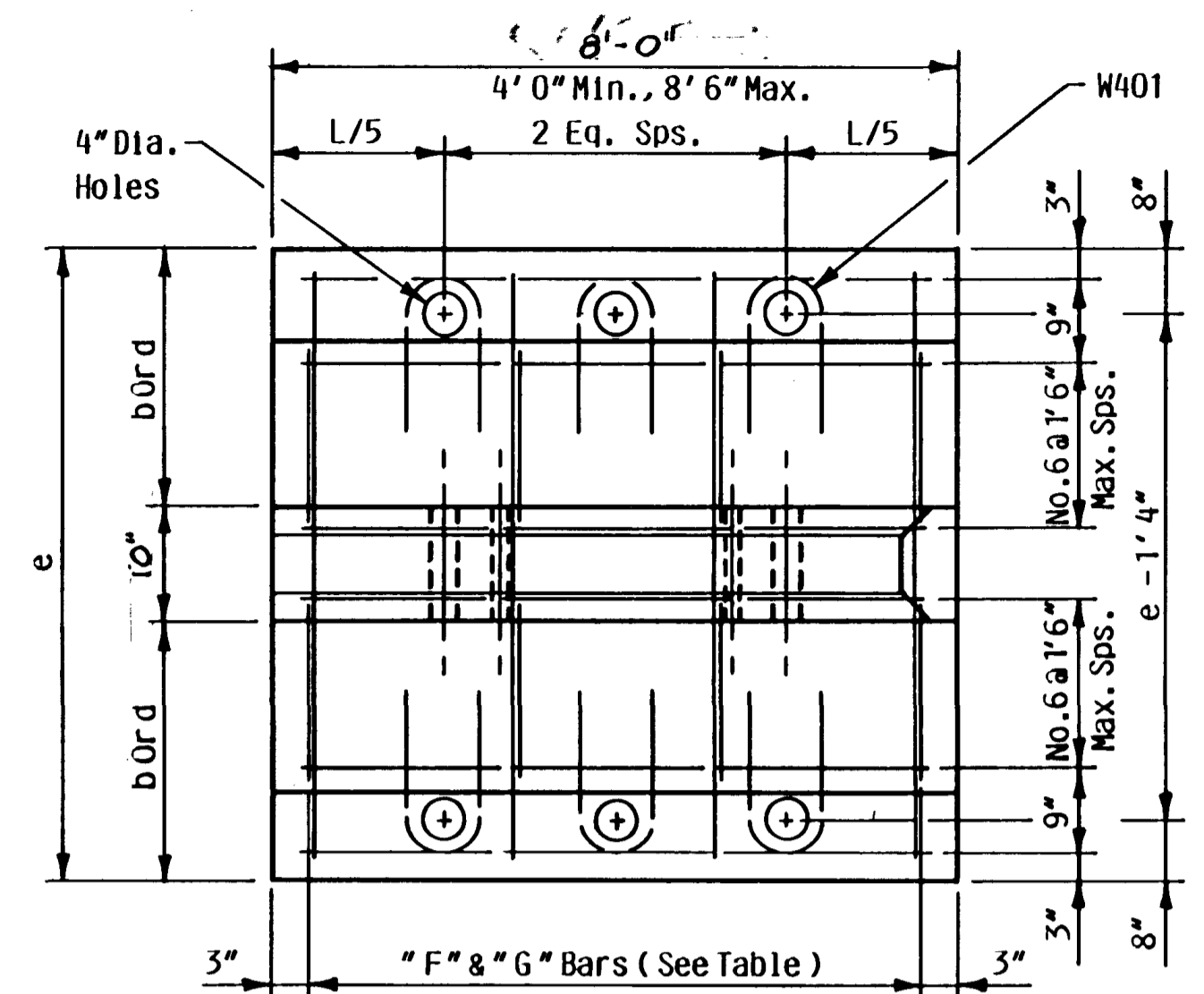


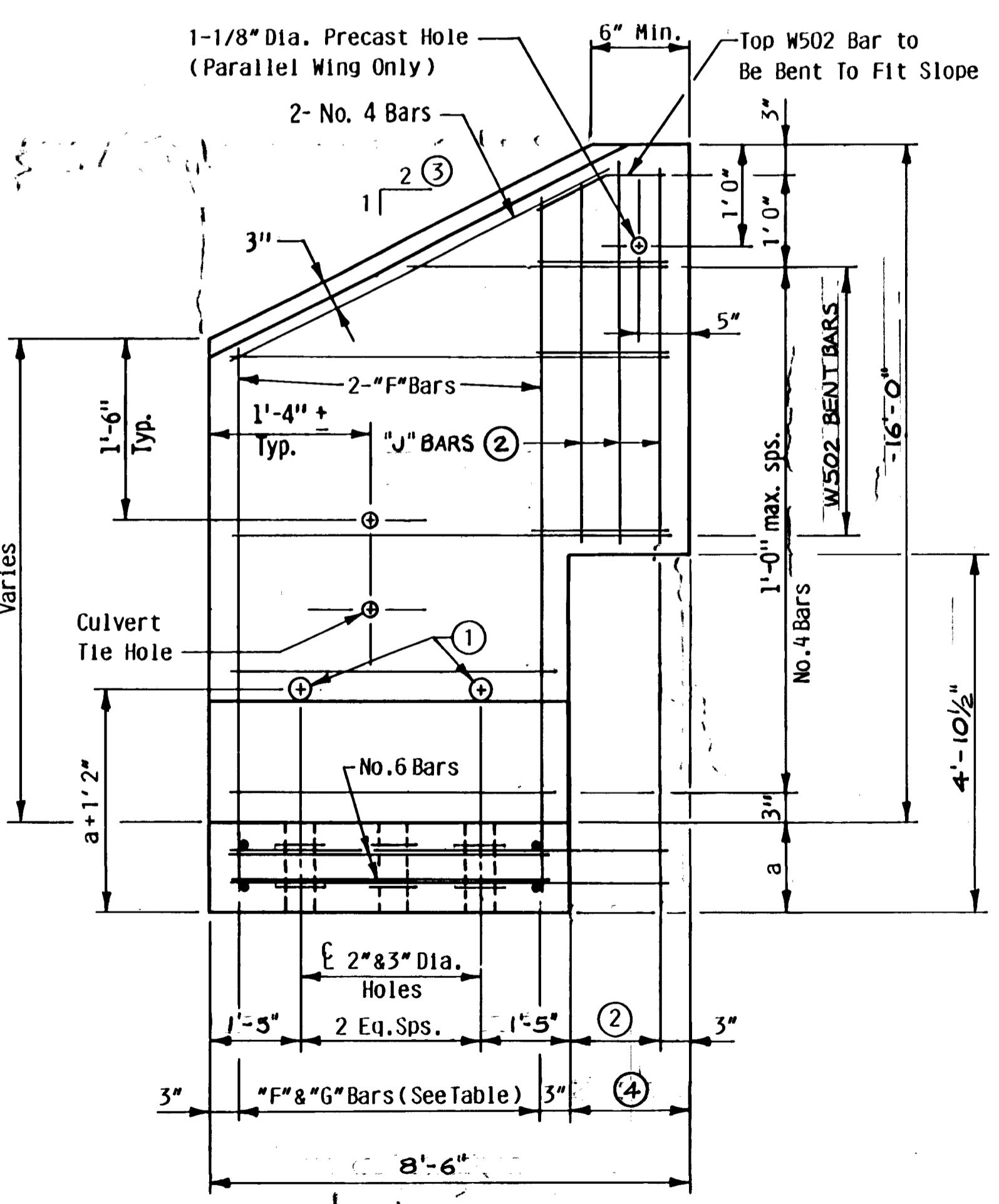
