STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED STATE BOND ISSUE HIGHWAY

SCALES			
	PLAN	1 INCH	50 FT.
	PROFILE. HOR.	1 INCH	50 FT.
	PROFILE. VERT.	1 INCH	5 FT.
	CROSS-SECTIONS	1 INCH	5 FT.

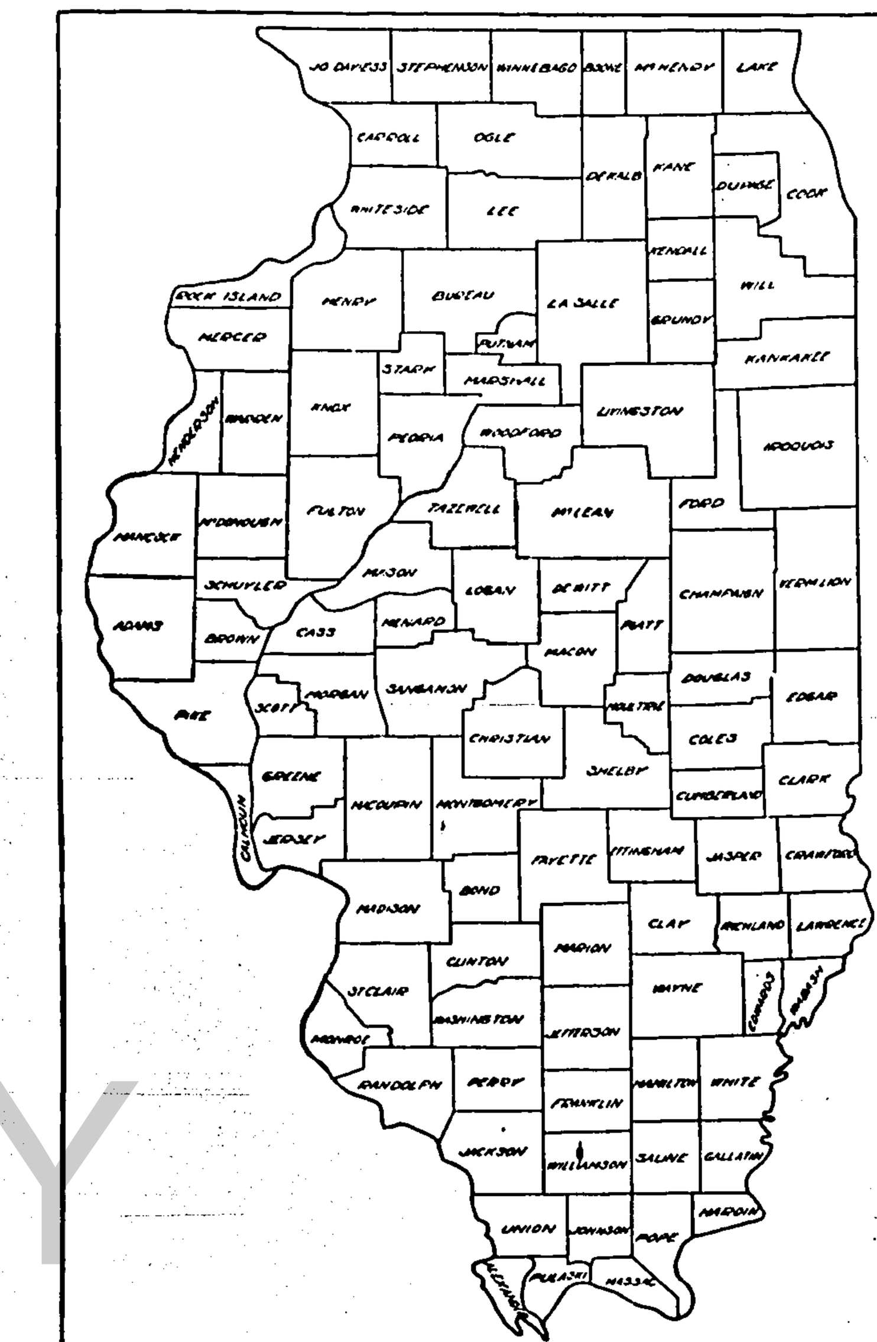
F.A.S. ROUTE 910

(S.B.I. ROUTE 148) SECTION (130, W15 d)W

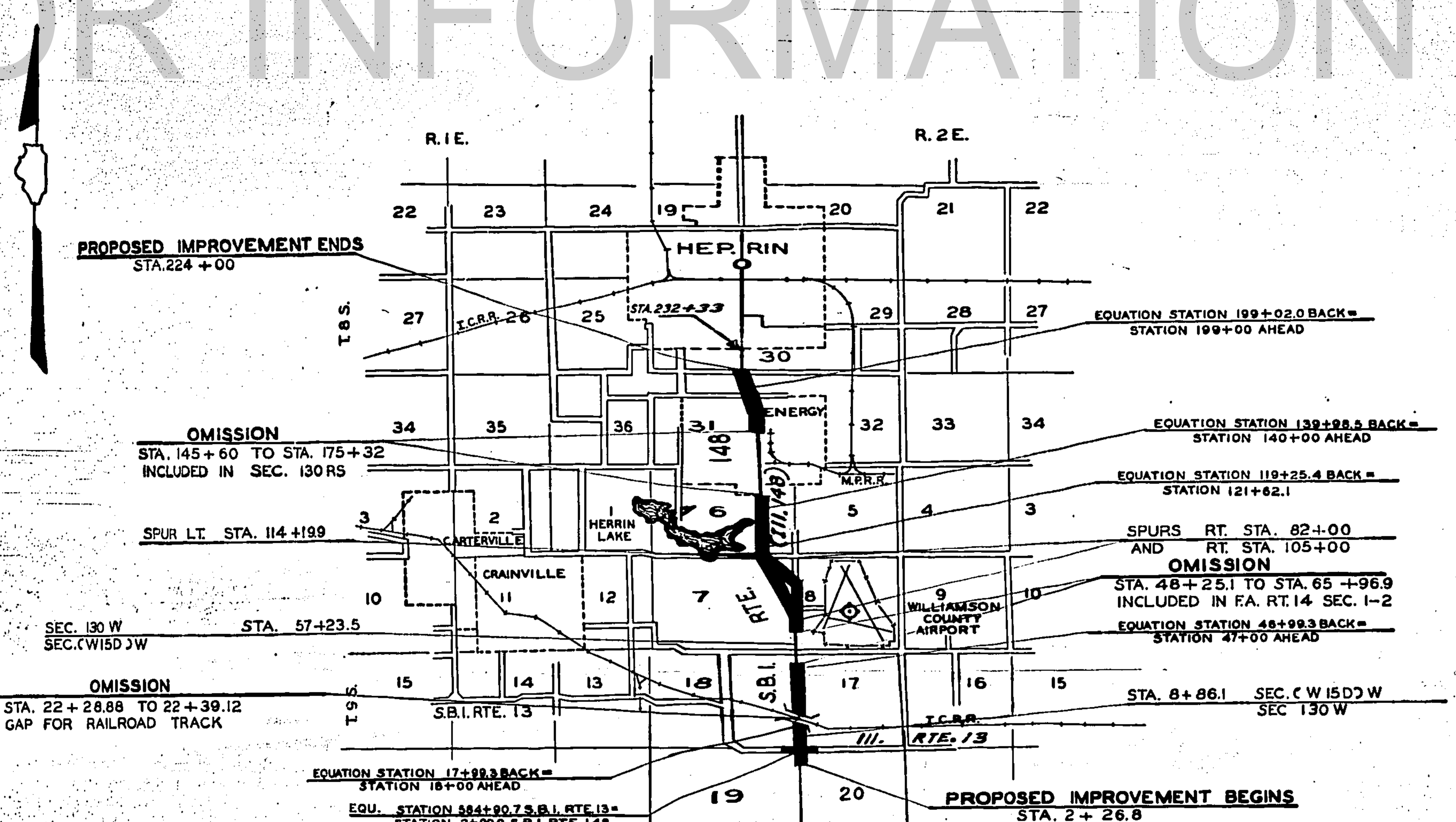
PROJECT DS-78 (4)

WILLIAMSON COUNTY

BOND ISSUE ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
(SBI 148) FAS 910	(130, W15 d)W	WILLIAMSON	102	1
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT	DS-78 (4)	



LOCATION OF SECTION INDICATED THUS:—



LAYOUT

APPROXIMATE SCALE 1" = 1 MILE

NET LENGTH

SEC.(W15d)W = 3927.36 LIN. FT. = 0.744 MILES
SEC. 130W = 13254.20 LIN. FT. = 2.510 MILES
ENTIRE SECTION = 17181.56 LIN. FT = 3.254 MILES

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS

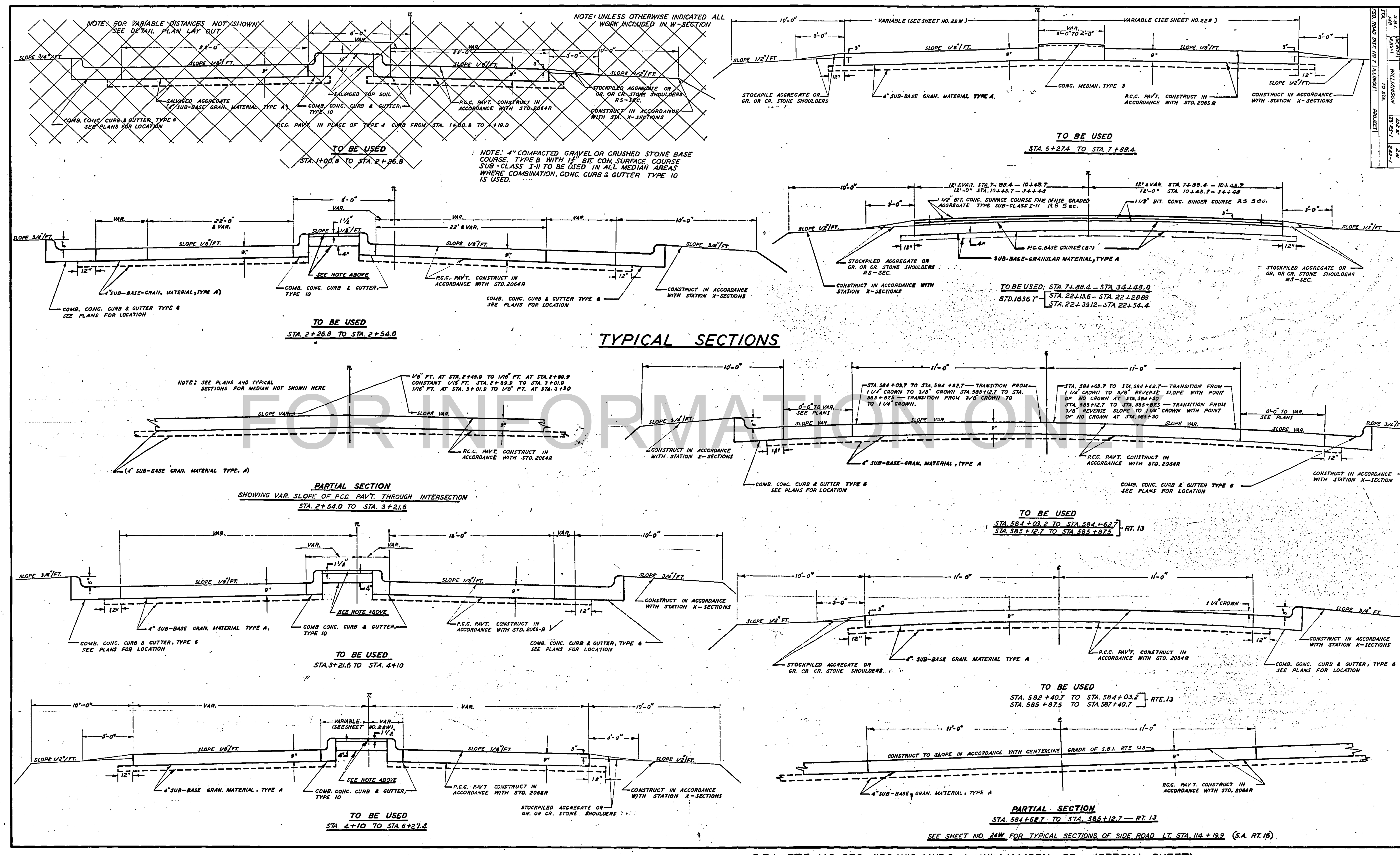
SUBMITTED March 1 1958
DISTRICT ENGINEER

EXAMINED May 14, 1958
ENGINEER OF ROAD PLANS AND CONTRACTS

PASSED May 14, 1958
ENGINEER OF DESIGN

APPROVED May 14, 1958
CHIEF HIGHWAY ENGINEER

APPROVED May 14, 1958
DIRECTOR

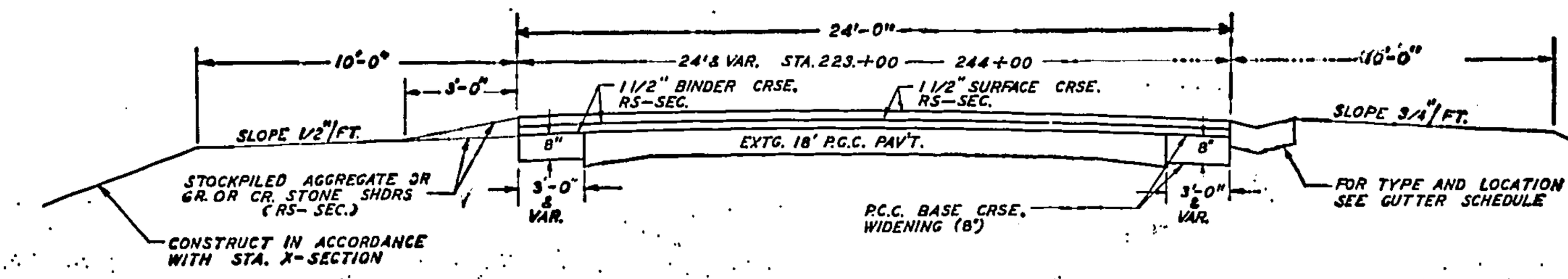


S.B.I. RTE. 148 SEC. (130,W15d)WRS-1 WILLIAMSON CO. (SPECIAL SHEET)

TYPICAL SECTIONS

NOTE: SURFACE COURSE INDICATES BITUMINOUS CONCRETE SURFACE COURSE, SUB-CLASS I-11

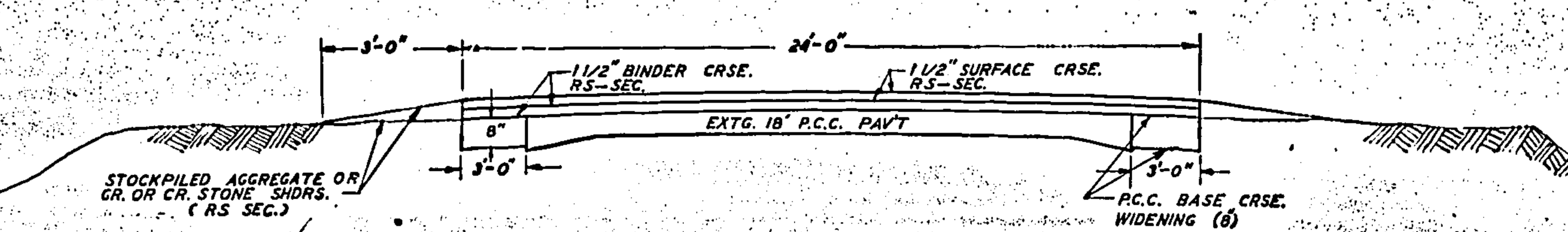
UNLESS OTHERWISE INDICATED ALL WORK INCLUDED IN W-SEC.



TO BE USED

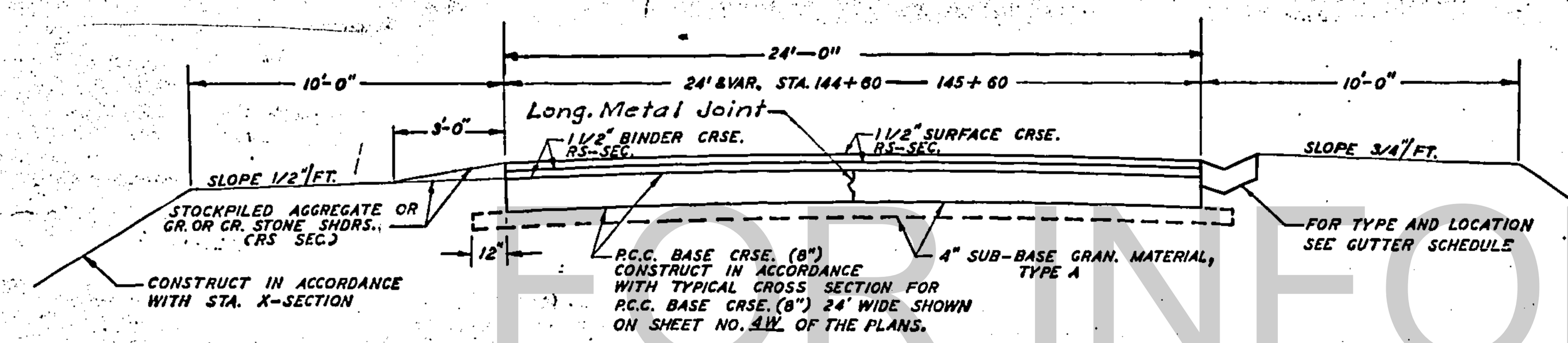
STA. 34+48 TO 35+00
LT. STA. 35+00 TO 48+25.1
STA. 65+96.9 TO 69+50
STA. 221+00 TO 224+00 (SEE TRANSITION SHEET NO. 20)

STATION EQUATION
46+99.3 = 47+00.0AH.



TO BE USED

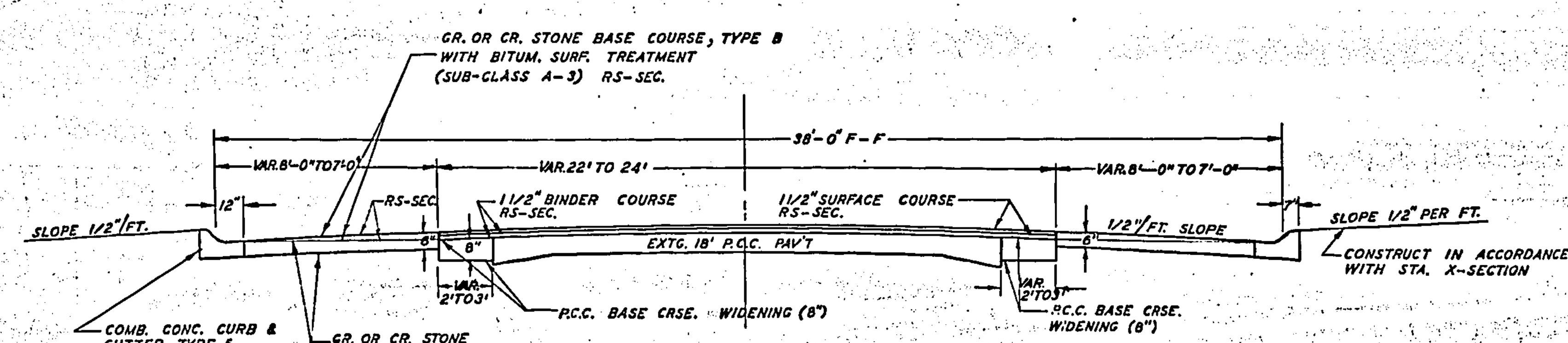
RT. STA. 35+00 TO 48+25.1



TO BE USED

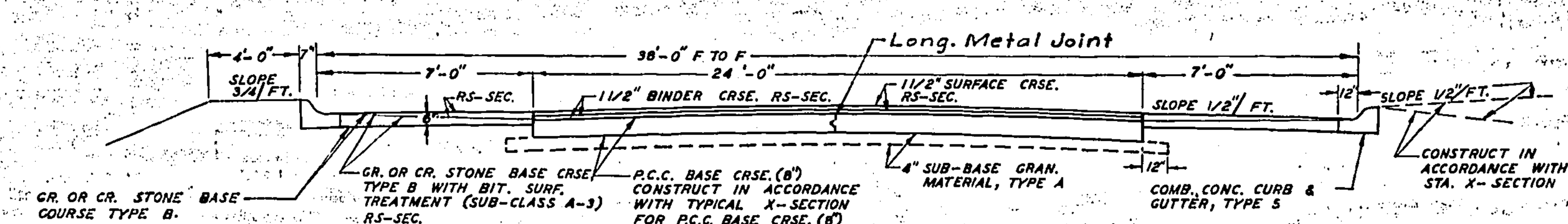
STA. 69+50 TO 145+60 (SEE TRANSITION SHEET NO. 16)
STA. 178+24 TO 221+00

STATION EQUATION
119+25.4 = 121+62.1AH.
139+98.5 = 140+00.0AH.
199+02.0 = 199A+00.0AH



TO BE USED

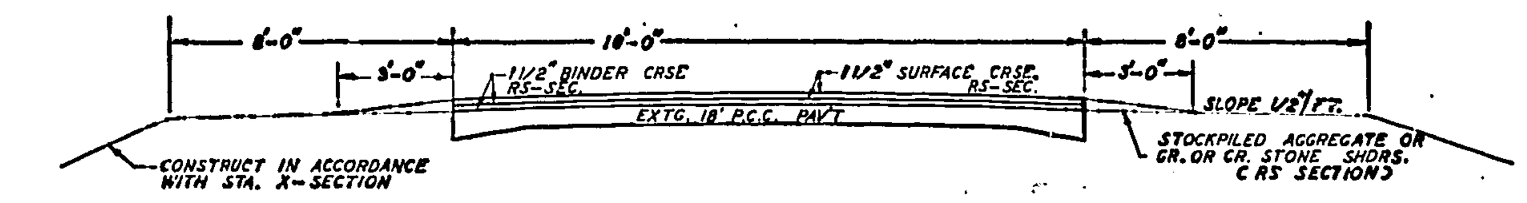
STA. 175+32 TO 177+00



TO BE USED

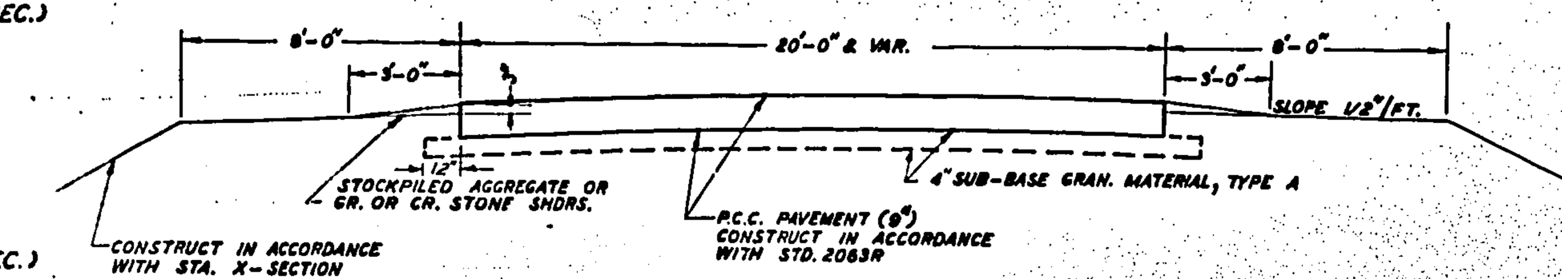
STA. 177+00 TO 178+24

STA.—STA.	TYPE OF WORK
	MAINLINE (W-SEC.)
2+26.8 – 7+88.4	PAVEMENT VAR. (9") WITH MEDIAN
7+88.4 – 10+45.7	BASE CRSE. 24' & VAR. (8")
10+45.7 – 34+48	BASE CRSE. 24' (8")
34+48 – 48+25.1	BASE CRSE. WIDENING – 2 @ 3' (8")
65+96.9 – 69+50	BASE CRSE. WIDENING – 2 @ 3' (8")
69+50 – 145+60	BASE CRSE. – 24' (8")
145+60 – 175+32	OMISSION
175+32 – 177+00	BASE CRSE. WIDENING – 2 @ 3' & VAR. (8") & PARKING LANES – 2 @ 7' & VAR.
177+00 – 178+24	BASE CRSE. – 24' (8") & PARKING LANES – 2 @ 7'
178+24 – 221+00	BASE CRSE. – 24' (8")
221+00 – 224+00	BASE CRSE. WIDENING – 2 @ 3' (8")
	SPUR RT. 82+00 & 105+00 (W-SEC.)
0A+12.8 – 0A+23.4	BASE CRSE. – VAR. (8")
0A+23.4 – 3A+45.2	PAV'T. – 20' (9")
0B+12.8 – 0B+23.4	BASE CRSE. – VAR. (8")
0B+23.4 – 3B+35.0	PAV'T. – 20' (9")
	SIDE RD. LT. 114+19.9 (W-SEC.)
0L+12.1 – 3L+00	PAV'T. – VAR. (9") WITH MEDIAN.
	INTERSECTION (RT. 13) (W-SEC.)
582+40.7 – 587+40.7	PAV'T 22' (9")
	MAIN LINE (RS-SEC.)
7+88.4 – 10+45.7	I-11 SURFACING – 24' & VAR.
10+45.7 – 48+25.1	I-11 SURFACING – 24'
65+96.9 – 145+60	I-11 SURFACING – 24'
145+60 – 175+32	OMISSION
175+32 – 178+24	I-11 SURFACING – 24' & PARKING LANES A-3 TREAT. – 2 @ 7'
178+24 – 224+00	I-11 SURFACING – 24'
	SPUR RT. 82+00 & 105+00 (RS-SEC.)
0A+12.8 – 0A+23.4	I-11 SURFACING — VARIABLE WIDTH.
0B+12.8 – 0B+23.4	I-11 SURFACING — VARIABLE WIDTH
3A+45.2 – 23A+95.6	I-11 SURFACING ON EXIST 18' PAV'T.



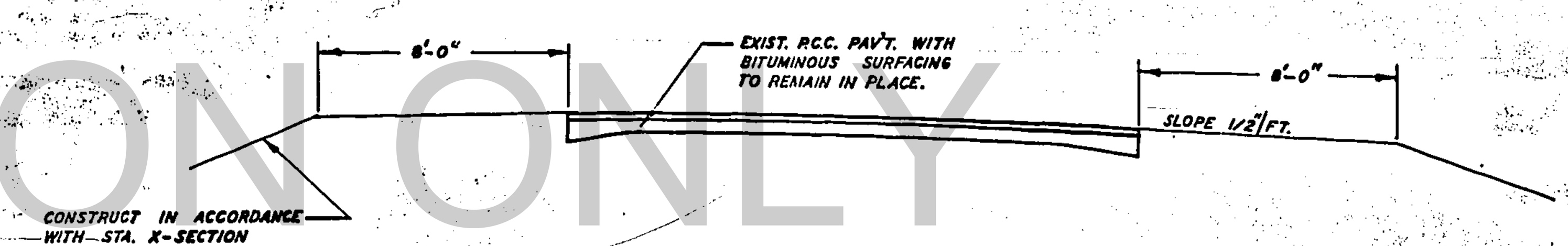
TO BE USED

SPUR RT. STA. 82+00 & 105+00
STA. 3A+45.2 TO 23A+95.6 = 3B+35.0



TO BE USED

SPUR RT. STA. 82+00
STA. 0A+23.4 TO 3A+45.2
SPUR RT. STA 105+00
STA. 3B+35.0 TO 0B+23.4



TO BE USED

RT. STA. 576+75 TO STA. 581+00
RT & LT. STA. 581+00 TO STA. 582+40.7
RT. & LT. STA. 587+40.7 TO STA. 598+60

QUANTITIES USED FOR ESTIMATING

BIT. CONC. SURF. CSE. – I-11 0.075 TONS PER SQ. YDS. – 1 1/2" TH. (USE ON OLD PAV'T.)
" " " " 0.0825 " " " " " " (USE ON NEW BASE CSE.)
" " BINDER CSE. 0.080 " " " " " " (USE ON OLD PAV'T.)
" " " " 0.0875 " " " " " " (USE ON NEW BASE CSE)
LEVELING BINDER (MACH. METHOD) 0.03 TONS PER SQ. YDS. (USE ON OLD PAV'T.)

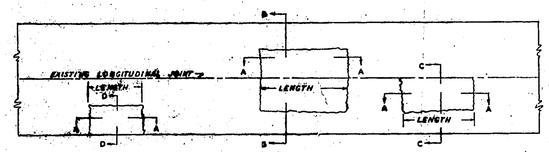
HIGHWAY CLASSIFICATION

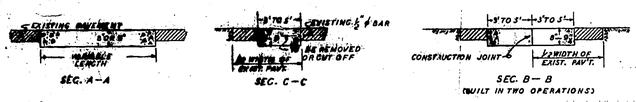
STA. 2+90.9 TO STA. 57+43 —— 460-M-70
STA. 57+43 TO STA. 114+20 —— 560-M-70
STA. 114+20 TO STA. 232+33 —— 880-M-70

S.B.I. RTE. 148 SEC. (130,W15d)WRS-1 WILLIAMSON CO. (SPECIAL SHEET)

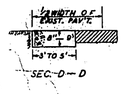
S.B.I. 148	(130,W154) W	WILLIAMSON	102 W	4W

PATCHING DETAIL SPECIAL, TYPE II, III, & IV



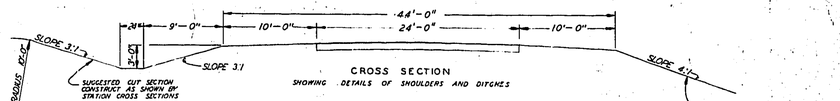


NOTE:
UNDERCUTTING OF ALL TYPE II PATCHES WILL BE REQUIRED, IN ACCORDANCE WITH DETAILS SHOWN ON STANDARD 816. SEE SPECIAL PROVISIONS FOR "UNDERCUTTING OF CONCRETE PATCHES".

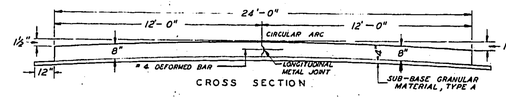


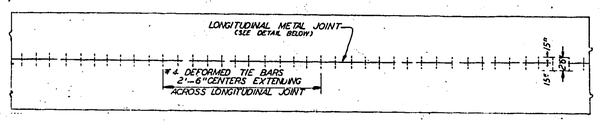
TYPICAL CROSS SECTION FOR 24 FT. PORTLAND CEMENT CONC. BASE COURSE WITH 10 FT. SHOULDERS

ROUTE	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. 148	(130,W154) W	WILLIAMSON	102 W	4W
		PROJECT		

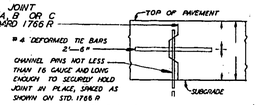


SHOULDERS AND SIDESLOPES SHALL BE ROUNDED 12 INCHES IN EACH DIRECTION FROM THE TANGENT INTERSECTION OF THESE SURFACES





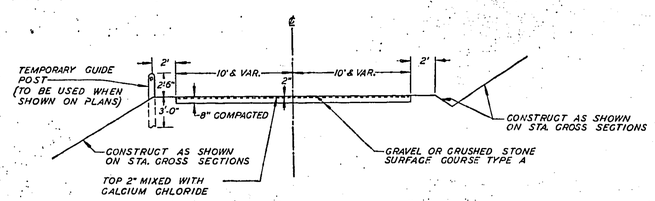
LONGITUDINAL METAL JOINT EITHER ALTERNATE A, B OR C AS SHOWN ON STANDARD 1766 R



LONGITUDINAL METAL JOINT AND TIE BARS

ROAD DISTRICT ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. 148	(130,W154) W	WILLIAMSON	102 W	4W
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

TYPICAL GROSS SECTION OF PROPOSED DETOUR ROAD FOR THROUGH TRAFFIC

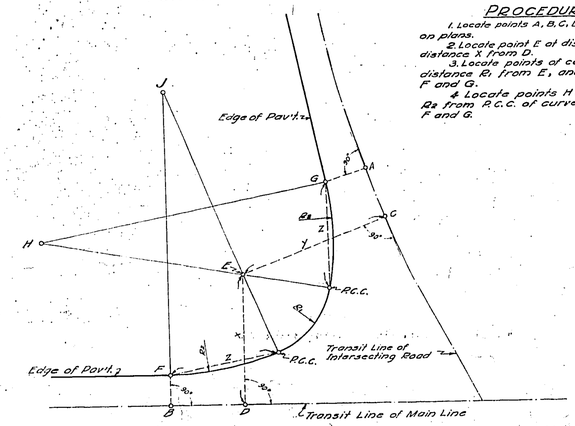


DETOUR ROAD TO BE USED

S.B.I. ROUTE 148 SECTION (130, W154) W
WILLIAMSON COUNTY

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. 148	(130,W154) W	WILLIAMSON	102 W	5W
FED. ROAD DIST. 7	ILLINOIS	FED. AID PROJECT		

INSTRUCTIONS FOR STAKING CONTROL POINTS FOR THREE CENTERED CURVES



PROCEDURE

1. Locate points A, B, C, D, F & G from information on plans.
2. Locate point E at distance Y from C and distance X from D.
3. Locate points of compound curve at distance R, from E, and distance Z from F and G.
4. Locate points H and J at distance R2 from P.C.C. of curves and from points F and G.

148	(130 W 15d) W	WILLIAMSON	102 W	5 W

INDEX OF SHEETS

148	(130, W 15d) W	Williamson	102	5W

GENERAL NOTES

The cross sections for S.B. Route 148 were originally prepared for 22 feet P.C. Concrete Pavement and-or P.C. Concrete Base Course, and must be field adjusted between Station 3+01.9 and Station 224+00 in accordance with Standard 2065R and the Typical Cross-sections.

Re-erect Right of Way Markers throughout this section.

No overhaul will be allowed for earth moved from any source.

The pavement and base course shall be constructed in two strips as shown on the plans between the following Stations:

Pavement: Station 2+26.8 and 2+79.9; Spur Left of Station 114+19.9
Base Course: Station 145+00 and 145+60

Portland Cement Concrete Pavement 9 inches thick, 22 and variable feet wide, Standard No. 2064R, between Station 582+40.7 and Station 587+40.7 (along Route 13); Station 2+26.8 and Station 2+79.9; Spur Lt. Station 114+19.9 (Spur Station 0L+12.1 to Station 3L+00).

Portland Cement Concrete Pavement 9 inches thick, 24 and variable feet wide, Standard No. 2065R, between Station 3+01.9 and Station 7+88.4.

Portland Cement Concrete Pavement 9 inches thick, 20 and variable feet wide, Standard No. 2063R, on Spur Rt. Station 82+00 between Station 0A+23.4 and Station 3A+45.2 and on Spur Rt. Station 105+00 between Station 0B+23.4 and Station 3B+35.0.

Portland Cement Concrete Base Course, 8 inches thick, 24 and variable feet wide, between Station 7+88.4 and Station 22+13.6; Station 22+54.4 and Station 34+48.0; Station 69+50 and Station 145+60; Station 177+00 and Station 221+00; 8 inches thick and variable width on Spur Right Station 82+00 between Station 0A+12.8 and Station 0A+23.4; on Spur Right Station 105+00 between Station 0B+12.8 and Station 0B+23.4.

Portland Cement Concrete Base Course, 9 inches thick, 24 and variable feet wide, Standard No. 1636T, between Station 22+13.6 and Station 22+28.88 and between Station 22+39.12 and Station 22+54.4.

Portland Cement Concrete Base Course Widening, 8 inches thick, 2 @ 3 feet and variable in width, between Station 34+48 and Station 48+25.1; Station 65+96.9 and Station 69+50; Station 175+32 and Station 177+00; Station 221+00 and Station 224+00.

Gravel or Crushed Stone Base Course, Type B, 6 inches and variable thickness, 2 parking lanes 7 and variable feet wide, between Stations 175+32 and Station 178+24.

Gravel or Crushed Stone Base Course, Type B, 4 inches compacted thickness, with Incidental Bituminous Surfacing, 1½ inches thick, inside all island areas where Combination Concrete Curb and Gutter, Type 10 is construted.

On all superelevated curves, the proposed P.C.C. Base Course Widening shall be construted with a slope conforming to the rate of superelevation of the existing pavement.

Seeding of shoulders, roadway slopes, borrow pit slopes, will be required.

Mulching of seeded areas, in accordance with Method 2 of Section 112 of the Supplemental Specifications will be required.

Entrances, side roads and mail box drives shall be surfaced with gravel or crushed stone where surfacing at these points is provided for on the plans.

The Combination Concrete Curb and Gutter, Type 6 shall be constructed with a curb height of 6 inches above the flow line of the gutter.

Trees shall be preserved throughout this section as shown on the plans and as directed by the Engineer.

Excavated slopes in borrow pits shall not be steeper than 3:1.

Bituminous Undersealing of Concrete Pavement will be required between the following Stations: 34+48 and 48+25.1; 65+96.9 and 69+50; 175+32 and 177+00; 221+00 and 224+00; 3A+45.2 and 23A+95.6.

7860 Gals. Bituminous Materials Pumped Under Pavement
236 Each Holes Drilled

Undersealing shall not be done until the patching and widening have been completed at any given location.

Depressed curbs shall be constructed across all private drives, and across all alleys where no return is provided.

The embankment shall be constructed in two stages at various locations as indicated on the plans and station cross-sections.

Pavement Removal and Replacement as indicated on the plans and at locations as directed by the Engineer. See tabulation for square yards, type, and number of patches.

Reference and preserve land corners and United States Government bench marks.

Sub-base Granular Material, Type A, 4 inches compacted thickness, used throughout this section.

Embankment Special used between Station 22+12 and Station 22+56. 1350 Tons Estimated.

The removal of old piers, footings, foundations, walks, signs, or debris at former building sites shall be performed by the Contractor. This item shall be considered as incidental to the contract and no additional compensation will be allowed.

Additional width of gutter flag, at numerous locations as indicated on the plans, shall be poured monolithically with the normal gutter flag and will not be measured nor paid for separately.

Temporary Bituminous "Run-offs" between Station 7+88.4 and Station 9+08.4; Station 22+07.8 and Station 22+27.8; Station 22+40.2 and Station 22+60.2; Station 34+48 and Station 34+70; Rt. Station 82+00; Rt. Station 105+00; Lt. Station 113+50 - 118+42.8; Station 145+40 and Station 145+60; are to be constructed to accomodate traffic during the period between completion of the W Section and construction of the RS Section. Cost to be incidental to contract.

Strike-off and consolidation by hand methods, in accordance with Article 48.19 of the Standard Specifications and Article 29.9 of the Supplemental Specifications, will be permitted as follows:
Station 2+26.8 - 2+79.9; Station 3+01.9 - 10+45.7; Spur Conn. Rt. Station 82+00 and Rt. Station 105+00; Intersection Lt. Station 114+19.9; Outside Lane Lt. Station 114+19.9 - 118+42.8

Bituminous Materials used for Prime Coat on Gravel or Crushed Stone shall be MC-0.

Forms for Concrete Gutter, Combination Concrete Curb and Gutter shall be of metal only.

Salvaged Aggregate shall not be used as a base for Bituminous Concrete or Bituminous Treated Surfaces.

All items shown on the plans are included in the W Section unless otherwise shown.

Locations of Gas and Water Lines shown on the plans are approximate only.

Detour Road Run-a-Rounds shall be constructed with an 8 inch compacted thickness and a width to provide two-way traffic at locations shown on the plans.

Gravel or Crushed Stone Shoulders, [redacted] shall be constructed at the following locations:

(along S.B. Route 13)	Rt. & Lt.	580+00 - 583+40
(along S.B. Route 13)	Rt. & Lt.	586+25 - 598+00
S.B. Route 148	Rt. & Lt.	4+10 - 7+88.4
(Spur Rt. 82+00)	Rt. & Lt.	0+23.4 - 3(A)+45.2
(Spur Rt. 105+00)	Lt.	0+23.4 - 3(B)+35
	Rt.	0+50 - 3(B)+35
(S.A. Route 16)	RT. & Lt.	1(L)+15 - 3(L)+00
S.B. Route 148	Lt.	115+45 - 118+43

177 Cubic Yards. Stockpiled Aggregate

PREPARED BY [signature]
DIST. DESIGN ENGINEER

EXAMINED BY [signature]
DIST. CONSTR. ENGINEER

EXAMINED BY [signature]
DIST. MAINT. ENGINEER

EXAMINED BY B. W. Lallar
DIST. TRAFFIC ENGINEER

APPROVED March 1, 1958
[signature]
DISTRICT ENGINEER

S.B.I. 148 (130,W15d) W WILLIAMSON 102W GW

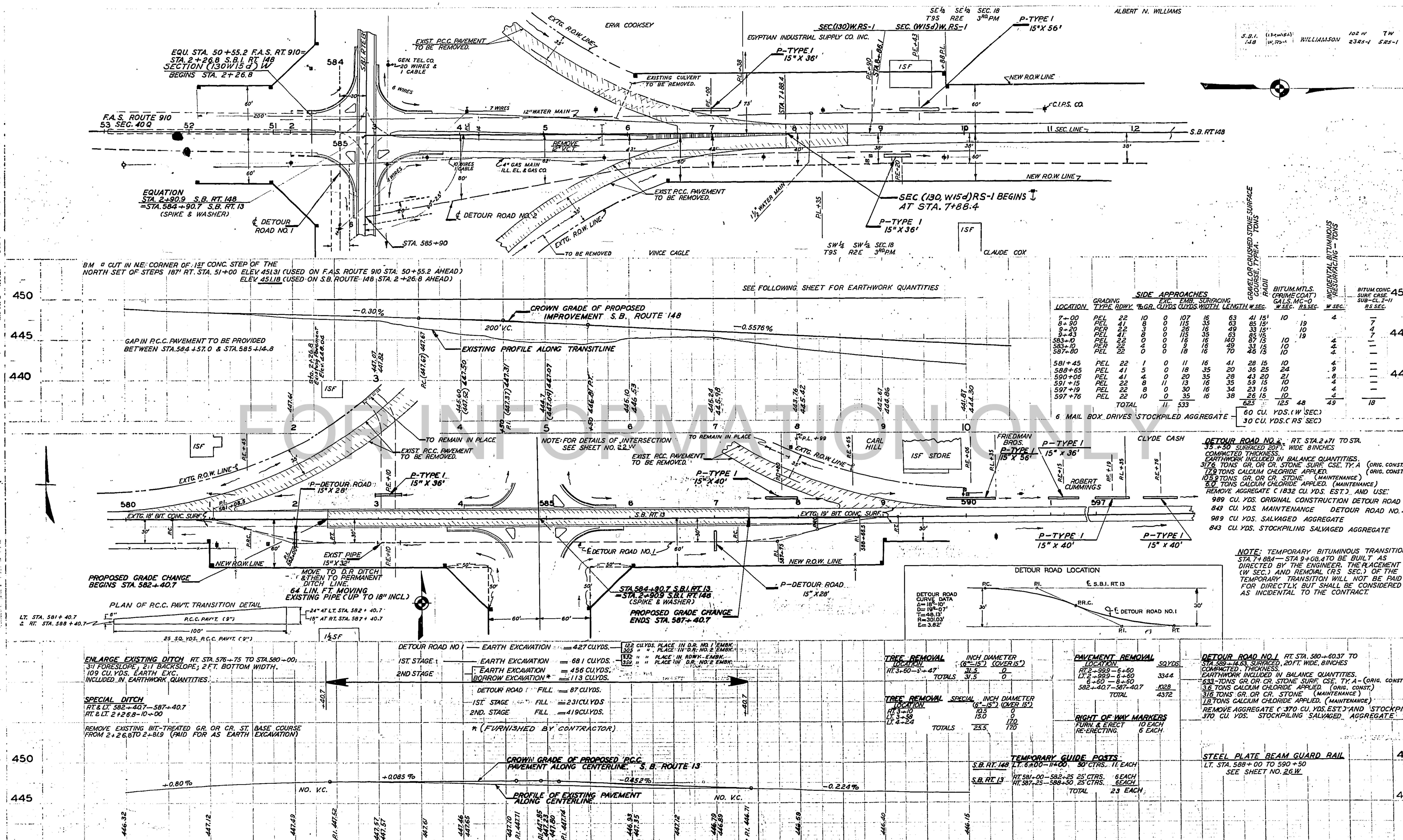
CONCRETE GUTTER, OUTLETS AND ENTRANCES

Item	Type	Std. No.	Location	Length Lin.Ft.	CMP 12" Lin.Ft.	Class X Conc. (Misc) Cu. Yds.	C.I. Fr. Special, Ty 2 W/ Type 1 Gl. Mesh
Outlet	B	1914T	Lt. 69+26 – 69+50			3.6	
Gutter	B	1914T	Lt. 69+50 – 71+03.5	153.5			
Entrance	B	1914T	Lt. 71+03.5 – 71+36.5			1.6	
Gutter	B	1914T	Lt. 71+36.5 – 72+50	113.5			
Outlet	B	1914T	Lt. 72+50 – 72+74			3.6	
Gutter	B	1914T	Lt. 72+74 – 75+76	302.0			
Outlet	B	1914T	Lt. 75+76 – 76+00			3.6	
Gutter	B	1914T	Lt. 76+00 – 79+50	350.0			
Outlet	B	1914T	Lt. 79+50 – 79+74			3.6	
Gutter	B	1914T	Lt. 79+74 – 80+83.5	109.5			
Entrance	B	1914T	Lt. 80+83.5 – 81+16.5			1.6	
Gutter	B	1914T	Lt. 81+16.5 – 83+00	183.5			
Outlet	B	1914T	Lt. 83+00 – 83+24			3.6	
Gutter	B	1914T	Lt. 83+24 – 86+33	309.0			
Gutter	B	1914T	Rt. 102+65 – 104+70	205.0			
Outlet	B	1914T	Rt. 104+70 – 104+94			3.6	
Gutter	B	1914T	Rt. 105+37 – 106+63.5	126.5			
Entrance	B	1914T	Rt. 106+63.5 – 106+96.5			1.6	
Gutter	B	1914T	Rt. 106+96.5 – 107+68.5	72.0			
Entrance	B	1914T	Rt. 107+68.5 – 108+01.5			1.6	
Gutter	B	1914T	Rt. 108+01.5 – 109+16	114.5			
Outlet	B	1914T	Rt. 109+16 – 109+40			3.6	
Gutter	B	1914T	Rt. 109+40 – 110+49.5	109.5			
Entrance	B	1914T	Rt. 110+49.5 – 110+82.5			1.6	
Gutter	B	1914T	Rt. 110+82.5 – 112+03.5	121.0			
Entrance	B	1914T	Rt. 112+03.5 – 112+36.5			1.6	
Gutter	B	1914T	Rt. 112+36.5 – 113+26	89.5			
Outlet	B	1914T	Rt. 113+26 – 113+50			3.6	
Gutter	B	1914T	Rt. 113+50 – 113+80	30.0			
Entrance	B	1914T	Rt. 113+80 – 114+45			3.2	
Gutter	B	1914T	Rt. 114+45 – 116+80	235.0			
Outlet	B	Special	Rt. 116+80 – 117+04		30	2.3	1
Gutter	B	1914T	Lt. 190+40 – 192+90	250			
Outlet	B	Special	Lt. 192+90 – 193+20		30	2.6	1
Gutter	B	1914T	Lt. 193+20 – 193+83.5	63.5			
Entrance	B	1914T	Lt. 193+83.5 – 194+16.5			1.6	
Gutter	B	1914T	Lt. 194+16.5 – 195+32	115.5			
Outlet	B	Special	Lt. 195+32 – 195+62		38	2.6	1
Gutter	B	1914T	Lt. 195+62 – 197+82	220			
Outlet	B	Special	Lt. 197+82 – 198+12		36	2.6	1
Gutter	B	1914T	Lt. 198+12 – 200+70	258			
Outlet	B	1914T	Lt. 200+70 – 200+94			3.6	
Gutter	B	1914T	Rt. 217+00 – 218+16.5	116.5			
Entrance	B	1914T	Rt. 218+16.5 – 218+79.5			3.2	
Gutter	B	1914T	Rt. 218+79.5 – 219+84.5	105.0			
Entrance	B	1914T	Rt. 219+84.5 – 220+25.5			2.0	
Gutter	B	1914T	Rt. 220+25.5 – 220+61	35.5			
Outlet	B	1914T	Rt. 220+61 – 220+85			3.6	
Gutter	B	1914T	Rt. 221+65 – 221+83.5	20.5			
Entrance	B	1914T	Rt. 221+83.5 – 222+16.5			1.6	
Gutter	B	1914T	Rt. 222+16.5 – 222+95.5	79.0			
Entrance	B	1914T	Rt. 222+95.5 – 223+28.5			1.6	
Gutter	B	1914T	Rt. 223+28.5 – 223+71	42.5			
Outlet	B	1914T	Rt. 223+71 – 223+95			3.6	
			TOTAL	3930.0	134	76.1	4

148	(130,W15d)W	Williamson	102	GW

SUMMARY OF QUANTITIES

Sec. (W15d)W	Sec. (130)W	Totals	Unit	Item
18	84	102	Tons	Agricultural Ground Limestone
2610	5250	7860	Gals.	Bituminous Materials Pumped Under Pavement
[illegible]	11,702	11,702	Cu.Yds.	Borrow Excavation (Furnished by State)
-	243	243	Gals.	Bituminous Materials (Prime Coat)MC-0
29,904	113	30,017	Cu. Yds.	Borrow Excavation (Furnished by Contractor)
19.4	78.[illegible]	97[illegible]	Tons	Calcium Chloride Applied
1366	316	1682	Cu.Yds.	Channel Excavation
81.1	136.9	218	Cu.Yds.	Class X Concrete
-	91.0	91.0	Cu.Yds.	Class X Concrete (Miscellaneous)
-	558.	558.	Lin.Ft.	Combination Concrete Curb & Gutter, Type 5
-	960	960	Lin.Ft.	Combination Concrete Curb & Gutter, Type 6
-	1103	1103	Lin.Ft.	Combination Concrete Curb & Gutter, Type 10
-	3930	3930	Lin.Ft.	Concrete Gutter, Type B
-	258	258	Lin.Ft.	Concrete Median, Type 3
-	158	158	Lin.Ft.	Corrugated Metal Pipe - 12"
1081	4736	5817	Gals.	Emulsified Asphalt
10168	85061	95229	Cu.Yds.	Earth Excavation
1350	-	1350	Tons	Embankment, Special
76	52	128	Each	Expansion Bolts
2	-	2	Each	Filling Existing Inlets
20	57	77	Each	Furnishing andErecting Right of Way Markers
1	-	1	Each	Filling Existing Manholes
0.5	2.2	2.7	Tons	Fertilizer Nutrients
847	2087	2934	Tons	Gravel or Crushed Stone
-	240	240	Tons	Gravel or Crushed Stone Base Course, Type B
3616	10495	14111	Tons	Gravel or Crushed Stone Surface Course, Type A
-	512	512	Tons	Gravel or Crushed Stone Surface Course, Type B
18	54	72	Each	Guide Posts
-	48	48	Lin.Ft.	Gutter Outlet Removal
-	1144	1144	Lin.Ft.	Gutter Removal
78	158	236	Each	Holes Drilled
-	2	2	Each	Inlets, Type A, with Type 15 Frame
-	75	75	Tons	Incidental Bituminous Surfacing
-	2	2	Each	Manholes, Type A, 4' Dia. with Type 15 Frame
-	2	2	Each	Manholes, Special, Type II
-	64	64	Lin.Ft.	Moving Existing Pipe (up to 18" incl.)
-	30	30	Lin.Ft.	Paved Ditch, Type 1
106	808	914	Lin.Ft.	Paved Ditch, Type 2
-	6702	6702	Sq.Yds.	Pavement Fabric
296	16325	16621	Sq.Yds.	Pavement Removal
27	42	69	Sq.Yds.	Pavement Removal & Replacement, Type II (8")
28	31	59	Sq.Yds.	Pavement Removal & Replacement, Type III (8")
-	73	73	Sq.Yds.	Pavement Removal & Replacement, Type IV (8")
-	52	52	Sq.Yds.	Pavement Removal & Replacement, Special, Type II (8")
-	45	45	Sq.Yds.	Pavement Removal & Replacement, Special, Type III (8")
-	35	35	Sq.Yds.	Pavement Removal & Replacement, Special, Type IV (8")
356	2556	2912	Lin.Ft.	Pipe Culverts, Type 1 - 15"
60	196	256	Lin.Ft.	Pipe Culverts, Type 1 - 18"
-	188	188	Lin.Ft.	Pipe Culverts, Type 1 - 24"
-	44	44	Lin.Ft.	Pipe Culverts, Type 1 - 30"
-	44	44	Lin.Ft.	Pipe Culverts, Type 1 - 36"
52	576	628	Lin.Ft.	Pipe Culverts, Type 2 - 15"
-	64	64	Lin.Ft.	Pipe Culverts, Type 2 - 24"
-	164	164	Lin.Ft.	Pipe Culverts, Type 2 - 30"
-	20	20	Lin.Ft.	Pipe Culverts, Type 2 - 60"
60	258	318	Lin.Ft.	Pipe Culverts, Type 1B - 24"
60	60	120	Lin.Ft.	Pipe Culverts, Type 1B - 30"
60	-	60	Lin.Ft.	Pipe Culverts, Type 1B- 60"
-	80	80	Lin.Ft.	Pipe Culverts, Type 2B - 30"
-	408	408	Lin.Ft.	Pipe Culverts, Type 2B - 60"
6813	31837	38650	Sq.Yds.	P.C. Concrete Base Course, (8")
918	518	1436	Sq.Yds.	P. C. Concrete Base Course Widening, (8")
-	6702	6702	Sq.Yds.	P. C. Concrete Pavement, (9")
1	48	49	Each	Re-erecting Right of Way Markers
9077	8712	17789	Lbs.	Reinforcement Bars
791	2516	3307	Cu.Yds.	Salvaged Aggregate
13	58	71	Tons	Straw for Asphalt-Coated Mulch
-	274	274	Sq.Ft.	Sidewalk Removal
83	-	83	Sq.Yds.	Slope Wall
-	750	750	Lin.Ft.	Steel Plate Beam Guard Rail
60	1736	1796	Cu.Yds.	Stockpiled Aggregate
674	3401	4075	Cu.Yds.	Stockpiling Salvaged Aggregate
-	18	18	Lin.Ft.	Storm Sewers, Type 1 - 12"
-	274	274	Lin.Ft.	Storm Sewers, Type 1 - 18"
-	84	84	Lin.Ft.	Storm Sewers, Type 2 - 18"
-	42	42	Lin.Ft.	Storm Sewers, Type 2 - 30"
1640	9264	10904	Tons	Sub-Base Granular Material, Type A
-	1	1	Tons	Seal Coat Aggregate
6.1	28.0	34.1	Acres	Temporary Seeding
87	192	279	Each	Temporary Guide Posts
-	2	2	Each	Temporary Wood Culvert Extension Complete
411	1295	1706	In.Dia.	Tree Removal (6" to 15" Dia.)
142	523	665	In.Dia.	Tree Removal (over 15" Dia.)
38	117	155	In.Dia.	Tree Removal, Special (6" to 15" Dia.)
-	250	250	In.Dia.	Tree Removal, Special, (Over 15" Dia.)
52	41	93	Cu.Yds.	Trench Backfill
10	25	35	UNITS	WATER APPLIED
1	1	2	Each	PROJECT MARKERS



SIDE APPROACHES

LOCATION	GRADING TYPE	RDWY.	% GR.	EXC. CU.YDS	EMB. CU.YDS	SURFACING WIDTH	LENGTH	GRAVEL OR CRUSHED STONE SURFACE COURSE, TYPE A. TONS W SEC.	RADII	BITUM. MTLS. (PRIME COAT) GALS. MC-0 W SEC.	RS SEC.	INCIDENTAL BITUMINOUS RESURFACING – TONS W SEC.	BITUM. CONC. SURF. CRSE. SUB-CL. I-11 RS SEC.
7+00	PEL	22	10	0	107	16	63	41	15'	10		4	—
8+90	PEL	41	8	0	115	35	63	85	15'		19		7
9+20	PER	22	3	0	26	16	49	33	15'		10		4
9+43	PEL	41	8	0	115	35	63	85	15		19		7
583+10	PEL	22	0	0	16	16	140	87	15	10		4	—
583+10	PER	22	4	0	9	16	49	33	15	10		4	—
587+80	PEL	22	0	0	18	16	70	46	15	10		4	—
581+45	PEL	22	1	0	11	16	41	28	15	10		4	—
588+65	PEL	41	5	0	18	35	20	36	25	24		9	—
590+06	PEL	41	4	0	20	35	28	43	20	21		8	—
591+15	PEL	22	8	11	13	16	35	59	15	10		4	—
597+19	PEL	22	8	0	30	16	34	23	15	10		4	—
597+76	PEL	22	10	0	35	16	38	26	15	10		4	
		TOTAL		11	533			625		125	48	49	18

6 MAIL BOX DRIVES STOCKPILED AGGREGATE – 60 CU. YDS. (W SEC.) / 30 CU. YDS. (RS SEC.)

DETOUR ROAD NO. 2 RT. STA. 2+71 TO STA. 35+50 SURFACED 20 FT. WIDE 8 INCHES COMPACTED THICKNESS.
EARTHWORK INCLUDED IN BALANCE QUANTITIES.
3176 TONS GR. OR CR. STONE SURF. CSE. TY. A (ORIG. CONST.)
17.9 TONS CALCIUM CHLORIDE APPLIED. (ORIG. CONST.)
1059 TONS GR. OR CR. STONE (MAINTENANCE)
6.0 TONS CALCIUM CHLORIDE APPLIED. (MAINTENANCE)
REMOVE AGGREGATE (1832 CU. YDS. EST.) AND USE:
989 CU. YDS. ORIGINAL CONSTRUCTION DETOUR ROAD NO. 4
843 CU. YDS. MAINTENANCE DETOUR ROAD NO. 4
989 CU. YDS. SALVAGED AGGREGATE
843 CU. YDS. STOCKPILING SALVAGED AGGREGATE

NOTE: TEMPORARY BITUMINOUS TRANSITION STA. 7+88.4 — STA 9+08.4 TO BE BUILT AS DIRECTED BY THE ENGINEER. THE PLACEMENT (W SEC.) AND REMOVAL (RS SEC.) OF THE TEMPORARY TRANSITION WILL NOT BE PAID FOR DIRECTLY, BUT SHALL BE CONSIDERED AS INCIDENTAL TO THE CONTRACT.

ENLARGE EXISTING DITCH RT. STA. 576+75 TO STA. 580+00; 3:1 FORESLOPE; 2:1 BACKSLOPE; 2 FT. BOTTOM WIDTH. 109 CU. YDS. EARTH EXC. INCLUDED IN EARTHWORK QUANTITIES.

