POSITIVE MOMENT STEEL
LOWER FACE OF TOP SLAB &
UPPER FACE OF BOTTOM SLAB.

NEGATIVE MOMENT STEEL
UPPER FACE OF TOP SLAB &
LOWER FACE OF BOTTOM SLAB.

PLAN

DRY CREEK BLVD. CULVERT

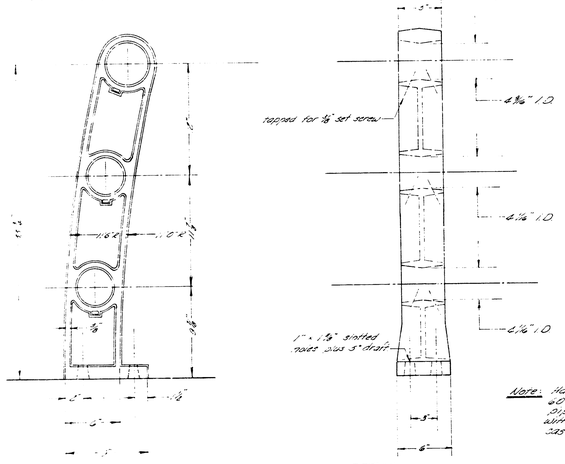
PLAN

MILLSIDE AVENUE
WICHITA, KANSAS

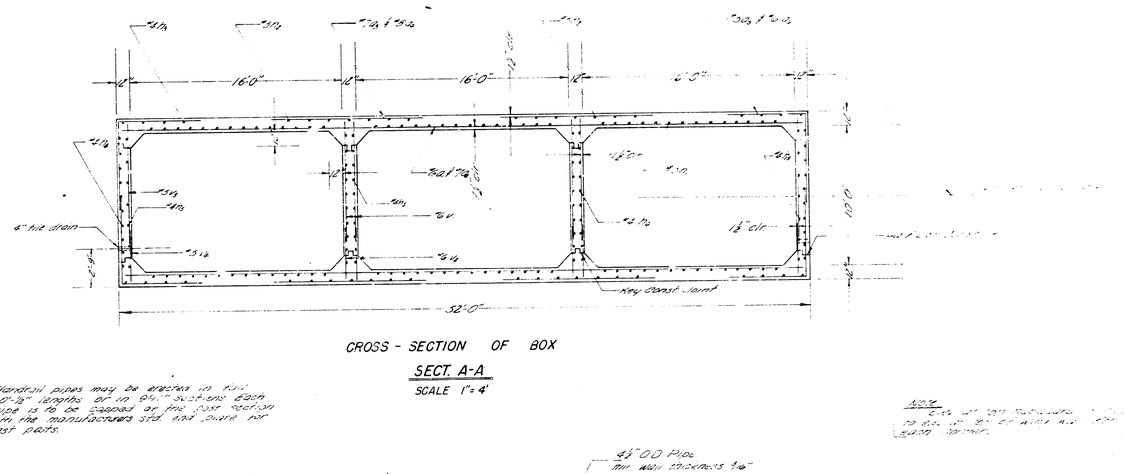
B.E. SMITH
DATE

CITY ENGINEER
PROJ NO 019-8

PLAN SCALE	DRAWN BY	CHECKED BY	SHEET
1/4"=1'-0"	J. JONES		

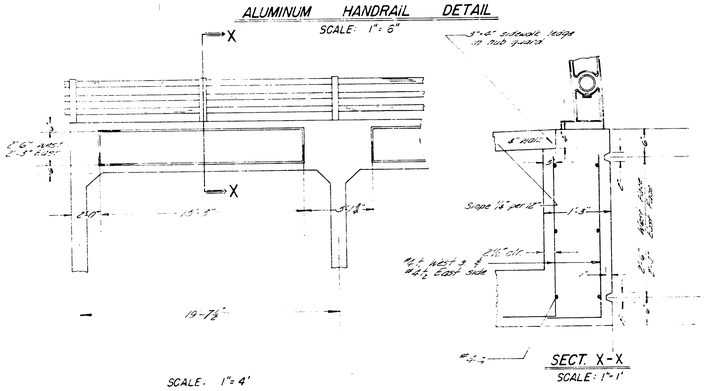


ALUMINUM HANDRAIL DETAIL
SCALE: 1" = 6"



CROSS - SECTION OF BOX
SECT. A-A
SCALE 1" = 4'

