FED. ROAD DIST. NO.	STATE	PROJECT PROJ. NO.	SHEET NO.	TOTAL SHEETS
4	WISC.	3141	1	25

DIVISION JOB NO. 3141

INDEX OF SHEETS

SHT. NO. 1 TITLE SHEET
" " 2 TYPICAL CROSS SECTION OF IMPROVEMENT & ESTIMATE
" " 3 RIGHT OF WAY
" " 4 SPECIAL DETAILS
" " 5 PLAN AND PROFILE STA 0 TO STA. 60
" " 6 " " " " 60 " " 120
" " 7 " " " " 120 " " 131+92.6
" "8-12 DRAINAGE STRUCTURES
" "13-25 CROSS SECTIONS.

STATE OF WISCONSIN
WISCONSIN HIGHWAY COMMISSION

PLAN AND PROFILE OF PROPOSED

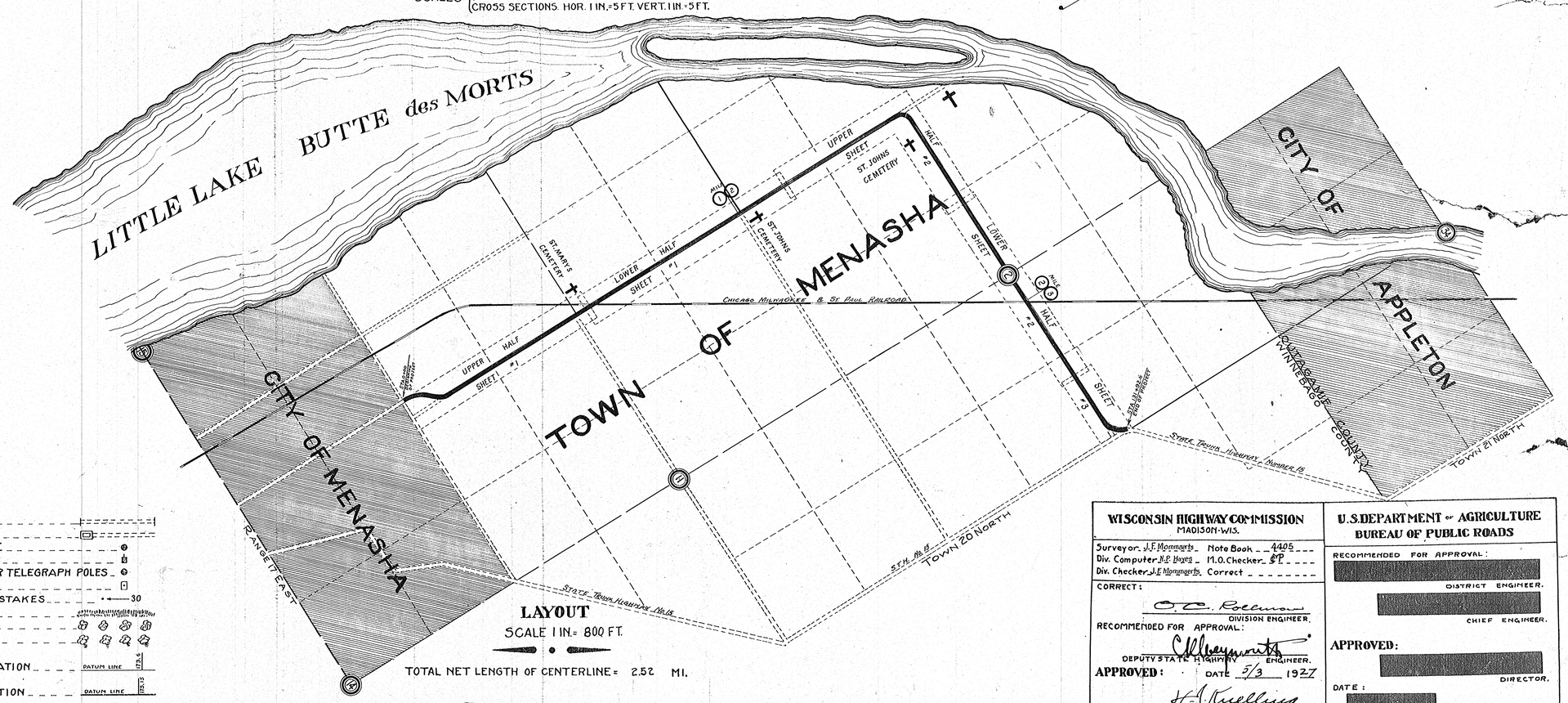
MENASHA-APPLETON ROAD

WINNEBAGO COUNTY

COUNTY AID PROJECT

COMMENCING AT A POINT 0.08 MILE WEST OF CORNER OF SECTIONS 10, 11, 14 AND 15, T. 20 N., R. 17 E., THENCE NORTHEASTERLY TO A POINT 0.18 MILE NORTH OF ABOVE MENTIONED SECTION COR. THENCE NORTH ON SECTION LINE BETWEEN SECTIONS 10, 11, 2 AND 3, T. 30 N., R. 17 E. A DISTANCE OF 1.34 MILE, THENCE EAST ON EAST AND WEST ONE QUARTER LINE OF SECTION 2, A DISTANCE OF 0.99 MILE.

SCALES { PLAN, 1 IN. = 100 FT.
PROFILE, HOR. 1 IN. = 100 FT. VERT. 1 IN. = 10 FT.
CROSS SECTIONS. HOR. 1 IN. = 5 FT. VERT. 1 IN. = 5 FT.



LAYOUT
SCALE 1 IN. = 800 FT.

TOTAL NET LENGTH OF CENTERLINE = 2.52 MI.

CONVENTIONAL SIGNS

STATE AND NATIONAL LINE
COUNTY LINE
CITY, VILLAGE, OR TOWN
TOWNSHIP LINE
SECTION LINE
FENCE LINE
GUARD RAIL
UNFENCED PROPERTY
RIGHT OF WAY LINE
TRAVELED WAY
RAILROADS
RETAINING WALL
LEVEE
BASE OR SURVEY LINE

CULVERTS
DROP INLET
TROLLEY POLE
POWER POLE
TELEPHONE OR TELEGRAPH POLES
MAIL BOX
REFERENCE STAKES
MARSH
HEDGE
TREES
GROUND ELEVATION
GRADE ELEVATION

WISCONSIN HIGHWAY COMMISSION
MADISON, WIS.

Surveyor J.F. Mommaerts Note Book 4405
Div. Computer N.P. Hoyer M.O. Checker S.P.
Div. Checker J.F. Mommaerts Correct

CORRECT:
O.C. Roelman
DIVISION ENGINEER.

RECOMMENDED FOR APPROVAL:
C.H. Mommaerts
DEPUTY STATE HIGHWAY ENGINEER.

APPROVED: DATE 5/3 1927
H.J. Ruelling
STATE HIGHWAY ENGINEER.

U.S. DEPARTMENT OF AGRICULTURE
BUREAU OF PUBLIC ROADS

RECOMMENDED FOR APPROVAL:
DISTRICT ENGINEER.
CHIEF ENGINEER.

APPROVED:
DIRECTOR.

DATE:

FED. ROAD DIST. NO.	STATE	C.O. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
4	WISC.	3141	2	25

DIVISION JOB NO. 3141

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	EXCAVATION: LOOSE ROCK	EXCAVATION: SOLID ROCK	EXCAVATION: BORROW	EXCAVATION: CHANNEL CHANGE	EXCAVATION: INTERCEPTING DITCH	EXCAVATION: OFFTAKE AND OUTLET DITCH	SURFACING: BANK PROTECTION	SURFACING: 18 FT. CONCRETE SURFACING	SURFACING: EXPANSION JOINTS	SURFACING: REINF. STEEL IN PAV'T	SURFACING: CONC. CURBING	SURFACING: CUT OFF WALL	SURFACING: FT. GRAVEL SURFACING	SURFACING: FT. SHALE SURFACING	SURFACING: FT. SURFACING
		LIN. FT.	ACRES	ACRES	CU. YDS.	CU. YDS.	CU. YDS.	CU. YDS.	CU. YDS.	LIN. FT.	CU. YDS.	SQ. YDS.	SQ. YDS.	NO.	LBS.	LIN. FT.	LIN. FT.	CU. YDS.	CU. YDS.	
1	0 to 53	5300			6302						10		10800.8	113	765					
2	53 to 106	5300			5256						20		10845.2	113	765					
3	106 to 131+92.6	2642.5			2947								5468.8	56	255					
		13,242.5			14,505						30		27,114.8	282	1785					

MILE NO.	DRAINAGE STRUCTURES: CULVERTS 6 FT. SPAN AND UNDER CONC.	CULVERTS 6 FT. SPAN AND UNDER STEEL	SMALL BRIDGES 6 FT. TO 20 FT. SPAN INCLUSIVE CONC.	SMALL BRIDGES 6 FT. TO 20 FT. SPAN INCLUSIVE STEEL	BRIDGES OVER 20 FT. SPAN: CONC. CLASS 'A'	CONC. CLASS	REINF. STEEL	BALUSTERS	STRUCT. STEEL	CAST STEEL	CAST IRON CORR. PIPE TYPE 'A' 18" IN.	CAST IRON CORR. PIPE TYPE 'B' IN.	CORRUGATED GALV. SHEET METAL PIPE TYPE IN	CORRUGATED GALV. SHEET METAL PIPE TYPE 'A' IN.	CORRUGATED GALV. SHEET METAL PIPE TYPE 'B' IN.	PILING	RIP-RAP	TILE DRAINS	CURB AND GUTTER STANDARD	CURB AND GUTTER SPECIAL	CONC. FLUME	GUARD FENCE TYPE 'A'	GUARD FENCE TYPE 'B'	GUARD FENCE TYPE 'C' POSTS	GUARD FENCE MARKER POSTS	PROJECT MARKER	Δ Mesh Hog Wire Reinforcement
	CU. YDS.	LBS.	CU. YDS.	LBS.	CU. YDS.	CU. YDS.	LBS.	NO.	LBS.	LBS.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	CU. YDS.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	NO.	NO.	NO.	SQ. FT.
1	66.42	4205									48													28	2		440
2	54.92	3890																						6			450
3											90													2			
	121.34	8095									138													36	2		890

SHRK ALLOWANCE - 25%

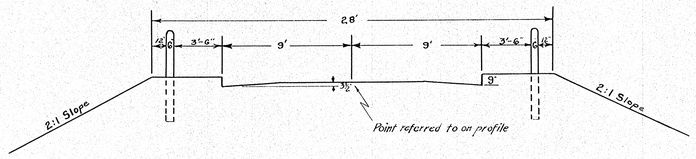
114 - 3"x3"x 3/16" ANGLE IRON
57 - 3/8" x 6" BOLTS.

MATERIAL HAUL

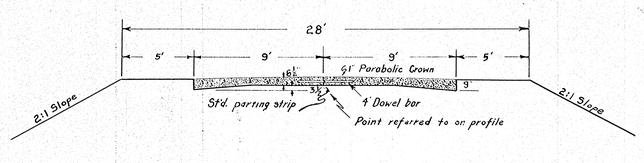
LENGTH OF HAUL	QUANTITY HAULED	QUANTITY HAULED
MILES	CU. YDS.	CU. YDS.
0 TO ½		
½ TO 1		
1 TO 1½		
1½ TO 2		
2 TO 2½		
2½ TO 3		
3 TO 3½		
3½ TO 4		
4 TO 4½		
4½ TO 5		
5 TO 5½		
5½ TO 6		
TOTALS		

ESTIMATE FOR CONTRACTORS INFORMATION

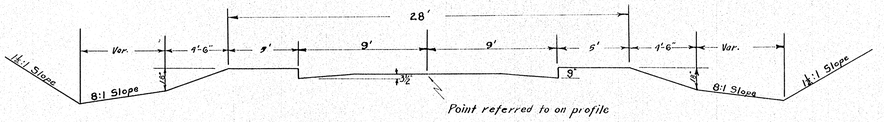
MILE NO.	TOTAL PARTING STRIP LIN. FT.	½" DIA. DOWELS P'T'G. ST. LBS.	⅝" DIA. DOWELS EXP. JTS. LBS.	CEMENT REQ'D. BBLS. PAV'T. BBLS.	CULVS. & BRIDGES BBLS.	CURB & GUTTER BBLS.	DRAINS REQ'D. NO.	EXP. JT. FILLER SIZE	BRIDGE NAME PLATES NO.	DOWELS FOR CURB & GUTTER LBS.
1	5408	4597	1886	3186	99.8					
2	5417	4604	1886	3199	82.4					
3	2692	2188	935	1613						
TOTALS	13517	11389	4707	7998	182.2					



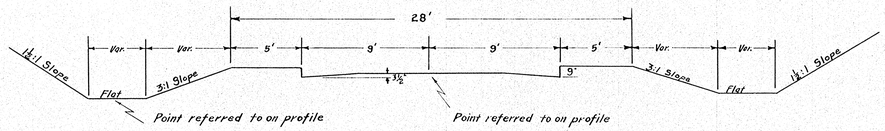
SECTION ON FILL OVER 4 FEET HIGH



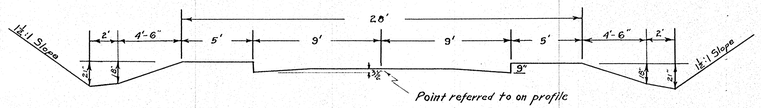
SECTION SHOWING FINISHED ROAD



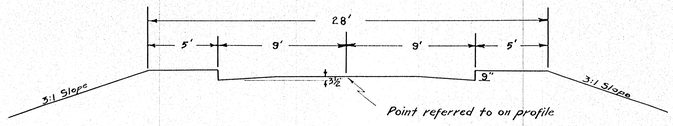
SECTION IN CUT SHOWING WIDE DITCH



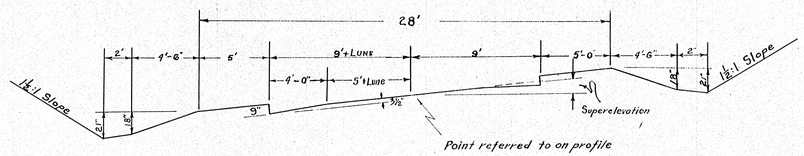
SECTION SHOWING DITCH GRADE



SECTION IN CUT



SECTION ON LOW FILL



SECTION SHOWING SUPERELEVATED CURVE

DRAINAGE STRUCTURES

STATION	SIZE	CONC.	STEEL	REMARKS
22+00	72"x24"x35.64	26.32	1600	NEW CONSTRUCTION
32+12	72"x60"x36.08	40.10	2605	" "
52+61	18" x 48'			CAST IRON PIPE
57+25	48"x36"x38.82	18.99	1325	NEW CONSTRUCTION
64+34	48"x24"x37.44	14.30	1145	" "
90+40	60"x24"x37.26	21.63	1420	" "
107+00	2-18"x45'			CAST IRON PIPE
TOTALS		121.34	8095	

TYPICAL CROSS SECTION FOR MENASHA - APPLETON - ROAD

WISCONSIN HIGHWAY COMMISSION
MADISON - WIS.

SCALE 1 IN = 5 FT.

FED. ROAD DIST. NO.	STATE	CO. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
4	WISC.	3141	3	26

DIVISION JOB NO. 3141

R.17E.

T.20N.

Mrs. MARY GESEN (1)

MARY WAGNER & LOUISE HABBERMAL (3)

ST. MARY CEM. (4)

A.D. PAGE (5)

WM. STURN (7)

NIC BECK & SON (8)

J. BYER (2)

WESLEY LOYD (6)

ST. JOHN CEM. (10)

ANDREW MUELENBEINE (10)

ST. JOHN CEM. (9)

NIC BECK & SON (13)

F. BUSS (12)

SCHWARTZBAUR (15)

ED. JENSEN (14)

ED. JENSEN

LUDWIG GEMINER (16)

FOX RIVER

City Limits of Menasha

C. M. & St. Paul R. R.

STATE TO APPLETON

Conc.

E. & W. Sec. Line

E. & W. ¼ Line

N. & S. Sec. Line

N. & S. ¼ Line

Δ 40° D 8° PI. 21607 T. 260.1 L. 500' PT 510+

Δ 40° 11' D 8° PI. 9+16.5 T. 261.9 L. 502.3 PT 11+56.9

PC 0+08

14+50

31+80

43.43' N. 1°-41' W.

27.98

41+08

PI 53+96 119.41

53+96

54+53

57.55

21.90' N. 1°-54' W

70+79

Δ 90°-10' D 12° PI 80+69.5 T. 418.9 L. 751.9 83+10

PC 75+90.6

83+42.0 PT

87+31

90+71

104+86

118+01

Δ 90°-00' D 2.8° PT. 131+25.7 PC. 129+19.9 PI 131+92.6 L. 352.5 T. 225.8

45.17' 4.88'-42"

N. & S. Sec. Line

RIGHT OF WAY SCHEDULE

No.	NAME	ACRES	LOCATION
1	MRS. MARY GESEN	1.38	SE¼ OF SE¼ SEC. 10 T. 20N. R. 17E.
2	J. BYER		SW¼ OF SW¼ SEC. 11 T. 20N. R. 17E.
3	MARY WAGNER & LOUISE HABBERMAL	0.24	NE¼ OF SE¼ SEC. 10 T. 20N. R. 17E.
4	ST. MARY CEM.		SE¼ OF N½ SEC. 10 T. 20N. R. 17E.
5	A. D. PAGE	0.21	SE¼ OF NE¼ SEC. 10 T. 20N. R. 17E.
6	WESTERLEY LOYD		SW¼ OF NE¼ SEC. 10 T. 20N. R. 17E.
7	WM. STURM	0.29	NE¼ OF NE¼, SEC. 10 T. 20N. R. 17E. & NW¼ OF NW¼ SEC. 11
8	NIC. BECK & SON	1.22	SE¼ OF SE¼ SEC. 3 & NW¼ OF SW¼ SEC. 2 T. 20N. R. 17E.
9	ST. JOHN CEM.		NE¼ OF SE¼ SEC. 2 T. 20N. R. 17E.
10	ANDREW MUELENBEINE	0.29	SE¼ OF SE¼ SEC. 2 T. 20N. R. 17E.
11	ST. JOHN CEM.		
12	F. BUSS	0.10	S½ OF NW¼ SEC. 2 T. 20N. R. 17E.
13	NIC. BECK & SON	0.25	NE¼ OF SW¼ SEC. 2 & NW¼ OF SE¼ SEC. 2 T. 20N. R. 17E.
14	ED. JENSEN	0.26	SW¼ OF NE¼ SEC. 2 & NE¼ OF SE¼ SEC. 2 T. 20N. R. 17E.
15	SCHWARTZBAUR	0.15	NE¼ OF SW¼ SEC. 2 & NW¼ OF SE¼ SEC. 2 T. 20N. R. 17E.
16	LUDWIG GEMINER	0.49	SE¼ OF NE¼ SEC. 2 T. 20N. R. 17E.

