Fed. Proj. No.

STATE OF MINNESOTA
DEPARTMENT OF HIGHWAYS
CONSTRUCTION PLAN FOR Aggregate Shouldering & Bituminous Ent. & App.

COUNTY STATE AID HIGHWAY NO. 9

BETWEEN C.R. 119 **AND** T.H. 42

From 53.50' West S1/4 Corner Sec. 35 T107N-R13W

Give proper reference to Sections, Township and Range

To 30.62' East S1/4 Corner Sec. 34 T107N-R12W

GROSS LENGTH	26,355.94	FEET	4.992	MILES
BRIDGES-LENGTH	0	FEET	0	MILES
EXCEPTIONS-LENGTH	0	FEET	0	MILES
NET LENGTH	26,355.94	FEET	4.992	MILES

INDEX OF SHEETS

Sheet No. 1 Title Sheet & Layout Map

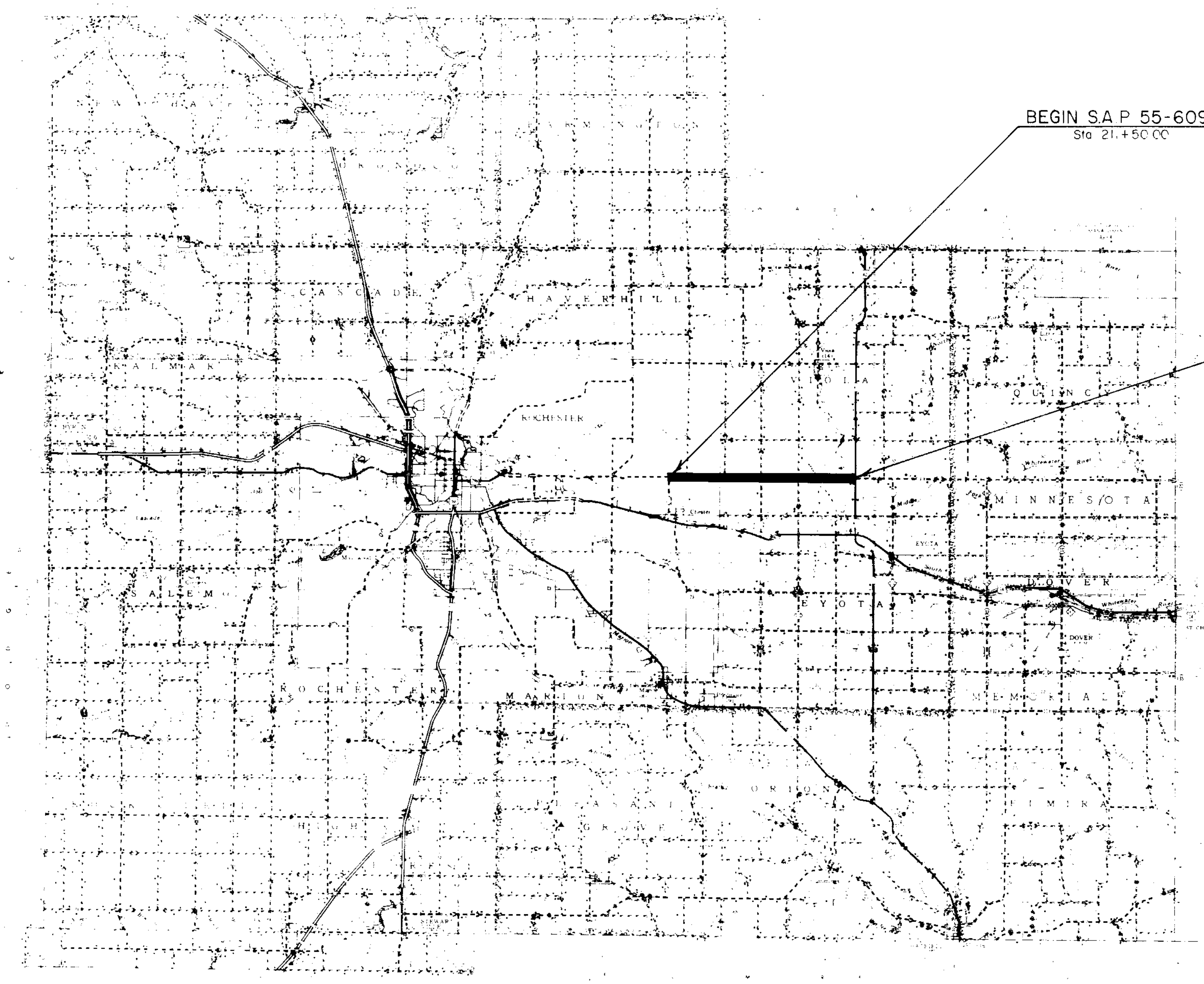
No. 3 To 7 Plan & Profile

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
DRY RUN
DRAINAGE DITCH
DRAIN TILE
CULVERT
DROP INLET
GUARD RAIL
WOVEN WIRE FENCE
CHAIN LINK FENCE
RAILROAD SNOW FENCE
HEDGE
RAILROAD CROSSING SIGN
RAILROAD CROSSING BELL
ELECTRIC WARNING SIGN
CROSSING GATE
MEANDER CORNER
SPRINGS
MARSH
TIMBER
ORCHARD
BRUSH
NURSERY
CATCH BASIN C.B.
FIRE HYDRANT
CATTLE GUARD
OVERPASS (Highway Over)
UNDERPASS (Highway Under)
BRIDGE
BUILDING (One Story Frame)
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
WATER MAIN
CONDUIT
TELEPHONE CABLE IN CONDUIT
ELECTRIC CABLE IN CONDUIT
TELEPHONE MANHOLE
ELECTRIC MANHOLE
BURIED TELEPHONE CABLE
BURIED ELECTRIC CABLE
AERIAL TELEPHONE CABLE
