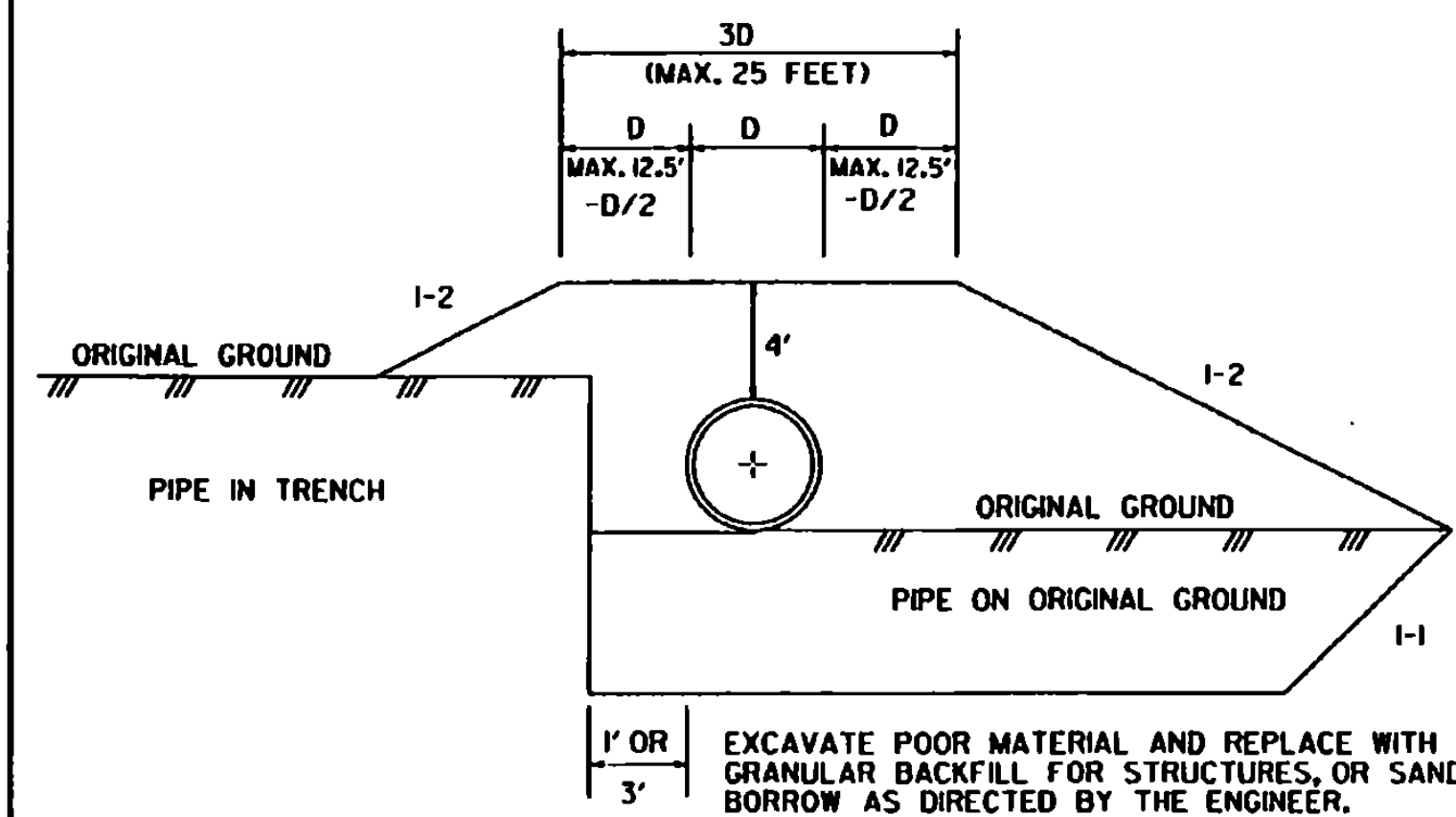
