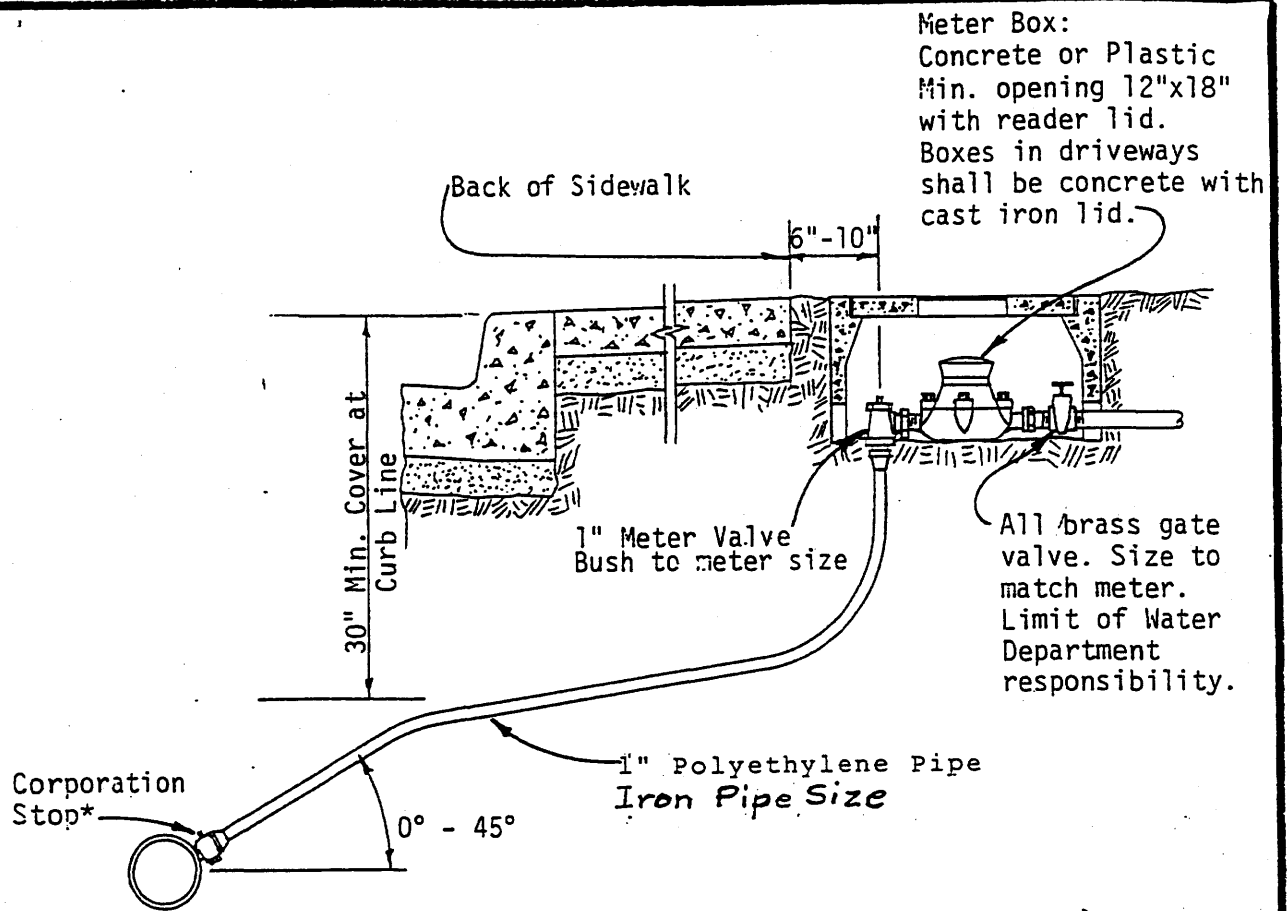


**CITY OF COACHELLA
PUBLIC WORKS DEPARTMENT**

**IMPROVEMENT
STANDARDS
FOR
WATER**

APRIL 1995



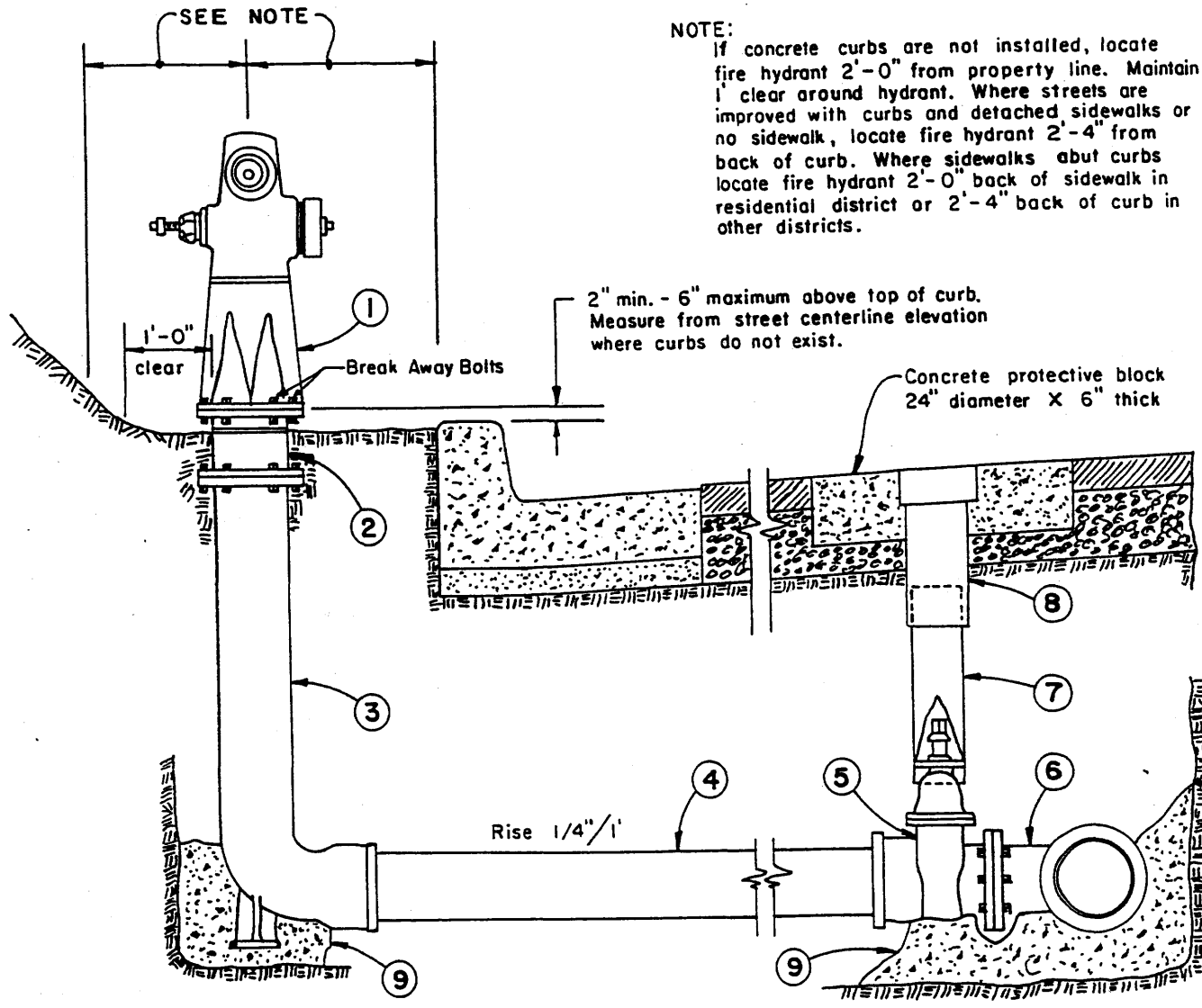
Meter Box:
 Concrete or Plastic
 Min. opening 12"x18"
 with reader lid.
 Boxes in driveways
 shall be concrete with
 cast iron lid.

Asbestos-Cement coupling with threaded brass insert, cast-iron tapped coupling, cast-iron tapped tee or cast-iron tapped cross shall be used in new installations. New services shall be placed not more than 10 feet from the centerline of the lot to be served. Connection to existing mains shall be made with all-bronze double strap saddle.

1. No service shall be located or relocated to end in a driveway.
2. Where no sidewalk exists the curb stop shall be located not more than 4' - 6" from the property line.
3. In areas where the sidewalk extends from the back of curb to the property line 1/4" black felt shall be used around the meter box to separate it from the sidewalk.
4. Only complete service installations, including meter stop and meter box, shall be installed.
5. Meter shall be of the size specified by the customer and shall have a brass chamber body. Manufacture shall be by ~~Badger, Hersey, Neptune~~ or approved equal.

* Meter valve and corporation stop shall be Ford, James Jones, Hays, Mueller, or approved equal. Meter valve shall be lockable.