PLAT OF RIGHT OF WAY REQUIRED

AID PROJECT NO.

MENASHA-APPLETON ROAD

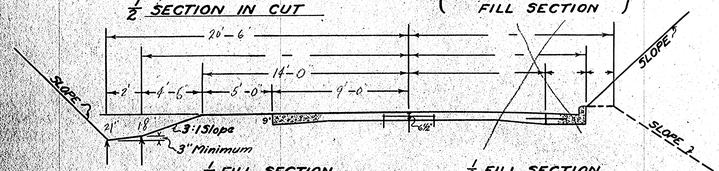
WINNEBAGO COUNTY

SCALE - 1" = 400'

FED. ROAD DIST. No.	STATE	~~FED. AID~~ PROJ. No.	SHEET No.	TOTAL SHEETS
4	WISC.	3141	4	25

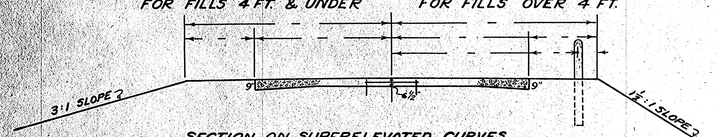
½ CURB & GUTTER SECTION (DOTTED LINES SHOW FILL SECTION)

½ SECTION IN CUT



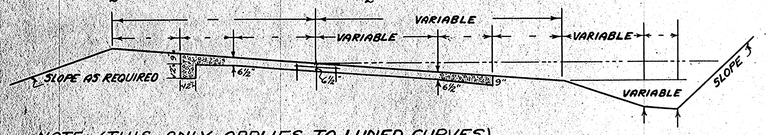
½ FILL SECTION FOR FILLS 4 FT. & UNDER

½ FILL SECTION FOR FILLS OVER 4 FT.



SECTION ON SUPERELEVATED CURVES

½ SECTION IN FILL — ½ SECTION IN CUT

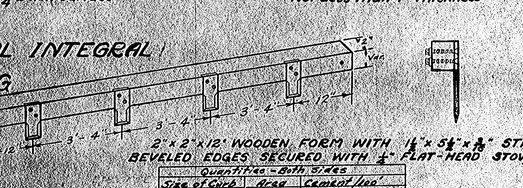


NOTE: (THIS ONLY APPLIES TO LUNED CURVES)
ALL CURVES TO BE GIVEN STANDARD SUPERELEVATION UNLESS OTHERWISE SPECIFIED. PARTING STRIP TO BE PLACED ON TRUE CENTERLINE OF ROAD AND ALL WIDENING APPLIED TO INSIDE OF CURVE.

VARY DEPTH OF DITCH SO NO WATER POCKETS WILL RESULT.

CROSS SECTION OF FULL WIDTH PAVEMENT WITHOUT REINFORCEMENT - To Be Built One Half At A Time

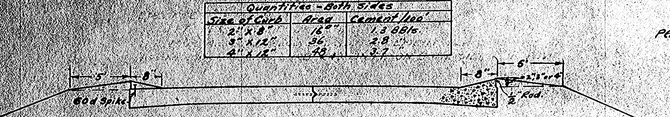
Place ½ Bars Over Sewer And Lateral Trenches Only.



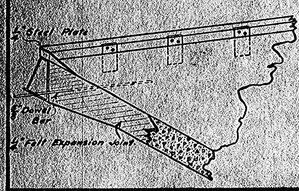
SPECIAL INTEGRAL CURBING

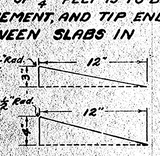
2" x 2" x 12" WOODEN FORM WITH ⅛" x 5½" x ⅜" STRAPS WITH BEVELED EDGES SECURED WITH ¼" FLAT-HEAD STOVE BOLTS.

Quantities - Both Sides		
Size of Curb	Area	Cement per Foot
2" x 8"	16"	1.3 Bbls.
3" x 12"	36"	2.8 "
4" x 14"	56"	4.2 "



WHERE CURB IS NOT MONOLITHIC WITH SLAB, SIXTY PENNY SPIKES ARE TO BE INSERTED 1' APART AND 2" FROM OUTSIDE EDGE OF PAVEMENT AND TO PROJECT UP NOT TO EXCEED 1". ALL PAVEMENT WITH CURB OF THIS TYPE MUST BE CURED WITH CALCIUM CHLORIDE. DO NOT EDGE PAVEMENT WHERE CURB IS TO BE CONSTRUCTED. WHEN FORMS ARE REMOVED A TRIANGULAR STRIP OF ¼" FELT IS TO BE INSERTED IN JOINT OF CURB DIRECTLY ABOVE JOINT IN PAVEMENT, AND TIP END OF STRIP IS TO BE TACKED INTO EXPANSION JOINT BETWEEN SLABS IN ORDER TO HOLD IT IN PLACE.





SECTIONS SHOWING VARIOUS WIDTHS AND DEPTHS OF CURB. A ½" RADIUS IS REQUIRED ON EDGES OF CURB.

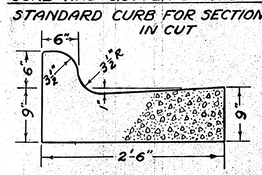
SECTION SHOWING CURB FORM IN PLACE ON TOP OF ROAD FORM.



¼" STEEL PLATE TO BE BOLTED TO END OF FORM SO AS TO MAKE PROVISION FOR PLACING FELT EXPANSION JOINT (TO CONFORM TO SECTION OF CURB) OPPOSITE JOINTS IN PAVEMENT SLABS.

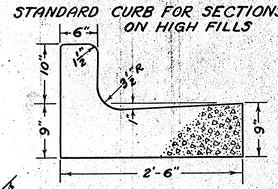
CURB AND GUTTER DETAILS

STANDARD CURB FOR SECTION IN CUT



C.Y. PER LIN. FT.

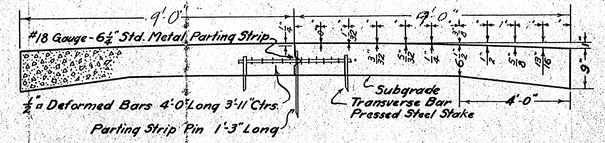
STANDARD CURB FOR SECTIONS ON HIGH FILLS



C.Y. PER LIN. FT.

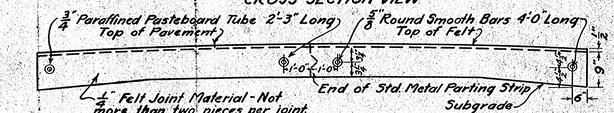
CROSS SECTION OF STANDARD PAVEMENT

SECTION AREA = SQ. FT.

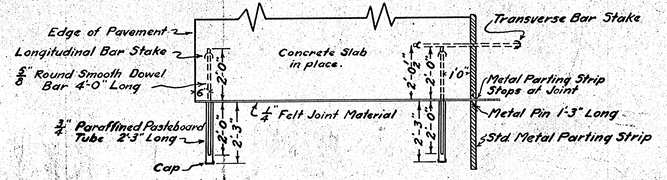


TRANSVERSE JOINT DETAIL

CROSS SECTION VIEW

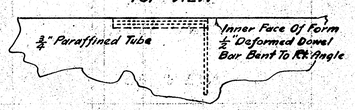


HALF PLAN VIEW

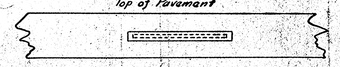


SKETCH SHOWING PLACEMENT OF DOWEL BARS

TOP VIEW

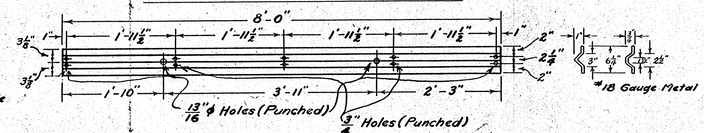


SIDE VIEW



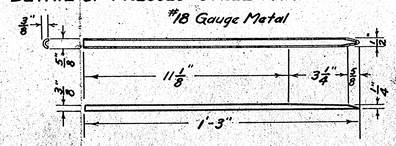
NOTE: Dowels are not to be placed until after spading has been done. Pavement must be struck off after dowels have been set in place.

STANDARD METAL PARTING STRIP

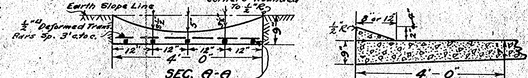


DETAIL OF PRESSED STEEL PARTING STRIP PIN

#18 Gauge Metal

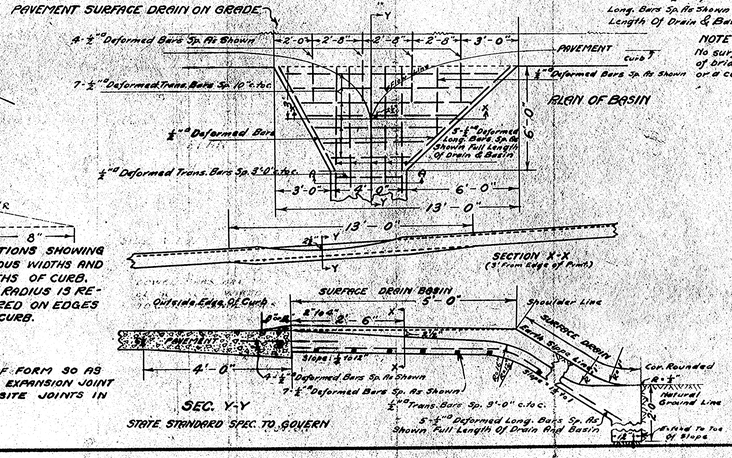


SPECIAL SIDE DRAIN FOR INTEGRAL CURB



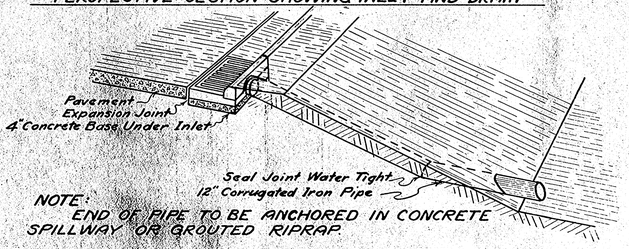
NOTE: No surface drain basin shall be installed at edge of bridge approach slab or at an expansion joint or a contraction joint.

PAVEMENT SURFACE DRAIN ON GRADE



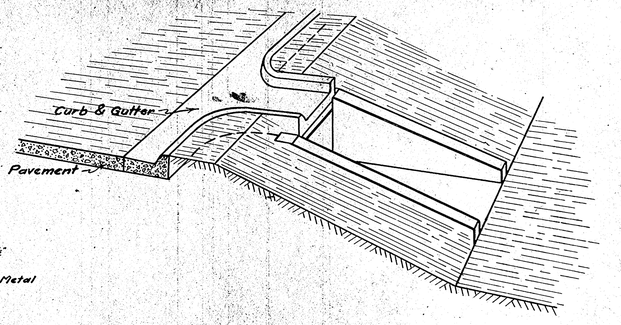
STATE STANDARD SPEC. TO GOVERN

PERSPECTIVE SECTION SHOWING INLET AND DRAIN



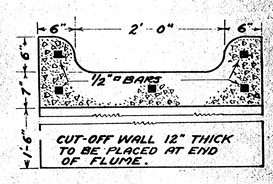
NOTE:
END OF PIPE TO BE ANCHORED IN CONCRETE SPILLWAY OR GROUTED RIPRAP.

PERSPECTIVE SECTION SHOWING CURB AND GUTTER SPILLWAY OVER CULVERT ENDWALL



DISTANCE "D" IS 8" FOR DISCH. END - VARIABLE ON INLET END - TO BE DETERMINED IN FIELD.

WIDTH OF PAVEMENT Ft.	AREA OF SECTION SQ. FT.	CU. YDS. OF CONCRETE PER SQ. YD.	BBLS. CEMENT PER SQ. YD.	BAGS PER SLAB 47'-2" LONG
18 FT.	10.53	0.195	0.294	111
20 FT.	11.66	0.1945	0.292	123



WISCONSIN HIGHWAY COMMISSION
CONSTRUCTION DETAILS FOR
'CONC. PAVEMENT ~

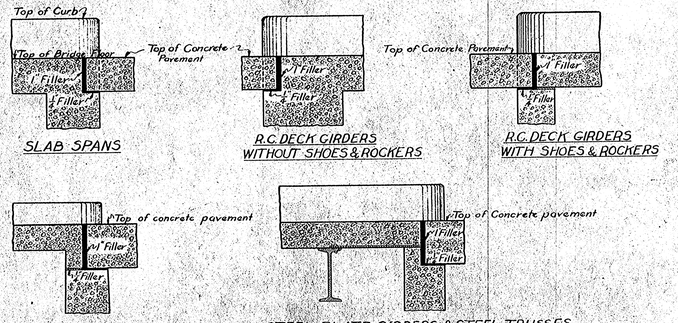
Approved:

DESIGN ENGR. STATE HIGHWAY ENGR.

X

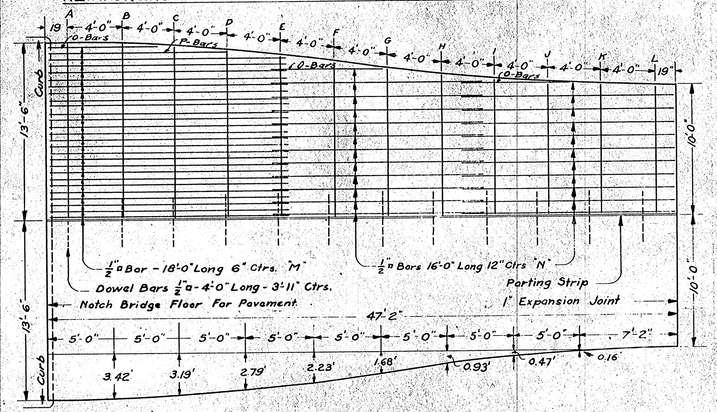
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
4	WISC.	3141	4A	25

Div. Job No. 3141



DETAILS SHOWING METHOD OF CONNECTING OF CONCRETE PAVEMENT WITH BRIDGE STRUCTURES

REINFORCING AND WIDENING FOR BRIDGE APPROACH

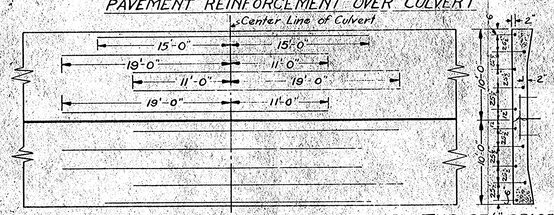


NOTE:
ALL BARS 1/2" SQUARE. PLACE LONGITUDINAL BARS 2" FROM BOTTOM OF SLAB, AND TRANSVERSE BARS ON TOP OF THESE. WIRE LONGITUDINAL AND TRANSVERSE BARS SECURELY TOGETHER TO FORM SEPARATE MATS ON EACH SIDE OF PARTING STRIP. TOTAL STEEL 1630 LBS.
EXTRA CONCRETE 18.35 SQ. YDS. FOR EACH END.

BILL OF BARS FOR ONE END OF BRIDGE APPROACH

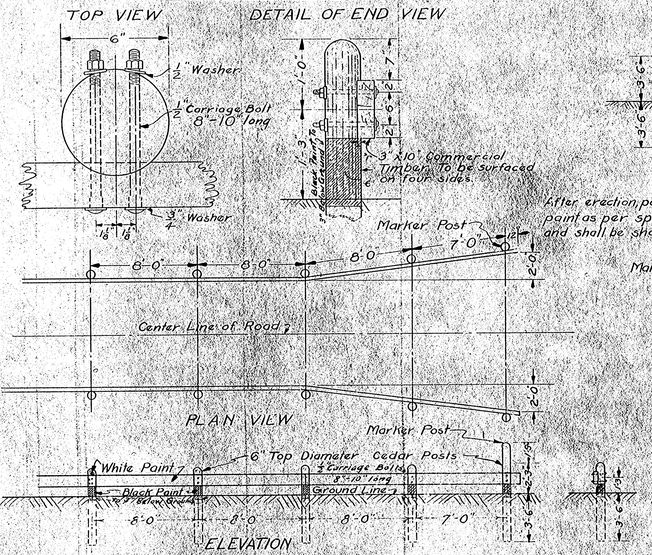
No.	Mark	Length
2	A	13'-0"
2	B	13'-0"
2	C	12'-6"
2	D	12'-6"
2	E	12'-0"
2	F	11'-6"
2	G	11'-0"
2	H	10'-6"
2	I	10'-0"
2	J	9'-6"
2	K	9'-6"
2	L	9'-6"
50	M	18'-0"
42	N	16'-0"
6	O	8'-0"
2	P	13'-6"

PAVEMENT REINFORCEMENT OVER CULVERT



NOTE: FOR OTHER WIDTHS OF PAVEMENT VARY THE 25 1/2" SPACES
ALL BARS 1/2" □ 30'-0" LONG. 10 REQ'D. STEEL 255 LBS.

TYPE "A" GUARD RAIL



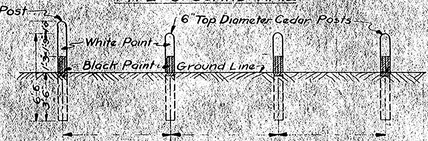
Note. A Standard Marker shall be placed as the first post of each guard fence section of 100 feet or over on the right hand side as the section is entered.

TYPE "B" GUARD RAIL



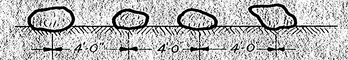
After erection, posts and parts not galvanized shall have 3 coats of paint as per specifications. Posts to be not less than 6" top diameter and shall be shaved to the white from the ground line to the top.

