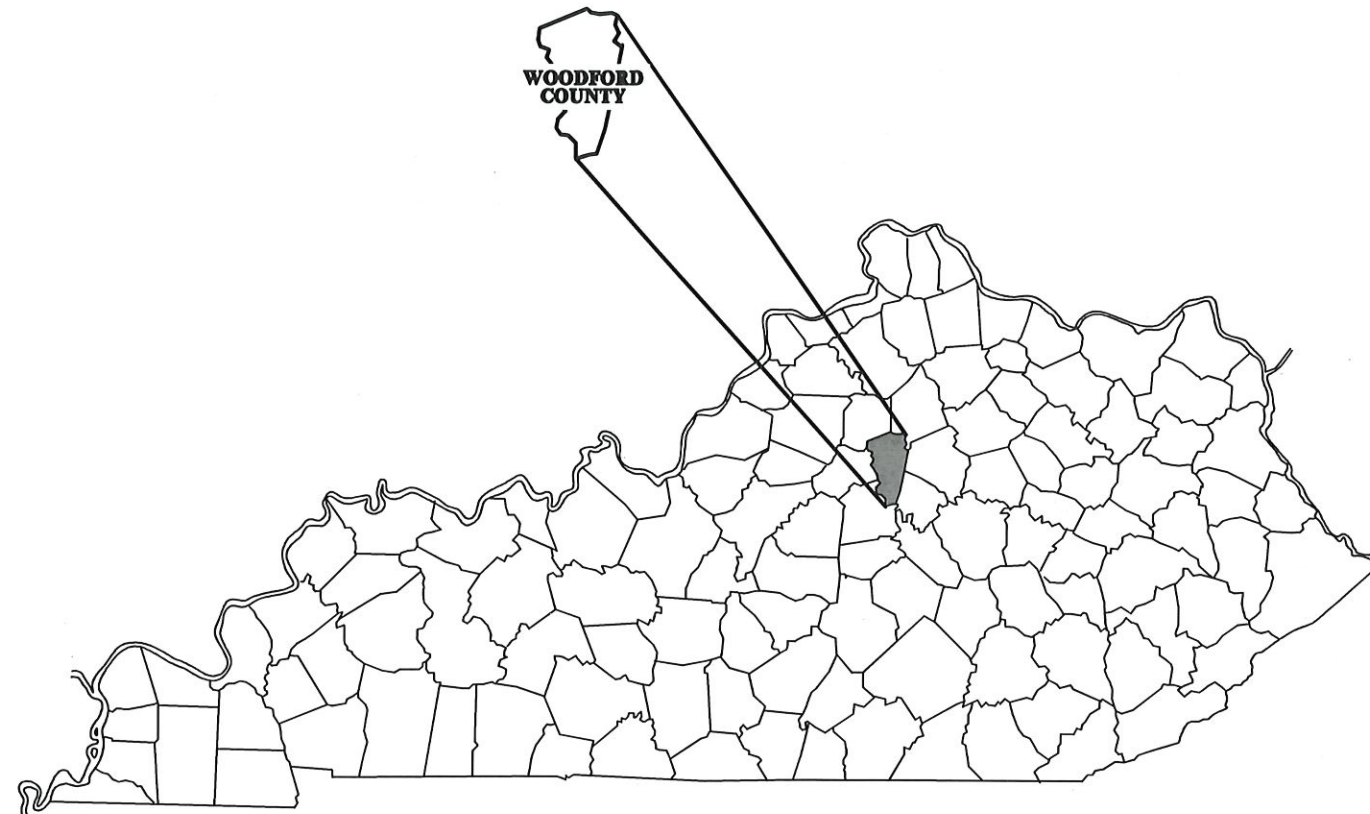
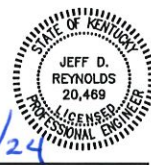


SYSTEM IMPROVEMENTS PROJECT SOUTH WOODFORD WATER DISTRICT WOODFORD COUNTY, KENTUCKY CONTRACT I - KY 33 PUMP STATION REPLACEMENT



NOVEMBER 2023
EDITION : BID
HMB PROJECT No. 4347.01


JEFF D. REYNOLDS, P.E.
KENTUCKY REGISTRATION NO. 20,469



Plans Prepared By:



3 HMB Circle (502)695-9800
Frankfort, Kentucky Fax (502)695-9810

GENERAL NOTES

UNLESS OTHERWISE NOTED, A SEPARATE BID ITEM HAS NOT BEEN ESTABLISHED FOR FITTINGS. THE FITTINGS INVOLVED, BUT NOT LIMITED TO, TEES, BENDS, PLUGS, REDUCERS, SADDLES, CROSSES, COUPLINGS, ETC. CONTRACTOR SHALL INCLUDE THE COST OF THESE ITEMS IN THE UNIT PRICE FOR THE PIPE.

NO PAY ITEM FOR EXTRA TRENCH DEPTH HAS BEEN SET UP. CONTRACTOR SHALL INCLUDE THE COST OF THE ADDITIONAL DEPTH IN HIS UNIT PRICE WHEN THE WATER PIPE CROSSES UNDER AN EXISTING UTILITY, CULVERT OR DRAINAGE DITCH.

FINAL LOCATION OF SERVICES, GATE VALVES AND OTHER APPURTENANCES ARE TO BE FIELD LOCATED DURING CONSTRUCTION AND APPROVED BY THE ENGINEER.

EXISTING UTILITIES, ESPECIALLY GAS LINES AND OIL LINES, MAY BE CATHODICALLY PROTECTED, THEREFORE, DUCTILE IRON PIPE, FITTINGS GATE VALVES, AND/OR BOXES LAID WITHIN 100' OF THESE LINES WITH CATHODIC PROTECTION SHALL MEET THE REQUIREMENTS OF AWWA C-105, LATEST REVISION. A SEPARATE PAY ITEM HAS NOT BEEN ESTABLISHED. ALL COSTS FOR LABOR AND MATERIALS MUST BE INCLUDED IN THE UNIT PRICE BID FOR PIPE.

ALL DAMAGE TO EXISTING UTILITIES CAUSED BY THE CONTRACTOR'S OPERATION SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE OWNER.

THE CONTRACTOR SHALL CONFINE ALL CONSTRUCTION ACTIVITY TO THE AREA WITHIN THE EXISTING EASEMENTS AND CONSTRUCTION LIMITS, UNLESS OTHERWISE APPROVED IN WRITING BY THE OWNER.

THE CONTRACTOR WILL BE SOLELY LIABLE FOR ANY WORK HE PERFORMS OUTSIDE OF LEGAL EASEMENTS OR CONSTRUCTION LIMITS.

IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO ASCERTAIN THE LOCATIONS OF ANY AND ALL UTILITIES ENCOUNTERED BY THE FINAL ALIGNMENT OF WATERLINE. THE CONTRACTOR SHALL USE CAUTION WHEN EXCAVATING AND SHALL TAKE THE NECESSARY MEASURES TO PROTECT THE EXISTING UTILITIES TO KEEP THEM IN SERVICE. IF UTILITIES ARE SHOWN, THE INFORMATION IS GENERAL IN NATURE AND NOT TO BE TAKEN AS AS-BUILTS. CONTRACTOR SHALL CONTACT REPRESENTATIVES OF LOCAL UTILITIES A MINIMUM OF 48 HOURS BEFORE COMMENCING WORK ON THE PROJECT.

ALL WATER MAINS SHALL BE PVC CLASS 200 SDR 21 UNLESS OTHERWISE NOTED ON THE PLANS.

AT THE CONTRACTORS OPTION, CLASS 350 DUCTILE IRON PIPE MAY BE SUBSTITUTED FOR ANY PIPE PARTICULARLY SPECIFIED, BUT AT NO ADDITIONAL COST TO THE OWNER.

PROVIDE 42" MINIMUM COVER FOR ALL WATER MAINS PLACED WITHIN UNPAVED COUNTY ROADS OR IN DITCH LINES.

