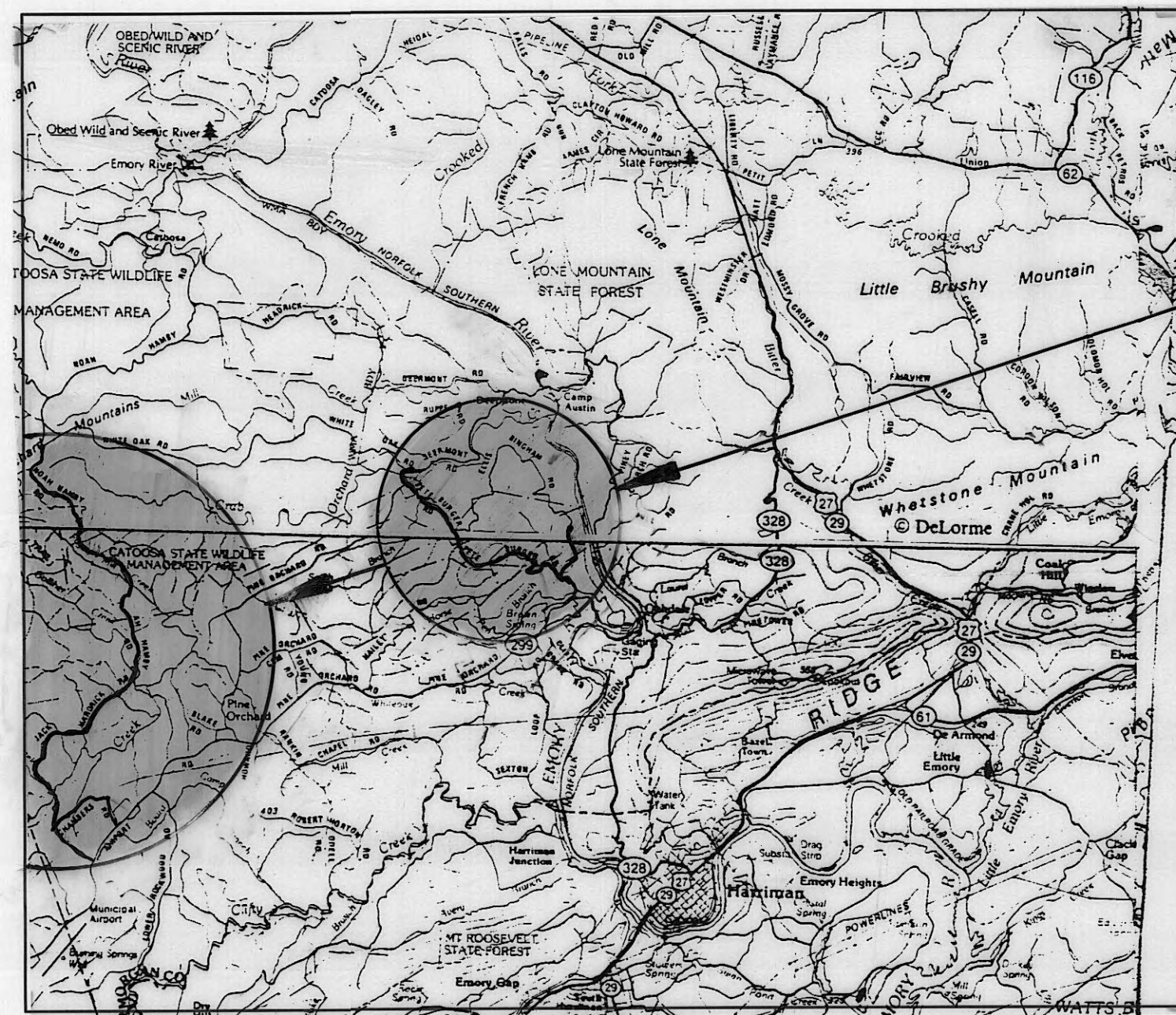


WOLFE BRANCH UTILITY DISTRICT

Morgan County, Tennessee

WATER LINE ADDITIONS CONTRACT 298 1998

LOCATION MAP



PROJECT LOCATION

Project Engineer



PLANS APPROVED BY:
Donald Painter
DONALD PAINTER, MANAGER
WOLFE BRANCH UTILITY DISTRICT

SHEET INDEX

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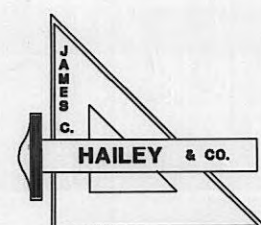
JAMES C. HAILEY & CO.

MAY 05 2009

SCANNED TO ARCHIVE

SET NUMBER

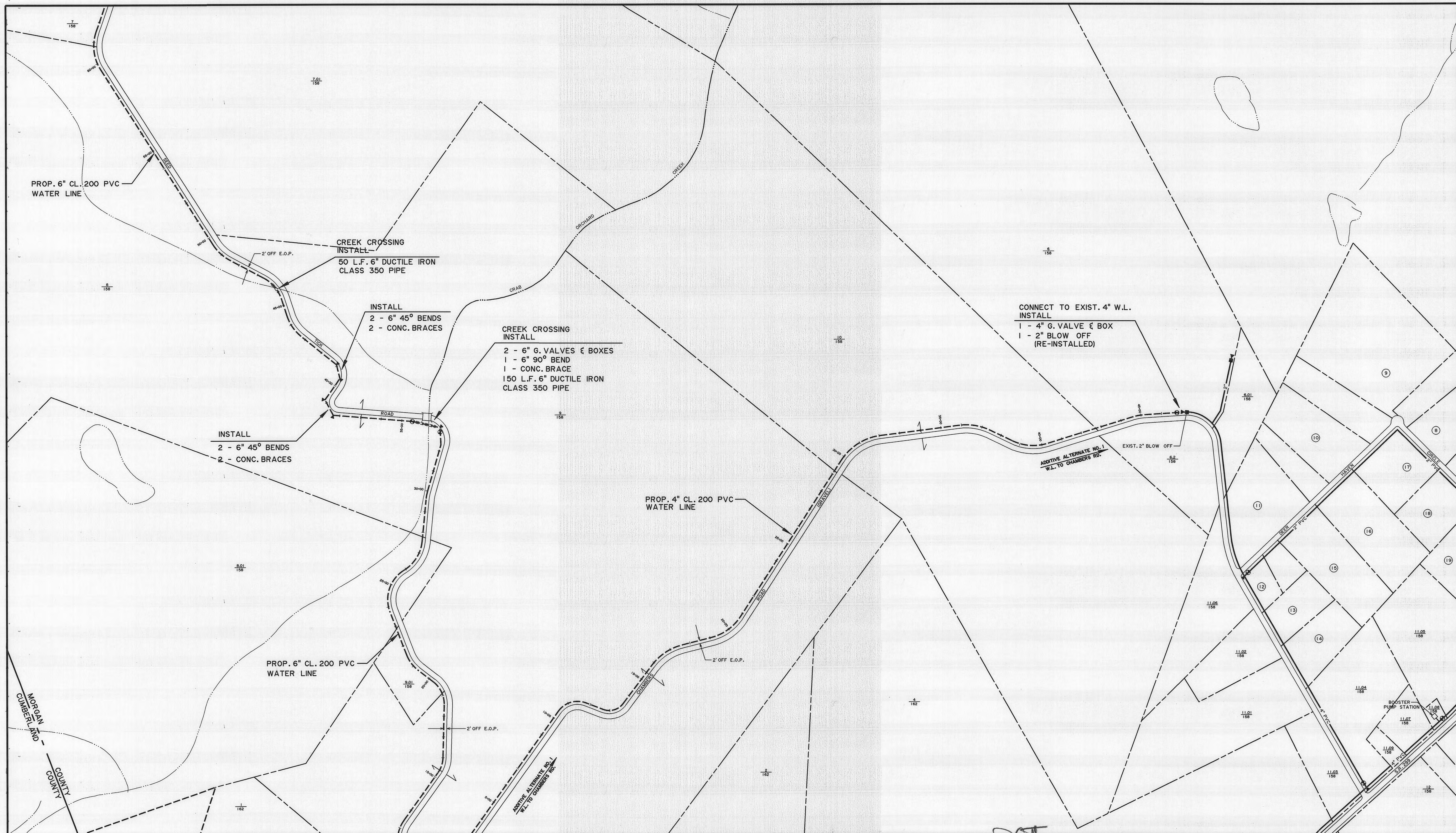
JCH PROJECT NO. 96185



JAMES C. HAILEY & CO.

2622 OLD LEBANON ROAD - SUITE 200

NASHVILLE, TENNESSEE



158 NE	10
158 SE	9
162 NE	8

HAILEY & CO.

WOLFE BRANCH
UTILITY DISTRICT
Morgan County, Tennessee

DESIGN	DRAWN	CHECKED	DATE	SCALE	PROJECT NO.
TCP	LLB	TCP	JULY 1998	1" = 200'	96185

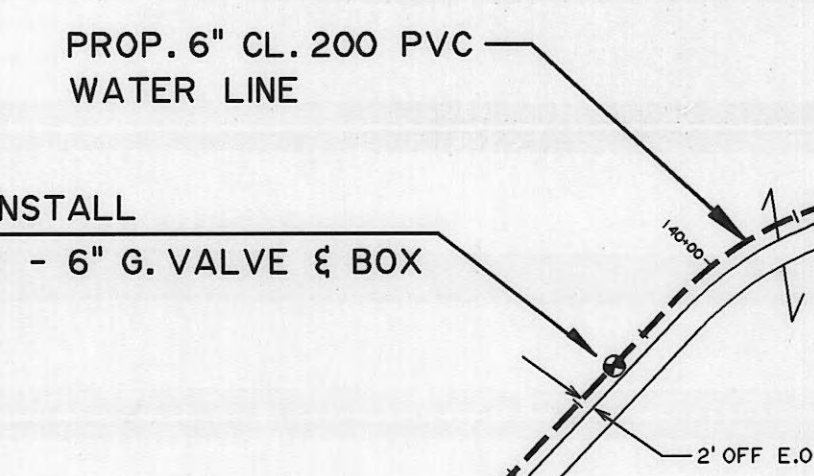
WATER LINE ADDITIONS
SEED TICK ROAD AND
WMA ROAD

SHEET
9
158 SE

CONTRACT 298 SHEET 9 OF 18

JAMES C. HAILEY & CO.
MAY 05 2009
SCANNED TO ARCHIVE





WATER LINE ADDITIONS
SEED TICK ROAD AND
WMA ROAD

SHEET

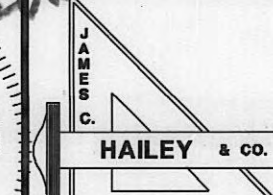
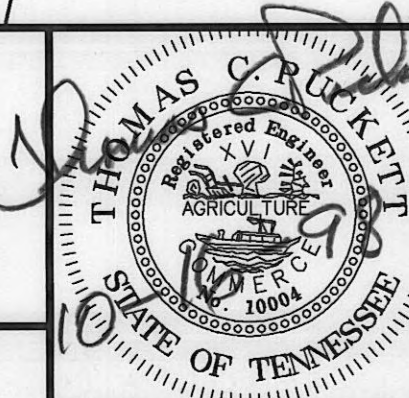
SCANNED TO ARCHIVE