SPECIAL DITCH
RT. & LT. 582+40.7 – 587+40.7
RT. & LT. 2+26.8 – 10+00

REMOVE EXISTING BIT.-TREATED GR. OR CR. ST. BASE COURSE FROM 2+26.8 TO 2+81.9 (PAID FOR AS EARTH EXCAVATION)

DETOUR ROAD NO 1 — EARTH EXCAVATION = 427 CU. YDS. — 122 CU. YDS. PLACE IN D.R. NO. 1 EMBK.; 305 " " PLACE IN D.R. NO. 2 EMBK.
1ST. STAGE — EARTH EXCAVATION = 681 CU. YDS. — 332 " " PLACE IN RDWY. EMBK.; 359 " " PLACE IN D.R. NO. 2 EMBK.
2ND STAGE — EARTH EXCAVATION = 456 CU. YDS.; BORROW EXCAVATION* = 113 CU. YDS.
DETOUR ROAD FILL = 87 CU. YDS.
1ST. STAGE FILL = 231 CU. YDS.
2ND. STAGE FILL = 419 CU. YDS.
*(FURNISHED BY CONTRACTOR)

TREE REMOVAL

LOCATION	INCH DIAMETER (6"–15")	(OVER 15")
RT. 3+60 – 9+47	31.5	0
TOTALS	31.5	0

TREE REMOVAL SPECIAL

LOCATION	INCH DIAMETER (6"–15")	(OVER 15")
RT. 3+10	10.5	0
LT. 3+58	15.0	0
LT. 4+24		17.0
TOTALS	25.5	17.0

PAVEMENT REMOVAL

LOCATION	SQ. YDS.
RT. 2+99.9 – 6+60	
LT. 2+99.9 – 6+60	3344
6+60 – 8+60	
582+40.7 – 587+40.7	1028
TOTAL	4372

RIGHT OF WAY MARKERS
FURN. & ERECT 10 EACH
RE-ERECTING 6 EACH

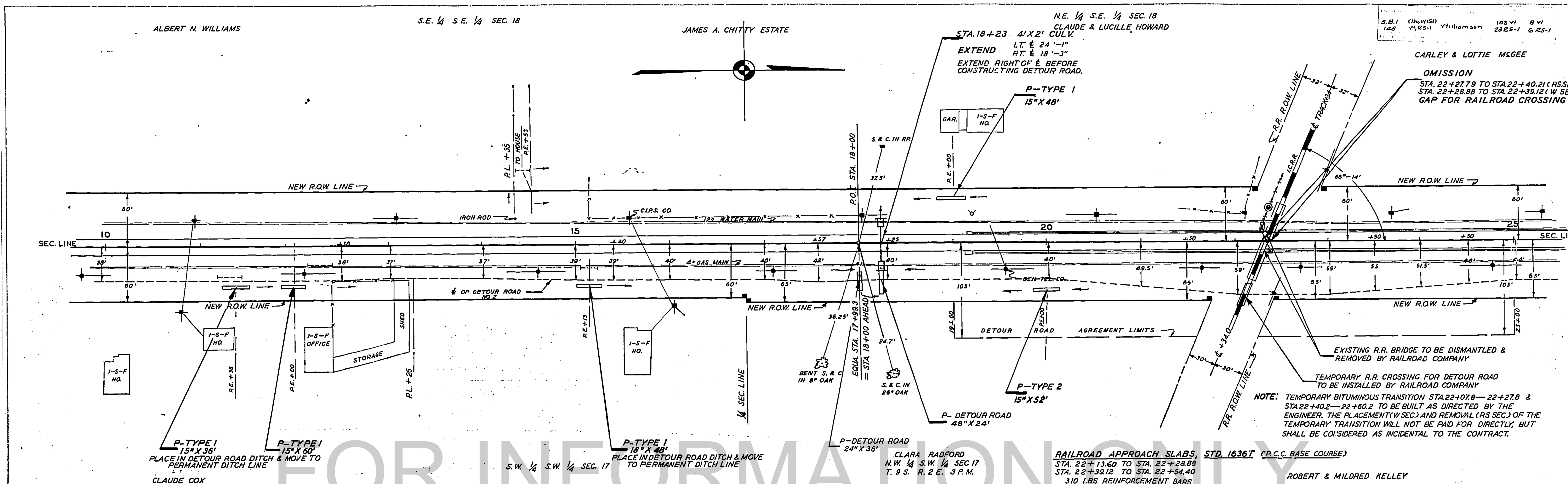
TEMPORARY GUIDE POSTS

S.B. RT. 148	LT. 6+00 – 11+00	50' CTRS.	11 EACH
S.B. RT. 13	RT. 581+00 – 582+25	25' CTRS.	6 EACH
	RT. 587+25 – 588+50	25' CTRS.	6 EACH
	TOTAL		23 EACH

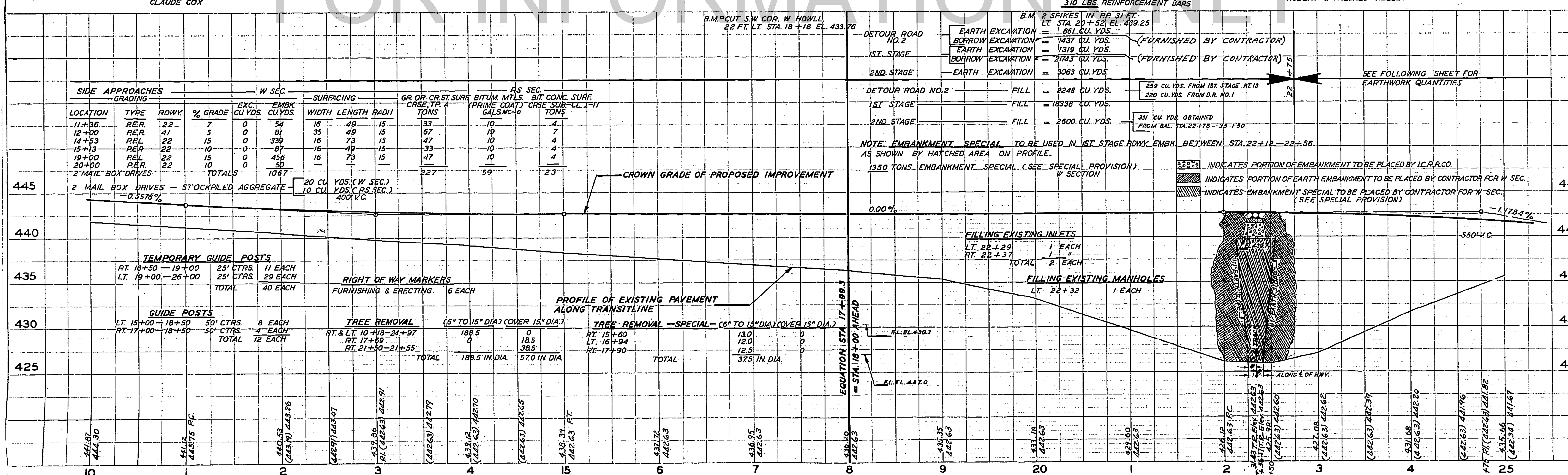
DETOUR ROAD NO. 1 RT. STA. 580+60.37 TO STA. 589+14.63. SURFACED, 20 FT. WIDE, 8 INCHES COMPACTED THICKNESS.
EARTHWORK INCLUDED IN BALANCE QUANTITIES.
633 TONS GR. OR CR. STONE SURF. CSE. TY. A – (ORIG. CONST.)
3.6 TONS CALCIUM CHLORIDE APPLIED. (ORIG. CONST.)
316 TONS GR. OR CR. STONE (MAINTENANCE)
1.8 TONS CALCIUM CHLORIDE APPLIED. (MAINTENANCE)
REMOVE AGGREGATE (370 CU. YDS. EST.) AND STOCKPILE
370 CU. YDS. STOCKPILING SALVAGED AGGREGATE

STEEL PLATE BEAM GUARD RAIL
LT. STA. 588+00 TO 590+50
SEE SHEET NO. 26 W

S.B.I. RTE. 148 SEC. (130 W15d) WRS-1 WILLIAMSON COUNTY STA. 2+26.8 – 10+00



RAILROAD APPROACH SLABS, STD. 1636T (P.C.C. BASE COURSE)
STA. 22+13.60 TO STA. 22+28.88
STA. 22+39.12 TO STA. 22+54.40
310 LBS. REINFORCEMENT BARS



DETOUR ROAD NO. 2 — EARTH EXCAVATION = 861 CU. YDS.; BORROW EXCAVATION = 1437 CU. YDS. (FURNISHED BY CONTRACTOR)
1ST. STAGE — EARTH EXCAVATION = 1319 CU. YDS.; BORROW EXCAVATION = 21743 CU. YDS. (FURNISHED BY CONTRACTOR)
2ND. STAGE — EARTH EXCAVATION = 3063 CU. YDS.

DETOUR ROAD NO. 2 — FILL = 2248 CU. YDS. (259 CU. YDS. FROM 1ST. STAGE RT. 13; 220 CU. YDS. FROM D.R. NO. 1)
1ST STAGE — FILL = 18338 CU. YDS.
2ND STAGE — FILL = 2600 CU. YDS. (331 CU. YDS. OBTAINED FROM BAL. STA. 22+75 — 35+50)

NOTE: EMBANKMENT SPECIAL TO BE USED IN 1ST STAGE RDWY. EMBK. BETWEEN STA. 22+12 — 22+56 AS SHOWN BY HATCHED AREA ON PROFILE.
1350 TONS EMBANKMENT SPECIAL (SEE SPECIAL PROVISION) W SECTION

INDICATES PORTION OF EMBANKMENT TO BE PLACED BY I.C.R.R.CO.
INDICATES PORTION OF EARTH EMBANKMENT TO BE PLACED BY CONTRACTOR FOR W SEC.
INDICATES EMBANKMENT SPECIAL TO BE PLACED BY CONTRACTOR FOR W SEC. (SEE SPECIAL PROVISION)

SIDE APPROACHES

LOCATION	TYPE	RDWY.	% GRADE	EXC. CU. YDS.	EMBK. CU. YDS.	WIDTH	LENGTH	RADII	GR. OR CR. ST. SURF. CRSE., TP. A TONS	BITUM. MTLS. (PRIME COAT) GALS. MC-0	BIT. CONC. SURF. CRSE. SUB-CL. I-II TONS
	GRADING (W SEC.)					SURFACING (W SEC.)				RS SEC.	
11+36	P.E.R.	22	7	0	54	16	49	15	33	10	4
12+00	P.E.R.	41	5	0	81	35	49	15	67	19	7
14+53	P.E.L.	22	15	0	339	16	73	15	47	10	4
15+13	P.E.R.	22	10	0	87	16	49	15	33	10	4
19+00	P.E.L.	22	15	0	456	16	73	15	47	10	4
20+00	P.E.R.	22	10	0	50	—	—	—	—	—	—
2 MAIL BOX DRIVES			TOTALS		1067				227	59	23

2 MAIL BOX DRIVES — STOCKPILED AGGREGATE — 20 CU. YDS. (W SEC.), 10 CU. YDS. (RS SEC.)

TEMPORARY GUIDE POSTS
RT. 16+50 — 19+00 25' CTRS. 11 EACH
LT. 19+00 — 26+00 25' CTRS. 29 EACH
TOTAL 40 EACH

GUIDE POSTS
LT. 15+00 — 18+50 50' CTRS. 8 EACH
RT. 17+00 — 18+50 50' CTRS. 4 EACH
TOTAL 12 EACH

RIGHT OF WAY MARKERS
FURNISHING & ERECTING 6 EACH

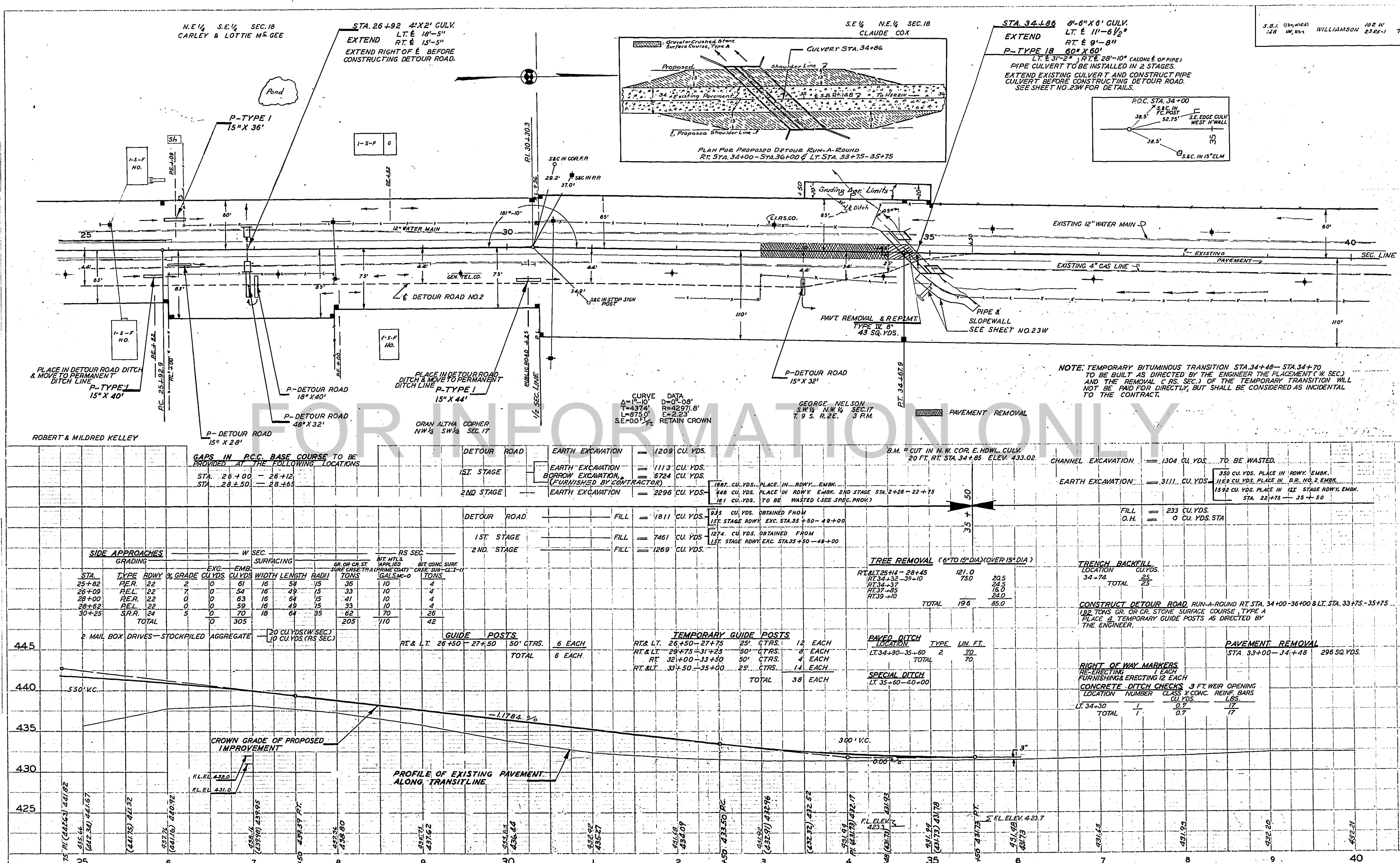
TREE REMOVAL	(6" TO 15" DIA.)	(OVER 15" DIA.)
RT. & LT. 10+18 — 24+97	188.5	0
RT. 17+69	0	18.5
RT. 21+50 — 21+55		38.5
TOTAL	188.5 IN. DIA.	57.0 IN. DIA.

TREE REMOVAL — SPECIAL —	(6" TO 15" DIA.)	(OVER 15" DIA.)
RT. 15+60	13.0	0
LT. 16+94	12.0	0
RT. 17+90	12.5	0
TOTAL	37.5 IN. DIA.	

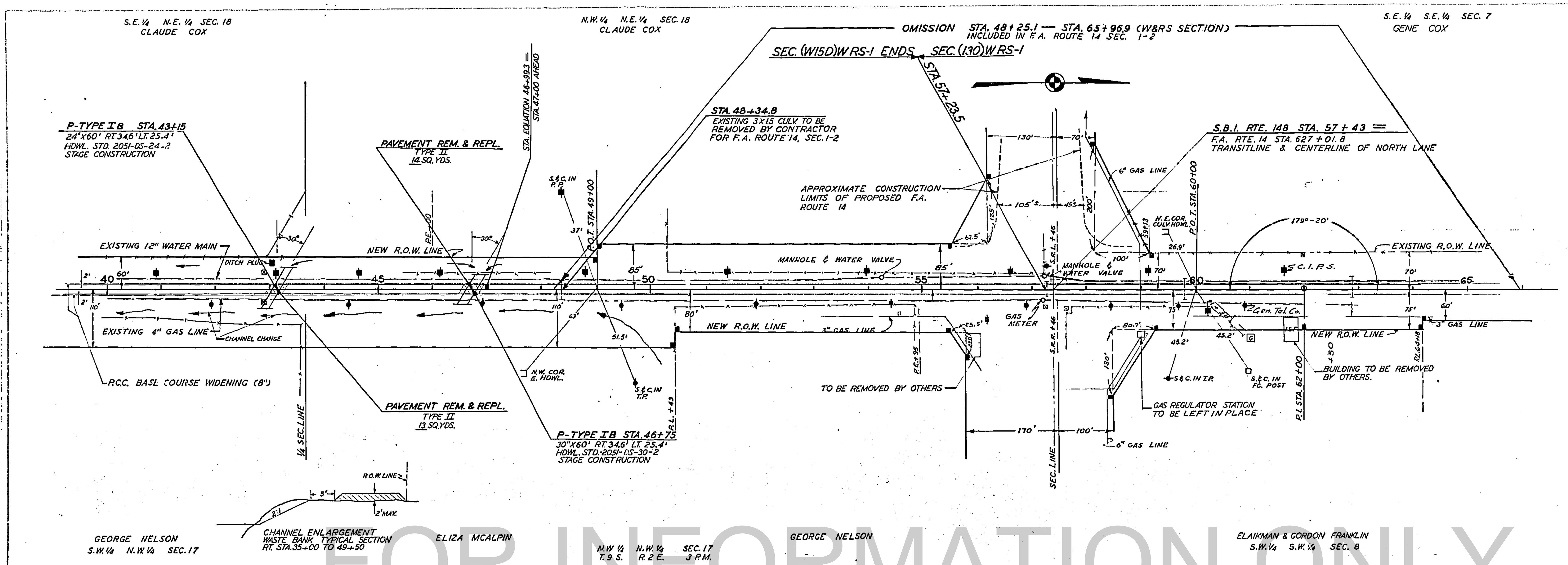
FILLING EXISTING INLETS
LT. 22+29 1 EACH
RT. 22+37 1 "
TOTAL 2 EACH

FILLING EXISTING MANHOLES
LT. 22+32 1 EACH

S.B.I. ROUTE 148 SEC. (130, W 15d) W, RS-1 WILLIAMSON CO. STA. 10+00 — 25+00



S.B.I. RTE. 148 SEC.(130, W 15 d) W, RS-1 WILLIAMSON CO. STA. 25+00 - STA. 40+00



S.E. ¼ N.E. ¼ SEC. 18
CLAUDE COX
N.W. ¼ N.E. ¼ SEC. 18
CLAUDE COX
OMISSION STA. 48+25.1 — STA. 65+96.9 (W&RS SECTION)
INCLUDED IN F.A. ROUTE 14 SEC. 1-2
S.E. ¼ S.E. ¼ SEC. 7
GENE COX
SEC. (W15D)W RS-1 ENDS SEC. (130)W RS-1
STA. 57+23.5
P-TYPE I B STA. 43+15
24"X60' RT. 34.6' LT. 25.4'
HDWL. STD. 2051-DS-24-2
STAGE CONSTRUCTION
PAVEMENT REM. & REPL.
TYPE II
14 SQ. YDS.
STA. EQUATION 46+99.3 = STA. 47+00 AHEAD
STA. 48+34.8
EXISTING 3X1.5 CULV. TO BE REMOVED BY CONTRACTOR FOR F.A. ROUTE 14, SEC. 1-2
APPROXIMATE CONSTRUCTION LIMITS OF PROPOSED F.A. ROUTE 14
S.B.I. RTE. 148 STA. 57+43 =
F.A. RTE. 14 STA. 627+01.8
TRANSITLINE & CENTERLINE OF NORTH LANE
6" GAS LINE
N.E. COR. CULV. HDWL.
P.O.T. STA. 60+00
P.O.T. STA. 49+00
179°-20'
EXISTING R.O.W. LINE
EXISTING 12" WATER MAIN
NEW R.O.W. LINE
DITCH PLUG
MANHOLE & WATER VALVE
S.C.I.P.S.
Gen. Tel. Co.
EXISTING 4" GAS LINE
CHANNEL CHANGE
NEW R.O.W. LINE
3" GAS LINE
GAS METER
N.W. COR. E. HDWL.
S.&C. IN T.P.
S.&C. IN P.P.
S.&C. IN FC. POST
BUILDING TO BE REMOVED BY OTHERS.
P.C.C. BASE COURSE WIDENING (8")
TO BE REMOVED BY OTHERS
GAS REGULATOR STATION TO BE LEFT IN PLACE
P.I. STA. 62+00
PAVEMENT REM. & REPL.
TYPE II
13 SQ. YDS.
P-TYPE I B STA. 46+75
30"X60' RT. 34.6' LT. 25.4'
HDWL. STD. 2051-DS-30-2
STAGE CONSTRUCTION
¼ SEC. LINE
SEC. LINE
R.O.W. LINE
2' MAX.
CHANNEL ENLARGEMENT
WASTE BANK TYPICAL SECTION
RT. STA. 35+00 TO 49+50

GEORGE NELSON
S.W. ¼ N.W. ¼ SEC. 17

ELIZA MCALPIN

N.W. ¼ N.W. ¼ SEC. 17
T. 9 S. R. 2 E. 3 P.M.

GEORGE NELSON

ELAIKMAN & GORDON FRANKLIN
S.W. ¼ S.W. ¼ SEC. 8

B.M. TWO SPIKES IN P.P. 30 FT. RT.
STA. 40+95 EL. 437.54

B.M. □ CUT IN S.W. COR. E. HDWL
16 FT. RT. STA. 48+35 EL. 436.09

B.M. □ CUT IN S.E. COR. E. HDWL
16 FT. RT. STA. 57+25 EL. 442+32

ENLARGE EXISTING DITCH RIGHT STA. 35+00—49+50
WITH 2:1 BACK SLOPE — SEE CROSS SECTIONS. MATERIAL TO BE SPREAD 2' THICK WITH CROSS DRAINAGE DITCHES EVERY 150' OR AS DIRECTED BY THE ENGINEER.
CHANNEL EXCAVATION = 1304 CU. YDS. EST.

SEE PRECEEDING SHEET FOR EARTHWORK QUANTITIES

48+25.1

NOTE: THE EXISTING TREES & SHRUBS ON THE WEST SLOPE OF THE EXISTING CHANNEL RT. ℄ STA. 35+00 TO STA. 49+50 SHALL NOT BE DISTURBED.

TRENCH BACKFILL

	CU. YDS.
STA. 43+15	11
STA. 46+75	16
TOTAL	27 CU. YDS.

DITCH PLUG LT. ℄ STA. 43+05
INCLUDED IN BALANCE QUANTITIES.

SPECIAL DITCH
LT. 40+00—49+00

PAVED DITCH

RT. STA. 43+15	TYPE 2	24 LIN. FT.
RT. STA. 46+75	TYPE 2	12 LIN. FT.
	TOTAL	36 LIN. FT.

PAVED DITCH TO BE WARPED TO FIT CULV. HDWL. IN 5'.

NEW CHANNEL RT. STA. 43+15 AND STA. 46+75. BOTTOM WIDTH 3 FEET. SIDE SLOPE 2:1 MATERAL TO BE WASTED.
62 CU. YDS. CHANNEL EXC. EST.

~~RIGHT OF WAY MARKERS~~
~~FURN. & ERECT. 9 EACH~~
~~RE-ERECTING 5 EACH~~

TREE REMOVAL

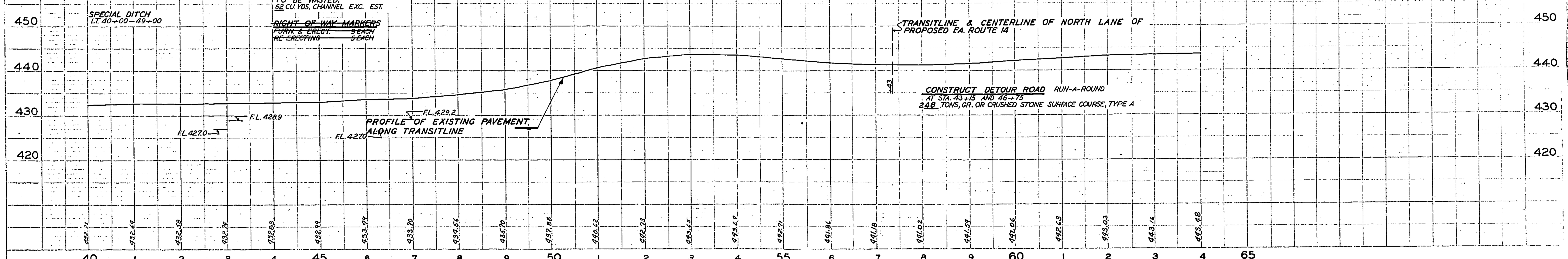
LOCATION	INCH DIAMETER (6"-15")	(OVER 15")
RT. 44+90—45+24	24	0
~~RT. 50+33~~	~~0~~	~~18.0~~
~~LT. 51+30~~	~~8.0~~	~~0~~
TOTAL	24	~~18.0~~

SIDE APPROACHES — W-SECTION — RS. SEC.

STA.	TYPE	RDWY.	% GR.	GRADING EXC. CU. YDS.	GRADING EMB. CU. YDS.	SURFACING WIDTH	SURFACING LENGTH	RADII	GR. OR CR. ST. SURF. CRSE. TP. A TONS	BIT. MTLS. APPLIED (PRIME COAT) GALS. MC-0	BIT. CONC. SURF. CRSE. SUB-CL. I II TONS
46+00	P.E.L.	22	10	50	0	—	—	—	—	—	—
~~54+95~~	~~P.E.R.~~										
~~57+46~~	~~S.R.R.~~	~~24~~	~~SEE SPECIAL SHEET~~			~~18~~	~~89~~	~~35~~	~~81~~	~~89~~	~~33~~
~~57+46~~	~~S.R.L.~~	~~24~~	~~"~~	~~"~~	~~"~~	~~18~~	~~48~~	~~35~~	~~52~~	~~59~~	~~22~~
~~65+00~~	~~P.E.R.~~										
TOTALS				50	0					~~147~~	~~55~~

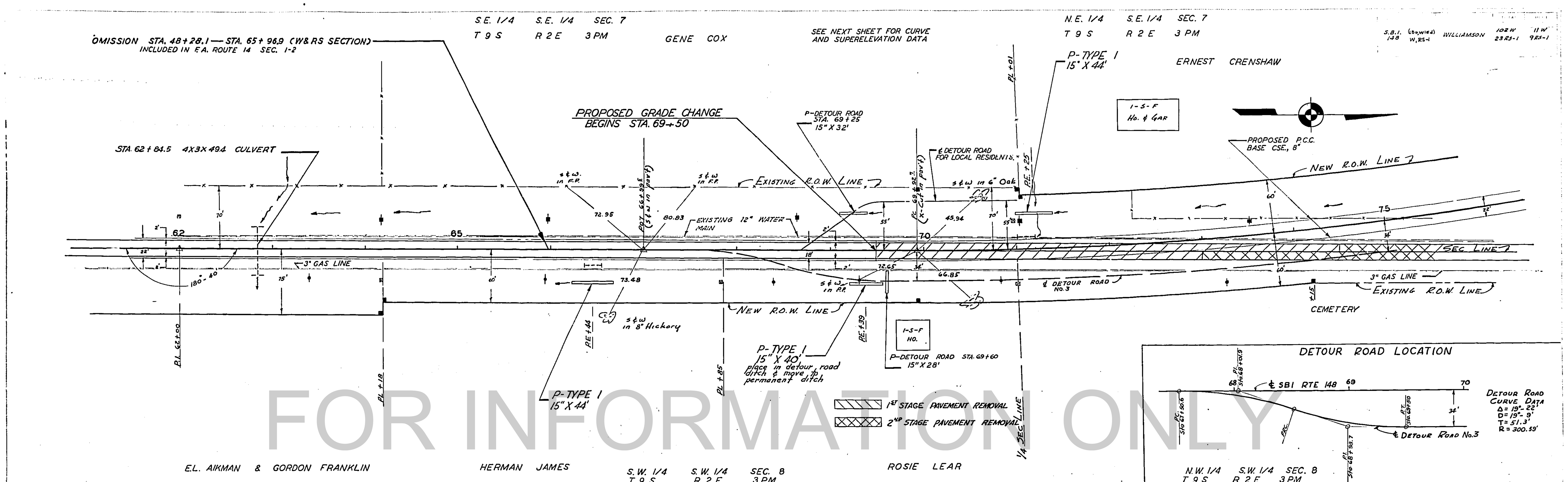
~~2 MAIL BOX DRIVES — STOCKPILED AGGREGATE~~ ~~20 CU. YDS. (W SEC.)~~ ~~10 CU. YDS. (RS SEC.)~~

~~NOTE: AREA BEWEEN R.O.W. LINE AND CONSTRUCTION LIMITS OF PROPOSED F.A. ROUTE 14 TO BE USED FOR STOCKPILING ALL EXCESS SALVAGED AGGREGATE.~~



CONSTRUCT DETOUR ROAD RUN-A-ROUND
AT STA. 43+15 AND 46+75
248 TONS, GR. OR CRUSHED STONE SURFACE COURSE, TYPE A

S.B.I. RTE. 148 SEC. (130, W15d) W,RS-1 WILLIAMSON CO. STA. 40+00—STA. 62+00



FOR INFORMATION ONLY

B.M. □ CUT IN S.E. COR. E. HDWL CULV. 16' RT. STA. 57+25 ELEV. 442.32

B.M. 2 SPIKES IN P.P. 36' LT. STA. 65+98 ELEV. 443.06

DETOUR ROAD — EARTH EXCAVATION = 3196 CU. YDS.
1ST. STAGE — EARTH EXCAVATION = 21560 CU. YDS. — 19343 CU. YDS. PLACE IN RDWY. EMBK.; 2217 CU. YDS. PLACE IN D.R. EMBK.
2ND. STAGE — EARTH EXCAVATION = 8318 CU. YDS. — ANY EXCESS MATERIAL SHALL BE WASTED (SEE SPEC. PROV.)
DETOUR ROAD — FILL = 4041 CU. YDS.
1ST. STAGE — FILL = 16254 CU. YDS. — 1254 CU. YDS. TO BE OBTAINED FROM SPUR RT. STA. 82+00 & 103+00
2ND. STAGE — FILL = 4050 CU. YDS.
OH. = 175878 CU. YDS

SIDE APPROACHES — W SEC. / RS SEC.

STA.	GRADING TYPE	RDWY.	% GR.	EXC. CU. YDS.	EMB. CU. YDS.	SURFACING WIDTH	LENGTH	RADII	GR. OR CR. ST. SURF. CRSE. TP. A TONS	BIT. MTLS. APPLIED (PRIME COAT) GALS. MC-0	BIT. CONC. SURF. CRSE. SUB-CL. I-II TONS
66+44	P.E.R.	22	4	0	67	16	49	15	33	10	4
69+39	P.E.R.	22	7	4	43	16	49	15	33	10	4
71+25	P.E.L.	22	5	0	54	16	49	15	33	10	4
TOTALS				4	164				99	30	12

2 MAIL BOX DRIVES — STOCKPILED AGGREGATE — 20 CU. YDS. (W SEC.); 10 CU. YDS. (RS SEC.)

TEMPORARY GUIDE POSTS

RT. 68+50 — 69+50	25 FT. CTRS.	5 EACH
RT. 73+50 — 74+50	25 FT. CTRS.	5 EACH
	TOTAL	10

RIGHT OF WAY MARKERS

FURN. & ERECT. 6 EACH
RE-ERECTING 5 EACH

PAVEMENT REMOVAL

LOCATION	SQ. YDS.	
RT. STA. 69+50 — 73+00 (E & W LANE)	700	FIRST STAGE
RT. STA. 73+00 — 74+50 (W LANE)	150	FIRST STAGE
RT. STA. 73+00 — 74+50 (E LANE)	150	SECOND STAGE
RT. STA. 74+50 — 75+00 (E & W LANE)	100	SECOND STAGE
TOTALS	1100 SQ. YDS.	

SPECIAL DITCH

LT. & RT. 63+00 — 67+50

TREE REMOVAL

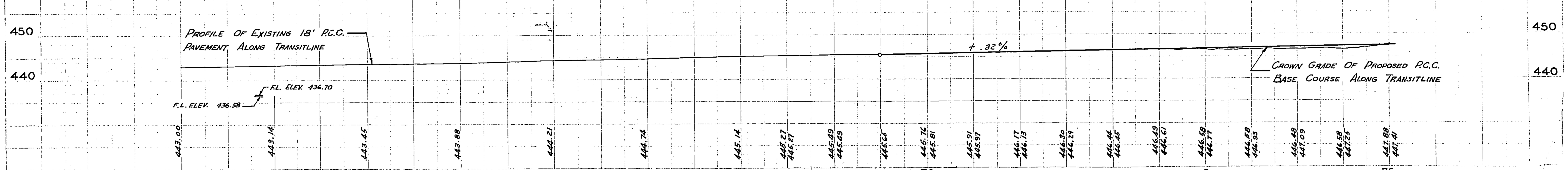
LOCATION	INCH DIAMETER (6"–15")	(OVER 15")
RT. & LT. 62+68 — 71+80	74.5	0
TOTAL	74.5	0

TREE REMOVAL (SPECIAL)

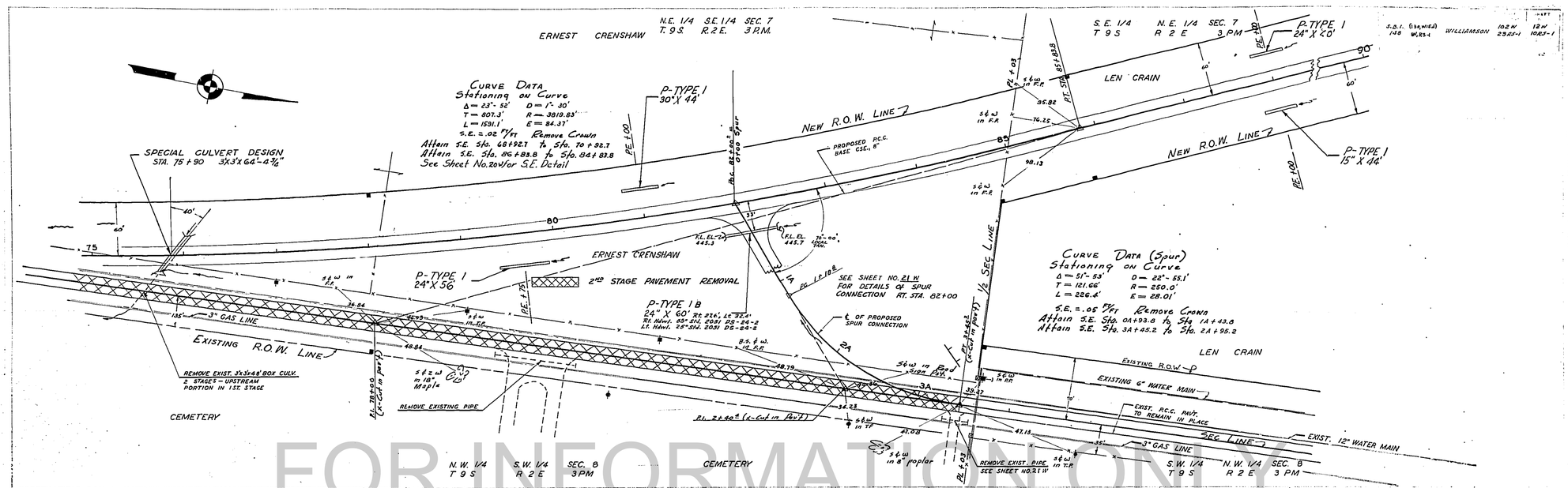
LOCATION	INCH DIAMETER (6"–15")	(OVER 15")
RT. 69+52	14.5	
RT. 69+77	10.0	
RT. 69+93	10.0	
RT. 69+97	6.5	
RT. 70+24	8.0	
TOTAL	49.0	0

DETOUR ROAD NO. 3 RT. STA. 67+50.6 TO STA. 75+00
SURFACED 20 FEET WIDE; 8 INCHES COMPACTED THICKNESS.
EARTHWORK INCLUDED IN BALANCE QUANTITIES.
461 CU. YDS. SALVAGED AGGREGATE (OBTAINED FROM DR. NO. 6) — ORIGINAL CONSTRUCTION
3.4 TONS CALCIUM CHLORIDE APPLIED
231 CU. YDS. STOCKPILED AGGREGATE — MAINTENANCE
1.7 TON CALCIUM CHLORIDE APPLIED
REMOVE AGGREGATE (346 CU. YDS. ESTIMATED) AND STOCKPILE
346 CU. YDS. STOCKPILING SALVAGED AGGREGATE
231 CU. YDS. STOCKPILED AGGREGATE

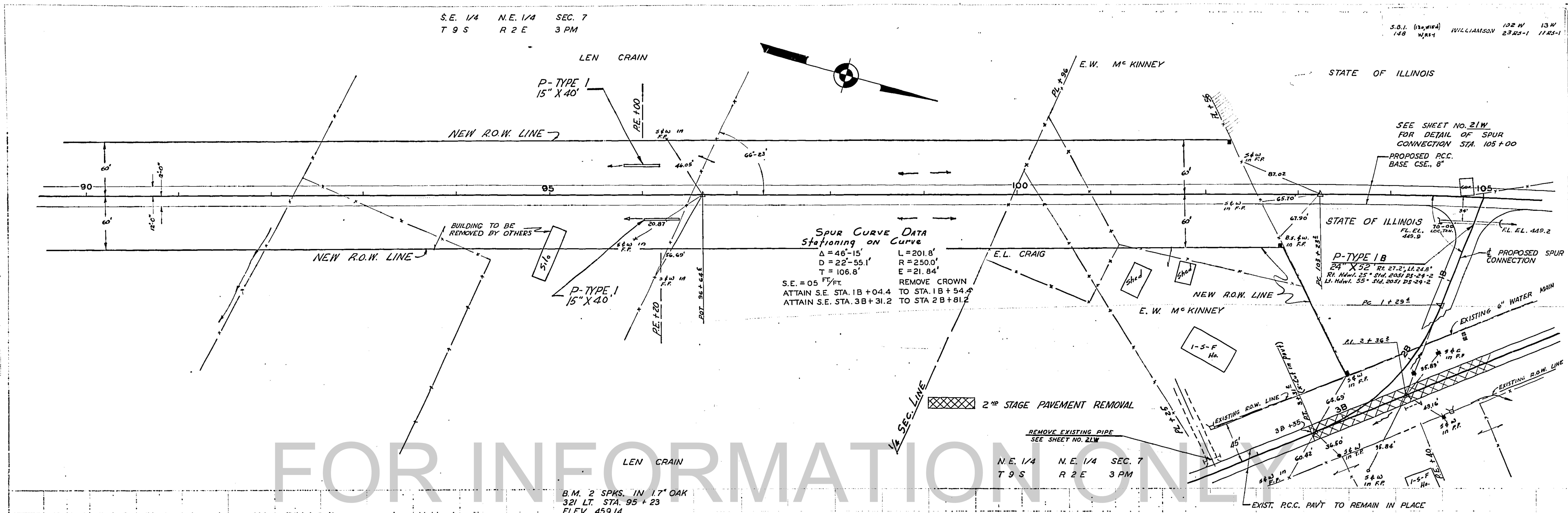
CONSTRUCT DETOUR ROAD FOR LOCAL RESIDENTS
LT. STA. 68+70 — 71+01. 8 FEET WIDE, 4 INCHES THICK, UNCOMPACTED.
31 TONS GR. OR CR. STONE SURFACE COURSE, TYPE B.



S.B.I. RTE. 148 SEC. (130 W 15d) W, RS-1 WILLIAMSON CO. STA. 62+00 – 75+00



S.B.I. RTE. 148 SEC. (130, W15d) W,RS-1 WILLIAMSON CO. STA. 75+00 - 90+00



B.M. 2 SPKS. IN 17" OAK
321 LT. STA. 95 + 23
ELEV. 459.14

FOR EARTH QUANTITIES SEE SECOND SHEET BACK

SIDE APPROACHES — W SEC. / RS SEC.

STATION	TYPE	RDWY.	% GR.	EXC. CU.YDS.	EMB. CU.YDS.	WIDTH	LENGTH	RADII	GR. OR CR. ST. SURF. CRSE. TP. A TONS	BIT. MTLS. APPLIED PRIME COAT GALS. MC-0	BIT. CONC. SURF. CRSE. SUB-CL. I II TONS
96+00	P.E.L.	22	14	0	37	—	—	—	—		
96+20	P.E.R.	22	10	0	35	16	49	15	33	10	4
105+00	SPUR CONNECTION			874	65	SEE SPECIAL SHEET					
2B+40(SPUR)	P.E.L.	22	5	0	9	16	35	15	23	10	4
			TOTAL	874	146				56	20	8

PAVEMENT REMOVAL

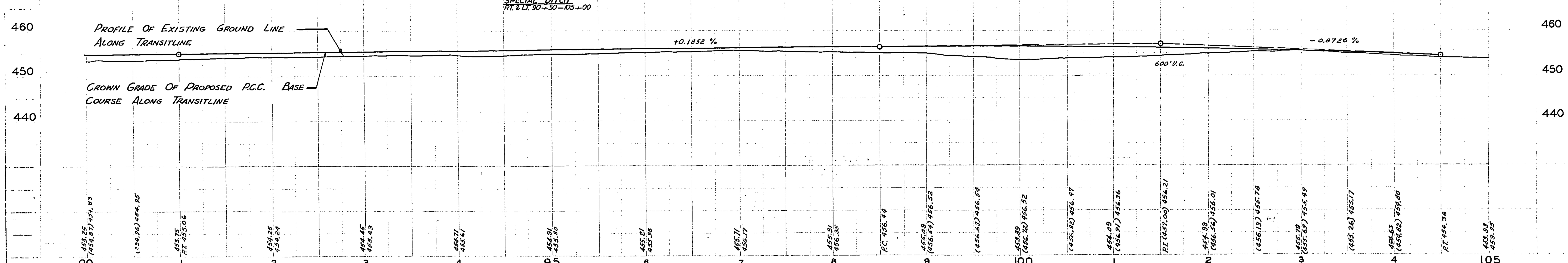
LOCATION	SQ.YDS.
RT. 3B+35 — 105+00	392 (SECOND STAGE)
TOTAL	392

RIGHT OF WAY MARKERS
FURN. & ERECT. 1 EACH
RE-ERECTING 2 EACH

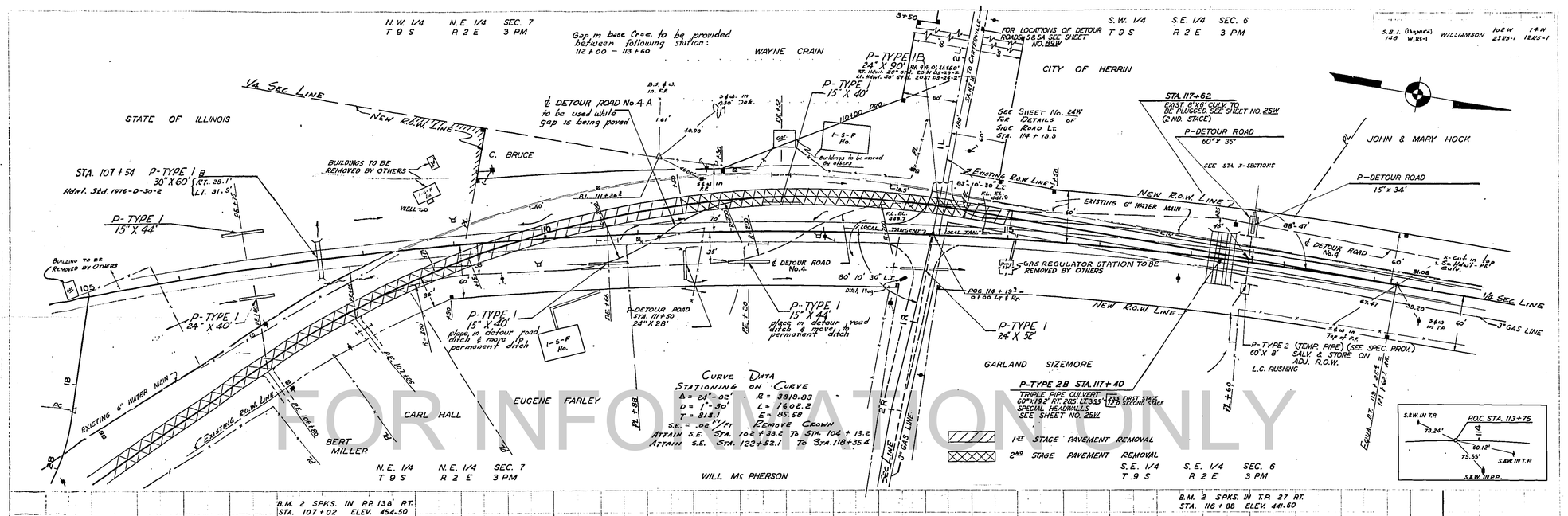
SPECIAL DITCH
RT. & LT. 90+50—105+00

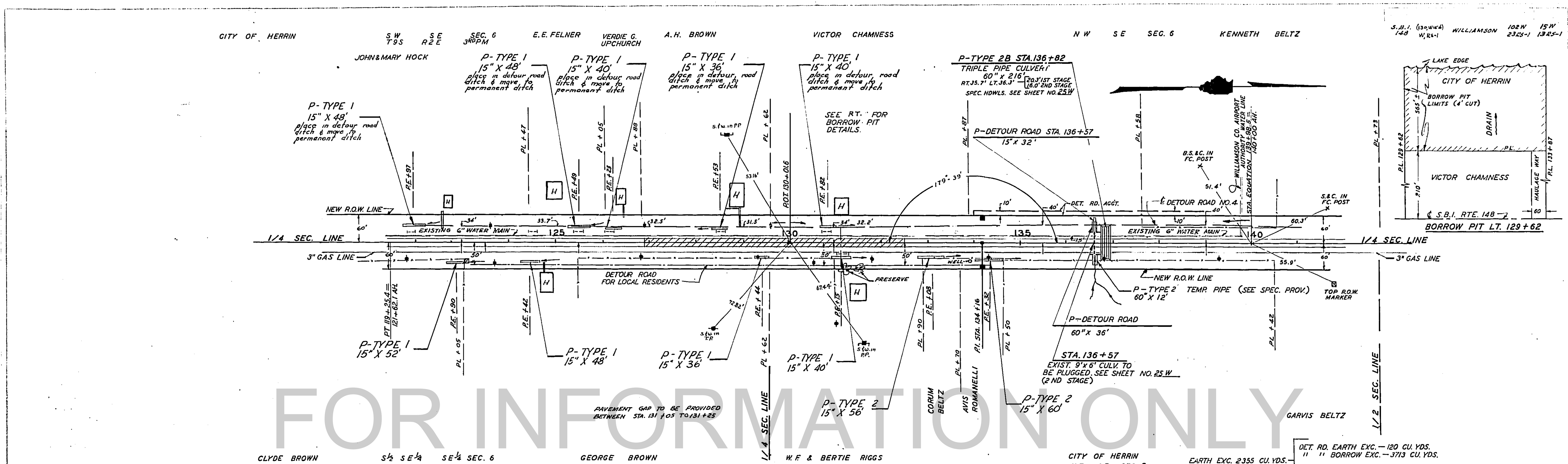
TREE REMOVAL

LOCATION	INCH DIAMETER (6"-15")	(OVER 15")
RT. 95+48	7	0
TOTAL	7	0



S.B.I. RTE. 148 SEC. (130, W15d) W, RS-1 WILLIAMSON CO. STA. 90+00 —105+00





EARTH EXC. 2355 CU. YDS.
- DET. RD. EARTH EXC. — 120 CU. YDS.
- " " BORROW EXC. — 3713 CU. YDS.
- 1 ST. STAGE EARTH EXC. — 120 CU. YDS.
- " " BORROW EXC. — 7989 CU. YDS
- 2 ND. STAGE EARTH EXC. — 1994 CU. YDS. — ANY EXCESS MATERIAL SHALL BE WASTED (SEE SPEC. PROV.)

BORROW EXC. 11702 CU. YDS. (FURNISHED BY STATE)

BM - TOP R.O.W. MKR. 30' LT. STA. 129+58 ELEV. 453.17

B.M. TOP R.O.W. MKR. 35' RT. STA. 140+45 ELEV. 443.21

SEE FOURTH SHEET BACK FOR EARTHWORK QUANTITIES

EARTH FILL 10720 CU. YDS. (O.H. = 8004 CU. YD. STA.
- DET. RD. FILL — 3137 CU. YDS. — 167 CU. YDS. / 2970 CU. YDS. OBTAIN FROM BORROW PIT LT. STA. 129+62
- 1ST STAGE FILL 6472 CU. YDS. — 81 CU. YDS. / 6391 CU. YDS. OBTAIN FROM BORROW PIT LT. STA. 129+62
- 2ND STAGE FILL 3137 CU. YDS. — 167 CU. YDS. / 2970 CU. YDS. OBTAIN FROM BORROW PIT LT. STA. 129+62

RIGHT OF WAY MARKERS

FURN. & ERECT. 1 EACH
RE-ERECTING 1 EACH

SIDE APPROACHES — W SEC. / RS SEC.

STATION	GRADING TYPE	RDWY.	% GR.	EXC. CU.YDS	EMB. CU.YDS	SURFACING WIDTH	LENGTH	RADII	GR. OR CR. ST. SURF. CRSE. TP.A TONS	BIT. MTLS. APPLIED (PRIME COAT) GALS. MC-0	BIT. CONC. SURF. CRSE. SUB-CL. I-II TONS
121+97	P.E.L.	22	9	0	102	16	56	15	36	10	4
122+90	P.E.R.	"	14	0	152	"	49	15	33	10	4
124+42	"	"	6	0	111	"	"	"	33	10	4
125+49	P.E.L.	"	2	0	70	"	"	"	33	10	4
126+23	"	"	5	0	41	"	"	"	33	10	4
128+53	"	"	14	15	28	"	"	"	33	10	4
129+44	P.E.R.	"	13	22	26	"	"	"	33	10	4
130+82	P.E.L.	"	13	9	46	"	"	"	33	10	4
131+15	P.E.R.	"	13	6	48	"	"	"	33	10	4
133+08	"	"	3	0	120	"	"	"	33	10	4
133+32	"	"	14	0	285	"	69	"	44	10	4
TOTAL				52	1029				377	110	44

6 MAIL BOX DRIVES, STOCKPILED AGGREGATE — 60 CU. YDS. (W SEC.) / 30 CU. YDS. (RS SEC.)

PAVEMENT REMOVAL

LOCATION	SQ. YDS.
126+90 — 132+50	1120
136+57	50
TOTAL	1170

TREE REMOVAL

LOCATION	SPECIAL (6" TO 15")	IN. DIA. (OVER 15")
RT. 124+49	13.0	
RT. 124+55	10.5	
RT. 124+65		15.5
RT. 124+74		17.0
RT. 124+84		18.5
LT. 128+35	12.0	
LT. 128+70		19.0
LT. 128+82		15.5
LT. 129+14		18.5
LT. 131+09		17.0
LT. 131+42		20.0
RT. 131+63		33.0
TOTAL	35.5 IN. DIA.	174.0 IN. DIA.

SIDEWALK REMOVAL

LOCATION	SQ. FT.
LT. 122+59	78
RT. 124+80	63
LT. 128+94	46
TOTAL	187

SPECIAL DITCH

LT. & RT. 122+00 — 136+57
RT. 137+00 — 138+50
LT. & RT. 138+50 — 141+00

TREE REMOVAL (6" TO 15" DIA.) (OVER 15" DIA.)

	6" TO 15" DIA.	OVER 15" DIA.
RT. & LT. 123+04 — 136+68	436	18
TOTAL	436 IN. DIA.	18 IN. DIA.

TEMPORARY GUIDE POSTS (D. RD. LT. ℄)

RT. 122+00 — 125+50	50' CTRS.	8 EACH
LT. 132+50 — 133+50	50' CTRS.	3 EACH
LT. 133+50 — 136+00	25' CTRS.	11 EACH
LT. 136+00 — 137+25	12.5' CTRS.	10 EACH
RT. 135+00 — 136+00	50' CTRS.	3 EACH
RT. 136+00 — 137+25	12.5' CTRS.	10 EACH
RT. 137+25 — 140+25	50' CTRS.	6 EACH
LT. 137+25 — 139+25	25' CTRS.	8 EACH
LT. 139+25 — 141+00	50' CTRS.	4 EACH
	TOTAL	63

GUIDE POSTS

RT. & LT. 134+00 — 140+00 50 CTRS. 26 EACH

CONSTRUCT DETOUR ROAD FOR LOCAL RESIDENTS RT. STA. 122+90 TO STA. 134+32 CROSSOVER AT STA. 131+15 8' WIDE 4" THICK, UNCOMPACTED.
157 TONS GR. OR CR. STONE SURFACE COURSE, TYPE 'B'.

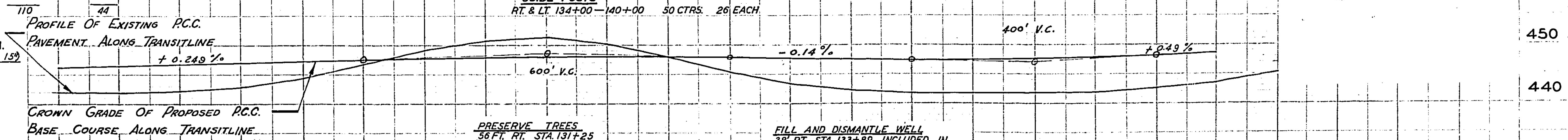
PAVED DITCH

LT. 139+90 — 141+00	TYPE 2	110 LIN. FT.
RT. 139+90 — 141+00	TYPE 2	110 LIN. FT.
	TOTAL	220

DETOUR ROAD NO. 4A RT. STA. 110+00 TO LT. STA. 112+30 QUANTITIES ARE INCLUDED IN DETOUR ROAD NO. 4 QUANTITIES

DETOUR ROAD NO. 4 RT. STA. 108+00 TO LT. STA. 146+77 SURFACED 20' WIDE 8" COMPACTED THICKNESS, EARTHWORK INCLUDED IN BALANCE QUANTITIES

2546 CU. YDS. SALVAGED AGGREGATE [1557 C.Y. OBTAINED FROM D.R. NO. 6 / 989 C.Y. " " D.R. NO. 2] ORIGINAL CONSTR.
18.6 TONS CALCIUM CHLORIDE APPLIED
848 CU. YDS. STOCKPILED AGGREGATE / 6.2 TONS CALCIUM CHLORIDE APPLIED — MAINTENANCE
REMOVE AGGREGATE (1910 CU. YDS. EST.) AND STOCKPILE
848 CU. YDS. STOCKPILED AGGREGATE
1910 CU. YDS. STOCKPILING SALVAGED AGGREGATE



PRESERVE TREES

56 FT. RT. STA. 131+25
55 FT. RT. STA. 131+54

FILL AND DISMANTLE WELL 38' RT. STA. 133+89 INCLUDED IN BALANCE QUANTITIES.

SEE CULVERT DETAIL FOR FL. ELEV.

TEMPORARY TIMBER BULKHEAD REQUIRED RT. & LT. 136+57 COST INCIDENTAL TO CONTRACT (SEE X-SECTIONS)

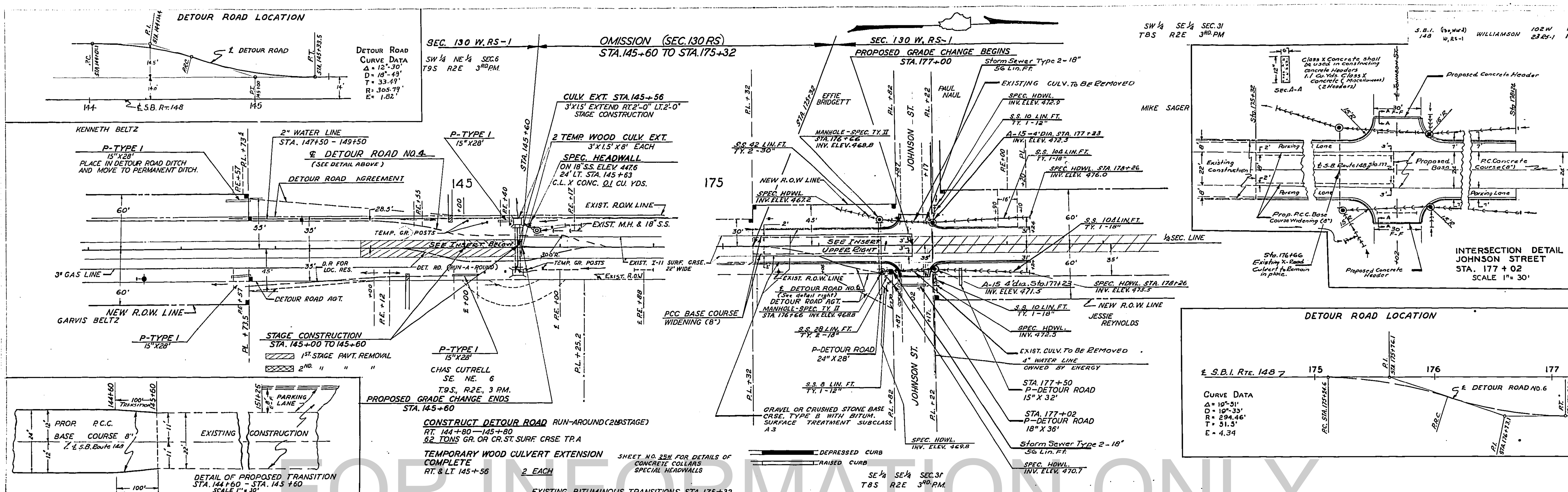
CONCRETE DITCH CHECK 3' WEIR OPENING

LOCATION	NUMBER	CL. X CONC. CU. YDS.	REINF. BARS. LBS.
LT. 132+50 — 133+50	2	1.4	34
RT. 132+50 — 133+50	2	1.4	34
TOTAL		2.8	68

2 3 4 125 6 7 8 9 130 1 2 3 4 135 6 7 8 9 140 1

S.B.I. RTE. 148 SEC. (130, W15d) W,RS-1 WILLIAMSON CO. STA. 122+00 - 141+00

S.B.I. RT. 148 SEC. (130,W15d)W,RS-1 WILLIAMSON CO. STA. 141+00-179+00



CONSTRUCT DETOUR ROAD RUN-AROUND (2ND STAGE)
RT. 144+60—145+80
62 TONS GR. OR CR. ST. SURF. CRSE. TR.A

TEMPORARY WOOD CULVERT EXTENSION COMPLETE
RT. & LT. 145+56 2 EACH

SHEET NO. 25R FOR DETAILS OF CONCRETE COLLARS SPECIAL HEADWALLS

EXISTING BITUMINOUS TRANSITIONS STA. 175+32 TO BE REMOVED, COST TO BE INCIDENTAL TO CONTRACT (RS SEC.)

B.M. TOP R.O.W. MKR. 35' RT. STA. 140+45 - ELEV. 443.21

B.M.-D CUT IN NW. COR. N. H'WALL OF CULV. 22' LT. STA. 177+99 - ELEV. 479.17

SEE PRECEEDING SHEET BACK FOR EARTHWORK QUANTITIES

SEE FOLLOWING SHEET FOR EARTHWORK QUANTITIES

SIDE APPROACHES

	W SEC.									RS SEC.	
STATION	TYPE	GRADING RDWY.	% GR.	EXC. CU.YDS.	EMB. CU.YDS.	SURFACING WIDTH	LENGTH	RADII	GR. OR CR. ST. SURF. CRSE. TR.A TONS	BIT. MTLS. APPLIED (PRIME COAT) GALS. MC-0	BIT. CONC. SURF. CRSE. SUB-CL. I-II TONS
142+57	P.E.R.	22	6	0	24	16	36	15	23	10	4
142+57	P.E.L.	22	4	0	24	"	36	5	22	10	4
144+12	P.E.R.	"	10	0	15	"	24	15	18	10	4
144+55	P.E.L.	"	10	0	11	"	"	15	18	10	4
145+00	P.E.R.	"	8	0	11	"	"	15	18	10	4
145+40	P.E.L.	"	6	0	11	"	"	15	18	10	4
177+02	S.R.L.	26	—	—	—	20	40	—	18	15	4
177+02	S.R.R.	26	—	—	—	20	40	—	30	15	4
178+00	P.E.L.		—	—	—	—	—		11	10	4
			TOTAL	0	96				176	100	36

3 MAIL BOX DRIVES STOCKPILED AGGREGATE — 30 CU. YDS. (W SEC.) / 15 CU. YDS. (RS SEC.)

SIDEWALK REMOVAL

RT. 144+60	48
LT. 144+83	39
	87 SQ. FT.

RIGHT OF WAY MARKERS
FURN. & ERECT. 10 EACH

PAVEMENT REMOVAL

LOCATION	SQ.YDS.
143+90—145+60	350
177+00—179+00	400
LT. 175+32-176+07	10 (TRANSITION)
TOTAL	760

GUTTER OUTLET REMOVAL

LOCATION	LIN. FT.
RT. & LT. 176+63—176+87	48
TOTAL	48

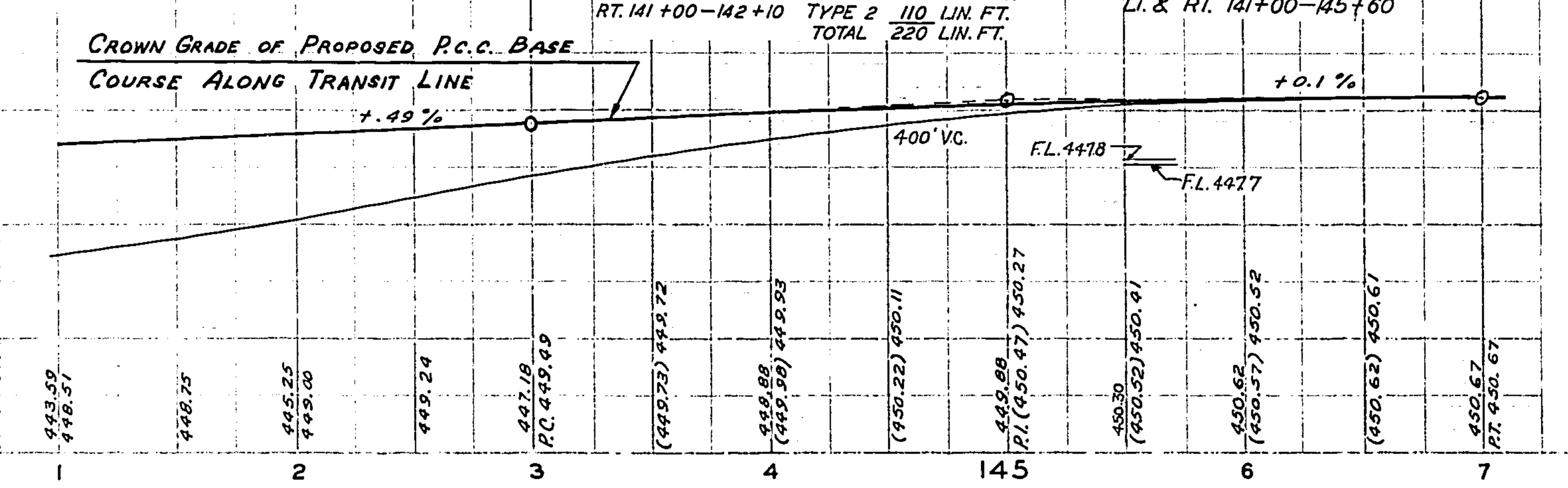
COMBINATION CONCRETE CURB & GUTTER

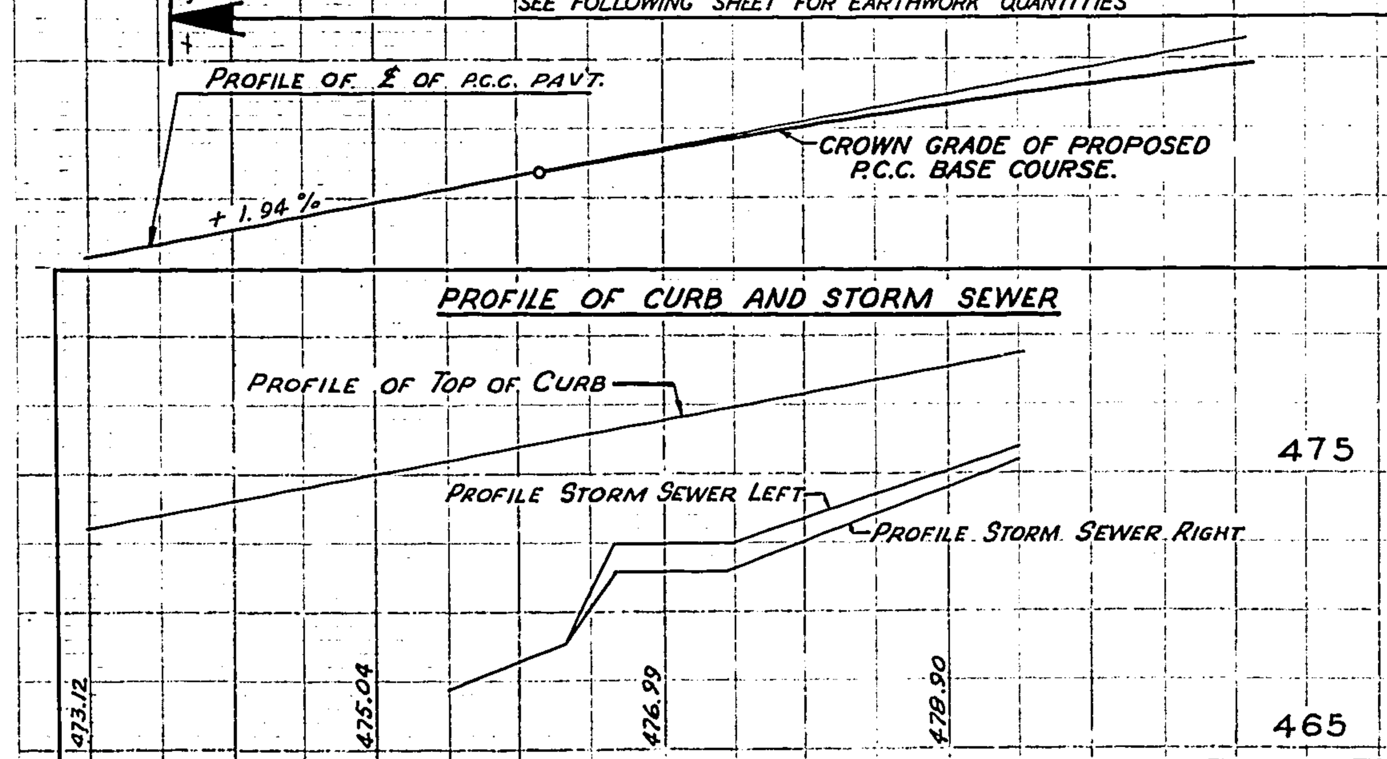
LOCATION	TYPE	LIN. FT.
RT. & LT. 175+32—178+24	5	558.2
TOTAL		558.2

PAVED DITCH

LT. 141+00—142+10	TYPE 2	110 LIN. FT.
RT. 141+00—142+10	TYPE 2	110 LIN. FT.
	TOTAL	220 LIN. FT.