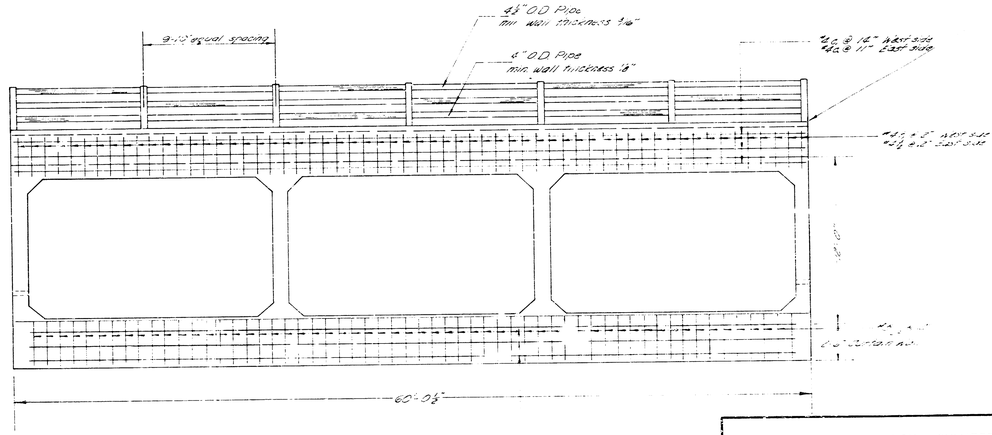
Note: Handrail pipes may be erected in full 20'-½" lengths or in 9'-4" sections. Each pipe is to be capped at the post section with the manufacturers std. end plate for cast parts.



SCALE: 1"=4'

DESIGN OF PARAPET FACE

Note: 6" sidewalk is not to be constructed as a part of this culvert project.



SECT. B-B
SCALE 1"=4'

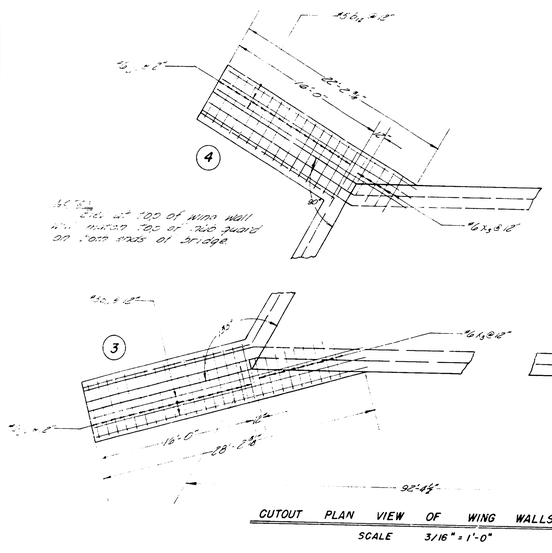
DRY CREEK BOX CULVERT

CULVERT DETAILS

HILLSIDE AVENUE
WICHITA, KANSAS

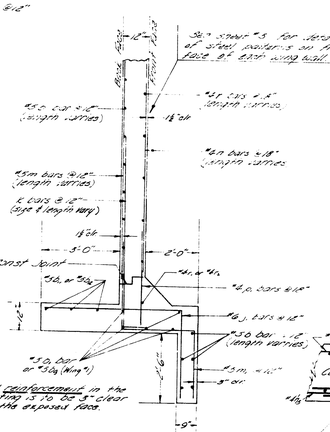
B.E. SMITH, CITY ENGINEER
DATE: PROJ. NO. C13-8

PLAN SCALE	DRAWN BY	CHECKED BY	SHEET:
AS NOTED	J. JONES		3 of 11



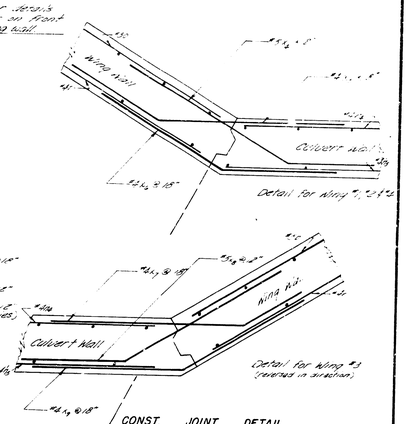
CUTOUT PLAN VIEW OF WING WALLS

SCALE 3/16" = 1'-0"



TYPICAL WING CROSS-SECTION

SCALE 1" = 2'-0"



Detail for Wing #3 (reverse in direction)

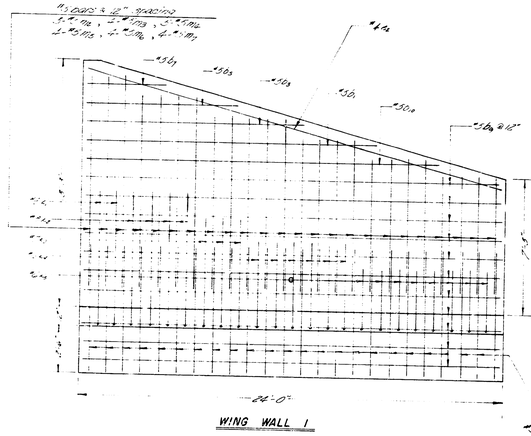
Detail for Wing #2

CONST. JOINT DETAIL

SCALE 1" = 1'-0"