CONTRACT 298 SHEET 11 OF 18



162 NE	163 NW	
162 SE	163 SW	
168 NE		

14	13	
11	12	
10		



WOLFE BRANCH
UTILITY DISTRICT
Morgan County, Tennessee

WATER LINE ADDITIONS
SEED TICK ROAD AND
WMA ROAD

DESIGN	DRAWN	CHECKED	DATE	SCALE	PROJECT NO.
TCP	LLB	TCP	JULY 1998	1" = 200'	96185

SHEET
12

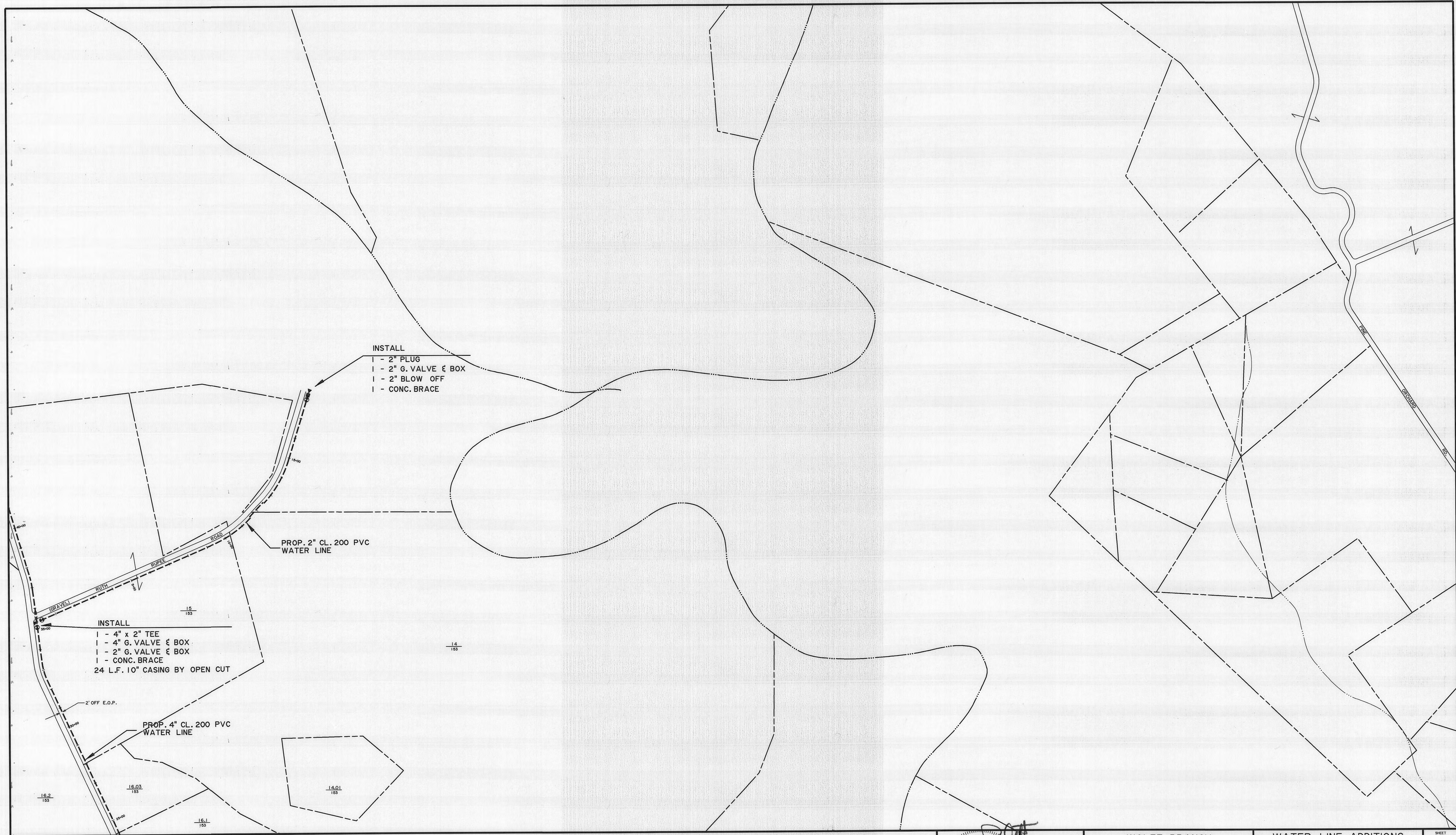
153 SW

JAMES C. HAILEY & CO.

CONTRACT 298 SHEET 12 OF 18

MAY 05 2009

SCANNED TO ARCHIVE



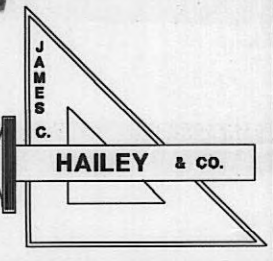
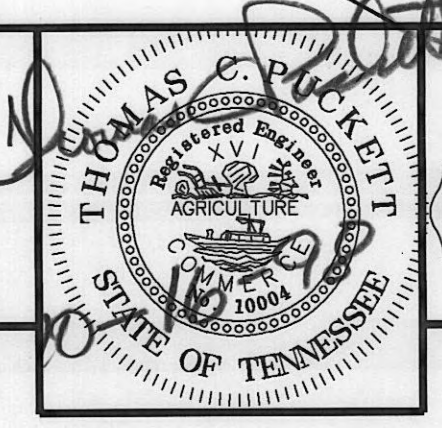
INSTALL
1 - 2" PLUG
1 - 2" G. VALVE & BOX
1 - 2" BLOW OFF
1 - CONC. BRACE

INSTALL
1 - 4" x 2" TEE
1 - 4" G. VALVE & BOX
1 - 2" G. VALVE & BOX
1 - CONC. BRACE
24 L.F. 10" CASING BY OPEN CUT

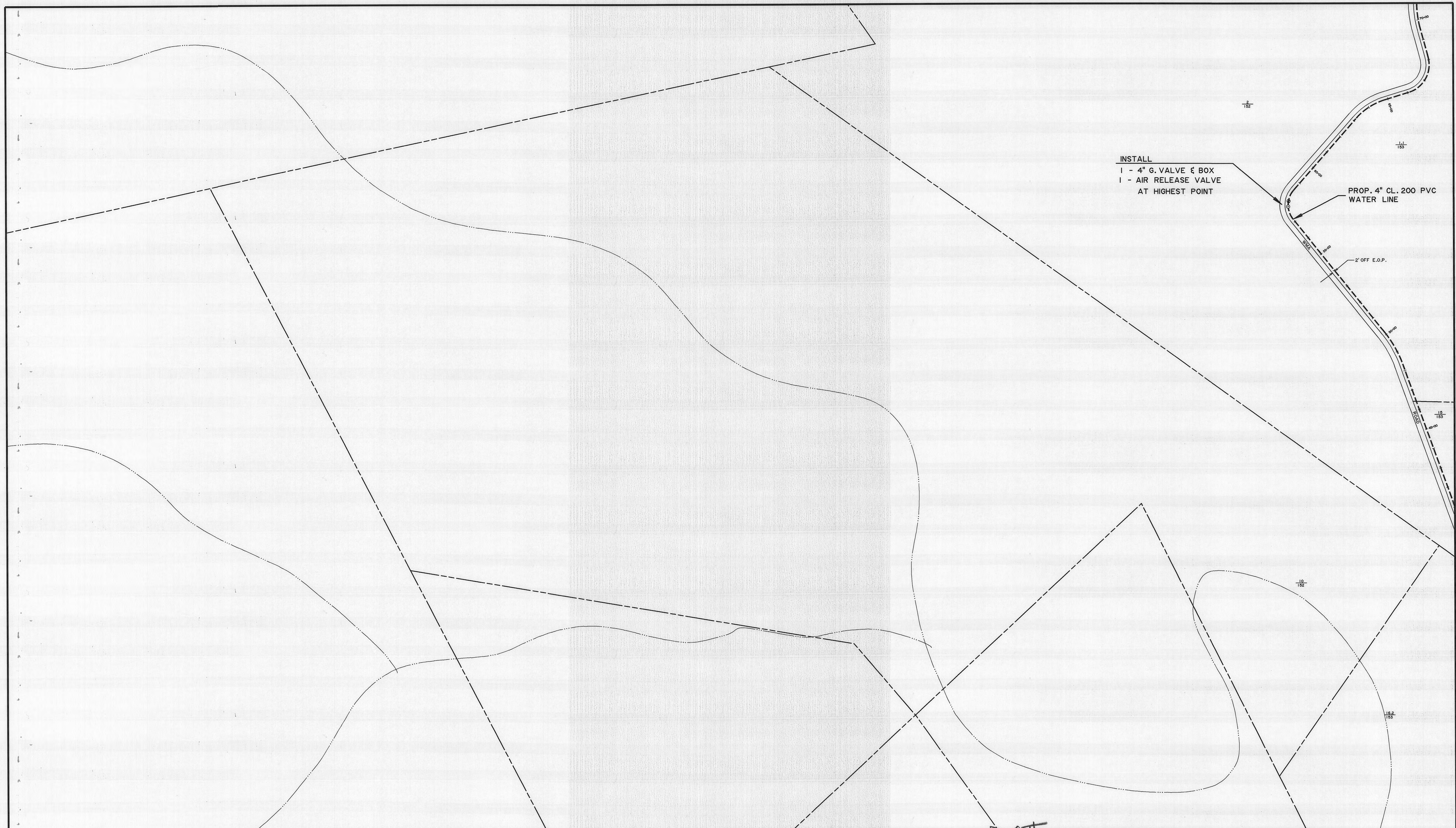
PROP. 2" CL. 200 PVC
WATER LINE

PROP. 4" CL. 200 PVC
WATER LINE

145 SE				15			
152 NE	153 NW			14	13		
152 SE	153 SW			11	12		



WOLFE BRANCH UTILITY DISTRICT Morgan County, Tennessee			WATER LINE ADDITIONS SEED TICK ROAD AND WMA ROAD			13
DESIGN TCP	DRAWN LLB	CHECKED TCP	DATE JULY 1998	SCALE 1" = 200'	PROJECT NO. 96185	

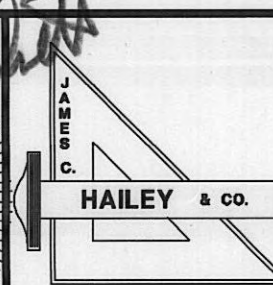
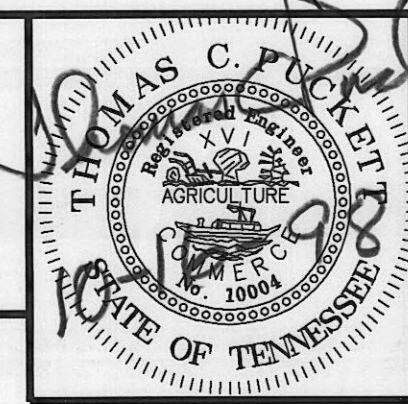


INSTALL
1 - 4" G. VALVE & BOX
1 - AIR RELEASE VALVE
AT HIGHEST POINT

PROP. 4" CL. 200 PVC
WATER LINE

2' OFF E.O.P.

