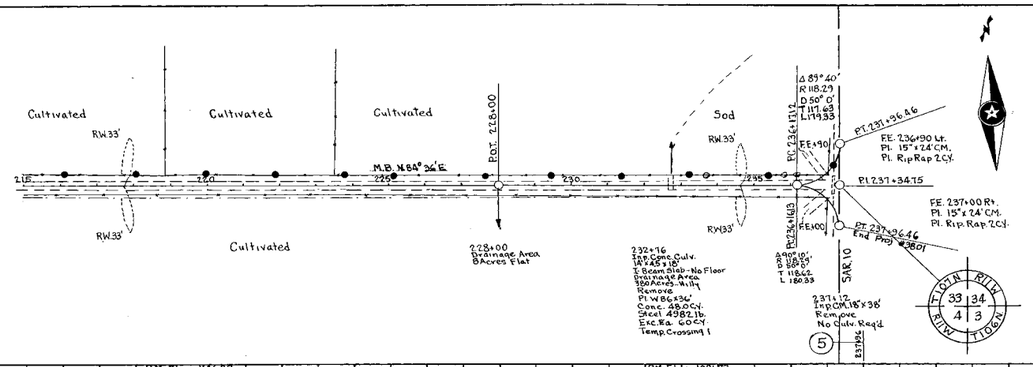
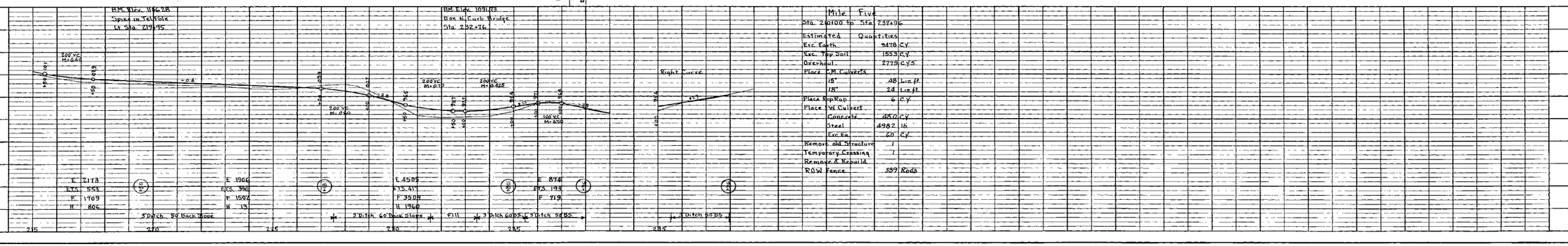




Mile Five

Sta. 210+00 to Sta. 237+96

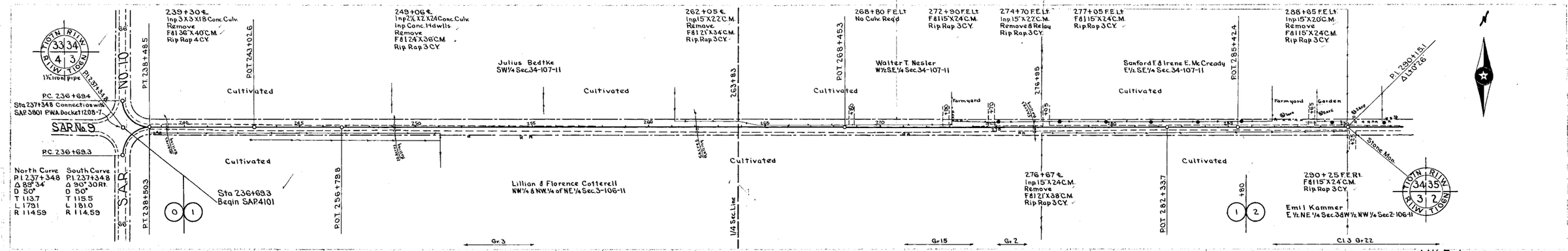
Estimated Quantities		
Exc. Earth	9478	C.Y.
Exc. Top Soil	1555	C.Y.
Overhaul	2779	C.Y.S.
Place C.M. Culverts		
15"	48	Lin. ft.
18"	24	Lin. ft.
Place Rip Rap	6	C.Y.
Place R.C. Culvert		
Concrete	450	C.Y.
Steel	4982	lb.
Exc. Ea.	60	C.Y.
Remove old Structure	1	
Temporary Crossing	1	
Remove & Rebuild		
R.O.W. Fence	339	Rods

