

SCOPE: THIS STANDARD SHOWS INSTALLATION AND APPLICATION OF OIL SENSING SUMP PUMP IN VAULT FOR ELECTRICAL AND OR ELECTRONIC EQUIPMENT.

**DO NOT INSTALL SUMP PUMPS IN VAULTS USED ONLY FOR CABLE AND NON-SEPARABLE CONNECTOR APPLICATIONS.**

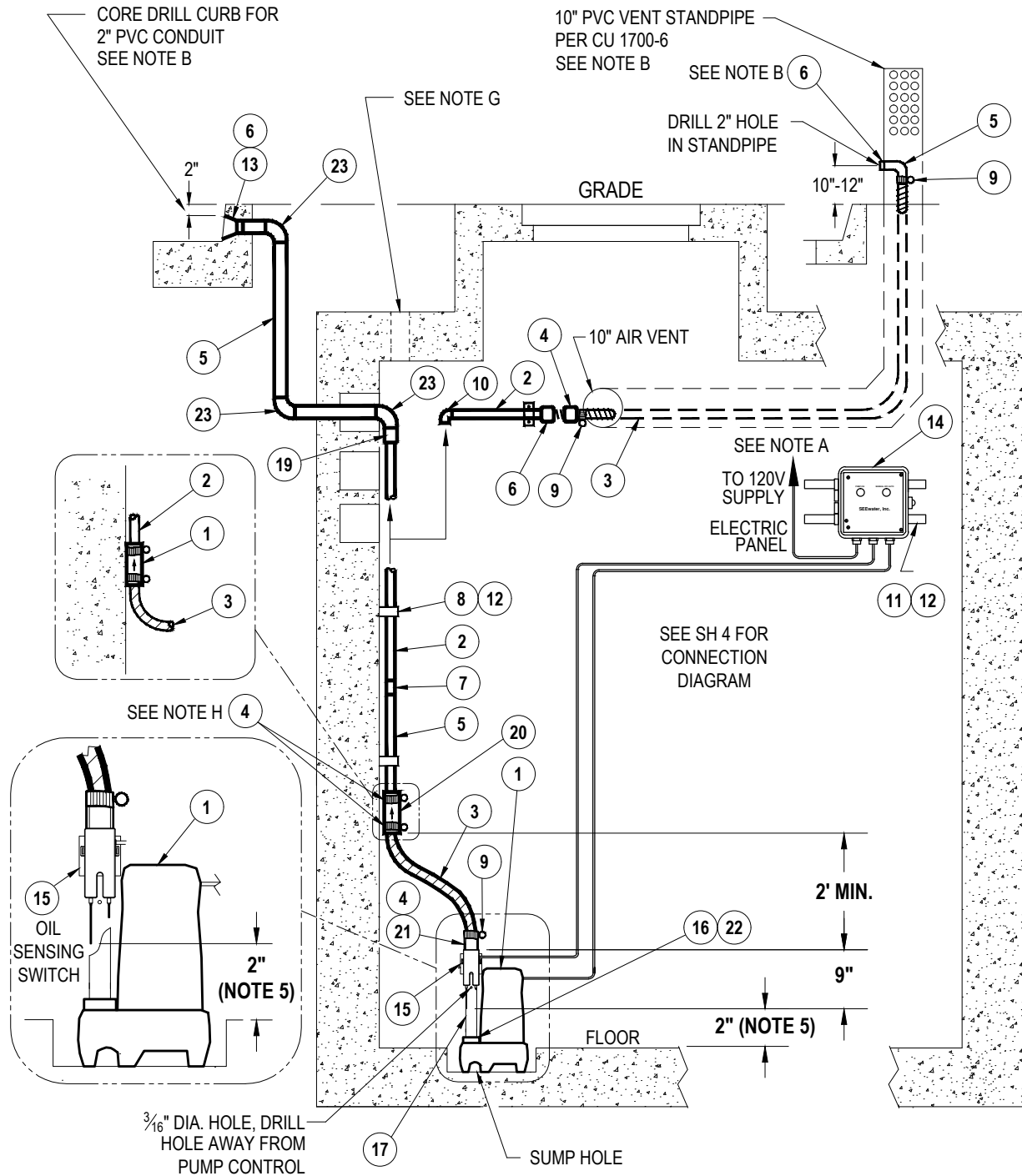
**SUMP PUMP INSTALLATION CRITERIA AND DETAIL:**

1. VAULTS WHICH WILL HOUSE SWITCH(ES), S.C.A.D.A. & ELECTRONIC EQUIPMENT, 3KV SURGE ARRESTER FOR 69KV SPLICES ETC., INSTALL SUMP PUMP AND ACCESSORIES PER THIS STANDARD.
2. DISCHARGE PLUMBING THRU AIR VENT DUCT TO A POINT 12 INCHES INSIDE VAULT. INSTALL A TEMPORARY CAP ON PORTION INSIDE VAULT. INSTALL THE ELECTRIC CONDUIT THAT WILL BE USED FOR THE SERVICE TO THE PUMP IN A CONDUIT TERMINATOR AND EXTEND TO THE SOURCE OR FUTURE SOURCE OF POWER.
3. CURB DISCHARGE OUTLET MAY BE USED IN LIEU OF AIR VENT DISCHARGE OUTLET DUE TO DESIGN OR EXISTING CONDITIONS. ELECTRICAL ENGINEERING DIV. TO SPECIFY DISCHARGE OUTLET TYPE AND LOCATION ON WORK ORDER DRAWINGS. DISCHARGE MUST BE TO GUTTER DIRECTLY OR THRU CORE DRILL. DO NOT DIRECT DISCHARGE FLOW TO SOFT OR LANDSCAPED SURFACES/ AREAS.
