MINNESOTA DEPARTMENT OF TRANSPORTATION

THE COUNTY OF OLMSTED

CONSTRUCTION PLAN FOR AGGREGATE SHOULDERS AND CONCRETE PAVING

LOCATED ON C.S.A.H. 5 **BETWEEN** BYRON **AND** WEST COUNTY LINE **(GEOGRAPHIC DESCRIPTION)**

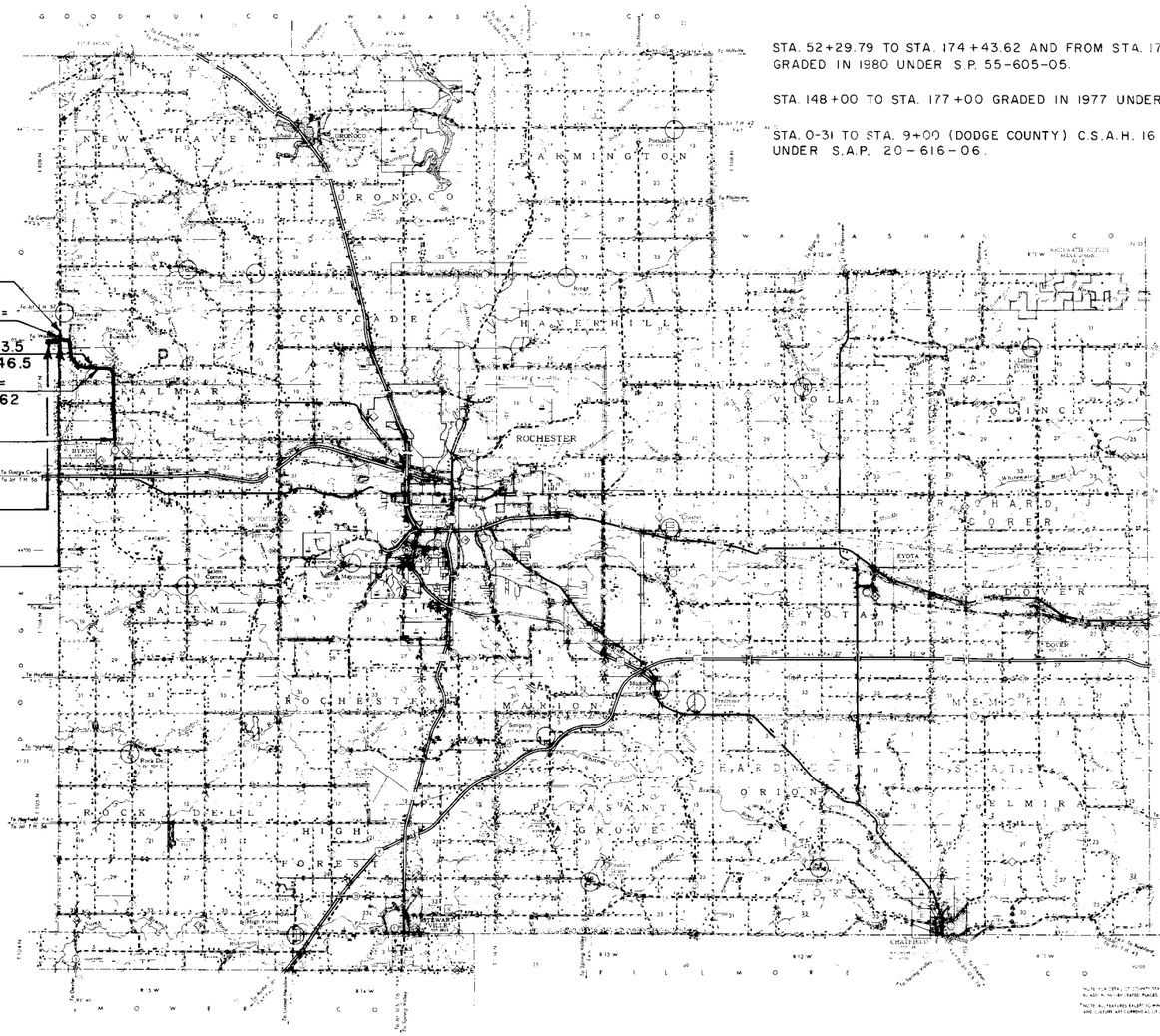
FROM 47.98' S. CEN. SEC. 29 T107N. R15W. **TO** 620.96' S. W.1/4 COR. SEC.7 T.107N. R15W. **(LEGAL DESCRIPTION)**

~~**STATE PROJ. NO.**~~ S.A.P. 20-616-07

GROSS LENGTH	931.00	FEET	0.176 MILES
BRIDGES-LENGTH		FEET	MILES
EXCEPTIONS-LENGTH		FEET	MILES
NET LENGTH	931.00	FEET	0.176 MILES

~~**STATE PROJ. NO.**~~ S.A.P. 55-605-08

GROSS LENGTH	20966.26	FEET	3.971 MILES
BRIDGES-LENGTH	267.00	FEET	.051 MILES
EXCEPTIONS-LENGTH		FEET	MILES
NET LENGTH	20699.26	FEET	3.920 MILES



STA. 52+29.79 TO STA. 174+43.62 AND FROM STA. 177+00 TO STA. 235+00 GRADED IN 1980 UNDER S.P. 55-605-05.

STA. 148+00 TO STA. 177+00 GRADED IN 1977 UNDER S.A.P. 55-605-04.

STA. 0-31 TO STA. 9+00 (DODGE COUNTY) C.S.A.H. 16 GRADED IN 1980 UNDER S.A.P. 20-616-06.

END: S.A.P. 55-605-08
STA. 235+50.00

EQUATION STA. 232+38.76 = STA. 232+41.19

BRIDGE NO. 55527 STA. 160+13.5
STA. 157+46.5

EQUATION STA. 148+00 = STA. 174+43.62

BEGIN: S.A.P. 55-605-08
STA. 52+29.79

END: SAP 20-616-07
STA. 9+00

BEGIN: SAP 20-616-07
STA. 0-31.00

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
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
CATCH BASIN
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)
ADDDEN HUB
GRAVEL PIT
SAND PIT
BORROW PIT
ROCK QUARRY
SLOPE EASEMENT

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 HORIZ & 10' VERT.

INDEX MAP ..... 10,560 FEET

GENERAL LAYOUT .....

STATE AID TITLE SHEET 5-77 ALBINSON MPLS.55420

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 & LAYOUT MAP.

SHEET NO. 2 EST. OF QUANTITIES & TYPICAL SECTIONS.

SHEET NO. 3 PAVEMENT JOINTS.

