MINNESOTA DEPARTMENT OF TRANSPORTATION

THE COUNTY OF OLMSTED

CONSTRUCTION PLAN FOR AGGREGATE BASE, AGGREGATE SHOULDERS & CONCRETE PAVING

LOCATED ON DODGE C.S.A.H. 17 & OLMSTED C.S.A.H. 5 **BETWEEN** DODGE COUNTY 16 T.-107-N. **AND** OLMSTED C.S.A.H. 3 1/2 MI. SO. PINE ISLAND (GEOGRAPHIC DESCRIPTION)

FROM 223.09' SO. OF W.1/4 COR. SEC. 7 R.-15-W. **TO** APPOX. 495' SO. CEN. SEC. 5 T.-108-N. R.-15-W. (LEGAL DESCRIPTION)

STATE PROJ. NO. SAP 20-617-02

GROSS LENGTH	14677.00	FEET	2.780 MILES
BRIDGES-LENGTH		FEET	MILES
EXCEPTIONS-LENGTH		FEET	MILES
NET LENGTH	14677.00	FEET	2.780 MILES

STATE PROJ. NO. SAP 55-605-10

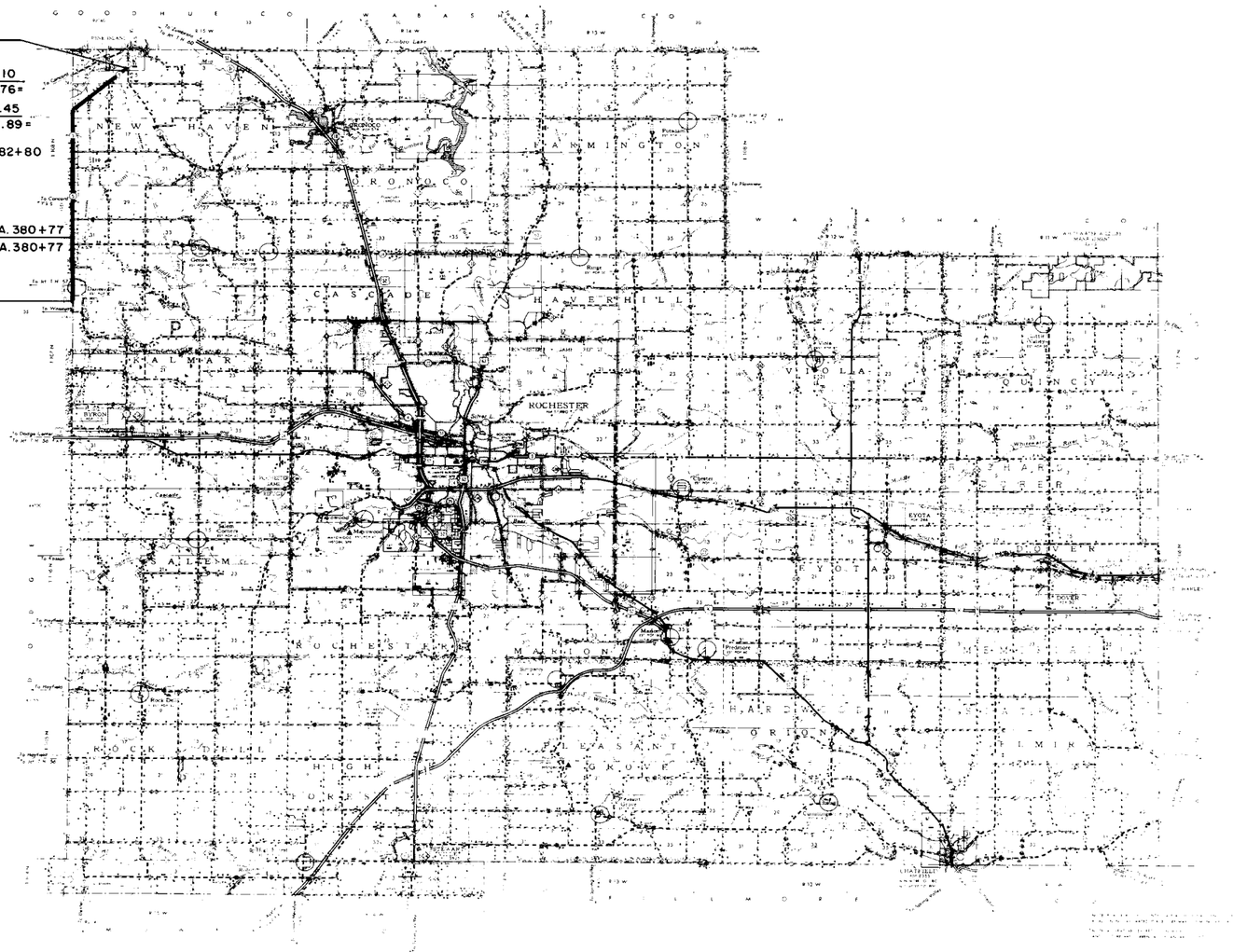
GROSS LENGTH	25625.52	FEET	4.853 MILES
BRIDGES-LENGTH		FEET	MILES
EXCEPTIONS-LENGTH		FEET	MILES
NET LENGTH	25625.52	FEET	4.853 MILES

PLANS SYMBOLS

STATE LINE
COUNTY LINE
T...NSHIP OR RANGE LINE
...CTION 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
T MBER
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)
ADDEN 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 0 100'
PROFILE 0 100' HORZ. 0 10' VERT.
INDEX MAP 0 10560'
~~GENERAL LAYOUT~~

MINN. PROJ. NO.

THE 1983 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN

INDEX

SHEET NO. 1 TITLE SHEET AND LAYOUT MAP.
" " 2 ESTIMATE OF QUANTITIES.
" " 3 PAVEMENT JOINTS.
" " 4 TO 10 PLAN AND PROFILE.

GRADED 1985 UNDER SAP 55-605-09 & SAP 20-617-01

DATE 8- REG. NO. 6419 ENGR. G. A. Ulrich
COUNTY Dodge

DESIGN DESIGNATION

R ΣN18(20)
ADT (Current Year) = 780 (1986) Design Speed 45 MPH
ADT (Future Year) = 1404 (2006) Based on Stopping Sight Distance
DHV (Design Hr. Vol.) = Height of eye 3.5 Height of object 0.5
D (Directional Distr.) = % Design Speed not achieved at:
T (Heavy Commercial) = 9.1 %
SOIL FACTOR 130
10 TON DESIGN

STA. 342+60	TO STA. 349+15	MPH	40
STA. 399+00	TO STA. 402+00	MPH	40
STA. 419+50	TO STA. 423+50	MPH	40
STA. 455+71	TO STA. 465+81	MPH	40
STA. 480+80	TO STA. 487+10	MPH	40
STA. 507+00	TO STA. 514+00	MPH	40
STA. 1302+25	TO STA. 1308+75	MPH	40

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 9/25/86 REG. NO. 10397 ENGR. Michael V...
COUNTY Olmsted

Recommended for Approval ... DISTRICT STATE AID ENGINEER 9-25 19 86

Recommended for Approval Julie Skallman STATE AID PLANS AND SPECS ENGINEER 10-7 19 86

Approved 10/8 19 86 ... STATE AID ENGINEER

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED
DIVISION ADMINISTRATOR DATE

STATE AID PROJ. NO. 20-617-02 & SAP 55-605-10
~~**STATE PROJ. NO.**~~ DODGE CO. C.S.A.H. 17 & OLMSTED CO. C.S.A.H. 5 **SHEET NO.** 1 **OF** 10 **SHEETS**

ESTIMATED QUANTITIES

SPECIFICATION NO.	ITEM	UNIT	SAP 20-617-02 RURAL	SAP 55-605-10 RURAL	TOTAL ESTIMATED QUANTITIES
2021.501	MOBILIZATION	LUMP SUM	0.37	0.63	1
2105.525	TOPSOIL BORROW (LV)	CU. YD.	1055	600	1655
2112.501	SUBGRADE PREPARATION	ROAD STA.	147	256	403
2130.501	WATER	(M) GAL'S.	35	60	95
2211.501	AGGREGATE BASE, CLASS 5	TON	2558	5127	7685
2221.501	AGGREGATE SHOULDERING, CLASS 2	TON	7310	11865	19175
2221.501	AGGREGATE SHOULDERING, CLASS 3	TON	4206	8039	12245
2301.501	CONCRETE PAVEMENT (P)	SQ. YD.	39115	68302	107417
2301.511	STRUCTURAL CONCRETE (P)	CU. YD.	7605	13280	20885
2331.504	BITUMINOUS MATERIAL FOR MIXTURE	TON	62	97	159
2331.508	WEARING COURSE MIXTURE	TON		124	124
2331.514	BASE COURSE MIXTURE	TON		165	165
2331.516	SHOULDER MIXTURE	TON	948	1225	2173
2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GALLON	16	113	129
2531.501	CONCRETE CURB & GUTTER DESIGN B624	LIN. FT.	3895	3000	6895
2575.505	SODDING	SQ. YD.	3463	2668	6131

(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 PERMANENT HEADER JOINTS WILL BE INCIDENTAL TO ITEM NO. 2301.501 CONCRETE PAVEMENT AND NO DIRECT COMPENSATION WILL BE MADE THEREFOR.

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 THEREFOR.

STATION:	PANELS	STA:	PANELS	STA:	PANELS
265+47	13'-14'	376+05	18'	482+85	14'-17'-15'
272+91	15'-18'-14'	385+24	12'-12'	499+05	17'-13'-16'-14'
284+64	18'	400+00	16'-14'-17'-14'	511+09	17'
306+52	16'-14'	406+14	15'-13'	1305+34	15'-13'-16'
323+51	17'-13'-16'-14'-17'-13'	422+16	17'-13'-16'	1330+92	13'-13'
333+98	16'	433+88	14'-15'-16'	1338+95	13'-16'-14'-17'-13'-16'
346+10	17'-13'-16'-14'-17'	442+60	15'	1353+75	16'-14'-17'
356+45	16'-14'	461+52	13'-16'-14'	1365+28	14'-17'
367+30	16'	474+75	14'-17'	1377+15	13'-16'-14'-17'-13'-16'-14'-17'-13'-16'
				1398+15	17'-15'
				1410+00	16'

CONCRETE PAVEMENTS 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 LAST TEN CONTRACTION JOINTS AT END OF PROJECT.