SEWER (SANITARY OR STORM)
SEWER MANHOLE



BEGIN S.A.P. 55-609-09
Sta. 21+50.00

END S.A.P. 55-609-09
Sta. 475+05.94

DESIGN SPEED 55 M.P.H.

PROJECTED A.D.T. 2,990

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.

Ale Schellhammer (signature) DATE 1/7/74
COUNTY ENGINEER

Olmsted COUNTY REG. NO. 8284

RECOMMENDED FOR APPROVAL Herb Peterson (signature) 1-7 1974
DISTRICT STATE AID ENGINEER

RECOMMENDED FOR APPROVAL Irving J. Sobon (signature) 1-15 1974

APPROVED

— SPECIFICATIONS —

STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION DATED JANUARY 1, 1972 AS AMENDED BY SUPPLEMENTAL SPECIFICATIONS DATED JANUARY 1, 1974 SHALL GOVERN

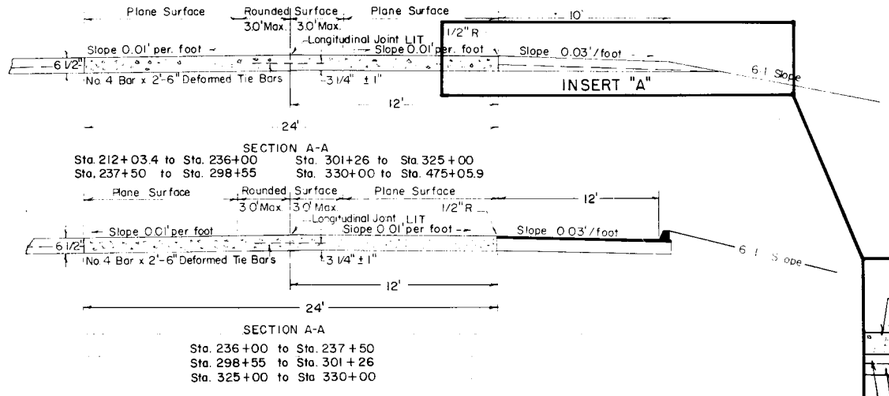
S.A.P. 55-609-09
Minn. Project No. State Project No.

ALBINSON, INC.

ESTIMATED QUANTITIES

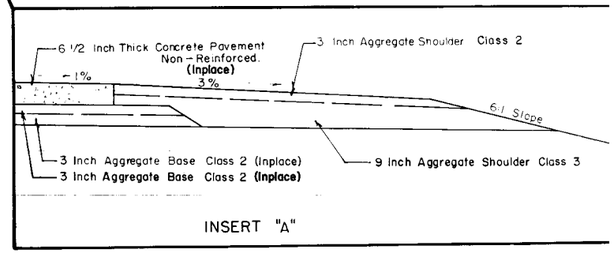
SPECIFICATION NO.	ITEM	UNIT	MUNICIPAL	RURAL	TOTAL ESTIMATED QUANTITIES
2221.501	Aggregate Shouldering Class 3	Ton		35,976	35,976
2221.501	Aggregate Shouldering Class 2	Ton		10,147	10,147
2331.504	Bituminous Material for Mixture	Ton		69	69
2331.508	Wearing Course Mixture	Ton		1,108	1,108
2535.501	Bituminous Curb	Lin. Ft.		921	921
2357.502	Bituminous Material for Tack Coat	Gal.		504	504
2358.501	Bituminous Material for Prime Coat	Gal.		3,023	3,023