#5 bars @ 12" spacing

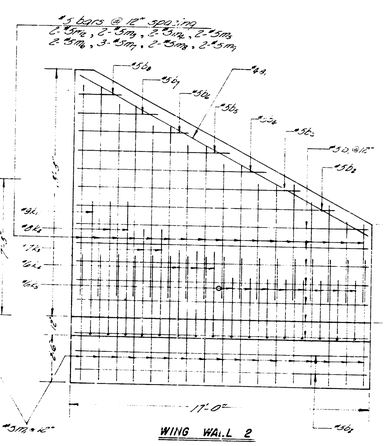
2-#5m, 2-#5m, 2-#5m, 2-#5m, 2-#5m, 2-#5m, 2-#5m, 2-#5m, 2-#5m, 3-#5m, 3-#5m, 2-#5m



WING WALL 1

#5 bars @ 12" spacing

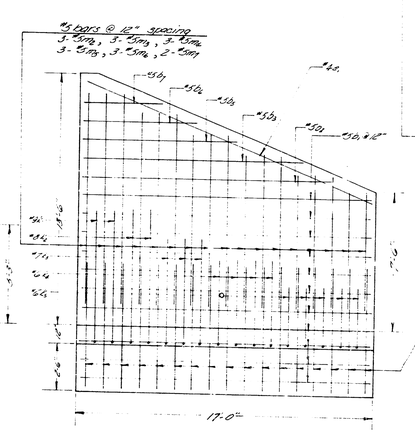
2-#5m, 2-#5m, 2-#5m, 2-#5m, 2-#5m, 2-#5m, 2-#5m, 2-#5m, 2-#5m, 3-#5m, 2-#5m, 2-#5m



WING WALL 2

#5 bars @ 12" spacing

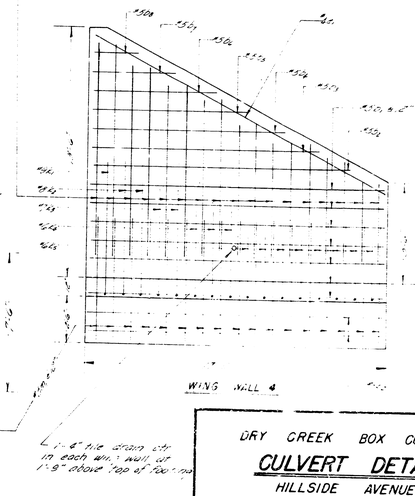
3-#5m, 3-#5m, 3-#5m, 3-#5m, 3-#5m, 3-#5m, 2-#5m



WING WALL 3

#5 bars @ 12" spacing

2-#5m, 2-#5m, 2-#5m, 2-#5m, 2-#5m, 2-#5m, 2-#5m, 3-#5m, 3-#5m, 2-#5m, 2-#5m



WING WALL 4

STEEL PATTERN FOR BACK FACE OF EACH WING WALL

SCALE 1" = 3'-0"

