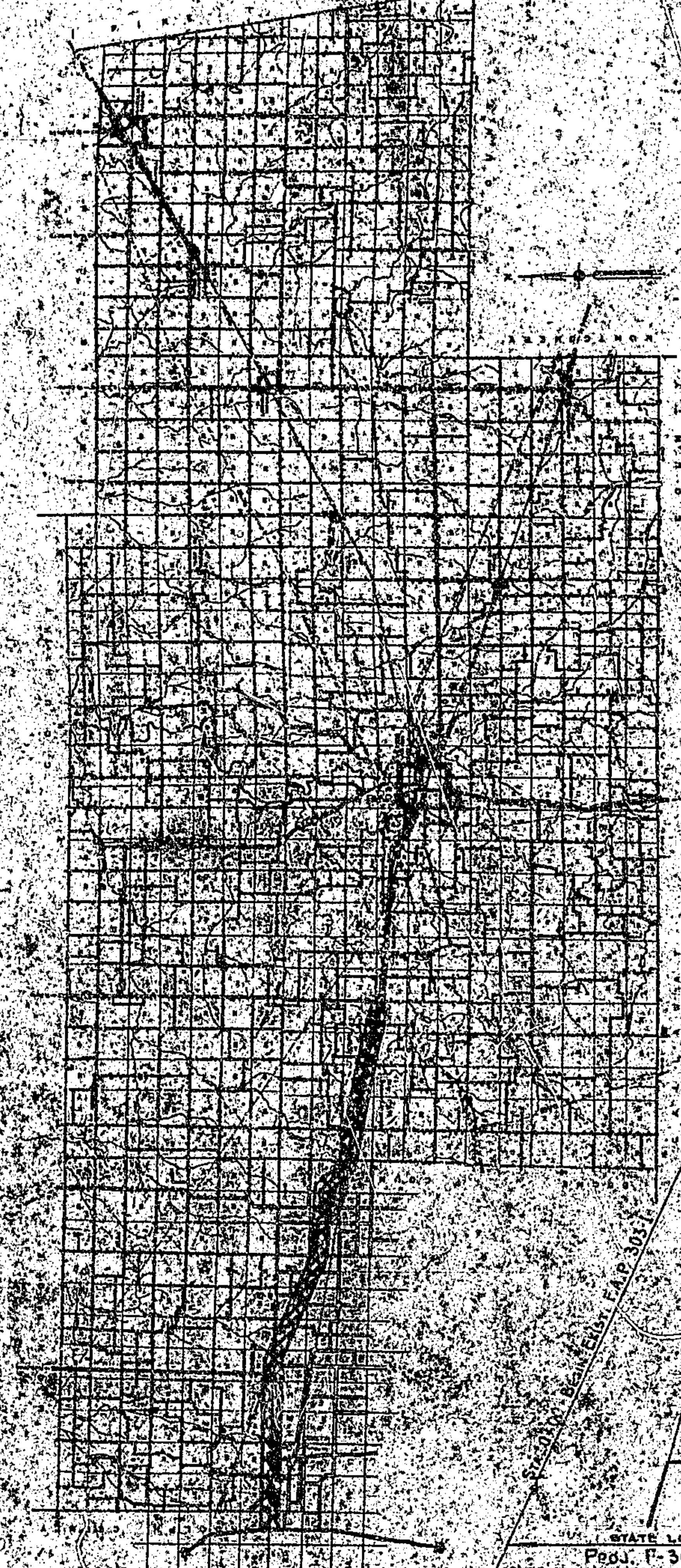
MISSOURI
STATE HIGHWAY COMMISSION
PLAN AND PROFILE OF PROPOSED STATE ROAD

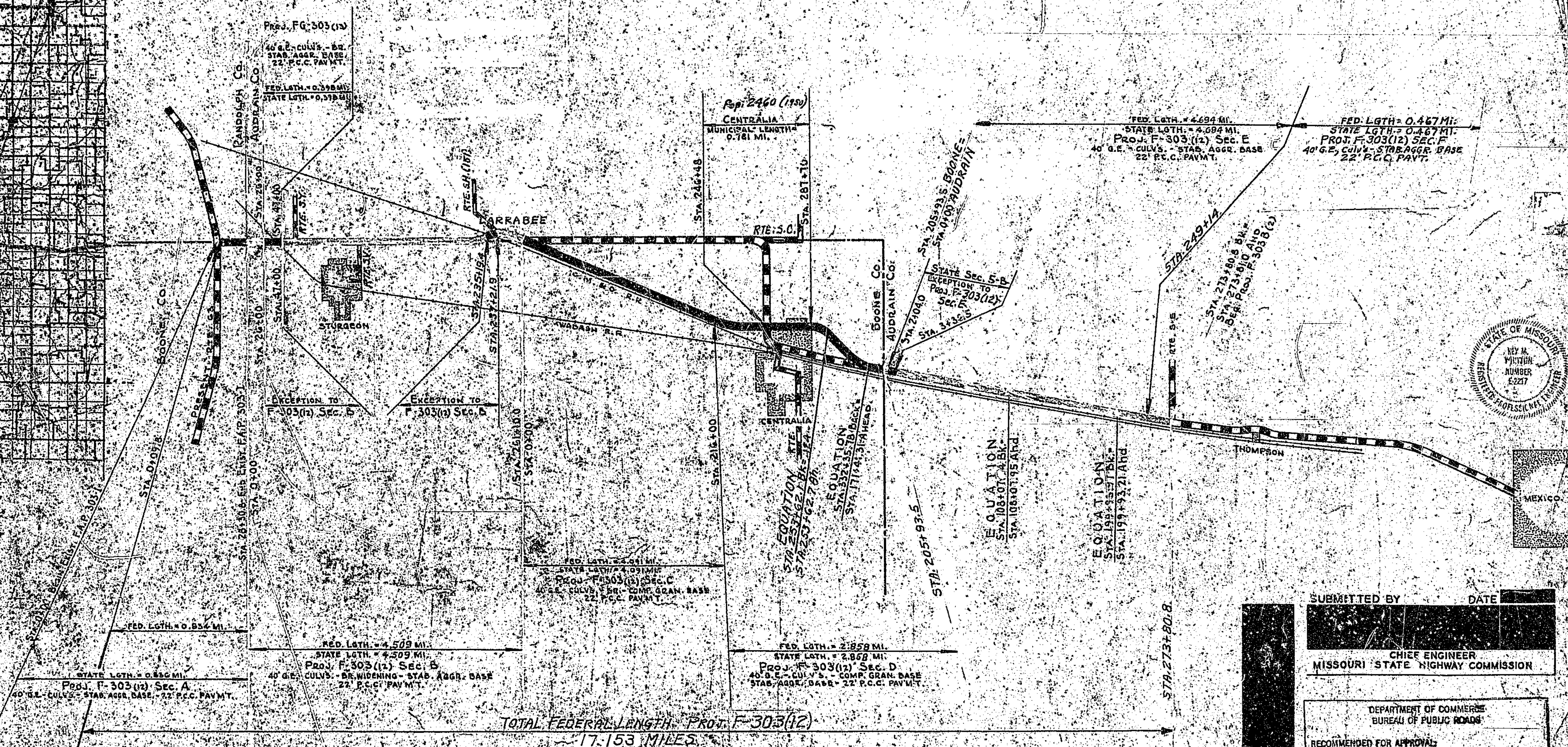
FEDERAL AID PROJECT

RANDOLPH COUNTY - AUDRAIN COUNTY - BOONE COUNTY.

COUNTY
RANDOLPH-AUDRAIN-BOONE
STATE ROUTE NO.
22
PROJECT NO.
F-303(12)
FG-303(13)

LOCATION MAP





362

CONVENTIONAL SIGNS

STATE AND NATIONAL LINE	LEVEE
COUNTY LINE	CULVERTS
CITY, VILLAGE OR BOROUGH	DROP INLET
TOWNSHIP LINE	TROLLEY POLE
SECTION LINE	POWER POLE
GRANT LINE	TELEPHONE OR TELEGRAPH POLE
FENCE LINE	MARSH
GUARD RAIL	HEDGE
UNFENCED PROPERTY	
RIGHT OF WAY LINE	GROUND ELEVATION
TRAVELED WAY	
RAILROADS	GRADE ELEVATION
RETAINING WALL	SURFACE LINE
BASE OR SURVEY LINE	GRADE LINE

STATE OF MISSOURI
[illegible] M. [illegible]
NUMBER E-2217
REGISTERED PROFESSIONAL ENGINEER

SUBMITTED BY [redacted] DATE [redacted]

CHIEF ENGINEER
MISSOURI STATE HIGHWAY COMMISSION

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

RECOMMENDED FOR APPROVAL:

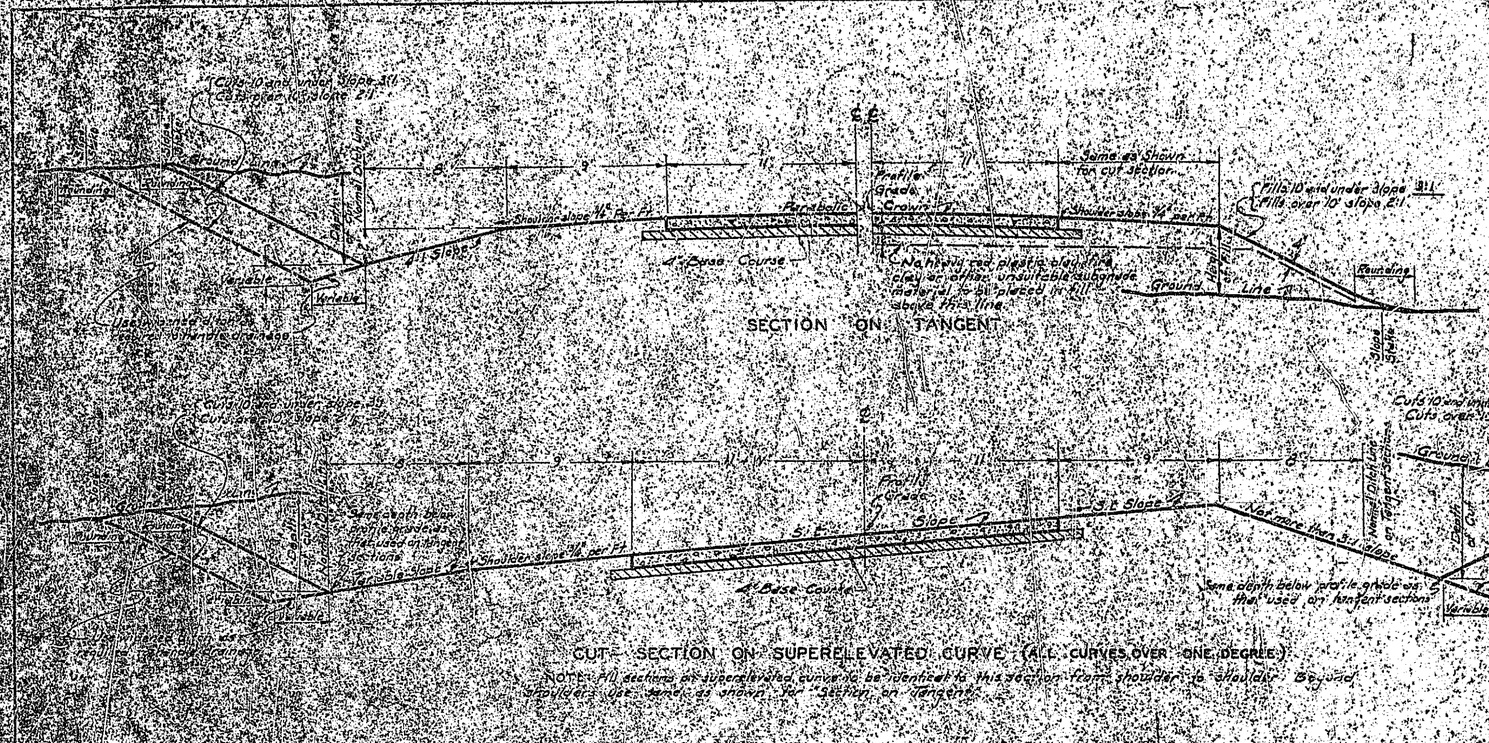
[redacted]

DISTRICT ENGINEER DATE

APPROVED:

[redacted]

DIVISION ENGINEER DATE



SECTION ON TANGENT

CUT SECTION ON SUPERELEVATED CURVE (ALL CURVES OVER ONE DEGREE)

NOTE: All sections on superelevated curves to be identical to this section from shoulder to shoulder. Beyond shoulders use hinge as shown for "Section on Tangent"

HALF SECTIONS IN CUTS ON TANGENTS

IN CLASS C OR LEDGE SANDSTONE

IN HEAVY RED PLASTIC CLAY, FIRE CLAY OR OTHER UNSUITABLE MATERIAL

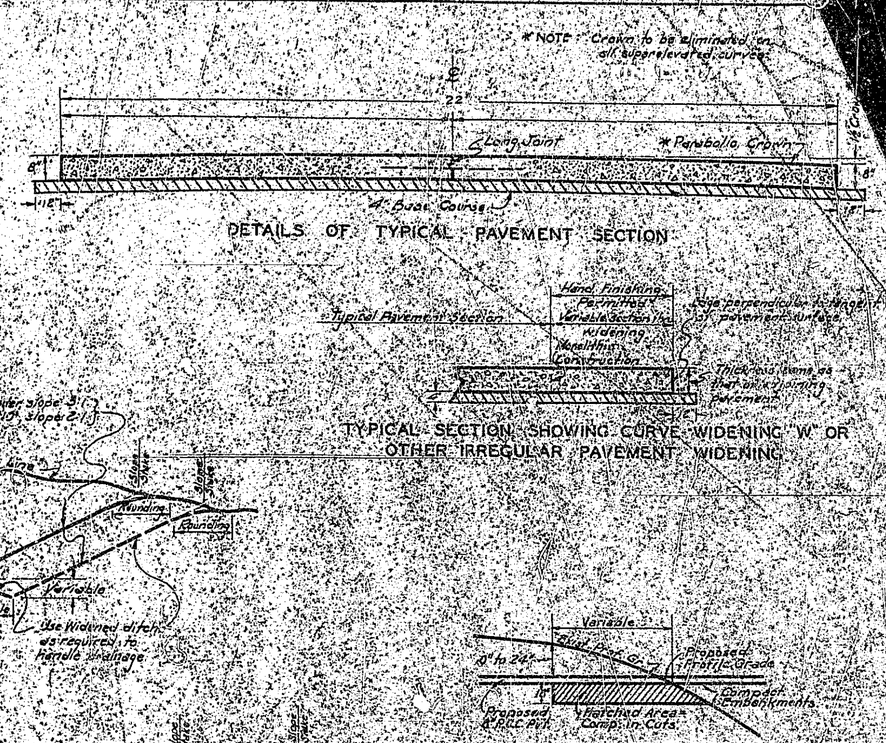
NOTE: For superelevation rates under grading to parallel the superelevation and other details from other line to dotted line shall be identical to those shown for "Cut Section on Superelevated Curves"

For pay limits of overbreak and backfill see specifications

PARABOLIC ROUNDING REQUIRED AT TOP OF ROADWAY BACKSLOPES AND AT TOE OF ROADWAY FILL SLOPES

Vertical Hatched area represents pay limits of excavation where cuts are required.
Inclined Hatched area includes pay limits of excavation where cuts are required.
Cross hatched area represents additional area to be added to vertical hatched area. Included in pay limits of excavation where cuts are required.
Horizontal hatched area represents limits in which embankment can be constructed.

SKETCH SECTION SHOWING EXCAVATION PAY LIMITS



DETAILS OF TYPICAL PAVEMENT SECTION

TYPICAL SECTION SHOWING CURVE WIDENING "W" OR OTHER IRREGULAR PAVEMENT WIDENING

DESIGN METHOD FOR LIMITS OF COMPACTION IN CUTS

GENERAL NOTES

For details of superelevation and widening of horizontal curves, all pavement appurtenances, drainage items, etc., see other drawings.

In transitioning from one cut or fill slope to another, use a 25' transition beginning at a point 25' back along that which would normally be the flatter slope and ending the transition at the actual point where the steeper slope is required. If the actual limits requiring a steeper slope is less than 25' in length, do not change to the steeper slope.

All information shown on these Typical Sections is for the purpose of indicating general design and construction details. Actual construction of roadway widths, slopes, depths and type of slopes in graded cuts, and other features shall conform to the details shown on Cross Sections and Plan-Profile sheets or as directed by the Engineer.

MISSOURI STATE HIGHWAY COMMISSION

TYPICAL SECTIONS FOR 40 FT. GRADED EARTH AND 22 FT. CONCRETE PAVEMENT

(DESIGN SPEED 60 M.P.H.)

ROUTE 22 COUNTY BOONE

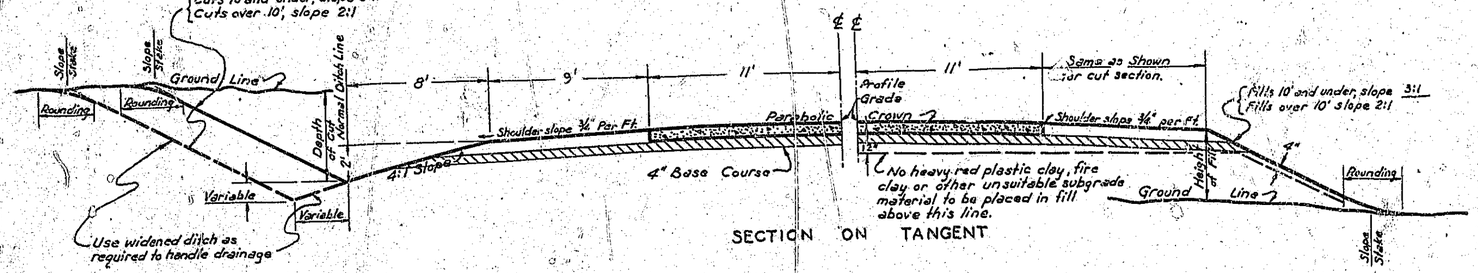
PROJ. F-303 (12)

RELOCATED PORTION STA. 0+00 TO STA. 312+00.

