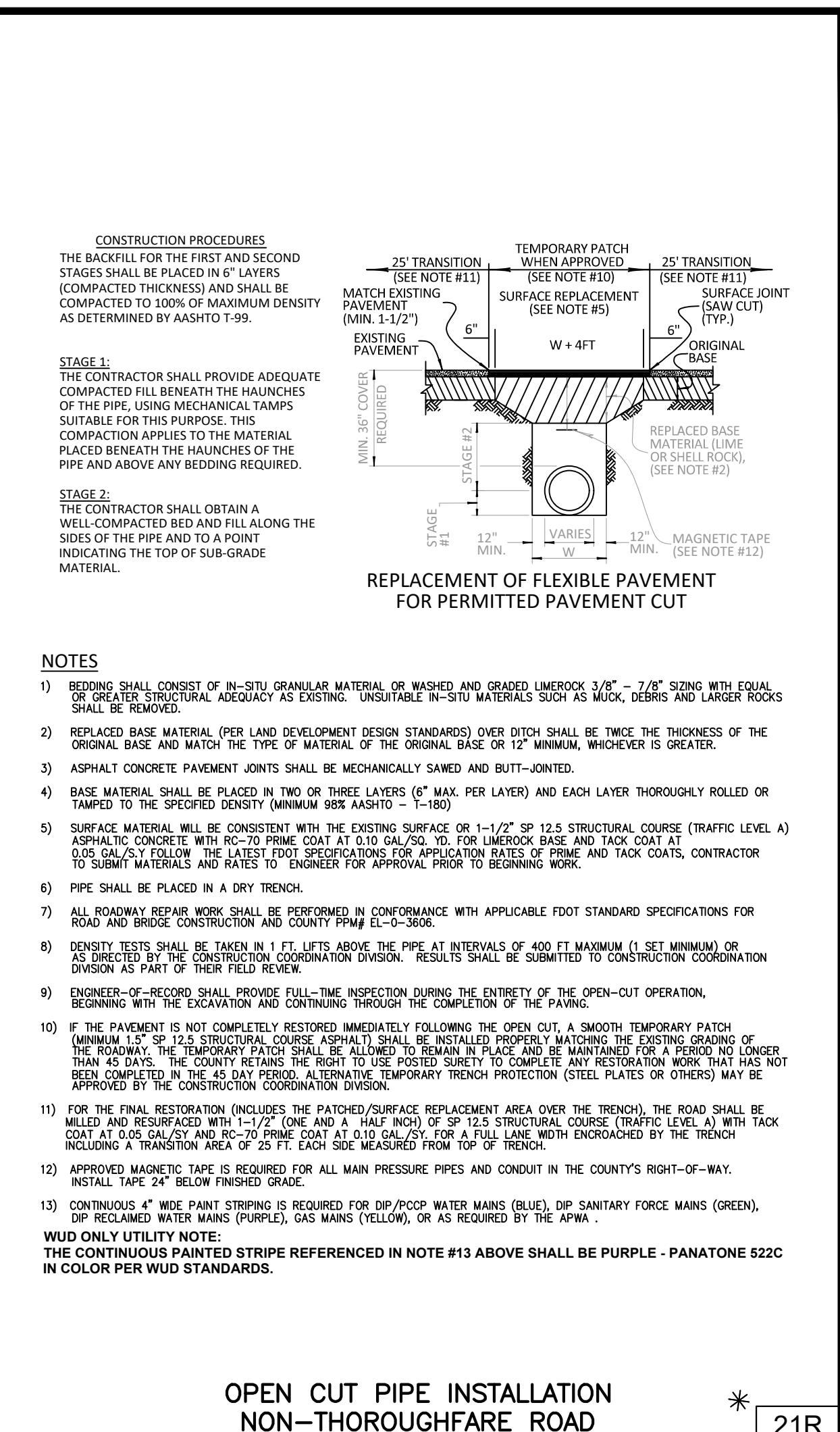
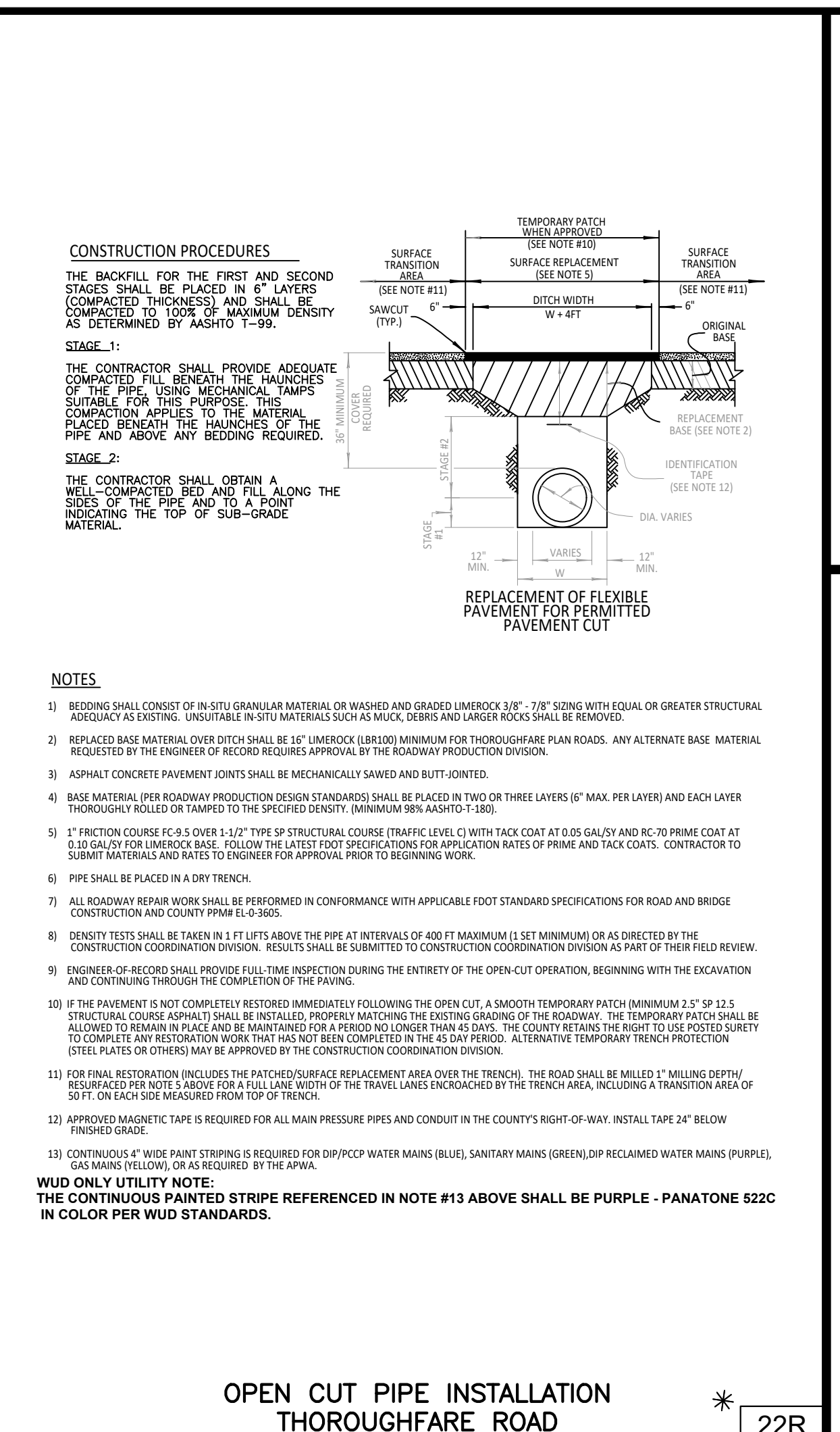


