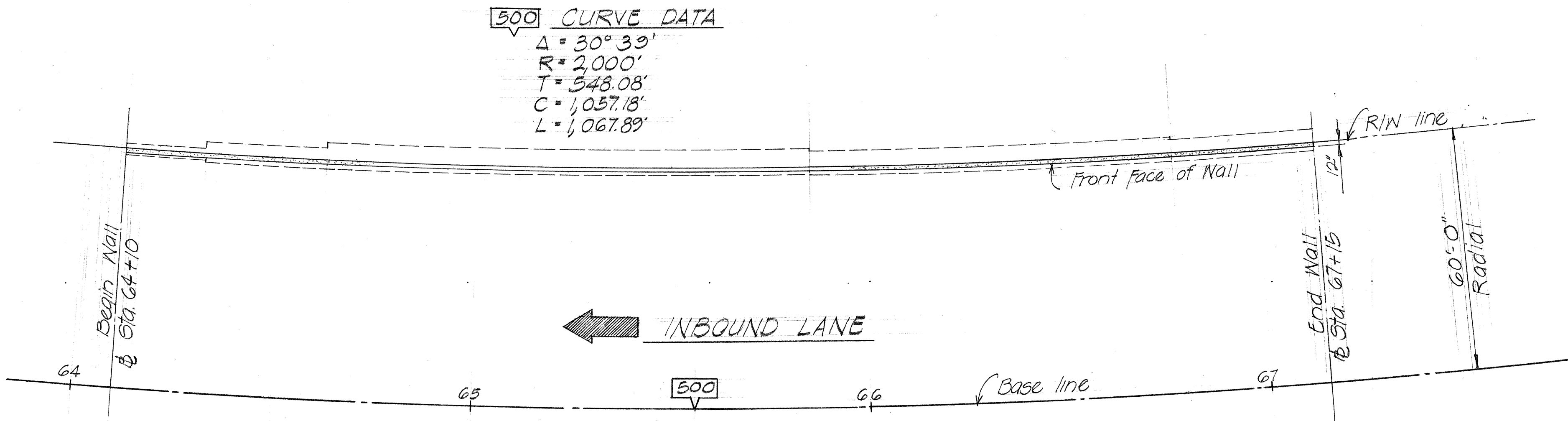
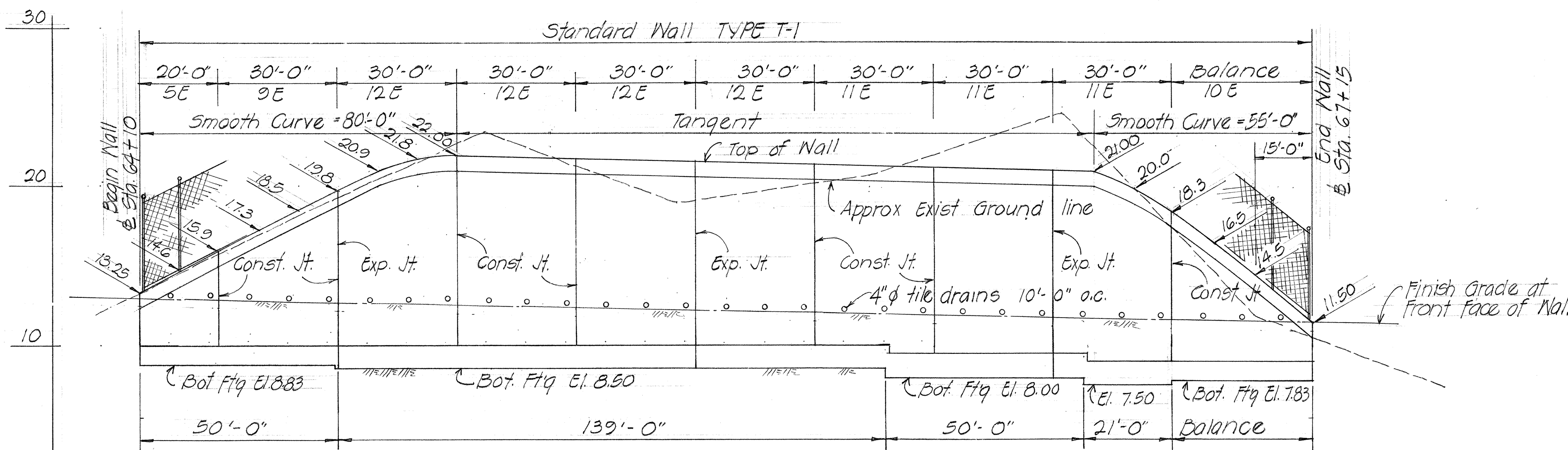


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	5-0630(11) 5-0630(7)	1968	37	83



PLAN-RETAINING WALL

Scale: 1"=20'-0"



NOTE:
Top Wall Elev. at 10'-0" intervals except where otherwise noted

DEVELOPED ELEVATION RETAINING WALL

Scale: Horiz. 1"=20'-0"
Vert. 1"=5'-0"

ESTIMATED QUANTITIES

Concrete	L.S. 205	CY
Reinforcing Steel	L.S. 17,300	LB
Structural Exc.	481.0 - 470	CY
Filter Material	71.3 - 75	CY
6'-0" High Chain Link Fence	226.2 - 245	L.F.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

RETAINING WALL DETAIL

@ Sta. 64+10 to @ Sta. 67+15

MOKAPU SADDLE ROAD

F.A.S. Proj. No. 5-0630(11)