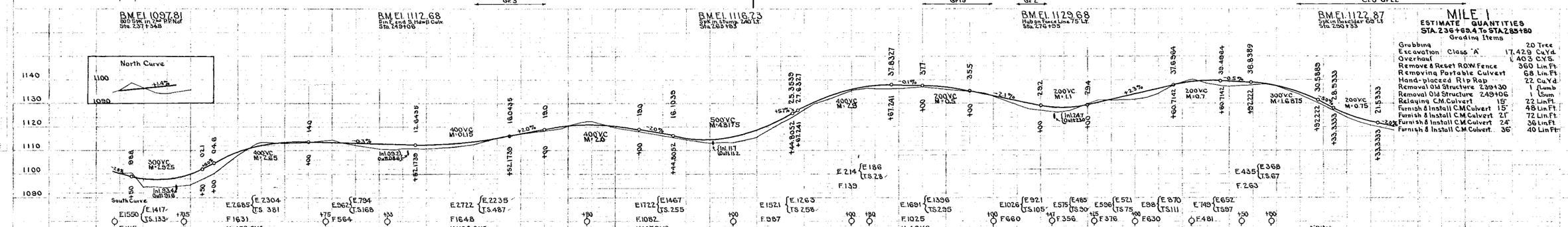
PLAN
SURVEYED
PLOTTED
NOTE BOOK
NO.
ALIGNMENT CHECKED
PROF. OF VAL CHECKED
DATE
BY

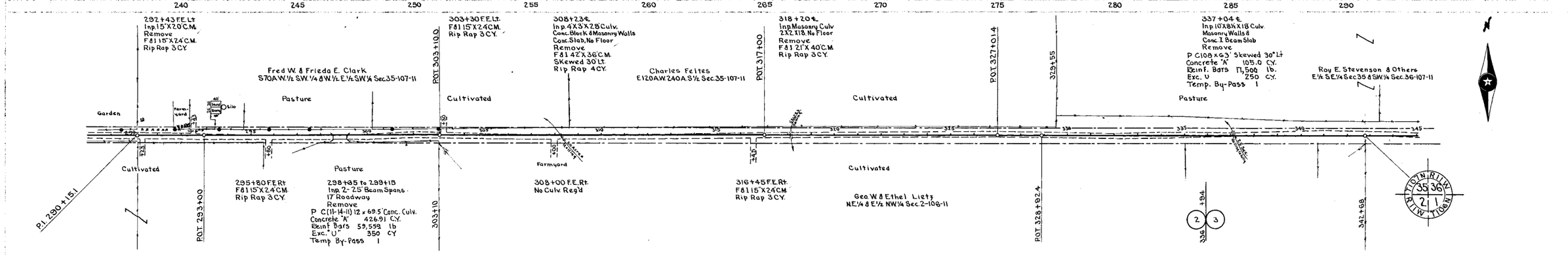
PROFILE
SURVEYED
PLOTTED
NOTE BOOK
NO.
GRADES CHECKED
MATERIAL
STRUCTURE NOTATNS CHCK.
DATE
BY

