FORM 100-A '65

PLANS SYMBOLS

STATE LINE
COUNTY LINE
TOWNSHIP OR RANGE LINE
SECTION LINE
QUARTER LINE
SIXTEENTH LINE
RIGHT OF WAY LINE
PRESENT RIGHT-OF-WAY LINE
CONTROL OF ACCESS LINE
PROPERTY LINE (Except Land Lines)
VACATED PLATTED PROPERTY
CORPORATE OR CITY LIMITS
TRUNK HIGHWAY CENTER LINE
RETAINING WALL
RAILROAD
RAILROAD RIGHT-OF-WAY LINE
RIVER OR CREEK (NAME)
DRY RUN
DRAINAGE DITCH (SIZE)
DRAIN TILE
CULVERT
DROP INLET
GUARD RAIL
BARBED WIRE FENCE
WOVEN WIRE FENCE
CHAIN LINK FENCE (C-L)
RAILROAD SNOW FENCE
STONE WALL OR FENCE
HEDGE
RAILROAD CROSSING SIGN
RAILROAD CROSSING BELL
ELECTRIC WARNING SIGN
CROSSING GATE
MEANDER CORNER
SPRINGS
MARSH
TIMBER
ORCHARD
BRUSH
NURSERY
(TIMBER)
CATCH BASIN C.B.
FIRE HYDRANT
CATTLE GUARD
OVERPASS (Highway Over)
UNDERPASS (Highway Under)
BRIDGE
BUILDING (One Story Frame) F.S.P. 75'
F FRAME C-CONCRETE
S STONE T TILE
B BRICK ST-STUCCO
IRON PIPE OR ROD
MONUMENT (STONE, CONCRETE, OR METAL)
WOODEN HUB
GRAVEL PIT (G)
SAND PIT (S)
BORROW PIT (B)
ROCK QUARRY (Q)

UTILITIES SYMBOLS

POWER POLE LINE
TELEPHONE OR TELEGRAPH POLE LINE
JOINT TELEPHONE AND POWER ON POWER POLES
ON TELEPHONE POLES
ANCHOR
STEEL TOWER
STREET LIGHT
PEDESTAL (TELEPHONE CABLE TERMINAL)
GAS MAIN G—G
WATER MAIN W—W
CONDUIT
TELEPHONE CABLE IN CONDUIT T
ELECTRIC CABLE IN CONDUIT P
TELEPHONE MANHOLE T
ELECTRIC MANHOLE P
BURIED TELEPHONE CABLE T-BUR
BURIED ELECTRIC CABLE P-BUR
AERIAL TELEPHONE CABLE T-AE
SEWER, (SANITARY OR STORM)
SEWER MANHOLE

BRIDGE NO. 55520
Sta. 216+80 to Sta. 221+90

EQUATION Sta. 214+34.71 = Sta. 214+41.06

EQUATION Sta. 187+~~43.96~~ 47.73 = Sta. 187+~~29.98~~ 41.30

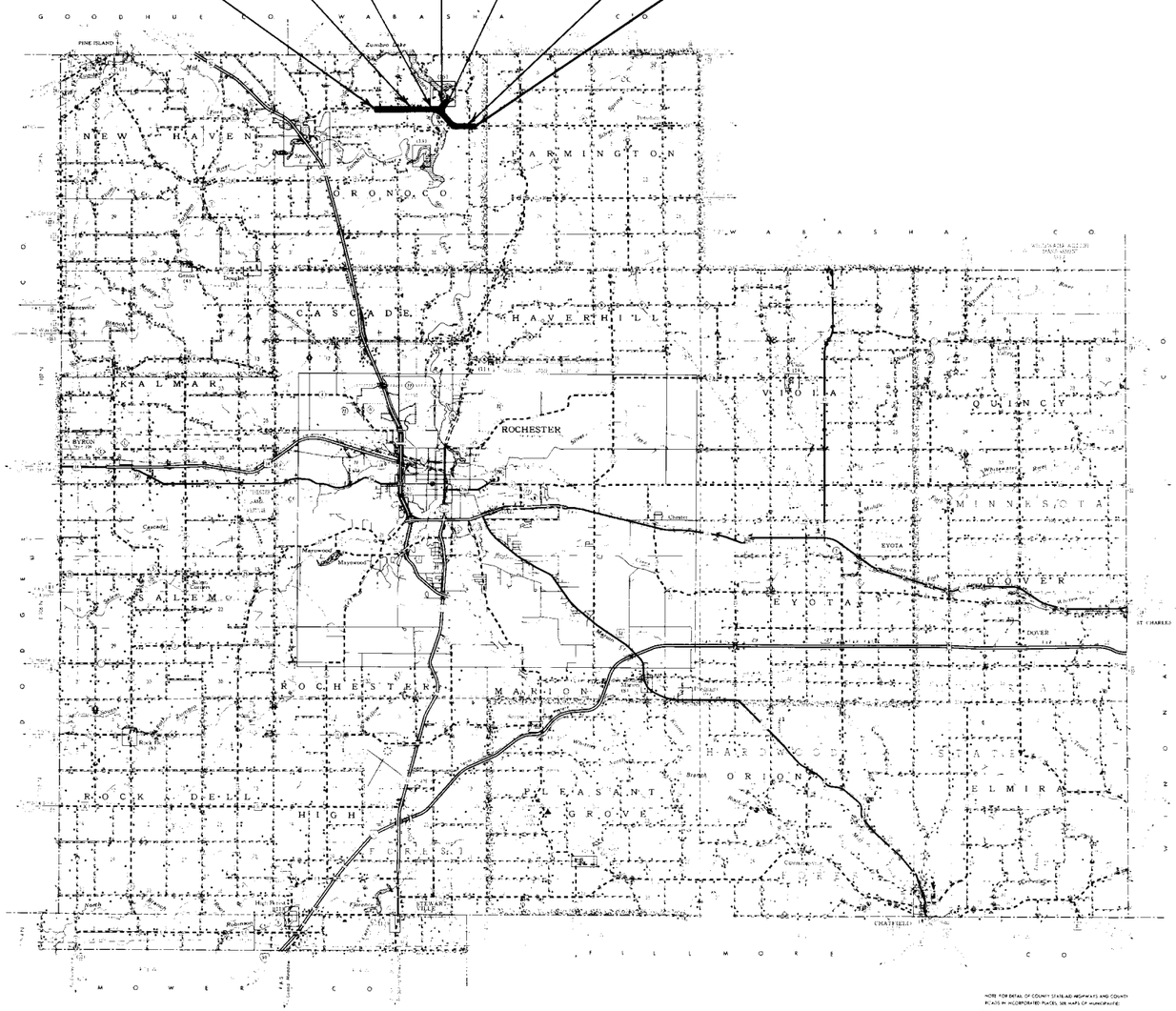
Sta. 225+89.24 = Sta. 225+78.51 EQUATION

Sta. 286+64.64 = Sta. 336+90.90 EQUATION

EXCEPTION

BEGIN S.P. 55-612-04
Sta. 135+00

END S.P. 55-612-04
Sta. 339+00



NOTE FOR DETAIL OF COUNTY STATE AID HIGHWAYS AND COUNTY ROADS IN INCORPORATED PLACES, SEE MAPS OF MUNICIPALITIES.

NOTE: ALL FEATURES EXCEPT TOWNSHIP ROADS AND CULTURE ARE CURRENT AS OF JAN 1 1974.

NOTE: FOR LEGAL DESCRIPTION OF SECTION, TOWNSHIP, RANGE, SEE STANDARD SIGNS MANUAL

- SPECIFICATIONS -

The Minnesota Highway Department "Standard Specifications for Highway Construction" dated January 1, 1972 and supplemental Specifications dated January 2, 1974, shall govern.