CITY OF COACHELLA		
TYPICAL WATER SERVICE FOR 1", 3/4", & 5/8"x3/4" METERS		
APPROVED BY: <i>CA [Signature]</i> CITY ENGINEER	DATE <i>11-21-74</i>	STANDARD DRWG. NO. W-1



Item No.	Description	Specification
* 1	Fire Hydrant - 6" wet barrel with two 2 1/2" & one 4" outlet	AWWA C 503
2	Hydrant Riser - length as needed, 4", 6", 8", 10", or 12"	
3	Hydrant Bury with Ring-Tite connection	
4	Asbestos-Cement Pipe - Class 150 - Length as needed or P.V. C. Pipe	AWWA C 400 or AWWA C 900
5	Gate or Butterfly Valve - Ring Tite X Flange	AWWA C 500 or C 504
6	Main size X 6" tee - Cast Iron, cement lined	AWWA C 110
7	Valve Box Extension - slip type (Steel)	
8	Valve Box - Rich slip type (Steel)	
9	Concrete Thrust Blocks - See Dwg. W-4 for bearing areas	

REVISED DATE: MARCH 30, 1988

James P. Fitch
FIRE DEPARTMENT
ENGINEERING DIVISION

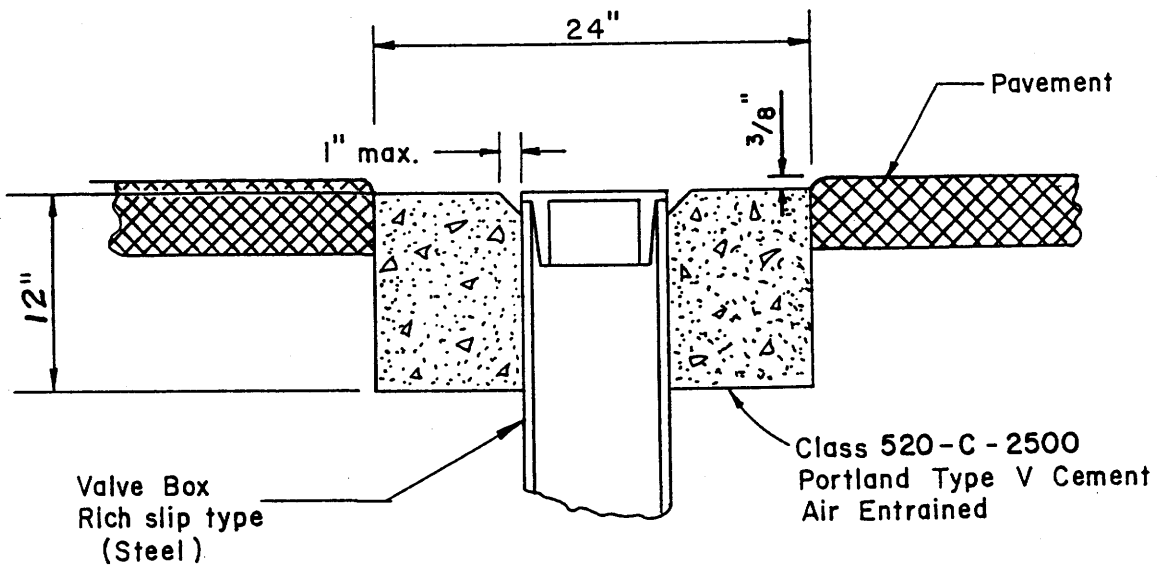
* HYDRANT TO BE JONES MODEL NO. J-3765 OR L.B. IRON WORKS MODEL B-130

CITY OF COACHELLA
DEPARTMENT OF PUBLIC WORKS

APPROVED BY:
Wm. H. Fitch 9/27/82
CITY ENGINEER RCE 12571 DATE

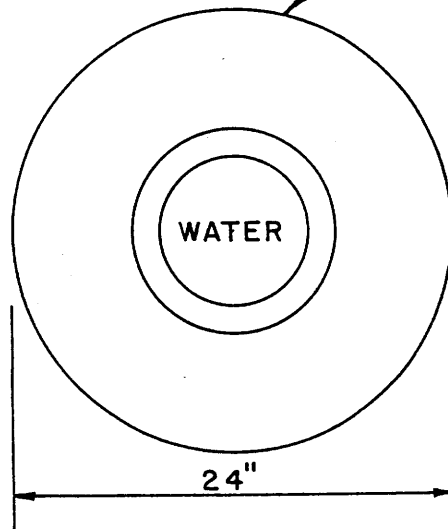
FIRE HYDRANT DETAIL

STD. DWG. W-2A



CROSS SECTION

REQUIRED IN TRACT TOO CONCRETE TO RECEIVE A LIGHT BROOM FINISH



PLAN

NOTE: Detail for adjusting and raising existing water valve covers.
For new installation see Std. dwg. W-2A.

REVISED Date: _____

CITY OF COACHELLA
DEPARTMENT OF PUBLIC WORKS

APPROVED BY:
Henry Hill 10-11-83
CITY ENGINEER RCE 34786 DATE

WATER VALVE COVER DETAIL

STD. DWG. W-2A-1

R/W or P/L

16" x 16" or 16" Ø
Concrete Footing

1/4" Thick x 4" Ø
Steel Pipe
(Typical)

SEE NOTE ON STANDARD DRAWING W-2A

2' - 0"

Fire Hydrant

1' - 4"

4" Opening

1' - 4"

3' - 0"

3' - 0"

Edge of Pavement or Traveled Way

IS O.K. TO PUT 4

NOTE:

PROTECTION NOT REQUIRED WHERE CURB
OR OTHER PHYSICAL OBSTRUCTION IS PROVIDED.

John M. Pios 5-10-83
FIRE CHIEF DATE

CITY OF COACHELLA

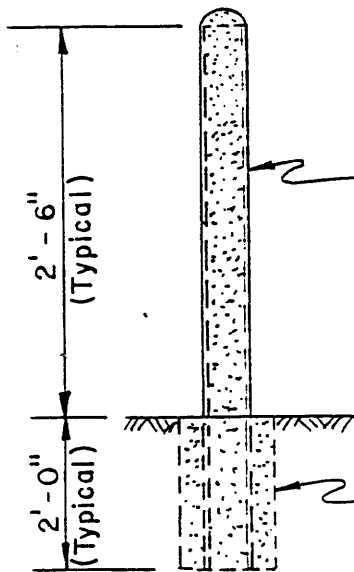
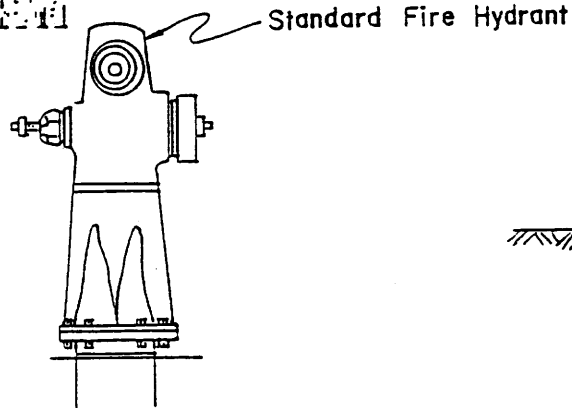
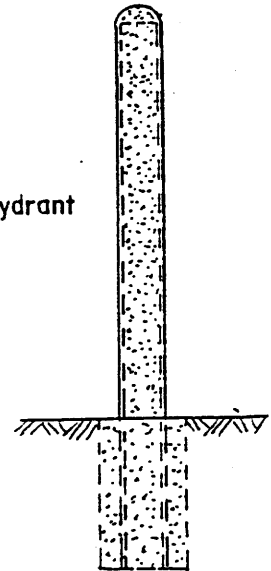
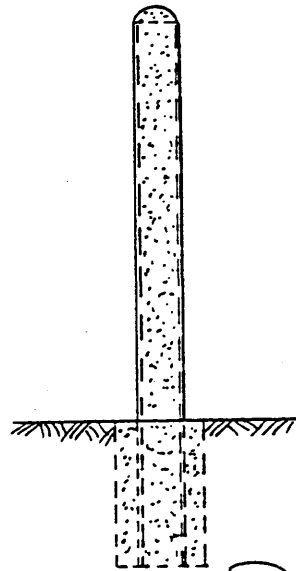
DEPARTMENT OF PUBLIC WORKS

APPROVED BY:

W. Kemp Hill 5-9-83
CITY ENGINEER RCE 34786 DATE

STD. FIRE HYDRANT PROTECTION

STD. DWG. W-2B-1



1/4" Thick x 4" Ø Steel Pipe Filled with concrete. (Typical)

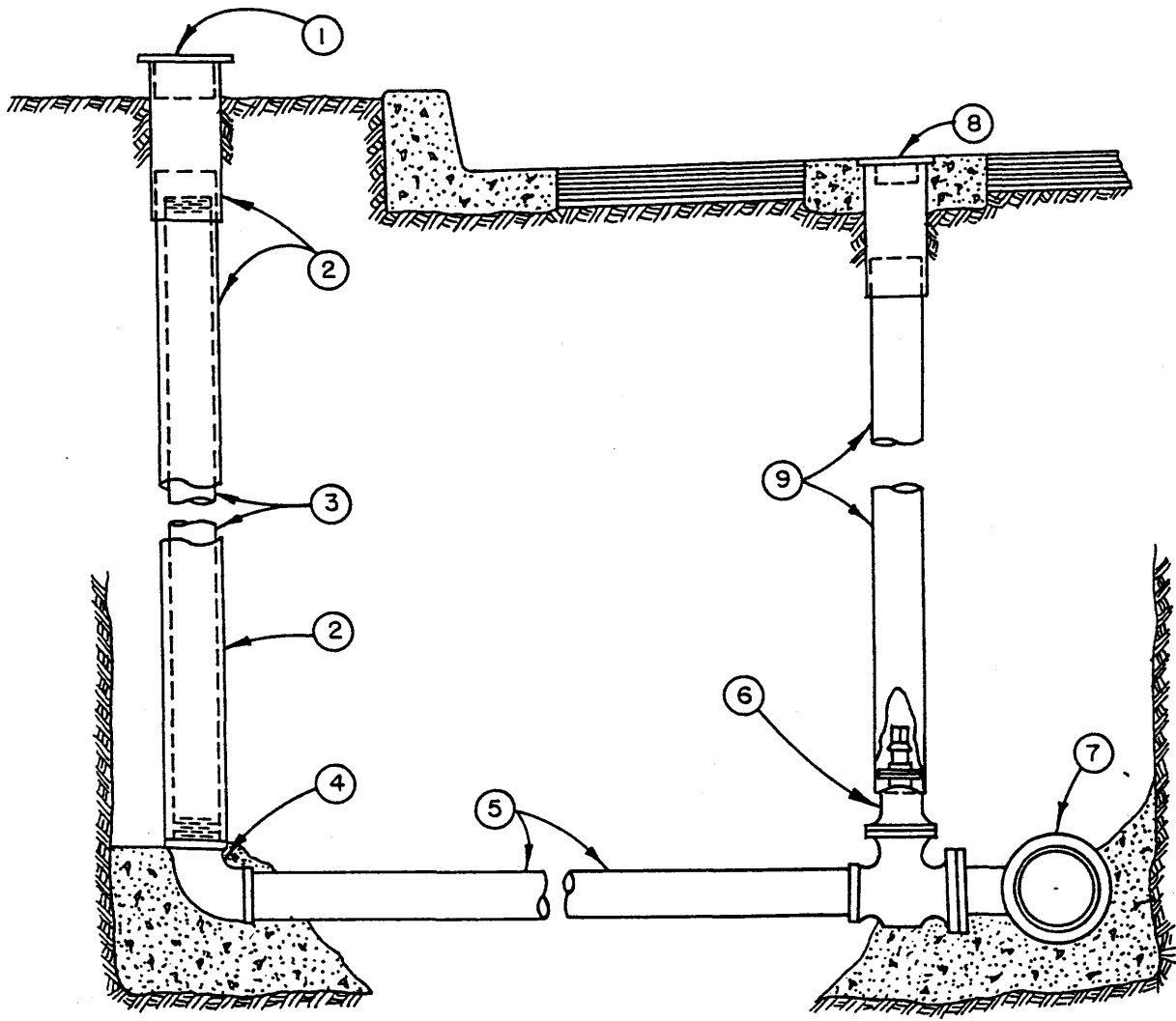
16" x 16" or 16" Ø Concrete Footing (Typical)