SHEET NO. 4 TO 7 PLAN & PROFILE

PLANS REVIEWED BY Glenn D. Moll DATE 6/7/82
DODGE COUNTY ENGINEER REG. NO. 8611

DESIGN DESIGNATION

R		ΣN18 (20)	
ADT (Current Year)	= 670	Design Speed	50 MPH
ADT (Future Year)	= 1072	Based on	STOPPING Sight Distance
DHV (Design Hr. Vol.)	=	Height of eye	3.75' Height of object 0.5'
D (Directional Distr.)	= %	Design Speed not achieved at:	
T (Heavy Commercial)	= %	STA.	TO STA. MPH
SOIL FACTOR	130	STA.	TO STA. MPH
PROJ. HCADT ONEWAY	50	STA.	TO STA. MPH
PROJ. TST HCADT	21		

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 6-1-82 REG. NO. 10219 ENGR. J.K. Dahl

COUNTY Olmsted

Recommended for Approval J.M. Waide 6-1 1982
DISTRICT STATE AID ENGINEER

Recommended for Approval Robert O. Offerdahl 6-14 1982
STATE AID PLANS AND SPECS ENGINEER

Approved 6/14 1982 James M. Hill
STATE AID ENGINEER

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED
DIVISION ADMINISTRATOR DATE

STATE AID PROJ. NO. 55-605-08 & S.A.P. 20-616-07
STATE PROJ. NO. ..... **SHEET NO.** 1 **OF** 7 **SHEETS**

ESTIMATED QUANTITIES

SPECIFICATION NO.	ITEM	UNIT	DODGE CO. RURAL SAP 20-616-07	OLMSTED CO. RURAL SAP 55-605-08	TOTAL ESTIMATED QUANTITIES	
2021.501	MOBILIZATION	LUMP SUM		1	1	
2105.525	TOPSOIL BORROW (LV)	C.Y.		509	509	
2112.501	SUBGRADE PREPARATION	ROAD STA.	9	205	214	
2130.501	WATER	M GAL.		50	50	
2211.501	AGGREGATE BASE, CLASS 5	TON	364	5334	5698	
2221.501	AGGREGATE SHOULDERING, CLASS 3	TON	354	5546	5900	
2221.502	AGGREGATE SHOULDERING, CLASS 2	TON	382	16188	1657 0	
2301.501	CONCRETE PAVEMENT	SQ.YD.	2483	54691	57174	(P)
2301.511	STRUCTURAL CONCRETE	CU.YD.	483	10634	11117	(P)
2331.504	BITUMINOUS MATERIAL FOR MIXTURE	TON		125	125	
2331.516	SHOULDER MIXTURE	TON		1923	1923	
2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GALLON		100	100	
2531.501	CONCRETE CURB AND GUTTER, DESIGN B-624	LIN. FT.		1116	1116	
2575.505	SODDING	SQ. YD.		1518	1518	

(P) PLAN QUANTITY

CONSTRUCTION NOTES

GRADES:

THE CENTERLINE GRADE FOR PAVING WILL BE ESTABLISHED BY THE OLMSTED COUNTY HIGHWAY DEPT.

JOINTS:

ALL CONTRACTION JOINTS, ALL LONGITUDINAL JOINTS AND HEADER JOINTS WILL BE INCIDENTAL TO ITEM NO. 2301.501 CONCRETE PAVEMENT AND NO DIRECT COMPENSATION WILL BE MADE THERE FOR.

REINFORCED PANEL OVER CULVERTS:

REINFORCED CONCRETE PANELS OF THE LENGTH INDICATED AT LOCATIONS LISTED BELOW SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARD DETAIL PLATE NOTED IN THE PLANS, MODIFIED TO THE EXTENT THAT A DOWELED TRANSVERSE JOINT WILL NOT BE REQUIRED. REINFORCED PANELS WILL BE INCIDENTAL TO ITEM NO. 2301.501 CONCRETE PAVEMENT AND NO DIRECT COMPENSATION WILL BE MADE THERE FOR.

STA:	69+20.5	18'-11'-15'-13' PANELS	STA:	185+19	13'-12'-12' PANELS
	92+ 87	15'-13'-18' PANELS		190+10	13'-16'- 15' PANELS
	105+40	13'-15'-11'-15' PANELS		199+11	17'-19' PANELS
	111+55	12'-15'-13'-18' PANELS		204+91	16' PANEL
	128+19	12'-13' PANELS		214+84	13' PANEL
	147+90	13'-13' PANELS		218+82	13'-16'-14' PANELS
				230+40	14' PANEL
			(DODGE COUNTY 16)	0+25	18' PANEL

CONCRETE PAVEMENT NON-REINFORCED:

CONCRETE PAVEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARD DETAIL PLATE NOTED IN THE PLANS, MODIFIED TO THE EXTENT THAT DOWELS WILL NOT BE REQUIRED IN THE FIRST TEN CONTRATION JOINTS AT BEGINNING OF PROJECT AND LAST TEN CONTRACTION JOINTS AT END OF PROJECT.

AGGREGATE BASE:

ITEM NO. 2211.501 AGGREGATE BASE CLASS 5 TO BE USED IN CONJUNCTION WITH THE OPERATIONS OF ITEM NO. 2112.501 SUBGRADE PREPARATION.

AGGREGATE SHOULDERING, CLASS 2:

ITEM NO. 2221.501 AGGREGATE SHOULDERING CLASS 2 INCLUDES 1245 TONS FOR 43 ENTRANCES AND APPROACHS AND 15325 TONS FOR SHOULDERING.

SHOULDER MIXTURE:

ITEM NO. 2331.516 SHOULDER MIXTURE INCLUDES 303 TONS FOR 24 ENTRANCES AND APPROACHES, 1554 TONS FOR BITUMINOUS SHOULDER CONSTRUCTION AND 66 TONS FOR TRANSITION AT END OF CONCRETE PAVEMENT.

WATER: WATER TO BE USED AS A DUST PREVENTATIVE AS DIRECTED BY THE ENGINEER.

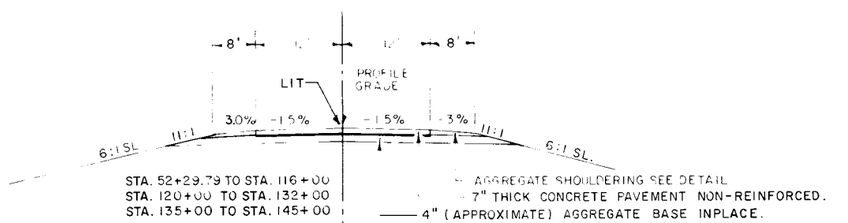
STANDARD PLATES

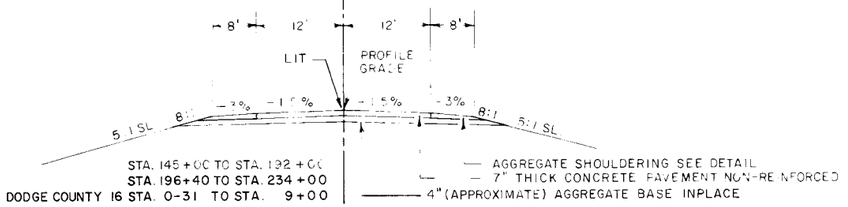
THE FOLLOWING STANDARD PLATES, APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION, SHALL APPLY ON THIS PROJECT.