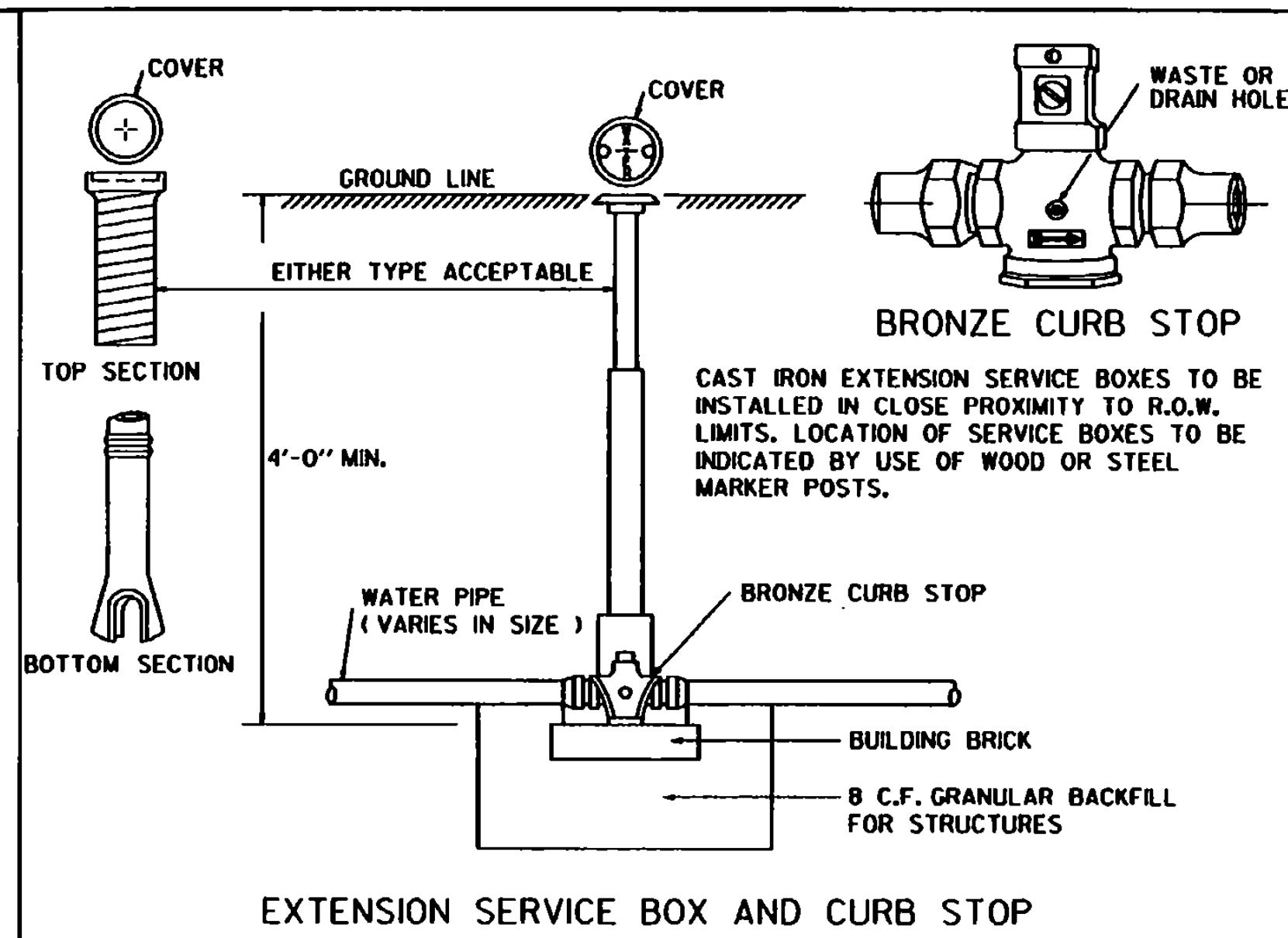


