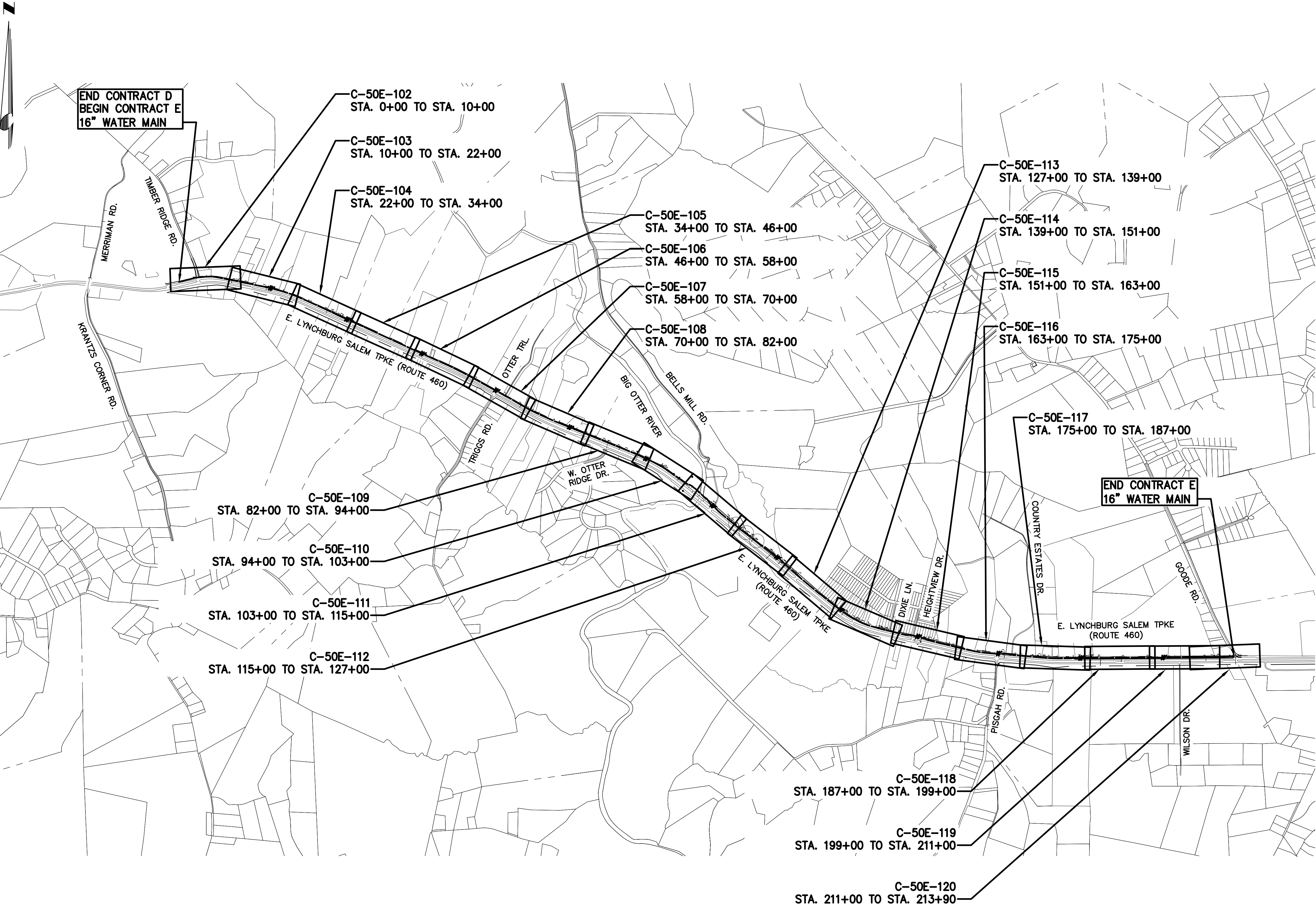
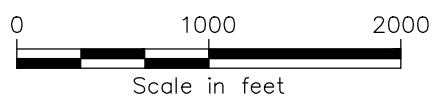


FD7000
File: V:\PROJECTS\AN\K3\27872\CADD\ACAD\C-50E-101_27872.DWG
Saved: 12/11/2017 12:46:56 PM Plotted: 6/21/2018 1:34:49 PM User: Parks, Sarah LastSavedBy: 5415