	146 SE			15	
	152 NE	153 NW		14	13
	152 SE	153 SW		11	12

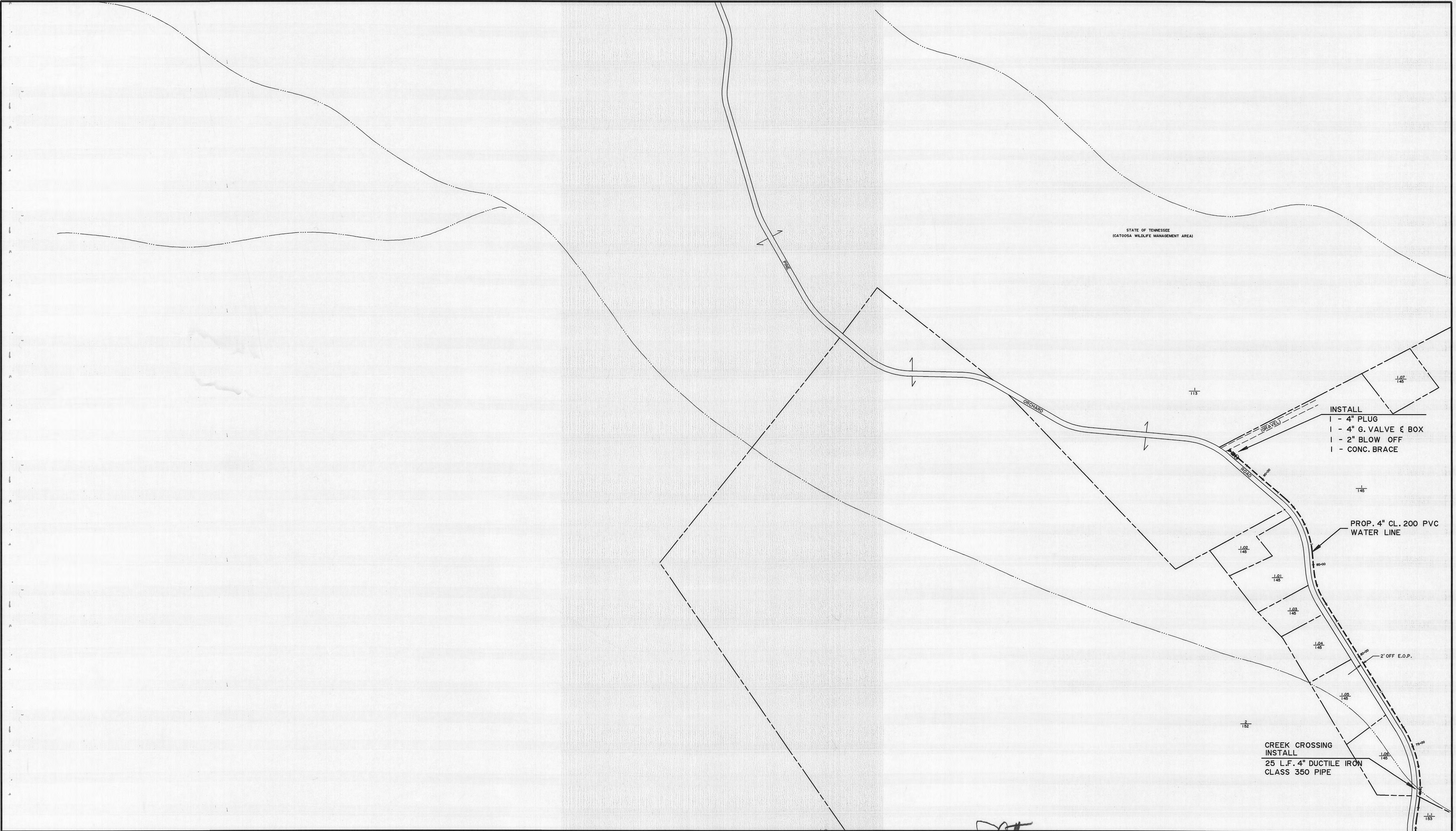


WOLFE BRANCH
UTILITY DISTRICT
Morgan County, Tennessee

WATER LINE ADDITIONS
SEED TICK ROAD AND
WMA ROAD

DESIGN	DRAWN	CHECKED	DATE	SCALE	PROJECT NO.
TCP	LLB	TCP	JULY 1998	1" = 200'	96185

SHEET
14
152 NE



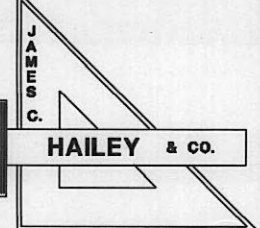
- INSTALL
- 1 - 4" PLUG
 - 1 - 4" G. VALVE & BOX
 - 1 - 2" BLOW OFF
 - 1 - CONC. BRACE

PROP. 4" CL. 200 PVC WATER LINE

CREEK CROSSING
INSTALL
25 L.F. 4" DUCTILE IRON
CLASS 350 PIPE

145 SE		
152 NE	153 NW	

15		
14	13	



WOLFE BRANCH
UTILITY DISTRICT
Morgan County, Tennessee

WATER LINE ADDITIONS
SEED TICK ROAD AND
WMA ROAD

DESIGN TCP	DRAWN LLB	CHECKED TCP	DATE JULY 1998	SCALE 1" = 200'	PROJECT NO. 96185
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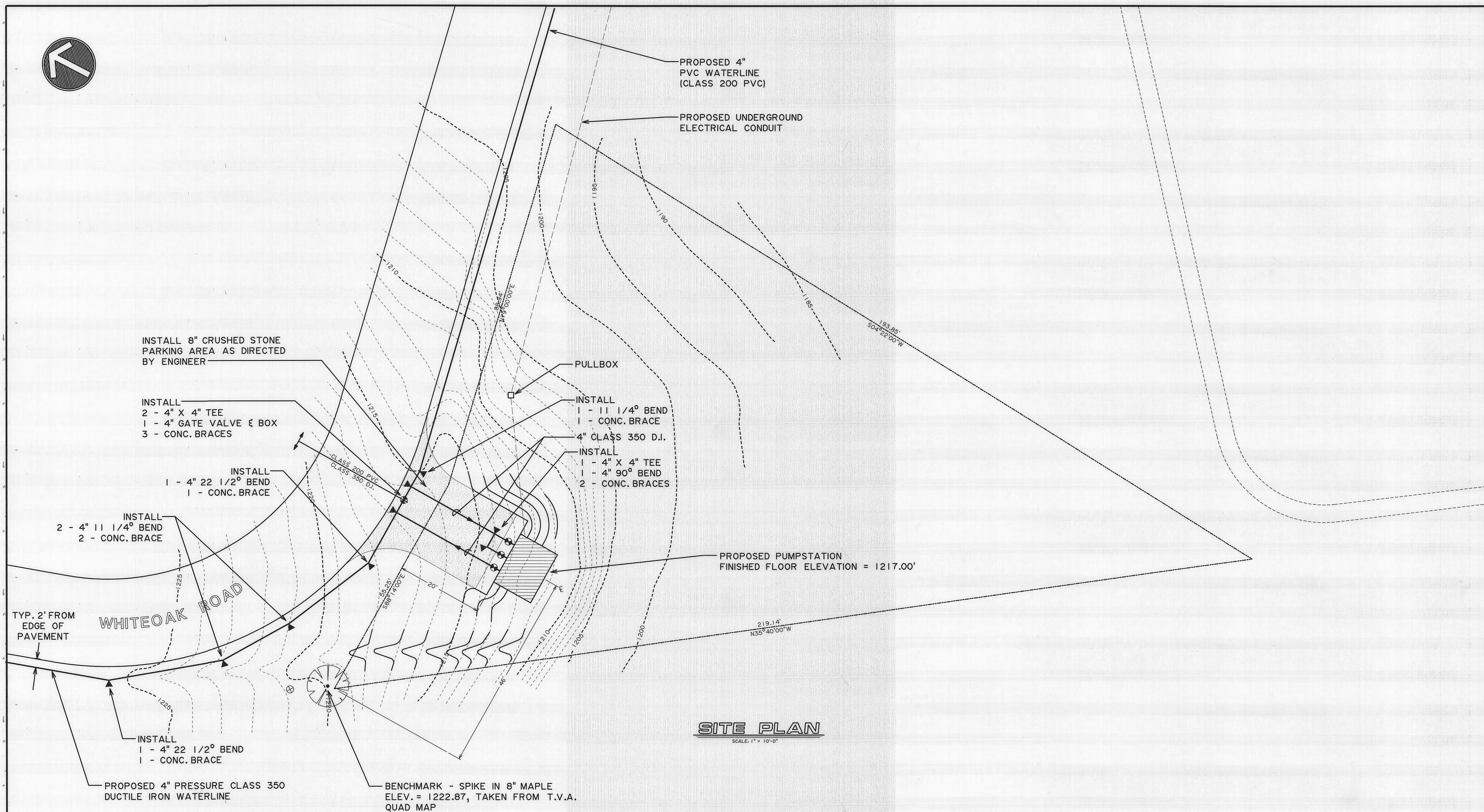
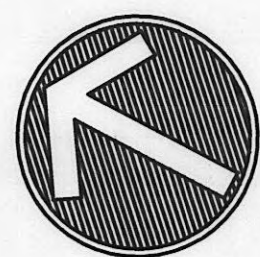
SHEET
15
145 SE

JAMES C. HAILEY & CO.

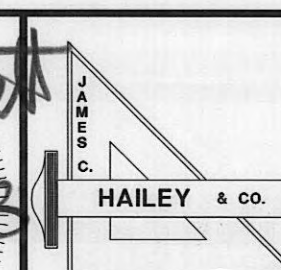
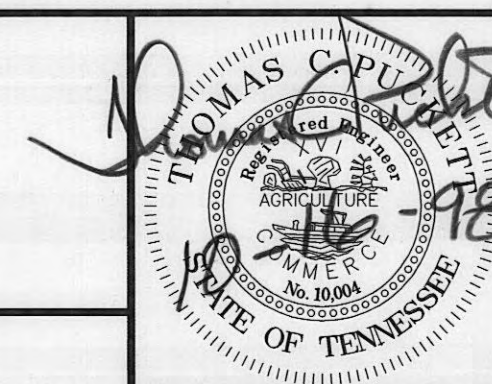
MAY 05 2009

SCANNED TO ARCHIVE

CONTRACT 298 SHEET 15 OF 18



REF. TOPOGRAPHIC MAP BY:
DAVID B. GIBSON & ASSOCIATES
KINGSTON, TENNESSEE
DATED: 7- 09 - 1998



WOLF BRANCH
UTILITY DISTRICT
Morgan County, Tennessee

DESIGN	DRAWN	CHECKED
TCP	BCF	TCP

WHITE OAK ROAD
PUMPSTATION - SITE PLAN

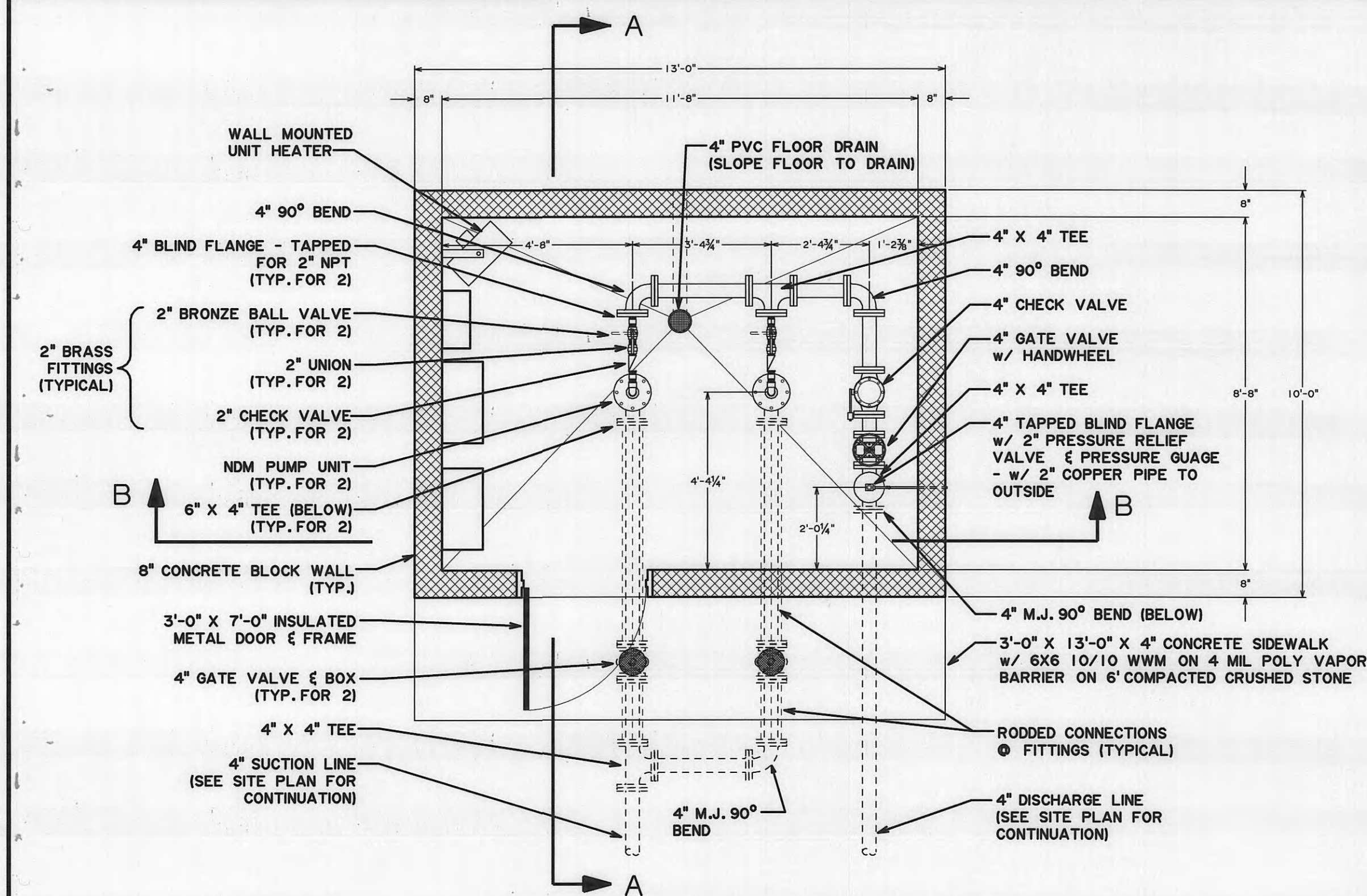
DATE	SCALE	PROJECT NO.
OCT. 1998	1"=10'-0"	96185