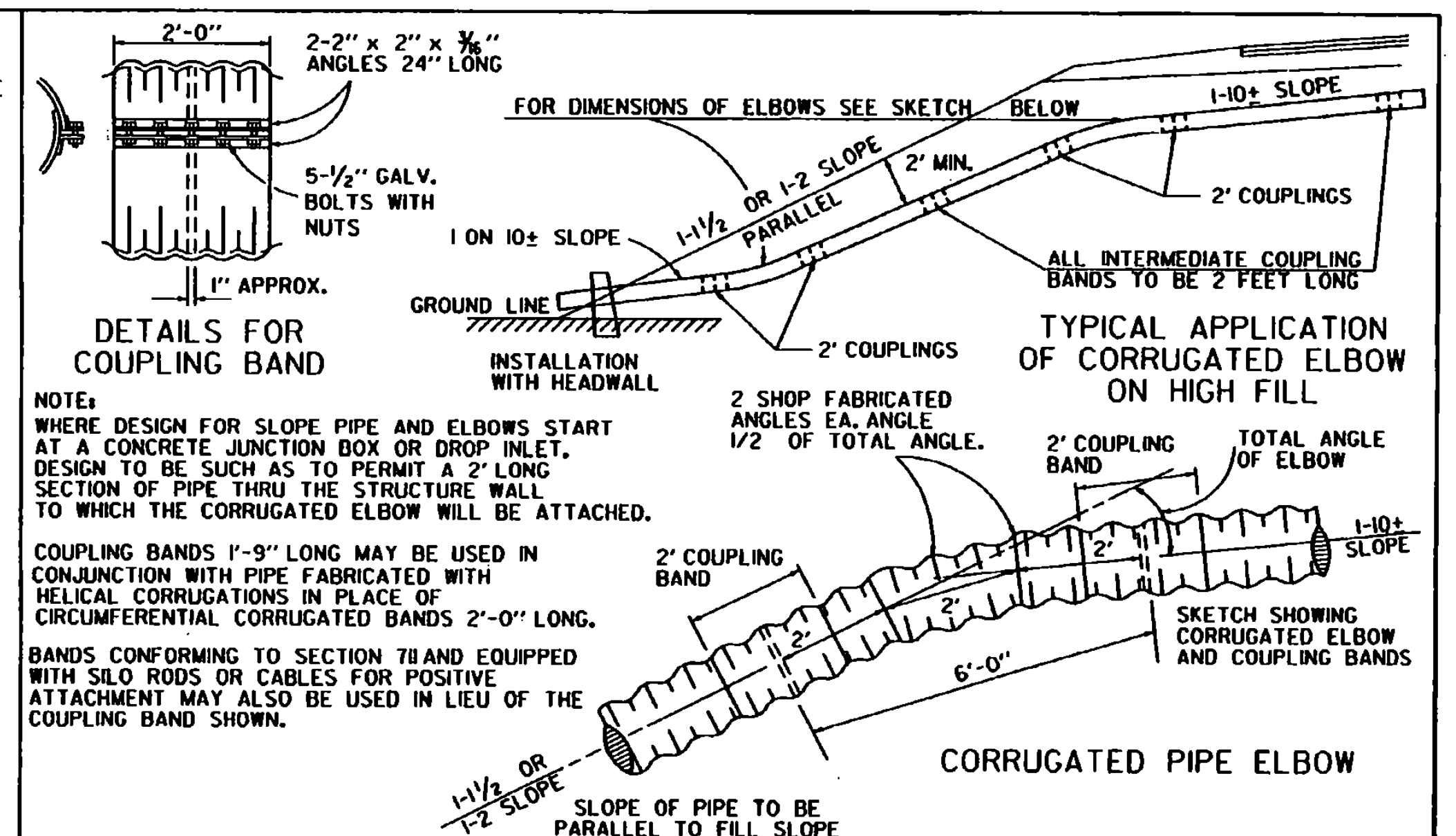
TYPICAL WATERFALL FOR CULVERT UP TO AND INCLUDING 48" DIAMETER



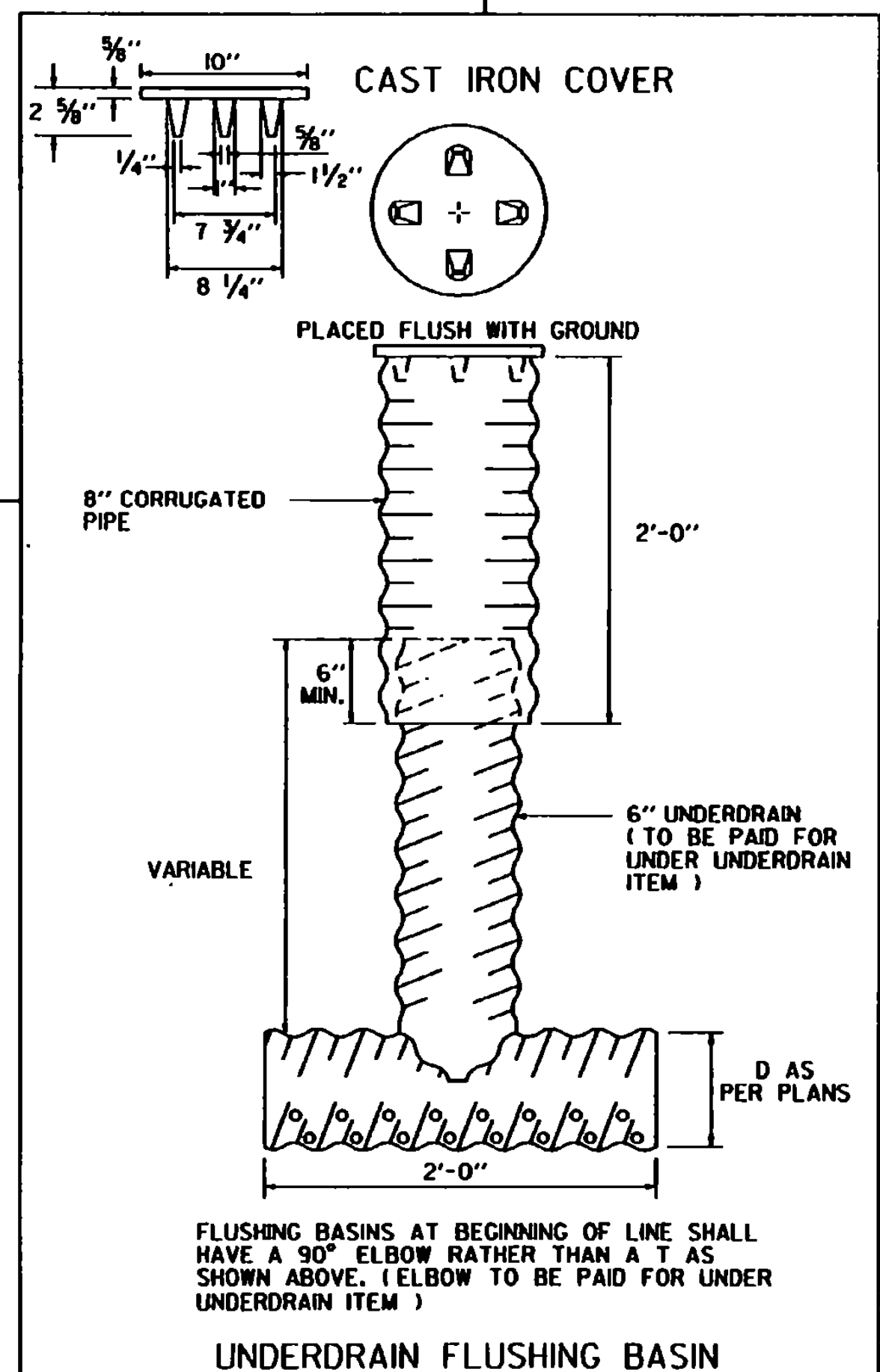
GRANULAR MATERIAL AT CULVERT LOCATIONS



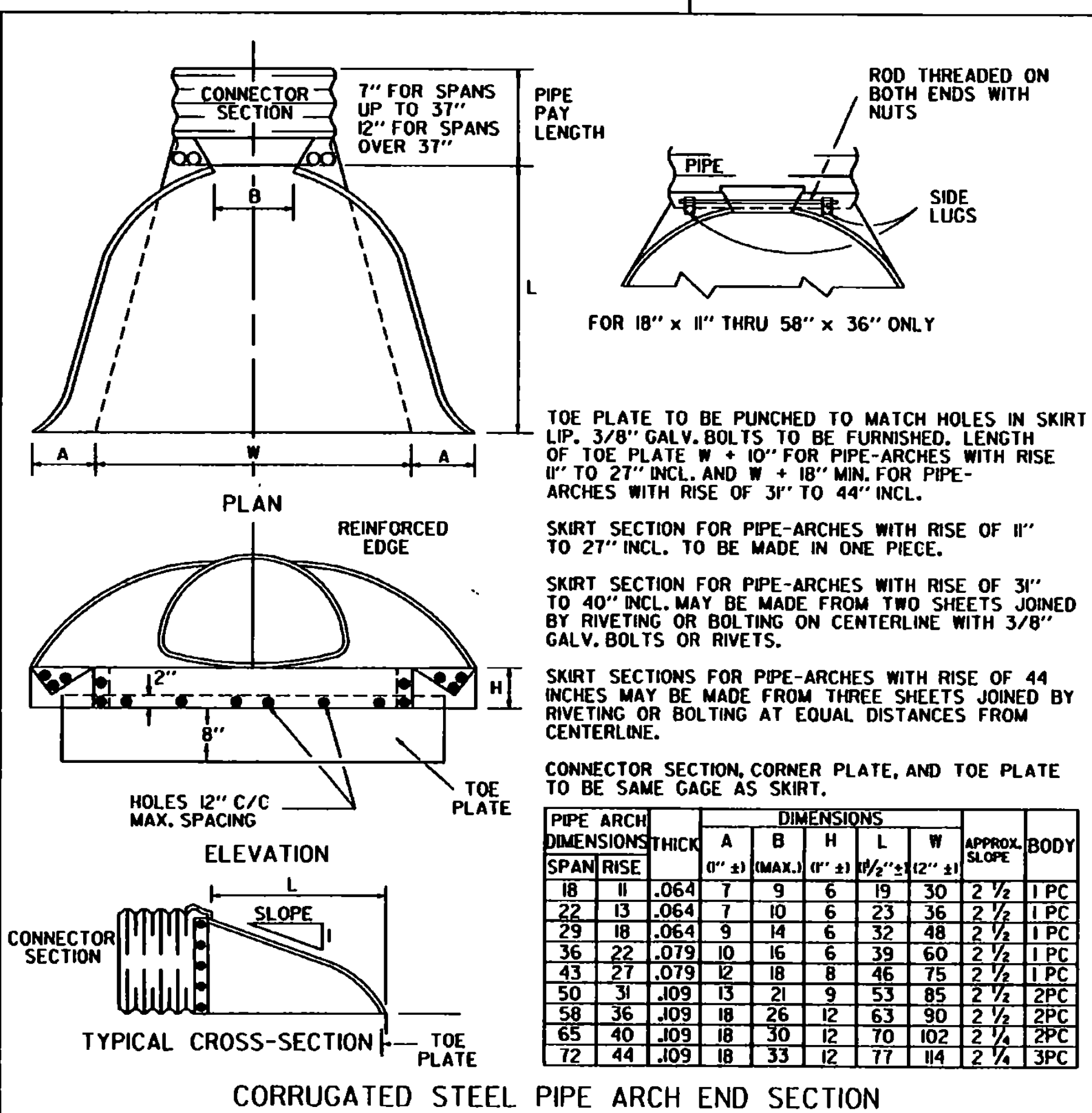
EXTENSION SERVICE BOX AND CURB STOP



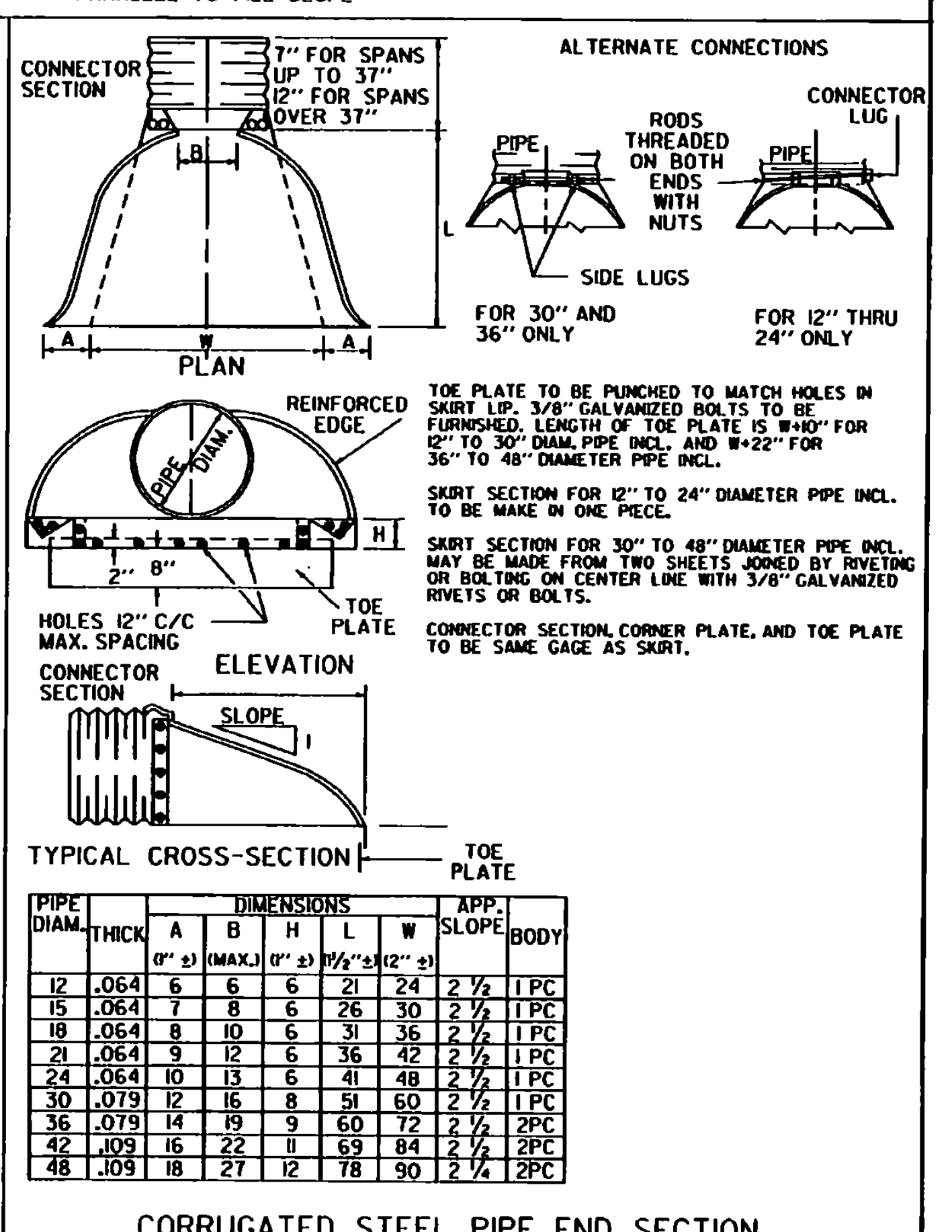
CORRUGATED PIPE ELBOW



UNDERDRAIN FLUSHING BASIN



CORRUGATED STEEL PIPE ARCH END SECTION



CORRUGATED STEEL PIPE END SECTION

| PIPE ARCH DIMENSIONS | THICK | DIMENSIONS | | | | | APPROX. SLOPE | BODY |
