

**COMMONWEALTH OF KENTUCKY  
STATE HIGHWAY DEPARTMENT**

**PLAN AND PROFILE OF PROPOSED  
STATE HIGHWAY**

**GREENUP COUNTY  
F.A. 201 C-S AND**

**U.S. WORKS PROGRAM GRADE CROSSING PROJECT NO. W.P.G.M. 201 C-B**

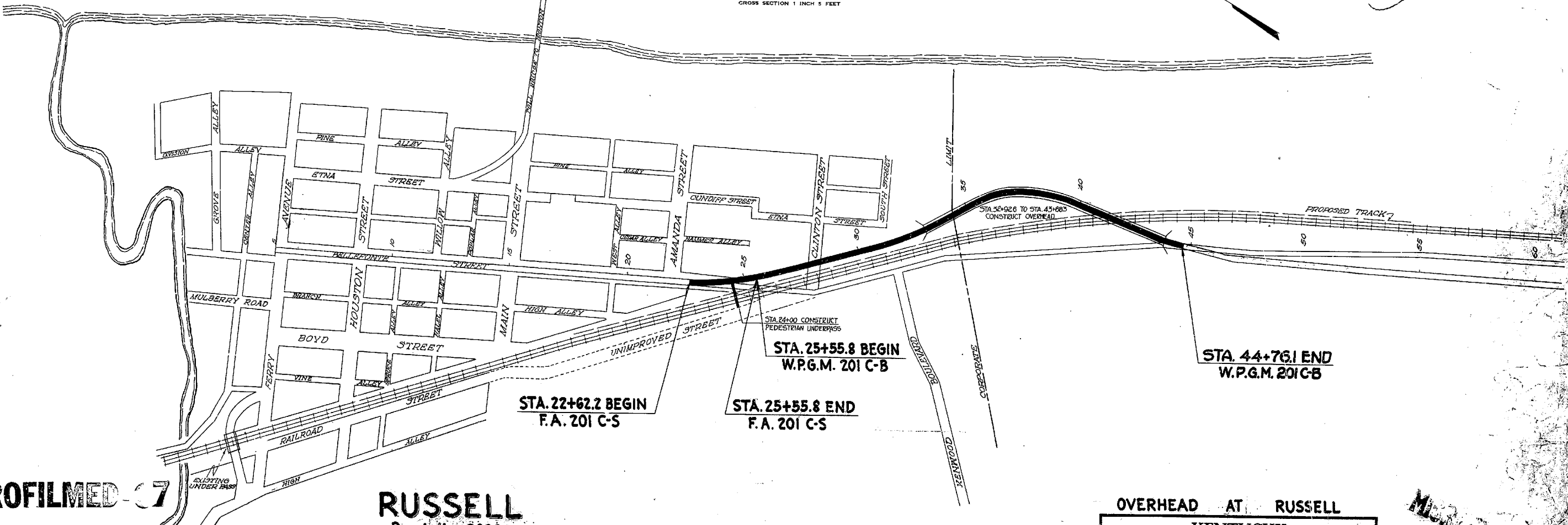
PLAN 1 INCH = 50 FEET  
PROFILE HOR. 1 INCH = 50 FEET  
PROFILE VER. 1 INCH = 10 FEET  
CROSS SECTION 1 INCH = 5 FEET

GREENUP CO.		F.A. 201 C-S		W.P.G.M. 201 C-B	
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.		1937	1	15

SHEET NO.	DESCRIPTION
1	LAYOUT SHEET
2, 2A, 2B	TYPICAL SECTIONS—SUMMARY OF QUANTITIES
3, 3OR, 3E, 3F	STANDARD DRAWING SHEETS
9 TO 11	PLAN AND PROFILE SHEETS
12	REFERENCE SHEET
13 TO 18	CROSS SECTION SHEETS
57	BRIDGE SHEETS

OHIO

2-5



ATTACH STANDARD SHEET, ADD SHEET NO. 3, 3OR, 3E, 3F

MICROFILMED 7

**RUSSELL**  
Population 2000.

OVERHEAD AT RUSSELL

CONVENTIONAL SIGNS	
COUNTY LINE	
CORPORATE LIMITS	
SURVEY LINE	
PROPOSED RIGHT OF WAY	
GRADE LINE	
GROUND LINE	
TRAVELED WAY	
RAILROAD	
FENCES (EXCEPT STONE & HEDGE)	
STONE FENCE	
HEDGE FENCE	
TREES & STUMPS	
PIPE LINE	
TELEPHONE POLES	
PIPE CULVERT	
CONCRETE CULVERT & BRIDGE	
LARGE STREAM	
SMALL STREAM	
BENCH MARKS	
ROAD INTERSECTIONS	
MARSH	
BUILDINGS	

F.A. 201 C-S	W.P.G.M. 201 C-B
GROSS LENGTH 293.6 LIN. FT. 0.55 MILES	GROSS LENGTH 1920.3 LIN. FT. 0.363 MILES
ADDED OR DEDUCTED FOR EQUALITIES 0 LIN. FT.	ADDED OR DEDUCTED FOR EQUALITIES 0 LIN. FT.
NET LENGTH 293.6 LIN. FT. 0.55 MILES	NET LENGTH 1920.3 LIN. FT. 0.363 MILES

**TOTAL LAYOUT MAP**

SCALE 1 INCH = 200 FEET
GROSS LENGTH 2213.9 LIN. FT. 0.419 MILES
ADDED OR DEDUCTED FOR EQUALITIES 0 LIN. FT.
NET LENGTH 2213.9 LIN. FT. 0.419 MILES
NOT INCLUDED
RAILROAD CROSSINGS & BRIDGES

KENTUCKY STATE HIGHWAY DEPARTMENT COUNTY OF GREENUP GREENUP-ASHLAND ROAD		
STATE PROJECT No.	SECTION	DATE 1937
SURVEYED BY <i>J.T. MEYER</i> FIELD ENGINEER		
PLANS CHECKED BY <i>H.C. CRANDALL</i> CHIEF DRAFTSMAN		
SURVEY AND PLANS APPROVED BY <i>H.C. CRANDALL</i> CHIEF ENGINEER		
SURVEY AND PLAN APPROVED BY <i>J.M. COLLIER</i> DISTRICT ENGINEER		
APPROVED BY <i>J.M. COLLIER</i> DISTRICT ENGINEER		

MICROFILMED 68

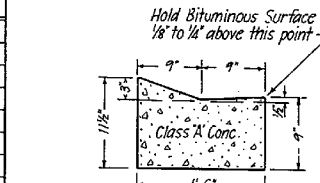
FA 201 C-S

# TYPICAL SECTIONS AND SUMMARY OF QUANTITIES

PLAN, CROSS SECTIONS AND QUANTITIES REVISED DUE TO CHANGE IN LOCATION AND DESIGN OF RETAINING WALLS, ON BOTH SIDES OF ROADWAY BETWEEN STA. 24+75 AND STA. 32+75 REVISION DATED 10-7-37.