Fed. Proj. No. RS 6270 (4)

STATE OF MINNESOTA
DEPARTMENT OF HIGHWAYS

CONSTRUCTION PLAN FOR Grading and Aggregate Base

COUNTY STATE AID HIGHWAY NO. 12

BETWEEN C.R. 127 **AND** 1.25 miles West T.H. 63

From 493.69' West of the E1/4 Cor. Sec. 9 T108N-R14W
Give proper reference to Sections, Township and Range

To 1,166.20' East of the S1/4 Cor. Sec. 12 T108N-R14W

GROSS LENGTH	15,392.09	FEET	2.915 MILES
BRIDGES-LENGTH	496.0 ~~510.00~~	FEET	~~0.096~~ .0093 MILES
EXCEPTIONS-LENGTH	496.0 ~~610.00~~	FEET	~~0.096~~ .0094 MILES
NET LENGTH	~~14,882.09~~ 14,896.09	FEET	~~2.819~~ 2.822 MILES

INDEX OF SHEETS

Sheet No. 1	Title Sheet & Layout Map		
" No. 2	Est. Quantities & Typical Sec.		
" No. 3	To 10	Plan & Profile	
" No. 11	To 66	Cross Sections	

DESIGN SPEED 55 **M. P. H.**

PROJECTED A. D. T. 2,120
PROJECTED HCADT 150-300

9 **TON DESIGN**

SOIL FACTOR 130

ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND ORDINANCES WILL BE COMPLIED WITH IN THE CONSTRUCTION OF THIS PROJECT.

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

W. C. Schellhammer DATE Aug 28 1973
COUNTY ENGINEER

Olmsted COUNTY REG NO. 8284

RECOMMENDED FOR APPROVAL Karl H. Pettersen 8/28 1973
DISTRICT STATE AID ENGINEER

RECOMMENDED FOR APPROVAL Irving J. Solvor 6-5 1974

APPROVED 6/7 1974 Wesley M. Hay
STATE AID ENGINEER

Minn. Project No. _____ S.A.P. 55-612-08
State Project No. 55-612-04

Olmsted County, Minnesota. County Proj. No. _____ **Plan No.** _____ Sheet 1 of 66 Sheets

ALBINSON, INC.
MINNEAPOLIS, MINN. 55415

Twp. Rd. Lt. 139+91
Inpl. 15" X 32' CMP
Remove
18" X 36' C.S. Pipe Culv.
2-18" G.S. Pipe Aprons.

℄ Culv. 143+88
Inpl. 30" X 50' CMP
Remove 146+00 SKEW 35°
Move to Sta. ~~146+00~~
30" X 164' R.C. Pipe Culv. Cl. IV
2-30" R.C. Pipe Culv. Aprons
Place Culv. on "C" Bedding

RES. DR. RT. STA. 145+29
INPL. 15" X 28' CMP
REMOVE
MOVE TO STA. 148+00
30" X 72' C.S. PIPE
2-30" METAL APRONS

℄ Culv. 153+26
Inpl. 18" X 74' CMP
Remove
No Culv. Req'd.

Res. Drive Lt. 157+18
Inpl. 18" X 30' CMP
Remove
No Culv. Req'd.

RES. DR. LT. STA. 156+01
NO CULV.

RES. DR. LT. STA. 158+56
NO CULV.

FE Lt. 161+56
Inpl. 15" X 24' CMP
Remove
No Culv. Req'd.

FE. LT. STA. 2+00 T.WP. RD.
INPL. 15" X 20' C.M.P.
REMOVE

BLOCK RET. WALL
32'± LT. STA. 156+51 TO STA. 157+98

BEGIN S.P. 55-612-04
Sta. 135+00

P.I. 139+93.69
Δ = 9°40'00"

P.O.T. 156+60.98

P.I. 166+26.00
Δ = 0°02'00"

Twp. Rd.

Woods

Anchor

Windmill

Garage

Woods

Anchor

106.40'

152.60'

50'

75'

75'

66'

66'

FE Rt. 139+86
No Culv. Inpl.
No Culv. Req'd.

FE Rt. 146+57
No Culv. Inpl.
Remove F.E.

RES. DR.
~~FE~~ Rt. 153+00
No Culv. Inpl.
18" X 28' C.S. Pipe Culv.
2-18" G.S. Pipe Aprons

CL. 19 GR. 19

B.M. Elev. 1060.87
Spk. in PP 31' Lt.
Sta. 140+25

Profile 75' Lt. – – – –
Profile 75' Rt. ————

P.I. +00
Elev. 71.7
800' V.C.
M=2.6

P.V.T. +00 O Elev. 91.7

P.V.C. +25.0 O Elev. 07.95

+5.0 %

+2.4 %

Inlet Elev. 67.0

Outlet Elev. 61.0

P.V.C. +00 O Elev. 62.1

P.I. +00
Elev. 51.7
1750' V.C.
M=19.46875

Note: 32,252 Cu. Yds. Common Excavation to come from balance Sta. 163+58 to Sta. 207+00.
31,159 Cu. Yds. Rock Excavation to come from balance Sta. 163+58 to Sta. 207+00
20,237 Cu. Yds. Rock Excavation to come from balance Sta. 207+00 to Sta. 218+30

Subgrade Treatment:
Excavate 10 Below Profile Grade
Sta. 154+50 to Sta. 163+80

COMMON EXC. 6,316 Cu. Yds. EMB. 76825 Cu. Yds.
SUBGRADE EXC. 1,655 Cu. Yds.

AS BUILT PLANS

Twp. Rd. Lt. 139+91
Inpl. 15" X 32' CMP
Remove
18" X 36' C.S. Pipe Culv.
2-18" G.S. Pipe Aprons.

℄ Culv. 143+88
Inpl. 30"X 50' CMP
Remove 146+00 SKEW 35°
Move to Sta. ~~146+00~~
30" X 164' R.C. Pipe Culv. Cl. IV
2-30" R.C. Pipe Culv. Aprons
Place Culv. on "C" Bedding

RES. DR. RT. STA. 145+29
INPL. 15" X 28' CMP
REMOVE
MOVE TO STA. 148+00
30" X 72' C.S. PIPE
2-30" METAL APRONS

℄ Culv. 153+26
Inpl. 18" X 74' CMP
Remove
No Culv. Req'd.

Res. Drive Lt. 157+18
Inpl. 18" X 30' CMP
Remove ~~REMOVED~~
No Culv. Req'd.

RES. DR. LT. STA. 156+01
NO CULV.

RES. DR. LT. STA. 158+56
NO CULV.

FE Lt. 161+56
Inpl. 15" X 24' CMP
Remove
No Culv. Req'd.

FE. LT. STA. 2+00 TWP. RD.
INPL. 15" X 20' C.M.P.
REMOVE

BLOCK RET. WALL
32'± LT. STA. 156+51 TO STA. 157+98

BEGIN S.P. 55-612-04
Sta. 135+00

P.I. 139+93.69
Δ Rt. 07°00'

P.O.T. 156+60.98

P.I. 168+26.00
Δ Rt. 0°02'00"

Twp. Rd.

Woods
Windmill
Anchor
Garage
Woods
Anchor
Woods

106.40'
152.60'
50'
75'
75'
33'
33'

FE Rt. 139+86
No Culv. Inpl.
No Culv. Req'd.

FE Rt. 146+57
No Culv. Inpl.
Remove F.E.

RES. DR.
~~FE Rt.~~ 153+00
No Culv. Inpl.
18" X 28' C.S. Pipe Culv.
2-18" G.S. Pipe Aprons

B.M. Elev. 1060.87
Spk. in PP 31' Lt.
Sta. 140+25

Profile 75' Lt. - - - -
Profile 75' Rt. ——

P.I. +00
Elev. 71.7
800' V.C.
M=2.6

P.V.T. +00.00 Elev. 91.7

P.V.C. +25.00 Elev. 07.95

+5.0 %

+2.4 %

P.V.C. +00.00 Elev. 62.1

Inlet Elev. 67.0

Outlet Elev. 61.0

P.I. +00
Elev. 51.7
1750' V.C.
M=19.46875

Note: 32,252 Cu. Yds. Common Excavation to come from balance Sta. 163+58 to Sta. 207+00.
31,159 Cu. Yds. Rock Excavation to come from balance Sta. 163+58 to Sta. 207+00
20,237 Cu. Yds. Rock Excavation to come from balance Sta. 207+00 to Sta. 218+30.

