FORM 129 A

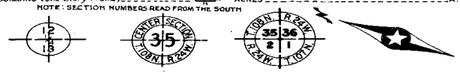
## Conventional Signs

STATE LINE
COUNTY LINE
TWP OR RANGE LINE
SECTION LINE
RIGHT OF WAY LINE
CORPORATE OR CITY LIMITS
ROAD CENTER LINE
RETAINING WALL
RAILROADS
CREEK
DRY RUN
DRAINAGE DITCH
POWER POLE LINE
TELEPHONE OR TELEGRAPH LINE
CULVERTS - PLAIN
WITH ENDWALLS
WITH WINGWALLS
DROP INLET
FENCE LINE
GRAVEL PIT
SAND PIT
CLAY PIT
ROCK QUARRY
SPRINGS
MARSH
BRUSH OR TIMBER
HEDGE
ROCK LEDGE
SAND
EDGE OF CUT
TOE OF EMBANKMENT
RAILROAD R/W LINE
BUILDING (One Story Frame)

NOTE: SECTION NUMBERS READ FROM THE SOUTH

## Abbreviations

| | |
|---|---|
| EXCAVATION | EXC. |
| EARTH | E. |
| LOOSE ROCK | L.R. |
| SOLID ROCK | S.R. |
| EMBANKMENT | F. |
| OVERHAUL | H. |
| SURFACING | S. |
| HAND DITCHING | H.D. |
| SPECIAL EXCAVATION | S.E. |
| SPECIAL PLOWING | S.P. |
| GUARD RAIL | G.R. |
| CORRUGATED METAL CULVERT | C.M.CULV. |
| SECTIONAL CONCRETE CULVERT | R.CULV. |
| SECTIONAL CONCRETE CULVERT (Heavy Type) | R.CULV. |
| TON MILES | T.M. |
| TELEPHONE POLE | TEL.P. |
| POWER POLE | P.P. |
| PLACE | P. |
| IN PLACE | INP. |
| REPLACE | REP. |
| RIGHT | RT. |
| LEFT | LT. |
| INTERSECTION ANGLE | Δ |
| RADIUS | R. |
| TANGENT | T. |
| LENGTH OF CURVE | L. |
| POINT OF CURVE | P.C. |
| POINT OF TANGENT | P.T. |
| POINT OF INTERSECTION | P.I. |
| VERTICAL CURVE | V.C. |
| BENCH MARK | B.M. |
| ELEVATION | EL. |
| ACRES | A. |