REASONABLE CARE SHALL BE TAKEN BY THE CONTRACTOR DURING CONSTRUCTION TO AVOID DAMAGE TO EXISTING VEGETATION. ORNAMENTAL SHRUBBERY AND TREE BRANCHES SHALL BE TEMPORARILY TIED BACK, WHERE APPROPRIATE, TO MINIMIZE DAMAGE. TREES THAT RECEIVE DAMAGE TO BRANCHES SHALL BE TRIMMED OF THOSE BRANCHES TO IMPROVE THE APPEARANCE OF THE TREE. TREE TRUNKS RECEIVING DAMAGE FROM EQUIPMENT SHALL BE TREATED WITH A TREE DRESSING. PROPERTY OWNERS SHALL BE NOTIFIED BY THE CONTRACTOR PRIOR TO ANY ALTERATION TO EXISTING TREES AND/OR LANDSCAPING ON THEIR PROPERTY.

THE CONTRACTOR SHALL NOTIFY PROPERTY OWNERS PRIOR TO PERFORMING DRIVEWAY CUTS IN ORDER TO PROVIDE PROPERTY OWNER ACCESS TO THE PUBLIC RIGHT-OF-WAY. THE CONTRACTOR SHALL INSTALL THESE DRIVEWAY CROSSINGS WITH EXPEDIENCE AND SHALL RESTORE THE DRIVEWAY AS SOON AS POSSIBLE.

ALL PAVED AND CONCRETE SURFACES, INCLUDING DRIVEWAYS, CROSSED BY THE PROPOSED WATER MAINS SHALL BE BORED AND JACKED (UNCASED).

ALL TEES AND BENDS SHALL BE THRUST BLOCKED AS DETAILED ON THE THRUST BLOCK DETAIL SHEET. COST TO BE INCLUDED IN THE UNIT PRICE BID FOR PIPE.

SEPTIC SYSTEMS NOTED WHERE PROPERTY OWNER NOTIFIED US. ALL MAY NOT BE SHOWN. CONTRACTOR TO USE CAUTION IN THESE AREAS. WATER MAIN TO BE ENCASED IN CONCRETE WHEN LAID WITHIN 10' OF DRAIN LINES OR FIELD. SEE DETAIL AND NOTE ON STANDARD DETAIL SHEET.

UNLESS OTHERWISE NOTED, A SEPARATE BID ITEM HAS NOT BEEN ESTABLISHED FOR CONNECTIONS TO EXISTING SYSTEM. CONTRACTOR SHALL INCLUDE COST OF CONNECTIONS TO EXISTING SYSTEM IN THE UNIT PRICE FOR THE PIPE.

THE CONTRACTOR SHALL BE REQUIRED TO CLEAN IMMEDIATELY AFTER INSTALLING WATER LINE WHERE MAIN IS TO BE LAID ON STATE RIGHT-OF-WAY.

GRIP RING RESTRAINTS SHALL BE USED ON ALL M.J. FITTINGS.

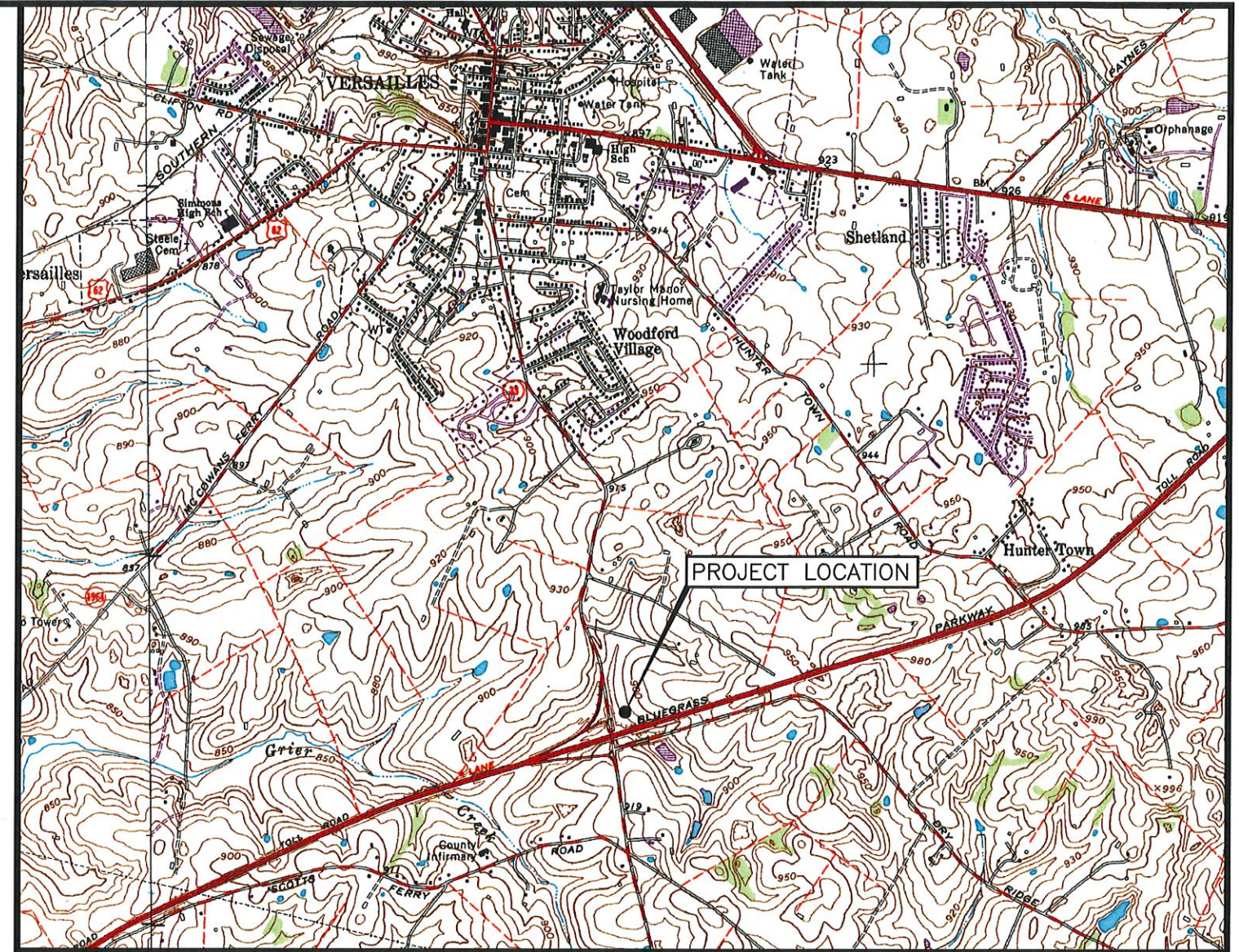
THE FOLLOWING GENERAL NOTES ARE REQUIREMENTS OF THE COMMONWEALTH OF KENTUCKY TRANSPORTATION CABINET PERMIT ENGINEERS. THESE NOTES APPLY WHEN LAYING WATER LINE IN STATE RIGHT-OF-WAY:

ALL WATER LINES BEING PLACED ABOVE CROSS DRAINS NEED TO HAVE AT LEAST ONE (1) FOOT OF SOIL MATERIAL AS A CUSHION BETWEEN LINE AND THE CROSS DRAIN CULVERT. SEE UTILITY CROSSING DETAIL.

ALL PROPOSED WATER LINES TO BE PLACED BEHIND ALL PRIVATE AND COMMERCIAL ENTRANCE CULVERTS.

ALL PROPOSED WATER LINES TO BE PLACED AT BACK OF DITCH LINE IN TIGHT AREAS.

BORE PITS AND TRENCHES SHALL BE RESTORED TO THEIR ORIGINAL CONDITION OR BETTER.



TOPOGRAPHIC MAP

LEGEND

- PROPOSED WATER LINE
- EXISTING WATER LINE
- PROPOSED GATE VALVE
- EXISTING GATE VALVE
- AUTOMATIC AIR RELEASE VALVE
- FIRE HYDRANT
- PROPERTY LINE
- BLOWOFF ASSEMBLY
- FENCE

SHEET INDEX

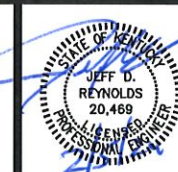
- COVER
- GN1 GENERAL NOTES / LEGEND / SHEET INDEX / TOPOGRAPHIC MAP
- 1 PLAT OF SURVEY
- 2 PUMP STATION PIPING PLAN
- 3 BOOSTER PUMP STATION
- 4 DEMOLITION PLAN
- SD1 STANDARD DETAILS
- SD2 STANDARD DETAILS

NO.	DATE	REVISIONS	CHK'D	APPR'D	DATE

PROJECT: 434701 DATE: AUG. 2023		
SCALE: N.T.S.		
DESIGNED BY	JDR	NAME
DRAWN BY	SAB	DATE
CHECKED BY	JDR	
RECORD DUGS.		



