#563

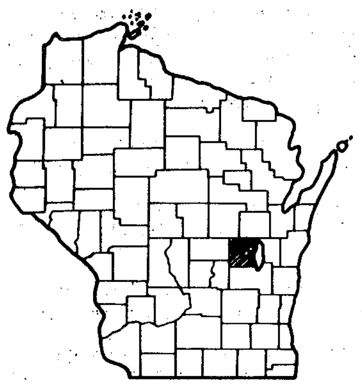
(16)

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
4994 – 0 – 17	M 6401 (001)	1

AS BUILT PLAN
#563

Index of Sheets

TOTAL SHEETS = 72 +2



STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

PLAN AND PROFILE OF PROPOSED

OREGON STREET, CITY OF OSHKOSH
(WAUKAU AVENUE – 24 TH AVENUE)
C. T.H. "I"
WINNEBAGO COUNTY

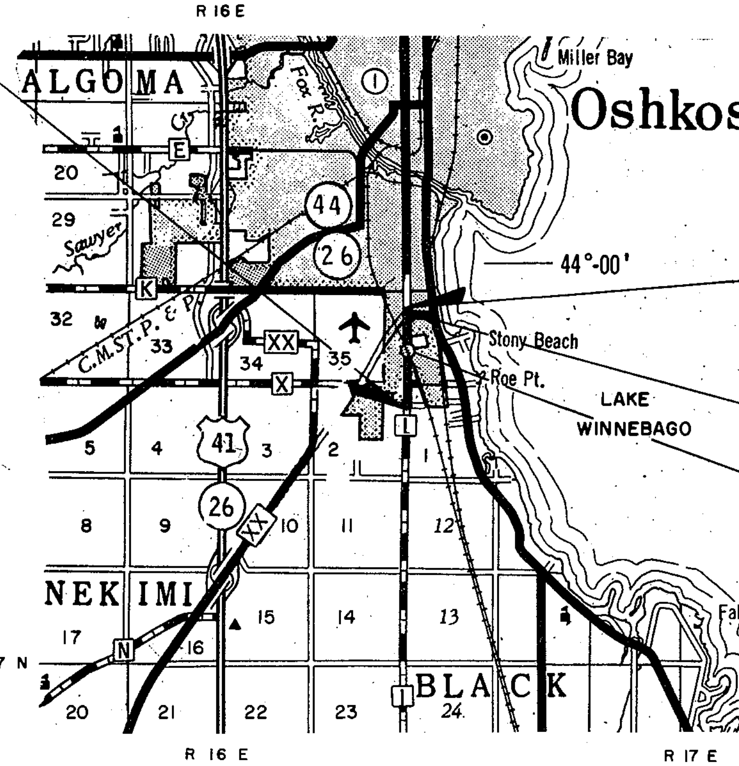
STATE PROJECT NUMBER
4994 – 0 – 17

Scales: Plan 1 in. = 20 ft. Profile Hor. 1 in. = 20 ft. Vert. 1 in. = 2 ft. Cross Sections Hor. 1 in. = 5'. Vert. 1 in. = 5'

Design Designation

A.D.T.	1976	= 4,500
A.D.T.	1996	= 16,500
D.H.V.	1996	= 1,980
D.	1996	= 60 – 40
T.	1996	= 7%
V.	1996	= 35 M.P.H.

BEGIN PROJECT 4994–0–17
STA. 116 + 50
✱ N. 725,215 (± 200')
✱ E. 2,383,489 (± 200')
77' S. OF THE S.E. CORNER OF SECTION 35, T 18 N – R 16 E.



N

END PROJECT 4994–0–17
STA. 157 + 64.39
✱ N. 729,369 (± 200')
✱ E. 2,383,437 (± 200')
1,374' N. OF THE W. QUARTER CORNER OF SECTION 36, T 18 N – R 16 E.
= STA. 10+38.89 OF PROJ. U010-2(7)

STA. 157+25.2 =
STA. 10+00 BEGIN PROJ. U010-2(7)

EXCEPTION TO NET ℄ LENGTH
STA. 135 + 96.81 TO STA. 136 + 27.17

Conventional Signs

County Line		Culverts in Place	
Township or Range Line		Culverts Required	
Section Line		Drop Inlet	
New Right of Way Line		Power Pole	
Present Right of Way Line		Telephone or Telegraph Pole	
Wire Fence	(type)	Right of Way Markers	
Corporate or City Limits		Reference Stake for Hubs Only	+61.7 / 25.9
Property Line	P.L.	Marsh	
Traveled Way or P.E.		Hedge	
Railroads		Trees	
Base or Survey Line		Ground Elevation	Datum Line
Caution Symbol (combustible fluids under pressure)	CAUTION	Grade Elevation	Datum Line

Layout
Scale 1/2 1 1 1/2 MILES

Total Net Length of Centerline = 0.774 Mi. URBAN

✱ SCALED FROM U.S.G.S. 15 MINUTE SERIES, ROSENDALE QUADRANGLE FOR IDENTIFICATION ONLY.

APPROVED FOR WINNEBAGO COUNTY
12/3/75 DATE — COUNTY HIGHWAY COMMISSIONER

WISCONSIN PROFESSIONAL ENGINEER — Clifford ... Eau Claire, Wis.

PLANS PREPARED BY
OWEN AYRES & ASSOCIATES
CONSULTING ENGINEERS
EAU CLAIRE, WISCONSIN

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Surveyor OWEN AYRES & ASSOC. District Checker J.C.C.
Designer OWEN AYRES & ASSOC. C.O. Checker R.A.H.

Correct:
Date 11/3/75 — District Engineer

Recommended for Approval:
Date 12/10/75 — Chief of Facilities Development

Approved:
Date 12/29/75 — State Highway Engineer

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION 5 WISCONSIN DIVISION

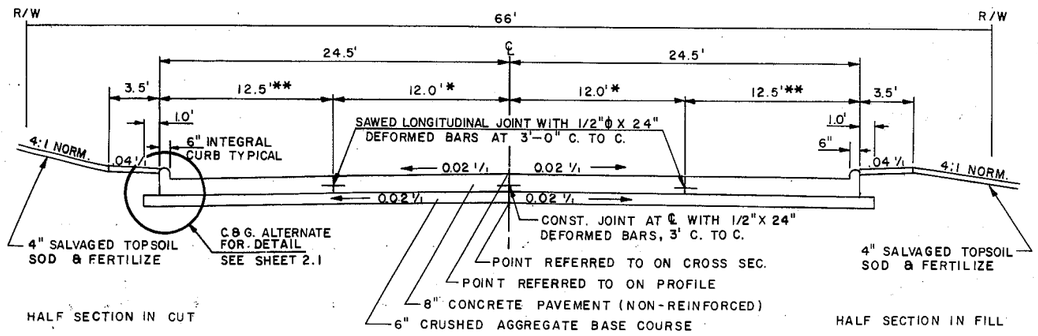
Approved:
Date — Division Engineer

4994-0-17 / M6401(001)

PROJECT DESIGNATION	SHEET NO.
4994 – 0 – 17	2

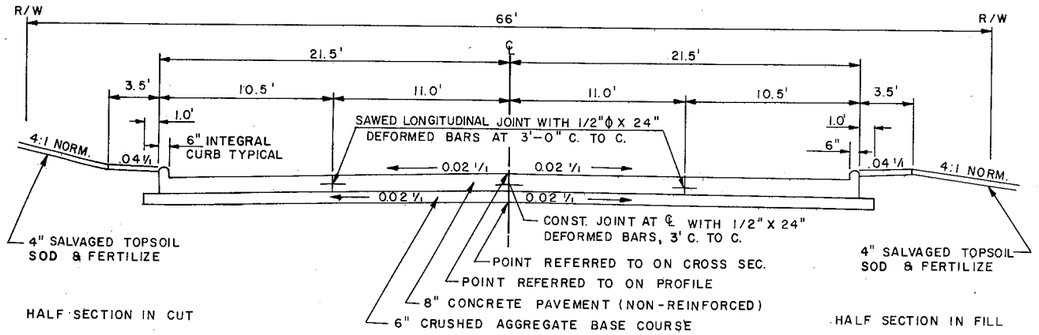
TYPICAL CROSS SECTIONS

RI – 4/21/76

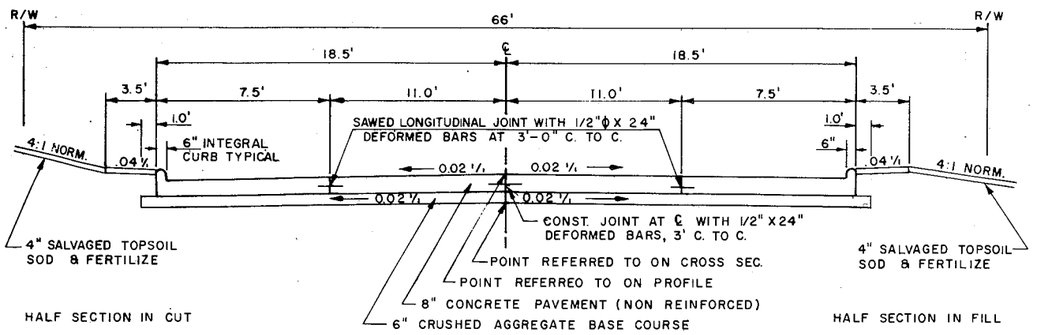


TYPICAL FINISHED SECTION
OREGON STREET STA. 116 + 50 – STA. 157+64
WAUPUN STREET
24 TH. AVENUE

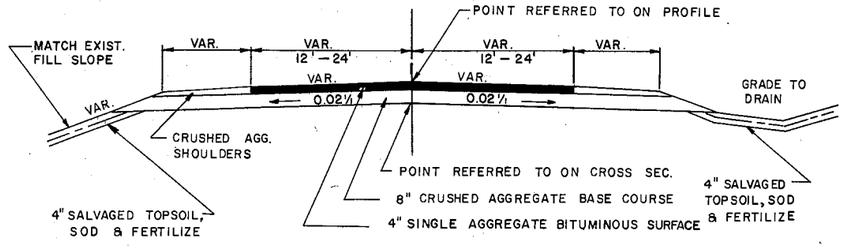
* 11.0' WHEN CURB AND GUTTER ALTERNATE IS USED.
** 13.5' WHEN CURB AND GUTTER ALTERNATE IS USED.



TYPICAL FINISHED SECTION
WAUKAU AVENUE
W 28 TH AVENUE



TYPICAL FINISHED SECTION
W 29 TH AVENUE
W 25 TH AVENUE



MATCHING SECTION
BETWEEN INPLACE ROADWAY & FINISHED SECTION

STA.	115 + 00	TO	STA.	116 + 50	C.T.H "I"
STA.	1 + 35	TO	STA.	2+40	WAUKAU
STA.	3+ 60	TO	STA.	5+00	WAUKAU
STA.	5+ 00	TO	STA.	5+50	W. 29 TH. AVE.
STA.	0+ 64	TO	STA.	2+00	W. 28 TH. AVE.
STA.	0+ 45	TO	STA.	1+50	W. 25 TH. AVE.
STA.	0+ 50	TO	STA.	3+00	W. 24 TH. AVE.

STANDARD DETAIL DRAWINGS

8A5-2	CATCH BASIN, MANHOLE, AND INLET COVERS
8B6-2	MANHOLES, TYPE 1
8C1-3	INLETS, TYPE 1 & 2
8C5-1	INLETS, TYPE 8,9,10,11
8D5-2	CURB RAMPS FOR HANDICAPPED PERSONS
9B2-1	METAL CONDUIT AND FIBER CONDUIT
9B3-2	TRAFFIC SIGNAL AND TRAFFIC COUNTER DETAILS
13B1-1	PAVEMENT DETAILS FOR RAILROAD APPROACH
8C2-3	INLETS, TYPE 3
8D1-2	CONCRETE CURB & GUTTER
13C1-2	LONGITUDINAL JOINTS CONCRETE PAVEMENT
13C4-3	TRANSVERSE JOINTS IN NON– REINFORCED CONCRETE PAVEMENT
15C1-4	CONSTRUCTION BARRICADES AND STANDARD SIGNS
16A1-2	LANDMARK REFERENCE MONUMENTS
8F1-6	APRON ENDWALLS FOR CULVERT PIPE
12A3-1	NAME PLATE (STRUCTURES)

UTILITIES

WISCONSIN TELEPHONE COMPANY
MR. RENZSHAWEL 414-922-2108
70 EAST DIVISION STREET
FOND DU LAC, WISCONSIN 54935

DEPARTMENT OF PUBLIC WORKS
MR. KONRAD, CITY ENGINEER 414-424-0296
215 CHURCH AVE.
OSHKOSH, WISCONSIN 54901

WISCONSIN PUBLIC SERVICE CORPORATION
MR. R. C. BUTTKE 414-432-3311
P.O. BOX 1200
GREEN BAY, WISCONSIN 54315

SOO LINE RAILROAD
MR. J. P. GANNON 715-344-1910
P.O. BOX 348
STEVENS POINT, WISCONSIN 54481

STANDARD ABBREVIATIONS

℄	CENTERLINE
CL.	CLASS
CONST.	CONSTRUCTION
C.P.	CULVERT PIPE
Δ	DELTA OR CENTRAL ANGLE
DISCH.	DISCHARGE ELEVATION
F.E.	FIELD ENTRANCE
G	GAS
INL.	INLET
P.L.	PROPERTY LINE
P.E.	PRIVATE ENTRANCE
REQ'D	REQUIRED
P.P.	POWER POLE
S.S.D.	STOPPING SIGHT DISTANCE
STA.	STATION
T, TEL	TELEPHONE
V.C.	VERTICAL CURVE
I.P.	IRON PIPE
M.H.	MANHOLE
C.B.	CATCH BASIN
F.L.	FLOW LINE ELEVATION
COV.	COVER ELEVATION
S.	SANITARY
S.T.	STORM SEWER
W.	WATER
BIT.	BITUMINOUS
R.C.P.	REINFORCED CONCRETE PIPE
T.C.	TOP OF CASTING
ϕ	DIAMETER
C. TO C.	CENTER TO CENTER
C. & G.	CURB & GUTTER
R/W	RIGHT OF WAY
CONC.	CONCRETE
SL.	SLOPE
DHN	DOUBLE HEADED NAIL
D/W	DRIVEWAY
C&G	CURB AND GUTTER

GENERAL NOTES

ALL RADII SHOWN ARE TO THE FACE OF CURB.

PRIVATE UTILITY COMPANIES SHALL ADJUST OR MOVE ALL PRIVATELY OWNED FACILITIES TO FIT THE NEW CONSTRUCTION.

CERTAIN UNDERGROUND UTILITY STRUCTURES HAVE BEEN LOCATED ON THESE PLANS. THESE LOCATIONS SHALL NOT BE TAKEN AS CONCLUSIVE. VERIFICATION AS TO THE LOCATION TO THE SATISFACTION OF THE CONTRACTOR OF ALL UNDERGROUND UTILITY STRUCTURES, WHETHER SHOWN ON THE PLANS OR NOT, SHALL BE ASSUMED AS A CONDITION OF THE CONTRACT.

FINISHED GRADES AS SHOWN AT SIDE STREET INTERSECTION AREAS ARE APPROXIMATE AND MAY BE ADJUSTED BY ENGINEER.

TRANSVERSE JOINTS SHALL BE SAWED AT 20' (± 2') SPACING FROM ADJACENT TRANSVERSE JOINTS, UNLESS SPECIFIED OTHERWISE BY THE ENGINEER.

ALL SIDEWALK THROUGH DRIVEWAY LOCATIONS SHALL BE 6-INCHES IN THICKNESS AND SHALL BE PAID FOR AS CONCRETE DRIVEWAY.

CITY OF OSHKOSH WILL ADJUST OR MOVE CITY OWNED FACILITIES TO FIT THE NEW CONSTRUCTION, EXCEPT AS LISTED AS PART OF THIS CONTRACT ON THE MISC. QUANTITIES SHEETS.

ALL CURB RAMPS SHALL BE TYPE 3 UNLESS OTHERWISE NOTED. RAMP AND RAMP OPENING LOCATIONS ARE DESIGNATED BY THE SYMBOL (CR)

ALL CURVES ARE COMPUTED ON THE BASIS OF R = 5729.58 FOR A ONE (1) DEGREE CURVE.

NO TREES OR SHRUBS ARE TO BE REMOVED UNLESS INDICATED FOR REMOVAL BY THE ENGINEER.

THE COVERS FOR LANDMARK REFERENCE MONUMENTS WILL BE FURNISHED BY THE STATE OF WISCONSIN AND INSTALLED BY THE CONTRACTOR. THE COST OF INSTALLING THIS COVER SHALL BE INCLUDED IN THE BID PRICE FOR LANDMARK REFERENCE MONUMENTS.

WHEN THE QUANTITY OF THE ITEMS OF BASE OR SURFACE COURSE IS MEASURED FOR PAYMENT BY THE TON THE DEPTH OR THICKNESS OF THE COURSE SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

SHRINKAGE OF EARTHWORK IS VARIABLE AND IS SHOWN IN THE YARDAGE SUMMARY.

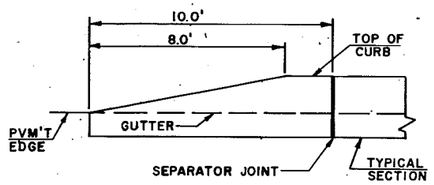
THE EXACT LOCATION OF PRIVATE ENTRANCES IS TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

SALVAGED TOPSOIL SHALL BE PLACED ON ALL CUT AND FILL SLOPES TO AN APPROXIMATE DEPTH OF 4 INCHES AT TIME OF PLACING.

DRIVEWAYS SHALL BE REPLACED IN KIND.

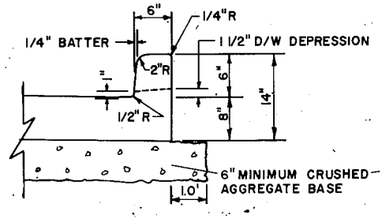
SOD AND FERTILIZE ALL DISTURBED AREAS

PROJECT DESIGNATION	SHEET NO.
4994 - 0 - 17	2.1

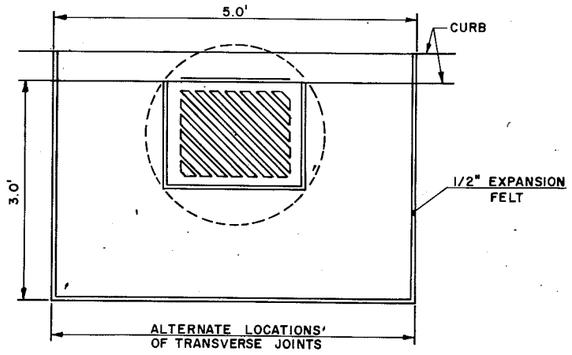


END SECTION INTEGRAL CURB

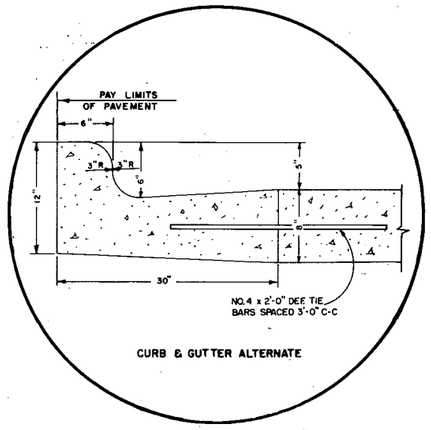
NOTE: TO BE CONSTRUCTED AND BID AS 30" C. & G., TYPE "D"



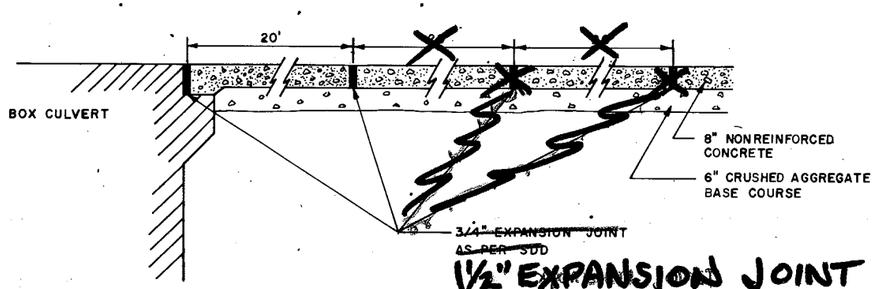
INTEGRAL CURB DETAIL



TYPICAL INLET BOXOUT

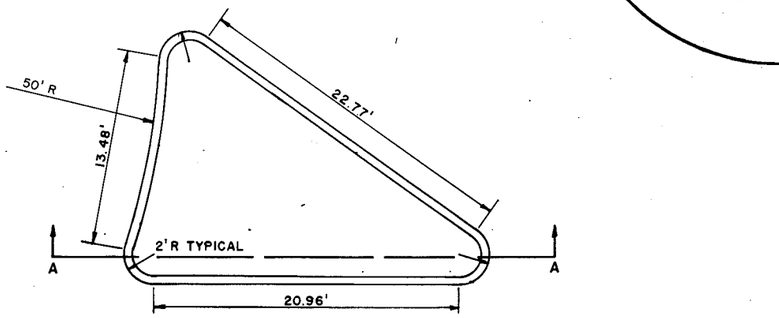


CURB & GUTTER ALTERNATE



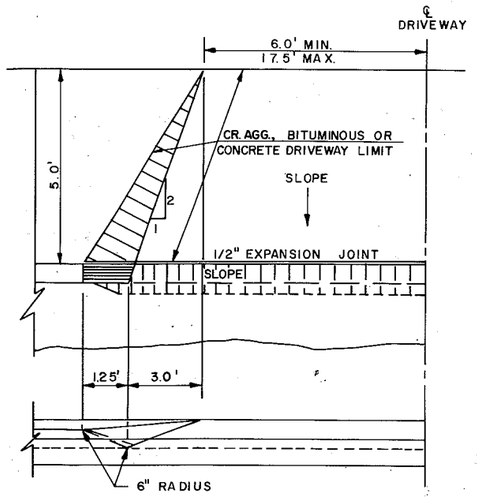
1½" EXPANSION JOINT AS PER SSD.

BOX CULVERT APPROACH DETAIL

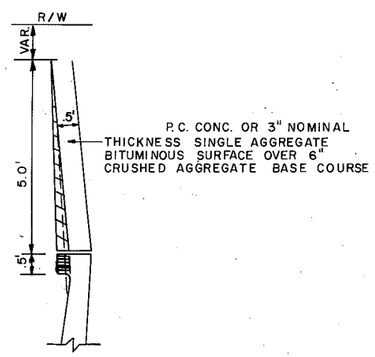


SECTION "A-A" IN ELEVATION

DETAIL FOR SAFETY ISLAND

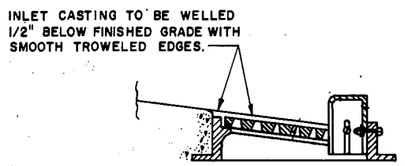


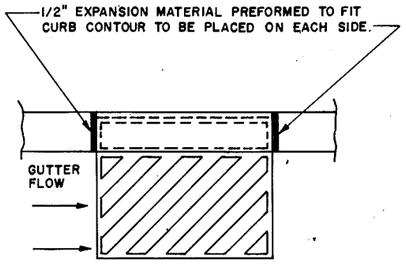
FRONT VIEW



SIDE VIEW

DRIVEWAY DETAIL

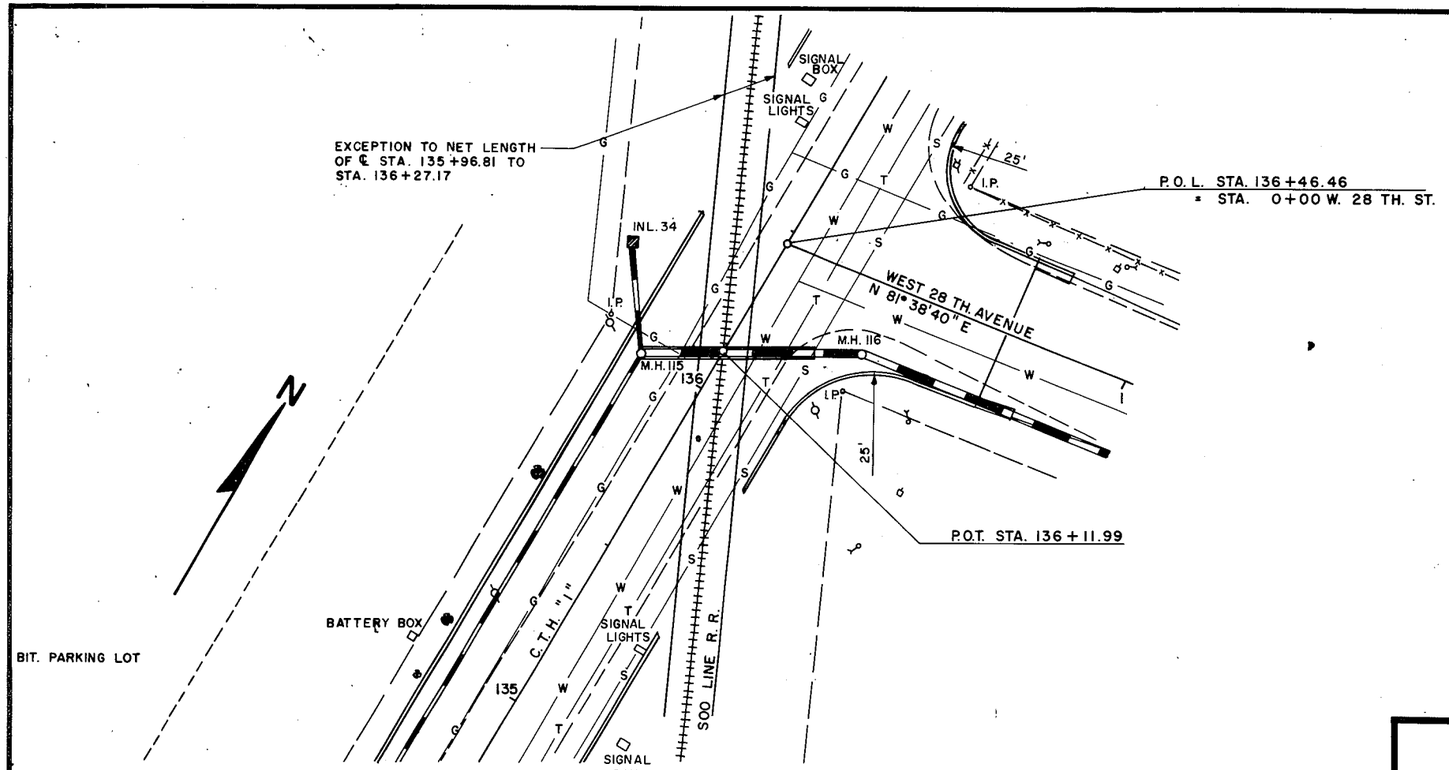




CONSTRUCTION DETAIL AT INLETS

PROJECT DESIGNATION	SHEET NO.
4994-0-17	2.2

MISCELLANEOUS DETAILS



CASING PIPE NOTES

SPACE BETWEEN CARRIER AND CASING PIPES SHALL BE BLOWN FULL OF DRY SAND AND ENDS OF CASING PIPE SEALED

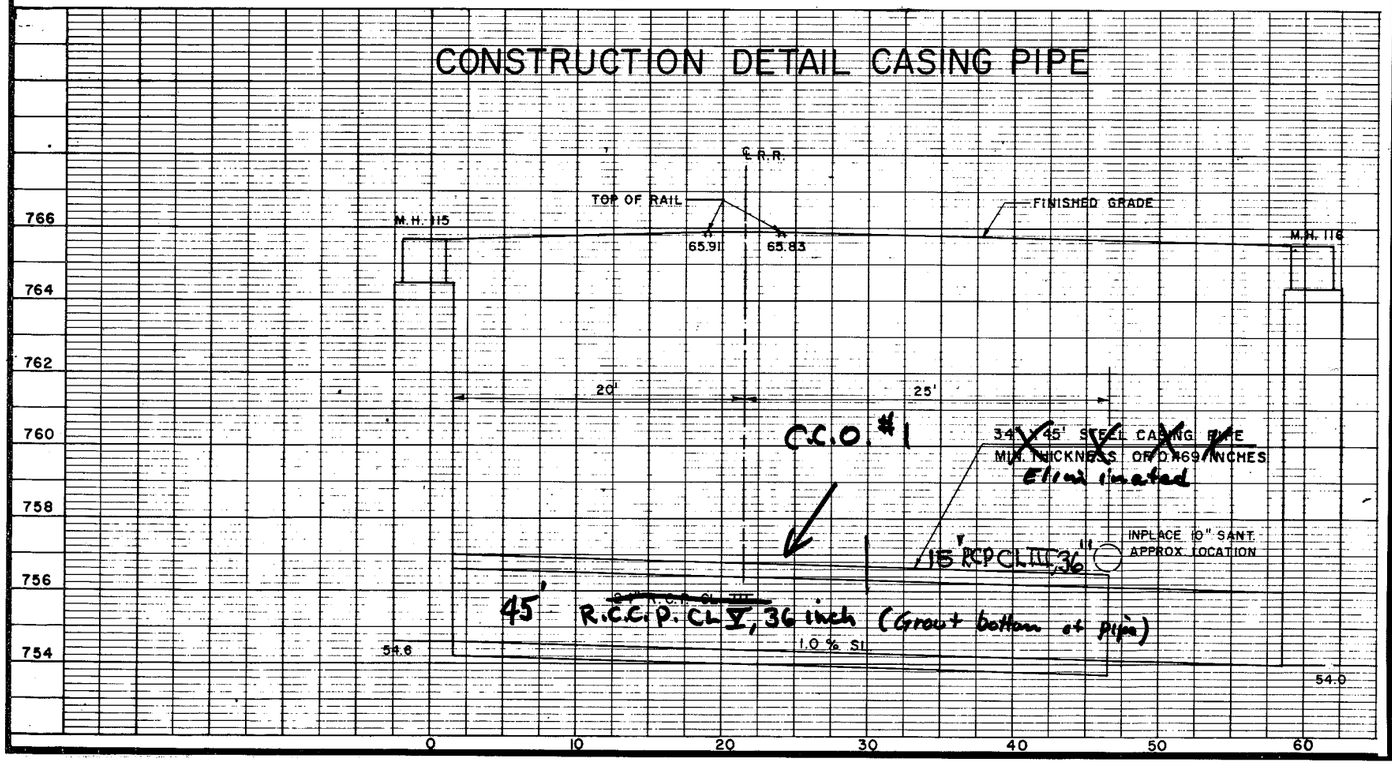
MIN. YIELD STRENGTH OF STEEL PIPE TO BE 35,000 P.S.I.

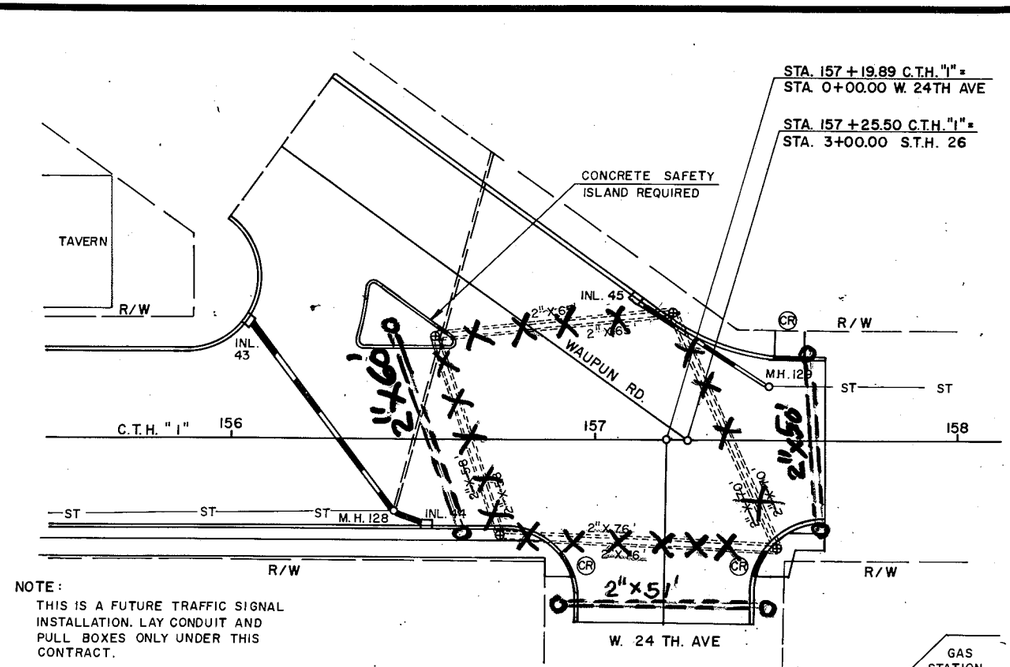
INSTALLATION SHALL BE BY BORING OR JACKING.

DATUM

ORIGIN OF BENCH MARKS TAKEN FROM U.S.G.S. B.M. NO. 36 D.S. 1930, ELEV. 749.546 ON R.R. BRIDGE 2ND TIER N.E. CORNER.

CONSTRUCTION DETAIL CASING PIPE





AS BUILT ACCORDING TO CITY'S PLAN
SEE PROJECT DIARY PAGE 72

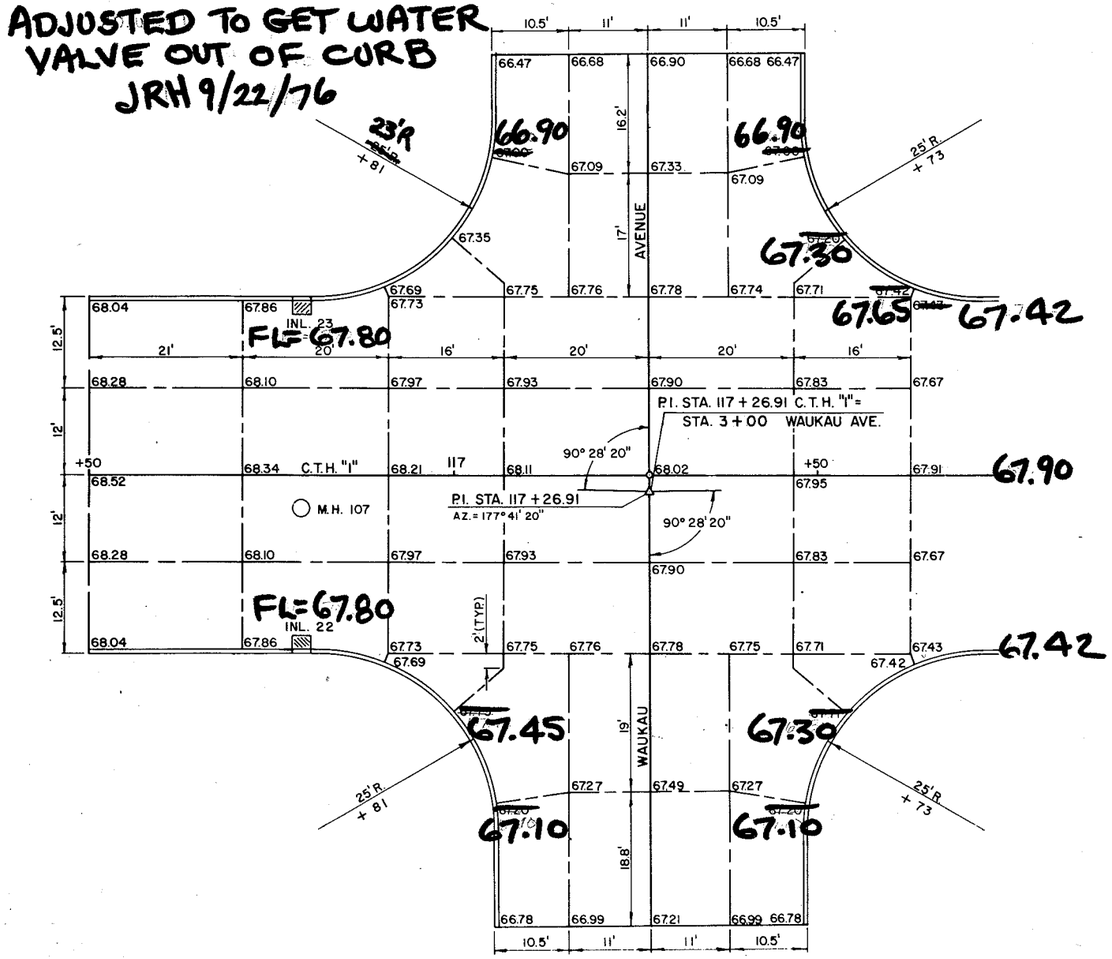
WAUPUN ROAD AND WEST 24 TH AVENUE

(ELECTRICAL)

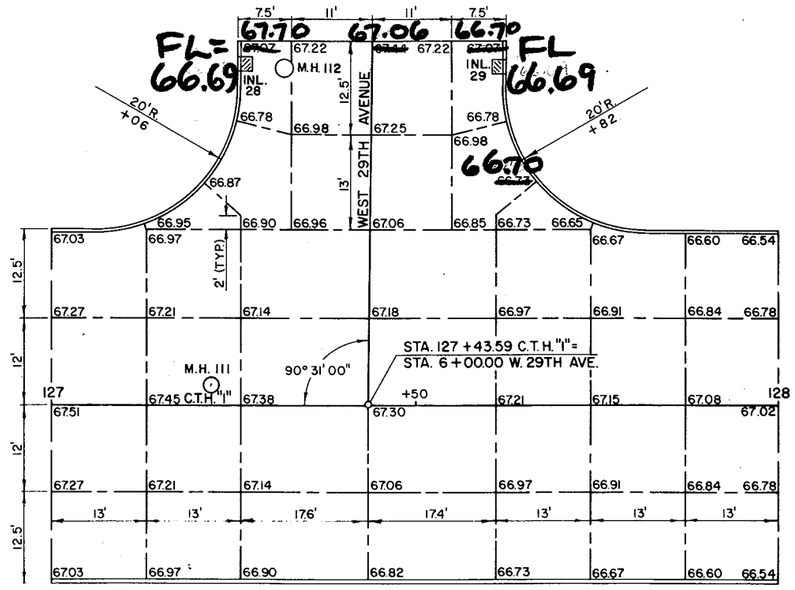
PROJECT DESIGNATION	SHEET NO.
4994 – 0 – 17	2.3

INTERSECTION DETAILS

ADJUSTED TO GET WATER VALVE OUT OF CURB
JRH 9/22/76



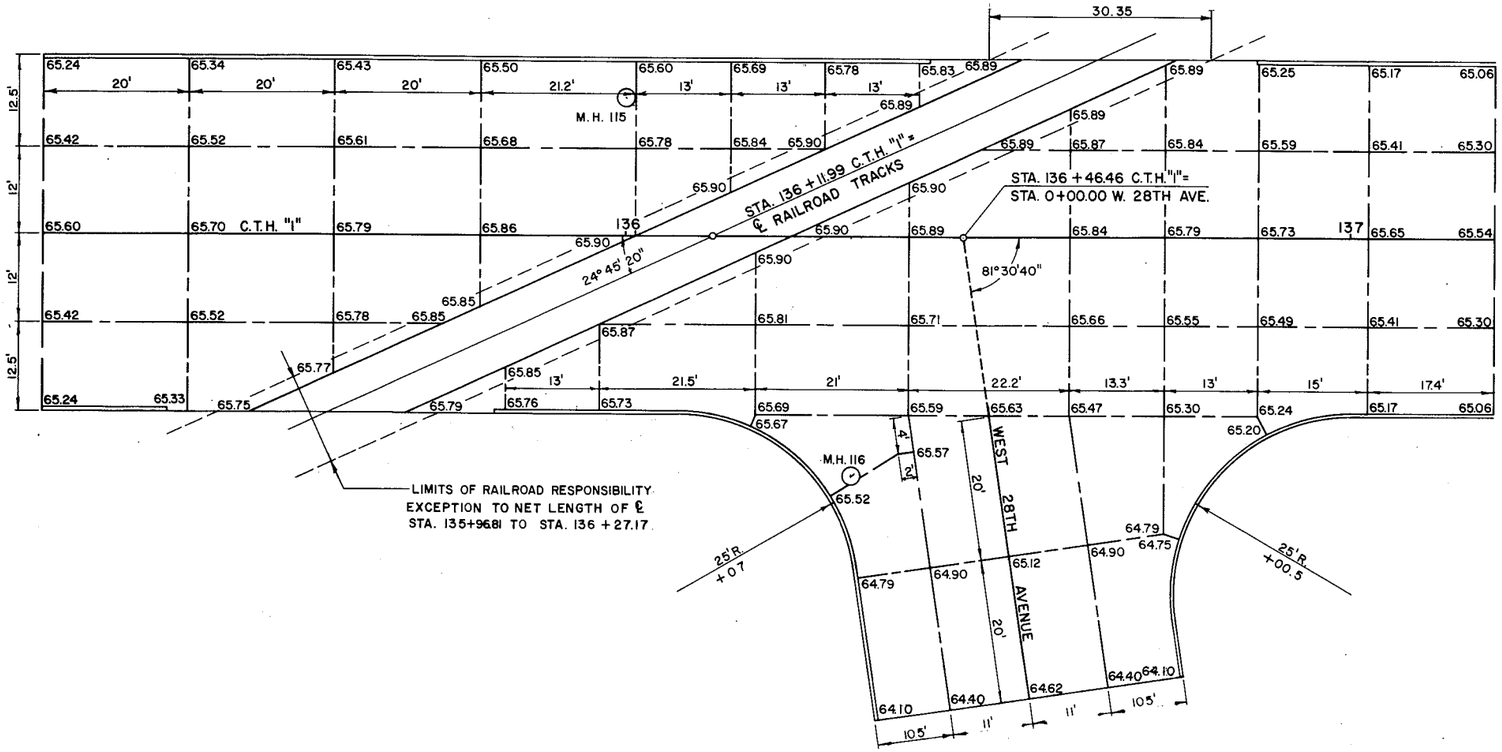
WAUKAU AVENUE



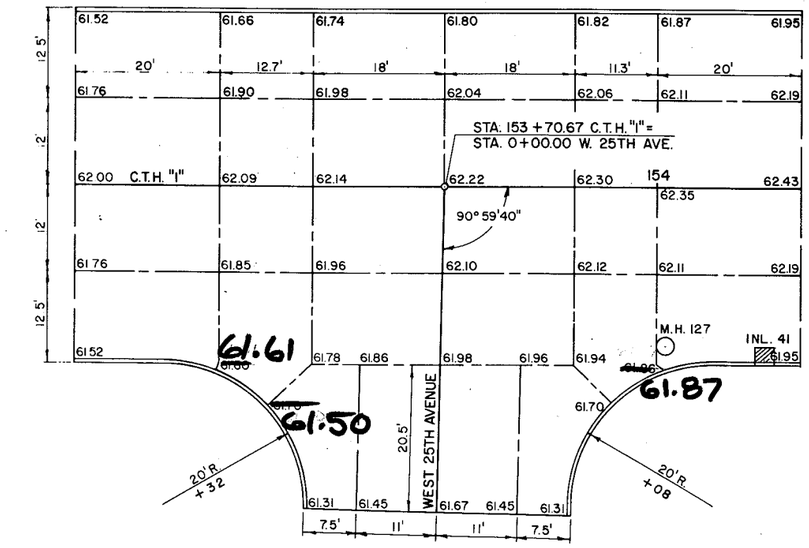
WEST 29 TH. AVENUE

PROJECT DESIGNATION	SHEET NO.
4994-0-17	24

INTERSECTION DETAILS



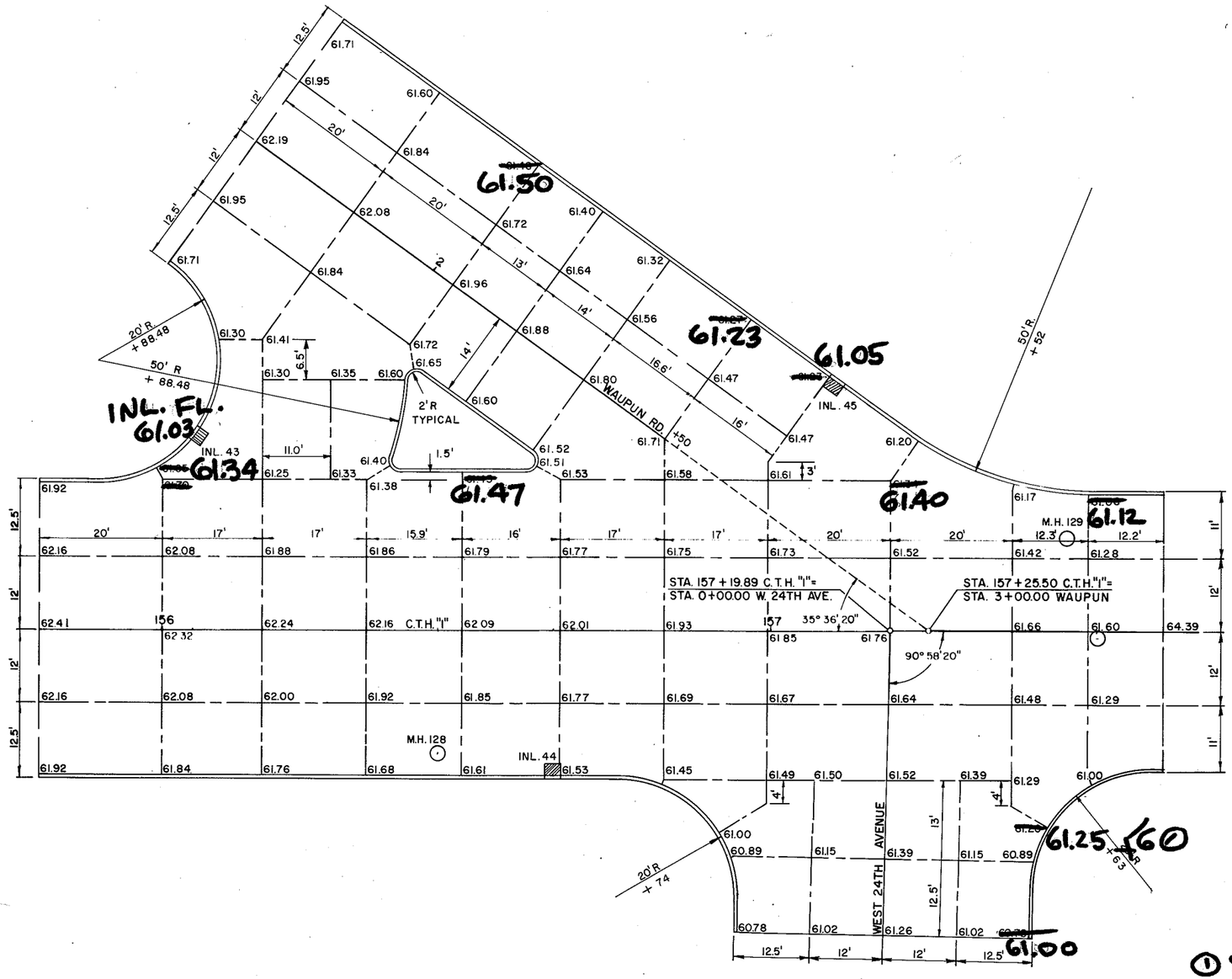
WEST 28 TH. AVENUE



WEST 25 TH. AVENUE

PROJECT DESIGNATION	SHEET NO.
4994 – 0 – 17	2.5

INTERSECTION DETAILS

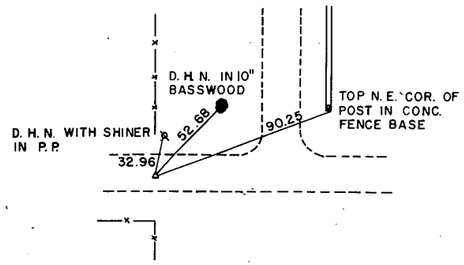


WEST 24 TH. AVENUE & WAUPUN ROAD

① SEE PROJECT DIARY P. 97

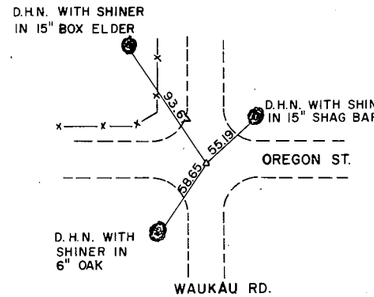
PROJECT DESIGNATION	SHEET NO.
4994 – 0 – 17	2.6