John M. Dias
FIRE CHIEF 5-10-83
DATE

CITY OF COACHELLA
DEPARTMENT OF PUBLIC WORKS

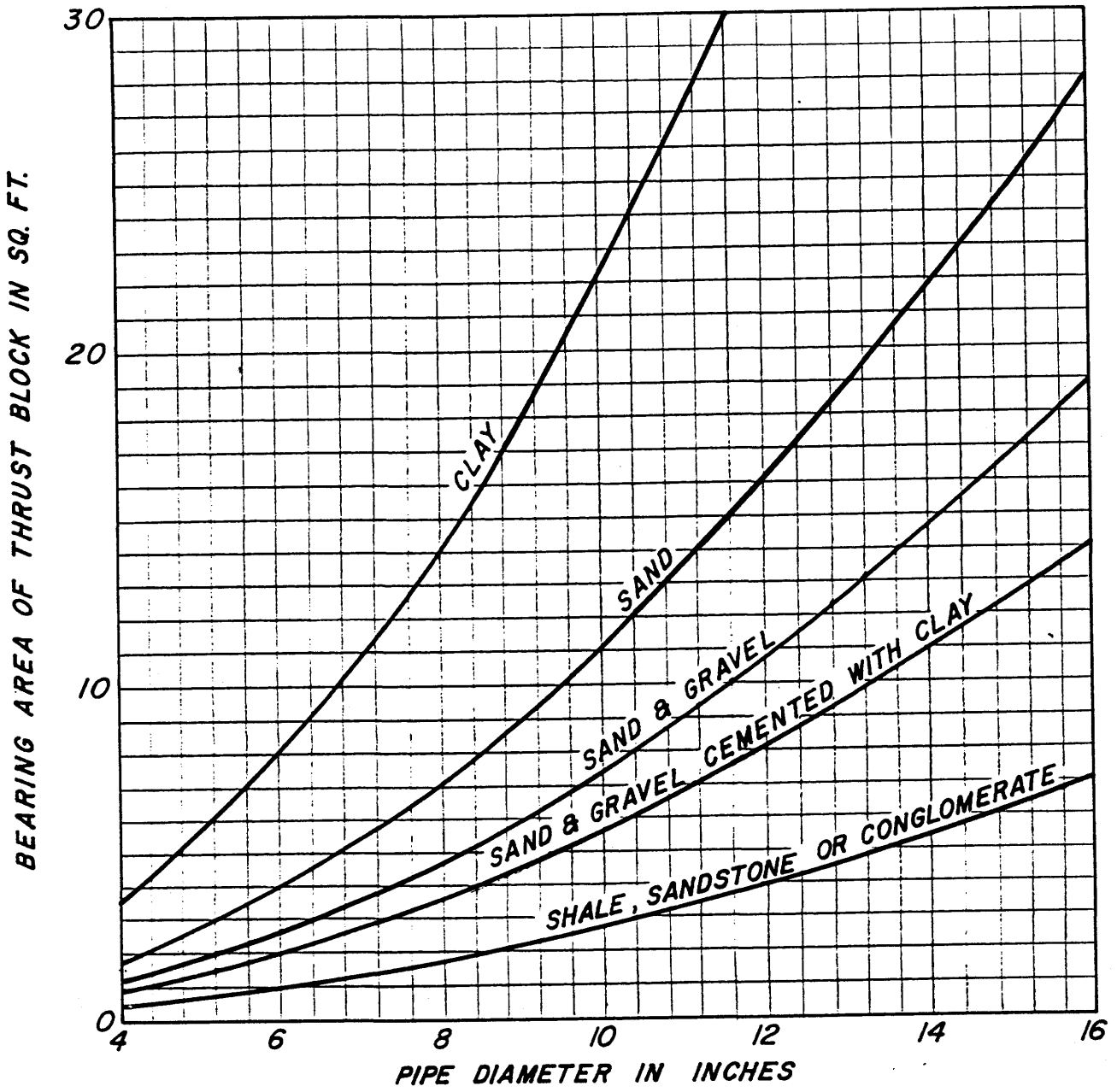
APPROVED BY
A. Hernandez 5-9-83
CITY ENGINEER RCE 34786 DATE

STD. FIRE HYDRANT PROTECTION STD. DWG. W-2B-2



ITEM	NO.	DESCRIPTION	REMARKS
1	1	10" GATE WELL CAP	MARKED "WATER"
2	1	10" GATE WELL	BROOKS PROD. INC. NO. 3-RT
3	1	4" x REQUIRED LENGTH, STD. MALLEABLE IRON	GALVANIZED
4	1	4" 90° ELBOW	THREADED x RING TITE
5	1	4" ASBESTOS CEMENT PIPE	CLASS 150
6	1	4" GATE VALVE	MUELLER A-2380-5
7	1	CAST IRON TEE	
8	1	6" GATE WELL CAP	MARKED "WATER"
9	1	6" GATE WELL	BROOKS PROD. INC. NO. 1-RT

<p>CITY OF COACHELLA PUBLIC WORKS DEPARTMENT</p> <p>4" BLOWOFF ASSEMBLY</p>	<p>APPROVED BY:</p> <p><i>[Signature]</i></p> <p>CITY ENGINEER R.C.E.</p>
	<p>DRAWN BY: R.E.S.</p> <p>STD. DWG. NO. W-3</p>



NOTES:

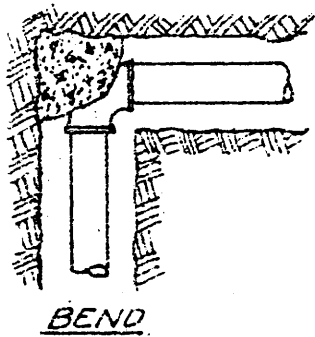
1. VALUES FROM CURVES ARE FOR TEES & DEAD ENDS
 FOR 90° BEND: 1.40 VALUE FROM CURVE
 FOR 45° BEND: 0.80 VALUE FROM CURVE
 FOR 22.50° BEND: 0.40 VALUE FROM CURVE
2. FOR LOCATION OF THRUST BLOCK SEE STD. DRAWING W-5.
3. BASED ON 100 PSI. TEST PRESSURE AND BEARING VALUES OF DRY SOILS.

CITY OF COACHELLA
 DEPARTMENT OF PUBLIC WORKS

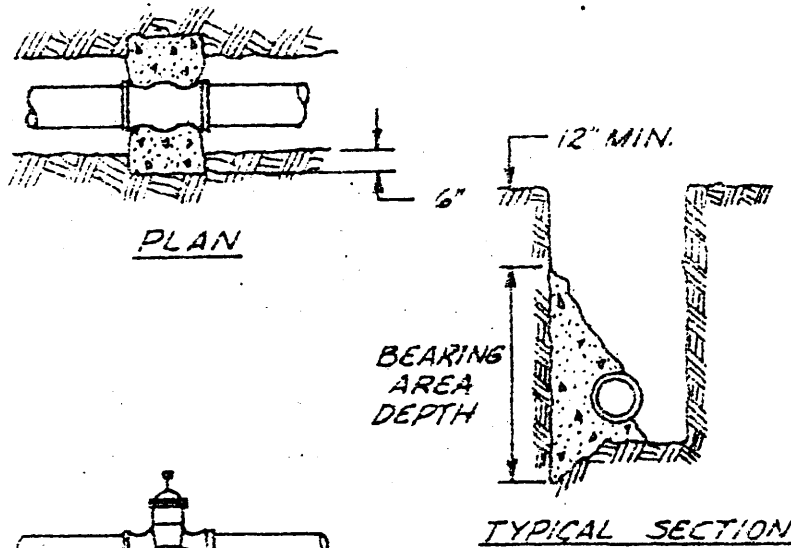
APPROVED BY:
D. Humphreys 8-20-84
 CITY ENGINEER RCE 34786 DATE

