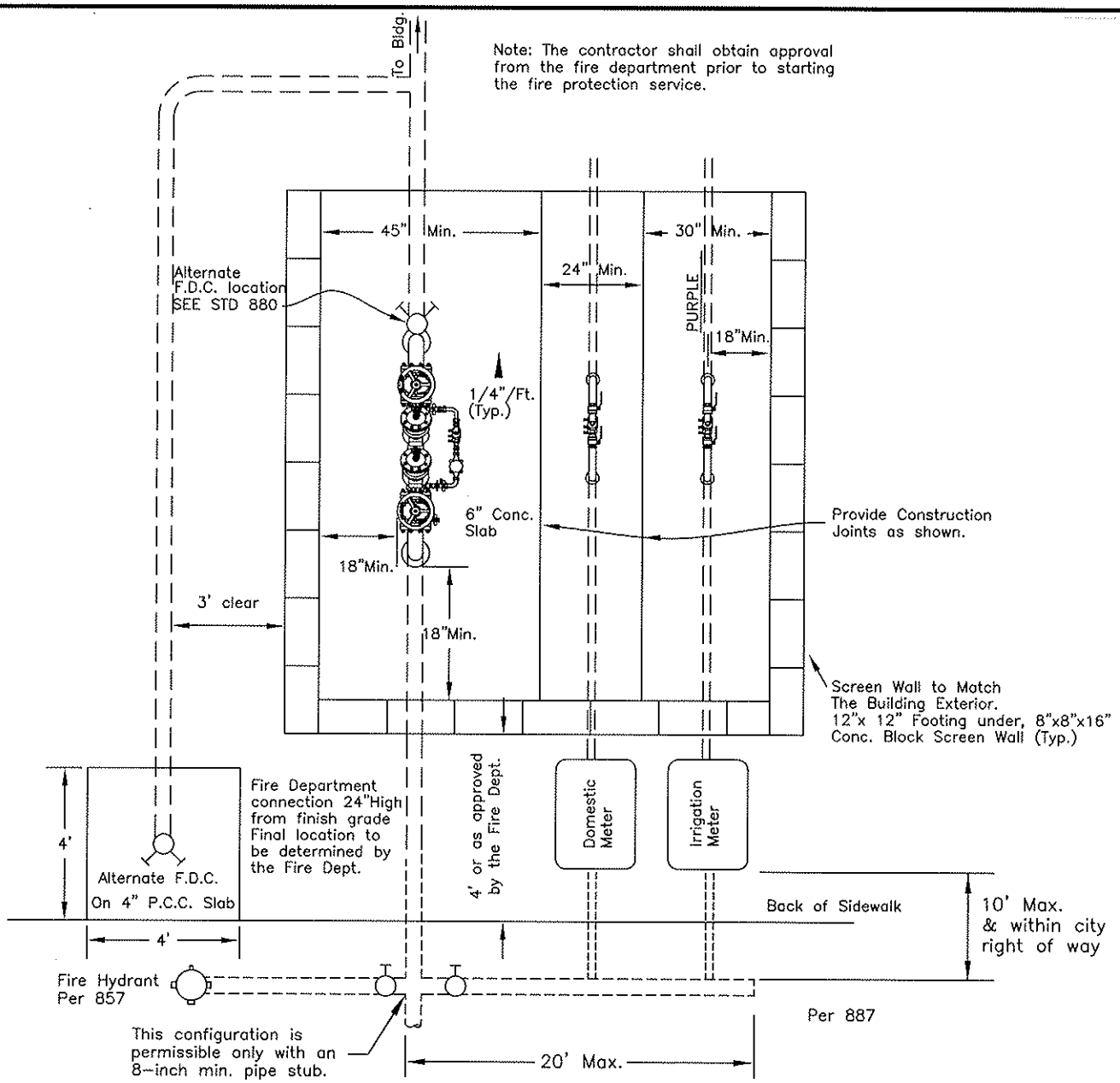


NOTES:

1. **Fire hydrant shall be located within 50' of the F.D.C or as approved by the Fire Code Official.**
2. The equipment screen shall be located per the site plan. Domestic & irrigation meters shall be installed per std. 863 & 865. The length & width of the screen depends on the size and number of irrigation and domestic water services. top of wall shall not restrict the view of the valve yoke from the street.

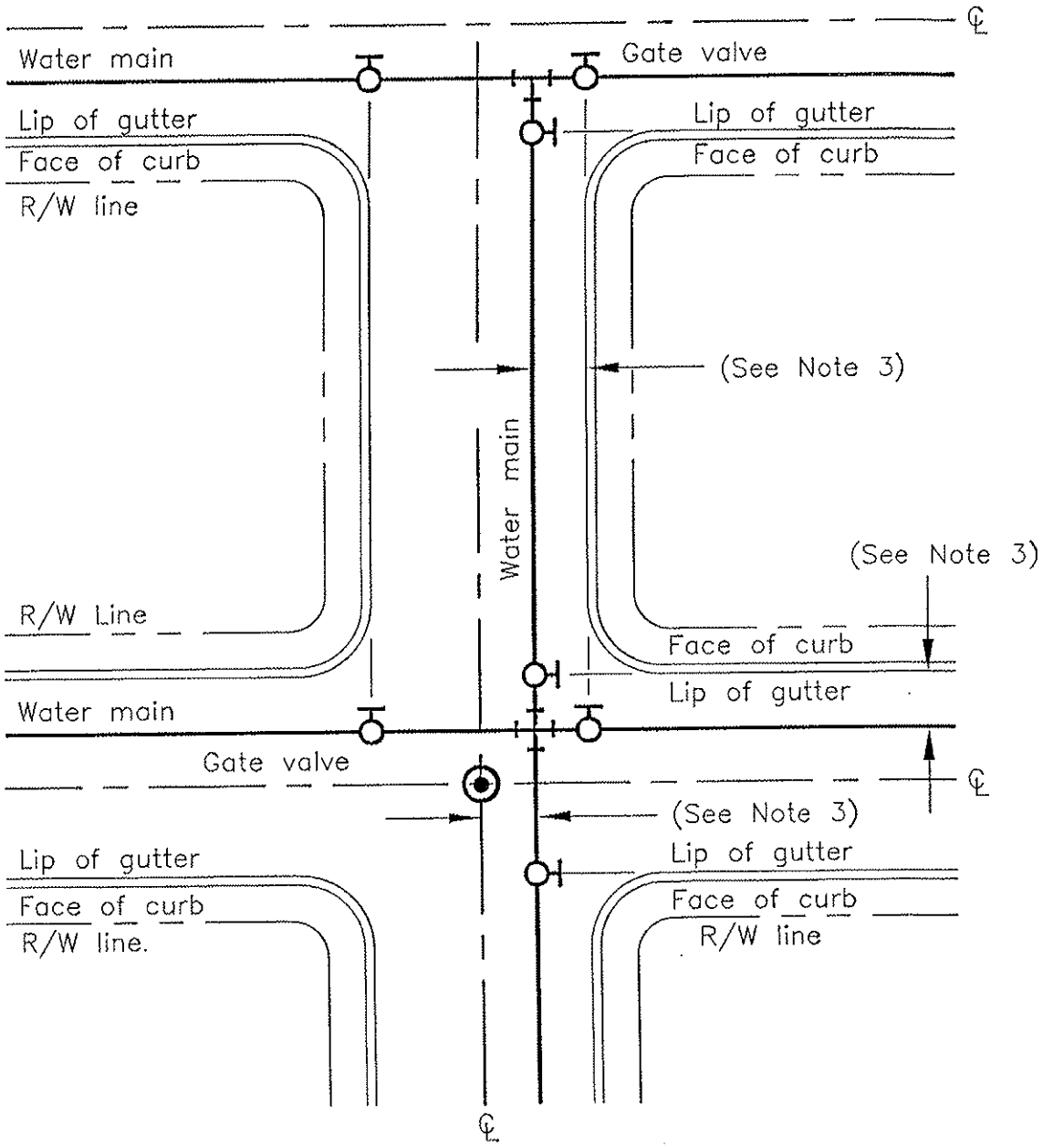
PRIOR TO CONNECTION TO EXISTING CITY WATER SERVICE OR MAIN THE CONTRACTOR SHALL:

a. Install a 2" minimum bridge connection for construction water and testing per std. 859.
b. Pressure test line from point of connection to fire bridge and all domestic lines.
c. Have all backflow assemblies tested by City certified testing contractor. Submit complete installation record and testing record for each assembly to Public Works Dept., 600 Enterprise Drive (forms available at 600 Enterprise Dr.,(707) 588-3300).
d. Have passing results from bacteria testing samples taken by City, call (707) 588-3300 minimum 48 hours prior.
e. All valves shall be hooked up for "Tamper Alarm".
f. Satisfy all Fire Department requirements.
g. The meter shall be installed with proper lengths of pipe both upstream and down stream of the meter see manufacturers specifications for determining pipe length(s).
h. A utility billing account shall be opened with city prior to flowing water through meter.

CITY OF ROHNERT PARK

WATER CONNECTION DETAIL

SCALE: NONE	DATE: OCTOBER 2010
Approved:	STD. - 869



NOTES:

1. Water mains shall be located parallel to street centerlines unless conflicts with other underground facilities cannot be avoided.

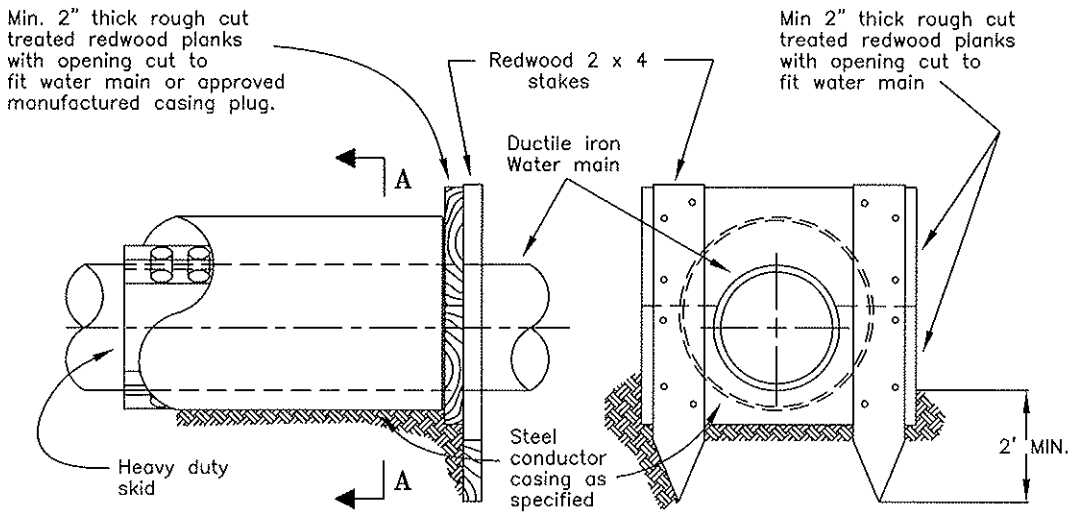
2. Non-standard alignments shall be approved by the Engineering Dept. prior to installation. Mainline valves, except hydrant valves and tapping valves, shall be on face of curb extended where feasible.

3. Install mains with constant alignment whenever possible, minimum 3' from the lip of gutter and minimum 4' from centerline monuments.