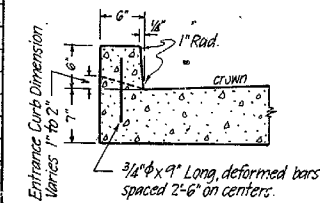
## GENERAL SUMMARY

ITEM	UNIT	F.A. 201 C-S	W.P.G.M. 201 C-B	TOTAL
Clearing and Grubbing	ACRE	0.28	3.05	3.33
Roadway and Drainage Excavation, Uncl.	CU. YD.	276.	1430.	1706.
Structure Excavation, Uncl.	"	100.	953.5	1053.5
Borrow, Uncl.	"		3102.	3102.
Scarifying and Reshaping	SQ. YD.	100.	625.	725.
Removing Concrete Sidewalk and Private Entrances	"	174.		174.
Removing Curb and Gutter	L.F.	442.		442.
Removing Brick Pavement	SQ. YD.	660.	105.	765.
12" Pipe for Drainage	L.F.	70.	70.	140.
15" " "	"	117.	414.	531.
18" " "	"		117.	117.
Class 'A' Concrete	CU. YD.		6014.7	6014.7
Class 'B' Concrete	"		285.	285.
Class 'D' "	"		157.5	157.5
Steel Reinforcement	L.B.		875047.	875047.
Structural Steel	"		488192.	488192.
Phosphor Bronze, Class 'A'	"		760.	760.
Class 'B'	"		7395.	7395.
Piling - 14" Precast Reinforced Concrete	L.F.		16560.	16560.
Creosoted Timber	"		5750.	5750.
10" C.M. Perforated Pipe	"		135.	135.
12" " "	"		252.	252.
12" Cast Iron Drain	"		75.	75.
Two Ply Waterproofing	SQ. YD.		567.	567.
C.I. Grating and 30"x72" Frame	EACH		1.	1.
2" Pipe Railing - Type 1	L.F.		175.	175.
2" " " Type 2	"		87.	87.
Lighting System	EACH		1.	1.
Catch Basin with Y-Trap	"	1.		1.
Special Inlet	"		1.	1.
Curb and Gutter Box Inlet	"	1.		1.
Manhole	"		1.	1.
No. 2 Stone for Special Drainage Ditch	TON		302.	302.
4" Concrete Sidewalk	SQ. YD.	172.	560.	732.
6" Concrete Pavement for Entrances	"	25.	10.	35.



DETAIL OF LIP CURB AND GUTTER

The unit price bid per Linear Foot for Lip Curb and Gutter shall include the cost of all labor, materials, expansion joints, excavation, forms etc. necessary for its construction.



DETAIL OF INTEGRAL CURB

The unit price bid per Linear Foot for Integral Curb shall include the cost of all labor and materials necessary for its construction as detailed in these plans.

## FOR SURFACING

	LINEAL FT.	SQ. YD.	MILES
<b>F. A. 201 C-S</b>			
GROSS LENGTH			
No Additions or Deductions for Equalities	293.6		0.055
NET LENGTH			
No Additions or Deductions	293.6		0.055
TOTAL SURFACING		816	

	LINEAL FT.	SQ. YD.	MILES
<b>W.P.G.M. 201 C-B</b>			
GROSS LENGTH			
No Additions or Deductions for Equalities	1920.3		0.363
NET LENGTH			
1091.7' Deducted for Bridge	828.6	2253	0.156
ADDED FOR: STREET INTERSECTIONS 20 SQ. YDS. BRIDGE TRANSITIONS 23 " "		43	
TOTAL SURFACING		2296	

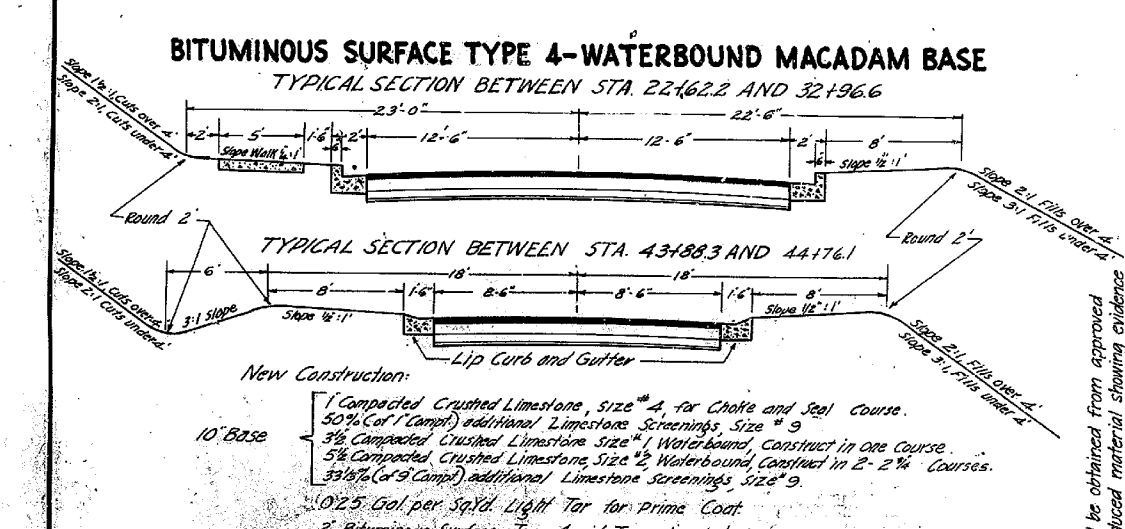
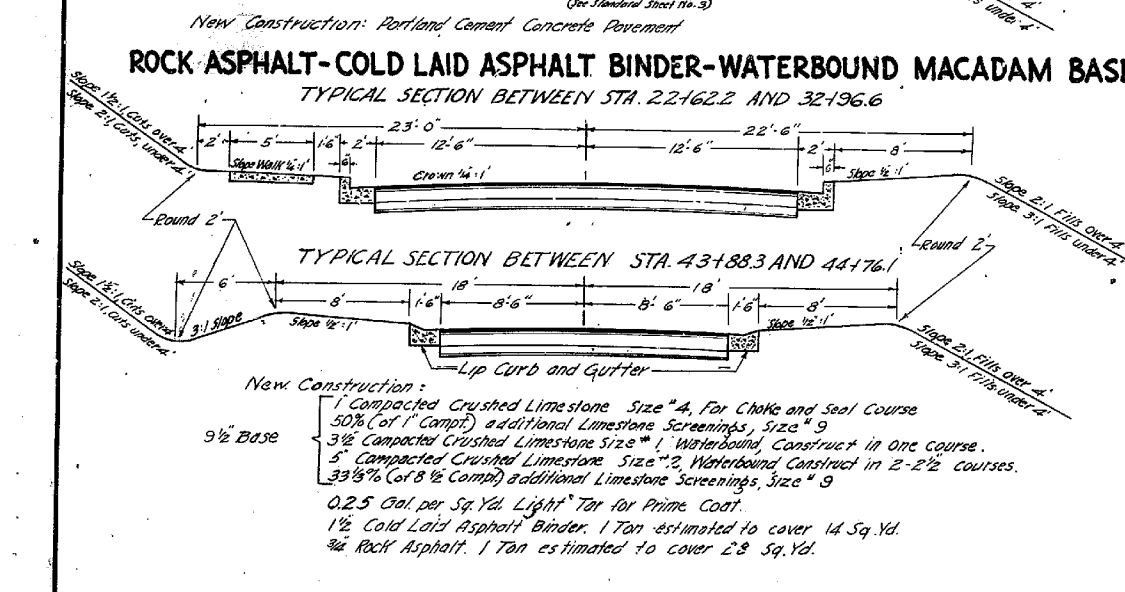
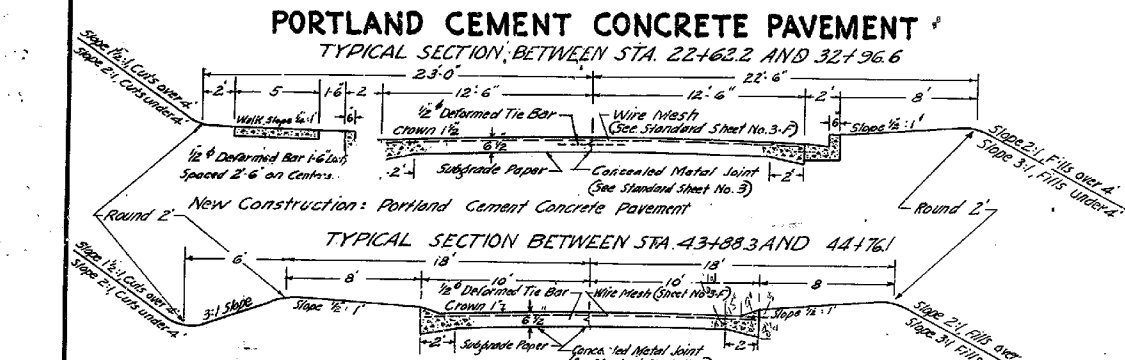
	LINEAL FT.	SQ. YD.	MILES
<b>TOTAL</b>			
GROSS LENGTH			
No Additions or Deductions for Equalities	2213.9		0.419
NET LENGTH			
1091.7' Deducted for Bridge	1122.2	3069	0.212
ADDED FOR: STREET INTERSECTIONS 20 S.Y. BRIDGE TRANSITIONS 23 S.Y.		43	
TOTAL SURFACING		3112	

FOR ROCK ASPHALT & BITUMINOUS SURFACE TYPE 4, USE 2258 SQ. YDS. USE 3074 SQ. YDS.