TYPE "C" GUARD RAIL

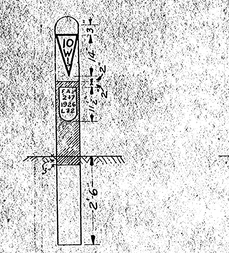


Note. On Type "C" Spacings are to be as shown on Road Plans.

TYPE "D" GUARD RAIL



STANDARD FEDERAL PROJECT MARKER



NOTE: The beginning and end of all Federal Projects shall be marked with a Standard Project Marker. The marker shall be on the right hand side as the section is entered.

Job No.

WISCONSIN HIGHWAY COMMISSION
CONSTRUCTION DETAILS
For
20' CONC. PAVEMENT

Approved: Approved:

DESIGN ENGINEER STATE HIGHWAY ENG'R

FED ROAD DIST No.	STATE	~~FED AID~~ PROJ No	FISCAL YEAR	SHEET No	TOTAL SHEETS
4	WISC	3141	1927	5	25

WISCONSIN PROJECT No. ____
DIVISION JOB No. 214L

PLAN	PROFILE
DRAWN E.P. HAGEL	DESIGN L.F.M.
TRACED E.H. MILLER	QUANTITIES W.H.B.H.
NOTE BOOK ALIGNMENT CHECKED	GRADES CHECKED H.A.H.
H.C. 1"=200' V.C. CHECKED	

B.M. "1 Spike in Tel. Pole 25' 16 Rt. Sta. 0+21 Elev. 96.13

B.M. "0 Top Nut on Hydrant On N.E. Cor Of Racine & Eighth Streets Elev. 100.00

RACINE ST.
MENASHA

N. 0° 56' W

S. 1° 00' E. Meas.

P.I. = 2+60.7
Δ = 40°
D = 6°
T = 260.1
L = 500'
R = 716.34
P.C. = 0+00
P.T. = 5+00
Superelevation = 3/4" per ft.
Width of Lune = 2 ft.
Area of Lune = 109.4 Sq. Yds.

N. 32° 4' E.

P.I. Sta. 6+54.6

PLOWED FIELD

P.I. = 9+16.5
Δ = 40° 11'
D = 8°
T = 261.9
L = 502.3
R = 716.3
P.C. = 6+54.6
P.T. = 11+56.9
Superelevation = 3/4" per ft.
Width of Lune = 2 ft.
Area of Lune = 109.4 Sq. Yds.

MRS. MARY GESEN
STA. 0+40 TO 14+50
REQ'D = 1.38 ACRES

P.T. Sta. 11+56.9

B.M. "2 Spike In 15" Elm To Left Of Sta. 14+50 Elev. = 93.60

MARY WAGNER & LOUISE HABBERMAL
STA. 14+50 TO 21+15
REQ'D = 0.24 ACRES

STA. 22+00
REMOVE 4' CON. ARCH
6'X2'X35.64' Conc. Culv. Req'd.

B.M. "3 Spike In Fence Post To Right Of Sta. 28+25 Elev. = 92.91

CHICAGO, MILWAUKEE & ST. PAUL RAILWAY

CEMETERY

24" VIER PIPE

CEMETERY

No GRAVES ON THIS SIDE OF TRACK

R.R.

ROAD

BARN

N 1° 7' W

J. BYER.
STA. 11+60 TO 21+52
REQ'D = 0.00 ACRES

PASTURE

ANGLE IRON PROTECTION REQUIRED AT C.M. & ST. P. RR. X-ING. TAKE OUT CROWN 25' EACH SIDE OF RR.
72' - 3"x3"x 3/16" ANGLE IRON
36 - 3/8"x6" BOLTS

NOTE: DOTTED RED LINE INDICATES PROFILE ON RT. R.O.W. LINE
DOTTED GREEN LINE INDICATES PROFILE ON LT. R.O.W. LINE
NET LENGTH OF ℄ STA. 0 TO STA. 30 = 3000 FT.

STA. 22+00
REMOVE 4' COND. ARCH CULV.
6'X2'X 35.64' CONC. CULV. REQ'D
RT. OF ℄ 17.07 LT. OF ℄ 18.57
ELEV. DISCH. 88.5 ELEV. INLET 89.0
CONC. 26.32 C.Y. STEEL 1800 HOG WT. 68 SQ. FT.
USE 3:1 SLOPES 30° FLARE ON END WALLS.
OUTLET DITCH REQ'D. 10 C.Y.
STD. REINF. IN PAVEMENT 255 LBS.
STD. TYPE C GUARD FENCE - 2 POSTS.

ITEM	TYPE	LOCATION	STA. TO STA.	AMOUNT
G. Fence	C	Culvert	22+10	8
"		Fill	31+25 33+25	26
"		Culvert	52+61	2
"		"	57+25	2
		Total		32

-0.15%
-0.18%
-0.71% DITCH GRADE AT
-0.18%
"LOWER ELEVATION FOR EASEMENT OF GRADE"
+0.2% DITCH GRADE BOTH SIDES.
-0.78%

P.C. Sta. 0+00 Elev. = 98.21
P.T. Sta. 5+00 Elev. = 94.26
P.C. Sta. 6+54.6 Elev. = 93.66
P.T. Sta. 11+56.9 Elev. = 89.96
P.C. Sta. 22+00 Elev. = 91.98
P.T. Sta. 27+00 Elev. = 91.78
P.C. Sta. 28+00 Elev. = 91.68
P.T. Sta. 33+00 Elev. = 90.68

DITCH ELEV. LT.
DITCH ELEV. RT.

V.C. 200'

STA. 0 TO STA. 6 CUT 114 C.Y. FILL 56.9 C.Y.
STA. 6 TO STA. 16 CUT 813 C.Y. FILL 644 C.Y.
STA. 16 TO STA. 29 CUT 592 C.Y. FILL 1336 C.Y.
SPECIAL EXCAVATION 78 C.Y. FROM WIDE DITCHES. STA. 15 TO 17

B.M. "4 Spike In 15" Stump 75' To Rt. Of Sta. 33+80 Elev. 91.23

A.D. PAGE
STA. 31+50 TO 41+03
REQ'D = 0.21 ACRES

STA. 32+12
REMOVE 6'x3' CONC. ARCH
6'x5'x36.08' CONC. CULV. REQ'D.

STA. 36+66
REMOVE 18" C.I.P.
NO DRAIN REQ'D.

Culvert

Milwaukee & St. Paul Railway

WESLEY LLOYD
STA. 27+98 TO 41+03
REQ'D = 0.00 ACRES

B.M. "5 Spike In 12" Oak To Left Of Sta. 44+30 Elev. 96.00

WM. STURN
STA. 41+03 TO 53+96
REQ'D = 0.49 ACRES
LT. & RT. SIDES

Shed

Ho.

WM. STURN

CULTIVATED

WM. STURN

P.I. = Sta. 54+00
Δ = 0° 13'

Ease off Center Line in Construction

STA. 52+61
REMOVE 12" C.I.P.
18"x 48' CAST IRON PIPE REQ'D.

STA. 57+25
REMOVE 3' ARCH
4'X3'X 38.82' CONC. CULV. REQ'D

Nic. Beck & Son
STA. 54+53 TO 76+00
LT. SIDE REQ'D = 0.00 ACRES

N 1° 20' W

REMOVE THIS PIPE AND RELAY TO CONFORM WITH ROAD DITCH.

ROAD

ST. JOHN'S CEMETERY

ANDREW. MUELENBEINE
STA. 57+55 TO 70+79
REQ'D = 0.24 ACRES

MILE

B.M. "6 Spike In 8" Maple 30' Rt. Of Sta. 56+55 Elev. 95.64

N.B. Sta. 30 To Sta. 33+ 2300 Ft.
N.B. Sta. 53 To Sta. 60 = 700 Ft.

STA. 32+12
REMOVE 6'X3' CONC. ARCH
6'X5'X 36.08' CONC. CULV. REQ'D.
RT. OF ℄ 17.54 LT. OF ℄ 18.54
ELEV. DISCH. 81.7 ELEV. INLET 82.2
CONC. 40.10 CY. STEEL 2605 LBS. 292 Sq. Ft. Hog Wire
USE 2:1 SLOPES 30° FLARE ON END WALLS
STD. REINF. IN PAVEMENT 265 LB.

P.C. Sta. 32+00 Elev. = 88.46
P.T. Sta. 33+00 Elev. = 88.36
P.C. Sta. 33+00 Elev. = 88.36
P.T. Sta. 34+00 Elev. = 87.88

-0.78%
+0.80%
200' V.C.

STA. 29 TO STA. 35+71 CUT 1055 C.Y. FILL 976 C.Y.
SPECIAL EXCAVATION = 165 C.Y. FROM CEMETERY ENTRANCE TO LEFT OF STA. 29

STA. 35+71 TO STA. 40+80 CUT 528 C.Y. FILL 422 C.Y.

STA. 40+80 TO STA. 53+36 CUT 1351 C.Y. FILL 1089 C.Y.
SPECIAL EXCAVATION 10 C.Y. FROM WIDE DITCH.

STA. 52+61
REMOVE 12" C.I.P.
18"X 48' CAST IRON PIPE REQ'D.
DISCH: 94.7 INLET 95.2
STD. REINF. IN PAVT. OVER CULV. 255 LBS.
STD. TYPE C GUARD FENCE - 2 POSTS REQ'D

P.C. Sta. 52+00 Elev. = 97.72
P.T. Sta. 53+00 Elev. = 97.72
P.C. Sta. 53+00 Elev. = 97.72
P.T. Sta. 54+00 Elev. = 97.72
P.C. Sta. 54+00 Elev. = 97.72
P.T. Sta. 55+00 Elev. = 97.72
P.C. Sta. 55+00 Elev. = 97.72
P.T. Sta. 56+00 Elev. = 97.72
P.C. Sta. 56+00 Elev. = 97.72
P.T. Sta. 57+00 Elev. = 97.72
P.C. Sta. 57+00 Elev. = 97.72
P.T. Sta. 58+00 Elev. = 97.72
P.C. Sta. 58+00 Elev. = 97.72
P.T. Sta. 59+00 Elev. = 97.72
P.C. Sta. 59+00 Elev. = 97.72
P.T. Sta. 60+00 Elev. = 97.72

+0.27% GRADE
0.00%
-2.10%
+1.42%
200' V.C.
-11% DITCH GRADE BOTH SIDES

STA. 57+25 REMOVE 3' CONC. ARCH
4'X3'X 38.82' CONC. CULV. REQ'D.
RT OF ℄ 18.68 LT OF ℄ 20.16
ELEV. DISCH. 87.0 ELEV. INLET 87.5
CONC. 18.99 C.Y. STEEL 1325 LBS. HOG WIRE 204 SQ. FT.
USE 3:1 SLOPES FLARE ENDWALLS 30°
STD. REINF. IN PAVEMENT 255 LBS.
STD. TYPE C GUARD FENCE - 2 POSTS REQ'D.

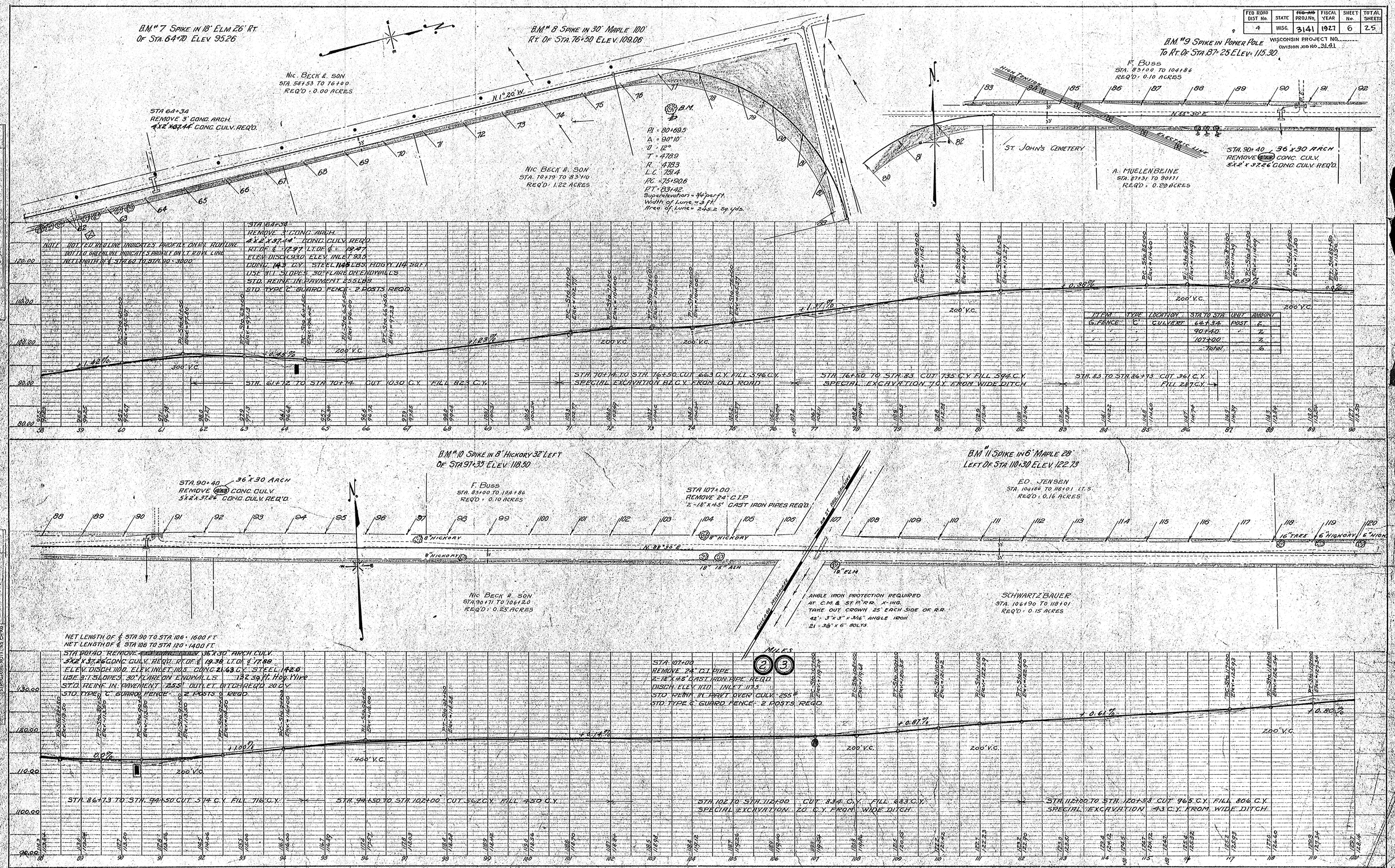
STA. 53+36 TO STA. 61+72 CUT 814 C.Y. FILL 665 C.Y.
SPECIAL EXCAVATION 15 C.Y. FROM WIDE DITCH.

PLATE 2-PLAN-PROFILE B. P. R. STANDARD

EUGENE DIETZGEN CO., CHGO., N.Y.

FED ROAD DIST No.	STATE	~~FED AID~~ PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
4	WISC.	3141	1927	6	25

WISCONSIN PROJECT NO. _____
DIVISION JOB NO. 3141



ITEM	TYPE	LOCATION	STA. TO STA.	UNIT	AMOUNT
G. FENCE	"C"	CULVERT	64+34	POST	2
"	"	"	90+40	"	2
"	"	"	107+00	"	2
			Total		6

PLATE 2-PLAN-PROFILE B. P. R. STANDARD

EUGENE DIETZGEN CO. CHGO. N.Y.

FED AID DIST. No	STATE	~~FED AID~~ PROJ No.	FISCAL YEAR	SHEET No	TOTAL SHEETS
4	WISC.	3141	1927	7	25

WISCONSIN PROJECT No.
DIVISION Job No. 3141

PLAN — SURVEYED ; PLOTTED ; NOTE BOOK ; No. ; DATE ; BY ; CONST. ENGR. CHECKED ; TRAFFIC CHECKED ; RT. OF WAY CHECKED

PROFILE — SURVEYED ; PLOTTED ; NOTE BOOK ; No. ; DATE ; BY ; CONST. ENGR. CHECKED ; M.S. NOTED ; STRUCTURE NOTATNS CHKD.

N.

W — E

B.M. "12 SPIKE IN 18" BASSWOOD TO LEFT OF STA. 118+05 ELEV. 128.25

Al = 131+25.7
Δ = 90° 20'
D = 28°
T = 205.8
R = 204.5
L = 322.5
PC = 129+19.9
PT = 132+42.5
= 131+92.6
SUPERELEVATE ¾" PER FT.
LUNE = 6.0 FT.
Area of Lune = 201.8 Sq Yds.

HOUSE

HEDGE

20 FT. CONCRETE PAVEMENT TO APPLETON

N 1°30' W

AT 132+42.5 = 131+92.6

BEGINNING OF SUPER-ELEVATION ON 20' PAVEMENT CURVE TO RIGHT

LUDWIG GEMINER
STA. 118+01 TO 131+90
REQ'D = 0.49 ACRES

PC 129+19.9

115 116 117 118 119 120 121 122 123 124 125 126 127 128 129

N 88° 30' E

33'
33'

CULTIVATED

ED. JENSEN
STA. 118+01 TO 129+19.9
REQ'D = 0.10 ACRES

INOTE- DOTTED RED LINE INDICATES PROFILE ON RT. R.O.W. LINE.
DOTTED GREEN LINE INDICATES PROFILE ON C.T. ROW LINE.
NET LENGTH OF CENTERLINE STA 120+00 TO STA 131+92.6 = 1292.2 LINEAL FT.

PC Sta 118+00 Elev. 128.25
PT Sta 118+00 Elev. 128.94
PC Sta 120+00 Elev. 126.94
PT Sta 120+00 Elev. 127.34

+0.61%

+0.80%

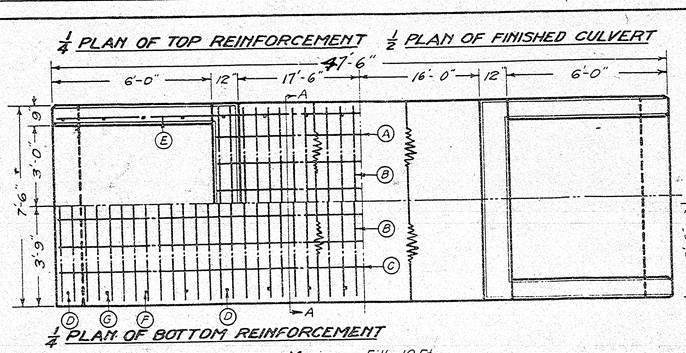
V.C. = 200

STA. 120+58 TO STA. 126+67 CUT 656 C.Y. FILL 522 C.Y.