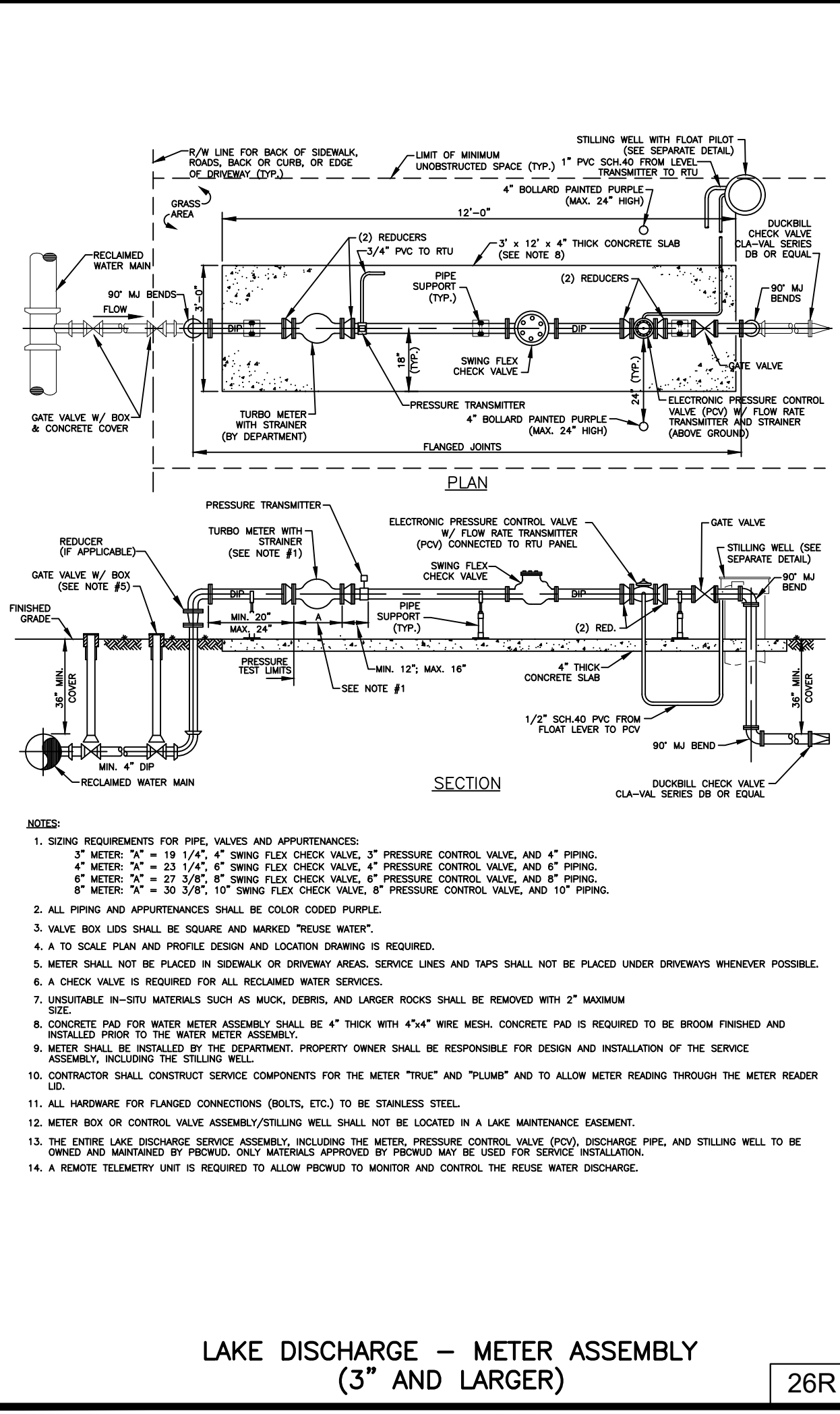
RECLAIMED WATER MAIN OFF-SET UNDERGROUND AIR RELEASE VALVE 20R



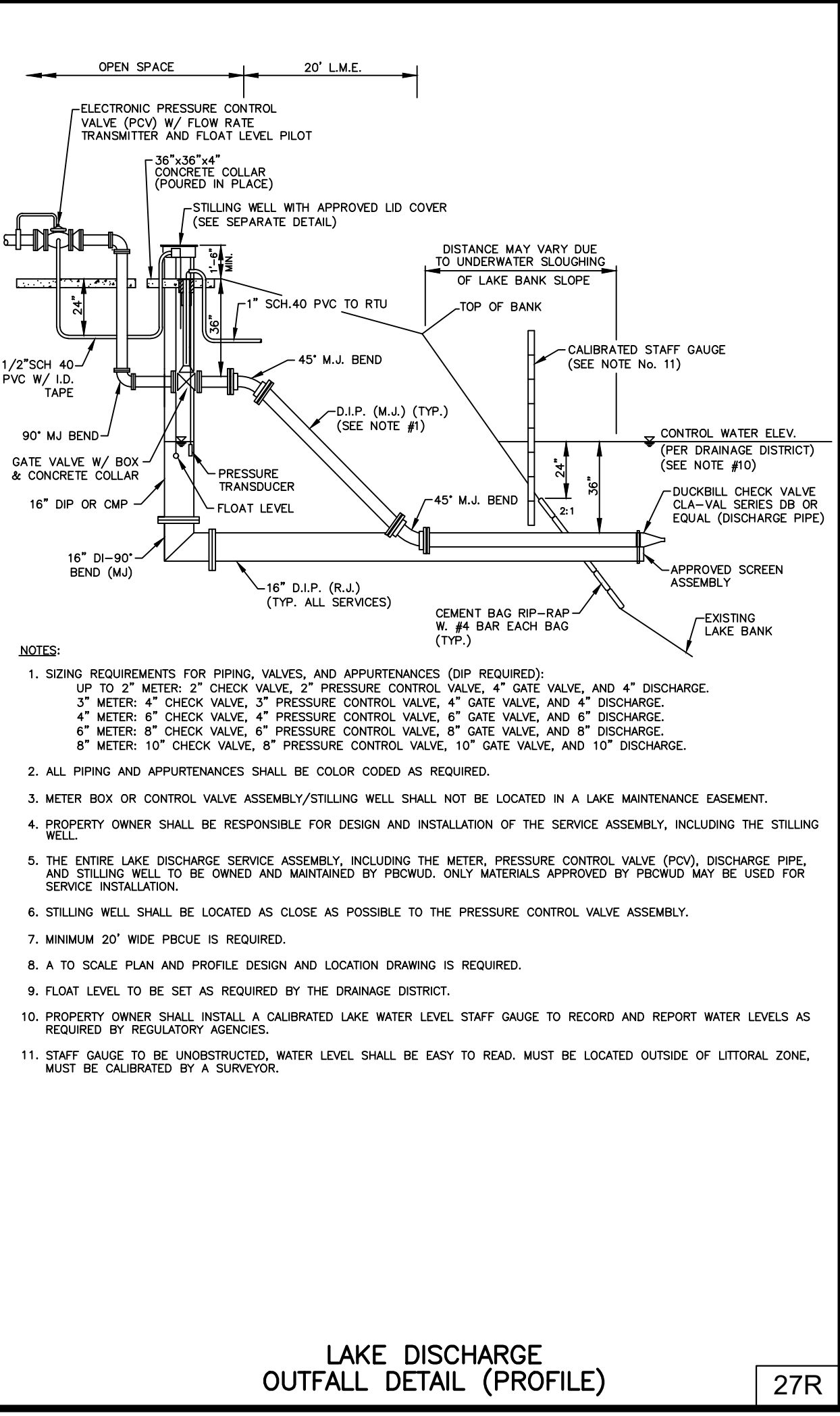
OPEN CUT PIPE INSTALLATION NON-THOROUGHFARE ROAD 21R