DRY CREEK BOX CULVERT

CULVERT DETAILS

HILLSIDE AVENUE

WICHITA, KANSAS

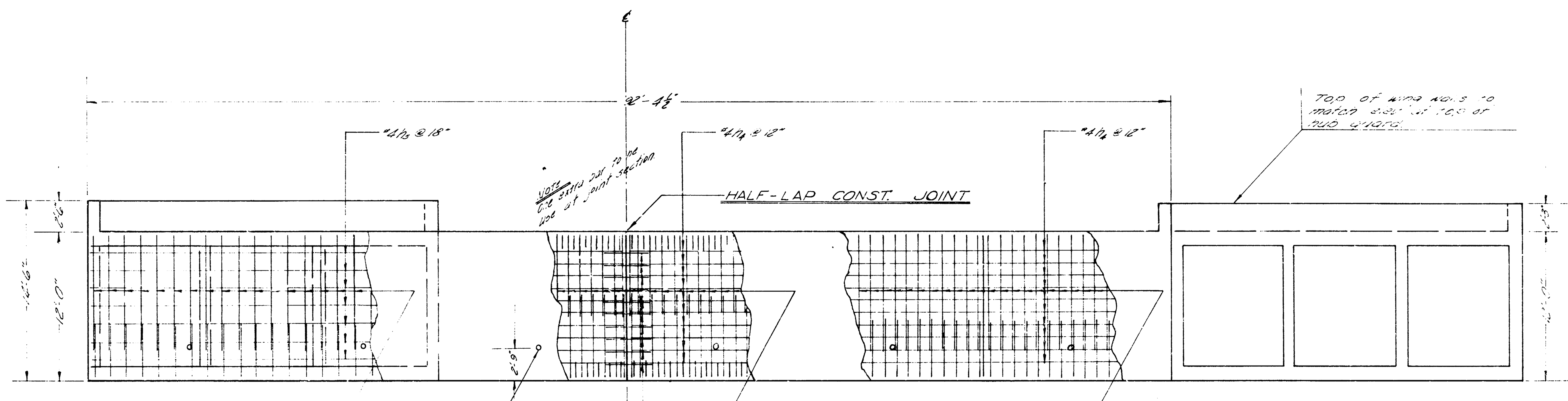
B.E. SMITH — CITY ENGINEER

DATE: — PROJ. NO. C19-8

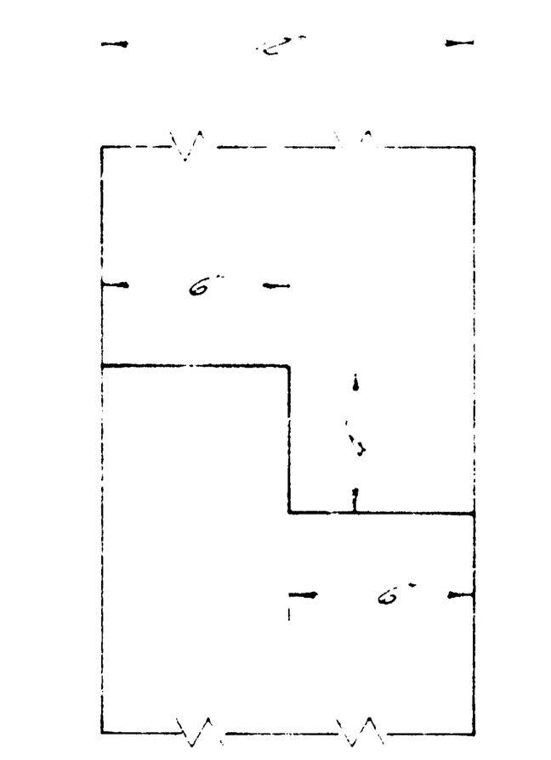
PLAN SCALE: As Noted	DRAWN BY: J. Jones	CHECKED BY:	SHEET: 4 of 11

Note: Coarse aggregate deposited behind each weephole to occupy a space extending 15" in all directions from the weephole. To be paid as a part of exca.

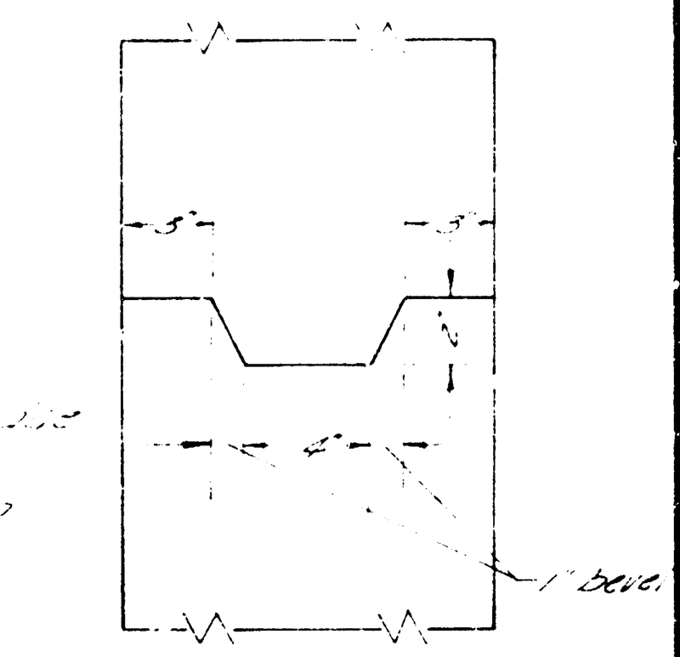
Note: Bevel all exposed edges with a 3/4" triangular molding unless otherwise indicated.



SECTION C - C
SCALE: 3/16"=1'-0"