## SURFACING QUANTITIES

UNIT	F.A. 201 C-S	W.P.G.M. 201 C-B	TOTAL		
	R.D.W.Y.	ENTR. R.D.W.Y.	ENTR. R.D.W.Y.		
<b>PORTLAND CEMENT CONCRETE PAVEMENT</b>					
Portland Cement Concrete Pavement	SQ. YD.	816	* 2296	* 3112	
Crushed Limestone, Size No. 6	TON		6	4	10
Integral Curb (on approach slabs)	L.F.		40.	20.	
Curb and Gutter	"	588	1442.	2030.	
<b>ROCK ASPHALT-COLD LAID ASPHALT BINDER-WATERBOUND MACADAM BASE</b>					
Crushed Limestone, Size No. 1	TON	136	377.	513	
Crushed Limestone, No. 2		195	538	733	
Crushed Limestone, No. 4		39	108	147	
Crushed Limestone, No. 6			6	4	10
Limestone Screenings, No. 9		131	359	490	
Light Tar for Prime Coat	GAL.	204	565	769	
Cold Laid Asphalt Binder	TON	59	162	221	
Rock Asphalt		30	81	111	
Lip Curb and Gutter	LINEAL FT.	176	176	352	
Curb and Gutter	"	588	1482.	2070	
<b>BITUMINOUS SURFACE TYPE 4-WATERBOUND MACADAM BASE</b>					
Crushed Limestone, Size No. 1	TON	136	377.	513	
Crushed Limestone, No. 2		214	592	806	
Crushed Limestone, No. 4		39	108	147	
Crushed Limestone, No. 6			6	4	10
Limestone Screenings, No. 9		137	377.	514	
Light Tar for Prime Coat	GAL.	204	565	769	
Bituminous Surface Type 4	TON	86	238.	324	
Lip Curb and Gutter	LINEAL FT.	176	176	352	
Curb and Gutter	"	588	1482.	2070	

\* includes 118 Sq. Yds. of Reinforced Concrete Approach Slabs



## NOTES FOR PORTLAND CEMENT CONCRETE PAVEMENT

The unit price bid per Sq. Yd. for Portland Cement Concrete Pavement shall include all reinforcement, wire mesh, concealed metal joints, transverse expansion and contraction joints, lip curb preparation of subgrade, subgrade paper, pins, supports, reinforced concrete approach slabs, etc. In the preparation of subgrade for Portland Cement Concrete Pavement that is to be placed on an existing surface, from 1" to 2" of earth must be backfilled into surfacing trench and thoroughly watered and compacted. Longitudinal concealed metal joints shall be cut at all transverse joints in order to permit full expansion and contraction. Transverse expansion and contraction joints shall be used as shown on Sheet No. 3-D. 1/2" expansion joints shall be used between concrete curb and concrete sidewalk for full depth of sidewalk and ground, all inlet and other street castings shall be constructed with a pre-encased, asphaltic or tar composition filler. (Section B-074 of the M32 Standard Specifications on Sheet No. 10) No direct payment will be allowed for this material.

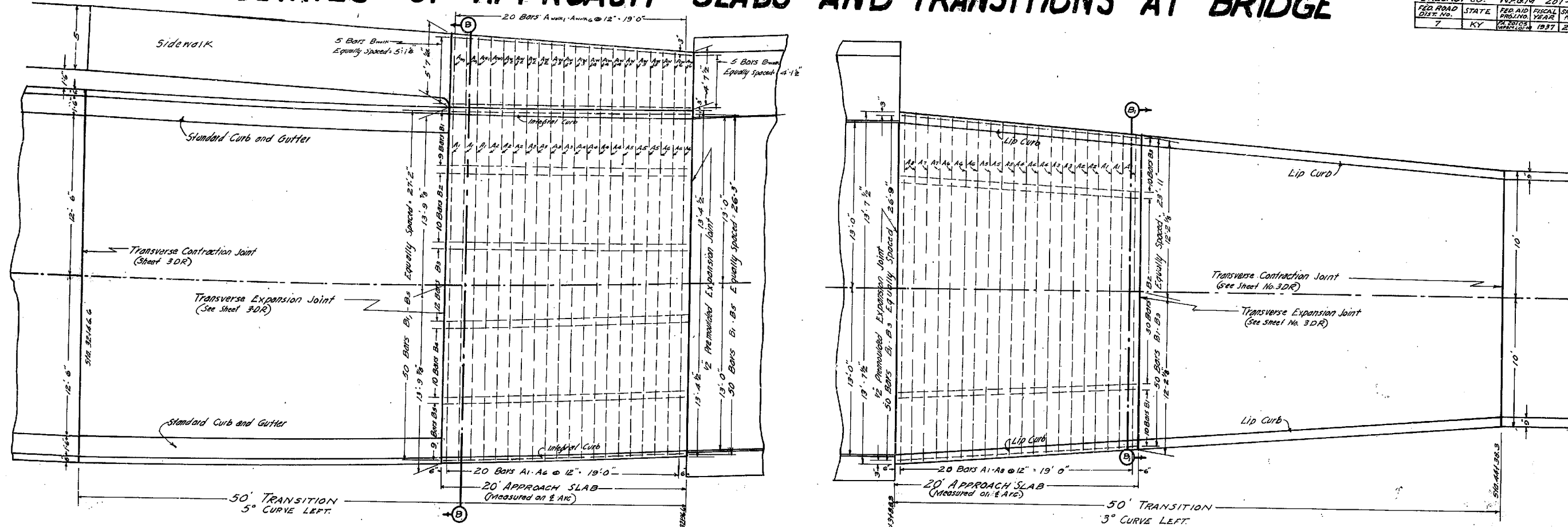
ALTERNATE TYPES OF DRAINAGE PIPE: First Class Reinforced Concrete; First Class Vitrified; Cast Iron (without Lock Joint); Corrugated Metal Pipe (Entrance Pipe Only). \* Includes 3" Concrete Protection and Steel Fabric.

## GENERAL NOTES

All curves to be banked according to standards, but not widened. The Contractor is not to order material for drainage structures until the quantities have been checked by the Engineer. Drainage structures to be constructed to a roadway width of  $\pi$  feet. \* See Sections. Where the inlet of a cross drainage pipe is in a cut section and the center line grade is one per cent or more an ell headwall shall be constructed at the inlet. Entrance pipe shall be constructed to a minimum length of sixteen feet. For typical sections in solid rock cuts, see Standard Drawings #3 and #4 on sheet No. 3 of these plans. Final Dressing shall be done in accordance with paragraph 10.1A1 and as defined in paragraph 10.103 under Method of Measurement for Unclassified Trench and Shoulder Excavation. The unit price bid per Sq. Yd. for 4" Concrete Sidewalk shall include all labor and materials necessary for its construction, as detailed in these plans. Joints shall be cut to a depth of one inch at intervals as directed, unless otherwise indicated. Concrete to be Class 'A'. Measurement of bends, wyes and tees shall be made in the same manner as for normal cylindrical pipe and payment shall be made at the unit price bid per linear foot at the same price bid for drainage pipe. Payment for all pipe and pipe fittings, within the limits of any structure shall be included in the unit price bid for that structure. The Standard Specifications for State and Federal Road and Bridge Construction, Edition of M32 with the following amendments will apply on this project:  
No. 2 Requirement of Contract Bond.  
No. 5 Corrugated Metal Pipe.  
No. 7 Amendment to meet Federal Requirements.  
No. 19 Structure Excavation for Pipe Culverts.  
No. 21 Transverse Expansion and Contraction Joints.  
No. 22 Gradation of Gravel for Class 'A' Concrete.  
No. 24 Embankment Construction.  
No. 25 Specifications for Paints.  
No. 27 Waterproofing Materials.  
No. 28 Portland Cement Concrete Pavement - Subgrade Paper.  
No. 29 Requirements for Vibrating Portland Cement Concrete Pavement.  
No. 32 Instructions for Use of Bulk Cement.  
No. 33 Specifications for Rough Laid Hardwood.  
No. 34 Reinforced Concrete Pipe.  
No. 35 Course and Joints.  
No. 36 Class 'D' Concrete for Piling.

