.40
272+85
1101.20

98.00
272+50
1099.50

1095.87
272+00
1095.75

1091.00
271+00
1088.30

℄

30 20 10 ℄ 10 20 30

End Area Cut	End Area Fill	Cu. yd. Cut	Cu. yd. Fill
17	27		
		22	92
7	72		
		8	
		30	83
26	18		
		68	93
48	82		
		89	126
48	53		
		93	107
52	63		
		106	167
62	116		
		120	111
69	6		
		230	33
55	12		
		146	24
104	13		
		182	52
93	43		
		100	69

+75

1121.50
+50
1120.22

1120.00
279+00
1118.85

1118.50
278+50
1118.46

1117.00
278+00
1116.32

1115.68
277+50
1114.46

1114.35
277+00
1113.00

1112.93
276+50
1112.70

1111.40
276+00
1111.50

1107.85
275+00
1106.90

1105.92
274+50
1105.50

1104.00
274+00
1103.80

℄

30 20 10 ℄ 10 20 30

P.T. = +37
1125.60

280+00
1123.50

End Area Cut	End Area Fill	Cu. yd. Cut	Cu. yd. Fill
79	0	98	2
		62	3
		72	28

ORIGINAL SURVEY — SURVEYED: PLOTTED: TEMPLATE: NOTE BOOK: NO. — DATE: BY: AREAS CHECKED:

FINAL SURVEY — SURVEYED: PLOTTED: TEMPLATE: NOTE BOOK: NO. — DATE: BY: AREAS CHECKED:

PLATE 3 - CROSS SECTION
KEUFFEL & ESSER CO., NEW YORK

SEC.- "D"
MILLERSBURG-CHARM RD.
CLARK TP.

End Area		Cu. Yd.	
cut	Fill	cut	Fill
165	0		
		239	15
84	15		
		81	137
25	170		
		13	111
10	130		
		4	250
0	206		
		0	159
0	270		
		0	109
0	218		
		9	198
0	137		
		4	121
8	25		
		54	20
70	4		
		68	4

1134.45
283+50
1136.9

1132.61
283+00
1134.4

1130.97
+60
1130.2

1130.16
+40
1128.5

1128.90
282+00
1126.8

1128.21
281+82
1125.4

1127.81

281+70
1125.20

1127.00
281+40
1125.1

1126.00
281+00

1124.88
P.C. 280+625
1126.6

℄

30 20 10 ℄ 10 20 30

1144.12
287+00
1144.0

1141.04
286+50
1135.0

286+00
1134.7

285+50
1139.8

285+00
1141.0

1136.93
284+50
1142.8

1135.88
284+00
1140.8

End Area		Cu. Yd.	
Cut	Fill	Cut	Fill
27	25		
		30	329
5	321		
		2	967
0	183		
		41	93
Approx ℄		60	130
75	0		
		234	0
167	0		
		398	10
		+72	
264	10		
		420	10
190	0		
		328	0

PLATE 1—CROSS SECTION U. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

SEC. "D"
MILLERSBURG-CHARM Rd.
CLARK Twp
12/37

END Area cut	END Area fill	Cu. Yd. cut	Cu. Yd. fill
17	70		
		109	144
102	86		
Ditch		15	
		172	41
85	0		
		32	89
0	138		
		0	63
0	140		
		46	57
144	0		
		333	0
216	0		
		330	0
141	0		
		156	22

→290+00

+40

1168.87
290+50
1167.0

1165.50
290+00
1167.4

1162.12
289+50
1163.3

1158.75
289+00
1154.7

1157.87
288+87
1153.8

1155.37
288+50
1158.4

1151.84
288+00
1156.5

1148.00
287+50
1151.6

END Area cut	END Area fill	Cu.Y cut	Cu.Y Fill
199	0		
		578	0
113	0		
		225	9
9	11		
		20	6
18	0		
		4	9
Approach			50
0	44		
		0	137
0	121		
		0	241
0	155		
		0	283
0	133		
		8	189

1200.0
295+00
1205.1

1193.0
294+00.
1195.8

1186.00
293+00
1185.7

1182.85
292+55
1183.3

1181.80
292+40
1181.1

1179.00
292+00
1174.90

1175.85
P.T. + 53.14
1171.6

1172.25
291+00
1168.1

30 20 10 ℄ 10 20 30

PLATE 5—CROSS SECTION U. P. R. & T. R. STANDARD
KEUFFEL & ESSER CO., NEW YORK

5783

SEC. "D"
MILLERSBURG-CHARM Rd
CLARK TWP.
13/31

End Area C	End Area F	Cu.yd. C	Cu.yd. F
152	6		
		252	9
121	4		
		169	22
61	19		
		87	61
33	47		
		44	104
15	65		
		37	102
25	45		
		98	46
79	5		
		369	4
		◓◓	+40
227	0		
		276	0

1191.00
299+00
1190.4

1194.50
298+50
1194.50

1198.00
298+00
1197.4

1201.23
1201.23
297+50
1199.6

1203.60
297+00
1201.3

1204.64
296+50
1202.4

1204.40
296+00
1205.0

1202.03
295+35
1207.85

End Area C	End Area F	Cu.yd. C	Cu.yd. F
7	3		
		22	11
		◓◓	308+00
21	5		
		33	9
16	4		
		15	93
0	95		
		0	148
0	64		
		13	143
19	91		
		37	200
22	120		
		63	215
42	105		
		182	137
154	43		
		283	46

1176.04
303+60
1176.2

1174.00
303+00
1174.0

1172.69
302+50
1172.2

1172.75
302+00
1170.25

1174.19
301+50
1172.50

1177.00
301+00
1174.0

1180.50
300+50
1175.8

1184.00
300+00
1180.5

1187.50
299+50
1185.8

1177.32
304+16
1176.16

1177.00
304+00
1176.15

End Area C	End Area F	Cu.yd. C	Cu.yd. F
0	101	0	52
		0	75
		4	59

30 20 10 ℄ 10 20 30

30 20 10 ℄ 10 20 30

30 25 20 15 10 5 ℄ 5 10 15 20 25 30

30 20 10

PLATE 3 - CROSS SECTION O. P. R. & R. R. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

SEC "D"
MILLERSBURG-CHARM Rd (14/31)
CLARK. TWP.

End Area C	End Area F	Cu. yd. C	Cu. yd. P
0	58		
		0	172
		● ●	+60
0	35		
		6	74
10	44		
		57	74
52	35		
		133	26
92	0		
		207	0
		● ●	+22
132	0		
		172	2
55	1		
		72	30
24	31		
		22	72
1	46		
		0	95

1179.52
309+00
1178.6

1176.41
308+00
1176.1

1177.25
307+50
1175.9

1178.50
307+00
1177.1

1179.75
306+50
1180.7

1180.44
306+00
1182.7

1180.00
305+50
1180.3

1179.00
305+00
1177.2

1178.00
304+50
1175.9

30 20 10 ℄ 10 20 30

End Area C	End Area F	Cu. yd. C	Cu. yd. F
37	0		
		250	0
165	0		
		259	0
260	0		
		444	0
220	0		
		344	0
152	0		
		111	4
0	13		
		28	115
36	112		
		42	263
10	171		
		17	306
9	159		
		8	402

1212.20
314+00
1213.3

1209.44
P.C.+32.6
1211.6

1207.37
313+00
1210.65

1204.35
312+50
1205.6

1201.20
312+00
1201.85

1198.00
311+54
1197.4

1194.24
311+00
1190.2

1190.54
310+50
1185.7

1186.84
310+00
1182.4

30 20 10 ℄ 10 20 30

PLATE 3 / CROSS SECTION
KEUFFEL & ESSER CO., NEW YORK

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS CHECKED, NOTE BOOK, NO., BY, DATE

FINAL SURVEY — STAKED, PLOTTED, TEMPLATE, AREAS CHECKED, NOTE BOOK, NO., BY, DATE

SEC. "D"
MILLERSBURG-CHARM Rd.
CLARK TWP.

End Area C	End Area F	Cu. yds C	Cu. yds F	
190	0			
		418	0	
262	0			
		478	0	
255	0			
		402	0	
180	0			
		263	0	
105	0			
		135	0	
41	0			
		46	24	
				315+00
10	27			
		17	62	
10	38			
		42	36	

30 20 10 ℄ 10 20 30

1194.00
318+00
1199.7

1198.00
317+50
1205.66

1202.00
317+00
1208.4

1206.00
316+50
1210.2

1209.45
316+00
1212.6

1211.79
315+50
1213.3

1213.03
315+00
1211.7

1213.16
314+50
1212.2

30 20 10 ℄ 10 20 30

End Area C	End Area F	Cu. yd. C	Cu. yd. F	
				+87
0	350			
		0	630	
0	331			
		0	519	
0	229			
		0	322	
1	120			
		11	117	
27	6			
		130	4	
112	0			
		235	0	
143	0			
		307	0	

30 20 10 ℄ 10 20 30

1166.65
321+50
1158.7

1170.05
321+00
1162.6

1174.00
320+50
1167.9

1178.00
320+00
1174.0

1182.00
319+50
1182.3

1186.00
319+00
1188.5

1190.00
318+50
1193.85

30 20 10 ℄ 10 20 30

PLATE 3—CROSS SECTION O. P. R. R. R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

FINAL SURVEY — SURVEYED ... PLOTTED ... TEMPLATE ... NOTE BOOK ... PAGE ... CHECKED ... DATE ... BY ... NO. ...

ORIGINAL SURVEY — SURVEYED ... PLOTTED ... TEMPLATE ... NOTE BOOK ... PAGE ... CHECKED ... DATE ... BY ... NO. ...

SEC. "D"
MILLERSBURG-CHARM. Rd.
CLARK TWP.
16/31

End Area C	End Area F	Cu. yd C	Cu. yd F
50	0		
		119	0
79	0		
		213	0
		●●	+25
150	0		
		328	0
204	0		
		328	0
150	0		
		165	4
28	10		
		28	98
0	94		
		0	231
0	157		
		0	359
0	232		
		0	539

30 20 10 ℄ 10 20 30

1145.50
326+00
1146.4

1149.25
325+50
1150.4

1152.87
325+00
1156.0

1155.82
324+50
1160.0

1158.03
324+00
1160.6

1159.61
323+50
1159.4

1160.43
323+00
1157.4

1161.83
322+50
1157.9

1163.90
322+00
1158.0

30 20 10 ℄ 10 20 30

End Area C	End Area F	Cu. yd C	Cu. yd F
0	103		
		0	56
0	50		
		22	83
44	40		
		115	76
71	41		
		72	113
7	81		
		4	158
0	73		
		65	44
95	8		
		163	8
82	0		
		116	0
42	0		
		171	0

30 20 10 ℄ 10 20 30

1117.31
330+70
1116.2

1117.57
330+50
1116.6

1118.76
330+00
1117.3

1120.69
329+50
1119.4

1123.36
329+00
1121.1

1126.75
328+50
1124.8

1130.50
328+00
1132.85

1134.25
327+50
1136.1

1138.00
327+00
1139.2

30 20 10 ℄ 10 20 30

PLATE 3 - CROSS SECTION (C.P.R. & R.E. STANDARD)
KEUFFEL & ESSER CO., NEW YORK.

SEC. "D"
MILLERSBURG-CHARM. Rd (11/31)
CLARK Twp.

End Area C	End Area F	Cu. Yd C	Cu. Yd F
35	21		
		150	85
46	25		
		83	43
45	22		
		87	40
48	22		
		67	56
42	39		
		87	54
37	19		
		41	41
19	24		
		15	32
23	9		
		15	43
		+75	
0	38		
		0	82
0	50		
		0	85

End Area C	End Area F	Cu. Yds C	Cu. Yds F
0	110		
		17	70
36	6		
		41	8
8	2		
		10	32
16	33		
		30	50
20	44		
		19	32
16	20		
		+28	
		20	8
22	0		
		17	32
6	65		
		2	86
0	25		
		34	47
24	25		
		56	43

30 20 10 ℄ 10 20

1106.36
336+00
1106.1

1110.50
335+00
1103.8

1113.00
334+50
1111.9

1115.19
334+00
1114.35

1116.49
333+60
1116.0

1117.69
333+00
1117.6

1117.99
332+60
1117.5

Building

1117.85
332+00
1118.0

Garden.
+65

1117.38
331+50
1116.6

Yard.

1117.11
331+00
1116.1

30 20 10 ℄ 10 20

1103.00
340+50
H02.0

1103.00
340+00
1102.6

1103.25
339+50
1103.0

1103.50
339+00
1103.2

1103.73
+55
1103.2

P.C. 338+28.2
1103.86
1103.8

Bldg

1104.00
338+00
1104.0

1104.38
337+50
1103.2

1104.75
337+00
1104.0

1105.40
336+50
1105.0

30 20 10 ℄ 10 20 30

Curb Run.

1104.81
336+92
1104.1

30 20 10 20 30

PLATE 31—CROSS SECTION O. H. R. & N. E. STANDARD
KELLIFFEL & ESSER CO., NEW YORK.

SEC. - "D"
MILLERSBURG-CHARM Rd
CLARK Twp.
18
32

End Area.		Cu. yd.	
C	F	C	F
30	40		
		144	83
48	5		
		83	17
42	13		
		80	19
45	7		
		132	59
		⬤⬤	344+00
26	25		
		98	69
27	12		
		140	34
49	6		
		124	32
57	20		
		56	26
29	23		
		18	111

1093.00
347+00
1091.6

1098.44
346+00
1098.85

1100.37
345+50
1100.3

1101.75
345+00
1101.9

1103.68
344+00
1102.9

1103.67
343+00
1103.3

1103.33
342+00
1103.6

1103.11
+35
1102.7

1103.00
341+00
1102.2

℄

30 20 10 ℄ 10 20

111 C.Y
100 C.Y
To Rd -
1073.50
1078.55
+50
1077.3

128 C.Y
120 " "
To Rd
1074.00
1079.20
351+00
1078.2

144 C.Y
130 " "
To Rd.
1074.50
1079.85
+50
1079.15

Excv. 267 C.Y
To Rd - 250 " "
1075.00
1080.50
350+00
1080.2

Excv 109 C.Y
To Rd - 80 " "
1077.50
1082.67
349+00
1082.0

Excv 102
"
1078.75

Excv 20 C.Y
1080.00

Cut Channel
Outlet 45° ft. Forward.
20 cu yd.