3 HMB CIRCLE
FRANKFORT, KENTUCKY
(502) 695-9800
(502) 695-9810 FAX



**SYSTEM IMPROVEMENT PROJECT
SOUTH WOODFORD WATER DISTRICT
WOODFORD COUNTY, KENTUCKY
CONTRACT I - PUMP STATION REPLACEMENT**

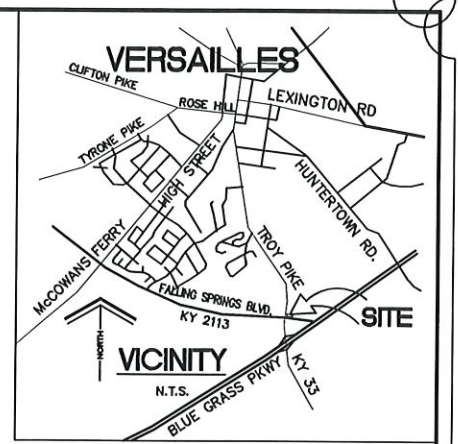
**GENERAL NOTES / LEGEND /
SHEET INDEX / TOPOGRAPHIC MAP**

SHEET
GN1

P:\engr\m\434701 SWWD K102 PSYCA\SHE1 GN1.dwg, 2/2/2023 11:24:23 AM, DWG, 9 30'-ps2

BASIS OF BEARING
 THE BEARING AND COORDINATES SHOWN ARE BASED ON KENTUCKY STATE PLANE GRID NORTH, KENTUCKY STATE PLANE NORTH ZONE, NORTH AMERICA DATUM OF 1983 (NAD 83). PARTICULARLY, THE BEARINGS AND COORDINATES ARE BASED ON A GNSS SURVEY UTILIZING A TRIMBLE R12I AND R8s GNSS RECEIVERS AND THE KYTC VRS SYSTEM.

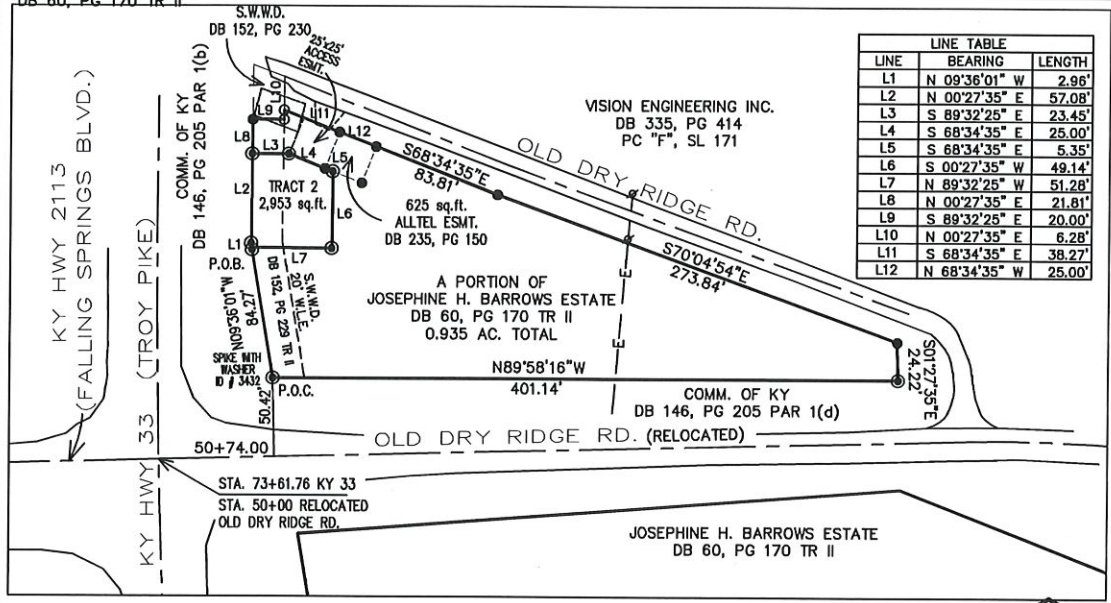
SURVEYORS CERTIFICATE
 I DO HEREBY CERTIFY THAT THE SURVEY SHOWN HEREON WAS PERFORMED UNDER MY DIRECT SUPERVISION BY THE METHOD OF RANDOM TRAVERSE WITH AN UNADJUSTED FIELD CLOSURE OF 1:91,127 AND HAS NOT BEEN ADJUSTED. THIS IS AN URBAN CLASS SURVEY AND THE BASIS FOR BEARING IS GRID NORTH. STEEL PINS SET ARE 1/2" IN DIAMETER BY 18" LONG WITH ID CAP LS #3432.



DAN PHILLIPS LS # 3432 _____ DATE _____

OWNER
 JOSAPHINE BARROWS ESTATE
 152 STOUT AVE.
 VERSAILLES, KY 40383

SOURCE
 DB 60, PG 170 TR II



LINE	BEARING	LENGTH
L1	N 09°36'01" W	2.96'
L2	N 00°27'35" E	57.08'
L3	S 89°32'25" E	23.45'
L4	S 68°34'35" E	25.00'
L5	S 68°34'35" E	5.35'
L6	S 00°27'35" W	49.14'
L7	N 89°32'25" W	51.28'
L8	N 00°27'35" E	21.81'
L9	S 89°32'25" E	20.00'
L10	N 00°27'35" E	6.28'
L11	S 68°34'35" E	38.27'
L12	N 68°34'35" W	25.00'

NOTES
 1.) THIS SURVEY IS SUBJECT TO ANY RIGHT-OF-WAYS OR EASEMENTS, PUBLIC OR PRIVATE WHETHER OF RECORD OR NOT, AND IS SUBJECT TO LOCAL CITY AND COUNTY ZONING ORDINANCES.
 2.) THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT.
 3.) THIS SURVEYOR IS NOT RESPONSIBLE FOR ANY INACCURATE INDEXING OF RECORDS THAT THE COUNTY CLERK OR THE PROPERTY VALUATION OFFICE MAY HAVE MADE.
 4.) THIS SURVEY COMPLIES WITH 201 KAR 18:150.

PURPOSE
 THE PURPOSE OF THIS PLAT OF SURVEY IS TO CREATE TRACT 2 FOR A SOUTH WOODFORD WATER DISTRICT PUMP STATION.

LEGEND
 ● 1/2" BY 18" STEEL REBAR SET WITH ID CAP # 3432
 ● 3/4" BY 18" STEEL REBAR FOUND WITH ID CAP #1304

DATE: AUG. 2, 2023
 SCALE: 1"=100'

DPS
DAN PHILLIPS SURVEYING
 1138 BEAR CREEK RD.
 LAWRENCEBURG, KY 40342
 PHONE - 502-859-5534
 dpslandsurveying@gmail.com
 FILE: BARROWS-SWWD.DWG

PLAT OF SURVEY OF A PORTION OF THE JOSEPHINE H. BARROWS ESTATE PROPERTY
 KY 33 (TROY PIKE) and OLD DRY RIDGE ROAD
 VERSAILLES, WOODFORD CO., KY

SURVEY FOR: SOUTH WOODFORD WATER DISTRICT
 117 CROSSFIELD DR.
 VERSAILLES, KY 40383

NOTE :
 THE PUMP STATION SITE IS TRACT 2 OF THE PLAT OF SURVEY

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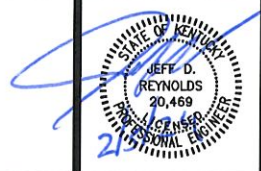
NO.	DATE	REVISIONS	CHK'D	APPR'D	DATE

PROJECT: 434101 DATE: AUG. 2023
 SCALE: N.T.S.

DESIGNED BY	NAME	DATE
JDR	JDR	
DRAWN BY	SAB	
CHECKED BY	JDR	
RECORD DUGG.		