THRUST BLOCK BEARING AREAS

STD. DWG. W-4

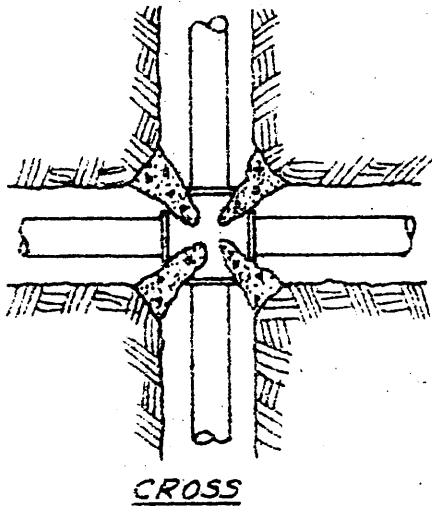


BEND

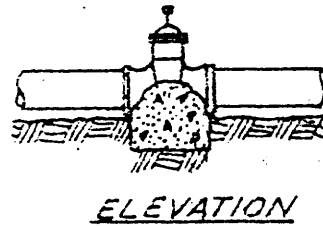


PLAN

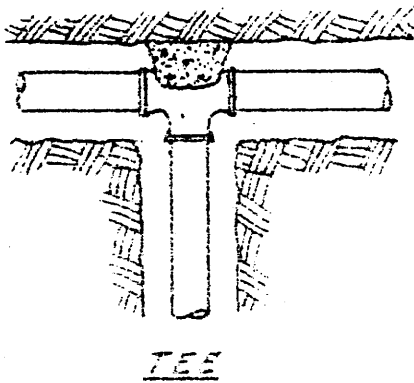
TYPICAL SECTION



CROSS



ELEVATION

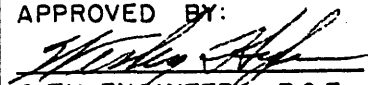


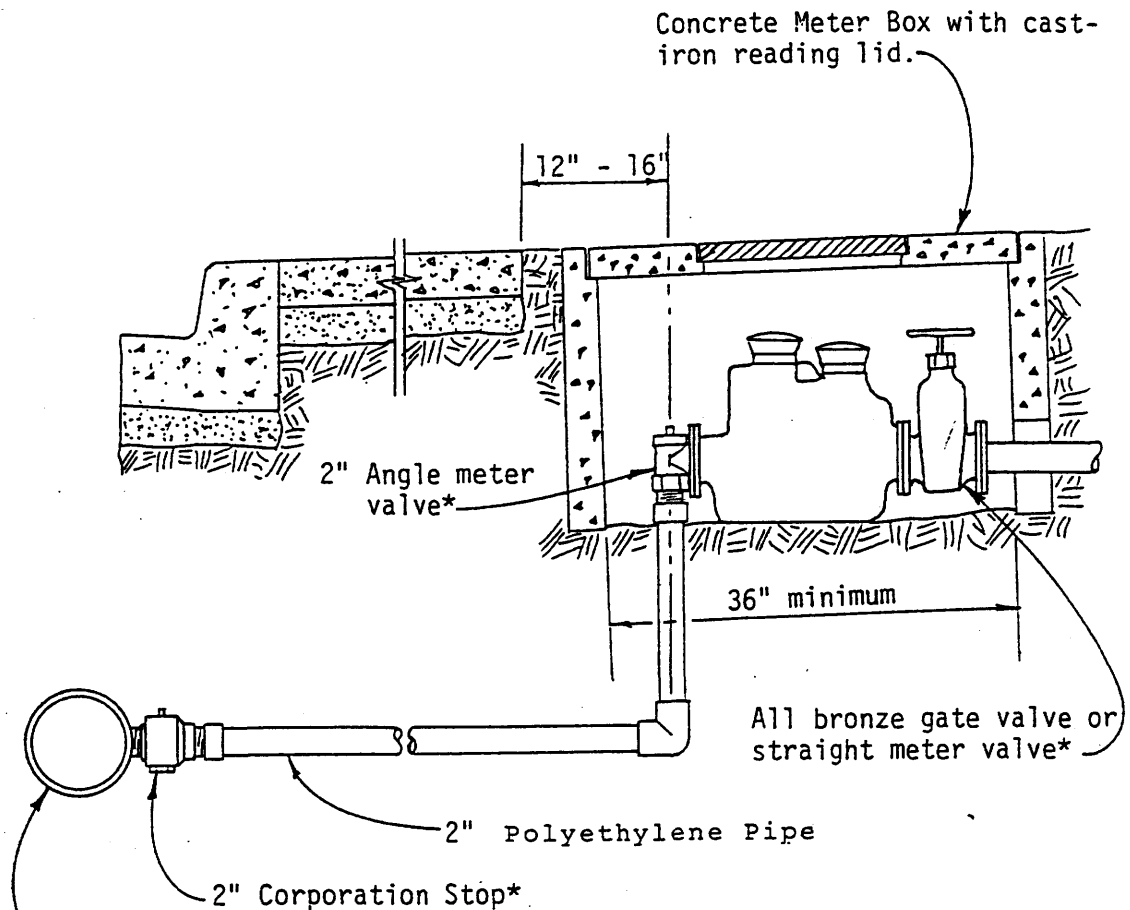
TEE

NOTE: ALL THRUST BLOCKS SHALL BE
 PLACED AGAINST UNDISTURBED SOIL.
 FOR BEARING AREAS SEE DETAIL
 DRAWING W-4

CITY OF COACHELLA
 PUBLIC WORKS DEPARTMENT

CONCRETE THRUST BLOCKS

APPROVED BY:

 CITY ENGINEER R.C.E.
 DRAWN BY: R.E.S. STD. DWG. NO. W-5



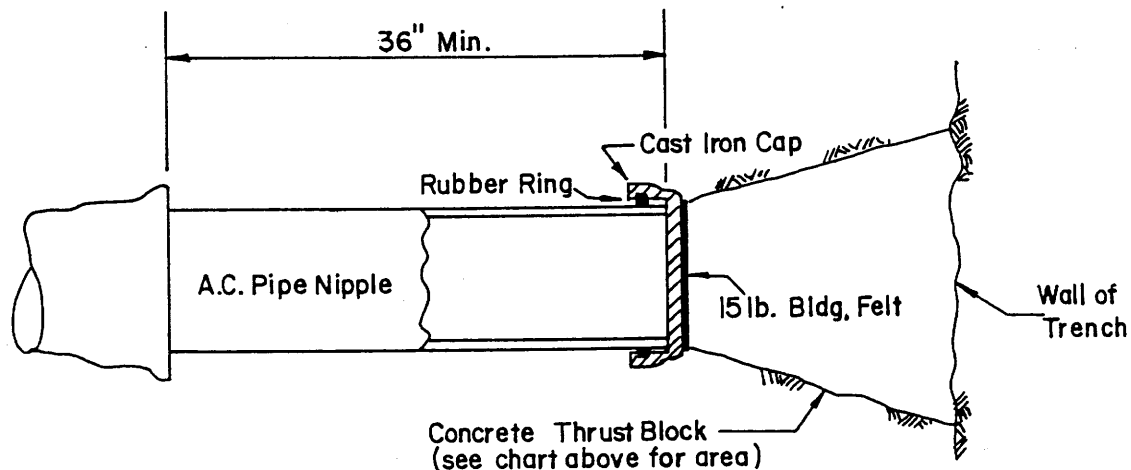
Cast-iron tapped tee, tapped cross, or tapped coupling shall be used when service is to be installed at the time of main line installation. All-bronze double-strap saddle shall be used for connection to existing mains. Location shall be as directed by the Superintendent of Public Works.

1. No service shall be located or relocated to end in a driveway.
 2. Where no sidewalk exists, the angle meter valve shall be located not more than 4'-0" from the property line.
 3. In locations where the sidewalk extends from the back of curb to the property line 1/4" black felt shall be used to separate the meter box from the sidewalk.
 4. Only complete service installations, including meter valve and meter box shall be installed.
 5. Meter shall be of the size specified by the customer and shall be of all brass construction. Manufacture shall be by ~~Hersey, Neptune,~~ *SEWIS* or approved equal.
- * Corporation stop and meter valves shall be Ford, James Jones, Hays, Mueller or approved equal.

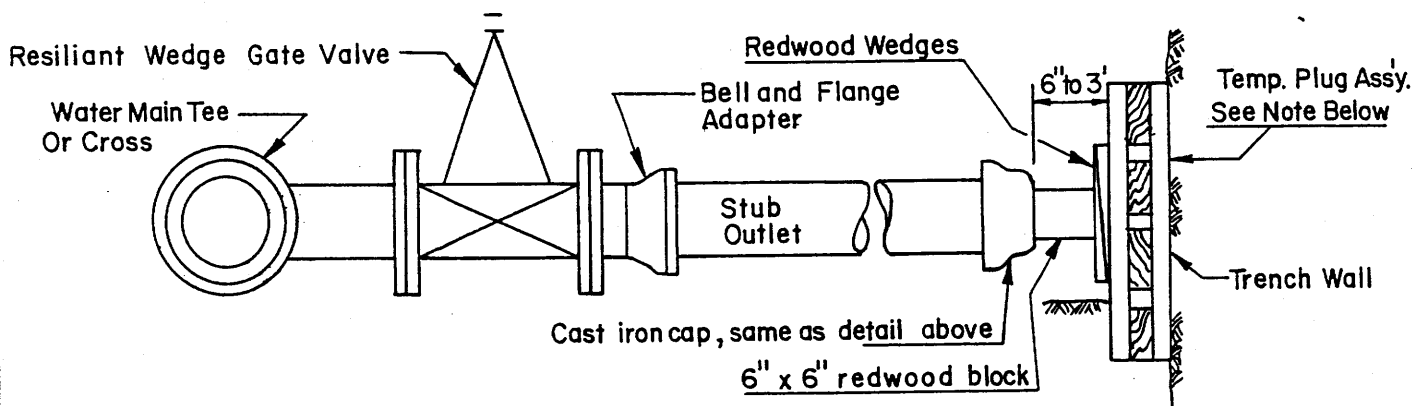
CITY OF COACHELLA		
TYPICAL WATER SERVICE FOR 1-1/2" & 2" METER INSTALLATIONS		
APPROVED BY: <i>C. J. [Signature]</i> CITY ENGINEER	DATE 11-22-74	STANDARD DRWG. NO. W-6

SIZE OF PIPE	4"	6"	8"	10"	12"
BEARING AREA IN SQUARE FEET	3	5	8	12	17

THRUST BLOCK DATA



DETAIL OF PLUG ASSEMBLY



TEMPORARY PLUG ASSEMBLY

NOTE: At temporary plug installations, in place of concrete thrust block, use grillage made of 2" x 6" redwood blocks, dimensions as follow:

Width = Width of trench plus 16"

Thickness = 6"

Height =

6" Pipe = 1' - 3"
 8" Pipe = 2' - 0"
 10" Pipe = 3' - 0"

