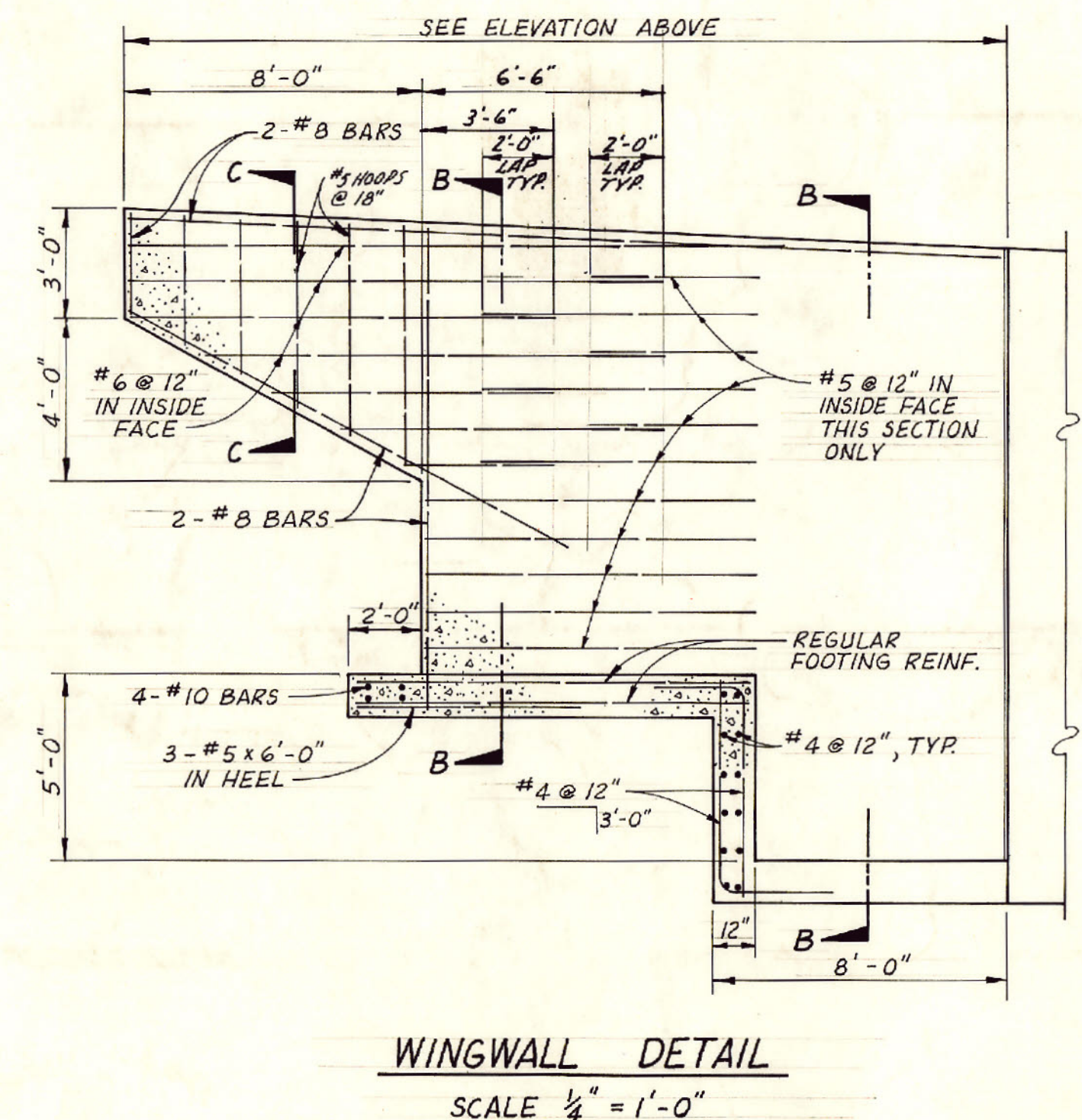