# STATE OF MINNESOTA
# DEPARTMENT OF HIGHWAYS
## Plan and Profile of State Road No. .....
## OLMSTED COUNTY

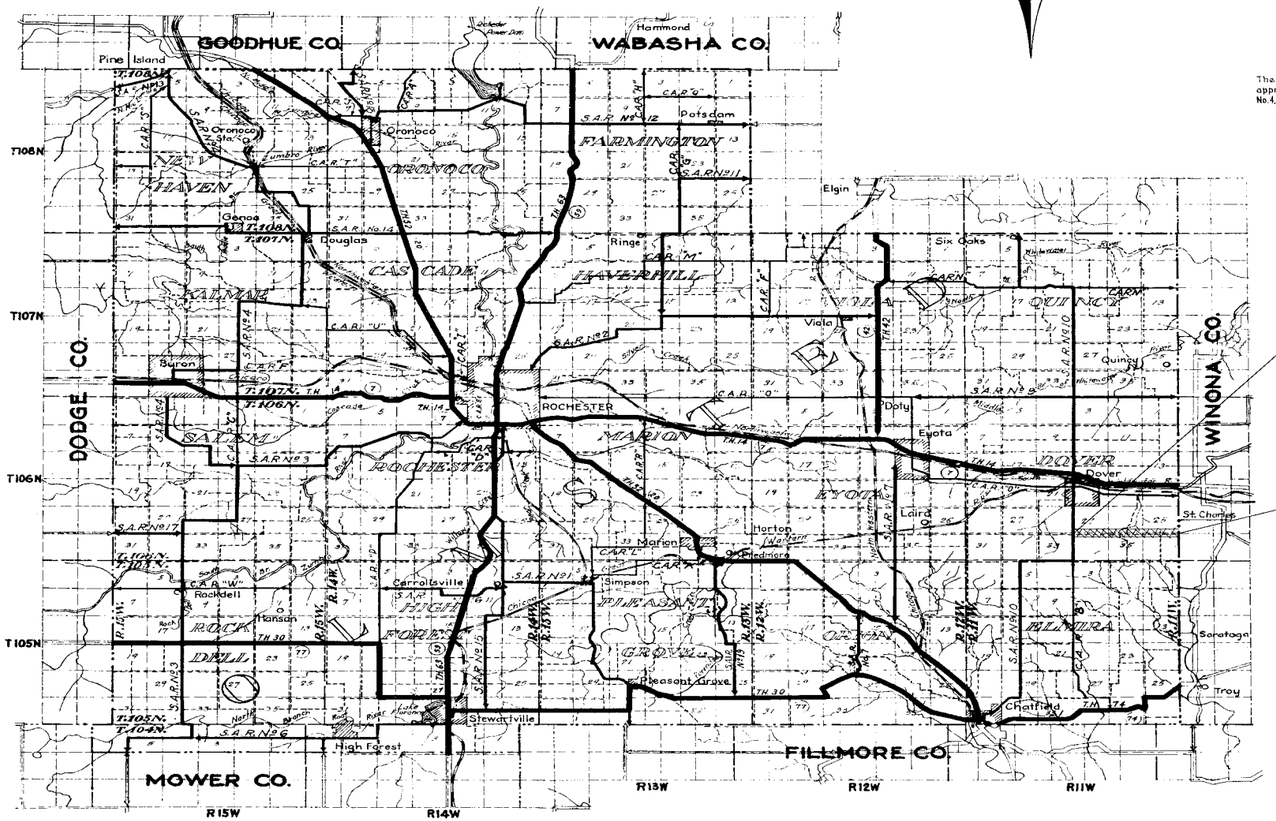
**From** S.W.Cor. Sec. 27 - T106N - R.11W **To** S.E.Cor. Sec. 25 - T106N - R.11W.
Give proper reference to Sections, Township and Range

GROSS LENGTH - 15.875.0 FEET 3.007 MILES
LENGTH OF EXCEPTIONS - 0 FEET 0 MILES
NET LENGTH 15.875.0 FEET 3.007 MILES

SCALES
PLAN. 1 Inch = 200 Feet
PROFILE. Horz. 1 Inch = 200 Feet. Vert. 1 Inch = 20 Feet
WORKING PLANS Horz. 1 Inch = 100 Feet
Vert. 1 Inch = 10 Feet
Cross-Section. 1 Inch = Feet

LAYOUT
Scale. 1 Inch = 10560 Feet

The "Specification for Highway Constructions" dated July 1, 1938 and Supplement No 3, approved by the Public Roads Administration Nov. 15, 1939, as modified by Supplement No.4, dated March 1, 1940, shall govern.




Begin Sta. 0+00.0

End Sta. 158+75.0

### INDEX OF SHEETS


Sheet No. 1. Title Sheet and Layout Map
" No. 2. Typical Cross-Sections and Statement
" No. 3. Plan and Profile. Sta. 0+00 to Sta. 105+92.8
" No. 4. " " " Sta. 105+92.8 to Sta. 161+50
" No.5 to 21 Cross Sections Sta. 0+00 to Sta. 161+50


Planned By .....

HIGHWAY ENGINEER FOR OLMSTED COUNTY.