AGGREGATE BASE:

ITEM NO. 2211.501 AGGREGATE BASE CLASS 5 INCLUDES 660 TONS FOR C.S.A.H. 14 RT. STA. 328+24 AND 7025 TONS 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 2920 TONS FOR 143 ENTRANCES AND APPROACHES AND 16,255 TONS FOR SHOULDERING.

SHOULDER MIXTURE:

ITEM NO. 2331.516 SHOULDER MIXTURE INCLUDES 414 TONS FOR 46 ENTRANCES AND APPROACHES, 92 TONS FOR 25 BITUMINOUS SPILLWAYS, 209 TONS FOR 11 PUBLIC ROAD APPROACHES AND 1,458 TONS FOR BITUMINOUS SHOULDER CONST.

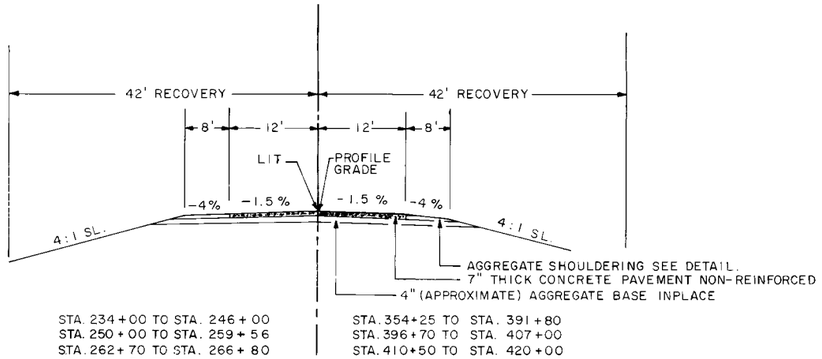
WATER: WATER TO BE USED AS A DUST PREVENTATIVE AS DIRECTED BY THE ENGINEER.

STANDARD PLATES

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

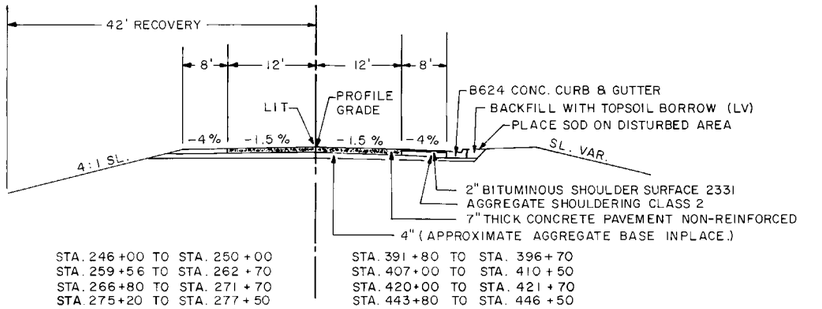
PLATE NO.		DESCRIPTION
0004	A	SPECIFICATION REFERENCE TO STANDARD PLATES.
1016	H	CONCRETE PAVEMENTS NON-REINFORCED.
1070	J	REINFORCED PANEL OVER CULVERTS.
1120	S	CONTRACTION JOINTS.
1140	S	LONGITUDINAL JOINTS.
1141	C	PAVEMENT KEYWAY FOR KEYED JOINT CONSTRUCTION.
1150	N	CONSTRUCTION OF HEADER JOINTS.
7035	J	CONCRETE WALK AND CURB RETURNS AT ENTRANCES.
7100	F	CONCRETE CURB AND GUTTERS DESIGN B624.
8000	I	STANDARD BARRICADES.

TYPICAL SECTIONS



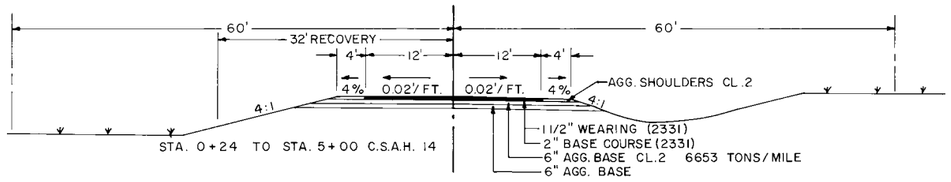
STA. 234+00 TO STA. 246+00
STA. 250+00 TO STA. 259+56
STA. 262+70 TO STA. 266+80
STA. 271+70 TO STA. 275+20
STA. 277+50 TO STA. 291+20
STA. 299+74 TO STA. 350+20

STA. 354+25 TO STA. 391+80
STA. 396+70 TO STA. 407+00
STA. 410+50 TO STA. 420+00
STA. 421+70 TO STA. 443+80
STA. 446+50 TO STA. 448+60
STA. 452+00 TO STA. 475+25
STA. 478+50 TO STA. 1311+90
STA. 1317+25 TO STA. 1411+11



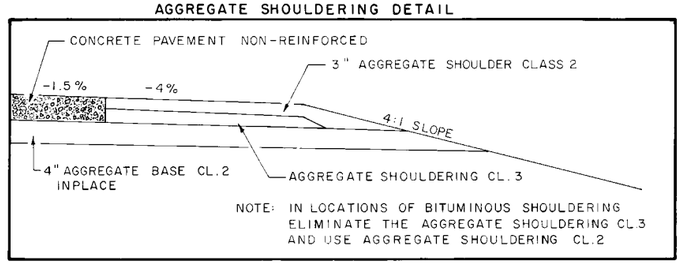
STA. 246+00 TO STA. 250+00
STA. 259+56 TO STA. 262+70
STA. 266+80 TO STA. 271+70
STA. 275+20 TO STA. 277+50
STA. 291+20 TO STA. 299+74
STA. 350+20 TO STA. 354+25

STA. 391+80 TO STA. 396+70
STA. 407+00 TO STA. 410+50
STA. 420+00 TO STA. 421+70
STA. 443+80 TO STA. 446+50
STA. 448+60 TO STA. 452+00
STA. 475+25 TO STA. 478+50
STA. 1311+90 TO STA. 1317+25



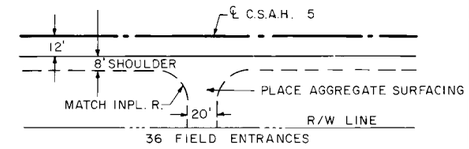
STA. 0+24 TO STA. 5+00 C.S.A.H. 14

AGGREGATE SHOULDERING DETAIL

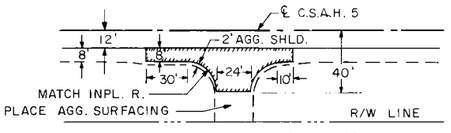


NOTE: IN LOCATIONS OF BITUMINOUS SHOULDERING ELIMINATE THE AGGREGATE SHOULDERING CL.3 AND USE AGGREGATE SHOULDERING CL.2

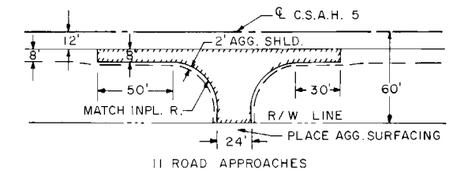
APPROACHES AND ENTRANCES



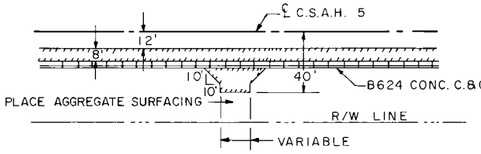
36 FIELD ENTRANCES



27 FARM AND RES. ENTRANCES



11 ROAD APPROACHES

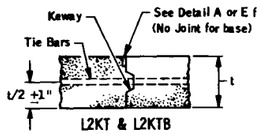


10 URBAN TYPE ENTRANCES

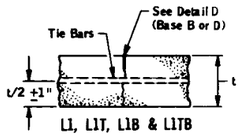
DESIGNATES BITUMINOUS SURFACING

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

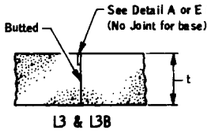
See the following plates for additional details: Dowel Bar Assembly 1103; Pav't. Keyway 1141; and Concrete Pavements 1016 and 1019.



L2KT & L2KTB

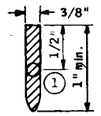


L1, L1T, L1B & L1TB

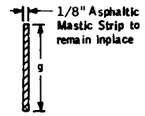


L3 & L3B

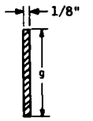
TYPE L1 JOINT DEPTHS		
Pavement Thickness	Concrete Pavement	Concrete Base
t	g	g
6"	2"	2"
6-1/2"	2-1/8"	2"
7"	2-1/4"	2-1/4"
7-1/2"	2-1/2"	2-1/4"
8"	2-5/8"	2-1/2"
8-1/2"	2-7/8"	2-1/2"
9"	3"	2-3/4"
10"	3-1/4"	3"



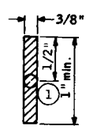
DETAIL A
(Formed & Sealer Spec. 3720)



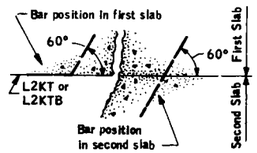
DETAIL B
(Formed & Unsealed)



DETAIL D
(Sawed & Sealer Spec. 3720)
(Base joints unsealed)



DETAIL E
(Sawed & Sealer Spec. 3720)



TIE BAR BENDING DETAIL

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 None	3720 Unsealed 3720 Unsealed

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 5-297.216 - .219.

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 bent 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 AASHTO M-31 or M-53.

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

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

Spec. 3720 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.

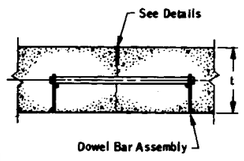
GENERAL NOTES:

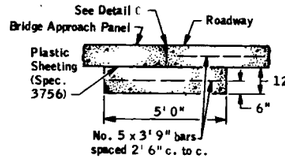
See the following standard plates and standard plan sheet for additional details: Dowel Bar Assembly 1103; Pav't. Keyway 1141; and Concrete Pavement with Skewed Joints 5-297.216-.219.