HALF LAP CONST. JOINT



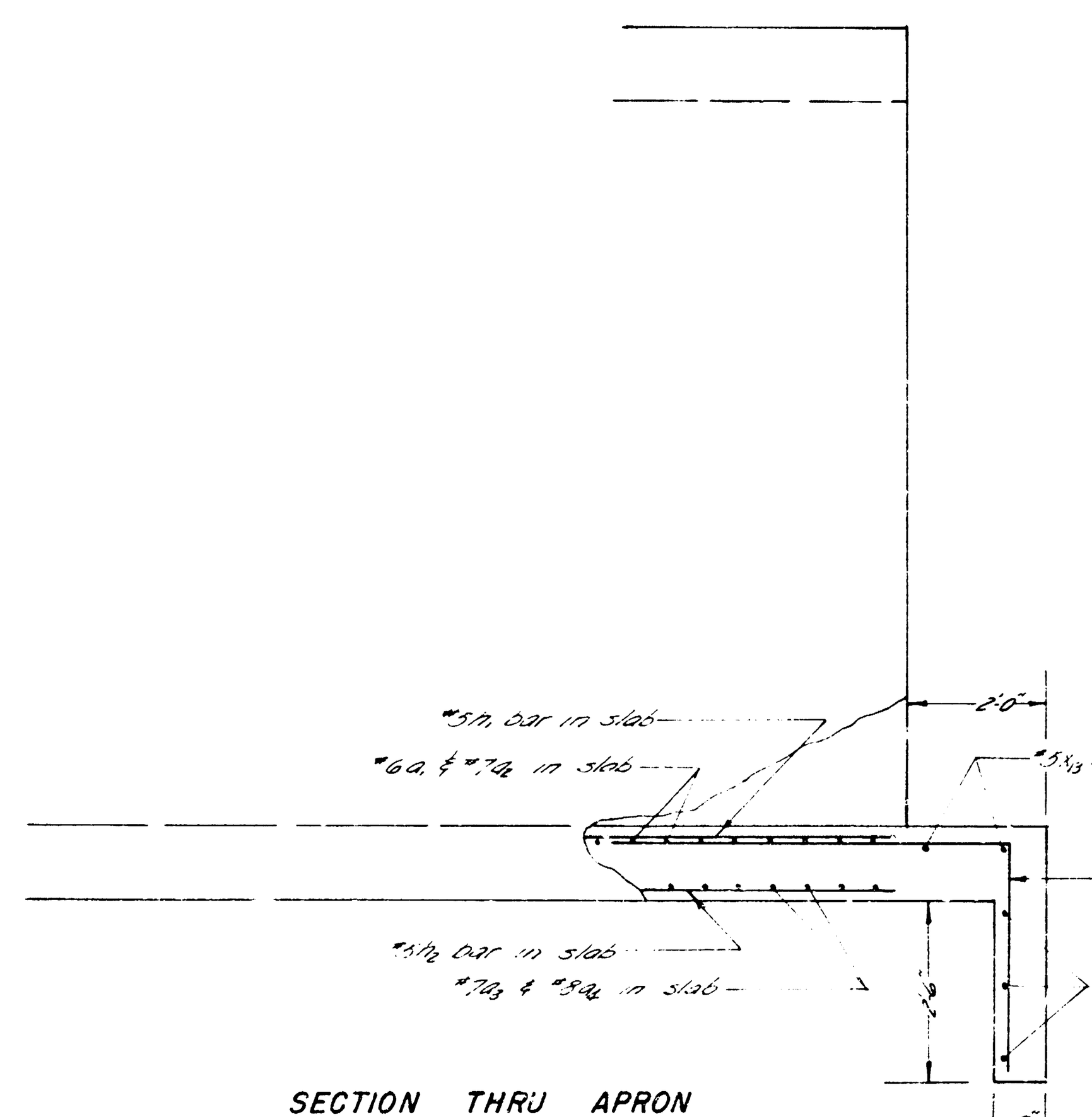
KEY CONST. JOINT

Design Values

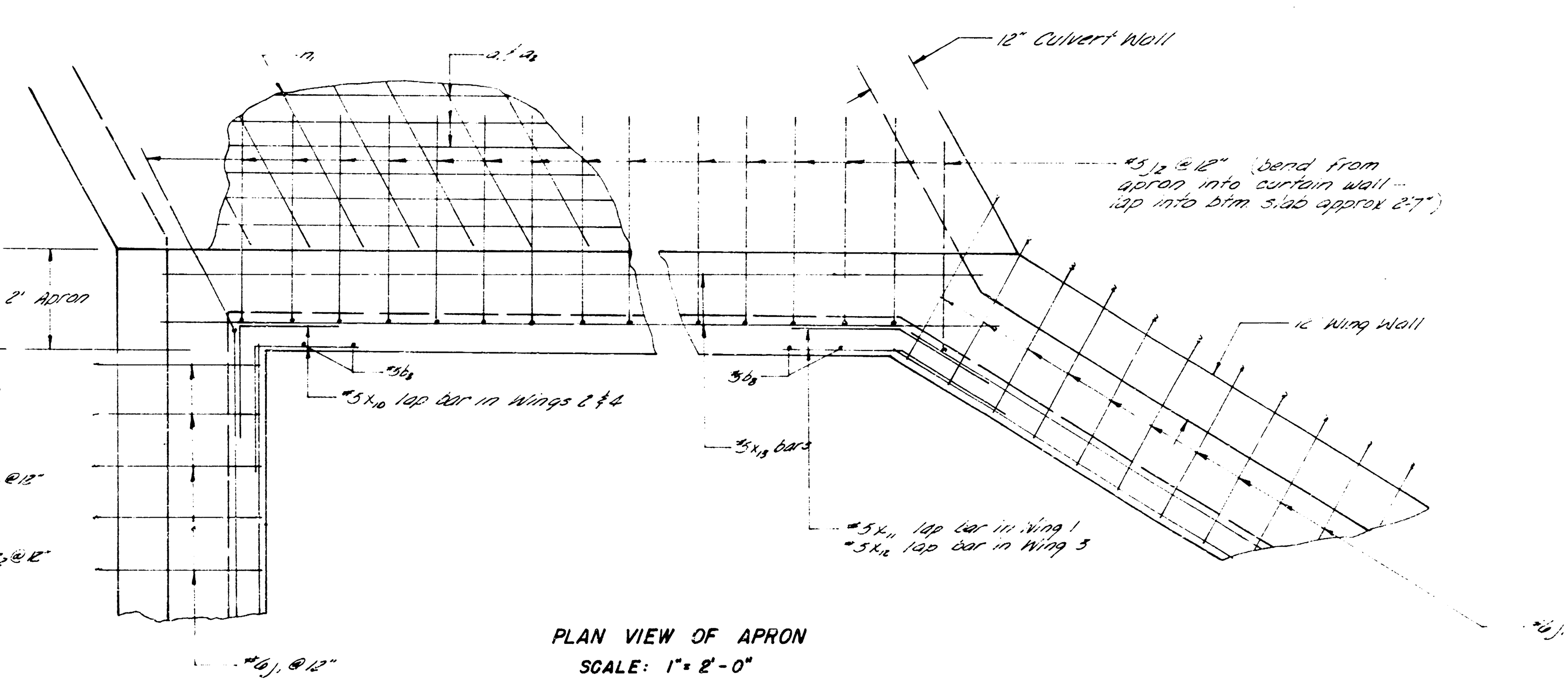
Drainge Area		2576 Acres
Design Discharge		4305 c.f.s.
Area Required		480 sq. ft.
Design Loading		H20 - S16 - 44
f'c	3750 psi	
fs	20,000 psi	
n	8	

Reinf. Bar list for front face of wing walls. Placed as shown in wing details.

Wing #4 identical to wing #2