35°

35°

1084.25
+52
1082.5

1086.50
348+00
1085.1

1089.75
347.50
1087.5

349+00

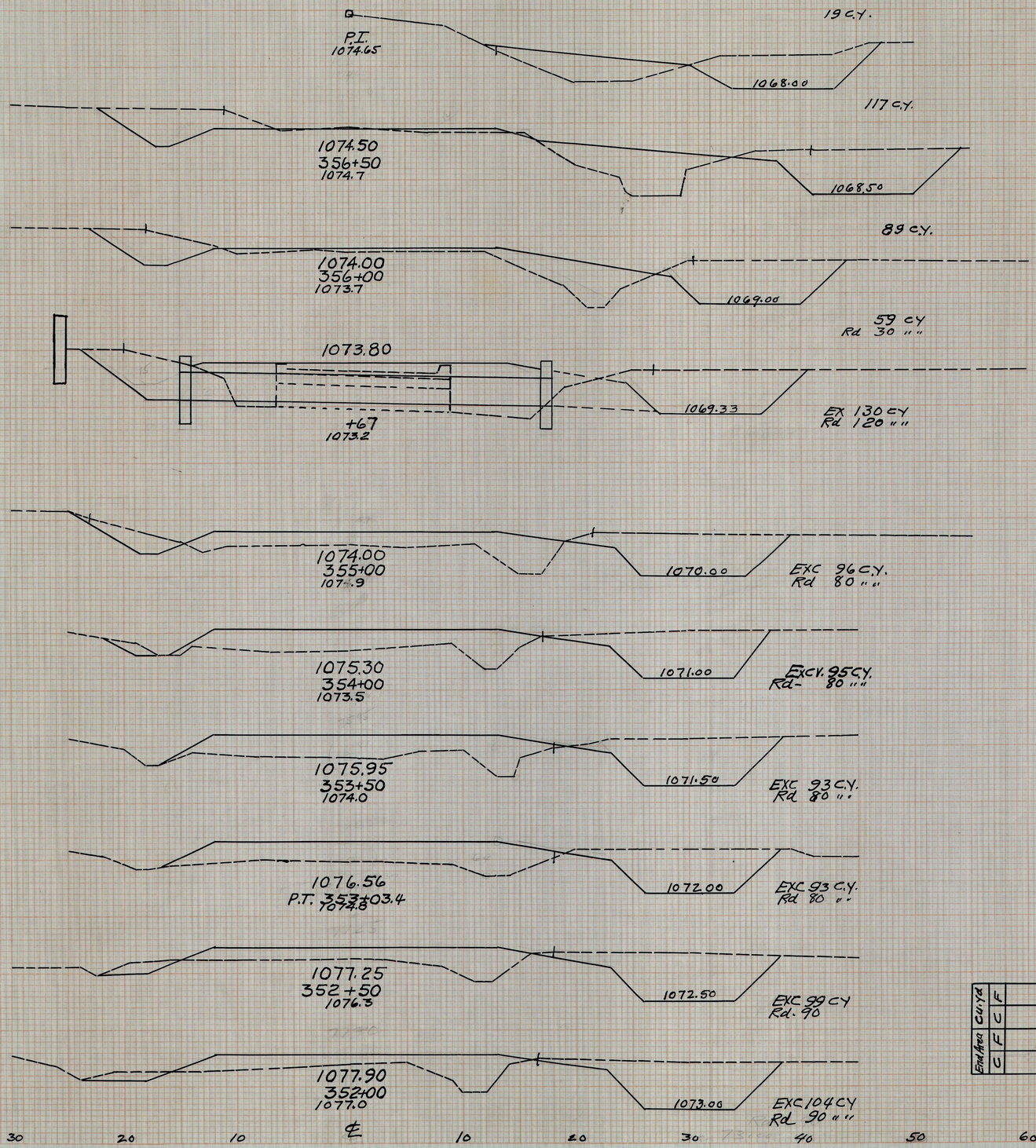
Use 25 C.Y. Channel Excv.

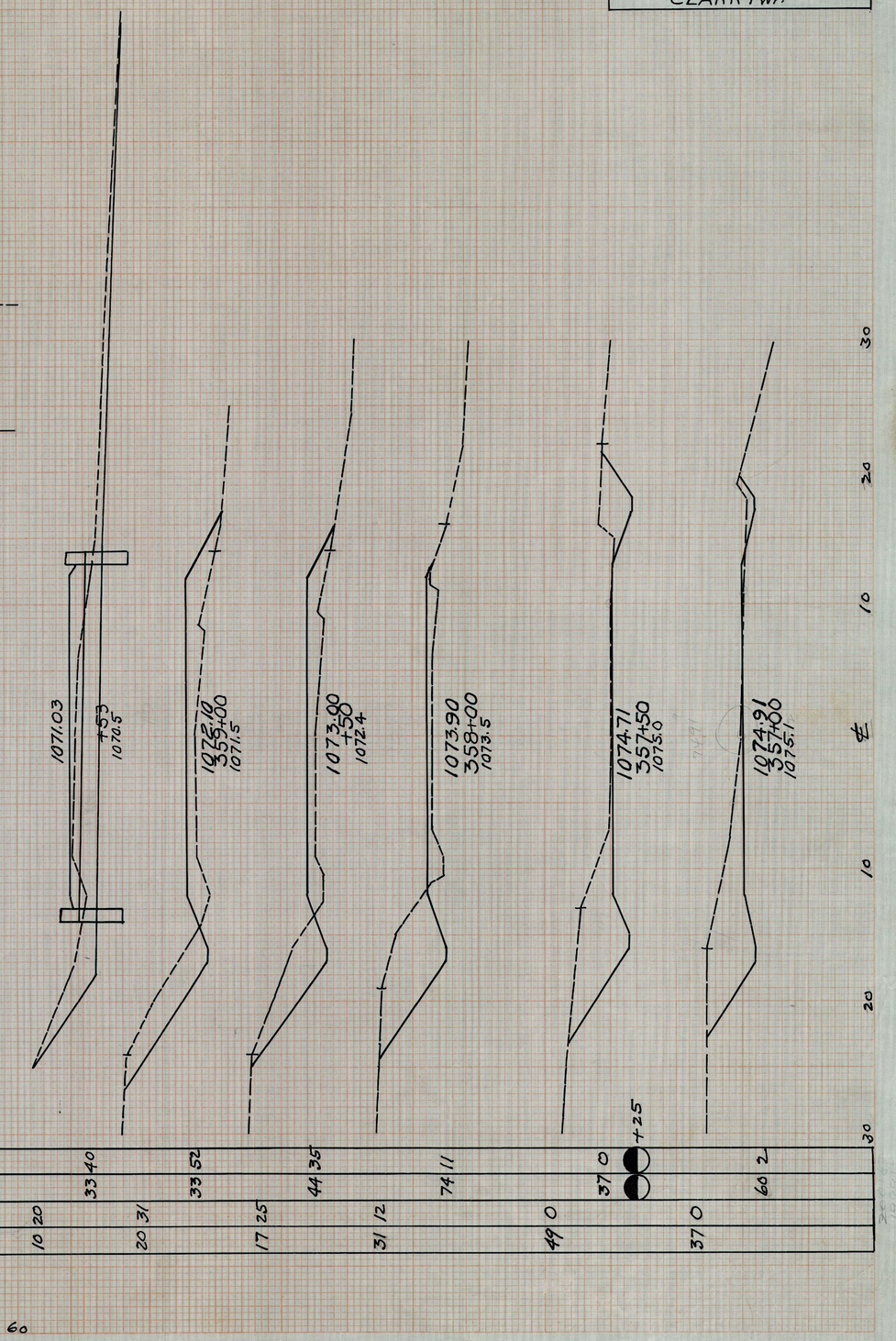
End Area		Cu. yd.	
C	F	C	F
3	50		
		8	87
6	45		
		6	74
0	35		
		0	60
0	30		
		0	142
0	47		
		0	89
0	50		
		28	85
33	42		
		69	85
41	50		
		65	83

PLATE 3 — CROSS SECTION C. P. R. & R. E. STANDARD
KELLY-FITZ & ESSER CO., NEW YORK

SEC. "D"
MILLERSBURG-CHARM Rd (19/31)
CLARK TWP.

End Area C	End Area F	Cu. yd. C	Cu. yd. F
26	4		
		41	22
19	19		
		20	50
15	64		
		32	141
11	51		
		26	204
3	59		
		2	113
0	62		
		0	117
0	64		
		4	98
5	42		
		9	78
4	42		
		6	85





End Area C	End Area F	Cu. yd. C	Cu. yd. F
10	20		
		33	40
20	31		
		33	52
17	25		
		44	35
31	12		
		74	11
49	0		
		37	0
37	0		
		60	2

PLATE 5 - CROSS SECTION O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

SEC. "D"
MILLERSBURG-CHARM Rd.
CLARK Twp.
20
31

End Area C	End Area F	Cu. yd C	Cu. yd F
24	20		
		83	19
66	0		
		111	10
55	9		
		83	17
34	10		
		57	37
28	29		
		53	48
29	23		
		73	82
25	37		
Approach		28	41
			23
31	44		
		107	128
27	25		
		54	89
2	23		
		4	32

30 20 10 ℄ 10 20

1070.10
365+50
1069.8

365+00

1070.60
365+00
1070.6

1070.71
364+50
1069.4

1070.43
364+00
1069.5

1069.75
363+50
1068.9

1069.04
363+00
1068.5

1069.58
+27
1067.8

Fill app. 23 c.y.

1068.63
362+00
1067.3

1069.38
361+00
1068.9

360+00

1070.30
360+00
1069.75

30 20 10 ℄ 10 20 30

End Area C	End Area F	Cu. yd C	Cu. yd F
27	20		
		46	46
23	29		
		39	67
20	42		
		65	43
50	3		
		85	9
42	6		
		70	17
34	12		
		63	32
34	23		
		102	106
22	34		
		102	115
33	28		
		135	152
40	54		
		59	69

30 20 10 ℄ 10 20

1064.00
372+00
1062.9

1064.40
371+50
1062.5

1064.80
371+00
1061.8

1065.20
370+50
1063.9

370+00

1065.60
370+00
1064.4

1066.00
369+50
1065.3

1066.40
369+00
1065.75

1067.20
368+00
1066.65

1068.00
367+00
1067.2

1069.40
366+00
1068.85

30 20 10 ℄ 10 20 30

1063.60
374+00
1063.2

1063.80
373+00
1063.1

End Area C	End Area F	Cu. yd C	Cu. yd F
17	13	61	57
16	18	80	71

30 20 10 ℄ 10 20 30

PLATE 1-a CROSS SECTION. CO. FOR. B.K.E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS CHECKED, BY, DATE, NOTE BOOK, NO.

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS CHECKED, BY, DATE, NOTE BOOK, NO.

SEC. "D"
MILLERSBURG-CHARM Rd.
CLARK Twp.

End Area C	End Area F	Cu. yd. C	Cu. yd. F
52	8		
		43	24
25	34		
		15	15
14	7		
		82	8
74	0		
		102	4
36	5		
		65	13
34	8		
		56	19
26	12		
		43	28
20	17		
		102	69
35	20		
		106	63
22	14		
		65	44
13	10		
		55	44

30 20 10 ℄ 10 20 25

1053.50
381+00
1054.8

1054.55
380+70
1053.3

grade approach

1053.50 ℄

1055.25
380+50
1054.7

1056.89
380+00
1057.3

1058.30
379+50
1059.1

1059.49
379+00
1060.0

1060.45
378+50
1060.7

1061.19
378+00
1061.0

1062.10
377+00
1061.75

1062.60
376+00
1062.4

375+00

1063.10
375+00
1062.9

30 20 10 ℄ 10 20

End Area C	End Area F	Cu. yd. C	Cu. yd. F
80	40		
		138	213
Approach			30
12	75		
		39	281
9	77		
		19	141
		384+85	
12	75		
		17	61
23	55		
		19	0
16	35		
		26	74
12	46		
		15	80
5	39		
		15	72
11	39		
		17	59
8	27		
		24	37
19	13		
		65	20

Use 65 C.Y. Bridg. Excv.

30 20 10 ℄ 10 20

1046.95
387+00
1045.8

Approach.

1047.35
386+00
1045.2

1047.75
385+00
1045.2

1048.25
384+50
1045.6

1048.50
+25

1048.50
384+00

1048.50
383+50
1047.3

1048.70
383+00
1047.65

1049.25
382+50
1048.3

1050.25
382+00
1049.1

1051.75
381+50
1050.8

30 20 10 ℄ 10 20 30

PLATE 3—CROSS SECTION C. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, NOTE BOOK, AREAS CHECKED, NO., DATE, BY

ORIGINAL SURVEY — PLOTTED, TEMPLATE, NOTE BOOK, AREAS CHECKED, NO., DATE, BY

SEC.-"D"
MILLERSBURG-CHARM Rd.
CLARK Twp.
21
32

End Area C	End Area F	Cu. yd. C	Cu. yd. F	
22	11	62	35	+40
		56		
42	8	63	19	
44	16	135	37	
77	18	337	90	
105	7	120	6	
129	2	226	111	
55	84	80	152	
31	81	63	159	
37	92	202	150	
139	32	141	46	

1043.05
393+00
1042.9

1044.05
392+00
1044.5

1044.45
391+60
1044.8

1045.05
391+00
1045.0

1045.51
+15
1046.0

1045.60
390+00
1046.35

1045.77
389+70
1046.1

1046.15
389+00
1044.2

flow 1044.00
18" x 30'
1043.00

1046.35
388+50
1043.8

1046.55
388+00
1044.1

1046.51
387+35
1045.7

30 20 10 ℄ 10 20 30

End Area C	End Area F	Cu. yd. C	Cu. yd. F	
0	35	0	20	398+90
		0	8	
0	24			
		9	19	
14	10			
		18	13	
15	10			
		61	37	
18	10			
		82	43	
36	13			
		87	37	
42	20			
		46	35	
21	26			
		63	89	
13	22			
		39	52	
22	25			
		32	28	

Void

1042.88
399+00
1042.0

1042.85
+15
1042.2

18" x 33'
1042.25
398+33
1041.9

1042.09
398+00
1041.65

1042.00
397+00
1041.5

1042.00
396+00
1041.7

1042.00
395+40
1041.65

1042.00
395+00
1041.35

1042.25
394+00
1041.6

1042.69
393+40
1042.0

30 20 10 ℄ 10 20 30

PLATE 1—CROSS SECTION C. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO. NEW YORK.

FINAL SURVEY — SURVEYED, PLOTTED, TRAV. JT., NOTE BOOK, AREAS CHECKED, NO., BY, DATE

ORIGINAL SURVEY — SURVEYED, PLOTTED, TRAV. JT., NOTE BOOK, AREAS CHECKED, NO., BY, DATE

SEC. "D"
MILLERSBURG-CHARM, RD.
CLARK Twp.
25
57

End Area C	End Area F	Cu yd C	Cu yd F	
85	0			
				+65
		194	0	
128	0			
		209	0	
101	0			
		117	9	
40	18			
		26	39	
8	62			
		8	56	
6	58			
		2	119	
0	70			
		4	98	
7	35			
		0	34	

1059.20
402+00
1061.26

1057.00
401+50
1058.64.