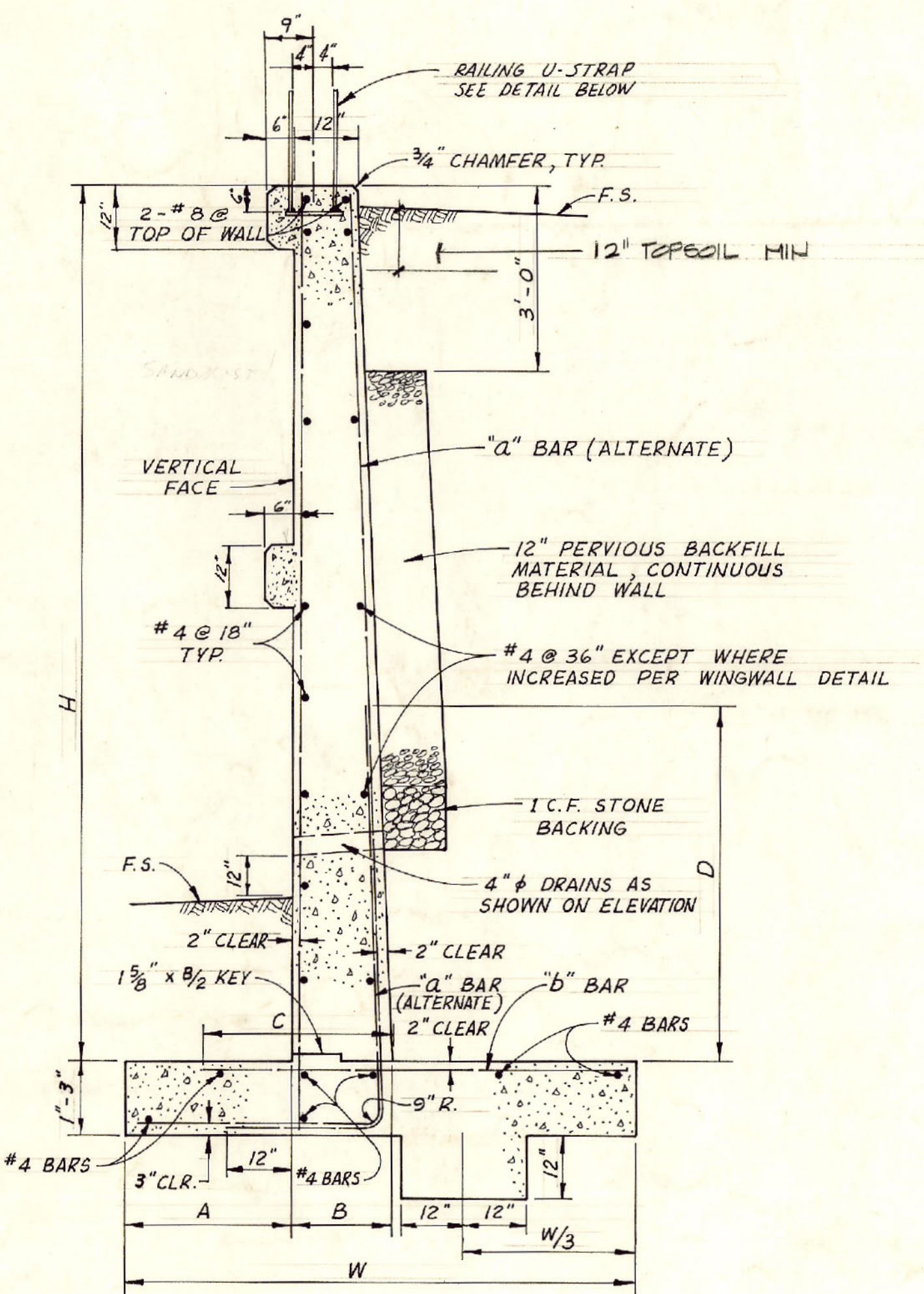