SECTION THRU APRON
SCALE: 1" = 2'-0"

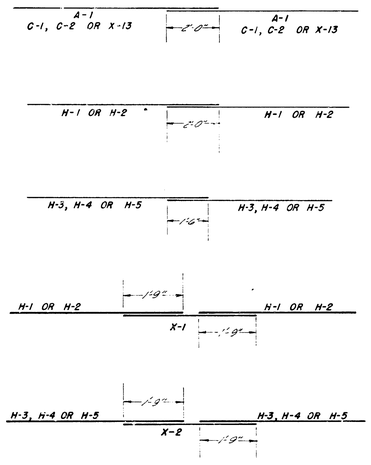


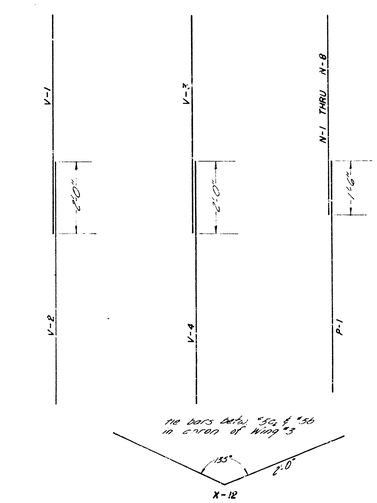
PLAN VIEW OF APRON
SCALE: 1" = 2'-0"

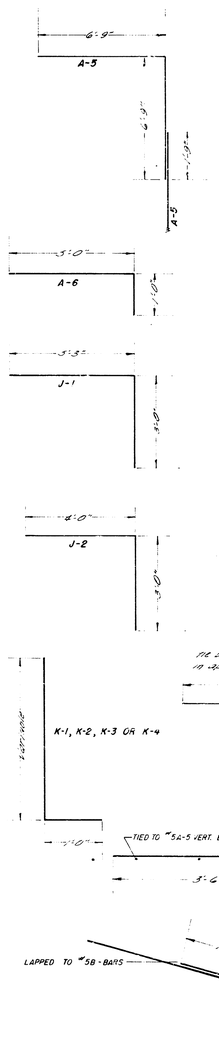
DRY CREEK BOX CULVERT			
CULVERT DETAILS			
HILLSIDE AVENUE			
WICHITA, KANSAS			
B.E. SMITH DATE:		CITY ENGINEER PROJ. NO. C19-8	
PLAN SCALE: As Noted	DRAWN BY: J. Jones	CHECKED BY:	SHEET: 5 of 11