4. INSTALL LONGER PROBE OF OIL SENSING SWITCH 2" ABOVE FLOOR AS SHOWN ON SH. 2 & 3.
5. SERVICE VOLTAGE TO PUMP & SWITCH IS 120VAC ONLY.

FILENAME: CU1700-8 REV3

<b>CITY OF ANAHEIM</b> PUBLIC UTILITIES DEPARTMENT ELECTRICAL DIVISION T&D CONSTRUCTION STANDARDS		REVISION KEYS:	 ADDED / REVISED TEXT	 ADDED / REVISED MATERIAL	NEW SHEET	NEW SHEET									
		<b>OIL SENSING SUMP PUMP INSTALLATION IN VAULTS</b>				REVISION NO. <b>3</b>									
ISSUE DATE: <b>01-16</b>															
SHEET <b>1</b> OF <b>6</b>															
APPROVALS <table border="1"> <thead> <tr> <th>PREP BY</th> <th>T&amp;D MGR</th> <th>SYS PLN MGR</th> <th>OPS MGR</th> <th>SUB MAINT</th> </tr> </thead> <tbody> <tr> <td>MH</td> <td>EB</td> <td>--</td> <td>DA</td> <td>--</td> </tr> </tbody> </table>		PREP BY	T&D MGR	SYS PLN MGR	OPS MGR	SUB MAINT	MH	EB	--	DA	--			CONSTRUCTION STANDARD: <b>CU 1700-8</b>	
PREP BY	T&D MGR	SYS PLN MGR	OPS MGR	SUB MAINT											
MH	EB	--	DA	--											

SCOPE: THIS STANDARD SHOWS INSTALLATION AND APPLICATION OF SUMP PUMP IN VAULT.

