F.A. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	Mo.	92	1921	1	51

Route 1A Section 36

MISSOURI

STATE HIGHWAY DEPARTMENT

PLAN AND PROFILE OF PROPOSED STATE ROAD

FEDERAL AID PROJECT

LACLEDE - COUNTY

BEG. N.E¼ SEC. 13 TWP. 35 N. R. 14 W. PULASKI & LACLEDE CO. LINE TO CENTER SEC. 32 TWP. 35 N. R. 15 W.

BEAR CR. & HAZELGREEN SPECIAL RD. DIST.

DISTANCE = 12.594 MILES

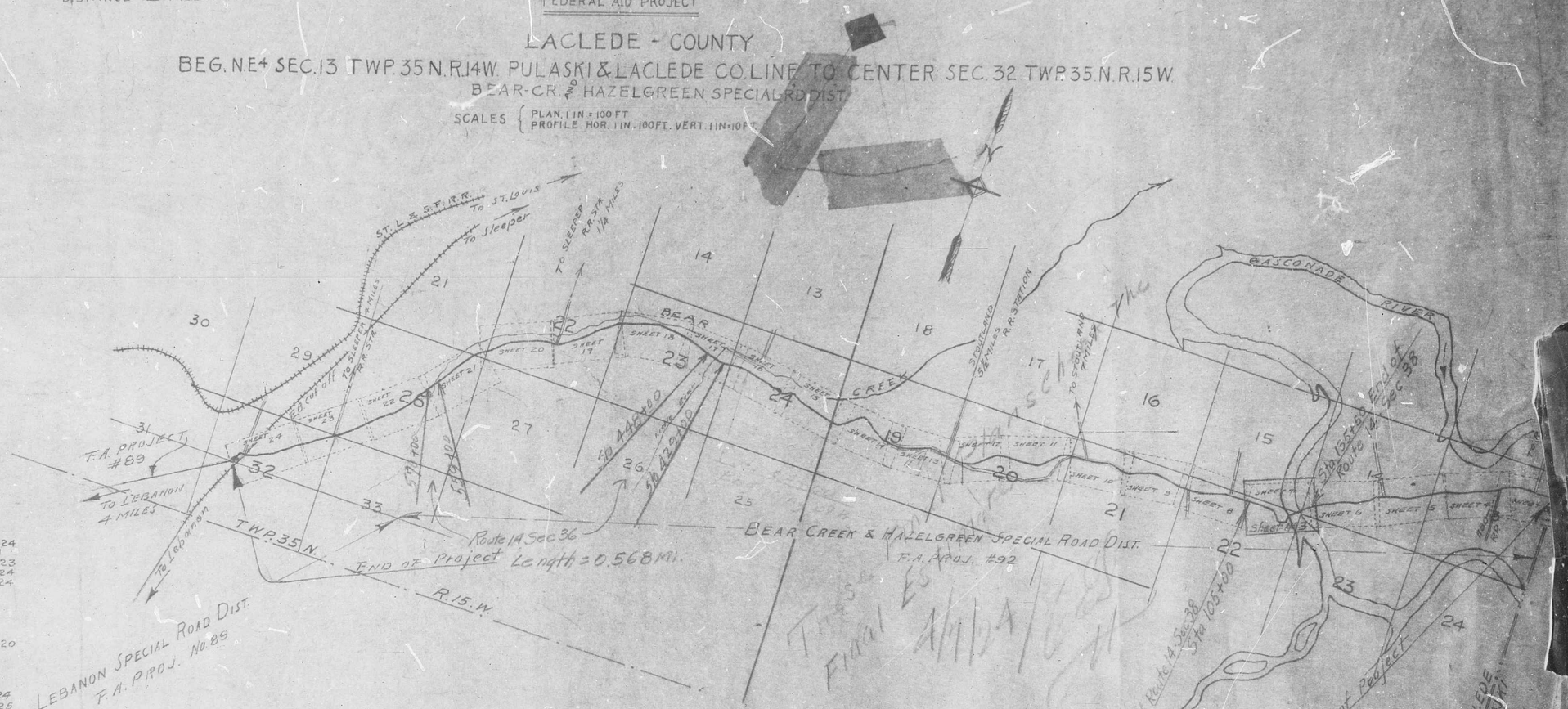
SCALES { PLAN, 1 IN = 100 FT.
PROFILE. HOR. 1 IN. 100 FT. VERT. 1 IN = 10 FT.

INDEX OF SHEETS

SHEET NO		STA.		STA.
1	TITLE PAGE			
2	TYPICAL CROSS-SECTION			
3	PLAN & PROFILE	STA. 0	TO STA.	30
4	" " "	" 30	"	60
5	" " "	" 60	"	90
6	" " "	" 90	"	120
7	" " "	" 120	"	150
8	" " "	" 150	"	180
9	" " "	" 180	"	210
10	" " "	" 210	"	240
11	" " "	" 240	"	270
12	" " "	" 270	"	300
13	" " "	" 300	"	330
14	" " "	" 330	"	360
15	" " "	" 360	"	390
16	" " "	" 390	"	420
17	" " "	" 420	"	450
18	" " "	" 450	"	480
19	" " "	" 480	"	510
20	" " "	" 510	"	540
21	" " "	" 540	"	570
22	" " "	" 570	"	600
23	" " "	" 600	"	630
24	" " "	" 630	"	665+01
	CROSS-SECTION			
25	" "	" 0+0	"	18+50
26	" "	" 19	"	37
27	" "	" 38	"	64
28	" "	" 65	"	93
29	" "	" 94	"	121
30	" "	" 122	"	137+50
31	" "	" 138	"	151
32	" "	" 152	"	179
33	" "	" 180	"	207
34	" "	" 208	"	230
35	" "	" 231	"	253
36	" "	" 254	"	275
37	" "	" 276	"	292+23
38	" "	" 292+43	"	315
39	" "	" 315+30	"	347
40	" "	" 348	"	378
41	" "	" 379	"	410
42	" "	" 411	"	442
43	" "	" 443	"	478
44	" "	" 478	"	503+45
45	" "	" 505+30	"	523+75
46	" "	" 524	"	550
47	" "	" 551	"	575
48	" "	" 576	"	598
49	" "	" 599	"	631
50	" "	" 632	"	659
51	" "	" 660	"	665+01
52	" "	"		

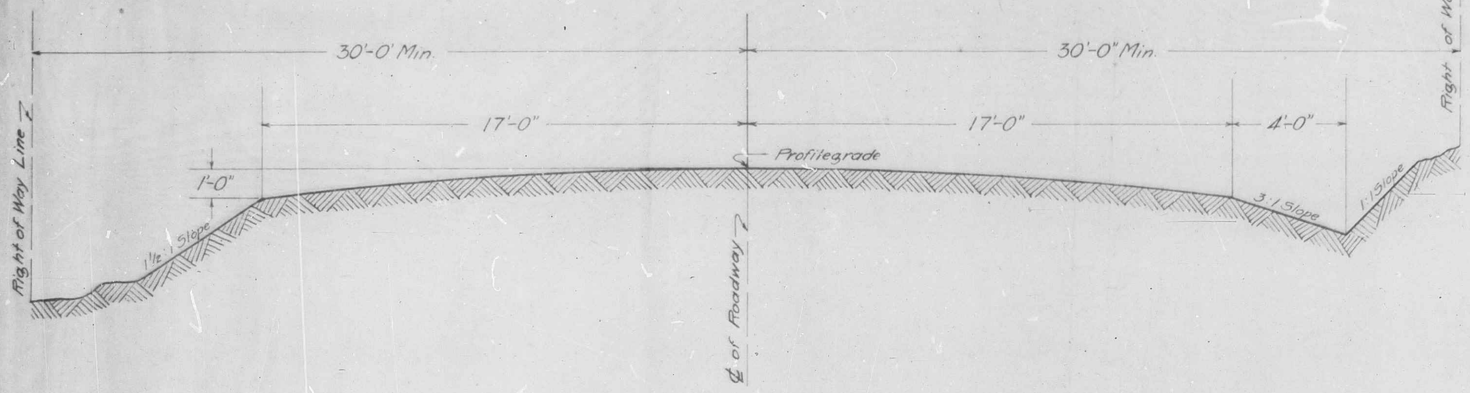
LIST OF CULVERTS

STA.		BUILD			STD.	
30+30	"	"	4'x2'6"x40'	Conc. Cul.	"	R.M. 224
145+80	"	"	24"x28'	Corr. Iron Pipe Cul.	STD	R.M. 11
157+60	"	"	3'x2'x24'	Conc. Box	"	R.M. 223
167+00	"	"	4'x2'6"x24'	"	"	R.M. 224
175+80	"	"	4'x2'6"x24'	"	"	R.M. 224
216+15	"	"	15"x28'	Corr. Iron Pipe	"	M-11
224+25	"	"	15"x28'	"	"	M-11
248+00	"	"	24"x34'	"	"	M-11
251+30	"	"	24"x28'	"	"	M-11
253+00	"	"	15"x32'	"	"	M-11
263+21	"	"	20' Span	conc. Bridge	"	M-5120
280+25	"	"	24"x30'	Corr. Iron Pipe	"	M-11
286+06	"	"	24"x50'	"	"	M-11
292+00	"	"	24"x36'	"	"	M-11
296+00	"	"	24"x44'	"	"	M-11
354+19	"	"	4'x2'6"x24'	Conc. Box	"	R.M. 224
365+00	"	"	3'x3'x24'	"	"	R.M. 225
383+25	"	"	8'x4'x24'	"	"	R.M. 328
406+80	"	"	8'x4'x24'	"	"	R.M. 328
437+50	"	"	6'x16'6"x24'	Arch	"	M-416
438+60	"	"	2-20' Spans	Bridge	"	M-8140
458+10	"	"	12"x28'	Corr. Iron Pipe	"	M-11
465+85	"	"	5'x3'x24'	Conc. Box	"	R.M. 225
472+00	"	"	6'x4'x34'	"	"	M-226
492+00	"	"	24"x34'	Corr. Pipe	"	M-11
493+00	"	"	15"x36'	" Iron Pipe	"	M-11
501+75	"	"	15"x28'	"	"	M-11
508+15	"	"	15"x28'	"	"	M-11
507+00	"	"	15"x30'	"	"	M-11
514+70	"	"	24"x32'	"	"	M-11
523+15	"	"	6'x4'6"x34'5	Conc. Arch	"	M-416
535+00	"	"	24"x40'	Corr. Iron Pipe	"	M-11
545+25	"	"	24"x34'	"	"	M-11
558+45	"	"	24"x28'	"	"	M-11
564+00	"	"	3-30' Span	Conc. Bridge	"	M-7130
624+00	"	"	15"x32'	Corr. Iron pipe	"	M-11
631+00	"	"	15"x46'	"	"	M-11
638+00	"	"	15"x30'	"	"	M-11
650+30	"	"	6'x4'6"x27'	Conc. Arch	"	M-416
659+00	"	"	15"x32'	Corr. Pipe (Drop Inlet)	"	M-11
661+50	"	"	4'x2'6"x24'	Conc. Box	"	R.M. 224

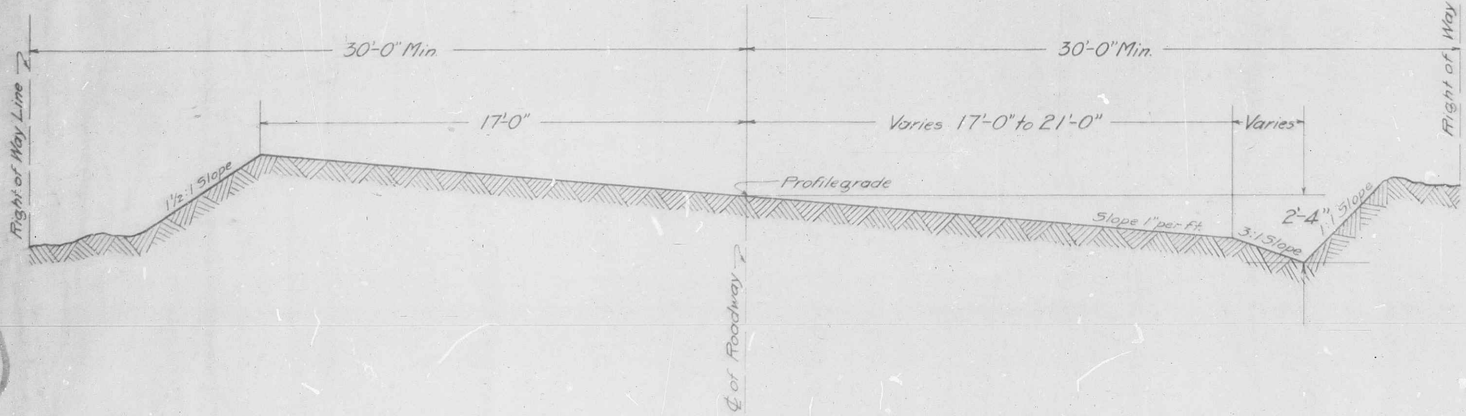


FED. ROAD DIST. NO.	STATE	FED. AID PROJECT	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		1922	2	
DIV. NO.	COUNTY			ROUTE	SEC. NO.
	Laclede			14	36

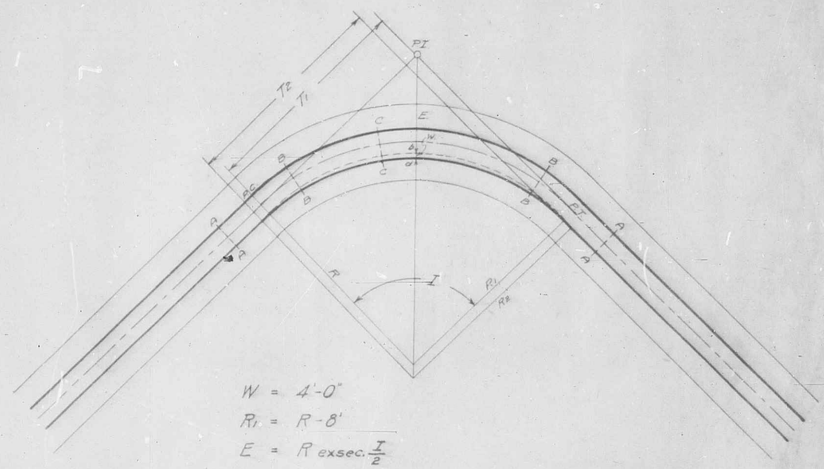
TYPICAL CROSS SECTION
OF
34 FT. GRADED EARTH ROADWAY
WITH
12 INCH CROWN



TYPICAL CROSS SECTION ON TANGENTS



TYPICAL CROSS SECTION ON CURVES UNDER 500 FT. RADIUS



$W = 4'\text{-}0"$

$R_1 = R - 8'$

$E = R \text{ exsec.} \frac{I}{2}$

$R_2 = R + \frac{W}{\text{exsec.} \frac{I}{2}}$

$T_1 = R \tan. \frac{I}{2}$

$T_2 = R_2 \tan. \frac{I}{2}$

$\text{Area (abcda)} = \frac{\pi I}{360}(R_1^2 - R_2^2) + (R + R_2)(T_2 - T_1)$

Superelevation begins at Section A-A 25' from P.C. or P.T. and attains its full value at Section B-B 50' from A-A

