FED. ROAD DIST. NO.	STATE	N. R. M. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
~~12~~	~~UTAH~~	~~127-C~~	~~1933~~	~~1~~	
12	UTAH	134-A	1933	1	7

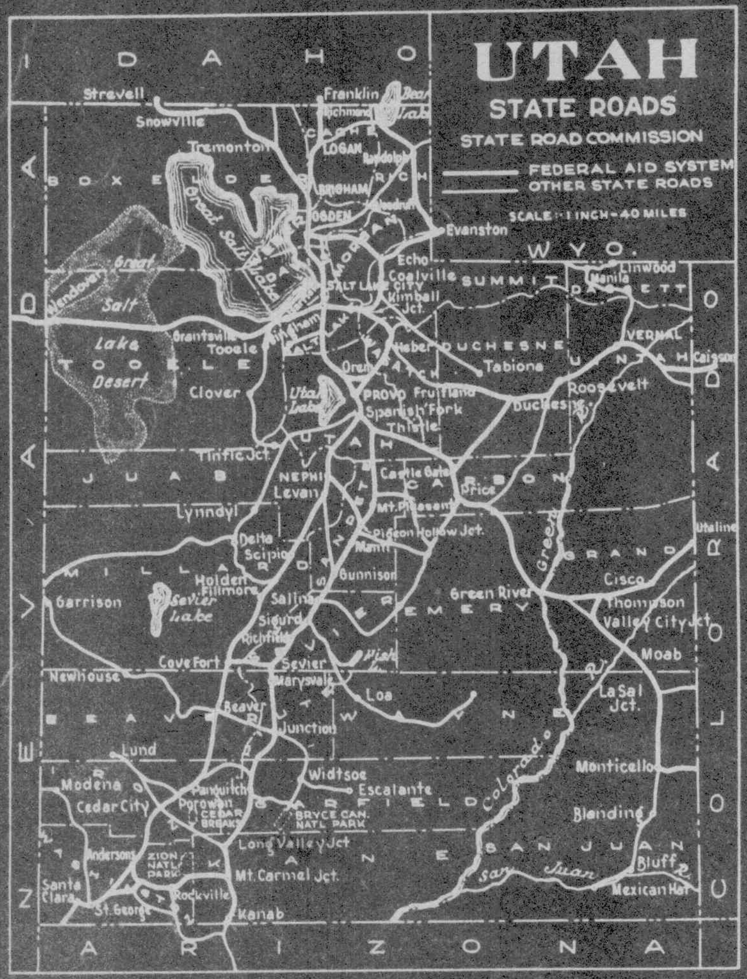
STATE OF UTAH
STATE ROAD COMMISSION

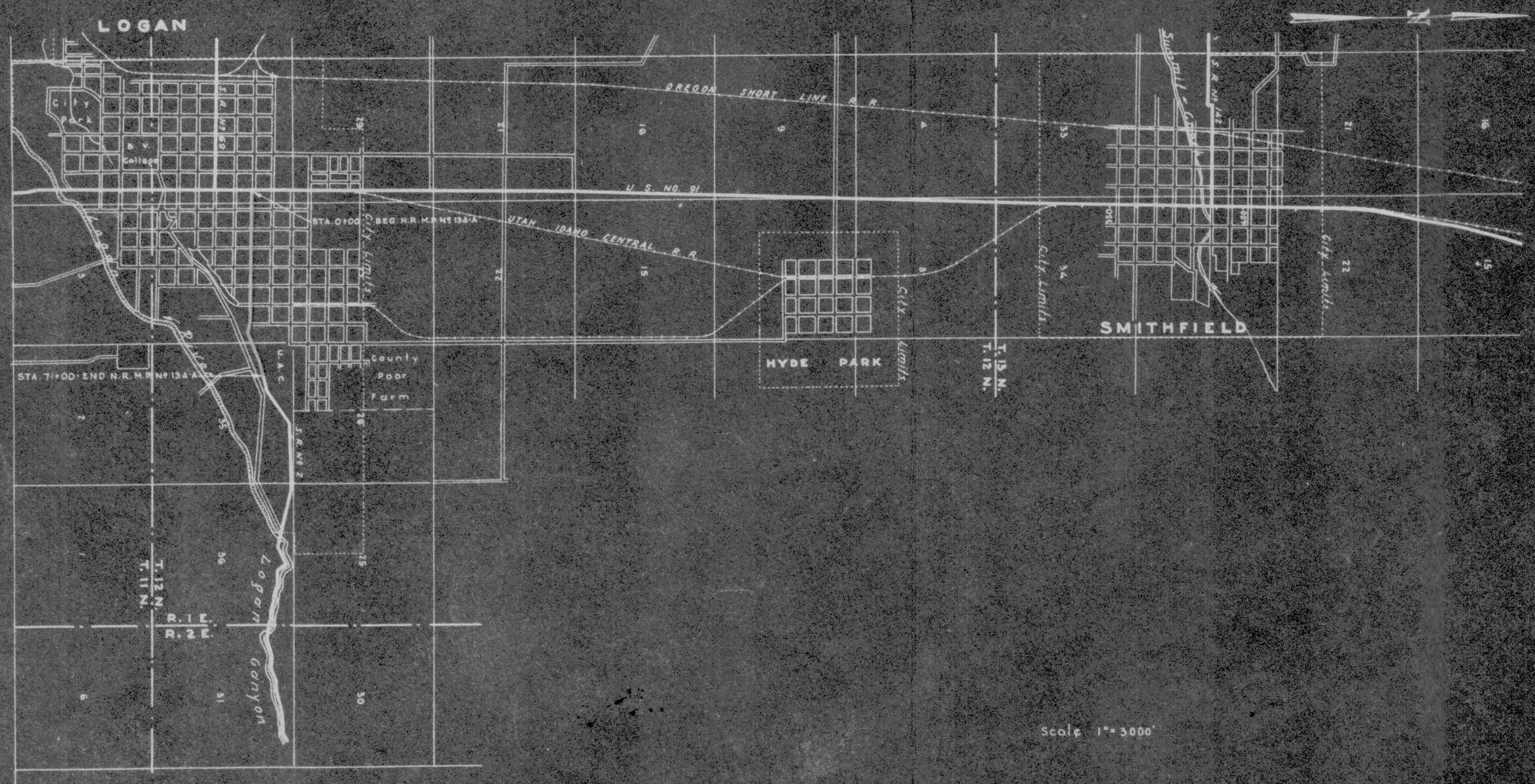
PLANS OF PROPOSED STATE ROAD
NATIONAL RECOVERY PROJECT

~~N.R.M.P. 127-C Length Miles~~

N.R.M.P. 134-A - Length 1.326 Miles
Fourth North Street, Logan

Scales
Plan 1" = 100'
Profile Hor. 1" = 100'
Ver 1" = 10





Scale 1" = 3000'

INDEX TO SHEETS N.R.M.P. No. 134-A

SHEET No.	DESCRIPTION	DRAWING No.	STATION
1	Title Sheet		
2-A	Typical Section	Special	
2-B	Typical Section	Type F-2	
3-5	Plan & Profile		
6	16' Clear Span Conc. Bridge	D-358	39+39.5
7-a	Superelevation & Widening Curves	J-343-R	
1-4	Cross Sections		

INDEX TO SHEETS ~~N.R.M.P. No. 127-C~~

SHEET No.	DESCRIPTION	DRAWING No.	STATION
~~1~~	~~Title Sheet~~		
~~2~~	~~Typical Section~~	~~Type~~	
~~3~~	~~Plan & Profile~~		

APPROVED ....AUG...... 1933

STATE ROAD COMMISSION OF UTAH

CHAIRMAN

Preston G. Peterson
MEMBER

Wm. Chey
MEMBER

CHIEF ENGINEER

RECOMMENDED

DISTRICT ENGINEER BUREAU OF PUBLIC ROADS

RECOMMENDED FOR APPROVAL

CHIEF ENGINEER BUREAU PUBLIC ROADS

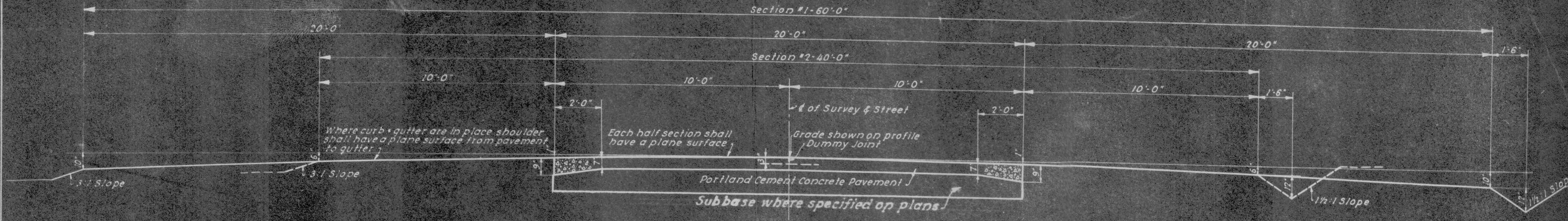
APPROVED

DIRECTOR BUREAU PUBLIC ROADS

TYPICAL CROSS SECTION

N.R.M

FED. ROAD DIST. NO.	STATE	~~FED. AID~~ PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
12	UTAH	[illegible]	933	2	5



