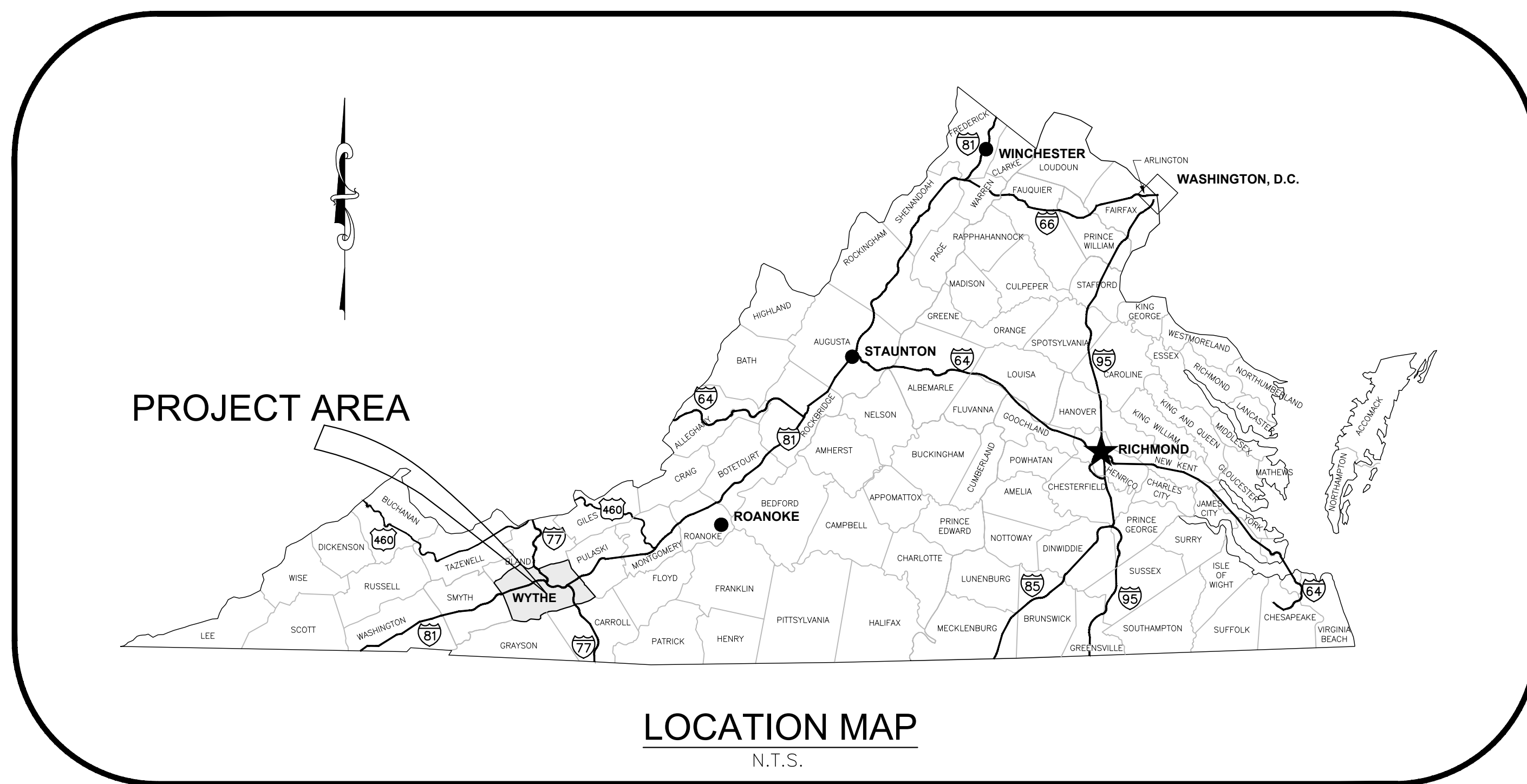


WYTHE COUNTY BARRETT MILL WATER IMPROVEMENTS

WYTHE COUNTY, VIRGINIA



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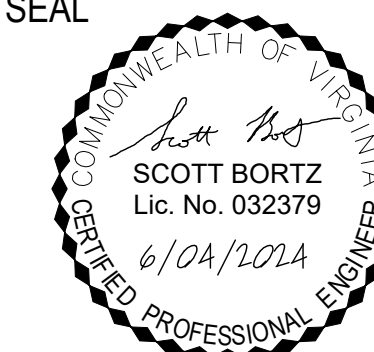
Peed & Bortz, L.L.C.
CIVIL & ENVIRONMENTAL ENGINEERS
20 MIDWAY PLAZA DRIVE - SUITE 100
CHRISTIANSBURG, VIRGINIA 24073
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BARRETT MILL WATER IMPROVEMENTS

WYTHE COUNTY

VIRGINIA

SEAL



DRAWN BY:
J. MCCLURE
REVIEW BY:
S.BORTZ
DATE:
5/08/2024
REVISION:
6/04/2024

SHEET DESCRIPTION:
COVER SHEET

G01

LEGEND

	EXISTING CREEK		WATERLINE
	EXISTING WATERLINE		FIRE HYDRANT (COMPLETE)
	EXISTING FIRE HYDRANT		REDUCER
	EXISTING EDGE OF PAVEMENT		WATER METER
	PROPERTY LINE/ VDOT RIGHT OF WAY		AIR RELEASE VALVE/BLOW OFF VALVE
	EXISTING FENCE		GATE VALVE
	EXISTING UTILITY POLE		METER RECONNECTION
	EXISTING CULVERT		STEEL CASING
	EXISTING DITCH		CABLE PEDESTAL
	EXISTING GUARDRAIL		PERMANENT UTILITY EASEMENT
	EXISTING BUILDING		TEMPORARY CONSTRUCTION EASEMENT
	EXISTING WELL HEAD		EXISTING UNDERGROUND ELECTRIC/CABLE
	EXISTING WATER METER		EXISTING UNDERGROUND TELEPHONE/CABLE
	EXISTING RIP RAP LINED DITCH		EXISTING UNDERGROUND COMMUNICATION LINE

GENERAL NOTES:

- PROJECT OWNER:
WYTHE COUNTY
ATTN: STEPHEN D. BEAR – COUNTY ADMINISTRATOR
340 SOUTH SIXTH STREET
WYTHEVILLE, VA 24382
- UTILITY CONTACT:
DON CRISP – WYTHE COUNTY UTILITIES DIRECTOR
276-223-6020 SANITARY SEWER & WATER
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY CONSTRUCTION PERMITS TO WORK WITHIN THE RIGHT-OF-WAY INCLUDING BUT NOT LIMITED TO VDOT AND WYTHE COUNTY.
 - ALL DISTURBED AREAS NOT PAVED WILL BE GRASSED WITH PERMANENT SEEDING AS SPECIFIED IN THE SPECIFICATIONS.
 - NOTIFY "MISS UTILITY" AT 1-800-552-7001 AT LEAST 48 HOURS PRIOR TO EXCAVATION IN THE RIGHT-OF-WAY.
 - EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND DO NOT REPRESENT ALL UNDERGROUND UTILITY OR SERVICE LINES. PRIOR TO EXCAVATION, THE CONTRACTOR SHALL CONTACT "MISS UTILITY" TO HAVE ALL UNDERGROUND UTILITIES LOCATED AND MARKED.
 - CONTRACTOR SHALL CONTACT "MISS UTILITY" PRIOR TO INSTALLING CASINGS AND SHALL DIG A TEST HOLE TO DETERMINE THE ACTUAL HORIZONTAL AND VERTICAL LOCATION OF THE UNDERGROUND UTILITIES THAT WILL BE CROSSED.
 - *UNDERGROUND FIBER-OPTIC ARE ALONG GRAYSON TPKE ON NORTHWEST SIDE FROM INTERSECTION WITH CROCKETT RD TO INTERSECTION WITH CINNAMON RUN. UNDERGROUND LOCAL TELEPHONE (COPPER) ARE ALONG BOTH SIDES OF GRAYSON TPKE FROM INTERSECTION WITH CROCKETT RD TO INTERSECTION WITH CINNAMON RUN. EAST SIDE OF HIGH BRIDGE ROAD AND THE SOUTH SIDE OF WINDING ROAD FROM INTERSECTION WITH HIGH BRIDGE ROAD EAST TO INTERSECTION WITH GRAYSON TPKE. LOCATIONS SHOWN ON PLANS ARE APPROXIMATE FOR CLARITY.
 - INTEGRITY OF PROPERTY AND RIGHT-OF-WAY MONUMENTATION SHALL BE PRESERVED. REPLACEMENT OR CORRECTION OF DISTURBANCE SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
 - WATERLINES AND APPURTENANCES SHALL BE CONSTRUCTED WITHIN ROAD RIGHT-OF-WAY OR EASEMENTS.
 - CONTRACTOR SHALL SET VALVE BOX TOPS AS DIRECTED BY INSPECTOR AND AS SHOWN ON PLANS.
 - CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING PAVEMENT DURING CONSTRUCTION ON ALL VDOT ROADWAYS. NO TRACKED OR CLEATED EQUIPMENT IS PERMITTED ON THE ASPHALT PAVEMENT WITHOUT PROTECTIVE MEASURES. CONTRACTOR MAY INSTALL SUITABLE PROTECTIVE MEASURES (AT NO ADDITIONAL COST TO THE OWNER) IN ORDER TO USE TRACKED OR CLEATED CONSTRUCTION VEHICLES WITHIN THE PAVEMENT EXTENTS.
 - CONTRACTOR IS RESPONSIBLE FOR REPAIR OR REPLACEMENT OF ALL GUARDRAIL MOVED, RELOCATED, OR DAMAGED BY THE CONTRACTOR. CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL DITCHES AND SHOULDERS. CONTRACTOR IS RESPONSIBLE FOR REPLACEMENT OF ALL FENCING MOVED, RELOCATED, OR DAMAGED BY THE CONTRACTOR.
 - CONTRACTOR WILL BE REQUIRED TO OBTAIN A PERMIT AND POST A CONSTRUCTION BOND FROM VDOT. CONTRACTOR WILL BE REQUIRED TO RECEIVE VDOT AND WYTHE COUNTY APPROVAL FOR THE STATE OF THE ROADWAY PRIOR TO FINAL COMPLETION.
 - CONTRACTOR IS RESPONSIBLE FOR MAINTAINING DRAINAGE AROUND AND THROUGH THE CONSTRUCTION AREA AS CURRENTLY EXISTS. NO PONDING WATER IN DITCHES WILL BE PERMITTED DURING THE CONSTRUCTION.
 - CONTRACTOR WILL PROVIDE EROSION CONTROL MEASURES TO PREVENT DISTURBED RUNOFF FROM LEAVING THE SITE. EROSION CONTROL MEASURES MAY INCLUDE BUT ARE NOT LIMITED TO, CHECK DAMS, INLET PROTECTION, CULVERT INLET PROTECTION AND OTHER MEASURES.

- CONTRACTOR WILL BE REQUIRED TO INSTALL SILT FENCE IN RUNOFF SENSITIVE AREAS (ALONG CREEKS, STEEP SLOPES, ETC.) WITH THE EXTENTS TO BE FIELD DETERMINED BY THE LOCAL EROSION CONTROL OFFICIAL.
- CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND ANY PAYMENT REQUIRED TO UTILITY COMPANIES FOR ANY TEMPORARY SHORING AND/OR SUPPORT OF UTILITY POLES.
- CONTRACTOR WILL SAWCUT EXISTING ASPHALT, REMOVE PAVEMENT, AND REPAIR PER STANDARD PAVEMENT REPAIR DETAIL.
- COUNTY DETAILS APPLY ONLY TO PRIVATE PROPERTY AND EASEMENTS
- VDOT DETAILS APPLY ONLY TO RIGHT OF WAY.
- RIGHT OF WAY SHOWN GRAPHICALLY FROM WYTHE COUNTY GIS
- UNLESS NOTED, INSTALL MAIN LINE GATE VALVE AT ALL FIRE HYDRANT TEES. MAIN LINE VALVE WILL BE PAID UNDER APPROPRIATE LINE ITEM.
- RIGHT OF WAY WIDTH WAS DETERMINED VIA PLATS AND ARE AS FOLLOWS:
 - RT. 640 WHIPPORWILL ROAD 50 FT
 - RT. 696 BARRETT MILL ROAD 40 FT (SELECT PLATS SHOW 50 FT)
 - RT. 696 CARRINGTON LANE 30 FT
 - RT. 821 EDENWOOD LANE 40 FT
 - RT. 820 BLACKBERRY DRIVE 40+ FT
 - RT. 806 DEER TRAIL 40 FT
 - RT. 807 LOOKOUT DRIVE 40 FT

UNDERGROUND UTILITY EROSION CONTROL NOTES:

UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH MS-16 REQUIREMENTS:

- NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
- EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
- EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE OR BOTH AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
- MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
- RE-STABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS.
- APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.

VDOT GENERAL NOTES:

- ALL WORK PERFORMED IN THE PUBLIC RIGHT OF WAY SHALL CONFORM TO THE MOST CURRENT ROAD AND BRIDGE STANDARDS, THE MOST CURRENT ROAD AND BRIDGE SPECIFICATIONS, AND THE MOST CURRENT WORK AREA PROTECTION MANUAL.
- IF THE ROAD STRUCTURE BECOMES UNDERMINED, OR THE PAVEMENT IS OTHERWISE DAMAGED, THE LOOSENEED MATERIAL WILL NEED TO BE REMOVED AND REPLACED AND PROPERLY COMPACTED, AND THE ROAD SURFACE WILL NEED TO BE CUT AND PATCHED IN ACCORDANCE WITH THE SPECIAL PROVISIONS FOR OPEN CUTS, LUP-OCPR. AT LOCATIONS THAT REQUIRE PATCHING.
- FIRE HYDRANTS AND OTHER ABOVEGROUND APPURTENANCES WILL NEED TO BE PLACED BEHIND THE DITCH IN CUT SECTIONS, JUST BEYOND THE TOP OF SLOPE IN FILL SECTIONS. COORDINATE FIELD LOCATIONS WITH PROJECT INSPECTOR AND VDOT PRIOR TO SETTING HYDRANTS & VALVES.
- RECESS TOP OF VALVES, MANHOLES AND METERS. MINIMUM 2 INCHES BELOW EXISTING GRADE AND CONFORM TO EXISTING CONTOURS. VALVES, MANHOLES, METERS AND OTHER APPURTENANCES SHALL NOT BE PLACED IN DITCH LINE.
- ALL VDOT CROSSINGS ARE TO BE BORED AND ENCASED.
- ALL WATERLINES CROSSING UNDER VDOT DRAINAGE CULVERTS AND DRIVEWAY CULVERTS SHALL BE A MINIMUM OF 18" BELOW THE CULVERT. ALL AREAS WHERE WATERLINES ARE INSTALLED AROUND VDOT CULVERTS SHALL BE A MINIMUM OF 36" DEEP BELOW THE BOTTOM OF THE CULVERT.
- THE COUNTY IS RESPONSIBLE FOR OBTAINING EASEMENTS ON ANY VDOT ROAD WITH 30' PRESCRIPTIVE EASEMENT AND ALL PRIVATE PROPERTY EASEMENTS.
- THE CONTRACTOR SHALL PROVIDE A THIRD-PARTY GEOTECHNICAL FIRM FOR COMPACTION TESTING ON ALL UTILITY WORK IN THE RIGHT OF WAY. COMPACTION TESTING SHALL MEET THE LATEST VDOT REQUIREMENTS AND METHODS. COMPACTION SHALL MEET OR EXCEED 95% COMPACTION AND COPIES OF THE REPORTS SHALL BE FORWARDED TO VDOT
- THE CONTRACTOR SHALL PROVIDE, TO VDOT, A LAND USE PERMIT APPLICATION WITH THE FEE AND BOND AMOUNTS ALONG WITH ALL TRAFFIC CONTROL PLANS THAT MAY BE NEEDED FROM THE LATEST REVISION OF THE VIRGINIA WORK AREA PROTECTION MANUAL.
- THE CONTRACTOR SHALL HAVE AT LEAST ONE PERSON ON SITE AT ALL TIMES THAT HAS A CURRENT VIRGINIA WORK ZONE INSTALLATION/REMOVAL CERTIFICATION, AND ALL FLAGGERS SHALL HAVE CURRENT VIRGINIA FLAGGING CERTIFICATIONS.
- ALL ROADWAYS SHALL BE PROTECTED AT ALL TIMES FROM METAL TRACKED AND ALL OTHER EQUIPMENT.
- A MAXIMUM OF 500 FEET OF OPEN TRENCH SHALL BE ALLOWED AT ONE TIME. A MAXIMUM OF 1000 FEET SHALL BE ALLOWED BEFORE ALL RECLAMATION OF SHOULDERS, DITCHES, CLEANUP, SEED, AND STRAW, ETC. IS COMPLETED UNLESS ADVISED OTHERWISE BY THE COUNTY OR VDOT.
- ROADWAY SHALL BE CLEANED FREE FROM MUD AND DEBRIS AT THE END OF EACH WORKDAY, THIS MAY INCLUDE SWEEPING OR WASHING.
- ALL WATERLINES SHALL BE A MINIMUM OF 3 FEET FROM THE EDGE OF PAVEMENT UNLESS OTHERWISE APPROVED BY VDOT.
- AT NO TIME WILL ANY AREA BE LEFT OPEN AT THE END OF EACH WORKDAY INCLUDING BORE PITS UNLESS APPROVED BY VDOT.
- ALL GRAVEL DRIVEWAYS AND MAILBOX TURNOUTS SHALL BE REPAIRED DAILY WITH STONE. ALL PAVED DRIVEWAYS SHALL BE RESTORED TO THEIR ORIGINAL STATE. ALL MAILBOXES, IF REMOVED, SHALL BE RE-INSTALLED BY THE END OF THE WORKDAY.
- ON ROADWAYS WITH A 2 FEET WIDE SHOULDER OR MORE, AND THE UTILITY IS PLACED WITHIN THAT SHOULDER SHALL HAVE THE FINAL 6 INCHES BACKFILLED WITH #25 OR #26 STONE.

EROSION CONTROL LEGEND

NO.*	TITLE	KEY	SYMBOL
3.05	SILT FENCE	SF	
3.08	CULVERT INLET PROTECTION	CIP	
3.07	INLET PROTECTION	IP	
3.19	RIP RAP	RR	
3.20	CHECK DAM	CD	
3.21	LEVEL SPREADER	LS	
3.36	SLOPE MATTING (EC 2/TYPE 1)	EM	

* NUMBER REFERS TO THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK SYMBOLS

STANDARD ABBREVIATIONS

ADJ	ADJACENT	MON	MONUMENT
BC	BACK OF CURB	MTL	METAL
BLDG	BUILDING	N	NORTHING
BM	BENCHMARK	NIC	NOT IN CONTRACT
BSMT	BASEMENT	NO.	NUMBER
CF	CUBIC FOOT	NTS	NOT TO SCALE
CI	CAST IRON	O/C	ON CENTER
CL	CENTERLINE	O/S	OFFSET
CLR	CLEAR	OD	OUTSIDE DIAMETER
CMP	CORRUGATED METAL PIPE	PE	POLYETHYLENE
CMU	CONCRETE MASONRY UNIT	PERF	PERFORATED
CO	CLEANOUT	PL	PROPERTY LINE
CONC	CONCRETE	PSI	POUNDS PER SQUARE INCH
COR	CORNER	PVC	POLYVINYL CHLORIDE
CULV	CULVERT	R	RADIUS
CY	CUBIC YARD	ROW	RIGHT OF WAY
D	DEPTH, DEGREE OF CURVE	RCP	REINFORCED CONCRETE PIPE
DEPT	DEPARTMENT	RD	ROAD, ROOF DRAIN
DI	DUCTILE IRON, DROP INLET	REINF	REINFORCE, REINFORCEMENT
DIA	DIAMETER	REQ'D	REQUIRED
DIP	DUCTILE IRON PIPE	REV	REVISION
DIV.	DIVISION	RMV	REMOVE
DR	DRIVE	RR	RAILROAD
DWG	DRAWING	RT	RIGHT
DWL	DWELLING	RTE	ROUTE
E	EASTING	S	SOUTH
EP	EDGE OF PAVEMENT	SAN	SANITARY
EOP	EDGE OF PAVEMENT	SD	STORM DRAIN
EA	EACH	SDWK	SIDEWALK
EG	EXISTING GRADE	SMH	SANITARY MANHOLE
ELEV	ELEVATION	SPEC	SPECIFICATION
ESMT	EASEMENT	SQ	SQUARE
EW	END WALL	SS	SANITARY SEWER
EX	EXISTING	ST	STREET
EXIST.	EXISTING	STA	STATION
EXT	EXTERIOR	STD	STANDARD
FC	FACE OF CURB	STL	STEEL
FF	FINISHED FLOOR	STM	STORM
FG	FINISHED GRADE	STY	STORY
FNC	FENCE	SUR	SURVEY
FT	FOOT	SWR	SEWER
GAL	GALLON(S)	TC	TOP OF CURB
GALV	GALVANIZED	TEL	TELEPHONE
GND	GROUND	TEMP	TEMPORARY
GOVT	GOVERNMENT	TMP	TEMPORARY
HDPE	HIGH DENSITY POLYETHYLENE PIPE	TYP.	TYPICAL
HYD	HYDRANT	UE	UNDERGROUND ELECTRIC
ID	INSIDE DIAMETER	UG	UNDERGROUND
IN	INCH	VDOT	VIRGINIA DEPARTMENT OF TRANSPORTATION
INV	INVERT	VERT	VERTICAL
JB	JUNCTION BOX	W/	WITH
L	LENGTH	W/I	WITHIN
L.F.	LINEAR FOOT	W/O	WITHOUT
LT	LEFT	WL	WATERLINE
MAX	MAXIMUM	WWF	WOVEN WIRE FABRIC
MFR	MANUFACTURER	XING	CROSSING
MH	MANHOLE	XFMR	TRANSFORMER
MIN	MINIMUM	Z	ELEVATION
MJ	MECHANICAL JOINT	GV	GATE VALVE
ARV	AIR RELEASE VALVE		

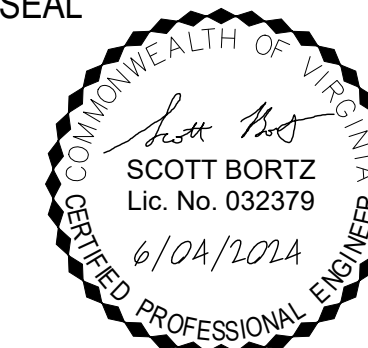
Peed & Bortz, L.L.C.
CIVIL & ENVIRONMENTAL ENGINEERS
20 MIDWAY PLAZA DRIVE - SUITE 100
CHRISTIANSBURG, VIRGINIA 24073
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BARRETT MILL WATER IMPROVEMENTS

WYTHE COUNTY

VIRGINIA

SEAL



DRAWN BY:
J. MCCLURE

REVIEW BY:
S.BORTZ

DATE:
5/08/2024

REVISION:
6/04/2024

SHEET DESCRIPTION:
LEGENDS & NOTES

G02

NOTES:

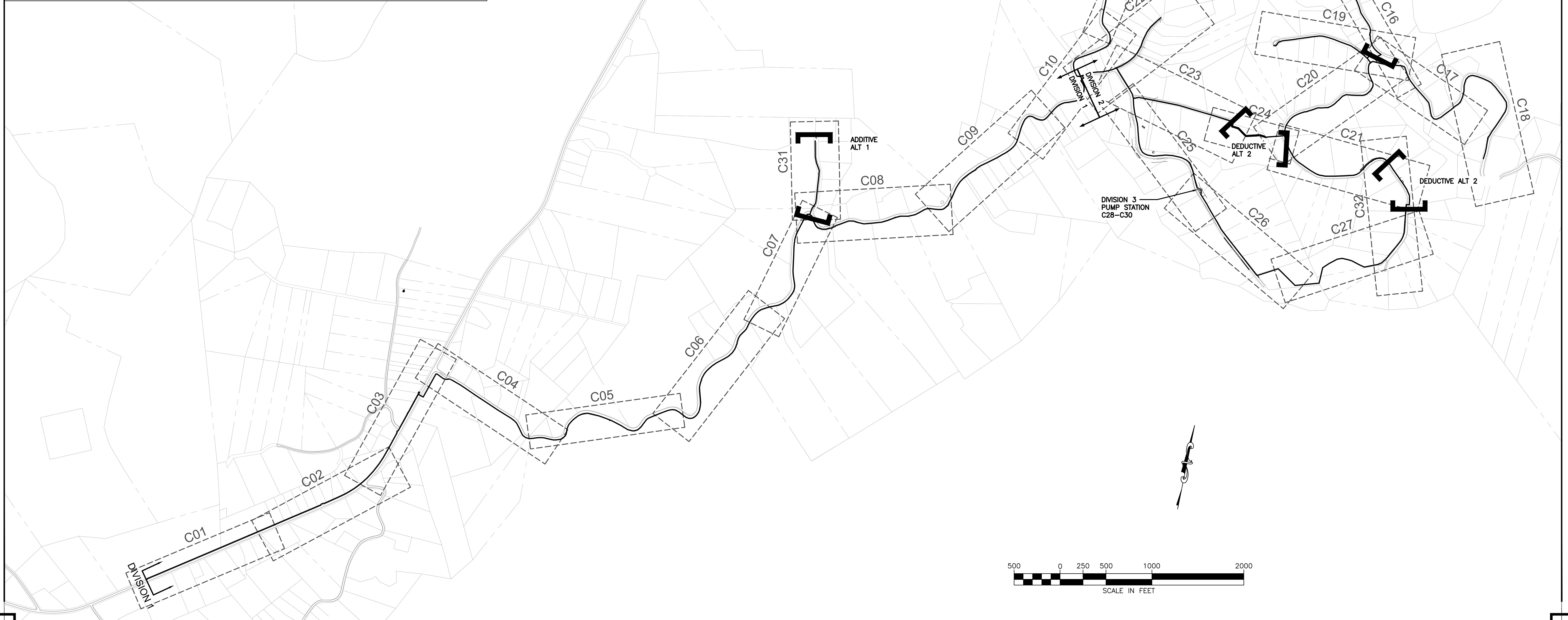
- 1. CONTRACT WILL BE AWARDED IN 3 DIVISIONS.
- 2. THE FOLLOWING ALTERNATES ARE CONSIDERED:

*ADD ALT 1 - ADDITIONAL WATERLINE ON SHEET C31. PART OF DIVISION 1

*DEDUCTIVE ALT 1 - REMOVAL OF WATERLINE AS SHOWN ON SHEET C15 AND C16. PART OF DIVISION 2.

*DEDUCTIVE ALT 2 - REMOVAL OF WATERLINE ON C24, ADDITIONAL WATERLINE AND PRV RELOCATED ON SHEET C32, PART OF DIVISION 2.

- 3. DEDUCTIVE ALTERNATES ARE CUMULATIVE. DEDUCTIVE 2 WILL NOT BE SELECTED WITHOUT DEDUCTIVE 1.



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BARRETT MILL WATER IMPROVEMENTS

WYTHE COUNTY

VIRGINIA

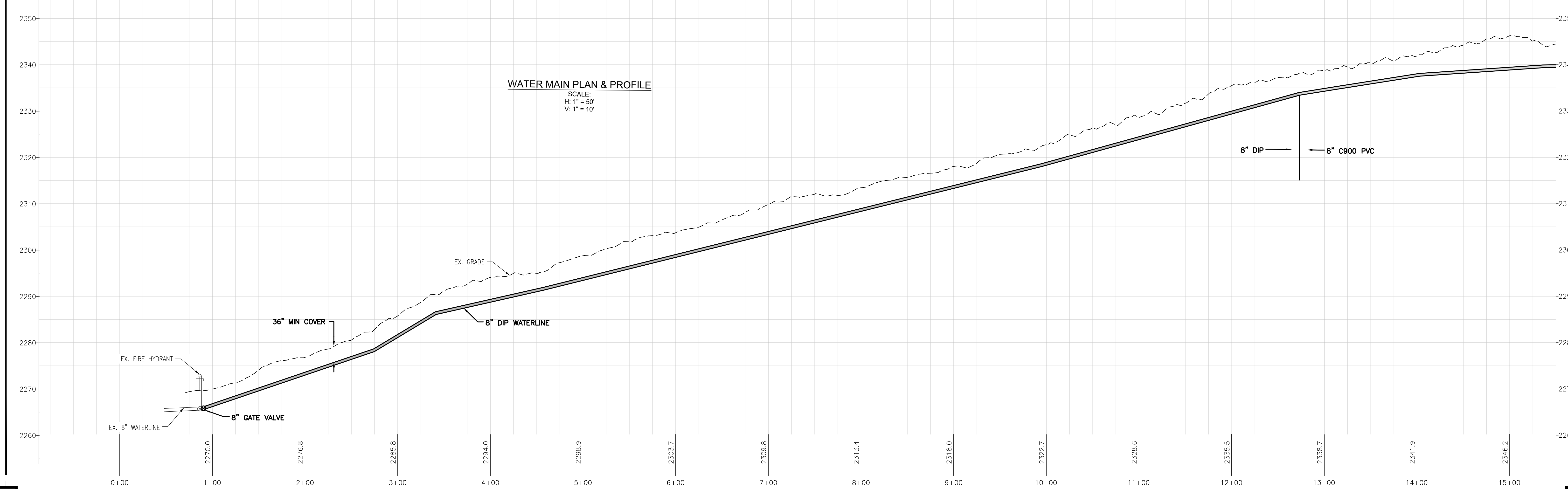
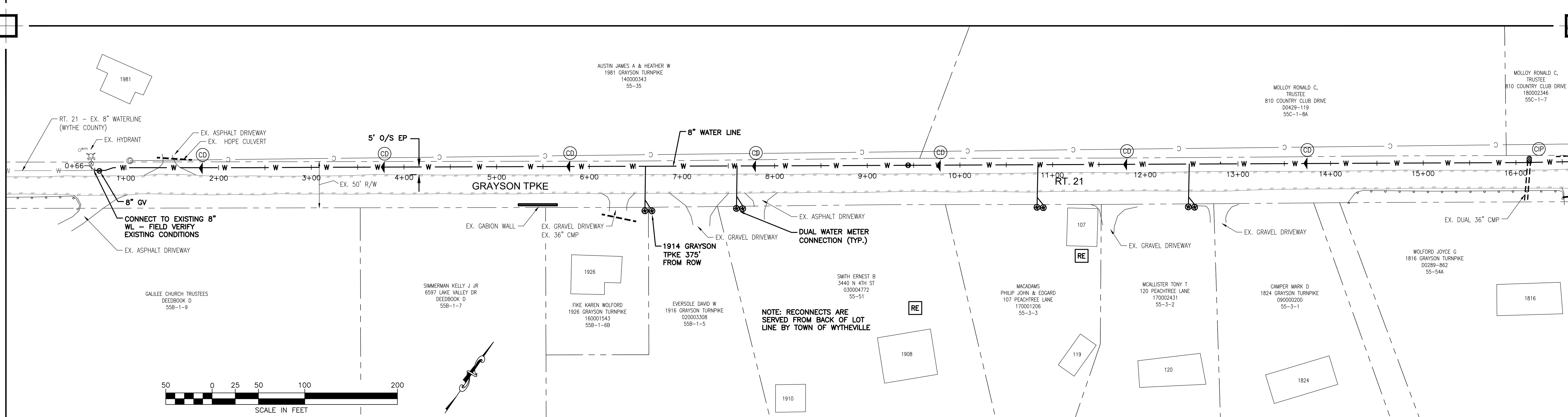
SEAL



DRAWN BY:
J. MCCLURE
REVIEW BY:
S.BORTZ
DATE:
5/08/2024
REVISION:
6/04/2024

SHEET DESCRIPTION:
WATER MAIN KEY PLAN

G03



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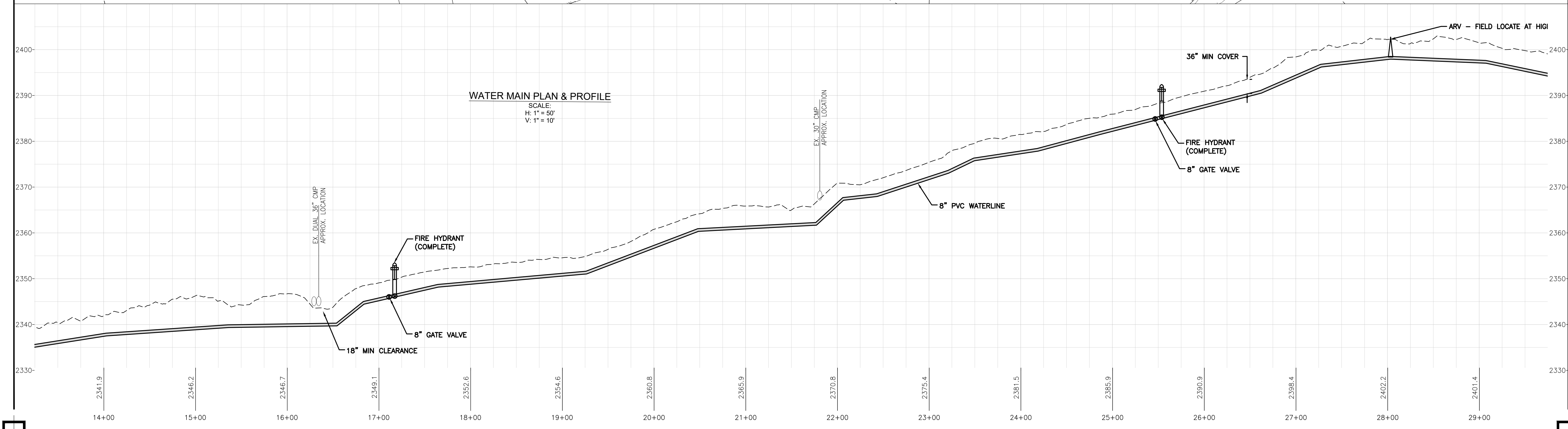
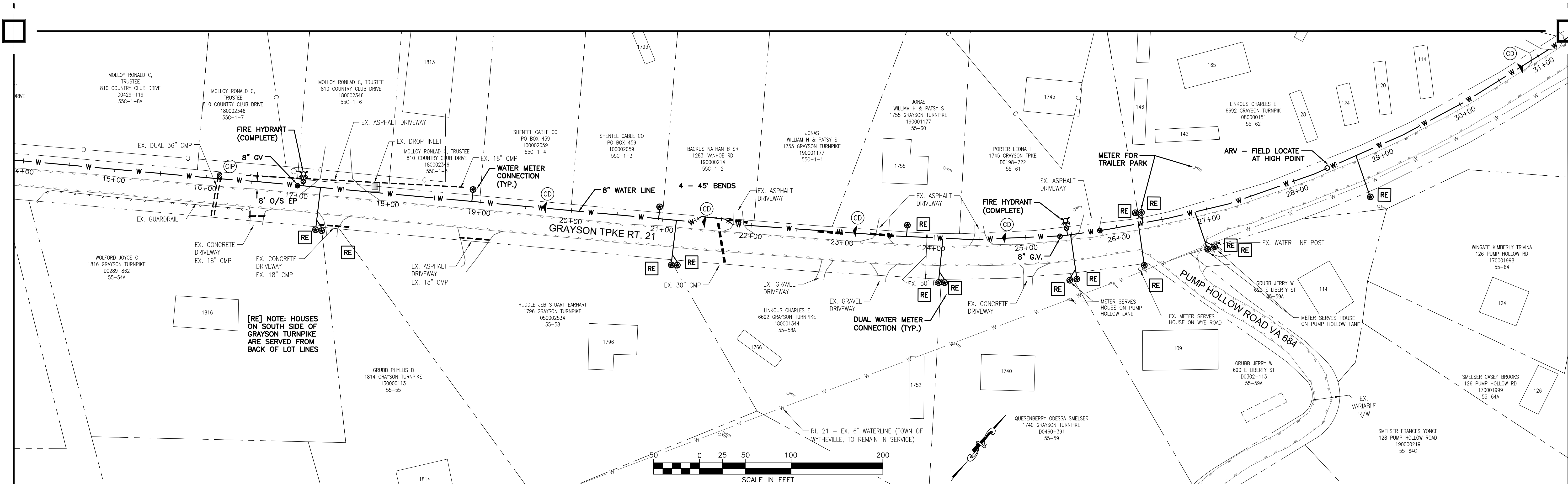
BARRETT MILL WATER IMPROVEMENTS
 WYTHE COUNTY VIRGINIA



DRAWN BY: J. MCCLURE
 REVIEW BY: S. BORTZ
 DATE: 5/08/2024
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SHEET DESCRIPTION:
 RT. 21 GRAYSON TURNPIKE

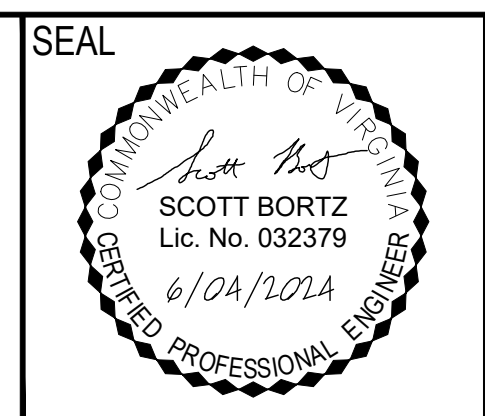
C01



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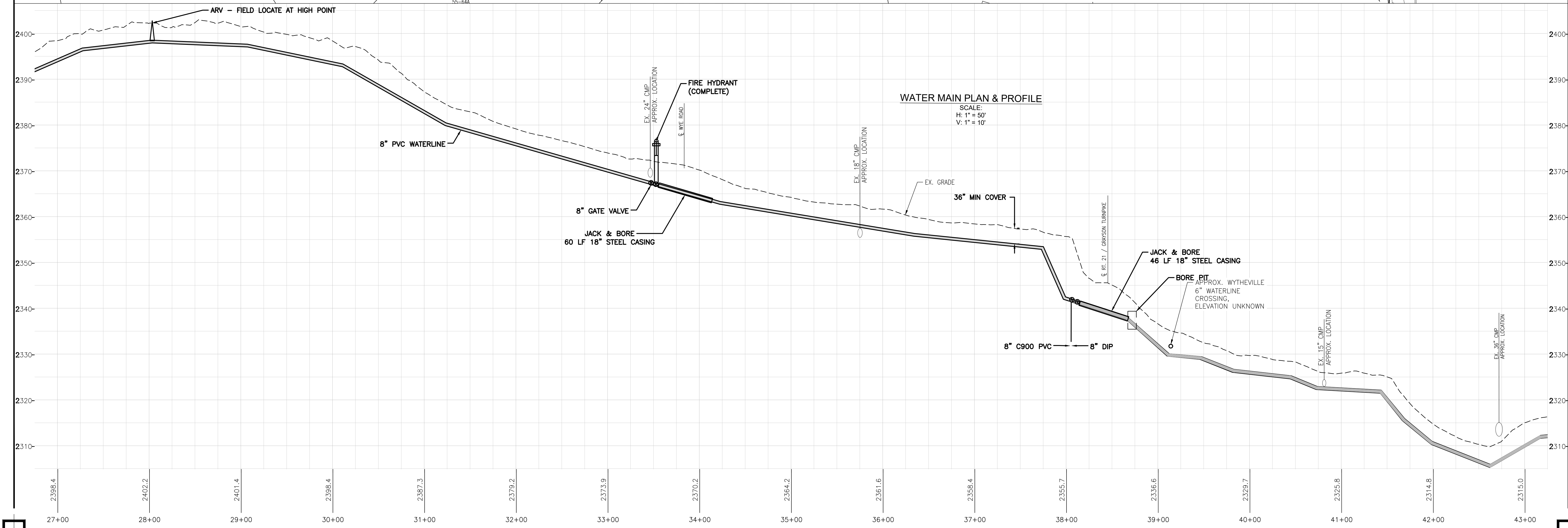
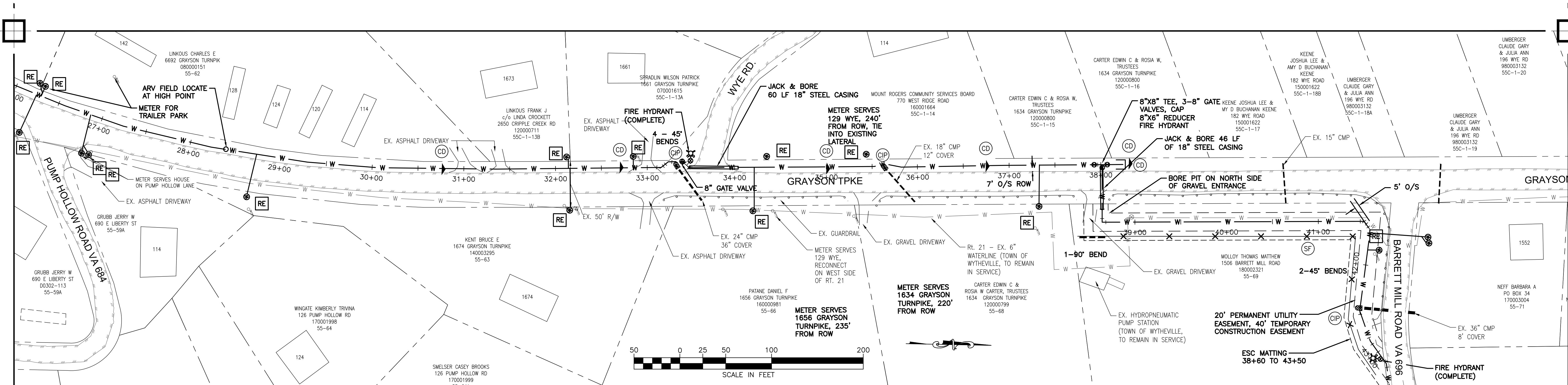
WYTHE COUNTY VIRGINIA



DRAWN BY:
J. MCCLURE
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S. BORTZ
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RT. 21 GRAYSON TURNPIKE

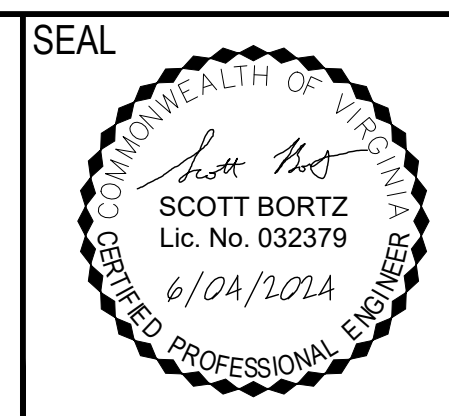
C02



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BARRETT MILL WATER IMPROVEMENTS

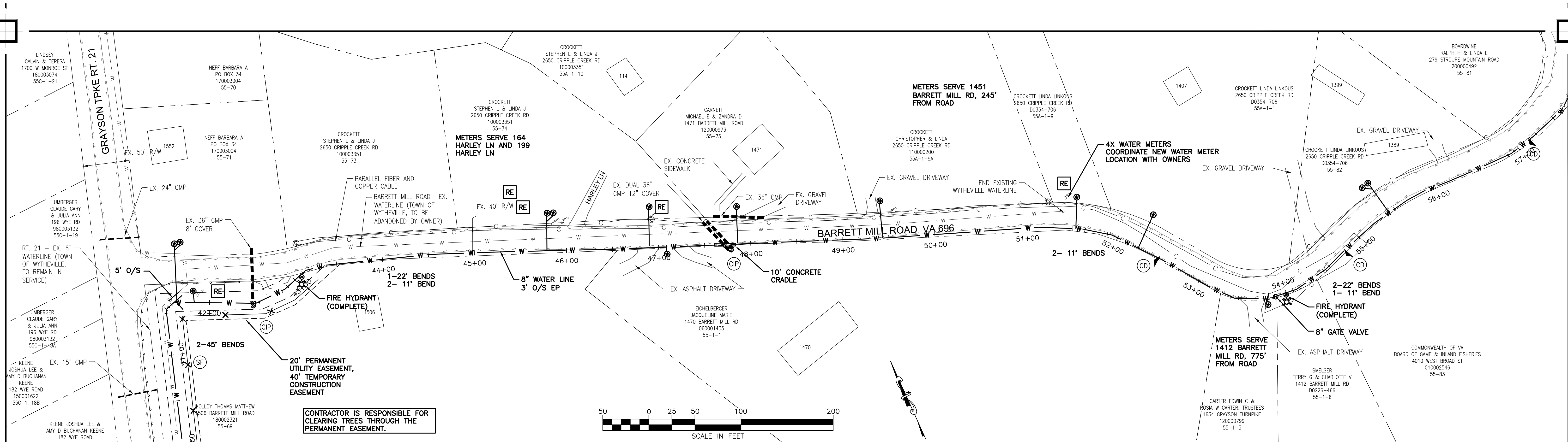
WYTHE COUNTY VIRGINIA



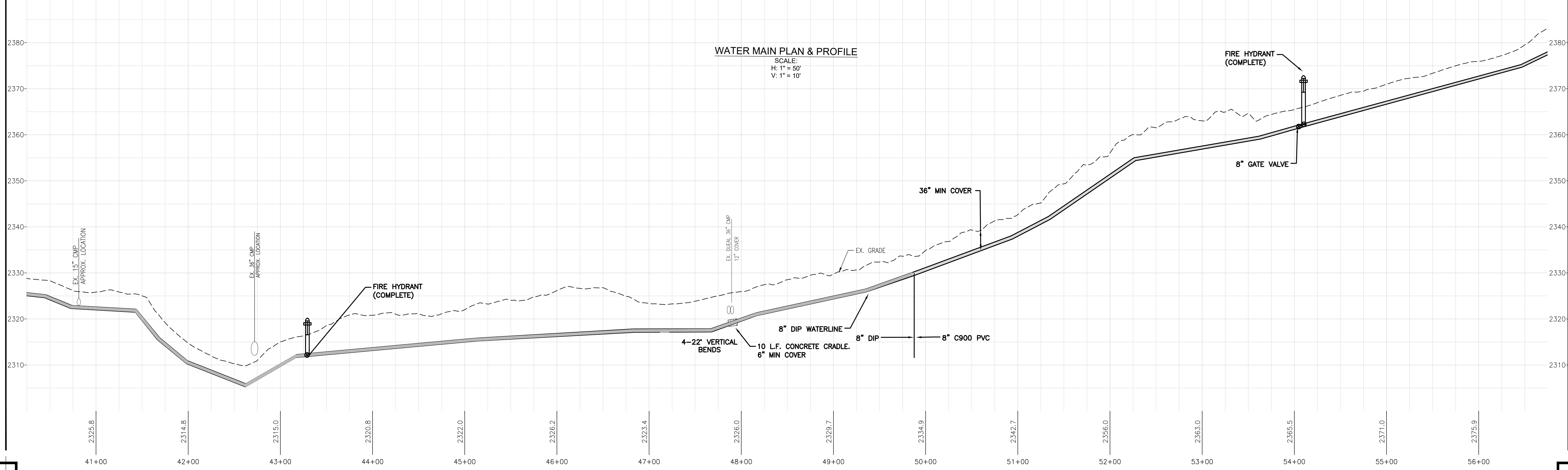
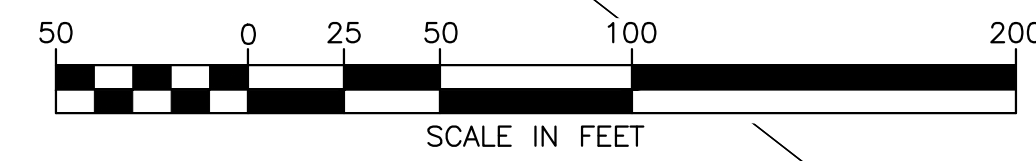
DRAWN BY:
J. MCCLURE
 REVIEW BY:
S. BORTZ
 DATE:
5/08/2024
 REVISION:
6/04/2024

SHEET DESCRIPTION:
RT. 21 GRAYSON TURNPIKE

C03



CONTRACTOR IS RESPONSIBLE FOR CLEARING TREES THROUGH THE PERMANENT EASEMENT.