TYPICAL SURFACE SECTION



SECTION A-A
Sta. 212+03.4 to Sta. 236+00
Sta. 237+50 to Sta. 298+55
Sta. 301+26 to Sta 325+00
Sta. 330+00 to Sta. 475+05.9

SECTION A-A
Sta. 236+00 to Sta. 237+50
Sta. 298+55 to Sta. 301+26
Sta. 325+00 to Sta 330+00

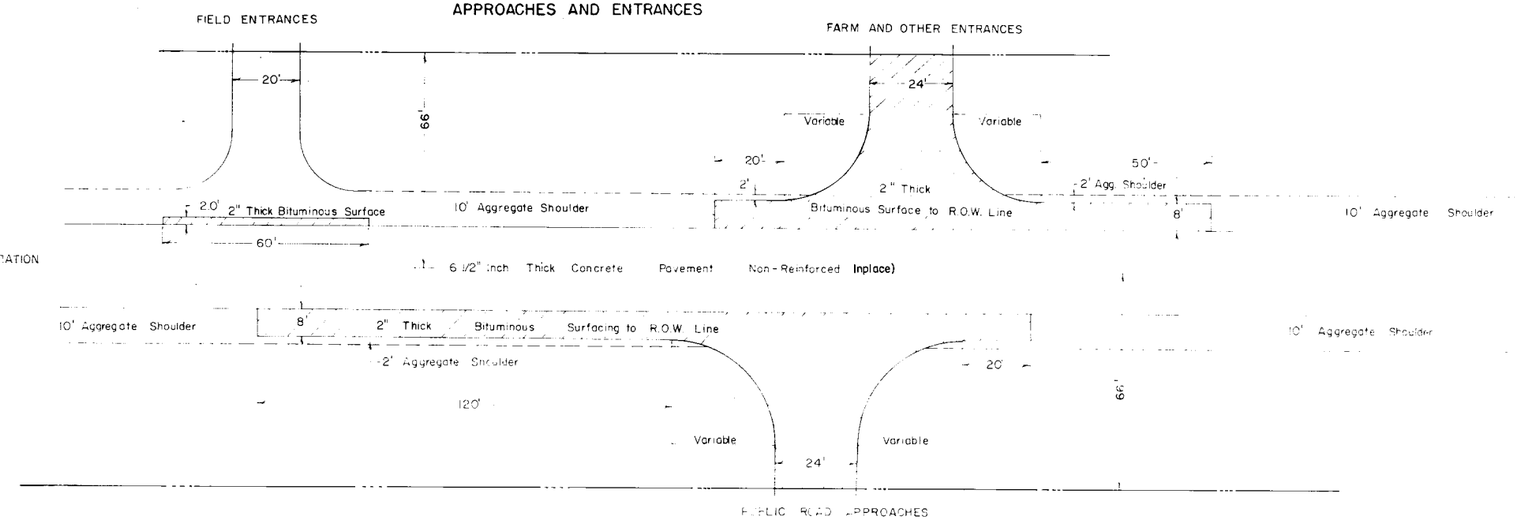


STANDARD PLATES

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

PLATE NO.	DESCRIPTION
3002 A	SPECIFICATION REFERENCE TO STANDARD PLATES
7065 C	BITUMINOUS CURB
5000 B	BITUMINOUS SURFACING ON APPROACHES
8000 F	STANDARD BARRICADES

APPROACHES AND ENTRANCES



County Proj. No.
S.A.P. SE-562-02

OLMSTED County, Minnesota Sheet of ? Sheets

Res. Drive Lt. 213+79
2" Bituminous Approach and
Rt. Turn Lane
See Detail Sheet No. 2

℄ Culv. 217+07
Inpl. 24" X 76' RCP
Place 20' Reinforced
Panel over Culvert

℄ Culv. 227+00
Inpl. 24" X 76' RCP
Place 20' Reinforced
Panel over Culvert

C.R. 119 Lt. 238+37
2" Bituminous Approach
and Rt. Turn Lane
See Detail Sheet No. 2

Res. Drive Lt. 240+15
2" Bituminous Approach
and Rt. Turn Lane
See Detail Sheet No. 2