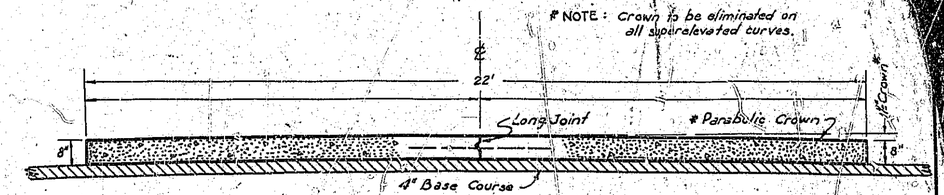
APPROVED G. Sterne ENGR. SURVEYS AND PLANS

APPROVED [illegible] CHIEF ENGINEER

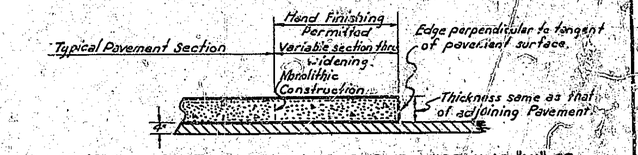
3 of 10



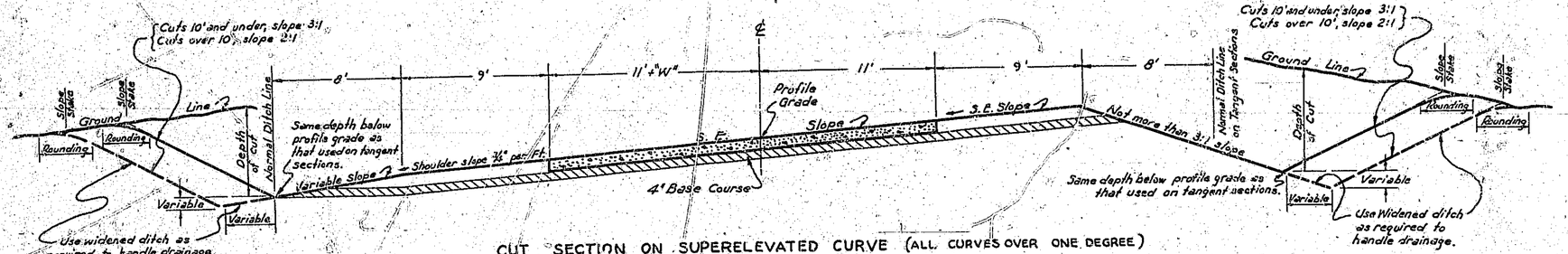
SECTION ON TANGENT



DETAILS OF TYPICAL PAVEMENT SECTION

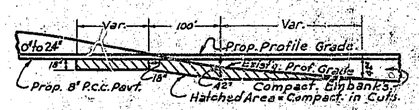


TYPICAL SECTION SHOWING CURVE WIDENING "W" OR OTHER IRREGULAR PAVEMENT WIDENING



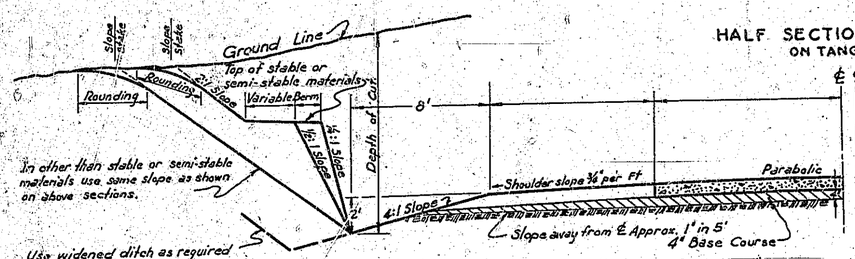
CUT SECTION ON SUPERELEVATED CURVE (ALL CURVES OVER ONE DEGREE)

NOTE: Fill sections on superelevated curve to be identical to this section from shoulder to shoulder. Beyond shoulders use same as shown for "Section on Tangent."

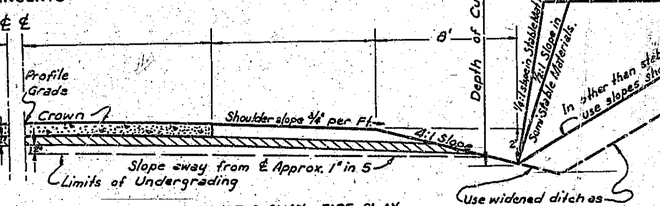


DESIGN METHOD FOR LIMITS OF COMPACTION IN CUTS AND TRANSITION FROM COMPACTION IN CUTS TO COMPACTION OF EMBANKMENTS.

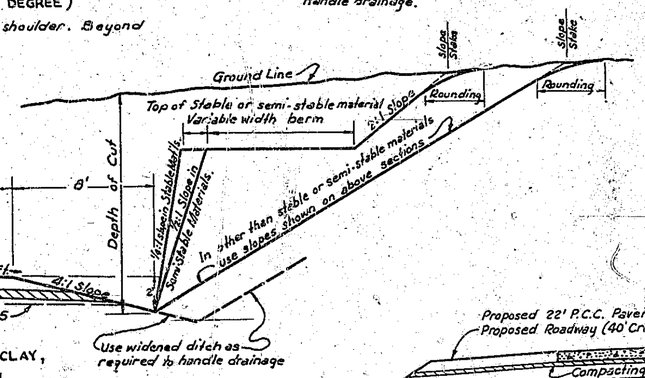
HALF SECTIONS IN CUTS ON TANGENTS



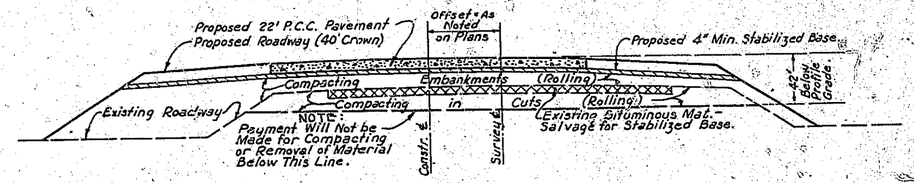
IN "CLASS C" OR LEDGE SANDSTONE



IN HEAVY RED PLASTIC CLAY, FIRE CLAY, OR OTHER UNSUITABLE MATERIAL



NOTE: On superelevated curves, undergrading to parallel the superelevation, and other details from ditch line to ditch line shall be identical to those shown for "Cut Section on Superelevated Curves." For paylimits of overbreak and backfill, see specifications.



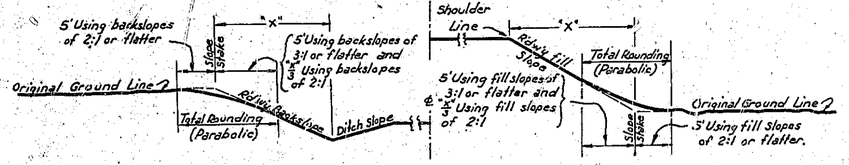
FILL SECTION
FOR FILLS UP TO 42" (INCL.) ABOVE EXISTING PROF. GRADE.

GENERAL NOTES:

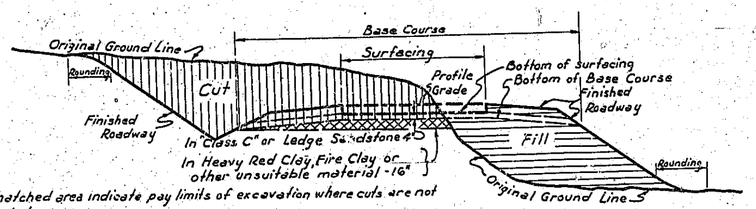
For details of superelevation and widening of horizontal curves, all pavement appurtenances, drainage items, etc., see other drawings.

In transitioning from one cut or fill slope to another, use a 25' transition beginning at a point 25' back along that which would normally be the flatter slope and ending the transition at the actual point where the steeper slope is required. If the actual limits requiring a steeper slope is less than 25' in length, do not change to the steeper slope.

All information shown on these Typical Sections is for the purpose of indicating general design and construction details. Actual construction of roadway widths, slopes, depths and type of ditches, undergraded cuts, and other features, shall conform to the details shown on Cross-Sections and Plan-Profile sheets or as directed by the Engineer.



PARABOLIC ROUNDING REQUIRED AT TOP OF ROADWAY BACKSLOPES AND AT TOE OF ROADWAY FILL SLOPES.



Vertical hatched area indicate pay limits of excavation where cuts are not undergraded.
Cross-hatched area indicates additional area, to be added to vertical hatched area included in pay limits of excavation where cuts are undergraded, For pay limits of overbreak and backfill, see Specifications.
Horizontal hatched area indicates limits to which embankment can be constructed.

SKETCH SECTION SHOWING EXCAVATION PAY LIMITS

MISSOURI STATE HIGHWAY COMMISSION

TYPICAL SECTIONS FOR 40 FT. GRADED EARTH AND 22 FT. CONCRETE PAVEMENT

(DESIGN SPEED 60 M.P.H.)

ROUTE: 22 COUNTY: RANDOLPH, AUDRAIN, BOONE

PROJ. F-303(12) (RANDOLPH). F-303(12), FG-303(13) (AUDRAIN) F-303(12) (BOONE)

NOTE:-
EXCEPTION TO THIS TYPICAL SECTION SHEET = BOONE CO. FROM STA. 0+00 TO STA. 312+00.

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LOCATION: RANDOLPH COUNTY LINE to SE EAST OF CENTRALIA (Except Boone Co.)

TYPE: GRADED EARTH, CULVERTS, BRIDGE WIDENING, & 22' P.C.C. PAVEMENT

MISSOURI STATE HIGHWAY COMMISSION

SUMMARY OF QUANTITIES

Sheet 1 of 2

FED. ROAD DIST. No.	STATE	PROJECT	FISCAL YEAR	SHEET No.	TOTAL SHEETS
5	MO.	F-303(12)		2A	
DIST. No.	COUNTY			ROUTE	SEC. No.
3	AUDRAIN			22	8A

EXCAVATION

Station	Cl. A	Comp. Cut	Comp. Emb	Borrow	Overhaul	Fill
0+00						
5+82	8411	266	295			300
12+45	3048	544	2447			2454
18+56	958	299	379			779
26+00	9545	1597	1550			
47+00	Exception FG-303(13)					
69+00	1613	1010	6758			6968
86+00	9257	2159	8619		17122	8738
103+70	12569	2222	10929		16837	11689
117+00	1879	117	1415			1680
142+14	7278	2050	5328		21180	5737
150+87	401	405	3412			3423
156+50	3444	332	3035			3048
182+00	9415	3957	7369		19124	8053
192+75	4078	1472	3266		0	3378
229+75	9998	841	7399		11487	7788
235+50	[illegible]	449	4968	6821		*5484
237+05	6M&O overhead					
243+10	[illegible]	20	6169	9280	9574	*6951
249+00	1312	1081	2814			841
261+10	7134	1544	4375			6076
Sub Totals	109264	22085	78065	16101	95532	82387
FE & SR	2667					2037
Ch. Cleanout	660					617
Borrow	16101					
Totals	*128692	22085	78065		96324	85041

* Includes Borrow Waste

REINFORCED CONCRETE BOX CULVERTS

Station	C-Stand	Size	Length	Conc.	Reinf.	Cl. 3	Ch. Cleanout Cl. A	Fill	Remarks
10+01	530	4'x2½'	11'Rt, 14'Lt	10.7	1260	29.0	108	73	Extension, 2:1 W.W. Slopes
16+04.5	530	3'x2'	6'Rt, 6'Lt	5.1	650	14.5			Extension, 2:1 W.W. Slopes, 4" Hdwl. Rt Lt
53+89	530	4'x2½'	16'Rt, 19'Lt	13.8	1620	34.0	32	28	Extension, 2:1 W.W. Slopes
74+72	530	4'x2½'	11'Rt, 21'Lt	14.8	1780	28.5			Extension, 2:1 W.W. Slopes
99+12	530	4'x2½'	32'Rt, 18'Lt	18.5	2150	30.0			Built in Secs. See Sp. Sheet #1, Extension 2:1 W.W. Slopes
129+95	530	3'x2'	7'Rt, 14'Lt	7.3	940	27.0	108	140	Extension, 4" Hdwl. Rt, 2:1 W.W. Slopes
151+21	530	3'x2'	82'	22.6	2840	83.5	32	20	Built in Sections, See Sp. Sheet #1, 2:1 W.W. Slopes
164+19	529	6'x4'	5'Rt, 12'Lt	18.1	1700	54.0			Extension 3' Fill
166+95	529	8'x4'	8'Rt, 10'Lt	21.4	2270	53.5			Extension 2' Fill
179+98	530	4'x2½'	54'	19.7	2310	98.5	19	18	9" Hdwl Lt, 2:1 W.W. Slopes
226+92	530	4'x2½'	105'Rt, 65'Lt	8.7	1070	19.5			Extn. 2:1 W.W. Slopes, 9" Hdwl. Lt, Skew [illegible]
Totals				160.7	18540	469.0	296	281	

24" CORR. METAL CULV. PIPE (Extn. for 2'x1½' Box Culvs)

Station	Length	R.C. Collar Connection	Std 18-C End Sec.	Cl. 3	Ch. Cleanout Cl. A	Fill	Remarks
159+16.5	8'Rt, 14'Lt	2	2	10.0	13	32	See St'd C-12R & 16-B
184+93	14'Rt, 14'Lt	2	2	11.0	15	37	See St'd C-12R & 16B
Totals	50	4	4	21.0	28	69	

ENTRANCE & SIDE ROAD CULV. PIPE AND APPROACHES

Station	Type & Side	15"	18"	24"	Cl. A	Fill	Agg. Surf. Ch.	Remarks
0+17	FE Lt					31		Crown
8+06	FE Lt					48		Crown
14+56	FE Rt	28'				48		
15+75	FE Lt					27		Crown
15+92	DB Rt					25		
19+58	PE Lt	32'			28	71	9	
51+59.5	FE Lt	30'				57		
55+82	PE Rt	30'				60	9	
56+74	PE Lt					25	9	Crown
58+89	SR Rt & FE Rt				299	32	22	Crown
2+00	PE Rt	30'				36	11	West off Rte S.Y.
60+16.5	SR Lt	60'			730	43	44	Route S.Y.
62+56	PE Lt	30'			97	39	10	
66+00	PE Lt	30'				42	9	
82+52	FE Lt					24		Crown
82+52	SR Rt				385		14	Crown
86+94	FE Rt	28'				18		
104+06	FE Lt				2	25		Crown
0+82	FE Rt		28'			15		Right off Route SV
0+82	FE Rt					7		Crown (Left off Route SV)
109+07	SR Rt				481	130	38	Crown Route SV
111+77	SR Lt		46'		30	44	12	
123+36	FE Rt	28'				34		
128+76	FE Lt					28		Crown
129+80	DB Rt					14		
143+09	PE Lt				143	16	10	Crown
143+98	PE Rt				102	16	9	Crown
165+19	PE Rt	30'			319	27	13	
159+92	DB Rt					50		
164+77	RE Rt					44	9	Crown
179+60	FE Lt					37		Crown
184+74	DB Lt					9		
190+64	PE Lt		30'		18	57	9	
197+38	PE Rt	28'			12	52	9	
205+44	FE Rt	28'				44		
208+67	FE Lt	28'				45		
218+91	FE Rt			30'	2	48		
226+68	SR Rt				93	80	19	Crown
227+95	PE Lt		36'		7	109	13	
244+61	FE Rt					46		Crown
245+10	SR Lt				19	201	49	Crown (Intersection Rte 3H)
247+21	FE Lt	28'				62		
260+97	FE Lt		28'			176		Left off Conn. to former Rte 22
261+10	SR Lt		Quantities included in Rdwy.				39	Crown (Conn. former Rte. 22)
Totals		468	168	30	2667	2037	366	

FERTILIZING & MULCHING

Sheet No.	Sq. Ft.
3	162329
4	83162
5	157740
6	153433
7	139379
8	175522
9	168347
10	211639
11	121484
Total	1373035
	31.5 Acres

RIGHT OF WAY MARKERS

Sheet No.	No. Markers
3	8
4	3
5	6
6	10
7	6
8	12
9	5
10	10
11	4
Total	64

REMOVAL OF EXISTING STRUCTURES (CULVERTS)

Station	Location	Description	No. Structs.
0+10	Rt	20'-15" CMP	1
9+87	Lt	24'-18" CMP	1
14+56	Rt	20'-15" CMP	1
19+58	Lt	24'-15" CMP	1
51+59	Lt	24'-18" CMP	1
52+89	Lt	22'-18" CMP	1
55+86	Rt	24'-18" RCP	1
56+78	Lt	16'-15" CMP	1
58+73	Rt	20'-15" CMP	1
58+94	Rt	20'-15" CMP	1
62+57	Lt	20'-15" CMP	1
65+98	Lt	20'-15" CMP	1
65+98	Rt	20'-15" CMP	1
82+50	Lt	24'-15" CMP	1
82+51	Rt	30'-15" CMP	1
82+89	Rt	20'-15" CMP	1
89+86	Lt	24'-18" CMP	1
104+06	Lt	20'-18" CMP	1
108+30	Rt	18'-15" CMP	1
111+77	Lt	30'-18" CMP	1
123+06	Rt	48'-18" CMP	1
128+72	Lt	24'-15" CMP	1
143+95	Rt	20'-15" CMP	1
148+92	Lt	20'-15" CMP	1
155+19	Rt	20'-15" CMP	1
177+14	Lt	20'-15" CMP	1
190+73	Lt	20'-18" CMP	1
197+95	Rt	20'-15" CMP	1
205+42	Rt	20'-15" CMP	1
208+32	Lt	24'-15" CMP	1
208+73	Lt	24'-15" CMP	1
218+77	Rt	24'-24" CMP	1
227+70	Lt	36'-18" RCP	1
247+20	Lt	20'-18" CMP	1
255+50	Lt	20'-15" CMP	1
255+71	Rt	20'-15" CMP	1
Total			36 Structs.

CHANNEL CLEANOUT

Station	Cl. A	Fill	Remarks
116+50	386	267	Within R/W Saling Branch

WATER (Stab. Agg. Base)

Book No.	1000 Gal.
1	2512

CRUSHED STONE SURFACE

Book No.	Cu. Yds.
1	366

BARRICADES

Station	Location	No.
59+00	℄	1
82+51	150' Rt.	1
109+07	200' Rt	1
244+00	℄	1
	Total	4

RELOCATED BARRICADES

Station	Location	From	No.
60+13	200' Lt.	℄ 59+00	1
244+00	250' Lt.	℄ 244+00	1
	Total		2

LENGTH OF PROJECT

End of Project	Station	261+10.0	
Beginning of Project	Station	0+00	
Apparent Length		26110.0	Feet
Equations and Exceptions:			
FG-303(13) Sta. 26+00 to 47+00	-2100.0'		
O.H. Bridge Sta. 235+19.4 to 237+21.9	-202.5'		
Total Corrections		-2302.5	Feet
Net Length of Project		23807.5	Feet
	State Length =	4.509	Miles
	Federal Length =	4.509	Miles

P.C.C. PAVEMENT

Chained Surface Length:			
Sta. 0+00 to Sta. 26+00		2600.00'	
Sta. 47+00 to Sta. 261+10		21410.95'	
Exceptions:			
Br. Appr. Slabs Sta. 115+86.4	-40.0'		
Bridge Sta. 115+86.4	-126.5'		
Br. Appr. Slabs Sta. 235+19.4	-86.0'		
Bridge Sta. 235+19.4	-201.0'		
Net Chained Length		23557.45'	
23557.45 x 22 ÷ 9		= 57584.87	Sq. Yds.

