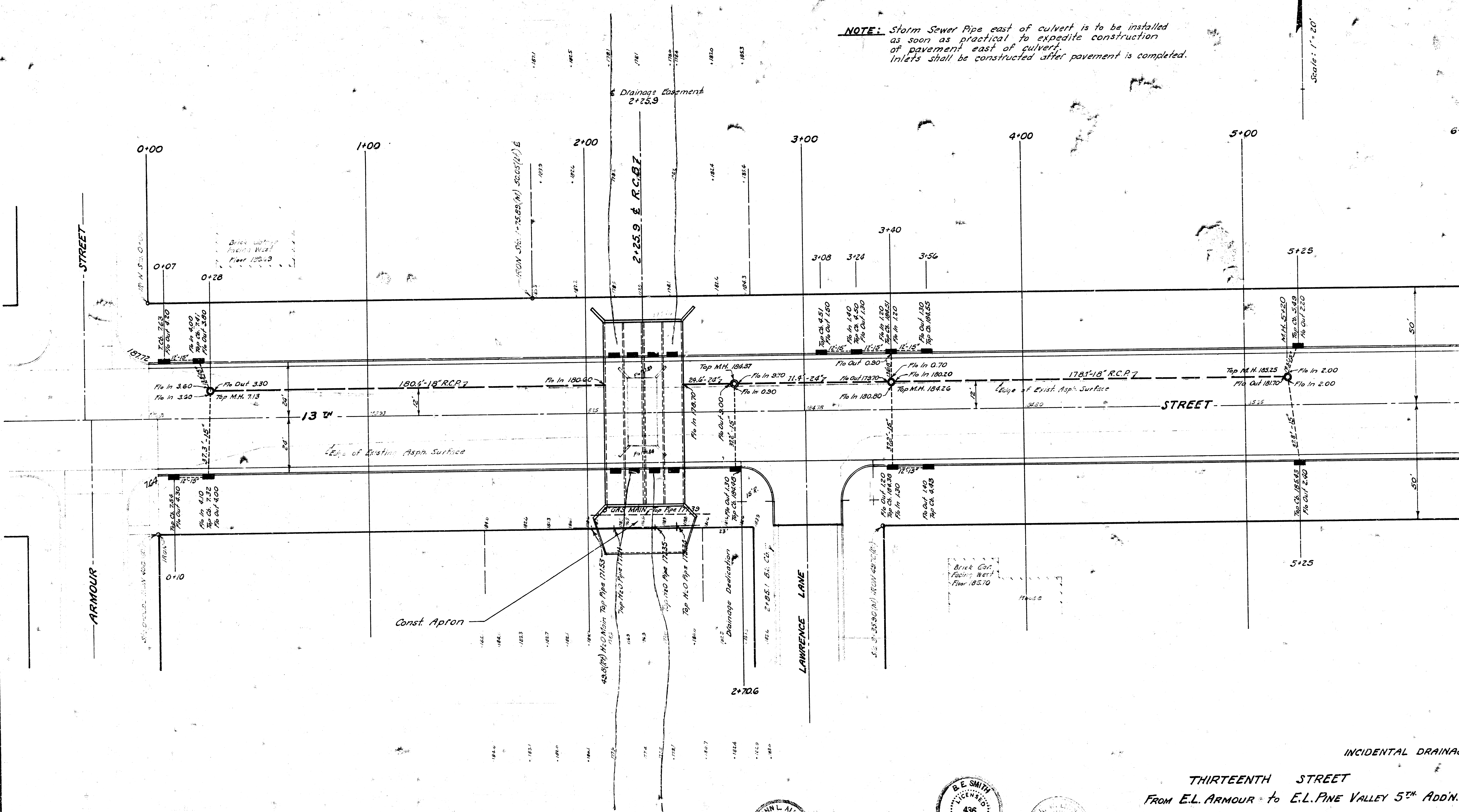


B.M. 183.39 Extreme N.E. Corner Stone
Mon. on N.E. Corner 13th & Armour.