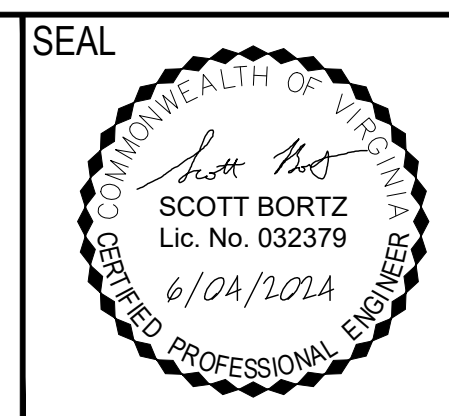
WATER MAIN PLAN & PROFILE
SCALE:
H: 1" = 50'
V: 1" = 10'

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WYTHE COUNTY

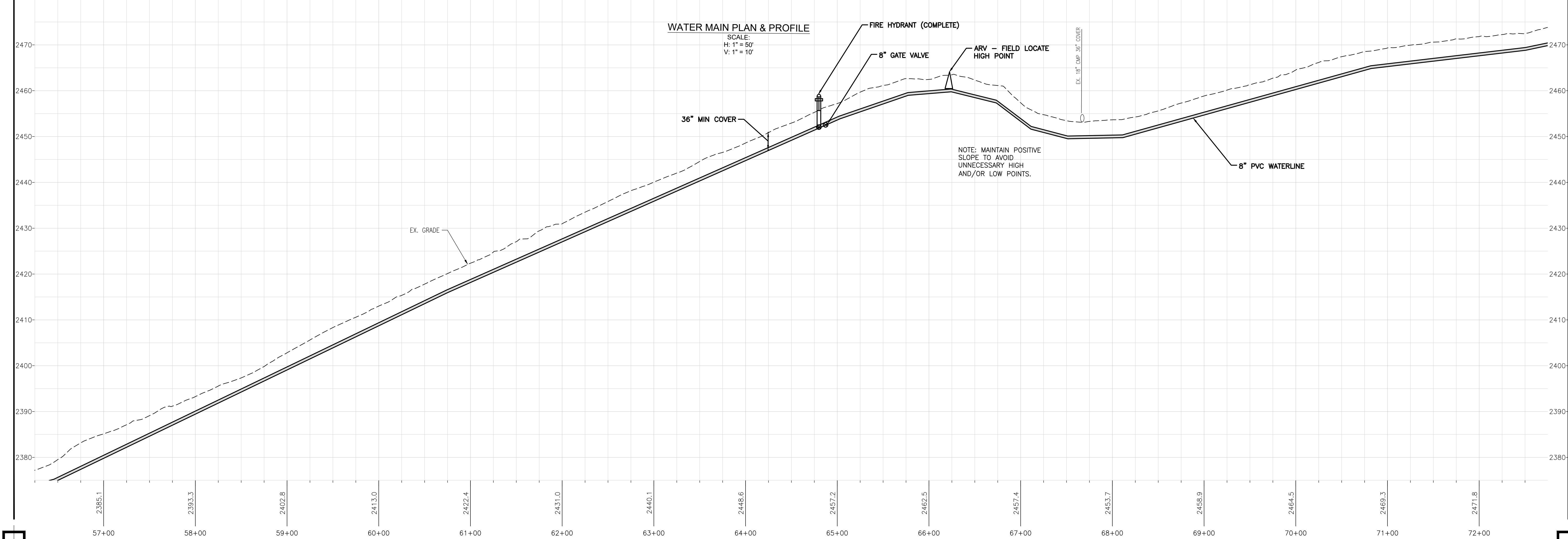
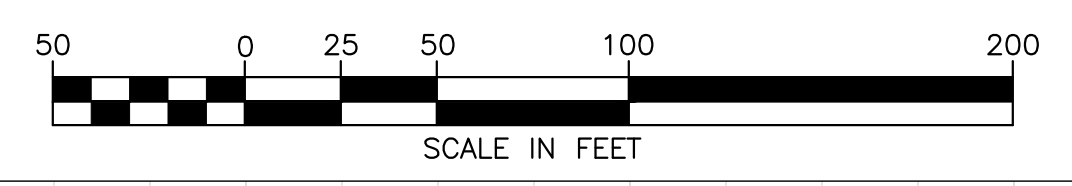
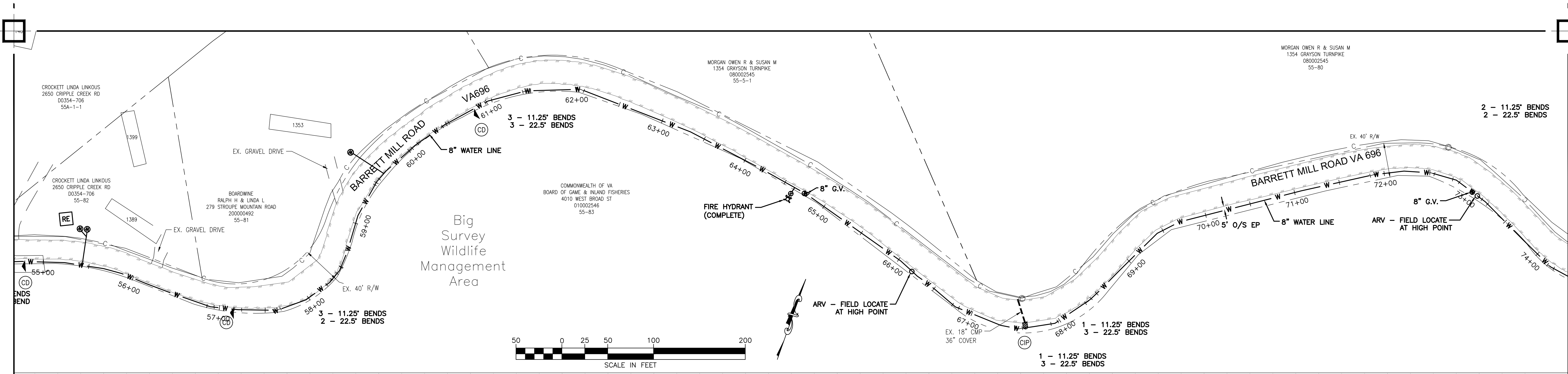
VIRGINIA



DRAWN BY:
J. MCCLURE
REVIEW BY:
S. BORTZ
DATE:
5/08/2024
REVISION:
6/04/2024

SHEET DESCRIPTION:
BARRETT MILL ROAD

C04



WATER MAIN PLAN & PROFILE
 SCALE:
 H: 1" = 50'
 V: 1" = 10'

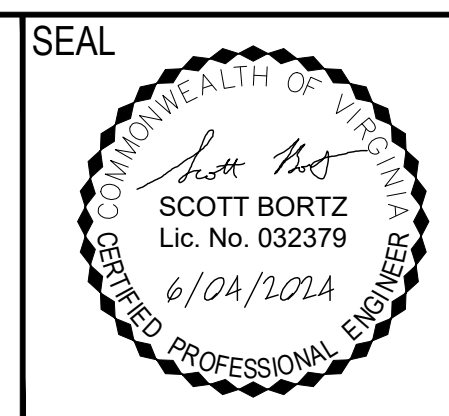
NOTE: MAINTAIN POSITIVE SLOPE TO AVOID UNNECESSARY HIGH AND/OR LOW POINTS.

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BARRETT MILL WATER IMPROVEMENTS

WYTHE COUNTY

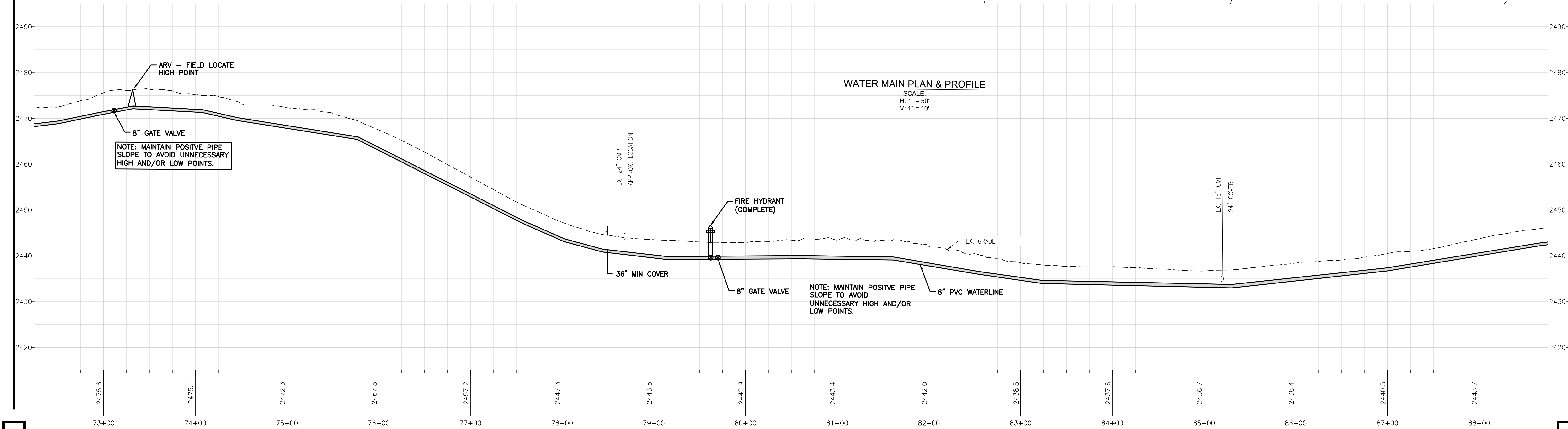
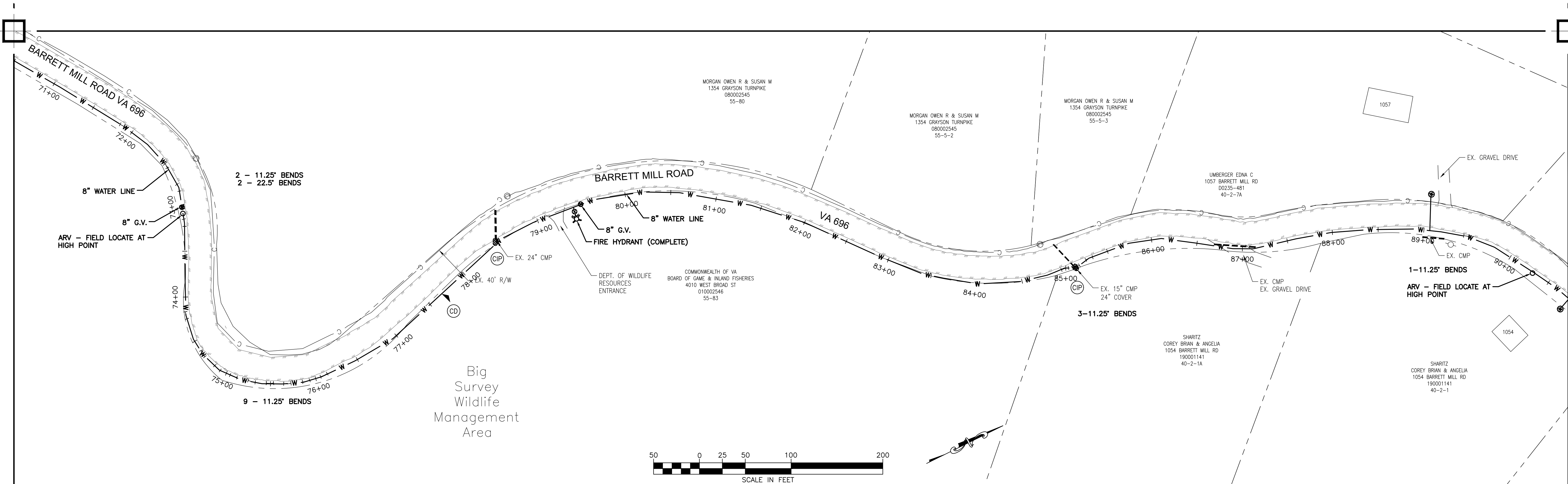
VIRGINIA



DRAWN BY:
 J. MCCLURE
 REVIEW BY:
 S. BORTZ
 DATE:
 5/08/2024
 REVISION:
 6/04/2024

SHEET DESCRIPTION:
 BARRETT MILL ROAD

C05

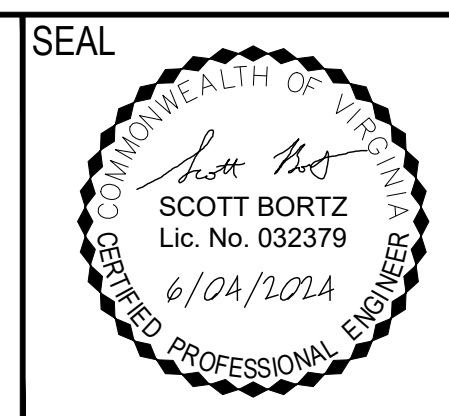


Peed & Bortz, L.L.C.
 CIVIL & ENVIRONMENTAL ENGINEERS
 20 MIDWAY PLAZA DRIVE - SUITE 100
 CHRISTIANSBURG, VIRGINIA 24073
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BARRETT MILL WATER IMPROVEMENTS

WYTHE COUNTY

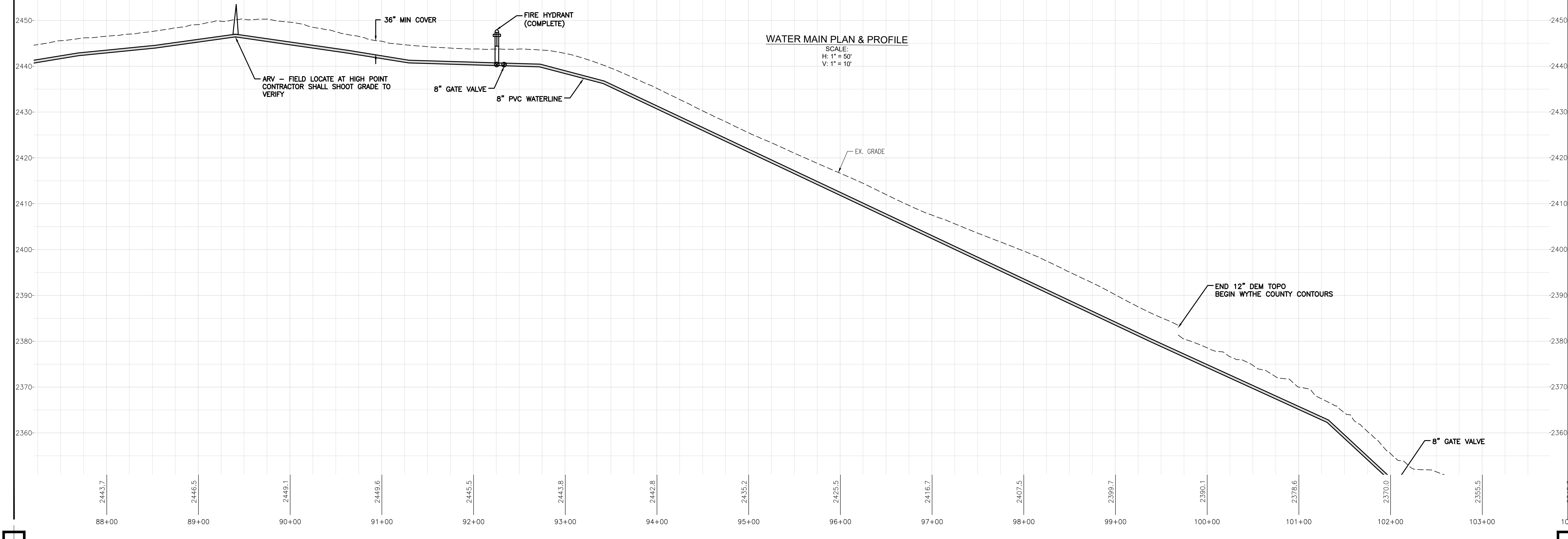
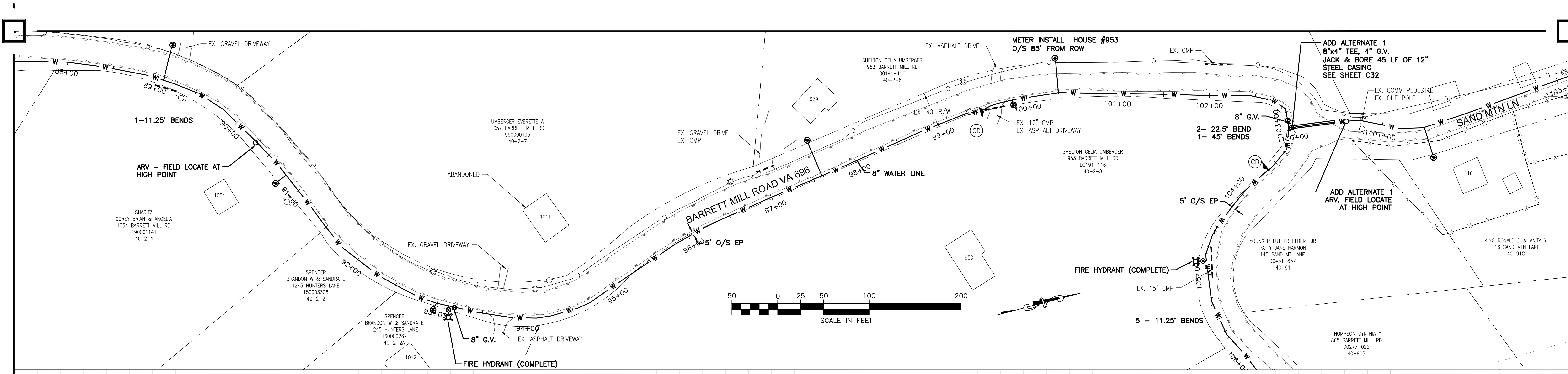
VIRGINIA



DRAWN BY:
J. MCCLURE
 REVIEW BY:
S. BORTZ
 DATE:
5/08/2024
 REVISION:
6/04/2024

SHEET DESCRIPTION:
BARRETT MILL ROAD

C06

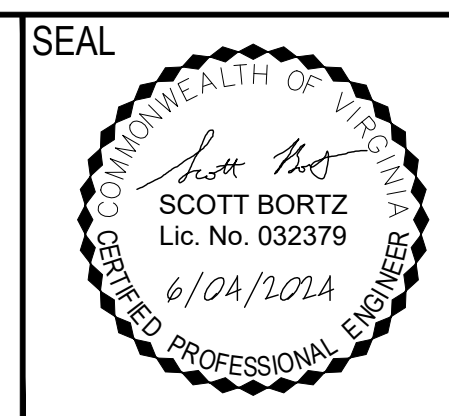


Peed & Bortz, L.L.C.
 CIVIL & ENVIRONMENTAL ENGINEERS
 20 MIDWAY PLAZA DRIVE - SUITE 100
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BARRETT MILL WATER IMPROVEMENTS

WYTHE COUNTY

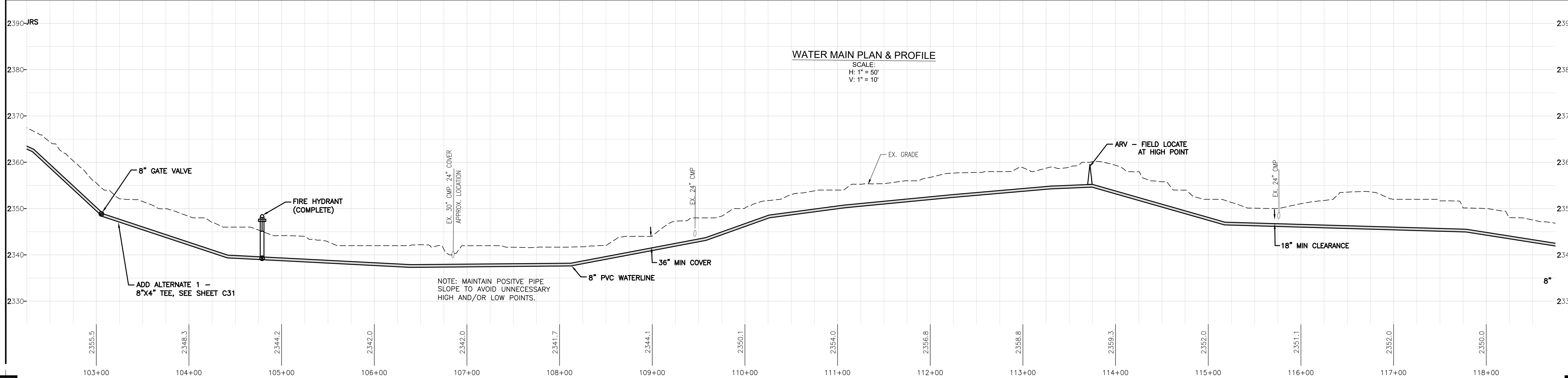
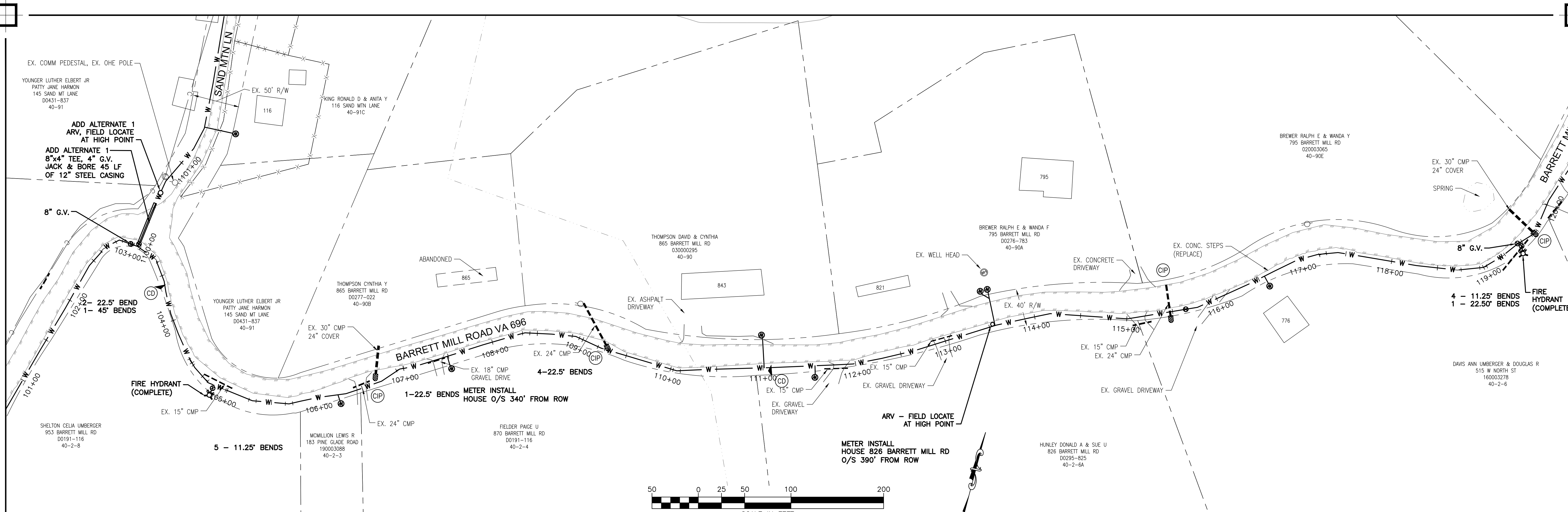
VIRGINIA



DRAWN BY:
J. MCCLURE
 REVIEW BY:
S. BORTZ
 DATE:
5/08/2024
 REVISION:
6/04/2024

SHEET DESCRIPTION:
BARRETT MILL ROAD

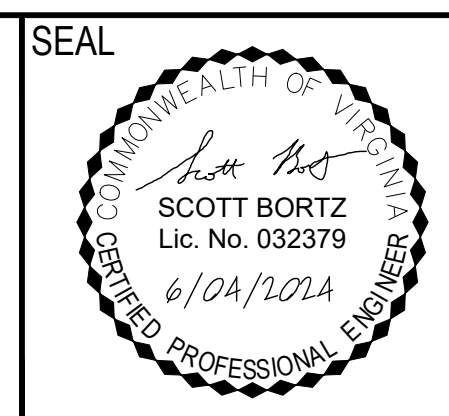
C07



Peed & Bortz, L.L.C.
 CIVIL & ENVIRONMENTAL ENGINEERS
 20 MIDWAY PLAZA DRIVE - SUITE 100
 CHRISTIANBURG, VIRGINIA 24073
 PHONE: (540) 394 - 3214 FAX: (540) 394 - 3215

BARRETT MILL WATER IMPROVEMENTS

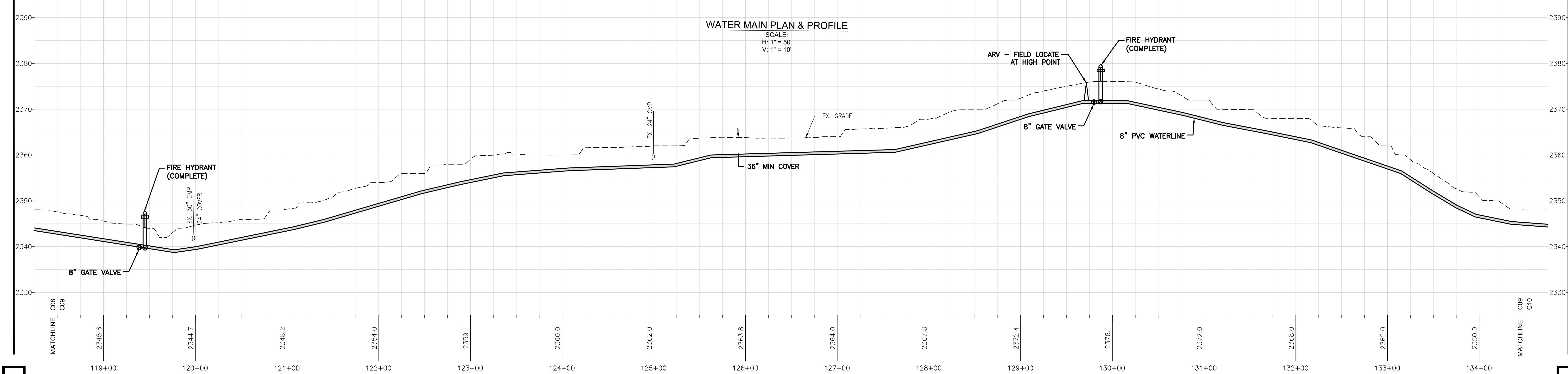
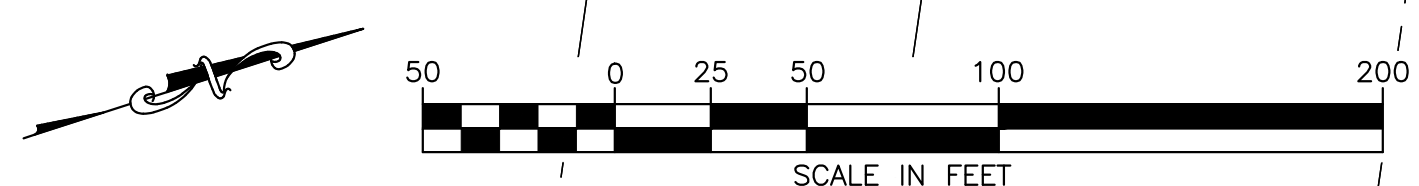
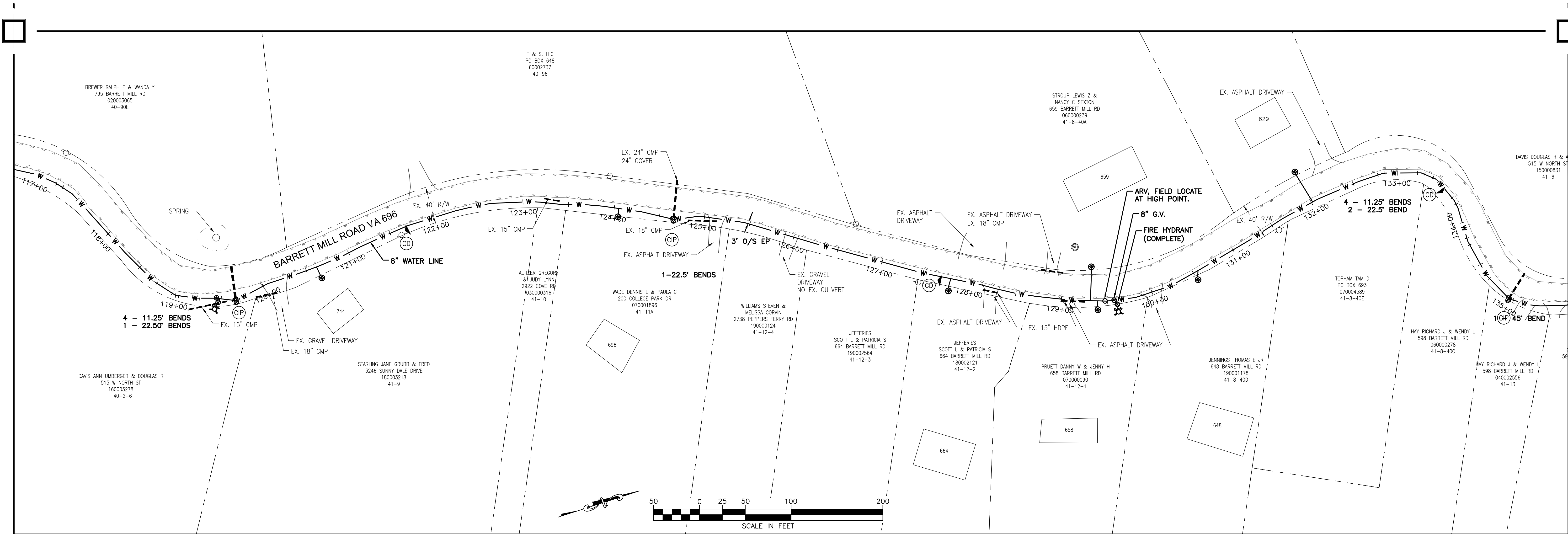
WYTHE COUNTY VIRGINIA



DRAWN BY:
J. MCCLURE
 REVIEW BY:
S. BORTZ
 DATE:
5/08/2024
 REVISION:
6/04/2024

SHEET DESCRIPTION:
BARRETT MILL ROAD

C08

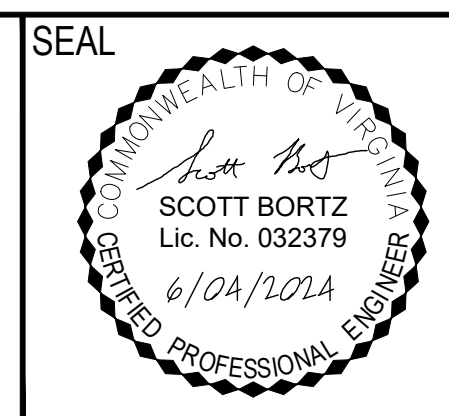


Peed & Bortz, L.L.C.
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BARRETT MILL WATER IMPROVEMENTS

WYTHE COUNTY

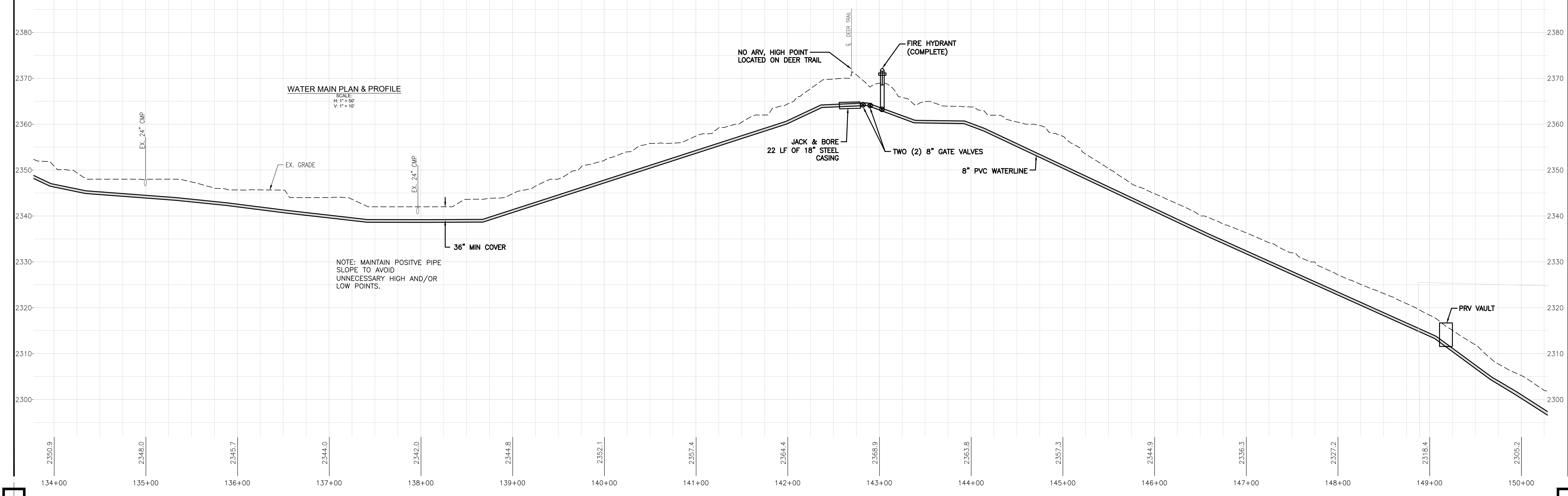
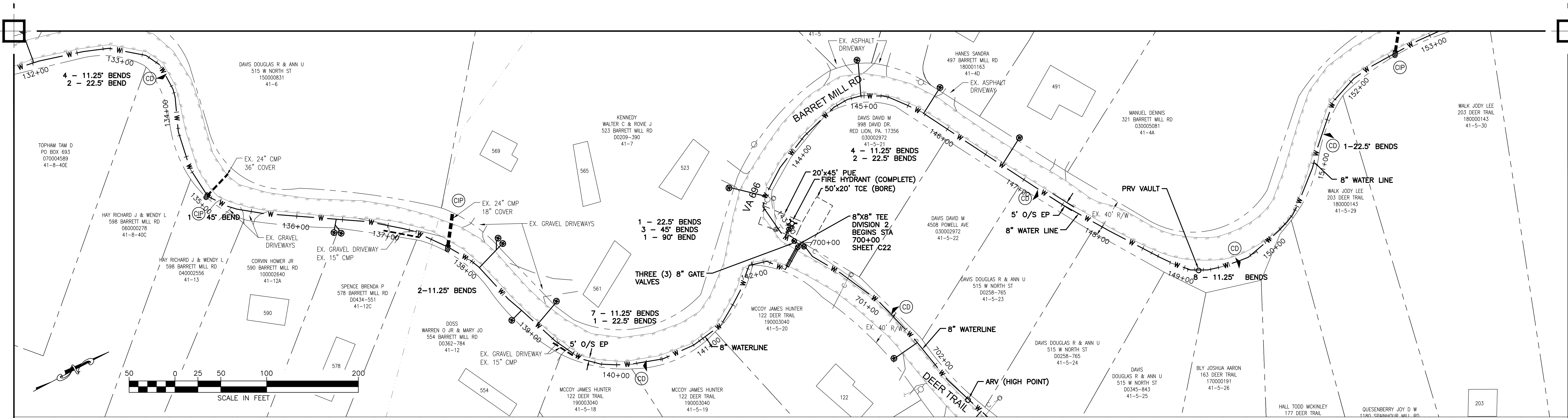
VIRGINIA



DRAWN BY:
J. MCCLURE
 REVIEW BY:
S. BORTZ
 DATE:
5/08/2024
 REVISION:
6/04/2024

SHEET DESCRIPTION:
BARRETT MILL ROAD

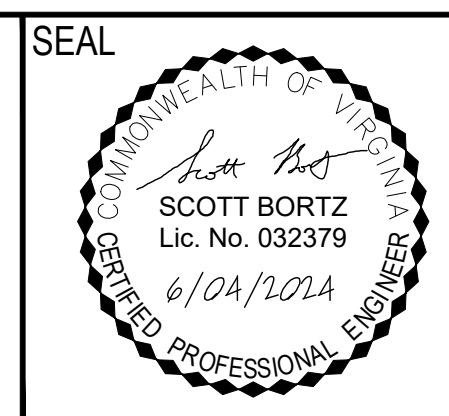
C09



Peed & Bortz, L.L.C.
 CIVIL & ENVIRONMENTAL ENGINEERS
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BARRETT MILL WATER IMPROVEMENTS

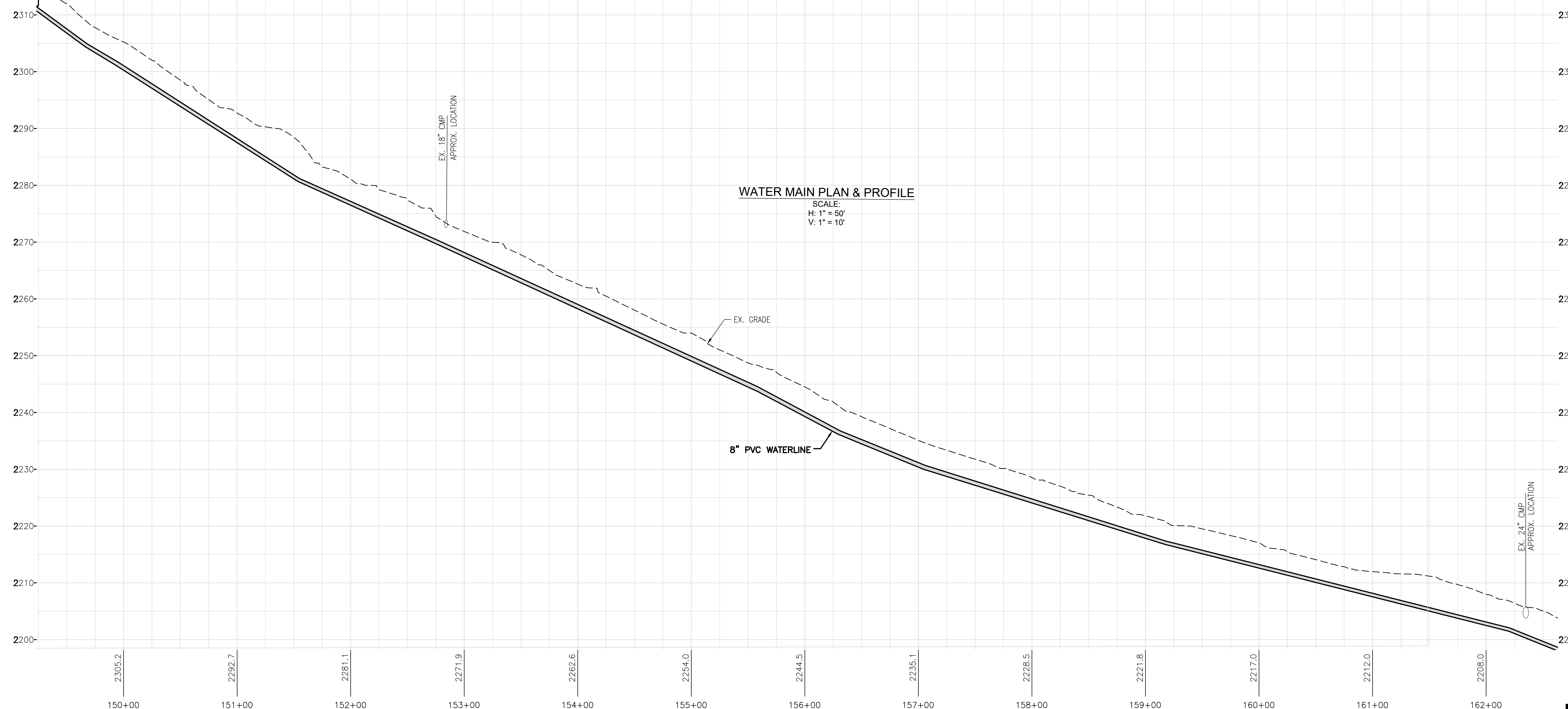
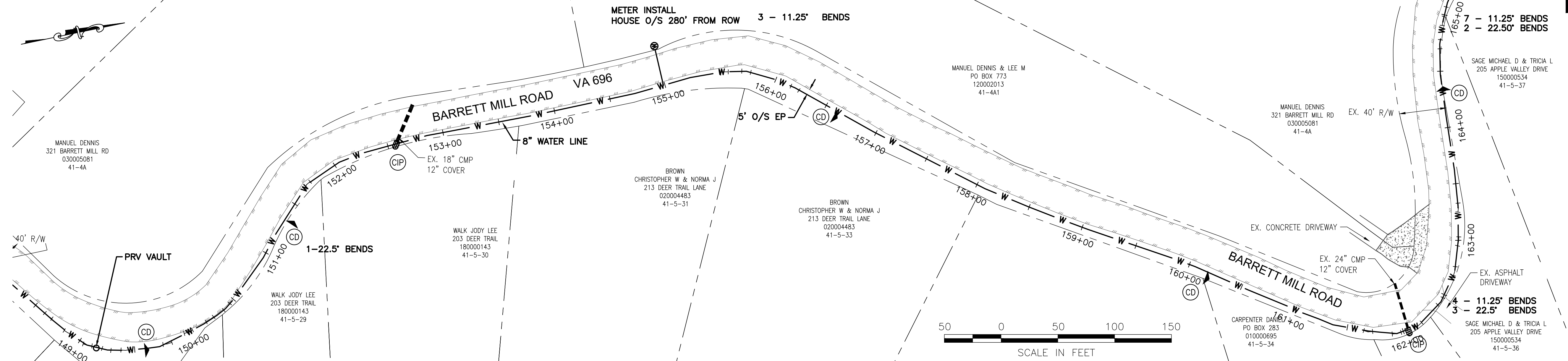
WYTHE COUNTY VIRGINIA



DRAWN BY:
J. MCCLURE
 REVIEW BY:
S.BORTZ
 DATE:
5/08/2024
 REVISION:
6/04/2024

SHEET DESCRIPTION:
BARRETT MILL ROAD

C10

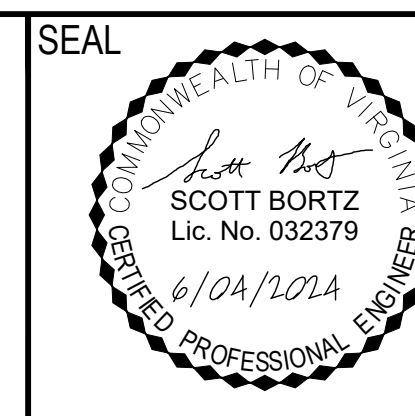


Peed & Bortz, L.L.C.
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BARRETT MILL WATER IMPROVEMENTS

WYTHE COUNTY

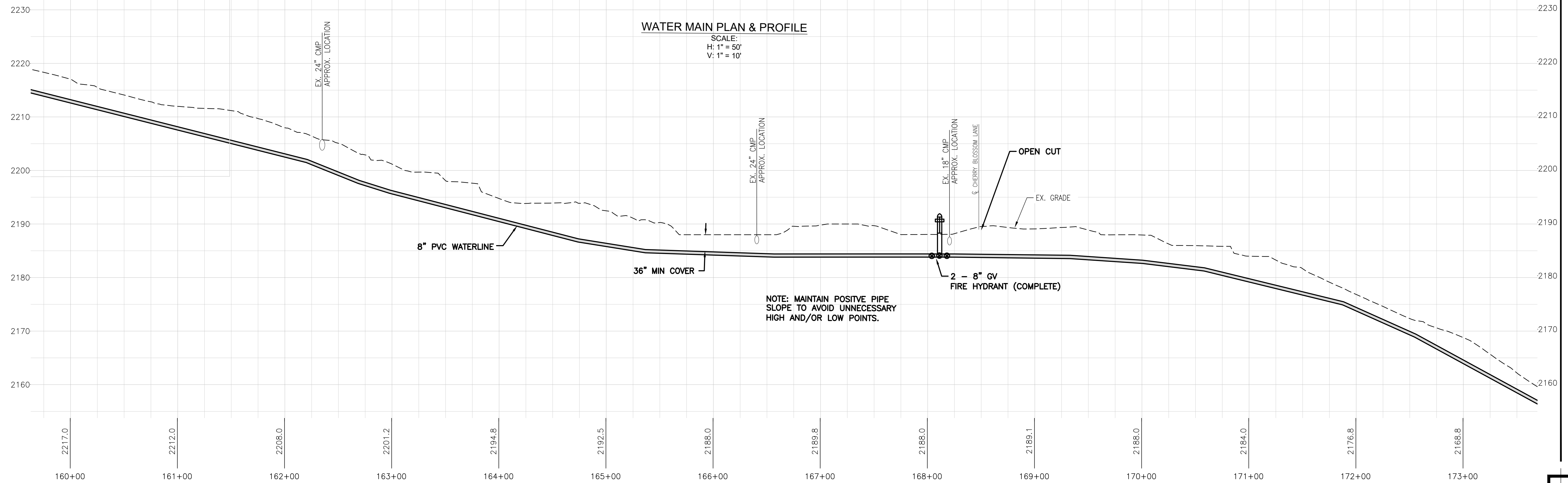
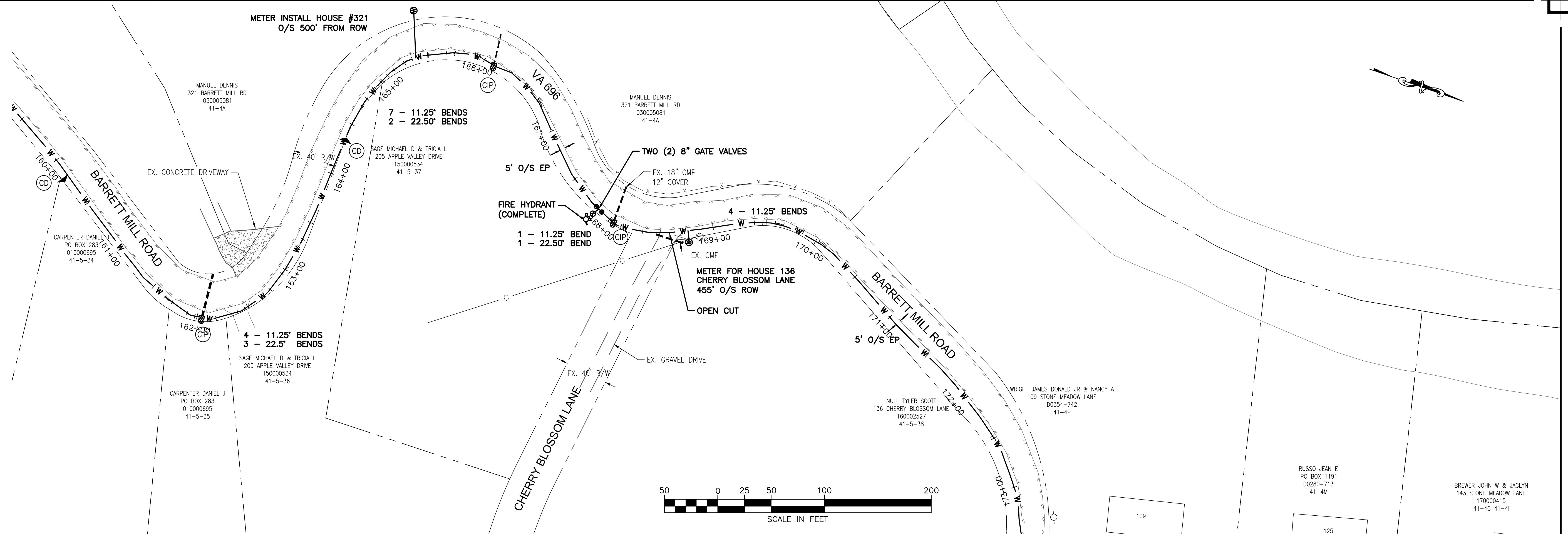
VIRGINIA



DRAWN BY:
J. MCCLURE
 REVIEW BY:
S. BORTZ
 DATE:
5/08/2024
 REVISION:
6/04/2024

SHEET DESCRIPTION:
BARRETT MILL ROAD

C11

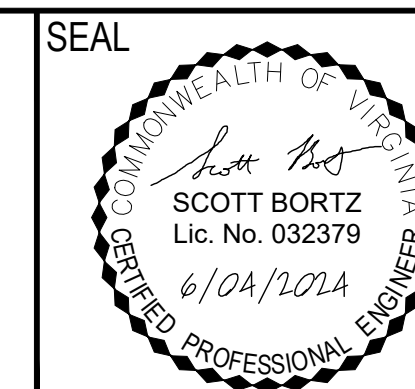


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BARRETT MILL WATER IMPROVEMENTS