N.R.M.P. Nº 36-B

Section #1 ~~used between Stations 10+66 and 24+68.7, except on Rt. between Stations 10+66 and 14+65.~~
Section #2 ~~used between Stations 24+68.7 and 48+59 and " " " " " "~~

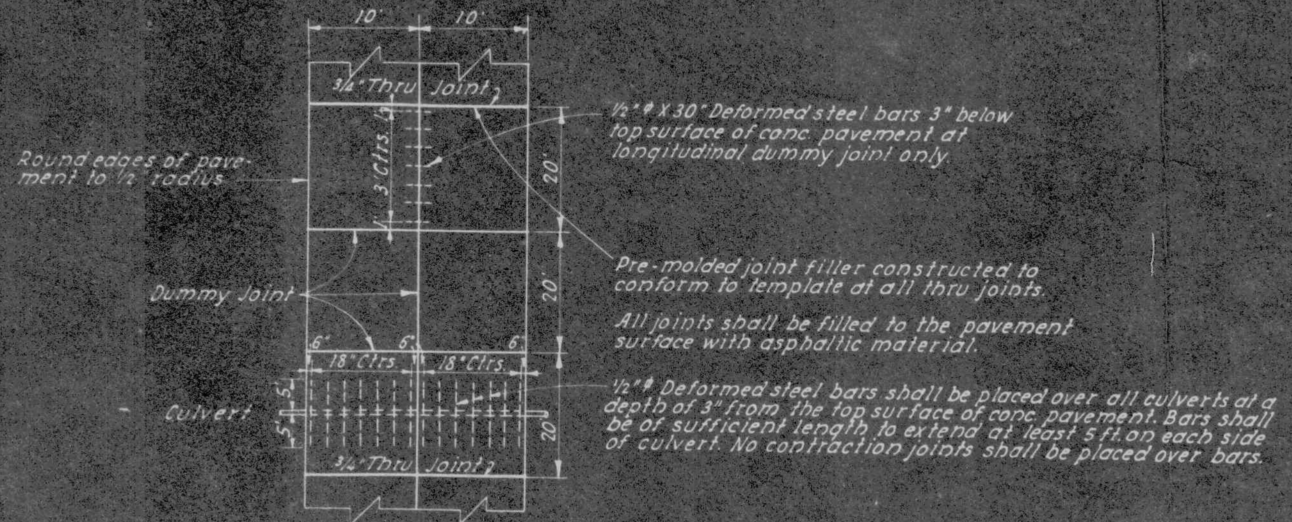
N.R.M.P. Nº 134-A

Section #1 used between Stations 0+00 and 48+00, shoulders modified as noted where curb & gutter are in place.
Section #2 not used on this project.

N.R.M.P. No. 135-A

Section #1 used ~~between sta. 509+00 and 531+00~~
Section #2 ~~used between sta. 531+00 and 550+03.7~~

REVISIONS



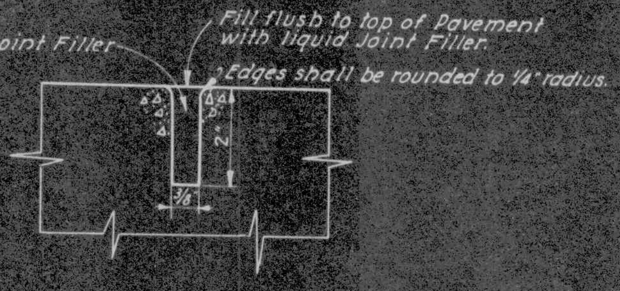
½" ⌀ X 30" Deformed steel bars 3" below top surface of conc. pavement at longitudinal dummy joint only.

Pre-molded joint filler constructed to conform to template at all thru joints.

All joints shall be filled to the pavement surface with asphaltic material.

½" ⌀ Deformed steel bars shall be placed over all culverts at a depth of 3" from the top surface of conc. pavement. Bars shall be of sufficient length to extend at least 5 ft. on each side of culvert. No contraction joints shall be placed over bars.

PAVEMENT PLAN
No Scale



Fill flush to top of Pavement with liquid Joint Filler.

Edges shall be rounded to ¼" radius.

DETAIL OF DUMMY JOINT
No Scale

USED ON N.R.P. Nº	USED ON F. A. P. NO.		UTAH STATE ROAD COMMISSION SALT LAKE CITY - UTAH H. S. KERR - CHIEF ENGINEER
36-B			20' PORTLAND CEMENT CONCRETE PAVEMENT 10 & 20' SHOULDERS
134-A			DESIGNED BY W.L.A. DRAWN BY A.M.G. CHECKED BY " EXAMINED BY
135-A			SCALE 1"=2'-0" ISSUED 8-31-33 APPROVED
			TYPE SPECIAL

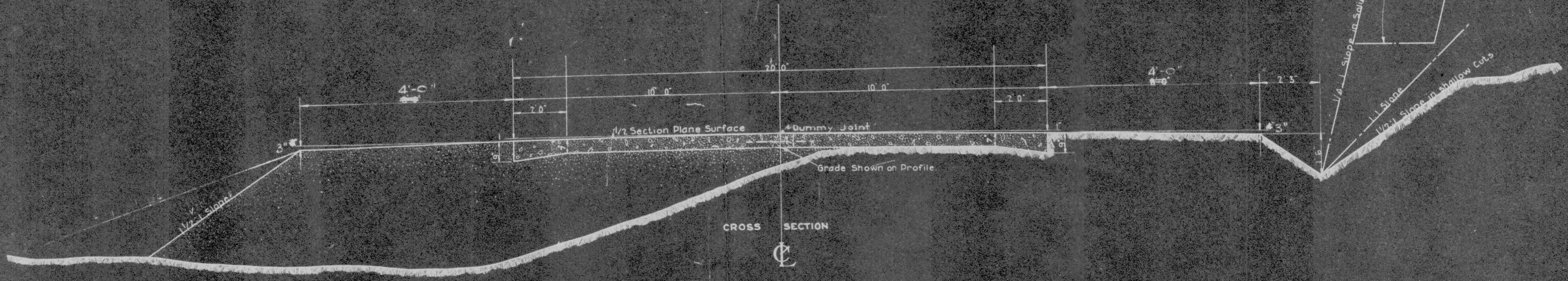
FED. ROAD DIST. NO.	STATE	N. R. P. PROJ NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
12	UTAH	134-A	1933	28	7

REVISIONS			
DATE	BY	DATE	BY

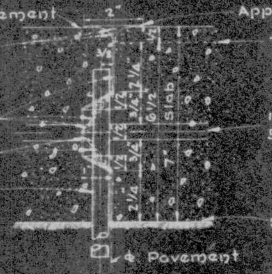
TYPICAL CROSS SECTION

TYPE-"F 2"

CEMENT CONCRETE SURFACE



Alternate on curves to improve sight distance.



Top of Pavement

After edges are finished with 1/2 inch edging tool, remove cap and fill joint with approved tar or asphalt.

Not less than number 18 guage galvanized or painted metal.

Alternate joints.

1/2 inch ⌀ bar 15 inches long for support placed at 2'-6" centers.

Approved Tar or Asphalt

Top of metal joint

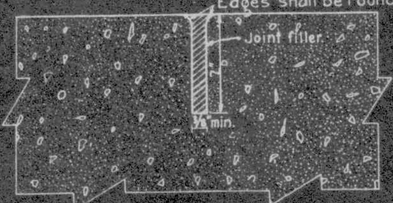
1/2 inch ⌀ bar 4 foot long 5' foot centers.

Subgrade

Scale 1" = 3"

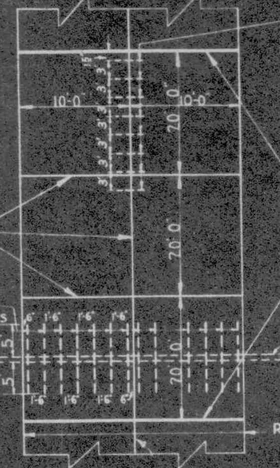
DETAIL OF METAL CENTER JOINT

NOT USED ON THIS PROJECT



Edges shall be rounded to 1/4" radius

DETAILS OF DUMMY JOINT



1/2" ⌀ × 30" Deformed Steel Bars shall be placed along center line at 3' ctrs and at a depth of 3 1/4" from top surface at center line of pavement.

Dummy Joint

3/4" Joints
Premoulded joint filler constructed to conform to template.

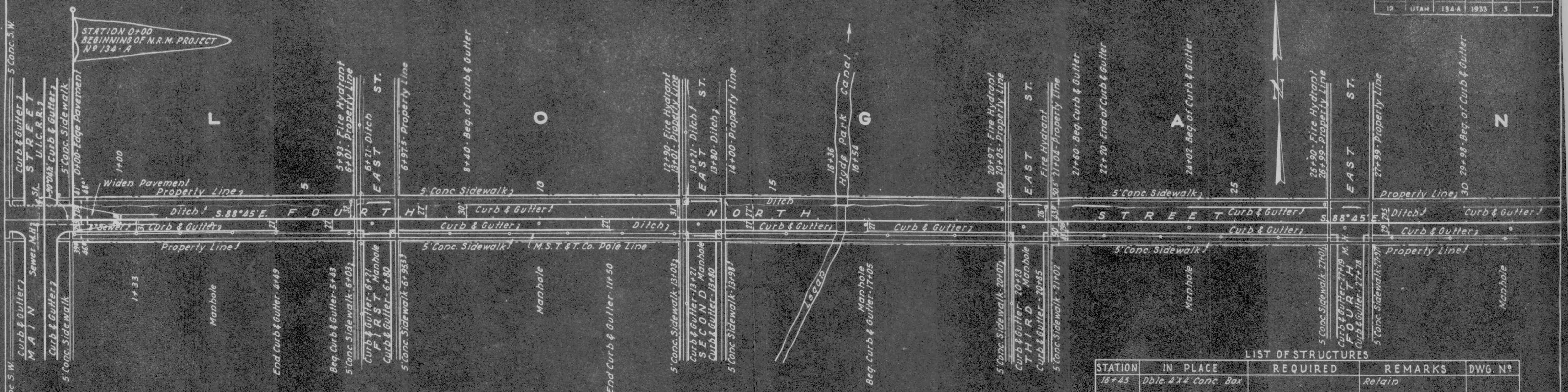
1/2" ⌀ Deformed steel bars shall be placed over all culverts at a depth of 3" from top of pavement, and of sufficient length so that the bar will extend at least 5' each side of culvert.
No contraction joints shall be placed over bars.

