

CAST IRON PIPE CULVERT DESIGNATION<sup>(5)</sup>

| Diameter<br>IN. | Area<br>SQ. FT. | MAXIMUM HEIGHT OF COVER IN FEET     |                                  |  |
|-----------------|-----------------|-------------------------------------|----------------------------------|--|
|                 |                 | 1 - 13                              | 14 - 21                          | 22 - 35<br>(2)                         |
| 12 (2)          | 0.8             | Standard Pipe<br>Method "A" Bedding | Heavy Pipe<br>Method "A" Bedding | Extra Heavy Pipe<br>Method "A" Bedding |
| 15 (3)          | 1.2             |                                     |                                  |  |
| 16 (2) (4)      | 1.4             |                                     |                                  |  |
| 18 (1)          | 1.8             |                                     |                                  |  |
| 24 (1)          | 3.1             |                                     |                                  |  |
| 30 (1)          | 4.9             |                                     |                                  |  |
| 36 (1)          | 7.1             |                                     |                                  |  |
| 42 (2)          | 9.6             |                                     |                                  |  |
| 48 (2)          | 12.6            |                                     |                                  |  |

Notes:

- (1) Pipe may be smooth cast iron, corrugated cast iron, or ribbed cast iron.
- (2) Pipe to be smooth cast iron only.
- (3) Pipe to be corrugated cast iron or ribbed cast iron.
- (4) May be substituted for 15" pipe culvert at no increase in price bid for 15" pipe, where approved by the Engineer.
- (5) Crushing strength (Lbs. per Lin. Ft.)

Standard pipe      2000 D  
 Heavy pipe          3000 D  
 Extra heavy pipe    4000 D

Maximum height of cover shown in table is for finished construction. To protect pipe during construction, minimum height of cover prior to allowing construction traffic to cross installation is to be 2.0'. This cover is to extend the full length of the pipe culvert. The approach fill ramp is to extend a minimum of 10 (Diameter + 3') on each side of the culvert, or to the intersection with a cut. Minimum finished height of cover to be 2.0', except pipe under entrances and median crossovers where a 9" minimum will be permitted.

|                            |
|----------------------------|
| SPECIFICATION<br>REFERENCE |
| 232<br>302                 |

**CAST IRON PIPE  
STRENGTH TABLE FOR H-20 LIVE LOAD**

VIRGINIA DEPARTMENT OF TRANSPORTATION