STATE OF WISCONSIN
WISCONSIN HIGHWAY COMMISSION

PLAN AND PROFILE OF PROPOSED

EDGAR-JUNCTION NEW S.T.H. 29

BEGINNING AT C.&N.W.R.R TRACK VILLAGE OF EDGAR, EXTENDING NORTH 8423.7 FEET TO THE N.E. CORNER OF SEC. 1 T.28N. R.4E.

MARATHON COUNTY
STATE AID PROJECT 4591

SCALES: PLAN 1 IN. = 100 FT.; PROFILE HOR. 1 IN = 100' VERT. 1" = 10'; CROSS SECTIONS 1" = 5'

FED. ROAD DIST. NO.	STATE	STATE AID NO.	SHEET NO.	TOTAL SHEETS
4	WIS	4591	1	15

DIVISION JOB NO. 4591

WISCONSIN HIGHWAY COMMISSION
MADISON WIS.

SURVEYOR L.C.B. NOTE BOOK Loose Leaf
DIV. COMP. J.A.T. M.O. CHECKER
DIV. CHECKER S.A.H. CORRECT

RECOMMENDED FOR APPROVAL
Frank Cnare — ENGR. PLANS.
W. J. Marsel — DIVISION ENGINEER
APPROVED
3/26/30 — DATE
W. S. Buetow — STATE HIGHWAY ENGINEER

INDEX OF SHEETS
SHEET NO. 1. TITLE & RIGHT OF WAY
" " 2 TYPICAL SECTIONS & ESTIMATES
" " 3 PLAN & PROFILE STA 0 TO STA 25
" " 4 PLAN & PROFILE. STA 24 TO STA 56
" " 5 PLAN & PROFILE STA 54 TO STA 84+57.8
" 6-8 DRAINAGE STRUCTURES
" 9-15 CROSS SECTIONS

CONVENTIONAL SIGNS

TOWNSHIP LINE
SECTION LINE
FENCE LINE
RIGHT OF WAY LINE
TRAVELED WAY
RAILROADS
BASE OR SURVEY LINE
GUARD RAIL
MASS DIAGRAM
CULVERTS
DROP INLET
POWER POLE
TEL. OR TELEGRAPH POLES
REFERENCE STAKES
MARSH
HEDGE
TREES
GROUND ELEVATION
GRADE ELEVATION

NO.	OWNER	ADDRESS	ACRES	DESCRIPTION	MORTGAGEE	ADDRESS	AMOUNT R/W	FENCES	BLDGS	PAID TOTAL	PAID	REMARKS
1.	Chas Winkauf		1.60	W.½-S.W.¼-Sec. 6-T.28N-R.5E.								
2.	Henry Draeger		1.08	E.½-S.E.¼-Sec. 1-T.28N-R.4E.								
3.	Ernest Stien		0.23	S.E.¼-N.E.¼-Sec. 1-T.28N-R.4E.								
4.	Chas Tess		0.97	W.½-N.W.¼-Sec. 6-T.28N-R.5E.								
5.	A. Joswaik		0.56	N.E.¼-N.E.¼-Sec. 1-T.28N-R.4E.								
	H.C.C.		4.34									

PLAT OF RIGHT OF WAY REQUIRED
STATE AID PROJECT NO. 4591
EDGAR-JUNCTION S.T.H. 29 ROAD
C.T.H. "H" MARATHON COUNTY
SCALE 0 400' 800' 1200'

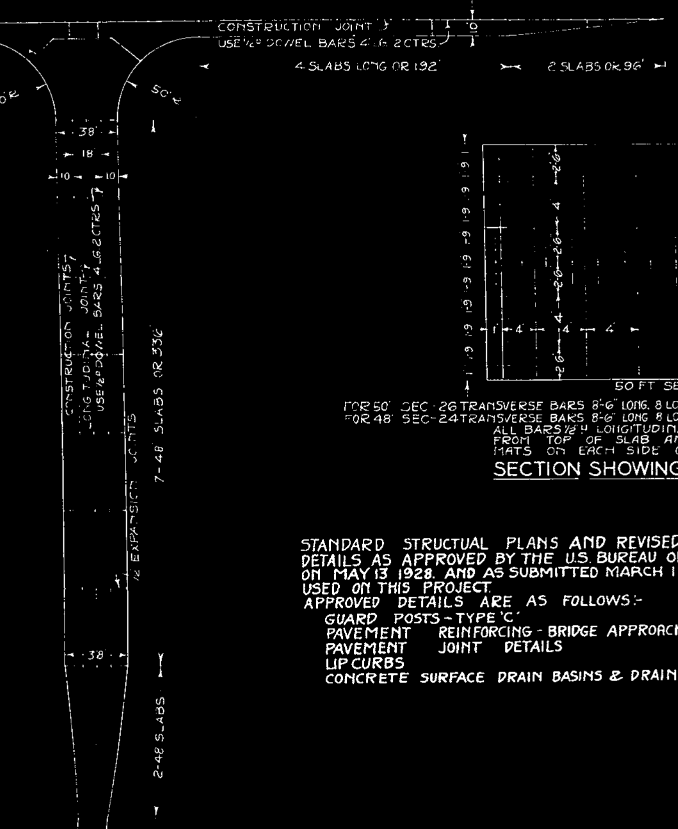
ESTIMATE OF QUANTITIES.

THIS PROJECT IS TO BE EXECUTED UNDER WISCONSIN STANDARD SPECIFICATIONS AS APPROVED BY THE U. S. BUREAU OF PUBLIC ROADS ON

MILE NO.	STATION TO STATION	NET LENGTH OF CENTER LINE	CLEARING	GRUBBING	EXCAVATION: EARTH 3	LOOSE ROCK	SOLID ROCK	FINISHING SHOULDERS 7	BORROW 6	CHANNEL CHANGE	INTERCEPTING DITCH	OFFTAKE AND OUTLET DITCH	BANK PROTECTION	SURFACING: 18 FT. ONE COURSE PORTLAND CEMENT CONCRETE SURFACING PAVEMENT	1/2" EXPANSION JOINTS 16	BAR REINF. STEEL IN PAV'T 24	CONC. CURBING	CUT OFF WALL	GRAVEL SURFACING	STONE SURFACING	PORTLAND CEMENT IN PLACE HANDLING ONLY 29
		LIN. FT.	ACRES	ACRES	CU. YDS	CU. YDS	CU. YDS	SQ. YDS.	CU. YDS	CU. YDS	LIN. FT.	CU. YDS	SQ. YDS.	SQ. YDS.	NO.	LBS	LIN. FT.	LIN. FT.	CU. YDS	CU. YDS	BBLS.
1	0+34.1-53+26	5291.9			5868			5880						10584	110	7869					2878
2	53+26-84+57.8	3131.8			3209			3480	2641					6264	83	12271					1719
		8423.7			9077			9360	2641					16848	193	20140					4597

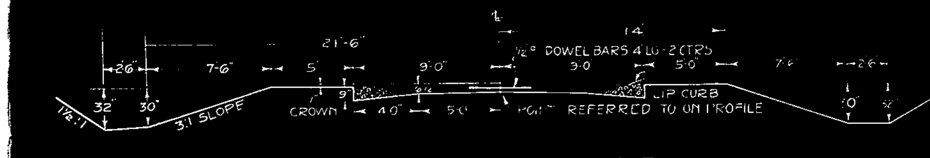
MILE NO.	CULVERTS 6 FT. SPAN AND UNDER: CONC.	STEEL	SMALL BRIDGES 6 FT. TO 20 FT. SPAN INCLUSIVE: CONC.	STEEL	CONC. CLASS 'A'	BRIDGES OVER 20 FT. SPAN: CONC. CLASS	REINF. STEEL	BALUSTERS	STRUCT. STEEL	CAST STEEL	REINFORCED CONCRETE PIPE: TYPE 15" IN	TYPE 18" IN	TYPE 24" IN	TYPE 30" IN	TYPE 36" IN	PILING	RIP-RAP	TILE DRAINS	LIP CURB TYPE 'A' 18	CURB AND GUTTER: STANDARD	SPECIAL	CONC. FLUME	CONC. SURFACE DRAINS 21		GUARD FENCE: TYPE 'A'	TYPE 'B'	TYPE 'C' POSTS 84	MARKER POSTS	PROJECT MARKER	ARMOUR PLATE 101
	CU. YDS	LBS	CU. YDS	LBS	CU. YDS	CU. YDS	LBS	NO.	LBS	LBS.	LIN. FT. 76-B	LIN. FT. 76-A	LIN. FT. 76	LIN. FT. 77	LIN. FT. 78	LIN. FT.	CU. YDS	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	CU. YDS.		LIN. FT.	LIN. FT.	NO.	NO.	NO.	LIN. FT.
1											360	36	44	92					2700				7.3				6			18
2												40			48				4400				8.3				2			
											360	76	44	92	48				7100				15.6				8			18

SHRINKAGE ALLOWANCE 25% UNLESS OTHERWISE NOTED. APPROXIMATE HAUL OVER 500FT 11,792 STAYDS. (NOT A PAY ITEM)



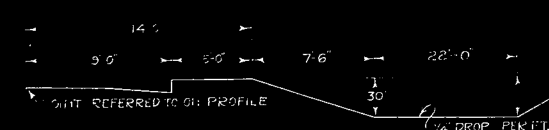
LAYOUT OF INTERSECTION ON C.T.H. H AND S.T.H. 29

SCALE 0 40

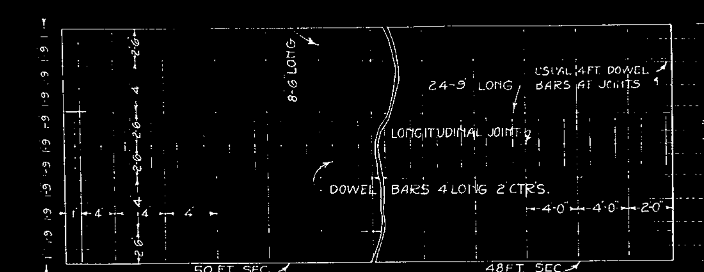


TYPICAL SECTION IN CUT

ONE-HALF TYPICAL SECTION IN LOW FILLS ONE-HALF SECTION IN V DITCH



ONE-HALF TYPICAL SECTION IN BORROW



FOR 50' SEC.-26 TRANSVERSE BARS 8'-6" LONG. 8 LONGITUDINAL BARS 25'-9" LONG. WEIGHT PER SEC. 364 LBS.
FOR 48' SEC.-24 TRANSVERSE BARS 8'-6" LONG 8 LONGITUDINAL BARS 24'-9" LONG. WEIGHT PER SEC. 342 LBS.
ALL BARS 1/2" Ø LONGITUDINAL BARS LAPPED 40 DIAMETERS. PLACE BARS 2" FROM TOP OF SLAB AND WIRE SECURELY TOGETHER TO FORM SEPERATE MATS ON EACH SIDE OF LONGITUDINAL JOINT.

SECTION SHOWING STEEL BARS FOR PAVEMENT REINF.

STANDARD STRUCTUAL PLANS AND REVISED STANDARD DETAILS AS APPROVED BY THE U.S. BUREAU OF PUBLIC ROADS ON MAY 13 1928, AND AS SUBMITTED MARCH 1, 1930 WILL BE USED ON THIS PROJECT.

APPROVED DETAILS ARE AS FOLLOWS:-

GUARD POSTS - TYPE 'C'	C-36
PAVEMENT REINFORCING - BRIDGE APPROACHES & CUL.	C-39
PAVEMENT JOINT DETAILS	C-40
LIP CURBS	C41-C42
CONCRETE SURFACE DRAIN BASINS & DRAINS	C41-C42.

TYPICAL CROSS SECTION FOR ONE COURSE PORTLAND CEMENT CONCRETE PAVEMENT 18FT.

WISCONSIN HIGHWAY COMMISSION

MADISON - WIS.