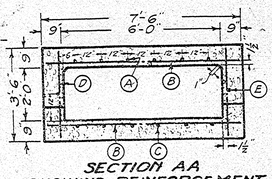
STA 126+67 TO STA 131+92.6 CUT 658 C.Y. FILL 455 C.Y.
SPECIAL EXCAVATION 36 C.Y. FROM WIDE DITCH

150'

| | | |



Note: Use Flared End Walls See Drg. No 3141—A2



Reinforcement to be properly supported with approved metallic bar spacers.

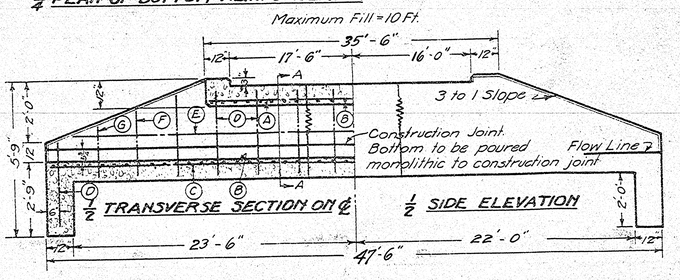
BILL OF REINFORCING

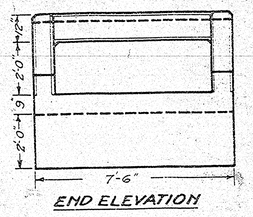
Mark	Number	Length	Spacing	Location of Bar
A	12	18'-6"	1'-0"	Top, Longitudinal
B	146	7'-3"	0'-5½"	Top & Floor, Transverse
C	18	16'-9"	1'-0"	Floor, Longitudinal
D	56	3'-3"	1'-6"	Walls, Vertical
E	6	16'-6"	1'-0"	Walls, Longitudinal
F	4	2'-9"	1'-6"	Wings, Vertical
G	4	2'-3"	1'-6"	Wings, Vertical
Total Steel Required			1600	pounds

148 sq. ft. △ Mesh A.S.&W. #032 or equiv.

QUANTITIES FOR ONE CULVERT

Concrete Cu. Yd.	Cement Bbl.	Sand Cu. Yd.	Stone Cu. Yd.
26.32	39.5	11.0	22.0





INFORMATION FOR LOCATION

Station No.	Elevation of Flow Line: Disc.	Elevation of Flow Line: Inlet	Distance of Disc. above or below Top of Stake: Above	Distance of Disc. above or below Top of Stake: Below	Distance of Disc. above or below Top of Stake: Stake No.	Elev. Top of Stake	Distance Disc. Por L. of ℄
22+00	88.5	89.0					L-24'-6"
Replace "B" bars in End Walls with △ mesh							
Hog Wire							

33'-6" Roadway

STANDARD DESIGN

6'X2' CONCRETE BOX CULVERT

SLOPING ENDWALLS

WISCONSIN HIGHWAY COMMISSION

MADISON, WISC.

Approved: April 1925

H. J. Kuelling — Design Engineer

J. T. Donaghey — State Highway Engineer

Proj #3141—A1

Sta. 22+00

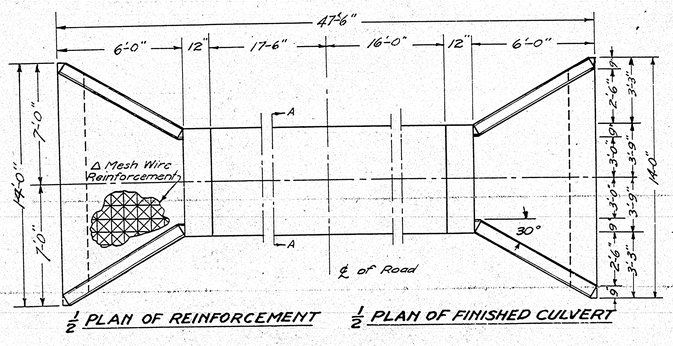
6

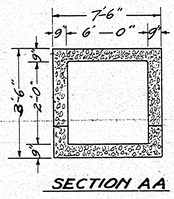
GENERAL NOTES:

Do not scale this drawing.
All concrete shall be Class A-1:2:4 proportions.
Bevel all exposed edges with a triangular strip cut from a 3/4" x 3/4" piece.

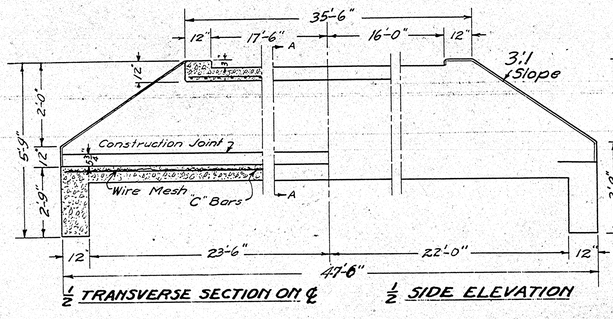
All reinforcement shall be ½" square deformed mechanical bond bars.
Bars shall lap 40 diameters where spliced and shall be securely wired with #16 wire.
Depth of cut off wall to vary with soil conditions.

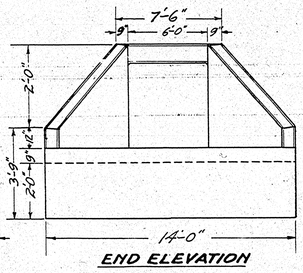
Slope barrel ¼ inch per foot toward discharge end unless otherwise specified.
Standard specifications of Wisconsin Highway Commission.





NOTES:
Do not scale this drawing.
Replace "B" Bars in end wall floor with Triangular Mesh A.S.&W. #032.
Bevel all exposed edges with a triangular strip cut from a 3/4" x 3/4" piece.
This drawing is to be used for End Wall dimensions only on Standard Culvert Drawings as listed.
Station No. 22+00 Drawing No. 3141—A2





SKETCH SHOWING DIMENSIONS FOR

6X2 **FLARED END WALLS**

TO BE USED WITH

STANDARD TYPE CONC. CULVERTS

WISCONSIN HIGHWAY COMMISSION

MADISON, WISC.

Approved:

C. K. Weymouth — Design Engineer

J. T. Donaghey — State Highway Engineer

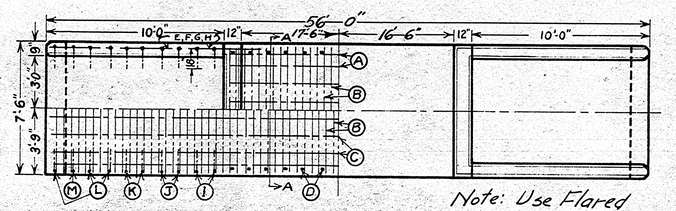
Proj 3141—A2

Sta. 22+00

6

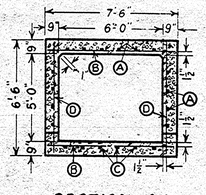
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
4	WISC.			

DIVISION JOB NO.



¼ PLAN OF TOP REINFORCEMENT

½ PLAN OF FINISHED CULVERT



Note: Use Flared End Walls See Drg.-3141-B₂

¼ PLAN OF BOTTOM REINFORCEMENT

SECTION AA SHOWING REINFORCEMENT

Maximum Fill = 9 Ft.

292 sq.ft. △Mesh A.S.& W. #032 or equiv.

Reinforcement to be properly supported with approved metallic bar spacers.

BILL OF REINFORCING

Mark	Number	Length	Spacing	Location of Bar
A	32	18'-9"	1'-0"	Top & Walls, Longitudinal
B	158	7'-3"	0'-5½"	Top & Floor, Transverse
C	18	19'-9"	1'-0"	Floor, Longitudinal
D	72	6'-3"	1'-0"	Walls, Vertical
E	4	5'-0"	1'-0"	Wings, Longitudinal
F	4	7'-0"	1'-0"	Wings, Longitudinal
G	4	9'-0"	1'-0"	Wings, Longitudinal
H	#8	11'-0"	1'-0"	Wings, Longitudinal
I	8	7'-6"	1'-0"	Wings, Vertical
J	8	6'-6"	1'-0"	Wings, Vertical
K	8	5'-6"	1'-0"	Wings, Vertical
L	12	4'-6"	1'-0	Wings, Vertical
M	4	4'-0"	1'-0"	Wings, Vertical

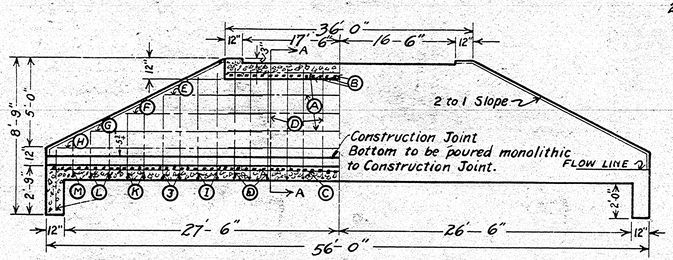
Total Steel Required 2605 pounds

QUANTITIES FOR ONE CULVERT

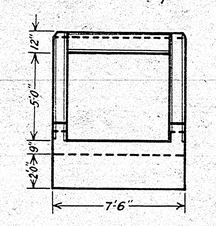
Concrete Cu. Yds.	Cement Bbl.	Sand Cu. Yds.	Stone Cu. Yds.
40.10	60.2	18.1	36.2

INFORMATION FOR LOCATION

Station No.	Elevation of Flow Line Disc.	Elevation of Flow Line Inlet	Distance Disc above Top of Slab	Distance Disc or below Top of Slab	Elev. Top of Slab	Elev. Top of Slab	Distance Disc P.o.t. Sta.
32+12	81.7	82.2					L-27'6
Replace "B" bars in End Walls with △Mesh							
Hog Wire							



½ TRANSVERSE SECTION ON ℄



½ SIDE ELEVATION

END ELEVATION

Sta 32+12

34'-0" Roadway

STANDARD DESIGN

6'X5' CONCRETE BOX CULVERT

SLOPING ENDWALLS

WISCONSIN HIGHWAY COMMISSION

MADISON, WISC.

Approved: April, 1926

C. K. Weymouth — Design Engineer

J. E. Donaghey — State Highway Engineer

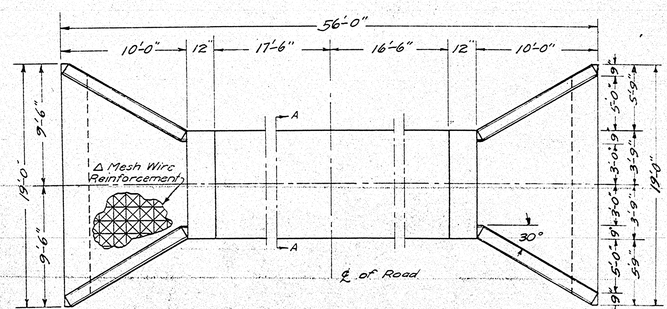
Proj # 3141-B₂

GENERAL NOTES:

Do not scale this drawing
All concrete shall be Class A-1:2:4 proportions.
Bevel all exposed edges with a triangular strip cut from a ¾" x ¾" piece.

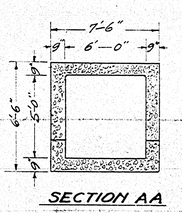
All reinforcement shall be ½" square deformed mechanical bond bars.
Bars shall lap 40 diameters where spliced and shall be securely wired with #16 wire.
Depth of cut off wall to vary with soil conditions.

Slope barrel ½ inch per foot toward discharge end unless otherwise specified.
Standard specifications of Wisconsin Highway Commission.



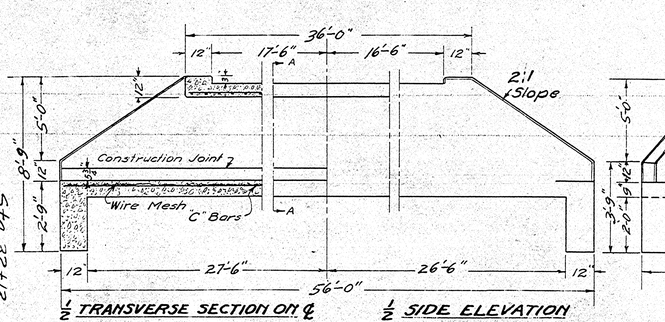
½ PLAN OF REINFORCEMENT

½ PLAN OF FINISHED CULVERT

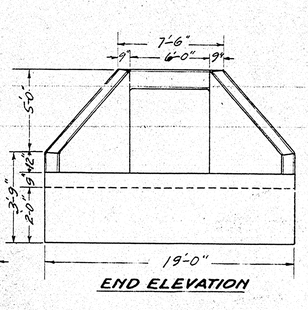


SECTION AA

NOTES:
Do not scale this drawing.
Replace 'B' Bars in end wall floor with Triangular Mesh A.S.& W. #032.
Bevel all exposed edges with a triangular strip cut from a ¾" x ¾" piece.
This drawing is to be used for End Wall dimensions only, on Standard Culvert Drawings as listed.
Station No. 32+12 Drawing No. 3141-B₂



½ TRANSVERSE SECTION ON ℄



½ SIDE ELEVATION

END ELEVATION

Sta 32+12

SKETCH SHOWING DIMENSIONS FOR

6'X5' FLARED END WALLS

TO BE USED WITH

STANDARD TYPE CONC. CULVERTS

WISCONSIN HIGHWAY COMMISSION

MADISON, WISC.

Approved:

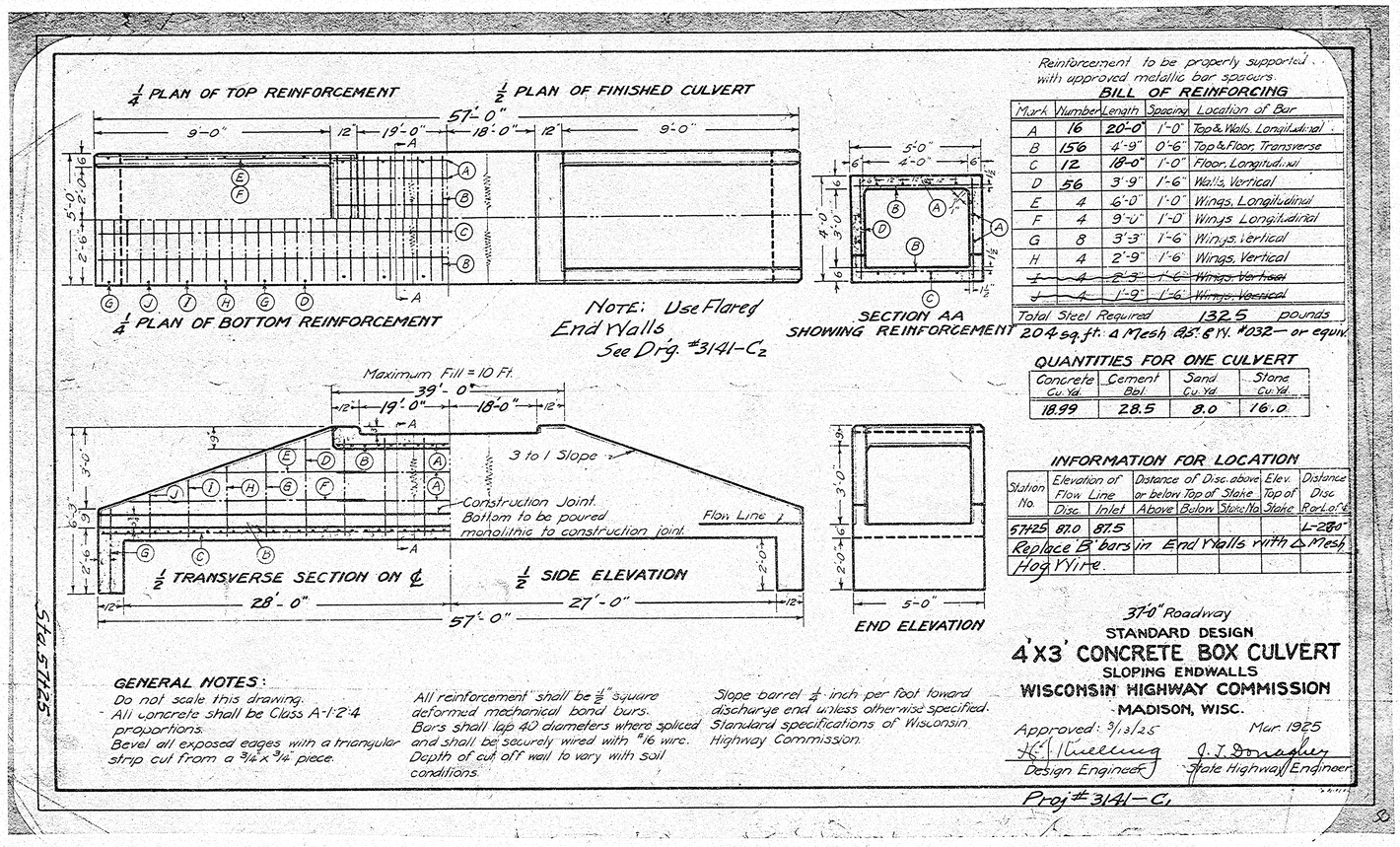
C. K. Weymouth — Design Engineer

J. E. Donaghey — State Highway Engineer

Proj # 3141-B₂

DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
4	WISC.			

DIVISION ENGINEER



Reinforcement to be properly supported with approved metallic bar spacers.