APPROACH SLABS FOR BRIDGES

Station	Station	Sq. Yds.	Pav't Except	Remarks
115+64.9	115+86.9	55.55	20'	
117+19.4	117+39.4	55.55	20'	
234+77.4	235+19.4	108.7	42'	See Sp. Sheet No. 4
237+21.9	237+65.9	113.9	44'	See Sp. Sheet No. 4
	Total	333.7		

DRAIN BASINS AND SURFACE DRAINS

Station	Side	Size	Length Transition	No. Basins	Length Drains	Remarks
235+07.4	Rt	8'	15'	1	60'	At G.M. & O.
237+57.9	Rt	8'	15'	1	59'	Overhead Br.
Totals				2	119'	

REMOVING AND RESETTING GUARD RAIL

Station	Station	Side	Actual Lin. Ft.	Remarks	
230+45	235+30	Rt	487.5	At G.M. & O. Overhead Br.	(39 panels)
230+51	235+00	Lt.	450.0		(36 ")
237+42.5	242+08	Rt	465.5		(37 ")
237+08	242+16	Lt	512.5		(41 ")
	Total		1912.5		
		=	1913		

ROCK BLANKET

Station	Location	Cu. Yds.	Remarks
115+86.4	Br. End	60.38	At Saling Branch Br.
117+19.9	Br. End	45.57	
Total		105.95	
	=	106	

STABILIZED AGGREGATE (Salvaged)

Station	Station	Side	Cu. Yds. per Sta.	Cu. Yds.	Remarks
0+00	5+00	Rt	12	60	Under Shoulder
0+00	5+00	Lt	16	80	" "
13+30	25+50	Rt	16	195	" "
20+00	25+50	Lt	16	88	" "
47+00	73+50	Rt	16	424	" "
47+00	73+50	Lt	16	424	" "
73+50	78+25	Rt	12	57	" "
73+50	78+25	Lt	16	76	" "
92+60	115+33	Rt	16	364	" "
91+10	97+00	Lt	16	94	" "
97+00	115+33	Lt	12	220	" "
118+00	222+00	Rt	16	1664	" "
118+00	140+10	Lt	12	265	" "
140+10	232+00	Lt	16	1470	" "
239+85	261+10	Rt	16	340	" "
239+85	261+10	Lt	Built from excess of previously measured windrow for the former 20' width		
0+00	261+10	Center 24' width		10984	
Total				16805	

STABILIZED AGGREGATE BASE

Spreading, Shaping, & Compacting 23679.45 Lin. Ft. = 4.48 Miles

LEFT OVER PIPE

Size	Length
15"	28'

GENERAL SUMMARY — FINAL PLANS

ITEM NO.	DESCRIPTION	UNIT	TOTAL UNITS	NO. UNITS FED. AID ONLY
	~~CONTINGENT ITEMS~~			
	~~DEDUCTIONS~~			
	~~Pavement deficiency [illegible] Sq. Yds. [illegible]~~			
	~~Pavement deficiency [illegible] Sq. Yds. [illegible]~~			

DIVISION OF CONSTRUCTION APR 26 1956 HIGHWAY DEPT.

Prepared By [illegible] Date 2/1 1956 Checked in Dist. Office By ______ Date ______ 19__ Checked in Central Office By A. Steiner Date 5-1 1956 Revised By ______ Date ______ 19__

372

LOCATION RANDOLPH COUNTY LINE - ROUTE 5E EAST OF CENTRALIA (Except Boone County)

TYPE GRADED EARTH, CULVERTS, & 22' PCC PAVEMENT

MISSOURI STATE HIGHWAY COMMISSION

SUMMARY OF QUANTITIES

SHEET NO. 2 OF 2

FED. ROAD DIST. No.	STATE	PROJECT	FISCAL YEAR	SHEET No.	TOTAL SHEETS
5	MO.	F-303(12)		2A	
DIST. No.	COUNTY			ROUTE	SEC. No.
3	AUDRAIN			228	E & F

EXCAVATION

STATION	CL. A	COMP. CUT	COMP. EMB.	BORROW	OVERHAUL	FILL
0+00						
2+36	243	464	344			396
4+39	571	—	175			472
26+00	6301	3937	4799		9191	5397
30+95	1064	1417	700			703
38+00	1385	1706	878			904
52+86	10174	311	8871		5442	9193
59+49	3814	142	3026			3052
72+05	3003	476	6815		1666	7173
78+50	1797	979	1537			1570
91+48	6302	627	5436		1135	5515
102+87	11327	82	10485		2300	10701
117+00	6113	422	5269		1771	5351
129+25	2364	3616	1893			1902
146+50	5290	3254	4012		11174	4156
165+24	1324	3204	3319		8125	3421
181+60	8312	1227	6280		1549	6619
213+00	9389	4745	7220		45959	7622
223+00	3616	1018	2846			2869
234+00	4289	1914	3174			3177
247+00	6840	2620	4575		1862	4580
268+80	11479	3571	8822		2502	8855
273+80.8	1388	1254	1125			1134
SUBTOTALS	115018	37076	91571		92676	94762
FE & SR	313					3662
CH. CLEANOUT	1538					1093
SUB-TOTALS	116866	37076	91571		92676	99517
Sh. #1 Totals	128692	22085	78065		95324	85041
GRAND TOTALS	245558	59161	169638		188000	184558

REINFORCED CONCRETE BOX CULVERTS

STATION	G-STD.	SIZE	LENGTH	CONC.	REINF	CL. 3	CH. CLEANOUT CL. A	CH. CLEANOUT FILL	REMARKS
51+63	524	9'X8'	65'	96.2	9160	318.0	656	545	Excav. Includes Removal
69+05	529	5'X3'	10' Rt & 24' Lt	18.9	1800	33.0	2	3	Extension
93+68	529	6'X6'	74'	56.2	5330	204.0	558	314	Excav. Includes Removal
111+95	529	6'X6'	6' Rt & 18' Lt	21.2	1900	63.5	179	134	Extension
138+51	530	3'X2'	10' Rt & 17' Lt	8.8	1130	33.0	19	2	Extension
174+36	530	4'X2.5'	23' Lt	8.6	1010	29.5	—	—	Extension Lt.
222+57	530	3'X2'	8' Rt & 20' Lt	9.1	1160	17.0	—	—	Extension
TOTALS				219.0	21490	698.0	1414	998	
Sh. #1 Total				160.7	18540				
Grand Total				379.7	40030				

24" CORR. METAL CULV. PIPE (Exten for 2'X1½' Box Culvs)

STATION	LENGTH	RC COLLAR CONNECTIONS	STD. 18-C END SECTION	CL. 3	CH. CLEANOUT CL. A FILL	REMARKS
37+20	14' Lt.	1	1	2.5		
150+83	8' Rt & 16' Lt	2	2	6.5		
161+42	12' Rt & 16' Lt	2	2	14.5	6	
181+05	8' Rt & 10' Lt	2	2	20.0		11' Barrel Rt End Existing Culv. Removed
195+83	12' Rt & 18' Lt	2	2	6.0	1	
205+00	4' Rt & 16' Lt	2	2	6.0		
272+53	8' Rt & 10' Lt	2	2	8.0	6	
TOTALS	148'	13	13	63.5	13	

ENTRANCE & SIDE ROAD CULV PIPE & APPROACHES

STATION	TYPE & SIDE	15"	18"	CL. A	FILL	AGG. SUR. C.Y.	REMARKS
19+48	P.E. Lt.		32		58	9	
26+84	S.R. Lt.		38	23	76	12	
27+04	P.E. Rt.	28		7	72	9	
38+32	D.B. Rt.				12		
41+93	P.E. Lt.	30		10	30	9	
54+14	S.R. Lt.		44	4	317	17	
54+34	S.R. Rt.		50	34	252	13	
60+68	F.E. Lt.	30		2	30		
79+00	F.E. Lt.				23		Crown
86+10	F.E. Rt.	32		19	63		
97+53	F.E. Lt.				49		Crown
108+30	F.E. Lt.		30		44		
119+52	F.E. Lt.	26		2	31		
136+37	F.E. Lt.	30		12	37		
139+06	D.B. Rt.				39		
143+15	F.E. Lt.	26		8	24		
143+15	P.E. Rt.	32			85	9	
149+69	P.E. Rt.			3	95	9	Crown
157+55	F.E. Lt.			4	13		Crown
163+00	F.E. Lt.			18	14		Crown
163+28	S.R. Rt.			34	23	10	Crown
176+48	S.R. Lt.		40	32	217	14	
180+71	D.B. Lt.				7		
185+98	F.E. Rt.	32		7	83		
190+31	P.E. Lt.	28			30	9	
193+00	D.B. Lt.				6		
198+85	D.B. Lt.				21		
204+50	D.B. Rt.				11		
216+88	P.E. Lt.			8	48	9	Crown
217+46	D.B. Rt.				13		
232+18	S.R. Lt.	48		29	223	12	
232+62	S.R. Rt.	44			124	10	
237+98	F.E. Lt.				174		Crown
246+13	P.E. Lt.		36	2	208	15	
260+05	F.E. Lt.		32		192		
260+55	P.E. Rt.		28	6	143	10	
264+55	P.E. Lt.		42		246	15	
274+31	S.R. Lt.			49	3		Rte 5E Crown
TOTALS		386	372	313	3135	191	

REMOVAL OF EXISTING STRUCTURES (CULVERTS)

STATION	LOCATION	DESCRIPTION	NO. STRUCT.
5+57	Lt.	20'X30" Conc. Pipe	1
19+48	Lt.	20'X18" Conc. Pipe &	
		6'X18" Oil Barrel	1
26+89	Lt.	40'X15" Conc Pipe & Hdwl.	1
27+03	Rt.	16'X15" Conc Pipe	
54+20	Lt.	40'X18" Conc Pipe & Hdwl.	1
54+29	Rt.	40'X18" Conc Pipe & Hdwl.	1
86+07	Rt.	20'X18" Conc Pipe	1
108+50	Lt.	20'X18" Conc Pipe	1
118+81	Lt.	20'X18" Conc. Pipe	1
136+37	Lt.	20'X15" Conc. Pipe	1
143+10	Lt.	20'X15" Conc. Pipe	1
143+15	Rt.	20'X15" Conc. Pipe	1
149+49	Lt.	20'X15" Conc. Pipe	1
149+65	Rt.	20'X15" Conc. Pipe	1
163+25	Lt.	20'X15" Conc. Pipe	1
163+28	Rt.	40'X15" Conc Pipe & Hdwl.	1
176+37	Lt.	40'X18" Conc Pipe & Hdwl.	
		12'X18" CMP at East End	1
185+97	Rt.	20'X18" Conc. Pipe	1
186+96	℄	2'X1.5'X35' RC Box Culv.	1
217+96	Lt.	20'X15" Conc. Pipe	1
232+31	Lt.	40'X15" Conc Pipe & Hdwl.	1
232+56	Rt.	40'X15" Conc Pipe & Hdwl.	1
240+04	Lt.	20'X15" Conc. Pipe	1
246+30	Lt.	14'X18" CMP	1
260+55	Rt.	20'X18" Conc. Pipe	1
263+98	Lt.	40'X18" Conc. Pipe	1
TOTAL			26

RELAID PIPE CULVERTS

STATION	TYPE & SIDE	SIZE	LENGTH	CL. A	FILL	REMARKS
5+57	FE Lt.	30"	38'	—	487	CMP From Lt Sta. 3+30

STATE OWNED CONC. PIPE

STATION	TYPE & SIDE	SIZE	LENGTH	CL. A	FILL
17+86	FE Lt.	18"	28'	—	40

FERTILIZING & MULCHING

SHEET NO.	SQ. FEET	
12	138184	
13	149062	
14	152333	
15	164161	
16	135682	
17	129896	
18	137978	
19	181337	
20	138611	
21	24634	
TOTAL	1391878	
=	32.0	ACRES
Sh. #1 Total	31.5	"
GRAND TOTAL	63.5	"

RIGHT OF WAY MARKERS

SHEET NO.	NO. OF MARKERS
12	5
13	4
14	4
15	6
16	4
17	7
18	6
19	4
20	5
21	2
TOTAL	47
" Sh. #1	64
GRAND TOTAL	111

LENGTH OF PROJECT

End of Project	Station	273+80.8	
Beginning of Project	Station	0+00	
Apparent Length		27380.8	Feet
Equations and Exceptions:			
Sta. 108+07.63 Bk = 108+07.94 Ah	-0.31		
Sta. 199+93.91 Bk = 199+93.[illegible] Ah	+0.76		
Sta. 2+04 to Sta. 3+36.5 (Bridge)	-132.50		
Total Corrections		132.05	Feet
Net Length of Project		27248.75	Feet
State Length =		5.161	Miles
Federal Length =		5.161	Miles

PCC PAVEMENT

Chained Surface Length			
Sta. 0+00 to Sta. 249+14	24919.80		
Sta. 249+14 to Sta. 273+80.8	2466.90		
Exceptions:			
Br. App Slabs Sta. 1+77.83	26.12		
Br. Sta. 2+04	132.50		
Br. App Slabs Sta. 3+36.5	26.12		
Net Chained Length	27196.96		
27196.96 X 22 ÷ 9		66481.46	Sq. Yds.
Sheet #1		57584.87	"
GRAND TOTAL		124066.33	"

APPROACH SLABS FOR BRIDGES

STATION	STATION	SQ. YDS.	PAV. EXCPT.	REMARKS
1+77.83	2+04	72.6	26.12	
3+36.5	3+52.5	72.6	26.12	
	TOTALS	145.2	52.24	
Sh. #1	TOTALS	333.7		
GRAND	TOTAL	478.9		

STABILIZED AGGREGATE (Salvaged)

STATION	STATION	SIDE	CU. YDS. PER STA.	CU. YDS.	REMARKS
0+00	1+00	Rt	16	16	Under Shoulder
0+00	1+00	Lt	14	14	" "
5+00	18+50	Rt	16	216	" "
5+00	18+50	Lt	14	189	" "
45+00	73+50	Rt	16	456	" "
45+00	73+50	Lt	14	399	" "
96+50	103+00	Rt	16	104	" "
96+50	103+00	Lt	12	78	" "
103+00	107+50	Lt	12	54	" "
107+50	118+50	Rt	16	176	" "
107+50	118+50	Lt	12	132	" "
200+00	222+00	Rt	16	352	" "
200+00	222+00	Lt	13	286	" "
222+00	232+00	Lt	13	130	" "
232+00	266+00	Rt	16	544	" "
232+00	266+00	Lt	8	272	" "
TOTAL				3418	" "
0+00	273+80.8	Center	24' Width	11899.5	
TOTAL				15317.5	
			Sh. #1 Total	16806.0	
			GRAND TOTAL	32122.5	= 32123

STABILIZED AGGREGATE BASE

Spreading, Shaping, and Compacting	27249.20	Lin Feet
	5.161	Miles
Sh. #1 Total	4.78	"
Grand Total	9.94	"

CROSS ROAD CULVERT PIPE

STATION	C-230 HDWL	18" RCP	CL. B CONC	REINF.	CL. 3 EXCAV.	CH. CLEANOUT CL. A	CH. CLEANOUT FILL	REMARKS
140+69	2-RC	70	1.7	130	36.5	111	95	Excav. Includes Removal

WATER (Stab Agg Base)