COMMON EXC. 6,316 Cu.Yds. EMB. 76,825 Cu.Yds.
SUBGRADE EXC. 1,655 Cu.Yds.

Subgrade Treatment:
Excavate 10' Below Profile Grade
Sta. 154+50 to Sta. 163+80

PLATE 1 - PROFILE

AS BUILT PLANS
CLAY COUNTY, MINN.

Twp. Rd. Lt. 166+27
No Culv. Inpl.
No Culv. Req'd.
Place Culvert 835' North on Twp. Road
24" X 62' C.S. Pipe Culv.
2-24" G.S. Pipe Aprons
Place Culv. on "C" Bedding
Remove Inpl. 18" X 22' CMP

℄ Culv. 168+52
Inpl. 24" X 70' CMP
Remove
24" X 146' R.C. Pipe Culv. Class IV
2-24" R.C. Pipe Culv. Aprons
Place Culv. on "C" Bedding

FE Lt. 170+43
No Culv. Inpl.
Move to Sta. 171+00
No Culv. Req'd.

FE. LT. STA. 174+34
18" X 32' C. S. PIPE CULV.
2-18" G. S. PIPE APRONS

FE Lt 177+97
No Culv. Inpl.
No Ent. Req'd.

℄ Box Culv. 182+11
Inpl. C 6'X6'X 31'
Remove
Const. ℄ Culv. Sta. 182+28 skew 30°
84" X 136' R.C. Pipe Culv. Class II
2-84" R.C. Pipe Culv. Aprons
Place Culv. on "C" Bedding

Farm Ent. Lt. ~~183+23~~
Inpl. 30" X 30' CMP
Remove
30" X 32' C.S. Pipe Culv.
2-30" G.S. Pipe Aprons

RES. DR. LT. STA. 185+00
30" X 32' C. S. PIPE CULV.
2-30" G. S. PIPE APRONS

190+00 Const. Approach Lt. (to old C.S.A.H. 12)
24" X 36' C.S. Pipe Culv.
2-24" G.S. Pipe Aprons

192+36 Const. F.E. Lt.
No Culv. Req'd.

193+00 Const. F.E. Rt.
~~18" X 28' G.S. Pipe Culv.~~
~~2-18' G.S. Pipe Aprons~~
CULV. OMITTED

P.I. 166+26.00
Inpl. 60.0 Spk.
Δ Rt. 0°-02'-00"

Center Section 10 T 108 N R 14 W

166+26.55
1/2" Iron Rod
1.12 South of Const. Line

Anchor

Woods

Cable Marker

OBLITERATE OLD ROAD

Anchor

Tele. Cable Marker

P.I. 183+52.37 (New)
P.I. 182+14.17 (Old)
Δ Rt 15°25'
D 2°00'
T 388.27'
L 770.85'
E 26.13'
Super 0.04'/foot
200' Transition

P.I. 1+81.53
Δ Rt. 74° 35'
D 30°
T 146.45'
L 248.61'
R 190.99'

10 1/4 Cast Iron Monument

P.O.T. 194+01.51

Construction ℄

P.T. 185+96.75

EQUATION ~~187+43.28~~ = 187+41.30
P.T. ~~187+43.28~~
P.O.T. 187+41.30

P.O.T. 192+90.34

166 + 40
FE Rt. ~~167+66~~
Inpl. 12" X 20' CMP
Remove
18" X 32' C.S. Pipe Culv.
2-18" G.S. Pipe Aprons

RES. DR. RT. STA. 169+80 ±
NO CULV.

Res. Drive Rt. 175+69
Inpl. 15" X 24' CMP
Remove
18" X 32' C.S. Pipe Culv.
2-18" G.S. Pipe Aprons

FE Rt. 177+95
No Culv. Inpl.
~~18" X 32' C.S. Pipe Culvert~~
~~2-18" G.S. Pipe Aprons~~
OMITTED

C.R. "118" Rt. 179+59
Inpl. 18" X 34' CMP
Remove
24" X 66' C.S. Pipe Culvert
2-24" G.S. Pipe Aprons

FE Rt. ~~181+87~~ 180+00
No Culv. Inpl.
24" X 28' C.S. Pipe Culv.
2-24" G.S. Pipe Aprons

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

Profile Twp. Road Sta. 166+26.0 C.S.A.H. 12 = 0+00 Twp. Rd. Lt.

P.I. +88.2692
Elev. 25.8438
100' V.C.
M = 0.65'

P.I. +30.71428
Elev. 81.39715
500' V.C.
M = 7.0

-6.0%

+5.4%

Inlet Elev. 84.0
Outlet Elev. 82.0

CL. 0.25 Acres GR. 0.25 Acres

CL. 3 GR. 3

B.M. Elev. 1115.87
Spk. in PP 59' Lt.
Sta. 166+04

B.M. Elev. 1083.04
Spk. in PP 32' Lt.
Sta. 175+62

B.M. Elev. 1067.01
Spk. in T.P. Lt.
Sta. 185+37

B.M. Elev. 1097.83
℄ Hub
Sta. 194+01.51

Profile 75' Lt.
Profile 75' Rt.

P.V.T. +75.0 ℄ Elev. 17.575

Inlet Elev. 00.0
Outlet Elev. 98.0

3.9%

P.I. +15.20434
Elev. 65.30704
700' V.C.
M = 6.0375

P.V.C. +65.20434 ℄ Elev. 78.95704

P.V.T. +65.20434 ℄ Elev. 75.80703

3.0%

P.V.C. +29.97 ℄ Elev. 77.75

Inlet Elev. 54.2
Outlet Elev. 53.4

Note: 17,391 Cu. Yds. dirt from Sta. 163+58. to Sta. 207+00 to be used to construct Twp. Road Lt. Sta. 166+26. This Quantity included in Common Excavation for this balance.

COMMON EXC.	192,726 Cu. Yds.
ROCK EXC.	35,373 Cu. Yds.
SUBGRADE EXC.	1,343 Cu. Yds.
EMB	110,628 Cu. Yds.

Subgrade Treatment:
Excavate 10' Below Profile Grade
Sta. 189+50 to Sta. 190+50
Sta. 192+65 to Sta. 195+25

S.P. 55-612-04 OLMSTED COUNTY, MINN. C.S.A.H. 12

AS BUILT PLANS

SHEET 4 OF 66 SHEETS

Const. ℄ Culv. 208+88 skew 15°
138" span X 102' R.C. Pipe Culv. Class IV A
138" Span X 48' R.C. Pipe Culv. Class III A
138" Span X 42' R.C. Pipe Culv. Class II A
2-138" Span Pipe Aprons
Place on "B" Bedding
F & I Approved Joint Fasteners

Const. F.E. Lt. 209+70
18" X 28' C.S. Pipe Culv.
2-18" G.S. Pipe Aprons

RES. DR. LT. STA. 206+80
24" X 28' C.S. PIPE CULV.
2-24" G.S. PIPE APRONS

P.O.T. 194+09.51
P.O.T. 200+33.34
P.O.T. 214+30.32
P.O.T. 214+34.71 = EQUATION
P.O.T. 214+41.06
P.O.T. 216+24.50
P.O.T. 217+33.16
P.O.T. 225+67.16
P.O.T. 225+71.31 = EQUATION
P.O.T. 225+89.24 = EQUATION
P.O.T. 225+78.51

Construction ℄
Woods
LAKE
ZUMBRO
Boat Dock
Gas Pump
Beach

Const. F.E. Rt. 207+55
24" X 28' C.S. Pipe Culv.
2-24" G.S. Pipe Aprons

Const. F.E. Rt. 209+70
18" X 28' C.S. Pipe Culv.
2-18" G.S. Pipe Aprons

CL. 0.40 Acres
GR. 0.40 Acres
CL. 30 GR. 30
CL. 2.0 Acres GR. 2.0 Acres

B.M. Elev. 1106.13
℄ Hub
Sta. 200+33.34

B.M. Elev. 997.11
Spk. in 15" Elm 28' Lt. Sta. 209+00

B.M. Elev. 1071.53
℄ Hub
Sta. 214+30.32

B.M. Elev. 926.43
3/4" Reinf. Rod ℄
Sta. 217+36

Profile 75' Lt.
Profile 75' Rt.