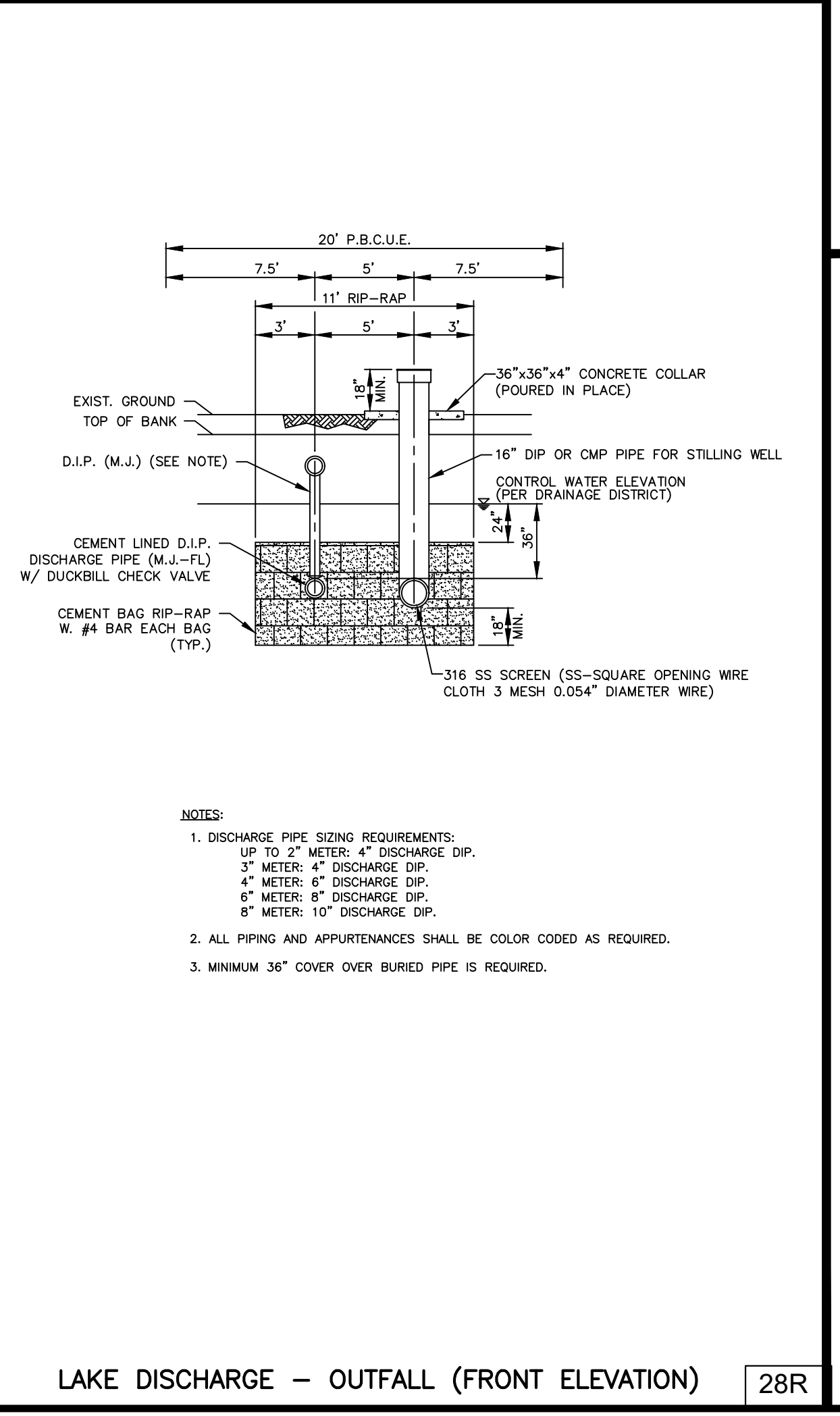
OPEN CUT PIPE INSTALLATION THOROUGHFARE ROAD 22R



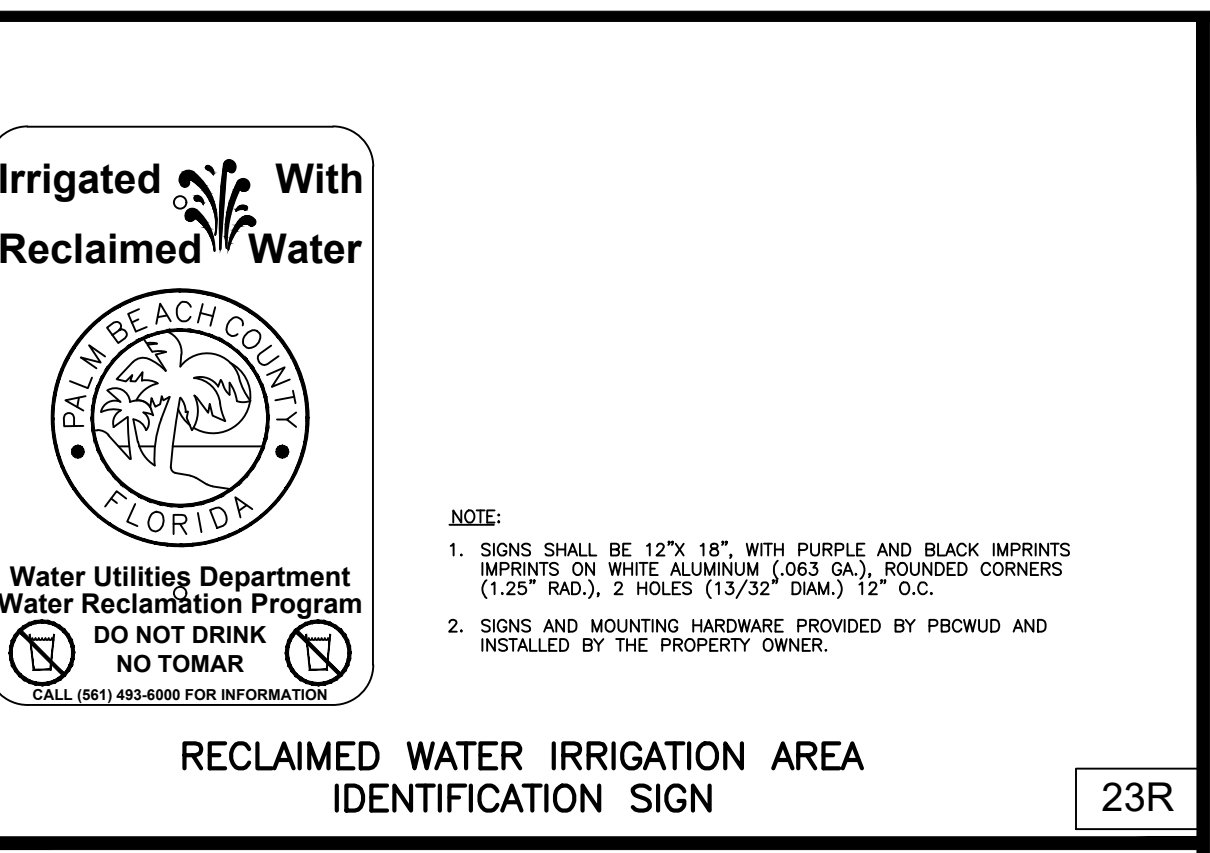
LAKE DISCHARGE - METER ASSEMBLY (3" AND LARGER) 26R