SHEET LIST TABLE	
SHEET NUMBER	SHEET TITLE
C-50E-101	CONTRACT E - WATER MAIN KEY PLAN
C-50E-102	CONTRACT E WATER MAIN - PLAN AND PROFILE EAST LYNCHBURG SALEM TPKE (RT 460) STA. 0+00 TO STA. 10+00
C-50E-103	CONTRACT E WATER MAIN - PLAN AND PROFILE EAST LYNCHBURG SALEM TPKE (RT 460) STA. 10+00 TO STA. 22+00
C-50E-104	CONTRACT E WATER MAIN - PLAN AND PROFILE EAST LYNCHBURG SALEM TPKE (RT 460) STA. 22+00 TO STA. 34+00
C-50E-105	CONTRACT E WATER MAIN - PLAN AND PROFILE EAST LYNCHBURG SALEM TPKE (RT 460) STA. 34+00 TO STA. 46+00
C-50E-106	CONTRACT E WATER MAIN - PLAN AND PROFILE EAST LYNCHBURG SALEM TPKE (RT 460) STA. 46+00 TO STA. 58+00
C-50E-107	CONTRACT E WATER MAIN - PLAN AND PROFILE EAST LYNCHBURG SALEM TPKE (RT 460) STA. 58+00 TO STA. 70+00
C-50E-108	CONTRACT E WATER MAIN - PLAN AND PROFILE EAST LYNCHBURG SALEM TPKE (RT 460) STA. 70+00 TO STA. 82+00
C-50E-109	CONTRACT E WATER MAIN - PLAN AND PROFILE EAST LYNCHBURG SALEM TPKE (RT 460) STA. 82+00 TO STA. 94+00
C-50E-110	CONTRACT E WATER MAIN - PLAN AND PROFILE EAST LYNCHBURG SALEM TPKE (RT 460) STA. 94+00 TO STA. 103+00
C-50E-111	CONTRACT E WATER MAIN - PLAN AND PROFILE EAST LYNCHBURG SALEM TPKE (RT 460) STA. 103+00 TO STA. 115+00
C-50E-112	CONTRACT E WATER MAIN - PLAN AND PROFILE EAST LYNCHBURG SALEM TPKE (RT 460) STA. 115+00 TO STA. 127+00
C-50E-113	CONTRACT E WATER MAIN - PLAN AND PROFILE EAST LYNCHBURG SALEM TPKE (RT 460) STA. 127+00 TO STA. 139+00
C-50E-114	CONTRACT E WATER MAIN - PLAN AND PROFILE EAST LYNCHBURG SALEM TPKE (RT 460) STA. 139+00 TO STA. 151+00
C-50E-115	CONTRACT E WATER MAIN - PLAN AND PROFILE EAST LYNCHBURG SALEM TPKE (RT 460) STA. 151+00 TO STA. 163+00
C-50E-116	CONTRACT E WATER MAIN - PLAN AND PROFILE EAST LYNCHBURG SALEM TPKE (RT 460) STA. 163+00 TO STA. 175+00
C-50E-117	CONTRACT E WATER MAIN - PLAN AND PROFILE EAST LYNCHBURG SALEM TPKE (RT 460) STA. 175+00 TO STA. 187+00
C-50E-118	CONTRACT E WATER MAIN - PLAN AND PROFILE EAST LYNCHBURG SALEM TPKE (RT 460) STA. 187+00 TO STA. 199+00
C-50E-119	CONTRACT E WATER MAIN - PLAN AND PROFILE EAST LYNCHBURG SALEM TPKE (RT 460) STA. 199+00 TO STA. 211+00
C-50E-120	CONTRACT E WATER MAIN - PLAN AND PROFILE EAST LYNCHBURG SALEM TPKE (RT 460) STA. 211+00 TO STA. 213+90

RECORD DRAWING INFORMATION PROVIDED TO CHA BY
ACRES OF VIRGINIA, INC. CHA DID NOT PERFORM AN
ACTUAL FIELD SURVEY IN PREPARATION OF THESE RECORD
DRAWINGS

RECORD DRAWING
12-11-17

12/11/2017
RECORD DRAWINGS

04/07/2016
VDOT SUBMITTAL

DATE

REVISIONS AND RECORD OF ISSUE

NO.

BY

CHK

APP

XREF1:

XREF2:

XREF3:

XREF4:

DWG VER:

USER:

BLACK & VEATCH
Building a world of difference.

Black & Veatch Corporation
Kansas City, Missouri

BEDFORD REGIONAL WATER AUTHORITY
SMITH MOUNTAIN LAKE WTP &
LAKES TO FOREST WATER LINE EXTENSION

CONTRACT E - WATER MAIN KEY PLAN

DESIGNED: JRM

DETAILED: SNP

CHECKED: BSR

APPROVED: SMS

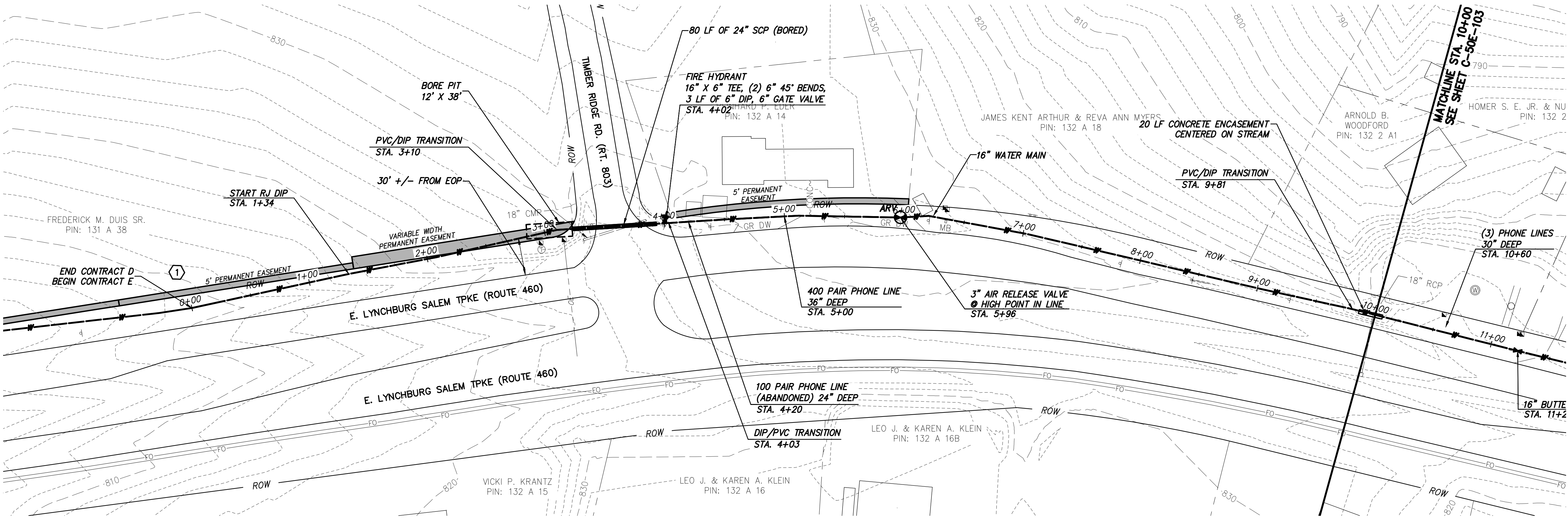
DATE: 04-2016

IF THIS BAR DOES NOT
MEASURE 1" THEN DRAWING IS
NOT TO FULL SCALE

PROJECT NO.
27872

C-50E-101
SHEET
OF

FD7000
File: V:\PROJECTS\AN\K3\27872\CADD\ACAD\G-50E-102-106_27872.DWG
Saved: 7/12/2018 3:18:20 PM Plotted: 6/21/2018 11:35:58 PM User: Sarah LastSavedBy: 4465