Book No.	100 GAL.
1	1403

CRUSHED STONE SURFACE

Book No.	CU. YDS.
1	191

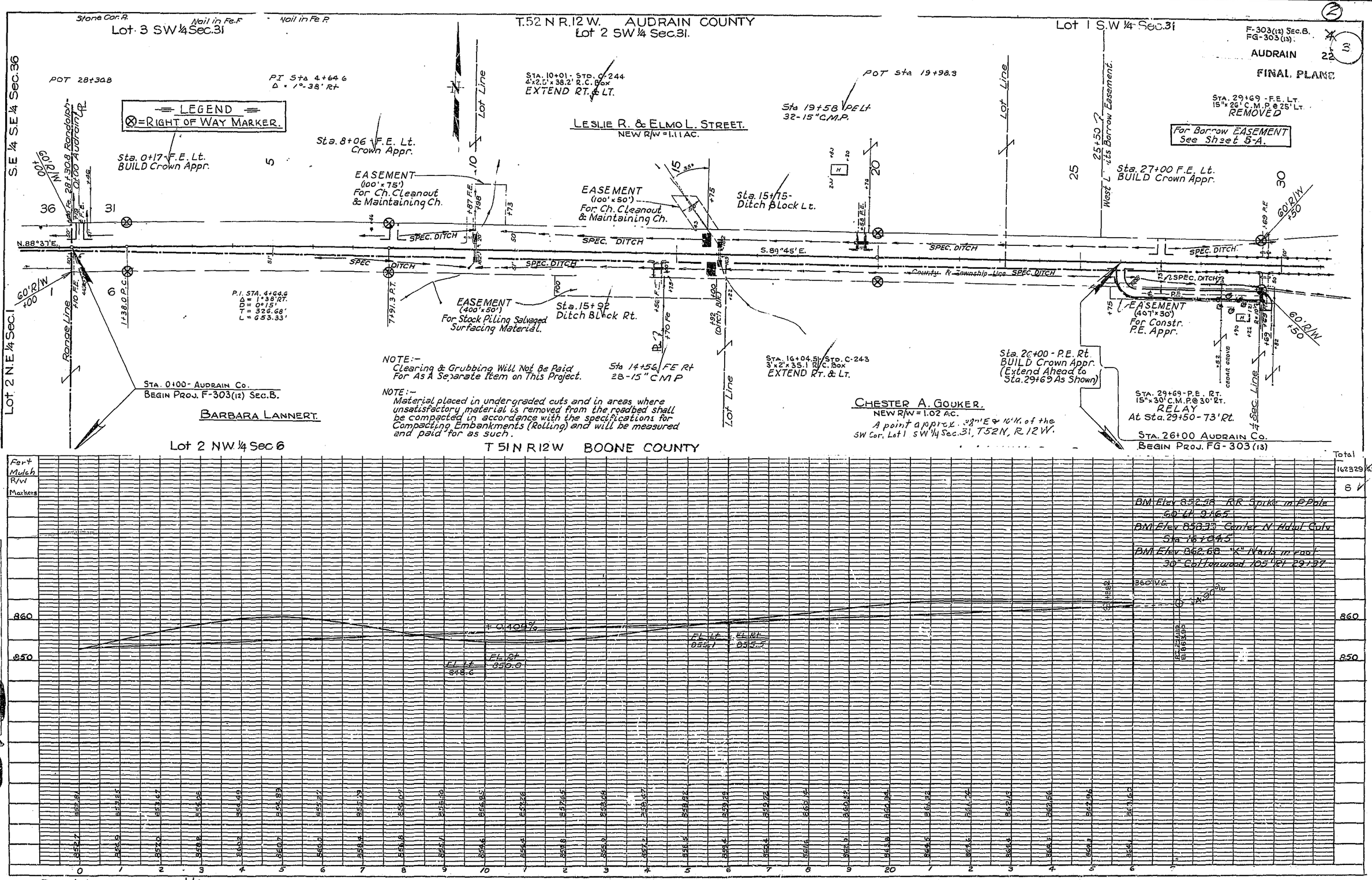
BARRICADES

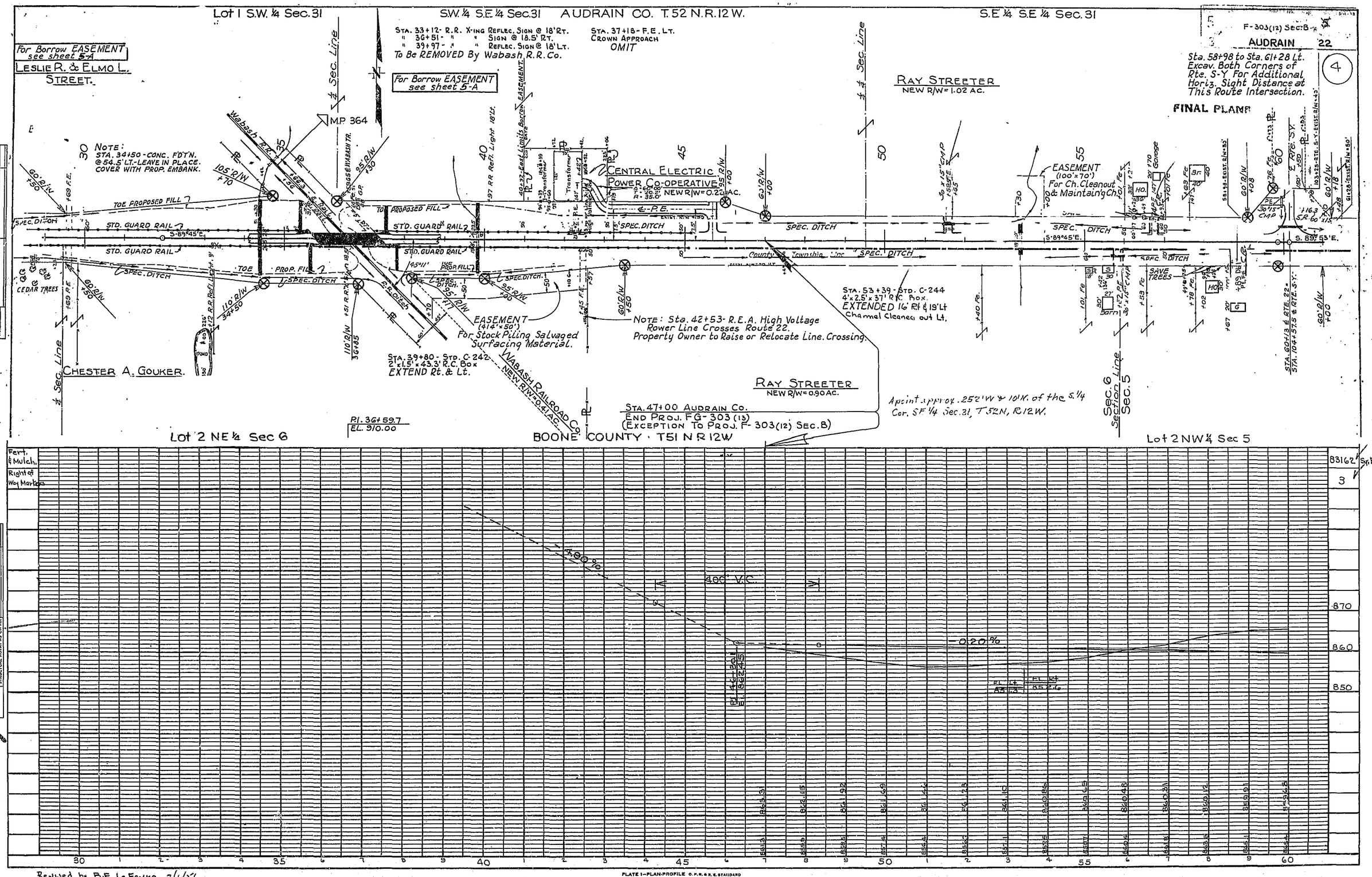
STATION	LOCATION	NO
273+80.8	℄	1

GENERAL SUMMARY — FINAL PLANS

ITEM NO.	DESCRIPTION	UNIT	TOTAL UNITS	NO. UNITS FED. AID ONLY
1-D	CL. A Excavation	C.Y.	245558	
1-I	Cl. 3 Excavation for Structures	C.Y.	1288.0	
1-K	Compacting Embankment (Rolling)	C.Y.	169638	
1-L	Compacting In Cuts (Rolling)	C.Y.	59161	
1-M	Overhaul	Sta. Yd.	188000	
1-BA	Water (Compacting - Rolling)	100 Gal.	[illegible]	
1-DA	Furnishing Rock Blanket	C.Y.	106	
1-DB	Placing Rock Blanket	C.Y.	106	
13-D	Crushed Stone Surface	C.Y.	557	
15-A	Portland Cement Concrete Pavement	Sq. Yd.	124066.3	
15-B	Approach Slabs for Bridges	Sq. Yd.	478.9	
16-B	Cl. B Concrete (Box Culverts)	C.Y.	379.7	
16-B	Cl. B Concrete (Other Than Box Culv.)	C.Y.	1.7	
18-B	15" Culv. Pipe (Ent. & SR) C.M.P.	L.F.	854	
18-B	18" Culv. Pipe (Ent. & SR) C.M.P.	L.F.	540	
18-B	24" Culv. Pipe (Ent. & SR) C.M.P.	L.F.	[illegible]	
18-B	24" Corr. Metal Culv. Pipe 100#/ C.M.P.	L.F.	[illegible]	
18-G	18" Culv. Pipe (Cross Road) R.C.P.	L.F.	[illegible]	
18-DE	Metal End Sections (For 24" Pipe)	Each	[illegible]	
18-I	Relaid Pipe Culv.	L.F.	[illegible]	
19-A	Reinforcing Steel	Lb.	40160	
25-H	Surface Drain Basins	Each	[illegible]	
25-I	Surface Drains	L.F.	119	
27-B	Guard Rail - Remove & Reset	L.F.	1913	
28-A	Barricades	Each	5	
29-C	Right of Way Markers	Each	111	
33-A	Removal of Existing Structures (62 Culvs.)	Lump Sum	1	
37-A	Fertilizing & Mulching	Acre	63.5	
38-A	Concrete Collar Connections	Each	[illegible]	
	STABILIZED AGGREGATE BASE			
1-BA	Water	100 Gal.	3975	
38-A	Stabilized Aggregate (Salvaged)	C.Y.	32123	
38-B	Spreading, Shaping, & Compacting	Mile	9.94	
	CONTINGENT ITEMS			
	Placing State Owned Pipe (C.O. #3)	L.F.	28	
	Relocating Barricades (C.O. #3)	Each	2	
	Left over 15" C.M.P. (C.O. #3)	L.F.	28	
	Bridge - Sta. 115+86.3 (Dwg No. J-286R) CO #2			
1-G	Cl. 1 Excavation for Structures	C.Y.	192	
1-H	Cl. 2 Excavation for Structures	C.Y.	357.5	
16-B	Cl. B Concrete (Handrail)	C.Y.	15.8	
16-B	Cl. B Concrete (Super Struct Except Handrail)	C.Y.	109.5	
16-B	Cl. B Concrete (Sub Structure)	C.Y.	114.4	
17-E	Gray Iron Alloy Casting	Lb.	930	
19-A	Reinforcing Steel	Lb.	29590	
22-A	Plain Timber Piles in Place	L.F.	667	
22-AL	Plain Timber Pile Cutoffs	L.F.	138	
60-A	Special Work (See Special Provisions)	Lump Sum	1	
	DEDUCTIONS			
	Pavement Deficiency (0.2"-0.4")	Sq. Yd.	122.2	
	" " (0.4"-0.6")	Sq. Yd.	24.4	

Prepared By A.C. Gedling Date 3-28 1956 Checked in Dist. Office By J.E. Schou Date 4/24/56 19__ Checked in Central Office By A. Steiner Date 5-1- 1956 Revised By ____ Date ____ 19__


T.52 N R.12 W. AUDRAIN COUNTY
Lot 3 SW¼ Sec.31
Lot 2 SW¼ Sec.31.
Lot 1 S.W ¼ Sec.31
Stone Cor. R.
Nail in Fe. F
Nail in Fe. P.
F-303(12) Sec.B.
FG-303 (13).
AUDRAIN
FINAL PLANS
S.E ¼ S.E ¼ Sec.36
Lot 2 N.E ¼ Sec.1
POT 28+30.8
PI Sta 4+64.6
Δ = 1°-38' Rt
LEGEND
⊗ = RIGHT OF WAY MARKER.
Sta. 0+17 F.E. Lt.
BUILD Crown Appr.
Sta. 8+06 F.E. Lt.
Crown Appr.
EASEMENT
(100' x 75')
For Ch. Cleanout
& Maintaining Ch.
Sta. 10+01 - STD. C-244
4'x2.5' x 38.2' R.C. Box
EXTEND RT. & LT.
LESLIE R. & ELMO L. STREET.
NEW R/W = 1.11 AC.
EASEMENT
(100' x 50')
For Ch. Cleanout
& Maintaining Ch.
Sta. 15+75-
Ditch Block Lt.
POT Sta 19+98.3
Sta 19+58 PE Lt
32-15" C.M.P.
Sta. 29+69 - F.E. LT.
15" x 26' C.M.P. @ 25' LT.
REMOVED
For Borrow EASEMENT
See Sheet 5-A.
Sta. 27+00 F.E. Lt.
BUILD Crown Appr.
West Lots Borrow Easement.
N.88°37'E.
S.89°45' E.
SPEC. DITCH
County R/ Township Line SPEC. DITCH
P.I. STA. 4+64.6
Δ = 1°38'27"
D = 0°15'
T = 326.68'
L = 653.33'
EASEMENT
(400' x 50')
For Stock Piling Salvaged
Surfacing Material.
Sta. 15+92
Ditch Block Rt.
Sta 14+56 FE Rt
28-15" C.M.P.
NOTE:-
Clearing & Grubbing Will Not Be Paid
For As A Separate Item on This Project.
NOTE:-
Material placed in undergraded cuts and in areas where
unsatisfactory material is removed from the roadbed shall
be compacted in accordance with the specifications for
Compacting Embankments (Rolling) and will be measured
and paid for as such.
Sta. 16+04.5 - STD. C-243
3' x 2' x 35.1' R.C. Box
EXTEND RT. & LT.
EASEMENT
(40' x 30')
For Constr.
P.E. Appr.
Sta. 20+00 - P.E. Rt.
BUILD Crown Appr.
(Extend Ahead to
Sta. 29+69 As Shown)
Sta. 29+69 - P.E. RT.
15" x 30' C.M.P. @ 30' RT.
RELAY
At Sta. 29+50 - 73' Rt.
Sta. 26+00 AUDRAIN CO.
BEGIN PROJ. FG-303 (13)
Sta. 0+00 - AUDRAIN CO.
BEGIN PROJ. F-303(12) SEC.B.
BARBARA LANNERT.
CHESTER A. GOUKER.
NEW R/W = 1.02 AC.
A point approx. 28' E & 16' N. of the
SW Cor. Lot 1 SW¼ Sec.31, T52N, R12W.
Range Line
Lot Line
Lot 2 NW ¼ Sec 6
T 51 N R12W BOONE COUNTY
Fert
Mulch
R/W
Markers
Total
162329 S.F.
BM Elev 852.58 RR Spike in P Pole
60' Lt. 3.165
BM Elev 858.33 Center N Hdwl Culv
Sta 16+04.5
BM Elev 862.68 "X" Nails in root
30" Cottonwood 105' Rt 29+37
360' V.C.
+0.40%
EL. Lt 848.6
EL. Rt 850.0
EL. Lt 855.1
EL. Rt 855.5
860
850
Revised by B.F. LeFevre 2/1/56



Revised by B.F. LeFevre 2/1/56

PLATE 1—PLAN-PROFILE O.P.R.&R.E. STANDARD U. S. BUREAU, Chicago

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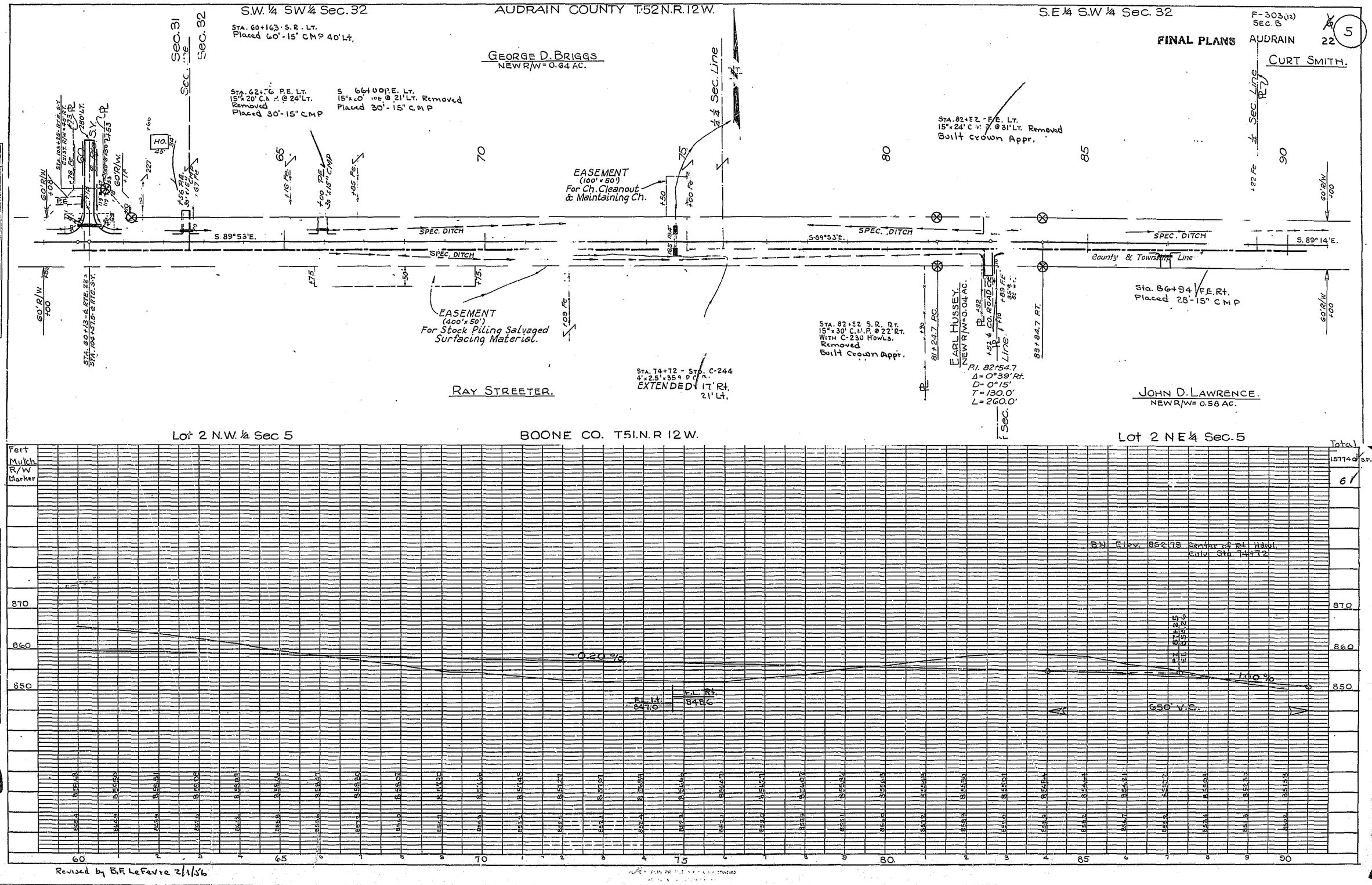

Revised by B.F. LeFevre 2/1/56

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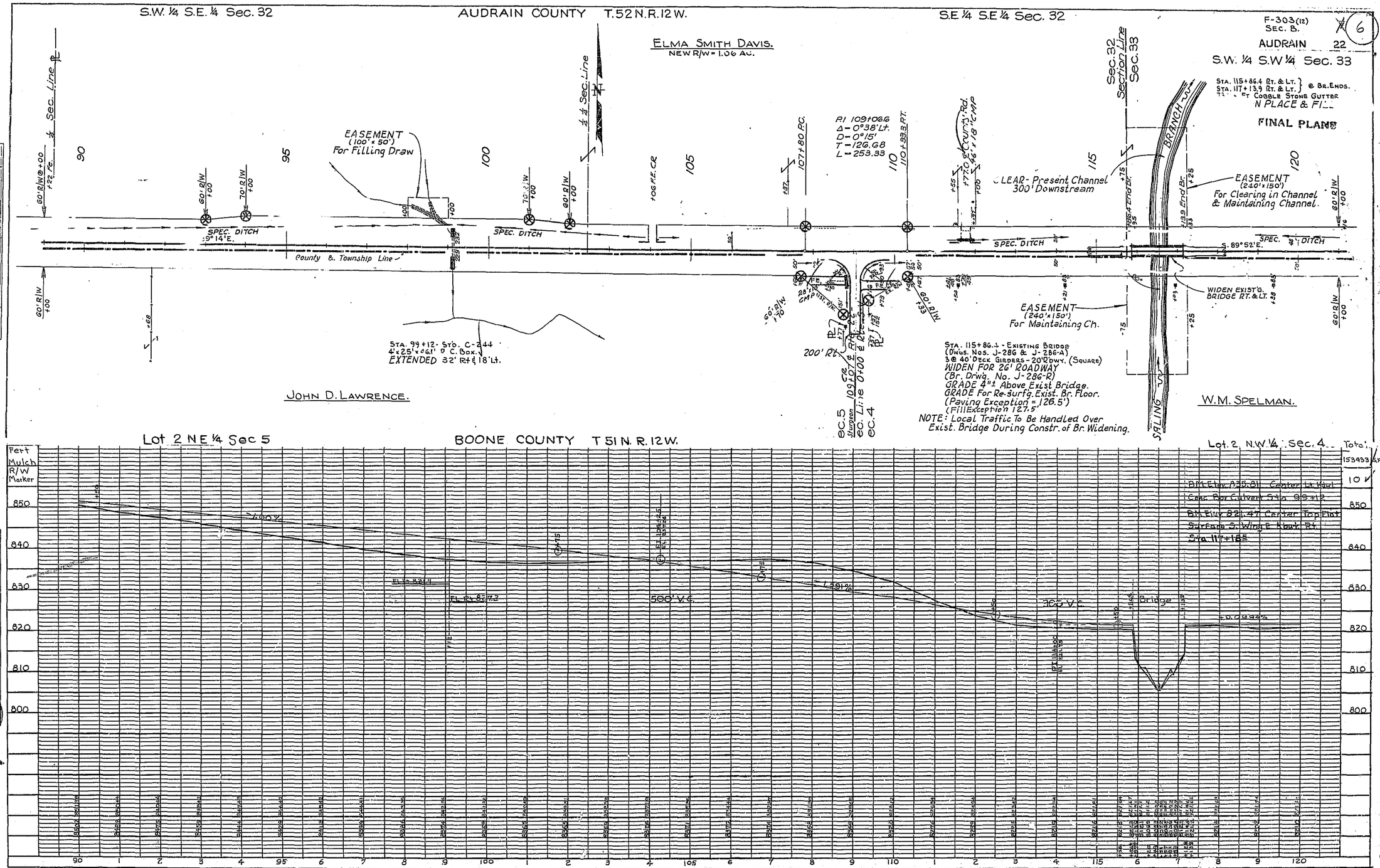
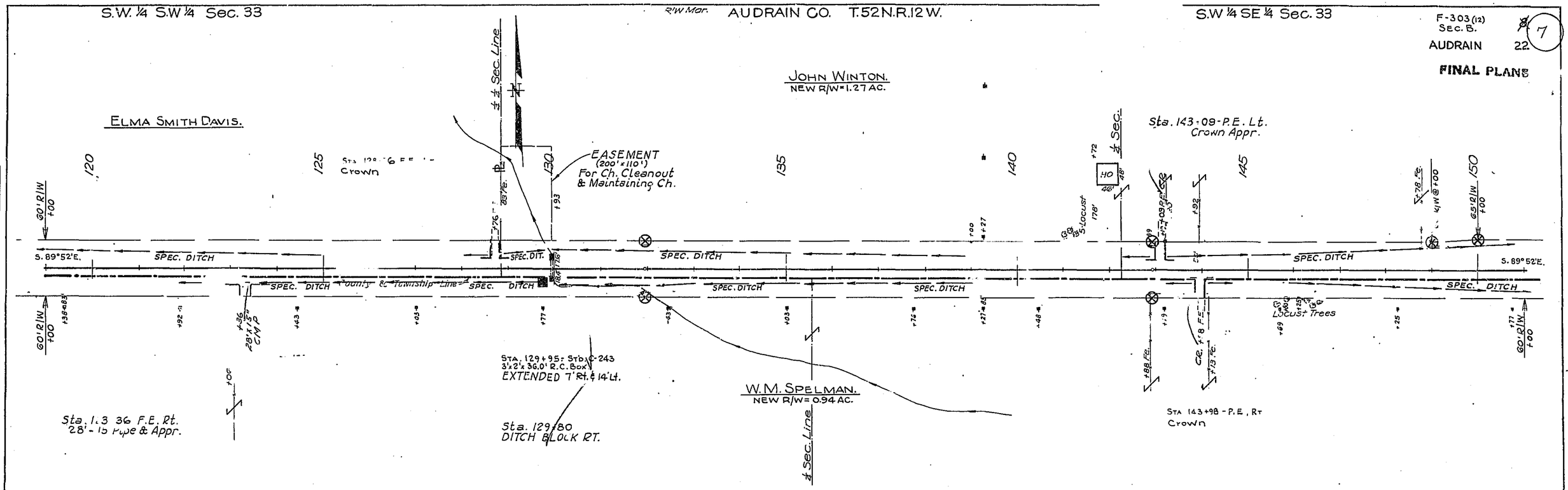