TIES



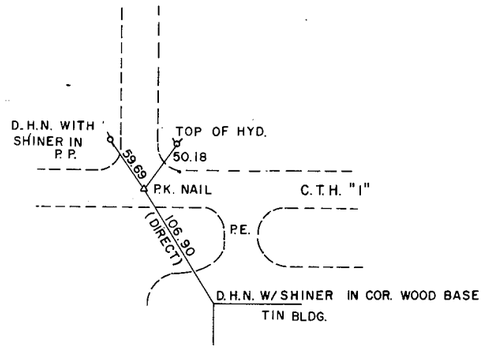
1/4 CORNER
STA. 89 + 24.62

$\frac{2|2}{1|1}$

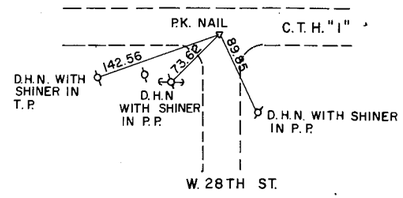


P.I. & SEC. CORNER
STA. 117 + 26.91

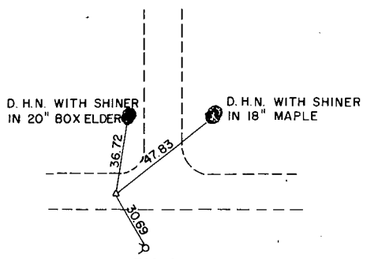
$\frac{2|35}{1|36}$



P.O.T
STA. 127 + 43.59

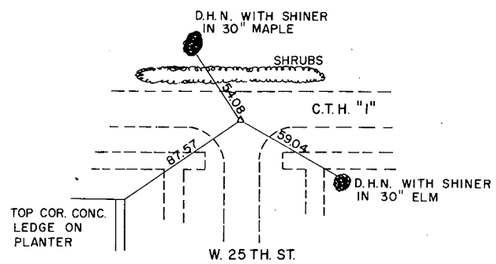


P.O.T.
STA. 136 + 46.46

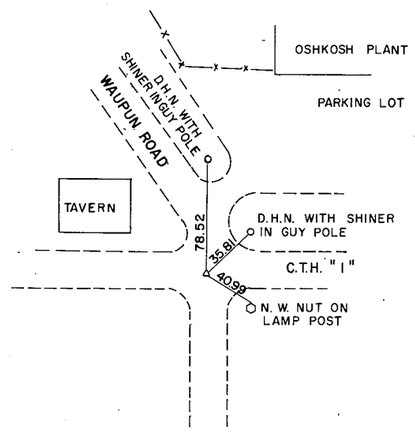


1/4 CORNER
STA 143 + 90.43

$\frac{35|35}{36|36}$



P. O. T.
STA. 153 + 70.67



STA. 157 + 25.89

ESTIMATE OF QUANTITIES

CONTRACT NO. 1
GRADING, BASE, SURFACE AND STRUCTURES

STATE PROJECT NUMBER	SHEET NO.
4994 — 0 — 17	3

CONTRACT NO.	STATION TO STATION	NET LENGTH OF CENTER LINE	CLEARING	GRUBBING	REMOVING PAVEMENT			REMOVING CONCRETE SIDEWALK		REMOVING CATCH BASINS		REMOVING UNDER-GROUND TANK STA.156+00		UNCL. EXCAVATION				CRUSHED AGGREGATE BASE COURSE	SINGLE AGGREGATE BITUMINOUS SURFACE	BITUMINOUS MATERIAL FOR SURFACE COURSE	CONCRETE PAVEMENT 8 INCH WITH INTEGRAL CURB	CONCRETE DRIVEWAY	CONCRETE CURB TYPE "A"	CULVERT PIPE CLASS III 18"	APRON ENDWALLS FOR C.P. 18"	REINFORCED CONCRETE APRON ENDWALLS FOR C.P. 24"	REINFORCED CONCRETE APRON ENDWALLS FOR C.P. 36"	CONCRETE CURB & GUTTER 30" TYPE "D"	CONCRETE SIDEWALK 5"	R.C.P. CLASS III STORM SEWER				
	ITEM NO.		20102	20105	20401			20406		20415		20450		20503				30404	40601	40602	90001	40931	60101	52003	52061	52264	52267	60133	60205	60825	60826	60827	60829	60833
	UNIT	LIN. FT.	IN. DIAM.	IN. DIAM.	S.Y.			S.Y.		EA.		L.S.		C.Y.				TON	TON	TON	S.Y.	S.Y.	L.F.	L.F.	EA.	EA.	EA.	L.F.	SQ. FT.	L.F.	L.F.	L.F.	L.F.	L.F.
1	116+50 TO 157+64.39	4,080.03	489	489	1,600			361		3		1		11,788				11,100	850	51	24,094	149	73	28	2			140	3140	545		232	52	
1	NON PARTICIPATING																									3	1			115	290	308	1811	261
1	TOTALS	4080.03	489	489	1,600			361		3		1		11,788				11,100	850	51	24,094	149	73	28	2	3	1	140	3140	660	290	540	1863	261

BRIDGES (STRUCTURES OVER 20 FT. SPAN)

STRUCTURE	REMOVING OLD BRIDGE STA. 118+22	REMOVING OLD BRIDGE STA. 148+88	EXCAVATION FOR STRUC. B-85	EXCAVATION FOR STRUC B-86	CONCRETE MASONRY	HIGH STRENGTH BAR STEEL REINF	STRUCTURAL CARBON STEEL	TUBULAR RAILING TYPE "H" STRUC. B-85	TUBULAR RAILING TYPE "H" STRUC. B-86
	20351	20352	20610	20611	50201	50504	50601	51350	51351
	L.S.	L.S.	L.S.	L.S.	C.Y.	LB.	LB.	L.S.	L.S.
B-70-85	1		1		197	24,270	550	1	
B-70-86		1		1	197	24,270	550		1
TOTAL		1	1	1	394	48,540	1,100	1	1

CULVERTS (STRUCTURES 20 FT. & UNDER)

	MANHOLES TYPE I	INLETS TYPE I	INLETS TYPE 3	INLETS TYPE 10	RECON-STRUCTING MANHOLES	MANHOLE COVERS TYPE J	INLET COVERS TYPE A	INLET COVERS TYPE C	INLET COVERS TYPE H	INLET COVERS TYPE MS	ADJUSTING CATCH BASIN COVERS	ADJUSTING MANHOLE COVERS	MOBILI-ZATION	METAL CONDUIT 2-INCH	LANDMARK REFERENCE MONU-MENTS	CALCIUM CHLORIDE SURFACE TREATMENT		SALVAGED TOPSOIL				FERTI-LIZER			SODDING		FIELD OFFICE TYPE "B"	FIELD LABORA-TORY			PULL BOX	STEEL CASING PIPE 34 INCH			
	61110	61121	61122	61125	61128	61151	61161	61163	61167	61170	61181	61182	61910	61313	62101	62301		62505				62901			63101		64202	64210			90002	90003			
	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	L.S.	L.F.	EA.	TON		S.Y.				CWT.			S.Y.		L.S.	L.S.			EA.	L.F.			
		14	7	2			13	1	7	7	1		1	538	2	3		7,000				5			7,000		1	1			4	45			
NON PARTICI-PATING	17	3			6	16		5	2			3																						
	17	17	7	2	6	16	13	6	9	7	1	3	1	538	2	3		7,000				5			7,000		1	1			4	45			

PROJECT DESIGNATION	SHEET NO.
4994 - 0 - 17	3A

CLEARING & GRUBBING

STATION	LOCATION	IN. DIA.
120+07	24' LT.	30
120+15	22' LT.	30
122+33	28' LT.	20
123+64	24' LT.	30
~~127+67~~	~~30' RT.~~	~~18~~
~~127+67~~	~~25.5' LT.~~	~~15~~
~~127+94~~	~~26' LT.~~	~~18~~
~~128+16~~	~~26' LT.~~	~~14~~
~~128+65~~	~~24' LT.~~	~~20~~
129+76	22' LT.	24
130+12	26.5' LT.	20
~~131+26~~	~~22' LT.~~	~~12~~
~~131+31~~	~~25' LT.~~	~~24~~
131+83	24' LT.	24
~~134+36~~	~~27' LT.~~	~~20~~
134+53	27' LT.	24
134+93	27' LT.	18
135+08	26' LT.	24
135+57	27' LT.	36
~~143+29~~	~~32' LT.~~	~~48~~
149+09	30.5' LT.	20
148+70	30' LT± TOTAL	29

Clearing completed by others

CLEARING BY OTHERS

YARDAGE SUMMARY

STA. 115+00 TO STA. 157+64.39

	QUANTITY C.Y.	QUANTITY C.Y.
UNCLASSIFIED EXCAVATION		11,788
FILL	1,843	
FILL EXPANDED BY 30%		2,396
WASTE		9,392

REMOVING PAVEMENT

STATION TO STATION			S.Y.
155+68	-	157+64	1,100
0+40	-	1+00 WEST 24TH AVENUE	133
0+50	-	2+15 WAUPUN RD.	367
			1,600

CRUSHED AGGREGATE BASE COURSE

STATION TO STATION	(TONS)
115+00 - 118+13	757
WAUKAU AVENUE	857
118+33 - 135+97	3,329
W. 29TH AVENUE	188
W. 28TH AVENUE	188
136+27 - 157+64	3,985
W. 25TH AVENUE	400
W. 24TH AVENUE	160
WAUPUN RD	565
P.E.'S	396
UNDISTRIBUTED	275
TOTAL	11,100

DRIVEWAYS

STATION	LOCATION	CONC. DRIVEWAY S.Y.	SINGLE AGG. BIT. SURFACE TON	CRUSHED AGG. BASE COURSE TON
115+89	LT.			5
116+00	RT.			5
118+64	LT.			10
119+86	LT.			12
120+56	RT.			5
121+05	LT.			13
121+30	RT.			5
121+57	RT.			4
122+53	RT.			12
125+66	LT.		2	3
128+41	RT.		10	20
130+98	RT.		12	22
130+98	LT.		21	41
133+62	RT.		18	34
133+65	LT.		6	12
138+31	LT.			15
139+70	LT.			18
140+29	RT.			9
140+31	LT.			8
143+69	RT.		4	7
144+05	LT.			9
145+22	LT.		7	13
145+43	RT.	33	3	17
146+12	LT.		5	10
146+50	LT.			3
147+11	RT.	33	3	17
147+24	LT.			3
149+50	LT.			4
150+00	LT.			4
151+12	RT.	22	4	18
151+12	LT.		5	9
151+45	RT.	37		12
151+63	LT.			5
152+73	LT.			4
155+02	LT.	24		8
TOTALS		149	100	396

CULVERT PIPE *
CL. III 18"

LOCATION	STATION	LENGTH FT.	APRONS REQ'D
~~WAUKAU AVENUE~~ OREGON ST.	~~147 RT.~~ 136+40	28	1

* THICKNESS: STEEL = .064
ALUMINUM = .060

CONCRETE SIDEWALK

STA. TO STA.	LOCATION	REMOVAL S.Y.	5" SIDEWALK REQ'D. S.F.
① 148+49-149+35	RT.	68	388
② 150+92-151+62	RT.	39	195
③ 152+50-153+54	RT.	63	549
④ 153+91-156+94	RT.	171	1540
⑦ 154+88-155+21	LT.	7	64
⑥ 157+43-157+58	LT.	7	74
⑤ 157+50-157+58	RT.	6	101
156+50	30' LT		229
TOTAL		361	3140

LANDMARK REFERENCE MONUMENTS

STATION	LOCATION	CORNER	NO. REQ'D.
117+26.91	P.I.	SECTION	1
143+90.43	P.I.	QUARTER	1

EXISTING UTILITIES

STATION	LOCATION	TYPE	EXT. ELEV.	FIN. ELEV.	EXISTING CONDITIONS
116+95	16.5' LT.	GAS	66.77	67.86	1.0' OF ADJUSTMENT
117+03	44' LT.	GAS	65.80	65.80	6 ADJUSTING RINGS
117+09.5	34.5' LT.	SAN. #569	66.28	67.70	6 ADJUSTING RINGS
117+45	47.5' RT.	SAN. #568	65.87	67.20	4 ADJUSTING RINGS
119+59.5	21' LT.	SAN. #574	65.90	67.95	PRECAST CONE NO ADJUSTMENT
120+15	17.5' RT.	TELE.	67.70 ±	67.97	3 ROWS BRICK
126+13	15.5' LT.	GAS	67.93	67.46	PRECAST WITH 4 ADJUSTING RINGS
127+27	18' RT.	TELE.	67.75	67.02	6" OF ADJUSTMENT
127+44.5	22' RT.	SAN. #522	67.66	67.87	PRECAST WITH 2 ADJUSTING RINGS
131+23	22.5' RT.	SAN. #521	65.68	64.98	PRECAST WITH 3 ADJUSTING RINGS
131+51	15.5' RT.	TELE.	65.96	64.98	4 ROWS BRICK
134+71	22' RT.	SAN. #520	63.98	64.92	NO ADJUSTMENT
137+97	21' RT.	SAN. #519	62.59	64.46	1 ADJUSTING RING
138+22	13' RT.	TELE.		64.37	
141+17	19' RT.	SAN. #518	61.86	61.65	PRECAST WITH 1 ADJUSTING RING
144+15.5	19.5' RT.	SAN. #515		62.26	2 ROWS BRICK
146+21	18' RT.	SAN. #514	62.21	62.17	3 ROWS BRICK
146+31	11.5' RT.	TELE.	62.33	62.27	4 ROWS BRICK
148+75.5	19' RT.	SAN. #513	61.29	61.13	2 ADJUSTING RINGS
149+12.5	19.5' RT.	SAN. #512	61.50	60.96	3 ROWS BRICK
150+52	21.5' RT.	SAN. #295	61.88	60.58	2.5' OF ADJUSTMENT
150+77.5	3' RT.	WATER	61.62	60.98	BRICK-POOR CONDITION
153+71	12' RT.	TELE.	61.60	61.98	BURIED
153+71	21.5' RT.	SAN. #294	61.69	61.78	PRECAST WITH NO ADJUSTMENT
157+36	17.5' RT.	#180	61.53	61.53	BRICK-POOR CONDITION
157+38	6' RT.	TELE.	61.61	61.54	2 ROWS BRICK
157+53	1' RT.	#179	61.64	61.54	BRICK-POOR CONDITION
1+42*	13.5' RT.	SAN. #570	65.67		2 ADJUSTING RINGS

* WAUKAU AVENUE STATIONING
# CASTING NUMBER

STORM SEWER

INL./M.H. NUMBER	STA.	LT. OR RT. LOC.	TYPE	F.L. OR COV. ELEV.	EL. TOP BOX	ELEV. INLET	FROM	ELEV. DISCH.	TO	PIPE	DEPTH	REMARKS
INL. 20	115+50	RT.	10-MS					67.3	M.H. 106	28'x24"		
INL. 21	115+50	LT.	10-MS					67.3	M.H. 106	24'x24"		
④ M.H. 106	115+50	3' RT.	1-J	69.36	68.19	65.86	INL. 20	61.21	M.H. 107	126'x36"	7.0	
						65.86	INL. 21					
④ M.H. 107	116+79	4.4' RT.	1-J	68.18	67.01	60.95	M.H. 106	60.95	M.H. 108	111'x36"	6.1	
						62.55	INL. 22					
						62.55	INL. 23					
④ MH #107A			1-J									
INL. 22	116+79	23.5' RT.	1-A	67.56	66.73			62.72	M.H. 107	19'x12"	4.0	
INL. 23	116+79	23.5' LT.	1-A	67.56	66.73			62.80	M.H. 107	24'x12"	3.9	
①④ M.H. 108	117+85	30.0' RT.	1-J	68.0	66.83	61.91	INL. 25-A	60.39	CREEK	24'x36"	6.4	
						60.39	M.H. 107	61.99 ~~62.17~~	MH #108 INL #25A	43'x 12"	4.3	
INL. 25	117+85	23.5' LT.	1-A	67.25	66.42			62.17 ~~61.99~~	INL #25 ~~M.H. 108~~	8'X12"	4.4	
INL. 25A	117+85	23.5' RT.	1-A	67.25	66.42	61.99	INL. 25					
④ M.H. 109	118+70	3.8' RT.	1-J	68.01	66.84	60.58	M.H. 110	60.58	M.H. 109A	28'x24"	6.3	
①④ M.H. 109A	118+61	30' RT.	1-J	66.00	65.25	59.40	M.H. 109	59.40	CREEK	20'x24"	5.9	
④ M.H. 110	123+20	3' RT.	1-J	66.81	65.64	62.02	M.H. 111	62.02	M.H. 109	450'x24"	3.6	
						62.82	INL. 26					
						62.82	INL. 27					
INL. 26	123+20	23.5' LT.	3-H	66.25	65.42			63.32	M.H. 110	24'x12"	2.1	
INL. 27	123+20	23.5' RT.	3-H	66.25	65.42			63.32	M.H. 110	19'x12"	2.1	
④ M.H. 111	127+22	3' RT.	1-J	67.34	66.17	62.83	M.H. 112	62.83	M.H. 110	402'x24"	3.3	
④ M.H. 112	5+54*	12' RT.	1-J	67.14	65.97	62.97	STUB	62.97	M.H. 111	50'x24"	3.0	
						62.97	INL. 28					
						62.97	INL. 29					
INL. 28	5+54*	18' RT.	1-A	66.69	65.86			63.17	M.H. 112	2'x12"	2.7	
INL. 29	5+54*	18' LT.	1-A	66.85	66.02			63.17	M.H. 112	26'x12"	2.8	⑤
④ STUB	5+94*	12' RT.				63.20	(FUTURE)		M.H. 112	40'x24"		
④ M.H. 113	130+00	19' LT.	1-J	65.66	64.49	61.20	INL. 30	61.00	M.H. 114	290'x15"	3.5	
						61.20	INL. 31					
INL. 30	130+00	23.5' RT.	1-A	65.42	64.59			61.59	M.H. 113	40'X 12"	3.0	
INL. 31	129+93	23.5' LT.	1-A	65.45	64.62			61.62	M.H. 113	7'x12"	3.0	
④ M.H. 114	132+90	19' LT.	1-J	64.43	63.26	59.26	M.H. 113	59.06	M.H. 115	308'x18"	4.2	
						59.46	INL. 32					
						59.46	INL. 33					
INL. 32	132+90	23.5' RT.	3-H	64.19	63.36			59.56	M.H. 114	40'x12"	3.8	
INL. 33	132+87	23.5' LT.	3-H	64.19	63.36			59.56	M.H. 114	3'x12"	3.8	
④ M.H. 115	136+00	19' LT.	1-J	65.68	64.51	56.26	M.H. 114	54.60	M.H. 116	60'x24"	9.9	
						60.00	INL. 34					
INL. 34	136+25	37' LT.	1-C	65.5±	64.2±			61.2±	M.H. 115	30'X 12"	3.0±	
④ M.H. 116	136+31	33' RT.	1-J	65.54	64.37	54.0	M.H. 115	54.00	M.H. 117	166' X 24"	10.4	
④ M.H. 117	2+00**	20' RT.	1-C	MATCH GRADE	59.5±	53.49	M.H. 116	53.49	M.H. 118	246'X 24"	6.0±	
④ INL. 35	2+00**	20' LT.	1-C	MATCH GRADE	59.5±			56.00	M.H. 117	40' X 12"	3.5±	
④ M.H. 118	4+50**	20' RT.	1-C	MATCH GRADE	58.0±	52.62	M.H. 117	52.62	M.H. 119	313' X 24"	5.4±	
④ INL. 36	4+50**	20' LT.	1-C	MATCH GRADE	58.0±			54.40	M.H. 118	40'X 12"	3.6±	
④ M.H. 119	7+87**	17' RT.	EXISTING	EXISTING		51.35	M.H. 118	51.35	EXISTING			⑤
④ INL. 37	7+87**	20' LT.	1-C	MATCH GRADE	54.5±			51.53	M.H. 119	35'X 12"	3.0±	
INL. 38-A	141+80	23.5' RT.	3-H	61.24	60.41	58.00	INL. 38	57.60	M.H. 121	232'x18"	2.8	
INL. 38	141+80	23.5' ~~RT.~~ LT	3-H	61.24	60.41			58.20	INL. 38-A	44'x12"	2.2	
④ M.H. 121	144+12	24' RT.	J	62.03	EXIST.	56.80	INL. 38-A	56.80	EXIST.			②⑤
④ M.H. 122	146+90	24.5' RT.	J	62.30	EXIST.	EXIST.		EXIST.				③⑤
CB	148+65	15' RT.	EXISTING	REMOVE AND PLUG LEAD								
④ M.H. 123	148+65.5	23.5' RT.	H	60.94	EXIST.	54.00	INL. 39	53.66	M.H. 123-A	10'X 24"		②⑤
①④ M.H. 123A	148+73	31' RT.	1-J	MATCH GRADE	61.5±	53.52	M.H. 123	53.52	CREEK	6'X 24"	8.0±	
INL. 39	148+65	23.5' LT.	1-A	60.94	60.10			54.44	M.H. 123	44'x12"	5.7	
④ M.H. 124	149+25.5	25' RT.	EXISTING	61.35		EXISTING	M.H. 125	54.7±	M.H. 124-A	10'X 24"		③⑤
CB	149+30	15.0' RT.	EXISTING	REMOVE AND PLUG LEAD								
①④ M.H. 124A	149+17	31' RT.	1-J	MATCH GRADE	61.5±	53.76	M.H. 124	53.76	CREEK	10'X 24"	7.7±	
④ M.H. 125	150+20	23.5' RT.	1-H	60.42	59.58	~~56.70~~ 57.40	INL. 40	56.29 ±	M.H. 124	EXISTING	3.3	⑦
CB	150+02	14.0' RT	EXISTING	REMOVE AND PLUG LEAD								
INL. 40	150+20	23.5' LT.	3-H	60.42	59.58			57.84 ~~57.14~~	M.H. 125	44'x12"	1.7 ~~2.4~~	
④ M.H. 126	152+13	21' RT.	EXISTING	61.11					M.H. 125	EXISTING		⑥
④ INL 40A	152+20	46' LT	1-C	61.0	60.25			58.0	MH 126	66'x12"		
④ INL 40B	152+13	46.5' RT	1-C	60.0	59.25			57.8	MH 126	27'x12"		
④ M.H. 127	154+01	22' RT.	EXISTING	61.91		58.00	INL. 41	57.62	M.H. 126	EXISTING		⑥
INL. 41	154+15	23.5' RT.	1-A	61.80	60.96			58.12	~~M.H. 127~~	12"x12"	2.8	
									STORM SEWER			
CB 42	154+01	29' LT	MS	60.0±								⑥
④ M.H. 128	156+45	20' RT.	EXISTING	61.72	60.4±	57.88	INL. 43	57.88	M.H. 127	EXISTING		⑥
						57.88	INL. 44					
INL. 43	156+05	32' LT.	1-A	61.03	60.19			58.07	INL #45 ~~Mahle 128~~	102'x12" ~~64'x12"~~	2.1	
INL. 44	156+64	23.5' RT.	1-A	61.40	60.56			57.93	M.H. 128	8'x12"	2.6	
④ M.H. 129	157+48	15' LT.	EXISTING	61.24	EXIST.	57.0±	INL. 45		EXISTING			⑤
INL. 45	157+11	39' LT.	1-A	61.05	60.21			57.2 ±	M.H. 129	44'X 12"	3.0±	

NOTES

* WEST 29TH AVENUE STATIONING

** WEST 28TH AVENUE STATIONING

① APRON ENDWALL REQ'D.
② ADJUST WITH ECCENTRIC CONE INTO STREET
③ ADJUST WITH ECCENTRIC CONE BEHIND CURB
④ NON PARTICIPATING ITEM
⑤ RECONSTRUCT
⑥ ADJUST
⑦ TIE INTO EXISTING 24" STORM SEWER

THE COST OF INSTALLING THE STORM SEWER THROUGH THE STEEL CASING PIPE AT STA. 136 + 12 SHALL BE CONSIDERED AS INCIDENTAL TO THE UNIT COST OF R.C.P. CLASS III STORM SEWER, 24 INCH.

MANHOLE NO. 106 SHALL BE CONSTRUCTED TO PERMIT FUTURE CONSTRUCTION OF 36" STORM SEWER TO THE SOUTH.

PROJECT DESIGNATION 4994 - 0 - 17

SHEET NO. 38

PROJECT DESIGNATION	SHEET NO.
4994 – 0 – 17	5

LEGEND

- —S— INPLACE SANITARY
- —W— INPLACE WATER
- —T— INPLACE TELEPHONE
- —G— INPLACE GAS LINE
- PROPOSED CURB
- PROPOSED STORM SEWER
- 10' TAPERED CURB & GUTTER
- 00.00 FLOW LINE ELEVATION
- SINGLE AGG. BIT. SURFACE
- CRUSHED AGG. SURFACE
- SIDEWALK REMOVAL
- (CR) TYPE 3 CURB RAMP
- DRAINAGE

BEGIN CONSTRUCTION
STATION 115+00.00
MATCH EXISTING BITUMINOUS

SCHOOL

CITY OF OSHKOSH

EXISTING R/W

BEGIN URBAN SECTION
STATION 116+50.00

MARVIN J. DEBRUIN

SECTION CORNER
(P.I. STA. 117+26.91)

T18N R16E T19N R16E 31 36 1 6

P.C. STA. 114+95.77

P.E.+92

P.E.+89

LIGHT

7" BIT.

INL. 21

INL. 23

INL. 24

MH#108

1-A

25' +73

1+81

HYD. VALVE

90°28'20"

117 VALVE

GRAVEL

8" ABS.

P.E. 1+64

MATCH LINE

STA. 113+00

F FUTURE ℄ 114 N 02° 25' 40" E

EXISTING ℄

CONSTRUCTION ℄

115

116 C.T.H. "I"

118

M.H. 106

M.H. 107

M.H. 109

M.H. 109A

INL. 22

INL. 25A

MH#107A

36"

P.E.+62

P.E. +00

TEL. CABLE MARKER

INL. 20

M.H. (S)

I.P. 2+73

M.H. 108

P.I. STA. 117+26.91 = STA. 3+00 WAUKAU AVE.

STA. 119+00

CURVE DATA
P.I. STA. 117+26.91
Δ = 2° 18' 40"
D = 0° 30'
T = 231.14
L = 462.22
P.C. STA. 114+95.77
P.T. STA. 119+57.99

EDMUND RUETTER

WAYNE D. ANDERSON

H#3110

4 S.W.

S 89° 24' 40" E

WAUKAU AVE.

8" CONC.

DENNIS D. HUGHES

STRUCTURE NO. B-70-85
STA. 118+22.66
TWIN 10' X 8'6" BOX TYPE BRIDGE REQ'D
SEE DRAWINGS X54258 – X54262

BEGIN PROJECT NO. 4994-0-17
STATION 116+50.00

NET LENGTH OF ℄ = STA. 116+50 TO 119+00 = 250.00'

TOWN OF BLACK WOLF

BENCH MARKS			
NO.	STA.	DESCRIPTION	ELEV.
1	117+01	TOP OF HYD. 35' LT.	768.98

INL. 25
67.25 FL.
66.42 T.B.
43'-12" R.C.P. CL. III SL. 0.42%
62.17 DISCH.

INL. 25A
67.25 FL.
66.42 T.B.
8' X 12" R.C.P. CL. III SL. 1.0%
DISCH. 61.99

INL. 2
67.3 DISCH.
24" X 24" R.C.P. CL. III SL. 6.0%

INL. 20
28" X 24" R.C.P. CL. III SL. 5.11%
67.37 DISCH.

INL. 23
67.56 FL.
66.73 T.B.
24-12" R.C.P. CL. III SL. 1.04%
62.80 DISCH.

INL. 22
67.56 FL.
66.73 T.B.
19'-12" R.C.P. CL. III SL. 0.90%
62.72 DISCH.

-0.90%
M.H. 106 69.36 T.C.
68.19 T.B.
65.86 FROM INLS. 20 & 21
126'-36" R.C.P. CL. III SL. 0.20%
61.21 DISCH.

P.C. STA. 116+50
ELEV. 768.52

M.H. 107
69.18 T.C.
67.01 T.B.
62.55 FROM INLS. 22 & 23
111'-36" R.C.P. CL. III SL. 0.50%
60.95 DISCH.

WAUKAU AVENUE
BEGIN CONSTRUCTION
STATION +35.00
EXISTING ℄ GRADE
P.I. STA. 1+85.00
ELEV. 765.45
-1.32%
+1.00%
P.I. STA. 2+73.17
ELEV. 767.78
100' V.C. +2.64%
-1.00%
-1.50%
C.T.H. "I"
FINISHED ℄ GRADE
END CONSTRUCTION
STATION 5+00.00
P.I. STA. 3+22.67
ELEV. 767.78

FINISHED ℄ GRADE
200' V.C.
P.I. STA. 117+50
ELEV. 767.62

M.H. 108
68.00
66.83 T.B.
61.91 FROM INL. 25A
24" X 36" R.C.P. CL. III SL. 3.97%
60.39 DISCH.

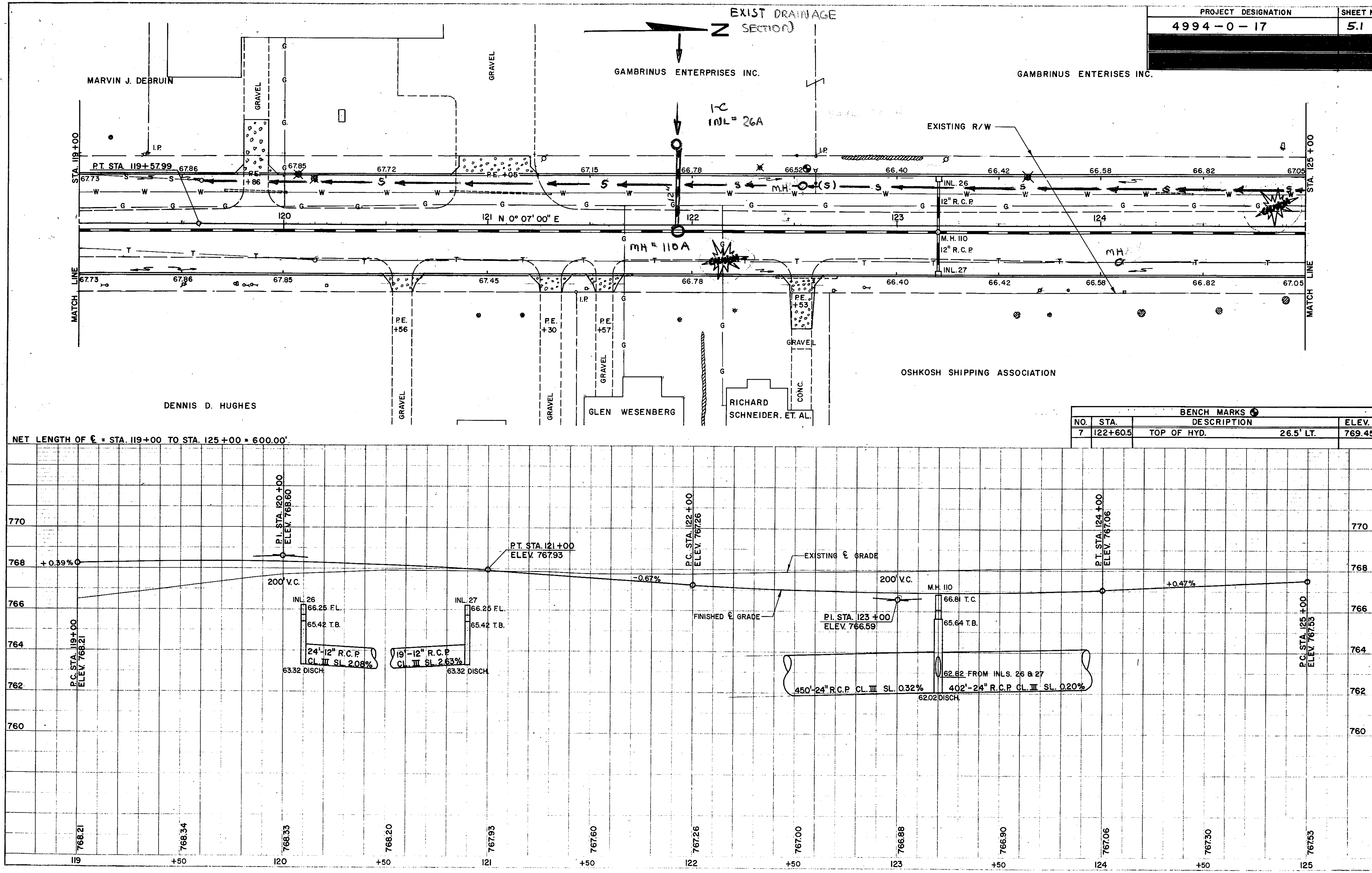
P.T. STA. 118+50
ELEV. 768.01
P.C. STA. 119+00
ELEV. 768.21
M.H. 109 +0.39%
68.01 T.C.
66.84 T.B.
M.H. 109A
66.0 T.C.
65.25 T.B.
20" X 24" R.C.P. CL. III SL. 1.0%
28" X 24" R.C.P. CL. III SL. 4.21%
450'-24" R.C.P. CL. III SL. 0.32%
60.58 DISCH.
59.40 DISCH.
59.40 DISCH.

	113	+50	114	+50	MATCH 115	+50	116	+50	117	+50	118	+50	119
						769.38	768.95	768.52	768.15	767.94	767.90	768.01	768.21

PLATE LAYOUT PROFILE
KUSTER & KING CO.

PROJECT DESIGNATION	SHEET NO.
4994-0-17	5.1
[redacted]	

EXIST DRAINAGE SECTION



MARVIN J. DEBRUIN
GAMBRINUS ENTERPRISES INC.
GAMBRINUS ENTERISES INC.
I-C INL# 26A
EXISTING R/W
STA. 119+00
STA. 125+00
P.T. STA. 119+57.99
N 0° 07' 00" E
MH # 110A
INL. 26
12" R.C.P.
M.H. 110
INL. 27
MATCH LINE
GRAVEL
P.E. +56
P.E. +30
P.E. +57
P.E. +53
CONC.
DENNIS D. HUGHES
GLEN WESENBERG
RICHARD SCHNEIDER. ET. AL.
OSHKOSH SHIPPING ASSOCIATION
NET LENGTH OF ℄ = STA. 119+00 TO STA. 125+00 = 600.00'
P.I. STA. 120+00 ELEV. 768.60
P.T. STA. 121+00 ELEV. 767.93
P.C. STA. 122+00 ELEV. 767.26
P.I. STA. 123+00 ELEV. 766.59
P.T. STA. 124+00 ELEV. 767.06
P.C. STA. 125+00 ELEV. 767.53
P.C. STA. 119+00 ELEV. 768.21
+0.39%
-0.67%
+0.47%
200' V.C.
EXISTING ℄ GRADE
FINISHED ℄ GRADE
INL. 26 66.25 F.L. 65.42 T.B.
INL. 27 66.25 F.L. 65.42 T.B.
24'-12" R.C.P. CL. III SL. 2.08%
19'-12" R.C.P. CL. III SL. 2.63%
63.32 DISCH.
M.H. 110 66.81 T.C. 65.64 T.B.
62.82 FROM INLS. 26 & 27
450'-24" R.C.P. CL. III SL. 0.32%
402'-24" R.C.P. CL. III SL. 0.20%
62.02 DISCH.
768.21 768.34 768.33 768.20 767.93 767.60 767.26 767.00 766.88 766.90 767.06 767.30 767.53
119 +50 120 +50 121 +50 122 +50 123 +50 124 +50 125
PLAN
PROFILE

BENCH MARKS			
NO.	STA.	DESCRIPTION	ELEV.
7	122+60.5	TOP OF HYD. 26.5' LT.	769.45

STATE PROJECT NUMBER	SHEET NO.
4994-0-17	5.2

CONSOLIDATED FOOD PROCESSORS ASSOCIATION

GAMBRINUS ENTERPRISES - INC.

WEINSTEIN — MENKOFF INVESTMENT COMPANY

BIT.

STUB

WEST 29 TH AVE

N 89° 22' 00" W

INL. 28

M.H. 112

INL. 29

EXISTING R/W

N

STA. 125+00

STA. 131+00

MATCH LINE

I.P.

P.E. +66

P.E. +98

67.05 67.22 67.28 67.21 67.03 66.54 66.30 66.05 65.81 INL. 31 65.56 65.32

M.H. (S)

126 N 0° 07' 00" E 127 128 129 130

M.H. 111

90°31'00"

M.H. (W)

M.H. 113

INL. 30 — S

67.05 67.22 67.28 M.H.-(S) 67.21 67.03 66.79 66.54 P.E. +41 66.05 65.81 65.42 65.32 P.E. +98

P.O.T. STA. 127+43.59
= STA. 6+00 W. 29 TH. AVE.

SCALE

BIT.

OSHKOSH SHIPPING ASSOCIATION

BLDG. # 2836

WAREHOUSE

CAR WASH

BENCH MARKS			
NO.	STA.	DESCRIPTION	ELEV.
8	127+70.5	TOP OF HYD. 43' LT	770.16

NET LENGTH OF ℄ = STA. 125+00 TO STA. 131+00 = 600.00

Pl. = STA. 126+00
ELEV. 768.00

EXISTING ℄ GRADE

+0.47 %

200' V.C.

FINISHED ℄ GRADE

-0.49 %

P.C. = STA. 125+00
ELEV. 767.53

P.T. = STA. 127+00
ELEV. 767.51

M.H. 111
67.34 T.C.
66.17 T.B.

M.H. 112
67.14 T.C.
65.97 T.B.

STUB
40'-24" R.C.P
CL. III SL. 0.58%
63.20

50'-24" R.C.P
CL. III SL. 0.24%
62.97 DISCH.

402'-24" R.C.P
CL. III SL. 0.20%
62.83 FROM M.H. 112
62.83 DISCH.

INL. 31
65.45 F.L.
64.62 T.B.

7'-12" R.C.P
CL. III SL. 6.00%
61.62 DISCH.

M.H. 113
65.66 T.C.
64.49 T.B.

61.20 FROM INLS. 30 & 31

INL. 30
65.42 F.L.
64.59 T.B.

40'-12" R.C.P
CL. III SL. 0.98%
61.59 DISCH.

WEST 29TH AVENUE

℄ C.T.H. "I"

BEGIN CONSTRUCTION
STATION 5+00.00

+1.00%

-1.50%

-7.65%

EXISTING ℄ GRADE

FINISHED ℄ GRADE

Pl. = STA. 5+50.0
ELEV. 767.44

Pl. = STA. 5+75.5
ELEV. 767.06

INL. 28
66.69 F.L.
65.86 T.B.

2'-12" R.C.P
CL. III SL. 10.00%
63.17 DISCH.

M.H. 112
67.14 T.C.
65.97 T.B.

62.97 FROM INLS. 28 & 29

INL. 29
66.85 F.L.
66.02 T.B.

26'-12" R.C.P
CL. III SL. 0.77%
63.17 DISCH.

M.H. 113
65.66 T.C.
64.49 T.B.

290'-15" R.C.P
CL. III SL. 0.61%
61.00 DISCH.

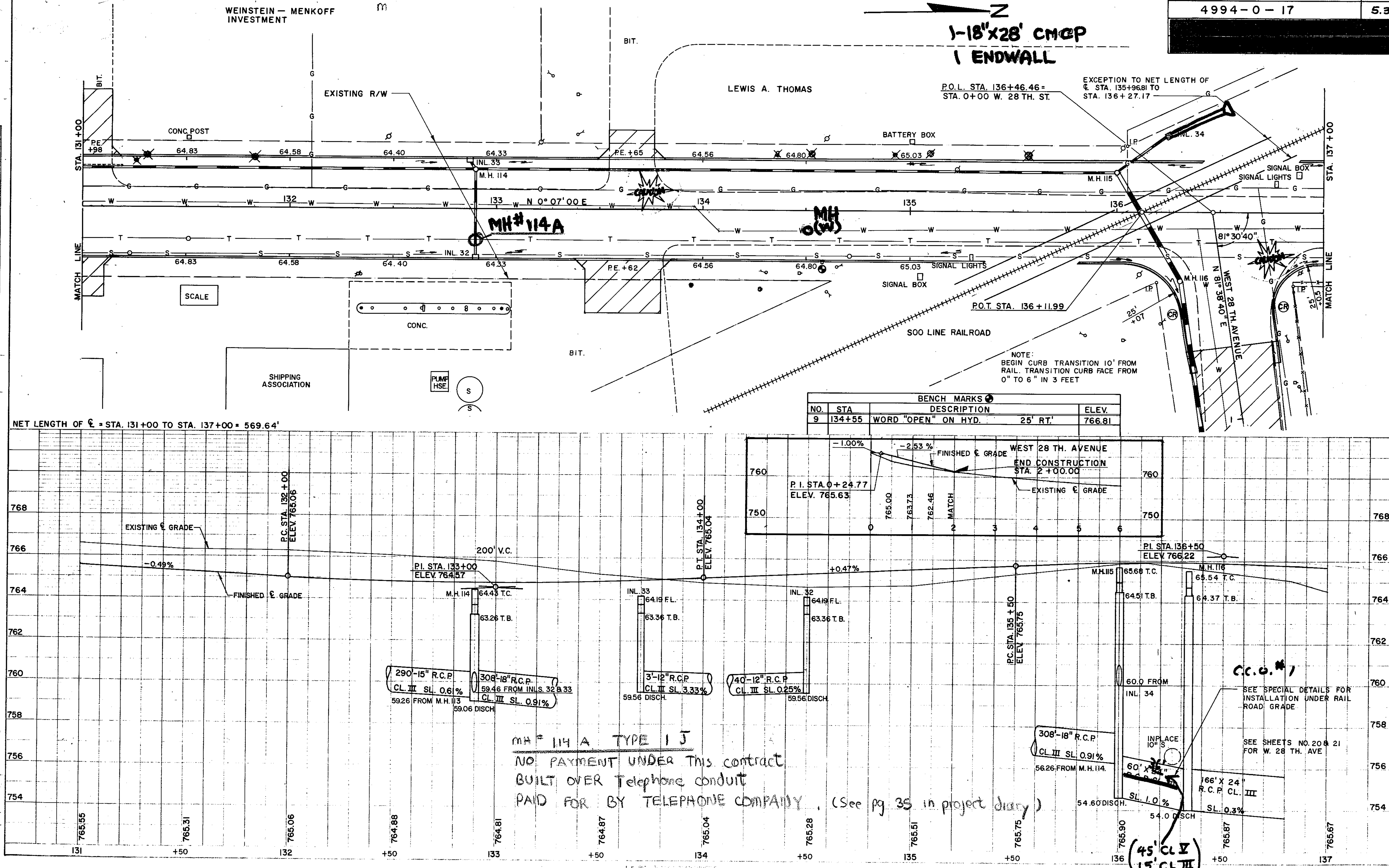
61.20 FROM INLS. 30 & 31

767.53 767.70 767.76 767.69 767.51 767.27 767.02 766.78 766.53 766.29 766.04 765.80 765.55

125 +50 126 +50 127 +50 128 +50 129 +50 130 +50 131

PROJECT DESIGNATION	SHEET NO.
4994-0-17	5.3

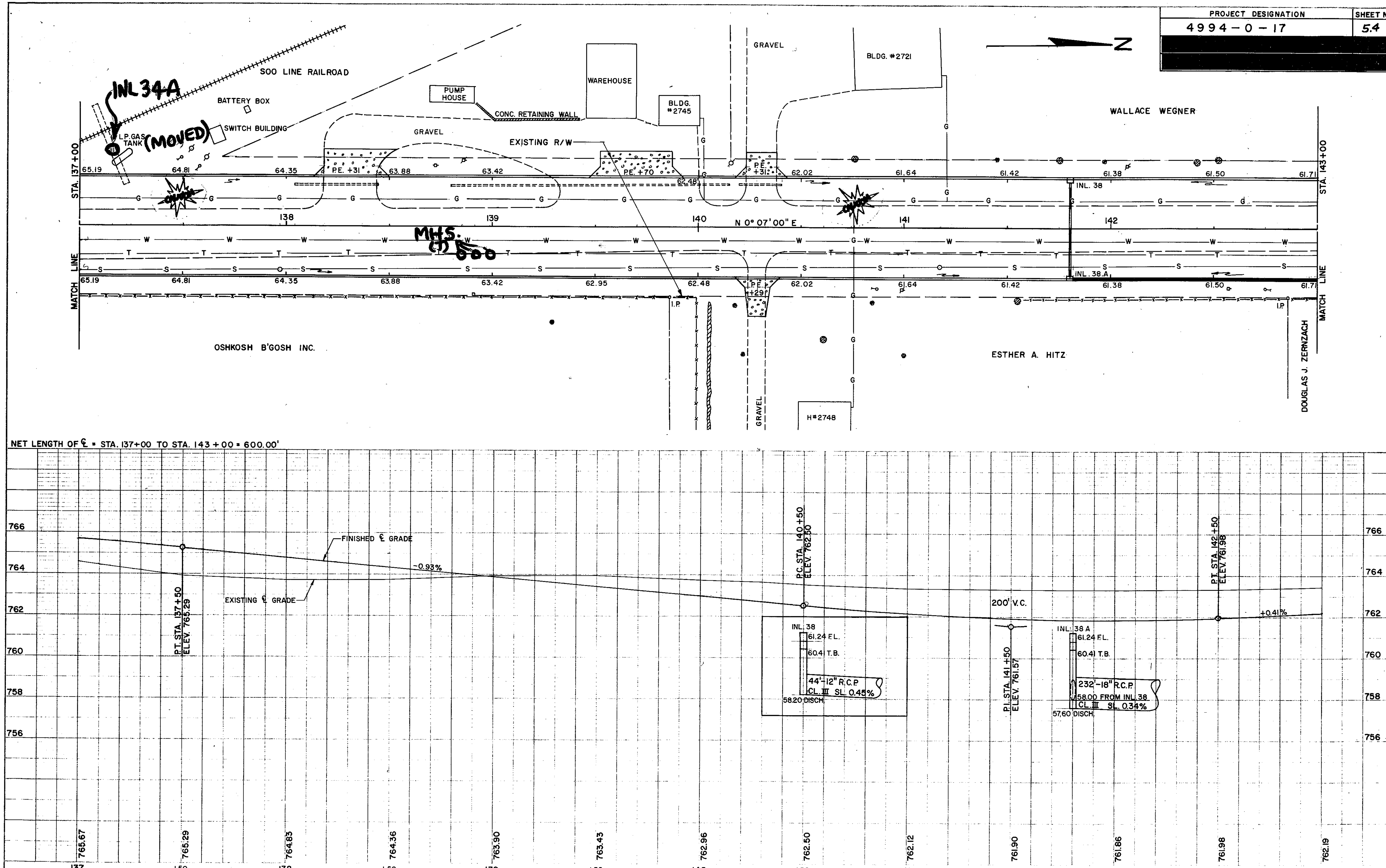
[redacted]



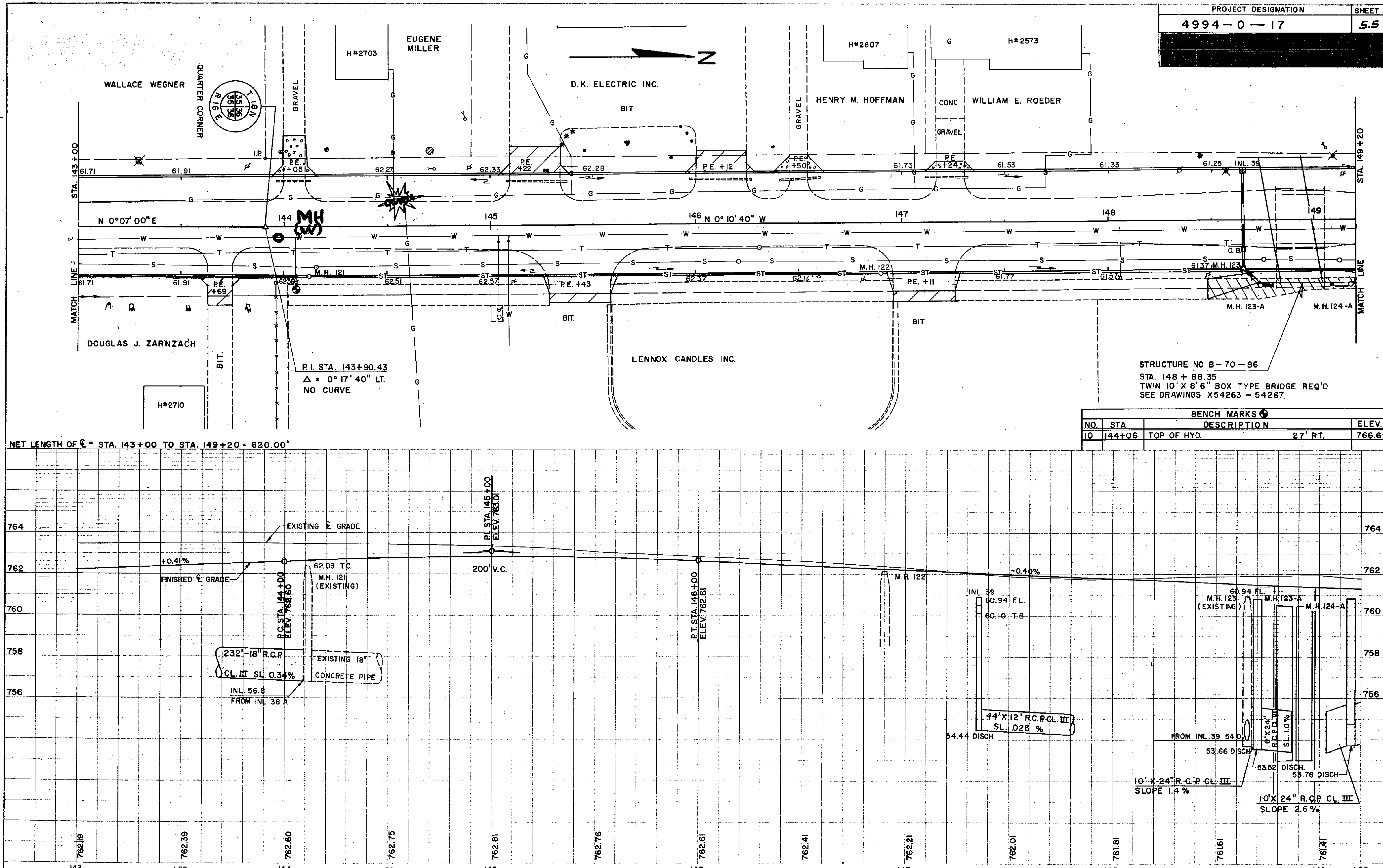
1-18"x28' CMCP
1 ENDWALL
WEINSTEIN — MENKOFF INVESTMENT
LEWIS A. THOMAS
EXISTING R/W
BIT.
CONC. POST
BATTERY BOX
P.O.L. STA. 136+46.46 = STA. 0+00 W. 28 TH. ST.
EXCEPTION TO NET LENGTH OF ℄ STA. 135+96.81 TO STA. 136+27.17
STA. 131+00
MATCH LINE
STA. 137+00
MATCH LINE
P.E. +98
P.E. +65
P.E. +62
INL. 33
M.H. 114
MH# 114A
INL. 32
INL. 34
M.H. 115
M.H. 116
MH O(W)
N 0° 07' 00 E
81° 30' 40"
N 81° 38' 40" E
WEST 28 TH. AVENUE
SIGNAL BOX
SIGNAL LIGHTS
P.O.T. STA. 136+11.99
SOO LINE RAILROAD
SCALE
CONC.
SHIPPING ASSOCIATION
PUMP HSE
NOTE: BEGIN CURB TRANSITION 10' FROM RAIL. TRANSITION CURB FACE FROM 0" TO 6" IN 3 FEET
NET LENGTH OF ℄ = STA. 131+00 TO STA. 137+00 = 569.64'
EXISTING ℄ GRADE
FINISHED ℄ GRADE
-0.49%
+0.47%
P.C. STA. 132+00 ELEV. 765.06
200' V.C.
P.I. STA. 133+00 ELEV. 764.57
P.T. STA. 134+00 ELEV. 765.04
P.C. STA. 135+50 ELEV. 765.75
P.I. STA. 136+50 ELEV. 766.22
M.H. 114 64.43 T.C. 63.26 T.B.
INL. 33 64.19 F.L. 63.36 T.B.
INL. 32 64.19 F.L. 63.36 T.B.
M.H. 115 65.68 T.C. 64.51 T.B.
M.H. 116 65.54 T.C. 64.37 T.B.
290'-15" R.C.P. CL. III SL. 0.61% 59.26 FROM M.H. 113
308'-18" R.C.P. 59.46 FROM INLS. 32 & 33 CL. III SL. 0.91% 59.06 DISCH.
3'-12" R.C.P. CL. III SL. 3.33% 59.56 DISCH.
40'-12" R.C.P. CL. III SL. 0.25% 59.56 DISCH.
308'-18" R.C.P. CL. III SL. 0.91% 56.26 FROM M.H. 114
60.0 FROM INL. 34
INPLACE 10" S
60' x 24" R.C.P. SL. 1.0%
54.60 DISCH.
54.0 DISCH.
166' X 24" R.C.P. CL. III SL. 0.3%
C.C.O. # 7
SEE SPECIAL DETAILS FOR INSTALLATION UNDER RAIL ROAD GRADE
SEE SHEETS NO. 20 & 21 FOR W. 28 TH. AVE
(45' CL V / 15' CL III)
WEST 28 TH. AVENUE
-1.00%
-2.53%
FINISHED ℄ GRADE
END CONSTRUCTION STA. 2+00.00
P.I. STA. 0+24.77 ELEV. 765.63
EXISTING ℄ GRADE
765.55 765.31 765.06 764.88 764.81 764.87 765.04 765.28 765.51 765.75 765.90 765.87 765.67
131 +50 132 +50 133 +50 134 +50 135 +50 136 +50 137

BENCH MARKS			
NO. STA	DESCRIPTION		ELEV.
9 134+55	WORD "OPEN" ON HYD.	25' RT.	766.81

MH # 114 A TYPE 1 J
NO PAYMENT UNDER This contract
BUILT OVER Telephone conduit
PAID FOR BY TELEPHONE COMPANY. (See pg 35 in project diary)


PROJECT DESIGNATION
4994-0-17
SHEET NO.
5.4
[redacted]
N
SOO LINE RAILROAD
INL 34A
BATTERY BOX
SWITCH BUILDING
L.P. GAS TANK
(MOVED)
PUMP HOUSE
CONC. RETAINING WALL
WAREHOUSE
BLDG. #2745
GRAVEL
BLDG. #2721
WALLACE WEGNER
EXISTING R/W
STA. 137+00
STA. 143+00
P.E. +31
P.E. +70
P.E. +31
P.E. +29
INL. 38
INL. 38 A
N 0° 07' 00" E
138
139
140
141
142
MHS.
MATCH LINE
OSHKOSH B'GOSH INC.
ESTHER A. HITZ
DOUGLAS J. ZERNZACH
H#2748
I.P.
NET LENGTH OF ℄ = STA. 137+00 TO STA. 143+00 = 600.00'
FINISHED ℄ GRADE
EXISTING ℄ GRADE
-0.93%
+0.41%
200' V.C.
P.T. STA. 137+50 ELEV. 765.29
P.C. STA. 140+50 ELEV. 762.50
P.I. STA. 141+50 ELEV. 761.57
P.I. STA. 142+50 ELEV. 761.98
INL. 38
61.24 F.L.
60.41 T.B.
44'-12" R.C.P. CL. III SL. 0.45%
58.20 DISCH.
INL. 38 A
61.24 F.L.
60.41 T.B.
232'-18" R.C.P. 58.00 FROM INL. 38 CL. III SL. 0.34%
57.60 DISCH.
766
764
762
760
758
756
765.67
765.29
764.83
764.36
763.90
763.43
762.96
762.50
762.12
761.90
761.86
761.98
762.19
137
+50
138
+50
139
+50
140
+50
141
+50
142
+50
143

PROJECT DESIGNATION	SHEET NO.
4994—0—17	5.5
[redacted]	



WALLACE WEGNER
QUARTER CORNER
T 18 N R 16 E 35 36 35 36
GRAVEL
H#2703
EUGENE MILLER
D.K. ELECTRIC INC.
BIT.
N
H#2607
HENRY M. HOFFMAN
H#2573
WILLIAM E. ROEDER
CONC
GRAVEL
STA. 143+00
STA. 149+20
I.P.
P.E. +05
P.E. +22
P.E. +12
P.E. +50
P.E. +24
61.71
61.91
62.27
62.33
62.28
61.73
61.53
61.33
61.25
INL. 39
N 0°07' 00" E
144
MH (W)
145
146 N 0° 10' 40" W
147
148
149
C.B.
M.H. 121
62.51
62.57
P.E. +43
62.37
62.17
M.H. 122
P.E. +11
61.77
61.57
61.37 M.H. 123
M.H. 123-A
M.H. 124-A
P.E. +69
MATCH LINE
DOUGLAS J. ZARNZACH
BIT.
LENNOX CANDLES INC.
H#2710
P.I. STA. 143+90.43
Δ = 0° 17' 40" LT.
NO CURVE
STRUCTURE NO B-70-86
STA. 148 + 88.35
TWIN 10' X 8'6" BOX TYPE BRIDGE REQ'D
SEE DRAWINGS X54263 - 54267
NET LENGTH OF ℄ = STA. 143+00 TO STA. 149+20 = 620.00'
EXISTING ℄ GRADE
FINISHED ℄ GRADE
+0.41%
-0.40%
P.I. STA. 145+00
ELEV. 763.01
200' V.C.
P.C. STA. 144+00
ELEV. 762.60
P.T. STA. 146+00
ELEV. 762.61
62.03 T.C.
M.H. 121 (EXISTING)
M.H. 122
232'-18" R.C.P. CL. III SL. 0.34%
EXISTING 18" CONCRETE PIPE
INL. 56.8 FROM INL. 38 A
INL. 39
60.94 F.L.
60.10 T.B.
44' X 12" R.C.P. CL. III SL. .025 %
54.44 DISCH
M.H. 123 (EXISTING)
60.94 F.L.
M.H. 123-A
M.H. 124-A
FROM INL. 39 54.0
53.66 DISCH
8' X 24" R.C.P. CL. III SL. 1.0%
53.52 DISCH.
53.76 DISCH
10' X 24" R.C.P. CL. III SLOPE 1.4%
10' X 24" R.C.P. CL. III SLOPE 2.6%
764
762
760
758
756
762.19
762.39
762.60
762.75
762.81
762.76
762.61
762.41
762.21
762.01
761.81
761.61
761.41
143
+50
144
+50
145
+50
146
+50
147
+50
148
+50
149
+20

BENCH MARKS

NO.	STA	DESCRIPTION		ELEV.
10	144+06	TOP OF HYD.	27' RT.	766.65

PLAN — NOTE BOOK No. — SURVEYED, PLOTTED, ALIGNMENT CHECKED, RT. OF WAY CHECKED

PROFILE — NOTE BOOK No. — SURVEYED, PLOTTED, GRADES CHECKED, B.M.'s NOTED, STRUCTURE NOTATIONS CHECKED

PROJECT DESIGNATION	SHEET NO.
4994 – 0 – 17	5.6

NOTE: INL # 41 STUBED INTO EXISTING STORM SEWER

N

STA. 149+20

STA. 155+00

MATCH LINE

MATCH LINE

WILLIAM E. ROEDER

PHILLIP J. REHBERGER

RAYMOND C. WACHHOLZ

LORENZ J. KUENZL JR.