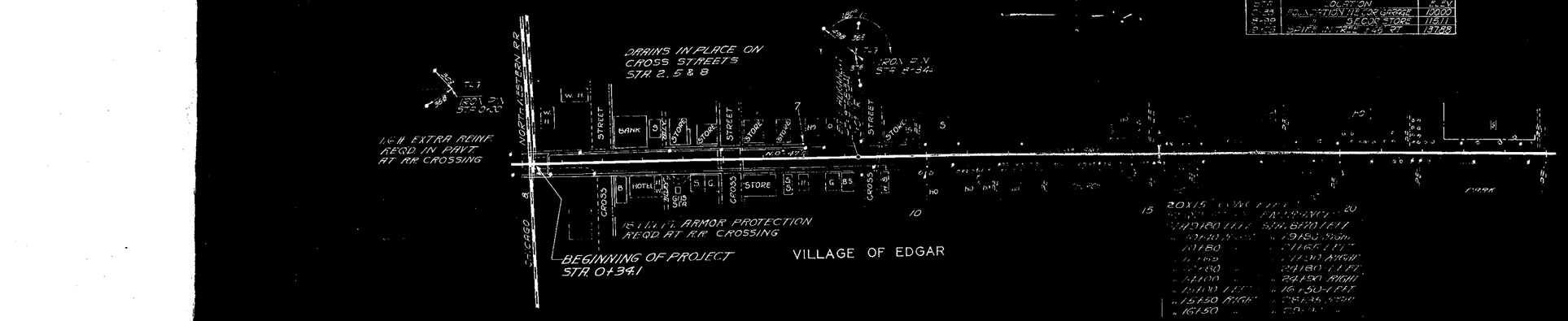
SCALE

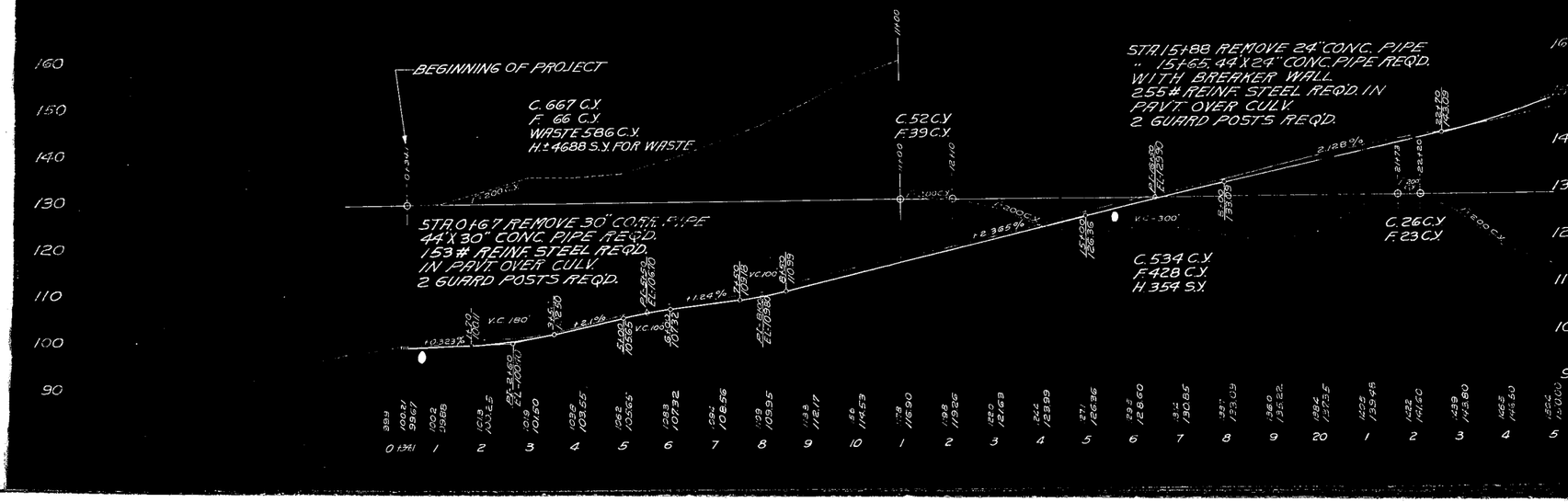
FED. ROAD DIST. NO	STATE	STATE AID PROJ. NO	SHEET NO.	TOTAL SHEETS
4	WIS.	4591	3	15

DIVISION JOB NO. 4591

BENCH MARKS

	DESCRIPTION	ELEV.
B.M. 1	SET ON SOUTHWEST COR GARAGE	1000
B.M. 2	SET ON S.E. COR. STORE	1011
B.M. 3	SPIKE IN TREE 2.5 FT.	1378.8



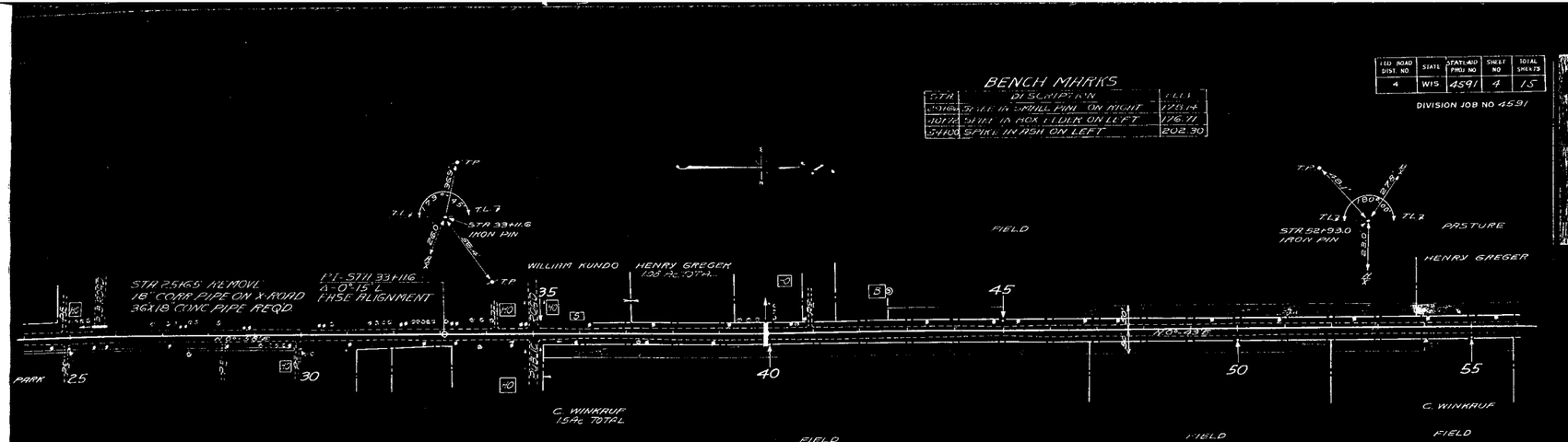


FED. ROAD DIST. NO	STATE	STATE-AID PROJ. NO	SHEET NO	TOTAL SHEETS
4	WIS	4591	4	15

DIVISION JOB NO 4591

BENCH MARKS

STA	DESCRIPTION	ELEV
0356	SPIKE IN SMALL PINE ON RIGHT	178.14
1078	SPIKE IN MOX ELDER ON LEFT	176.71
3400	SPIKE IN ASH ON LEFT	202.30



NET LENGTH OF NEW CENTERLINE STA 27+00 TO 53+26 - 2826'
" " " " " 53+26 " 56+00 - 274'

TOTAL'S MILLS #1

LIP CURB TYPE "A" STA 27+00 TO 39+00 BOTH SIDES 2000 LIN.FT.
" " " " " 35+40 " 39+40 - " " " 700 " "
" " " " " " " " TOTAL - 2700 " "

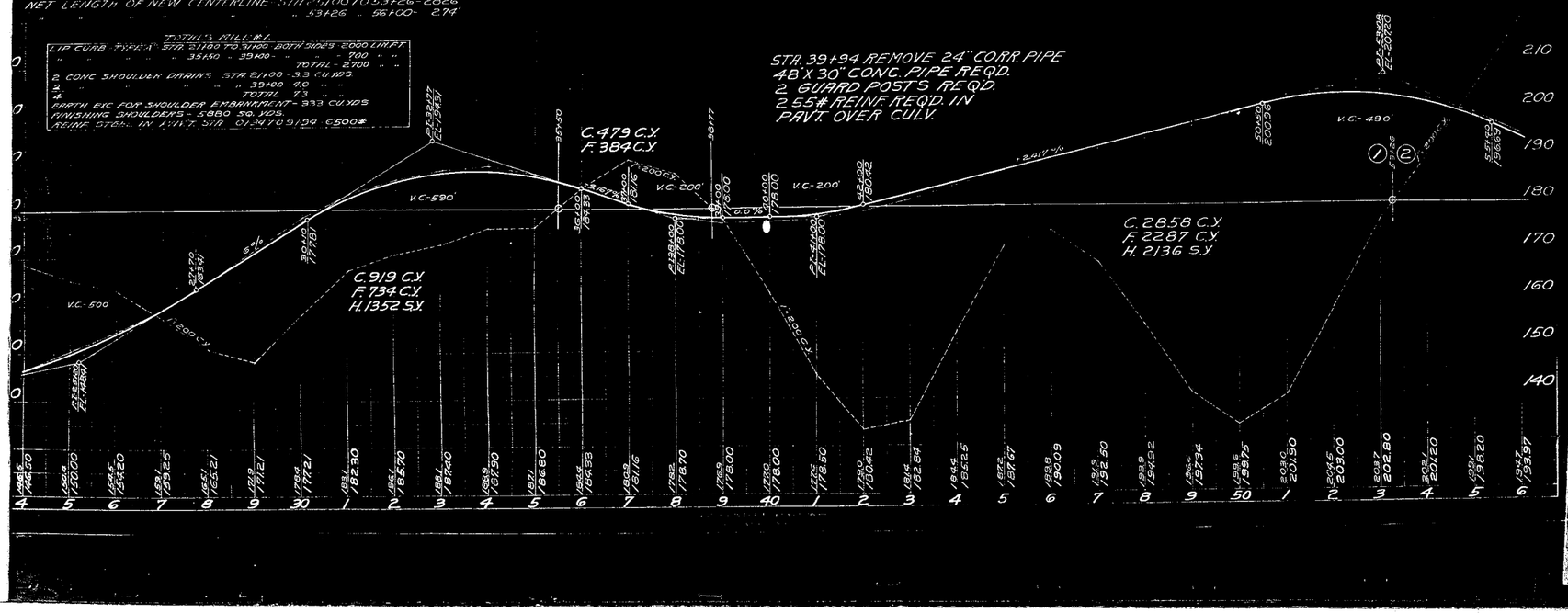
2 CONC. SHOULDER DRAINS STA 27+00 - 33 CU YDS
" " " " 33+00 40 " "
" " " TOTAL 73 " "
EARTH EXC FOR SHOULDER EMBANKMENT - 393 CU YDS.
FINISHING SHOULDERS - 5880 SQ. YDS.
REINF STEEL IN X-ING STA 01+47 0.5/29 6500#

STA. 39+94 REMOVE 24" CORR. PIPE
48"X 30" CONC. PIPE REQD.
2 GUARD POSTS REQD.
255# REINF REQD. IN
PAVT. OVER CULV.