LAKE DISCHARGE OUTFALL DETAIL (PROFILE) 27R



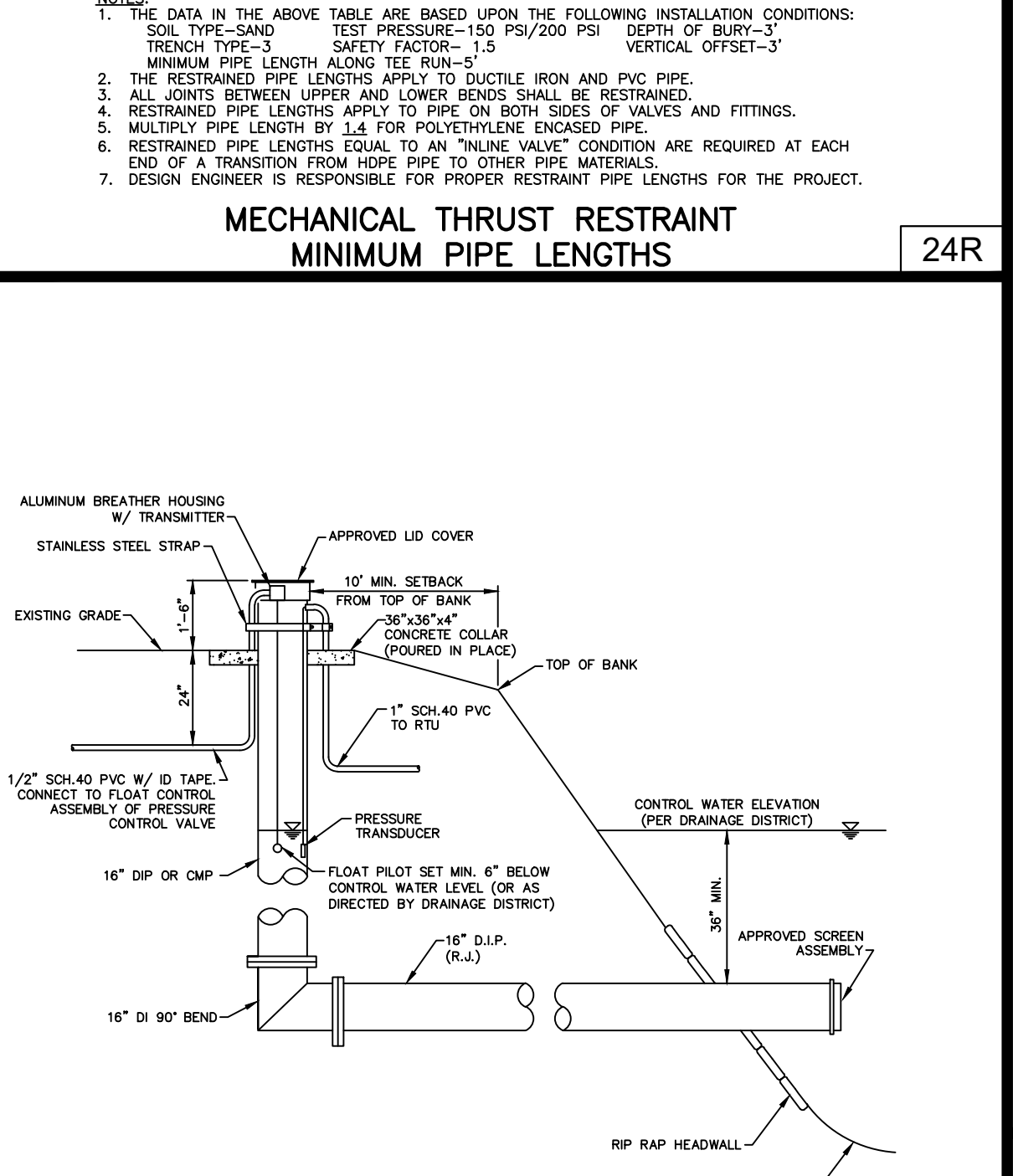
LAKE DISCHARGE - OUTFALL (FRONT ELEVATION) 28R



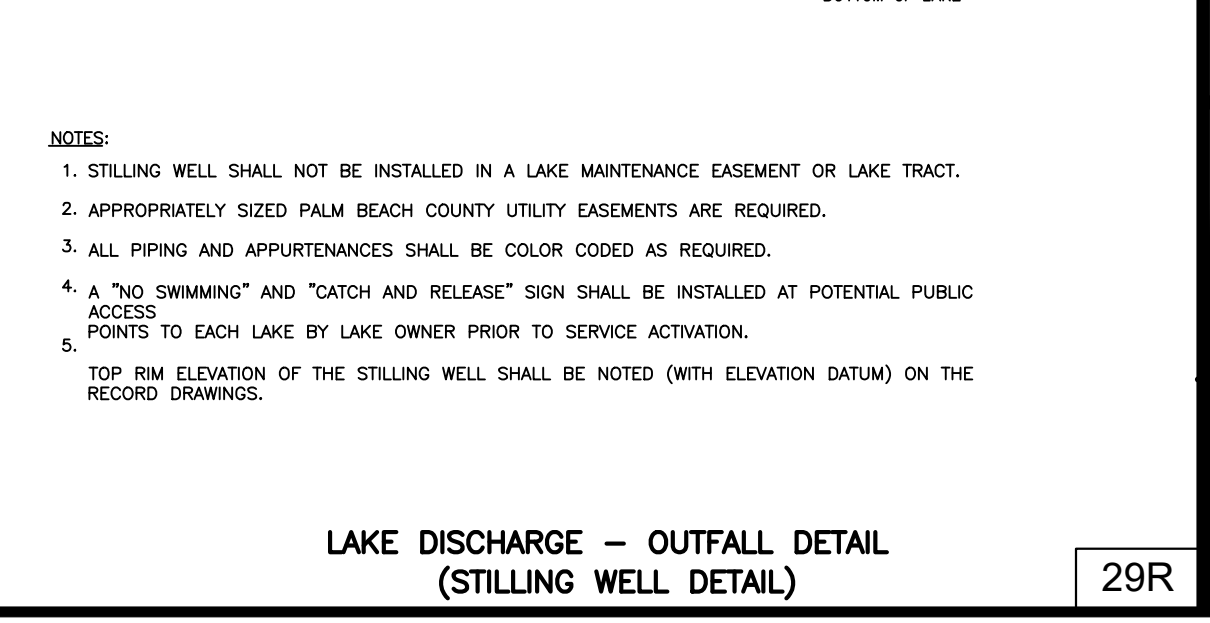
RECLAIMED WATER IRRIGATION AREA IDENTIFICATION SIGN 23R

MIN. LENGTH OF PIPE (FEET) TO BE RESTRAINED  
(SOURCES: EBAN IRON RESTRAINT LENGTH CALCULATION PROGRAM FOR PVC PIPE, RELEASE 3.1, AND DIPRA THRU-ROD RESTRAINT FOR DUCTILE IRON PIPE, RELEASE 3.2)

