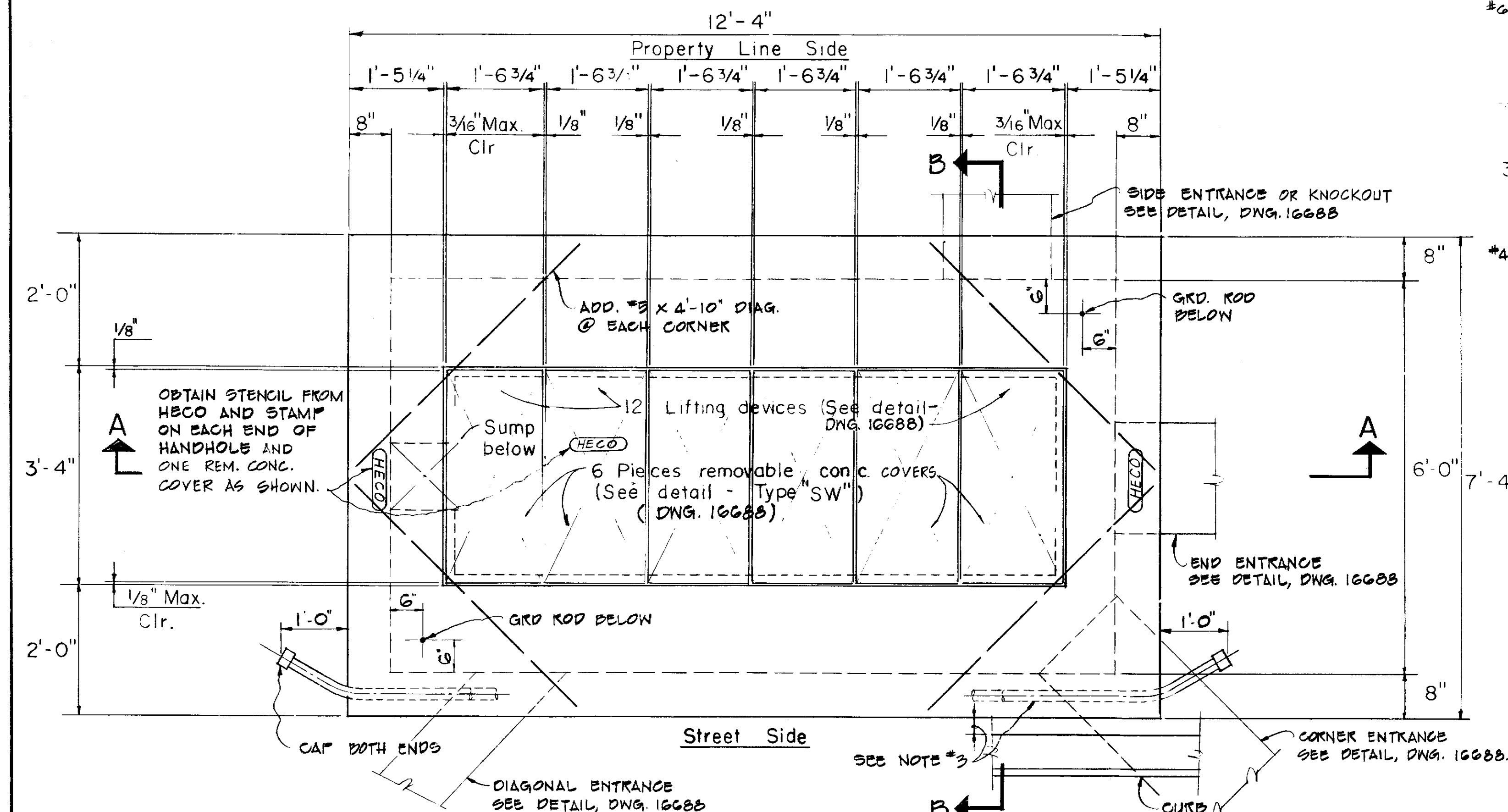