|----------------------|-------|------------|----|----|----|-----|---------------|------|
| | | A | B | H | L | W | | |
| 18 | .064 | 7 | 9 | 6 | 19 | 30 | 2 1/2 | 1PC |
| 22 | .064 | 7 | 10 | 6 | 23 | 36 | 2 1/2 | 1PC |
| 29 | .064 | 9 | 14 | 6 | 32 | 48 | 2 1/2 | 1PC |
| 36 | .079 | 10 | 16 | 6 | 39 | 60 | 2 1/2 | 1PC |
| 43 | .079 | 12 | 18 | 8 | 46 | 75 | 2 1/2 | 1PC |
| 50 | .109 | 13 | 21 | 9 | 53 | 85 | 2 1/2 | 2PC |
| 58 | .109 | 18 | 26 | 12 | 63 | 90 | 2 1/2 | 2PC |
| 65 | .109 | 18 | 30 | 12 | 70 | 102 | 2 1/2 | 2PC |
| 72 | .109 | 18 | 33 | 12 | 77 | 114 | 2 1/2 | 3PC |

| PIPE DIAM. | THICK | DIMENSIONS | | | | | APP. SLOPE | BODY |
|------------|-------|------------|----|----|----|----|------------|------|
| | | A | B | H | L | W | | |
| 12 | .064 | 6 | 6 | 6 | 21 | 24 | 2 1/2 | 1PC |
| 15 | .064 | 7 | 8 | 6 | 26 | 30 | 2 1/2 | 1PC |
| 18 | .064 | 8 | 10 | 6 | 31 | 36 | 2 1/2 | 1PC |
| 21 | .064 | 9 | 12 | 6 | 36 | 42 | 2 1/2 | 1PC |
| 24 | .064 | 10 | 13 | 6 | 41 | 48 | 2 1/2 | 1PC |
| 30 | .079 | 12 | 16 | 8 | 51 | 60 | 2 1/2 | 2PC |
