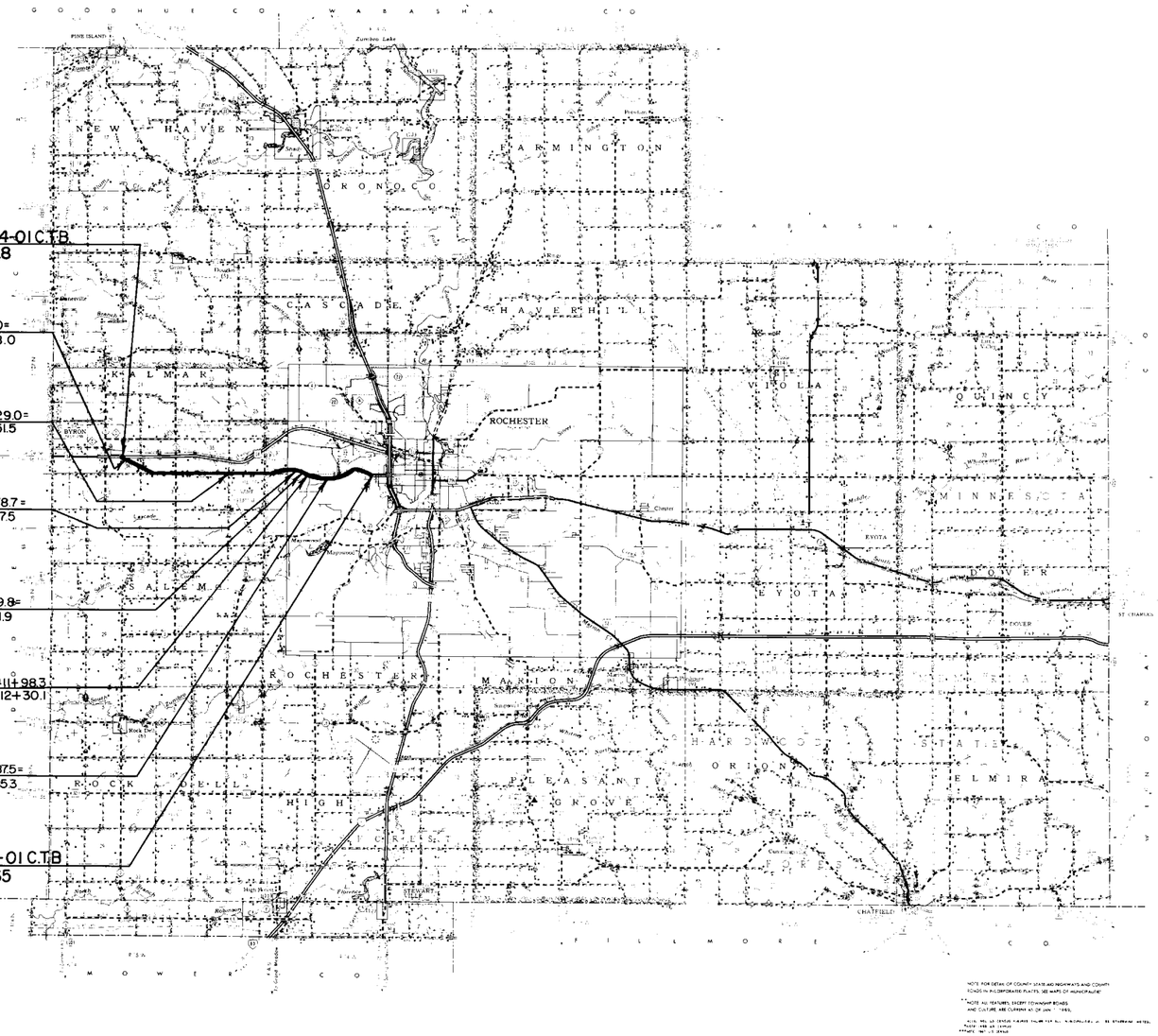
FORM 100-A '65

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
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) 1-S-F 15'
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



Fed. Proj. No.

STATE OF MINNESOTA

DEPARTMENT OF HIGHWAYS

CONSTRUCTION PLAN FOR Grading, Concrete Box Culv. Ext., Aggregate Base, Bituminous Surface and Bituminous Curb.

COUNTY STATE AID HIGHWAY NO. 34

BETWEEN T.H. 14 (Near Byron) **AND** 23rd. Ave. S.W. Rochester

From Approx. 180' South of W 1/4 Cor. Sec. 33 T107 N – R15 W
Give proper reference to Sections, Township and Range

To Approx. 110' North and 70' West of the S.E. Corner Sec. 33 T107 N – R14 W

GROSS LENGTH	4052.85	FEET	7.604 MILES
BRIDGES-LENGTH	65.6	FEET	.012 MILES
EXCEPTIONS-LENGTH	1789.25	FEET	.339 MILES
NET LENGTH	38298.00	FEET	7.253 MILES

INDEX OF SHEETS

Sheet No 1 Title Sheet & Layout Map
" No 2-3 Est. Quantities & Typical Sec
" No 4 To 15 Plan & Profile
" No 16 To 17 Bridge Sheets
No 18 to 29 Cross Sections
No 30 Channel Excavation

DESIGN SPEED 50 M. P. H.

Sta. 102+59.8 to Sta. 452+00 PROJECTED A.D.T. 2245
Sta. 452+00 to Sta. 504+12.65 PROJECTED A. D. T. 4664

9 TON DESIGN

SOIL FACTOR 100

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.

Carl Schellhammer DATE 4-28-70
COUNTY ENGINEER

Olmsted COUNTY REG. NO. 8284

RECOMMENDED FOR APPROVAL Kenneth Peterson 4/30 19 70
DISTRICT STATE AID ENGINEER

RECOMMENDED FOR APPROVAL C.E. Weichselbaum 5-5 19 70

APPROVED 5/5 19 70 Charles M. Ley
STATE AID ENGINEER

— SPECIFICATIONS —

STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION
DATED JANUARY 1, 1968, as amended by Supplemental Specifications Dated July 1, 1969 Shall Govern

Minn. Project No. _____ S.A.P. 55-634-01 C.T.B.
State Project No. _____

Olmsted County, Minnesota. County Proj. No. _____ Plan No. _____ Sheet 1 of 30 Sheets

ALBINSON, INC.
MINNEAPOLIS, MINN. 55415

FORM 100-A 63

FED. ROAD DIV. NO.	STATE	FEDERAL PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MINN.				

ESTIMATED QUANTITIES

	SPECIFICATION NO.	ITEM	UNIT	MUNICIPAL	RURAL	TOTAL ESTIMATED QUANTITIES
	2101.501	Clearing	Acre		0.76	0.76
	2101.502	Clearing	Tree		73	73
	2101.506	Grubbing	Acre		0.76	0.76
	2101.507	Grubbing	Tree		70	70
	2104.501	Remove Portable Culverts	Lin. Foot		590	590
	2104.502	Remove Pavement	Sq. Yd.		15105	15105
(8)	2104.516	Remove Pavement for Trench	Sq. Yd.		136	136
	2104.520	Remove Surface Concrete Spillways	Structure		139	139
(10)	2104.520	Remove Concrete Box Culvert	Structure		1	1
(11)	2104.520	Remove Concrete Box Culvert	Structure		2	2
(12)	2104.520	Remove Concrete Box Culvert	Structure		1	1
	2105.501	Common Excavation	Cu.Yd.		31164	31164
(1)	2105.503	Rock Excavation	Cu. Yd.		16204	16204
	2105.507	Subgrade Excavation	Cu.Yd.		6632	6632
	2105.511	Common Channel Excavation	Cu. Yd.		10685	10685
	2123.501	Common Laborers	Hour		10	10
(5)(6)	2123.503	Motor Grader	Hour		30	30
(6)	2123.508	15 C.Y. Scraper	Hour		6	6
(6)	2123.511	75 H.P. Tractor	Hour		6	6
(5)	2123.521	Pneumatic Tired Roller	Hour		30	30
(2)	2130.501	Water	(M) Gallons		40	40
(9)	2131.502	Calcium Choloride Solution	Gallon		16528	16528
(3)	2211.501	Aggregate Base Class 2	Tons		29786	29786
	2221.501	Aggregate Shouldering Class 2	Ton		24906	24906
	2231.501	Bituminous Patching Mixture	Ton		35	35
	2231.505	Mixture for Joints and Cracks	100 Pound(Cwt.)		280	280
(7)	2331.504	Bituminous Material for Mixture	Ton		504	504
	2331.510	Binder Course Mixture	Ton		2251	2251
	2331.512	Leveling Course Mixture	Ton		5864	5864
	2331.514	Base Course Mixture	Ton		4429	4429
	2341.504	Bituminous Material for Mixture	Ton		565	565
	2341.508	Wearing Course Mixture	Ton		10101	10101
	2357.502	Bituminous Material for Tack Coat	Gallon		10718	10718
	2358.501	Bituminous Material for Prime Coat	Gallon		11883	11883
	2411.501	Concrete Mix No. 3Y33	Cu.Yd.		4891	48.91
	2411.501	Concrete Mix No. 3Y43	Cu.Yd.		10.03	10.03
	2411.501	Structure Excavation Class "U"	Cu.Yd.		59.5	59.5
	2411.541	Reinforcement Bars	Pound		10061	10061
	2442.501	Remove old Bridge	Bridge		1	1
	2501.511	18" Metal Pipe Culverts	Lin. Foot		96	96
	2501.511	24" Metal Pipe Culverts	Lin.Foot		32	32
	2501.511	30" Metal Pipe Culverts	Lin.Foot		66	66
	2501.523	18" Concrete Culvert Class III	Lin.Foot		64	64
	2501.523	24" Concrete Culvert Class II	Lin.Foot		92	92
	2501.523	36" Concrete Culvert Class II	Lin.Foot		82	82
	2501.523	36" Concrete Culvert Class III	Lin. Foot		78	78
	2501.524	51 1/8" Span Concrete Pipe-Arch Culv. Class II	Lin.Foot		82	82
(4)	2501.524	168 3/4" Span Conc. Pipe-Arch Culv. Class II	Lin.Foot		764	764
	2501.532	18" Metal Aprons	Apron		6	6
	2501.532	24" Metal Aprons	Apron		2	2
	2501.532	30" Metal Aprons	Apron		2	2
	2501.536	18" Concrete Aprons	Apron		1	1
	2501.536	24" Concrete Aprons	Apron		2	2
	2501.536	36" Concrete Aprons	Apron		6	6
	2501.537	51 1/8" Span Concrete Aprons	Apron		2	2
(4)	2501.537	168 3/4" Span Concrete Aprons	Apron		8	8
	2501.572	Install Concrete Culverts	Lin. Foot		74	74
(8)	2506.509	Construct Catch Basins Design "C"	Structure		2	2
	2511.501	Random Riprap Class "B"	Cu. Yd.		588	588
	2511.504	Filter Blanket Type 2	Cu.Yd.		170	170
	2535.501	Bituminous Curb	Lin. Foot		3085	3085
	2501.523	48" Concrete Culvert Class 2	Lin.Foot		94	94
	2501.536	48" Concrete Aprons	Apron		2	2
	2501.511	8" Metal Pipe Culvert	Lin. Foot		100	100
	2451.505	Gravel Backfill (Class 2)	Cu. Yd.		110	110