P.I. 212+03.46

BEGIN
S.A.P. 55-609-09
Sta. 211+50.00

+19

10' Aggregate Shoulder

24' Concrete Pavement Standard Width Non-Reinforced **(Inplace)**

10' Aggregate Shoulder

NOTE: Sta. 211+50.00 Construct
Permanent Header Joint
See Standard Plate 1150 M

+04 C.R. 119

C.R. 119 Rt. 212+04
2" Bituminous Approach
and Rt. Turn Lane
See Detail Sheet No. 2

+24

FE Rt. 219+44
2" Bituminous Approach
See Detail Sheet No. 2

+97

Res. Drive Rt. 221+97
2" Bituminous Approach
and Rt. Turn Lane
See Detail Sheet No. 2

+05

FE Rt. 231+05
2" Bituminous Approach
See Detail Sheet No. 2

+84

Res. Drive Rt. 234+84
2" Bituminous Approach
and Rt. Turn Lane
See Detail Sheet No. 2

+48

Res. Drive Rt. 237+48
2" Bituminous Approach
and Rt. Turn Lane
See Detail Sheet No. 2

P.I. 238+36.84

+37 C.R. 119

+15

Finished ℄ Grades

P.I. +33.33
Elev. 69.73
P.V.C. +25.33
Elev. 67.25
+0.25%
P.I. 214+33.33
Elev. 69.23
400' V.C.
M=0.375
P.V.T. +33.33
Elev. 69.73
P.V.C. +99.99
Elev. 70.48
-0.3%
P.I. 222+99.99
Elev. 71.35
400' V.C.
M=0.275
P.V.T. +99.99
Elev. 70.75
P.V.C. +00
Elev. 70.75
P.I. +00
Elev. 70.15
400' V.C.
M=0.5
P.V.T. +00
Elev. 70.75
+0.7%
P.V.C. +56.85
Elev. 70.68
P.I. +51.85
Elev. 76.1296
590' V.C.
M=.99125
P.V.T. +46.85
Elev. 70.69
P.V.C. +30
Elev. 70.15
-2.0%

1280
70
1260

210 215 220 225 230 235 240

℄ Culv. 240+60
Inpl. 30" X 90" RCP
Place 40' Reinforced
Panel over Culvert

FE Lt. 251+45
2" Bituminous Approach
See Detail Sheet No. 2

P.O.T. 253+99.06

FE Lt. 258+66
2" Bituminous
Approach
See Detail Sheet
No. 2

℄ Culv. 260+09
Inpl. 24" X 76' RCP
Place 20' Reinforced
Panel over Culvert

Res. Drive Lt. 260+52
2" Bituminous Approach
and Rt. Turn Lane
See Detail Sheet No. 2

℄ Culv. 264+50
Inpl. 48" X 60" X 72' Timber Box
Place 20' Reinforced
Panel over Culvert

P.I. 265+01.49

Res. Drive Lt. 261+83
2" Bituminous Approach
and Rt. Turn Lane
See Detail Sheet No. 2

FE Lt. 265+08
2" Bituminous Approach

See Detail Sheet No. 2

+15

10' Aggregate Shoulder

10' Aggregate Shoulder

+20

+45

+45

24' Concrete Pavement Standard Width Non-Reinforced (Inplace)

+66

+52

+83

+08

+21

+81

+81

Res. Drive Rt. 246+20
2" Bituminous Approach & Rt. Turn Lane
See Detail Sheet No. 2

FE Rt. 251+45
2" Bituminous Approach
See Detail Sheet No. 2

FE Rt. 258+20
2" Bituminous Approach
See Detail Sheet No. 2

FE Rt. 261+65
2" Bituminous Approach
See Detail Sheet No. 2

FE Rt. 265+18
2" Bituminous Approach
See Detail Sheet No. 2

Finished ℄ Grades

P.I. +00
Elev. 65.15
500' V.C.
M=3.0625
P.V.T. +00
Elev. 72.40
P.V.C. -50
Elev. 72.40
+2.9%
P.V.C. +50
Elev. 87.65
P.I. +00
Elev. 78.85
500' V.C.
M=1.875
P.V.T. +50
Elev. 87.65
+1.0%
P.V.C. +00
Elev. 88.75
P.I. +60
Elev. 88.25
500' V.C.
M=1.25
P.V.T. +00
Elev. 88.75
-1.0%
P.V.C. +00
Elev. 81.85
P.I. +00
Elev. 78.85
600' V.C.
M=2.25
P.V.T. +00
Elev. 66.85
-2.0%
P.V.C. +00
Elev. 62.85
P.I. +00
Elev. 54.85
400' V.C.
M=1.8