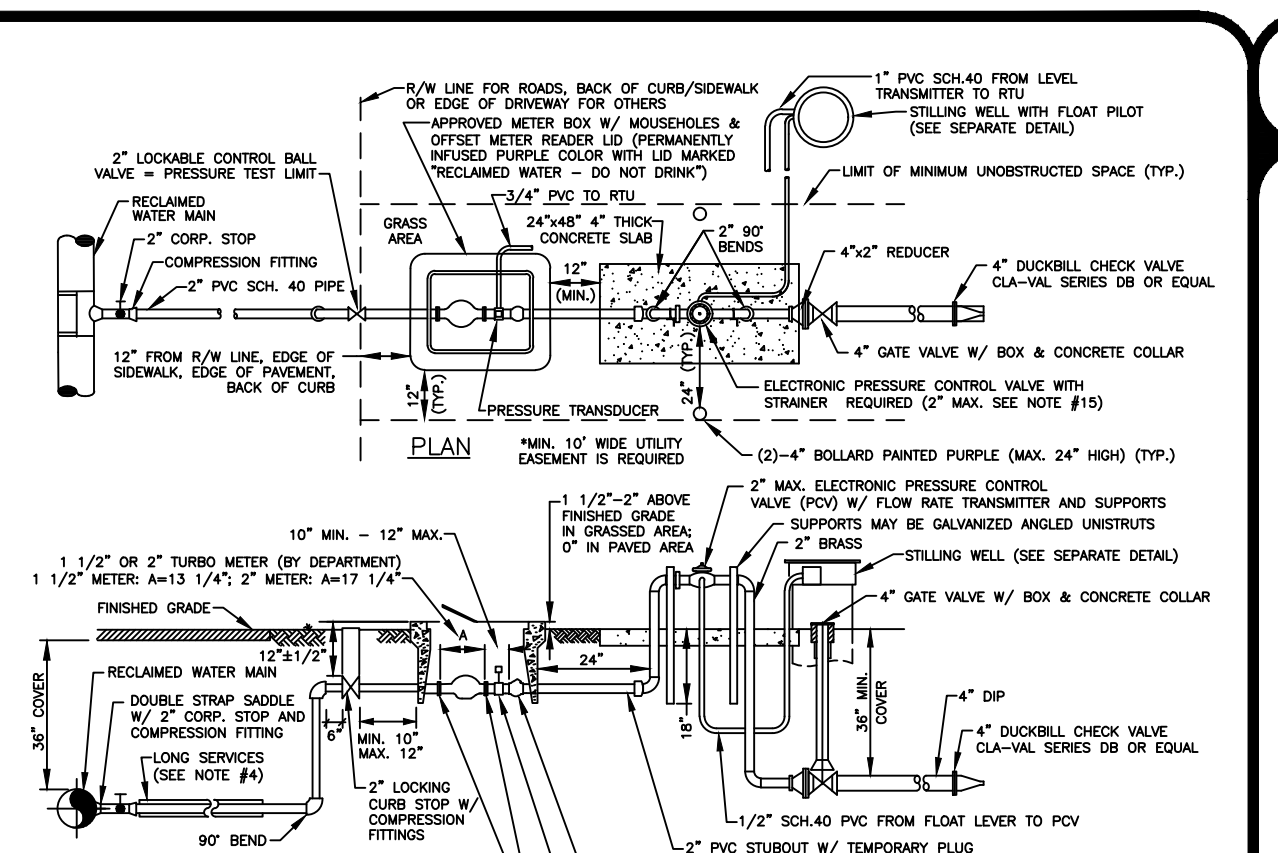
FITTING TYPE	PIPE SIZE															
	4"	6"	8"	10"	12"	16"	20"	24"	30"	36"	42"	48"	60"	72"	84"	96"
90° HORIZ. BEND	14	20	25	30	35	45	54	62	68	78	90	102	114	126	138	150
45° HORIZ. BEND	6	8	11	13	15	19	22	26	30	36	42	48	54	60	66	72
22.5° HORIZ. BEND	3	4	5	6	7	9	11	12	14	16	18	21	24	27	30	33
11.25° HORIZ. BEND	1	2	3	4	5	6	8	9	10	12	13	15	17	19	21	23
90° VERT. OFFSET	29	41	53	64	74	95	115	134	154	174	204	234	264	294	324	354
UPPER BEND	7	10	13	16	19	25	30	35	40	48	57	66	74	83	92	101
LOWER BEND	12	19	24	29	34	43	48	56	63	72	81	90	100	110	120	130
45° VERT. OFFSET	3	4	6	7	8	10	12	15	18	21	24	27	30	33	36	39
UPPER BEND	6	9	12	14	17	19	23	27	31	36	42	48	54	60	66	72
LOWER BEND	1	2	4	4	5	6	7	8	9	11	13	15	17	19	21	23
11.25° VERT. OFFSET	32	45	58	71	84	107	129	151	174	204	234	264	294	324	354	384
UPPER BEND	1	1	1	2	2	3	3	4	4	5	6	6	7	7	8	8
LOWER BEND	32	45	58	71	84	107	129	151	174	204	234	264	294	324	354	384
IN-LINE VALVE	32	45	58	71	84	107	129	151	174	204	234	264	294	324	354	384
PLUG (DEAD END)	32	45	58	71	84	107	129	151	174	204	234	264	294	324	354	384
REDUCER (LARGER PIPE RESTRAINT)	14	20	25	30	35	45	54	62	68	78	90	102	114	126	138	150
14" x 12"	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8" x 6"	21	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8" x 4"	18	34	47	-	-	-	-	-	-	-	-	-	-	-	-	-
10" x 8"	16	32	46	58	-	-	-	-	-	-	-	-	-	-	-	-