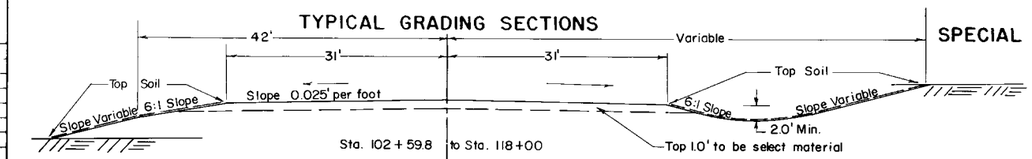
See Sheet No. 3 for Footnotes

STANDARD DETAIL PLATES

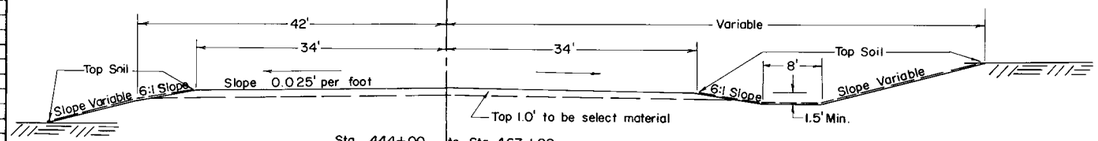
THE FOLLOWING STANDARD DETAIL PLATES, APPROVED BY THE BUREAU OF PUBLIC ROADS, SHALL APPLY ON THIS PROJECT.

PLATE NO	DESCRIPTION
0001 A	SPECIFICATION REFERENCE TO STANDARD PLATES
3000 F	REINFORCED CONCRETE PIPE
3014 E	REINFORCED CONCRETE PIPE-ARCH
3040 C	CORRUGATED METAL PIPE
3065 B	CONNECTION BET. EXISTING CULV. & NEW "C" CULV. BARREL
3100 F	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
3110 C	CONCRETE APRON FOR REINFORCED CONCRETE PIPE-ARCH
3114 C	SECTIONAL CONCRETE APRON FOR REINFORCED CONC. PIPE-ARCH
3123 F	METAL APRON FOR C.M. PIPE
3124 A	METAL APRON CONNECTION
3145 A	CONCRETE PIPE JOINT TIES
4002 D	CATCH BASIN DESIGN "C"
4010 D	CONCRETE SHORT CONE & ADJUSTING RING
4011 C	PRECAST CONCRETE BASE
7065 C	BITUMINOUS CURB
8000 C	STANDARD BARRICADES
8008 D	CONTRACTORS SIGN
9000 B	APPROACHES AND ENTRANCES

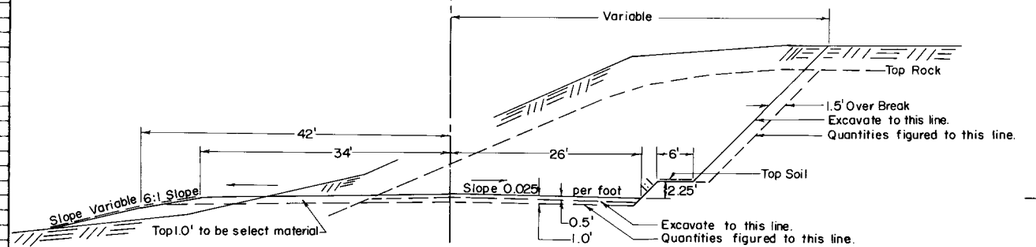
TYPICAL GRADING SECTIONS



Sta. 102+59.8 to Sta. 118+00

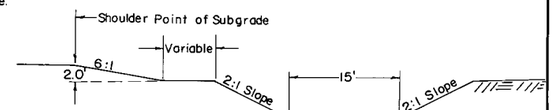


Sta. 444+00 to Sta. 467+00
Sta. 489+20 to Sta. 496+60



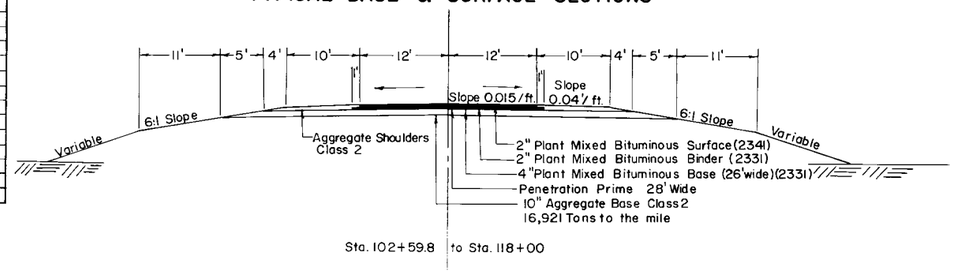
Sta. 467+00 to Sta. 489+20
Sta. 496+00 to Sta. 504+12.6

SPECIAL DETAILS

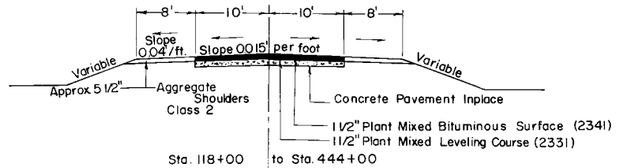


CHANNEL CHANGE RIGHT
Sta. 444+00 to Sta. 453+60

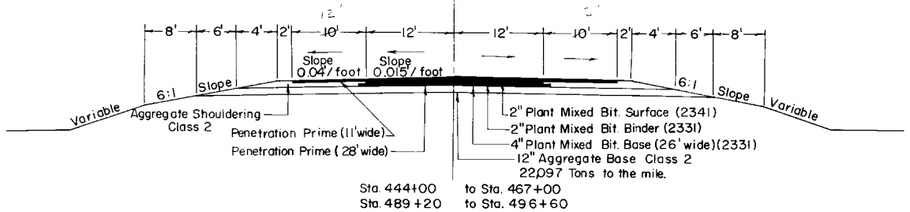
TYPICAL BASE & SURFACE SECTIONS



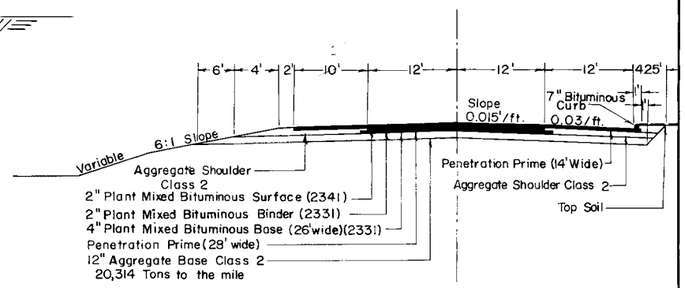
Sta. 102+59.8 to Sta. 118+00



Sta. 118+00 to Sta. 444+00



Sta. 444+00 to Sta. 467+00
Sta. 489+20 to Sta. 496+60



Sta. 466+15 to Sta. 489+20
Sta. 496+60 to Sta. 504+12.6

Minn. Project No. _____ S.A.P. 55-634-01
State Project No. _____

ALBINSON, INC.
MINNEAPOLIS 15 MINN.