WALTER F. STEINERT

LESTER & WILLIAM POLZIN

MARGARET SIEWERT

WAYNE C. WIECHERING

EDWARD L. FREIBERG

ROY BANKERT

H # 2547 H # 2523 H # 2519 H # 2515 H # 2511 H # 2524 H # 2516 H # 183 H # 182

GRAVEL GRAVEL BIT. GRAVEL GRAVEL BIT BIT CONC. BIT

EXISTING R/W

2(1-C) INLET # 40-A

INLET # 40 B 1-C

INL. 40

INL. 41

M.H. 124 M.H. 125 M.H. 126 M.H. 127

C.B. C.B. C.B. C.B.

I.P. I.P.

P.E. +50 P.E. +001 P.E. +12 P.E. +63 P.E. +73 P.E. +12 P.E. +45

60.54 60.60 60.77 60.99 61.21 61.43 61.65 61.87 61.85

60.97 60.82 60.78 60.84 61.23 61.33 61.43

150 151 152 153 154

12"

N 0° 10' 40" W

90° 59' 40"

P.O.T. STA. 153+70.67 C.T.H. "I" = STA. 0+00.00 W. 25TH AVE.

EXISTING C.B. 42 62.09

20' R +32 20' R +08

WEST 25TH AVENUE

S 89° 11' 00" E

Sidewalk removed and replaced because of grade problems

Sidewalk removed and replaced because of grade problems

Sidewalk removed and replaced because of grade problem

CAUTION

BENCH MARKS			
NO.	STA.	DESCRIPTION	ELEV.
11	150+57	TOP OF HYD. 27' LT.	765.07

NET LENGTH OF ℄ = STA. 149+20 TO STA 155+00 = 580'

764 762 760 758 756 754

P.C. STA. 149+50 ELEV. 761.21

200' V.C.

P.T. STA. 151+50 ELEV. 761.25

EXISTING ℄ GRADE

P.I. STA. 155+00 ELEV. 762.79

50' V.C.

-0.40%

+0.44%

M.H. 124 INL. 40 60.42 F.L. 59.58 T.B.

44' X 12" R.C.P. CL. III SL. 02 %

57.14 DISCH.

10' X 24" R.C.P. CL. III SLOPE 10.0 %

M.H. 125 60.42 F.L. 59.58 T.B.

P.I. STA. 150+50 ELEV. 760.81

56.70 FROM INL. 40

56.29 DISCH.

M.H. 126 T.C. 61.11 FINISHED ℄ GRADE

M.H. 127 T.C. 61.91

INL. 41 61.80 F.L. 60.96 T.B.

FROM INL. 41 58.00

12" X 12" R.C.P. CL. III SL. 01 %

58.12 DISCH. 57.82 DISCH.

P.C. STA. 154+75 ELEV. 762.58

761.21 761.06 761.02 761.08 761.25 761.47 761.69 761.91 762.13 762.35 762.57 762.73

149+20 +50 150 +50 151 +50 152 +50 153 +50 154 +50 155

WEST 25TH AVENUE

℄ C.T.H. "I"

FINISHED ℄ GRADE

1.00% 1.50% 1.70%

END CONSTRUCTION STATION 1+50.00

P.I. STA. 0+24.5 ELEV. 761.98

P.I. STA. 0+45.0 ELEV. 761.67

EXISTING ℄ GRADE

761.58 760.73 MATCH

760 750

0 2 3 4 5 6

C.B. 42.

NOTE: INLET ELEVATION OF C.B. TO BE DETERMINED IN THE FIELD BY ENGINEER.

K+E PLATE 1, PLAN PROFILE KRUFFEL & ESSER CO.

PROJECT DESIGNATION	SHEET NO.
4994 – 0 – 17	5.7

PLAN — SURVEYED, PLOTTED, NOTE BOOK, No., ALIGNMENT CHECKED, RT. OF WAY CHECKED, DATE, BY

PROFILE — SURVEYED, PLOTTED, NOTE BOOK, No., GRADES CHECKED, STRUCTURE NOTATIONS CHECKED, DATE, BY

LESTER & WILLIAM POLZIN
TAVERN

REMOVE TANK

MATCH LINE STA. 1+64

S 35° 25' 40" W

CONCRETE SAFETY ISLAND REQUIRED

STA. 157 + 19.89 C.T.H. "I" = STA. 0+00.00 W. 24TH AVE.

STA. 157 + 25.50 C.T.H. "I" = STA. 3+00.00 S.T.H. 26

EXIST. INL. CP (REMOVED)

50' R +52

+585 33

+89 33

20' R +86.48

50' R +88.48

12"

WAUPUN RD

INL. 45

INL. 43

PE+02

STA. 155+00

N 0° 10' 40" W

156

157

158

160

MH. 129

35° 36' 20"

90° 58' 20"

MH. 128

INL. 44

MATCH LINE

EXISTING R/W

20' R +74

S 89° 12' 20" E

16'R

+63

SILAS ANDERSON

BETHANY UNITED CHURCH OF CHRIST

Sidewalk removed and replaced because of grade problem

GAS STATION

MATCH EXISTING WIDTH

W 24 TH AVENUE

END PROJECT NO. 4994 – 0 – 17
STATION 157 + 64.39
END CONSTRUCTION AT EXISTING PAVEMENT JOINT NEAREST STA. 157 + 64.39

NET LENGTH OF ℄ = STA. 155+00 TO STA. 157 + 64.39 = 264.39'

EXISTING CONCRETE PAVEMENT

BEGIN CONSTRUCTION
STATION 0 + 50.00
BEGIN CONSTRUCTION AT EXISTING PAVEMENT JOINT NEAREST STA. 0+50.00

MATCH LINE STA. 1+64

14'

20'(TYP)

℄ WAUPUN RD

PROPOSED CONCRETE PAVEMENT

P.E.

OshKosh TRUCK

CONC. CURB & Gutter
TYPE 'D'

BENCH MARKS			
NO.	STA.	DESCRIPTION	ELEV.
12		TOP OF HYDRANT	763.62

PI. STA. 155+00
ELEV. 762.79

50' V.C.

PI. STA. 155+25
ELEV. 762.67

-0.47%

M.H. 128 T.C. 61.72

M.H. 129 T.C. 61.24

57.88 DISCH. & INL. ELEV. FROM INL. 43 & 44

INL. 43
F.L. 61.03
T.B. 60.19
64' X 12" R.C.P. CL. III SL. 0.3%
58.07 DISCH.

INL. 44
F.L. 61.40
T.B. 60.56
8' X 12" R.C.P. CL. III SL. 28%
57.93 DISCH.

INL. 45
F.L. 61.05
T.B. 60.21
44' X 12" R.C.P. CL. III

NOTE: DISCHARGE ELEVATION OF INLET 45 TO BE DETERMINED IN THE FIELD BY ENGINEER.

762.73 762.55 762.32 762.09 761.85

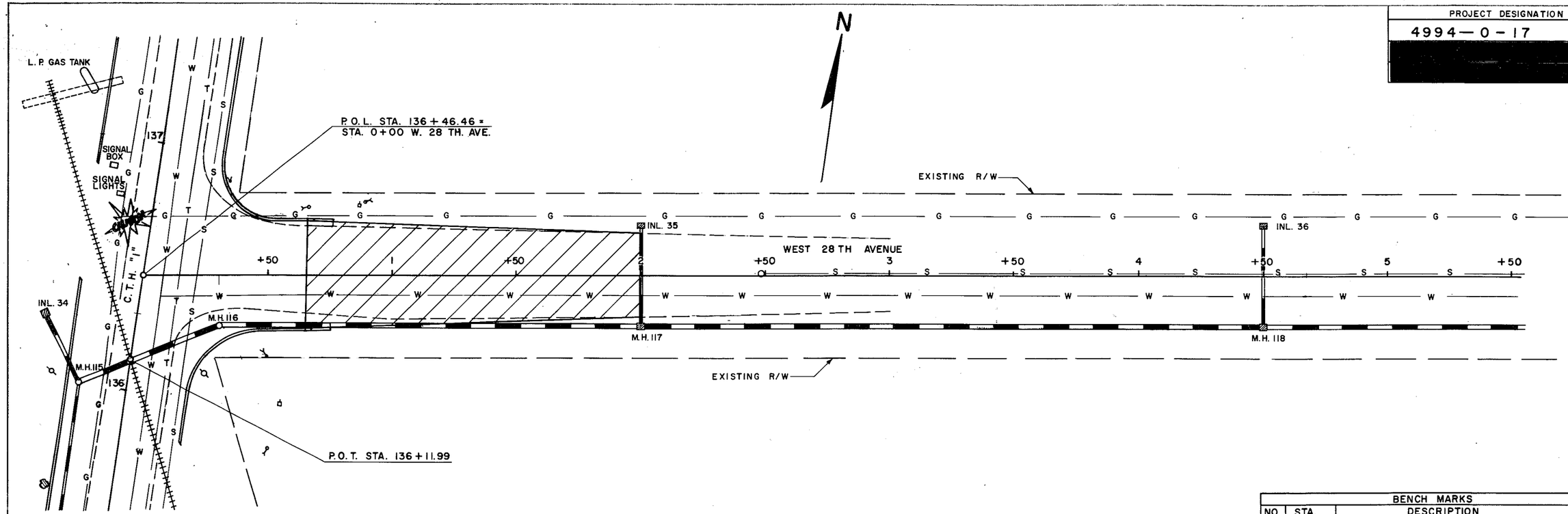
764 762 760

155 +50 156 +50 157 +50 158 +50 159 +50 160

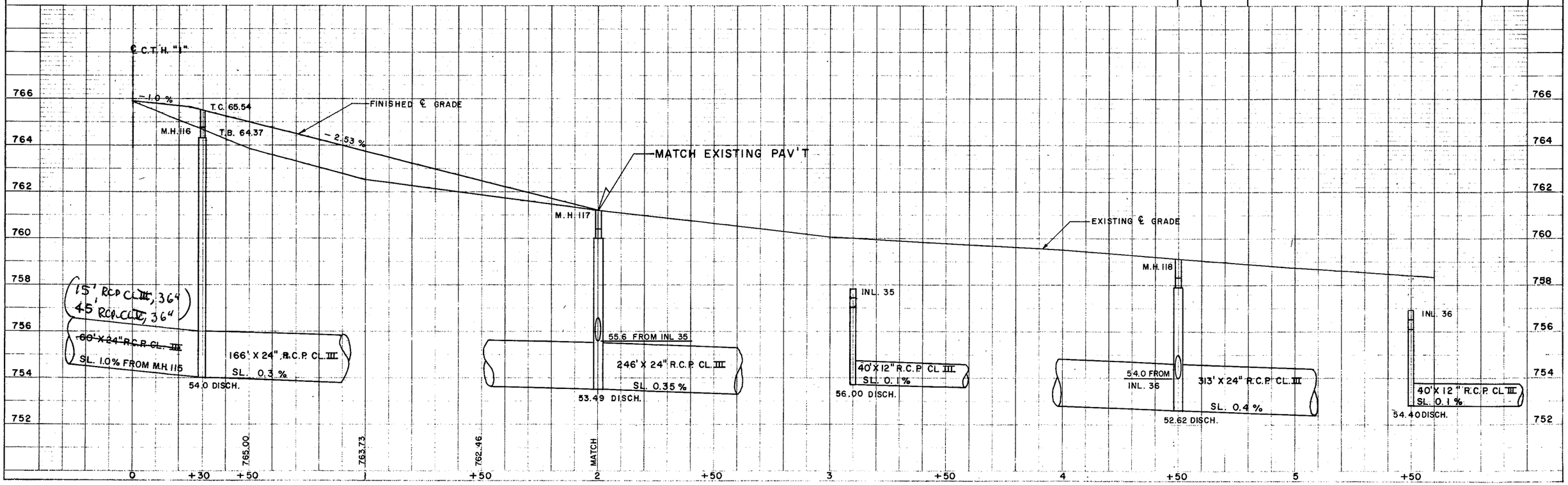
WAUPUN ROAD
BEGIN CONSTRUCTION
STA. 0+50.00
PI. STA. 2+47.6
ELEV. 761.71
-1.40%
-0.58% VAR.
PI. STA. 1+64.0
ELEV. 762.9
℄ C.T.H. "I"
770 760 764 762 760
MATCH 763.09 762.38 761.98 761.71
0 1 2 3

℄ C.T.H. "I" WEST 24TH AVENUE
PI. STA. 0+50.0
ELEV. 761.26
-1.00%
END CONSTRUCTION
STA. 1+00.00
MATCH EXISTING GRADE
770 760 750
760.94 760.11 MATCH
0 1 2 3 4 5 6

PROJECT DESIGNATION	SHEET NO.
4994 — 0 — 17	5.8
[redacted]	



BENCH MARKS			
NO.	STA.	DESCRIPTION	ELEV.
9	134+55	WORD "OPEN" ON HYD. 25' RT.	766.81



NOTE BOOK | ALIGNMENT CHECKED | EL. OF MAT CHECKED | No. | STRUCTURE NOTATIONS CHECKED

PROJECT DESIGNATION	SHEET NO.
4994-0-17	5.9

N

EXISTING R/W

INL. 37

W. 28 TH. AVENUE

+50 S 6 S S +50 S 7 S S +50 S 8 S S +50 S 9 S S +50 S 10 S +50

G G G G G G G G G G G G G G G G

W W W W W W W W W W W W W W W W

ST ST ST ST ST ST ST ST ST ST

M.H. 119

EXISTING R/W

END CONSTRUCTION
STA. 7+90

BRADLEY ST.

PLAN
SURVEYED
PLOTTED
NOTE BOOK
No.
ALIGNMENT CHECKED
R.W. OR WAY CHECKED
BY
DATE

PROFILE
SURVEYED
PLOTTED
NOTE BOOK
No.
GRADES CHECKED
R. W.'s NOTED
STRUCTURE LOCATIONS CHECKED
BY
DATE

762
760
758
756
754
752
750

EXISTING ℄ GRADE

M.H. 119

EXISTING 24" STORM SEWER
SL. 1.58 %

51.35 DISCH.

℄ BRADLEY ST.

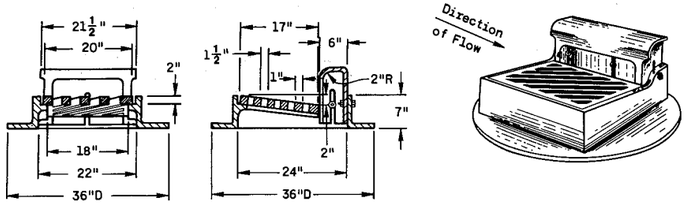
INL. 37

35' X 12" R.C.P. CL. III
SL. 0.5 %

51.53 DISCH.

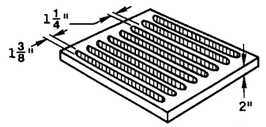
+50 6 +50 7 +50 8 +50 9 +50 10 +50

K+E PLATE 1. PLAN-PROFILE
KEUFFEL & ESSER CO.

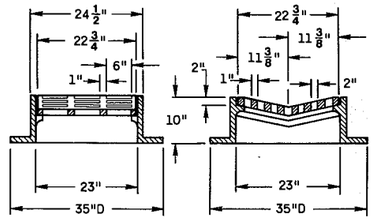


TYPE "A"

(Approximate Weight 405 lbs.)
Frame Weight 250 lbs.
Grate Weight 85 lbs.
Box Weight 70 lbs.

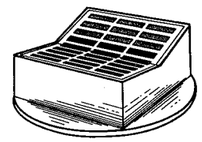


ALTERNATE TYPE GRATE *
(Longitudinal Slots)
Approximate Weight 100 lbs.

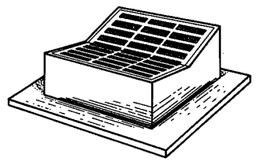


TYPE "B"

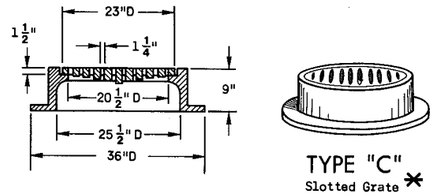
(Approximate Weight 395 lbs.)
Frame Weight 285 lbs.
Grate Weight 110 lbs.



Round Frame



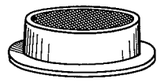
Alternate Frame
(Square type)
35" Square



TYPE "C" - TYPE "J"

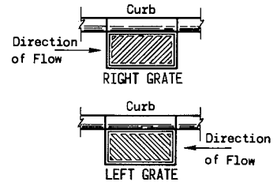
Frame Weight 250 lbs.
Slotted Grate Weight 125 lbs.
Solid Cover Weight 150 lbs.

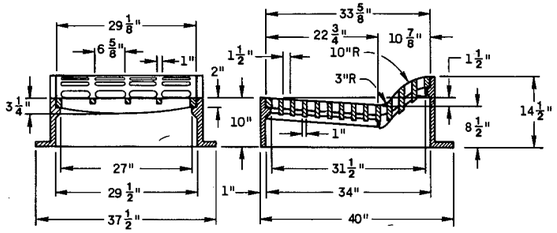
TYPE "C"
Slotted Grate *

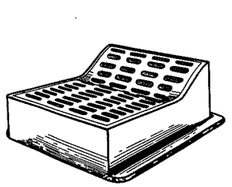


TYPE "J"
Solid Cover

Diagonal Slots shall be oriented to the direction of flow as shown hereon. Hence RIGHT and LEFT Grates shall be furnished depending on direction of flow. (See Sketch Below)

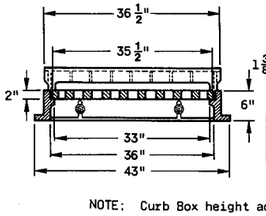






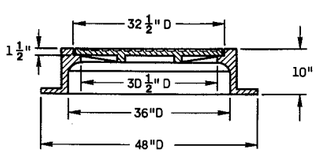
TYPE "F"

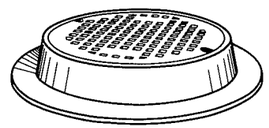
(Approximate Weight 850 lbs.)
Frame 515 lbs.
Back grate 160 lbs.
Front grate 175 lbs.



NOTE: Curb Box height adjustable 6" to 9"

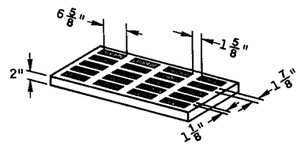
* CAUTION: DO NOT USE GRATES WITH LONGITUDINAL SLOTS WHERE BICYCLE TRAFFIC IS PERMITTED.



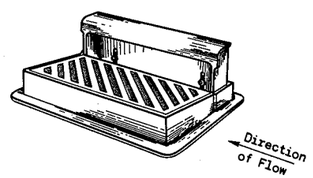


TYPE "K"

(Approximate Weight 785 lbs.)

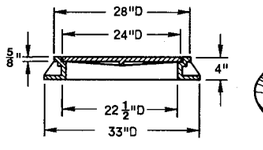


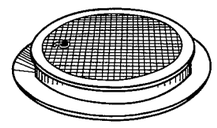
ALTERNATE TYPE GRATE
(Longitudinal Slots)
Approximate Weight 200 lbs.



TYPE "H"

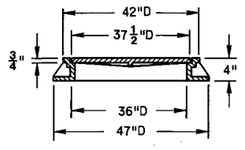
(Approximate Weight 510 lbs.)
Frame Weight 220 lbs.
Grate Weight 175 lbs.
Box Weight 115 lbs.

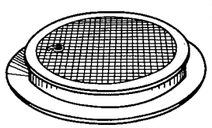




TYPE "L"

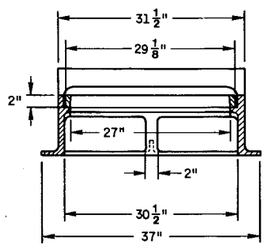
(Approximate Weight 220 lbs.)

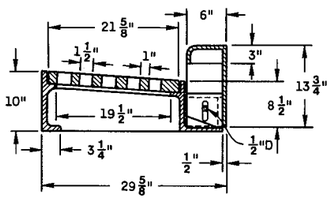




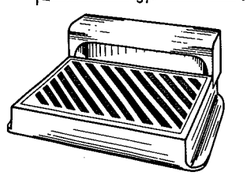
TYPE "M"

(Approximate Weight 535 lbs.)



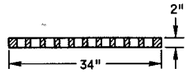


NOTE: Curb Box height adjustable 6" to 9"

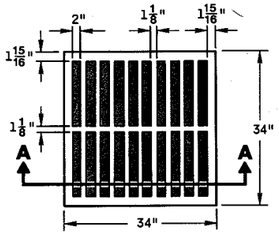


TYPE "WM"

(Approximate Weight 670 lbs.)
Frame Weight 350 lbs.
Grate Weight 185 lbs.
Box Weight 135 lbs.



SECTION A-A



TYPE "MS" *

(Approximate Grate Weight 285 lbs.)

GENERAL NOTES

Details of construction, materials and workmanship not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

Detail drawings for proposed alternate designs for Catch Basin, Manhole and Inlet Covers shall be submitted to the Engineer for approval providing that such alternate designs make provision for equivalent capacity and strength.

All Catch Basin, Manhole and Inlet Covers which are placed in vehicular traffic areas shall be "Non-Rocking" type.

Adjustment of the cover to grade may be accomplished by the use of mortar and brick, or by Precast Concrete Grade Rings (AASHTO Designation M-199). Maximum adjustment shall be 8 inches.

Curb box height to be adjusted 4 to 9 inches, unless otherwise noted, after the form is in place.

The actual weight of covers may vary within 5 percent, plus or minus, of the approximate weight.

CATCH BASIN MANHOLE AND INLET COVERS

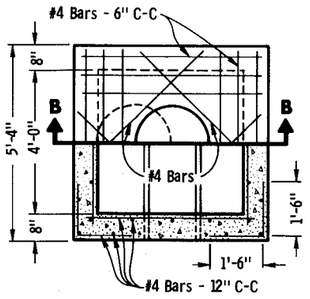
State of Wisconsin
Department of Transportation
Division of Highways

RECOMMENDED FOR APPROVAL:
12-3-75 DATE — CHIEF of FACILITIES DEVELOPMENT

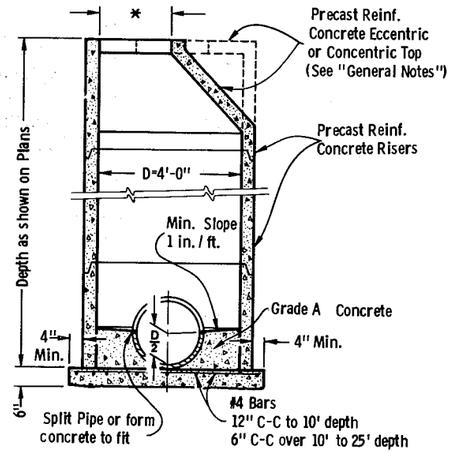
APPROVED
12-9-75 DATE — STATE HIGHWAY ENGINEER

S.D.D. 8A5-2

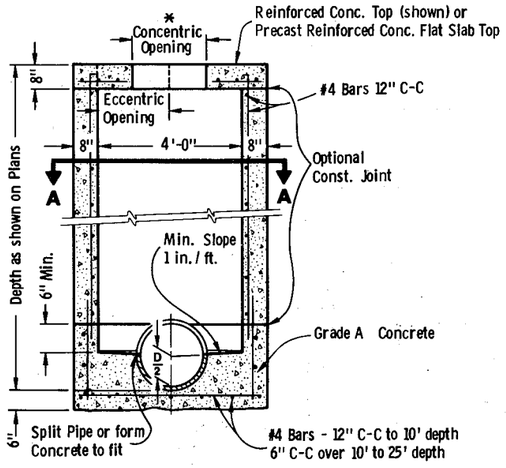
S.D.D. 8A5-2



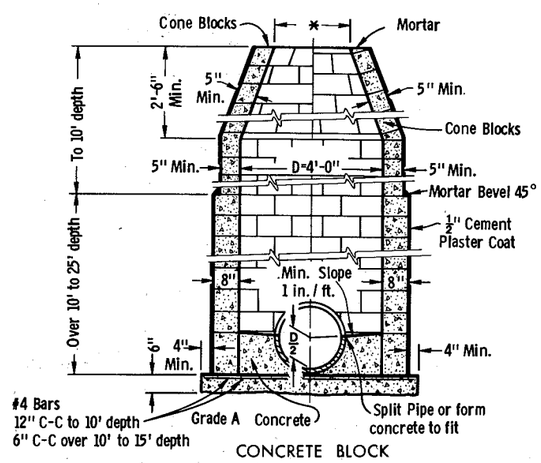
HALF SECTION A-A



PRECAST REINFORCED CONCRETE



SECTION B-B
REINFORCED CONCRETE



CONCRETE BLOCK

GENERAL NOTES

Details of construction, materials and workmanship not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

Detailed drawings for proposed alternate designs for underground drainage structures shall be submitted to the Engineer for approval providing that such alternate designs make provision for equivalent capacity and strength.

All drainage structures are designated on the plans as "Manholes 1 - C", "Catch Basins 1 - B", "Inlets 1 - H", etc. The first digit designates the masonry portion of the structure, and the following letter designates the type of cover to be used to comprise the complete unit.

Precast Reinforced Bases shall be placed on a bed of material at least 6 inches in depth, which meets the requirements for Granular Backfill. This bedding shall be compacted and provide uniform support for the entire area of the base.

Precast Reinforced Concrete Cone Tops (Eccentric or Concentric) may be used on concrete block structures. The Cone Tops shall be installed on a bed of mortar.

Eccentric Cone Tops may be used on all structures, and Concentric Cone Tops shall be used only on structures 5 feet or less in depth, unless otherwise directed by the Engineer.

Steps meeting the following requirements shall be installed in all structures over 5 feet in depth: 16 inch C-C maximum spacing; project a minimum clear distance of 4 inches from the wall at the point of embedment; minimum length of 10 inches; minimum wall embedment of 3 inches; and be capable of supporting a concentrated load of 300 lbs. Ferrous metal steps not painted or treated to resist corrosion shall have a minimum cross sectional dimension of 1 inch.

Solid Aluminum steps shall have a minimum cross sectional dimension of 0.75 inch. Aluminum surfaces to be embedded in concrete shall be given one coat of suitable quality paint, such as zinc chromate primer conforming to federal specification TT-P-645 or equivalent. Steps of approved Polypropylene plastic coated reinforcement bar will be acceptable.

All bar steel reinforcement shall be embedded 2 inches clear unless otherwise shown or noted.

Precast Reinforced Concrete Risers may be placed with tongue up or down.

* Use 2'-0" diameter opening with type "C", "L" and "J" covers, or 3'-0" diameter with type "K" and "M" covers.

MANHOLES TYPE 1

MANHOLES TYPE 1

State of Wisconsin
Department of Transportation
Division of Highways

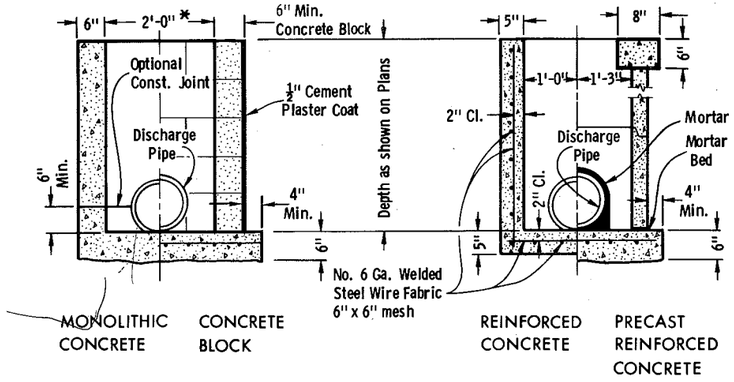
RECOMMENDED FOR APPROVAL:
12-3-75 DATE — CHIEF of FACILITIES DEVELOPMENT

APPROVED
12-9-75 DATE — STATE HIGHWAY ENGINEER

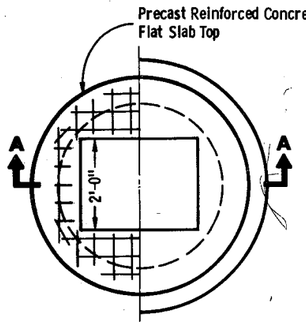
S.D.D. 8 B6-2

S.D.D. 8 B6-2

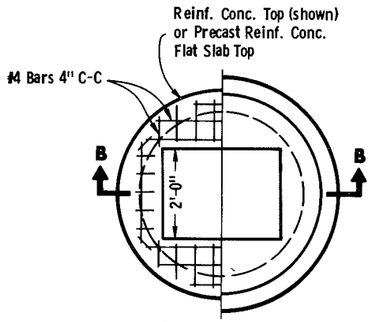
* Selection of Square or Circular Design will be based on the pipe sizes and the Inlet Cover being utilized.



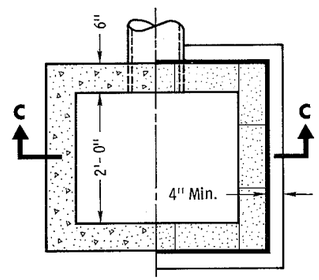
INLETS TYPE 1



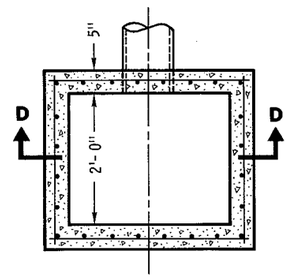
PLAN VIEW



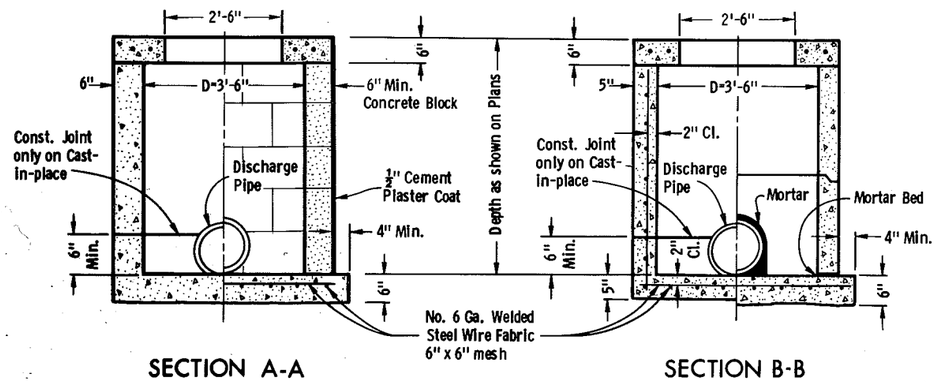
PLAN VIEW



PLAN VIEW



PLAN VIEW

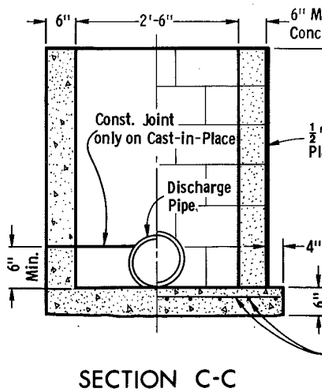


SECTION A-A

MONOLITHIC CONCRETE | CONCRETE BLOCK

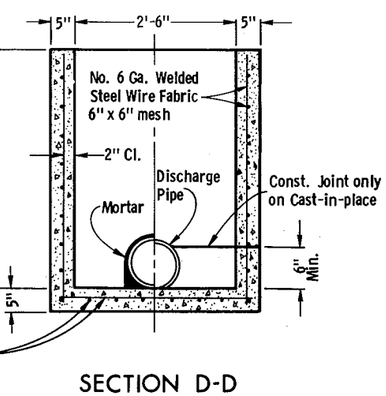
SECTION B-B

REINFORCED CONCRETE | PRECAST REINFORCED CONCRETE



SECTION C-C

MONOLITHIC CONCRETE | CONCRETE BLOCK



SECTION D-D

PRECAST REINFORCED CONCRETE | REINFORCED CONCRETE

INLETS TYPE 2

GENERAL NOTES

Details of construction, materials and workmanship not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

Detailed drawings for proposed alternate designs for underground drainage structures shall be submitted to the Engineer for approval providing that such alternate designs make provision for equivalent capacity and strength.

Square Precast Inlet units shall conform to the pertinent requirements of AASHTO Designation M 199.

All drainage structures are designated on the plans as "Manholes 1 - C", "Catch Basins 1 - B", "Inlets 1 - H", etc. The first digit designates the masonry portion of the structure, and the following letter designates the type of cover to be used to comprise the complete unit.

Precast Reinforced Bases shall be placed on a bed of material at least 6 inches in depth, which meets the requirements for Granular Backfill. This bedding shall be compacted and provide uniform support for the entire area of the base.

Precast Reinforced Concrete Flat Slab Tops may be used on the structures. The Tops shall be installed on a bed of mortar.

All bar steel reinforced reinforcement shall be embedded 2 inches clear unless otherwise shown or noted.

Precast Reinforced Concrete Risers may be placed with tongue up or down.

INLETS TYPE 1 & 2

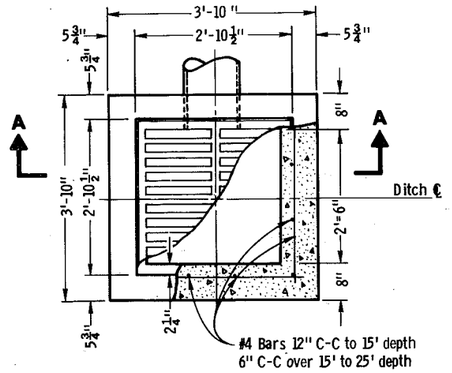
State of Wisconsin
Department of Transportation
Division of Highways

RECOMMENDED FOR APPROVAL:
10-16-75 DATE — CHIEF of FACILITIES DEVELOPMENT

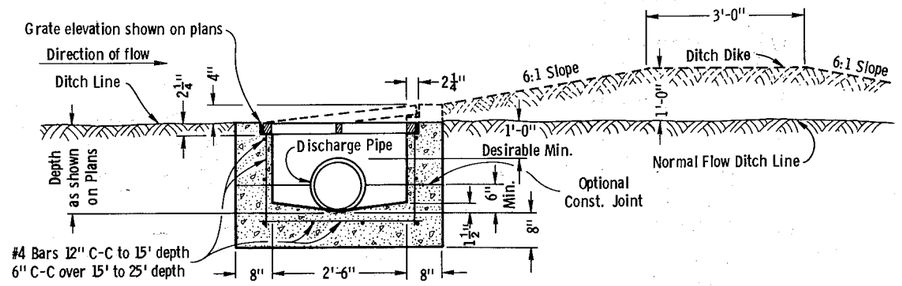
APPROVED
10-16-75 DATE — STATE HIGHWAY ENGINEER

S.D.D. 8C1-3

S.D.D. 8C1-3



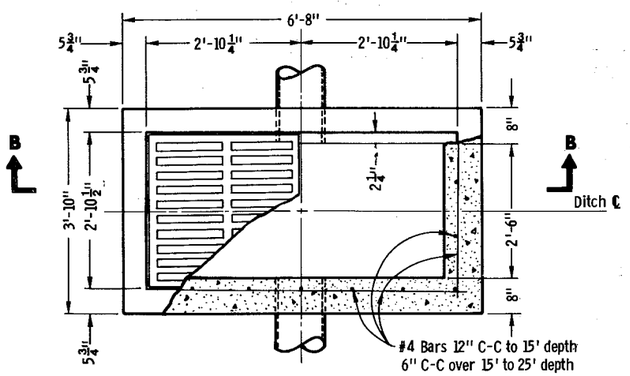
PLAN VIEW



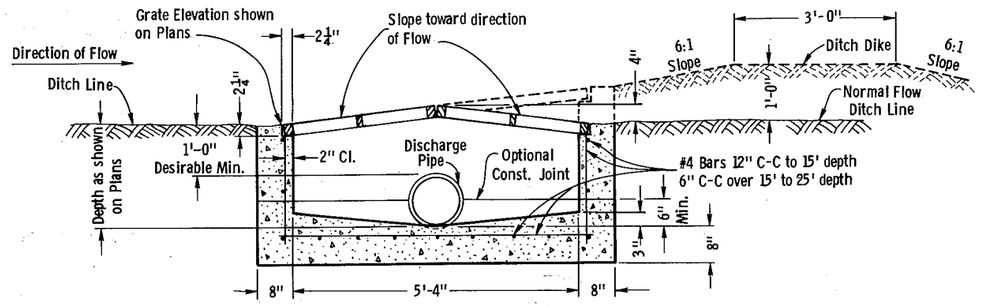
SECTION A-A

INLET TYPE 8

REINFORCED CONCRETE



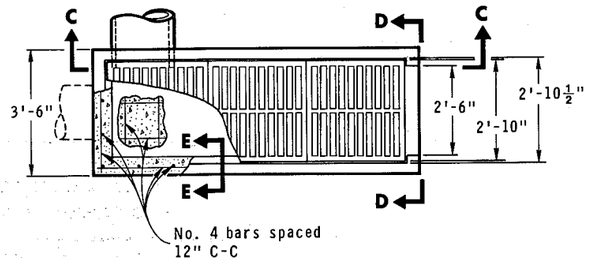
PLAN VIEW



SECTION B-B

INLET TYPE 9

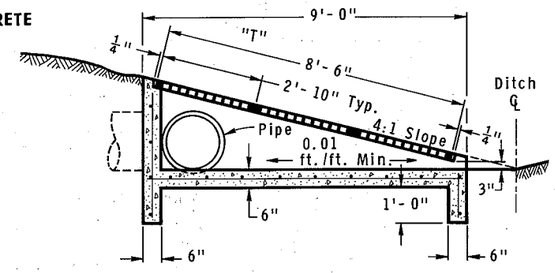
REINFORCED CONCRETE



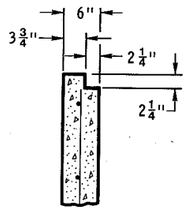
PLAN VIEW

INLET TYPE 10

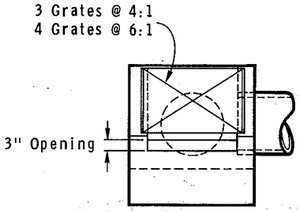
REINFORCED CONCRETE



SECTION C-C



SECTION E-E



VIEW D-D

GENERAL NOTES

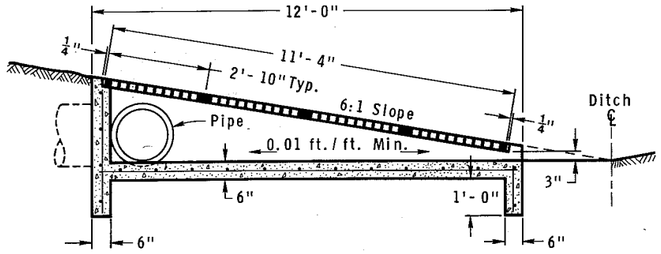
Details of construction, materials and workmanship not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

Detailed drawings for proposed alternate designs for Inlets which may include precast reinforced concrete inlets, shall be submitted to the Engineer for approval providing that such alternate designs make provision for equivalent capacity and strength.

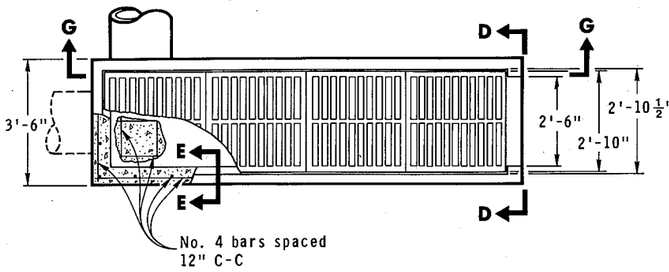
Precast reinforced concrete inlet units, if used, shall conform to the requirements of the Catch Basins, Manholes and Inlets Section of the Standard Specification's.

All Inlets are designated on the Plans as "Inlets, 8-MS", etc. This designation is interpreted to mean that the number, or first digit designates the masonry portion of the structure and the following letter designates the type of cover or iron casting to be used therewith to comprise the complete unit.

All bar steel reinforcement shall be embedded 2 inches clear unless otherwise shown or noted.