B.M. 184.44 "X" Cut Top East Curb Lawrence
Lane 11' South of S.L. 13th Street.

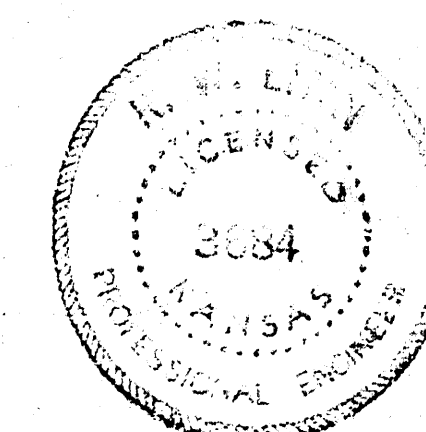
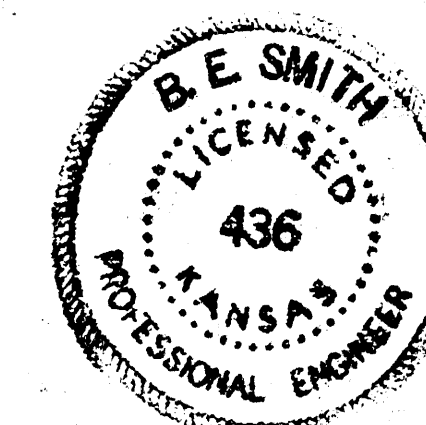
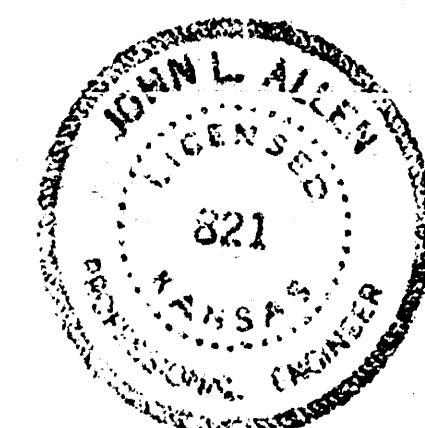
NOTE: Storm Sewer Pipe east of culvert is to be installed
as soon as practical to expedite construction
of pavement east of culvert.
Inlets shall be constructed after pavement is completed.