C. 479 C.Y.
F. 384 C.Y.

C. 919 C.Y.
F. 734 C.Y.
H. 1352 S.Y.

C. 2858 C.Y.
F. 2287 C.Y.
H. 2136 S.Y.

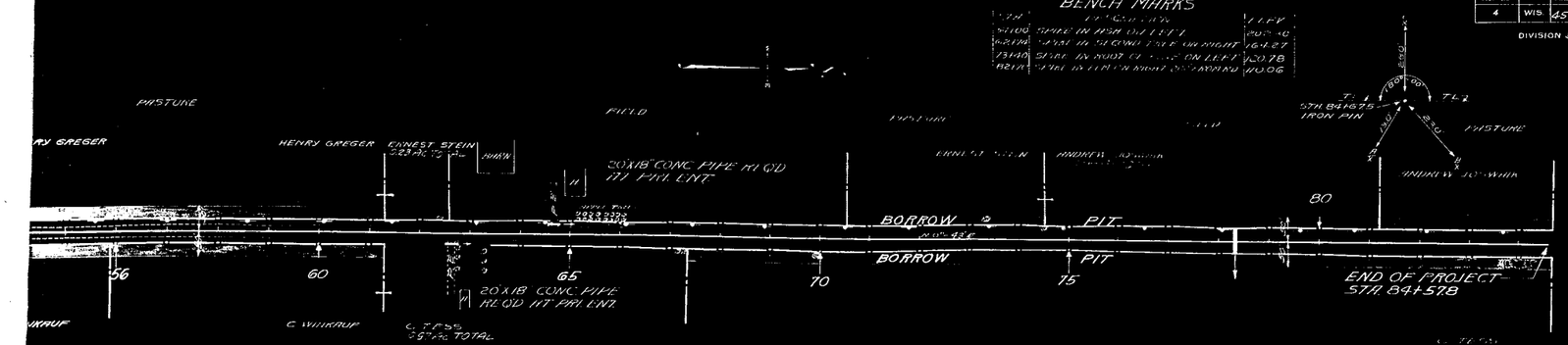


FED. ROAD DIST. NO.	STATE	STATE-RD PROJ. NO.	SHEET NO.	TOTAL SHEETS
4	WIS	4591	5	15

DIVISION JOB NO. 4591

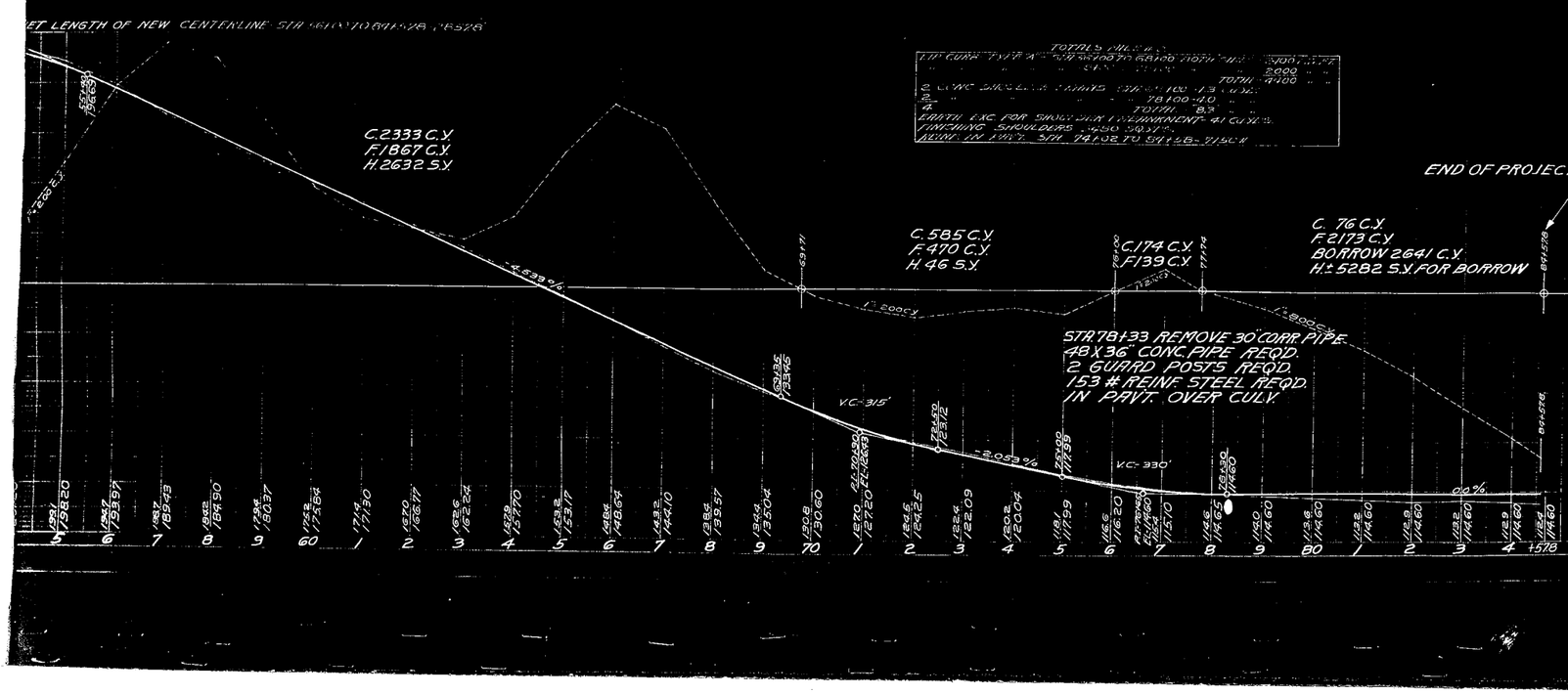
BENCH MARKS

STA.	LOCATION	ELEV.
BM 10	SPIKE IN PINE 0.7 FT. E.	705.40
BM 11	SPIKE IN SECOND PINE ON RIGHT	694.27
BM 10	SPIKE IN ROOT OF PINE ON LEFT	700.78
BM 11	SPIKE IN PINE ON RIGHT SIDE OF ROAD	690.06



LENGTH OF NEW CENTERLINE STA. 61+00 TO 84+78 = 1878'

TOTALS INCLUDE:
1 FT. CURB TYPE A STA. 61+00 TO 68+00 BOTH SIDES 1400 L.F.
" " " STA. 77+00 TO 84+00 " " 1400 " "
TOTAL 2800 " "
2 CONC. SINGLE FACE GUARD POSTS 200 LBS. EACH
2 " " " 78 100-40 " "
4 TOTAL 8.3 "
EARTH EXC. FOR SHOULDER IMPROVEMENT 41 CU.YDS.
TRIMMING SHOULDERS 1650 SQ.YDS.
REINF. IN PAVT. STA. 74+02 TO 84+48 = 715 LBS.



CULVERT SCHEDULE

NAME OF ROAD EDGAR – JCT. S.H 29 WIDTH OF ROADWAY 28 TYPE OF SURFACING 18' CONC. COUNTY MARATHON PROJ. NO. DIV. JOB NO. 4591

Sheet No.	Plan Sheet No.	Station	SIZE Width	Height	Length	KIND OF CULVERT	TYPE	INLET ENDWALL Square-Sloping-Flared	Finish Above Open'g	Slope	Drop Inlet or Breaker Wall Req'd	DISCH. ENDW. Square-Sloping-Flared	Slope	PLACE CULV. Left from ℄	Right from ℄	ELEV. BOT. BBL. Disch.	Inlet	FLOW Left	Right	CONC. IN CULV.	STEEL IN CULV.		REMARKS
1		8+67	30"	44'	PIPE	CONC.								22.0	22.0	96.5	96.5						REMOVE 30" CORR. PIPE
1		9+30	15"	20'	"	"																	P.E. ON LEFT
1		10+40	15"	20'	"	"																	" " RIGHT
1		10+80	15"	20'	"	"																	" " RIGHT
1		11+65	15"	20'	"	"																	" " "
1		12+30	15"	20'	"	"																	" " "
1		14+00	15"	20'	"	"																	" " "
1		15+00	15"	20'	"	"																	" " LEFT
1		15+50	15"	20'	"	"																	" " RIGHT
1		15+65	24"	44'	"	"								22.0	22.0	125.0	125.0					REMOVE 24" CONC. PIPE	BREAKER WALL REQ'D
1		16+50	15"	20'	"	"																	P.E. ON LEFT
1		16+50	15"	20'	"	"																	" " RIGHT
1		18+70	15"	20'	"	"																	" " LEFT
1		19+80	15"	20'	"	"																	" " RIGHT
1		21+65	15"	20'	"	"																	" " LEFT
1		21+90	15"	20'	"	"																	" " RIGHT
1		24+80	15"	20'	"	"																	" " LEFT
1		24+90	15"	20'	"	"																	" " RIGHT
1		25+65	18"	36'	"	"																	REMOVE 18" CORR. PIPE X-RD. ON LEFT.
1		28+35	15"	20'	"	"																	P.E. RIGHT
1		29+90	15"	20'	"	"																	" "
1		39+94	30"	48'	"	"								24.0	24.0	174.6	174.6						REMOVE 24" CORR. PIPE
2		62+65	18"	20'	"	"																	P.E. ON RT.
2		64+70	18"	20'	"	"																	" " "
2		78+33	36"	48'	"	"								24.0	24.0	110.5	110.8						REMOVE 30" CORR PIPE.

SUMMARY OF PIPE CULVERTS

TYPE	CORRUGATED SHEET METAL PIPE (Total Lineal Feet) Diam.	Diam.	Diam.	Diam.	Diam.	Diam.	Diam.	Diam.	Diam.	Diam.	Diam.	Diam.	CAST IRON PIPE Diam.	Total Lineal Feet	Diam.	Total Lineal Feet	CONCRETE PIPE Diam.	Total Lineal Feet	Diam.	Total Lineal Feet
Pure Iron																	15"	360		
Copper Pure Iron																	18"	76		
Copper Iron																	24"	44		
Molybdenum																	30"	92		
Copper Steel																	36"	48		

CULVERT SCHEDULE

[illegible] WIDTH OF ROADWAY 28 TYPE OF SURFACING 18' CONC. COUNTY MARATHON PROJ. NO. [illegible] 4591

No.	Station	Size of Culvert	Length	Kind	Type	Inlet Endwall: Square Sloping Flared	Inlet Endwall: Finish Above Openg	Inlet Endwall: Slope	Inlet Endwall: Drop Inlet or Breaker Wall Reqd	Disch. Endw.: Square Sloping Flared	Disch. Endw.: Slope	Place Culv.: Left from ℄	Place Culv.: Right from ℄	Elev. Bot. Bbl.: Disch.	Elev. Bot. Bbl.: Inlet	Flow: Left	Flow: Right	Conc. in Culv.	Steel in Culv.	Remarks	Remarks
	[illegible]	[illegible]	[illegible]	PIPE	CONC.							22.0	22.0	96.5	96.5						REMOVE 30" CORR. PIPE
		18"	20'	"	"																P.E. ON LEFT
		15"	20'	"	"																" " RIGHT
		15"	20'	"	"																" " RIGHT
		15"	20'	"	"																" " "
	[illegible]	15"	20'	"	"																" " "
	[illegible]00	15"	20'	"	"																" " "
	[illegible]00	15"	20'	"	"																" " LEFT
1	[illegible]+50	15"	20'	"	"																" " RIGHT
1	15+65	24"	44'	"	"							22.0	22.0	125.0	125.0					REMOVE 24" CONC. PIPE	BREAKER WALL REQ'D
1	16+50	15"	20'	"	"																P.E. ON LEFT
1	16+50	15"	20'	"	"																" " RIGHT
1	18+70	15"	20'	"	"																" " LEFT
1	19+80	15"	20'	"	"																" " RIGHT
1	21+65	15"	20"	"	"																" " LEFT
1	21+90	15"	20'	"	"																" " RIGHT
1	24+80	15"	20'	"	"																" " LEFT
	24+90	15"	20'	"	"																" " RIGHT
	25+55	18"	36'	"	"															REMOVE 18" CORR. PIPE	K-RD. ON LEFT
	[illegible]	15"	20'	"	"																P.E. RIGHT
	[illegible]	15"	20'	"	"																" "
	[illegible]	30"	48'	"	"							24.0	24.0	174.6	174.6						REMOVE 24" CORR. PIPE
	[illegible]	18"	20'	"	"																P.E. ON RT.
	[illegible]	18"	20'	"	"																" " "
		36"	48'	"	"							24.0	24.0	110.5	110.8						REMOVE 30" CORR PIPE.