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

APPROVED June 25, 1985
Raymond A. Cederberg
Acting 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 Spec. 3720
D = Dowel Bars
S = Concrete Sill
B = Concrete Base

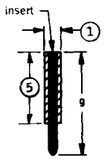
EXAMPLE

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

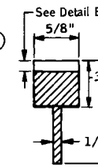
CONTRACTION JOINTS

CLASS DESIGNATION		JOINT DETAIL	JOINT SEALER SPEC.
WITHOUT DOWELS	WITH DOWELS		
C1	C1D	A or C	3721
C1-1	C1D-1	A or B	3720
C1B	C1DB	D or F	Unsealed
C2-1	C2D-1	B	3720
C3S		C	3721
C4	C4D	C	3721
C5-1	C5D-1	E	3720

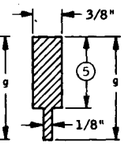
MIN. CONTRACTION JOINT DEPTHS!		
Pavement Thickness	Concrete Pavement	Concrete Base
t	g	g
6"	1-1/2"	1-1/4"
6-1/2"	1-5/8"	1-1/4"
7"	1-3/4"	1-1/2"
7-1/2"	1-7/8"	1-1/2"
8"	2"	1-1/2"
8-1/2"	2-1/8"	1-1/2"
9"	2-1/4"	1-1/2"
10"	2-1/2"	2"



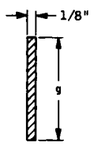
DETAIL A
Formed
(Insert to be removed)



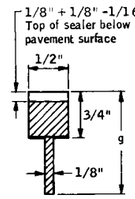
DETAIL B (2)
Sawed or Formed (3)



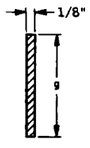
DETAIL C
Sawed



DETAIL D
Formed
Asphaltic mastic strip to remain in place



DETAIL E (6)
Sawed



DETAIL F
Sawed

(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".

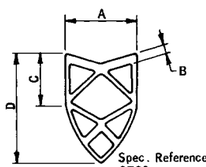
GENERAL NOTES:

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 5-297.216 - .219.

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

CONTRACTION JOINTS
DESIGN C

REQUIRED DIMENSIONS		
Joint Type	Transverse	Transverse
Nominal Sealer Size	13/16" Use in all 3/8" Joints	1-1/4" Use in all 1/2" Joints
A	0.80" +0.14" -0.05"	1.25" ± 0.13"
B	0.08" ± 0.02"	0.10" ±0.02"
C	0.60" Min.	1.00" Min.
D	0.80" Min.	1.00" Min.
Web and wall thickness unless noted	0.03" Min.	0.06" Min.

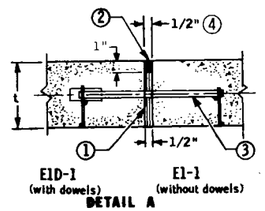


TYPICAL SHAPE FOR SATISFACTORY INSTALLATION IN JOINT (5 CELL MIN.)

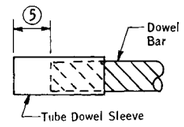
NOTES:
"A" Dimension shall apply at any point throughout "C" depth. The above concrete joint sealers shall be used in 3/8" and 1/2" contraction joints. In its final position, the top corners of the preformed joint sealer shall be placed not less than 1/8" nor more than 5/16" below the pavement surface.

Sharp internal corners will not be permitted. All corners shall be provided with suitable fillet. Currently approved configurations are on file in the Materials Engineering Section, Minnesota Department Of Transportation.

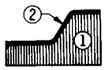
CONTRACTION JOINT SEALER
(PREFORMED ELASTIC TYPE)



DETAIL A



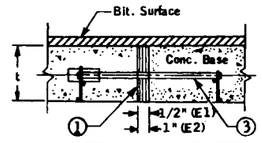
DOWEL BAR SLEEVE DETAIL



Section thru curb
E2-1

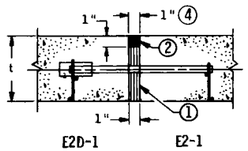


Section thru curb
E4-1



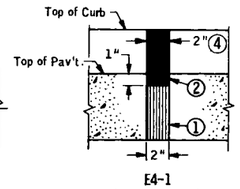
E1DB & E2DB
(with dowels)
E1B & E2B
(without dowels)

DETAIL F



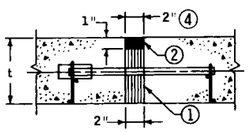
E2D-1
(with dowels)
E2-1
(without dowels)

DETAIL G



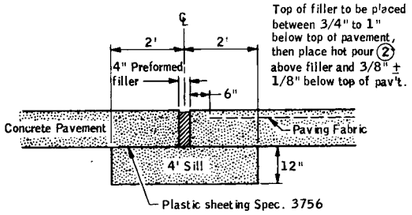
E4-1
(without dowels)

DETAIL H



E4D-1
(with dowels)

DETAIL I



DETAIL E&S JOINT

(1) Preformed Joint Filler Material - Spec. 3702

(2) Joint Sealer Spec. 3720. 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"

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

(4) Joint width. Joint width is equal to half of the Joint No. in 1/2" intervals (i.e. E1 = 1/2", E2 = 1", E3 = 1-1/2", E4 = 2", E8 = 4").

(5) Space from end of dowel bar to end of sleeve to be equal to expansion joint width.

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-1	E2-1	G	(2)
E2DB	E2B	F	Unsealed
	E4-1	H	(2)
E4D-1		I	(2)

EXPANSION JOINTS
DESIGN E

PAVEMENT JOINTS

Fed. Proj. No.

℄ CULV. 230+40

F.E. LT. 233+11

END: SAP 55-605-08 (1982)
STA 235+50

DODGE COUNTY

24' CONC. PAVEMENT NON-REINFORCED IN PLACE

BEGIN CONC. PAVEMENT STA. 234+09.0

BEGIN S.A.P. 20-617-02
STA. 234+00

EQUATION P.T. 232+41.19 = 232+38.76

OLMSTED COUNTY

F.E. RT. 235+03
CONST. AGG. SURFACE

8' AGGREGATE SHOULDER

24' CONC. PAVEMENT NON-REINFORCED

8' AGGREGATE SHOULDER

NOTE: C5-1 CONTRACTION JOINT SHOWN ARE THE JOINTS LOCATED BETWEEN THE 17' & 13' PANELS. ROTATION OF JOINTS TO BE AT 13', 16', 14', AND 17' UNLESS OTHERWISE SHOWN.

F.E. RT. 242+45
CONST. AGG. SURFACE

F.E.LT. 242+81
CONST. AGG. SURFACE

RES. DR. LT. 247+88
CONST. 2" BITUMINOUS APPROACH

F.E. LT. 249+87
CONST. AGG. SURFACE

CONST. B624 CONC. C.&G. LT. STA. 247+78 TO STA. 249+60
CONST. 2" BIT. SHOULDER. LT. STA. 247+50 TO STA. 249+60
BACKFILL CURB WITH TOPSOIL BORROW (LV) 36 CU. YDS.
PLACE 162 SQ. YDS. SOD.
CONST. BIT. SPILLWAY LT. STA. 247+68
BIT. QUANT. INCLUDED IN SHOULDER MIXTURE

RES. DR. RT. 247+74
CONST. 2" BITUMINOUS APPROACH

CONST. B624 CONC. C.&G. RT. STA. 246+00 TO STA. 250+00
CONST. 2" BIT. SHLD. RT. STA. 245+90 TO STA. 250+10
BACKFILL CURB WITH TOPSOIL BORROW (LV) 80 CU. YDS.
PLACE 356 SQ. YDS. SOD.
CONST. BIT. SPILLWAY RT. STA. 245+90 AND STA. 250+10
BIT. QUANTITY INCLUDED IN SHLD. MIXTURE.

F.E. RT. 252+50
CONST. AGG. SURFACE

F.E. RT. 255+64
CONST. AGG. SURFACE

RES. DR. LT. 257+53
CONST. 2" BITUMINOUS APPROACH & RIGHT TURN LANE

F.E. LT. 259+90
CONST. AGG. SURFACE

F.E. RT. 259+68
CONST. AGG. SURFACE

BM. ELEV. 1222.28
SPK. IN P.P. LT. 60'
STA. 236+70

P.I. +15.0
ELEV. 23.80
400' V.C.
M = 1.0

+0.8%

+2.8%

P.I. +50.0
ELEV. 49.98
510' V.C.
M = 2.48625

-1.1%

-2.1%

BM. EL. 1240.89
SPK. IN P.P. LT. 50'
STA. 253+60

P.I. +50.0
ELEV. 38.98
300' V.C.
M = 0.375

P.V.C. +50.0 ELEV. 22.20
P.V.T. +15.0 ELEV. 23.40
P.V.C. +95.0 ELEV. 42.84
P.V.T. +05.0 ELEV. 47.78
P.V.C. +00 ELEV. 40.63
P.V.T. +00 ELEV. 35.83

EQUATION 232+41.19 = 232+38.76

℄ FINISHED GRADE ELEV.

FM. ENT. LT. 261+47
CONST. AGG. SURFACE

DODGE CO. 18 LT. 262+45
CONST. 4" BIT. APPROCH & RT. TURN LANE

BARN ENT. 267+05 FM. ENT. LT. 267+76
CONST. AGG. SURFACE. CONST. 2" BIT. APPR. AND RT. TURN LANE

F.E. LT. 271+60
CONST. AGG. SURFACE

F.E. LT. 275+50
CONST. AGG. SURFACE

RES. DR. LT. 280+44
CONST. 2" BIT. APPR. & RT. TURN LANE

RES. DR. 281+94
CONST. 2" BIT. APPR. & RT. TURN LANE

CONST. B624 CONC. C.&G. LT. STA. 266+80 TO STA. 270+00
CONST. 2" BIT. SHLD. LT. STA. 266+80 TO STA. 270+10
BACKFILL CURB WITH TOPSOIL BORROW (LV.) 64 CU. YDS.
PLACE 284 SQ. YDS. SOD CONST. BIT. SPILLWAY LT. STA. 270+10 BIT. QUANT. INCLUDED IN SHLD. MIXTURE.

DODGE COUNTY

8' AGGREGATE SHOULDER

24' CONCRETE PAVEMENT NON-REINFORCED

8' AGGREGATE SHOULDER

OLMSTED COUNTY

STATION ENT & FE. RT. 262+05 + 262+51
CONST. 2" BIT. APPROACH

CONST. B624 CONC. C.&G. RT. STA. 259+56 TO STA. 262+70
CONST. 2" BIT. SHLD. RT. STA. 259+56 TO STA. 262+80
BACKFILL CURB WITH TOPSOIL BORROW (LV) 63 CU. YDS.
PLACE 280 SQ. YDS. SOD CONST. BIT. SPILLWAY RT. STA. 262+80
BIT. QUANT. INCLUDED IN SHLD. MIXTURE

℄ CULV. 265+47
CONST. 13' AND 14' REINF. PANELS STA. 265+34 TO 265+61.