S.W. ¼ S.E. ¼ Sec. 32
AUDRAIN COUNTY T.52 N.R.12 W.
S.E ¼ S.E ¼ Sec. 32
F-303(12) Sec. B.
AUDRAIN 22
S.W. ¼ S.W ¼ Sec. 33
Elma Smith Davis.
NEW R/W = 1.06 AC.
EASEMENT (100'x 50') For Filling Draw
SPEC. DITCH
County & Township Line
Sec. 32 Section Line Sec. 33
BRANCH
LEAR - Present Channel 300' Downstream
EASEMENT (240'x150') For Clearing in Channel & Maintaining Channel.
EASEMENT (240'x150') For Maintaining Ch.
WIDEN EXIST'G. BRIDGE RT. & LT.
FINAL PLANE
Sta. 99+12 - Sto. C-244 4x25'x661' D.C. Box. EXTENDED 32' Rt & 18' Lt.
200' Rt.
Sta. 115+86.4 - Existing Bridge (Dwgs. Nos. J-286 & J-286-A) 3 @ 40' Deck Girders - 20'0" Dwy. (Square) WIDEN FOR 26' ROADWAY (Br. Drwg. No. J-286-B) GRADE 4"± Above Exist. Bridge. GRADE For Re-surfg. Exist. Br. Floor. (Paving Exception = 126.5') (Fill Exception 127.5')
NOTE: Local Traffic To Be Handled Over Exist. Bridge During Constr. of Br. Widening.
JOHN D. LAWRENCE.
W.M. SPELMAN.
Lot 2 NE ¼ Sec 5
BOONE COUNTY T 51 N. R. 12 W.
Lot. 2. N.W. ¼. Sec. 4.
Total
153933 S.F.
10
Fert Mulch R/W Marker
850
840
830
820
810
800
500' V.C.
300' V.C.
Bridge
PLAN
PROFILE
Revised by B.F. LeFevre 2/1/56

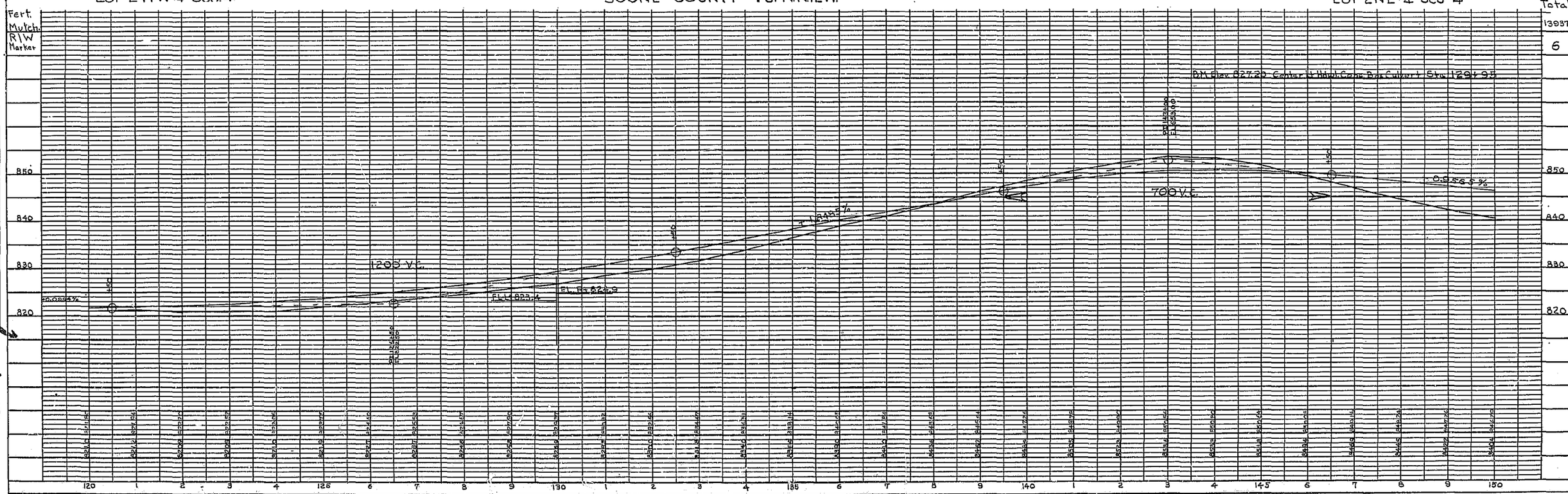
S.W. ¼ S.W ¼ Sec. 33 — R/W Mar. — AUDRAIN CO. T.52 N.R.12 W. — S.W ¼ SE ¼ Sec. 33

F-303(12)
Sec. B.
AUDRAIN 22

FINAL PLANS



Lot 2 N.W ¼ Sec. 4 — BOONE COUNTY T51 N.R.12W. — Lot 2 NE ¼ Sec 4



Revised by B.F. LeFevre 2/1/56

PLAN		
NOTE BOOK NO. 2079	SURVEYED	1946
	PLOTTED	1946
	ALIGNMENT CHECKED & REV.	STALEY
	RT. OF WAY CHECKED	YOUNG

PROFILE		
NOTE BOOK	SURVEYED	
	PLOTTED	
	GRADES CHECKED	
	B.M. NOTED	
	STRUCTURE NOTES & CHKD.	

F-303(12)
Sec. B.
AUDRAIN 22
8

FINAL PLANS

S.W. ¼ S.E ¼ Sec. 33 — R/W Marker — S.E. ¼ S.E. ¼ Sec. 33 — AUDRAIN CO. — T. 52 N. R. 12 W. — S.W. ¼ S.W. ¼ Sec. 34

JOHN WINTON

Cor. Hdwl Culv.

P.I. Sta. 165+00
Δ = 0°03' Lt.

EASEMENT (95' x 50') For Maintaining Ch.

EASEMENT (400' x 25') For Stock Piling Salvaged Surfacing Material.

EASEMENT (100' x 65') For Ch. Cleanout & Maintaining Ch.

EASEMENT (220' x 100') For Ch. Cleanout & Maintaining Ch

EASEMENT (400' x 25') For Stock Piling Salvaged Surfacing Material.

EASEMENT (100' x 100') For Ch. Cleanout & Maintaining Ch.

Sec. Line — Sec. 33 — Sec. 34

Sta. 179+60 F.E. Lt. Crown

SPEC. DITCH — S.89°52'E. — S.89°55'E.

County & Township Line

W.M. SPELMAN.

M.R. McCASLIN
NEW R/W = 0.96 AC.

Sta. 151+21 - Std. C-243
3' x 2' x 39.3' R.C. Box Removed
Built C-530 3' x 2' x 82' R.C. Box

Sta. 155+19 - P.E. Rt.
30" - 15" C.M.P.

Sta. 159+16.5 - Std. C-242
2' x 1.5' x 39.3' R.C. Box
EXTENDED 8' Rt & 14' Lt
With 24" C.M.P.

Sta. 159+3 2-
Ditch Block Rt.

Sec. 4 — Sec. Line — Sec. 3

Sta. 164+19 - Std. C-236
6' x 4' x 38.2' R.C. Box.
EXTENDED 9' Rt & 12' Lt.

Dam.

Pond

Sta. 166+95 - Std. C-338
8' x 4' x 34.1' R.C. Box
EXTENDED 8' Rt & 10' Lt.

Sta. 166+77 P.E. Rt.
Crown

Sta. 179+93 - Std. C-244
4' x 2.5' x 34.0' R.C. Box Removed
Built C-530 4' x 2½' x 54' R.C. Box

Lot 2 NE ¼ Sec. 4 — BOONE COUNTY T. 51 N. R. 12 W. — LOT 2 NW ¼ Sec 3

Fert. Mulch. R/W Marker

Total 175.522 A.F.
12

BM Elev. 839.66 Center Rt. Hdwl. Conc. Box Culvert Sta. 151+21
BM Elev. 836.96 Center Lt. Hdwl. Conc. Box Culvert Sta. 164+19
BM Elev. 837.73 Center Lt. Hdwl. Conc. Box Culvert Sta. 166+95
BM Elev. 845.34 Center Lt. Hdwl. Conc. Box Culvert Sta. 179+93

850 — 840 — 830

-0.956 5%

+1.1097%

1200' V.C.

FL Lt. 834.8 — FL Rt. 836.0 — FL Rt. 838.3 — FL Lt. 838.8 — FL Rt. 836.0 — FL Lt. 836.5 — FL Rt. 836.0 — FL Lt. 841.7 — FL Rt. 840.3

BM Elev. 839.66 — BM Elev. 836.96

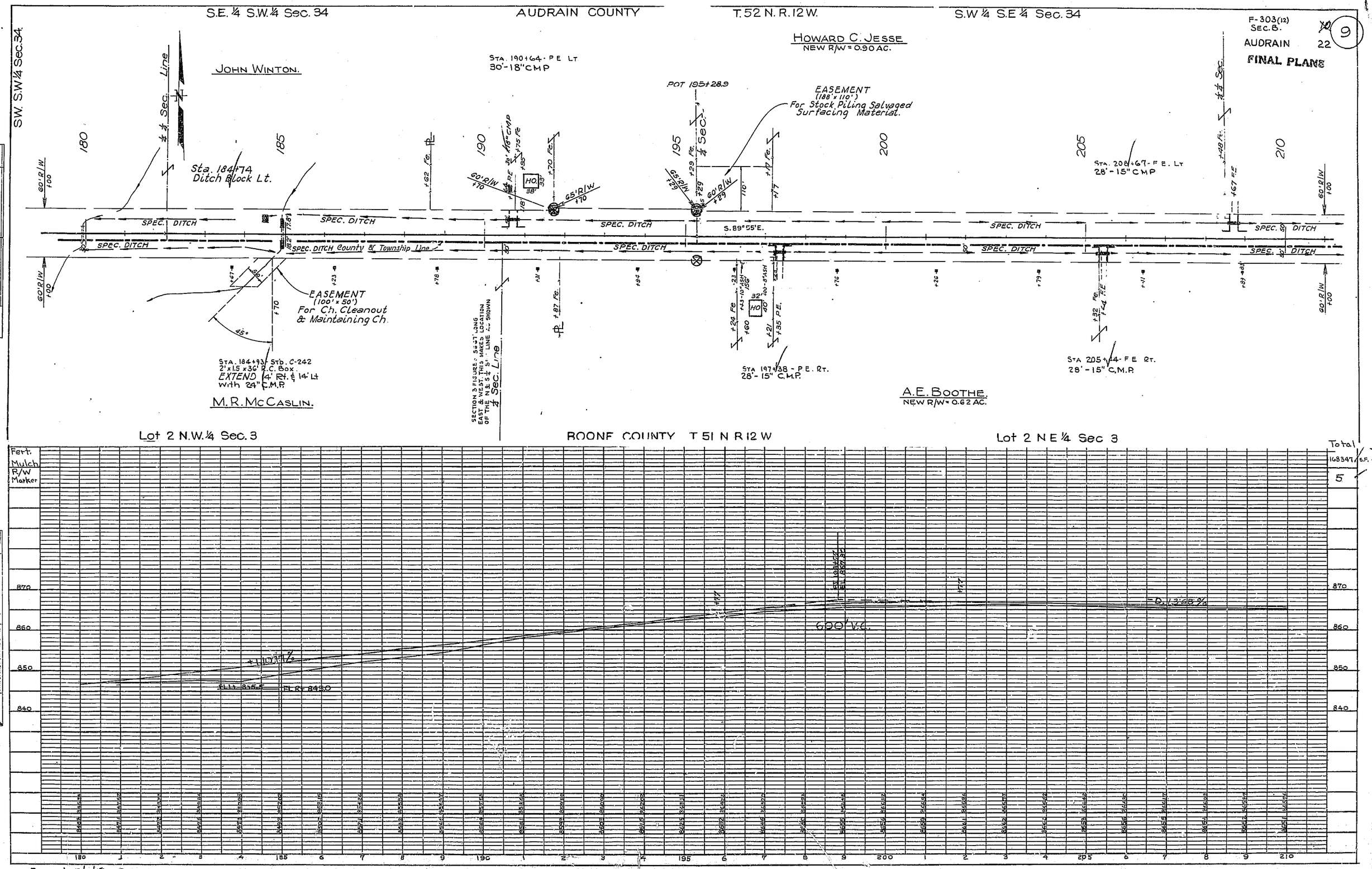
180 1 2 3 4 155 6 7 8 9 160 1 2 3 4 165 6 7 8 9 170 1 2 3 4 175 6 7 8 9 180

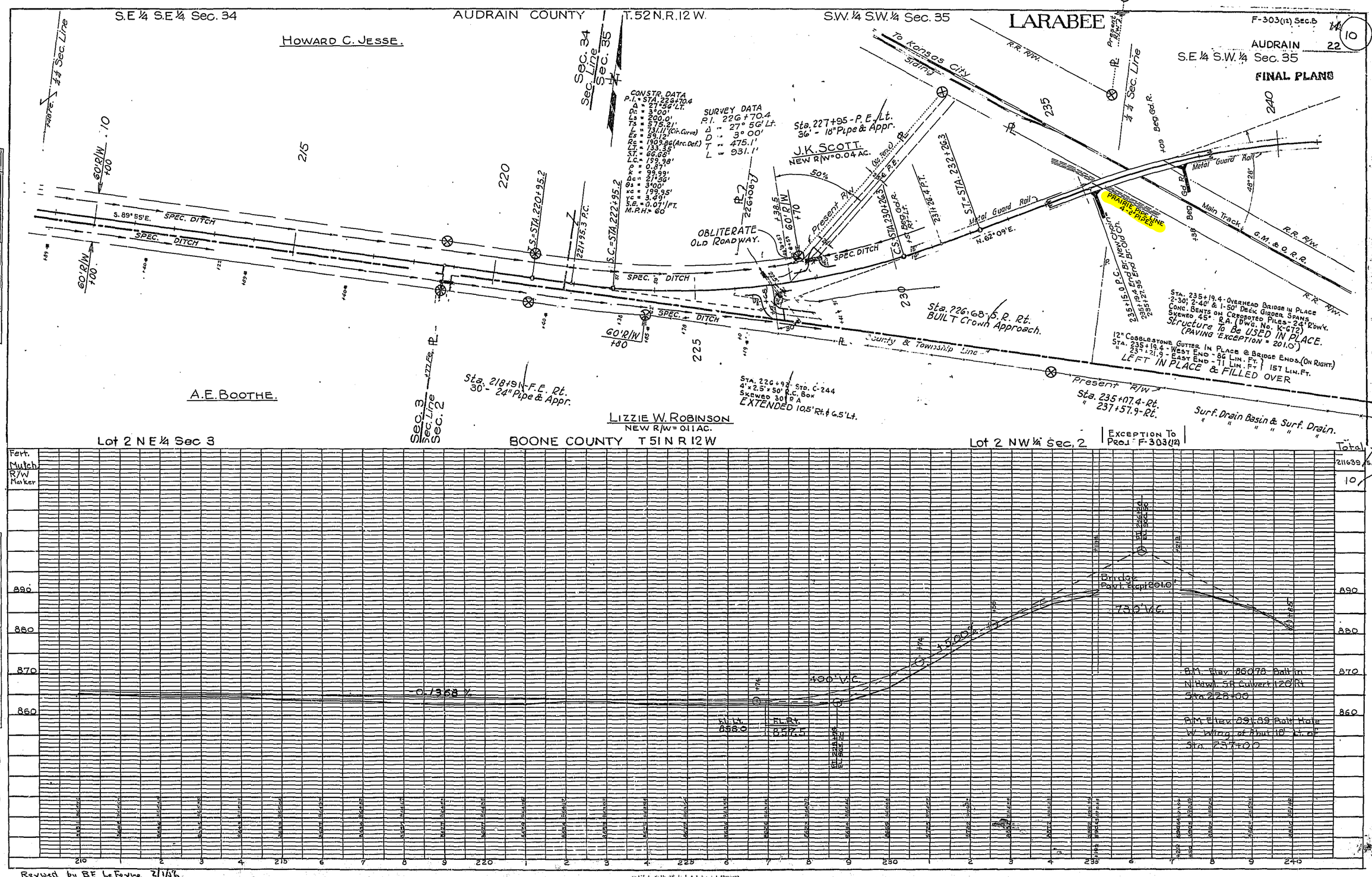
Revised by B.F. LeFevre 2/1/56

PLAN — SURVEYED — PLOTTED — GRADES CHECKED & REV. — STRUCT. & R.W. CHECKED — NOTE BOOK NO. 2079 — PT. OF VAW CHECKED — BY: M.E.G.E.P. — STANLEY — SOLLARS — DATE: 1956 — 1956 — 1956 — 1956

