

APPROVED FOR CONSTRUCTION
BY THE TENNESSEE DEPARTMENT OF ENVIRONMENT & CONSERVATION
JUL 25 1997
FILE NO. 97-0918

APPROVAL EXPIRES
JUL 25 1998
TN. DEPT. OF ENVIRONMENT & CONSERVATION
DIVISION OF WATER SUPPLY

SWAN HARBOUR UNIT ONE POTABLE WATER DESIGN

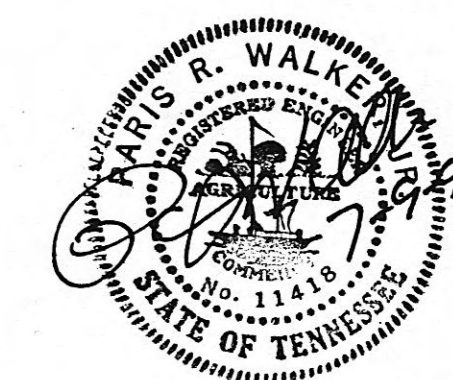
WS 97 0918

PREPARED FOR

SANDPIPER PROPERTIES

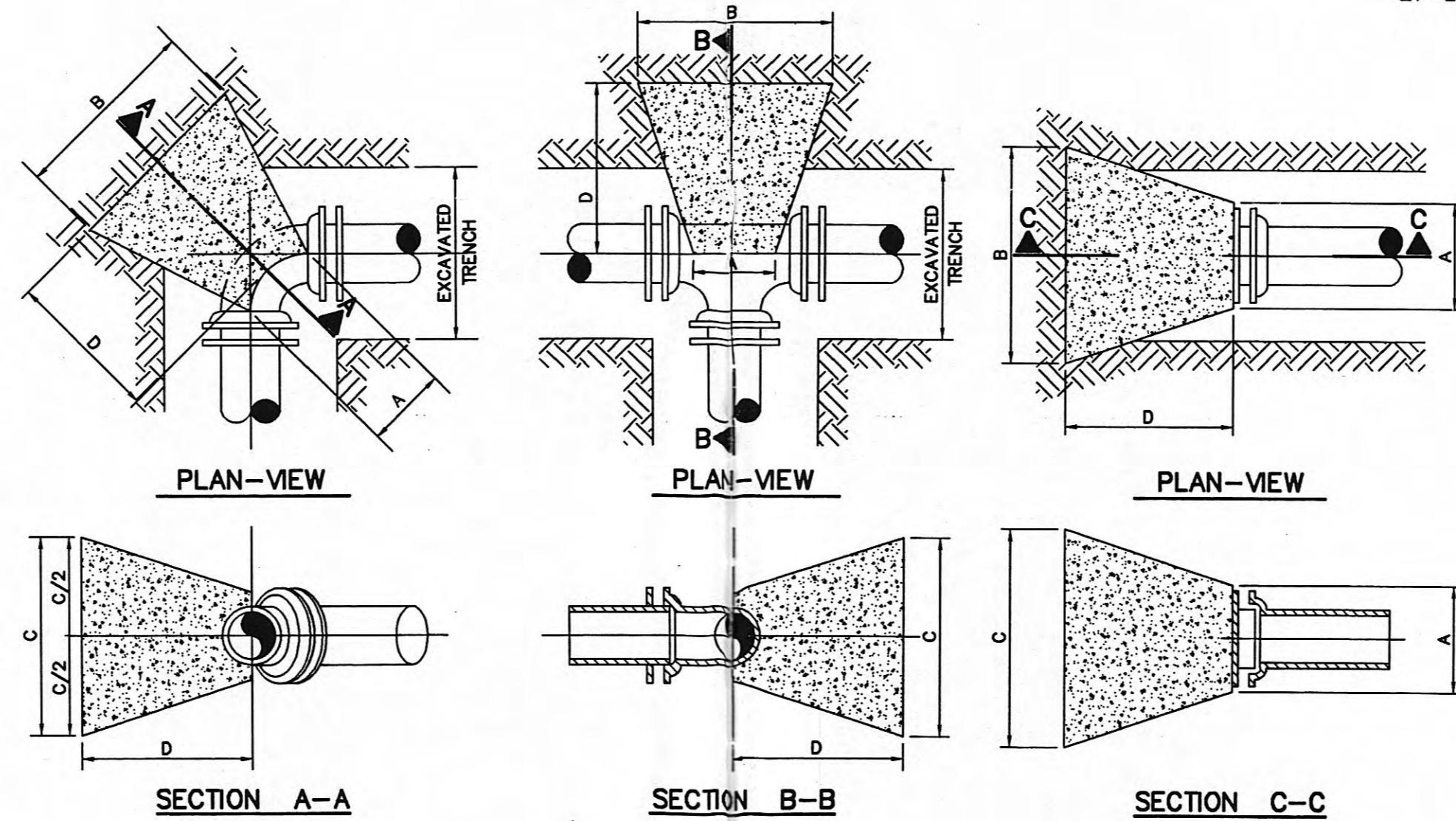
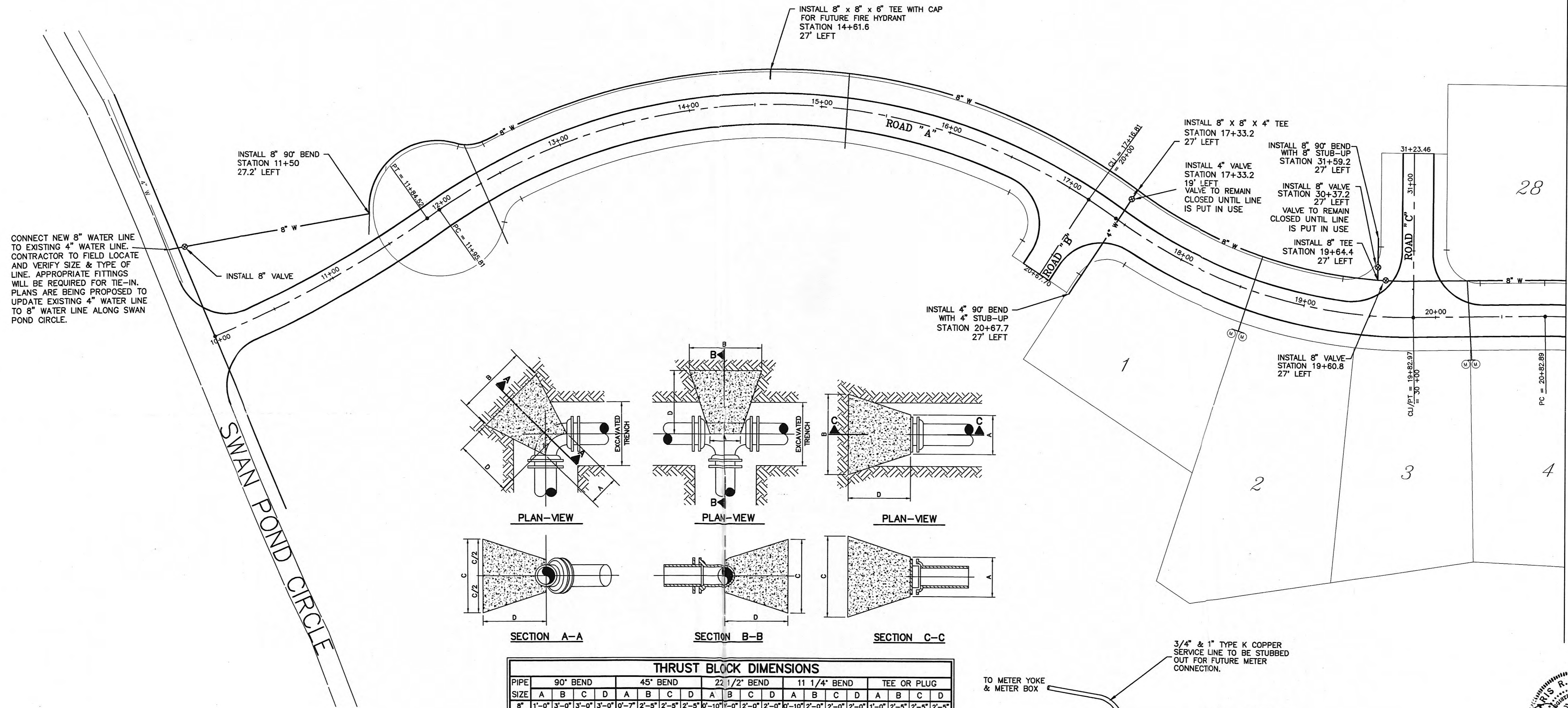
BY