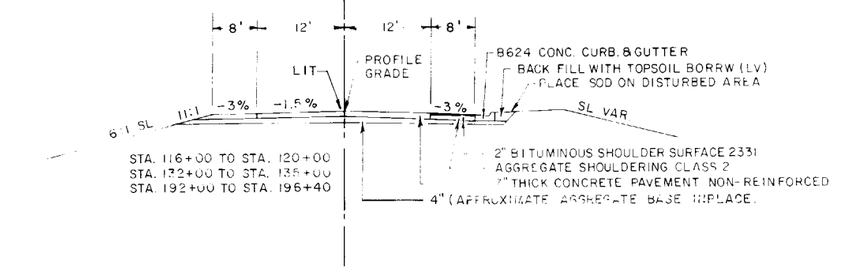
PLATE NO.		DESCRIPTION
0003	A	SPECIFICATION REFERENCE TO STANDARD PLATES.
1016	G	CONCRETE PAVEMENTS NON-REINFORCED.
1070	I	REINFORCED PANEL OVER CULVERTS.
1120	R	CONTRACTION JOINTS.
1140	R	LONGITUDINAL JOINTS.
1141	B	PAVEMENT KEYWAY FOR KEYED JOINT CONSTRUCTION.
1150	N	CONSTRUCTION OF HEADER JOINTS.
7035	J	CONCRETE WALK & CURB RETURNS AT ENTRANCES.
7100	E	CONCRETE CURB AND GUTTERS DESIGN B624.
8000	H	STANDARD BARRICADES.
1100	N	EXPANSION JOINTS.

TYPICAL SECTIONS

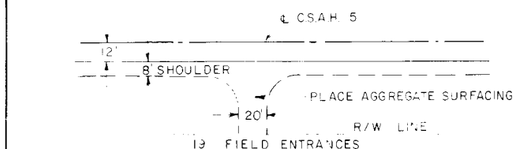
SPECIAL DETAIL

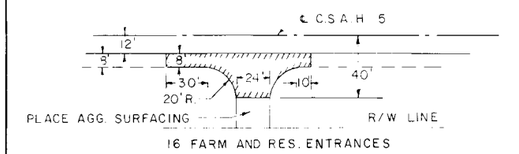


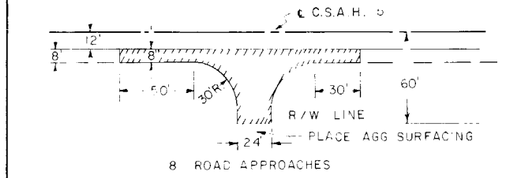




APPROACHES AND ENTRANCES



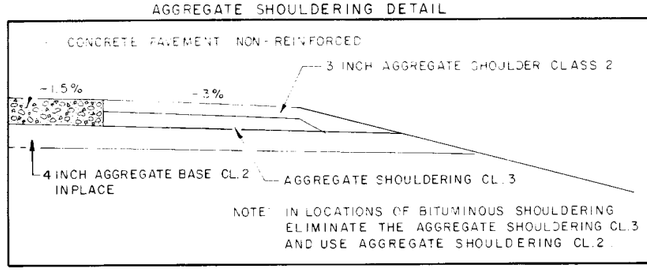


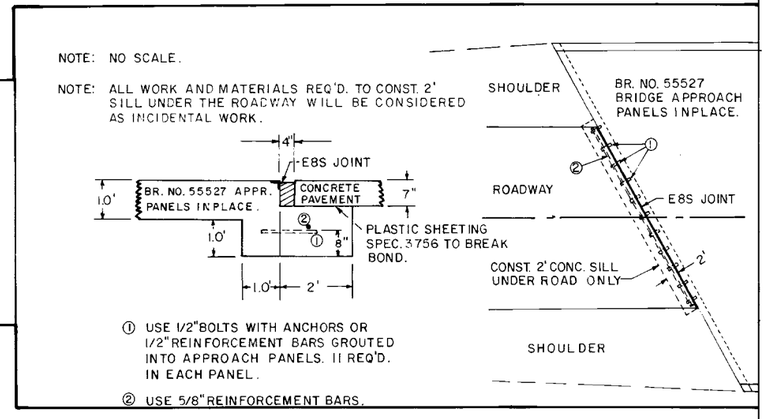


DESIGNATES BITUMINOUS SURFACING

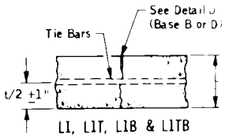
NOTE: ALL DIMENSIONS AND SLOPES SHOWN ON TYPICAL SECTIONS ARE APPROXIMATE.

AGGREGATE SHOULDERING DETAIL

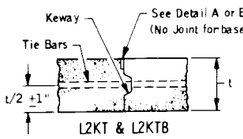




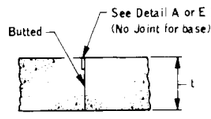
Fed. Proj. No.



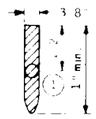
L1, L1T, L1B & L1TB



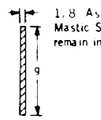
L2KT & L2KTB



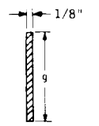
L3 & L3B



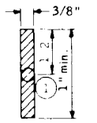
DETAIL A
(Formed & Sealer Spec. 3723)



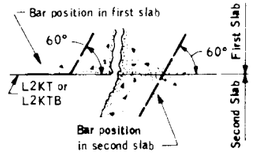
DETAIL B
(Formed & Unsealed)



DETAIL D
(Sawed & Sealer Spec. 3723)
(Base joints unsealed)



DETAIL E
(Sawed & Sealer Spec. 3723)



TIE BAR BENDING DETAIL

TYPE L1 JOINT DEPTHS			
Pav't. Thickness	Non-Reinf. Pav't.	Reinforced Pav't.	Concrete Base
t	g	g	g
6"	2"		2"
6-1/2"	2"		2"
7"	2-1/4"		2-1/4"
7-1/2"	2-1/4"		2-1/4"
8"	2-1/2"	2-1/2"	2-1/2"
8-1/2"	2-1/2"	2-1/2"	2-1/2"
9"	2-3/4"	2-3/4"	2-3/4"
10"	3"	3"	3"

LONGITUDINAL JOINTS

CLASS DESIGNATION				JOINT DETAIL	JOINT SEALER SPEC.
Without Tie Bars	With Tie Bars	With Keyway & Tie Bars	Butted		
L1 L1B	L1T L1TB	L2KT L2KTB	L3 L3B	D B or D A or E	3723 Unsealed 3723 Unsealed
				Note	

LEGEND

L = Longitudinal Joint
No. = Joint Reference
T = Tie Bars
K = Keyway
B = Concrete Base

EXAMPLE

L2KT
- Tie Bars
- Keyway
- Joint Reference
- Longitudinal Joint

LONGITUDINAL JOINT NOTES

Tie bars for L1TB joints shall be the same size and spacing as shown on standard plan sheet 5-297,217.