PROJECT — SURVEYED — PLOTTED — GRADES CHECKED — B.M. NOTED — STRUCTURE NOTES — CK'ND — NOTE BOOK

378


S.E. ¼ S.W. ¼ Sec. 34
AUDRAIN COUNTY
T. 52 N. R. 12 W.
S.W ¼ S.E ¼ Sec. 34
F-303(12)
SEC. B.
AUDRAIN 22
9
FINAL PLANS
SW. S.W. ¼ Sec. 34
JOHN WINTON.
HOWARD C. JESSE
NEW R/W = 0.90 AC.
STA. 190+64 - P.E. LT.
30'-18" CMP
POT 195+28.9
EASEMENT
(188' x 110')
For Stock Piling Salvaged Surfacing Material.
Sta. 184+74
Ditch Block Lt.
STA. 208+67 - F.E. LT.
28'-15" CMP
SPEC. DITCH
S. 89°55'E.
County & Township Line
EASEMENT
(100' x 50')
For Ch. Cleanout & Maintaining Ch.
STA. 184+93 - STD. C-242
2' x 1.5' x 36' R.C. Box.
EXTEND 4' Rt. & 14' Lt
with 24" C.M.P.
M. R. McCASLIN.
SECTION 3 FIGURES - 56.37' ALONG EAST & WEST ST. THIS MAKES LOCATION OF THE N & S ¼ SEC. LINE AS SHOWN
STA 197+38 - P.E. RT.
28'-15" C.M.P.
A.E. BOOTHE.
NEW R/W = 0.62 AC.
STA 205+14 - F.E. RT.
28'-15" C.M.P.
Lot 2 N.W. ¼ Sec. 3
BOONE COUNTY T 51 N R 12 W
Lot 2 N.E. ¼ Sec 3
Fert.
Mulch
R/W Marker
Total
168347 S.F.
5
+1.10771%
EL 13 845.5
EL RT 845.0
600' V.C.
-0.1368%
EL 13 847.6
EL RT 846.32
870
860
850
840
180
185
190
195
200
205
210
PLAN
NOTE BOOK NO. 2079
SURVEYED
PLOTTED
ALIGNMENT CHECKED
PT. OF WAY CHECKED
N.G.G.E.F.
R.D.W.
V.G.A.N.G.
1944
1946
2-22-56
BY
DATE
REVISED
NOTE BOOK NO.
SURVEYED
PLOTTED
GRADES CHECKED
B.M. NOTED
STRUCTURE NOTES NOTCHED
BY
DATE
378
Revised 2/1/56 B F LeFevre



PLAN		
SURVEYED	BY	DATE
PLOTTED	J.A.L.	1-25-83
NOTE BOOK	J.A.L.	1-25-83
ALIGNMENT CHECKED	B. REV.	
NO. 2073	RT. OF WAY CHECKED	J.A.L. 1-25-83

PROFILE		
SURVEYED	BY	DATE
PLOTTED		
GRADES CHECKED		
NOTE BOOK		
STRUCTURE NOTES CHECKED		

38

Revised by B.F. LeFevre 2/1/86

F-303(12) Sec.B 12 (11)

AUDRAIN 22

FINAL PLANS

S.E. ¼ S.W. ¼ Sec. 35 — AUDRAIN COUNTY — S.W. ¼ S.E. ¼ Sec. 35 — T. 52 N. R. 12 W. — S.E. ¼ S.E. ¼ Sec. 35

Curve of Former Rt. 22
P.I. 262+46.1
Δ = 28° 03' Lt.
D = 3° 00'
T = 477.1'
L = 935.0'

Sta. 260+97
F.E. Lt.
28"-18" C.M.P. 131' U. 260+59

Sta. 247+91 F.E. Lt. 28"-15" C.M.P.

CHARLES P. PALMER
NEW R/W = 0.24 AC.

Present R/W — 18" Pipe — 110' C.R. — Rte. S.H. — 42°15' — Sta. 245+10 - S.R. Lt. Crown Appr. — L = 133' — 150' R. — Metal Guard Rail — 1 1/8" Expansion Rail — 1 1/8" Rt. Rail

SPEC. DITCH — Rte. 22 — S. 52° 55' E. — ¼ Sec. Line — 253+81.7 P.T. Former Rt. 22 — 257+690 P.C. Former Rt. 22 — 261+10 POT AUDRAIN-OTTO BOONE CO. P.C. — 8'x5' Conc. Box 42' Lg. 30° Sk. — 271+04 P.T. Bk. 274+61 P.C. Former Rt. 22 — Present R/W — Sta. 261+10 - S.R. Lt. Crown Appr. — POND — Rte. 22

Δ = 16° 30' Lt.
D = 1° 00'
T = 830.76'
L = 1650.0'

P.I. 247+30.3
Δ = 64° 50' Rt.
D = 3° 00'
T = 1215.3'
L = 2164.4'
S.E. = 0.0429'/FT.
L.T. = 150'
M.P.H. = 45

¢ Old Rte. 22 — 256+784 P.T.

Sta. 261+10 - Audrain Co.
End Proj. F-303(12) Sec. B.

S. 69° 25' E.

R.R. R/W. — To Kansas City — ¢ Main Track G.M. & O. R.R. — To Centralia — 60" C.I.P.

R.R. R/W — Present R/W — Audrain County Line — Boone County Line — ¼ ¼ Sec. Line — 144 — 345 — POT 261+10-0+00

Lot 2 N.W. ¼ Sec. 2 — BOONE COUNTY T51 N R 12W — Lot 2 N.E. ¼ Sec. 2

Total 121484 S.F.
4

BM Elev. 860.56 Nail in root 24" Cottonwood 90' Rt. Sta. 248+30
BM Elev. 847.24 Center Rt. Hwy. Conc. Box Culvert Sta. 0+40 Sec. C

Fert
Mulch
R/W
Marker

880 — 870 — 860 — 850 — 840

400' V.C. — 0.10 — 0.05 — 400' V.C. — 0.00

240 — 1 — 2 — 3 — 4 — 245 — 6 — 7 — 8 — 9 — 250 — 1 — 2 — 3 — 4 — 255 — 6 — 7 — 8 — 9 — 260

PLAN	BY	DATE
SURVEYED		
PLOTTED	A.K.S. & B.E.	1-9-56
NOTE BOOK		
HIGHWAY CHECKED	A.T.G.L. & J.F.	1-9-56
No. 2079		
RT. OF WAY CHECKED	S.D.U.N.G.	2-24-56

PROFILE	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK		
CROSS SECTIONS CHECKED		
B.M. NOTE		
STRUCTURE NOTE		

38

Revised by B.F. LeFevre 2/1/56

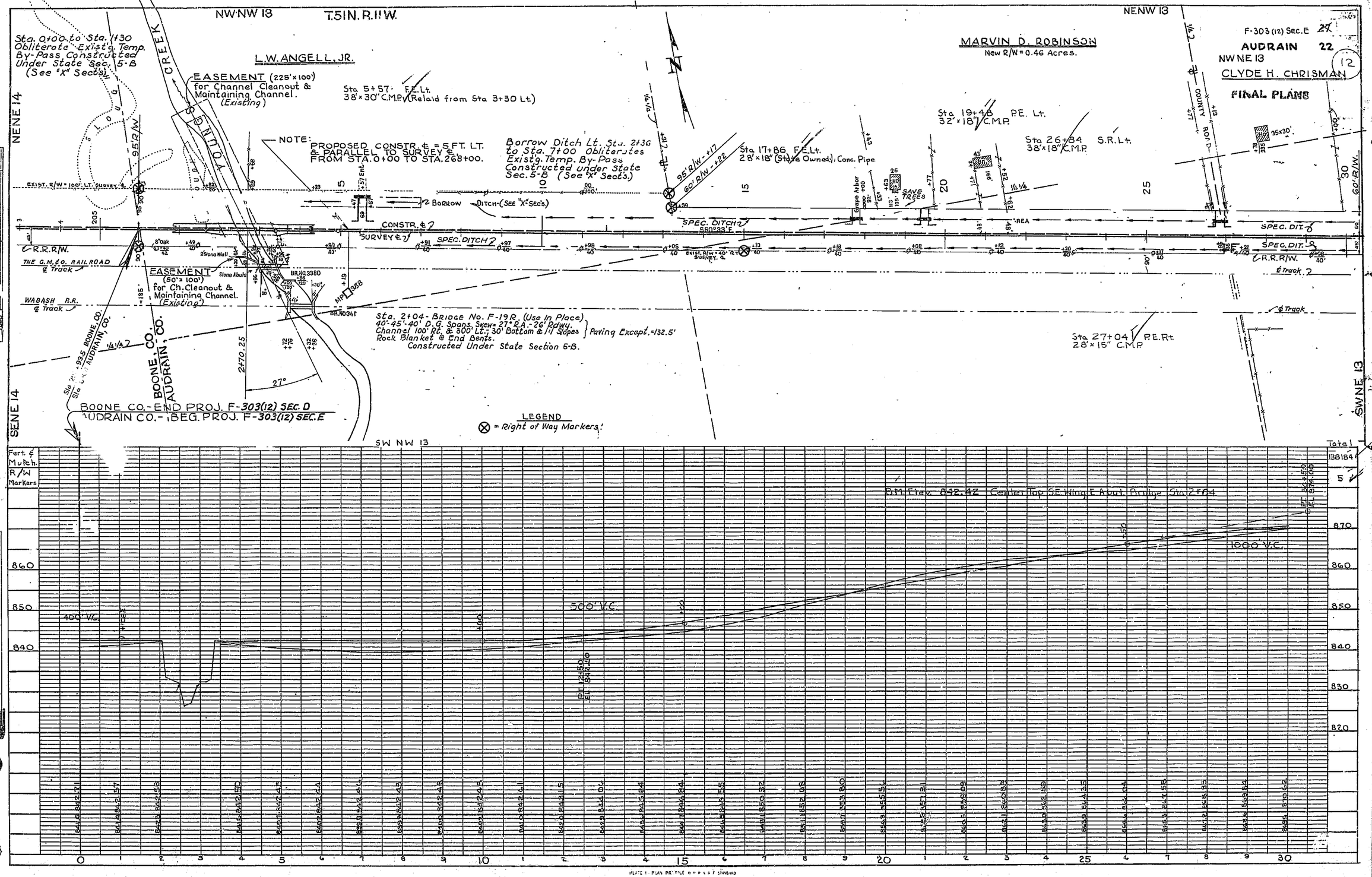


PLATE 1 - PLAN PROFILE OF P.R.A.R.F. STANDARD

H. & E. CO. N. 1948-81

38

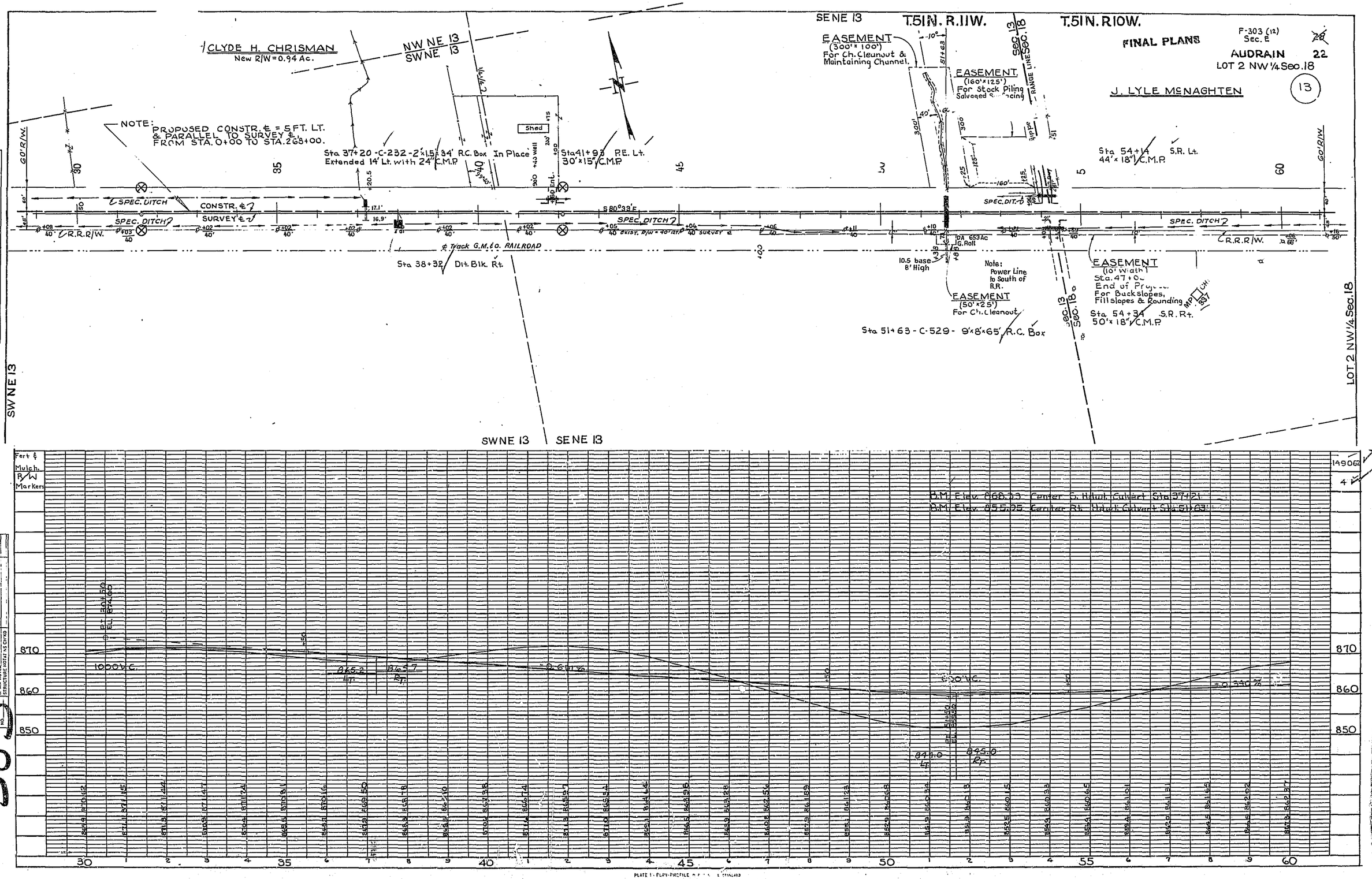
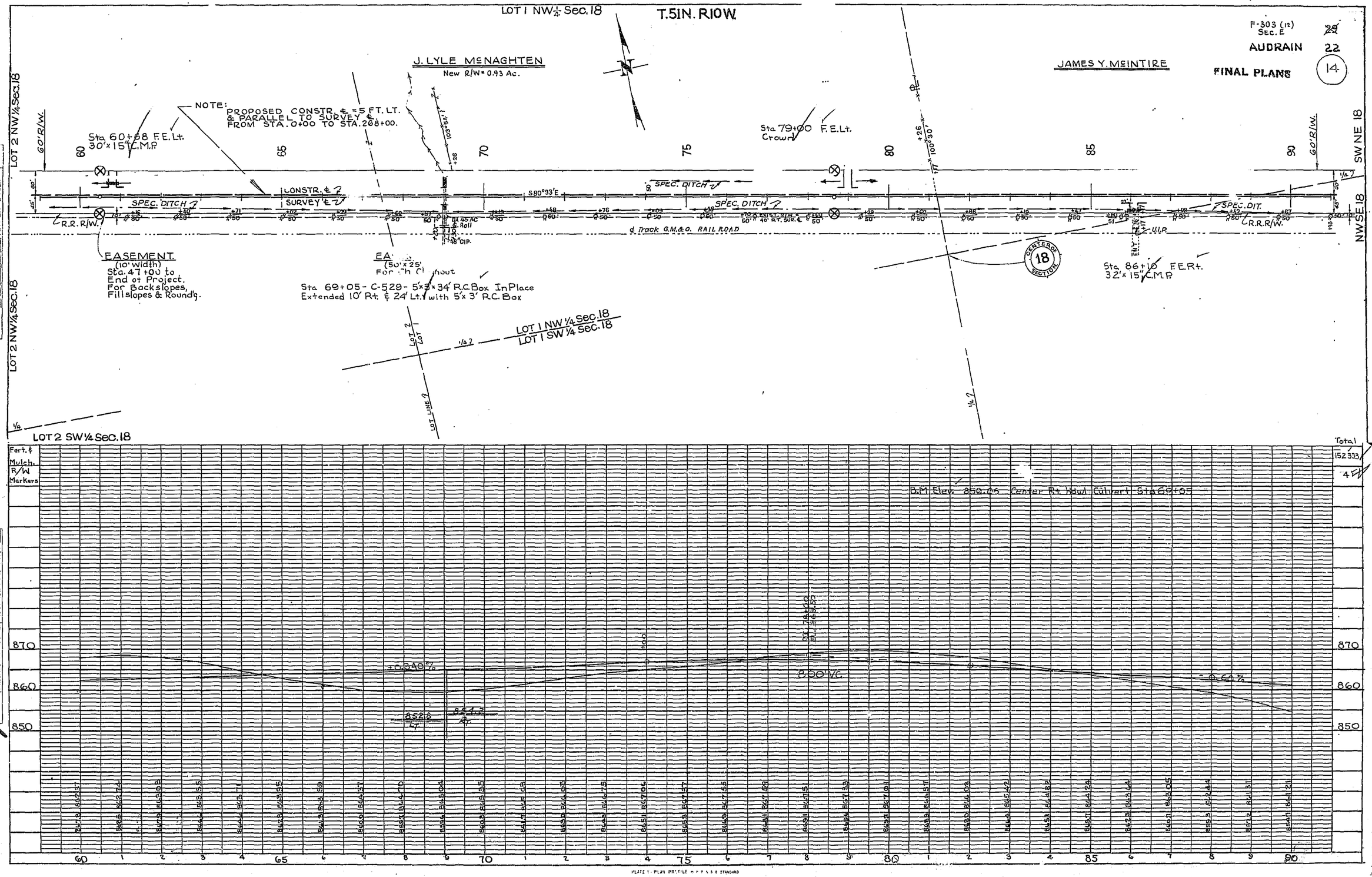