SECTION G-G



PLAN VIEW

INLET TYPE 11

REINFORCED CONCRETE

INLETS TYPE 8, 9, 10 and 11

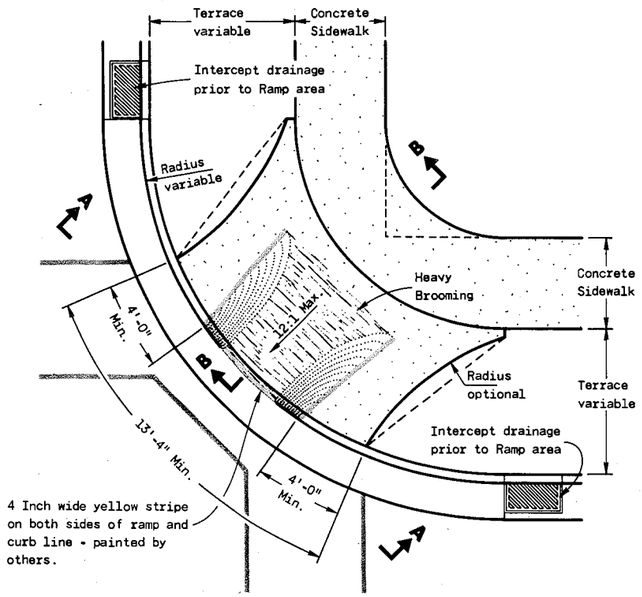
State of Wisconsin
Department of Transportation
Division of Highways

RECOMMENDED FOR APPROVAL:
4-30-74 DATE — CHIEF of FACILITIES DEVELOPMENT

APPROVED
5-02-74 DATE — STATE HIGHWAY ENGINEER

S.D.D. 8C5-1

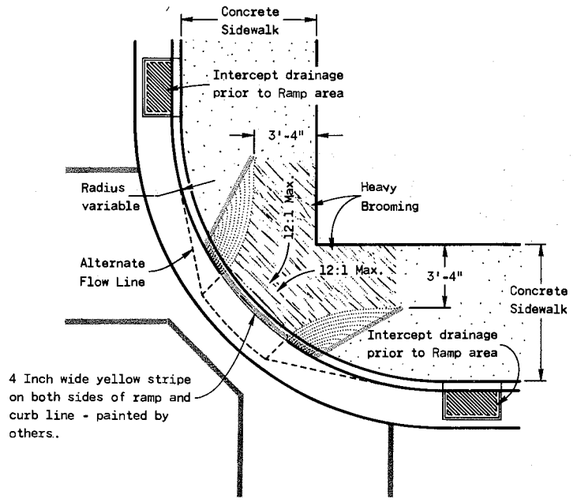
S.D.D. 8C5-1



PLAN VIEW

TYPE 1 RAMP

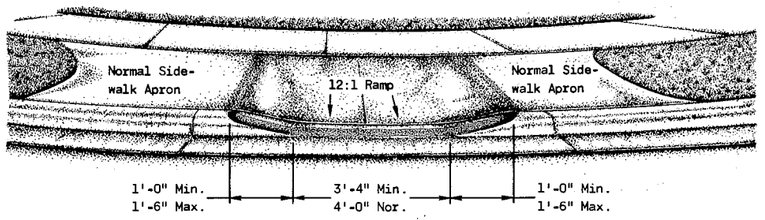
(CENTER OF CORNER RADIUS)



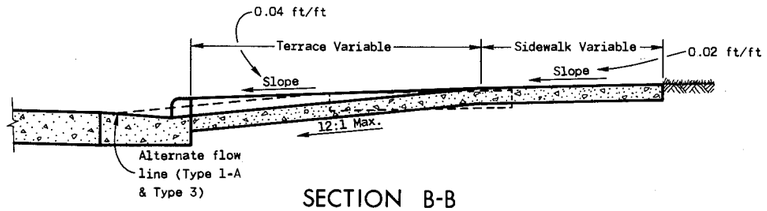
PLAN VIEW

TYPE 1-A RAMP

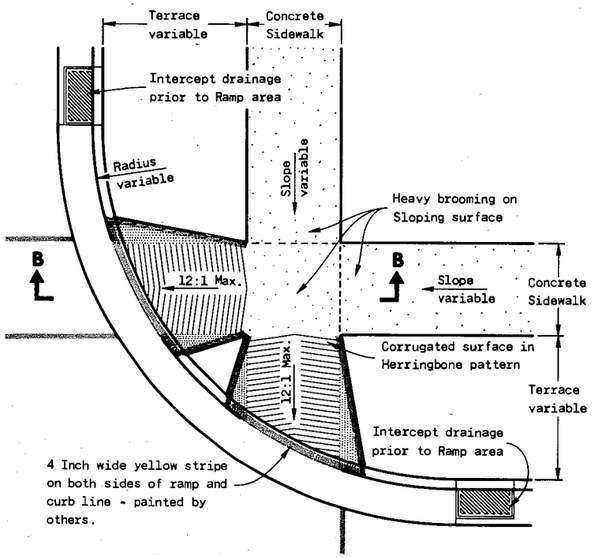
(NO TERRACE)



VIEW A-A



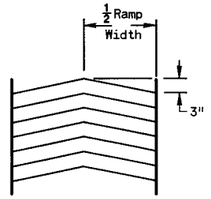
SECTION B-B



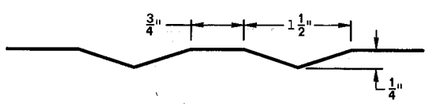
PLAN VIEW

TYPE 2 RAMP

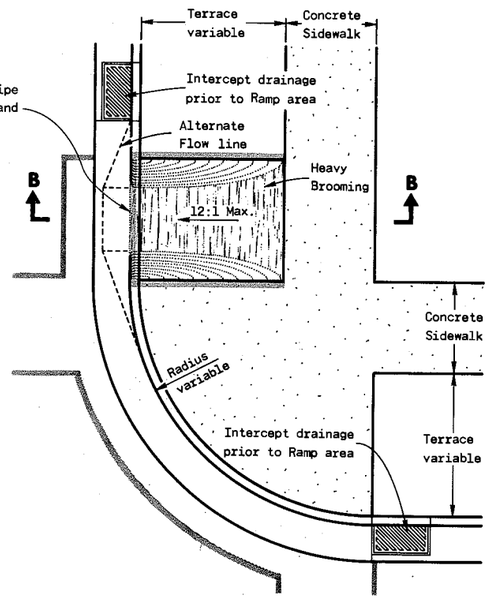
(ON LINE WITH SIDEWALK)



DETAIL OF HERRINGBONE PATTERN



DETAIL OF SURFACE CORRUGATION



PLAN VIEW

TYPE 3 RAMP

(OUTSIDE OF CROSSWALK AREA)

GENERAL NOTES

Details of construction, materials and workmanship not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

Ramps shall be built at 12:1 or flatter. When necessary, the Sidewalk elevation may be lowered to meet the high point on the Ramp.

Type 1 or Type 1-A Ramps shall have a normal Sidewalk apron and Curb on both sides of Ramp. Entire Curb radius shall not be made into Ramp.

Curb Ramps shall be measured and paid for as Concrete Sidewalk and Concrete Curb and Gutter.

Section 66.616, Wisconsin Statutes requires Curb Ramping for handicapped persons. This law also states that "the Ramp shall be either bordered on both sides and the Curb line with a four inch wide yellow stripe, or the surface treatment on the Ramp shall have integral coloration".

The paint stripe alternate is shown to alert users of this drawing of the requirement for delineation of the Ramp. The paint stripes will be applied by state or municipal signing crews unless otherwise indicated by Special Provision.

CURB RAMPS FOR HANDICAPPED PERSONS

State of Wisconsin
Department of Transportation
Division of Highways

RECOMMENDED FOR APPROVAL:

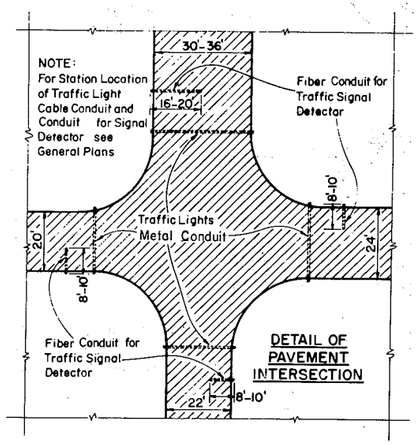
12-16-75 DATE — CHIEF of FACILITIES DEVELOPMENT

APPROVED

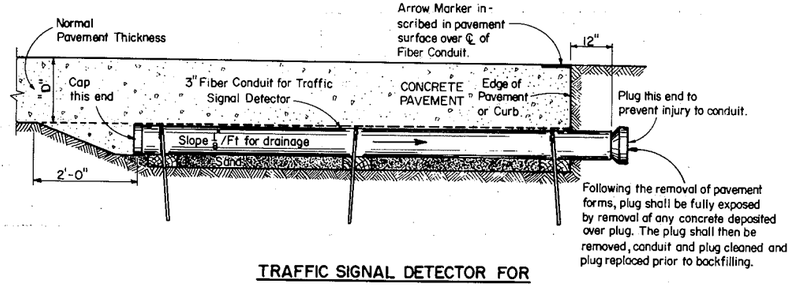
12-18-75 DATE — STATE HIGHWAY ENGINEER

S.D.D. 8D5-2

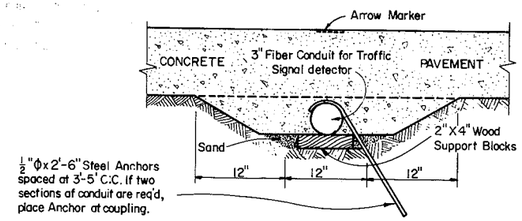
S.D.D. 8D5-2



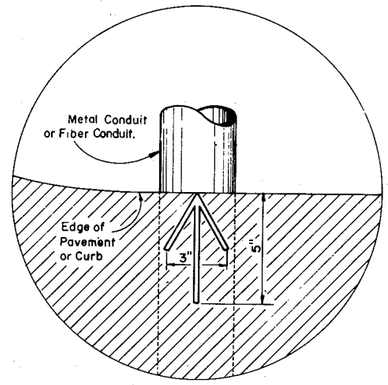
PLAN VIEW
SHOWING RELATIVE POSITION OF
TRAFFIC LIGHT CONDUITS AND
TRAFFIC SIGNAL DETECTOR CONDUITS
AT UNDIVIDED HIGHWAY INTERSECTIONS



TRAFFIC SIGNAL DETECTOR FOR
UNDIVIDED HIGHWAYS

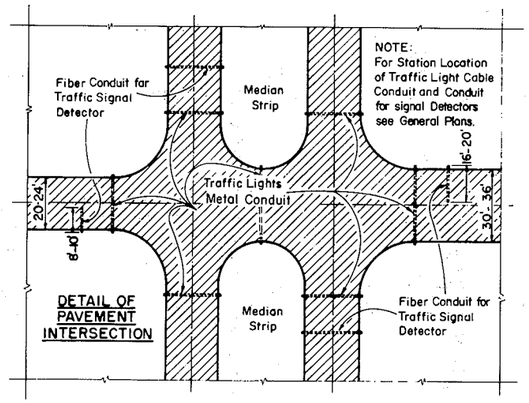


SIDE & END ELEVATIONS
SHOWING PLACEMENT DETAILS
FOR TRAFFIC SIGNAL DETECTOR CONDUIT

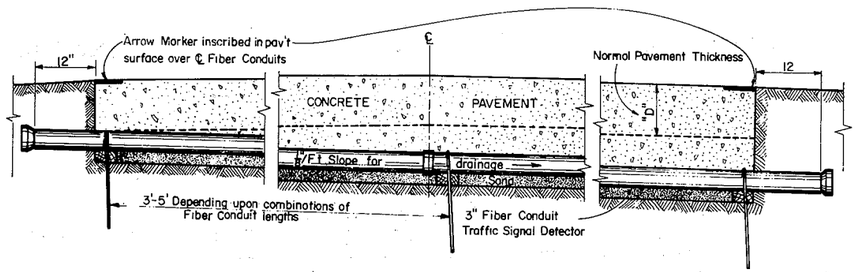


Arrow Marker to be inscribed in fresh concrete ond/or bituminous surfacing 1/4" to 3/8" deep at each location where pipe conduit or fiber cond. are placed under rigid surfacing.

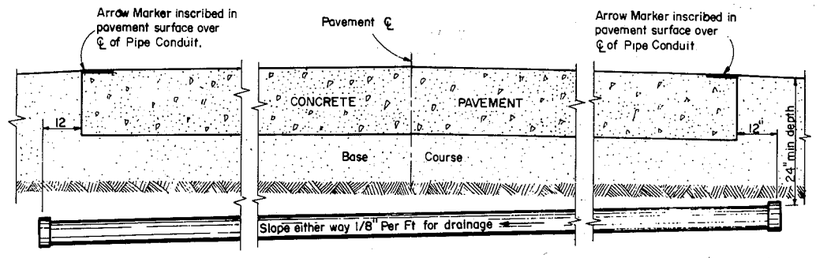
PLAN VIEW - ARROW MARKER



PLAN VIEW
SHOWING RELATIVE POSITION OF
TRAFFIC LIGHT CONDUITS AND
TRAFFIC SIGNAL DETECTOR CONDUITS
AT DIVIDED HIGHWAY INTERSECTIONS



TRAFFIC SIGNAL DETECTOR FOR
DIVIDED HIGHWAYS



ELEVATION ON CENTERLINE
SHOWING PLACEMENT DETAILS
FOR TRAFFIC SIGNAL CONDUIT

GENERAL NOTES

Details of Construction not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications, and the applicable Special Provisions.

MATERIALS

Metal Conduit shall be furnished and placed as shown hereon and in accord with the Standard Specifications.

Fiber Conduit shall be furnished and placed as shown hereon and in accord with the Standard Specifications.

MEASUREMENT & PAYMENT

The item of Fiber Conduit shall be measured and paid for by the linear foot complete in place and in accord with Standard Specifications

CONDUIT SIZE

Unless shown or required otherwise on the plans, Metal Conduit shall be 2" I.D.

METAL CONDUIT & FIBER CONDUIT

STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL:

4-3-63
DATE

J. S. Pelt
ENGINEER OF DESIGN

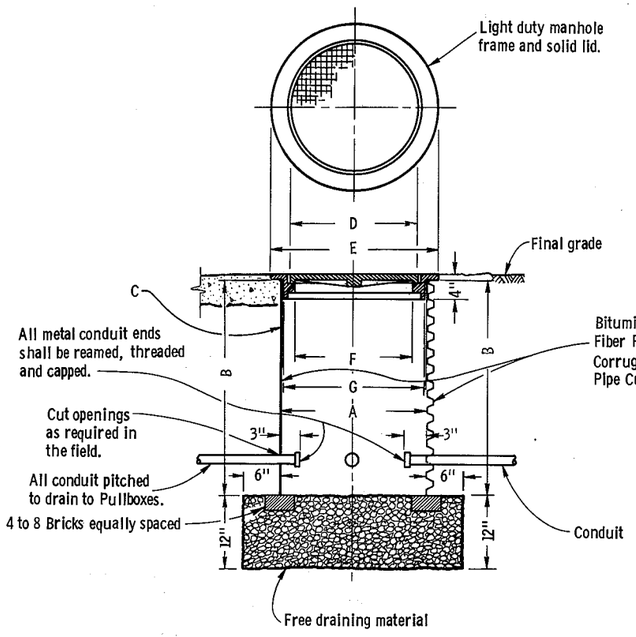
APPROVED:

4/5/63
DATE

E. G. Rostigen
STATE HIGHWAY ENGINEER

S.D.D. 9B2-1

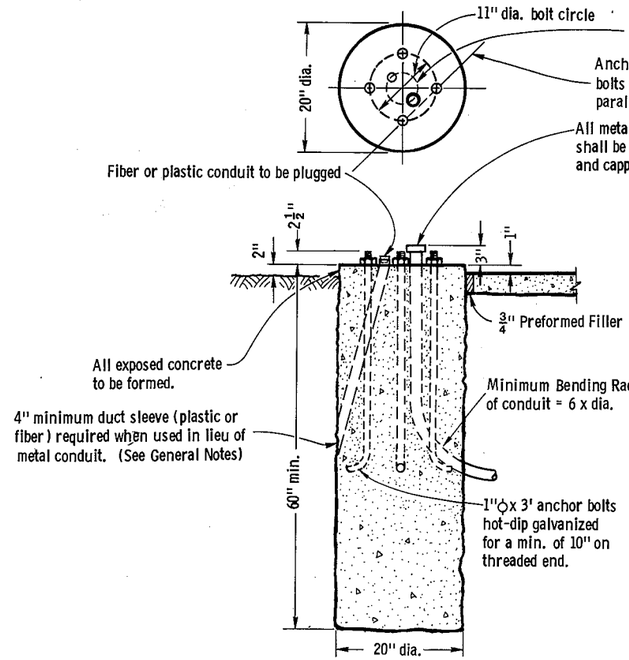
S.D.D. 9B2-1



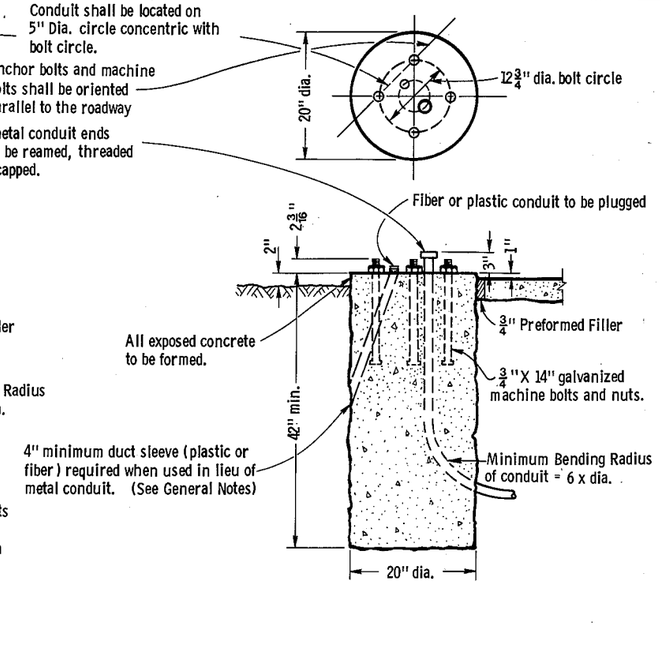
SHOWING INSTALLATION IN PAVED LOCATION

SHOWING INSTALLATION IN UNPAVED LOCATION

PIPE TYPE		BITUMINOUS FIBER				CORR. METAL
Pipe Dia. (Inside)	A	12"	18"	24"	24"	24"
Pipe Length	B	24"	24"	24"	36"	36"
Wall Thickness	C	0.4"	0.4"	0.4"	0.4"	.064"
Manhole Lid	D	$10\frac{1}{4}$"	$16\frac{1}{4}$"	$22\frac{1}{4}$"	$22\frac{1}{4}$"	$22\frac{1}{4}$"
Manhole Frame	E	$14\frac{1}{2}$"	$20\frac{1}{2}$"	$26\frac{1}{2}$"	$26\frac{1}{2}$"	$26\frac{1}{2}$"
Manhole Frame	F	$8\frac{1}{2}$"	$14\frac{1}{2}$"	$20\frac{1}{2}$"	$20\frac{1}{2}$"	$20\frac{1}{2}$"
Manhole Frame	G	$11\frac{1}{2}$"	$17\frac{1}{2}$"	$23\frac{1}{2}$"	$23\frac{1}{2}$"	$23\frac{1}{2}$"
Lid & Frame	--	55#	100#	160#	160#	160#

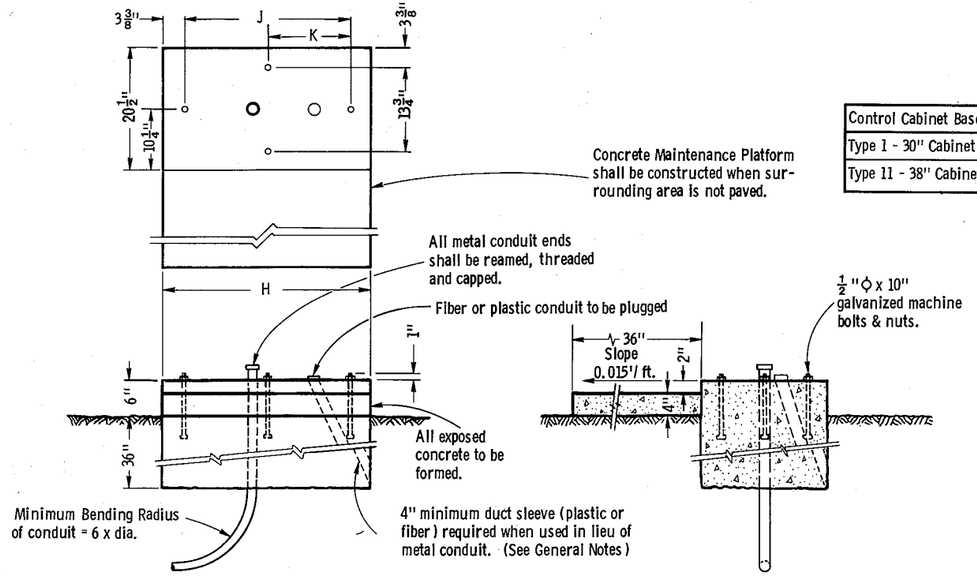


SHOWING INSTALLATION IN UNPAVED LOCATION



SHOWING INSTALLATION IN PAVED LOCATION

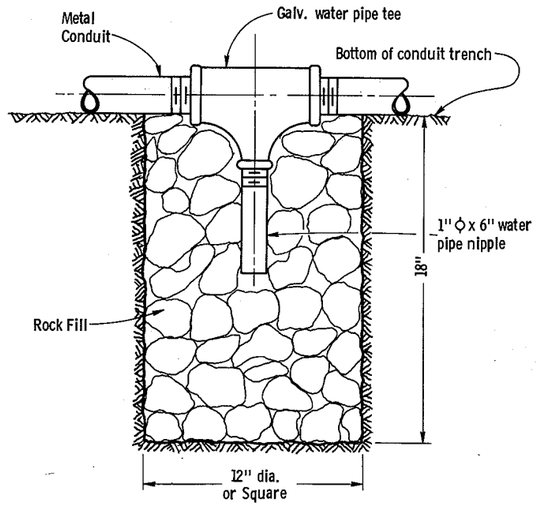
PULL BOX AND DETECTOR BOX DETAIL



Control Cabinet Base	H	J	K
Type 1 - 30" Cabinet	34"	$27\frac{1}{4}$"	$13\frac{5}{8}$"
Type 11 - 38" Cabinet	42"	$35\frac{1}{4}$"	$17\frac{5}{8}$"

TRAFFIC SIGNAL AND TRAFFIC COUNTER CONTROL CABINET BASE
TYPE 1 and 2

TRAFFIC SIGNAL BASE
TYPE 2



Note: Install as required at points in conduit for drainage.

DRAIN SUMP FOR METAL CONDUIT

TRAFFIC SIGNAL BASE
TYPE 1

GENERAL NOTES

Details of construction, materials and workmanship not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

Conduit may be metal, fiber or plastic. Locate as required. 12-inch min. bending radius applies to metal conduit only.

Concrete masonry shall be grade "AA".

Conduit installed as a continuous system between Pullboxes shall have a min. depth of 12 inches and shall always be below the pavement.

Detailed drawings for proposed alternate designs for "Traffic Signal and Traffic Counter Details" shall be submitted to the Engineer for approval.

TRAFFIC SIGNAL AND TRAFFIC COUNTER DETAILS

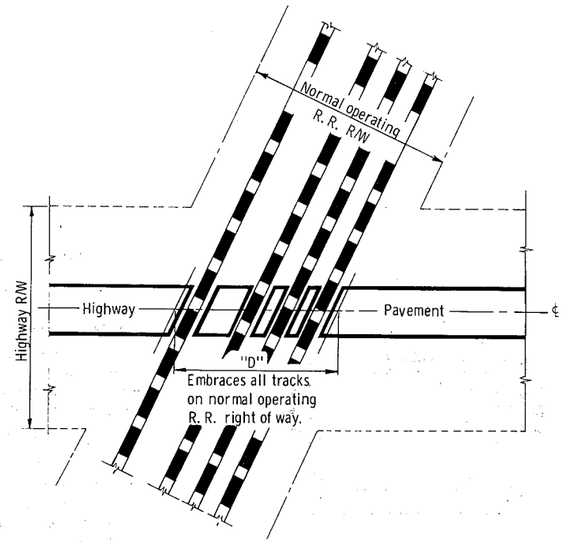
State of Wisconsin
Department of Transportation
Division of Highways

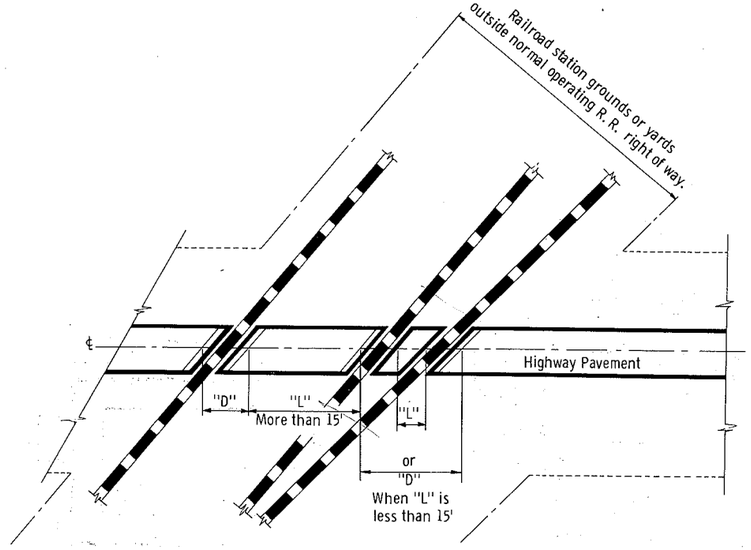
RECOMMENDED FOR APPROVAL:
4-13-72 DATE — CHIEF DESIGN ENGINEER

APPROVED
4-13-72 DATE — STATE HIGHWAY ENGINEER

S.D.D. 9B3-2

S.D.D. 9B3-2



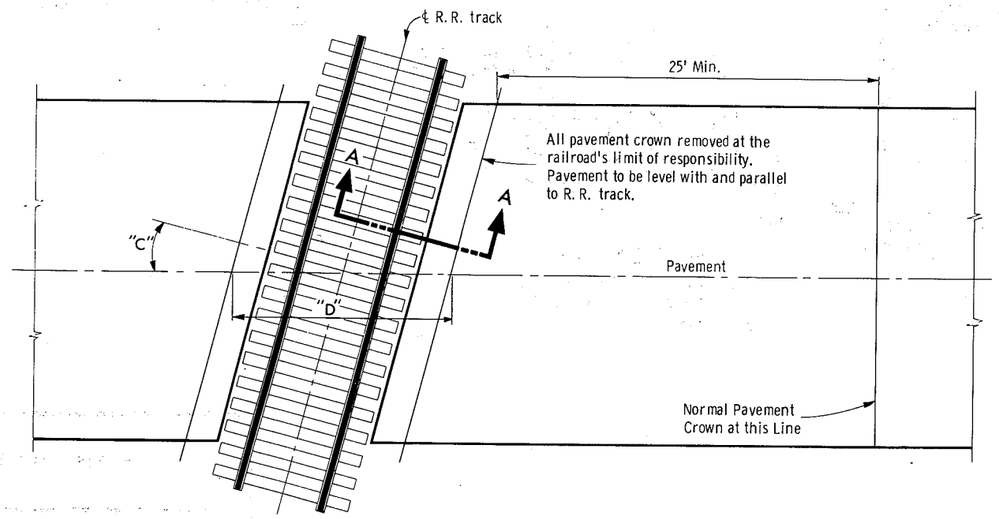


TYPICAL TYPES OF RAILROAD GRADE CROSSINGS SHOWING THE RAILROAD'S LIMIT OF RESPONSIBILITY AND MEASUREMENT DETAILS

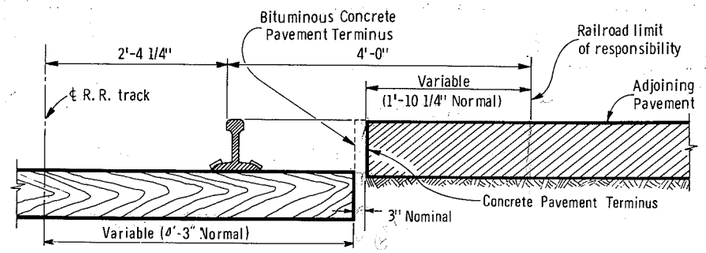
GENERAL NOTES

Details of construction, materials, and workmanship not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

"D" = Exception to net length of ℄. Paving or surfacing and shoulder material within limits designated by "D" to be at expense of railroad company. Trackage to industrial sites to be treated same as for trackage to R. R. station grounds or yards outside of normal operating R/W.



NOTE: $D = \frac{12.71}{\text{Cos. "C"}}$



SECTION "A-A"

RAILROAD APPROACH CONSTRUCTION DETAILS

PAVEMENT DETAILS FOR RAILROAD APPROACH

State of Wisconsin
Department of Transportation
Division of Highways

RECOMMENDED FOR APPROVAL:

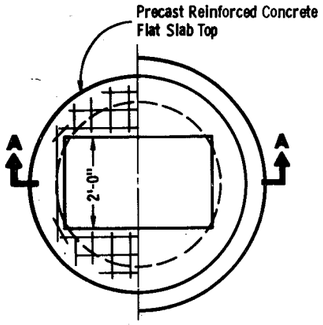
3/3/69 DATE — E. J. Ruckert, CHIEF DESIGN ENGINEER

APPROVED

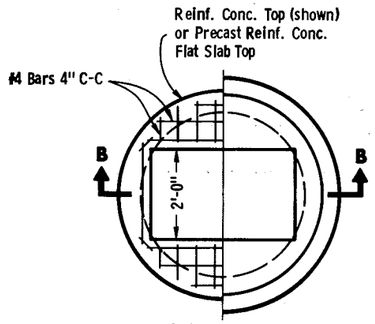
3/27/69 DATE — STATE HIGHWAY ENGINEER

S.D.D. 13B1-1

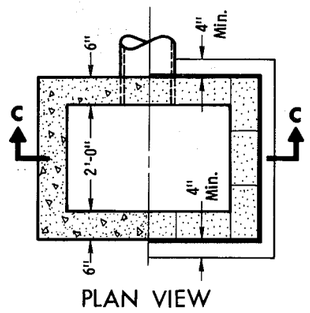
S.D.D. 13B1-1



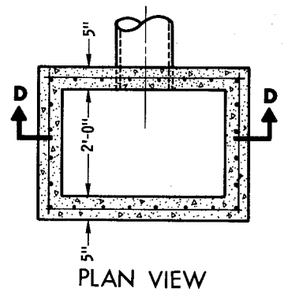
PLAN VIEW



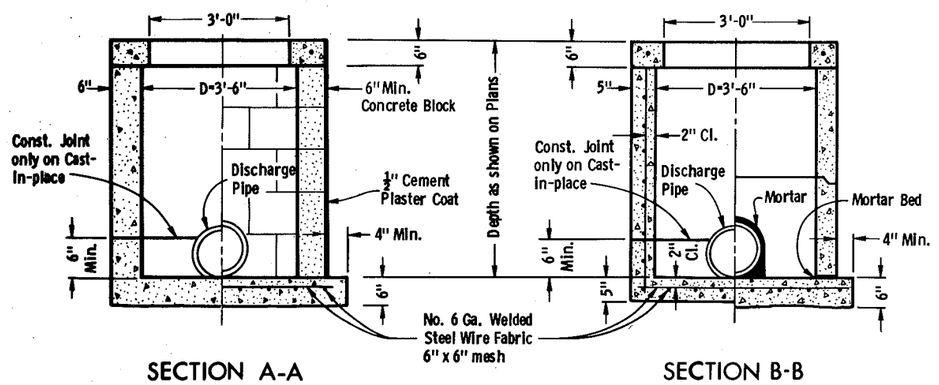
PLAN VIEW



PLAN VIEW



PLAN VIEW

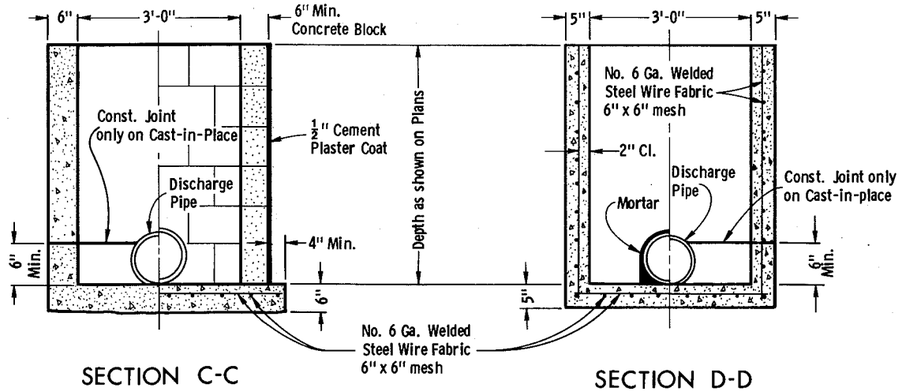


SECTION A-A

MONOLITHIC CONCRETE
CONCRETE BLOCK

SECTION B-B

REINFORCED CONCRETE
PRECAST REINFORCED CONCRETE



SECTION C-C

MONOLITHIC CONCRETE
CONCRETE BLOCK

SECTION D-D

PRECAST REINFORCED CONCRETE
REINFORCED CONCRETE

GENERAL NOTES

Details of construction, materials and workmanship not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

Detailed drawings for proposed alternate designs for underground drainage structures shall be submitted to the Engineer for approval providing that such alternate designs make provision for equivalent capacity and strength.

Square Precast Inlet units shall conform to the pertinent requirements of AASHTO Designation M 199.

All drainage structures are designated on the plans as "Manholes 1 - C", "Catch Basins 1 - B", "Inlets 1 - H", etc. The first digit designates the masonry portion of the structure, and the following letter designates the type of cover to be used to comprise the complete unit.

Precast Reinforced Bases shall be placed on a bed of material at least 6 inches in depth, which meets the requirements for Granular Backfill. This bedding shall be compacted and provide uniform support for the entire area of the base.

Precast Reinforced Concrete Flat Slab Tops may be used on the structures. The Tops shall be installed on a bed of mortar.

All bar steel reinforcement shall be embedded 2 inches clear unless otherwise shown or noted.

Precast Reinforced Concrete Risers may be placed with tongue up or down.

INLETS TYPE 3

INLETS TYPE 3

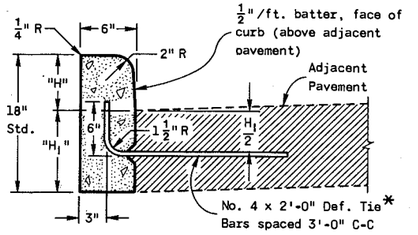
State of Wisconsin
Department of Transportation
Division of Highways

RECOMMENDED FOR APPROVAL:
10-16-75 DATE — CHIEF of FACILITIES DEVELOPMENT

APPROVED
10-16-75 DATE — STATE HIGHWAY ENGINEER

S.D.D. 8C2-3

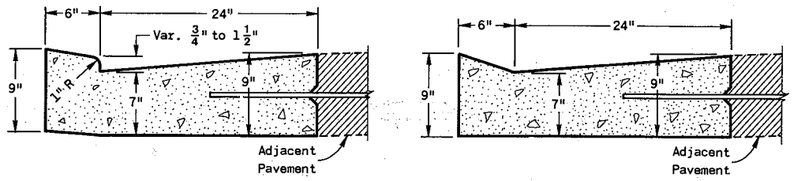
S.D.D. 8C2-3



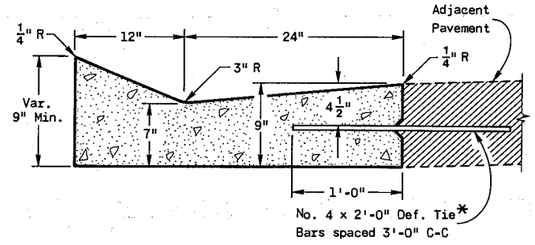
"H" = 9" Max. and $3\frac{1}{2}$" Min. and shall be 6" unless otherwise shown on the plans.
"H_1" = Same as adjacent pavement thickness for rigid pavement and 12" for non-rigid pavement (Tie Bars omitted)

TYPE "A" (INCLUDING TIE BARS) **TYPE "D"** (EXCLUDING TIE BARS)

CONCRETE CURB

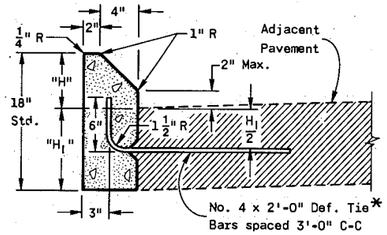


ALTERNATE ENTRANCES
CONCRETE CURB & GUTTER 30"



TYPE "A" (INCLUDING TIE BARS) **TYPE "D"** (EXCLUDING TIE BARS)

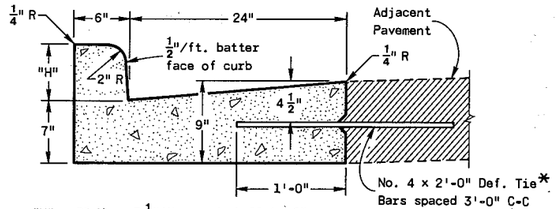
CONCRETE GUTTER 36"



"H" = 6" Max. and 4" Min. and shall be 6" unless otherwise shown on the plans.
"H_1" = Same as adjacent pavement thickness for rigid pavement and 12" for non-rigid pavement (Tie Bars omitted)

TYPE "G" (INCLUDING TIE BARS) **TYPE "J"** (EXCLUDING TIE BARS)

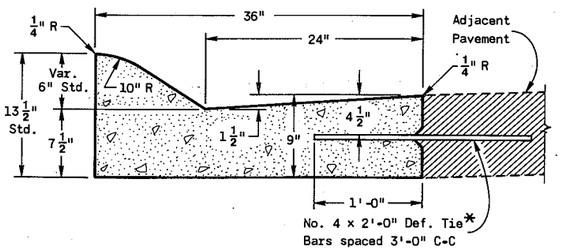
CONCRETE CURB
(MOUNTABLE)



"H" = 9" Max. $3\frac{1}{2}$" Min. and shall be 6" unless otherwise shown on the plans.

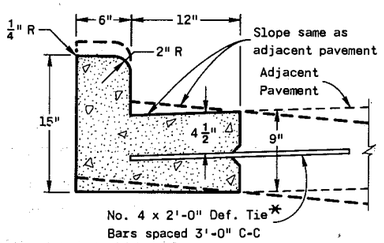
TYPE "A" (INCLUDING TIE BARS) **TYPE "D"** (EXCLUDING TIE BARS)

CONCRETE CURB & GUTTER 30"



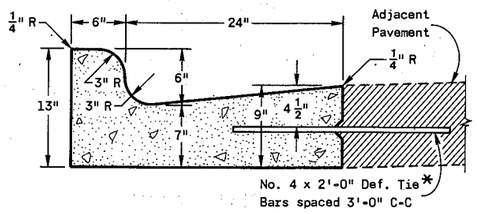
TYPE "A" (INCLUDING TIE BARS) **TYPE "D"** (EXCLUDING TIE BARS)

CONCRETE CURB & GUTTER 36"
(MOUNTABLE)



TYPE "A" (INCLUDING TIE BARS) **TYPE "D"** (EXCLUDING TIE BARS)

CONCRETE CURB & GUTTER 18"
Reverse slope Curb & Gutter shown thus – – –



TYPE "K" (INCLUDING TIE BARS) **TYPE "L"** (EXCLUDING TIE BARS)

CONCRETE CURB & GUTTER 30"

GENERAL NOTES

Details of construction, materials and workmanship not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

Detailed drawings for proposed alternate designs for Curb, Gutter and Combination Curb and Gutter shall be submitted to the Engineer for approval providing that such alternate designs make provision for equivalent capacity and strength.

Joints shall not be sealed in Concrete Curb, or Concrete Curb & Gutter.

* Where Curb and Gutter are poured adjacent to existing pavement, the Hook Bolt may be used as for "Longitudinal Joints - Concrete Pavement".

CONCRETE CURB, GUTTER, COMBINATION CURB & GUTTER

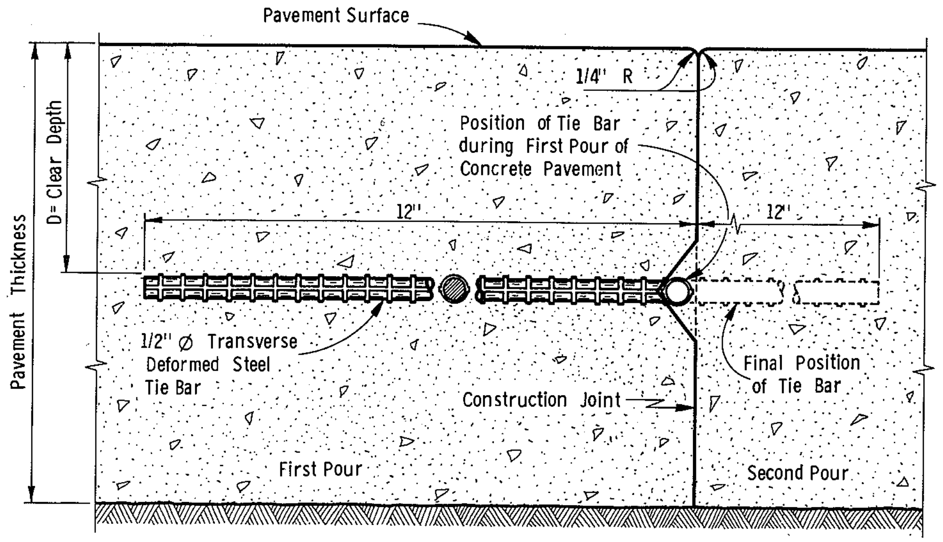
State of Wisconsin
Department of Transportation
Division of Highways

RECOMMENDED FOR APPROVAL:
9-12-73 DATE — CHIEF of FACILITIES DEVELOPMENT

APPROVED
9-19-73 DATE — STATE HIGHWAY ENGINEER

S.D.D. 8D1-2

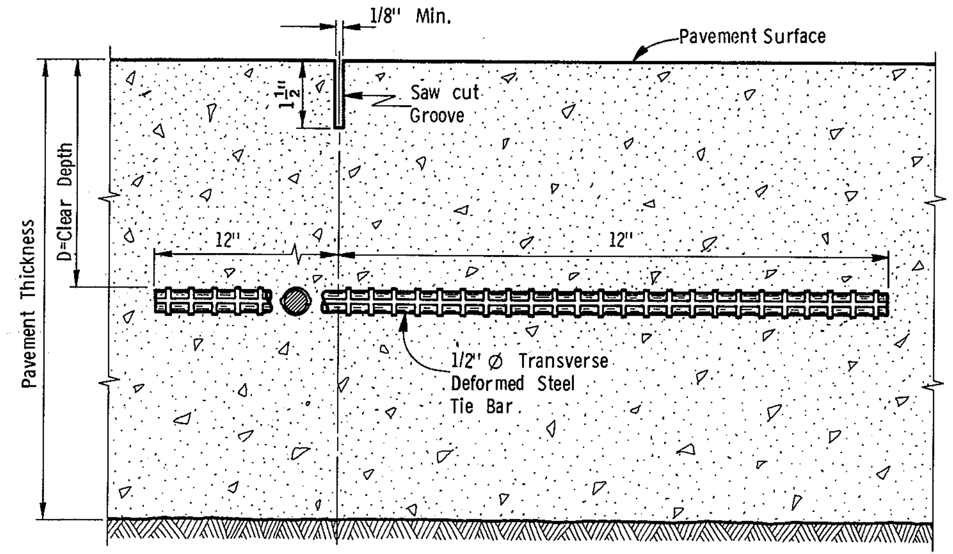
S.D.D. 8D1-2



SECTION

CONSTRUCTION JOINT

(TIE BAR)

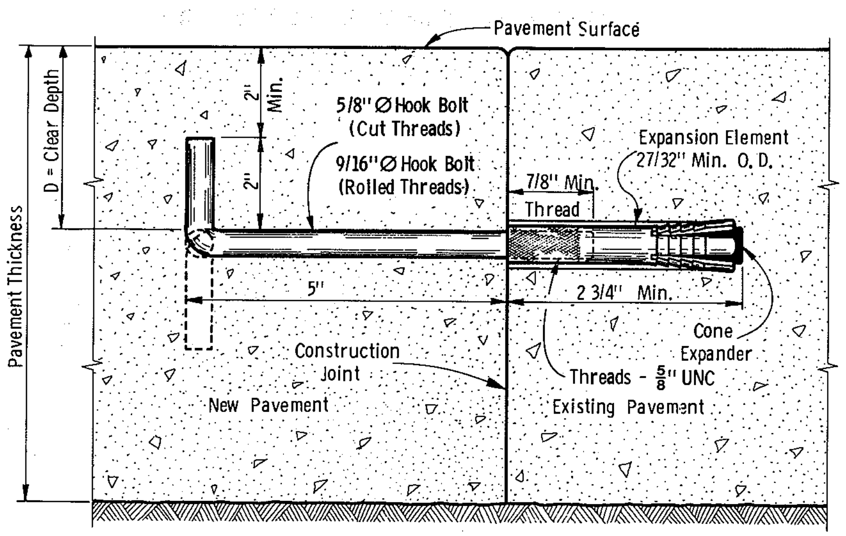


SECTION

SAWED JOINT

(TIE BAR)

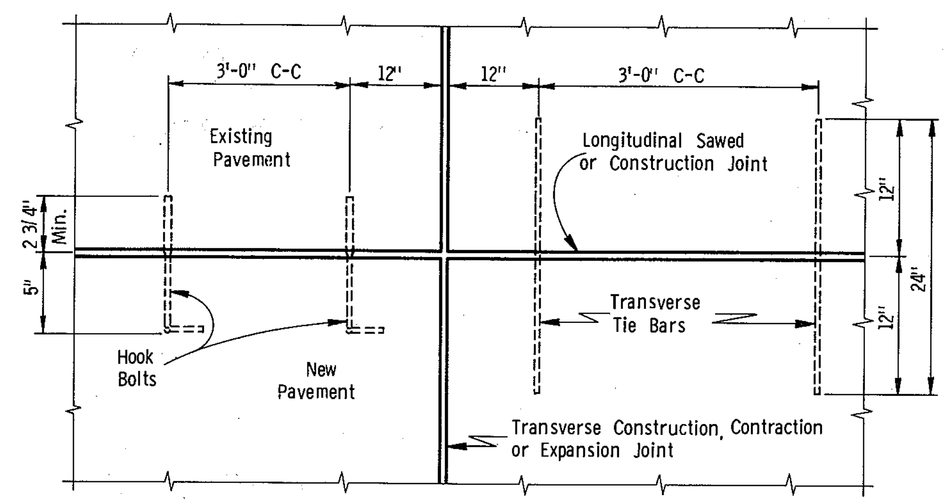
Pavement Thickness	"D"	
	Tie Bar	Hook Bolt
8"	2 - 4 3/4"	4 - 4 3/4"
9"	2 - 5 1/2"	4 - 5 1/2"
10"	2 - 5 3/4"	4 - 5 3/4"



SECTION

CONSTRUCTION JOINT

(HOOK BOLT)



PLAN VIEW

Showing Location Details for Hook Bolts and Tie Bars

GENERAL NOTES

Details of construction, materials and workmanship not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

Hook Bolts shall be used only when specified in the contract plans.

The Hook Bolts shall conform to ASTM specification A 307, except that the requirements of paragraph 1 (c) shall not apply.

The Expansion Anchor shall be an internally threaded anchor which consists of an externally slit Expansion Element and a single Cone Expander. The Expansion Element shall contain a minimum of three grips. The Expansion Element shall be threaded in such a manner as to prevent the machine bolt from coming in contact with the Cone Expander at any time.

The Expansion Anchor shall be set in existing pavement according to manufacturer's instructions. The holes shall be of the recommended diameter and depth and shall be drilled by methods recommended by the manufacturer of the particular anchor. The drilled holes shall be left rough, not reamed, and free from any drill dust.

Alternate designs of construction joint installations may be used upon written approval of the Engineer.

Longitudinal Joints shall not be sealed.

Tie Bars shall be placed at the required location by devices or methods approved by the Engineer.

LONGITUDINAL JOINTS

CONCRETE PAVEMENT

State of Wisconsin
Department of Transportation
Division of Highways

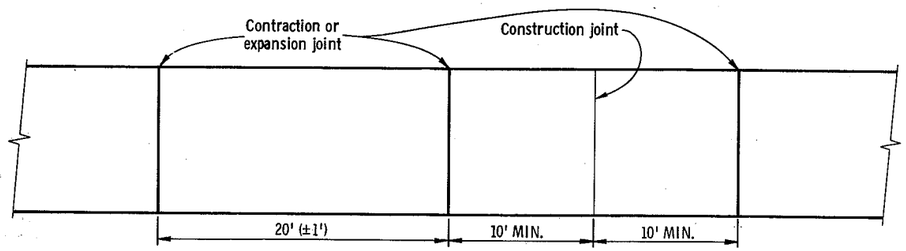
RECOMMENDED FOR APPROVAL:

5/23/72 (signature)
DATE — CHIEF DESIGN ENGINEER

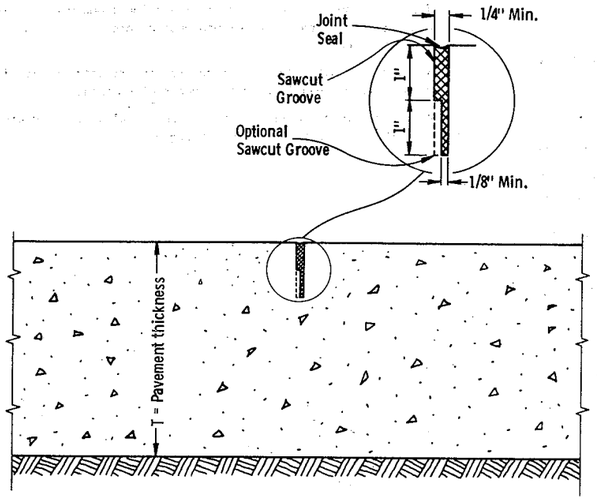
APPROVED

5/24/72 (signature)
DATE — STATE HIGHWAY ENGINEER

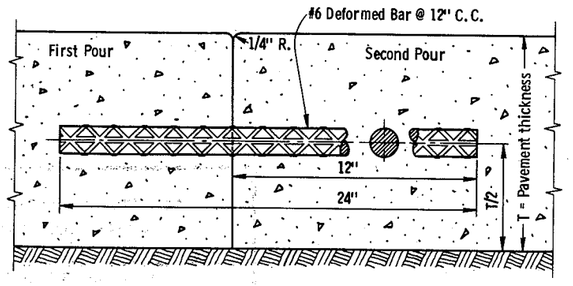
S.D.D. 13 C1-2



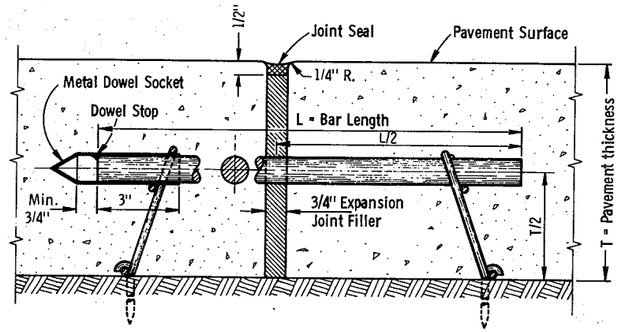
SCHEMATIC SHOWING JOINT LOCATIONS



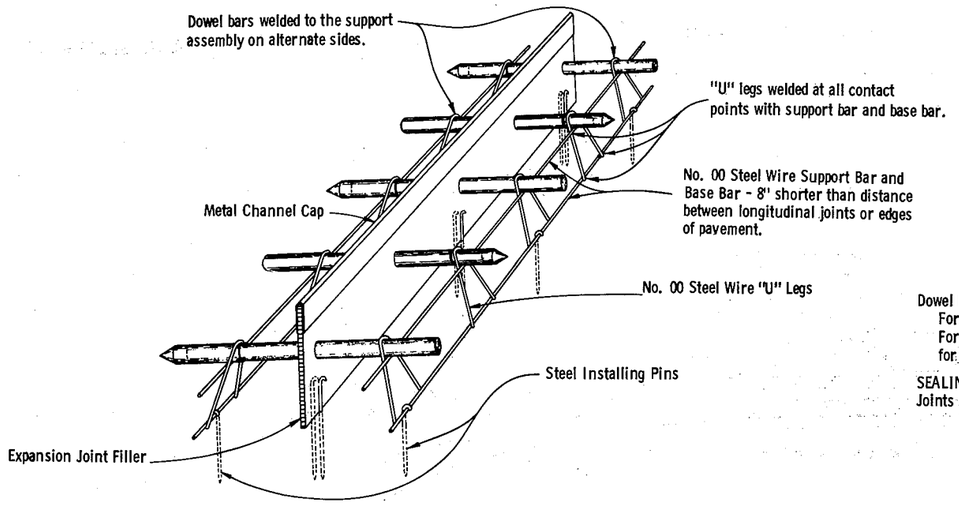
CONTRACTION JOINT



CONSTRUCTION JOINT



EXPANSION JOINT



INSTALLING DEVICE FOR LOAD TRANSFER DOWELS AND EXPANSION JOINT ASSEMBLY

GENERAL NOTES

Details of construction not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

Steel installing pins of sufficient number, length and rigidity shall be used to prevent movement of the joint assembly during construction operations.