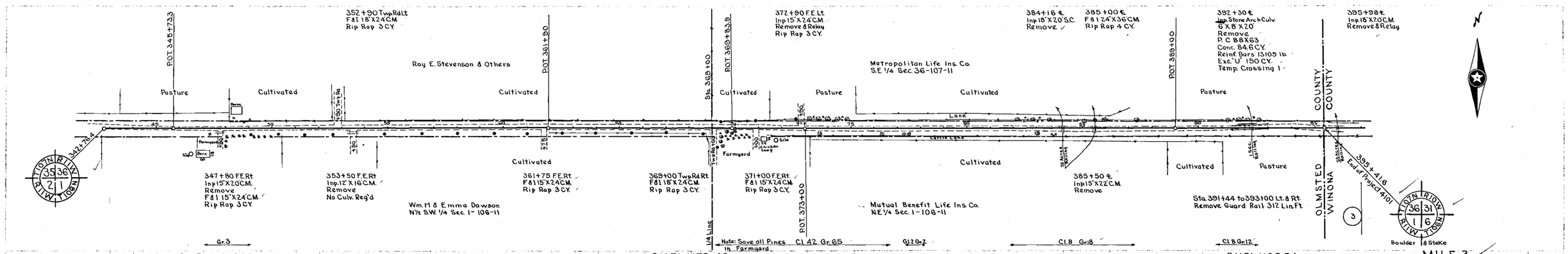
PLATE 2 - PLAN PROFILE C. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO. NEW YORK.

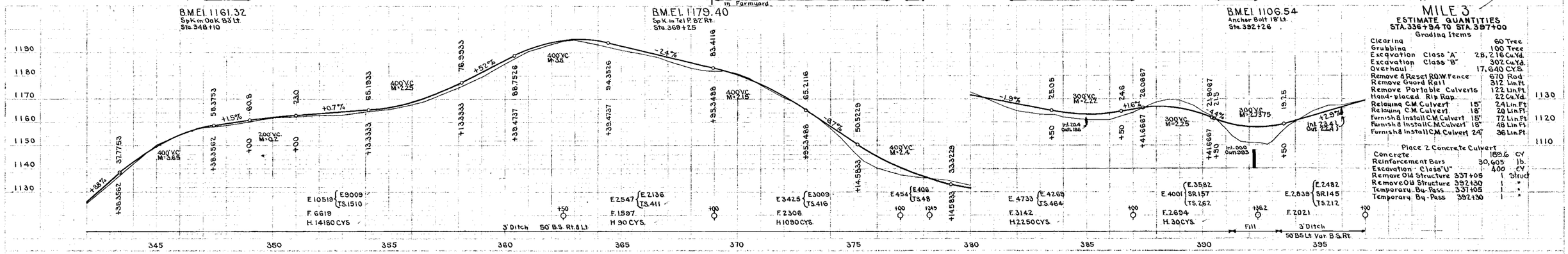
OLMSTED COUNTY. MINN. JOB NO. 3801 PLAN NO 55-186 Sheet No. 5 of 27 Sheets