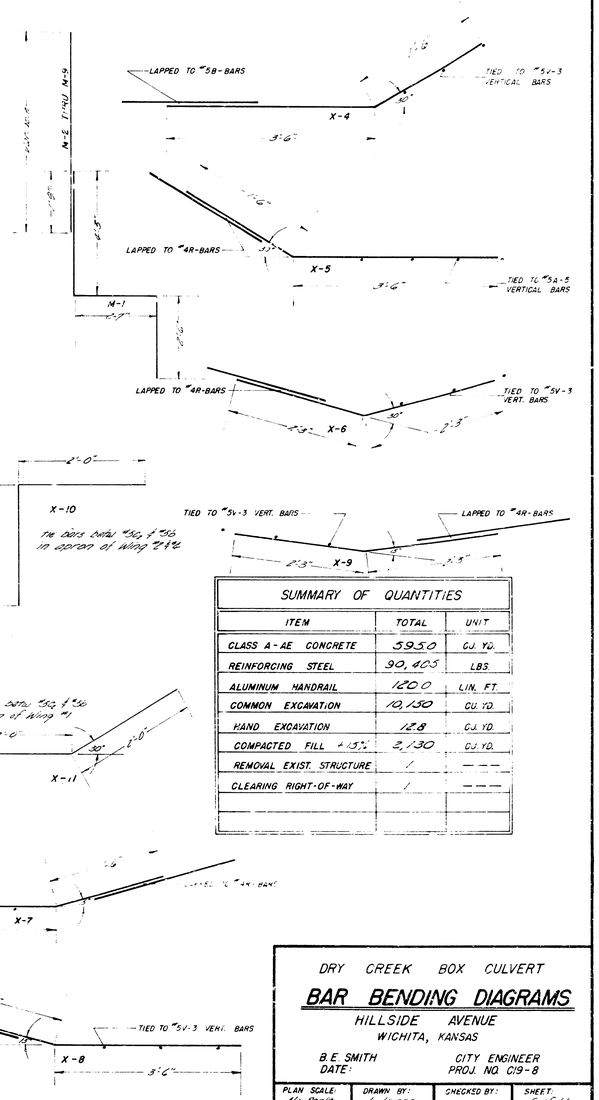
BAR SCHEDULE

BAR	SIZE	LOCATION	SPACING	LENGTH	NUMBER	SHAPE	WT
A-1	#6	SLAB	12" CC	30'-10"	324	STRAIGHT	15,013
A-2	#7	"	"	15'-4"	174	"	14,056
A-3	#7	"	"	13'-6"	320	"	8,870
A-4	#6	"	"	9'-6"	320	"	8,177
A-5	#6	SLAB & WALL	"	13'-6"	320	ONE BEND	4,506
A-6	#6	"	"	6'-0"	320	"	2,006
B-1	#5	WING WALL	"	16'-6"	38	STRAIGHT	654
B-2	#5	"	"	14'-9"	13	"	200
B-3	#5	"	"	12'-6"	4	"	52
B-4	#5	"	"	10'-9"	2	"	24
B-5	#5	"	"	8'-6"	4	"	35
B-6	#5	"	"	6'-9"	3	"	21
B-7	#5	"	"	4'-6"	4	"	18
B-8	#5	"	"	2'-9"	10	"	29
B-9	#5	"	"	23'-6"	17	"	417
B-10	#5	"	"	20'-0"	1	"	21
B-11	#5	"	"	26'-0"	6	"	175
B-12	#5	"	"	22'-0"	6	"	138
C-1	#5	HUB GUARD	14" & 11"	30'-10"	24	"	494
C-2	#5	CURTAIN WALL	12" CC	28'-6"	12	"	357
E-1	#4	WING WALL	———	18'-0"	6	"	72
E-2	#4	"	———	24'-0"	3	"	72
H-1	#5	SLAB	12" CC	23'-11"	336	"	6,369
H-2	#5	"	18" CC	23'-11"	112	"	2,794
H-3	#4	"	18" CC	23'-8"	64	"	1,012
H-4	#4	CULVERT WALL	12" CC	23'-8"	240	"	3,796
H-5	#4	"	18" CC	23'-8"	56	"	885
J-1	#6	WING WALL	12" CC	8'-3"	73	ONE BEND	905
J-2	#5	CURTAIN WALL	"	7'-0"	116	"	847
K-1	#9	WING WALL	"	8'-0"	6	"	163
K-2	#8	"	"	8'-0"	10	"	214
K-3	#7	"	"	6'-9"	10	"	138
K-4	#5	"	"	5'-6"	16	"	132
K-5	#6	"	"	3'-3"	29	STRAIGHT	146
M-1	#5	"	"	9'-4"	75	TWO BENDS	730
M-2	#5	"	"	11'-6"	10	STRAIGHT	120
M-3	#5	"	"	10'-6"	11	"	120
M-4	#5	"	"	9'-3"	12	"	116
M-5	#5	"	"	8'-3"	11	"	95
M-6	#5	"	"	7'-3"	11	"	83
M-7	#5	"	"	6'-3"	12	"	78
M-8	#5	"	"	5'-3"	4	"	22
M-9	#5	"	"	4'-3"	4	"	18
N-1	#4	"	18" CC	11'-3"	10	"	75
N-2	#7	"	"	10'-3"	8	"	55
N-3	#4	"	"	9'-3"	3	"	19
N-4	#4	"	"	8'-0"	10	"	53
N-5	#4	"	"	7'-0"	9	"	42
N-6	#4	"	"	5'-3"	2	"	8
N-7	#4	"	"	5'-6"	5	"	22
N-8	#4	"	"	4'-3"	4	"	11
P-1	#4	"	"	31'-8"	4	"	127
R-1	#4	"	"	16'-6"	15	"	165
R-2	#4	"	"	23'-6"	5	"	78
R-3	#4	"	"	14'-6"	2	"	19