Olmsted County, Minnesota. County Proj. No _____ Plan No. 2 Sheet of 30 Sheets

BASIS FOR PLANNED QUANTITIES

AGGREGATE BASE

AGGREGATE FOR BASE _____ 135 lbs. per Cu. Ft. compacted
AGGREGATE SHOULDERING (Class 2) Sta. 102+598 to Sta. 118+00 5410 Tons per mile
Sta. 118+00 to Sta. 444+00 2940 Tons per mile
Sta. 444+00 to Sta. 504+12.65 5346 Tons per mile

BITUMINOUS PRIME & TACK COAT

BITUMINOUS MATERIAL FOR PRIME COAT _____ 0.3 Gal. per Sq. Yd.
BITUMINOUS MATERIAL FOR TACK COAT _____ 0.05 Gal. per Sq. Yd.

PLANT MIXED BITUMINOUS WEARING COURSE (2341)

BITUMINOUS MATERIAL FOR MIXTURE _____ 5.6% of weight of mixture
BITUMINOUS MATERIAL COMPUTED FOR
108,941 SQ. YDS. INCLUDES _____ 5986 Sq. Yds. for Ent. and Apps.
WEARING COURSE MIXTURE _____ 220 lbs. per Sq. Yd. per 2"
165 lbs. per Sq. Yd. per 1 1/2"

PLANT MIXED BITUMINOUS BINDER AND LEVELING COURSE (2331)

BITUMINOUS MATERIAL FOR MIXTURE _____ 4.3% of weight of mixture
BITUMINOUS MATERIAL COMPUTED FOR
91547 SQ. YDS. INCLUDES _____ 2937 Sq. Yds. for Ent. and Apps.
WEARING COURSE MIXTURE _____ 220 lbs. per Sq. Yd. per 2"
165 lbs. per Sq. Yd. per 1 1/2"

PLANT MIXED BITUMINOUS BASE COURSE (2331)

BITUMINOUS MATERIAL FOR MIXTURE _____ 3.5% of weight of mixture
BITUMINOUS MATERIAL COMPUTED FOR
22145 SQ. YDS. INCLUDES _____ 326 Sq. Yds. for Ent. and Apps.
WEARING COURSE MIXTURE _____ 400 lbs. per Sq. Yd. per 4"

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, behind curbs 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 metal and Sectional Concrete pipe culvert excavation will be considered incidental, and will be under unit price for "Furnish and Install Culvert Pipe".

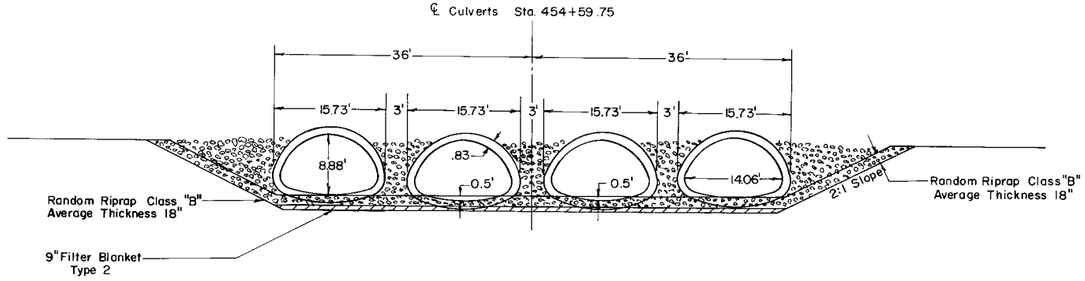
Note: Subgrade Treatment:
Excavate 1.0' below profile grade for compaction, as shown on the plan and profile sheets. Excavation has been computed and is listed as "Subgrade Excavation" backfill with select material from R.O.W. Tapers shall be 50:1 in all cases.

Note: Place Sectional Concrete Pipe on Class "B" and Class "C" Bedding.

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

FOOTNOTES TO ESTIMATED QUANTITIES SHEET 2

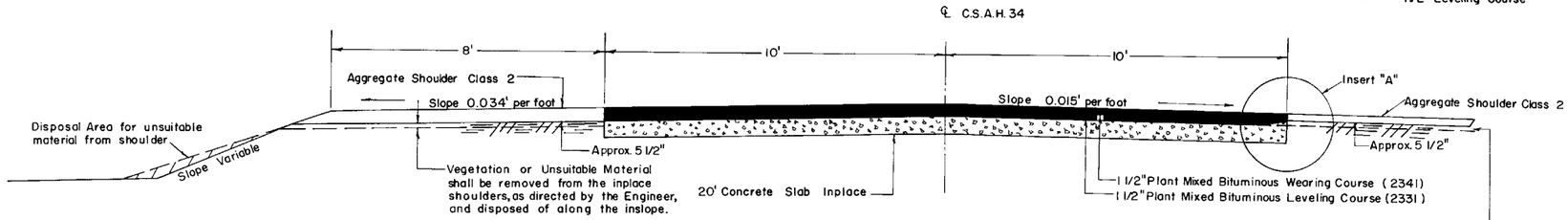
① Includes 3075 Cu. Yds. of Overbreak.
② Provided as a dust palliative.
③ Includes 385 Tons for approaches and 300 Tons for Public Road approaches.
④ Pipe shall have sealed joints and concrete pipe joint ties.
⑤ Provided for shaping approaches and removal of unsuitable material from inplace shoulders from Sta. 118+00 to Sta. 444+00.
⑥ Equipment hours for Obliterate old road right Sta. 469+00.
⑦ Includes 155 Tons for Bituminous Base Course, 97 Tons for Bituminous Binder Course and 252 Tons for Bituminous Leveling Course.
⑧ See Plan & Profile Sheet 6 for details.
⑨ Provided for the Aggregate Shouldering. To be Applied at a rate of 0.27 Gallons per Sq. Yd.
⑩ Sta. 472+17, Size 2' X 2' X 44' Concrete Box Culv.
⑪ Sta. 117+02 and Sta. 476+23, Size 4' X 6' X 52' Concrete Box Culverts.
⑫ Sta. 490+83, Size 4' X 6' X 44' Concrete Box Culvert.

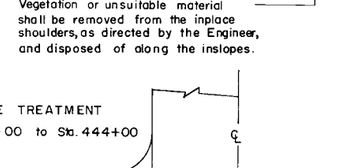


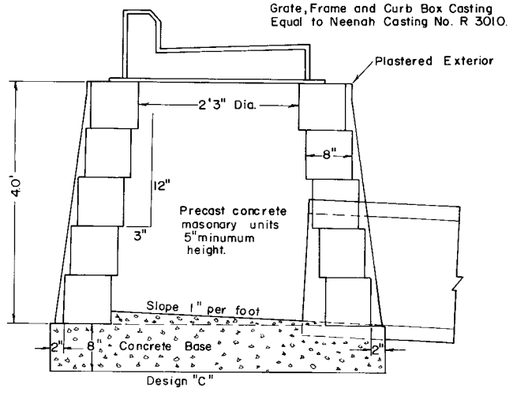
TYPICAL SECTION CONCRETE PAVEMENT
Sta. 118+00 to Sta. 444+00

CONSTRUCTION NOTE:

As directed by the Engineer, small areas of severely cracked pavement shall be removed and backfilled flush with the inplace concrete surface with Bituminous Patching Mixture (Spec. 2231).







Sta. 469+00 23' Right
Sta. 472+17 23' Right

℄ Culv. (Old Road) Lt. 108+00
15" X 70' CMP Inpl.
2-Aprons (4 Lin.Ft.)
Remove & Salvage

℄ Culv. (Old Road) Lt. 111+30
Inpl. 30" X 62' SCP.
Remove & Salvage

℄ Cattle Pass 117+02
Inpl. 4'X 6'X 52' Conc.
Remove Conc. Structure
F&I 48" X 94' RCP Class II
F&I 2-48" Conc. Aprons
For SCP
Place Culv. on "C" Bedding

Remove Pavement 1889 Sq.Yds.
from Left Sta. 110+10 to Sta. 118+00
(850 Lin. Feet)

End Grading Sta. 118+00

Remove 10 Surface Spillways
from Left Sta. 112+00 to Sta. 130+00

BEGIN S.A.P 55-634-01

Service Drive 14 W.B.L.
T.H. 14 P.O.S.T. 104+64.4 T.H.14=
P.O.T. 102+59.8 E.B.L.
T.H. 14 P.O.T. 103+30.09
Brass Plug

Begin Conc.
R.O.W. Marker
P.C. 103+96.30
Pl. 106+45.40
Δ Lt. 90°00'
D 23°00'
T 249.10'
L 391.30'
E 103.20'
P.T. 107+97.6
R.O.W. Marker
R.P.
Construct 50' Shoulder Radius
Super Elevation / Ft. .06'
Length of run off 100'

F.E. Lt. 112+60
No Culv. Inpl.
Construct F. End. Rt. Sta. 112+60
No Culv. Req'd.

P.I. 114+14.11
Δ Rt. 29°27'
D 7°00'
T 215.31'
L 420.71'
Super Elev. / Ft .06'
Length of run off 200'
P.C. 111+98.80
P.T. 116+19.51

Sta. 118+00 = EQUATION Sta. 118+68

Construct ℄ Culv. Sta. 111+60 Skew 15°
F&I 36" X 82'+15° RCP Class III
F&I 2-36" Conc. Aprons
For SCP
Place Culv. on "C" Bedding

B.M. Elev. 1250.60
Std. Disk Conc. Mont. 69' Lt.
Sta. 107+41 T.H. 14 W.B.L.