WYTHE COUNTY

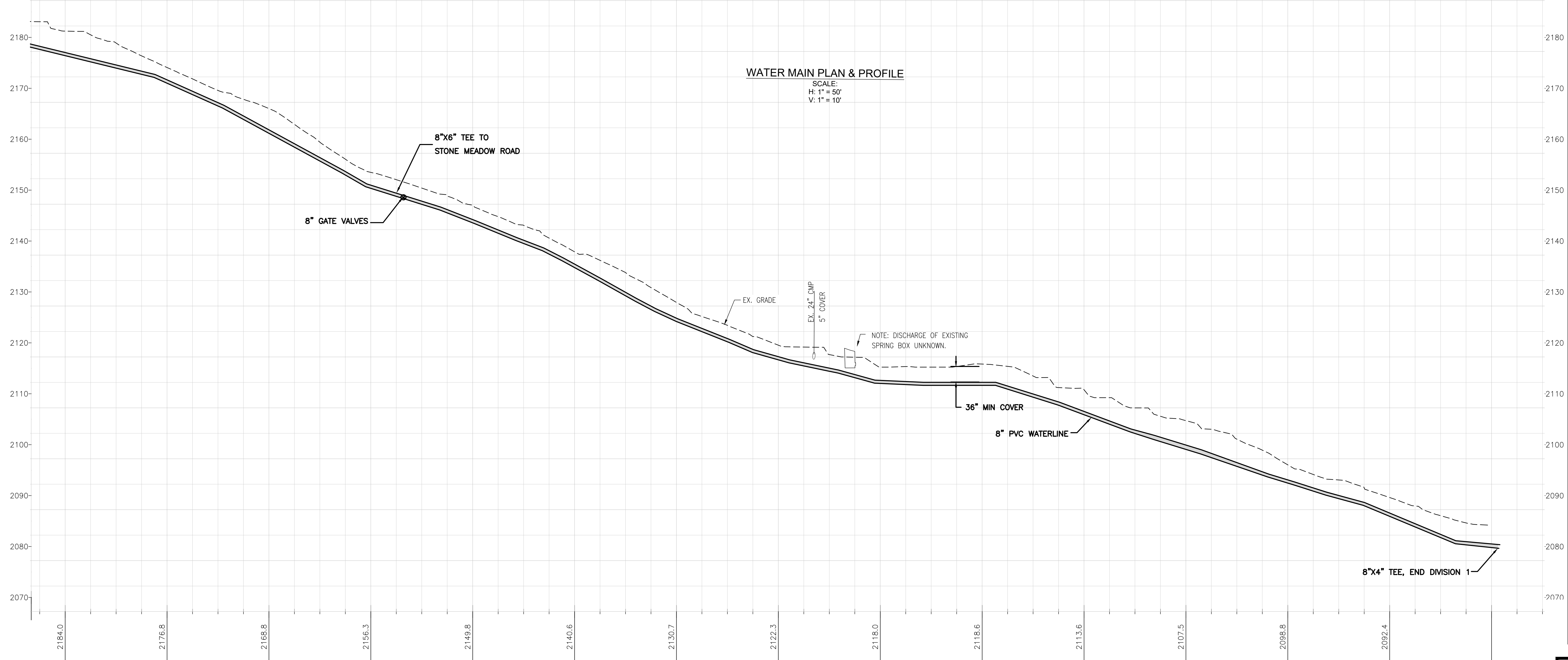
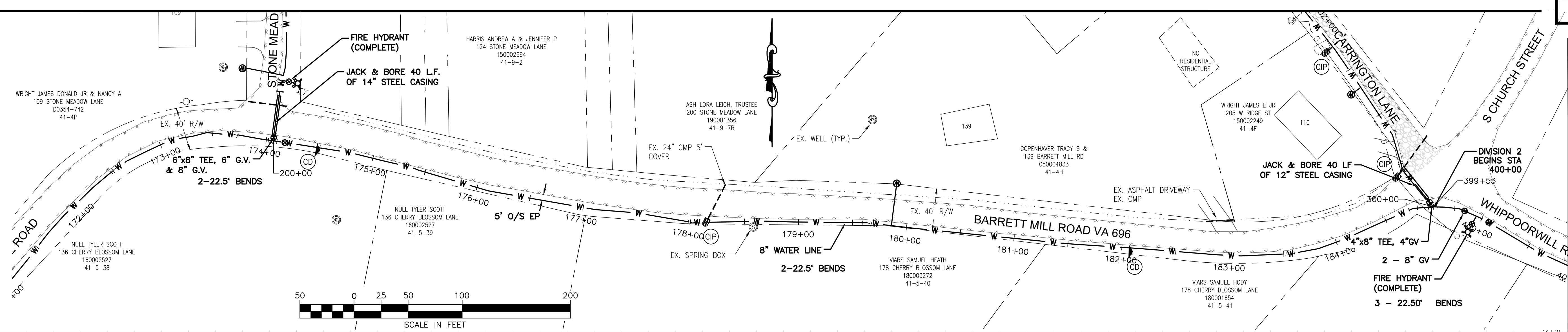
VIRGINIA



DRAWN BY:
J. MCCLURE
REVIEW BY:
S. BORTZ
DATE:
5/08/2024
REVISION:
6/04/2024

SHEET DESCRIPTION:
BARRETT MILL ROAD

C12



Peed & Bortz, L.L.C.
 CIVIL & ENVIRONMENTAL ENGINEERS
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 CHRISTIANSBURG, VIRGINIA 24073
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BARRETT MILL WATER IMPROVEMENTS

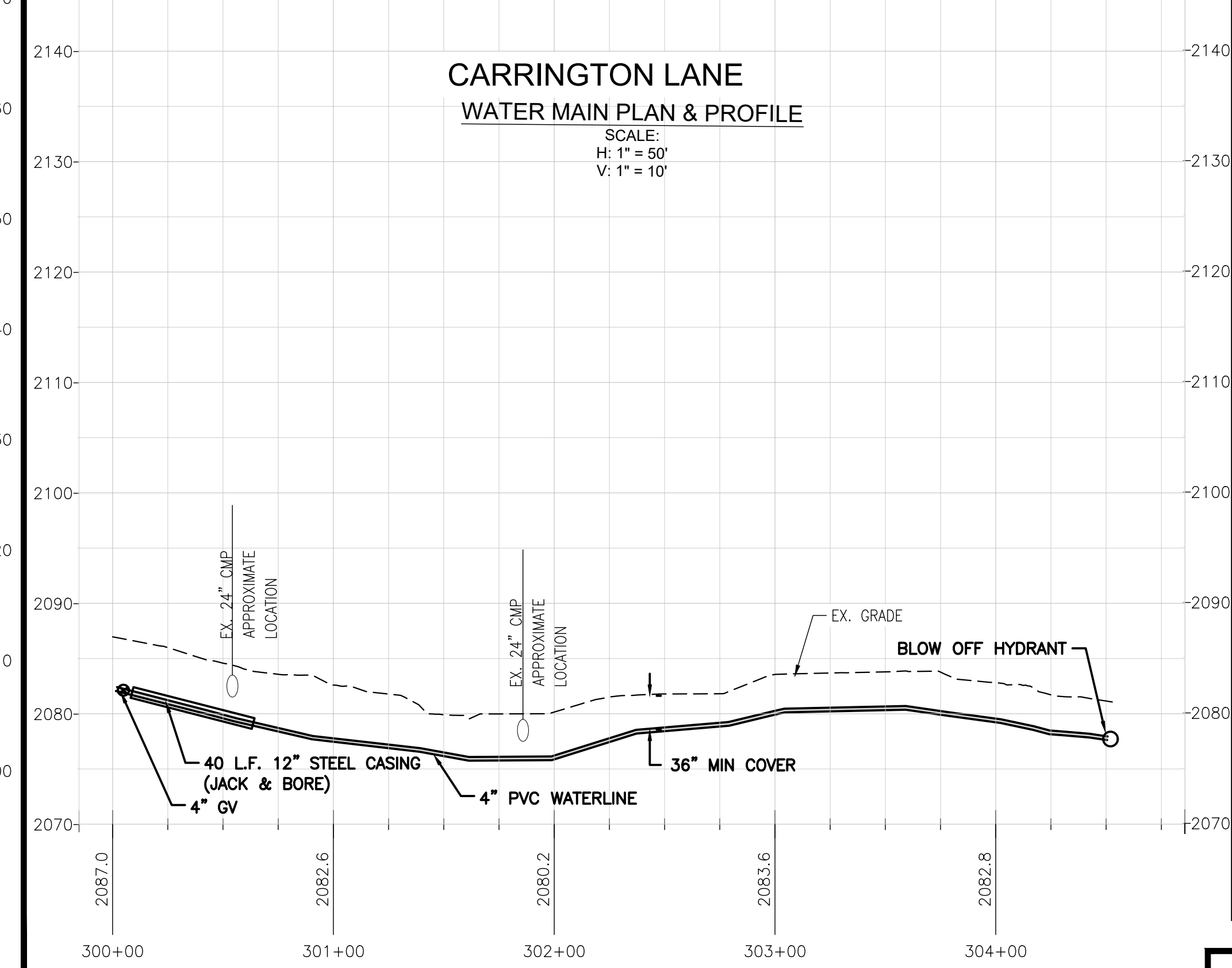
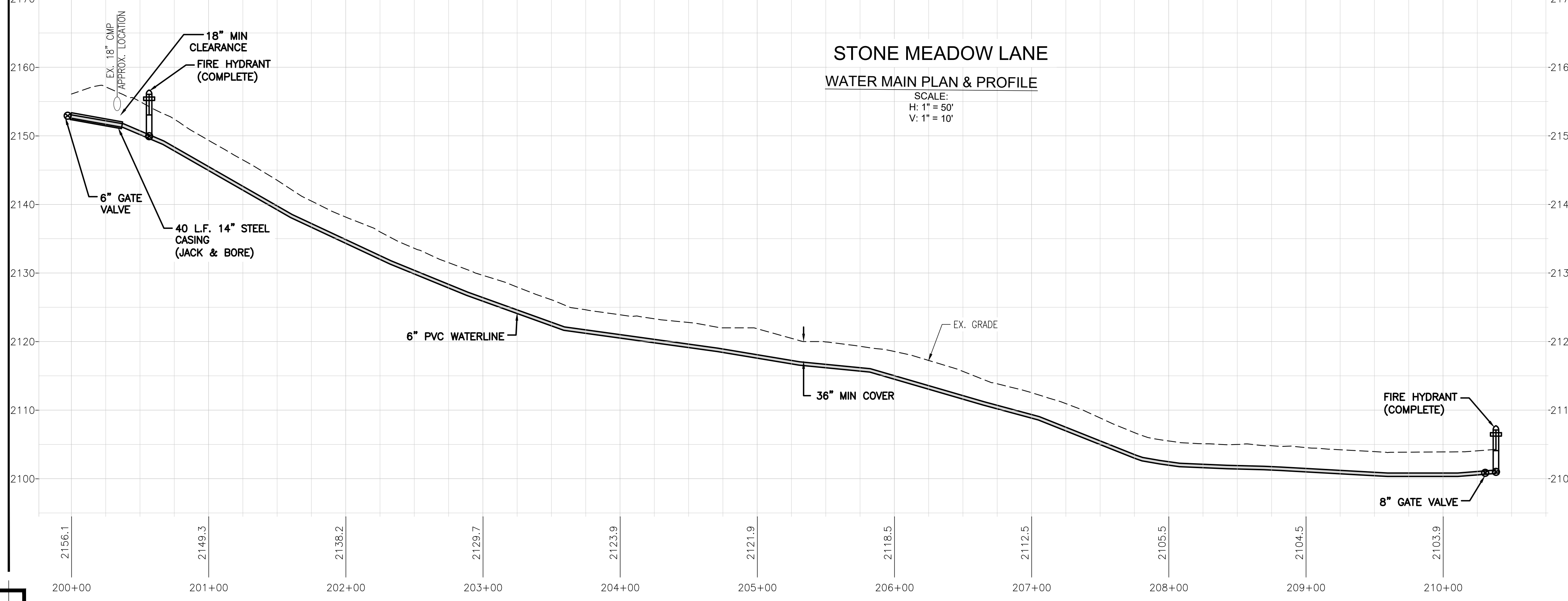
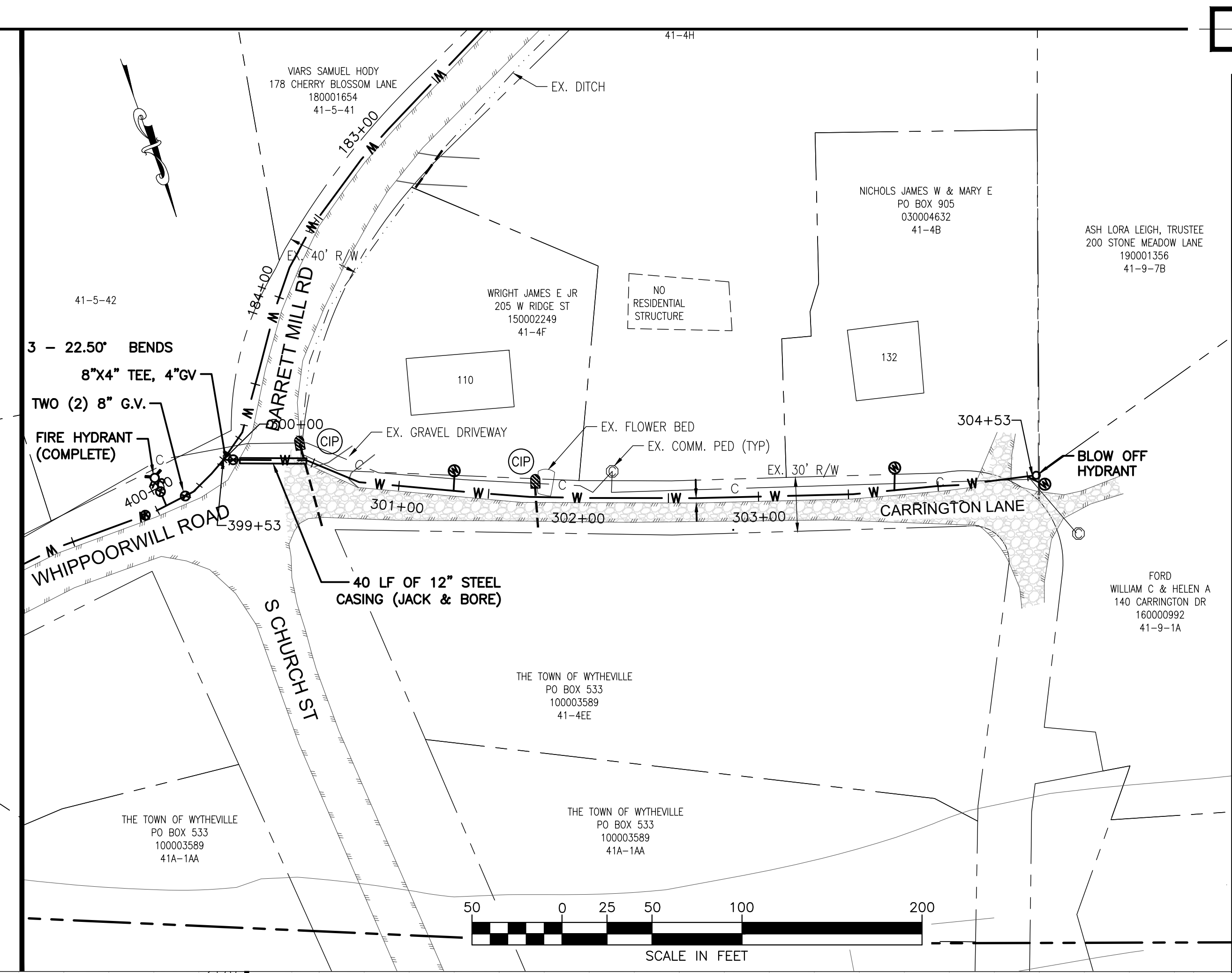
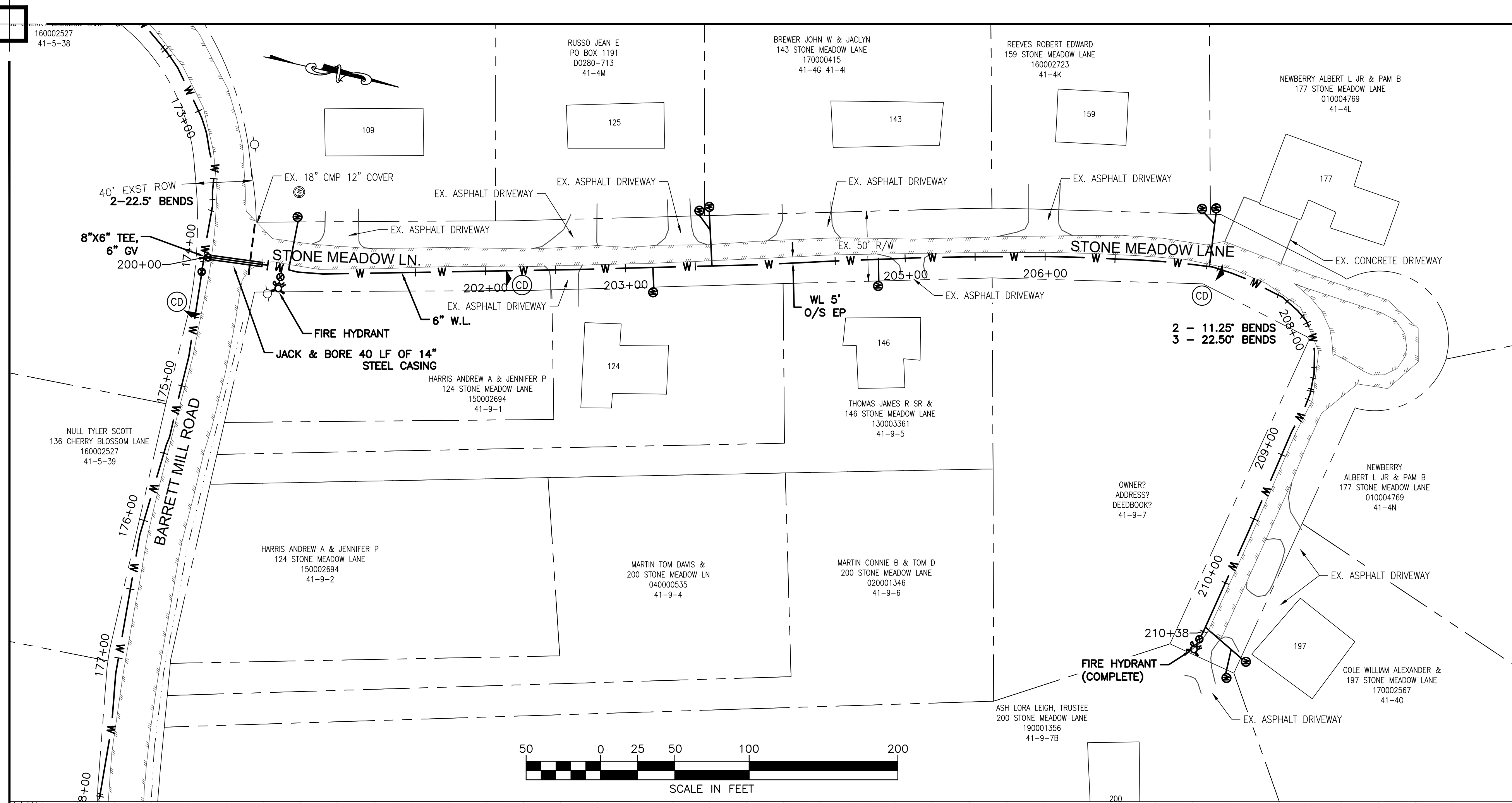
WYTHE COUNTY VIRGINIA



DRAWN BY:
J. MCCLURE
 REVIEW BY:
S. BORTZ
 DATE:
5/08/2024
 REVISION:
6/04/2024

SHEET DESCRIPTION:
BARRETT MILL ROAD

C13

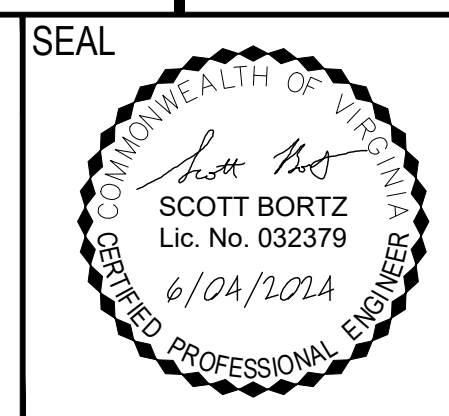


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BARRETT MILL WATER IMPROVEMENTS

WYTHE COUNTY

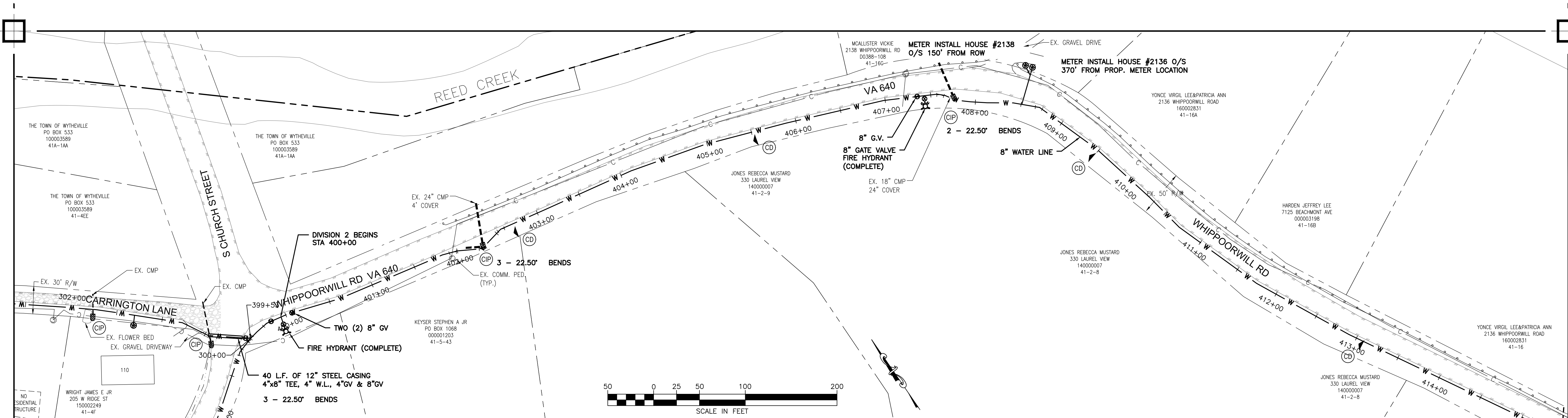
VIRGINIA



SEAL
 DRAWN BY:
 J. MCCLURE
 REVIEW BY:
 S. BORTZ
 DATE:
 5/08/2024
 REVISION:
 6/04/2024

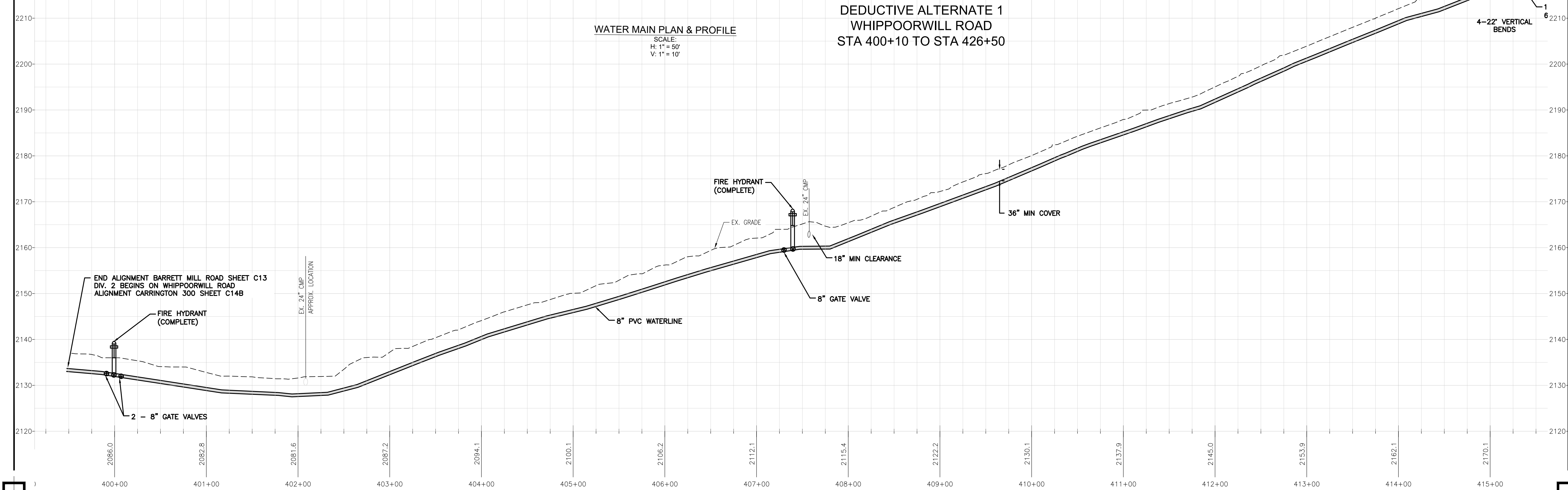
SHEET DESCRIPTION:
 STONE MEADOW LANE, CARRINGTON
 LANE

C14



**DEDUCTIVE ALTERNATE 1
WHIPPOORWILL ROAD
STA 400+10 TO STA 426+50**

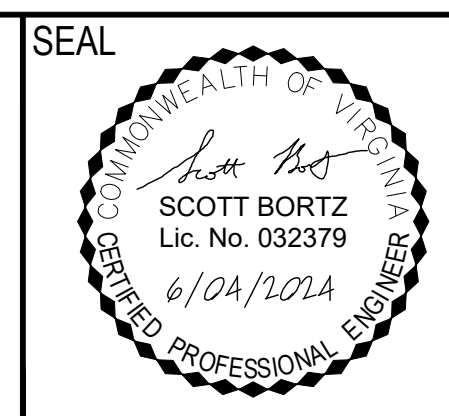
WATER MAIN PLAN & PROFILE
SCALE:
H: 1" = 50'
V: 1" = 10'



Peed & Bortz, L.L.C.
CIVIL & ENVIRONMENTAL ENGINEERS
20 MIDWAY PLAZA DRIVE - SUITE 100
CHRISTIANSBURG, VIRGINIA 24073
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BARRETT MILL WATER IMPROVEMENTS

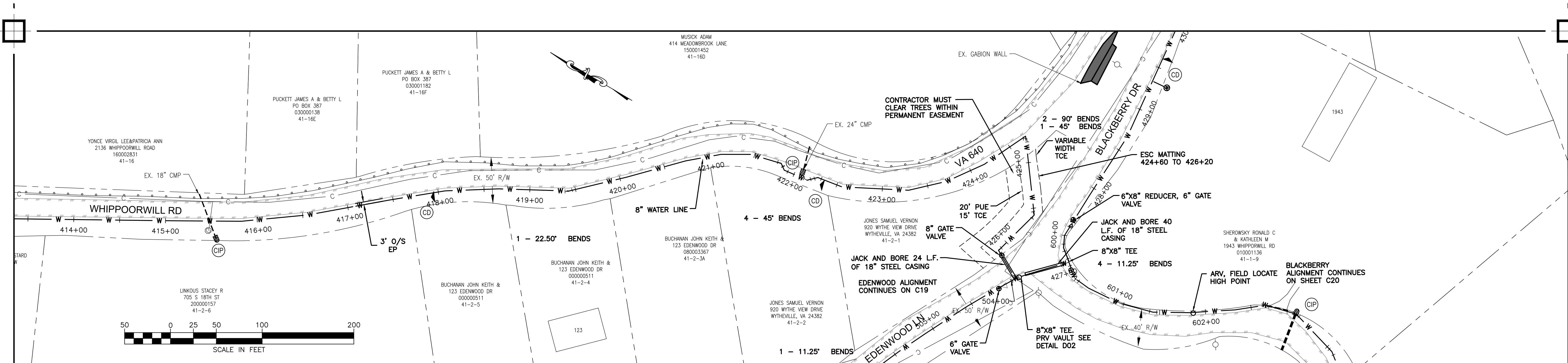
WYTHE COUNTY VIRGINIA



DRAWN BY:
J. MCCLURE
REVIEW BY:
S. BORTZ
DATE:
5/08/2024
REVISION:
6/04/2024

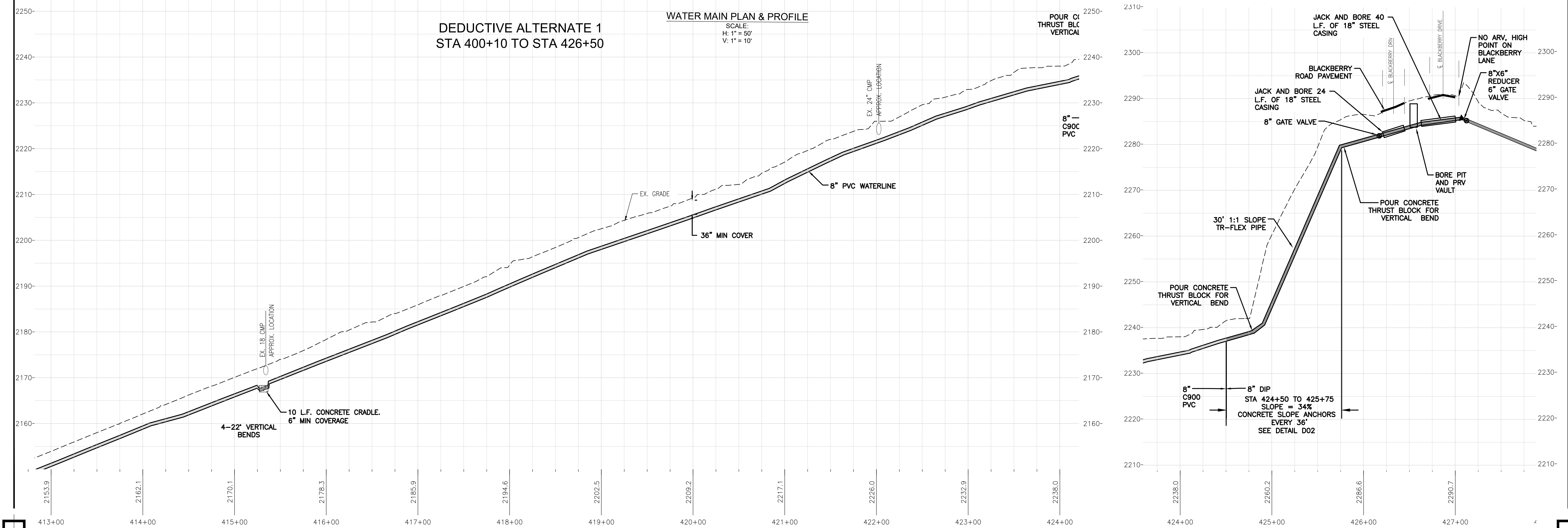
SHEET DESCRIPTION:
WHIPPOORWILL ROAD

C15



**DEDUCTIVE ALTERNATE 1
STA 400+10 TO STA 426+50**

WATER MAIN PLAN & PROFILE
SCALE:
H: 1" = 50'
V: 1" = 10'

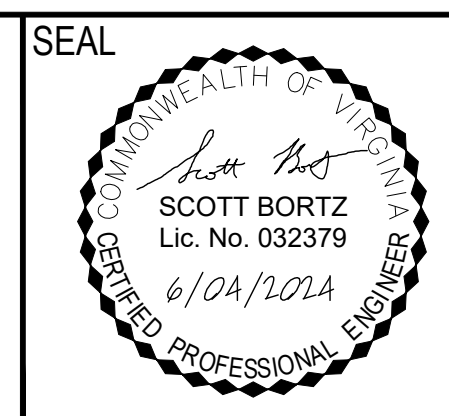


Peed & Bortz, L.L.C.
CIVIL & ENVIRONMENTAL ENGINEERS
20 MIDWAY PLAZA DRIVE - SUITE 100
CHRISTIANSBURG, VIRGINIA 24073
PHONE: (540) 394 - 3214 FAX: (540) 394 - 3215

BARRETT MILL WATER IMPROVEMENTS

WYTHE COUNTY

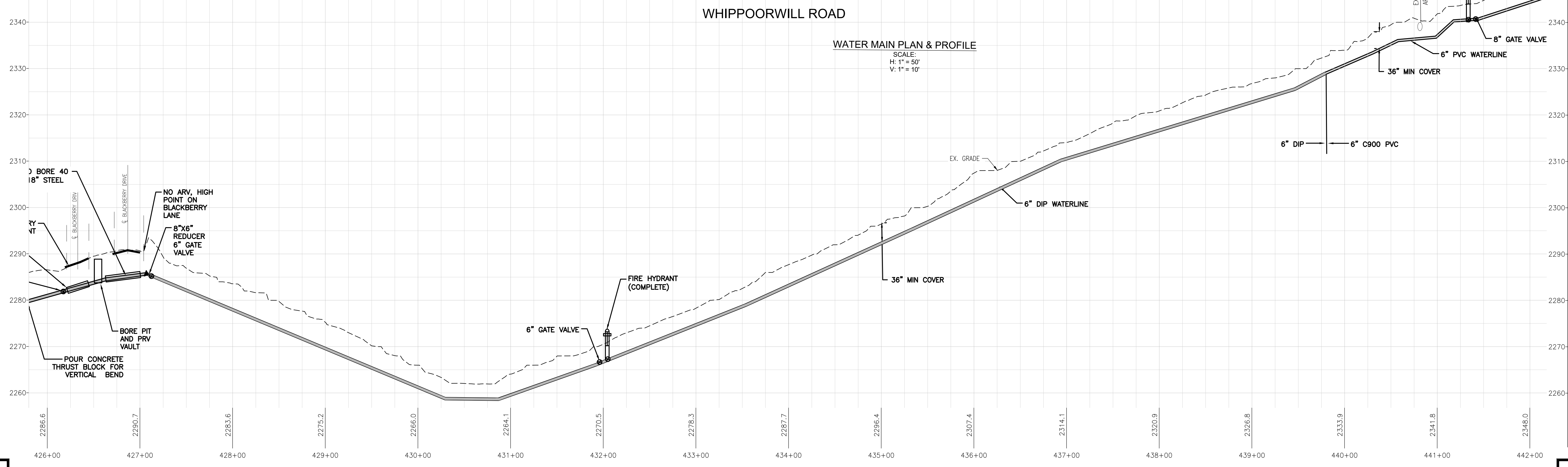
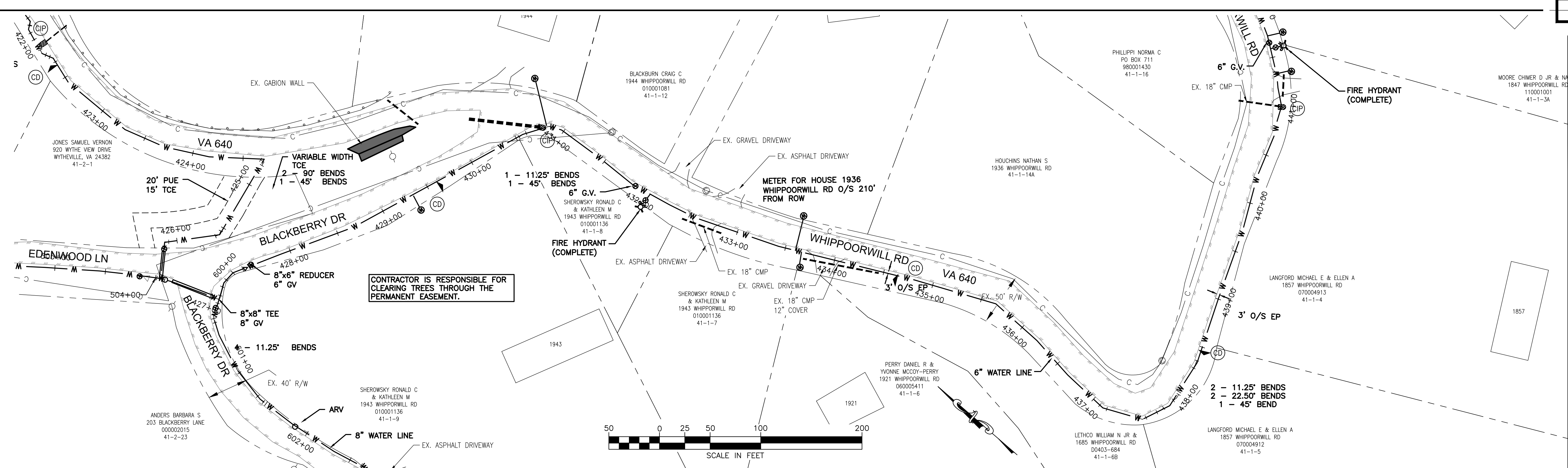
VIRGINIA



SEAL
DRAWN BY:
J. MCCLURE
REVIEW BY:
S.BORTZ
DATE:
5/08/2024
REVISION:
6/04/2024

SHEET DESCRIPTION:
WHIPPOORWILL ROAD

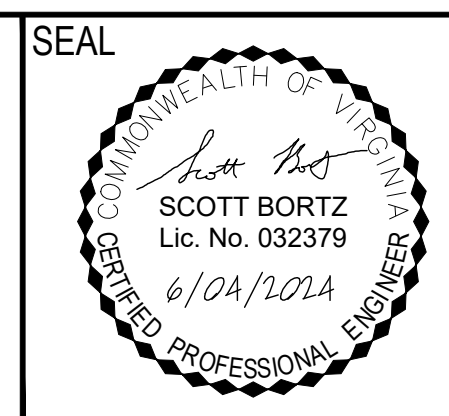
C16



Peed & Bortz, L.L.C.
 CIVIL & ENVIRONMENTAL ENGINEERS
 20 MIDWAY PLAZA DRIVE - SUITE 100
 CHRISTIANSBURG, VIRGINIA 24073
 PHONE: (540) 394 - 3214 FAX: (540) 394 - 3215

BARRETT MILL WATER IMPROVEMENTS

WYTHE COUNTY VIRGINIA



DRAWN BY:
J. MCCLURE
 REVIEW BY:
S. BORTZ
 DATE:
5/08/2024
 REVISION:
6/04/2024

SHEET DESCRIPTION:
WHIPPOORWILL ROAD

C17

TOPHAM TAM D
PO BOX 693
00466-175
41-17

BRITT LOWELL M & CAROL C
1828 WHIPPOORWILL RD
080002525
41-1-17

ARV. FIELD LOCATE
AT HIGH POINT

3 - 11.25' BENDS
2 - 22.50' BENDS

PHILLIPPI NORMA C
PO BOX 711
980001430
41-1-16

1847

MOORE CHIMER D JR & NANCY
1847 WHIPPOORWILL RD
110001001
41-1-3A

LANGFORD MICHAEL E & ELLEN A
1857 WHIPPOORWILL RD
070004913
41-1-4

LANGFORD MICHAEL E & ELLEN A
1857 WHIPPOORWILL RD
070004913
41-1-3

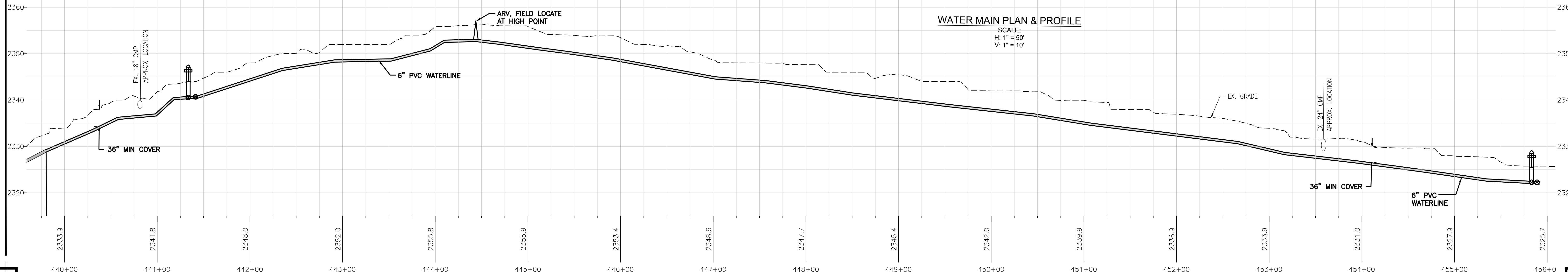
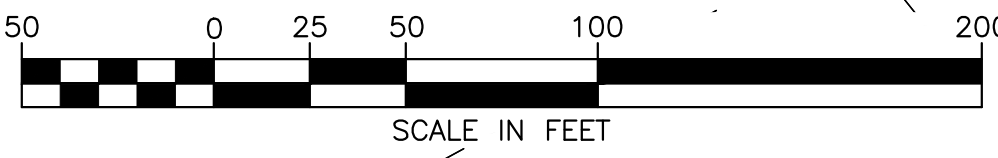
LETHCO WILLIAM N & DONNA K
1685 WHIPPOORWILL RD
970004174
41-1-21

FRIEND BASIL JACKSON II
13902 SANDY OAK CT
150003129
41-18A

LETHCO WILLIAM N JR & DONNA K
1685 WHIPPOORWILL RD
00315-781
41-3-18B

LETHCO WILLIAM N JR & DONNA K
1685 WHIPPOORWILL RD
00419-558
41-1-1

1685



Peed & Bortz, L.L.C.
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CHRISTIANSBURG, VIRGINIA 24073
PHONE: (540) 394 - 3214 FAX: (540) 394 - 3215

BARRETT MILL WATER IMPROVEMENTS

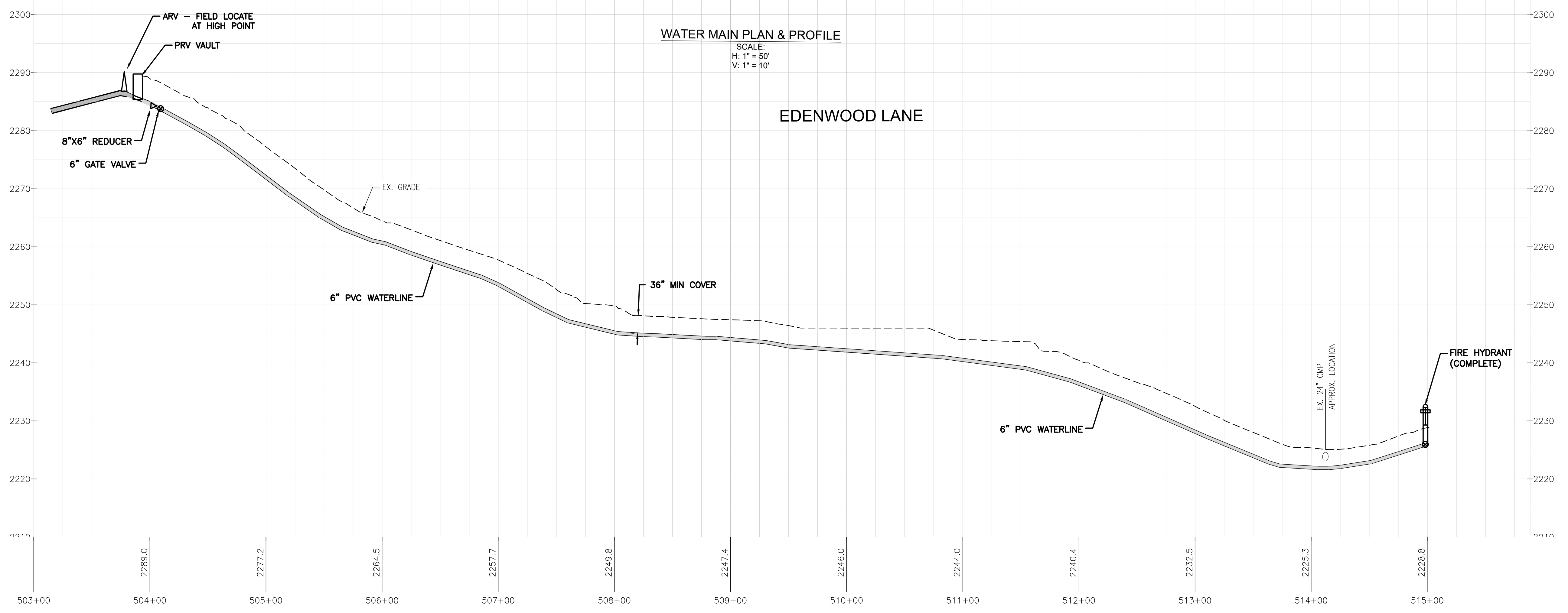
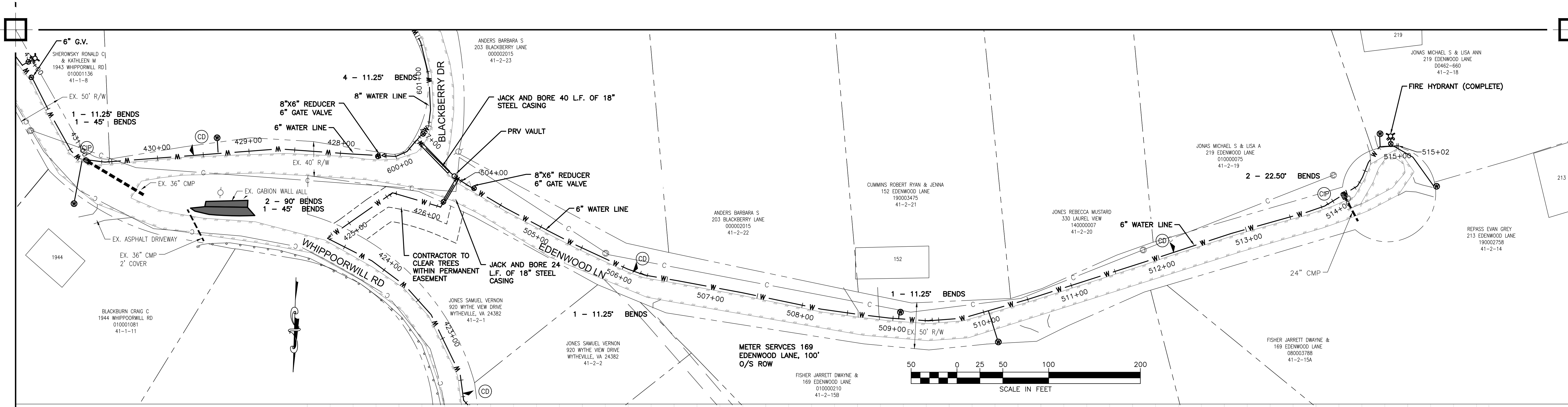
WYTHE COUNTY VIRGINIA



DRAWN BY:
J. MCCLURE
REVIEW BY:
S.BORTZ
DATE:
5/08/2024
REVISION:
6/04/2024

SHEET DESCRIPTION:
WHIPPOORWILL ROAD

C18



Peed & Bortz, L.L.C.
 CIVIL & ENVIRONMENTAL ENGINEERS
 20 MIDWAY PLAZA DRIVE - SUITE 100
 CHRISTIANBURG, VIRGINIA 24073
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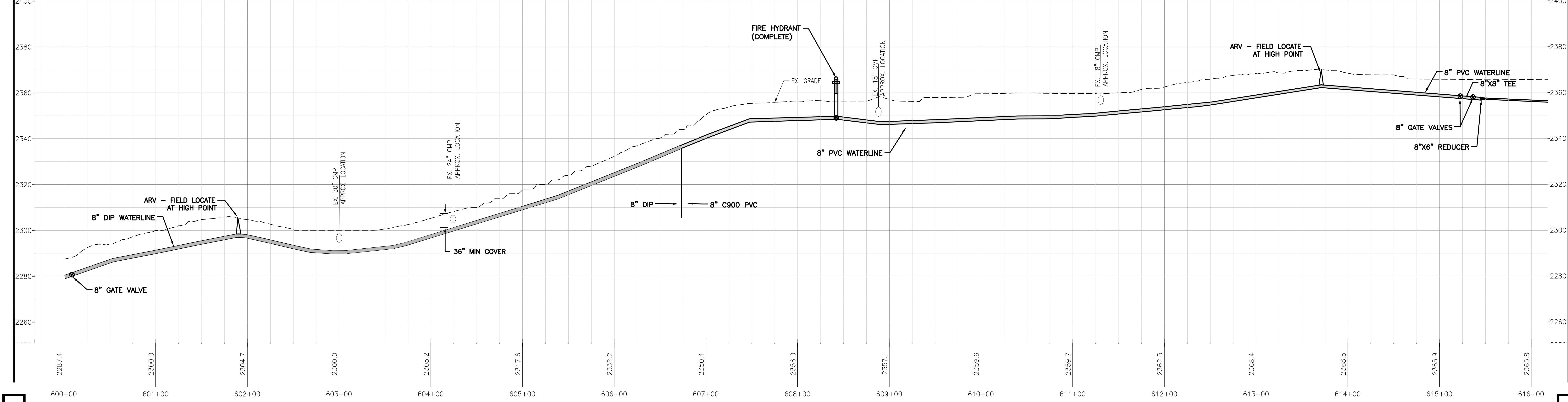
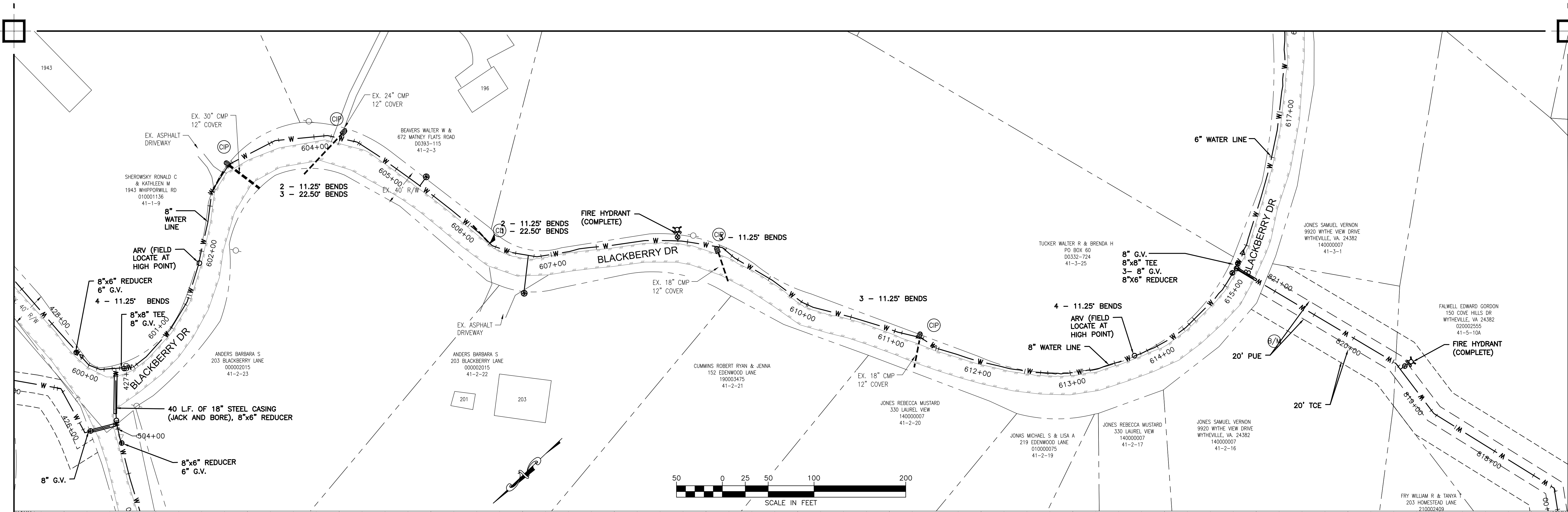
BARRETT MILL WATER IMPROVEMENTS
 WYTHE COUNTY VIRGINIA