SPECIAL DITCH
LT. & RT. 141+00—145+60





TEMPORARY GUIDE POSTS

LT. 145+00 — 146+00	25' CTRS.	5 EACH
RT. 176+00—177+00	25' CTRS.	5 EACH
RT. 145+20—145+80	20' CTRS.	4 EACH
TOTAL		14

TREE REMOVAL (6" TO 15" DIA.)

LOCATION	
RT. 142+00—142+55	41
TOTAL	41 IN. DIA.

CONSTRUCT PARKING LANES
7' WIDE & 6" THICK, WITH GR. OR CR. STONE BASE CSE. TY. B WITH BIT. SURF. TREATMENT. SUB-CLASS A-3 LT. & RT. STA. 175+32 TO STA. 178+24.

GR. OR CR. STONE BASE CRSE TYPE B	171	TONS	W-SEC.
BIT. MAT'L. (PRIME COAT) MC-0	192	GALS.	RS-SEC.
BIT. MAT'L. (COVER & SEAL COAT) MC-5	385	GALS.	RS-SEC.
COVER COAT AGG.	13	TONS.	RS-SEC.
SEAL COAT AGG.	8	TONS.	RS-SEC
GR. OR CR. STONE BASE CSE, TY. B	57	TONS.	RS-SEC.

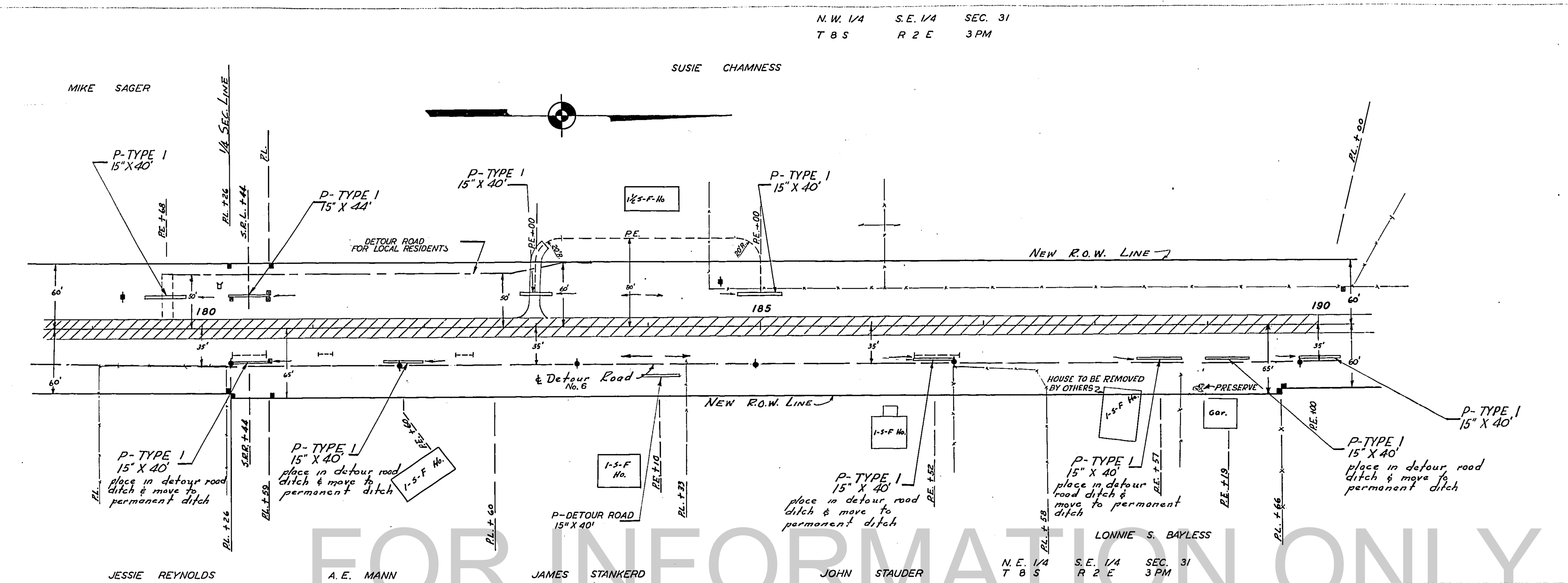
CONSTRUCT DETOUR ROAD FOR LOCAL RESIDENTS
RT. STA. 142+62 TO STA. 145+00 — 8' WIDE, 4" THICK, UNCOMPACTED 30 TONS GR. OR CR. STONE SURFACE COURSE, TYPE B.

DETOUR ROAD NO. 4 SEE PRECEEDING SHEETS.

DETOUR ROAD NO. 6 SEE 2ND SHEET AHEAD.

PRESERVE EVERGREEN SHRUBS
RT. STA. 176+06 & 176+11.

NOTE: TEMPORARY BITUMINOUS TRANSITION STA. 145+40—STA. 145+60 TO BE BUILT AS DIRECTED BY THE ENGINEER. THE PLACEMENT (W. SEC.) AND THE REMOVAL (RS. SEC.) OF THE TEMPORARY BITUMINOUS TRANSITION WILL NOT BE PAID FOR DIRECTLY, BUT SHALL BE CONSIDERED AS INCIDENTAL TO THE CONTRACT.



EARTH EXC. = 16873 CU.YDS.
- DETOUR ROAD EARTH EXC. = 1533 CU.YDS.
- 1ST. STAGE EARTH EXC. = 10108 CU.YDS. — 9258 CU.YDS.; 850 " " . PLACE IN DETOUR ROAD.
- 2ND. " " " = 5232 " " — ANY EXCESS MATERIAL SHALL BE WASTED IN WASTE BANKS SHOWN ON THE PLANS.

EARTH FILL = 12088 CU.YDS.
- DETOUR ROAD EARTH FILL = 1785 CU.YDS. — 1094 CU. YDS.; 691 " " OBTAIN FROM 1ST. STAGE.
- 1ST. STAGE EARTH FILL = 7458 CU.YDS.
- 2ND. " " " = 2845 " "

O.H. = 6057 CU. YD. STA

PRESERVE TREE
59 FT. RT. STA. 188 + 86

RIGHT OF WAY MARKERS

FURN. & ERECT.	2 EACH
RE-ERECTING	5 EACH

TREE REMOVAL

LOCATION	INCH DIAMETER (6"–15")	(OVER 15")
RT. 186 + 16 — 186 + 50	12	0
RT. & LT. 187 + 94 — 189 + 95	0	121.0
TOTAL	12	121.0

PAVEMENT REMOVAL

LOCATION	SQ.YDS.
179+00 — 190+00	2200
TOTAL	2200

TREE REMOVAL (SPECIAL)

LOCATION	INCH DIAMETER (6"–15")	(OVER 15")
LT. 183 + 31	7	0
RT. 188 + 06	0	43.5
TOTAL	7	43.5

GUTTER REMOVAL

LOCATION	LIN-FT.
RT. & LT. 186+96 — 190+00	608
TOTAL	608

SPECIAL DITCH
LT. & RT. 183 + 00 — 184 + 40

TEMPORARY GUIDE POST
RT. 188 + 00 — 190 + 00 50' CTRS. 5 EACH
TOTAL 5

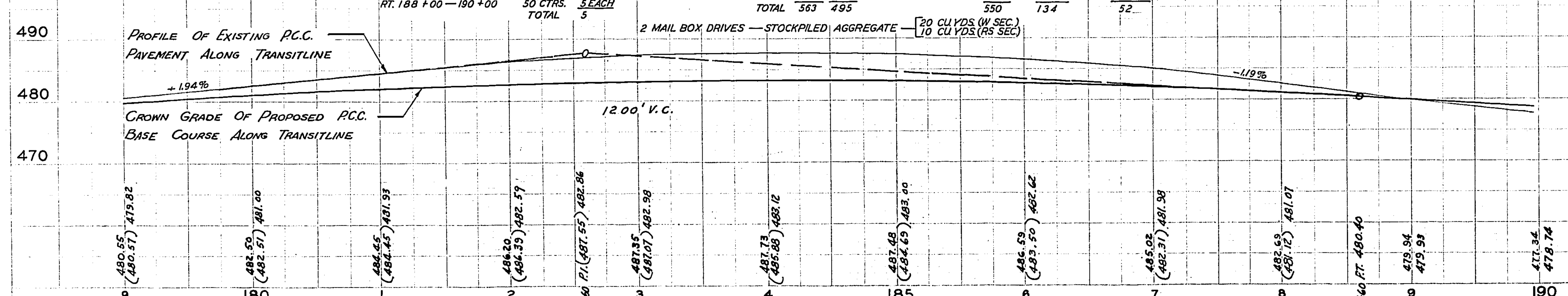
SIDE APPROACHES — W SEC. / RS SEC.

STATION	GRADING TYPE	RDWY.	% GR.	EXC. CU.YDS.	EMB. CU.YDS.	SURFACING WIDTH	LENGTH	RADII	GR. OR CR. ST. SURF. CRSE. TY. A TONS	BIT. MTLS. APPLIED (PRIME COAT) GALS. MC-0	BIT. CONC. SURF. CRSE. SUB-CL. I II TONS
179+68	P.E.L.	22	2	0	35	16	49	15	32	10	4
180+44	S.R.L.	24	1	8	37	18	51	35	55	22	8
180+44	S.R.R.	"	8	40	38	"	70	35	66	22	8
181+60	P.E.R.	22	14	74	33	16	69	15	44	10	4
183+00	P.E.L.	"	"	107	37	"	80	15	51	10	4
80' LT. 183+20 TO 184+80	P.E.L.			—	—	10	160	20	59	—	—
184+10	P.E.R.	22	15	156	30	16	82	15	52	10	4
185+00	P.E.L.	"	14	113	37	"	80	15	51	10	4
186+52	P.E.R.	"	12	65	37	"	68	15	44	10	4
188+57	"	"	6	0	61	"	39	15	26	10	4
189+19	"	"	6	0	89	"	54	15	37	10	4
190+00	"	"	10	0	61	"	49	15	33	10	4
TOTAL				563	495				550	134	52

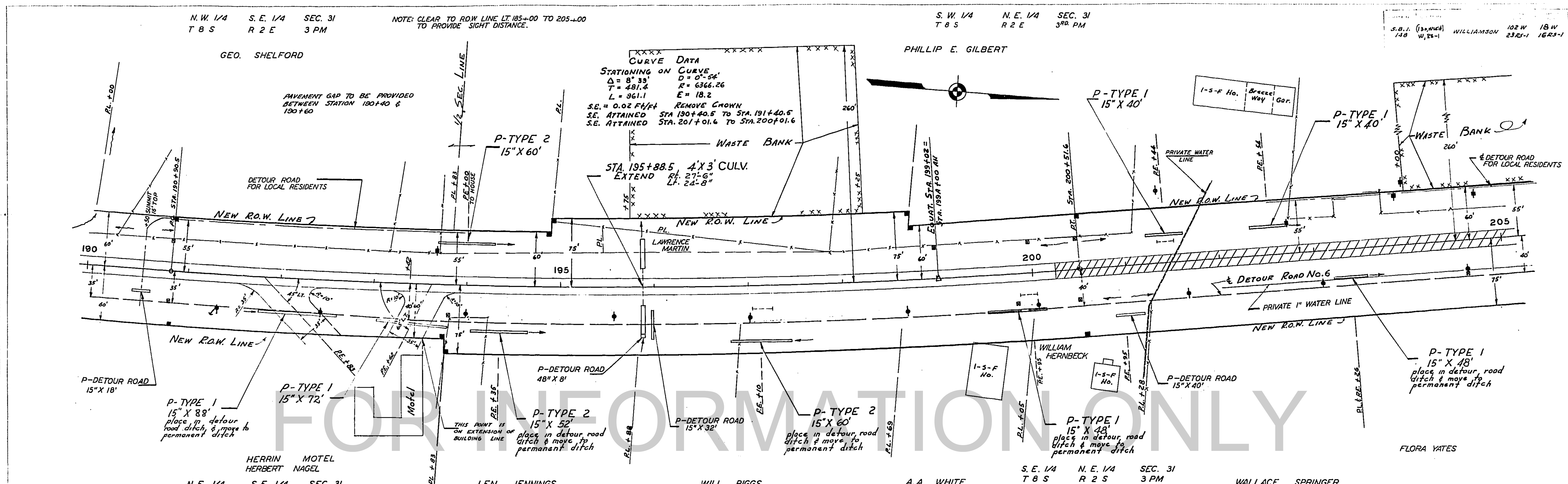
2 MAIL BOX DRIVES — STOCKPILED AGGREGATE — 20 CU.YDS. (W SEC.); 10 CU.YDS. (RS SEC.)

CONSTRUCT DETOUR ROAD FOR LOCAL RESIDENTS
LT. STA. 179 + 68 TO STA. 183 + 60 8' WIDE 4" THICK, UNCOMPACTED
50 TONS GR. OR CR. STONE SURFACE COURSE, TYPE B.

DETOUR ROAD NO. 6 SEE FOLLOWING SHEETS.



S.B.I. RTE. 148 SEC (130, W15d) W,RS-1 WILLIAMSON CO. STA. 179 + 00 – 190 + 00



N.W. 1/4 S.E. 1/4 SEC. 31
T 8 S R 2 E 3 PM
NOTE: CLEAR TO ROW LINE LT. 185+00 TO 205+00 TO PROVIDE SIGHT DISTANCE.
S.W. 1/4 N.E. 1/4 SEC. 31
T 8 S R 2 E 3RD. PM
GEO. SHELFORD
PHILLIP E. GILBERT
CURVE DATA
STATIONING ON CURVE
PAVEMENT GAP TO BE PROVIDED BETWEEN STATION 190+40 & 190+60
WASTE BANK
STA. 195+88.5 4'X3' CULV.
EXTEND
P-TYPE 2
15" X 60'
P-TYPE 1
15" X 40'
DETOUR ROAD FOR LOCAL RESIDENTS
NEW R.O.W. LINE
LAWRENCE MARTIN
DETOUR ROAD No. 6
PRIVATE 1" WATER LINE
PRIVATE WATER LINE
P-DETOUR ROAD
15" X 18'
P-TYPE 1
15" X 88'
place in detour road ditch & move to permanent ditch
P-TYPE 1
15" X 72'
P-TYPE 2
15" X 52'
place in detour road ditch & move to permanent ditch
P-DETOUR ROAD
48" X 8'
P-DETOUR ROAD
15" X 32'
P-TYPE 2
15" X 60'
place in detour road ditch & move to permanent ditch
P-TYPE 1
15" X 48'
place in detour road ditch & move to permanent ditch
P-DETOUR ROAD
15" X 40'
P-TYPE 1
15" X 48'
place in detour road ditch & move to permanent ditch
WILLIAM HERNBECK
Motel
HERRIN MOTEL
HERBERT NAGEL
FLORA YATES

N.E. 1/4 S.E. 1/4 SEC. 31
T 8 S R 2 E 3RD. PM

LEN JENNINGS — WILL RIGGS — A.A. WHITE

S.E. 1/4 N.E. 1/4 SEC. 31
T 8 S R 2 S 3 PM

WALLACE SPRINGER

B.M. 2 SPKS. IN T.P. 25' RT.
STA. 198 + 67 ELEV. 470.24

SEE PRECEEDING SHEET FOR EARTHWORK QUANTITIES

SEE FOLLOWING SHEET FOR EARTHWORK QUANTITIES

RIGHT OF WAY MARKERS
FURN. & ERECT 1 EACH
RE-ERECTING 9 EACH

PAVEMENT REMOVAL

LOCATION	SQ.YDS.
200+25 — 205+00	950
TOTAL	950

CONCRETE DITCH CHECKS 3' WEIR OPENING

LOCATION	NUMBER	CLASS "X" CONC. CU YDS.	REIN. BARS. LBS.
RT. 194+00 — 195+00	3	2.1	51
LT. 198+47 — 198+94	2	1.4	34
TOTAL		3.5	85

TREE REMOVAL

LOCATION	INCH DIAMETER (6"–15")	INCH DIAMETER (OVER 15")
RT. & LT. 190+10 — 197+86	163.0	158
RT. & LT. 199+08 — 202+65	160.0	16.5
TOTAL	323.0	174.5

TREE REMOVAL (SPECIAL)

LOCATION	INCH DIAMETER (6"–15")	INCH DIAMETER (OVER 15")
RT. 193+63	0	15.5
TOTAL	0	15.5

SPECIAL DITCH
LT. & RT. 190+42 — 195+90
RT. 195+00 — 197+56
LT. & RT. 197+56 — 201+00

DITCH PLUG
LT. STA. 190+50
INCLUDED IN BALANCE QUANTITIES

PAVED DITCH
LT. 195+00 — 195+75 TYPE 2 75 LIN. FT.
TOTAL 75 LIN. FT.

DETOUR ROAD NO. 6 RT. STA. 175+14.6 TO STA. 223+65
SURFACED 20 FEET WIDE, 8" COMPACTED THICKNESS
EARTHWORK INCLUDED IN BAL. QUANTITIES
4678 TONS GR. OR CR. STONE SURFACE COURSE, TYPE A } ORIGINAL CONST.
26.3 TONS CALCIUM CHLORIDE APPLIED } ORIGINAL CONST.
1559 TONS GR. OR CR. STONE } MAINTENANCE
8.8 TONS CALCIUM CHLORIDE APPLIED } MAINTENANCE
REMOVE AGGREGATE (2699 CU. YDS. EST.) AND USE
461 CU. YDS. ORIGINAL CONSTRUCTION DETOUR ROAD NO. 3
1557 CU. YDS. " " " " NO. 4
300 CU. YDS. " " " " NO. 5 & 5A
381 CU. YDS. MAINTENANCE DETOUR ROAD NO. 3, NO. 5, & 5A
2318 CU. YDS. SALVAGED AGGREGATE
381 CU. YDS. STOCKPILING SALVAGED AGGREGATE

CONSTRUCT DETOUR ROADS FOR LOCAL RESIDENTS
LT. STA. 190+50 TO STA. 194+00 CROSS OVER AT 190+50,
LT. STA. 202+54 TO STA. 206+80
8' WIDE, 4" THICK, UNCOMPACTED
111 TONS GR. OR CR. STONE SURF. COURSE, TYPE B.

GUIDE POSTS
RT. & LT. 195+00 — 198+00 50' CTRS. 14 EACH
TOTAL 14 EACH

EQUATION STA. 199+02 = STA. 199+00 AHEAD

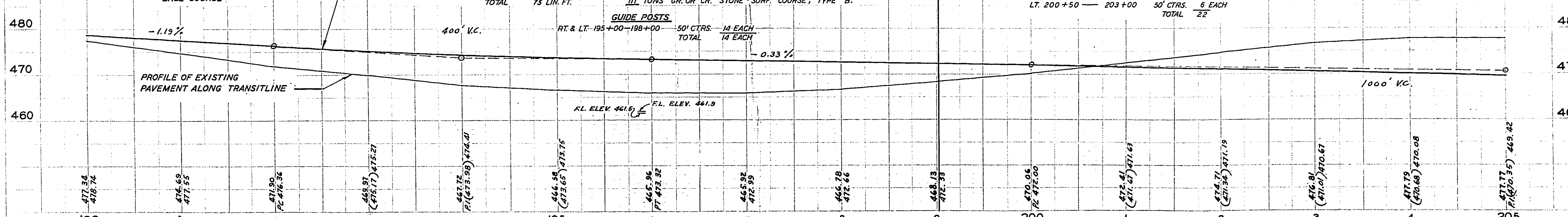
SIDE APPROACHES

STATION	GRADING TYPE	RDWY.	% GR.	EXC. CU.YDS.	EMB. CU.YDS.	SURFACING WIDTH	LENGTH	RADII	W SEC. GR. OR CR. ST. SURF. CRSE. TP. A TONS	RS SEC. BIT. MTLS. APPLIED (PRIME COAT) GALS. MC-0	RS SEC. CRSE. SUB. CL. I II TONS
191+83	P.E.R.	41	3	0	126	35	70	SEE ABOVE	91	41	15
193+62	"	"	6	0	111	"	55	" "	71	18	7
194+00	P.E.L.	22	6	0	196	16	61	15	40	10	4
194+35	P.E.R.	"	14	0	191	16	61	15	40	10	4
197+10	"	"	12	0	369	"	76	15	48	10	4
199+95	"	"	8	0	76	"	64	15	42	10	4
200+95	"	"	12	74	26	"	76	15	48	10	4
201+44	P.E.L.	"	10	98	37	"	78	15	44	10	4
202+54	"	"	12	157	37	"	86	15	55	10	4
203+26	P.E.R.	30	14	220	33	24	89	15	82	14	5
		TOTAL		549	1202				566	143	55

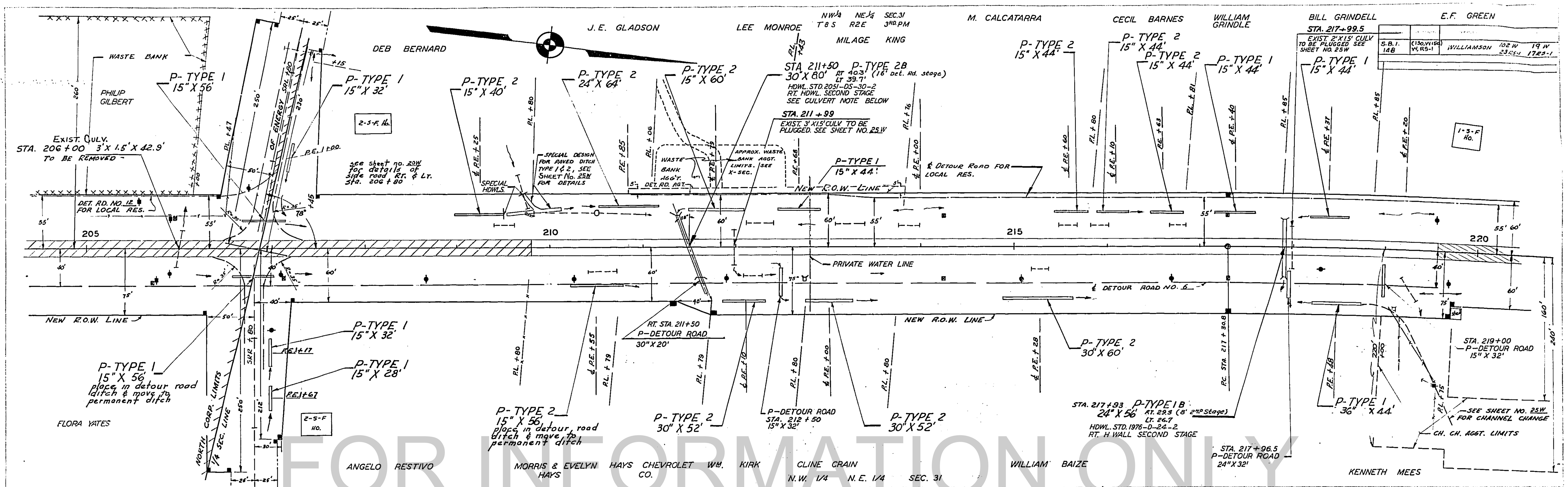
4 MAIL BOX DRIVES — STOCKPILED AGGREGATE — 40 CU. YDS. (W SEC.) / 20 CU. YDS. (RS SEC)

TEMPORARY GUIDE POSTS
RT. & LT. 195+00 — 196+00 25' CTRS. 10 EACH
RT. & LT. 196+00 — 197+50 50' CTRS. 6 EACH
LT. 200+50 — 203+00 50' CTRS. 6 EACH
TOTAL 22

STEEL PLATE BEAM GUARD RAIL
RT. STA. 191+00 TO 194+00
SEE SHEET NO. 26W



S.B.I. RTE. 148 SEC. (130, W15d) W, RS-1 WILLIAMSON CO. STA. 190+00 — 205+00



B.M. ☐ CUT IN S.W. COR. W. HD WALL 20 LT. STA. 217+97 ELEV. 455.64

EARTH EXC. = 24528 CU. YDS.
- DETOUR ROAD EARTH EXC. = 1350 CU. YDS.
- 1ST STAGE EARTH EXC. = 15956 CU. YDS. — ANY EXCESS MATERIAL SHALL BE WASTED IN WASTE BANKS SHOWN ON THE PLANS.
- 2ND " " " = 7222 " " — 202 CU. YDS. PLACE IN BALANCE STA. 217+28 – STA. 224+00. ANY EXCESS MATERIAL SHALL BE WASTED IN WASTE BANKS SHOWN ON THE PLANS.
- CHANNEL EXCAVATION = 316 CU. YDS.

SEE FOLLOWING SHEET FOR EARTHWORK QUANTITIES

EARTH FILL = 10951 CU. YDS.
- DETOUR ROAD EARTH FILL = 943 CU. YDS.
- 1ST STAGE EARTH FILL = 7317 CU. YDS.
- 2ND " " " = 2691 " "

O.H. = 101 CU. YD. STA.

RIGHT OF WAY MARKERS

FURN. & ERECT. 10 EACH
RE-ERECTING 7 EACH

PAVEMENT REMOVAL

LOCATION	SQ. YDS.
205+00–209+80	960
211+50–	17
217+93	14
219+55–220+00	90
TOTAL	1081

TREE REMOVAL

LOCATION	INCH DIAMETER (6"–15")	INCH DIAMETER (OVER 15")
RT. & LT. 206+61–211+64	20.5	106.5
RT. & LT. 215+09–219+74	98.5	15.5
TOTAL	119.0	122.0

TRENCH BACKFILL

LOCATION	CU. YDS.
211+50	7
217+93	5
TOTAL	12

GUTTER REMOVAL

LOCATION	LIN. FT.
RT. & LT. 207+12–209+80	536
TOTAL	536

NEW CHANNEL: RT. STA. 218+85. BOTTOM WIDTH 3', SIDE SLOPE 2:1. PLACE MATERIAL AS DIRECTED BY THE ENGINEER. 316 CU. YDS. CHANNEL EXC. EST.

SPECIAL DITCH

RT. & LT. 209+50 – 213+70
RT. 213+70 – 217+00
RT. & LT. 217+00 – 219+55

TEMPORARY GUIDE POSTS

RT. 211+50 – 220+00 50' CTRS. 18 EACH
TOTAL 18

PAVED DITCH

LT. 209+45–209+80	TYPE 2	35 LIN. FT.
LT. 209+80	TYPE 2	18 LIN. FT.
LT. 209+80–210+10	TYPE 1	30 LIN. FT.
RT. 210+90–211+50	TYPE 2	60 LIN. FT.
TOTALS	TYPE 2	113 LIN. FT.
	TYPE 1	30 LIN. FT.

SIDE APPROACHES W SEC

STATION	GRADING TYPE	RDWY.	% GR.	EXC. CU. YDS.	EMB. CU. YDS.	SURFACING WIDTH	SURFACING LENGTH	RADII	GR. OR CR. ST. SURF. CRSE. TP. A TONS	BITUM. MTLS. (PRIME COAT) MC-0 GALS.	BITUM. CONC. SURF. CRSE. SUB-CL. I-11 TONS
206+80	S.R.L.	26	0.12	1161	35	20	219	35	187	63	23
206+80	S.R.R.	"	2.5	1394	17	"	"	35	182	63	23
1L+00	P.E.R.	22	1.4	74	28	16	53	15	84	10	4
1R+17	P.E.L.	"	14	17	31	"	34	15	24	10	4
1R+67	"	"	12	15	28	"	32	15	22	10	4
209+25	"	"	6	65	85	"	49	15	33	10	4
210+55	P.E.R.	"	2	0	91	"	60	15	40	10	4
210+85	P.E.L.	"	1	0	150	"	60	15	40	10	4
211+79	"	"	4	0	361	"	110	15	94	10	4
212+10	P.E.R.	"	8	0	233	"	60	15	40	10	4
213+00	"	"	10	0	267	"	80	15	50	10	4
214+00	P.E.L.	"	5	0	78	"	52	15	34	10	4
215+28	P.E.R.	30	7	0	183	24	60	30	77	22	8
215+60	P.E.L.	22	4	0	65	16	49	15	33	10	4
216+10	"	"	7	0	63	"	"	15	33	10	4
216+63	"	"	"	0	63	"	50	15	33	10	4
217+40	"	"	10	0	74	"	49	15	33	10	4
218+37	"	"	4	0	50	16	"	15	33	10	4
218+48	P.E.R.	30	7	0	133	24	"	30	58	22	8
219+20	P.E.L.	22	5	0	0	16	"	15	33	10	4
212+68	P.E.L.	22	12	0	112	16	49	15	33	10	4
TOTAL				2726	2147				1192	340	130

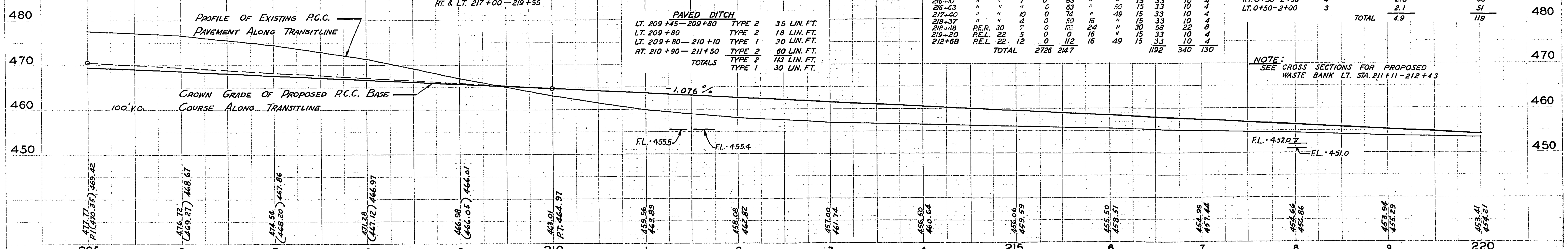
DETOUR ROAD NO. 6 SEE PRECEDING SHEET.

CONSTRUCT DETOUR ROAD FOR LOCAL RESIDENTS LT. STA. 210+85 TO STA. 221+20 8' WIDE 4" THICK, UNCOMPACTED 133 TONS GR. OR CR. STONE SURF. COURSE, TYPE B.

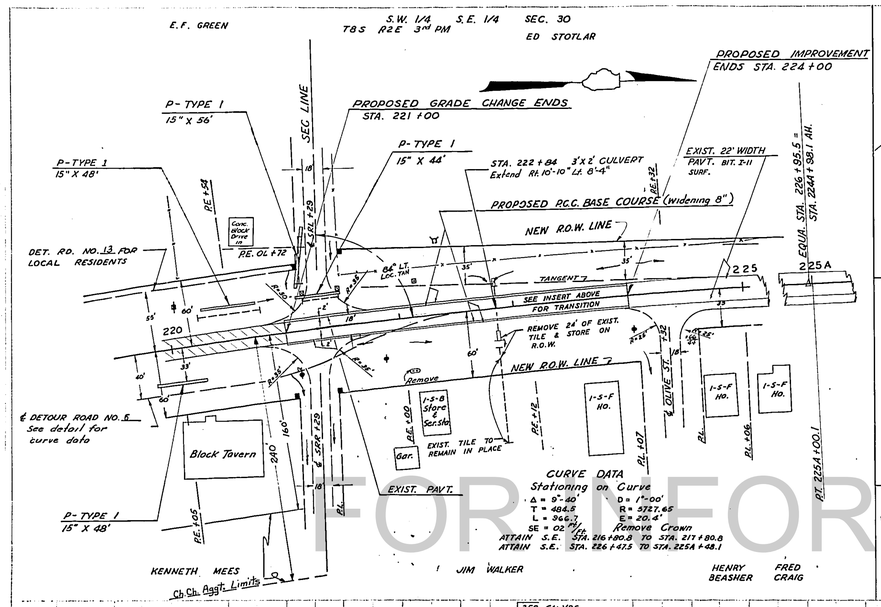
CONCRETE DITCH CHECKS 3' WEIR OPENING

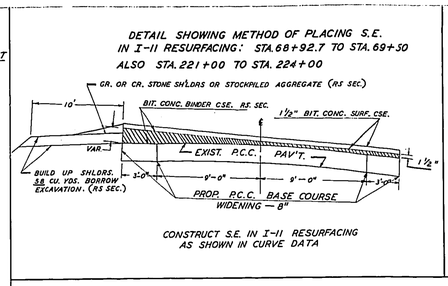
LOCATION	NUMBER	CL. X CONC. CU. YDS.	REINF. BARS LBS.
S.R.R. 206+80			
RT. 0+50–2+50	4	2.8	68
LT. 0+50–2+00	3	2.1	51
TOTAL		4.9	119

NOTE: SEE CROSS SECTIONS FOR PROPOSED WASTE BANK LT. STA. 211+11 – 212+43

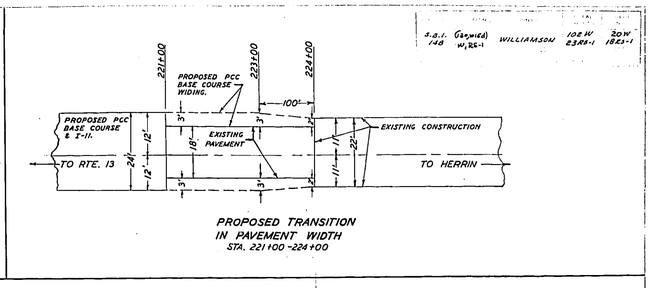


S.B.I. RTE 14B SEC. (130, W15d) W. RS-1 WILLIAMSON CO. STA. 205+00 – 220+00

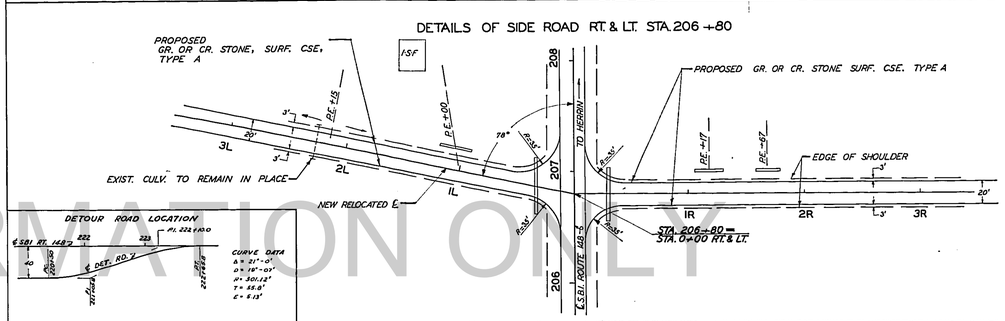


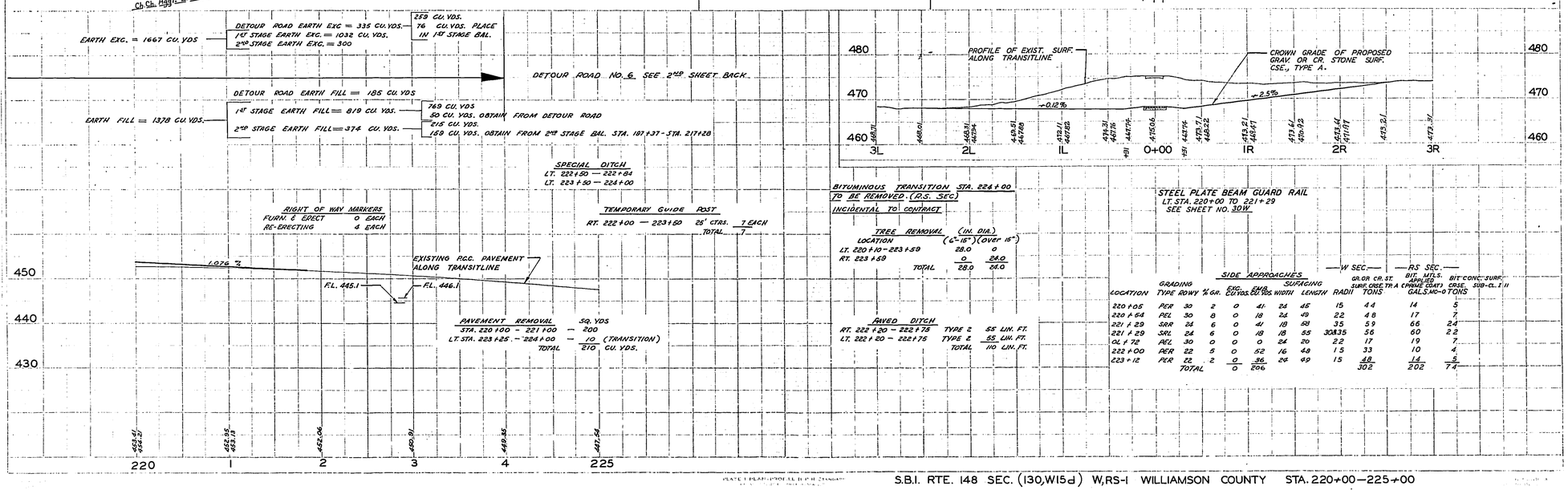


CONSTRUCT S.E. IN I-11 RESURFACING AS SHOWN IN CURVE DATA



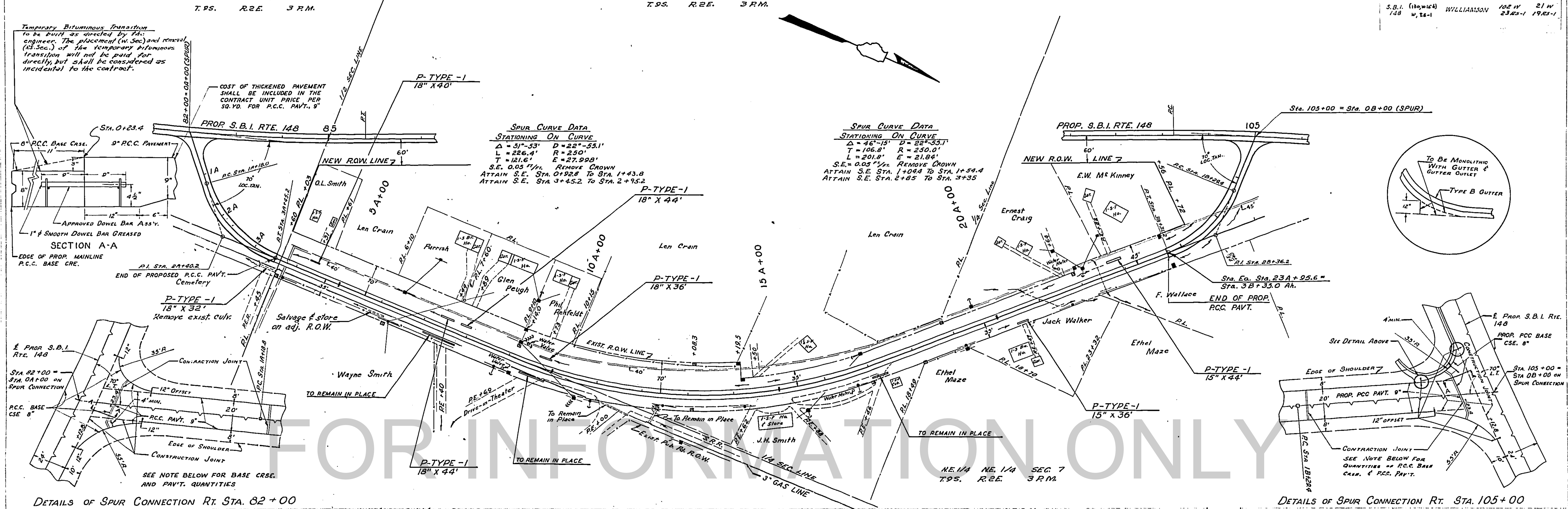
PROPOSED TRANSITION IN PAVEMENT WIDTH
STA. 221+00 - 224+00





LOCATION	GRADING TYPE	ROWY	% GR.	SIDE APPROACHES EXC. CU YDS.	SIDE APPROACHES EMB. CU YDS.	SURFACING WIDTH	SURFACING LENGTH	SURFACING RADII	W SEC. GR. OR CR. ST. SURF. CSE TY A TONS	RS SEC. BIT. MTLS. APPLIED (PRIME COAT) GALS. MC-0	RS SEC. BIT. CONC. SURF. CSE. SUB-CL. I 11 TONS
220+05	PER	30	2	0	41	24	45	15	44	14	5
220+64	PEL	30	8	0	18	24	49	22	48	17	7
221+29	SAR	24	6	0	41	18	68	35	59	66	24
221+29	SAL	24	6	0	18	18	55	30&35	56	60	22
OL+72	AEL	30	0	0	0	24	20	2.2	17	19	7
222+00	AER	22	5	0	52	16	46	1.5	33	10	4
223+12	PER	22	2	0	36	24	99	15	48	14	5
	TOTAL			0	206				302	202	74

S.B.I. RTE. 148 SEC. (130, W15d) W, RS-I WILLIAMSON COUNTY STA. 220+00—225+00


N.E. 1/4 S.E. 1/4 SEC. 7
T. 9S. R.2E. 3 P.M.
S.E. 1/4 N.E. 1/4 SEC. 7
T. 9S. R.2E. 3 P.M.
Temporary Bituminous Transition to be built as directed by the engineer. The placement (W. Sec) and removal (RS. Sec.) of the temporary bituminous transition will not be paid for directly, but shall be considered as incidental to the contract.
COST OF THICKENED PAVEMENT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER SQ. YD. FOR P.C.C. PAV'T., 9"
82+00 = 0A+00 (SPUR)
PROP. S.B.I. RTE. 148
1/2 SEC. LINE
P-TYPE-1 18" X 40'
Sta. 0+23.4
8" P.C.C. Base Crse.
9" P.C.C. Pavement
Approved Dowel Bar Ass'y.
1" ϕ Smooth Dowel Bar Greased
SECTION A-A
Edge of Prop. Mainline P.C.C. Base Crse.
NEW R.O.W. LINE
Spur Curve Data
Stationing On Curve
Δ = 51°-53' D = 22°-55.1'
L = 226.4' R = 250'
T = 121.6' E = 27.998'
S.E. 0.05 Ft/Ft. Remove Crown
Attain S.E. Sta. 0+92.8 To Sta. 1+43.8
Attain S.E. Sta. 3+45.2 To Sta. 2+95.2
P-TYPE-1 18" X 44'
O.L. Smith
Len Crain
Parrish
Glen Paugh
Phil Rohfeldt
END OF PROPOSED P.C.C. PAV'T.
Cemetery
P-TYPE-1 18" X 32'
Remove exist. culv.
Salvage & store on adj. R.O.W.
Wayne Smith
TO REMAIN IN PLACE
P-TYPE-1 18" X 36'
EXIST. R.O.W. LINE
To Remain in Place
J.H. Smith
1/4 SEC. LINE
3" GAS LINE
P-TYPE-1 18" X 44'
Spur Curve Data
Stationing On Curve
Δ = 46°-15' D = 22°-55.1'
T = 106.8' R = 250.0'
L = 201.8' E = 21.84'
S.E. = 0.05 Ft/Ft. Remove Crown
Attain S.E. Sta. 1+04.4 To Sta. 1+54.4
Attain S.E. Sta. 2+85 To Sta. 3+35
20A+00
1/4 Sec. Line
Ernest Craig
E.W. McKinney
Sta. 105+00 = Sta. 0B+00 (SPUR)
PROP. S.B.I. RTE. 148
NEW R.O.W. LINE
To Be Monolithic With Gutter & Gutter Outlet
Type B Gutter
Sta. Eq. Sta. 23A+95.6 = Sta. 3B+35.0 Ah.
F. Wallace
END OF PROP. P.C.C. PAV'T.
Jack Walker
Ethel Maze
P-TYPE-1 15" X 44'
P-TYPE-1 15" X 36'
TO REMAIN IN PLACE
N.E. 1/4 N.E. 1/4 SEC. 7
T. 9S. R.2E. 3 P.M.
Contraction Joint
Construction Joint
Edge of Shoulder
P.C.C. Pav't.
SEE NOTE BELOW FOR BASE CRSE. AND PAV'T. QUANTITIES
Edge of Shoulder
Prop. PCC Pav't. 9"
Contraction Joint
SEE NOTE BELOW FOR QUANTITIES OF P.C.C. BASE CRSE. & PCC. PAV'T.

DETAILS OF SPUR CONNECTION RT. STA. 82+00

DETAILS OF SPUR CONNECTION RT. STA. 105+00

N.W. 1/4 S.W. 1/4 SEC. 8
T. 9S. R.2E. 3 P.M.

INCLUDED IN MAINLINE EARTHWORK

EARTH EXC. = 2317 CU. YDS. — 1624 CU. YDS. PLACE IN BALANCE STA. 63+00 – 135+83; 693 CU. YDS.

FILL = 509 CU. YDS.
O.H. = 4650 STA. YDS.

TREE REMOVAL LOCATION	(IN. DIA.) (6"–15")	(OVER 15")
LT. 21+80	0	15.5
RT. 21+94	7.5	0
TOTAL	7.5	15.5

CROWN GRADE OF PROP. P.C.C. BASE COURSE
CROWN GRADE OF PROP. P.C.C. PAVEMENT
100' V.C. −0.314 % +0.44 %

PROFILE OF EXISTING PAVEMENT

EXISTING PAVMENT TO BE RESURFACED WITH 3" BIT. CONC. BINDER AND SURFACE CSE. SUB-CLASS I-11 BETWEEN STA. 3A+45.2 AND 23A+95.6 RS SEC.

SPECIAL DITCH
LT. & RT. 1A+00 – 7A+08
LT. 7A+08 – 17A+36
LT. & RT. 17A+36 – 1B+00

NOTE:
0A+12.8 – 0A+23.4
78.0 SQ. YDS. P.C.C. BASE CRSE. (8")
0A+23.4 – 3A+45.2
717.4 SQ. YDS. P.C.C. PAV'T. (9")
717.4 SQ. YDS. PAV'T. FABRIC.
195 TONS SUB-BASE GRANULAR MATERIAL, TYPE A.

TEMPORARY BITUMINOUS TRANSITION
TO BE BUILT AS DIRECTED BY THE ENGINEER AT STA. 3A+45.2 AND STA. 3B+35.0 THE PLACEMENT AND REMOVAL OF THE TEMPORARY BITUMINOUS TRANSITION WILL NOT BE PAID FOR DIRECTLY, BUT SHALL BE CONSIDERED AS INCIDENTAL TO THE CONTRACT.
PLACEMENT – W SEC.
REMOVAL – RS SEC.

RIGHT OF WAY MARKERS
FURN. & ERECT. 5 EACH
RE-ERECTING 1 EACH

SIDE APPROACHES

LOCATION	TYPE	RDWY (Grading – W Sec.)	% GRADE	EXC. CU. YDS.	EMB. CU. YDS.	WIDTH (Surfacing)	LENGTH	RADII	GR. OR CR. ST. SURF. CRSE. TYPE A TONS	RS SEC. BIT. MTLS. APPLIED (PRIME COAT) GALS MC-0	RS SEC. BIT. CONC. SURF. CRSE. SUB-CL. I-11 TONS
3A+45	P.E.R.	22	2	0	30	16	25	15	18	10	4
4A+31	P.E.L.	22	2	0	31	16	30	15	22	10	4
7A+40	P.E.R.	30	—	—	—	24	—	—	8	29	11
7A+44	P.E.L.	22	4	0	46	16	32	5	20	6	3
7A+89	P.E.L.	22	4	0	46	16	32	15	22	10	4
9A+73	P.E.L.	22	2	0	35	16	25	15	18	10	4
9A+69	P.E.R.	30	—	—	—	24	—		8	25	9
12A+00	P.E.R.	22	—	—	—	16	—		8	10	4
14A+00	S.R.R.	30	—	—	—	24	—		8	22	7
14A+50	P.E.L.	22	2	0	13	16	25	15	18	10	4
14A+62	P.E.R.	30	—	—	—	24	—		8	14	5
14A+88	P.E.R.	30	—	—	—	24	—		8	14	5
17A+46	P.E.R.	22	—	—	—	16	—		8	22	7
20A+47	P.E.R.	22	4	0	43	16	25	15	18	10	4
21A+64	P.E.L.	22	10	0	61	16	35	15	23	10	4
22A+82	P.E.L.	22	2	0	76	16	35	15	23	10	4
TOTAL				0	381				238	222	83

8 MAIL BOX DRIVES — STOCKPILED AGGREGATE — 80 CU. YDS. (W SEC.); 40 CU. YDS. (RS SEC.)

STA. EQ. STA. 23A+95.6 = STA. 3B+35.0 AH.

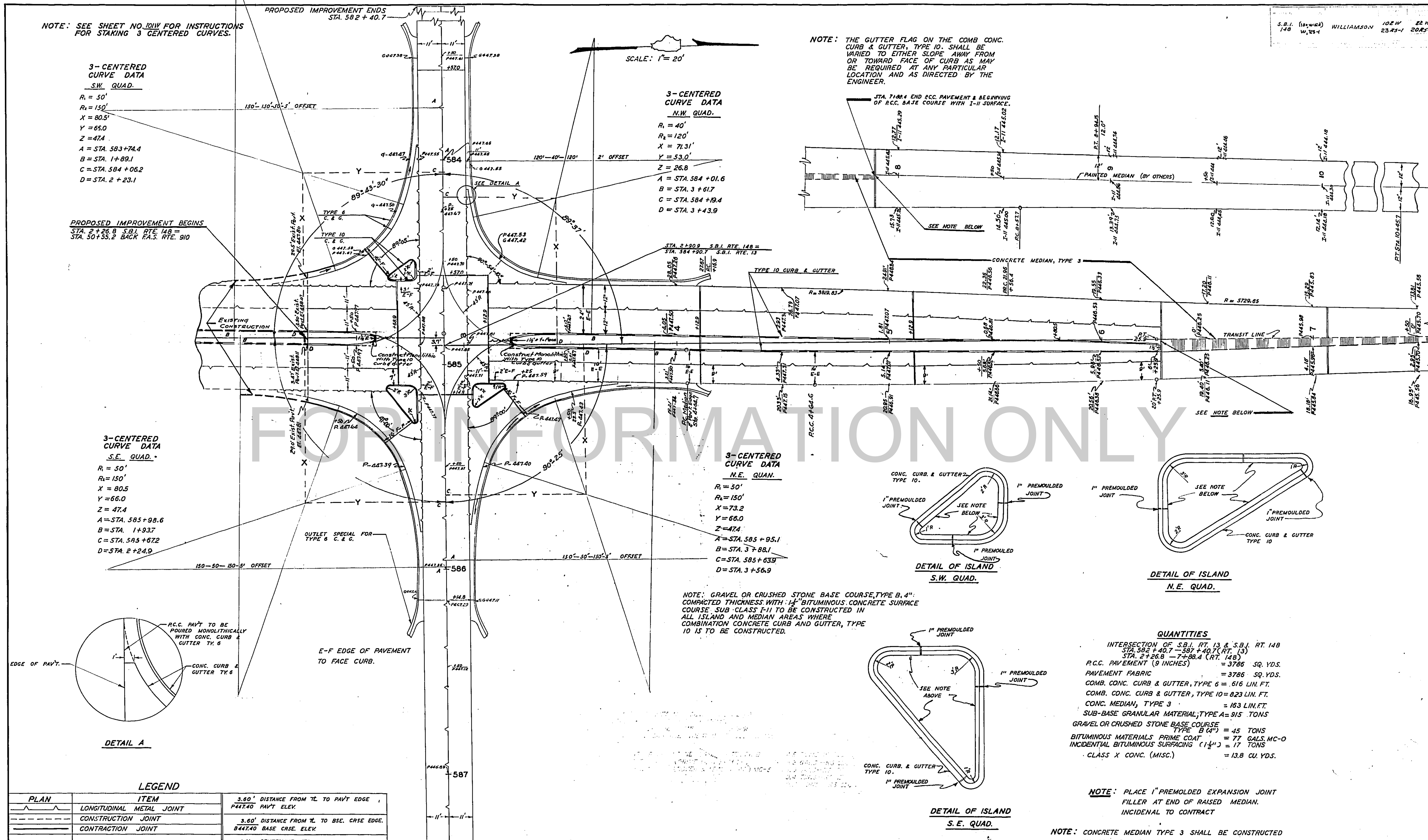
CROWN GRADE OF PROP. P.C.C. PAVEMENT
CROWN GRADE OF PROP. P.C.C. BASE COURSE
100' V.C. +0.22 % −0.574 %

NOTE: 0B+12.8 – 0B+23.4
78.0 SQ. YDS. P.C.C. BASE CRSE. (8")
0B+23.4 – 3B+35
694.7 SQ. YDS. P.C.C. PAV'T. (9")
694.7 SQ. YDS. PAV'T. FABRIC
189 TONS SUB-BASE GRANULAR MATERIAL, TYPE A.

460
450

0A 1 2 3 4 5A 6 7 8 9 10A 1 2 3 4 15A 6 7 8 9 20A 1 2 3 4 | 3 2 1 0B

S.B.I. RTE. 148 SEC. (130, W15d) W,RS-1 WILLIAMSON CO.
SPUR CONNECTIONS RT. STA. 82+00 & STA. 105+00


NOTE: SEE SHEET NO. 101W FOR INSTRUCTIONS FOR STAKING 3 CENTERED CURVES.
PROPOSED IMPROVEMENT ENDS STA. 582 + 40.7
SCALE: 1" = 20'
3-CENTERED CURVE DATA S.W. QUAD.
R₁ = 50'
R₂ = 150'
X = 80.5'
Y = 65.0
Z = 47.4
A = STA. 583 + 74.4
B = STA. 1 + 89.1
C = STA. 584 + 06.2
D = STA. 2 + 23.1
3-CENTERED CURVE DATA N.W. QUAD.
R₁ = 40'
R₂ = 120'
X = 71.31'
Y = 53.0'
Z = 26.8
A = STA. 584 + 01.6
B = STA. 3 + 61.7
C = STA. 584 + 19.4
D = STA. 3 + 43.9
PROPOSED IMPROVEMENT BEGINS STA. 2 + 26.8 S.B.I. RTE. 148 = STA. 50 + 55.2 BACK F.A.S. RTE. 910
EXISTING CONSTRUCTION
TYPE 10 CURB & GUTTER
CONCRETE MEDIAN, TYPE 3
PAINTED MEDIAN (BY OTHERS)
TRANSIT LINE
SEE NOTE BELOW
SEE DETAIL A
3-CENTERED CURVE DATA S.E. QUAD.
R₁ = 50'
R₂ = 150'
X = 80.5
Y = 66.0
Z = 47.4
A = STA. 585 + 98.6
B = STA. 1 + 93.7
C = STA. 585 + 67.2
D = STA. 2 + 24.9
3-CENTERED CURVE DATA N.E. QUAN.
R₁ = 50'
R₂ = 150'
X = 73.2
Y = 66.0
Z = 47.4
A = STA. 585 + 95.1
B = STA. 3 + 88.1
C = STA. 585 + 63.9
D = STA. 3 + 56.9
OUTLET SPECIAL FOR TYPE 6 C. & G.
E-F EDGE OF PAVEMENT TO FACE CURB.
P.C.C. PAV'T TO BE POURED MONOLITHICALLY WITH CONC. CURB & GUTTER TY. 6
EDGE OF PAV'T.
CONC. CURB & GUTTER TY. 6
DETAIL A
PROPOSED IMPROVEMENT ENDS STA. 587 + 40.7
NOTE: THE GUTTER FLAG ON THE COMB CONC. CURB & GUTTER, TYPE 10. SHALL BE VARIED TO EITHER SLOPE AWAY FROM OR TOWARD FACE OF CURB AS MAY BE REQUIRED AT ANY PARTICULAR LOCATION AND AS DIRECTED BY THE ENGINEER.
STA. 7+88.4 END P.C.C. PAVEMENT & BEGINNING OF P.C.C. BASE COURSE WITH I-11 SURFACE.
NOTE: GRAVEL OR CRUSHED STONE BASE COURSE, TYPE B, 4" COMPACTED THICKNESS WITH 1½" BITUMINOUS CONCRETE SURFACE COURSE SUB CLASS I-11 TO BE CONSTRUCTED IN ALL ISLAND AND MEDIAN AREAS WHERE COMBINATION CONCRETE CURB AND GUTTER, TYPE 10 IS TO BE CONSTRUCTED.
CONC. CURB & GUTTER TYPE 10.
1" PREMOULDED JOINT
SEE NOTE BELOW
DETAIL OF ISLAND S.W. QUAD.
DETAIL OF ISLAND N.E. QUAD.
SEE NOTE ABOVE
DETAIL OF ISLAND S.E. QUAD.

QUANTITIES

INTERSECTION OF S.B.I. RT. 13 & S.B.I. RT. 148
STA. 582 + 40.7 — 587 + 40.7 (RT. 13)
STA. 2 + 26.8 — 7 + 88.4 (RT. 148)

P.C.C. PAVEMENT (9 INCHES)	= 3786 SQ. YDS.
PAVEMENT FABRIC	= 3786 SQ. YDS.
COMB. CONC. CURB & GUTTER, TYPE 6	= .616 LIN. FT.
COMB. CONC. CURB & GUTTER, TYPE 10	= 823 LIN. FT.
CONC. MEDIAN, TYPE 3	= 163 LIN. FT.
SUB-BASE GRANULAR MATERIAL; TYPE A	= 915 TONS
GRAVEL OR CRUSHED STONE BASE COURSE TYPE B (4")	= 45 TONS
BITUMINOUS MATERIALS PRIME COAT	= 77 GALS. MC-O
INCIDENTIAL BITUMINOUS SURFACING (1½")	= 17 TONS
CLASS X CONC. (MISC.)	= 13.8 CU. YDS.

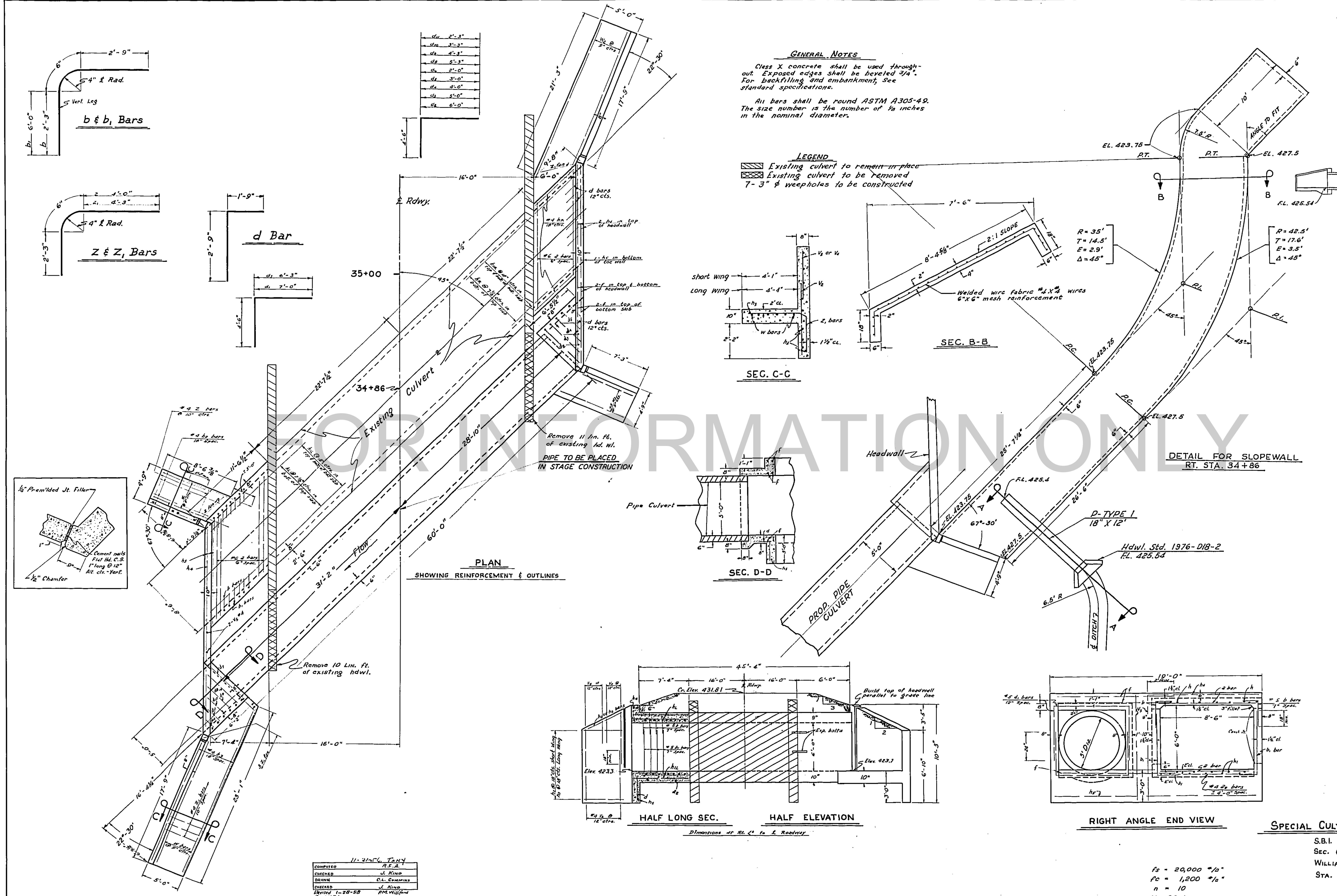
NOTE: PLACE 1" PREMOLDED EXPANSION JOINT FILLER AT END OF RAISED MEDIAN. INCIDENAL TO CONTRACT

NOTE: CONCRETE MEDIAN TYPE 3 SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. 2122 EXCEPT FOR VARIABLE WIDTH.