1290
80
70
60
1250

240 245 250 255 260 265 270

PLATE 1 - PLAN PROFILE C.E.P.A. & R.I.L. STANDARD
KEUFFEL & ESSER CO., NEW YORK.
K & E Co. No. 348-2C

OLMSTED COUNTY

C.S.A.H. 9 S.A.P. 55-609-09

℄ Culv. 271+10
Inpl. 30" X 90' RCP
Place 40' Reinforced
Panel over Culvert

FE Lt. 277+85
2" Bituminous Approach
See Detail Sheet No. 2

℄ Culv. 278+11
Inpl. 30" X 36' RCP
Place 20' Reinforced
Panel over Culvert

P.O.T. 285+81.02

Res. Drive Lt. 290+17
2" Bituminous Approach
and Rt. Turn Lane
See Detail Sheet No. 2

Twp Rd Lt 291+29
2" Bituminous Approach
and Rt. Turn Lane
See Detail Sheet No. 2

P.I. 291+28.82

℄ Culv. 291+81
Inpl. 24" X 86' RCP
Place 20' Reinforced
Panel over Culvert

FE Lt. 293+76
2" Bituminous Approach
See Detail Sheet No. 2

Res. Drive Lt. 299+21
2" Bituminous Approach
and Rt. Turn Lane
See Detail Sheet No. 2

P.O.T. 300+00

10' Aggregate Shoulder

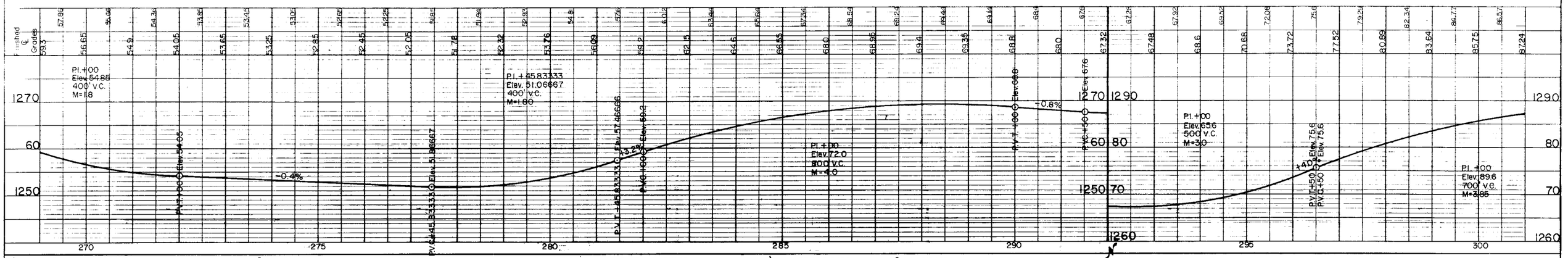
24' Concrete Pavement Standard Width Non-Reinforced **(Inplace)**

10' Aggregate Shoulder

Res. Drive Rt. 286+32
2" Bituminous Approach
and Rt. Turn Lane
See Detail Sheet No. 2

℄ Culv. 290+75
Inpl. 48" X 60" X 82' Timber Box
Place 20' Reinforced
Panel over Culvert

FE Rt. 291+45
2" Bituminous Approach
See Detail Sheet No. 2



Res. Drive Lt. 300+45
2" Bituminous Approach
and Rt. Turn Lane
See Detail Sheet No. 2

P.O.T. 300+00

℄ Culv. 304+81
Inpl. 24" X 90' RCP
Place 20' Reinforced
Panel over Culvert

FE Lt. 306+25
2" Bituminous Approach
See Detail Sheet No. 2

Res. Drive Lt. 310+38
2" Bituminous Approach
and Rt. Turn Lane
See Detail Sheet No. 2

Res. Drive Lt. 311+42
2" Bituminous Approach
and Rt. Turn Lane
See Detail Sheet No. 2

P.I. 316+31.35

FE Lt. 312+94
2" Bituminous Approach
See Detail Sheet No. 2

℄ Culv. 313+55
Inpl. 24" X 68' RCP
Place 20' Reinforced
Panel over Culvert

Res. Drive Lt. 326+99
2" Bituminous Approach
and Rt. Turn Lane
See Detail Sheet No. 2