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18

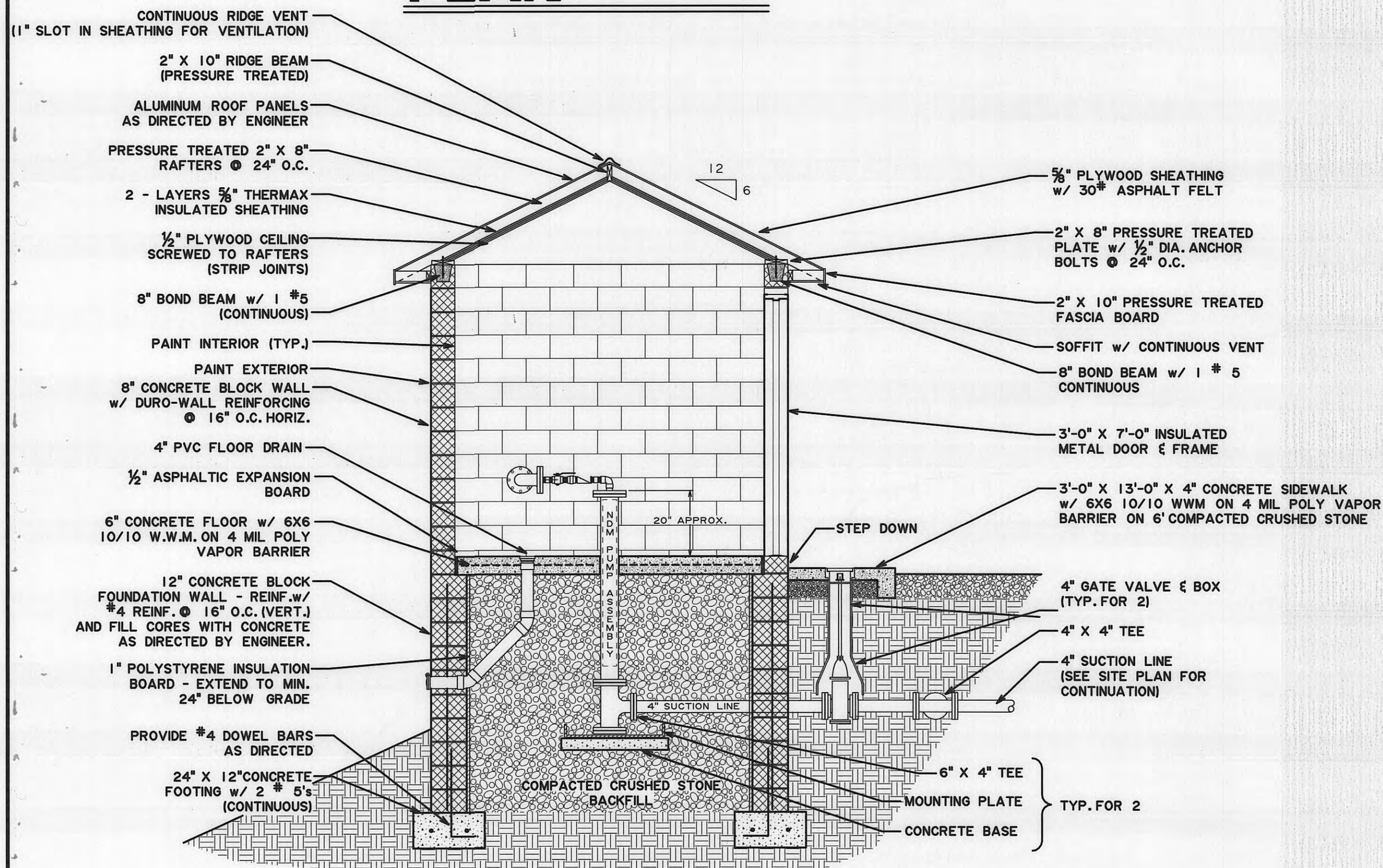
MES C. HAILEY & CO.

MAY 05 2009

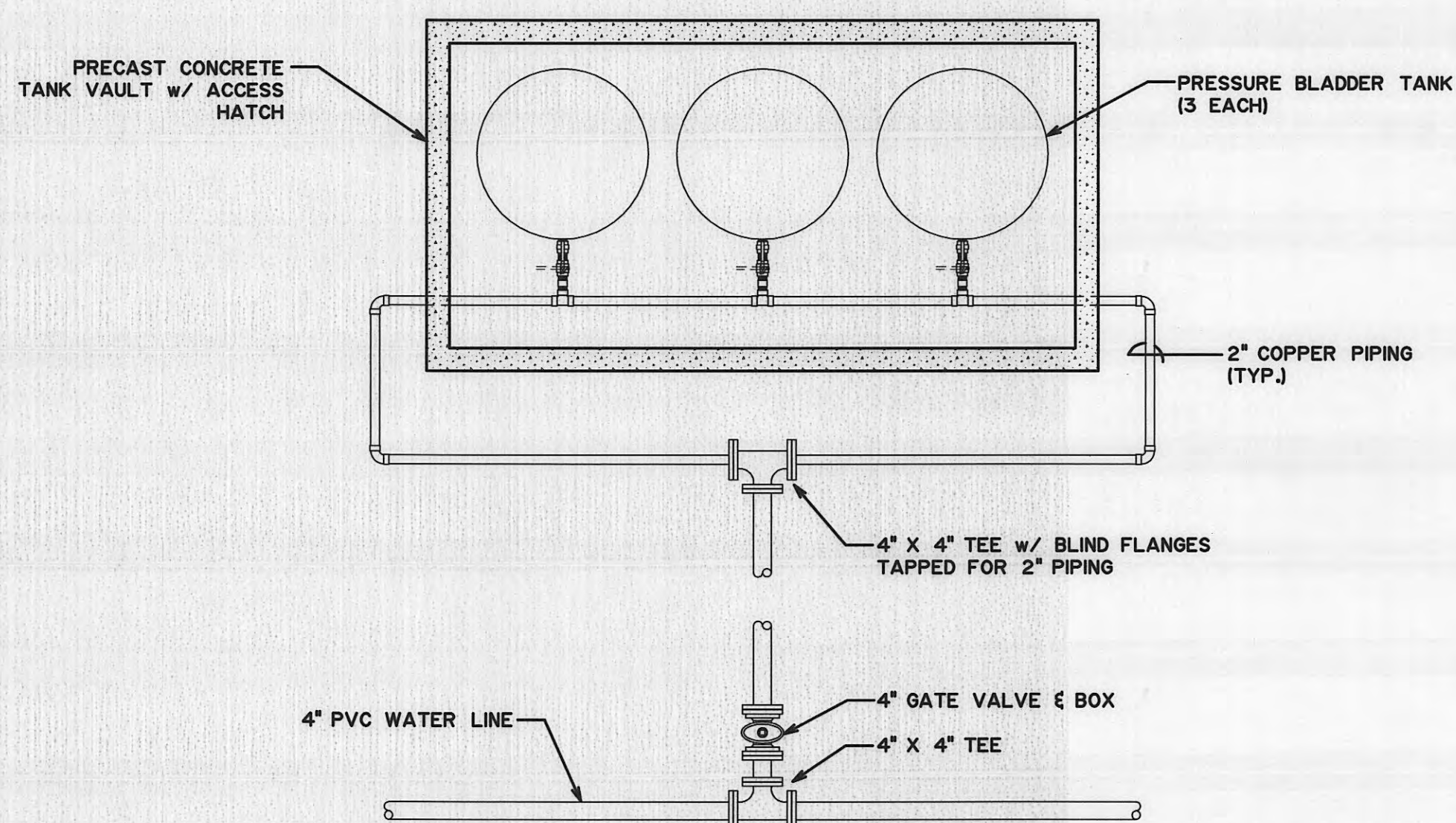
SCANNED TO ARCHIVE



PLAN



SECTION A-A

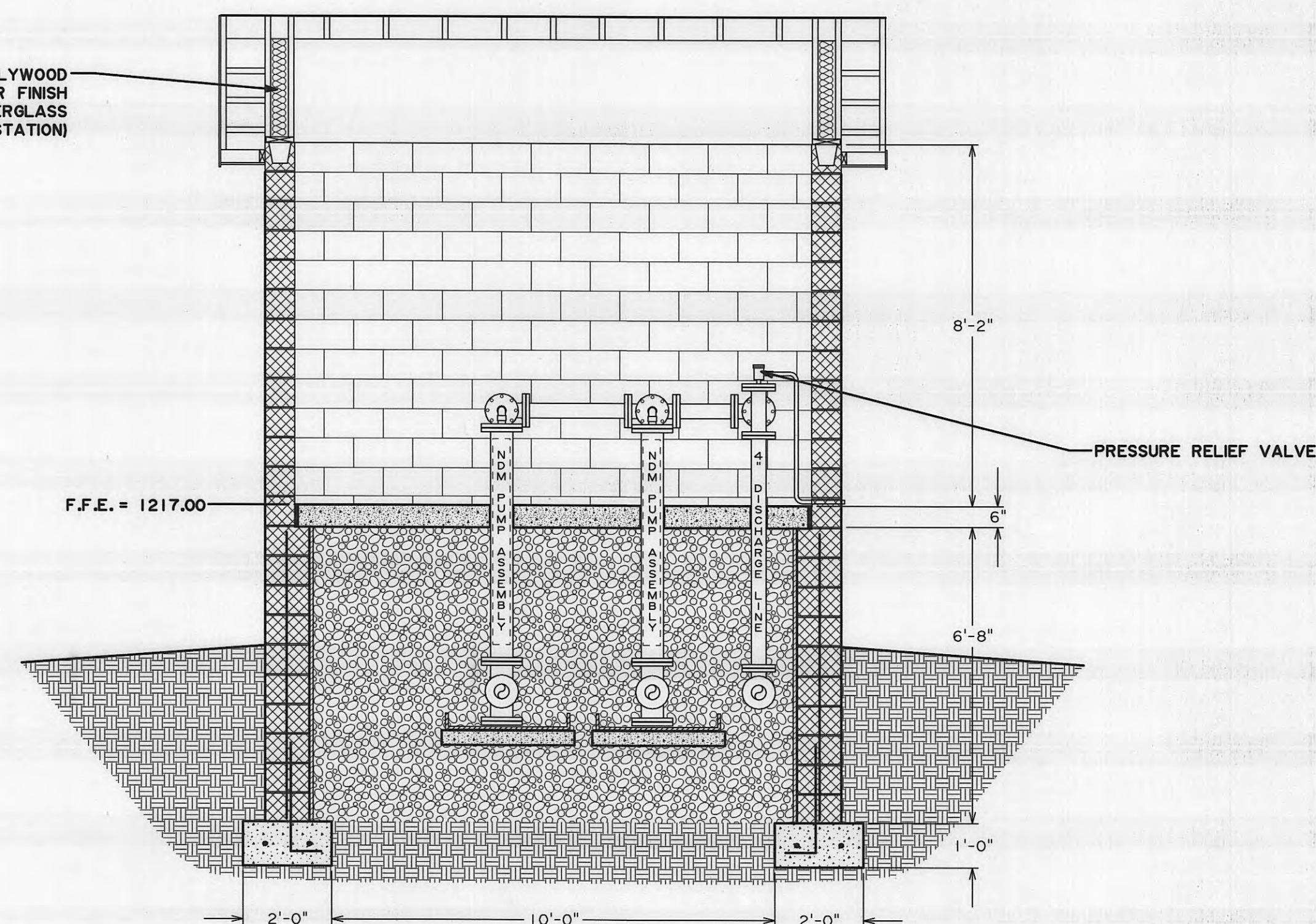


WHITE OAK ROAD

PRESSURE TANK STATION DETAIL

N.T.S.