Recommended for Approval .....
DISTRICT ENGINEER

Recommended for Approval .....
ENGINEER OF SURVEYS AND DESIGN

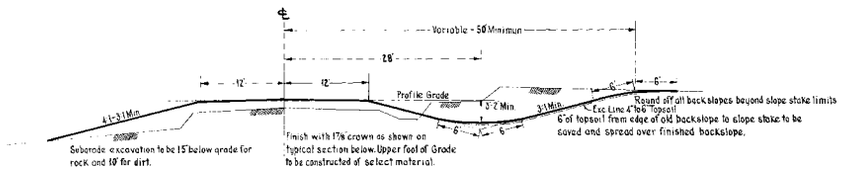
Approved ..... 19 ....
CHIEF ENGINEER & DEPUTY COMMISSIONER

Olmsted County, Minnesota. County Proj. No. Plan No. Sheet 1 of 21 Sheets

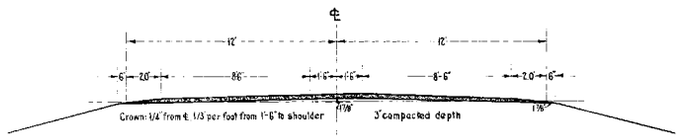
## ESTIMATED QUANTITIES

| | SPECIFICATION NO. | ITEM | UNIT | MILE 1 | MILE 2 | MILE 3 | | TOTAL ESTIMATED QUANTITIES | UNIT PRICE | AMOUNT | TOTALS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| GRADING | 2104.4A2 | Clearing | Tree | | | | | | | | |
| | 2102.4B | Grubbing | Tree | | | | | | | | |
| | 2105.4A | Excavation Class "A" | Cu.Yd. | | | | | | | | |
| | 2105.4B | Excavation Class "B" | Cu.Yd. | | | | | | | | |
| | 2114.3A | Overhaul | Cu.Yd.Sta. | | | | | | | | |
| | 2103.4 | Removing Portable Culverts | Lin.Ft. | | | | | | | | |
| | 2503.5 | Hand Placed Rip Rap | Cu.Yd. | | | | | | | | |
| | 101 | Remove & Reset R.O.W. Fence | Rod | | | | | | | | |
| | 2418.5E15 | Relaying C.M. Pipe Culvert 15" | Lin.Ft. | | | | | | | | |
| | 2418.5015 | Installing C.M. Pipe Culvert 15" | Lin.Ft. | | | | | | | | |
| | 2418.5018 | Installing C.M. Pipe Culvert 18" | Lin.Ft. | | | | | | | | |
| | 2418.5024 | Installing C.M. Pipe Culvert 24" | Lin.Ft. | | | | | | | | |
| | 2418.5030 | Installing C.M. Pipe Culvert 30" | Lin.Ft. | | | | | | | | |
| | 2418.5042 | Installing C.M. Pipe Culvert 42" | Lin.Ft. | | | | | | | | |
| | 2418.5D30 | Installing Deformed C.M. Culvert 30" | Lin.Ft. | | | | | | | | |
| | 2418.5D36 | Installing Deformed C.M. Culvert 36" | Lin.Ft. | | | | | | | | |
| C.M. CULVERT MATERIAL | 3226.3A | Pure Iron C.M. Pipe Culvert 15" | Lin.Ft. | | | | | | | | |
| | 3226.3A | Pure Iron C.M. Pipe Culvert 18" | Lin.Ft. | | | | | | | | |
| | 3226.3A | Pure Iron C.M. Pipe Culvert 24" | Lin.Ft. | | | | | | | | |
| | 3226.3A | Pure Iron C.M. Pipe Culvert 30" | Lin.Ft. | | | | | | | | |
| | 3226.3A | Pure Iron C.M. Pipe Culvert 42" | Lin.Ft. | | | | | | | | |
| | 3226.3A | Pure Iron Deformed C.M. Pipe Culvert 30" | Lin.Ft. | | | | | | | | |
| | 3226.3A | Pure Iron Deformed C.M. Pipe Culvert 36" | Lin.Ft. | | | | | | | | |
| CONC. BOX CULVERTS | 2121.5E | Excavation for Structures Class "U" | Cu.Yd. | | | | | | | | |
| | 2401.5B | Concrete Grade A | Cu.Yd. | | | | | | | | |
| | 2408.5A | Reinforcement Bars | Lb. | | | | | | | | |
| | 2425.5A | Removal of Old Structure Sta. 16+03 | Lump Sum | | | | | | | | |
| | 2425.5A | Removal of Old Structure Sta. 63+98 | Lump Sum | | | | | | | | |
| | 2425.5A | Removal of Old Structure Sta. 100+40 | Lump Sum | | | | | | | | |
| | 2424.5A | Temporary By Pass Sta. 16+03 | Lump Sum | | | | | | | | |
| | 2424.5A | Temporary By Pass Sta. 61+48 | Lump Sum | | | | | | | | |
| | 2424.5A | Temporary By Pass Sta. 100+40 | Lump Sum | | | | | | | | |
| CRUSHED ROCK WEARING COURSE | 2302.5A | Crushed Rock | Cu.Yd. | | | | | | | | |
| | 2302.5B | Shaping Roadbed & Maintaining Subgrade | Motor Grader Hr. | | | | | | | | |
| | 2302.5C | Maintaining Completed Work | | | | | | | | | |