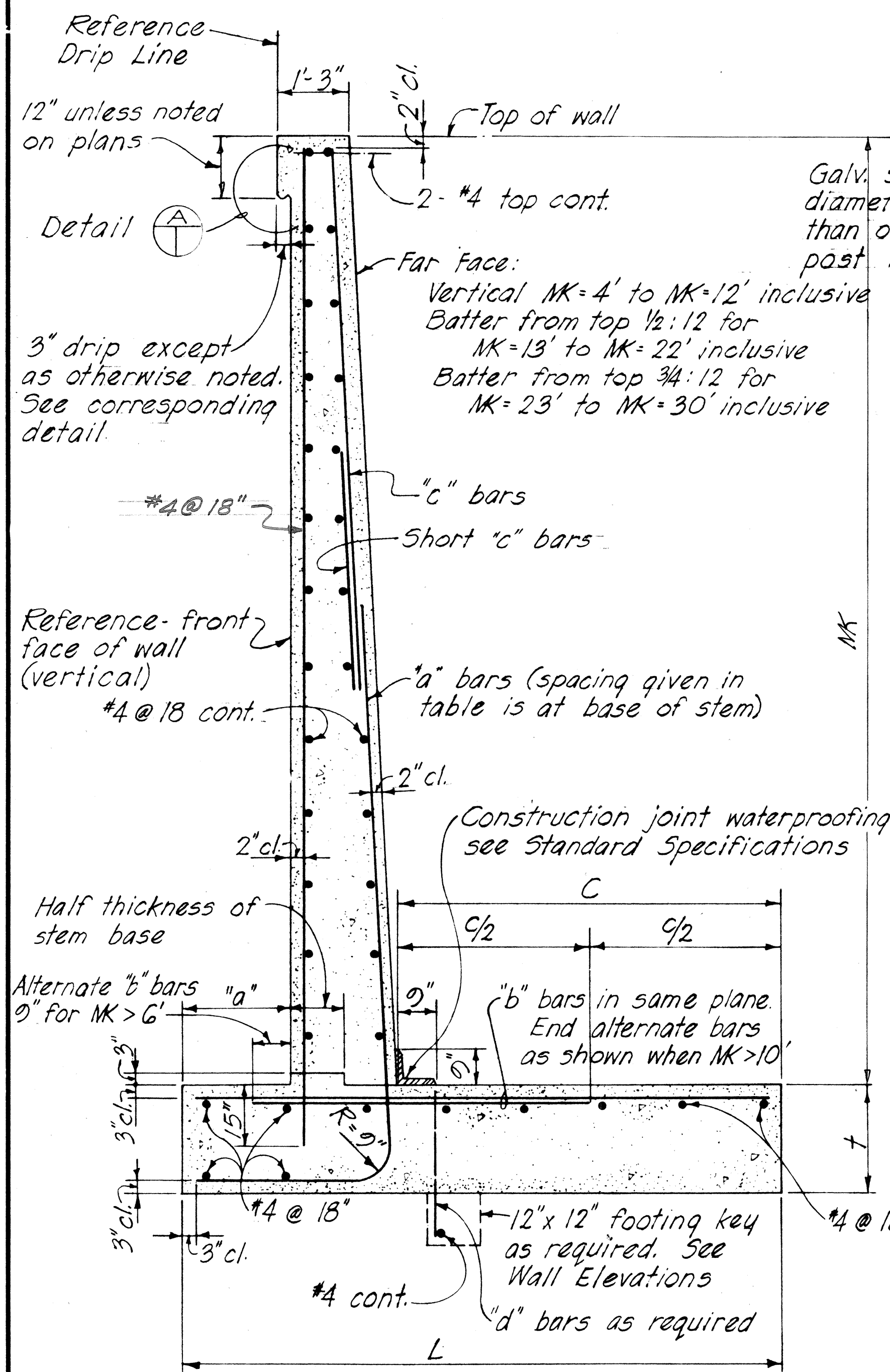
AND

F.A.S. Proj. No. 5-0630(7)