ETE CONSULTING ENGINEERING
OAK RIDGE TENNESSEE



SET NO: 2
DATE: 7-9-97

CONNECT NEW 8" WATER LINE TO EXISTING 4" WATER LINE. CONTRACTOR TO FIELD LOCATE AND VERIFY SIZE & TYPE OF LINE. APPROPRIATE FITTINGS WILL BE REQUIRED FOR TIE-IN. PLANS ARE BEING PROPOSED TO UPDATE EXISTING 4" WATER LINE TO 8" WATER LINE ALONG SWAN POND CIRCLE.



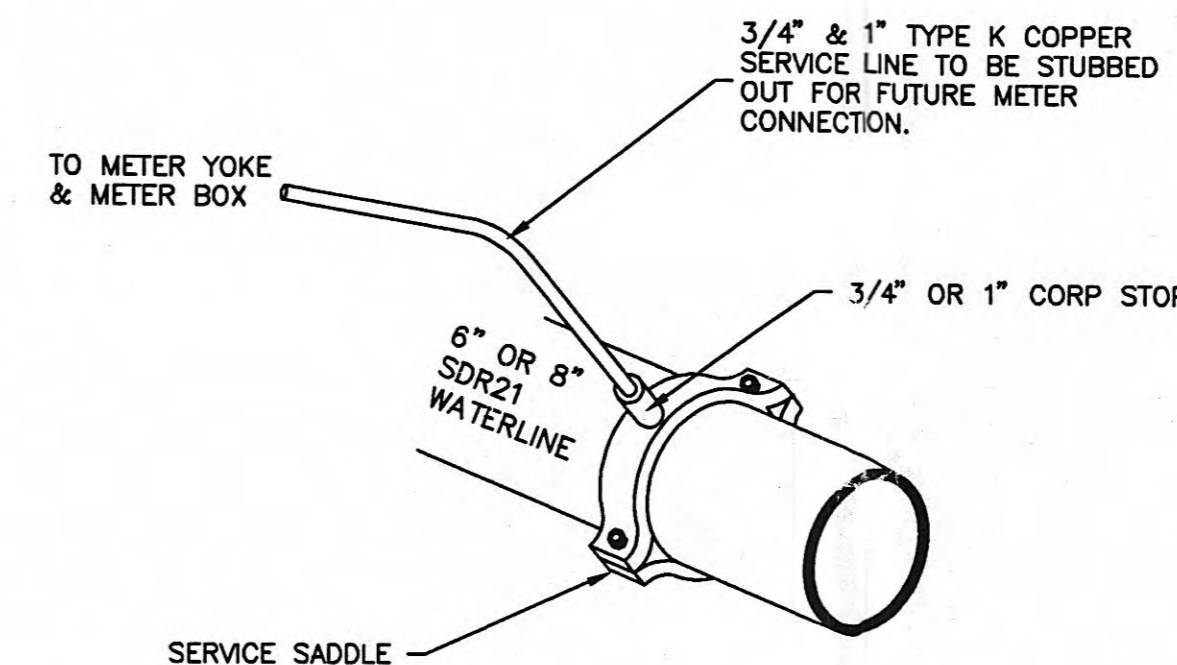
PIPE SIZE	90° BEND				45° BEND				22 1/2° BEND				11 1/4° BEND				TEE OR PLUG			
	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D
8"	1'-0"	3'-0"	3'-0"	3'-0"	0'-7"	2'-5"	2'-5"	0'-10"	2'-0"	2'-0"	0'-10"	2'-0"	2'-0"	2'-0"	0'-11"	2'-0"	2'-0"	2'-0"	0'-11"	2'-0"
6"	0'-11"	2'-5"	2'-5"	2'-5"	0'-7"	2'-0"	2'-0"	0'-9"	1'-0"	2'-0"	2'-0"	0'-9"	1'-0"	1'-0"	2'-0"	0'-11"	2'-0"	2'-0"	2'-0"	2'-0"
3"	0'-9"	1'-9"	1'-9"	2'-0"	0'-5"	1'-6"	1'-6"	2'-0"	0'-7"	1'-0"	1'-0"	2'-0"	0'-7"	1'-0"	1'-0"	2'-0"	0'-10"	1'-6"	1'-6"	2'-0"