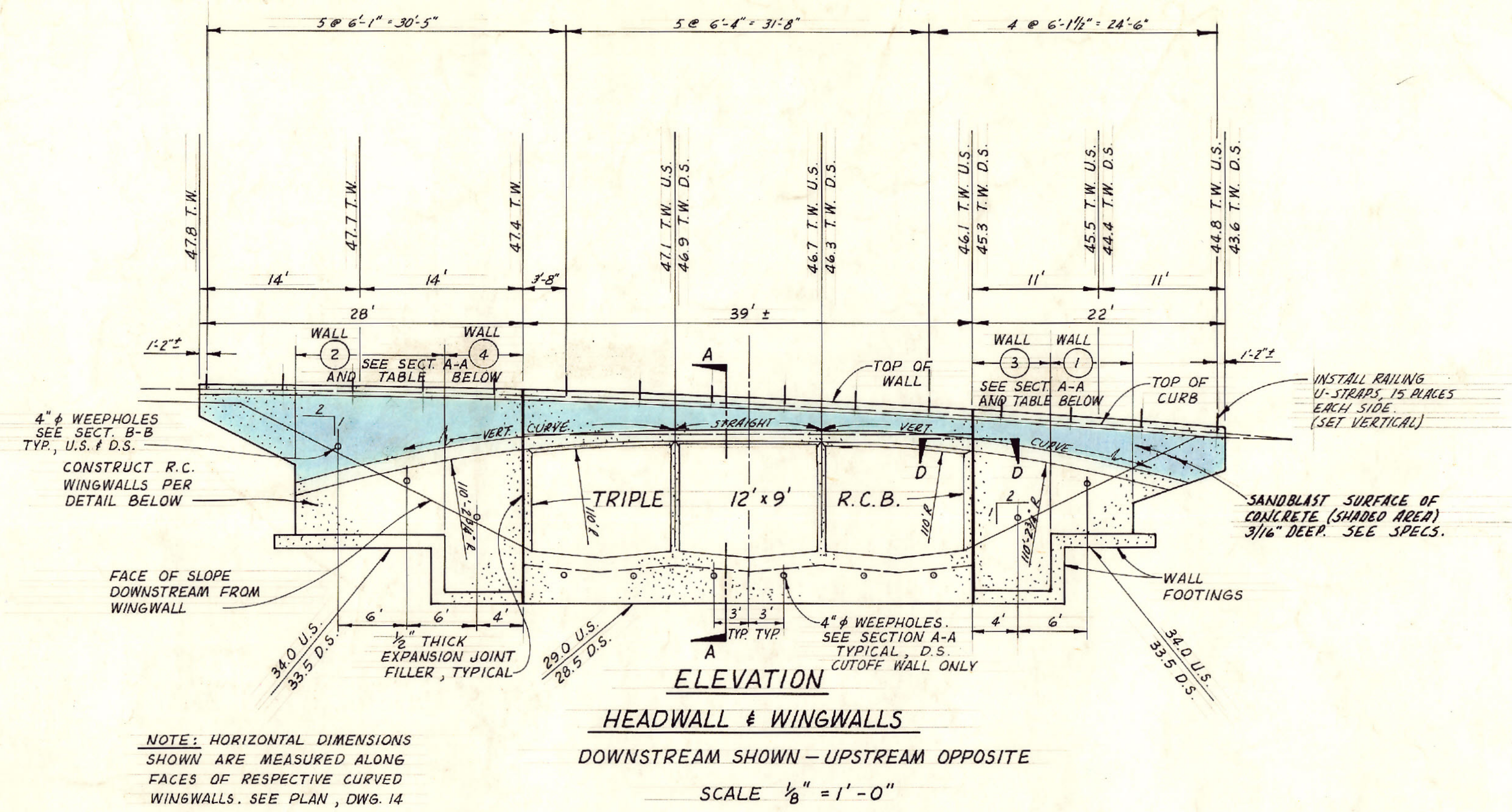