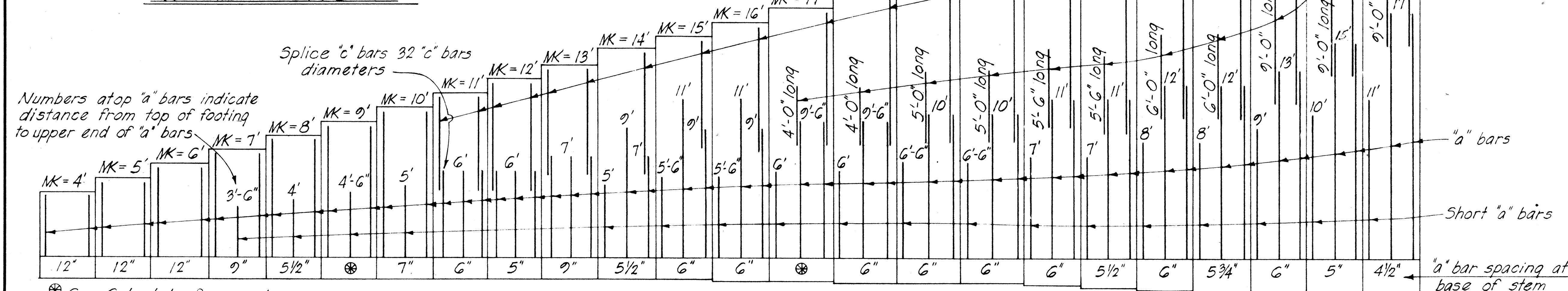
Scale: As Noted November 1967

SHEET NO. 1 OF 3 SHEETS

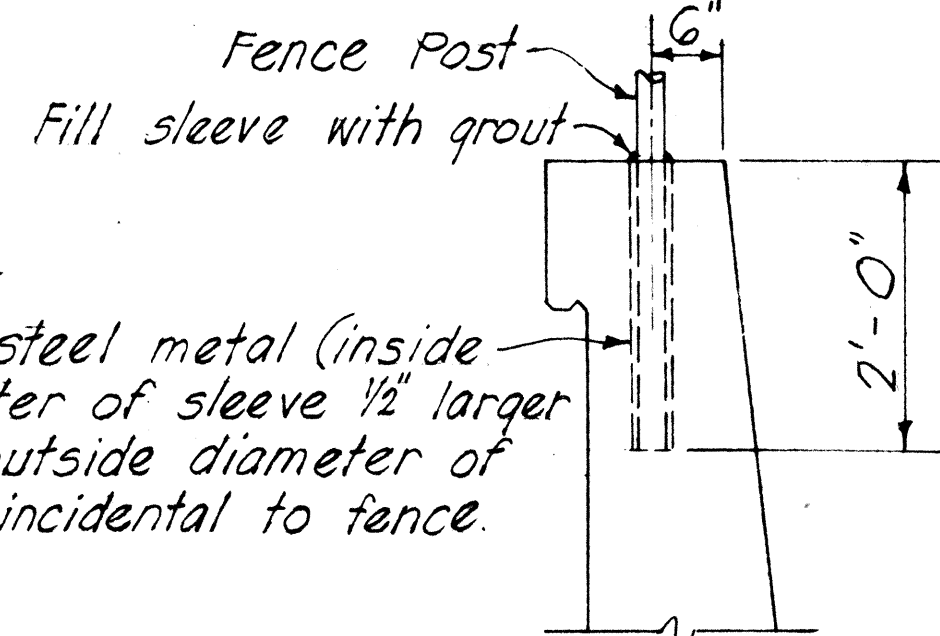
83 8



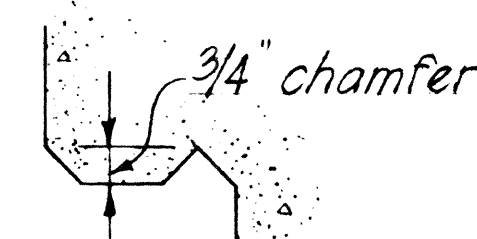
WALL SECTION



VERTICAL REINFORCING STEEL ARRANGEMENT



CHAIN LINK FENCE POST DETAIL

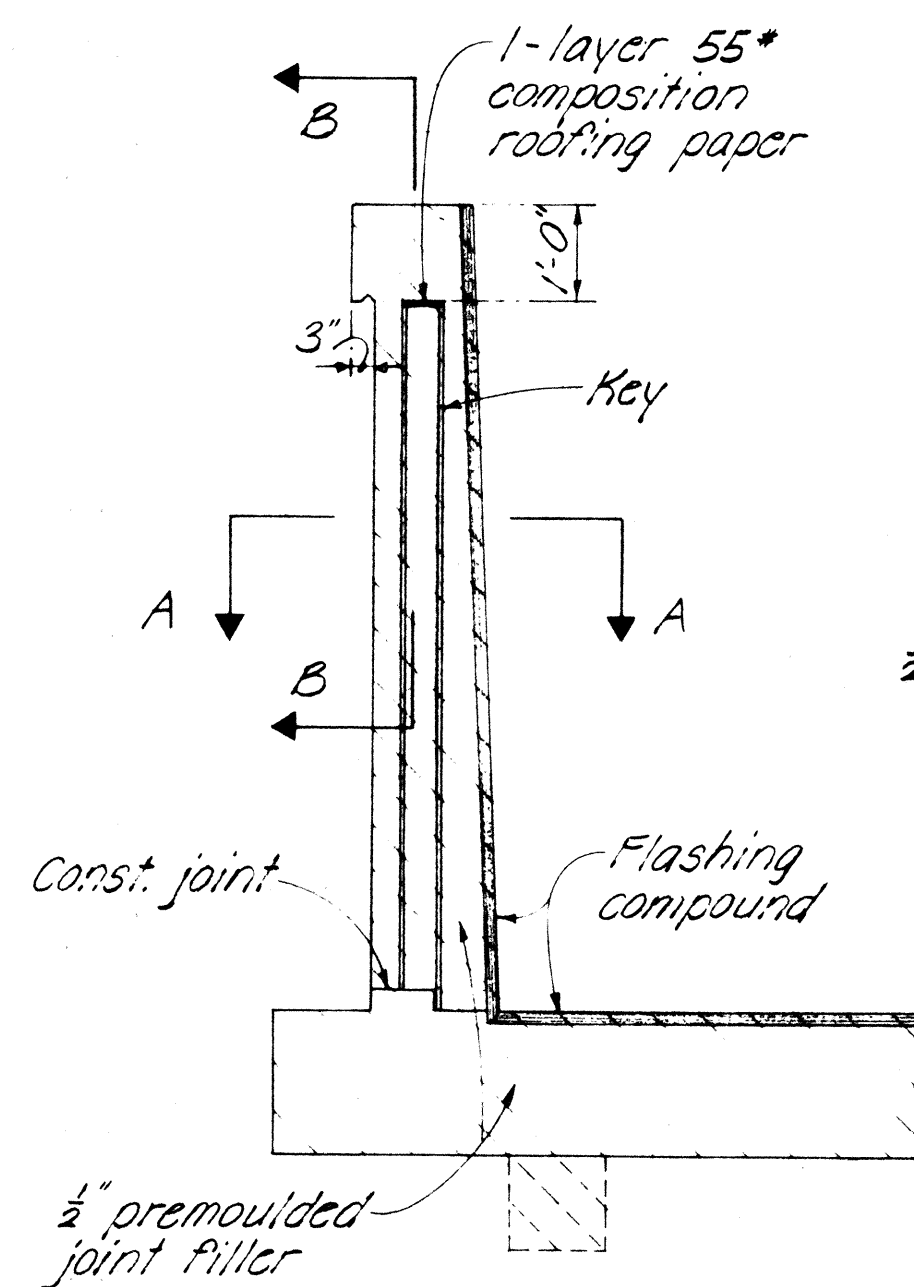


DETAIL

SCHEDULE OF DIMENSIONS AND REINFORCING STEEL

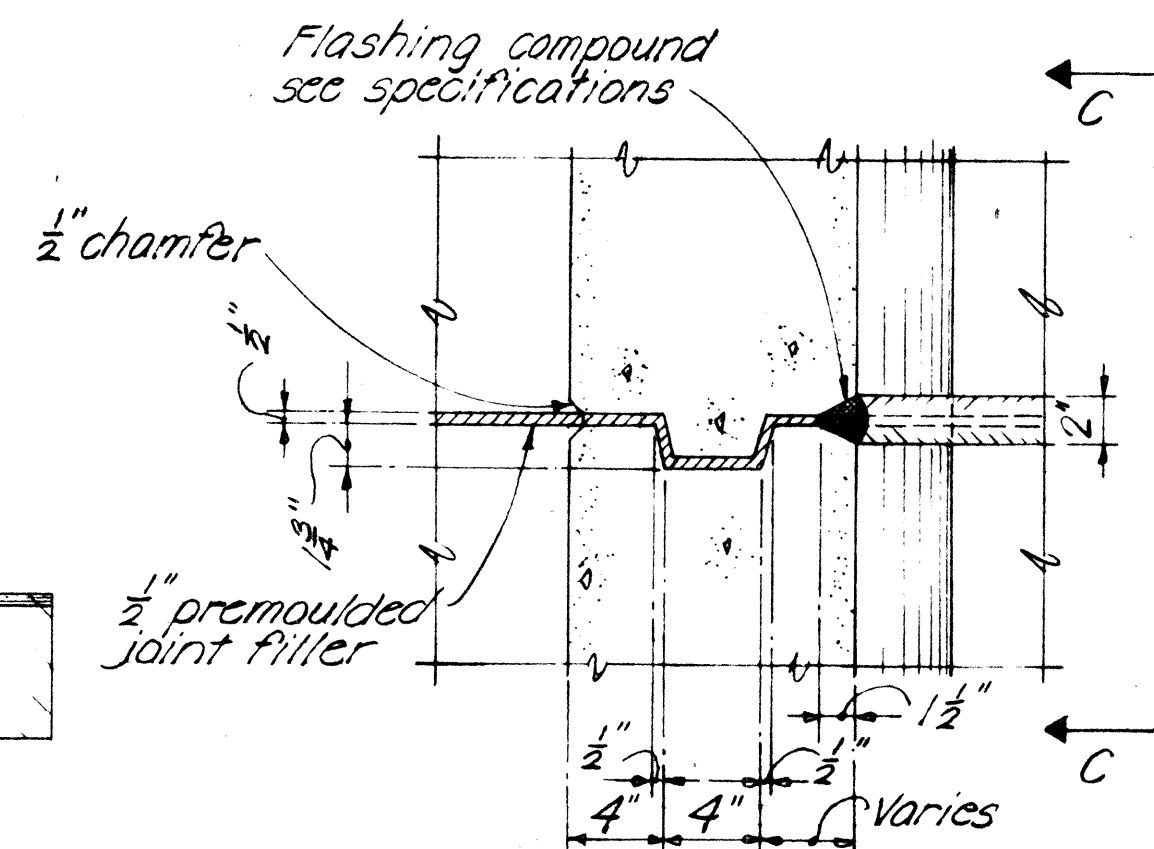
Maximum "MK"	4E	5E	6E	7E	8E	9E	10E	11E	12E	13E	14E	15E	16E	17E	18E	19E	20E	21E	22E	23E	24E	26E	28E	30E
a	6"	6"	6"	12"	12"	12"	12"	12"	12"	12"	15"	18"	21"	24"	24"	24"	27"	30"	33"	36"	39"	54"	60"	72"
t	14"	14"	14"	14"	14"	14"	14"	18"	18"	18"	18"	18"	21"	21"	24"	24"	24"	27"	30"	31"	33"	36"	39"	42"
L	2.5'	3.0'	3.5'	4.0'	4.5'	5.0'	5.5'	6.0'	6.5'	7.0'	7.75'	8.25'	9.0'	9.75'	10.5'	11.5'	12.5'	13.5'	14.5'	15.25'	16.0'	18.0'	20.0'	21.0'
"a" bars	*3@12"	*3@12"	*4@12"	*4@9"	*4@5 1/2"	*5@7"	*6@7"	*6@6"	*6@5"	*7@9"	*6@5 1/2"	*7@6"	*8@6"	*8@5 3/4"	*9@6"	*9@6"	*10@6"	*10@6"	*10@5 1/2"	*10@6"	*10@5 3/4"	*11@6"	*11@5"	*11@4 1/2"
"b" bars	*3@12"	*3@12"	*3@12"	*3@9"	*4@11"	*4@7"	*5@7"	*5@6"	*5@5"	*7@9"	*6@5 1/2"	*7@6"	*8@6"	*7@5 3/4"	*8@6"	*9@6"	*10@6"	*10@6"	*10@5 1/2"	*10@6"	*10@5 3/4"	*11@6"	*11@5"	*11@4 1/2"
"c" bars								*4	*4	*4	*4	*4	*5	*5	*5	*6	*6	*6	*7	*7	*7	*7	*7	*7
"d" bars	*3@12"	*3@12"	*3@12"	*3@12"	*4@18"	*4@15"	*4@15"	*4@12"	*4@11"	*4@9"	*5@12"	*5@12"	*5@10"	*5@9"	*5@9"	*5@8"	*6@10"	*6@9"	*7@12"	*7@11"	*7@10"	*7@	*7@	*7@6"

