MINNESOTA DEPARTMENT OF TRANSPORTATION

THE COUNTY OF OLMSTED

CONSTRUCTION PLAN FOR GRADING, AGGREGATE BASE AND REPLACE BR. NO. 89176

LOCATED ON CR. 124 **BETWEEN** T.H. 63 **AND** C.S.A.H. 11 **(GEOGRAPHIC DESCRIPTION)**

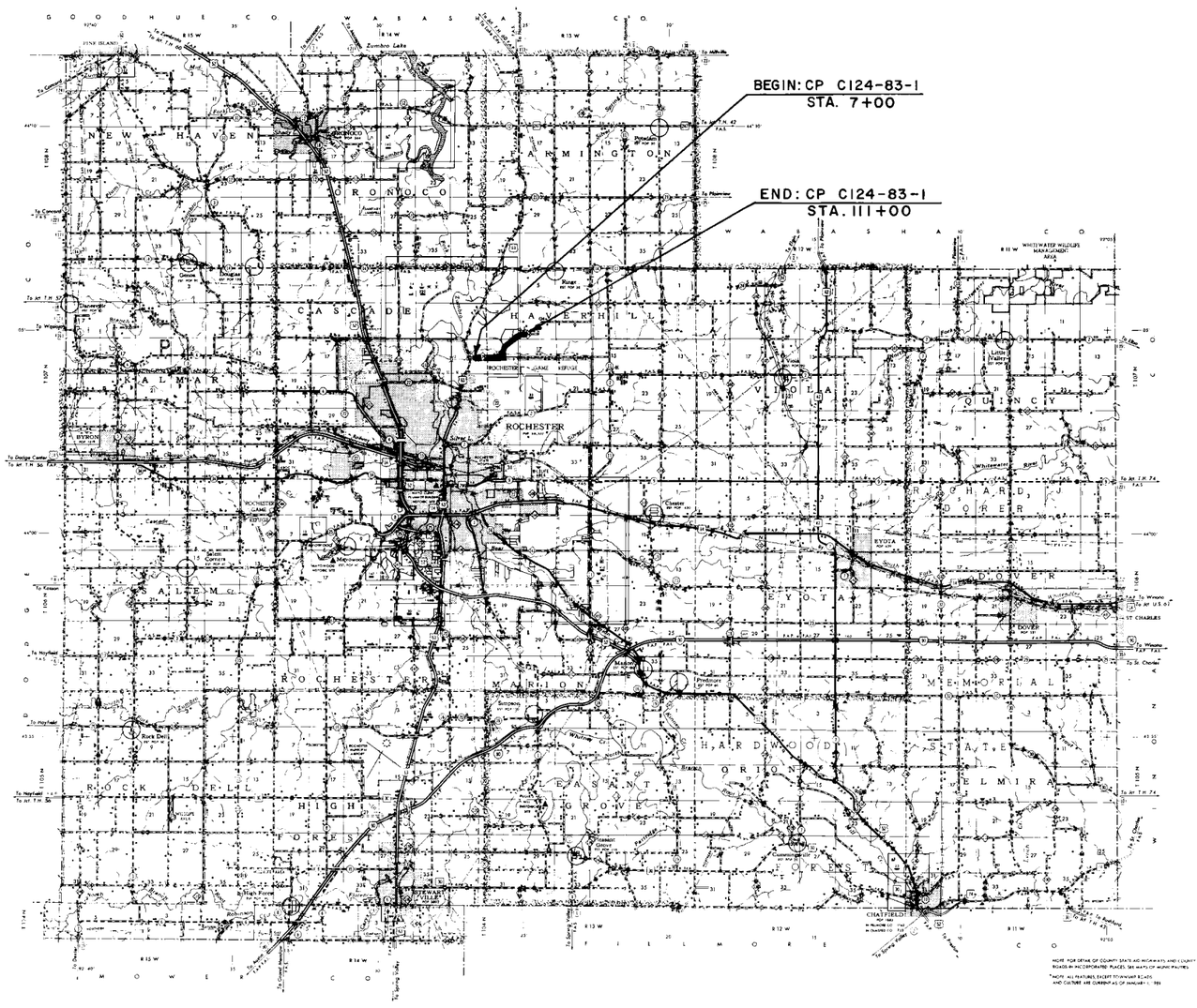
FROM 4513' WEST CENTER SEC. 18 T. 107 N. R. 13 W. **TO** 723'± N. & 1360'± E. OF S.E. COR. SEC. 7 T. 107 N. R. 13 W. **(LEGAL DESCRIPTION)**

STATE PROJ. NO. .....

GROSS LENGTH	FEET		MILES
BRIDGES-LENGTH	FEET		MILES
EXCEPTIONS-LENGTH	FEET		MILES
NET LENGTH	FEET		MILES

~~STATE PROJ. NO.~~ C.P. C124-83-1

GROSS LENGTH	10,400	FEET	1.9697 MILES
BRIDGES-LENGTH		FEET	MILES
EXCEPTIONS-LENGTH		FEET	MILES
NET LENGTH	10,400	FEET	1.9697 MILES



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)
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
SAND PIT
BORROW PIT
ROCK QUARRY
SLOPE EASEMENT SE

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

SCALES

PLAN ..... 100 FEET
PROFILE ..... 100 FEET HORZ. & 10 FEET VERT.
INDEX MAP ..... 10,560 FEET
X-SECTIONS ..... 10 FEET

STATE AID TITLE SHEET ALBINSON MPLS 55405

MINN. PROJ. NO. .....

SPECIFICATIONS REFERENCE

The 1978 Edition of the Minnesota Department of Transportation "Standard Specifications For Highway Construction" Shall Govern.

INDEX

SHEET NO. 1 TITLE SHEET AND LAYOUT MAP.

SHEET NO. 2 & 3 ESTIMATE OF QUANTITES AND TYPICAL SECTIONS.

SHEET NO. 4 TO 7 PLAN & PROFILE SHEETS.

SHEET NO. 8 TO 40 X-SECTION SHEETS.