SUMMARY OF PIPE CULVERTS

[illegible]UGATED SHEET METAL PIPE (Total Lineal Feet)

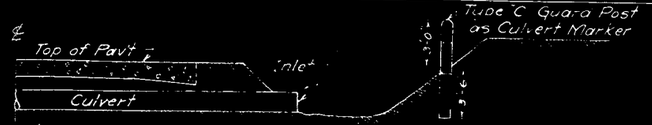
Diam.	Diam.	Diam.	Diam.	Diam.	Diam.	Diam.	Diam.	Diam.	Diam.

CAST IRON PIPE

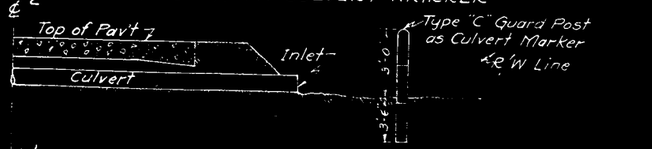
Diam.	Total Lineal Feet	Diam.	Total Lineal Feet

CONCRETE PIPE

Diam.	Total Lineal Feet	Diam.	Total Lineal Feet
15"	360		
18"	76		
24"	44		
30"	92		
36"	48		

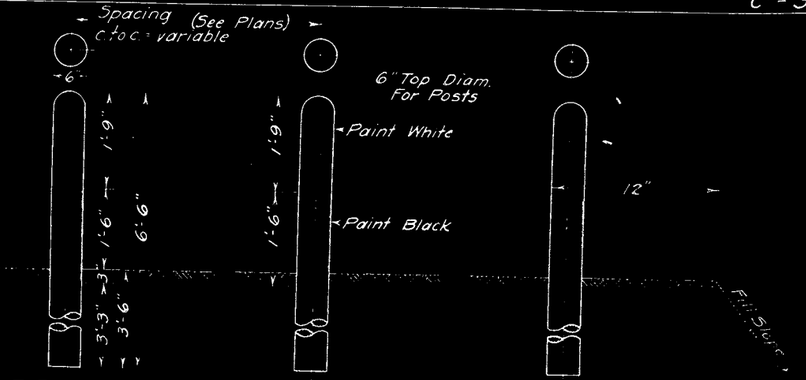


½ CUT SECTION WITH CULVERT MARKER



½ FILL SECTION WITH CULVERT MARKER

Type "C" Guard Post as Culvert Marker to be placed at inlet end of culvert. Place post clear of channel.
In Cut, place post on back slope.
In Fill, place post beyond end of pipe so it is visible from the roadway.



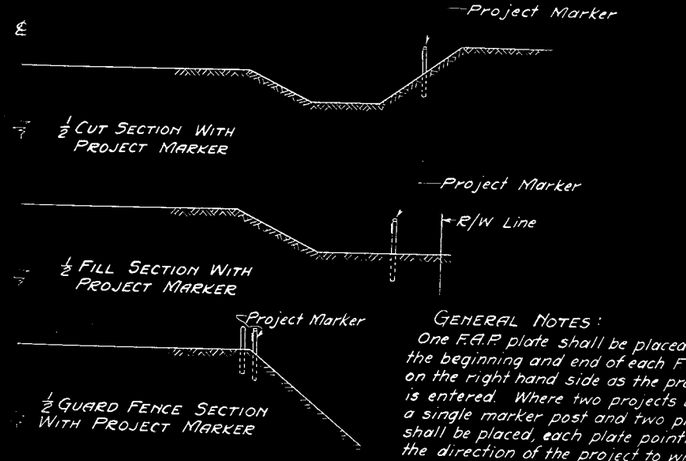
ELEVATION SHOWING SPACING

SECTION SHOWING LOCATION

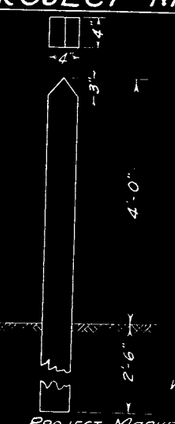
GENERAL NOTES: Posts to have minimum top diam. of 6". Tops of posts shall be neatly rounded. Posts shall be shaved to the white from 3" below ground line to top. All posts shall receive 3 coats of paint according to specifications and colors as shown.

GUARD POSTS TYPE C

PROJECT MARKERS

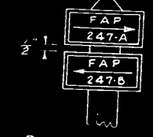


GENERAL NOTES:
One F.A.P. plate shall be placed at the beginning and end of each F.A.P. on the right hand side as the project is entered. Where two projects adjoin, a single marker post and two plates shall be placed, each plate pointing in the direction of the project to which it refers. Where treated post is used a tight fitting Fiber Washer between post and plate shall be used.



PROJECT MARKER POST

SINGLE PROJECT MARKER



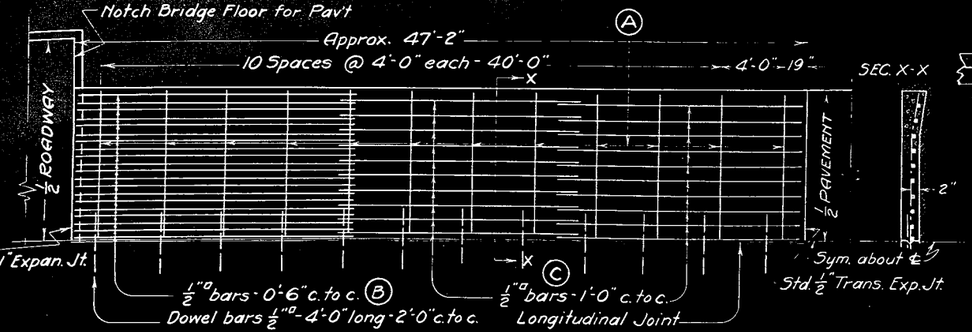
DOUBLE MARKER WHERE TWO PROJECTS ADJOIN

Use 2-¼"x2" lag screws with cut washers to fasten board to post

Letters are 5/16" wide

⅜" BOARD FOR PROJECT MARKERS

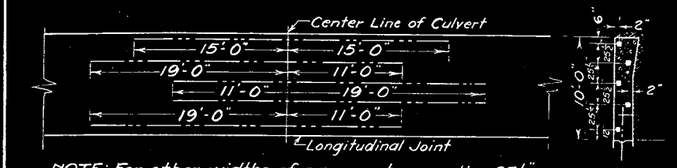
STANDARD DESIGN
GUARD POSTS-TYPE-C
& PROJECT MARKERS
WISCONSIN HIGHWAY COMMISSION
Recommended for Approval
PLAN & SURVEY ENGR
Approved -
Date
STATE HIGHWAY ENGINEER



STANDARD DESIGN REINFORCING FOR BRIDGE APPROACHES

BILL OF REINFORCING FOR ONE END				
BAR	18' PAVEMENT		20' PAVEMENT	
	NO.	LENGTH	NO.	LENGTH
A	24	8'-6"	24	9'-6"
B	36	18'-0"	40	18'-0"
C	36	16'-0"	40	16'-0"
TOTAL STEEL		1215 Lbs.		1350 Lbs.

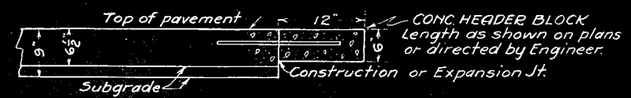
NOTE:- All reinforcement is ½" square deformed bars. Place longitudinal bars 2" from bottom of slab and transverse bars on top of these. Wire longitudinal and transverse bars securely together to form separate mats on each side of parting strip.



NOTE: For other widths of pavement, vary the 25½" spaces. All reinforcement is ½"ᵃ deformed bars - 30' long - 10 required Weight = 255 lbs.

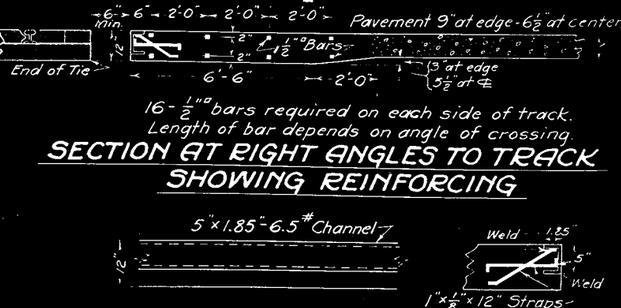
No reinforcing steel is to extend thru expansion joints. Vary spacing of transverse expansion joints, if necessary.

PAVEMENT REINFORCING OVER CULVERT



Construction joint with ½"ᵃ x 3' tie bars when placed at edge of pav't or standard expan. joint with std dowels when placed at end of pavement.

CONCRETE HEADER BLOCK



16 - ½"ᵃ bars required on each side of track. Length of bar depends on angle of crossing.

SECTION AT RIGHT ANGLES TO TRACK SHOWING REINFORCING

ARMOR PROTECTION AT R.R. CROSSING

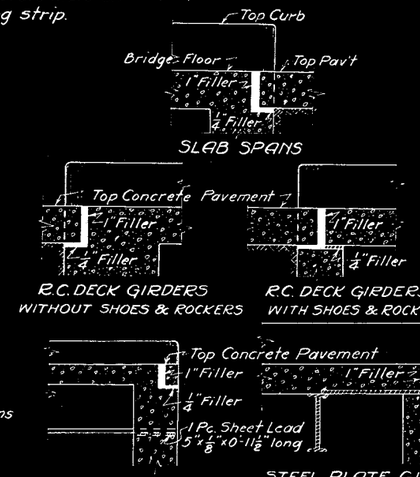
NOTE FOR STANDARD DESIGN OF RAILROAD CROSSING APPROACH SHOWING ARMOR PROTECTION:

Protect ends of pavement at railroad crossings as shown.

Pavement to be flat. Crown to be worked out in 25 feet.

Additional concrete required in pavement to be converted in Sq. Yds. of standard concrete pavement and paid for as such.

Armor protection shown to be measured by the linear foot and paid for at the contract unit price bid in the proposal for "Armor Protection", which price shall be full compensation for furnishing complete in place.



METHODS OF CONNECTING CONC. PAV'T WITH BRIDGE STRUCTURES

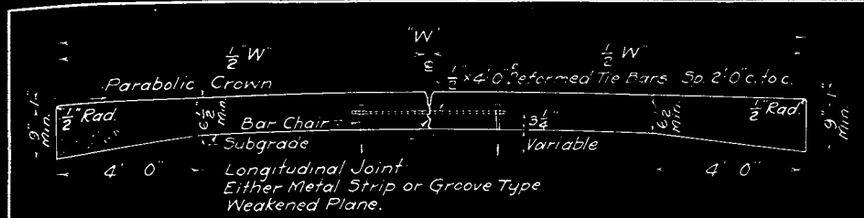
STANDARD DESIGN

PAVEMENT REINFORCING FOR BRIDGE APPROACHES CULVERTS & RAILROAD CROSSINGS - ALSO ST'D DESIGN OF CONCRETE HEADER BLOCK

Recommended for Approval: J. Snare
PLAN & SURVEY ENGR

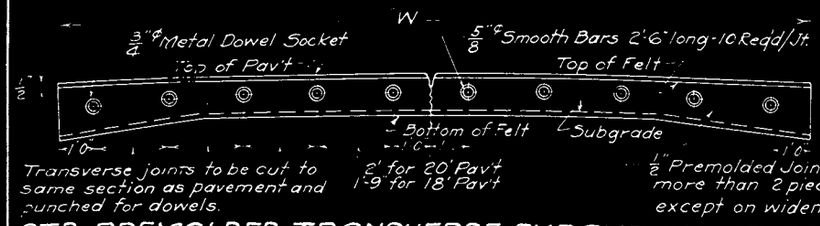
Approved: [illegible]
STATE HIGHWAY ENGINEER

Date: 2/18/30

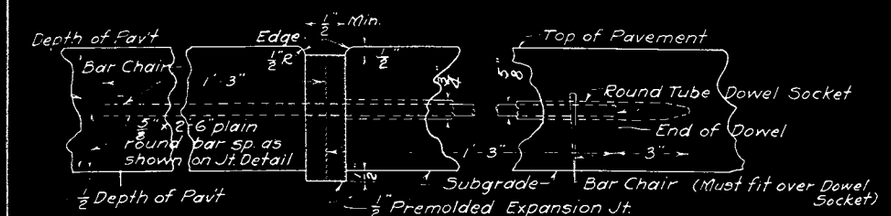


CROSS SECTION OF STD. ONE COURSE PORTLAND CEMENT CONCRETE PAVEMENT

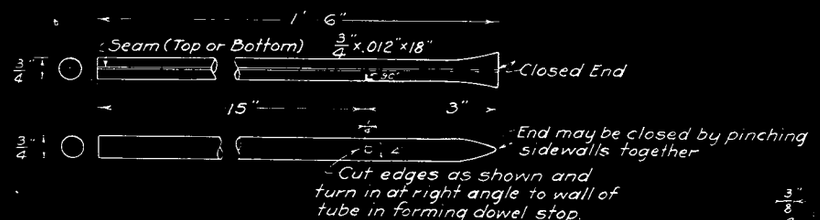
SECTION AREA = 11.68 SQ. FT. WHEN "W" = 20 FT.
" " = 10.60 SQ. FT. " "W" = 18 FT.