10' Aggregate Shoulder

24' Concrete Pavement Standard Width Non-Reinforced **(Inplace)**

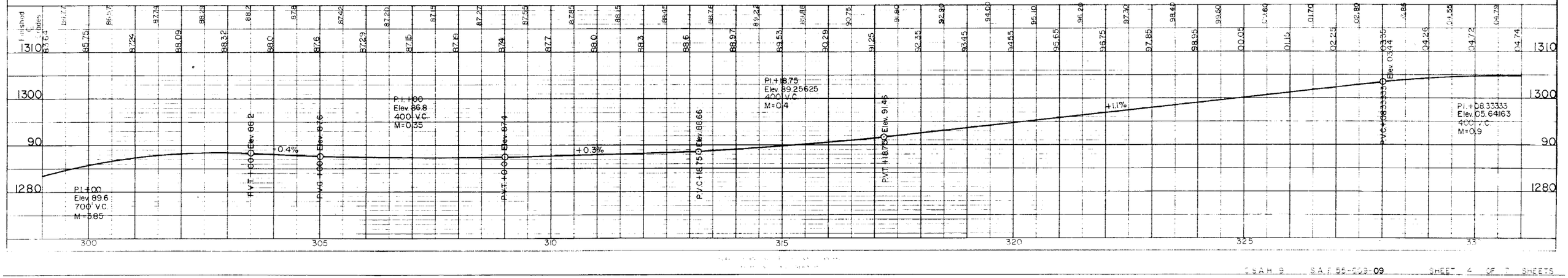
10' Aggregate Shoulder

FE Rt. 304+23
2" Bituminous Approach
See Detail Sheet No. 2

FE Rt. 316+25
2" Bituminous Approach
See Detail Sheet No. 2

FE Rt. 326+99
2" Bituminous Approach
See Detail Sheet No. 2

FE Rt. 329+70
2" Bituminous Approach
See Detail Sheet No. 2



℄ Culv. 338+54
Inpl. 24" X 70' RCP
Place 20' Reinforced
Panel over Culvert

P.I. 342+74.98

C.R. 102 Lt 342+75
2" Bituminous Approach
and Rt. Turn Lane
See Detail Sheet No. 2

C.R. 102

℄ Culv. 355+00
Inpl. 24" Span X 66' RCP-A
Place 20' Reinforced
Panel over Culvert

10' Aggregate Shoulder

24' Concrete Pavement Standard Width Non-Reinforced (Inplace)

10' Aggregate Shoulder

+70

C.R. 102 Rt 342+75
2" Bituminous Approach
and Rt. Turn Lane

+75 C.R. 102

Res. Drive 352+89
2" Bituminous Approach
and Rt. Turn Lane
See Detail Sheet No. 2

+89

330 335 340 345 350 355 360

Finished ℄ Grades

0428 0472 0474 0432 0396 0329 0225 0222 0115 0108 0033 0032 0048 0077 0168 0231 0304 0458 0545 0625 0705 0785 0924 1005 1065 1065 1118 1145 1105 1085 1055 1025 0985 0946 0913 0908 0931 0946 0960 0975 0990

1310
1300
1290

P.I. +08.33333
Elev. 05.64163
400' V.C.
M=0.9

P.V.C. +00.00 Elev. 12.4

-0.7%

P.V.T. +00.00 Elev. 09.8

P.I. +50
Elev. 99.05
500' V.C.
M=1.4376

+1.6%

P.V.C. +00.00 Elev. 08.05

P.V.T. +00.00 Elev. 08.65

P.V.C. +00.00 Elev. 08.65

P.I. +00
Elev. 12.65
500' V.C.
M=1.25

P.V.T. +50.0 Elev. 11.65

-0.4%

P.V.C. +00.00 Elev. 09.45

P.I. +50
Elev. 08.85
400' V.C.
M=0.35

P.V.T. +50.0 Elev. 09.45

+0.3%

330 335 340 345 350 355 360

P.I. 369+16.30

FE Lt 369+05
2" Bituminous Approach
See Detail Sheet No. 2

℄ Culv. 377+52
Inpl. 30" X 78' RCP
Place 20' Reinforced
Panel over Culvert

FE Lt. 380+64
2" Bituminous Approach
See Detail Sheet No. 2

Res. Drive Lt. 384+47
2" Bituminous Approach
and Rt. Turn Lane
See Detail Sheet No. 2

+05

+64

+17

10' Aggregate Shoulder

24' Concrete Pavement Standard Width Non-Reinforced (Inplace)

10' Aggregate Shoulder

+25

+49

+34

+82

+89

FE Rt. 369+25
2" Bituminous Approach
See Detail Sheet No. 2

FE Rt. 373+49
2" Bituminous Approach
See Detail Sheet No. 2

Res. Drive Rt. 376+34
2" Bituminous Approach
and Rt. Turn Lane
See Detail Sheet No. 2

