

NESBITT ENGINEERING, INC.

SERVING DEVELOPERS, INDUSTRY, BUSINESS AND GOVERNMENT BY PROVIDING PROVEN SOLUTIONS SINCE 1976

BREATHITT COUNTY WATER DISTRICT

WATERLINE EXTENSION PROJECT CONTRACT 1 - WATERLINES

NOVEMBER 2019

WATER COMMISSIONERS

BOBBY THORPE JR - CHAIRMAN

SAMMIE TURNER - VICE CHAIRMAN

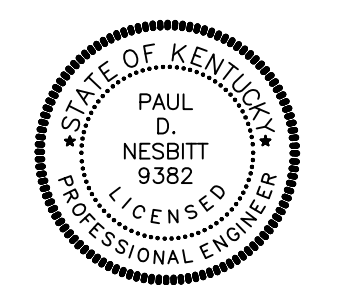
EVA FUGATE - SECRETARY

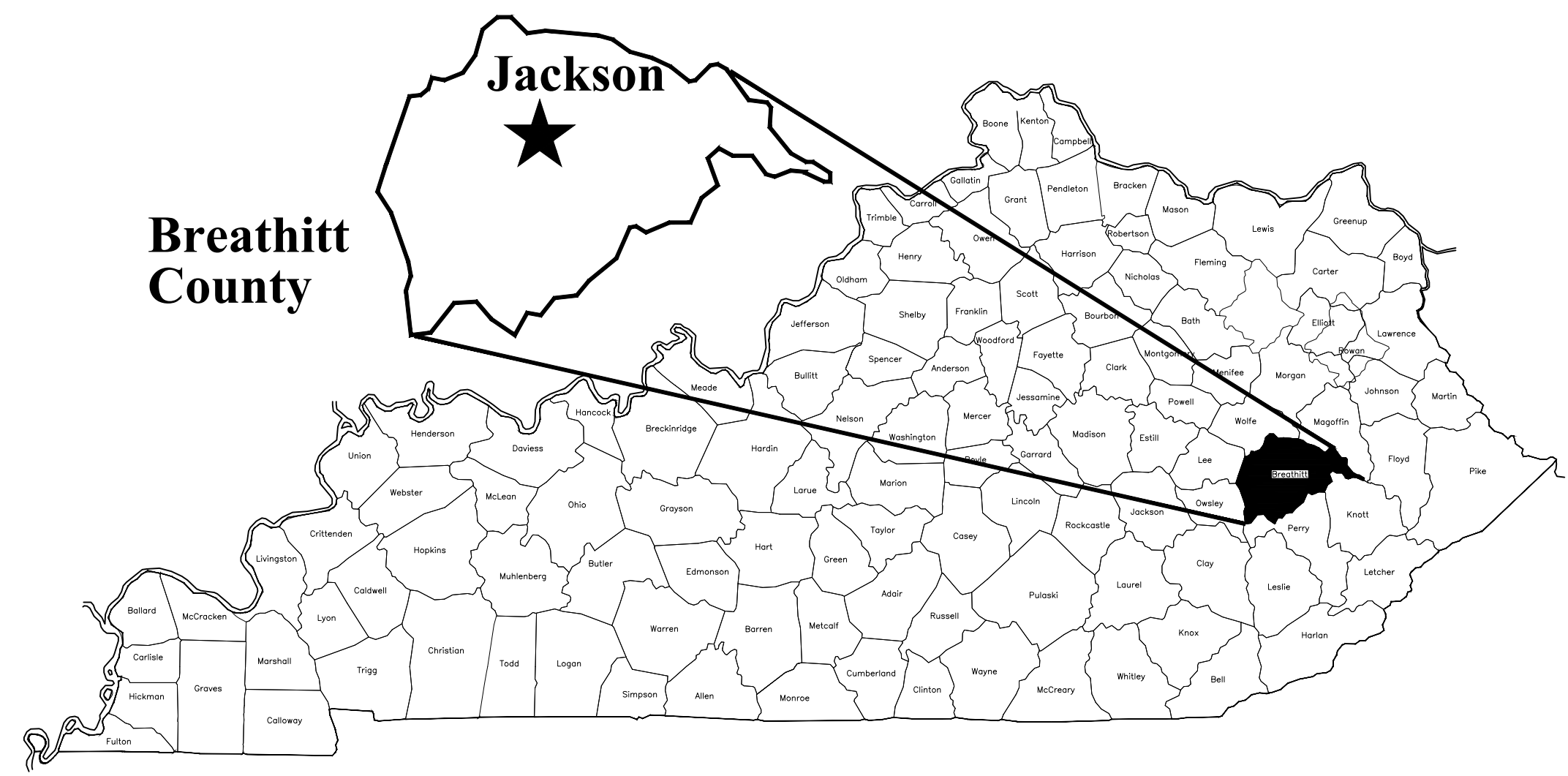
CHERYL CAMPBELL - TREASURER

DAVID INGRAM - MEMBER

RECORD DRAWINGS
September 2021

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KENTUCKY

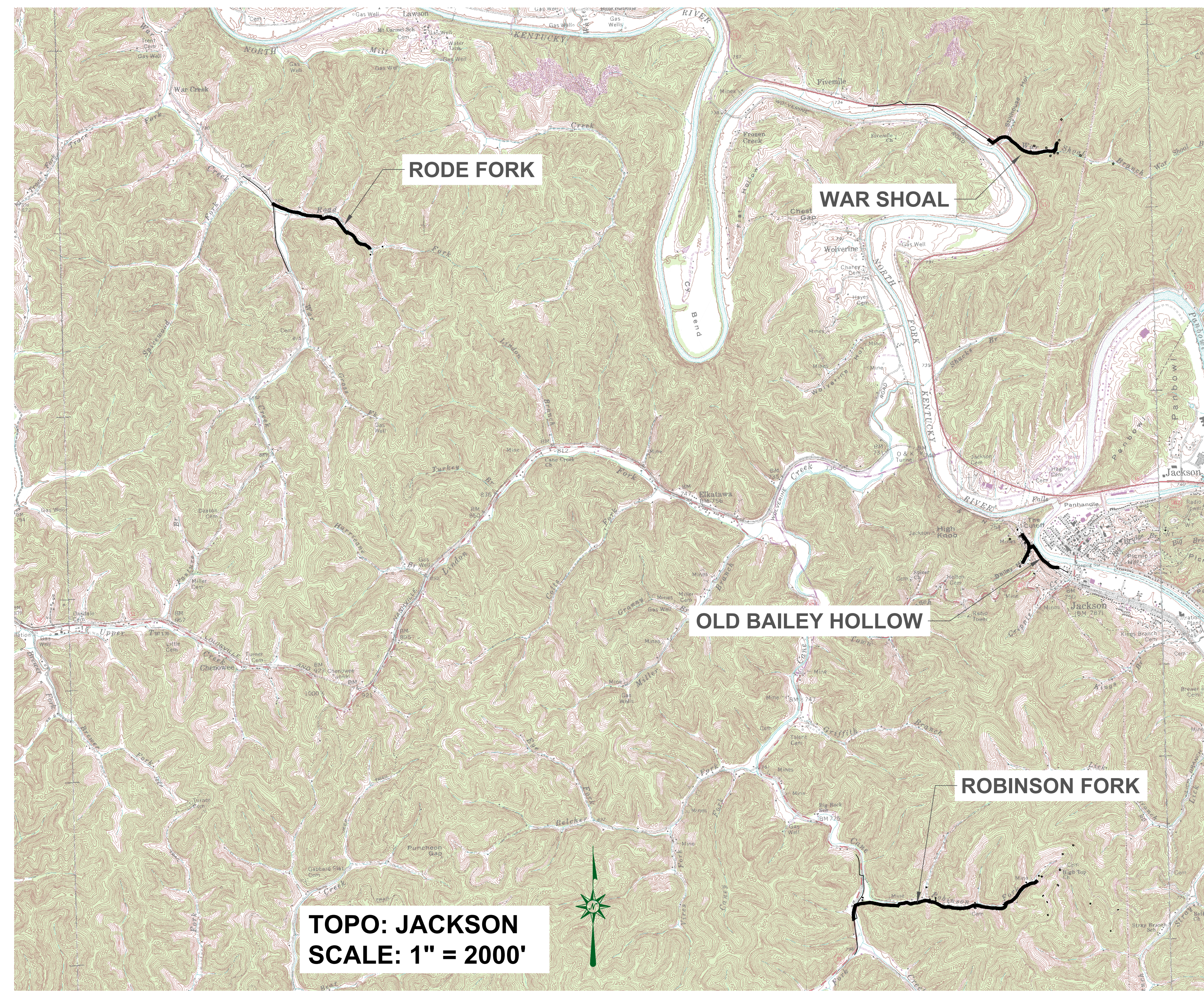
ABBREVIATIONS	
A.F.F.	ABOVE FINISHED FLOOR
ALUM	ALUMINUM
APPROX.	APPROXIMATE
BIT	BITUMINOUS
BLDG	BUILDING
BLK	BLOCK
B.M.	BENCH MARK
B'FLY	BUTTERFLY
BOTT	BOTTOM
CHEM	CHEMICAL
CAST	CAST IRON
C.I.S.P.	CAST IRON SOIL PIPE
C	CENTERLINE
CONC.	CONCRETE
CHLOR	CHLORINE
CL	CLEARANCE
C.W.	COLD WATER
CU	COPPER
C.O.	CLEANOUT
CONT	CONTINUATION
DGA	DENSE GRADED AGGREGATE
D.I.	DUCTILE IRON
DISCH	DISCHARGE
D.I.M.J.	DUCTILE IRON MECHANICAL JOINT
D.I.P.E.	DUCTILE IRON PIPE END
D.I.P.	DUCTILE IRON PIPE
DEMO	DEMOLITION
DIAG	DIAGONAL
EFFL	EFFLUENT
E.F.	EACH FACE
ELC	ELECTRICAL
EL	ELEVATION
EQUIP	EQUIPMENT
E.W.	EACH WAY
EXIST	EXISTING
EXT	EXTERIOR
F.D.	FLOOR DRAIN
F.F.	FINISHED FLOOR
FLG	FLANGE
FL	FENCELINE
FLOC	FLOCCULATOR
GD	GRADE
DIP	DUCTILE IRON PIPE
H.B.	HOSE BIBB
H	HEIGHT
H.W.	HOT WATER
INFL	INFLUENT
INV.	INVERT
LAV	LAVATORY
L	LENGTH
LOAD'G	LOADING
LNG	LONG
ST	STEEL TUBE
MH	MANHOLE
M.J.	MECHANICAL JOINT
MIN.	MINIMUM
MTD.	MOUNTED
MAX.	MAXIMUM
NO.	NUMBER
NRS	NONRISING STEM
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
O.D.	OVERALL DIMENSION
OPER	OPERATOR
OP'NG	OPENING
PE	POLYETHYLENE
P.E.	PLAIN END
PL	PLATE
PROP	PROPOSED
PVC	POLYVINYL CHLORIDE
PRV	PRESSURE RELIEF VALVE
PRESS	PRESSURE
PRV	PRESSURE RELIEF VALVE
PRESS	PRESSURE
REDUC	REDUCING
RED	REDUCER
REINF.	REINFORCING
REFRIG.	REFRIGERATOR
RM	ROOM
SAN	SANITARY
SCH.	SCHEDULE
SECT	SECTION
SED	SEDIMENTATION
SEW	SEWER
SHT	SHEET
SOL	SOLUTION
SPEC'S.	SPECIFICATION'S
SQ.	SQUARE
S.S.	STAINLESS STEEL
ST	STEEL TUBE
STL	STEEL
STN.	STAINLESS
SURF	SURFACE
SVCS	SERVICES
T	THICK
T.O.C.	TOP OF CONCRETE
TYP.	TYPICAL
TRANS	TRANSITION
VAC	VACUUM
VAL	VALVE
VTR	VENT THRU ROOF
VERT	VERTICAL
WD	WOOD
W.C.	WATER CLOSET
W	WITH
W/L	WATER LEVEL
W.S.E.	WATER SURFACE ELEVATION
WWF	WOVEN WIRE FENCE

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- C-2B ROBINSON FORK STA. 30+00 TO 60+00
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RECORD DRAWINGS

September 2021



TOPO: JACKSON
SCALE: 1" = 2000'

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GENERAL NOTES:

1. DIMENSIONS OF EXISTING STRUCTURES, EQUIPMENT, ETC. SHALL BE FIELD CONFIRMED BY THE CONTRACTOR. WHERE CRITICAL DIMENSIONS FOR INSTALLATION OF PROPOSED EQUIPMENT ARE INDICATED ON THE DRAWINGS, THE CONTRACTOR SHALL CONFIRM THESE DIMENSIONS FOR ACTUAL EQUIPMENT FURNISHED. ALL KNOWN DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER.
2. THE CONTRACTOR SHALL USE ALL POSSIBLE CARE DURING EXCAVATION ON THIS PROJECT SO AS NOT TO DISTURB ANY EXISTING UTILITY WHETHER SHOWN ON PLANS OR NOT. ANY UTILITY DISTURBED OR DAMAGED BY THE CONTRACTOR DURING HIS CONSTRUCTION OPERATIONS SHALL BE REPAIRED BY THE CONTRACTOR AT NO EXTRA COST TO THE OWNER.
3. THE CONTRACTOR SHALL CONFINE ALL CONSTRUCTION ACTIVITY TO THE AREA WITHIN EXISTING EASEMENTS AND CONSTRUCTION LIMITS, UNLESS OTHERWISE APPROVED IN WRITING BY THE OWNER.
4. THE CONTRACTOR WILL BE SOLELY LIABLE FOR ANY WORK HE PERFORMS OUTSIDE OF LEGAL EASEMENTS OR CONSTRUCTION LIMITS.
5. THE CONTRACTOR MUST CONTACT ALL UTILITY OWNERS AND HAVE THEM FIELD LOCATE THEIR EXISTING LINES PRIOR TO ANY CONSTRUCTION ACTIVITY.
6. EFFORTS HAVE BEEN MADE TO INDICATE ACCURATE LOCATIONS OF SOME EXISTING STRUCTURES, PIPING AND UTILITIES. HOWEVER THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE SITE AND OTHER EXISTING CONDITIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN INFORMATION DEPICTED BY THE CONSTRUCTION DRAWINGS AND ACTUAL FIELD CONDITIONS WHICH WOULD SIGNIFICANTLY ALTER THE DESIGN INTENT OF THE CONSTRUCTION DRAWINGS PRIOR TO COMMENCING HIS CONSTRUCTION OPERATIONS. DIMENSIONS OF EXISTING STRUCTURES AND/OR SITE RESTRICTIONS ARE APPROXIMATE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN AND CONFIRM ALL DIMENSIONS AND ELEVATIONS OF EXISTING STRUCTURES AND TOPOGRAPHY IN THE FIELD NECESSARY FOR HIS CONSTRUCTION OPERATION.
7. THE CONTRACTOR SHALL USE ALL POSSIBLE CARE DURING EXCAVATION ON THIS PROJECT SO AS NOT TO DISTURB OR DAMAGE ANY EXISTING UTILITY OR STRUCTURE NOT SCHEDULED FOR DEMOLITION WHETHER DEPICTED OR NOT IN THE CONSTRUCTION DRAWINGS. ANY DAMAGE TO THE AFORE MENTIONED ITEMS CAUSED DIRECTLY OR INDIRECTLY BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO COST TO THE OWNER TO A CONDITION EQUAL TO OR BETTER THAN THAT WHICH EXISTED PRIOR TO BEING DAMAGED.
8. THE CONTRACTOR SHALL CONTACT AND OBTAIN THE PERMISSION OF EXISTING UTILITY OWNERS 48 HOURS (MIN.) PRIOR TO ANY CONSTRUCTION ACTIVITY INTERRUPTING OPERATION OF SAID UTILITY.
9. UNLESS OTHERWISE NOTED, ALL BURIED PIPES SHALL HAVE 30" (MIN.) COVER AS MEASURED FROM FINISHED GRADE TO THE OUTSIDE SURFACE OF THE PIPE.
10. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO WORK ALL APPLICABLE DRAWINGS AND THE APPROPRIATE SPECIFICATIONS AS A UNIT. ANY OMISSIONS, DELETIONS, OR CONFLICTS ARISING AS A RESULT OF FAILURE TO INCORPORATE ALL DRAWINGS AND SPECIFICATIONS WHICH APPLY SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDED COST TO THE OWNER.