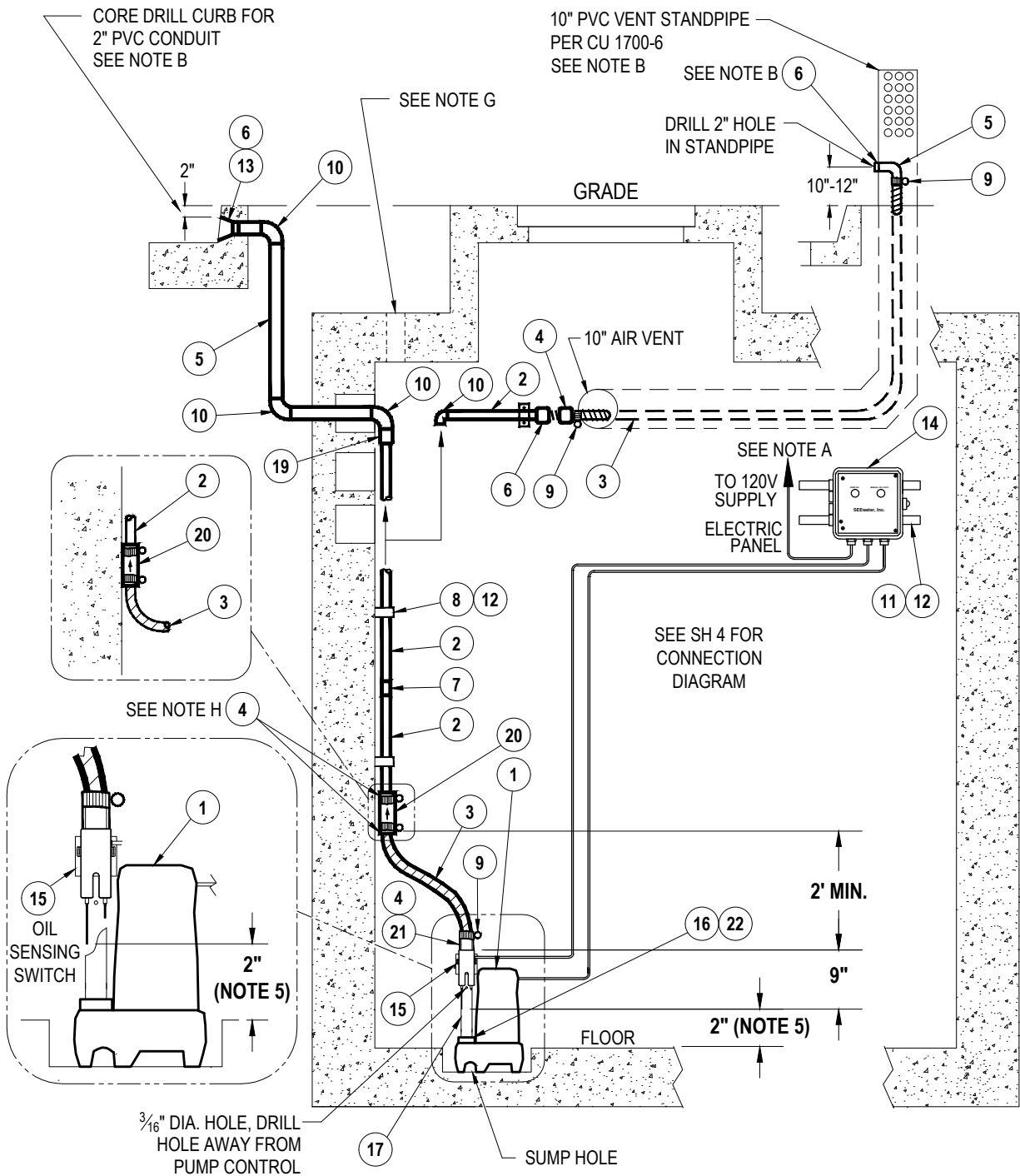


FILENAME: CU1700-8 REV3

**OPTION 1  
NEW INSTALLATION**

<b>CITY OF ANAHEIM</b> PUBLIC UTILITIES DEPARTMENT ELECTRICAL DIVISION T&D CONSTRUCTION STANDARDS		REVISION KEYS:	ADDED / REVISED TEXT	ADDED / REVISED MATERIAL	NEW SHEET	NEW SHEET
		<b>OIL SENSING SUMP PUMP INSTALLATION IN VAULTS</b>				REVISION NO. <b>3</b>
ISSUE DATE: <b>01-16</b>						
SHEET <b>2</b> OF <b>6</b>						
APPROVALS PREP BY T&D MGR SYS PLN MGR OPS MGR SUB MAINT <i>MH</i> <i>EB</i> --- <i>DA</i> ---				CONSTRUCTION STANDARD: <b>CU 1700-8</b>		

SCOPE: THIS STANDARD SHOWS INSTALLATION AND APPLICATION OF SUMP PUMP IN VAULT.