DESIGN DESIGNATION
STA. 7+00 TO STA. 52+13

ADT (Current Year) 880
ADT (Future Year) 1760
SOIL FACTOR 130
7 TON ULT. 9 TON DESIGN

DESIGN DESIGNATION
STA. 52+13 TO STA. 111+00

R .....
ADT (Current Year) = 319
ADT (Future Year) = 638
DHV (Design Hr. Vol.) = ...
D (Directional Distr.) = ... %
T (Heavy Commercial) = ... %
SOIL FACTOR 130
7 TON DESIGN

ESN 18(20) .....
Design Speed 45 MPH
Based on Stopping Sight Distance
Height of eye 3.75' Height of object 0.5'
Design Speed not achieved at: .....
STA. TO STA. MPH
STA. TO STA. MPH
STA. TO STA. MPH

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.

DATE 5-31-83 REG. NO. 12511 ENGR. .....

COUNTY .....

Recommended for Approval ..... 19 .....
DISTRICT STATE AID ENGINEER

Recommended for Approval ..... 19 .....
STATE AID PLANS AND SPECS ENGINEER

Approved ..... 19 .....
STATE AID ENGINEER

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED

....
DIVISION ADMINISTRATOR DATE

~~STATE AID PROJ. NO.~~ .....
~~STATE PROJ. NO.~~ CP C124-83-1 **SHEET NO.** 1 **OF** 40 **SHEETS**

ESTIMATED QUANTITIES

	SPECIFICATION NO.	ITEM	UNIT	MUNICIPAL	RURAL	TOTAL ESTIMATED QUANTITIES	
	2021.501	MOBILIZATION	LUMP SUM		0.85	0.85	
	2101.501	CLEARING	ACRE		2.55	2.55	
	2101.502	CLEARING	TREE		208	208	
	2101.506	GRUBBING	ACRE		2.55	2.55	
	2101.507	GRUBBING	TREE		176	176	
	2104.501	REMOVE PIPE CULVERTS	LIN. FT.		912	912	
①	2104.509	REMOVE BOX CULVERT	EACH		3	3	
	2105.501	COMMON EXCAVATION	CU. YD.		61312	61312	(P)
	2105.503	ROCK EXCAVATION	CU. YD.		13070	13070	
	2105.507	SUBGRADE EXCAVATION	CU. YD.		7871	7871	(P)
	2105.511	COMMON CHANNEL EXCAVATION	CU. YD.		5339	5339	(P)
②	2123.501	COMMON LABORERS	HOUR		6	6	
②	2123.503	MOTOR GRADER	HOUR		6	6	
②	2123.508	14 CU. YD. SCRAPER	HOUR		24	24	
②	2123.509	DOZER	HOUR		24	24	
③	2130.501	WATER	M-GAL.		90	90	
④	2211.501	AGGREGATE BASE, CLASS 2	TON		18962	18962	
	2501.511	18" C.S. PIPE CULVERT	LIN. FT.		388	388	
	2501.511	24" C.S. PIPE CULVERT	LIN. FT.		384	384	
	2501.511	30" C.S. PIPE CULVERT	LIN. FT.		142	142	
	2501.511	36" C.S. PIPE CULVERT	LIN. FT.		40	40	
	2501.511	24" R.C. PIPE CULVERT, CL. III	LIN. FT.		62	62	
	2501.511	30" R.C. PIPE CULVERT, CL. III	LIN. FT.		62	62	
	2501.511	42" R.C. PIPE CULVERT, CL. III	LIN. FT.		128	128	
	2501.511	48" R.C. PIPE CULVERT, CL. IV	LIN. FT.		144	144	
	2501.515	18" G.S. PIPE APRON	EACH		24	24	
	2501.515	24" G.S. PIPE APRON	EACH		22	22	
	2501.515	30" G.S. PIPE APRON	EACH		8	8	
	2501.515	36" G.S. PIPE APRON	EACH		2	2	
	2501.515	24" R.C. PIPE APRON	EACH		2	2	
	2501.515	30" R.C. PIPE APRON	EACH		2	2	
	2501.515	42" R.C. PIPE APRON	EACH		4	4	
	2501.515	48" R.C. PIPE APRON	EACH		2	2	
	2501.521	42" SPAN C.S. PIPE-ARCH CULVERT	LIN. FT.		120	120	
	2501.521	64" SPAN C.S. PIPE-ARCH CULVERT	LIN. FT.		120	120	
	2501.521	44" SPAN R.C. PIPE-ARCH CULV. CL. II A	LIN. FT.		112	112	
	2501.521	122" SPAN R.C. PIPE-ARCH CULV. CL. II A	LIN. FT.		240	240	
	2501,525	42" SPAN G.S. PIPE – ARCH APRON	EACH		4	4	
	2501.525	64" SPAN G.S. PIPE – ARCH APRON	EACH		8	8	
	2501.525	44" SPAN R.C. PIPE – ARCH APRON	EACH		4	4	
	2501.525	122" SPAN R.C. PIPE – ARCH APRON	EACH		8	8	
	2511.501	RANDOM RIP RAP CLASS "B"	C.U.YD.		391	391	
	2511.504	FILTER BLANKET TYPE I	C.U. YD.		190	190	
	2105.523	COMMON BORROW (CV)	C.U. YD.		2271	2271	
		ESTIMATED QUANTITIES CONT. ON PLAN	SHEET NO.	3.			

(P) PLAN QUANTITY.

① 10'x2'x31' CONC. BOX CULV. STA. 52+45, W104D x26' CONC. BOX CULV. STA. 56+31 AND 4.5'x4.5'x29' STONE ARCH STA. 85+77.

② EQUIPMENT HOURS TO BE USED FOR OBLITERATEING OLD ROAD IN LOCATIONS SHOWN IN THE PLANS.

③ WATER TO BE USED AS A DUST PALLIATE AS DIRECTED BY THE ENGINEER.