CITY OF COACHELLA

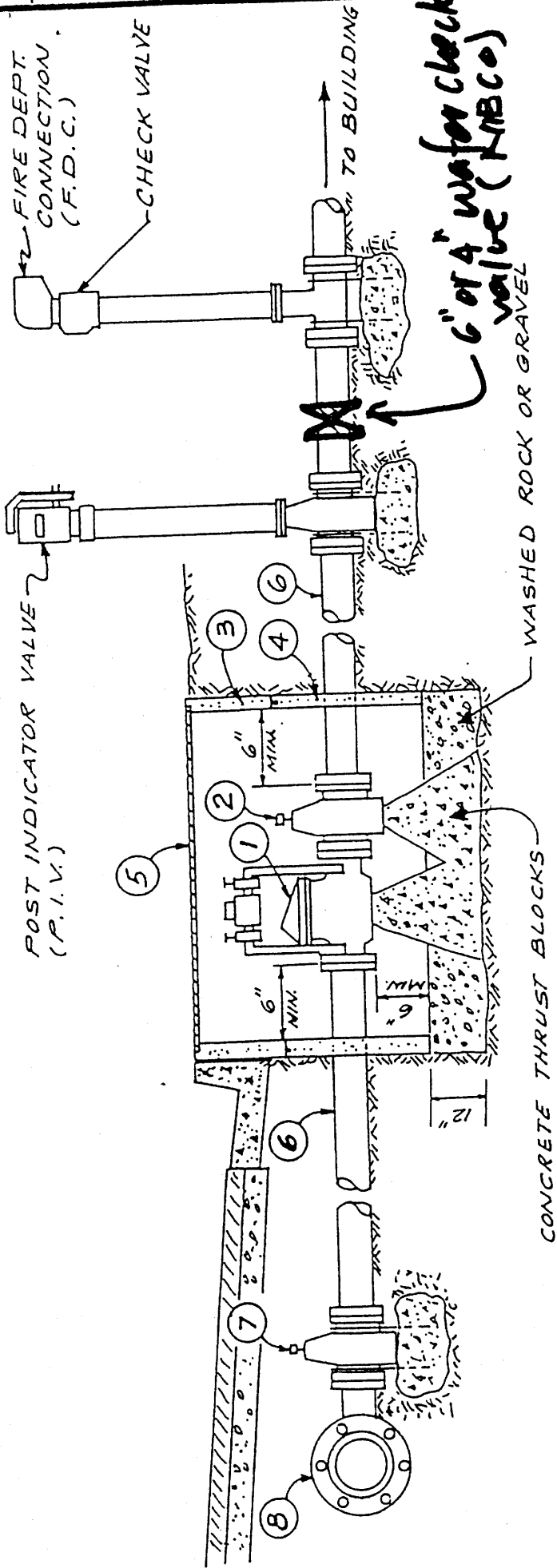
DEPARTMENT OF PUBLIC WORKS

APPROVED BY:

D. Hampshire 8-20-84
 CITY ENGINEER RCE 34786 DATE

WATER MAIN PLUG ASSEMBLY STDS.

STD. DWG. W-7



6" or 4" wafer check valve (HBCO)

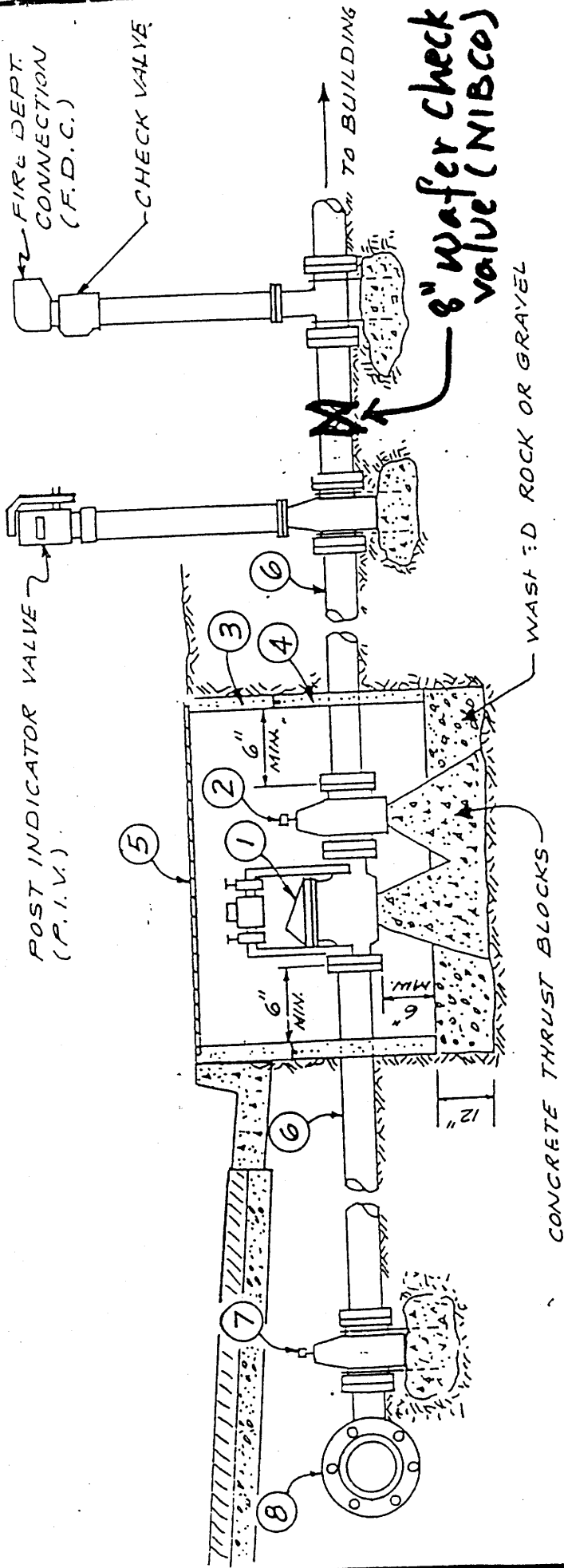
ITEM NO.	SIZE AND DESCRIPTION	MATERIAL SPECIFICATIONS
1	4" OR 6" DETECTOR CHECK WITH 3/8" BY-PASS METER	MUELLER A-2130-6 OR APPROVED EQUAL
2	4" OR 6" RESILIENT SEAT GATE VALVE, FLANGED X MECHANICAL JOINT	MUELLER A-2370-16 OR APPROVED EQUAL
3	2'-6" X 4'-0" UTILITY BOX TOP SECTION	BROOKS W-200 SERIES
4	2'-6" X 4'-0" UTILITY BOX WITH 4" WALLS	BROOKS 200 -20
5	2'-6" X 4'-0" UTILITY BOX COVER	PVC, CML/CMC, DUCTILE IRON PIPE
6	4" OR 6" X REQUIRED LENGTH OF PIPE, FLANGED AND/OR MECHANICAL JOINT EACH END	MUELLER A-2370-16 OR APPROVED EQUAL
7	4" OR 6" RESILIENT SEATED GATE VALVE, FLANGED X MECHANICAL JOINT	DUCTILE IRON OR APPROVED EQUAL
8	MAIN SIZE X 4" OR 6" TEE	

CITY OF COACHELLA
 Department of Public Works

DRAWN BY: J.G.E. APPROVED BY: Gary W. Pike Date: 12/1/90

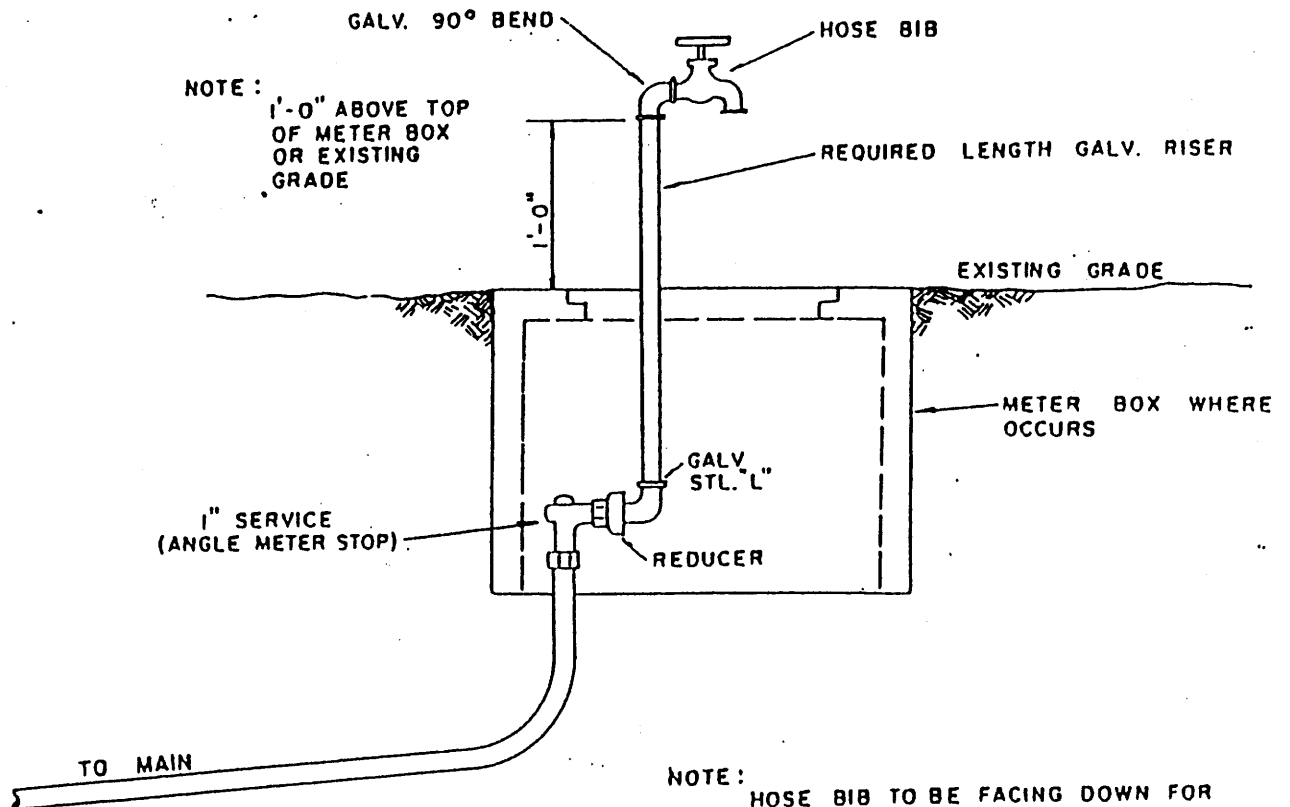
DATE: NOV. 27, 1990 City Engineer RCE 33441 Exp. 6.30.94