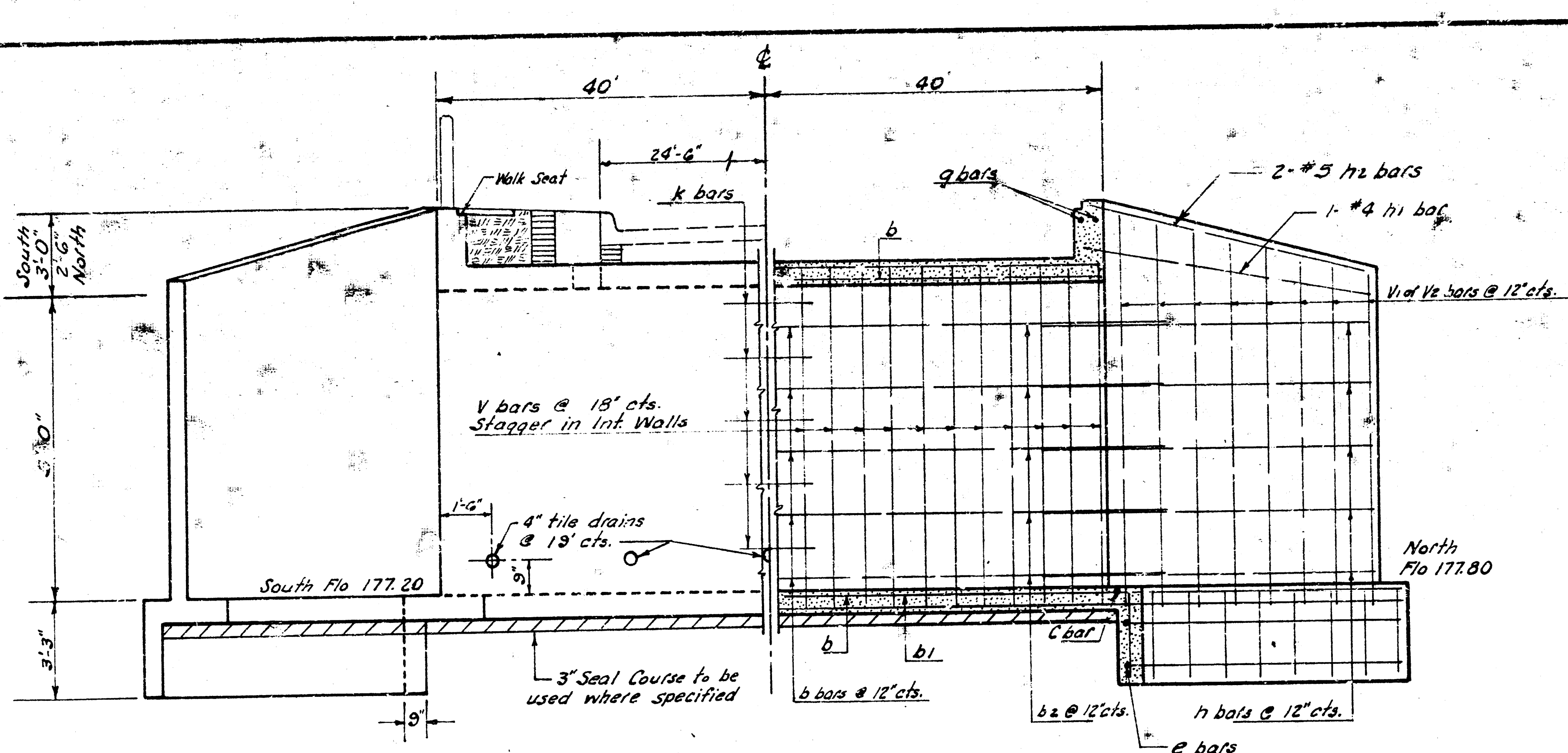
Scale: 1" = 20'