**OPTION 2  
RETROFIT**

FILENAME: CU1700-8 REV3

**CITY OF ANAHEIM**  
PUBLIC UTILITIES DEPARTMENT  
ELECTRICAL DIVISION  
T&D CONSTRUCTION STANDARDS

APPROVALS				
PREP BY	T&D MGR	SYS PLN MGR	OPS MGR	SUB MAINT
MH	EB			

REVISION KEYS:



ADDED / REVISED TEXT



ADDED / REVISED MATERIAL

NEW SHEET

NEW SHEET

**OIL SENSING SUMP PUMP  
INSTALLATION IN VAULTS**

REVISION NO. **3**

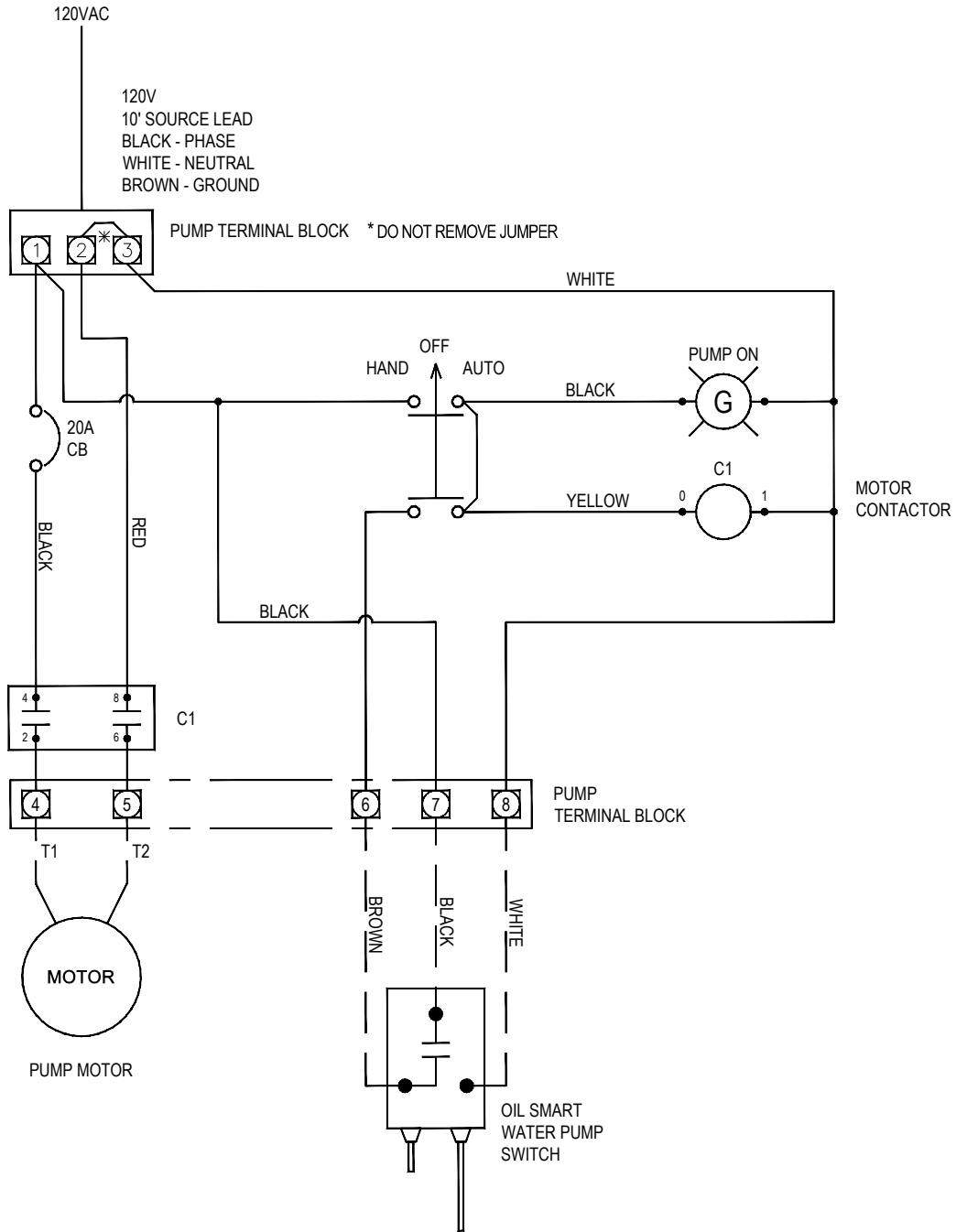
ISSUE DATE: **01-16**

SHEET **3** OF **6**

CONSTRUCTION STANDARD:

**CU 1700-8**

FILENAME: CU1700-8 REV/3



SCHEMATIC DIAGRAM

Use Copper Conductors Only

**CITY OF ANAHEIM**  
PUBLIC UTILITIES DEPARTMENT  
ELECTRICAL DIVISION  
T&D CONSTRUCTION STANDARDS

APPROVALS				
PREP BY	T&D MGR	SYS PLN MGR	OPS MGR	SUB MAINT
MH	EB	--	DA	--

REVISION KEYS:



ADDED / REVISED TEXT



ADDED / REVISED MATERIAL

NEW SHEET

NEW SHEET

## OIL SENSING SUMP PUMP INSTALLATION IN VAULTS

REVISION NO. **3**

ISSUE DATE: **01-16**

SHEET **4** OF **6**

CONSTRUCTION STANDARD:

**CU 1700-8**

**MATERIAL LIST**

ITEM	QTY	DESCRIPTION	ANAHEIM PART NO.	COMPATIBLE UNITS	MFR/ PART NO.
1	1	½ HP DURABLE CAST IRON CONSTRUCTION HIGH HEAD PUMP WITH AUTOMATIC THERMAL LOAD PROTECTION, 20' CORD. (NOTE I)	486330	VPUMP-OILSENS	ZOLLER #153