Maximum "MK"	4R	5R	6R	7R	8R	9R	10R	11R	12R	13R	14R	15R	16R	17R	18R	19R	20R	21R	22R	23R	24R	26R	28R	30R
a	6"	6"	6"	12"	12"	12"	12"	12"	12"	12"	15"	18"	21"	21"	21"	21"	24"	24"	27"	30"	33"	39"	39"	51"
t	14"	14"	14"	14"	14"	14"	14"	18"	18"	18"	18"	18"	18"	18"	18"	21"	21"	21"	21"	24"	24"	27"	30"	36"
L	2.5'	3.0'	3.5'	4.0'	4.5'	5.0'	5.5'	6.0'	6.5'	6.75'	7.25'	7.75'	8.25'	8.75'	9.25'	9.75'	10.25'	10.5'	11.0'	11.5'	12.0'	13.0'	14.0'	15.0'
"a" bars	*3@12"	*3@12"	*4@12"	*4@9"	*4@5½"	*5@6"	*6@7"	*6@6"	*6@5"	*7@9"	*6@5½"	*7@6"	*8@6"	*8@6"	*9@6"	*9@6"	*10@6"	*10@6"	*10@5½"	*10@6"	*10@5¾"	*11@6"	*11@5"	*11@4½"
"b" bars	*3@12"	*3@12"	*3@12"	*3@9"	*4@11"	*4@6"	*5@7"	*5@6"	*5@5"	*7@9"	*6@5½"	*7@6"	*7@6"	*8@6"	*9@6"	*9@6"	*10@6"	*10@6"	*10@5½"	*10@6"	*10@5¾"	*10@6"	*10@5"	*9@4½"
"c" bars								*4	*4	*4	*4	*4	*5	*5	*5	*6	*6	*6	*7	*7	*7	*7	*7	*7
"d" bars	*3@12"	*3@12"	*3@12"	*3@12"	*4@18"	*4@15"	*4@15"	*4@12"	*4@11"	*4@9"	*5@12"	*5@12"	*5@10"	*5@9"	*5@9"	*5@8"	*6@10"	*6@9"	*7@12"	*7@11"	*7@10"	*7@	*7@	*7@6"