NOTES:

- THRUST BLOCK TO BE MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI CONCRETE AT 28 DAYS.
- DIMENSIONS CALCULATED USING A SOIL LOAD BEARING CAPACITY OF 2,000 PSF. IF SOIL BEARING CAPACITY IS FOUND TO BE LESS THAN 2,000 PSF, THE ENGINEER CAN INCREASE THESE DIMENSIONS.
- ALL THRUST BLOCKING SHALL BEAR AGAINST UNDISTURBED SOIL. THE "D" DIMENSION SHOWN IN TABLE MAY BE INCREASED BY THE ENGINEER.
- DESIGN FLOOD PRESSURE = 200 PSF.

THRUST BLOCK DETAILS AND DIMENSIONS

NOT TO SCALE



SERVICE LINE CONNECTION

NOT TO SCALE

SPECIAL NOTES ON TRENCHING

- PROTECT EXCAVATION BY SHORING, BRACING, SHEET PILING, UNDERPINNING OR OTHER METHODS REQUIRED TO PREVENT CAVE-IN OF LOOSE SOIL. PROTECTION SHALL BE IN ACCORDANCE WITH OSHA 29 CFR 1926.652.
- TRENCHES MORE THAN 5 FEET IN DEPTH SHALL BE SHORED, LAID BACK TO A STABLE SLOPE, OR PROVIDE SOME OTHER EQUIVALENT MEANS OF PROTECTION.
- REFER TO OSHA 29 CFR 1926.652, APPENDICES A AND B, FOR THE MINIMUM REQUIREMENTS FOR SLOPES THAT ARE LAID BACK.
- REFER TO OSHA 29 CFR 1926.652, APPENDIX C, FOR THE MINIMUM REQUIREMENTS FOR SHORING AND BRACING.
- TRENCHES LESS THAN 5 FEET IN DEPTH SHALL ALSO BE EFFECTIVELY PROTECTED WHEN EXAMINATION OF THE GROUND INDICATES HAZARDOUS GROUND MOVEMENT MAY BE EXPECTED.
- EMPLOYEES REQUIRED TO BE IN TRENCHES 4 FEET OR MORE IN DEPTH SHALL HAVE AN ADEQUATE MEANS OF EXIT, SO AS TO REQUIRE NO MORE THAN 25 FEET OF LATERAL TRAVEL.

LEGEND

- ⊙ NEW WATER METER (INSTALLATION BY UTILITY COMPANY)
- x" w NEW 6" OF 8" PVC SDR21 CLASS 200 WATER LINE
- ⊗ NEW WATER VALVE