Round edges to 1/2" radius.

Section to be used between Sta 48+00 and Sta 71+00

	FOR 7"-9" CONCRETE		FOR 6"-9" CONCRETE	
USED ON N.R.P. Nº	USED ON F.A.P. Nº		USED ON F.A.P. Nº	
124-A-B	E-120-C		32 Reopened	
126-A			32 Extended	
132-A			119-A	
61-C			S.P. 318	
134-A			S.P. 331	
			34 Reopened	
			S.P. 350	
			S.P. 331	
			121-A	
			S.P. 406	

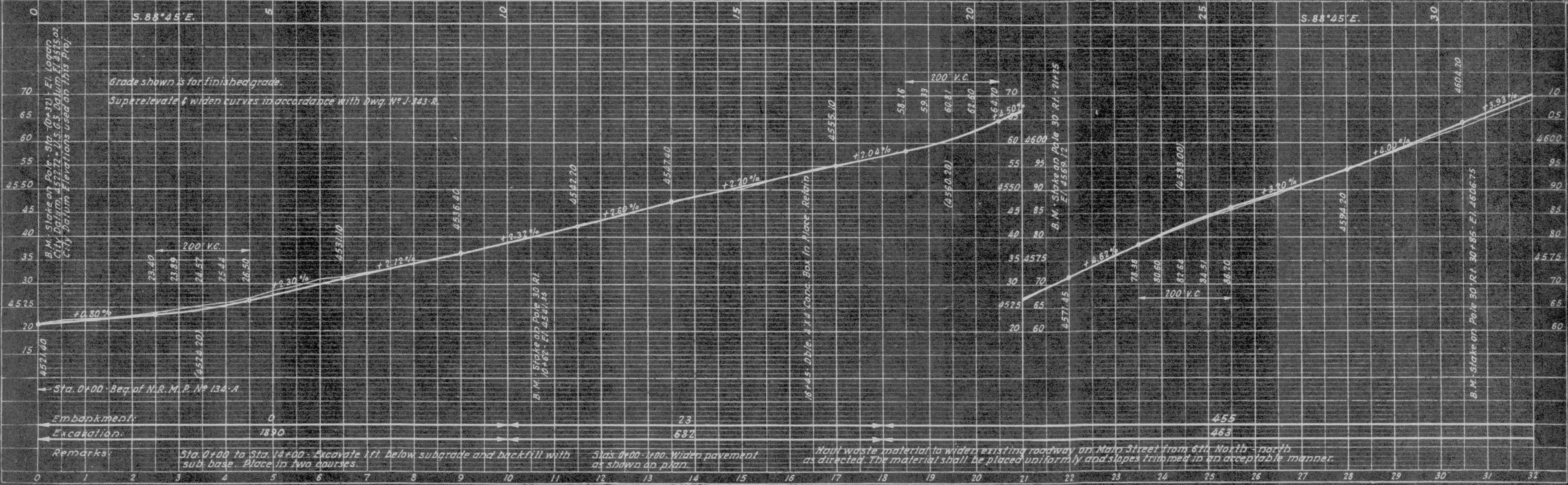
FED. ROAD DIST. NO.	STATE	N.R.M. PROJ. NO.	FINAL YEAR	SHEET NO.	TOTAL SHEETS
12	UTAH	134-A	1933	3	7



City street monuments located 4' north & 4' east of intersection of street center lines.
City sewer manholes { " 10' west & 10' south " " " " " ".
(Covered with pres. road surf.) { " 10' south of street ℄ at ℄ of blocks.

LIST OF STRUCTURES

STATION	IN PLACE	REQUIRED	REMARKS	DWG. Nº
16+45	Dble. 4'x4' Conc. Box		Retain	



Grade shown is for finished grade.

Superelevate & widen curves in accordance with Dwg. Nº J-343-R.

Embankment:	0	23	455
Excavation:	1890	682	463

Remarks: Sta. 0+00 to Sta. 14+00 - Excavate 1 ft. below subgrade and backfill with sub base. Place in two courses.

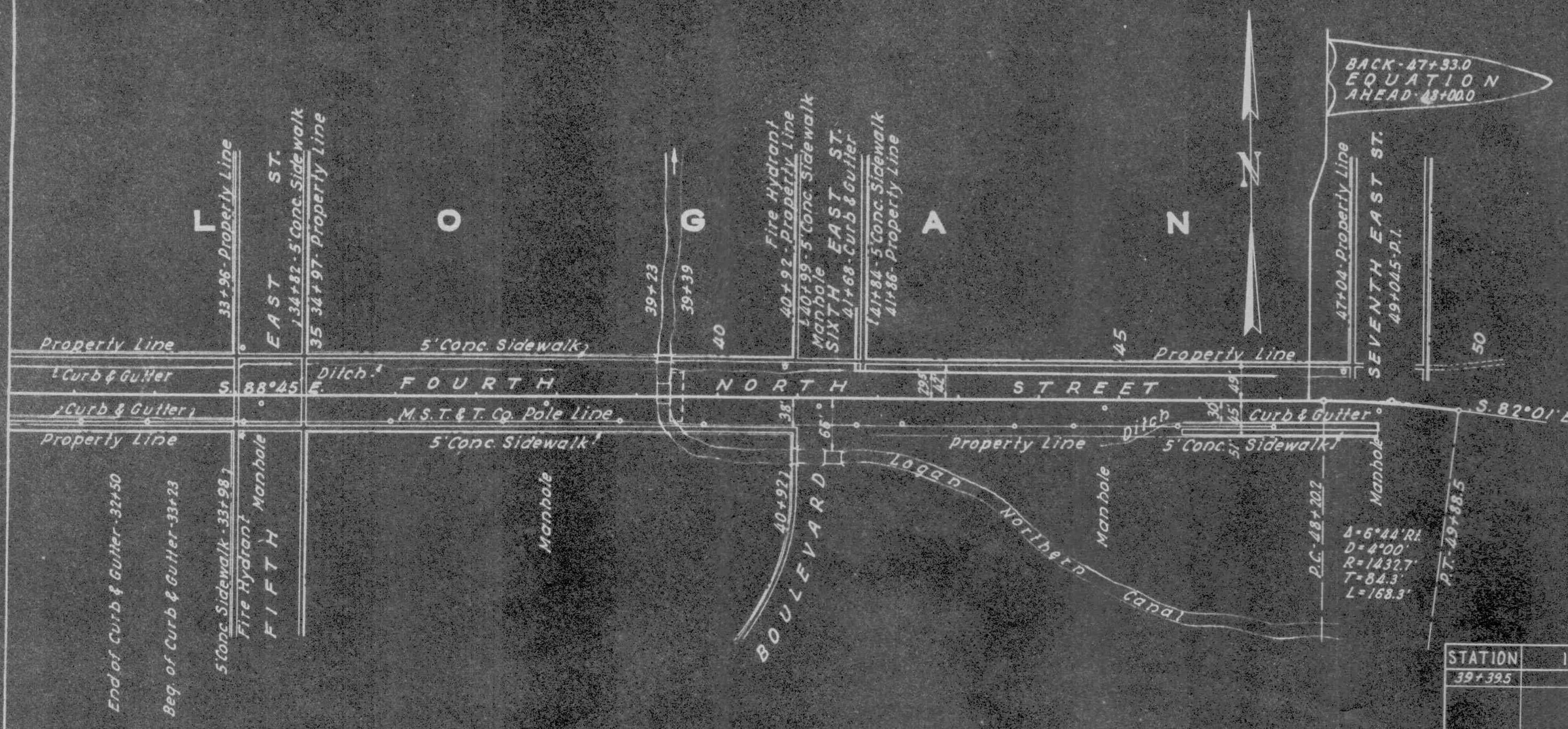
Stas. 0+00 - 1+00 - Widen pavement as shown on plan.

Haul waste material to widen existing roadway on Main Street from 6th North - north as directed. The material shall be placed uniformly and slopes trimmed in an acceptable manner.