LEGEND

PLAN	ITEM	
(line symbol)	LONGITUDINAL METAL JOINT	3.60' / P447.40 — DISTANCE FROM ℄ TO PAV'T EDGE, PAV'T ELEV.
(line symbol)	CONSTRUCTION JOINT	3.60' / B447.40 — DISTANCE FROM ℄ TO BSE. CRSE EDGE. BASE CRSE. ELEV.
(line symbol)	CONTRACTION JOINT	+41 / 5.80 — CENTERLINE STA. DISTANCE FROM ℄ TO PAV'T EDGE.
(line symbol)	COMB. CURB & GUTTER TYPE 10	G447.29 · GUTTER F.L. ELEV.
(line symbol)	COMB. CURB & GUTTER TYPE 6	

S.B.I. RTE. 148 SEC. (130, W15d) WRS-1 WILLIAMSON CO. INTERSECTION DETAIL S.B.I. RTE 148 S.B.I. RTE. 13



General Notes

Class X concrete shall be used throughout. Exposed edges shall be beveled 3/4". For backfilling and embankment, See standard specifications.

All bars shall be round ASTM A305-49. The size number is the number of 1/8 inches in the nominal diameter.

Legend

- Existing culvert to remain in place
- Existing culvert to be removed
- 7- 3" ϕ weepholes to be constructed

BILL OF MATERIAL

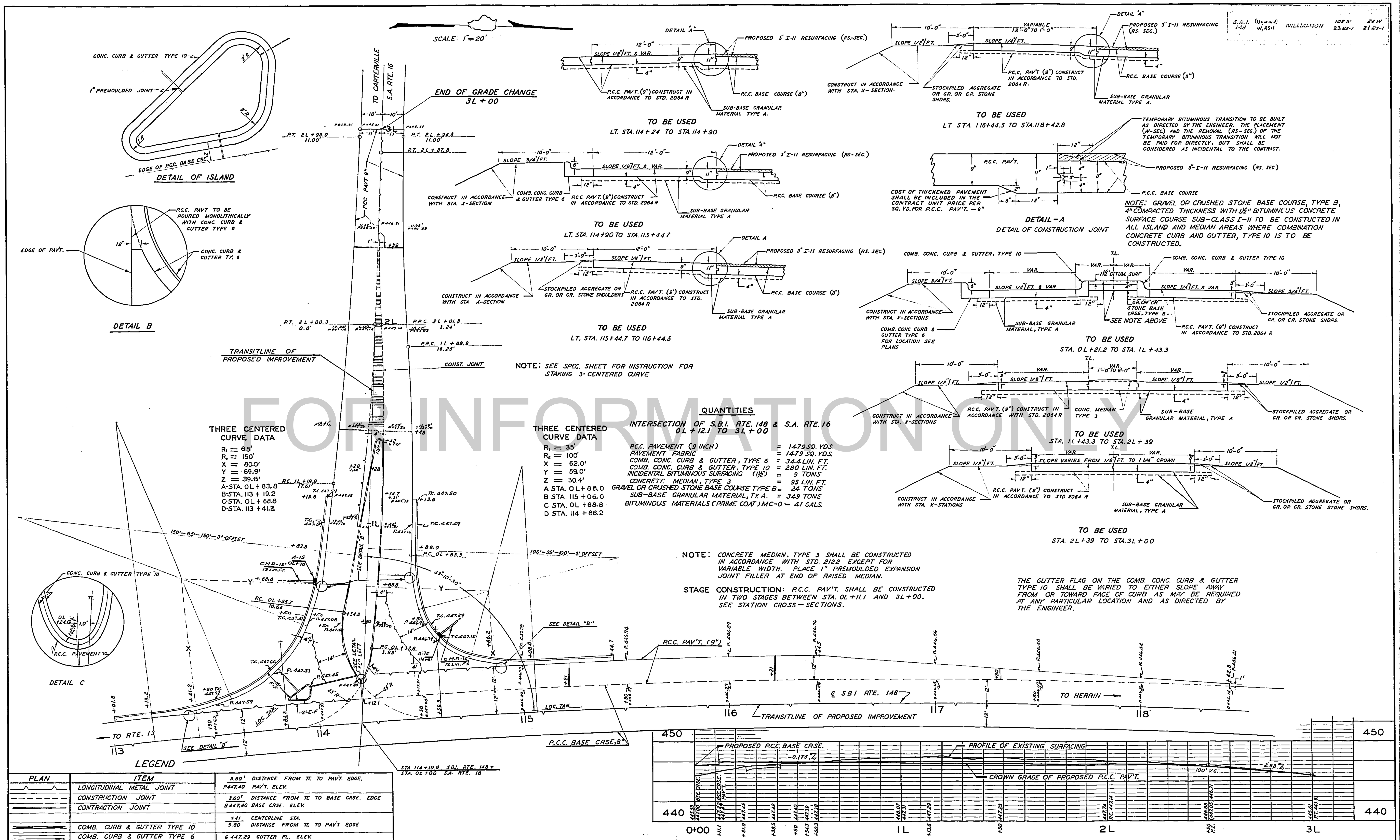
BAR	NO.	SIZE	LENGTH	SPACING
a	84	#6	12'-9"	6"
a_2	4	#4	8'-0"	4' ±
b	70	#5	5'-6"	7"
b_1	70	#5	9'-3"	7"
d	38	#4	4'-6"	12"
d_2	2	#5	10'-6"	12"
d_3	2	#5	9'-6"	12"
d_4	2	#5	8'-6"	12"
d_5	2	#5	7'-6"	12"
d_6	2	#5	6'-6"	12"
d_7	2	#5	15'-3"	12"
d_8	2	#5	9'-9"	12"
d_9	2	#5	8'-9"	12"
d_{10}	2	#5	7'-9"	12"
d_{11}	2	#5	6'-9"	12"
f	12	#5	16'-0"	
h_L	31	#4	11'-3"	7½" Slab 18" Wall
h_R	31	#4	9'-6"	7½" Slab 18" Wall
h_{1L}	17	#4	11'-3"	18"
h_{1R}	17	#4	9'-6"	18"
h_2	16	#4	6'-3"	18"
h_3	16	#4	16'-9"	18"
h_4	4	#5	12'-6"	
h_5	2	#5	26'-6"	
V_2	48	#4	5'-0"	12"
V_3	24	#4	5'-3"	12"
V_4	24	#4	3'-9"	12"
V_5	4	#4	9'-9"	12"
W	6	#5	22'-3"	9"
W_1	6	#5	10'-0"	9"
W_2	6	#5	20'-3"	9"
Z	20	#4	6'-9"	10"
Z_1	46	#4	7'-0"	10"
W_3	6	#5	11'-0"	9"

Expansion bolts	36 Each
Class X Concrete	45.5 cu. yds.
Reinforcement Bars	5260 Lbs.
Pipe Culv. type 1B-60"	60 Lin. ft.
Slope Wall	83 Sq. Yds.

fs = 20,000 #/□"
fc = 1,200 #/□"
n = 10
H - 20 LOADING

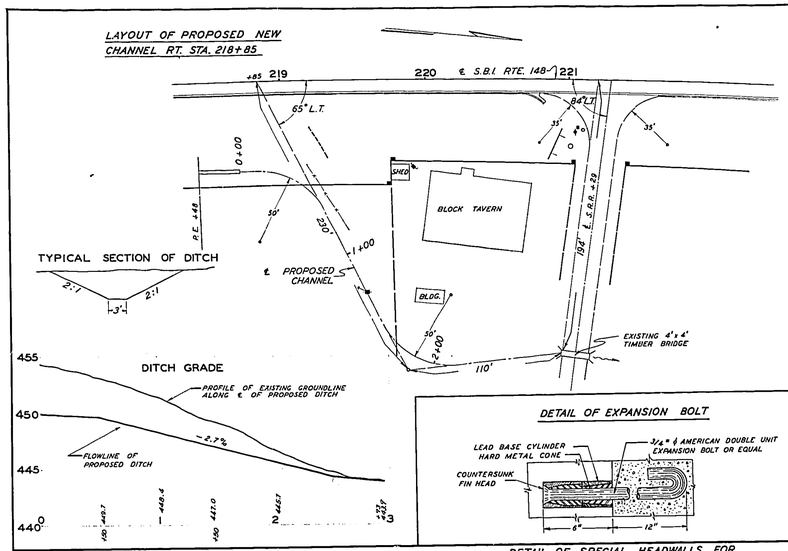
SPECIAL CULVERT DESIGN & DETAILS

S.B.I. RTE. 148
SEC. (130, W15d)W
WILLIAMSON COUNTY
STA. 34+86

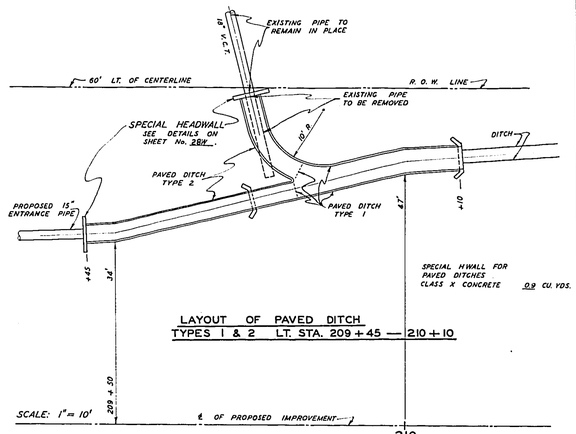


S.B.I. RTE. 148 SEC. (130, W15 d) W, RS-1 WILLIAMSON CO. INTERSECTION DETAIL SBI 148 SA 16

LAYOUT OF PROPOSED NEW CHANNEL RT. STA. 218+85



DETAIL OF EXPANSION BOLT

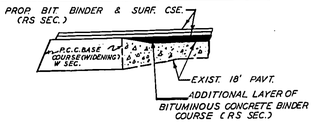


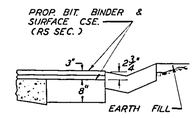
SPECIAL H'WALL FOR PAVED DITCHES CLASS X CONCRETE 0.9 CU. YDS.

LAYOUT OF PAVED DITCH TYPES 1 & 2 LT. STA. 209+45 — 210+10

SHEET	SEC.	COUNTY	TOTAL SHEETS	TABLE
S.B.I. (RS-1) 148 W, RS-1		WILLIAMSON	102 W	25 W

DETAIL AT LOCATIONS WHERE LIP CURB IS ENCOUNTERED

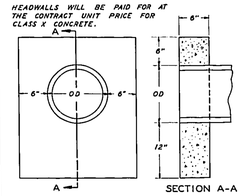




DETAILS OF CONSTRUCTION OF BITUMINOUS RESURFACING AT PROPOSED, TYPE B GUTTER.

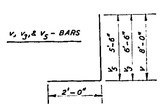
PIPE SIZE	CU. YDS.
12"	0.1
18"	0.1
30"	0.2

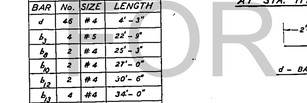
HEADWALLS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR CLASS X CONCRETE.



DETAIL OF SPECIAL HEADWALL

DETAIL OF SPECIAL HEADWALLS FOR TRIPLE PIPE CULVERTS AT STA. 117+40 & 136+82



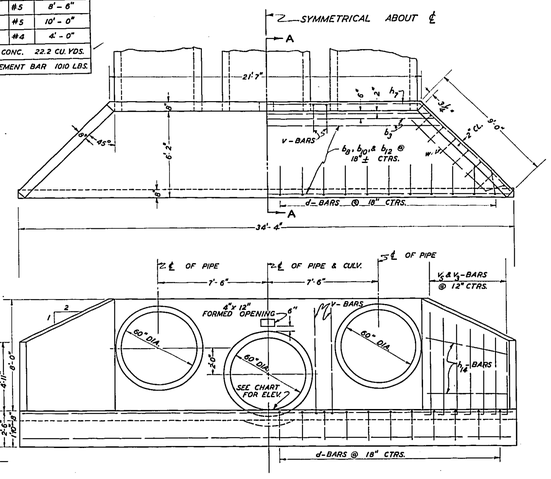


BILL OF MATERIAL			
BAR	No.	SIZE	LENGTH
d	48	#4	4'-3"
b_1	4	#5	22'-9"
b_9	2	#4	25'-3"
b_{10}	2	#4	27'-0"
b_{12}	2	#4	30'-6"
b_{13}	4	#4	34'-0"
h_7	4	#5	40'-0"
h_{14}	8	#4	8'-9"
v_2	16	#5	7'-6"
v_3	12	#5	8'-6"
v	12	#5	10'-0"
w	4	#4	4'-0"
CLASS X CONC.			22.2 CU. YDS.
REINFORCEMENT BAR			1010 LBS.

NOTE: CLASS X CONCRETE SHALL BE USED THROUGHOUT. EXPOSED EDGES SHALL BE BEVELED ¾". ALL BARS SHALL BE ROUND, A.S.T.M. A 305-49. THE SIZE NUMBER IS THE NUMBER OF ⅛ INCHES IN THE NOMINAL DIAMETER. LONG BARS MAY BE SPLICED USING LAPS OF 20 DIAMETERS. NO EXTRA COMPENSATION WILL BE ALLOWED. BUILD TOP OF HEADWALL PARALLEL TO GRADE LINE. PORTION OF WINGWALL OF EXISTING CULVERT MAY HAVE TO BE REMOVED FOR NEW CONSTRUCTION.

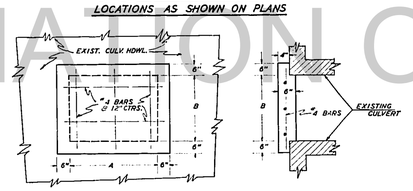
HEADWALLS WILL BE PAID FOR AT CONTRACT UNIT PRICE FOR CLASS X CONCRETE AND PER POUND FOR REINFORCEMENT BARS.

ELEVATION OF PIPE FLOW LINES				
	STA. 117+40		STA. 136+82	
	U.S. FL.	D.S. FL.	U.S. FL.	D.S. FL.
HIGH PIPE	437.0	436.8	434.1	433.9
LOW PIPE	435.0	434.8	432.1	431.9



11-21-51 TANY

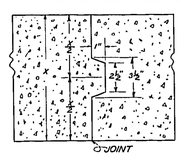
DETAIL OF CULVERT PLUG LOCATIONS AS SHOWN ON PLANS

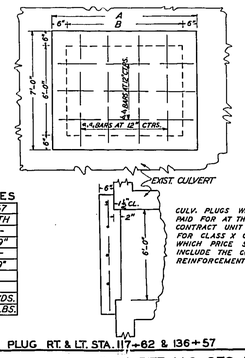


CLASS X CONC. 2 PLUGS		
A	B	CU. YDS.
2	1.5	0.2
3	1.5	0.3

CLASS X CONCRETE SHALL BE USED THROUGHOUT.

CONSTRUCTION JOINT DETAIL





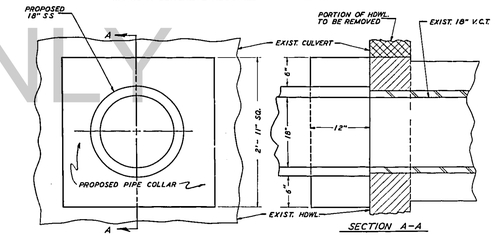
CULV. PLUGS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR CLASS X CONCRETE, WHICH PRICE SHALL INCLUDE THE COST OF REINFORCEMENT BARS.

DIMENSIONS & QUANTITIES

BAR	SIZE	STA. 117+62 NO.	STA. 117+62 LENGTH	STA. 136+57 NO.	STA. 136+57 LENGTH
a	℄	10	6'-9"	—	——
a_1	℄	—	——	12	6'-9"
b	℄	8	8'-9"	—	——
b_1	℄	—	——	8	9'-9"
DIMENSION A			9'-0"		10'-0"
DIMENSION B			8'-0"		9'-0"
CLASS X CONCRETE			2.9	3.3	CU.YDS.
REINFORCEMENT BARS			90	110	LBS.

CULVERT PLUG RT. & LT. STA. 117+82 & 136+57

CLASS X CONCRETE REQUIRED — 0.2 CU. YDS.



COLLARS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR CLASS X CONCRETE.

DETAIL OF CONC. COLLAR FOR EXTENSION TO EXISTING PIPE CULVERT

PAVEMENT PATCHING PAVEMENT REMOVAL & REPLACEMENT

STD. 2116						SPECIAL (8")					
TYPE II		TYPE III		TYPE IV		TYPE II		TYPE III		TYPE IV	
SQ.YD	NO.	SQ.YD.	NO.	SQ.YD	NO.	SQ.YD.	NO.	SQ.YD.	NO.	SQ.YD.	NO.
69	14	59	6	73	2	52	13	45	9	35	1

SUMMARY OF CLASS X CONCRETE (ENTIRE SECTION)

SPECIAL HEADWALLS	46.2 CU. YDS.
STANDARD HEADWALLS	30.8 CU. YDS.
DITCH CHECKS	11.9 CU. YDS.
CULVERT PLUGS & COLLARS	6.7 CU. YDS.
REINFORCED A.R. CULVERTS	122.4 CU. YDS.
TOTAL	218.0 CU. YDS.

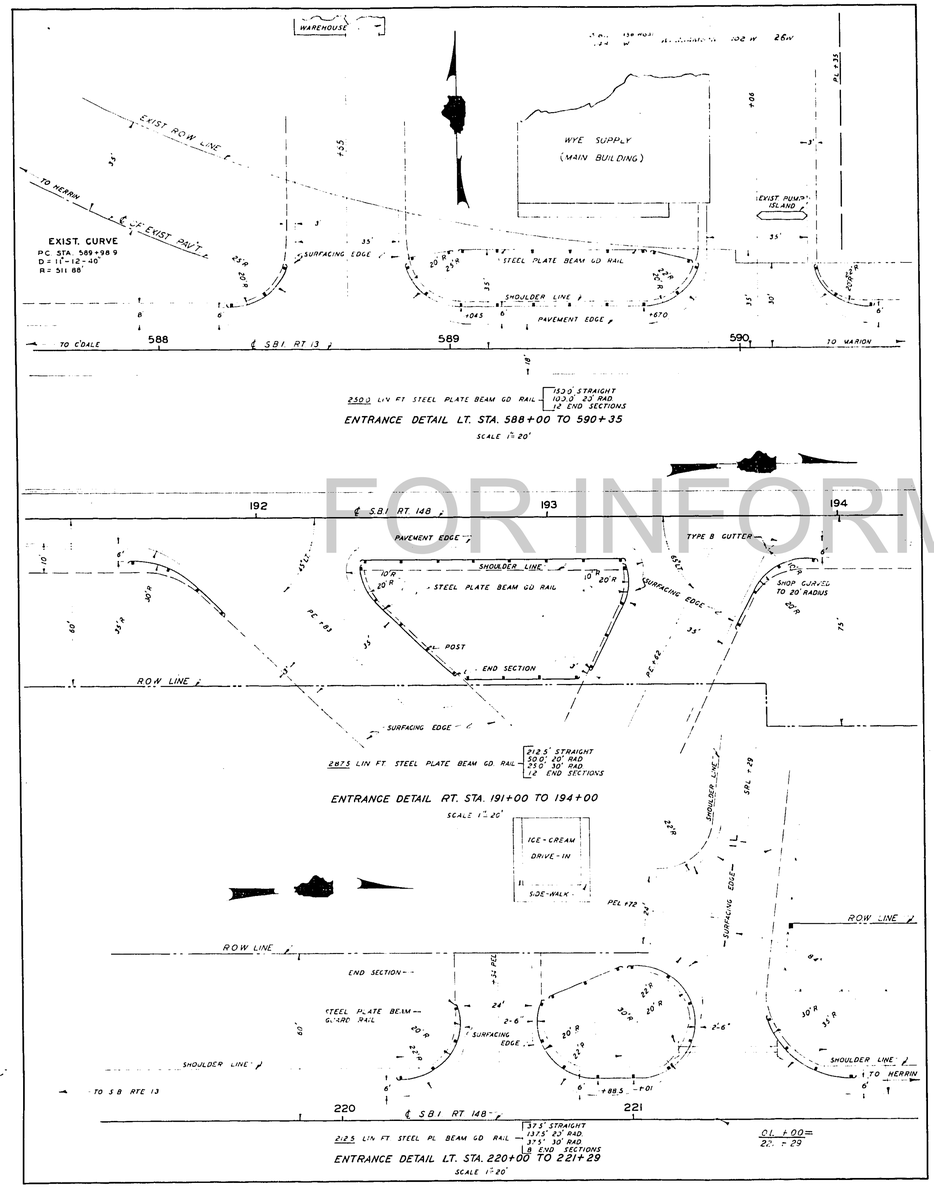
SUMMARY OF CLASS X CONCRETE (MISCELLANEOUS)

CONCRETE GUTTER OUTLETS AND ENTRANCES 91.0 CU. YDS.

PAVEMENT PATCHING PAVEMENT REMOVAL & BITUMINOUS REPLACEMENT (RS-1 SEC.)

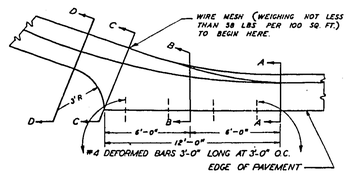
STANDARD NO. 2117						SPECIAL (8")					
TYPE II		TYPE III		TYPE IV		TYPE II		TYPE III		TYPE IV	
SQ.YD.	NO.	SQ.YD.	NO.	SQ.YD.	NO.	SQ.YD.	NO.	SQ.YD.	NO.	SQ.YD.	NO.
8	1	12	1	16	1	2	2	20	4	35	3

S.B.I. RTE 148 SEC. (130, W15d) W, RS-1 WILLIAMSON COUNTY SPECIAL SHEET

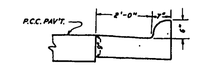


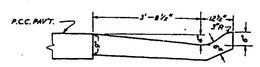
OUTLET SPECIAL FOR TYPE 6 CONCRETE CURB AND GUTTER

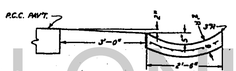
S.B.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
148	(1W,W1SJ) W	WILLIAMSON	102 W	26W

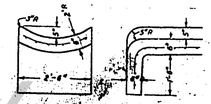


NOTE:
CLASS X CONCRETE SHALL BE USED THROUGHOUT.
OUTLET SPECIAL SHALL BE TIED TO THE PAVEMENT BY #4 DEFORMED BARS 3'-0" LONG AND SPACED 3'-0" CENTERS.
OUTLET OUTLET SHALL BE REINFORCED WITH WIRE MESH HAVING A WEIGHT OF AT LEAST 38 POUNDS PER 100 SQ. FT. OUTLET SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR CLASS X CONCRETE (MISC.) WHICH PRICE SHALL INCLUDE THE COST OF THE TIE BARS AND THE WIRE MESH REINFORCEMENT.
23 CU. YDS. CLASS X CONCRETE ESTIMATED.



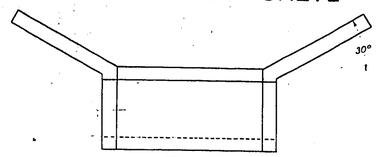




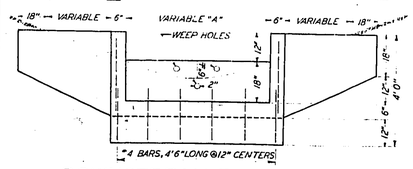


DITCH CHECK CONCRETE

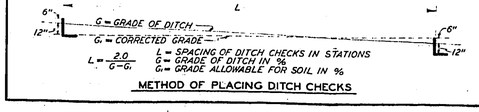
RT. No.	SECTION	COUNTY	TOTAL SHEETS	SHEET No.
S.B.I. 148	(1W,W1SJ) W	WILLIAMSON	102 W	26W
FED. ROAD DIST. No. 7	ILLINOIS	FED. AID PROJECT		



PLAN



DOWNSTREAM ELEVATION



$L = \frac{2.0}{G - G_1}$

L = SPACING OF DITCH CHECKS IN STATIONS
G = GRADE OF DITCH IN %
G_1 = GRADE ALLOWABLE FOR SOIL IN %

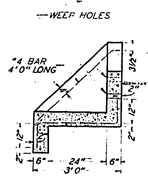
METHOD OF PLACING DITCH CHECKS

GENERAL NOTES

THE CONCRETE DITCH CHECKS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICES PER CU.YD. FOR "CLASS X CONCRETE" AND PER POUND FOR "REINFORCEMENT BARS."

THE QUANTITY OF "CLASS X CONCRETE" AND "REINFORCEMENT BARS" IS ALSO SHOWN ON THE ROAD PLANS.

WHENEVER DITCH CHECKS ARE REQUIRED THEIR LOCATION IS SHOWN ON THE PLANS.

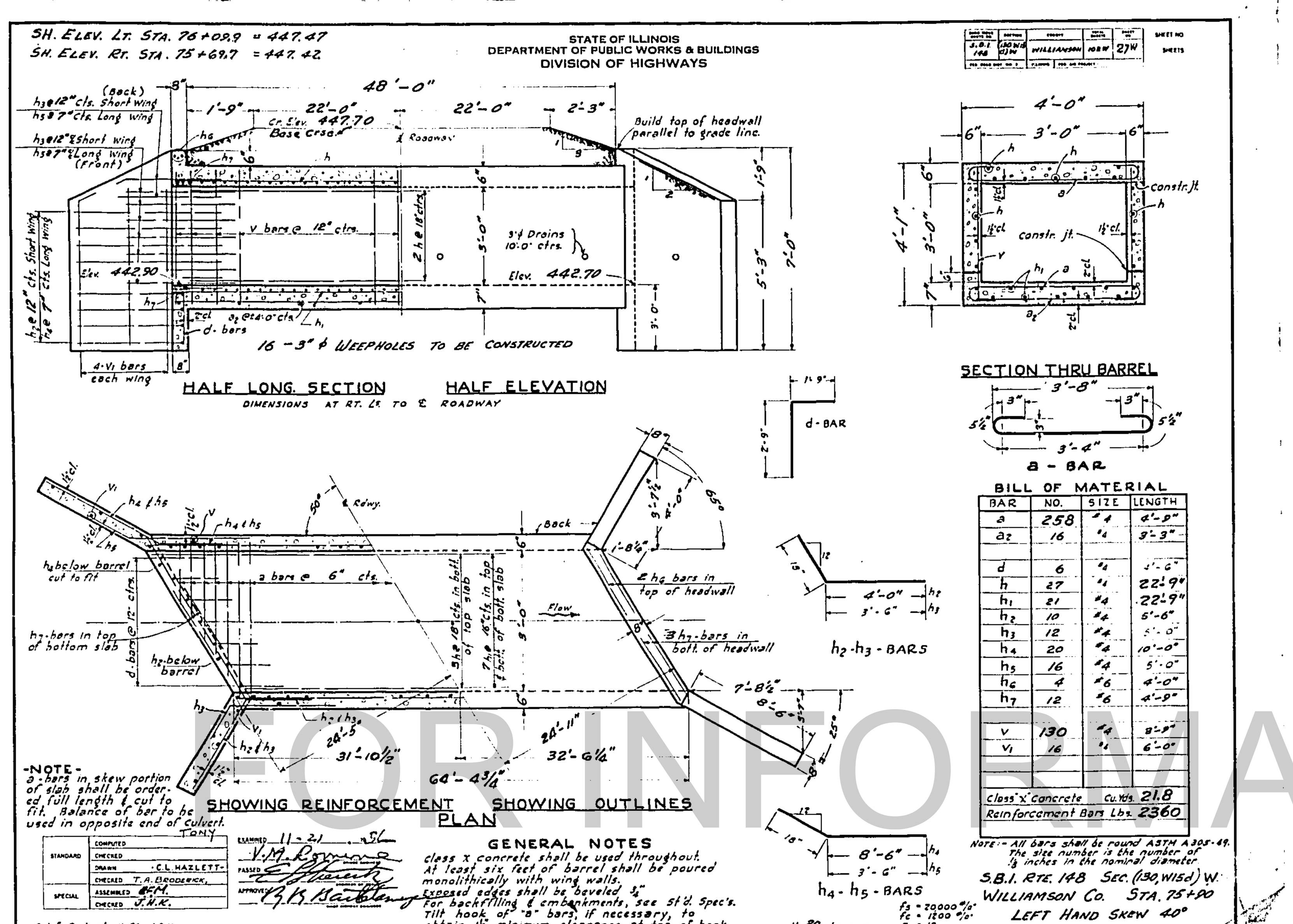


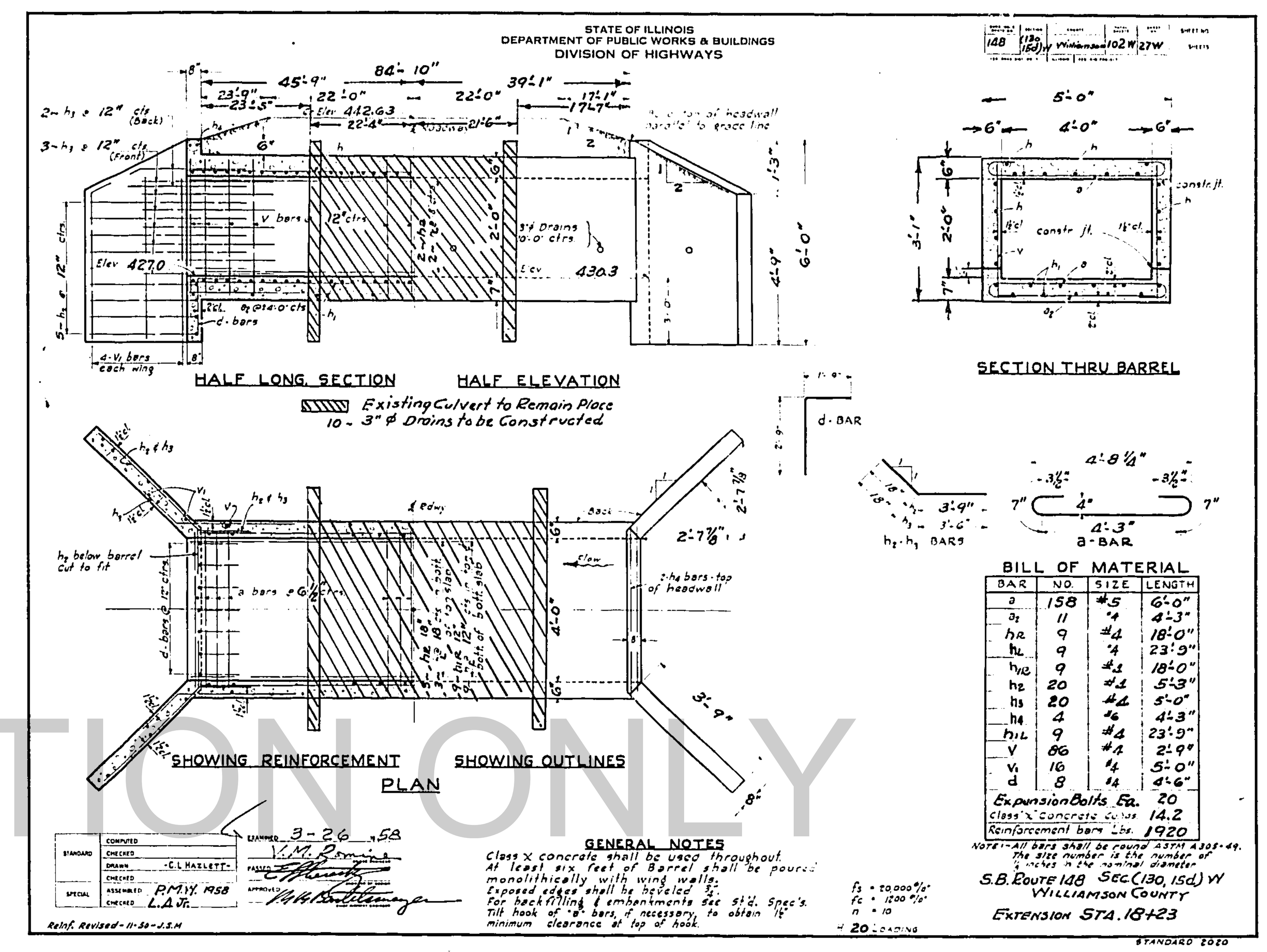
SECTION

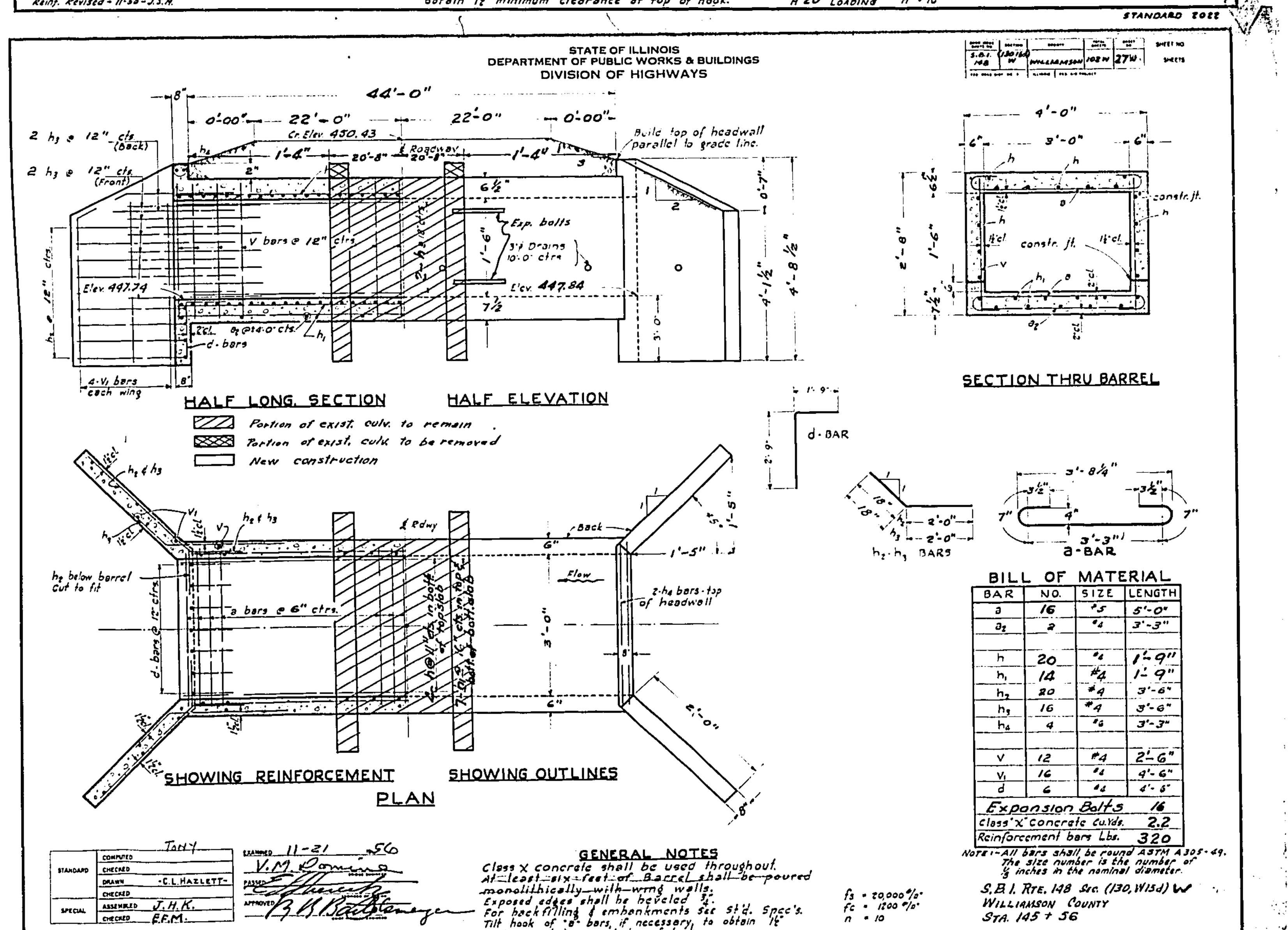
QUANTITIES

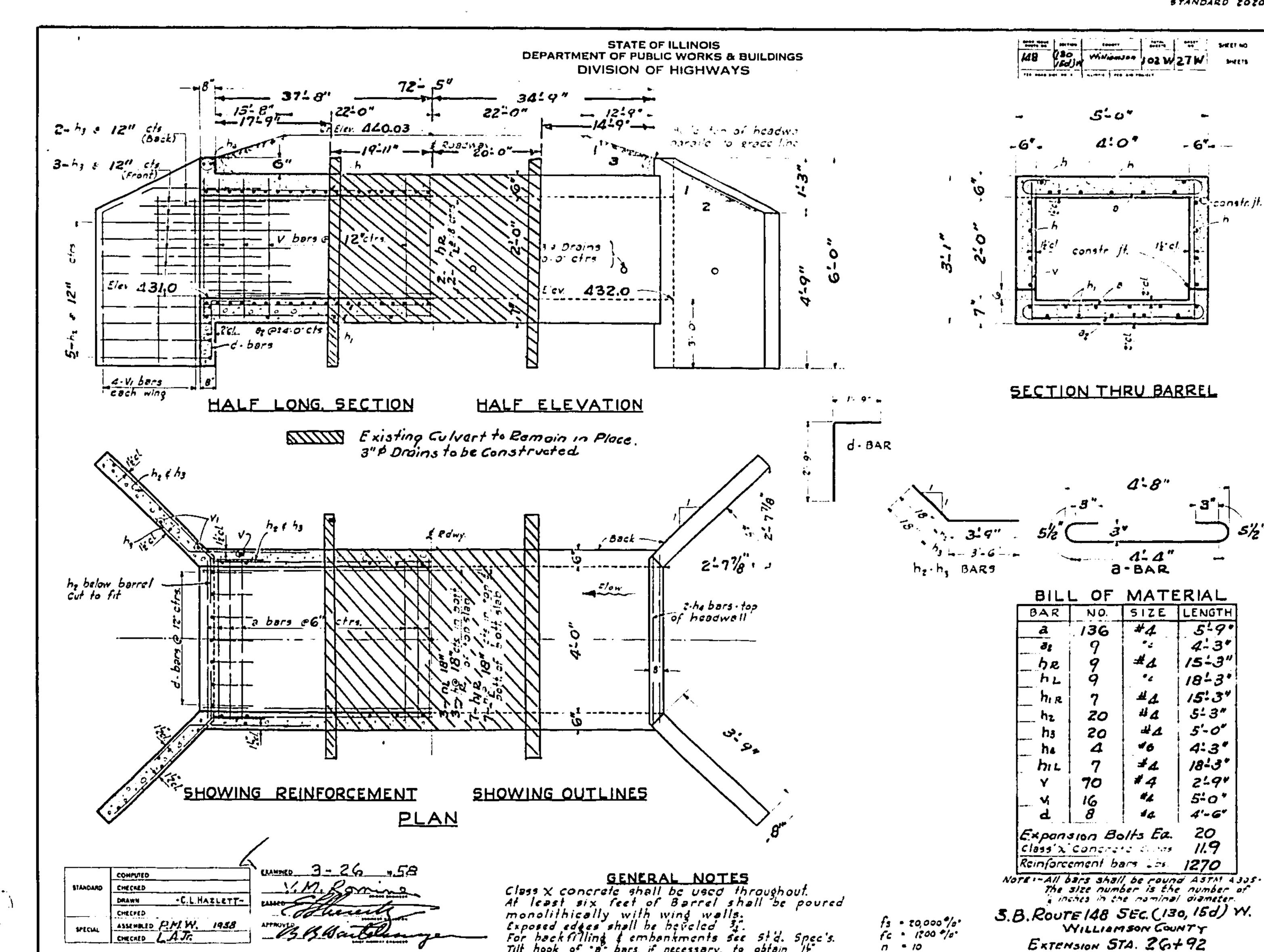
WEIR OPENING "A"	CLASS X CONC. CU.YDS. (1) SLOPES	(2) SLOPES	REINF. BARS LBS.
3.0	0.8	0.9	20
4.0	0.9	1.0	23
5.0	1.0	1.1	26
6.0	1.1	1.2	29
8.0	1.3	1.4	35

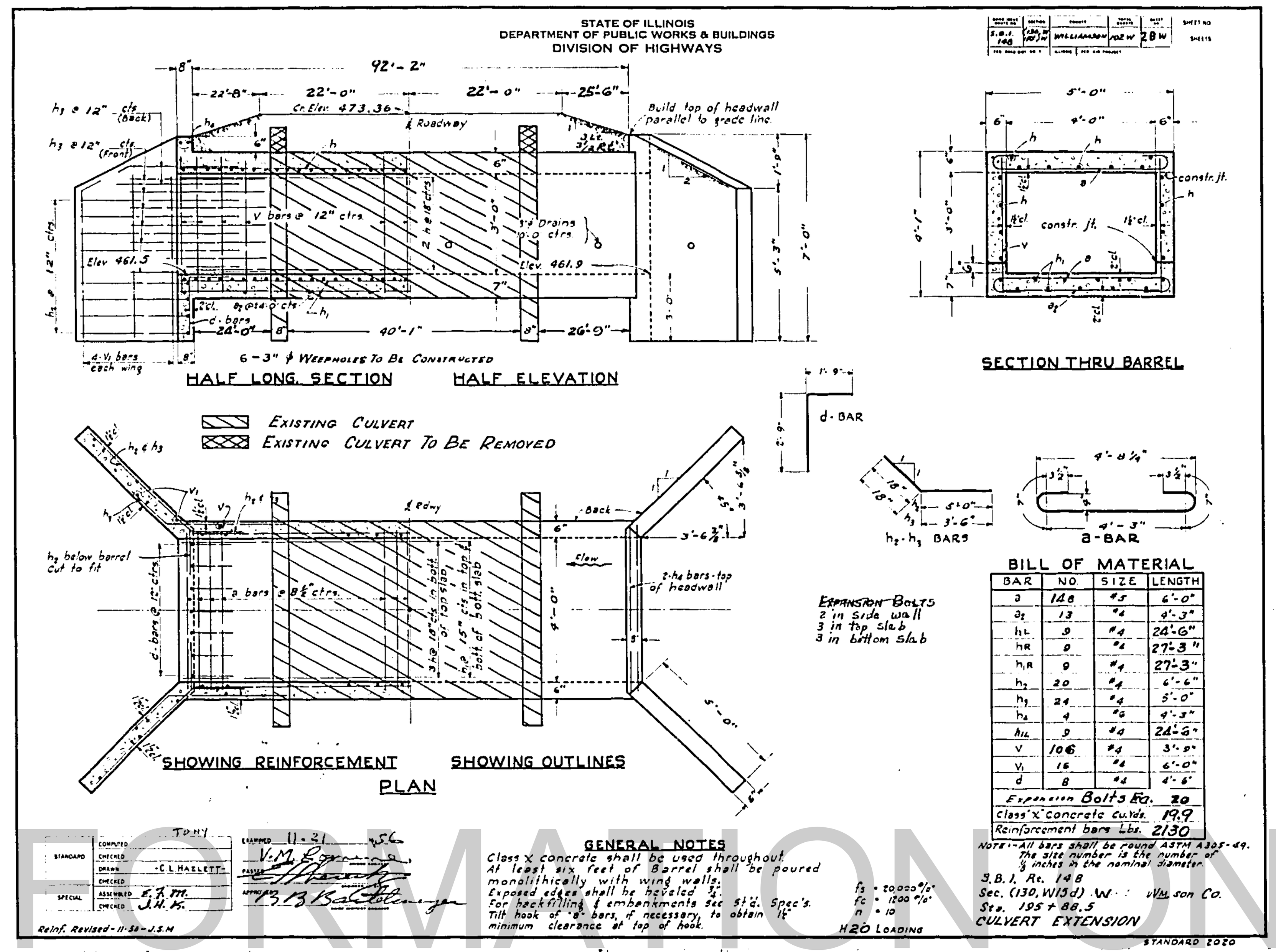
SUGGESTED VALUES OF G_1	
TYPE OF SOIL	G_1
COURSE SAND OR SMALL GRAV.	2.0%
FINE SAND OR SILT LOAM	1.0%
LIGHT SILT OR CLAY	0.5%











BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH
a	148	#5	6'-0"
a2	13	#4	4'-3"
hL	9	#4	24'-6"
hR	9	#4	27'-3"
h1R	9	#4	27'-3"
h2	20	#4	6'-6"
h3	24	#4	5'-0"
h4	4	#6	4'-3"
h1L	9	#4	24'-6"
V	106	#4	3'-9"
V1	16	#4	6'-0"
d	8	#4	4'-6"
Expansion Bolts Ea.			20
Class 'X' Concrete Cu.Yds.			19.9
Reinforcement bars Lbs.			2130

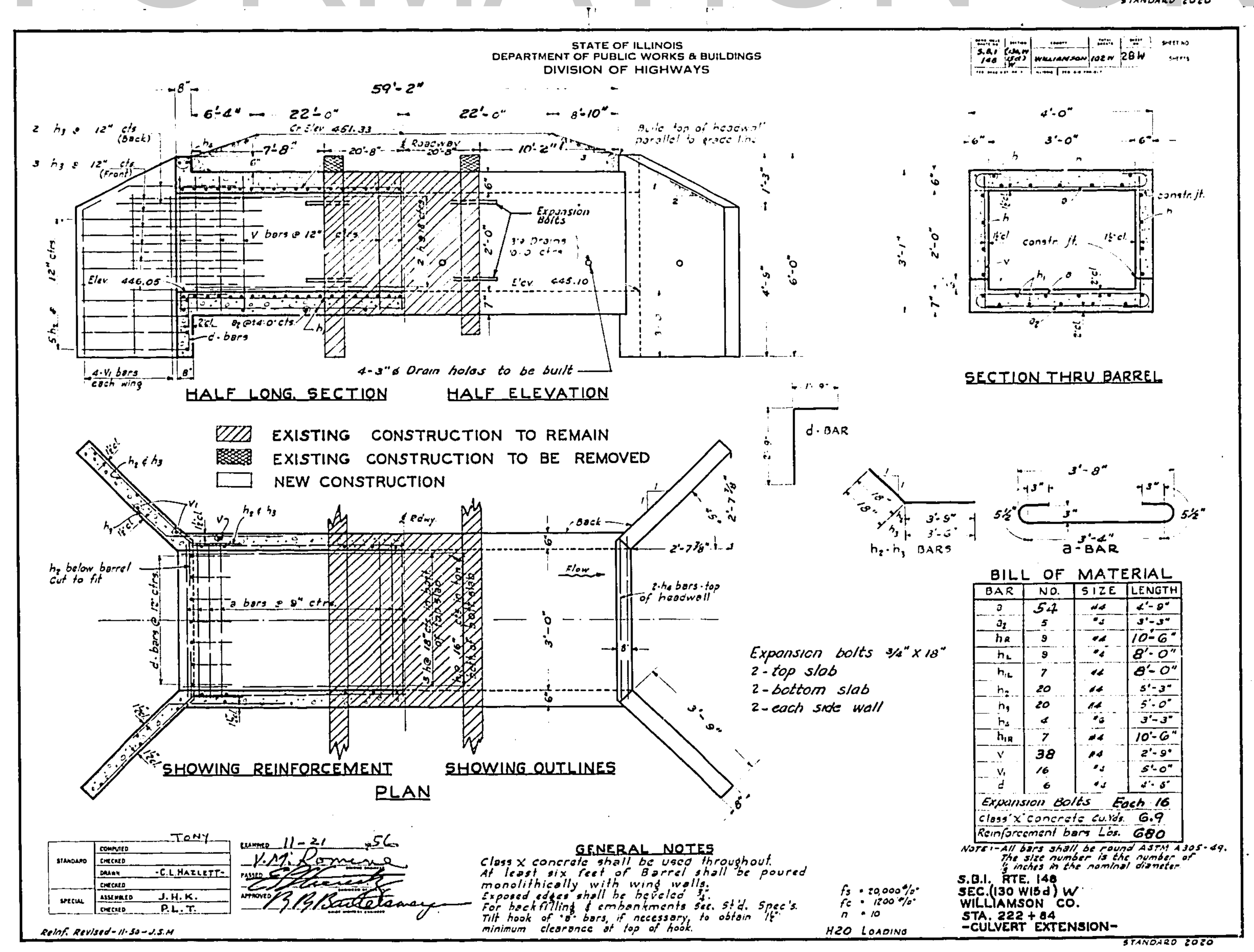
NOTE:-All bars shall be round ASTM A305-49. The size number is the number of ⅛ inches in the nominal diameter.

GENERAL NOTES
Class X concrete shall be used throughout.
At least six feet of Barrel shall be poured monolithically with wing walls.
Exposed edges shall be beveled ¾".
For backfilling & embankments see St'd. Spec's.
Tilt hook of "a" bars, if necessary, to obtain 1½" minimum clearance at top of hook.

f_s = 20,000 #/□"
f_c = 1200 #/□"
n = 10
H20 LOADING

S.B.I. Rt. 148
Sec. (130, W15d) W Williamson Co.
Sta. 195 + 88.5
CULVERT EXTENSION

STANDARD 2020



BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH
a	54	#4	4'-9"
a2	5	#4	3'-3"
hR	9	#4	10'-6"
hL	9	#4	8'-0"
h1L	7	#4	8'-0"
h2	20	#4	5'-3"
h3	20	#4	5'-0"
h4	4	#6	3'-3"
h1R	7	#4	10'-6"
V	38	#4	2'-9"
V1	16	#4	5'-0"
d	6	#4	4'-6"
Expansion Bolts Each			16
Class 'X' Concrete Cu.Yds.			6.9
Reinforcement bars Lbs.			680

NOTE:-All bars shall be round ASTM A305-49. The size number is the number of ⅛ inches in the nominal diameter.

GENERAL NOTES
Class X concrete shall be used throughout.
At least six feet of Barrel shall be poured monolithically with wing walls.
Exposed edges shall be beveled ¾".
For backfilling & embankments see St'd. Spec's.
Tilt hook of "a" bars, if necessary, to obtain 1½" minimum clearance at top of hook.

f_s = 20,000 #/□"
f_c = 1200 #/□"
n = 10
H20 LOADING

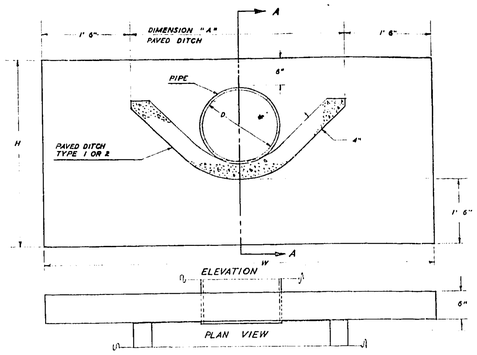
S.B.I. RTE. 148
SEC. (130 W15d) W
WILLIAMSON CO.
STA. 222 + 84
-CULVERT EXTENSION-

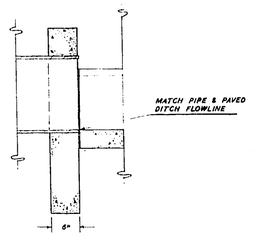
STANDARD 2020

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 148	(3W,11J) W	WILLIAMSON	102 W	28W
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJ. F-113 (17)		

DETAIL OF SPECIAL HEADWALL

TO BE USED AT JUNCTION OF PAVED DITCH AND PIPE IN A SPECIAL DITCH



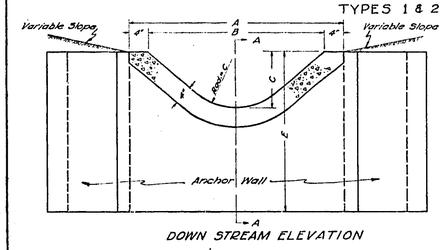


SECTION A-A

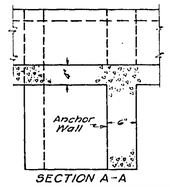
TYPE - 2				TYPE - 1			
SIZE PIPE D	W	H	CLASS X CONCRETE	SIZE PIPE D	W	H	CLASS X CONCRETE
15"	6'-8"	2'-7"	0.4	18"	7'-8"	3'-10"	0.5
18"	6'-8"	3'-10"	0.5	24"	7'-8"	4'-4"	0.6

DETAILS OF PAVED DITCH TYPES 1 & 2

F.A.I. 148 (3W,11J) W | WILLIAMSON | 102 W | 28W



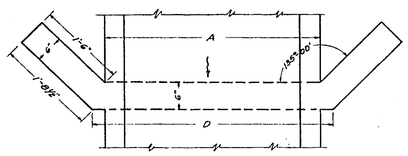
DOWN STREAM ELEVATION



SECTION A-A

PAVED DITCH

Dimension	Type 1	Type 2
A	6'-0"	3'-3"
B	4'-0"	1'-0"
C	1'-6"	1'-0"
D	21.7°	4'-1"
F	31.4°	8'-10"



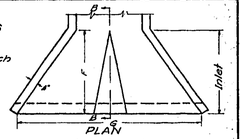
PLAN

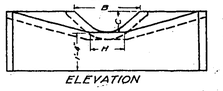
NOTE:
Class X Concrete shall be used throughout. Anchor Walls shall be provided at center of each 30 foot unit and at lower end of Paved Ditch. Anchor Walls shall be constructed monolithically with the Ditch.
Cost of Anchor Walls shall be included in the contract unit price per lineal foot for Paved Ditch Types 1 & 2.

DETAILS OF INLETS TYPES 1 & 2

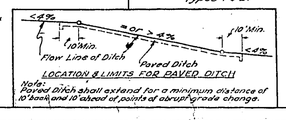
To be used with Paved Ditch Types 1 & 2.

Dimension	Type 1	Type 2
B	6'-0"	3'-0"
C	1'-6"	1'-0"
F	5'-0"	2'-0"
G	11'-0"	9'-6"
H	2'-0"	1'-6"
Class X Conc.	0.9 C.Y.	0.6 C.Y.



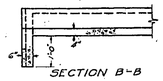


NOTE:
Class X Concrete shall be used throughout. Inlets shall be paid for at the contract unit price per lineal foot for Paved Ditch Types 1 & 2.



LOCATION & LIMITS FOR PAVED DITCH

Note:
Paved Ditch shall extend for a minimum distance of 10' back and 10' ahead of points of abrupt grade change.



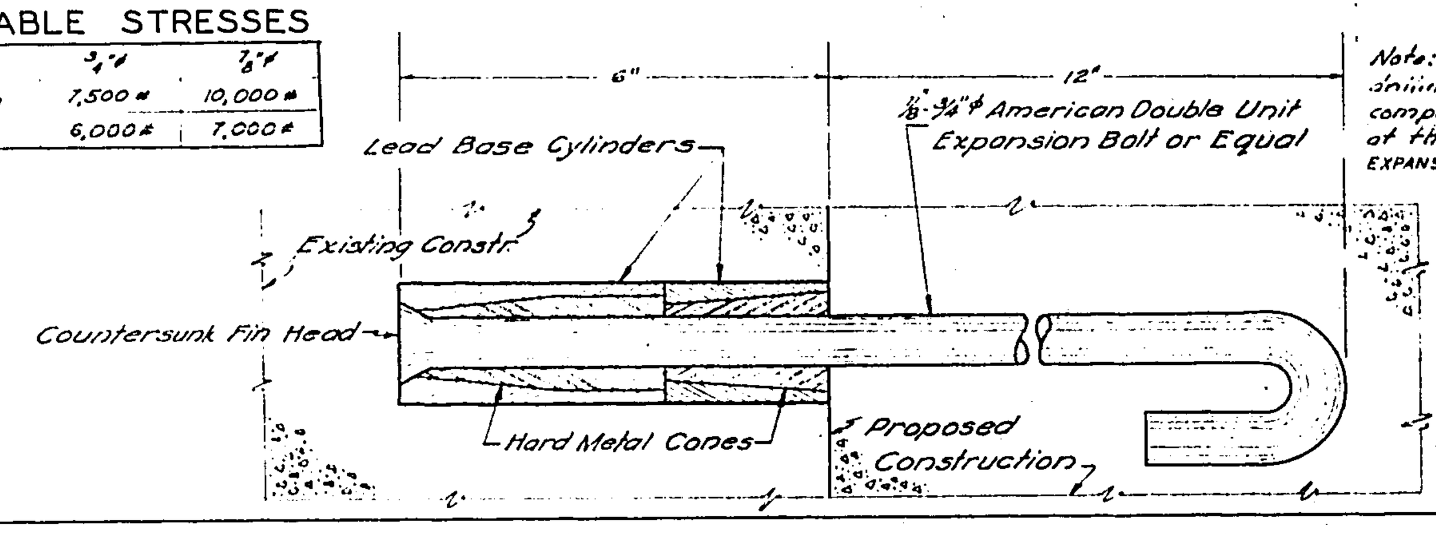
SECTION B-B

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
148	(130 WISI)W	Williamson	102 W	29 W
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

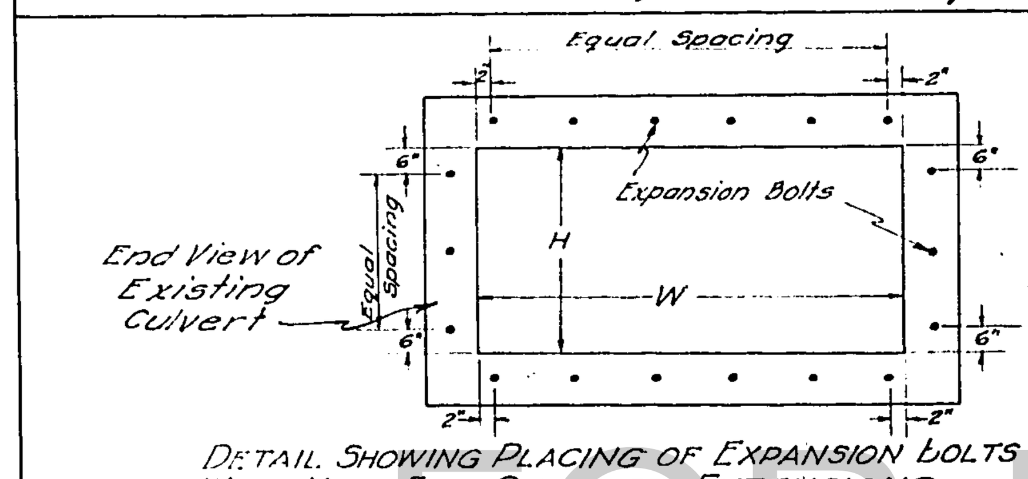
DETAIL OF EXPANSION BOLT

ALLOWABLE STRESSES

	3/4" ϕ	7/8" ϕ
Tension	7,500 #	10,000 #
Shear	6,000 #	7,000 #



Note: Furnishing the expansion bolts, drilling holes, and installing the bolts complete in place will be paid for at the contract unit price each for EXPANSION BOLTS



DETAIL SHOWING PLACING OF EXPANSION BOLTS WHEN USED FOR CULVERT EXTENSIONS

TABLE OF EXPANSION BOLTS REQUIRED FOR ONE END OF CULVERT

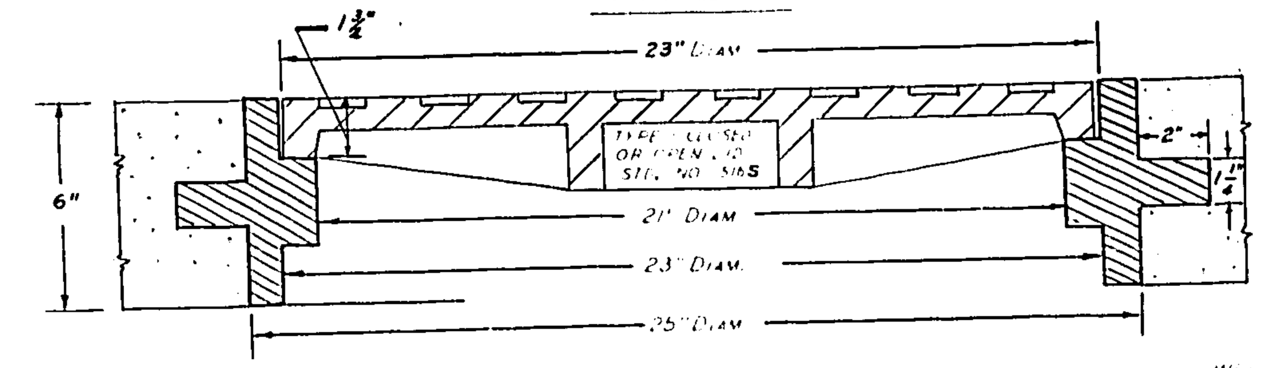
Number Reqd. for Top & Bottom Slabs		Number Reqd. for both Walls	
W-Ft.	No. Bolts	H-Ft.	No. Bolts
3	6	3	4
4	6	4	6
5	8	5	6
6	8	6	8
7	10	7	8
8	10	8	10
9	12	9	10
10	12	10	12
11	14	11	12
12	14	12	14

NOTE: Total required = Number for Walls + Number for Slabs. The number of Expansion Bolts at each location is shown on the Plans.

DETAILS OF CAST IRON FRAME, SPECIAL TYPE 1 AND TYPE 2

S.B.I. (130,WISI) 148 W WILLIAMSON 102 W 29 W

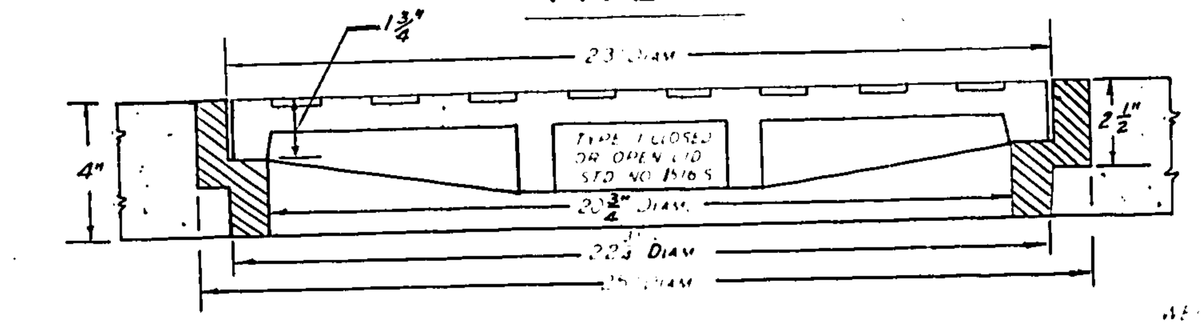
TYPE 1



WEIGHT OF FRAME 2_ LBS.