# DETAILS OF APPROACH SLABS AND TRANSITIONS AT BRIDGE

GREENUP CO. W.VA. 201-25  
 FEDERAL ROAD DIST. NO. 7 STATE KY. ROAD AND BRIDGE DIST. NO. 1937 FISCAL YEAR 1937 SHEET NO. 2-A OF 10



## ESTIMATE OF QUANTITIES BOTH SLABS

ITEM	UNIT	QUANTITY
CONCRETE FOR SIDEWALK	SYD	12
REINFORCEMENT FOR SIDEWALK	LBS.	130
CONCRETE FOR APPROACH SLAB	SQ YD	118
REINFORCEMENT FOR APPROACH SLAB	LBS.	3957

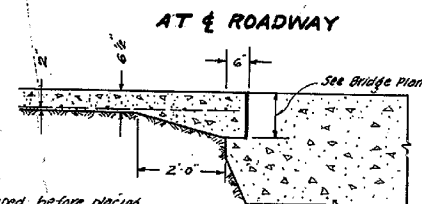
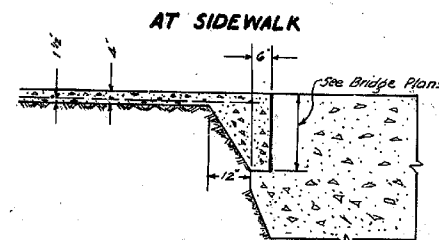
### BILL OF REINFORCEMENT

MARK	NO.	SIZE	LENGTH FT. IN.	LOCATION
A1	3	1/2"	27 4	SLAB TRANSVERSE
A2	3	"	27 0	"
A3	4	"	26 10	"
A4	3	"	26 8	"
A5	3	"	26 6	"
B1	9	3/4"	19 7	LONGITUDINAL
B2	10	"	19 8	"
B3	12	"	19 9	"
B4	10	"	19 10	"
B5	9	"	19 11	"
A work 1	4	1/2"	5 3	SIDEWALK
A work 2	4	"	5 0	"
A work 3	3	"	4 10	"
A work 4	3	"	4 8	"
A work 5	4	"	4 6	"
A work 6	2	"	4 4	"
B work	5	"	19 7	"

### BILL OF REINFORCEMENT

MARK	NO.	SIZE	LENGTH FT. IN.	LOCATION
A1	3	1/2"	24 4	SLAB TRANSVERSE
A2	2	"	24 6	"
A3	2	"	24 10	"
A4	3	"	25 3	"
A5	3	"	25 8	"
A6	3	"	25 8	"
A7	2	"	26 7	"
A8	2	"	26 6	"
A9	2	"	26 11	"
B1	10	3/4"	19 10	LONGITUDINAL
B2	30	"	19 9	"
B3	10	"	19 8	"

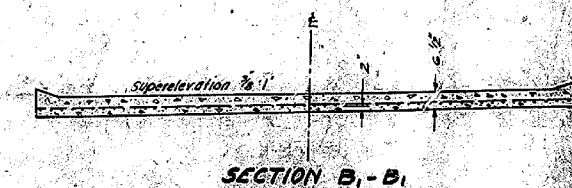
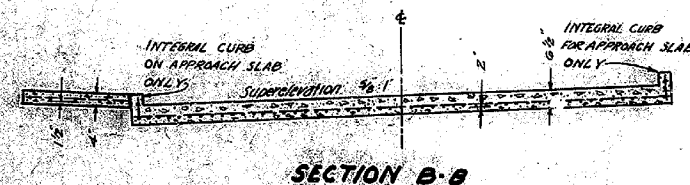
## SECTIONS AT BRIDGE



Fills to be firmly tamped before placing approach slabs.

## GENERAL NOTES

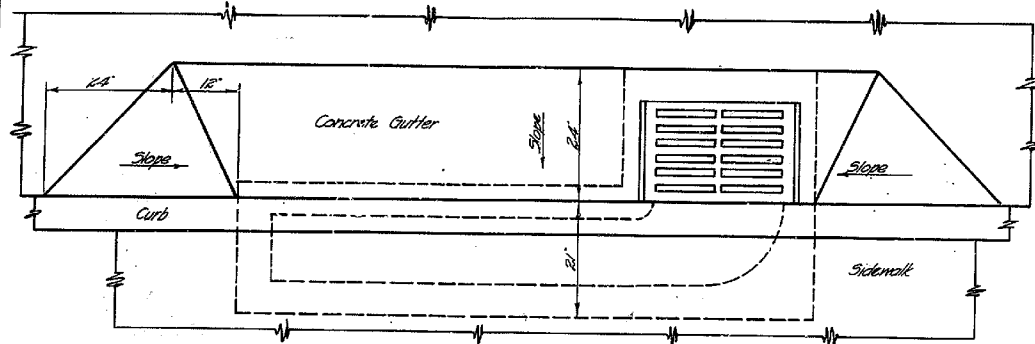
- SPECIFICATIONS:** The Standard Specifications for State and Federal Road and Bridge Construction, Edition of 1932, with the necessary Amendments.
- PAY QUANTITIES:** To be paid for at the unit price bid per sqyd for Reinforced Concrete Pavement. Price bid per sqyd. to include all reinforcement, expansion and contractions joints, supports, etc. necessary.
- REINFORCEMENT:** Dimensions from face of concrete to steel are clear distances. Precast mortar or concrete blocks supporting reinforcement shall be spaced not farther apart than 50 diameters of the supported bar. All reinforcement to be New Billet Steel.
- SPECIAL CONDITIONS:** Transition from normal curb on Pavement Section to curb on Bridge to be effected in the 20' length of the Approach Slab.



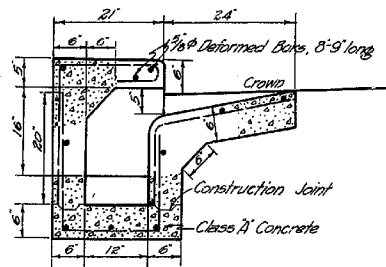
MICROFILMED CO.

# DETAIL SHEET

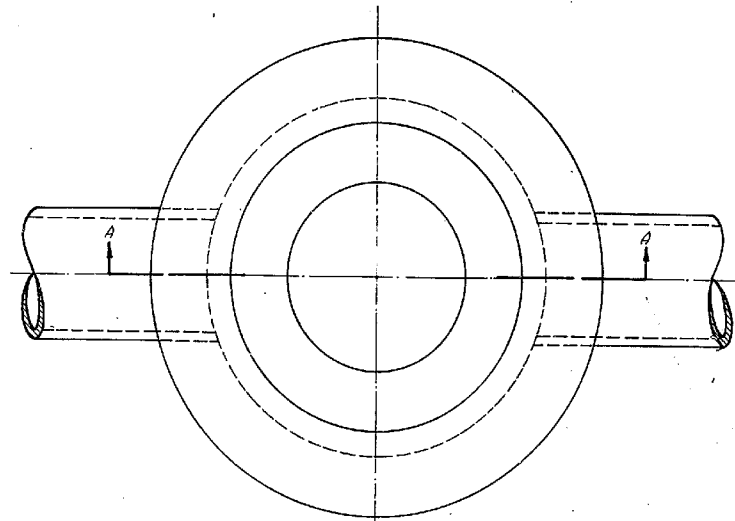
GREENUP CO.		PA. 201-23		WPGM. 201 C-B	
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.	10-7000	1937	2-B	18