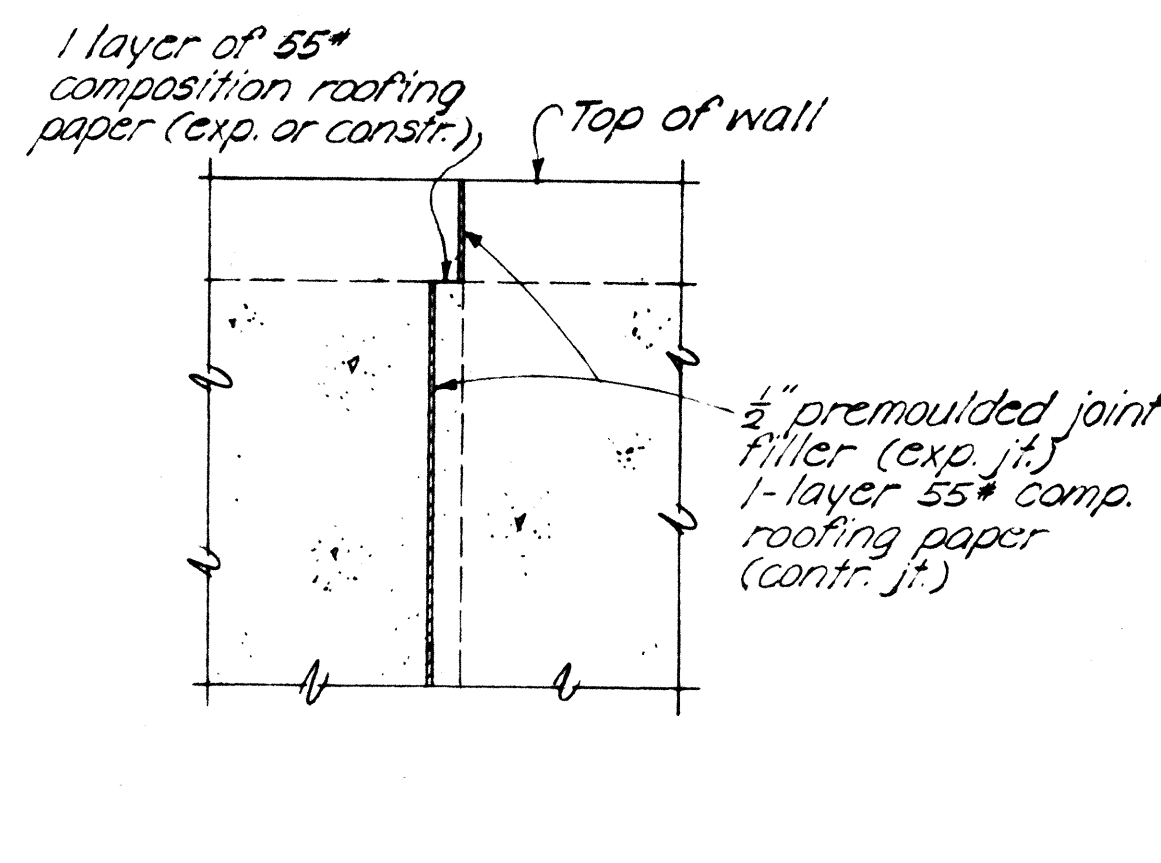


JOINT ELEVATION

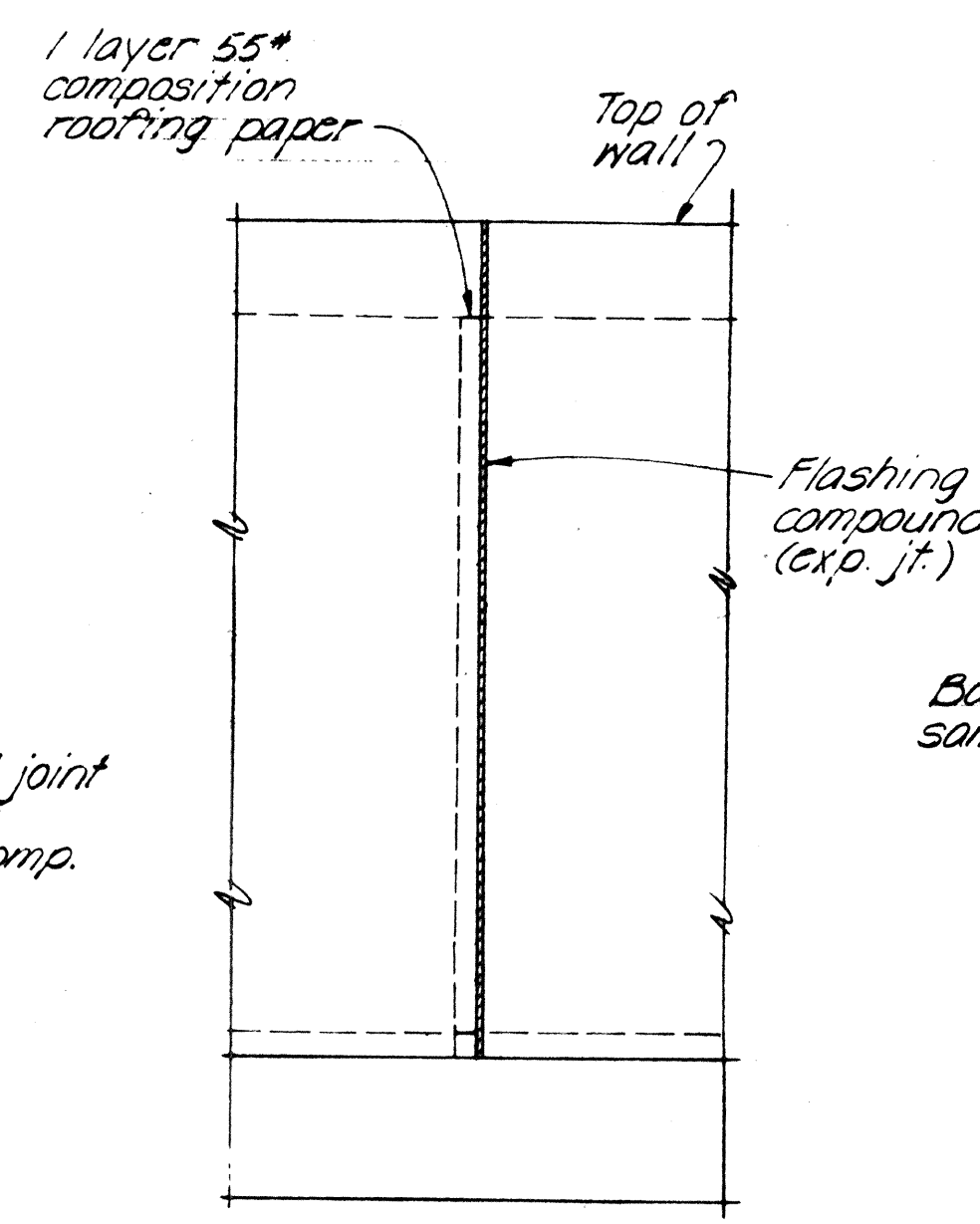
NOTE
Spacing of joints
Exp. = 20'-0" max.
Contr. = 30'-0" max.
For alternate contraction joint
and control joint details-see
Standard Bridge Details.