GABLE ENDS - T-111 EXTERIOR PLYWOOD ON 2" X 4" STUDS @ 16" O.C., INTERIOR FINISH 5/8" EXTERIOR PLYWOOD & R11 FIBERGLASS BATT INSULATION (TYP. EACH END OF STATION)

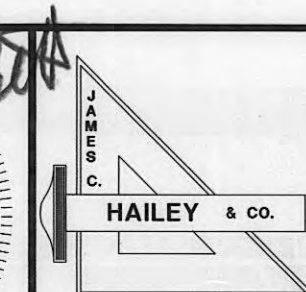
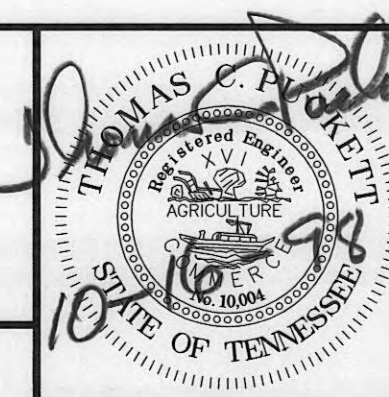


SECTION A-A

NOTES

1. ALL PIPING ON DISCHARGE TO BE 250 POUND FLANGE.
2. ALL WATER LINES TO CONFORM TO TECHNICAL SPECIFICATIONS FOR WATER SUPPLY FACILITIES.
3. ALL PIPING, VALVES, FITTINGS, PUMPS, ETC., TO BE INSTALLED AS PER MANUFACTURERS SPECIFICATION, OR AS DIRECTED.
4. ALL PIPING, VALVES, FITTINGS, PUMPS, AND EQUIPMENT TO BE PAINTED AS PER SPECIFICATION, OR AS DIRECTED.
5. ALL EXCAVATION UNDER PUMP STATION TO BE BACKFILLED WITH COMPACTED CRUSHED STONE.
6. FINISH GRADE TO BE APPROVED BY ENGINEER.
7. PUMPS SHALL BE MEYERS RANGER SERIES OR APPROVED EQUAL.
8. PUMPS SHALL BE RATED AT 40 GPM, AT 320 TDH. WITH MINIMUM EFFICIENCY OF 73 PER CENT.
9. ALL PIPING AND FITTINGS IN AND UNDER PUMP STATION TO BE FLANGED W/ RODDED CONNECTIONS.
10. PREFABRICATED WATER BOOSTER PUMPING SYSTEM INCLUDING: DUPLEX SUBMERSIBLE MULTISTAGE TURBINE PUMPS, PUMP CHAMBERS, VALVES, PIPING, PRESSURE SENSING AUTOMATIC PUMP CONTROLS, SEPARATE PRESSURE TANK STATION CONCRETE VAULT, PRESSURE, BLADDER TANKS, ETC., TO BE AS MANUFACTURED BY:

NDM SERVICE ASSOCIATES, INC.
P.O. BOX 498
CHARLESTON, TENNESSEE 37310
(423) 336-5563



WOLF BRANCH
UTILITY DISTRICT
Morgan County, Tennessee

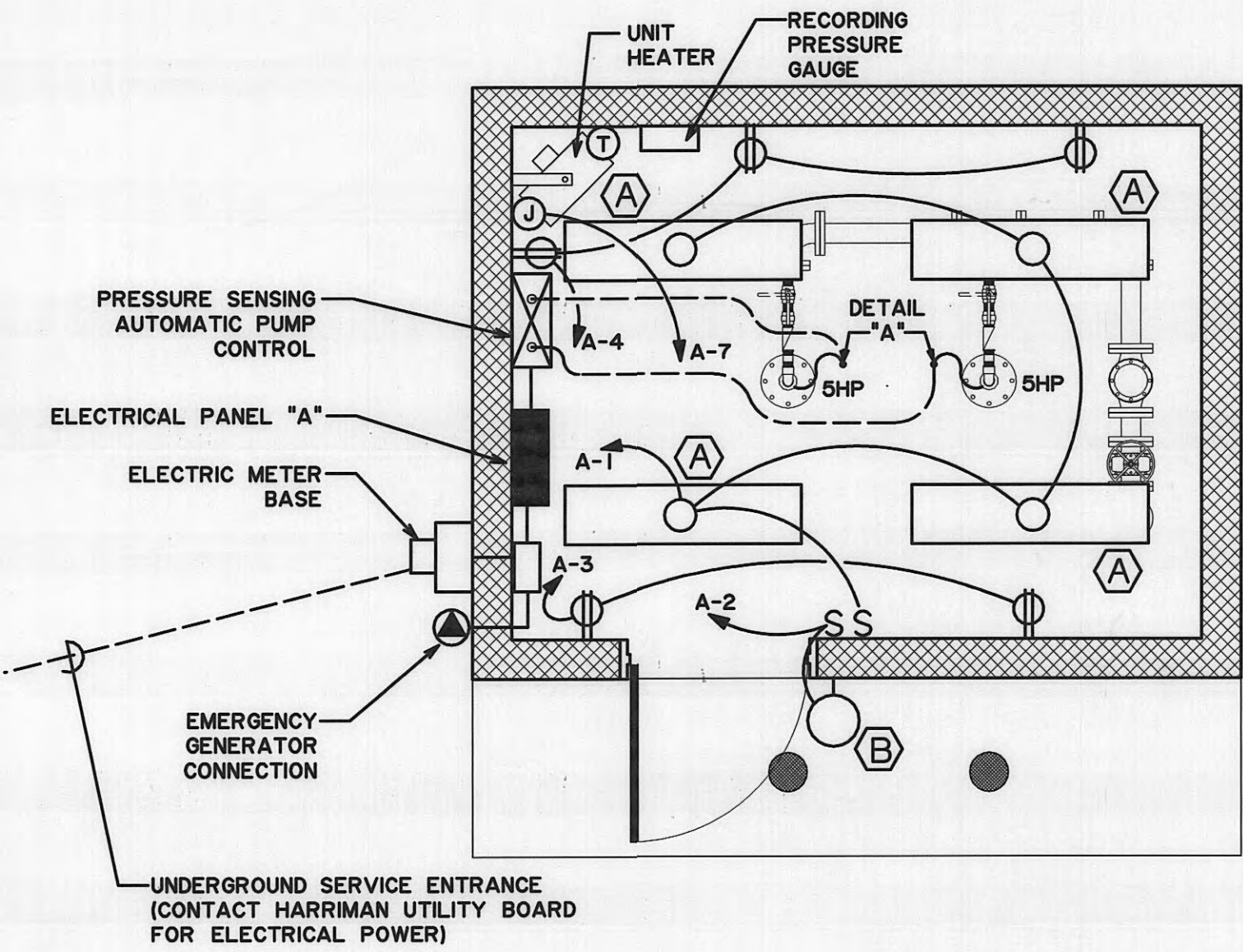
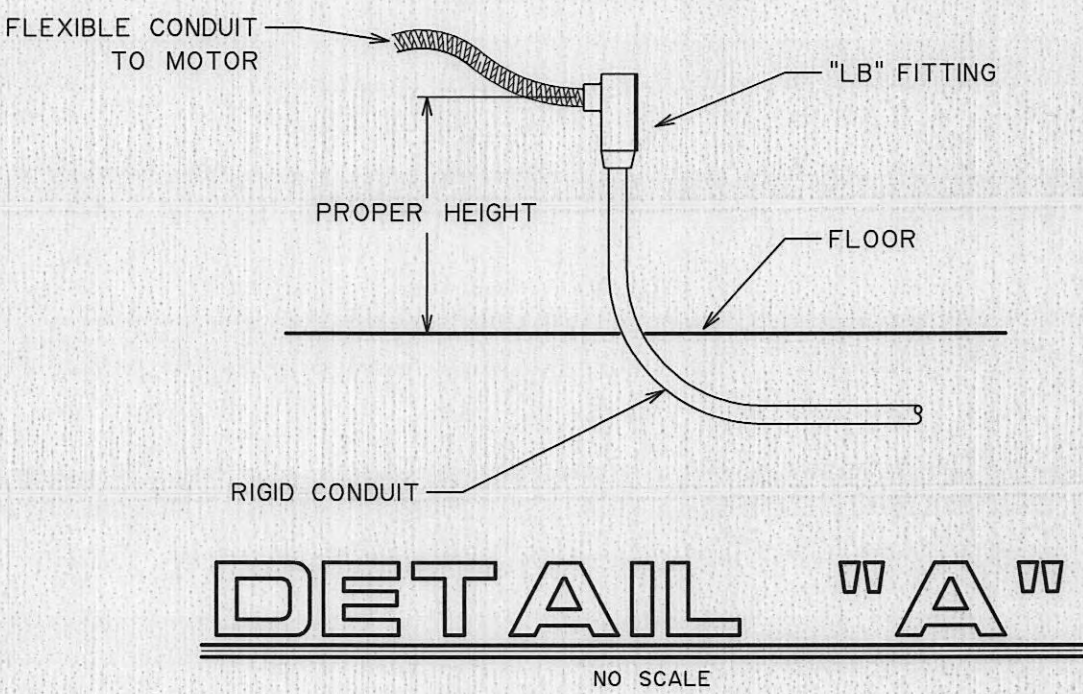
WHITEOAK ROAD
PUMPSTATION PLAN
SECTIONS & DETAILS

DESIGN	DRAWN	CHECKED	DATE	SCALE	PROJECT NO.
TCP	BCF	TCP	OCT. 1998	3/8" = 1'-0"	96185

SHEET
17
of
18

ELECTRICAL NOTES

1. ELECTRICAL WORK TO BE IN ACCORDANCE WITH ALL APPLICABLE CODES AND AUTHORITIES. NEW MATERIALS TO HAVE UNDERWRITERS LABELS WHERE APPLICABLE. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND PAY ALL INSPECTION FEES INVOLVED.
2. THE WORK SHALL BE INSTALLED COMPLETE IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS AND LEFT IN PROPER OPERATING CONDITION. ALL ITEMS INDICATED SHALL BE NEW UNLESS OTHERWISE NOTED. INSTALLATIONS SHALL BE GUARANTEED FOR ONE (1) YEAR FROM ACCEPTANCE IN CASE OF FAULTY OR INCOMPLETE WORKMANSHIP, MATERIALS, OR EQUIPMENT.
3. PROVIDE ALL ELECTRICAL CIRCUITS AND CONNECTIONS FOR ITEMS INDICATED INCLUDING CONTROL WIRING. CONSULT OTHER SECTIONS OF THE SPECIFICATIONS AND DRAWINGS AS NEEDED.
4. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL ELECTRICAL MATERIALS AND EQUIPMENT INDICATED OR NEEDED EXCEPT EQUIPMENT, MOTORS, CONTROL PANELS, AND CONTROL ITEMS SPECIFIED TO BE FURNISHED BY OTHERS. ITEMS TO BE AS SPECIFIED OR APPROVED EQUAL.
5. CONDUITS, FITTINGS AND BOXES SHALL BE GALVANIZED RIGID STEEL, OR IMC. WIRE SHALL BE COPPER WITH THW OR THWN INSULATION OR AS NOTED, MINIMUM SIZE #12. CONDUITS LEFT EMPTY SHALL HAVE FISH WIRE. CONDUIT IN FLOOR OR UNDERGROUND SHALL BE PVC COATED. PROVIDE CONTROL WIRE AS REQUIRED.
6. PRESSURE SENSING AUTOMATIC PUMP CONTROL AS MANUFACTURED BY PUMP SYSTEM SUPPLIER. PUMP CONTROL PANEL SHALL CONTAIN APPROPRIATE INDIVIDUAL CIRCUIT BREAKERS FOR TWO PUMPS, AND FOR CONTROL SYSTEM CIRCUITS.
7. DUPLEX SUBMERSIBLE TURBINE PUMPS TO BE MEYERS, RANGER SERIES.
8. UNIT HEATER SHALL BE EQUAL TO BERKO, WALL MOUNTED 7 FEET ABOVE FLOOR, 5KW, 240 VOLTS, 1 PHASE WITH INTEGRAL THERMOSTAT, TRANSFORMER AND RELAY.
9. PROVIDE LIGHT FIXTURES AS SCHEDULED OR APPROVED EQUAL, COMPLETE WITH NEW LAMPS AND MOUNTING DEVICES.
10. RECEPTACLES SHALL BE HUBBELL #5252. LIGHT SWITCHES SHALL BE HUBBELL # 1123, WALL PLATES SHALL BE STAINLESS STEEL.
11. CONTACT THE ELECTRICAL POWER DISTRIBUTOR AND ARRANGE FOR THE UNDERGROUND SERVICE AS SHOWN. PAY ANY CHARGES INVOLVED.
12. PROVIDE A DOUBLE THROW TRANSFER SWITCH TO MANUALLY TRANSFER TO EMERGENCY GENERATOR RECEPTACLE WHEN NORMAL ELECTRICAL SERVICE IS OUT.
13. 120 / 240 VOLT PANELBOARD TO BE SQUARE D "QO" LOAD CENTER, WITH DOOR.
14. RECORDING PRESSURE GAUGE TO BE AS MANUFACTURED BY DICKSON INSTRUMENTS, WITH 8" DIAMETER CIRCULAR CHART, 7 - DAY MODEL, PRESSURE RANGE 0 - 200 PSI.