STD. PREMOLDED TRANSVERSE EXPANSION JT. DETAIL

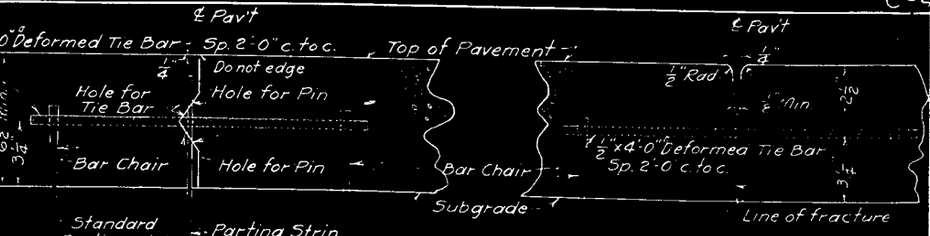


SECTION SHOWING DOWELS THRU TRANSVERSE EXPANSION JOINTS

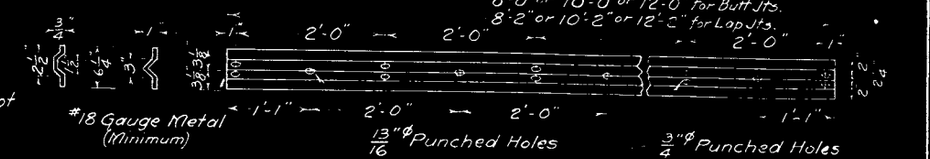


DETAIL OF ROUND SHEET METAL DOWEL SOCKET

PARTING STRIP PIN



APPROVED ALTERNATE TYPES OF LONGITUD. JOINTS



STANDARD PARTING STRIP FOR LONGITUD. JOINTS

Adjacent strips shall be held together by a butt joint rigidly connected, or lapped at least 2 inches and securely fastened by the pin.

The design of strips, its details and its method of installation shall be in accordance with design here shown or shall meet approval of the engineer.

If necessary, wood blocks shall be used to help keep the strip at the proper elevation.

CONSTRUCTION NOTES:

Do not edge pavement where Lip type curb is to be placed.

Weakened plane type longitudinal joints shall be constructed by forming a groove or indentation in the surface after the concrete has been struck off to the required cross section. The method or devices for forming the groove must produce results satisfactory to the engineer.

All expansion joints and weakened plane longitudinal joints shall be filled and refilled in accordance with the requirements of the standard specifications.

All bar chairs shall be designed to hold all dowels and tie bars in the specified position.

Joint material to extend ½ inch below bottom of pavement. Normal spacing of transverse expansion joints not less than 47 feet and not more than 50 feet.

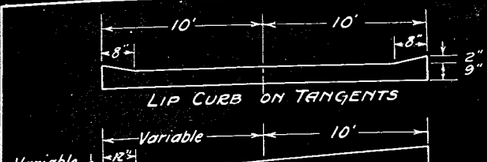
The unit price of joints longer than standard on widened curves and inter sections will be adjusted in the ratio of the unit price bid to the std joint.

STANDARD DESIGN
ONE COURSE PORTLAND CEMENT CONCRETE PAV'T & TRANSVERSE EXPANSION JOINT DETAIL
WISCONSIN HIGHWAY COMMISSION

Recommended for Approval: A. Crane
PLAN & SURVEY ENGR.

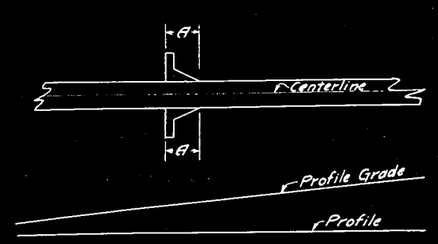
Approved: W. T. Pierce
STATE HIGHWAY ENGINEER

Date: 7/18/30



LIP CURB ON TANGENTS

LIP CURB ON SUPER. CURVES



"A" FOR GRADES 4% AND UNDER = 12 FT.
"A" FOR GRADES OVER 4% - - - = 18 FT.

CONSTRUCTION NOTES:

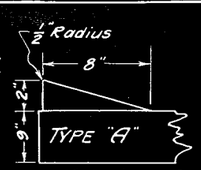
The lip curb may be constructed from concrete which is mixed the same as the concrete in the pavement slab or the coarse aggregate may be reduced for workability, holding the same cement-sand ratio which is used in the pavement slab.

No surface drain shall be installed at edge of bridge approach or at expansion or contraction joints.

Each surface basin shall be dowelled to the pavement slab by 4'-0" square deformed bars spaced as shown on basin details. Use bent dowel with one end covered with paste board tube or strips of steel center plate placed in the edge of pavement slab adjacent to the forms. These plates shall be punched in the field to accommodate dowel bars. The dowel bars shall be bent at right angles in the middle and installed in the pavement slab having one end of each bar placed in the groove so that the bars can be straightened after pavement form is removed.

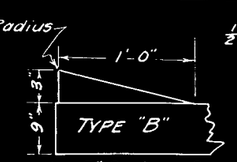
Where lip curb is not monolithic with slab, sixty penny spikes are to be inserted in the slab one (1) ft. apart and two (2) in. from outside edge.

Details of construction for lip curb and surface drains not covered on the plan shall conform to the pertinent requirement of the Std Road & Bridge Specifications.



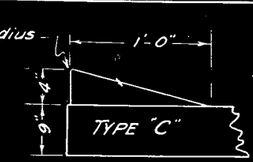
TYPE "A"

Use 2" Curb on Tangents



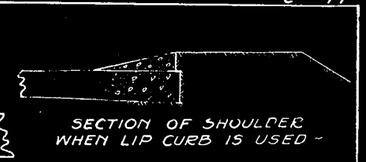
TYPE "B"

Use 3" Curb on Curves with .04 Ft. per Ft. Superel. or Less

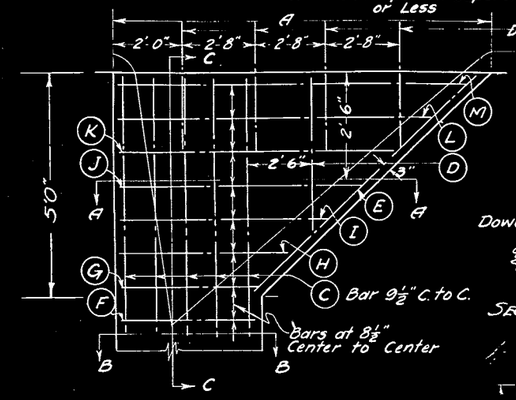


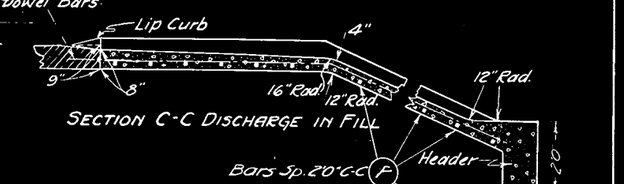
TYPE "C"

Use 4" Curb on Curves with more than .04 Ft. per Ft. Superel.

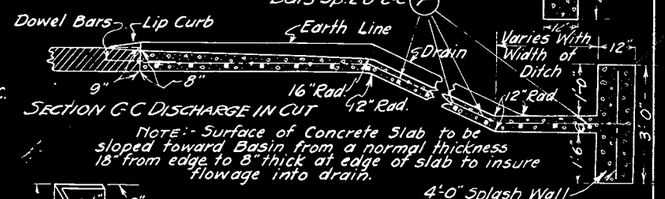


SECTION OF SHOULDER WHEN LIP CURB IS USED -





SECTION C-C DISCHARGE IN FILL



SECTION C-C DISCHARGE IN CUT

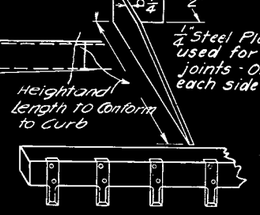
NOTE:- Surface of Concrete Slab to be sloped toward Basin from a normal thickness 18" from edge to 8" thick at edge of slab to insure flowage into drain.

SURFACE BASIN FOR GRADE

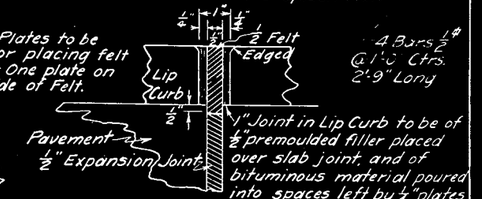
SECTION A-A

SECTION B-B

Height and length to conform to curb



CONSTRUCTION FORM FOR LIP CURB



BILL OF BARS

All Bars of 30 Deformed

BAR	NUMBER 4½% & Under Grade	NUMBER Over 4% Grade	LENGTH 4½% & Under Grade	LENGTH Over 4% Grade
C	5	5	6'-9"	6'-9"
D	1	2	4'-0"	4'-0"
F			3'-9"	3'-9"
G	1	1	4'-3"	4'-6"
H	1	1	5'-3"	6'-6"
I	1	1	6'-6"	8'-6"
J	1	1	7'-6"	10'-6"
K	1	1	8'-6"	12'-6"
L	1	1	9'-9"	14'-6"
M	1	1	11'-0"	16'-6"
E	1	1	9'-0"	14'-6"

QUANTITIES:

Conc. Surf. Basin (Small)	0.90 C.Y.
Conc. Surf. Basin (Large)	1.20 C.Y.
Steel Surf. Basin (Small)	85 Lbs.
Steel Surf. Basin (Large)	110 Lbs.
Conc. Surf. Drain	0.075 C.Y. Ft./Ft.
Steel Surf. Drain	5.8 Lbs. Ft./Ft.
Conc. Header	0.33 C.Y.
Conc. in Ditch	0.074 C.Y. Ft./Ft.
Steel in Ditch	6 Lbs. Ft./Ft.
Conc. in Splash Wall	0.44 C.Y.
Steel in Splash Wall	9 Lbs.