RES. DR. 268+51
CONST. 2" BIT. APPR.

CONST. B624 CONC. C.&G. RT. STA. 267+00 TO STA. 271+70
CONST. 2" BIT. SHLD. RT. STA. 267+00 TO STA. 271+80
BACKFILL CURB WITH TOPSOIL BORROW (LV) 94 CU. YDS.
PLACE 418 SQ. YDS. SOD. CONST. BIT. SPILLWAY RT. STA. 271+80
BIT. QUANT. INCLUDED IN SHLD. MIXTURE

F.E. RT. 271+50
CONST. AGG. SURFACE

℄ CULV. 272+91
CONST. 15' 18' & 14' REINF. PANELS STA. 272+67 TO STA. 273+14

RES. DR. RT. 275+37
CONST. 2" BIT. APPR.

CONST. B624 CONC. C.&G. RT. STA. 275+20 TO STA. 277+50
CONST. 2" BIT. SHLD. RT. STA. 274+80 TO STA. 277+70
BACKFILL CURB WITH TOPSOIL BORROW (LV) 46 CU. YDS.
PLACE 204 SQ. YDS. SOD CONST. BIT. SPILLWAY RT. STA. 275+10
BIT. QUANT. INCLUDED IN SHLD. MIXTURE

DR. RT. 277+30
CONST. 2" BIT. APPR.

℄ CULV. 284+64
SKEWED 6°
CONST 18' RENF. PANEL STA. 284+54 TO STA. 284+72

F.E. RT. 287+00
CONST. AGG. SURFACE

TWP. RD. RT. 288+79
CONST. 2" BIT. APPR. & RT. TURN LANE

B.M. EL. 1228.19
SPK. IN P.P. LT. 40'
STA. 262+95

P.I. +50
ELEV. 28.48
300' V.C.
M = 0.6

-2.1%

-0.5%

P.I. +50
ELEV. 22.98
300' V.C.
M = 0.6

+1.1%

B.M. EL. 1231.67
SPK. IN P.P. LT. 60'
STA. 280+25

P.I. +00
ELEV. 31.23
400' V.C.
M = 0.3

+0.5%

B.M. EL. 1235.04
SPK. IN P.P. LT. 60'
STA. 288+75

P.I. +00
ELEV. 35.23
400' V.C.
M = 1.25

P.V.C. +00 ELEV. 31.63
P.V.T. +00 ELEV. 27.73
P.V.C. +00 ELEV. 23.73
P.V.T. +00 ELEV. 24.63
P.V.C. +00 ELEV. 28.03
P.V.T. +00 ELEV. 32.23
P.V.C. +00 ELEV. 34.23

℄ FINISHED GRADE ELEV.

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F.E. LT. 293+37
CONST. AGG. SURFACE

RES. DR. LT. 296+46
CONST. 2" BIT. APPROACH

RES. DR. LT. 298+76
CONST. 2" BIT. APPROACH

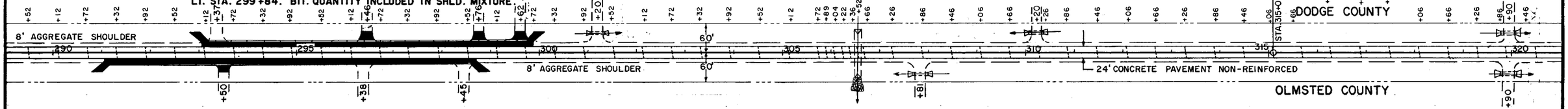
F.E. LT. 299+62
CONST. 2" BIT. APPROACH

INDUSTRIAL DR. LT. 301+20
CONST. AGGREGATE SURFACE

℄ CULV. 306+52
CONST. 16' AND 14' REINF. PANELS
STA. 306+36 TO STA. 306+66

F.E. LT. 310+20
CONST. AGG. SURFACE

CONST. B624 CONC. CURB & GUTTER LT. STA. 293+25 TO STA. 299+74
CONST. 2" BIT. SHLD. LT. STA. 293+15 TO STA. 300+80
BACKFILL CURB WITH TOPSOIL BORROW (LV) 130 CU. YDS.
PLACE 578 SQ. YDS. SOD. CONST. BIT. SPILLWAY LT. STA. 293+15 AND LT. STA. 299+84. BIT. QUANTITY INCLUDED IN SHLD. MIXTURE.



F.M. ENT. RT. 293+50
CONST. 2" BIT. APPROACH

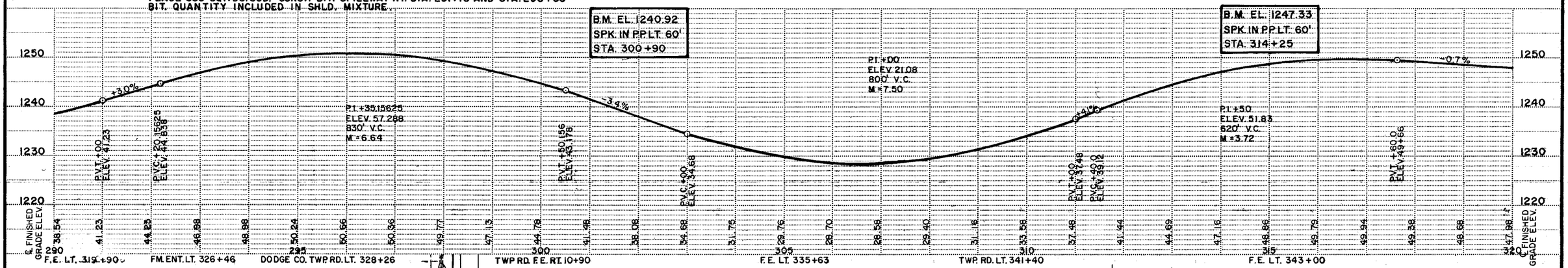
YARD ENT. RT. 296+38
CONST. AGG. SURFACE

F.E. RT. 298+45
CONST. AGG. SURFACE

NOTE: C5-1 CONTRACTION JOINTS SHOWN ARE THE JOINTS LOCATED BETWEEN THE 17' & 13' PANELS. ROTATION OF JOINTS TO BE AT 13', 16', 14' AND 17' UNLESS OTHERWISE SHOWN.

F.E. RT. 307+81
CONST. AGG. SURFACE

CONST. B624 CONC. CURB & GUTTER RT. STA. 291+20 TO STA. 298+55.
CONST. 2" BIT. SHLD. RT. STA. 291+10 TO STA. 298+65.
BACKFILL CURB WITH TOPSOIL BORROW (LV) 147 CU. YDS.
PLACE 653 SQ. YDS. SOD. CONST. BIT. SPILLWAY RT. STA. 291+10 AND STA. 298+65
BIT. QUANTITY INCLUDED IN SHLD. MIXTURE.



F.E. LT. 319+90
CONST. AGG. SURFACE

FM. ENT. LT. 326+46
CONST. 2" BIT. APPROACH AND RT. TURN LANE

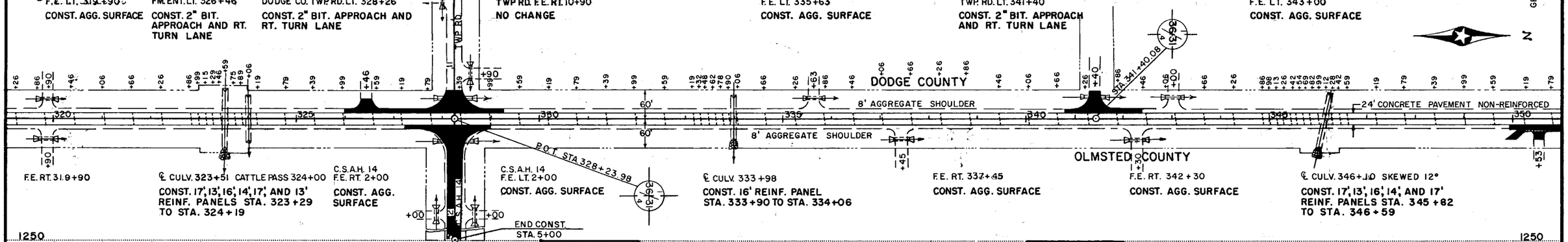
DODGE CO. TWP. RD. LT. 328+26
CONST. 2" BIT. APPROACH AND RT. TURN LANE

TWP. RD. F.E. RT. 10+90
NO CHANGE

F.E. LT. 335+63
CONST. AGG. SURFACE

TWP. RD. LT. 341+40
CONST. 2" BIT. APPROACH AND RT. TURN LANE

F.E. LT. 343+00
CONST. AGG. SURFACE



F.E. RT. 319+90

℄ CULV. 323+51 CATTLE PASS 324+00
CONST. 17', 13', 16', 14', 17', AND 13' REINF. PANELS STA. 323+29 TO STA. 324+19

C.S.A.H. 14
F.E. RT. 2+00
CONST. AGG. SURFACE

C.S.A.H. 14
F.E. LT. 2+00
CONST. AGG. SURFACE

P.O.T. STA 328+23.98

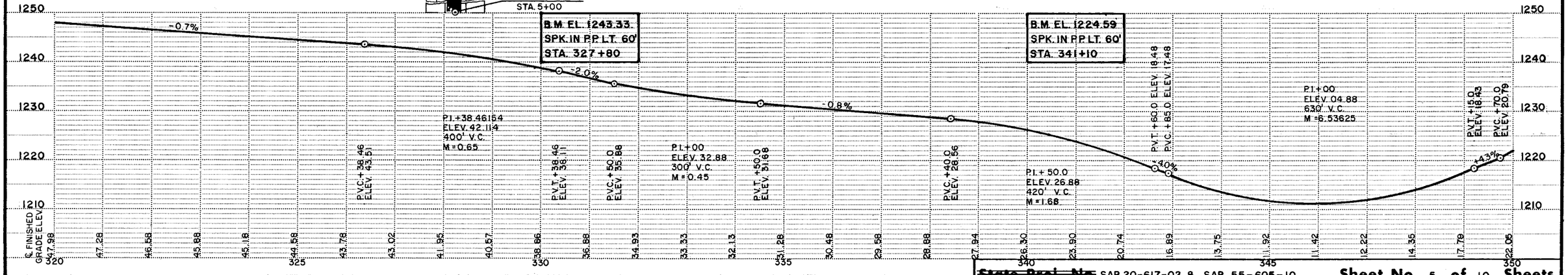
END CONST. STA. 5+00

℄ CULV. 333+98
CONST. 16' REINF. PANEL
STA. 333+90 TO STA. 334+06

F.E. RT. 337+45
CONST. AGG. SURFACE

F.E. RT. 342+30
CONST. AGG. SURFACE

℄ CULV. 346+10 SKEWED 12°
CONST. 17', 13', 16', 14', AND 17' REINF. PANELS STA. 345+82 TO STA. 346+59



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Fed. Proj. No.