PLAN

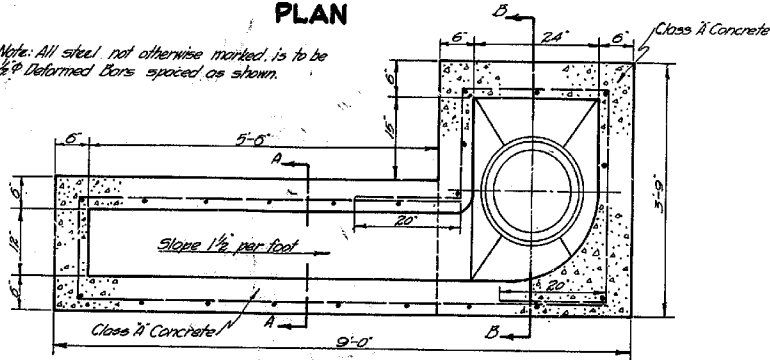


SECTION A-A

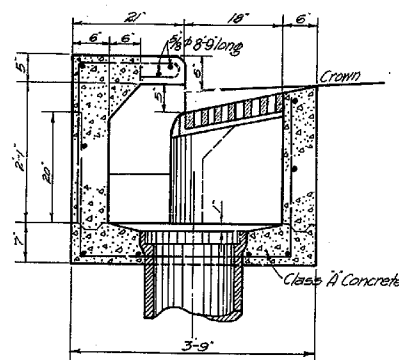


PLAN

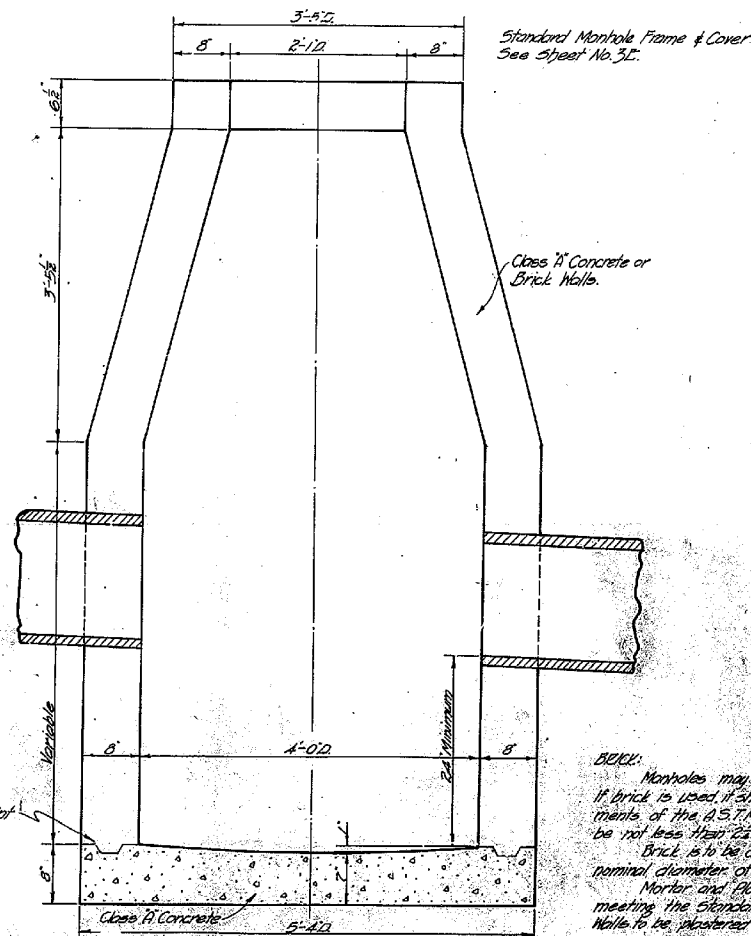
Note: All steel not otherwise marked, is to be  $\frac{1}{2}$ " deformed bars spaced as shown.



SECTIONAL PLAN



SECTION B-B

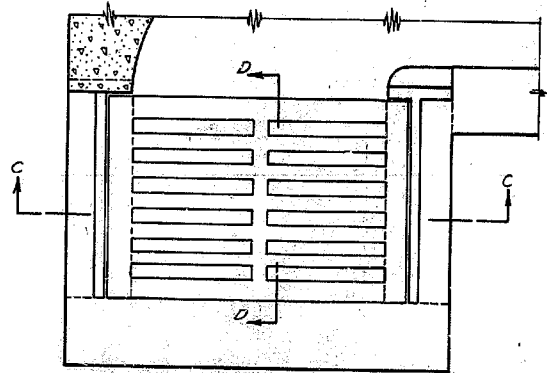


SECTION A-A

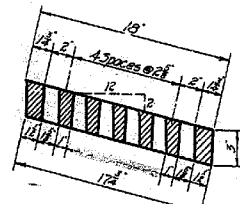
MANHOLE

## SPECIAL INLET

Scale  $\frac{3}{4}$ " = 1'-0"



PLAN



SECTION D-D

## GENERAL NOTES

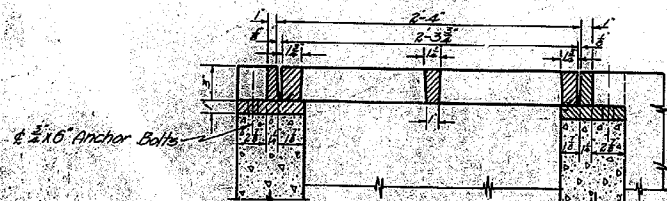
Dimensions shown on castings are minimum dimensions. Stock sizes and types will be acceptable provided they afford the proper openings and are otherwise approved. The unit price bid per for each structure shall include all castings, materials, excavation and labor necessary for its construction. Castings are to be Grey Iron. (See Section 15.11.42 of the 1932 Standard Specifications.) Payment for all pipe and pipe fittings within the limits of the structure shall be included in the unit price bid.

## SIDE ELEVATION OF FRAME



PLAN OF FRAME

2 Pieces required for each inlet, one right & one left.



SECTION C-C

## DETAIL OF CASTINGS FOR SPECIAL INLET

Scale  $\frac{1}{8}$ " = 1'-0"