SEAL
 DRAWN BY: J. MCCLURE
 REVIEW BY: S. BORTZ
 DATE: 5/08/2024
 REVISION: 6/04/2024

SHEET DESCRIPTION:
 EDENWOOD LANE

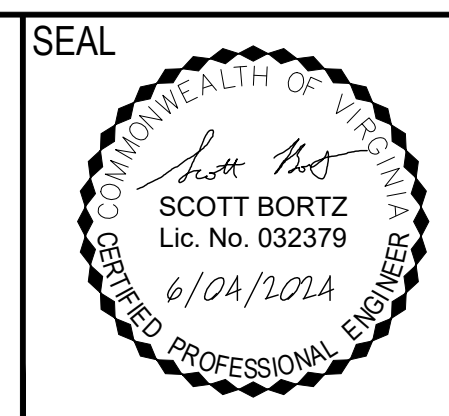
C19



Peed & Bortz, L.L.C.
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BARRETT MILL WATER IMPROVEMENTS

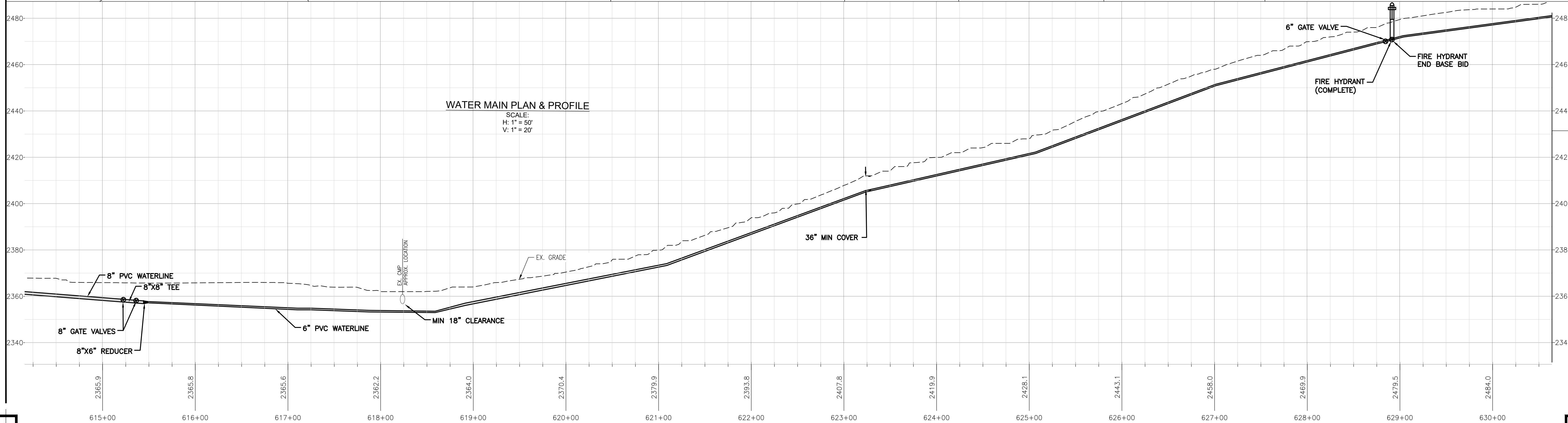
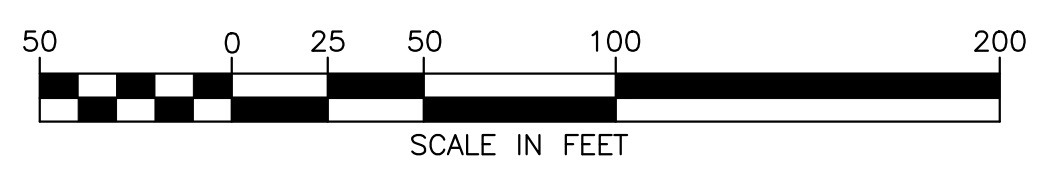
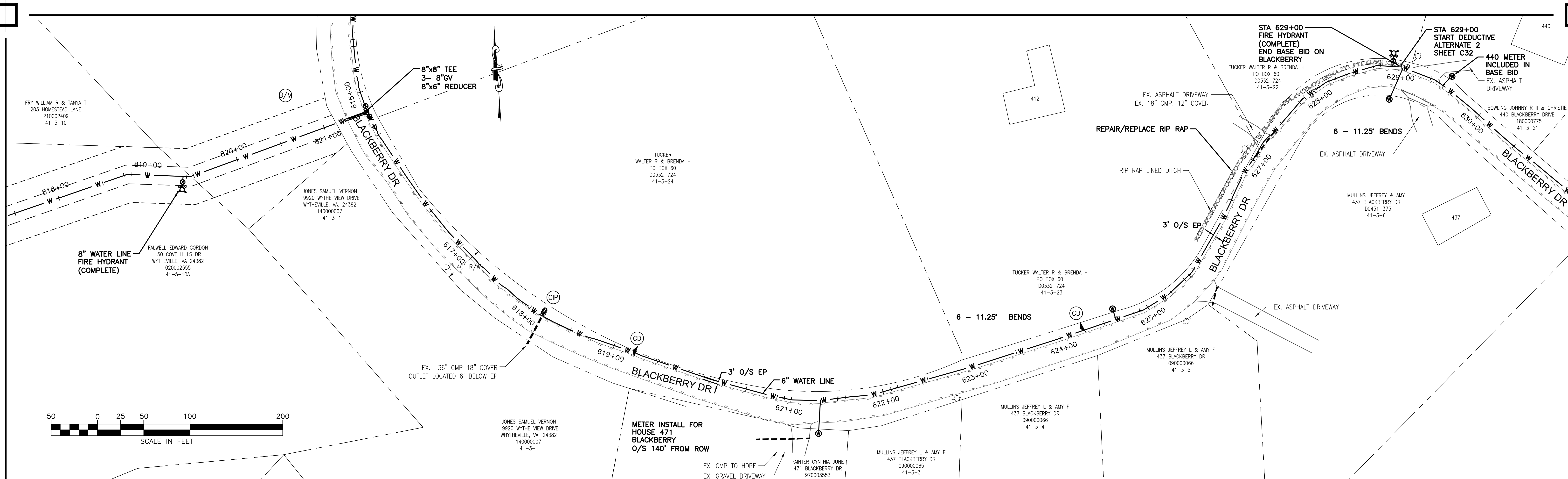
WYTHE COUNTY VIRGINIA



DRAWN BY:
J. MCCLURE
 REVIEW BY:
S. BORTZ
 DATE:
5/08/2024
 REVISION:
6/04/2024

SHEET DESCRIPTION:
BLACKBERRY DRIVE

C20

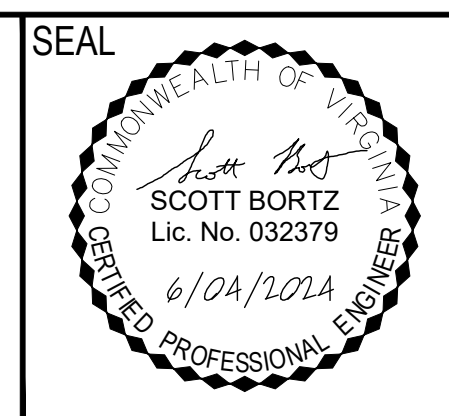


Peed & Bortz, L.L.C.
CIVIL & ENVIRONMENTAL ENGINEERS

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BARRETT MILL WATER IMPROVEMENTS

WYTHE COUNTY VIRGINIA



DRAWN BY:
J. MCCLURE

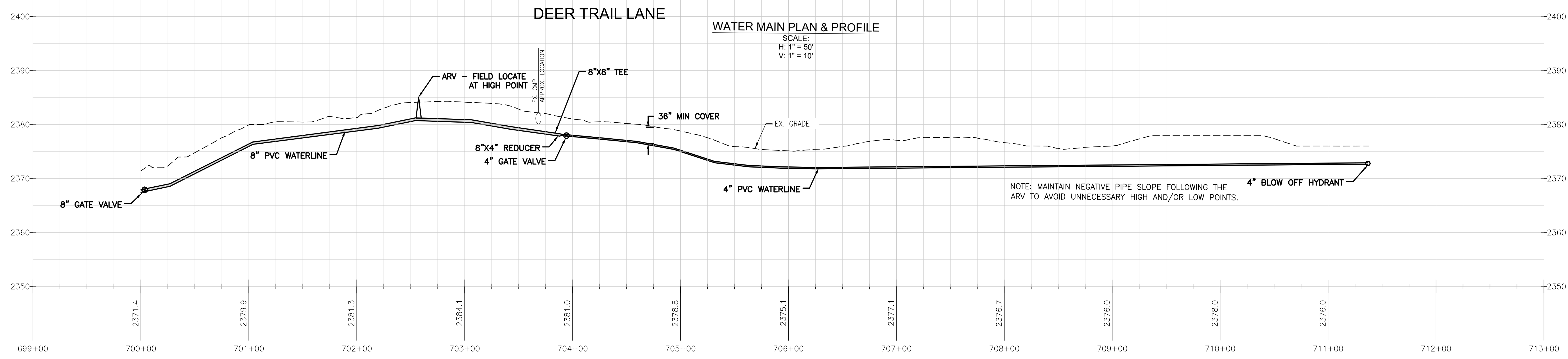
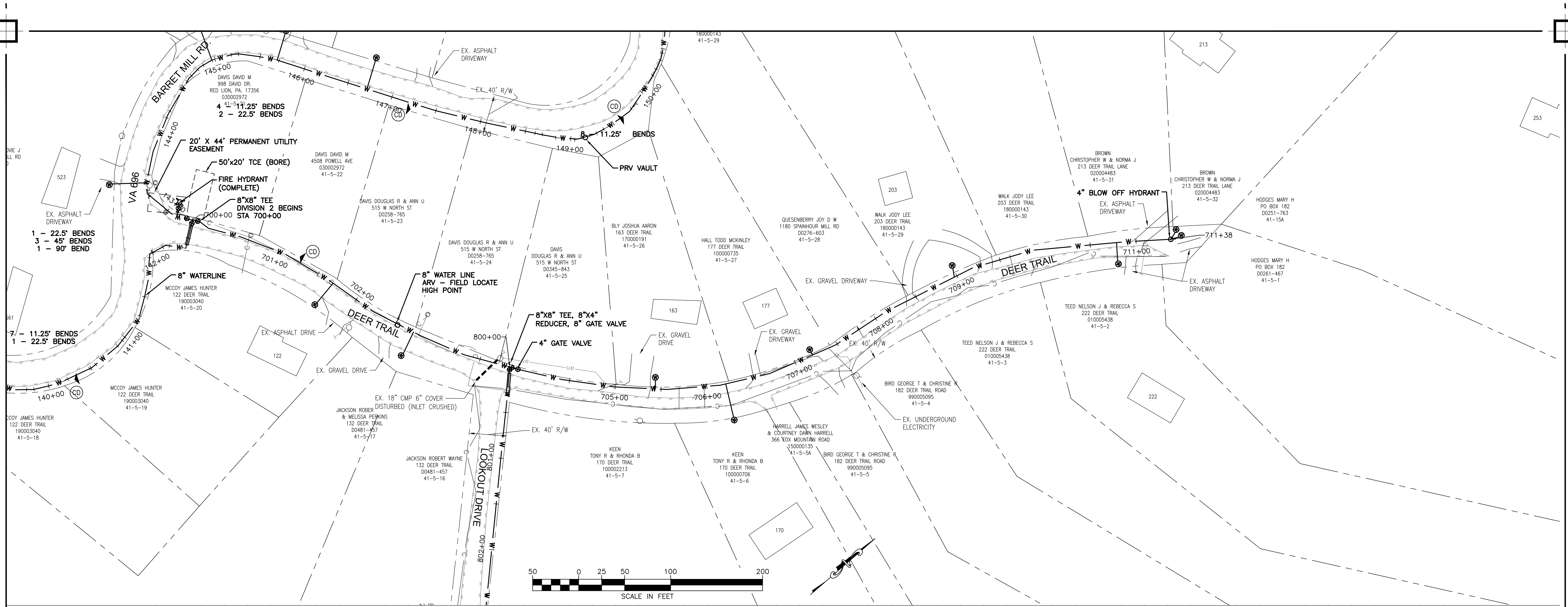
REVIEW BY:
S. BORTZ

DATE:
5/08/2024

REVISION:
6/04/2024

SHEET DESCRIPTION:
BLACKBERRY DRIVE

C21

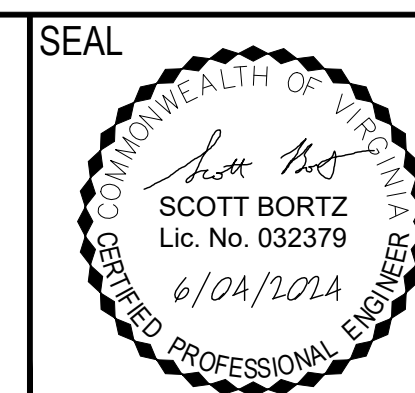


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BARRETT MILL WATER IMPROVEMENTS

WYTHE COUNTY

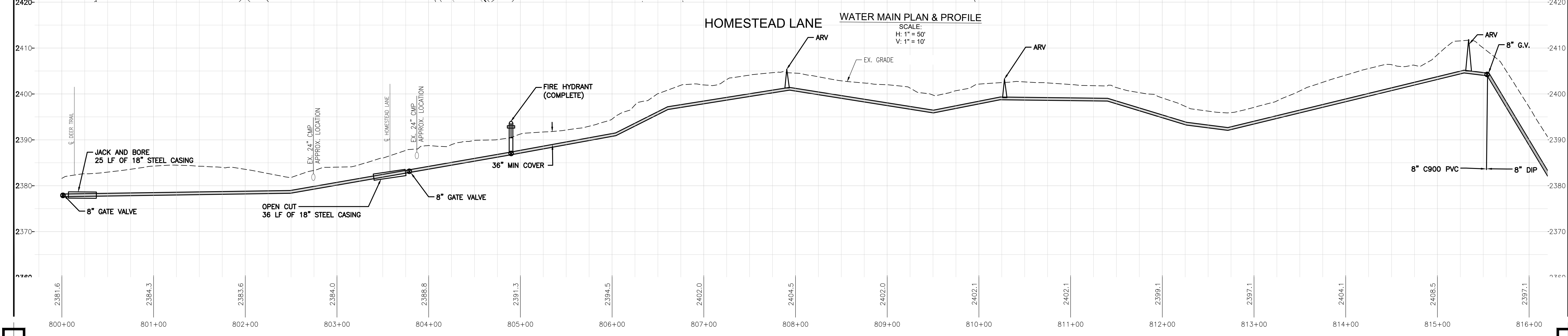
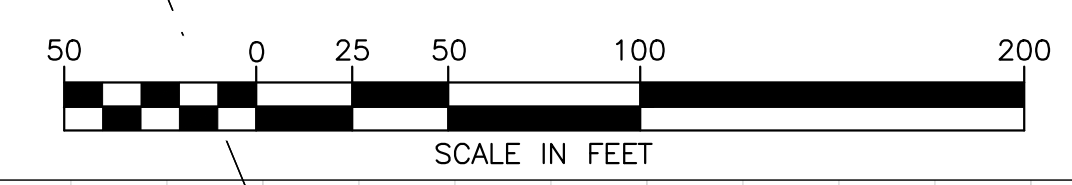
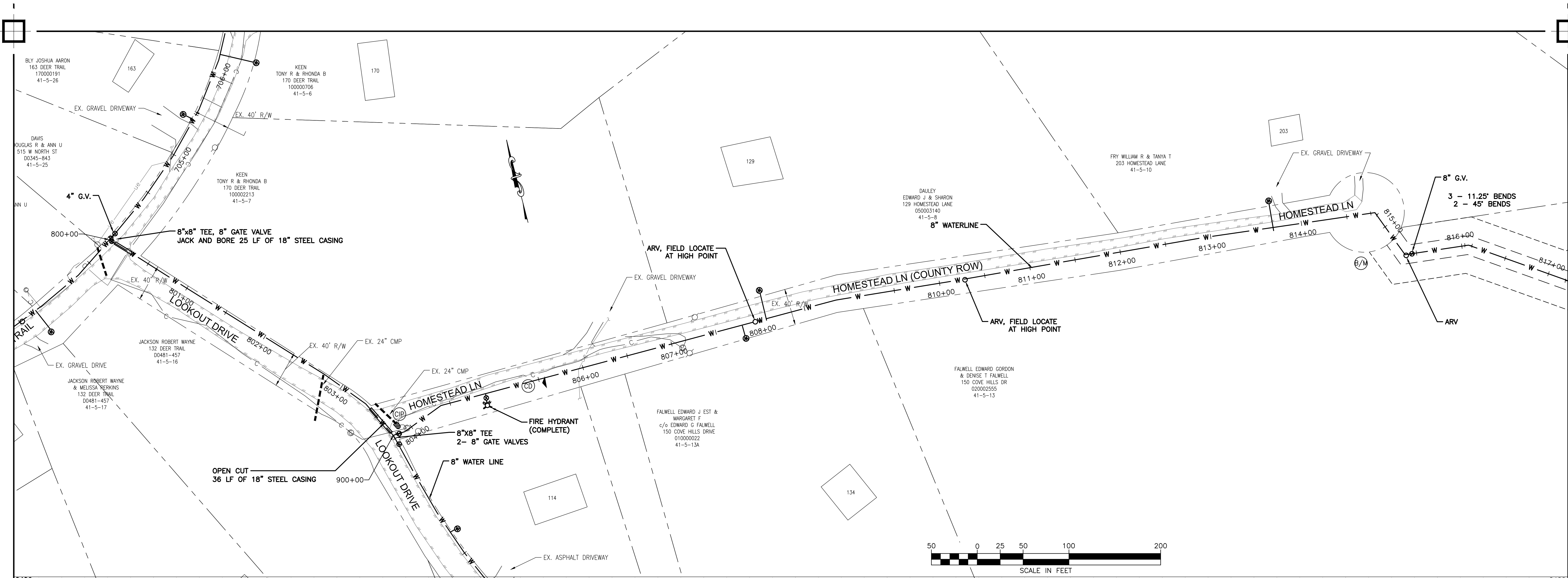
VIRGINIA



DRAWN BY:
J. MCCLURE
 REVIEW BY:
S. BORTZ
 DATE:
5/08/2024
 REVISION:
6/04/2024

SHEET DESCRIPTION:
DEER TRAIL

C22

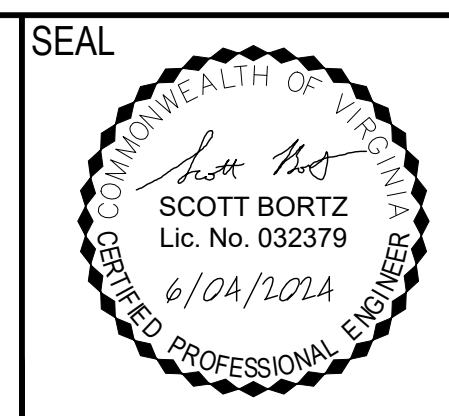


Peed & Bortz, L.L.C.
 CIVIL & ENVIRONMENTAL ENGINEERS
 20 MIDWAY PLAZA DRIVE - SUITE 100
 CHRISTIANBURG, VIRGINIA 24073
 PHONE: (540) 394 - 3214 FAX: (540) 394 - 3215

BARRETT MILL WATER IMPROVEMENTS

WYTHE COUNTY

VIRGINIA

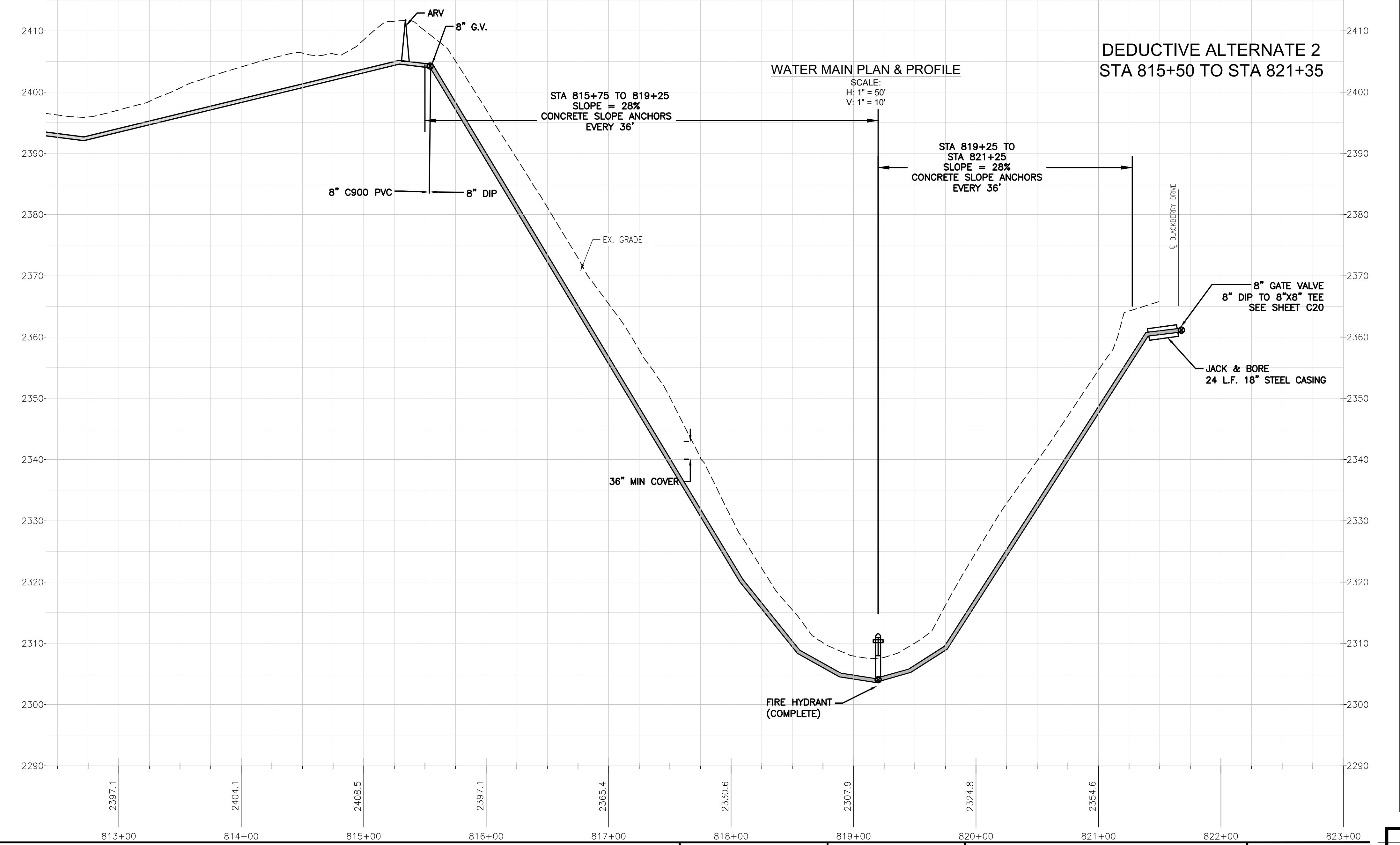
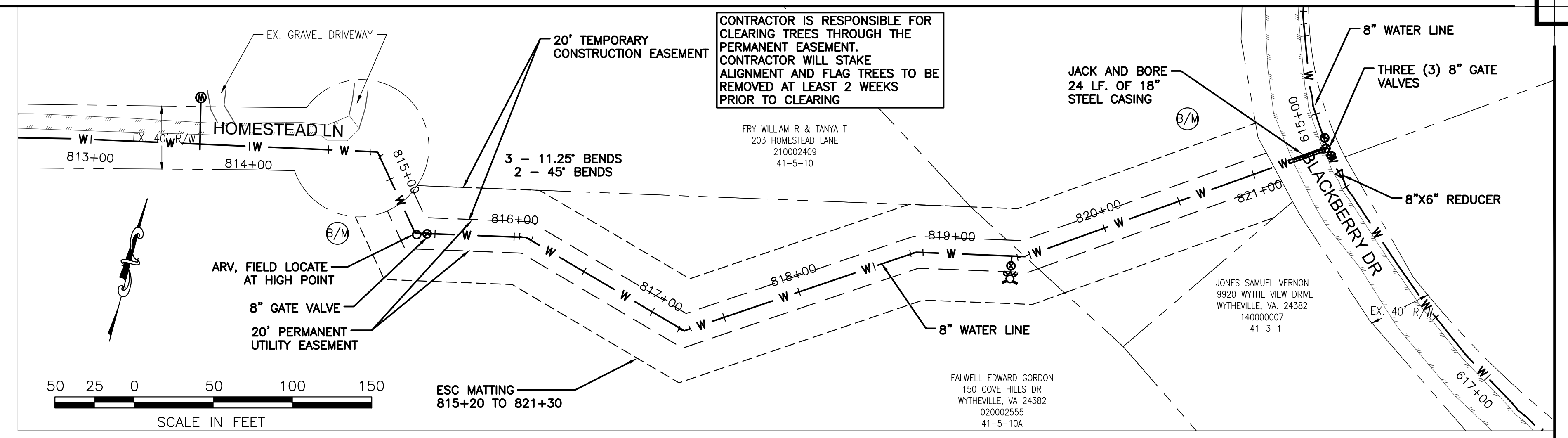


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S. BORTZ
 DATE:
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 REVISION:
6/04/2024

SHEET DESCRIPTION:
HOMESTEAD LANE

C23

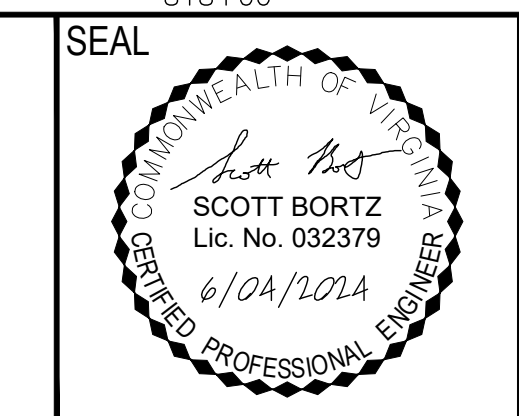
- NOTE:
1. BASE BID - PRESSURE AT LOW POINT OF VALLEY IS 161 PSI (375')
 2. DEDUCTIVE ALTERNATE 2 - REPLACE 8" GATE VALVE WITH FIRE HYDRANT, DELETE PIPE FROM GATE VALVE TO TEE ON BLACKBERRY
 3. CONTRACTOR TO PRESERVE EXISTING VEGETATION WHEN POSSIBLE ON PARCEL 41-5-10A. COORDINATE WITH PROPERTY OWNER. CONTRACTOR TO REMOVE TREES FELLED AND ANY OTHER DEBRIS FROM SITE



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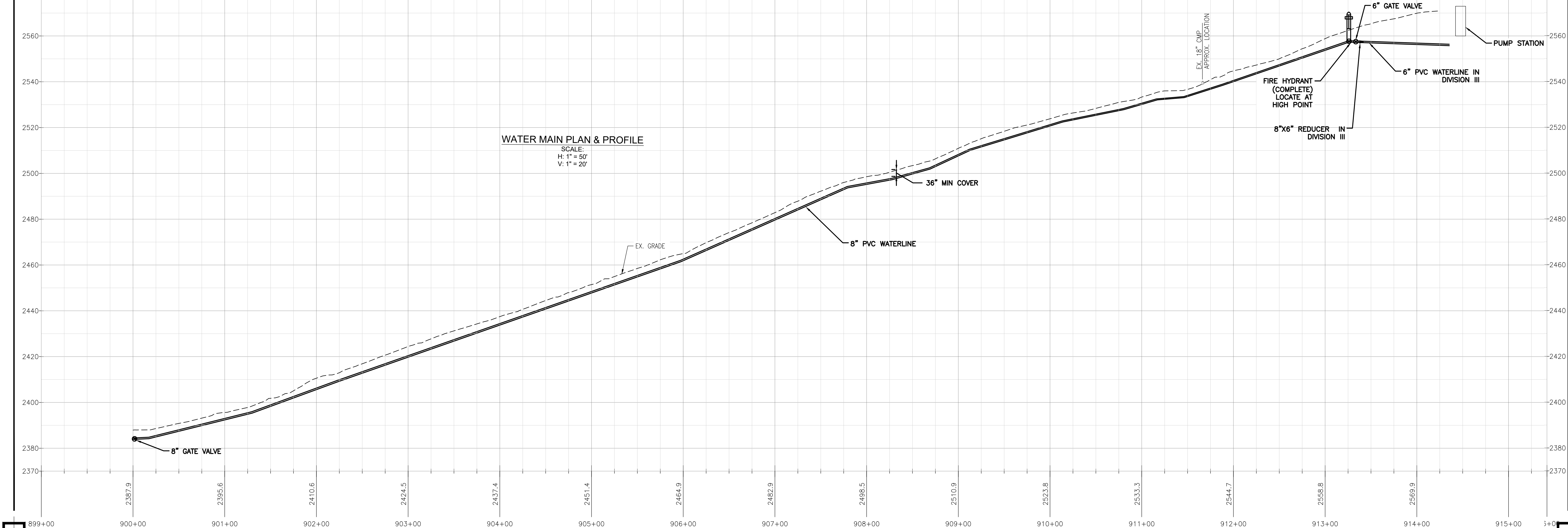
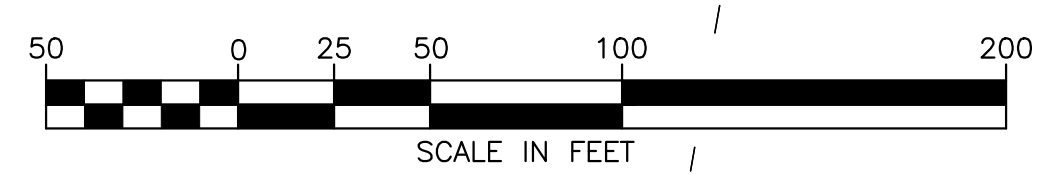
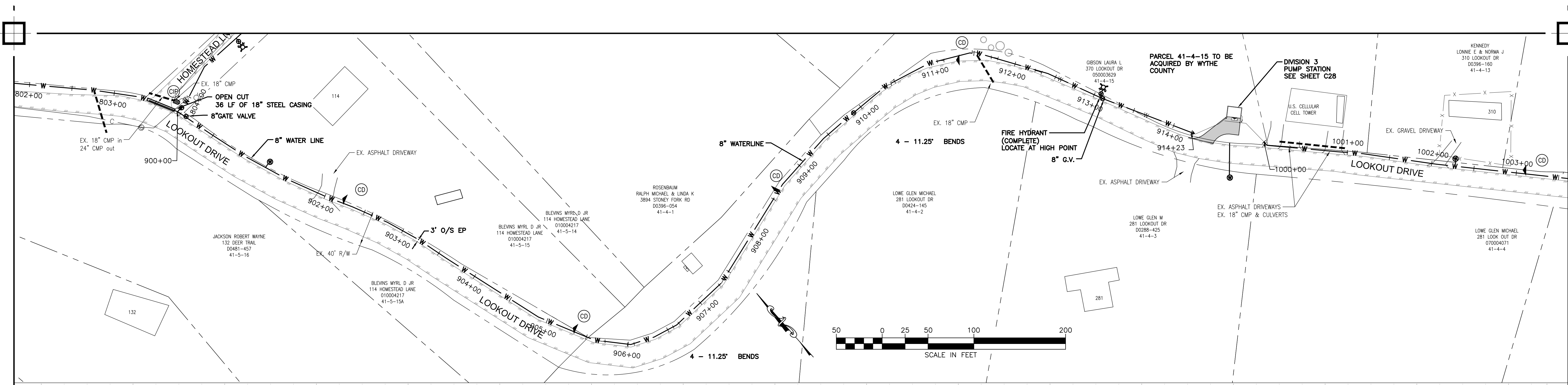
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 DATE:
5/08/2024
 REVISION:
6/04/2024

SHEET DESCRIPTION:
HOMESTEAD LANE TO BLACKBERRY DRIVE

C24

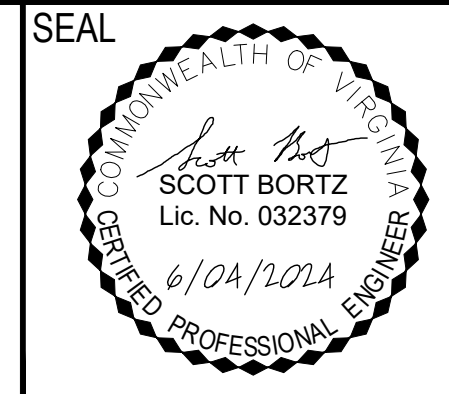


WATER MAIN PLAN & PROFILE
 SCALE:
 H: 1" = 50'
 V: 1" = 20'

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BARRETT MILL WATER IMPROVEMENTS

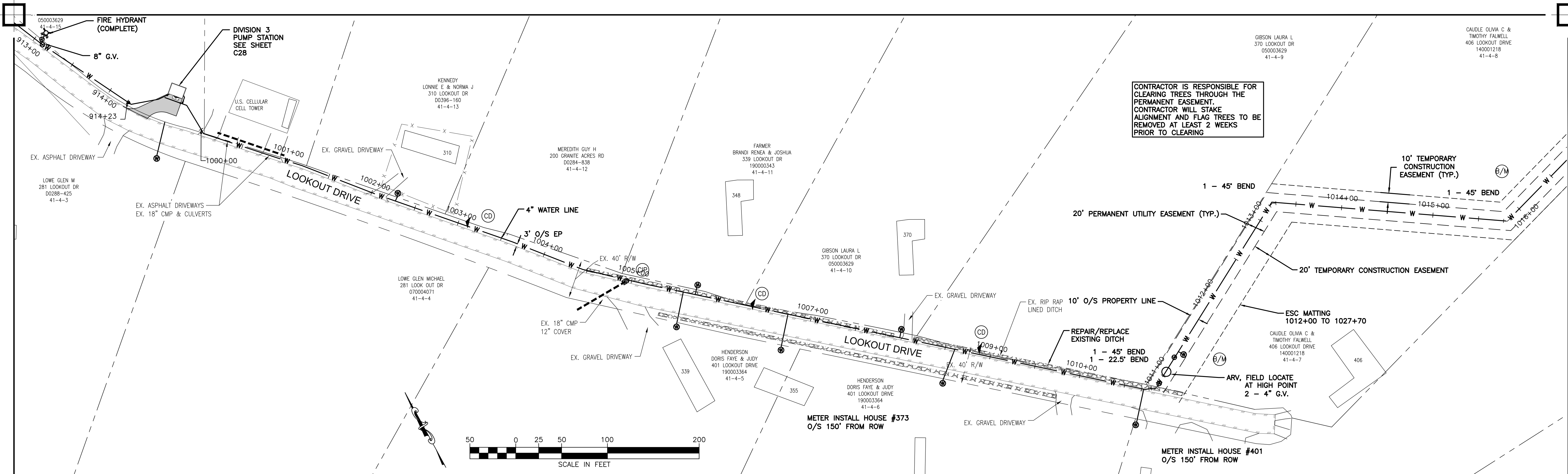
WYTHE COUNTY VIRGINIA



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 DATE:
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 REVISION:
6/04/2024

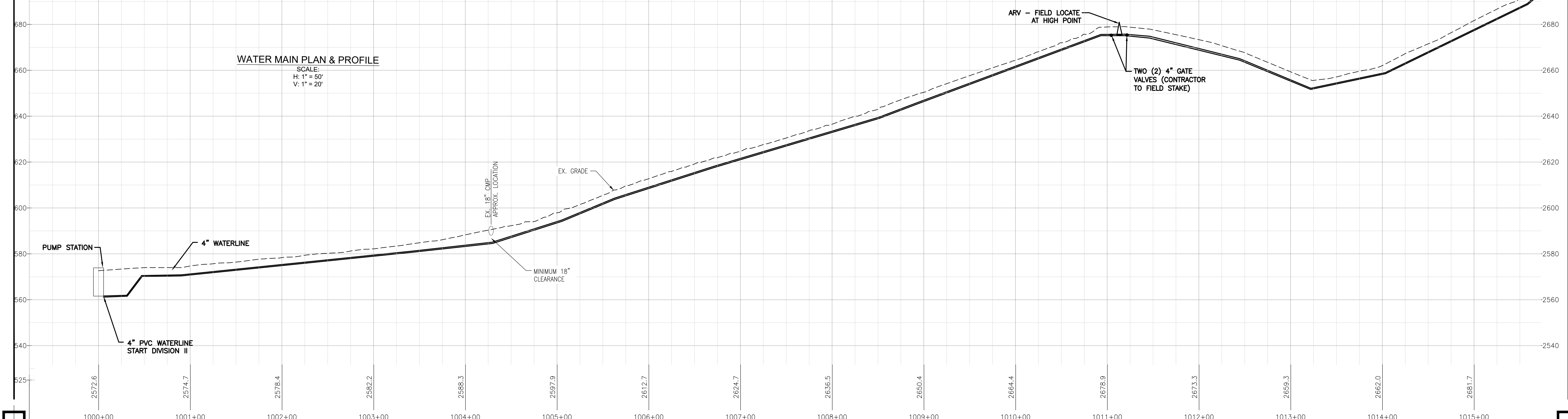
SHEET DESCRIPTION:
LOOKOUT DRIVE

C25



CONTRACTOR IS RESPONSIBLE FOR CLEARING TREES THROUGH THE PERMANENT EASEMENT. CONTRACTOR WILL STAKE ALIGNMENT AND FLAG TREES TO BE REMOVED AT LEAST 2 WEEKS PRIOR TO CLEARING

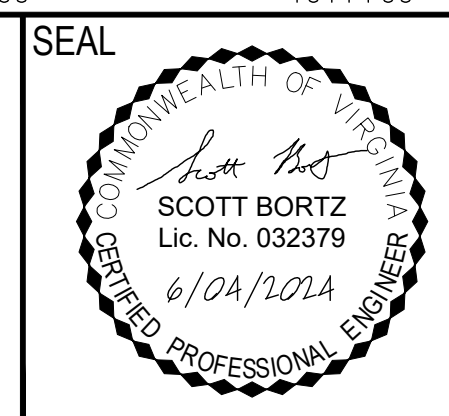
WATER MAIN PLAN & PROFILE
 SCALE:
 H: 1" = 50'
 V: 1" = 20'



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BARRETT MILL WATER IMPROVEMENTS

WYTHE COUNTY VIRGINIA

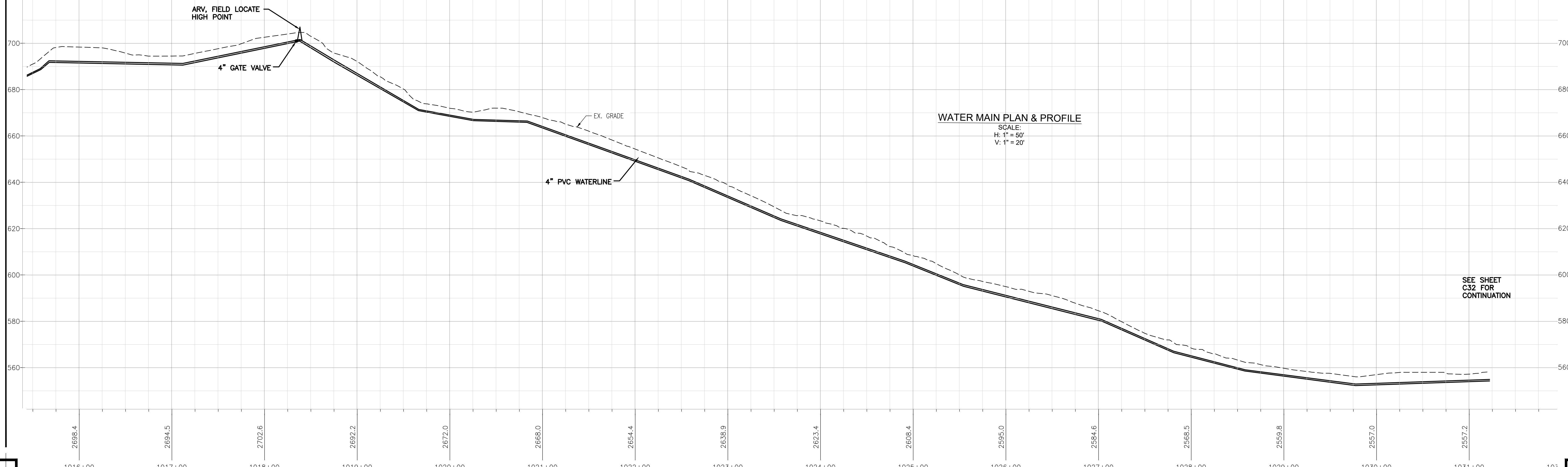
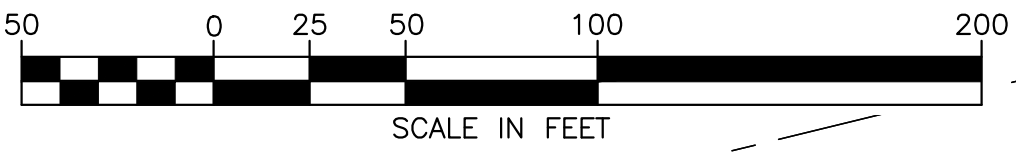
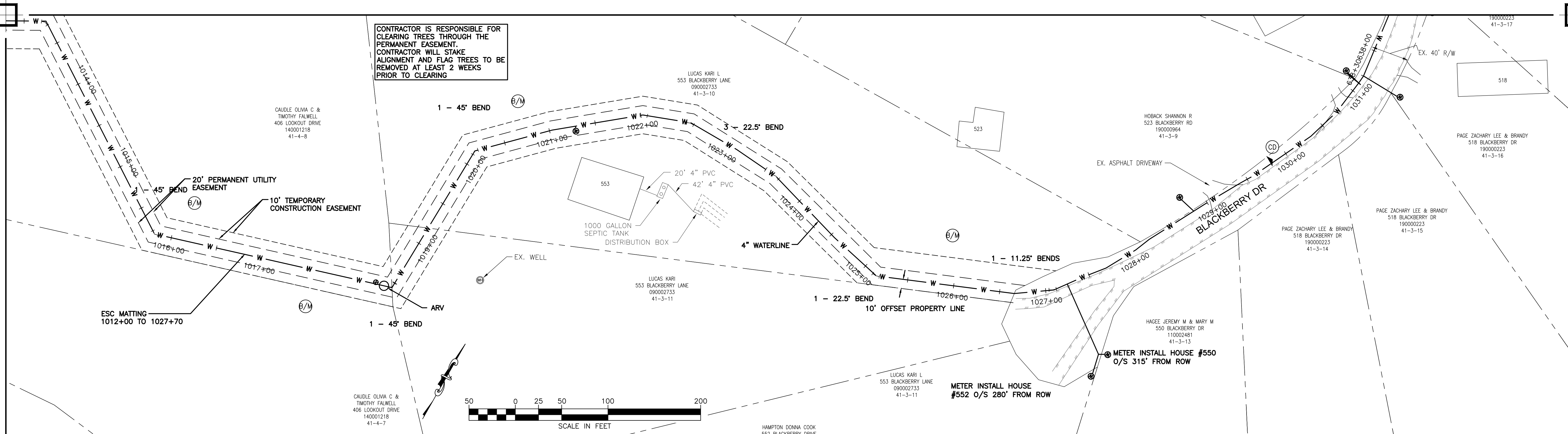


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 REVIEW BY:
 S. BORTZ
 DATE:
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 REVISION:
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SHEET DESCRIPTION:
 LOOKOUT DRIVE

C26

CONTRACTOR IS RESPONSIBLE FOR CLEARING TREES THROUGH THE PERMANENT EASEMENT. CONTRACTOR WILL STAKE ALIGNMENT AND FLAG TREES TO BE REMOVED AT LEAST 2 WEEKS PRIOR TO CLEARING

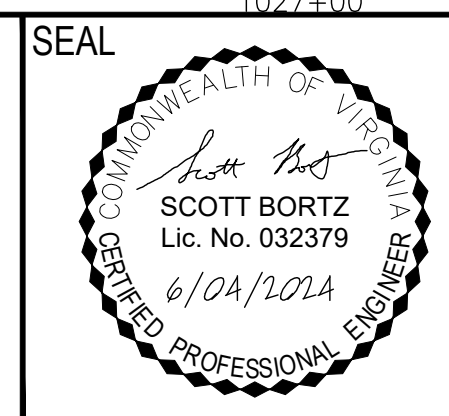


SEE SHEET C32 FOR CONTINUATION

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BARRETT MILL WATER IMPROVEMENTS