SECTION A-A

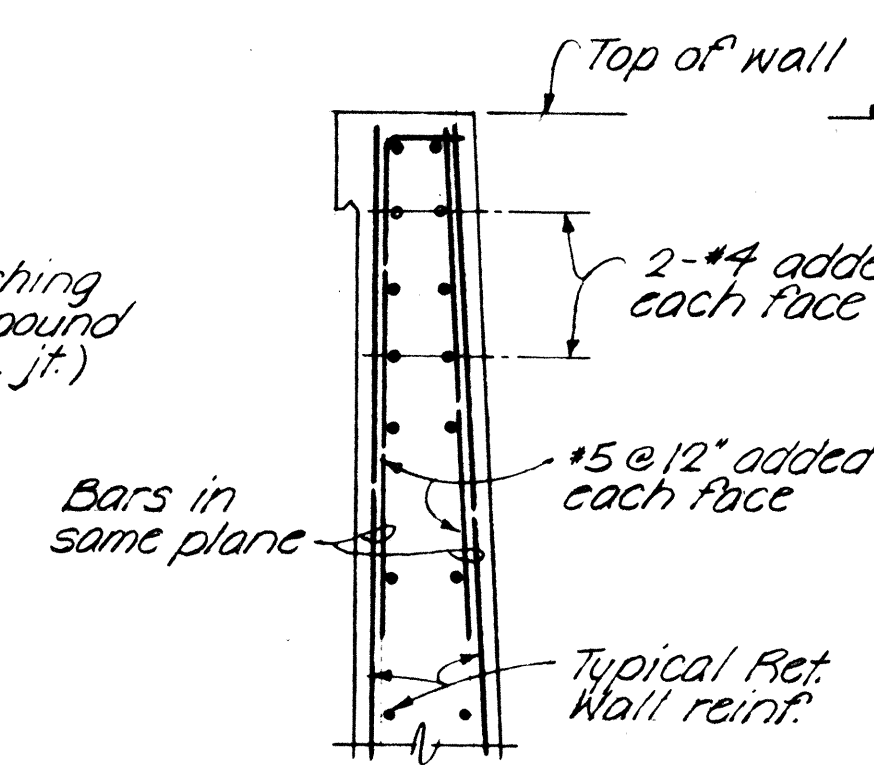


SECTION B-B

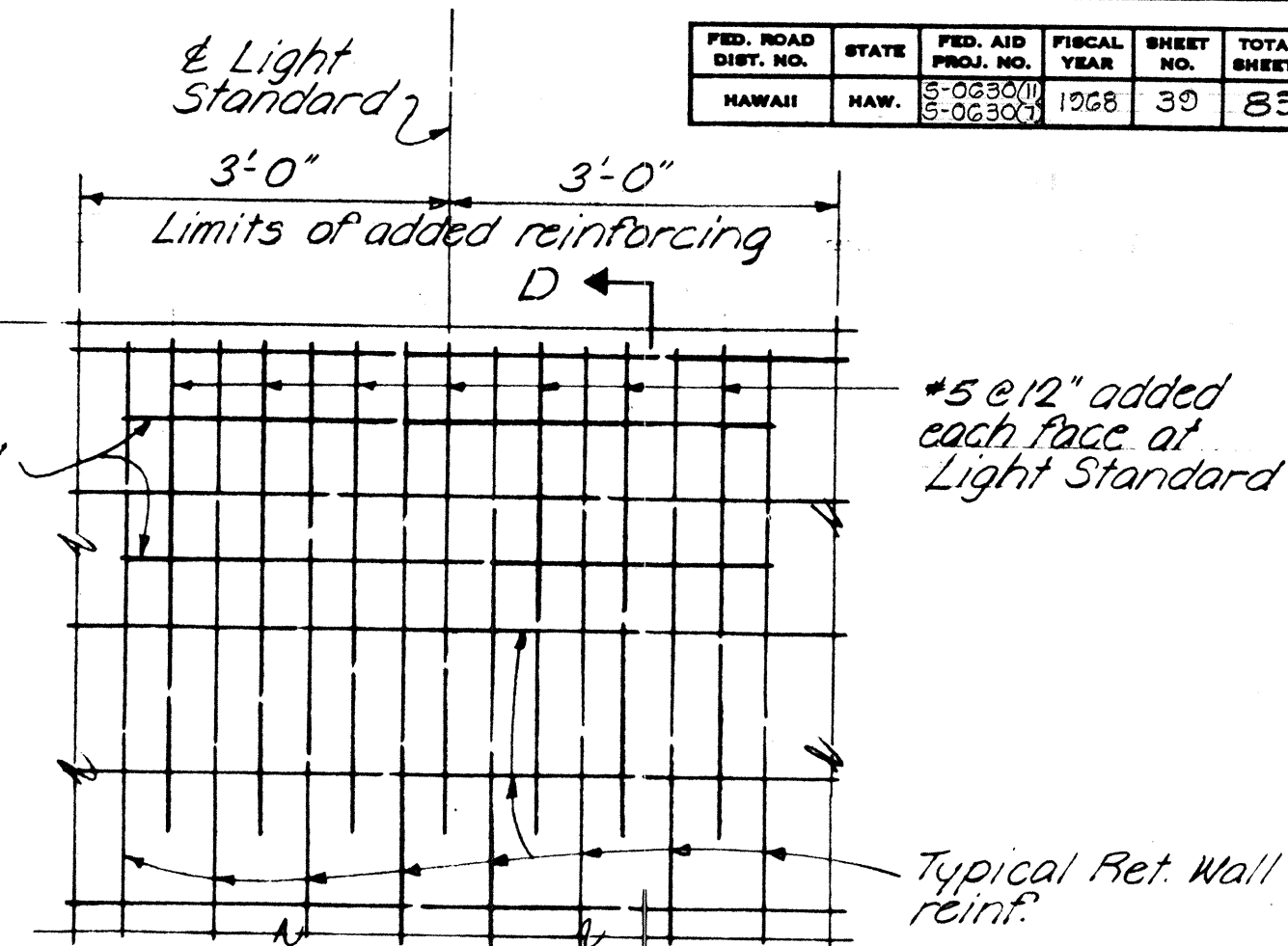


SECTION C-C

NOTE:
Limits of added reinf.
Height 0'-18' L = $\frac{h}{2}$
Height 19'-30' L = $\frac{2}{3}h$