PLATE 1-PLAN-PROFILE B.P.R. STANDARD

FED. ROAD DIST. NO.	STATE	N.R.M. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
12	UTAH	134-A	1933	4	7

PLAN		BY	DATE
NOTE BOOK NO. 2319	SURVEYED PLOTTED	F.D. Miles "	1933 "
	ALIGNMENT CHECKED R. OF WAY CHECKED	C.A.W. "	" "
	Traced	C.A.W. & A.M.G.	"



LIST OF STRUCTURES

STATION	IN PLACE	REQUIRED	REMARKS	DWG. Nº
39+39.5		16' Clear Span Bridge	Remove existing struct.	D-358

PROFILE		BY	DATE
NOTE BOOK NO. 2319	SURVEYED PLOTTED	F.D. Miles A.M. Gidi	1933 "
	GRADES CHECKED Q. U. N. [illegible] STRUCT. [illegible]	" " "	" " "

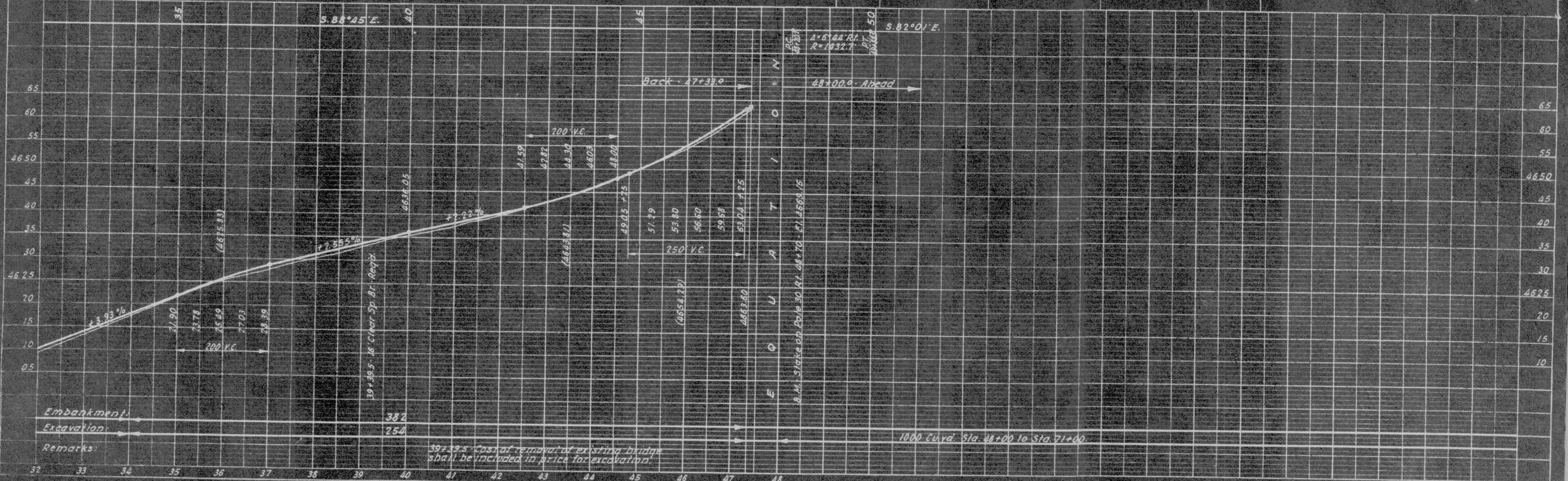
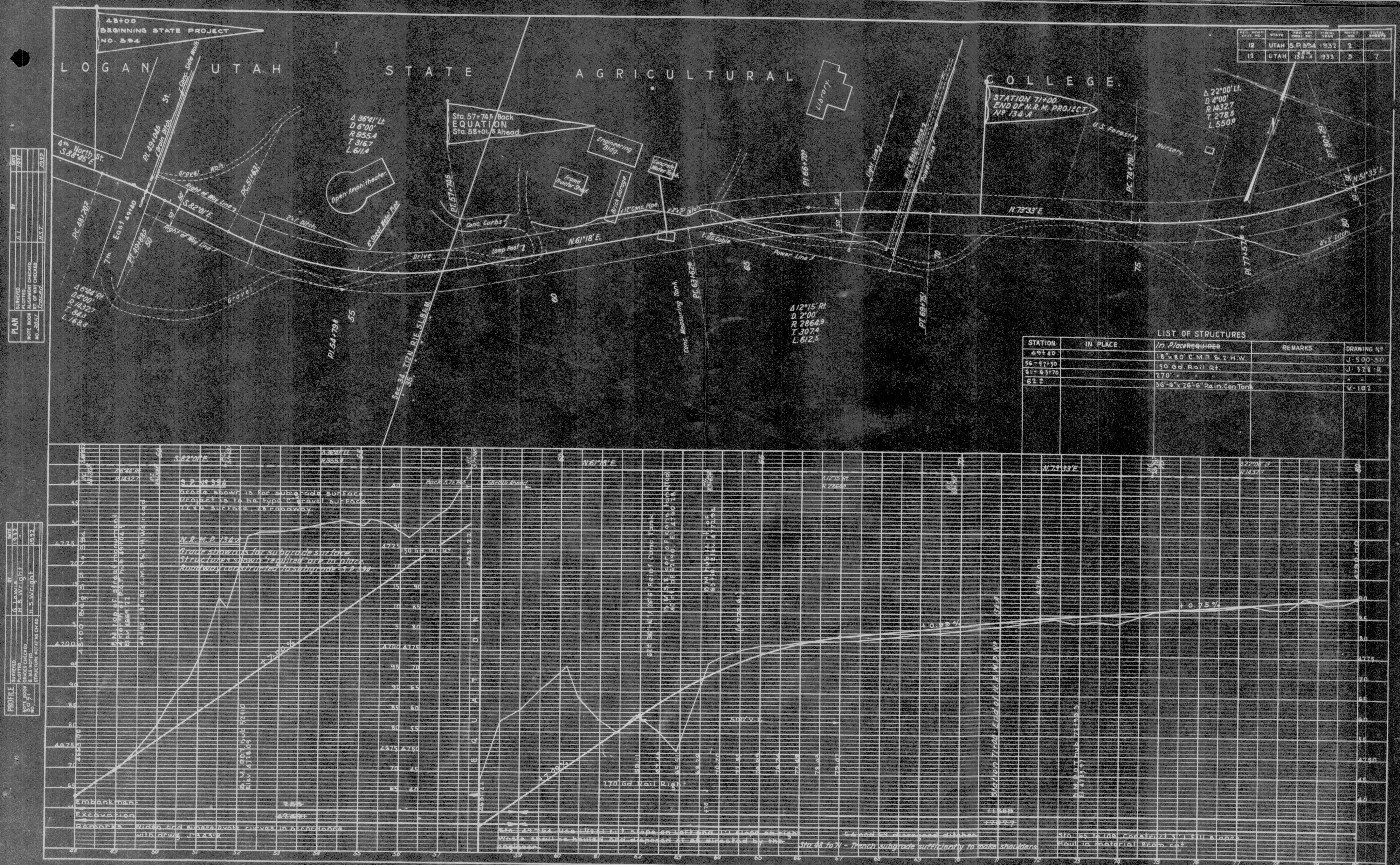


PLATE I-PLAN-PROFILE B.P.R. STANDARD



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
12	UTAH	S.P. 394	1932	2	
12	UTAH	N.R.M. 134-A	1933	3	7

LIST OF STRUCTURES

STATION	IN PLACE	In Place ~~REQUIRED~~	REMARKS	DRAWING Nº
49+40		18"x80' C.M.P. & 2 H.W.		J-500-30
56-57+50		150' Gd. Rail Rt.		J-328-R
61-63+70		270' " "		" " "
62±		36'-6"x26'-6" Rein. Con Tank		V-102

S.P. Nº 394
Grade shown is for sub-grade surface.
Project is to be type "C" gravel surface.
22' x 6" surface, 28' roadway.

N.R.M.P. 134-A
Grade shown is for subgrade surface.
Structures shown "required" are in place.
Roadway constructed to subgrade S.P. 394

Remarks Widen and superelevate curves in accordance with drwg. J-343-R

~~Sta. 48-64 Use 1½:1 cut slope on left and 1:1 slope on right. Waste shall be hauled and disposed of as directed by the engineer.~~