P.I. +00
Elev. 07.0
1950' V.C.
M=24.375

Subgrade Treatment:
Excavate 10' Below Profile Grade
Sta. 204+20 to Sta. 207+30
Sta. 209+80 to Sta. 210+20

Note: 32,252 Cu. Yds. Common Exc. and 31,159 Cu. Yds. Rock Exc. to be hauled to balance from Sta. 135+00 to Sta. 163+58. Quantities are included in balance Sta. 163+58 to Sta. 207+00.

Inlet Elev. 91.0
Outlet Elev. 88.0

Note: 20,237 Cu. Yds. Rock Excavation to be hauled to balance Sta. 135+00 to Sta. 163+58 Quantity is included in balance Sta. 207+00 to Sta. 218+30

P.I. +77.86250
Elev. 75.99413
400' V.C.
M=2.0°

P.V.C. +71.51250 Elev. 89.99413
P.V.T. +77.86625 Elev. 69.99413

-7.0%
-3.0%

Begin Bridge
End Bridge
P.V.C. +98.81 Elev. 54.36567
54.33

Crushed Rock Embankment Material.

Finished Centerline Elevations

2:1 Slope
2:1 Slope

COMMON EXC.	36,426	Cu. Yds.
ROCK EXC.	178,037	Cu. Yds.
SUBGRADE EXC.	91	Cu. Yds.
EMB	20,330	Cu. Yds.

Note: 157,800 Cu. Yds. of Rock Exc. to be crushed and stockpiled. (Under S.A.P. 55-612-08)

S.P. 55-612-04 and S.A.P. 55-612-08 — COUNTY, MINN. — C.S.A.H. 12

AS BUILT PLANS

SHEET 5 OF 66 SHEETS

Const. F.Ent. Lt. 227+00
30" X 28' C.S. Pipe Culv.
2-30" G.S. Pipe Aprons

Note: All merchantable timber shall be salvaged from Sta. 233+38 to Sta. 240+35 See Special Provisions.

Const. F.Ent. Lt. 248+00
18" X 28' C.S. Pipe Culv.
2-18" G.S. Pipe Aprons

LAKE ZUMBRO

EQUATION P.O.T. 225+89.24 = EQUATION P.O.T. 225+78.51

EQUATION P.O.T. 225+73.31 = P.O.T. 225+69.16

P.O.T. 240+10.43

P.O.T. 242+26.08

P.C. 231+77.83

P.C. 232+13.45

P.T. 239+22.82

P.T. 240+33.35

P.C. 246+22.07

P.C. 246+45.97

P.T. 256+22.07

P.T. 255+85.97

P.I. 235+58.85
Δ Rt. 29°47'30"
D 4°00'
T 381.02'
L 744.49'
E 49.787'

P.I. 236+34.99
Δ Rt. 32°47'45"
D 4°
T 421.54'
L 819.90'

P.I. 251+44.23
Δ Lt. 47°00'
D 5°00'
T 498.26'
L 940.00'
E 105.64'

P.I. 251+56.43
Δ Lt. 50°00'
D 5°
T 534.36'
L 1000.00'

Construction Line

See Plan & Profile Sheet No. 9 for Detail of Approach Right Sta. 226+50

Const. ℄ Culv. Sta. 239+34
72" X 272' C.S. Structural Plate Pipe Culv. 8 Gage
2 to 1 Bevel Ends included in length
Place Culv. on "B" Bedding

RES. DR. RT. STA. 241+00 ±
18" X 32' C.S.P. CULV.
2-18" G.S.P. APRONS

Const. Approach Rt. 245+50
18" X 32' C.S. Pipe Culv.
2-18" G.S. Pipe Aprons

Cast Iron Monument

T.108N R.14W T.107N R.14W
1/4 1/4 1/4 1/4 Sec. 13

Res. Drive Rt. 250+75
No Culv. Inpl.
Move Drive to Sta. 251+00
18" X 32' C.S. Pipe Culv.
2-18" G.S. Pipe Aprons

CL. 3.80 Acres GR. 3.80 Acres | CL. 1.10 Acres GR. 1.10 Acres | CL. 1.05 Acres GR. 1.05 Acres — CL. 7 GR. 7 — CL. 18 GR. 23 — CL. 5 GR. 5

B.M. Elev. 942.40
Spk. in Oak 10' Lt.
Sta. 226+12

B.M. Elev. 1024.49
Spk. in 12" Stump
℄ Sta. 231+68

B.M. Elev. 1029.18
Spk. in Stump 10' Lt.
Sta. 237+41

B.M. Elev. 1067.24
℄ Hub
Sta. 245+79.98

Profile 75' Lt.
Profile 75' Rt.

P.I. + 38.081
Elev. 40.84.39
900' V.C.
M = 1.25

COMMON EXC. 28,826 Cu. Yds.
ROCK EXC. 137,719 Cu. Yds.
EMB 134,735 Cu. Yds.

Note: 20,615 Cu. Yds. Rock Excavation from balance Sta. 221+00 to Sta. 236+60 to be used in the construction of Drive Rt. Sta. 226+50. Quantity included in this balance.

P.V.C. + 29.10447 Elev. 17.2373

P.V.T. + 88.081 Elev. 72.36567

+7.0%

COMMON 2,521
ROCK 12,028
EMB 13,037

Note: 41,394 Cu. Yds. of Rock Excavation from balance Sta. 221+00 to Sta. 236+60 to be crushed and used to construct Embankment Sta. 221+00 to Sta. 223+00

Inlet Elev. 88.8

Outlet Elev. 75.7

COMMON 9,635 Cu. Yds.
ROCK 16,013 Cu. Yds.
EMB 21,303 Cu. Yds.

P.I. + 79.10447
Elev. 62.73731
1300' V.C.
M = 10.8875

P.V.T. + 29.10447 Elev. 64.68730

P.V.C. + 88.88888 Elev. 65.46667

+0.3%

Subgrade Treatment
Exc. 1.0' below profile grade
Sta. 245+70 to Sta. 250+50

COMMON EXC.	13,111	Cu. Yds.
ROCK EXC.	3,672	Cu. Yds.
SUBGRADE	1,135	Cu. Yds.
EMB	12,212	Cu. Yds.

P.I. + 88.88888
Elev. 66.06666
600' V.C.
M = 1.35

PLATE 1 — PLAN — PROFILE

S.P. 55-612-04 OLMSTED COUNTY, MINN. C.S.A.H. 12

AS BUILT PLANS

SHEET 6 OF 66 SHEETS

℄ Culv. 259+74
Inpl. 18" X 32' CMP
Remove
Const. ℄ Culv. 259+00
24" X 112' R.C. Pipe Culv. Class II
2-24" R.C. Pipe Culv. Aprons
Place Culv. on "C" Bedding
F&I Approved Joint Fasteners

FE Lt. 263+49
Inpl. 15" X 20' CMP
Remove
18" X 28' C.S. Pipe Culv.
2-18" G.S. Pipe Aprons

RES. DR.
FE Lt. 270+93
Inpl. 15" X 26' CMP
Remove
18" X 32' C.S. Pipe Culv.
2-18" G.S. Pipe Aprons

℄ Culv. 326+00 (Old C.S.A.H. 12)
Inpl. 18" X 50' CMP
Remove
No Culv. Req'd.

℄ Culv. 279+60 (Twp. Rd.)
Inpl. 18" X 66' CMP
Remove
Obliterate Old Road as directed by the Engineer.

℄ Culv. 284+60
Inpl. 24" X 66' CMP
Remove
24" 114' R.C. Pipe Culv. Cl. III
2-24" R.C. Pipe Culv. Aprons
Place Culv. on "C" Bedding
F&I Approved Joint Fasteners.

Const. Approach Lt.
Sta. 277+08
No Culv. Req'd.
See Sheet No. 10

Note: All merchantable timber shall be salvaged from Sta. 264+00 to Sta. 277+00 See Special Provisions.

P.I. 271+08.44 = P.O.T. 9456.20 Lt.

P.T. 255+85.97
P.T. 256+22.07

Sign
Meter
C.S.A.H. 12
School
Woods
Brush
House
Ha.
Twp. Rd.