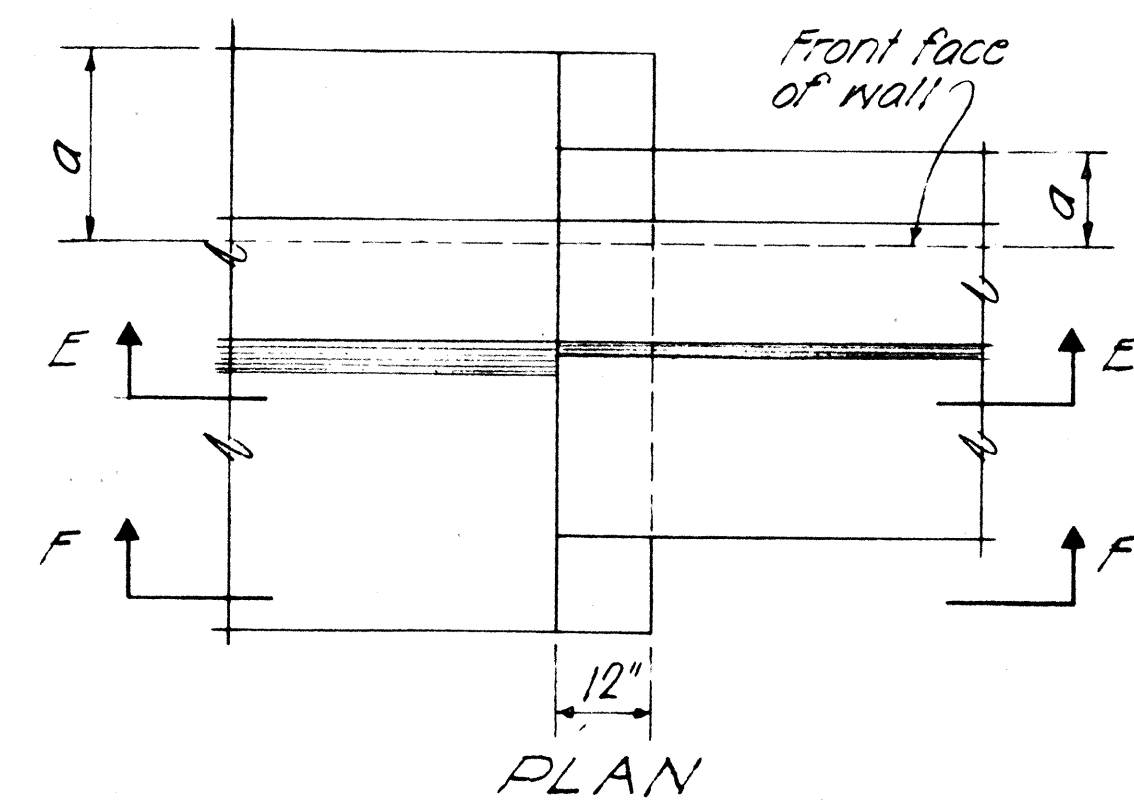


SECTION D-D

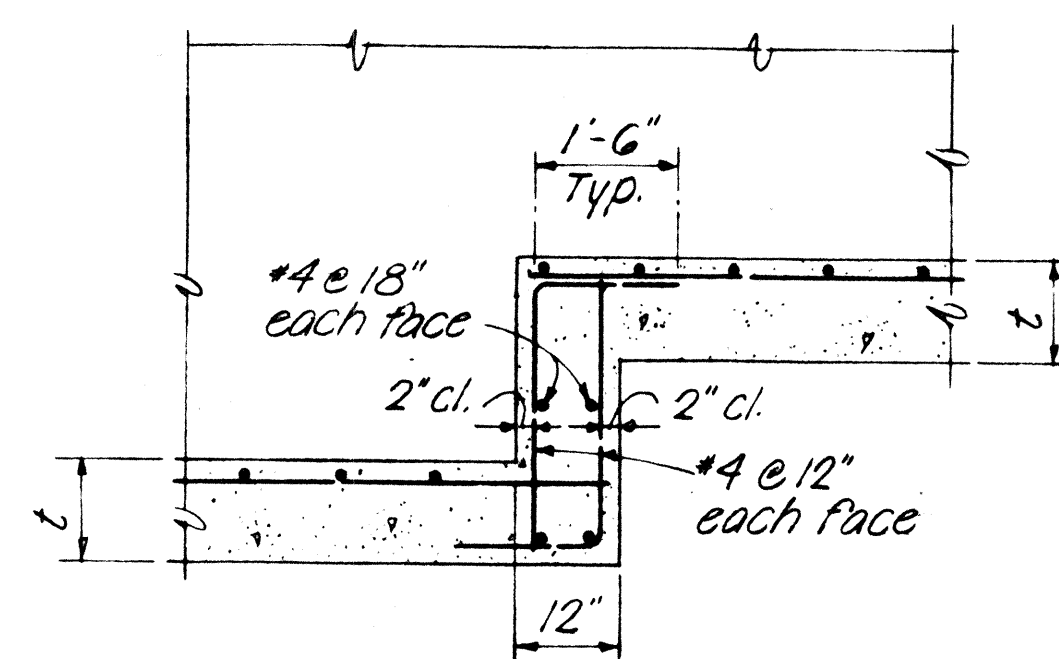


ELEVATION

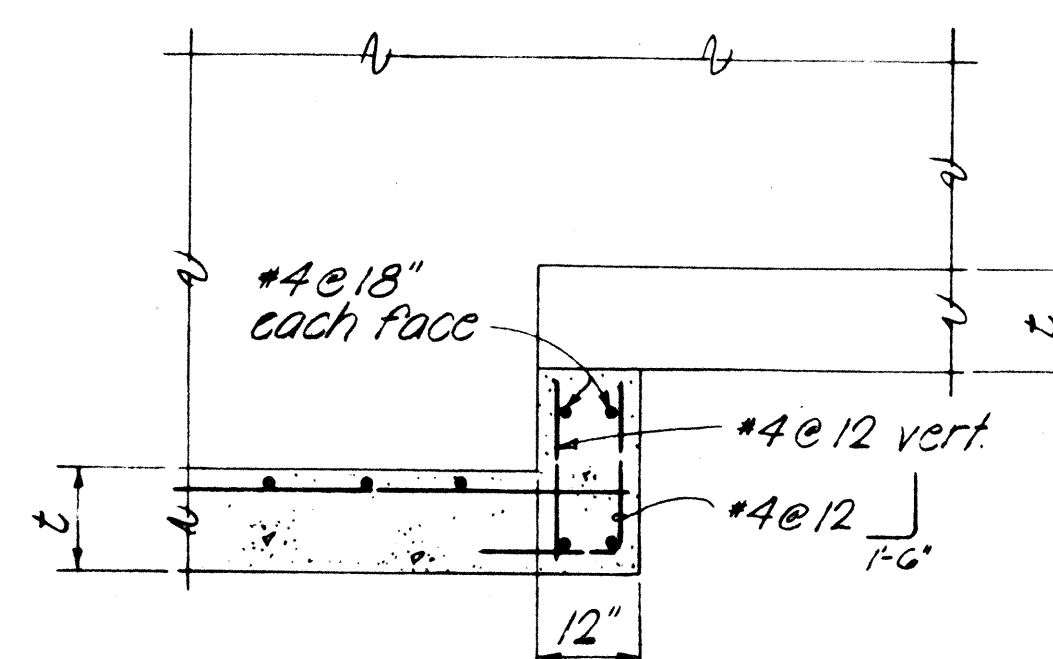
TYPICAL ADDED REINFORCEMENT
AT LIGHT STANDARD BASE No Scale