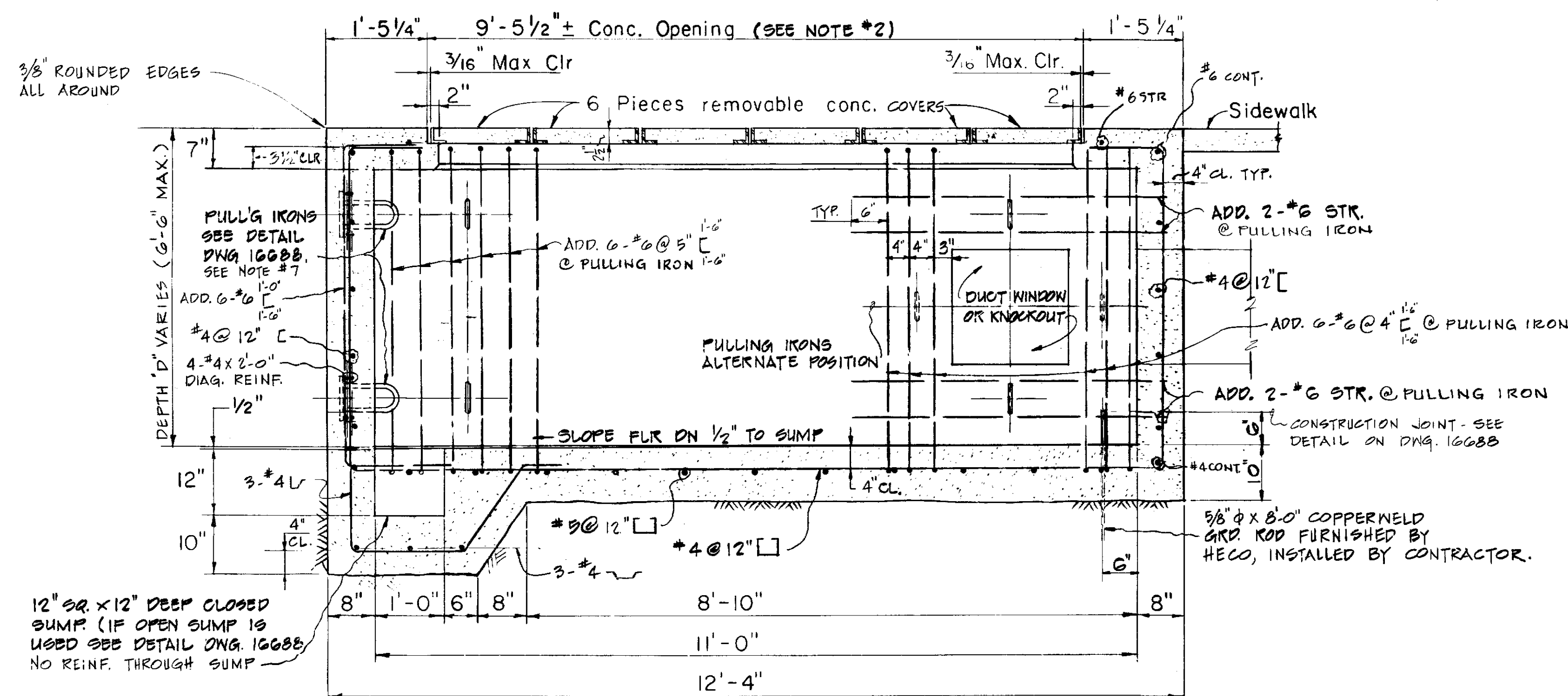