1054.00
401+00
1054.07

1051.30
400+55
1049.27

1049.50
400+25
1046.44

1048.00
400+00
1044.42

1045.38
399+50
1043.40

1043.50.
399+00
1042.60

End Area C	End Area F	Cu yd C	Cu yd F	
6	30			
		8	52	
4	33			
		4	120	
6	66			
		4	167	
0	113			
		4	170	
7	75			
		48	107	
46	40			
		116	28	
80	0			
		207	0	
145	0			
		215	0	
145	0			
		256	0	

1044.50 1045.17
406+44
1044.16

1044.38 1044.50
406+00
1044.05

1045.02
405+50
1043.35

1046.78
405+00
1043.60

1049.60
404+50
1045.50

1052.95
404+00
1050.40

1056.30
403+50
1056.70

1058.85
403+00
1061.04

1059.75
402+60
1063.00

30 20 10 ℄ 10 20 30

PLATE 3 — CROSS SECTION O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

SEC. "D"
MILLERSBURG-CHARM-Rd
CLARK Twp.
24/32

End Area C	End Area F	C.y. C	C.y. F
0	125		
		0	244
0	173		
		0	187
0	195		
APP. L	100		
		0	161
APP. R	60		
0	198		
		6	398
9	231		
		17	346
11	143		
		15	207
5	81		
		9	121
5	50		
		9	69

+50

409+95
1067.5
1066.93
1069.80
1066.20

409+50
1061.4
1062.50
1063.50

409+22
1058.4
1060.63
1061.63

409+00
1057.90
1058.83
1057.33

408+50
1049.60
1052.05
1053.05

408+00
1048.71
1048.50
1049.50

407+50
1046.90
1046.07
1047.07

407+00
1045.40

℄

30 20 10 10 20 30

End Area C	End Area F	C.y. C	C.y. F
100	46		
		211	68
129	28		
		252	39
APP. R	10		
143	13		
		302	28
128	12		
		157	17
86	10		
		115	22
38	14		
		44	41
10	30		
		13	78
4	54		
		2	183

1103.63
414+00
1100.06

fill approach
10 yd.
0

1099.33
413+50
1098.37

1095.03
413+00
1093.67
1092.83
1090.50

P.T. 412+39.4
1090.47

1086.43
1087.43

412+00
1086.80
1082.13
1083.13

411+50
1080.31

1077.83
1078.83

411+00
1079.05

1073.53
1074.53

410+50
1075.05

℄

30 20 10 10 20 30

FINAL SURVEY — NOTE BOOK — NO. — DATE — BY — SURVEYED — PLOTTED — TEMPLATE — TESTED — AREAS CHECKED

ORIGINAL SURVEY — NOTE BOOK — NO. — DATE — BY — SURVEYED — PLOTTED — TEMPLATE — TESTED — AREAS CHECKED

PLATE 3—CROSS SECTION O.P.R.R. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

D

SEC. "D"
MILLERSBURG-CHARM Rd.
CLARK Twp.
25
37

End Areas C	End Areas F	Cu. yd. C	Cu. yd. F
247	0		
			446 0
237	0		
			367 19
159	35		
			246 93
107	64		
			191 137
99	84		
			363 304
97	80		
			182 139
100	70		
			185 108

1138.03
418+00
1139.55
Rock

1133.73
417+50
1133.80
Rock.

1129.43
417+00
1126.62

1125.13
416+50
1121.92

1120.80
416+00
1117.63

1112.23
415+00
1108.26

1107.93
414+50
1103.46

℄

End Area C	End Area F	Cu Y C	Cu Y F
10	9		
		24	34
20	27		
		63	91
21	30		
		70	106
17	27		
		125	46
50	0		
		172	0
139	0		
		357	0

30 20 10 10 20 30 30 20 10 10 20 30

1154.90
422+35.9 = 208+50 SEC B
1155.36

1153.65
421+85.9 = 209+00 "B"
1153.09

1151.59
421+00
1150.96

1149.68
420+00
1149.16

1145.74
419+00
1146.66

1142.18
418+50
1143.80

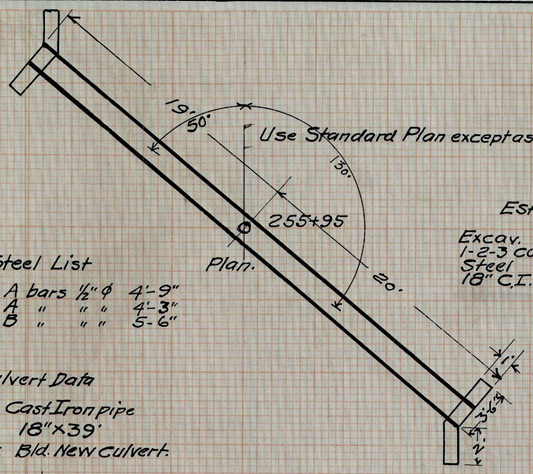
℄

FINAL SURVEY — SURVEYED, PLOTTED, NOTE BOOK, NO., DATE, AREAS, AREAS CHECKED, BY

ORIGINAL SURVEY — SURVEYED, PLOTTED, NOTE BOOK, NO., DATE, AREAS, AREAS CHECKED, BY

PLATE 3 - CROSS SECTION
P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

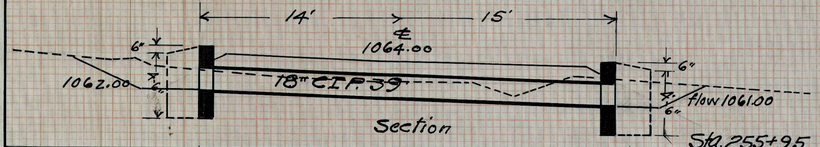
SEC. - "D"
MILLERSBURG-CHARM Rd.
CLARK Twp.
26/31



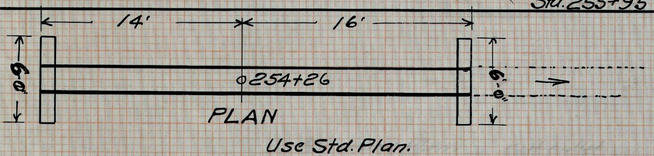
Est. Quantities
Excav. 10 cu.yds
1-2-3 conc. 2.3 " "
Steel 53 lbs
18" C.I. Pipe 39 lin.ft.

Steel List
4 A bars ½"ϕ 4'-9"
4 A " " " 4'-3"
8 B " " " 5-6"

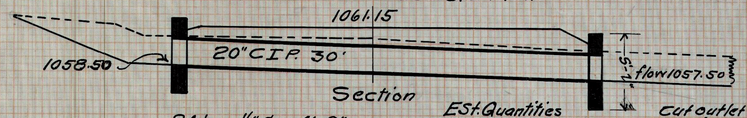
Culvert Data
Type Cast Iron pipe
Size 18" x 39'
Work Bld. New Culvert.



Sta. 255+95



Use Std. Plan.



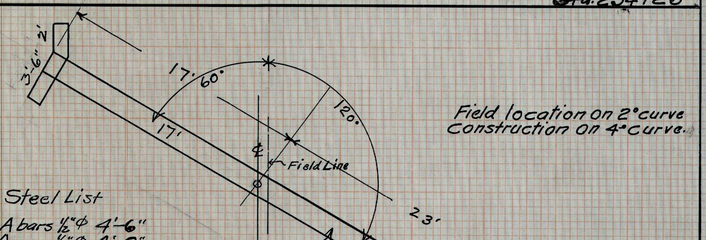
8 A bars ½"ϕ 4'-9"
8 B " ½"ϕ 5'-6"

Culvert Data
Type C.I. Pipe
Size 20" x 30'
Work Bld. New Culvert.

Est. Quantities
Excav 12 cu.yds
1-2-3 Conc 2.1 cu. "
Steel 55 lbs.
20" C.I. Pipe 30 lin.ft.
Channel Excv. 41 cu.yds

Cut outlet 125'
2% fall and 2' bottom width
1:1 slope

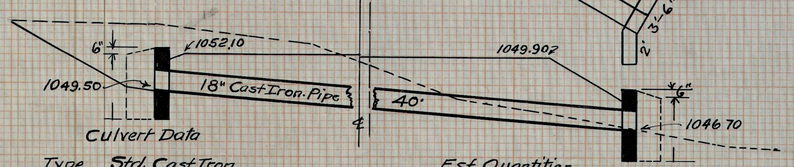
Sta. 254+26



Field location on 2° curve
Construction on 4° curve.

Steel List
4 A bars ½"ϕ 4'-6"
4 A " ½"ϕ 4'-0"
8 B " ½"ϕ 5'-0"

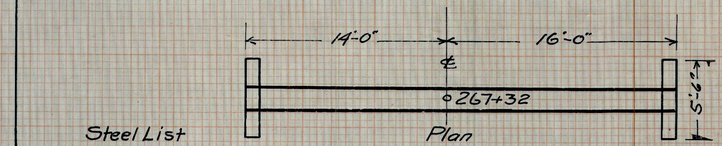
Use Std. Plan except as shown.



Culvert Data
Type Std. Cast Iron
Size 18" x 40'
Work Bld. New Culvert.

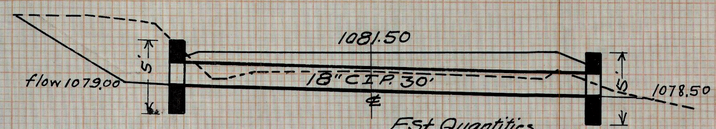
Est. Quantities
Excv + refill 14 cu.yd
1-2-3 Conc 1.9 " "
Reinf Steel 51 lbs
18" C.I. Pipe 40 lin.ft.

Sta. 248+00



Steel List
8 A bars ½"ϕ 4'-6"
8 B " " " 5'-0"

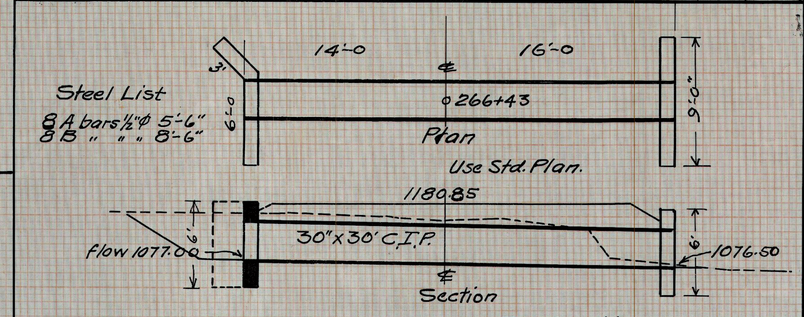
Use Std. Plan.



Culvert Data
Type.. C.I. Pipe
Size .. 18" x 30'
Work .. Build New Culvert

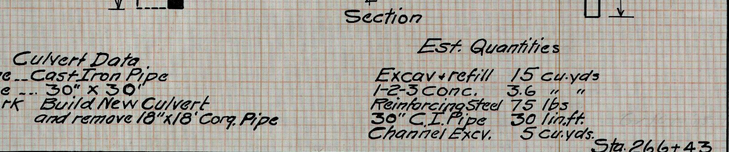
Est. Quantities
Excav.-refill 9 cu.yds
1-2-3 Conc. 1.3 " "
Reinforcing Steel 51 lbs.
18" C.I. Pipe 30 lin.ft.

Sta. 267+32



Steel List
8 A bars ½"ϕ 5'-6"
8 B " " " 8'-6"

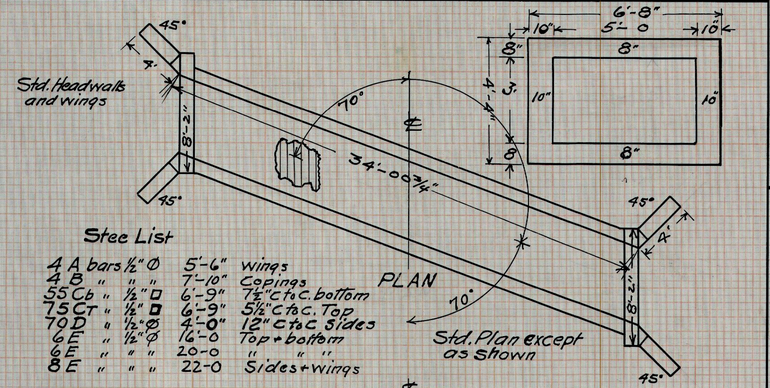
Use Std. Plan.



Culvert Data
Type.. Cast Iron Pipe
Size .. 30" x 30'
Work Build New Culvert and remove 18" x 18' Corg. Pipe

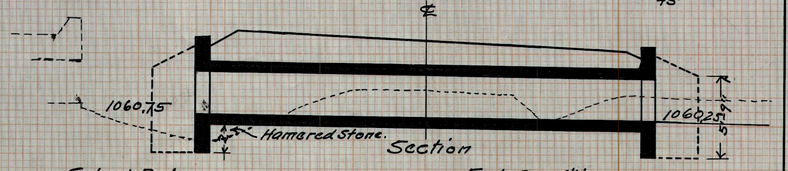
Est. Quantities
Excav + refill 15 cu.yds
1-2-3 Conc. 3.6 " "
Reinforcing Steel 75 lbs
30" C.I. Pipe 30 lin.ft.
Channel Excv. 5 cu.yds.

Sta. 266+43



Stee List

4 A bars ½"ϕ	5'-6"	Wings
4 B " "	7'-10"	Copings
55 Cb " ½" □	6'-9"	7½" C to c. bottom
75 CT " ½" □	6'-9"	5½" C to c. Top
70 D " ½" ϕ	4'-0"	12" C to C Sides
6 E " ½" ϕ	4'-0"	Top + bottom
6 E " " "	20-0	" " "
8 E " " "	22-0	Sides + Wings

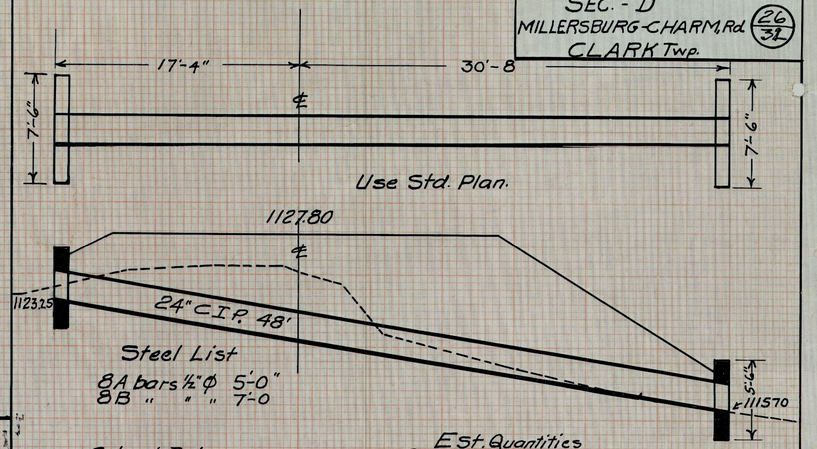


Culvert Data.
Type Std Conc. Box
Size 5'x3'x 34' 00 7/16"
Work Build New Culvert and remove old culvert.

Est. Quantities
Excav + refill 27 cu.yd.
1-2-3 Conc. 23.4 " "
Reinforcing Steel 1230 lbs
Channel Excav. 8 cu yd

Excavate Channel 20' 8 cy.

Sta. 259+96

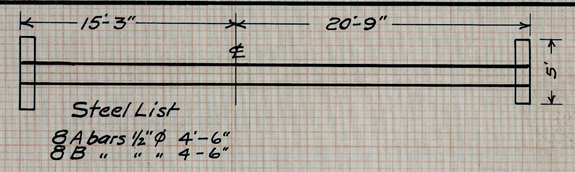


Steel List
8 A bars ½"ϕ 5'-0"
8 B " " " 7'-0

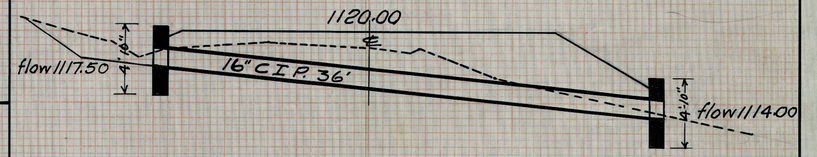
Culvert Data
Type Cast Iron pipe
Size 24" x 48'
Work Build new Culvert.