CITY OF ROHNERT PARK

ALIGNMENT OF WATER MAINS AND PLACEMENT OF MAIN VALVES

SCALE: NONE	DATE: JANUARY 2006
Approved:	STD. - 871

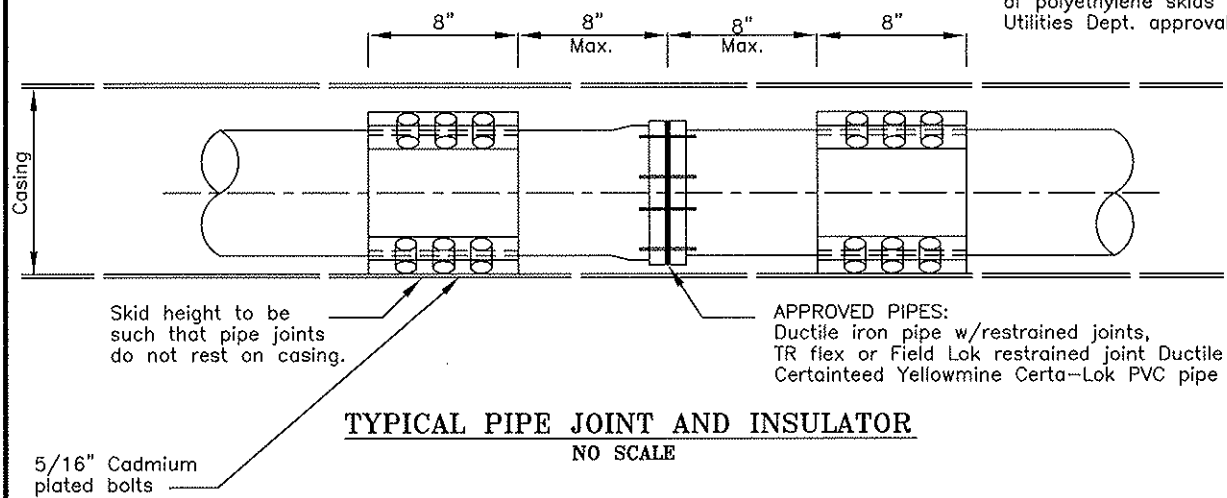


TYPICAL DIRT STOP DETAIL

NO SCALE

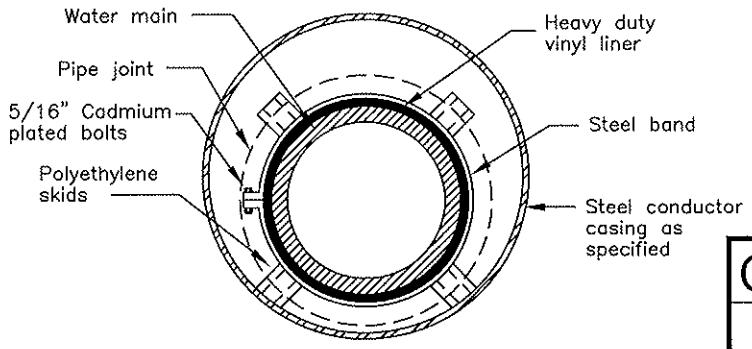
NOTES

1. Install skids per manufacturers specifications.
2. See Engineer's approved list for approved skids.
3. Where conductor casing is existing R.C.P., banded redwood skids may be installed in lieu of polyethylene skids with Utilities Dept. approval.



TYPICAL PIPE JOINT AND INSULATOR

NO SCALE



SECTION "A-A"

NO SCALE

Minimum size casing required
For all approved pipe types

Pipe Size	6"	8"	12"	14"	16"
Casing Size (Inside ø)	16"	18"	24"	24"	30"
Casing Wall Thickness	.375"	.375"	.375"	.375"	.500"

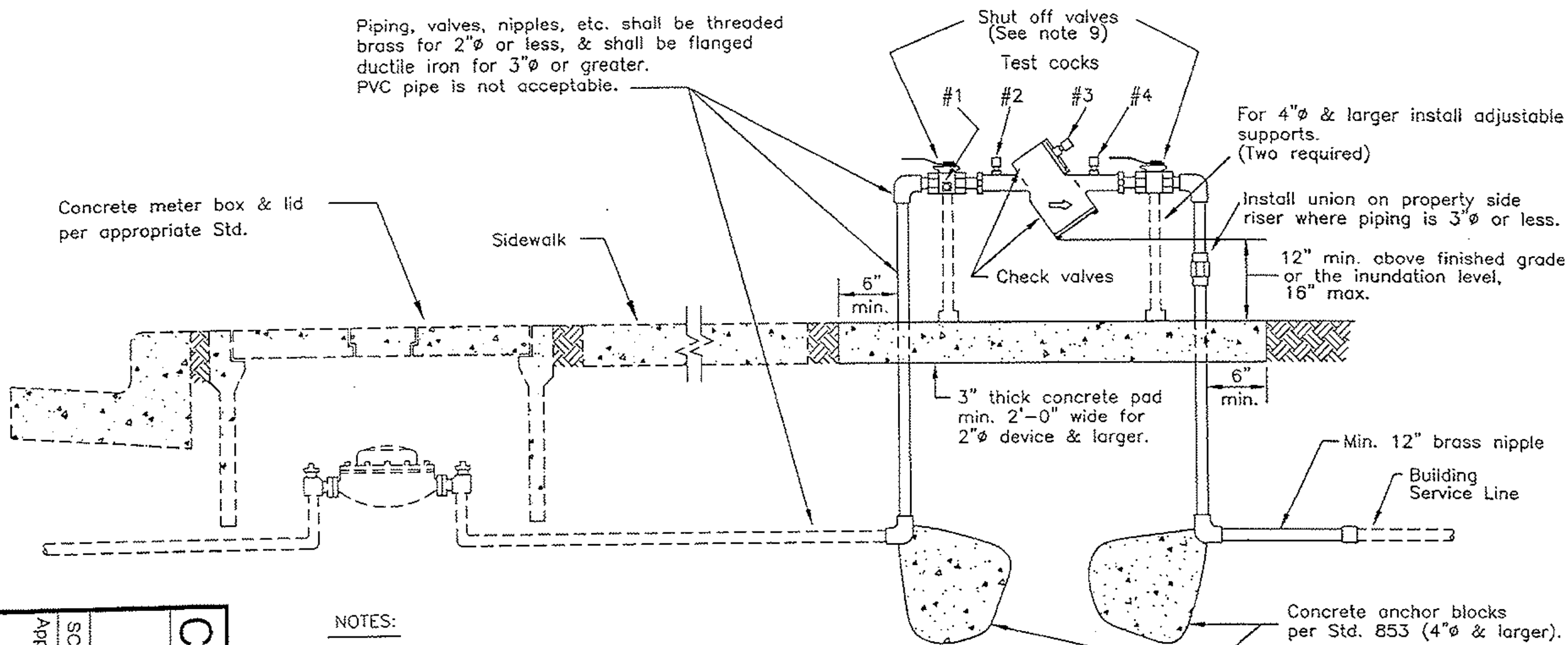
CITY OF ROHNERT PARK

DIRT STOP AND WATER MAIN ENCASEMENT

SCALE: NONE | DATE: OCTOBER 2010

Approved:

STD. - 872



NOTES:

1. Backflow assemblies shall be installed adjacent to and on the property side of side-walk where applicable. Where no sidewalk exists, the double check valve assemblies shall be installed as close as possible to the water meter location. Any conflicts shall be resolved by the City Public Works Utilities Services.

2. Approved double check valves shall be as shown on "List Of Approved Backflow Prevention Devices" (Latest Revision) by the University of Southern California Foundation For Cross – Connection Control & Hydraulic Research.

3. All double check valve assemblies shall be provided with a minimum of four (4) test cocks.

4. Double check valve assemblies shall be required for any use where an intermediate hazard exists. To be installed on all services to properties with wells, and other domestic services as determined by the City Public Works Utilities Services.

5. The piping from the meter to the double check valve assembly and the double check valve assembly itself must be the same size as the meter unless otherwise approved by the Public Works Utilities Services.

6. This Std. will be used for all commercial installations requiring a double check valve type backflow preventer.

7. (Not used)

8. Any cover or screening for the backflow prevention assembly must be approved by the Engineering Dept. prior to installation.

9. Valves 2"ø & less shall be ball valves, 3"ø and greater shall be resilient seat gate valves.

CITY OF ROHNERT PARK

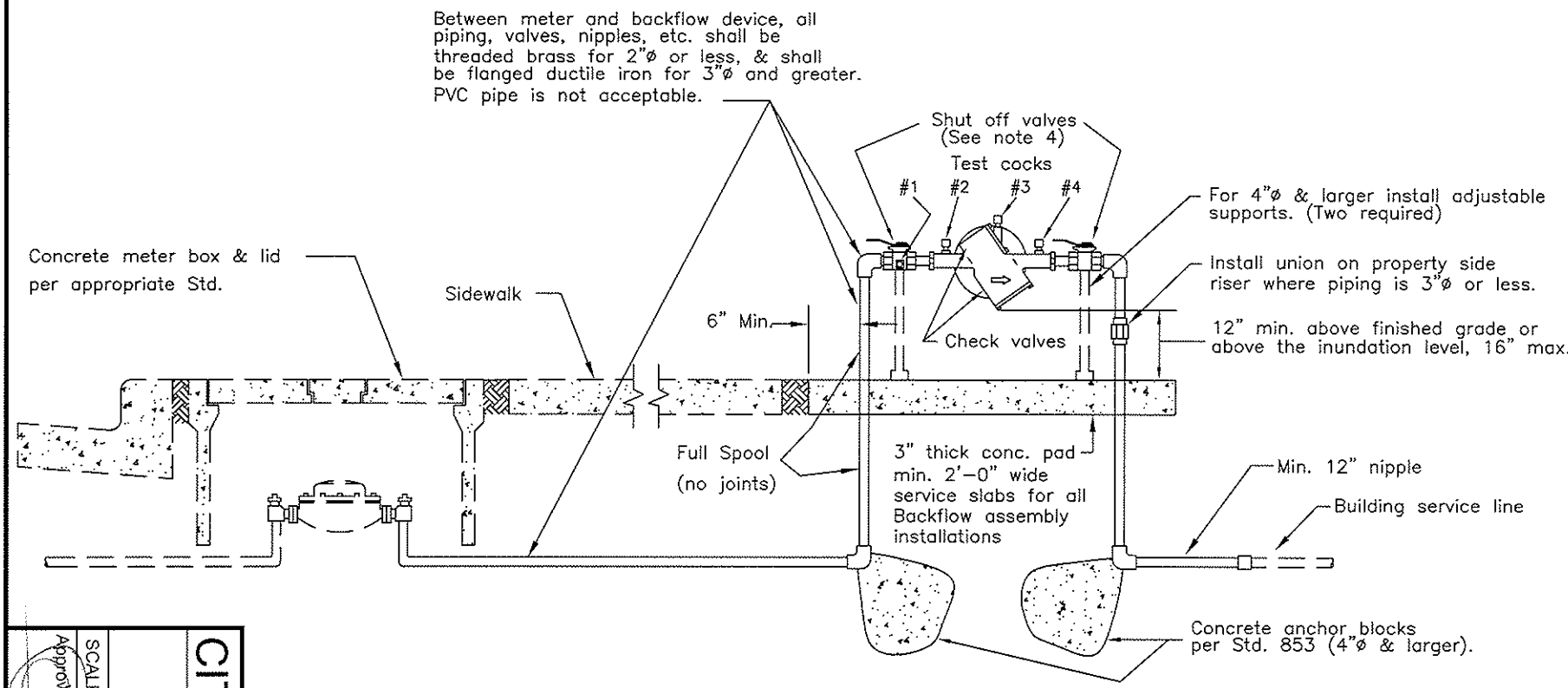
DOUBLE CHECK VALVE BACKFLOW ASSEMBLY

SCALE: NONE

DATE: JANUARY 2006

Approved:

STD. - 874



CITY OF ROHNERT PARK

REDUCED PRESSURE BACKFLOW ASSEMBLY

SCALE: NONE

DATE: OCTOBER 2010

Approved

STD. - 876

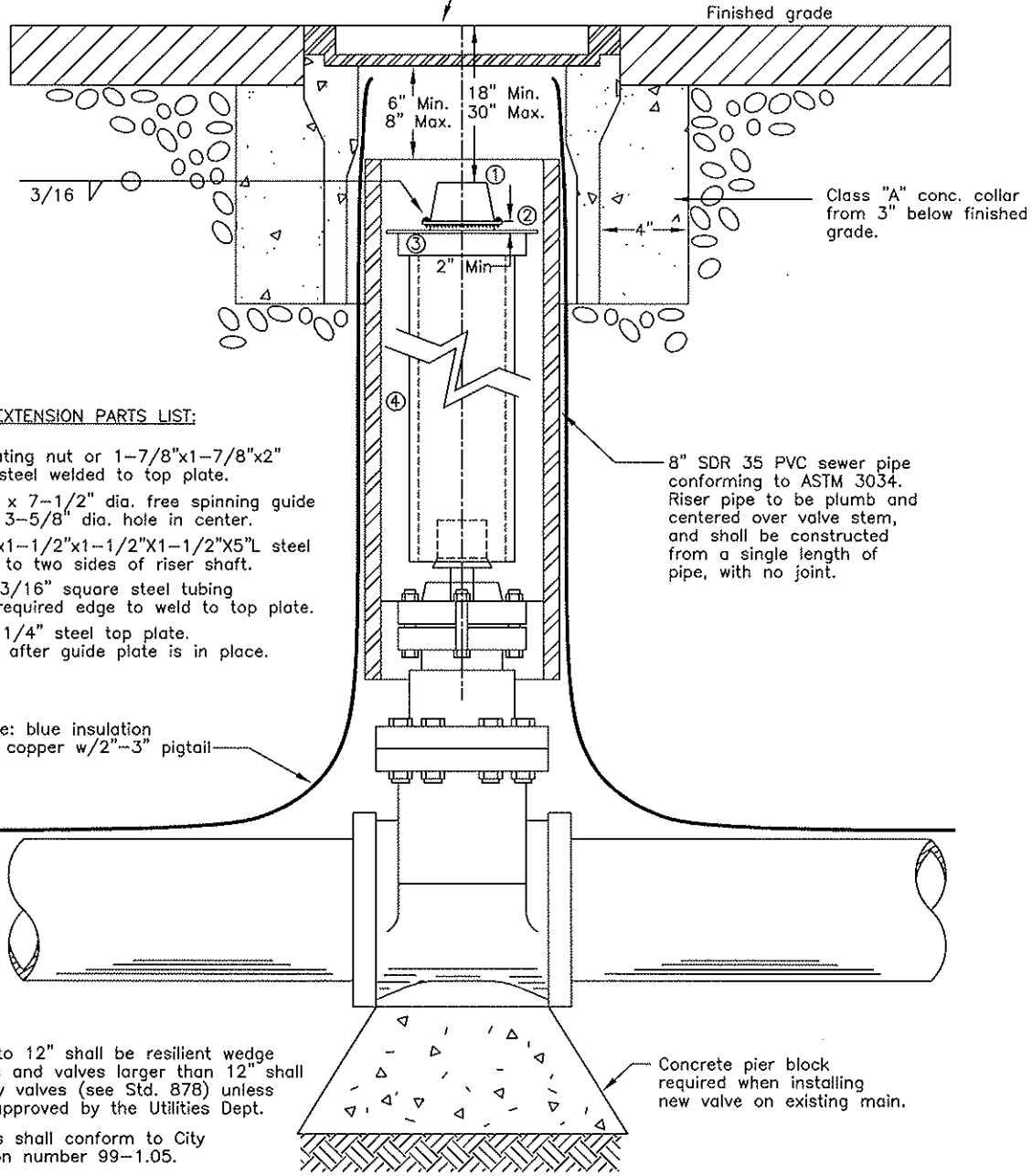
1. Reduced pressure type backflow assemblies shall be required as determined by the City Utilities Dept.
2. Approved reduced pressure backflow assemblies shall be as shown on "List of approved backflow prevention devices" (of latest revision) by the University of Southern California Foundation For Cross–Connection Control & Hydraulic Research.
3. Backflow prevention assemblies shall be installed adjacent to and on property side of sidewalk where applicable. Where no sidewalk exists, the assembly shall be installed as close as possible to the water meter location.
4. A valve of the same size as the backflow assembly shall be installed on each side of the backflow prevention assembly. Valves 2"ø & less shall be ball valves, 3"ø & greater shall be resilient seat gate valves.
5. Any cover or screening for the backflow prevention assembly must be approved by the Engineering Dept. prior to installation.
6. The addition of spools must be approved by the City Inspector prior to installation.
7. The piping from the reduced pressure backflow assembly & the reduced pressure backflow device valve assembly itself must be the same size as the meter unless otherwise approved by the Public Works Utilities Services supervisor.

STEM EXTENSION FABRICATION NOTES:

1. All welds to riser shaft shall be fillet weld all around as specified below.
2. All steel required for riser fabrication shall be structural steel per ASTM A36.

VALVE BOXES:
(See Engineer's approved list)

Precast valve box set flush with street surface with cast iron ring and cover marked "WATER".



VALVE STEM EXTENSION PARTS LIST:

① Valve operating nut or 1–7/8"x1–7/8"x2" high solid steel welded to top plate.
② 3/16" thk. x 7–1/2" dia. free spinning guide plate, with 3–5/8" dia. hole in center.
③ Two 3/16"x1–1/2"x1–1/2"X1–1/2"X5"L steel angle weld to two sides of riser shaft.
④ 2–1/2" x 3/16" square steel tubing length as required edge to weld to top plate.
⑤ 3" x 3" x 1/4" steel top plate. Riser shaft after guide plate is in place.

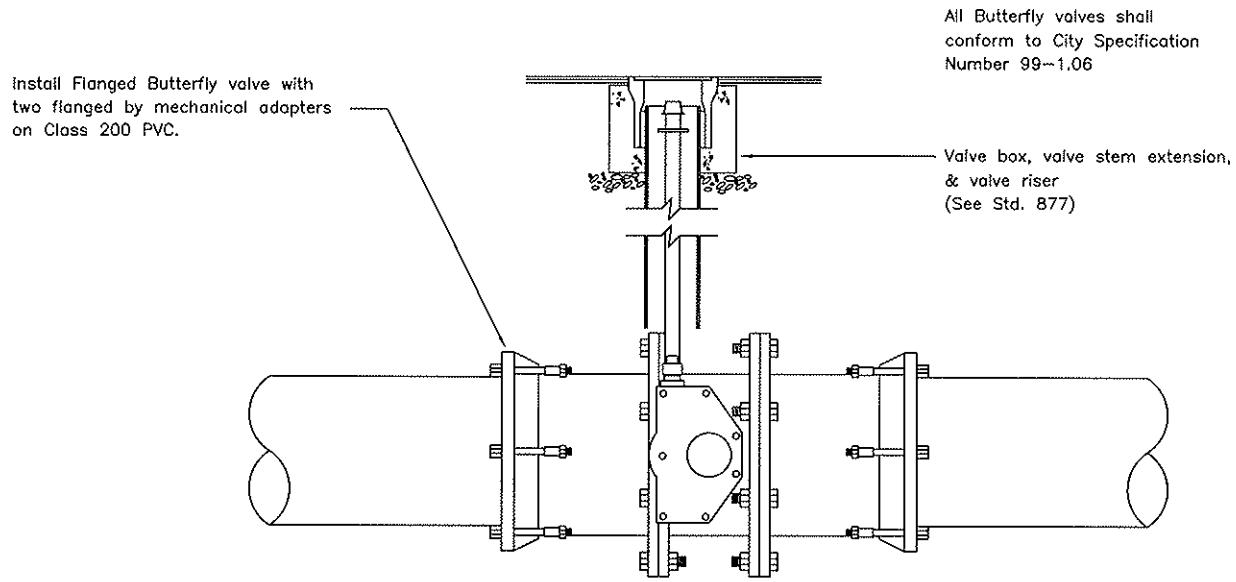
NOTES:

1. Valves 2" to 12" shall be resilient wedge gate valves and valves larger than 12" shall be butterfly valves (see Std. 878) unless otherwise approved by the Utilities Dept.
2. Gate valves shall conform to City Specification number 99–1.05.
3. All external bolts and nuts on valves shall be 304 stainless steel or the entire valve shall be wrapped tightly with polyethylene film held securely with adhesive tape.
4. If valve is installed so that the top of the operating nut is less than 30" below finished grade, the valve stem riser is not required.
5. For installation of butterfly valve and tapping valve, see Std. 878.

CITY OF ROHNERT PARK

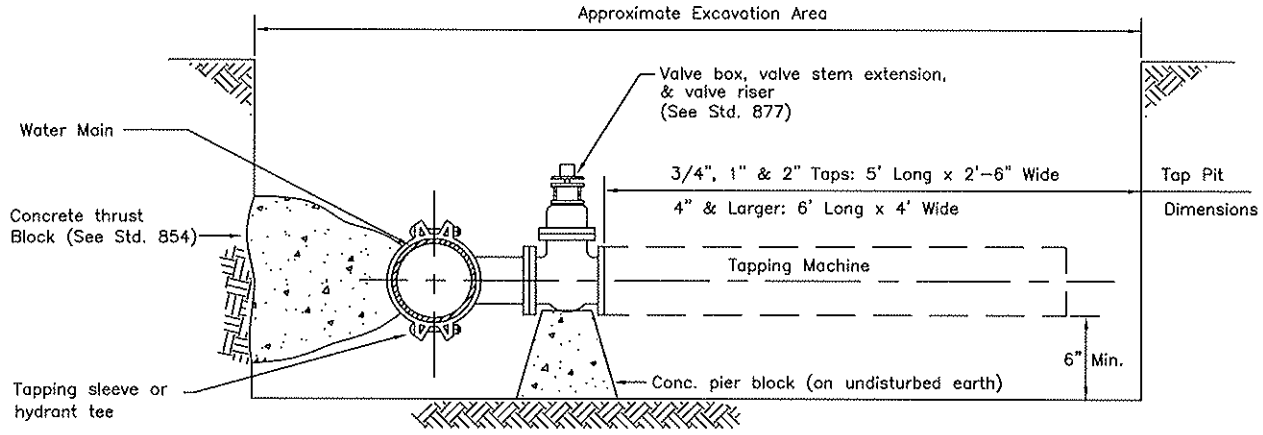
GATE VALVE

SCALE: NONE	DATE: OCTOBER 2010
Approved:	STD. - 877



BUTTERFLY VALVE

To be used on pipe larger than 12"



TAPPING SLEEVE & VALVE

To be used on pipe 2" to 12"

TAPPING SLEEVES

(See Engineer's Approved List for Std. 866/867)

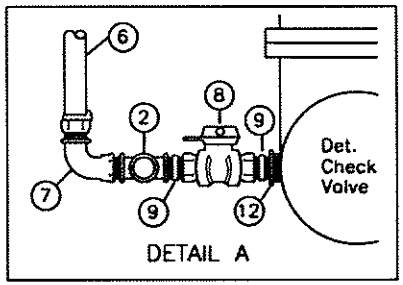
NOTES:

1. All external bolts and nuts on valves shall be 304 stainless steel or the entire valve shall be wrapped tightly with polyethylene film held securely with adhesive tape.
2. Taps shall be made by Contractor.
3. Valves 2" to 12" shall be resilient wedge gate valves and valves larger than 12" shall be butterfly valves unless otherwise approved by the Utilities Dept.

CITY OF ROHNERT PARK

BUTTERFLY VALVE AND TAPPING VALVE

SCALE: NONE	DATE: OCTOBER 2010
Approved:	STD. - 878



DETAIL A

Bypass meter to be supplied & installed by the contractor upon City approval of fire line installation

Precast vault & cover (See note 3, sheet 2)

Valve Status Indicator to face street

OPEN

Padlock

36"

Post Indicator

Sidewalk

6" Max.

7 1/2"

30" Min. - 36" Max.

Provide 1" conduit for tamper switch controls when req. (see note 2 sheet 2)

Grout around pipe or install dirt stops similar to Std. 872

Tracer wire: blue insulation, #12 solid copper

hydrant(s)

P.V.C. or D.I.P.

Ball valve & tee behind ell, (See DETAIL A)

sprinklers

Post Indicator Valve (resilient wedge type)

4" thick drain rock

Restrained flange adapter (both ends)

Min. 4" thick concrete pad - length as required.

APPROVED DETECTOR CHECK VALVES (Only for on site)
(See Engineer's Approved List)

Used by permission of City Engineer only

Public Works Inspector

Fire Department Inspector

PAGE 1 OF 3

CITY OF ROHNERT PARK

UNDERGROUND FIRE LINE SINGLE CHECK DETECTOR IN VAULT

Approved:

SCALE: NONE

DATE: OCTOBER 2010

STD. - 879

BY-PASS PARTS LIST

NO.	DESCRIPTION	QUANT.	PART SIZE OR MODEL NO.*
1.	HOSE BIB – MIP	3	3/4"
2.	TEE – FIP x FIP x FIP	3	3/4"
3.	SHORT MTR SPUD – 2" L	2	C38 – 23 – 2
4.	STRAIGHT CHK. VALVE – MIP x FIP	1	HS81 – 333
5.	ADAPTER – COMP x MIP	1	C84 – 33
6.	BRASS	VARIES	3/4"
7.	90° ADAPTER – COMP x MIP	4	L84 – 33
8.	STRAIGHT BALL VALVE – FIP x FIP	2	B11 – 33
9.	CLOSE NIPPLE	4	3/4"
10.	90° ADAPTER – COMP x FIP	1	L14 – 33
11.	ADAPTER – COMP x FIP	2	C14 – 33
12.	BUSHING	2	3/4" x VARIES

* FORD MODEL NO's ARE GIVEN. SUBMIT SUBSTITUTIONS FOR APPROVAL.