P.O.T. 13+00

FE Rt. 266+89
No Culv. Inpl.
18" X 28' C.S. Pipe Culv.
2-18" G.S. Pipe Aprons

Res. Drive Rt. 270+00
No Culv. Inpl.
18" X 32' C.S. Pipe Culv.
2-18" G.S. Pipe Aprons

Twp. Rd. Rt. 277+08
No Culv. Inpl.
No Culv. Req'd.

Res. Drive Rt. 280+19
Inpl. 15" X 74' CMP
Remove
No Culv. Req'd.

CL. 67 GR. 65 — CL. 1.05 Acres GR. 1.05 Acres — CL. 56 GR. 54 — CL. 0.10 Acres GR. 0.10 Acres — CL. 15 GR. 15

B.M. Elev. 1100.62
Spk. in T.P. 24' Rt.
Sta. 267+00

Profile 75' Lt.
Profile 75' Rt.

+2.1%
+0.4%
+2.0%

P.V.C. +82.35294 Elev. 11.72941
P.V.T. +82.35294 Elev. 11.22941
P.V.C. +92.67900 Elev. 13.07.07

Inlet Elev. 68.2
Outlet Elev. 60.0
P.V.T. +88.88888 Elev. 72.67666

Inlet Elev. 07.4
Outlet Elev. 98.0

Note: 7,182 Cu. Yds. of Common Excavation from this balance to be used in the construction of approach Lt. & Rt. Sta. 277+08. Quantity is included in this balance.

P.I. +82.35294
Elev. 10.02941
600' V.C.
M = 1.275

P.I. +79.675
Elev. 13.6187
274' V.C.
M = 0.548

Subgrade Treatment:
Excavate 1.0' below profile grade
Sta. 256+50 to Sta. 257+80

COMMON EXC. 29,188 Cu. Yds.
SUBGRADE EXC. 3,221 Cu. Yds.
EMB 15,401 Cu. Yds.

Subgrade Treatment:
Excavate 1.0' below profile grade
Sta. 263+70 to Sta. 284+20

Note: 2,419 Cu. Yds. Common Exc. to be obtained from old road. Quantity is included in Common Exc. quantity.

COMMON EXC. 10,183 Cu. Yds.
SUBGRADE EXC. 1,655 Cu. Yds.
EMB 7,023 Cu. Yds.

PLATE 1 - PLAN - PROFILE

AS BUILT PLANS

S.P. 55-612-04 CROSTED COUNTY, MINN. C.S.A.H. 12 SHEET 7 OF 66 SHEETS

Res. Drive Lt. 343+50
Inpl. 15" X 24' CMP

℄ Culv. 351+51
Inpl 36" X 58" CMP

FE Lt. 363+80
Inpl. 15" X 24' CMP

END S.P. 55-612-04
Sta. 339+00

POT 286+64.54

POT 336+90.90

EQUATION 286+64.54 = 336+90.90

POT 342+09.13

T.108N R.13W
T.108N R.14W
12 | 7
13 | 18

PI 353+63.11
F.K. Nail
Δ R.O.=2°

Sign

+45 +70 +00 +63 +28 +56

Ha

Conc. Posts

75' 111.43' 62.85' 75'

40.38' 86.06'

50' 33' 33'

36.04' 65.64' 112.15'

285 340 345 350 355 360 365

FE Rt. 361+12
Inpl. 15" X 24' CMP

B.M. Elev. 110.827
Spk. in PP 42' Rt.
Sta. 337+37

B.M. Elev. 1105.48
Spk. in Cor. Fe. Post
65' Rt. Sta. 353+68

Subgrade Elev. 13.4 14.4 16.0 17.4 18.9 19.9

Profile 75' Lt.
Profile 75' Rt.
Profile 50' Lt.
Profile 50' Rt.

1130 20 10 1100 1090

+2.0%

-3.6%

P.V.C. +66.75 Elev. 16.3587
P.V.C. +24.50 Elev. 16.3162

Pl. +79.675
Elev. 13.6187
274' V.C.
M=0.548

Subgrade Treatment:
Excavate 1.0' below profile grade
Sta. 338+00 to Sta. 339+00

Pl. +00
Elev. 27.5
1100' V.C.
M=7.7

P.V.T. +50.00 Elev. 07.7

+60 +00 +51

13.7 12.9 11.37 14.8 16.2 16.6 20.8 22.8 24.0 23.7 22.2 20.0 16.7 12.9 09.4 05.9 03.0 01.10 99.9 99.7 99.9 00.7 02.1 04.3 07.4 11.2 14.8 18.2 20.9 22.1 22.2 21.3 19.2 16.5 13.7

285 340 345 350 355 360 365

PLATE 1 PLAN-PROFILE

S. P. 55-612-04 CLEARFIELD COUNTY, Minn. C.S.A.H. 12

AS BUILT PLANS

SHEET 8 of 66 SHEETS

125'
100'
215
220
225
230
235
240
245
P.O.T. 225+89.28E
225+78.05
P.C. 0+60.4
Rt. 28°50'
D 9°10'59"
LR 190.00'±
P.C. 1+61.47
Δ Rt. 18°02'30"
D 9°
T 101.07'
L 200.46
R 636.62
P.T. 2+60.93
P.C. 232+13.45
P.T. 240+33.35
Woods
LAKE ZUMBRO
Boat Dock
Gas Pump
Trailer House
Parking Lot
Sandy Point Resort
Beach
Dry Run
Const. ℄ Culv. Sta. 4+84
72" X 126' C.S. Structural Plate Pipe Culv. 10 Gage
2 tot. Bevel Ends included in length
Place Culv. on "B" Bedding
Const. Drive Rt. Sta. 6+90
No Culv. Req'd.
100'
60'
66'
75'
℄
Road
Twp.
Roadway
CL. 2.1 Acres
GR. 2.1 Acres
CSAH 12
Shld.
℄ Subgrade Elev.
947.7 52.4 51.6 51.5 50.9 49.6 47.8 45.9 44.0 42.1 40.2
+07.96 +39.96
+45 +72 +84 +44 +70 +72.9 +50
52.5 53.4 48.6 39.8 30.2 26.5 21.8 92.0 28.5 41.0 41.3 43.5 43.0 42.5 40.4
P.V.C. +50.0 Elev. 51.6
0.0%
P.I. +00
Elev. 51.6
300' V.C.
M=0.7125
P.V.T. +50.0 Elev. 48.75
-1.9%
+40
+00
COMMON EXC. 3,891 Cu. Yds.
ROCK EXC. 369 Cu. Yds.
EMB. 23,673 Cu. Yds.
Inlet Elev. 22.4
Outlet Elev. 20.4
950
40
30
920
Profile 75' Lt.
Profile 75' Rt.
0
2
4
6
8

AS-BUILT PLANS

S. P. 55-612-04 OLMSTED COUNTY, MINN. C.S.A.H. 12 SHEET 9 OF 66 SHEETS

Obliterate old road and approach
By Equipment Hours
As directed by the Engineer

House
Woods
School
Sign
Meter
280'
50'
33'
5
12
C.S.A.H.
58°20'
27.80'
34.59'
37.18'
56.52'
66'
62.45'
50'
275'
86'
75'
75'
P.O.T. 0+00
P.O.T. 13+00
P.O.T. 9+56.20 L=2°
P.I. 277+08.44

Const. ℄ Culv. 6+00
24" X 80' R.C. Pipe Culv. Class III
2-24" R.C. Pipe Culv. Aprons
Place on "C" Bedding
F & I Approved joint fasteners

Profile 75' Lt. ----------
Profile 75' Rt. ----------

P.I. +23
Elev. 084
100' V.C.
M=0.265

-1.1%
+1.0%
-0.5%
-3.5%
Inlet Elev. 04.0
Outlet Elev. 98.0
P.V.C. +7+30 Elev. 0895
P.V.T. +7+30 Elev. 08.91
P.V.C. +41.83333 Elev. 09.13583
P.V.T. +41.83333 Elev. 01.13584

P.I. +41.83333
Elev. 08.13584
M=1.5
400' V.C.