CONSTRUCTION ON STATE RIGHT-OF-WAY NOTES:

1. WATER MAIN/SEWER LINES TO BE CONSTRUCTED WITHIN THE KENTUCKY TRANSPORTATION CABINET RIGHT-OF-WAY. TRENCHES SHALL BE OF A DEPTH SUFFICIENT TO PROVIDE A MINIMUM COVER OF 42" FROM THE EXISTING GROUND SURFACE TO THE TOP OF THE PIPE AND BE LOCATED APPROXIMATELY AS SHOWN UNLESS OTHERWISE NOTED. SEE INDIVIDUAL SHEETS FOR DETAILS.
2. ALL BORES UNDER STATE HIGHWAYS RIGHT-OF-WAY: SHALL BE A MINIMUM OF 42" DEPTH UNDER BOTTOM OF DITCH LINE TO TOP OF THE PROPOSED BORE AND/OR CASING PIPE ON BOTH SIDES OF THE HIGHWAY.
3. ROCK BLASTING: THERE SHALL BE NO BLASTING WITHIN STATE RIGHT-OF-WAY WITHOUT WRITTEN CONSENT FROM THE KENTUCKY TRANSPORTATION CABINET.
4. PROTECTION OF EXISTING PAVING: CARE SHALL BE TAKEN BY THE CONTRACTOR TO AVOID CRACKING OR BREAKING THE BITUMINOUS PAVING. ALL DAMAGE TO THE EXISTING PAVING CAUSED BY THE CONTRACTOR'S OPERATION SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE OWNER. PAVING PROTECTION SHALL BE ACCOMPLISHED BY THE USE OF RUBBER AND STREET PADDED MACHINERY OR OTHER APPROVED EQUIPMENT WELL SUITED FOR THIS TYPE OF CONSTRUCTION.
5. BANK AND DITCH PROTECTION EXCAVATION: DURING CONSTRUCTION, ALL EMBANKMENTS, REFILLS AND EXCAVATIONS SHALL BE KEPT SHAPED AND DRAINED BY THE CONTRACTOR. DITCHES AND DRAINS ALONG THE HIGHWAYS SHALL BE MAINTAINED IN SUCH A MANNER AS TO DRAIN EFFECTIVELY AT ALL TIMES.
6. PRIVATE ENTRANCE ROAD: ALL ROADWAYS AND DRIVEWAYS WITHIN THE WORK LIMITS OF STATE RIGHT-OF-WAYS SHALL BE REFILLED TO THE NATURAL SURFACE OF THE GROUND WITH APPROVED MATERIAL. THE MATERIAL SHALL BE PLACED AND COMPACTED TO A SMOOTHNESS SUITABLE FOR TRAFFIC. THE CONTRACTOR SHALL BE TOTALLY RESPONSIBLE FOR MAINTAINING THESE ROADWAYS UNTIL THE RESTORATION IS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL NOTE THAT ALL PRIVATE BUSINESSES AND RESIDENCES ALONG THE ROUTE OF THE PROPOSED WATER MAIN/SEWER LINE CONSTRUCTION MUST HAVE ACCESS TO THEIR PROPERTIES AT ALL TIMES DURING CONSTRUCTION.
7. PROTECTION OF EXISTING DRAINAGE CULVERTS: ALL LOCATIONS WHERE THE PROPOSED WATER MAIN/SEWER LINE IS PARALLEL WITH OR CROSSING AN EXISTING STORM SEWER, THE COST OF RELAYING EXISTING CULVERT PIPES OR THE EXTRA DEPTH REQUIRED TO AVOID THE EXISTING CULVERT IS CONSIDERED INCIDENTAL TO THE CONSTRUCTION AND IS NOT A PAY ITEM.
8. SOME EXISTING UTILITIES HAVE NOT BEEN SHOWN: THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH THE REPRESENTATIVES OF THE VARIOUS UTILITIES WHEN WORKING NEAR ANY EXISTING UTILITY. NO ADDITIONAL PAYMENT TO THE CONTRACTOR WILL BE MADE FOR EXTRA DEPTH REQUIRED TO AVOID ANY EXISTING UTILITY.

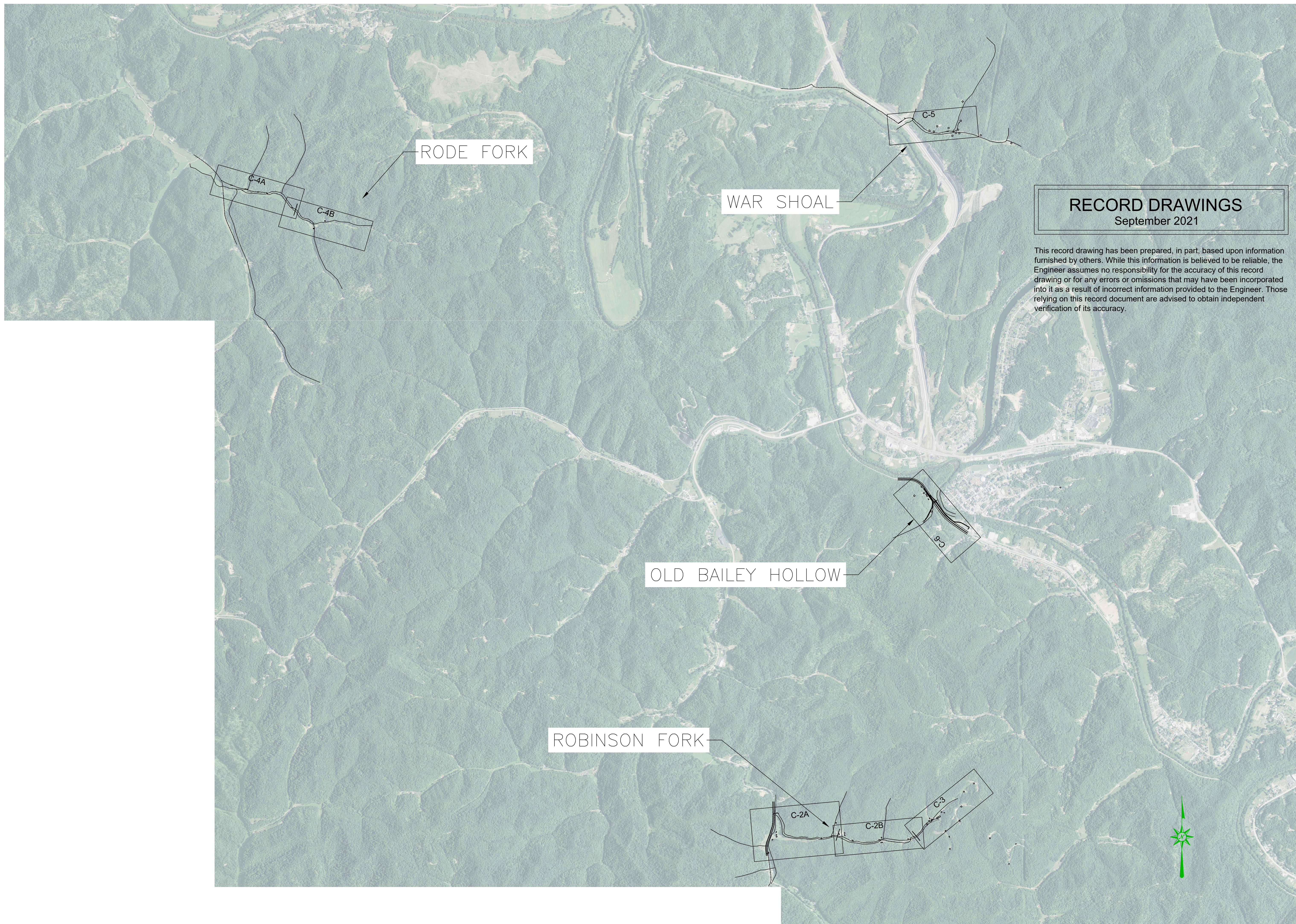
CALL THE KENTUCKY ONE CALL BEFORE DIGGING:
KENTUCKY UNDERGROUND PROTECTION, INC. 1-800-752-6007
A FEDERAL LAW NOW IN EFFECT STATES THAT ANY PERSON WHO ENGAGES IN EXCAVATION ACTIVITIES WITHOUT FIRST USING AN AVAILABLE ONE-CALL NOTIFICATION SYSTEM TO DETERMINE LOCATIONS OF UNDERGROUND FACILITIES; OR WITHOUT HEEDING LOCATION INFORMATION OR MARKINGS AND SUBSEQUENTLY DAMAGES A PIPELINE FACILITY SHALL BE SUBJECT TO A FINE, IMPRISONMENT, OR BOTH. THE LAW ALSO STATES THAT OSHA MAY BE NOTIFIED OF ANY ACCIDENT CAUSED BY AN EXCAVATOR.
NATIONAL ONE-CALL REFERRAL NUMBER 1-800-258-0808



nesbitt
engineering, inc.
227 N. Upper Street
Lexington, Kentucky
40507-1016
Tel (859) 233-3111
Fax (859) 259-2717



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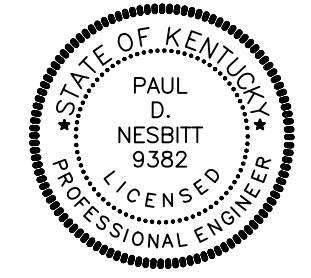


RECORD DRAWINGS
September 2021

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WATERLINE EXTENSION PROJECT
BREATHITT COUNTY WATER DISTRICT
1137 MAIN ST, SUITE 305
JACKSON, KY 41339

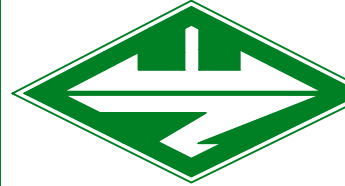
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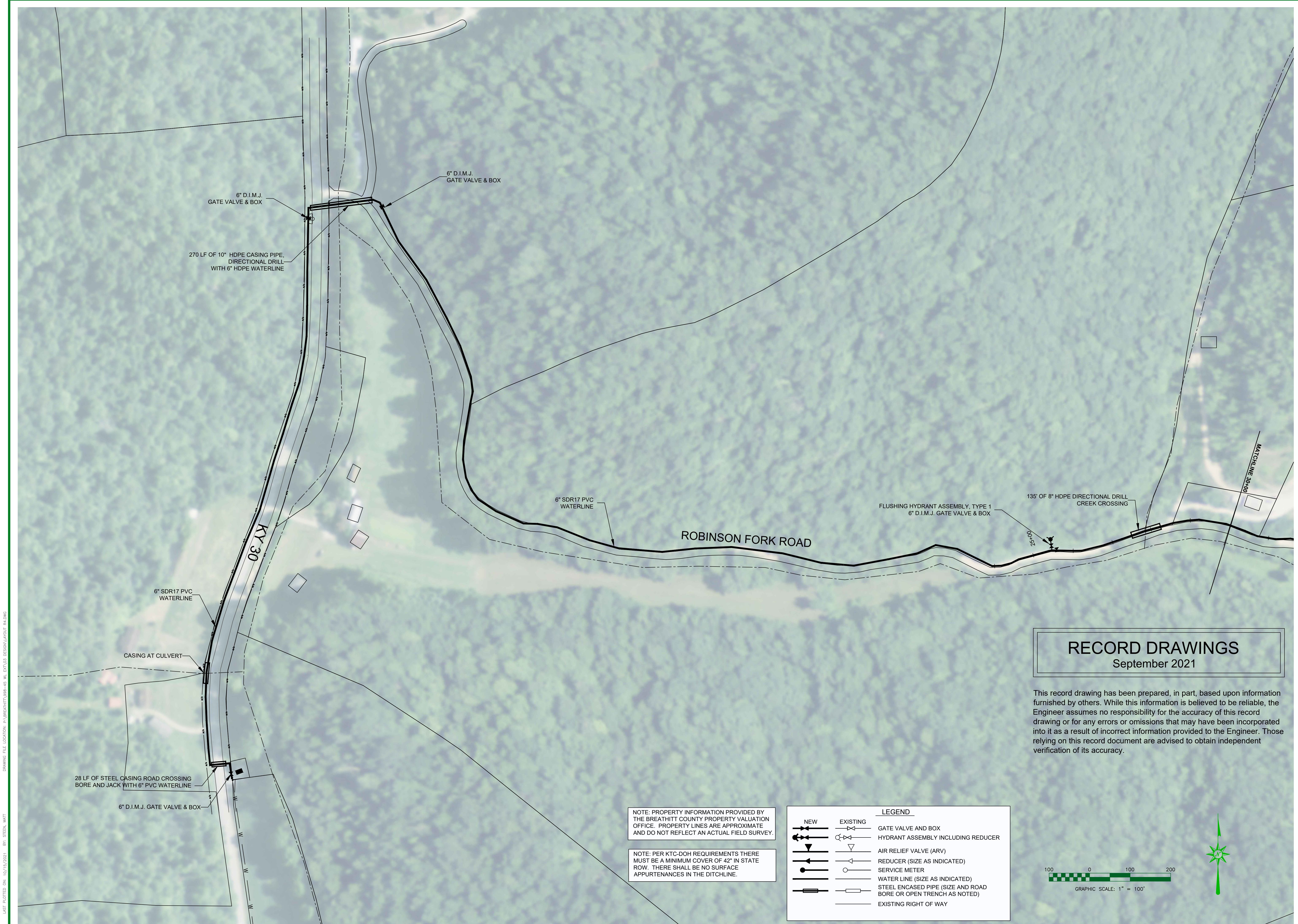
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BREATHITT COUNTY WATER DISTRICT
WATERLINE EXTENSION PROJECT

drawn by: MMS
date: 10/17/2019
job no.: 998-45
scale: 1" = 100'



sheet no. C-1



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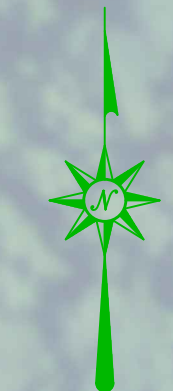
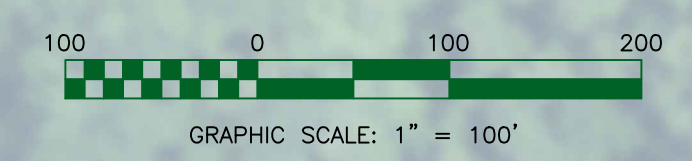
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LEGEND	
	NEW
	EXISTING
	GATE VALVE AND BOX
	HYDRANT ASSEMBLY INCLUDING REDUCER
	AIR RELIEF VALVE (ARV)
	REDUCER (SIZE AS INDICATED)
	SERVICE METER
	WATER LINE (SIZE AS INDICATED)
	STEEL ENCASED PIPE (SIZE AND ROAD BORE OR OPEN TRENCH AS NOTED)
	EXISTING RIGHT OF WAY