NOTES:

1. The post indicator valve shall be installed as close as possible to the detector check vault. If a post indicator cannot be installed, an O.S. & Y. valve with locking chain must be installed inside the vault on the property side of the detector check with approval from the City Utilities Department.

2. The installation shall be provided with electronic supervision monitoring when required by the Fire Department.

3. Refer to vault size chart for proper size. Should an O.S. & Y. valve be installed in the vault, the vault size may need to be verified by the Contractor. See the engineer's approved list for approved vaults and covers.

4. All fire line services to the post indicator valve shall be tested by the Fire Services Construction inspection section per City of Rohnert Park Construction Specifications. All on-site fire lines, hydrants, and the P.I.V. shall be tested & inspected by the Fire Dept. per City Fire Code.

5. Double check detector check valve assembly with bypass double check shall be installed where an underground fire suppression system enters private property Installation details shall be approved by the Utilities Dept. prior to installation. (See Std. 880).

6. The fire department connection shall be installed and located as required by the Fire Department.

7. Post indicator valves shall be locked with a break-away lock. The top of the P.I.V. shall not be less than thirty-six inches (36") above finished grade.

8. Use only downstream of double detector check backflow preventer.

9. Single check valves may only be used in addition to a double detector check valve.

VAULT SIZES		
D.C. SIZE	WIDTH	LENGTH
4"	4'	4'
6"	4'	4'
8"	5'	5'
10"	5'	5'

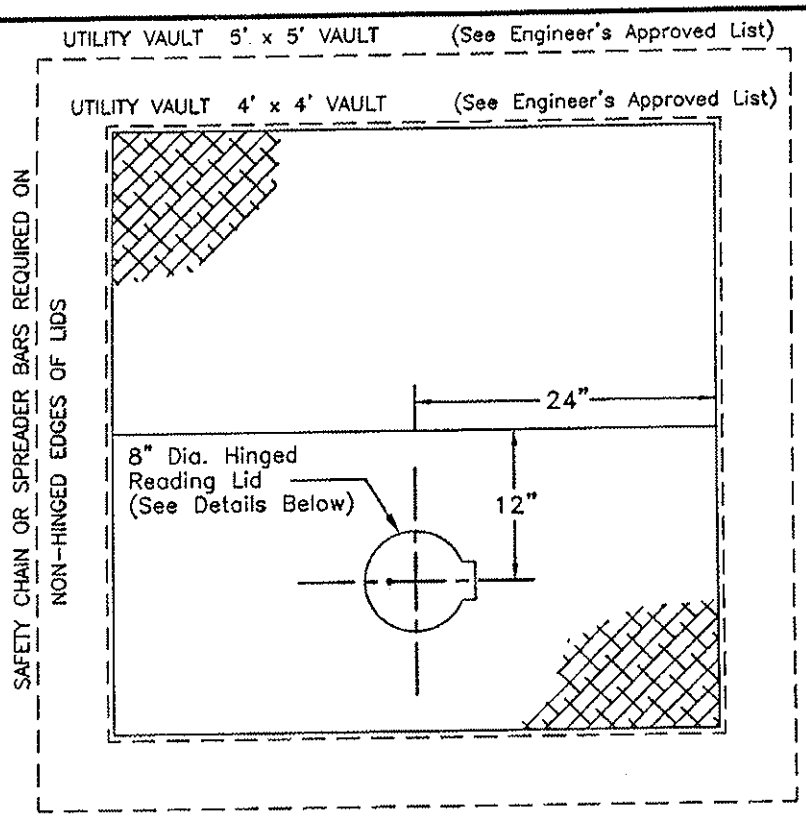
CITY OF ROHNERT PARK

UNDERGROUND FIRE LINE SINGLE CHECK DETECTOR IN VAULT

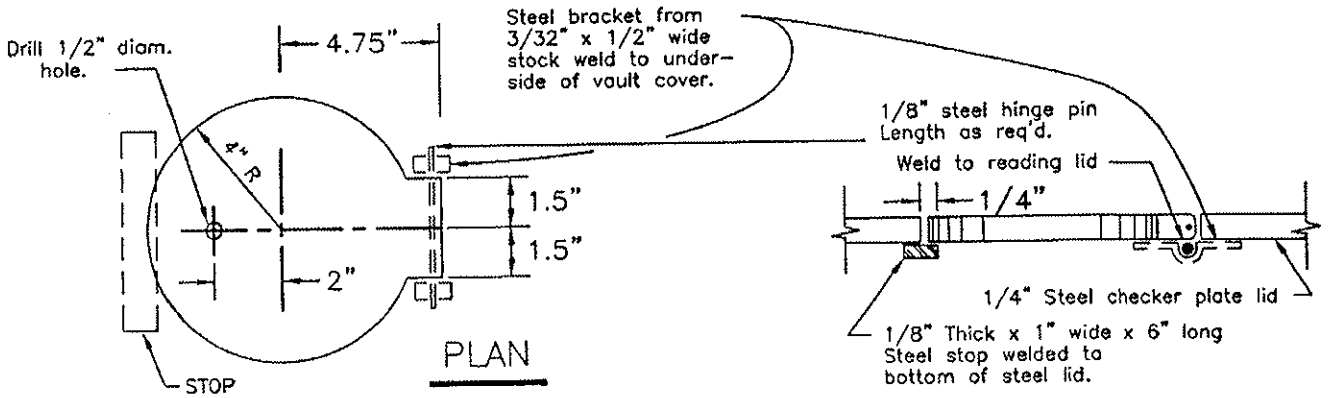
SCALE: NONE | DATE: OCTOBER 2010

Approved:

STD. - 879



VAULT PLAN



READING LID DETAILS

N.T.S.

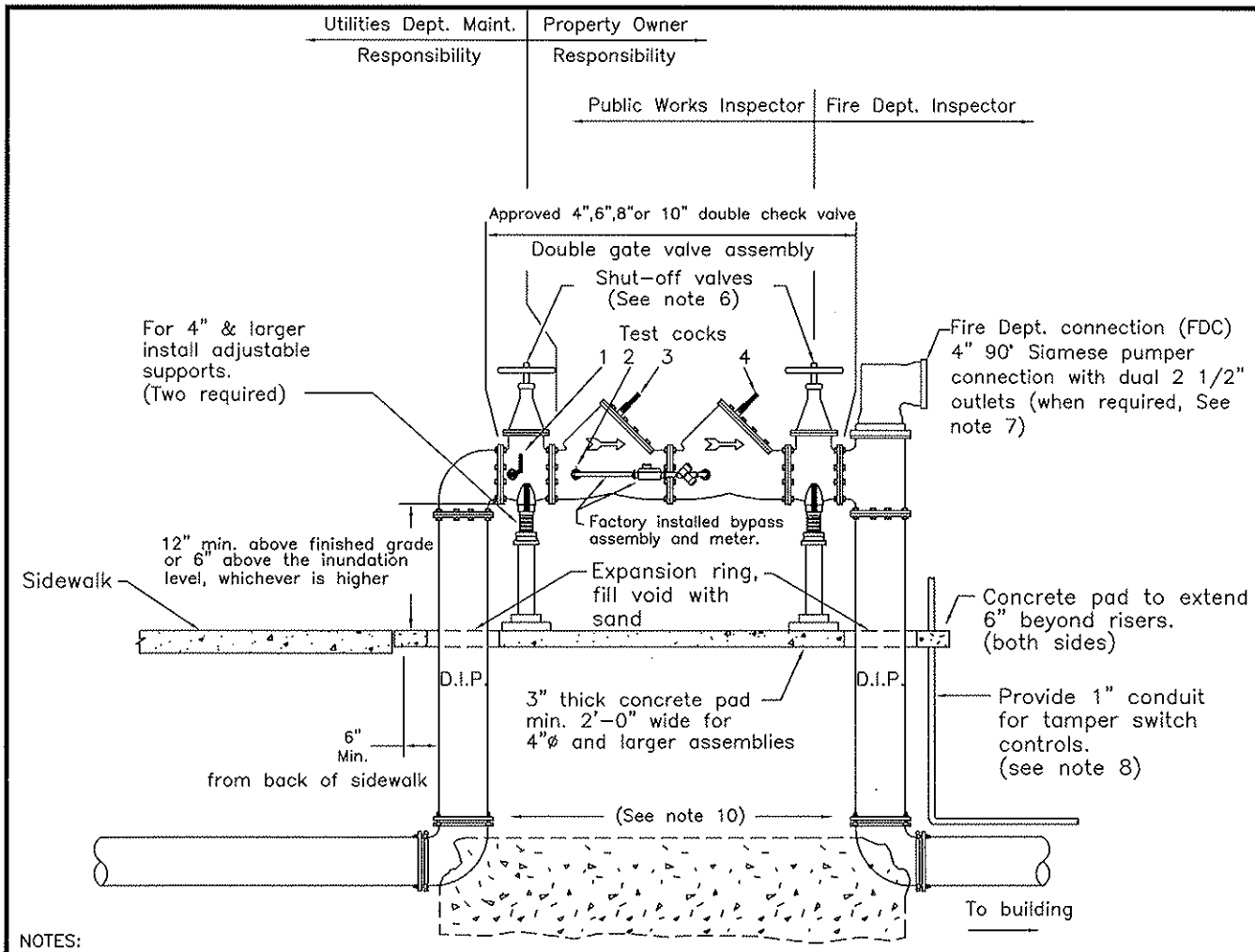
NOTES

1. Reading lid shall be centered over the by-pass meter.
2. Galvanize coat all parts after welding. Vaults that are to be placed in pedestrian way must have lids with "all-grip" surface in lieu of galvanizing.

CITY OF ROHNERT PARK

UNDERGROUND FIRE LINE SINGLE CHECK DETECTOR IN VAULT

SCALE: NONE	DATE: JANUARY 2006
Approved: Dan Jukkin	STD. - 879



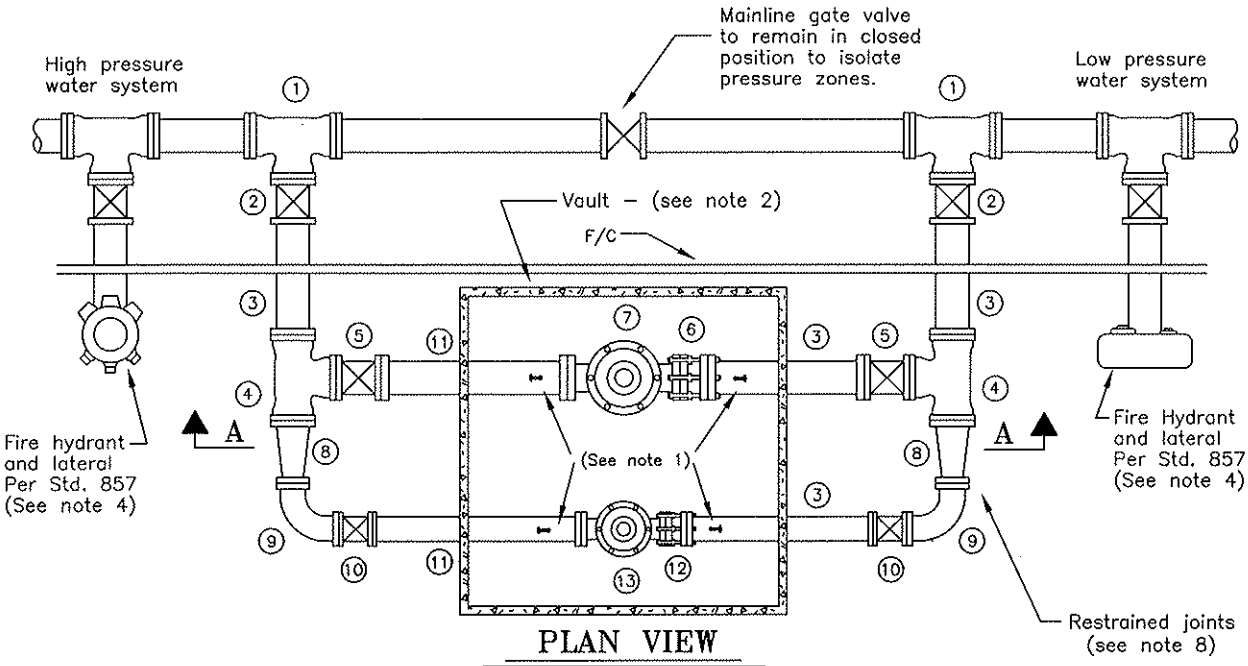
NOTES:

1. This Standard is required for:
   a.) all connections serving commercial fire sprinkler systems.
   b.) any fire line connections to properties with auxiliary water supplies.
   c.) sites with multiple fire line connections to the City water system.
2. Approved double check detector backflow assemblies shall be shown on "List of approved backflow devices" of latest revision, by the University of Southern California Foundation for Cross Connection Control & Hydraulic Research.
3. All test valves shall be fitted with 1/4" female test cocks.
4. Double check detector assembly shall be located as close as possible to the sidewalk or public right-of-way.
5. Any cover or screening for this assembly must have both Fire Department & Engineering Department approval prior to installation.
6. Shut-off valves to be resilient wedge type O.S. & Y and will be chained and padlocked in the open position.
7. Must have specific approval of the Fire Dept. prior to installation. Location to be determined by the Fire Dept.
8. The installation shall be provided with electronic supervision monitoring when required required by the Fire Department.
9. Double check detector shall be the same size as the fire line except when a 12" fire line is required, then a 10" double detector check backflow assembly is required.
10. Restrained joints are required for all new construction from gate valve to 90° ell. Thrust blocks are only required where existing services are being modified and restrained joints are not used.

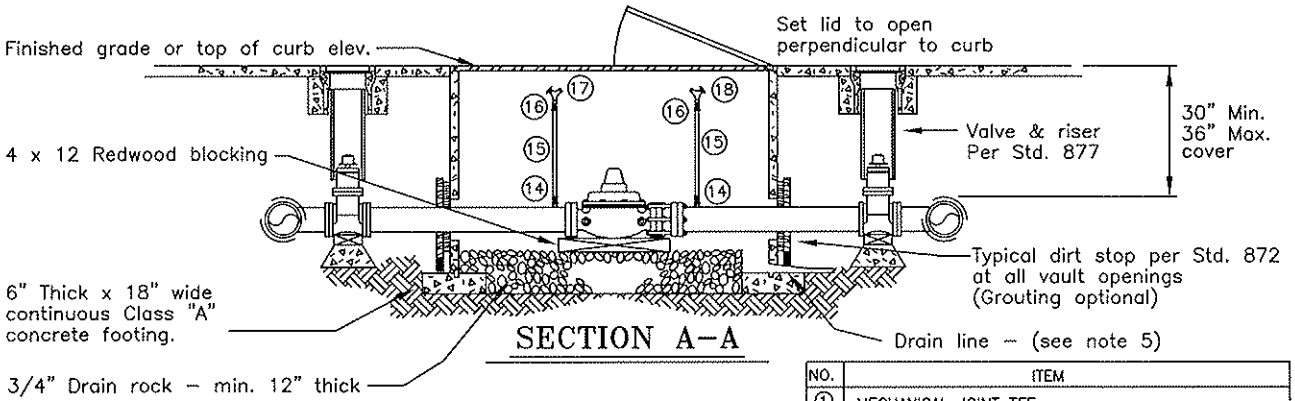
CITY OF ROHNERT PARK

DOUBLE CHECK DETECTOR FIRE LINE BACKFLOW ASSEMBLY

SCALE: NONE	DATE: OCTOBER 2010
Approved:	STD. - 880



PLAN VIEW



SECTION A–A

NO.	ITEM
①	MECHANICAL JOINT TEE
②	MECHANICAL JOINT GATE VALVE STD. 877
③	DUCTILE IRON PIPE – FL. X P.E.
④	FLANGED TEE
⑤	FLANGED GATE VALVE STD. 877
⑥	FLANGED COUPLING ADAPTER
⑦	FLANGED P.R.V. – HIGH FLOW
⑧	FLANGED REDUCER
⑨	FLANGED 90° ELL
⑩	FLANGED GATE VALVE STD. 877
⑪	DUCTILE IRON PIPE – FL. X FL.
⑫	FLANGED COUPLING ADAPTER
⑬	FLANGED P.R.V. – LOW FLOW
⑭	3/4" BALLCORP (FORD FB 1000)
⑮	3/4" BRASS
⑯	3/4" COMP. X F.I.P. ADAPTER (FORD C14–33)
⑰	3/4" M.I.P X HOSE BIBB – BRASS
⑱	3/4" M.I.P. TEE WITH TWO (2) 3/4" F.I.P. X H.B.

NOTES:

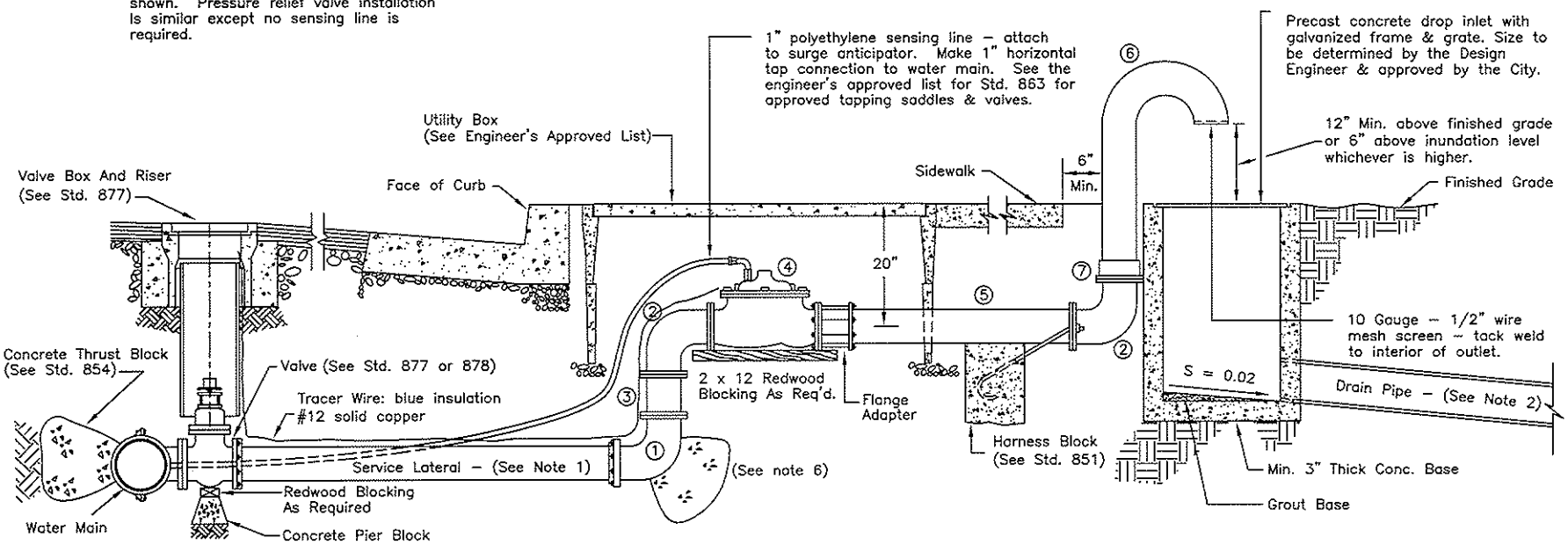
1. Make 3/4" top tap – install risers as shown.
2. See the engineer's approved list for approved vaults and covers.
3. The low flow by–pass (part numbers 8–13) shall be installed unless otherwise approved by the Engineering Dept. and shall be a min. 4" in size. If a single P.R.V. is installed, center in vault and change parts Number 4 to 90° flanged ells, and delete part 5.
4. Install fire hydrants only when required by the Engineering Dept.
5. 2" schedule 40 P.V.C. drain pipe shall be installed from a perforated sump canister to an existing drainage system or to daylight.
6. Valves 18" and larger shall be butterfly valves. Valves 16" and smaller shall be resilient wedge gate valves.
7. All pressure reducing valves to be epoxy fused, inside and outside. (See the engineer's approved list)
8. Restrained joints are required for all new construction from mainline gate valve to vault. Thrust blocks are only required where existing services are being modified and restrained joints are not used.

CITY OF ROHNERT PARK

PRESSURE REDUCING VALVES

SCALE: NONE	DATE: OCTOBER 2010
Approved:	STD. - 881

NOTE: Surge anticipator valve installation is shown. Pressure relief valve installation is similar except no sensing line is required.



PARTS LIST	
NO.	ITEM DESCRIPTION
1	Flange x M.J. 90° – Size As Required
2	C.I. Fl. 90° Ell – Size As Required
3	D.I. Fl. Spool – Length As Required
4	Valve – See Engineer's approved list
5	Fl. D.I.P. – Length As Required
6	Fabricated Welded Steel Discharge (See Note 4)
7	Flange Adapter – Size As Required

NOTES

1. Service lateral pipe shall be either 4" diameter or equal in size to the surge anticipator valve, whichever is greater. The pipe material shall Be Cl. 50 or PC 350 Ductile Iron, unless otherwise shown on the plans. Should the surge anticipator valve be smaller than 4", install a flanged reducer as required on the inlet side of the valve.
2. Discharge water shall drain either to an existing drainage system or to daylight. The Project Engineer shall submit design to the appropriate agencies for approval.
3. All piping & fittings on the discharge side of the surge anticipator valve shall be equivalent in size to the valve.
4. Discharge riser shall be fabricated from standard welded steel pipe. Welding shall conform to AWWA Standard C206. The riser assembly shall be tape coated per AWWA Standard C209.
5. Contact the Public Works Utilities Services Division for specific telemetry requirements which must be met.
6. Restrained joints are required for all new construction from gate valve to lower 90° bend. Thrust blocks are only required where existing services are being modified and restrained joints are not used.