TYPICAL PLAN OF CURVES UNDER 500 FT. RADIUS

122

MISSOURI STATE HIGHWAY DEPARTMENT
ESTIMATE SHEET

Description of paving 34' Graded Earth

County of Laclede

Length 0.568 miles

FED. ROAD DIST. No.	FEDERAL AID PROJ.	STATE OF	FISCAL YEAR	SHEET No.	TOTAL SHEETS
5		MO.	1922	2A	

Route 14 Section 36

Prepared by CWT

Date 1-15-23

Name of road East and West

Excavation

Station	Earth	Borrow
429-438+45	1223.6	2344.0
448	103.8	2853.1
558-563+60	58.5	1969.7
570	66.1	2313.9
Totals	1452.0	9480.7

Station	Earth	Borrow	Total Pass
429-438+45	1223.6	2344.0	1452.0
448	103.8	2853.1	1452.0
558-563+60	58.5	1969.7	1969.7
570	66.1	2313.9	2313.9
Totals	1452.0	9480.7	9480.7

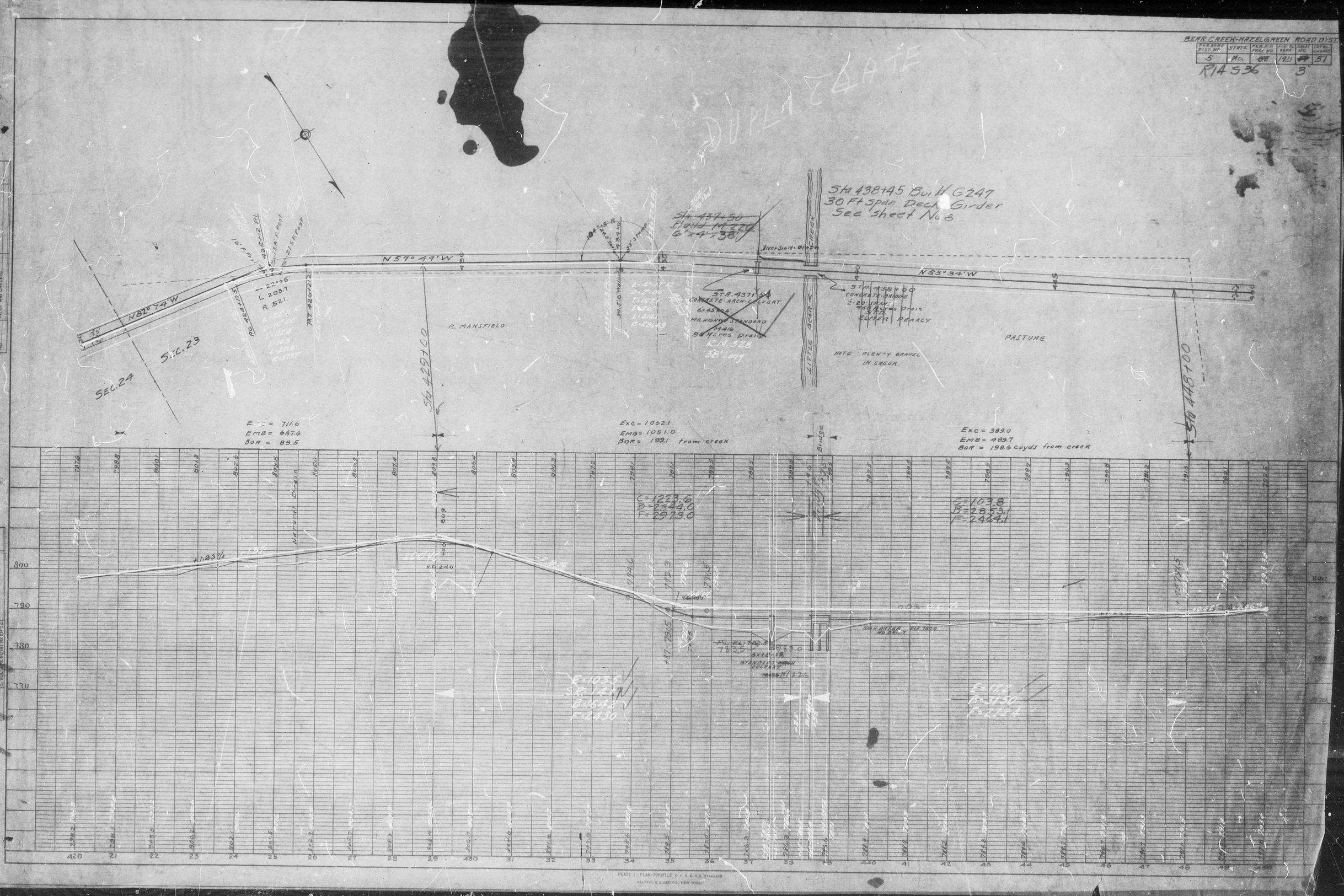
Culverts

Station	Standard	Length	'B' Conc.	Steel
437+50	M226	38	31.6	2447
437+51	M226	38	31.6	2447

Summary

Item	Description	Unit	Quantity
7A	Earth Rdwy Excavation	Cu.Yds.	1452.0
7D	Borrow " "	"	9480.7
59 'B'	Class 'B' Conc. Mas.	"	31.6
60	Steel	Lbs	2447
	Bridge at Station 438+45		
54	Excavation	Cu.Yds.	208
59A	Class 'A' Conc. Mas.	"	3.5
59 'B'	" 'B' " "	"	104.6
60	Steel	Lbs	14500
	Bridge at Station 563+60		
54	Excavation	Cu.Yds.	350
59A	Class 'A' Conc. Mas.	"	42.2
59C	" 'C' " "	"	225.2
60	Steel	Lbs	8610
63 B	Fab. Struct. Steel	"	61700
64	Gas Pipe Rails	Lin. Ft.	366
65	Struct. Steel Paint	Per Ton of Steel	30.85

173


BEAR CREEK-HAZELGREEN ROAD DIST.
5
Mo.
1921
51
R14 S36
3
DUPLICATE
Sta 438+45 Build G247
30 Ft span Deck Girder
See sheet No 8
Sta 437+50
Build M220
6'x4'x38'
N59°49'W
N55°34'W
N82°74'W
SEC. 23
SEC. 24
R. MANSFIELD
PASTURE
LITTLE BEAR CREEK
NOTE PLENTY GRAVEL IN CREEK
Sta 429+00
Sta 448+00
Exc = 711.6
EMB = 667.6
BOR = 89.5
Exc = 1062.1
EMB = 1051.0
BOR = 199.1 from creek
Exc = 389.0
EMB = 489.7
BOR = 198.6 cuyds from creek
C = 1223.6
B = 2344.0
F = 2973.0
C = 103.8
B = 2853.1
F = 2464.1
Natural Drain
+1.23%
V.C. 240
HIGH WATER ELEV. 787.0
NO DRIFT
STANDARD ARCH CULVERT
PLATE 1 - PLAN-PROFILE O. F. R. & R. K. STANDARD
KEUFFEL & ESSER CO. NEW YORK

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO	[illegible]	1971	[illegible]	51

R-14-536 4

PLAN

SURVEYED
PLOTTED
DRAWN
TRACED
CHECKED
ALIGNMENT CHECKED
PAT. OF MAP CHECKED

NOTE BOOK
NO.

PROFILE

SURVEYED
PLOTTED
GRADES CHECKED
DRAWN
TRACED
STRUCTURE OUTLINE CHECKED

NOTE BOOK
NO.

STEVENS

Sta. 545+25 Build:-
24'x34' Corr. Pipe Cul.
Use Mo. Std. M-11
6 Acres Drain
Rolling

Sta. 545+45 Build New Mo. Std. E.M. 22
61' Long, 0.4 Acres Drain
Rolling

Barn

Residence

372°24'W

S 71°34'W

180°50'

50' Strike

BEAR CREEK

Duplicate

Sta. 558+48 Build:-
24'x [redacted]' Corr. Pipe Cul.
Use Mo. Std. M-11 - 32' long
6 Acres Drain
Rolling

Sta. 558+24 - Build New Mo. Std. E.M. 22
42' Long - 0.4 Acres Rolling - Drain Ditch
Ditch - 30 cu. yds.

Δ=10°-15'-12"
D=2°-00'
T=254.9
E=11.5'
L=512.5'
R=2864.9

S 81°37'W

Sta. 563+60 Build G248
80 Ft. Steel Span on Skew
See Sheet No. 10

Sta. 559+00

Sta. 570+00

Exc = ~~1122~~ 1013.8
EMB = ~~944~~ 839.1
~~BOR = 7.3~~

Exc = ~~992.0~~ 643.2
EMB = ~~806.6~~ 1042.0
~~Waste = 246~~ Bor. - 607.2

~~Exc = 440.8~~
~~EMB = 372.4~~
BOR = ~~293.6~~ from Creek

~~Exc = 1214~~ ~~1194~~
~~EMB = 1213~~ ~~1193~~
~~Bor = 1213~~ ~~1193~~
Cu yds Foundation Rock

300' 1.35% V.C.

100' V.C.

700' V.C.

100' V.C.

Fr. El. 845.6

Ground Grade

Bridge Out

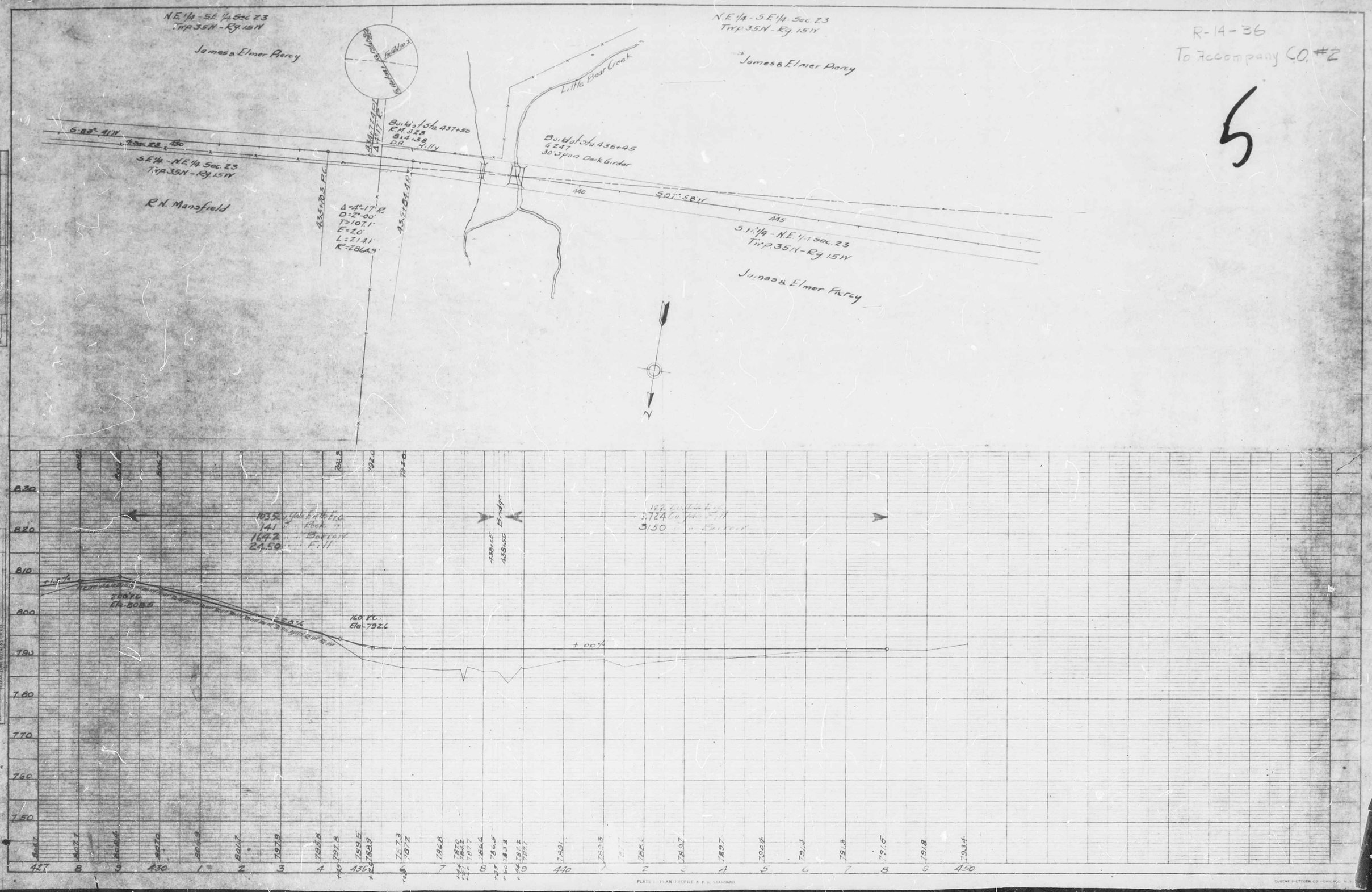
C=58.5
D=19°-09'
F=1696.2

C=6.6'
D=23°-30'
F=1983.3

Extreme Backwater

F=1954
D=1°-00'
F=1591

PLATE 1 - PLAN-PROFILE O. P. & R. D. STANDARD
KEUFFEL & ESSER CO., NEW YORK.