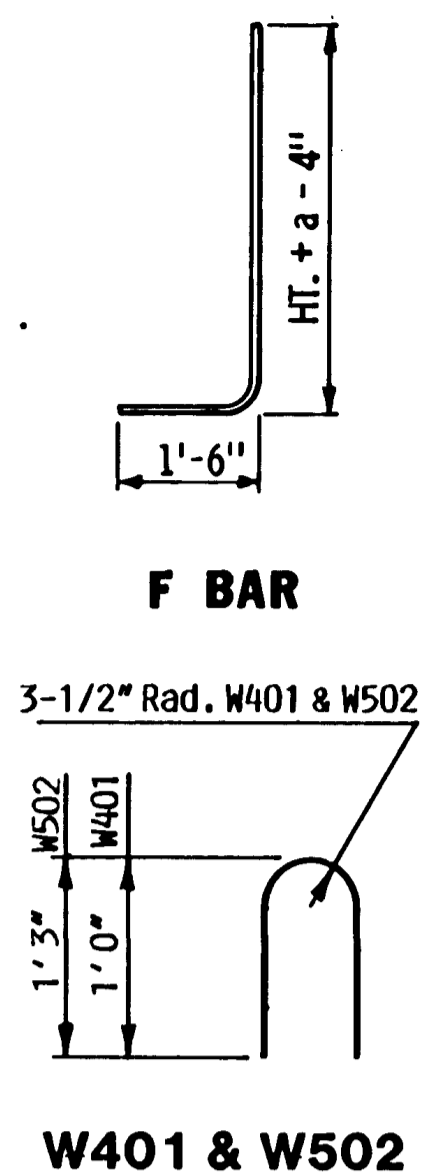
PLAN VIEW
(Wingwall Adjacent To Headwall)