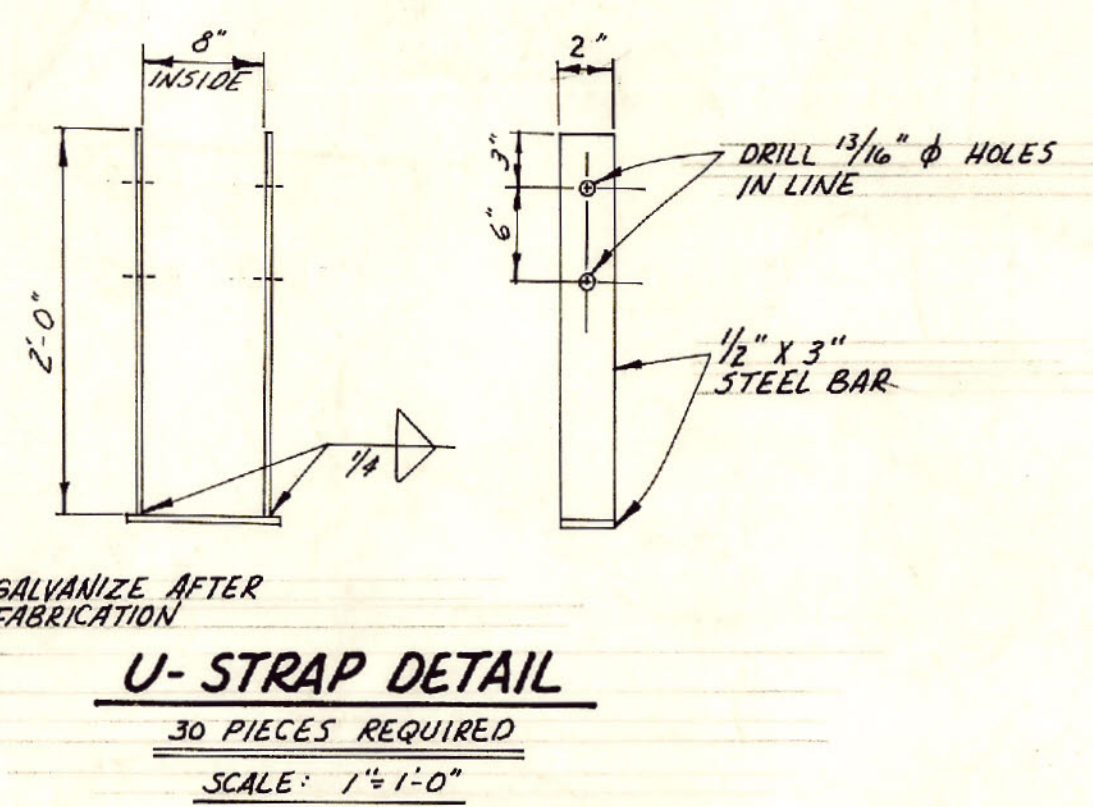
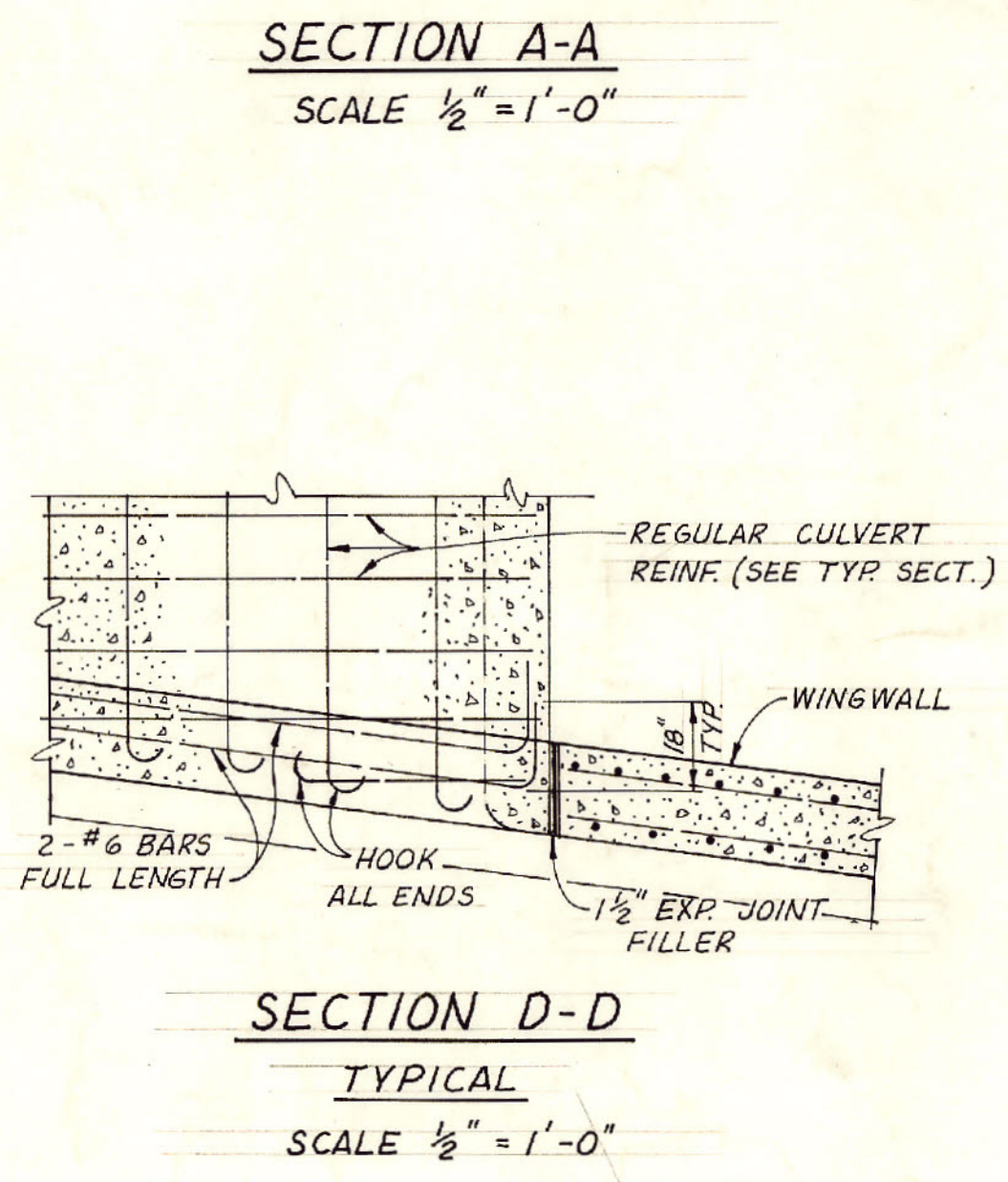