Est. Quantities
Excav.+refill 12 Cu.yds
1-2-3 Concrete 2.8 " "
Reinforcing Steel 64 lbs
24" Cast Iron Pipe 48 lin.ft.

Sta. 281+70



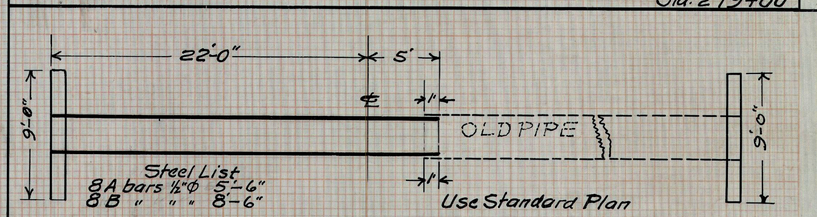
Steel List
8 A bars ½"ϕ 4'-6"
8 B " " " 4'-6"



Culvert Data
Type.... Cast Iron pipe
Size ... 16" x 36'
Work ... Build New Culvert.

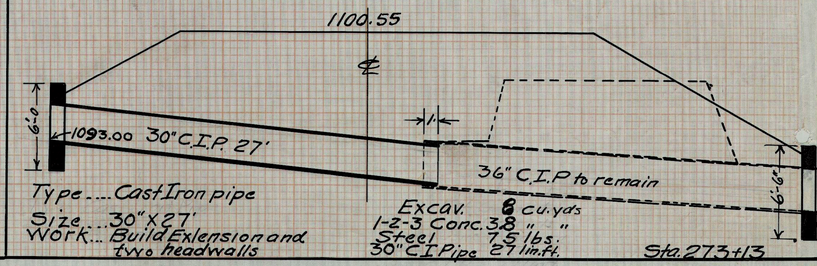
Est. Quantities
Excav + refill 8 cu.yds
1-2-3 Concrete 1.7 " "
Reinforcing Steel 48 lbs
16" C.I. Pipe 36 lin.ft.

Sta. 279+00



Steel List
8 A bars ½"ϕ 5'-6"
8 B " " " 8'-6"

Use Standard Plan

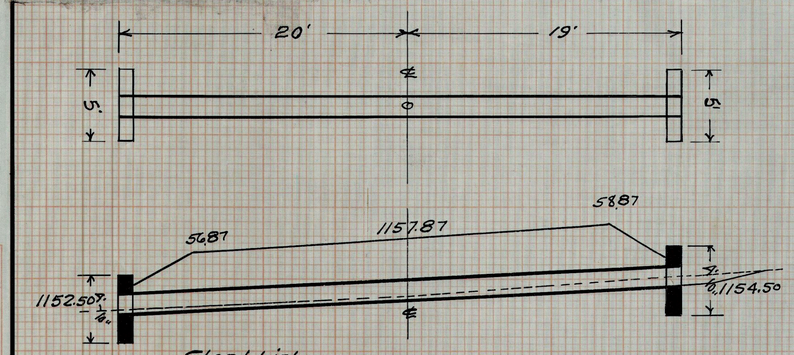


Type.... Cast Iron pipe
Size ... 30" X 27'
Work... Build Extension and two headwalls

Excav. 6 cu.yds
1-2-3 Conc. 3.8 " "
Steel 75 lbs.
30" C.I Pipe 27 lin.ft.

Sta. 273+13

PLATE 3 - CROSS SECTION
KEUFFEL & ESSER CO. NEW YORK



Steel List

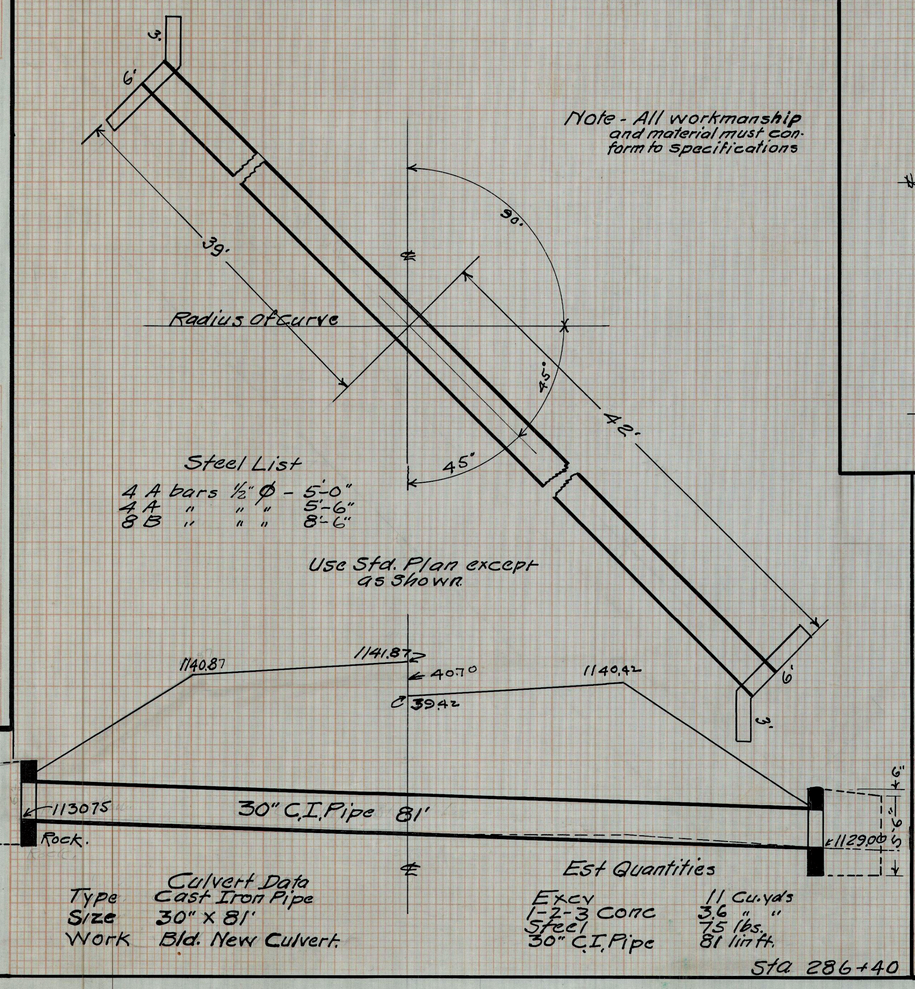
8 A bars ½" ϕ 4'-6"
8 B " " " 4'-6"

Culvert Data
Type Cast Iron Pipe
Size 16" x 39'
Work Bld New Culvert.

EST. QUANTITIES

Excav.	7 cu.yds
1-2-3 Conc.	1.7 " "
Steel	48 lbs. "
16" C.I. Pipe	39 lin ft.

Sta. 288+87



Note - All workmanship and material must conform to specifications

Steel List

4 A bars ½" ϕ - 5'-0"
4 A " " " 5'-6"
8 B " " " 8'-6"

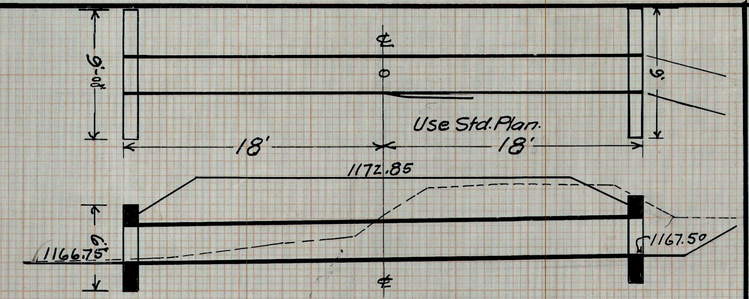
Use Std. Plan except as shown.

Culvert Data
Type Cast Iron Pipe
Size 30" x 81'
Work Bld. New Culvert.

Est Quantities

Excv	11 Cu.yds
1-2-3 Conc	3.6 " "
Steel	75 lbs.
30" C.I. Pipe	81 lin ft.

Sta 286+40



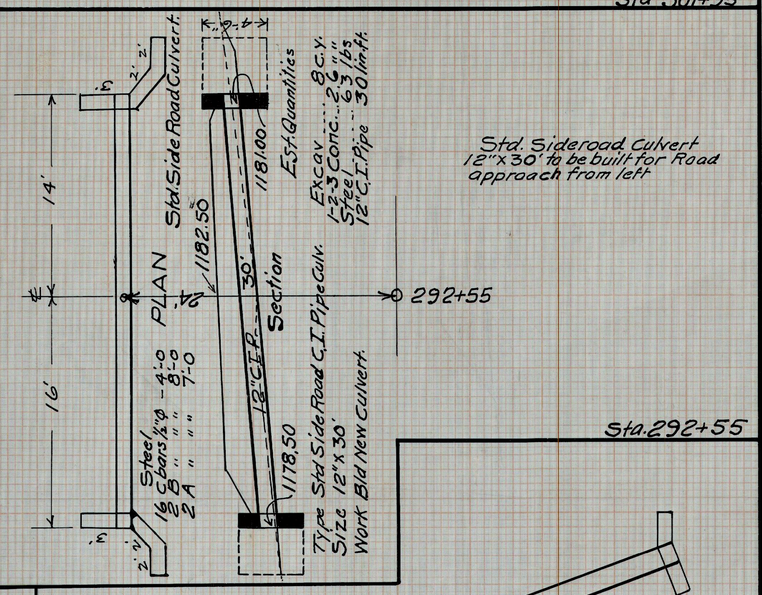
Type Cast Iron Pipe
Size 30" x 36'
Work Bld New Culvert.

8 A bars ½" ϕ 5'-6"
8 B " " " 8'-6"

Est. Quantities

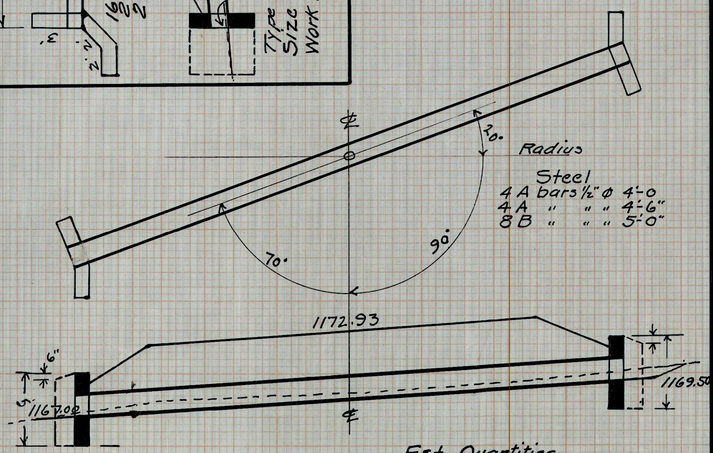
Excav + refill	22 Cu.yds.
1-2-3 Conc.	3.6 " "
Steel	75 lbs
30" CI Pipe	36 lin ft.
Channel Exc.	6 C.y.

Sta 301+95



Sta. 292+55

Std. Sideroad Culvert 12" x 30' to be built for Road approach from left



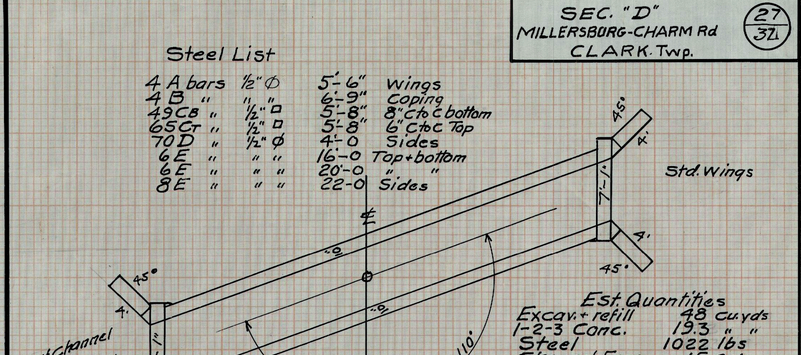
Steel
4 A bars ½" ϕ 4'-0
4 A " " " 4'-6"
8 B " " " 5'-0"

Culv. Data
Type Cast Iron Pipe
Size 18" x 42'
Work Bld. New Culvert

Est Quantities

Excav.	8 cu.yds
1-2-3 Conc.	1.9 " "
Steel	51 lbs
18" C I Pipe	42 lin ft.

Sta. 291+10



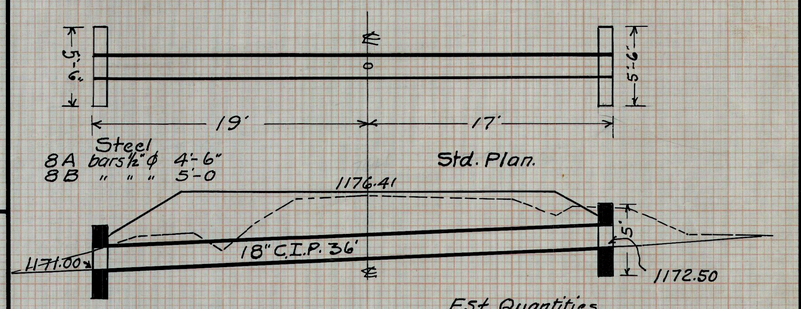
Est. Quantities

Excav. + refill	48 Cu.yds
1-2-3 Conc.	19.3 " "
Steel	1022 lbs
Channel Excv.	15 C.y.

Use Stand. Plan except as shown.
Top 7"
Bottom 7"

Type Conc. Box
Size 4'x3'x34'-00¾"
Work Bld. New Culvert.

Sta. 329+00



Steel
8 A bars ½" ϕ 4'-6"
8 B " " " 5'-0

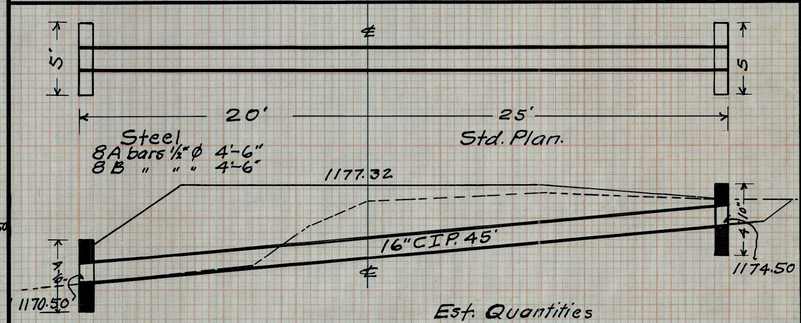
Std. Plan.

Type Cast Iron Pipe
Size 18" x 36'
Work Bld New Culvert.

Est. Quantities

Excav. + refill	16 Cu.yds
1-2-3 Conc	1.9 " "
Steel	51 lbs
18" C.I. Pipe	36 lin.ft.

Sta. 308+00



Steel
8 A bars ½" ϕ 4'-6"
8 B " " " 4'-6"

Std. Plan.

Type Cast Iron Pipe
Size 16" x 45
Work Bld. New Culvert.