WATER MAIN PLAN

- GENERAL NOTES:**
- A. 16-IN WATER MAIN:
1. PIPING:
 - a. PVC: PRESSURE CLASS 165-DR25, 200-DR21, AND 235-DR18 AS NOTED.
 - b. DIP (INCLUDES ALL RJ): PRESSURE CLASS 250 AND 350 AS NOTED
 2. VALVES: RATED FOR WORKING PRESSURE OF 250 PSI
 3. TEST PRESSURES WILL VARY BASED ON OPERATING CONDITIONS, ELEVATION CHANGES AND PIPE PRESSURE CLASSES. PC165 WILL BE TESTED AT 150 PSI, PC200 AT 200 PSI, PC235 AT 225 PSI, AND DIP AT RIVER CROSSINGS WILL BE TESTED AT MIN. 250 PSI UNLESS NOTED OTHERWISE.
- B. VALVES, BLOW-OFFS AND AIR RELEASE VALVES LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS ARE TO BE FIELD DETERMINED.
- C. CONTRACTOR MAY PROVIDE TEMPORARY BLOW-OFFS, AIR RELEASE VALVES AND TEST PORTS AS NEEDED FOR TESTING AND FLUSHING.
- SPECIFIC NOTES**
- ① COORDINATE TIE-IN AND TESTING W/ CONTRACTOR FOR CONTRACT D.

RECORD DRAWING INFORMATION PROVIDED TO CHA BY ACRES OF VIRGINIA, INC. CHA DID NOT PERFORM AN ACTUAL FIELD SURVEY IN PREPARATION OF THESE RECORD DRAWINGS

RECORD DRAWING 12-11-17

CHA

1981 Woodford Drive, Suite 2100
Blacksburg, VA 24060
Phone: (540) 552-0400 • www.chaengineering.com

0 50 100
Scale in feet

GENERAL NOTES:

A. 16-IN WATER MAIN:

1. PIPING:

a. PVC: PRESSURE CLASS 165-DR25, 200-DR21, AND 235-DR18 AS NOTED.

b. DIP (INCLUDES ALL RJ): PRESSURE CLASS 250 AND 350 AS NOTED

2. VALVES: RATED FOR WORKING PRESSURE OF 250 PSI

3. TEST PRESSURES WILL VARY BASED ON OPERATING CONDITIONS, ELEVATION CHANGES AND PIPE PRESSURE CLASSES. PC165 WILL BE TESTED AT 150 PSI, PC200 AT 200 PSI, PC235 AT 225 PSI, AND DIP AT RIVER CROSSINGS WILL BE TESTED AT MIN. 250 PSI UNLESS NOTED OTHERWISE.

B. VALVES, BLOW-OFFS AND AIR RELEASE VALVES LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS ARE TO BE FIELD DETERMINED.

C. CONTRACTOR MAY PROVIDE TEMPORARY BLOW-OFFS, AIR RELEASE VALVES AND TEST PORTS AS NEEDED FOR TESTING AND FLUSHING.

SPECIFIC NOTES

① COORDINATE TIE-IN AND TESTING W/ CONTRACTOR FOR CONTRACT D.

12/11/2017 RECORD DRAWINGS

04/07/2016 VDOT SUBMITTAL

DATE

REVISIONS AND RECORD OF ISSUE

NO. BY CK APP

XREF1:

XREF2:

XREF3:

XREF4:

USER:

DWG VER:

BLACK & VEATCH

Building a world of difference.

