

COLORADO

STATE HIGHWAY DEPARTMENT

PLAN AND PROFILE OF PROPOSED FEDERAL AID PROJECT NO 275A STATE HIGHWAY NO. 1 DOUGLAS CO.

EX OF SHEETS

TITLE PAGE
SUMMARY
EXTENDING BRIDGE AT STA. 268+90.5-269+13.5
BRIDGE IN PLACE
CONC. PILE BRIDGES AT STA. 383, 363+80 & 558+05
CULVERT BOX CULVERTS AT STA. 306+35 & 340+72
EXTENSION OF R.R. ARCH. CULV. STA. 434+41.1
STANDARD CONC. BOX CULVERTS
STANDARD HEADWALLS
CL. PLAN & PROFILE
CL. CROSS-SECTIONS
CULVERT SUPPLEMENTARY DETAILS.

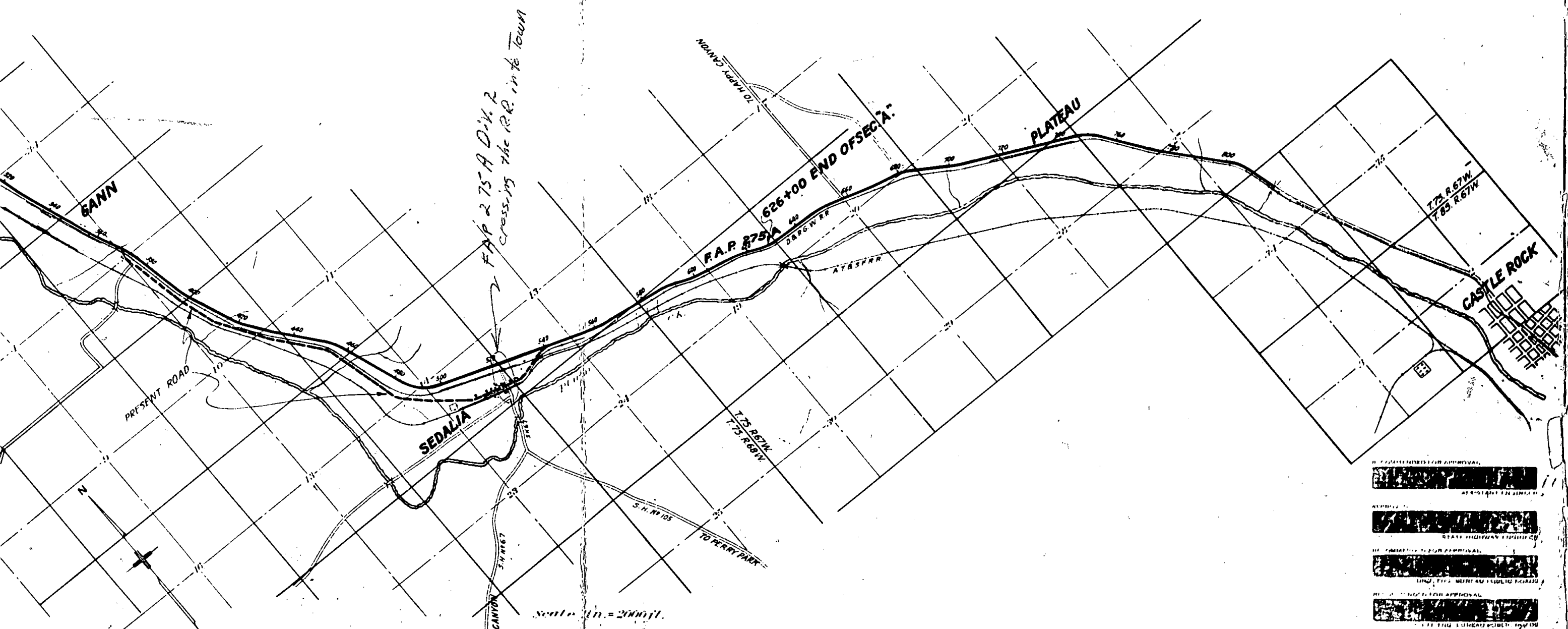
LEGEND

PROPOSED
EXISTING
RIGHT-OF-WAY
ADJACENT LAND
R.R.
ELEVATION



SCALES

ON PLAN 1 IN. = 100 FT.
ON PROFILE 1 IN. = 100 FT. HORIZONTAL
ON PROFILE 1 IN. = 10 FT. VERTICAL
GRADE LINE ON PROFILE IS SHOWN AS GRADE OF FINISHED ROAD
GROSS LENGTH OF PROJECT 37 005.5 FT. = 7.008 MI.
NET LENGTH OF PROJECT 37 005.5 FT. = 7.008 MI.



Scale 1 in. = 2000 ft.

APPROVED FOR CONSTRUCTION
APPROVED FOR FUNDING
APPROVED FOR RIGHT-OF-WAY
APPROVED FOR EASEMENTS
APPROVED FOR UTILITIES
APPROVED FOR ENVIRONMENTAL
APPROVED FOR HISTORIC

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PLAN AND PROFILE OF PROPOSED FEDERAL AID PROJECT NO 275A STATE HIGHWAY NO. 1 DOUGLAS CO.

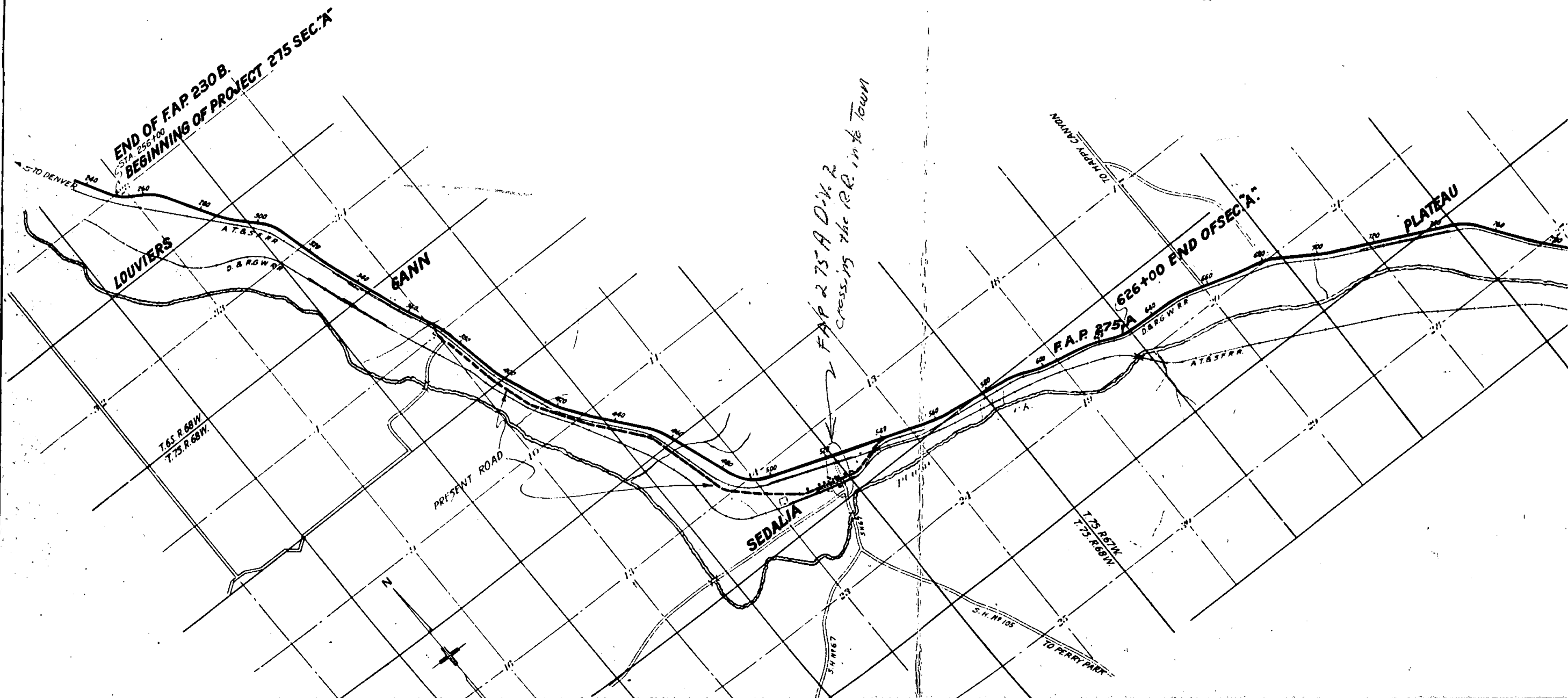
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SHEET NO. 5	DOUBLT. BOX CULVERTS AT STA. 306+33.8 & 340+72
SHEET NO. 6	EXTENSION OF R.R. ARCH CULV. STA. 434+41.1
SHEET NO. 7	STANDARD CONC. BOX CULVERTS
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SCALES

ON PLAN, 1 IN. = 100 FT.
ON PROFILE, 1 IN. = 100 FT. HORIZONTAL
1 IN. = 10 FT. VERTICAL

GRADE LINE ON PROFILE IS SHOWN AS GRADE OF FINISHED ROAD.
GROSS LENGTH OF PROJECT 37 005.5 FT. = 7.008 MI.
NET LENGTH OF PROJECT 37 005.5 FT. = 7.008 MI.



REC. AID SHEET
PROG. NO. NO.
275-A 2
Revised 9/26/24 H.C.B.
9/30/24 S.B.A.
6-8-25 H.C.B.
Rev 03/03/27 S.A.-N.W.M.M.

[illegible]

Technical drawing of a road cross-section showing a 12-foot wide road with various slopes and materials. The drawing includes a longitudinal joint in the center, a sand cushion, gravel shoulders, and a timber header. It also shows a 1/2 cut section and a 1/2 fill section. The drawing is labeled with dimensions and materials.

Dimensions and Slopes:

- Left Slope: 1 1/2 TO 1
- Left Shoulder: 5'-0" (SLOPE 1 1/2 IN 4)
- Left Sand Cushion: 4'-0" (SLOPE 2 IN 4)
- Center Joint: 9'-0" (LONGITUDINAL JOINT SEE BELOW)
- Right Sand Cushion: 9'-0"
- Right Shoulder: 4'-0" (SLOPE 2 IN 4)
- Right Slope: 1 1/2 TO 1

Materials and Construction:

- 1/2 CUT SECTION END AREA: CONC. 1-1/2" 3 MIX = 10, 300"
- GRAVEL SHOULDER = 3"
- SAND CUSHION = 3"
- 1/2 FILL SECTION
- 4" x 8" TIMBER HEADER
- 1" EXPANSION JOINTS REQUIRED TO BE PLACED 60' APART PERPENDICULAR TO C OF ROAD

Longitudinal Joint Details:

Write in = 2 1/2 ft.

Edge of Pavement - 7

1 1/2" x 4" plain round bars @ 5' centers extending across center joint

Longitudinal joint to be securely tied and supported to line and grade shown on these plans.

Top of pavement

After edges are finished with 10" existing foot, remove cap & fill joint with Asphalt.

1 1/2" x 4" plain round bars @ 5' centers

10" deep Deformed Metal Joint, Alternate Types.