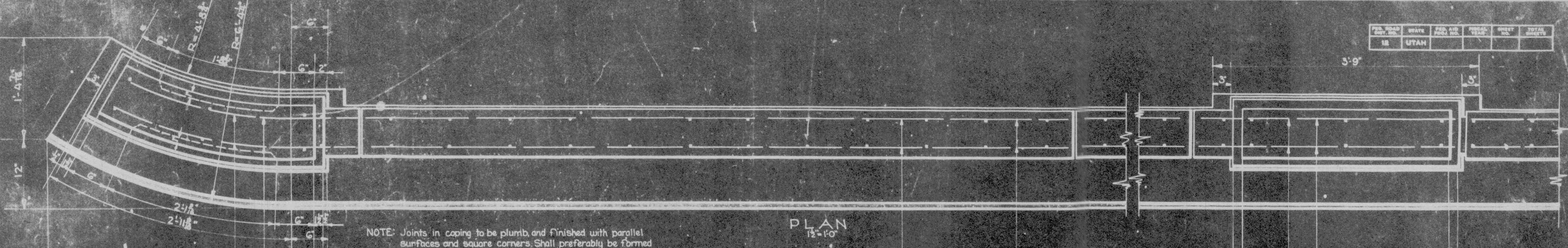
~~64 and 69 discussed ditches~~

Sta 48 to 71 - Trench subgrade sufficiently to make shoulders

Sta 65 to 109 Construct 5:1 Fill slopes. Haul in material from cut

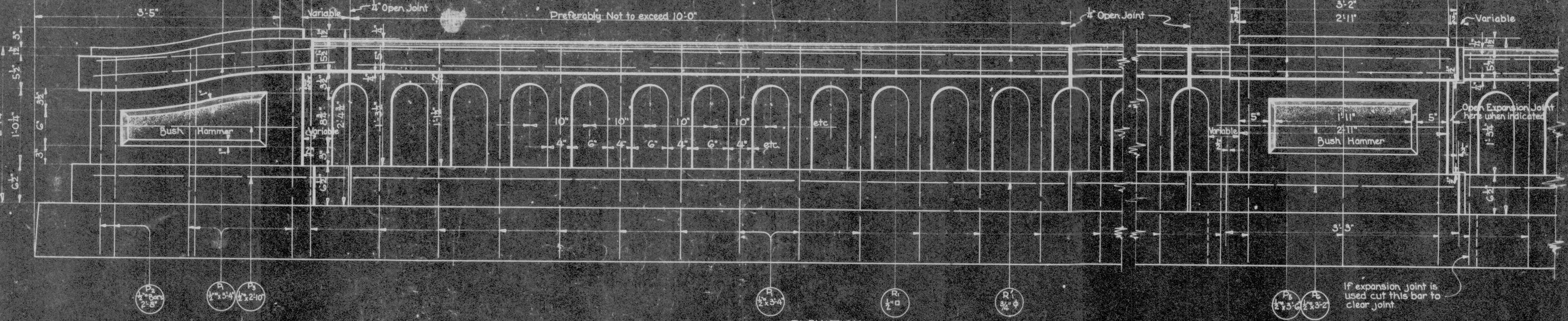
PLATE 1 - PLAN-PROFILE O.P.R. & R.E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
12	UTAH				



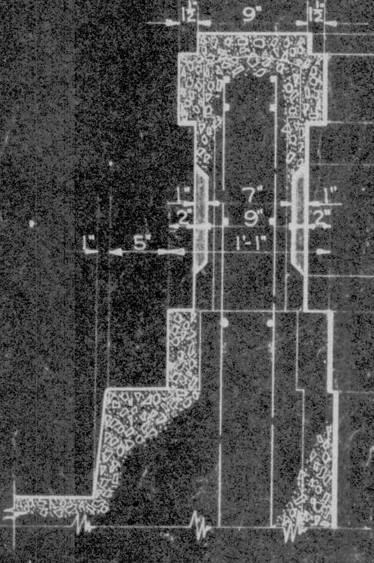
PLAN
1½"=1'-0"

NOTE: Joints in coping to be plumb, and finished with parallel surfaces and square corners. Shall preferably be formed with 3 sheets of metal and sufficiently lubricated to permit removal without disturbing corners of concrete.

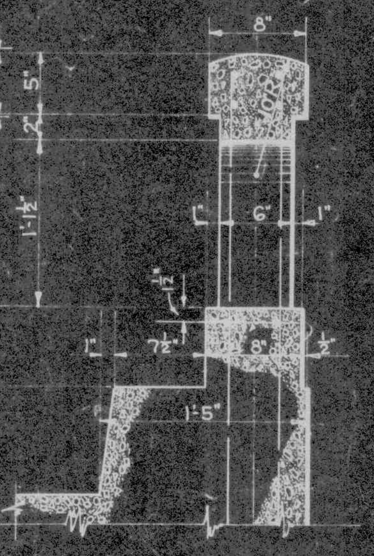


If expansion joint is used cut this bar to clear joint.

ELEVATION
1½"=1'-0"



CROSS SECTION OF END POST AND INTERMEDIATE POST
1½"=1'-0"



CROSS SECTION THRU RAILING
1½"=1'-0"

REINFORCING STEEL

½"□ and ¾"ø – Straight or field bent

EACH END POST

8 P1 Bars each 3'-4" long = 26'-8"
2 P2 " " 2'-8" " = 5'-4"
4 P3 " " 2'-10" " = 11'-4"

EACH INTERMEDIATE POST

6 P1 Bars each 3'-4" long = 13'-4"
4 P5 " " 3'-6" " = 14'-0"
4 P6 " " 3'-2" " = 12'-8"

RAILING

2 P1 Bars 3'-4" long per Post
2 R1 " 4" shorter than section of coping
4 R1' Bars 4" shorter than section of Plinth and Coping.

GENERAL NOTES

All concrete to be class "A" and to be kept moist 14 days after pouring. All corners to be square and sharp except as shown. The general outline is to be finished so as to be entirely free from wavy surfaces and lines.

All reinforcing steel to be ½"□ and ¾"ø deformed bars complying with A.A.S.H.O. Specifications and are to be secured against displacement by securely tieing intersections with #16 Gage Iron Wire.

CONCRETE QUANTITIES

(Not Including Curb)

One end post	6.39 Cu. Ft.
One intermediate post	6.32 Cu. Ft
Handrail-per foot	.90 Cu. Ft

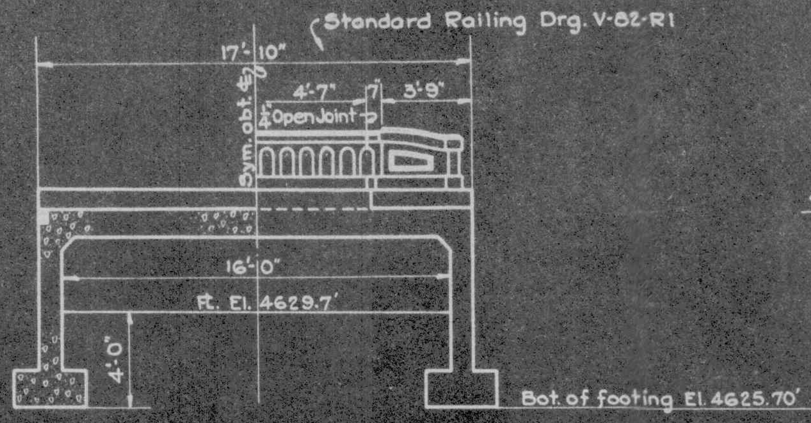
REVISIONS			
DATE	BY	DATE	BY
9-6-32	C.G.S.		
7/11/53	P.M.N.		

UTAH STATE ROAD COMMISSION
SALT LAKE CITY · UTAH
H. S. KERR · CHIEF ENGINEER

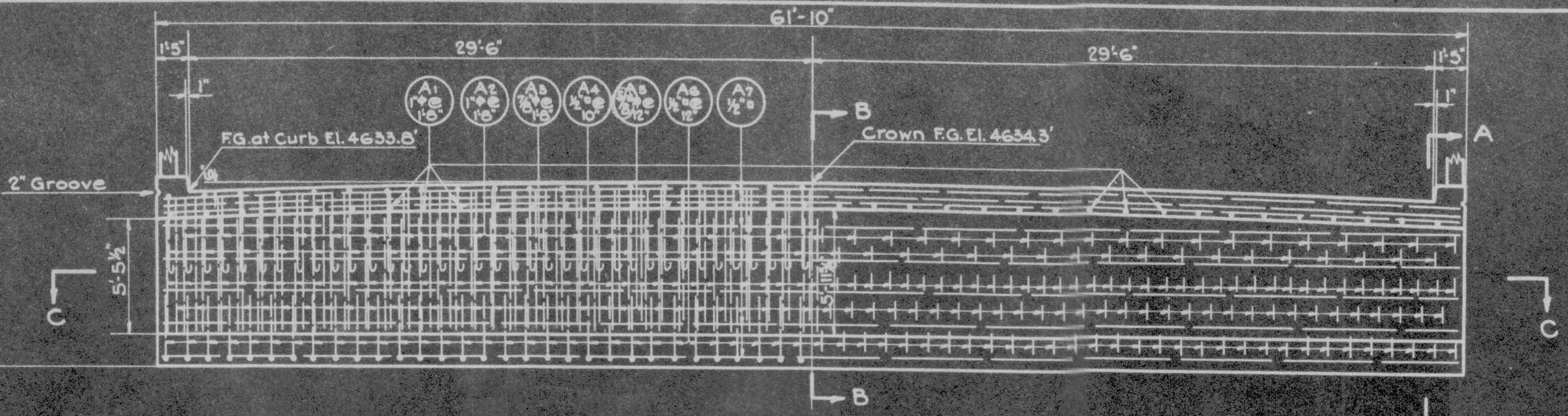
STANDARD CONCRETE
HANDRAIL

DESIGNED BY C.G.S.
DRAWN BY C.G.S.
CHECKED BY
EXAMINED BY
SCALE 1½"=1'-0"
ISSUE June 8 31
APPROVED
CHIEF BRIDGE ENGINEER
BRIDGE NO.
DRG. NO. V-82-R1

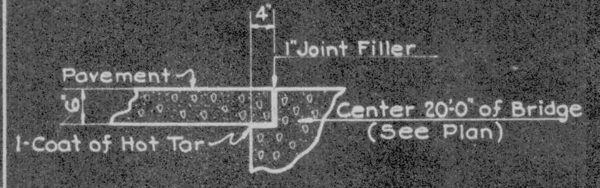
FED. ROAD DIST. NO.	STATE	N. R. M. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
12	UTAH	134-A			