| 36 | .079 | 14 | 19 | 9 | 60 | 72 | 2 1/2 | 2PC |
| 42 | .109 | 16 | 22 | 11 | 69 | 84 | 2 1/2 | 2PC |
| 48 | .109 | 18 | 27 | 12 | 78 | 90 | 2 1/2 | 2PC |

REVISIONS AND CORRECTIONS
 DEC. 6, 1971 - ORIGINAL APPROVAL DATE
 JULY 17, 1972 - HELICAL CORRUGATED COUPLING NOTE ADDED
 JULY 24, 1975 - GRANULAR MATERIAL AT CULVERT LOCATIONS CORRECTED
 OCT. 30, 1985 - REVISED TO CONFORM TO 1986 SPECIFICATIONS
 JUNE 1, 1994 - REISSUED WITHOUT CHANGE, UNDER NEW SIGNATURES.

APPROVED
 APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION. FHWA FINAL APPROVAL PENDING.
 Stephen D. McArthur, P.E.
 DIRECTOR OF ENGINEERING
 John D. Mungler, P.E.
 DESIGN ENGINEER

TYPICAL WATERFALL FOR CULVERTS UP TO AND INCLUDING 48" DIAMETER
 EXTENSION SERVICE BOX AND CURB STOP
 CORRUGATED PIPE ELBOW
 GRANULAR BORROW AT CULVERT LOCATIONS
 UNDERDRAIN FLUSHING BASIN
 CORRUGATED STEEL PIPE END SECTION
 CORRUGATED STEEL PIPE ARCH END SECTION

VERMONT AGENCY OF TRANSPORTATION
 STANDARD
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