SCALE: NONE FIRE DETECTOR CHECK ASSEMBLY (4" OR 6" D.C.) STD. DWG. W-8



ITEM NO.	SIZE AND DESCRIPTION	MATERIAL SPECIFICATIONS
1	8" DETECTOR CHECK WITH 5/8" BY-PASS METER	MUELLER A-2130-6 OR APPROVED EQUAL
2	8" RESILIENT SEAT GATE VALVE, FLANGED X MECHANICAL JOINT	MUELLER A-2370-16 OR APPROVED EQUAL
3	3'-0" X 5'-0" UTILITY BOX TOP SECTION	BROOKS W-400 T.
4	3'-0" X 5'-0" UTILITY BOX WITH 4 1/2" WALLS	BROOKS W-400 SERIES
5	3'-0" X 5'-0" UTILITY BOX COVER	BROOKS 400 -20
6	8" X REQUIRED LENGTH OF PIPE, FLANGED AND/OR MECHANICAL JOINT	PVC, CML/CMC, DUCTILE IRON PIPE
7	8" RESILIENT SEATED GATE VALVE, FLANGED X MECHANICAL JOINT	MUELLER A-2370-16 OR APPROVED EQUAL
8	MAIN SIZE X 8" TEE	DUCTILE IRON OR APPROVED EQUAL

DRAWN BY: <u>J.G.E.</u> DATE: <u>NOV. 27, 1990</u>	APPROVED BY: <u>Gary W. Fike</u> City Engineer RCE 33441 EXP 6-30-94	12/1/90 Date
		STD. DWG. W-9
CITY OF COACHELLA Department of Public Works		FIRE DETECTOR CHECK ASSEMBLY (8" D.C.)



NOTE:
1'-0" ABOVE TOP
OF METER BOX
OR EXISTING
GRADE

NOTE:
HOSE BIB TO BE FACING DOWN FOR
SAMPLE COLLECTION

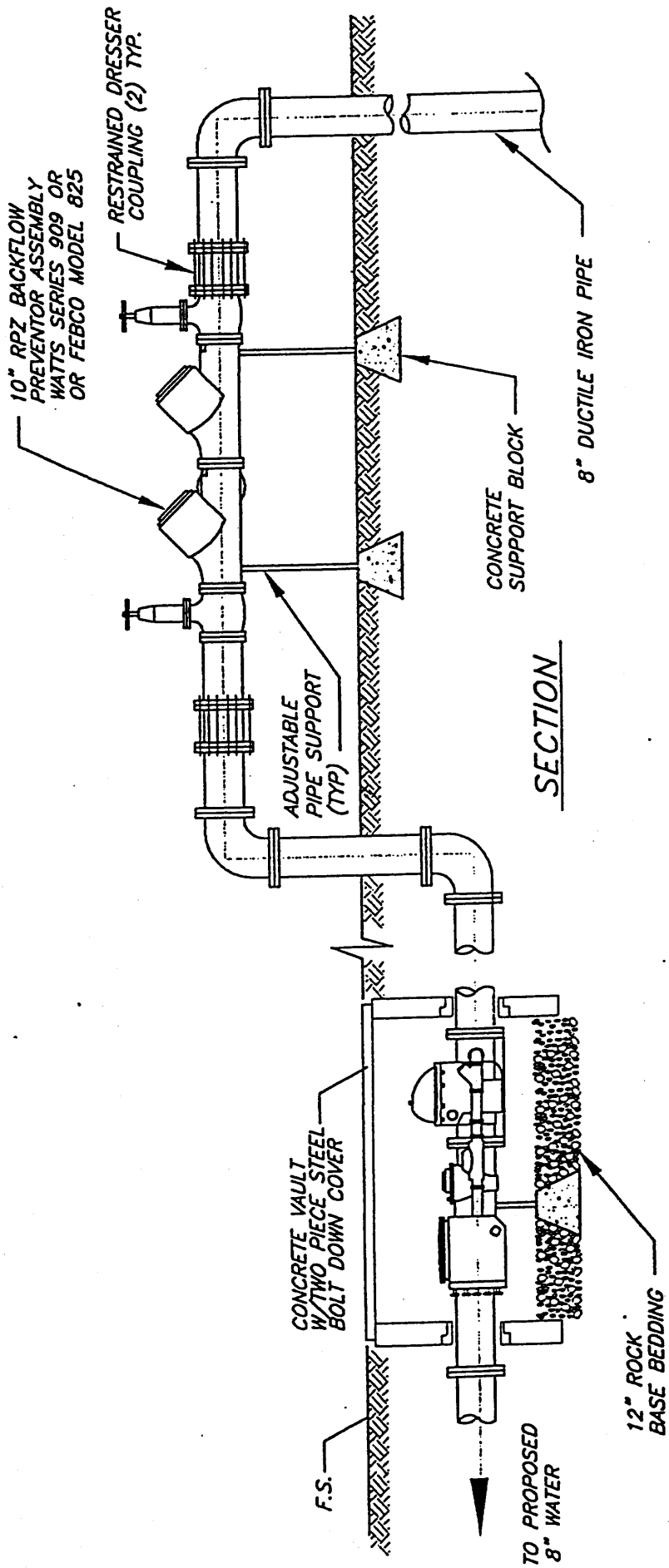
CONTRACTOR TO TURN ANGLE METER
STOP TO ON POSITION AFTER
INSTALLATION OF SAMPLE RISER

CITY OF COACHELLA
DEPARTMENT OF PUBLIC WORKS

APPROVED BY:
John E. Curtis 5/12/95
CITY ENGINEER RCE 17822 DATE

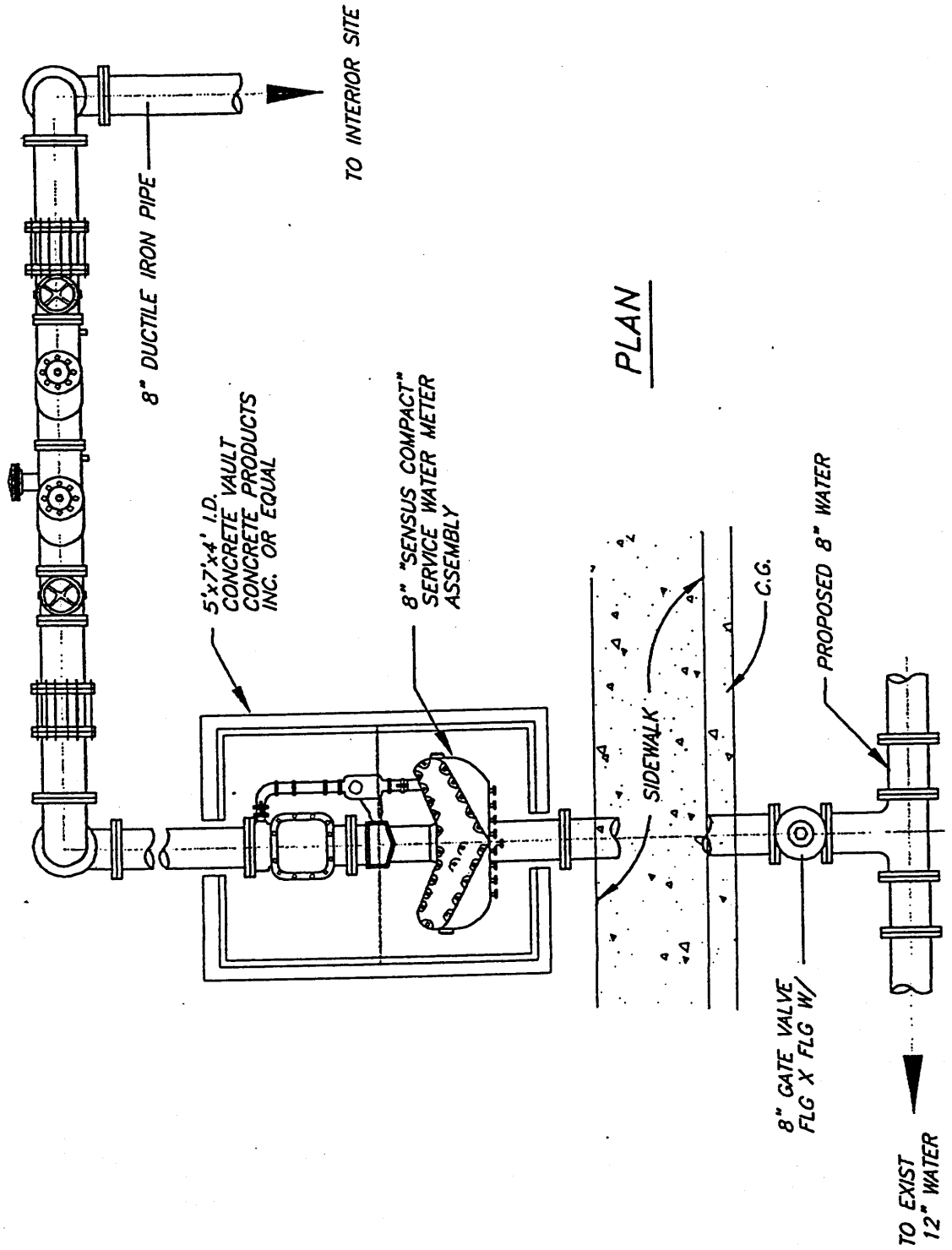
TEMPORARY BACTERIA-SAMPLE RISER
DETAILS

STD. DWG. W-10



COMPACT SERVICE METER BACKFLOW PREVENTOR ASSEMBLY

N.T.S.