FURNISHING OF CAST IRON FRAME, SPECIAL TYPE 1 AND TYPE 2 SHALL INCLUDE TYPE CLOSED OR OPEN LID, STD. NO. 1516S

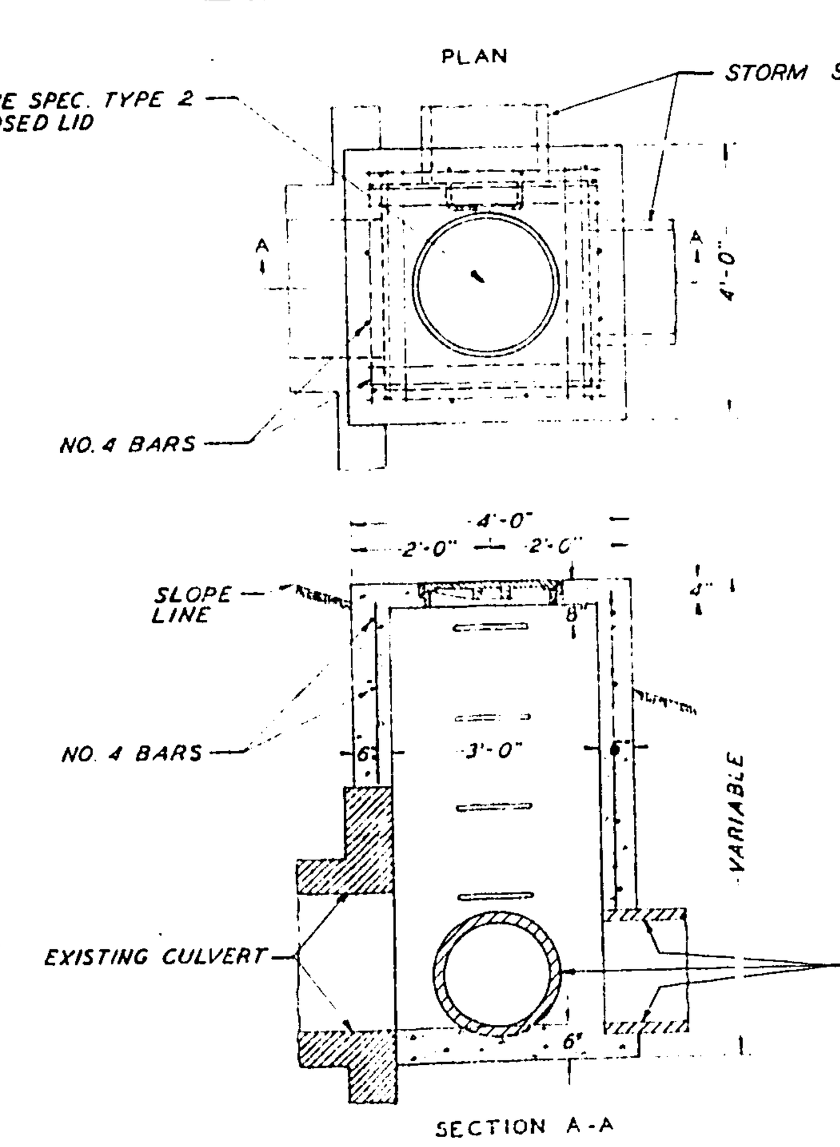
TYPE 2



WEIGHT OF FRAME 90 LBS.

4-6-55 H.B.R.

MANHOLE SPECIAL TYPE II



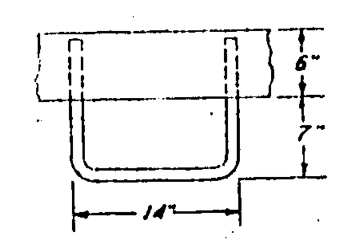
NOTES

CLASS X CONCRETE TO BE USED THROUGHOUT

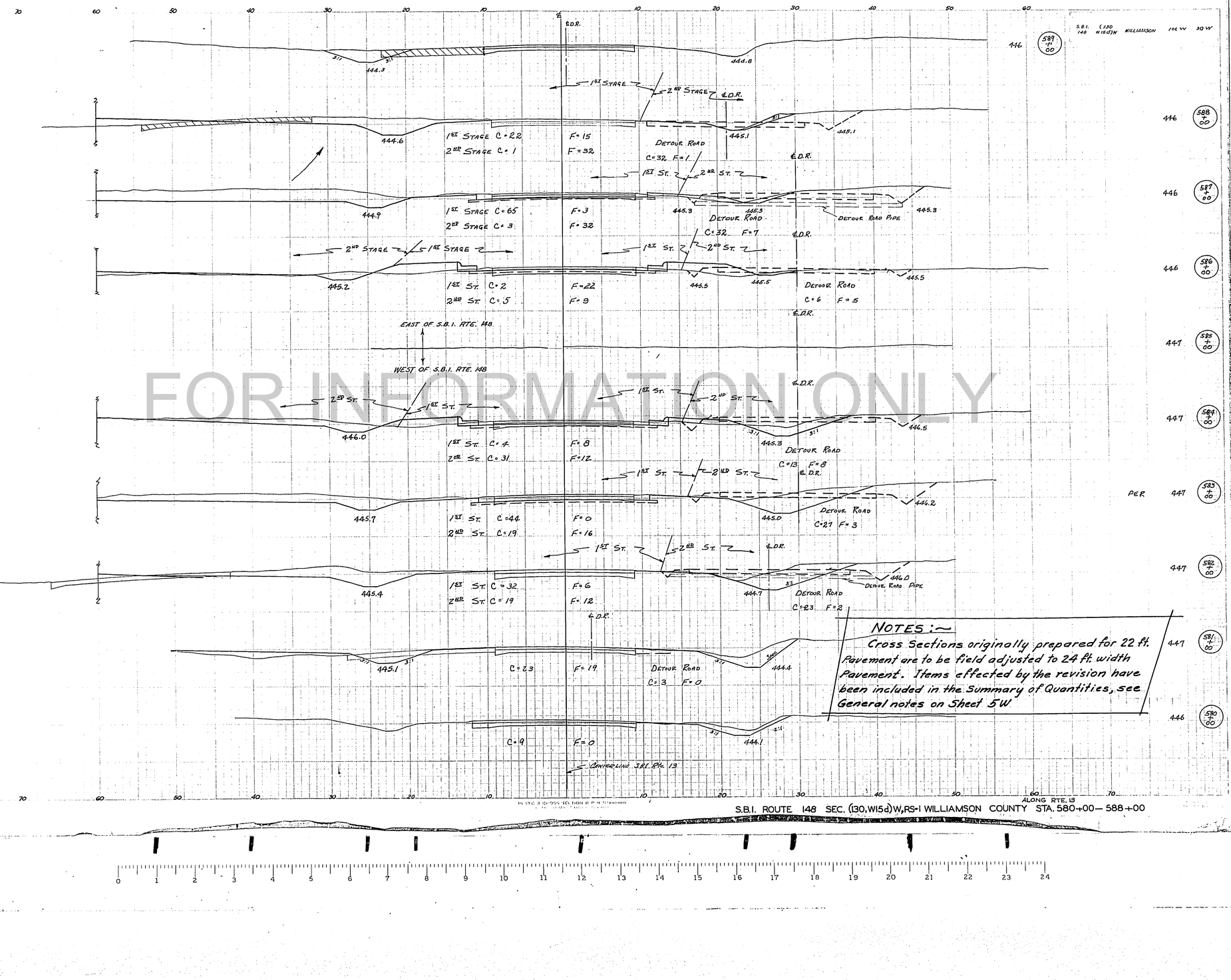
MANHOLE TO BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR MANHOLE SPECIAL TYPE II, WHICH PRICE SHALL INCLUDE THE COST OF THE CAST IRON FRAME, SPECIAL, TY. 2 WITH TY. 1 CLOSED LID AND REINFORCEMENT BARS, AND SHALL BE PAYMENT IN FULL FOR FURNISHING ALL MATERIAL AND FOR CONSTRUCTING THE WORK COMPLETE IN PLACE.

S.B.I. (130,WISI) 148 W WILLIAMSON 102 W 29 W

DETAIL OF STEPS



1" ROUND GALVANIZED IRON STEPS - 16" O.C.

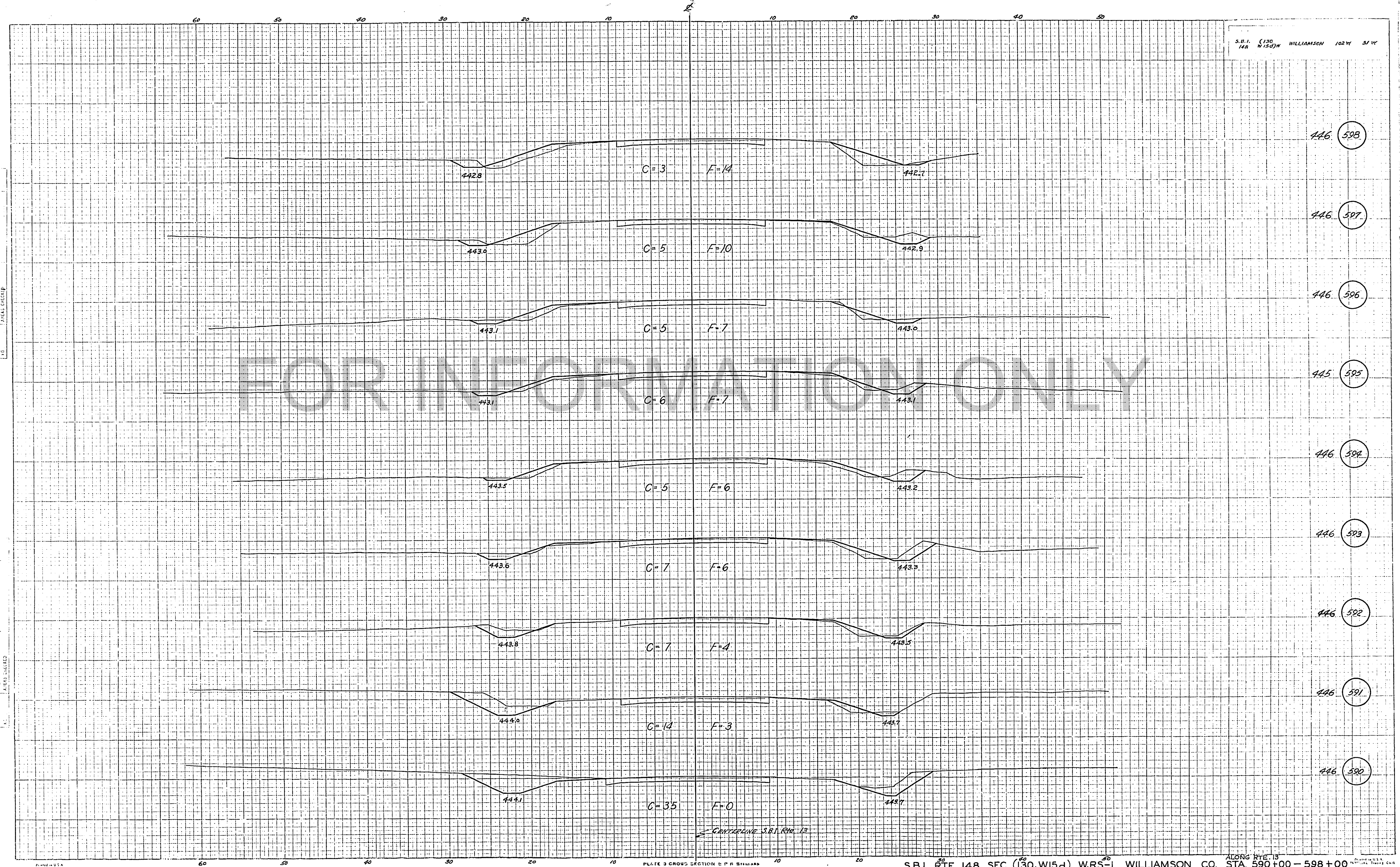


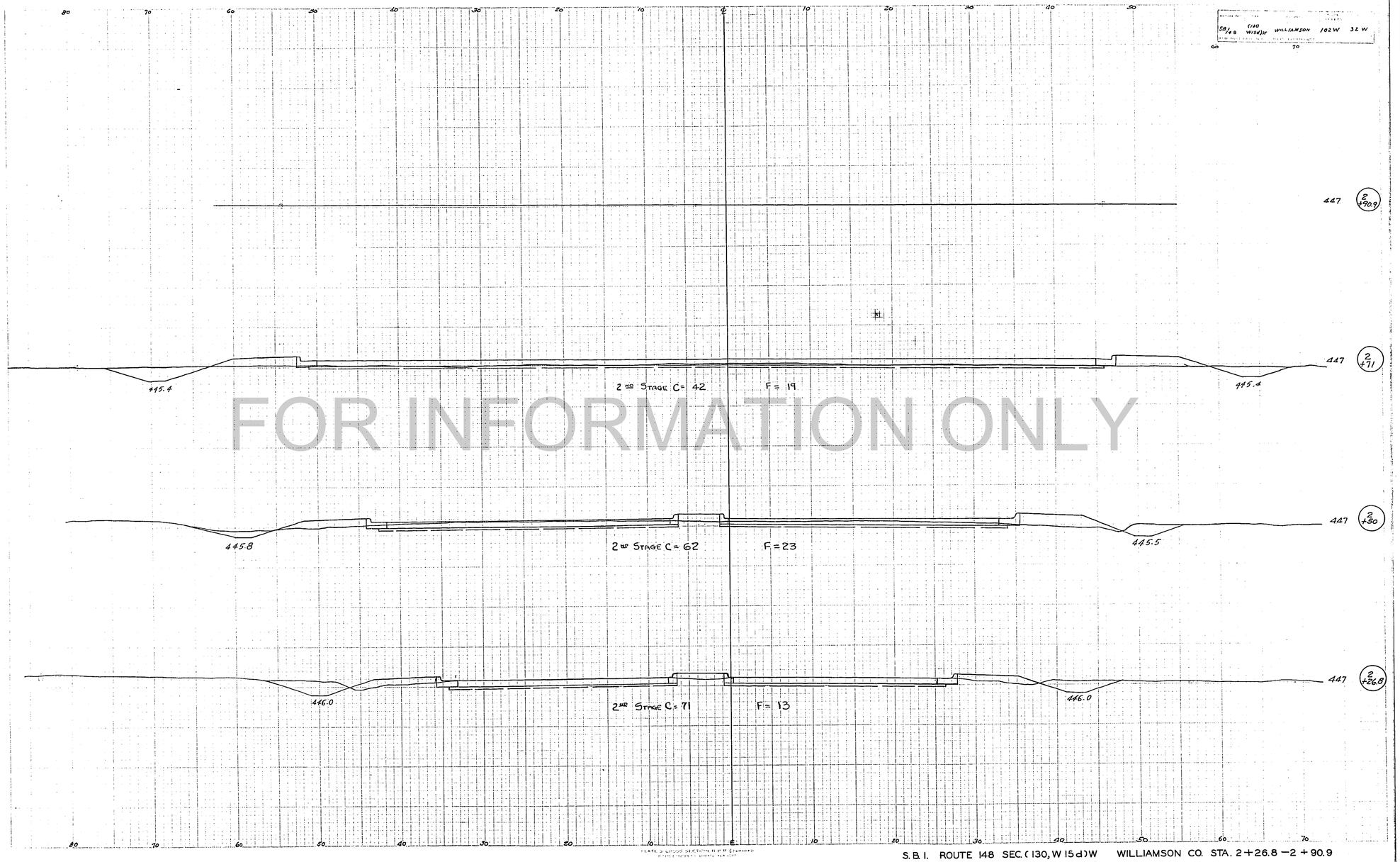
S.B.I. (130 148 W15d)W WILLIAMSON 10E W 30 W

NOTES:—
Cross Sections originally prepared for 22 ft. Pavement are to be field adjusted to 24 ft. width Pavement. Items effected by the revision have been included in the Summary of Quantities, see General notes on Sheet 5W

ALONG RTE. 13

S.B.I. ROUTE 148 SEC. (130,W15d)W,RS-1 WILLIAMSON COUNTY STA. 580+00— 588+00

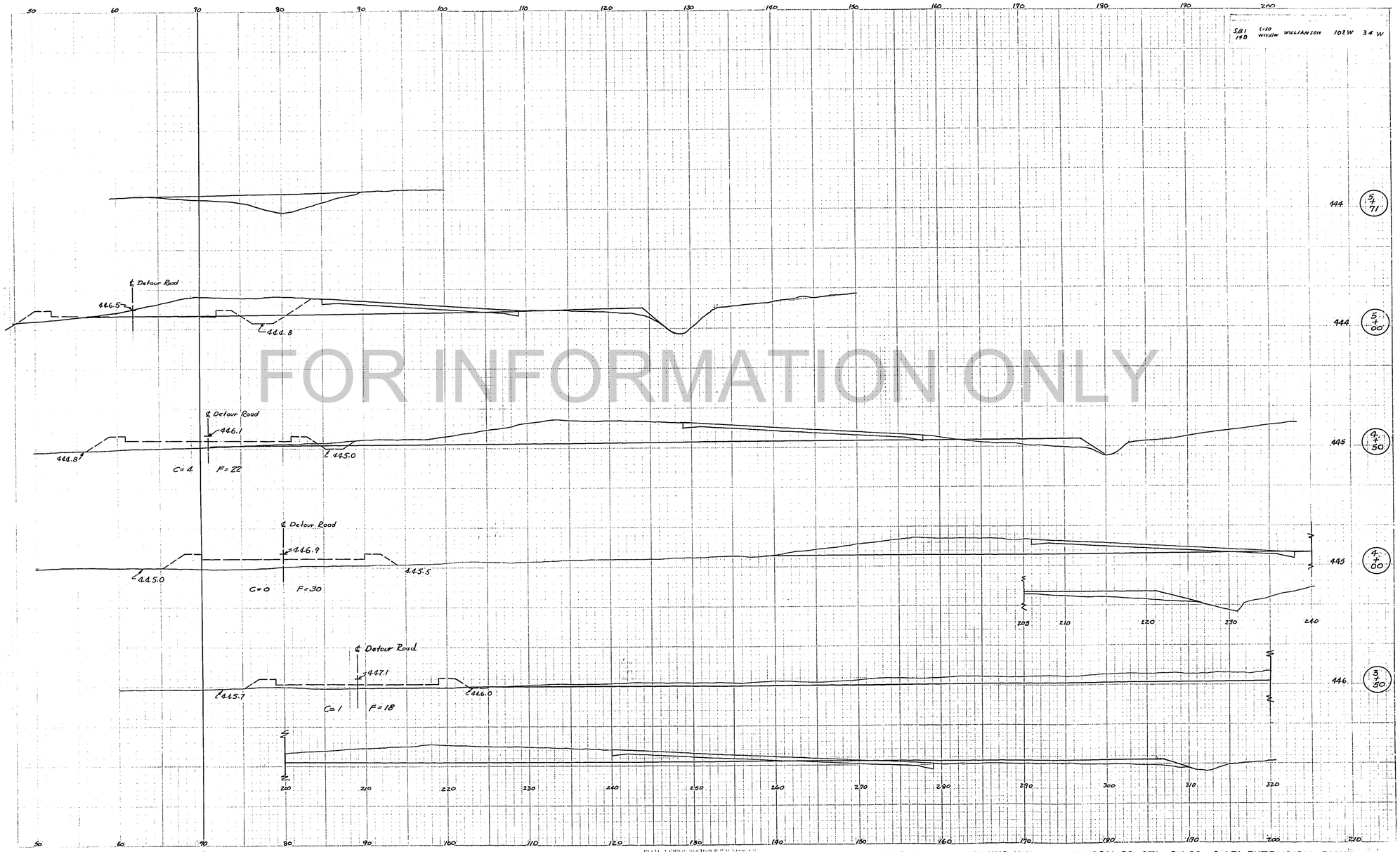




S.B.I. ROUTE 148 SEC. (130, W15d)W WILLIAMSON CO. STA. 2+26.8 –2 + 90.9

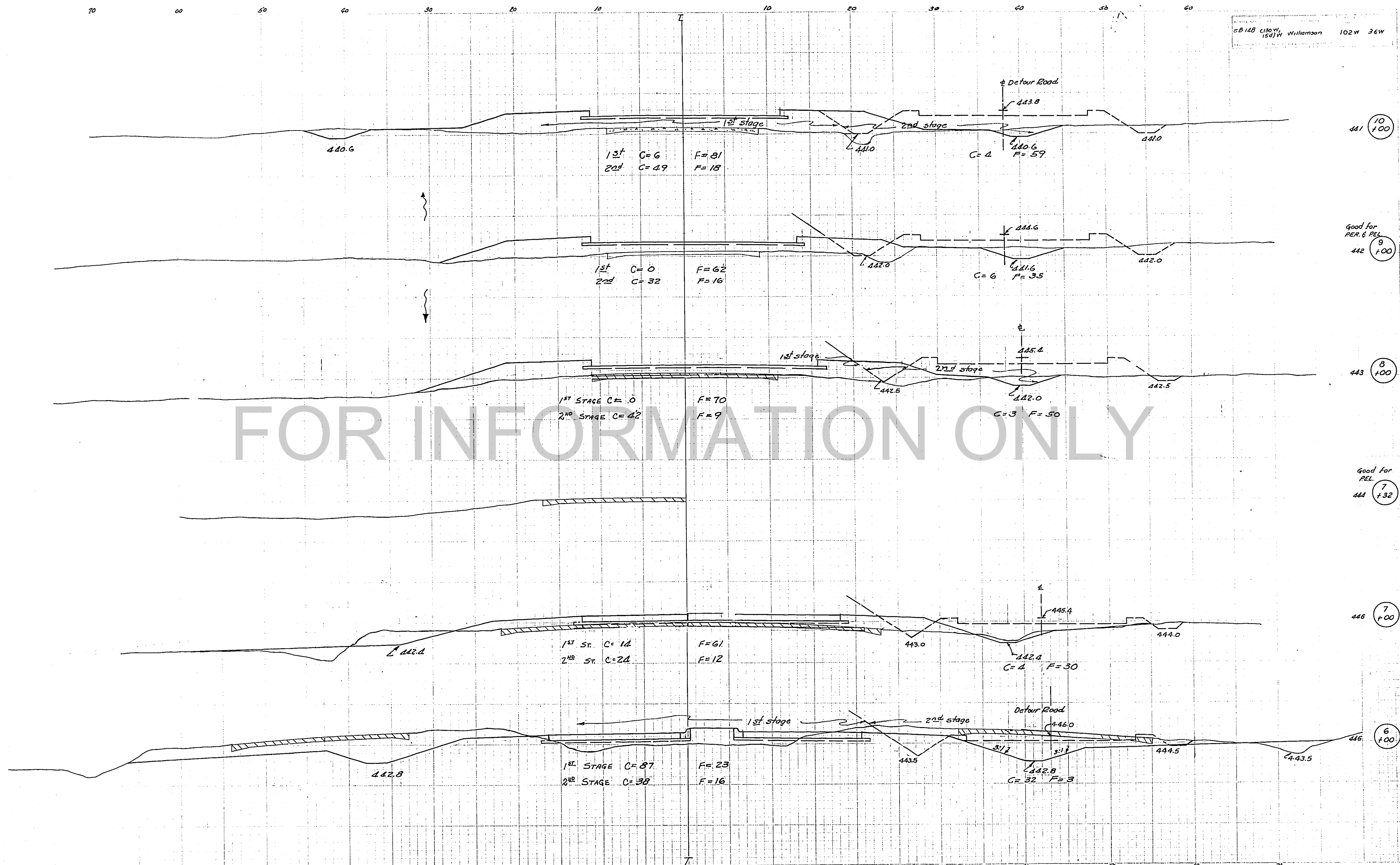
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

S.B.I. RTE. 148 SEC. (130, W15d)W WILLIAMSON CO. STA. 3+00 — STA. 5+71

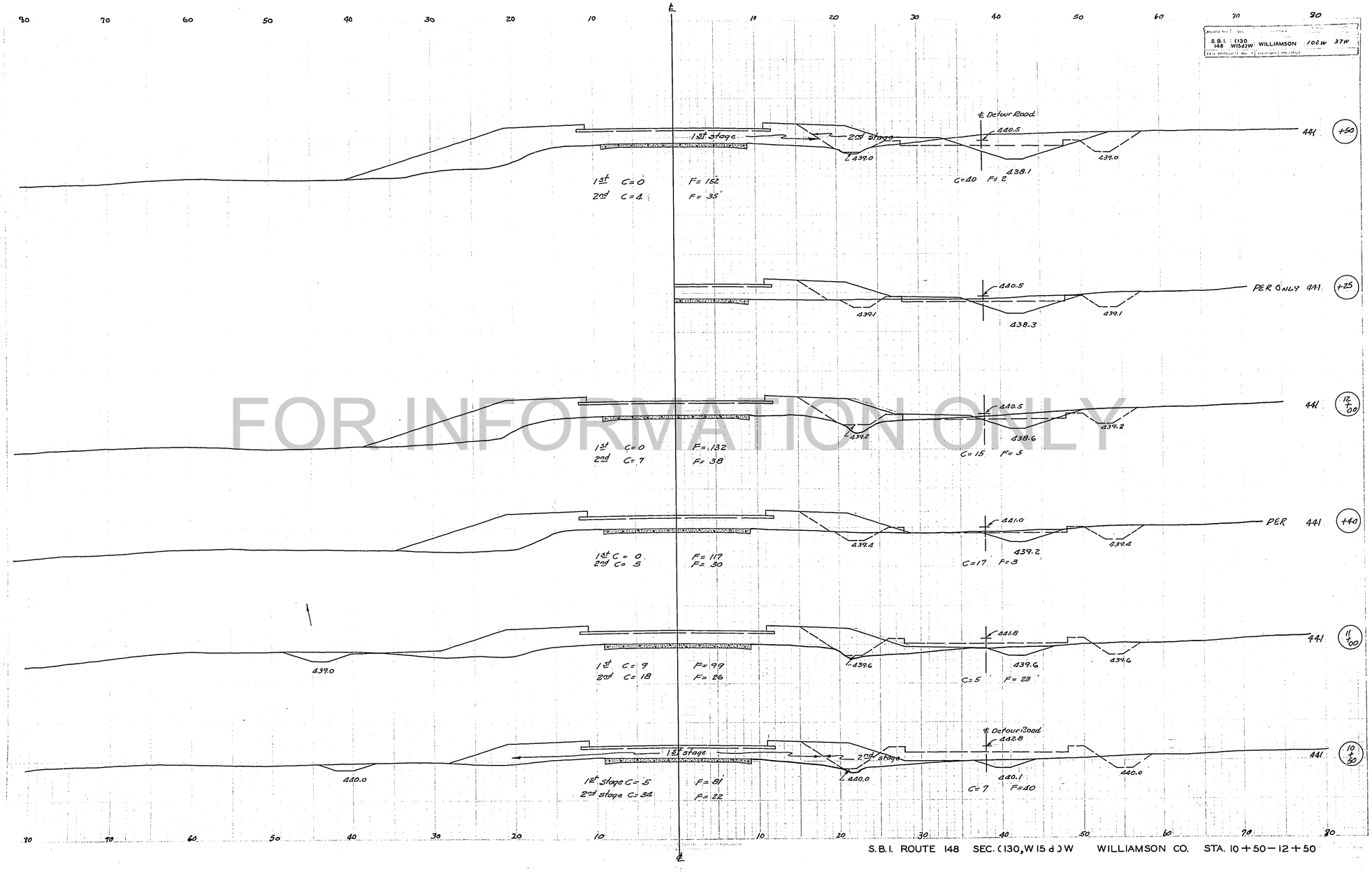


S.B.I. ROUTE 148 SEC. (130, W15dJW WILLIAMSON CO. STA. 3+50—5+71 EXTENSION RIGHT

S.B.I. ROUTE 148 SEC. C130, W15dW WILLIAMSON CO. STA. 3+50—5+71 EXTENSIONS LEFT



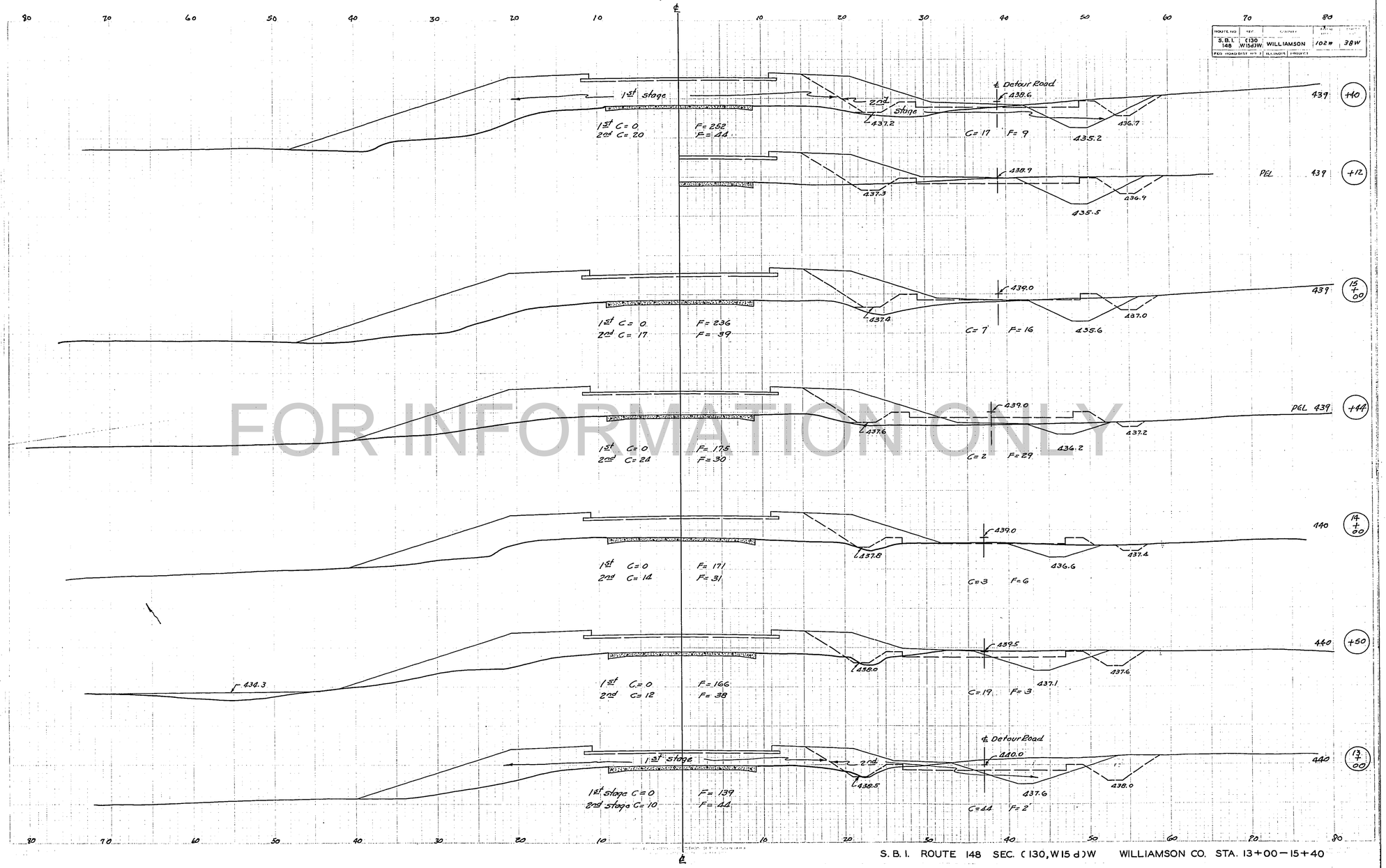
S.B.I. RTE. 148 SEC. (130, W15dJW WILLIAMSON CO. STA. 6+00 — STA. 10+00



S.B.I. ROUTE 148 SEC. C130, W15dJW WILLIAMSON CO. STA. 10+50—12+50

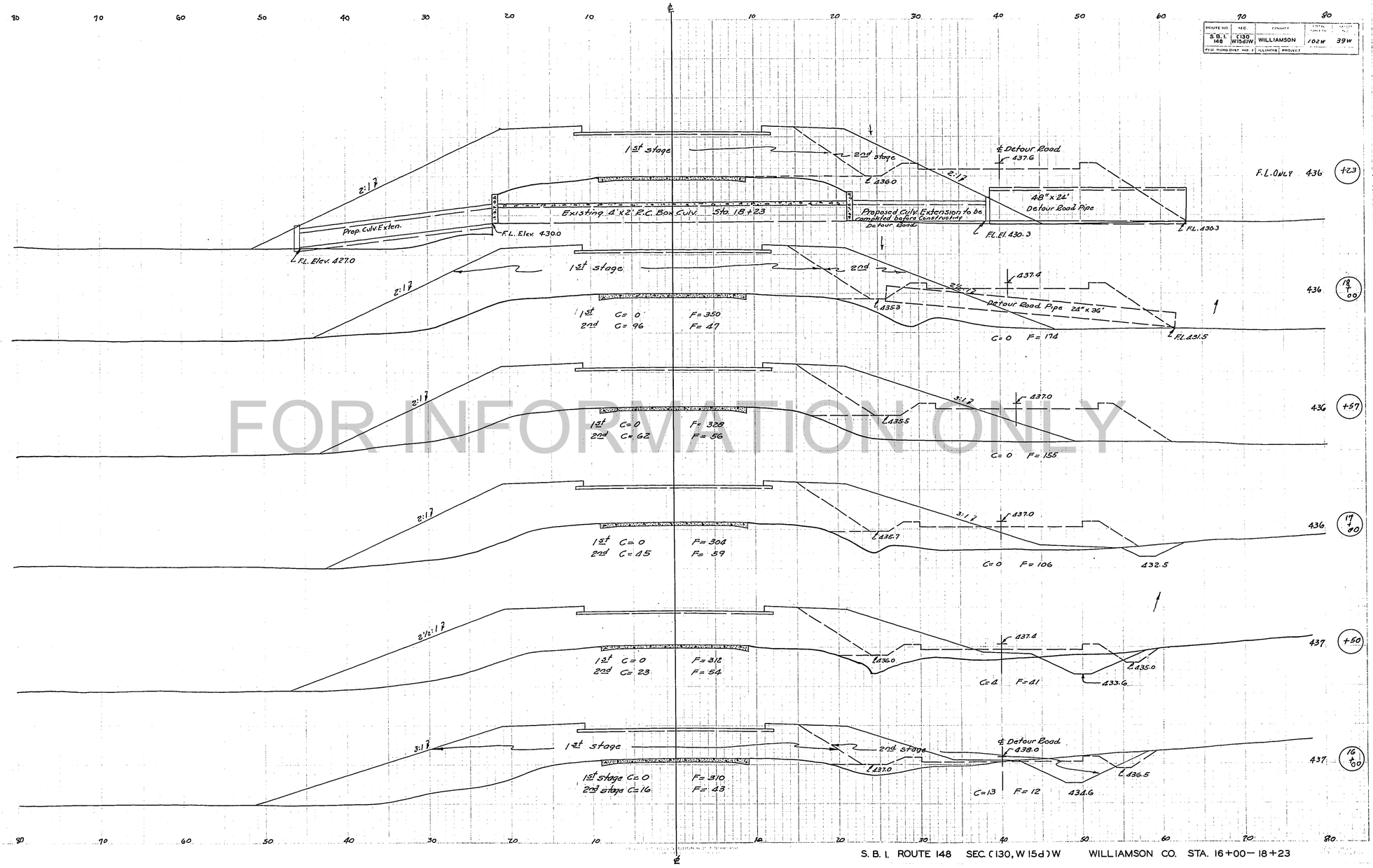
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

ROUTE NO	SEC	COUNTY		
S.B.I. 148	C130 W15dW	WILLIAMSON	102W	38W
FED HIGHWAY NO	ILLINOIS	PROJECT		



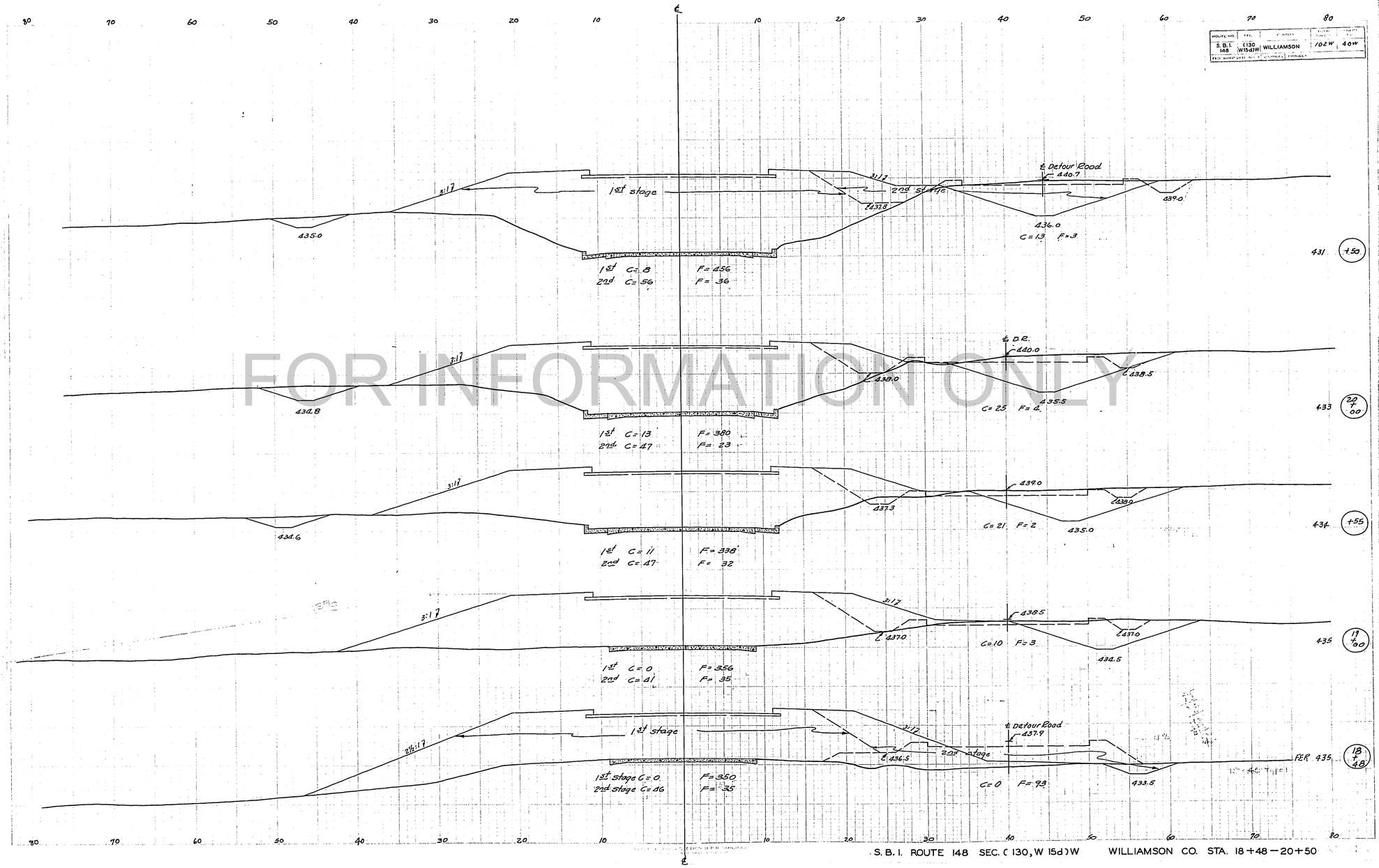
S. B. I. ROUTE 148 SEC. C130, W15dW WILLIAMSON CO. STA. 13+00 — 15+40

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS
S.B.I. 148	C130 W15d)W	WILLIAMSON	102W 39W
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT	

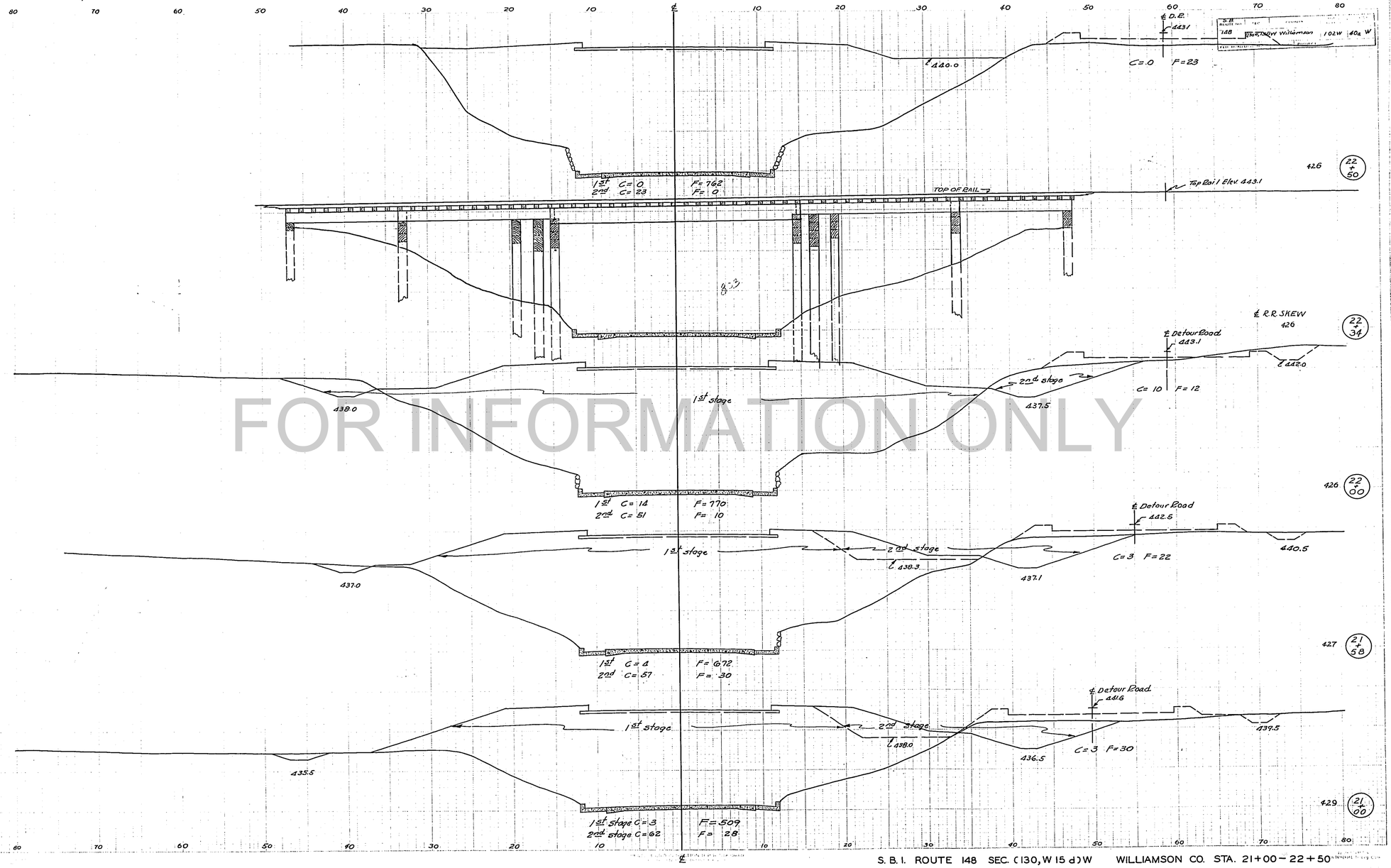


S. B. I. ROUTE 148 SEC. C130, W 15d)W WILLIAMSON CO. STA. 16+00 — 18+23

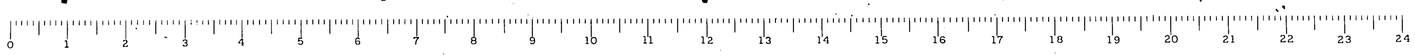
ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. 148	(130 W15d)W	WILLIAMSON	102 W	40 W
FED. AID PROJ. NO.	STATE PROJECT			



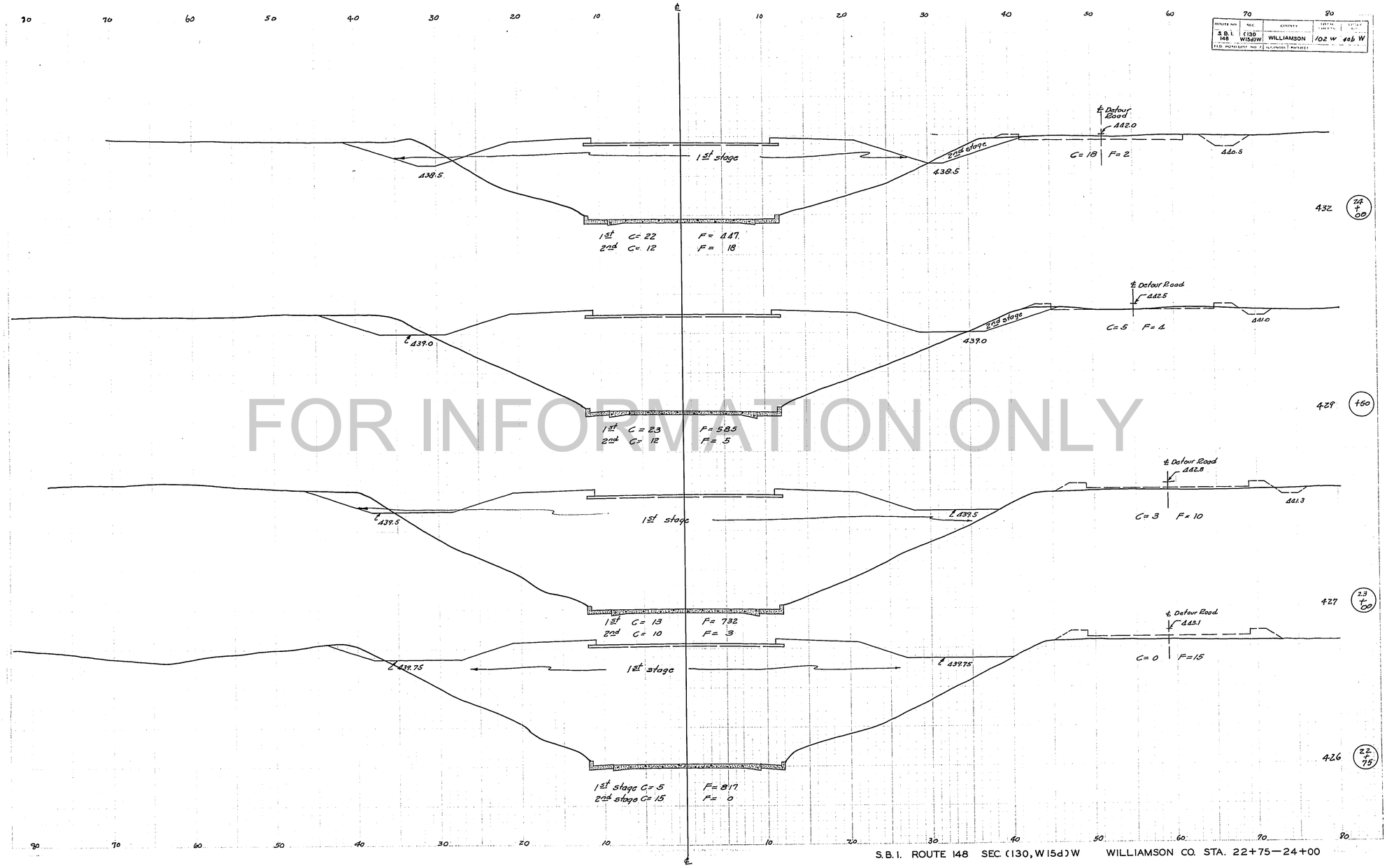
S. B. I. ROUTE 148 SEC. (130, W 15d)W WILLIAMSON CO. STA. 18+48—20+50



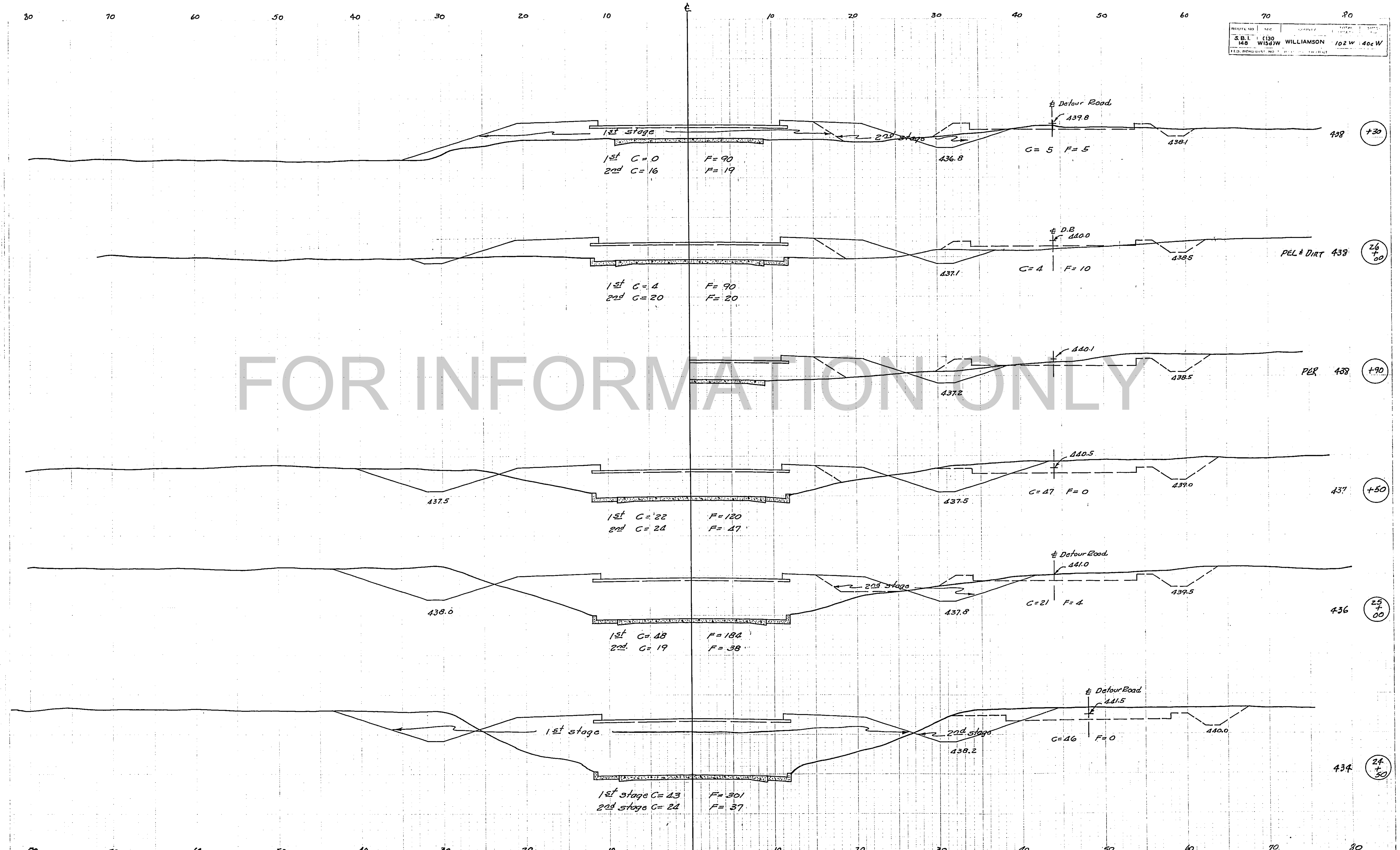
S. B. I. ROUTE 148 SEC. (130, W 15 d)W WILLIAMSON CO. STA. 21+00 – 22+50



ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. 148	(130 W15dW	WILLIAMSON	102 W 106 W	
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

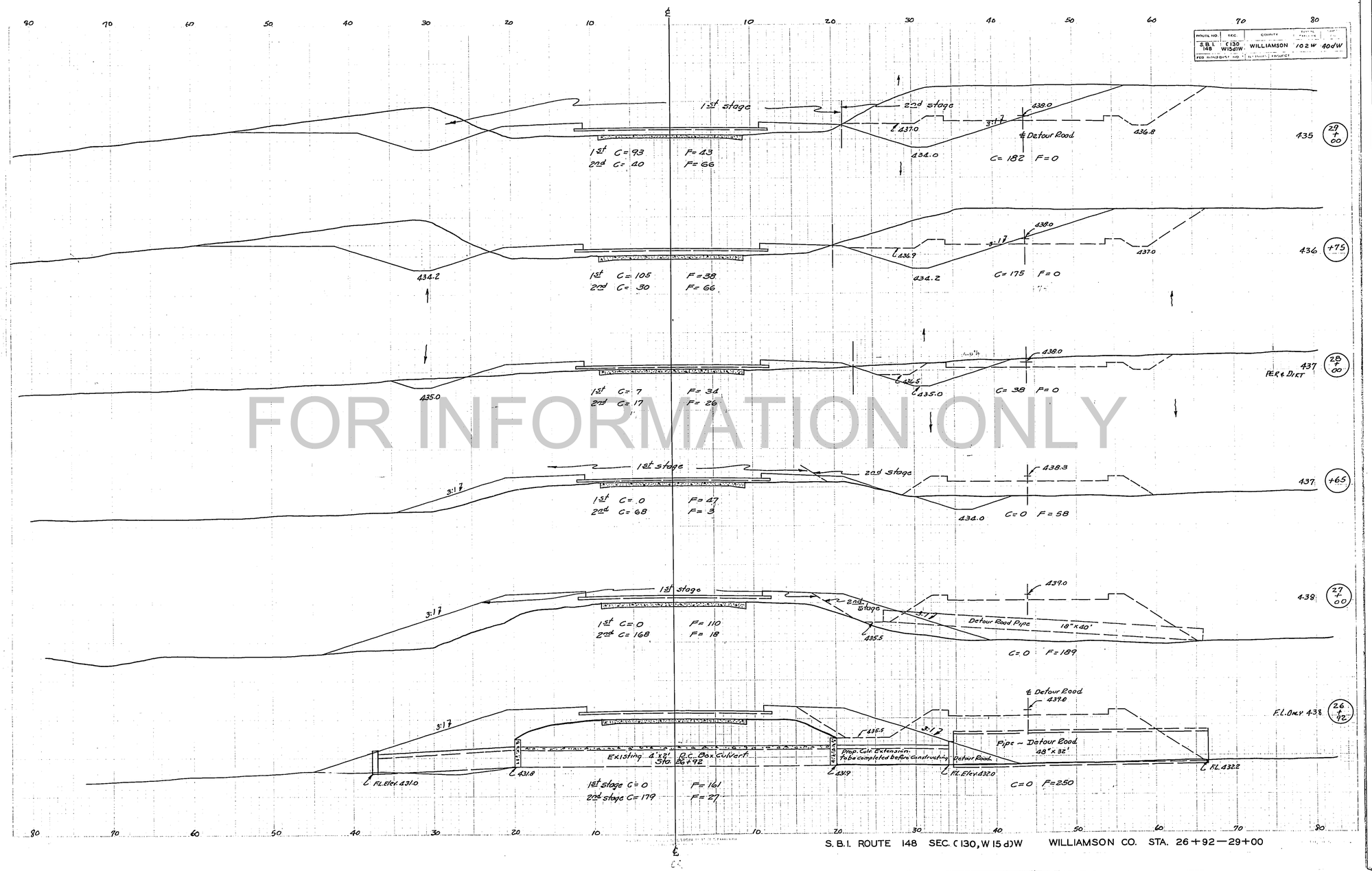


S.B.I. ROUTE 148 SEC. (130, W15d) W WILLIAMSON CO. STA. 22+75—24+00



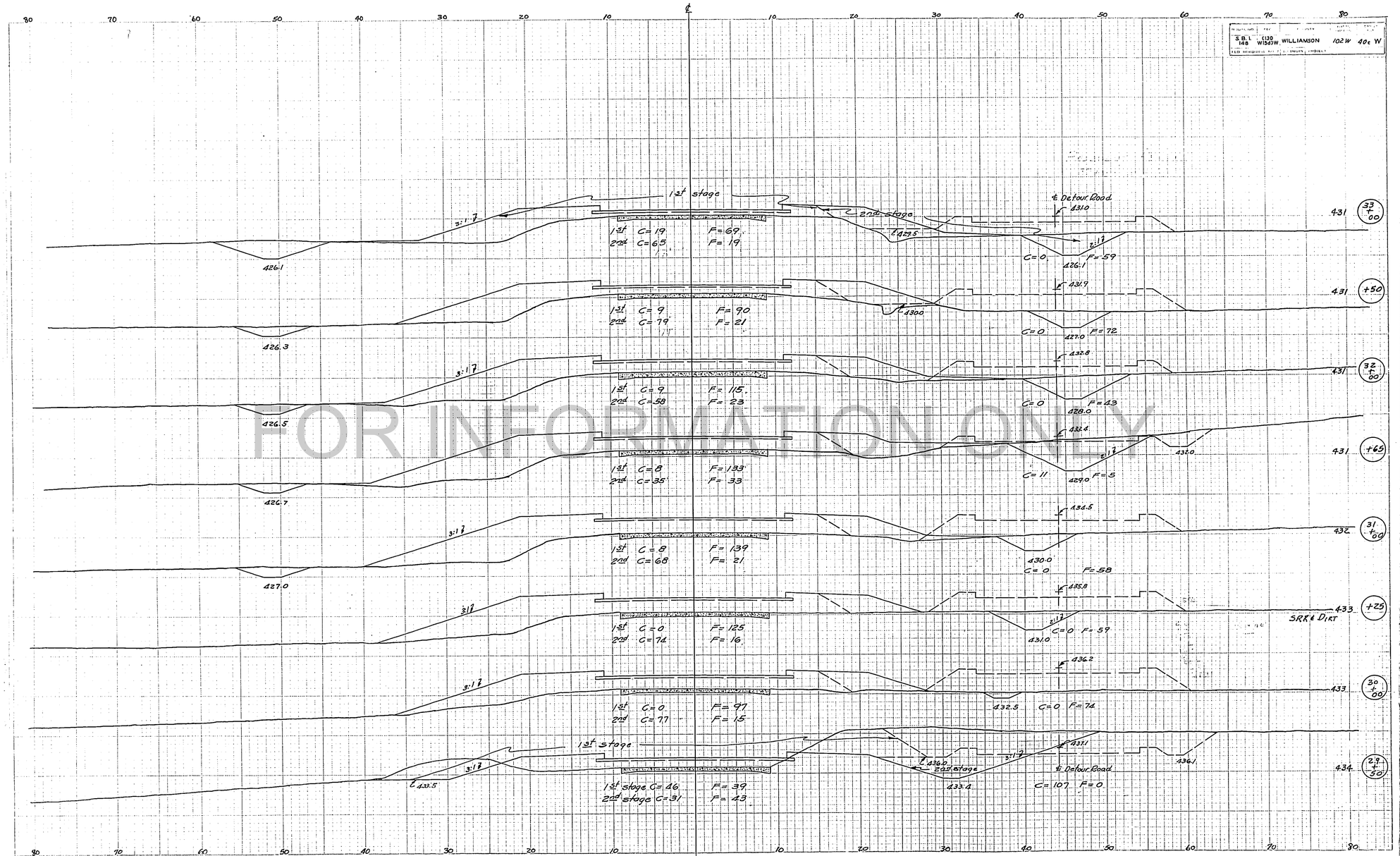
S. B. I. ROUTE 148 SEC. (130, W 15d)W WILLIAMSON CO. STA. 24+50–26+30

ROUTE NO.	SEC.	COUNTY	SHEET NO.	TOTAL SHEETS
S.B.I. 148	C130 W15dW	WILLIAMSON	102 W	40dW
FED. ROAD DIST. NO.	ILLINOIS	PROJECT		



S. B. I. ROUTE 148 SEC. C130, W15dW WILLIAMSON CO. STA. 26+92—29+00

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24



S. B. I. ROUTE 148 SEC. (130, W 15 d) W WILLIAMSON CO. STA. 29+50 — 33+00

STATE DIST.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. 148	(130 W15d)W	WILLIAMSON	102W	41W

FOR INFORMATION ONLY

1ST STAGE C=21 F=8

1ST STAGE C=22 F=15

1ST STAGE C=14 F=30

Paved Ditch Type 2 Ends at +60

1ST STAGE C=26 F=30

℄ Detour Road

D.R.Cut 3 F=4

1ST STAGE C=67 F=58

Proposed culvert Extension

Paved Ditch Type 2 Starts at +90

℄ D.R.

Existing 8'-6"x6' R.C. Box Culvert Sta. 34+86
45° R.H. Skew.
Extend Culv. Before Constructing Detour Road.