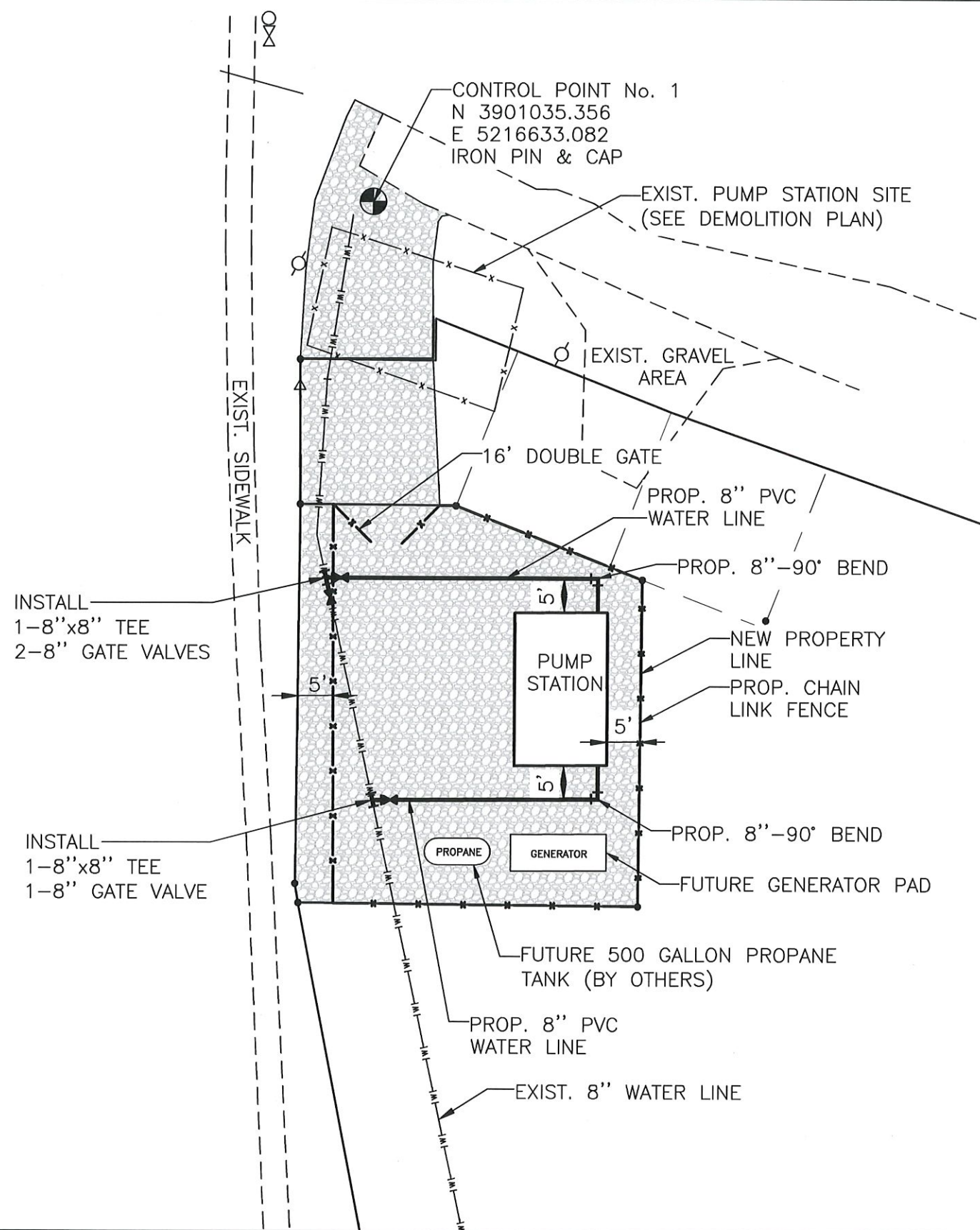
3 HMB CIRCLE
 FRANKFORT, KENTUCKY
 (502) 695-9800
 (502) 695-9810 FAX



SYSTEM IMPROVEMENT PROJECT
SOUTH WOODFORD WATER DISTRICT
WOODFORD COUNTY, KENTUCKY
CONTRACT I - PUMP STATION REPLACEMENT

PLAT OF SURVEY

SHEET
 1



 PROP. GRAVEL AREA (REFER TO GRAVEL ACCESS ROAD DETAIL)

- NOTES :
1. CONTRACTOR SHALL REGRADE SITE TO ENSURE RUNOFF DRAINS AWAY FROM PUMP STATIONS.
 2. FILTER FABRIC SHALL BE USED IN ALL GRAVELED AREAS. (REFER TO GRAVEL ACCESS ROAD DETAIL).
 3. REFER TO TRACT 2 OF THE PLAT OF SURVEY FOR PUMP STATION SITE BOUNDARIES.
 4. ALL DEBRIS AND BRUSH DISTURBED DURING CONSTRUCTION SHALL BE REMOVED FROM THE SITE. ANY AREA DISTURBED SHALL BE PROPERLY GRADED, SEEDED AND STRAWED.

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NO.	DATE	REVISIONS	CHK'D	APPR'D	DATE

PROJECT: 4341201 DATE: AUG. 2023	
SCALE: 1" = 20'	
DESIGNED BY	JDR
DRAWN BY	SAB
CHECKED BY	JDR
RECORD DRG.	



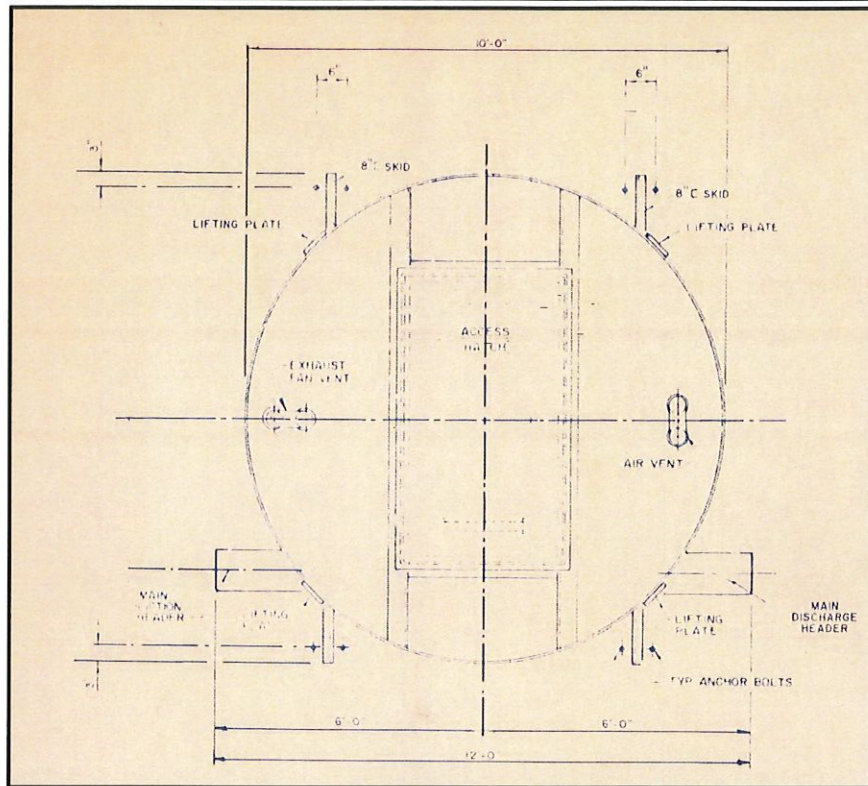
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SYSTEM IMPROVEMENT PROJECT
SOUTH WOODFORD WATER DISTRICT
WOODFORD COUNTY, KENTUCKY
CONTRACT I - PUMP STATION REPLACEMENT