B.M. Elev. 1225.38
Spk. in PP 45' Lt.
Sta. 116+40

P.I. +61.53846
Elev. 48.5
100' V.C.
M=0.325

P.I. +47.82608
Elev. 30.65653
400' V.C.
M=1.15

P.I. +86.04651
Elev. 28.44187
500' V.C.
M=1.075

℄ Subgrade Elev.
48.5 47.5 44.9 42.3 39.7 37.1 34.6 32.6 31.1 30.3 29.9 29.6 29.3 29.1 29.2 29.5

P.V.C. +11.53846 Elev. 48.5
P.V.T. +11.53846 Elev. 47.2
0.0%
-2.6%
P.V.C. +47.82608 Elev. 35.85653
P.V.T. +47.82608 Elev. 36.59574
-0.3%
P.V.C. +36.04651 Elev. 29.19187
+1.42%
P.V.T. +04.04651 Elev. 31.99187

Inlet Elev. 25.8
Outlet Elev. 25.0
Inlet Elev. 21.5
Outlet Elev. 20.0

Profile 75' Lt.
Profile 75' Rt.

COMMON EXC. 791
SUBGRADE EXC. 120
EMB. 556

Subgrade Treatment:
Excavate 1.0' Below Profile Grade
From Sta. 102+79 to Sta. 103+60
From Sta. 105+50 to Sta. 110+00
From Sta. 113+32 to Sta. 118+00

COMMON EXC. 13,407 CU. YDS.
SUBGRADE EXC. 1,555 CU. YDS.
EMB. 9,699 CU. YDS.

1+59.8 +82 +68.3 +79 +25 +46 +77 +87 +55 +50 +60 +32 +52 +55 +62 +19.5 +02

500 499 489 486 427 420 405 1241 413 408 400 382 340 1230.0 262 251 252 271 280 264 265 309 1230.7 304 302 301 303 303 307 307 315 1232.7 341 355.2 36.94

1260 50 40 30 1220

100 105 110 115 120 125

SAP55-634-01 C.S.A.H. 34 SHEET 4 OF 30 SHEETS

PLAN
SURVEYED
PLOTTED
NOTE BOOK
NO.
ALIGNMENT CHECKED
R/T. OF WAY CHECKED
BY
DATE

Remove 11 Surface Spillways
from Sta. 130+00 to Sta. 160+00

P.I. 156+68.8
Δ Lt. 29°01'
D 3°00'
T 497.2'
L 972.7'

P.C. 151+71.6

P.T. 161+44.3

130 135 140 145 150 155 160

+98 +23 50' +52 +36 +18 +68

Remove 16 Surface Spillways
from Sta. 160+00 to Sta. 190+00

P.T. 161+44.3

C.S.A.H. 3

50' 50'

160 165 170 175 180 185 190

+57 +78 +66 +46 50' +53 +73 +34 +64

+74 +65 +46 50' +53 +73 +53 +44 +64

164+00
Car252 Rt.

T.107N. R.14W.
33 34
4 3
R.15W. T.106N.

190+42
10.6 Rt. Cur

34
34

PROFILE
SURVEYED
PLOTTED
NOTE BOOK
NO.
GRADES CHECKED
R/T. OF WAY CHECKED
BY
DATE

SAP 55-634-01

℄ Culv. Sta. 196+00
Inpl. 36" X 74' SCP with Masonary Headwalls
Remove Culv. & Masonary Headwalls
Install 36" X 74' SCP
F&I 2-36" Concrete Aprons for SCP
F&I 8" X 100' CMP
110 Cu. Yds. Granular Backfill.
Remove Pavement for Trench 136 Sq. Yds.

P.I. 201+79.5
Δ Lt. 1°20'
D 0°10'
T 400.0'
L 800.0'

P.C. 197+79.5

P.T. 205+79.5

P.C. 217+23.8

T.10 N. R.1 W. Sec. 3435 31 32 T.10 S. R.1 W.

216+69.5 Cor. 15.8 Lt.

190+42.0 Cor. 10.6 Rt.

C.S.A.H. 3

Remove 15 Surface Spillways
from Sta. 190+00 to Sta. 220+00

10' 10'

Construct 2' Aggregate Base Class 2

X Section
℄ Sta. 196+00

8"X 100' CMP

Granular Backfill Class 2 Material

62' 60'

Aggregate Base Class 2

1:2 Slope

1:2 Slope

4.5'

Note: All required excavation for the construction of ℄ Culvert at Sta. 196+00 the Installing of 8" CMP and Granular Backfill will be considered as a incidental item.

8'

Granular Backfill Class 2 Material

190 195 200 205 210 215 220

P.I. 221+73.8
Δ Lt. 1°30'
D 0°10'
T 450.0'
L 900.0'

P.T. 226+23.8

35 34 2 242+99 Cor. 18.2 Rt.

Remove 6 Surface Spillways
from Sta. 220+00 to Sta. 250+00

P.C. 236+41.0

P.I. 240+81.0
Δ Rt. 1°28'
D 0°10'
T 440.0'
L 880.0'