RECORD DRAWINGS

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WATERLINE EXTENSION PROJECT
BREATHITT COUNTY WATER DISTRICT
 1137 MAIN ST, SUITE 305
 JACKSON, KY 41339

ROBINSON FORK WATERLINE STA. 0+00 - 60+00

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BREATHITT COUNTY WATER DISTRICT
 WATERLINE EXTENSION PROJECT

drawn by: MMS
 job no.: 998-45

1" = 100'

date: 10/17/2019

sheet no. **C-2A**

RECORD DRAWINGS

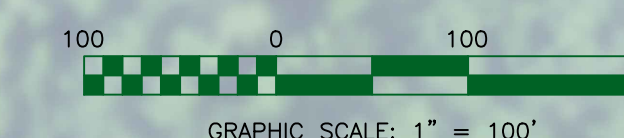
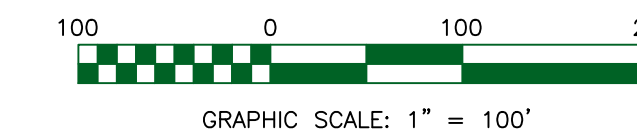
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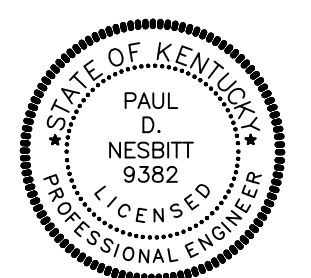
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	REDUCER (SIZE AS INDICATED)
	SERVICE METER
	WATER LINE (SIZE AS INDICATED)
	STEEL ENCASED PIPE (SIZE AND ROAD BORE OR OPEN TRENCH AS NOTED)
	EXISTING RIGHT OF WAY



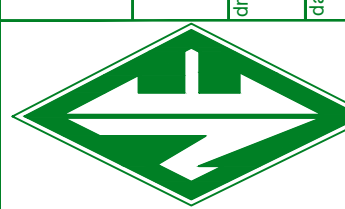
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BREATHITT COUNTY WATER DISTRICT
 WATERLINE EXTENSION PROJECT

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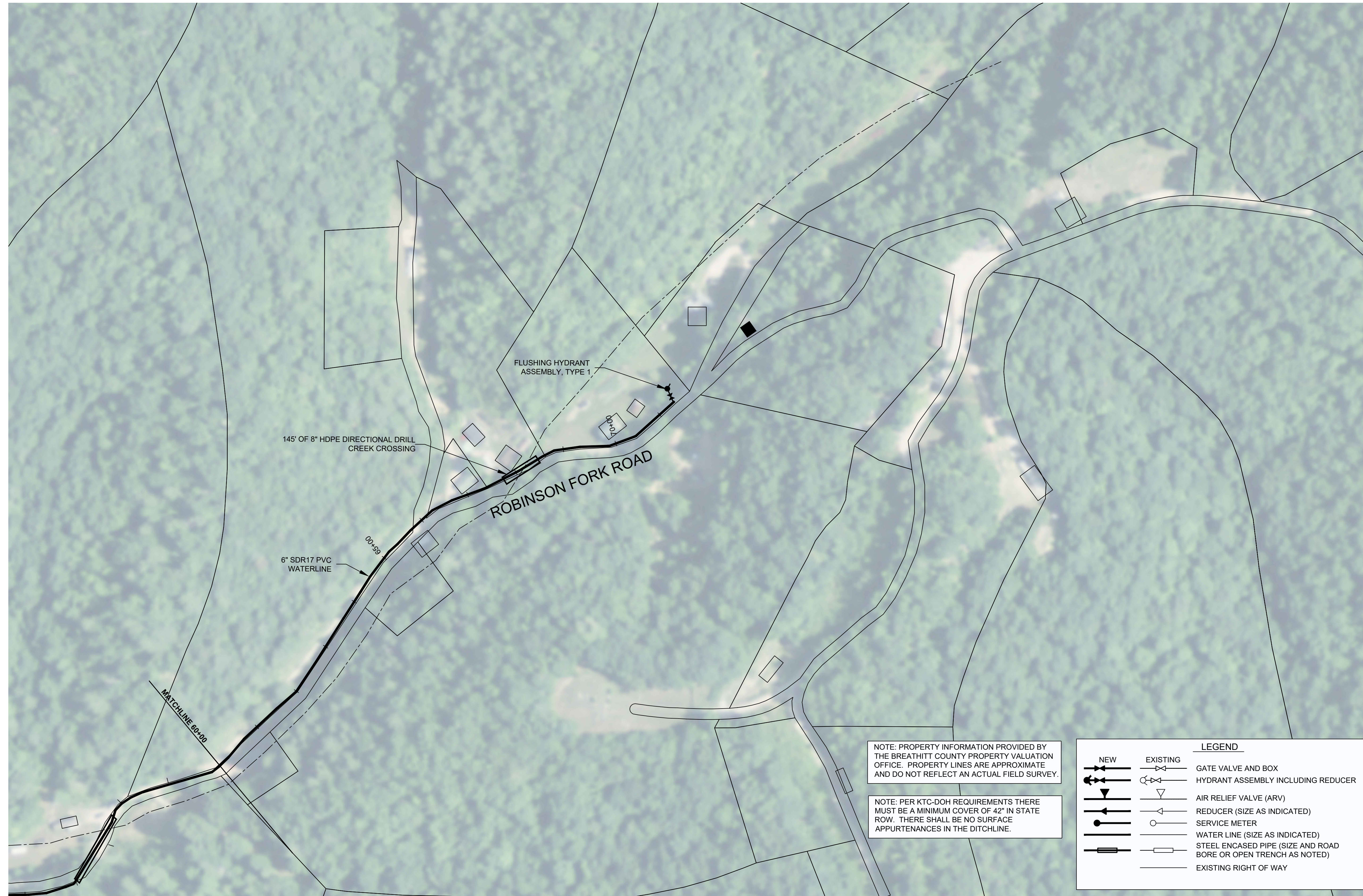
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RECORD DRAWINGS

September 2021

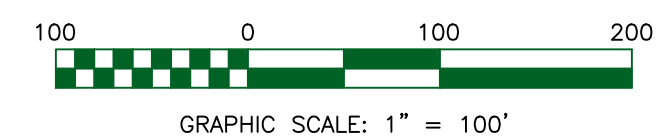
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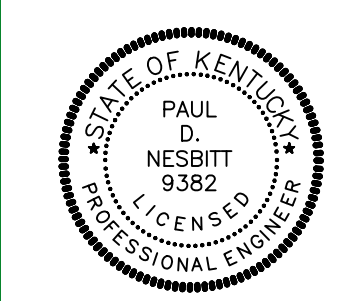
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	REDUCER (SIZE AS INDICATED)
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ROBINSON FORK WATERLINE STA. 60+00 - 71+37

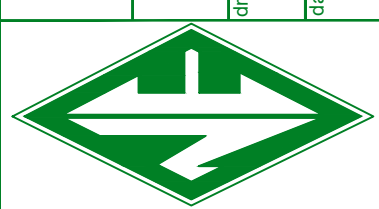


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BREATHITT COUNTY WATER DISTRICT
 WATERLINE EXTENSION PROJECT

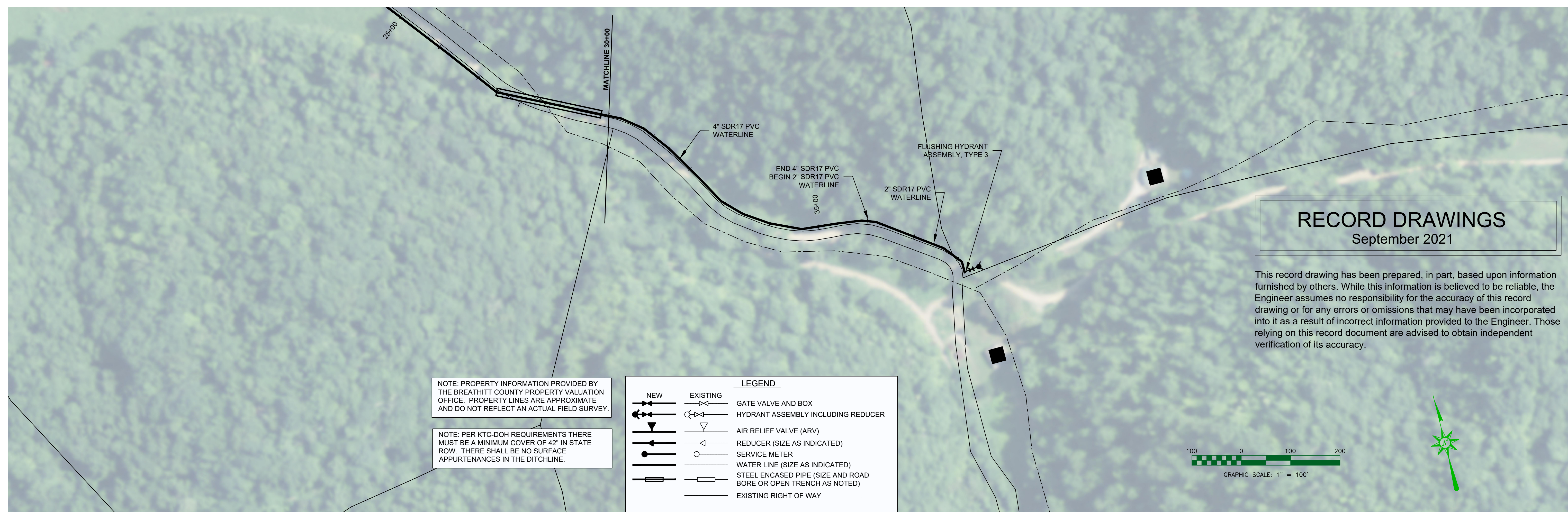
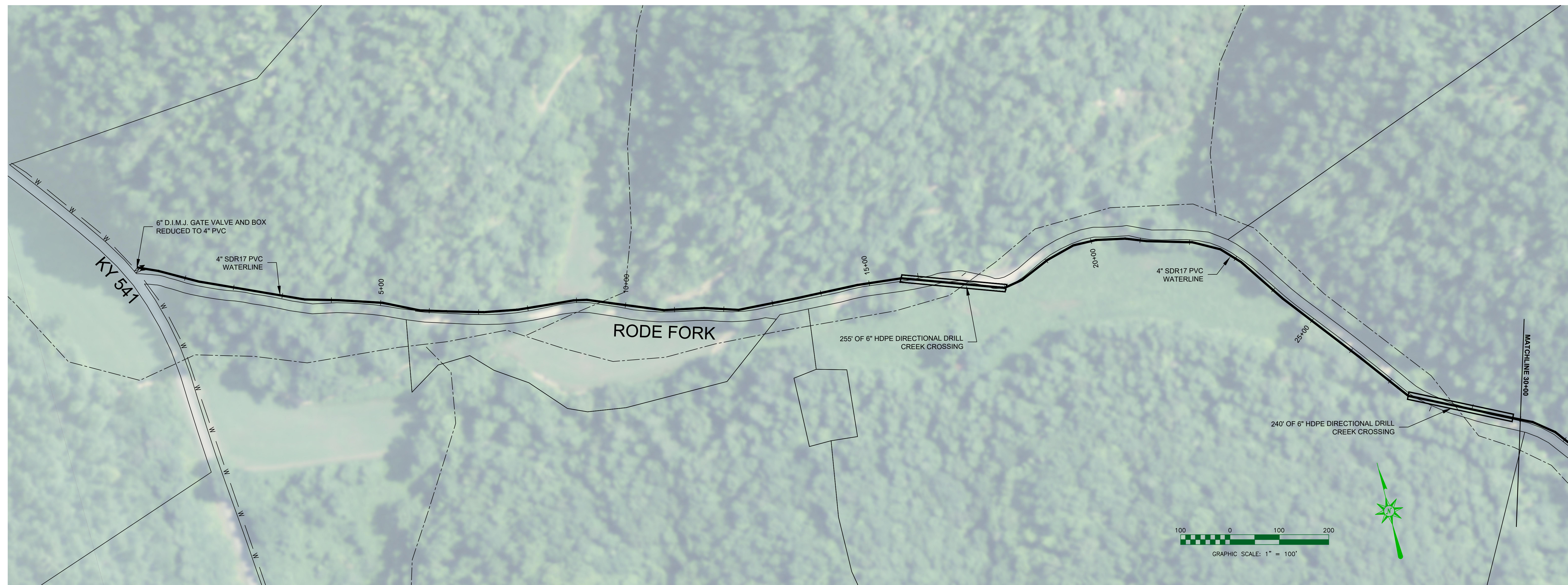
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 scale: 1" = 100'

date: 10/17/2019



sheet no. C-3

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LEGEND	
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	EXISTING WATER LINE
	GATE VALVE AND BOX
	HYDRANT ASSEMBLY INCLUDING REDUCER
	AIR RELIEF VALVE (ARV)
	REDUCER (SIZE AS INDICATED)
	SERVICE METER
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WATERLINE EXTENSION PROJECT
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1137 MAIN ST, SUITE 305
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RODE FORK WATERLINE STA. 0+00 - 38+34

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BREATHITT COUNTY WATER DISTRICT
WATERLINE EXTENSION PROJECT

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job no.: 998-45
scale: 1" = 100'

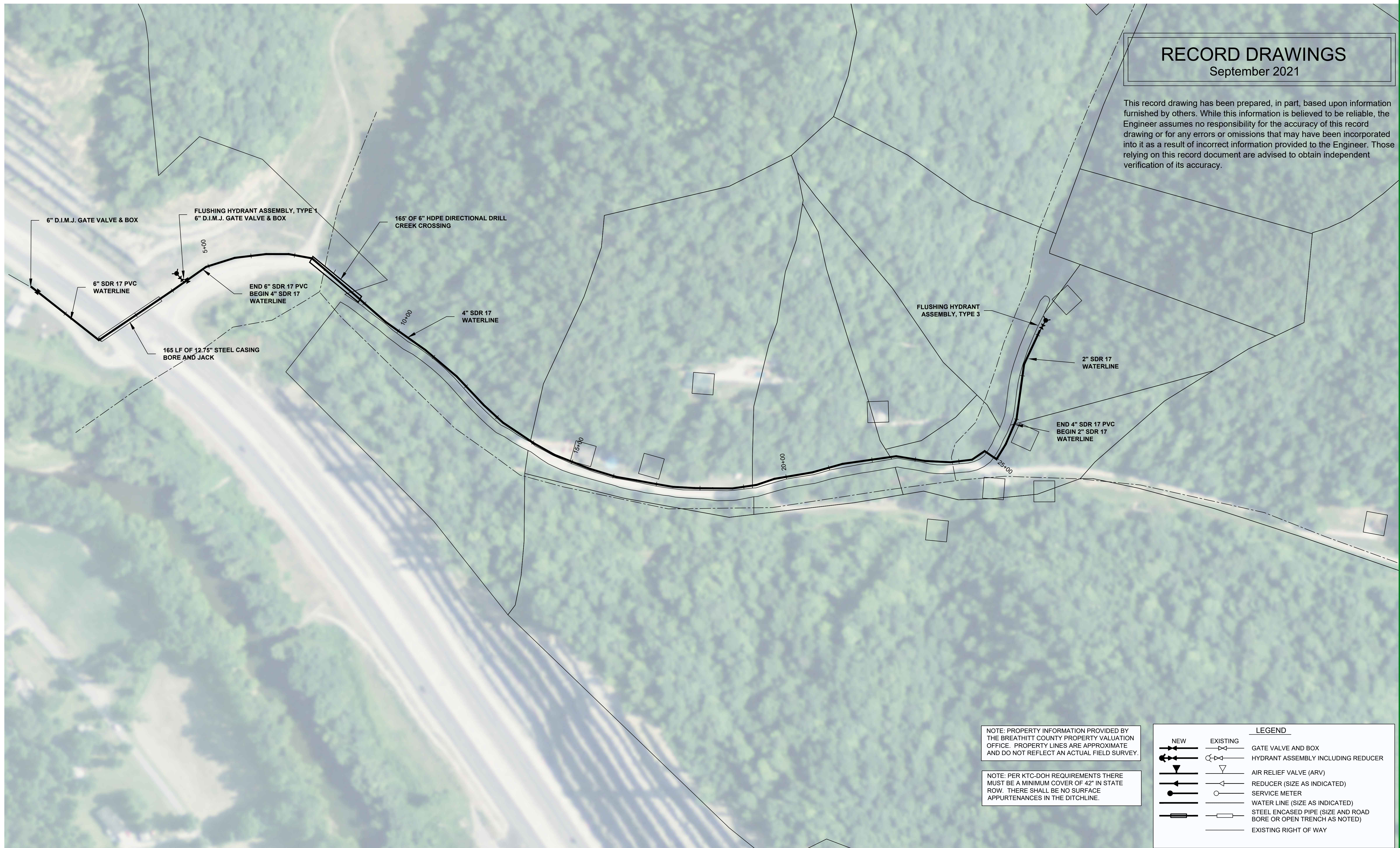
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RECORD DRAWINGS