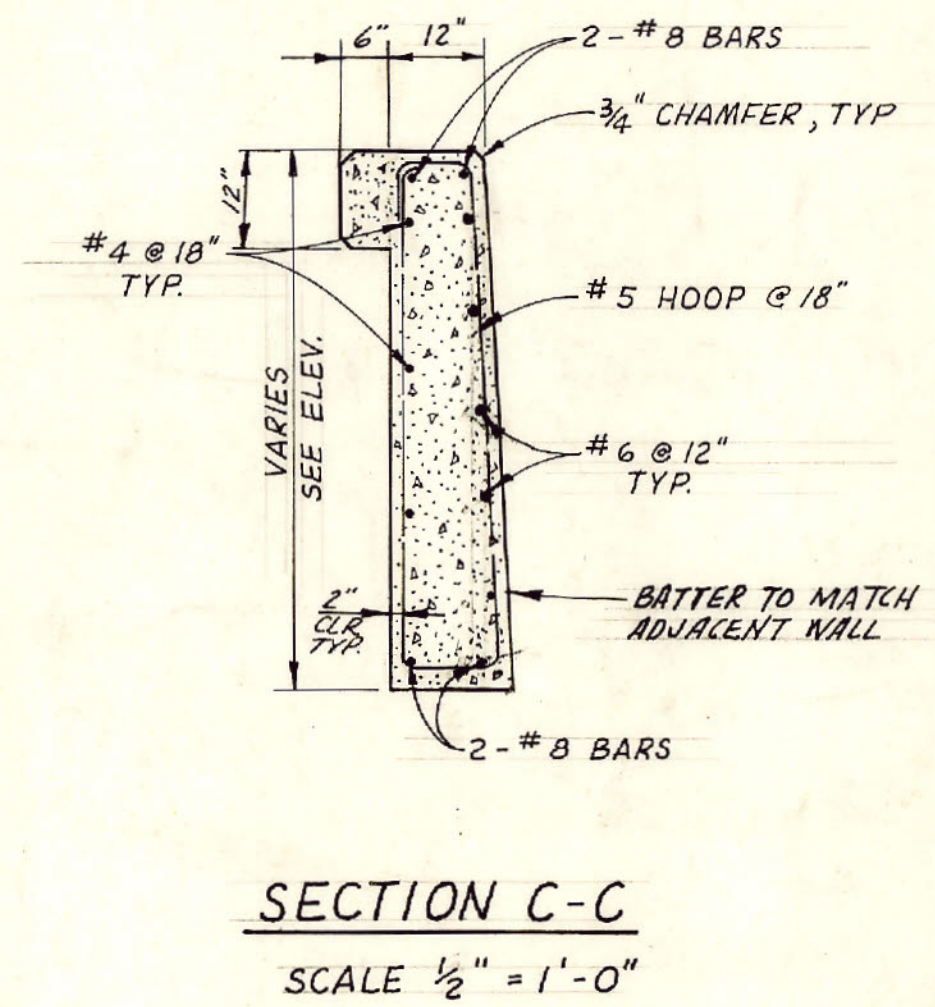