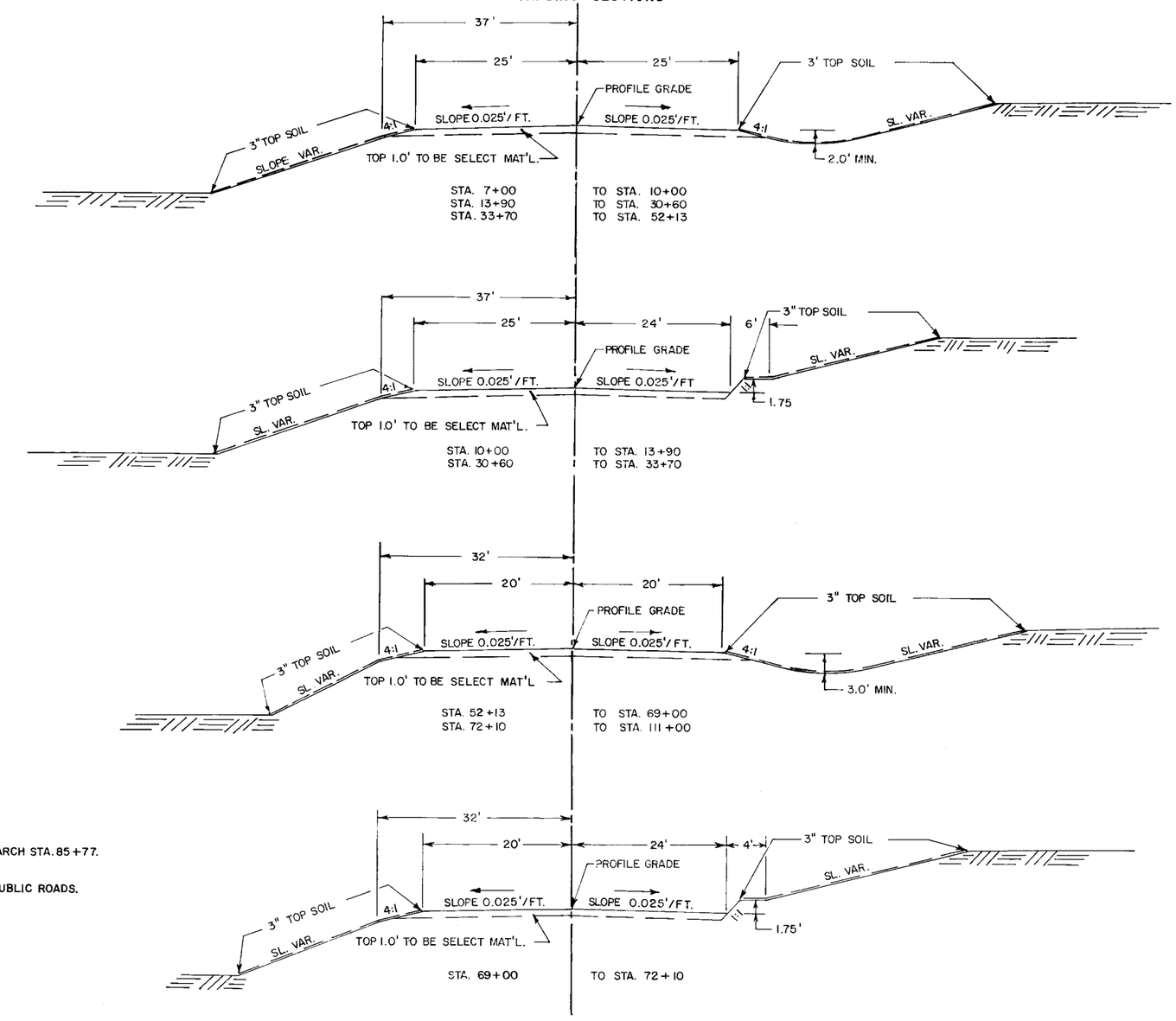
④ ITEM NO. 2211.501 AGGREGTE BASE CL.2 INCLUDES 15412 TONS FOR THE ROAD, 1960 TONS FOR 28 APPROACHES AND 1590 TONS FOR 5 PUBLIC ROADS.

STANDARD PLATES

THE FOLLOWING STANDARD PLATES, APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION, SHALL APPLY ON THIS PROJECT.

PLATE NO	DESCRIPTION
0003 A	SPECIFICATION REFERENCE TO STANDARD PLATES.
3000 H	REINFORCED CONCRETE PIPE.
3007 A	SHEAR REINFORCEMENT FOR PRECAST DRAINAGE STRUCTURES.
3014 J	REINFORCED CONCRETE PIPE ARCH DETAIL
3040 F	CORRUGATED METAL PIPE CULVERT.
3100 F	CONCRETE APRON FOR REINFORCED CONCRETE PIPE.
3110 F	CONCRETE APRON FOR REINFORCED CONCRETE PIPE-ARCH.
3114 G	SECTIONAL CONCRETE APRON FOR REINFORCED CONC. PIPE-ARCH.
3122 I	METAL APRON FOR C.M. PIPE ARCH CULVERT.
3123 H	METAL APRON FOR C.M. PIPE
3124 A	METAL APRON CONNECTION
3133 A	RIP RAP AT RCP OUTLETS.
3145 B	CONCETE PIPE JOINT TIES. EYE BOLT TIE.
3221 B	CORRUGATED STEEL PIPE COUPLING BAND.
8000 H	STANDARD BARRICADES.
9000 B	APPROACHES AND ENTRANCES.

TYPICAL GRADING SECTIONS



NOTE: MATERIAL FROM THE UPPER 1.0' OF THE NATURAL TOP SOIL SHALL NOT BE USED IN THE UPPER 1.0' OF THE ROADBED. 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 INCLUDED FOR PAYMENT 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/W. TAPERS SHALL BE 50:1 IN ALL CASES.