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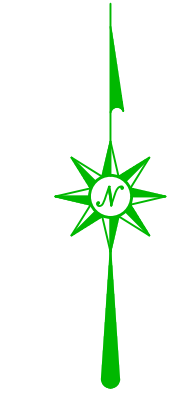
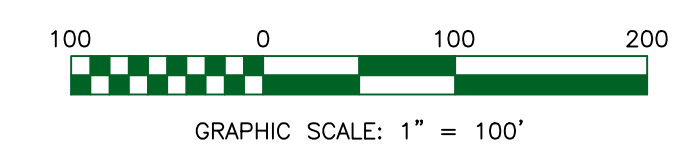
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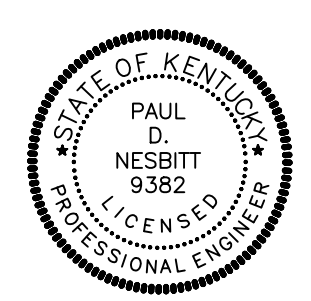
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	REDUCER (SIZE AS INDICATED)
	SERVICE METER
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	STEEL ENCASED PIPE (SIZE AND ROAD BORE OR OPEN TRENCH AS NOTED)
	EXISTING RIGHT OF WAY



WAR SHOAL WATERLINE STA. 0+00 - 28+12

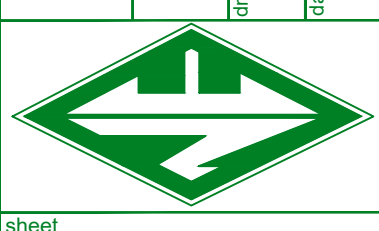
WATERLINE EXTENSION PROJECT
BREATHITT COUNTY WATER DISTRICT
1137 MAIN ST, SUITE 305
JACKSON, KY 41339



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BREATHITT COUNTY WATER DISTRICT
WATERLINE EXTENSION PROJECT

drawn by: MMS
job no.: 998-45
scale: 1" = 100'
date: 10/17/2019

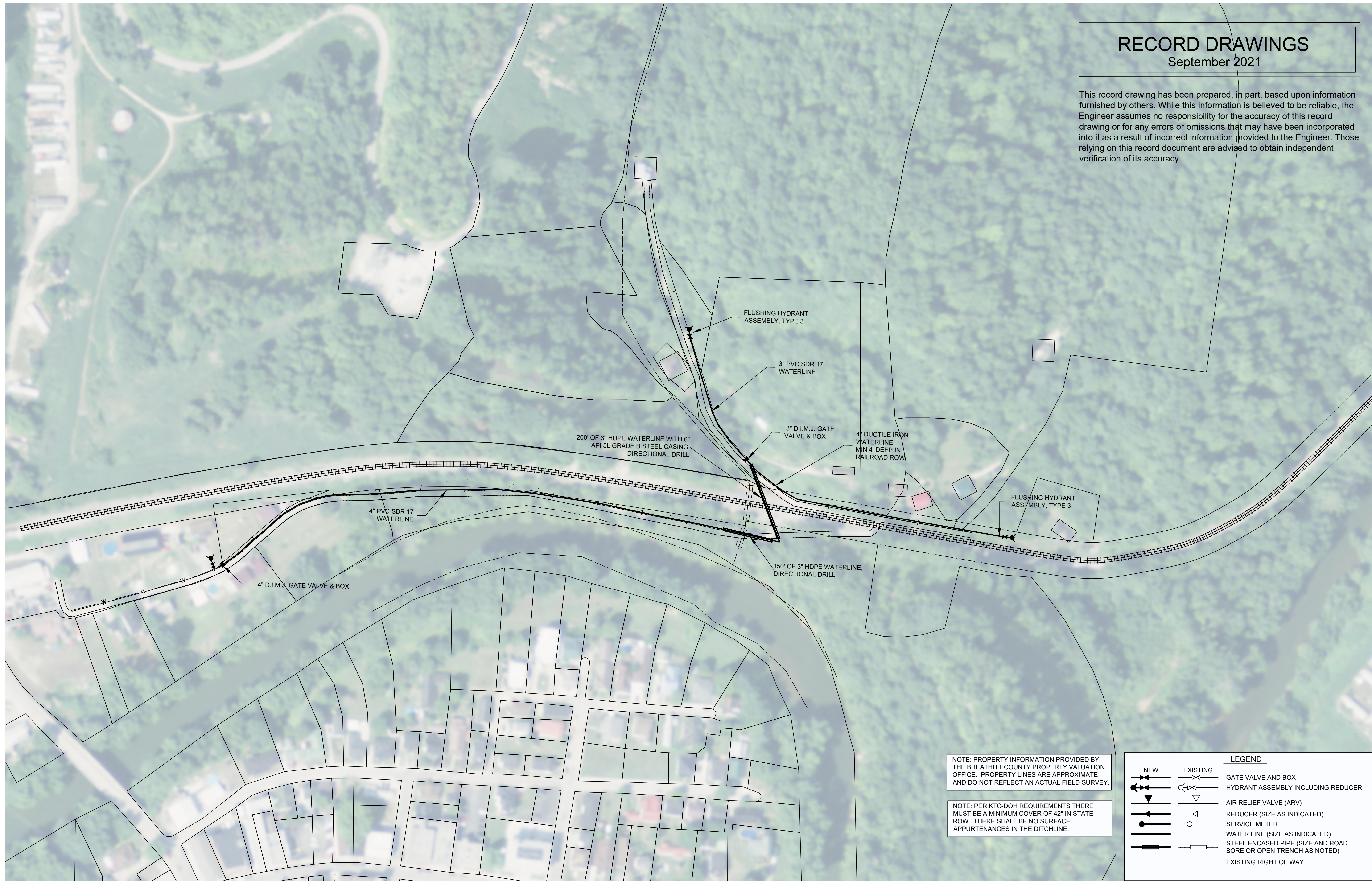


LAST PLOTTED ON: 10/15/2021 BY: STEEN, WATT DRAWING FILE LOCATION: P:\BREATHITT\998-45_WL\DWG\03_RESPON_LAYOUT_R4.DWG

RECORD DRAWINGS

September 2021

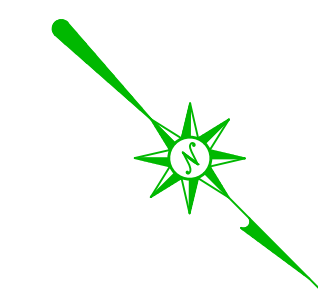
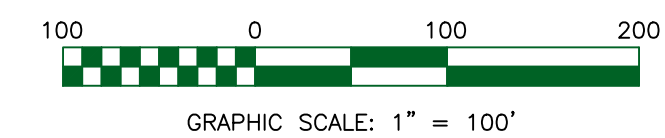
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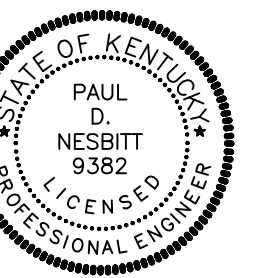
NOTE: PROPERTY INFORMATION PROVIDED BY THE BREATHITT COUNTY PROPERTY VALUATION OFFICE. PROPERTY LINES ARE APPROXIMATE AND DO NOT REFLECT AN ACTUAL FIELD SURVEY.

NOTE: PER KTC-DOH REQUIREMENTS THERE MUST BE A MINIMUM COVER OF 42" IN STATE ROW. THERE SHALL BE NO SURFACE APPURTENANCES IN THE DITCHLINE.

LEGEND	
	NEW
	EXISTING
	GATE VALVE AND BOX
	HYDRANT ASSEMBLY INCLUDING REDUCER
	AIR RELIEF VALVE (ARV)
	REDUCER (SIZE AS INDICATED)
	SERVICE METER
	WATER LINE (SIZE AS INDICATED)
	STEEL ENCASED PIPE (SIZE AND ROAD BORE OR OPEN TRENCH AS NOTED)
	EXISTING RIGHT OF WAY



WATERLINE EXTENSION PROJECT
 BREATHITT COUNTY WATER DISTRICT
 1137 MAIN ST, SUITE 305
 JACKSON, KY 41339
 OLD BAILEY HOLLOW WATERLINE



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BREATHITT COUNTY WATER DISTRICT
 WATERLINE EXTENSION PROJECT

drawn by: MMS
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date: 10/17/2019



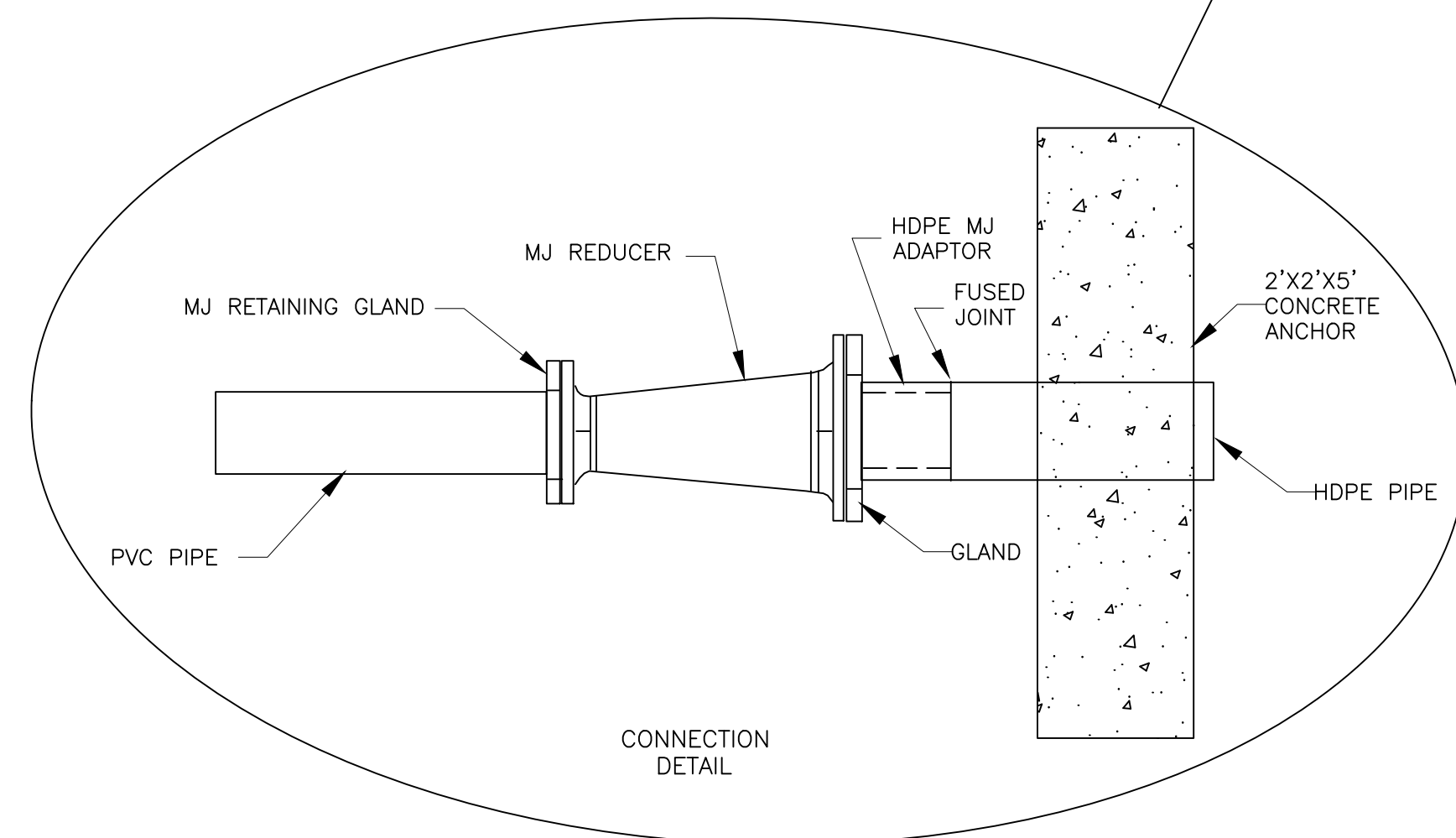
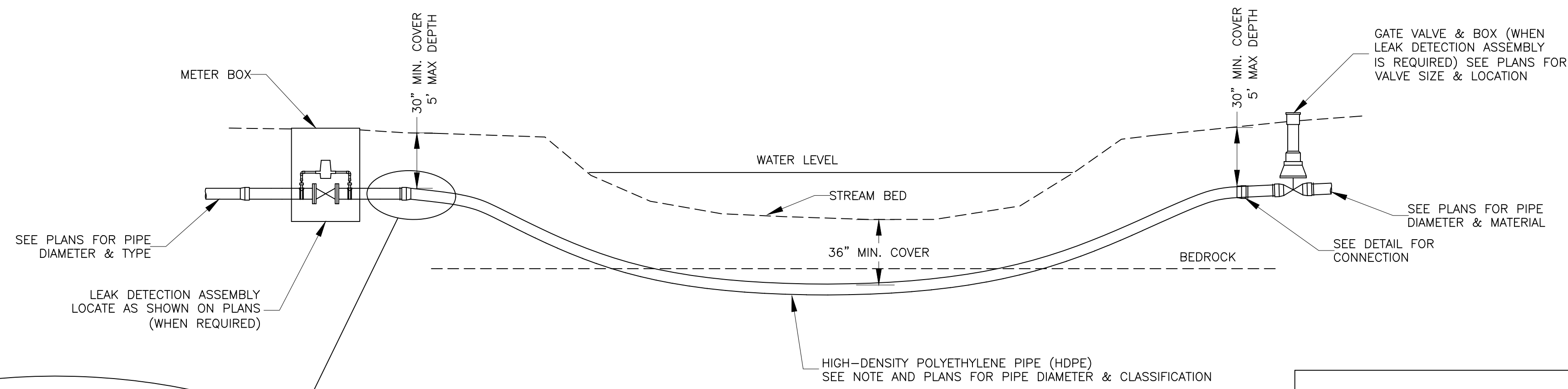
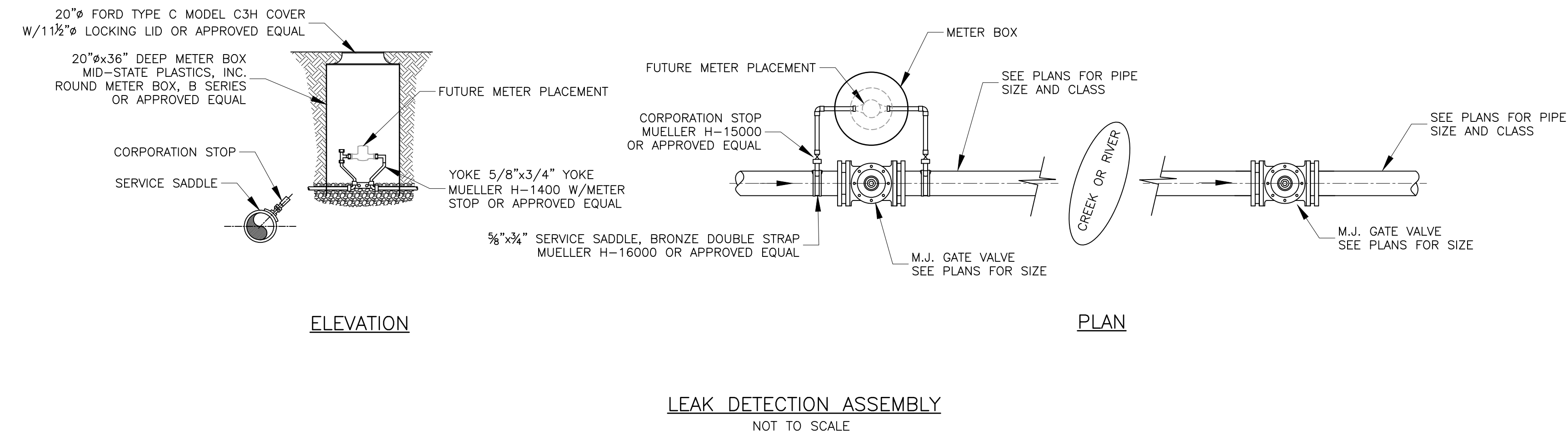
sheet no.