R-14-36
To Accompany C.O. #2
5
N.E. 1/4 - S.E. 1/4 Sec. 23
Twp. 35N - Rg. 15W
James & Elmer Piercy
Little Bear Creek
Build at Sta. 437+50
R.M. 328
8x4x38
D.A. Hilly
Build at Sta. 438+45
G 247
30' Span Deck Girder
S.E. 1/4 - N.E. 1/4 Sec. 23
Twp. 35N - Rg. 15W
R.N. Mansfield
S.W. 1/4 - N.E. 1/4 Sec. 23
Twp. 35N - Rg. 15W
Δ=4°-17' R
D=2°-00'
T=107.1'
E=2.0'
L=214.1'
R=2864.9'
S 83° 41' W
S 87° 58' W
Bridge
1035 Cu. Yds. Earth Fill
141 " Rock "
1642 " Borrow
2450 " Fill
3724 Cu. Yds. Fill
3150 " Borrow
200' V.C.
Ele-808.5
160' V.C.
Ele-792.6
± 00%
PLAN
PROFILE
PLATE 1 - PLAN-PROFILE R. P. R. STANDARD
EUGENE DIETZGEN CO. - CHICAGO

Revised - C.O. #4

PROJ. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	Mo.		1921	4	51

Route 14 - Sec. 36

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

PROFILE — SURVEYED, PLOTTED, NOTE BOOK, NO., GRADES NOTED, STRUCTURE NOTATNS CHKD, BY, DATE

NE 1/4 - NE 1/4 Sec 28
Twp 35 N - Rg 15 W
Chas Stevens

S 36° 20' W

539+62.1 PT

Sta 546+55.2 PC

Δ = 2° 16' L
D = 1° 00'
T = 113.3'
L = 226.6
E = 1.1'
R = 5729.6'

Sta 548+34 PT

549+60.8 PT

Present Road

S 34° 24' W

Sta 545 - Bull Mo Sta. R.M. 223
11 Long - D.A. 25 Acres Hilly

547+88.6 PT
Δ = 2° 16' L

Sta 548+34 PT

SE 1/4 - SW 1/4 Sec 21
Twp 35 N - Rg 15 W
Chas Stevens

D. J. & J. W. Atkins
SE 1/4 - NE 1/4 - Sec 28
Twp 35 N - Rg 15 W

Sta 555+24 Bull Mo Std R.M. 222
42 Long - DA 15 Acres Rolling
Dig Outlet Ditch - 306 cu yds

Δ = 10° 15' R
D = 2° 00'
T = 256.9'
L = 512.3'
E = 11.5'
R = 2864.9'

S 44° 19' W

Bear Creek

Present Road

NW 1/4 - NE 1/4 Sec 28
Twp 35 N - Rg 16 W
Geo W. Hayes

SW 1/4 - NE 1/4 Sec 28
Twp 35 N - Rg 15 W
D. J. & J. W. Atkins

Route 14 - Section 36

Sta 559+00

Sta 570+00

Δ = 6° 12' R
D = 2° 00'
T = 155.2'
L = 310'
E = 4.2'
R = 2864.9'

570+54.9 PT

1186 Earth Exc.
987 F. III

B.M. Sta 541+30 - Spike in Root
12" Oak - 40' Lt. ℄
Ele 867.250

500' V.C.
Ele 860.1

4.6%

200' V.C.
Ele 856.6

+3.0%

Ele. Flow Line
848.3

500' V.C.
Ele 866.2

-1.42%

B.M. Sta 552+00 - Spike in Root
of 8" Oak - 100' Lt. ℄
Ele 873.130

1654 Earth Exc.
46 Borrow Exc.
1418 F. III
1500 Overhaul

Flow Line
Ele 849.5

2205 Earth Exc.
1480 C Borrow
1307 C F. III

0.0%

1950 Earth Exc.
1330 C Borrow
1387.0 F. III

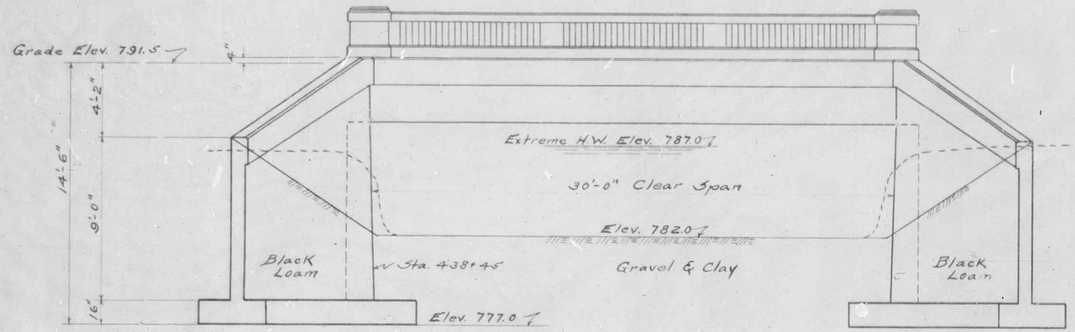
B.M. Sta 562+10 - Spike in Root of
24" Walnut - 35' Lt. ℄
Ele 852.850

PLATE I - PLAN-PROFILE R. P. R. STANDARD

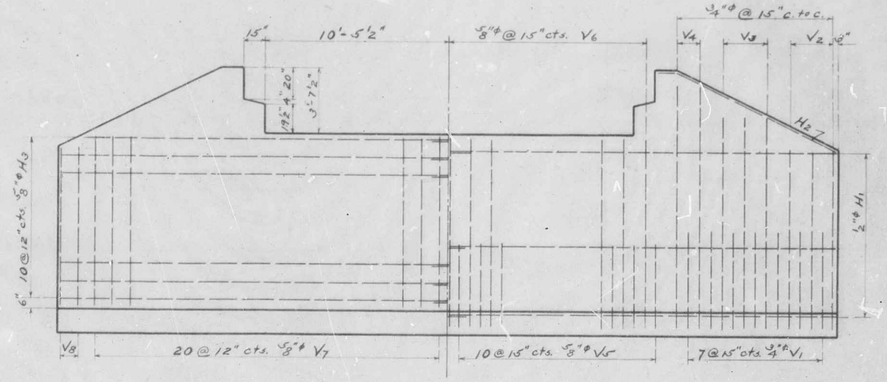
EUGENE DIETZGEN CO. — CHICAGO

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.	R14-636	1923	4	

Standard Superstructure Drawing C 6230

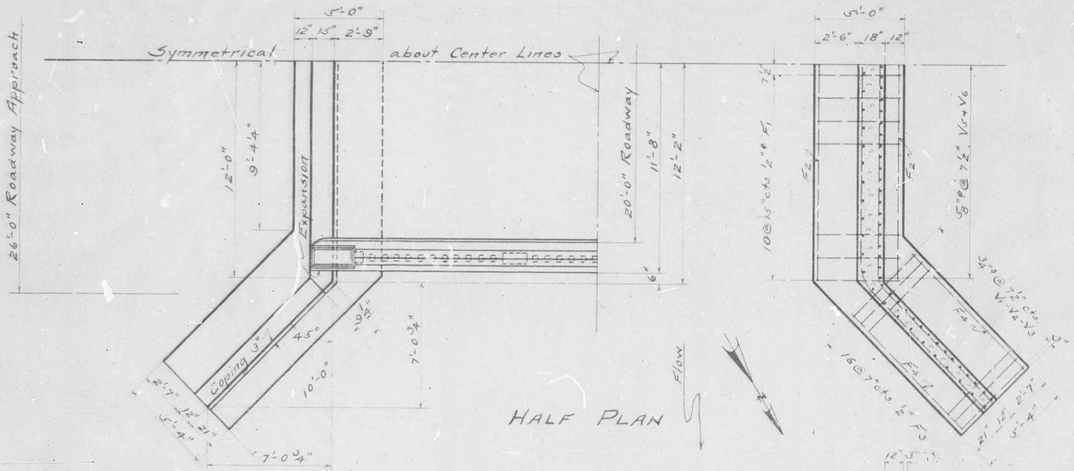


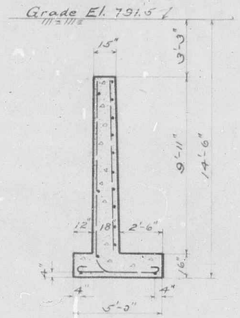
ELEVATION



STREAM FACE REINFORCING FILL FACE REINFORCING

DEVELOPED ELEVATION OF ABUTMENT

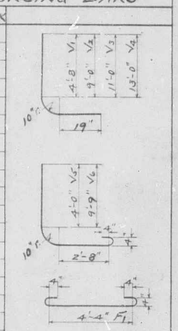




SECTION THRU ABUTMENT

BILL OF REINFORCING BARS

No	Size	Length	Mark
28	¾"ϕ	7'-7"	V1
12	¾"ϕ	11'-11"	V2
12	¾"ϕ	13'-11"	V3
8	¾"ϕ	15'-11"	V4
40	⅝"ϕ	8'-10"	V5
40	⅝"ϕ	14'-7"	V6
80	⅝"ϕ	9'-6"	V7
8	⅝"ϕ	8'-9"	V8
12	½"ϕ	23'-0"	H1
4	½"ϕ	11'-0"	H2
40	⅝"ϕ	23'-0"	H3
40	½"ϕ	6'-1"	F1
4	½"ϕ	24'-0"	F2
64	½"ϕ	5'-0"	F3
8	½"ϕ	9'-0"	F4



ESTIMATED QUANTITIES

		Superstructure	Abutments	Total
Excavation	cu.yds.		208	208
Concrete 1:2:3	do	3.5		3.5
Concrete 1:2:4	do	40.0	64.6	104.6
Reinf. Steel	lbs.	10,020	4480	14500

GENERAL NOTES

All general notes which apply to Standard Superstructure C 6230 will apply to this bridge.

All concrete in abutments to be 1:2:4

MISSOURI STATE HIGHWAY DEPARTMENT

BRIDGE OVER LITTLE BEAR CREEK

STATE ROAD FROM ST. LOUIS TO SPRINGFIELD

ABOUT 5 MILES FROM STOUTLAND

PROJECT NO. R14 Sec 36 STA. 438+45

LACLEDE COUNTY

DRAWN Dec. 1922 BY H.R.D.

CH'K'D. DEC. 1922 BY J.A.W.

SUBMITTED BY Chas. D. Mann BRIDGE ENGINEER

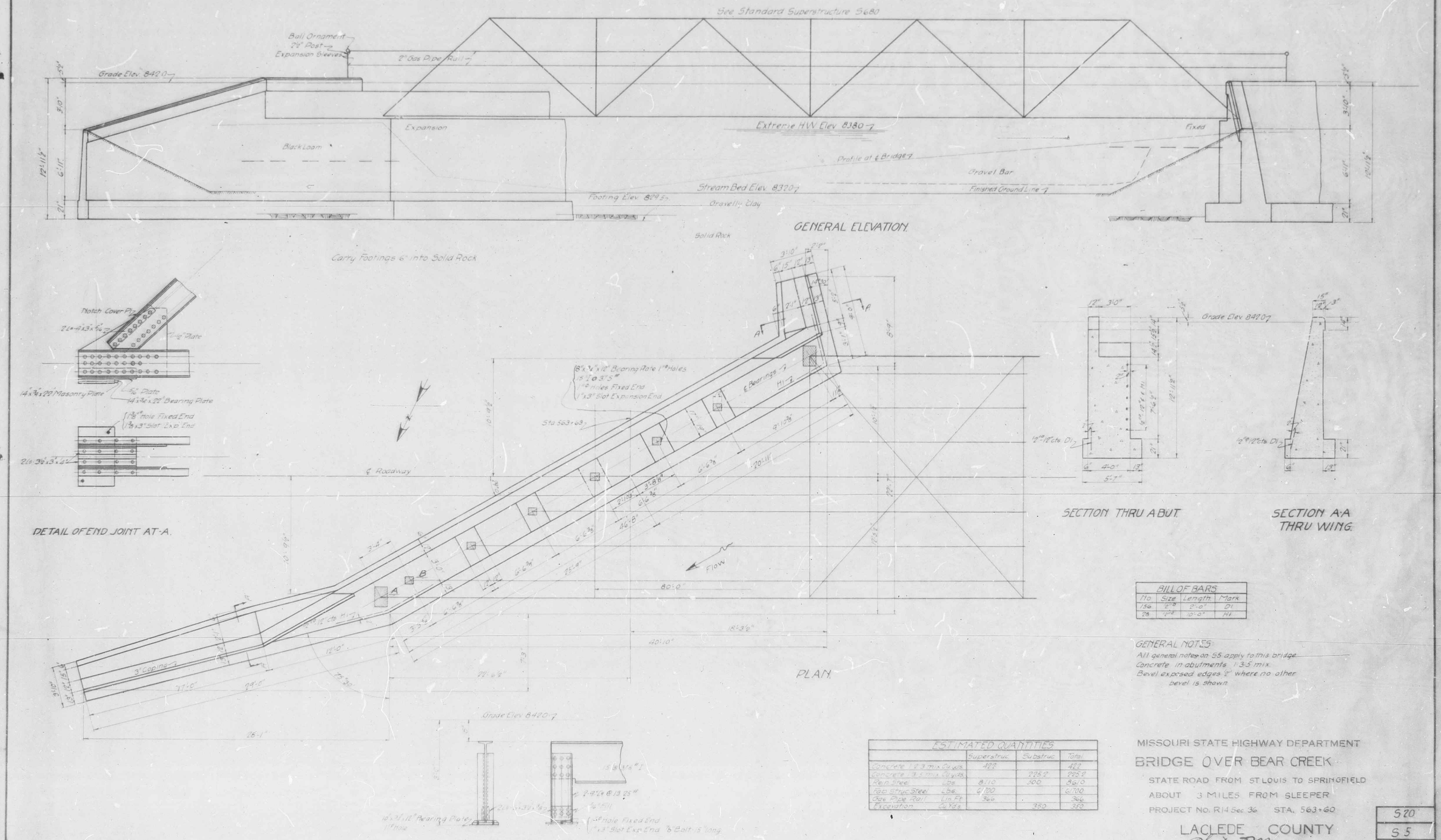
APPROVED BY B.H. Piepmeier STATE HIGHWAY ENGINEER

C 6230

G 247

RUCKER CO. ST. LOUIS

FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.	R14-536	1923	10	



GENERAL ELEVATION

DETAIL OF END JOINT AT-A.

PLAN

SECTION THRU ABUT.

SECTION A-A THRU WING.

CONNECTION AT END STRINGER-B.

BILL OF BARS			
No	Size	Length	Mark
156	1/2"ø	2'-0"	D1
28	1/2"ø	10'-0"	H1

GENERAL NOTES:
All general notes on S5 apply to this bridge.
Concrete in abutments 1:3:5 mix.
Bevel exposed edges 2" where no other bevel is shown.

ESTIMATED QUANTITIES				
		Superstruc.	Substruc.	Total
Concrete 1:2:3 mix	Cu. yds.	422		422
Concrete 1:3:5 mix	Cu. yds.		225.2	225.2
Rein. Steel	Lbs.	8110	500	8610
Fab. Struc. Steel	Lbs.	61700		61700
Gas Pipe Rail	Lin. Ft.	366		366
Excavation	Cu. Yds.		350	350

MISSOURI STATE HIGHWAY DEPARTMENT

BRIDGE OVER BEAR CREEK

STATE ROAD FROM ST. LOUIS TO SPRINGFIELD

ABOUT 3 MILES FROM SLEEPER

PROJECT No. R14 Sec. 36 STA. 563+60

LACLEDE COUNTY

SUBMITTED BY Chester D. Mann BRIDGE ENGINEER

APPROVED BY [signature] STATE HIGHWAY ENGINEER

S20
S5
S14
G248

DRAWN Jan. 1923 BY C.M.C.
CH'K'D Jan. 1923 BY R.L.T.