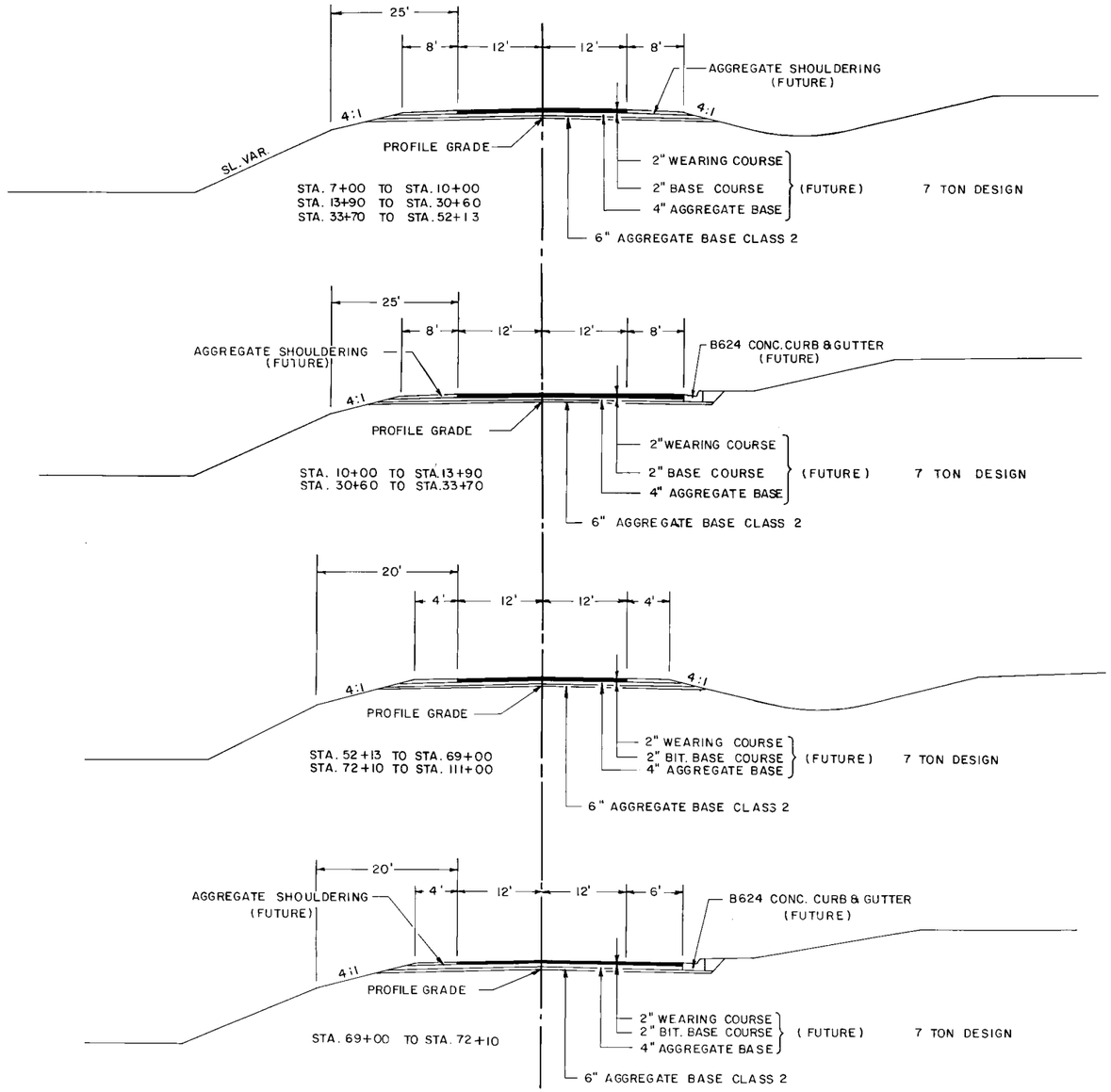
NOTE: PLACE SECTIONAL CONCRETE PIPE ON CLASS "B" AND "C" BEDDINGS AS DIRECTED BY THE ENGINEER. ALL BEDDING TO BE CONSIDERED AS INCIDENTAL AND NO DIRECT COMPENSATION SHALL BE MADE THERE FOR.

NOTE: ALL DIMENSIONS AND SLOPES SHOWN ON TYPICAL SECTIONS ARE APPROXIMATE.

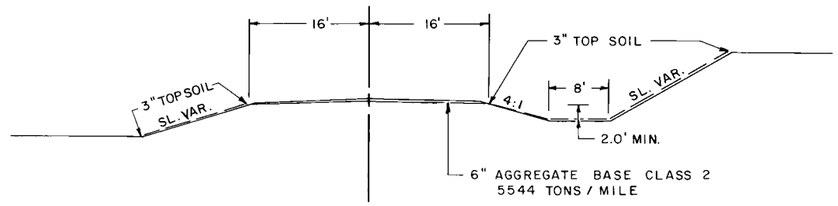
ALBINSON, INC. MINNEAPOLIS 55401

AS BUILT PLANS

TYPICAL AGGREGATE BASE AND SURFACING SECTIONS



TYPICAL GRADING SECTIONS AND SURFACING SECTIONS HAWTHORN HILLS DRIVE SUMMIT DRIVE



ESTIMATED QUANTITIES CONT. FROM PLAN SHEET NO. 2 .

ESTIMATED QUANTITIES

	SPECIFICATION NO.	ITEM	UNIT	MUNICIPAL	RURAL	TOTAL ESTIMATED QUANTITIES	
	2575.501	ROADSIDE SEEDING	ACRE		25	25	(P)
	2575.502	SEED MIXTURE 5	POUND		1250	1250	
	2575.511	MULCH MATERIAL TYPE 1	TON		50	50	
	2575.519	DISC ANCHORING	ACRE		25	25	
	2575.531	COMMERCIAL FERTILIZER ANALYSIS 12-12-12	TON		2.5	2.5	
*	2575.505	SODDING	SQ.YD.		5722	5722	

(P) PLAN QUANTITY

* SOD TO BE PLACED IN LOCATIONS AS DIRECTED BY THE ENGINEER.

AS BUILT PLANS

FE Lt. 4+50
Inpl. 18" X 28' CMP
2 Aprons
NO CHANGE

Res. Drive Lt. 9+20
Inpl. 15" X 30' CMP
REMOVE
18"x 32' C.S. PIPE CULV.
2-18" G.S. PIPE APRONS

Res. Drive Lt. 9+95
No Culv. Inpl.
18"x 32' C.S. PIPE CULV.
2-18" G.S. PIPE APRONS.