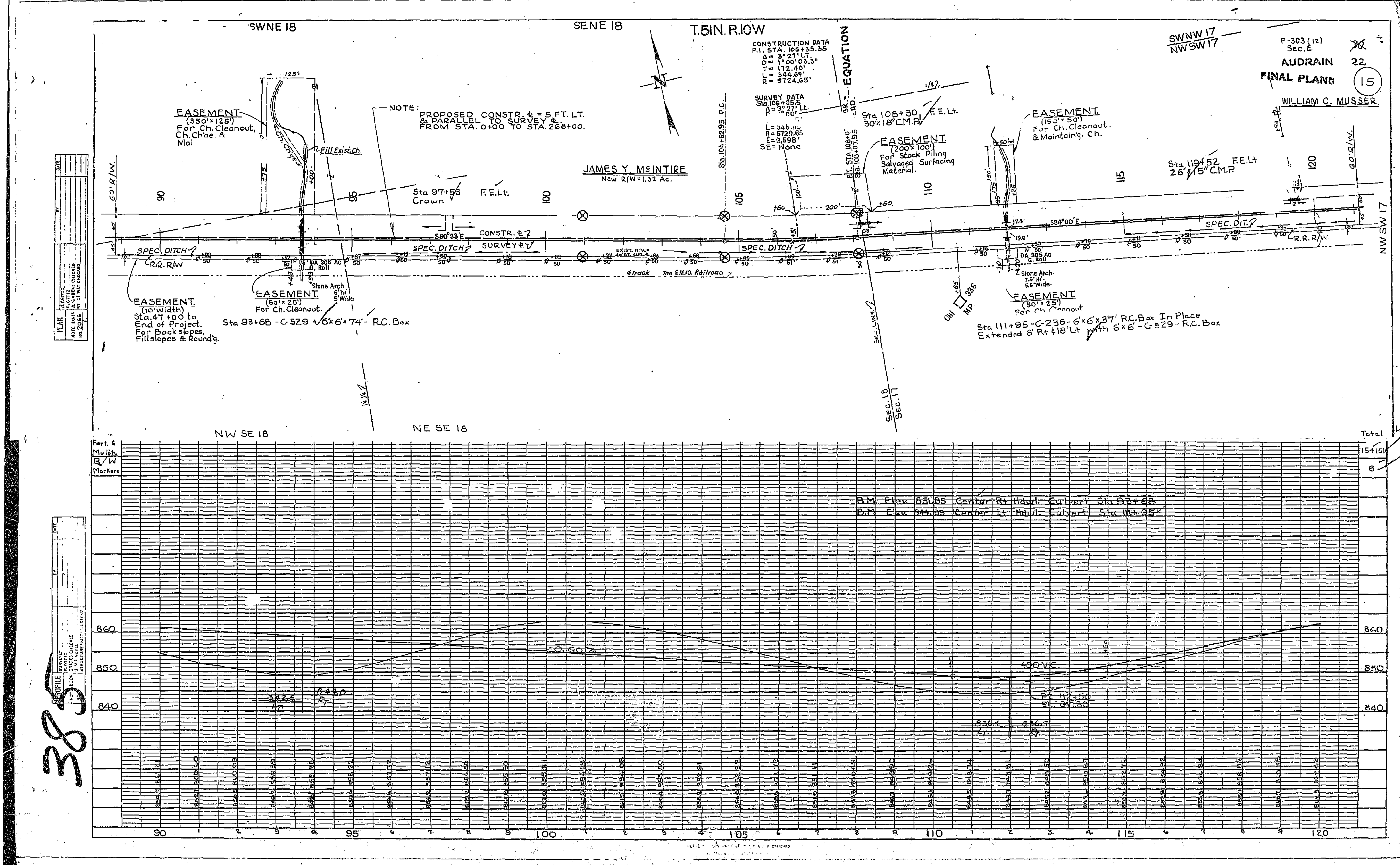
PLATE 1 - PLAN-PROFILE

38



PLAN PROFILE
SURVEYED
PLOTTED
CURVES CALCULATED
CURVES CHECKED
STRUCTURE NOTES CHECKED
NOTE BOOK NO. 2066
BY
DATE

384


F-303 (12) Sec. E
AUDRAIN 22
FINAL PLANS 15
WILLIAM C. MUSSER
SWNE 18
SENE 18
T.51N. R.10W
SWNW 17 / NWSW 17
NW SE 18
NE SE 18
NW SW 17
CONSTRUCTION DATA
P.I. STA. 106+35.35
Δ = 3°27' LT.
D = 1°00'03.3"
T = 172.40'
L = 344.69'
R = 5724.65'
SURVEY DATA
Sta. 106+35.5
Δ = 3°27' Lt.
R = 5720.65
E = 2.598'
SE = None
EQUATION
Sta. 104+62.95 P.C.
P.T. STA. 108+0
Sta. 108+07.95
NOTE: PROPOSED CONSTR. ℄ = 5 FT. LT. & PARALLEL TO SURVEY ℄. FROM STA. 0+00 TO STA. 268+00.
EASEMENT (350'×125') For Ch. Cleanout, Ch. Ch'ge. & Mai
Fill Exist. Ch.
EASEMENT (10' width) Sta. 47+00 to End of Project. For Back slopes, Fillslopes & Round'g.
EASEMENT (50'×25') For Ch. Cleanout.
Stone Arch 6' hi 5' Wide
DA 306 AC G. Roll
Sta 93+68 - C-529 - 6'×6'×74' - R.C. Box
Sta 97+53 Crown
F.E.Lt.
JAMES Y. McINTIRE
New R/W = 1.32 Ac.
Sta 108+30 30'×18" C.M.P. F.E.Lt.
EASEMENT (200'×100') For Stock Piling Salvaged Surfacing Material.
EASEMENT (150'×50') For Ch. Cleanout. & Maintain'g. Ch.
Sta 119+52 26'×15" C.M.P. F.E.Lt
60' R/W.
S80°33'E
S84°00'E
CONSTR. ℄
SURVEY ℄
SPEC. DITCH
SPEC. DIT.
R.R. R/W
EXIST. R/W = 40' RT. SUR. ℄
℄ Track The G.M.&O. Railroad
SEC. LINE
Sec. 18 / Sec. 17
DA 305 Ac G. Roll
Stone Arch 7.5' Hi. 5.5' Wide.
CHI MP 336
EASEMENT (50'×25') For Ch. Cleanout
Sta 111+95 - C-236 - 6'×6'×37' R.C. Box In Place Extended 6' Rt & 18' Lt with 6×6' - C-529 - R.C. Box
Fert. & Mulch.
R/W Markers
Total 154161
6
B.M. Elev. 851.85 Center Rt Hdwl. Culvert Sta 93+68
B.M. Elev. 844.33 Center Lt Hdwl. Culvert Sta 111+95
-0.60%
400 V.C.
P.I. 112+50 El. 841.80
842.5 Lt.
844.0 Rt.
836.4 Lt.
836.4 Rt.
860
850
840
PLAN
PROFILE
NOTE BOOK NO. 2066
90 95 100 105 110 115 120
38

T.51N. R.10W.

WILLIAM C. MUSSER
New R/W = 0.86 Ac.

NOTE:
PROPOSED CONSTR. ℄ = 5 FT. LT.
& PARALLEL TO SURVEY ℄
FROM STA. 0+00 TO STA. 268+00.

EASEMENT.
(10' Width)
Sta. 47+00 to
End of Project.
For Backslopes,
Fillslopes & Round'g.

EASEMENT.
(as Shown)
For Ch. Cleanout
& Maintain'g. Ch.

EASEMENT.
(50' x 25')
For Ch. Cleanout.

Sta 136+37 F.E.Lt.
30" x 15" C.M.P.

Sta 143+15 F.E.Lt.
26" x 15" C.M.P.

Sta 143+15 P.E.Rt.
32" x 15" C.M.P.

Sta 149+69 P.E.Rt.
Crown

Sta 139+06 Dit. Blk. Rt.

Sta 138+51-C-233-3'x2'x38' R.C. Box In Place
Extended 10' Rt & 17' Lt / 3'x 2'-C-530 R.C. Box

Sta 140+69 ℄
70" x 18" R.C.P. with C-230 R.C. Hdwls.

FINAL PLANS
F-303(12)
SEC. E
AUDRAIN 22
(16)
JESS G. JONES

NW SW 17 — NE SE 17 — NE SW 17 — NW SE 17

60' R/W.

SPEC. DIT. — CONSTR. ℄ — SURVEY ℄ — S84°00'E

R.R.R/W.

The G.M.&O. Railroad

DA 69 Ac. G. Roll

Stone Arch (2.2' Hi 2.2 Wide)

6" Elm — 39" 6" W. Cherry

Fert & Mulch — R/W — Mulch

Total 135682 — 4

B.M. Elev. 848.02 Center Lt. Hdwls. Culvert Sta 140+69

ET. 872+00 EL. 869.05

700' V.C.

+0.943%

-0.404%

ET. 143+00 EL. 851.00

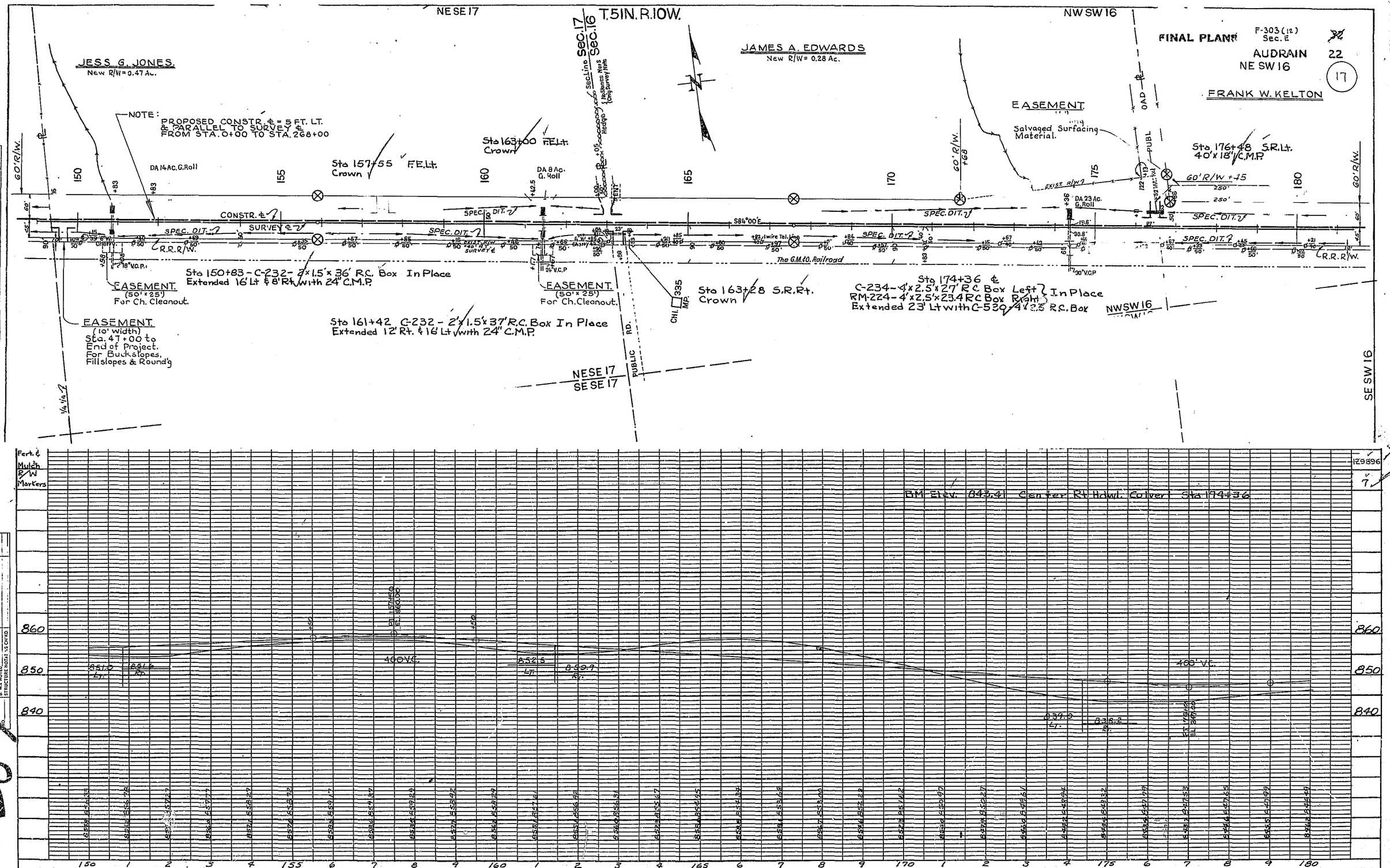
835.3 Lt. — 835.5 Rt. — 845.5 Lt. — 846.8 Rt.

865 — 860 — 855 — 850 — 845

120 — 125 — 130 — 135 — 140 — 145 — 150

PLATE 1 - PLAN-PROFILE

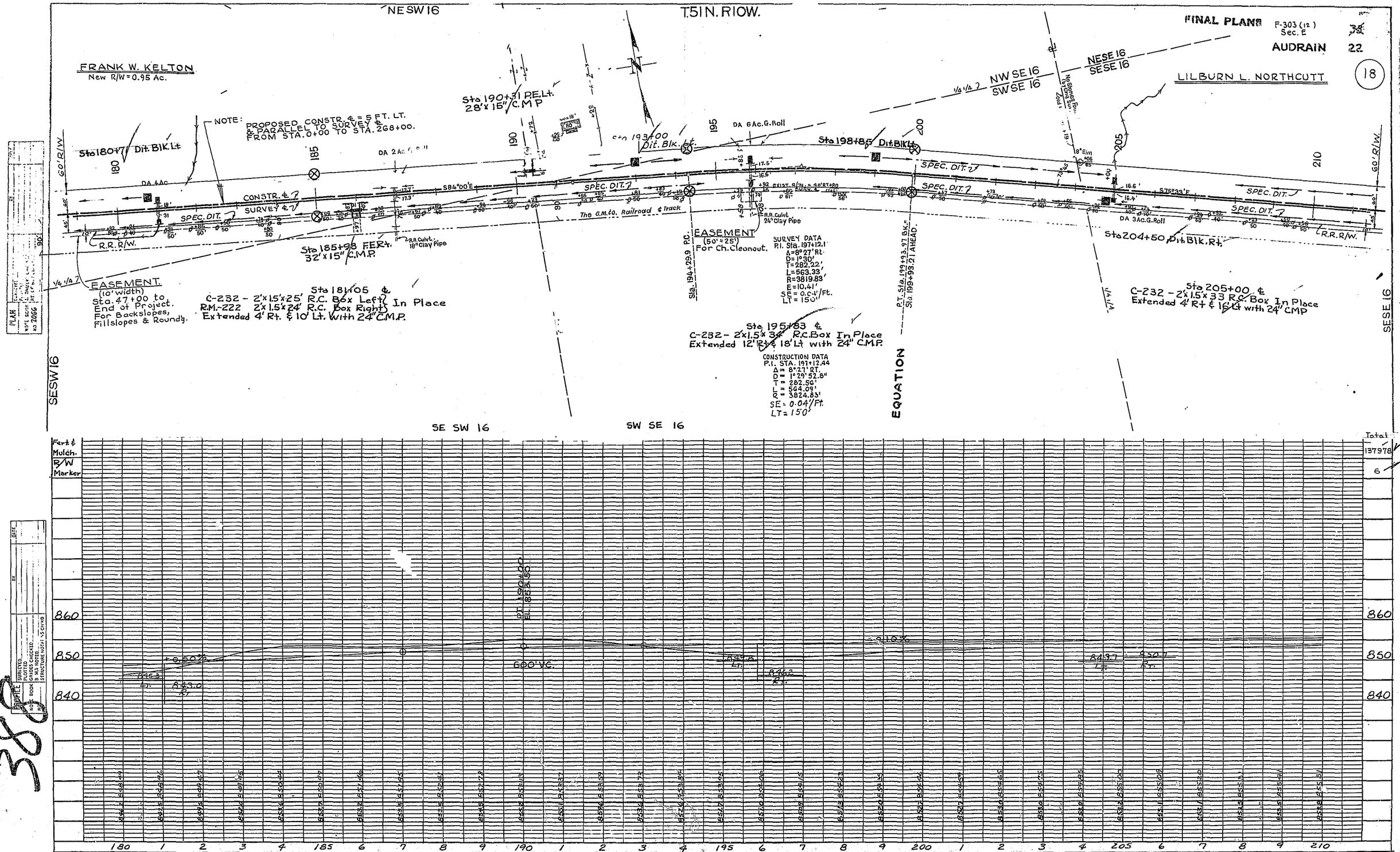
386



PLAN
NOTE BOOK NO. 2066
SURVEYED
PLOTTED
GRADES CHECKED
BRIDGE STRUCTURE CHECKED
R/W CHECKED
STRUCTURE NOTAT'S CH'KD
DATE
BY
3-15-56

PROFILE
NOTE BOOK NO.
SURVEYED
PLOTTED
GRADES CHECKED
BRIDGE STRUCTURE NOTAT'S CH'KD
DATE
BY
3-15-56

38


NE SW 16
T.51 N. R10W.
FINAL PLANS
F-303 (12)
Sec. E
AUDRAIN
22
18
FRANK W. KELTON
New R/W = 0.95 Ac.
LILBURN L. NORTHCUTT
NOTE: PROPOSED CONSTR. ℄ = 5 FT. LT. & PARALLEL TO SURVEY ℄ FROM STA. 0+00 TO STA. 268+00.
Sta 180+71 Dit. Blk. Lt.
Sta 190+31 P.E. Lt. 28" x 15" C.M.P.
Sta 193+00 Dit. Blk. Lt.
Sta 198+85 Dit. Blk. Lt.
Sta 204+50 Dit. Blk. Rt.
DA 4 Ac.
DA 2 Ac. G. Roll
DA 6 Ac. G. Roll
DA 3 Ac. G. Roll
CONSTR. ℄
SURVEY ℄
SPEC. DIT.
S84°00'E
S75°33'E
The G.M.&O. Railroad ℄ Track
R.R. R/W.
60' R/W.
R.R. Culvt. 18" Clay Pipe
R.R. Culvt. 24" Clay Pipe
Sta 185+98 F.E. Rt. 32" x 15" C.M.P.
EASEMENT (10' width) Sta. 47+00 to End of Project. For Backslopes, Fillslopes & Roundg.
Sta 181+05 ℄ C-232 - 2'x1.5'x25' R.C. Box Left } In Place
R.M.-222 2'x1.5'x24' R.C. Box Right }
Extended 4' Rt. & 10' Lt. With 24" C.M.P.
EASEMENT (50' x 25') For Ch. Cleanout.
Sta. 194+29.9 R.C.
SURVEY DATA
P.I. Sta. 197+12.1
Δ = 8°27' Rt.
D = 1°30'
T = 282.22'
L = 563.33'
R = 3819.83'
E = 10.41'
SE = 0.04'/Ft.
LT = 150'
Sta 195+83 ℄ C-232 - 2'x1.5'x34' R.C. Box In Place
Extended 12' Rt. & 18' Lt. with 24" C.M.P.
CONSTRUCTION DATA
P.I. STA. 197+12.44
Δ = 8°27' RT.
D = 1°29' 52.8"
T = 282.56'
L = 564.09'
R = 3824.83'
SE = 0.04'/Ft.
LT = 150'
P.T. Sta. 199+93.97 B.K.
Sta. 199+93.21 AHEAD.
EQUATION
Sta 205+00 ℄ C-232 - 2'x1.5'x33' R.C. Box In Place
Extended 4' Rt. & 16' Lt. with 24" CMP
NE SE 16
SE SE 16
NW SE 16
SW SE 16
SE SW 16
SW SE 16
SE SW 16
Fert. & Mulch.
R/W Marker
P.T. 190+00
El. 863.50
+0.50%
-2.10%
600' V.C.
Total
137978
6
860
850
840
180
185
190
195
200
205
210

386

F-303 (12)
Sec. E
AUDRAIN
22
19
FINAL PLANS

T51N. R10W.