Sheet 1 of 2 Sheets

HUCKENS CO.

Standards

TYP Sec & Earthwork

Rte 14
Sec ~~Proj~~ 36
County LacLede
Sheet # 11

Surf, Curb + Gutter + APP.

Drainage
M226

Bridges
S14
S20
C6230
S200
MISC.

Conc Reinf APPurts Finish etc

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

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

180

INDEX OF SHEETS

SHEET NO TITLE PAGE
TYPICAL CROSS-SECTION OF IMPROVEMENT
PLAN AND PROFILE STA. TO STA.

MISSOURI
STATE HIGHWAY COMMISSION
PLAN AND PROFILE
OF ROPOSED
STATE ROAD

FEDERAL AID PROJECT

LACLEDE COUNTY

FED. ROAD DIST. NO.	STATE	FED. AID PROJECT	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.	[illegible]			
DIV. NO.	COUNTY		ROUTE	SEC. NO.	
8	LACLEDE		US 66		

SHIPPING POINTS		
Station	R.R.	Car Spots
CONWAY	FRISCO.	40 Cars.
HUBEN	"	9 "
PHILLIPSBURG	"	28 "
Brush Cr.	"	10 "
LEBANON	"	200 "

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

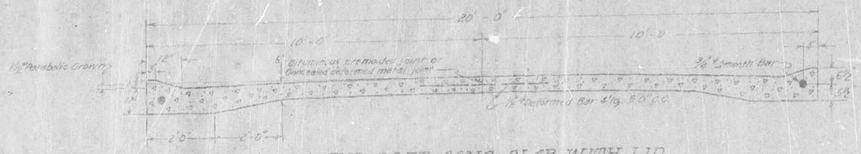
FAP 89 C Length 4.045 Mi.
FAP 139 Length 10.7 Mi.
FAP 139 B Length 4.678 Mi.
FAP 139 C Length 2.831 Mi.

DALLAS CO.
LACLEDE CO.
CAMDEN CO.
STONE CO.
WEBSTER CO.
PULASKI CO.
CONWAY
LEBANON
HUBEN STATION
PHILLIPSBURG
BRUSH CREEK
ST. LOUIS-SLEEPER
FRISCO
EQUATION STA 22+11.2 = STA 21+16.2
EQUATION STA 63+00 = STA 63+50
EQUATION STA 296+84.2 = STA 296+84.2
EQUATION STA 204+91.3 = STA 204+91.3
EQUATION STA 62+62.0 = STA 62+62.0
EQUATION STA 0+00 = STA 0+00
EQUATION STA 0+00 = STA 0+00
EQUATION STA 0+00 = STA 0+00

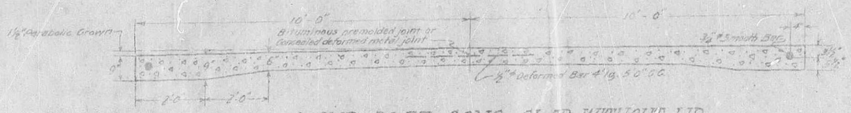
FED. ROAD DIST. NO.	STATE	FED. RD. PROJECT	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.			1A	
DIV. NO.	COUNTY			ROUTE	SEC. NO.

DETAILS OF EXPANSION AND CONTRACTION JOINTS

20 FT. PORT. CEM. CONC. PAVEMENT.



STAND. 20 FT. CONC. SLAB WITH LIP



STAND. 20 FT. CONC. SLAB WITHOUT LIP



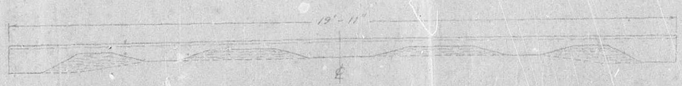
DEFORMED METAL LONGITUDINAL JOINT

BITUMINOUS PREMOLDED LONGITUDINAL JOINT

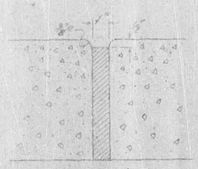
ALTERNATE LONGITUDINAL JOINTS



END VIEW ENLARGED



METAL INSTALLATION HOLDER FOR EXPANSION JOINT



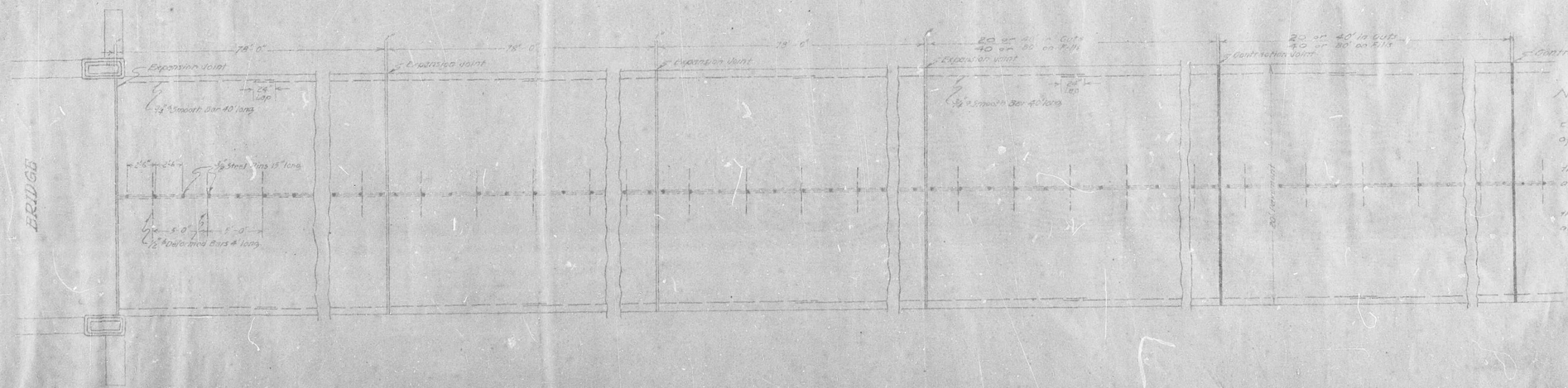
END VIEW OF EXPANSION JOINT



DEFORMED METAL CONTRACTION JOINT

BITUMINOUS PREMOLDED CONTRACTION JOINT

ALTERNATE CONTRACTION JOINTS



Note:

The distance between contraction joints varies with the kind of coarse aggregate used.

When crushed limestone is used these joints are to be placed 40' in cuts and 80' on fills.

When gravel or flint rock is used these joints are to be placed 20' in cuts and 40' on fills.

BUREAU OF CONSTRUCTION
DEC 9 1930
HIGHWAY DEPT.

379

380

TANGENT

CURVE

CUT

PRAIRIE SECTION

STANDARD 20FT CONCRETE SLAB WITH LIP

STANDARD 20FT. CONCRETE SLAB NO LIP

PAVEMENT PLAN

DETAILS OF METAL JOINT

6' SURFACE DRAIN ON GRADE

6' SURFACE DRAIN FOR LOW POINT ON GRADE

BASIN & DRAIN SECTION E-E

SUPERELEVATION FOR A FOOT OF WIDTH

$S = \frac{0.067V^2}{R}$ V = 25 MPH, R = DEAD

SCHEME OF SUPERELEVATION TRANSITION

SCHEME OF WIDENING TRANS

VALUE OF W

METHOD OF APPLYING DRAIN TO CULVERT HEADWALL

6' SURFACE DRAIN BASIN (Each)
Concrete = 1.9 Cu. Yds.
Steel = 120 Lbs.
Metal Joint = 20 = 24 Lbs.
SURFACE DRAIN (Per Ft.)
Concrete = 0.08 Cu. Yds.
Steel = 4.5 Lbs.

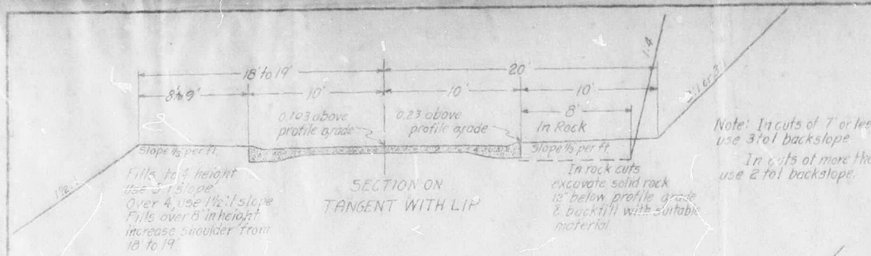
The above quantities are approximate only.

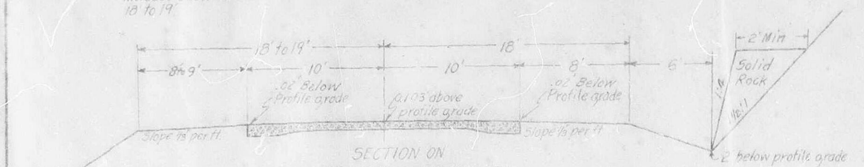
ST. 20' CONCRETE PAVEMENT.

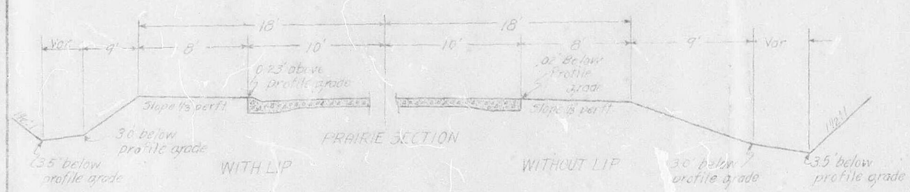
BUREAU OF PUBLIC ROADS
DEC 9 1930
HIGHWAY DESIGN

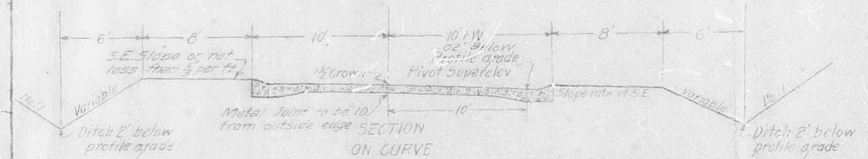
30' P.C. Conc. Pvt.

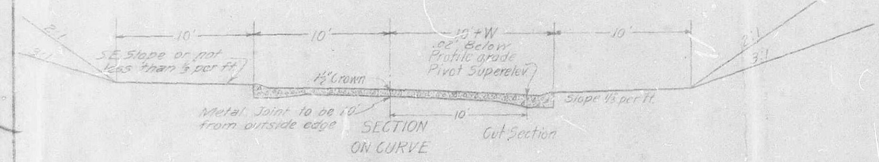
381

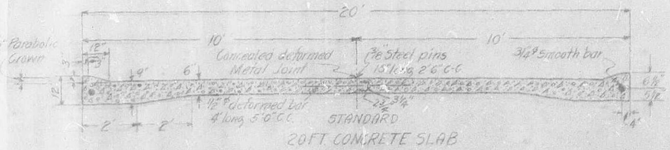


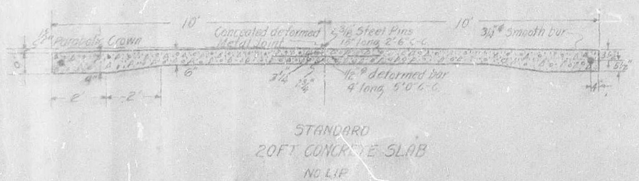


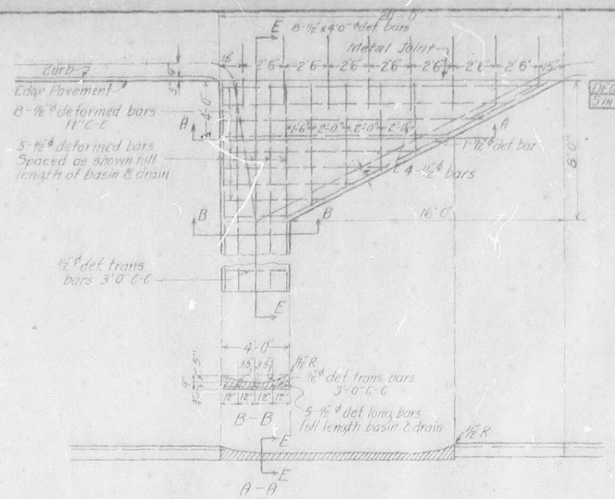


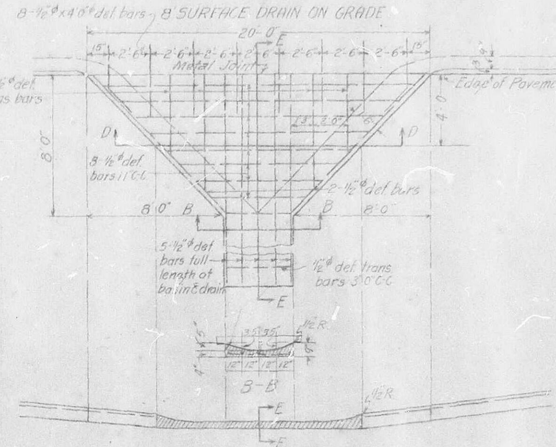


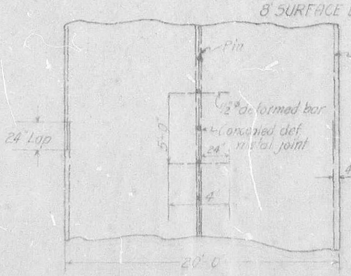


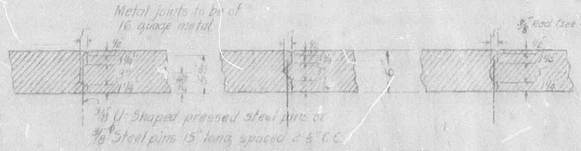










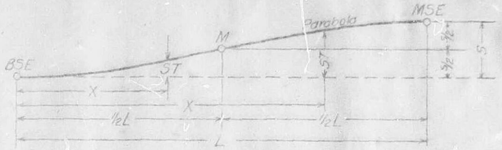


SUPERELEVATION PER FOOT OF WIDTH

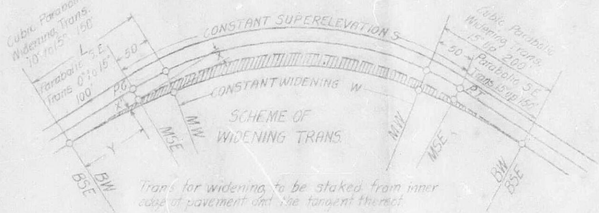
$S = 0.067 \frac{V^2}{R}$ V=25 MPH, R=R@D