GENERAL NOTES

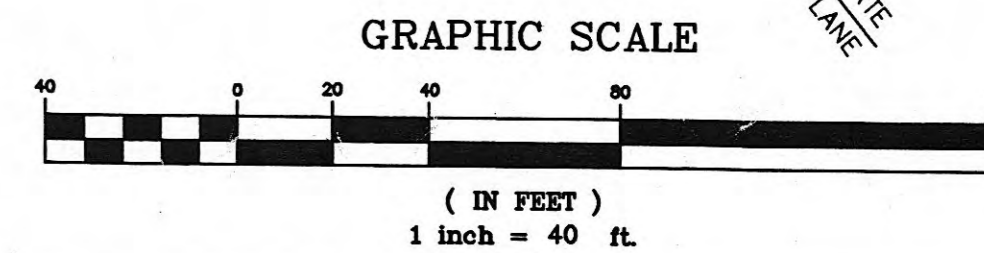
- INSTALLATION OF THE WATER DISTRIBUTION SYSTEM SHALL MEET REQUIREMENTS OF THE SWAN POND UTILITY DISTRICT.
- WATER LINES SHALL BE INSTALLED A MINIMUM DEPTH OF 30".
- NO WATER MAIN SHALL BE LAID ON ROCK UNLESS ROCK IS COVERED WITH A MINIMUM OF 8" OF NATURAL OR MANUFACTURED SAND OR DIRT.
- WATER LINE TO BE 6 OR 8" PVC SDR 21 CLASS 200.
- SERVICE LATERALS TO BE 3/4" & 1" TYPE K COPPER. ROAD CROSSINGS TO USE 1" TYPE K COPPER.
- ENTIRE LINE TO BE DISINFECTED PRIOR TO USE.

SYM	DATE	BY	DESCRIPTION
REVISIONS			

DATE	7/4/97
SCALE	1" = 40'
DRAWN BY	JVL
APPROVED	PRW

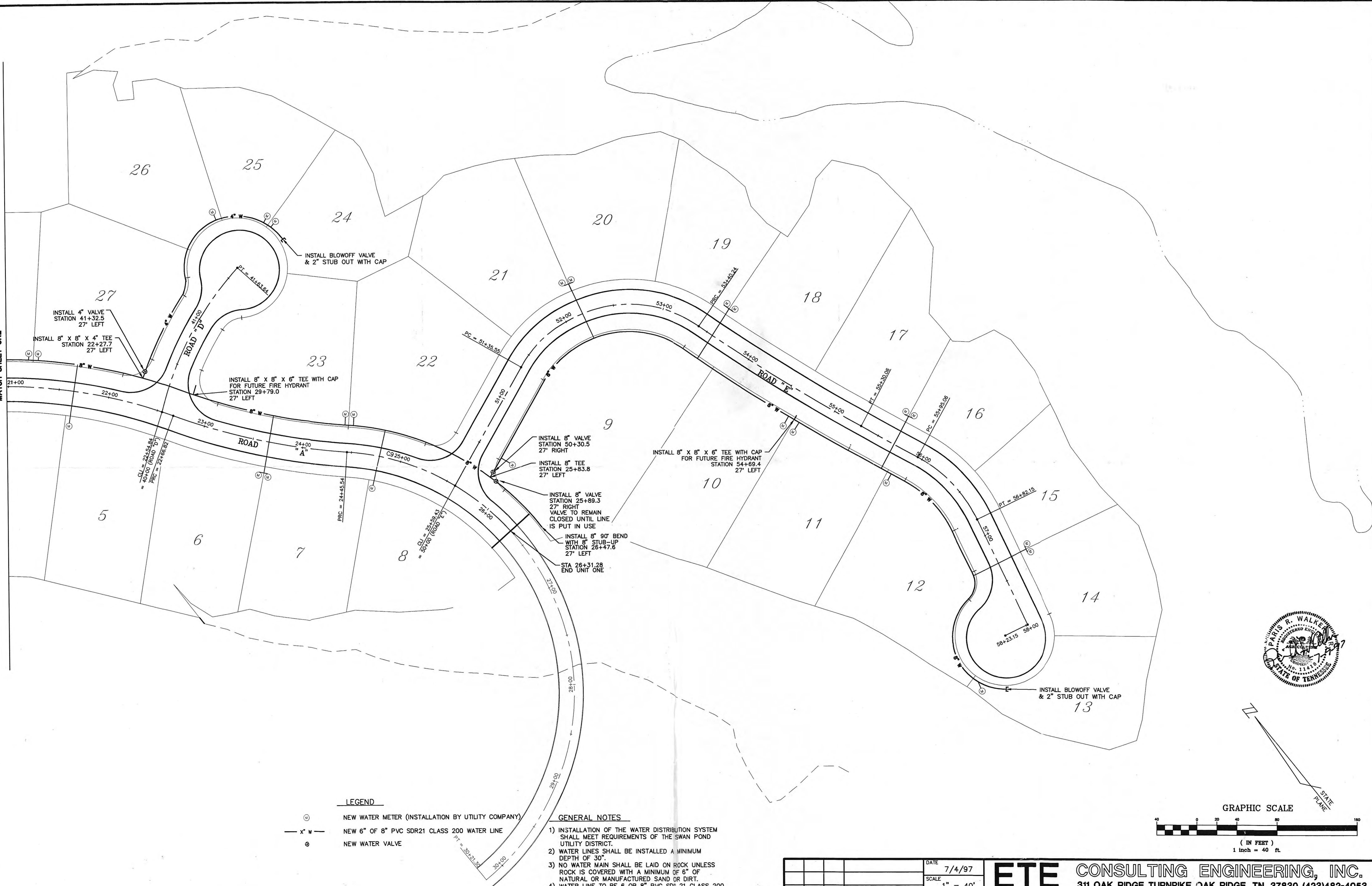
ETE CONSULTING ENGINEERING, INC.
 311 OAK RIDGE TURNPIKE OAK RIDGE, TN. 37830 (423)482-4053