Black & Veatch Corporation

Kansas City, Missouri

BEDFORD REGIONAL WATER AUTHORITY

SMITH MOUNTAIN LAKE WTP & LAKES TO FOREST WATER LINE EXTENSION

CONTRACT E WATER MAIN - PLAN & PROFILE

DESIGNED: JRM

DETAILED: SNP

CHECKED: BSR

APPROVED: SMS

DATE: 04-2016

0 1/2 1

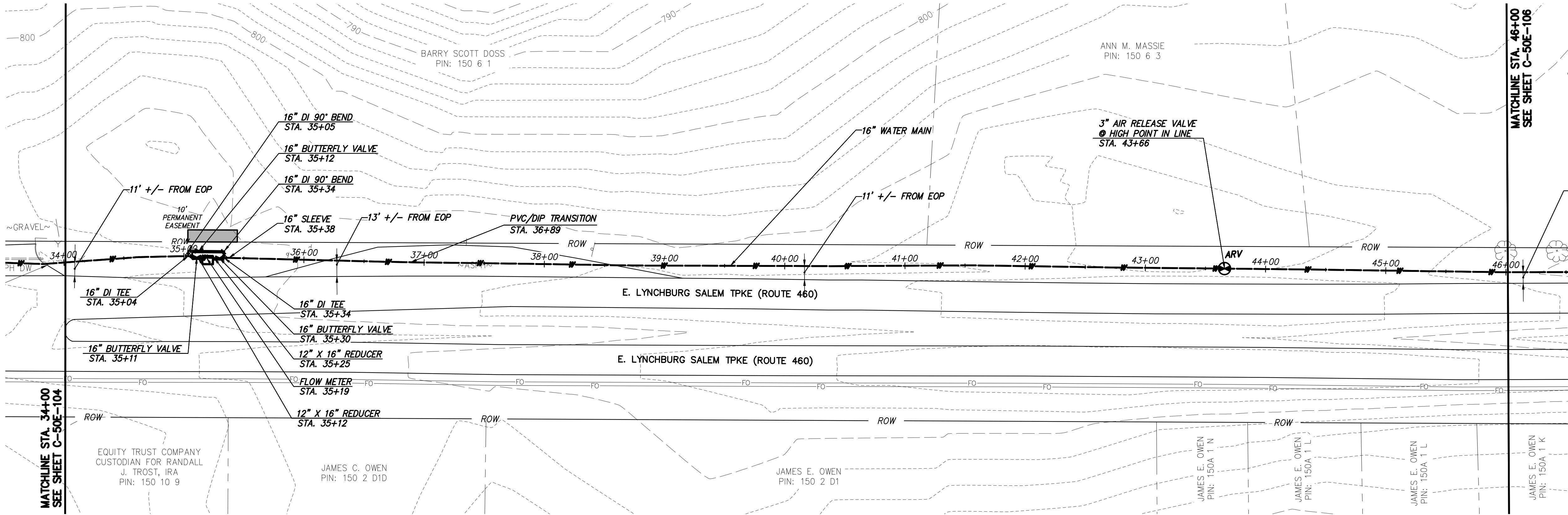
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

PROJECT NO.

27872

C-50E-102

SHEET OF



WATER MAIN PLAN

GENERAL NOTES:

- A. 16-IN WATER MAIN:
1. PIPING:
 - a. PVC: PRESSURE CLASS 165-DR25, 200-DR21, AND 235-DR18 AS NOTED.
 - b. DIP (INCLUDES ALL RJ): PRESSURE CLASS 250 AND 350 AS NOTED
 2. VALVES: RATED FOR WORKING PRESSURE OF 250 PSI
 3. TEST PRESSURES WILL VARY BASED ON OPERATING CONDITIONS, ELEVATION CHANGES AND PIPE PRESSURE CLASSES. PC165 WILL BE TESTED AT 150 PSI, PC200 AT 200 PSI, PC235 AT 225 PSI, AND DIP AT RIVER CROSSINGS WILL BE TESTED AT MIN. 250 PSI UNLESS NOTED OTHERWISE.

B. VALVES, BLOW-OFFS AND AIR RELEASE VALVES LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS ARE TO BE FIELD DETERMINED.

C. CONTRACTOR MAY PROVIDE TEMPORARY BLOW-OFFS, AIR RELEASE VALVES AND TEST PORTS AS NEEDED FOR TESTING AND FLUSHING.

SPECIFIC NOTES

① —

RECORD DRAWING INFORMATION PROVIDED TO CHA BY ACRES OF VIRGINIA, INC. CHA DID NOT PERFORM AN ACTUAL FIELD SURVEY IN PREPARATION OF THESE RECORD DRAWINGS

RECORD DRAWING 12-11-17



12/11/2017	RECORD DRAWINGS	KWM BSR SMS	NO.	BY	CHK	APP
04/07/2016	VOOT SUBMITTAL	SNP JRM SMS				
	DATE		REVISIONS AND RECORD OF ISSUE			
	SAVED:		XREF1:			
	PLOTTED:		XREF2:			
	USER:		XREF3:			
			XREF4:			
			DWS VER:			

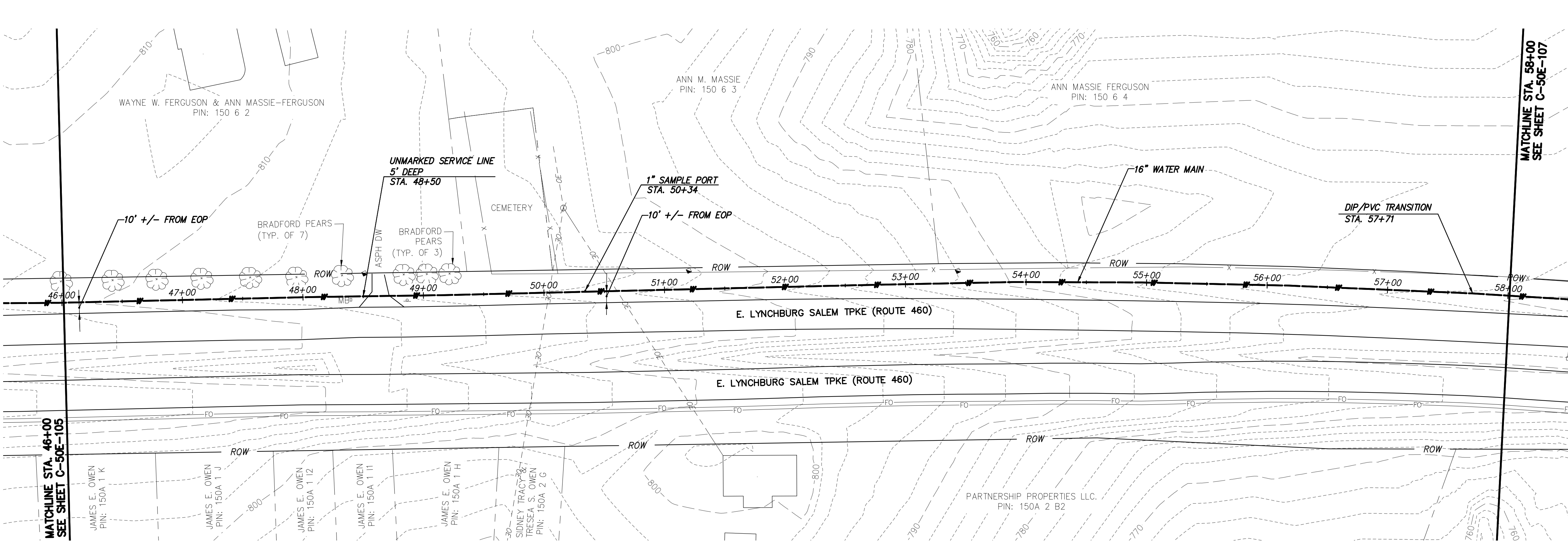
**BLACK & VEATCH**
Building a world of difference®