2.39+30 ℄
Inp 3'X3'X18' Conc. Culv.
Remove
F 8 136 X 40 C.M.
Rip Rap 4 C.Y.
2.49+06 ℄
Inp 2'X 2'X 24' Conc. Culv.
Inp Conc. Hdwlls
Remove
F 8 124 X 36 C.M.
Rip Rap 3 C.Y.
2.62+05 ℄
Inp 15"X 22' C.M.
Remove
F 8 12" X 34 C.M.
Rip Rap 3 C.Y.
2.68+80 F.E. Lt
No Culv. Req'd
2.72+90 F.E. Lt
F 8 15" X 24 C.M.
Rip Rap 3 C.Y.
2.74+70 F.E. Lt
Inp 15" X 22' C.M.
Remove & Relay
Rip Rap 3 C.Y.
2.77+05 F.E. Lt
F 8 15" X 24 C.M.
Rip Rap 3 C.Y.
2.88+65 F.E. Lt
Inp 15" X 20' C.M.
Remove
F 8 15" X 24 C.M.
Rip Rap 3 C.Y.
T 10N R 11W T 10N R 11W
33 34 4 3
1½ Steel pipe
P.I. 237+34.8
PC. 236+69.4
Sta 237+348 Connection with SAP 3801 PWA Docket 11208-7
SAR No. 9
NO. 10
P.T. 238+48.5
P.T. 238+50.3
P.O.T. 243+02.6
P.O.T. 256+79.8
P.O.T. 263+83
P.O.T. 268+45.3
P.O.T. 276+19.5
P.O.T. 285+42.4
P.O.T. 282+33.7
Julius Bedtke
SW¼ Sec. 34-107-11
Walter T. Nesler
W½ SE¼ Sec. 34-107-11
Sanford F. & Irene E. McCready
E½ SE¼ Sec. 34-107-11
Lillian & Florence Cotterell
NW¼ & NW¼ of NE¼ Sec. 3-106-11
Emil Kammer
E½ NE¼ Sec. 34 W½ NW¼ Sec. 2-106-11
Cultivated
Farmyard
Garden
Stone Mon.
Sta 236+69.3
Begin SAP 4101
North Curve
P.I. 237+34.8
Δ 89°34'
D 50°
T 113.7
L 179.1
R 114.59
South Curve
P.I. 237+34.8
Δ 90°30'Rt.
D 50°
T 115.5
L 181.0
R 114.59
P.I. 290+15.1
Δ 130°26'
2.76+67 ℄
Inp 15" X 24' C.M.
Remove
F 8 12" X 38 C.M.
Rip Rap 3 C.Y.
2.90+25 F.E. Rt.
F 8 15" X 24' C.M.
Rip Rap 3 C.Y.
T 10N R 11W T 10N R 11W
34 35 3 2
Gr 3
Gr 15
Gr 2
Cl 3 Gr 22


B.M. El. 1097.81
60.0 S.P.K. in 24" P.P. No. 1
Sta. 237+348
B.M. El. 1112.68
Bm. E. end St. Hdwll. Culv.
Sta. 249+106
B.M. El. 1116.73
S.P.K. in Stump 2.40 Lt.
Sta. 265+83.3
B.M. El. 1129.68
Hub on Fence Line 7.5 Lt.
Sta. 276+05.5
B.M. El. 1122.87
S.P.K. in Post-Liner 6.6 Lt.
Sta. 290+33
North Curve
South Curve
1140
1130
1120
1110
1100
1090
1080
1070
1060
1050
+1.47%
-0.33%
-2.07%
-2.17%
-0.1%
+2.37%
-0.5%
-2.0%
-100.0%
+2.57%
-3.77%
+3.77%
-0.9%
+3.9%
-2.0%
E.1550 {E.1417 T.S.133
F.1115
E.2685 {E.2304 T.S. 381
F.1631
H. 152 CY.S.
E.2962 {E.784 T.S.168
F.564
E.2722 {E.2235 T.S.487
F.1648
H.1100 CY.S.
E.1722 {E.1467 T.S. 255
F.1082
H.147 CY.S.
E.1521 {E.1263 T.S. 258
F.987
E.1691 {E.1396 T.S. 295
F.1025
H. 4 CY.S.
E.1026 {E.921 T.S.105
F.660
E.575 {E.485 T.S. 30
F.356
E.596 {E.521 T.S. 75
F.376
E.98 {E.870 T.S. 111
F.630
E.749 {E.652 T.S. 97
F.481
E.214 {E.186 T.S. 28
F.139
E.435 {E.368 T.S. 67
F.263
3' Ditch
Fill
3' Ditch 50' B.S. Rt. & Lt.
3' Ditch 50' B.S. Rt & Lt
3' Ditch 50' B.S. Rt.
S. Ditch 40' B.S. Lt.
50' B.S. Rt.
MILE 1
ESTIMATE QUANTITIES
STA. 236+69.4 To STA. 285+80
Grading Items
Grubbing 20 Tree
Excavation Class 'A' 17,429 Cu.Yd.
Overhaul 1,403 C.Y.S.
Remove & Reset R.O.W. Fence 360 Lin. Ft.
Removing Portable Culvert 68 Lin. Ft.
Hand-placed Rip Rap 22 Cu.Yd.
Removal Old Structure 239+30 1 Lumb
Removal Old Structure 249+06 1 Sum
Relaying C.M. Culvert 15" 22 Lin. Ft.
Furnish & Install C.M. Culvert 15" 48 Lin. Ft.
Furnish & Install C.M. Culvert 21" 72 Lin. Ft.
Furnish & Install C.M. Culvert 24" 36 Lin. Ft.
Furnish & Install C.M. Culvert 36" 40 Lin. Ft.