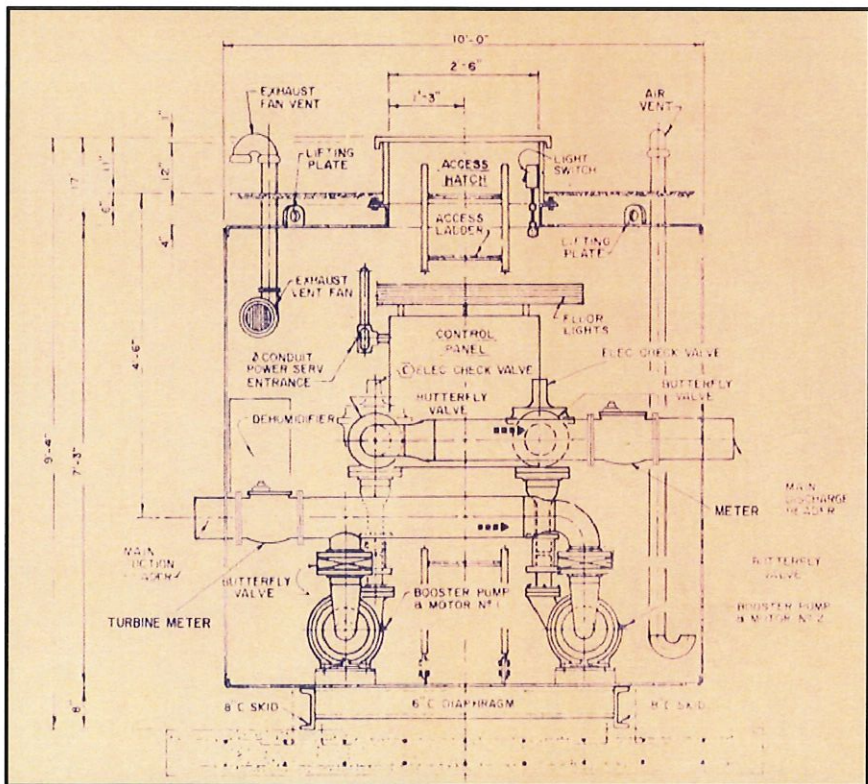
PUMP STATION PIPING PLAN

SHEET
2



EXTERIOR PLAN

SCALE : N.T.S.

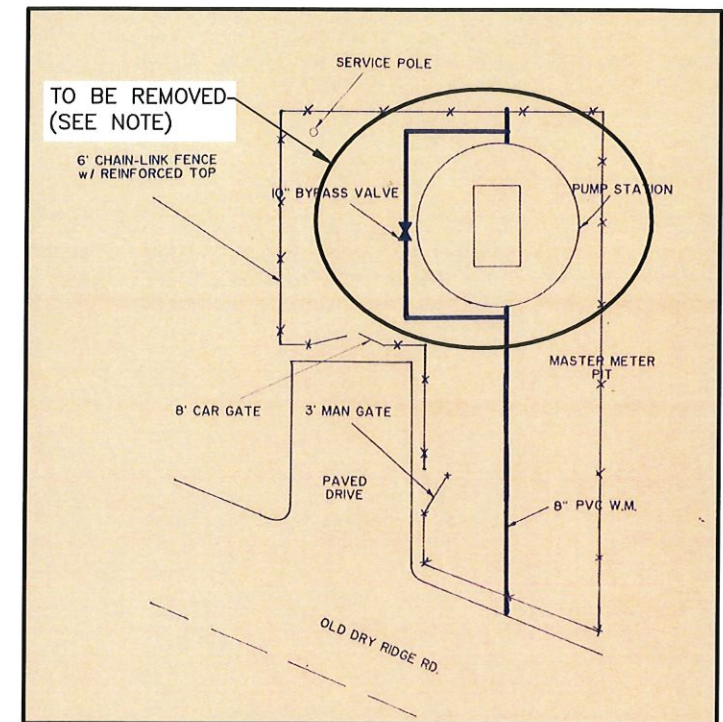


ELEVATION

SCALE : N.T.S.

DEMOLITION PLAN NOTES :

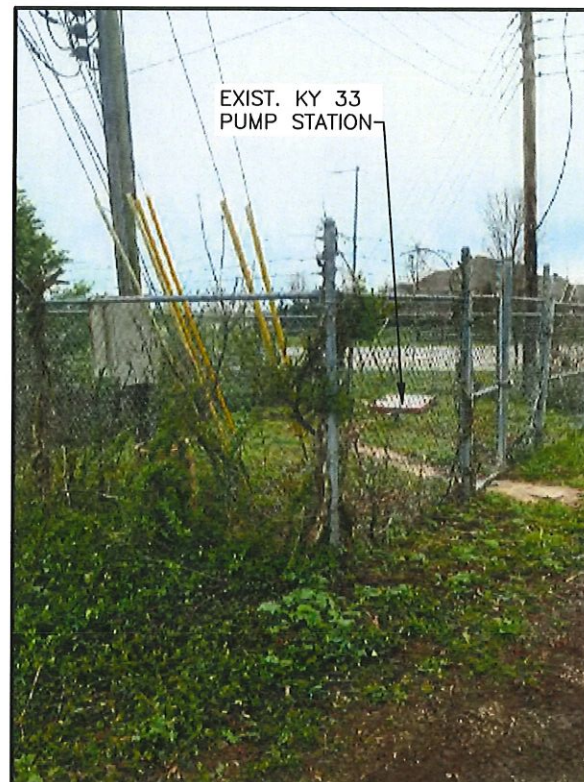
1. THE EXIST. PUMP STATION SHALL REMAIN IN SERVICE AND FULLY OPERATIONAL UNTIL THE NEW PUMP STATION IS FULLY OPERATIONAL FOR A MINIMUM OF 30 DAYS TO INSURE THERE ARE NO ISSUES.
2. DEMO OF THE PUMP STATION SHALL BE CLOSELY COORDINATED WITH SOUTH WOODFORD WATER DISTRICT. THE WATER LINE SHALL NOT BE OUT OF SERVICE FOR MORE THAN 8 HOURS DURING THE DEMOLITION.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR DISCONNECTING ALL ELECTRICAL SERVICE TO THE PUMP STATION.
4. ALL UNNECESSARY POWER POLES AND LIGHT POLES SHALL BE PROPERLY DISCONNECTED AND REMOVED.
5. THE PUMP STATION, ALL PIPING AND FENCING SHALL BE COMPLETELY REMOVED AND PROPERLY DISPOSED OF.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY DISPOSING OF ALL MATERIALS NOT WANTED BY SOUTH WOODFORD WATER DISTRICT.
7. THE PUMP STATION SHALL BE COMPLETELY REMOVED DOWN TO THE CONCRETE SLAB. THE EXCAVATED SITE SHALL BE BACKFILLED AND COMPACTED WITH SELECT BACKFILL. ALL DISTURBED AREAS SHALL BE PROPERLY GRADED, SEEDING AND STRAWED.
8. ONCE THE EXIST. PUMP STATION IS COMPLETELY OUT OF SERVICE, THE OWNER SHALL BE GIVEN THE OPPORTUNITY TO REMOVE AND KEEP ANY EQUIPMENT FROM THE PUMP STATION.



EXIST. KY 33 PUMP STATION

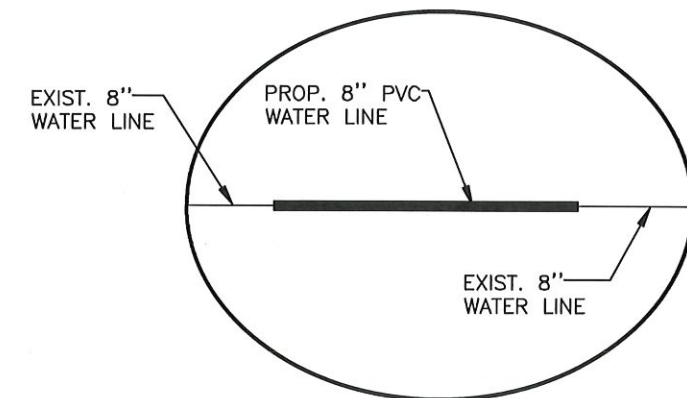
SCALE : N.T.S.

NOTE :
PUMP STATION AND PIPING SHALL BE REMOVED AND REPLACED WITH 8" PVC WATER LINE. SEE PROPOSED PIPING DETAIL BELOW.



EXIST. KY 33 PUMP STATION

SCALE : N.T.S.



PROPOSED PIPING DETAIL

SCALE : N.T.S.