F.M. DR. LT. 354+03
CONST. 2" BIT. APPROACH

F.E. LT. 356+10
CONST. AGG. SURFACE

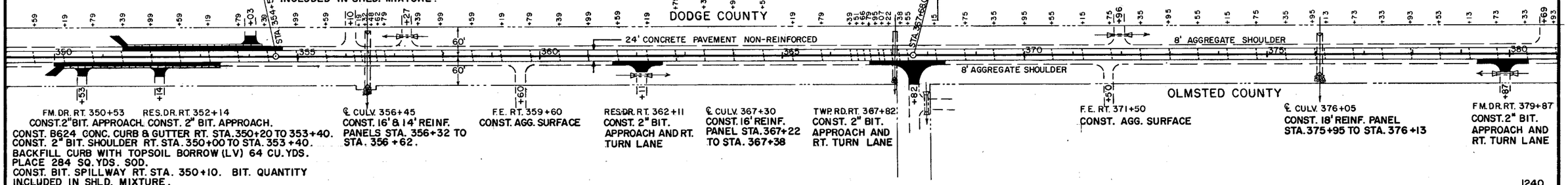
F.E. LT. 357+27
CONST. AGG. SURFACE

CONST. B624 CONC. CURB & GUTTER LT. STA. 351+50 TO 354+25.
CONST. 2" BIT. SHLD. LT. STA. 351+40 TO STA. 354+60.
BACKFILL CURB WITH TOPSOIL BORROW (LV) 55 CU. YDS.
PLACE 244 SQ. YDS. SOD.
CONST. BIT. SPILLWAY LT. STA. 351+40. BIT. QUANTITY INCLUDED IN SHLD. MIXTURE.

NOTE: C5-1 CONTRACTION JOINTS SHOWN ARE THE JOINTS LOCATED BETWEEN THE 17' AND 13' PANELS. ROTATION OF JOINTS TO BE AT 13', 16', 14', AND 17' UNLESS OTHERWISE SHOWN.

F.E. LT. 371+96
CONST. AGG. SURFACE

N



FM. DR. RT. 350+53
RES. DR. RT. 352+14
CONST. 2" BIT. APPROACH. CONST. 2" BIT. APPROACH.
CONST. B624 CONC. CURB & GUTTER RT. STA. 350+20 TO 353+40.
CONST. 2" BIT. SHOULDER RT. STA. 350+00 TO STA. 353+40.
BACKFILL CURB WITH TOPSOIL BORROW (LV) 64 CU. YDS.
PLACE 284 SQ. YDS. SOD.
CONST. BIT. SPILLWAY RT. STA. 350+10. BIT. QUANTITY INCLUDED IN SHLD. MIXTURE.

℄ CULV. 356+45
CONST. 16' & 14' REINF. PANELS STA. 356+32 TO STA. 356+62.

F.E. RT. 359+60
CONST. AGG. SURFACE

RES. DR. RT. 362+11
CONST. 2" BIT. APPROACH AND RT. TURN LANE

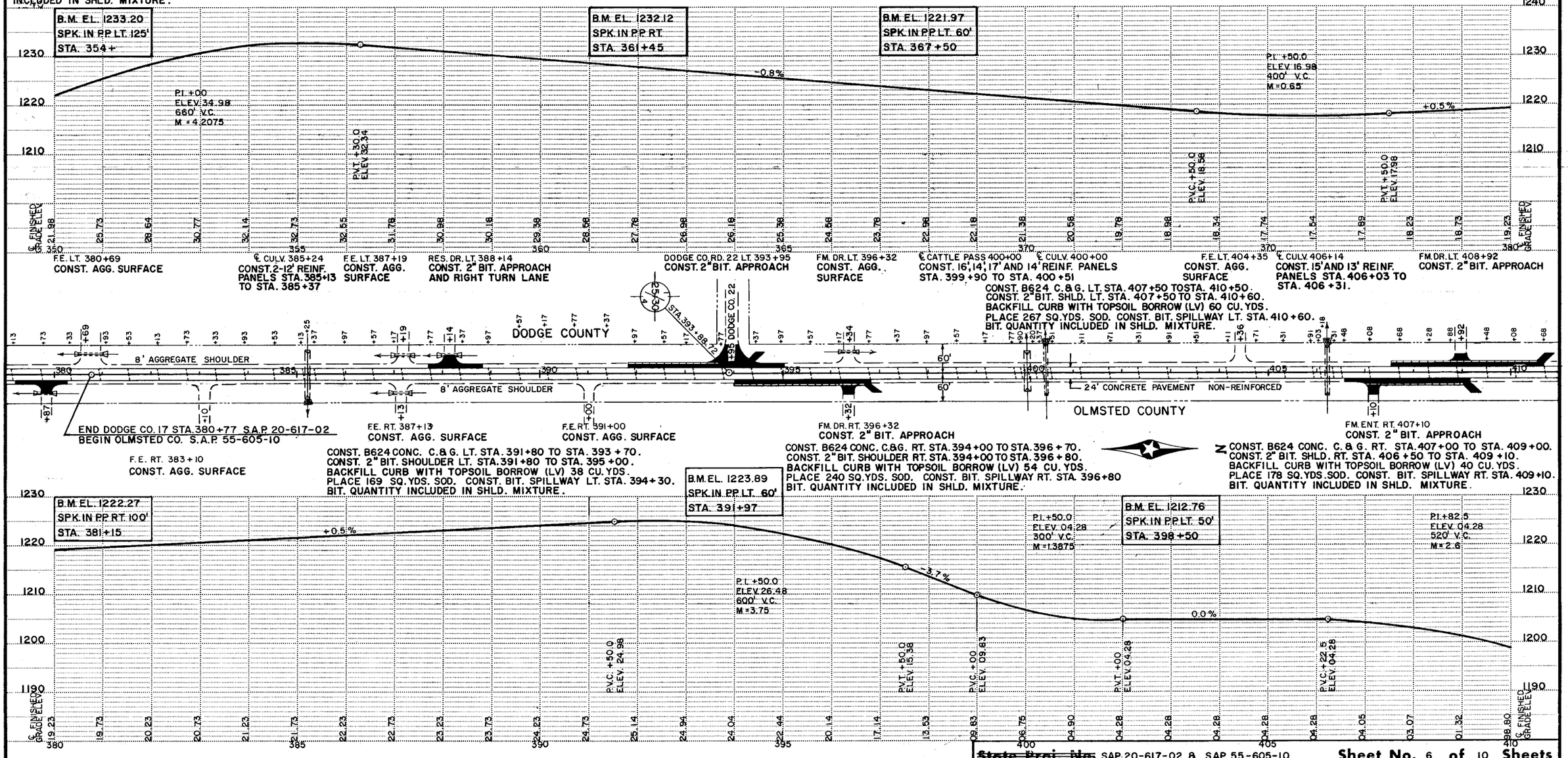
℄ CULV. 367+30
CONST. 16' REINF. PANEL STA. 367+22 TO STA. 367+38

TWP. RD. RT. 367+82
CONST. 2" BIT. APPROACH AND RT. TURN LANE

F.E. RT. 371+50
CONST. AGG. SURFACE

℄ CULV. 376+05
CONST. 18' REINF. PANEL STA. 375+95 TO STA. 376+13

F.M. DR. RT. 379+87
CONST. 2" BIT. APPROACH AND RT. TURN LANE



F.E. LT. 380+69
CONST. AGG. SURFACE

℄ CULV. 385+24
CONST. 2-12' REINF. PANELS STA. 385+13 TO STA. 385+37

F.E. LT. 387+19
CONST. AGG. SURFACE

RES. DR. LT. 388+14
CONST. 2" BIT. APPROACH AND RIGHT TURN LANE

DODGE CO. RD. 22 LT. 393+95
CONST. 2" BIT. APPROACH

FM. DR. LT. 396+32
CONST. AGG. SURFACE

℄ CATTLE PASS 400+00
CONST. 16', 14', 17' AND 14' REINF. PANELS
STA. 399+90 TO STA. 400+51

CONST. B624 C. & G. LT. STA. 407+50 TO STA. 410+50.
CONST. 2" BIT. SHLD. LT. STA. 407+50 TO STA. 410+60.
BACKFILL CURB WITH TOPSOIL BORROW (LV) 60 CU. YDS.
PLACE 267 SQ. YDS. SOD. CONST. BIT. SPILLWAY LT. STA. 410+60.
BIT. QUANTITY INCLUDED IN SHLD. MIXTURE.

℄ CULV. 400+00
CONST. AGG. SURFACE

F.E. LT. 404+35
CONST. AGG. SURFACE

℄ CULV. 406+14
CONST. 15' AND 13' REINF. PANELS STA. 406+03 TO STA. 406+31.

F.M. DR. LT. 408+92
CONST. 2" BIT. APPROACH

END DODGE CO. 17 STA. 380+77 S.A.P. 20-617-02
BEGIN OLMSTED CO. S.A.P. 55-605-10

F.E. RT. 383+10
CONST. AGG. SURFACE

F.E. RT. 387+13
CONST. AGG. SURFACE

F.E. RT. 391+00
CONST. AGG. SURFACE

CONST. B624 CONC. C. & G. LT. STA. 391+80 TO STA. 393+70.
CONST. 2" BIT. SHOULDER LT. STA. 391+80 TO STA. 395+00.
BACKFILL CURB WITH TOPSOIL BORROW (LV) 38 CU. YDS.
PLACE 169 SQ. YDS. SOD. CONST. BIT. SPILLWAY LT. STA. 394+30.
BIT. QUANTITY INCLUDED IN SHLD. MIXTURE.