DEGREE	1	2	3	4	5	6	7	8	9	10	11	12
S in Ft.	.0073	.0146	.0219	.0292	.0365	.0438	.0511	.0585	.0658	.0731	.0804	.0877

SCHEME OF SUPERELEVATION TRANSITION



S = Maximum Superelevation (See above table); L = Length of Superelevation Trans.
X = Distance from BSE to desired intermediate point
ST = Value of S in Transition.
ST between BSE and M = $\frac{X^2 \frac{1}{2} S}{(L/2)^2}$; ST between M and MSE = $S - \frac{(L-X)^2 \frac{1}{2} S}{(L/2)^2}$



Trans for widening to be staked from inner edge of pavement and be tangent thereto

X = (R - 10) Vers ½D + W; in which

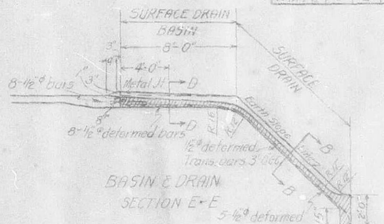
X = Maximum offset from tangent at end of transition
W = Constant Widening.
(R-10) = Radius of Curve ℄ minus ½ width of pavement
D = Degree of Curve

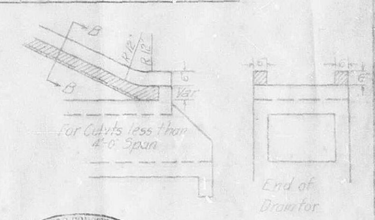
$X = \frac{V^3 x}{L^3}$

in which X = Intermediate offset
Y = Intermediate ordinate to X
L = Length of Transition

VALUE OF W

DEGREE	1-9	10	11	12	13	14	15	16	17	18	19-0
W in Ft.	0	0	2.5	3	3.5	4	4.5	5	5.5	6	6.5





RECEIVED FOR CONSTRUCTION
DEC 9 1930
HIGHWAY DEPT.

8' SURFACE DRAIN BASIN (Each)
Concrete = 2.4 Cu. Yds.
Steel = 96 Lbs.
Metal Joint = 80 ± 24 Lbs.
SURFACE DRAIN (Per Ft.)
Concrete = 0.08 Cu. Yds.
Steel = 4.5 Lbs.

The above quantities are approximate only

METHOD OF APPLYING DRAIN TO CULVERT HEADWALL

MISSOURI STATE HIGHWAY COMMISSION

ESTIMATE SHEET

FED. ROAD DIV. NO.	STATE PROJECT NUMBER	SHEET NO.
5	MO. 139-A	
DIV. NO.	COUNTY	ROUTE SEC. NO.
8	LACLEDE	66

Type of Improvement 20 Ft. P.C.C. PAVEMENT (LIP TYPE)

County of LACLEDE

Length 4.164 Miles

Prepared by J.W. Fothergill

Date Nov. 12 1930

Name of road LEBANON ~ EAST

EXCAVATION

Station	Excav.	Borrow	O'Haul	2-9
213+50				
220+63	414			
224+25	384			
229+00	397			
234+25	348			
238+85	451			
241+62	577			
249+00	1792			
259+78	1515		1112	89
263+15	260			62
270+00	482	325		9
276+52	326	434		37
281+00	238	1780		824
284+96	3	1776		
285+83	Bridge			
291+50	22	1824		
299+00	369			
306+50	602	106		11
313+50	729	1454		89
317+50	520	993	6400	48
323+25	1356	800		
328+50	1267	250		
335+41	1691	860		30
337+25	192			
344+50	542	1185	3760	
351+00	611			
354+88	424			
360+00	932	124		18
368+00	842	653	2970	22
373+50	0	4218		26
383+00	257	3636		
385+60	0	850		
392+30	116	1247		
402+00	1763	250	6150	31
409+87	65	642		23
410+18	Bridge			
413+27	79	713		27
419+00	411	333		23
424+00	427	575		
427+30	218	262		33
433+35	130	717		
Totals	20442	25307	20392	660½
Culvt Exc.	288			
S.R. FE. & CE	17			
Outlet Ditch	128			
Total	20875			

STONE IN DITCH CHECKS

Station	Station	Side	No.	Cu. Yds.
213+40	216+30	Rt. & Lt.	14	14
240+45	249+85	Rt.	11	11
268+50	272+00	Rt.	11	11
	275+00	Lt.	1	1
Total				37

CLEARING & GRUBBING

Station	Station	No. Sta.
221+00	230+00	9
239+00	256+00	17
Total		26

R. C. BOX CULVERTS

Station	Std.	Size	Length	cl. B Conc	Steel	Excav.	Remarks
261+10	C-242	2'x1.5'	43'	8.42	1317	36	Change Order #1
275+05	C-242	2'x1.5'	43'	8.68	1383	38	Change Order #2
290+55	C-242	2'x1.5'	16'	3.32	651	4	Extend 11' Lt.
290+59	C-244	4'x2.5'	55'	18.87	2485	102	Change Order #1
303+69	C-243	3'x2'	15'	5.16	803	3	Extend 9' Rt.
313+75	C-242	2'x1.5'	23'	4.96	676	3	Extend 23 Lt.
324+81	C-338	5'x7'	6'	13.02	1205	7	Extend 6 Lt.
334+11.5	C-242	2'x1.5'	18'	3.63	572	3	Extend 18' Rt.
342+15	C-242	2'x1.5'	16'	3.92	651	2	Extend 2' Rt. 9' Lt.
345+28	C-242	2'x1.5'	11'	2.46	399	2	Extend 11' Lt.
355+33	C-242	2'x1.5'	16'	3.43	556	2	Extend 16' Lt.
376+76	C-235	5'x3'	25'	17.09	1778	16	Extend 16' Rt. 11' Lt.
382+54	C-244	4'x2.5'	16'	7.23	1025	9	Extend 16' Rt. 6' Lt.
390+23	C-242	2'x1.5'	9'	2.13	350	4	Extend 9' Lt.
427+40	C-243	3'x2'	41'	10.94	1606	43	New
Totals				112.56	15477	274	

PIPE CULVERTS (C-230 Hdwe) RELAID

Station	Std	Size	length	cl. B Conc	Steel	Excav.
224+78	C-230	18"	42.	.97	74	14
Total R.C. Box CULVERTS				112.56	15477	274
Total				113.53	15551	288

LIP DEDUCTION

To be Built	=	31160
Built	=	30360
Lip omitted	=	755.8
		555.8

RELAID PIPE CULVERTS

Station	Side	Lin. Ft.	exc.	fill
216+09	Rt.	18'	17	7
225+58	Rt.	18'	0	13
279+55	Lt.	18'	0	7
293+88	Rt.	18'	0	4
302+76	Rt.	18'	0	4
309+51	Lt.	18'	0	19
323+45	Rt.	18'	0	31
400+11	Rt.	18'	0	12
Totals		144'	17	

CROWN ENTRANCES

Station	Side	exc.	fill
220+93	Lt.	0	0
239+90	Rt.	0	8
241+00	Lt.	0	3
250+00	Lt.	0	7
261+30	Rt.	0	5
279+95	Rt.	0	16
292+85	Lt.	0	3
296+00	Lt.	0	35
299+75	Lt.	0	13
319+00	Lt.	0	16
323+95	Lt.	0	29
336+35	Lt.	0	4
360+69	Lt.	0	56
369+18	Rt.	0	30
386+93	Lt.	0	18
422+85	Lt.	0	69
Total		0	

R/W MARKERS 76

PIPE CULVERTS (F.E. NEW)

Station	Side	15"	18"	exc.
302+35	Lt.	18'		0
389+52	Rt.	20'		0
389+90	Lt.	20'		0
Total		58'		0

SIDE ROAD

Station	Side	exc.	fill
219+00	Lt.	0	0
343+00	Lt.	0	26
343+00	Rt.	0	76
Totals		0	

OUTLET DITCH

Station	Side	exc.
382+54	Lt.	14
390+23	Lt.	114
Total		128

JETTING FILLS

Station	Station	Cu. Yds.
245+93	247+55	976
284+96 Sta. Bk.	Ex. Joint	6
285+16 " "	" "	6
290+37	290+75	149
376+53	376+93	256
Total		1388

LENGTH OF PROJECT

Begining of Project		Sta.	213+50
End of Project		Sta.	433+35
Net length of Project	=	21985.0	Lin. Ft.
	=	4.164	Miles

P.C. CONCRETE PAVEMENT

Measured length of Project			=	21994.8
Exceptions	Br.	Sta. 284+96	=	- 87.4
	Br.	Sta. 409+87	=	- 31.2
Net length of Surfacing			=	21876.2
21876.2 X 2.22222			=	48613.73 Sq. Yds.

SURFACE DRAIN BASINS & SURFACE DRAINS

Station	Station	No. Basins 6 ft.	No. Basins 8 ft.	Surface Drains Lin. Ft. Rt.	Surface Drains Lin. Ft. Lt.
224+90	225+10		2	10'	6'
234+15	234+35		2	6'	6'
241+77	241+97		2	7.5'	6'
248+08	248+28		2	7.5'	7.5'
252+06	252+26		1	6.5'	
260+88	261+08		2	6.0'	14.5'
274+62	274+82		1	7.5'	
276+18	276+38		1		7.0'
290+56	290+76		1		14.5'
294+77	294+97	1		6.0'	
295+20	295+40	1			6.5'
303+05	303+25		2	9.0'	12.0'
305+15	305+35		1		7.0'
305+16	305+36		1	7.5'	
319+87	315+07		1	7.5'	
322+75	322+95		1	8.5'	
323+72	323+92		1		15.0'
333+84	334+04		2	17.5'	20.0'
337+65	337+85	2		6.0'	6.5'
343+70	343+90	1		8.5'	
346+20	346+40	1		6.5'	
355+02	355+22		1		22.0'
369+74	369+94	2		13.0'	18.0'
411+89	412+09		1		18.5'
416+80	417+00	1		7.0'	
425+04	425+24	1			7.0'
430+04	430+24	2		7.0'	14.0'
433+26	433+46	1			12.5'
Totals		13	25	155.0'	229.5'
				384.5'	

BARRICADES

Station	Location	No.
217+00	Lt. E.N. Side Road	1
343+50	Rt.	1
Total		2

RELOCATED BARRICDES

Station	Location	No.
213+00	Rt.	1
278+00	Rt.	1
291+00	Rt.	1
Total		3

SUMMARY

ITEM	DESCRIPTION	UNIT	NO. UNITS
2-a	Clearing & Grubbing	Sta.	26
2	Excavation	Cu. Yd.	20875
2-f	Borrow Excavation	Sta. Yd.	25307
2-i	Jetting Fills	Cu. Yd.	1388
6-a	P.C. Concrete Pavement	Sq. Yd.	48613.73
18-a	Barricades	each	2
18-c	Relocated Barricades	each	3
20	15" Pipe Culverts	Lin. Ft.	58
20-f	Relaid Pipe Culverts	Lin. Ft.	186
23-a	Right-of-Way Markers	each	76
24-c	Stone in Ditch Checks	Cu. Yd.	37
59-b	Class "B" Concrete Masonry	Cu. Yd.	113.53
60-a	Rein. for Concrete Structures	lbs.	15551
22-h	6 ft. Surface Drain Basins	each	13
22-h	8 ft. Surface Drain Basins	each	25
22-i	Surface Drains	Lin. Ft.	384.5
2-g	Pick up Brick	Cu. Yd.	660.5
	Lip Omitted	Lin. Ft.	755.8 555.8
2-h	Overhaul	Sta. Yd.	20392
	4" Surface on Bridge @ Sta. 409+86	Sq. Yd.	70
	Joints at Bridge @ Sta. 409+86	each	2
	Cut paving holes on above bridge	lump Sum	73.97
D-7	Extra labor on rock fills	lump Sum	57.60

Bridge Sta. 284+96

Raising Present 80' Truss

			Gravity	Abuts.
49-a	Excavation for Bridge	Cu. Yd.		68.1
59-c	Class "C" Concrete Masonry	Cu. Yd.		356
60-a	Rein. for Concrete Structure	lbs.		1350
61-b	Fabricated Structural Steel	lbs.		320
61-c	Steel Castings	lbs.		1370
90-d	Special Work	Lump Sum		325.00

387

RIGHT-OF-WAY MARKERS

P.O.T. Sta. 206+34 Rt. 18" Stump, 12" Stump, 42" Oak

Sta. 221+00 Rt. 12" Black Jack, 12" Post, 5" Post, 5" Post

N.W.¼-N.E.¼ Sec. 32 T.35N-R.15W.

OZARK IMPROVEMENT CO

S.E.¼-S.E.¼ Sec. 27 T.35N-R.15W.

Sta. 209+73 C.232-Cl.3 Alt. Conc. Cont. Pipe Use to Place & Extend 62' Blt. with Sta. 5282

E/W Line

N 22° 17' E

Sta. 206+09 19" RCP-C.12 Tile

Sta. 220+00 Δ = 17° 31' Rt. D = 3° 00' R = 1910.1 T = 192.6 L = 383.9 M.O. = 8.19

Sta. 228+73 48" Conc. Pipe 61 Hdwls. 24" Long Tile 2 Hdwls. Total 63 Relay C.237 63 Hdwls.

N 33° 48' E

S.W.¼-N.E.¼ Sec. 32 T.35N-R.15W.

J. WILEY and EDITH ATKINS

End Rt 66 F.A.P. 89 C Length 4.045 Mi.

10' Rd. Std. Length 4.104 Mi.

Sta. 213+50

Start Rt 66 F.A.P. 89 C 2 Stone Ditch Checks in

J. WILEY and EDITH ATKINS

N.E.¼-N.E.¼ Sec. 32 T.35N-R.15W.

Station	12"	18"	24"	Side	Exc. Incl. in Bal	Remarks
209+73	Sch. 40 PVC Pipe					
210+23	Sch. 40 PVC Pipe					
213+50	Sch. 40 PVC Pipe					

SIDE DRAIN PIPE

Station	12"	18"	24"	Side	Exc. Incl. in Bal	Remarks
210+23	Sch. 40 PVC Pipe					

CONCRETE BOX CULVERTS

Station	Skd	Size	Length	Wing	Exc. Incl. in Bal	Remarks
221+00	See Note Above	8'-0" x 6'-0"	60'	4-45°	8 C.Y. Exc. Rock	

CULVERT PIPE

221+00	230+00	9				

SURFACE DRAIN AND SURFACE DRAIN BOXES

STATION			
221+00	L	5	5
225+00	L	4	4
228+00	L	4	4
230+00	L	4	4
TOTAL	L	17	17

END 32' R.O.W.