BILL OF REINFORCING

Mark	Number	Length	Spacing	Location of Bar
A	16	20'-0"	1'-0"	Top & Walls, Longitudinal
B	156	4'-9"	0'-6"	Top & Floor, Transverse
C	12	18'-0"	1'-0"	Floor, Longitudinal
D	56	3'-9"	1'-6"	Walls, Vertical
E	4	6'-0"	1'-0"	Wings, Longitudinal
F	4	9'-0"	1'-0"	Wings, Longitudinal
G	8	3'-3"	1'-6"	Wings, Vertical
H	4	2'-9"	1'-6"	Wings, Vertical
~~I~~	~~4~~	~~8'-3"~~	~~1'-6"~~	~~Wings, Vertical~~
J	4	1'-9"	1'-6"	Wings, Vertical

Total Steel Required 1325 pounds

204 sq. ft. Δ Mesh, 85.6 lb. #032 — or equiv.

QUANTITIES FOR ONE CULVERT

Concrete Cu. Yd.	Cement Bbl.	Sand Cu. Yd.	Stone Cu. Yd.
18.99	28.5	8.0	16.0

INFORMATION FOR LOCATION

Station No.	Elevation of Flow Line Disc.	Elevation of Flow Line Inlet	Distance of Disc above or below Top of Stake Above	Distance of Disc above or below Top of Stake Below	Elev. Top of Stake	Distance Disc Rt or Lt of ℄
57+25	81.0	87.5				L-28'0"
Replace B bars in End Walls with Δ Mesh						
Hog Wire.						

37'-0" Roadway

STANDARD DESIGN

4'X3' CONCRETE BOX CULVERT

SLOPING ENDWALLS

WISCONSIN HIGHWAY COMMISSION

MADISON, WISC.

Approved: 3/3/25 Mar. 1925

H. C. Mueller, Design Engineer — J. T. Donaghey, State Highway Engineer

Proj #3141—C1

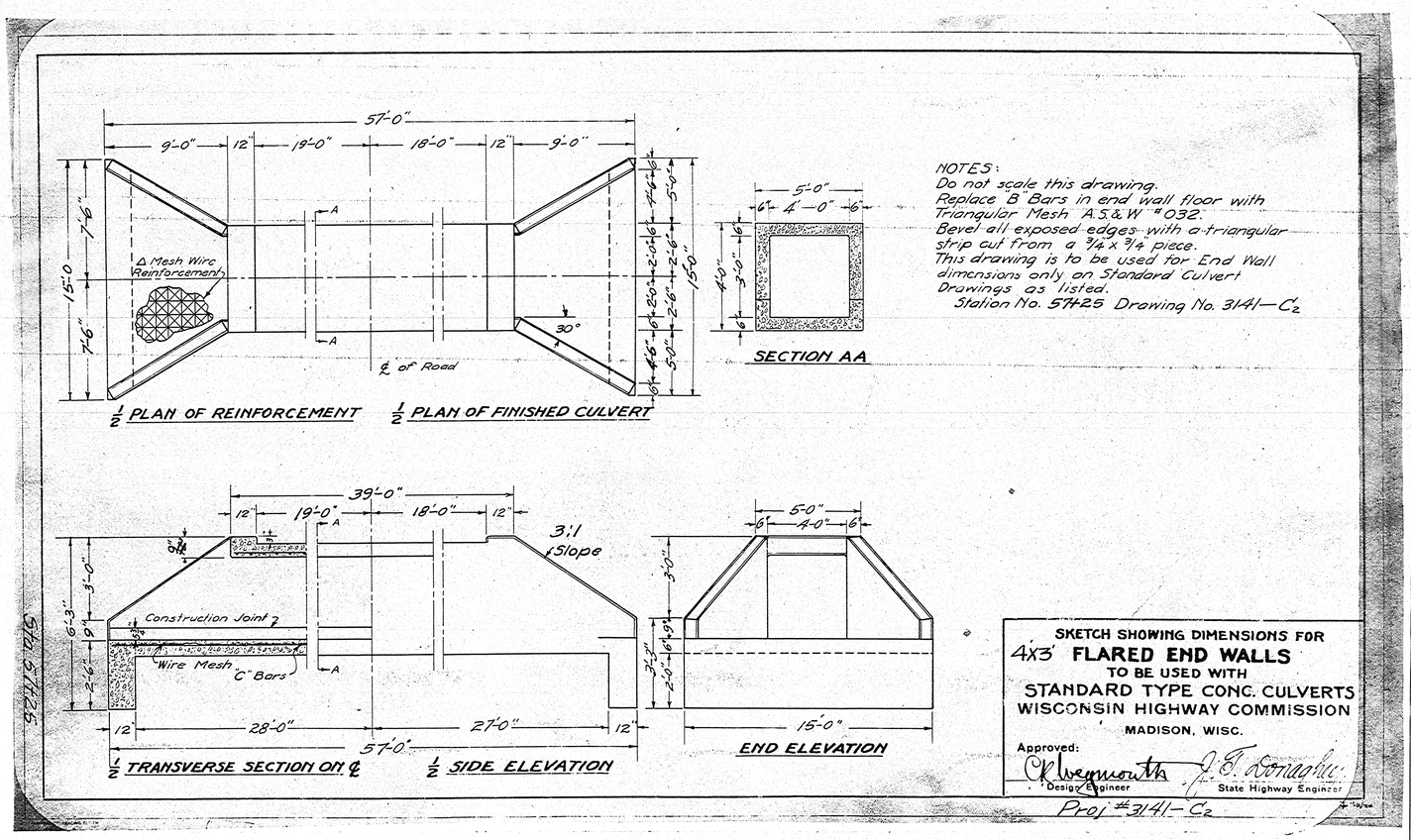
Sta. 57+25

GENERAL NOTES:

Do not scale this drawing.
All concrete shall be Class A-1-2-4 proportions.
Bevel all exposed edges with a triangular strip cut from a ¾ x ¾ piece.

All reinforcement shall be ⅝" square deformed mechanical bond bars.
Bars shall lap 40 diameters where spliced and shall be securely wired with #16 wire.
Depth of cut off wall to vary with soil conditions.

Slope barrel ¼ inch per foot toward discharge end unless otherwise specified.
Standard specifications of Wisconsin Highway Commission.



NOTES:
Do not scale this drawing.
Replace B Bars in end wall floor with Triangular Mesh A.S.&W. #032.
Bevel all exposed edges with a triangular strip cut from a ¾ x ¾ piece.
This drawing is to be used for End Wall dimensions only on Standard Culvert Drawings as listed.
Station No. 57+25 Drawing No. 3141—C2

SKETCH SHOWING DIMENSIONS FOR

4'X3' FLARED END WALLS

TO BE USED WITH

STANDARD TYPE CONC. CULVERTS

WISCONSIN HIGHWAY COMMISSION

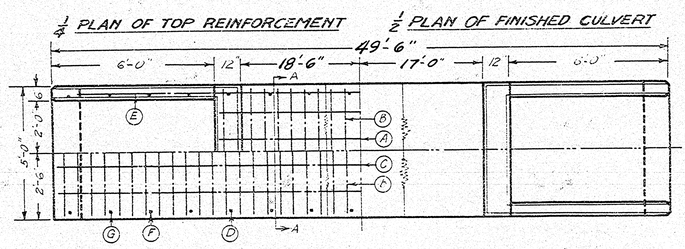
MADISON, WISC.

Approved: C. K. Weymouth, Design Engineer — J. T. Donaghey, State Highway Engineer

Proj #3141—C2

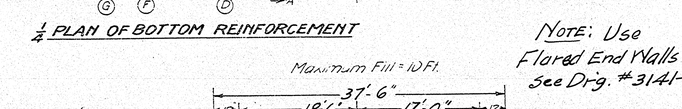
Sta. 57+25

DIVISION	JOB NO.	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
		4	WISC.			

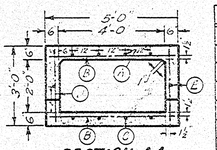


¼ PLAN OF TOP REINFORCEMENT

½ PLAN OF FINISHED CULVERT



¼ PLAN OF BOTTOM REINFORCEMENT



SECTION AA
SHOWING REINFORCEMENT

NOTE: Use
Flared End Walls
See Drg. #3141-D2

Reinforcement to be properly supported with approved metallic bar spacers.

BILL OF REINFORCING

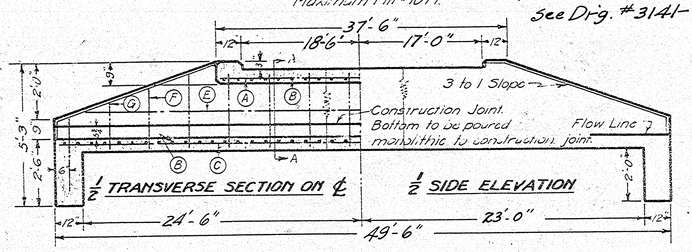
Mark	Number	Length	Spacing	Location of Bar
A	8	19-6"	1'-0"	Top, Longitudinal
B	150	4'-9"	0'-6"	Top & Floor, Transverse
C	12	17-6"	1'-0"	Floor, Longitudinal
D	60	2'-9"	1'-6"	Walls, Vertical
E	6	17-0"	1'-0"	Walls, Longitudinal
F	4	2'-3"	1'-6"	Wings, Vertical
G	4	1'-9"	1'-6"	Wings, Vertical
Total Steel Required				1145 pounds

114 sq. ft. Hog Wire A.S.&W. #032 or equiv.

QUANTITIES FOR ONE CULVERT

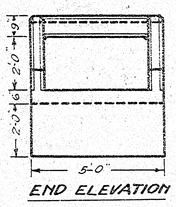
Concrete Cu. Yd.	Cement Bbl.	Sand Cu. Yd.	Stone Cu. Yd.
14.3	21.5	6.0	12.0

Maximum Fill = 10 Ft.



½ TRANSVERSE SECTION ON ℄

½ SIDE ELEVATION



END ELEVATION

INFORMATION FOR LOCATION

Station No.	Elevation of Flow Line Disc.	Elevation of Flow Line Inlet	Distance of Disc. above or below Top of Stake Above	Distance of Disc. above or below Top of Stake Below	Elev. Top of Stake	Distance Disc. Bar of ℄
64+34	93.0	93.5				L-24-6"
Replace B bars in End Walls with Hog Wire Mesh						

35'-6" Roadway

STANDARD DESIGN

4'X2' CONCRETE BOX CULVERT

SLOPING ENDWALLS

WISCONSIN HIGHWAY COMMISSION

MADISON, WISC.

Approved: 3/11/25 Mar. 1925.

C. H. Williams — Design Engineer

C. J. Donaghey — State Highway Engineer

Proj. #3141-D1

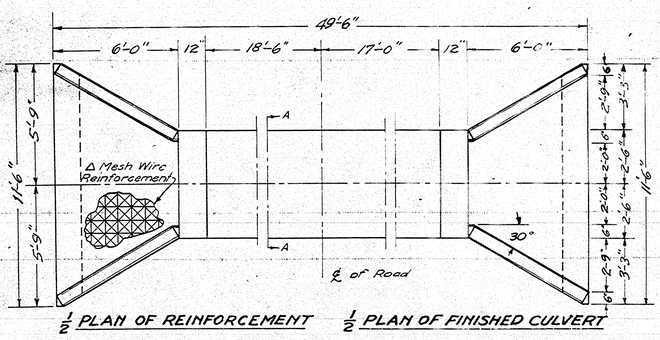
Sta. 64+34

GENERAL NOTES:

Do not scale this drawing.
All concrete shall be Class A-1:2:4 proportions.
Bevel all exposed edges with a triangular strip cut from a ¾" x ¾" piece.

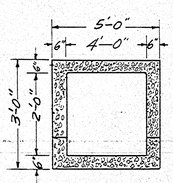
All reinforcement shall be ⅝" square deformed mechanical bond bars. Bars shall lap 40 diameters where spliced and shall be securely wired with #16 wire. Depth of cut off wall to vary with soil conditions.

Slope barrel ½ inch per foot toward discharge end unless otherwise specified. Standard specifications of Wisconsin Highway Commission.



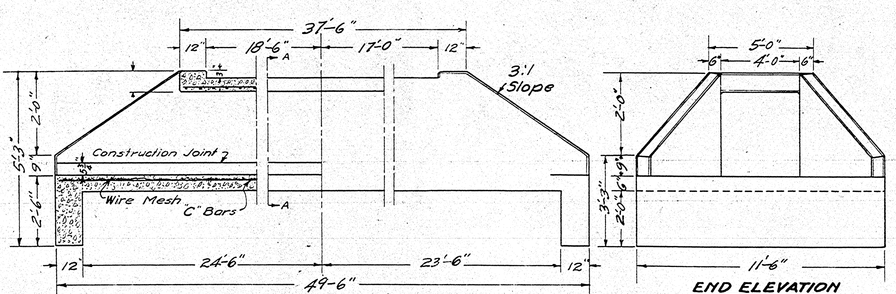
½ PLAN OF REINFORCEMENT

½ PLAN OF FINISHED CULVERT



SECTION AA

NOTES:
Do not scale this drawing.
Replace B Bars in end wall floor with Triangular Mesh A.S.&W. #032.
Bevel all exposed edges with a triangular strip cut from a ¾" x ¾" piece.
This drawing is to be used for End Wall dimensions only on Standard Culvert Drawings as listed.
Station No. 64+34 Drawing No. 3141-D2



½ TRANSVERSE SECTION ON ℄

½ SIDE ELEVATION

END ELEVATION

Sta. 64+34

SKETCH SHOWING DIMENSIONS FOR

4X2 FLARED END WALLS

TO BE USED WITH

STANDARD TYPE CONC. CULVERTS

WISCONSIN HIGHWAY COMMISSION

MADISON, WISC.

Approved:

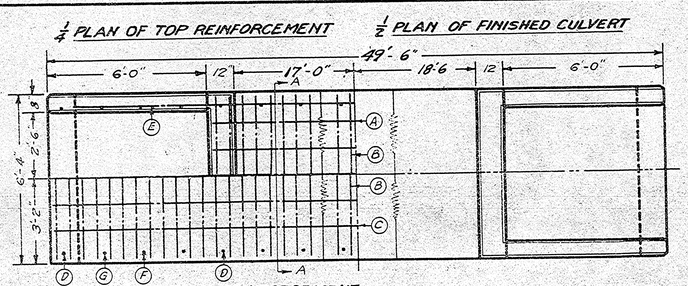
C. H. Swenson — Design Engineer

C. J. Donaghey — State Highway Engineer

Proj. #3141-D2

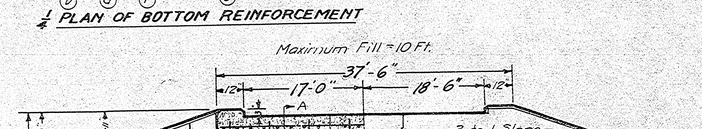
DIVISION JOB NO.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
4	WISC.			



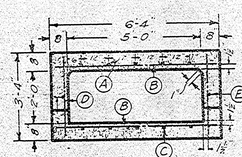
¼ PLAN OF TOP REINFORCEMENT

½ PLAN OF FINISHED CULVERT



¼ PLAN OF BOTTOM REINFORCEMENT

NOTE: Use Flared End Walls See Drg. #3141-E2



SECTION AA SHOWING REINFORCEMENT

Reinforcement to be properly supported with approved metallic bar spacers.

BILL OF REINFORCING

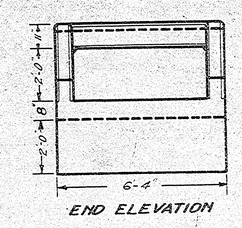
Mark	Number	Length	Spacing	Location of Bar
A	10	19'3"	1'-0"	Top, Longitudinal
B	150	6'-1"	0'-6"	Top & Floor, Transverse
C	15	17'-6"	1'-0"	Floor, Longitudinal
D	58	3'-1"	1'-6"	Walls, Vertical
E	6	17'-0"	1'-0"	Walls, Longitudinal
F	4	2'-6"	1'-6"	Wings, Vertical
G	4	2'-0"	1'-6"	Wings, Vertical

Total Steel Required 1420 pounds.

132 sq. ft. @ Mesh A.S.&W. #032 or equiv.

½ TRANSVERSE SECTION ON ℄

½ SIDE ELEVATION



END ELEVATION

QUANTITIES FOR ONE CULVERT

Concrete Cu. Yd.	Cement Bbl.	Sand Cu. Yd.	Stone Cu. Yd.
21.63	32.4	9.1	18.2

INFORMATION FOR LOCATION

Station No.	Elevation of Flow Line Disc.	Elevation of Flow Line Inlet	Distance of Disc. above or below Top of Stake Above	Distance of Disc. above or below Top of Stake Below	Elev. Top of Stake No.	Elev. Top of Stake	Distance Disc. Rt or Lt of ℄
90+40	110.0	110.5					R-25'-6"
Replace B Bars in End Walls w/#4 Hog Wire Mesh							

35'-6" Roadway

STANDARD DESIGN

5'X2' CONCRETE BOX CULVERT

SLOPING ENDWALLS

WISCONSIN HIGHWAY COMMISSION

MADISON, WISC.

Approved: 3/30/25 Feb. 1925

C. L. Kuelling, Design Engineer — J. J. Donaghey, State Highway Engineer

Proj. #3142-E.

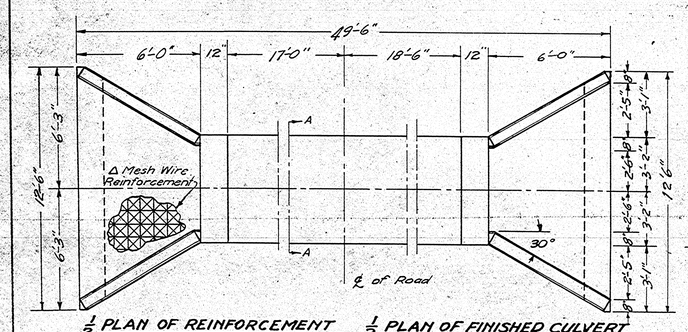
Sta. 90+40

GENERAL NOTES:

Do not scale this drawing.
All concrete shall be Class A-1:2:4 proportions.
Bevel all exposed edges with a triangular strip cut from a 3/8 x 3/4" piece.

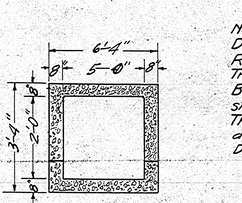
All reinforcement shall be ½" square deformed mechanical bond bars.
Bars shall lap 40 diameters where spliced and shall be securely wired with 16 wire.
Depth of cut off wall to vary with soil conditions

Slope barrel ½ inch per foot toward discharge end unless otherwise specified.
Standard specifications of Wisconsin Highway Commission.