Sub grade

4" x 15" pins @ 3' 4" centers

SPECIAL CONCRETE SECTION

TO BE PAID FOR AS PAVEMENT

TO BE PAID FOR ON C.U.Y.D. BASIS

SLOPE 4 IN 20

SLOPE 15 IN 5

SPECIAL SECTION TO BE USED FROM STA 308+50 TO 309+50

STA 308+50 TO 309+50 51 C.U.Y.D.

STA 309+50 TO 310+50 23.5 C.U.Y.D.

Scale 1 in. = 2 1/2 ft.

BRUSH FILL DAM

Trees to be placed in layers, tops angling down stream. Approximately one foot layers of dirt between layers of brush, all voids in brush to be filled with dirt placed at 2:1 slope as shown above. Turning in placing trees to be inclined in place for clearing & grubbing. Above dam 100 opposite 355 + 30 and 445 + 70 to 448 + 00.

4 inches of Sand for Subgrade Treatment placed as follows:

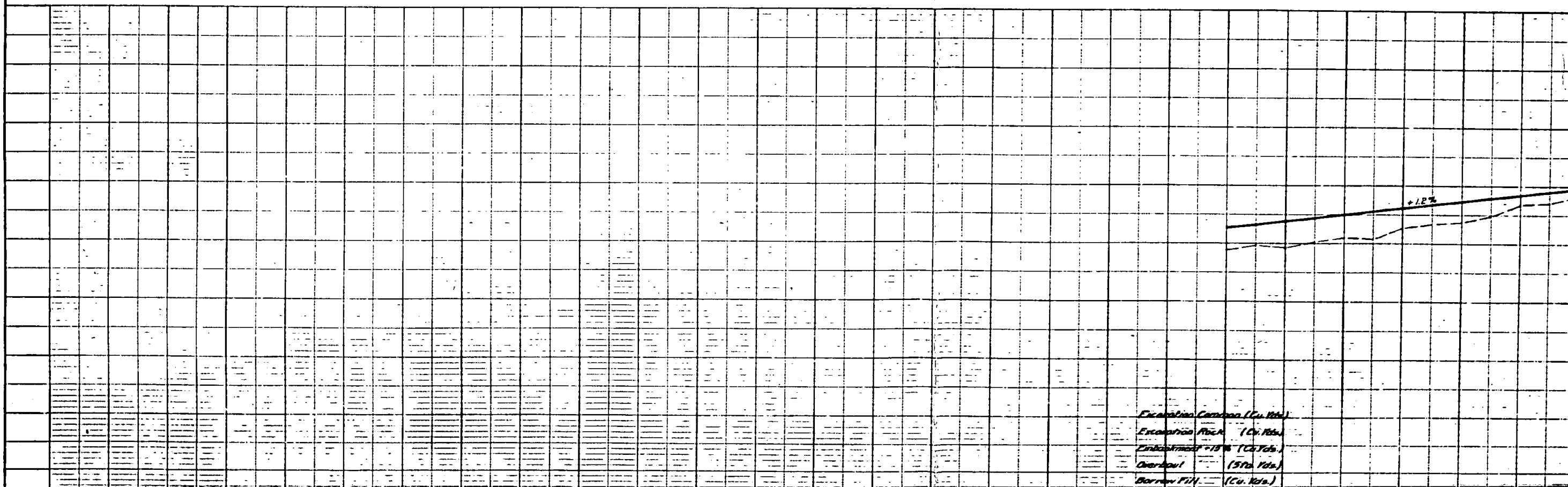
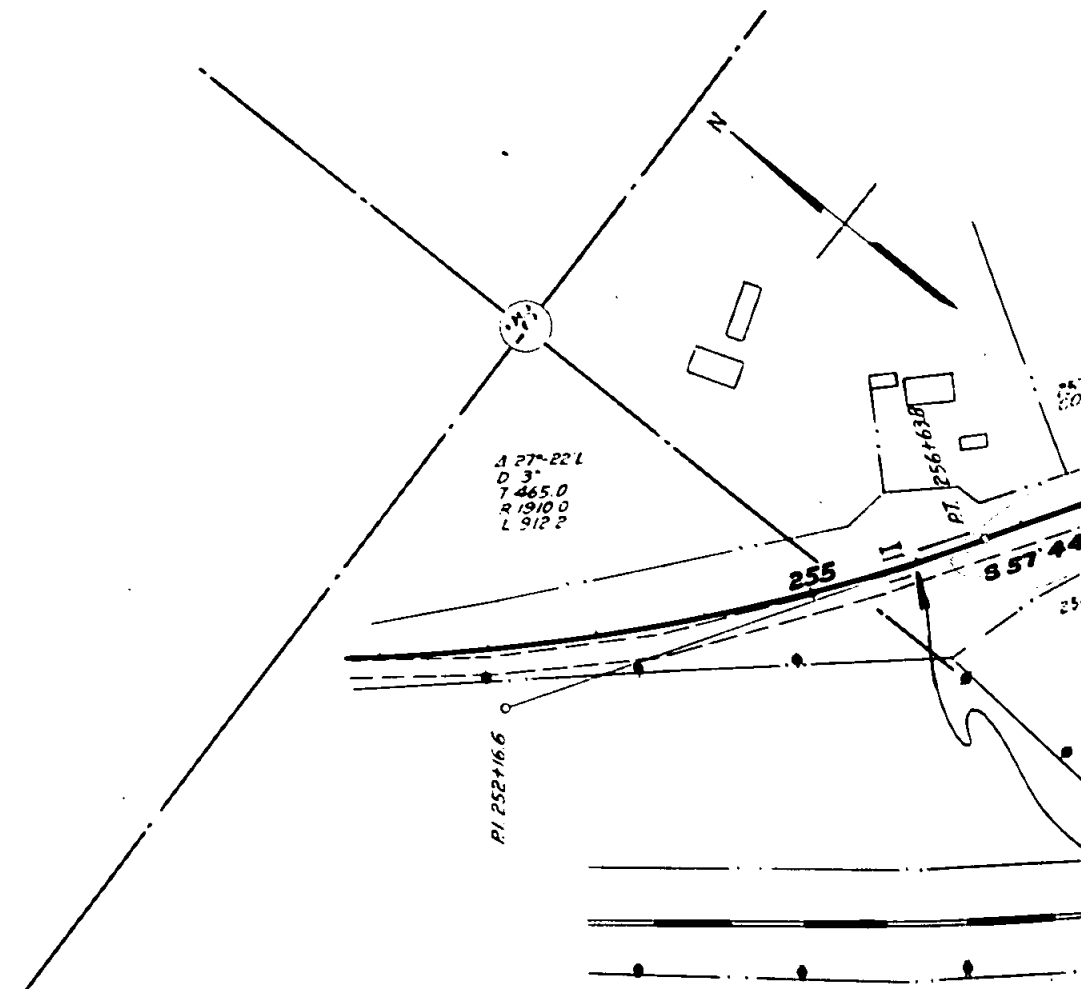
Station	to Station	lin Ft
285	287+50	290
290	298+50	850
308	317	1300
340	348	800
407	410	300
417	423+50	650
427	433	600*
465	468	300
473+50	480	650
		<u>5700</u>

*Note. less than 4" was required between Stations 421 and 433.

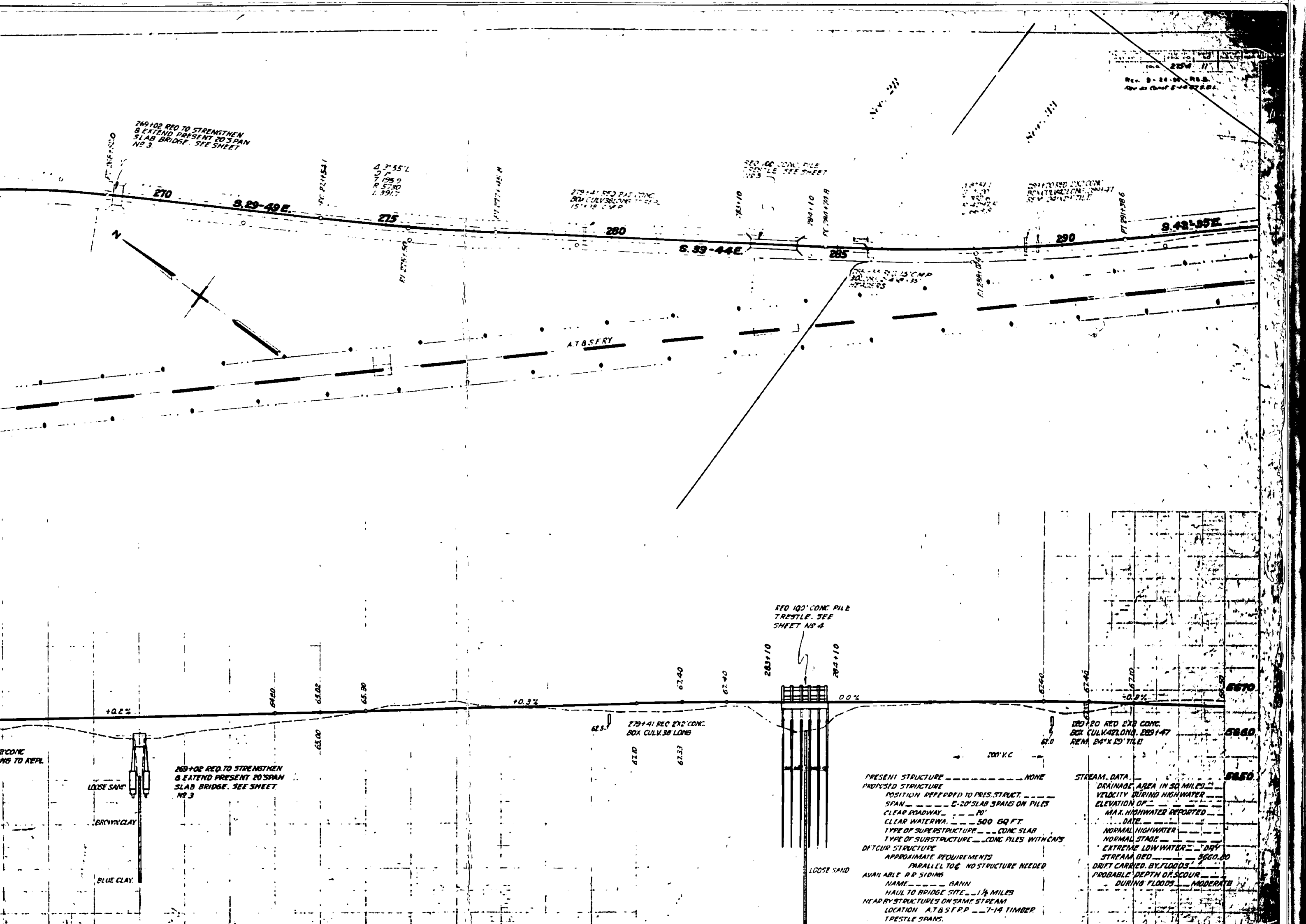
	ITEM	UNIT	QUANTITY	Construction Exp./Unit
1	CLEARING & GRUBBING	ACRES	7.5	7.5
2	EXC. COM.	CU. YDS.	91,700.0	87909
3	EXC. ROCK	CU. YDS.	30,700.0	31370
4	BORROW FILL	CU. YDS.	49,400.0	80114
5	OVERHAUL	STA. YDS.	42,300.0	85140
6	GRAVEL SHOULDER	CU. YD.	3,100.0	8978
7	SAND CUSHION	CU. YDS.	4,700.0	4660
8	ONE COURSE PLAIN CFM CONC. PAV.	30 YDS.	73,470.0	78400
9	DEF. METAL LONGIT. JOINT	LIN. FT.	36,866.0	76666
10	CONC. CL. A	CU. YDS.	8,327.0	83749
11	CONC. CL. B	CU. YDS.	21.0	171
12	REINFC. STEEL	LBS.	197,300.0	201232
13	15" CMP. CULV.	LIN. FT.	440.0	486
14	TIMBER HEADPIES	M. RD. FT.	2.6	2.813
15	RIPRAP	30 YDS.	250.0	177
16	FTM 4 CULV.		LUMP SUM.	9,500
17	FTM 2 RIMPIES		LUMP SUM.	2,800
18	CONC. PILING	LIN. FT.	3,000.0	3000
	WET ROCK STRUCTURAL EXC.	CU. YDS.		180
	SAND SUB-GRADE TREATMENT	CU. YDS.		1184
	6" VIT. TILE PIPE	LIN. FT.		478