CITY OF ROHNERT PARK

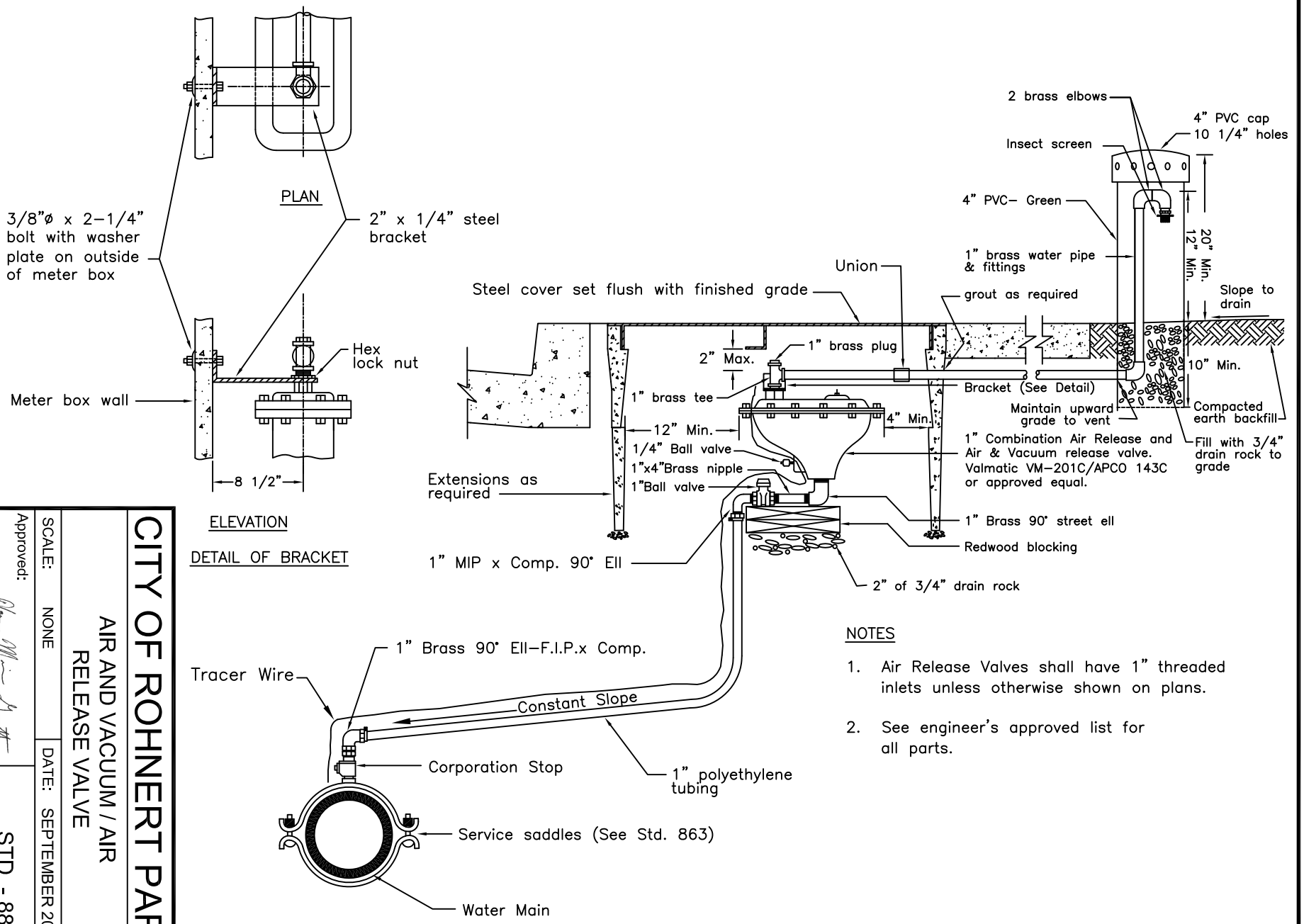
SURGE ANTICIPATOR VALVE or PRESSURE RELIEF VALVE

SCALE: NONE

DATE: OCTOBER 2010

Approved:

STD. - 882



NOTES

1. Air Release Valves shall have 1" threaded inlets unless otherwise shown on plans.
2. See engineer's approved list for all parts.

CITY OF ROHNERT PARK

AIR AND VACUUM / AIR RELEASE VALVE

SCALE: NONE

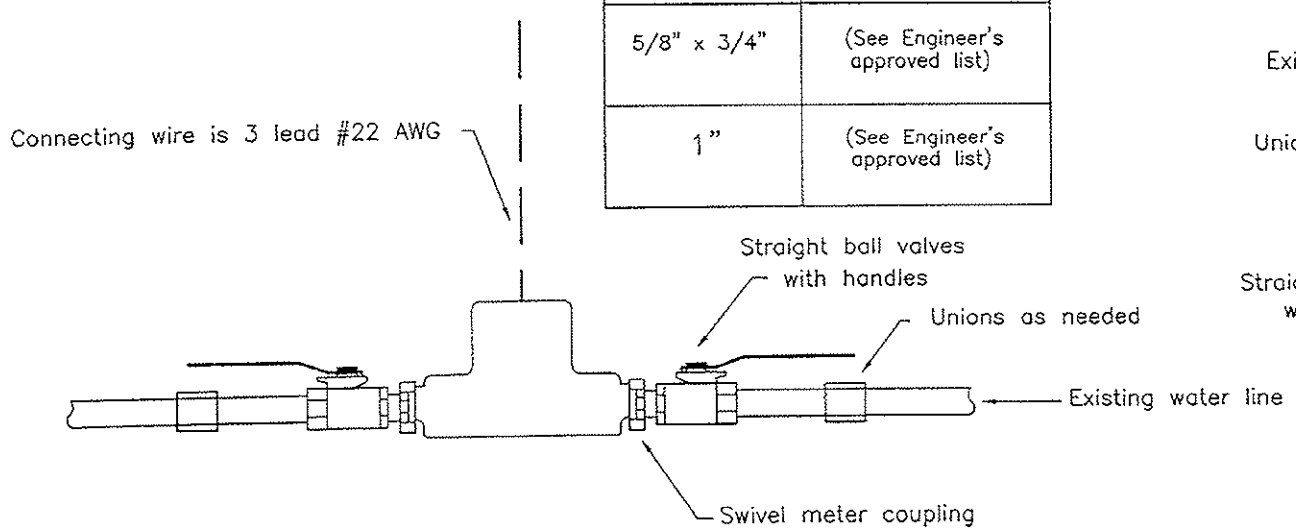
DATE: SEPTEMBER 2022

Approved:

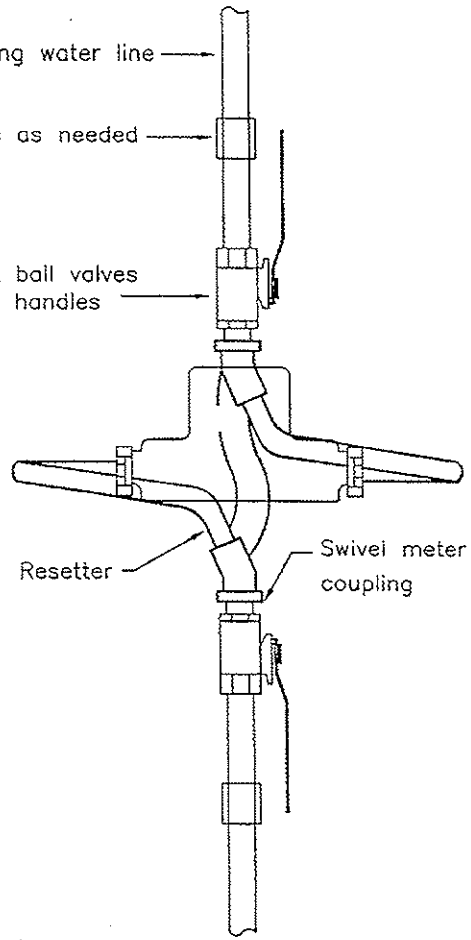
STD. - 883

METER SETTING ASSEMBLY PARTS LIST

METER SIZE	RESETTER
5/8" x 3/4"	(See Engineer's approved list)
1"	(See Engineer's approved list)



HORIZONTAL INSTALLATION



VERTICAL INSTALLATION

RESETTER REQUIRED

NOTES:

1. Install water meter and connect wiring.
2. Receptacle to be located on the outside wall of building. Receptacle to be mounted a minimum of 3 feet and a maximum of 4 feet above finished grade. The location of the receptacle will be determined by the Engineering Department.
3. Water meter must be mounted in a horizontal position. Water meter to be mounted a minimum of 3 feet and a maximum of 5 feet above finished floor. The location of the water meter will be determined by the Engineering Department.
4. Connecting wire to be installed in 1/2" diameter PVC conduit. Meter, conduit and wire may not be installed in areas with explosive atmospheres.
5. The Utilities Department will maintain the water meter only. All plumbing and wiring is the responsibility of the property owner.

CITY OF ROHNERT PARK

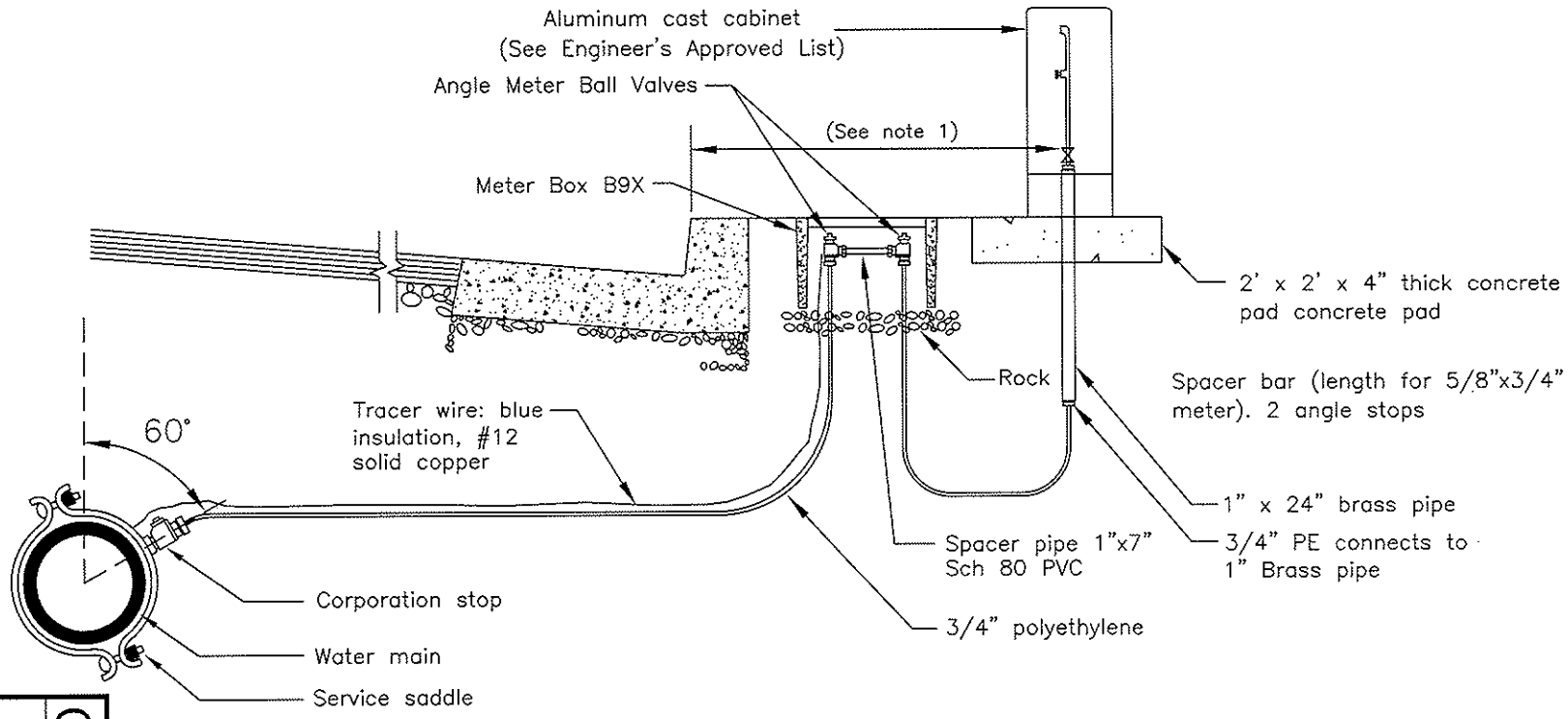
WATER METER for PRIVATE PROCESS and EVAPORATIVE WATER LINES

Approved:

SCALE: NONE

DATE: JANUARY 2006

STD. - 885



NOTES:

1. Where planter strip exists, install min. 36" behind F/C – Where sidewalk is contiguous, install 12" behind sidewalk.

APPROVED TAPPING SERVICE SADDLES:

(See Engineer's Approved List for Standard 863)