B.M. #1 in Root of 16" Bl. Jack 72' L. Sta. 213+10, Elev. 1025.61

BEGIN 36' R.O.W.

B.M. #1 in Root of 16" Bl. Oak 120' Lt. Sta. 227+56, Elev. 1033.30

Ecc. Sta. 214+88 Rt. Ecc. Sta. 215+88 Lt.

Sta. 228+73 Ecc. Sta. 229+73 Rt. Ecc. Sta. 227+73 Lt.

Ecc. Sta. 230+00 Rt. Ecc. Sta. 231+00 Lt.

Sta. 215+50 to Sta. 225+50 Drain Ditch Sta. 220+00 to Sta. 228+00 Drain Ditch

Sta. 230+00 to Sta. 231+00 Drain Ditch

575' V.C.

300' V.C.

700' V.C.

300' V.C.

300' V.C.

1040

1030

1020

383

RECEIVED DEC 1 1930 HIGHWAY DEPT.

RIGHT-OF-WAY MARKERS

-ROT-
Sta. 235+36±

1 Black Jack
12" Oak

12 Oak

2 Black Jack

SE¼-SE¼
Sec. 27
T. 35N-R. 15W.

OZARK IMPROVEMENT CO.

Sta. 239+20±
150 Lin. Ft. 6 Wire
5 Barb - Tie Fence
Westerly Right of Way

235 240 245 250 255 260 265

E/W LINE

N 23°48' E

E/W Line

Barrow Pit Easement

N 50° 03' E

Sta. 259+35
Block Ditch Rt.

Chained to Ends 35

SW¼-SW¼
Sec. 28
T. 35N-R. 15W.

J. WILEY and EDITH ATKINS

Fence to Stay with Owner
on Right

Fence to be Removed
on Left

Rt. = Sta. 252+20.2
Δ = 16°-15' Rt.
D = 4°-00'
R = 1432.7
T = 200.3
L = 396.9
E = 13.9

RC = Sta. 254+03.2

PT = Sta. 258+00.0

Farm Entrance

Sta.	Side	Ext.	Std.
239+00	Rt.	5'	Field

Fence to Stay with Owner
on Right

Station	Std.	Size	Light	Lt. Out	Ext. Out	Ext. Rt. or Lt.	Remarks
239+62	Concrete Box Culvert					Ext. 32' Rt. & Lt.	

Farm Entrance

Sta.	Side	Ext.	Std.
252+00	Rt.	0	Field
254+00	Rt.	0	Field
256+00	Rt.	0	Field

Sta. 259+00 to Sta. 262+00 Fence Removed

Fence to be Removed

Fence to Stay with Owner

Fence to be Removed

Fence to Stay with Owner

Fence to be Removed

Fence to Stay with Owner

RIGHT-OF-WAY MARKERS

8 Laclede 1966

GEO. W. & ONFILT HAYS

J. WILEY and EDITH ATKINS

SE¼-NW¼ Sec. 28 T.35N.-R.15W.

SW¼-NE¼ Sec. 28 T.35N.-R.15W.

NE¼-SW¼ Sec. 28 T.35N.-R.15W.

SE¼-NE¼ Sec. 33 T.35N.-R.15W.

N 56° 03' E

N 44° 19' E

BEAR CREEK

E&W Line

Barrow Pit Easement

Modern bridge in place

House

Bridge in place 30° Skew on abon. 40° Skew.

Raise Present Bridge to El. 678.5 (Approx 14 feet)

See Br. Dept. Drwg. # S-2481R

Build 90 Lin Ft. of Cobblestone Gutter at Ends

Pl Sta 279+30

Δ 5°-44 Lt

D 1°-0

R 5729.6

T 286.9

L 573.3

S.E. 0.073 ft

Pl Sta 290+94.2

Δ 9°-38 Lt

D 2°-0

R 2864.9

T 241.2

L 477.2

S.E. 0.46 ft

Pl Sta 273+30

Pl Sta 290+94.2

End of Bridge Sta 288+68.8

End of Bridge Sta 293+46.8

Beg. Br. Sta 288+68.8

Beg. Br. Sta 293+46.8

Beg. Br. Sta 293+46.8

Beg. Br. Sta 288+68.8

265'

270'

275'

280'

290'

300'

100'

FARM CROSSING PIPES

Station	15"	18"	24"	Side	Elev. Inv. to Bed	Remarks
274+05	1			Rt	2.5'	
274+82	1			Rt	2.5'	
283+95	1			Rt	2.5'	
289+82	1			Rt	2.5'	

CONCRETE BOX CULVERTS

Station	Std.	Size	Length	Degree	Fee Inv.	Elev. Inv.	Remarks
270+69			19 Lft.				

SURFACE DRAINAGE

STATION			
276+45	Lt	6	
277+00	Lt	8	
280+22	Lt	6	
282+84	Lt	6	
	Rt	4	

Drive Around Inn Sta 277+00 Rt 32 Radius 21' Width 16'

Drive Around Inn Sta 280+22 Rt 32 Radius 21' Width 16'

Drive Around Inn Sta 282+84 Rt 32 Radius 21' Width 16'

Drive Around Inn Sta 277+00 Rt 32 Radius 21' Width 16'

Drive Around Inn Sta 280+22 Rt 32 Radius 21' Width 16'

Drive Around Inn Sta 282+84 Rt 32 Radius 21' Width 16'

Curve 38 Rt 22.0 Rt 0 Sta 263+00 to Sta 268+60

RIGHT-OF-WAY MARKERS

POT. Sta. 299+71.8 — 6" Locust, 9" Locust, 2" Locust, 8" Twin Elm

POST Sta. 310+31.2 — 9" Oak, 5" Haw

P.I. Sta. 315+83.5 — 6" Hickory, 4" Walnut, 5" Walnut

Sta. 320+51 — 8" Ash, 10" Twin 5" Oak, 8" Ash

"G.F.O.W. and NELL M. HAYS"

BEAR CREEK WASH

N34°44E

Sta. 303+89 CM 123 Conc. Culvt. 3'x2'x14' 4' Headwalls in Place

F. Entr. on Dr. 18" Cor. I. Pipe 100' Lg.

Bor. & P.I.

Old Wire Road

Hen House

Barn

F. Entr. on Dr. 15" Cor. I. Pipe 18' Lg.

CHAS. T. STEPHENS

NE¼-NE¼ Sec. 28 T.35N.-R.15W.

S.E.¼-S.E.¼ Sec. 21 T.35N.-R.15W.

Borrow P.I. Easement

R/W Line

Sta. 313+75 +/- BM 22 — 2'x13'x40' Conc. Culvt. 3' Headwall in Place. Use in Place + Extend 23'-4" with 24" CMP

PC-Sta. 309+07

P.I. = Sta. 315+83.5
Δ = 26° 34' 21"
D = 2°-0'
R = 2864.9
T = 676.4
L = 1328.3
SE = 0.146 ft.

CHAS. STEPHENS

S.W.¼-S.W.¼ Sec. 22 T.35N.-R.15W.

F. Entr. on Dr. 15" Cor. I. Pipe 18' Lg.

PT-Sta. 322+83.2

Sta. 324+81 Steel Rail 16' 8'x8'x47' Conc. Cattle Pass In Place No. Floor. Use in Place & Ext. 8' Ea. End with 24" CMP

CLYDE F. and LAONNA FULBRIGHT

BEGIN 32' R'DW'Y

END 32' R'DW'Y

BEGIN 36' R'DW'Y

END 36' R'DW'Y

B.M. - N&W in Root 18" Piv. 70' Rt. Sta. 304+52 Elev. 881.85

B.M. - N&W in 29" Bl. Oak 70' Rt. Sta. 319+90 Elev. 870.15

B.F. Elev. to be Set at Inlet from Inlet to Inlet Elevations Shown on Profile

B.F. O.H. 2550

1½:1 Back Slope

Ditch Profile Grade

Ditch Profile Grade

Ditch Profile Grade

RIGHT-OF-WAY MARKERS

P.I. Sta. 328+38.0

P.I.-328+38°
Δ-12°-59' Lt
D-3°-0'
R-1910.1
T-217.3
L-432.8
S.E.-0219 p.f.

S.W.¼-S.W.¼ Sec. 22 T.35N.-R.15W.

CLYDE C. & ALVINA FULBRIGHT

BEAD CREEK

C/L of Road

C/W Line

Sta. 324+81.2 8'x8' Conc. Culv. (30° Skew) No Floor

Barrow Pit Excavation

Sta. 331+35.5

Sta. 333+11.5 2-5'x5' Conc. Culvert R-1882 in place. Use in Place & Extend 18' Lt. with Std. C-2.2

Double 24' Farm Entrance

S.E.¼-S.W.¼ Sec. 22 T.35N.-R.15W.

HENRY A. JONES

N.E.¼-S.W.¼ Sec. 22 T.35N.-R.15W.

P.I. Sta. 348+46.0

Steel Truss 13' Plank Roadway 50' Lg. 48' Overflow Bridge Add.

BEAD CREEK

Sta. 342+15 3'x4'9" Conc. Culvert R-2222 in place. Use in Place & Extend 11' Lt. with Std. C-2.2

P.I.-342+46.2
Δ-29°-19' Lt
D-5°-0'
R-1146.3
T-299.8
L-586.3
S.E.-0335 p.f.

Sta. 345+28.5 2-5'x5' Conc. Culvert R-2222 in place. Use in Place & Extend 11' Lt. with Std. C-2.2

Sta. 343+80 Back of Pitch Pt.

P.I. 345+30

HENRY A. JONES

N.W.¼-S.E.¼ Sec. 22 T.35N.-R.15W.

8" Bl. Oak

6" Bl. Oak

ROUTE Laclede 4-(2)

Sta. 350+30.9

N. Rocky Ft. Rd.

Hickory

Station	Rt.	To	Lt.	Side	Exc. Incl. in Bal.	Remarks
343+00						
343+00						

CONCRETE BOX CULVERTS

Station	Std.	Size	L'gth	D-Area	Exc. Incl. in Bal.	Remarks
				10'-H.		
				10'-H.		
				10'-H.		

SURFACE DRAINS AND SUBSURFACE DRAIN BASINS

STATION	NO.	GR. F.	
		FT.	LT.
334+11.5	2	16	11
339+50	2	6	6
344+00	1	6	
346+32	1		4
Totals	6	40	

Begin 32' R/W 20' Rt. & Lt. of ℄ Sta. 329+50 Elev. 862.00

Begin 32' R/W 20' Rt. & Lt. of ℄ Sta. 350+00 Elev. 864.22

Culvert 2 Sta. 337+00

Culvert 3 Sta. 343+00

Culvert 4 Sta. 346+00

Culvert 5 Sta. 348+00

Culvert 6 Sta. 349+00

Culvert 7 Sta. 350+00

Borrow CE to be secured from Pits on Property Sta. 334+00 and on Lt. opposite Sta. 339+00.

Sta. 334+00 to Sta. 339+00 Lt. Fill 4 C.Y.

Sta. 339+00 to Sta. 343+00 Rt. Fill 1000 C.Y. Lt. Fill 1000 C.Y.

Sta. 343+00 to Sta. 350+00 Rt. Fill 1000 C.Y. Lt. Fill 1000 C.Y.

Bit.-New Pavt. 16' Wide 40 lbs. per sq. yd. Elev. 864.22

Sta. 350+00 to Sta. 350+30.9 Lt. Fill 1000 C.Y.

Sta. 350+30.9 to Sta. 350+50 Lt. Fill 1000 C.Y.

Sta. 350+50 to Sta. 351+00 Lt. Fill 1000 C.Y.

Sta. 351+00 to Sta. 351+50 Lt. Fill 1000 C.Y.

Sta. 351+50 to Sta. 352+00 Lt. Fill 1000 C.Y.

Sta. 352+00 to Sta. 352+50 Lt. Fill 1000 C.Y.

Sta. 352+50 to Sta. 353+00 Lt. Fill 1000 C.Y.

Sta. 353+00 to Sta.

RIGHT-OF-WAY MARKERS

FED. ROAD DIST. NO.	STATE	FED. AID PROJECT NO.	ROUTE	SEC.	TOTAL SHEETS
	MO		139-A	5	
INV. NO.	COUNTY				
	St Louis				

St Louis 1966

P.I. Sta 365+76.2
Δ = 15° 44.1'
D = 5° 00'
R = 1,146.3
T = 158.7
L = 314.7
S.E. = 0.365 ft.

P.I. Sta 363+21.2

P.I. Sta 358+76.2

P.I. Sta 353+72.2

355 360 365 370 375

Boeggow Pit Easement

CREEK

BEGR

N 61° 54' E

N 61° 51' E

C.W. Line

C.W. Line

Sta 368+39
Ditch Line Rt
Ditch Elev. 1147.7
Culvert Elev. 1142.7
Flow Line Elev. 1141.7

Sta 382+54 P.I. Line
Sta 383+36 Ditch Line
45° Rt. to Line
Ditch Elev. 1147.7
Culvert Elev. 1142.7
Flow Line Elev. 1141.7

Sta 368+39
5'x 3'x 60' Conc. Culvt.
Flow Line Elev. 1130.0
Flow Line Area 30° Skew
Extend 10 Lt. on Rt.
C-242

P.I. Sta 363+82.2
Δ = 4° 51.2'
D = 1° 00'
R = 5729.6
T = 247.7
L = 494.0
S.E. = 0.073 ft.

P.O.T. Sta 359+09.2

Sta 376+83
Block ditch Rt

Sta 376+76
5'x 3'x 83' Conc. Culvt.
Flow Line Elev. 1130.0
Flow Line Area 45° Skew
Extend 17.2' on 45° Skew to pres. C.W.L.
11 Lt. on present skew
With C 233

P.I. Sta 383+82
Δ = 28° 39.2'
D = 3° 00'
R = 1910.1'
T = 312.6
L = 697.2
S.E. = 0.319 ft.

N.W. 1/4 - S.E. 1/4
Sec. 22
T. 35 N. - R. 15 W.

N.E. 1/4 - S.E. 1/4
Sec. 22
T. 35 N. - R. 15 W.

N.W. 1/4 - S.W. 1/4
Sec. 23
T. 35 N. - R. 15 W.

S.W. 1/4 - N.W. 1/4
Sec. 23
T. 35 N. - R. 15 W.

HENRY A. JONES

PAVING BRICK CONTRACT NO. 1 SHEET NO. 5 OF 5 SHEETS ST. LOUIS PAVING CO.