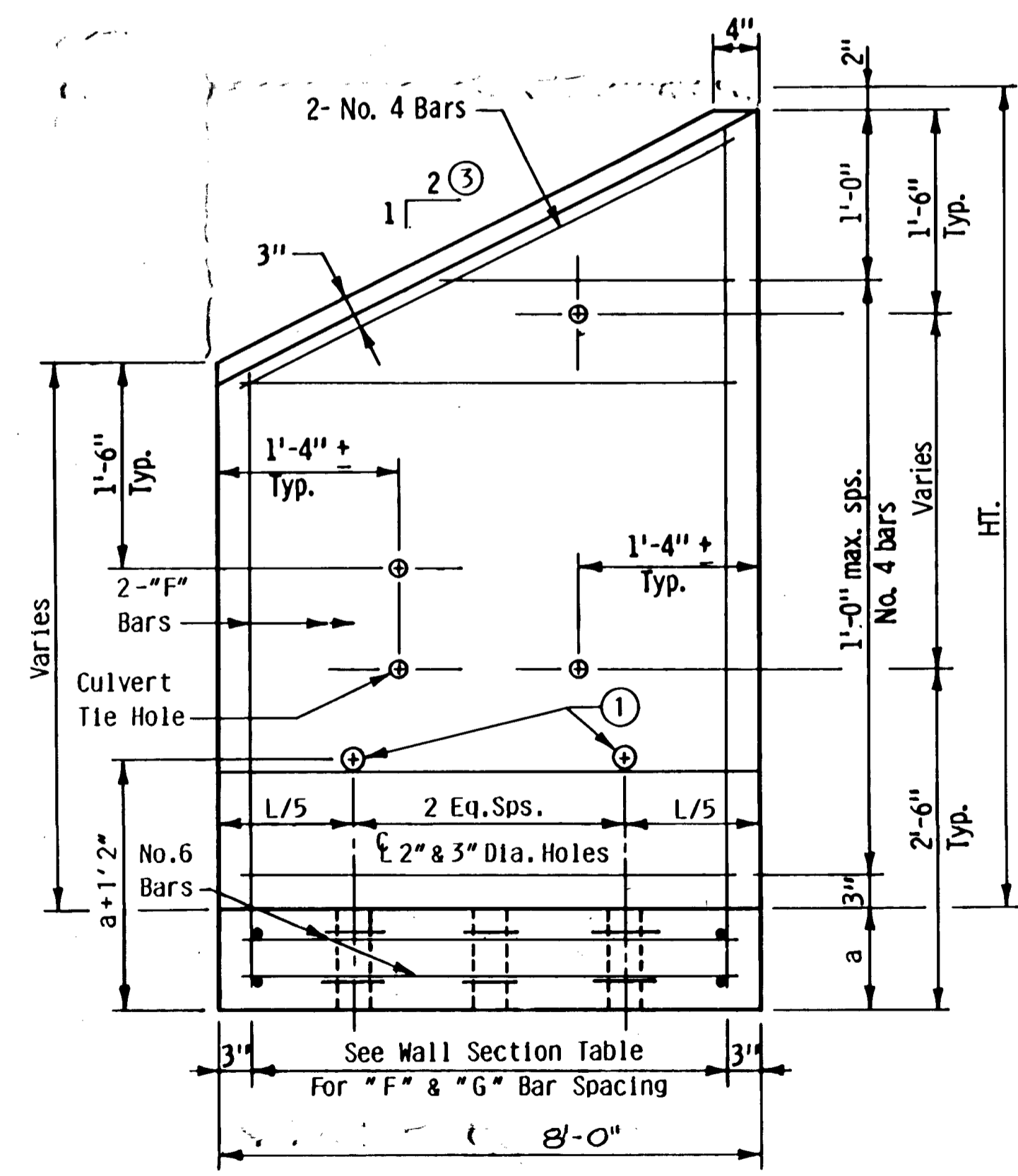
PLAN VIEW
(Typical Wingwall)