PLAN

ELEC. SYMBOLS

- O OVERHEAD OUTLET FOR LIGHT FIXTURE
- HO WALL OUTLET WITH LIGHT FIXTURE
- FLUORESCENT LIGHT FIXTURE
- S₃ THREE WAY LIGHT SWITCH IN WALL, 50" A.F.F.
- S_M MOTOR SWITCH
- CONCEALED CONDUIT RUN OVERHEAD
- CONDUIT RUN UNDERFLOOR OR UNDERGROUND
- CONDUIT RUN EXPOSED OVERHEAD
- FLEXIBLE CONDUIT
- MARKS INDICATE NO. OF #12 WIRES IN CONDUIT, IF MORE THAN TWO
- ARROWS INDICATE NUMBER OF CIRCUITS IN HOMERUN
- LIGHTING AND APPLIANCE PANELBOARD
- JUNCTION BOX
- MOTOR CONTROLLER
- THERMOSTAT - EQUAL TO HONEYWELL # T6052
- DUPLEX 120V. RECEPTACLE, 18" A.F.F., U.O.N.
- ELECTRIC UNIT HEATER
- MOTOR - HORSEPOWER INDICATED
- LIGHT FIXTURE IDENTIFICATION
- CONDUIT WITH CONTROL WIRES AS NEEDED.
- A.F.F. ABOVE FINISHED FLOOR
- U.O.N. UNLESS OTHERWISE NOTED
- RECEPTACLE TO RECEIVE EMERGENCY POWER FROM EMERGENCY GENERATOR. HUBBELL 60 AMP., 480V. 4P, 5W., # 26520 WITH #26401, #26402, AND # 26404 BOX AND ANGLE. FURNISH PROPER PLUG TO OWNER.
- 200A., 480V. DOUBLE THROW SWITCH - SQUARE D # 82344

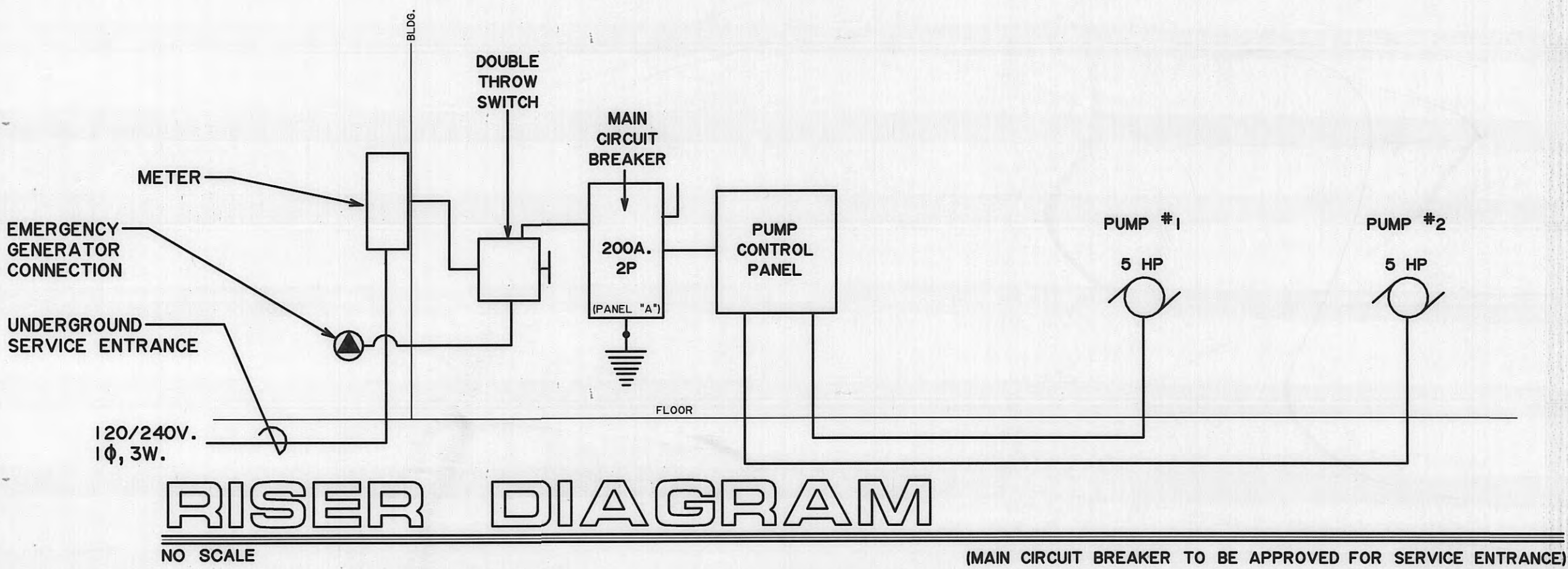
LIGHTING FIXTURE SCHEDULE

TYPE	MANUFACTURER	CATALOG NUMBER	NUMBER & SIZE LAMPS	MOUNT	REMARKS
A	LITHONIA # AF240120ES		2 - 40W., RS. CW	SURFACE MOUNT - CEILING	HEAVY DUTY - TURRET TYPE
B	LITHONIA # TWL 70S 120 PE1		1 - 70W. - H.P.S.	WALL MOUNT - 6'-0" A.F.F.	PHOTO CONTROLLED

VOLTAGE - 120/240 V, 1Ø 3W
SURFACE MOUNT
200A., 2P. MAIN CIR. BKR. 10,000 A.I.C.

PANEL - "A"

CIRC.	SERVING	POLES	KVA LOAD	AMP. TRIP			POLES	KVA LOAD	AMP. TRIP
1	LIGHTS	1	1.1	20	2	LIGHTS	1	0.6	20
3	RECEPTACLES - GFI	1	1.0	20	4	RECEPTACLES - GFI	1	1.0	20
5	PUMP CONTROL	2	14.4	100	6	SPARE	1	-	20
7		-	-	-	8	SPARE	1	-	20
9	UNIT HEATER	2	5.0	30	10	SPARE	1	-	20
11		-	-	-	12	SPARE	1	-	20



RISER DIAGRAM

WOLF BRANCH
UTILITY DISTRICT
Morgan County, Tennessee

TCPBCFTCP

WHITEOAK ROAD
PUMPSTATION
ELECTRICAL PLAN

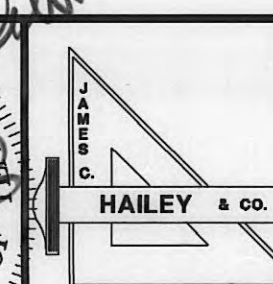
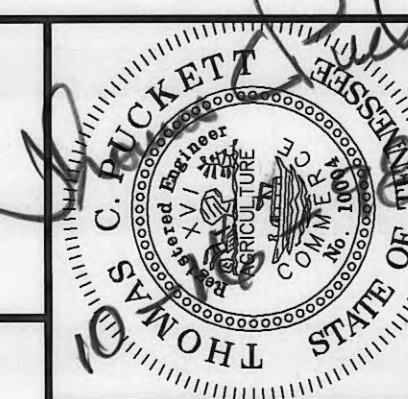
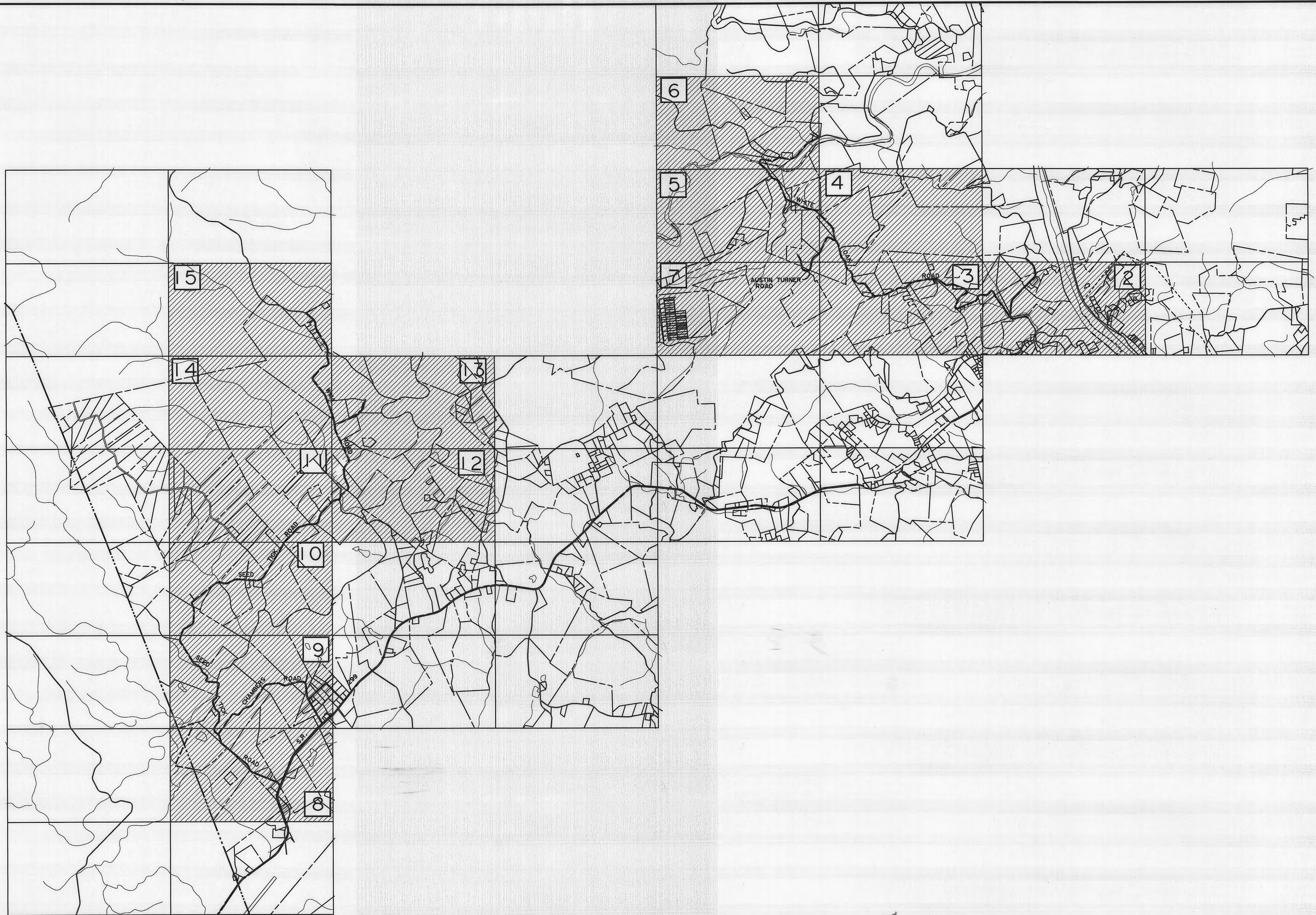
OCT. 19983/8" = 1'-0"96185

DESIGNDRAWNCHECKED

DATESCALEPROJECT NO.