12" x 10"	13	30	44	57	69	-	-	-	-	-	-	-	-	-	-	-
16" x 12"	7	26	41	55	67	80	-	-	-	-	-	-	-	-	-	-
20" x 12"	1	21	38	52	65	80	109	-	-	-	-	-	-	-	-	-
24" x 12"	1	16	34	49	62	86	108	129	-	-	-	-	-	-	-	-
30" x 12"	1	8	28	44	58	83	106	127	208	-	-	-	-	-	-	-
36" x 12"	1	1	22	39	54	80	103	124	208	240	-	-	-	-	-	-
42" x 12"	1	1	15	33	49	77	100	122	205	239	270	-	-	-	-	-
48" x 12"	1	1	7	27	44	73	97	120	203	238	269	298	-	-	-	-
6" x 4"	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8" x 4"	38	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10" x 4"	57	43	24	-	-	-	-	-	-	-	-	-	-	-	-	-
12" x 4"	72	60	44	41	-	-	-	-	-	-	-	-	-	-	-	-
16" x 4"	99	90	78	75	45	-	-	-	-	-	-	-	-	-	-	-
20" x 4"	123	118	107	105	81	45	-	-	-	-	-	-	-	-	-	-
24" x 4"	146	140	132	131	111	82	45	-	-	-	-	-	-	-	-	-
30" x 4"	209	204	197	188	177	153	116	75	-	-	-	-	-	-	-	-
36" x 4"	243	236	233	226	217	186	168	136	74	-	-	-	-	-	-	-
42" x 4"	273	270	265	259	252	234	211	183	132	72	-	-	-	-	-	-
48" x 4"	301	298	294	289	283	268	249	226	183	131	71	-	-	-	-	-



MECHANICAL THRUST RESTRAINT MINIMUM PIPE LENGTHS 24R



RECLAIMED WATER #3 STANDARD DETAILS 29R



LAKE DISCHARGE - METER ASSEMBLY (1-1/2" AND 2" METERS) 25R

DEFINITIONS

- DEPARTMENT - THE PALM BEACH COUNTY WATER UTILITIES DEPARTMENT.
- CONTRACTOR - UTILITY CONTRACTOR AND ALL UTILITY SUBCONTRACTORS.
- ENGINEER - ENGINEER RESPONSIBLE FOR INSPECTION AND CERTIFICATION.

