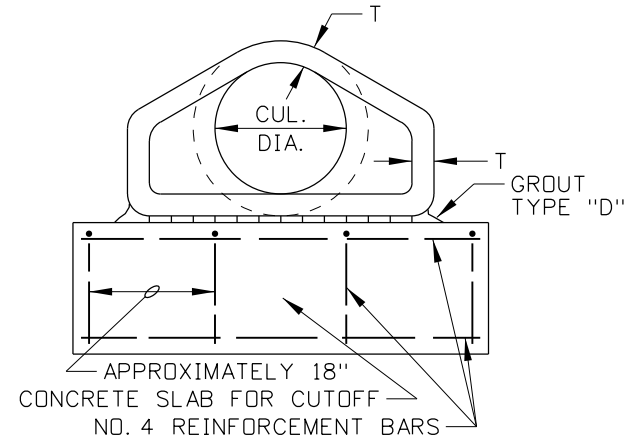
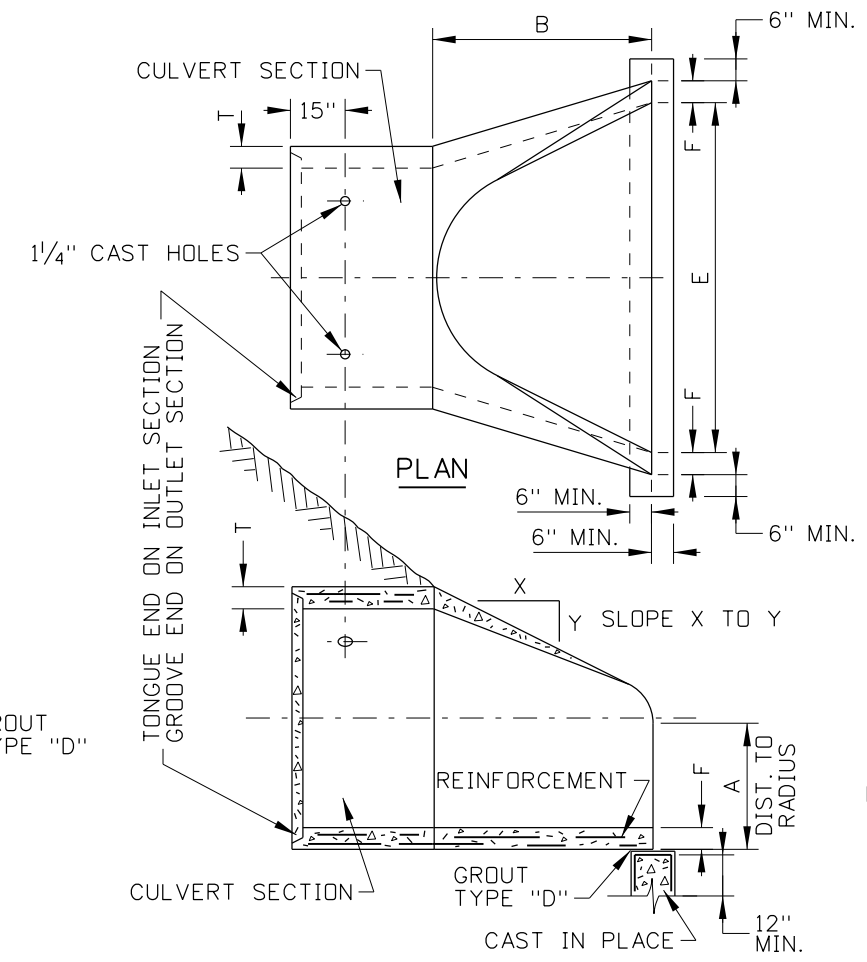


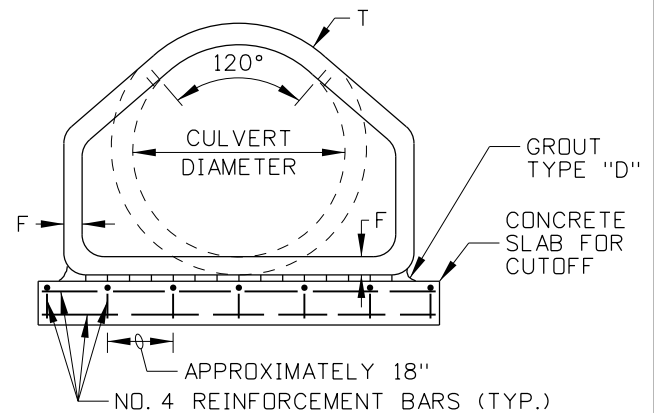
LONGITUDINAL SECTION
(FOR 12" TO 54" DIA. PIPE)