SHEET

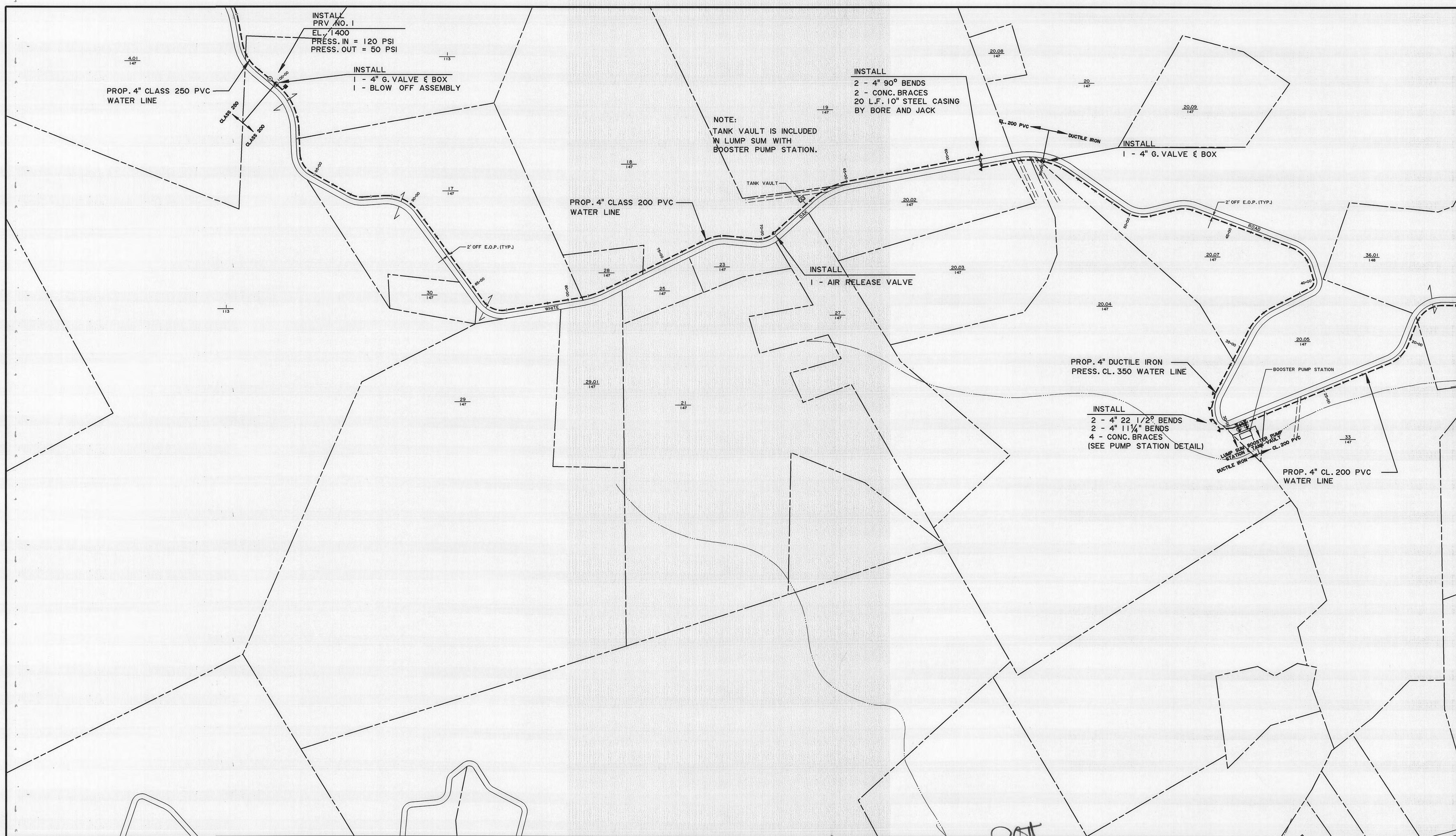
18
of
18



WOLFE BRANCH
UTILITY DISTRICT
Morgan County, Tennessee

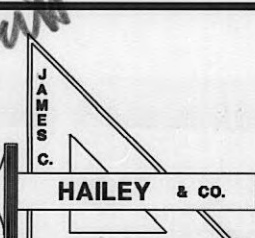
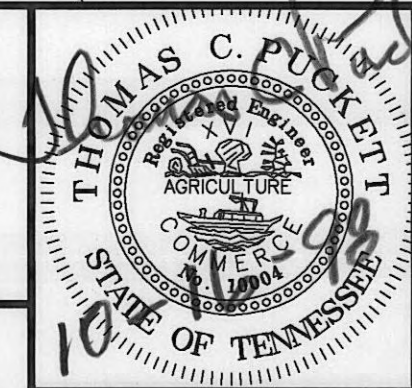
KEY MAP

DESIGN	DRAWN	CHECKED	DATE	SCALE	PROJECT NO.
TCP	LLB	TCP	JULY 1998	1" = 200'	96185



147 NW	147 NE
147 SW	147 SE

5	4
7	3



WOLFE BRANCH UTILITY DISTRICT Morgan County, Tennessee		
DESIGN TCP	DRAWN LLB	CHECKED TCP

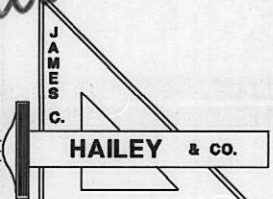
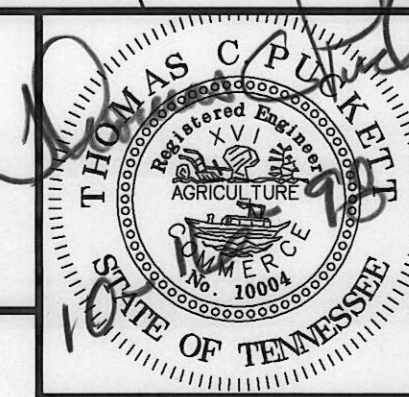
WATER LINE ADDITIONS WHITE OAK ROAD		
DATE JULY 1998	SCALE 1" = 200'	PROJECT NO. 96185

SHEET 3
147 SE



138 SW		
147 NW	147 NE	
147 SW	147 SE	148 SW

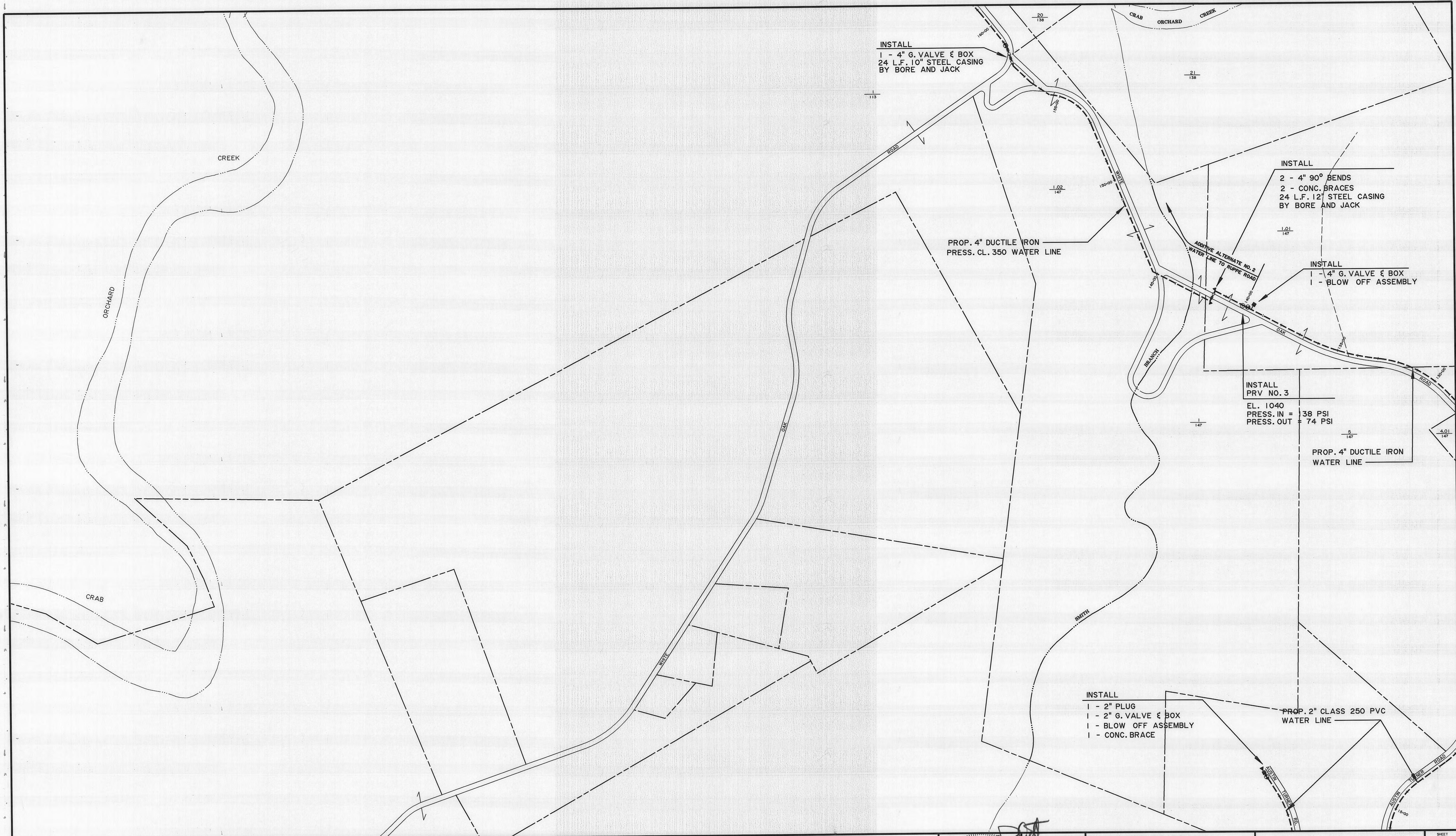
6		
5	4	
7	3	2



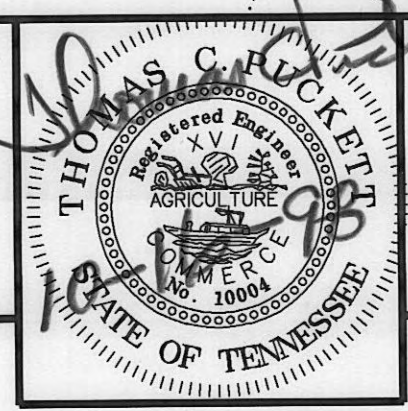
WOLFE BRANCH UTILITY DISTRICT Morgan County, Tennessee		
DESIGN TCP	DRAWN LLB	CHECKED TCP