8" DUCTILE IRON PIPE

TO INTERIOR SITE

5'x7'x4' I.D.
CONCRETE VAULT
CONCRETE PRODUCTS
INC. OR EQUAL

8" "SENSUS COMPACT"
SERVICE WATER METER
ASSEMBLY

PLAN

SIDEWALK

C.G.

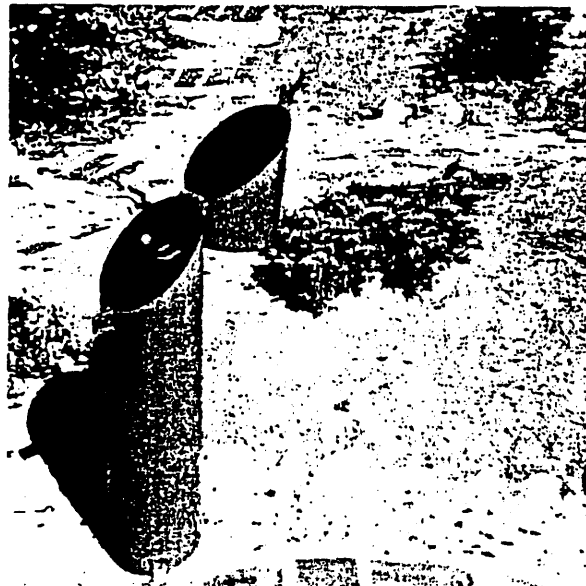
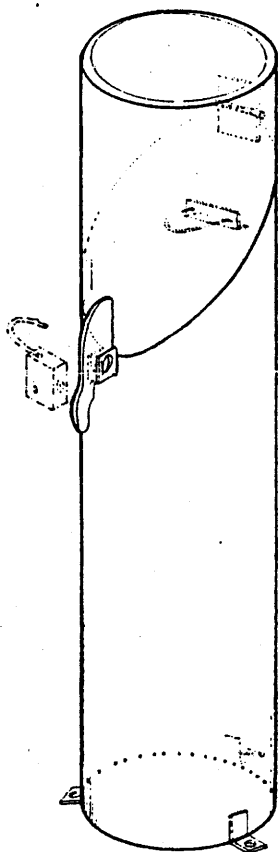
PROPOSED 8" WATER

8" GATE VALVE
FLG X FLG W/

TO EXIST
12" WATER

WATER TEST STATION COVER

PART NUMBER - WTS-858



FEATURES -

- ★ 36 IN. OVERALL HEIGHT
- ★ 12 GA STEEL
- ★ CUT FROM TUBING
- ★ 8 $\frac{3}{8}$ IN. OUTSIDE DIAMETER
- ★ LOCK - ALIGNMENT LATCH
- ★ INSIDE MOUNT & U-BOLT FOR VALVE
- ★ $\frac{1}{2}$ IN. HOLES IN THE THREE LEG MOUNT
- ★ 180° LID OPENING FOR EASY ACCESS

PIPELINE PRODUCTS

DIV. RAY HIGLEY WELDING

1650 W. Linda Vista Dr. Suite 110 San Marcos, CA

(619) 744-8907

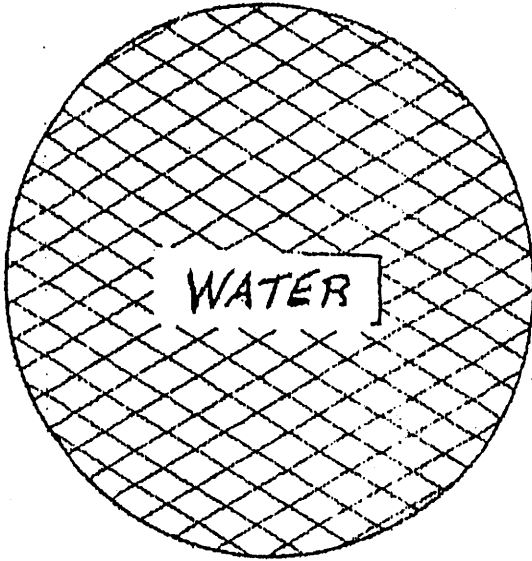


South Bay Foundry

P.O. Box 1256 • National City, CA 92050 • Telephone: (714) 474-8481
P.O. Box 3308 • Hayward, CA 94540 • Telephone: (415) 887-1836

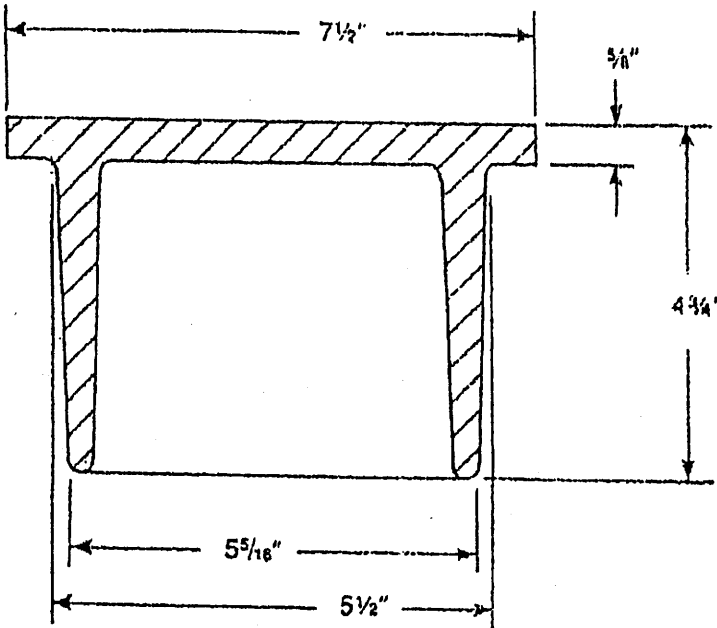
OR VALVE BOX

B 51



6" Gate Cap

Weight 14 Lbs



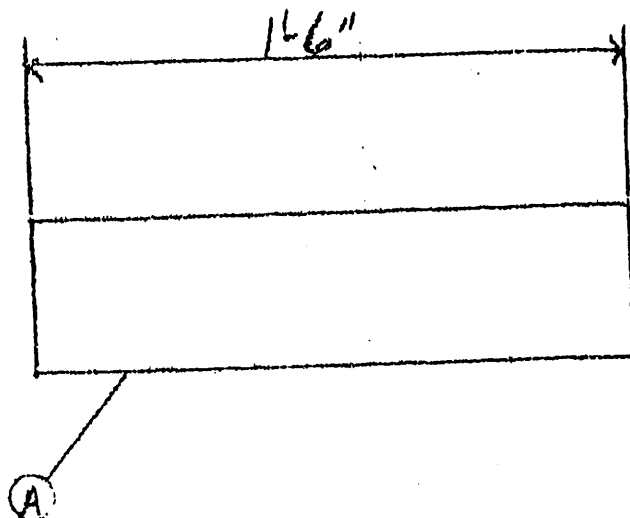
APPROVED
By: _____
Title: _____
Agency: _____
Date: _____
COMMENTS

General Information

- All materials used in MFG. shall conform to ASTM 48-30.
- Castings shall be dipped in black bituminous paint.
- Standard markings available "WATER", "SEWER", "GAS" or as required designation.

LIST OF MATERIALS

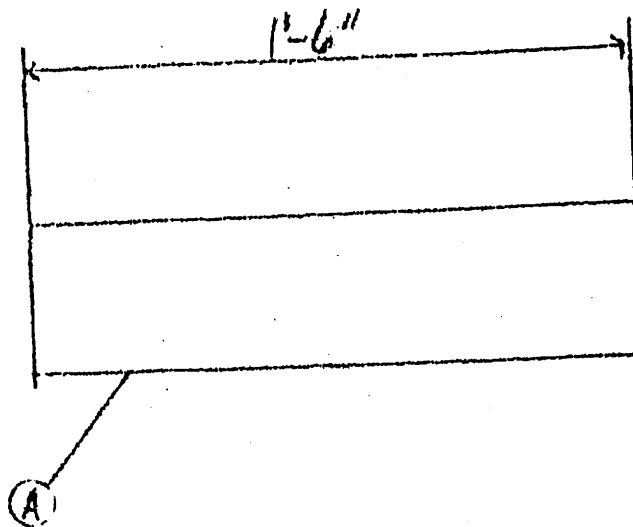
ITEM	QTY	DESCRIPTION
A		6 5/8" OD 10GA. STEEL PIPE PER FE




		DESCRIPTION			
finishing:	HERMALT	thkns:	8-10 mils	type:	BLACK JACK # 6025
coating:	ASPHALT	thkns:	8-10 mils	type:	" " "
job: COACHELLA VALLEY WATER DIST				scheduling:	qty
cust: PARSON PIPELINE				wt. ea:	spool
date: 1-2-61				checked by:	rev
scale: 1" = 10'				drawn by:	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> 1/5 </div>