Black & Veatch Corporation
Kansas City, Missouri

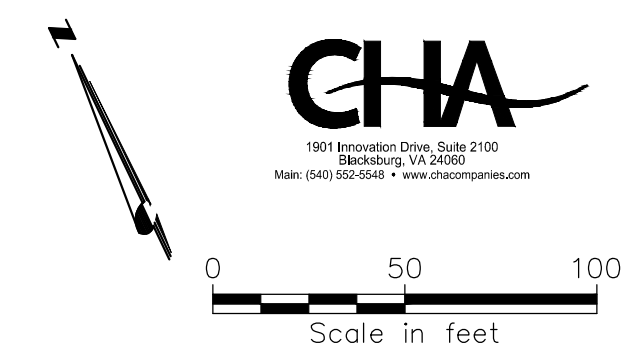
BEDFORD REGIONAL WATER AUTHORITY
SMITH MOUNTAIN LAKE WTP &
LAKES TO FOREST WATER LINE EXTENSION

CONTRACT E WATER MAIN - PLAN & PROFILE

DESIGNED: JRM
DETAILED: SNP
CHECKED: BSR
APPROVED: SMS
DATE: 04-2016
PROJECT NO. 27872
C-50E-105 SHEET OF



WATER MAIN PLAN



- GENERAL NOTES:**
- A. 16-IN WATER MAIN:
 - 1. PIPING:
 - a. PVC: PRESSURE CLASS 165-DR25, 200-DR21, AND 235-DR18 AS NOTED.
 - b. DIP (INCLUDES ALL RJ): PRESSURE CLASS 250 AND 350 AS NOTED
 - 2. VALVES: RATED FOR WORKING PRESSURE OF 250 PSI
 - 3. TEST PRESSURES WILL VARY BASED ON OPERATING CONDITIONS, ELEVATION CHANGES AND PIPE PRESSURE CLASSES. PC165 WILL BE TESTED AT 150 PSI, PC200 AT 200 PSI, PC235 AT 225 PSI, AND DIP AT RIVER CROSSINGS WILL BE TESTED AT MIN. 250 PSI UNLESS NOTED OTHERWISE.
 - B. VALVES, BLOW-OFFS AND AIR RELEASE VALVES LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS ARE TO BE FIELD DETERMINED.
 - C. CONTRACTOR MAY PROVIDE TEMPORARY BLOW-OFFS, AIR RELEASE VALVES AND TEST PORTS AS NEEDED FOR TESTING AND FLUSHING.

SPECIFIC NOTES
① —

RECORD DRAWING INFORMATION PROVIDED TO CHA BY ACRES OF VIRGINIA, INC. CHA DID NOT PERFORM AN ACTUAL FIELD SURVEY IN PREPARATION OF THESE RECORD DRAWINGS

RECORD DRAWING 12-11-17

12/11/2017	RECORD DRAWINGS	KRM BSR SMS	NO.	BY	CHK	APP
04/07/2016	VOID SUBMITTAL	SNP JRM SMS				
	DATE		REVISIONS AND RECORD OF ISSUE			
	SAVED:		XREF1:			
	PLOTTED:		XREF2:			
	USER:		XREF3:			
			DWS VER:			
BLACK & VEATCH Building a world of difference. Black & Veatch Corporation Kansas City, Missouri						
BEDFORD REGIONAL WATER AUTHORITY SMITH MOUNTAIN LAKE WTP & LAKES TO FOREST WATER LINE EXTENSION						
CONTRACT E WATER MAIN - PLAN & PROFILE						
DESIGNED: JRM						
DETAILED: SNP						
CHECKED: BSR						
APPROVED: SMS						
DATE: 04-2016						
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE						
PROJECT NO. 27872						
C-50E-106 SHEET OF						



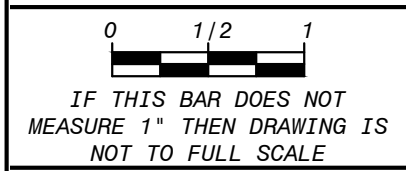
RECORD DRAWING INFORMATION PROVIDED TO CHA BY
ACRES OF VIRGINIA, INC. CHA DID NOT PERFORM AN
ACTUAL FIELD SURVEY IN PREPARATION OF THESE RECORD
DRAWINGS