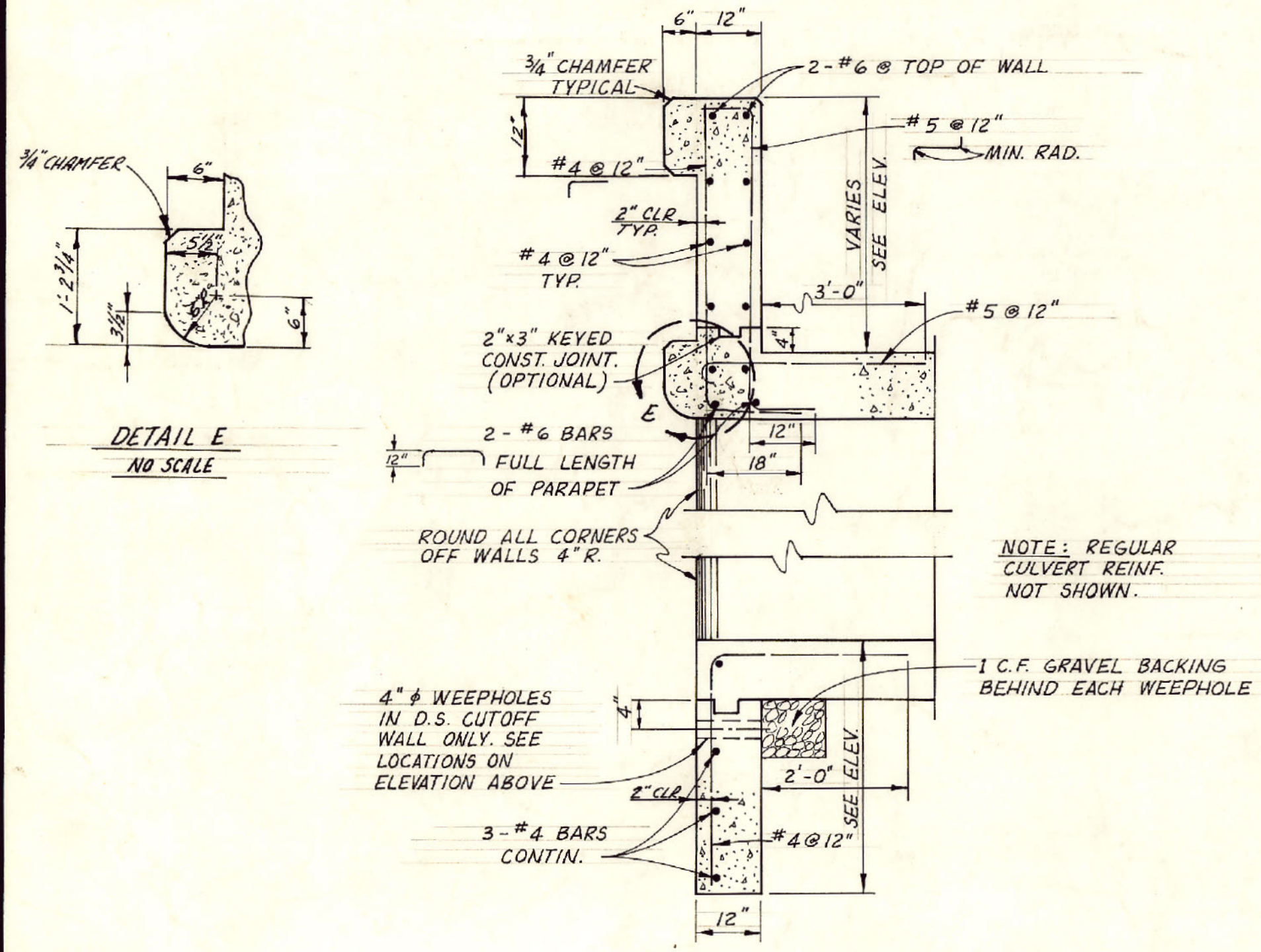