FE Lt. 13+75
No Culv. Inpl.
NO CULV. REQ'D.

℄ Culv. 19+39
Inpl. 24" X 30' CMP
REMOVE
MOVE CULV. TO 19+37.3
44"SPAN x 56" R.C.P.-ARCH
CULV. CL. II A
2-43 3/4" SPAN R.C.P.
ARCH APRONS.
F & I. APPROVED CONC.
PIPE JOINT TIES.
PLACE CULV ON "B"
BEDDING.

℄ Culv. 19+43
Inpl. 24" X 30' CMP
REMOVE
MOVE CULV. TO 19+44.8
44"SPAN x 56' R.C.P.- ARCH
CULV. CL. II A
2-43 3/4" SPAN R.C.P.
ARCH APRONS.
F & I. APPROVED CONC.
PIPE JOINT TIES.
PLACE CULV. ON "B"
BEDDING.

℄ Culv. 28+01
Inpl. 18" X 32' CMP
REMOVE
24"x62' R.C.P. CULV. CL. III
2-24" R.C.P. APRONS
F & I. APPROVED CONC.
PIPE JOINT TIES.
PLACE CULV. ON "B"
BEDDING.

School Ent. Lt. 29+87
Inpl. 15" X 40' CMP
REMOVE
18"x 40' C.S.P. CULV.
2-18" G.S.P. APRONS

School Ent. Lt. 31+94
No Culv. Inpl.
18"x 32' C.S.P. CULV.
2-18" G.S.P. APRONS

DITCH BLOCK
LT. STA. 26+15

FE. LT. STA. 22+80
18" x 28' C.S.P. w/APRONS

BEGIN: C.P. C124-83-1
STA. 7+00

Center Section
T107N R14W
13

P.I. 0+44.28
50' R

Tele. Cable Marker

House

Ho.

Bushes

Dry Run

T-BUR.

TEMPORARY EASEMENT

Tele Cable Marker

Tele. Cable Marker

Cast Iron Monument

13 14 18 24

Schoolhouse

P.I. 32+00.00

Outdoor Theater Exit Rt. 4+10
Inpl. 30" X 36' CMP
2 Aprons
NO CHANGE

FE RT. STA. 10+00
NO CULV. REQ'D

Res. Drive Rt. 11+42
Inpl. 15" X 24' CMP
REMOVE
NO CULV. REQ'D.

CONST. RES. DR. RT. 14+00
NO CULV. REQ'D.

Res. Drive Rt. 27+18
Inpl. 18" X 30' CMP
REMOVE
NO CULV. REQ'D.

Res. Drive Rt. 28+46
Inpl. 18" X 30' CMP
REMOVE
18"x32' C.S.P. CULV.
2-18" G.S.P. APRONS

Res. Drive Rt. 30+52
Inpl. 18" X 30' CMP
REMOVE
NO CULV. REQ'D.

BM Elev. 995.59
Disc S.E. Cor.
Bridge 6840

BM Elev. 1001.17
Spk in TP Rt
Sta. 12+06

BM Elev. 1014.38
Spk in PP Lt
Sta. 31+40

CL. 4 TREES
GR. 4 TREES

CL. 26 TREES — GR. 26 TREES

CL. 2 TREES — GR. 2 TREES

℄ SUBGRADE ELEV.

95.6 97.3 98.9 00.1 00.8 01.0 00.8 00.5 00.2 99.9 99.6 99.4 99.6 00.3 01.3 02.7 04.1 05.5 06.9 08.3 09.7 11.1 12.5 13.9 15.3 16.4

Profile 75' Rt
Profile 75' Lt.

P.I. +00
ELEV. 92.2
400' V.C.
M = 1.05

P.V.C. +50
ELEV. 98.15

P.I. +50
ELEV. 01.55
400' V.C.
M = 1.0'

ELEV. 00.95

P.V.T. +50

P.V.C. +29.41176
ELEV. 99.51177

P.I. +29.41176
ELEV. 98.91176
400' V.C.
M = 0.85

P.V.T. +29.41176
ELEV. 01.71176

ELEV. 15.53332

P.V.C. +16.66666

+1.7%

-0.3%

+1.4%

INLET ELEV. 96.1
OUTLET ELEV. 95.9

INLET ELEV. 96.1
OUTLET ELEV. 95.9

INLET ELEV. 07.0
OUTLET ELEV. 06.8

SUBGRADE TREATMENT:
EXCAVATE 1.0' BELOW PROFILE GRADE
FROM STA. 7+00 TO STA. 27+10.

+00 COMMON EXC. 1150 { 160 TOPSOIL, 990 COMMON
SUBGRADE EXC. 419
EMB. 1218

+87

COMMON EXC. 3096 { 477 TOPSOIL, 2619 COMMON
SUBGRADE EXC. 1346
EMB. 3507

+42

+00 COMMON EXC. 3090 { 336 TOPSOIL, 2754 COMMON
SUBGRADE EXC. 627
EMB. 2558

+00

+57

93.97 93.8 93.4 93.0 92.9 93.3 94.2 95.6 96.5 98.8 1001.2 02.1 01.8 01.4 00.6 1000.3 00.5 00.7 00.8 00.8 00.8 1000.7 00.9 02.2 04.3 06.6 1008.4 09.4 09.8 09.7 11.0 1013.8 17.5 20.2

1050 40 30 20 10 1000 90 980

0 5 10 15 20 25 30

C.P. C124-83-1

OLMSTED COUNTY, MINN.

C.R. 124

AS BUILT PLANS

SHEET 4 OF 40 SHEETS

Fed. Proj. No.

SCHOOL ENT. LT. 33+26
NO CULV. INPL.

18"x 32' C.S. PIPE CULV.
2-18" G.S. PIPE APRONS

F.E. LT. 37+38
NO CULV. INPL.

NO CULV. REQ'D.

℄ CULV. 38+20
INPL. 30"x44' CMP.