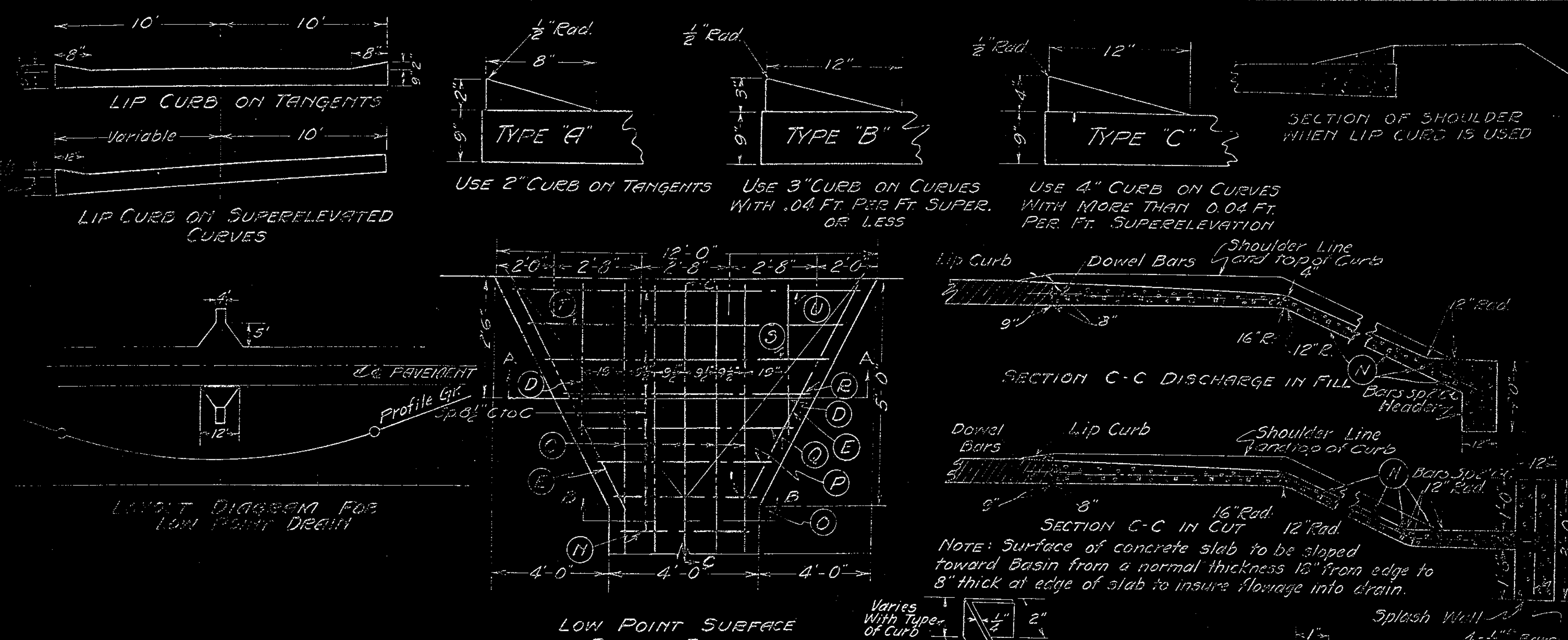
STANDARD DESIGN - LIP CURB-TYPES-A, B & C AND CONCRETE SURFACE DRAIN (ON GRADE)

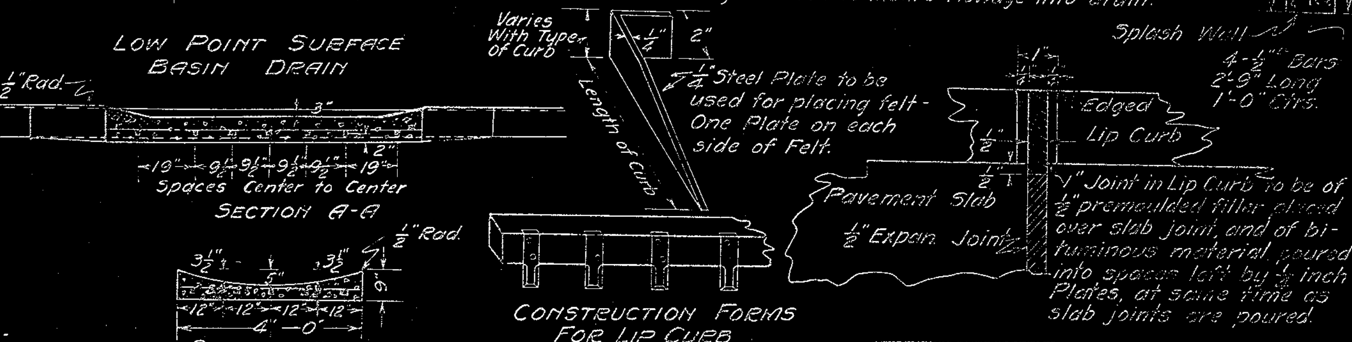
WISCONSIN HIGHWAY COMMISSION

Recommended for Approval: J. Snare
PLAN & SURVEY ENGR.

Approved: W. C. Brueland
STATE HIGHWAY ENGINEER

Date 2-21-24





CONSTRUCTION NOTES:

... may be constructed from concrete mixed the same as the concrete in the slab, or the coarse aggregate may be re... workability holding the same cement ratio ... in the pavement slab. Where the curb ... with the slab, sixty penny spikes ... in the slab one (1) ft. apart and two ... outside edge.

... Drain shall be installed at edge of bridge ... at expansion or contraction joints.

... Basin shall be dowelled to the pavement ... 4'-0" square deformed bars spaced as ... details. Use bent dowel with one end ... pasteboard tubes or strips of steel centering strip) placed in the edge of pavement adjacent to the forms. These plates shall ... the field to accommodate dowel bars. ... shall be bent at right angles in the ... in the pavement having one end ... in the groove so that bars can be ... pavement form is removed.

... for lip curb and surface drains ... plan shall conform to the pertinent ... Road & Bridge Specifications.

BILL OF BARS

BAR	NO.	LENGTH	BAR	NO.	LENGTH
C	5	6'-9"	Q	1	6'-6"
D	2	4'-0"	R	1	7'-6"
E	2	6'-0"	S	1	8'-9"
N		3'-9"	T	1	10'-0"
O	1	4'-3"	U	1	11'-0"
P	1	5'-6"			

Steel Bars to be ½" square deformed.

QUANTITIES:

Conc. Surf. Basin	0.90 C.Y.
Steel Surf. Basin	91 Lbs.
Conc. Surf. Drain	.075 C.Y. Ft./Ft.
Steel Surf. Drain	5.8 Lbs. Ft./Ft.
Ditch Conc.	.074 C.Y. Ft./Ft.
Ditch Steel	6 Lbs. Ft./Ft.
Conc. Splash Wall	0.44 C.Y.
Steel Splash Wall	9 Lbs.
Conc. Header	0.33 C.Y.

STANDARD DESIGN

LIP CURB - TYPES A, B & C AND CONCRETE SURFACE DRAIN (LOW POINT)

WISCONSIN HIGHWAY COMMISSION

Recommended for Approval: J. Crane
PLAN & SURVEY ENGR.

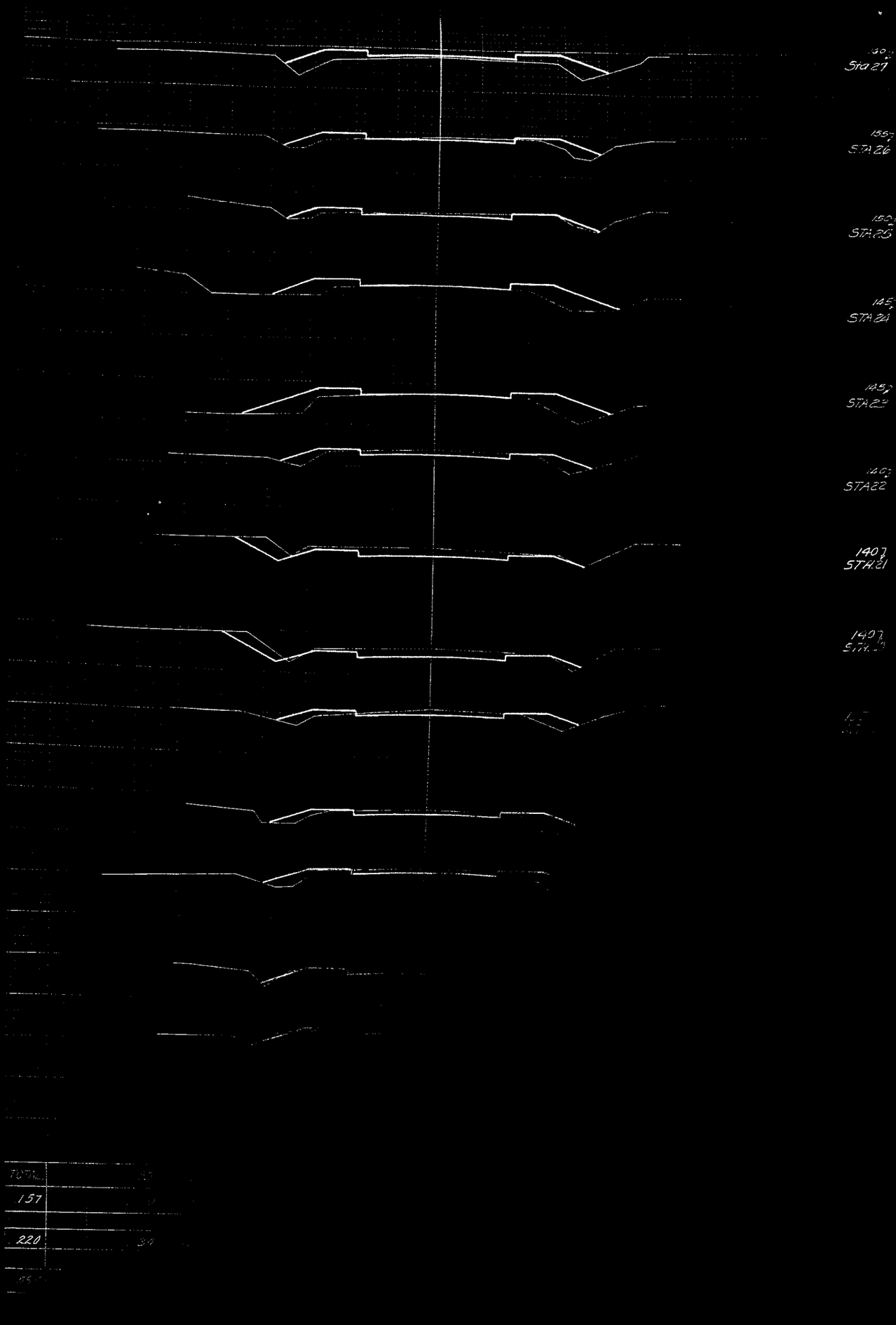
Approved:- W. S. Bradley
STATE HIGHWAY ENGINEER