WATER LINE ADDITIONS WHITE OAK ROAD		
DATE JULY 1998	SCALE 1" = 200'	PROJECT NO. 96185

SHEET 4
147 NE



138 SW		6	
147 NW	147 NE	5	4
147 SW	147 SE	7	3

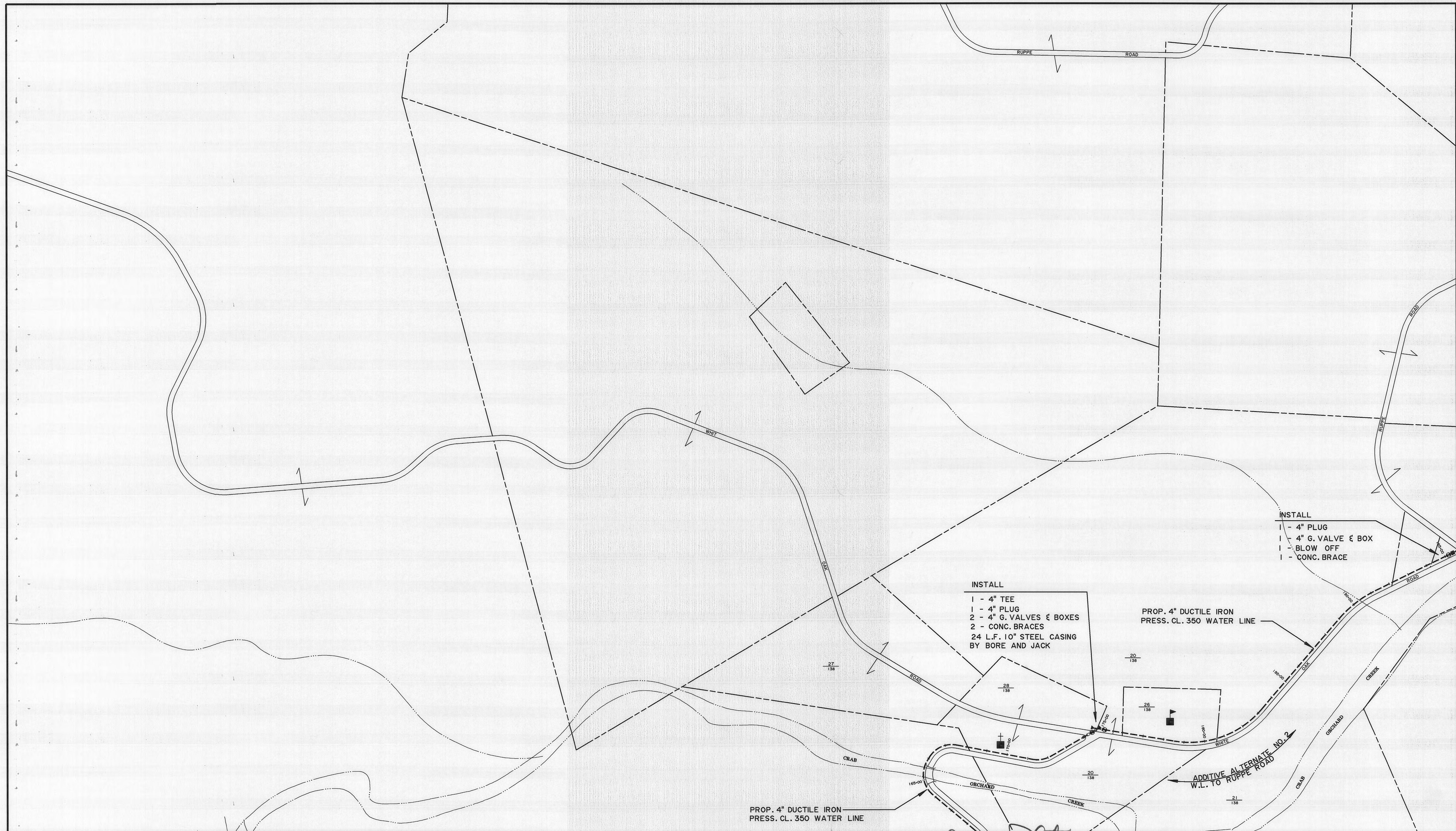


HAILEY & CO.

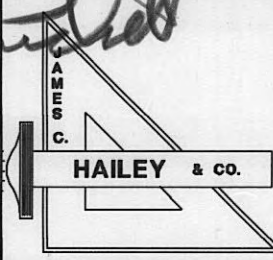
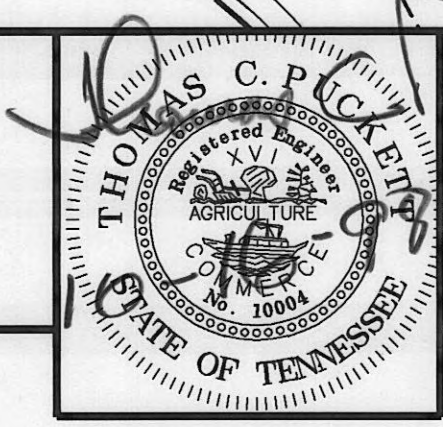
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DESIGN TCP	DRAWN LLB	CHECKED TCP

WATER LINE ADDITIONS WHITE OAK ROAD		
DATE JULY 1998	SCALE 1" = 200'	PROJECT NO. 96185

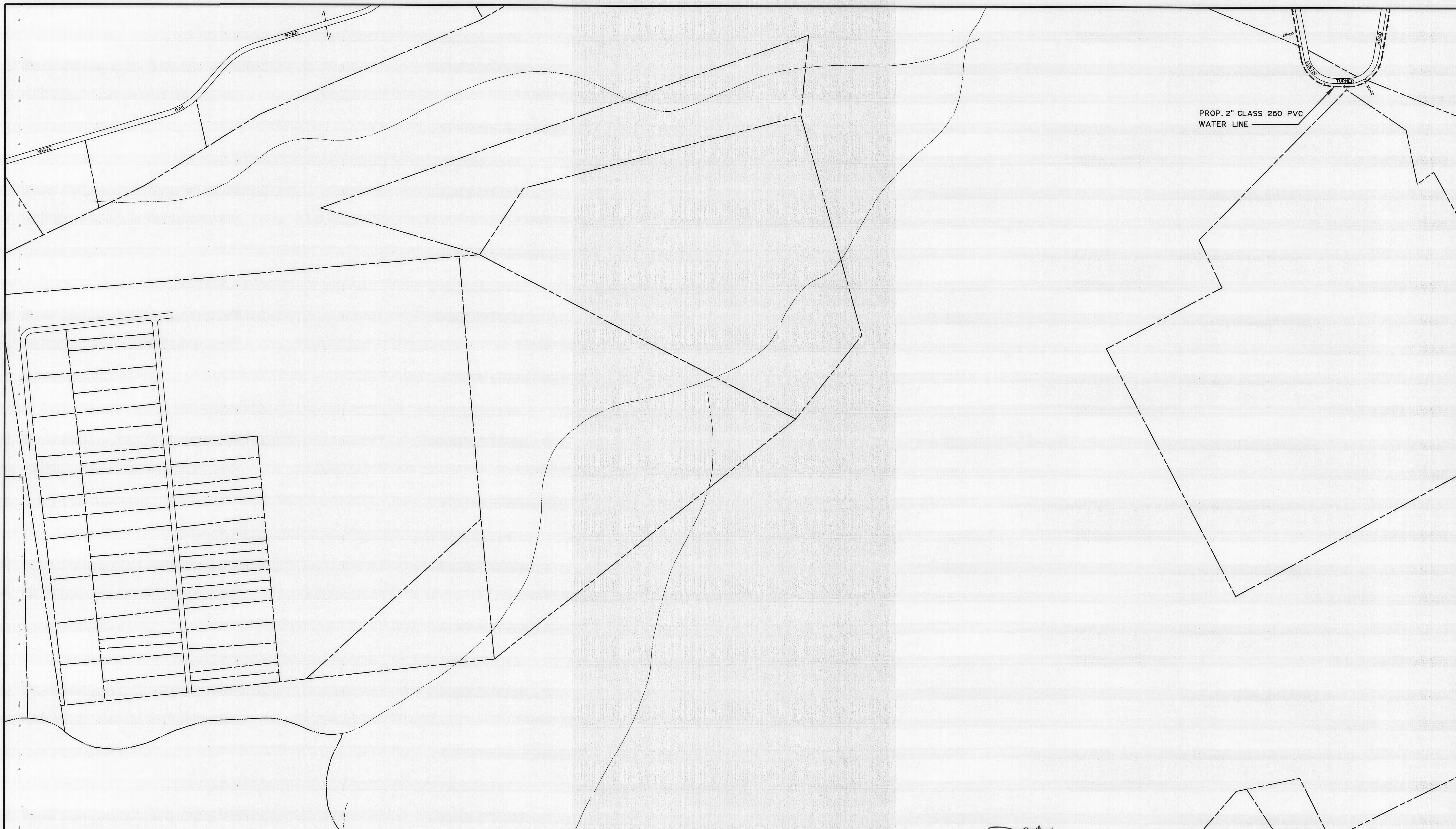
5
147 NW



	39 SW		5		
	147 NW	147 NE	5	4	



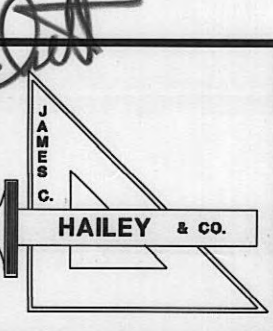
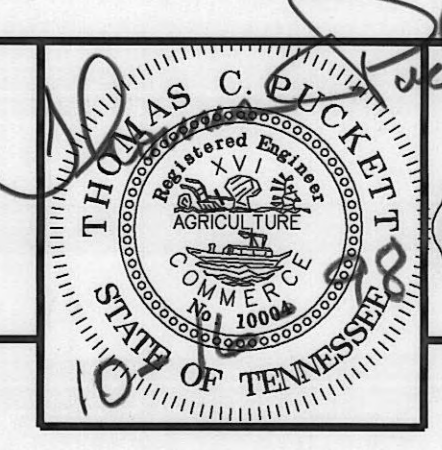
WOLFE BRANCH UTILITY DISTRICT Morgan County, Tennessee			WATER LINE ADDITIONS WHITE OAK ROAD			SHEET 6
DESIGN TCP	DRAWN LLB	CHECKED TCP	DATE JULY 1998	SCALE 1" = 200'	PROJECT NO. 96185	138 SW



PROP. 2" CLASS 250 PVC
WATER LINE

147 NW	147 NE
147 SW	147 SE

5	4
1	3



WOLFE BRANCH UTILITY DISTRICT Morgan County, Tennessee			WATER LINE ADDITIONS WHITE OAK ROAD			SHEET 7
DESIGN TCP	DRAWN LLB	CHECKED TCP	DATE JULY 1998	SCALE 1" = 200'	PROJECT NO. 96185	147 SW

JAMES C. HAILEY & CO.

MAY 05 2009

SCANNED TO ARCHIVE

CONTRACT 298 SHEET 7 OF 18

INSTALL
1 - 6" x 4" TEE
1 - 4" G. VALVE & BOX
2 - 6" G. VALVES & BOXES
1 - CONC. BRACE
24 L.F. 10" STEEL CASING
BY BORE AND JACK

PROP. 4" CL. 200 PVC
WATER LINE

CONNECT TO EXIST. 4" W.L.
INSTALL

1 - 6" x 4" REDUCER
1 - 6" G. VALVE & BOX

PROP. 6" CL. 200 PVC
WATER LINE

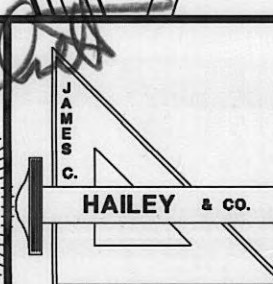
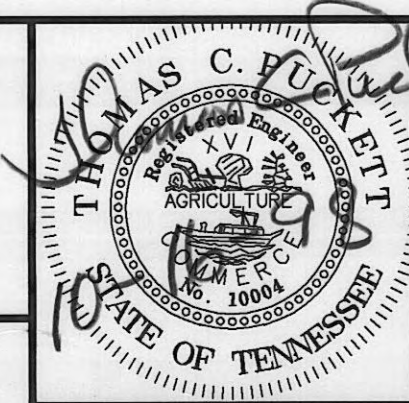
EXIST. 2" BLOW OFF

MORGAN
CUMBERLAND

COUNTY
COUNTY

158 SE	
62 NE	

9	
8	



WOLFE BRANCH UTILITY DISTRICT Morgan County, Tennessee			WATER LINE ADDITIONS SEED TICK ROAD AND WMA ROAD			SHEET 8 162 NE
DESIGN TCP	DRAWN LLB	CHECKED TCP	DATE JULY 1998	SCALE 1" = 200'	PROJECT NO. 96185	