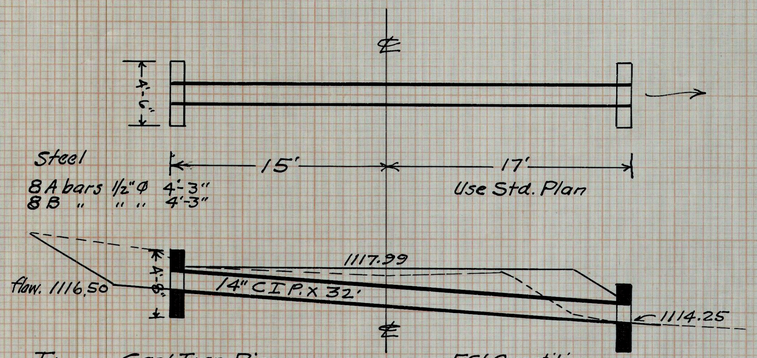
Est. Quantities

Ex cav. + refill	15 Cu.yds
1-2-3 Conc	1.7 " "
Steel	48 lbs.
16" C I Pipe	45 lin.ft.

Sta. 304+16

FINAL SURVEY
ORIGINAL SURVEY
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
NOTE BOOK
NO.
BY
DATE

SEC. "D"
MILLERSBURG-CHARM Rd.
CLARK Twp.
28/37



Steel
8A bars 1/2" ϕ 4'-3"
8B " " " 4'-3"

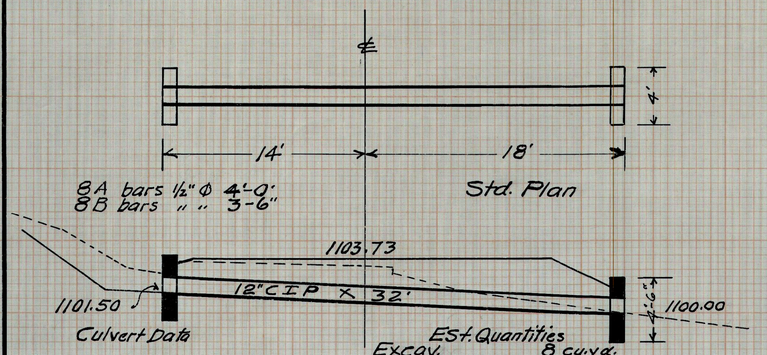
Use Std. Plan

Type – Cast Iron Pipe
Size – 14" X 32'
Work – Bld. New.

Est. Quantities

Excav.	8 cu.yds
1-2-3 Conc.	1.5 " "
Steel	46 lbs
14" C.I. Pipe	32 lin.ft.

332+60



8A bars 1/2" ϕ 4'-0"
8B bars " " 3'-6"

Std. Plan

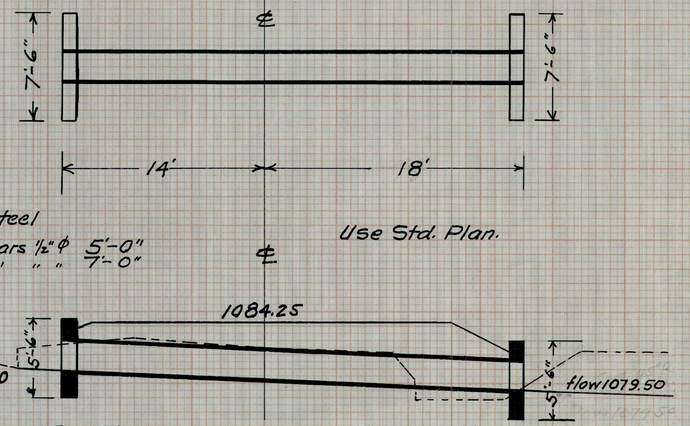
Culvert Data

Type – Cast Iron Pipe
Size – 12" x 32'
Work – Remove old + Bld. New

Est. Quantities

Excav.	8 cu.yd.
1-2-3 Conc.	1.3 " "
Steel	40 lbs
12" C.I. Pipe	32 lin.ft.

338+55



Steel
8A bars 1/2" ϕ 5'-0"
8B " " " 7'-0"

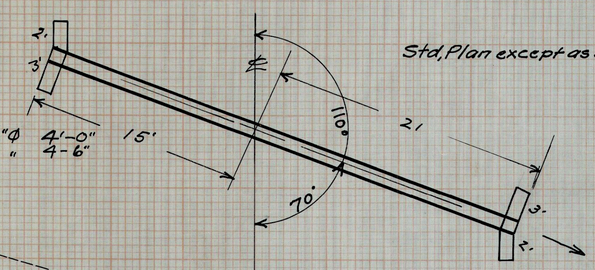
Use Std. Plan.

Type – Cast Iron Pipe
Size – 24" x 32'
Work – Remove 27' of 16" Pipe and Bld. 24" x 32' Culvert. Use 16 of C.I.P. from Sta 340+54. 4' now at Site and 12' of New Pipe

Est. Quantities

Excavation	10 cu.yds
1-2-3 Conc	2.8 " "
Steel	64 lbs.
24" CIP New	12 lin.ft.
Relay 24" C.I.P.	20 " "

Sta. 348.52



Std. Plan except as shown.

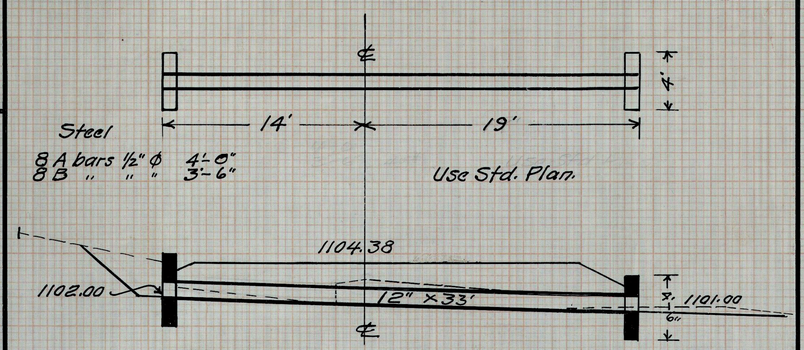
Steel
8A bars 1/2" ϕ 4'-0" 15'
8B " " " 4'-6"

Type – Cast Iron Pipe
Size – 12" x 36'
Work – Bld. New Culvert.

Est. Quantities

Excav.	10 cu.yds
1-2-3 Conc.	1.5 " "
Steel	46 lbs.
12" CI Pipe	36 lin.ft.

331+59



Steel
8A bars 1/2" ϕ 4'-0"
8B " " " 3'-6"

Use Std. Plan.

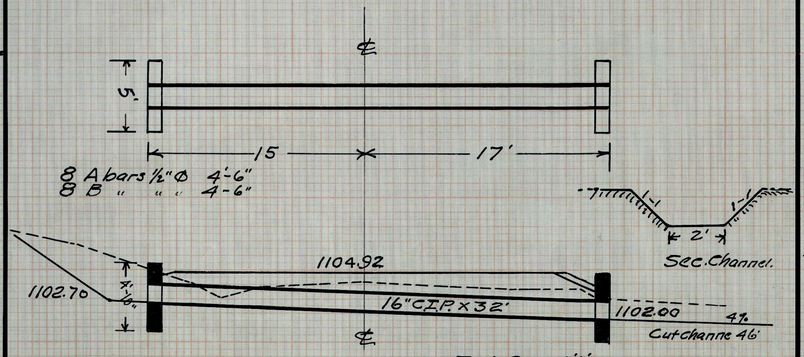
Culvert Data

Type – Cast Iron Pipe
Size 12" x 33'
Work – Remove old Culv and Bld New Culvert.

Est. Quantities

Excav.	8 cu.yds
1-2-3 conc.	1.3 " "
Steel	40 lbs.
12" C.I. Pipe	33 lin.ft.

337+52



8A bars 1/2" ϕ 4'-6"
8B " " " 4'-6"

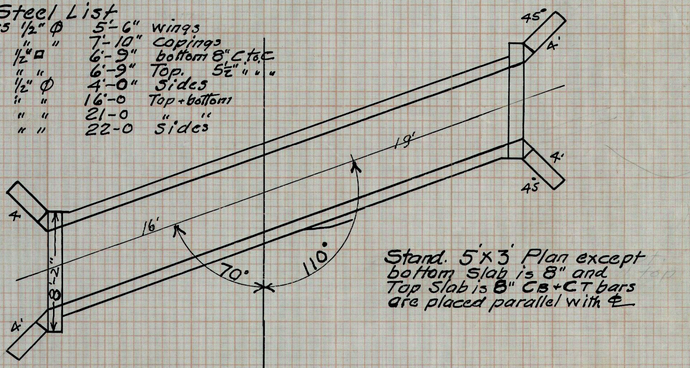
Culv. Data.

Type – Cast Iron Pipe
Size 16" x 32'
Work – Bld. New.

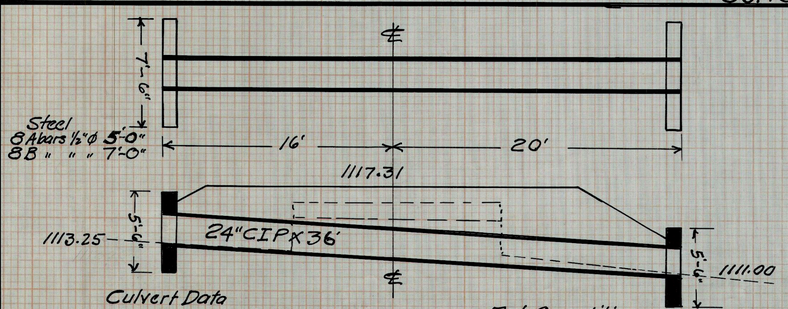
Est. Quantities

Excav.	9 cu yds
1-2-3 conc	1.7 " "
Steel	48 lbs
16" C.I. Pipe	32 lin.ft.
Channel Excav.	10 cu yds

336+92



Stand. 5'x3' Plan except bottom Slab is 8" and Top Slab is 8" CB + CT bars are placed parallel with ℄



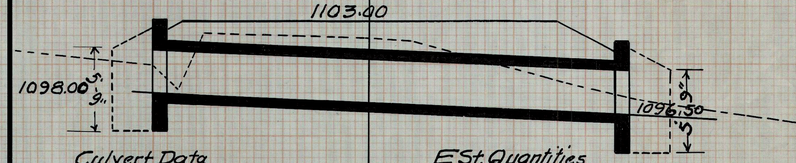
Culvert Data

Type – Cast Iron Pipe
Size – 24" x 36'
Work – Remove Brdg + Bld New Culvert.

Est Quantities

Excav.	8 cu.yd.
1-2-3 conc.	2.8 " "
Steel	64 lbs.
24" CI Pipe	36 lin.ft.
Remove Brdg.	

Sta 330+70



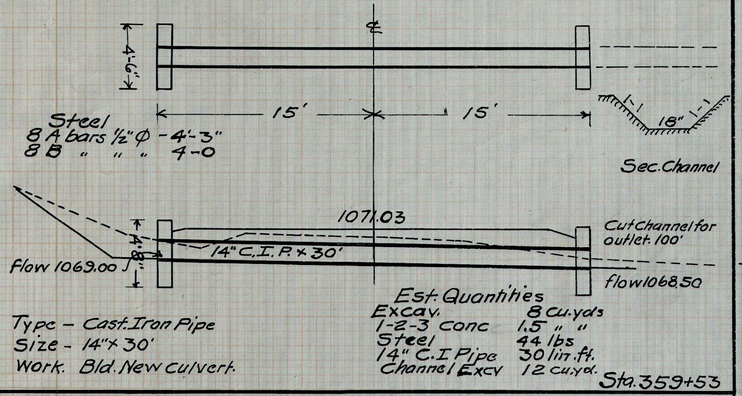
Culvert Data

Type – Conc. Box
Size – 5'x3'x35'
Work – Remove 16 of C.I.P. and Bld. New Culvert
Haul Pipe to Sta. 348+52

Est. Quantities

Excav. + Refill	68 cu.yds
1-2-3 Conc	239 " "
Steel	1264 lbs
Remove 27' of 16" Pipe	

Sta. 340+54

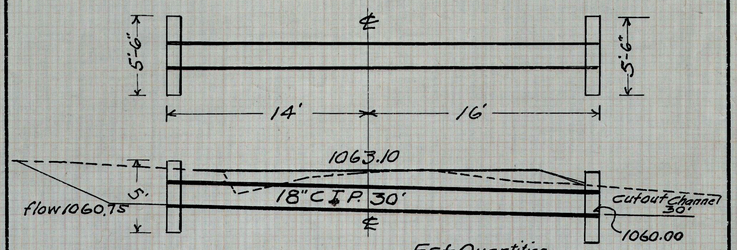


Type – Cast Iron Pipe
Size – 14" x 30'
Work. Bld. New Culvert.

Est. Quantities

Excav.	8 cu. yds
1-2-3 conc	1.5 " "
Steel	44 lbs
14" C.I Pipe	30 lin. ft.
Channel Excv	12 cu. yd.

Sta. 359+53



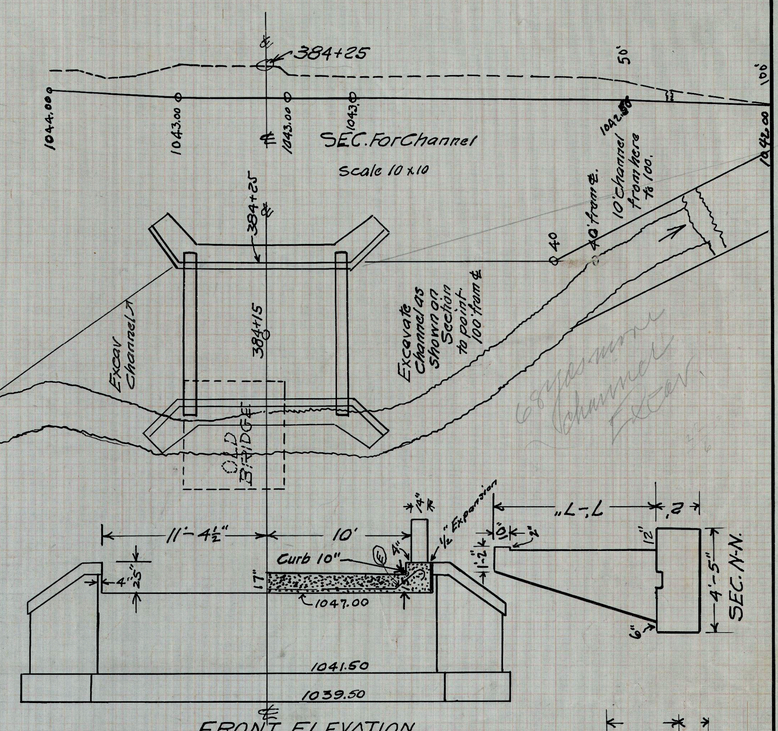
Type C.I. Pipe
Size 18" x 30'
Work. Bld. New Culvert.

Est. Quantities

Excav.	13 cu. yds
1-2-3 conc	1.9 " "
Steel	51 lbs
18" C.I. Pipe	30 lin. ft.
Channel Excv	8 Cu. yd.

Sta. 374+91

Note - All Channel excavation with in limits of right of way shall be placed for roadway fill.