Note: 7,182 Cu. Yds of Common Excavation to be borrowed from Sta. 254+89 to Sta. 276+39 (C.S.A.H. 12).

COMMON EXC. 2,994 Cu. Yds.
EMB 7,012 Cu. Yds.

14.34 14.53 13.053 11.953 10.853 09.783 08.657 09.17 09.4 10.1 09.4 09.343 08.71 07.4 05.3 025
+83 +23 +56 +89
1130 20 10 1100 1090
11.72 16.6 15.8 15.2 14.4 06.6 04.7 11.04.1 03.7 05.2 08.2 11.1 16.1 14.6 10.4 06.1 02.6
+83 +43 +81 +31
0 5 10 15

PLATE 1 PLAN - PROFILE

AS BUILT PLANS

FORM 100-A '63

FED. ROAD DIV. NO.	STATE	FEDERAL PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MINN.	S 6270(4)			

ESTIMATED QUANTITIES

SPECIFICATION NO.	ITEM	UNIT	S.P. 55-612-04	S.A.P. 55-612-08	TOTAL ESTIMATED QUANTITIES
2101.501	Clearing	Acre	11.85		11.85
2101.502	Clearing	Tree	220		220
2101.506	Grubbing	Acre	11.85		11.85
2101.507	Grubbing	Tree	221		221
2104.501	Remove Pipe Culverts	Lin. Ft.	774		774
2104.509	Remove Box Culvert	Each	1		1
2105.501	Common Excavation	Cu. Yd.	335,817		335,817
2105.503	Rock Excavation	Cu. Yds	184,017		184,017
2105.507	Subgrade Excavation	Cu. Yd.	9,100		9,100
2123.501	Common Laborers	Hour	16		16
2123.503	Motor Grader	Hour	16		16
2123.508	12 Cu. Yd. Scraper	Hour	16		16
2123.509	Dozer	Hour	16		16
2130.501	Water	M-Gal.	50		50
2211.501	Aggregate Base Class 2	Ton	18,647		18,647
2211.505	Stockpile Aggregate Class 2	Ton		298,242	298,242
2501.511	18" C.S. Pipe Culvert	Lin. Ft.	456		456
2501.511	24" C.S. Pipe Culvert	Lin. Ft.	220		220
2501.511	30" C.S. Pipe Culvert	Lin. Ft.	60		60
2501.551	72" C.S. Structural Plate Pipe Culv. Gage 8	Lin. Ft.	272		272
2501.551	72" C.S. Structural Plate Pipe Culv. Gage 10	Lin. Ft.	126		126
2501.511	24" R.C. Pipe Culv. Class II	Lin. Ft.	306		306
2501.511	24" R.C. Pipe Culv. Class IV	Lin. Ft.	146		146
2501.511	30" R.C. Pipe Culv. Class IV	Lin. Ft.	164		164
2501.511	84" R.C. Pipe Culv. Class II	Lin. Ft.	136		136
2501.515	18" G.S. Pipe Aprons	Each	30		30
2501.515	24" G.S. Pipe Aprons	Each	10		10
2501.515	30" G.S. Pipe Aprons	Each	4		4
2501.515	24" R.C. Pipe Aprons	Each	8		8
2501.515	30" R.C. Pipe Aprons	Each	2		2
2501.515	84" R.C. Pipe Aprons	Each	2		2
2501.521	138" Span R.C. Pipe-Arch Culv. Class IV A	Lin. Ft.	102		102
2501.525	138" Span R.C. Pipe-Arch Aprons	Each	2		2
105.603	Crushed Rock Embankment Material (LV)	Cu.Yd.	57,951		57,951
2501.521	138" Span R.C. Pipe-Arch Culv. Class III A	Lin. Ft.	48		48
2501.521	138" Span R.C. Pipe-Arch Culv. Class II A	Lin. Ft.	42		42

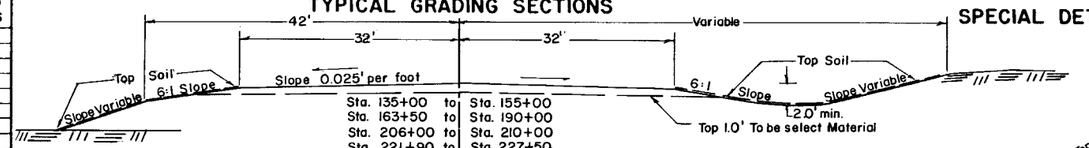
① For obliterating Old Road.
② To be used as a dust preventative.

STANDARD PLATES

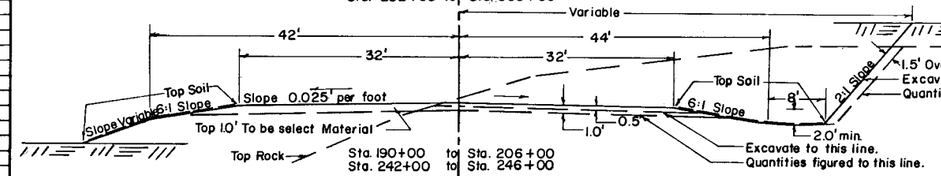
THE FOLLOWING STANDARD PLATES, APPROVED BY THE DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINSTRATION SHALL APPLY ON THIS PROJECT.

PLATE NO.	DESCRIPTION
0002 A	SPECIFICATION REFERENCE TO STANDARD PLATES
3000 F	REINFORCED CONCRETE PIPE
3014 F	REINFORCED CONCRETE PIPE-ARCH
3040 C	CORRUGATED STEEL PIPE
3100 F	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
3110 D	CONCRETE APRON FOR REINFORCED CONCRETE PIPE-ARCH
3114 D	SECTIONAL CONCRETE APRON FOR REINFORCED CONCRETE PIPE-ARCH
3123 F	STEEL APRON FOR C.S. PIPE
3124 A	STEEL APRON CONNECTION
3145 A	CONCRETE PIPE JOINT TIES - U BOLTS
8000 F	STANDARD BARRICADES
3054 A	LENGTH COMPUTATION DATA STRUCT. PLATE PIPE
9000 B	APPROACHES AND ENTRANCES

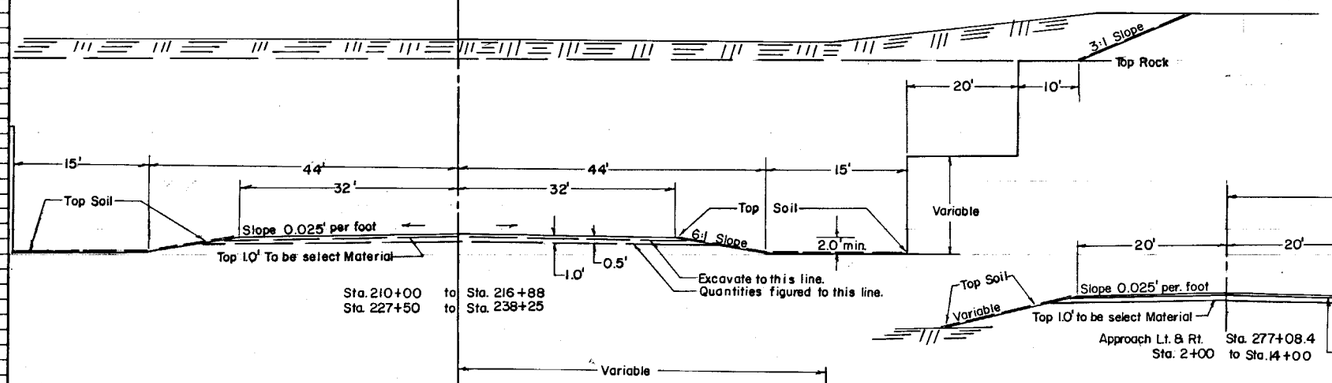
TYPICAL GRADING SECTIONS



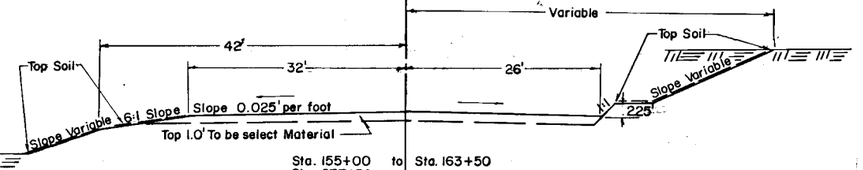
Sta. 135+00 to Sta. 155+00
Sta. 163+50 to Sta. 190+00
Sta. 206+00 to Sta. 210+00
Sta. 221+90 to Sta. 227+50
Sta. 238+25 to Sta. 242+00
Sta. 246+00 to Sta. 277+50
Sta. 282+50 to Sta. 339+00