FM. DR. RT. 396+32
CONST. 2" BIT. APPROACH

CONST. B624 CONC. C. & G. RT. STA. 394+00 TO STA. 396+70.
CONST. 2" BIT. SHOULDER RT. STA. 394+00 TO STA. 396+80.
BACKFILL CURB WITH TOPSOIL BORROW (LV) 54 CU. YDS.
PLACE 240 SQ. YDS. SOD. CONST. BIT. SPILLWAY RT. STA. 396+80
BIT. QUANTITY INCLUDED IN SHLD. MIXTURE.

FM. ENT. RT. 407+10
CONST. 2" BIT. APPROACH

N

CONST. B624 CONC. C. & G. RT. STA. 407+00 TO STA. 409+00.
CONST. 2" BIT. SHLD. RT. STA. 406+50 TO STA. 409+10.
BACKFILL CURB WITH TOPSOIL BORROW (LV) 40 CU. YDS.
PLACE 178 SQ. YDS. SOD. CONST. BIT. SPILLWAY RT. STA. 409+10.
BIT. QUANTITY INCLUDED IN SHLD. MIXTURE.

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NOTE: C5-1 CONTRACTION JOINTS SHOWN ARE THE JOINTS LOCATED BETWEEN THE 17' AND 13' PANNELS. ROTATION OF JOINTS TO BE AT 13', 16', 14' AND 17' UNLESS OTHERWISE SHOWN.

F.E. LT. 414+67
CONST. AGG. SURFACE.

CONST. B624 CONC. CURB & GUTTER LT. STA. 420+00 TO STA. 421+70
CONST. 2" BIT. SHLD. LT. STA. 420+00 TO STA. 422+05
BACKFILL CURB WITH TOPSOIL BORROW (LV) 34 CU. YDS.
PLACE 151 SQ. YDS. SOD. CONST. BIT. SPILLWAY LT.
STA. 421+80. BIT. QUANTITY INCLUDED IN SHLD. MIXTURE.

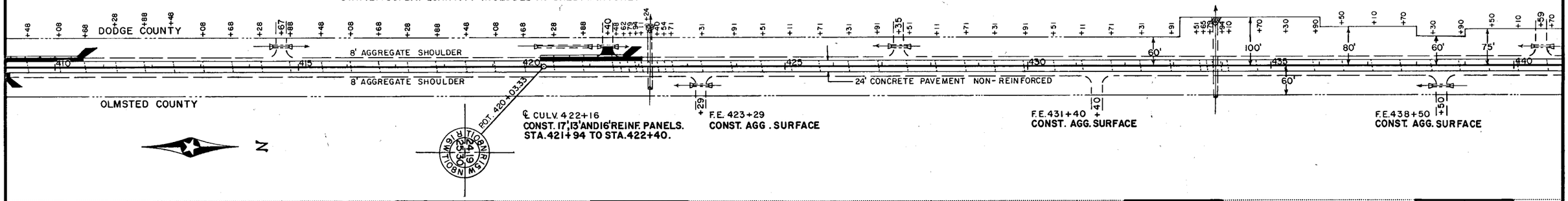
YARD DR. LT. 421+40
CONST. 2" BIT. APPR.

F.E. LT. 427+35
CONST. AGG. SURFACE

℄ CULV. 433+88
CONST. 14', 15' AND 16' REINF. PANELS
STA. 433+65 TO STA. 434+10

Fed. Proj. No.

F.E. LT. 440+59
CONST. AGG. SURFACE

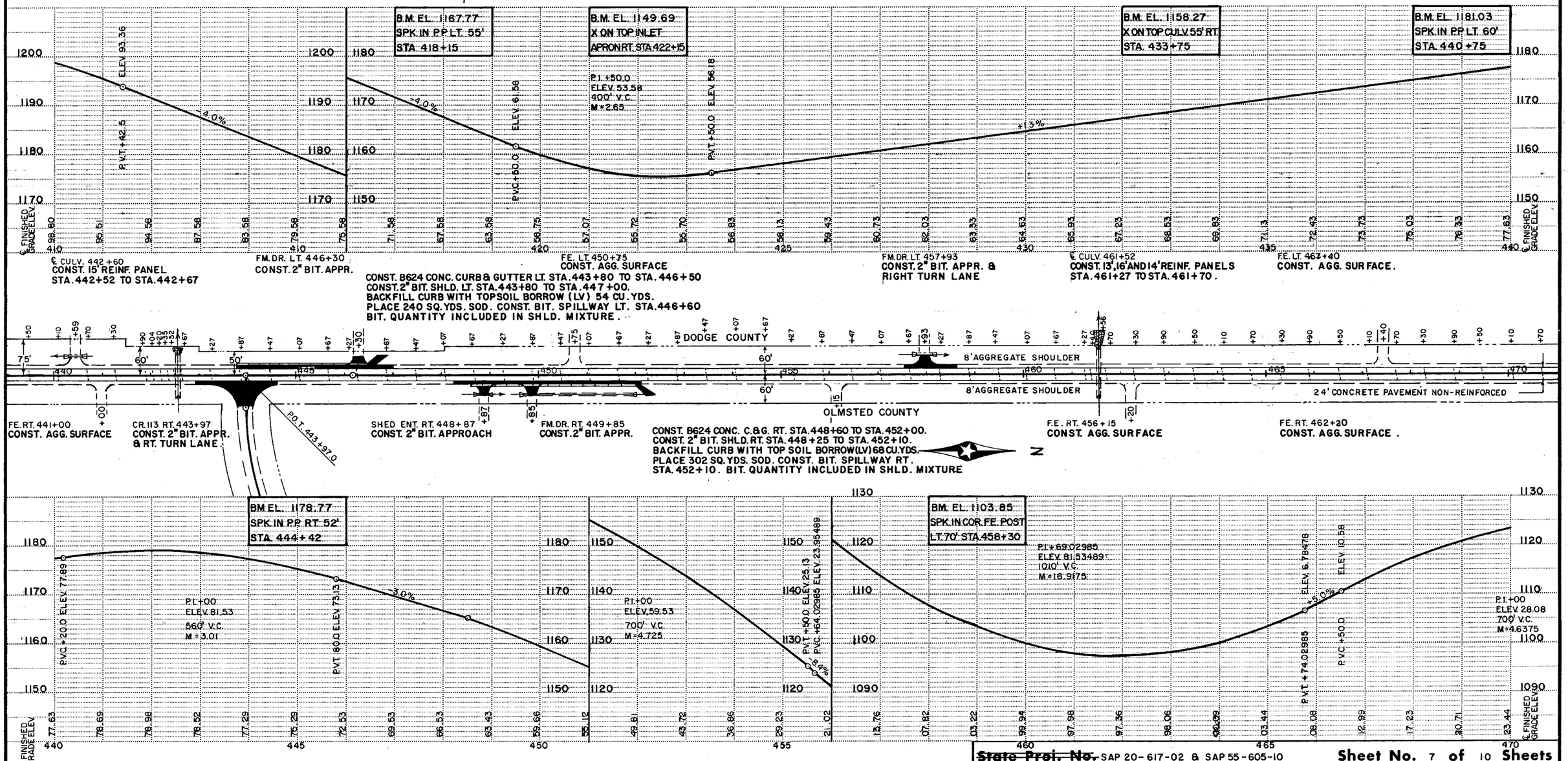


℄ CULV. 422+16
CONST. 17', 13' AND 16' REINF. PANELS.
STA. 421+94 TO STA. 422+40.

F.E. 423+29
CONST. AGG. SURFACE

F.E. 431+40
CONST. AGG. SURFACE

F.E. 438+50
CONST. AGG. SURFACE



℄ CULV. 442+60
CONST. 15' REINF. PANEL
STA. 442+52 TO STA. 442+67

FM. DR. LT. 446+30
CONST. 2" BIT. APPR.

FE. LT. 450+75
CONST. AGG. SURFACE

CONST. B624 CONC. CURB & GUTTER LT. STA. 443+80 TO STA. 446+50
CONST. 2" BIT. SHLD. LT. STA. 443+80 TO STA. 447+00.
BACKFILL CURB WITH TOPSOIL BORROW (LV) 54 CU. YDS.
PLACE 240 SQ. YDS. SOD. CONST. BIT. SPILLWAY LT. STA. 446+60
BIT. QUANTITY INCLUDED IN SHLD. MIXTURE.

FM. DR. LT. 457+93
CONST. 2" BIT. APPR. & RIGHT TURN LANE

℄ CULV. 461+52
CONST. 13', 16' AND 14' REINF. PANELS
STA. 461+27 TO STA. 461+70.

FE. LT. 467+40
CONST. AGG. SURFACE.

FE. RT. 441+00
CONST. AGG. SURFACE

CR. 113 RT. 443+97
CONST. 2" BIT. APPR. & RT. TURN LANE.

SHED ENT. RT. 448+87
CONST. 2" BIT. APPROACH

FM. DR. RT. 449+85
CONST. 2" BIT. APPR.

CONST. B624 CONC. C. & G. RT. STA. 448+60 TO STA. 452+00.
CONST. 2" BIT. SHLD. RT. STA. 448+25 TO STA. 452+10.
BACKFILL CURB WITH TOP SOIL BORROW (LV) 68 CU. YDS.
PLACE 302 SQ. YDS. SOD. CONST. BIT. SPILLWAY RT.
STA. 452+10. BIT. QUANTITY INCLUDED IN SHLD. MIXTURE

F.E. RT. 456+15
CONST. AGG. SURFACE

FE. RT. 462+20
CONST. AGG. SURFACE.

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TWP. RD. LT. 472+34
CONST. 2" BIT. APPROACH AND RIGHT TURN LANE.

℄ CULV. 482+85
CONST. 14', 17' AND 15' REINF. PANELS STA. 482+67 TO 483+13.

F.E. LT. 483+30
CONST. AGG. SURFACE

F.E. LT. 477+00
CONST. AGG. SURFACE

F.E. LT. 490+25
CONST. AGG. SURFACE

F.E. LT. 494+00
CONST. AGG. SURFACE

℄ CULV. 499+05
CONST. 17', 13', 16' AND 14' REINF. PANELS STA. 498+73 TO STA. 499+33.