FE Rt. 382+82
2" Bituminous Approach
See Detail Sheet No. 2

FE Rt. 387+89
2" Bituminous Approach
See Detail Sheet No. 2

360 365 370 375 380 385 390

Finished ℄ Grades

0931 0960 0975 0990 1004 1010 1010 0988 0937 0862 0781 0715 0635 0505 0441 0375 0245 0115 0005 9982 9950 9920 9885 9855 9845 9855 9885 9915 9948 9998 0048 0118 0182 0265 0325 0375 0433 0485 0545

1310
1300
1290

+0.3%

P.V.C. +06.25 Elev. 09.92

P.I. +06.25
Elev. 10.81875
500' V.C.
M=1.20

P.V.T. +06.25 Elev. 06.92

-1.3%

P.V.C. +00.00 Elev. 99.2

P.I. +00
Elev. 96.6
400' V.C.
M=0.8

P.V.T. +00.00 Elev. 97.2

+0.3%

P.V.C. +00.00 Elev. 99.3

P.I. +00
Elev. 999
400' V.C.
M=0.4

P.V.T. +00.00 Elev. 04.1

+1.1%

360 365 370 375 380 385 390

PLATE 2 PLAN PROFILE O.P.P.A.R.T. STANDARD
KEUFFEL & ESSER CO., NEW YORK

Twp.Rd Lt. 395+59
2" Bituminous Approach
and Rt. Turn Lane
See Detail Sheet No. 2

Twp. Rd +59

Pl. 395+56.18

Res. Drive Lt 401+32
2" Bituminoss Approach
and Rt. Turn Lane
See Detail Sheet No. 2

FE Lt 403+00
2" Bituminous Approach
See Detail Sheet No. 2

℄ Culv. 404+15
Inpl. 24" X 72' RCP
Place 20' Reinforced
Panel over Culvert

Res Drive Lt 407+25
2"Bituminous Approach
and Rt. Turn Lane
See Detail Sheet No. 2

℄ Culv. 415+20
Inpl. 24" X 64' RCP
Place 20' Reinforced
Panel over Culvert

FE Lt 418+9
2" Bituminous Approach
See Detail Sheet No. 2

+32 +00 +25 +91

10' Aggregate Shoulder

24' Concrete Pavement Standard Width Non-Reinforced (Inplace)

390 395 400 405 410 415 420

10' Aggregate Shoulder

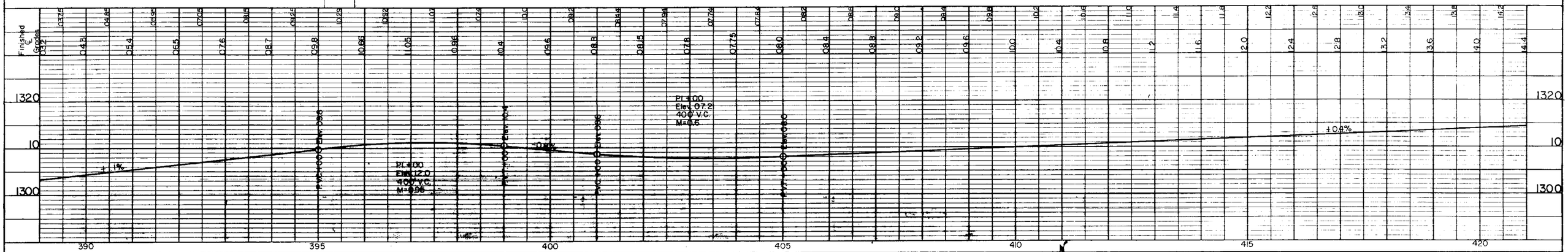
+99 +63 +65

Twp.Rd. Rt. 395+56
2" Bituminous Approach
and Rt. Turn Lane
See Detail Sheet No. 2

Twp. Rd +56

FE Rt 401+99
2" Bituminous Approach
See Detail Sheet No. 2

FE Rt 408+63
2" Bituminous Approach
See Detail Sheet No. 2



Res. Drive Lt. 421+80
2" Bituminous Approach
and Rt. Turn Lane
See Detail Sheet No. 2

POT 421+94.58

+55

FE Lt. 431+19
2" Bituminous Approach
See Detail Sheet No. 2

℄ Culv. 432+63
Inpl. 24" X 76' RCP
Place 20' Reinforced
Panel over Culvert

Res. Drive Lt. 434+72
2" Bituminous Approach
and Rt. Turn Lane
See Detail Sheet No. 2