C-6

RECORD DRAWINGS

September 2021

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CREEK AND RIVER CROSSING DETAILS

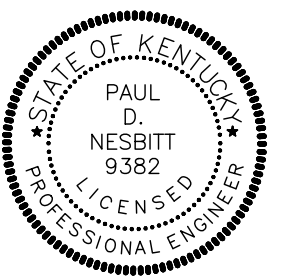
NOT TO SCALE

NOTES:

1. CONNECTION OF THE HDPE TO THE PVC OR DUCTILE IRON WATERLINE SHALL BE NO DEEPER THAN 5 FEET FROM THE GROUND ELEVATION.
2. DIRECTIONAL BORE SHALL BE MADE IN BED ROCK WITH A MIN DEPTH OF 36".
3. WHEN USING HDPE THE PIPE SHALL BE SIZED UP ONE PIPE SIZE TO ALLOW THE I.D. OF THE HDPE TO EQUAL THE I.D. OF THE CONNECTING WATERLINE.
4. PIPE SHALL BE DRILLED INTO SOLID BEDROCK WITH A MIN. COVER OF 36".
5. USE ANGLED FITTINGS AS NECESSARY TO MAKE CONNECTION BETWEEN PIPES.
6. ALL DRILLING MUD MUST BE CAPTURED AND DISPOSED OF OFF SITE IN A PROPER MANNER.

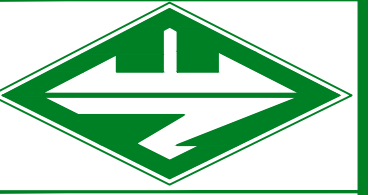
REVISIONS:

WATERLINE EXTENSION PROJECT
BREATHITT COUNTY WATER DISTRICT
 1137 Main Street
 Jackson, KY 41339
DIRECTIONAL DRILLING DETAILS

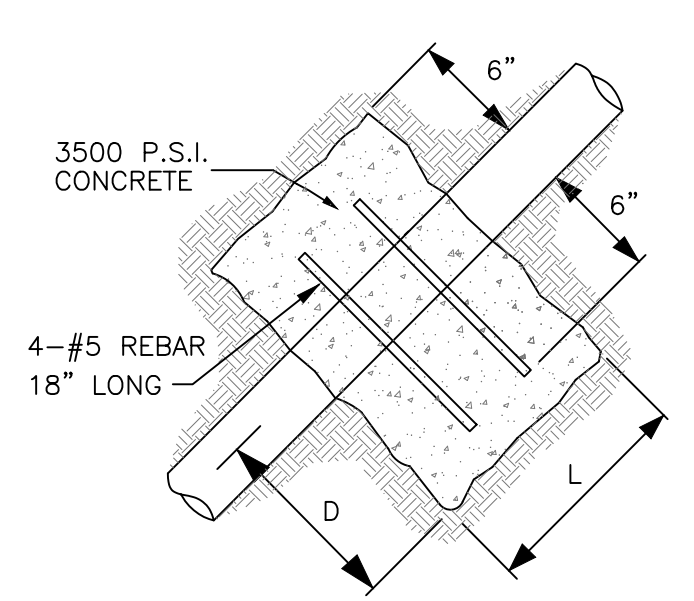
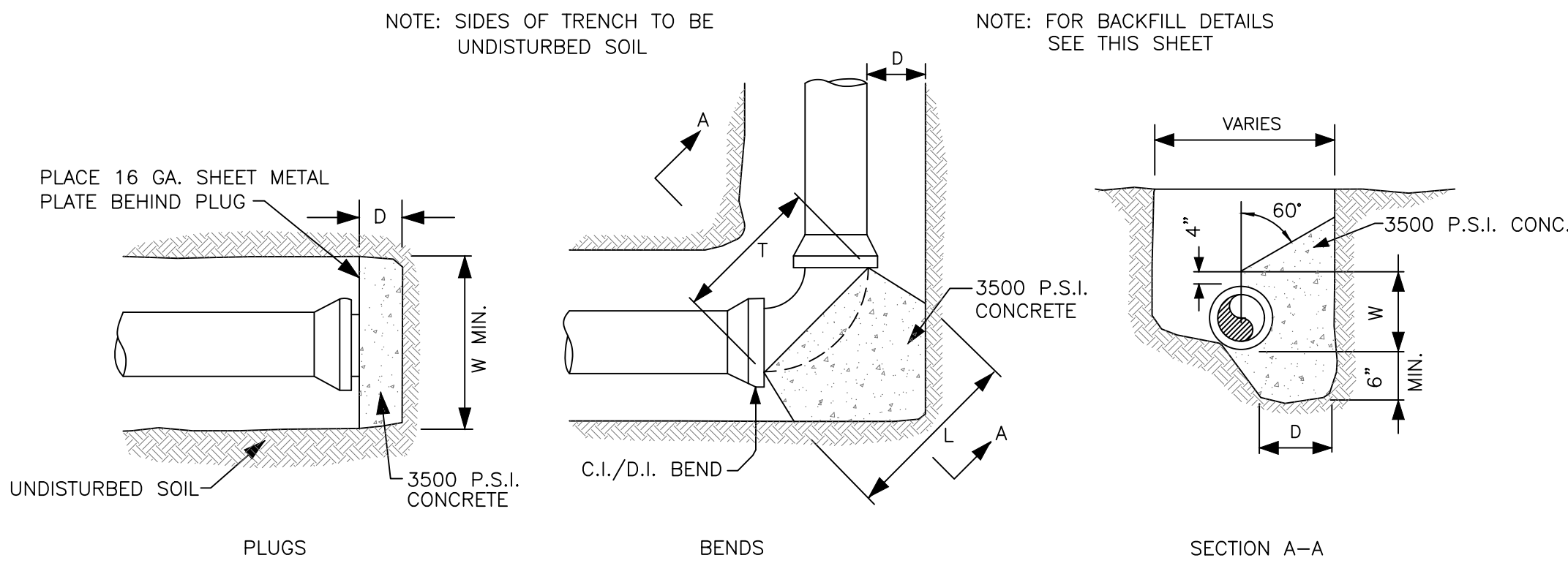


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 BREATHITT COUNTY WATER DISTRICT

DRAWN BY: MMS
 DATE: 12-1-18
 JOB NO.: 998.45
 SCALE: AS SHOWN
 DWSK/FILE NAME:



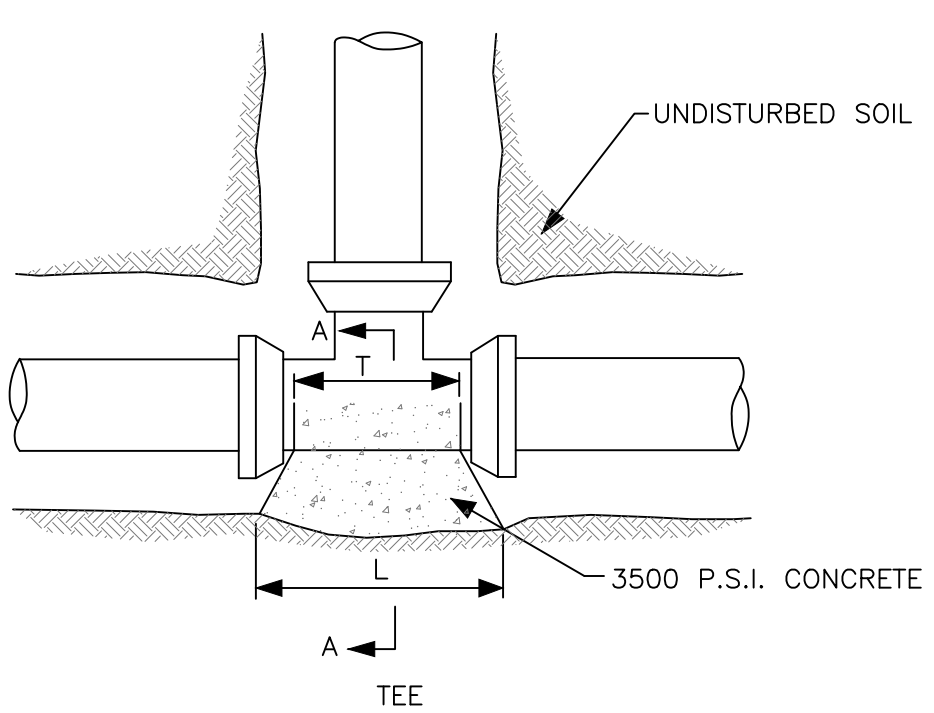
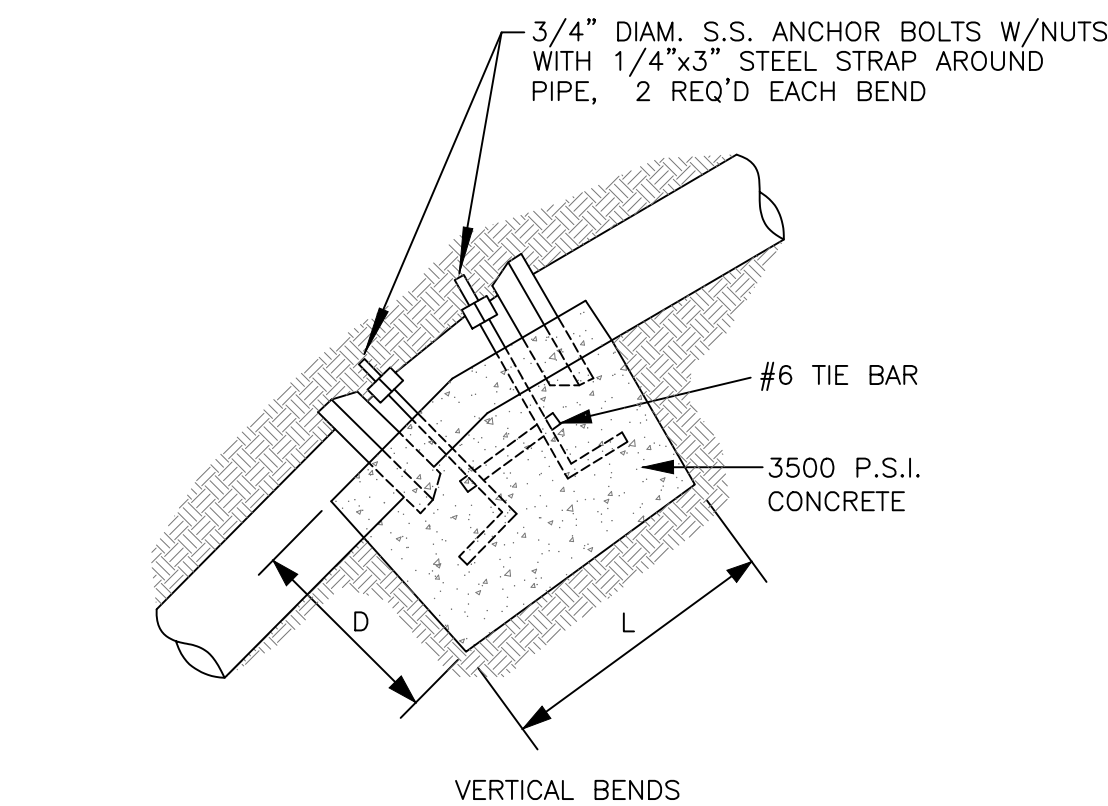
SHEET NO.