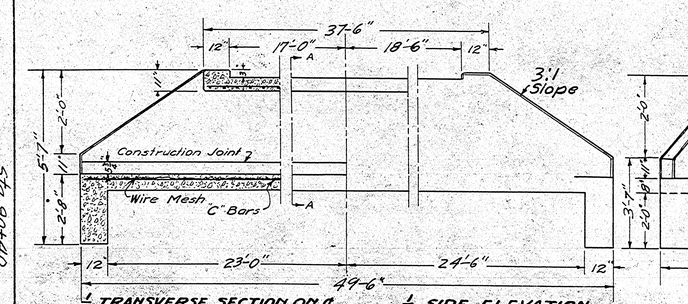
½ PLAN OF REINFORCEMENT

½ PLAN OF FINISHED CULVERT



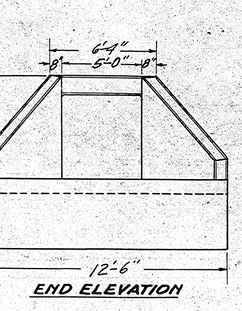
SECTION AA

NOTES:
Do not scale this drawing.
Replace B Bars in end wall floor with Triangular Mesh A.S.&W. #032.
Bevel all exposed edges with a triangular strip cut from a 3/4 x 3/4 piece.
This drawing is to be used for End Wall dimensions only on Standard Culvert Drawings as listed.
Station No. 90+40 Drawing No. 3141-E2



½ TRANSVERSE SECTION ON ℄

½ SIDE ELEVATION



END ELEVATION

Sta. 90+40

SKETCH SHOWING DIMENSIONS FOR

5X2 FLARED END WALLS

TO BE USED WITH

STANDARD TYPE CONC. CULVERTS

WISCONSIN HIGHWAY COMMISSION

MADISON, WISC.

Approved:

C. L. Kuelling, Design Engineer — J. J. Donaghey, State Highway Engineer

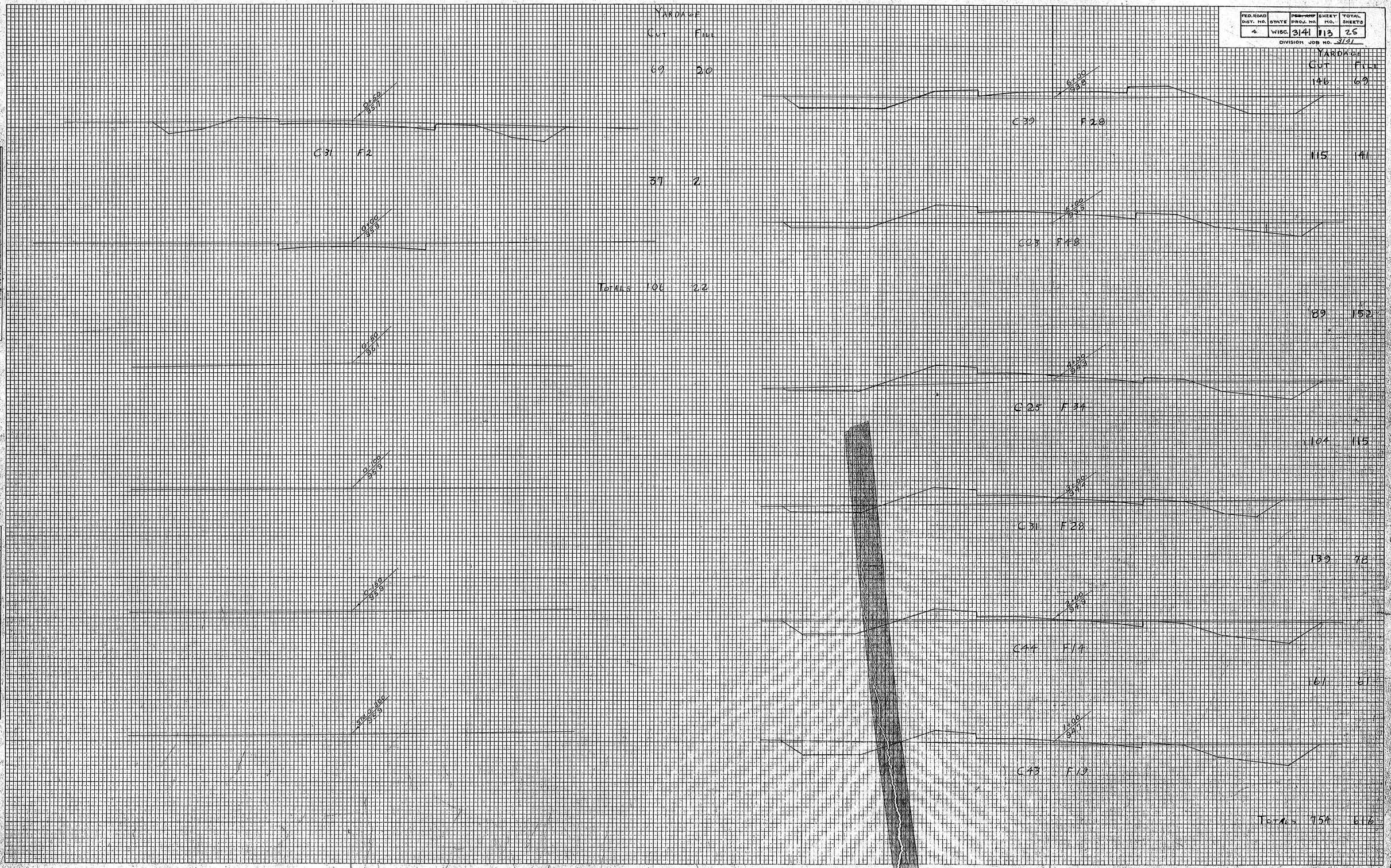
Proj. # 3141-E2

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
4	WISC.			

DIVISION NO.

FED. ROAD DIST. NO.	STATE	~~FED. AID~~ PROJ. NO.	SHEET NO.	TOTAL SHEETS
4	WISC.	3141	113	25

DIVISION JOB NO. 3141



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

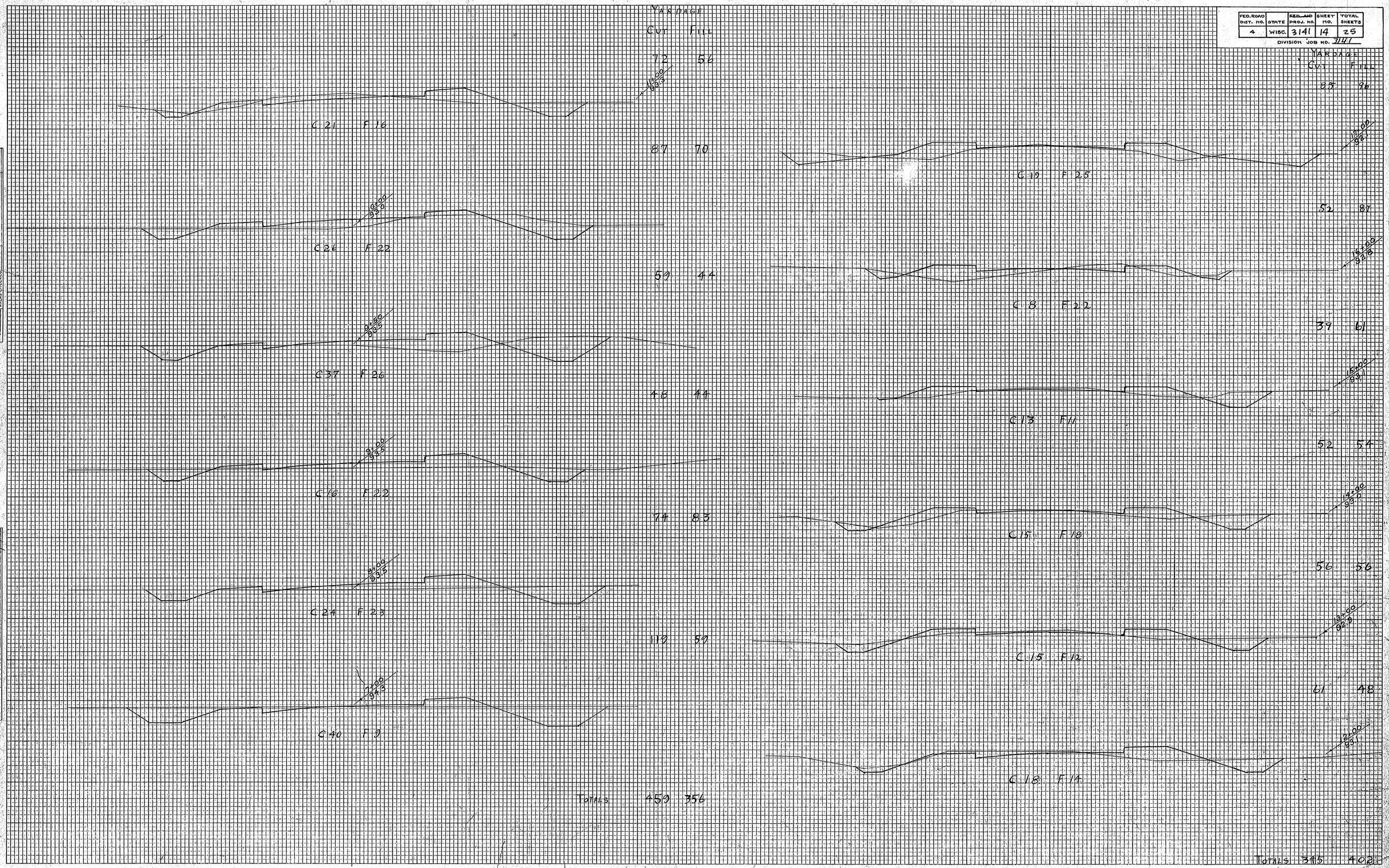
ORIGINAL SURVEY	
NOTE BOOK NO. 4405	SURVEYED
	PLOTTED
	TEMPLATE
	AREAS
	AREAS CHECKED

	BY	DATE
	J.E.M.	
	H.L.E.	
	W.B.G.	11/17/37

PLATE 3—CROSS SECTION O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
4	WISC.	3141	14	25

DIVISION JOB NO. 3141



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

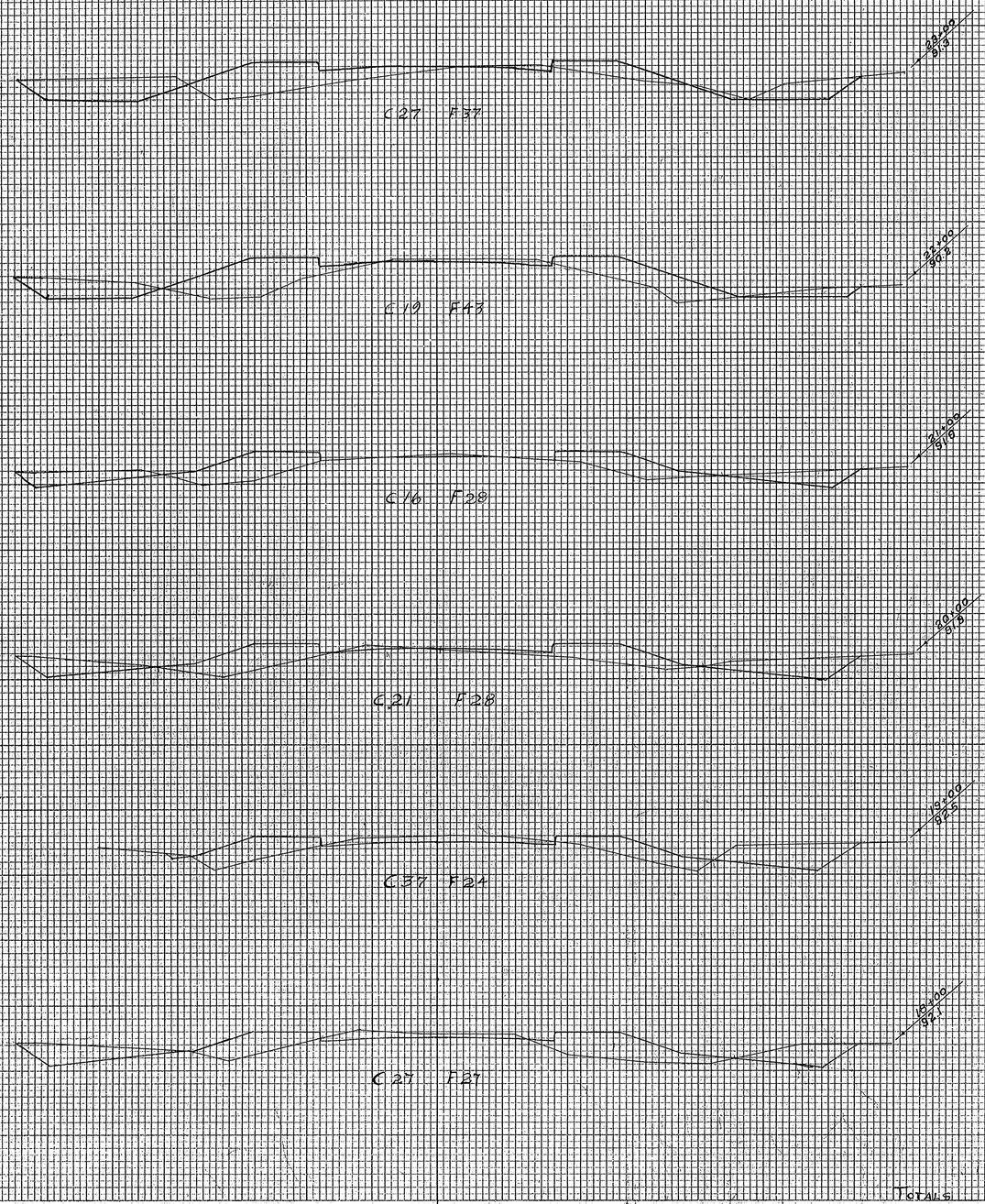
ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — NOTE BOOK NO. 4405 — BY J.F.M. H.L.E. W.B.G. — DATE 11/17/37

PLATE 3—CROSS SECTION O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO. NEW YORK.

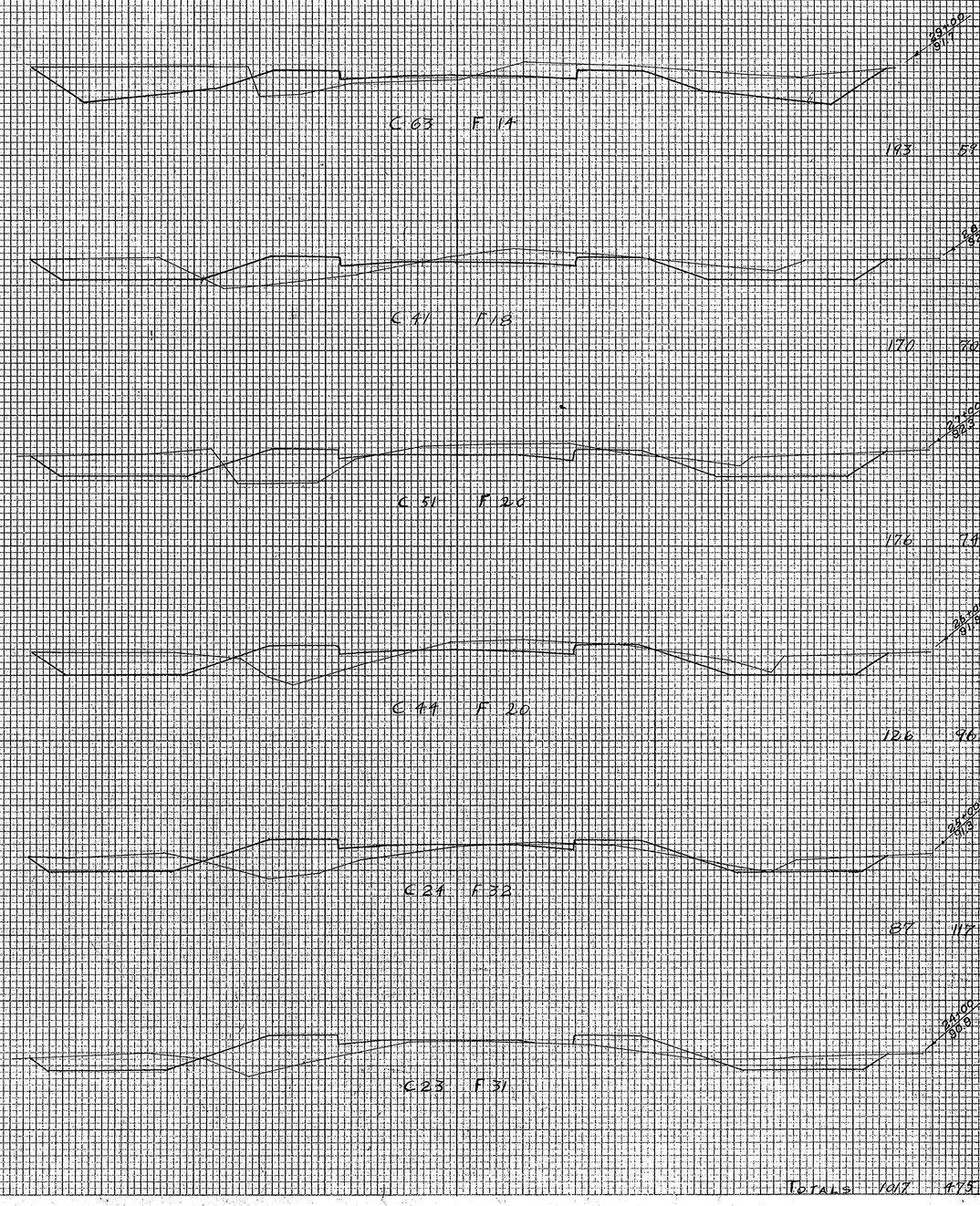
FED. ROAD DIST. NO.	STATE	~~FED. AID~~ PROJ. NO.	SHEET NO.	TOTAL SHEETS
4	WISC.	3141	15	25