PLAN

PROFILE

ROADWAY CROSS SECTIONS

ROADWAY ENTRANCE PIPES

Station	15"	18"	24"	Side	Exc. Incl. in Bal.	Remarks
360+40 Rt	40 ft Pipe				1,600 C.Y.	
366+67 Rt	40 ft Pipe				Incl. in Exc.	

CONCRETE BOX CULVERTS

Station	Sz'd	Size	L'gth	D. Area	Exc. Incl. in Bal.	Remarks
359+35	(See Note Above)			10-H.		
363+82	(See Note Above)			60-H.		
368+39	(See Note Above)			40-H.		

SURFACE DRAINAGE AND SUBSOIL DRAIN BASINS

STATION	NO.	LOCATION	
355+00 Rt	1	20	
366+50 Lt	2	9	3

32' R.O.W.

B.M. - N. E. W. to Root of 31" Oak
51.6' Lt. Sta 360+05
Elev. 1153.12

B.M. - N. E. W. to Root of 24" Walnut
95' Rt. Sta 373+15
Elev. 1127.63

Pipe to be Secured from Rt. Sta 370+00 to Sta 381+00

Pipe to be Secured from Rt. Sta 360+00 to Sta 363+00

Curve Data
P.I. Sta 363+21.2
Δ = 28° 39.2'
D = 3° 00'
R = 1910.1'
T = 312.6
L = 697.2
S.E. = 0.319 ft.

Curve Data
P.I. Sta 358+76.2
Δ = 15° 44.1'
D = 5° 00'
R = 1,146.3
T = 158.7
L = 314.7
S.E. = 0.365 ft.

Curve Data
P.I. Sta 353+72.2

Curve Data
P.I. Sta 363+82.2
Δ = 4° 51.2'
D = 1° 00'
R = 5729.6
T = 247.7
L = 494.0
S.E. = 0.073 ft.

Curve Data
P.I. Sta 368+39
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 376+83
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 382+54
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 383+36
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 359+09.2
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 366+67
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 373+15
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 379+63
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 385+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 389+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 393+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 396+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 400+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 403+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 407+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 410+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 414+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 417+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 421+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 424+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 428+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 431+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 435+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 438+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 442+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 445+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 449+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 452+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 456+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 459+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 463+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 466+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 470+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 473+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 477+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 480+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 484+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 487+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 491+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 494+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 498+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 501+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 505+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 508+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 512+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 515+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 519+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 522+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 526+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 529+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 533+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 536+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 540+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 543+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 547+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 550+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 554+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 557+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 561+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 564+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 568+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 571+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 575+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 578+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 582+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 585+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 589+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 592+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 596+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 599+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 603+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 606+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 610+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 613+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 617+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 620+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 624+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 627+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 631+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 634+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 638+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 641+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 645+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 648+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 652+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 655+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 659+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 662+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 666+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 669+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 673+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 676+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 680+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 683+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 687+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 690+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 694+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 697+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 701+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 704+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 708+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 711+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 715+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 718+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 722+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 725+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 729+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 732+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 736+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 739+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 743+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 746+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 750+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 753+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 757+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 760+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 764+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 767+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 771+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 774+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 778+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 781+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 785+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 788+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 792+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 795+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 799+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 802+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 806+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 809+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 813+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 816+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 820+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 823+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 827+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 830+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 834+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 837+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 841+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 844+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 848+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 851+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 855+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 858+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 862+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 865+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 869+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 872+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 876+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 879+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 883+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 886+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 890+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 893+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 897+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 900+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 904+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 907+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 911+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 914+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 918+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 921+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 925+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 928+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 932+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 935+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 939+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 942+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 946+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 949+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 953+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 956+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 960+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 963+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 967+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 970+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 974+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 977+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 981+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 984+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 988+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 991+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 995+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 998+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 1002+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 1005+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 1009+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 1012+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 1016+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 1019+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 1023+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 1026+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 1030+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 1033+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 1037+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 1040+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 1044+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 1047+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 1051+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 1054+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 1058+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 1061+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 1065+12
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

Curve Data
P.I. Sta 1068+62
Δ = 90°
D = 57° 18'
R = 100'
T = 100'
L = 157.1'
S.E. = 0.106 ft.

RIGHT-OF-WAY MARKERS

SW¼-NW¼ Sec. 23 T. 35N-12.15W.

HENRY A. JONES

NANCY EVANS

SE¼-NW¼ Sec. 23 T. 35N-12.15W.

SW¼-NE¼ Sec. 23 T. 35N-12.15W.

HENRY A. JONES

NW¼-SE¼ Sec. 23 T. 35N-12.15W.

HENRY A. JONES

Sta. 390+83 Const. Eng. Hub on Cl of Dike 100 Lt. of ℄

Sta. 390+83 Culvert Cl. Cut Line in Place Reference Sta. 390+83 ℄

Sta. 394+80 Road Ditch ℄

℄ Dike Sta. 395+46.5

E.W. Line

E.W. Line

Sta. 401+11 Const. Eng. Hub on ℄

Sta. 403+08 Culvert Cl. Cut Line in Place

Borrow Pit Encroach.

Sta. 413+03 Const. Eng. Hub on ℄

Sta. 413+03 Culvert Cl. Cut Line in Place

Old Borrow Pit

Borrow Pit Encroach.

P.I. Sta. 413+09.0

Δ - 3°09' Lt.
D - 3°00'
R - 1910.1
T - 52.96
L - 105.80
S.E. - 0.073 ft.

P.I. Sta. 403+09.0

Δ - 19°35'20"
D - 3°00'
R - 1910.1
T - 331.6
L - 657.2
S.E. - 5.79 ft.

B.M. Elev. 1000.00 Top of Nail in Root 25.0' Lt. of Sta. 403+82 Elev. 1016.23

B.M. Elev. 1000.00 Top of Nail in Root 25.0' Lt. of Sta. 413+03 Elev. 1016.23

RIGHT-OF-WAY MARKERS

P.I. Sta 413+39

P.O.T. Sta 419+22

P.I. Sta 422+10

P.I. Sta 436+15.9

B. Mackie, 1966

W. L. KIRKEY

S.E.¼ N.E.¼ Sec. 23 T. 35N.-2.15W.

N.C. and CARRIE GOUGE

S.W.¼ NW.¼ Sec. 24 T. 35N.-2.15W.

P.I.=Sta 423+09
Δ = 22° 08' Lt.
D = 5° 00'
R = 1146.3
T = 224.2
L = 442.7
SE = .0383 ft.

P.I.=Sta 413+93
Δ = 4° 09' Lt.
D = 1° 00'
R = 5729.6
T = 207.6
L = 415.0
SE = .0373 ft.

P.I.=Sta 434+58.9
Δ = 18° 17' Rt.
D = 5° 00'
R = 1910.1
T = 174.9
L = 348.8
SE = .0219 ft.

N 11° 46' E

S 78° 14' E

N.E.¼ S.E.¼ Sec. 23 T. 35N.-2.15W.

Boundary

Boundary P.T.

P.I. Line 1

P.I. Line 2

Sta 427+32 Classic Oxbow Rt.

Centerline of Proposed Relocation Highway 66 F.A.P. 66 Length 4.164 Miles

Centerline of Present Highway 66 F.A.P. 66 Length 4.076 Miles

S.E.¼ N.W.¼ Sec. 25 T. 35N.-2.15W.

HENRY A. JONES

FARM CLEARANCE AREAS

Station	L.	R.	2nd	Side	Exc. Incl in Bal	Remarks
422+00	N. Fence			Lt.	Fill 3rd Culv.	
435+00	Fence			Lt.	Fill 3rd Culv.	

CONCRETE BOX CULVERTS

Station	Sq'd	Size	Ex. S	D-Angle	Exc. Incl in Bal	Remarks
419+22	Oxbo	3-8	172	15°-Rt	Exc 3rd Culv	
441+65	See Note	Above	200	Rt	Exc 3rd Culv	

SURFACE DRAINAGE TABLE

Station	Direction	Length
419+00	Rt	
422+00	Lt	4
422+00	Rt	4
435+00	Lt	4
435+00	Rt	4
441+65	Lt	4
441+65	Rt	4

Exc. 1st Culv. Fill 2.0 Ft. Exc. 2nd Culv. Fill 2.0 Ft. Exc. 3rd Culv. Fill 2.0 Ft.

Exc. 4th Culv. Fill 2.0 Ft. Exc. 5th Culv. Fill 2.0 Ft. Exc. 6th Culv. Fill 2.0 Ft.

Exc. 130' Culvert 43 Fill 9.06 Fill 2.0

Sta 441+65 Culvert 44 Fill 2.0

See Other Sheet

Sta 419+22 Culvert 42 Fill 2.0

Sta 422+00 Culvert 43 Fill 2.0

Sta 435+00 Culvert 45 Fill 2.0

Sta 441+65 Culvert 46 Fill 2.0

52' R/W

340

415 420 425 430 435 440

830 820 810 800

A13 14 15 16 17 18 19 A20 1 2 3 4 A25 6 7 8 9 A30 1 2 3 4 A35 6 7 8 9 A40

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.	R14-536	1923	10	

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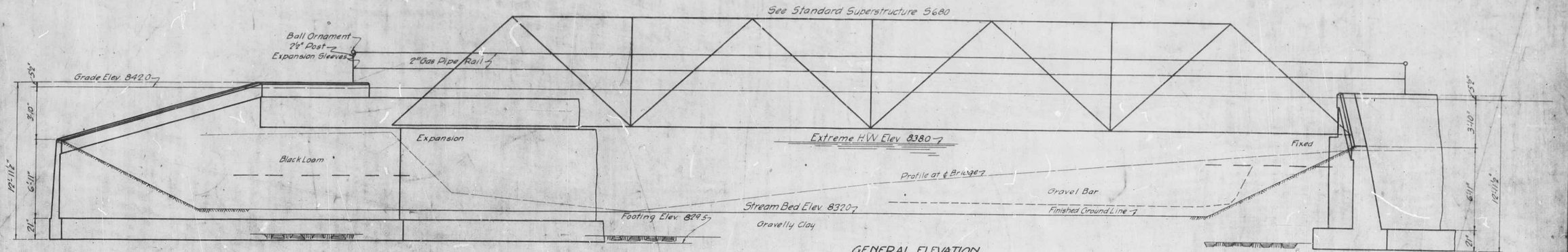
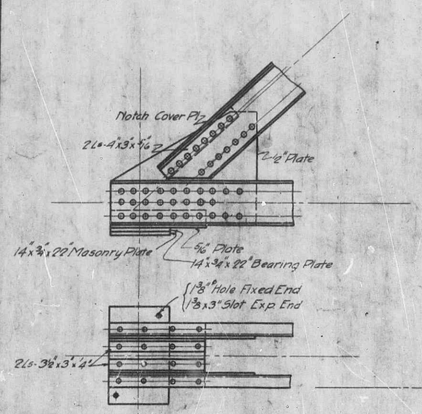


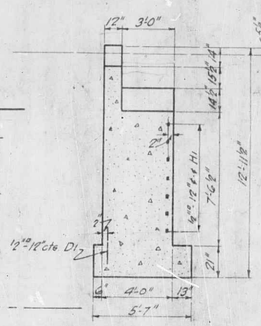
GENERAL ELEVATION



DETAIL OF END JOINT AT A.

PLAN.

CONNECTION AT END STRINGER-B.



SECTION THRU ABUT.

SECTION A-A THRU WING.

BILL OF BARS			
No	Size	Length	Mark
156	½"	21'-0"	D1
28	½"	11'-0"	H1

GENERAL NOTES:
All general notes on S5 apply to this bridge.
Concrete in abutments 1:3:5 mix.
Bevel exposed edges ¾" where no other bevel is shown.

ORIGINAL PLANS FOR REFERENCE ONLY

ESTIMATED QUANTITIES				
		Superstruc.	Substruc.	Total
Concrete 1:2:3 mix	Cu.yds.	422		422
Concrete 1:3:5 mix	Cu.yds.		225.2	225.2
Rein. Steel	Lbs.	8110	500	8610
Fab. Struc. Steel	Lbs.	61700		61700
Gas Pipe Rail	Lin.Ft.	366		366
Excavation	Cu.Yds.		350	350

DRAWN Jan. 1923 BY C.M.C.
CH'K'D Jan. 1923 BY R.L.T.

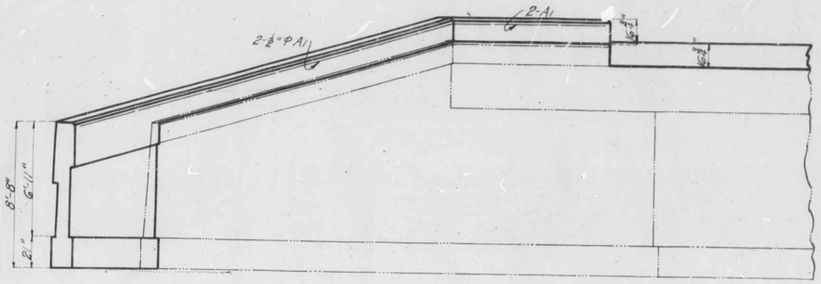
Sheet 1 of 2 Sheets

MISSOURI STATE HIGHWAY DEPARTMENT
BRIDGE OVER BEAR CREEK
STATE ROAD FROM ST LOUIS TO SPRINGFIELD
ABOUT 3 MILES FROM SLEEPER
PROJECT NO. R14 Sec. 36 STA. 563+60
LACLEDE COUNTY

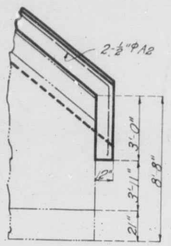
SUBMITTED BY Chester D. Mann STATE ENGINEER
APPROVED BY [illegible] CHIEF ENGINEER

MISSOURI STATE HIGHWAY DEPARTMENT

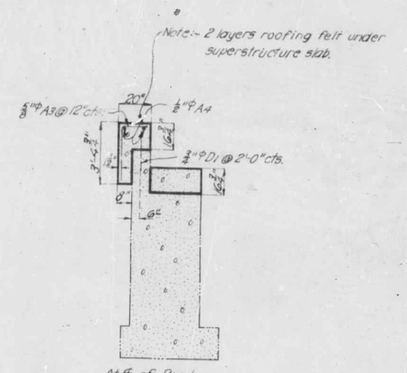
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.	139A (U.S.66)	19		