Prop. Culv. Extension (Skewed)

F.L. 423.33

F.L. 423.75

F.L. 431.5

1st stage

2nd stage

1st stage C=18 F=104
2nd stage C=56 F=3

C=29 F=52

D.R.Cut 7

℄ Detour Road 431.2

1st stage C=21 F=30
2nd stage C=80 F=0

C=0 F=56

℄ Detour Road 431.0

Detour Road Pipe 15" x 32'

1st stage C=23 F=45
2nd stage C=88 F=120

C=0 F=64

431	37	
431	+50	
431	36	
431	+50	
431	35	
		FL. ONLY (Skewed)
431	+86	
431	+98	
431	34	
431	33 +00	

S.B.I. RTE. 148 SEC. (130, W15d) WILLIAMSON CO. STA. 33+50 - 37+00

COUNTY	TOTAL SHEETS	SHEET NO.
WILLIAMSON	102	42

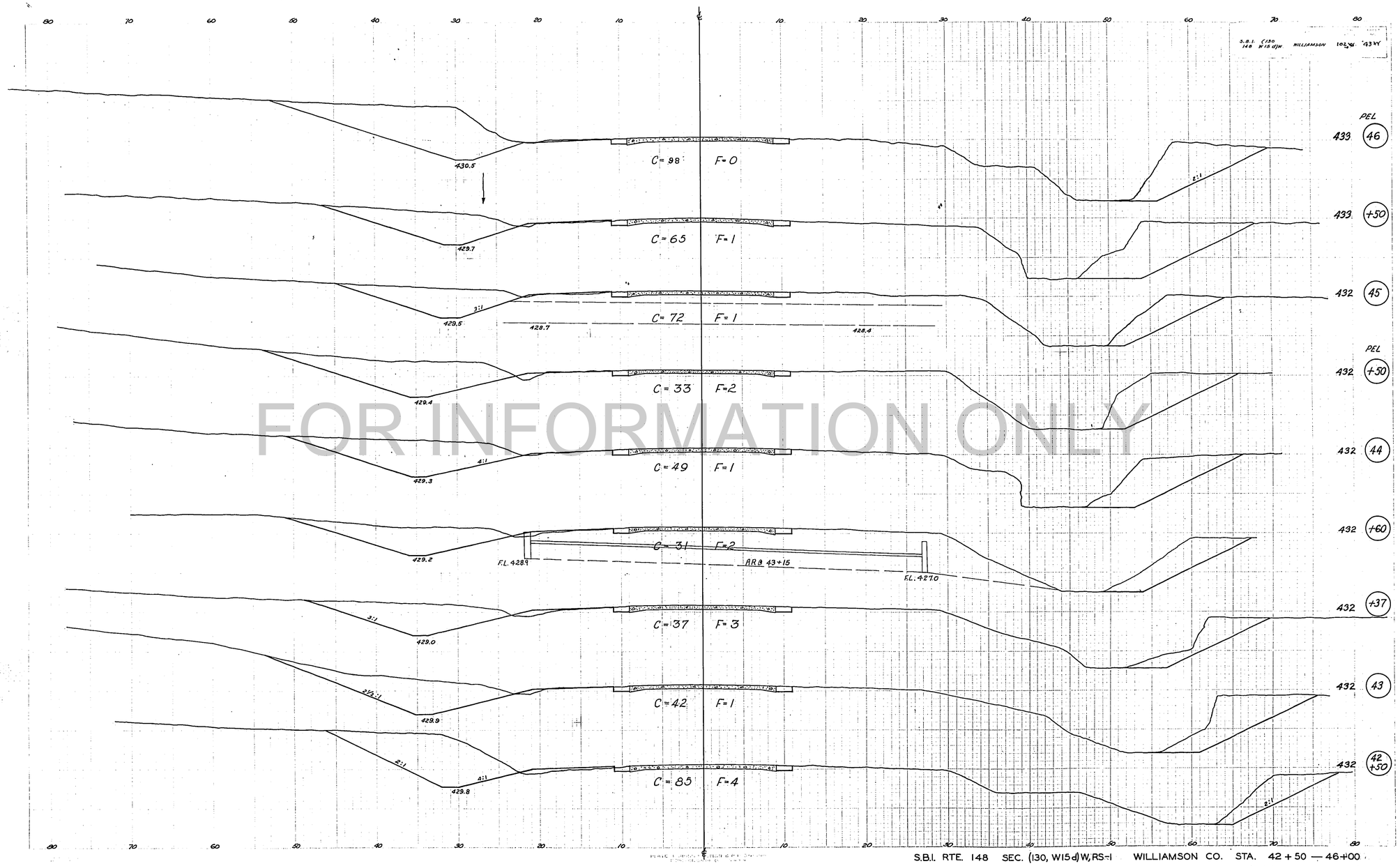
S.B.I. RTE. 148 SEC. (30, W15 d) W, RS-1 WILLIAMSON CO. STA. 37+50 — 42+00

C = 87 F = 6
C = 113 F = 6
C = 151 F = 3
C = 106 F = 2
C = 67 F = 2
C = 36 F = 3
C = 55 F = 6
C = 84 F = 6
C = 60 F = 4
C = 31 F = 2

429.6
429.3
429.0
428.7
428.4

2:1
3:1

932 92
932 +50
932 91
932 +50
932 90
932 +47
932 89
932 +50
931 88
931 87 +50



S.B.I. RTE. 148 SEC. (130, W15d)W, RS-1 WILLIAMSON CO. STA. 42 + 50 — 46+00

S.B.I. ℄ 130 W 15 d)W WILLIAMSON 102 VV 44 VV

80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80

C = 93 F = 2

C = 57 F = 3

C = 2 F = 0

C = 46 F = 4

C = 52 F = 0

C = 68 F = 0

C = 84 F = 0

3:1

432.0

431.8

430.9

430.4

429.5

427.9

FL. 429.2

A.R. m. 46+75

FL. 427.0

435 (49)

435 (+75)

F.L. ONLY
434 (+34.8)

434 (48)

434 (+47)

433 (47)

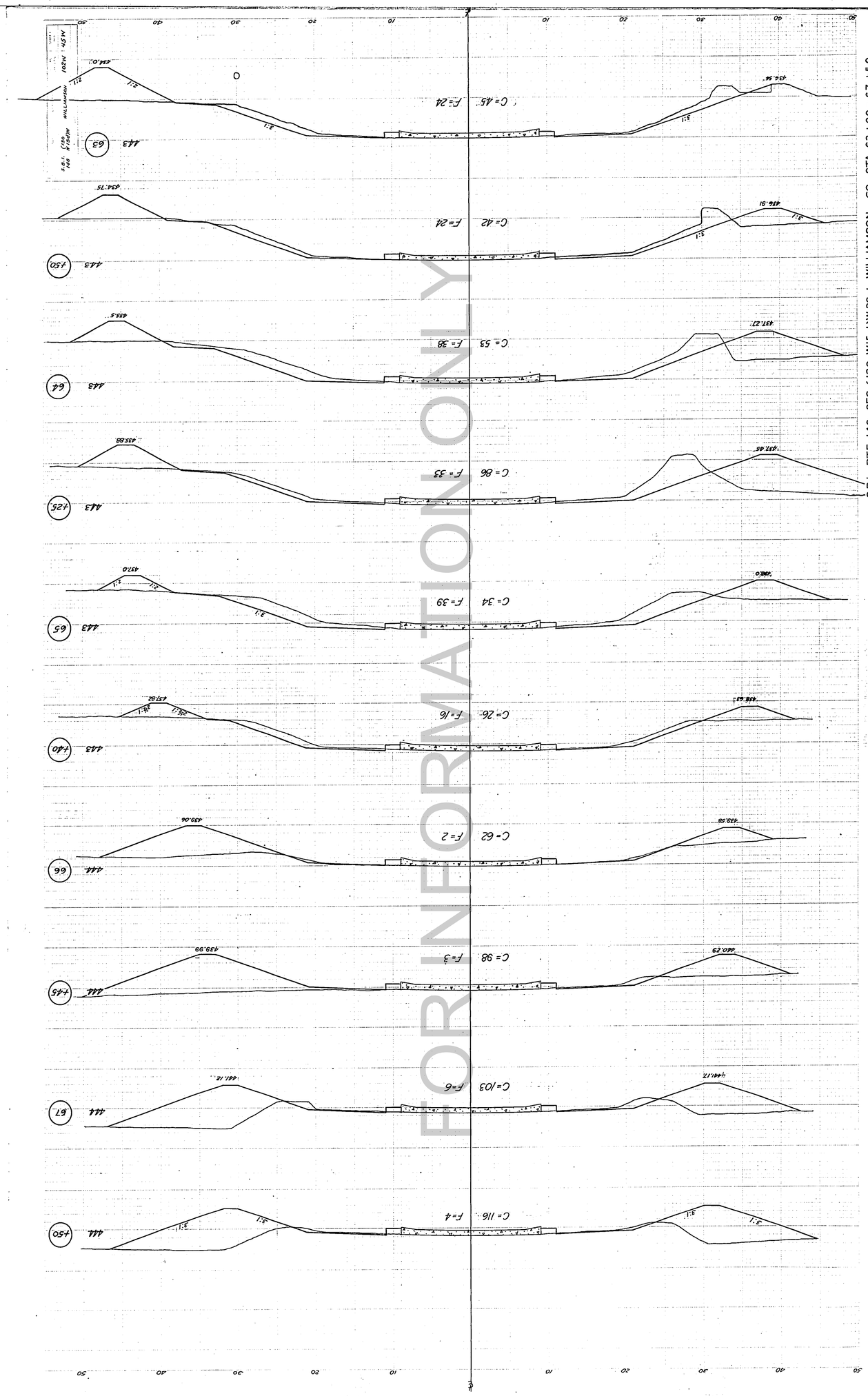
433 (46 + 50)

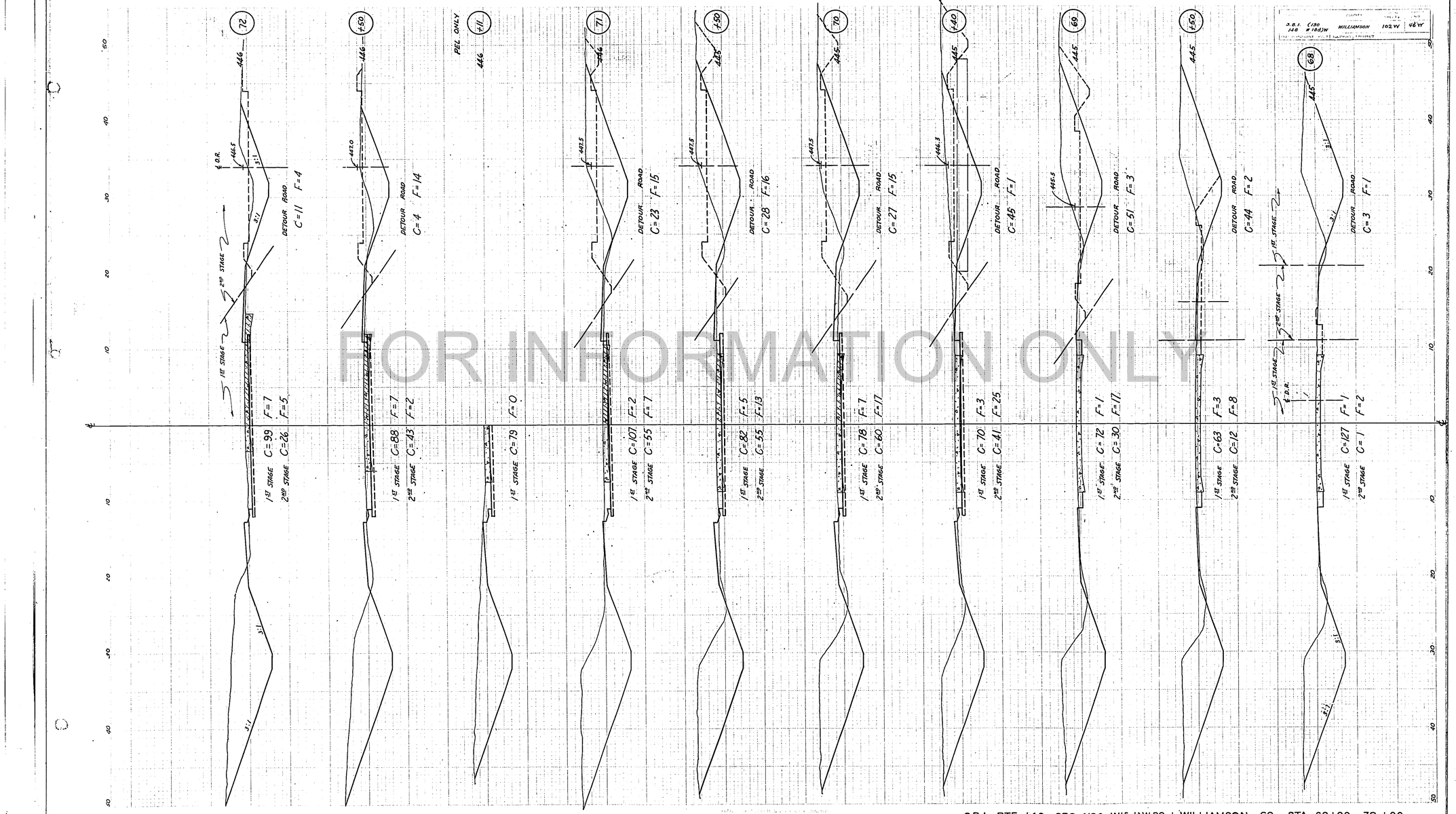
80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80

S.B.I. RTE. 148 SEC. (130,W15d)W,RS-1 WILLIAMSON CO. STA. 46+50 – 49+00

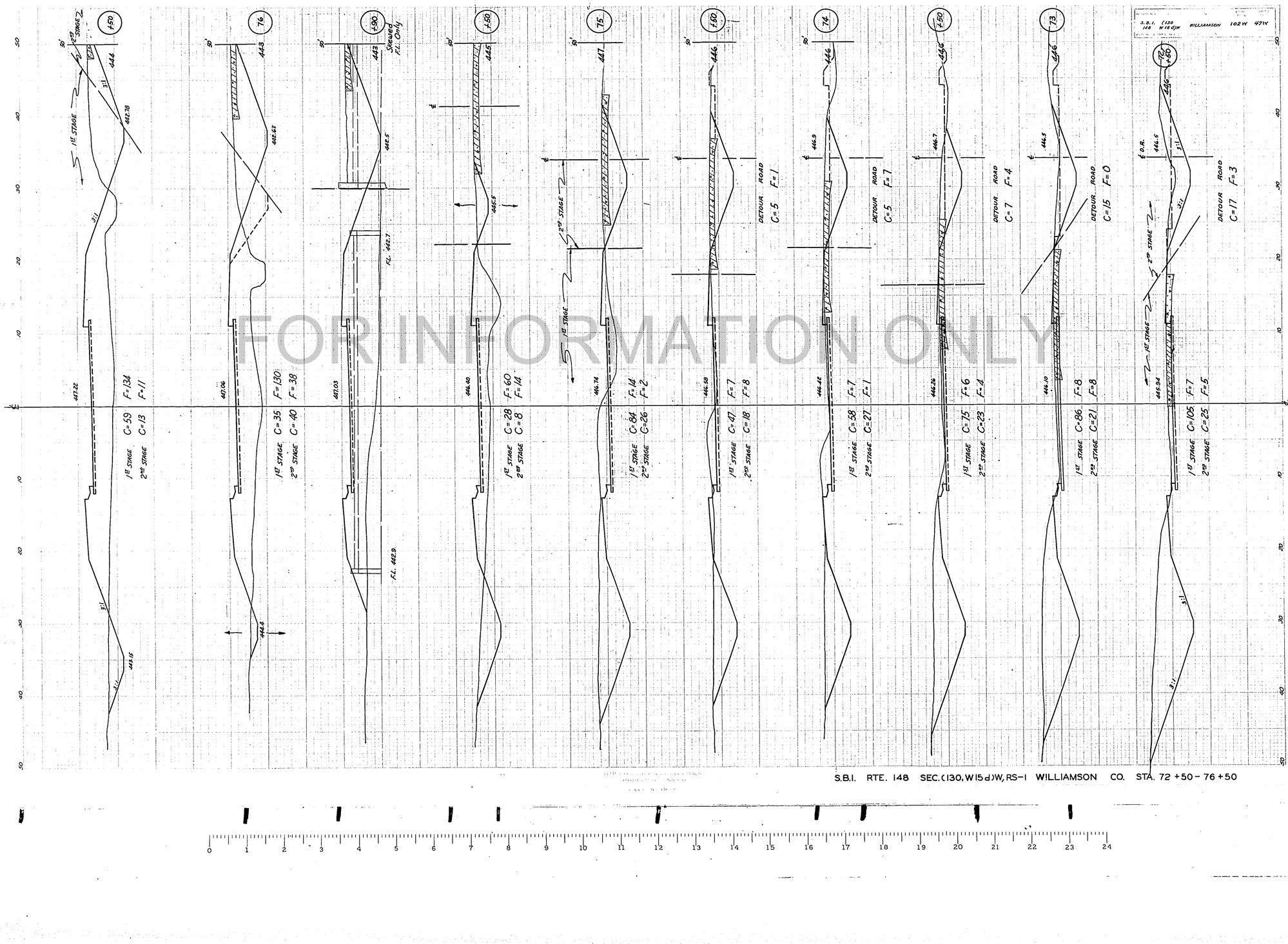
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

S.B.I. RTE. 148 SEC. C 130, W15dJW, RS-I WILLIAMSON CO. STA. 63+00 - 67+50





S.B.I. RTE. 148 SEC. (130, W150)W,RS-1 WILLIAMSON CO. STA. 68+00 - 72 +00



S.B.I. RTE. 148 SEC. (130, W15d) W, RS-1 WILLIAMSON CO. EXTENSON RT. STA. 74+00 - 79+00

S.B.I. RTE. 148 SEC. (130, W15d)W, RS-1 WILLIAMSON CO. STA. 77+00-85+00

S.B.I. (130 148 W15d)W WILLIAMSON 102W 49W

STA.	85	84	83	82	81	80	1ST ONLY	79	78	77
	452	451	451	450	447	446	446	446	445	
	3:1			1ST STAGE						1ST STAGE
	447.36	446.77	446.18	445.59	445.0	444.41	444.14	443.82	443.23	3:1 445 442.93
	3:1									
	Fill = 6	F = 14	F = 5	F = 5	F = 91	F = 116		F = 101	F = 88	F = 94
	Cut = 165	C = 146	C = 167	C = 169	C = 52	C = 67		C = 58	1ST STAGE C = 40	1ST STAGE C = 39
									2ND STAGE C = 16	2ND STAGE C = 8
	1:1									2:1
	447.0	447.3	446.7	445.9	445.1	444.6		444.1	443.60	443.30
	50'									

50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210

S.B.I. RTE. 148	(130 W15Ø)W	WILLIAMSON	102 W	50 W

50' 2ND STAGE

450 (82)

50'

447 (81)

50'

446 (80)

50' 2ND STAGE

PER

463 (79 +57)

50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210

S.B.I. RTE. 148 SEC. (130, W15Ø)W, RS-1 WILLIAMSON CO. EXTENSION RT. STA. 79+57 – 82+00

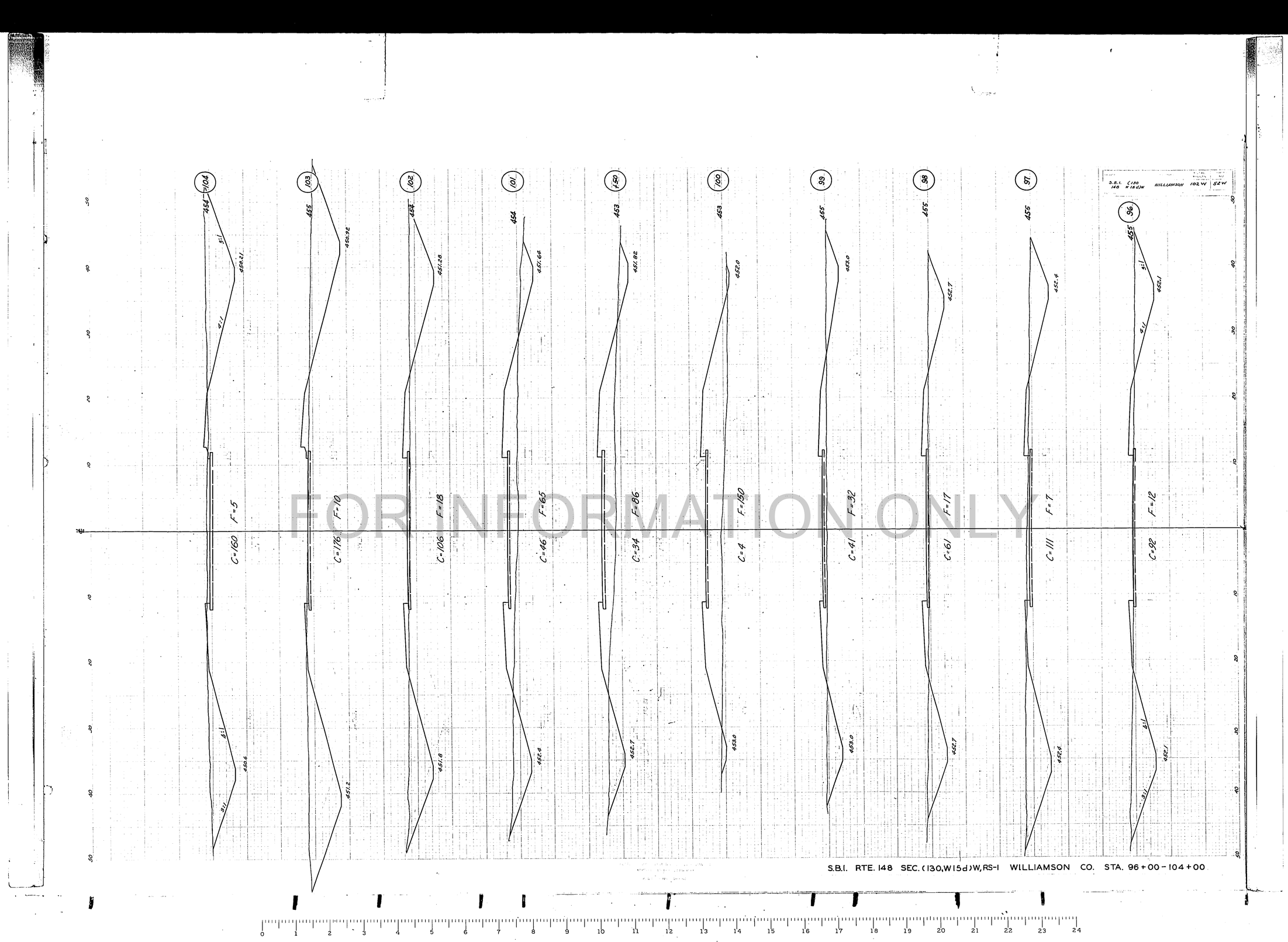
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

S.B.I. NO.	ROUTE NO.	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. 148	C130 & W15dJW	WILLIAMSON	102W	31W

HIGHWAY PROJECT

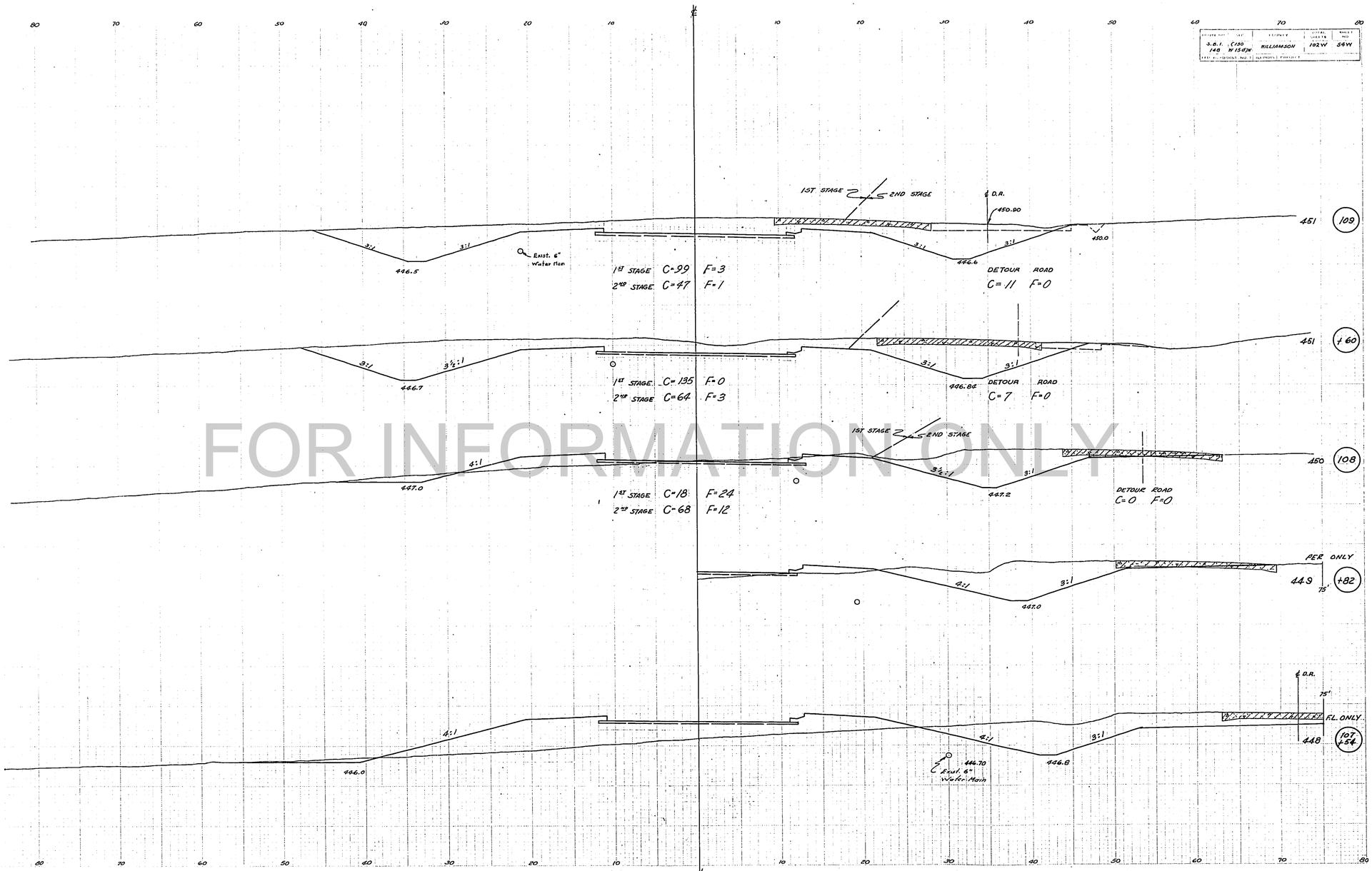
S.B.I. RTE. 148 SEC. (130, W15dJW, RS-1 WILLIAMSON CO. STA. 86+00 - 95+00

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24



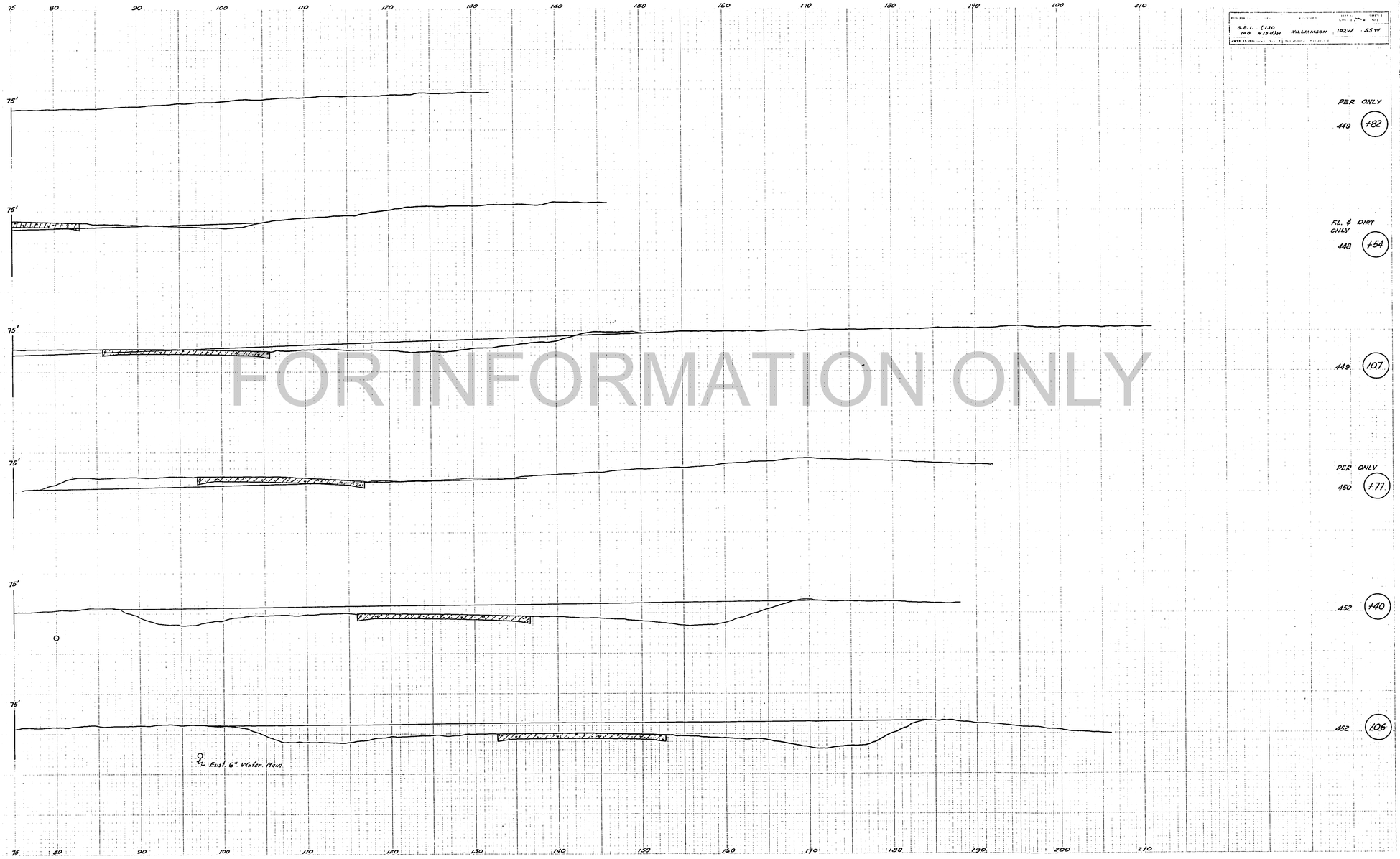
S.B.I. RTE. 148 SEC. C(130,W15d)W,RS-1 WILLIAMSON CO. STA. 104+50 – 107+00

S.B.I.	ROUTE	COUNTY	SHEET NO.	TOTAL SHEETS
130 148 W15dW		WILLIAMSON	102W	54W



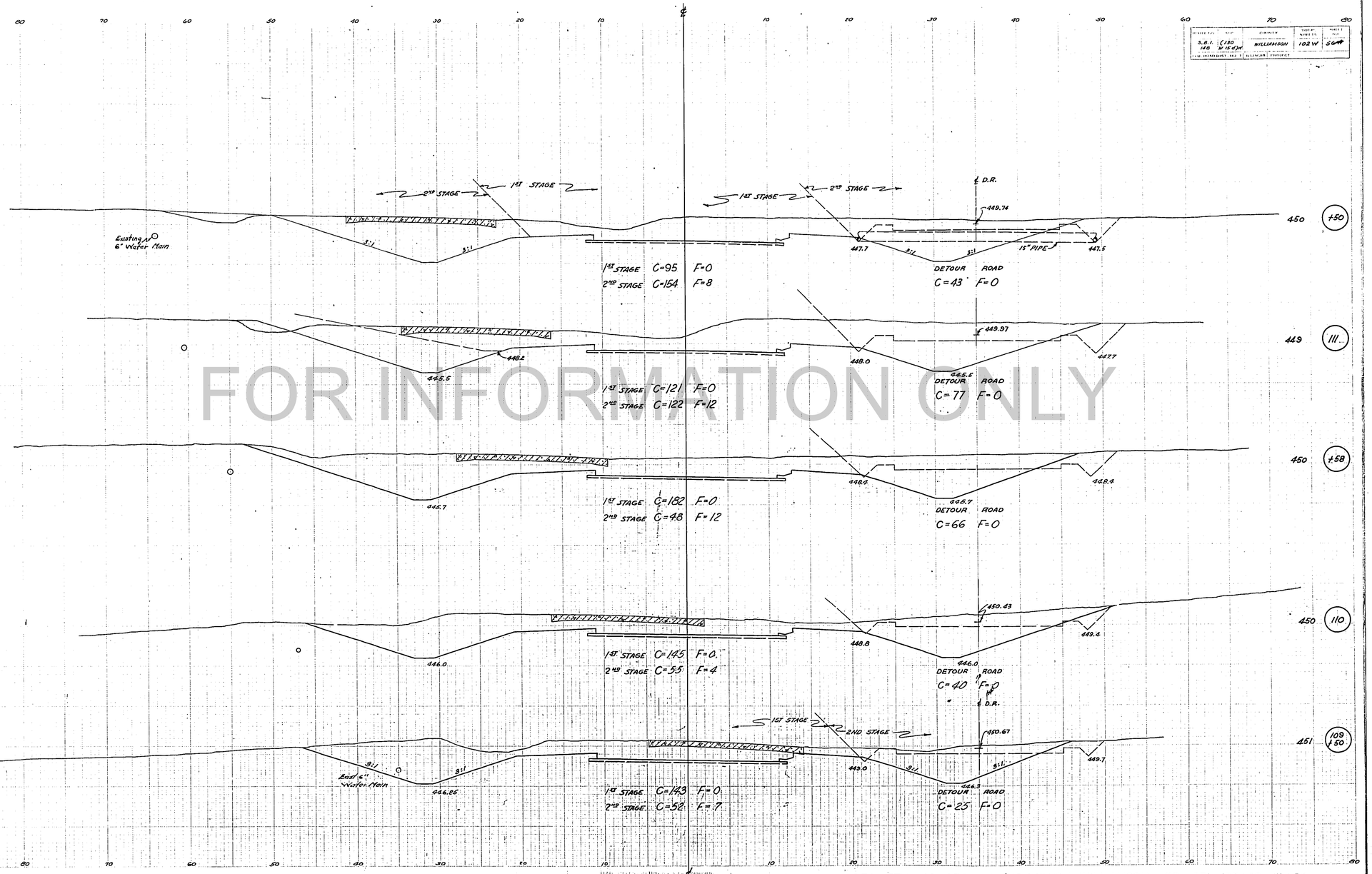
S.B.I. RTE. 148 SEC. (130, W15dW, RS-1 WILLIAMSON CO. STA. 107+54 - 109+00

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24



S.B.I. RTE. 148 SEC. (130, W15 d) W, RS-1 WILLIAMSON CO. EXTENSION RT. STA. 106+00 - 107+82

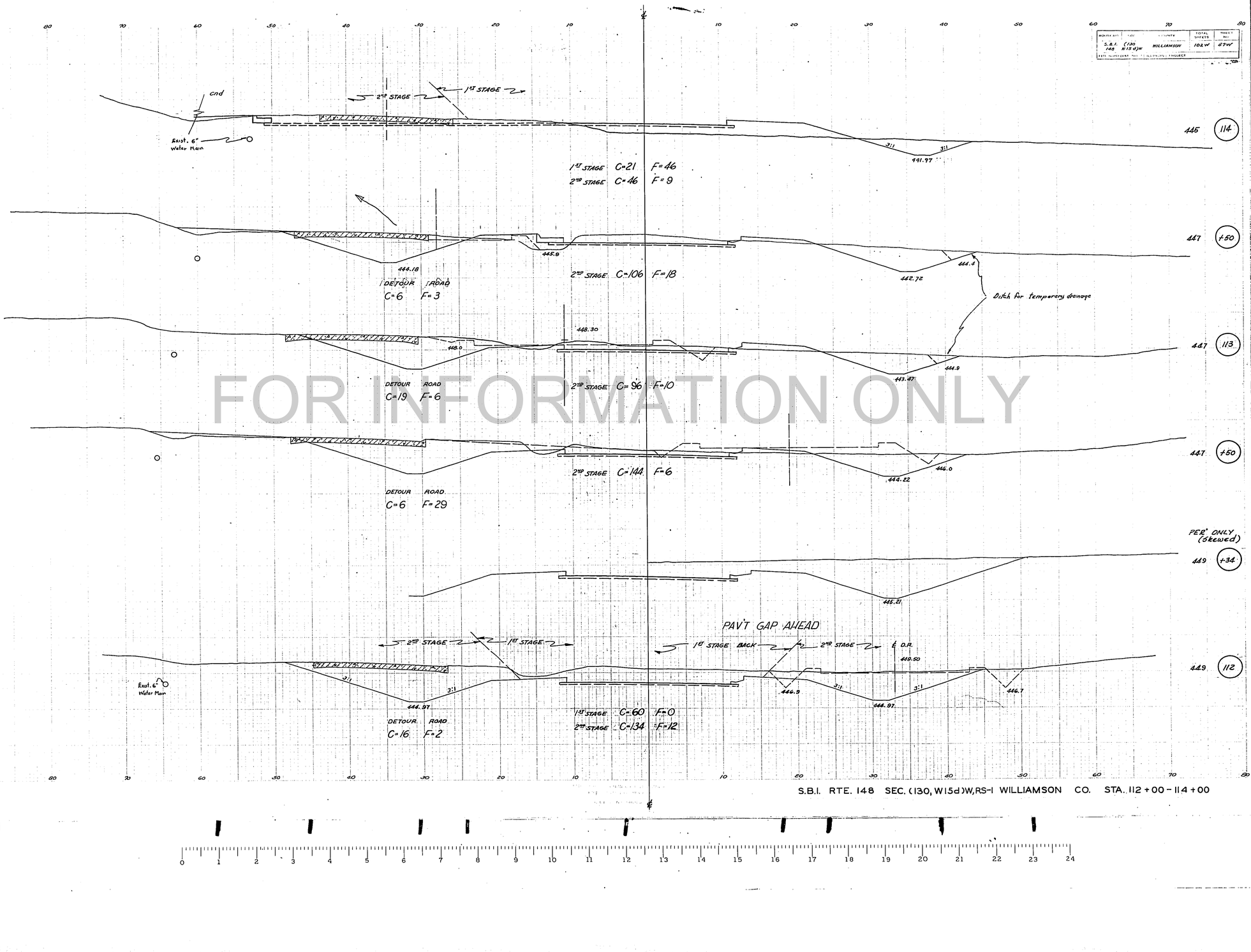
S.B.I. RTE.	SEC.	COUNTY	SHEET NO'S.	SHEET NO.
148	(130 W 15dJW	WILLIAMSON	102 W	56



S.B.I. RTE. 148 SEC. (130, W15dJW, RS-1 WILLIAMSON CO. STA. 109+50 - 111+50

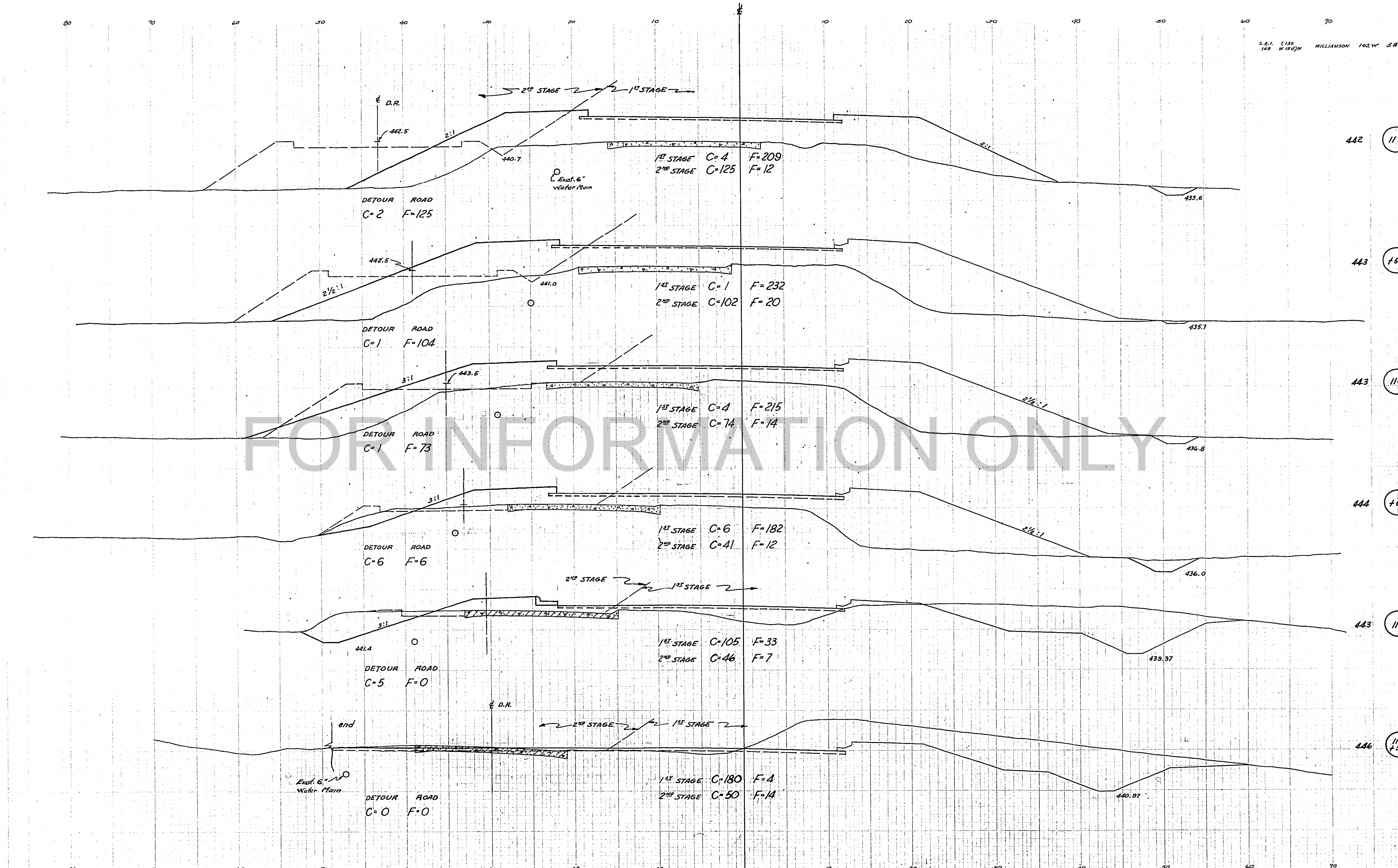
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

PROJECT NO.	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. (130 148 N15d)W	WILLIAMSON	102 W	87 W



S.B.I. RTE. 148 SEC. (130, W15d)W, RS-1 WILLIAMSON CO. STA. 112+00 - 114+00

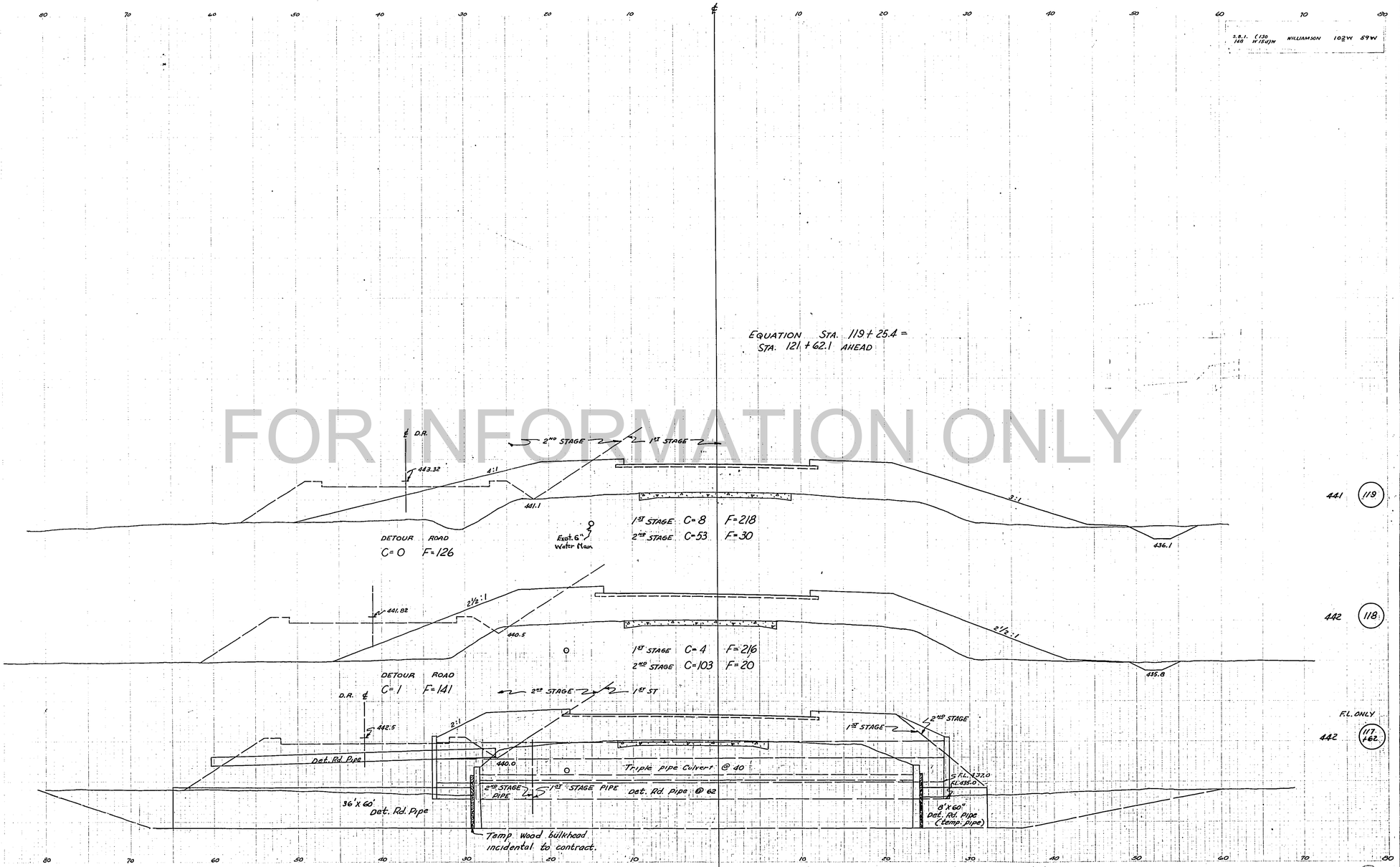
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24



S.B.I. RTE. 148 SEC. (130, W15d)W, RS-1 WILLIAMSON CO. STA. 114 + 50 - 117 + 00

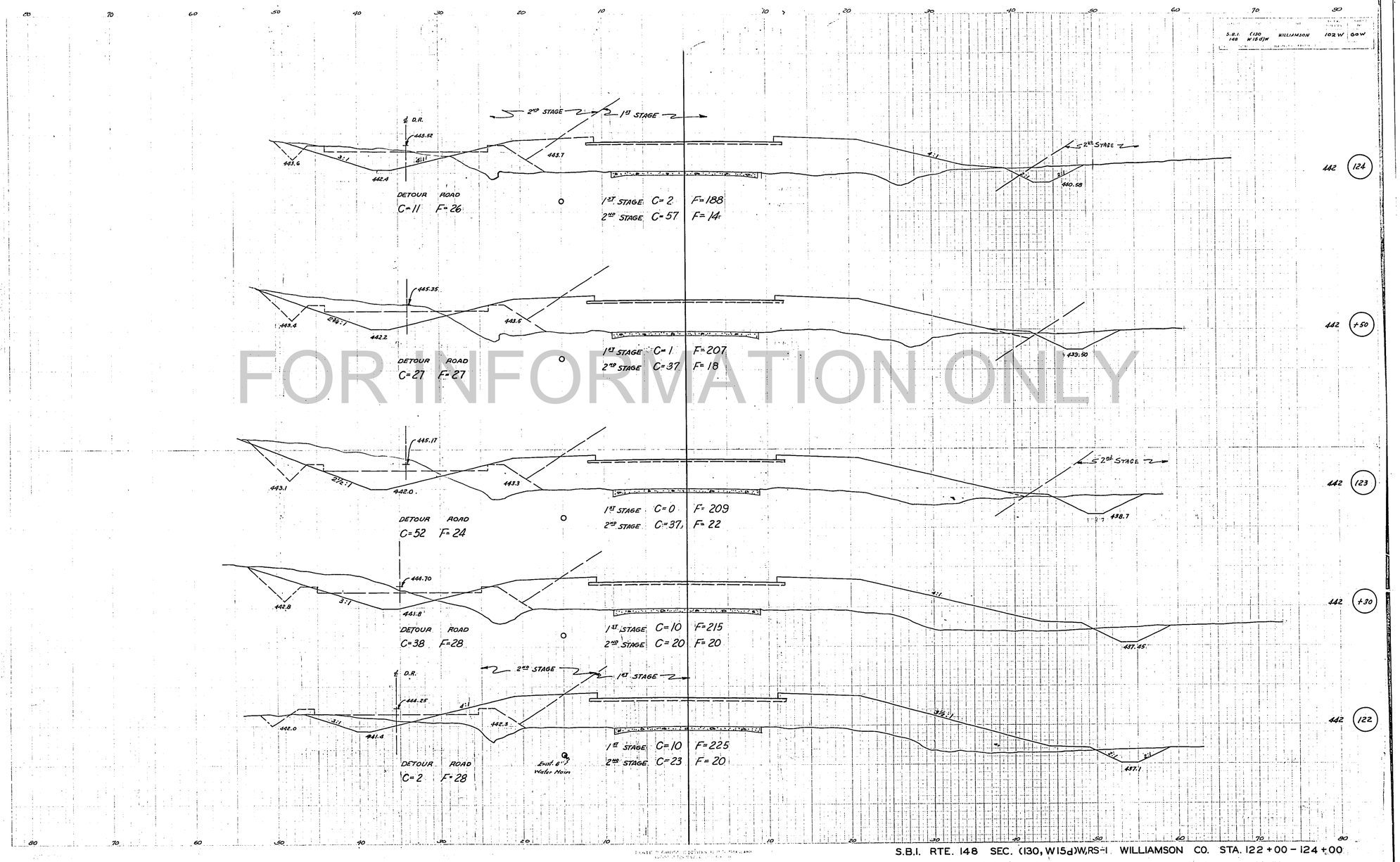
S.B.I. RTE. 148 (130, W15d)W RS-1 WILLIAMSON 102W 59W

EQUATION STA. 119+25.4 =
STA. 121+62.1 AHEAD

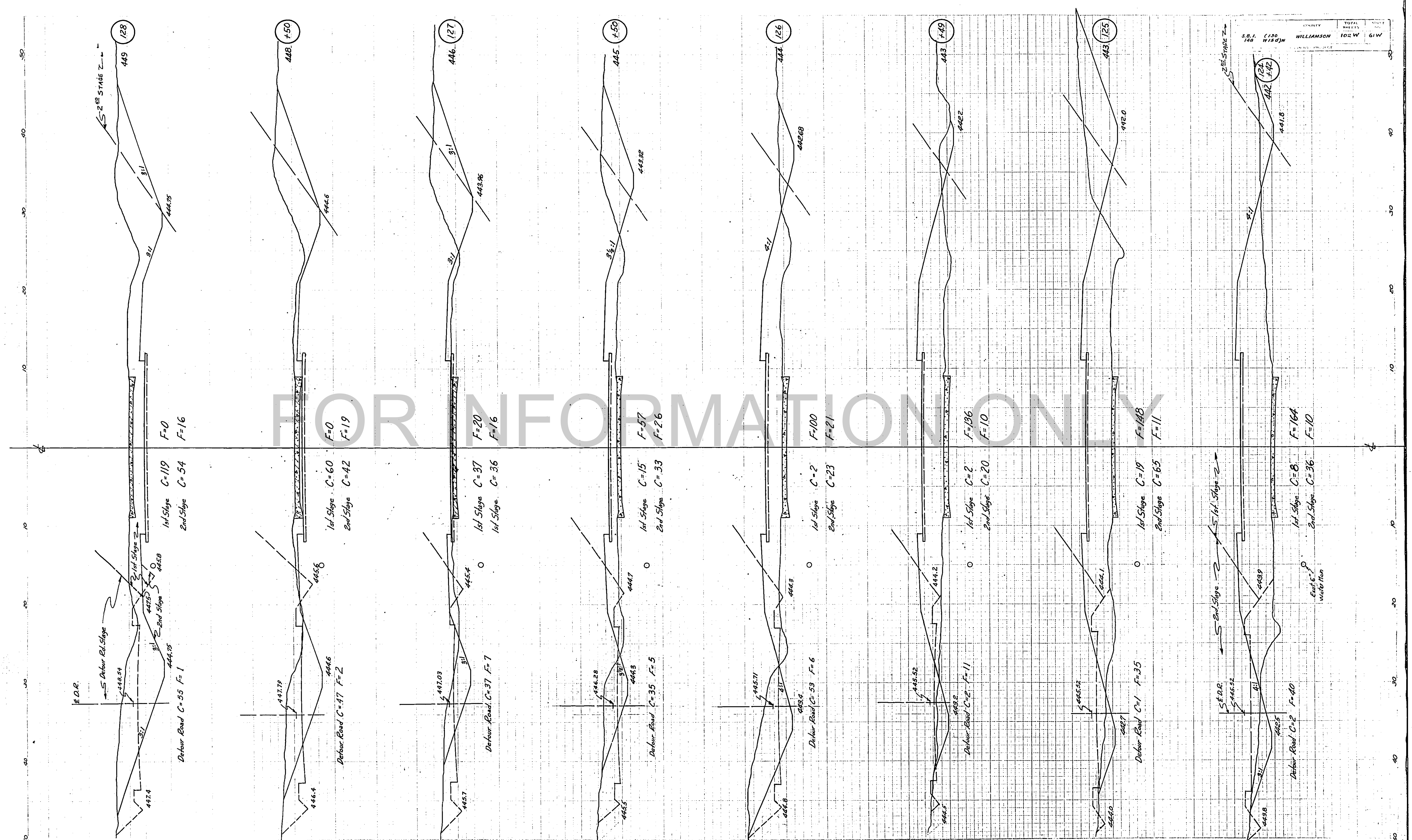


S.B.I. RTE. 148 SEC. (130, W15d)W, RS-1 WILLIAMSON CO. STA. 117+62 – 119+00 (59)

S.B.I. RTE. 148 | SEC. (130, W15d)W, RS-1 | WILLIAMSON | 102 W | 00 W

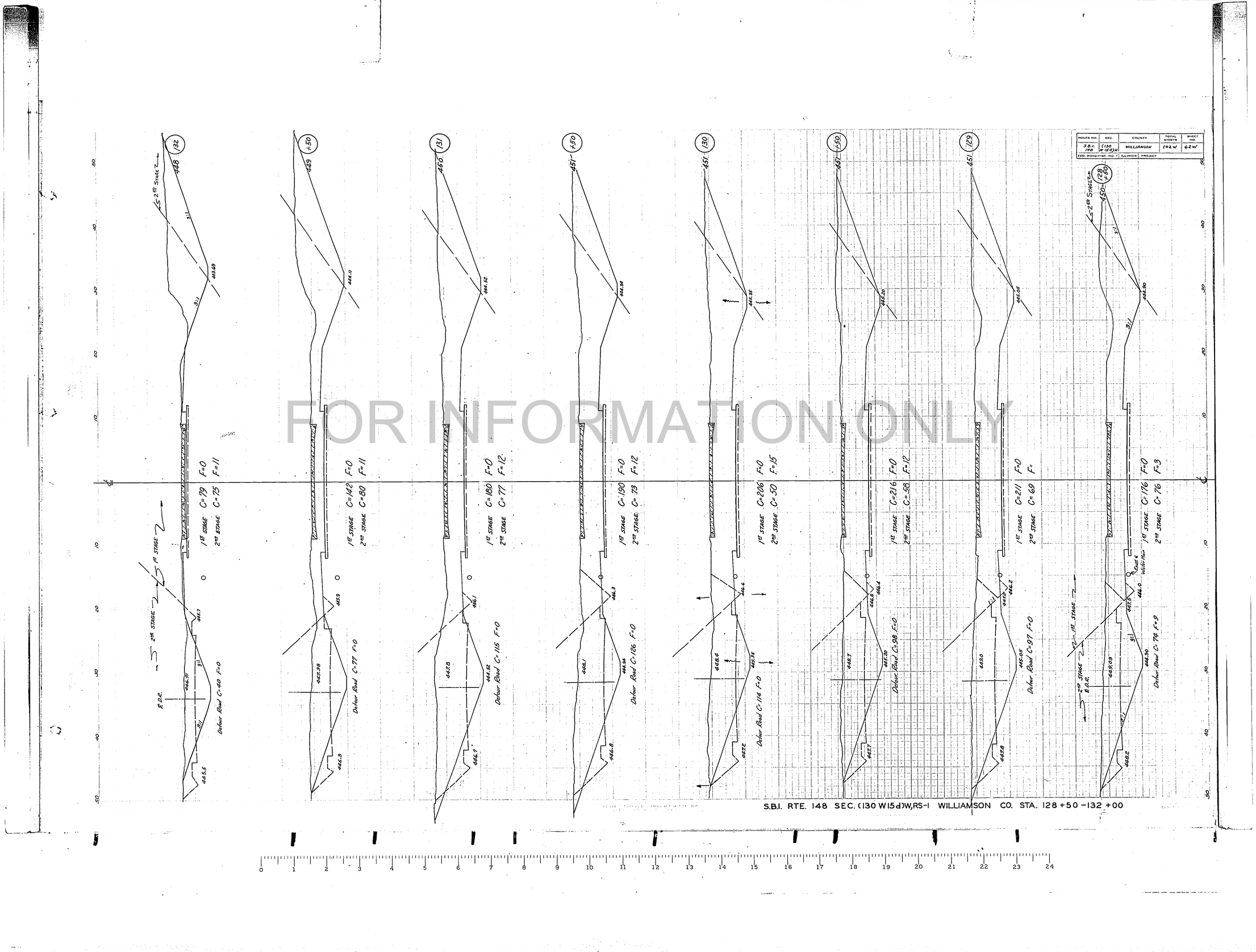


S.B.I. RTE. 148 SEC. (130, W15d)W, RS-1 WILLIAMSON CO. STA. 122+00 – 124+00

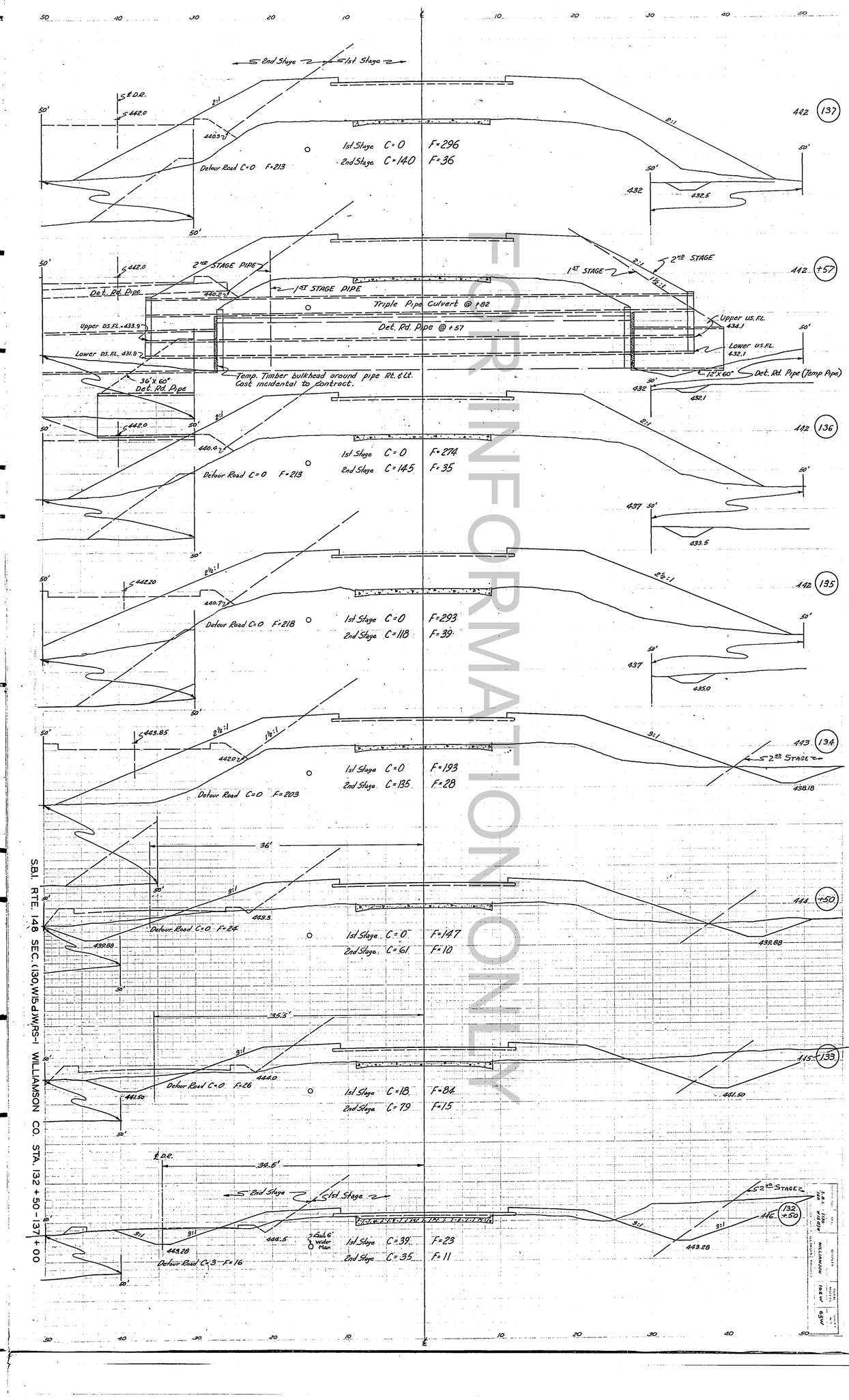


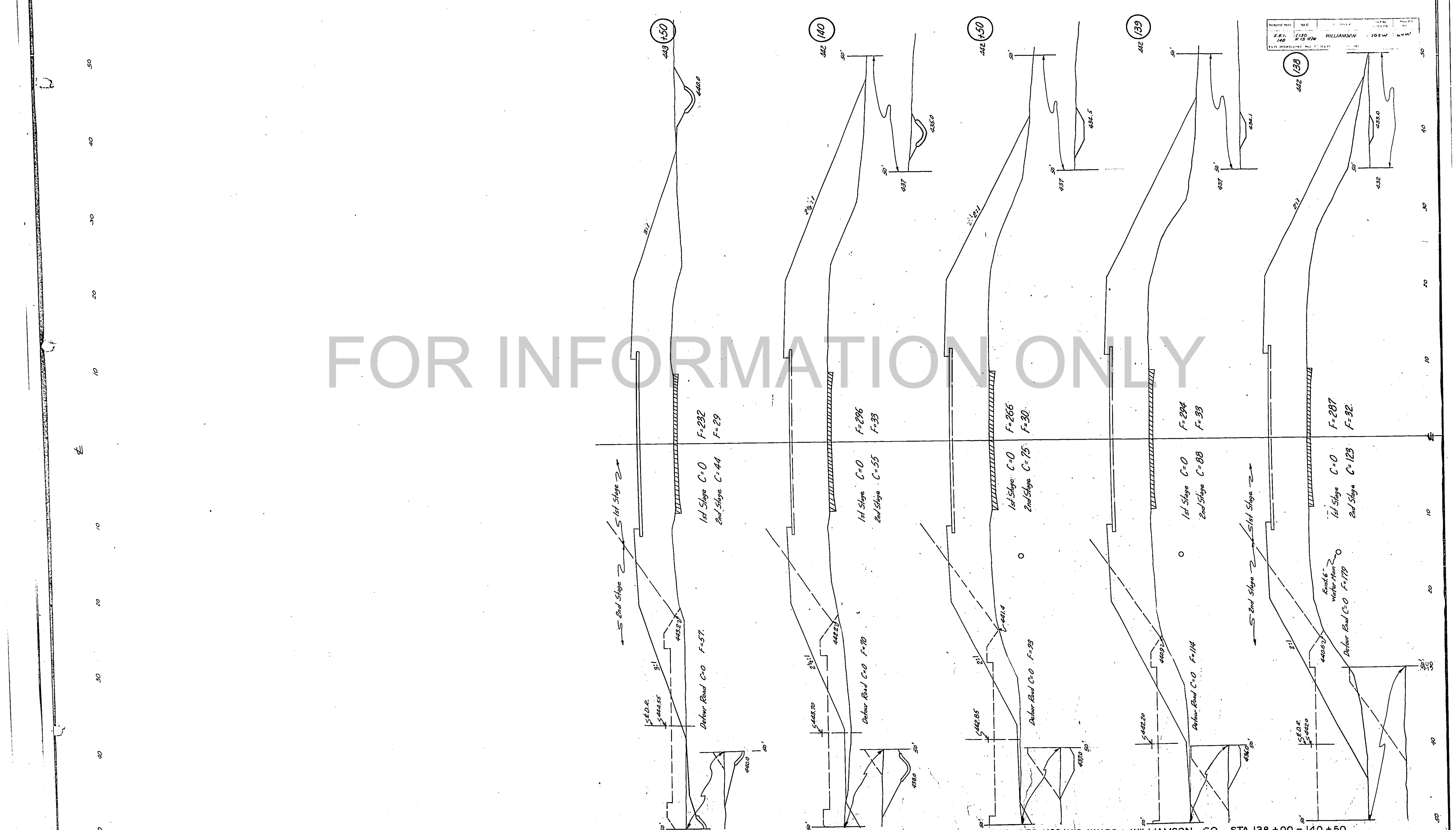
S.B.I. RTE. 148 SEC. (130, W15d)W, RS-1 WILLIAMSON CO. STA. 124+42 - 128+00