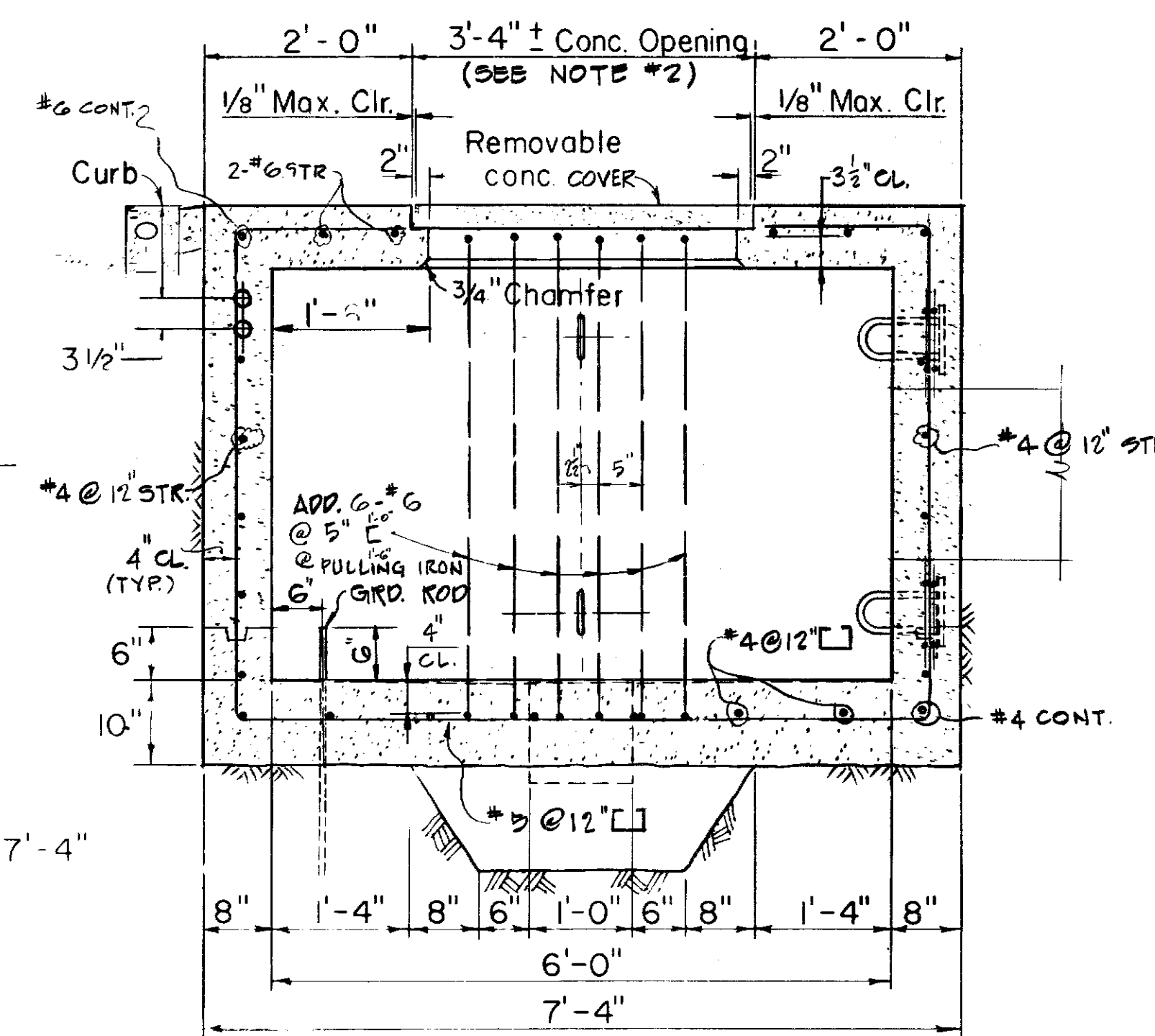