WINGWALL SECTION TABLE						
HT.	a Δ	b & d	c	e	"F" Bars	"G" Bars
4'	10"	2' 1"	10"	5' 0"	No. 4 @ 1' 6"	No. 5 @ 1' 6"
5'	10"	2' 1"	10"	5' 0"	No. 4 @ 1' 6"	No. 5 @ 1' 6"
6'	10"	2' 1"	10"	5' 0"	No. 4 @ 1' 6"	No. 5 @ 1' 6"
7'	10"	2' 1"	10"	5' 0"	No. 4 @ 11"	No. 5 @ 1' 6"
8'	10"	2' 1"	10"	6' 0"	No. 5 @ 1' 0"	No. 5 @ 1' 6"
9'	10"	2' 7"	10"	6' 0"	No. 5 @ 8"	No. 5 @ 1' 3"
10'	10"	2' 7"	10"	6' 0"	No. 6 @ 9"	No. 5 @ 1' 0"
11'	10"	2' 7"	10"	6' 0"	No. 6 @ 6"	No. 6 @ 10"
12'	10"	2' 7"	10"	6' 0"	No. 7 @ 7"	No. 6 @ 9"
13'	10"	3' 4"	10"	7' 6"	No. 7 @ 6-1/2"	No. 7 @ 9"
14'	10"	3' 4"	10"	7' 6"	No. 8 @ 7"	No. 8 @ 10"
15'	10"	3' 4"	10"	7' 6"	No. 8 @ 6"	No. 8 @ 9"
16'	10"	3' 4"	10"	7' 6"	No. 8 @ 5"	No. 8 @ 8"