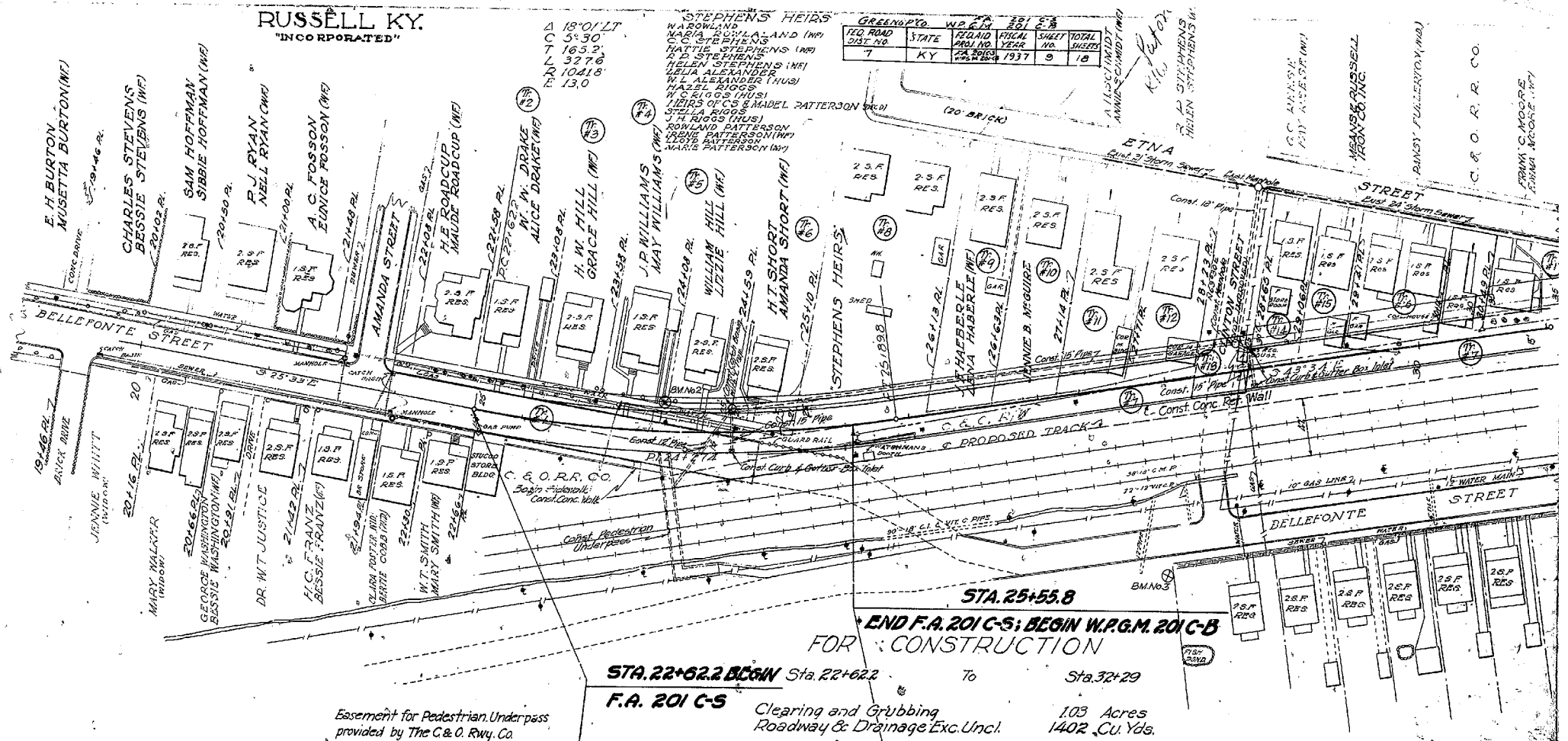
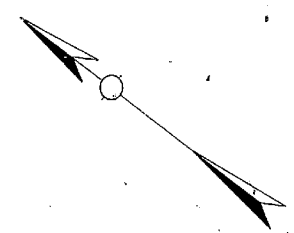
MICROMIXED CO.

NOTE: Manholes may be constructed of Class A Concrete or Brick. If brick is used, it shall be clay sewer hard brick meeting requirements of the A.S.T.M. Standards, designation C-2001, and shall be not less than 2 1/2 x 3 1/2 x 8 or greater than 2 1/2 x 8 x 8. Brick is to be crched over the top of all pipes having a nominal diameter of 18 or more. Mortar and Plaster shall be not less than a 1:2 mix, meeting the Standard Specifications of Standard Masonry. Mortar to be plastered on the inside.

RUSSELL KY.  
"INCORPORATED"

RD. NO.	STATE	PLANO	LEGAL	SHEET	TOTAL
DIST. NO.		NO.	NO.	NO.	SHEETS
7	KY	25	1937	9	18

PLAN	DATE	BY
REVISION		
DATE		
BY		



Easement for Pedestrian Underpass provided by The C. & O. Rwy. Co.

B.M. NO. 2, SPIKE IN ROOT OF 14" MAPLE 21' LT STA. 24+08 ELEV. 347.30.

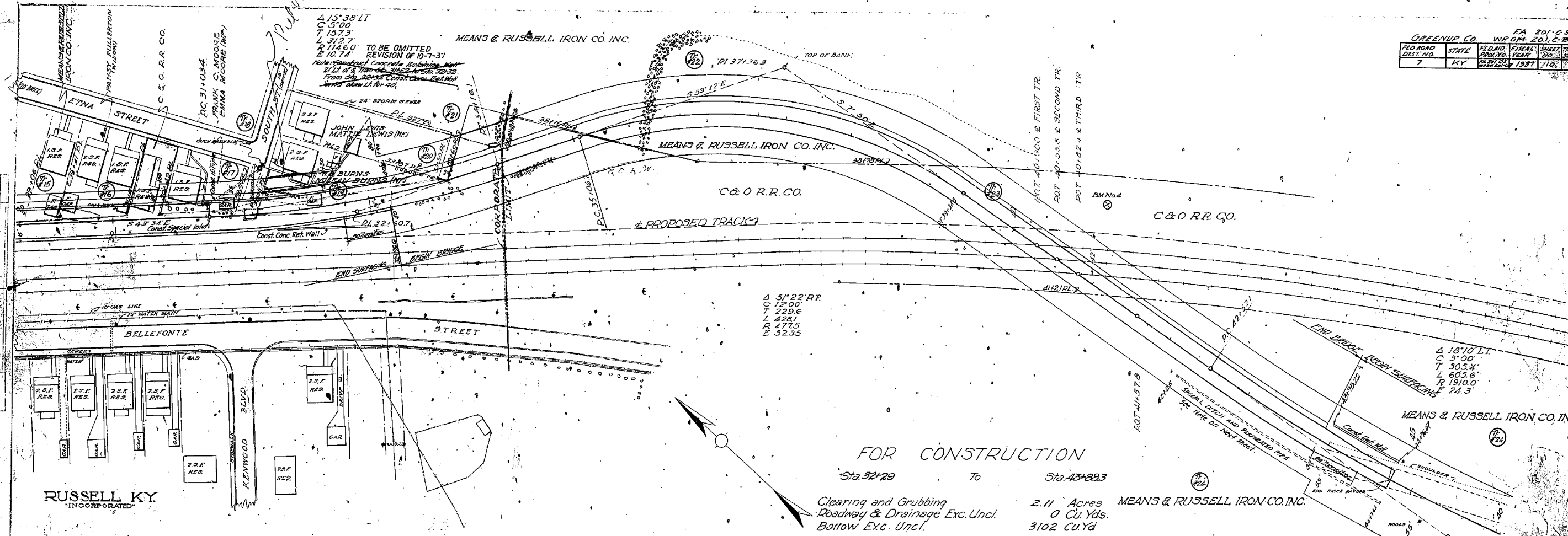
B.M. NO. 3, X ON RR SIGN MARKER 140' RT OF STA. 27+90 ELEV. 337.80.

SHEET TOTALS  
Com. 1402CK  
EQU. 956CK

MICROFILMED 60

KENTUCKY  
STATE HIGHWAY DEPARTMENT  
COUNTY OF  
GREENUP  
GREENUP-ASHLAND  
ROAD  
STATE PROJECT SECTION DATE  
1937  
J. TEMCKE

