| VERTICAL BENDS | | | | | | | | | | | | | | |
|----------------|----------|-----------------------------------|-------|-------|--------|-------|-------|-------|--------|--------|-------|--------|-------|-------|
| NOMINAL | TEST | BENDS LESS THAN OR EQUAL TO ANGLE | | | | | | | | | | | | |
| PIPE SIZE | PRESSURE | 11-1/4 | | | 22-1/2 | | | 45° | | | 90° | | | BENDS |
| (INCHES) | (PSI) | D | E | F | D | E | F | D | E | F | D | E | F | С |
| 6" | 200 | 1'-6" | 3'-0" | 1'-0" | 2'-0" | 4'-0" | 1'-0" | 3'-0" | 5'-6" | 1'-0" | 4'-0" | 7'-0" | 2'-0" | 8" |
| 8" | 200 | 2'-0" | 4'-0" | 1'-0" | 2'-6" | 5'-0" | 1'-0" | 3'-6" | 7'-0" | 2'-0" | 5'-0" | 10'-0" | 3'-6" | 10" |
| 10" | 200 | 2'-0" | 4'-6" | 1'-0" | 3'-0" | 6'-0" | 1'-6" | 4'-0" | 9'-0" | 3'-0." | 6'-0" | 12'-0" | 5'-0" | 1'-0" |
| 12" | 200 | 2'-6" | 5'-0" | 1'-0" | 3'-6" | 7'-0" | 2'-0" | 5'-0" | 10'-0" | 4'-0" | 7'-0" | 14'-0" | 7"-0" | 1'-0" |

| HORIZONTAL BENDS | | | | | | | | | | | | | | | | |
|------------------|-------|-----------------------|-------|-------|-------|-------|-------|--------|-----------------------------------|---------|-------|-------|-------|-------|-------|-------|
| NOMINAL | TEST | DEAD ENDS AND TEES | | | CROSS | | | Е | BENDS LESS THAN OR EQUAL TO ANGLE | | | | | | | |
| PIPE SIZE | | | | | | | | 11-1/4 | | 22-1/2* | | 45° | | 90° | | BENDS |
| (INCHES) | (PSI) | Α | В | С | Α | В | С | Α | В | Α | В | Α | В | А | В | С |
| 6" | 200 | 2'-6" | 1'-6" | 6" | 2'-0" | 1'-0" | 6" | 1'-0" | 1'-0" | 2'-0" | 1'-0" | 3'-0" | 1'-0" | 3'-6" | 1'-6" | 8" |
| 8" | 200 | 4'-6" | 1'-6" | 8" | 2'-0" | 1'-6" | 8" | 1'-6" | 1'-0" | 3'-0" | 1'-0" | 3'-6" | 1'-6" | 5'-0" | 2'-0" | 10" |
| 10" | 200 | 5'-6" | 2'-0" | 10" | 2'-6" | 2'-0" | 10" | 2'-0" | 1'-0" | 3'-0" | 1'-6" | 4'-0" | 2'-0" | 6'-0" | 2'-6" | 1'-0" |
| 12" | 200 | 7'-6" | 2'-0" | 1'-0" | 3'-6" | 2'-0" | 1'-0" | 2'-0" | 1'-6" | 3'-0" | 2'-0" | 4'-6" | 2'-6" | 7'-0" | 3'-0" | 1'-0" |

NOTES:

- 1. THRUST BLOCK SIZES ARE BASED ON A BEARING CAPACITY OF 1500 P.S.F., WITH A MINIMUM SOIL COVER OF 3'-0". IF SOIL COVER IS LESS THAN 3'-0", MULTIPLY BEARING AREA BY FACTOR OF 1.5 FOR SOIL COVER OF 2'-0" TO 3'-0", OR 3.0 FOR SOIL COVER OF 1'-0" TO 2'-0"
- 2. DIMENSIONS SHOWN REFER TO THRUST BLOCK TYPES SHOWN IN DETAIL, AND ARE MINIMUM VALUES ONLY.
- 3. CONCRETE MIX SHALL BE IN ACCORDANCE WITH SPECIFICATIONS FOR 3000 LBS. STRENGTH AT 28 DAYS WHEN TESTED IN ACCORDANCE WITH ASTM C39.
- 4. ALL THRUST BLOCKS SHALL BE POURED SOLIDLY AGAINST FIRM, UNDISTURBED SOIL.
- 5. IF SOILS HAVE BEEN PREVIOUSLY EXCAVATED AND BACKFILLED, CONTRACTOR SHALL NOTIFY THE ENGINEERING DIRECTOR, WHO MAY DIRECT THAT THE DIMENSIONS SHOWN SHALL BE INCREASED BY A FACTOR OF 1.5.
- 6. CONCRETE POURED AGAINST PIPE FITTINGS SHALL NOT EXTEND BEYOND THE FITTING JOINTS WITHOUT THE APPROVAL OF THE ENGINEERING DIRECTOR.
- 7. WHERE WATER MAIN DEAD ENDS AND IS BLIND FLANGED OR CAPPED, THE THRUST BLOCK SHALL EXTEND A MINIMUM DISTANCE OF 6" INTO THE SIDE OF TRENCH ON EITHER SIDE OF PIPE.

| | CITY OF TORRANCE | |
|-------------|--|--------------|
| DATE ISSUED | TUDUCT DUOCK COUEDUIE | STANDARD NO. |
| JAN 2011 | THRUST BLOCK SCHEDULE | T 713 |
| | ROBERT J. BESTE | 1 /13 |
| | PUBLIC WORKS DIRECTOR R.C.E. NO. 50737 | SHEET 2 OF 2 |