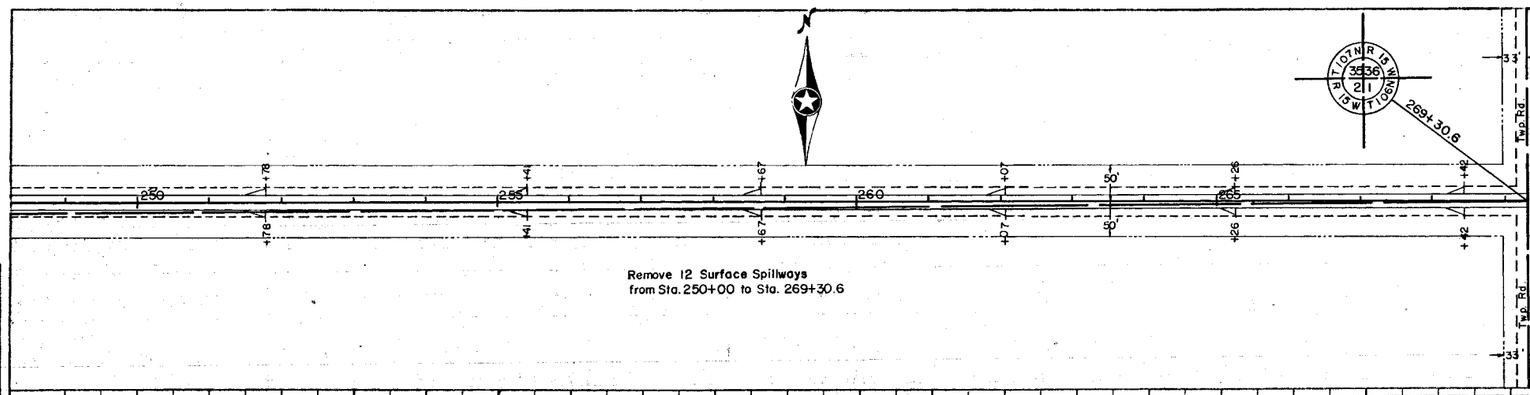
P.T. 245+21.0

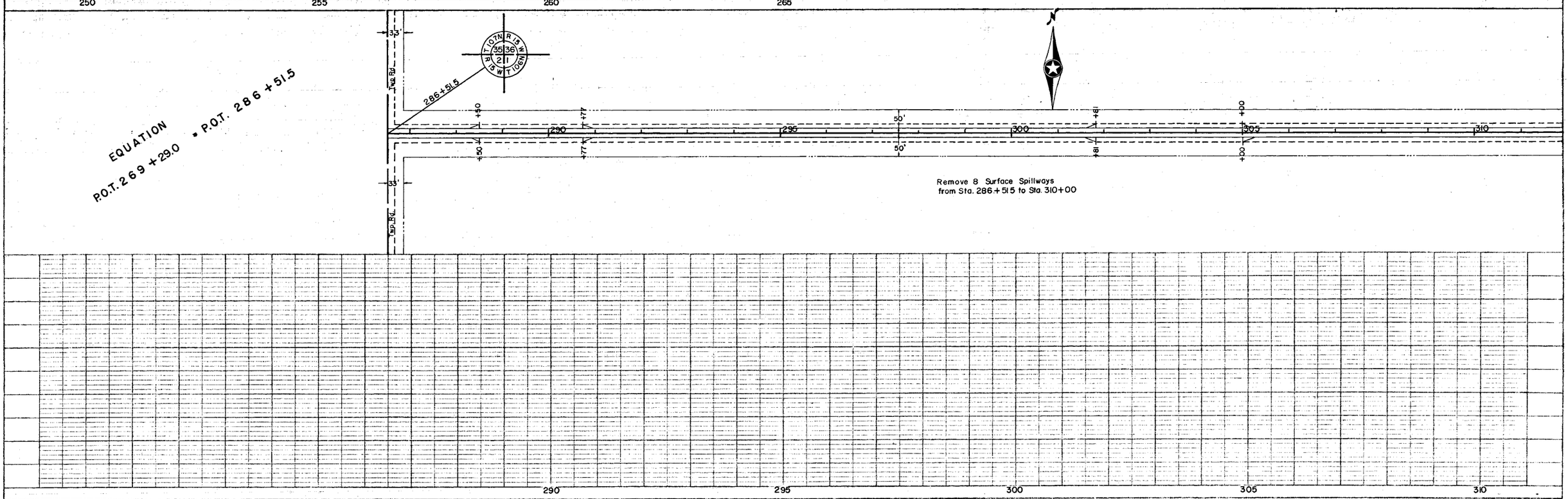
220 225 230 235 240 245 250

PLAN
PROFILE

SAP 55-634-01
SHEET 6 of 30 SHEETS C.S.A.H. 34

PLAN
SURVEYED
ALIGNMENT CHECKED
NOTE BOOK
R/T. OF WAY CHECKED
NO.
BY
DATE





PROFILE
SURVEYED
ALIGNMENT CHECKED
NOTE BOOK
R/T. OF WAY CHECKED
NO.
BY
DATE

PLATE 2 - PLAN & PROFILE SHEET - S.R.F. STANDARD

K & E Co. No. 340-20

S.A.P. 52-634-01 SHEET 7 of 30 SHEETS C.S.A.H. 34

PLAN
SURVEYED
PLOTTED
NOTE BOOK
NO.
BY
DATE
CHECKED
CHECKED
CHECKED

PROFILE
SURVEYED
PLOTTED
NOTE BOOK
NO.
BY
DATE
CHECKED
CHECKED
CHECKED

Remove 16 Surface Spillways
from Sta. 310+00 to Sta. 340+00

Remove 11 Surface Spillways
from Sta. 340+00 to Sta. 370+00

P.I. 351+60'
Δ Lt. 31°16'
D 5°30'
T 291.6'
L 568.5'

P.C. 348+60.0

P.T. 354+28.5

P.C. 363+41.9

P.I. 366+40.4
Δ Rt. 29°12'
D 5°00'
T 298.5'
L 584.0'

P.T. 369+25.9

312+78

339+12.5

339+12.5

339+12.5

T.107 N. R.15 W. 36 31 1 6 T.106 N. R.15 W.

CR 104

CR 105

S.AP.55-633-04 SHEET 8 of 30 SHEETS C.S.A.H. 34

EQUATION P.O.T. 373+78.7 =

P.C. 373+77.5

P.I. 376+26.2
Δ Rt. 7° 27'
D 1°30'
T 248.7'
L 496.7'
R = 3819.72

P.T. 378+74.2

Remove 13 Surface Spillways
from Sta. 370+00 to Sta. 400+00

P.C. 390+89.8

P.I. 393+64.9
Δ Rt. 27°00'
D 5°00'
T 275.1'
L 540.0'
R = 1145.92

EQUATION P.T. 396+29.8 =
P.O.T. 398+31.9

370 375 380 385 390 395 400

P.I. 405+14.1
Δ Lt. 33°06'
D 4°45'
T 358.5'
L 696.8'
R = 1206.23

P.C. 401+55.6

P.T. 408+52.4

BRIDGE 3853
Sta. 411+98.3
Sta. 412+30.1

P.C. 415+11.3

P.I. 417+99.6
Δ Rt. 30°56'
D 5°30'
T 288.3'
L 562.4'
R = 1041.74

P.T. 420+73.7

P.C. 423+85.8

P.I. 426+35.1
Δ Lt. 24°33'
D 5°00'
T 249.3'
L 491.0'
R = 1145.92

P.T. 428+76.8

Remove 9 Surface Spillways
from Sta. 400+00 to Sta. 432+00

400 405 410 415 420 425 430

PLAN
SURVEYED
PLOTTED
NOTE BOOK
NO.
ALIGNMENT CHECKED
RT. OF WAY CHECKED
BY
DATE

PROFILE
SURVEYED
PLOTTED
NOTE BOOK
NO.
STRUCTURE
BY
DATE

SAP 55-634-01

SHEET 9 of 30 SHEETS CSAH 34

Remove 4 Surface Spillways
from Sta. 432+00 to Sta. 445+00

P.I. 440+29.5
Δ Lt. 22°20'
D 4° 30'
T 251.4'
L 496.3'

P.C. 437+78.1

P.T. 442+74.4

50'
50'
101'
68'

435 +27
+41
440
445

EQUATION
442+852
442+853

430
435
440
445

PLAN
SURVEYED
PLOTTED
NOTE BOOK
NO.
BY
FIELD CHECKED
OFFICE CHECKED
RT. OF WAY CHECKED
DATE

PROFILE
SURVEYED
PLOTTED
NOTE BOOK
NO.
BY
FIELD CHECKED
OFFICE CHECKED
RT. OF WAY CHECKED
DATE

℄ Cattle Pass 443+75
Inpl. 4'x 6'x 49'
No Change

Drive Lt. 447+60
No Culv. Inpl.
F.A.I. 18"X 32' CMP
F.A.I. 2-18" Metal Aprons
For CMP

℄ Culv. 451+42
Inpl. 24" X 62' SCP
Remove & Salvage
F.A.I. 24" X 92' RCP Class II
F.A.I. 2-24" Conc. Aprons
For SCP
Place Culv. on "C" Bedding

36th Ave. N.W. Lt. 452+28
No Culv. Inpl.
No Culv. Req'd.

COUNTRY CLUB MANOR FIRST ADDITION

80.02'
125.17'
75.02'
9"Filter Blanket
Type 2
Random Riprap Class "B"
Average Thickness 18"
91°13'30"
88°46'30"
105°
75°
P.O.T. 454+39.75
P.O.T. 260+75.18 C.S.A.H. 34
CHANNEL
CHANNEL CHANGE
Barn
Begin Grodeing Sta. 444+00
P.O.T. 444+00
+97
+05
+00
+60
445
450
455
50'
104.22'
2' Aggregate Shoulder
Const. 12' Right Turn Lane
Tele. Cable Marker
M.H.
Sign
36th. Ave. N.W.
Cascade
Creek
Random Riprap Class "B"
Average Thickness 18"
35'
78'
75'
28'
100'
10'
12'
40'
R=60'
Δ 105°25'
D 95.49'
T 78.79'
L 110.40'
R=75'
Δ 74°35'
D 76.82'
T 56.80'
L 97.09'

Sta. 454+12.29 Const. ℄ Culv.
F.A.I. 168 3/4" Span X 185'+52°42' RCP-A
Class II
F.A.I. 2-168 3/4" Span Conc. Aprons
For SCP-A
Place Culv. on "B" Bedding
F.A.I. Approved Joint Fasteners
Seal all joints
Inlet Elev. 1010.9
Outlet Elev. 1010.3

Sta. 454+44.35 Const. ℄ Culv.
F.A.I. 168 3/4" Span X 185'+52°42' RCP-A
Class II
F.A.I. 2-168 3/4" Span Conc. Aprons
For SCP-A
Place Culv. on "B" Bedding
F.A.I. Approved Joint Fasteners
Seal all joints
Inlet Elev. 1010.4
Outlet Elev. 1009.8

Sta. 454+75.15 Const. ℄ Culv.
F.A.I. 168 3/4" Span X 185'+52°42' RCP-A Class II
F.A.I. 2-168 3/4" Span Conc. Aprons
For SCP-A
Place Culv. on "B" Bedding
F.A.I. Approved Joint Fasteners
Seal all joints
Inlet Elev. 1010.4
Outlet Elev. 1009.8

Sta. 455+07.21 Const. ℄ Culv.
F.A.I. 168 3/4" Span X 209'+52°42' RCP-A
Class II
F.A.I. 2-168 3/4" Span Conc. Aprons
For SCP-A
Place Culv. on "B" Bedding
F.A.I. Aproved Joint Fasteners
Seal all joints
Inlet Elev. 1010.9
Outlet Elev. 1010.3

Const. Approach Rt. Sta. 454+59.7
C.R. 122
No Culv. Req'd.