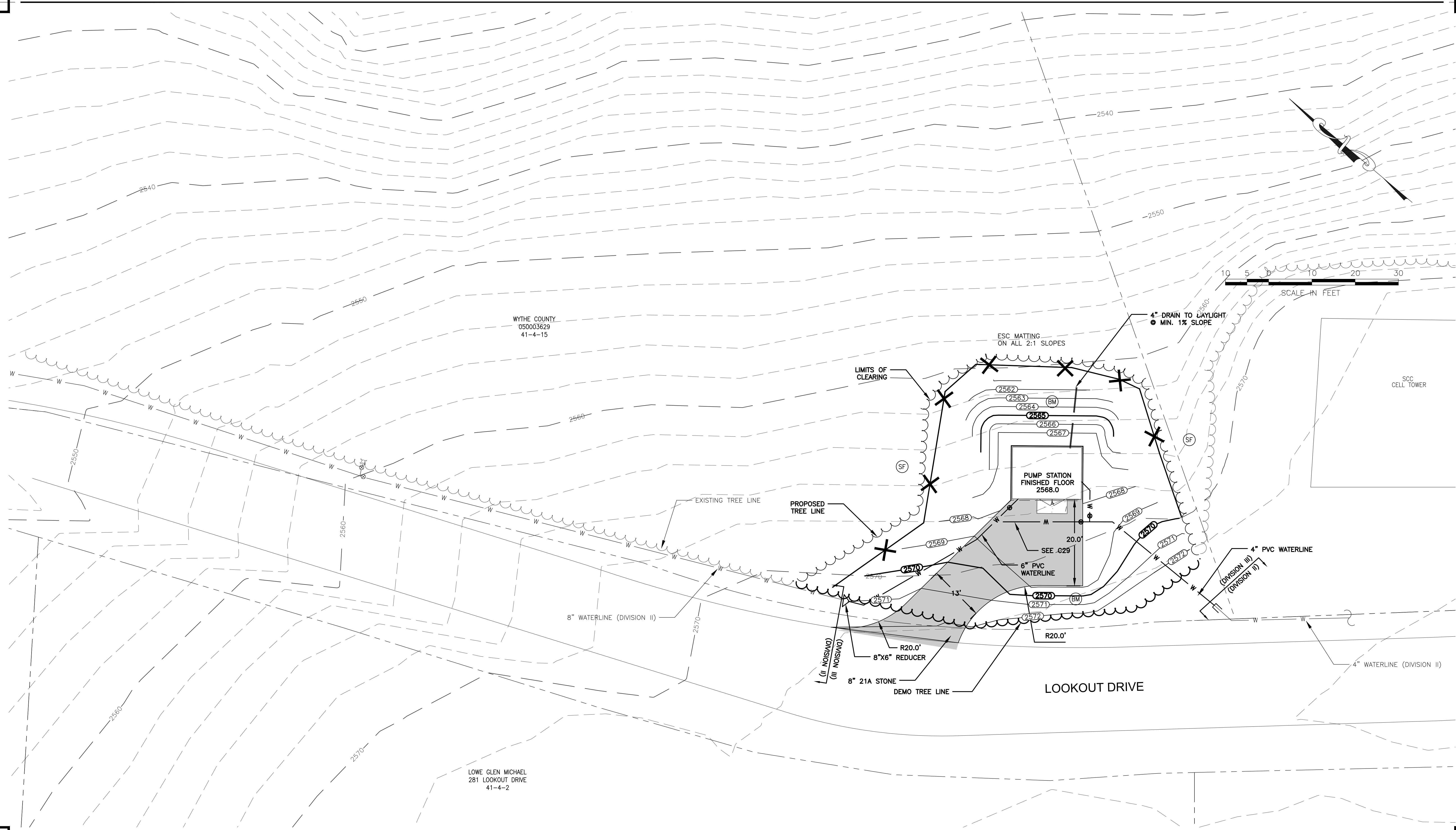
WYTHE COUNTY VIRGINIA



DRAWN BY: J. MCCLURE
REVIEW BY: S. BORTZ
DATE: 5/08/2024
REVISION: 6/04/2024

SHEET DESCRIPTION:
LOOKOUT DRIVE TO BLACKBERRY DRIVE

C27

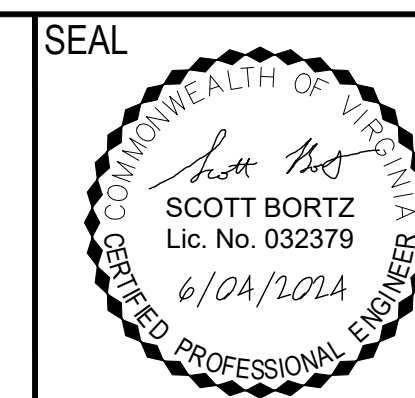


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BARRETT MILL WATER IMPROVEMENTS

WYTHE COUNTY

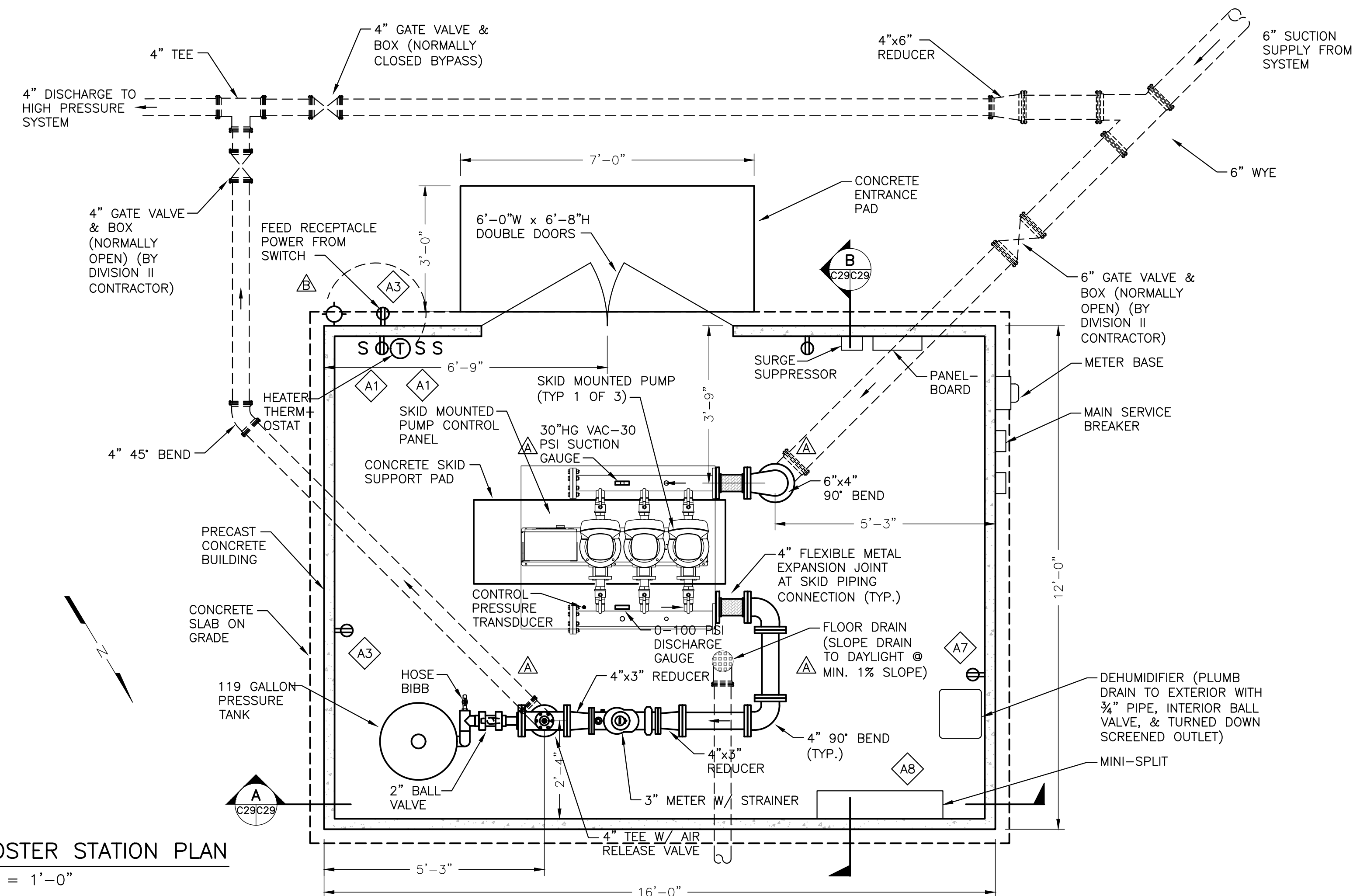
VIRGINIA



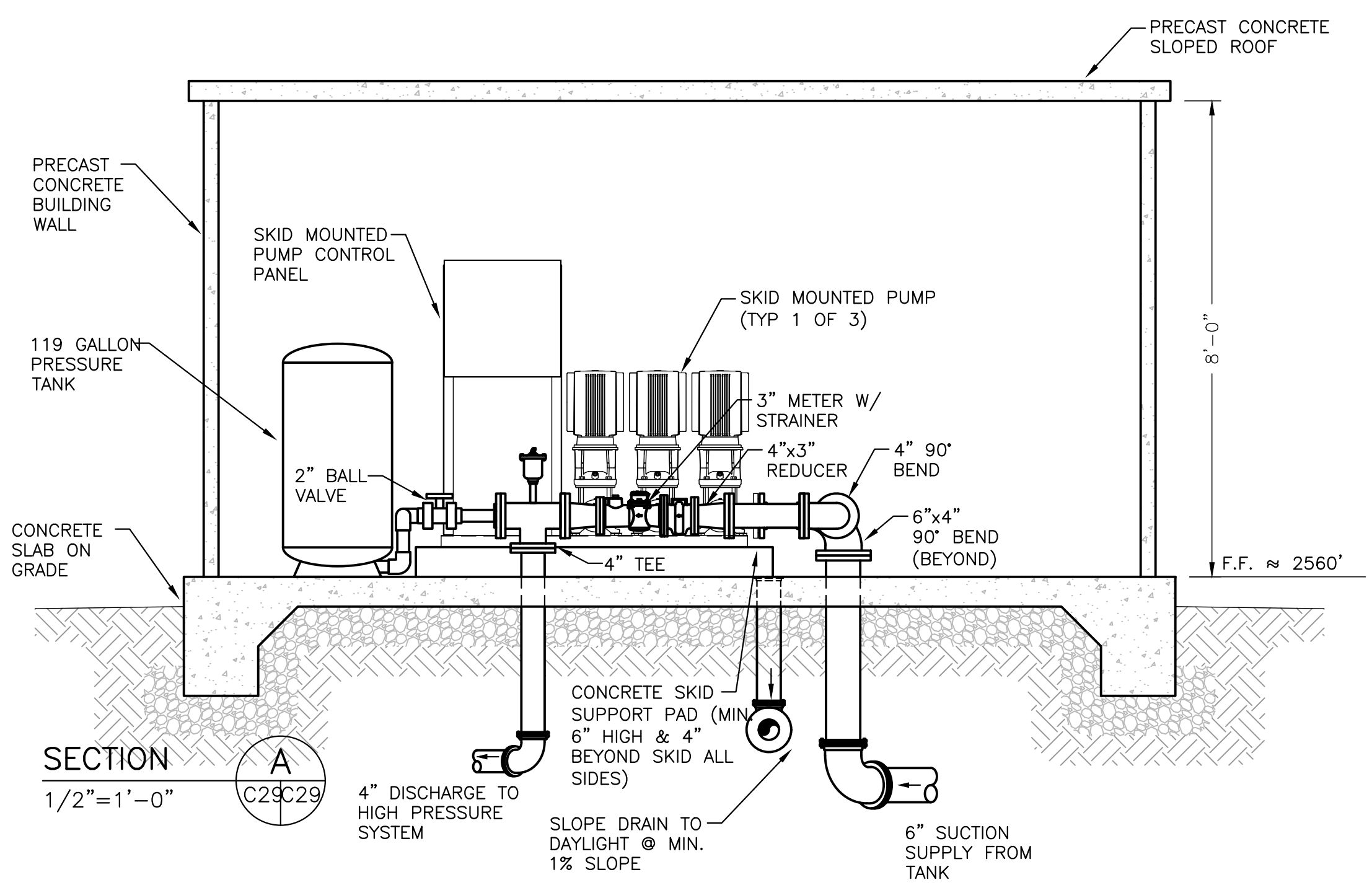
DRAWN BY:
 J. MCCLURE
 REVIEW BY:
 S. BORTZ
 DATE:
 5/08/2024
 REVISION:
 6/04/2024

SHEET DESCRIPTION:
 PUMP STATION SITE

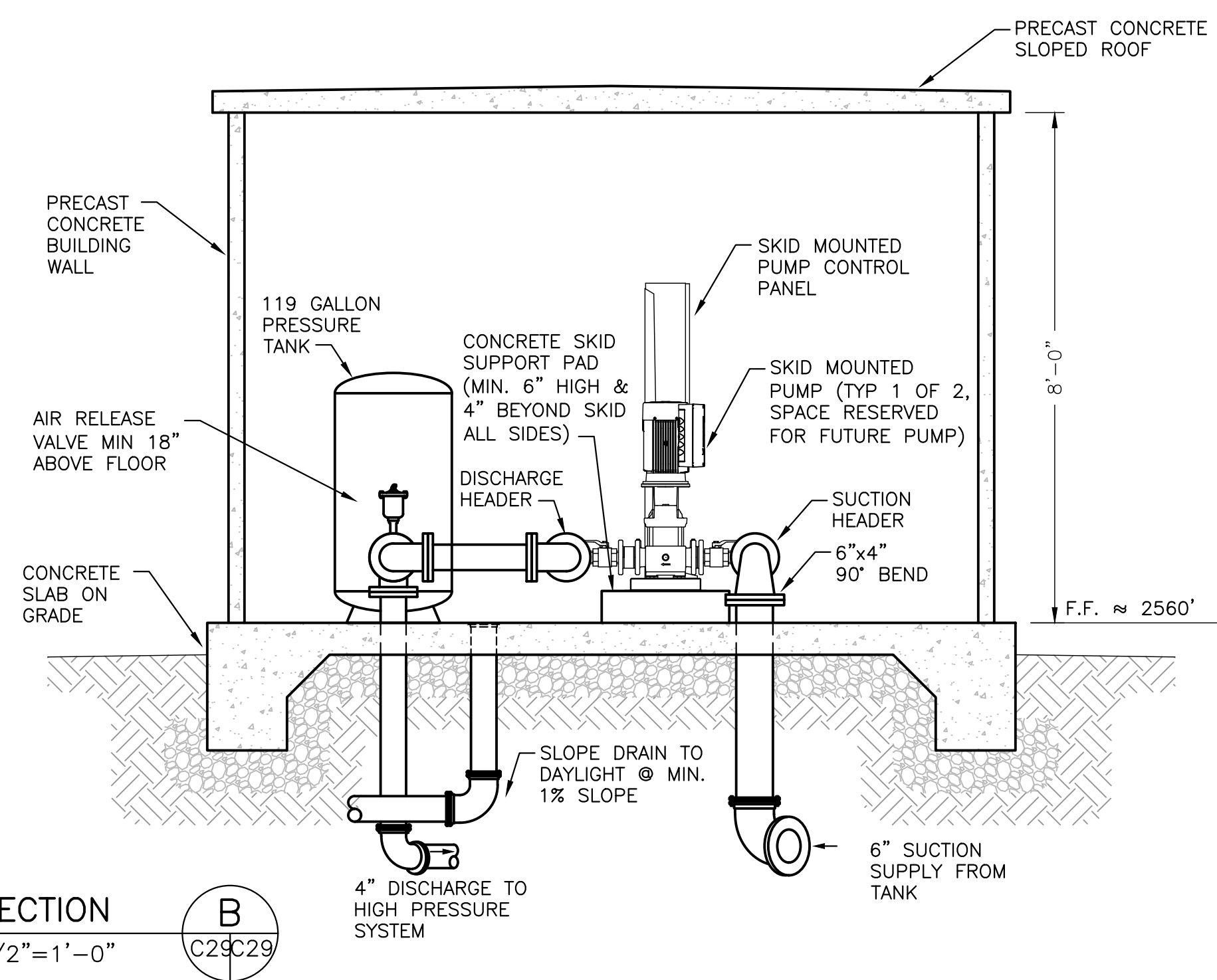
C28



BOOSTER STATION PLAN
1/2" = 1'-0"



SECTION A
1/2" = 1'-0"



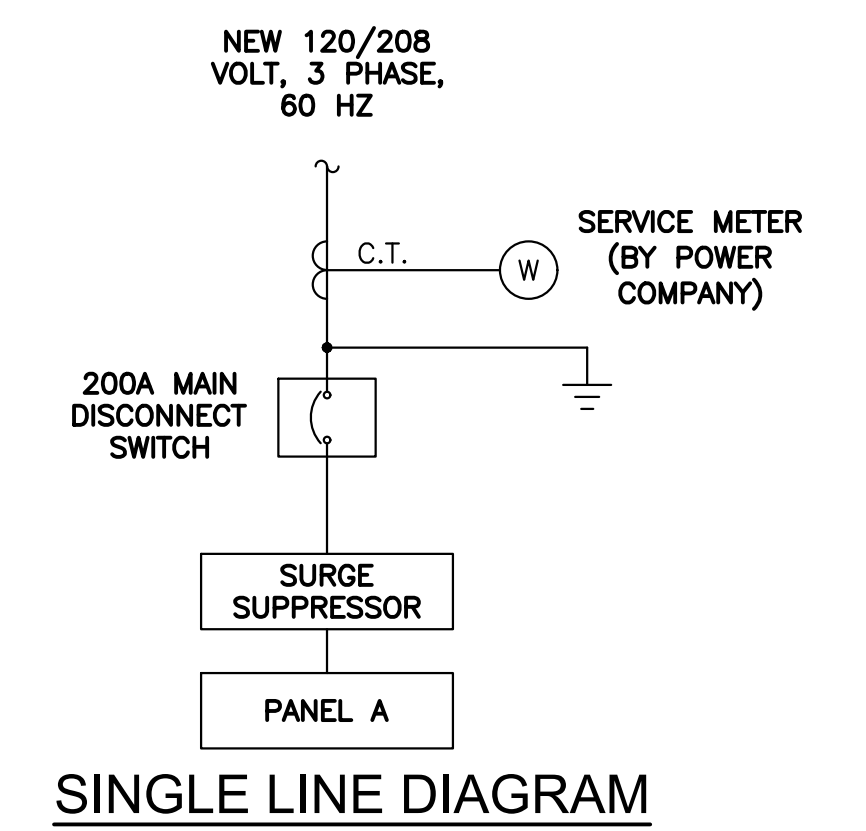
SECTION B
1/2" = 1'-0"

NOTES:

1. GRADE FINISHED GROUND TO PROVIDE POSITIVE SLOPE AWAY FROM BOOSTER STATION IN ALL DIRECTIONS. FINISHED GRADE TO BE APPROXIMATELY 6" BELOW SLAB ON ALL SIDES.
2. SLOPE SLAB TO FLOOR DRAIN AT MINIMUM 1/16" PER FOOT SLOPE.
3. PROVIDE CONCRETE THRUST BLOCKS AT ALL PRESSURE PIPE FITTINGS BENEATH SLAB. RESTRAIN FINISHED WATER MAIN PENETRATION THROUGH SLAB WITH THREADED ROD OR WITH RESTRAINED JOINT FITTINGS.
4. PROVIDE PIPE SUPPORTS BENEATH ALL PIPING AT MAXIMUM 5' O.C.
5. DOOR LOCK TO BE STANDARD COUNTY MODEL, KEYED TO MATCH MASTER KEY.
6. DESIGN POINT OF PUMP SYSTEM IS 40 GPM @ 100' TDH. BASIS OF DESIGN IS GRUNDFOS HYDRO MPC-E 2 SKID CRE 5-6 WITH THREE PUMPS.
7. EXPECTED HIGHEST CONNECTION IS 2695'. ANTICIPATED PRESSURE CONTROL SETTING IS 100 PSI AT BOOSTER STATION.
8. PRESSURE TANK SHALL BE 119 GALLON TOTAL VOLUME AND RATED FOR MINIMUM 125 PSI WORKING PRESSURE. PROVIDE PRESSURE RELIEF BLOWOFF AT TANK CONNECTION TO OPEN AT 120 PSI. PLUMB BLOWOFF DRAIN TO DISCHARGE NEAR FLOOR AWAY FROM OCCUPIED SPACE.
9. CONTRACTOR MAY USE PRECAST CONCRETE BUILDING SIMILAR TO SMITH-CAROLINA EASI-SET TAPERED OR GABLE ROOF BUILDING. EXTERIOR WILL BE EXPOSED AGGREGATE FINISH. PRE-CAST BUILDING SHALL BE INSTALLED ON MINIMUM 8" COMPACTED #21A STONE PLACED ON UNDISTURBED NATURAL SOIL. EXTEND COMPACTED #21A STONE AT 2H:1V BACKFILL SLOPE TO SUITABLE SUBGRADE ON THE REAR OF THE BUILDING.
10. ALL BURIED PIPE WILL BE DUCTILE IRON MECHANICAL JOINT FROM GATE VALVE TO BUILDING. ALL INTERIOR PIPE WILL BE DUCTILE IRON FLANGED.
11. INTERIOR WALLS & CEILING TO BE PAINTED PRIOR TO INSTALLING CONDUIT, FIXTURES, OR ANY WALL MOUNTED PLUMBING OR EQUIPMENT.
12. DOWEL CONCRETE PUMP SUPPORT PAD INTO SLAB AT EACH CORNER W/ #4 REBAR AND INCLUDE TWO HORIZONTAL ROWS OF #4 REBAR @ 12" CENTERS WITHIN PAD.
13. BUILDING ENTRANCE PAD SHALL BE 6" THICK CONCRETE W/ 6x6-W2.9xW2.9 WWF, PLACED ON 6" COMPACTED #68 STONE.

LEGEND

- ⊕ DUPLEX RECEPTACLE
- ⊙ FLOOD LIGHT
- S SINGLE POLE TOGGLE SWITCH
- ⊖ THERMOSTAT
- ⚡ LIGHT FIXTURE IDENTIFIER
- ⬡ CIRCUIT IDENTIFIER



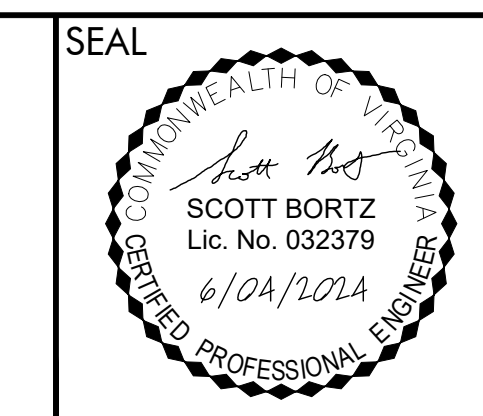
SINGLE LINE DIAGRAM

Peed & Bortz, L.L.C.
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BARRETT MILL WATER IMPROVEMENTS

WYTHE COUNTY

VIRGINIA



DRAWN BY: J. MCCLURE
REVIEW BY: S. BORTZ
DATE: 5/08/2024
REVISION: 6/04/2024

SHEET DESCRIPTION:
PUMP STATION SECTIONS

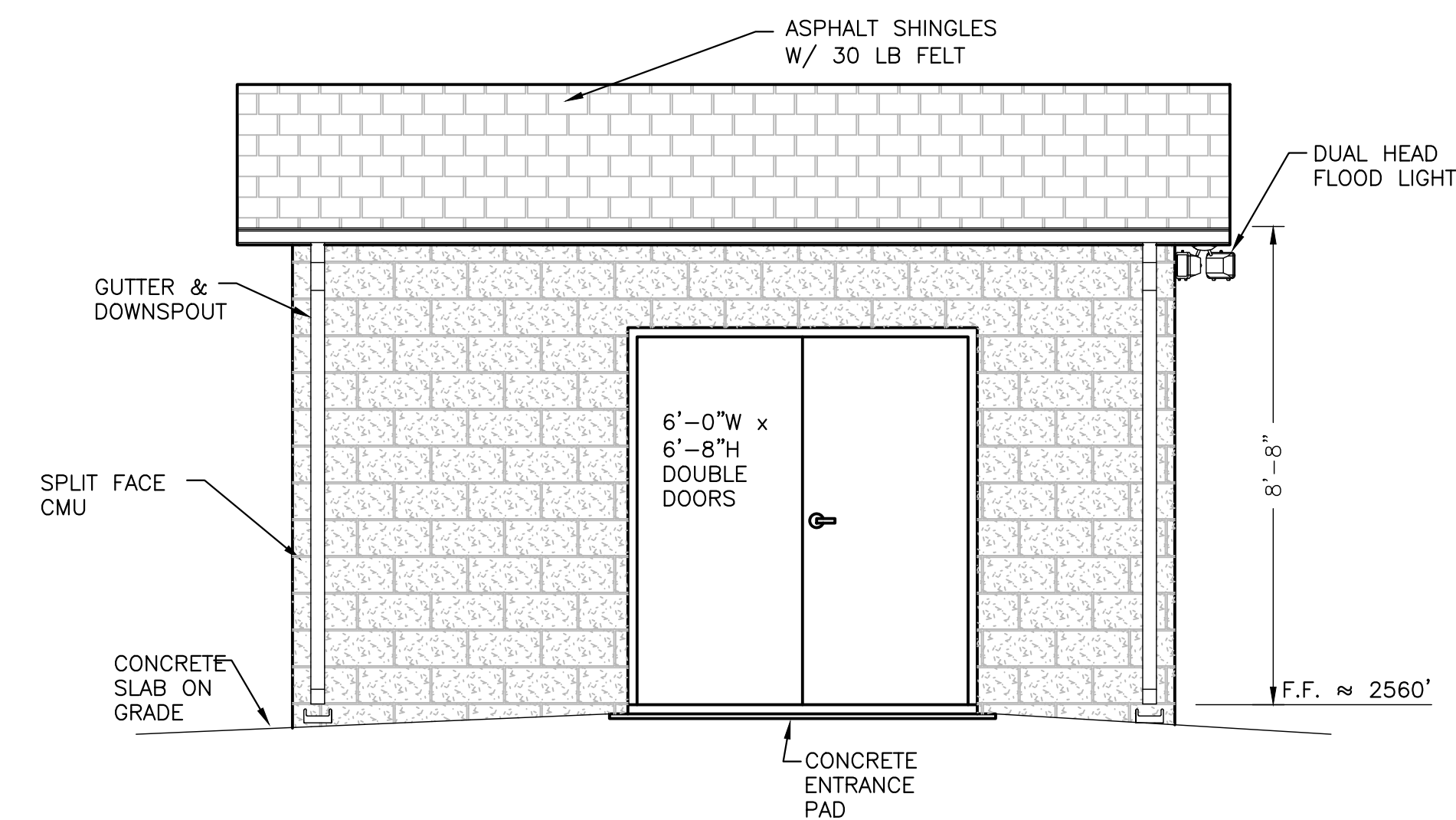
C29

BUILDING NOTES (FOR STICK-BUILT STRUCTURE):

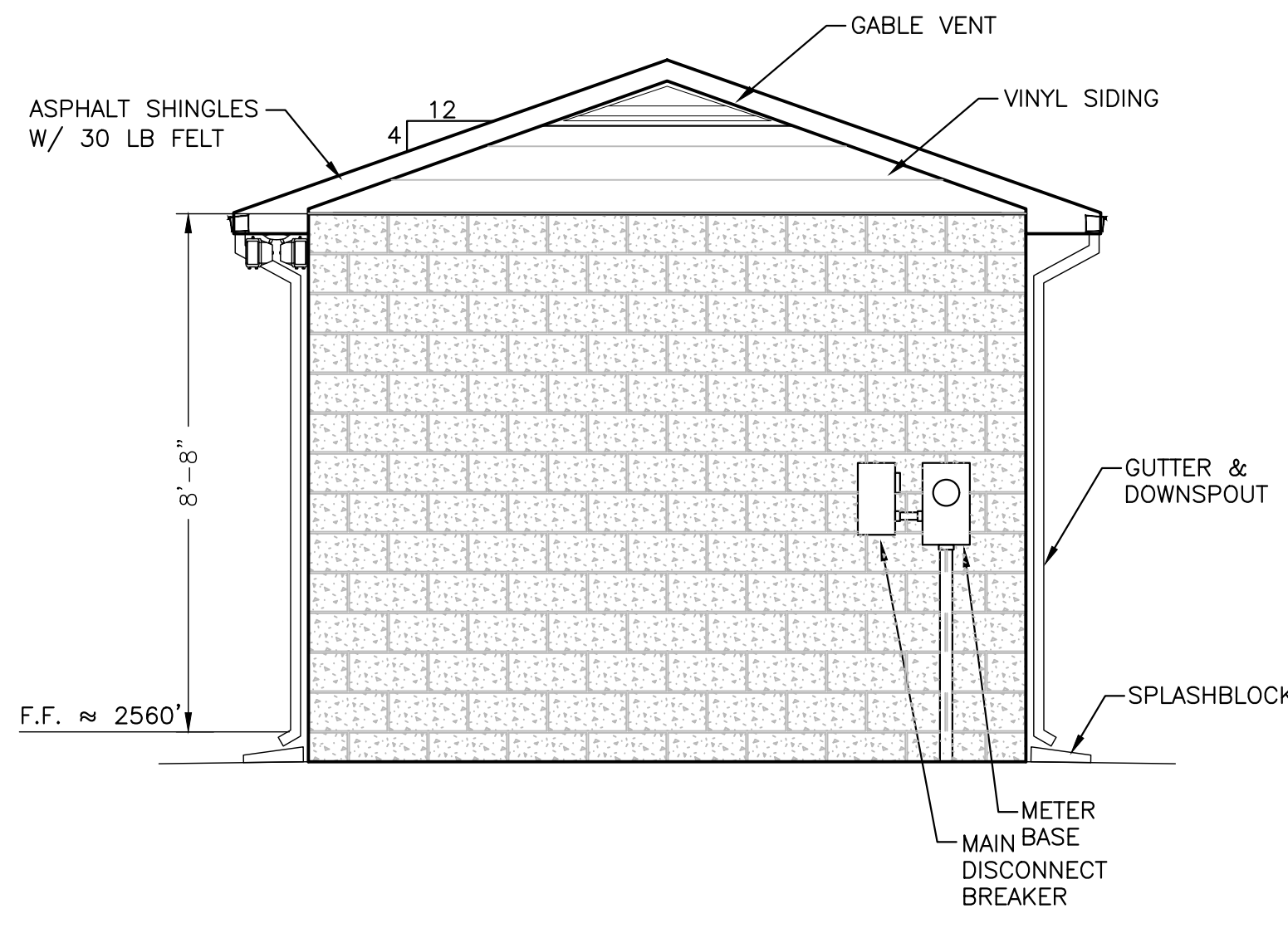
- ALL FOOTINGS SHALL BE CONSTRUCTED ON UNDISTURBED NATURAL SOIL OR COMPACTED CONTROLLED FILL. EARTH CUTS MAY BE USED AS FORMS FOR FOOTING CONCRETE. REPLACE ALL DISTURBED EARTH BELOW FOOTINGS WITH CONCRETE. DRAIN ALL BEARING STRATA ADEQUATELY BEFORE PLACING FOUNDATION CONCRETE. DO NOT PLACE CONCRETE ON FROZEN SOIL.
- SLOPE SLABS TO FLOOR DRAINS AT 1/16" PER FOOT.
- BUILDING ENTRANCE PADS SHALL BE 6" THICK CONCRETE W/ 6x6-W2.9xW2.9 WWF, PLACED ON 6" COMPACTED #68 STONE.
- ROOF TRUSSES SHALL BE DESIGNED FOR THE FOLLOWING LOADS:

TOP CHORD LIVE LOAD	25 PSF
TOP CHORD DEAD LOAD	10 PSF
BOTTOM CHORD LIVE LOAD	20 PSF
BOTTOM CHORD DEAD LOAD	10 PSF

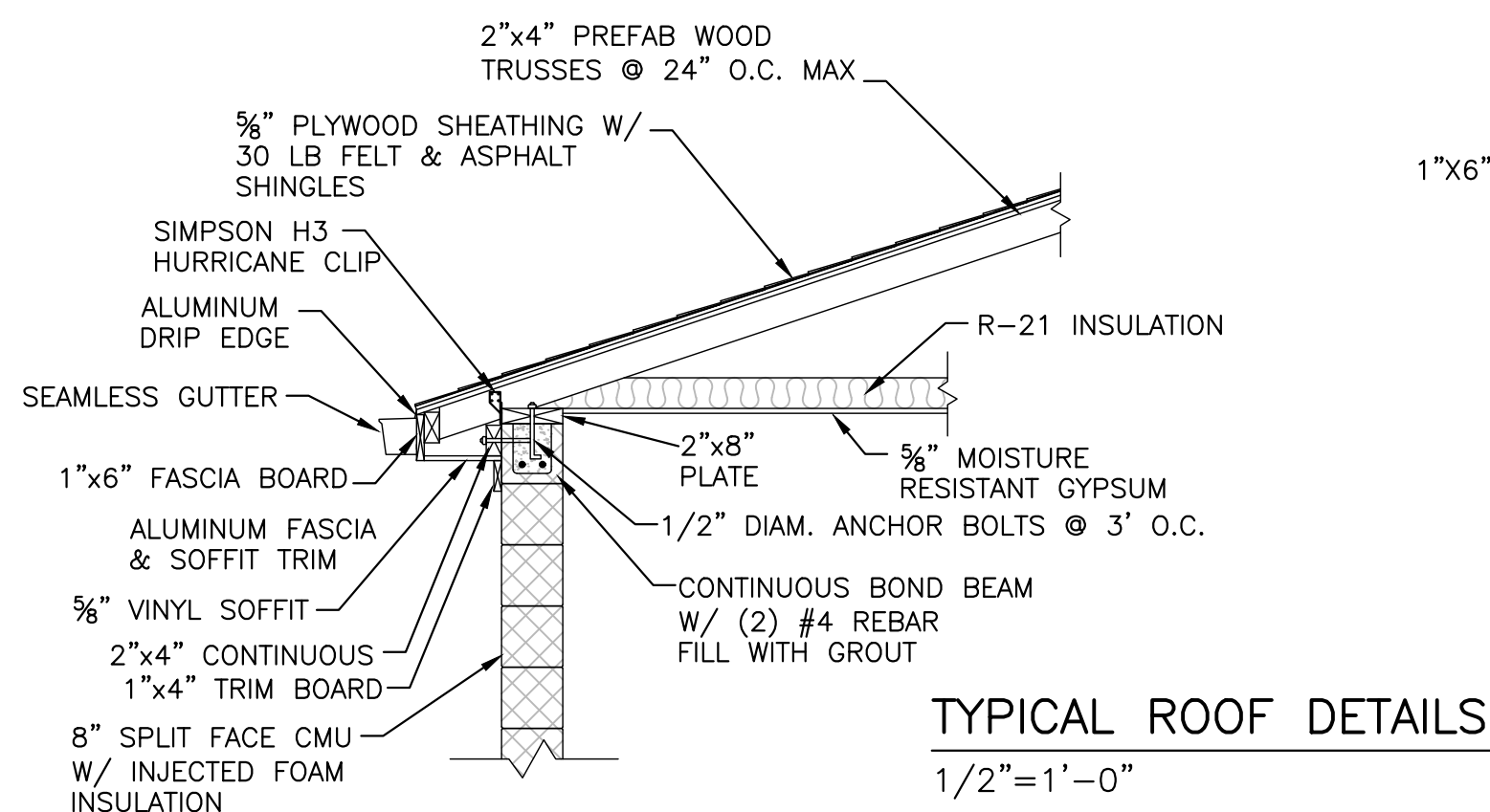
 LOADS DO NOT INCLUDE THE WEIGHT OF THE ROOF TRUSSES.
- FOOTER IS CONTINUOUS UNDER ALL MASONRY WALLS (INTERIOR AND EXTERIOR).
- STEEL WORK SHALL CONFORM TO "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL BUILDINGS" OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION, INC. (LATEST EDITION), INCLUDING ALL SUPPLEMENTS AND THE "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES" (LATEST EDITION).
- LINTELS FOR ALL DOORS SHALL CONSIST OF A W8X24 BEAM WITH A 3/8"x7" CONTINUOUS BOTTOM PLATE. LINTELS FOR ALL OTHER OPENINGS SHALL CONSIST OF A PAIR OF 3.5"x3.5"x3/8" ANGLES.
 - WOOD: ALL STRUCTURAL LUMBER SHALL BE SOUTHERN PINE CONSTRUCTION GRADE, KILN DRIED TO A MAXIMUM MOISTURE CONTENT OF 15 PERCENT.
 - FRAMING LUMBER: FRAMING LUMBER SHALL BE TREATED WITH OSMOSALTS SUCH AS OSMOSE K-33 OR SIMILAR TREATMENT AND DRIED AFTER TREATMENT TO A MAXIMUM MOISTURE CONTENT 15 PERCENT.
 - FASCIA BOARD: SHALL BE SOUTHERN YELLOW PINE, CONSTRUCTION GRADE OR BETTER, 1 INCH BY 6 INCHES.
 - ROOF SHEATHING SHALL BE 5/8 INCH EXTERIOR SHEATHING GRADE PLYWOOD.
 - CEILING AND EXTERIOR WALL SHEATHING SHALL BE 1/2 INCH EXTERIOR GRADE A-C OR A-D PLYWOOD.
 - TRIM: TRIM SHALL BE GRADE B OR BETTER YELLOW PINE, FIR, OR REDWOOD OR #2 OR BETTER WOLMANIZED SELECTED YELLOW PINE.
 - FASTENERS: NAILS AND ANCHOR BOLTS USED IN CONNECTION WITH OSMOSALT TREATED LUMBER SHALL BE GALVANIZED COATED.
 - PLATES: SHALL BE SOUTHERN YELLOW PINE, NO. 2 GRADE, DIMENSIONS AS SHOWN ON THE PLANS.
- STEEL ROUGH HARDWARE ITEMS: SHALL BE GALVANIZED COMPLYING WITH ASTM A 36.
 - MACHINE BOLTS: SHALL COMPLY WITH ASTM A 307, ZINC COATED.
 - ANCHOR BOLTS: SHALL COMPLY WITH ASTM E 754.
 - NAILS: SHALL BE GALVANIZED AT ALL LOCATIONS, SPIRAL SHANK OR RING SHANK COMPLYING WITH ASTM F 547.
- BATT INSULATION: BATT INSULATION SHALL BE OF GLASS FIBER INSULATION FOR THERMAL AND ACOUSTICAL APPLICATIONS. MATERIAL SHALL PROVIDE A R-21 INSULATING FACTOR. MATERIAL SHALL COMPLY WITH ASTM C 665 STANDARD.
- SHINGLES: ROOFING WHERE DESIGNATED ON THE PLANS SHALL CONSIST OF A TWO PLY APPLICATION OF 15 POUND ASPHALT FELT FOLLOWED BY A 30 YEAR MINERAL SURFACED FIBERGLASS SHINGLE, U/L TYPE, CLASS C, SELF SEALING. SHINGLE COLOR TO BE SELECTED BY OWNER FROM SAMPLES PROVIDED BY CONTRACTOR. SHINGLE MATERIAL SHALL SATISFY THE REQUIREMENTS OF ASTM E 108.
- SIDING AND SOFFIT: SIDING AND SOFFIT PANELS SHALL BE PROVIDED WHERE DESIGNATED ON THE PLANS. VERTICAL PANELS SHALL BE USED IN GABLES. PANELS SHALL BE COMPOSED OF PVC POWDER COMPOUND AND SHALL BE SIMILAR TO THOSE MANUFACTURED BY BIRD VINYL PRODUCTS. PANELS SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM D 3679.
- GUTTERS AND DOWNSPOUTS: PROVIDE .025 INCH SEAMLESS ALUMINUM GUTTERS AND DOWNSPOUTS WHERE SHOWN ON THE PLANS. ALL OUTLETS SHALL HAVE ALUMINUM WIRE STRAINERS. GUTTER AND SPOUTS SHALL BE PREFINISHED WITH 5 INCH RECTANGULAR GUTTER SECTIONS AND 3 INCH RECTANGULAR DOWNSPOUTS. DOWNSPOUTS: TURN DOWNSPOUTS OUT AT THE BOTTOM AND PROVIDE FLAGSTONE OR CONCRETE SPLASH BLOCKS UNLESS OTHERWISE INDICATED ON THE PLANS.
- SOFFIT VENTS: SOFFIT VENTS SHALL BE OF THE SAME MATERIAL AS THE SOFFIT.
- RIDGE VENTS: RIDGE VENTS SHALL BE OF ALUMINUM CONSTRUCTION WITH SCREENED OPENINGS AS INDICATED ON THE PLANS.
- STEEL DOORS
 - GENERAL: PROVIDE STEEL DOORS AND FRAMES OF THE DIMENSIONS AS SHOWN ON THE PLANS THAT COMPLY WITH SDI 100 AND ASTM E 152. EXTERIOR DOORS SHALL BE 1 3/4 INCHES THICK, AND INTERIOR DOORS SHALL BE 1 3/8 INCHES THICK.
 - FACE: SHALL BE MINIMUM 18 GAUGE COLD-ROLLED STEEL SHEETS COMPLETELY FLUSHED AND SEAMLESS COMPLY WITH ASTM A 569 AND ASTM A 568.
 - CORE: INTERIOR DOORS SHALL BE HOLLOW CORE. EXTERIOR DOORS SHALL BE INSULATED.
 - WINDOWS: WHERE INDICATED ON THE DRAWINGS, DOORS SHALL BE FURNISHED WITH WINDOWS TO ALLOW VISUAL INSPECTION OF AREAS.
 - FRAMES: SHALL BE FABRICATED OF MINIMUM 16 GAUGE, COLD-ROLLED FURNITURE STEEL COMPLYING WITH ASTM A 366 AND ASTM A 568 OR HOT-ROLLED STEEL COMPLYING WITH ASTM A 569 AND ASTM A 568.
 - SUPPORTS AND ANCHORS: SHALL BE FABRICATED OF NOT LESS THAN 18 GAUGE GALVANIZED SHEET STEEL.
 - PRIMER: SHALL BE RUST-INHIBITIVE ENAMEL OR PAINT AS SPECIFIED BY ANSI A 224.1.
 - FINISH: SHALL BE MANUFACTURER'S STANDARD BAKING EPOXY OR ENAMEL PAINT.
 - HARDWARE: DOOR HARDWARE SHALL BE AS SPECIFIED IN SECTION 08700 - DOOR HARDWARE.
- HINGES, BUTTS AND PIVOTS: FULL-MORTISE, 5 KNUCKLE BALL-BEARING TYPE WITH NONREMOVABLE PINS AT EXTERIOR DOORS; STANLEY OR APPROVED EQUAL.
- LOCKS AND LATCHSETS: EACH DOOR SHALL BE PROVIDED WITH A PLAIN KEYLESS LATCH SET AND CYLINDER DEADLOCK EQUAL TO RUSSWIN STILEMAKER SERIES. DEADLOCK SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. DEADLOCKS SHALL BE KEYPED TO MATCH EXISTING KEYS PRESENTLY USED BY THE OWNER.
- CLOSERS:
 - LOW FREQUENCY DOORS: LCN 4030/4130 SERIES OR APPROVED EQUAL
 - DOOR TRIM: KICKPLATES, ARMOR PLATE, PLASTIC PLATES; BROOKLINE OR APPROVED EQUAL.
 - STOPS: IVES OR APPROVED EQUAL.
 - WEATHERSTRIPPING AND THRESHOLDS: ADA COMPLIANT; REESE OR APPROVED EQUAL.



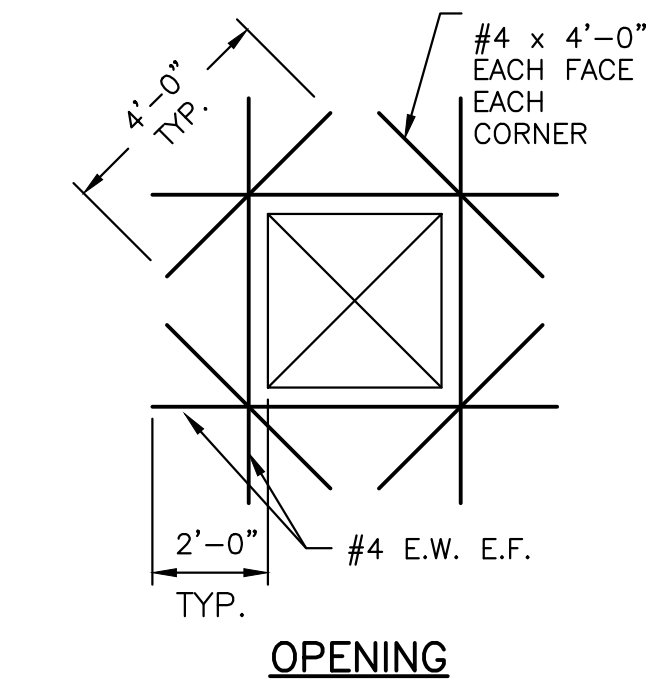
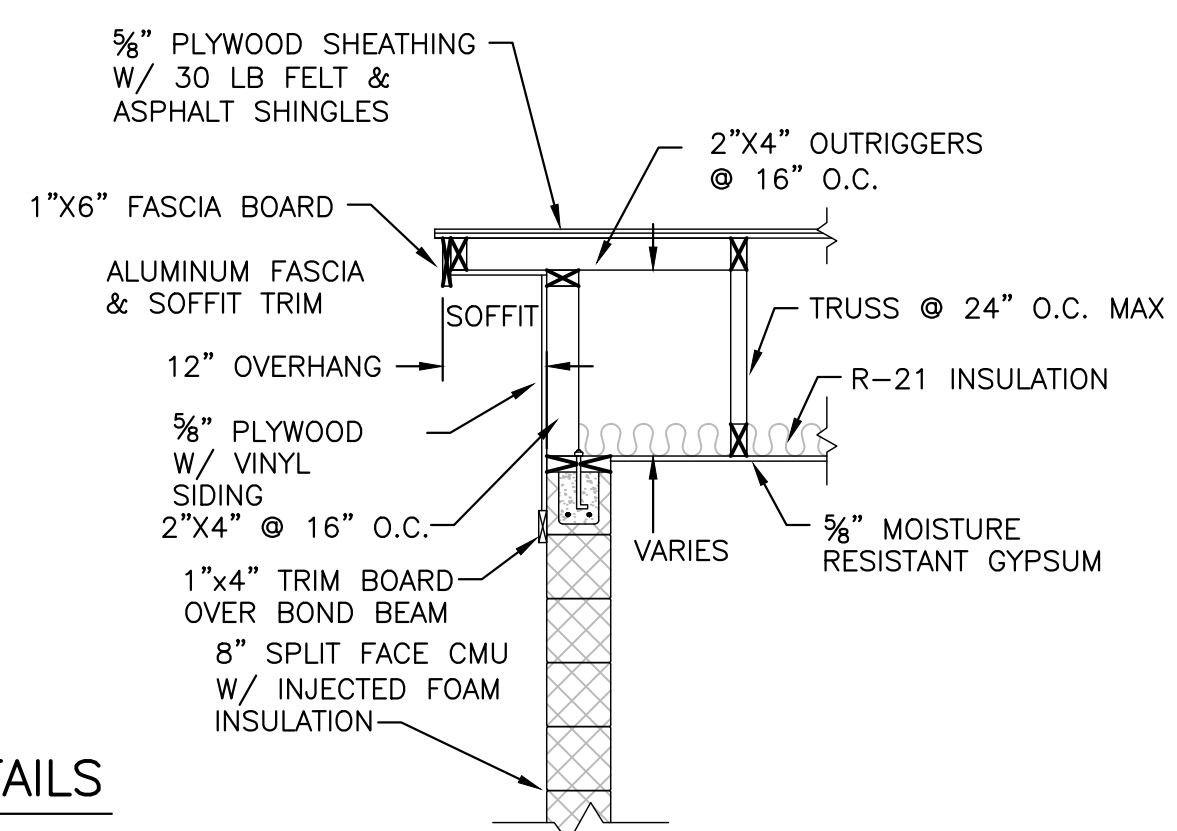
SOUTHWEST ELEVATION
3/8"=1'-0"



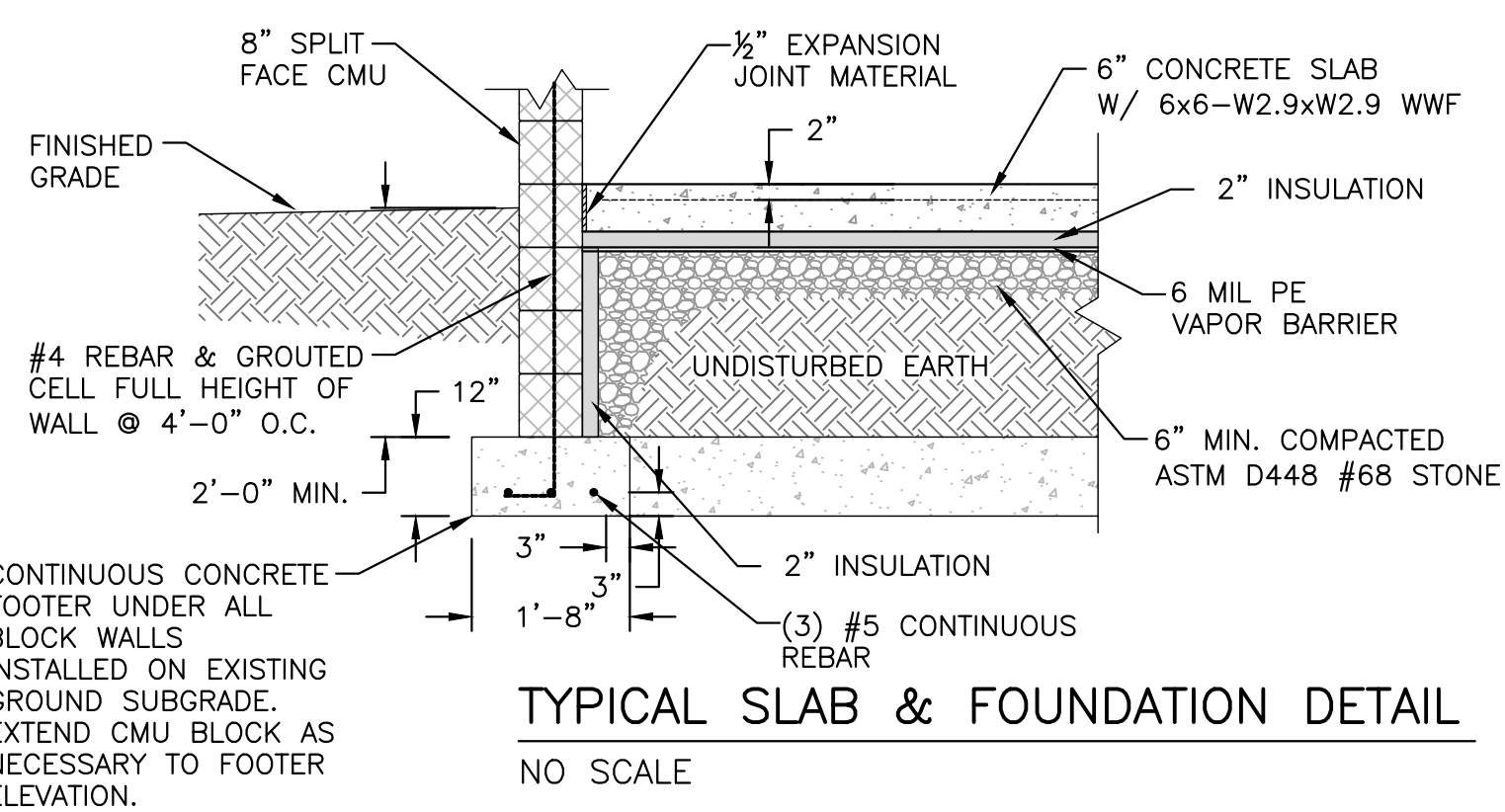
NORTHWEST ELEVATION
3/8"=1'-0"



TYPICAL ROOF DETAILS
1/2"=1'-0"



TYPICAL SLAB OPENING REINFORCEMENT
N.T.S.