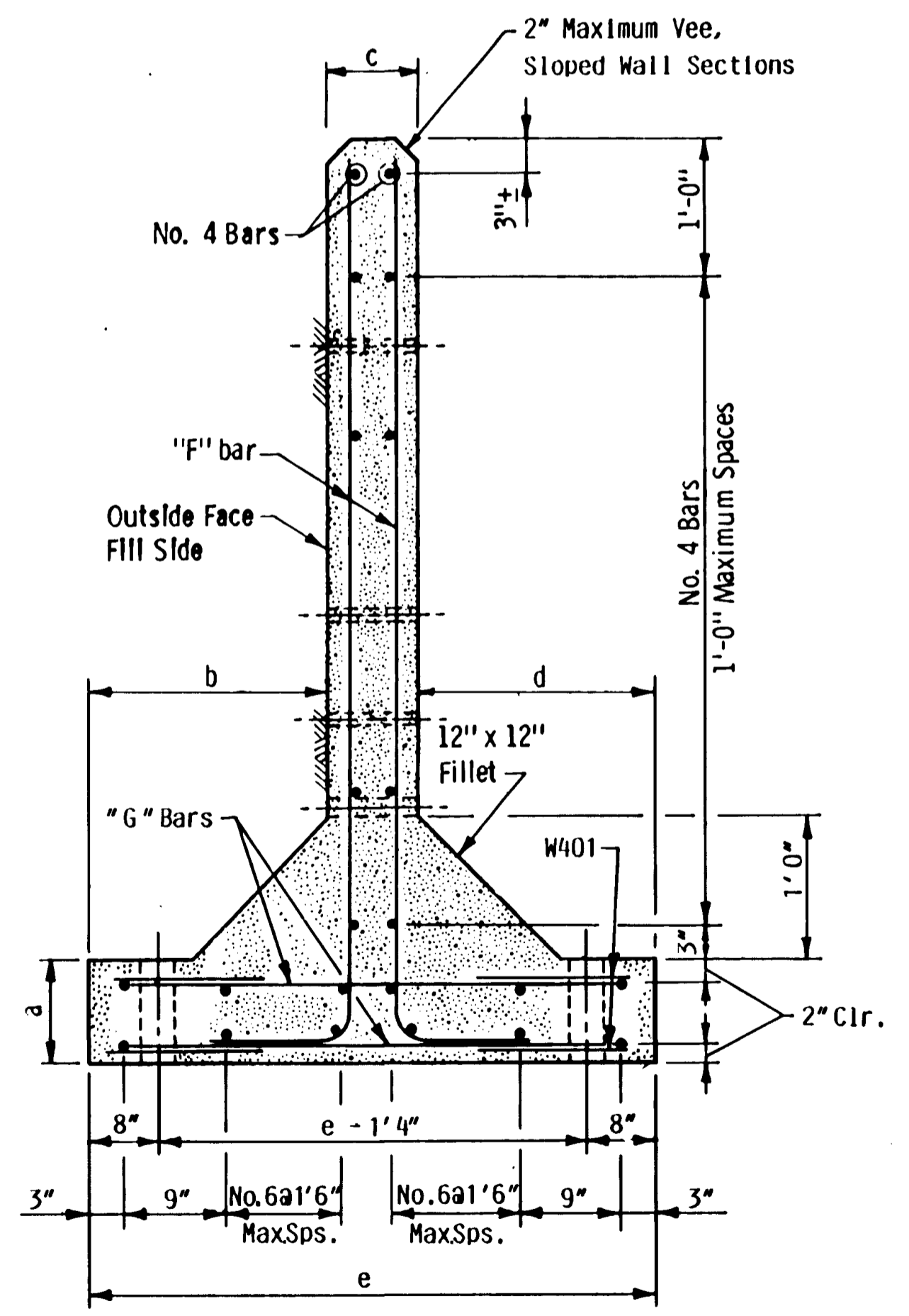
When the wingwall height (HT.) is between the table values shown, use the larger HT. values for reinforcement, etc.
Δ Minimum value is 10".



SIDE VIEW
(Wingwall Adjacent to Headwall)



SIDE VIEW
(Typical Wingwall)



TYPICAL SECTION THRU WINGWALL

NOTES:

- All reinforcement to have 1-1/2" min. cover except as noted. Finish all edges of concrete with 1/2" chamfer unless otherwise noted.
- Footing width is to be constant, based on the maximum height of the culvert wingwall. Footing is computed using an allowable soil pressure of 2000 P.S.F.
- Precast Concrete Sections shall be Mix. No. 3W36 with no calcium chloride allowed.
- The reinforcing shall be Grade 60, or better.
- Leveling pads on C.I.P. concrete footings are required.

- ① 2" dia. weep hole when required. Cover fill side of weep holes with geotextile material, by an approved method.
- ② "J" bars to be same size & spacing as "F" bars.
- ③ 2:1 maximum slope.
- ④ THIS DIMENSION SHALL BE 1'-2" FOR WINGWALLS PERPENDICULAR TO HEADWALL AND 1'-11 3/4" FOR WINGWALLS PARALLEL TO HEADWALL.
- ⑤ IF 65,000 PSI REINFORCING MESH IS USED, STEEL AREAS CAN BE REDUCED BY 8%.

REVISED: March 8, 1988
APPROVED: Sept. 14, 1987
FIG. 5-397.788

PRECAST CONCRETE ARCH STRUCTURE WINGWALL DETAILS

DES: _____ DR: _____ APPROVED: _____
 CHK: _____ CNK: _____

Sheet No. 7C of 10C Sheets

Bridge No. 96834