Sta. 190+00 to Sta. 206+00
Sta. 242+00 to Sta. 246+00

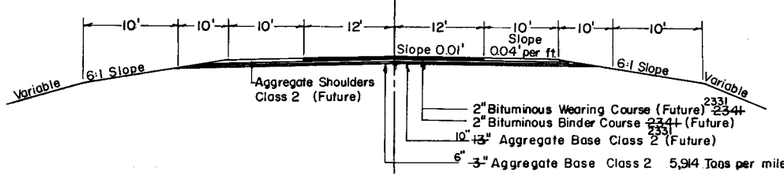


Sta. 210+00 to Sta. 216+88
Sta. 227+50 to Sta. 238+25

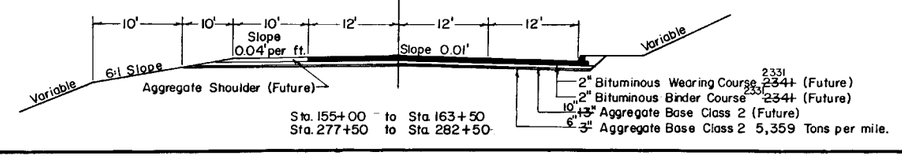


Sta. 155+00 to Sta. 163+50
Sta. 277+50 to Sta. 282+50

TYPICAL BASE & SURFACE SECTIONS

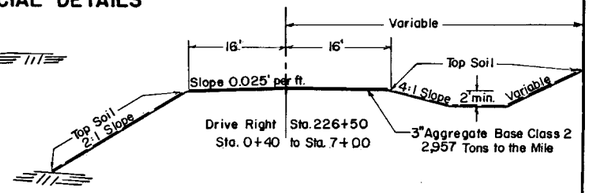


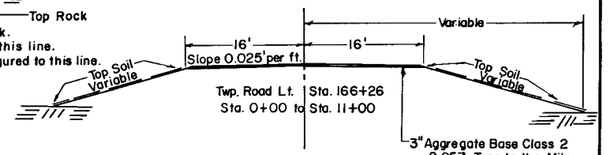
Sta. 135+00 to Sta. 155+00
Sta. 163+50 to Sta. 277+50
Sta. 282+50 to Sta. 339+00



Sta. 155+00 to Sta. 163+50
Sta. 277+50 to Sta. 282+50

SPECIAL DETAILS





8" AGGEGATE BASE CL. 2 (FUTURE)
2" BITUMINOUS WEARING COURSE (2331) (FUTURE)

Note: Material from the upper 1.0' of the natural topsoil shall not be used in the upper 1.0' of the roadway. Part of this material shall be uniformly spread on slopes and ditch bottoms to a depth of 3". No payment in addition to the contract price for Common Excavation will be made for spreading the topsoil as above provided, nor will any undercutting made in excavation prior to placing the topsoil be measured for payment.

Note: Corrugated Steel and Reinforced Concrete pipe culvert excavation will be considered incidental, and will be under unit price for "Pipe Culvert."

Note: Subgrade Treatment:
Excavate 1.0' below profile grade for compaction, as shown on the plan and profile sheets. Excavation has been computed and is listed as Subgrade excavation. Backfill with select material from R.O.W. Tapers shall be 50:1 in all cases.

Note: Place Sectional Concrete Pipe on Class "B" and Class "C" Bedding. All bedding to be considered as incidental and no direct compensation shall be made therefor.

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

ALBINSON, INC.
MINNEAPOLIS 15, MINN.

Minn. Project No._____

S.A.P. 55-612-08 AS BUILT PLANS
State Project No. 55-612-04

Olmsted County, Minnesota. County Proj. No._____ Plan No._____ Sheet 2 of 66 Sheets

Res. Drive Lt. 343+50
Inpl. 15" X 24' CMP

℄ Culv. 351+51
Inpl 36" X 58' CMP

FE Lt. 363+80
Inpl. 15" X 24' CMP

END S.P. 55-612-04
Sta. 339+00

P.O.T. 286+64.64

P.O.T. 336+90.90

P.O.T. 342+09.13

EQUATION 286+64.64 = 336+90.90

T.108N R.13W
T.108N R.14W
12
13 18

P.I. 353+63.11
PK-Nail ART.03

Sign

Ha.

Conc. Posts

FE Rt. 361+12
Inpl. 15" X 24' CMP

B.M. Elev. 1108.27
Spk. in PP 42'Rt.
Sta. 337+37

B.M. Elev. 1105.48
Spk. in Cor. Fe. Post
65'Rt. Sta. 353+68

Profile 75' Lt.
Profile 75' Rt.
Profile 50' Lt.
Profile 50' Rt.