B.M. Elev. 1023.78
Spk. in F.P. 30' Rt.
Sta. 443+61

B.M. Elev. 1021.72
Arrow Fire Hydt. Ent. to
Country Club Manor

℄ Subgrade Elev.
25.12 24.45 23.93 23.55 23.3 23.06 22.8 22.55 22.3 22.5 21.8 21.55 21.3

P.I. + 82.22222
Elev. 23.84445
3.00 V.C.
M=0.169

P.V.C. + 32.22222 Elev. 24.88375
P.V.T. + 32.22222 Elev. 23.46945

1030
20
1010

-0.7%
-0.25%
-0.1%
SPECIAL DITCH RIGHT

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

+00
+73
+43
+35
+59.75

11.9 11.7 11.6 11.5 11.4 11.3 11.2 11 11.0

26.5 26.0 25.8 1025.0 24.2 23.3 22.5 21.8 1021.2 20.9 20.7 20.8 20.7 20.7 20.6 20.54 1020.5

445 450 455

Sta. 454+12.29, Sta. 455+07.21 Inlet Elev. 10.9
Sta. 454+44.35, Sta. 454+75.15 Outlet Elev. 10.4

Subgrade Treatment:
Excavate 10" Below Profile Grade
from Sta. 444+00 to Sta. 448+00

SAP 55-634-01

Drive Lt. 455+63
INPL. 30" X 44' CMP
Remove & Salvage
Move Drive to Sta. 454+56
F&I 30" X 66' CMP
F&I 2-30" Metal Aprons
For CMP

9" Filter Blanket Type 2
Random Riprap Class "B"
Average Thickness 18"
Outlet ℄ Culv. Sta. 454+59.7

Drive Lt. 461+02
No Culv. Inpl.
F&I 18" X 28' CMP
F&I 2-18" Metal Apron
For CMP

℄ Box Culv. 465+26
Inpl. 10' X 4' X 43'
Extend 20' Lt. & 20' Rt.
Conc. Mix No. 3Y33 48.9 Cu. Yds.
Conc. Mix No. 3Y43 10.03 Cu. Yds.
Reinf. Bars 10,061 lbs.
Class "U" Exc. 59.5

Sta. 469+00
Const. Masonary Catch Basin 23' Right
Design "C" (Casting Included)
See Plate 4002.D
F&I 18" X 64' RCP Class III
F&I 1-18" Conc. Apron
For SCP
Place Culv. on "B" Bedding

75.02'
91°13'30"
CHANNEL
PI 1+80
Δ Rt. 15°00'
60'
50'
18.82'
CHANGE
Old channel to be filled with Excess Material from Channel Change.
Cascade
Creek
PC 457+31.75
POT 459+06.42
Const. 18' Right Turn Lane
Bridge 3854
Tele Cable Marker
R.O.W. Marker
PC 457+31.75
PI 461+98.40
Δ Lt. 16° 32'
D 2°20'
T 357.27'
L 708.58'
Super Elevation / ft. .045
Length of run off 215'
Remove 2 Surface Spillways
From Sta. 468+00 to Sta. 455+00
POT 464+49.71
POT 469+00
Tele Cable Marker
M.H.
10 Bituminous Shoulder
2' Aggregate Shoulder
2' Aggregate Shoulder
455
460
465
470
BITUMINOUS CURB
CONSTRUCT
Sign
Obliterate Old Road
See Special Provisions
Woods
Bridge No. 3854
Sta. 456+43.6
Remove
Salvage Steel Beams
F.E. Rt. 458+77
No Culv. Inpl.
No Culv. Req'd.
℄ Culv. 5+56
Inpl. 15" X 48' CMP
No Change
Const. Approach Rt. Sta. 465+82
F&I 18" X 36' CMP
F&I 2-18" Metal Aprons
For CMP
Gate Post
Electrical M.H.
Gate Post
B.M. Elev. 1018.50
X in SE Cor. Hdwl.
Sta. 465+28
Drive Rt. 468+75
Inpl. 18" X 76' CMP
Remove & Salvage
No Drive Reqd.

(In Channel Change)
CL. 47 GR. 37
CL. 4 GR. 4

℄ Subgrade Elev.
50
40
30
20
1010
1050
40
30
20
1010

Profile 75' Lt.
Profile 75' Rt.
-0.25%
Subgrade Treatment:
Excavate 1.0' Below Profile Grade
from Sta. 457+00 to Sta. 489+00
Inlet Elev. 12.7
Outlet Elev. 11.8
Pt. + 96.0
Elev. 17.56
4.00' V.C.
M = 0.625
P.V.C. + 96.00 Elev. 18.00
Inlet Elev. 14.5
Outlet Elev. 13.8

459.75 20.54 1020.5 455
+10.4 20.4 20.46
+75 20.52 20.4
20.4
20.4
+50 20.4
1020.6 460
20.4
+60 20.3 20.1
20.0
19.8
1019.6 465
+28 19.6
19.5
19.3
19.2
+85 19.0 19.0
+46 18.9
1018.8 470
+50 18.8

SAP55-634-01 Sheet 12 of 30 Sheets
C.S.A.H. 34

Remove 2 Surface Spillways
from Sta. 473+00 to Sta. 480+00

FE Lt. 471+97
No Culv. Inpl.
No Culv. Req'd.

℄ Culv. 472+17
Inpl. 2' X 2' X 44' Conc.
Remove Structure
F & I 36"X 78' RCP Class III
F & I 2-36" Conc. Aprons
For SCP
Place Culv. on "B" Bedding
Const. Masonary Catch Basin 23' Right
Design "C"
See Plate 4002 D
Casting Included

℄ Cattle Pass 476+23
Inpl. 4'X6'X52'
Remove Structure

FE Lt. 476+97
No Culv. Inpl.
No Culv. Req'd.
Move F. Ent. to Sta. 477+35

Remove Pavement 13,188 Sq. Yds.
from Sta. 444+00 to Sta. 504+12.6

POST 477+38.43

Tele Cable Marker

Elec. Meter

Tele. Cable Marker

10' Bituminous Shoulder

2' Aggregate Shoulder

CONSTRUCT BITUMINOUS CURB

PC 473+08.21

Bushes

Barn

House

Woods

P.I. 479+89.77
Δ Rt. 56°19'
D 4°30'
T 681.56'
L 1251.48'
Super Elevation /ft. .056
Length of Run off 260'

Tele Cable Marker

FE Rt. 471+99
Inpl. 18"X 28' CMP
Remove & Salvage
No Culv. Req'd.

Drive Rt. 474+80
No Culv. Inpl.
No Culv. Req'd.

℄ Culv. 476+42
Inpl. 24'X60' SCP
Remove & Salvage

Drive Rt. 476+74
Inpl. 15" X 28' CMP
Remove & Salvage
No Culv. Req'd.

CL. 0.02 Acre GR. 0.02 Acre — CL. 11 GR. 11 — CL. 5 GR. 11 — CL. 0.47 Acre GR. 0.47 Acre — CL. 0.13 Acre GR. 0.13 Acre

℄ Subgrade Elev.

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

P.V.T. 469+00 Elev. 19.66

Inlet Elev. 19.2
Catch Basin Flowline Elev. 14.9
Outlet Elev. 14.7

+1.0%

P.V.C. 480+00 Elev. 28.6

P.I. +50
Elev. 31.1
500' V.C.
M = 1.625

P.T. 485+59.69

Subgrade Treatment:
Excavate 1.0' Below Profile Grade
from Sta. 457+00 to Sta. 489+00

COMMON EXC.	10816 CU. YDS.	EMB 21967 CU. YDS.
COMMON CHANNEL EXC.	10685 CU. YDS.	
ROCK EXC.	11436 CU. YDS.	
SUB GRADE EXC.	3070 CU. YDS.	

SAP35-634-01

F.E. Lt. 488+05
No Culv. Inpl.
No Culv. Req'd.

℄ Cattle Pass 490+83
Inpl. 4'X 6' X 44'
Remove Structure
F&I 51 1/8" Span X 82' RCP-A Class II
F&I 2-51 1/8" Span Concrete Aprons
For SCP-A
Place Culv. on "C" Bedding

F.E. Lt. 491+10
No Culv. Inpl.
No Culv. Req'd.

Remove 4 Surface Spillways
from Sta. 489+00 to Sta. 497+00

Tele. Cable Marker
M.H.
Conc. Slab
Transformer Poles
10' Bituminous Shoulder
2' Aggregate Shoulder
CONSTRUCT BITUMINOUS CURB
Woods
Hedge
Bldg.
House
Bushes
P.T. 485+59.69
End Bituminous Curb +20
Begin Bituminous Curb +60

Res. Drive Rt. 488+02
No Culv. Inpl.
No Culv. Req'd.

Drive Rt. 492+73
Inpl. 18" X 48' CMP
Remove & Salvage
F&I 24" X 32' CMP
F&I 2-24" Metal Aprons
For CMP

Res. Drive Rt. 497+04
Inpl. 18" X 34' CMP
Remove & Salvage
No Culv. Req'd.

CL. 6 GR. 7

B.M. Elev. 1025.19
Spk. in PP 45' Lt.
Sta. 486+28

℄ Subgrade Elev.

P.I. +00
Elev. 22.3
400' V.C.
M=0.65

P.I. +00
Elev. 20.5
400' V.C.
M=0.6

P.V.T. +00 Elev. 27.1
P.V.C. +00 Elev. 25.5
P.V.T. +00 Elev. 21.7
P.V.C. +00 Elev. 21.1
P.V.T. +00 Elev. 22.3
P.V.C. +00 Elev. 24.1

-1.6%
-0.3%
+0.9%

SPECIAL DITCH RIGHT +0.3%

Inlet Elev. 18.2
Outlet Elev. 13.8

SPECIAL DITCH RIGHT +0.3%

Profile 75' Lt.
Profile 75' Rt.

Subgrade Treatment:
Excavate 1.0' Below Profile Grade
from Sta. 457+00 to Sta. 489+00

COMMON EXC. 4118 CU. YDS.
ROCK EXC. 3788 CU. YDS.
SUBGRADE EXC. 933 CU. YDS.
EMB. 5856 CU. YDS.

COMMON EXC. 2032 CU. YDS.
ROCK EXC. 980 CU. YDS.
SUBGRADE EXC. 954 CU. YDS.
EMB 1985' CU. YDS.

FE Lt. 500+95
No Culv. Inpl.
No Culv. Req'd.

Drive Lt. 502+91
No Culv. Inpl.
No Culv. Req'd.