ALTERNATE DESIGNS
Alternate designs for load transfer dowels at expansion joints and appurtenances other than shown here may be used upon written approval of the Engineer.

CONTRACTION JOINTS
Contraction joints shall be installed at 20' (± 1') spacing from adjacent contraction or expansion joints, except that lesser spacings shall be used:

1. At locations or spacing indicated on the plans.
2. As extensions of transverse joints or cracks in abutting pavement lanes.
3. At locations designated by the Engineer where there are manholes or other fixtures in the pavement.

CONSTRUCTION JOINTS
Construction joints shall be installed a minimum of 10' from the nearest joint.

Deformed bars shall be spaced at 12" C-C and 6" from the edge of pavement.

Deformed bars may be inserted after the concrete has been poured.

EXPANSION JOINTS
Expansion joints are required only at structure approaches and/or where shown on the plans. Locations may be shifted to avoid stationary fixtures in the pavement.

Expansion joint filler shall be secured with sufficient number of steel pins to prevent horizontal movement during the placing of concrete.

DOWEL BARS
Dowel bars shall be spaced at 12" C-C and 6" from the edge of pavement.

Dowel bars shall have at least one end sawed and be free of all burrs and protruding edges.

Dowel bars having one end sawed and one end sheared shall be oriented so that the sheared end is welded to the support assembly and the sawed end remains free.

Metal dowel socket (CAP), $1\frac{1}{16}$" or $1\frac{5}{16}$" Dia., 24 gauge, closed on one end shall be placed alternately on the free end of each dowel bar for proper pavement expansion.

Dowel bars shall be installed in accordance with the plans and the section of the Standard Specifications entitled "TRANSVERSE JOINTS IN CONCRETE PAVEMENT" except as hereinafter provided.

Dowel bars shall be coated by one of the following processes:

1. Type I - Adhesive thermoplastic resin system coating in accordance with Federal Specification L - C530 B except the coating thickness shall be 17 mils nominal (± 3 mils) and the adhesive thickness shall be 4 mils nominal (+ 4 mils, - 1 mil). or
2. Type II - Thermosetting epoxy system in accordance with Federal Specification L - C530B except the total minimum thickness shall be 10 mils. The bars shall be coated with SAE # 140 oil or similar lubricant after installing in the support assembly.

The ends of the dowel bars need not be coated.

Coating of the welds where the dowel bars are attached to the support assembly is not required.

Selection of Type I or Type II coating is optional; however, one type shall be used throughout the project.

Dowel Bar Dimensions:
For 7" P. C. Pavement = 1" ø x 18"
For 8" P. C. Pavement = 1" ø x 18"
for 9" P. C. Pavement = $1\frac{1}{4}$" ø x 18"

SEALING JOINTS
Joints shall be sealed as shown.

TRANSVERSE JOINTS IN NON-REINFORCED CONCRETE PAVEMENT

State of Wisconsin
Department of Transportation
Division of Highways

RECOMMENDED FOR APPROVAL:
6-12-73 DATE — CHIEF of FACILITIES DEVELOPMENT

APPROVED
6-19-73 DATE — STATE HIGHWAY ENGINEER

S.D.D. 13C4-3

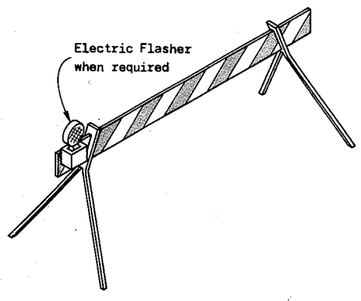
S.D.D. 13C4-3

TABLE OF BARRICADE CHARACTERISTICS

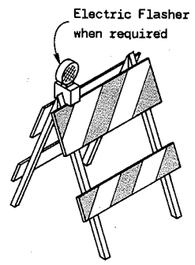
BARRICADE TYPE	I	II	III
Height	3'(91.4 cm) Min.		5'(152.4 cm) Min.
* Rail Width	8"(20.3 cm) Min. to 12"(30.5 cm) Max.		
Rail Length	2'(61.0 cm) Min. to Variable Maximum		
** Stripe Width	6" (15.2 cm) at 45° Angle		
Stripe Colors	Reflectorized Orange & White		

* Nominal dimensions when barricade is constructed of lumber.

** May be 4"(10.2 cm) for rail lengths less than 3'(91.4 cm).



TYPICAL TYPE I BARRICADE



TYPICAL TYPE II BARRICADE

W20-3

48"(121.9 cm) x 48"(121.9 cm)

Black Lettering on Reflective
Orange Background
Letter Series "D"
Letter height 7" (17.8 cm)

R11-2

48"(121.9 cm) x 30"(76.2 cm)

Black Lettering on Reflective
White Background
Letter Series "D"
Letter height 8" (20.3 cm)

STANDARD SIGNS-TYPE II

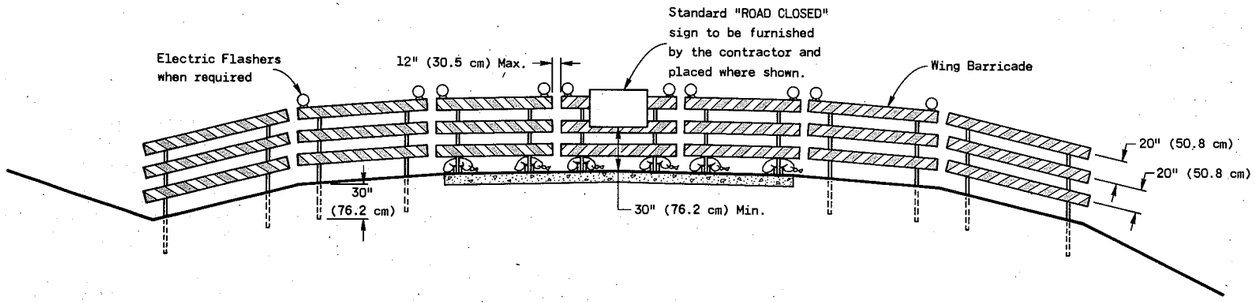
GENERAL NOTES

The contractor shall furnish, erect and maintain Barricades and Signs. Details regarding location, spacing, dimensions, fabrication, material, sign lettering, lighting devices and color of Barricades and Signs shall conform to this drawing, the Wisconsin Manual on Uniform Traffic Control Devices, the Standard Specifications, Special Provisions and/or plans.

Type III Barricades and Signs shall be erected at the termini of projects and at other road or street locations where it is necessary to control or eliminate public access to the con - struction area.

Type I and II Barricades shall be used on projects when traffic is to be maintained through the construction area.

The actual field location of barricade installations and advance signs shall be as directed by the Engineer.



TYPICAL INSTALLATION SHOWING TYPE III BARRICADE

CONSTRUCTION BARRICADES

CONSTRUCTION BARRICADES & STANDARD SIGNS

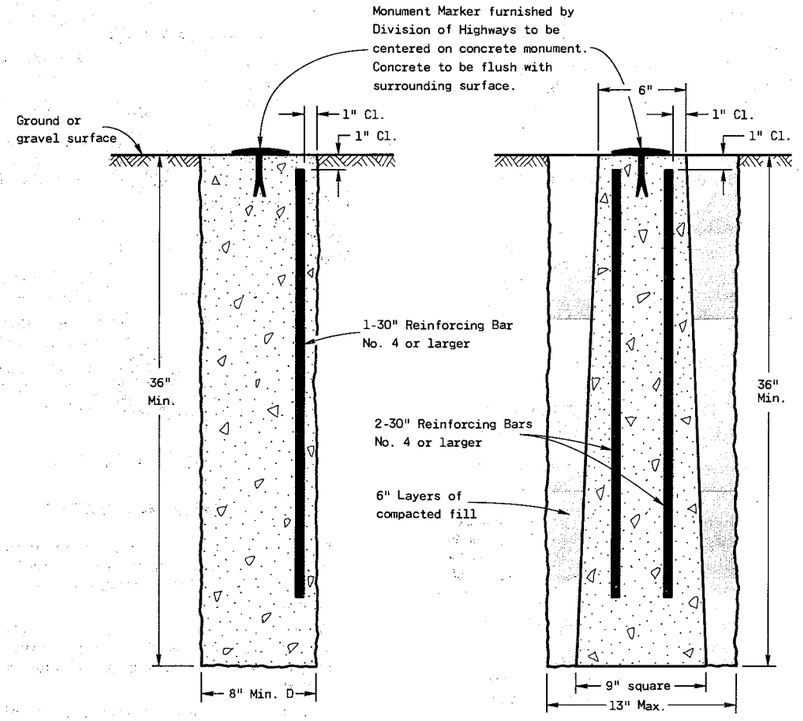
State of Wisconsin
Department of Transportation
Division of Highways

RECOMMENDED FOR APPROVAL:
6-6-75 DATE — CHIEF of FACILITIES DEVELOPMENT

APPROVED
6-6-75 DATE — STATE HIGHWAY ENGINEER

S.D.D. 15C1-4

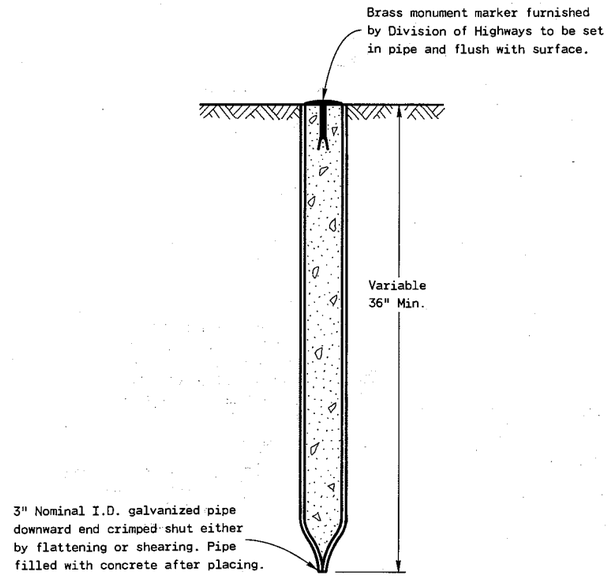
S.D.D. 15C1-4



CAST-IN-PLACE CONCRETE MONUMENT

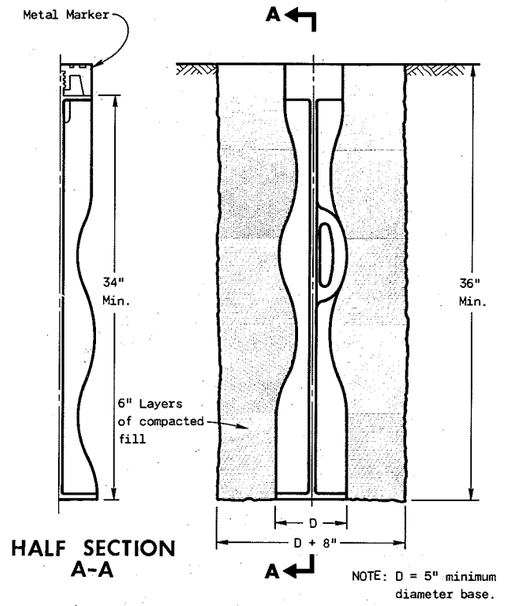
PRECAST CONCRETE MONUMENT

TYPE A



TYPE B

NOT TO BE USED IN PAVEMENT STRUCTURE



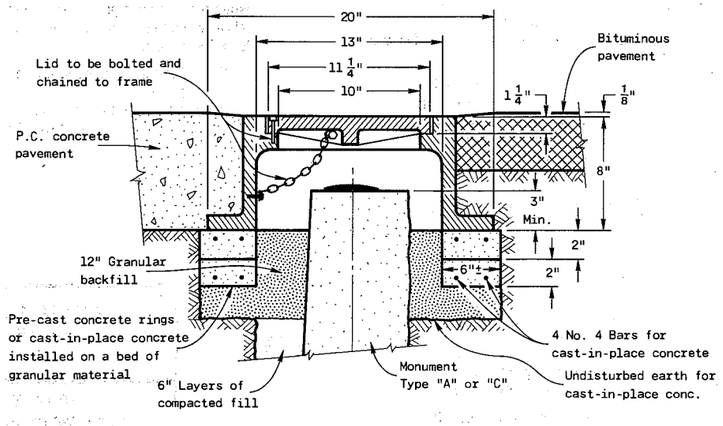
HALF SECTION A-A

NOTE: D = 5" minimum diameter base.

METAL MONUMENT

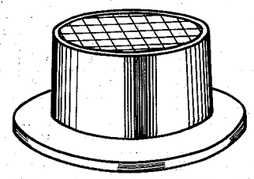
(Includes Marker)

TYPE C



DETAIL OF MONUMENT COVER

INSTALLATION IN PAVEMENT OVER A MONUMENT



(Approximate weight - 95 lbs.)

GENERAL NOTES

Details of construction, materials and workmanship not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

Detailed drawings of proposed alternate designs for Metal Monuments or Monument Covers shall be submitted to the Engineer for approval.

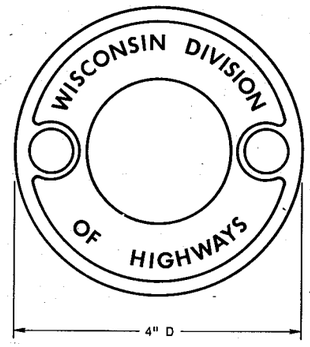
The installed Metal Monument must be easily detected with a dip needle. Inert permanent magnets shall be attached near the top and bottom of those Monuments constructed of a metal alloy which is not attractive to a dip needle.

Type A and Type C Monuments are equal alternates unless otherwise specified on the plan or by special provision.

When Landmark Reference Monument and Cover is specified, contractor shall furnish and install Monument and Monument Cover in conformance with details on this drawing and pertinent requirements of Section 611 of the Standard Specifications.

The Monument Cover shall be a "Non-Rocking" type. Adjustment of the Cover to grade may be accomplished by the use of mortar and brick, or by either pre-cast or cast-in-place Reinforced Concrete Grade Rings.

Monuments shall be located and placed at the direction of the Engineer.



TOP LEGEND FOR MARKER

LANDMARK REFERENCE MONUMENTS

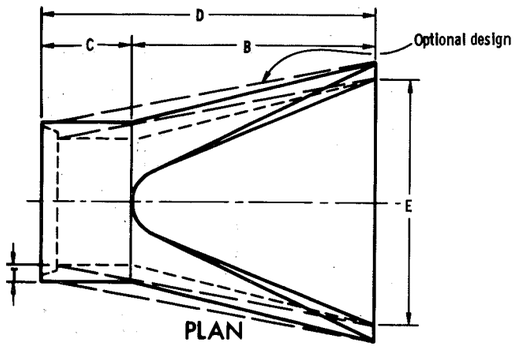
State of Wisconsin
Department of Transportation
Division of Highways

RECOMMENDED FOR APPROVAL:
2-15-74 DATE — CHIEF of FACILITIES DEVELOPMENT

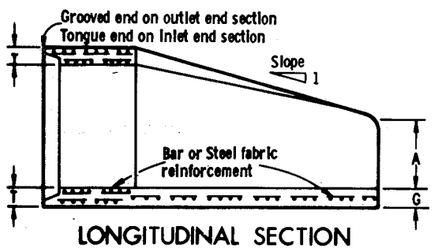
APPROVED
3-21-74 DATE — STATE HIGHWAY ENGINEER

S.D.D. 16A 1-2

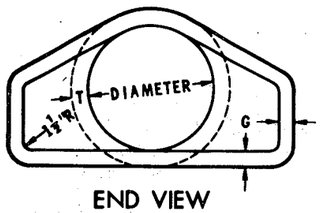
S.D.D. 16A 1-2



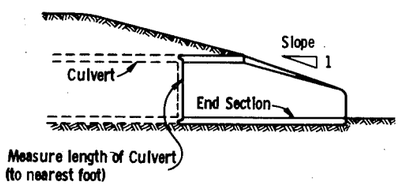
PLAN



LONGITUDINAL SECTION



END VIEW

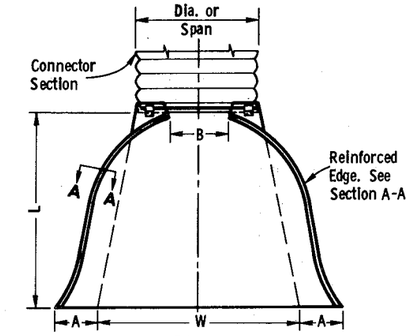


SIDE ELEVATION

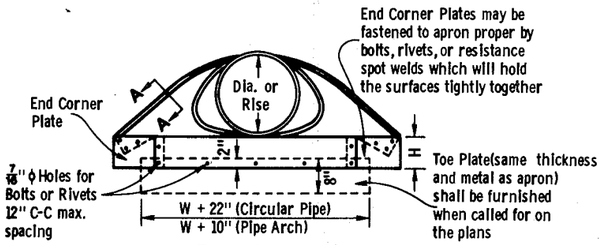
DIA.	APPROX. WEIGHT/ SECTION	T	A	B	C	D	E	G	APPROX. SLOPE
12"	530	2"	4"	24"	48 7/8"	72 7/8"	24"	2"	3 to 1
15"	740	2 1/4"	6"	27"	46"	73"	30"	2 1/4"	
18"	990	2 1/2"	9"	27"	46"	73"	36"	2 1/2"	
21"	1,280	2 3/4"	9"	36"	37 1/2"	73 1/2"	42"	2 3/4"	
24"	1,520	3"	9 1/2"	43 1/2"	30"	73 1/2"	48"	3"	
27"	1,930	3 1/4"	10 1/2"	49 1/2"	24"	73 1/2"	54"	3 1/4"	
30"	2,190	3 1/2"	12"	54"	19 3/4"	73 3/4"	60"	3 1/2"	
36"	4,100	4"	15"	63"	34 3/4"	97 3/4"	72"	4"	
42"	5,380	4 1/2"	21"	63"	35"	98"	78"	4 1/2"	
48"	6,550	5"	24"	72"	26"	98"	84"	5"	3 to 1
54"	8,040	5 1/2"	27"	65"	**33 1/4" - *35"	**98 1/4" - *100"	90"	5"	2 2/5 to 1
60"	8,730	6"	**30" - *35"	60"	39"	99"	96"	5"	2 to 1
66"	10,630	6 1/2"	**24" - *30"	**72" - 78"	**21" - *27"		102"	5 1/2"	
72"	12,520	7"	**24" - *36"	78"	21"		108"	6"	
78"	14,430	7 1/2"	**24" - *36"	78"	21"	99"	114"	6 1/2"	2 to 1
84"	18,160	8"	36"	90 1/2"	21"	111 1/2"	120"	6 1/2"	1 1/2 to 1

** Minimum
* Maximum

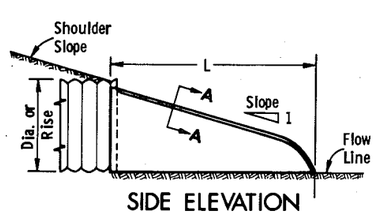
REINFORCED CONCRETE APRON ENDWALLS



PLAN



END VIEW



SIDE ELEVATION

D PIPE DIAM.	MIN. METAL THICKNESS	MIN. ALUM. THICKNESS	DIMENSIONS A ± 1"	B MAX.	H ± 1"	L ± 1½"	W ± 2"	APPROX. SLOPE
12"	0.064	0.060	6"	6"	6"	21"	24"	2½ to 1
15"			7"	8"		26"	30"	
18"			8"	10"		31"	36"	
21"		0.060	9"	12"		36"	42"	
24"	0.064	0.075	10"	13"	6"	41"	48"	
30"	0.079	0.075	12"	16"	8"	51"	60"	
36"	0.079	0.105	14"	19"	9"	60"	72"	
42"	0.109		16"	22"	11"	69"	84"	2½ to 1
48"			18"	27"	12"	78"	90"	2¼ to 1
54"		0.105		30"		84"	102"	2 to 1
60"		NA		33"		87"	114"	1¾ to 1
66"				36"		87"	120"	1½ to 1
72"				39"		87"	126"	1⅓ to 1
78"				42"		87"	132"	1¼ to 1
84"	0.109	NA	18"	45"	12"	87"	138"	1⅛ to 1

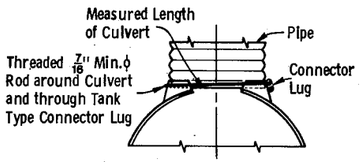
NOTE: All splices to be lap riveted or bolted

METAL OR ALUMINUM APRON ENDWALLS FOR CIRCULAR PIPES

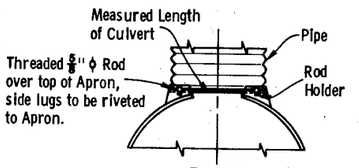
PIPE – ARCH DIMENSIONS SPAN	RISE	MIN. METAL THICK.	DIMENSIONS A ± 1"	B MAX.	H ± 1"	L ± 1½"	W ± 2"	APPROX. SLOPE
17"	13"	0.064	7"	9"	6"	19"	30"	2½ to 1
21"	15"		7"	10"		23"	36"	
24"	18"		8"	12"		28"	42"	
28"	20"	0.064	9"	14"		32"	48"	
35"	24"	0.079	10"	16"	6"	39"	60"	
42"	29"	0.079	12"	18"	8"	46"	75"	
49"	33"	0.109	13"	21"	9"	53"	85"	
57"	38"		18"	26"	12"	63"	90"	2½ to 1
64"	43"		18"	30"	12"	70"	102"	2¼ to 1
71"	47"		18"	33"	12"	77"	114"	2¼ to 1
77"	52"		18"	36"	12"	77"	126"	2 to 1
83"	57"	0.109	18"	39"	12"	77"	138"	2 to 1

NOTE: All splices to be lap riveted or bolted

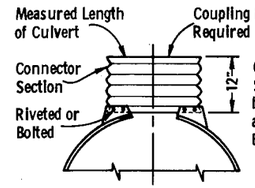
METAL APRON ENDWALLS FOR PIPE ARCHES



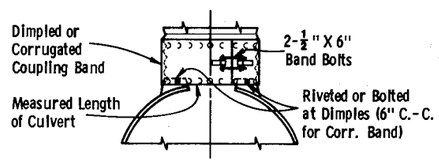
TYPE 1
For 12" thru 24" only (Circular Pipe)



TYPE 2
For 30" and 36" only (Circular Pipe)
For 17" X 13" thru 57" X 38" only (Pipe Arch)



TYPE 3
For 42" thru 84" only (Circular Pipe)
For 64" X 43" & 71" X 47" (Pipe Arch)



TYPE 5
Alternate for
All sizes Corrugated Circular Pipe and Pipe Arch

NOTE: Dimpled Band fits over Outside of Endwall, and Corr. Band fits Inside Endwall. Dimpled Band may be used with Helically Corrugated Pipe

CONNECTION DETAILS

CIRCULAR PIPE

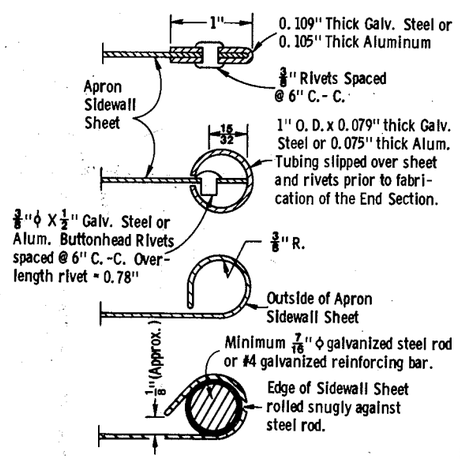
For Circumferentially Corrugated Pipe use Endwall Connection Details 1, 2, 3, or 5 as applicable.

For Helically Corrugated Pipe use Endwall Connection Details 1, 2 or 5.

For Helically Corrugated Pipes with two Circumferential Corrugations at each end use Endwall Connection Details 1, 2, or 3

PIPE ARCH

Use Endwall Connection Details 2, 3, or 5 as applicable.



SECTION A-A

GENERAL NOTES

Details of construction, materials, and workmanship not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

Variations of the dimensions and designs shown hereon will be permitted providing equivilent capacity and structural integrity are attained, and prior approval of the Engineer is obtained.

Concrete culvert endwalls may not be used with galvanized steel or aluminum culvert pipe or vice versa.

Galvanized steel or aluminum endwalls shall normally be installed on culvert pipe of the same metal. The use of galvanized steel endwalls on aluminum pipes is permitted, provided the two metals at the joint interface are kept separated by a suitable insulating material approximately 1/16" thick or greater. Such material would be an asphalt impregnated fabric, a sheet plastic, a rubber gasket or other nondegradable material of substantial strength.

When two or more pipe arches with apron endwalls are to be laid adjacent to each other, they shall be separated by the following amount.

Pipes: Total width of apron endwall less the diameter of pipe plus 6 inches.
Pipe Arches: Total width of apron endwall less the span dimension of the pipe arch plus 6 inches.

APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

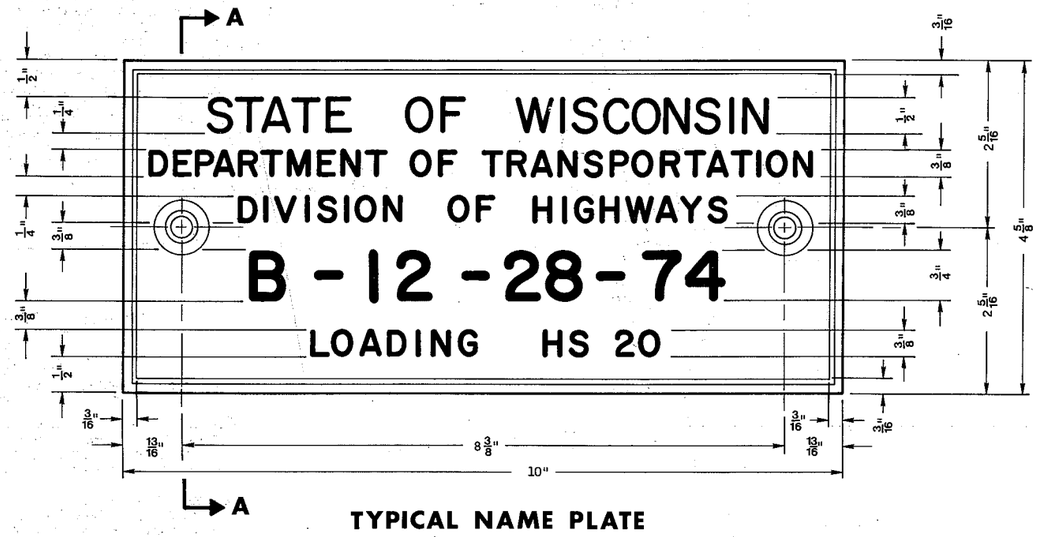
State of Wisconsin
Department of Transportation
Division of Highways

RECOMMENDED FOR APPROVAL:
7-29-75 DATE — CHIEF OF FACILITIES DEVELOPMENT

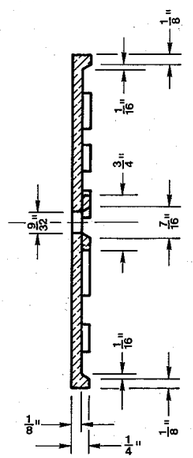
APPROVED
7-29-75 DATE — STATE HIGHWAY ENGINEER

S.D.D. 8F1-6

S.D.D. 8F1-6

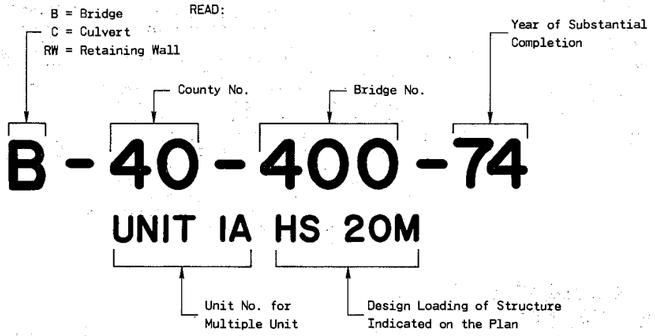


TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)



SECTION A-A

FOR MULTI-UNIT STRUCTURES
LINES 4 AND 5 ABOVE SHALL
READ:



NUMBERING AND LOADING DESIGNATION
MULTI-UNIT STRUCTURES

GENERAL NOTES

Name Plates to be installed on Bridges, Culverts, and Retaining Walls shall conform to the requirements of Section 506.2.4 of the Standard Specifications.

The Bridge Number and Design Loading shown on this drawing are examples only. See Construction Plans for individual numbering and design loading.

NAME PLATE
(STRUCTURES)

State of Wisconsin
Department of Transportation
Division of Highways

RECOMMENDED FOR APPROVAL:
4-16-74 DATE — CHIEF of FACILITIES DEVELOPMENT

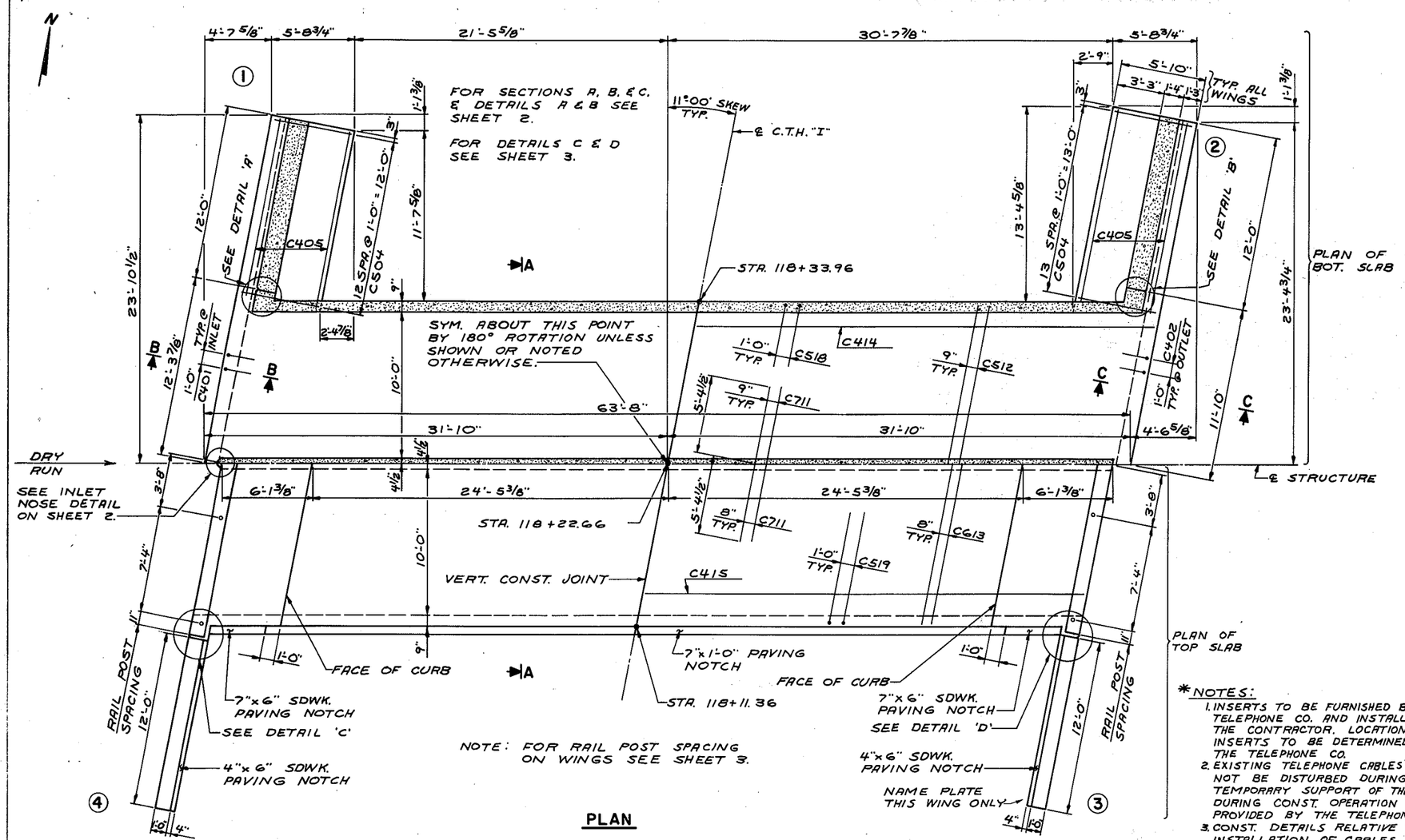
APPROVED
4-16-74 DATE — STATE HIGHWAY ENGINEER

S.D.D. 12A3-1

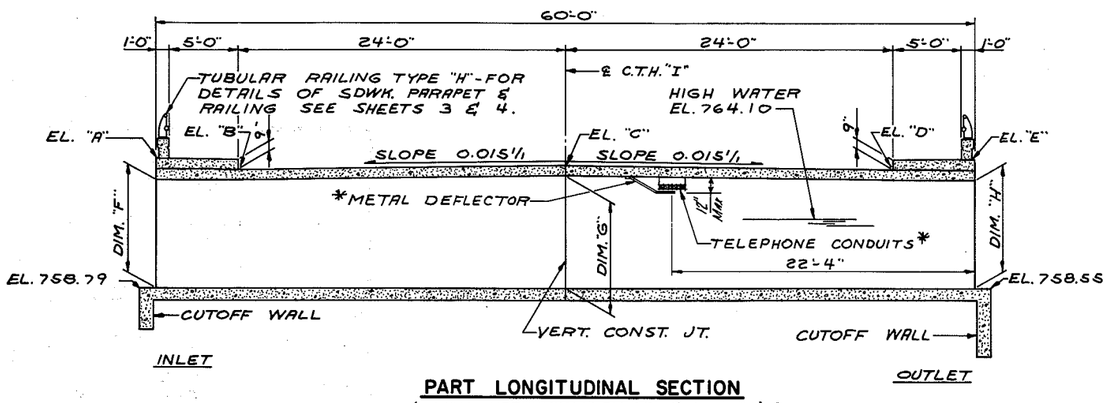
S.D.D. 12A3-1

4994-0-17

7



PLAN



PART LONGITUDINAL SECTION

(TAKEN PERPENDICULAR TO ℄ C.T.H. "I")

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

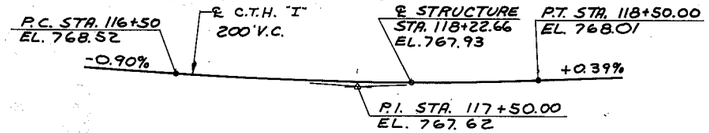
BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.

THE FIRST DIGIT OF A THREE DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

JOINT FILLER SHALL CONFORM TO A.A.S.H.T.O. DESIGNATION M153 OR M213.

THE EXISTING GROUND LINE WAS USED AS THE UPPER LIMITS OF EXCAVATION.

ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH GRANULAR BACKFILL TO THE ELEVATION AND SECTION EXISTING PRIOR TO EXCAVATION WITHIN THE LENGTH OF THE BOX.



PROFILE GRADE LINE C.T.H. "I"

DESIGN DATA

LIVE LOAD: HS-20 (STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20#/S.F.)

ALLOWABLE DESIGN STRESSES:

CONCRETE MASONRY — TOP SLAB f'_c = 4,000 p.s.i.; ALL OTHER f'_c = 3,500 p.s.i.

HIGH STRENGTH BAR STEEL REINFORCEMENT (GRADE 60) — f_y = 60,000 p.s.i.

HYDRAULIC DATA:

DRAINAGE AREA = 3.1 Sq. Mi.
WATERWAY AREA = 105 Sq. Ft.
V = 7.8 f.p.s.
Q_{100} = 620 c.f.s.
HIGH WATER EL. 764.10

TOTAL ESTIMATED QUANTITIES

BID ITEMS

REMOVING OLD BRIDGE	1 L.S.
EXCAVATION FOR STRUCTURES	1 L.S.
CONCRETE MASONRY	197 C.Y.
HIGH-STRENGTH BAR STEEL REINFORCEMENT	24270 LB.
STRUCTURAL CARBON STEEL	550 LB.
TUBULAR RAILING TYPE "H"	1 L.S.

NON-BID ITEMS

FILLER	1/2 & 3/4 SIZE
POLYVINYL CHLORIDE WATERSTOP	38 L.F.

TABLE OF ELEVATIONS AND DIMENSIONS

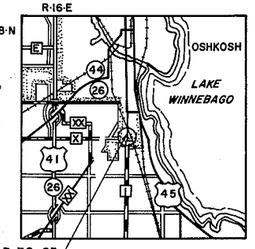
	SOUTH WALL	CENTER WALL	NORTH WALL
EL. "A"	768.33	768.35	768.37
EL. "B"	767.54	767.56	767.58
EL. "C"	767.91	767.93	767.96
EL. "D"	767.55	767.58	767.61
EL. "E"	768.34	768.36	768.40
DIM. "F"	8'-0"	8'-0 1/4"	8'-0 1/2"
DIM. "G"	8'-5 7/8"	8'-6 1/8"	8'-6 1/2"
DIM. "H"	8'-3"	8'-3 1/4"	8'-3 3/4"

*NOTES:

1. INSERTS TO BE FURNISHED BY THE TELEPHONE CO. AND INSTALLED BY THE CONTRACTOR. LOCATION OF INSERTS TO BE DETERMINED BY THE TELEPHONE CO.
2. EXISTING TELEPHONE CABLES SHALL NOT BE DISTURBED DURING CONST. TEMPORARY SUPPORT OF THESE CABLES DURING CONST. OPERATION WILL BE PROVIDED BY THE TELEPHONE CO.
3. CONST. DETAILS RELATIVE TO INSTALLATION OF CABLES ON THE NEW STRUCTURE SHALL BE THE RESPONSIBILITY OF THE TELEPHONE CO.
4. ALL MATERIAL AND LABOR FOR THE INSTALLATION OF THE TELEPHONE CABLES SHALL BE SUPPLIED BY THE TELEPHONE CO.

LIST OF DRAWINGS

1. LAYOUT	X 54258
2. DETAILS	X 54259
3. VERTICAL FACE PARAPET "A"	X 54260
4. TUBULAR RAILING TYPE "H"	X 54261
5. SUBSURFACE EXPLORATION	X 54262



WISCONSIN — RICHARD J. MAUCH — EAU CLAIRE, WIS. — PROFESSIONAL ENGINEER

B-70-85

C.T.H. "I" OVER DRY RUN

WINNEBAGO — OSHKOSH

A.A.S.H.T.O. '73 — HS-20 — 1975

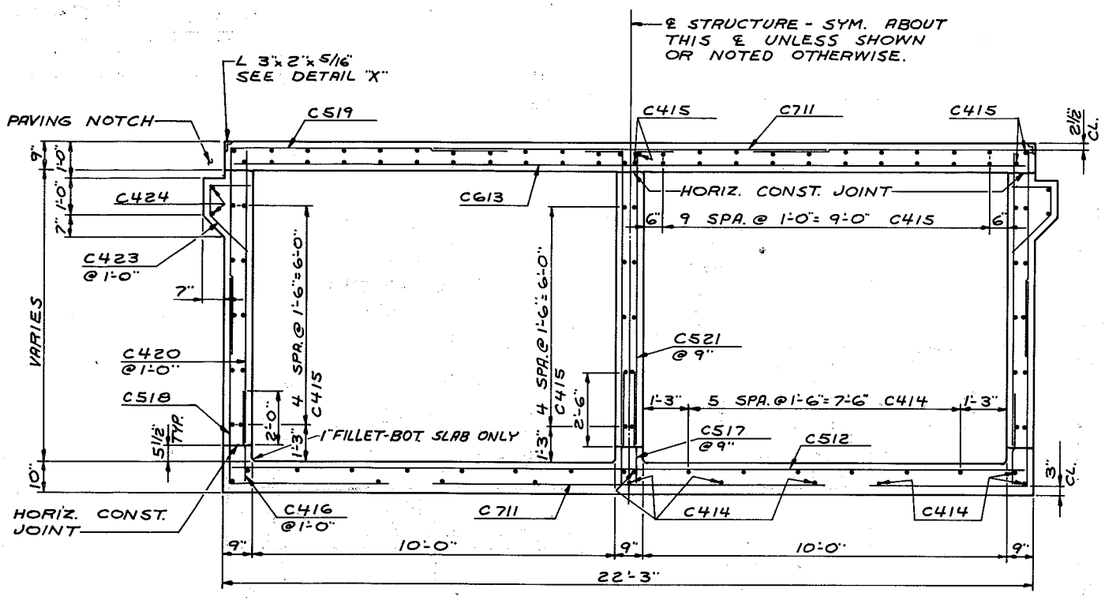
N.K.I.J. — R.C.M. — G.L.D. — N.K.I.J.

W.A. Kline — 12-11-75

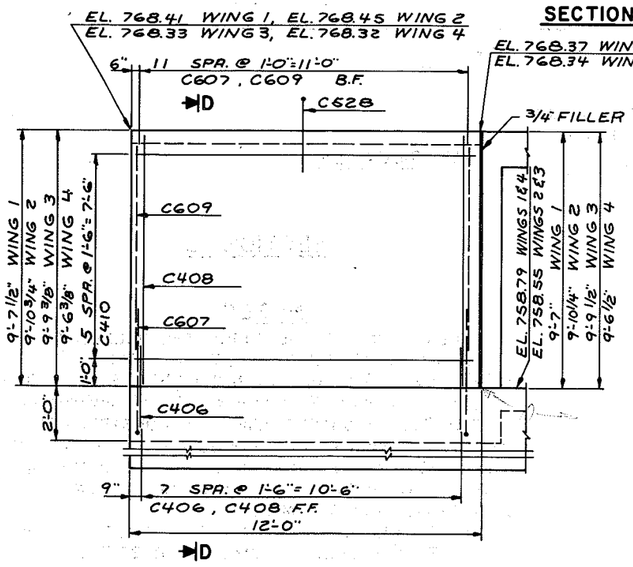
1 5

LAYOUT

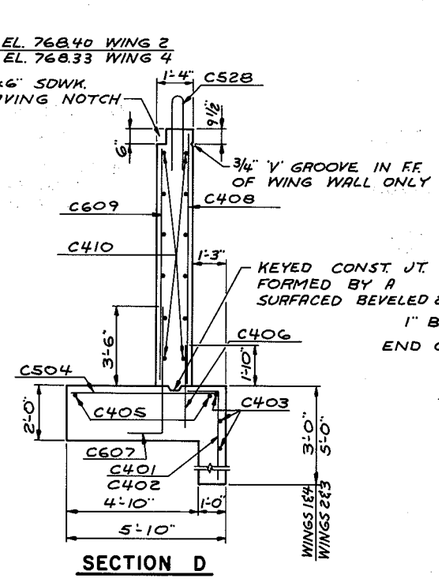
54258



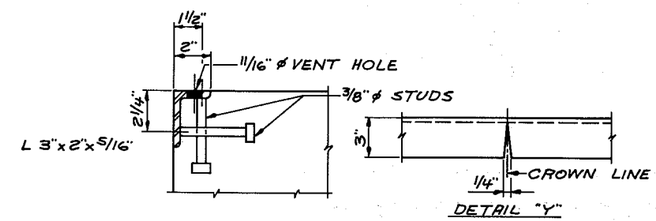
SECTION A



TYP. WING ELEVATION



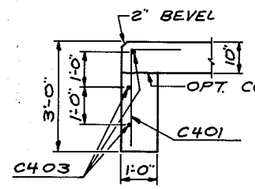
SECTION D



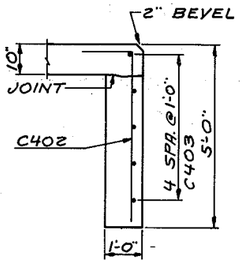
DETAIL "Y"

AT PAVING NOTCH, PROVIDE L 3"x2"x5/16"x 49'-0" LG. PROVIDE 11/16" ℄ VENT HOLES IN 2" LEG AT 3'-0" CENTERS. ATTACH ANGLE TO CONCRETE WITH 3/8" ℄ STUDS x 4" LG. AT 6" ALTERNATE CENTERS. FIELD CUT 3" LEG OF ANGLE AS REQ'D. SEE DETAIL "Y". ANGLE AND STUDS TO BE PAID FOR AT THE UNIT PRICE BID FOR "STRUCTURAL CARBON STEEL".

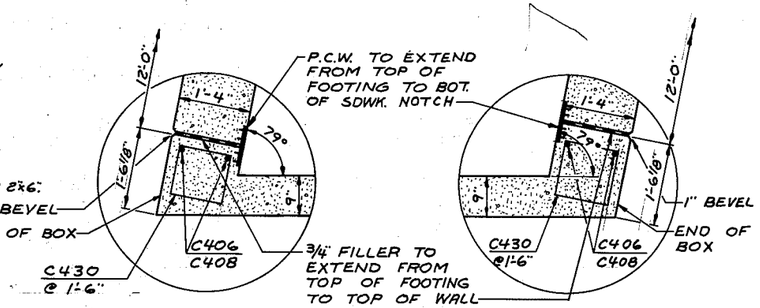
DETAIL "X"



SECTION B (INLET)

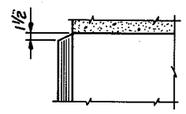


SECTION C (OUTLET)

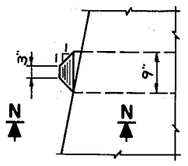


DETAIL "A"

DETAIL "B"

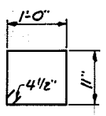


SECTION N



PLAN

INLET NOSE DETAIL



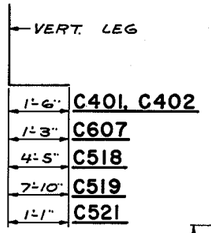
C430

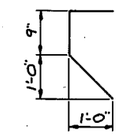
BILL OF BARS

24,270#

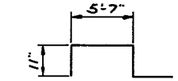
BAR NO.	NO. REQD	LENGTH	BENT	LOCATION
C401	48	4-0	X	CUTOFF WALL - INLET
C402	48	6-0	X	" " OUTLET
C403	16	24-8		" " INLET & OUTLET
C504	54	5-3		WINGS - FOOTING
C405	8	12-4		" "
C406	40	3-4		" " DOWELS F.F.
C607	48	6-4	X	" " " B.F.
C408	40	9-4		" -WALL - VERT. F.F.
C609	48	8-10		" " " B.F.
C410	48	11-8		" " -HORIZ. F.F. & B.F.
C711	170	10-9		BOX - BOT. & TOP SLAB - TRANS.
C512	84	22-3		" " SLAB - TRANS.
C613	90	22-3		" TOP " "
C414	50	31-6		" BOT. " -LONG.
C415	156	30-2		" TOP " & WALLS - LONG.
C416	124	3-1		" DOWELS
C517	164	3-7		" "
C518	120	10-3	X	" CORNERS BOT.
C519	120	13-8	X	" " TOP
C420	120	8-1		" EXT. WALLS - VERT.
C521	164	9-1	X	" INT. " "
C522	71	4-0		" VERT. CONST. JOINT
C423	116	3-1	X	PAVING BLOCK
C424	8	28-10		" "
C525	52	8-7	X	SIDEWALK
C526	24	23-6		" & PARAPET
C527	46	4-6	X	PARAPET ON BOX
C528	64	5-0	X	" " WINGS
C529	16	11-8		" " "
C430	28	4-4	X	WINGS - CORNERS

F.F. DENOTES FRONT FACE.
B.F. DENOTES BACK FACE
BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

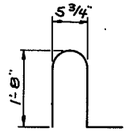




C423



C525



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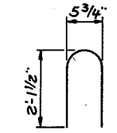

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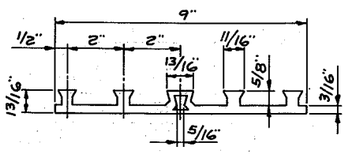
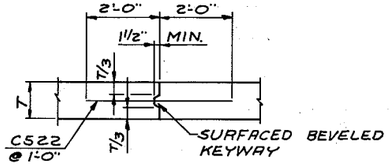


POLYVINYL CHLORIDE WATERSTOP DETAIL
P.C.W.



VERT. CONST. JOINT
(ALL WALLS & SLABS)

NO.	DATE	REVISION	

PLANS PREPARED BY
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-70-85

DATE	DRAWN BY	CHECKED BY
1975	G.L.D.	N.K.I.J.

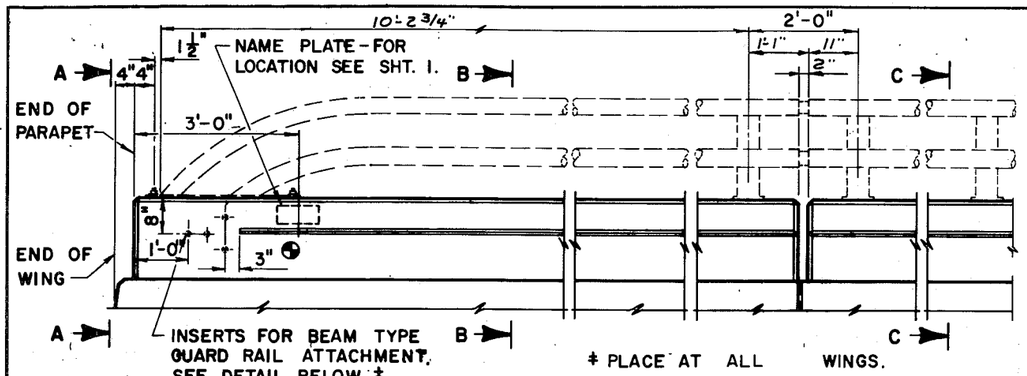
DETAILS

2 5

X 54259

Form E-B-12-69

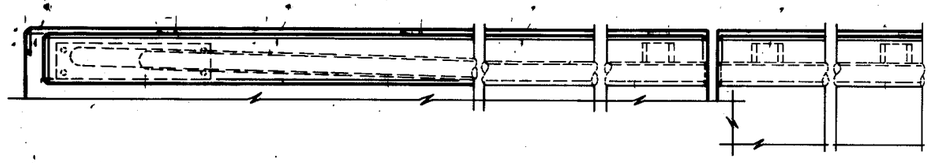
PROJECT I.D.	SHEET NUMBER	TOTAL SHEETS
4994-0-17	7.2	
FEDERAL PROJECT DESIGNATION		



AT WINGS

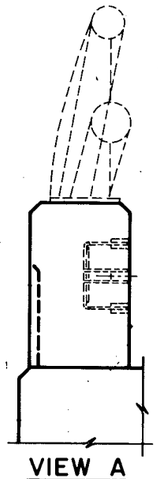
PART ELEVATION OF RAIL PARAPET

EXTEND $\frac{3}{4}$" GROOVE TO END OF PARAPET WHEN ANCHOR ASSEMBLY IS NOT USED.