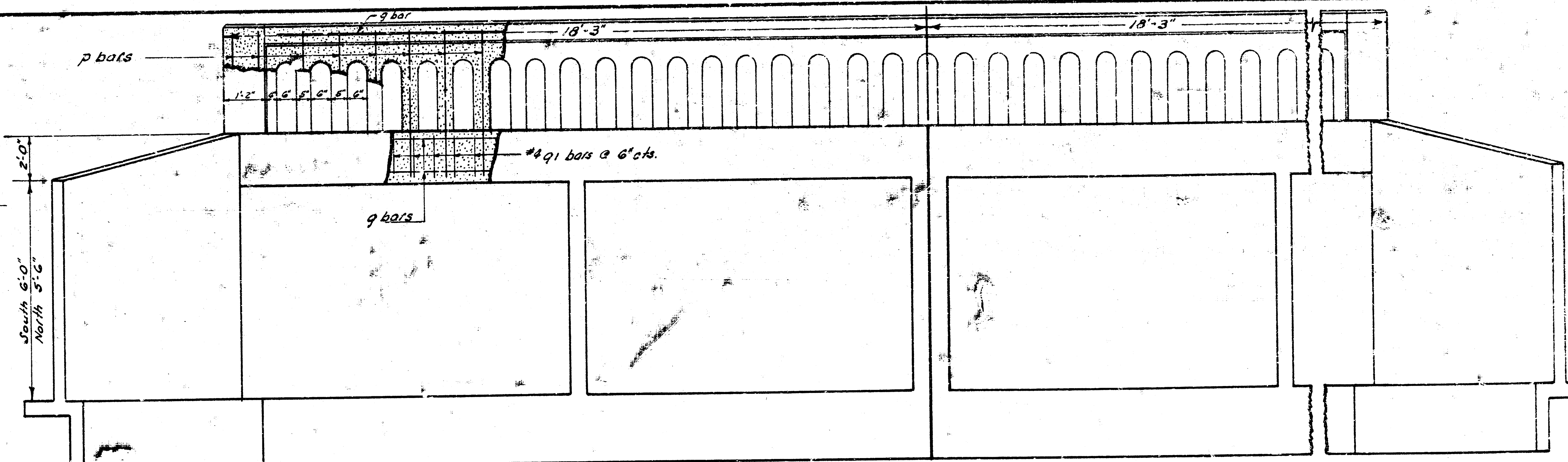
INCIDENTAL DRAINAGE

THIRTEENTH STREET
FROM E.L. ARMOUR TO E.L. PINE VALLEY 5TH ADDN.
2-DOUBLE 8'x5'x80' R.C.B. & STORM WATER SEWER
B.E. SMITH CITY ENGINEER CITY OF WICHITA KANSAS
Date: April 1966 PROJECT NO. C15-21
Sheet No. 1 of 3