Drive Lt. 505+02
No Culv. Inpl.

Drive Lt. 505+60
No Culv. Inpl.

Drive Lt. 506+57
No Culv. Inpl.

Drive Lt. 508+54
Inpl. 15" X 26' CMP

City Curve Data
P.I. 52+28.13
Δ Lt. 23°20'
D 3°20'
T 354.92'
L 700.00'

County Curve Data
P.I. 505+10.36
Δ Lt. 23° 20'
D 3°20'
T 354.92 '
L 700.00'
Super Elevation / ft. .026
Length of Run off 100'

County Stationing
City Stationing
P.T. 508+55.44
P.C. 48+73.21

P.C. 501+55.44 County Stationing
P.T. 55+73.21 City Stationing

Conc. Slab
M.H.
Transformer Poles
2' Aggregate Shoulder
Begin Transition
Begin Bituminous Curb
End Bituminous Curb
End Transition
Bushes
CONSTRUCT BITUMINOUS CURB
CONSTRUCT BITUMINOUS CURB
150' Transition
End Bituminous Curb
Begin Transition
Woods
Patio
Bushes
Coast Iron Monument
23rd Ave. SW
Inlet
Culv.
Pipe
Bldg.
Hedge
House
Bush
Pipe
Parking Lot Outlet Drain

Sta. 504+12.65 END SAP 55-634-01=
Sta. 53+16.0 BEGIN SAP 55-634-02

23rd Ave. SW Rt. 504+55
No Culv. Inpl.

FE Rt. 505+55
Inpl. 15" X 32' CMP

Drive Rt. 506+25
Inpl. 24" X 40' SCP

Drive Rt. 506+80
Inpl. 24" X 40' SCP

CL. 0.14 Acre GR. 0.14 Acre

B.M. Elev. 1023.27
Spk. in P.P. 42' Lt.
Sta. 507+93

B.M. Elev. 1019.08
Fire Hydt. N.E. of Intersection
2nd. St. & 20th. Ave. SW

℄ Subgrade Elevation
24.8 25.08 24.96 24.43 23.69

County Sta. 504+12.65=
City Sta. 53+16.0

℄ Finished Grade Elevation
25.36 25.13 24.24 23.35 22.46

P.I. 53+16.0
Elev. 25.27724 (Finished)
Elev. 23.6054 (Subgrade)

P.I. +00
Elev. 25.9
400' V.C.
M=0.81745

Elev. 24.43
P.V.T. +00

-0.7349
-0.89%

+12.6

Subgrade Treatment:
Excavate 1:0' Below Profile Grade
from Sta. 499+00 to Sta. 504+12.6

Profile 75' Lt.
Profile 75' Rt.

1050 40 30 20 1010

1025.4 25.9 26.3 26.5 26.4 26.1 25.7 24.8 24.4 24.4 24.3 24 1023.9 23.1 23.1 23.1 22.5 22.2 22.9 21.5 21.5 21.2 1020.3 19.6 18.9

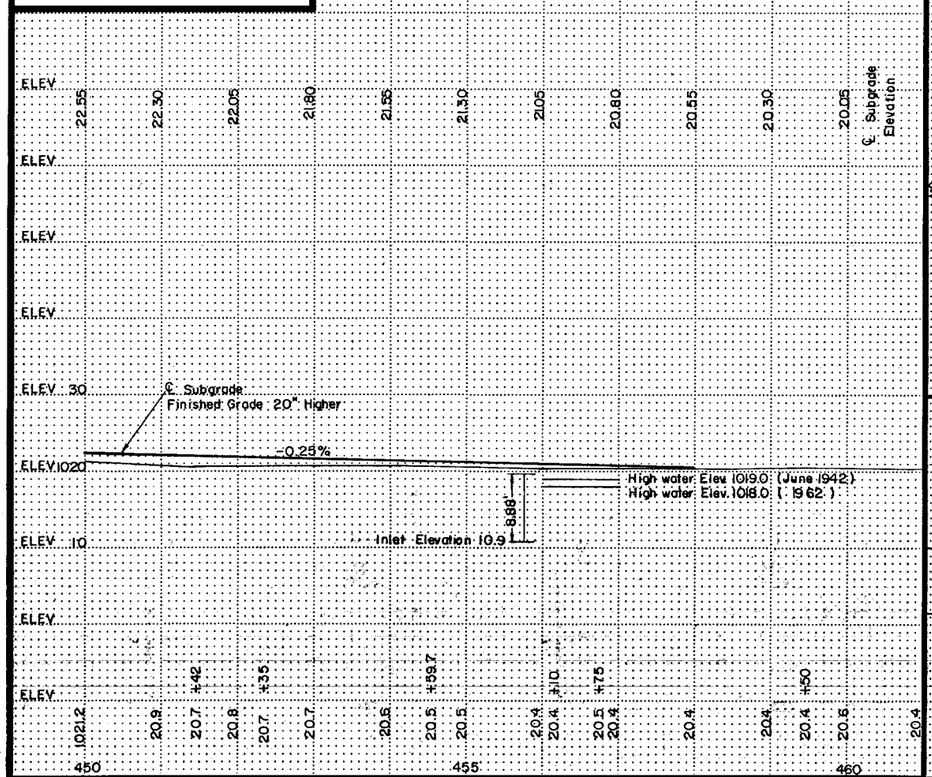
500 505 510 515

SAP 55-634-01

Sheet 15 of 30 Sheets C.S.A.H. 34

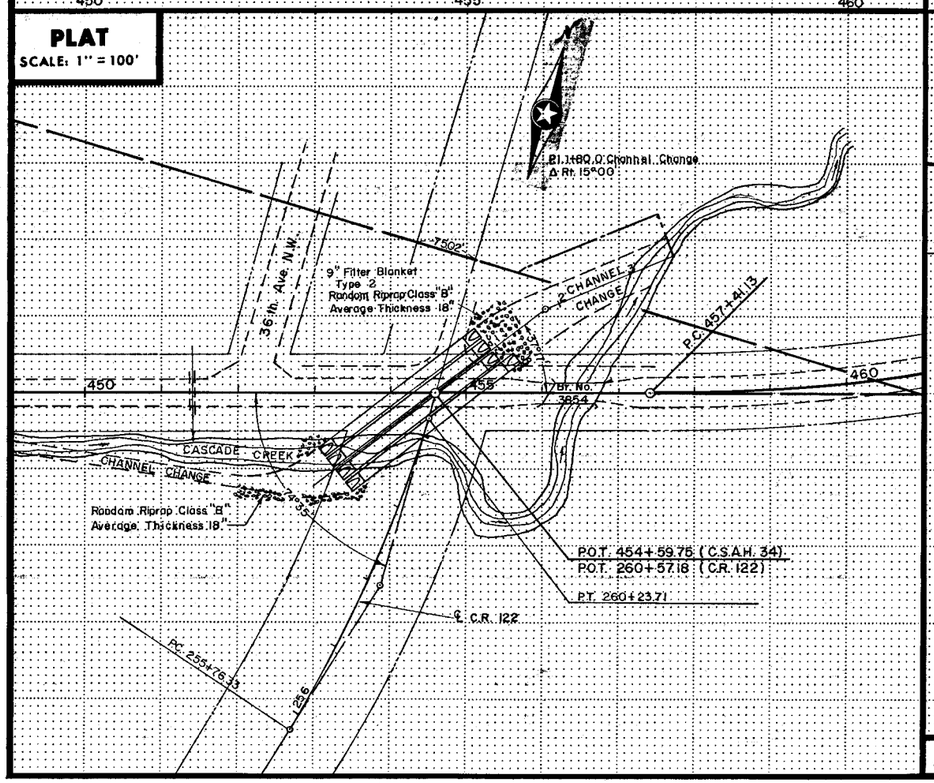
CONTRACTED PROFILE

SCALE: HOR. 1" = 100' VER. 1" = 10'



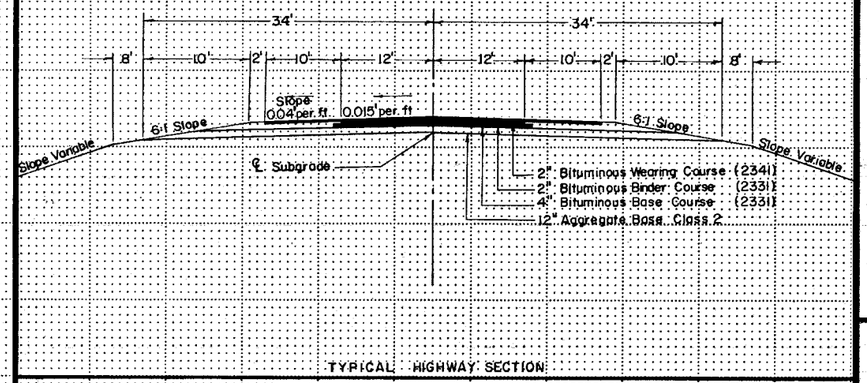
PLAT

SCALE: 1" = 100'