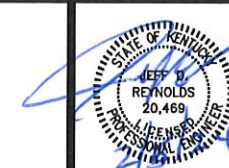
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NO.	DATE	REVISIONS	CHK'D	APPR'D	DATE

PROJECT: 4347.01		DATE: AUG. 2023	
SCALE: AS NOTED			
DESIGNED BY	JDR	NAME	DATE
DRAWN BY	SAB		
CHECKED BY	JDR		
RECORD DWGS.			



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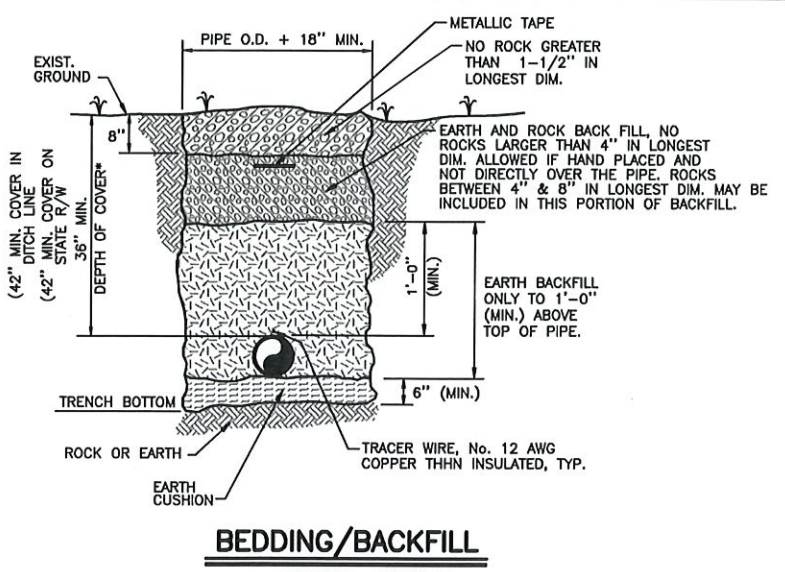
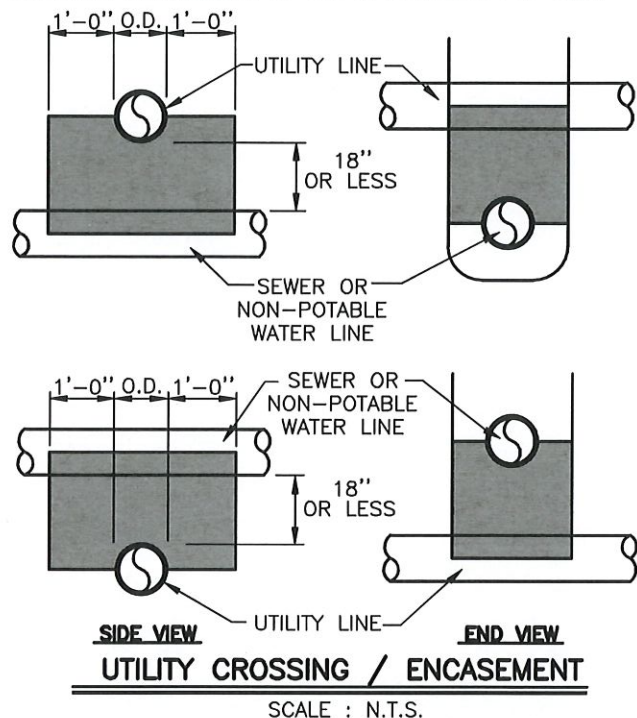
**SYSTEM IMPROVEMENT PROJECT
SOUTH WOODFORD WATER DISTRICT
WOODFORD COUNTY, KENTUCKY
CONTRACT I - KY 33 PUMP STATION REPLACEMENT**

DEMOLITION PLAN

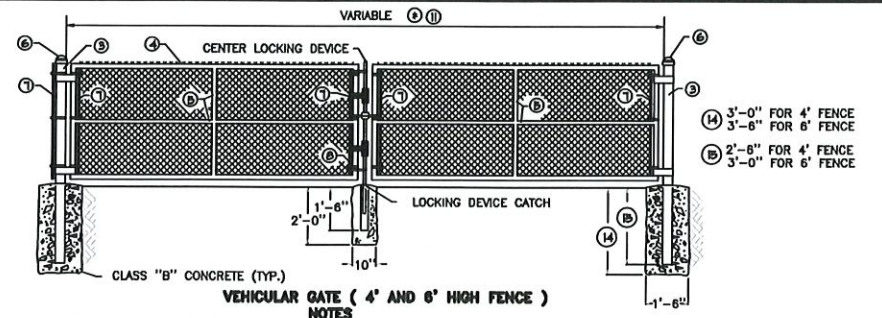
SHEET
4

NOTES :

1. CONCRETE ENCASEMENT SHALL BE USED WHEN CLEARANCE BETWEEN SEWER OR NON-POTABLE WATER LINE AND UTILITY LINE IS 18" OR LESS.
2. WHEN ENCOUNTERING UTILITY LINE WITH SEPARATION LESS THAN 18" VERTICAL OR 10'-0" HORIZONTAL, CONCRETE ENCASEMENT SHALL BE USED. FULL SECTION OF PIPE SHALL BE CENTERED ABOVE OR BELOW UTILITY LINE TO ACHIEVE MAXIMUM JOINT DISPLACEMENT.
3. CONCRETE ENCASEMENT IS NOT A SEPARATE PAY ITEM.



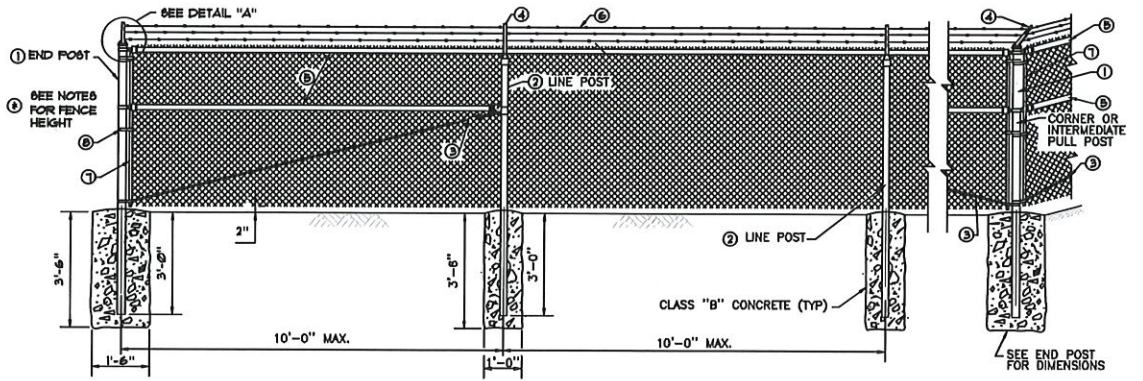
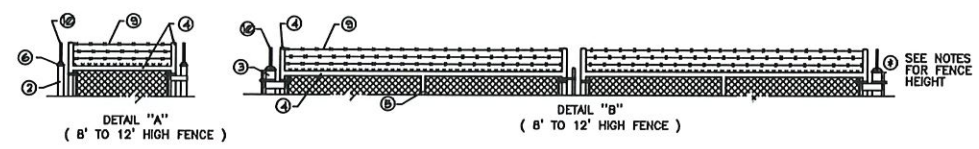
- NOTES :**
1. TRACER WIRE SHALL BE SPLICED WITH GEL FILLED WIRE CONNECTORS.
 2. ALL WATER MAINS AND SERVICE LINES SHALL BE INSTALLED WITH WATER LINE IDENTIFICATION TAPE AND TRACER WIRE.
 3. TRACER WIRE SHALL BE TERMINATED AT EACH APPURTENANCE TO ALLOW FOR CONNECTION.
 4. CONTRACTOR SHALL VERIFY CONTINUITY OF TRACER WIRE.