3.03+30 F.E. Lt
Inp 4'X3'X 28' Culv.
Conc. Block & Masonry Walls
Conc. Slab, No Floor
Remove
F 8 142 X 36 C.M.
Skewed 30° Lt.
Rip Rap 4 C.Y.
3.08+23 ℄
Inp 4'X3'X 28' Culv.
Conc. Block & Masonry Walls
Conc. Slab, No Floor
Remove
F 8 142 X 36 C.M.
Skewed 30° Lt.
Rip Rap 4 C.Y.
3.18+20 ℄
Inp Masonry Culv
2'X2.X18. No Floor
Remove
F 8 121 X 40 C.M.
Rip Rap 3 C.Y.
3.37+04 ℄
Inp 10'X8'X18' Culv.
Masonry Walls &
Conc. I Beam Slab
Remove
P.C. 108 x 63' Skewed 30° Lt
Concrete 'A' 105.0 C.Y.
Reinf. Bars 11,500 lb.
Exc. U 250 C.Y.
Temp. By-Pass 1
2.92+43 F.E. Lt
Inp 15"X 20' C.M.
Remove
F 8 115" X 24' C.M.
Rip Rap 3 C.Y.
2.95+80 F.E. Rt
F 8 115" X 24' C.M.
Rip Rap 3 C.Y.
2.98+85 to 2.99+15
Inp. 2-25' Beam Spans
17' Roadway
Remove
P C (11-14-11) 12 x 69.5' Conc. Culv.
Concrete 'A' 426.91 C.Y.
Reinf Bars 59,559 lb
Exc. "U" 350 CY
Temp By-Pass 1
3.08+00 F.E. Rt.
No Culv. Req'd
3.16+45 F.E. Rt.
F 8 115" X 24' C.M.
Rip Rap 3 C.Y.
3.42+68
Fred W. & Frieda E. Clark
S 70 A W ½ S.W. ¼ & W ½ E ½ S.W. ¼ Sec. 35-107-11
Charles Feltes
E 120 A W 240 A S ½ Sec. 35-107-11
Geo. W. & Ethel Lietz
NE¼ & E½ NW¼ Sec. 2-106-11
Roy E. Stevenson & Others
E½ SE¼ Sec 36 & SW¼ Sec. 36-107-11
Pasture
Cultivated
Farmyard
Garden
Silo
Septic Tank
Sta. 336+94
P.I. 290+15.1
P.O.T. 293+00
P.O.T. 303+10
P.O.T. 317+00
P.O.T. 327+01.4
P.O.T. 328+92.4
T 10N R 11W T 10N R 11W
35 36 2 1
B.M. El. 1056.97
Top Angle Iron N.E. Cor. of Bridge Sta. 295+15
B.M. El. 1078.83
S.P.K. in Root of 18" White Oak Tr. Sta. 308+18
B.M. El. 1103.98
S.P.K. in P.P. 88' Rt. of Sta. 315+40
B.M. El. 1143.29
S.P.K. in P.P. 121' Lt. of Sta. 328+55
B.M. El. 1087.11
Dim. W. end N. Cor. of Culv. 16' Lt. Sta. 336+93
1120
1110
1100
1090
1080
1070
1060
1050
-2.0%
+3.33%
+82.15'
300' VC M=3.0
0.55
+82.5
-100.0%
78.8
400' VC M=8.25
63.8
+2.57%
89.35
300' VC M=0.45
80.05
+3.77%
07.85
300' VC M=0.6375
400' VC M=1.75
32.43
34.75
900' VC M=15.1875
23.5
-3.0%
0.6905
400' VC M=.84
02.2305
+3.9%
E.7033 {E.6229 T.S. 804
F. 5033
H 3213 C.Y.S.
E.5751 {E.4015 SR. 1498 T.S. 238