TYPICAL SLAB & FOUNDATION DETAIL
NO SCALE

PANEL "A" SCHEDULE

PANEL BOARD CHARACTERISTICS:
VOLTS: 120/240
PHASES: 1
WIRES: 3
SLID NEUTRAL: 100%
GROUND BAR
MINIMUM SHORT CIRCUIT RATING: 10,000 RMS SYM AMPS
MAIN BREAKER: 200 AMPERES SERVICE ENTRANCE RATED

CKT. NO.	POLE NO.	DESCRIPTION	CONN. KVA	CONN. AMPS			BREAKER			NO. & WIRE SIZE			CONDUIT SIZE
				L1	L2	P	AF	AT	PHASE	NEUT.	EGC		
1	1	LIGHTING	0.60	5.0			1	100	20	#12	#12	#12	3/4"
3	3	RECEPTACLES (GFCI BREAKER)	1.20		10.0		1	100	20	#12	#12	#12	3/4"
5	5	DEHUMIDIFIER RECEPTACLE	0.84	7.0			1	100	20	#12	#12	#10	3/4"
7	7	INSTRUMENTATION	0.24		2.0		1	100	20	#12	#12	#12	3/4"
9		SPARE						1	100	20			
11		SPARE						1	100	20			
13		SPARE											
15		SPARE											
17		SPARE											
19		SPARE											
21		SPARE											
23		SPARE											
2	2	BOOSTER PUMP CONTROL PANEL*	8.2	34.0			1	100	100	#3	#3	#8	1 1/2"
4	4				34.0								
6	6	MINI SPLIT	3.7		15.3		1	100	20	#12	#12	#12	3/4"
8		SPARE											
10		SPARE											
12		SPARE											
14		SPARE											
16		SPARE											
18		SPACE & BUS ONLY											
20													
24													
TOTALS			14.71	61.3	61.3								

* CONTRACTOR TO VERIFY RECOMMENDED BREAKER SIZE AND NUMBER OF CONDUITS WITH EQUIPMENT SUPPLIER

- PAINTING: INTERIOR ARCHITECTURAL METALS, EQUIPMENT, AND PIPING: PRIMER SHALL BE A GENERAL PURPOSE PRIMER WITH A SUPERIOR WETTING AND PENETRATING PROPERTIES APPLIED AS A SINGLE COAT WITH A MINIMUM 3 MIL DRY THICKNESS. MATERIAL SHALL BE SIMILAR TO CARBOLINE "CARBOLINE II" OR APPROVED EQUAL. CONCRETE MASONRY UNITS: THE PRIME COAT SHALL BE HEAVY-BODIED HIGHLY PIGMENTED PRODUCT FOR FILLING OPEN TEXTURED BLOCK SURFACES, APPLIED AT NOT TO EXCEED 100 SQUARE FEET PER GALLON, AND SIMILAR TO PENNSURBY "PVA BLOCK FILLER 17-W-3" OR APPROVED EQUAL.
- INTERIOR ARCHITECTURAL METALS, EQUIPMENT AND PIPING: FINISH COAT SHALL CONSIST OF TWO COATS OF A HIGH BUILD EPOXY APPLIED AT A RATE TO PROVIDE A MINIMUM OF 4 MILS DRY FILM THICKNESS. FINISH COAT SHALL BE CARBOLINE "890" OR APPROVED EQUAL.
 - SURFACES SHALL BE PREPARED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND SHALL BE GENERALLY FREE OF OIL, GREASE, STAINS, MILL SCALE AND LOOSE RUST.
 - PRIMING: ALL SURFACES BEFORE RECEIVING PRIMER SHALL BE PREPARED AND PRIMED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. ALL EQUIPMENT, PIPING, AND MISCELLANEOUS METALS SHALL RECEIVE A PRIME COAT OR TOUCH-UP COAT OF RUST PENETRATING PRIMER PRIOR TO FINISH COATS. ALUMINUM, STAINLESS STEEL, BRONZE, PLASTIC AND EQUIPMENT MOUNTING PLATES SHALL NOT BE PAINTED.
 - PAINTING: APPLY ALL PAINT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. PROVIDE PROTECTION AT ALL TIMES DURING APPLICATION IN STRICT CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE CONTRACTOR SHALL HAVE AVAILABLE ON SITE SUCH GAGES, THERMOMETERS, AND OTHER DEVICES NECESSARY TO INSURE THE PROPER APPLICATION OF PAINTS.

LIGHTING FIXTURE SCHEDULE

TYPE	NO.	LAMPS		MOUNTING	REMARKS
		TYPE	WATTAGE		
△	4	LED/FLUORESCENT		SURFACE	1 FT X 4 FT CEILING FIXTURE - VAPOR TIGHT - 40W EQ.-SPACED EVENLY ON CEILING
△	1	LED		WALL	EXTERIOR DUAL FLOOD LIGHT

ALL LIGHT FIXTURES SHALL BE HIGH EFFICIENCY

ELECTRICAL NOTES:

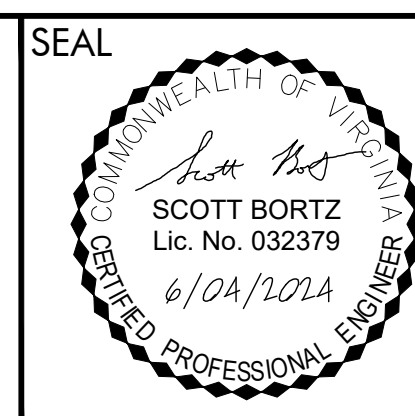
- CONTRACTOR TO COORDINATE NEW UTILITY SERVICE TO PROPOSED BOOSTER STATION WITH POWER COMPANY. CONTRACTOR SHALL INSTALL MINIMUM 4" CONDUIT FROM UTILITY POLE FOR ELECTRIC SERVICE AND INSTALL METER BASE AT STATION. OWNER WILL APPLY AND PAY FOR POWER SERVICE.
- CONTRACTOR TO COORDINATE NUMBER AND SIZE OF CONDUITS REQUIRED FOR PUMP CONTROL PANEL UNDER SLAB AND PUMP SKID WITH SYSTEM MANUFACTURER AND ENGINEER.
- ALL SIGNAL WIRING SHALL BE RUN IN SEPARATE CONDUITS FROM POWER WIRING.

Peed & Bortz, L.L.C.
CIVIL & ENVIRONMENTAL ENGINEERS
20 MIDWAY PLAZA DRIVE - SUITE 100
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BARRETT MILL WATER IMPROVEMENTS

WYTHE COUNTY

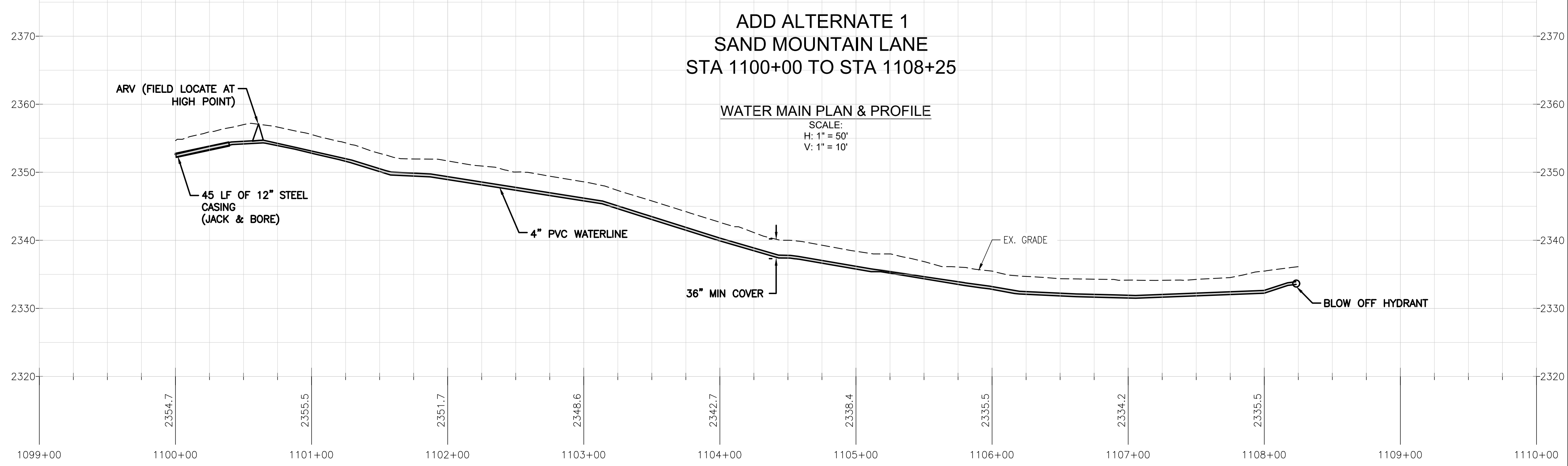
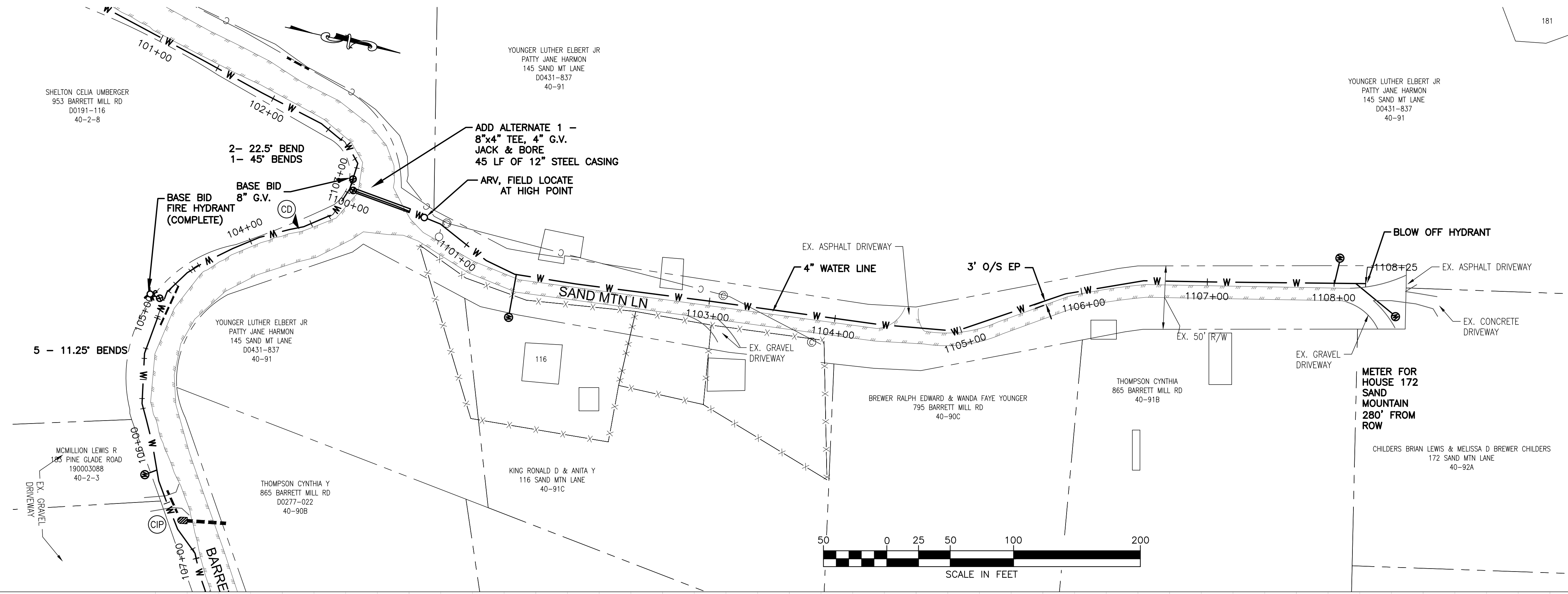
VIRGINIA



DRAWN BY: J. MCCLURE
REVIEW BY: S. BORTZ
DATE: 5/08/2024
REVISION: 6/04/2024

SHEET DESCRIPTION:
PUMP STATION BUILDING DETAILS

C30

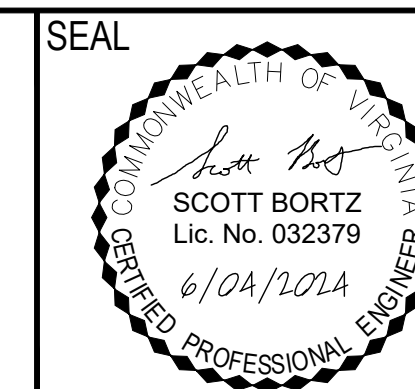


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BARRETT MILL WATER IMPROVEMENTS

WYTHE COUNTY

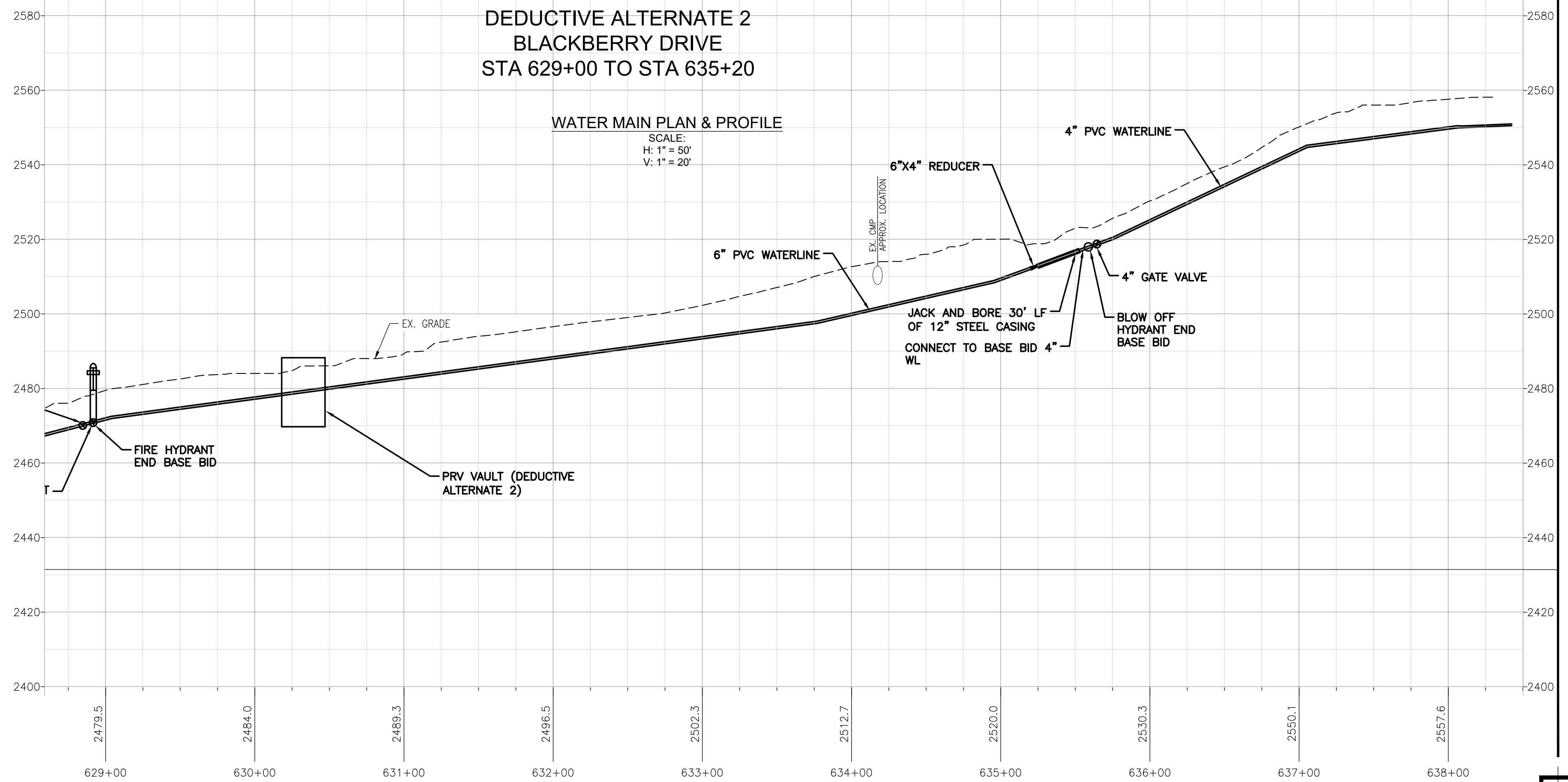
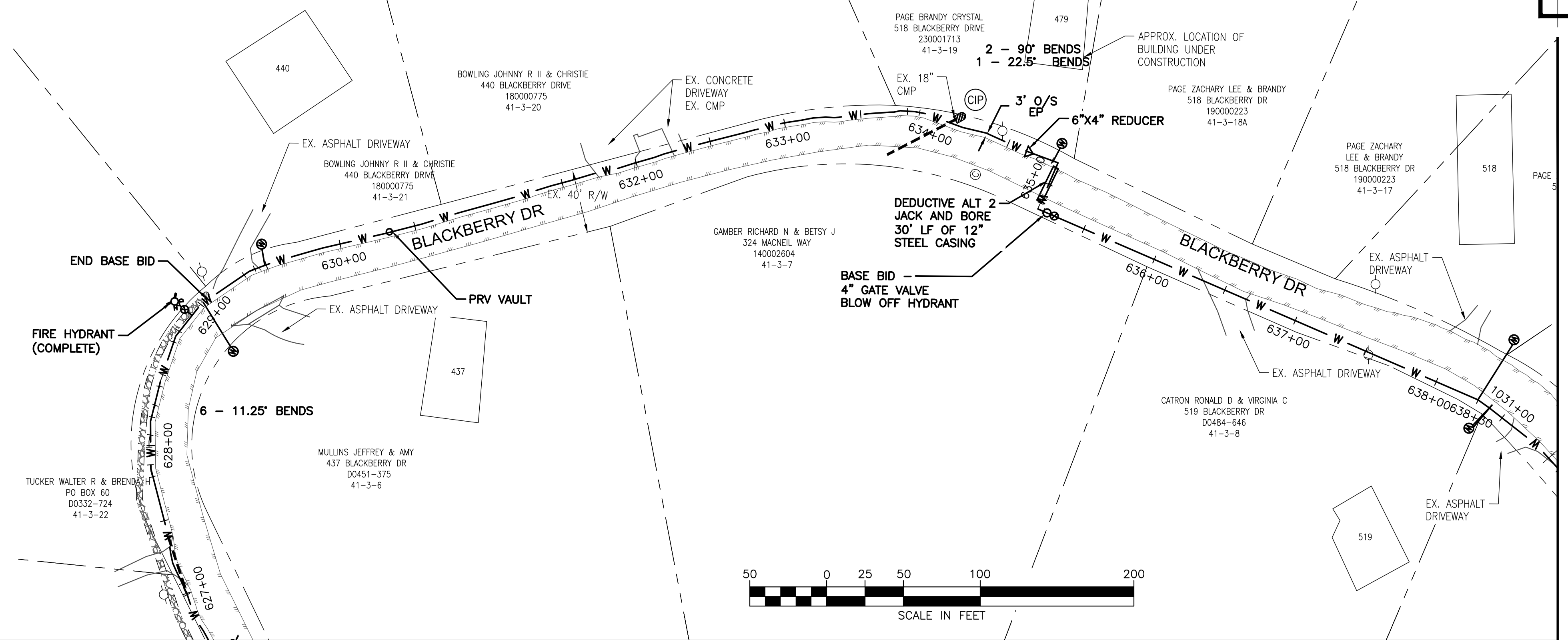
VIRGINIA



DRAWN BY:
J. MCCLURE
 REVIEW BY:
S. BORTZ
 DATE:
5/08/2024
 REVISION:
6/04/2024

SHEET DESCRIPTION:
ADD ALTERNATE 1 - SAND MOUNTAIN LN

C31

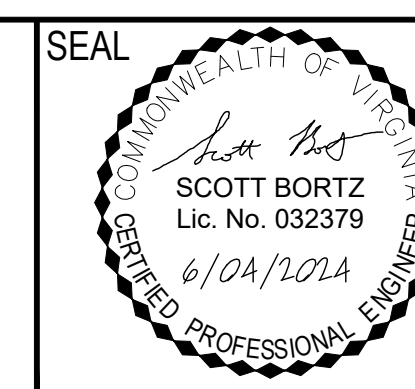


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BARRETT MILL WATER IMPROVEMENTS

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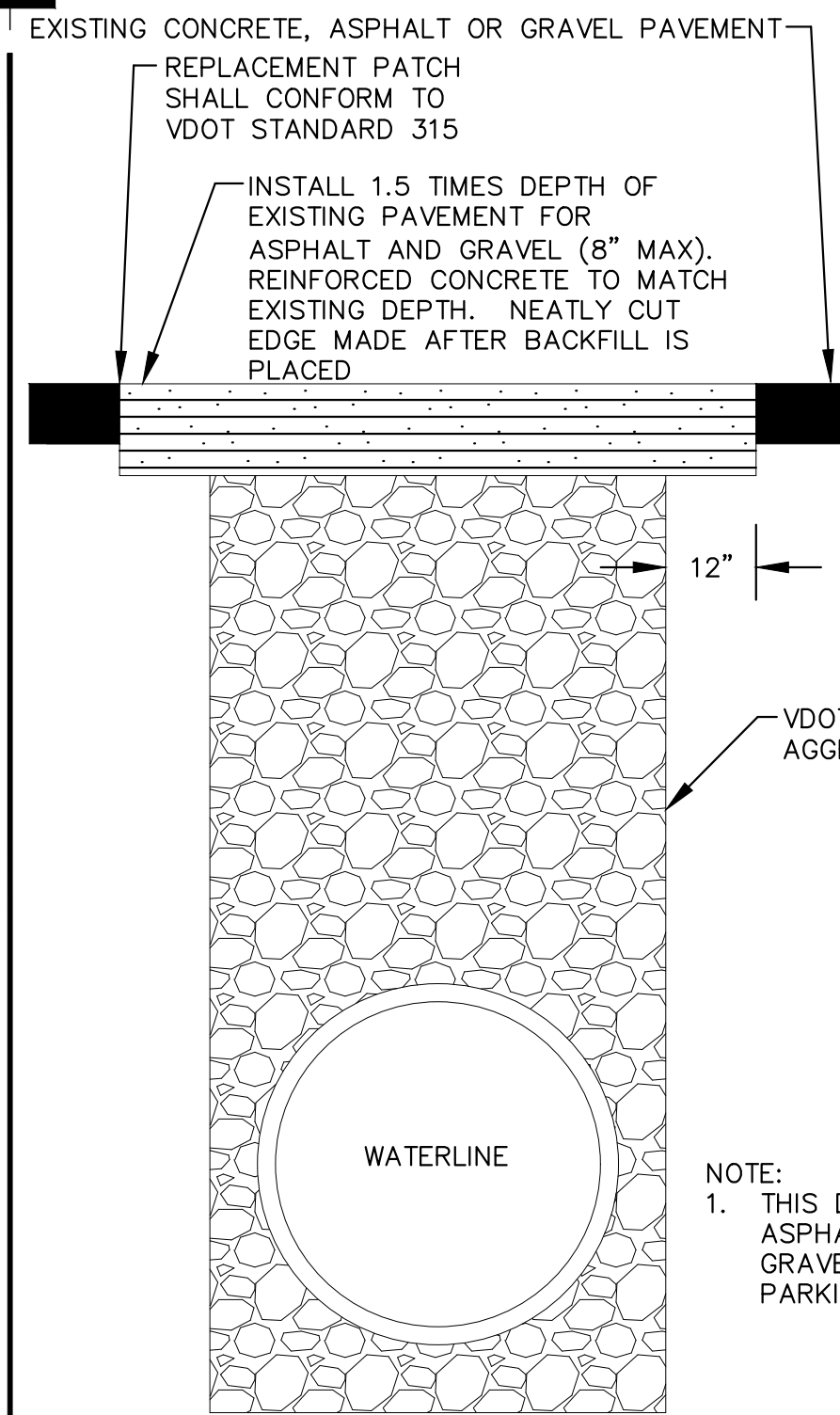
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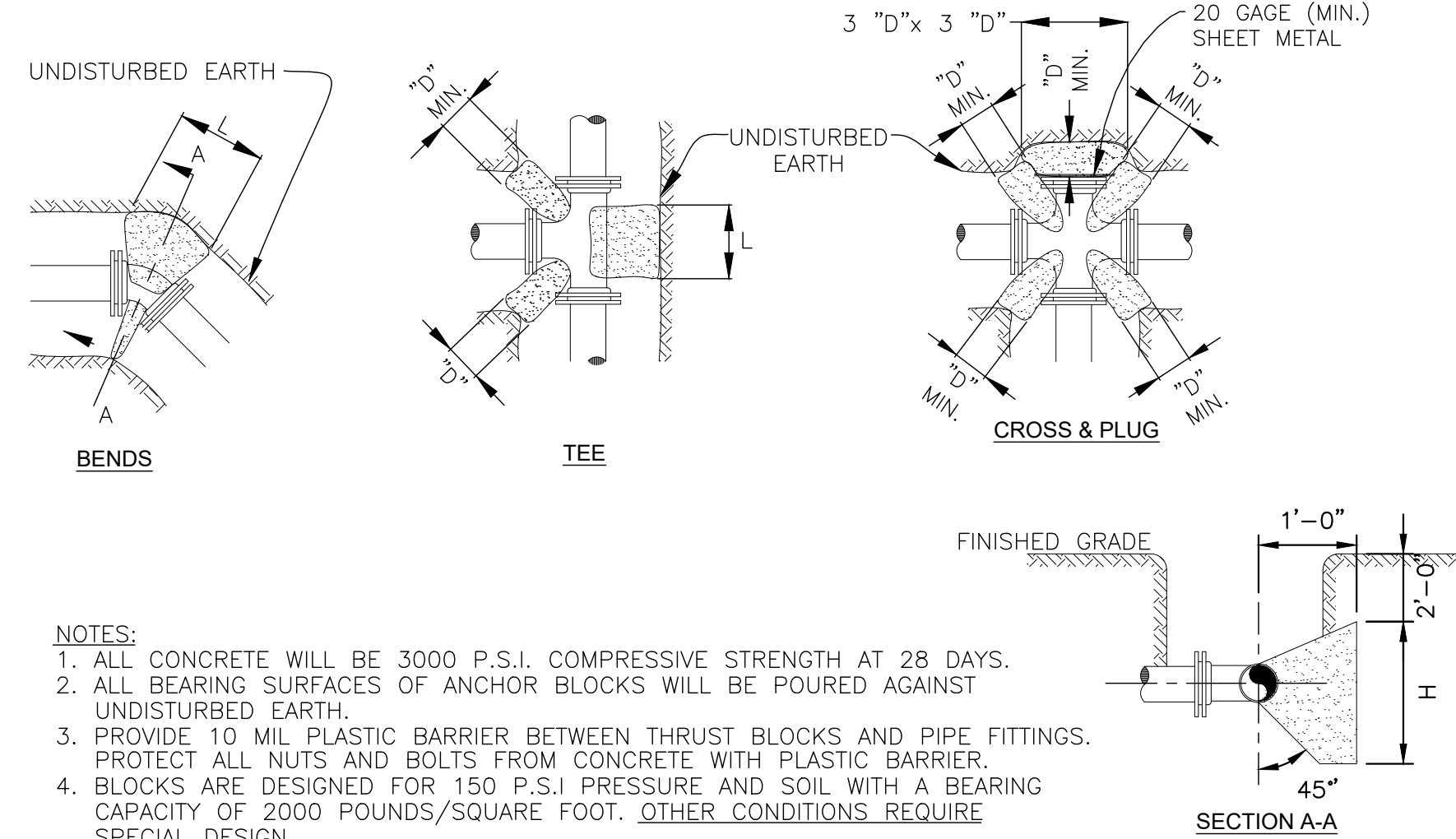
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J. MCCLURE
REVIEW BY:
S. BORTZ
DATE:
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REVISION:
6/04/2024

SHEET DESCRIPTION:
LOOKOUT DRIVE TO BLACKBERRY
DRIVE ALT

C32



STANDARD PAVEMENT REPAIR
NOT TO SCALE



- NOTES:**
1. ALL CONCRETE WILL BE 3000 P.S.I. COMPRESSIVE STRENGTH AT 28 DAYS.
 2. ALL BEARING SURFACES OF ANCHOR BLOCKS WILL BE POURED AGAINST UNDISTURBED EARTH.
 3. PROVIDE 10 MIL PLASTIC BARRIER BETWEEN THRUST BLOCKS AND PIPE FITTINGS. PROTECT ALL NUTS AND BOLTS FROM CONCRETE WITH PLASTIC BARRIER.
 4. BLOCKS ARE DESIGNED FOR 150 P.S.I. PRESSURE AND SOIL WITH A BEARING CAPACITY OF 2000 POUNDS/SQUARE FOOT. OTHER CONDITIONS REQUIRE SPECIAL DESIGN.
 5. CONCRETE TO CURE A MINIMUM OF 7 DAYS BEFORE SUBJECTING SAME TO TEST PRESSURE.
 6. "D"= NOMINAL DIAMETER OF PIPE, "O.D.= ACTUAL OUTSIDE DIAMETER OF PIPE.
 7. HEIGHT OF CONCRETE ANCHOR BLOCK ABOVE PIPE CENTERLINE IS 1/3: THE H DIMENSION.

PIPE SIZE	11 1/4' BEND		22 1/2' BEND		45' BEND		90' BEND	
	L	H	L	H	L	H	L	H
6	1'-6"	1'-0"	1'-6"	1'-0"	2'-6"	1'-0"	2'-6"	2'-0"
8	2'-0"	1'-0"	2'-6"	1'-0"	2'-6"	2'-0"	4'-0"	2'-0"
10	2'-0"	1'-6"	2'-6"	1'-0"	3'-6"	2'-0"	4'-6"	2'-6"
12	2'-0"	1'-6"	2'-6"	1'-0"	4'-0"	2'-6"	5'-0"	4'-0"
16	4'-6"	3'-0"	3'-0"	3'-0"	5'-0"	3'-6"	7'-6"	4'-6"
20	4'-6"	3'-0"	4'-6"	3'-0"	6'-0"	4'-6"	8'-6"	6'-0"

STANDARD ANCHOR BLOCKING DETAILS
NOT TO SCALE

NOTES:

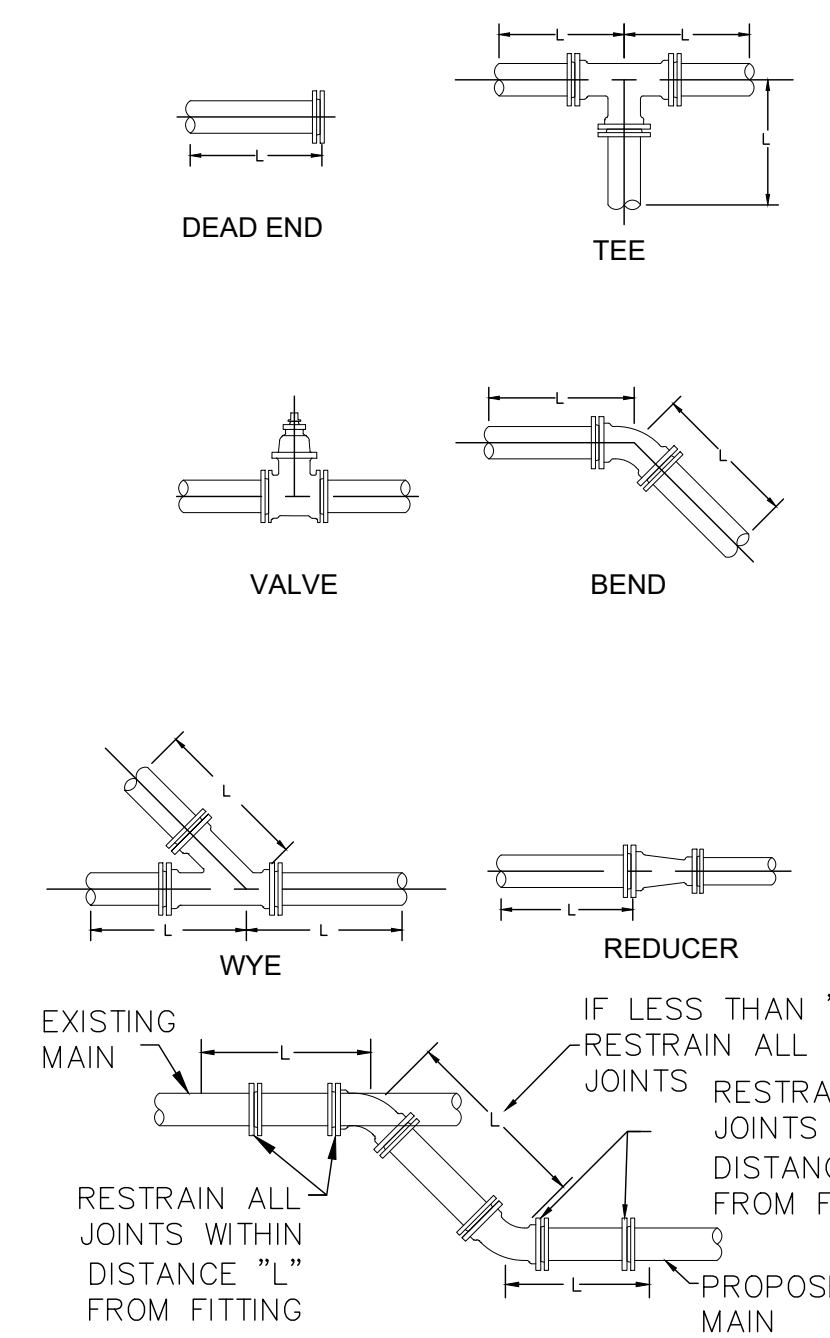
1. RESTRAINING DEVICES OR RESTRAINED JOINTS SHALL HAVE A WORKING PRESSURE OF 250 PSI WITH A MINIMUM SAFETY FACTOR OF 2.0
2. RESTRAINED LENGTH SHOWN IS BASED ON 3' OF COVER, SOIL TYPE CL, TRENCH TYPE 2, 2:1 SAFETY FACTOR, AND DUCTILE IRON PIPE AT A TEST PRESSURE OF 150 PSI. IF FIELD CONDITIONS DIFFER FROM THOSE LISTED, CONTACT ENGINEER TO DETERMINE REQUIRED RESTRAINED LENGTH.
3. RESTRAINED LENGTHS SHOWN IN CHART WERE CALCULATED USING METHODOLOGY DEVELOPED BY THE DUCTILE IRON PIPE RESEARCH ASSOCIATION (DIPRA) AND ARE INTENDED AS A GENERAL GUIDE BASED ON CONDITIONS SHOWN IN NOTE 2. FOR FITTINGS AND/OR FIELD CONDITIONS NOT SHOWN, ENGINEER SHALL SUBMIT CALCULATIONS USING DIPRA METHODOLOGY TO THE TOWN FOR APPROVAL.
4. EXISTING PIPE ADJACENT TO PROPOSED BENDS, WYES, VALVES, TEES, AND PLUGS SHALL BE UNCOVERED AND THE JOINTS RESTRAINED FOR THE LENGTHS INDICATED. IF THE EXISTING PIPE IS UNABLE TO ACCEPT THE MECHANICAL JOINT RESTRAINING MECHANISM, THE EXISTING PIPE SHALL BE REPLACED WITH DUCTILE IRON WATER MAIN IN ACCORDANCE WITH THE SPECIFICATIONS AND RESTRAINED LENGTH INDICATED. IN LIEU OF RESTRAINING JOINTS OF EXISTING PIPE, A BULKHEAD ANCHOR AS SHOWN IN DETAILS CA-1 AND CA-2 MAY BE USED.
5. FIRE HYDRANTS SHALL BE RESTRAINED AT EACH JOINT IN THE ASSEMBLY.
6. ALL JOINTS WITHIN CASING PIPES SHALL BE RESTRAINED.
7. IF A CASING PIPE FALLS WITHIN THE RESTRAINED LENGTH "L", THE REQUIRED RESTRAINED LENGTH SHALL BE INCREASED BY THE LENGTH OF THE CASING.
8. THRUST RESTRAINTS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND SHALL CONFORM TO THE FOLLOWING TABLE OR APPROVED EQUAL. SHOP DRAWINGS FOR ALTERNATE RESTRAINTS SHALL BE SUBMITTED TO THE TOWN FOR APPROVAL PRIOR TO CONSTRUCTION.

MINIMUM LENGTH OF PIPE WITH RESTRAINED JOINTS (L) IN FEET

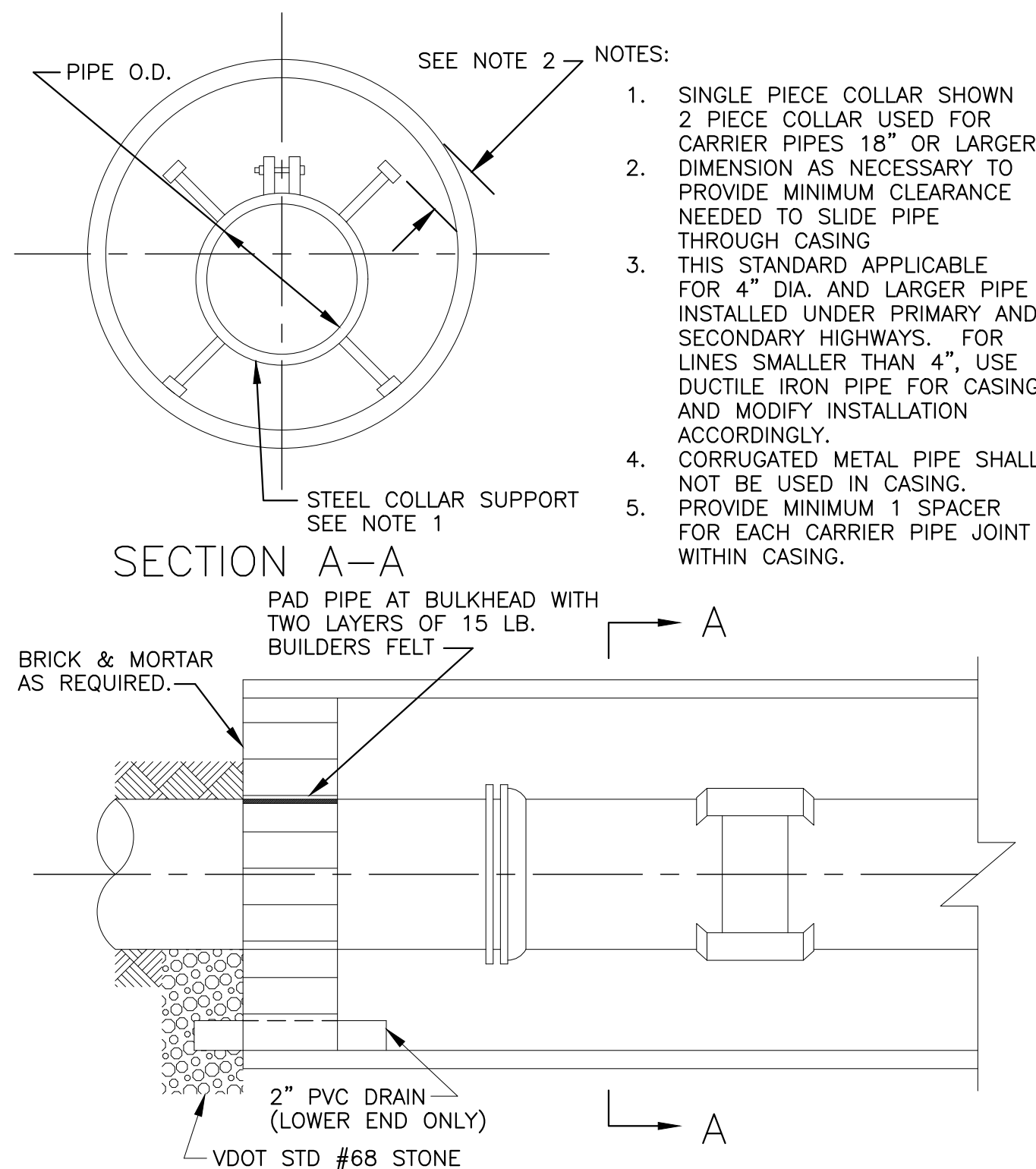
PIPE SIZE	HORIZONTAL BEND			VERTICAL BEND UP			VERT. BEND DOWN			DEAD END OR VALVE	UNIFORM SIZE TEE OR WYE	REDUCER LARGER Ø TO SMALLER Ø
	11.25°	22.5°	45°	11.25°	22.5°	45°	11.25°	22.5°	45°			
4"	2	5	10	2	5	10	4	7	15	18	13	
6"	3	7	15	3	7	15	5	10	21	26	21	13
8"	5	9	19	4	9	19	7	14	28	34	29	14
10"	6	11	23	5	11	23	8	17	34	42	37	14
12"	7	13	28	6	13	28	10	20	41	50	45	15
14"	8	15	32	7	15	32	11	23	48	57	52	15
16"	9	17	36	8	17	36	13	26	54	65	60	15
18"	10	19	40	9	19	40	14	29	61	73	68	15
20"	11	21	45	10	21	45	16	32	67	81	76	15
24"	13	25	53	12	25	53	19	38	80	97	92	29

MECHANICAL RESTRAINING DEVICES FOR PIPES
NOT TO SCALE

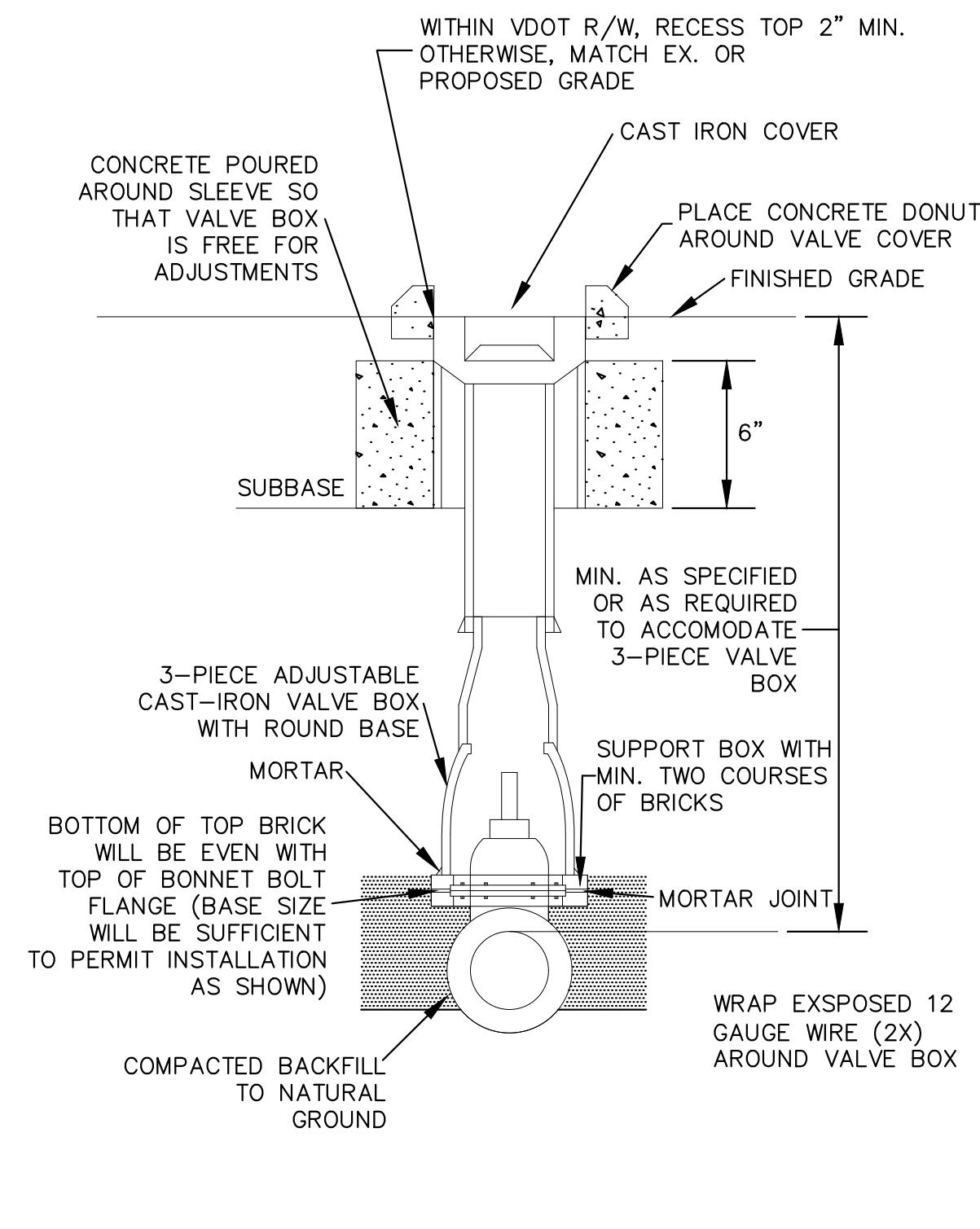
MECHANICAL RESTRAINING DEVICE DETAILS



CONNECTION TO EXISTING MAIN



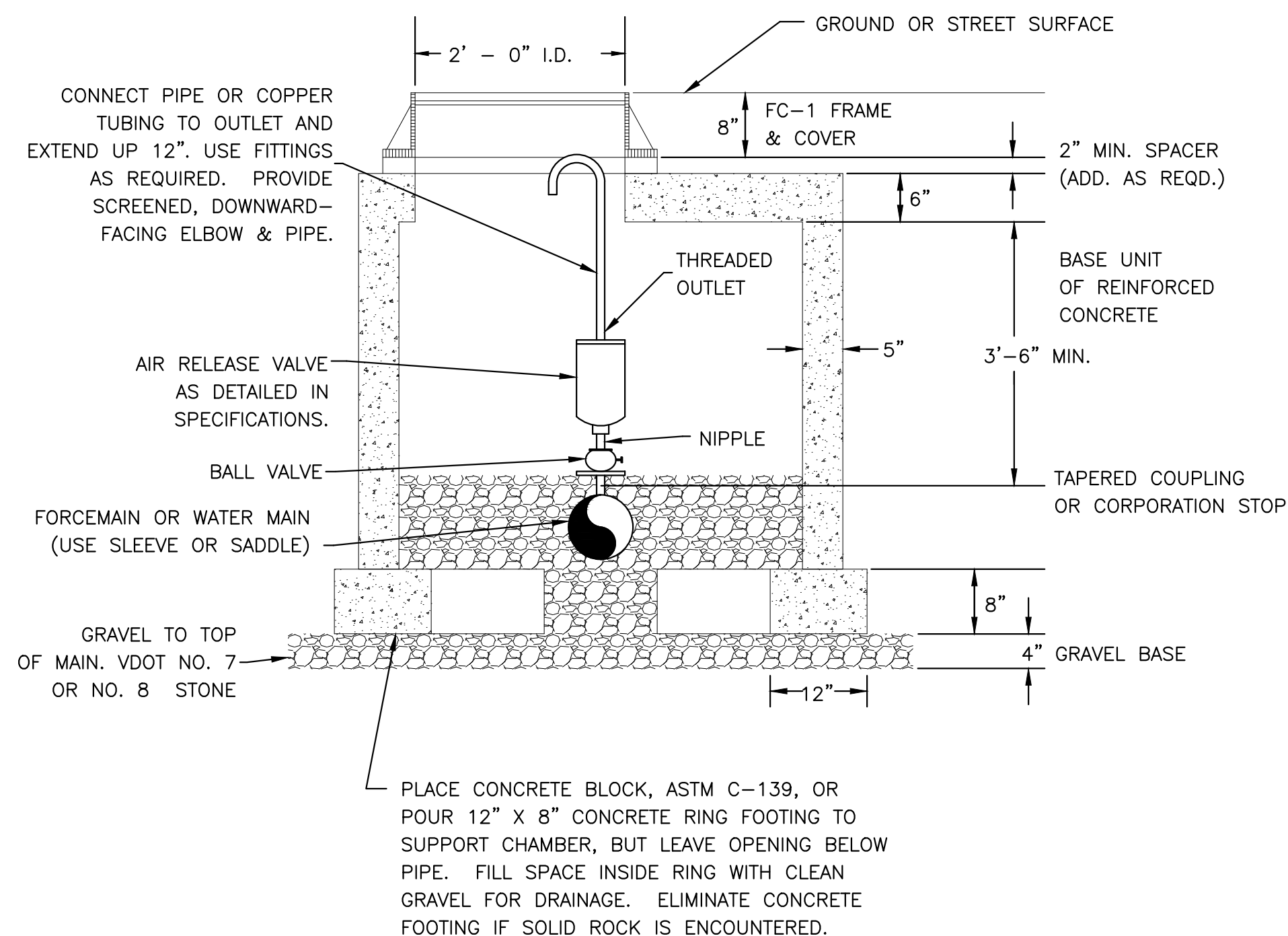
SEALED CASING INSTALLATION WITH STEEL COLLAR FOR VDOT CROSSING
NOT TO SCALE



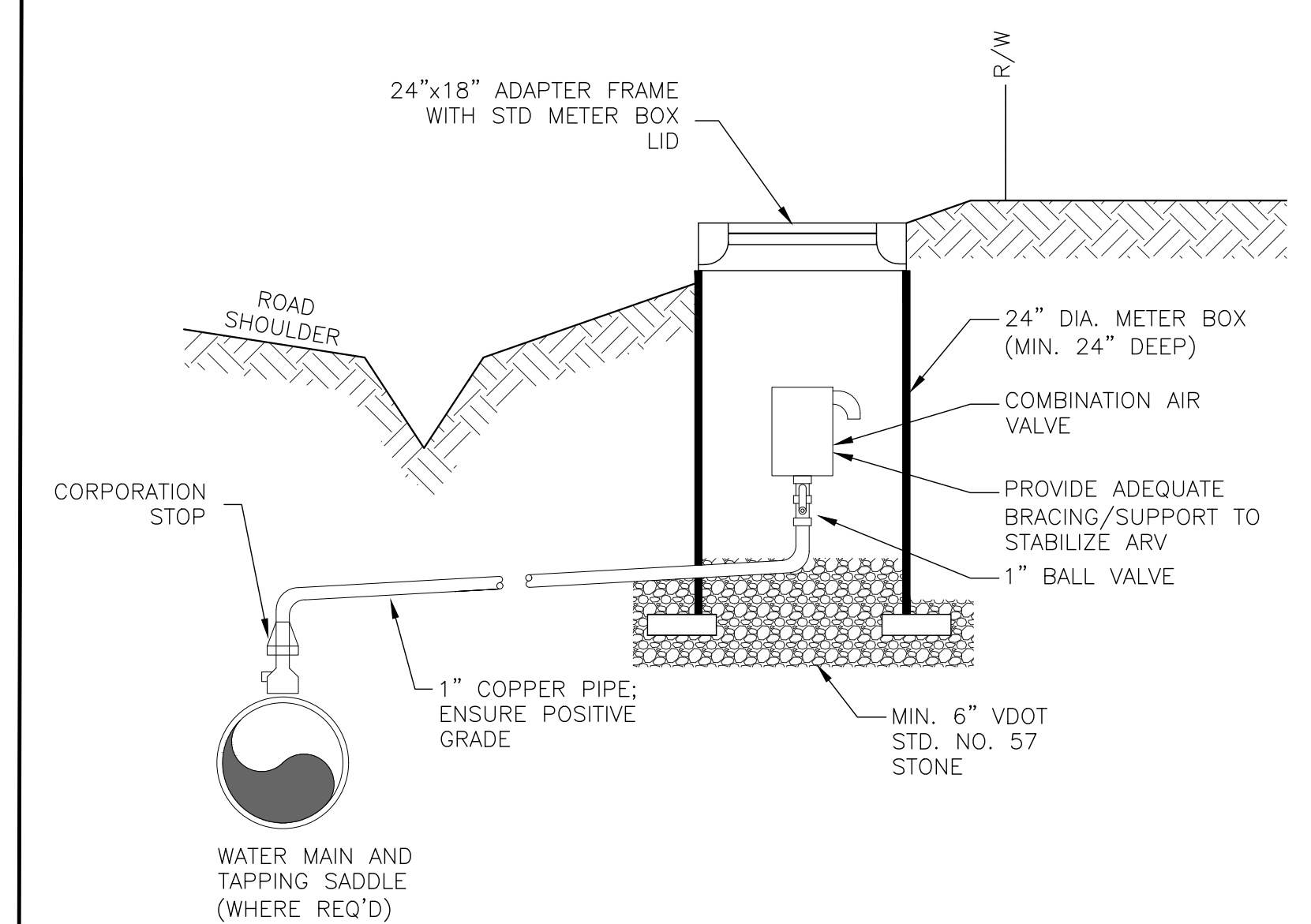
VALVE & BOX DETAIL
NOT TO SCALE

NOTE:

MATERIALS AND FABRICATION IN ACCORDANCE WITH MH-2 MANHOLE. SIZE OF AIR RELEASE VALVE AND SIZE OF BALL VALVE AS SPECIFIED.