FE Lt. 437+43
2" Bituminous Approach
See Detail Sheet No. 2

Pl. 448+26.64

+19 +72 +43

10' Aggregate Shoulder

24' Concrete Pavement Standard Width Non-Reinforced (Inplace)

420 425 430 435 440 445 450

+55 +88 +33 +39

10' Aggregate Shoulder

FE Rt. 421+65
2" Bituminous Approach
See Detail Sheet No. 2

FE Rt. 434+88
2" Bituminous Approach
See Detail Sheet No. 2

FE Rt. 438+33
2" Bituminous Approach
See Detail Sheet No. 2

Res. Drive Rt. 441+39
2" Bituminous Approach
and Rt. Turn Lane
See Detail Sheet No. 2

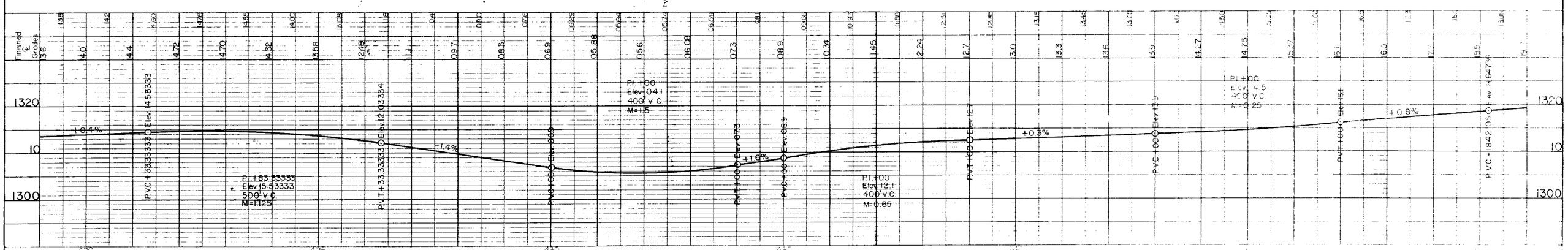


PLATE 2 PLAN PROFILE
REUPPEL & LOEDER CO. NEW YORK

CSAH 9 S.P. 55-609-09 SHEET OF SHEETS

F.F. Lt. 457+67
2" Bituminous Approach
See Detail Sheet No. 2

℄ Culv. 458+24
Inpl. 24" x 72" RCP
Place 20' Reinforced
Panel over Culvert

℄ Culv. 458+79
Inpl. 24" x 72" RCP
Place 20' Reinforced
Panel over Culvert

NOTE: Sta 474+83.94
Construct Permanent Header Joint
See Standard Plate 1150M

P.O.T. 471+31.17

P.O.T. 472+05.94

END
S.A.P. 55-609-09
Sta 472+05.94

10' Aggregate Shoulder

24' Concrete Pavement Standard Width Non-Reinforced **(Inplace)**

NORTHWESTERN

CHICAGO AND

C.S.A.H. 9

T.H.

10' Aggregate Shoulder

NOTE: Sta. 458+46.5 and Sta. 458+55.5
Construct Concrete Pavement
adjacent to Railroad Crossing
See Standard Plate 1210E
(Intermediate Type)

F.F. Rt. 457+92
2" Bituminous Approach
See Detail Sheet No. 2

F.F. Rt. 465+72
2" Bituminous Approach
See Detail Sheet No. 2

F.F. Rt. 474+83.94
2" Bituminous Approach
and Rt. Turn Lane
See Detail Sheet No. 2

Finished ℄ Grades

P.V.C.+ 8.42105 Elev. 18.64736

P.I. + 68.42105
Elev. 20.64736
500' V.C.
M=-11.875

+0.8%

P.V.T.+ 8.42105 Elev. 17.89737

P.V.C.+ 60.00 Elev. 17.44

-1.7%

P.I. + 00
Elev. 15.9
280' V.C.
M=0.385

P.V.T.+ 4.00 Elev. 15.9

P.V.C.+ 60.00 Elev. 15.9

-0.5%

P.I. + 00
Elev. 15.9
280' V.C.
M=0.21

P.V.T.+ 4.00 Elev. 16.74

+0.67%

P.V.C.+ 5.00 Elev. 23.4

100%

P.V.T.+ 5.00 Elev. 24.0

P.I. + 00
Elev. 24.0
200' V.C.
M=-0.15

1330
20
1310

450 455 460 465 470 475