PLAN

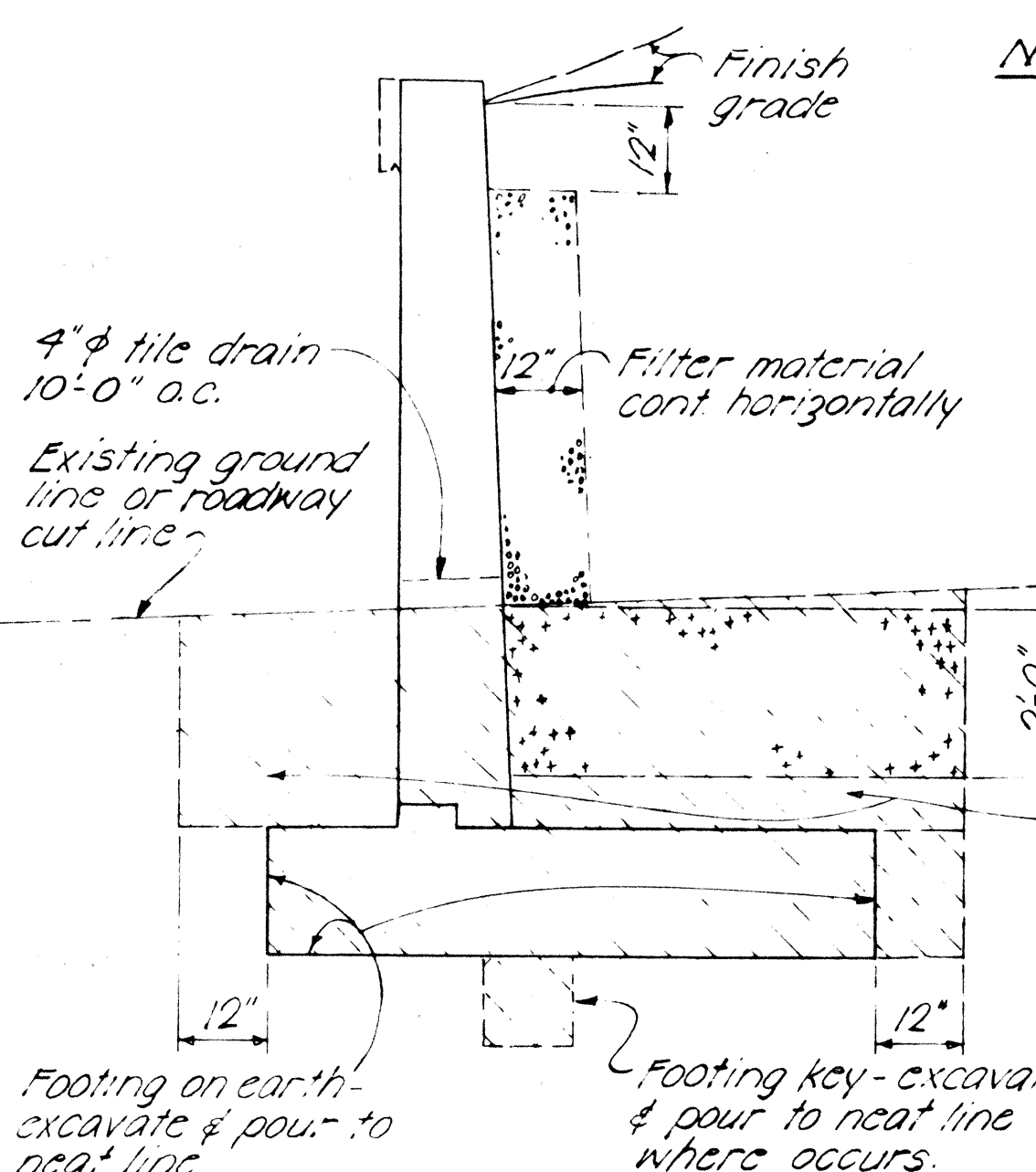


SECTION E-E



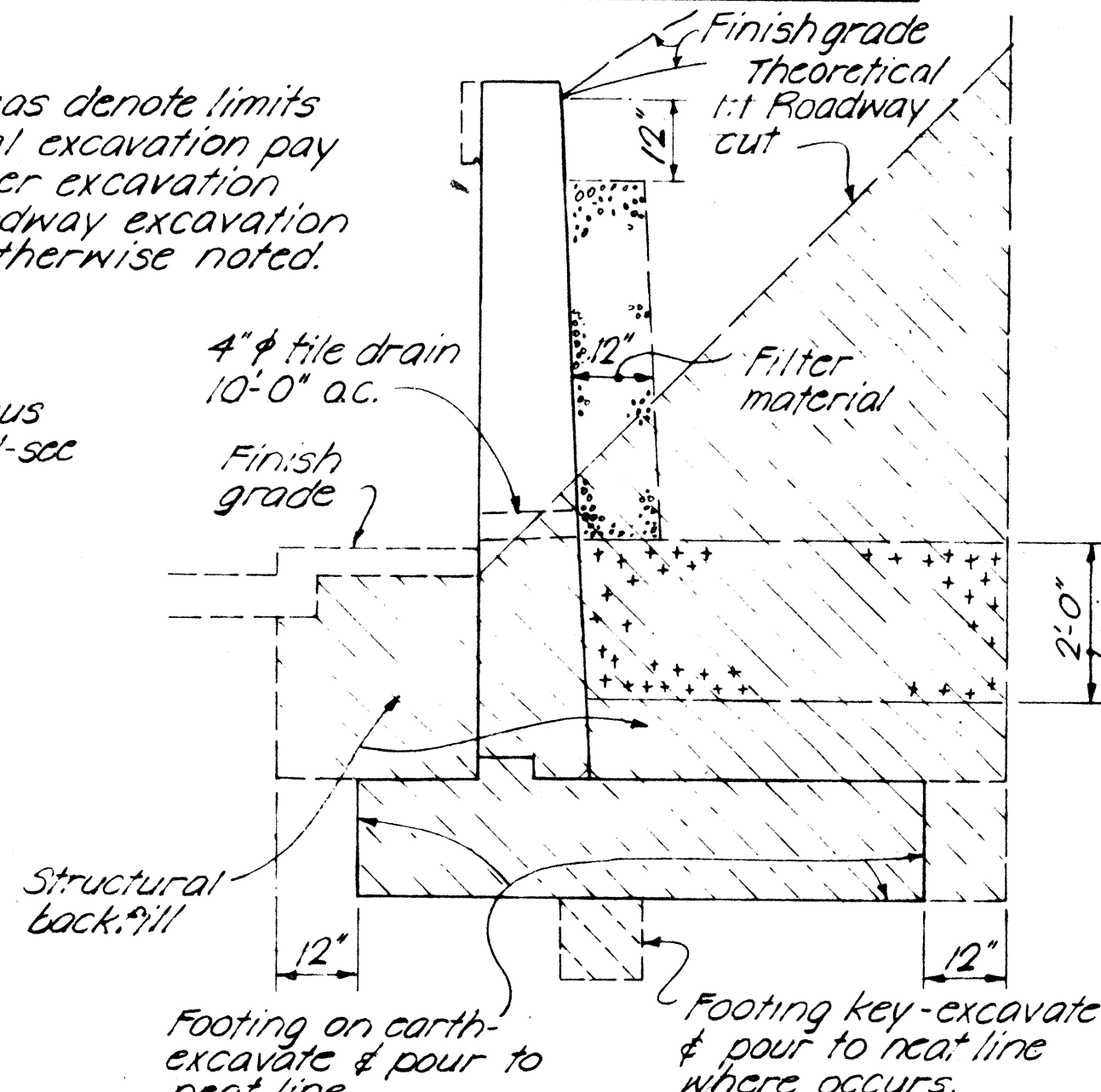
SECTION F-F

FOOTING STEP-UP DETAILS No Scale



CASE I

NOTE
Hatched areas denote limits
of structural excavation pay
line. All other excavation
shall be roadway excavation
except as otherwise noted.



CASE II

STRUCTURAL EXCAVATION & DRAINAGE DETAILS No Scale

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
STANDARD DETAILS
RETAINING WALL TYPE T-1
MOKAPU SADDLE ROAD
F.A.S. Proj. No. 5-0G30(11)
AND
F.A.S. Proj. No. 5-0G30(7)
SCALE As NOTED DATE: November 1967
SHEET No. 3 OF 3 SHEETS