PLAN	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK NO.	ALIGNMENT CHECKED		
	HT. OF WAY CHECKED		

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK NO.	STRUCTURE NOTED		
	STRUCTURE NOTED		



Excavation Common (Cu. Yds.)
 Excavation Rock (Cu. Yds.)
 Embankment +1.2% (Cu. Yds.)
 Overhaul (Sta. Yds.)
 Borrow Fill (Cu. Yds.)



269+02 RED TO STRENGTHEN & EXTEND PRESENT 20' SPAN SLAB BRIDGE. SEE SHEET NO 3.

4.3' 55' L
2.1' F
7.198.9
R 5730
L 3917

279+41 REC 2'x2' CONC. BOX CULV. 38' LONG

RED 100' CONC. PILE TRESTLE. SEE SHEET NO 4

289+20 REC 2'x2' CONC. BOX CULV. 42' LONG. 289+47 REM. 24'x12' TILL

9.42-35 E.

A.T.B. S.F.R.Y.

RED 100' CONC. PILE TRESTLE. SEE SHEET NO 4

279+41 REC 2'x2' CONC. BOX CULV. 38' LONG

289+20 REC 2'x2' CONC. BOX CULV. 42' LONG. 289+47 REM. 24'x12' TILL

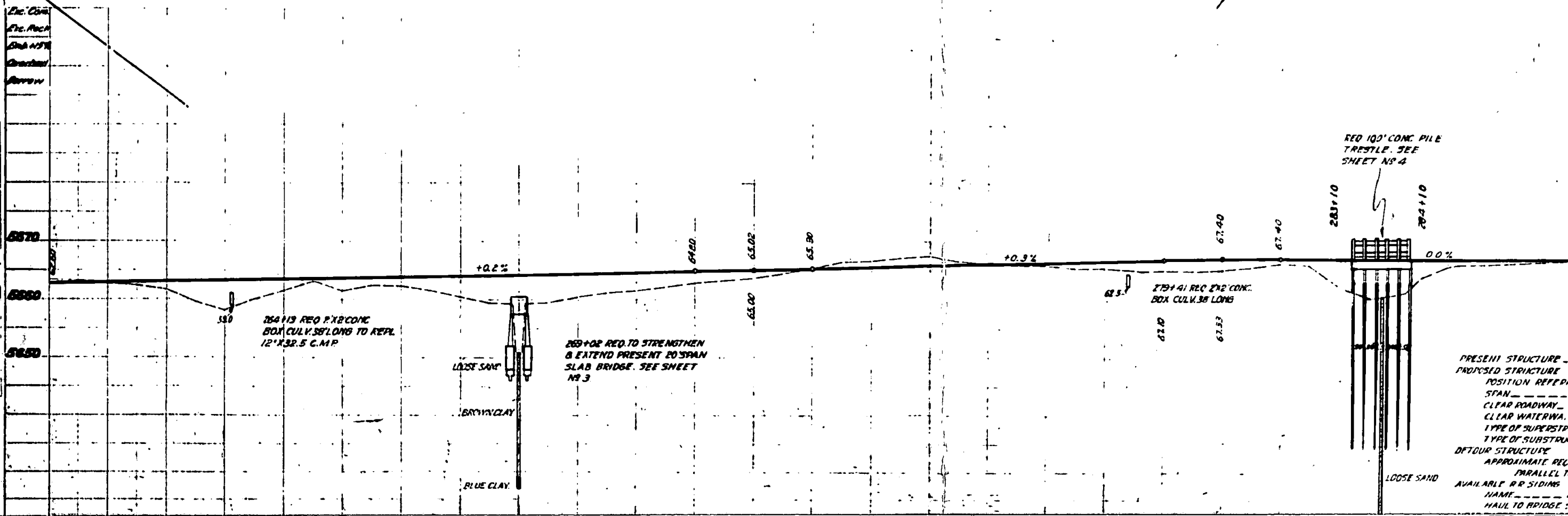
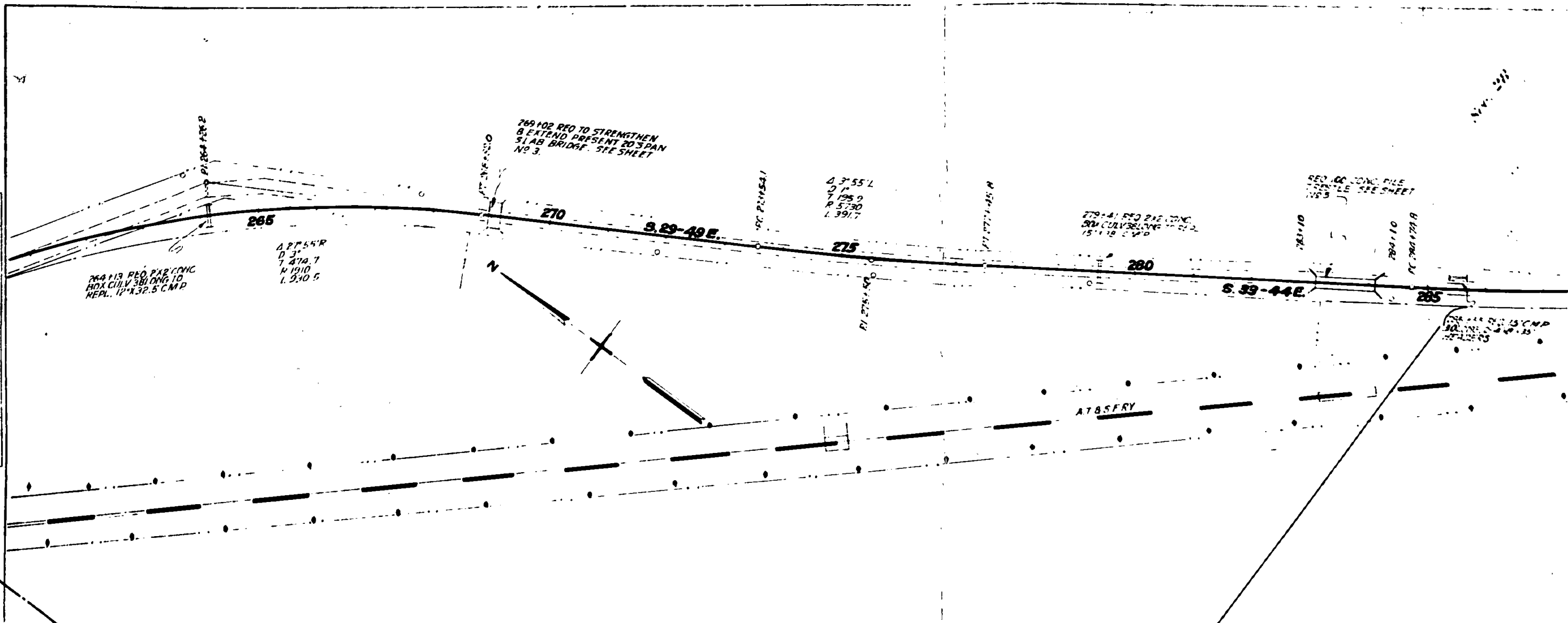
269+02 RED TO STRENGTHEN & EXTEND PRESENT 20' SPAN SLAB BRIDGE. SEE SHEET NO 3

PRESENT STRUCTURE ----- NONE
 PROPOSED STRUCTURE
 POSITION REFERRED TO PRES. STRUCT. -----
 SPAN ----- 5-20' SLAB SPANS ON PILES
 CLEAR ROADWAY ----- 20'
 CLEAR WATERWAY ----- 500 SQ. FT.
 TYPE OF SUPERSTRUCTURE ----- CONC. SLAB
 TYPE OF SUBSTRUCTURE ----- CONC. PILES WITH CAPS
 DETOUR STRUCTURE
 APPROXIMATE REQUIREMENTS
 PARALLEL TO G. NO STRUCTURE NEEDED
 AVAILABLE RR SIDING
 NAME ----- GANN
 HAUL TO BRIDGE SITE ----- 1 1/2 MILES
 NEARBY STRUCTURES ON SAME STREAM
 LOCATION A.T.B. S.F.P. ----- 7-14 TIMBER TRESTLE SPANS.

STREAM DATA
 DRAINAGE AREA IN SQ. MILES -----
 VELOCITY DURING HIGH WATER -----
 ELEVATION OF -----
 MAX. HIGHWATER REPORTED -----
 DATE -----
 NORMAL HIGHWATER -----
 NORMAL STAGE -----
 EXTREME LOW WATER ----- DRY
 STREAM BED ----- 5660.00
 DRIFT CARRIED BY FLOODS -----
 PROBABLE DEPTH OF SCOUR -----
 DURING FLOODS ----- MODERATE