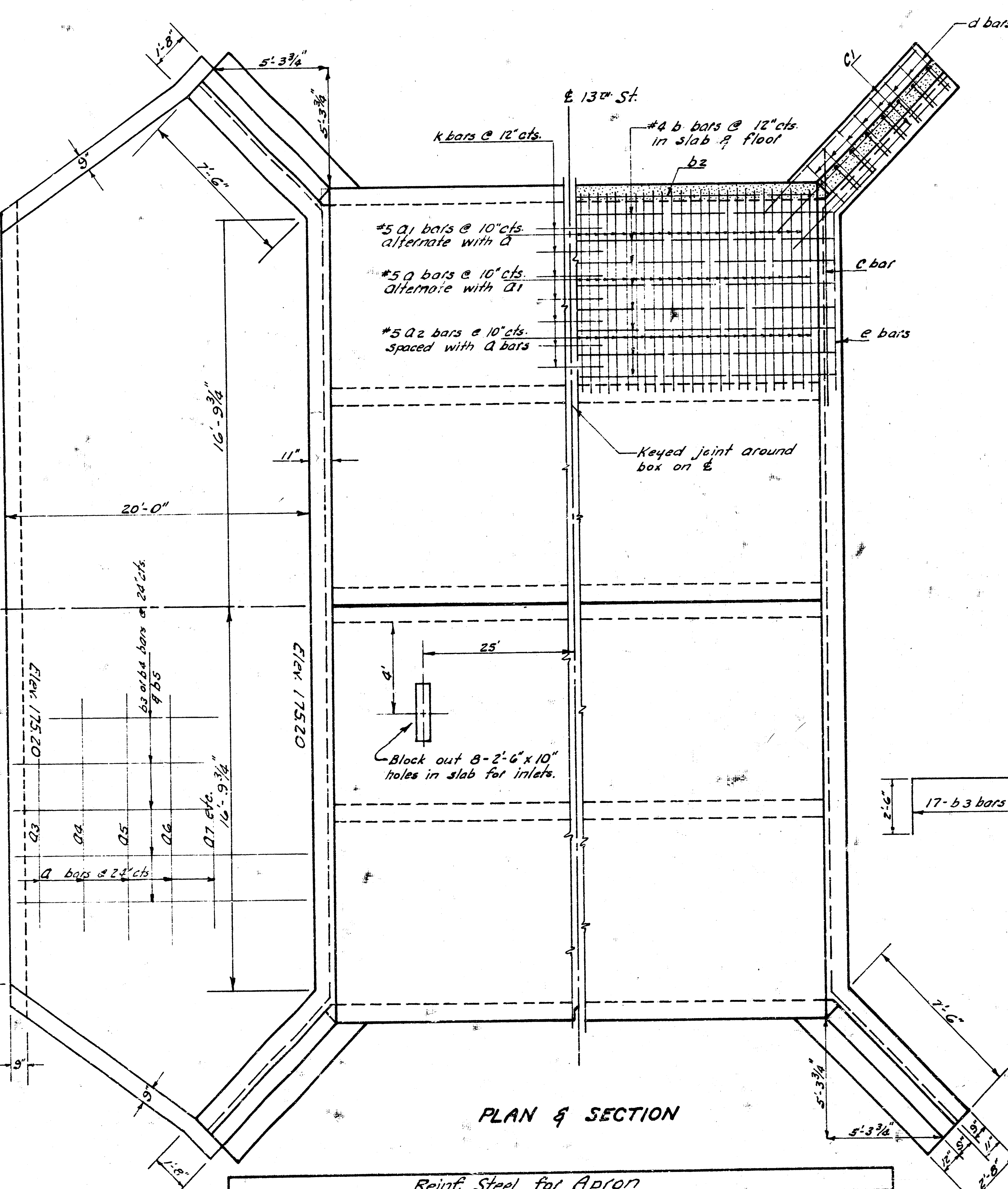




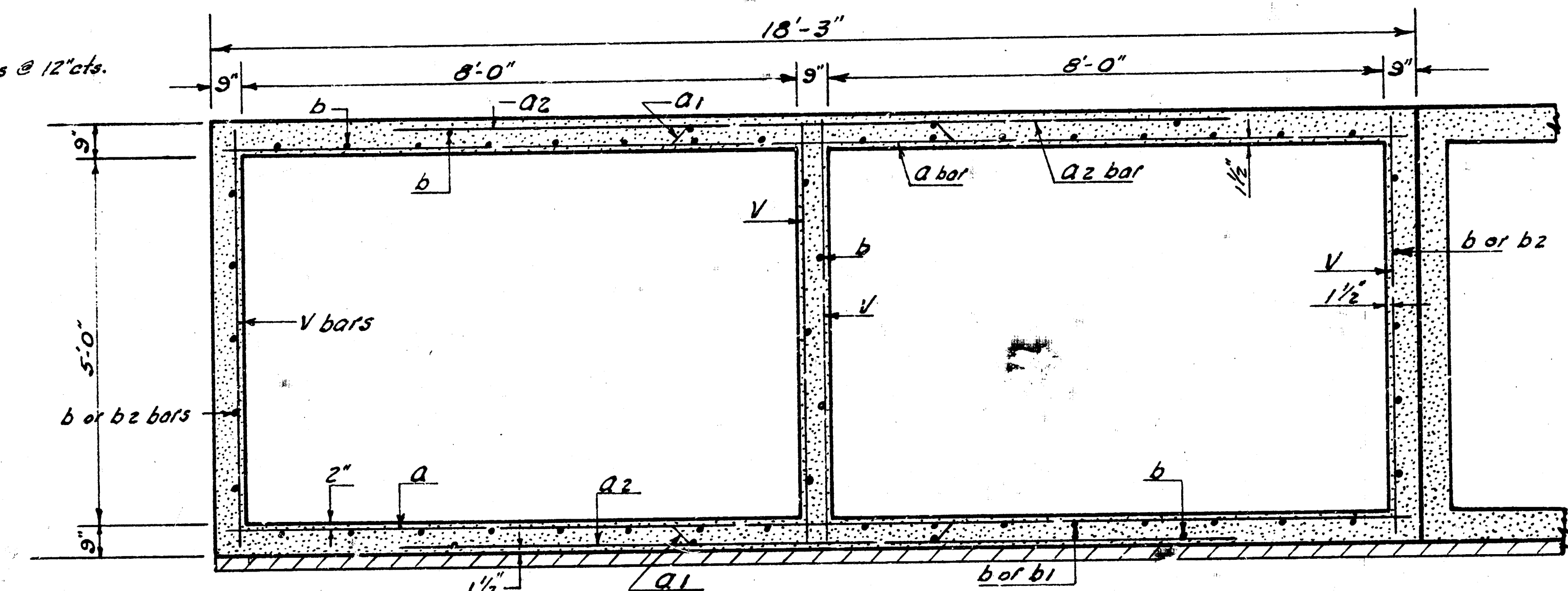
ELEVATION & SECTION



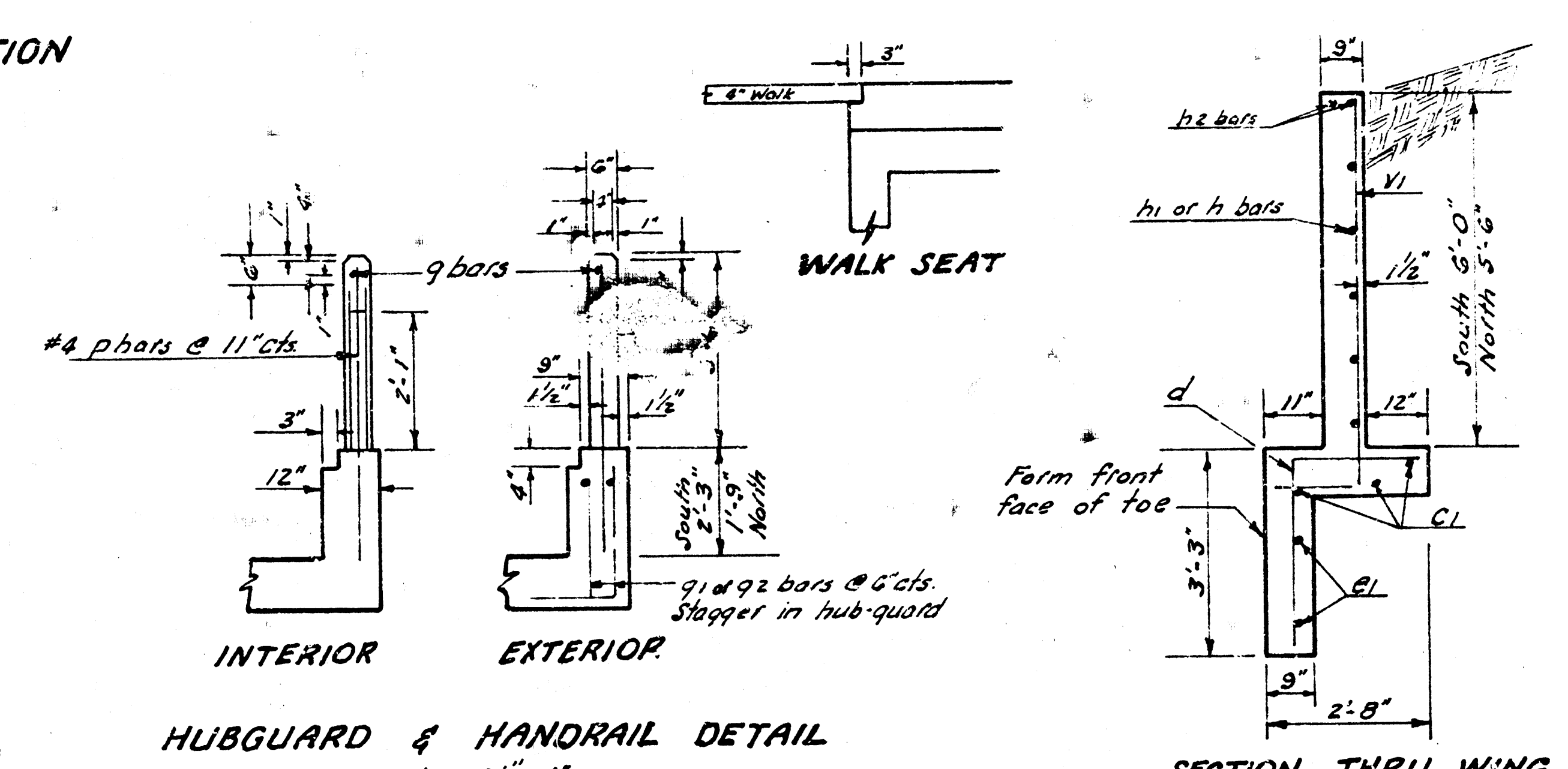
END ELEVATION



PLAN & SECTION

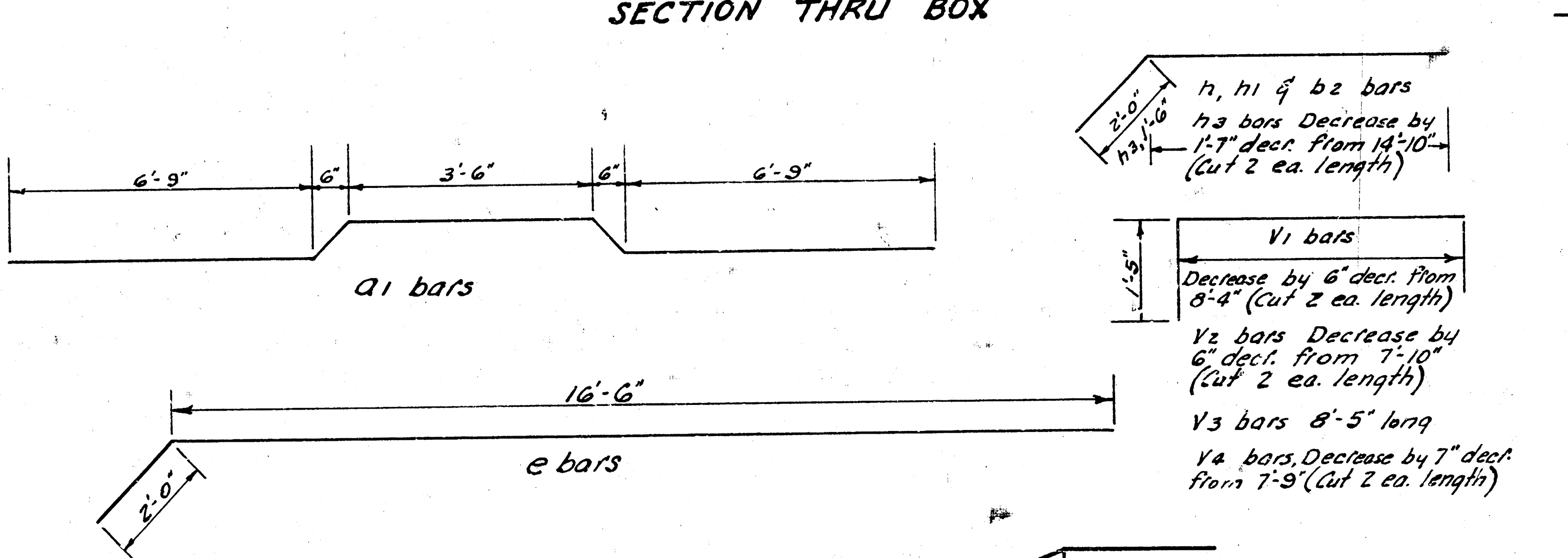


SECTION THRU BOX

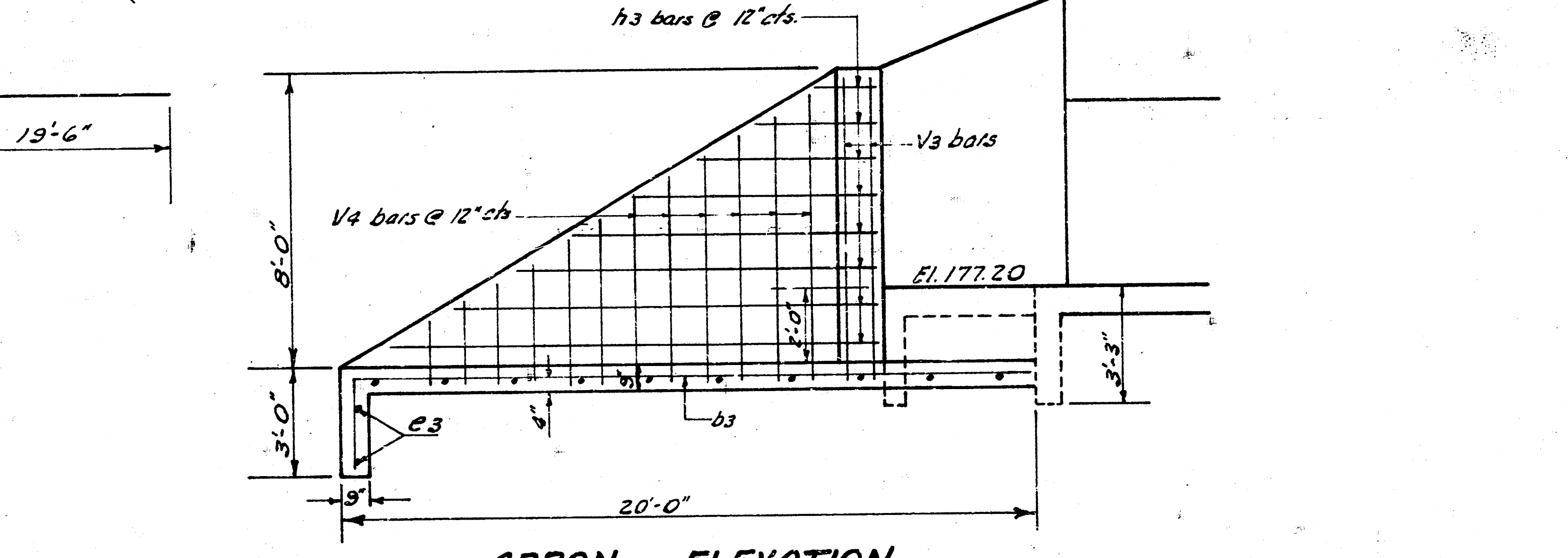


HUBGUARD & HANDRAIL DETAIL
Scale: 3/8" = 1'

SECTION THRU WING



a1 bars



APRON ELEVATION

Reinf. Steel for Apron																			
Bar	a3	a4	a5	a6	a7	a8	a9	a10	a11	a12	b3	b4	b5	V3	V4	h3	h4	h5	h6
No.	1	1	1	1	1	1	1	1	1	1	17	2	2	4	26	16	2	2	2