RECORD DRAWING 12-11-17

BEDFORD REGIONAL WATER AUTHORITY
 SMITH MOUNTAIN LAKE WTP &
 LAKES TO FOREST WATER LINE EXTENSION

CONTRACT E WATER MAIN - PLAN & PROFILE

DESIGNED: JRM
DETAILED: SNP
CHECKED: BSR
APPROVED: SMS
DATE: 04-2016

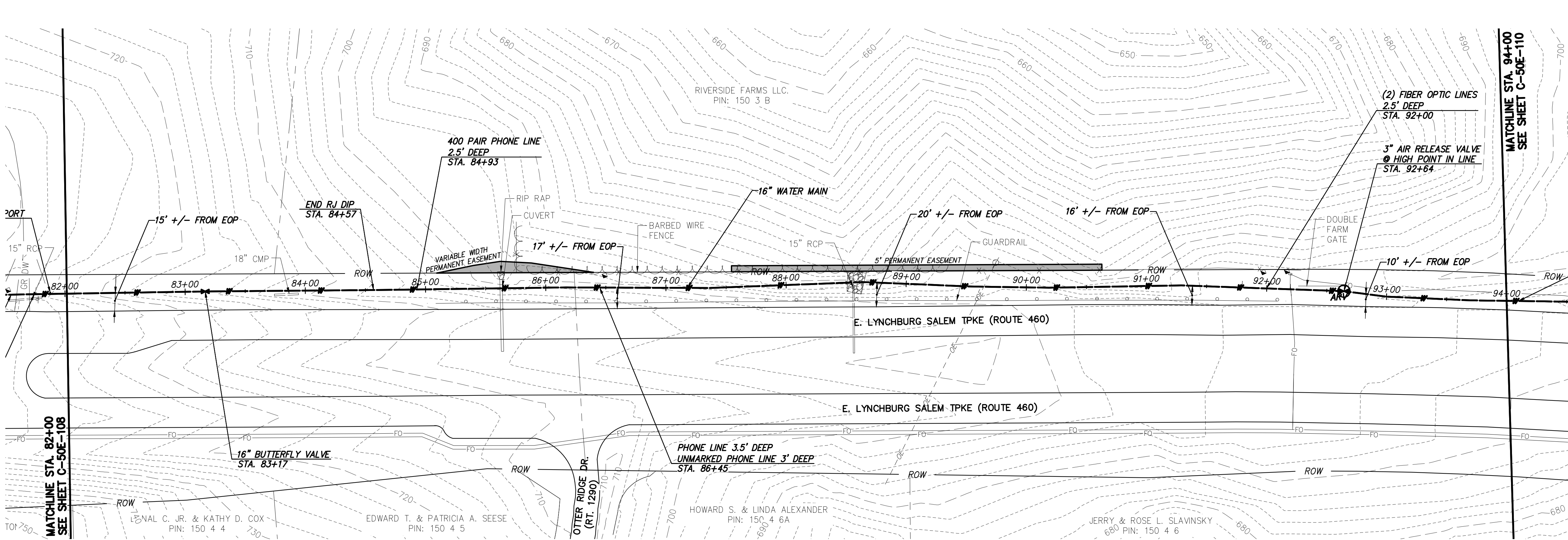


PROJECT NO.
27872

C-50E-108

SHEET
OF

FD7000
File: V:\PROJECTS\ANV\K3\27872\CADD\ACAD\G-50E-107-110_27872.DWG
Saved: 7/12/2018 3:15:25 PM Plotted: 6/21/2018 11:40:50 PM User: Sarah LastSavedBy: 4465



WATER MAIN PLAN

19811 Westfield Drive, Suite 2100
Buckhamsburg, VA 21039
Phone: (410) 522-0242 • www.chaengineering.com

0 50 100
Scale in feet

GENERAL NOTES:

A. 16-IN WATER MAIN:
1. PIPING:
a. PVC: PRESSURE CLASS 165-DR25, 200-DR21, AND 235-DR18 AS NOTED.
b. DIP (INCLUDES ALL RJ): PRESSURE CLASS 250 AND 350 AS NOTED
2. VALVES: RATED FOR WORKING PRESSURE OF 250 PSI
3. TEST PRESSURES WILL VARY BASED ON OPERATING CONDITIONS, ELEVATION CHANGES AND PIPE PRESSURE CLASSES. PC165 WILL BE TESTED AT 150 PSI, PC200 AT 200 PSI, PC235 AT 225 PSI, AND DIP AT RIVER CROSSINGS WILL BE TESTED AT MIN. 250 PSI UNLESS NOTED OTHERWISE.

B. VALVES, BLOW-OFFS AND AIR RELEASE VALVES LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS ARE TO BE FIELD DETERMINED.

C. CONTRACTOR MAY PROVIDE TEMPORARY BLOW-OFFS, AIR RELEASE VALVES AND TEST PORTS AS NEEDED FOR TESTING AND FLUSHING.

SPECIFIC NOTES
① —

12/11/2017	RECORD DRAWINGS	-	KWM BSR SMS
04/07/2016	VOOT SUBMITTAL	-	SNP JRM SMS
DATE	REVISIONS AND RECORD OF ISSUE	NO.	BY
SAVED:		XREF1:	
PLOTTED:		XREF2:	
USER:		XREF3:	
DWS VER:		XREF4:	

BLACK & VEATCH
Building a world of difference.
Black & Veatch Corporation
Kansas City, Missouri