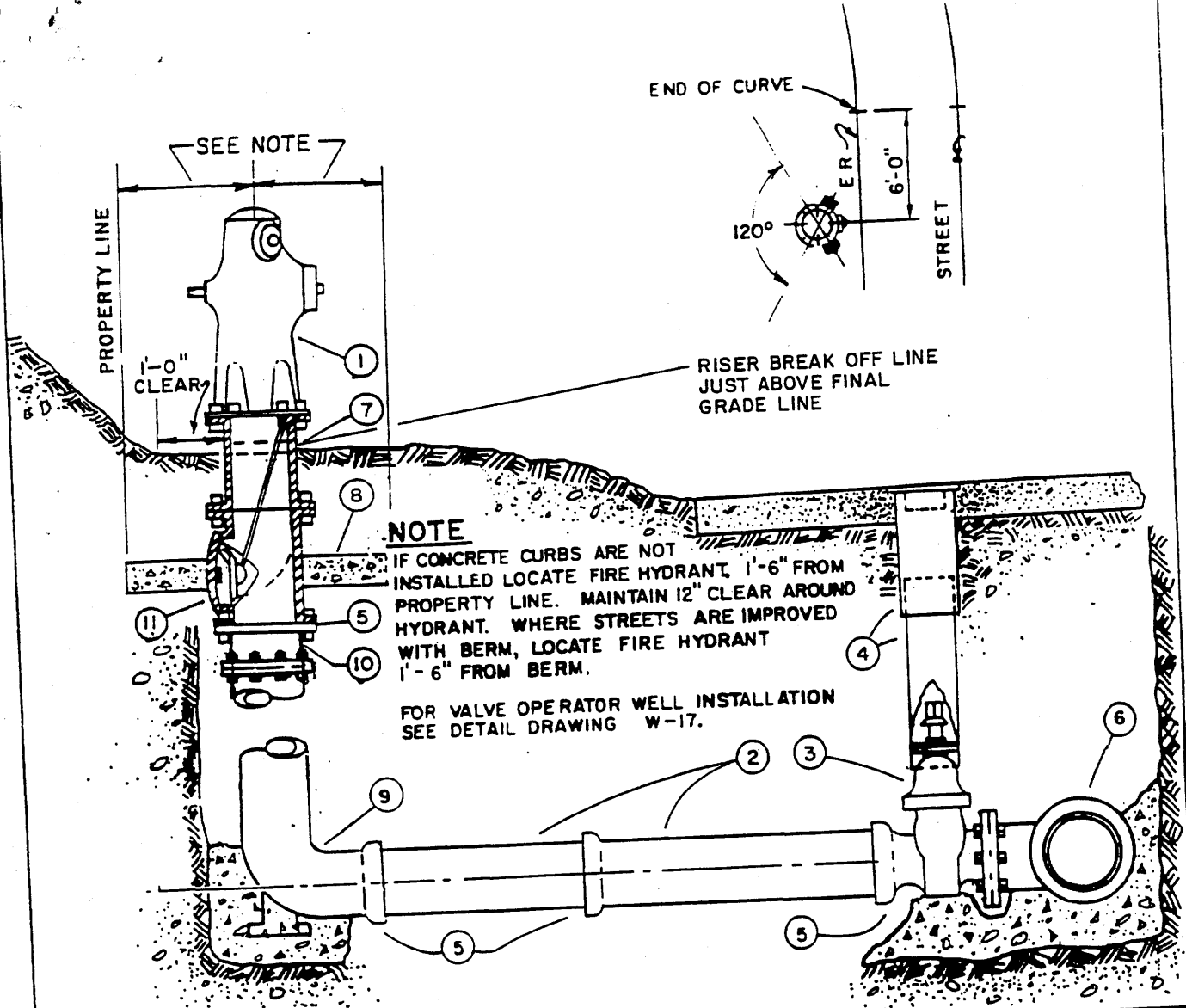
LIST OF MATERIALS

ITEM	QTY	DESCRIPTION
A		6" OD 10GA STEEL PIPE PER FE



		DESCRIPTION

lining: ASPHALT	thkns: 8-10 mil's	type: BLACK JACK # 6025	spec: _____
coating: ASPHALT	thkns: 8-10 mil's	type: " " "	spec: _____
job: COACHELLA VALLEY WATER DIST.		scheduling: _____	qty: _____
CUST: PARSON PIPELINE		wt. ea: _____	spool: 
date: 1-8-57	scale: 1/4" = 1'-0"	checked by: _____	rev: _____



NOTE
 IF CONCRETE CURBS ARE NOT INSTALLED LOCATE FIRE HYDRANT 1'-6" FROM PROPERTY LINE. MAINTAIN 12" CLEAR AROUND HYDRANT. WHERE STREETS ARE IMPROVED WITH BERM, LOCATE FIRE HYDRANT 1'-6" FROM BERM.

FOR VALVE OPERATOR WELL INSTALLATION SEE DETAIL DRAWING W-17.

REF: SEE ARTICLE TC-3

ITEM	NO.	SIZE AND DESCRIPTION	REMARKS
1	1	6" FIRE HYDRANT.	6-HOLE DIP-POLYETHYLENE WRAPPED, IN CORROSIVE SOIL.
2	1+	6" x NO. OF JOINTS AS REQUIRED	
3	1	6" x "TYTON" OR MECHANICAL JOINT GATE VALVE	REFERENCE TC-5
4	1	VALVE OPERATOR WELL & CAP	
5	2+	6" "TYTON" restraining gasket or mechanical joint restraining gland.	6-HOLE CLASS 520-C-2500 D.I.P. FLANGED (8-HOLE) D.I.P. 8-HOLE x 6-HOLE
6	1	MAIN SIZE X 6" TEE	
7	1	6" FLANGED C.I. BREAK-OFF RISER - 6" LONG	
8	1	3' X 3' X 6" CONCRETE PAD	
9	1	6" 90° BURY, "TYTON" OR M.J. x FLANGED	
10	1	6" x REQUIRED LENGTH RISER	
11	1	6" POSITIVE BREAK-OFF VALVE ASSEMBLY	

COACHELLA VALLEY WATER DISTRICT

DETAIL OF WET BARREL TYPE
 FIRE HYDRANT
 INSTALLATION UNIMPROVED STREET
 FOR DUCTILE IRON PIPE

Drawn: *P. M. Hill*
 Checked: *P. M. Hill*
 Submitted: *P. M. Hill*
 Approved: *J. L. Lewis*
 Date: 1-23-91

REVISION
 Date: 5-94
 By: PZL
 Approved: RA
 DETAIL DRAWING
 W-34 A

BREAK-OFF CHECK VALVE MODEL LB400

Attn: Ben

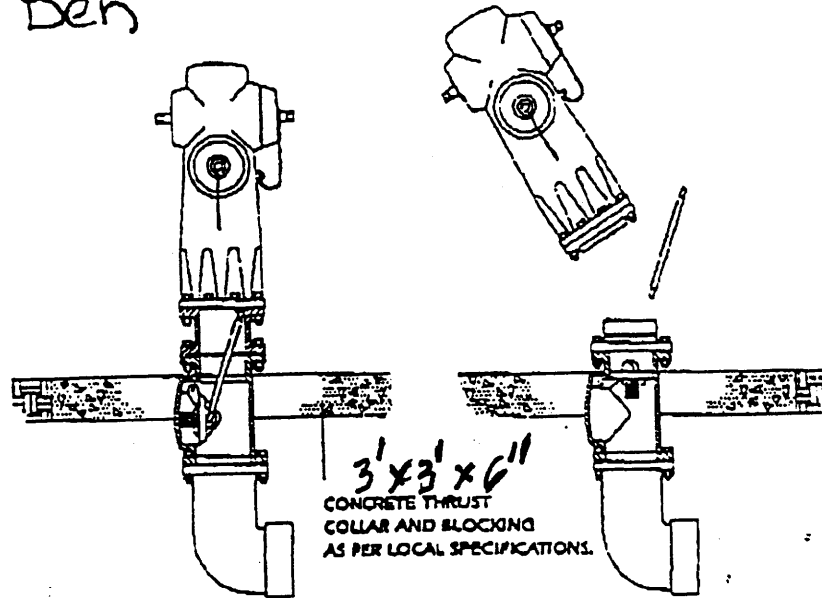
The LB400 Check Valve is an efficient means for immediately stopping the flow of water when a hydrant has been knocked off its mounting.

A double-grooved break-off riser, enclosed with a concrete collar and properly installed between the check valve and hydrant base, controls the break point enabling the bury to be protected during impact.

As the break occurs, upward movement of the stainless steel actuator rod automatically releases a spring-loaded bronze valve flapper into the waterway.

The valve flapper is closed simultaneously by line pressure and remains in the closed position until a replacement hydrant can be installed.

In static operation the valve flapper is housed in a recessed area out of the waterway.

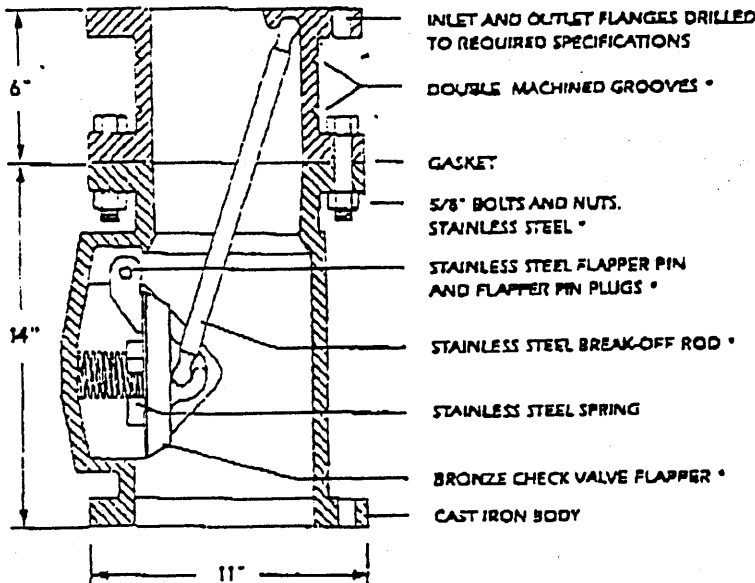


The LB400 Check Valve can easily be installed with any wet barrel hydrant regardless of model or manufacturer and can be supplied with or without a fire hydrant. Any bolt-hole pattern may be ordered and epoxy lining of the check valve and break-off riser is also available upon request.

Although any wet barrel hydrant installation is improved with this product, it has been found especially useful for protection in high exposure locations. The potential for property damage tends to increase significantly with hydrant installations adjacent to heavy traffic patterns. This factor should also be considered with installations adjacent to commercial facilities having a high susceptibility to water damage.

Conservation sensitive areas will also recognize the opportunity to reduce water losses by specifying the LB400. A hydrant broken from a six-inch line under normal operating pressures can quickly result in large and highly visible water losses as indicated by the flow table below.

The LB400 Break-off Check Valve provides water utilities with an excellent means for cost-effective upgrading of distribution systems.



*DUCTILE IRON BODY
* NEW AND IMPROVED FEATURE

TYPICAL FLOW RATES FOR 6" LINE

	50 PSI	100 PSI	150 PSI
WATER LOSS GPM	5501	7780	9520



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