PROCEDURES

- PRE-CONSTRUCTION MEETING IS TO BE HELD PRIOR TO DELIVERY OF MATERIALS AND INITIATION OF ANY POTABLE WATER, RECLAIMED WATER AND/OR WASTEWATER SYSTEM CONSTRUCTION. THE MEETING SHALL BE ATTENDED BY THE DEPARTMENT, CONTRACTOR, ENGINEER AND OTHER INTERESTED PARTIES.
- ANY REVISIONS TO THE APPROVED PLANS SHALL BE CALLED TO THE ATTENTION OF THE DEPARTMENT PRIOR TO THE PRE-CONSTRUCTION MEETING. REVISIONS MUST BE APPROVED PRIOR TO THE MEETING.
- FIVE (5) COPIES OF THE CURRENT APPROVED MATERIAL LIST AND ALL NECESSARY SHOP DRAWINGS SHALL BE SUBMITTED FOR APPROVAL PRIOR TO SCHEDULING OF THE PRE-CONSTRUCTION MEETING.
- ALL APPLICABLE PERMITS MUST BE OBTAINED PRIOR TO PRECONSTRUCTION MEETING. (DOT, HEALTH DEPARTMENT, COUNTY ENGINEER, ETC.).
- THE CONTRACTOR SHALL MAINTAIN A CURRENT APPROVED SET OF CONSTRUCTION PLANS ON JOB SITE.
- ALL MATERIALS SUPPLIED SHALL CONFORM TO PRODUCT LIST AND SHOP DRAWINGS AS APPROVED PRIOR TO CONSTRUCTION. SUBSTITUTE MATERIALS SHALL NOT BE APPROVED AFTER DELIVERY TO THE JOB SITE. ALL REQUESTS FOR MATERIAL SUBSTITUTION SHALL BE APPROVED PRIOR TO DELIVERY OF THESE MATERIALS TO THE JOB SITE.
- THE LOCATIONS OF EXISTING UTILITIES SHOWN ON THE APPROVED PLANS ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR. APPROVAL OF DEVELOPMENT PLANS BY THE DEPARTMENT IN NO WAY IMPLIES VERIFICATION OF THE ACCURACY OF THOSE PLANS OR FEATURES DEPICTED THEREON. ANY DISCREPANCY IN OR VARIATION FROM THE APPROVED PLANS IS TO BE BROUGHT TO THE ATTENTION OF THE DEPARTMENT BY THE ENGINEER AND CONTRACTOR. THE CONTRACTOR SHALL CONFIRM AND INSTALL (IF NECESSARY) ADEQUATE MECHANICAL PIPE / JOINT RESTRAINT ON EXISTING PIPES PRIOR TO CONNECTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE AT ALL TIMES THROUGHOUT THE DURATION OF CONSTRUCTION FOR THE PROTECTION OF EXISTING AND NEWLY INSTALLED UTILITIES FROM DAMAGE OR DISRUPTION OF SERVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING SUCH MEASURES AS NECESSARY TO PROTECT THE HEALTH, SAFETY AND WELFARE OF THOSE PERSONS HAVING ACCESS TO THE WORK SITE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING LOCATIONS FROM ALL OTHER UTILITY FACILITIES.
- THE CONTRACTOR OR ENGINEER SHALL SCHEDULE INSPECTIONS AND TESTS A MINIMUM OF 24-48 HOURS IN ADVANCE.
- NO CONNECTION TO OR ANY OTHER CONSTRUCTION SHALL BE PERFORMED ON AN EXISTING DEPARTMENT OWNED OR MAINTAINED MAIN OR STRUCTURE WITHOUT THE PRESENCE OF A DEPARTMENT INSPECTOR.
- FACILITIES PROPOSED HEREIN SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PLANS AND THE DEPARTMENT'S MINIMUM STANDARDS. CONFLICTS BETWEEN THE PRECEDING DOCUMENTS SHOULD BE CALLED TO THE ATTENTION OF THE DEPARTMENT FOR RESOLUTION. DEVIATIONS FROM THE APPROVED PLANS MUST BE APPROVED IN ADVANCE BY THE DEPARTMENT.
- UPON COMPLETION OF CONSTRUCTION, A FINAL INSPECTION SHALL VERIFY PROPER ADHERENCE TO ALL FACETS OF THE PLANS AND SPECIFICATIONS.

PRESSURE PIPE NOTES

- THERE SHALL BE 36" MINIMUM COVER FROM FINISHED GRADE TO TOP OF PIPE.
- DUCTILE IRON PIPE (DIP) THICKNESS SHALL CONFORM TO THE DEPARTMENT'S APPROVED MATERIAL LIST. POTABLE WATER AND RECLAIMED WATER MAINS DIP SHALL BE CEMENT LINED. FORCE MAIN DIP SHALL BE CEMENT EPXY LINED.
- PVC PRESSURE PIPE SHALL BE C-900, SDR-18, 150 PSI.
- ALL FITTINGS SHALL BE DUCTILE IRON WITH MECHANICAL JOINTS AND CEMENT OR APPROVED EPOXY LINING.
- POTABLE WATER, RECLAIMED WATER AND WASTEWATER FORCE MAIN VALVES 10 INCHES AND SMALLER SHALL BE RESILIENT SEAT GATE VALVES. TWELVE-INCH (12") OR LARGER FORCE MAIN VALVES SHALL BE RESILIENT SEAT GATE VALVES OR ECCENTRIC PLUG VALVES (IF PROVIDED IN ADVANCE BY DEPARTMENT). POTABLE WATER AND RECLAIMED WATER MAIN VALVES LARGER THAN 10 INCHES SHALL BE BUTTERFLY VALVES.
- ALL TRENCHING, PIPE-LAYING, BACKFILL, PRESSURE TESTING, AND DISINFECTION MUST COMPLY WITH ALL APPLICABLE FEDERAL, STATE, COUNTY AND HEALTH DEPARTMENT STANDARDS AND REGULATIONS.

CONSULTANT: IT'S THE LAW! CALL 48 HOURS BEFORE YOU DIG 1-800-432-4770 SUNSHINE STATE ONE CALL OF FLORIDA, INC. UTILITIES NOTIFICATION CENTER

DESIGNED BY: WUD  
DRAWN BY: M. BUCKNER  
CHECKED BY: J. LAMMERT  
APPROVED BY: WUD

Palm Beach County  
Water Utilities Department  
P.O. Box 16097  
West Palm Beach, FL 33416-6097

NO. 1  
DATE: JUNE 2019  
GENERAL REVISION  
JULY 2023  
GENERAL REVISION

REVISION / REMARKS

DATE: JUNE 2019  
GENERAL REVISION  
JULY 2023  
GENERAL REVISION

STANDARD SHEETS  
SHEET NUMBER  
0 OF 0

SEAL

DESIGNED BY: WUD  
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West Palm Beach, FL 33416-6097

Feb 27, 2023