Except when noted otherwise in the plans the tie bar spacing for all L2KT and L2KTB joints shall be 2'-6" c. to c. and skewed 60° as shown.

Tie bars in the L2KT and L2KTB joints shall be the same size and length as used for the L1T or L1TB joints when tying pav't. to pav't. or base to base. Tie bars in the L2KT or L2KTB joints shall be No. 4 x 2'-6" when tying curb and gutter to pav't. or base.

All tie bars shall meet the requirements of Grade 60 for AASHO M-31 or M-53.

Normally, tied pavement widths shall not exceed 30 feet except bridge approach slabs and pavement tapers.

Joint width tolerance, +1/16", -1/32".

Spec. 3723 Sealer - Top of sealer flush to -3/16" below top of pavement surface.

(1) Just prior to sealing joint (Detail A&E) a paper rope with a 1/8" larger diameter than the joint opening may be placed 1/2" below the top of the pavement.

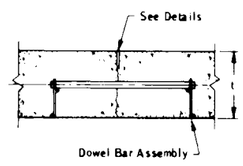
GENERAL NOTES:

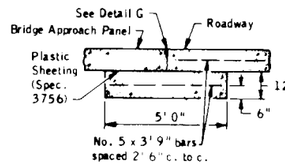
See the following standard plates and standard plan sheet for additional details: Dowel Bar Assembly 1103; Pav't. Keyway 1141; and Concrete Pavement with Skewed Joints 5-297,217.

See paving layouts in the plans for joint class designations to be used and special reinforcement required.

APPROVED June 8, 1981
L. A. Kipp
Director
OFFICE OF ENGINEERING STANDARDS

LONGITUDINAL JOINTS
DESIGN L





CONCRETE SILL
(Included as part of C3S joint)

LEGEND

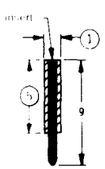
C = Contraction Joint
No. = Joint Reference
-1 = Hot Poured Seal 3723
D = Dowel Bars
S = Concrete Sill
B = Concrete Base

EXAMPLE

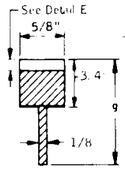
C1DB
- Concrete Base
- Dowel Bars
- Joint Reference
- Contraction Joint

CONTRACTION JOINTS

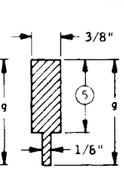
CLASS DESIGNATION		JOINT DETAIL	JOINT SEALER SPEC.
WITHOUT DOWELS	WITH DOWELS		
C1	C1D	A or C	3721
C1-1	C1D-1	A or B	3723
C1B	C1DB	D or F	Unsealed
C2-1	C2D-1	B	3723
C3S		G	3721
C4	C4D	C	3721
C5-1	C5D-1	E	3723



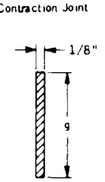
DETAIL A
Formed
(Insert to be removed)



DETAIL B (2)
Sawed or Formed (3)

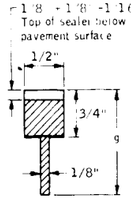


DETAIL C
Sawed

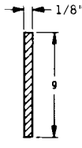


DETAIL D
Formed
Asphaltic mastic strip to remain in place

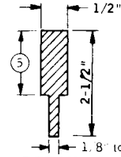
MIN. CONTRACTION JOINT DEPTHS			
Pav't. Thickness	Non-Reinf. Pav't.	Reinforced Pav't.	Concrete Base
t	g	g	g
6"	1-5/8"		1-1/4"
6-1/2"	1-5/8"		1-1/4"
7"	1-5/8"		1-1/2"
7-1/2"	1-5/8"		1-1/2"
8"	1-5/8"	2"	1-1/2"
8-1/2"	1-5/8"	2"	1-1/2"
9"	1-5/8"	2"	1-1/2"
10"	2"	2-1/2"	2"



DETAIL E (6)
Sawed



DETAIL F
Sawed



DETAIL G
Formed and Sawed (4)

(1) Design C1 or C1D: Prior to installing preformed joint sealer in the formed joint, (Detail A") the joint shall be widened to a nominal width of 3/8" by sawing along the full length of the formed joint.

Design C1-1 or C1D-1: Prior to sealing formed joint (Detail A) with hot poured joint sealer, the joint shall be widened to a nominal width of 5/8" for a depth of 3/4", +1/8", -1/16", by sawing along the full length of the formed joint. Prior to sealing joint (Detail B) with hot poured joint sealer a strip of paper 5/8" wide shall be placed on the bottom of the 5/8" wide joint.

(2) Design C1-1 or C1D-1, C2-1 or C2D-1: Prior to sealing joint (Detail B) with hot poured joint sealer a strip of paper 5/8" wide shall be placed on the bottom of the 5/8" wide joint.

(3) Design C2-1 or C2D-1: Use insert for forming joint (no sawing permitted).

(4) Use 5/16" x 2" insert for forming joint. Final dimensions shall be obtained by sawing.

(5) Depth shall be 1/4" greater than preformed joint sealer when compressed to fit joint design width.

(6) Design C5-1 or C5D-1: Prior to sealing joint (Detail E) with hot poured joint sealer a strip of paper 1/2" wide shall be placed on the bottom of the 1/2" wide joint.

CONTRACTION JOINT NOTES

In concrete base construction the contraction joints shall be spaced at 30 foot intervals and at right angles to the longitudinal joints except as noted below. Where concrete base is constructed adjacent to existing pavement or base, the contraction joints in the new base shall match those in the existing pavement or base except that the spacing shall not be less than 15 feet nor more than 30 feet.

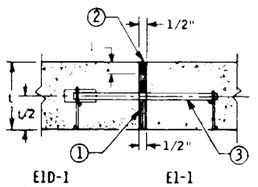
Joint width tolerances; +1/16", -1/32"

GENERAL NOTES:

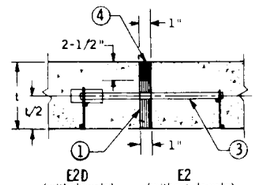
See the following standard plates and standard plan sheet for additional details: Dowel Bar Assembly 1103; Construction of Header Joints 1150, and Concrete Pavement with Skewed Joints 5-297,217.

See paving layouts in the plans for joint class designation to be used and special reinforcement required.