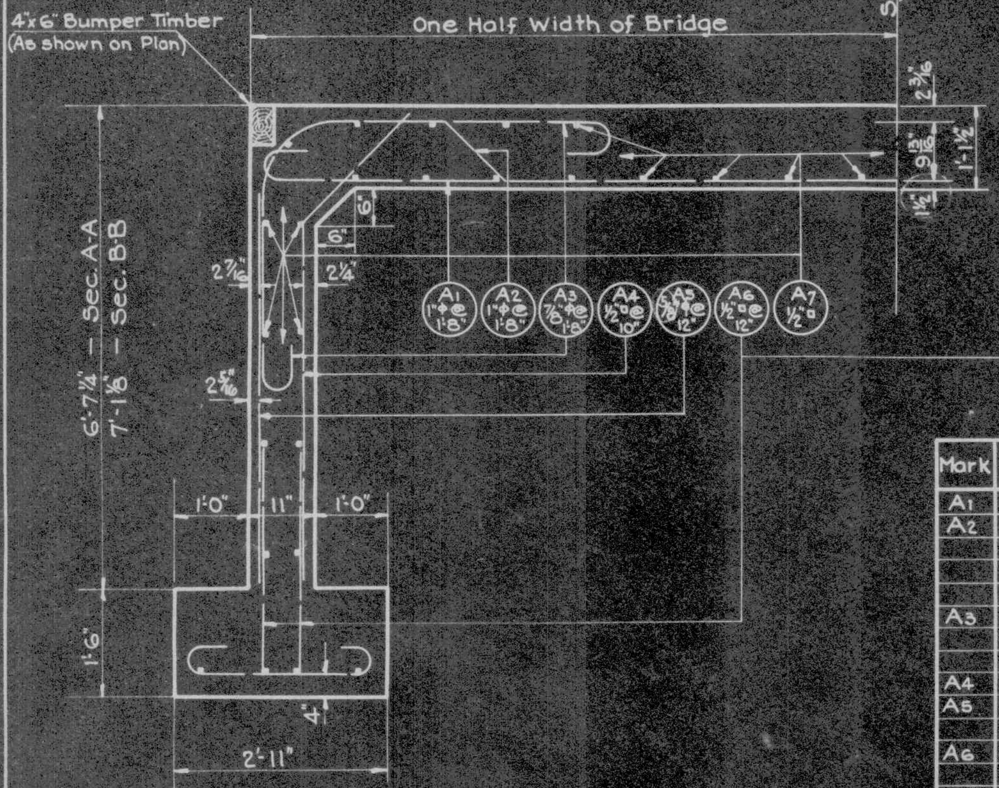


SEC. A-A END ELEV.
Scale 1/4"=1'-0"



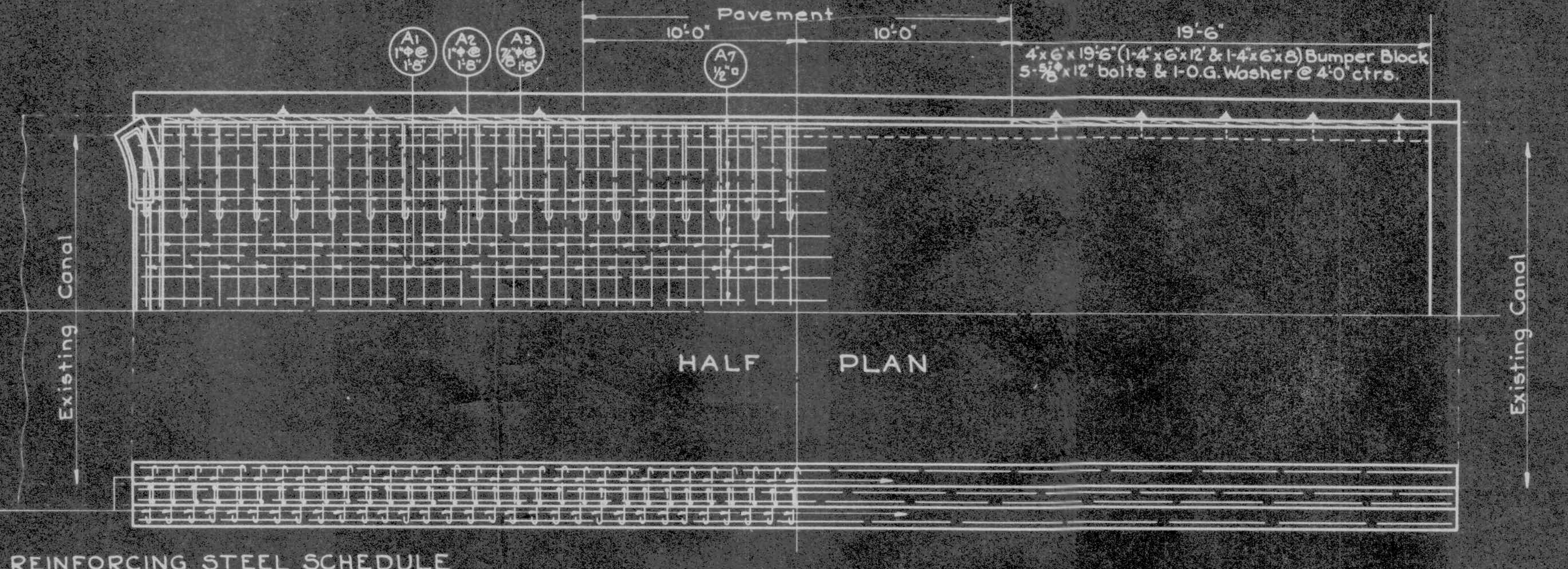
LONGITUDINAL SECTION
(Showing Steel in Both Faces)





SECTION A-A
Scale 3/4"=1'-0"

Note: Backfilling on each end of rigid frame to be done simultaneously, material to be thoroughly saturated and compacted.



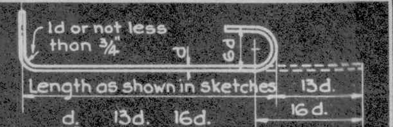
HALF SECTION C-C

Note: Existing canal lining, where disturbed at ends of structure during construction, shall be replaced so as to connect with new structure without additional compensation.

REINFORCING STEEL SCHEDULE

Mark	Location	Size	Lgth	No. Bars	Total Lgth.	Sketch	O. to O.
A1	Slab	1"ϕ	19'-8"	37	727'-8"		17'-6"
A2	Slab & Abut.	1"ϕ	26'-9"	37	989'-9"	1'-2" 1'-6" 1'-10 3/4" 1'-6" 12" R. 2'-8" 10'-9 1/2" 9 13/16" 2'-8"	
A3	Slab & Abut.	7/8"ϕ	9'-10"	74	727'-8"	1'-7" 3'-8" 2'-8" 12" R	
A4	Abut.	1/2"□	7'-0"	148	1036'-0"	4'-11" 2'-1"	
A5	"	5/8"ϕ	5'-5"	122	660'-10"		
A6	Footing	1/2"□	5'-0"	244	1220'-0"	2'-11" 1'-6"	
A7	Slab, Abut. & Footing	1/2"□	31'-7"	100	3158'-4"	31'-7" 1'-8" Lap 31'-7"	
P1	End Post	1/2"□	3'-4"	32	106'-8"		
P2	" "	1/2"□	2'-8"	8	21'-4"	"	
P3	" "	1/2"□	2'-10"	16	45'-4"	"	
P1	Railing	1/2"□	3'-4"	52	173'-4"	"	
R1	"	1/2"□	8'-10"	4	35'-4"	"	
R'1	"	3/4"ϕ	8'-10"	8	70'-8"	"	

660'-10" 5/8"ϕ @ 1.06# = 700.48
5796'-4" of 1/2"□ @ .86# = 4984.84
70'-8" " 3/4"ϕ @ 1.52 = 107.42
727'-8" " 7/8"ϕ @ 2.07 = 1506.28
1717'-5" " 1"ϕ @ 2.70 = 4637.03
TOTAL = 11936.05#



d.	13d.	16d.
3/8"	5"	6"
1/2"	6 1/2"	8"
5/8"	8"	10"
3/4"	9 3/4"	12"
7/8"	11 1/2"	14"
1"	13"	16"
1 1/8"	14 1/2"	18"
1 1/4"	16 1/4"	20"

ROD NOTES

When hooks are called for the lengths given in the Total Length Column include allowance for hooks as shown in above detail. Lengths given in Sketches are center to center of bend points. All rods to conform to A.A.S.H.O. Specifications. All reinforcing bars to be deformed.

GENERAL NOTES

All concrete to be Class "A" and is to be kept moist 14 days after pouring. All exposed edges to be chamfered 1"

Reinforcing steel to be deformed bars overlapped not less than 40 diameters at all splices, secured against displacement by wiring at all intersections with #16 iron wire and shall have a minimum of 1" clear cover of concrete. All reinforcing steel shall fulfill the requirements of the A.A.S.H.O. Specifications.

Bar diagrams are not drawn to scale and those bars not detailed are either straight or field bent, all dimensions are to ℄ of bar Unless Otherwise shown. All materials are to be furnished by Contractor.

DESIGN DATA

Live Load: H. 15 Loading.
Dead Load: Concrete 150# per cubic foot.
Wearing Surface is 3/4" with an additional future W.S. of 15# over that shown. Stresses: Steel, 16,000# per sq. in.
Concrete 650# per sq. in.

QUANTITIES

Structural Excav.	92	Cu. Yds.
Concrete - Class A	94	" "
Cement	592	Sox
Reinforcing Steel	11936	Lbs.