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. 148	(130 W 150)W	WILLIAMSON	102 W	62W
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

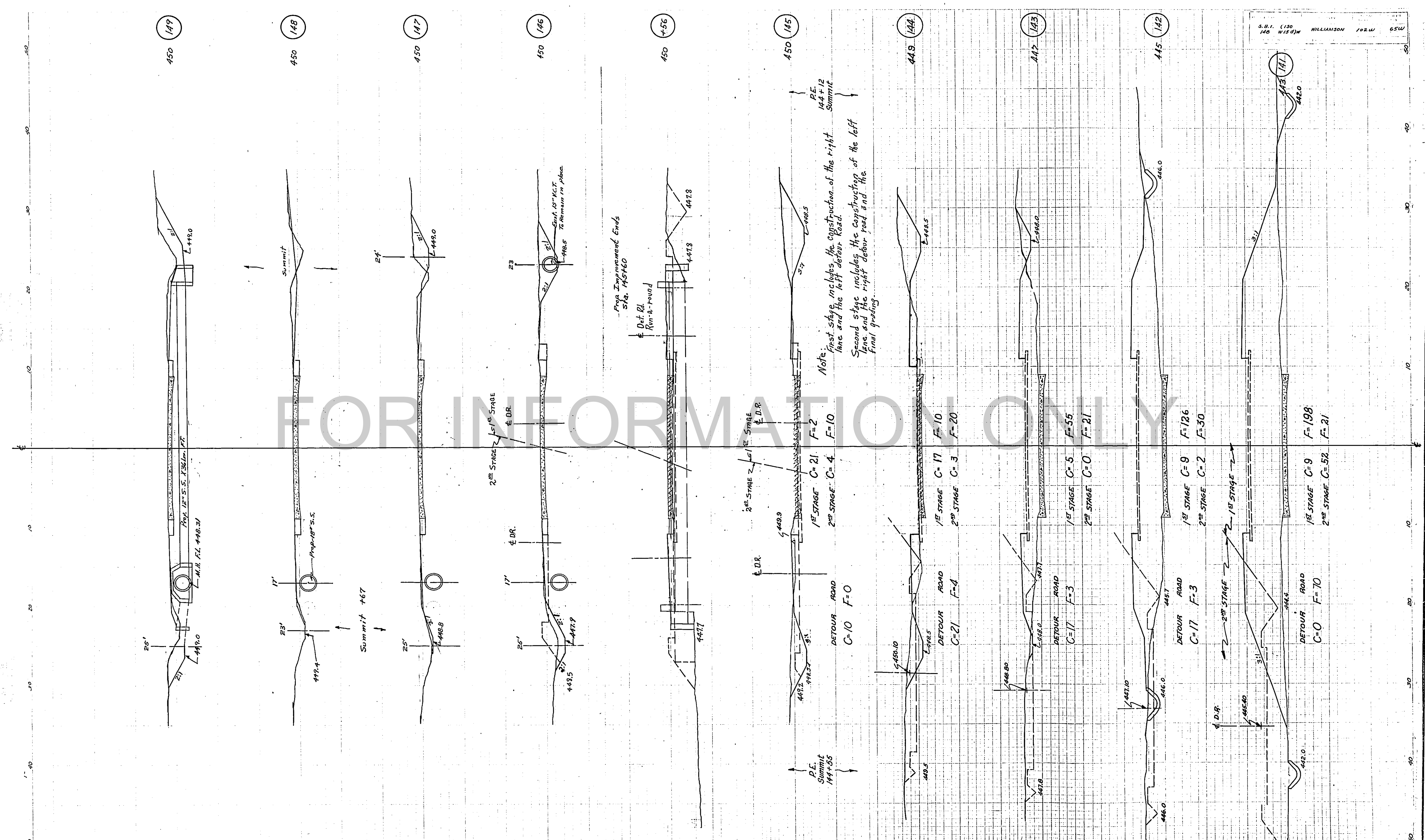


S.B.I. RTE. 148 SEC. (130 W 150d)W, RS-1 WILLIAMSON CO. STA. 128+50 – 132+00

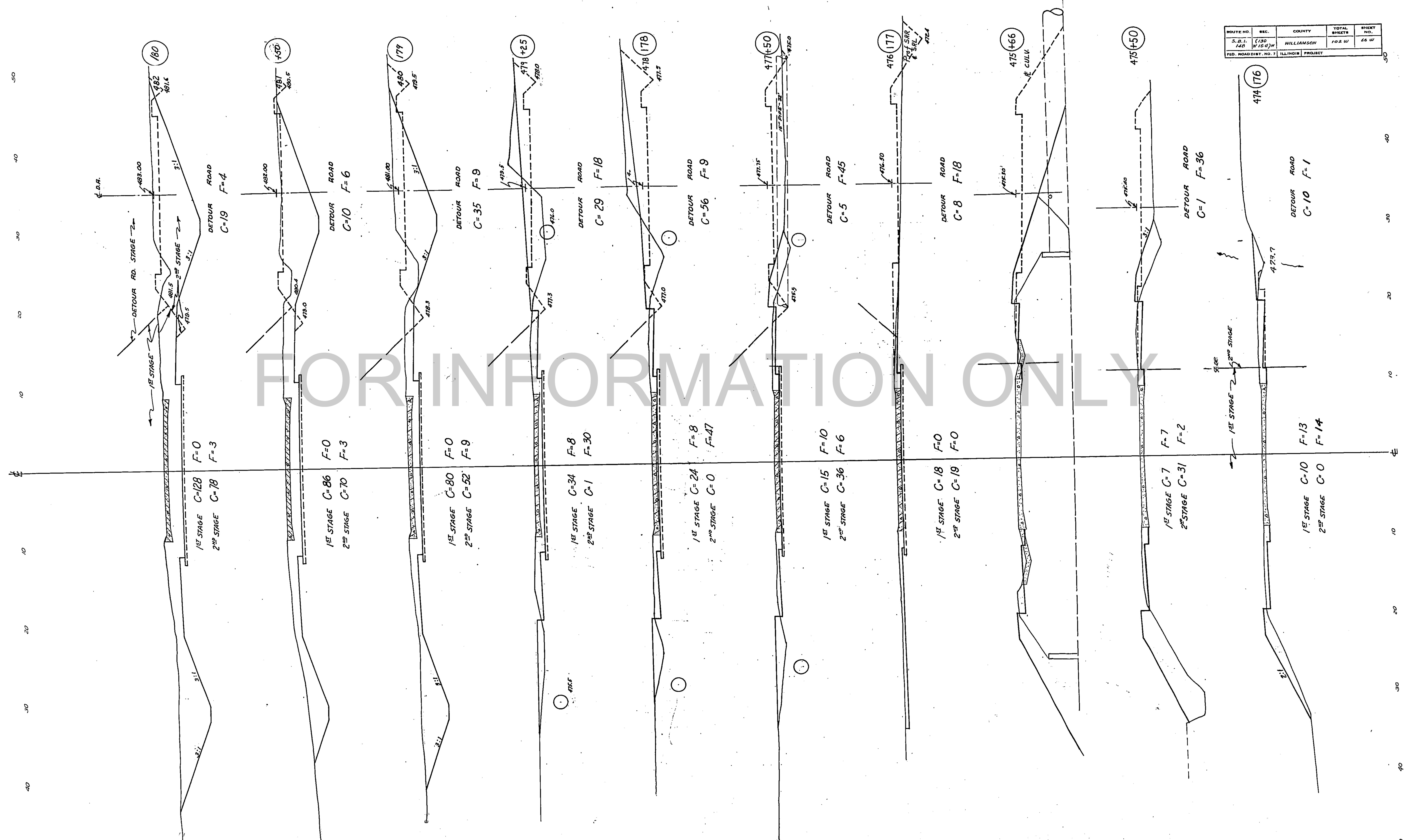

℄ 2nd Stage
1st Stage ℄
℄ D.R.
℄ 442.0
2:1
440.3
Detour Road C=0 F=213
1st Stage C=0 F=296
2nd Stage C=140 F=36
442 (137)
50'
432
432.5
2ND STAGE PIPE
1ST STAGE PIPE
Det. Rd. Pipe
440.2
Triple Pipe Culvert @ +82
Det. Rd. Pipe @ +57
1ST STAGE
2ND STAGE
Upper U.S. FL. 434.1
Lower U.S. FL. 432.1
Upper DS. FL. = 433.9
Lower DS. FL. 431.9
Temp. Timber bulkhead around pipe Rt. & Lt. Cost incidental to contract.
36'x 60' Det. Rd. Pipe
12'x 60' Det. Rd. Pipe (Temp Pipe)
442 (+57)
432.1
440.4
Detour Road C=0 F=213
1st Stage C=0 F=274
2nd Stage C=145 F=35
442 (136)
437
433.5
℄ 442.20
440.7
Detour Road C=0 F=218
1st Stage C=0 F=293
2nd Stage C=118 F=39
442 (135)
437
435.0
℄ 443.85
442.2
Detour Road C=0 F=203
1st Stage C=0 F=193
2nd Stage C=135 F=28
443 (134)
℄ 2ND STAGE
439.18
36'
439.3
Detour Road C=0 F=24
1st Stage C=0 F=147
2nd Stage C=61 F=10
444 (+50)
439.08
439.88
35.5'
444.0
Detour Road C=0 F=26
1st Stage C=18 F=84
2nd Stage C=79 F=15
445 (133)
441.50
441.20
℄ D.E.
34.6'
℄ 2ND STAGE
℄ 1st Stage
2 Ext. 6' wider Plan
444.5
443.28
Detour Road C=3 F=16
1st Stage C=39 F=23
2nd Stage C=35 F=11
446 (132 +50)
443.28
S.B.I. RTE. 148 SEC. (13)WIS.DWRS-1 WILLIAMSON CO. STA. 132 + 50 - 137 + 00
FOR INFORMATION ONLY



S.B.I. RTE. 148 SEC. (130,W15d)W,RS-1 WILLIAMSON CO. STA. 138+00 - 140+50

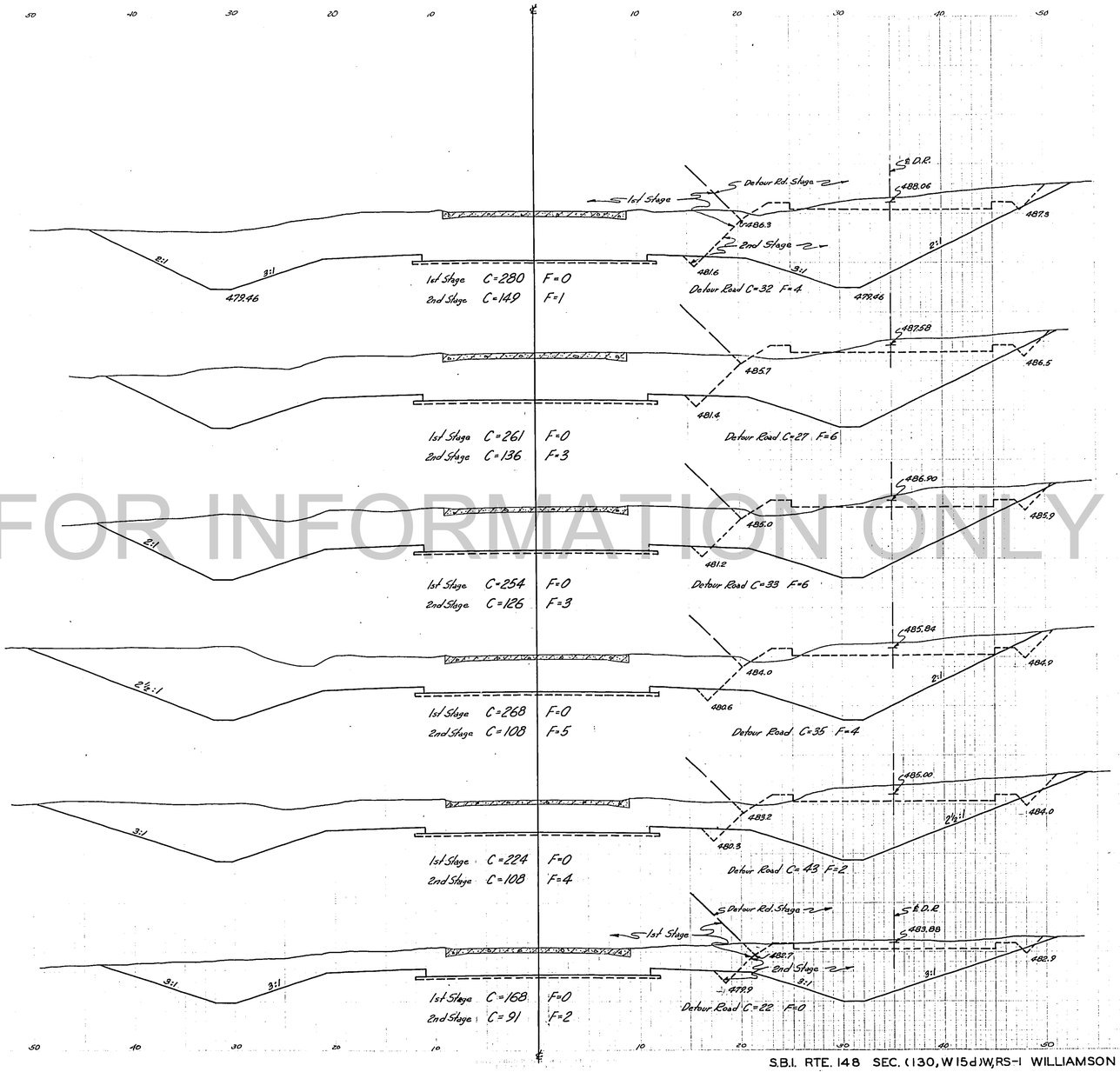


S.B.I. RTE. 148 SEC.(130,W15d)W,RS-1 WILLIAMSON CO. STA. 141+00 - 149+00

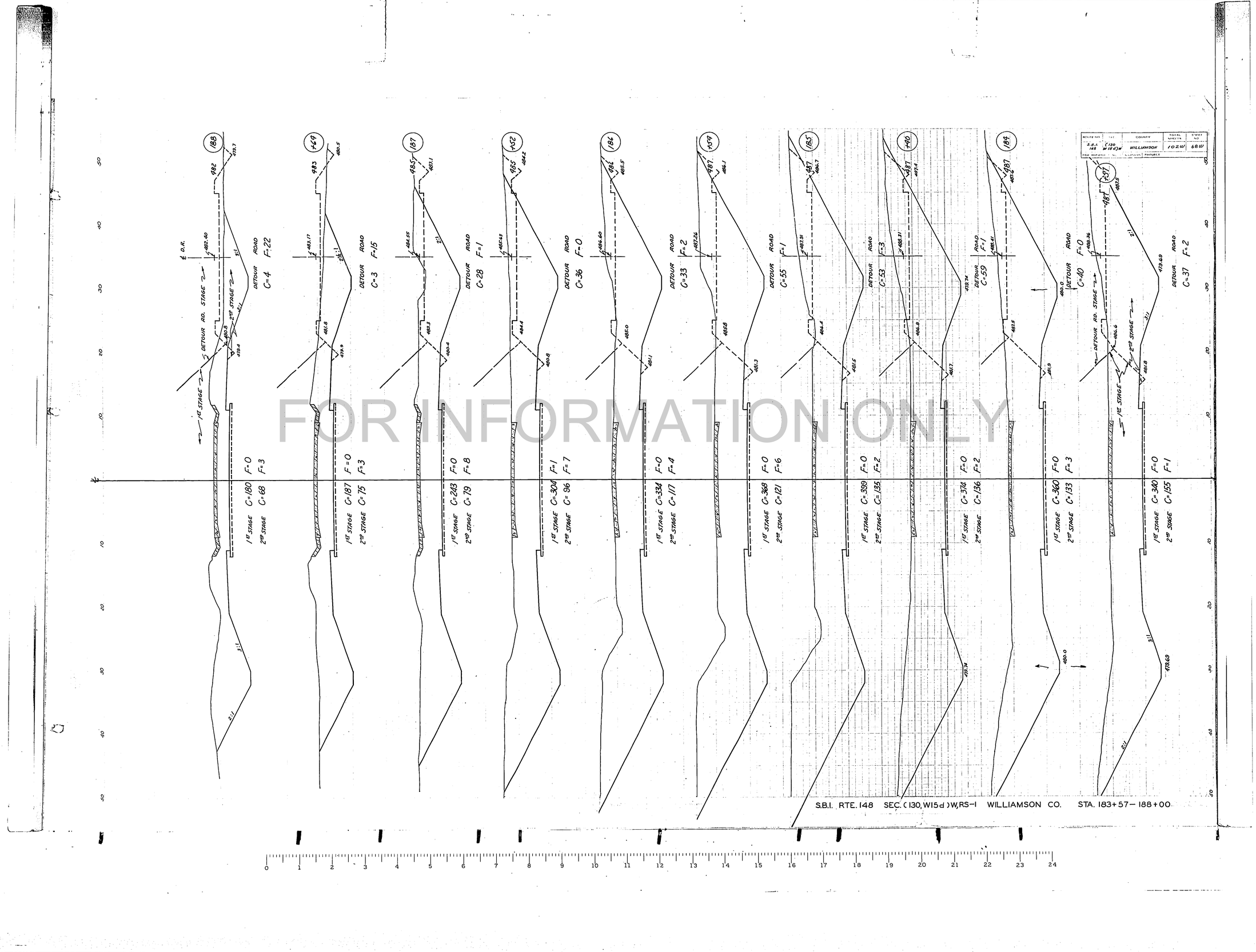


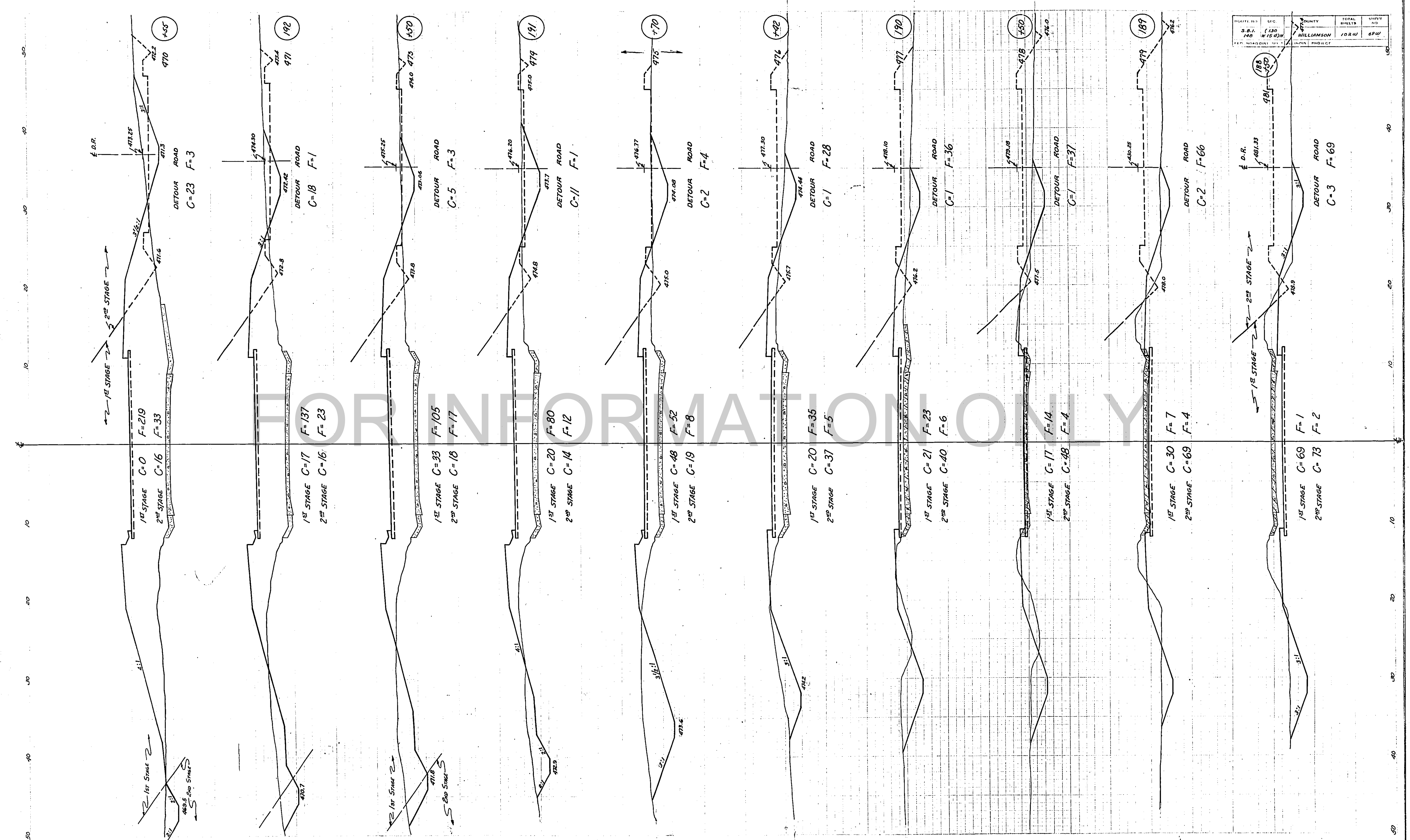
ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. 148	(130 W15d)W	WILLIAMSON	102 W	66 W
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

S.B.I. RTE. 148 SEC. (130,W15d)W,RS-1 WILLIAMSON CO. STA. 176+00-180+00

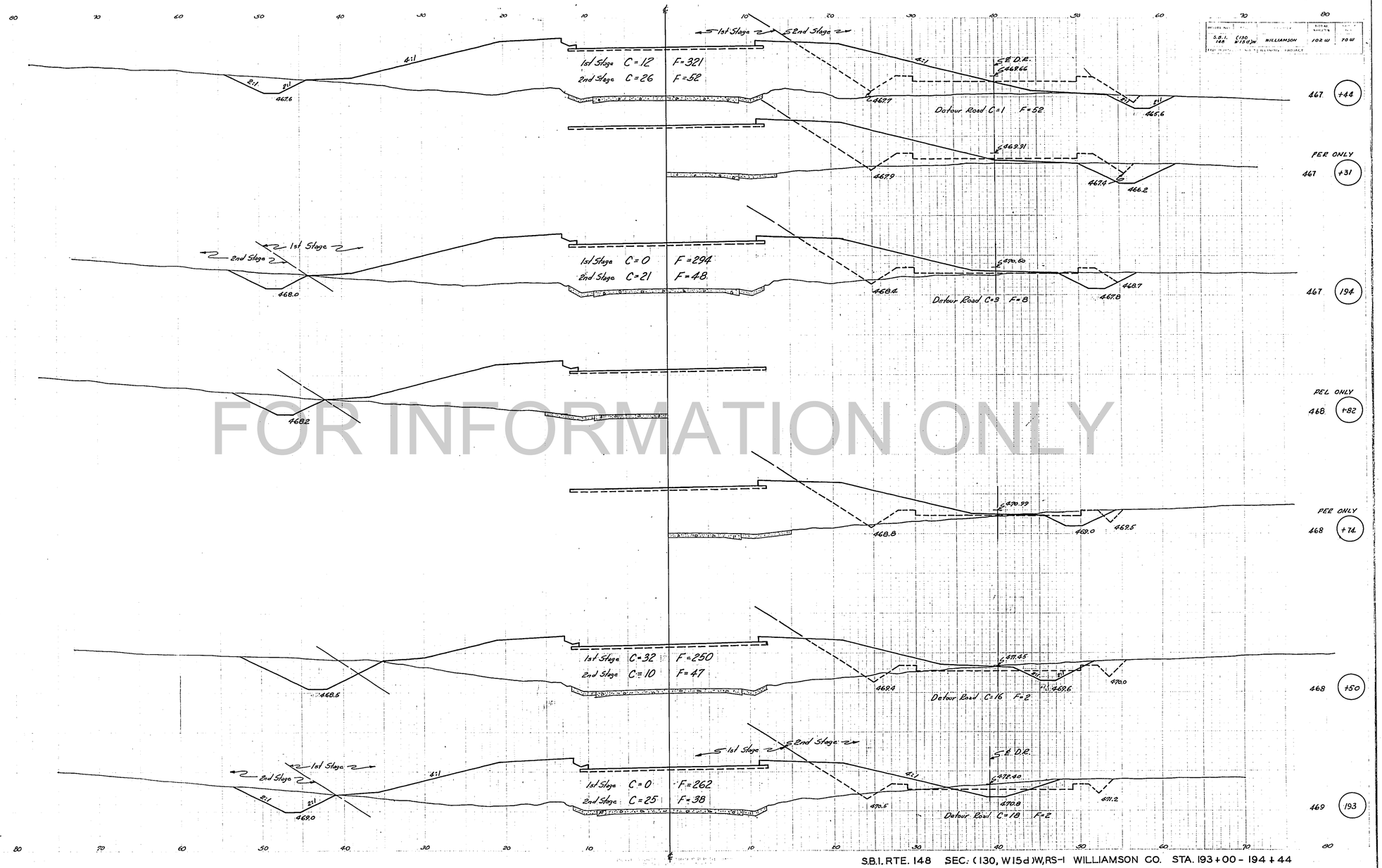


S.B.I. RTE. 148 SEC. (130, W15d)W, RS-1 WILLIAMSON CO. STA. 180 + 44 - 183 + 00

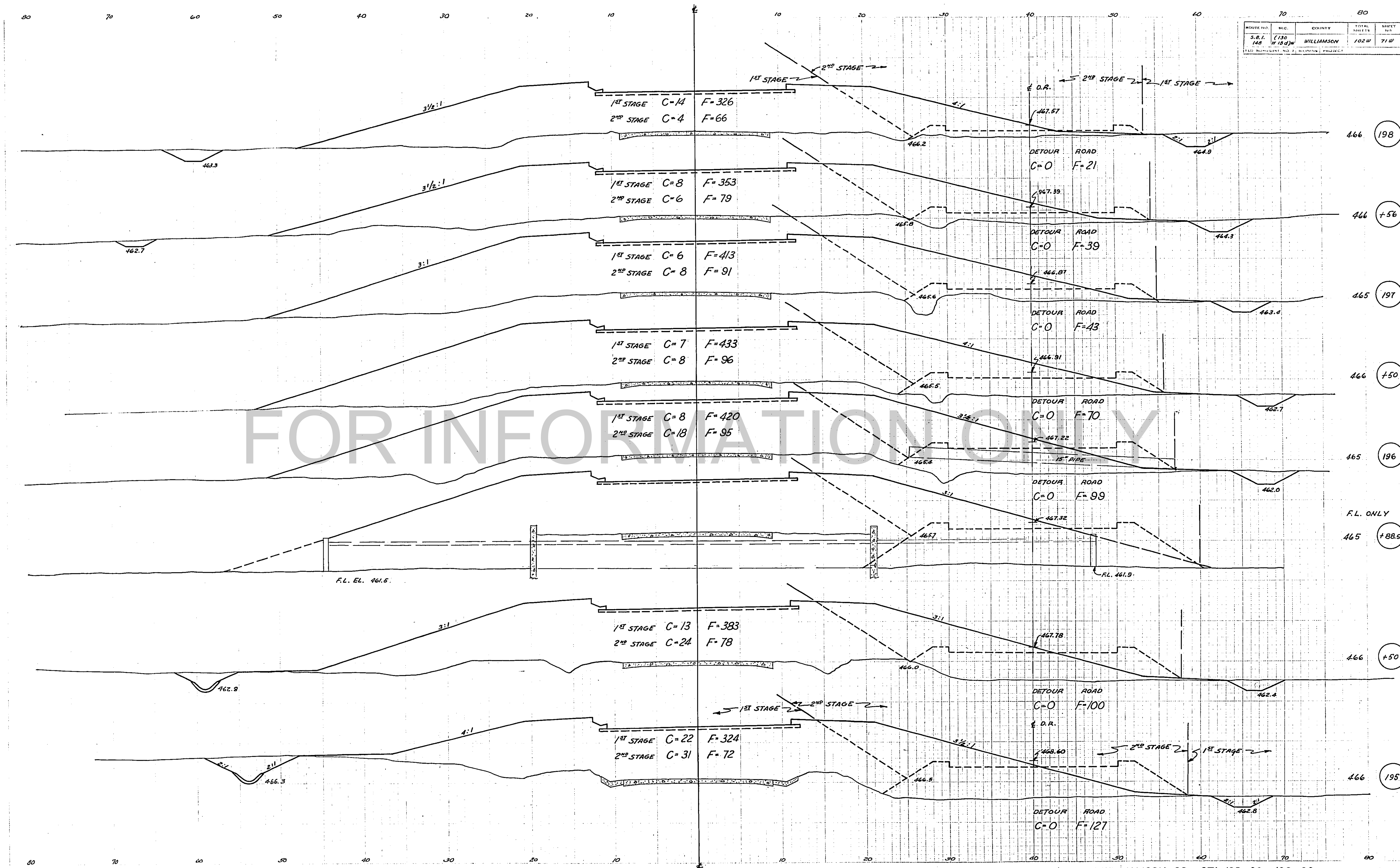




S.B.I. RTE. 148 SEC.(130,W15d)W,RS-1 WILLIAMSON CO. STA. 188+50 — 192+55

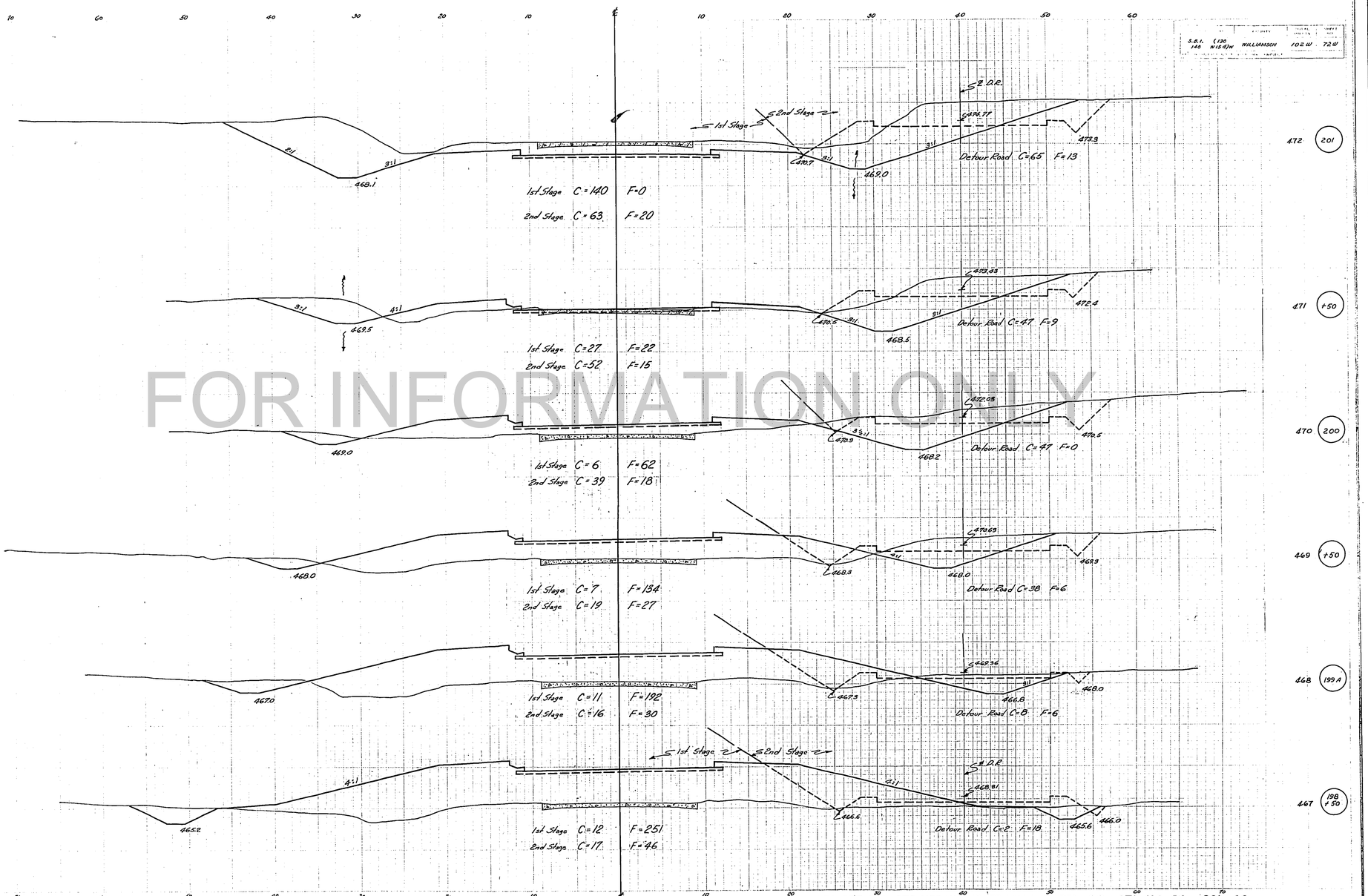


S.B.I. RTE. 148 SEC. (130, W15d)W, RS-1 WILLIAMSON CO. STA. 193+00 - 194+44

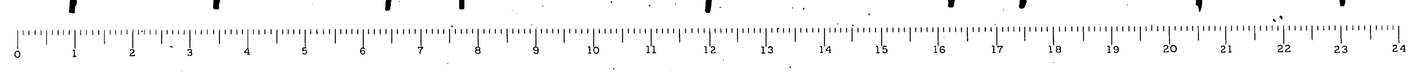


S.B.I. RTE. 148 SEC. (130, W15 d)W, RS-1 WILLIAMSON CO. STA. 195+00 – 198+00

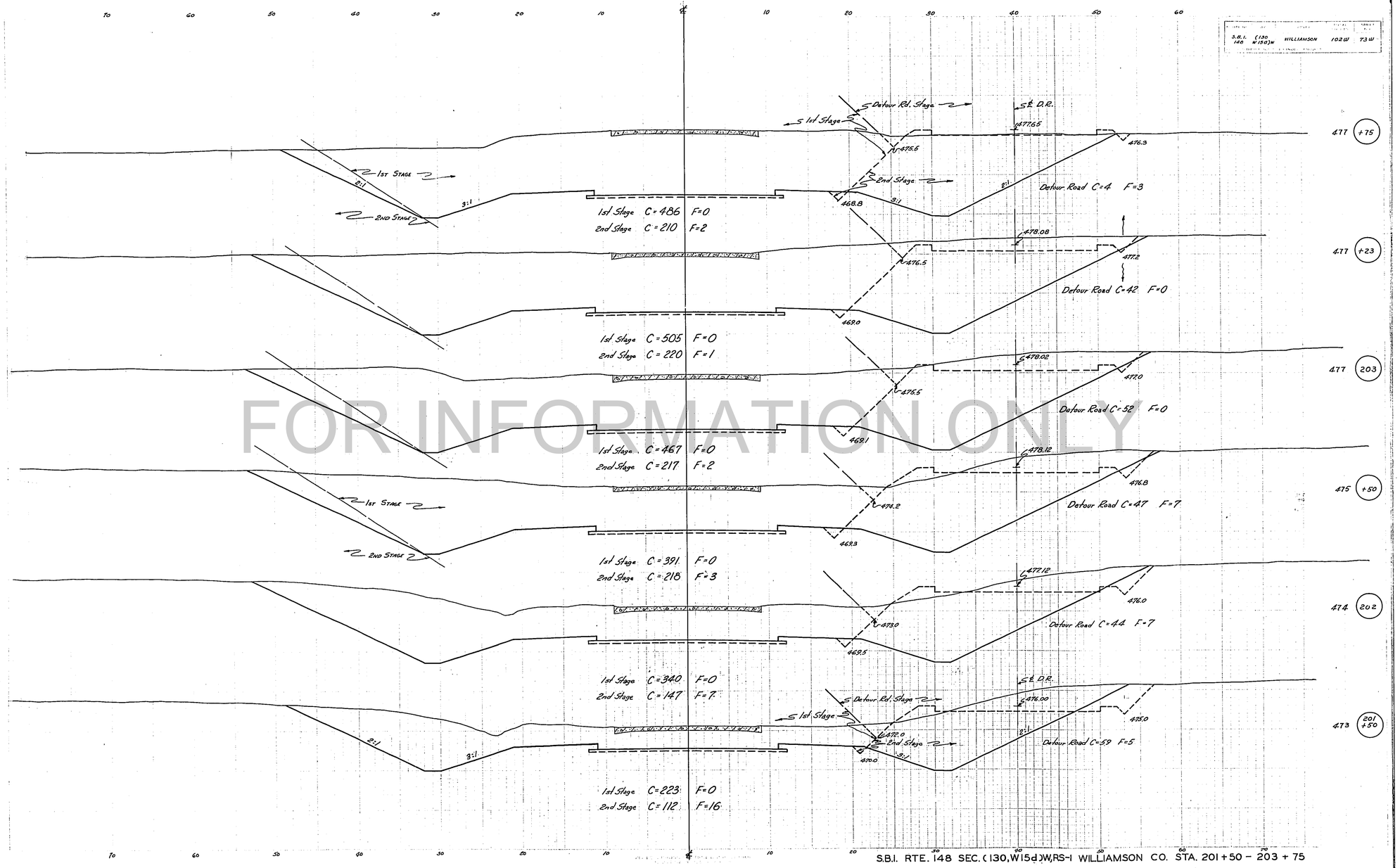
S.B.I. Rte.	Sec.	County	From	To
148	(130, W15d)W	WILLIAMSON	102.W	72.W



S.B.I. RTE. 148 SEC. (130, W15d)W, RS-1 WILLIAMSON CO. STA. 198+50 -- 201+00

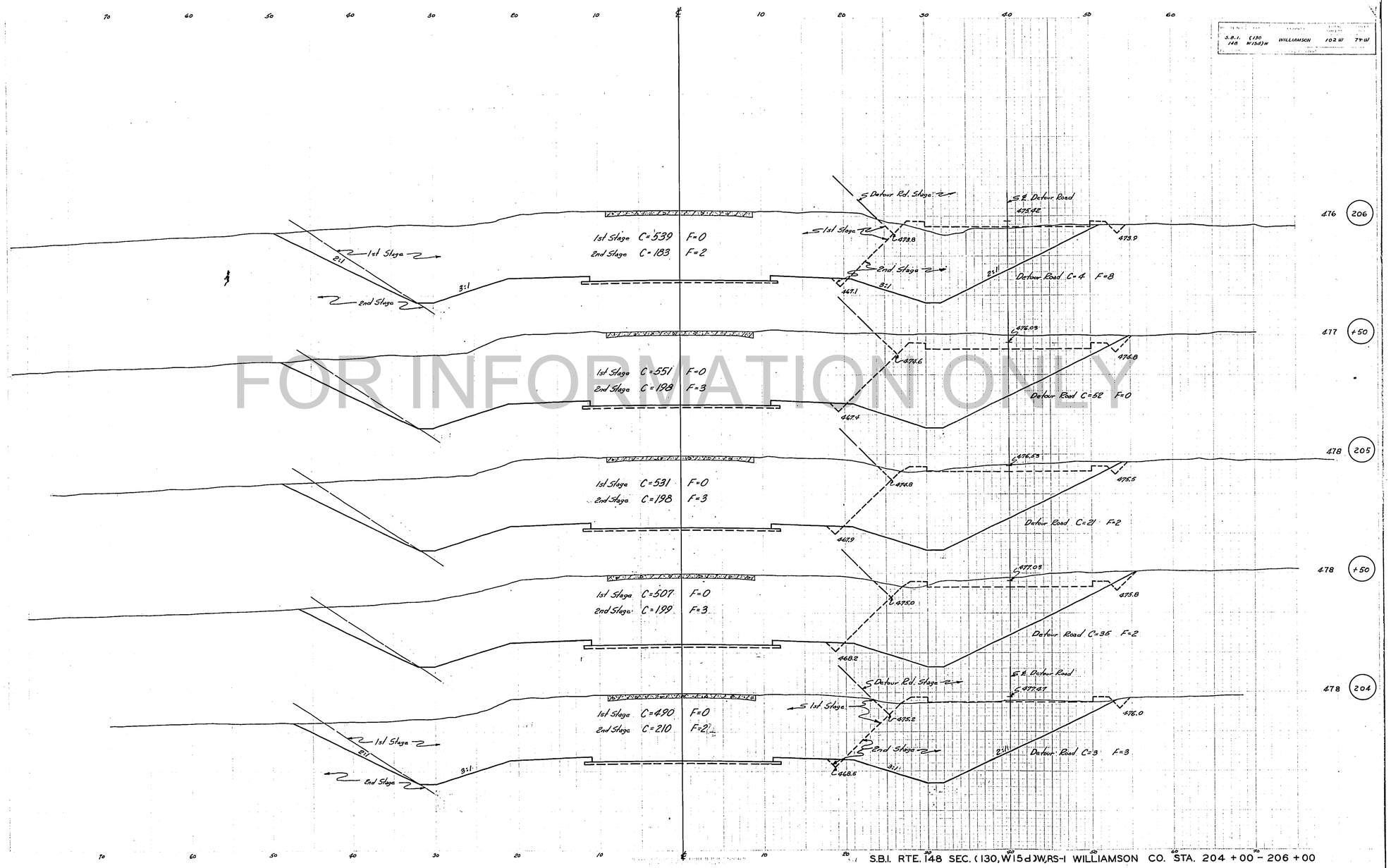


S.B.I.				
148	(130 W150)W	WILLIAMSON	102 W	73 W



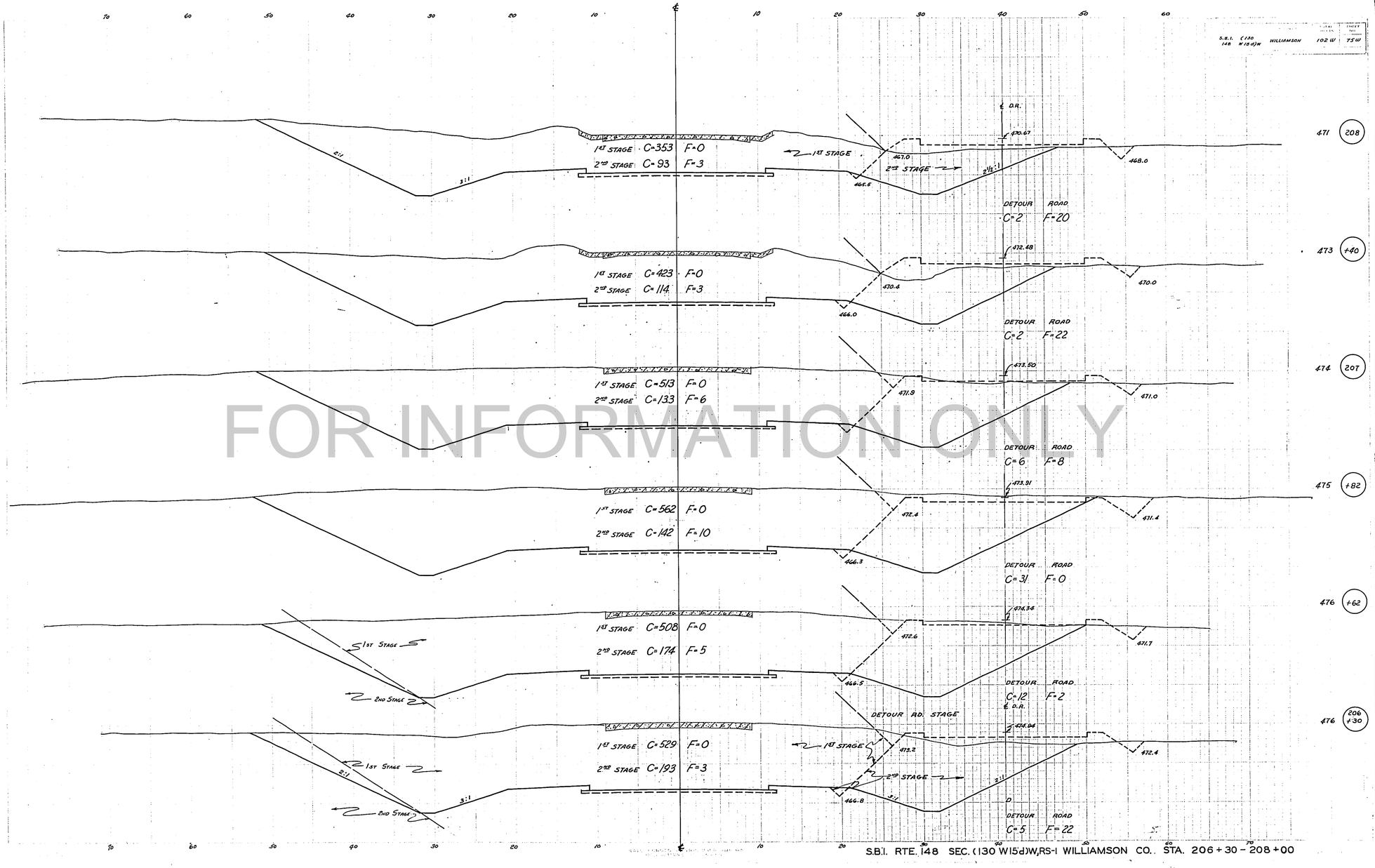
S.B.I. RTE. 148 SEC. (130,W150)W,RS-1 WILLIAMSON CO. STA. 201+50 – 203+75

S.B.I.				
RTE. 148	SEC. (130, W15d)W, RS-1	WILLIAMSON	102 W	74 W



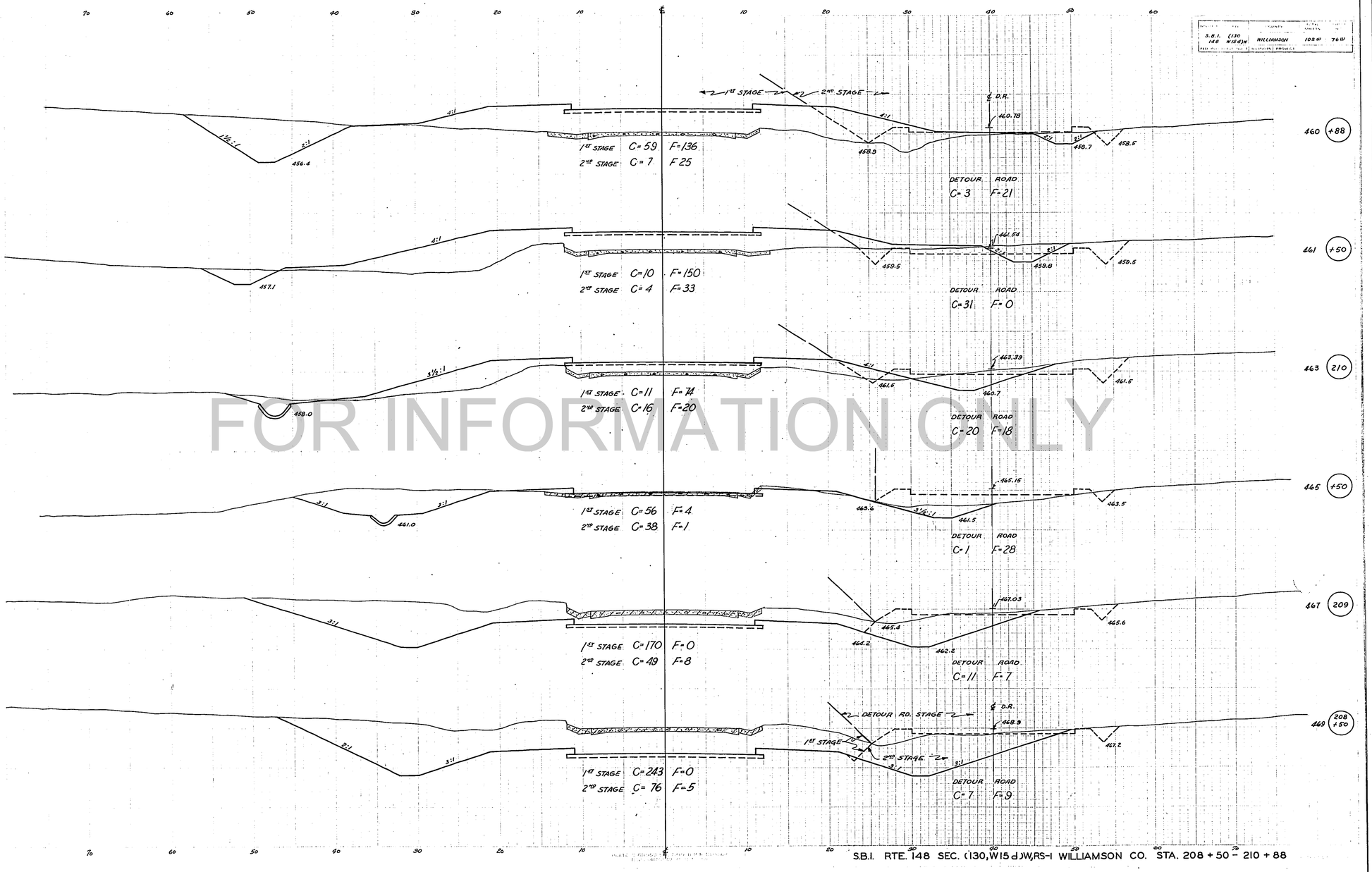
S.B.I. RTE. 148 SEC. (130, W15d)W, RS-1 WILLIAMSON CO. STA. 204 + 00 – 206 + 00

S.B.I. RTE.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
148	C130 W15(d)W	WILLIAMSON	102 W	75 W



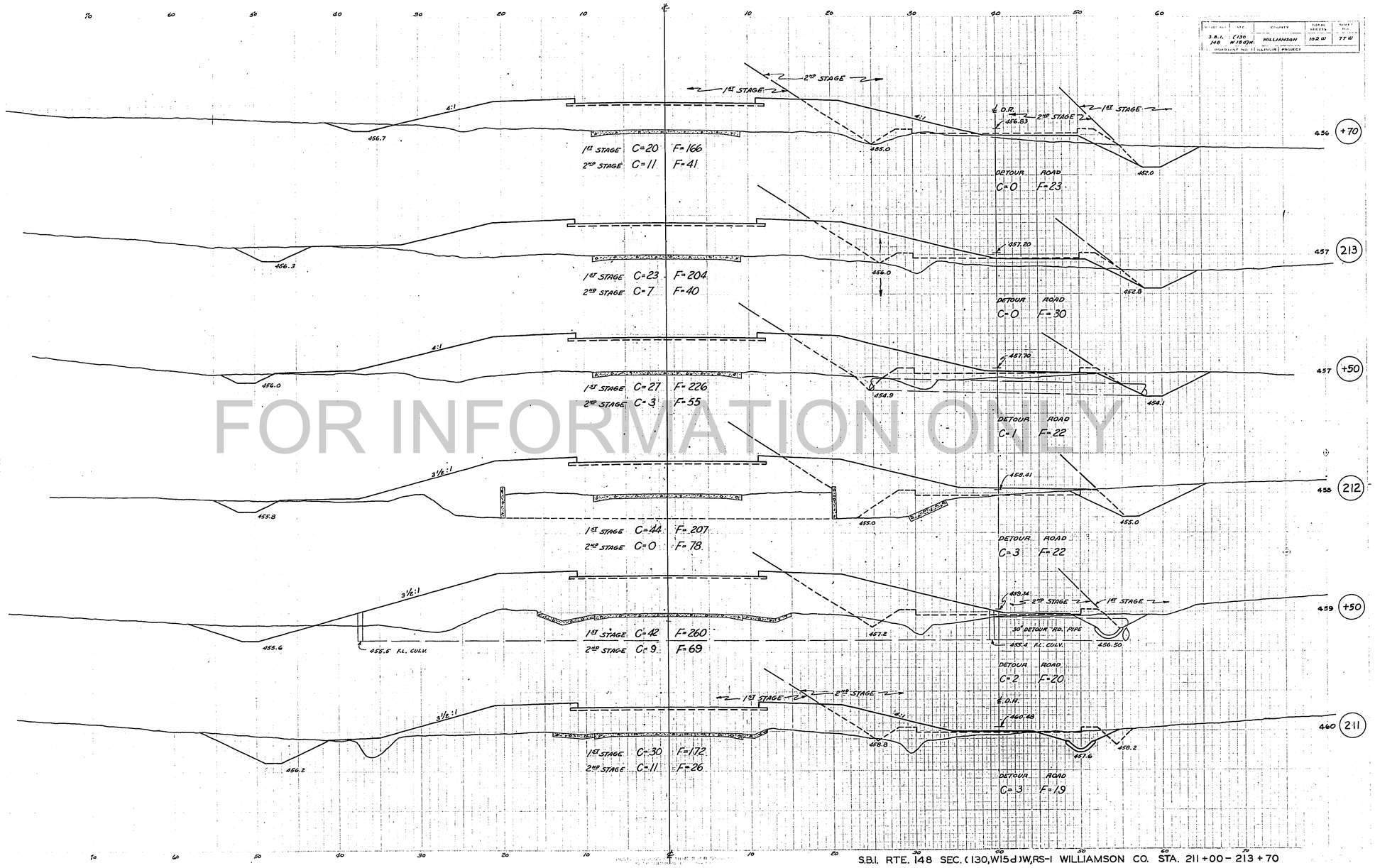
S.B.I. RTE. 148 SEC. C130 W15dW,RS-1 WILLIAMSON CO. STA. 206+30 – 208+00

S.B.I. (130 148 W15dJW)	WILLIAMSON	102 W	76 W
FED. PROJECT			



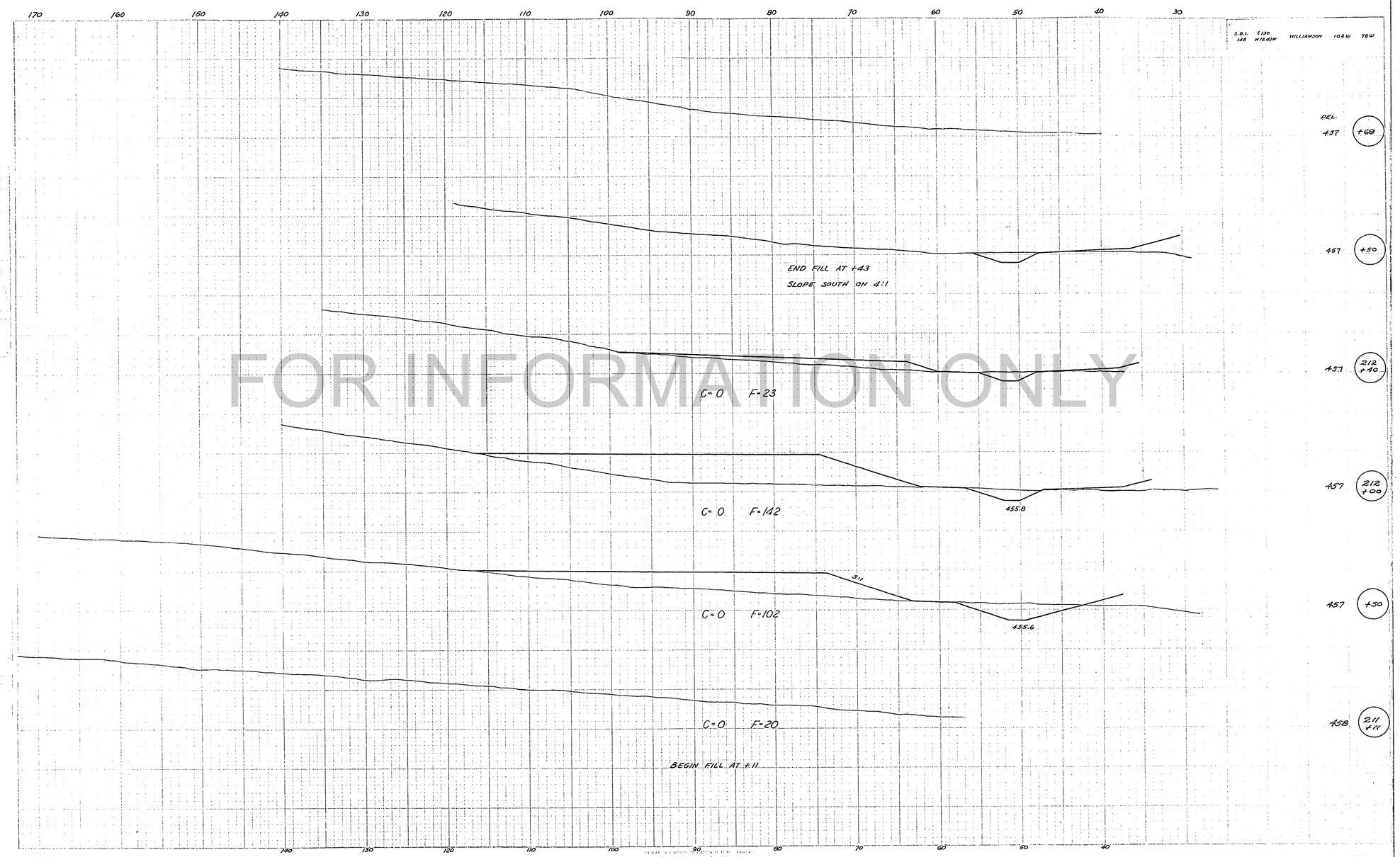
S.B.I. RTE. 148 SEC. (130,W15dJW,RS-1 WILLIAMSON CO. STA. 208 + 50 – 210 + 88

S.B.I. RTE.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
148	(130 W,15d)W	WILLIAMSON	102 W	77 W
HIGHWAY NO.	ILLINOIS	PROJECT		

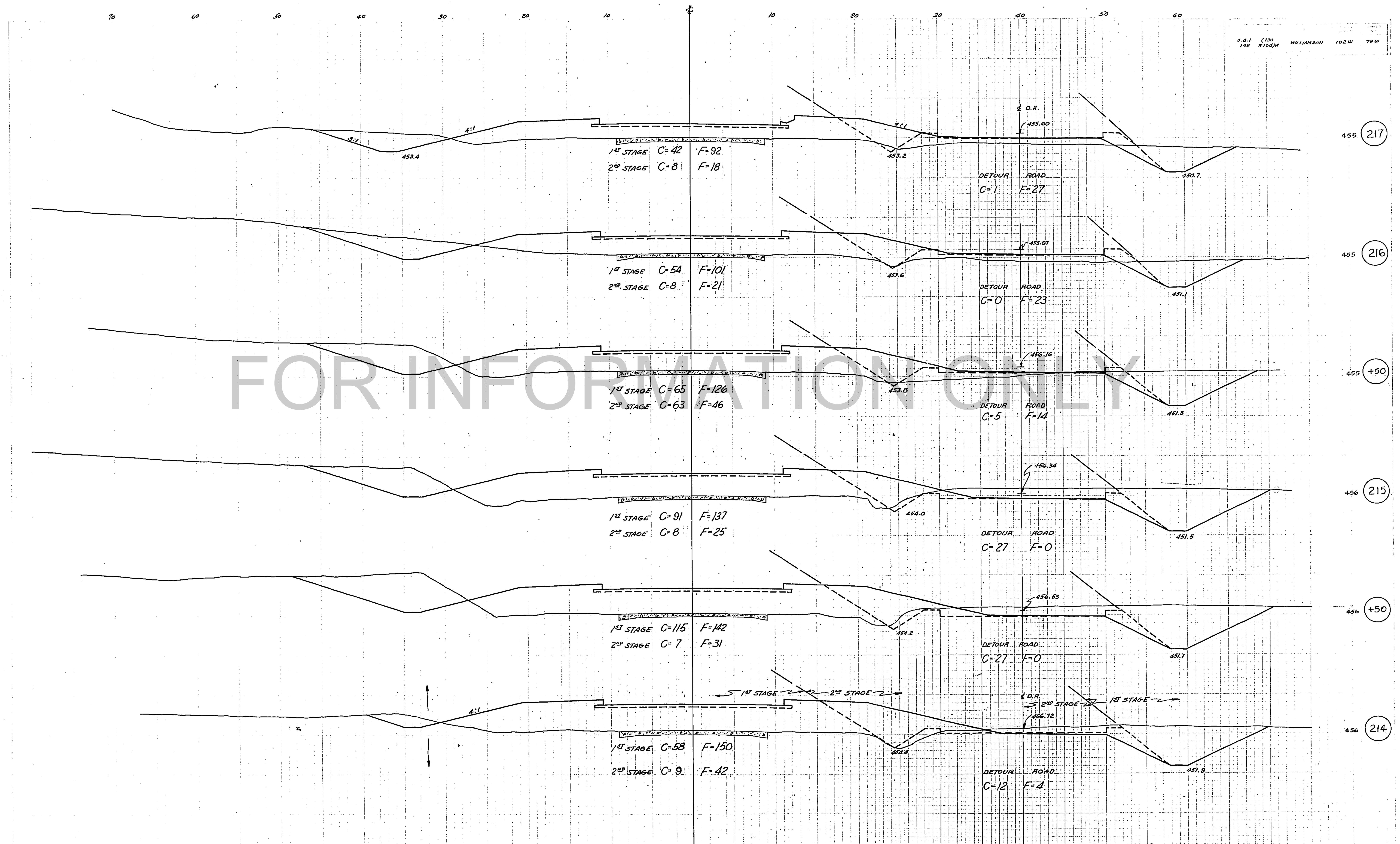


S.B.I. RTE. 148 SEC. (130,W15d)W,RS-1 WILLIAMSON CO. STA. 211+00 – 213+70

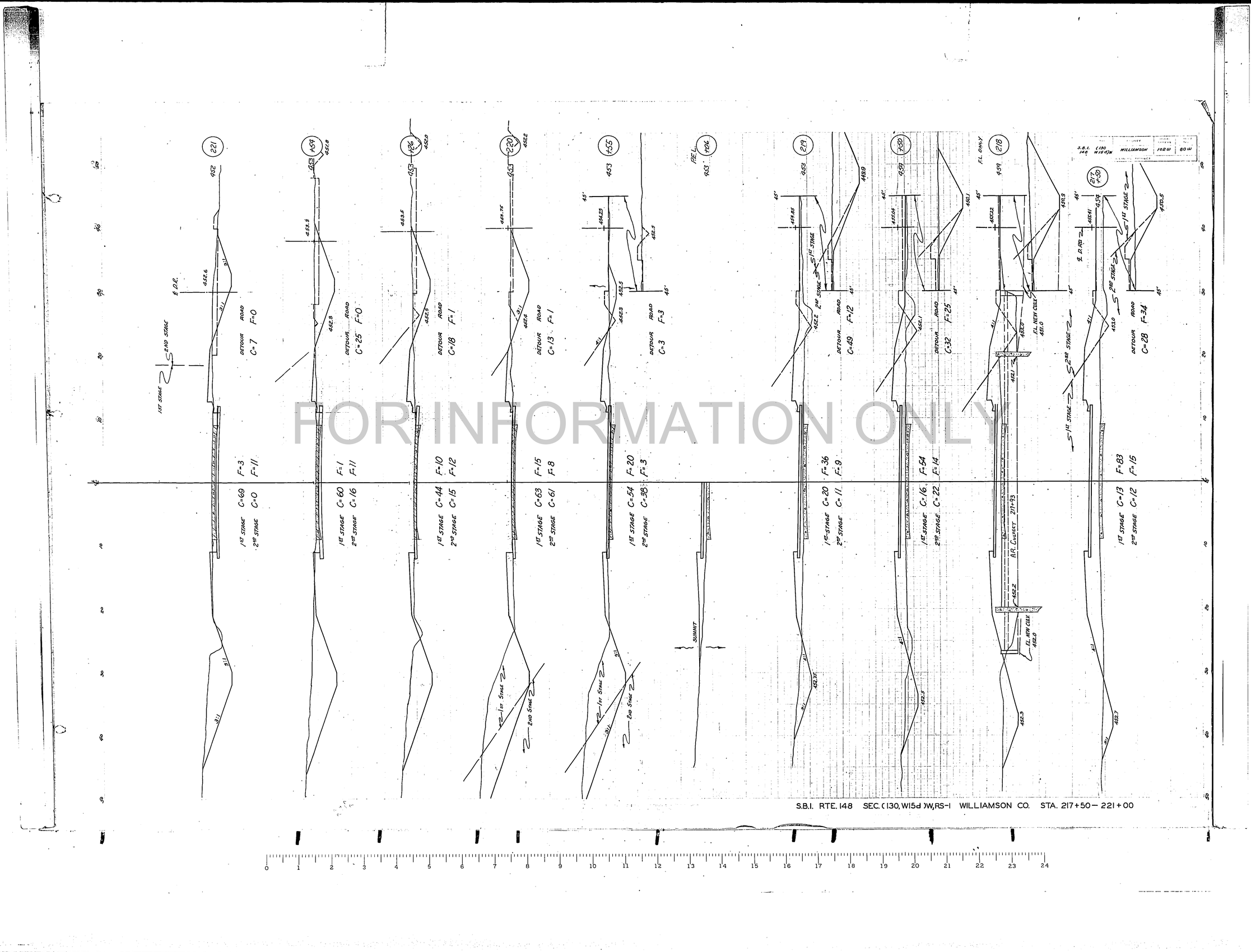
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24