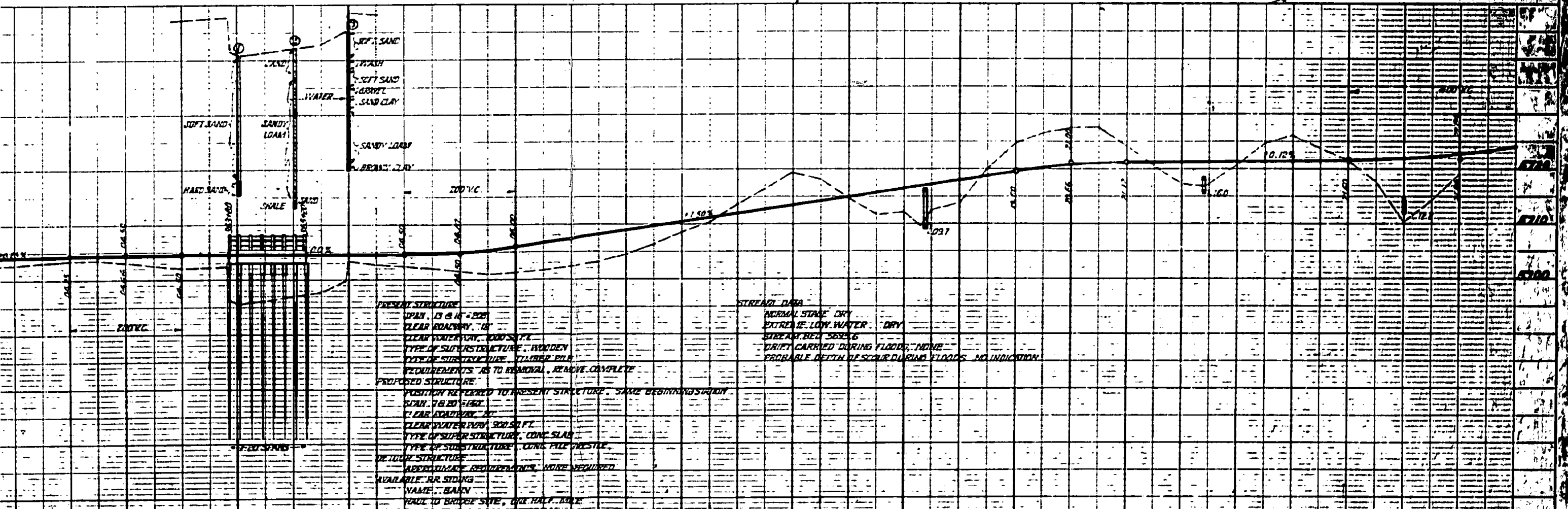
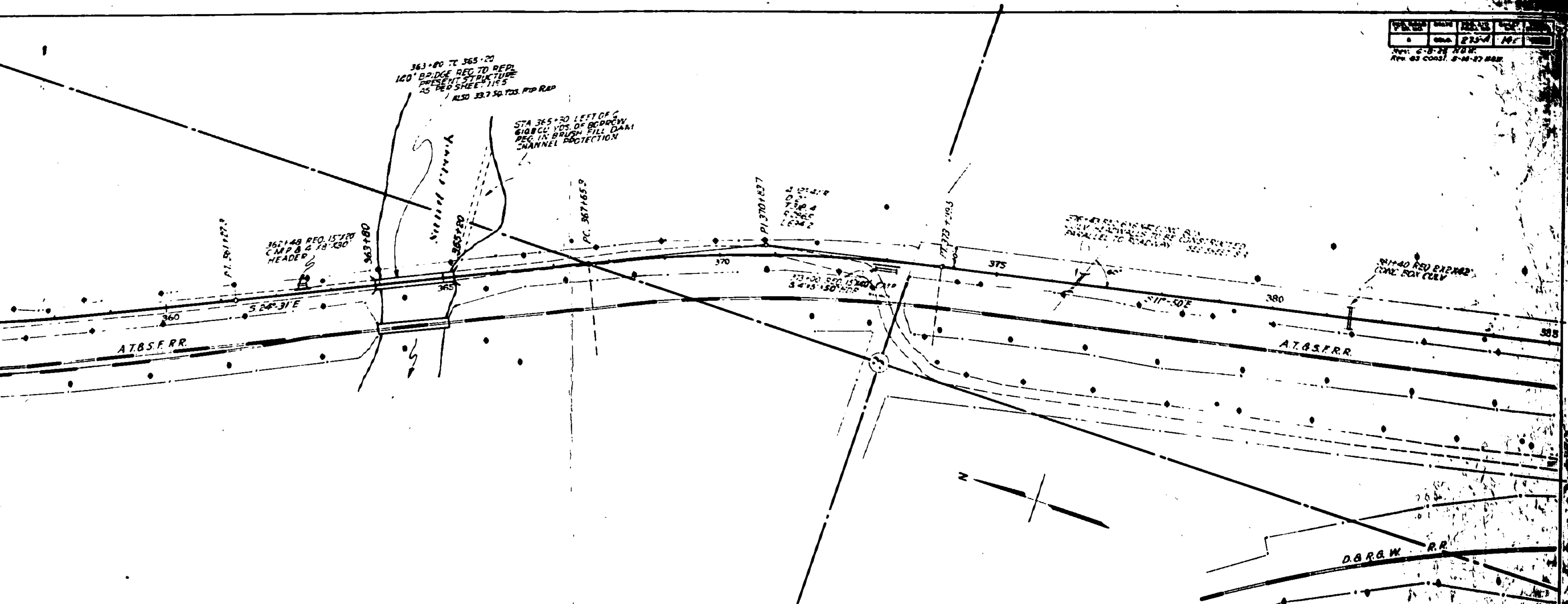
LOOSE SAND
 BROWN CLAY
 BLUE CLAY

DATE	
BY	
PLAN	
REVISION	
NO.	
DATE	
BY	
PLAN	
REVISION	
NO.	



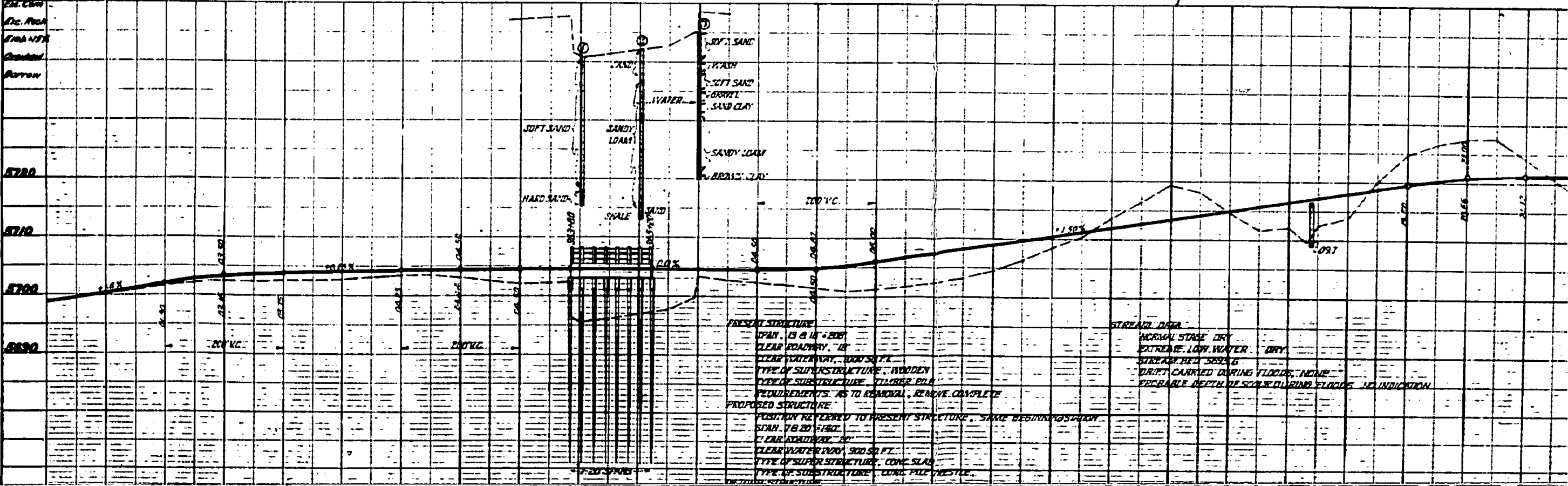
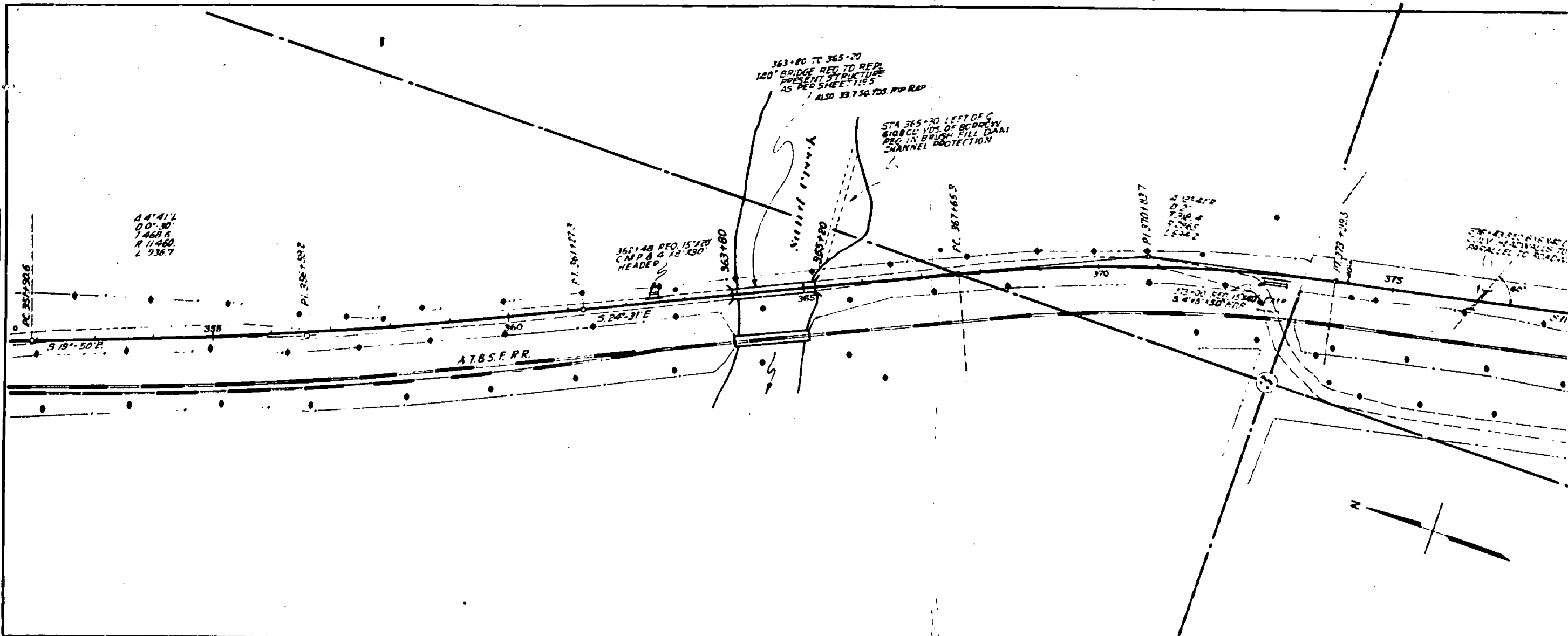
PRESENT STRUCTURE
PROPOSED STRUCTURE
POSITION REFER.
SPAN
CLEAR ROADWAY
CLEAR WATERWAY
TYPE OF SUPERSTR.
TYPE OF SUBSTR.
DETOUR STRUCTURE
APPROXIMATE REQ.
PARALLEL T.
LOOSE SAND
AVAILABLE R.R. SIDING
NAME
HAUL TO BRIDGE