REMOVE
MOVE CULV. TO STA. 38+21.3 42"x64' R.C.P. CULV. CL. III.
2-42" R.C. PIPE APRONS F&I. CONC. PIPE JOINT TIES
PLACE CULV. ON "B" BEDDING

℄ CULV. 38+29
INPL. 30"x44' CMP.

REMOVE
MOVE CULV. TO STA. 38+28.8 42"x64' R.C.P. CULV. CL. III.
2-42" R.C. PIPE APRONS F&I. CONC. PIPE JOINT TIES
PLACE CULV. ON "B" BEDDING

℄ CULV. 42+84
INPL. W105x30' CONC. BOX

SEE PROJECT NO. S.A.P. 55-598-28 FOR CULV. CONST. DETAILS.

F.E. 56+58
INPL. 24"x28'
REMOVE

MOVE F.E.NT. TO STA. 57+00
2-64"SPAN x28' C.S. PIPE ARCH.
4-64"SPAN G.S. PIPE-ARCH APRONS.

MATCH LINE STA. 59+00

℄ CULV. 56+31 BR. NO. 89176
INPL. W104D x 26' CONC. BOX
REMOVE STRUCTURE

CONST. ℄ CULV.'S STA. 56+08.9, 56+23.6, 56+38.4, & 56+53.1
4-122"SPAN x 60' RCP-ARCH CULV. CL. II A
8-122"SPAN RCP-ARCH APRONS.
F&I. APPROVED CONC. PIPE JOINT TIES.
PLACE CULV.'S ON "B" BEDDING.
CONSTRUCT 3" TREATED TIMBER WEIR AT INLET APRON.
SEE WEIR DETAIL ON PLAN SHEET NO. 40
371 CU. YDS. RANDOM RIPRAP CL. "B" 18" DEPTH.
180 CU. YDS. FILTER BLANKET TYPE I 9" DEPTH
SEE SHEETS NO. 39 & 40 FOR CHANNEL DETAIL
LT. & RT. STA. 56+31.

CONST. F.E. RT. STA. 55+50
30"x28' C.S. PIPE CULV.
2-30" G.S. PIPE APRONS

℄ CULV. 52+45
INPL. 10'x2'x31' CONC. BOX
REMOVE STRUCTURE
NO CULV. REQ'D.

MATCH LINE STA. 59+00

CHANNEL EXC.
T.E.
OLMSTED COUNTY HIGHWAY R/W PLAT NO. 22
OBLITERATE OLD ROAD
P.I. 52+13.00 Δ LT. 89°54'30"
TWP. ROAD
P.C. 61+87.15
T.C.M.
SHED
TEMPORARY
EASEMENT
TELE. CABLE MARKER
P.I. 32+00 Δ LT. 1°09'
HO.
WEIH
SUBD.
22 AVE. N.E.

RES. DR. RT. 32+70
NO CULV. INPL.
NO CULV. REQ'D.

F.E. RT. 34+70
INPL. 15"x24" CMP.
REMOVE
18"x28' C.S.P. CULV.
2-18" G.S.P. APRONS
OMITTED

F.E. RT. 35+50
NO CULV. REQ'D.

F.E. RT. 36+66
INPL. 15"x30" CMP.
REMOVE
18"x28' C.S.P. CULV.
2-18" G.S.P. APRONS
OMITTED

22 AVE. N.E. RT. 40+48
INPL. 24"x36' C.M.P.
REMOVE
18"x36' C.S.P. CULV.
2-18" G.S.P. APRONS
OMITTED

RES. DR. RT. 44+53
INPL. 3-24"CMP CULV
74 LIN. FT.
REMOVE 54 LIN. FT.
2-24"x32' C.S.P. CULV.
4-24" G.S.P. APRONS.

RES. DR. RT. 48+58
INPL. 24"x30' CMP.
REMOVE
2-24"x32' C.S.P. CULV.
4-24" G.S.P. APRONS.

RES. DR. RT. 50+89
INPL. 24"x30' CMP.
REMOVE
2-24"x32' C.S.P. CULV.
4-24" G.S.P. APRONS.

9.66' SQ. STA. 52+13.0

℄ CULV. ON TWP. RD.
INPL. 30"x36' C.S.P.
REMOVE
CONST. ℄ CULV. 70' EAST STA. 52+13
30"x46' C.S. PIPE CULV.
2-30" G.S. PIPE APRONS
INLET ELEV. 09.7 OUTLET ELEV. 09.2

F.E. ON TWP. RD.
NO CULV. INPL.
2-24"x28' C.S. PIPE CULV.
4-24" G.S. PIPE APRONS.

CL. 25 TREES GR. 25 TREES — CL. 4 TREES — GR. 4 TREES — CL. 4 TREES — GR. 4 TREES

B.M. EL. 1014.38
SPK. IN PP. LT.
STA. 31+40

B.M. EL. 1009.59
ROD IN S.W. COR. BOX CULV. 42+84

B.M. EL. 1013.75
SPK. IN PP. 34' RT.
STA. 52+08.

B.M. EL. 1010.82
X ON S.E. COR. HD. WL. CULV. 56+19

℄ SUBGRADE ELEV.

P.I. +16.66667
ELEV. 18.3833
400' V.C.
M = 1.5

P.V.T. +16.66667
ELEV. 15.3333

P.V.C. +00
ELEV.

P.I. +00
ELEV. 10.6
400' V.C.
M = 0.65

P.V.T. +00
ELEV.