PRECAST CHAMBER FOR AIR RELEASE VALVE
NOT TO SCALE



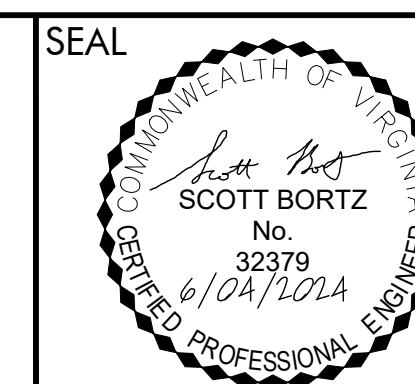
ALTERNATE CUT SLOPE LOCATION COMBINATION AIR RELEASE VALVE
NOT TO SCALE

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BARRETT MILL WATER IMPROVEMENTS

WYTHE COUNTY

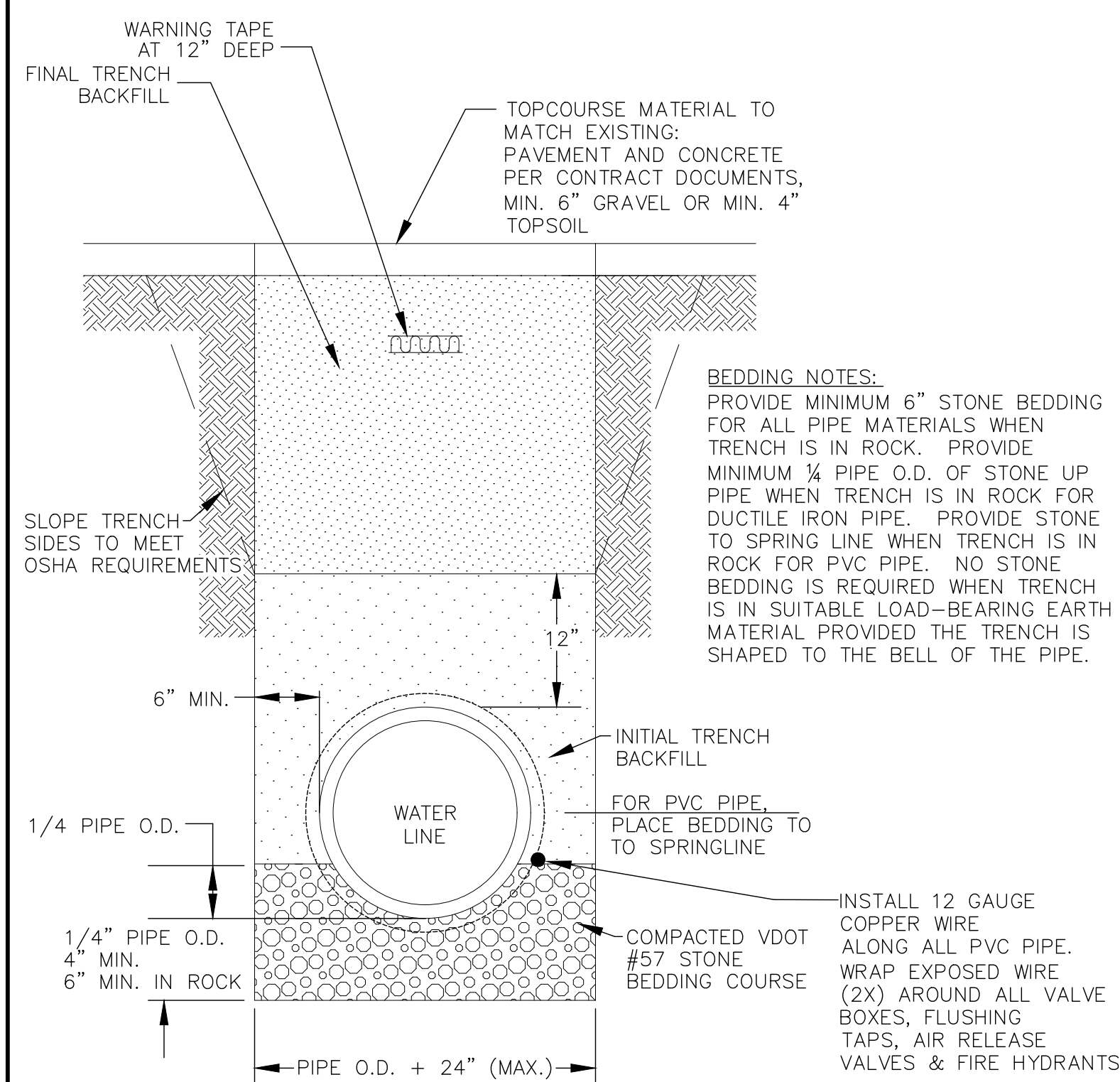
VIRGINIA



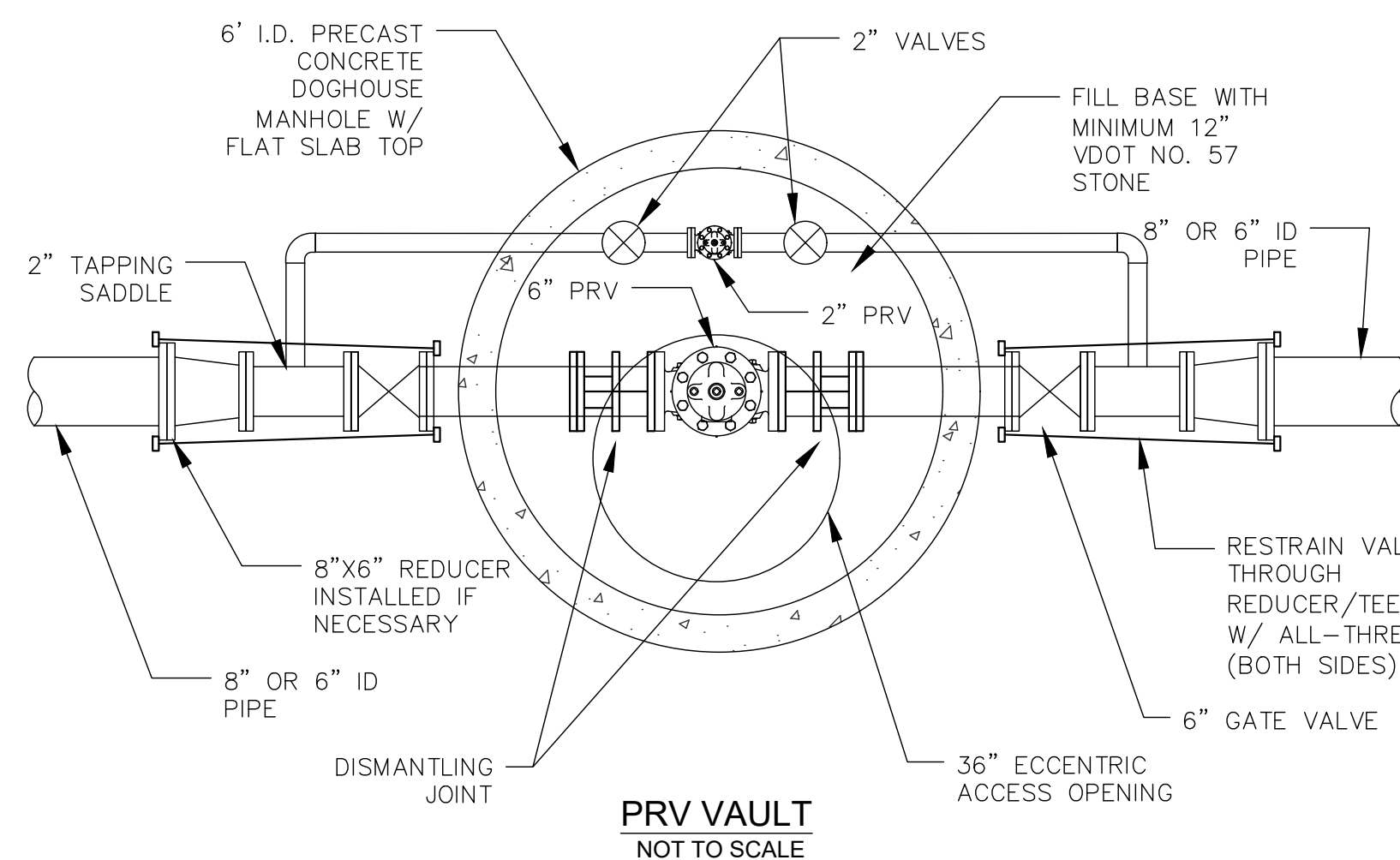
DRAWN BY:
J. MCCLURE
REVIEW BY:
S. BORTZ
DATE:
5/08/2024
REVISION:
6/04/2024

SHEET DESCRIPTION:
STANDARD DETAILS

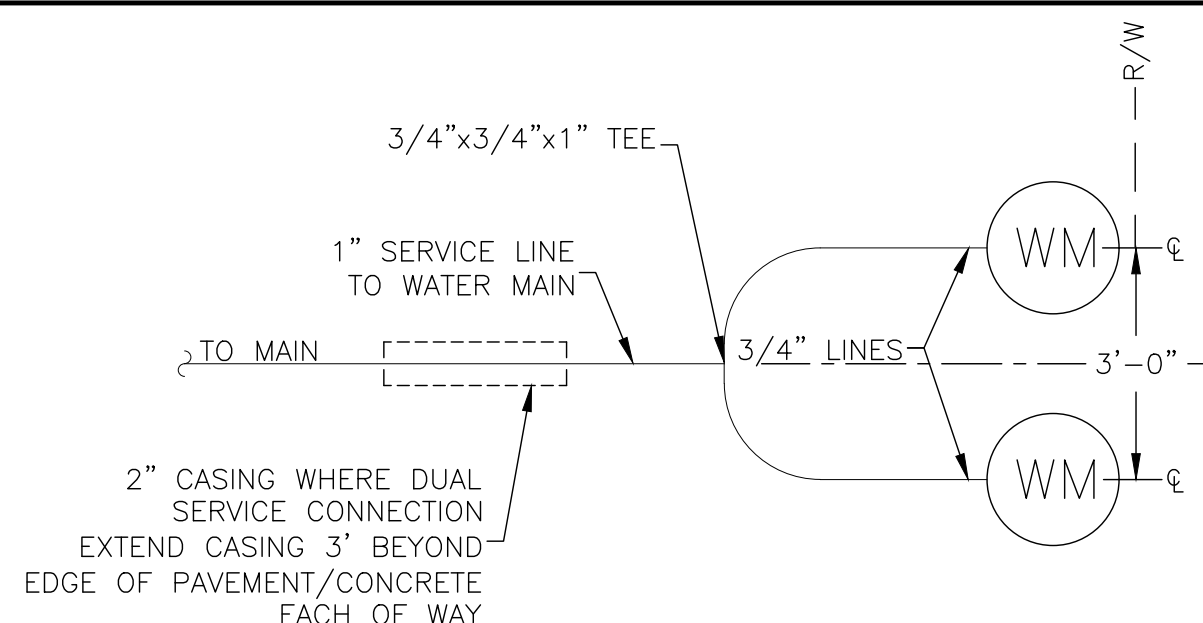
D01



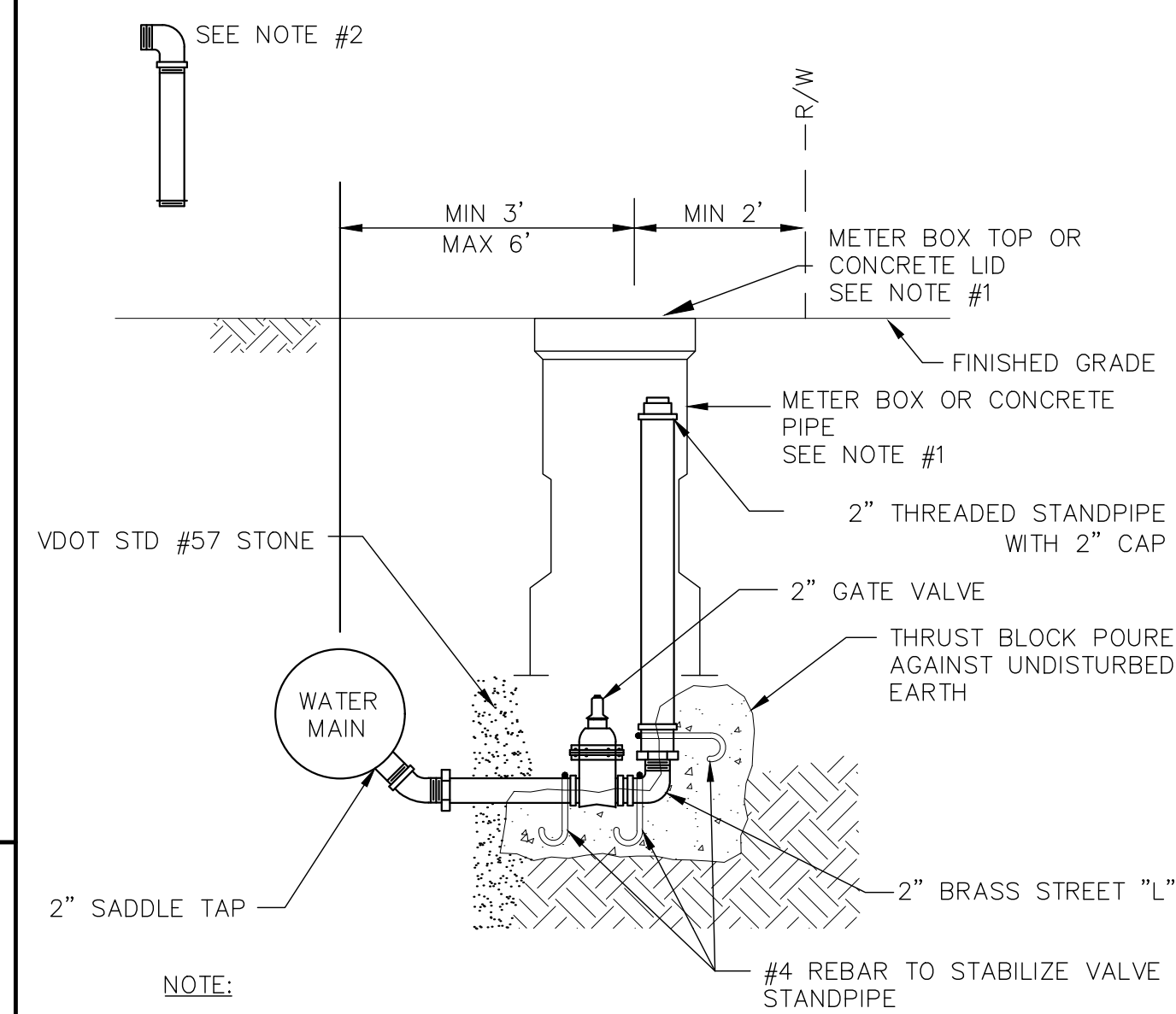
WATERLINE TRENCH DETAIL
NOT TO SCALE



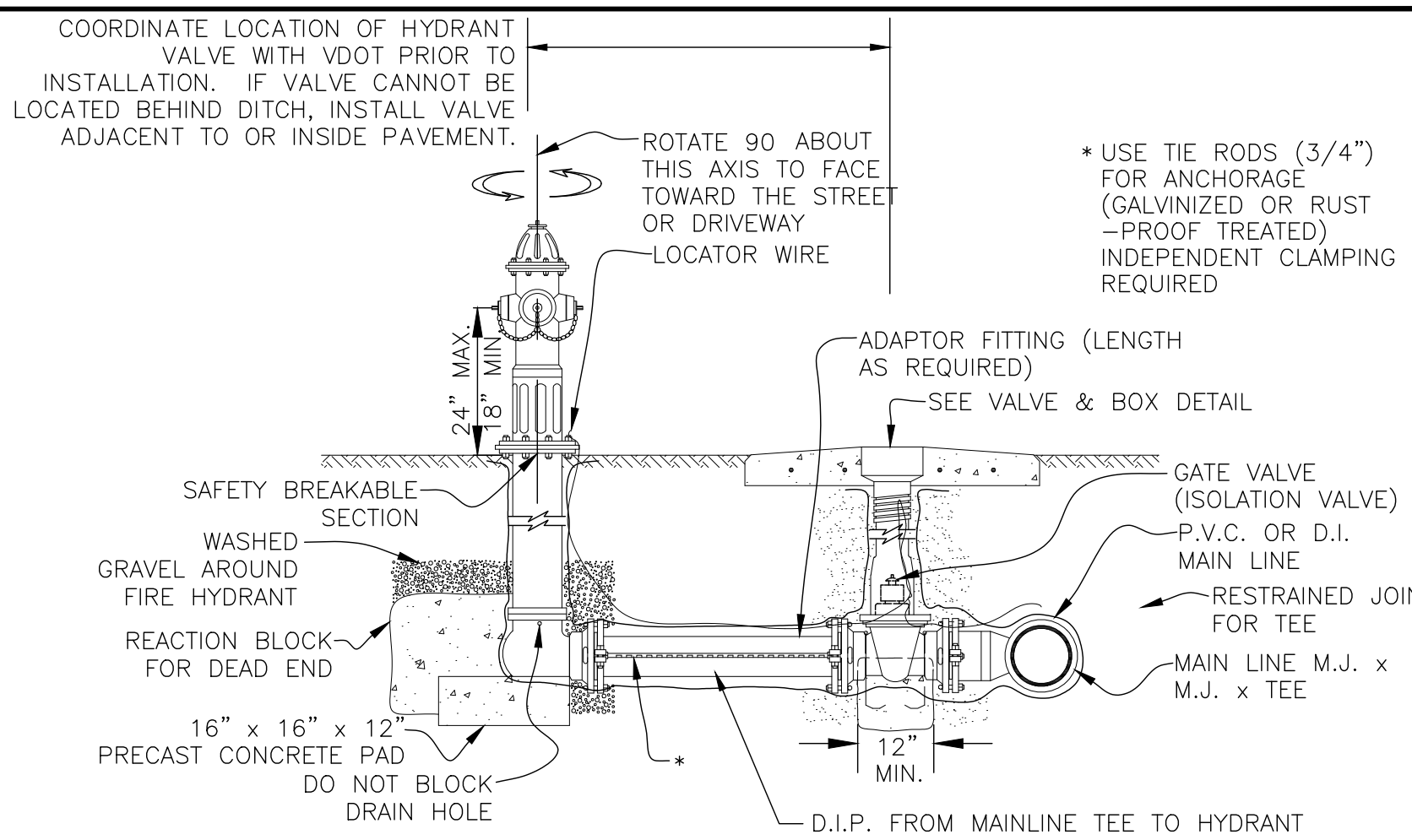
PRV VAULT
NOT TO SCALE



DUAL RESIDENTIAL WATER METER CONNECTION
NOT TO SCALE

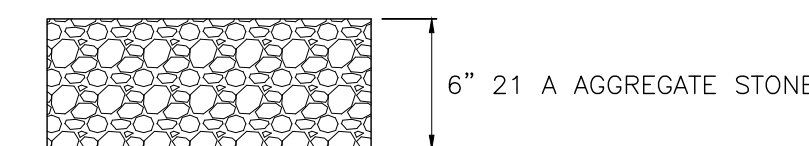


BLOW-OFF HYDRANT/FLUSHING TAP/SAMPLE TAP
NOT TO SCALE

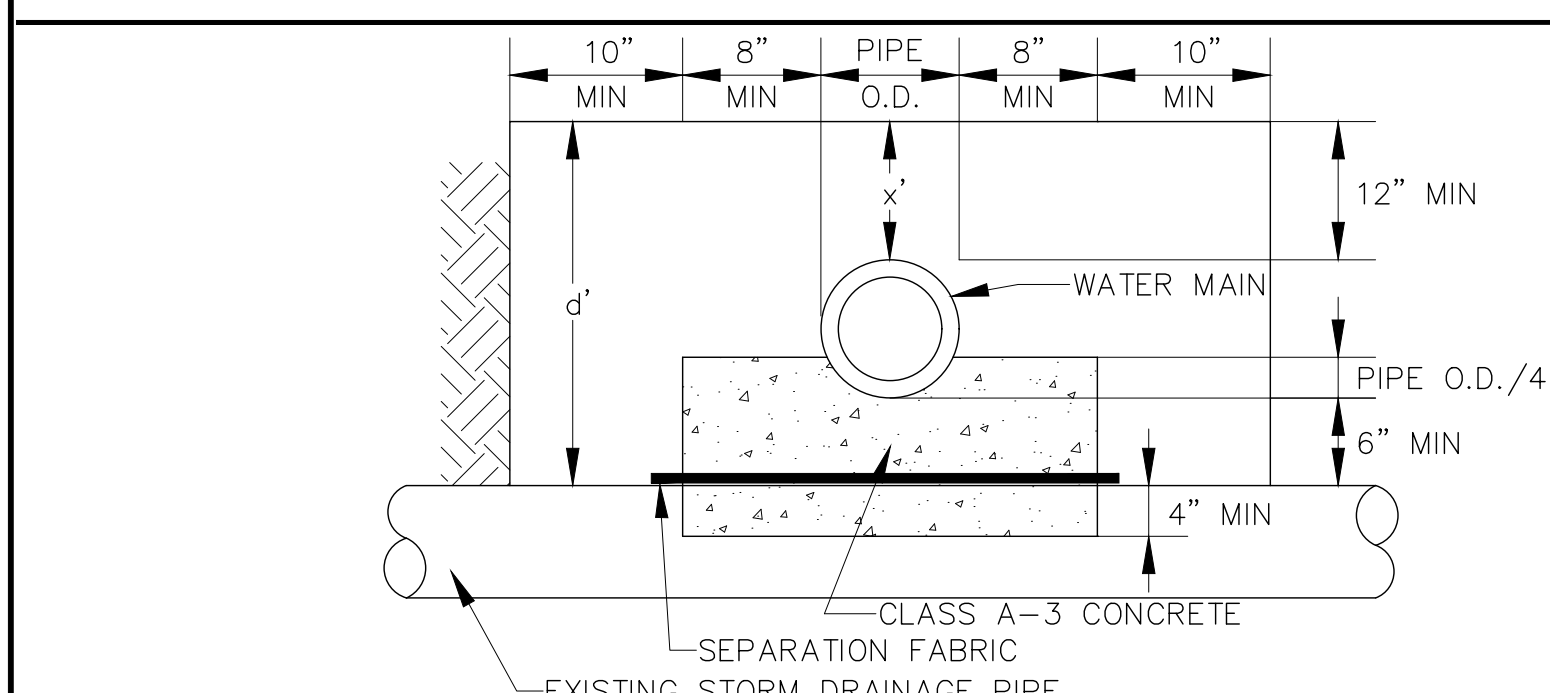


FIRE HYDRANT ASSEMBLY (TYPICAL ELEVATION)
NOT TO SCALE

PAVEMENT SECTIONS



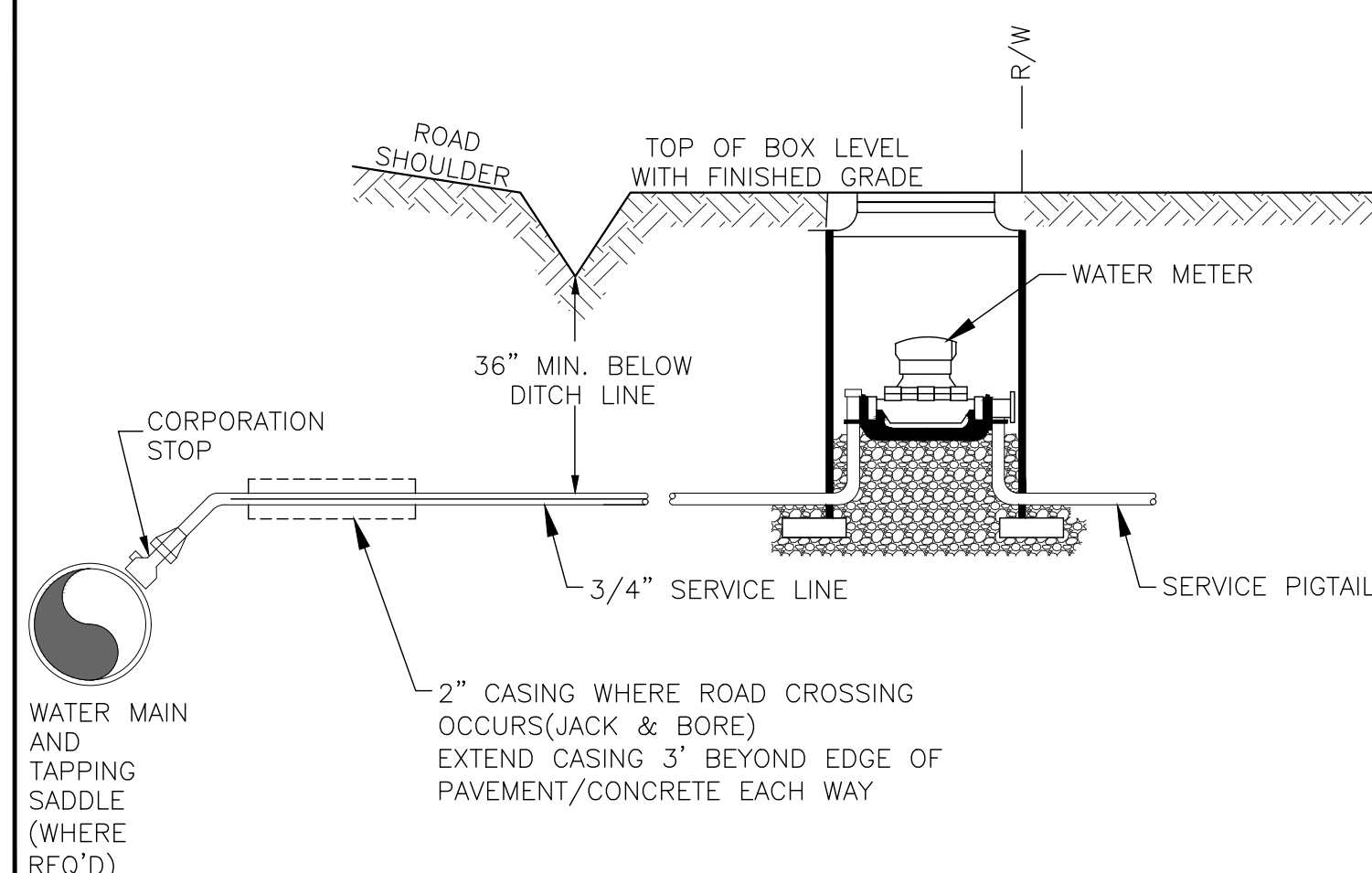
GRAVEL AREAS (PUMP STATION)
NOT TO SCALE



- NOTES:**
- WHERE THE TRENCH BOTTOM IS IN ROCK, EXCAVATE TO A MINIMUM OF 8" BELOW THE BOTTOM OF THE PIPE AND BACKFILL WITH BEDDING MATERIAL.
 - WHERE PIPE FOUNDATIONS ARE YIELDING, BED PIPE ON A MINIMUM OF 8" BEDDING MATERIAL.
 - CONCRETE CRADLE SHALL FOLLOW THE PIPE CONTOUR A MINIMUM OF 4" ABOVE THE CROWN.
 - INSTALL ONE JOINT OF DIP SHALL BE CENTERED ON STORM CULVERT WHEN CONCRETE CRADLE IS REQUIRED
 - INSTALL SEPARATION FABRIC BETWEEN STORM CULVERT & CONCRETE TO PREVENT CONCRETE FROM ADHERING TO STORM CULVERT.
 - LENGTH OF CRADLE SHALL BE A MINIMUM OF 12" PAST BOTH SIDES OF STORM CULVERT.
 - WHEN:
d' > 4.5' CRADLE NOT NECESSARY
d' < 4.5' USE CRADLE
x' ≤ 2' USE COMPLETE ENCASEMENT

CONCRETE CRADLE
NOT TO SCALE

- NOTES:**
- WATER SERVICES SHALL BE INSTALLED IN ACCORDANCE WITH STATE AND LOCAL BUILDING CODES AND CROSS CONNECTION PROGRAMS.
 - CUSTOMER MAY BE REQUIRED TO INSTALL ADDITIONAL BACKFLOW PREVENTION DEVICES BY THE UTILITY OR BUILDING OFFICIAL. SUCH DEVICES ARE NOT INCLUDED IN THIS CONTRACT.
 - ACTUAL METER LOCATIONS TO BE DETERMINED BY THE INSPECTOR AND COORDINATED WITH THE PROPERTY OWNER DURING CONSTRUCTION.
 - METER SHALL BE SET AT R/W LINE PER DETAIL.
 - INSTALL PE OR PVC PIPE CROSS BRACE AT LEAST 4" LONGER THAN METER BOX WIDTH IN METER SETTER STABILIZATION HOLE.



RESIDENTIAL WATER METER CONNECTION
NOT TO SCALE

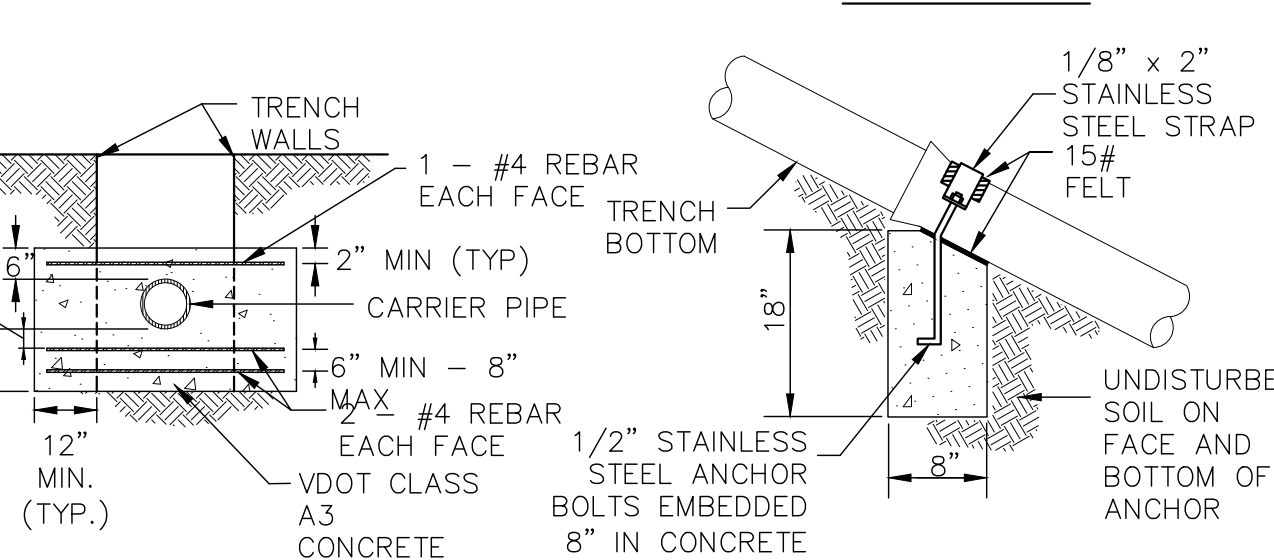
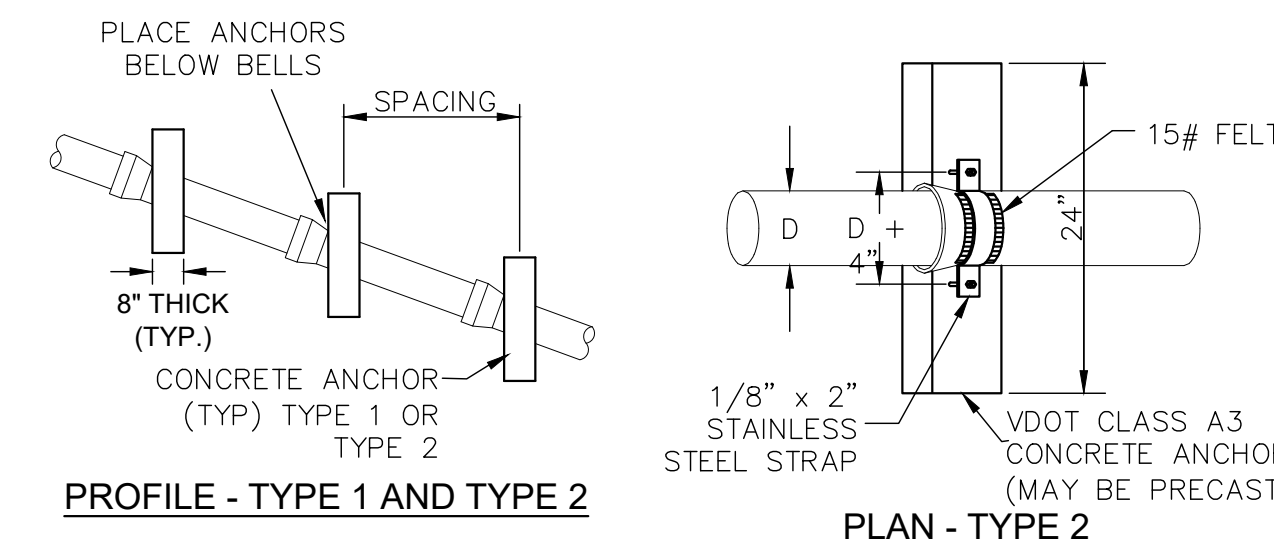
LONGITUDINAL PAVEMENT PATCHING FOR PAVEMENT FAILURES RESULTING FROM UTILITY INSTALLATIONS IN ROADWAY SHOULDERS
EFFECTIVE 09 SEPTEMBER 2015

GENERAL NOTES:

- SUB-BASE PREPARATION SHALL EXTEND A MINIMUM OF 12 INCHES BEYOND THE LIMITS OF DISTURBANCE (BOTH LENGTH AND WIDTH) FOR ALL PATCHES, BUT IN NO CASE SHALL THE WIDTH BE LESS THAN 2 FEET.
- A LIQUID ASPHALT TACK COAT SHALL BE APPLIED TO ALL SAW-CUT OR MILLED EDGES OF EXISTING PAVEMENT PRIOR TO PLACING ASPHALT PATCHES.
- FOR ASPHALT PATCHES LESS THAN 25 FT IN LENGTH, THE EXISTING ASPHALT SHALL BE SAW-CUT TO PROVIDE A UNIFORM PAVEMENT JOINT.
- A: THE PATCH WIDTH SHALL BE A MINIMUM OF 12 INCHES BEYOND THE LIMITS OF DISTURBANCE, BUT IN NO CASE SHALL IT BE LESS THAN 2 FEET. B: THE PATCH LENGTH SHALL BE A MINIMUM OF 12 INCHES BEYOND THE LIMITS OF DISTURBANCE ON EACH END.
- FOR ASPHALT PATCHES 25 FT IN LENGTH OR GREATER, THE EXISTING ASPHALT SHALL BE SAW-CUT OR MILLED TO PROVIDE A UNIFORM PAVEMENT JOINT:
 - THE PATCH WIDTH SHALL BE A MINIMUM OF 12 INCHES BEYOND THE LIMITS OF DISTURBANCE, BUT IN NO CASE SHALL IT BE LESS THAN ONE-HALF OF THE LANE WIDTH.
 - THE PATCH LENGTH SHALL BE A MINIMUM OF 12 INCHES BEYOND THE LIMITS OF DISTURBANCE ON EACH END.
- VDOT MAY MODIFY THE MINIMUM TYPICAL PAVEMENT SECTION GIVEN HEREIN BASED ON THE TYPE OF ROADWAY, THE AMOUNT OF PAVEMENT DAMAGE, AND/OR THE EXISTING PAVEMENT TYPICAL SECTION.
- DENSITY REQUIREMENTS FOR SUB-BASE MATERIAL AND ASPHALT CONCRETE SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD & BRIDGE SPECIFICATIONS.
- ANY DISTURBED PAVEMENT MARKINGS SHALL BE REPLACED IMMEDIATELY UPON COMPLETION OF THE ASPHALT PATCHING AND SHALL BE IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD & BRIDGE SPECIFICATIONS AND THE VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD & BRIDGE STANDARDS.
- THE AMOUNT OF PATCHING REQUIRED SHALL BE DETERMINED BY VDOT PERSONNEL BASED UPON A FIELD INSPECTION.

MINIMUM TYPICAL PAVEMENT SECTION NOTES:

- NOTE A: DEPTH OF ASPHALT PATCH SHALL A MINIMUM OF 1.5 TIMES THE DEPTH OF THE EXISTING ASPHALT LAYERS, BUT IN NO CASE SHALL IT BE LESS THAN 3 INCHES. ASPHALT SHALL BE TYPE SM12.5A OR SM19.0A
- NOTE B: THE CONTRACTOR SHALL EXCAVATE THE DISTURBED AREA AND RE-COMPACT WITH A MINIMUM OF 6 INCHES OF AGGREGATE TYPE 21B
- NOTE C: FOR PATCHES 25 FT OR GREATER IN LENGTH, THE CONTRACTOR MAY ELECT TO MILL THE EXISTING SURFACE ASPHALT TO A DEPTH NO LESS THAN TWO INCHES AND A WIDTH NO LESS THAN ONE-HALF THE LANE WIDTH. HOWEVER, SHOULD THE CONTRACTOR ELECT TO SAW-CUT AND REMOVE EXISTING ASPHALT DOWN TO THE SUB-BASE, THE SUB-BASE MUST BE PREPARED IN ACCORDANCE WITH NOTE B. SURFACE ASPHALT SHALL BE TYPE SM12.5A OR SM19.0A
- NOTE D: FOR PATCHES 25 FT OR GREATER, THE CONTRACTOR SHALL PLACE A MINIMUM OF 3 INCHES BASE MIX ASPHALT TYPE BM25.0. THE COMBINED DEPTH OF THE BASE ASPHALT AND THE SURFACE ASPHALT SHALL BE A MINIMUM OF 1.5 TIMES THE DEPTH OF THE EXISTING ASPHALT LAYERS.