DIVISION JOB NO. 3141

	YARDAGE CUT	YARDAGE FILL
	93	126
	85	148
	65	132
	69	104
	107	96
	119	94
TOTALS	538	700



	YARDAGE CUT	YARDAGE FILL
	265	59
	193	59
	170	70
	176	74
	126	96
	87	117
TOTALS	1017	475



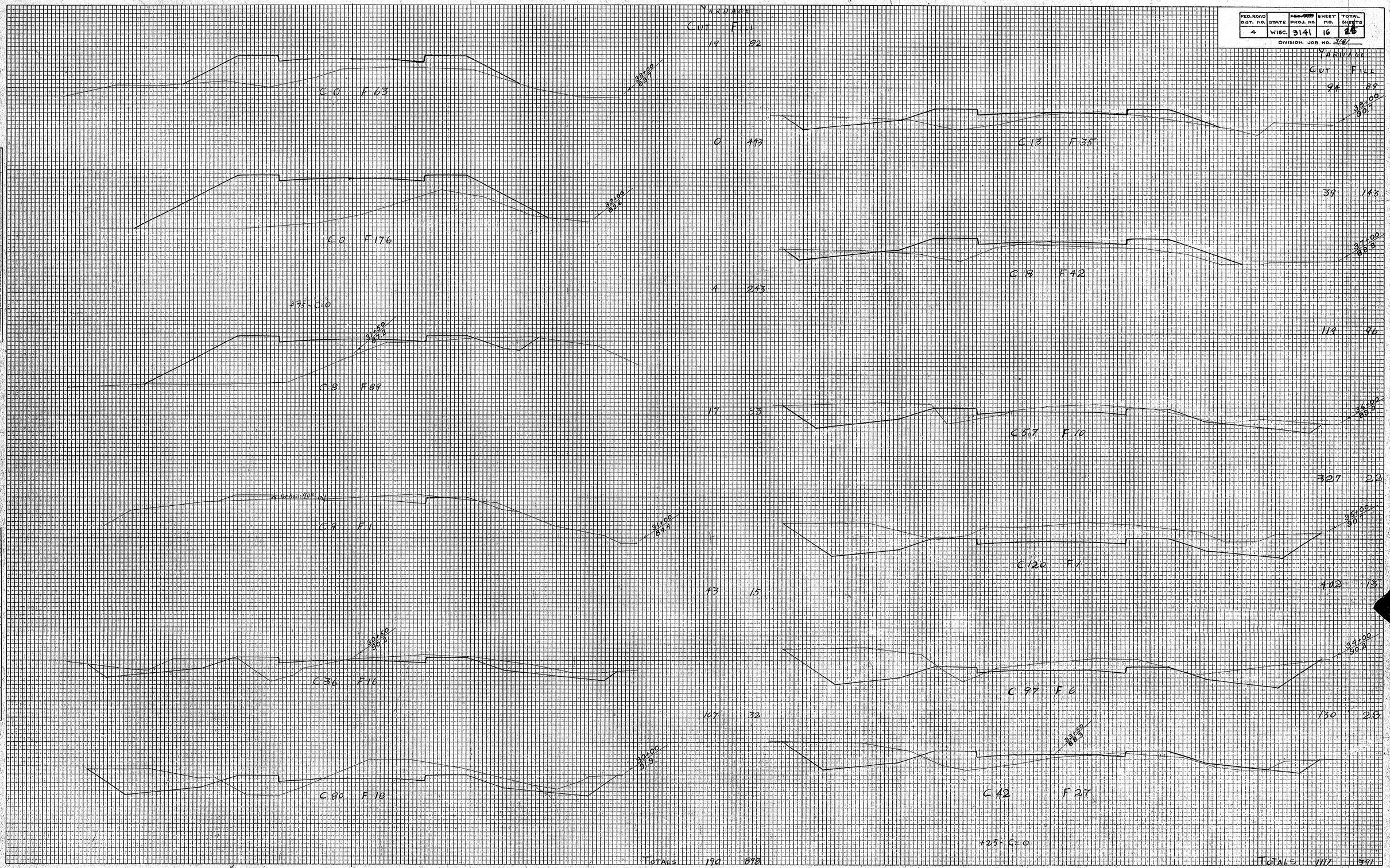
FINAL SURVEY — NOTE BOOK NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK NO. 4405 — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY H.F.M.E. W.B.G. — DATE

PLATE 3—CROSS SECTION O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO. NEW YORK.

FED. ROAD DIST. NO.	STATE	~~FED. AID~~ PROJ. NO.	SHEET NO.	TOTAL SHEETS
4	WISC.	3141	16	25

DIVISION JOB NO. 3141



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

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — NOTE BOOK NO. 4405 — BY J.F.M. H.L.E. W.B.G. — DATE 1/17/22

PLATE 3—CROSS SECTION O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO. NEW YORK.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
4	WISC.	3141	17	25

DIVISION JOB NO. 3141

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

ORIGINAL SURVEY	DATE	BY
SURVEYED		JEFF
COMPUTED		BLE
PLOTTED		
TEMPLATE		
NOTE BOOK 4405	AREAS	WBG
NO.	AREAS CHECKED	

YARDAGE

	CUT	FILL
C 29 F 20	109	76
C 31 F 27	111	107
C 25 F 24	104	94
C 34 F 11	109	70
C 16 F 13	97	50
C 38 F 13	104	48
TOTALS	634	425

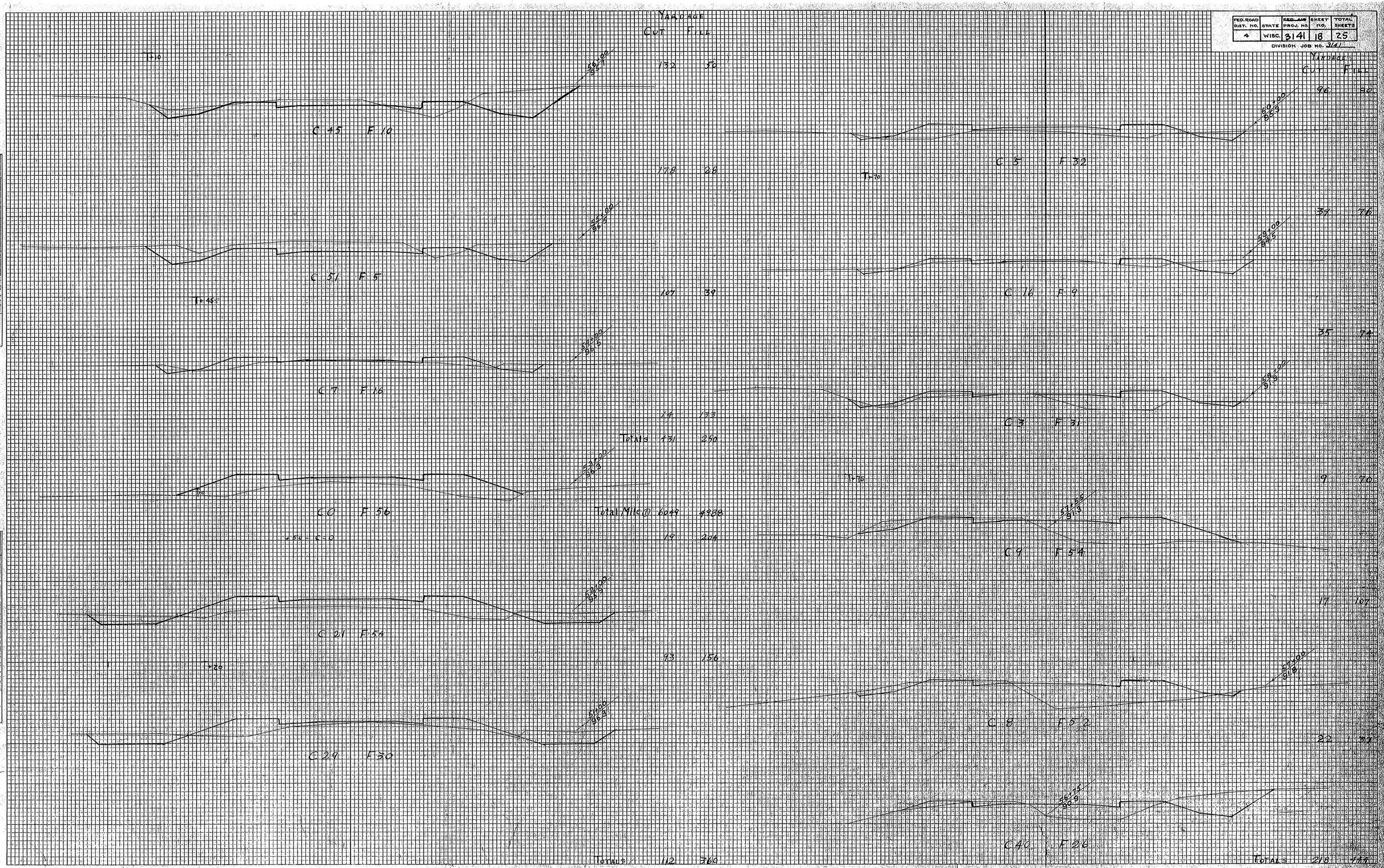
	CUT	FILL
C 30 F 20	109	99
T 61	109	54
C 29 F 12	141	43
C 47 F 11	170	32
C 45 F 6	141	44
C 31 F 18	113	72
C 30 F 21	95	44
TOTALS	703	343

PLATE 3 – CROSS SECTION O. P. R. & R. E. STANDARD

KEUFFEL & ESSER CO., NEW YORK.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
4	WISC.	3141	18	25

DIVISION JOB NO. 3141



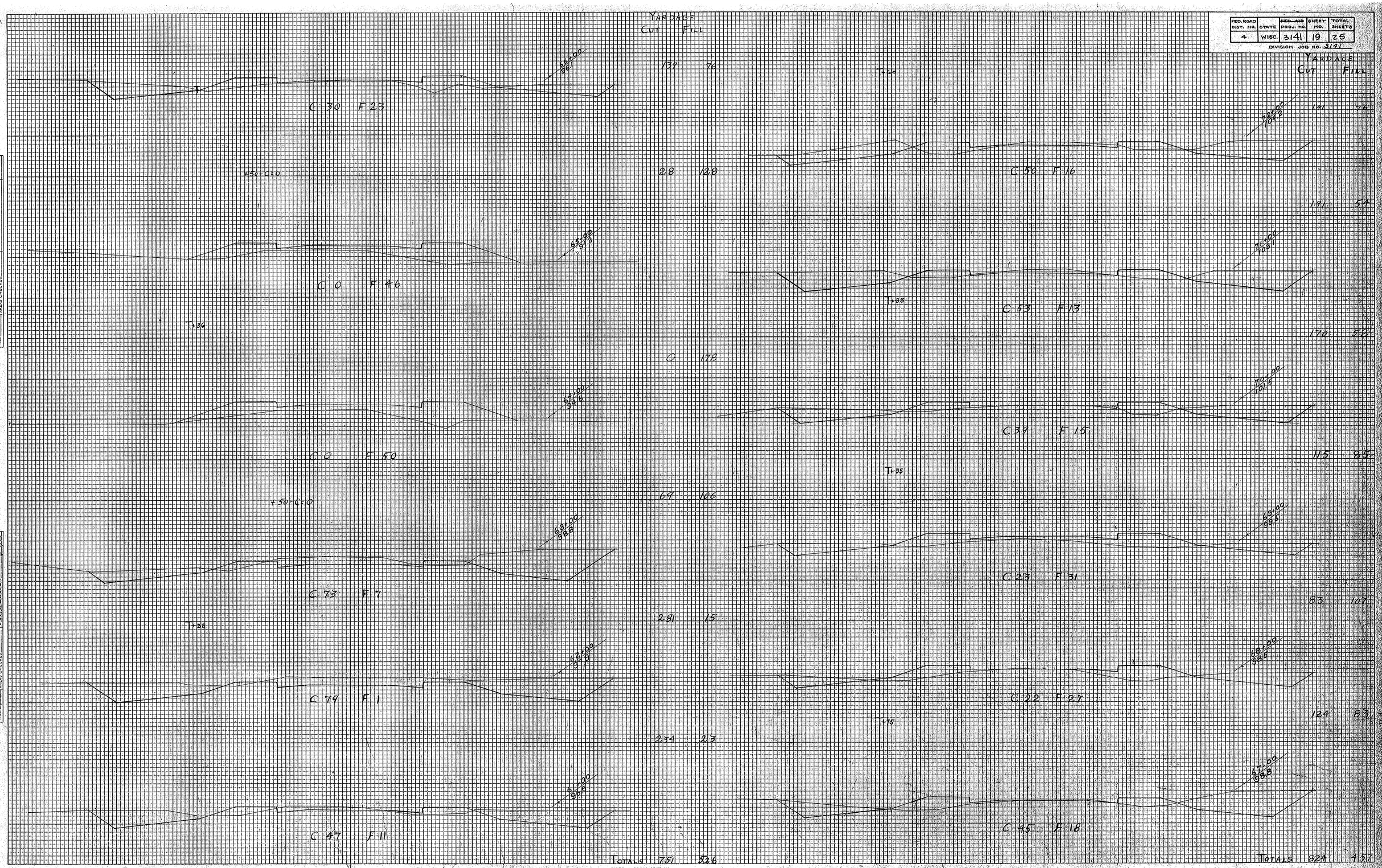
FINAL SURVEY — NOTE BOOK NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK NO. 4405 — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY Mommaerts, Althaus, W. B. Gowell — DATE 12/21/36

PLATE 3 - CROSS SECTION O. F. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
4	WISC.	3141	19	25

DIVISION JOB NO. 3141



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

ORIGINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED	J.F. MOMMAERTS	10/21/26
NO. 4405	PLOTTED	H.C. HITHAUS	11/17/27
	TEMPLATE		
	AREAS		
	AREAS CHECKED	W.B. Gowell	

PLATE 3—CROSS SECTION O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO. NEW YORK.

FED. ROAD DIST. NO.	STATE	~~FED. AID~~ PROJ. NO.	SHEET NO.	TOTAL SHEETS
4	WISC.	3141	20	125

DIVISION JOB NO. [illegible]

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

ORIGINAL SURVEY	SURVEYED	J.F. MOMMAERTS	BY	DATE
	PLOTTED	H.C. ALTHAUS		11/24/26
	TEMPLATE			
NOTE BOOK	AREAS	W.B. Gowell		11/27/27
NO. 4405	AREAS CHECKED			

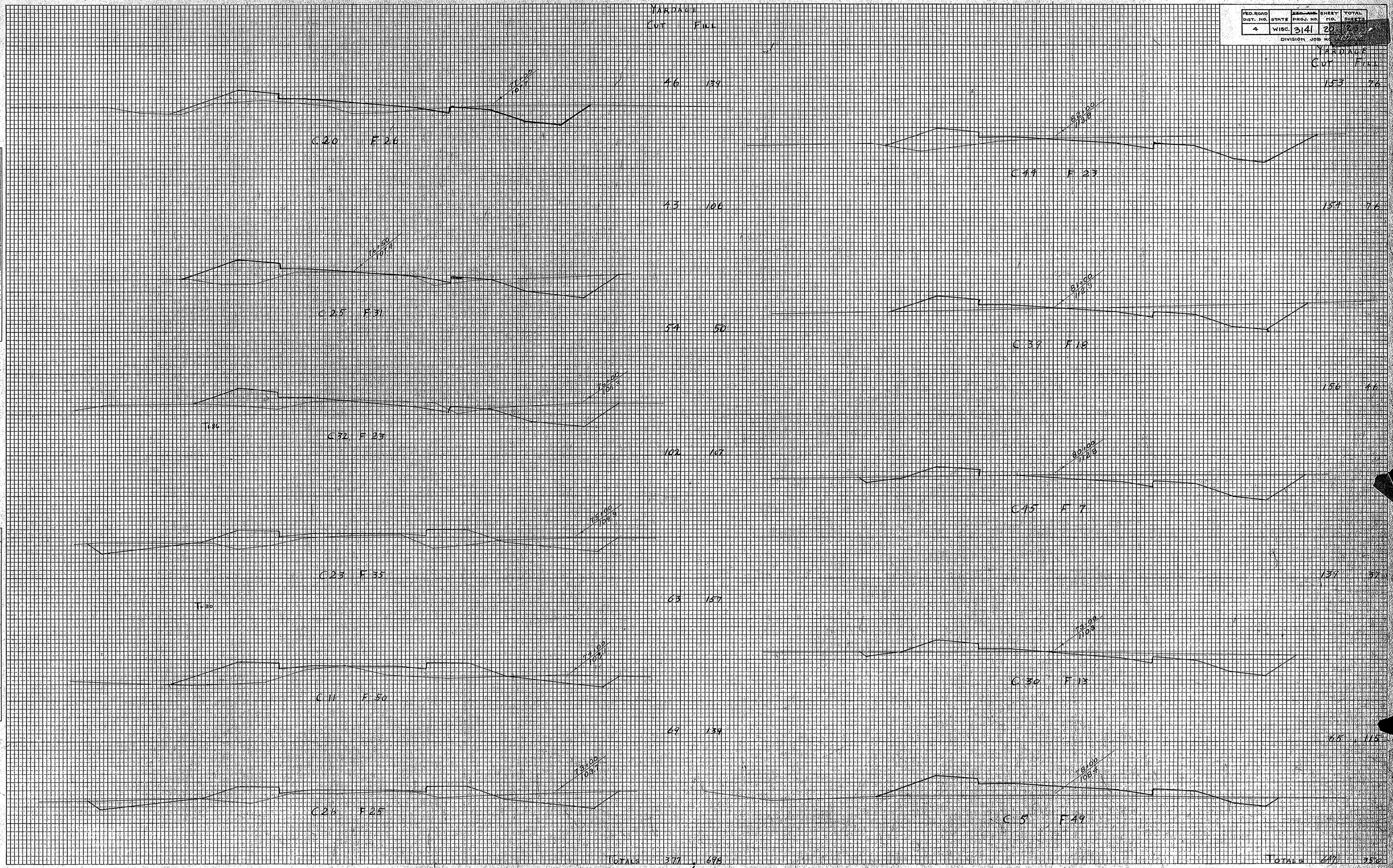


PLATE 3 – CROSS SECTION O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO. NEW YORK.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
4	WISC.	3141	21	25