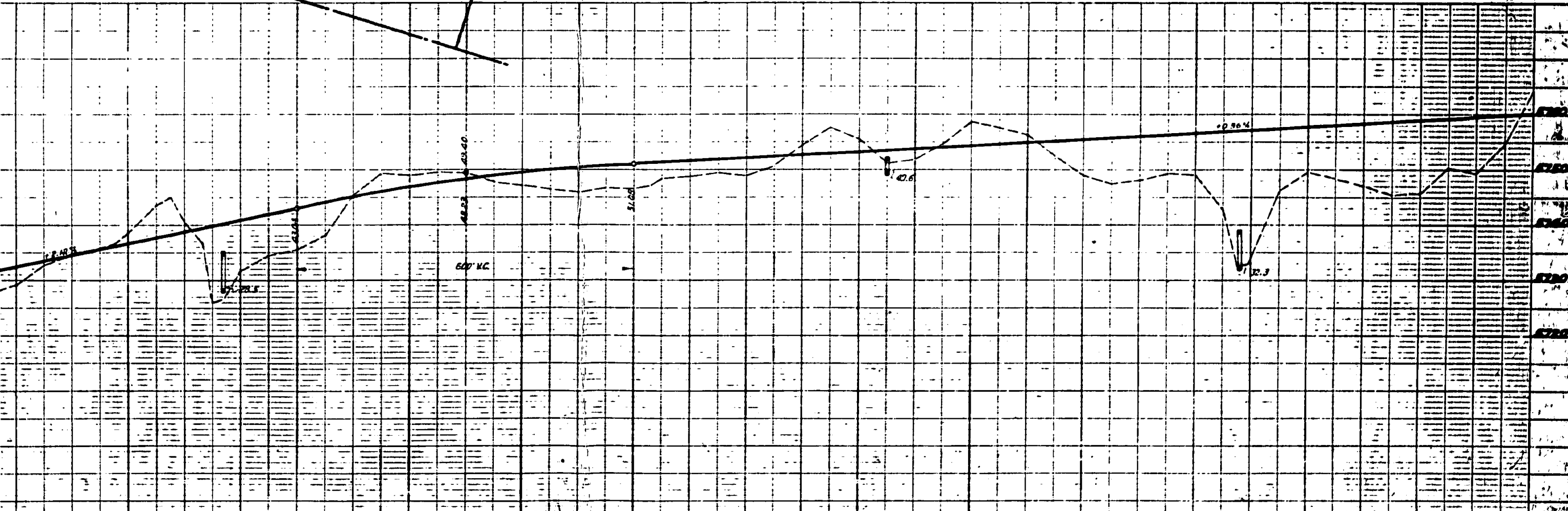
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PLAN	DATE
DESIGNED	
CHECKED	
NOTED	
BY	

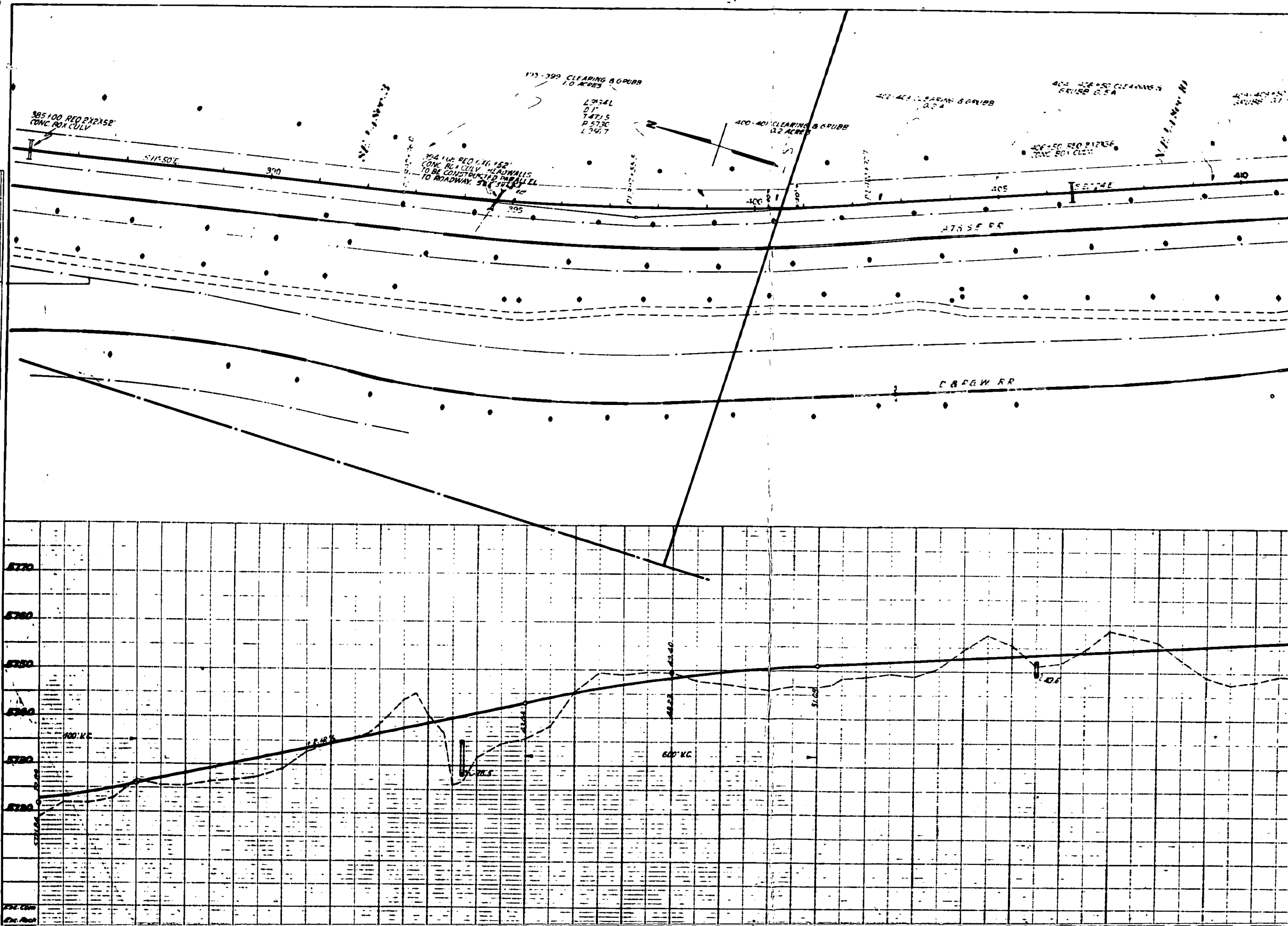
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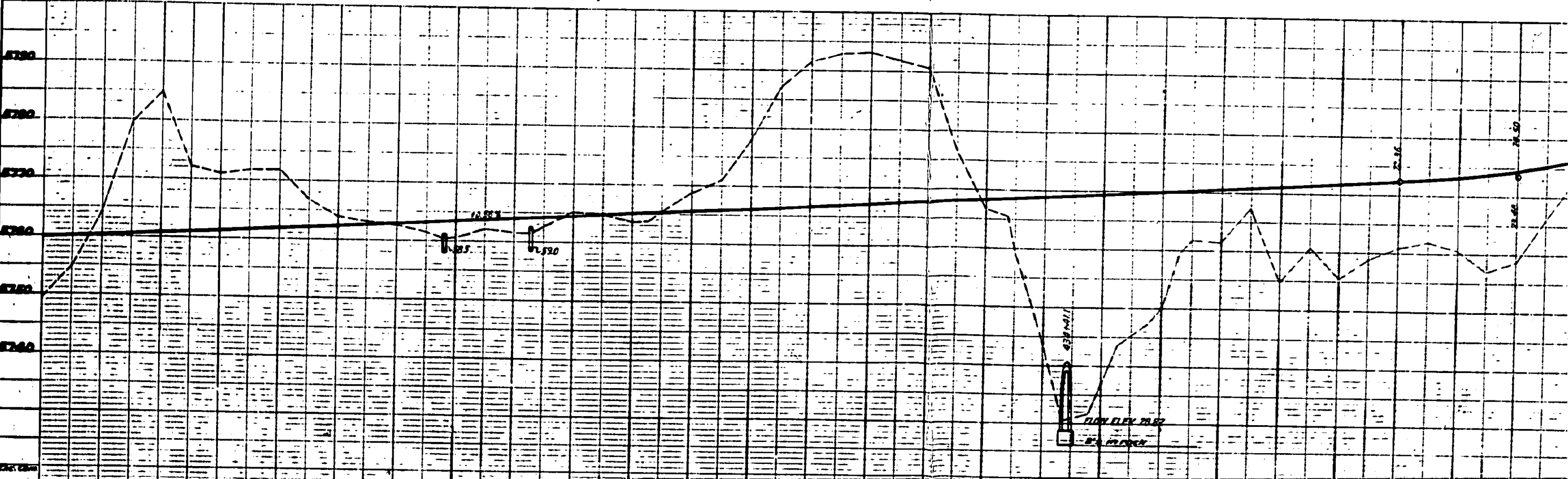
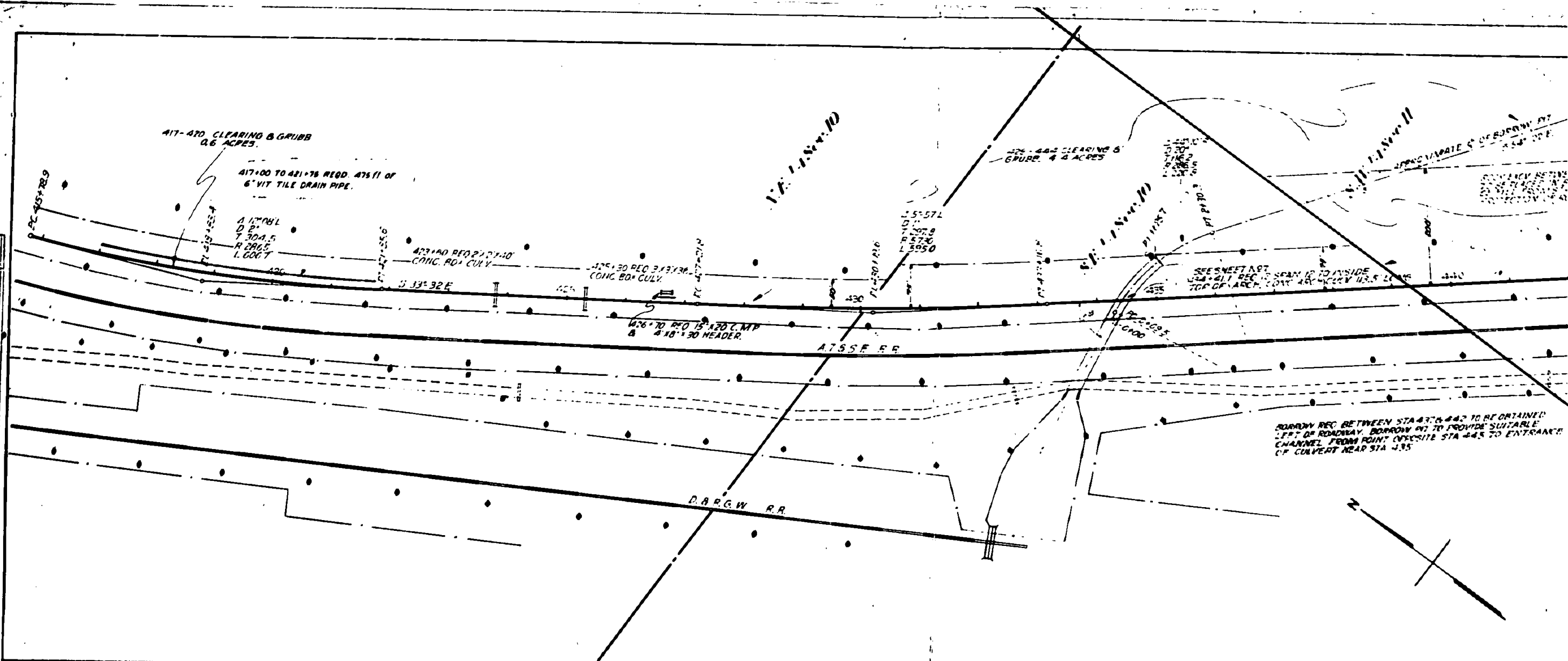
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	BY	
	REVISIONS	
	PLANNED	
	NOTE BOOK	ET. OF NAT. CHECKED