GREENUP CO.		W.P.M. 201-C-5	
PLD. ROAD DIST. NO.	STATE	FEEDING YEAR	SHEET NO.
7	KY	1937	110



$\Delta$  51°22' RT  
 C 12'00"  
 T 229.6  
 L 428.1  
 R 177.5  
 E 52.35

$\Delta$  18°10' LT  
 C 3'00"  
 T 305.4  
 L 605.6  
 R 1910.0  
 E 24.3

**FOR CONSTRUCTION**

Sta. 32+29 To Sta. 43+88.3

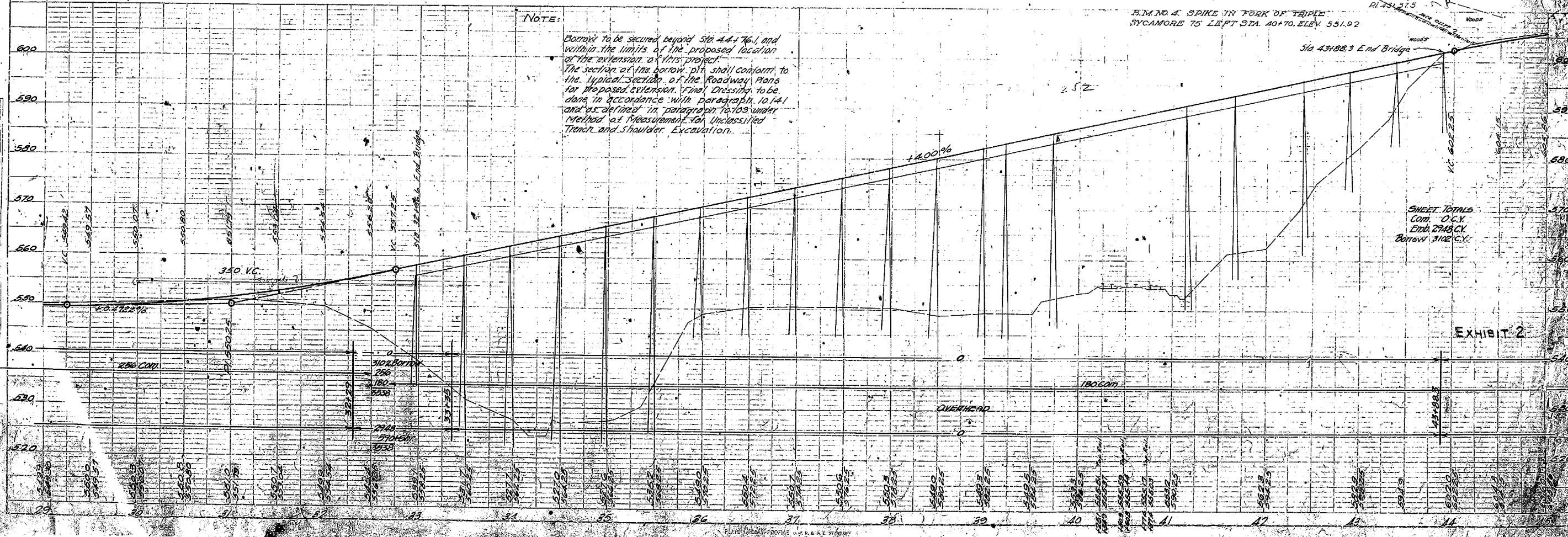
Clearing and Grubbing  
 Roadway & Drainage Exc. Uncl.  
 Borrow Exc. Uncl.

2.11 Acres MEANS & RUSSELL IRON CO. INC.  
 0 Cu. Yds.  
 3102 CU Yd

**NOTE:**

Borrow to be secured beyond Sta. 44+76.1 and within the limits of the proposed location of the extension of this project. The section of the borrow pit shall conform to the typical section of the Roadway Plans for proposed extension. Final Dressing to be done in accordance with paragraph 10.14.1 and as defined in paragraph 10.103 under Method of Measurement for Unclassified Trench and Shoulder Excavation.

B.M. NO. 4 SPIKE IN FORK OF TRIPLE SYCAMORE 75 LEFT STA. 40+70. ELEV. 551.92



SHEET TOTALS  
 COM. O.C.V.  
 END 2746 CY  
 BORROW 3102 CY

Exhibit 2

GREENUP CO.		FA 201-C-5		W.P.G.M. 201-C-B	
RD. ID.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY	FA 201-C-5	1937	11	18

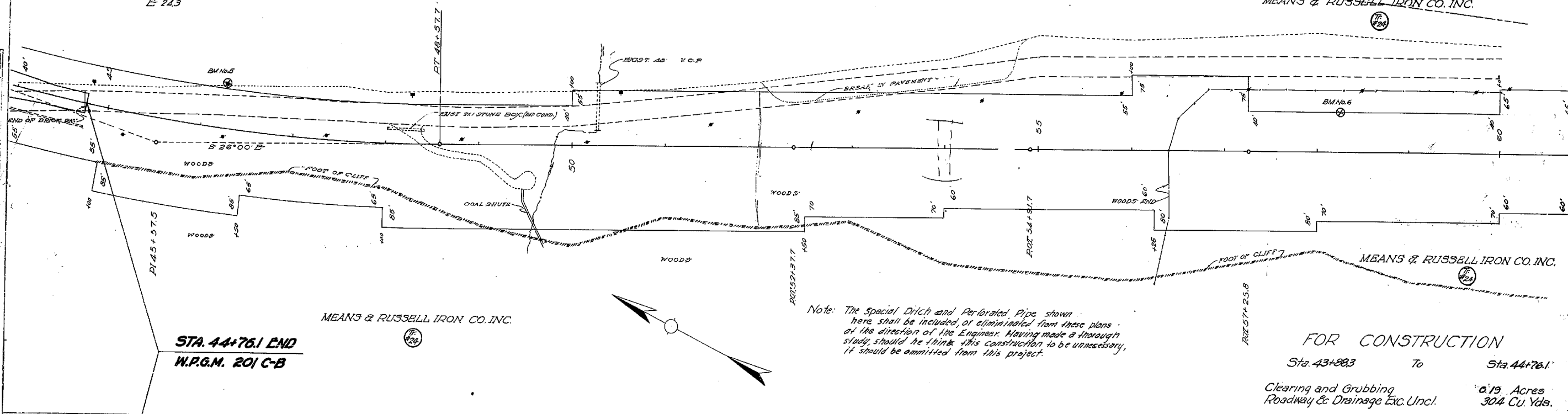
Δ 18° 10' LT  
 3-00  
 L 305.4  
 R 605.6  
 P 1910.0  
 E 24.3

MEANS & RUSSELL IRON CO. INC.

RUSSELL DIVISION HUNTINGTON DIVISION

MEANS & RUSSELL IRON CO. INC.

PLAN  
 NO. 1  
 DATE  
 CHECKED  
 DRAWN  
 BY



Note: The Special Ditch and Perforated Pipe shown here shall be included, or eliminated from these plans at the direction of the Engineer. Having made a thorough study, should he think this construction to be unnecessary, it should be omitted from this project.

**FOR CONSTRUCTION**  
 Sta. 43+88.3 To Sta. 44+76.1  
 Clearing and Grubbing 0.19 Acres  
 Roadway & Drainage Exc. Uncl. 304 Cu. Yds.

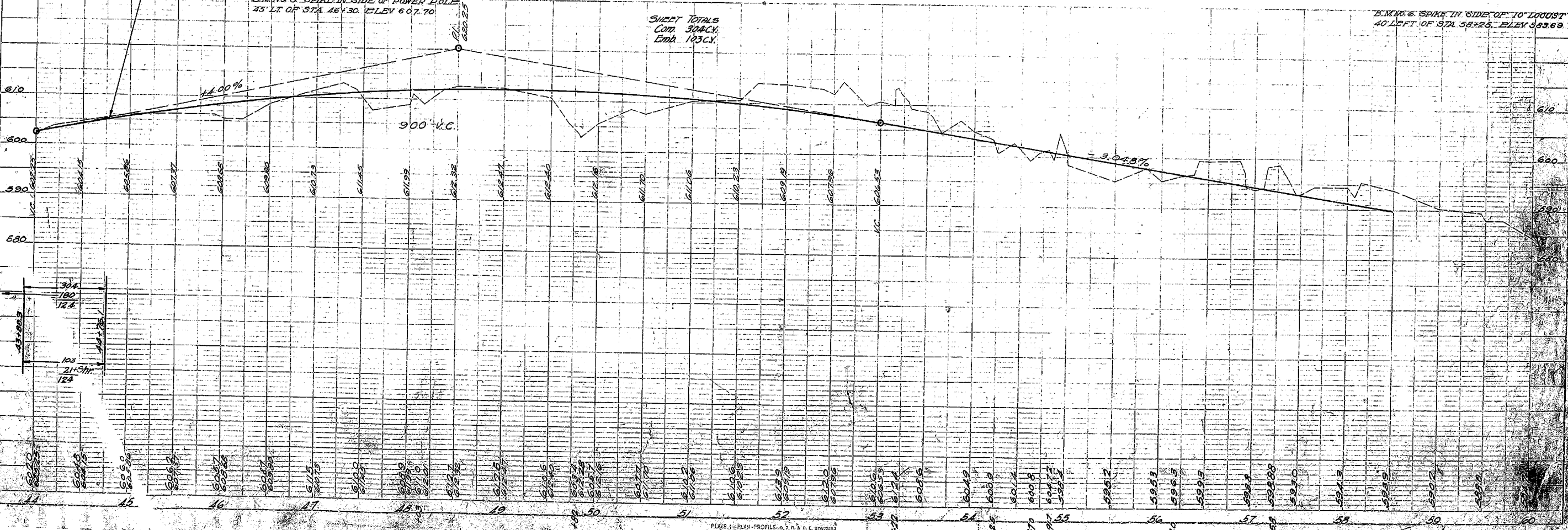
**STA. 44+76.1 END**  
**W.P.G.M. 201-C-B**

B.M. NO. 5 SPIKE IN SIDE OF POWER POLE  
 45' LT. OF STA. 46+30. ELEV. 607.70

SHEET TOTALS  
 Com. 304CY.  
 Emb. 103CY.