2	AS REQ'D	CONDUIT, 1 1/4" PVC SCH. 40 (NOTE F)	-	-	
3	AS REQ'D	HOSE, 1 1/4" FLEX. PLASTIC (GEN-LINE) (NOTE F)	-	-	
4	3	INSERT, 1 1/4" FIP TO HOSE, PVC- INSE 4204 2420 (NOTE F,H)	-	-	
5	1	CONDUIT, 2" PVC SCH 40 (NOTE F)	-	-	
6	3	ADAPTER, 1 1/4" FEMALE TO 1 1/4" MIP, PVC (NOTE F)	-	-	
7	AS REQ'D	COUPLING, 1 1/4" PVC (NOTE F)	-	-	
8	AS REQ'D	PIPE STRAPS, 1 1/4" GALV. (NOTE F)	-	-	
9	3	CLAMP, HOSE, 1 1/4" SS, WORM DR, HD (NOTE F)	-	-	
10	3	ELL, 1 1/4" X 90° PVC (NOTE F)	-	-	
11	AS REQ'D	UNISTRUT - AS NEEDED-CUT TO FIT	E448075M	UNI 10	
12	AS REQ'D	CONCRETE ANCHOR INSERT 1/2" X 2 1/4"	G987220M	-	
13	1	PROTECTION DRAIN FITTING 2"	-	-	
14	1	TYPE 6P ENCLOSURE COMPONENTS & LEADS (NOTE I)	486340	VPUMP-OILSNSPNL	SEE WATER #CP1022
15	1	OIL SMART SWITCH W/20' CORD AND MOUNTING HARDWARE (NOTE I)	486335	VPUMP-OILSWITCH	SEE WATER #OSS2OR6
16	1	1 1/2" MALE TO 1 1/4" FEMALE REDUCER ADAPTOR 980369 42310 (NOTE F)	-	-	
17	1	1 1/4" X 10" M-M PVC (NOTE F)			
18	-	--- NOT USED ---	-	-	
19	-	REDUCER BUSHING, 2" TO 1 1/4" PVC (NOTE F)	-	-	
20	1	CHECK VALVE -1 1/4"- BELL #SPE4522012. (NOTE F,H)	-	-	
21	1	FEMALE ADAPTOR 1 1/4" BELL #980372 24080. (NOTE F)	-	-	
22	1	SLIP/SLIP-1 1/4" X P8,BUS BELL #430220 2420 (NOTE F)	-	-	
23	3	ELL, 2" X 90° PVC (NOTE F)	-	-	