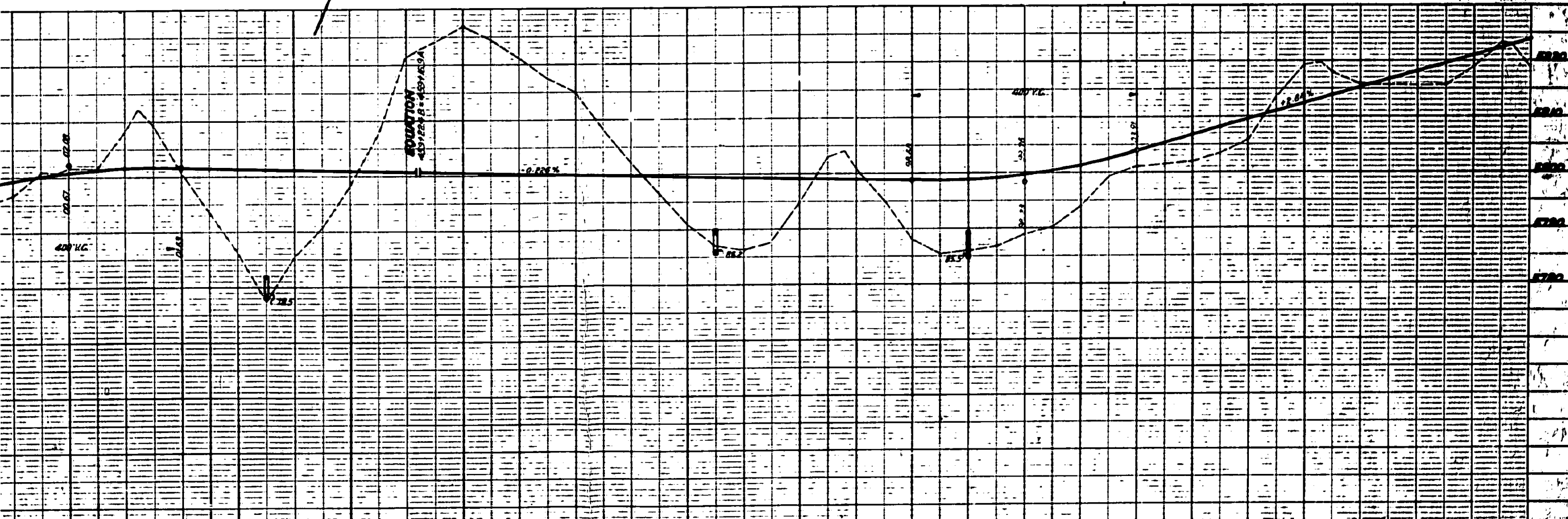
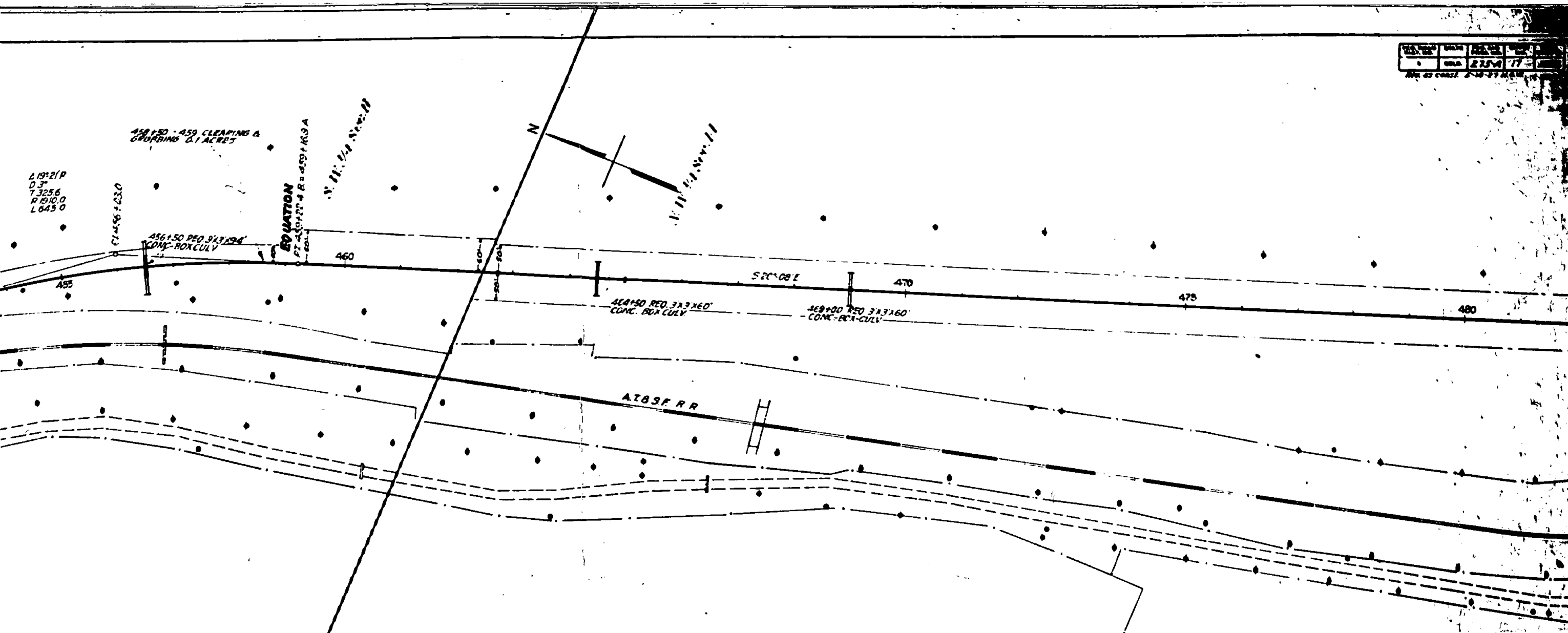
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	BY	
	REVISIONS	
	PLANNED	
	NOTE BOOK	ET. OF NAT. CHECKED

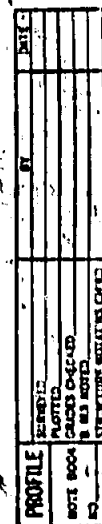


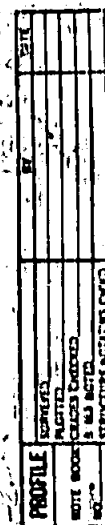
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NO.	PLATTED	
	REVIEWED	
	BY	
	DATE	

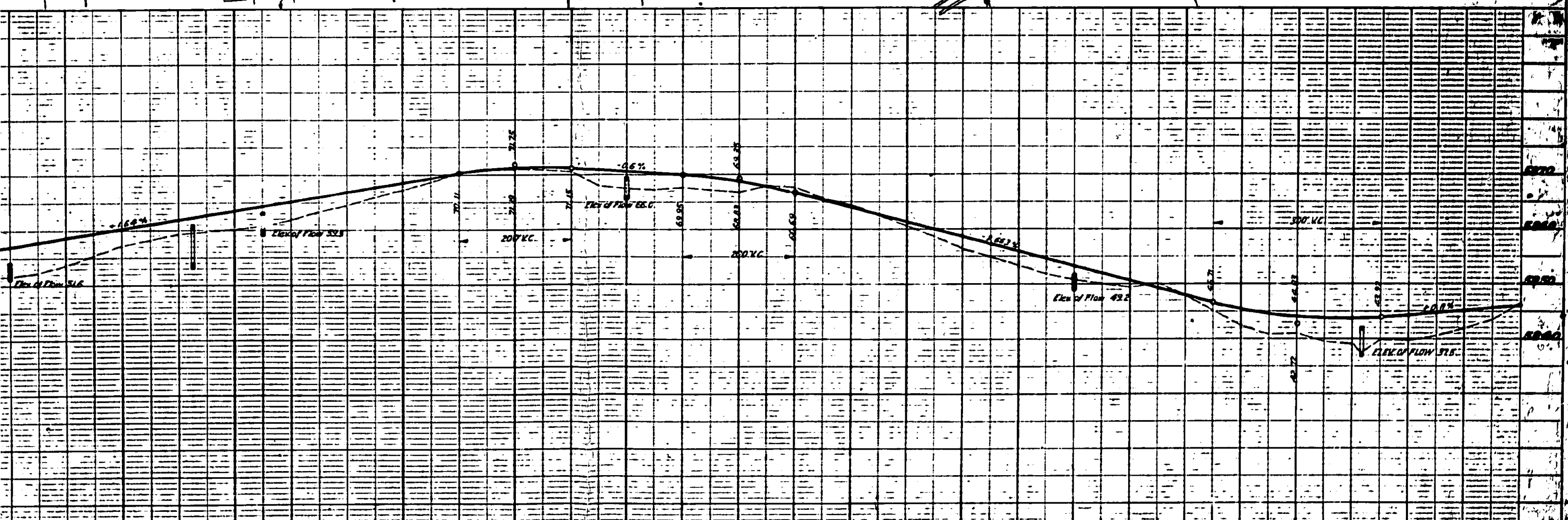
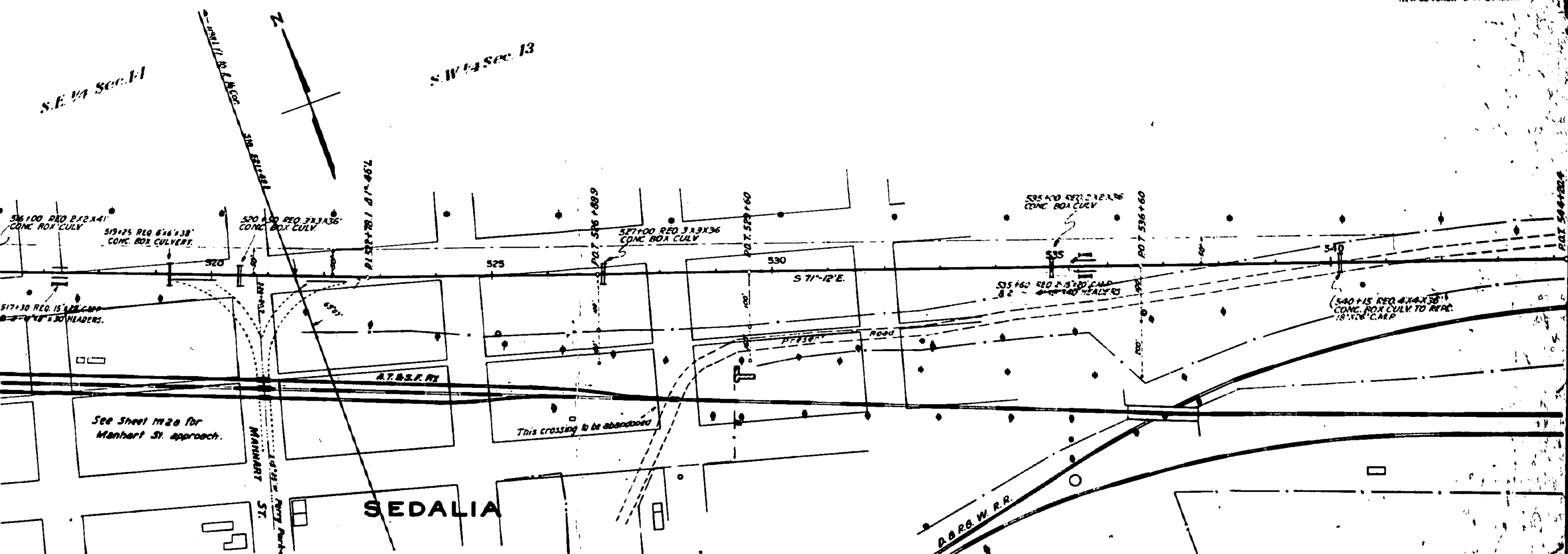
PROFILE	DATE
NO.	