CITY OF ROHNERT PARK

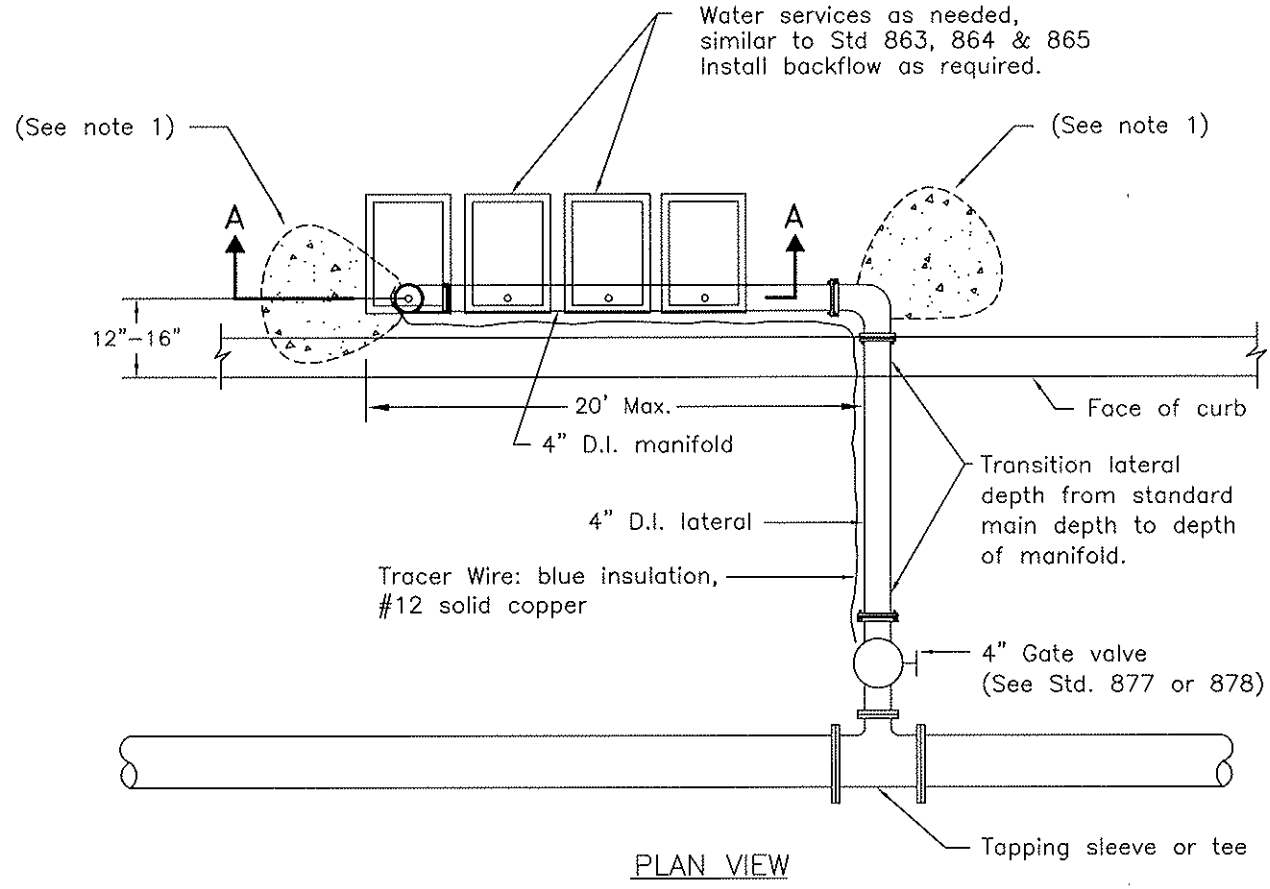
WATER SAMPLING STATION

SCALE: NONE

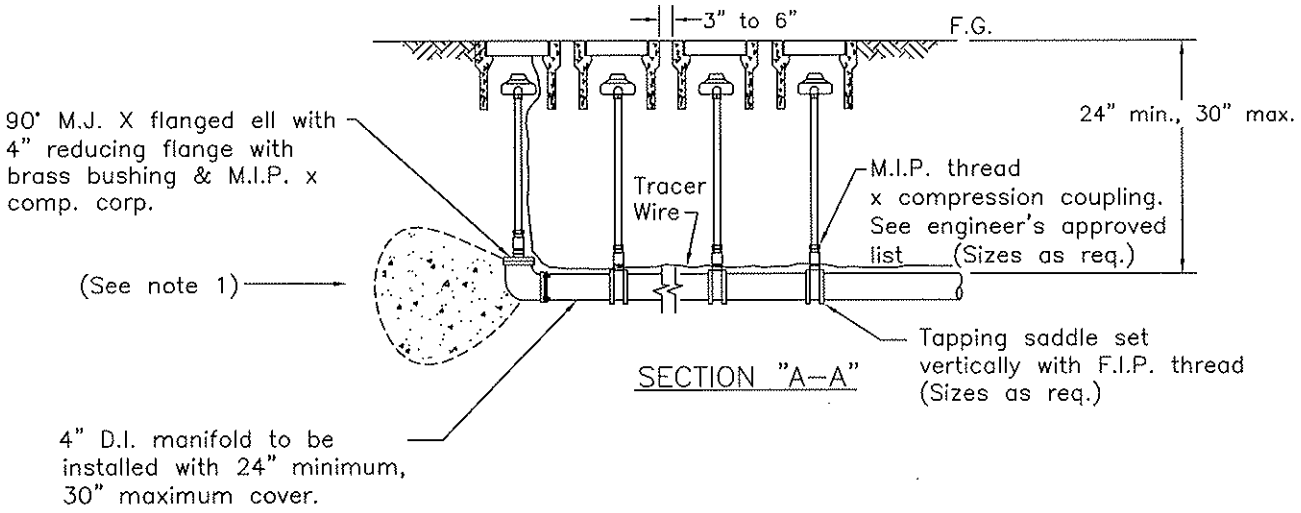
DATE: OCTOBER 2010

Approved:

STD. - 886



PLAN VIEW



SECTION "A–A"

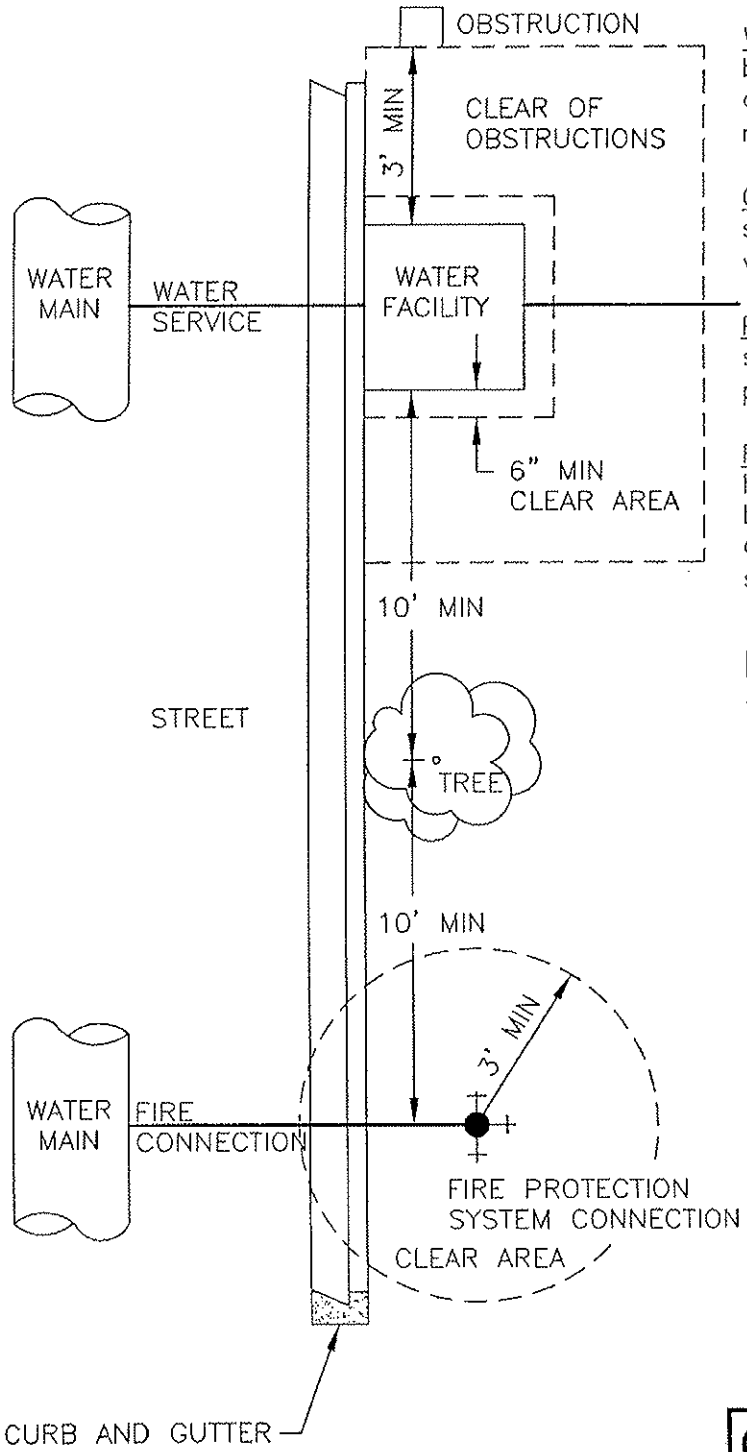
NOTE:

1. Restrained joints are required for all new construction from gate valve to end of 4" manifold. Thrust blocks are only required where existing services are being modified and restrained joints are not used.

CITY OF ROHNERT PARK

4" DUCTILE IRON MULTI-SERVICE MANIFOLD

SCALE: NONE	DATE: OCTOBER 2010
Approved:	STD. - 887



DEFINITIONS

Obstructions (posts, fences, mail boxes, growth, trash, debris, storage, etc.).

Water Facility (meter boxes, valve boxes, blow offs, air vacs, backflow devices, or any other connections to the water mains of the water system).

Clear Area (free of any obstructions, shrubs, debris, overgrowth, trash, vehicles, trailers, etc.).

Permanent Structures (trees, large shrubs, foundations, or any other permanent structure).

Fire Protection System Connection (fire hydrants, fire services, fire connections, backflow devices, or any other connections on the fire protection system).

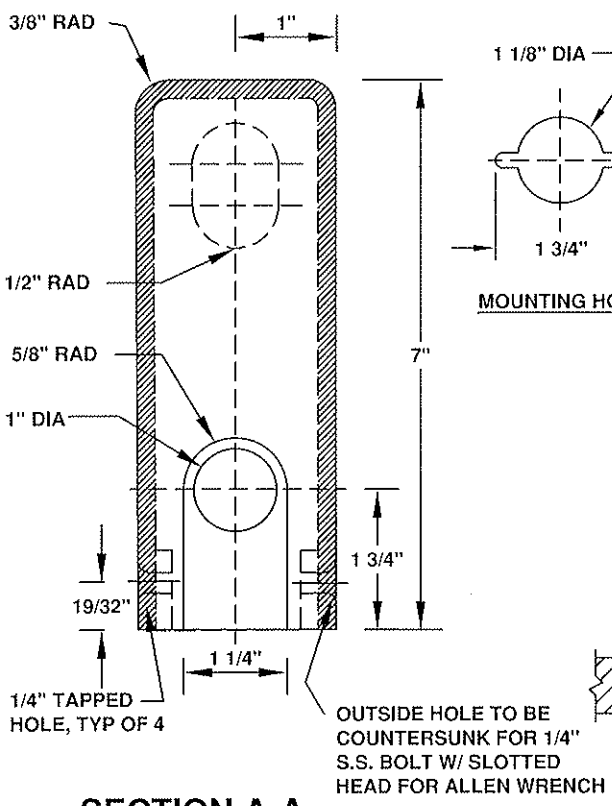
REQUIREMENTS

1. No obstructions may be placed in front of or within 3 ft. around and 6 ft. above any water facility as to deter or hinder free immediate access at all times.
2. A clear area 6 in. around and 6 ft. above any water facility shall be maintained by the customer.
3. No trees, foundations, or any other permanent structures shall be allowed within 10 ft. of any water facility or fire protection system connection.
4. No large shrubs shall be allowed within 5 ft. of any water facility or fire protection system connection.
5. A clear area 3 ft. around and 6 ft. above any fire protection system connection shall be maintained by the customer.