BEDFORD REGIONAL WATER AUTHORITY
SMITH MOUNTAIN LAKE WTP & LAKES TO FOREST WATER LINE EXTENSION

CONTRACT E WATER MAIN - PLAN & PROFILE

DESIGNED: JRM
DETAILED: SNP
CHECKED: BSR
APPROVED: SMS
DATE: 04-2016

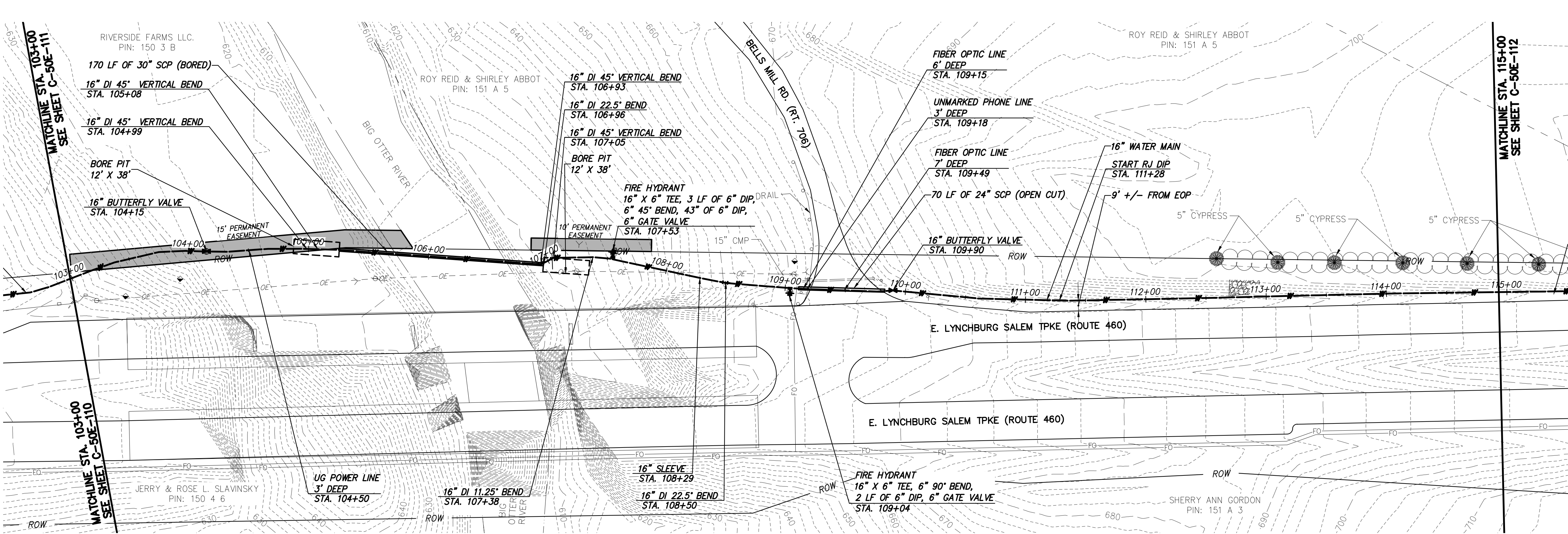
RECORD DRAWING INFORMATION PROVIDED TO CHA BY ACRES OF VIRGINIA, INC. CHA DID NOT PERFORM AN ACTUAL FIELD SURVEY IN PREPARATION OF THESE RECORD DRAWINGS

RECORD DRAWING 12-11-17

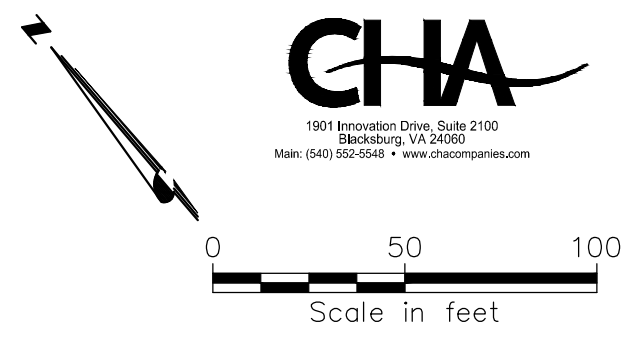
PROJECT NO.
27872

C-50E-109
SHEET
OF

277000
File: V:\PROJECTS\ANN\K3\27872\CADD\ACAD\G-50E-111-115_27872.DWG
Saved: 7/12/2018 3:22:17 PM Plotted: 6/21/2018 11:42:04 PM User: Sarah LastSavedBy: 4465



WATER MAIN PLAN



- GENERAL NOTES:**
- A. 16-IN WATER MAIN:
1. PIPING:
a. PVC: PRESSURE CLASS 165-DR25, 200-DR21, AND 235-DR18 AS NOTED.
b. DIP (INCLUDES ALL RJ): PRESSURE CLASS 250 AND 350 AS NOTED
2. VALVES: RATED FOR WORKING PRESSURE OF 250 PSI
3. TEST PRESSURES WILL VARY BASED ON OPERATING CONDITIONS, ELEVATION CHANGES AND PIPE PRESSURE CLASSES. PC165 WILL BE TESTED AT 150 PSI, PC200 AT 200 PSI, PC235 AT 225 PSI, AND DIP AT RIVER CROSSINGS WILL BE TESTED AT MIN. 250 PSI UNLESS NOTED OTHERWISE.
- B. VALVES, BLOW-OFFS AND AIR RELEASE VALVES LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS ARE TO BE FIELD DETERMINED.
- C. CONTRACTOR MAY PROVIDE TEMPORARY BLOW-OFFS, AIR RELEASE VALVES AND TEST PORTS AS NEEDED FOR TESTING AND FLUSHING.

SPECIFIC NOTES
① —

RECORD DRAWING INFORMATION PROVIDED TO CHA BY ACRES OF VIRGINIA, INC. CHA DID NOT PERFORM AN ACTUAL FIELD SURVEY IN PREPARATION OF THESE RECORD DRAWINGS

RECORD DRAWING 12-11-17

12/11/2017 RECORD DRAWINGS		KWM BSR SMS		NO. BY CK APP		XREF1:	
04/07/2016 VDOT SUBMITTAL		SNP JRM SMS		REVISIONS AND RECORD OF ISSUE		XREF2:	
DATE						XREF3:	
SAVED:				DWS VER:		XREF4:	
PLOTTED:							
USER:							