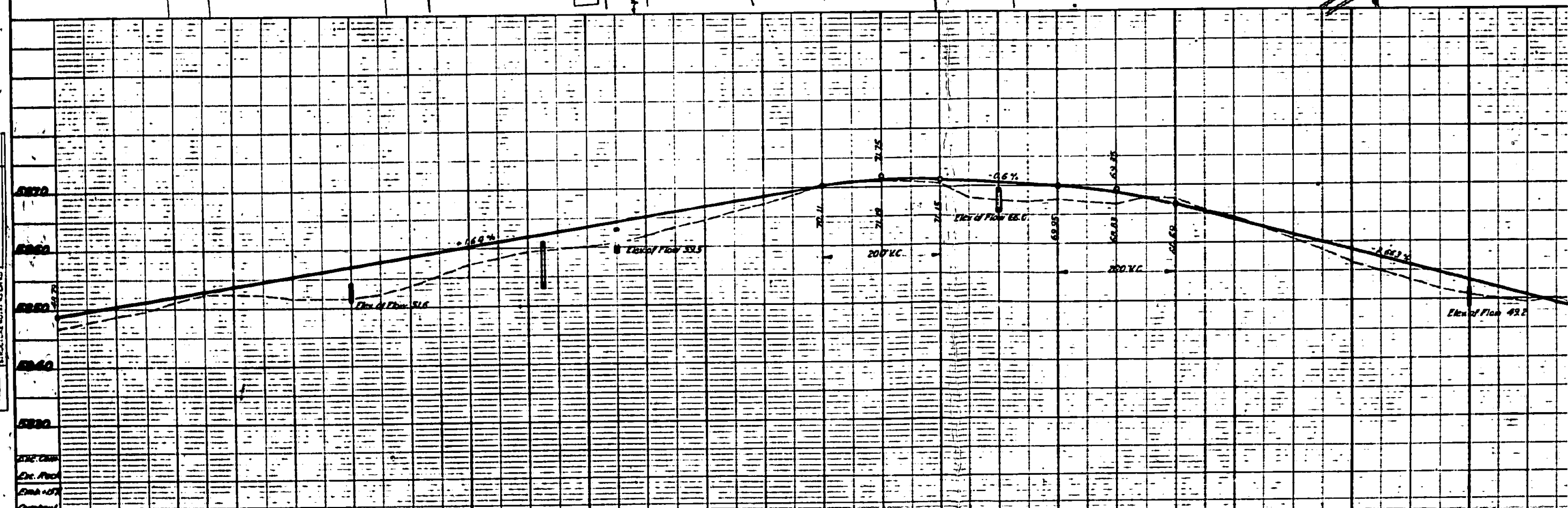


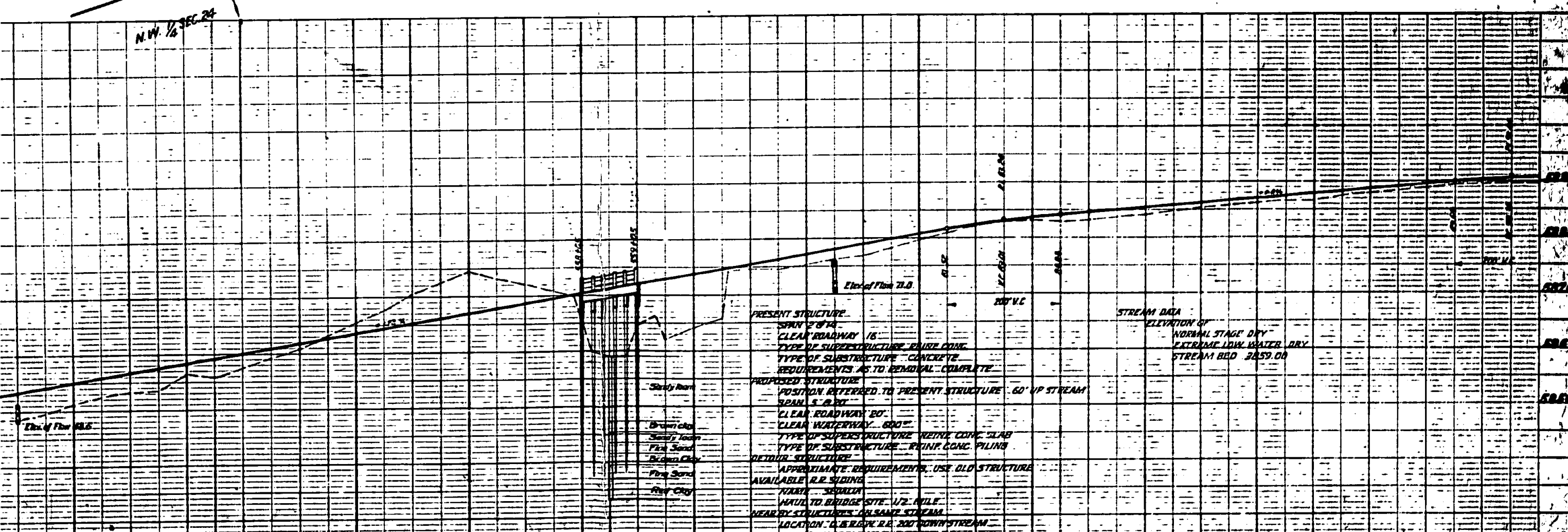
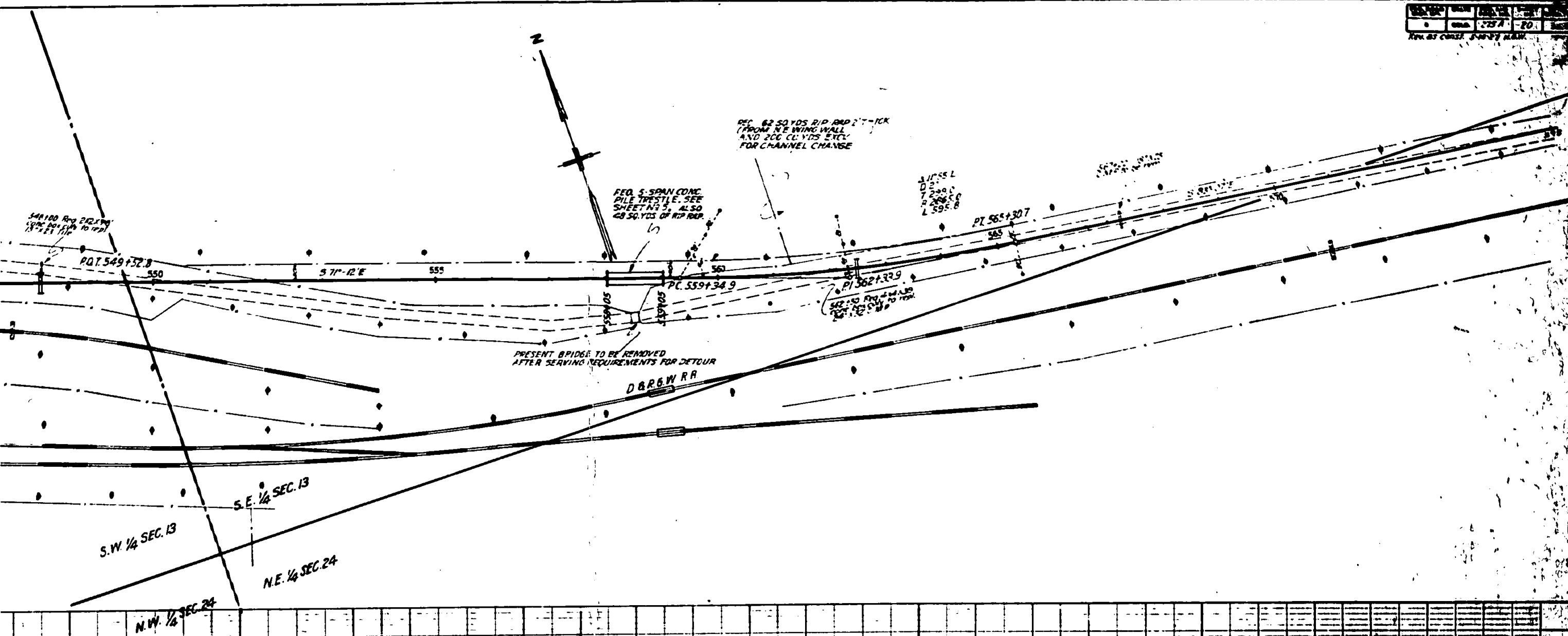