P.V.C. +46.66667
ELEV. 08.96

P.I. +46.66667
ELEV. 08.36
400' V.C.
M = 0.375

P.V.T. +46.66667
ELEV. 09.26

P.V.C. +75.0 ELEV. 13.3625

P.I. +13
ELEV. 11.4

P.I. +00
ELEV. 14.3
250' V.C.
M = 0.5

P.V.T. +25.0 ELEV. 13.2375

P.V.T. +87.97468
ELEV. 11.00221

+6%
-0.3%
+0.45%
+0.75%
-0.85%

SUBGRADE TREATMENT
EXCAVATE 1.0' BELOW PROFILE GRADE
FROM STA. 30+00 TO STA. 34+90
FROM STA. 38+50 TO STA. 52+13

INLET ELEV. 06.0
OUTLET ELEV. 04.0

INLET ELEV. 02.3
OUTLET ELEV. 02.0

TOP WEIR ELEV. 08.1
INLET ELEV. 05.6

TOP WEIR ELEV. 06.2
INLET ELEV. 03.7
OUTLET ELEV. 03.5

COMMON EXC. 4101 { 365 TOPSOIL, 3736 COMMON
SUBGRADE EXC. 728
EMBANKMENT 3554

COMMON EXC. 2749 CU. YDS. { 577 TOPSOIL, 2172 COMMON EXC.
SUBGRADE EXC. 1772 CU. YDS.
COMMON BORROW 2271 CU. YDS. (CV)
EMBANKMENT 5500 CU. YDS.

COMMON EXC. 3731 CU. YDS. { 915 TOPSOIL, 2816 COMMON EXC.
COMMON CHA. EXC. 5339 CU. YDS.
SUBGRADE EXC. 381 CU. YDS.
EMB. 6631

NOTE: COMMON CHANNEL EXC. TO BE USED IN ROADBED EMBANKMENT STA. 52+13 TO STA. 65+55.

75' LT.
75' RT.

State Proj. No. C.P. C124-83-1 CR 124 **Sheet No. 5 of 40 Sheets**

AS BUILT PLANS

Fed. Proj. No.

℄ CULV. LT. STA. 66+21
INPL. 42"x40' C.M.P.
REMOVE
NO CULV. REQ'D

END GRADING
STA. 4+00

P.T. 3+64.05

P.I. 2+40.25
Δ RT. 50°37'
D 19°
T 142.6'
L 266.4'

P.C. 0+97.65

OBLITERATE OLD ROAD

FARM ENT. LT. 65+05
INPL. 30"x30' C.M.P.
REMOVE
2-64"SPAN x32' C.S. PIPE-ARCH CULV.
4-64"SPAN G.S. PIPE-ARCH APRONS

S.E. COR. N1/2 NW.1/4 SEC. 18
T 107 N - R 13 W STA. 65+18.95

P.I. 66+45.85
Δ RT. 58°32'
D 7°
T 458.70'
L 856.19'
RATE SUPERELEVATION / FT. 0.06'
RUN OFF LENGTH 290'

P.C. 61+87.15

HAWTHORN HILL DR. LT. 65+70
INPL. 36"x46' C.M.P.
REMOVE

MOVE APPROACH TO STA. 67+50
2-42" SPAN x 60' C.S.
PIPE-ARCH CULVERT
4-42" SPAN G.S.
PIPE-ARCH APRONS

P.T. 70+23.34

FARM ENT. RT. 67+44
NO CULV. INPL.
MOVE ENT. TO STA. 67+50
18"x~~32~~ 44' C.S. PIPE CULV.
2-18" G.S. PIPE APRONS

FE LT. 75+20
18"x28' CSP. w/APRONS

℄ CULV. 72+30
INPL. 30"x32' C.M.P.
REMOVE
30"x~~62~~ 56' R.C. PIPE CULV. CL. III
2-30" R.C. PIPE APRONS
F&I APPROVED CONC. PIPE JOINT TIES
PLACE CULV. ON "B" BEDDING

P.O.T. 79+65.10

OBLITERATE OLD ROAD

P.C. 84+77.96

℄ CULV. OLD RD LT. 85+77
INPL. 4.5'x4.5'x29' STONE ARCH
REMOVE STRUCTURE

CONST ℄ CULV. STA. 85+03
SKEW 39°
48"x144' R.C. PIPE CULV. CL. IV
2-48" R.C. PIPE APRONS
F&I APPROVED CONC. PIPE JOINT TIES
PLACE CULV. ON "B" BEDDING
20 CU. YDS. CLASS "B" RIPRAP 18" DEPTH
10 CU. YDS. TYPE I FILTER BLANKET 9" DEPTH
TIMBER WEIR AT INLET

RES. DR. RT. 89+18
INPL. 36"x 26' C.M.P.
REMOVE

MOVE ENT. TO STA. 88+50
36"x 48' C.S. PIPE CULV.
2-36" G.S. PIPE APRONS

P.I. 87+83.75
Δ LT. 5°30'
D 00°54'
T 305.79'
L 611.11'
RATE SUPERELEVATION 0.02' / FT
RUN OFF LENGTH 100'

P.T. 90+89.07

F.E. RT. OLD ROAD STA. 86+80
INPL. 18" x 28' C.M.P.
REMOVE

30"x 40' C.S. PIPE CULV.
2-30" G.S. PIPE APRONS

CL. 31 TREES — GR. 21 TREES — CL. 33 TREES / GR. 33 TREES — CL. 0.55 ACRES / GR. 0.55 ACRES — CL. 0.9 ACRES GR. 0.9 ACRES

B.M. ELEV. 1015.19
SPK. IN T. POLE 112'
LT. STA. 65+20

B.M. ELEV. 1037.57
SPK. IN P. POLE 47'
RT. STA. 71+05

B.M. ELEV. 1055.56
SPK. IN P. POLE 61'
RT. STA. 80+15

B.M. ELEV. 1088.20
SPK. IN P. POLE 100'
LT. STA. 87+08

℄ SUBGRADE ELEVATIONS

P.I. +37.97468
ELEV. 08.87722
500' V.C.
M = 2.46875

P.V.T. +87.97468
ELEV. 16.62722

NOTE: 964 CU. YDS. COMMON EXC. FROM HAWTHORN HILLS DRIVE TO BE USE IN BALANCE STA. 65+53 TO STA. 69+11.