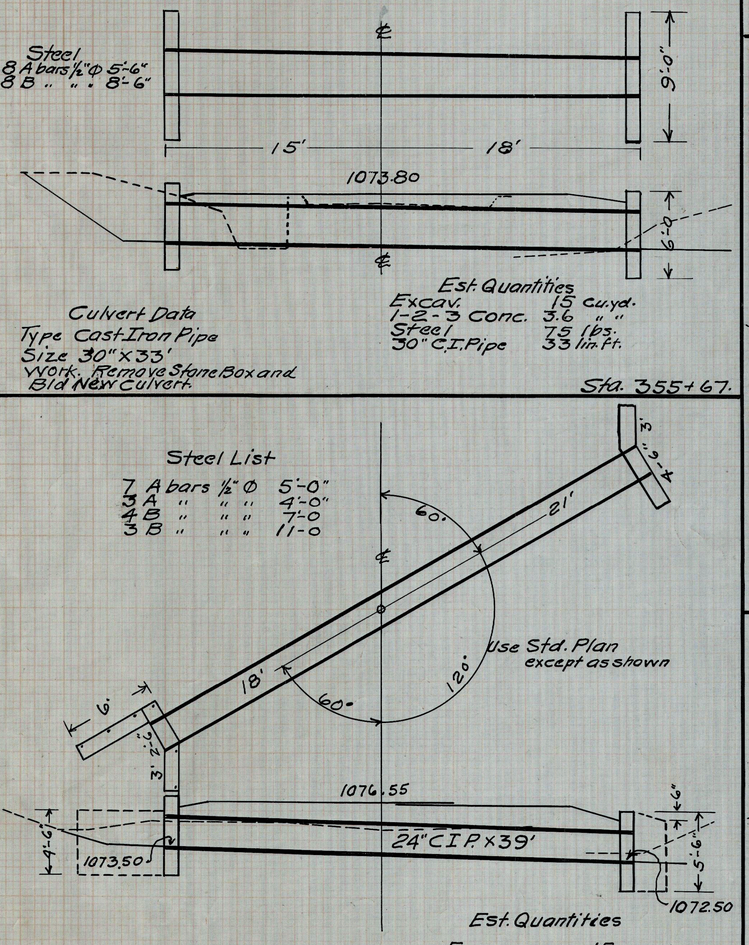


All workmanship and material shall conform to specifications

All concrete in Substructure shall be 1-2½-4. Slump 3"

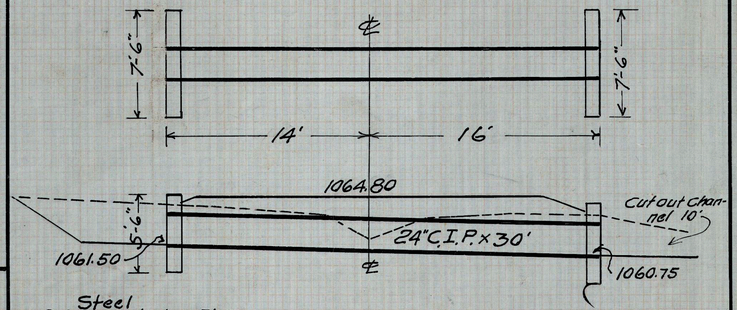
Superstructure 1-2-3 Conc. Slump 4"

FRONT ELEVATION



Culvert Data
Type Cast Iron Pipe
Size 30" x 33'
Work. Remove Stone Box and Bld New Culvert.

Sta. 355+67.



Steel
8 A bars ½"φ 5'-0
8 B " " " 7'-0

Est. Quantities

Excav.	13 cu. yd.
1-2-3 conc.	2.8 " "
Steel	64 lbs.
24" C.I. Pipe	30 lin. ft.
Channel Excav.	6 cu. yd.

Type. – Cast Iron Pipe
Size. – 24" x 30'
Work. – Bld New Culvert.

Sta. 371+04.

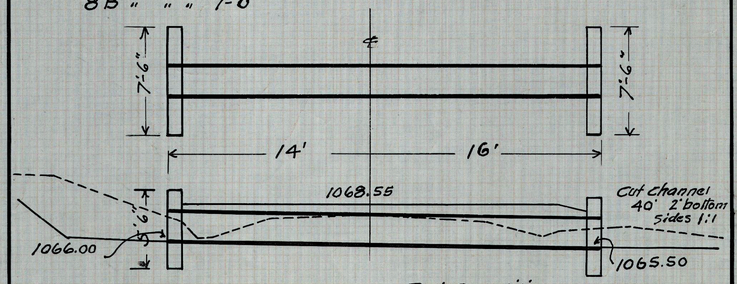
Est. Quantities

Excav.	15 cu. yds
1-2-3 conc.	3.5 " "
Steel	72 lbs.
24" C.I. Pipe	39 lin. ft.

Type – Cast Iron Pipe
Size – 24" x 39'
Work – Bld. New Culvert.

Sta. 353+03.4

Steel – 8 A bars ½" φ – 5'-0"
8 B " " " 7'-0"

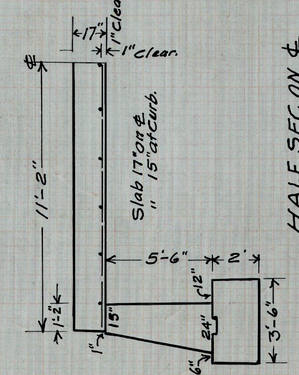


Type – Cast Iron Pipe
Size – 24" x 30'
Work. Bld New Culvert.

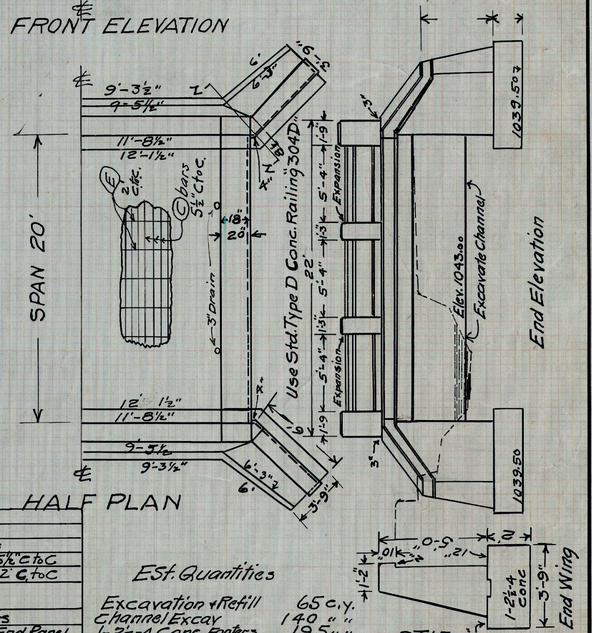
Est. Quantities

Excav.	10 cu. yds
1:2:3 conc.	2.8 " "
Steel	64 lbs.
24" C.I. Pipe	30 lin. ft.
Channel Excav	6 cu. yd.

Sta. 362+27

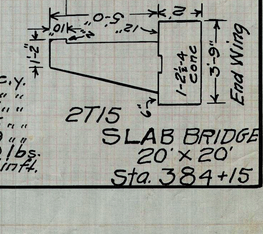


STEEL LIST				
No	Mark	Size	Length	Place
8	X	1" φ	8'-0	Abutments
50	C	1" φ	22'-0"	Slab 5½" C to C
11	E	½" □	24'-00	Slab 2 C. to C
32	Y	½" φ	4'-0	Posts
16	X	" "	7'-0	Rail End Panel
4	X	" "	21'-0	Lower Rail
8	X	" "	5'-10"	Mid. Panels



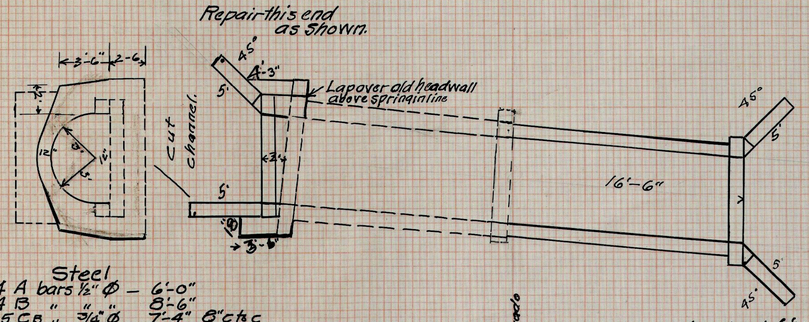
Est. Quantities

Excavation + Refill	65 c.y.
Channel Excav.	140 " "
1-2½-4 Conc. Footers	19.5 " "
1-2½-4 " Abutmts.	24.5 " "
1-2-3 " Slab + Curb	26.9 " "
Steel	3650 lbs.
Type D Conc. Rail	44 lin. ft.



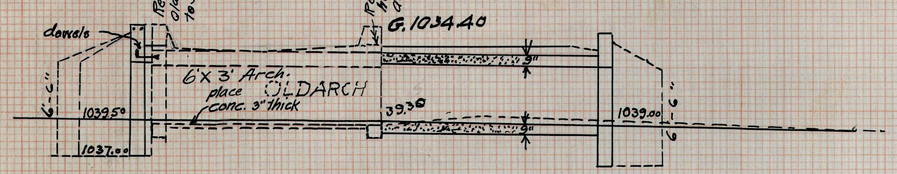
2T15
SLAB BRIDGE
20' x 20'
Sta. 384+15

SEC. "D"
MILLERSBURG-CHARM Rd.
CLARK-Twp.
30/32



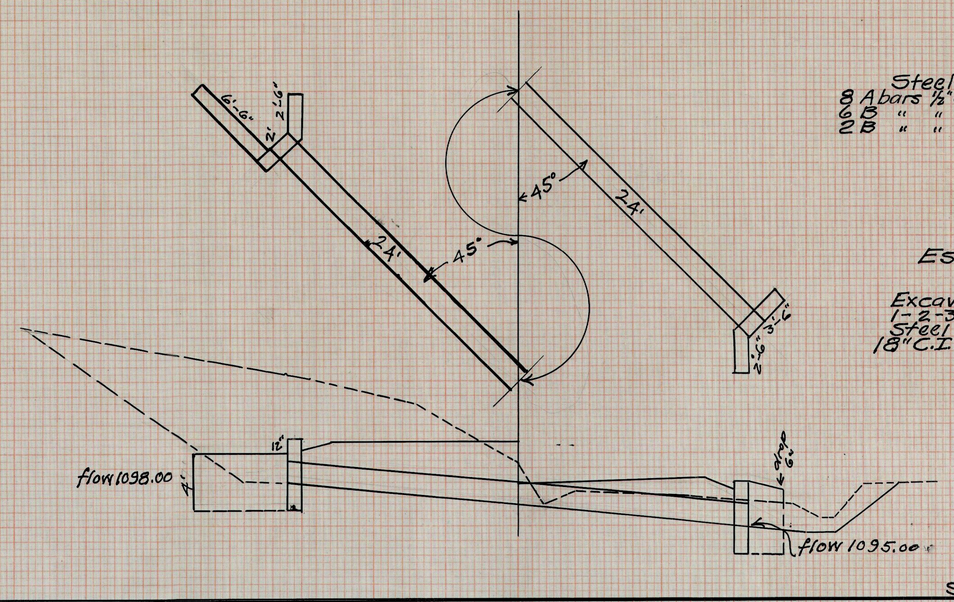
Steel
4 A bars ½" Ø – 6'-0"
4 B " " " 8'-6"
25 CB " ¾" Ø 7'-4" 8" c to c
33 CT " " " 7'-4" 6" c to c
34 D " ½" Ø 5'-2" 12" c to c
8 E " " " 21-0 Sides
8E " " " 16 0 Top + Bottom

Standard 6'x4' Conc Box except Bottom and top are 9"



Est Quantities
Excav. 22 c.y.
Channel Excav. 20 c.y.
1-2-3 Conc 23.4 " "
Steel 996 lbs.

Sta 405+78

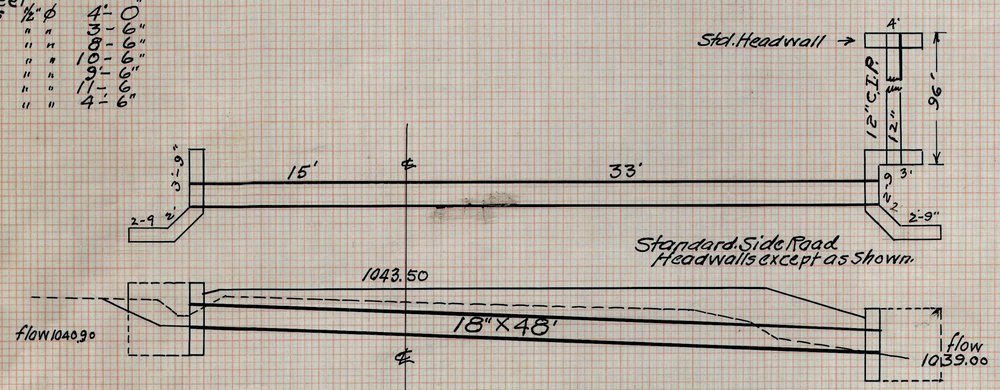


Steel
8 A bars ½" Ø – 4'-6"
6 B " " " 5'-0"
2 B " " " 12'-0"

Estimated Quant.
Excav 15 cu.yd.
1-2-3 conc. 2.9 cu.yd.
Steel 594
18" C.I. Pipe 48 ft.

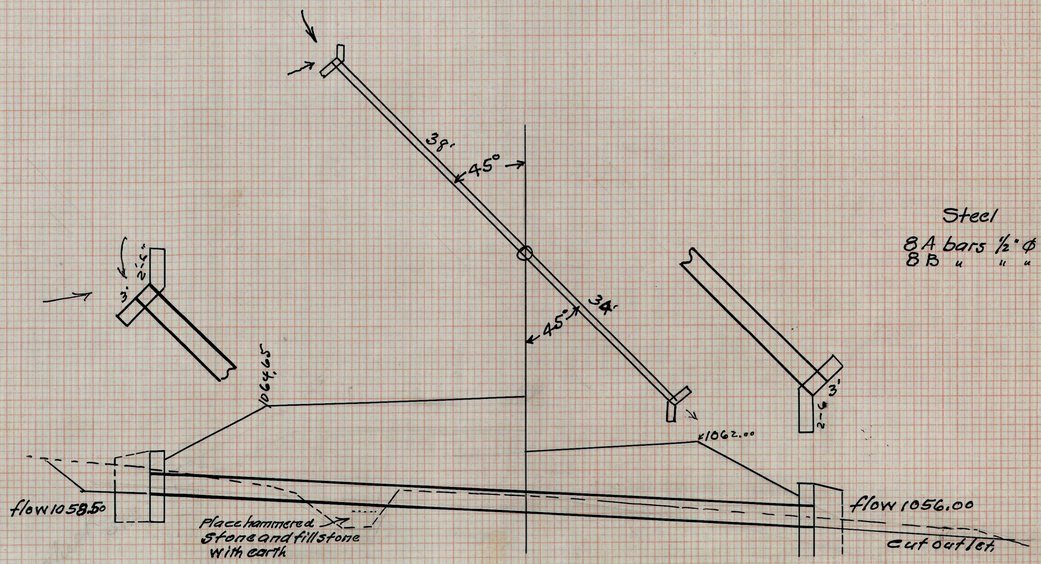
Sta 413+50

Steel
4 A bars ½" Ø 4'-0"
4 B " " " 3'-6"
1 A " " " 8'-6"
1 A " " " 10'-6"
1 B " " " 9'-6"
1 B " " " 11'-6"
16 C " " " 4'-6"



Estimated Quantities
Excav + Refill 26 Cu. yds
1-2-3 Conc. 4.5 " "
Steel 95 lbs " "
12" C.I. Pipe 96 ft.
18" C.I. Pipe 48 ft.