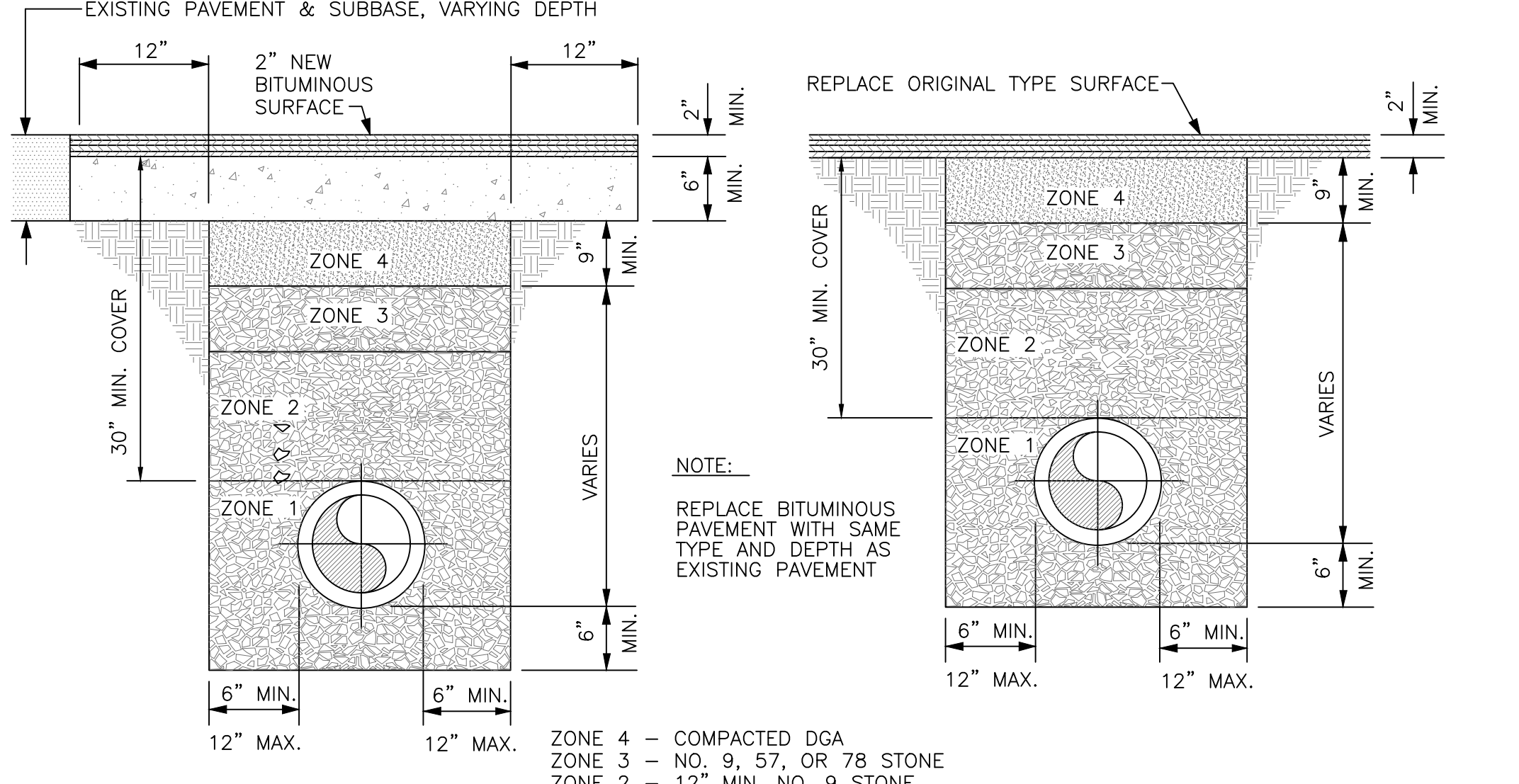
DIMENSIONS FOR THRUST AND ANCHOR BLOCKS

PIPE SIZE	3"	4"	6"	8"	10"	12"	14"	18"	24"
PLUGS									
D	6"	6"	6"	6"	6"	6"	6"	6"	6"
L&W	16"	18"	20"	22"	24"	26"	28"	32"	38"
EIGHT BEND (45°), 1/16 BEND (22-1/2°)									
D	6"	6"	6"	6"	6"	6"	6"	6"	6"
L	14"	16"	18"	20"	22"	24"	26"	30"	36"
T	12"	14"	16"	18"	20"	22"	24"	28"	34"
W	6"	8"	12"	14"	16"	18"	20"	24"	30"
QUARTER BEND (90°)									
D	6"	6"	8"	10"	10"	10"	12"	12"	14"
L	18"	21"	24"	27"	30"	33"	36"	38"	44"
T	12"	14"	16"	18"	20"	22"	24"	28"	34"
W	6"	8"	12"	16"	18"	20"	22"	26"	32"
VERTICAL BEND & STRAIGHT PIPE									
D	12"	12"	15"	15"	18"	18"	20"	24"	30"
L	18"	18"	24"	24"	30"	30"	30"	36"	42"
T	12"	14"	16"	18"	20"	22"	24"	28"	34"

STRAIGHT PIPE
NOTE: DEPTH (D) MAY NOT BE SMALLER THAN SPECIFIED TO ALLOW FOR WORKING SPACE, PIERS SHALL BE PLACED AGAINST UNDISTURBED SOIL, PLACE CONCRETE ANCHORS 25'-0" c/c.

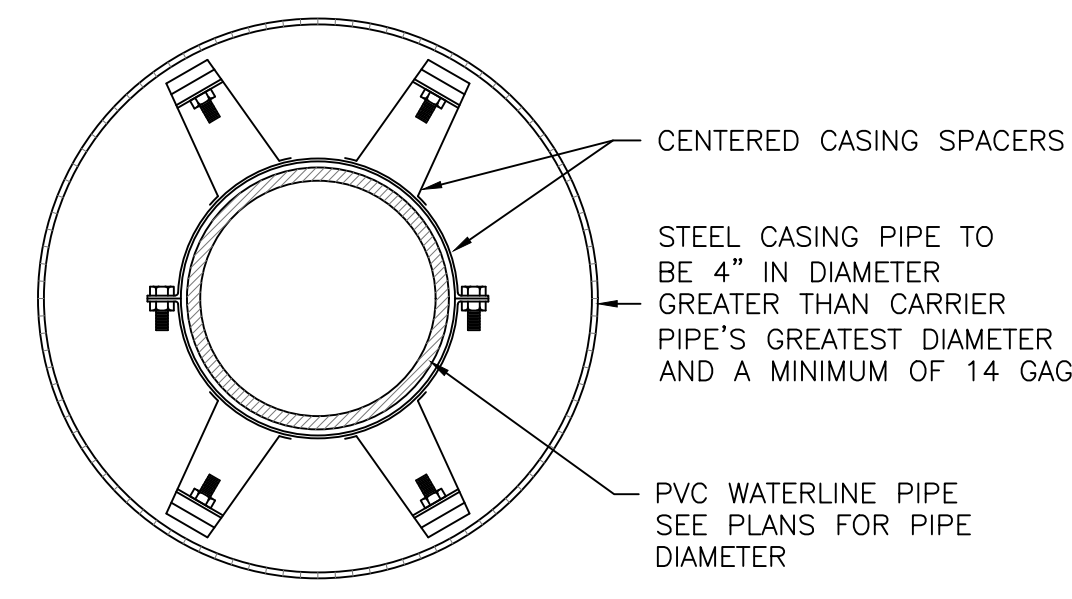


CONCRETE ANCHOR BLOCKS



ORIGINAL BITUMINOUS SURFACING OVER 2"

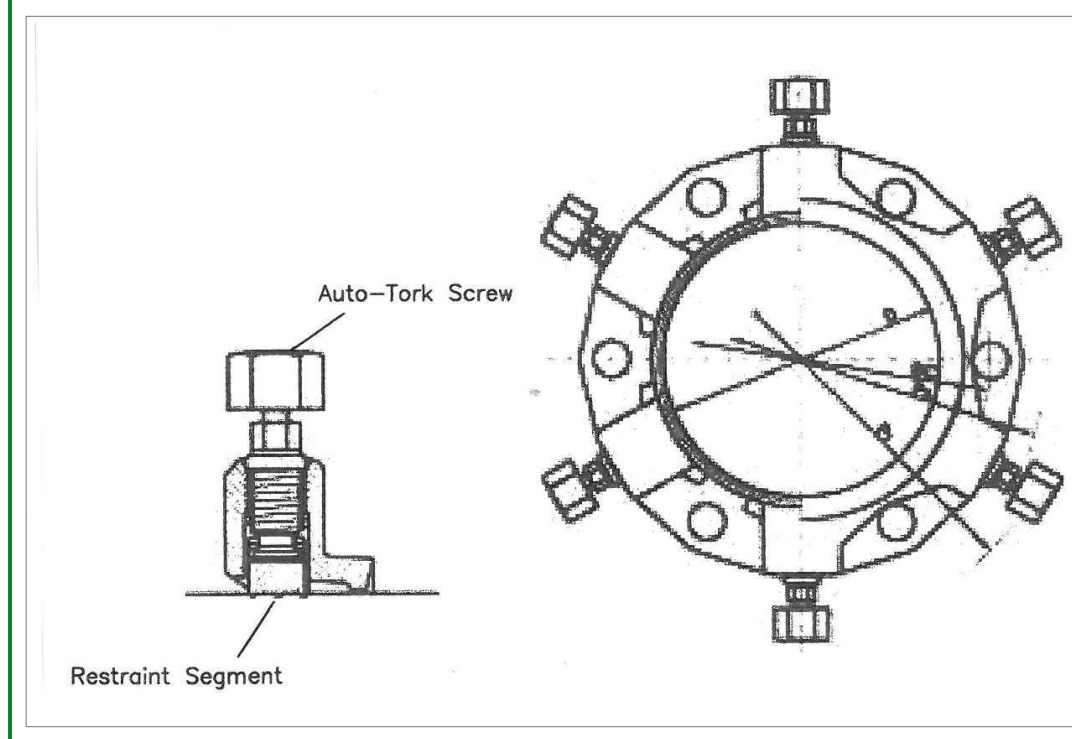
NOTE: RAILROAD BORE CASING PIPE SHALL BE A 16" DIAMETER, API 5L - GRADE B STEEL PIPE WITH A MINIMUM WALL THICKNESS OF 0.25" AS SHOWN ON THE PLANS.



NOTE: CARRIER PIPE SHALL BE INSTALLED WITHIN CASING PIPE USING MODEL CI POLYETHYLENE CASING SPACERS AS MANUFACTURED BY ADVANCE PRODUCT & SYSTEMS, INC. OR ENGINEER APPROVED EQUAL. SIZE AND SPACING PER MANUFACTURERS RECOMMENDATIONS.

END SEALS SHALL BE MODEL AC PULL-ON OR AW WRAP-AROUND END SEALS AS MANUFACTURED BY ADVANCE PRODUCT & SYSTEMS, INC. OR ENGINEER APPROVED EQUAL.

CASING SPACER DETAIL

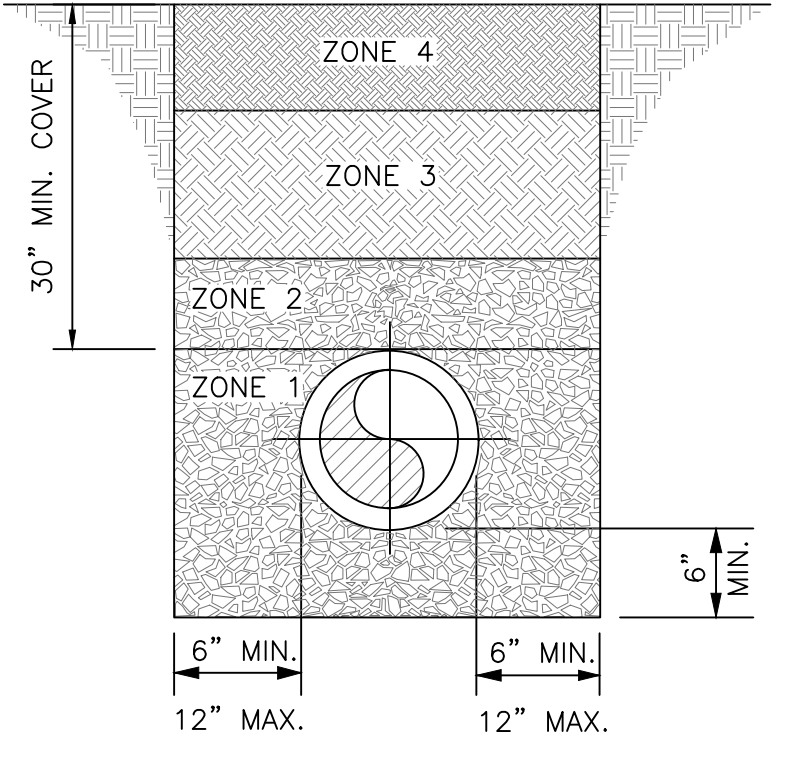


MJ Retainer Gland Joint Restraint

NOTE:
1. MJ RETAINER GLAND JOINT RESTRAINTS SHALL BE USED ALONG WITH CONCRETE ANCHOR BLOCKS AT ALL FITTINGS AS REQUIRED

RECORD DRAWINGS
September 2021

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PIPE LAID IN ROCK OR EARTH TRENCH

- NOTES:
- COVER UP TO AND INCLUDING ZONE 4 SHALL BE ESTABLISHED BEFORE TRENCH EXCAVATION.
 - ZONE 4 - 6" MIN. CONSOLIDATION EARTH BACKFILL INCLUDING TOPSOIL, NO ROCK ALLOWED.
 - ZONE 3 - CONSOLIDATED SOIL, (NO ROCK GREATER THAN 6" DIAMETER) NO. 9, 57, OR 78 STONE MARKING TAPE SHALL BE PLACED AT THE BOTTOM OF THIS ZONE
 - ZONE 2 - FROM THE SPRINGLINE OF THE PIPE TO A DISTANCE 12 INCHES ABOVE THE PIPE. THE CONTRACTOR SHALL USE THE SAME MATERIAL AS SPECIFIED FOR BEDDING. COMPACTION IS REQUIRED IN AREAS SUBJECT TO TRAFFIC. TRACER WIRE SHALL BE LOCATED ON THE TOP OF THE PIPE.
 - ZONE 1 - BEDDING MATERIAL, IN EARTH EXCAVATION AREAS, SHALL BE CLEAN EARTH, FREE FROM ROCKS, DEBRIS OR OTHER FOREIGN MATERIAL. THE CONTRACTOR SHALL USE CRUSHED STONE, SAND OR GRAVEL AS BEDDING MATERIAL WHERE ROCK EXCAVATION IS ENCOUNTERED.

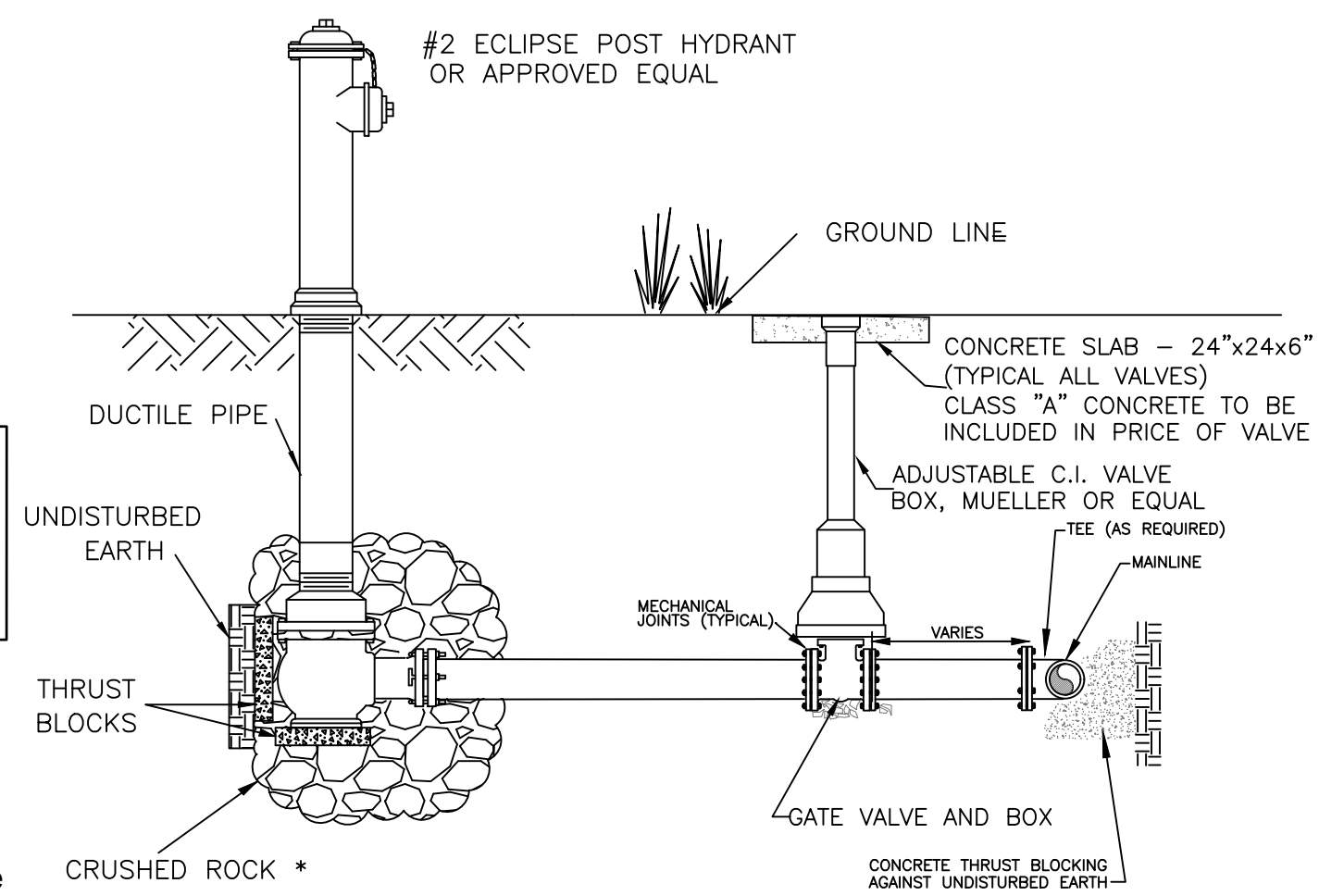
Hydrants shall be self-draining, non-freezing, compression type with 2-3/16" main valve opening. Outlet shall be 2-1/2"

Hydrants shall have a ductile iron pipe riser with a cast iron stock top, and non-turning operating rod. Principal interior operating parts shall be brass and removable from the hydrant for servicing without excavating the hydrant.