**PLAN**  
Scale: 3/4" = 1'-0"



**SECTION A-A**  
Scale: 3/4" = 1'-0"



**SECTION B-B**  
Scale: 3/4" = 1'-0"

#### NOTES

- FOR GENERAL NOTES AND MISCELLANEOUS DETAILS SEE DWG. 16688 (2 SHEETS).
- MAXIMUM CLEARANCES BETWEEN REMOVABLE CONCRETE COVERS AND CONCRETE OPENING AT THE SUPPORTS MUST BE KEPT. CONCRETE CONTRACTOR SHALL MEASURE COVER SLAB STEEL FRAME AFTER FABRICATION TO OBTAIN PROPER CLEARANCES. ANY VARIATION IN CLEARANCES SHALL BE CORRECTED TO THE SATISFACTION OF THE ENGINEER AT CONTRACTOR'S EXPENSE.
- 2 - 2" DIAMETER G.I. COND. FOR STREET LIGHTING TO BE INSTALLED ONLY WHEN OUTSIDE FACE OF H. H. IS LESS THAN 3" FROM CURBING.
- FOR DUCT ENTRANCES, DEPTH AND LOCATIONS OF PULLING IRONS, SEE HANDHOLE DEVELOPMENTS OF PROJECT CONCERNED.
- SEE PROJECT DRAWINGS FOR LOCATION OF HANDHOLE CONCERNED.
- TOP OF HANDHOLE SHALL MATCH NEW AND/OR EXISTING GRADES UNLESS OTHERWISE SHOWN OR NOTED ON PLANS OF PROJECT CONCERNED.
- PULLING IRONS FOR 8" WALL:  
"V" TYPE PREFERRED, "U" TYPE OPTIONAL. SEE DRAWING 16688 FOR DETAILS.

#### REINFORCED CONCRETE QUANTITIES

QUANTITY OF MATERIALS FOR DEPTH "D" = 5' - 0"

|                                 |               |
|---------------------------------|---------------|
| TOTAL CONCRETE                  | 8.10 CU. YDS. |
| TOTAL REINFORCED STEEL          | 770 LBS.      |
| ADD. REINFORCING @ PULLING IRON | 80 LBS. EA.   |
| TOTAL MISCELLANEOUS STEEL       | 291 LBS.      |

#### WEIGHT PER REMOVABLE CONCRETE COVER

|              |          |
|--------------|----------|
| CONCRETE     | 150 LBS. |
| REINF. STEEL | 7 LBS.   |
| MISC. STEEL  | 42 LBS.  |
| TOTAL        | 199 LBS. |

#### MATERIALS FOR 6" DEPTH OF 8" THICK WALL

|              |               |
|--------------|---------------|
| CONCRETE     | 0.45 CU. YDS. |
| REINF. STEEL | 45 LBS.       |

KALANIANA'OLE HIGHWAY WIDENING PHASE I

FOR USE IN AREAS NOT  
SUBJECT TO VEHICULAR TRAFFIC

| 1                                                           | 5-31-77      | ADDED NOTES 4, 5, 6 & 7.                                                         | EG   | 50    | 5/23/77  |
|-------------------------------------------------------------|--------------|----------------------------------------------------------------------------------|------|-------|----------|
| 0                                                           | 2-15-77      | REDRAWN - FROM DWG. 18844, REV. 8                                                | EG   | 50    | 2/15/77  |
| NO.                                                         | DATE         | REVISIONS                                                                        | BY   | CHK'D | APP'D    |
| HANDHOLE TYPE 611 (6'-0" X 11'-0")<br>UNDERGROUND STANDARDS |              |                                                                                  |      |       |          |
| DESIGNED                                                    | Gohda        | DRAWN                                                                            | Q    | DATE  | 2-15-77  |
| CHECKED                                                     | EG           | MECH.                                                                            | ETUC | SCALE | AS NOTED |
| APPROVAL                                                    | U. Kadhawala | ENGINEERING DESIGN DEPARTMENT<br>HAWAIIAN ELECTRIC CO., INC.<br>HONOLULU, HAWAII |      |       |          |
| DRAWING NUMBER                                              |              |                                                                                  |      | REV   |          |
| 18844                                                       |              |                                                                                  |      |       |          |