## RISE (Nominal) 'P' 'Q' 'R' 'T' 'N' 'M' 'F'

### Nominal 24" Lid Diameter
- 1-1/2" 1-1/2" 2-1/2" 2-1/2" 1" 2-1/2" 2-1/2"
- 2" 2" 3" 3"
- 2-1/2" 2-1/2" 3-1/2" 3-1/2"
- 3" 3" 4" 4"

### Nominal 30" Lid Diameter
- 2" 1-7/8" 2-3/8" 2-7/8" 2-1/2"
- 2-1/2" 32-7/8" 32-15/16" 1-1/2" 2-3/8"
- 3" 31-7/8" 31-5/8" 4"

### Notes:
- **MANHOLE ADJUSTING RING:** Shall be solid cast iron which fits in the standard city of Tulsa sanitary sewer manhole frame (Std. 352) and the standard manhole lid fits in the adjusting ring.

- **ADJUSTING RING SHALL CONFORM TO:** and be tested in accordance with the standard specification for gray iron castings ASTM A48. *AND DRAINAGE STRUCTURE CASTINGS, AASHTO DESIGNATION M306-89.*

- **CASTINGS SHALL BE CLASS 35-9 IRON AND UNPAINTED.**

- **THE CONTACT SURFACE BETWEEN MANHOLE RING AND MANHOLE FRAME AND THE CONTACT SURFACE BETWEEN MANHOLE RING AND MANHOLE LID SHALL BE MACHINED SMOOTH TO PREVENT ROCKING AND RATTLING.**

- **THE TWO (2) INCH MANHOLE ADJUSTING RING WHERE SPECIFIED SHALL HAVE A MINIMUM WEIGHT OF 70 POUNDS AND THE THREE (3) INCH MANHOLE ADJUSTING RING WHERE SPECIFIED SHALL HAVE A MINIMUM WEIGHT OF 100 POUNDS.**

### Notes (Continued):
- **MARKINGS ON ALL GRAY IRON CASTINGS SHALL CONFORM TO AASHTO DESIGNATION M306-89. (AASHTO M306-89 STATES: EACH CASTING SHALL BE IDENTIFIED BY THE FOUNDRY SHOWING: NAME OF FOUNDRY, COUNTRY OF MANUFACTURE, ASTM DESIGNATION NUMBER, CLASS BY A NUMBER FOLLOWED BY A LETTER INDICATING THE MINIMUM TENSILE STRENGTH AND SIZE OF TEST BAR, E.G. CLASS 35-B3, HEAT NUMBER AND DATE. NO OTHER WORDING OR MARKING OF ANY KIND OTHER THAN THOSE STATED ABOVE OR SHOWN ON THE PLAN WILL BE PERMITTED ON CASTINGS.**