## TYPICAL GRADING SECTION




## TYPICAL SECTION FOR FINISHED GRADE AND CRUSHED ROCK WEARING COURSE

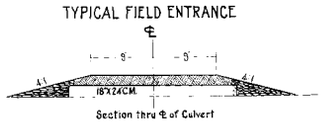



CONSTRUCTION DETAILS ℄ CRUSHED ROCK WEARING COURSE

| | STA. TO STA. | NO OF STATIONS | WIDTH | DEPTH | QUANT. PER STATION TONS | QUANT. PER STATION CUYDS. | ESTIMATED QUANTITIES TONS | ESTIMATED QUANTITIES CUYDS. |
|---|---|---|---|---|---|---|---|---|
| MILES 1703 | | | | | | | | |
| Field Entrances | | | | | | | | |
| | | | | | | TOTALS | | |

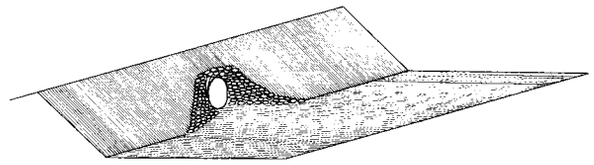
Note: Crushed Rock quantities computed on basis of 120 lbs per cu.ft. compacted and 100 lbs. per cu.ft. loose