Hydrants shall be set in 4 cubic feet of crushed stone to allow for proper drainage of the hydrant. Recommendations of the AWWA should be followed when installing the hydrants.

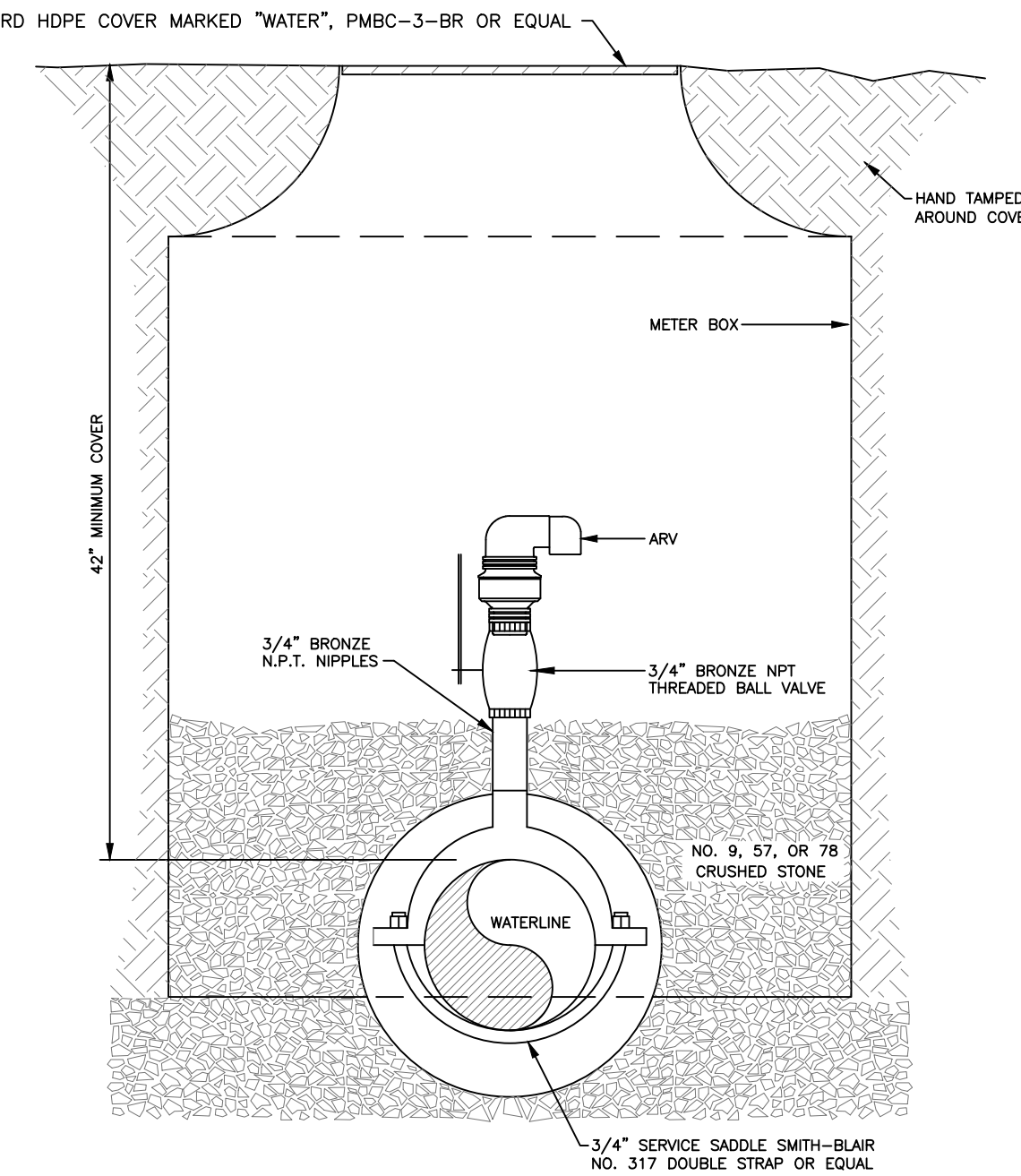
Post hydrants shall be Eclipse No. 2 Post Hydrants as manufactured by John C. Kuperle Foundry Company, St. Louis, MO. OR APPROVED EQUAL.

HYDRANT SHALL INCLUDE A SECURITY LOCKING DEVICE COMPATIBLE WITH THE INSTALLED HYDRANT. THE LOCK IS TO BE KEYPED THE SAME AS THE DISTRICT'S EXISTING LOCKS.



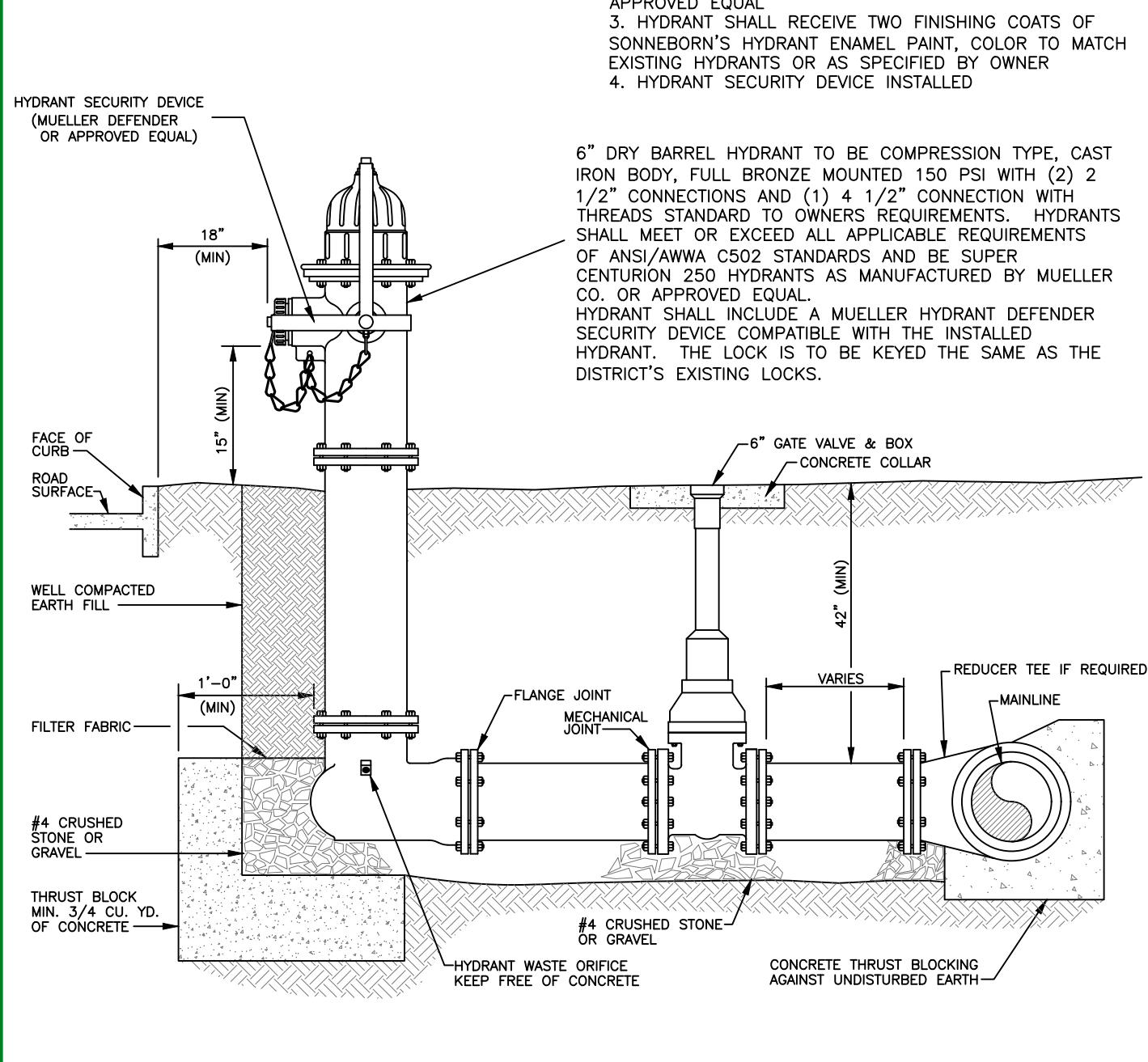
FLUSHING HYDRANT ASSEMBLY, TYPE 3

ARV 3/4" A.R.I. FLOW CONTROL MODEL D-040 COMBINATION AIR VALVE "BARAK" OR APPROVED EQUAL



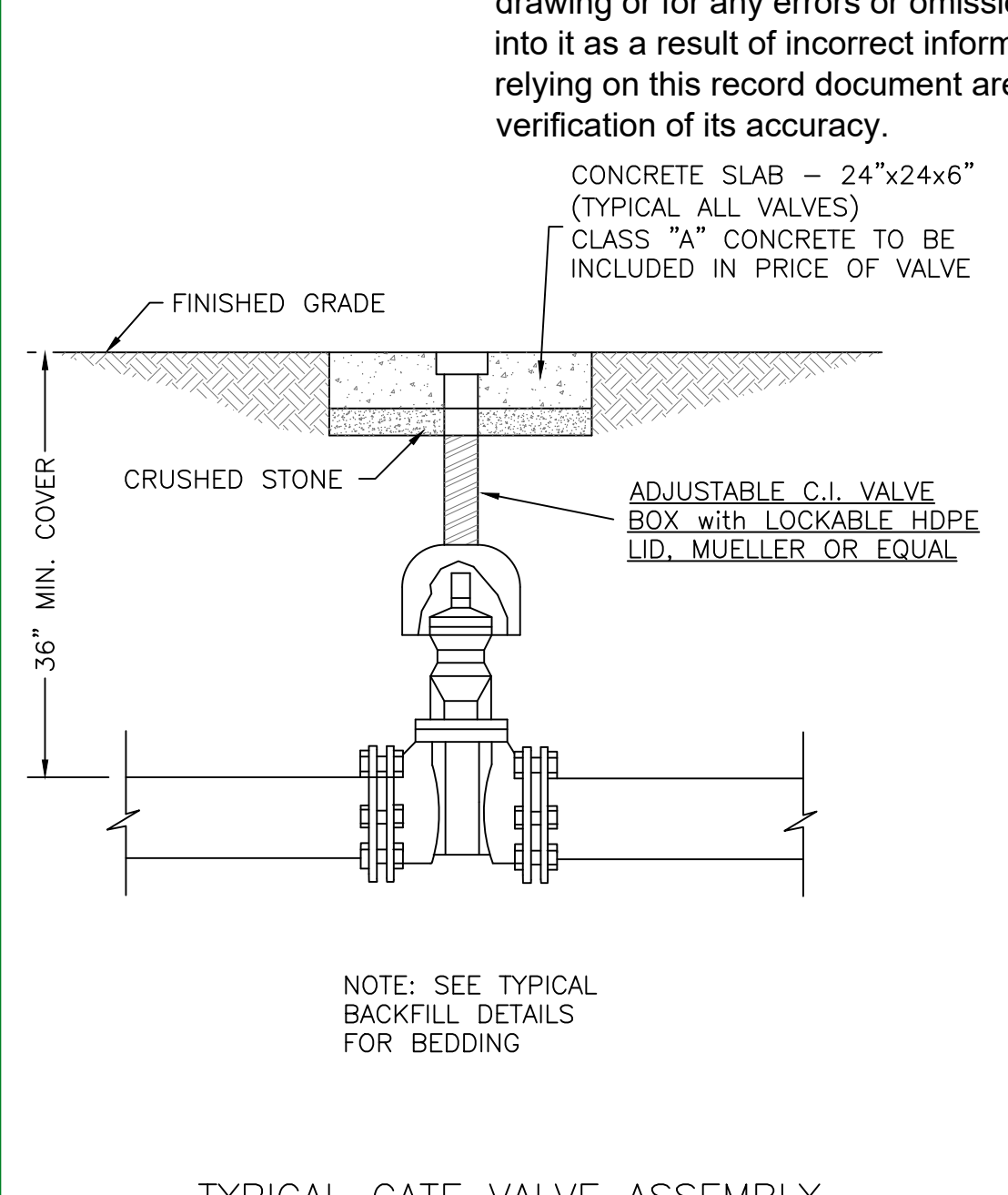
TYPICAL AIR RELIEF VALVE ASSEMBLY

TYPE 1 TWO 2 1/2" BIBS & ONE 4 1/2" BIB
TYPE 2 TWO 2 1/2" BIBS



FLUSHING HYDRANT ASSEMBLY, TYPE 1 & 2

NOTE: BEFORE FINAL INSPECTION
1. ENSURE ADEQUATE VOLUME OF OIL AS SHIPPED BY THE MANUFACTURER
2. HYDRANT SHALL BE CLEANED, WIRE BRUSHED AND TOUCHED UP WITH "KROKUM PRIMER EAM" OR ENGINEER APPROVED EQUAL
3. HYDRANT SHALL RECEIVE TWO FINISHING COATS OF SONNEBORN'S HYDRANT ENAMEL PAINT, COLOR TO MATCH EXISTING HYDRANTS OR AS SPECIFIED BY OWNER
4. HYDRANT SECURITY DEVICE INSTALLED