CONST. B624 CONC. CURB & GUTTER RT. STA. 475+25 TO STA. 478+50
CONST. 2" BIT. SHLD. RT. STA. 475+25 TO STA. 478+60
BACKFILL CURB WITH TOPSOIL BORROW (LV) 65 CU. YDS.
PLACE 290 SQ. YDS. SOD. CONST. BIT. SPILLWAY RT. STA. 478+60. BIT. QUANTITY INCLUDED IN SHLD. MIXTURE.

P.I. 30+00 = 472+34
△ LT. 86°40'00"

POT 472+32.55
C.I.M.

P.O.T. 492+73.92

P.I. 498+47.16
△ LT. 9°14'18"
LT. OF 2118'

8' AGGREGATE SHOULDER

24' CONCRETE PAVEMENT NON-REINFORCED

P.I. 40+00 = 472+34
△ RT. 90°57'00"

TWP. RD. RT. 472+34
CONST. 2" BIT. APPROACH AND RIGHT TURN LANE.

℄ CULV. 474+75
CONST. 14' AND 17' REINF. PANELS STA. 474+59 TO STA. 474+90.

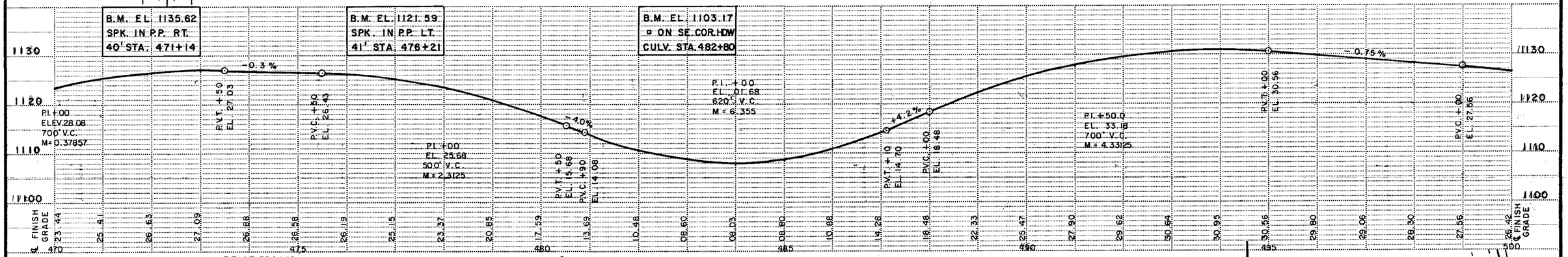
FM. DR. RT. 476+46
CONST. 2" BIT. APPROACH

NOTE: C5-1 CONTRACTION JOINTS ARE THE JOINTS LOCATED BETWEEN THE 17' AND 13' PANELS. ROTATION OF JOINTS TO BE AT 13', 16', 14' AND 17' UNLESS OTHERWISE SHOWN.

F.E. RT. 486+00
CONST. AGG. SURFACE

RES. DR. 487+72
CONST. 2" BIT. APPROACH AND RIGHT TURN LANE

F.E. RT. 496+00
CONST. AGG. SURFACE



F.E. LT. 504+10
CONST. AGG. SURFACE

℄ CULV. 511+09
CONST. 17' REINF. PANEL STA. 511+01 TO STA. 511+18.

F.E. LT. 520+27
CONST. AGG. SURFACE

P.T. 81+36.34

P.I. SET 0.84' E. OF SEC. COR.
Δ LT. 0°09'04"
FROM P.I.

8' AGGREGATE SHOULDER

24' CONCRETE PAVEMENT NON-REINFORCED

EQUA. 524+60.89 = 1298+69.45+82

RES. DR. RT. 502+34
CONST. 2" BIT. APPROACH AND RIGHT TURN LANE.

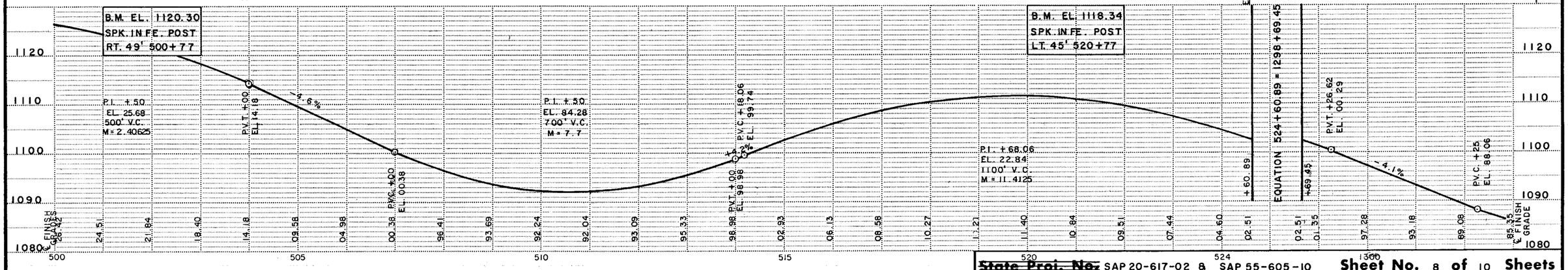
RES. DR. RT. 507+41
CONST. 2" BIT. APPROACH AND RIGHT TURN LANE.

F.E. RT. 509+11
CONST. AGG. SURFACE

RES. DR. RT. 514+16
CONST. 2" BIT. APPROACH AND RIGHT TURN LANE.

F.E. RT. 1298+82
CONST. AGG. SURFACE

P.C. 1304+51.48



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℄ CULV. 1305+34
CONST. 15', 13' AND 16' REINF. PANELS
STA. 1305+16 TO STA. 1305+60.

RES. DR. LT. 1312+05
CONST. 2" BIT. APPROACH

F.E. LT. 1315+80
CONST. AGG. SURFACE

CONST. B624 CONC. CURB & GUTTER LT. STA. 1311+90 TO STA. 1316+00.
CONST. 2" BIT. SHLD. LT. STA. 1311+65 TO STA. 1316+10.
BACKFILL CURB WITH TOPSOIL BORROW (LV) CU. YDS.
PLACE 364 SQ. YDS. SOD. CONST. BIT. SPILLWAYS LT. STA. 1311+80
AND STA. 1316+10. BIT. QUANTITY INCLUDED IN SHLD. MIXTURE.

P.I. 80+00
Δ RT. 46°20'
D 16°
T 153.24'
L 289.58'
E 31.41'
P.T. 81+36.34

TWP. RD. LT. 1304+00
CONST. 2" BIT. APPROACH AND
RIGHT TURN LANE STA. 1303+30
TO STA. 1306+60.

P.C. 1304+51.48

RES DR. LT. 1307+17
CONST. 2" BIT. APPROACH AND RIGHT
TURN LANE.

P.I. 1308+77.56
Δ RT. 52°23'58"
D 6°37'00"
T 426.08'
L 791.93'
E 99.15'
RATE OF SUPER 0.06"/FOOT
290' RUNOFF

EQUATION P.T. 1312+43.41 =
P.O.T. 1312+44.39

CONST. B624 CONC. CURB & GUTTER RT. STA. 1312+00 TO STA. 1317+25.
CONST. 2" BIT. SHLD. RT. STA. 1303+50 TO STA. 1319+10.
BACKFILL CURB WITH TOPSOIL BORROW (LV) 105 CU. YDS.
PLACE 467 SQ. YDS. SOD. CONST. BIT. SPILLWAYS RT. STA.
1311+90 AND STA. 1317+35. BIT. QUANTITY INCLUDED IN
SHLD. MIXTURE.

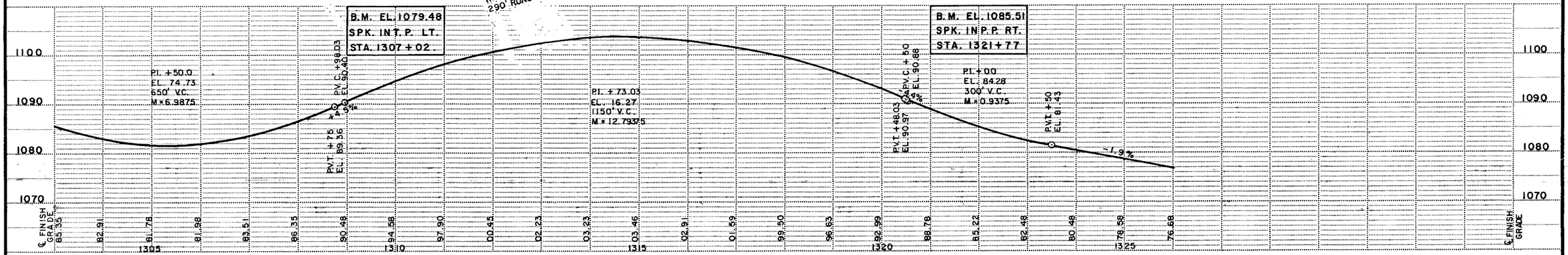
FM. DR. RT. 1317+00
CONST. 2" BIT. APPROACH

RES. DR. RT. 1319+61
CONST. 2" BIT. APPROACH
AND RIGHT TURN LANE.

8' AGGREGATE SHOULDER

24' CONCRETE PAVEMENT NON-REINFORCED

NOTE: C5-1 CONTRACTION JOINTS SHOWN ARE THE JOINTS LOCATED BETWEEN THE 17' AND 13' PANELS. ROTATION OF JOINTS TO BE AT 13', 16', 14' AND 17' UNLESS OTHERWISE SHOWN.



℄ CULV. 1331+12
SKEWED 15°
CONST. 2-13' REINF. PANELS
STA. 1330+82 TO STA. 1331+08

REMOVE CROWN
165' RUNOFF
P.I. 1331+77.52
Δ LT. 6°27'
D 0°45'
T 430.45'
L 860.00'

F.E. LT. 1338+25
CONST. AGG. SURFACE

℄ CATTLE PASS 1338+62
SKEWED 30°
SEE ℄ CULV. NOTE STA. 1338+95
FOR REQ'D. REINF. PANELS.

F.E. LT. 1345+58
CONST. AGG. SURFACE

F.E. LT. 1348+55 (DOUBLE)
CONST. AGG. SURFACE

℄ CULV. 1353+75
SKEWED 25°
CONST. 16', 14' AND 17' REINF. PANELS
STA. 1353+55 TO STA. 1354+02.