12"X96'
18"X48'
18"X48'
Sta. 399+00

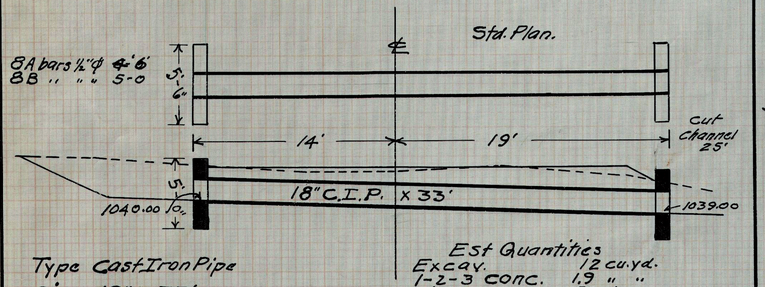


Steel
8 A bars ½" Ø 4'-6"
8 B " " " 5'-0"

Est. Quantities
Excav. 15 cu.yd's
1-2-3 conc. 1.9 " "
Steel 51 lbs
16" C I Pipe 72 lin ft.

16"X72'
Sta 409+22

PLATE 3—CROSS SECTION C. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

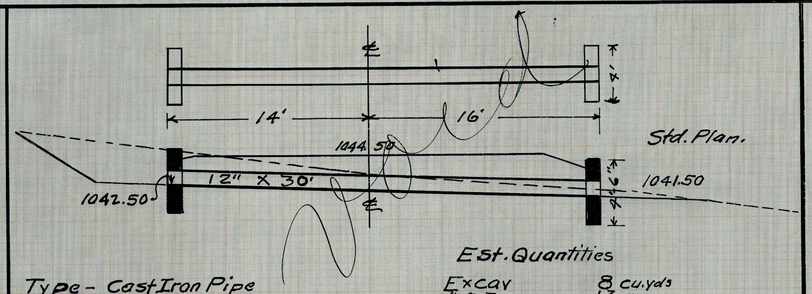


Type Cast Iron Pipe
Size - 18" X 33'
Work Bld. New.

Est Quantities

Excav.	12 cu.yd.
1-2-3 conc.	1.9 " "
Steel	53 lbs
18" C.I. Pipe	33 lin.ft.
Channel Excv.	5 cu.yd.

398+33

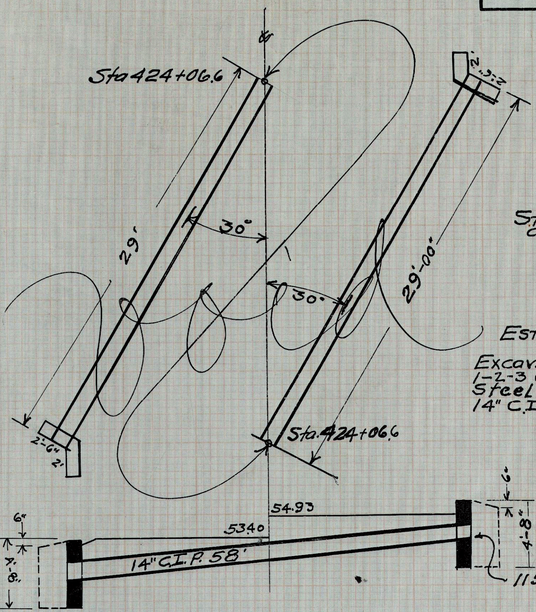


Type - Cast Iron Pipe
Size - 12" x 30'
Work - Bld New.

Est. Quantities

Excav	8 cu.yds
1-2-3 conc.	1.3 " "
Steel	40 lbs.
12" C I Pipe	30 lin.ft.

Note - May be Bld. at 399+80 Sta. 400+00

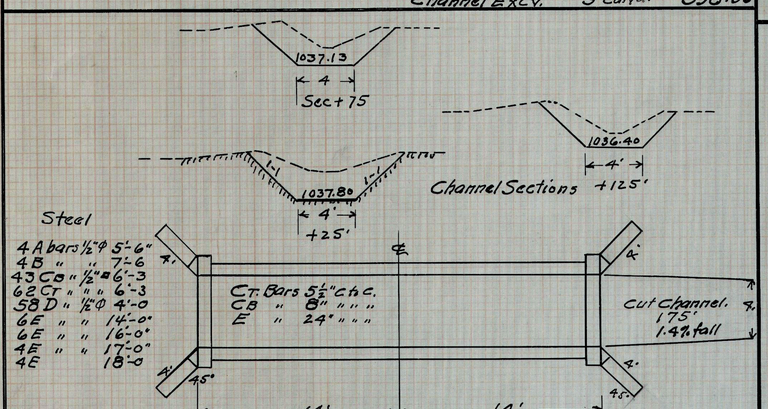


Stand. Plan except as shown.

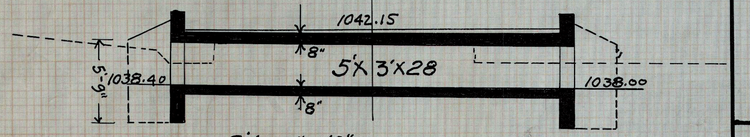
Est. Quantities

Excav.	14 cu.yds
1-2-3 Conc.	1.6 " "
Steel	44 lbs
14" C.I. Pipe	58 lin.ft.

P.C. 424+06.6



Std. Plan except Bottom and Top are 8"



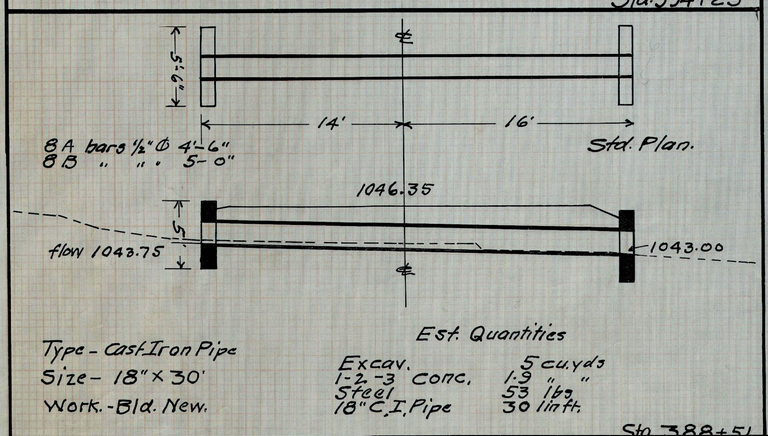
Sidewalls 10"
Bottom 8"
Top 8"

Type - Conc. Box
Size - 5'x3'x28'
Work - Bld. New.

Est Quantities

Excav.	52 cu.yds
1-2-3 conc	19.3 " "
Steel	970 lbs
Channel Excv	72 cu.yds.

Sta 394+25

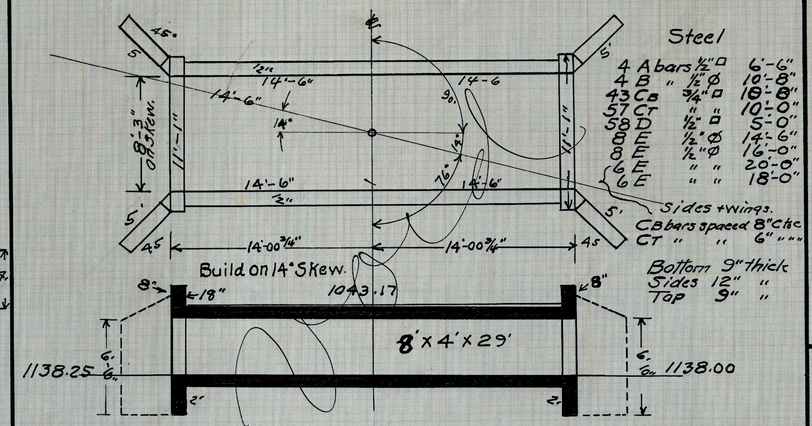


Type - Cast Iron Pipe
Size - 18" x 30'
Work. - Bld. New.

Est. Quantities

Excav.	5 cu.yds
1-2-3 conc.	1.9 " "
Steel	53 lbs
18" C.I. Pipe	30 lin.ft.

Sta. 388+51



Steel

4 A bars	½"□	6'-6"
4 B "	½"ϕ	10'-8"
43 Ca "	¾"□	18'-8"
57 CT "	" □	10'-0"
58 D "	½" □	5'-0"
8 E "	½" ϕ	14'-6"
8 E "	½"ϕ	16'-0"
6 E "	" "	20'-0"
6 E "	" "	18'-0"

Sides + Wings.
CB bars spaced 8" c.to c.
CT " " 6" " "

Bottom 9" thick
Sides 12" "
Top 9" "

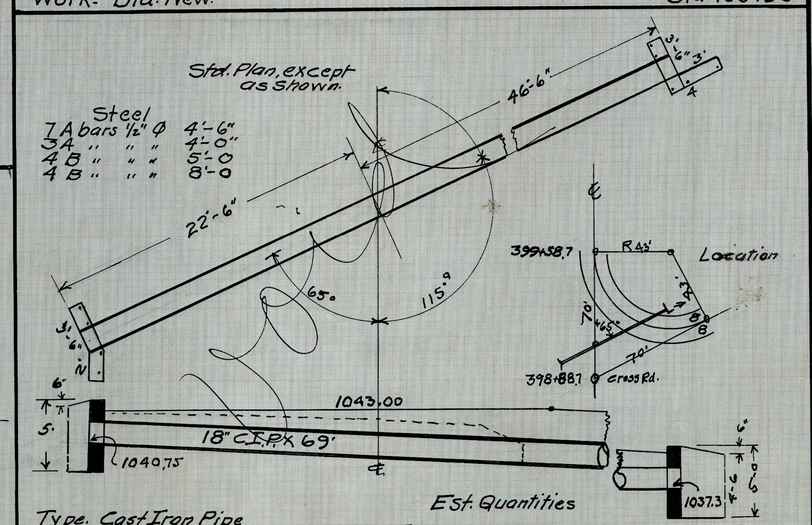
Std. Plan, except as shown

Est. Quantities

Excav + refill	22 cu.yds
1-2-3 Conc.	3.3 " "
Reinforcing Stee	253.2 lbs
Channel Excav.	20 cu.yds.

Type - Conc. Box
Size - 8'x4' x 29'
Work. Bld. New.

Sta 405+95

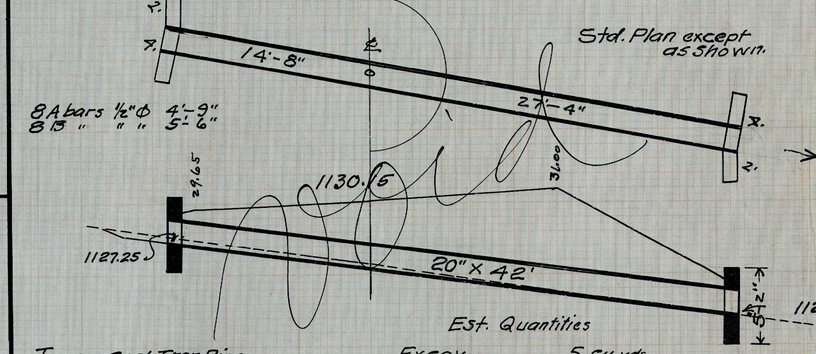


Est. Quantities

Excav	12 C.Y.
1-2-3 Conc.	2.3 C.Y.
Steel	64 lbs
18" C I. Pipe	69 lin.ft.

Type. Cast Iron Pipe
Size 18" x 69'
Work Remove old Box + Bld New Culvert.

Sta 399+07

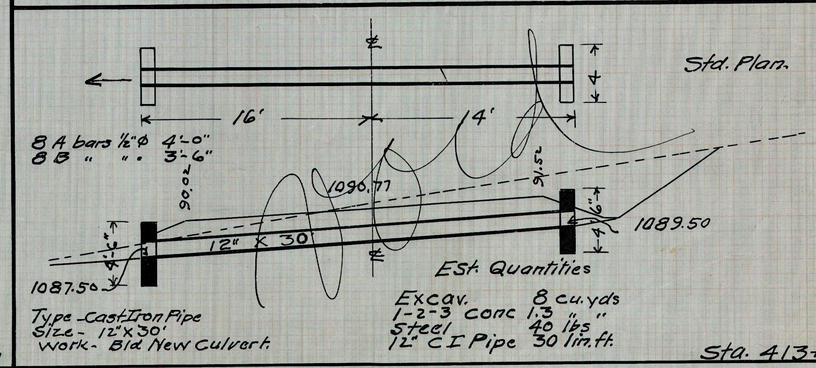


Est. Quantities

Excav	5 cu.yds.
1-2-3 Conc.	2.1 " "
Steel	53 lbs
20" C.I.P.	42 lin.ft.

Type - Cast Iron Pipe
Size - 20" x 42'
Work - Bld. New.

Sta. 419+45



Est. Quantities

Excav.	8 cu.yds
1-2-3 conc	1.3 " "
Steel	40 lbs
12" C I Pipe	30 lin.ft.

Type - Cast Iron Pipe
Size - 12" x 30'
Work - Bld New Culvert.

Sta. 413+00

SEC. "D"
MILLERSBURG-CHARM RD.
CLARK TOWNSHIP
31
32

SUMMARY OF QUANTITIES

ITEM	ROADWAY		QUANTITY
R-1	Excavation		29970 Cu. Yds.
R-1	Channel Excavation		1963 " "
R-1	Clearing and Grubbing Right-of-Way		One Sum
R-3	Finishing Shoulders, Slopes and Ditches both sides		17711 Lin. Ft.
S-7	Vitrified Sewer Pipe for driveways 10"	Material Sec. 6-7	146 " "
S-7	" " " " " 12"	" " 6-7	18 " "
S-9	Corrugated Iron Pipe " " 10"	" " 6-4 (b-3)	20 " "
S-9	" " " " " 15"	" " 6-4 "	18 " "
S-9	" " " " " 18"	" " 6-4 "	26 " "
~~S-9~~	~~" " " " " 20"~~	~~" " 6-4 "~~	~~18 " "~~
S-8	10" to 16" pipe relaid		85 " "
~~S-8~~	~~Vitrified Sewer Pipe relaid~~		~~18 " "~~

PAVEMENT

T-2	#46 Slag for Pavement traffic bound in place	Material Sec. 3-12	4815 Tons
T-2	#46 " " Approaches and Stock Piles	" " 3-12	235 "

CULVERTS

R-4	Excavation and Refill		653 Cu. Yds.
R-4	Channel Excavation		354 " "
S-1	Concrete 1-2-3 Mix	Material Sec. 2-1 + Sec. 3-1 or 2	213.5 " "
S-1	" 1-2½-4 Mix	" " 2-1 + " 3-1 or 2	44 " "
S-4	Reinforcing Steel	" " 7-1	10091 Lbs.
S-8	Sectional Cast Iron Pipe 12"	" " 6-1	227 Lin. Ft.
S-8	" " " " 14"	" " 6-1	66 " "
S-8	" " " " 16"	" " 6-1	224 " "
S-8	" " " " 18"	" " 6-1	343 " "
S-8	" " " " 20"	" " 6-1	30 " "
S-8	" " " " 24"	" " 6-1	195 " "
S-8	" " " " 30"	" " 6-1	207 " "
S-8	16" to 24" Pipe to be taken up		51 " "
S-8	24" Pipe to be relaid		20 " "
S-1	Type "D" Bridge Rail		44 " "
S-4	One Sum metal bar spacers, chairs ect.		One Sum
I-14	Removing old Structure & Building Temporary Bridge		One Sum

SEC. "D"
MILLERSBURG-CHARM.
CLARK Twp.