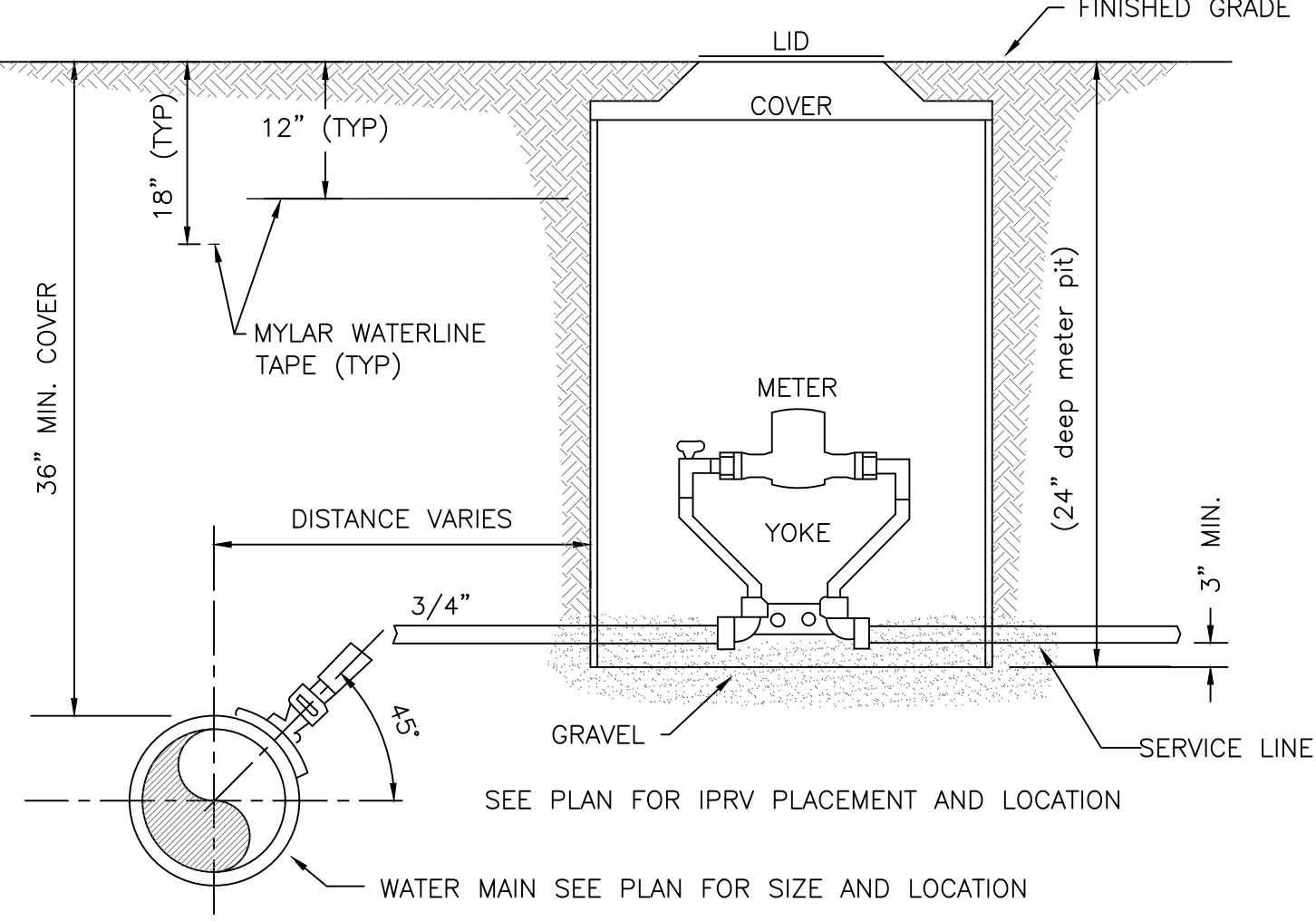


TYPICAL GATE VALVE ASSEMBLY

METER SETTING

- YOKE-5/8"x3/4" MUELLER H-1400 WITH METER STOP OR APPROVED EQUAL
- METER BOX-18"x24" DEEP, MID-STATE PLASTICS, INC. ROUND METER BOX, B SERIES OR APPROVED EQUAL
- COVER-18" FORD HDPE PMBC-3-BR LOCKING LID OR APPROVED EQUAL
- METER-SEE SPECIFICATIONS
- INDIVIDUAL PRESSURE REDUCING VALVE (PRV) WATTS MODEL 25AUB(2"), WILKENS MODEL 600 (3/4"-1") BOTH W/S.S. STRAINER, ADJUSTABLE PRESSURE RANGE 25-75 P.S.I., OUTLET PRESSURE SET AT 50 P.S.I. OR APPROVED EQUAL
- NO PREFAB SETTER TUB ASSEMBLIES WILL BE ALLOWED.
- CONNECT SERVICE LINES DIRECTLY TO SETTER, DO NOT USE NIPPLES ON THE SETTER.

TIE TO WATER MAIN
GROUND KEY CORPORATION STOP-MUELLER H-15000 (3/4"x3/4") OR APPROVED EQUAL
SERVICE SADDLE-BRONZE DOUBLE STRAP MUELLER H-16000 OR APPROVED EQUAL



TYPICAL WATER METER ASSEMBLY

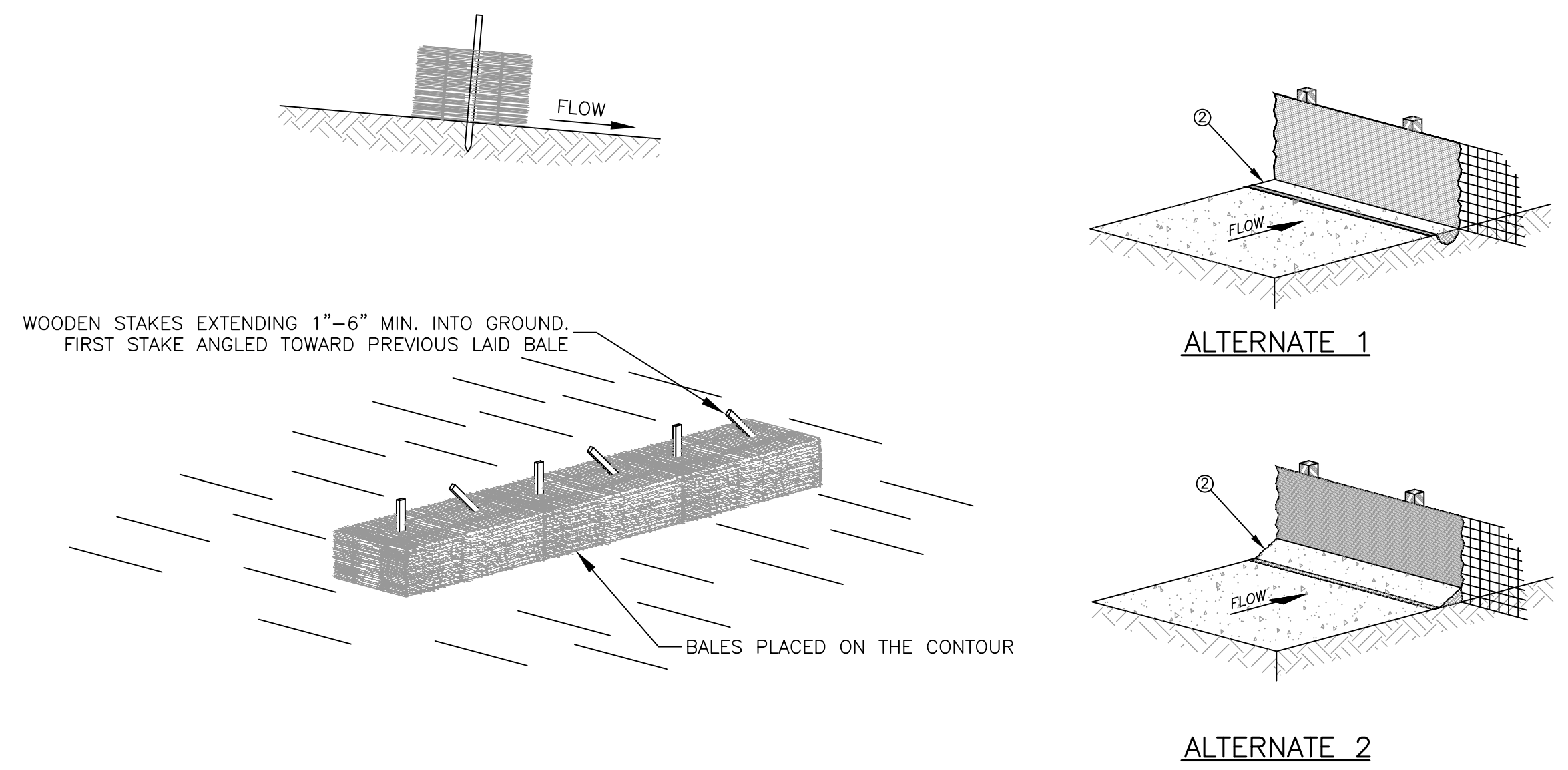
WATERLINE EXTENSION PROJECT
BREATHITT COUNTY WATER DISTRICT
1137 Main Street
Jackson, KY 41339

STANDARD DETAILS 1

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WATERLINE EXTENSION PROJECT
BREATHITT COUNTY WATER DISTRICT
job no.: 998-45
scale: NOT TO SCALE
drawn by: mms
date: July 7, 2019

STATE OF KENTUCKY
PAUL D. NESBITT
9382
PROFESSIONAL ENGINEER

sheet no. D-2



WOODEN STAKES EXTENDING 1"-6" MIN. INTO GROUND.
FIRST STAKE ANGLED TOWARD PREVIOUS LAID BALE

BALES PLACED ON THE CONTOUR

NOTE:
TEMPORARY BALE SILT CHECKS SHALL BE PLACED WHERE NEEDED TO PROVIDE PROPER EROSION CONTROL UNTIL REVEGETATION IS COMPLETED.

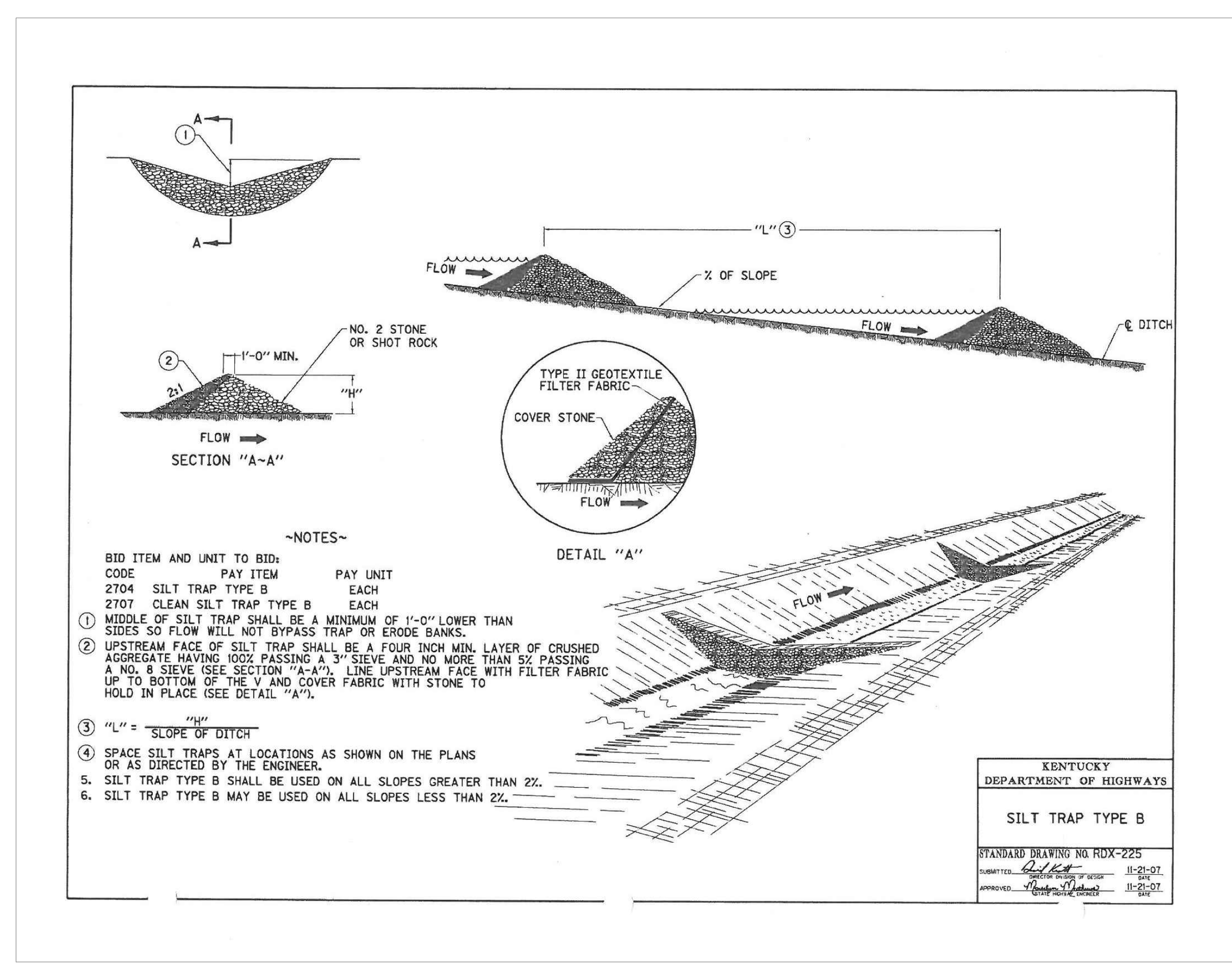
NOTES
1. MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
2. THE BOTTOM 12 INCHES OF FABRIC SHALL BE BURIED IN A 6 INCH TRENCH CUT INTO THE GROUND OR COVERED BY 6 INCHES OF FILL MATERIAL, TO PREVENT SEDIMENT ESCAPING UNDER FENCE. ALL EARTHWORK SHALL BE ON THE UPSTREAM SIDE OF FENCE.

STRAW BALE SILT CHECK SEDIMENTATION CONTROL

NOT TO SCALE

SILT CHECK FENCE SEDIMENTATION CONTROL

NOT TO SCALE



~NOTES~

BID ITEM AND UNIT TO BID:	PAY ITEM	PAY UNIT
2704 SILT TRAP TYPE B	EACH	EACH
2707 CLEAN SILT TRAP TYPE B	EACH	EACH

- MIDDLE OF SILT TRAP SHALL BE A MINIMUM OF 1'-0" LOWER THAN SIDES SO FLOW WILL NOT BYPASS TRAP OR ERODE BANKS.
- UPSTREAM FACE OF SILT TRAP SHALL BE A FOUR INCH MIN. LAYER OF CRUSHED AGGREGATE HAVING 100% PASSING A 3" SIEVE AND NO MORE THAN 5% PASSING A NO. 8 SIEVE (SEE SECTION "A-A"). LINE UPSTREAM FACE WITH FILTER FABRIC UP TO BOTTOM OF THE V AND COVER FABRIC WITH STONE TO HOLD IN PLACE (SEE DETAIL "A").
- "L" = $\frac{1}{2}S$ SLOPE OF DITCH
- SPACE SILT TRAPS AT LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- SILT TRAP TYPE B SHALL BE USED ON ALL SLOPES GREATER THAN 2%.
- SILT TRAP TYPE B MAY BE USED ON ALL SLOPES LESS THAN 2%.

KENTUCKY
DEPARTMENT OF HIGHWAYS

SILT TRAP TYPE B

STANDARD DRAWING NO. RDX-225

DATE: 11-21-07

APPROVED: 11-21-07

RECORD DRAWINGS
September 2021

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LAST SAVED:

REVISIONS:

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1137 Main Street
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EROSION CONTROL & MISC. DETAILS

STATE OF KENTUCKY
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WATERLINE EXTENSION PROJECT
BREATHITT COUNTY WATER DISTRICT

job no.: 998-45
file name:

drawn by: mms
date: July 7, 2019

scale: NOT TO SCALE

sheet no. D-3