END VIEW
(FOR 12" TO 54" DIA. PIPE)

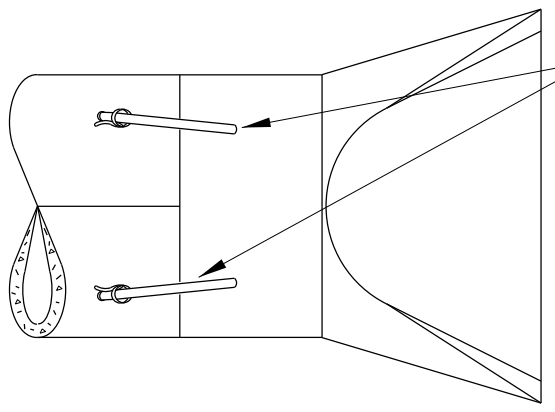


LONGITUDINAL SECTION
(FOR 60" TO 84" DIA. PIPE)



END VIEW
(FOR 60" TO 84" DIA. PIPE)

| APRON DIMENSION FOR 12" TO 54" DIA. PIPE | | | | | |
|--|----------------|-------------------|-------|--------|--------|
| DIA. | A | B | E | T | SLOPE |
| 12" | 4"-5" | 1'-10" - 2'-0" | 2'-0" | 2" | 3 TO 1 |
| 15" | 6" | 2'-3" | 2'-6" | 2 1/4" | 3 TO 1 |
| 18" | 9"-10" | 2'-3" | 3'-0" | 2 1/2" | 3 TO 1 |
| 21" | 9" | 3'-0" | 3'-5" | 2 3/4" | 3 TO 1 |
| 24" | 9 1/2"-10" | 3'-7" - 3'-7 1/2" | 4'-0" | 3" | 3 TO 1 |
| 27" | 10 1/2" | 4'-1 1/2" | 4'-6" | 3 1/4" | 3 TO 1 |
| 30" | 1'-0" | 4'-6" | 5'-0" | 3 1/2" | 3 TO 1 |
| 36" | 1'-3" | 5'-3" - 5'-4" | 6'-0" | 4" | 3 TO 1 |
| 42" | 1'-9" - 1'-10" | 5'-3" - 5'-4" | 6'-6" | 4 1/2" | 3 TO 1 |
| 48" | 2'-0" | 6'-0" | 7'-0" | 5" | 3 TO 1 |
| 54" | 2'-3" | 5'-5" | 7'-6" | 5 1/2" | 2 TO 1 |



ANCHORING DETAIL

60" DIA. PIPE:
2 - 1" TIE BOLTS EACH AT 60° TO THE VERTICAL USED TO TIE THE END SECTION TO ADJACENT STRAIGHT SECTION.

72" DIA. & 84" DIA. PIPE:
2 - 1" TIE BOLTS PLACED AS SPECIFIED FOR 60" PIPE ALSO 1 - 1" TIE BOLT IS TO BE PLACED AT THE TOP.

| APRON DIMENSION FOR 60" TO 84" DIA. PIPE | | | | | | |
|--|--------|-----------|--------|--------|----|-----------|
| DIA. | A | B | E | F | T | SLOPE |
| 60" | 2'-11" | 5'-0" | 8'-0" | 5" | 6" | 2 TO 1 |
| 72" | 3'-0" | 6'-6" | 9'-0" | 6" | 7" | 1.86 TO 1 |
| 84" | 3'-0" | 7'-6 1/2" | 10'-0" | 6 1/2" | 8" | 1.5 TO 1 |

NOTES

1. TONGUE AND GROOVE JOINTS ARE SHOWN ON THE DRAWING FOR EXAMPLE ONLY. OTHER JOINTS MAY BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
2. NOT TO SCALE.

| REVISIONS | | | | | | | |
|-----------|-------|-----|-----|------|----|-----|------|
| NO. | DATE | BY | NO. | DATE | BY | NO. | DATE |
| 1 | 4-66 | | | | | | |
| 2 | 8-67 | | | | | | |
| 3 | 2-00 | MSM | | | | | |
| 4 | 10-05 | MSM | | | | | |
| 5 | 12-12 | RDL | | | | | |

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: d5a_1212.std

DRAWING DATE: MARCH, 1966

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: LOREN THOMAS
HIGHWAYS PROGRAM OVERSIGHT ENGINEER

ORIGINAL SIGNED BY: TOM COLE
CHIEF ENGINEER

STANDARD DRAWING

CONCRETE APRONS FOR PIPE CULVERTS

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

English

STANDARD DRAWING NO. **D-5-A**

SHEET 1 OF 1

ORIGINAL SIGNED BY: RYAN D. LANCASTER
DATE ORIGINAL SIGNED: DECEMBER 17, 2012