R-4	#4	"	"	11'-3"	2	"	15
R-5	#4	"	"	8'-0"	4	"	21
R-6	#4	"	"	5'-6"	2	"	7
R-7	#4	"	"	2'-6"	2	"	3
R-8	#4	"	"	12'-6"	1	"	8
R-9	#4	"	"	4'-6"	2	"	6
R-10	#4	"	"	21'9"	1	"	15
T-1	#4	HUBGUARD	12" CC	31'-11"	120	ONE BEND	314
T-2	#4	"	"	31'-8"	120	"	294
V-1	#6	CULVERT WALL	"	9'-3"	376	STRAIGHT	5,224
V-2	#6	"	"	4'-3"	376	"	2,400
V-3	#5	"	18" CC	9'-3"	142	"	1,370
V-4	#5	"	"	4'-3"	142	"	629
X-1	#5	SLAB	12" & 18"	4'-0"	112	"	467
X-2	#4	SLAB & WALL	"	4'-0"	90	"	240
X-3	#6	WINGWALL	12" CC	3'-6"	23	"	121
X-4	#5	"	"	5'-0"	39	ONE BEND	203
X-5	#4	"	18" CC	5'-0"	27	"	90
X-6	#4	"	"	4'-6"	21	"	81
X-7	#4	"	"	5'-0"	9	"	30
X-8	#4	"	12" CC	5'-0"	13	"	68
X-9	#4	"	18" C.C.	4'-6"	9	"	27
X-10	#5	CURTAIN WALL	12" C.C.	4'-0"	14	"	58
X-11	#5	"	"	4'-0"	7	"	29
X-12	#5	"	"	4'-0"	2	"	8
X-13	#5	"	"	30'-10"	8	STRAIGHT	257









SUMMARY OF QUANTITIES

ITEM	TOTAL	UNIT
CLASS A-AE CONCRETE	5930	CU. YD.
REINFORCING STEEL	90,405	LBS.
ALUMINUM HANDRAIL	1200	LIN. FT.
COMMON EXCAVATION	10,150	CU. YD.
HAND EXCAVATION	128	CU. YD.
COMPACTED FILL +15%	2,130	CU. YD.
REMOVAL EXIST. STRUCTURE	1	———
CLEARING RIGHT-OF-WAY	1	———

DRY CREEK BOX CULVERT

BAR BENDING DIAGRAMS

HILLSIDE AVENUE
WICHITA, KANSAS

B.E. SMITH — CITY ENGINEER
DATE: — PROJ. NO. C19-8

PLAN SCALE:	DRAWN BY:	CHECKED BY:	SHEET:
No Scale	J. Jones		6 of 11

GLEN OAKS DRIVE

HILLSIDE

Ft. House

RANCH ADDITION

PAWNEE

HILL-SIDE

PLANEVIEW SUBDIVISION NO. ONE

Ho "2607 (Removed)

Ho "2611 (Remodeled)

Ho "2613

Ho "2619

"2541 "2537 "2533

"2545

"2549

Note

Existing 8" sanitary sewers are to be abandoned and removed from the new channel.

DRY CREEK BOX CULVERT

NEW CHANNEL LOCATION

HILLSIDE AVENUE

WICHITA, KANSAS

B.E. SMITH
DATE:

CITY ENGINEER
PROJ NO. C19-B

PLAN SCALE:	DRAWN BY:	CHECKED BY:	SHEET:
1" = 20'	J Jones		7 of 11