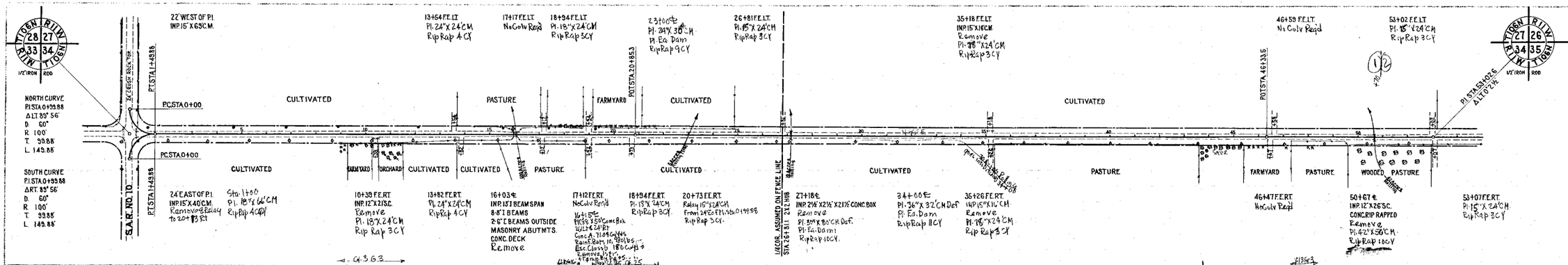
## TYPICAL FIELD ENTRANCE

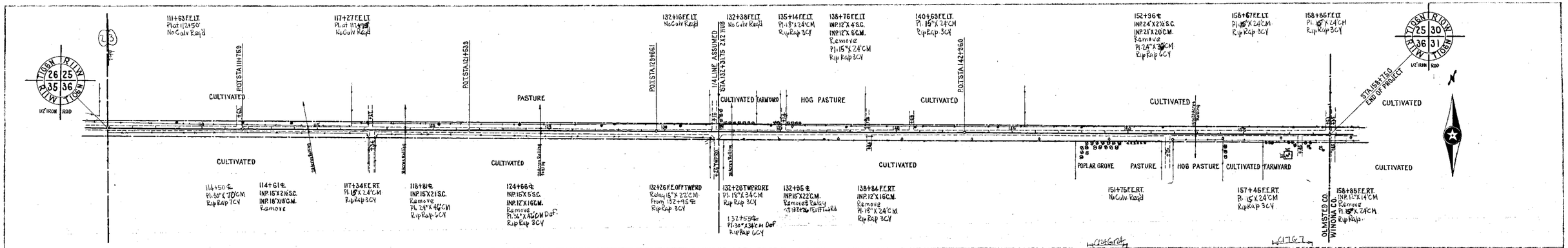


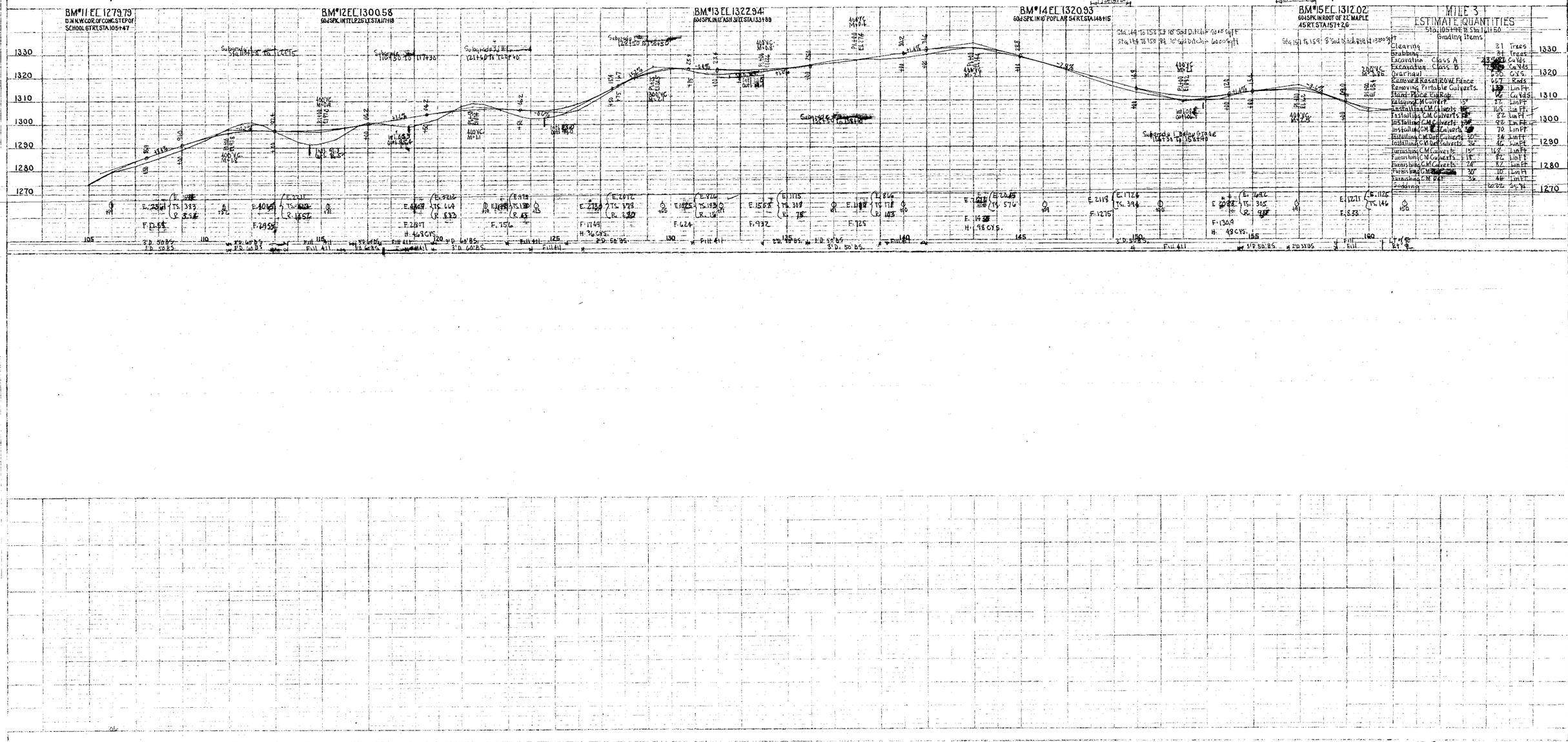
Section thru ℄ of Culvert

## RIP RAP CULVERT ENDS




T109N R19W
28 27 33 34
1/2" IRON ROD
NORTH CURVE
P.I. STA 0+99.88
Δ LT 39° 56'
D 60°
R 100'
T 39.88
L 149.88
SOUTH CURVE
P.I. STA 0+99.88
Δ RT 39° 56'
D 60°
R 100'
T 39.88
L 149.88
S.A.R. NO. 10
P.C. STA 0+00
P.T. STA 1+49.88
22' WEST OF P.I. IN P 15" X 6" S.C.M.
24' EAST OF P.I. IN P 15" X 40" C.M. Remove & Reloy to 20+83 ℄ Sta. 1+90 P.I. 18" X 66" C.M. Rip Rap 40 CY
CULTIVATED
FARMYARD
ORCHARD
PASTURE
13+54 F.E. LT. P.I. 24" X 24" C.M. Rip Rap 4 CY
17+17 F.E. LT. No Galv Read
18+94 F.E. LT. P.I. 18" X 24" C.M. Rip Rap 5 CY
23+00 ℄ P.I. 24" X 30" C.M. P.I. Ea. Dam Rip Rap 9 CY
26+81 F.E. LT. P.I. 15" X 24" C.M. Rip Rap 3 CY
POT STA. 20+16.53
35+18 F.E. LT. IN P 15" X 16" C.M. Remove P.I. 18" X 24" C.M. Rip Rap 3 CY
POT STA. 46+33.45
46+59 F.E. LT. No Galv Read
53+02 F.E. LT. P.I. 15" X 24" C.M. Rip Rap 3 CY
T109N R19W
27 26 34 35
1/2" IRON ROD
P.I. STA 53+02.6 Δ LT 0.2°
N
T109N R19W