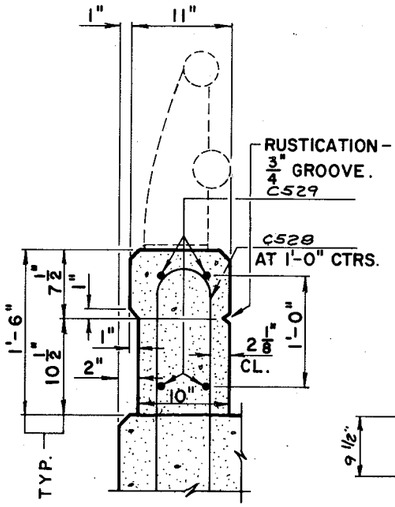


AT WINGS

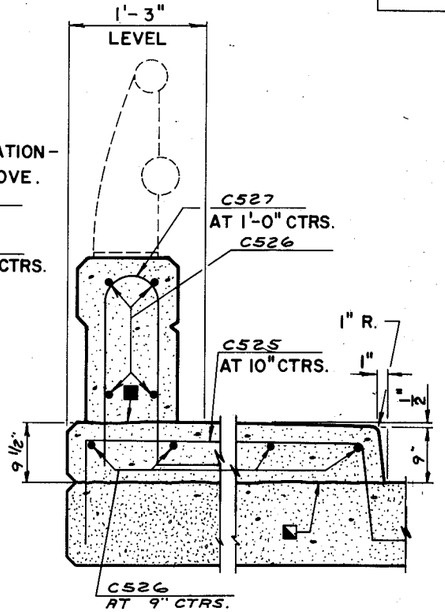
PART PLAN OF RAIL PARAPET



VIEW A



SECTION B

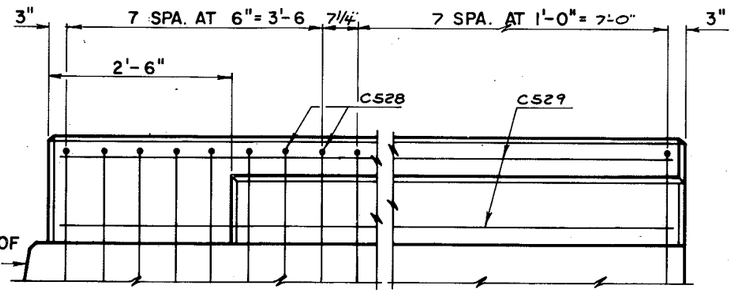


■ CONST. JOINT - STRIKE OFF LEVEL & LEAVE ROUGH.

■ OPTIONAL CONST. JOINT - STRIKE OFF LEVEL & LEAVE ROUGH.

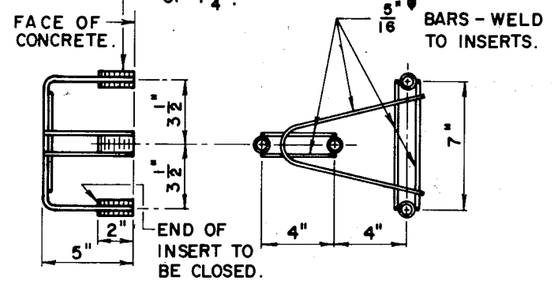
AT SIDEWALK

SECTION C



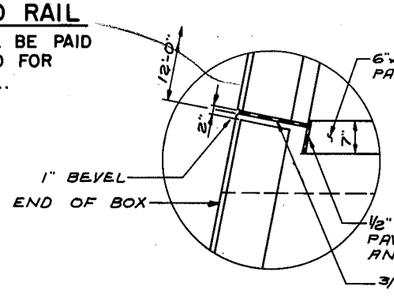
VIEW SHOWING OUTSIDE FACE OF PARAPET & REINF.

THREADED INSERTS FOR $\frac{7}{8}$"ϕ x 0'-2" LONG GALVANIZED HEX. HEAD CAP SCREWS. CAP SCREWS TO BE THREADED A MINIMUM OF 1 $\frac{7}{8}$". INSERTS TO BE THREADED A MINIMUM OF 1 $\frac{3}{4}$".

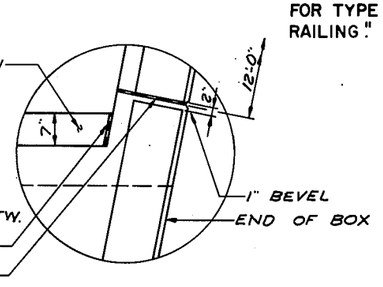


DETAIL OF ANCHOR ASSEMBLY FOR BEAM TYPE GUARD RAIL

ANCHOR ASSEMBLY SHALL BE PAID FOR AT THE UNIT PRICE BID FOR STRUCTURAL CARBON STEEL.



DETAIL "D"



DETAIL "C"

NOTES

WHEN PARAPETS AND CURBS ARE POURED CONTINUOUSLY FROM END TO END, THEY SHALL BE SEPARATED AT THE DEFLECTION JOINTS BY A PIECE OF $\frac{1}{8}$" ZINC OR ALUMINUM PLATE CUT AS SHOWN IN SECTION "D" BY SHADED AREA. IF CONSTRUCTION JOINTS IN PARAPETS AND CURBS ARE USED AT THE DEFLECTION JOINTS, ONE SIDE OF JOINT SHALL BE COATED WITH BITUMINUOUS PAINT AND PLATE SEPARATORS MAY BE OMITTED.

WORK THIS SHEET WITH SHEET TITLED "DETAILS FOR TYPE 'H' TUBULAR ALUMINUM OR STEEL RAILING."

No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-70-85

Const. Spec. 1975	Drawn By G.L.D.	Plans Checked N.K.I.J.

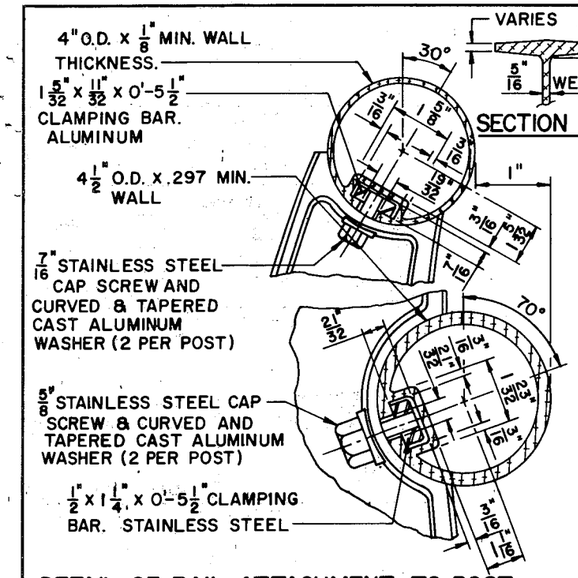
VERTICAL FACE PARAPET "A"

SHEET 3 OF 5

X 54260

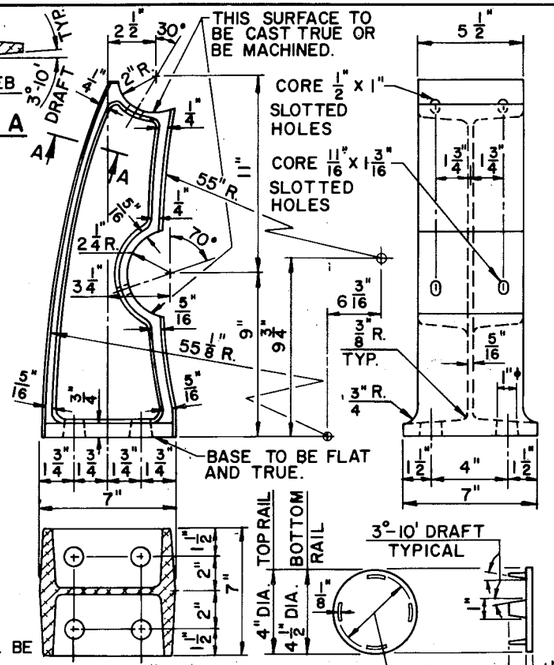
Form E-B-12-69

PROJECT I.D.	SHEET NUMBER	TOTAL SHEETS
4994-0-17	7.3	
FEDERAL PROJECT DESIGNATION		



DETAIL OF RAIL ATTACHMENT TO POST

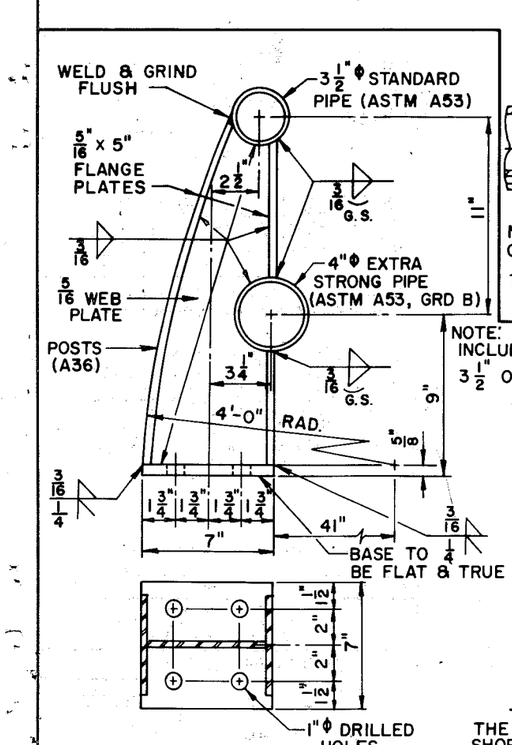
NOTES: MAX. REDUCTION IN DIAMETER OF BENT SECTION SHALL BE 3%.
WALL THICKNESS OF TUBING SHOWN ABOVE SHALL BE MIN. NOMINAL AVERAGE WALL THICKNESS.
MAX. REDUCTION IN SLOT WIDTH IN BENT TUBING SHALL BE 3/16".



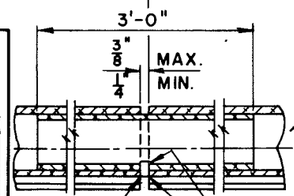
ALUMINUM POST CASTING

1/6 PANEL LENGTH ± 4" TO NEAREST POST.

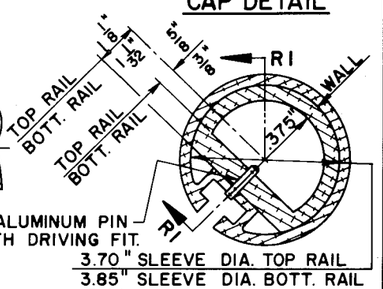
RAIL CLOSURE CAP DETAIL



STEEL POST DETAILS

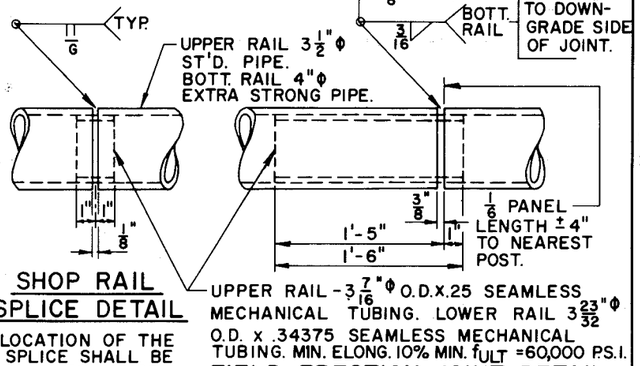


SECTION RI



RAIL SPLICE DETAIL

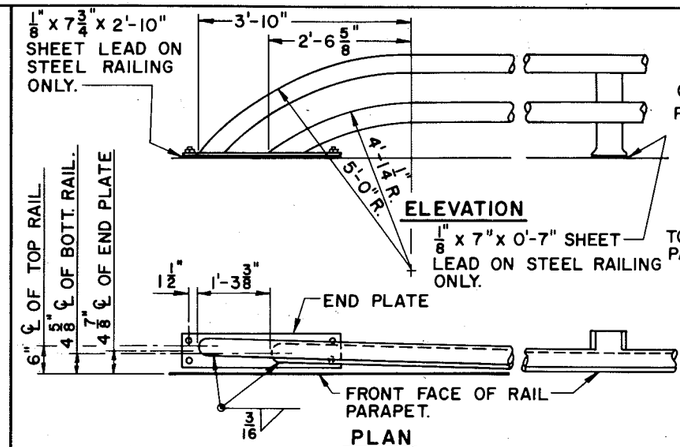
NOTE: GALVANIZE ENTIRE RAILING AFTER FABRICATION INCLUDING NUTS, WASHERS, SHIMS AND TOP 3 1/2" OF ANCHOR BOLTS.



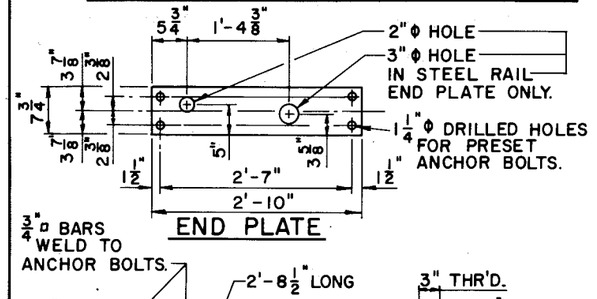
SHOP RAIL SPLICE DETAIL

THE LOCATION OF THE SHOP SPLICE SHALL BE SHOWN ON THE SHOP DRAWINGS.

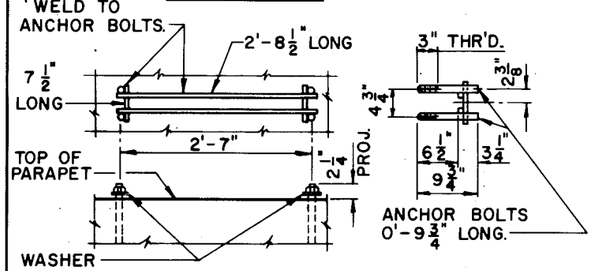
FIELD ERECTION JOINT DETAIL



DETAIL OF RAIL BEND AT ABUTMENTS

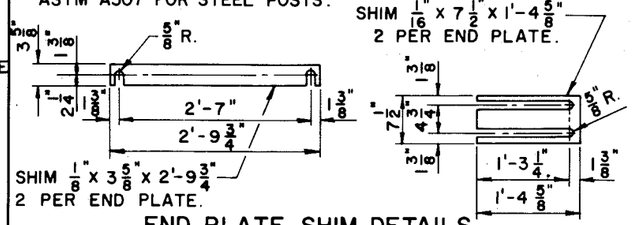


END PLATE

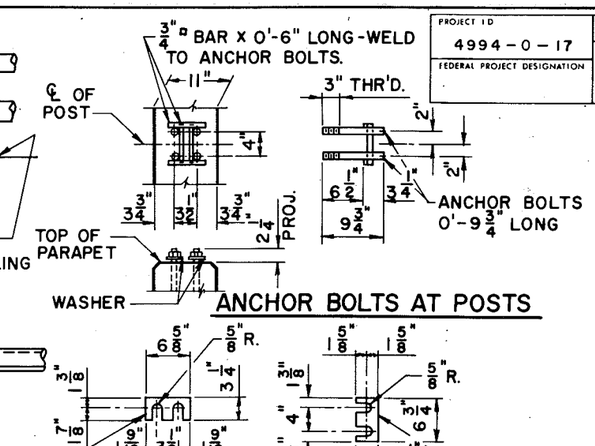


ANCHOR BOLTS AT END PLATE

THE SHANK AND ROOT OF THREAD DIAMETER FOR ANCHOR BOLTS SHALL BE A MINIMUM OF 0.62 INCHES. BOLTS SHALL BE:
STAINLESS STEEL FOR ALUMINUM POSTS (NUTS & WASHERS ALSO)
ASTM A307 FOR STEEL POSTS.

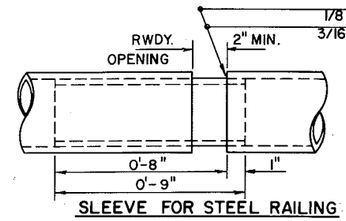


END PLATE SHIM DETAILS

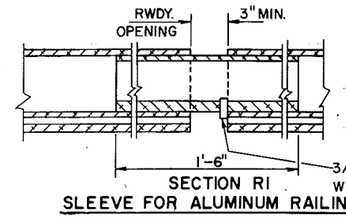


GENERAL NOTES

BID ITEM SHALL BE TUBULAR RAILING, TYPE 'H'.
ALL POST SPACINGS ARE TAKEN HORIZONTALLY ALONG ℄ OF RAILING AT BASE OF POSTS.
RAILING SHALL BE FABRICATED IN TWO OR THREE PANEL LENGTHS.
SHIMS CONFORMING TO SAME MATERIAL AS POSTS SHALL BE USED UNDER POSTS AND END PLATES WHERE REQ'D FOR ALIGNMENT.
RAIL POSTS SHALL BE SET NORMAL TO GRADE.



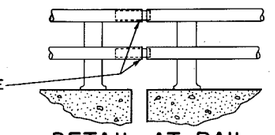
SLEEVE FOR STEEL RAILING



SLEEVE FOR ALUMINUM RAILING

SLEEVE DETAIL AT ABUTMENT

NOTES: 1) ALL SLEEVE DETAILS FOR STEEL PIPE RAILING TO BE IN ACCORDANCE WITH "FIELD ERECTION JOINT DETAIL" THIS SHEET, UNLESS SHOWN OR NOTED OTHERWISE.
2) ALL SLEEVE DETAILS FOR ALUMINUM PIPE RAILING TO BE IN ACCORDANCE WITH "RAIL SPLICE DETAIL" THIS SHEET, UNLESS SHOWN OR NOTED OTHERWISE.



DETAIL AT RAIL OPENINGS

No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-70-85

Const. Spec. 1975	Drawn By G.L.D.	Plans Checked N.K.I.J.

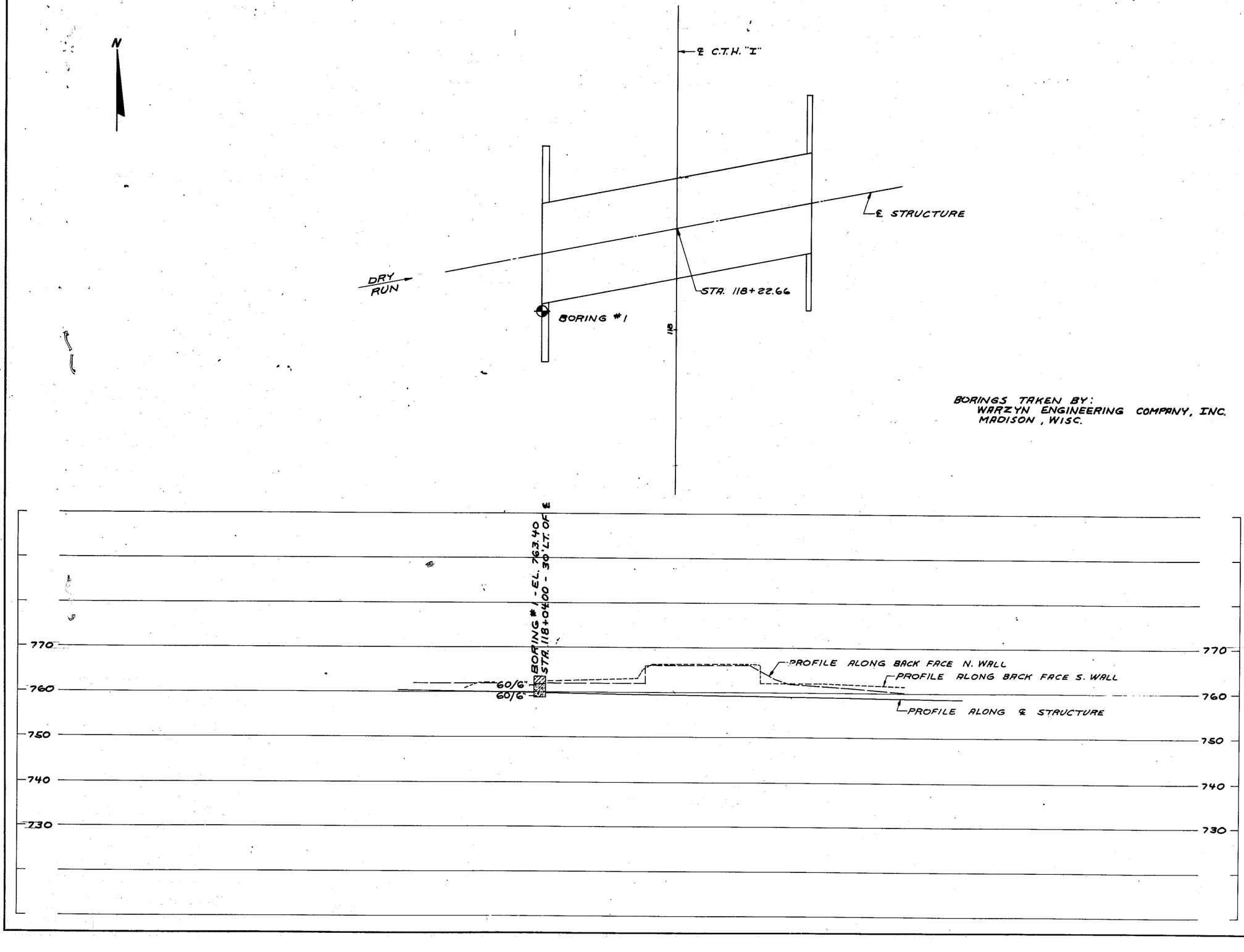
TUBULAR RAILING TYPE 'H'

SHEET 4 OF 5

X 54261

Form E-B-12-69

PROJECT I.D.	SHEET NUMBER	TOTAL SHEETS
4994 - 0 - 17	7.4	
FEDERAL PROJECT DESIGNATION		



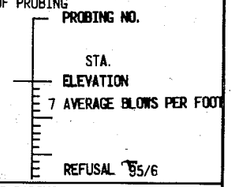
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

MATERIAL SYMBOLS

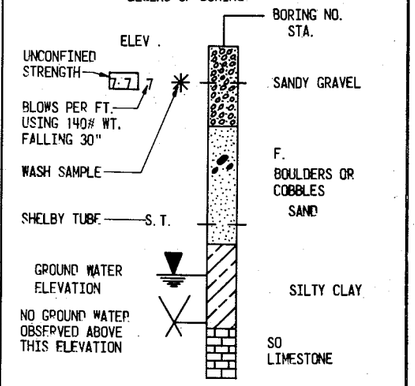
TOPSOIL, SAND, GRAVEL, SILT, PEAT, CLAY, SANDSTONE, LIMESTONE, IGNEOUS ROCK

LEGEND OF PROBING



95/6=95 BLOWS FOR 6" PENETRATION
PROBING TAKEN WITH A 350# WT. FALLING 18" ON A 2" O.D. POINT.

LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE DIVISION OF HIGHWAYS DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-70-85

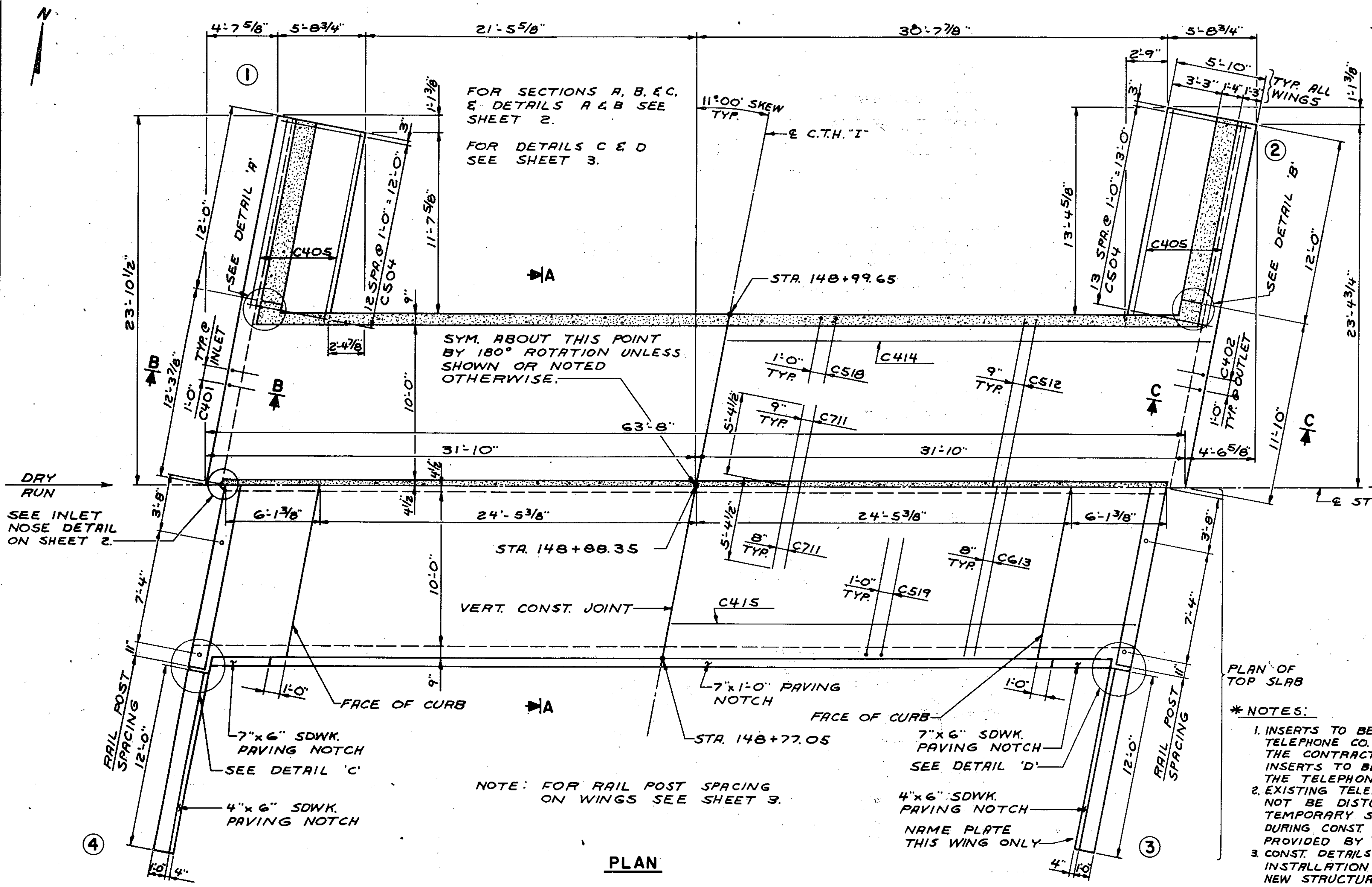
Const. Spec. 1975	Drawn By G.L.D.	Plans Checked N.K.I.J.

SUBSURFACE EXPLORATION

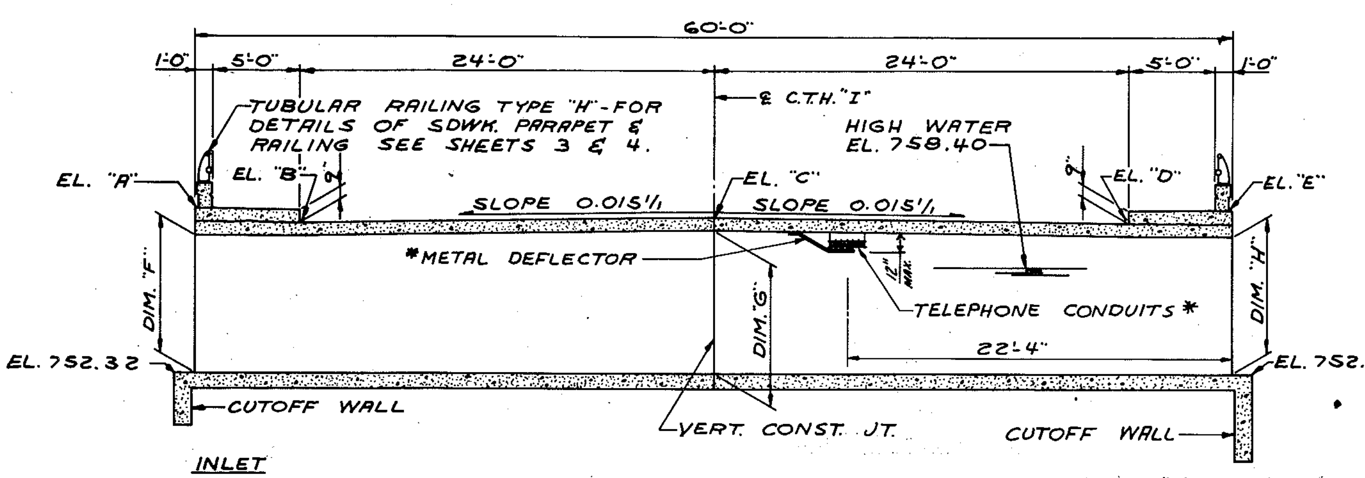
SHEET 5 OF 5

X 54262

PROJECT I.D.	SHEET NUMBER	TOTAL SHEETS
4994 – 0 – 17	75	
FEDERAL PROJECT DESIGNATION		



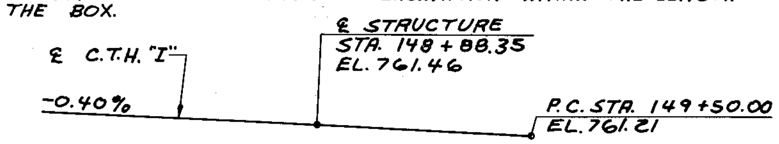
PLAN



PART LONGITUDINAL SECTION
(TAKEN PERPENDICULAR TO ℄ C.T.H. "I")

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.
THE FIRST DIGIT OF A THREE DIGIT BAR NO. SIGNIFIES THE BAR SIZE.
JOINT FILLER SHALL CONFORM TO A.A.S.H.T.O. DESIGNATION M153 OR M213.
THE EXISTING GROUND LINE WAS USED AS THE UPPER LIMITS OF EXCAVATION.
ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH GRANULAR BACKFILL TO THE ELEVATION AND SECTION EXISTING PRIOR TO EXCAVATION WITHIN THE LENGTH OF THE BOX.



PROFILE GRADE LINE C.T.H. "I"

DESIGN DATA

LIVE LOAD: HS-20 (STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20#/S.F.)

ALLOWABLE DESIGN STRESSES:
CONCRETE MASONRY — TOP SLAB — f'_c = 4,000 p.s.i.; ALL OTHER — f'_c = 3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT (GRADE 60) — f_y = 60,000 p.s.i.

HYDRAULIC DATA:
DRAINAGE AREA = 3.9 SQ. MI.
WATERWAY AREA = 120 SQ. FT.
V = 9.4 f.p.s.
Q_{100} = 750 c.f.s.
HIGH WATER EL. 758.40

*NOTES:
1. INSERTS TO BE FURNISHED BY THE TELEPHONE CO. AND INSTALLED BY THE CONTRACTOR. LOCATION OF INSERTS TO BE DETERMINED BY THE TELEPHONE CO.
2. EXISTING TELEPHONE CABLES SHALL NOT BE DISTURBED DURING CONST. TEMPORARY SUPPORT OF THESE CABLES DURING CONST. OPERATION WILL BE PROVIDED BY THE TELEPHONE CO.
3. CONST. DETAILS RELATIVE TO INSTALLATION OF CABLES ON THE NEW STRUCTURE SHALL BE THE RESPONSIBILITY OF THE TELEPHONE CO.
4. ALL MATERIAL AND LABOR FOR THE INSTALLATION OF THE TELEPHONE CABLES SHALL BE SUPPLIED BY THE TELEPHONE CO.

TOTAL ESTIMATED QUANTITIES

BID ITEMS

REMOVING OLD BRIDGE	1	L.S.
EXCAVATION FOR STRUCTURES	1	L.S.
CONCRETE MASONRY	197	C.Y.
HIGH-STRENGTH BAR STEEL REINFORCEMENT	24,270	LB.
STRUCTURAL CARBON STEEL	550	LB.
TUBULAR RAILING TYPE "H"	1	L.S.

NON-BID ITEMS

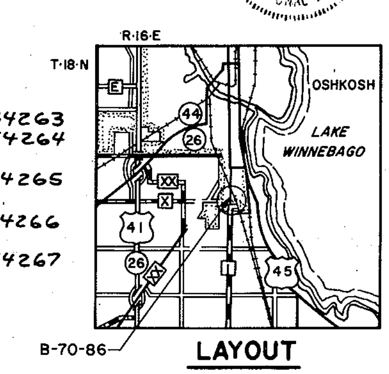
FILLER	1/2 & 3/4	SIZE
POLYVINYL CHLORIDE WATERSTOP	38	L.F.

TABLE OF ELEVATIONS AND DIMENSIONS

	SOUTH WALL	CENTER WALL	NORTH WALL
EL. "A"	761.95	761.91	761.86
EL. "B"	761.16	761.12	761.07
EL. "C"	761.50	761.46	761.41
EL. "D"	761.12	761.08	761.03
EL. "E"	761.91	761.86	761.82
DIM. "F"	8'-1 1/8"	8'-0 5/8"	8'-0"
DIM. "G"	8'-6 7/8"	8'-6 3/8"	8'-5 3/4"
DIM. "H"	8'-3 7/8"	8'-3 1/4"	8'-2 3/4"

LIST OF DRAWINGS

1. LAYOUT — X54263
2. DETAILS — X54264
3. VERTICAL FACE PARAPET "A" — X54265
4. TUBULAR RAILING TYPE "H" — X54266
5. SUBSURFACE EXPLORATION — X54267



LAYOUT

NO.	DATE	REVISION	BY

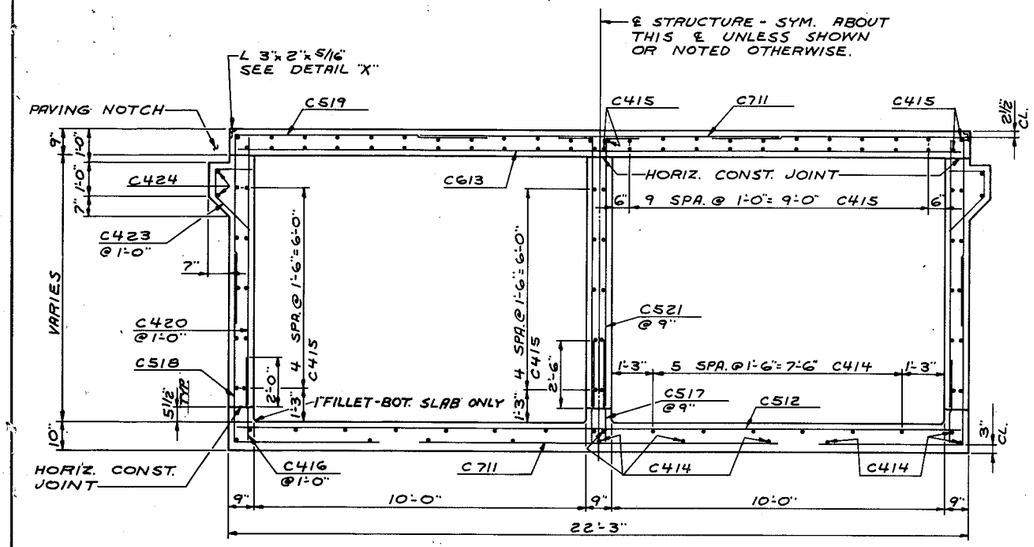
PLANS PREPARED BY
OWEN AYRES Associates

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

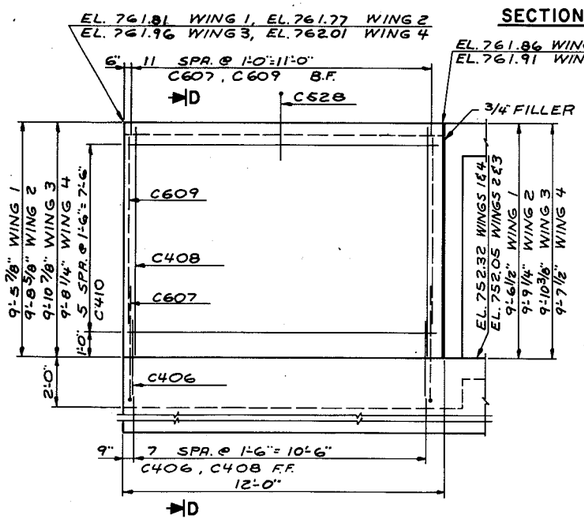
STRUCTURE B-70-86
C.T.H. "I" OVER DRY RUN

County WINNEBAGO — City/Village OSHKOSH
Design Spec. A.A.S.H.T.O. '73 — Load HS-20 — Const. Spec. 1975
Designed By N.K.I.J. — Design Checked R.C.M. — Drawn By G.L.D. — Plans Checked N.K.I.J.
Approved W. A. Kline, Chief Bridge Engineer — Date 12-11-75

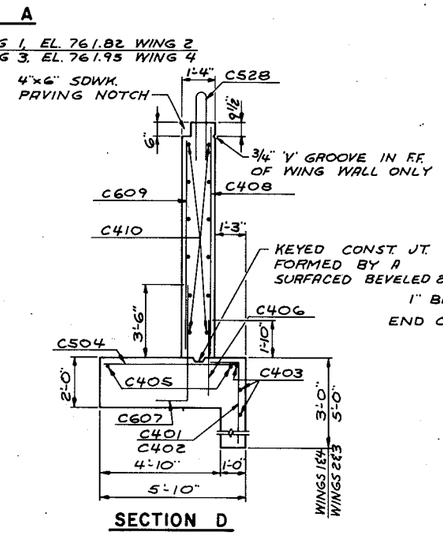
LAYOUT — SHEET 1 OF 5 — X 54263



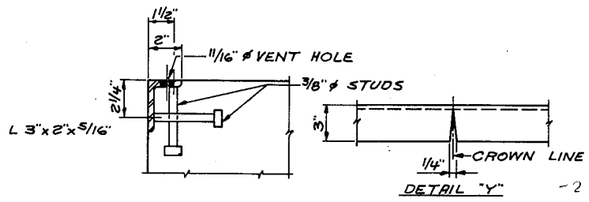
SECTION A



TYP. WING ELEVATION



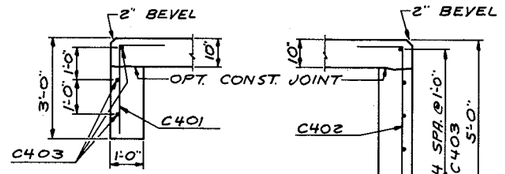
SECTION D



DETAIL "Y"

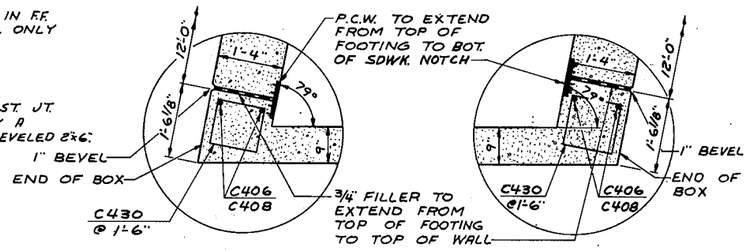
AT PAVING NOTCH, PROVIDE L 3"x2"x5/16"x 4'-9½" LG. PROVIDE 11/16" ø VENT HOLES IN 2" LEG AT 3'-0" CENTERS. ATTACH ANGLE TO CONCRETE WITH 3/8" ø STUDS x 4" LG. AT 6" ALTERNATE CENTERS. FIELD CUT 3" LEG OF ANGLE AS REQ'D. SEE DETAIL "Y". ANGLE AND STUDS TO BE PAID FOR AT THE UNIT PRICE BID FOR "STRUCTURAL CARBON STEEL".

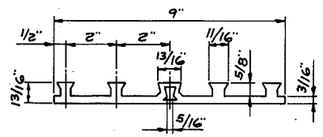
DETAIL "X"



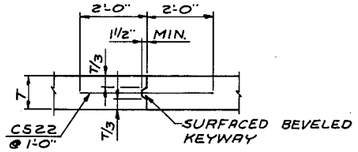
SECTION B (INLET)

SECTION C (OUTLET)

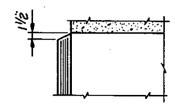




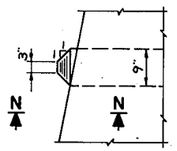
POLYVINYL CHLORIDE WATERSTOP DETAIL
P.C.W.



VERT. CONST. JOINT
(ALL WALLS & SLABS)



SECTION N



PLAN

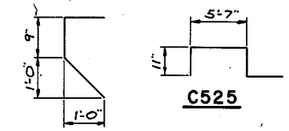
INLET NOSE DETAIL

BILL OF BARS

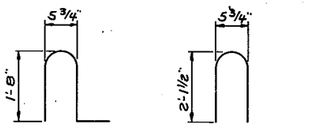
BAR NO.	NO. REQD	LENGTH	BENT	24,270# LOCATION
C401	48	4-0	X	CUTOFF WALL - INLET
C402	48	6-0	X	" " OUTLET
C403	16	24-8		" " INLET & OUTLET
C504	54	5-3		WINGS - FOOTING
C405	8	12-4		" "
C406	40	3-4		" " DOWELS F.F.
C607	48	6-4	X	" " " B.F.
C408	40	9-4		" -WALL - VERT. F.F.
C609	48	8-10		" " " B.F.
C410	48	11-8		" " -HORIZ. F.F. & B.F.
C711	170	10-9		BOX - BOT. & TOP SLAB - TRANS.
C512	84	22-3		" " SLAB - TRANS.
C613	90	22-3		" TOP " "
C414	50	31-6		" BOT. " - LONG.
C415	156	30-2		" TOP " & WALLS - LONG.
C416	124	3-1		" DOWELS
C517	164	3-7		" "
C518	120	10-3	X	" CORNERS BOT.
C519	120	13-8	X	" " TOP
C420	120	8-1		" EXT. WALLS - VERT.
C521	164	9-1	X	" INT. " "
C522	71	4-0		" VERT. CONST. JOINT
C423	116	3-1	X	PAVING BLOCK
C424	8	28-10		" "
C525	52	8-7	X	SIDEWALK
C526	24	23-6		" & PARAPET
C527	46	4-6	X	PARAPET ON BOX
C528	64	5-0	X	" " WINGS
C529	16	11-8		" " "
C430	28	4-4	X	WINGS - CORNERS

F.F. DENOTES FRONT FACE.
B.F. DENOTES BACK FACE
BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

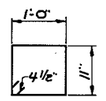
VERT. LEG	
1'-6"	C401, C402
1'-3"	C607
4'-5"	C518
7'-10"	C519
1'-1"	C521



C423 C525



C527 C528



C430

NO.	DATE	REVISION	BY

PLANS PREPARED BY
OWEN AYRES & Associates

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-70-86

Const. Spec. 1975 | Drawn By G.L.D. | Plans Checked N.K.I.J.

DETAILS

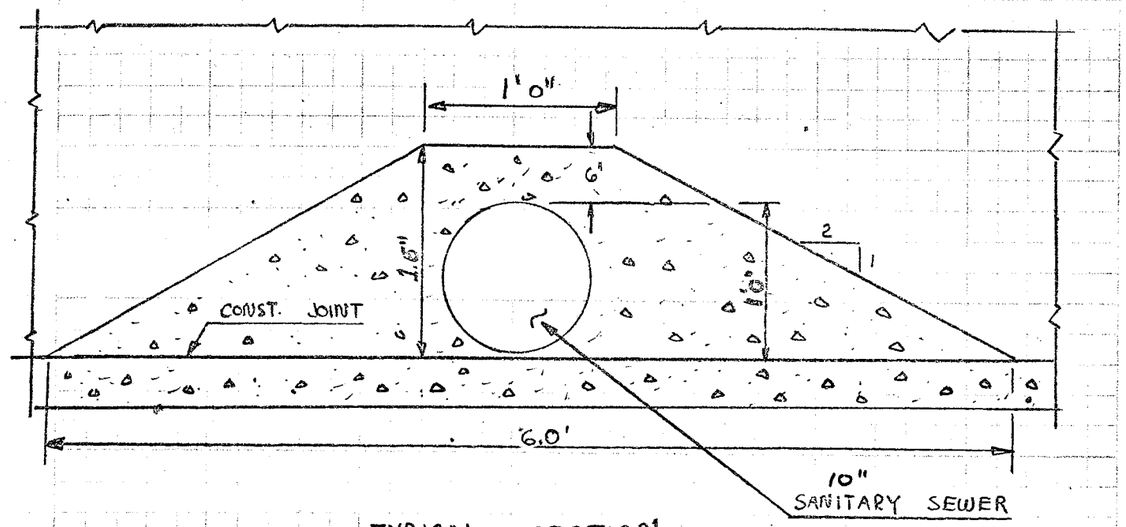
SHEET 2 OF 5

X 54264

PROJECT I.D.	SHEET NUMBER	TOTAL SHEETS
4994-0-17	7.6	
FEDERAL PROJECT DESIGNATION		

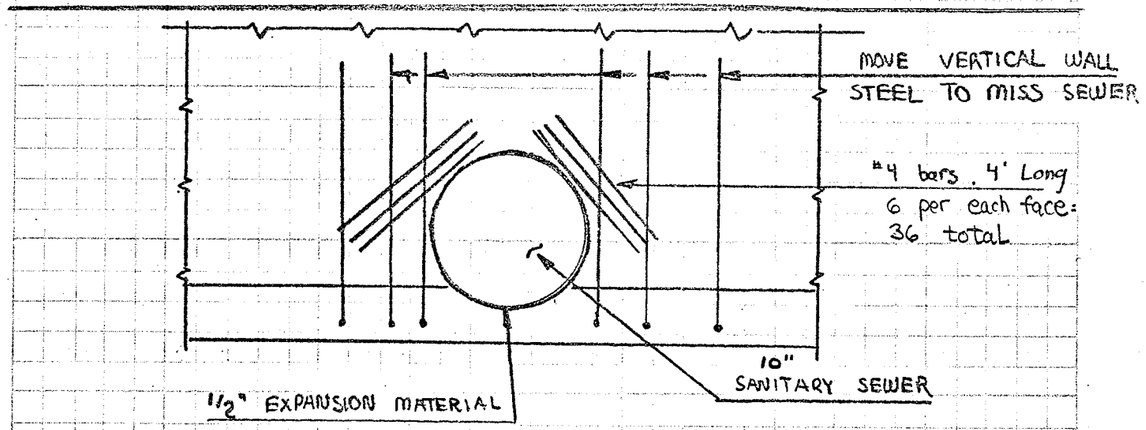
Wisconsin Department of Transportation
E-D-4408-67

Revision



TYPICAL SECTION

SANITARY SEWER AT FLOOR OF B-70-86



CONC. MASONRY: + 3.5 C.Y.