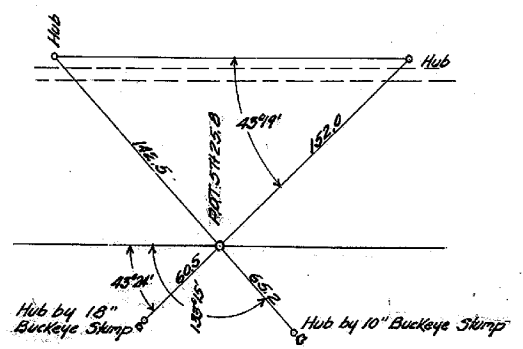
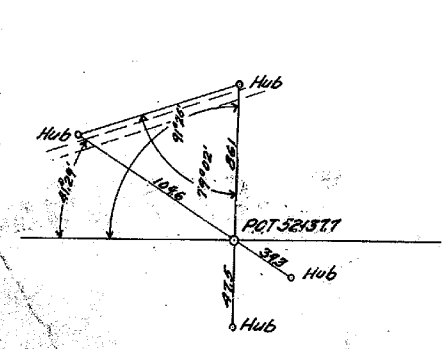
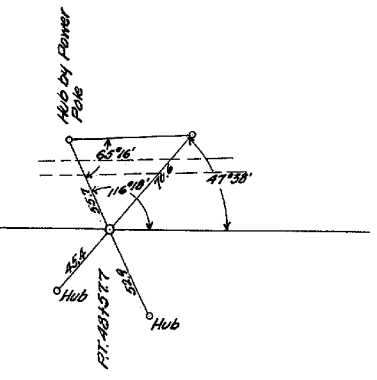
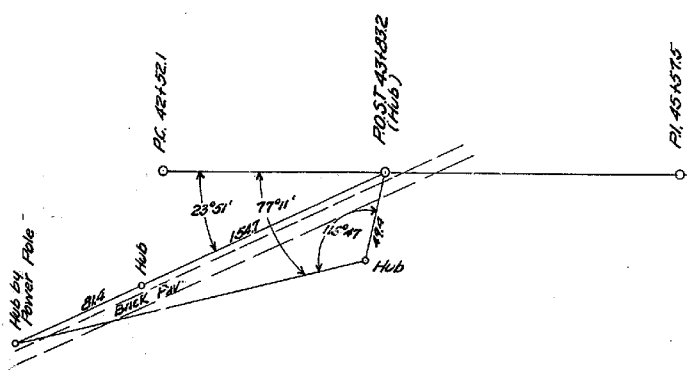
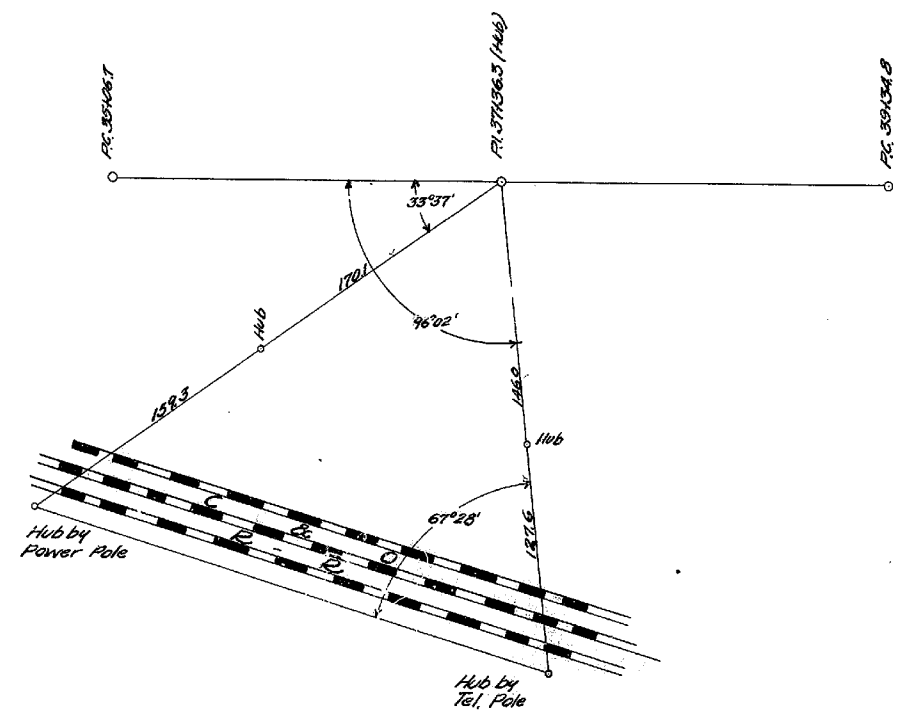
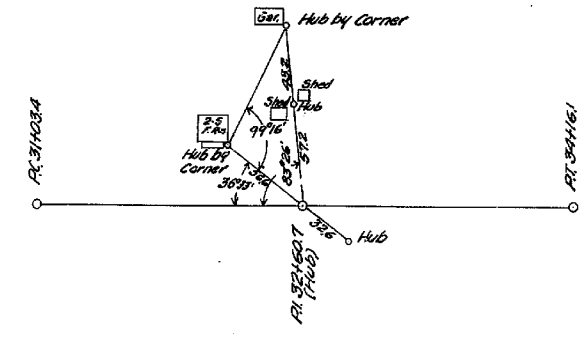
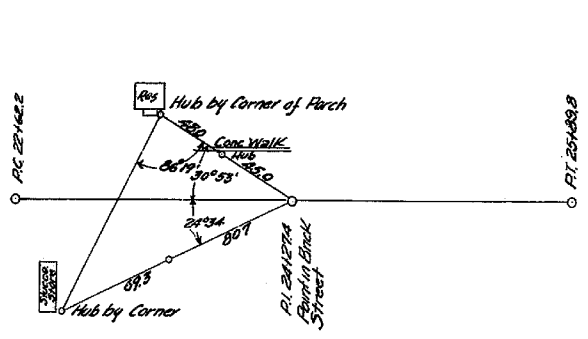
B.M. NO. 6 SPIKE IN SIDE OF 10' LOGS  
 40' LEFT OF STA. 58+26. ELEV. 583.69

PROFILE  
 NO. 1  
 DATE  
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 BY



# REFERENCE SHEET

GREENUP CO. W.P.C.M. 201 C-B		FA 201 C-B
FED. ROAD DIST. NO.	S. 152	FED. AID (FISCAL YEAR) NO. SHEETS
7	KY	25, 20 (S) 1937 12 18



### BENCH MARK SUMMARY

NO	DESCRIPTION	STA.	ELEV.	CHECK
1	X On 1st Step to Haines Store		543.31	543.31
2	Spike in Root of Maple 2 1/2" LT	24108	547.30	547.32
3	X On R.R. K.V. Marker 140' LT	21190	557.80	557.82
4	Spike in Fork Triple Spruce 70'	40170	551.92	551.95
5	Spike in Side of Power Pole 45' LT	46130	607.70	607.73
6	Spike in Side of 10' Locust 40' LT	58125	583.69	583.70