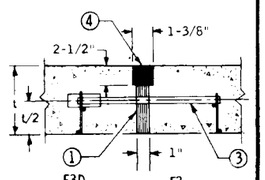
CONTRACTION JOINTS
DESIGN C



E1D-1 (with dowels) E1-1 (without dowels)

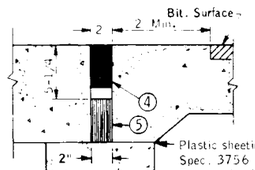


E2D (with dowels) E2 (without dowels)

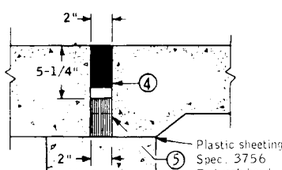


E3D (with dowels) E3 (without dowels)

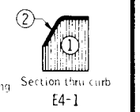
DETAIL A **DETAIL B** **DETAIL C**

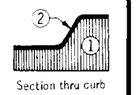


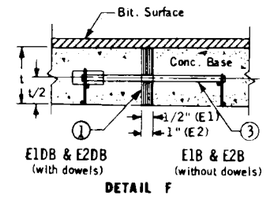
E4B (without dowels)
DETAIL D



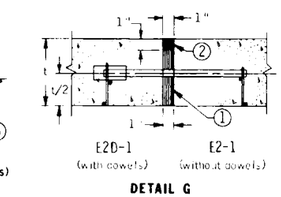
E4 (without dowels)
DETAIL E



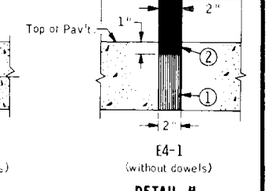




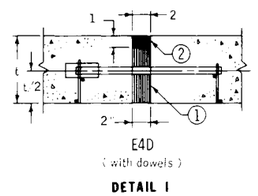
E1DB & E2DB (with dowels) E1B & E2B (without dowels)
DETAIL F



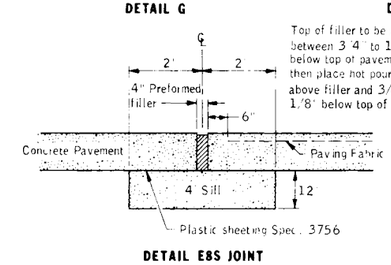
E2D-1 (with dowels) E2-1 (without dowels)
DETAIL G



E4-1 (without dowels)
DETAIL H



E4D (with dowels)
DETAIL I



Top of filler to be placed between 3/4" to 1" below top of pavement, then place hot pour (2) above filler and 3/8" ± 1/8" below top of pav't.

DETAIL E8S JOINT

(1) Preformed Joint Filler Material - Spec. 3702

(2) Joint Sealer as specified. Top of sealer, flush to 1/8" below top of pavement surface. Top of sealer for curb section E joints flush with surface, 0 +1/8 -1/8.

(3) Dowel Bar Assembly See Std. Pl. 1103

(4) Joint Sealer - Spec. 3721 Refer to plans for details of sealer

(5) Preformed Joint Filler Material - Spec. 3702 or an approved sheet polystyrene.

LEGEND

E = Expansion Joint
No. = Joint Reference
-1 = Hot Poured Seal (2)
D = Dowel Bars
B = Concrete Base

EXAMPLE

E1D-1
- Hot Poured Seal (2)
- Dowel Bars
- Joint Reference
- Expansion Joint

EXPANSION JOINTS

CLASS DESIGNATION		JOINT DETAIL	JOINT SEALER SPEC.
WITH DOWELS	WITHOUT DOWELS		
E1D-1	E1-1	A	(2)
E1DB	E1B	F	Unsealed
E2D	E2	B	3721
E2D-1	E2-1	G	(2)
E2DB	E2B	F	Unsealed
E3D	E3	C	3721
	E4	E	3721
	E4B	D	3721
	E4-1	H	(2)
E4D		I	(2)

EXPANSION JOINTS
DESIGN E

PAVEMENT JOINTS

~~State Proj. No.~~ S.A.P. 55-605-08 OLMSTED COUNTY **Sheet No.** 3 **of** 7 **Sheets**

Fed. Proj. No.

TWSP. RD. LT. 52 + 77
CONST. 2" BITUMINOUS APPROACH & RT. TURN LANE.

F. E. LT. 60 + 70
CONST. AGGREGATE SURFACE

F. E. LT. 67 + 34
CONST. AGGREGATE SURFACE

RES. DR. LT. 70 + 44
CONST. 2" BITUMINOUS APPROACH & RT. TURN LANE.

BEGIN: S.A.P. 55-605-08
STA. 52 + 29.79

P.I. 52 + 77.77
INPL. 3/4" ROD

45.34' B. TO B.

CORPORATE LIMITS

B624 CONC. C. & G. INPL.

BITUMINOUS SURFACE INPLACE

B624 CONC. C. & G. INPL.

8' AGGREGATE SHOULDER

8' AGGREGATE SHOULDER

24' CONC. PAVEMENT NON-REINFORCED

BYRON

C5-1 CONTRACTION JOINTS SHOWN ARE THE JOINTS LOCATED BETWEEN THE 19' AND 13' PANELS. ROTATION OF JOINTS TO BE AT 13', 16', 14', AND 19' UNLESS OTHERWISE SHOWN.

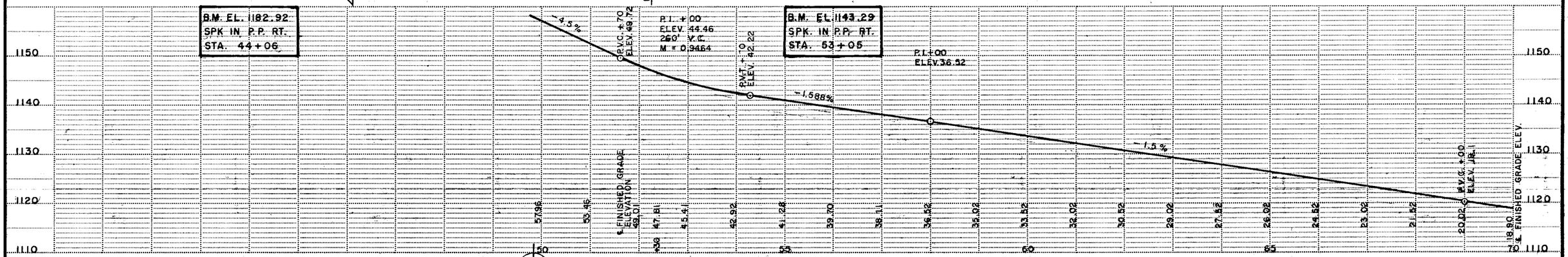
BEGIN: CONC. PAVEMENT
STA. 52 + 29.79

CONST. BIT. SHOULDER LT.
STA. 52 + 29.8 TO STA. 53 + 80

F. E. RT. 52 + 86
CONST. AGGREGATE SURFACE

F. E. RT. 66 + 64
CONST. AGGREGATE SURFACE

℄ CULVS. STA. 69 + 13.6 & STA. 69 + 28.27
INPL. 2-122" SPAN x 80' R.C.P.-A CULV.
CONST. 18', 11', 15', AND 13' REINFORCED PANELS. STA. 68 + 88 TO STA. 69 + 45.