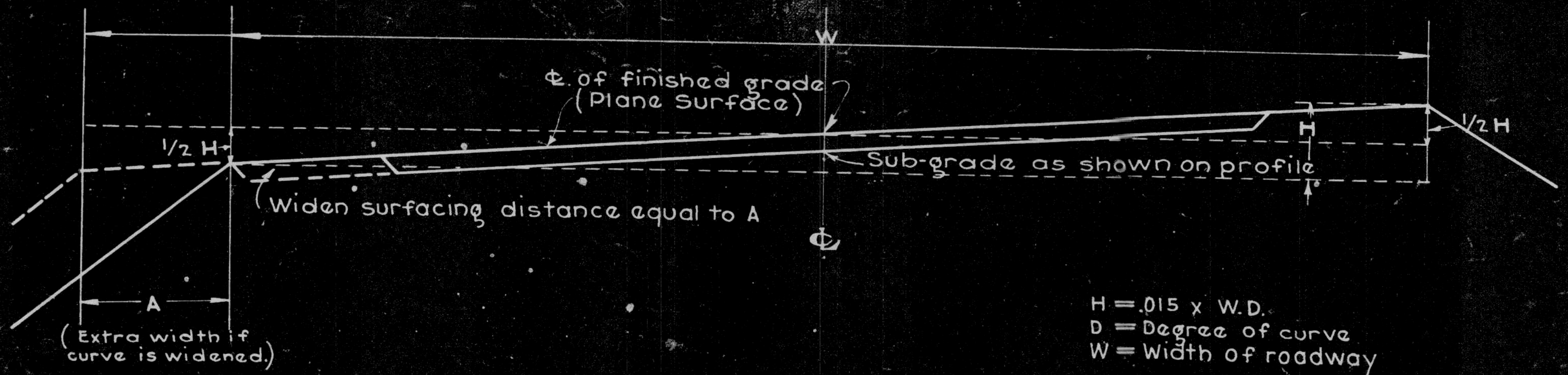
REVISIONS			
DATE	BY	DATE	BY
8-21-33	RGC		

UTAH STATE ROAD COMMISSION
SALT LAKE CITY - UTAH
H. S. KERR - CHIEF ENGINEER

16'-0" CL. SPAN RIGID FRAME BR.
FOURTH NORTH ST., LOGAN
Sta. 39+39.5 N.R.M. 134-A
Cache County

DESIGNED BY R.G.C.
DRAWN BY R.G.C.
CHECKED BY
EXAMINED BY
SCALE As Noted
ISSUED Aug 9. 1933
APPROVED
CHIEF BRIDGE ENGINEER
BRIDGE NO. DRG. NO. D-358

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
12	UTAH				


W
℄ of finished grade
(Plane Surface)
1/2 H
H
1/2 H
Sub-grade as shown on profile
Widen surfacing distance equal to A
℄
A
(Extra width if curve is widened.)

H = .015 x W.D.
D = Degree of curve
W = Width of roadway

On all curves sharper than 6° use 6 for value of D. When grade is less than 4%. On grades over 4%, use 4 for value of D for curves over 4°.

SUPER - ELEVATION

All curves over 1° degree shall be super-elevated. Transition shall be 150' commencing 75' on either side of P.C. or P.T. of curve. The surface of the roadway shall be a plane surface across entire section, including shoulders. ℄ of grade shall be held, inner and outer edge lowered and raised respectively as shown, except in flat country when bad drainage conditions might develope. Hold the inner edge and raise the outer edge a distance equal to "H".

WIDENING

6° curves or sharper shall be widened if indicated on plans or directed by engineer. Transitio[illegible]ll be 150' commencing 75' on each side of P.C. or P.T. [illegible] curve. Curve shall be widened on inside a d[illegible]nce "A" according to schedule given below.

6° curves to 7° A = 2
8° Curves to 12° A = 4
12° Curves and over A = 6

UTAH STATE ROAD COMMISSION
SALT LAKE CITY - UTAH
H. S. KERR CHIEF ENGINEER

STANDARD FOR SUPER-ELEVATION AND WIDENING OF CURVES

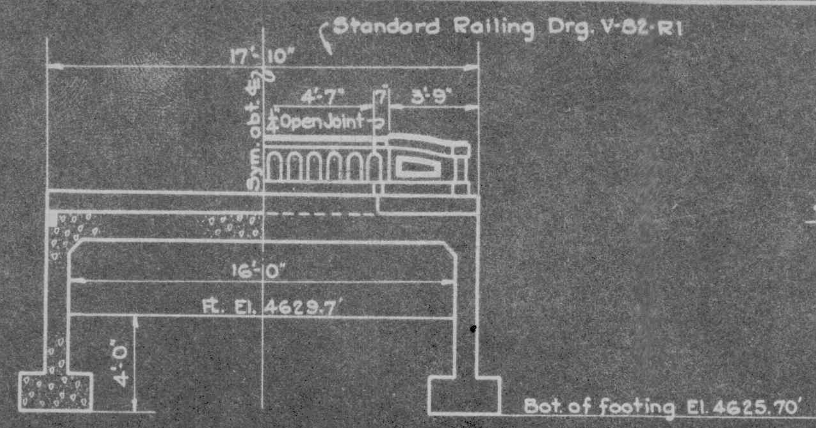
(Applies on all Types of Surfacing)

DESIGNED BY W.L.A
DRAWN BY H.S.W.
CHECKED BY
EXAMINED BY
SCALE
ISSUED Revised 11-9-31
APPROVED
CHIEF DRAFTSMAN

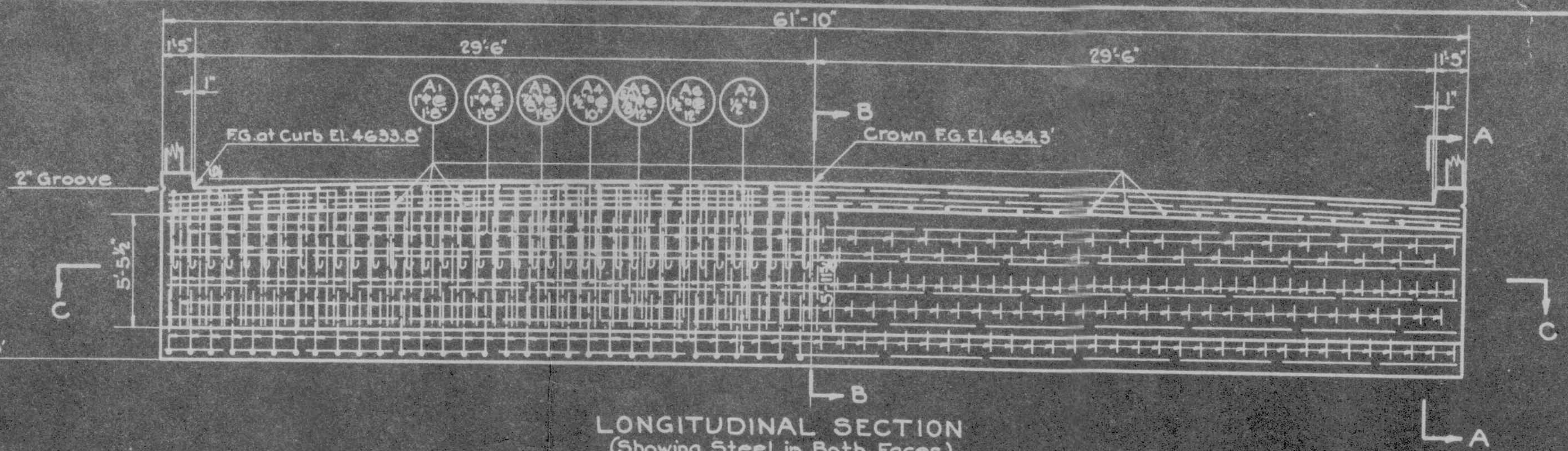
DRG. NO. J-343-R

PRINTED ON IMPERIAL CLOTH BY ALLSTEEL OFFICE SUPPLY CO.