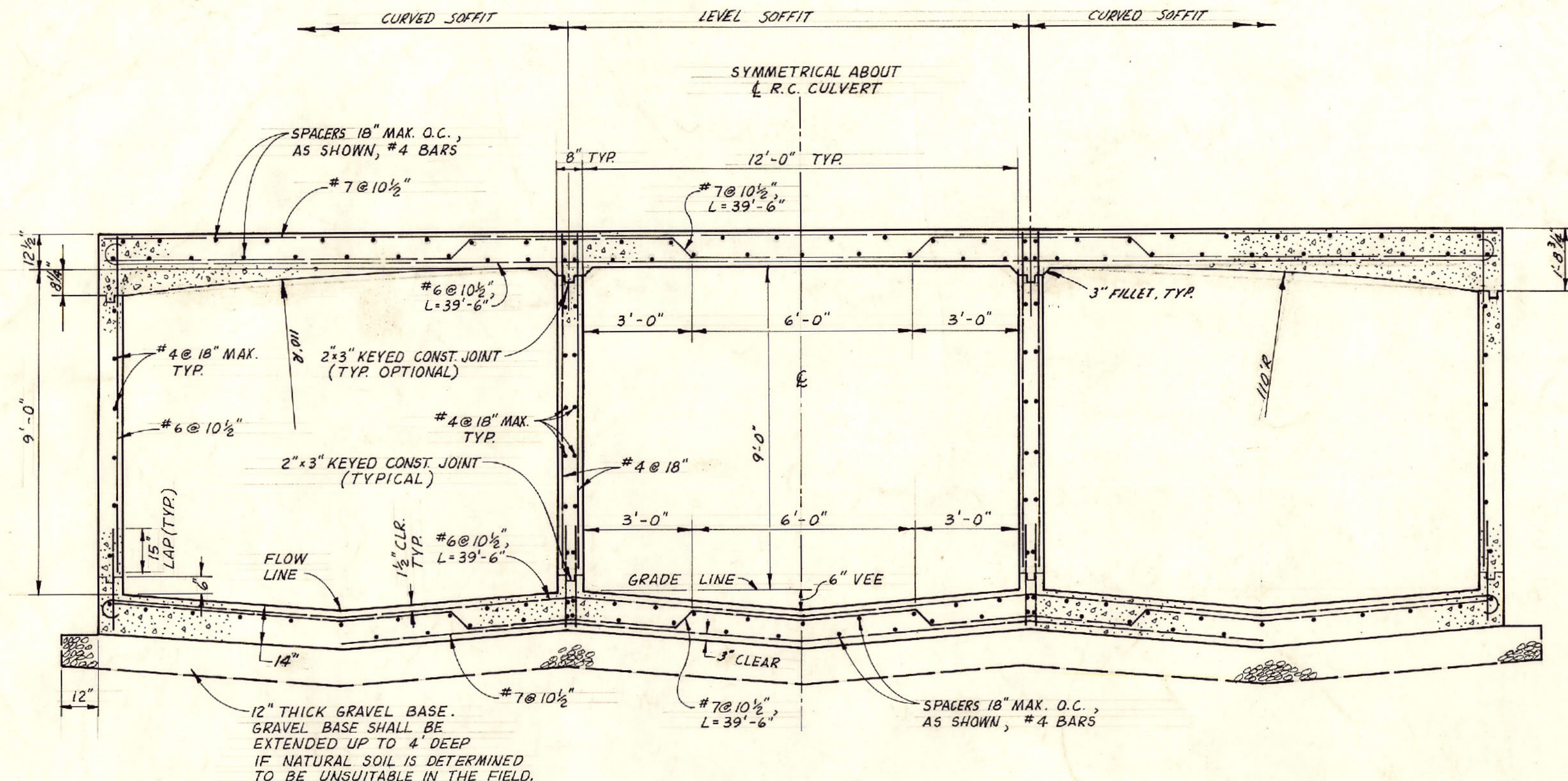