F. E. LT. 94 + 76
CONST. AGGREGATE SURFACE

8' AGGREGATE SHOULDER

24' CONC. PAVEMENT NON-REINFOBCED

8' AGGREGATE SHOULDER

RES. DR. RT. 74 + 04
CONST. 2" BITUMINOUS APPROACH & RT. TURN LANE.

P.C. 75 + 56.91

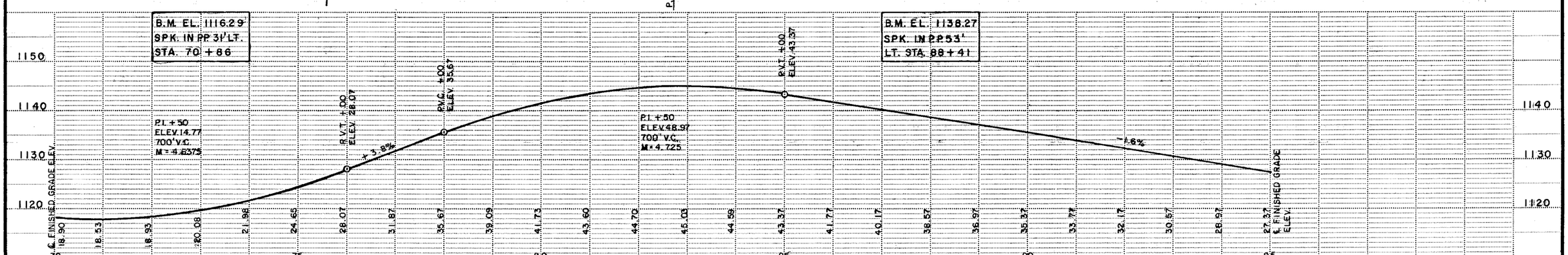
P.I. 79 + 11.72
INPL. REROD
P.I. 79 + 11.72
△RT. 02° 07' 43"
D = 00° 18'
L = 709.54'
T = 354.81'
E = 3.29'

P.T. 82 + 66.45

TWP. RD. RT. 92 + 26
CONST. 2" BITUMINOUS APPROACH & RT. TURN LANE.

TWP. RD. + 26

℄ CULV. STA. 92 + 87
INPL. 42" x 114' R. C. PIPE CULV.
CONST. 15', 13', AND 18' REINFORCED PANELS. STA. 92 + 66 TO STA. 93 + 12.



Fed. Proj. No.

RES. DR. LT. 96+00.
CONST. 2" BITUMINOUS APPROACH & RT. TURN LANE.

℄ CULV. STA. 105+40
INPL. 138" SPAN x 104" RCP-A CULV.
SKEWED 25°
CONST. 13', 15', 11' AND 15' REINFORCED PANELS STA. 105+13 TO 105+67.

P.I. 100+78.90
ΔLT. 16° 30' 10"
D-2° 00'
T-415.45'
L-825.14
E-29.97

TWP. RD. LT. 105+71
CONST. 2" BITUMINOUS APPROACH & RT. TURN LANE.

F.E. LT. 110+22
CONST. AGGREGATE SURFACE.

℄ CULV. STA. 111+55
INPL. 42"x 150' RCP CULV.
CONST. 12', 15', 13' AND 18' REINFORCED PANELS STA. 111+25 TO 111+83.

RES. DR. LT. 114+74
CONST. 2" BIT. APPROACH & RT. TURN LANE.

P.C. 96+63.45
P.T. 104+88.59
TWP. RD. +71
P.C. 106+74.95
P.T. 114+63.15
MATCH LINE 115+00
P.C. 121+59.04

8' AGGREGATE SHOULDER
24' CONC. PAVEMENT NON-REINFORED
60'
100'

RES. DR. LT. 112+75
CONST. 2" BITUMINOUS APPR. & RT. TURN LANE.

P.I. 110+74.74
ΔRT. 23° 38' 46"
D-3° 00'
T-399.79'
L-788.20'
E-41.40'

RES. DR. LT. 116+00
CONST. 2" BITUMINOUS APPROACH.

CONST. B624 CONC. CURB & GUTTER RT. STA. 116+12 TO 120+00.
CONST. 2" BITUMINOUS SHOULDER RT. STA. 115+48 TO 120+00
BACK FILL CURB WITH TOPSOIL BORROW (LV) 180 CU. YDS.
PLACE 534 SQ. YDS. SOD.
CONST. BITUMINOUS SPILLWAY RT. STA. 120+00
BITUMINOUS QUANTITIES INCLUDED IN SHOULDER MIXTURER

NOTE: C5-1 CONTRACTION JOINTS SHOWN ARE THE JOINTS LOCATED BETWEEN THE 19' & 13' PANELS. ROTATION OF JOINTS TO BE AT 13, 16, 14, AND 19' UNLESS OTHERWISE SHOWN.

B.M. EL. 1125.04
SPK. IN P.P. LT.
78' STA. 98+70

B.M. EL. 1118.37
SPK. IN P.P. LT.
161' STA. 115+45

-1.6%
P.I. +00
ELEV. 22.57
450' V.C.
M = 1.9125
P.V.C. +75.0
ELEV. 26.17
P.V.T. +125.0
ELEV. 16.32
-5.0%
P.V.C. +00
ELEV. 97.57
P.I. +00
ELEV. 77.57
800' V.C.
M = 9.2
P.V.T. +00
ELEV. 94.37
P.V.C. +50
ELEV. 96.47
P.I. +50
ELEV. 21.67
1200' V.C.
M = 13.5
P.V.T. +50
ELEV. 92.87

℄ FINISHED GRADE ELEV.

RES. DR. LT. 123+00
CONST. 2" BITUMINOUS APPR. & RT. TURN LANE.

P.I. 126+01.64
ΔLT. 8°50'04"
D-1° 00'
T-442.60'
L-883.45'
E-17.07'

F.E. RT. 130+30
CONST. AGGREGATE SURFACE

℄ CULV. 128+19
INPL. 30"x 108' RCP CULV.
CONST. 12' AND 13' REINF. PANELS STA. 128+07 TO 128+32

F.E. LT. 132+03
CONST. AGGREGATE SUFACE.

RES. DR. LT. 133+80
CONST. 2" BIT. APPROACH

CONST. B624 CONC. CURB & GUTTER LT. 132+12 TO 135+00.
CONST. 2" BITUMINOUS SHLD. LT. STA. 131+80 TO 135+00
BACKFILL CURB WITH TOPSOIL BORROW (LV) 134 CU. YDS.. PLACE 400 SQ. YDS. SOD.
CONST. BIT. SPILLWAY LT. STA. 135+00
BITUMINOUS QUANT. INCLUDED IN SHLD. MIXTURE.