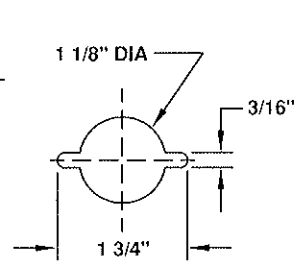
CITY OF ROHNERT PARK

WATER SERVICE OBSTRUCTIONS

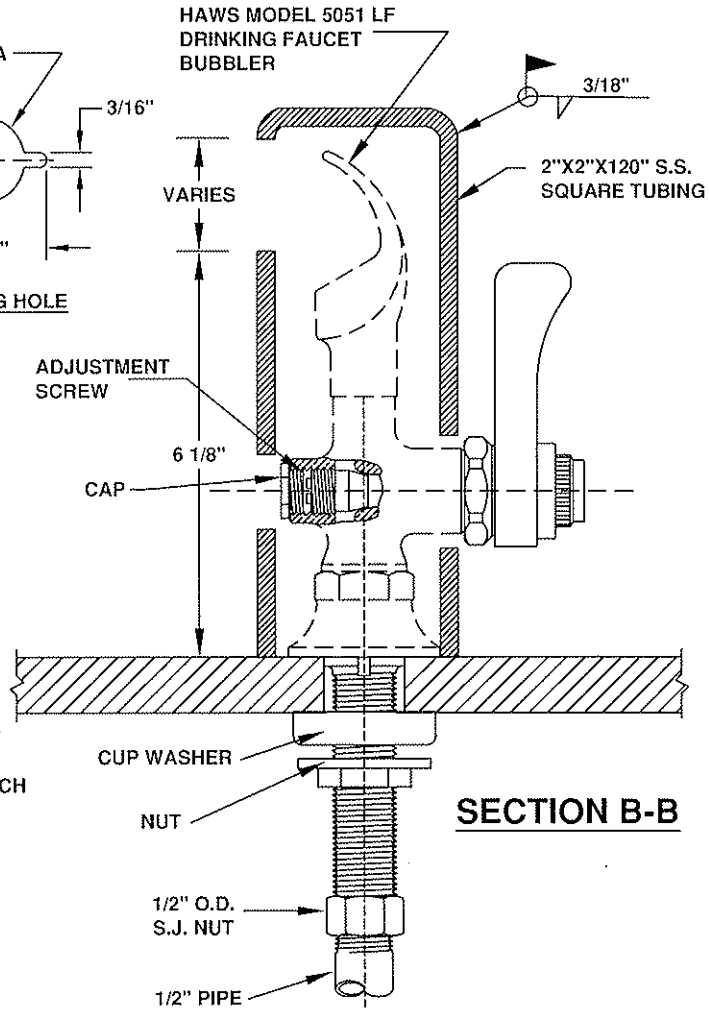
SCALE: NONE	DATE: JANUARY 2006
Approved:	STD. - 888



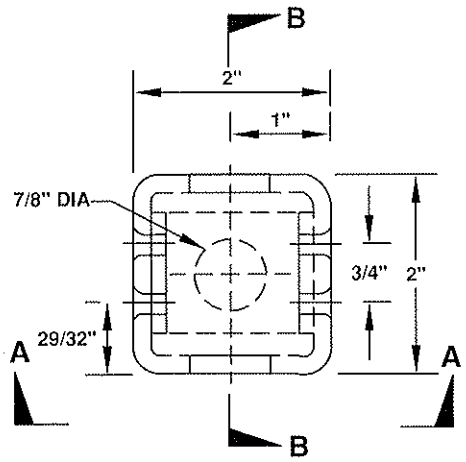
SECTION A-A



MOUNTING HOLE



SECTION B-B



PLAN

CONSTRUCTION NOTES

A. All components of cover and mounting bracket shall be type 316 s.s.

B. All fasteners and piping adapters shall be type 316 s.s.

C. Existing drinking fountains can be adjusted to regulate flow if water will not exit the opening.

D. Field revisions to the cover will be limited to grinding and drilling of the covers to allow flow to exit through the hole in the cover.

E. Prior to fabricating covers, shop drawings shall be submitted for review by the City Engineer.

F. Direction of drinking fountain discharge shall be changed to eliminate direct sprinkler spray.

NOTES

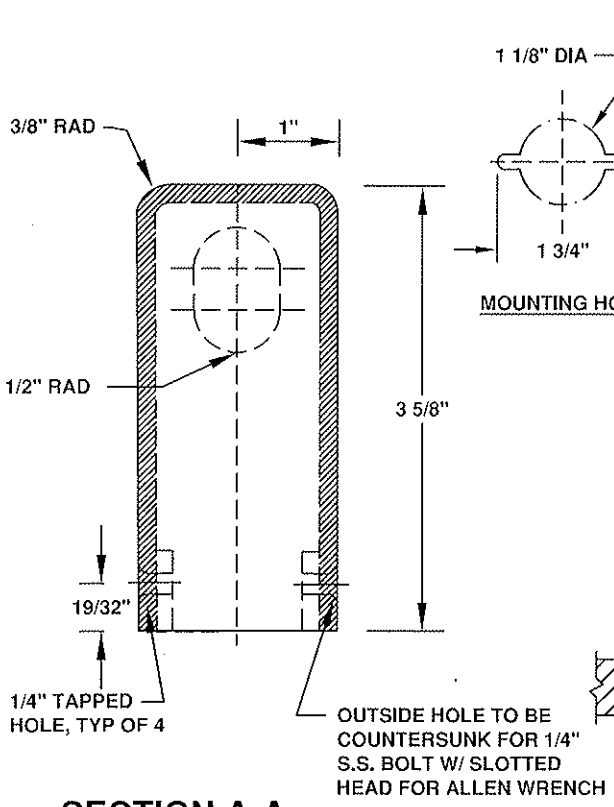
1. Be sure indexing pin is installed and oriented to accommodate the desired mounting

2. To adjust flow, turn adjustment screw counter clockwise to increase flow, and clockwise to decrease flow.

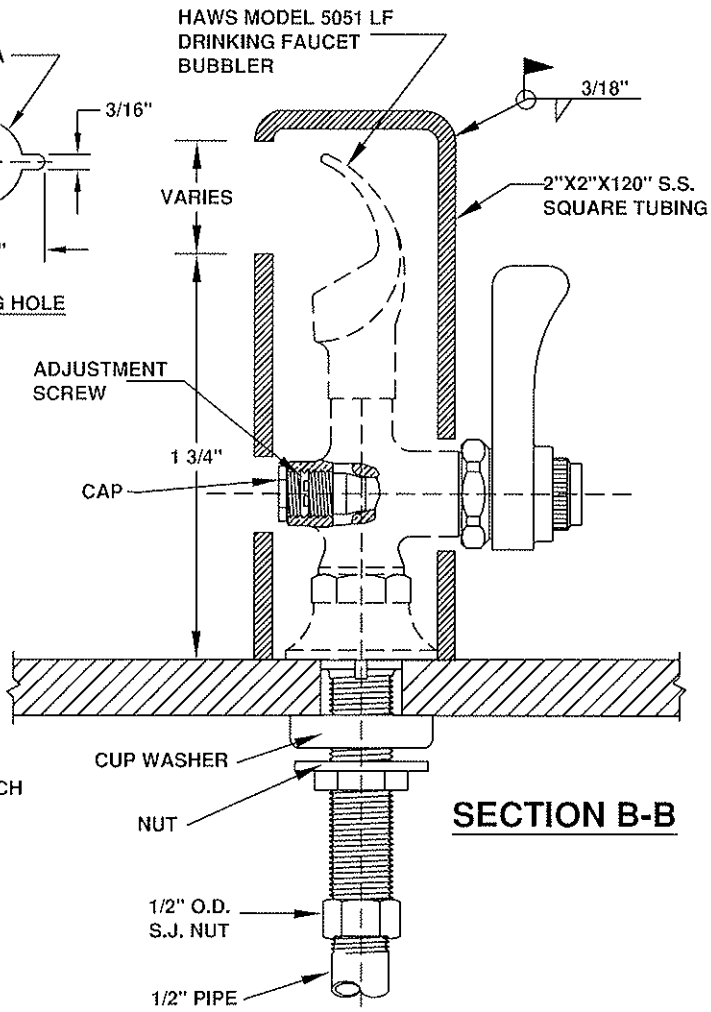
CITY OF ROHNERT PARK

DRINKING FOUNTAIN COVER DETAIL

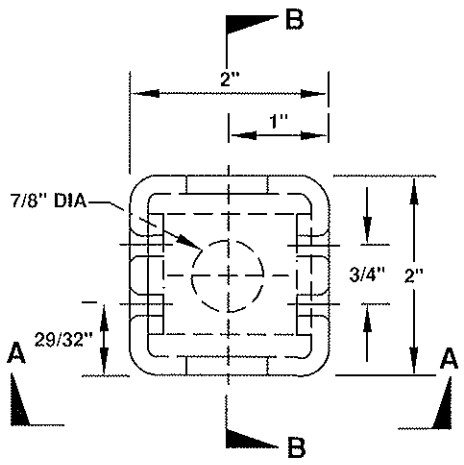
SCALE: NONE	DATE: OCTOBER 2010
Approved:	STD. - 891A



SECTION A-A



SECTION B-B



PLAN

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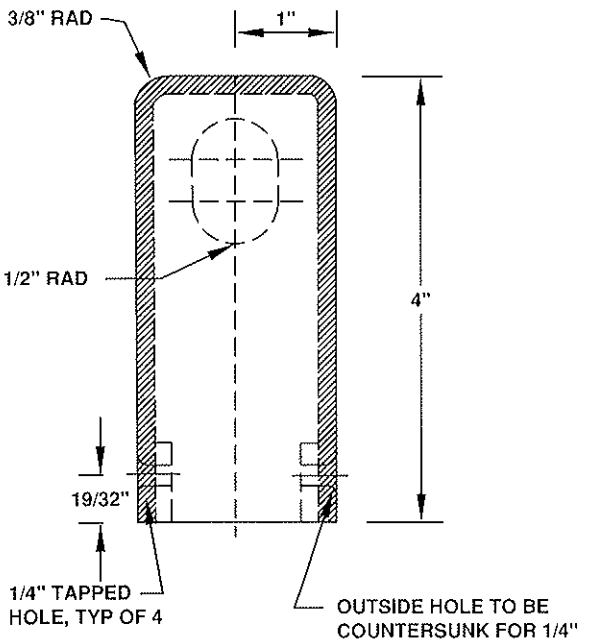
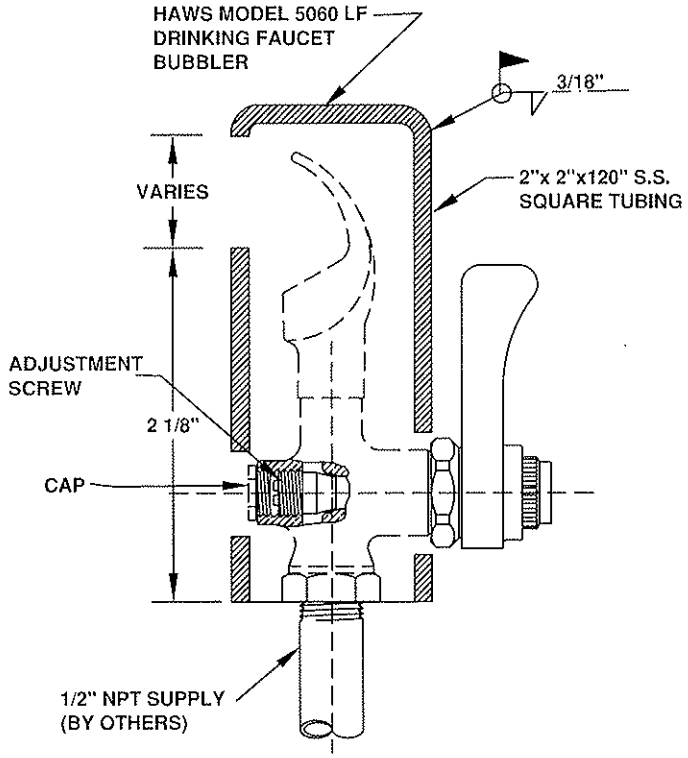
CITY OF ROHNERT PARK

DRINKING FOUNTAIN COVER DETAIL

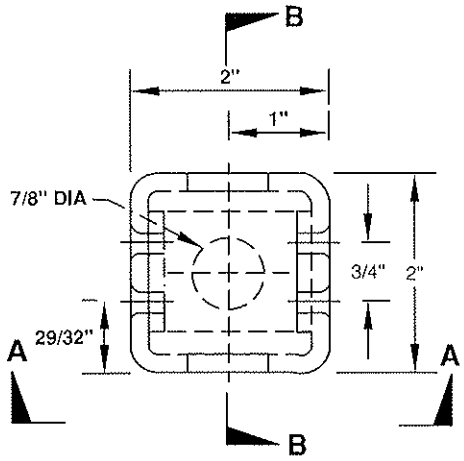
SCALE: NONE	DATE: OCTOBER 2010
Approved:	STD. - 891B



SECTION A-A



SECTION B-B



PLAN

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CITY OF ROHNERT PARK

DRINKING FOUNTAIN COVER DETAIL

SCALE: NONE	DATE: OCTOBER 2010
Approved:	STD. - 891C