| WALL DATA | WALL DESIGNATION |           |           |          |
|-----------|------------------|-----------|-----------|----------|
|           | (1)              | (2)       | (3)       | (4)      |
| MAX. H    | 11'-0"           | 13'-0"    | 16'-0"    | 18'-0"   |
| W         | 6'-8"            | 7'-8"     | 9'-2"     | 10'-2"   |
| A         | 2'-2"            | 2'-6"     | 3'-0"     | 3'-4"    |
| B         | 1'-0"            | 1'-6 1/2" | 1'-8"     | 1'-9"    |
| C         | 3'-0"            | 3'-0"     | 3'-4"     | 3'-8"    |
| D         | 3'-9"            | 6'-3"     | 7'-0"     | 7'-6"    |
| "A" BAR   | #7 @ 8"          | #9 @ 15"  | #10 @ 11" | #10 @ 8" |
| "B" BAR   | #8 @ 16"         | #8 @ 15"  | #9 @ 11"  | #9 @ 8"  |

**STRUCTURAL DESIGN NOTES**

**DESIGN LOADING**

DEAD LOAD: SOIL 120 #/C.F.  
WATER 62.4 #/C.F.  
E.F.P. 36 #/S.F.

LIVE LOAD: CULVERT H-20-S16-44  
W/30% IMPACT  
WINGWALLS 2' SURCHARGE

**DESIGN STRESSES**

CONCRETE:  $f'_c = 3,000$  PSI  
 $f_c = 1,200$  PSI

REINFORCEMENT:  $f_s = 20,000$  PSI  
 $n = 10$

SOIL PRESSURES  
UNDER WINGWALLS:  $f_r = 3,000$  PSF MAX. AT TOE

UNIVERSITY REGIONAL PARK  
COUNTY OF ORANGE

FLOOD CONTROL  
STRUCTURAL DETAILS

JONES/PETERSON ASSOC. INC.  
218 E. BROADWAY, ANAHEIM, CALIF. 92801  
ARCHITECTURAL CONSULTANTS  
MORRIS LOHRBACH ASSOC. INC.  
1875 RYNE BLVD., TUSTIN, CALIF. 92680  
TOUPS ENGINEERING, INC.  
1801 N. COLLEGE, SANTA ANA, CALIF. 92701

REVISIONS

| NO. | DATE    | DESCRIPTION       |
|-----|---------|-------------------|
| 1   | 4/10/72 | ISSUED FOR PERMIT |

PE E OFE  
SATISFACTORY TO

TITLE  
DATE  
APPROVED FOR COUNTY  
DIR. BLDG. SERVICES  
DATE 5-2-72

PLAN NO.  
SHEET NO.  
**C-13**  
OF 14 SHEETS