RES. DR. LT. 142+63
CONST. 2" BITUMINOUS APPR. & RT. TURN LANE.

℄ CATTLE PASS CULV. 147+90
INPL. 72"x 72' R.C.
CONST. 13' AND 13' REINFORCED PANELS STA. 147+77 TO 148+03

P.I. 152+90.55
ΔLT. 9° 02' 06"
D-4° 00'
T-1458.51'
L-2275.88'
E-611.87'

8' AGGREGATE SHOULDER
24' CONC. PAVEMENT NON-REINFORCED
60'

F.E. RT. 137+11
CONT. AGGREGATE SURFACE

2' AGG. SHOULDER

C.S.A.H. 4 RT. 145+00
CONST. 4" BITUMINOUS APPROACH & 12' WIDE RT. TURN LANE WITH 2' WIDE AGGREGATE SHOULDERS.

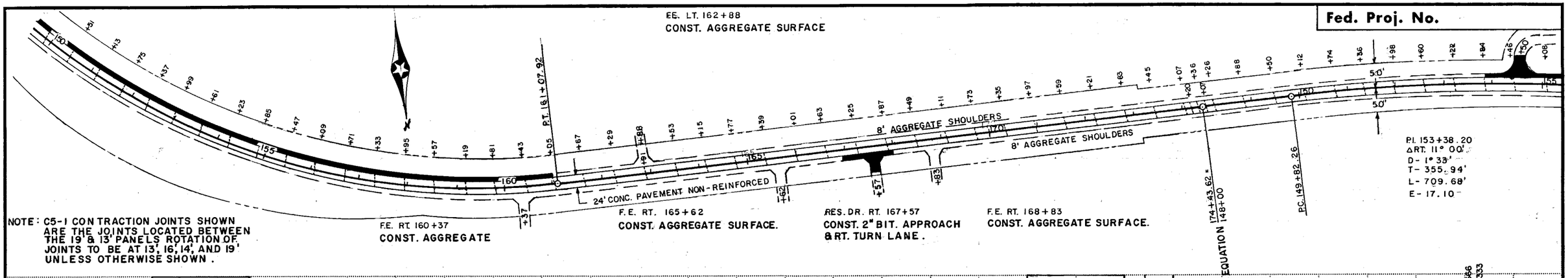
B.M. EL. 1067.01
SPK. IN P.P. 59'
LT. 134+15

B.M. EL. 1049.92
X S.E. COR. BOX
CULV. C.S.A.H. 4

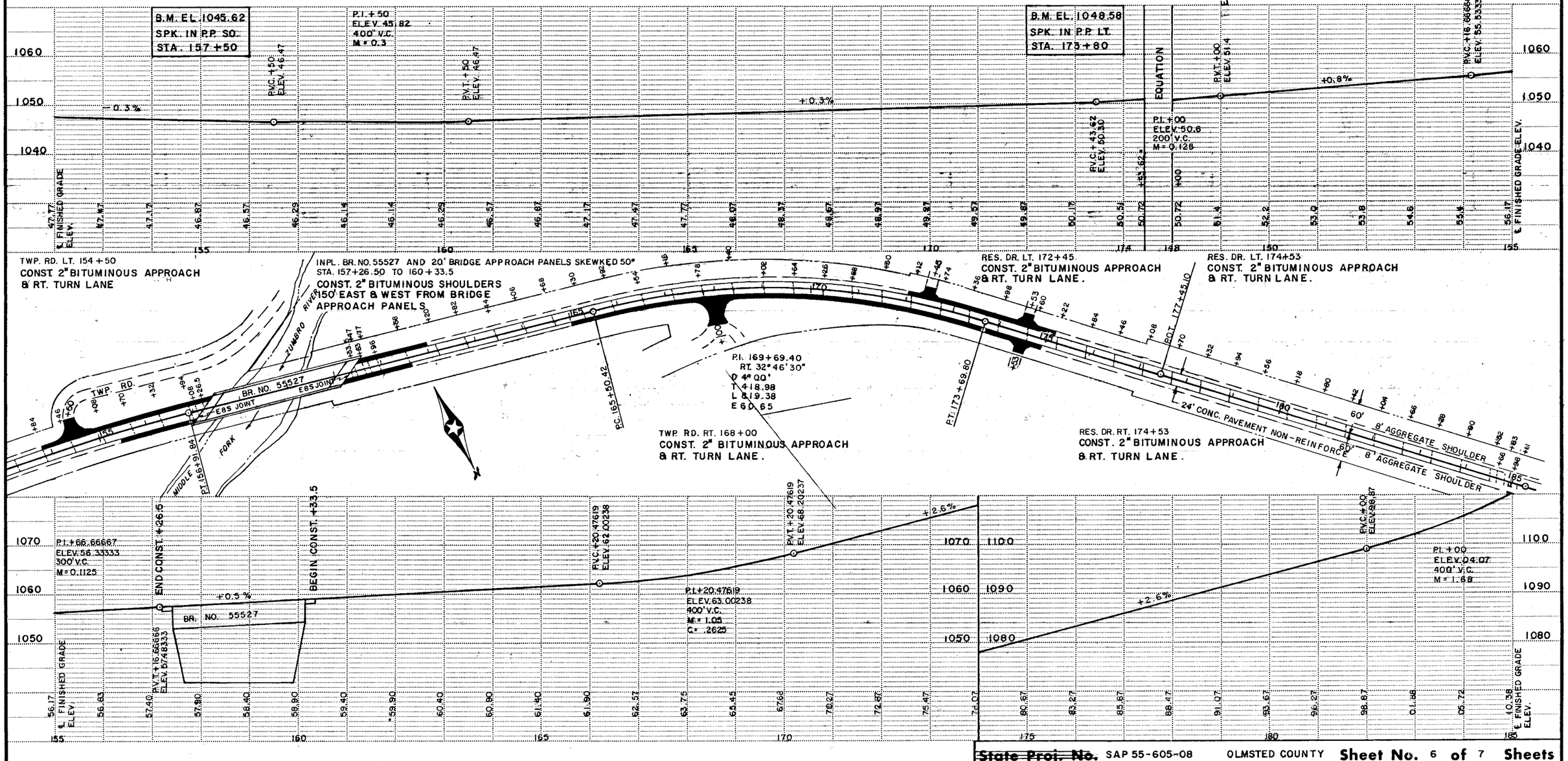
P.I. +93.5484
ELEV. 76.37968
400' V.C.
M = 1.55
P.V.C. +93.5484
ELEV. 85.98
P.V.T. +50
ELEV. 92.87
-4.8%
P.V.T. +93.5484
ELEV. 72.988
-1.7%
P.I. +17.85714
ELEV. 50.46644
400' V.C.
M = 0.7'
P.V.C. +17.85714
ELEV. 53.86643
P.V.T. 17.85714
ELEV. 49.86643
-1.7%
-0.3%

℄ FINISHED GRADE ELEV.