SESE16 | SWSW15 | SESE16

LILBURN L. NORTHCUTT
New R/W = 1.18 Ac.

JOHN W. DAVENPORT
New R/W = 1.45 Ac.

NOTE:
USGS. Δ Station Northcutt 1934
Sta. 232+00 100°00' Lt. - 49.4'
USGS. Ref. Station No. 2 1934
Sta. 230+05 40' Lt.

NOTE:-
FOR PROJ. ENG'R.
RESET & REFERENCE.

N to Rt. L in Co. Road (No Stones Orig. Survey)
SEC 15
SEC 16
L 100°00'

Sta 216+88 P.E.Lt.
Crown

NOTE:
PROPOSED CONSTR. ℄ = 5 FT. LT.
OR PARALLEL TO SURVEY ℄
FROM STA. 0+00 TO STA. 268+00

EASEMENT
(60')
For Stock Piling
Salvaged Surfacing
Material

Note: 1 wire Phone Line Leaves Highway to Left

Sta 232+18 S.R.Lt.
48' x 15" C.M.P.

Sta 237+98 P.E.Lt.
Crown

60' R/W.
90' R/W.
90' R/W (40')
PUBLIC ROAD
210 | 215 | 220 | 225 | 230 | 235 | 240
600'
CONSTR. ℄
SURVEY ℄
SPEC. DIT.
Spec. Dit.
R.R. R/W.
18.2', S75°33'E
17.8'
DA 14.4 Ac.
G. Roll
G.M.&O. Railroad
18" Clay Pipe
Sta 217+46 Dit Blk. Rt.
EASEMENT
(50' x 25')
Ch Cleanout.
EASEMENT
(10' width)
Sta. 47+00 to
End of Project.
For Backslopes,
Fillslopes & Roundg.
CH1 334 +37 M.P.
nes (Orig. Survey) South
Sec. Line 7
SWSW15
NWNW22
NENW
Sta 232+62 S.R.Rt.
44' x 15" C.M.P.
Sta 222+57 ℄
C-233 - 3'x2'x36' R.C. Box In Place
Extended 8' Rt. & 20' Lt. with C-530 3'x2' R.C. Box

PLAN
PLOTTED
NOTE BOOK
No. 2066

PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
BLUE BOOK
STRUCTURE NOTE
STRUCTURE NOTE NS CH'KD
DATE
BY

Fert. & Mulch
R/W Markers

Total
181337
4

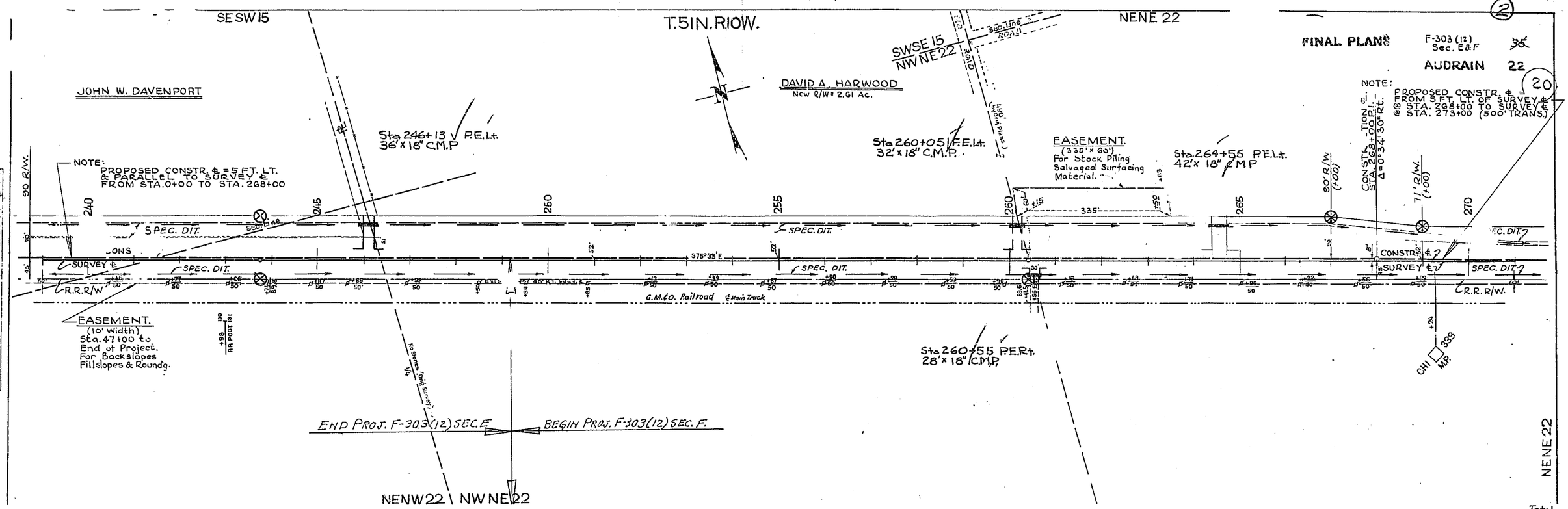
BM Elev 853.78 Center Rt Hdwl. Culvert Sta 222+57

860 | 850 | 840

+0.10%
849+1 Lt.
850+1 Rt.
460 V.C.
+0.50%
800 V.C.
-0.12%
PVI 227+50
EL 852.20
PVI 237+00
EL 852.50

210 1 2 3 4 215 6 7 8 9 220 1 2 3 4 225 6 7 8 9 230 1 2 3 4 235 6 7 8 9 240

38

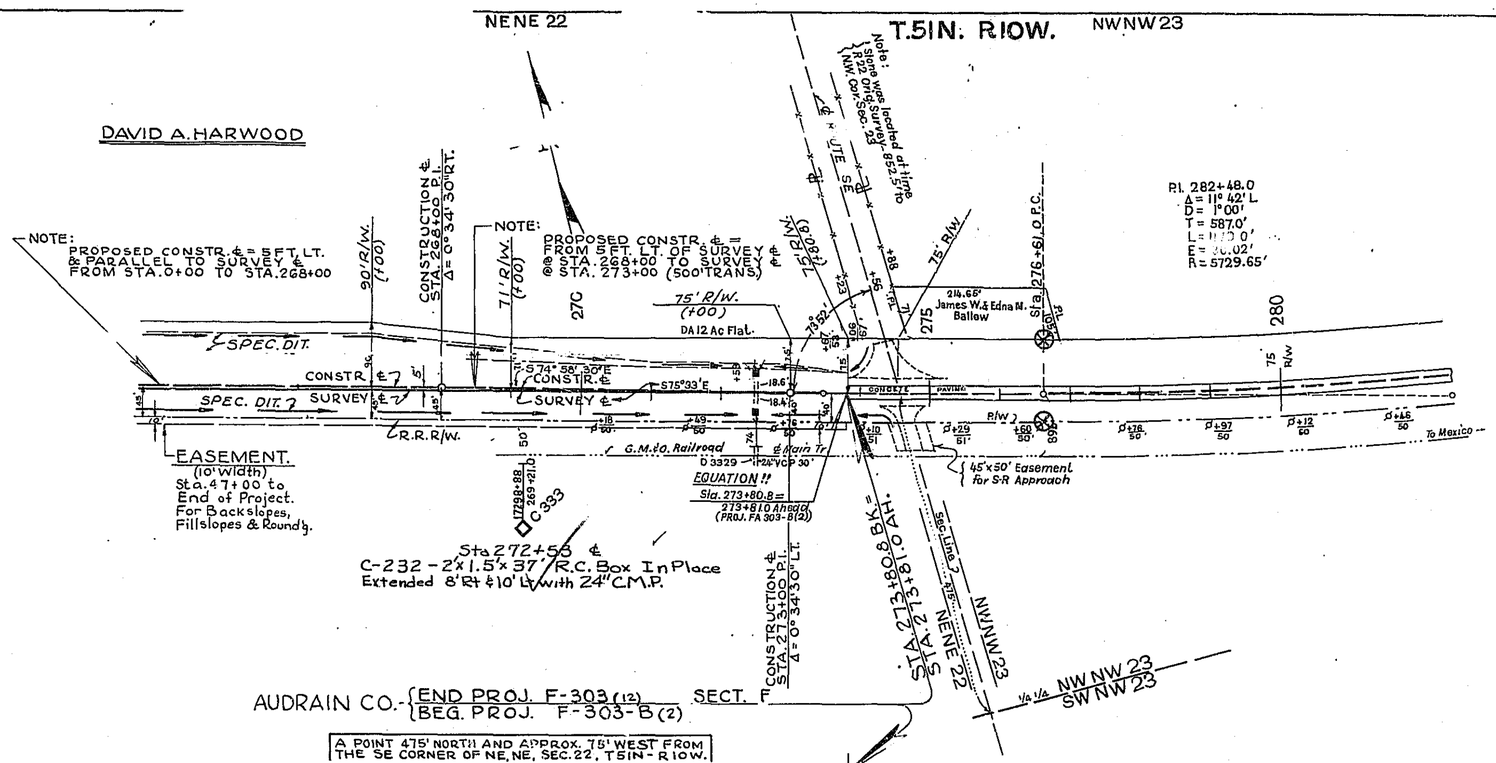

SE SW 15
T.51N.R10W.
NE NE 22
SW SE 15
NW NE 22
SECTION LINE ROAD
FINAL PLANS
F-303 (12) Sec. E & F
AUDRAIN 22
20
JOHN W. DAVENPORT
DAVID A. HARWOOD
New R/W = 2.61 Ac.
NOTE: PROPOSED CONSTR. ℄ = 5 FT. LT. & PARALLEL TO SURVEY ℄ FROM STA. 0+00 TO STA. 268+00
Sta 246+13 P.E.Lt. 36' x 18" C.M.P.
Sta 260+05 P.E.Lt. 32' x 18" C.M.P.
EASEMENT. (335' x 60') For Stock Piling Salvaged Surfacing Material.
Sta. 264+55 P.E.Lt. 42' x 18" C.M.P.
NOTE: PROPOSED CONSTR. ℄ = 5 FT. LT. OF SURVEY ℄ FROM STA. 268+00 TO SURVEY ℄ STA. 273+00 (500' TRANS.)
CONSTR. ℄ STA. 268+00 P.I. Δ = 0°34'30" Rt.
90' R/W (+00)
71' R/W (+00)
90' R/W
SPEC. DIT.
SURVEY ℄
CONSTR. ℄
R.R. R/W.
S75°39'E
335'
G.M.&O. Railroad ℄ Main Track
EASEMENT. (10' Width) Sta. 47+00 to End of Project. For Backslopes Fillslopes & Rounding.
Sta 260+55 P.E.Rt. 28' x 18" C.M.P.
CHI 393 M.P.
No Stones Only Survey
END PROJ. F-303(12) SEC. E
BEGIN PROJ. F-303(12) SEC. F.
NENW22 \ NWNE22
NENE 22
Fert. & Mulch. R/W Markers
Total 188611
5
860
850
840
800' V.C.
PI Sta 265+00
El. 858.50
240 1 2 3 4 245 6 7 8 9 250 1 2 3 4 255 6 7 8 9 260 1 2 3 4 265 6 7 8 9 270

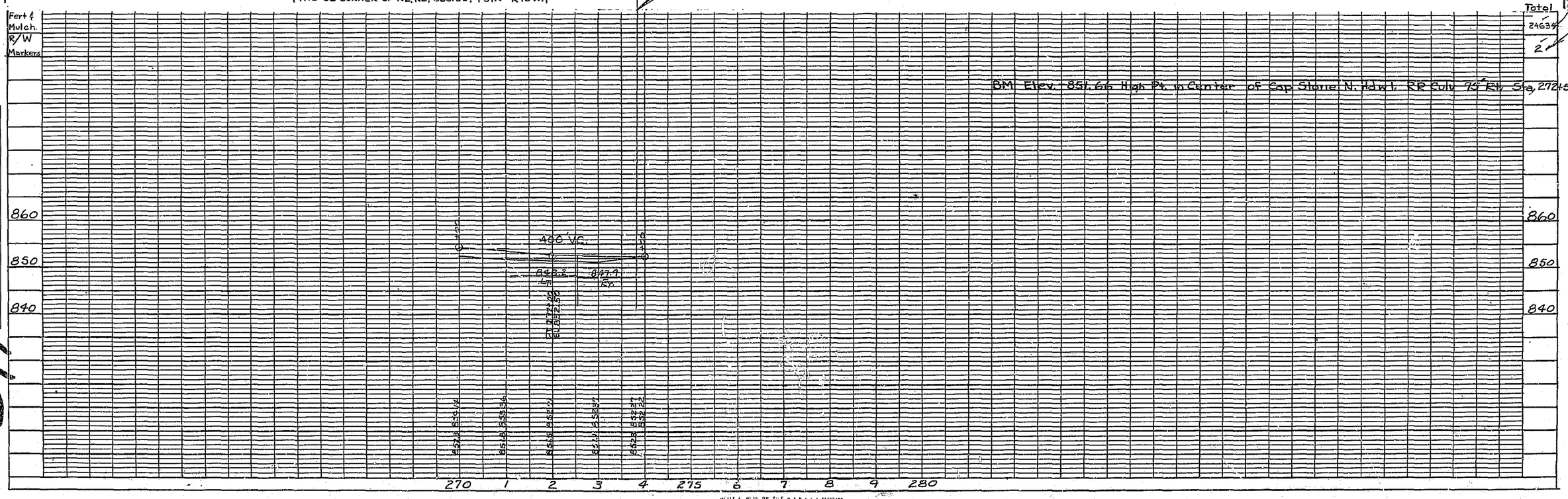
390

F-303(12)
Sec. F
AUDRAIN 22

FINAL PLANS

21





PLAN	
SURVEYED	
PLOTTED	
ALIGNMENT CHECKED	
RT. OF WAY CHECKED	
NOTE BOOK NO. 2066	

PROFILE	
SURVEYED	
PLOTTED	
GRADES CHECKED	
B. M. NOTE	
STRUCTURE NOTE	
NOTE BOOK NO.	
IS CHKD.	

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SEC. B AUDRAIN CO.

MODIFICATIONS OF STANDARD CULVERT DETAILS

STATION	STANDARD NUMBER	SIZE AND TOTAL LENGTH OF FINAL STRUCTURES	HEIGHT OF FILL FOR DESIGN DATA	SECTION OR IDENTICAL SECTIONS	SECTION LOCATED UNDER	LENGTH OF SECTION	MODIFICATIONS: BOTTOM SLAB: THICKNESS OF SLAB	MODIFICATIONS: BOTTOM SLAB: SIZE OF A-BARS	MODIFICATIONS: BOTTOM SLAB: SPACING OF A-BARS	MODIFICATIONS: LENGTH OF B-BARS IN SIDEWALLS	REMARKS
			1/8	A	Lt. Slope	13'					
			1/3	B	Lt. Slope	5'					No Joint between Sec. B & C.
99+12	C-570 Extend Rt. & Lt.	4'x8'x96'		C	Road bed	In Place 46'					Use Culvert in Place.
			1/3	D	Rt. Slope	15'					No Joint between Sec. C & D.
			1/3	E	Rt. Slope	30'					
99+21	C-530	3'x7'x82'	1/3	A	Rt. Slope & Roadbed	41'					
			1/3	B	Lt. Slope & Roadbed	41'					

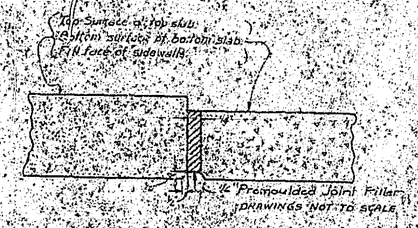
NOTE— Section "A" is always that section nearest the upstream flow line of the final structure.

SEC. C BOONE CO.

MODIFICATIONS OF STANDARD CULVERT DETAILS

STATION	STANDARD NUMBER	SIZE AND TOTAL LENGTH OF FINAL STRUCTURES	HEIGHT OF FILL FOR DESIGN DATA	SECTION OR IDENTICAL SECTIONS	SECTION LOCATED UNDER	LENGTH OF SECTION	MODIFICATIONS: BOTTOM SLAB: THICKNESS OF SLAB	MODIFICATIONS: BOTTOM SLAB: SIZE OF A-BARS	MODIFICATIONS: BOTTOM SLAB: SPACING OF A-BARS	MODIFICATIONS: LENGTH OF B-BARS IN SIDEWALLS	REMARKS
0+40	C-529	8'x5'x88'	4'	A	Rt. Slope & Road bed	44'	11"	#6	5½"	6'-6"	
			4'	B	Lt. Slope & Road bed	44'	11"	#6	5½"	6'-6"	
76+57.5	C-529	11'x6'x82'	6'	A	Lt. Slope & Road bed	41'	15½"	#8	7"	8'-3"	
			6'	B	Rt. Slope & Road bed	41'	15½"	#8	7"	8'-3"	
227+50	C-529	6'x5'x90'	5'	A	Rt. Slope & Road bed Lt. Slope & Road bed	45'	10"	#6	9"	6'-3"	
			5'	B		45'	10"	#6	9"	6'-3"	
			1/3	A	Rt. Slope	12'					No Joint between Sec. A & B.
196+48.1	C-530 Extend Rt. & Lt.	4'x6'x117'		B	Rt. Slope Road bed Lt. Slope	In Place 64'					Use Culvert in Place
			11'	C	Lt. Slope	10'					No Joint between Sec. B & C.
			1/3	D	Lt. Slope	31'					

DETAILS OF TRANSVERSE EXPANSION JOINT



Joint material to be used at transverse joints in top and bottom slabs and sidewalls.
Transverse joints to be constructed perpendicular to flow line and at right angles to ℄ of box.

GENERAL NOTES

All longitudinal reinforcement shall be placed with ends approximately 1½" from center of expansion joints.

Cost of transverse expansion joints, complete in place, to be included in unit price bid for Class "B" concrete.

The Premoulded Joint Filler shall meet the requirements of Standard Specification 38-19A(1)h.

MISSOURI STATE HIGHWAY COMMISSION

MODIFICATIONS AND TRANSVERSE EXPANSION JOINTS
FOR
BOX CULVERTS WHICH ARE TO BE BUILT IN SECTIONS

ROUTE 22 PROJ. F-303(12)
COUNTY AUDRAIN - BOONE

REVISIONS				
1	2	3	4	5
8-33				

SPECIAL SHEET NO. 1

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