- NOTES**
- ALL POST SHALL BE SET IN CONCRETE TO THE DIMENSIONS AS INDICATED ON THIS DRAWING. VEHICULAR AND PEDESTRIAN GATES SHALL HAVE HEAVY PRESSED STEEL CORNERS SECURELY RIVETED OR SHALL BE MACHINE NOTCHED, AND ELECTRICALLY WELDED SO AS TO BE ROOF AND WATER TIGHT; AND EQUIPPED WITH PADLOCKING DEVICE AND GROUND STOP.
- ALL WELDED JOINTS SHALL BE CLEANED AND PAINTED WITH TWO (2) COATS OF ALUMINUM PAINT.
- 4' HIGH GATES SHALL HAVE 4' FABRIC HEIGHT. 6' HIGH GATES SHALL HAVE 6' FABRIC HEIGHT.
- 8' HIGH GATES SHALL HAVE 7' FABRIC HEIGHT. 9' HIGH GATES SHALL HAVE 8' FABRIC HEIGHT.
- 10' HIGH GATES SHALL HAVE 9' FABRIC HEIGHT. 11' HIGH GATES SHALL HAVE 10' FABRIC HEIGHT.
- 12' HIGH GATES SHALL HAVE 11' FABRIC HEIGHT.
- BARBED WIRE IS REQUIRED ON 8' TO 12' HIGH GATES. SEE DETAIL "A" AND "B" FOR INSTALLATION.
- NPS = NOMINAL PIPE SIZE - ASTM F1083 AND ASTM F1043 (HEAVY INDUSTRIAL FENCE) SHALL GOVERN.
- ALL FENCE FITTINGS SHALL COMPLY WITH ASTM F 626.
- 6' TO 13' WIDTH FOR SINGLE GATE OR 12' TO 26' WIDTH FOR DOUBLE GATE.
- 4' TO 6' WIDTH.
- THE CONTRACT UNIT PRICE FOR CHAIN LINK GATES SHALL BE:
- ① FEET WIDE SINGLE VEHICULAR CHAIN LINK GATE ③ HIGH.
 - ② 18' FEET WIDE DOUBLE VEHICULAR CHAIN LINK GATE ③ 8' HIGH.
 - ③ FEET WIDE PEDESTRIAN CHAIN LINK GATE ③ HIGH.
 - ④ AS SHOWN ON PLANS.

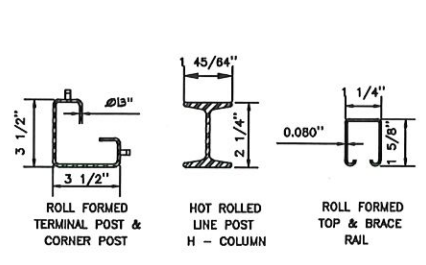
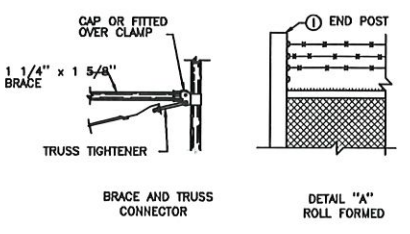
LEGEND / (ALTERNATES)

TUBULAR	ROLL FORMED
① END POST 2 1/2" NPS	3 1/2" X 3 1/2"
② END POST 2 1/2" NPS	3 1/2" X 3 1/2"
③ GATE POST 3 1/2" NPS	NO ALTERNATE
④ GATE FRAME 1 1/2" NPS	NO ALTERNATE
⑤ 1 1/4" NPS	NO ALTERNATE
⑥ APPROVED CAPS	NOT REQUIRED
⑦ FLAT TENSION BAR	NOT REQUIRED
⑧ BRACE BAND AND TENSION BAND	NOT REQUIRED
⑨ BARBED WIRE	BARBED WIRE
⑩ BARBED WIRE ARMS	BARBED WIRE ARMS



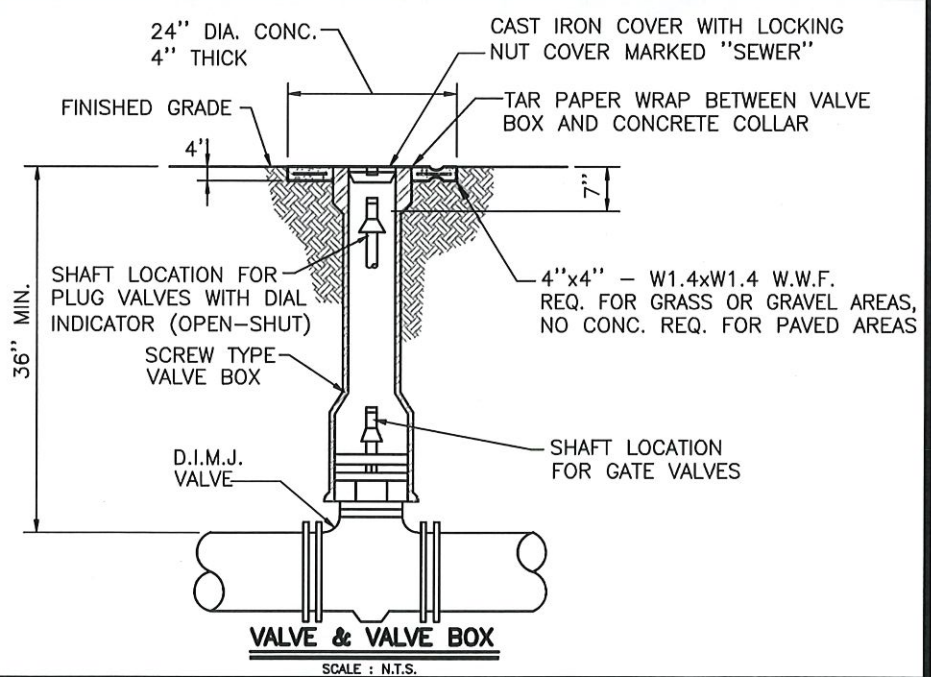
LEGEND / (ALTERNATES)

TUBULAR	ROLL FORMED
① 3" NPS END POST	3 1/2" X 3 1/2" END POST
② 2 1/2" NPS LINE POST	2 1/4" H-COL. LINE POST
③ 3/8" DIA. TRUSS ROD AND TIGHTNER	3/8" DIA. TRUSS ROD AND TIGHTNER
④ BARBED WIRE ARMS	BARBED WIRE ARMS
⑤ 1 1/4" NPS TOP RAIL & BRACE	1 1/4" X 1 5/8" TOP RAIL & BRACE
⑥ BARBED WIRE	BARBED WIRE
⑦ FLAT TENSION BAR	NOT REQUIRED
⑧ BRACE BAND AND TENSION BAND	NOT REQUIRED



- CONSTRUCTION REQUIREMENTS:**
- ALL POSTS SHALL BE SET IN CONCRETE TO THE DIMENSIONS SHOWN ON THIS DRAWING.
- A 1 1/4" NPS OR A 1 1/4" X 1 5/8" ROLL FORMED SECTION, BOTTOM RAIL SHALL BE REQUIRED AROUND ALL UTILITY INSTALLATIONS AND AT OTHER LOCATIONS DESIGNATED BY THE ENGINEER.
- MATERIALS:**
- ① 8' HIGH FENCE SHALL HAVE 7' FABRIC HEIGHT. 9' HIGH FENCE SHALL HAVE 8' FABRIC HEIGHT.
 - 10' HIGH FENCE SHALL HAVE 9' FABRIC HEIGHT. 11' HIGH FENCE SHALL HAVE 10' FABRIC HEIGHT.
 - 12' HIGH FENCE SHALL HAVE 11' FABRIC HEIGHT.
- ALL FENCE FITTINGS SHALL COMPLY WITH ASTM F 626.
- POST CAPS AND SOCKET TYPE BRACE END CONNECTION SHALL BE GALVANIZED PRESSED STEEL, CAST IRON OR OTHER TYPE AS APPROVED BY THE ENGINEER. THEY SHALL BE DESIGNED IN A MANNER TO EXCLUDE MOISTURE FROM INSIDE THE POSTS AND RAILS.
- NPS = NOMINAL PIPE SIZE - ASTM F1083 AND F1043 (HEAVY INDUSTRIAL FENCE) SHALL GOVERN.
- FENCE SLATS SHALL BE INSTALLED ON FENCE FOR PUMP STATION #1 AND PUMP STATION #3. FENCE SLATS SHALL BE 3000 SERIES AS MANUFACTURED BY FENCE SCREEN OR APPROVED EQUAL. COLOR SHALL BE CHOSEN BY THE OWNER.

DETAIL - CHAIN LINK FENCE
SCALE : N.T.S.