+3.1%

INLET ELEV. 35.4
OUTLET ELEV. 35.0

SUBGRADE TREATMENT:
EXCAVATE 1.0' BELOW PROFILE GRADE
FROM STA. 59+80 TO STA. 63+80,
FROM STA. 67+75 TO STA. 73+00,
FROM STA. 76+60 TO STA. 81+50 AND
FROM STA. 82+50 TO STA. 83+80

COMMON EXC. 4763 { 397 CU. YDS. TOPSOIL / 4366 CU. YDS. COMMON EXC.
SUBGRADE EXC. 277 CU. YDS.
EMB. 3562

75' LT. — — —
75' RT. ———

P.V.C. +46.37681
ELEV 74.23796

+3.1%

INLET ELEV. 67.5
OUTLET ELEV. 64.7

P.I. +96.37681
ELEV. 81.98768
500' V.C.
M = 4.3125

COMMON EXC. 16559 { 1763 TOPSOIL / 14796 COMMON EXC.
ROCK EXC. 11715 CU. YDS.
SUBGRADE EXC. 897 CU. YDS.
EMB. 22157

P.V.T. +46.37681
ELEV 06.98768

+10.0%

1234 TOPSOIL
2258 COMMON EXC.
COMMON EXC. 2492 CU. YDS.
ROCK EXC. 824 CU. YDS.
SUBGRADE EXC. 1149 CU. YDS.
EMB 2406

~~State Proj. No.~~ C.P. C124-83-1 C.R. 124 **Sheet No. 6 of 40 Sheets**

AS BUILT PLANS

Fed. Proj. No.

ON SUMMIT DR. LT. 9+73
RES. DR. NO CULV. INPL.
NO CHANGE

SUMMIT DR. STA. 6+00
CONST. ℄ CULV.
24"x 60' C.S. PIPE CULV.
2-24" G.S. PIPE APRONS

END GRADING
STA. 8+00

P.I. 7+07.15
Δ RT. 86°19'00"
D 47°
T 114.31'
L 183.65'
R 121.91'
P.C. 5+93.14
P.T. 7+76.79

F.E. LT. OLD RD. 93+~~24~~ 75
NO CULV. INPL.
30"x ~~28'~~ 56' C.S. PIPE CULV.
2-30" G.S. PIPE APRONS

SUMMIT DR. LT. 97+36
INPL. 15"x 36' C.M.P.
REMOVE
MOVE SUMMIT DR. TO STA. 103+50
24"x48' C.S.P. CULV.
2-24" G.S.P. APRONS
CONST. CULV. AT STA. 0+40

OBLITERATE OLD ROAD

SUMMIT DR.

P.O.T. 94+36.6

F.E. RT. OLD RD. 92+96
INPL. 24" x 18' C.S.P.
REMOVE
24"x 28' C.S.P. CULV.
2-24" G.S.P. APRONS

OBLITERATE OLD ROAD

P.T. 90+89.07

P.C. 96+63.86

P.I. 99+65.55
RT. 40°28'
D 7°
T 301.69'
L 578.10'
RATE SUPERELEVATION 0.06'/FT.
RUN OFF LENGTH 290'

TWP. RD. LT. 100+16
INPL. 15"x 24' C.M.P.
REMOVE
MOVE APPROACH TO RT. STA. 4+31
ON TWP. ROAD.
18"x 36' C.S.P. CULV.
2-18" G.S.P. APRONS

P.I. 1+10.0
Δ LT. 90°00'
D 100°52'
T 57.00
L 89.53
R 56.80
P.C. 0+53.00
P.T. 1+42.53

P.O.T. 106+90.65

P.T. 102+41.96

℄ CULV. STA. 111+62
INPL. 18"x 40' C.M.P.
NO CHANGE

END: C124-83-1
STA. 111+00

F.E. RT. 100+11
NO CULV. INPL.
MOVE F.E. TO STA. ~~99+60~~ 100+15
~~18"x28' C.S.P. CULV.~~
~~2-18" G.S.P. APRONS~~
OMITTED

F.E. RT. 106+94
NO CULV. INPL.
NO CULV. REQ'D.

CL. 76 TREES — GR. 54 TREES

CL. 3 TREES — GR. 3 TREES

B.M. ELEV. 1145.83
SPK. IN R POLE 102'
LT. STA. 92+91

B.M. ELEV. 1221.63
SPK. IN TEL. POLE 32'
RT. STA. 101+72

SUBGRADE TREATMENT:
EXCAVATE 1.0' BELOW PROFILE GRADE
FROM STA. 89+60 TO STA. 92+30,
FROM STA. 94+50 TO STA. 101+80 AND
FROM STA. 106+50 TO STA. 111+00

75' LT.
75' RT.

+100.0%

466 TOPSOIL
7757 COMMON EXC.
1729 COMMON EXC.
175 CU. YDS. ROCK EXC.
283 CU. YDS. SUBGRADE EXC.
5765 EMB.

+80.0%

343 TOPSOIL
4898 COMMON EXC.
189 CU. YDS. ROCK EXC.
440 CU. YDS. SUBGRADE EXC.
1636 EMB.

P.I. +00
ELEV. 42.35
1100' V.C.
M = 14.9875

NOTE: 3640 CU. YDS. COMMON EXC. TO BE HAULED FROM BALANCE STA. 98+51 TO STA. 103+15 INTO EMBANKMENT ON TWP. ROAD LEFT STA. 103+50

COMMON EXC. 5241

COMMON EXC. 3657
447 CU. YDS. TOPSOIL
3210 CU. YDS. COMMON EXC.
SUBGRADE EXC. 552 CU. YDS.
EMB. 3037

P.V.T. +30.0
ELEV. 37.4

-0.9%

HAWTHORN HILL DRIVE LEFT STA. 67+50

CL. 14 TREES — GR. 13 TREES

P.I. +50
ELEV. 26.0
200' V.C.
M = 1.55

P.V.C. +50.0 ELEV. 26.0

+6.2%

END GRADING STA. 4+00

NOTE: 964 CU. YDS. COMMON EXC. FROM HAWTHORN HILL DRIVE TO BE USED IN BALANCE STA. 65+53 TO STA. 69+71.

+00
COMMON EXC. 1325
137 TOPSOIL
1188 COMMON
ROCK EXC. 167
EMBANKMENT 368

STA. 111+00

State Proj. No. C.P. C124-83-1 CR. 124 Sheet No. 7 of 40 Sheets

AS BUILT PLANS