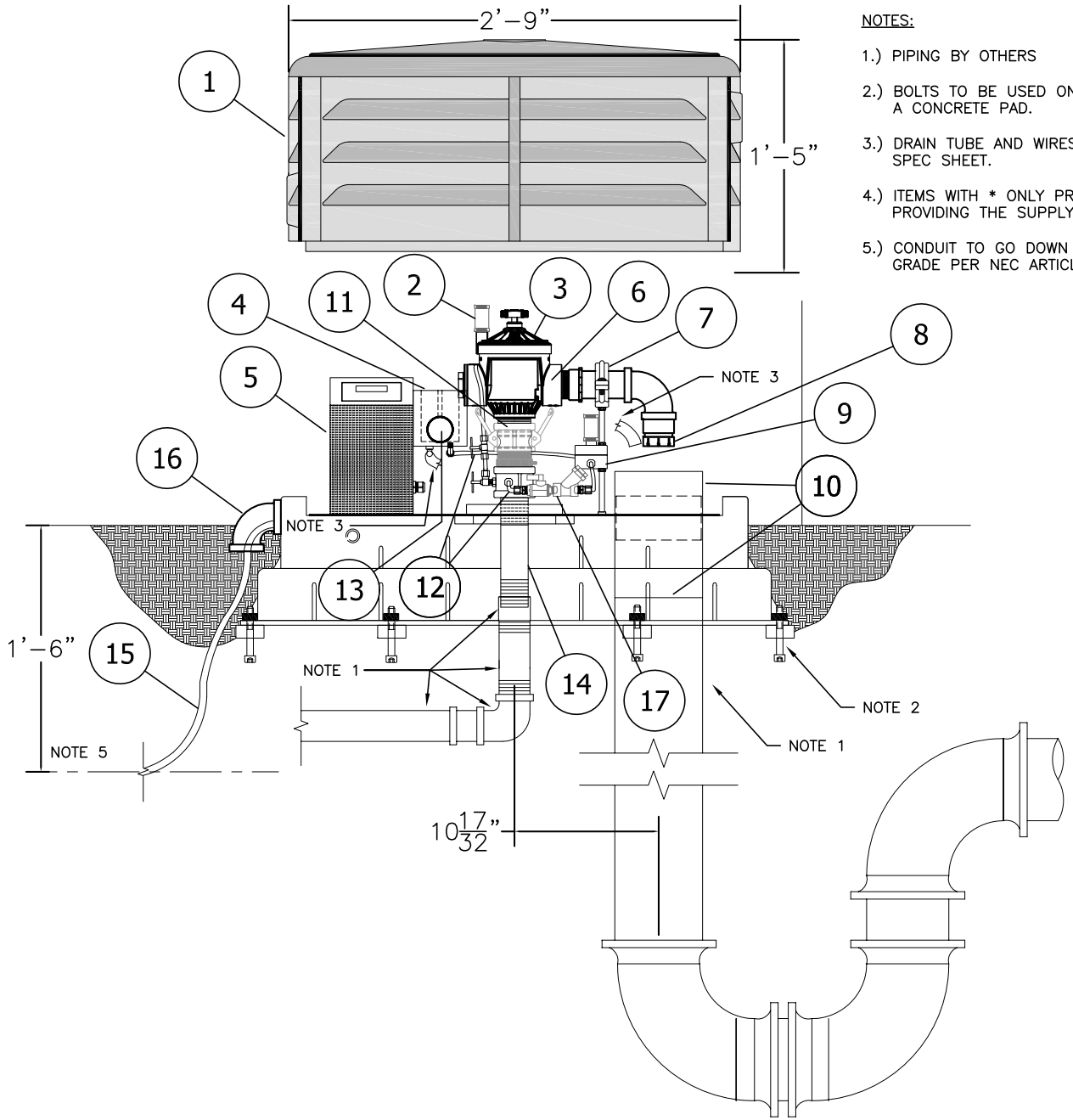
#9800WCi INTELLIGENT FLUSHING DEVICE



NOTES:

1.) PIPING BY OTHERS

2.) BOLTS TO BE USED ONLY IF MOUNTING THE UNIT ON A CONCRETE PAD.

3.) DRAIN TUBE AND WIRES NOT COMPLETELY SHOWN ON SPEC SHEET.

4.) ITEMS WITH * ONLY PROVIDED IF KUPFERLE IS PROVIDING THE SUPPLY OF 24 VDC POWER.

5.) CONDUIT TO GO DOWN TO A DEPTH OF 18" BELOW GRADE PER NEC ARTICLE 300.5 COLUMN 3.

ITEM	ITEM / DESCRIPTION
1	UV RESISTANT LOCKABLE LID
2	DC LATCHING SOLENOID
3	2" PGV VALVE
4	SAMPLING FLOWCELL
5	ELECTRICAL CONTROL ENCLOSURE
6	SAMPLING LINE
7	2" PIPE CLAMP
8	DIFFUSER / TRAP
9	SAMPLING VALVE
10	SEWER COUPLING
11	2" BRASS QUICK DISCONNECT
12	1/4" COPPER TUBING
13	INSERTION POINT FOR CHLORINE SENSOR
14	6" OF 2" BRASS PIPE
15*	LIQUID TIGHT FLEXIBLE METAL CONDUIT
16*	90° PVC FOR CONDUIT PROTECTION
17	SHUTOFF VALVE AND FILTER

A 2" brass M.I.P. inlet shall lead vertically to the bottom of a 2" automatic flushing valve. The flushing valve shall control the flow of water through the hydrant and its diaphragm with the extension and retraction of a DC latching solenoid. The solenoid shall have no loose parts when removed from the valve.

The ***Intelligent Flushing Unit*** (IFU) to be installed on the water lines mentioned above shall use a PLC to control the automatic blow-off of water to maintain chlorine residual levels while collecting data. The IFU shall have the capability to monitor either free or combined chlorine levels in the water. The unit shall also allow the user to manually flush water from the line with the simple push of a button, allow a minimum of 8 automatic sampling times, have a max flush length per sampling time, and allow the end user to program the desired and minimum chlorine levels. The IFU shall be enclosed in a lockable UV resistant enclosure.

The sensor shall be amperometric using a membrane sensor which measures chlorine directly without the use of reagents. Water shall simply flow past the sensor and directly to drain, with the flow rate and pressure across the sensor controlled by a constant head flow cell assembly. The sample used for chlorine measurement shall not be altered by adding any chemicals to the sample stream. A shutoff valve should be present, as well as a filter, to prevent debris from entering the flowcell and allow for maintenance.

The IFU shall be designed to be upgradable to allow the end user to interface with a SCADA system via remote communication.

Unit model # shall be 9800WCi as manufactured by Kupferle Foundry Company, St. Louis MO, or approved equal.

DD/MM/YY	ISSUED FOR REFERANCE
DATE	STATUS / REVISION

SHEET 1 OF 1	SCALE: 1"=1'-0"	DRAWN DCL
		CHECKED DCL
		APPROVED DCL
		DATE 1/30/13
9800WCi SPEC SHEET		

Since 1857
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