Size	#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#4
Length	36'9"	36'0"	36'3"	40'6"	41'9"	43'0"	44'3"	43'0"	39'0"	35'0"	22'0"	18'0"	10'0"	9'10"	*	*	34'0"	*	*

Reinf. Steel Schedule																			
Bar	a	a1	a2	b	b1	b2	c	c1	d	e	e1	q	q1	q2	h	h1	h2	V	V1
No	388	384	388	226	64	20	4	12	32	8	8	12	72	72	20	4	8	33	16
Size	#5	#5	#5	#4	#4	#4	#4	#4	#4	#4	#4	#5	#4	#4	#4	#4	#5	#4	#4
Length	18'0"	18'5"	12'0"	27'3"	30'10"	29'7"	19'2"	10'9"	5'0"	18'6"	7'9"	18'0"	4'6"	4'0"	10'0"	8'2"	8'5"	6'3"	*

*See Bending Diagram

BILL OF MATERIALS		
Item	Quantity	Unit
Class A-AE Concrete	214	Cu. Yds.
Reinf. Steel	29,420	Lbs.
Concrete Handrail	73	Lin. Ft.
Hand Excavation	7	Cu. Yds.
Concrete Culvert Removed	1	Each
2' x 5' Inlets	21	"
Brick Manholes	4	"

GENERAL NOTES
Class A-AE concrete to be used in the structure. Class D concrete is to be used in the handrail & posts. Seal Course consisting of Class A concrete to be constructed only when specified by the Engineer. No reinforcing steel shall be placed until the Seal Course has gained sufficient strength to permit working upon without injury. Bevel all exposed edges with a 3/4" triangular molding. Course aggregate to be deposited behind each weep hole to occupy a space extending 15" in all directions from the weep hole. This is a no pay item incidental to the project. Compact backfill to the top of the culvert. Backfill and excavation to extend two feet beyond sides of box and wingwalls.

REINF. CONC. BOX CULVERT
2- DOUBLE 8'x5'x80'
13TH STREET Project No. C15-21
Sheet No. 2 of 3