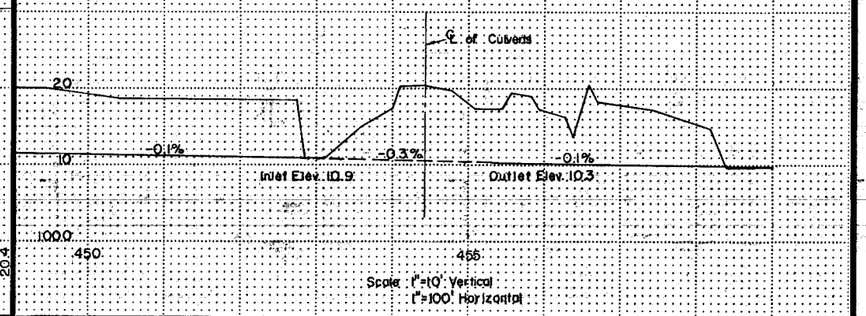


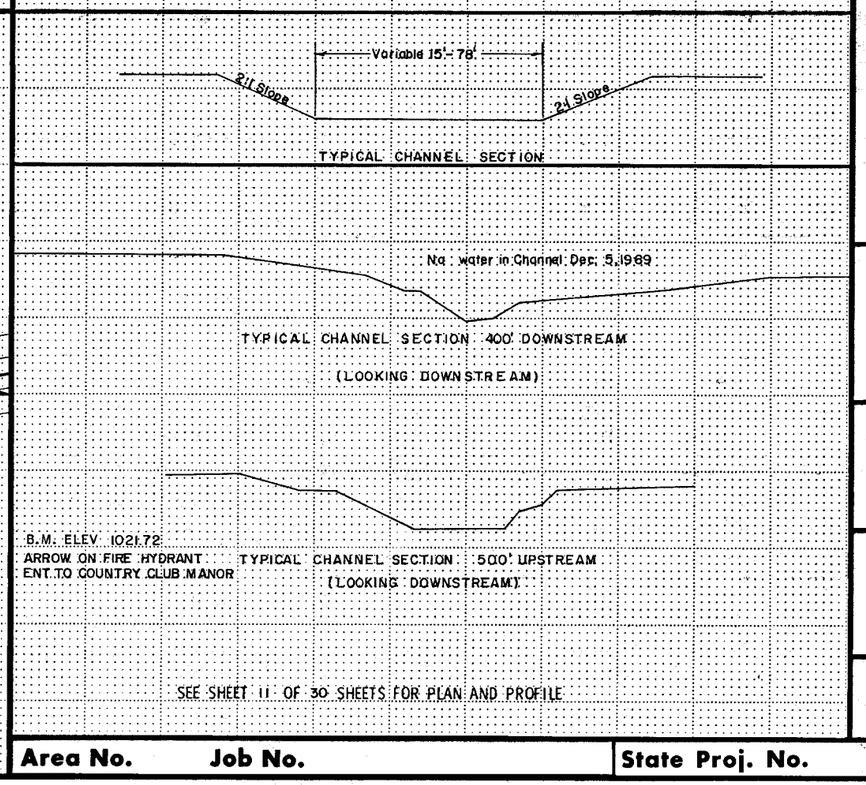
TYPICAL SECTIONS & PERTINENT DATA

SCALES AS SHOWN



TYPICAL HIGHWAY SECTION





TYPICAL CHANNEL SECTION

TYPICAL CHANNEL SECTION 400' DOWNSTREAM

(LOOKING DOWNSTREAM)

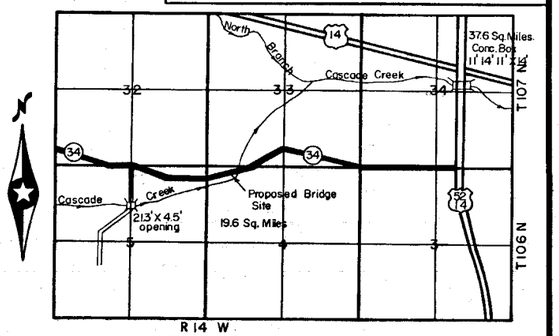
B.M. ELEV. 1021.72
ARROW ON FIRE HYDRANT ENT. TO COUNTRY CLUB MANOR

TYPICAL CHANNEL SECTION 500' UPSTREAM

(LOOKING DOWNSTREAM)

SEE SHEET 11 OF 30 SHEETS FOR PLAN AND PROFILE

Fed. Proj. No.



R 14 W

INDEX MAP
(FOUR SECTIONS)

FOLLOW SEPARATE "INSTRUCTIONS FOR PREPARATION OF BRIDGE SURVEYS" WHEN MAKING BRIDGE SURVEYS.

DATA

1. Preliminary recommendations of Engineer in charge of Bridge Survey:
   a. Net span length and type of bridge: 4-168 3/4 Spans
   b. Width of roadway on bridge: 48'
   c. Number and width of sidewalks, if any: None
   d. Locate center of bridge at station: 454+59.75
   e. If a skew bridge is recommended, the angle of skew should be: 52° 42'
   f. Is piling required? No
2. Special features: Waterfalls, dams, exceptional floods, ice, driftwood, sliding banks, logging, etc.
3. Changes: In height or length from that of old bridge, and reasons why:
4. Other bridges in vicinity:
   a. Over same stream (particularly structures which carry high water without overflow of roadway); give location, length, height above water, net cross-sectional area at high water stage and estimated age: Down Stream 1 1/2 Miles 11'-14'-11' X 14' Concrete Box Culvert under T.H. 14 & 52
   b. Over or under same highway or railroad; give location, length, horizontal and vertical clearances and estimated age:
   c. Reasons why these bridges are, or are not, fair indications of what length the proposed bridge should be:
5. If structure is over a drainage ditch, is ditch gradient liable to be altered?
6. Navigation clearances required, if any: None
7. Information and evidence in regard to high water stages was obtained as follows:
8. Must contractor provide for traffic during construction of proposed bridge? Yes
   If so, by what means? Single Lane By-Pass

HYDRAULIC ENGINEERS RECOMMENDATION

HIGH AND LOW WATER ELEVATIONS

Data obtained from Corps of Engineers reflects highest water elevation in the area of this construction to be 1019.0 and the lowest water elevation to be 1010.0. The above figures are for informational purposes only. The state neither warrants nor represents that these figures for high water and low water are in any way indicative of the high water or low water to be expected or encountered during this construction.

SHIPPING POINT

Proposed Bridge is 0.9 miles West of * Rochester which is the nearest Railroad shipping point.

*(Give name of town, station or siding)

Date — Project or County Engineer

Date — District Engineer

STATE OF MINNESOTA
DEPARTMENT OF HIGHWAYS

BRIDGE SURVEY

FOR

PROPOSED BRIDGE LOCATED 9 MILES West OF Rochester (TOWN OR CITY) ON C.S.A.H. 34 (T.H., C.S.A.H. OR C.A.R. NUMBER)

SEC. 4 TWP. T106N R. 14 W

TOWNSHIP Rochester COUNTY Olmsted

SURVEY MADE DURING MONTH OF December 19 69

SURVEY MADE BY J. Lawler

BRIDGE NO.

Area No. | Job No. | State Proj. No. SAP55-634-01 | Sheet No. 16 of 30 Sheets

Bridge Survey Sheet (Sheet 1 of 2)

Fed. Proj. No.

SCALE: 1" = 10'

CENTER LINE OF LAYOUT

453 | 454 | 455

+12.3 | +44.4 | +75.2 | +07.2

34'

34'

112'

87'

62

31°17'

61'

℄ S.A.H. 34 P.O.T. 454+59.75
C.R. 122 P.O.T. 260+57.18

73'

98'

74°35'

P.T. 260+23.71
C.R. 122

123'

148'

R 60'
Δ 105°25'
D 95.49'
T 78.79'
L 110.40'

R 75'
Δ 74°35'
D 76.82'
T 56.80'
L 97.09'

20'

3'

20'

3'

20'

℄ C.R. 122

29'

33'

ELEV

ELEV

ELEV

ELEV

ELEV

ELEV

ELEV

ELEV

ELEV

ELEV

ELEV

B.M. ELEV (M.S.L. 19 ADJ.)

BORINGS SHOWN [ ] TAKEN WITH
STD. 140 LB. HAMMER
30 INCH DROP
2 INCH O.D. SAMPLER

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN

For the design of the structure foundation, to obtain relative data concerning the character of material in and upon which the foundation might be built, borings and/or soundings were made at points approximately as indicated on this drawing with the log of such exploration data as interpreted for such design purpose as shown. The explorations were made by ordinary and conventional methods and care deemed adequate for such purpose. However, since it is a matter of common knowledge that the exact character of any material and its reaction is difficult to determine from such subsurface exploration and that the kind and character of material at the site where the foundations are built may vary substantially from that indicated by the log they are made available to the bidders simply for what they are worth, without any warranty, expressed or implied that the material to be encountered in building the foundation will conform therewith. If the log is used by the contractor in making his bid, it is hereby expressly stipulated that the Highway Department accepts no responsibility for said use.

TRUNK HIGHWAY NO.
STATE OF MINNESOTA
DEPARTMENT OF HIGHWAYS

BRIDGE NO.

BRIDGE SURVEY
PLAN AND PROFILE

SEE SHEET NO. FOR ADDITIONAL INFORMATION

State Proj. No. SAP55-634-01

Sheet No. 17 of 30 Sheets

Bridge Survey Sheet (Sheet 2 of 2)