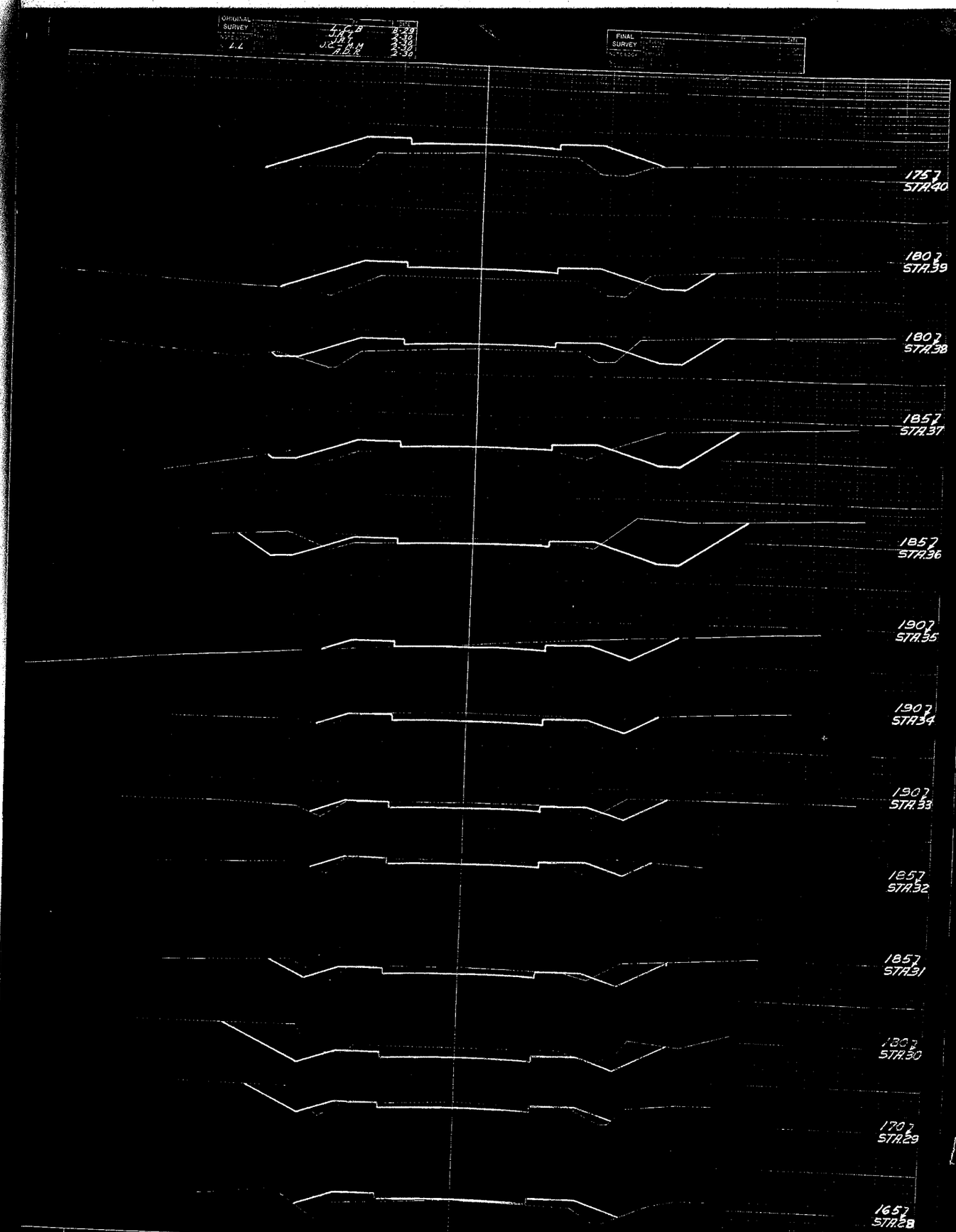
Date 7/1/29

FED ROAD DIST. NO.	STATE	ST. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
4	WISC.	4591	9	15

DIVISION JOB NO. 4331

STATION	END AREA CUT EARTH	END AREA CUT ROCK	END AREA FILL	DISTANCE	YARDAGE CUT EARTH	YARDAGE CUT ROCK	YARDAGE FILL	STATION TOTAL CUT	STATION TOTAL FILL
1207 STA 13	0								
	234	0	34	100	434	0	34	0	34
1207 STA 12	1	5	0	100	68	6	0	6	0
	2	30	5	100	643	69	9	69	9
1207 STA 11	3	7	5	100	1000	244	69	313	78
	4	8	7	100	1100	344	244	657	322
1157 STA 10	5	10	9	100	1100	344	344	1001	666
	6	21	10	100	1100	1100	344	2101	1010
1157 STA 9	7	17	11	100	1100	1100	344	3201	1354
	8	22	30	100	1100	1100	1100	4301	2454
1107 STA 8	9	25	16	100	1100	1100	1100	5401	3554
	10	0	4	100	1100	1100	400	6501	3954
1107 STA 7	11	16	10	100	1100	1600	1400	7701	5354
	12	10	14	100	1100	1300	1800	8801	7154
1057 STA 6	13	7	17	100	1100	850	1550	9751	8704
1057 STA 5									
1007 STA 4									
1007 STA 3									
1007 STA 2									
1007 STA 1									
1007 STA 0									
TOTAL	216	52	221						


160
STA 27
155
STA 26
150
STA 25
145
STA 24
145
STA 23
140
STA 22
140
STA 21
140
STA 20
TOTAL
157
220
34



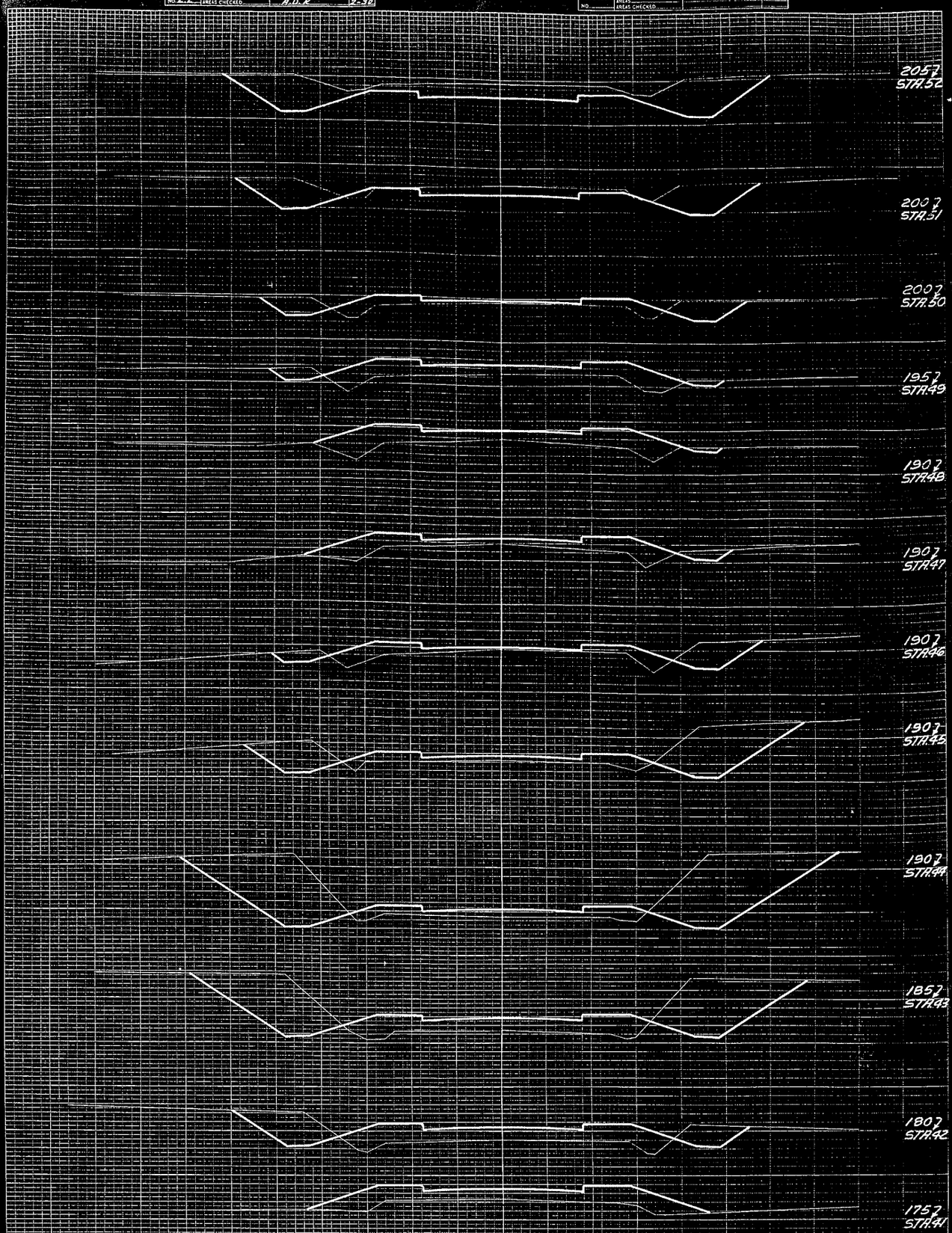
TOTAL		40	39	38	37	36	35	34	33	32	31	30	29	28	
374	STATION														
	EARTH	0	12	25	40	75	28	27	22	17	34	70	24	0	
299	ROCK														
	FILL	80	70	43	33	8	6	5	6	7	4	0	9	28	
	DISTANCE	100	100	100	100	100	100	100	100	100	100	100	100	100	
1374	EARTH	22	69	120	213	190	52	91	72	94	193	214	44	0	
	L. ROCK														
	S. ROCK														
	TOTAL														
1027	TOTAL FILL	278	209	141	76	19	40	20	24	20	7	17	69	107	

END AREA YARDAGE — CUT

DIVISION 2 — 4599 — 1 — 4599/5

ORIGINAL SURVEY		BY	PLOTTED
NOTE BOOK NO. 2-L	SURVEYED	[illegible]	8-5-3
	PLOTTED	[illegible]	8-5-3
	TEMPLATE	[illegible]	8-5-3
	AREAS	[illegible]	8-5-3
	AREAS CHECKED	[illegible]	8-5-3

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



TOTAL				52	51	50	49	48	47	46	45	44	43	42	41	STATION
703				124	76	27	8	2	5	26	82	181	131	41	0	EARTH
480				0	2	28	59	70	51	32	28	30	58	65	65	ROCK
				100	100	100	100	100	100	100	100	100	100	100	100	DISTANCE
2375				370	191	65	19	13	37	200	487	578	319	76	0	EARTH
																L. ROCK
																S. ROCK
																TOTAL
1937				4	56	161	239	224	154	111	107	163	228	241	269	TOTAL FILL

END AREA — CUT — FILL

YARDAGE — CUT — L. ROCK — S. ROCK — TOTAL — TOTAL FILL

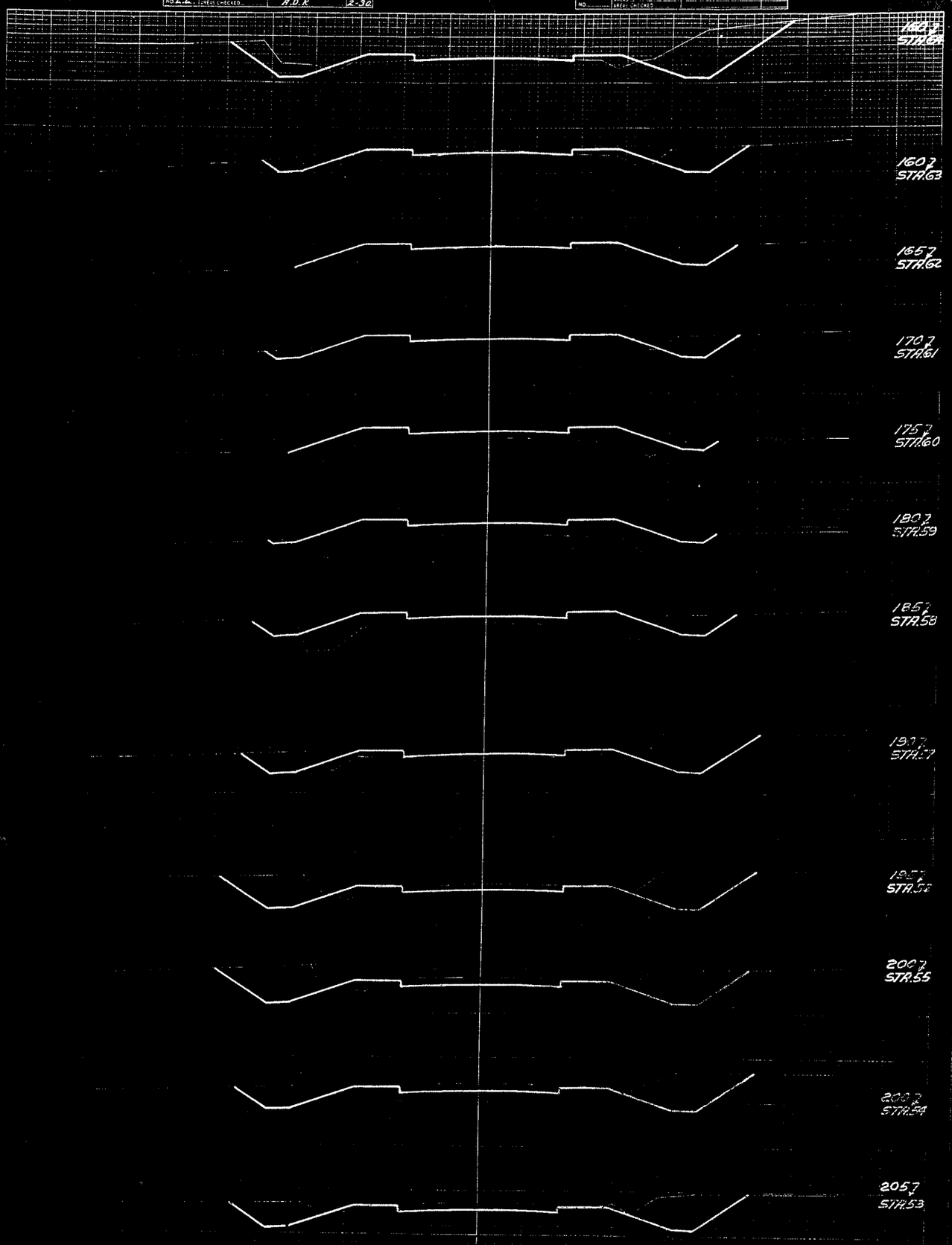
STATE 37 ROUTE 25-91 SECT. 12 JOB 4331 SHEET 3 TOTAL SHEETS

FED. ROAD DIV. NO. 1

DIVISION 3 DIST. 3 COUNTY YOLO

SURVEY	SURVEYED	J.H.P.	2-12
	PLOTTED	J.H.P.	2-19
NOTE BOOK	TEMPLATE	J.H.P.	2-26
NO. 44	AREAS	J.G.A.M.	2-26
	LINES CHECKED	H.D.K.	2-32