DIVISION JOB NO. 3141

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

ORIGINAL SURVEY		BY	DATE
NOTE BOOK NO. 4405	SURVEYED	J.F. MOHMAARTS	9/21/36
	PLOTTED	H.C. ALTHAUS	9/21/36
	TEMPLATE		
	AREAS		
	AREAS CHECKED	W.B. Gowell	11/18/37

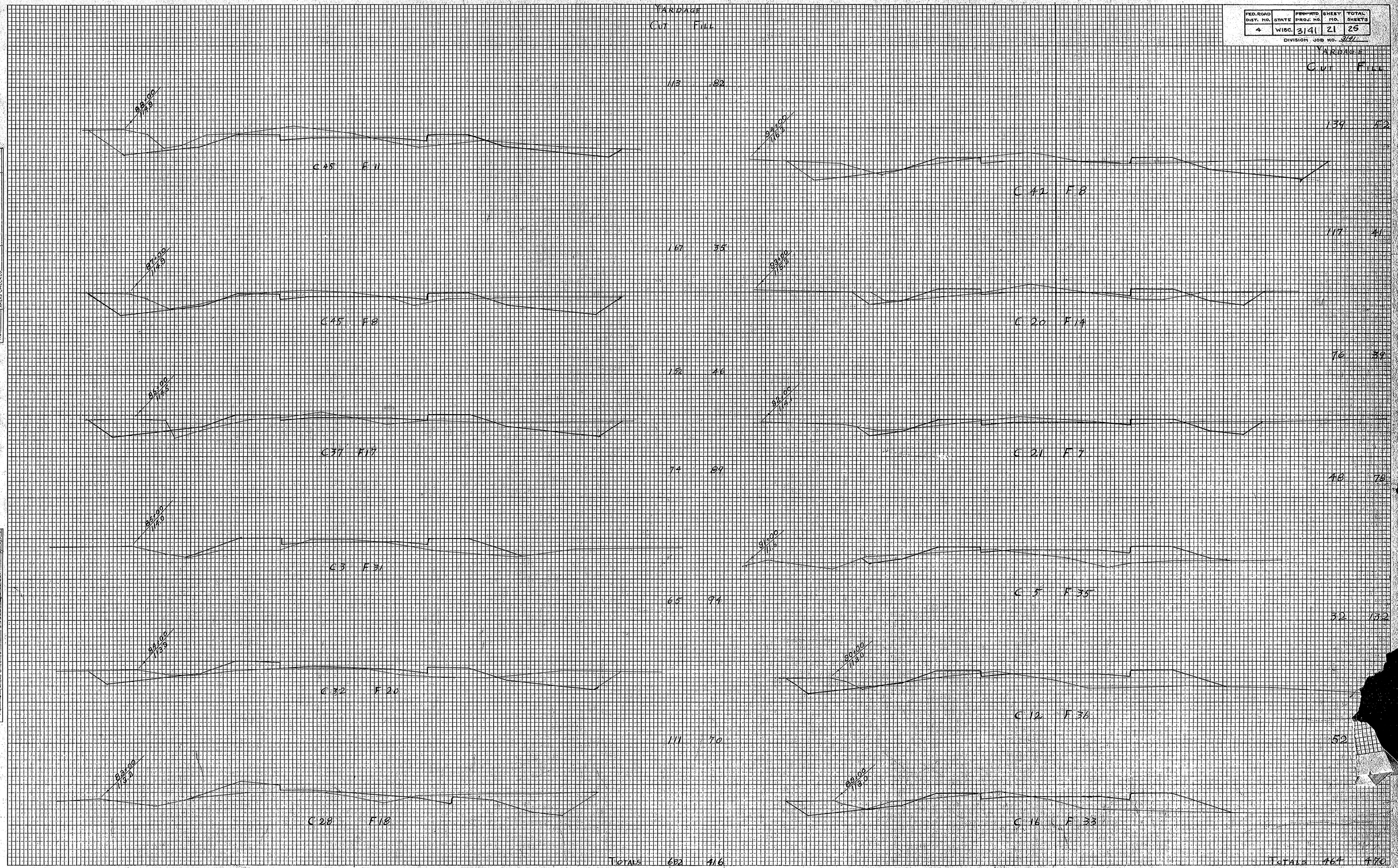
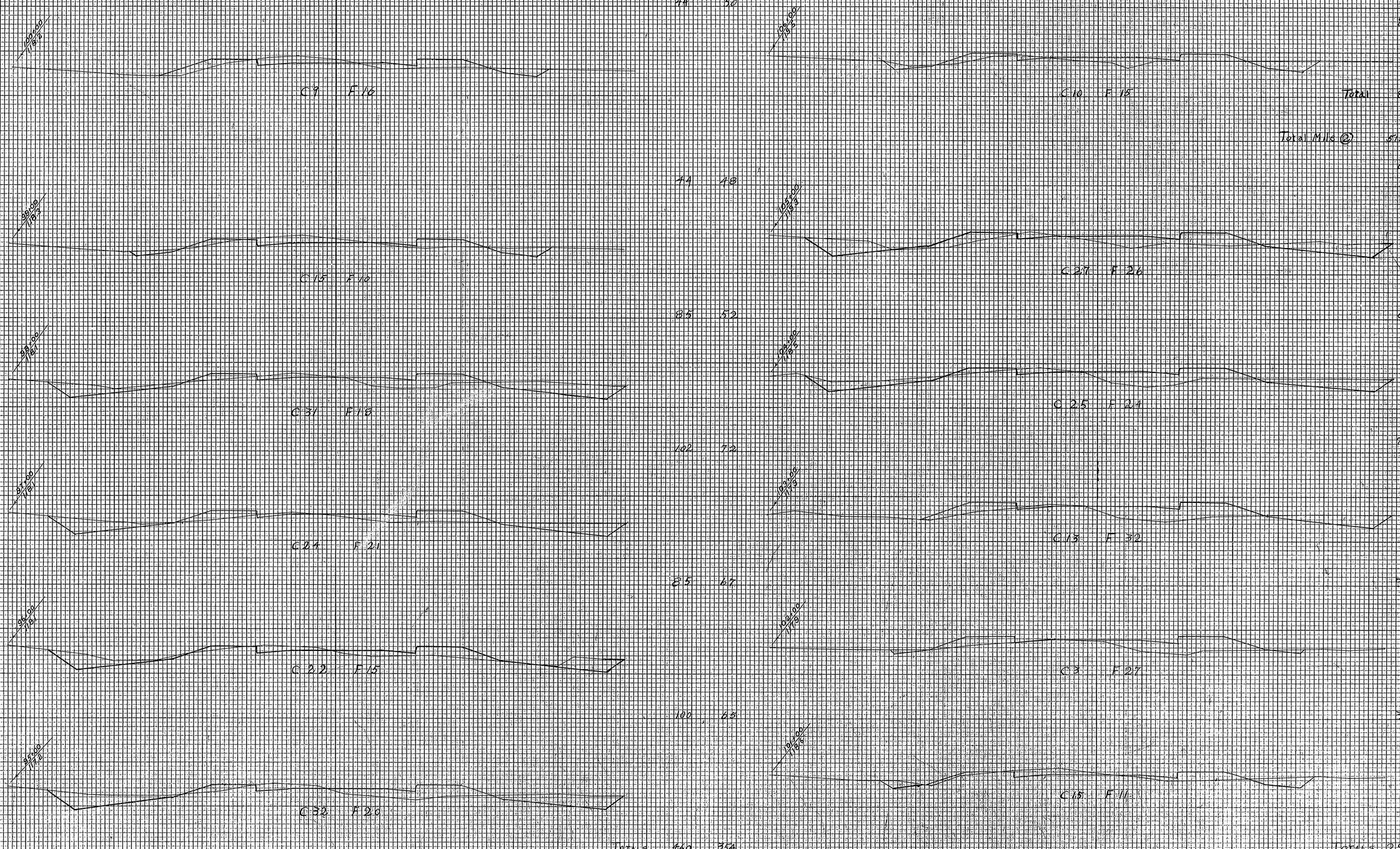


PLATE 3—CROSS SECTION O. P. R. & R. E. STANDARD

FED. ROAD DIST. NO.	STATE	~~FED. AID~~ PROJ. NO.	SHEET NO.	TOTAL SHEETS
4	WISC.	3141	22	25

DIVISION JOB NO. 3141

		YARDAGE			YARDAGE	
		CUT	FILL		CUT	FILL
		44	50		83	32
				Total	83	32
				Total Mile ②	5152	4417
		44	48		69	76
		85	52		96	93
		102	72		70	104
		85	67		301	109
		100	65		33	70
		TOTALS 460	354	TOTALS	298	45



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

ORIGINAL SURVEY		BY	DATE
NOTE BOOK NO. 4405	SURVEYED	J.F.M.	
	PLOTTED	H.C.A.	12/21/26
	TEMPLATE		
	AREAS		
	AREAS CHECKED	W.B.G.	1/18/27

PLATE 3—CROSS SECTION O. P. R. & R. E. STANDARD

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
4	WISC.	314	23	26

DIVISION JOB NO. 3141

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

ORIGINAL SURVEY	BY	DATE
SURVEYED	J.E.A.	11/21/34
PLOTTED	J.E.A.	
TEMPLATE		
NOTE BOOK	W.B. Gowell	1/22/35
NO. 4102	AREAS CHECKED	

YARDAGE

	Cut	Fill
C 7 F 22	24	98
C 41 F 17	89	72
C 20 F 19	113	67
C 21 F 18	76	69
C 28 F 7	91	46
C 35 F 2	117	17
Totals	510	369

	Cut	Fill
C 1 F 46	35	130
C 1 F 48	2	87
C 5 F 36	6	72
C 10 F 25	13	56
C 1 F 44	9	65
C 6 F 31	13	139
Totals	76	549
		315
		864

PLATE 3—CROSS SECTION O. P. R. & R. C. STANDARD
KEUFFEL & ESSER CO., NEW YORK

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
4	WISC.	3141	24	25

DIVISION JOB NO. 3141

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

ORIGINAL SURVEY		BY	DATE
NOTE BOOK NO. 4405	SURVEYED	J.F.M.	
	PLOTTED	H.C. ALTERUS	12/2/36
	TEMPLATE		
	AREAS		
	AREAS CHECKED	W.B. Gowell	

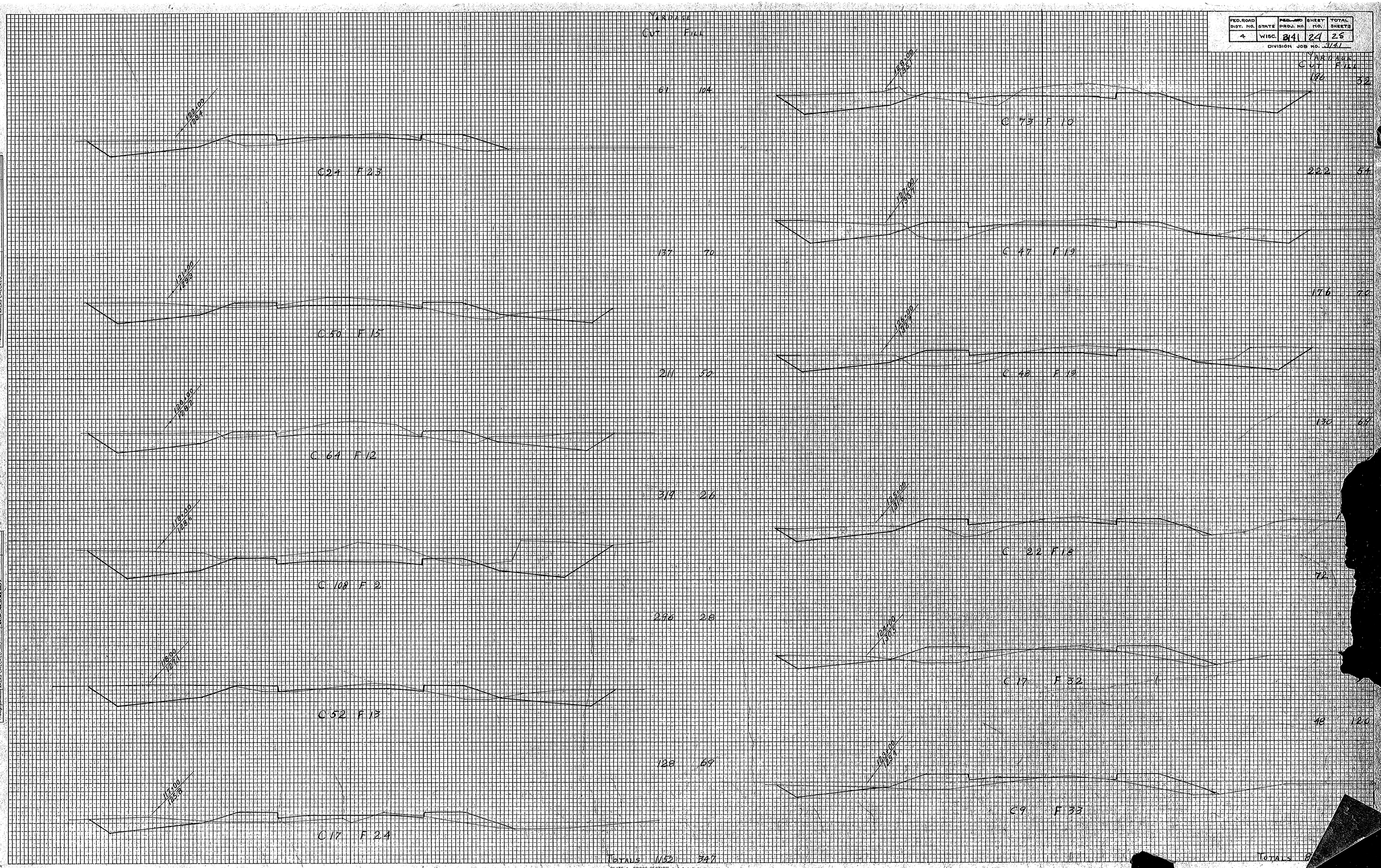
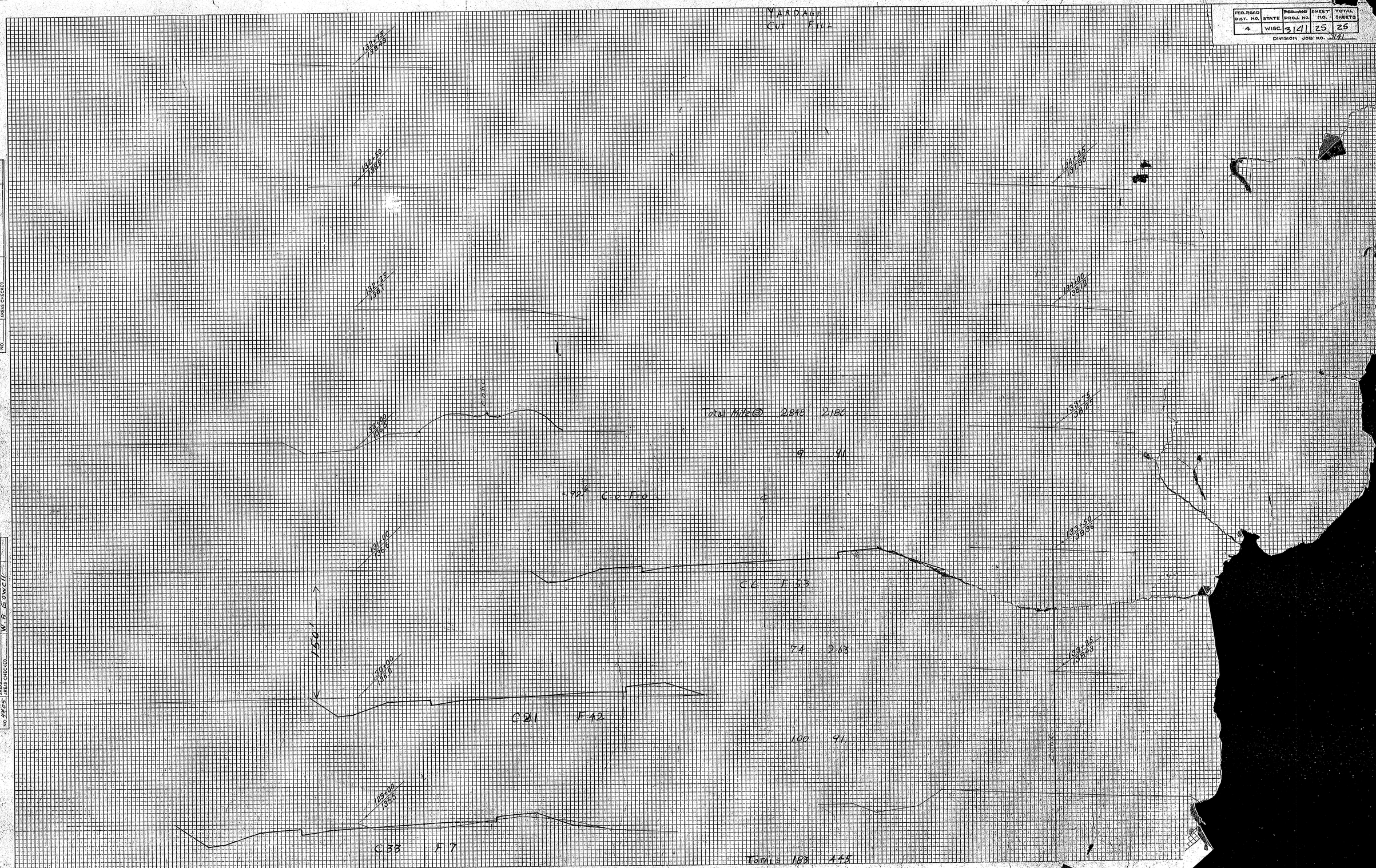


PLATE 3—CROSS SECTION O.P.R. & R.E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

FED. ROAD DIST. NO.	STATE	~~FED. AID~~ PROJ. NO.	SHEET NO.	TOTAL SHEETS
4	WISC.	3141	25	25

DIVISION JOB NO. 3141



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

ORIGINAL SURVEY	
NOTE BOOK	SURVEYED
NO. 4405	PLOTTED
	TEMPLATE
	AREAS
	AREAS CHECKED

BY	DATE
L.E. MORM	12/2/26
H.C. ALTHAUS	12/2/26
W.B. GOWELL	

PLATE 3 – CROSS SECTION O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO. NEW YORK.