CLIENT	SANDBIPER PROPERTIES	PROJECT	SWAN HARBOUR UNIT ONE	TITLE	POTABLE WATER PLAN	JOB No.	97-472-2C
						SHEET	1 OF 2



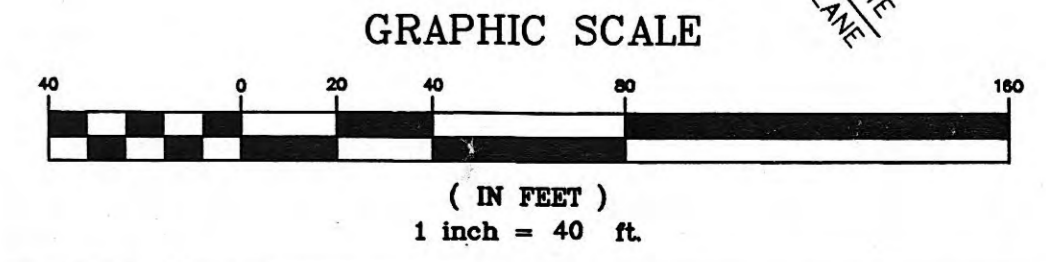
MATCH SHEET TWO

MATCH SHEET ONE



- LEGEND**
- ⊙ NEW WATER METER (INSTALLATION BY UTILITY COMPANY)
 - x" w - NEW 6" OF 8" PVC SDR21 CLASS 200 WATER LINE
 - ⊗ NEW WATER VALVE

- GENERAL NOTES**
- 1) INSTALLATION OF THE WATER DISTRIBUTION SYSTEM SHALL MEET REQUIREMENTS OF THE SWAN POND UTILITY DISTRICT.
 - 2) WATER LINES SHALL BE INSTALLED A MINIMUM DEPTH OF 30".
 - 3) NO WATER MAIN SHALL BE LAID ON ROCK UNLESS ROCK IS COVERED WITH A MINIMUM OF 6" OF NATURAL OR MANUFACTURED SAND OR DIRT.
 - 4) WATER LINE TO BE 6 OR 8" PVC SDR 21 CLASS 200.
 - 5) SERVICE LATERALS TO BE 3/4" & 1" TYPE K COPPER. ROAD CROSSINGS TO USE 1" TYPE "K" COPPER.
 - 6) ENTIRE LINE TO BE DISINFECTED PRIOR TO USE.



DATE		7/4/97		ETE CONSULTING ENGINEERING, INC.		311 OAK RIDGE TURNPIKE OAK RIDGE, TN. 37830 (423)482-4053	
SCALE		1" = 40'					
DRAWN BY		JVL		CLIENT	SANDPIPER PROPERTIES	PROJECT	SWAN HARBOUR UNIT ONE
APPROVED		PRW		TITLE	POTABLE WATER PLAN	JOB No.	97-472-2
REVISIONS						SHEET	2 OF 2