F.E. LT. 1355+41
CONST. AGG. SURFACE

P.C. 1327+47.07

8' AGGREGATE SHOULDER

24' CONCRETE PAVEMENT NON-REINFORCED

P.T. 1336+07.07

P.C. 1347+37.19

P.I. 1351+46.50
Δ RT. 6°08'
D 0°45'
T 409.31'
L 817.78'
REMOVE CROWN
165' RUNOFF

YARD ENT. RT. 1354+87
CONST. AGG. SURFACE

FM. ENT. RT
1355+42
CONST. 2" BIT.
SURFACE AND
RIGHT TURN
LANE.

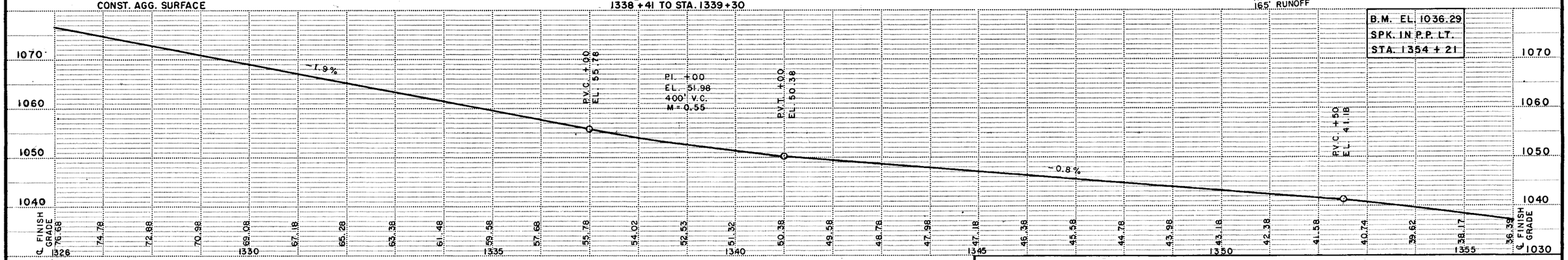
P.T. 1355+54.97

F.E. RT. 1327+53
CONST. AGG. SURFACE

℄ CULV. 1338+95
SKEWED 30°
CONST. 13', 16', 17', 13', AND
16' REINF. PANELS STA.
1338+41 TO STA. 1339+30

FM. ENT. RT. 1339+39
CONST. 2" BIT. APPROACH
AND RIGHT TURN LANE.

F.E. RT. 1343+67
CONST. AGG. SUPFACE



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NOTE: C5-1 CONTRACTION JOINTS SHOWN ARE THE JOINTS LOCATED BETWEEN THE 17' AND 13' PANELS. ROTATION OF JOINTS TO BE AT 13', 16', 14' AND 17' UNLESS OTHERWISE SHOWN.

F.E. LT. 1360+31
CONST. AGG. SURFACE

F.E. LT. 1364+80
CONST. AGG. SURFACE

℄ CULV. 1365+28
SKEWED 15°
CONST. 14' AND 17' REINF. PANELS STA. 1365+11 TO STA. 1365+42

P.C. 1366+36.20

F.E. LT. 1369+02
CONST. AGG. SURFACE

P.I. 1369+15.66
Δ LT. 4° 11' 24"
D 0° 45'
T 279.46'
L 558.67'
E 5.11'
REMOVE CROWN
165' RUNOFF

P.T. 1371+94.87

FM. ENT. LT. 1371+05
CONST. 2" BIT. APPROACH AND RIGHT TURN LANE.

FM. ENT. LT. 1375+88
CONST. AGG. SURFACE

℄ CULV's. 1377+05.5 & +14.5
SKEWED 32°
CONST. 13', 16', 14', 17', 13', 16', 14', 17', 13' AND 16' REINF. PANELS STA. 1376+82 TO STA. 1378+31

℄ CULV's. 1377+97.5 & 1378+06.5
SKEWED 32°

F.E. LT. 1382+30
CONST. AGG. SURFACE

60' 8' AGGREGATE SHOULDER 60' 24' CONCRETE PAVEMENT NON-REINFORCED 8' AGGREGATE SHOULDER 60'

P.C. 60+97.75

P.O.T. 1375+20 = 59+86 RT. 90° 00'

P.C. 1376+07.45

NORMAL CROWN
P.I. 1378+98.65
ΔRT. 1° 44' 49"
D 00° 18'
T 291.20'
L 582.31'
E 2.23'

P.T. 1381+89.76 = P.O.T. 1381+90.10

FM. DR. RT. 1358+01
CONST. 2" BIT. APPROACH AND RIGHT TURN LANE.

F.E. RT. 1365+43
CONST. AGG. SURFACE

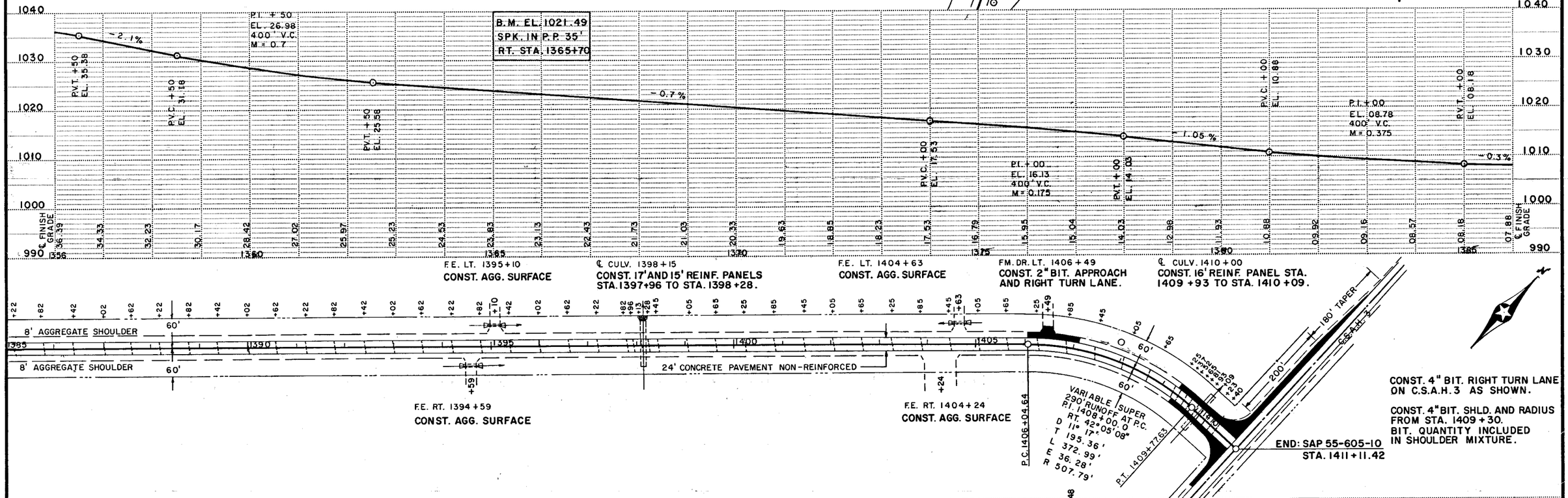
F.E. RT. 1368+91
CONST. AGG. SURFACE

F.E. RT. 1371+05
CONST. AGG. SURFACE

C.R. 113 RT. 1375+20
CONST. 2" BIT. SURFACE AND RIGHT TURN LANE

F.E. RT. 1380+50
CONST. AGG. SURFACE

FM. DR. RT. 1382+30
CONST. 2" BIT. SURFACE AND RIGHT TURN LANE.



F.E. LT. 1395+10
CONST. AGG. SURFACE

℄ CULV. 1398+15
CONST. 17' AND 15' REINF. PANELS STA. 1397+96 TO STA. 1398+28.

F.E. LT. 1404+63
CONST. AGG. SURFACE

FM. DR. LT. 1406+49
CONST. 2" BIT. APPROACH AND RIGHT TURN LANE.

℄ CULV. 1410+00
CONST. 16' REINF. PANEL STA. 1409+93 TO STA. 1410+09.

8' AGGREGATE SHOULDER 60' 24' CONCRETE PAVEMENT NON-REINFORCED 8' AGGREGATE SHOULDER 60'

F.E. RT. 1394+59
CONST. AGG. SURFACE

F.E. RT. 1404+24
CONST. AGG. SURFACE

P.C. 1406+04.64

VARIABLE SUPER
290' RUNOFF AT P.C.
P.I. 1408+00.0
RT. 42° 05' 08"
D 11° 17' 08"
T 195.36'
L 372.99'
E 36.28'
R 507.79'

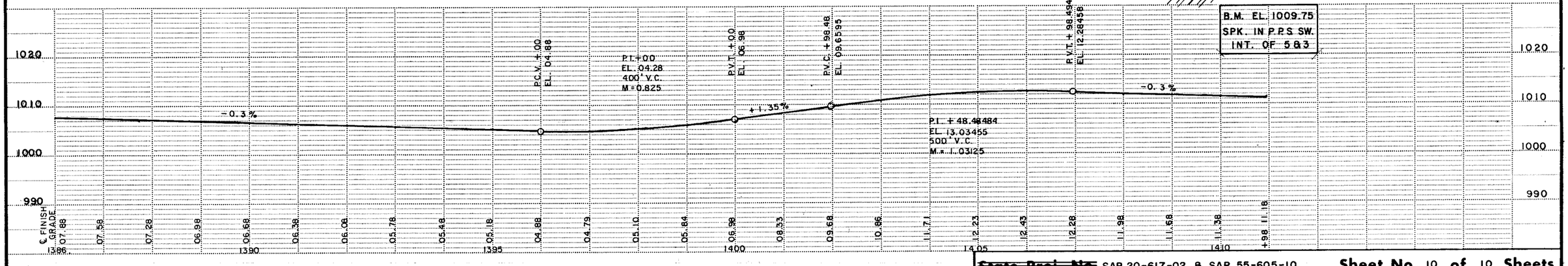
P.T. 1409+77.63

60' 60' 200' 180' TAPER

CONST. 4" BIT. RIGHT TURN LANE ON C.S.A.H. 3 AS SHOWN.

CONST. 4" BIT. SHLD. AND RADIUS FROM STA. 1409+30. BIT. QUANTITY INCLUDED IN SHOULDER MIXTURE.

END: SAP 55-605-10
STA. 1411+11.42



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