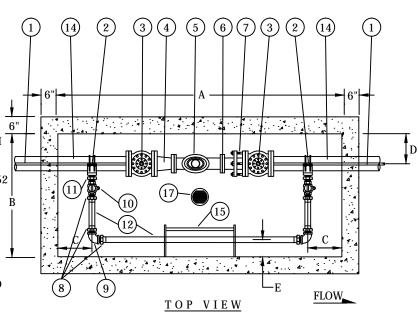
## MATERIAL LIST, COPPER BY-PASS

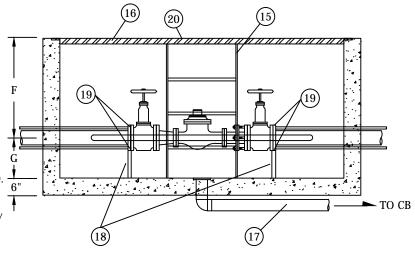
- 1 4-3/4" SHACKLE RODS (TOP & BOTTOM)
- 2) 2-2" ROMAC SADDLE
- 3 2-4" DI GATE VALVES, FL W/HW EQUAL TO M&H RESILIENT SEAT
- (4) 1-4"x3" REDUCER, FL (3" METER ONLY)
- 5 1-3" WATER METER (OR 4" AS REQ'D), INSTALLED EQUAL TO SENSUS OMNI C2 WITH 17" LAY LENGTH
- (6) 1-DI ADAPTER FL×PE, LENGTH TO FIT CLASS 52 3" WITH 3" METER
  - 4" WITH 4" METER
- (7) 1-DI COUPLE ADAPTER, FL, EQUAL TO ROMAC FCA 501 3"x4" WITH 3" METER
- (8) 6-2" MALE ADAPTERS, BRASS EQUAL TO FORD
- (9) 2-2", 90° ELBOWS, BRASS
- 1-BALL VALVE W/ PADLOCK WING EQUAL TO FORD
- (11) 2-2"x4" NIPPLE, BRASS
- (12) 2" RIDGE COPPER PIPE, TYPE K
- 13) PRE-CAST CONCRETE UTILITY VAULT EQUAL TO UTILITY VAULT CO. 675-LA
- (14) 4" DI PIPE, FL
- (15) LADDER W/ 1' RINGS
- 2 LOCKING STEEL COVERS EQUAL TO U.V. CO. 57TL-2-332P (SLIP RESISTANT FINISH)
- (17) 4" PVC DRAIN SYSTEM TO STORM SYSTEM W/ CHECK VALVE
- (18) PIPE SUPPORTS EQUAL TO STANDON MODEL S89
- (19) EYE BOLTS
- (20) BILCO TYPE LU-1 LADDER UP SAFETY POST

## NOTES:

- METER MUST READ IN HUNDREDS OF CUBIC FEET
- VAULT WILL BE PRECAST W/ BOTTOM
- ALL PIPES & FITTINGS 4" AND LARGER SHALL BE CEMENT LINED
- PIPING FROM MAIN TO VAULT SHALL BE 4" ON 3" METER INSTALLATIONS
- TAPPING TEE WITH VALVE AS PER STANDARD DETAIL W.06 REQUIRED ON EXISTING MAINS
- 4" PVC DRAIN SYSTEM REQUIRED
- PIPE SUPPORTS TO BE ANCHORED TO FLOOR & BOLTED TO VALVES
- OUTSIDE VAULT SHACKLE BACK TO APPROPRIATE LOCATION BASED ON CONDITION



LAST REVISED:01/2019



## SIDE VIEW

| VAULT DIMENSIONS AND PIPE PLACEMENT |    |    |    |     |    |       |    |
|-------------------------------------|----|----|----|-----|----|-------|----|
| ITEM                                | A  | В  | С  | D   | Е  | F     | G  |
| DIMENSION                           | 7' | 4' | 6" | 12" | 6" | 2'-8" | 1' |

## CITY OF KIRKLAND

PLAN NO. CK-W.20



3" & 4" WATER METER SERVICE INSTALLATION