P.V.T. +16.675
P.V.C. +24.53
Elev. 16.3587
Elev. 16.5162

P.I. +79.675
Elev. 13.6187
274' V.C.
M=0.548

-2.0%

Subgrade Treatment:
Excavate 1.0' below profile grade
Sta. 338+00 to Sta. 339+00

P.I. +00
Elev. 27.5
1100' V.C.
M=7.7

-3.6%

P.V.T. +50.0
Elev. 07.7

285 340 345 350 355 360 365

AS BUILT PLANS

S. P. 55-612-04 CLAYTON COUNTY HWY C.S.A.H. 12 SHEET 8 of 66 SHEETS

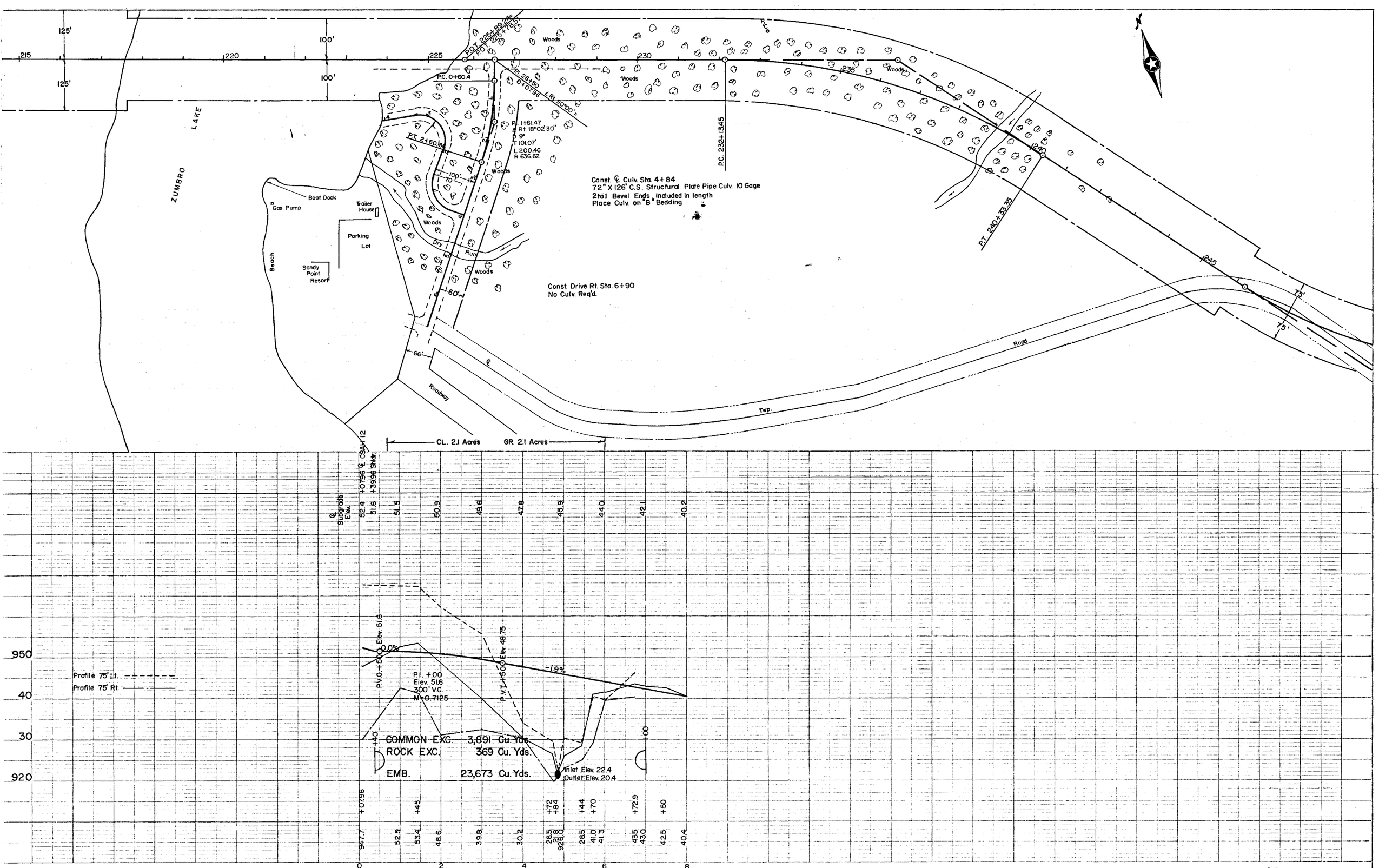
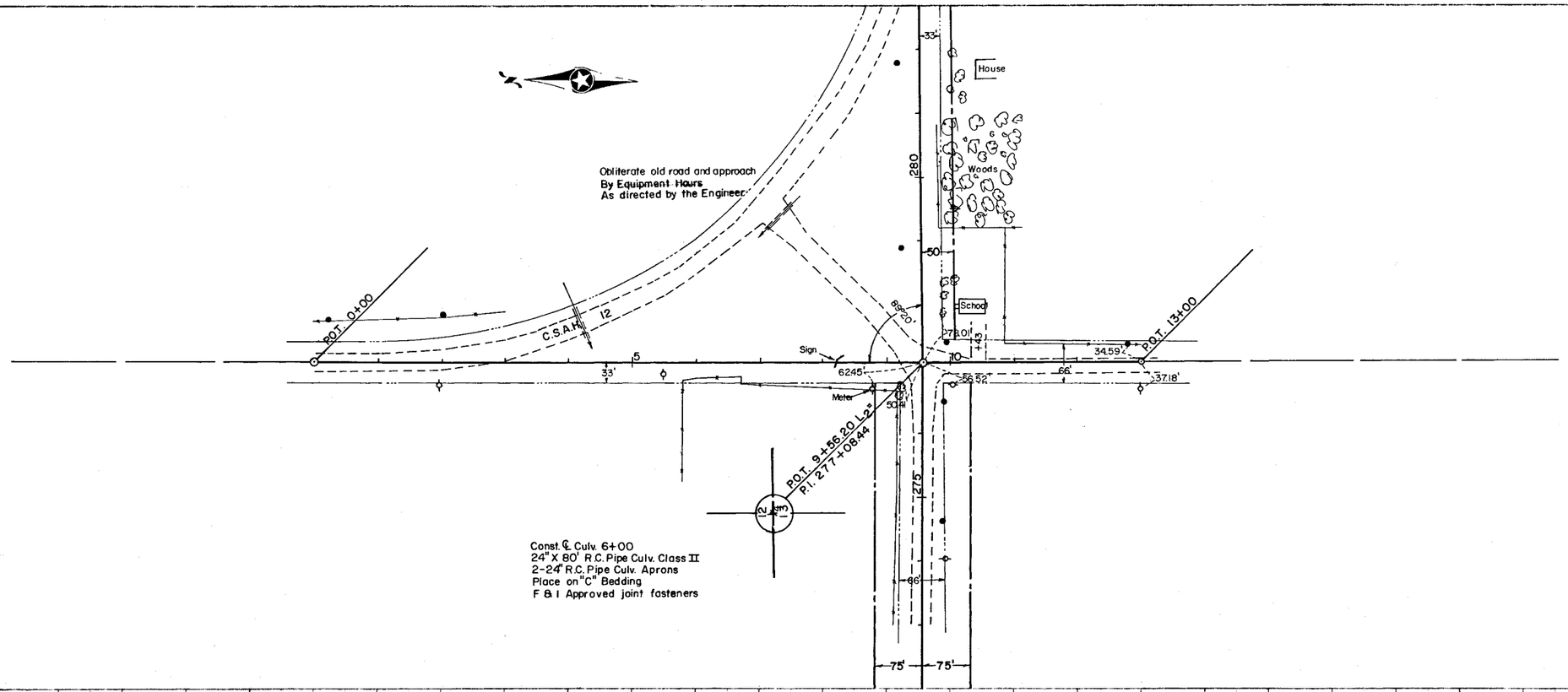


PLATE 1—PLAN—PROFILE

S.A.P. 55-612-04 OLMSTED COUNTY, MINN. C.S.A.H. 12 SHEET 9 OF 66 SHEETS

AS BUILT PLANS



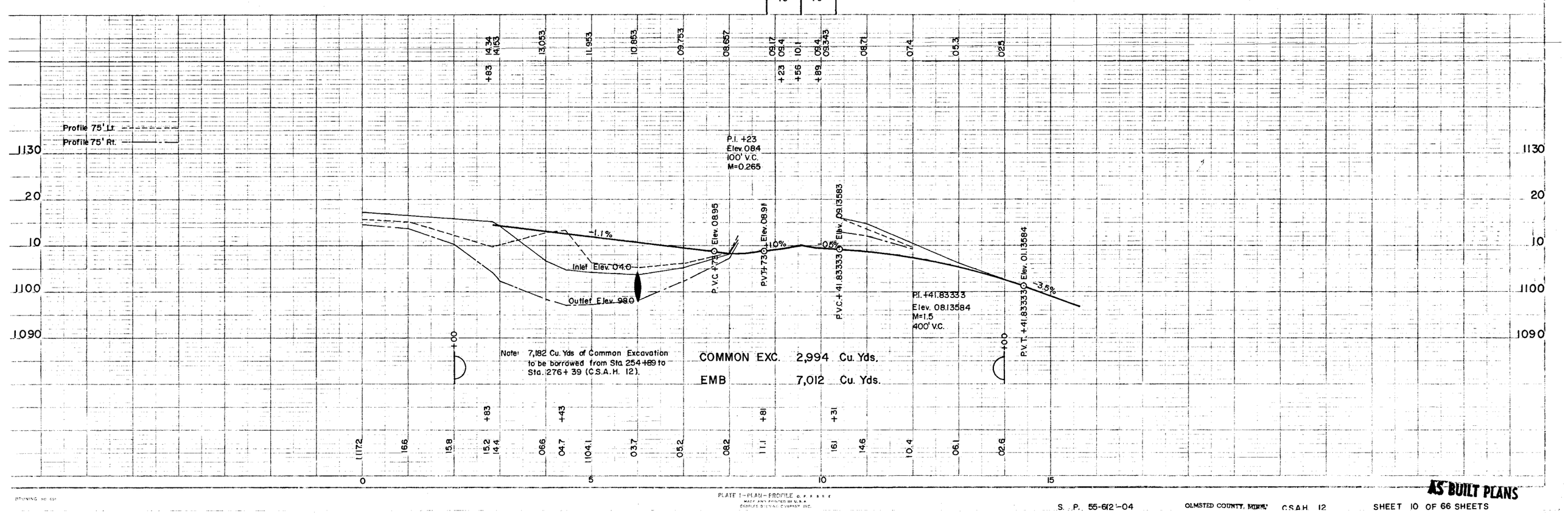


PLATE 1—PLAN—PROFILE

AS-BUILT PLANS

S. P. 55-612-04 OLMSTED COUNTY, MINN. C.S.A.H. 12 SHEET 10 OF 66 SHEETS