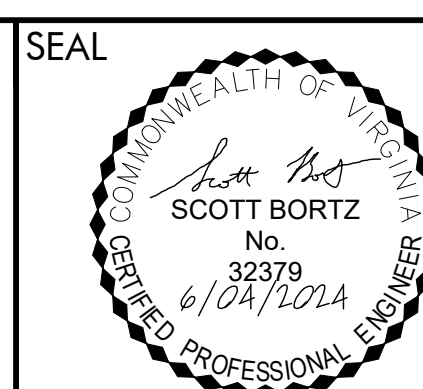
- NOTES:**
- TYPE 1 OR TYPE 2 (CONTRACTOR'S OPTION) CONCRETE SLOPE ANCHOR REQUIRED FOR ALL WATER MAINS WITH SLOPE GREATER THAN OR EQUAL TO 20%.
 - MAXIMUM ANCHOR SPACING SHALL BE AS FOLLOWS:
PIPE SLOPE MAX. SPACING
20% TO 35% 36'
35% TO 50% 24'
OVER 50% 16'
- SEE PLAN FOR ACTUAL SPACING.
- CONCRETE SLOPE ANCHORS**
NOT TO SCALE

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BARRETT MILL WATER IMPROVEMENTS

WYTHE COUNTY

VIRGINIA

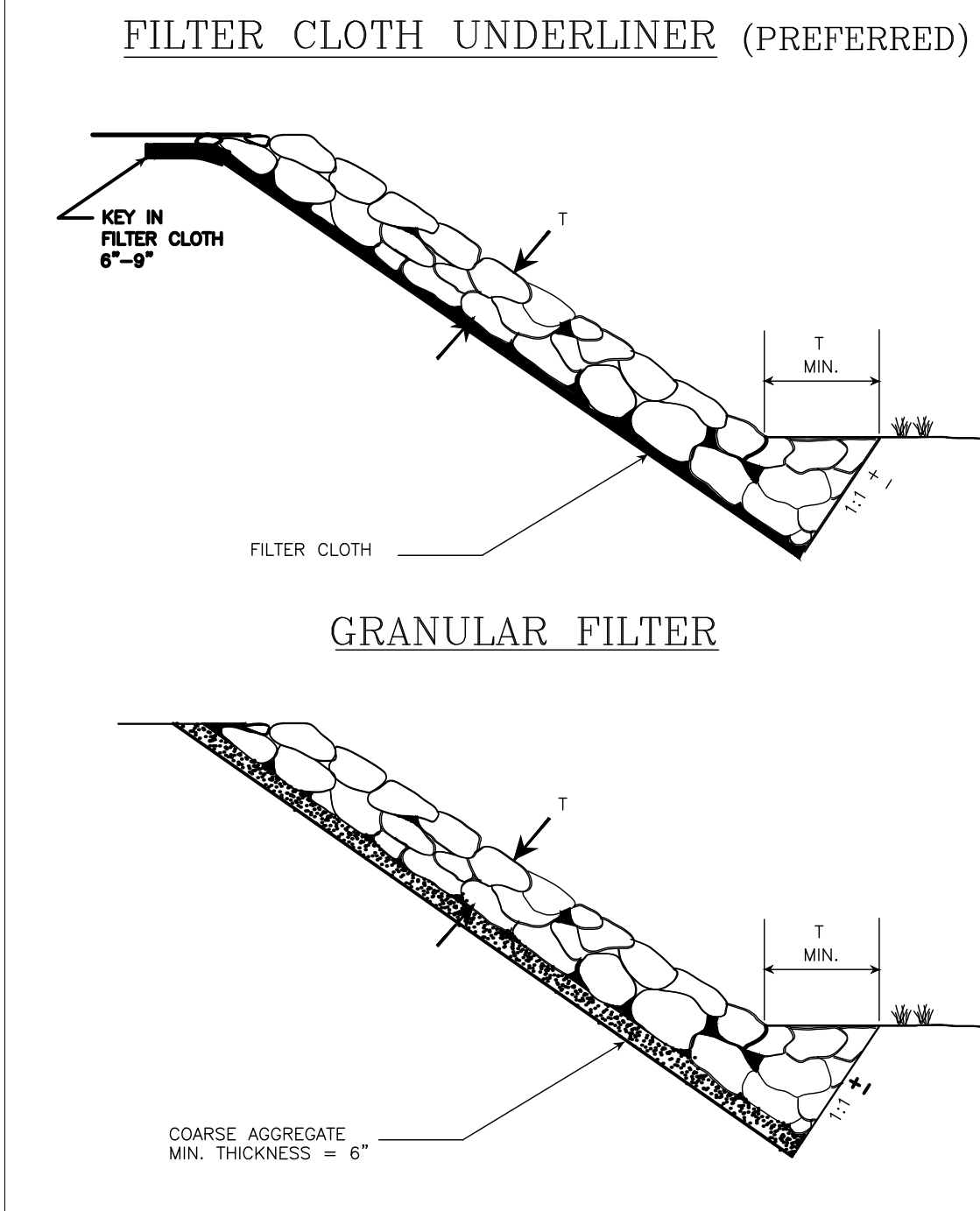


DRAWN BY: J. MCCLURE
REVIEW BY: S. BORTZ
DATE: 5/08/2024
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SHEET DESCRIPTION:
STANDARD DETAILS

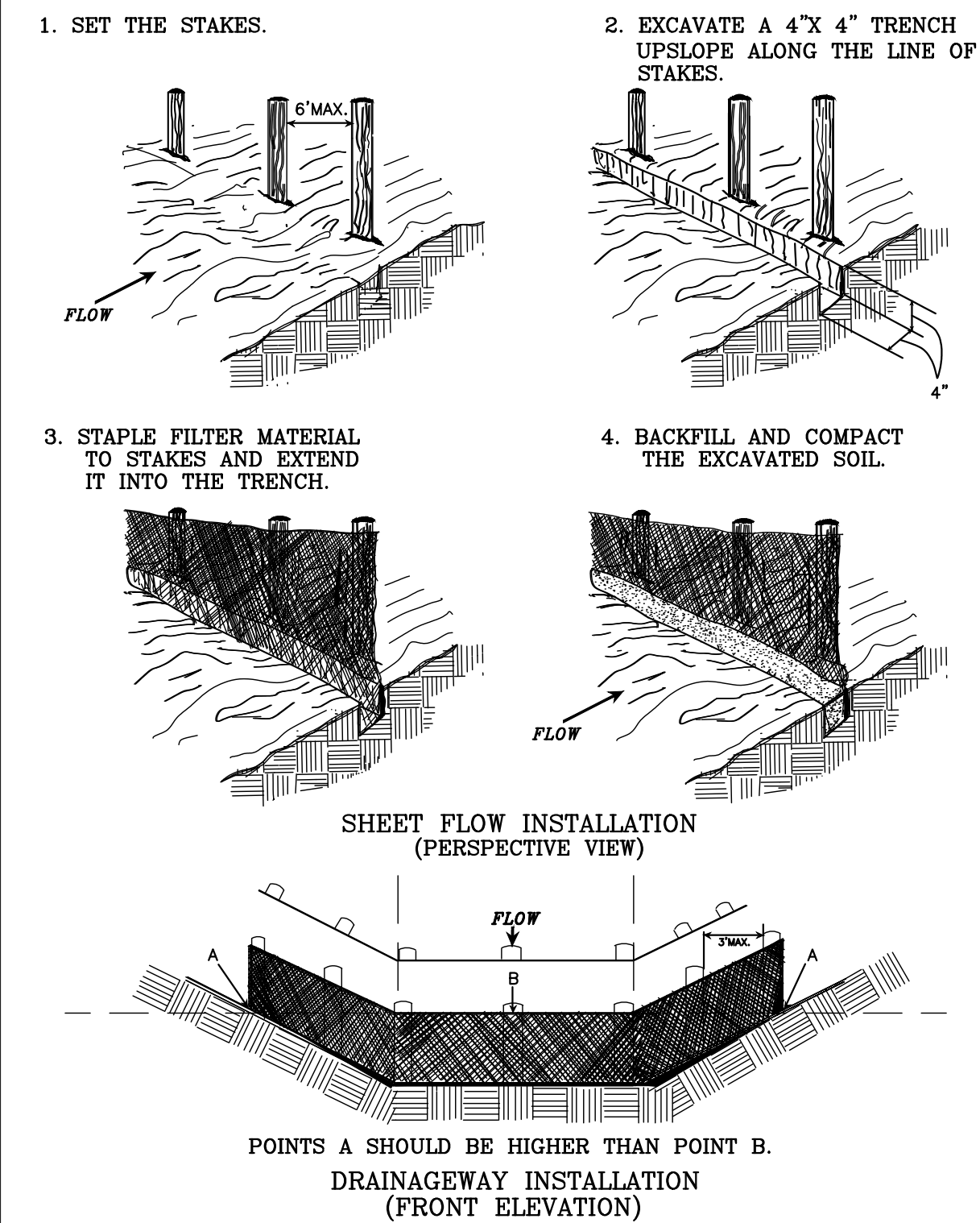
D02

TOE REQUIREMENTS FOR BANK STABILIZATION



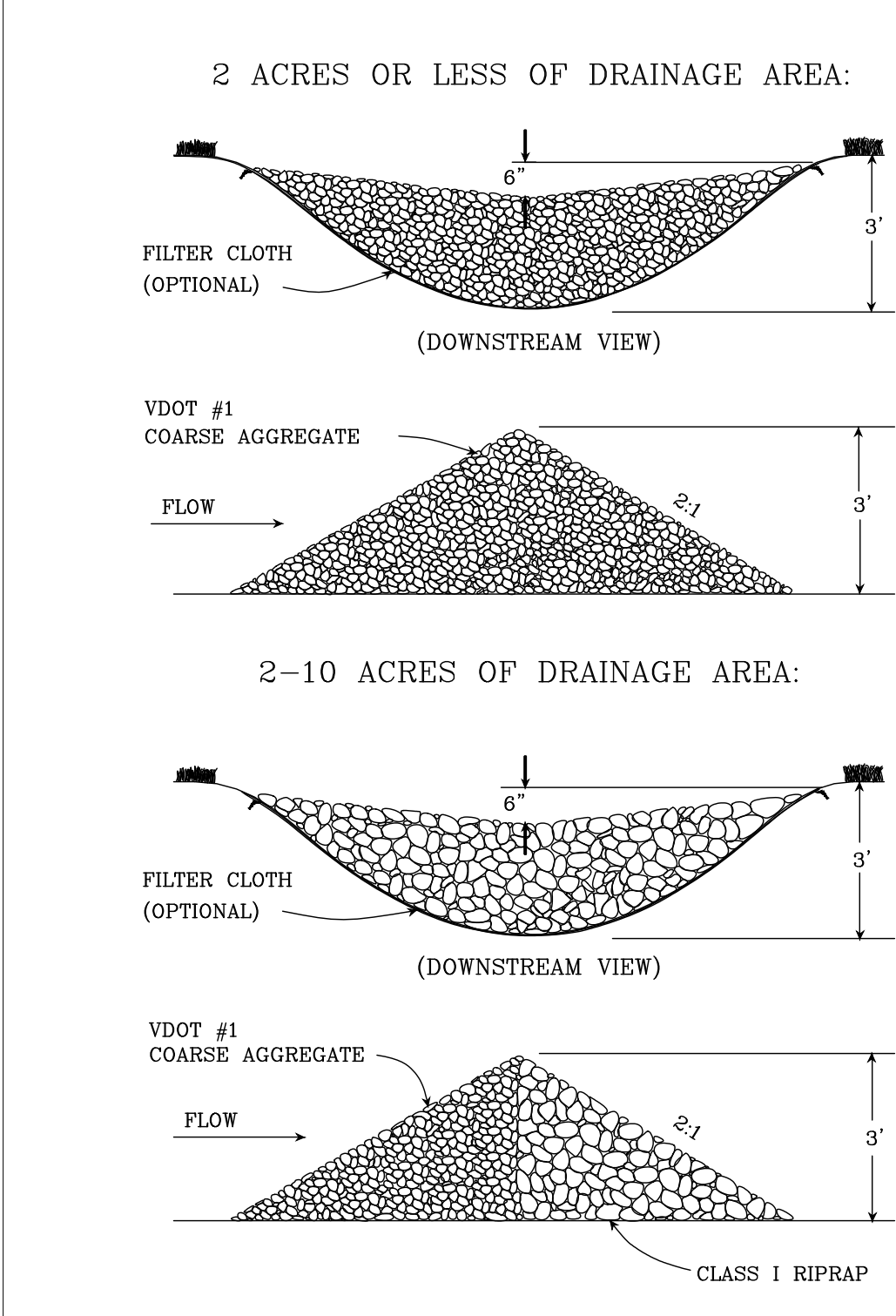
SOURCE: Adapted from VDOT Drainage Manual PLATE. 3.19-1

CONSTRUCTION OF A SILT FENCE (WITHOUT WIRE SUPPORT)



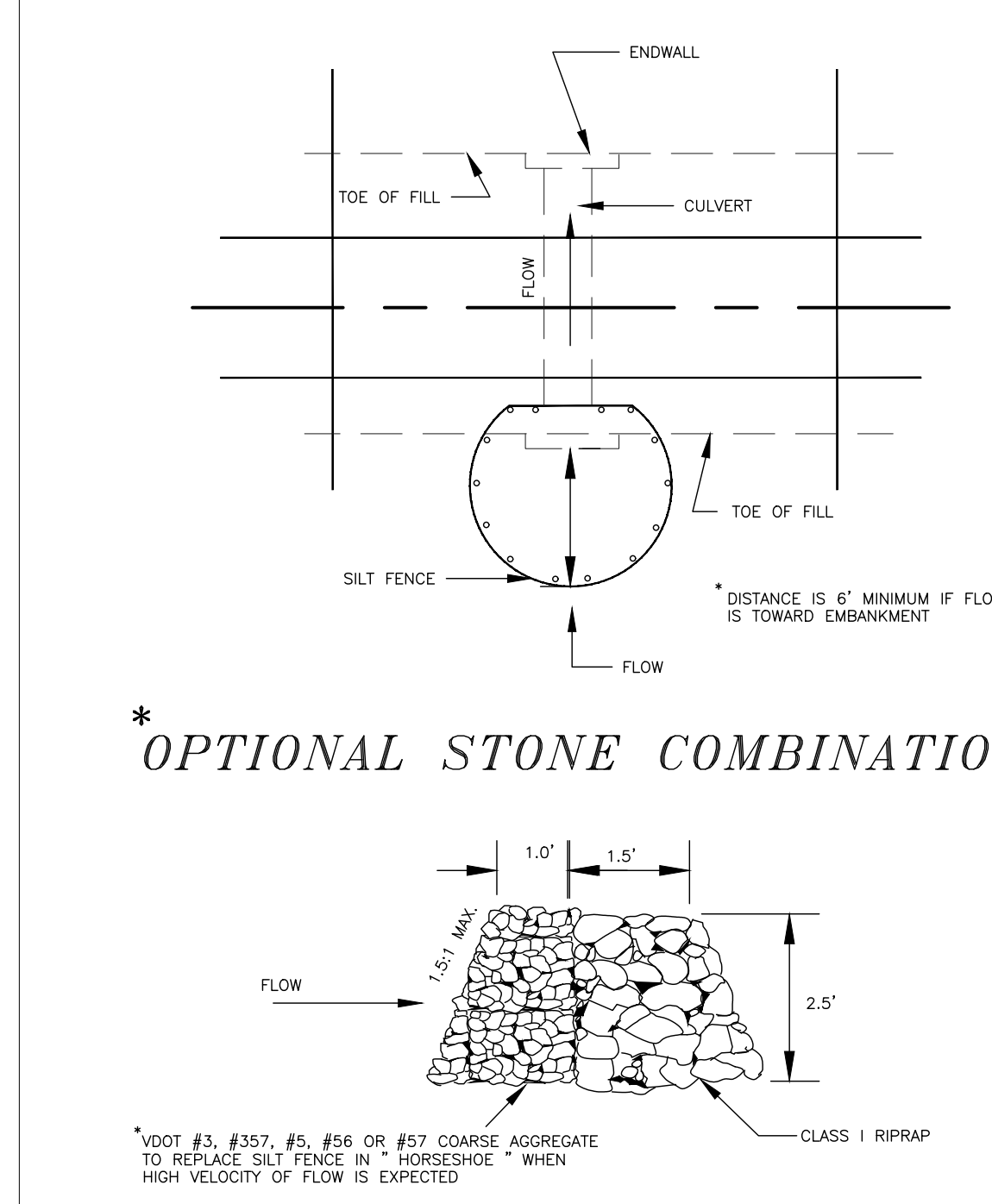
SOURCE: Adapted from Installation of Straw and Fabric Filter Barriers for Sediment Control VA DSWC Sherwood and Wyatt PLATE. 3.05-2

ROCK CHECK DAM



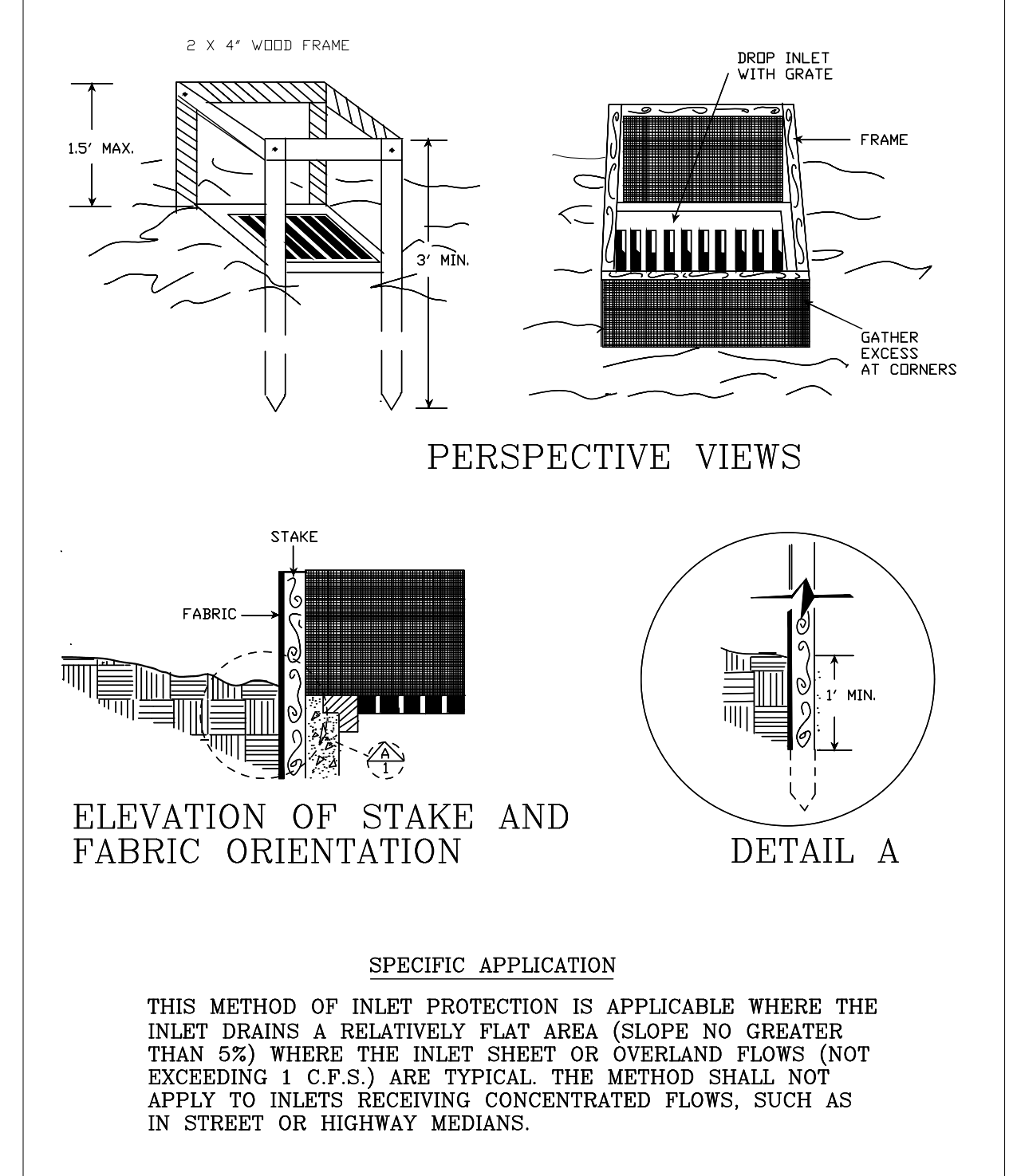
SOURCE: VA. DSWC PLATE. 3.20-1

SILT FENCE CULVERT INLET PROTECTION



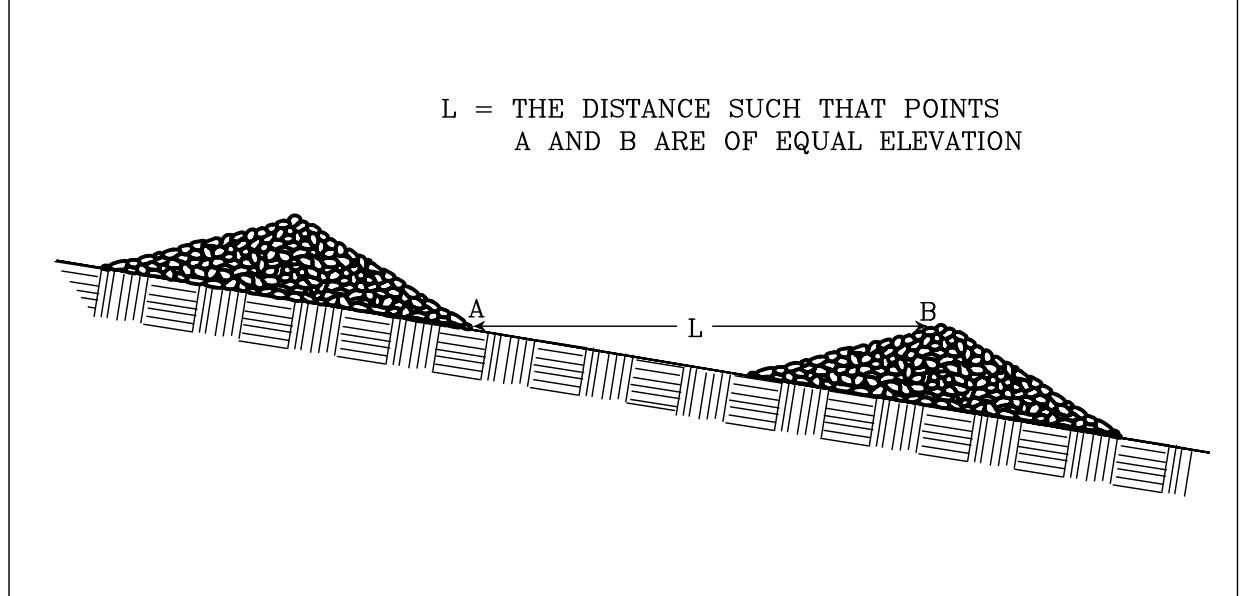
SOURCE: ADAPTED FROM VDOT STANDARD SHEETS AND VA. DSWC PLATE. 3.08-1

SILT FENCE DROP INLET PROTECTION



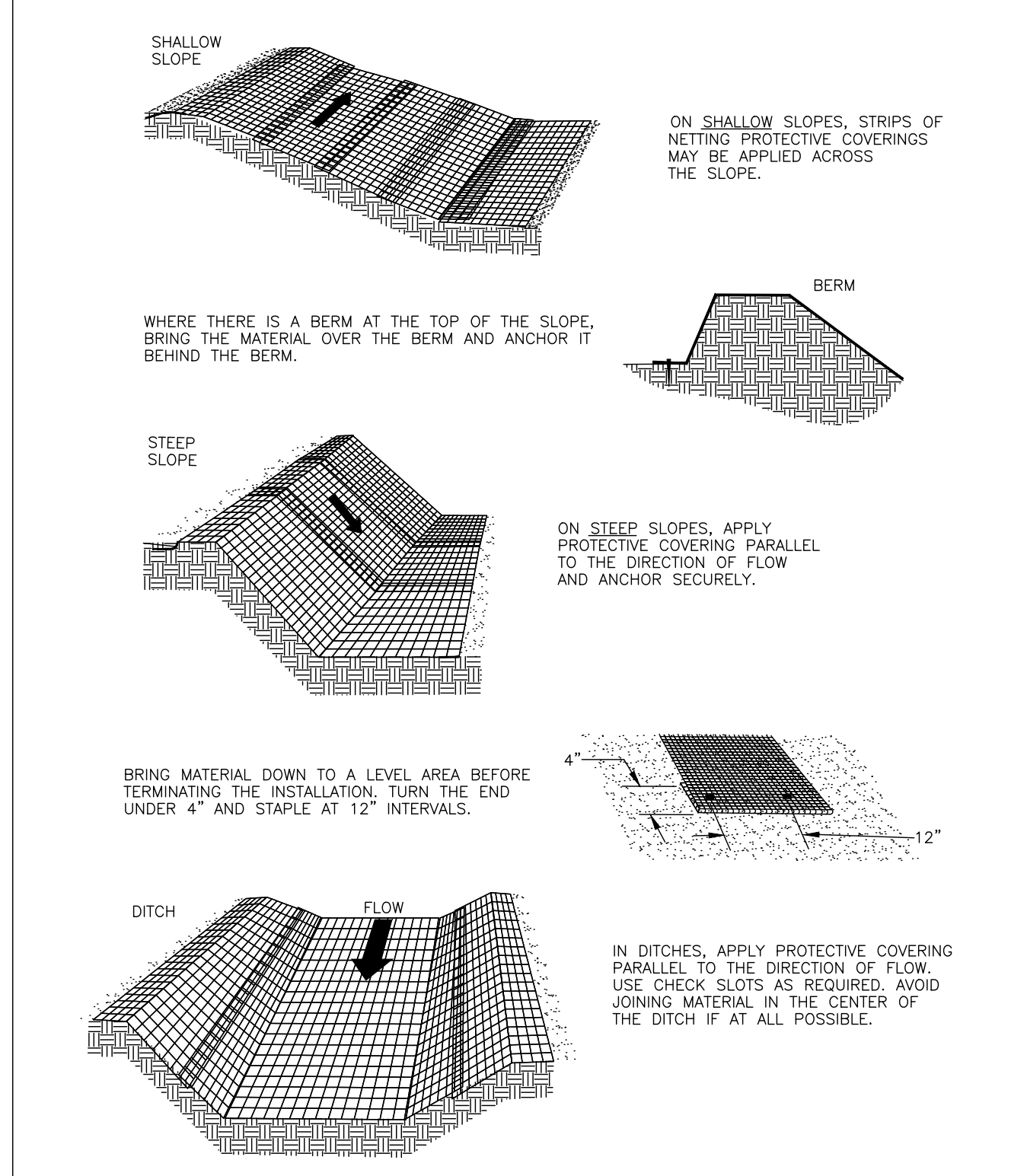
SOURCE: N.C. Erosion and Sediment Control Planning and Design Manual, 1988 PLATE. 3.07-1

SPACING BETWEEN CHECK DAMS



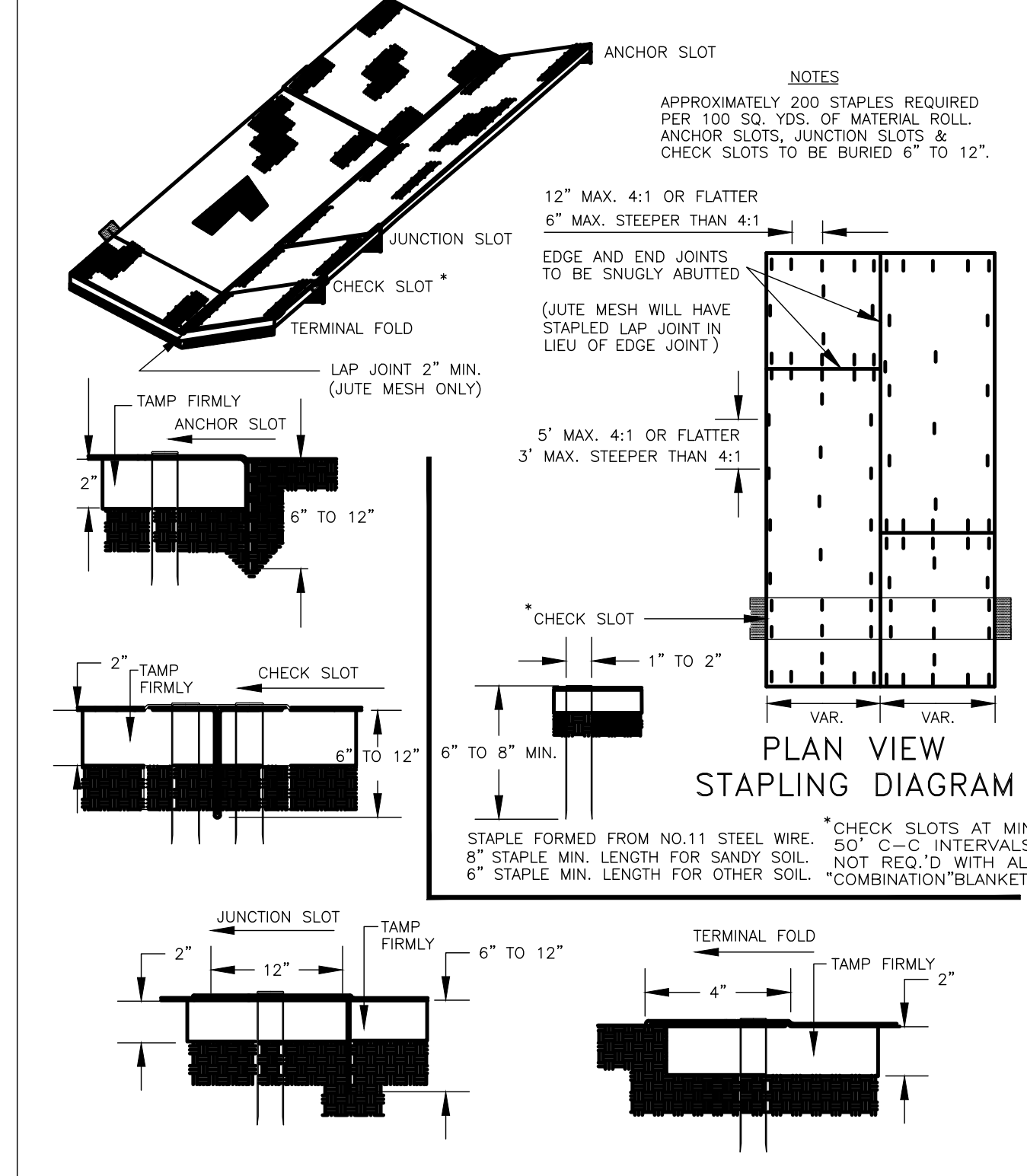
SOURCE: VA. DSWC PLATE. 3.20-2

TYPICAL ORIENTATION OF TREATMENT - 1 (SOIL STABILIZATION BLANKET)



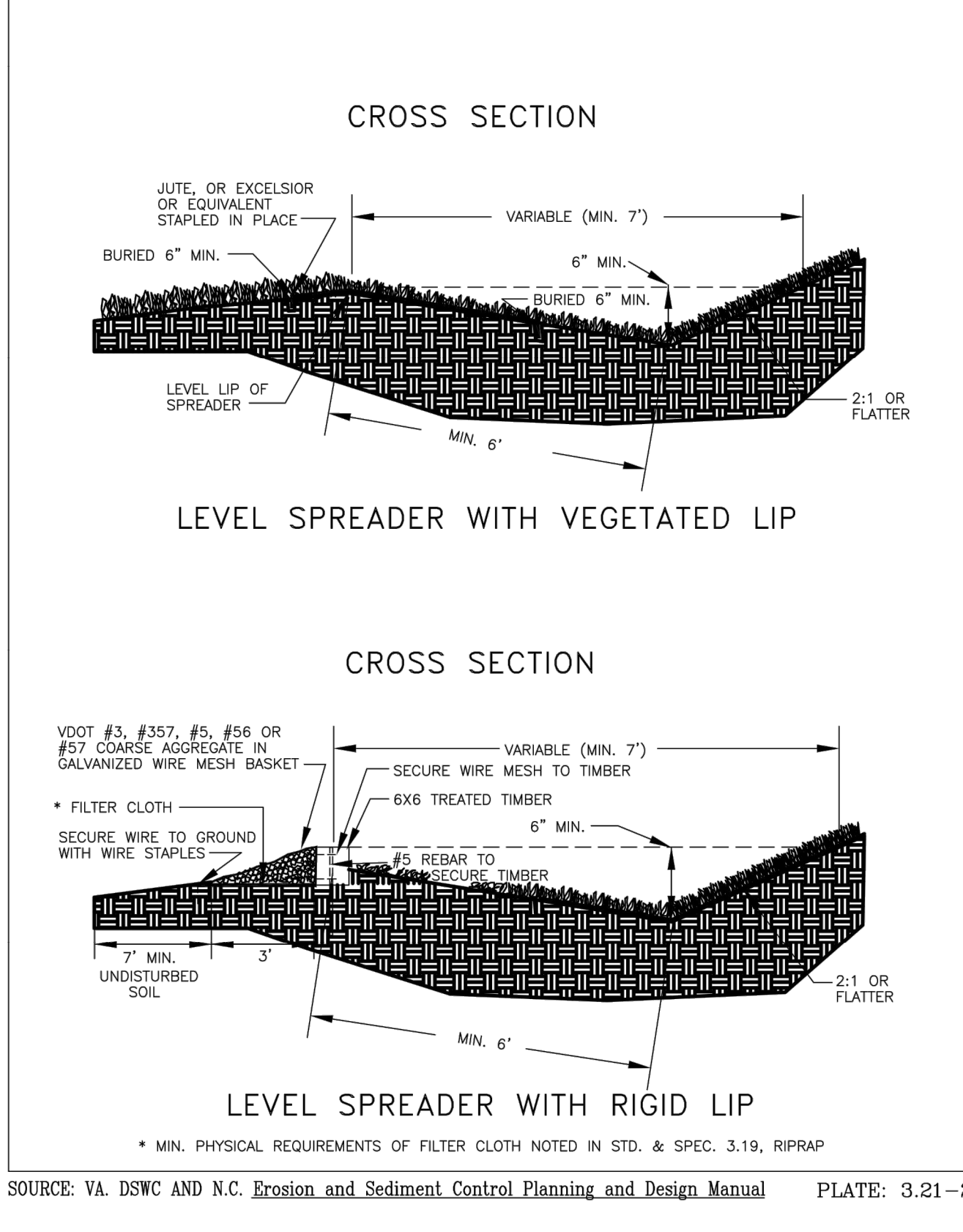
SOURCE: ADAPTED FROM LUDLOW PRODUCTS BROCHURE PLATE. 3.36-1

TYPICAL TREATMENT - 1 (SOIL STABILIZATION BLANKET) INSTALLATION CRITERIA



SOURCE: VDOT ROAD AND BRIDGE STANDARDS PLATE. 3.36-2

LEVEL SPREADER



SOURCE: VA. DSWC AND N.C. Erosion and Sediment Control Planning and Design Manual PLATE. 3.21-2

SEEDING MIXTURES AND SCHEDULE

SITE SEEDING MIXTURES FOR MINIMUM CARE AREAS. USE TOTAL OF 200-250 LB/ACRE COMBINED

SEED TYPE	(POUND PER ACRE)	PLANTING SOIL AMENDMENTS
KENTUCKY 31 FESCUE	180-250	2000 lbs. STRAW MULCH/ACRE
IMPROVED PERENNIAL RYEGRASS	0-25	1000 lbs. 5-10-10 FERTILIZER/ACRE
KENTUCKY BLUEGRASS	0-25	2 TONS AGRICULTURAL LIMESTONE/ACRE

SITE SEEDING MIXTURES FOR LOW MAINTENANCE AREA, 3:1 SLOPES OR STEEPER (lbs/ac)

DATE	3/1-5/15	5/16-8/15	8/16-10/31	11/1-2/28
SEED TYPE				
KENTUCKY 31 FESCUE	108	108	108	108
RED TOP GRASS	2	2	2	2
ANNUAL RYE	20	20	20	20
FOXTAIL MILLET				
WINTER RYE				20
CROWN VETCH	20	20	20	20

TEMPORARY SEEDING MIXTURES (lbs/ac)

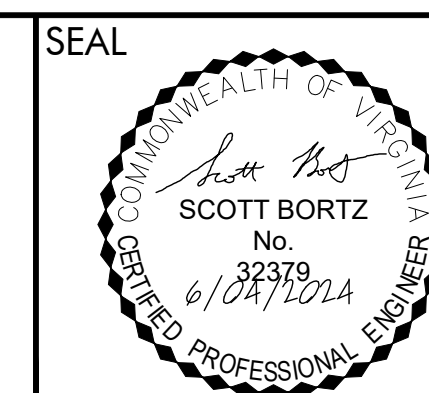
DATE	3/1-4/30	5/1-8/15	8/16-11/1
SEED TYPE			
OATS	50-100		
RYE	50-110		
GERMAN MILLET		50	50-110
ANNUAL RYEGRASS	60		60
WEeping LOVEGRASS		15	
KOREAN LESPEDEZA	25	25	

Peed & Bortz, L.L.C.
 CIVIL & ENVIRONMENTAL ENGINEERS
 20 MIDWAY PLAZA DRIVE - SUITE 100
 CHRISTIANBURG, VIRGINIA 24073
 PHONE: (540) 394 - 3214 FAX: (540) 394 - 3215

BARRETT MILL WATER IMPROVEMENTS

WYTHE COUNTY

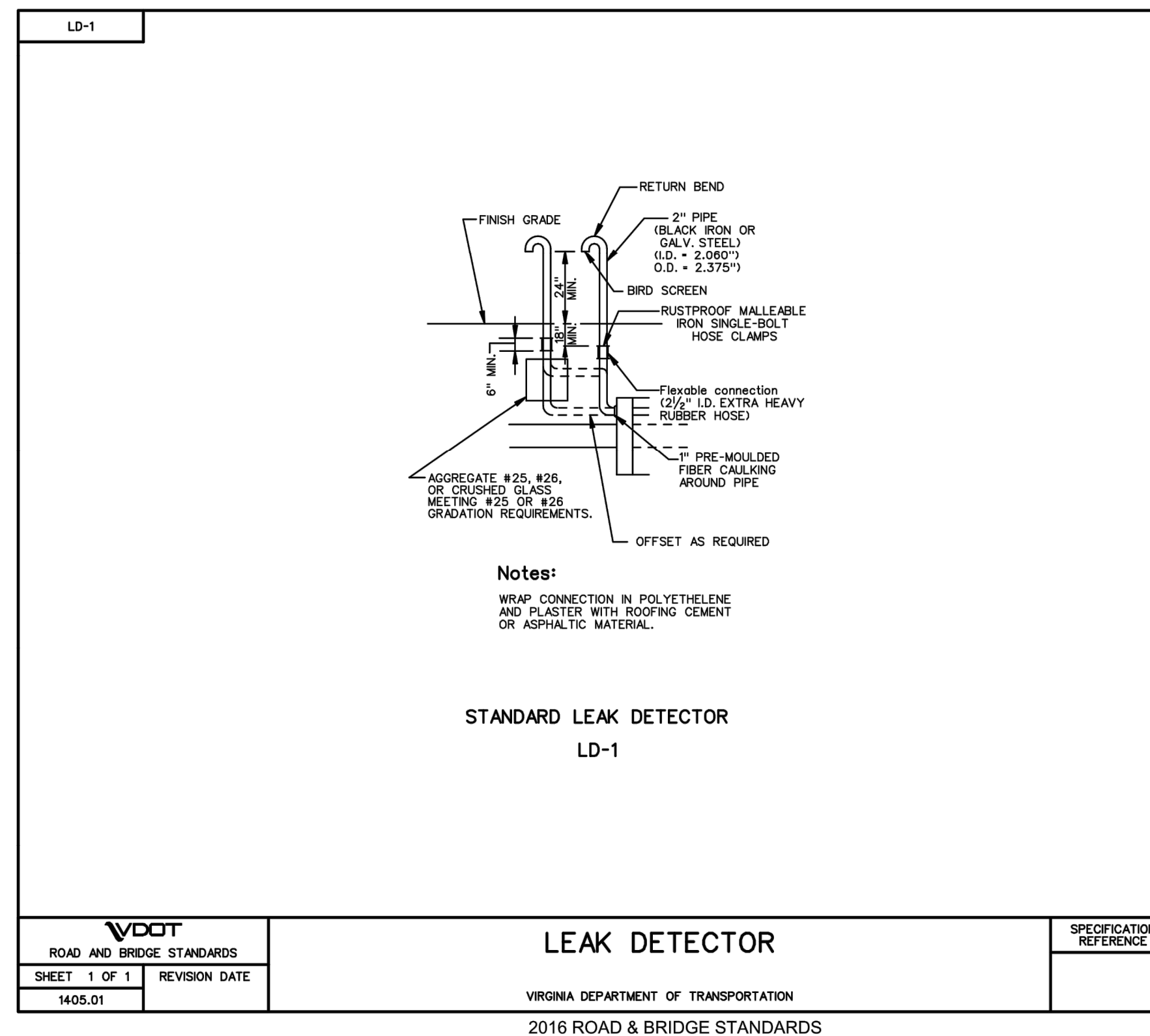
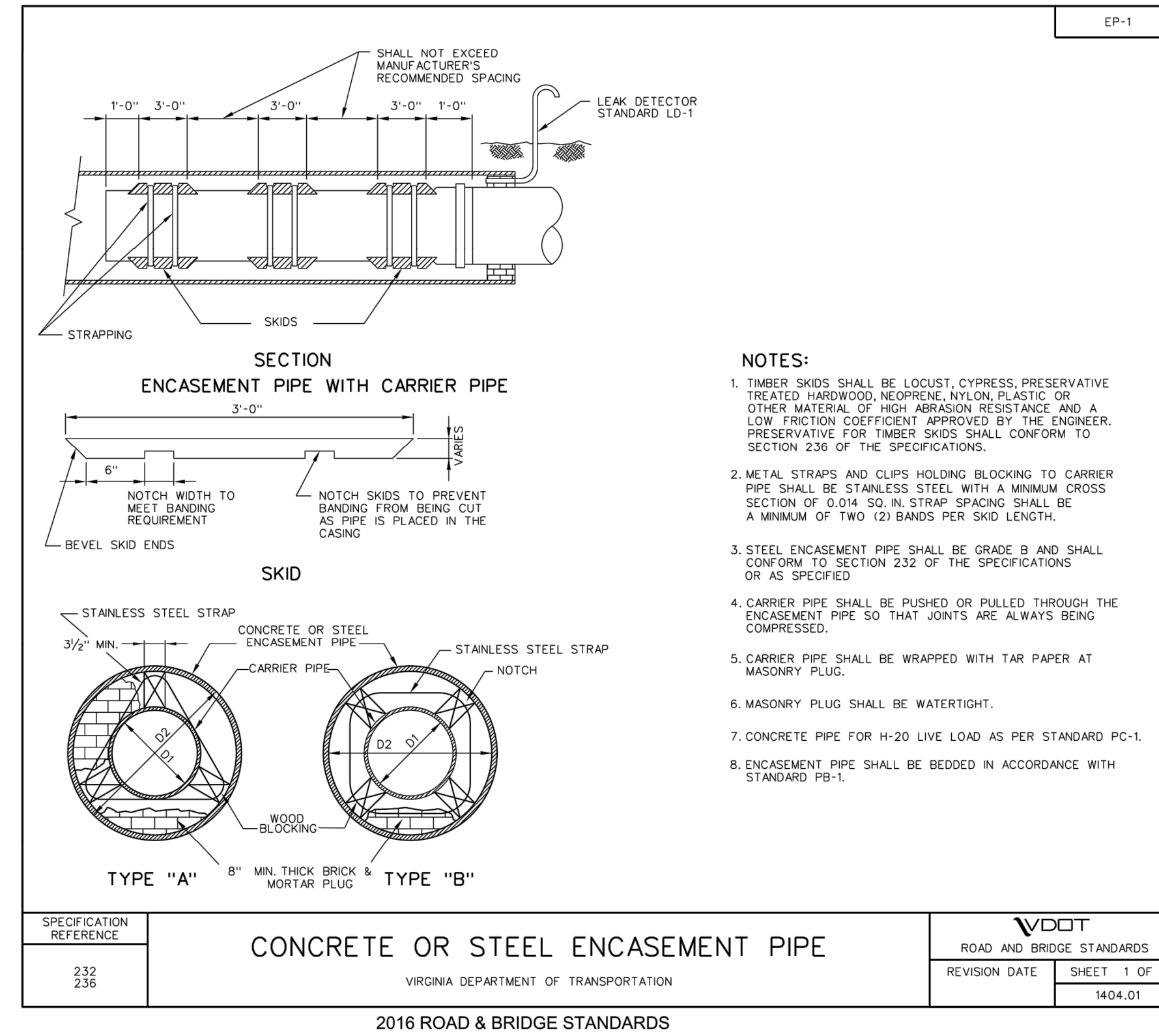
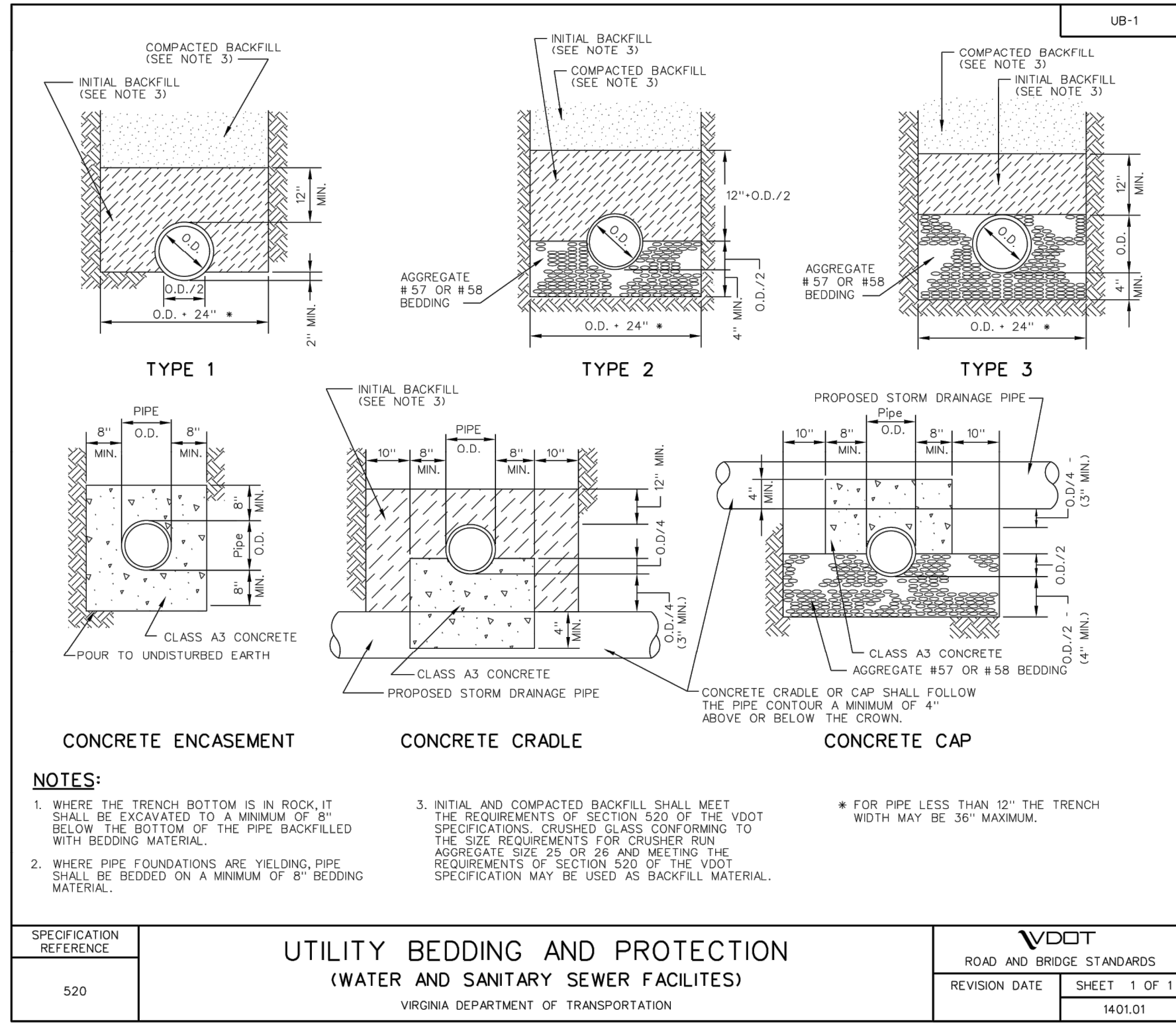
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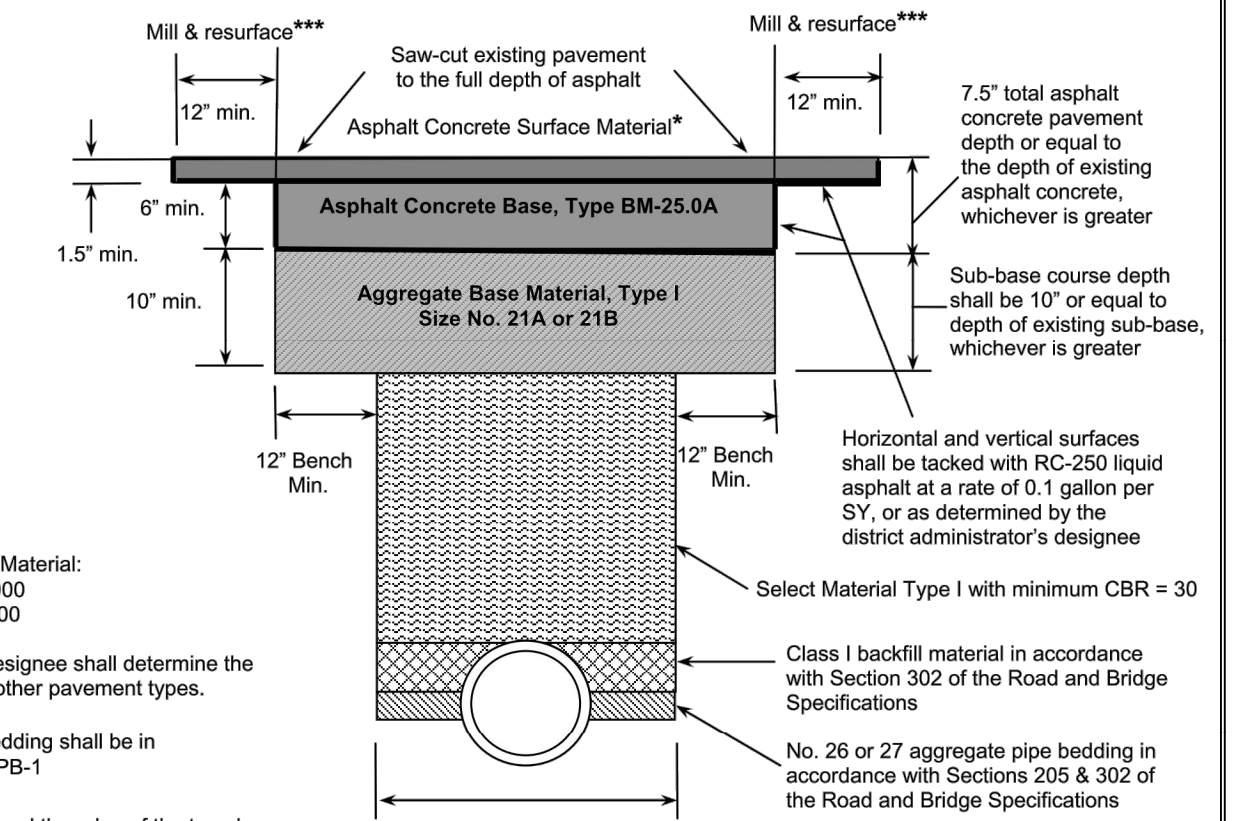
DRAWN BY:
J. MCCLURE
 REVIEW BY:
S. BORTZ
 DATE:
5/08/2024
 REVISION:
6/04/2024

SHEET DESCRIPTION:
E&SC DETAILS

D03



Asphalt Pavement Restoration Detail for Open Cut Utility Installations



Peed & Bortz, L.L.C.
CIVIL & ENVIRONMENTAL ENGINEERS

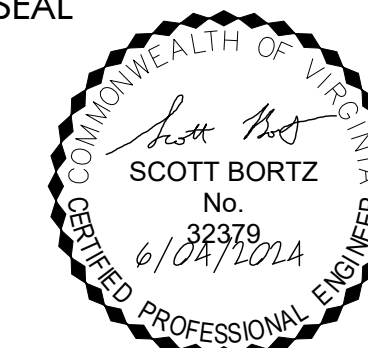
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BARRETT MILL WATER IMPROVEMENTS

WYTHE COUNTY

VIRGINIA

SEAL



DRAWN BY:
J. MCCLURE

REVIEW BY:
S. BORTZ

DATE:
5/08/2024

REVISION:
6/04/2024

SHEET DESCRIPTION:
VDOT DETAILS

D05