S.B.I. RTE. 148 SEC. (130, W15d) W,RS-1 WILLIAMSON CO. STA. 211+11 – STA. 212+69 (EXTENSION LEFT)

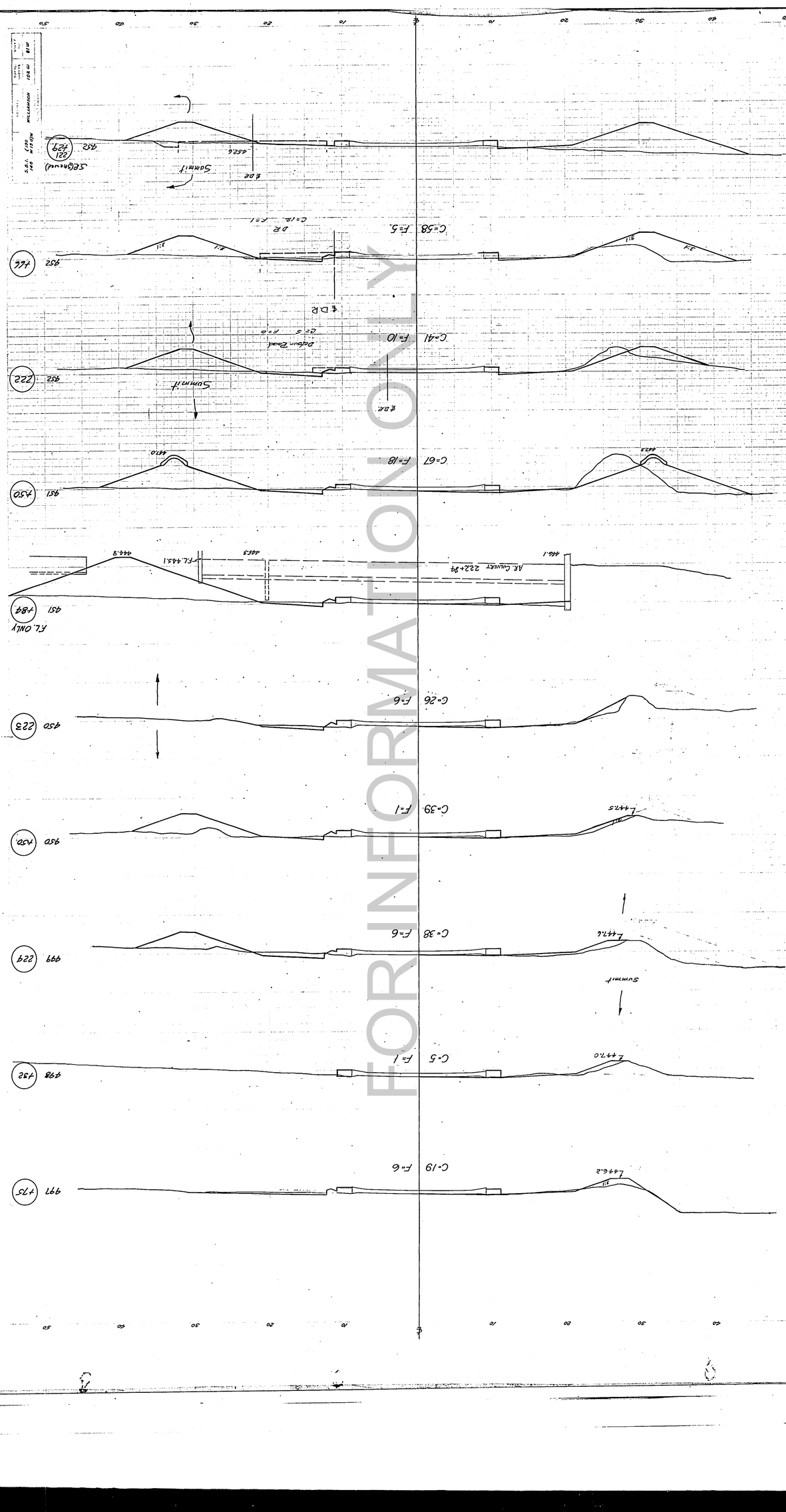


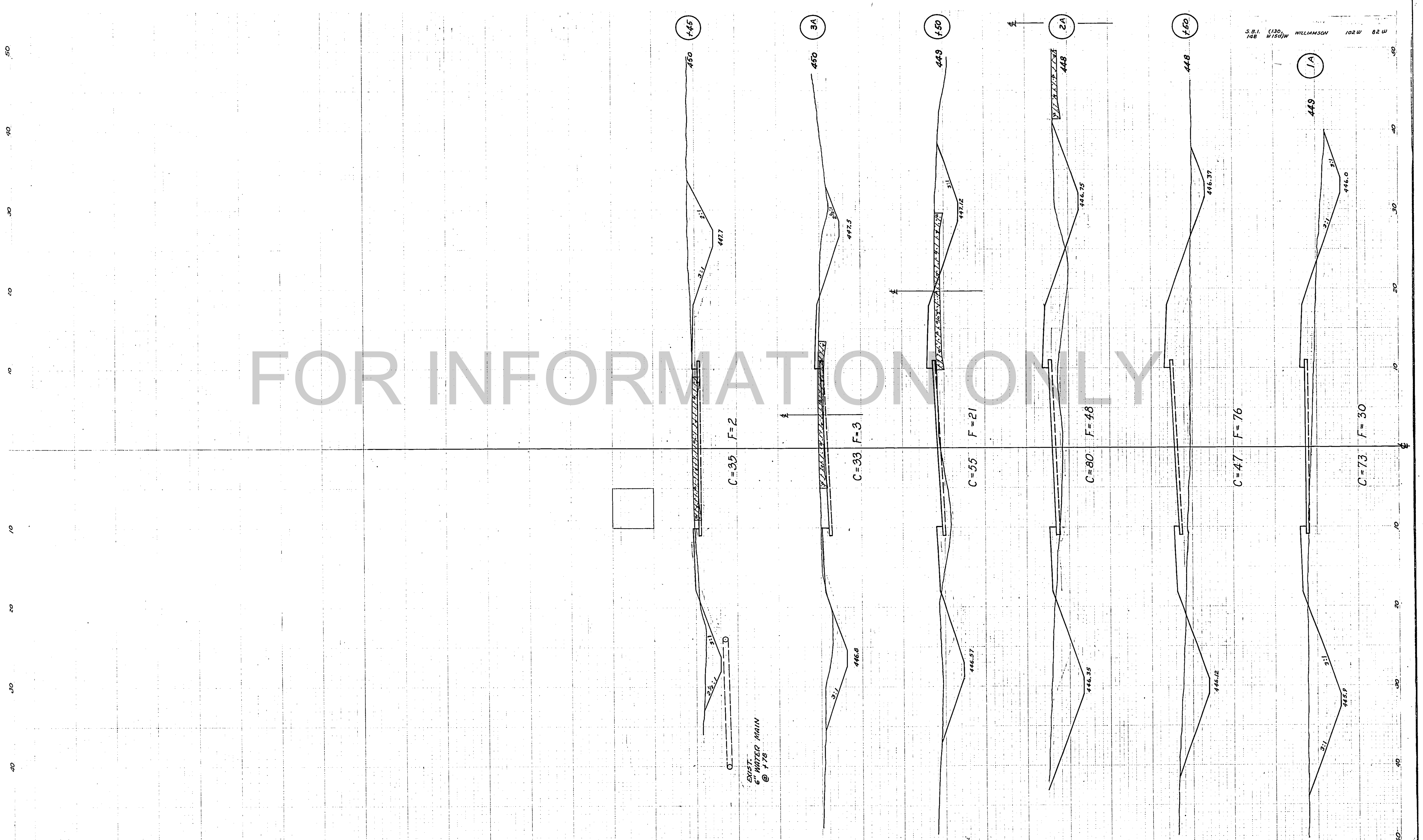
S.B.I. RTE. 148 SEC. (130 W15d)W,RS-1 WILLIAMSON CO. STA. 214+00-217+00



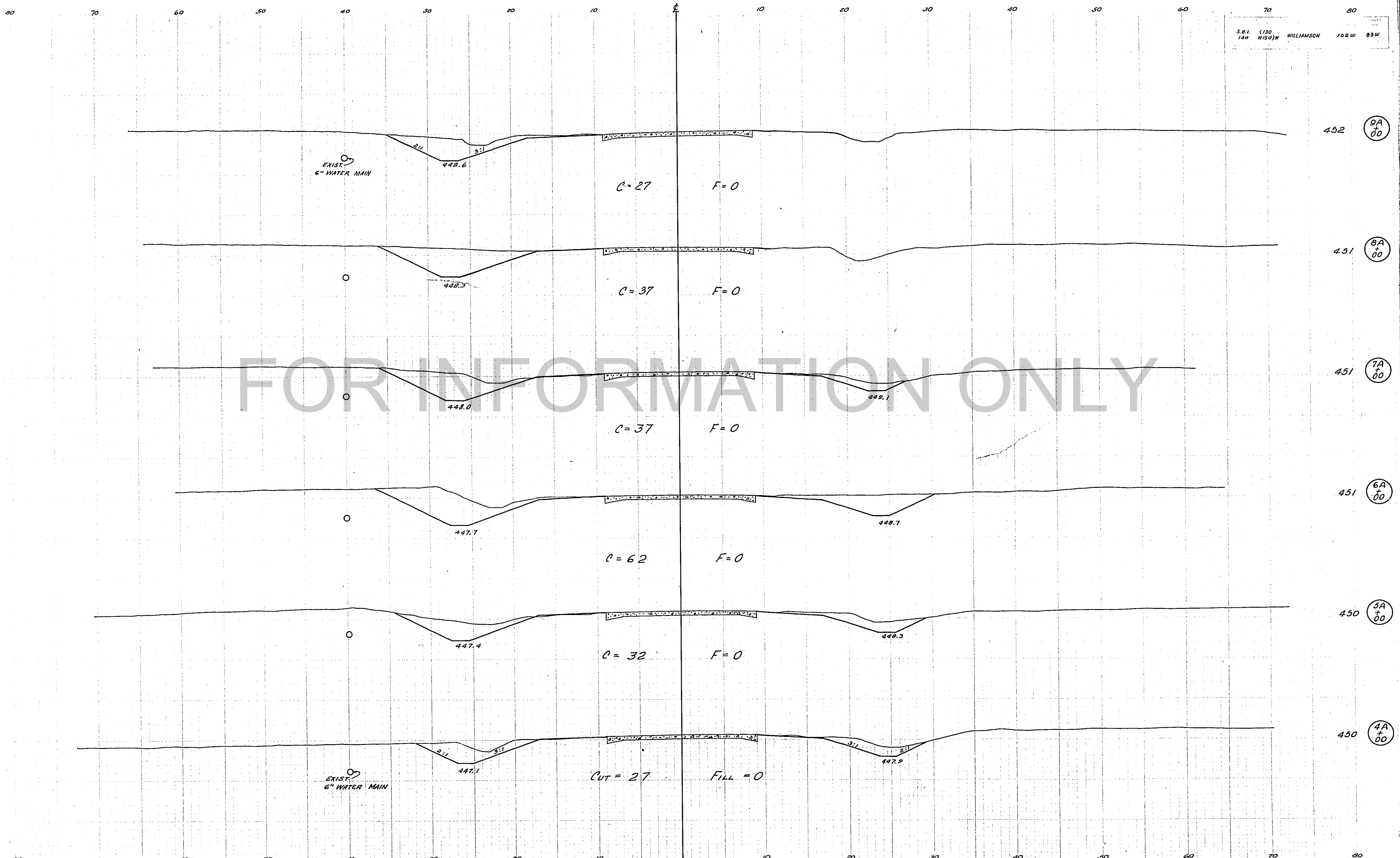
S.B.I. RTE. 148 SEC. (130, W15d)W, RS-1 WILLIAMSON CO. STA. 217+50 — 221+00

S.B.I. RTE. 148 SEC.(13)O.W.15dJW,RS-I WILLIAMSON CO. STA. 221+29 — 224+75



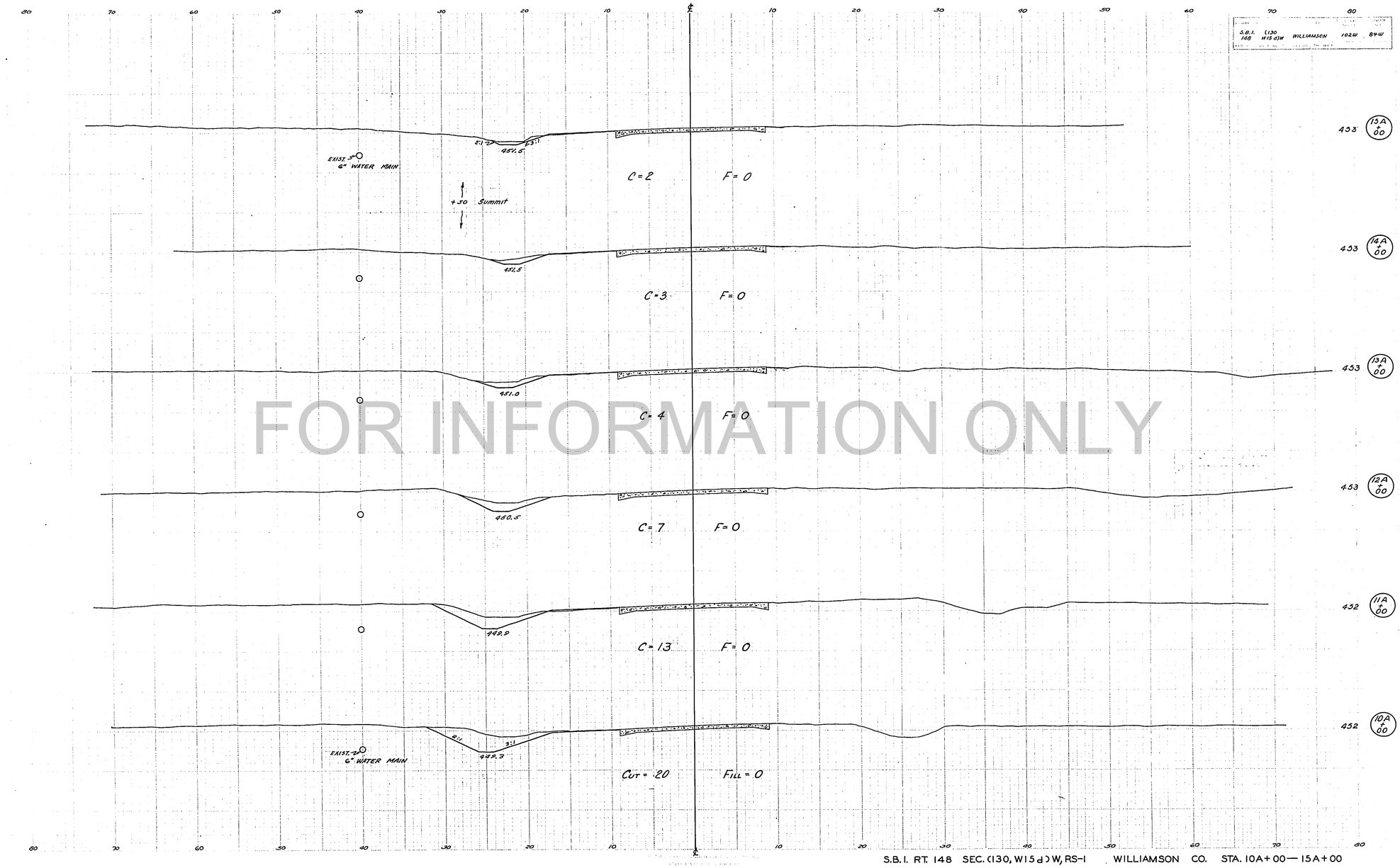


S.B.I. RTE. 148 SEC. (130,W15d)W,RS-1 WILLIAMSON CO. STA.1A+00-3A+45 (SPUR CONNECTION RT. STA. 82+00



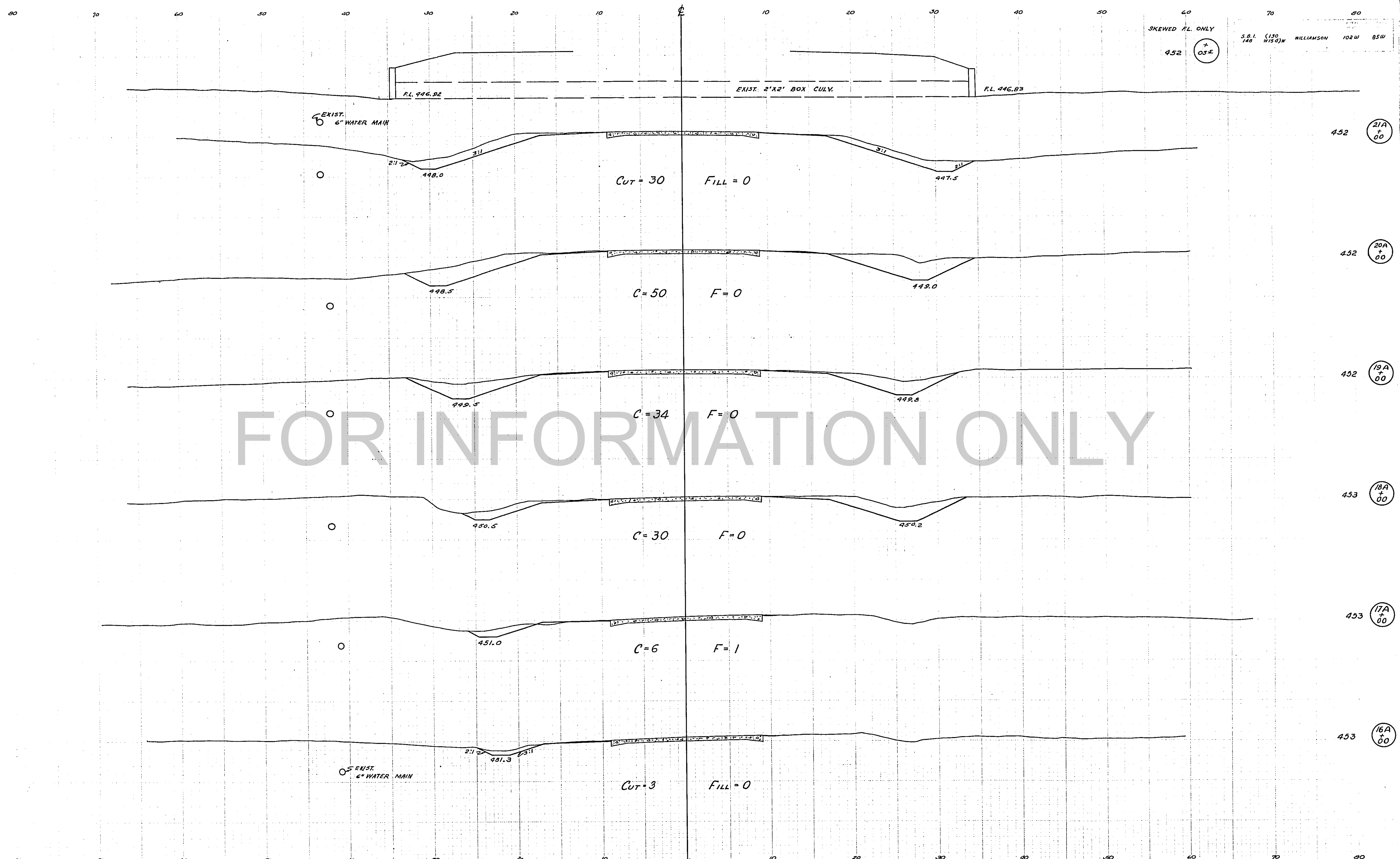
S.B.I. RT. 148 SEC. (130, W15 d) W,RS-1 WILLIAMSON CO. STA. 4A+00— 9A+00

S.B.I. RT. 148 | (130 W15dW) | WILLIAMSON | 102W | 84W

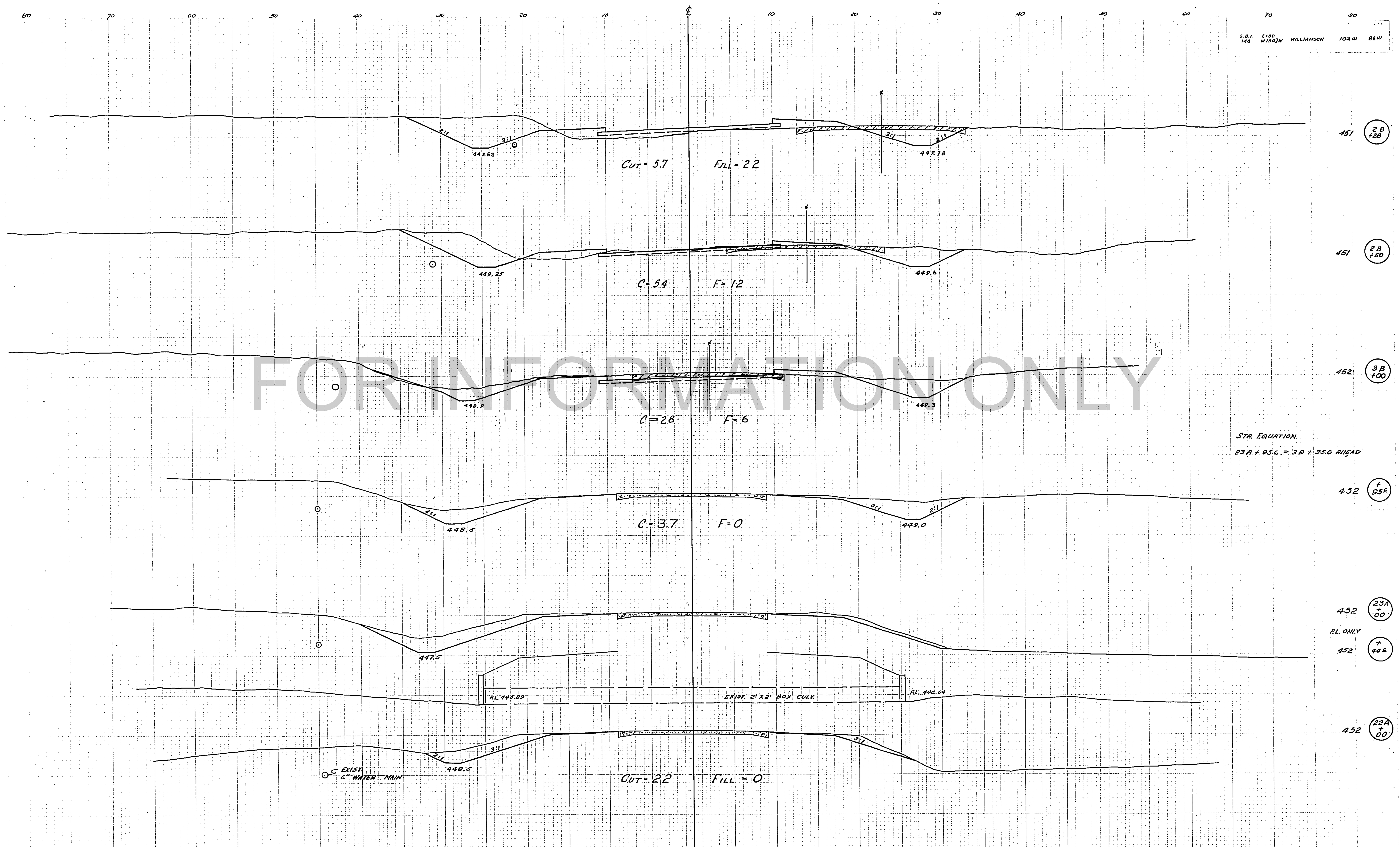


S.B.I. RT. 148 SEC. (130, W15dW, RS-1 WILLIAMSON CO. STA. 10A+00 — 15A+00

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

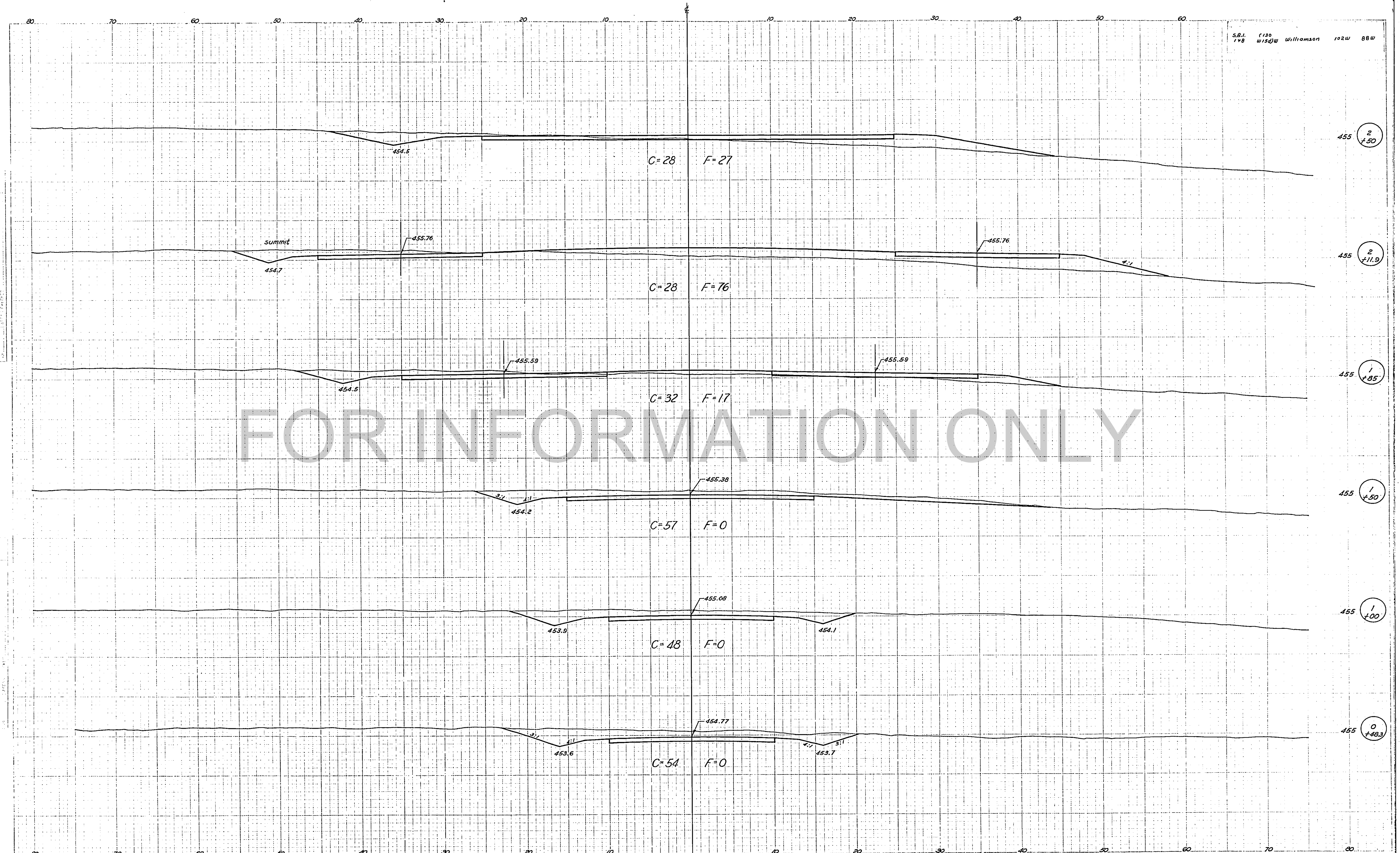


S.B.I. RT. 148 SEC. (130,W15d) W, RS-1 WILLIAMSON CO. STA. 16A+00—21A+00



S.B.I. RT. 148 SEC. (130, W15d) W, RS-1 WILLIAMSON CO. STA. 22A+00-2B+28 (SPUR CONN. RT. STA. 105+00)

S.B.I. RT. 148 SEC. (130,W15d)W, RS-1 WILLIAMSON CO. STA. 2B+00-1B+00 (SPUR CONN. RT. STA. 105+00)

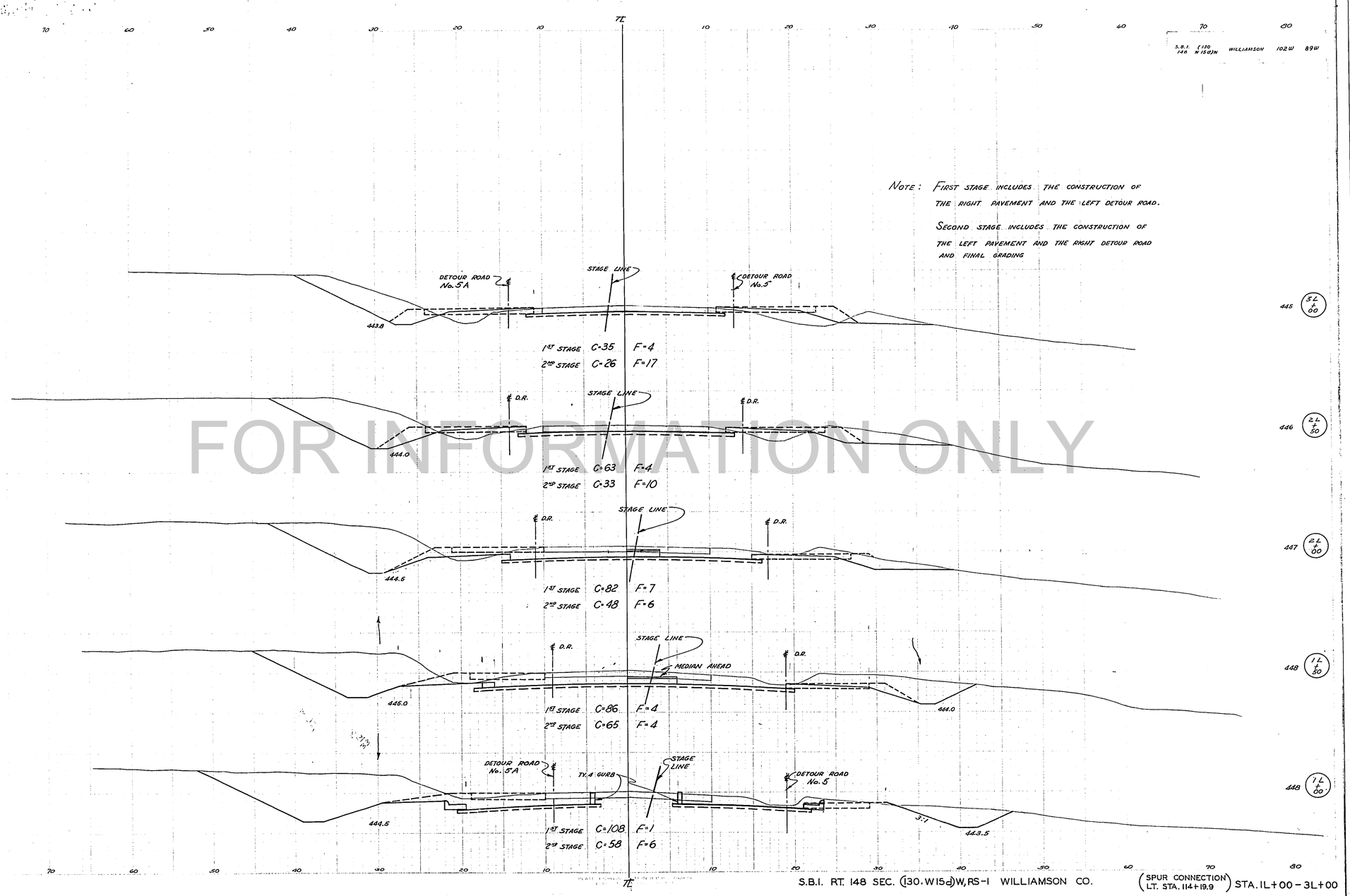


S.B.I. RTE. 148 SEC. (130.W15d) W. WILLIAMSON CO. (PICNIC AREA DRIVE) LT. STA 103+50

S.B.I. (130 / 148 N 1501)N WILLIAMSON 102W 89W

NOTE: FIRST STAGE INCLUDES THE CONSTRUCTION OF THE RIGHT PAVEMENT AND THE LEFT DETOUR ROAD.

SECOND STAGE INCLUDES THE CONSTRUCTION OF THE LEFT PAVEMENT AND THE RIGHT DETOUR ROAD AND FINAL GRADING



S.B.I. RT. 148 SEC. (130.W15d)W, RS-1 WILLIAMSON CO. (SPUR CONNECTION LT. STA. 114+19.9) STA. 1L+00 - 3L+00

S.B.I. (130 W15d)W 148 WILLIAMSON 102W 90W

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80

439 (3R +00)

℄ 442.5

C = 13 F = 6

441 (2R +00)

℄ 440.4

2:1

C = 17 F = 18

440 (1R +40)

℄ 441.0

2:1 2:1 2:1

C = 6 F = 42

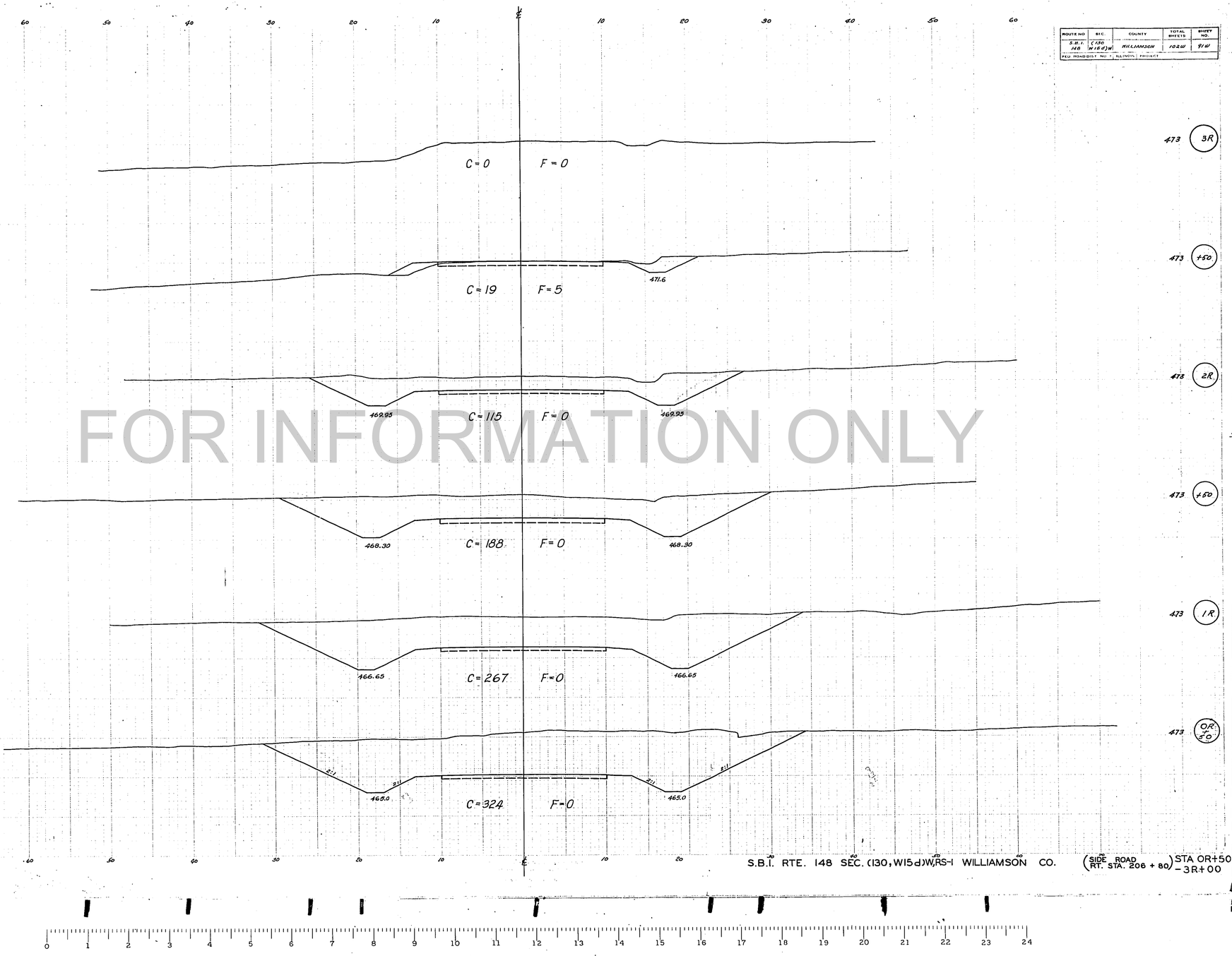
441 (1R +00)

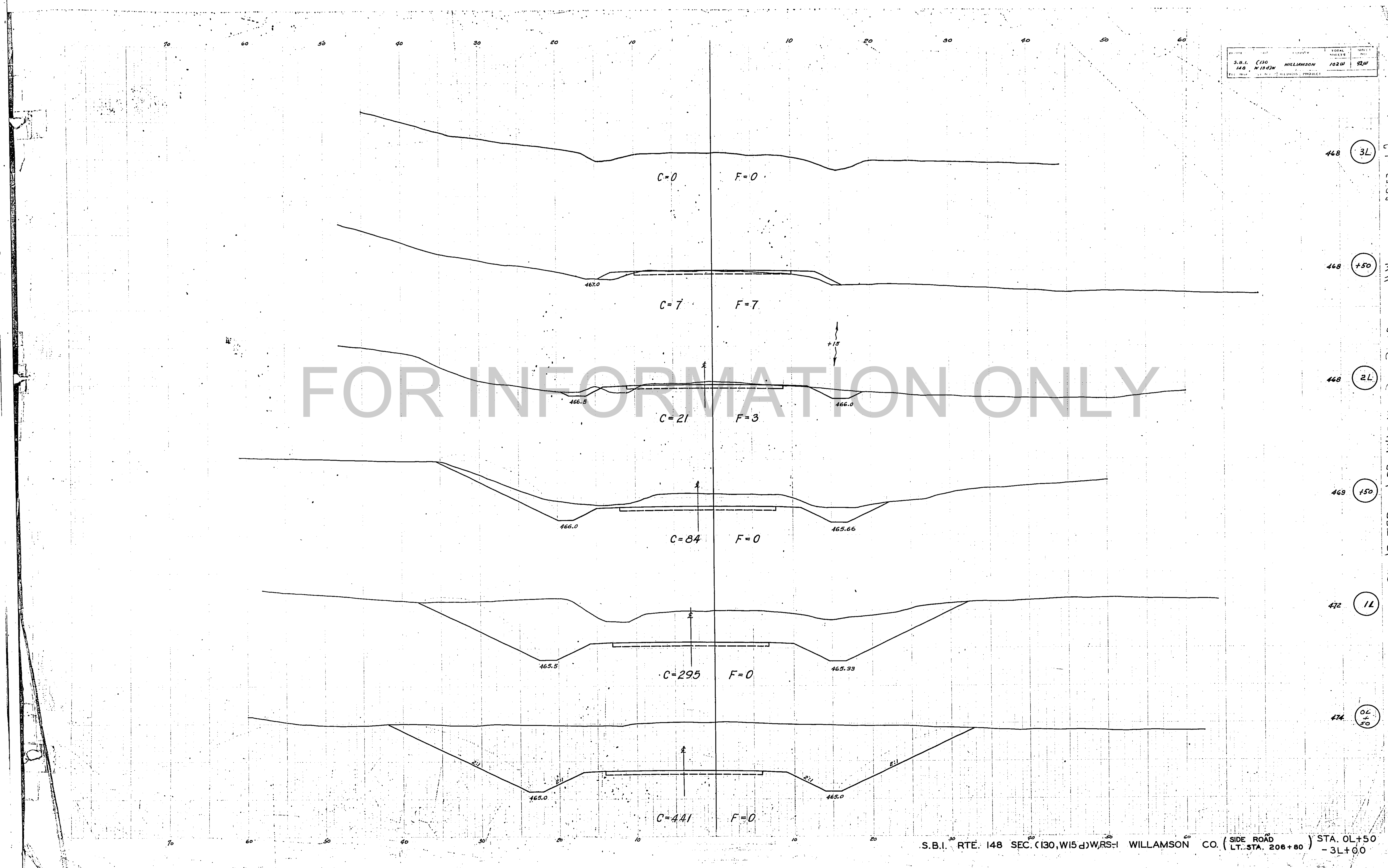
70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80

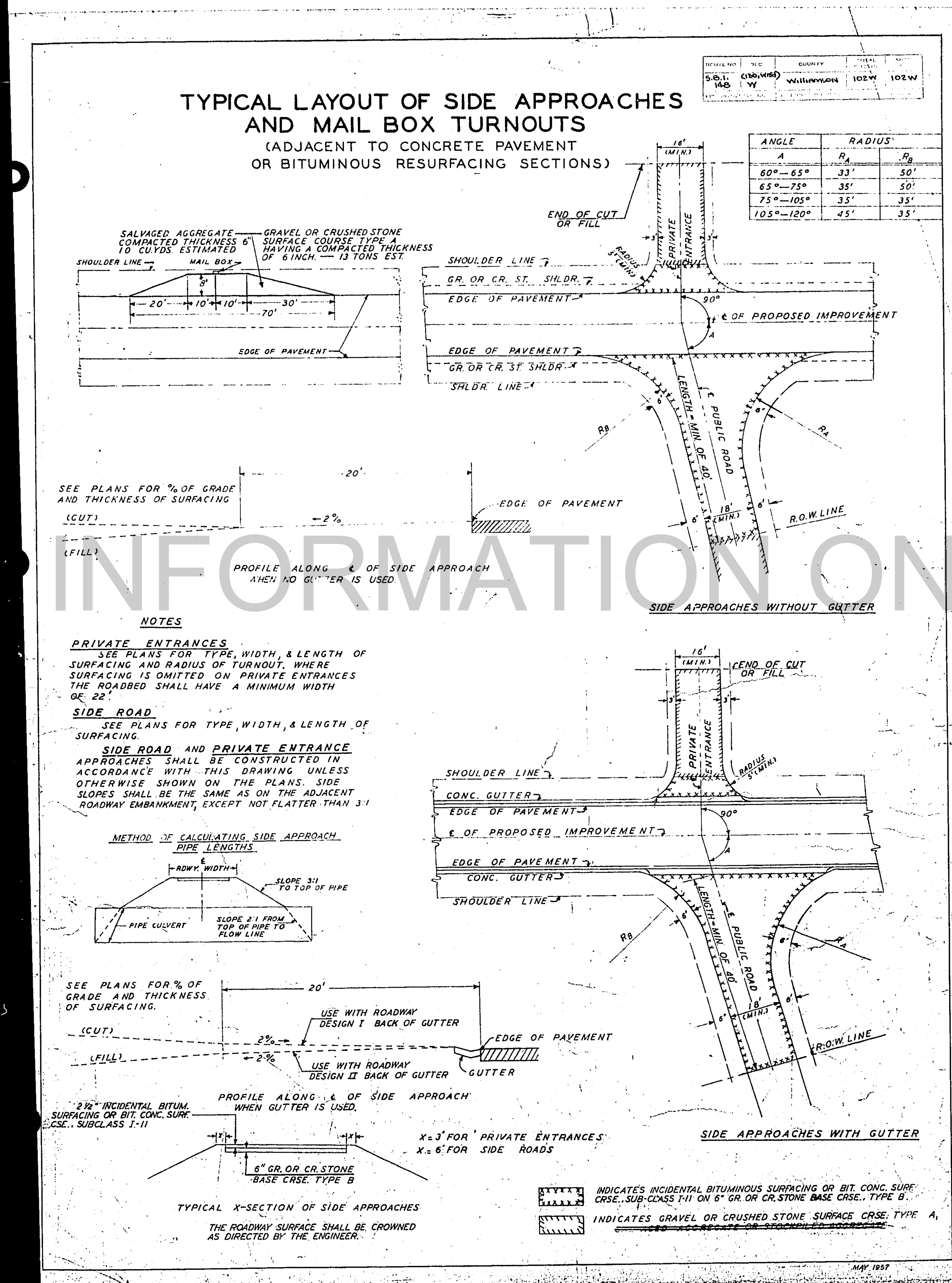
S.B.I. RTE. 148 SEC. (130, W15d)W, RS-1 WILLIAMSON CO. (SIDE ROAD RT. STA. 114+19.9) STA. 1R+00 - 3R+00

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. 148	(130 W15dW)	WILLIAMSON	102W	91W
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		







ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. 150	(130 W&D)W	Williamson	102W	102a W

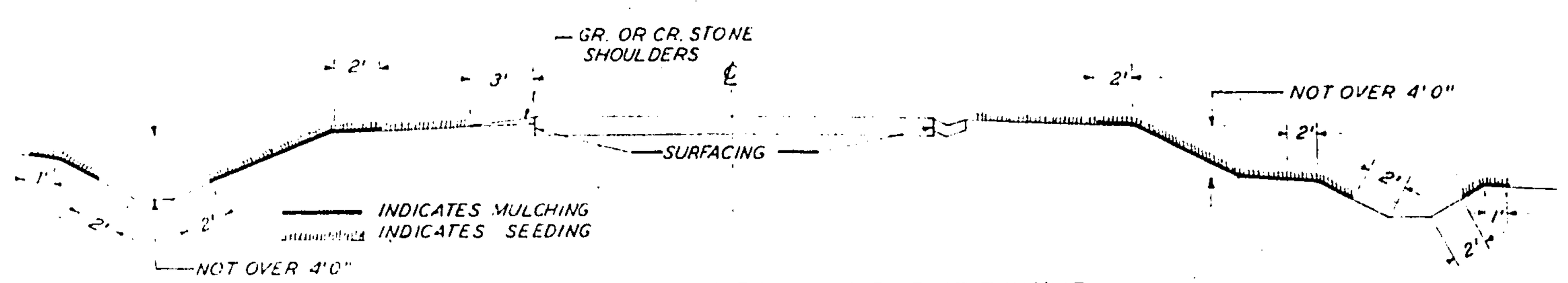
TYPICAL CROSS SECTION

SHOWING AREAS TO BE COVERED WITH

TEMPORARY SEEDING AND ASPHALT-COATED STRAW MULCH

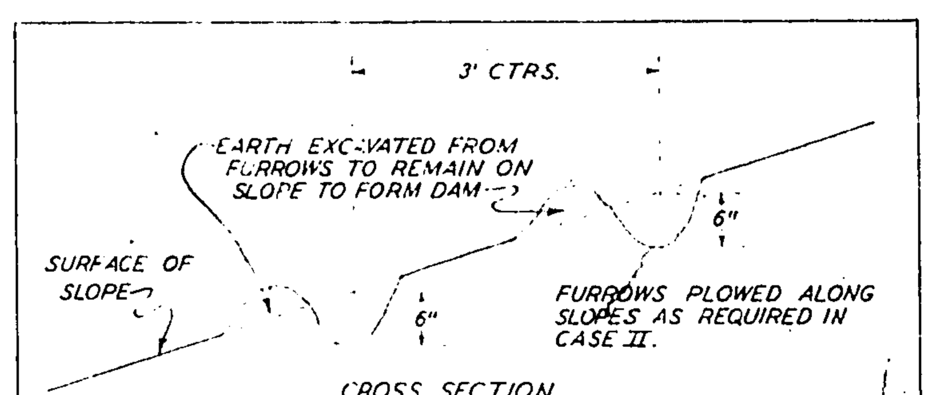
OR

COMPLETE SEEDING AND ASPHALT-COATED STRAW MULCH



CASE I — SLOPES NOT FURROWED
(SLOPES 4'0" OR LESS IN HEIGHT)

CASE II — SLOPES TO BE FURROWED
(SLOPES OVER 4'0" IN HEIGHT)



DETAIL OF FURROWS IN EARTH SLOPES

GENERAL NOTES

IN GENERAL, THE ENTIRE EARTH SURFACE WITHIN CONSTRUCTION LIMITS SHALL BE SEEDED AND MULCHED WITH THE FOLLOWING EXCEPTIONS:
(A) MULCH ON SHOULDERS SHALL BE PLACED ON THE OUTER TWO FEET ONLY.
(B) NO SEEDING OR MULCHING SHALL BE CLOSER THAN TWO FEET FROM THE BOTTOM OF THE DITCH, MEASURED ALONG THE SLOPE.

FERTILIZER AND AGRICULTURAL GROUND LIMESTONE SHALL BE APPLIED TO ALL SEEDED AREAS.

SLOPES ONLY OF BORROW PITS SHALL BE SEEDED UNLESS OTHERWISE SPECIFIED.

IN CASE II, THE SLOPES SHALL BE FINISHED TO THE FINAL LINE AND GRADE, AS SHOWN ON STATION CROSS SECTIONS, BEFORE FURROWING IS DONE. FURROWS SHALL BE PLOWED ALONG A LEVEL LINE CONFORMING TO THE CONTOURS OF THE SLOPE. THE COST OF FURROWING SHALL BE CONSIDERED AS INCIDENTAL TO THE WORK, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

FOR COMPLETE SEEDING, THE APPLICABLE NURSE CROP SHALL BE APPLIED AT THE RATE OF 40 LBS. PER ACRE.

QUANTITIES OF STRAW:
SEEDED AREAS ON SLOPES LESS THAN 4' — 2 TONS PER ACRE.
SEEDED AREAS ON SLOPES OVER 4' — 4 TONS PER ACRE.

FERTILIZER HAVING AN ANALYSIS OF 10-6-4 SHALL BE APPLIED AT THE RATE OF 160 LBS. OF NUTRIENTS PER ACRE.

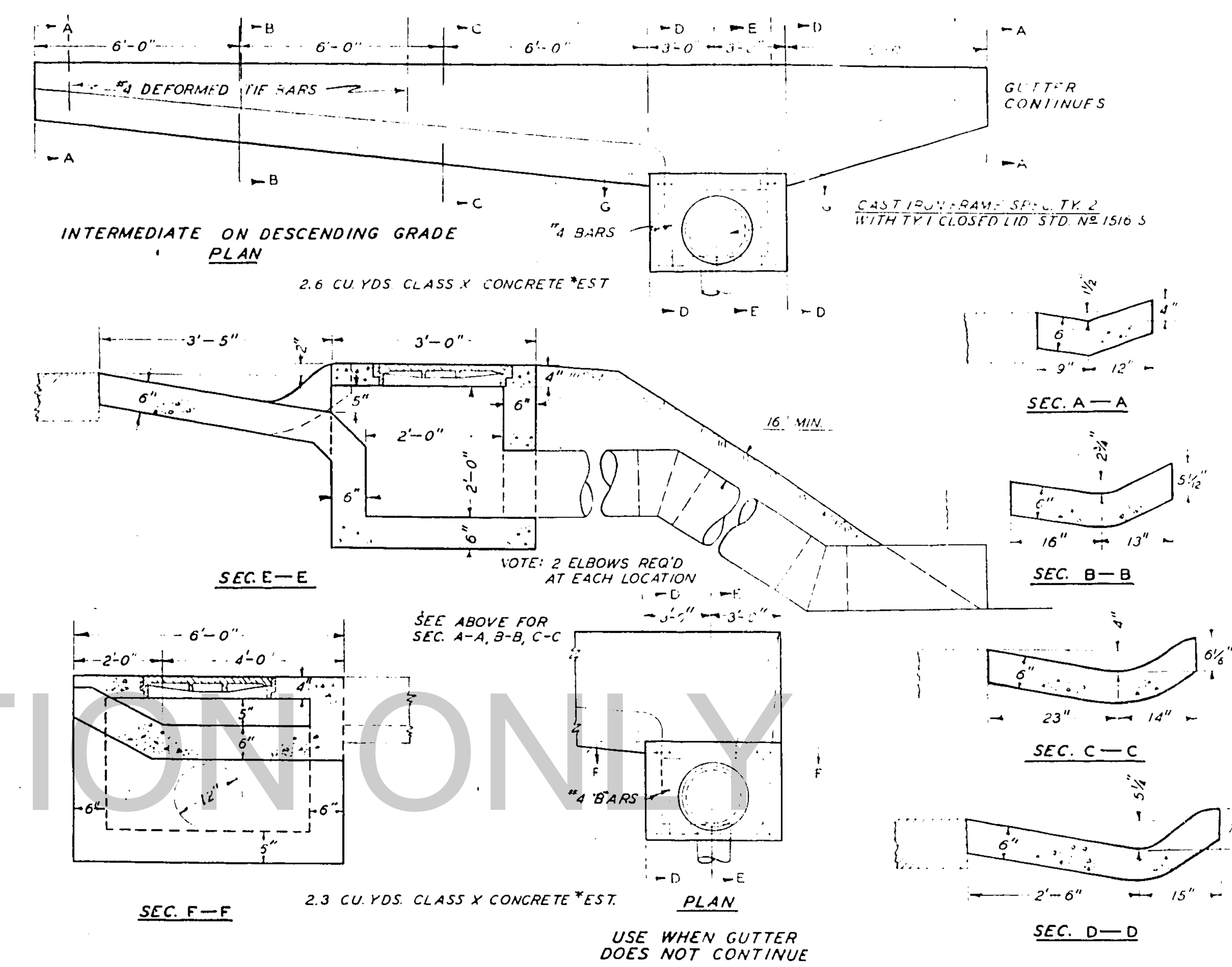
SEQUENCE OF OPERATION FOR SEEDING AND MULCHING IN CASE II

1. SPREAD FERTILIZER AND AGRICULTURAL GROUND LIMESTONE.
2. PERFORM THE OPERATION OF GROUND PREPARATION.
3. PLOW FURROWS.
4. PERFORM THE OPERATION OF SEEDING, USING THE HAND METHOD. THE SEED SHALL BE SOWN ON THE SURFACE OF THE PREPARED GROUND AFTER FURROWING.
   4a — THE OPERATIONS FOR COVERING THE SEED, BY HARROWING OR OTHER MEANS, SHALL BE PERFORMED ONLY IF SO DIRECTED BY THE ENGINEER AND SHALL BE INCIDENTAL TO THE ITEM OF SEEDING.
5. PERFORM THE OPERATION OF MULCHING IN ACCORDANCE WITH SECTION 112 OF THE SUPPLEMENTAL SPECIFICATIONS.

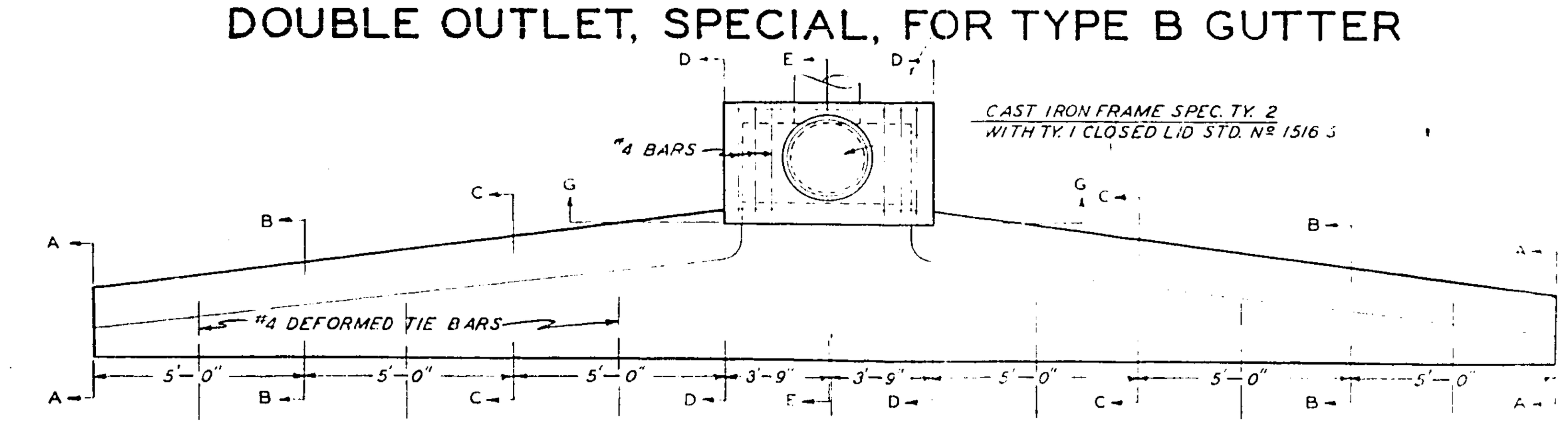
SECTION 111 AND 112 OF THE STANDARD AND SUPPLEMENTAL SPECIFICATIONS, SHALL GOVERN THIS WORK, EXCEPT AS NOTED HEREIN.

OUTLET, SPECIAL, FOR TYPE B GUTTER

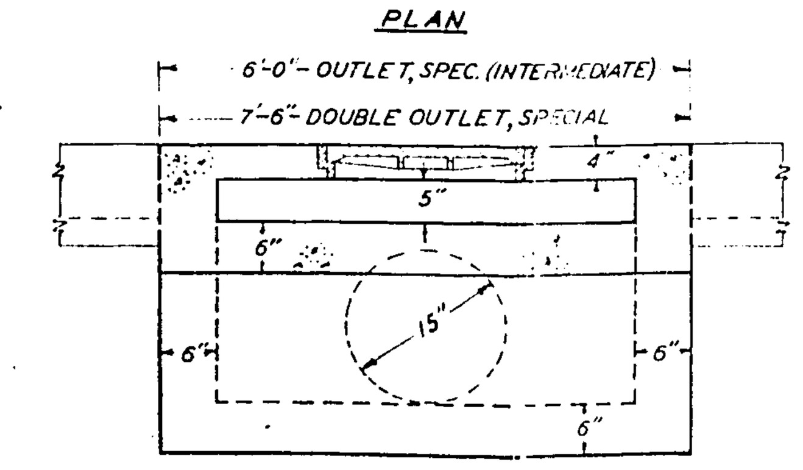
S.B.I. (130 W&D) 14B W   Williamson   102 W   102a W



DOUBLE OUTLET, SPECIAL, FOR TYPE B GUTTER



PLAN



SEC. G — G

3.3 CU. YDS. CLASS X CONCRETE *EST.

NOTES:
CLASS X CONCRETE SHALL BE USED THROUGHOUT. THE GUTTER OUTLET SHALL BE TIED TO THE PAVEMENT BY #4 TIE BARS 3'—0" LONG AND SPACED AT 5'—0" CENTERS. THESE BARS SHALL BE BILLET STEEL, STRUCTURAL GRADE OR INTERMEDIATE GRADE.
THE GUTTER OUTLET SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CU. YD. FOR CLASS X CONCRETE,* WHICH PRICE SHALL INCLUDE THE COST OF THE REINFORCEMENT AND TIE BARS.
THE 12" AND 15" PIPE SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER LIN. FT. FOR CORRUGATED METAL PIPE, WHICH PRICE SHALL INCLUDE ALL BENDS OR ELBOWS WHICH ARE REQUIRED.

NOTES:
CONTRACTION JOINTS OF A TYPE SIMILAR TO THAT USED IN THE ADJACENT PAVEMENT SHALL BE INSTALLED IN THE GUTTER OUTLET IN PROLONGATION WITH THE JOINTS IN THE PAVEMENT. IF CONTRACTION JOINTS ARE NOT PROVIDED IN THE PAVEMENT, CONTRACTION JOINTS ARE NOT REQUIRED IN THE GUTTER OUTLET. THE COST OF CONTRACTION JOINTS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER CU. YD. FOR CLASS X CONCRETE.
CAST IRON FRAME SPECIAL, TYPE 2 (WITH TYPE I CLOSED LID) SHALL BE PAID FOR AT CONTRACT UNIT PRICE EACH, WHICH PRICE SHALL BE PAYMENT IN FULL FOR FURNISHING ALL MATERIALS AND FOR CONSTRUCTING THE WORK COMPLETE IN PLACE.

* CLASS X CONCRETE ON THIS SHEET REFERS TO "CLASS X CONCRETE (MISCELLANEOUS)"

Revision 7-54