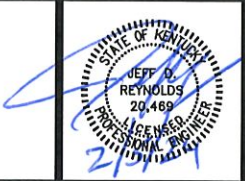
PROJECT: 434101 DATE: MAR 2023
SCALE: AS NOTED

NO.	DATE	REVISIONS	CHK'D	APPR'D	DATE

DESIGNED BY	NAME	DATE
JDR	JDR	
DRAWN BY	SAB	
CHECKED BY	JDR	
RECORD DWG.		



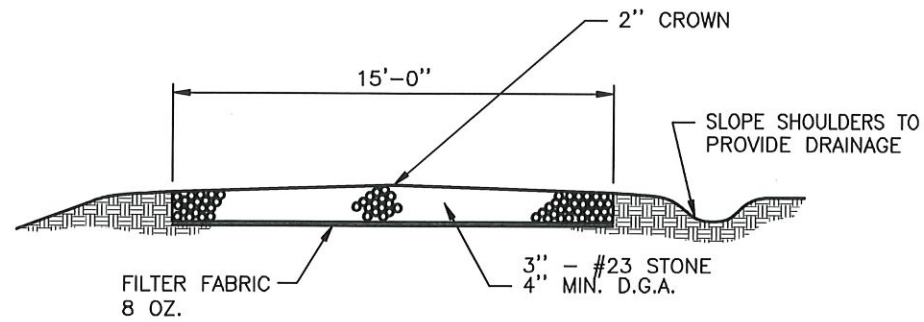
3 HMB CIRCLE
FRANKFORT, KENTUCKY
(502) 695-9800
(502) 695-9810 FAX



SYSTEM IMPROVEMENT PROJECT
SOUTH WOODFORD WATER DISTRICT
WOODFORD COUNTY, KENTUCKY
CONTRACT I - KY 33 PUMP STATION REPLACEMENT

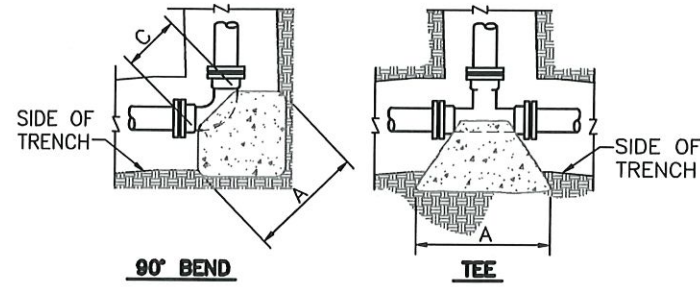
STANDARD DETAILS

SHEET
SD1



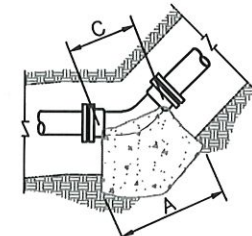
GRAVEL ACCESS ROAD DETAIL

SCALE : N.T.S.



90° BEND

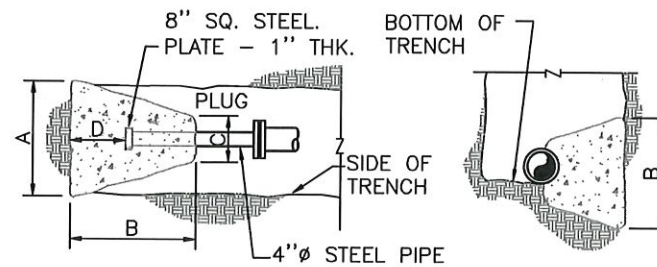
TEE



45°-22 1/2°-11 1/4° BEND

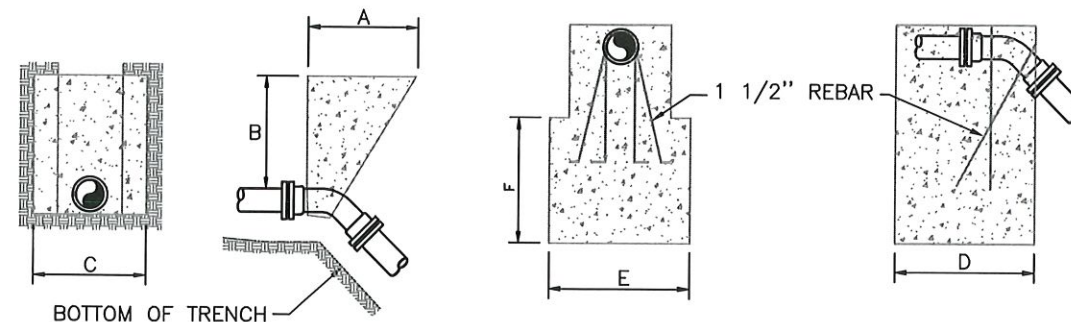
NOTES:

1. THRUST BLOCKS DESIGNED FOR 100 PSI PRESSURE AND 1000 PSF SOIL BEARING. FOR GREATER PRESSURE OR LESS SOIL BEARING, QUANTITIES WILL HAVE TO BE RECALCULATED.
2. THRUST BLOCKING TO BE POURED AGAINST UNDISTURBED EARTH.
3. IF EXACT SIZE PIPE BLOCKING IS NOT SHOWN, USE NEXT LARGER SIZE.
4. THRUST BLOCKING TO BE POURED IN PLACE CLASS B CONC.



PLUG

TYPICAL SECTION



45° VERTICAL BEND

45° VERTICAL BEND

THRUST BLOCKING

SCALE : N.T.S.

90° BEND

SIZE	24"	20"	18"	16"	12"	10"	8"	6"	4"	2"
A	88	80	72	64	50	40	33	26	16	16
B	88	80	72	64	50	40	33	24	16	16
C	45	38	32	30	16	15	12	12	9	9
D	48	40	36	32	25	20	16	12	8	9

45° BEND

SIZE	24"	20"	18"	16"	12"	10"	8"	6"	4"	2"
A	72	60	54	48	37	31	24	18	12	12
B	72	60	54	48	37	31	24	18	12	12
C	22	20	16	18	16	14	12	12	8	8
D	32	28	25	22	18	15	12	9	6	6

45° VERTICAL BEND

SIZE	24"	20"	18"	16"	12"	10"	8"	6"	4"	2"
A	72	60	60	45	36	36	36	36	24	24
B	60	48	48	45	36	36	36	36	24	24
C	96	84	84	72	60	60	60	60	48	48
D	84	72	72	60	48	48	48	48	36	36
E	84	72	72	60	48	48	48	48	36	36
F	84	72	72	60	48	48	48	48	36	36

22 1/2° BEND

SIZE	24"	20"	18"	16"	12"	10"	8"	6"	4"	2"
A	50	42	38	34	26	23	18	13	9	9
B	50	42	38	34	26	23	18	13	9	9
C	22	20	16	18	16	14	12	10	8	8
D	26	22	18	16	13	11	9	6	4	4

11 1/4° BEND

SIZE	24"	20"	18"	16"	12"	10"	8"	6"	4"	2"
A	36	30	27	24	18	16	13	11	9	9
B	36	30	27	24	18	16	13	11	9	9
C	22	20	16	18	16	14	12	10	8	8
D	22	18	14	12	9	8	6	5	4	4

PLUG

SIZE	24"	20"	18"	16"	12"	10"	8"	6"	4"	2"
A	80	66	60	54	52	43	34	26	26	26
B	80	66	60	54	52	43	34	26	26	26
C	12	12	12	12	12	12	12	12	12	12
D	72	60	54	44	32	22	15	11	11	11

TEE

SIZE	MAIN BRANCH	24"	20"	18"	16"	12"	10"	8"	6"	4"	2"
A	24"	80	66	60	54	52	42	26	43	26	26
B	20"	80	66	60	54	52	43	26	43	26	26
C	18"	45	36	32	30	12	12	12	12	12	12
D	16"	48	40	36	30	26	21	13	21	13	13

DIMENSIONS ARE IN INCHES

NO.	DATE	REVISIONS	CHK'D	APPR'D	DATE

PROJECT: 434101 DATE: MAR 2023
SCALE: AS NOTED

	NAME	DATE
DESIGNED BY	JDR	
DRAWN BY	SAB	
CHECKED BY	JDR	
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STANDARD DETAILS

SHEET
SD2