F.4572
E.2386 {E.1994 SR. 210 T.S. 182
F. 1821
E.5838 {E.5514 T.S. 324
F.4439
H. 2110 C.Y.S.
E.1233 {E.1149 T.S. 84
F. 936
E.822 {E.7710 T.S. 511
F.6194
H. 17180 C.Y.S.
E.3908 {E.3557 T.S. 351
F.2745
H. 349 C.Y.S.
3' Ditch
50' B.S. Rt & Lt.
50 B.S. Rt.
Var. B.S. Lt.
50' B.S. Rt & Lt.
Lt. & Rt.
Fill
3' D. 50' B.S. Lt.
Var. B.S. Rt.
3' Ditch to Fill Lt.
Sp. Ditch Lt.
Var. B.S. Lt.-Fill Rt.
Fill Rt. & Lt.
Var. B.S. Lt. & Rt.
3' Ditch 50' B.S. Lt. & Rt.
50' B.S. Lt. & Rt.
3' D. Var. B.S. Rt.
Fill Lt.
Lt. & Rt.
MILE 2
ESTIMATE QUANTITIES
STA. 285+80 TO STA. 336+94
Grading Items
Clearing 3 Tree
Grubbing 22 Tree
Excavation Class 'A' 32,662 Cu.Yd.
Excavation Class 'B' 1708 Cu.Yd.
Overhaul 22,843 C.Y.S.
Remove & Reset R.O.W. Fence 420 Rod
Removing Portable Culvert 40 Lin. Ft.
Hand-placed Rip Rap 25 Cu.Yd.
Removal Old Structure 308+23 1 Jump
Removal Old Structure 318+20 1 Sum
Furnish & Install C.M. Culvert 15" 144 Lin. Ft.
Furnish & Install C.M. Culvert 21" 52 Lin. Ft.
Furnish & Install C.M. Culvert 42" 52 Lin. Ft.
Place 1 Concrete Culvert
Concrete 426.91 C.Y.
Reinforcement Bars 59,559 lb.
Excavation Class 'U' 350. C.Y.
Remove Old Structure 298+85 1 Struct
Temporary By-Pass 298+85 1 BY-Pass





MILE 3
ESTIMATE QUANTITIES
STA. 336+94 TO STA. 397+00

Grading Items

Clearing	60	Tree
Grubbing	100	Tree
Excavation Class "A"	28,216	Cu. Yd.
Excavation Class "B"	302	Cu. Yd.
Overhaul	17,640	C.Y.S.
Remove & Reset R.O.W. Fence	670	Rod
Remove Guard Rail	312	Lin. Ft.
Remove Portable Culverts	122	Lin. Ft.
Hand-placed Rip Rap	22	Cu. Yd.
Relaying C.M. Culvert 15"	24	Lin. Ft.
Relaying C.M. Culvert 18"	20	Lin. Ft.
Furnish & Install C.M. Culvert 15"	72	Lin. Ft.
Furnish & Install C.M. Culvert 18"	48	Lin. Ft.
Furnish & Install C.M. Culvert 24"	36	Lin. Ft.

Place 2 Concrete Culvert

Concrete	189.6	C.Y.
Reinforcement Bars	30,605	lb.
Excavation - Class "U"	400	C.Y.
Remove Old Structure 337+05	1	Struct.
Remove Old Structure 392+30	1	"
Temporary By-Pass 337+05	1	"
Temporary By-Pass 392+30	1	"