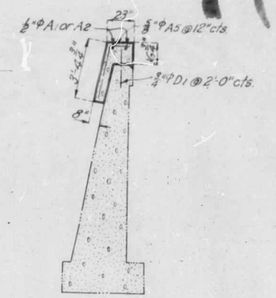
PART ELEVATION



DETAIL SHOWING OVERHANG AT END OF SHORT WING



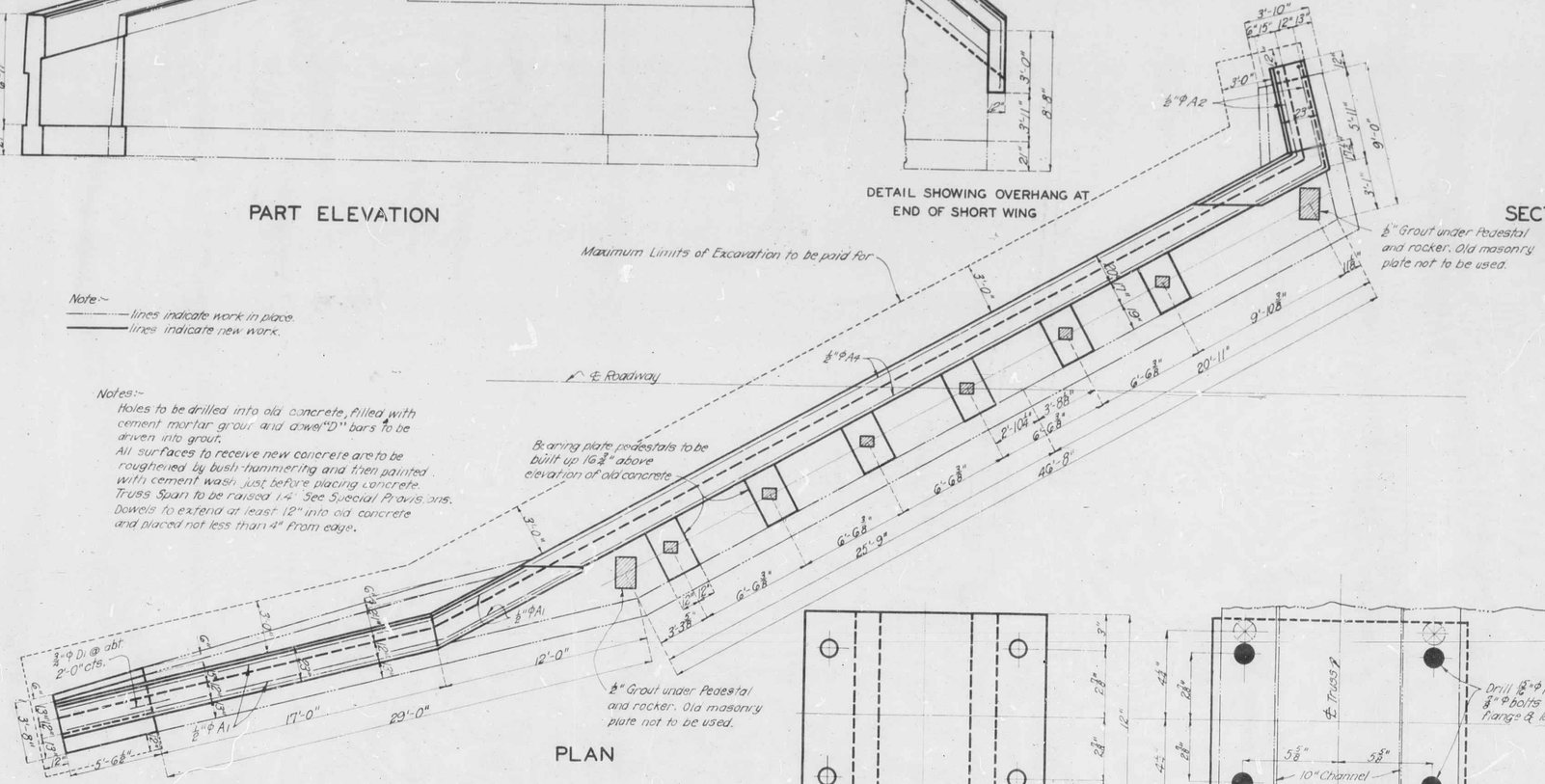
SECTION THRU ABUTMENT



SECTION THRU WING WALL

Note:-
——— lines indicate work in place.
——— lines indicate new work.

Notes:-
Holes to be drilled into old concrete, filled with cement mortar grout and dowel "D" bars to be driven into grout.
All surfaces to receive new concrete are to be roughened by bush-hammering and then painted with cement wash just before placing concrete.
Truss Span to be raised 1.4" See Special Provisions.
Dowels to extend at least 12" into old concrete and placed not less than 4" from edge.



PLAN

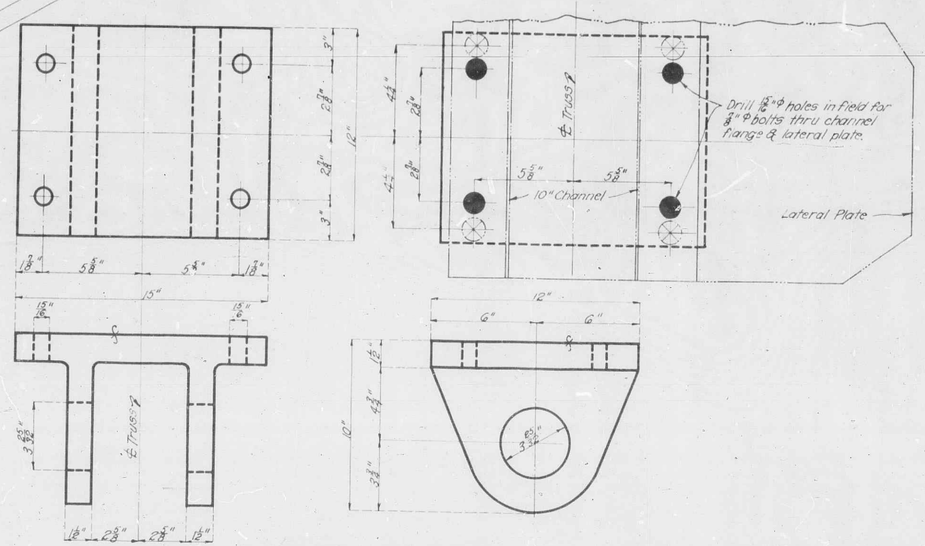
ESTIMATED QUANTITIES		
ITEM		TOTAL
Excavation	Cu. Yds.	70
Concrete 1:3:5 mix.	Cu. Yds.	35.6
Reinforcing Steel	Lbs.	1350
Cast Steel	Lbs.	1370
Structural Steel	Lbs.	520

GENERAL NOTES:-

All concrete to be 1:3:5 mix.
Exposed edges to be beveled ½".
Excavation in accordance with specification XLIX of Standard Specifications issued November 1, 1926 except that quantities paid for will be computed from within such limits as shown in Plan on this sheet and as noted in Special Provisions.

REINF. STEEL			
No.	Size	Length	Mark
4	½"φ	28'-6"	A1
4	½"φ	17'-0"	A2
90	⅝"φ	4'-6"	A3
8	½"φ	23'-3"	A4
80	⅝"φ	4'-9"	A5
94	¾"φ	2'-0"	D1

Bars to be bent as shown in field.



DETAIL OF UPPER CASTINGS
4-REQUIRED

B.M. Elev. 874.23 N.&W. in Root 8" Elm 36' Lt. Sta. 287+29.

BRIDGE OVER BEAR CREEK

STATE ROAD FROM LEBANON TO ROLLA
ABOUT 3 MILES SOUTHEAST OF SLEEPER
PROJECT NO. 139A (U.S.66) STA. 284+96.

LACLEDE COUNTY

SUBMITTED BY W. R. Sack DATE 8/4/30 BRIDGE ENGINEER
APPROVED BY T. H. Cutler DATE CHIEF ENGINEER

Drawn Feb. 1930 By H.B.A. & H.E.C.
Traced Feb. 1930 By H.E.C.
Checked Feb. 1930 By F.C.L.

Sheet No. 1 of 2

G-248R

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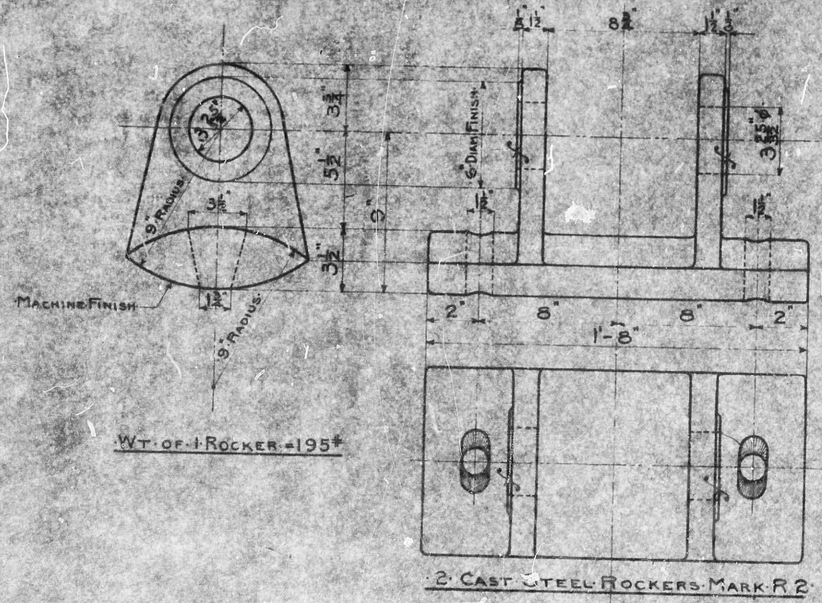
MISSOURI STATE HIGHWAY DEPARTMENT

Fed. Road Dist. No.	State	Federal Aid Project No.	Fiscal Year	Sheet No.	Total Sheets
5	Mo.	199A (U.S. 66)			

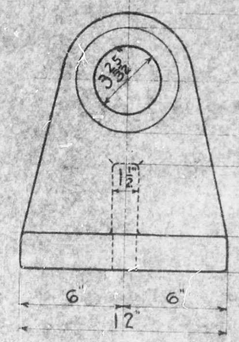
12

Revisions			
Date	By	No.	Description
4-27-1926	M.B.S.	1	Lateral & Rail Bolts Omitted
5-8-1926	M.B.S.	2	$ 6100 to $ 6008

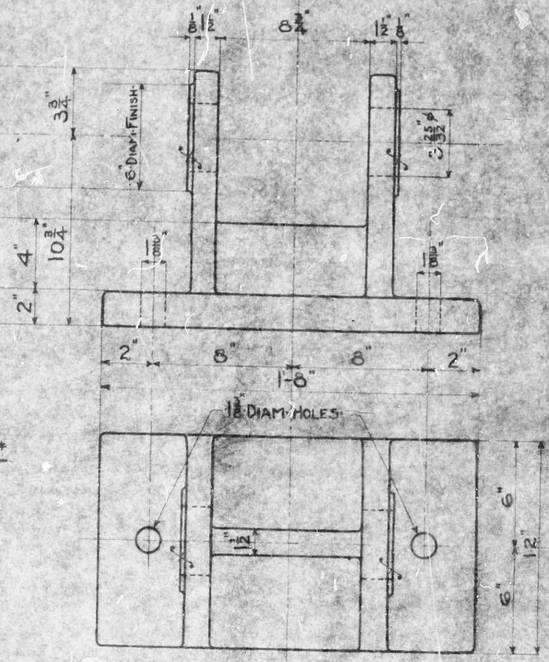


Wt. of 1 Rocker = 195#

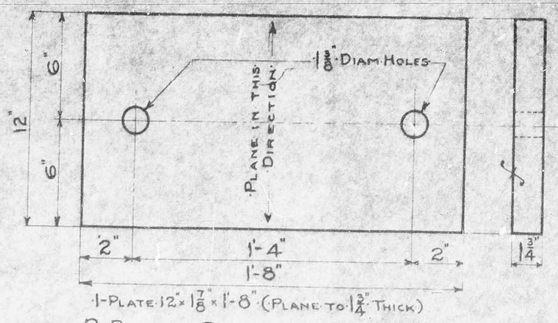
2 Cast Steel Rockers Mark R2



Wt. of 1 Pedestal = 235#



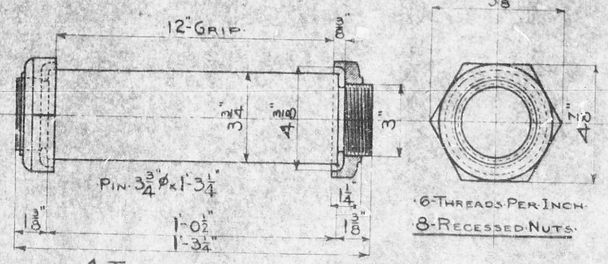
2 Cast Steel Pedestals Mark Pd2



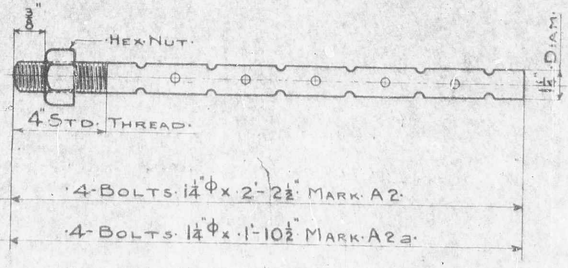
1-Plate 12" × 1⅞" × 1'-8" (Plane to 1¾" Thick)

2-Bearing Plates Cast or Rolled Steel Mark Bp2

(Estimated and Paid for as Structural Steel)



4 Turned Steel Pins Mark P2



For Expansion End: 4 Bolts 1¼"ϕ × 2'-2½" Mark A2

For Fixed End: 4 Bolts 1¼"ϕ × 1'-10½" Mark A2a

Swedge Anchor Bolts

Made Jan 1926 By M.B.S.
Traced April 1926 By M.B.S.
Checked April 1926 By [illegible]

Sheet No. 2 of 2

BRIDGE OVER BEAR CREEK

STATE ROAD FROM LEBANON TO ROLLA

ABOUT 3 MILES SOUTHEAST OF SLEEPER

PROJECT NO. 139 A (U.S. 66) STA. 264+96

LACLEDE COUNTY

Submitted by W. H. Beck, Bridge Engineer, Date 3/4/26

Approved by T. H. Cobbs, Chief Engineer, Date

G-246 R

3923

RD NO. 1 STEEL PLATES

Standards

TYP Sect Earthwork
P-3-A

Route 66
Sect Proj F139A
County Laclede

Sheet# 18

Surf. Curb + Gutter + APP

Drainage
C.242
C-243
C-244
C-235
C.338
Conc-Reinf Apports
Finish etc.

C.24
C.230

Bridges
[redacted]

Misc.

394