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

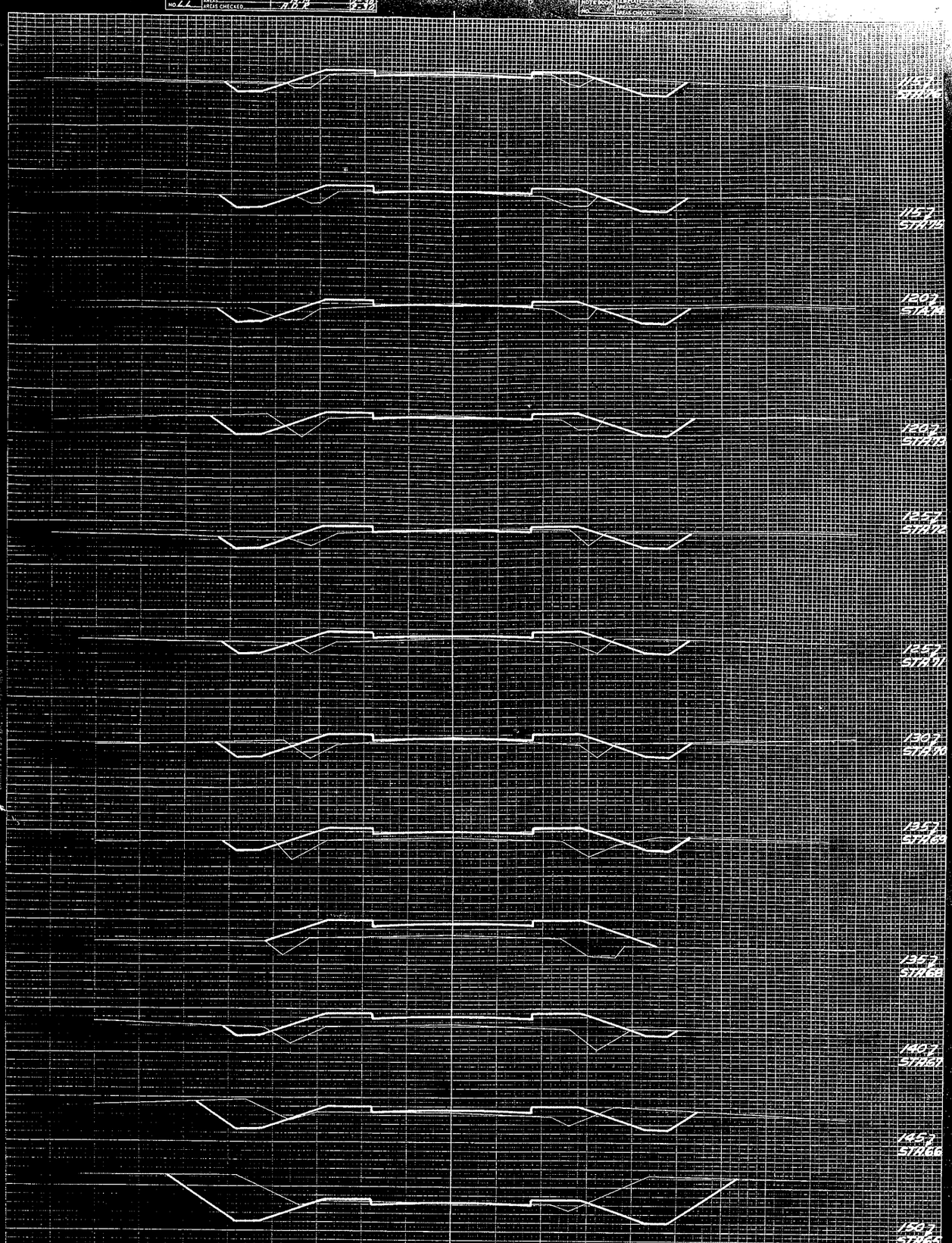


TOTAL																		
		64	63	62	61	60	59	58	57	56	55	54			53		STATION	
528		65	28	13	21	3	4	21	53	82	89	72			77		EARTH	END AREA CUT
																	ROCK	
296		12	22	28	15	57	65	60	25	5	4	2			1		FILL	
		100	100	100	100	100	100	100	100	100	100	100	STA - 53+26		10.0		DISTANCE	
2064		172	76	63	44	13	46	137	250	317	298		TOTALS	27.6	372		EARTH	YARDAGE CUT
													MILE	NO-1			L. ROCK	
													CUT	5535			S. ROCK	
										CUT FOR SHOULDER			EMBANK	333 C.Y.			TOTAL	
1075		63	93	80	133	226	231	157	56	17	11		FILL	3961	6	2	TOTAL FILL	

DIVISION 3 | STATE OF MAINE | DEPT. OF TRANSPORTATION | SHEET NO. 45 | TOTAL SHEETS 45

ORIGINAL SURVEY			
NOTE BOOK NO. 22	SURVEYED	[illegible]	[illegible]
	PLOTTED	[illegible]	[illegible]
	TEMPLATE	[illegible]	[illegible]
	AREAS	[illegible]	[illegible]
	AREAS CHECKED	[illegible]	[illegible]

NOTE BOOK NO.			
	SURVEYED		
	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		



STATION	76	75	74	73	72	71	70	69	68	67	66	65
TOTAL.												
354	73	17	19	30	23	17	20	13	0	8	38	96
343	13	19	19	17	14	30	22	50	75	60	18	6
	100	100	100	100	100	100	100	100	100	100	100	100
1298	167	67	91	98	74	69	62	24	15	85	248	298
1266	59	70	67	57	82	96	133	231	250	144	44	33

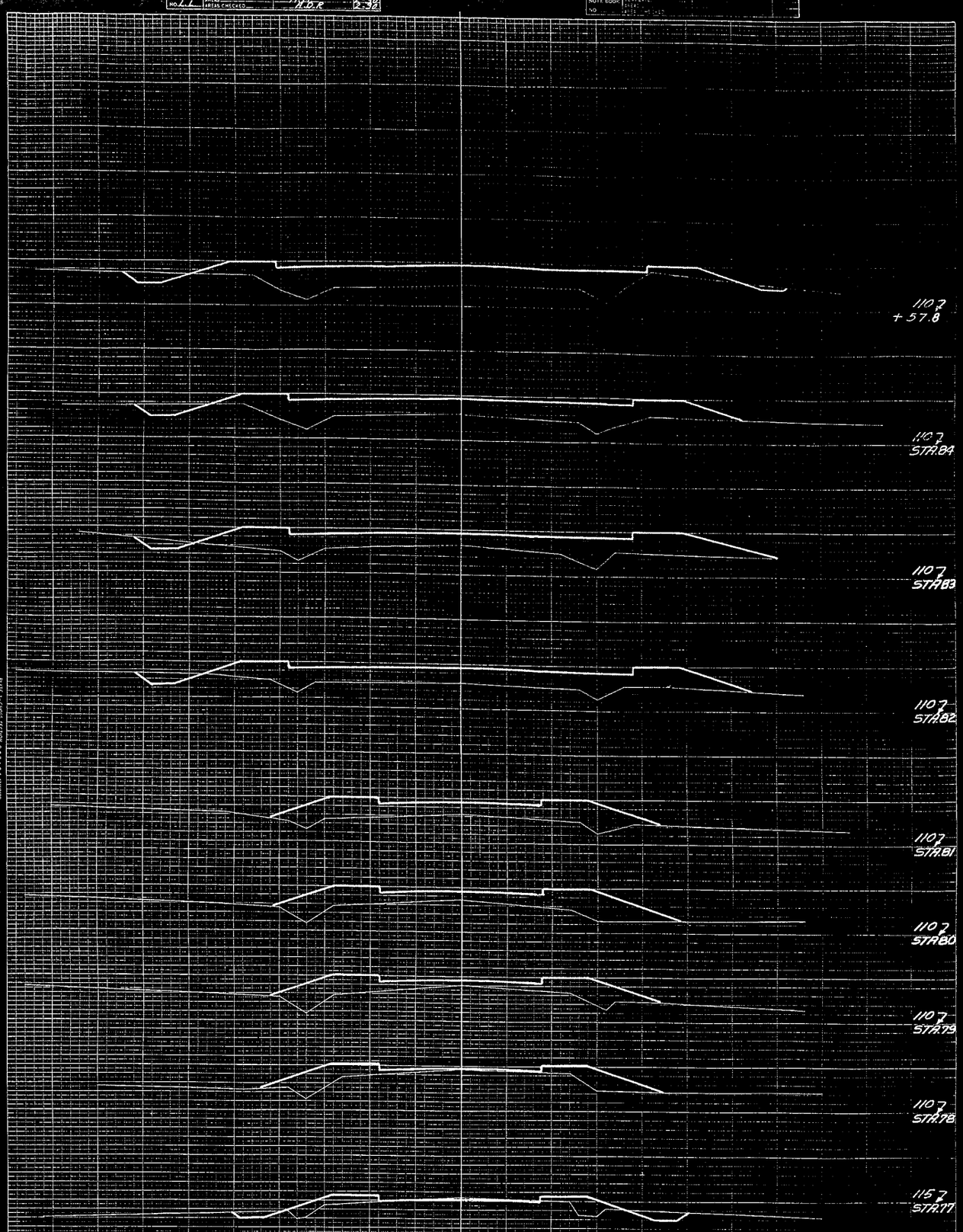
END AREA
CUT
EARTH
ROCK
FILL
DISTANCE
EARTH
L. ROCK
S. ROCK
TOTAL
TOTAL FILL
YARDAGE
CUT

FED. ROAD DIV. NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
	WISC.	2537	12	15

DIVISION
JOB NO. 4331

ORIGINAL SURVEY		BY	DATE
NOTE BOOK No. 2-2	SURVEYED	L.A.S.	2-27
	PLOTTED	J.A.H.	2-28
	TEMPLATE		2-28
	AREAS	H.D.R.	2-28
	AREAS CHECKED		2-28

FINAL SURVEY		BY	DATE
NOTE BOOK NO	SURVEYED		
	PLOTTED		
	TEMPLATE		
	AREAS		



TOTAL				+	57.8	84	83	82	81	80	79	78	77		STATION
38					8	7	5	6	0	0	0	0	12		EARTH
															ROCK
724					118	111	115	108	77	76	60	42	18		FILL
			TOTALS		57.8	100	100	100	100	100	100	100	100		DISTANCE
230			MILE NO-2		17	22	20	11	0	0	0	23	157		EARTH
			CUT 3168												L. ROCK
			FILL 4649												S. ROCK
			CUT FOR SHOULDER EMBANKMENT 41 C.Y.												TOTAL
2312					244	419	413	343	283	252	189	112	57		TOTAL FILL

END AREA — CUT

YARDAGE — CUT

PLATE 1 - CROSS SECTION C & A.B.C. DRAWING