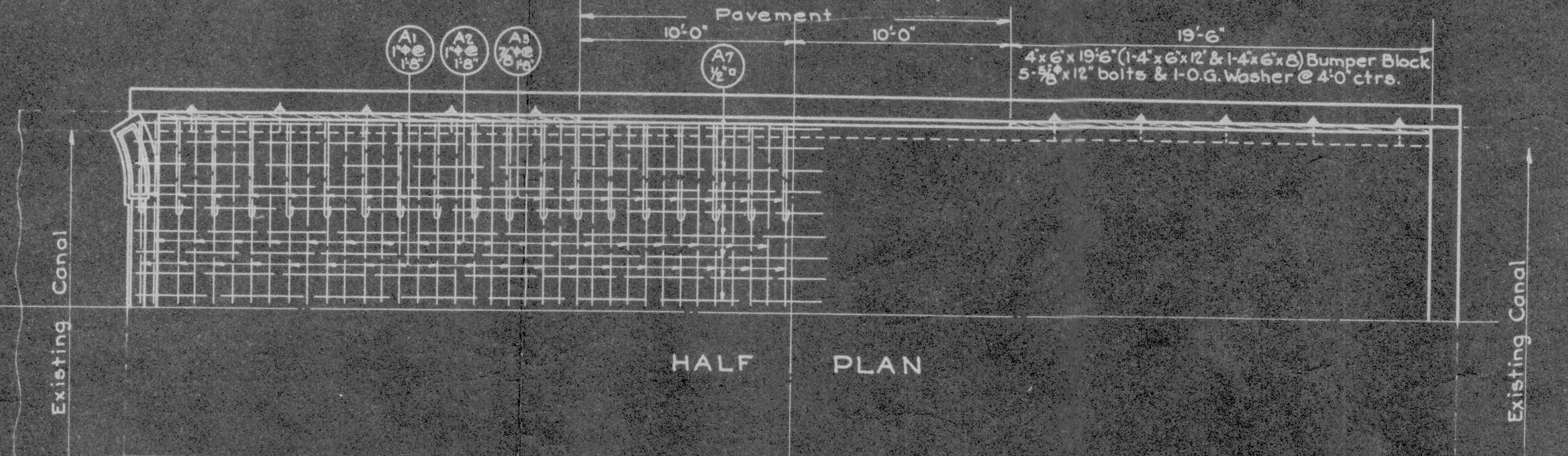
Fed. Road Dist. No.	State	N.R.M. Proj. No.	Fiscal Year
12	UTAH	134-A	

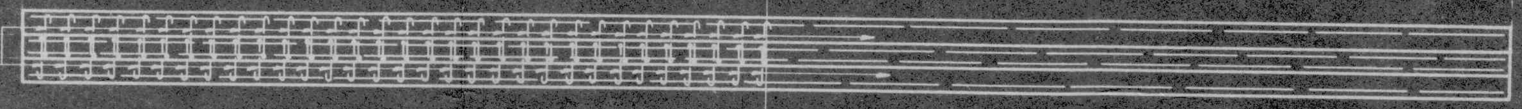


SEC. A-A END ELEV.
Scale ¼"=1'-0"



LONGITUDINAL SECTION
(Showing Steel in Both Faces)





HALF SECTION C-C

Note: Existing co
where disturbed at
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shall be replaced s
connect with new s
without additional
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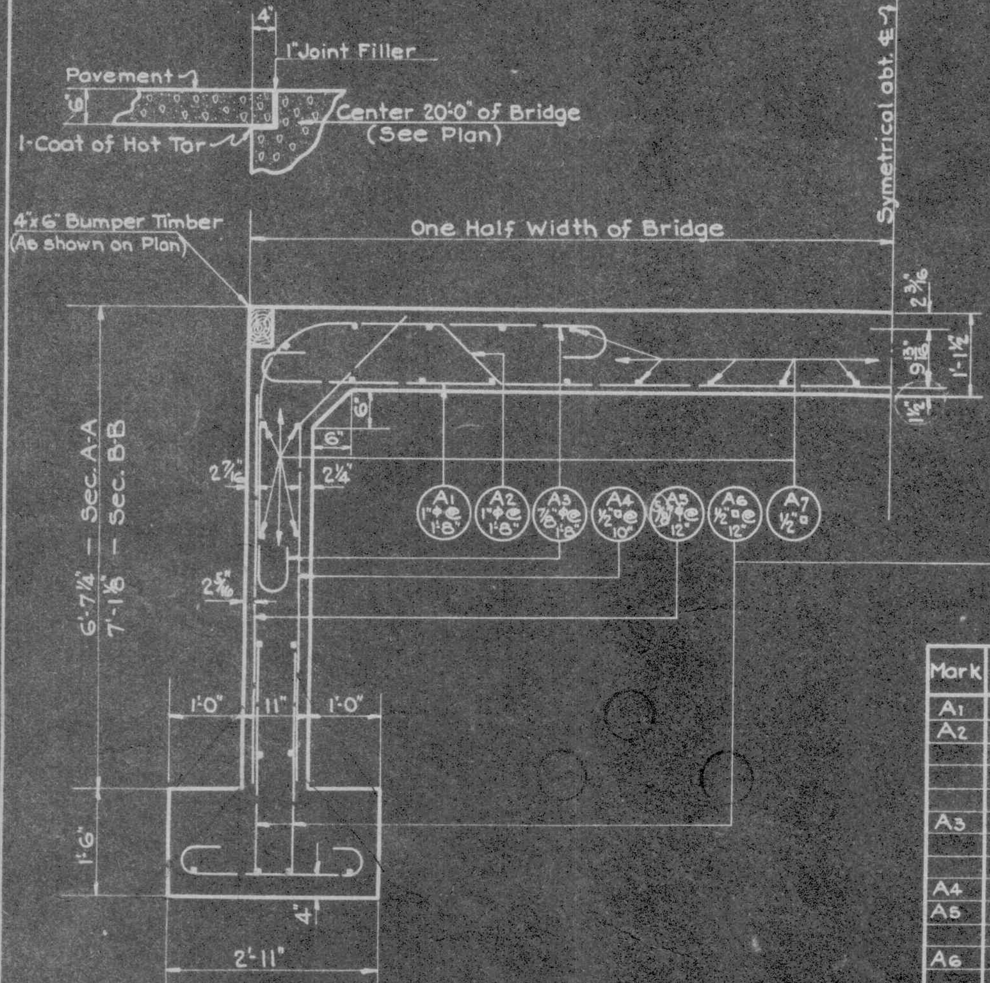
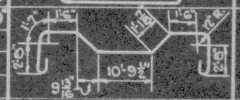
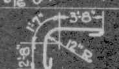
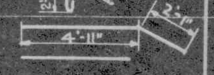
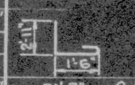
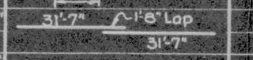


SECTION A-A
Scale ¾"=1'-0"

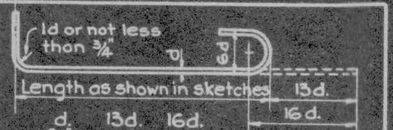
Note: Backfilling on each end of rigid frame to be done simultaneously, material to be thoroughly saturated and compacted.

REVISIONS

REINFORCING STEEL SCHEDULE

Mark	Location	Size	Lgth.	No. Bars	Total Lgth.	Sketch	O. to O.
A1	Slab	1"⌀	19'-8"	37	727'-8"		17'-6"
A2	Slab & Abut.	1"⌀	26'-9"	37	989'-9"	 1'-7" 1'-6" 1'-10" 1'-6" 12" R. 2'-6" 10'-9½" 9 13/16" 2'-6"	
A3	Slab & Abut.	⅞"⌀	9'-10"	74	727'-8"		
A4	Abut.	½"□	7'-0"	148	1036'-0"		
A5	"	⅝"⌀	5'-5"	122	660'-10"		
A6	Footing	½"□	5'-0"	244	1220'-0"		
A7	Slab, Abut. & Footing	½"□	31'-7"	100	3158'-4"		
P1	End Post	½"□	3'-4"	32	106'-8"		
P2	" "	½"□	2'-8"	8	21'-4"	"	
P3	" "	½"□	2'-10"	16	45'-4"	"	
P1	Railing	½"□	3'-4"	52	173'-4"	"	
R1	"	½"□	8'-10"	4	35'-4"	"	
R'1	"	¾"⌀	8'-10"	8	70'-8"	"	

660'-10" ⅝"⌀ @ 1.06# = 700.48
5796'-4" of ½"□ @ .86# = 4984.84
70'-8" " ¾"⌀ @ 1.52 = 107.42
727'-8" " ⅞"⌀ @ 2.07 = 1506.28
1717'-5" " 1"⌀ @ 2.70 = 4637.03
TOTAL = 11936.05#



d.	13d.	16d.
⅜"	5"	6"
½"	6½"	8"
⅝"	8"	10"
¾"	9¾"	12"
⅞"	11½"	14"
1"	13"	16"
1⅛"	14½"	18"
1¼"	16¼"	20"

ROD NOTES

When hooks are called for the lengths given in the Total Length Column include allowance for hooks as shown in above detail. Lengths given in Sketches are center to center of bend points. All rods to conform to A.A.S.H.O. Specifications. All reinforcing bars to be deformed.

GENERAL NOTES

All concrete to be Class "A" and is to be kept moist 14 days after pouring. All exposed edges to be chamfered 1"

Reinforcing steel to be deformed bars overlapped not less than 40 diameters at all splices, secured against displacement by wiring at all intersections with #16 iron wire and shall have a minimum of 1" clear cover of concrete. All reinforcing steel shall fulfill the requirements of the A.A.S.H.O. Specifications.

Bar diagrams are not drawn to scale and those bars not detailed are either straight or field bent, all dimensions are to ℄ of bar Unless Otherwise shown. All materials are to be furnished by Contractor.

DESIGN DATA

Live Load: H.15 Loading.
Dead Load: Concrete 150# per cubic foot.
Wearing Surface is ¾ with an additional future W.S. of 15# over that shown. Stresses: Steel, 16,000# per sq. in. Concrete 650# per sq. in.

QUANTITIES

Structural Excav.	92	Cu. Yds.
Concrete - Class A	94	" "
Cement	592	Sax
Reinforcing Steel	11836	Lbs.

UTAH STATE ROAD
SALT LAKE CITY
H. S. KERR - CHI
16'-0" CL. SPAN RIGI
FOURTH NORTH S
Sta. 39+39.5 N
Cache Cou

DESIGNED BY R.G.C. SCALE A
DRAWN BY R.G.C. ISSUED C
CHECKED BY
APPROVED
EXAMINED BY
BRIDGE NO. DR