33 34
1/2" IRON ROD
P.T. STA 1+48.88
P.C. STA 0+00
P.T. STA 1+48.88
24' CEDAR POST
24' CEDAR POST
10+39 F.E. RT. IN P 12" X 21 S.C. Remove P.I. 18" X 24" C.M. Rip Rap 3 CY
13+82 F.E. RT. P.I. 24" X 24" C.M. Rip Rap 4 CY
16+03 ℄ IN P 13 I BEAM SPAN 8-8" I BEAMS 26' E BEAMS OUTSIDE MASONRY ABUTMTS. CONC. DECK Remove
17+12 F.E. RT. No Galv Read
18+94 F.E. RT. P.I. 18" X 24" C.M. Rip Rap 3 CY.
20+73 F.E. RT. Raley 15" X 24" C.M. From 24 E of P.I. Sta. 0+99.88 Rip Rap 3 CY.
27+18 ℄ IN P 21½" X 21½" CONC. BOX Remove P.I. 36" X 32" C.M. Def. P.I. Ea. Dam Rip Rap 11 CY.
34+00 ℄ P.I. 36" X 32" C.M. Def. P.I. Ea. Dam Rip Rap 11 CY.
35+26 F.E. RT. IN P 15" X 16" C.M. Remove P.I. 18" X 24" C.M. Rip Rap 3 CY
46+47 F.E. RT. No Galv Read
50+67 ℄ IN P 12" X 26" S.C. CONC RIP RAPPED Remove P.I. 42" X 56" C.M. Rip Rap 10 CY
53+07 F.E. RT. P.I. 15" X 24" C.M. Rip Rap 3 CY
VALLEY, ASSUMED ON FENCE LINE STA 26+91.1 21.2 RT
PASTURE
CULTIVATED
FARMYARD
ORCHARD
WOODED PASTURE
Ditch Grade
Ditch Grade
Ditch Grade




OLMSTED COUNTY, MINN. JOB NO. Z-48-C PLAN NO. Sheet No. 5 of 21 Sheets

Now designated as CSAH #29.