NOTES:

- A. PROVIDE A SINGLE PHASE SERVICE TO POWER CORD .INSTALL WATERPROOF SPLICE WITH AQUA SEAL AND TAPE.
- B. INSTALL CURB OUTLET OR AIR VENT OUTLET IN DOWNSTREAM SIDE OF GUTTER FLOW FROM VAULT. DO NOT INSTALL VENT OUTLET ON PRIVATE PROPERTY OR BACK SIDE OF SIDEWALK. SEE NOTE 3.
- C. CEMENT TOGETHER PVC MALE/FEMALE THREADED FITTINGS EXCEPT AT SUMP PUMP DISCHARGE.
- D. CONNECT SUMP PUMP GROUND TO VAULT GROUND USING #8 CU. WIRE.
- E. FOR CURB DISCHARGE, EXIT VAULT THRU UPPER MOST UNUSED CONDUIT TERMINATOR, OR CORE DRILL VAULT ROOF, ABOVE SUMP PUMP LOCATION. SEAL JOINT BETWEEN CONDUIT AND VAULT.
- F. AVAILABLE THRU BELL PIPE AIR SUPPLY, ANAHEIM, CA.
- G. FOR CURB DISCHARGE, EXIT VAULT THRU UPPERMOST UNUSED CONDUIT TERMINATOR OR CORE DRILL VAULT ROOF ABOVE SUMP PUMP LOCATION. SEAL JOINT BETWEEN CONDUIT AND VAULT.
- H. CHECK VALVE COMES WITH ADAPTORS FOR FLEX AND PVC CONNECTIONS.
- I. AVAILABLE THRU SEEWATER INC. WWW. SEEWATERINC.COM
- J. INSTALL CONTROL ENCLOSURE NEAR THE VAULT LID ACCESSIBLE FROM OUTSIDE WITHOUT ENTERING THE VAULT.

**OPTION 1  
NEW INSTALLATION**

FILENAME: CU1700-8 REV3

<b>CITY OF ANAHEIM</b> PUBLIC UTILITIES DEPARTMENT ELECTRICAL DIVISION T&D CONSTRUCTION STANDARDS	REVISION KEYS:  ADDED / REVISED TEXT  ADDED / REVISED MATERIAL	NEW SHEET <b>3</b>
	<b>OIL SENSING SUMP PUMP INSTALLATION IN VAULTS</b>	REVISION NO. <b>3</b>
		ISSUE DATE : <b>01-16</b>
		SHEET <b>5</b> OF <b>6</b>
APPROVALS PREP BY T&D MGR SYS PLN MGR OPS MGR SUB MAINT 	CONSTRUCTION STANDARD: <b>CU 1700-8</b>	

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\* MATCH EXISTING

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RETROFIT**

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<b>CITY OF ANAHEIM</b> PUBLIC UTILITIES DEPARTMENT ELECTRICAL DIVISION T&D CONSTRUCTION STANDARDS	REVISION KEYS:	ADDED / REVISED TEXT	ADDED / REVISED MATERIAL	NEW SHEET	NEW SHEET	
	<b>OIL SENSING SUMP PUMP INSTALLATION IN VAULTS</b>				REVISION NO.	3
					ISSUE DATE :	01-16
					SHEET	6 OF 6
APPROVALS PREP BY T&D MGR SYS PLN MGR OPS MGR SUB MAINT ---  ---				CONSTRUCTION STANDARD: <b>CU 1700-8</b>		