Sta. 425+75 End of Improvement
Sta. 424+50 to 425+75 remove and replace 50 sq. yd. of Slag.

Sta. 394+15 Build Concrete Box Culvert as shown on Culvert Plans and Cut outlet 175 feet.

Cut outlet Ditch

Sta. 397+50 Lay 18' of 10" V.S.P. Left + fill drive

Sta. 398+33 Bld. Pipe Culvert as shown on Culvert Plans

DAN'L J. YODER

SAM'L KNUTTI 12.1.

Sta. 399+80 Bld. Pipe Culvert as shown on Culvert Plans

PC 399+73.6

Right of Way

Fill well

Sta. 399+07 Bld. Pipe Culvert as shown on Culvert Plans

Right-of-Way

Δ 41°-49'
D 7°-00'
Ex 57.7'
T. 312.7'
L 597.38'

Sta. 405+95 Build Concrete Box Culvert as shown on Culvert Plans

Sta. 408+50 Lay 18' of 12" Corrugated Pipe 22' from & for field drive Right + fill drive.

Sta 409+65 grade approach as shown on Cross Sections and lay 18' of 20" Corrugated Pipe.

Sta. 413+00 Build Pipe Culvert as shown on Culvert Plans

Note - Set on Sta. 414+50 and Sight to PC. Turn Angle Left 17°-33' and project ford Tang.

Δ 25° 34L
D 4°-00
Ex 36.4
T. 327.3
L 639.17

Sta. 419+45 Bld. Pipe Culvert as shown on Culvert Plans

PT. 423+39.17

PT. 416+28.93

D 26°-48
D 12°-00
Ex 113.5'
T. 113.8'
L 222.33

PC. 424+10.66

Sta. 424+06.6 Bld Pipe Culvert as shown on Culvert Plans
Sta 425+00 remove 18 of 10" V.S. Pipe and relay at Sta 425+65 R.

Old Center Line

+15 P.L. Aylee Hochstetler
M.C. MILLER

Lot 20

Scale 25' = 1"

PC. A2A+0.66

PI 1157.00

END OF LINE

E.M. MILLER

M.C. MILLER

M.C. MILLER Right-of-Way - 0.64 A.

DANIEL J. YODER.
R. of Way 0.09 A.

SAM'L KNUTTI
R. of Way 0.01 A.

E.M. MILLER
RIGHT-OF-WAY - 2.72 A

0.01 A.

Original Curve
Δ 53°-34'
D 10°
T. 289.23
L 535.67
Run to 414+50 only

53°-34'
D 10
T. 289.23

Approach

P.T. 405+70.98

P.C. 411+44.5

B.M. Sta. 399+10
Top of Wingwall at S.W. Cor. Cheese Cellar
3.7' below siding Elev. 1048.30.

B.M. Sta. 405+95
2 nails in Willow tree Left.
Elev. 1043.09

B.M. Sta. 412+75 R.
2 nails in root of W. Cherry.
Elev 1100.92

B.M. Sta. 419+25 R.
2 nails in root of Chestnut
Elev 1120.91

B.M. Store in Farmerstown
+ On S.W. Cor. Conc. Wall.
Elev. 1160.92.

Grade Left Ditch

VC 100' Ex 0.09
VC 100' Ex 0.13
VC 200' Ex 1.06
VC 100' Ex 0.25
VC 200' Ex 1.93
VC 300' Ex 0.71
VC 100' Ex 0.09
VC 200' Ex 1.00
VC 100' Ex 0.25

Excav. Emb +25% 499 c.y. 500 " "
Excav. Emb +25% 339 c.y. 338 " "
Excav. Emb +20% 616 cu. yd. 613 " "
Excav. Emb +20% 922 cu. yd. 922 " "
Excav. Emb +33% 165 c.y. 159 " "
Excav. Emb +39% 315 cu. yd. 311 " "
Excav. Emb +26% 863 cu. yd. 863 " "
Excav. Emb +25% 136 " Waste 21 c.y.

394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427

SEC. "D"
MILLERSBURG-CHARM Rd. (23/31)
CLARK Twp.

End Area C	End Area F	Cu. yd C	Cu. yd F	
5	37			
		39	22	
37	0			
		109	0	
81	0			
		146	0	
77	0			
		150	0	
85	0			
		168	0	
				402+00
97	0			
		146	0	
60	0			
		87	8	
34	8			
		48	24	
19	18			
		41	41	
25	26			
		17	37	
0	34			
		0	87	
APPR.			72	

1144.00
404+50
1042.65

1145.00
404+00

1146.00
403+50
1047.7

1147.00
403+00
1048.5

1147.74
402+50
1049.4

1147.94
402+00
1049.8

1147.61
401+50
1048.5

1146.75
401+00
1046.85

1145.63
400+50
1045.15

1144.50
12" x 30'
400+00
1043.8

1143.86
399+63.6
1042.7

℄

30 20 10

End Area C	End Area F	Cu. yd C	Cu. yd F	
70	4			
		326	4	
Approach			91	
106	0			
		246	11	
27	10			
		48	15	
26	6			
		28	115	
4	117			
		2	256	
0	158			
0	207			
0	122			
0	32			
				406+00
0	52			
0	26			
0	125			
0	148			
0	135			
0	203			
0	83			
4	111			

1168.38
410+00
1069.8

1160.68
409+00
1062.25

1152.98
408+00

1149.17
407+50
1049.0

1146.26
407+00
1042.6

1124.24
406+50
1039.5

1143.31
406+10
1039.5

1143.17
406+00
1041.5

1143.02
405+81
1039.0

1143.00
405+50
1038.7

1143.25
405+00
1040.5

℄

30 20 10 ℄ 10 20 30

℄ 1065.68
409+65
1066.4
℄ 0

10 x 10 scale.

16'

Sec. Drive

50 100 120

FINAL SURVEY — SURVEYED BY ... PLOTTED ... NOTE BOOK ... PAGE ... No. ... DATE ... BY ...

ORIGINAL SURVEY — SURVEYED BY ... PLOTTED ... NOTE BOOK ... PAGE ... No. ... DATE ... BY ...

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KEUFFEL & ESSER CO., NEW YORK

SEC. - "D"
MILLERSBURG-CHARM Rd.
CLARK. Twp
24/31

End Area C	End Area F	Cu. yd C	Cu. yd F
14	13		
		30	26
19	15		
		42	26
28	13		
		59	19
37	7		
		59	12
28	3		
		36	20
11	18		
		15	46
		413+50	
5	31		
		39	37
37	8		
		52	19
19	12		
		30	30
13	19		
		44	33
30	13		
		61	22
44	13		
		211	32

30 20 10 ℄ 10 20 30

1111.80
416+50
1111.5

1108.89
416+00
1108.7

1105.99
415+50
1106.1

1102.80 1103.20
1103.09
415+00
1103.7

1099.50 1100.80
1100.18
414+50
1100.7

96.45 97.95
1097.20
414+00
1096.87

93.32 94.82
1094.07
413+50
1093.0

90.02 91.52
1090.77
413+00
1091.1

86.55 88.07
1087.32
412+50
1087.1

82.95 84.45
1083.70
412+00
1083.0

79.14 79.88
1079.51
P.C. 411+44.5
1079.5

1076.00 76.20
1076.08
411+00
1076.15

30 20 10 ℄ 10 20 30

End Area C	End Area F	Cu. yd C	Cu. yd F
93	23		
		146	41
65	20		
		76	104
17	91		
		50	109
47	46		
		8	52
0	183		
		13	30
		418+50	
67	10		
		56	19
34	22		
		41	46
		418+50	
10	27		
		15	39
6	15		
		17	18
13	4		
		20	8
10	4		
		22	18

30 20 10 ℄ 10 20 30

40.50 42.00
1141.00
421+00
1142.3

37.00 38.50
1137.50
420+50
1138.3

33.50 35.00
1134.00
420+00
1132.2

30.50 32.00
1131.00
419+57
1130.3

29.65 31.00
1130.15
419+45
1125.7

28.60 29.70
1129.10
419+30
1130.2

26.50 27.50
1127.00
419+00
1126.7

23.25 24.25
1123.75
418+50
1123.1

20.10 21.00
1120.59
418+00
1120.2

17.10 18.10
1117.60
417+50
1117.8

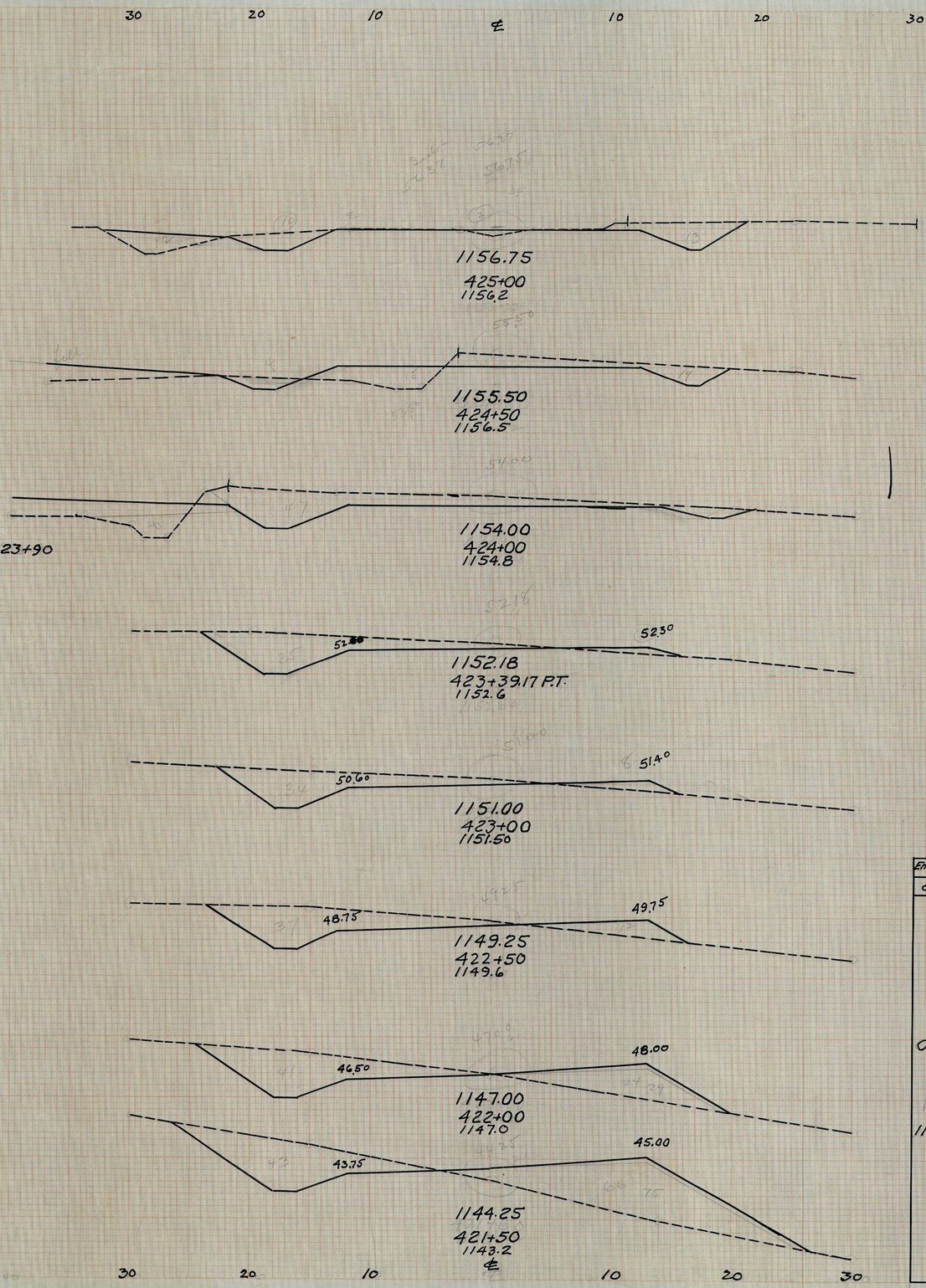
1114.50 1115.00
1114.70
417+00
1114.9

30 20 10 ℄ 10 20 30

FINAL SURVEY PLOTTED PLOTTED TEMPLATE HOTS BOOK AREAS CHECKED SHEET NO. SIZE
ORIGINAL SURVEY PLOTTED PLOTTED TEMPLATE HOTS BOOK AREAS CHECKED SHEET NO. SIZE
PLATTING SECTION C. E. & S. E. R. R. STANDARD
THE F. WESSELL CO., NEW YORK
27419
27363
56

SEC.-"D"
MILLERSBURG-CHARM Rd. (25/31)
CLARK Twp.

End Area C	End Area F	Cu yd C	Cu yd F	
23	12			
		43	38	
Waste			21	
23	30			
		65	46	
47	20			
		12		423+90
		82	26	
35	3			
		50	8	
34	8			
		65	19	
37	12			
		72	39	
41	29			
		78	98	
43	75			
		126	91	



End Area C	End Area F	Cu yd C	Cu yd F	
0	0			
		6	4	
Waste			21	
11	6			
		3	18	

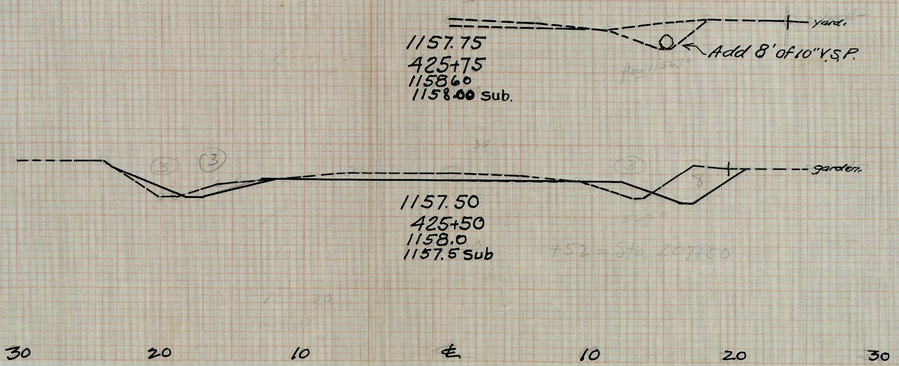


PLATE 3 — CROSS SECTION