Fed. Proj. No.



NOTE: C5-1 CONTRACTION JOINTS SHOWN ARE THE JOINTS LOCATED BETWEEN THE 19' & 13' PANELS ROTATION OF JOINTS TO BE AT 13', 16', 14', AND 19' UNLESS OTHERWISE SHOWN.



Fed. Proj. No.

℄ CULV. 185+19 SKEWED 20°
INPL. 30"x 104' R.C.P. CULV.
INPL. 30"x 104' R.C.P. CULV.
CONST. 13', 12' AND 12' REINFORCED PANELS
STA. 184+98 TO 185+35.

CONST. B624 CONC. CURB & GUTTER LT. 192+00 TO 196+40.
CONST. 2" BIT. SHOULDER LT. STA. 192+00 TO 196+40.
BACKFILL CURB WITH TOPSOIL BORROW (LV) 195 CU. YDS.
PLACE 584 SQ. YDS. SOD.
CONST. BIT. SPILLWAY LT. STA. 192+00.
BITUMINOUS QUANT. INCLUDED IN SHLD. MIXTURE.

RES. DR. LT. 194+82
CONST. 2" BITUMINOUS APPROACH.

℄ CULV. 199+11
INPL. 30"x 126' RCP CULV.
CONST. 17' AND 19' REINF. PANELS.
STA. 198+93 TO 199+29.

F.E. LT. 203+60
CONST. AGG. SURFACE

℄ CULV. 204+91
INPL. 24"x 88' RCP CULV.
CONST. 16' REINFORCED PANEL.
STA. 204+83 TO 204+99.

F.E. LT. 214+15

℄ CULV. 214+84
INPL. 24"x 76' RCP CULV.
CONST. 13' REINF. PANEL.
STA. 214+78 TO 214+91.

P.I. 212+87.82
ΔLT. 56° 30'
D- 5° 00'
T- 615.72'
L- 1130.00'
E- 154.94'

P.C. 185+26.97

8' AGGREGATE SHOULDER

F.E. RT. 185+07
CONST. AGGREGATE SURFACE

℄ CULV. 190+10 SKEWED 16°
INPL. 42"x 120' R.C.P. CULV.
CONST. 13', 16' AND 15' REINFORCED PANELS. STA. 189+88 TO 190+32.

P.I. 191+48.48
ΔRT. 46° 54' 41"
D- 4° 00'
T- 621.51'
L- 1172.02'
E- 129.02'

P.T. 196+99.75

F.E. RT. 197+10
CONST. AGGREGATE SURFACE.

24' CONC. PAVEMENT NON-REINFORCED

RES. DR. RT. 205+70
CONST 2" BITUMINOUS SURFACE & RT. TURN LANE

F.E. RT. 208+75
CONST. AGGREGATE SURFACE

TWP. RD. RT. 213+00
CONST. 2" BIT. APPROACH & RT. TURN LANE.

TWP. RD.

NOTE: C5-1 CONTRACTION JOINTS SHOWN ARE THE JOINTS LOCATED BETWEEN THE 19' AND 13' PANELS. ROTATION OF JOINTS TO BE AT 13', 16', 14', AND 19' UNLESS OTHERWISE SHOWN.

B.M. EL. 1173.06
SPK. COR. F.P. 34'
LT. STA. 196+37

+5.9%
P.V.T. +00
ELEV. 16.87
P.V.C. +50
ELEV. 48.82
P.V.T. +60
ELEV. 80.72
+1.3%
℄ FINISHED GRADE ELEV.

F.E. LT. 219+87
CONST. AGGREGATE SURFACE.

CONST. ACCELERATION LANE LT. 221+75 TO 224+57
4" THICK BITUMINOUS SURFACE 12' WIDE.
2' WIDE AGGREGATE SHOULDER.

50' R

E2 JOINT

24' CONCRETE PAVEMENT NON-REINFORCED

8' AGGREGATE SHOULDER

P.C. 220+68.98

P.T. 218+01.20

RES. DR. RT. 216+88
CONST. 2" BITUMINOUS SURFACE & RT. TURN LANE.

℄ CULV. 218+82 SKEWED 30°
INPL. 72" HIGH x 82' R.C. CATTLE PASS
CONST. 13', 16' AND 14' REINFORCED PANELS. STA. 218+58 TO 219+01.

P.I. 227+22.90
ΔRT. 57° 04' 00"
D- 5° 00'
T- 623.04
L- 1141.33
E- 158.43

DODGE COUNTY

OLMSTED COUNTY

℄ CULV. 230+40
INPL. 24"x 80' R.C.P. CULV.
CONST. 14' REINFORCED PANEL
STA. 230+33 TO 230+47.

F.E. LT. 233+11
CONST. AGGREGATE SURFACE

END: SAP 55-605-08
STA. 235+50

8' AGGREGATE SHOULDER

END CONC. PAVEMENT STA. 234+00

CONST. RT. TURN LANE LT. STA. 224+81 TO 229+70. 4" THICK BIT. SURFACE 12' WIDE.
2' WIDE AGGREGATE SHLD.

CONST. BIT. TAPER 24' WIDE 7" DEEP AT STA. 234+00 TO NOTHING AT 235+50.

EQUATION AHEAD RT. 232+41.19 = LT. 232+38.76

EQUATION 232+41.19" = 232+38.76

B.M. EL. 1219.55
SPK. IN P.P. LT.
28' STA. 233+28

+1.3%
P.I. +00
ELEV. 13.87
400' V.C.
M = 0.28'
P.V.C. +00
ELEV. 11.27
P.V.T. +00
ELEV. 15.47
+0.8%
℄ FINISHED GRADE ELEV.

BEGIN: SAP 20-616-07
STA. 0-31.00

℄ CULV. 0+25
INPL. 24"x 78' R.C.P. CULV.
CONST. 18' REINF. PANEL
STA. 0+15 TO 0+33

F.E. LT. 2+93
CONST. AGG. SURFACE

END: SAP 20-616-07
STA. 9+00

E2 JOINT

8' AGGREGATE SHOULDER

OLMSTED CO.
DODGE CO.

P.I. 3+27.40
ΔRT. 37° 44' 30"
D- 10° 00'
T- 193.84
L- 377.42
E- 32.55'

P.T. 5+08.98

DODGE COUNTY C.S.A.H. 16 SAP 20-616-07

+0.6%
P.V.C. +65.83333
ELEV. 14.655
P.V.T. +65.83333
ELEV. 12.2555
-1.8%
P.I. +65.83333
ELEV. 15.855
400' V.C.
M = 1.2
℄ FINISHED GRADE ELEV.

State Proj. No. SAP 55-605-08 OLMSTED COUNTY **Sheet No. 7 of 7 Sheets**