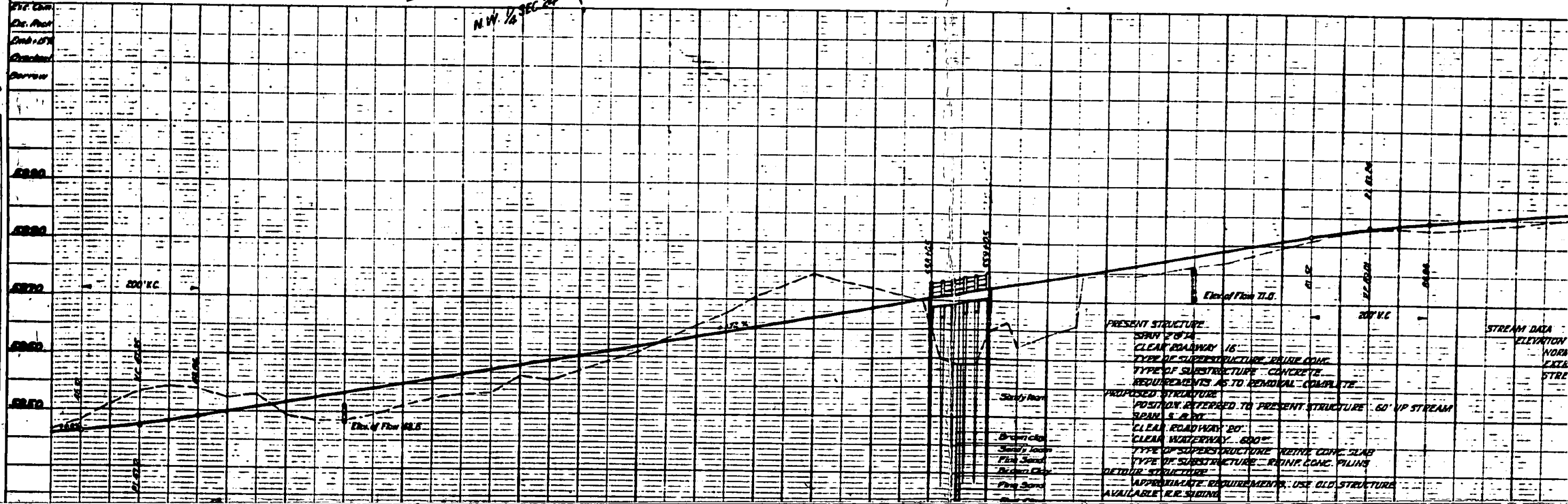
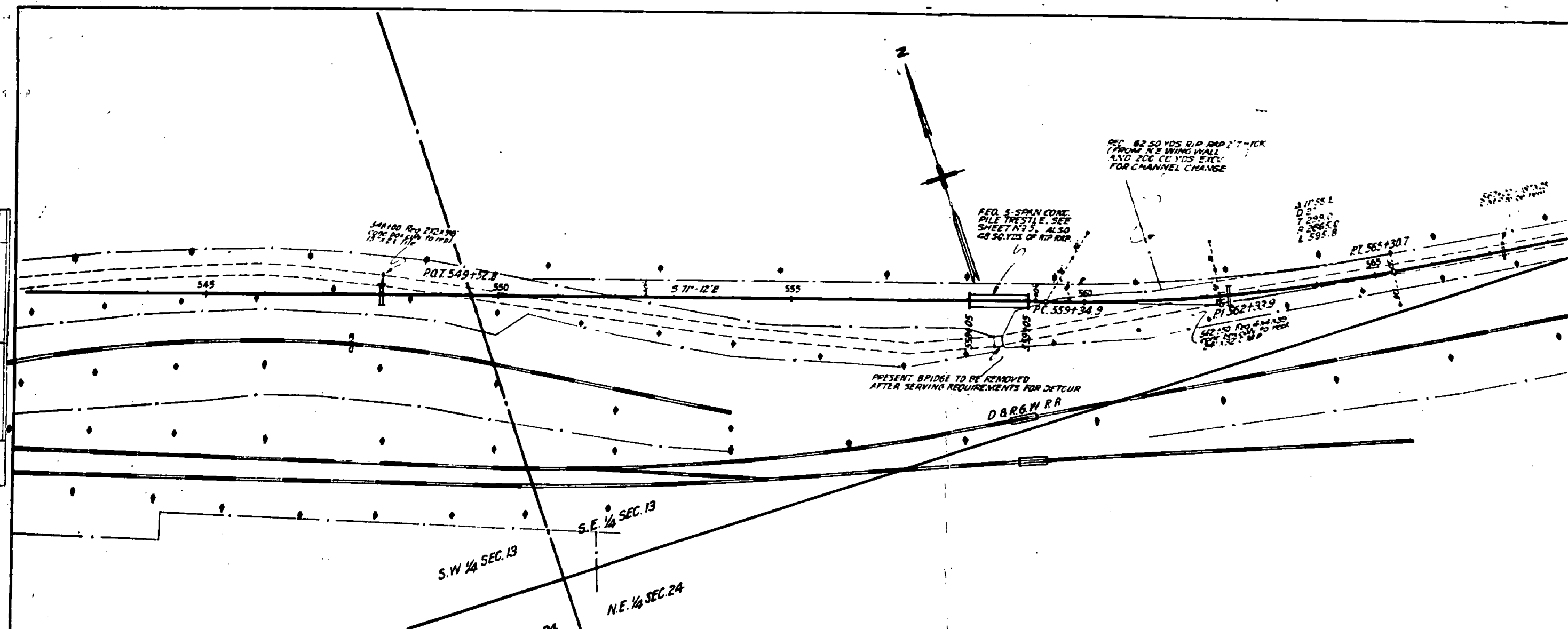
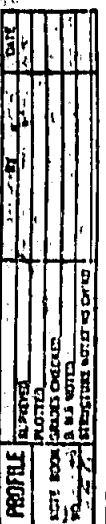
PRESENT STRUCTURE
SPAN 28' 14"
CLEAR ROADWAY 16'
TYPE OF SUPERSTRUCTURE REIN. CONC.
TYPE OF SUBSTRUCTURE CONCRETE
REQUIREMENTS AS TO REMOVAL COMPLETE

PROPOSED STRUCTURE
POSITION REFERRED TO PRESENT STRUCTURE 60' UP STREAM
SPAN 5' 8" 14"
CLEAR ROADWAY 20'
CLEAR WATERWAY 600"
TYPE OF SUPERSTRUCTURE REIN. CONC. SLAB
TYPE OF SUBSTRUCTURE REIN. CONC. PILING

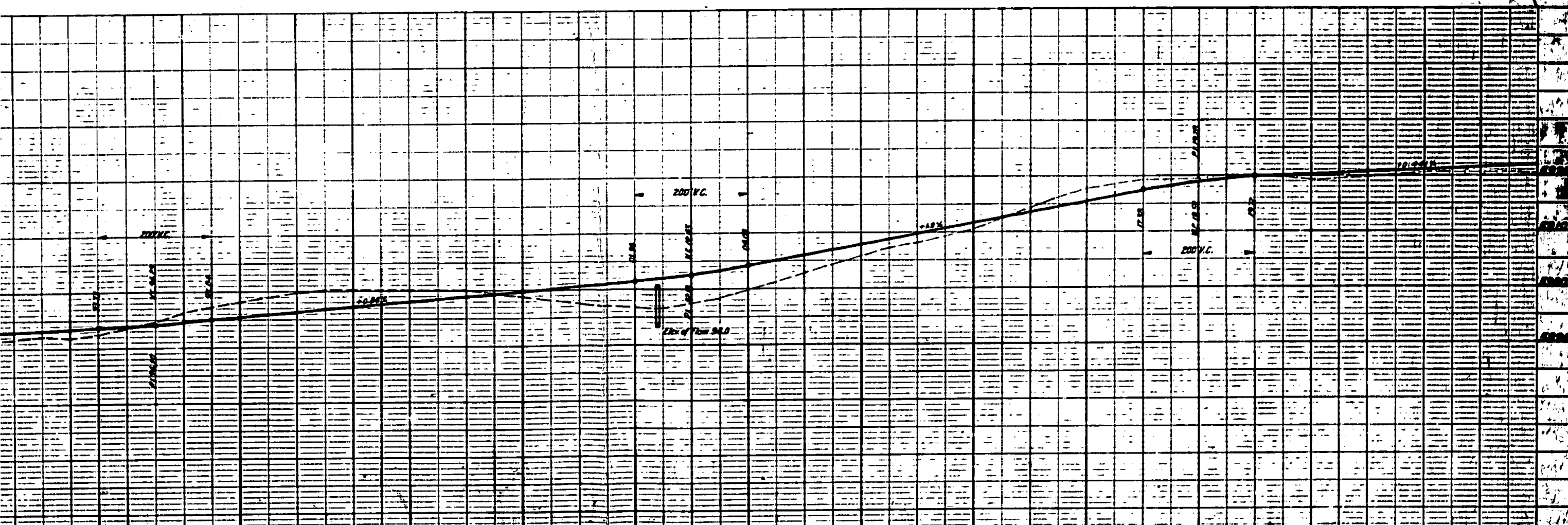
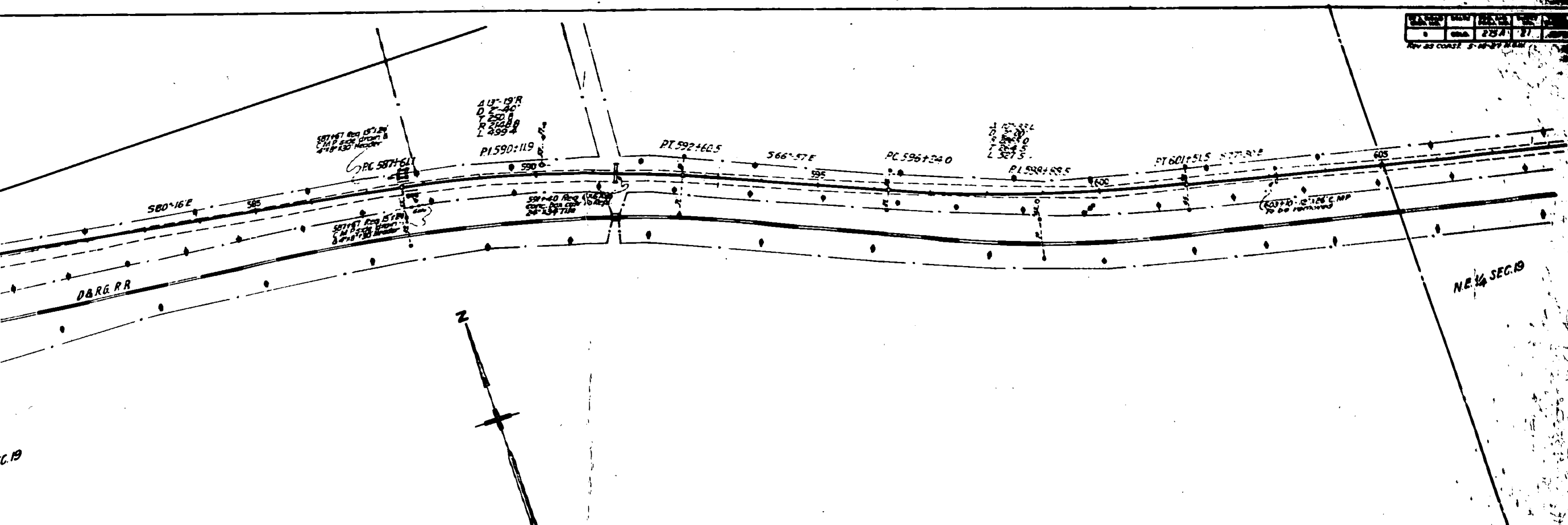
DETOUR STRUCTURE
APPROXIMATE REQUIREMENTS USE OLD STRUCTURE
AVAILABLE R.R. SIDING
NORTH - SOUTHERN
HAUL TO BRIDGE SITE 1/2 MILE
NEARBY STRUCTURES ON SAME STREAM
LOCATION 1/2 MILE R.R. 200' DOWN STREAM

STREAM DATA
ELEVATION OF
NORMAL STAGE DRY
EXTREME LOW WATER DRY
STREAM BED 3059.00

Sandy River
Drainage
Sandy loam
Pink Sand
Brown Clay
Pink Sand
Red Clay



DATE	TIME	DATE	TIME
0	0000	254	81



PLAN	DATE
SUBMITTED	
APPROVED	
NOTED	
REVISION	
BY	
DATE	

PROFILE	DATE
SUBMITTED	
APPROVED	
NOTED	
REVISION	
BY	
DATE	