TYPICAL SECTION

SANITARY SEWER AT WALLS, B-70-86

4994-0-17 C.C.O. #4

PROJECT/STRUCTURE NO. B-70-86	HWY. NO. C.T.H. "I"	COUNTY WINN	COMPUTATIONS BY J.H.	DATE 9-10-76
NAME OF ROAD			CHECKED BY A.M.	DATE 9/76
TITLE/ITEM				SHEET OF

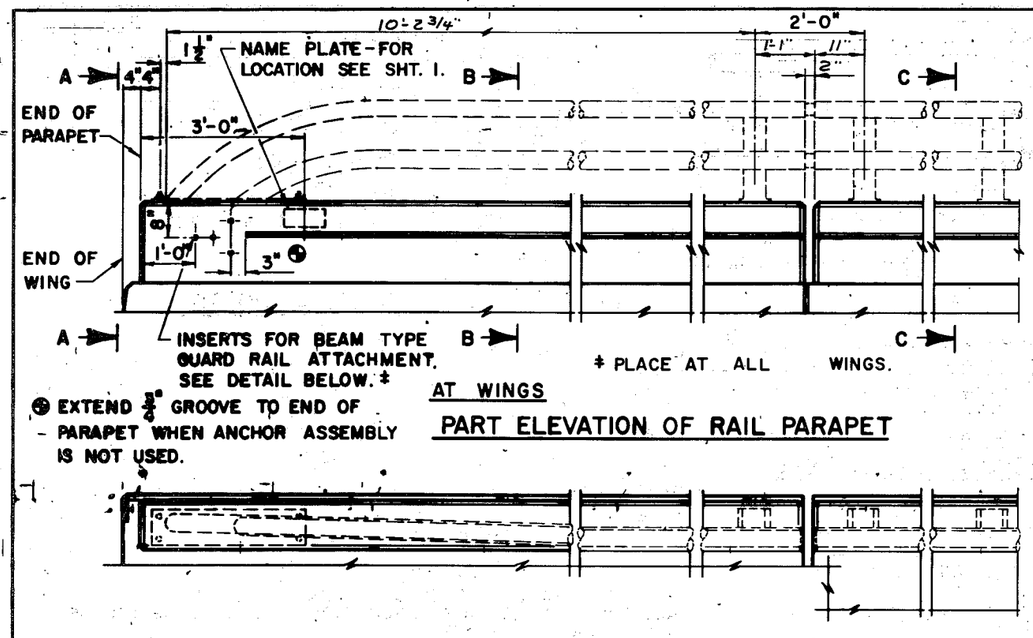
STRUCTURE B-70-85

Revisions to West Footings and cutoff wall

AS BUILT REVISIONS

Form E-8-12-69

PROJECT I.D.	SHEET NUMBER	TOTAL SHEETS
4994-0-17	7.7	
FEDERAL PROJECT DESIGNATION		

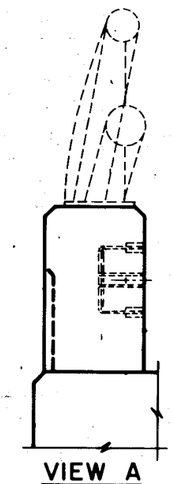


AT WINGS

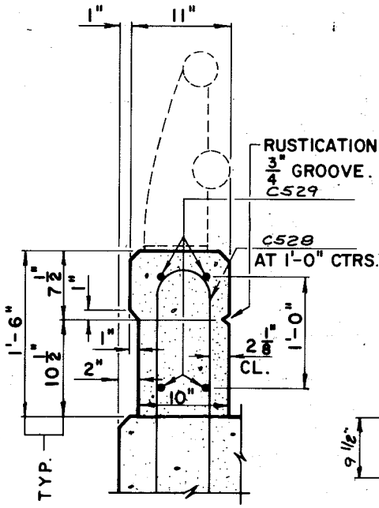
PART ELEVATION OF RAIL PARAPET

AT WINGS

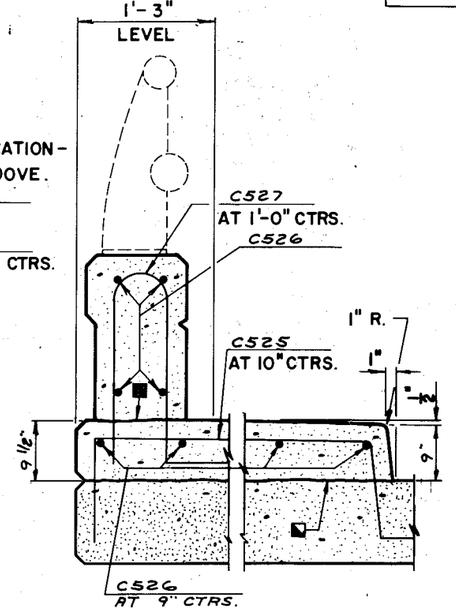
PART PLAN OF RAIL PARAPET



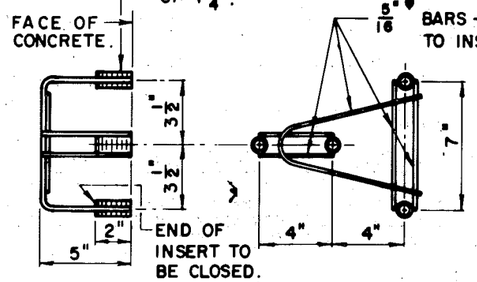
VIEW A



SECTION B

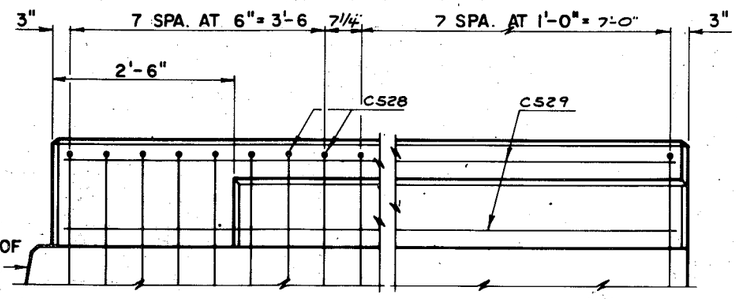


THREADED INSERTS FOR $\frac{7}{8}\phi$ x 0'-2" LONG GALVANIZED HEX. HEAD CAP SCREWS. CAP SCREWS TO BE THREADED A MINIMUM OF $1\frac{7}{8}$". INSERTS TO BE THREADED A MINIMUM OF $1\frac{3}{4}$".

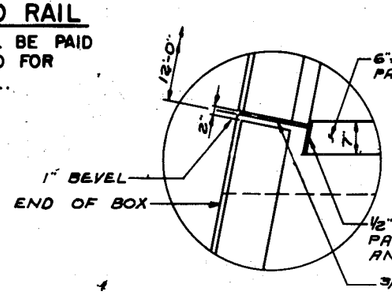


DETAIL OF ANCHOR ASSEMBLY FOR BEAM TYPE GUARD RAIL

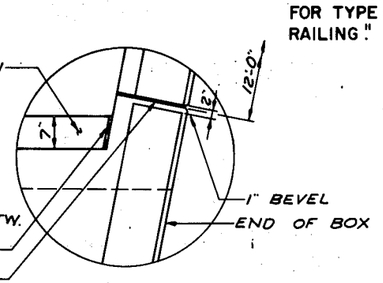
ANCHOR ASSEMBLY SHALL BE PAID FOR AT THE UNIT PRICE BID FOR STRUCTURAL CARBON STEEL.



VIEW SHOWING OUTSIDE FACE OF PARAPET & REINF.



DETAIL "D"



DETAIL "C"

■ CONST. JOINT - STRIKE OFF LEVEL & LEAVE ROUGH.

■ OPTIONAL CONST. JOINT - STRIKE OFF LEVEL & LEAVE ROUGH.

AT SIDEWALK

SECTION C

NOTES

WHEN PARAPETS AND CURBS ARE POURED CONTINUOUSLY FROM END TO END, THEY SHALL BE SEPARATED AT THE DEFLECTION JOINTS BY A PIECE OF $\frac{1}{8}$" ZINC OR ALUMINUM PLATE CUT AS SHOWN IN SECTION "D" BY SHADED AREA. IF CONSTRUCTION JOINTS IN PARAPETS AND CURBS ARE USED AT THE DEFLECTION JOINTS, ONE SIDE OF JOINT SHALL BE COATED WITH BITUMINUOUS PAINT AND PLATE SEPARATORS MAY BE OMITTED.

WORK THIS SHEET WITH SHEET TITLED "DETAILS FOR TYPE 'H' TUBULAR ALUMINUM OR STEEL RAILING."

No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-70-86

Const. Spec. 1975	Drawn By G.L.D.	Plans Checked N.K.I.J.

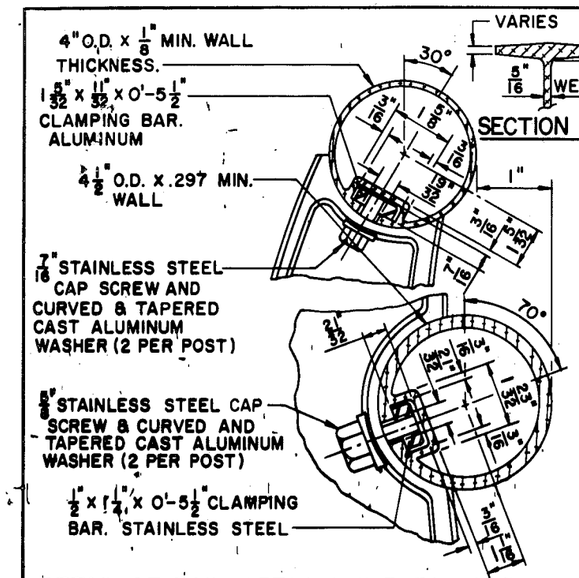
VERTICAL FACE PARAPET "A"

SHEET 3 OF 5

X 54265

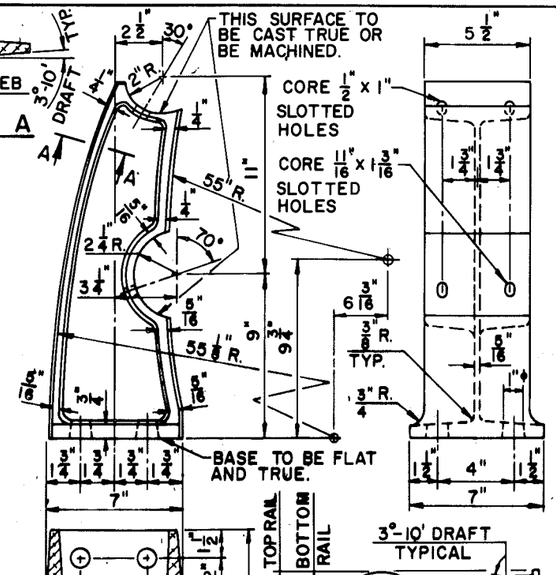
Form E-B-12-69

PROJECT I.D.	SHEET NUMBER	TOTAL SHEETS
4994-0-17	7.8	
FEDERAL PROJECT DESIGNATION		



DETAIL OF RAIL ATTACHMENT TO POST

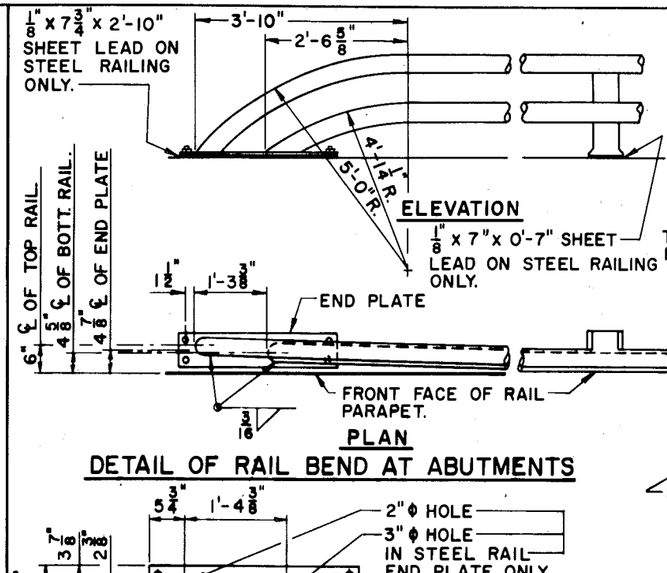
NOTES: MAX. REDUCTION IN DIAMETER OF BENT SECTION SHALL BE 3%.
WALL THICKNESS OF TUBING SHOWN ABOVE SHALL BE MIN. NOMINAL AVERAGE WALL THICKNESS.
MAX. REDUCTION IN SLOT WIDTH IN BENT TUBING SHALL BE 3/16".



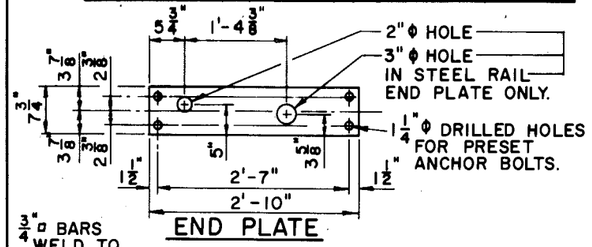
ALUMINUM POST CASTING

1/6 PANEL LENGTH ± 4" TO NEAREST POST.

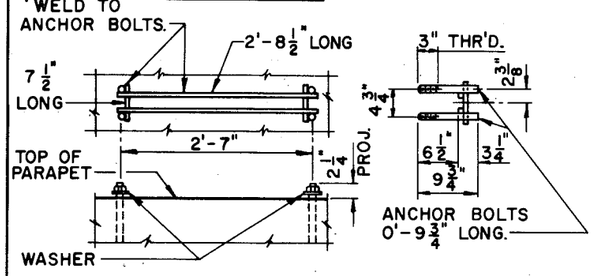
RAIL CLOSURE CAP DETAIL



DETAIL OF RAIL BEND AT ABUTMENTS

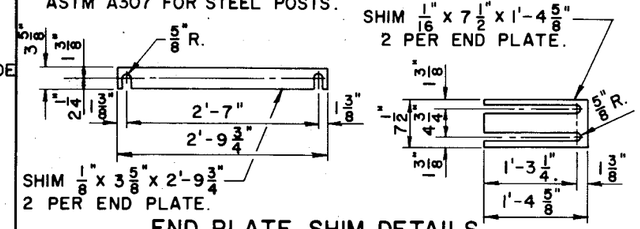


END PLATE

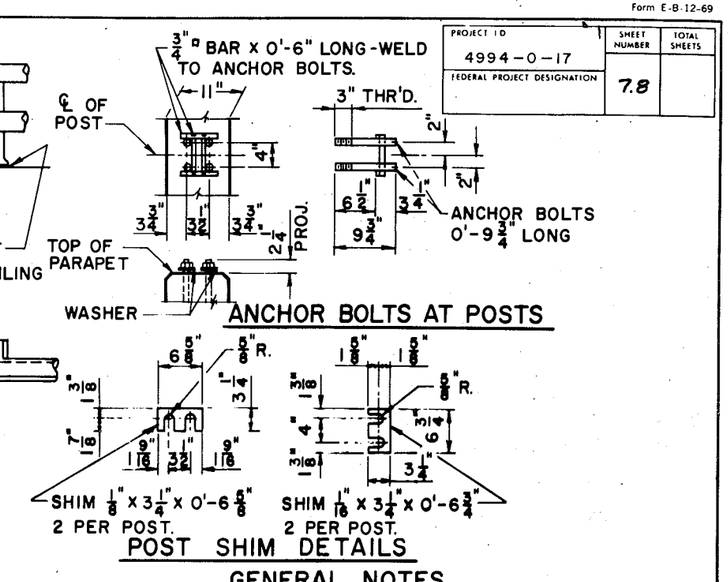


ANCHOR BOLTS AT END PLATE

THE SHANK AND ROOT OF THREAD DIAMETER FOR ANCHOR BOLTS SHALL BE A MINIMUM OF 0.62 INCHES. BOLTS SHALL BE:
STAINLESS STEEL FOR ALUMINUM POSTS (NUTS & WASHERS ALSO)
ASTM A307 FOR STEEL POSTS.

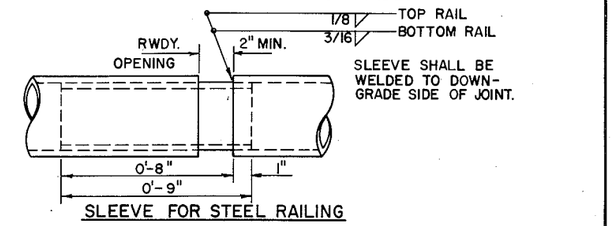


END PLATE SHIM DETAILS



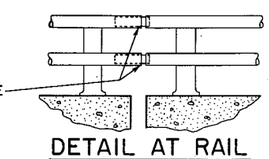
GENERAL NOTES

BID ITEM SHALL BE TUBULAR RAILING, TYPE 'H'.
ALL POST SPACINGS ARE TAKEN HORIZONTALLY ALONG C/L OF RAILING AT BASE OF POSTS.
RAILING SHALL BE FABRICATED IN TWO OR THREE PANEL LENGTHS.
SHIMS CONFORMING TO SAME MATERIAL AS POSTS SHALL BE USED UNDER POSTS AND END PLATES WHERE REQ'D FOR ALIGNMENT.
RAIL POSTS SHALL BE SET NORMAL TO GRADE.

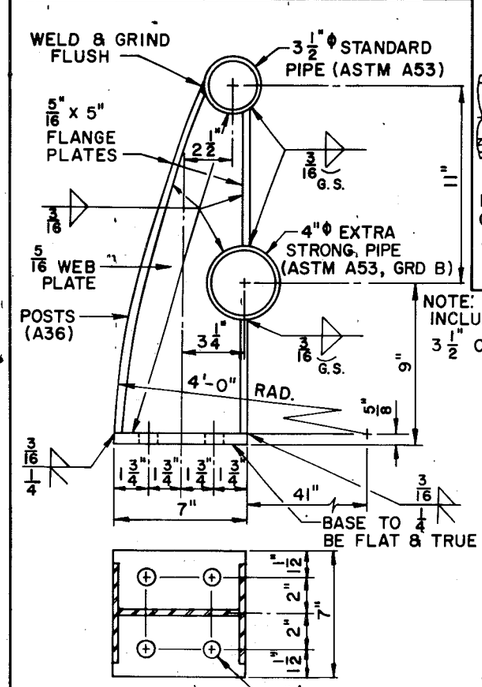


SLEEVE DETAIL AT ABUTMENT

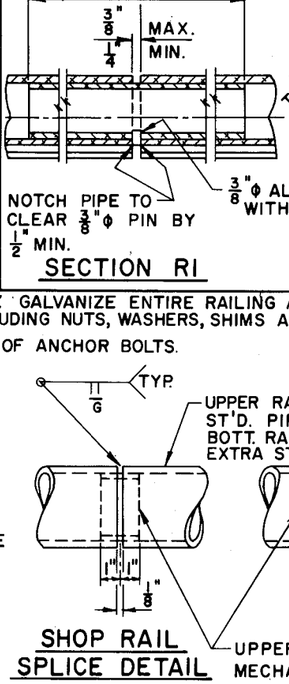
NOTES: 1) ALL SLEEVE DETAILS FOR STEEL PIPE RAILING TO BE IN ACCORDANCE WITH "FIELD ERECTION JOINT DETAIL" THIS SHEET, UNLESS SHOWN OR NOTED OTHERWISE.
2) ALL SLEEVE DETAILS FOR ALUMINUM PIPE RAILING TO BE IN ACCORDANCE WITH "RAIL SPLICE DETAIL" THIS SHEET, UNLESS SHOWN OR NOTED OTHERWISE.

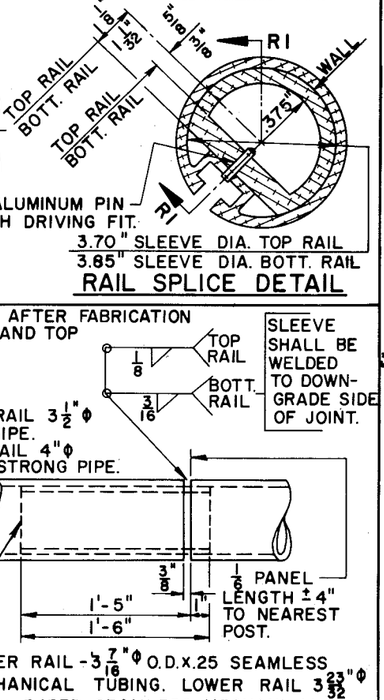


DETAIL AT RAIL OPENINGS



NOTE: GALVANIZE ENTIRE RAILING AFTER FABRICATION INCLUDING NUTS, WASHERS, SHIMS AND TOP 3 1/2" OF ANCHOR BOLTS.





SLEEVE SHALL BE WELDED TO DOWN-GRADE SIDE OF JOINT.

1/6 PANEL LENGTH ± 4" TO NEAREST POST.

No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-70-86

Const. Spec.	Drawn By	Plans Checked
1975	G.L.D.	N.K.I.J.

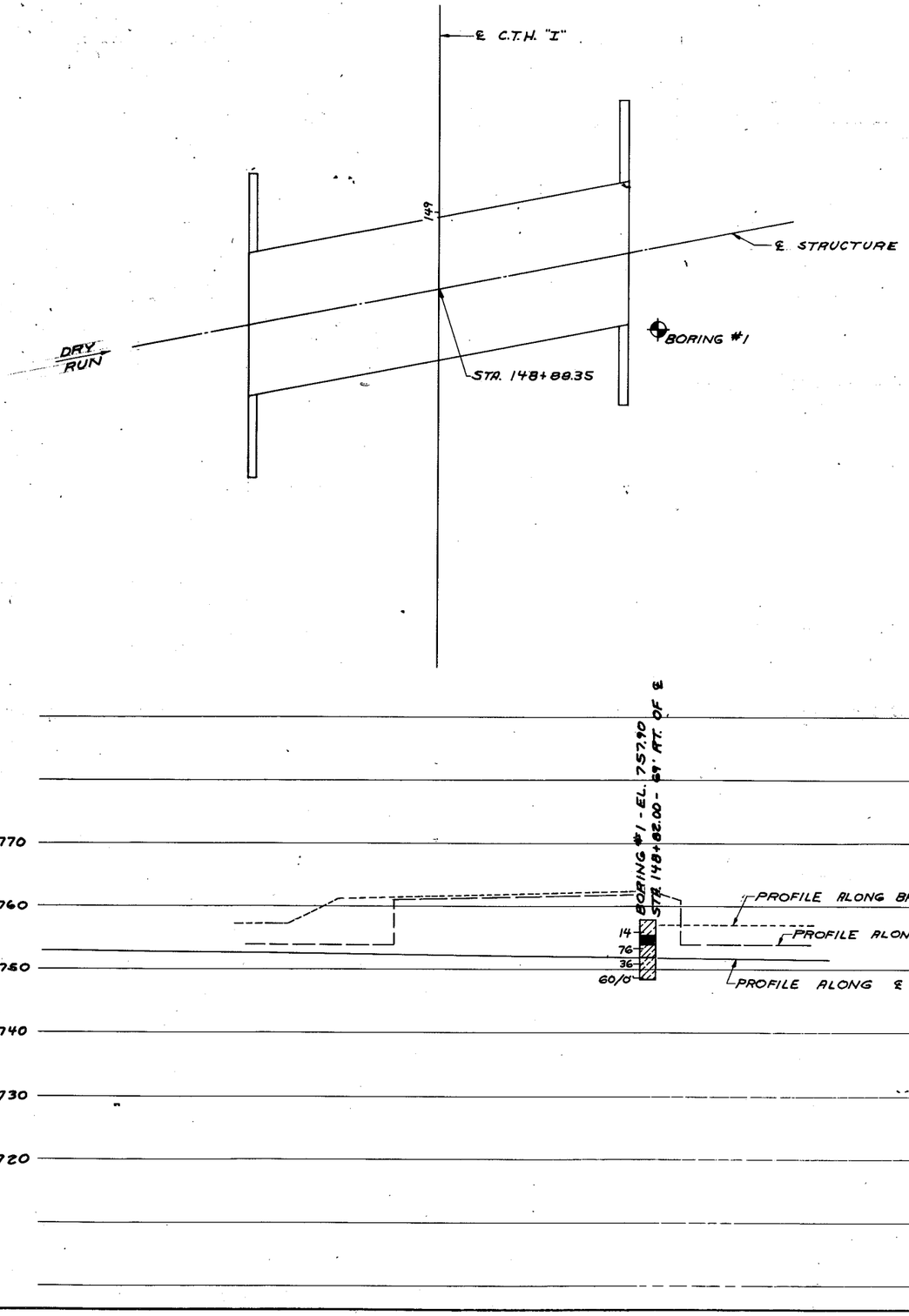
TUBULAR RAILING TYPE 'H'

SHEET 4 OF 5

X 54266

Form E-B-12-69

PROJECT I.D.	SHEET NUMBER	TOTAL SHEETS
4994-0-17	7.9	
FEDERAL PROJECT DESIGNATION		



N

BORINGS TAKEN BY:
WARZYN ENGINEERING COMPANY, INC.
MADISON, WISC.

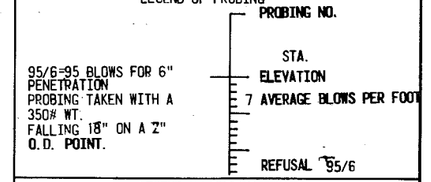
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

MATERIAL SYMBOLS

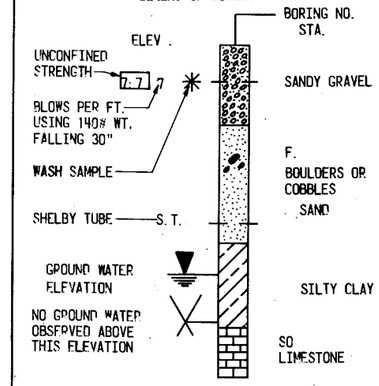
TOPSOIL, SAND, GRAVEL, SILT, PEAT, CLAY, SANDSTONE, LIMESTONE, IGNEOUS ROCK

LEGEND OF PROBING



95/6=95 BLOWS FOR 6" PENETRATION
PROBING TAKEN WITH A 350# WT. FALLING 18" ON A 2" O.D. POINT.

LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE DIVISION OF HIGHWAYS DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-70-86

Const. Spec. 1969	Drawn By G.L.D.	Plans Checked N.K.I.J.

SUBSURFACE EXPLORATION

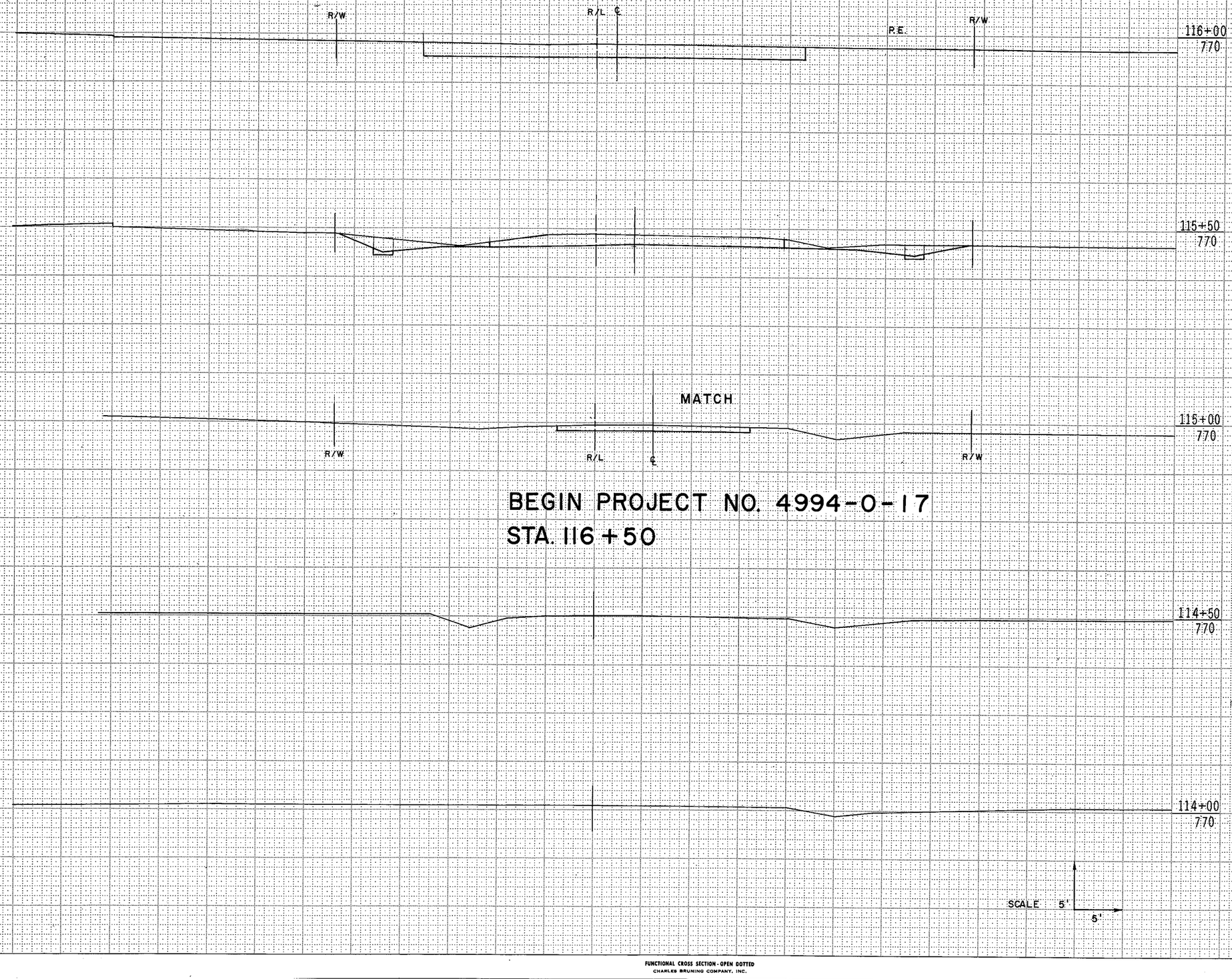
SHEET 5 OF 5

X 54267

REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
6 WIS.	4994-0-17	8	

SURVEY	
NOTE BOOK	
NO.	

PLOTTED
TEMPLATE
AREAS
AREAS CHECKED



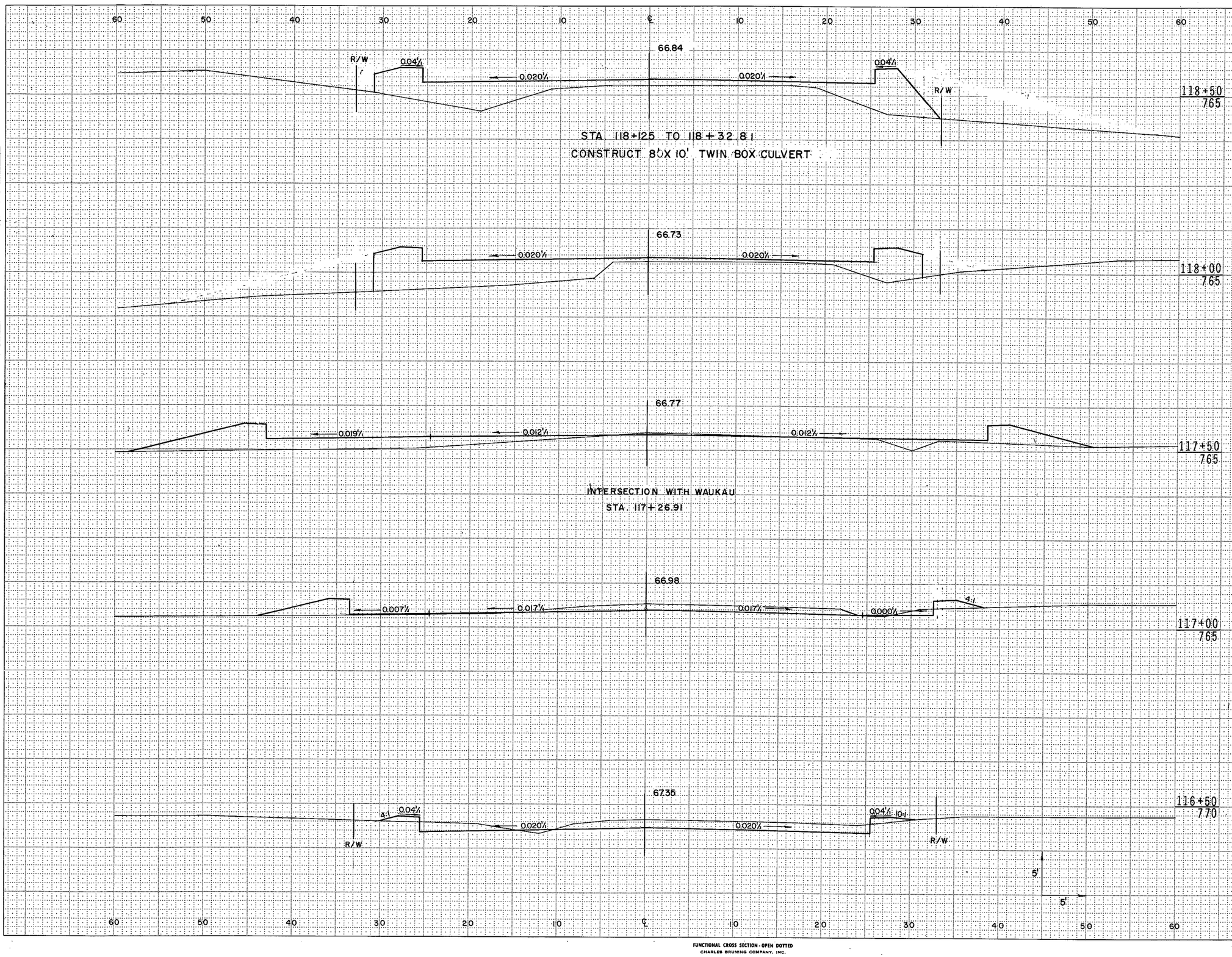
STATION	DISTANCE	YARDAGE EXCAVATION UNCL.	YARDAGE FILL
115			
	50	56	0
+50			
	50	98	0
116			
SHEET TOTAL		154	0

1/16

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC.

REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
5 WIS.	4994-0-17	8.1	

STATION	DISTANCE	YARDAGE EXCAVATION UNCL.	YARDAGE FILL
116	50	88	2
+50	50	67	19
117	50	24	95
+50	50	0	176
118	11	0	44
+11			
+34	16	0	66
+50			
SHEET TOTAL		179	402

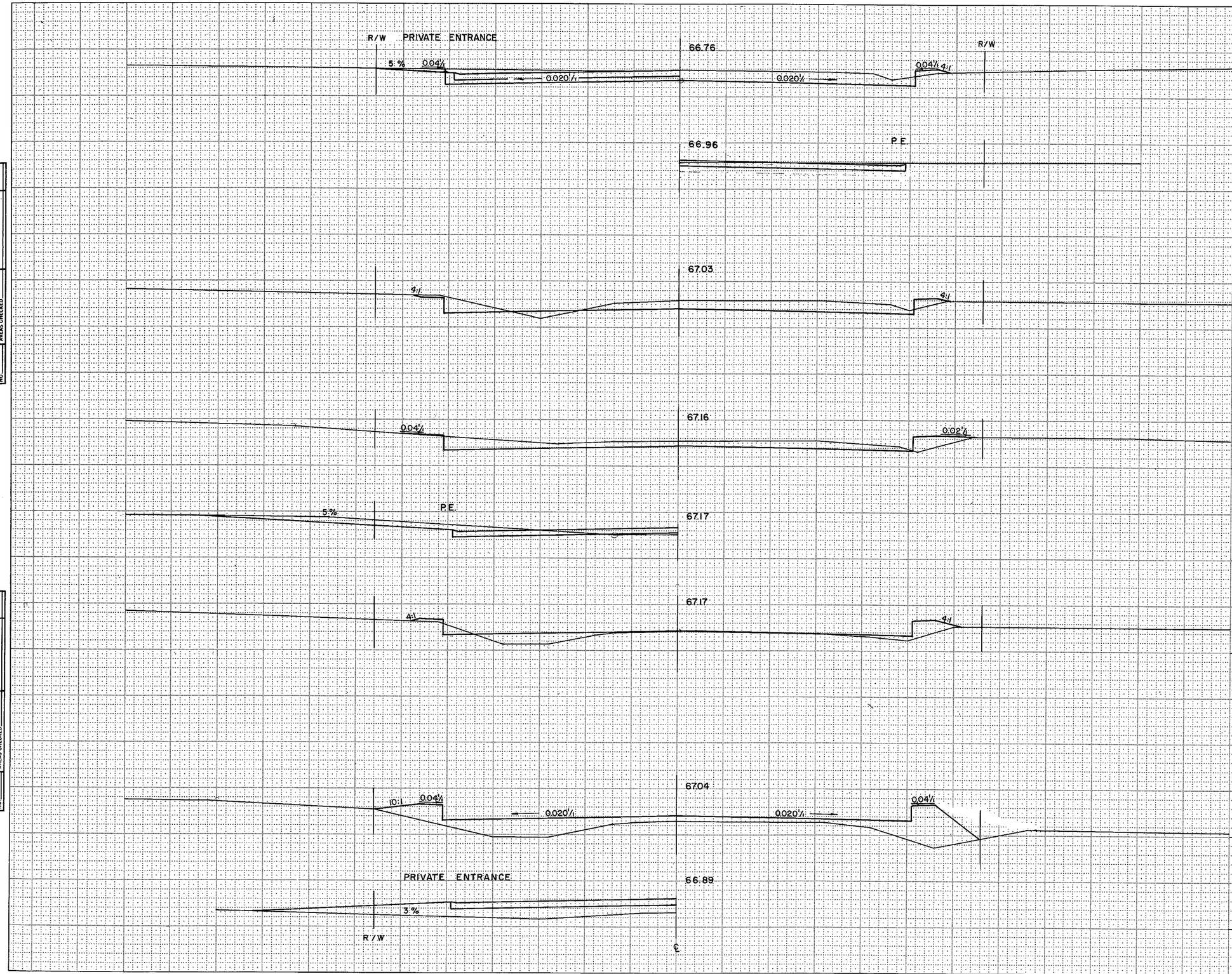


FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC.

PROJECT DESIGNATION: 4994-0-17 | SHEET NUMBER: 8.2

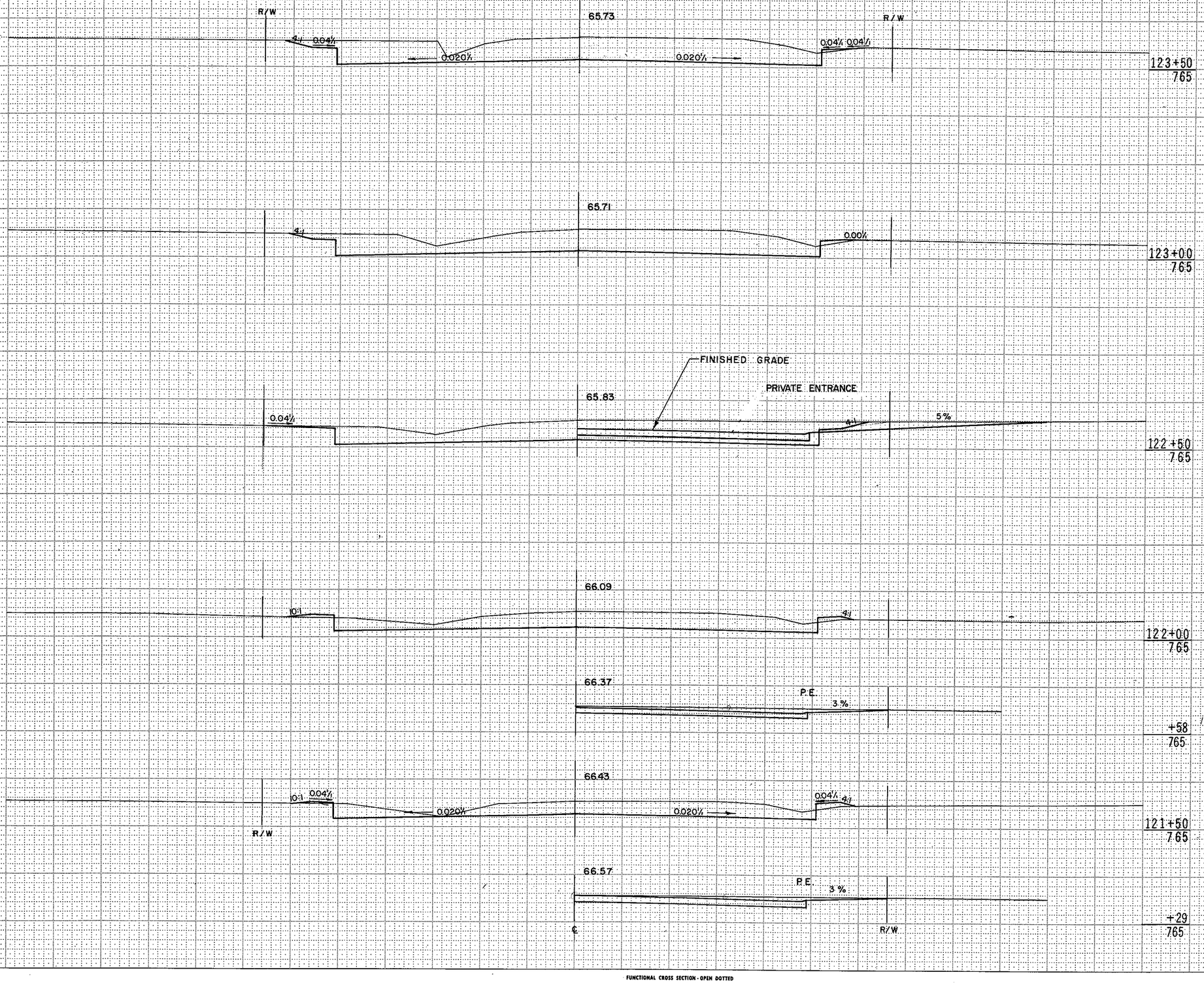


STATION	DISTANCE	YARDAGE EXCAVATION UNCL	YARDAGE FILL
121+00 765			
118 +50	50	0	174
+56 765			
119	50	2	90
+50	50	28	27
120+50 765	50	61	13
+50	50	91	9
121			
120+00 765			
+85 765			
119+50 765			
119+00 765			
+64 765			
SHEET TOTAL	182		313

SURVEY: SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED; NOTE BOOK; NO.

SURVEY: SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED; NOTE BOOK; NO.

REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
5 WIS.	4394-0-17	8.3	



STATION	DISTANCE	YARDAGE EXCAVATION UNCL.	FILL
121			
	50	106	6
+50			
	50	106	5
122			
	50	146	2
+50			
	50	187	1
123			
	50	195	1
+50			
SHEET TOTAL		740	15

FINAL SURVEY	BY	DATE
NOTE BOOK	SURVEYED	
NO.	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	

ORIGINAL SURVEY	BY	DATE
NOTE BOOK	SURVEYED	
NO.	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC.

REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
5 WIS.	4994-0-17	8.4	

STATION	DISTANCE	YARDAGE EXCAVATION UNCL.	FILL
123 +50	50	195	0
124 +50	50	172	2
125 +50	50	141	6
126 +50	50	135	11
126	50	126	13
SHEET TOTAL	769		32

3%

SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC.

REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
5 WIS.	4994-0-17	8.6	

PRIVATE ENTRANCE

R/W

5%

4:1

0.04%

64.38

0.020%

PRIVATE ENTRANCE

R/W

0.04% 4:1

5%

131+00
765

64.63

4:1

130+50
765

64.87

3:1

130+00
765

65.12

3:1

129+50
765

65.36

4:1 0.04%

R/W

0.020%

℄

0.020%

0.04% 4:1

R/W

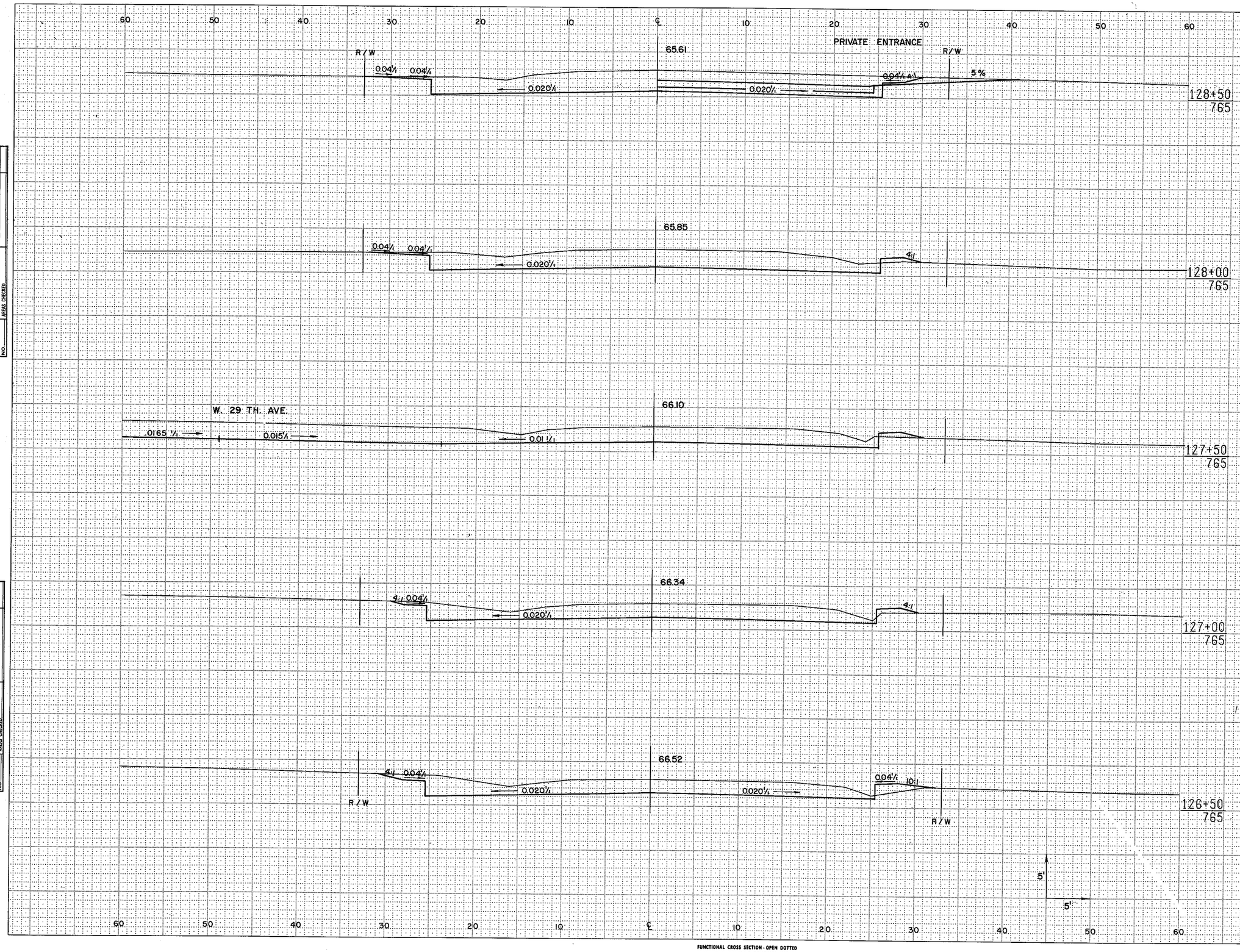
129+00
765

STATION	DISTANCE	YARDAGE EXCAVATION UNCL.	YARDAGE FILL
128 +50	50	208	0
129	50	255	0
+50	50	270	0
130	50	247	0
+50	50	219	0
131			
SHEET TOTAL		1199	0

SURVEY PLOTTED / NOTE BOOK / NO. / TEMPLATE / AREAS / AREAS CHECKED

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC.

REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
5 WIS.	4994-0-17	8.5	-



STATION	DISTANCE	YARDAGE EXCAVATION UNCL.	YARDAGE FILL
126			
	50	126	11
+50			
	50	129	7
127			
	50	141	6
+50			
	50	158	5
128			
	50	169	2
+50			
SHEET TOTAL		723	31

FINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

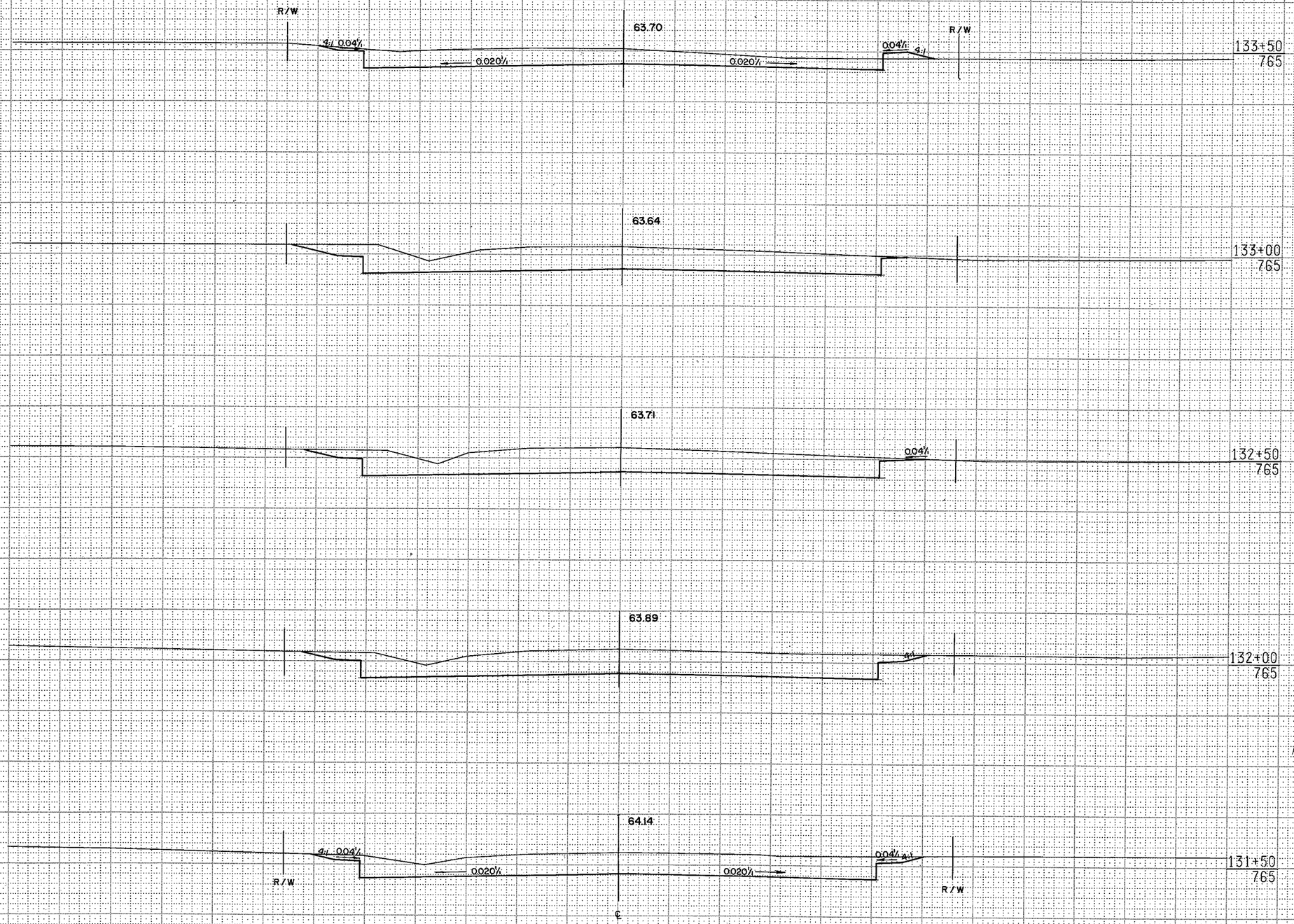
ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC.

REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
5 WIS.	4994-0-17	8.7	

FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — MASS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — MASS CHECKED — BY — DATE



STATION	DISTANCE	YARDAGE EXCAVATION UNCL	FILL
131			
	50	192	0
+50			
	50	192	0
132			
	50	204	0
+50			
	50	197	0
133			
	50	162	3
+50			
SHEET TOTAL		947	3

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC.

REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
5 WIS.	4994-0-17	88	

RAILROAD RESPONSIBILITY
NOT PART OF THIS CONTRACT

64.73 ℄ TRACKS

R/W 0.04⅛ 1½:1 0.018⅛ 0.010⅛ 0.010⅛ 0.04⅛ 4:1

136+00
765

RAILROAD RESPONSIBILITY
NOT PART OF THIS CONTRACT

64.58 ℄ TRACKS

2:1 0.015⅛ 0.000⅛

135+50
765

64.34

3:1 0.020⅛ 0.020⅛ 4:1

135+00
765

64.11

4:1 4:1

134+50
765

63.87

4:1 0.04⅛ 0.020⅛ 0.020⅛ 0.04⅛ 4:1 R/W

134+00
765

63.74

P.E. 5 % R/W ℄

+65
765

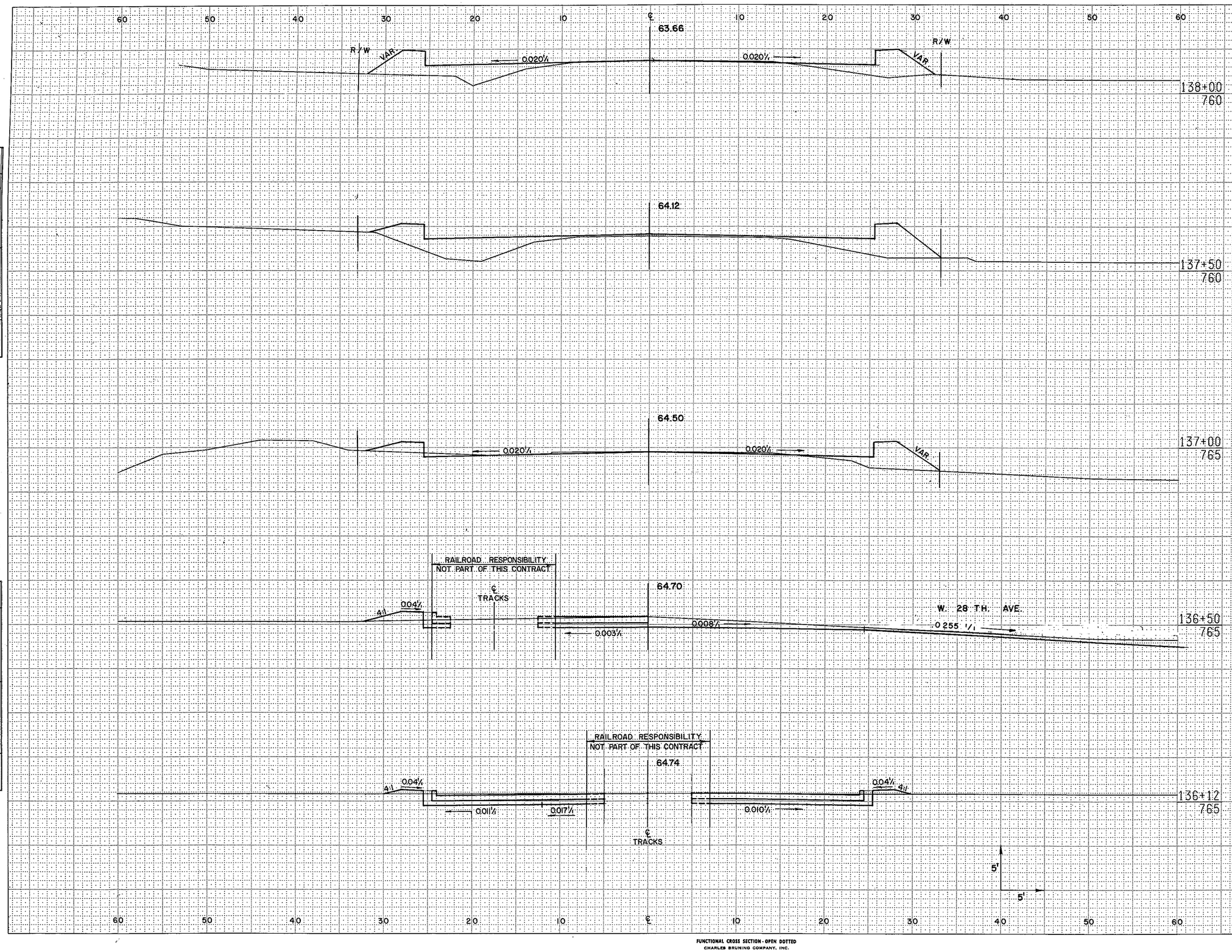
STATION	DISTANCE	YARDAGE EXCAVATION UNCL.	YARDAGE FILL
133 +50	50	10	8
134	50	56	18
+50	50	35	35
135	50	42	43
+50	50	63	44
136			
SHEET TOTAL	206		148

SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
MEAS. CHECKED

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC.

REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
5 WIS.	4994-0-17	8.9	

44/56

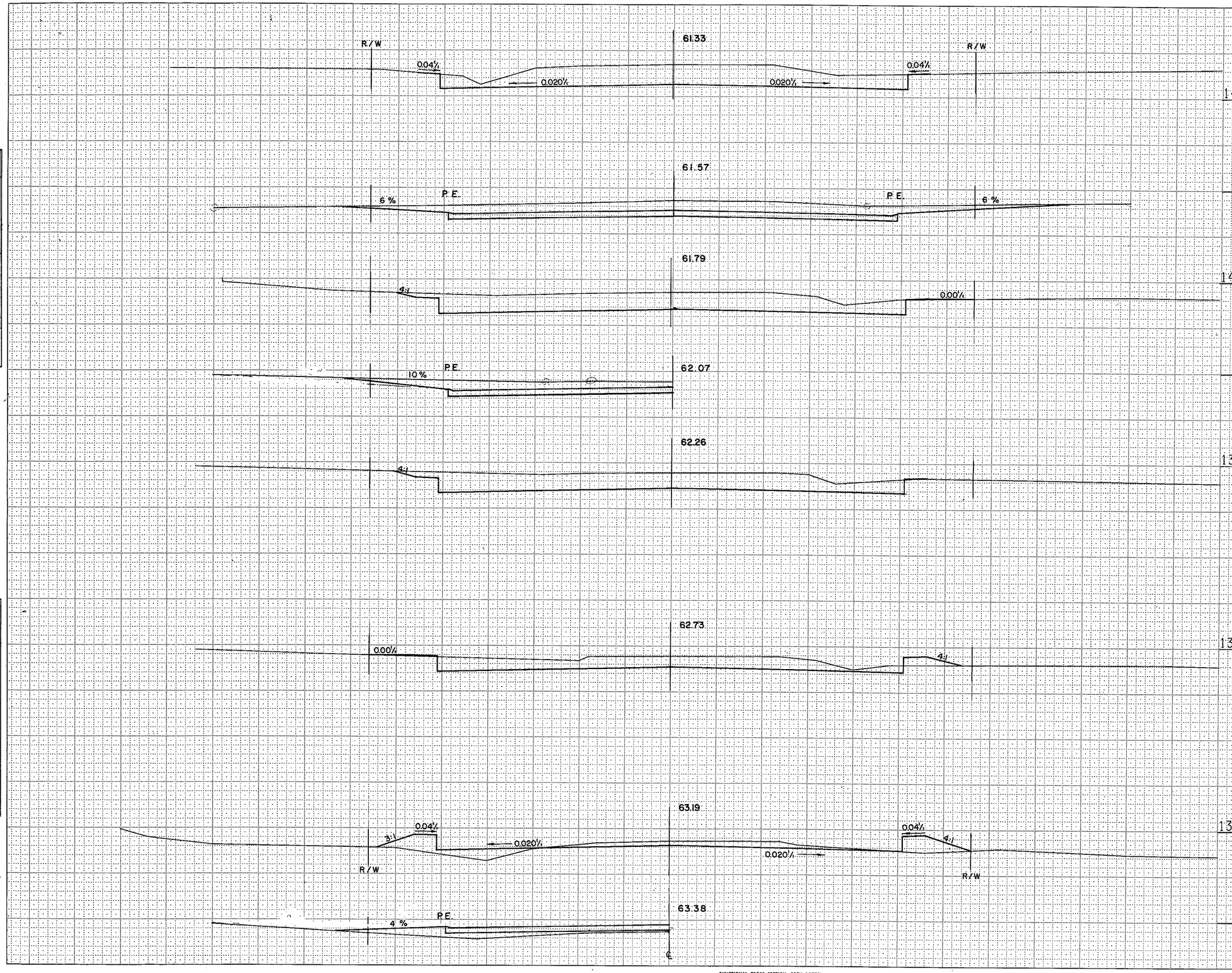


STATION	DISTANCE	YARDAGE EXCAVATION				FILL
			UNCL.			
136						
	12		22			8
+12						
	88		99			65
137						
	50		1			111
+50						
	50		0			139
138						
138						
SHEET TOTAL			122			323

FINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
5 WIS.	4994-0-17	8.10	

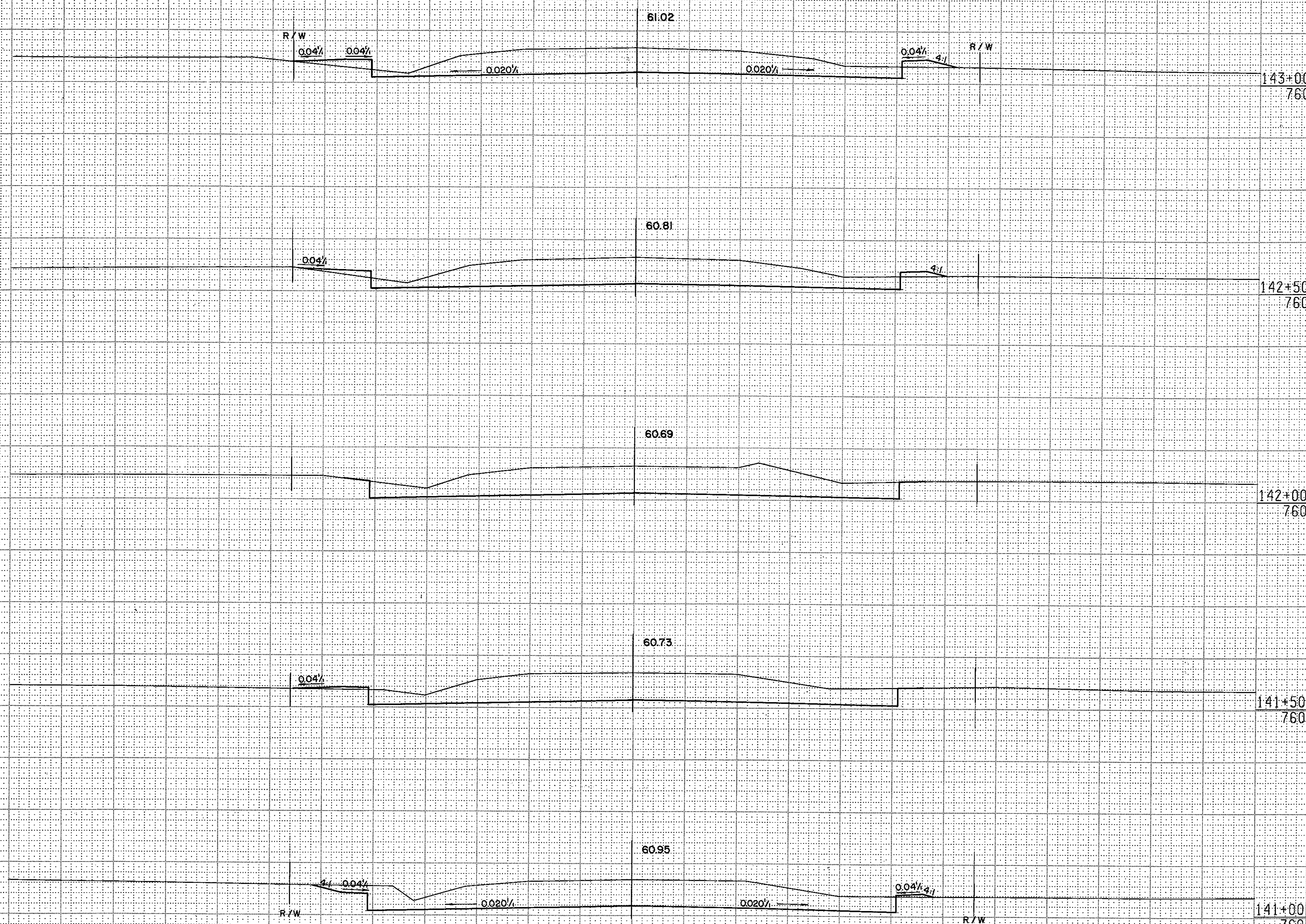


STATION	DISTANCE	YARDAGE EXCAVATION UNCL.	YARDAGE EXCAVATION FILL
138			
	50	14	86
+50			
	50	65	31
139			
	50	130	6
+50			
	50	164	0
140			
	50	178	0
+50			
SHEET TOTAL		551	123

SURVEY	PLOTTED
NOTE BOOK	TEMPLATE
NO.	AREAS
	AREAS CHECKED

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC.

REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
5 WIS.	4994-0-17	8.11	

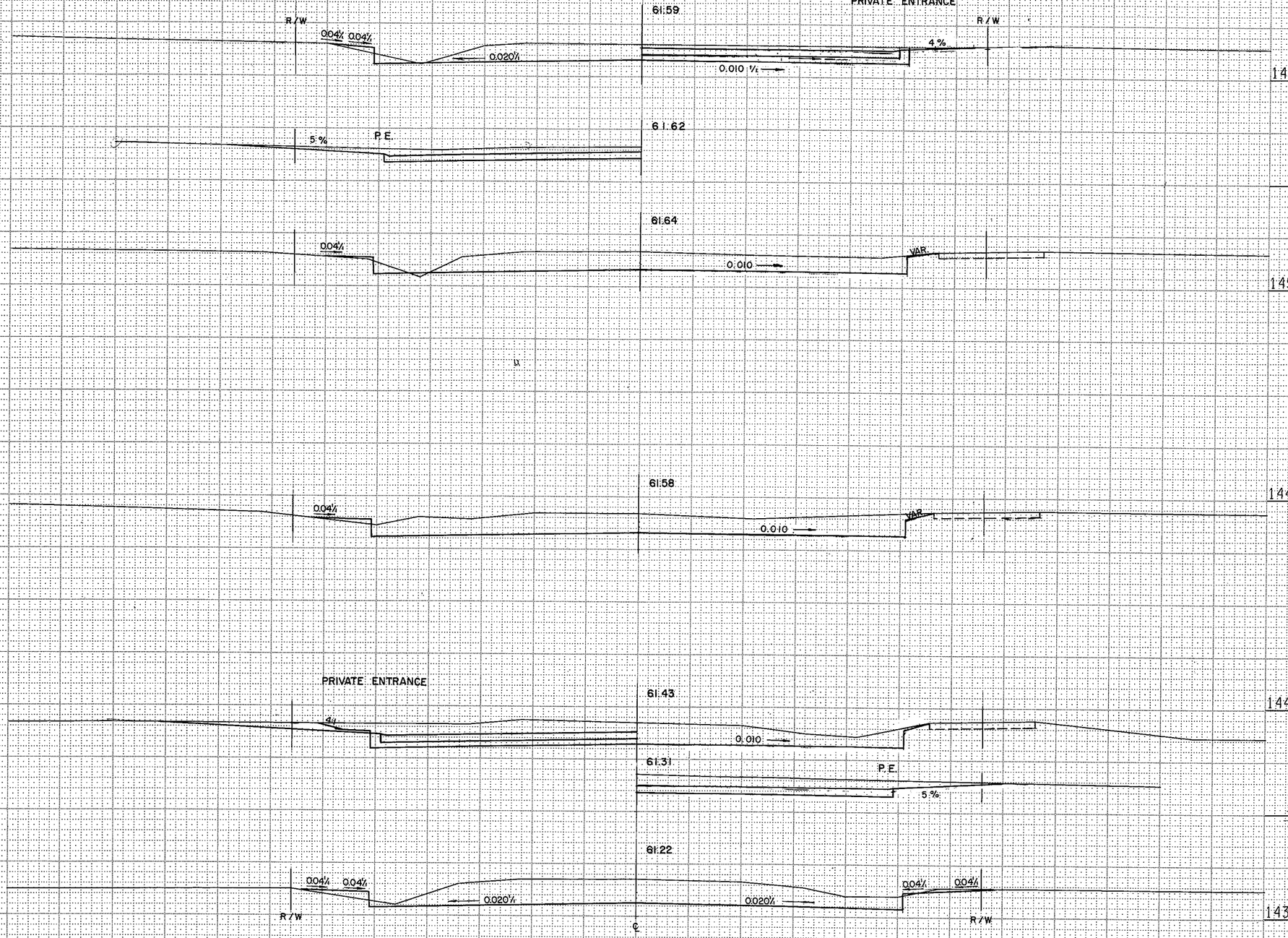


STATION	DISTANCE	YARDAGE EXCAVATION UNCL.			FILL
140+50					
	50	193			0
141					
	50	198			0
+50					
	50	200			0
142					
	50	190			6
+50					
	50	173			13
143					
SHEET TOTAL		954			19

FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
5 WIS.	4994-0-17	8.12	



STATION	DISTANCE	YARDAGE EXCAVATION UNCL.	YARDAGE FILL
143			
	50	178	10
+50			
	50	194	3
144			
	50	181	2
+50			
	50	156	3
145			
	50	141	3
+50			
SHEET TOTAL		850	21

SURVEY
NOTE BOOK
NO.
PLOTTED
TIME PLOTTED
AREAS
AREAS CHECKED

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC.

REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
5 WIS.	4994-0-17	8.13	

49/26

STATION	DISTANCE	YARDAGE EXCAVATION UNCL.	YARDAGE FILL
145 +50	50	140	2
146	50	149	0
+50	50	126	2
147	50	105	13
+50	50	108	26
148			

60 50 40 30 20 10 ℄ 10 20 30 40 50 60

R/W 0.04% 0.020% 60.64 0.010% VAR. R/W 148+00 760

4:1 60.84 VAR. 147+50 760

P.E. 60.95 +23 760

PRIVATE ENTRANCE 61.04 4:1 4% 147+00 760

PRIVATE ENTRANCE 61.24 10:1 1% VAR. 146+50 760

P.E. 61.39 5% +12 760

61.44 0.04% 0.04% 0.020% 0.010% VAR. 146+00 765

R/W R/W

5' 5'

60 50 40 30 20 10 ℄ 10 20 30 40 50 60

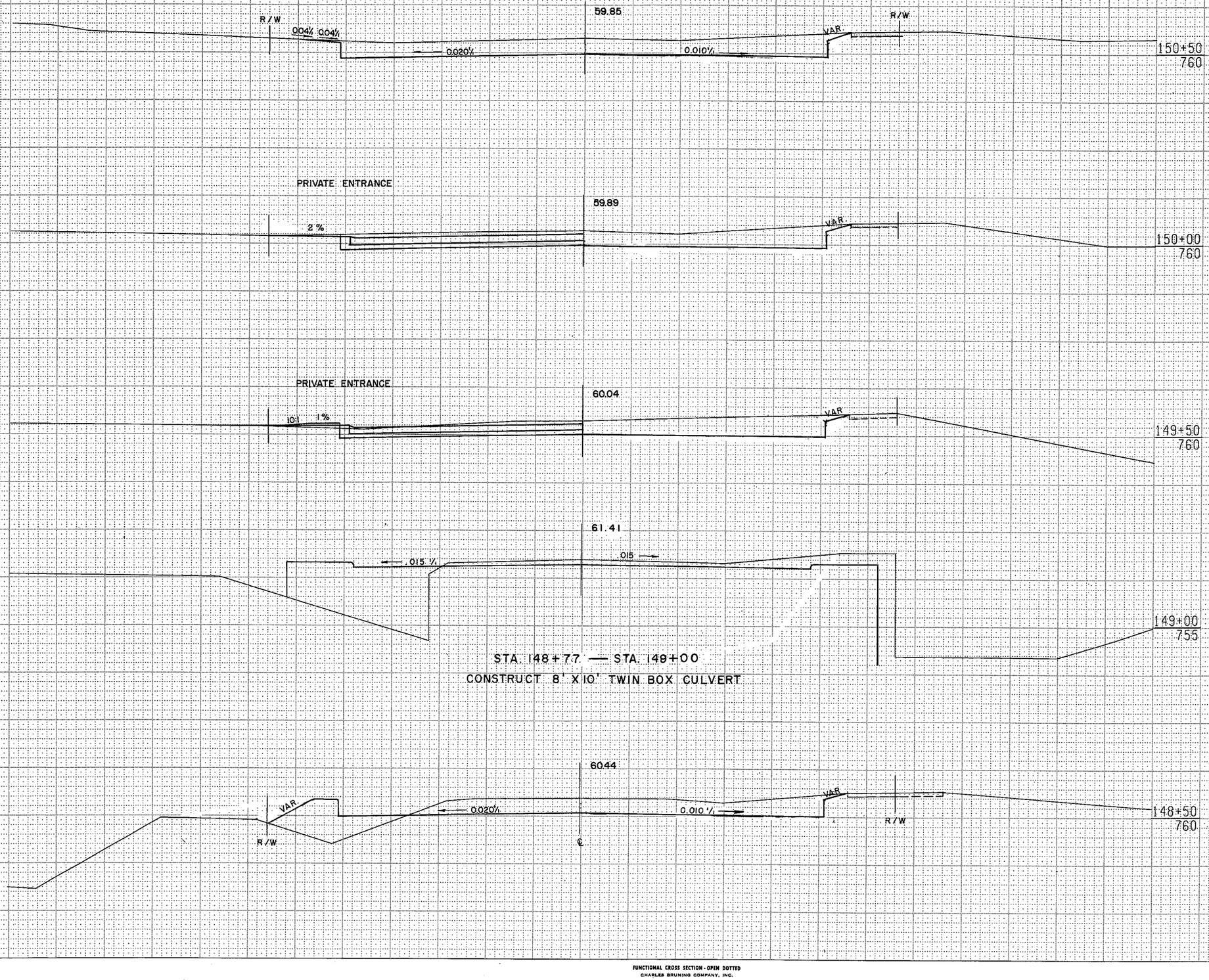
SHEET TOTAL 628 43

FINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC.

REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
5 WIS.	4994-0-17	8.14	



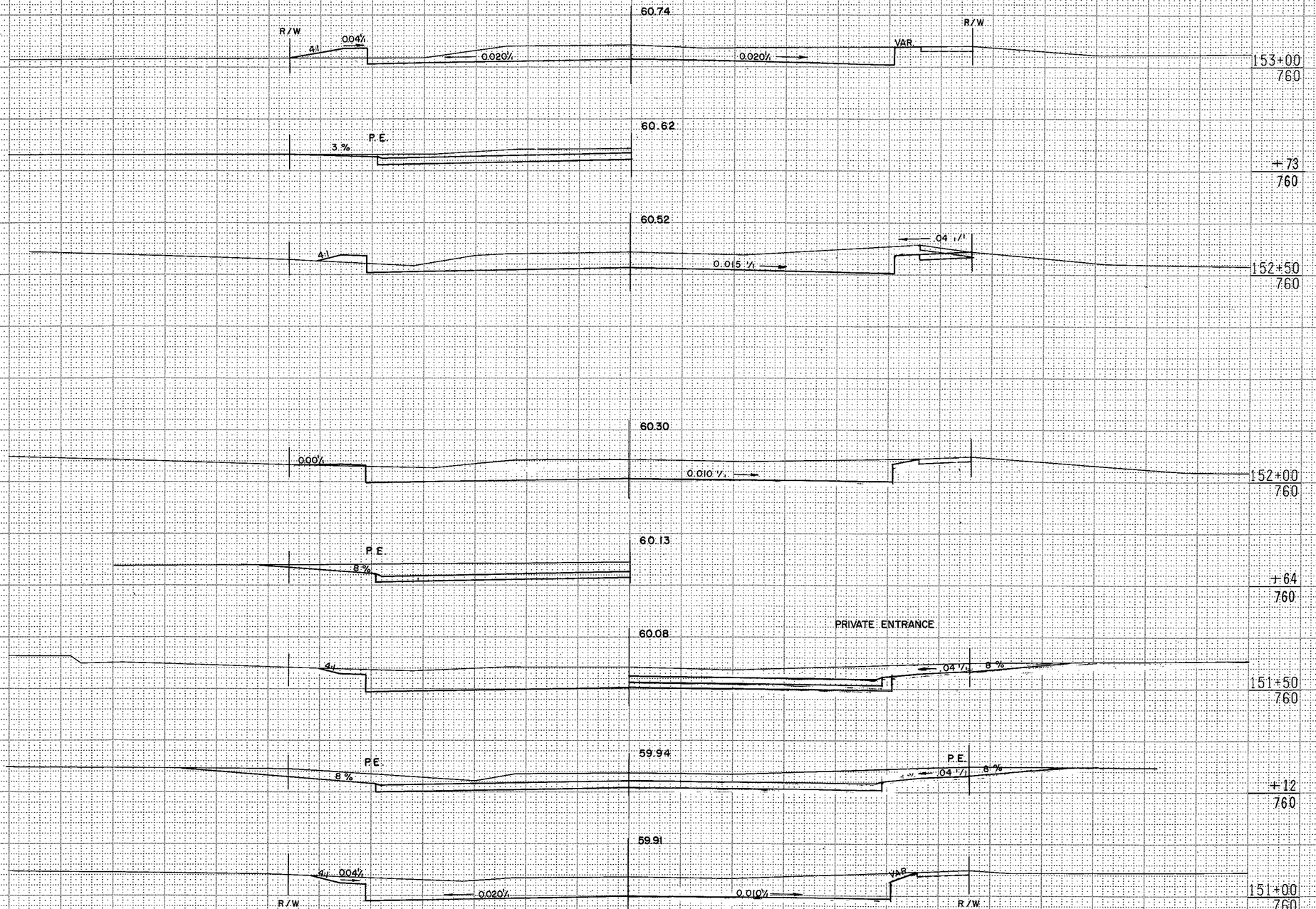
STATION	DISTANCE	YARDAGE EXCAVATION UNCL.	YARDAGE FILL
148			
	50	48	56
+50			
	27	65	42
+77			
149			
	50	130	74
+50			
	50	154	5
150			
		180	0
+50			
SHEET TOTAL		577	177

SURVEY	PLOTTED
NOTE BOOK	TEMPLATE
NO.	AREAS CHECKED

SURVEY	PLOTTED
NOTE BOOK	TEMPLATE
NO.	AREAS CHECKED

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC.

REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
5 WIS.	4994-0-17	8.15	



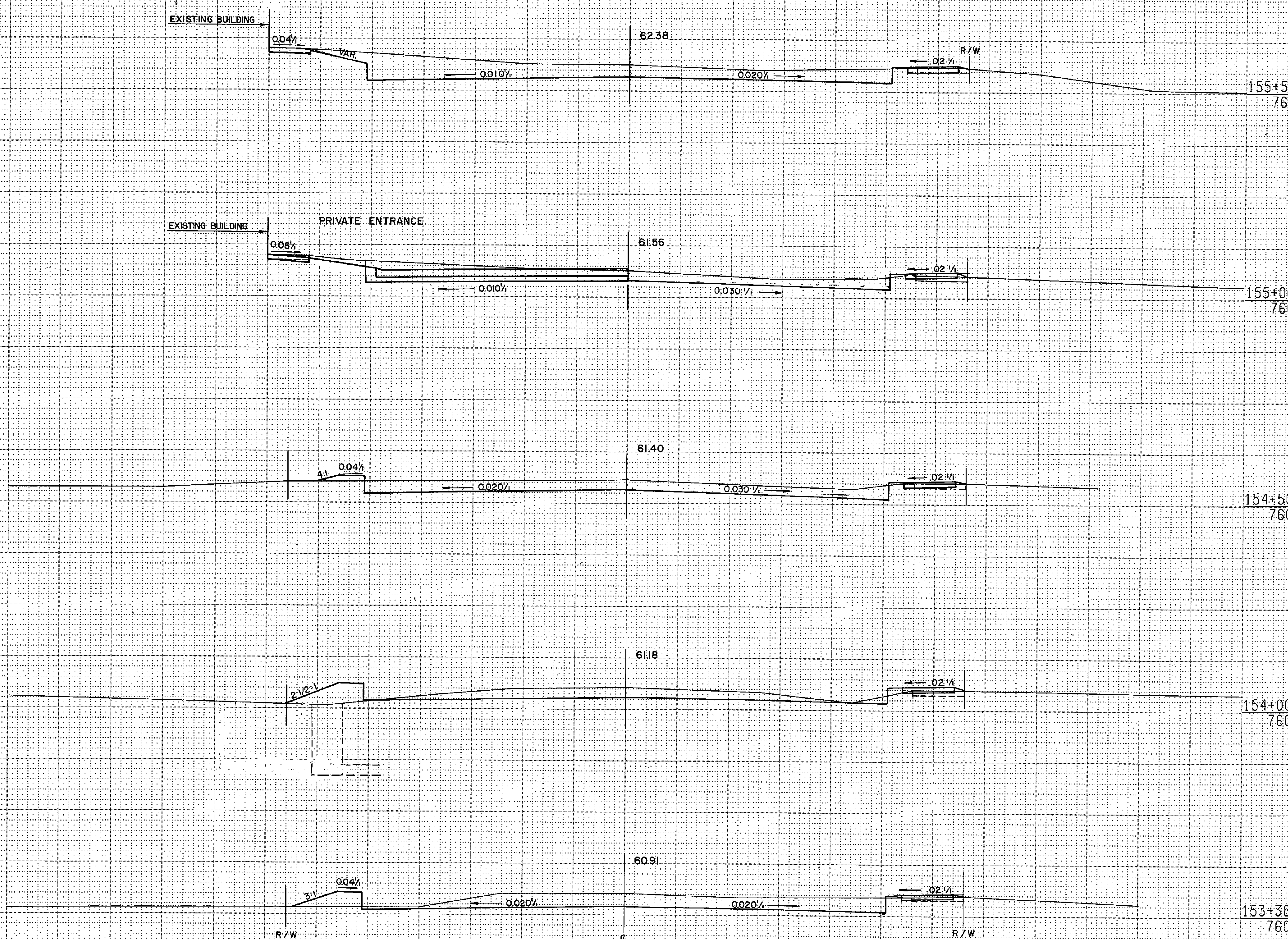
STATION	DISTANCE	YARDAGE EXCAVATION UNCL.	YARDAGE FILL
150			
+50	50	187	0
151			
	50	194	0
+50			
	50	181	0
152			
	50	157	2
+50			
	50	138	6
153			
SHEET TOTAL		857	8

FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — MASS SHEARED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — MASS SHEARED — BY — DATE

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC.

REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
5 WIS.	4994-0-17	8.16	



STATION	DISTANCE	YARDAGE EXCAVATION UNCL.		FILL
153				
	50	106		12
+50				
	50	81		15
154				
	50	70		17
+50				
	50	89		7
155				
	50	120		2
+50				
SHEET TOTAL		466		53

SURVEY NOTE BOOK NO. | SURVEYED PLOTTED TEMPLATE AREAS AREAS CHECKED

SURVEY NOTE BOOK NO. | SURVEYED PLOTTED TEMPLATE AREAS AREAS CHECKED

REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
5 WIS.	4994-0-17	8.17	

60 50 40 30 20 10 ℄ 10 20 30 40 50 60

R/W 60.42 R/W

0.020% 0.019% 0.018%

157+56
760

END PROJECT NO. 4994-0-17
STA. 157+64.39

END CONSTRUCTION AT EXISTING PAV'T
JOINT NEAREST TO STA. 157+64.39

60.68

0.04% 0.015% 0.025% 0.010% 0.015%

157+00
760

60.75

0.016% 0.000% 0.013% 0.012% 0.013% 0.019% 0.050%

156+86
760

60.92

0.020% 0.043% 0.000% 0.025% 0.020%

156+50
760

61.15

0.04% 0.030% 0.020% 0.020%

R/W R/W

156+00
760

5' 5'

60 50 40 30 20 10 ℄ 10 20 30 40 50 60

STATION	DISTANCE	YARDAGE EXCAVATION UNCL.	YARDAGE EXCAVATION FILL
155 +50	50	123	0
156	50	120	0
+50	50	161	0
157	64	171	0
+64			
SHEET TOTAL	575		0

FINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

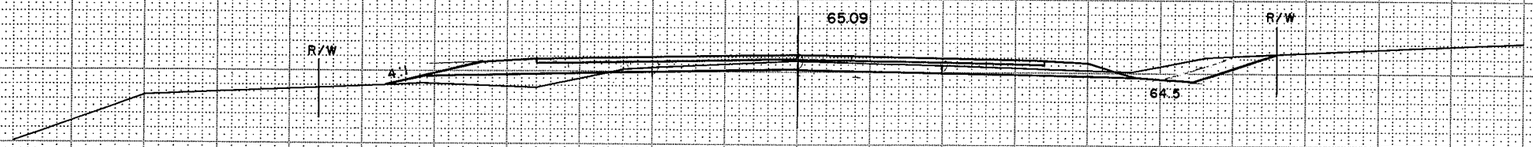
ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC.

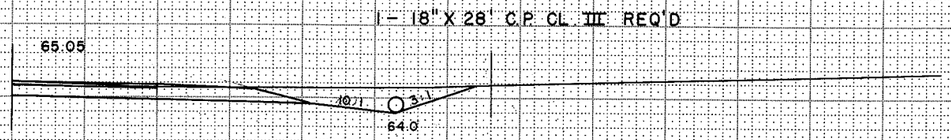
PROJECT DESIGNATION: 4994-0-17

SHEET NUMBER: 8.18

STATION	DISTANCE	YARDAGE EXCAVATION UNCL.	YARDAGE FILL
1+35	65	48	6
2+00			



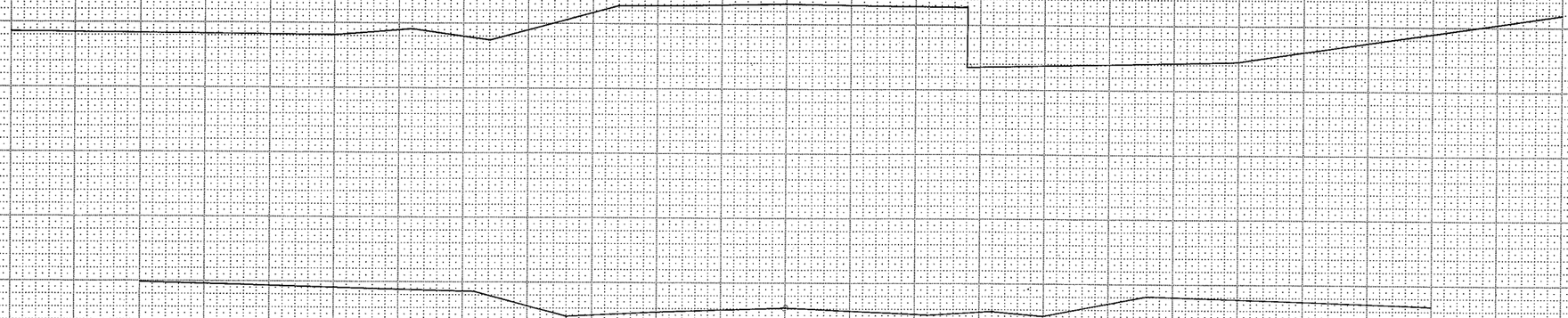
2+00
765



1+42
765

BEGIN CONSTRUCTION

STA. 1+35



1+00
765

0+00
765

SHEET TOTAL 48 6

WAUKAU AVE.

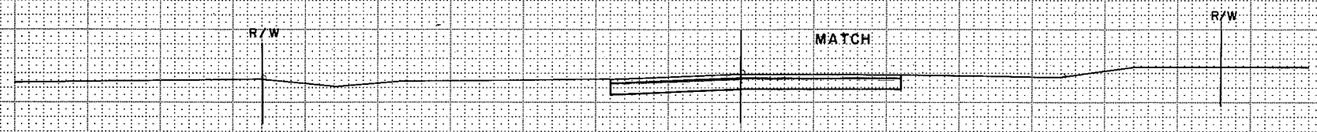
SURVEY NOTE BOOK NO. — APPROVED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED

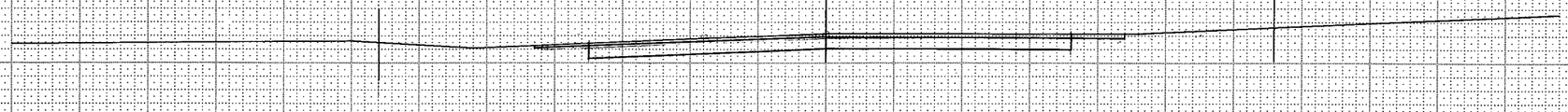
BRUNING 40-230 20813

PLATE 3 CROSS SECTION - DOTTED
CHARLES BRUNING COMPANY
MADE IN U.S.A.

PROJECT DESIGNATION	SHEET NUMBER
4994-0-17	8.19

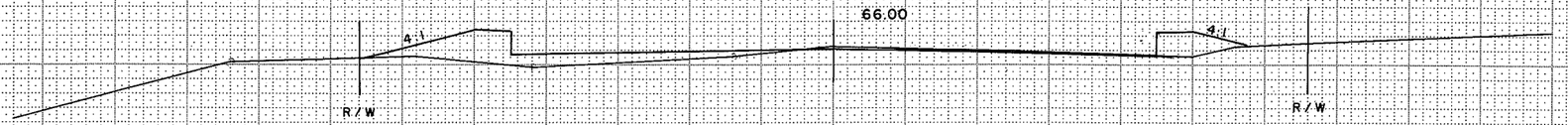
END CONSTRUCTION
STA. 5+00





66.20

INTERSECTION WITH C.T.H. "I"
STA. 3+00



STATION	DISTANCE	YARDAGE EXCAVATION UNCL.	YARDAGE FILL
5+00			
765			
2+00			
	50	46	31
+50			
4+61			
765			
3+50			
	50	72	13
4+00			
	100	118	0
5+00			
4+00			
765			
3+50			
765			
2+50			
765			
SHEET TOTAL		236	44

WAUKAU AVE.

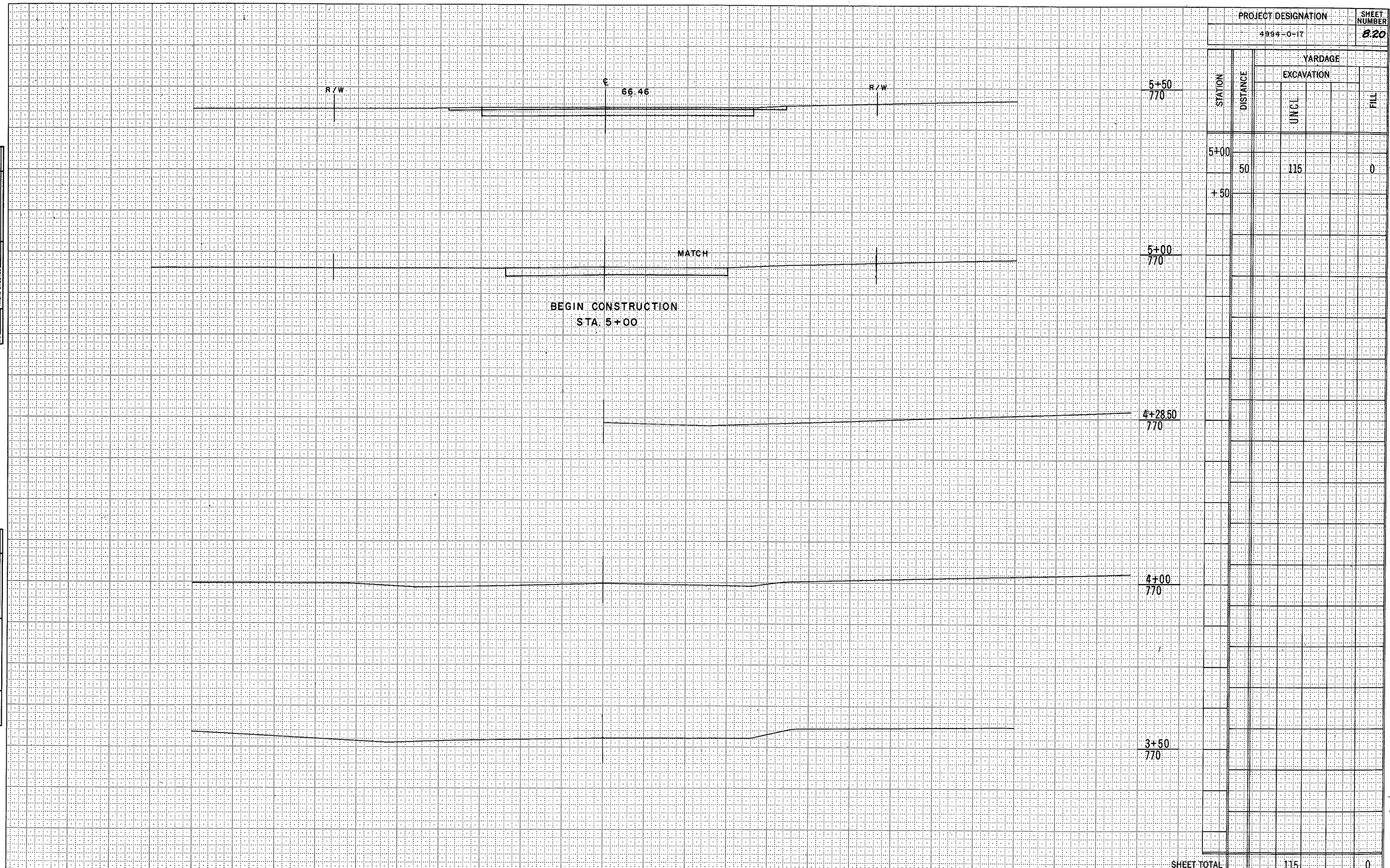
FINAL SURVEY	BY	DATE
NOTE BOOK NO.	SURVEYED PLOTTED TEMPLATE AREAS AREAS CHECKED	

ORIGINAL SURVEY	BY	DATE
NOTE BOOK NO.	SURVEYED PLOTTED TEMPLATE AREAS AREAS CHECKED	

PROJECT DESIGNATION: 4994-0-17

SHEET NUMBER: 8.20

SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED



STATION	DISTANCE	YARDAGE EXCAVATION UNCL.	YARDAGE EXCAVATION FILL
5+00			
	50	115	0
+50			
SHEET TOTAL		115	0

W. 29 TH.

BRUNING 40-230 20813

PLATE 3 CROSS SECTION - DOTTED
CHARLES BRUNING COMPANY
MADE IN U.S.A.

PROJECT DESIGNATION: 4994-D-17

SHEET NUMBER: 8.21

STATION	DISTANCE	YARDAGE EXCAVATION UNCL.	YARDAGE FILL
3+00 760			
0+50	50	47	49
1+00	100	53	33
2+00			
2+48 760			
2+00 760			
1+00 760			
0+50 760			
SHEET TOTAL	100		82

END CONSTRUCTION
STA. 2+00

R/W

MATCH

R/W

62.73

63.83

4:1

R/W

℄

R/W

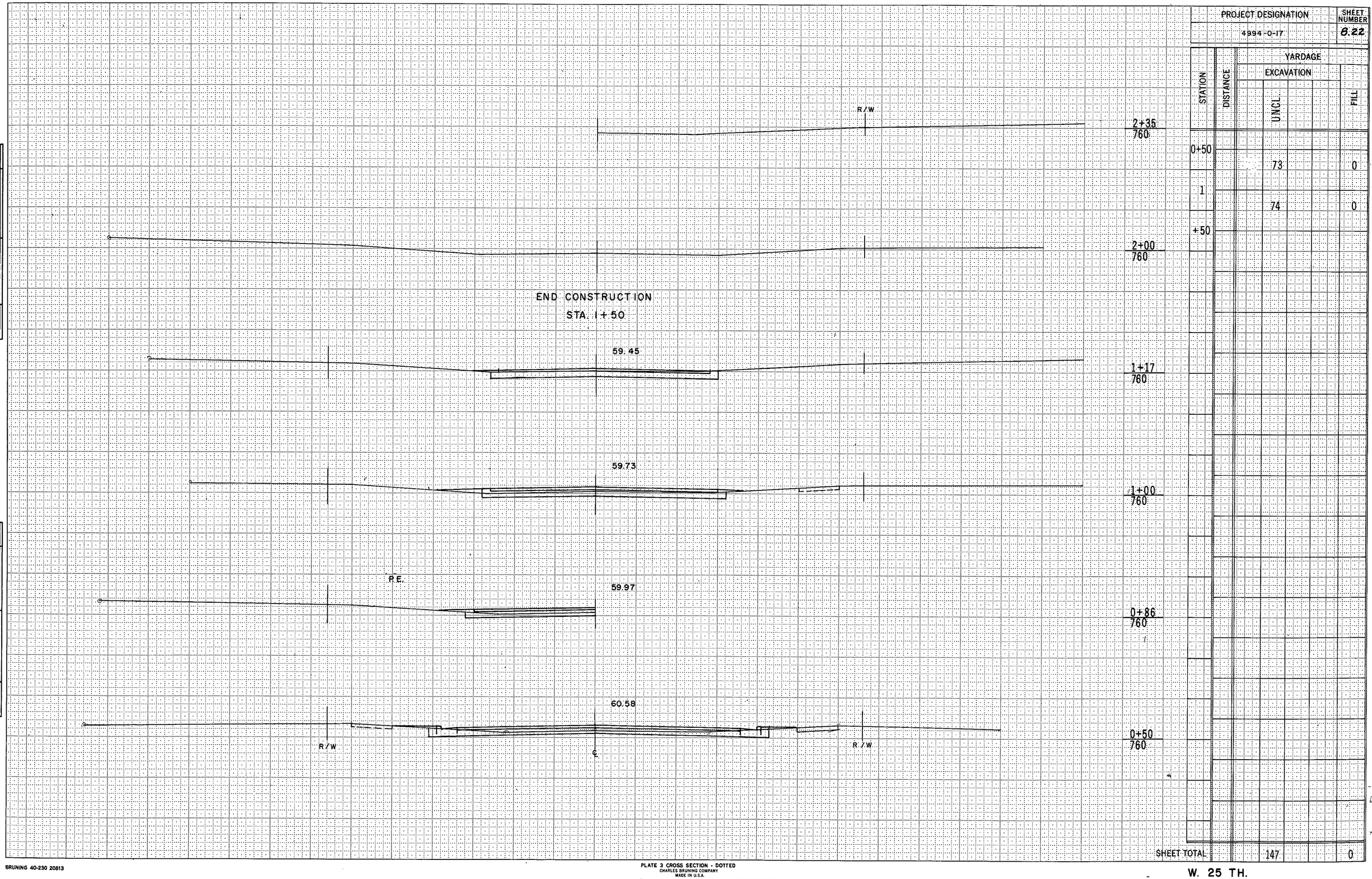
FINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

W. 28 TH.

PROJECT DESIGNATION	SHEET NUMBER
4994-0-17	8.22

SURVEY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
AREAS CHECKED	
NOTE BOOK	
NO.	



STATION	DISTANCE	YARDAGE EXCAVATION UNCL.	YARDAGE FILL
0+50			
		73	0
1			
		74	0
+50			
SHEET TOTAL		147	0

SURVEY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
AREAS CHECKED	
NOTE BOOK	
NO.	

W. 25 TH.

FINAL SURVEY		BY	DATE
NOTE BOOK NO.	SURVEYED PLOTTED TRIANGULATE AREAS AREAS CHECKED		

ORIGINAL SURVEY		BY	DATE
NOTE BOOK NO.	SURVEYED PLOTTED TRIANGULATE AREAS AREAS CHECKED		

PROJECT DESIGNATION: 4994-0-17

SHEET NUMBER: 8.23

STATION	DISTANCE	YARDAGE EXCAVATION UNCL.	YARDAGE FILL
0+50			
	50	204	0
1+00			
	100		

MATCH

59.94

1+00
760

60.26

0+50
760

R/W

R/L

℄

R/W

SHEET TOTAL 204 0

W 24 TH.

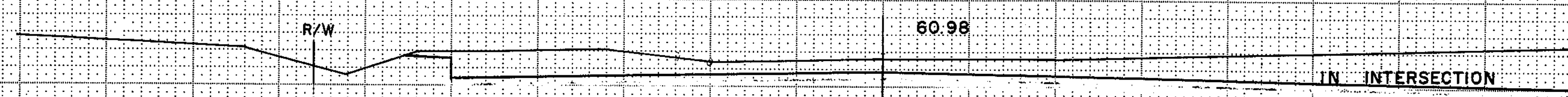
PLATE 3 CROSS SECTION - DOTTED
CHARLES BRUNING COMPANY
MADE IN U.S.A.

BRUNING 40-230 20813

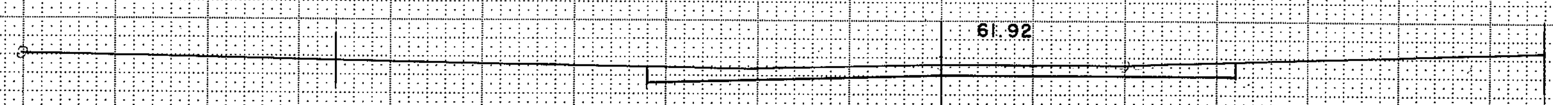
REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
5 WIS.	4994-0-17	8.24	

STATION	DISTANCE	YARDAGE EXCAVATION UNCL.			FILL
0+50					
	50	37			0
1+00					
	100	222			0
2+00					
SHEET TOTAL		259			0

SURVEY NOTE BOOK NO. | SURVEYED | PLOTTED | TEMPLATE | AREAS | AREAS CHECKED

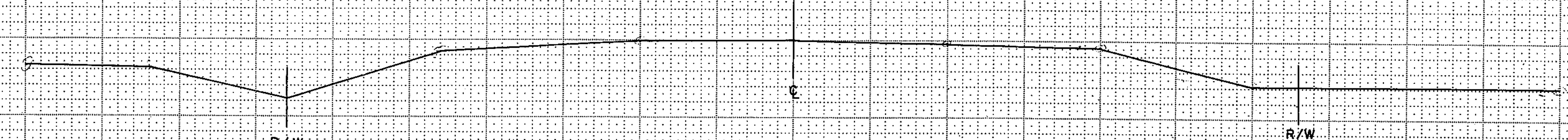


2+00
760



1+00
760

BEGIN CONSTRUCTION
STA. 0+50
BEGIN CONSTRUCTION AT EXISTING
PAVEMENT JOINT NEAREST STA. 0+50



0+00
760

SURVEY NOTE BOOK NO. | SURVEYED | PLOTTED | TEMPLATE | AREAS | AREAS CHECKED

WAUPUN RD.