BLACK & VEATCH
Building a world of difference®

Black & Veatch Corporation
Kansas City, Missouri

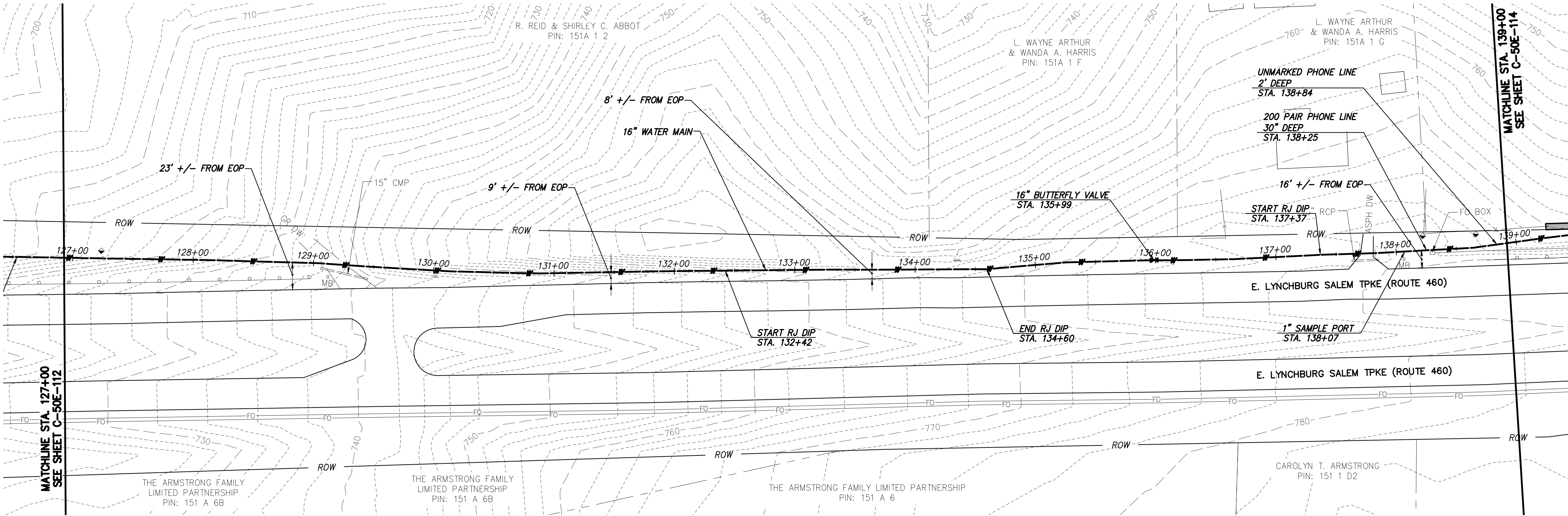
BEDFORD REGIONAL WATER AUTHORITY
SMITH MOUNTAIN LAKE WTP &
LAKES TO FOREST WATER LINE EXTENSION

CONTRACT E WATER MAIN - PLAN & PROFILE

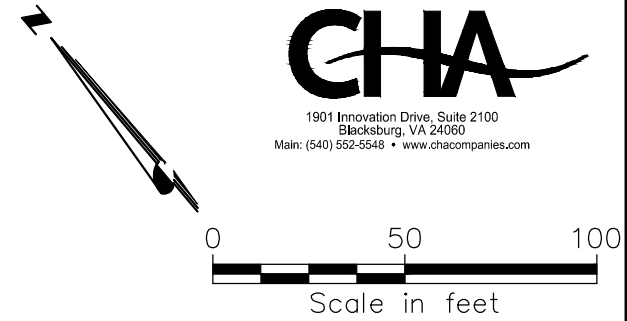
DESIGNED: JRM
DETAILED: SNP
CHECKED: BSR
APPROVED: SMS
DATE: 04-2016

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

PROJECT NO. 27872
C-50E-111 SHEET OF



WATER MAIN PLAN



- GENERAL NOTES:**
- A. 16-IN WATER MAIN:
1. PIPING:
a. PVC: PRESSURE CLASS 165-DR25, 200-DR21, AND 235-DR18 AS NOTED.
b. DIP (INCLUDES ALL RJ): PRESSURE CLASS 250 AND 350 AS NOTED
2. VALVES: RATED FOR WORKING PRESSURE OF 250 PSI
3. TEST PRESSURES WILL VARY BASED ON OPERATING CONDITIONS, ELEVATION CHANGES AND PIPE PRESSURE CLASSES. PC165 WILL BE TESTED AT 150 PSI, PC200 AT 200 PSI, PC235 AT 225 PSI, AND DIP AT RIVER CROSSINGS WILL BE TESTED AT MIN. 250 PSI UNLESS NOTED OTHERWISE.
- B. VALVES, BLOW-OFFS AND AIR RELEASE VALVES LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS ARE TO BE FIELD DETERMINED.
- C. CONTRACTOR MAY PROVIDE TEMPORARY BLOW-OFFS, AIR RELEASE VALVES AND TEST PORTS AS NEEDED FOR TESTING AND FLUSHING.

SPECIFIC NOTES
①

RECORD DRAWING INFORMATION PROVIDED TO CHA BY ACRES OF VIRGINIA, INC. CHA DID NOT PERFORM AN ACTUAL FIELD SURVEY IN PREPARATION OF THESE RECORD DRAWINGS

RECORD DRAWING 12-11-17

12/11/2017	RECORD DRAWINGS	KWM BSR SMS	NO.	BY	CHK	APP
04/07/2016	VOOT SUBMITTAL	SNP JRM SMS	NO.	BY	CHK	APP
	DATE		REVISIONS AND RECORD OF ISSUE			
SAVED:		XREF1:		XREF2:		
PLOTTED:		XREF3:		XREF4:		
USER:		DWS VER:				

BLACK & VEATCH
Building a world of difference®

Black & Veatch Corporation
Kansas City, Missouri

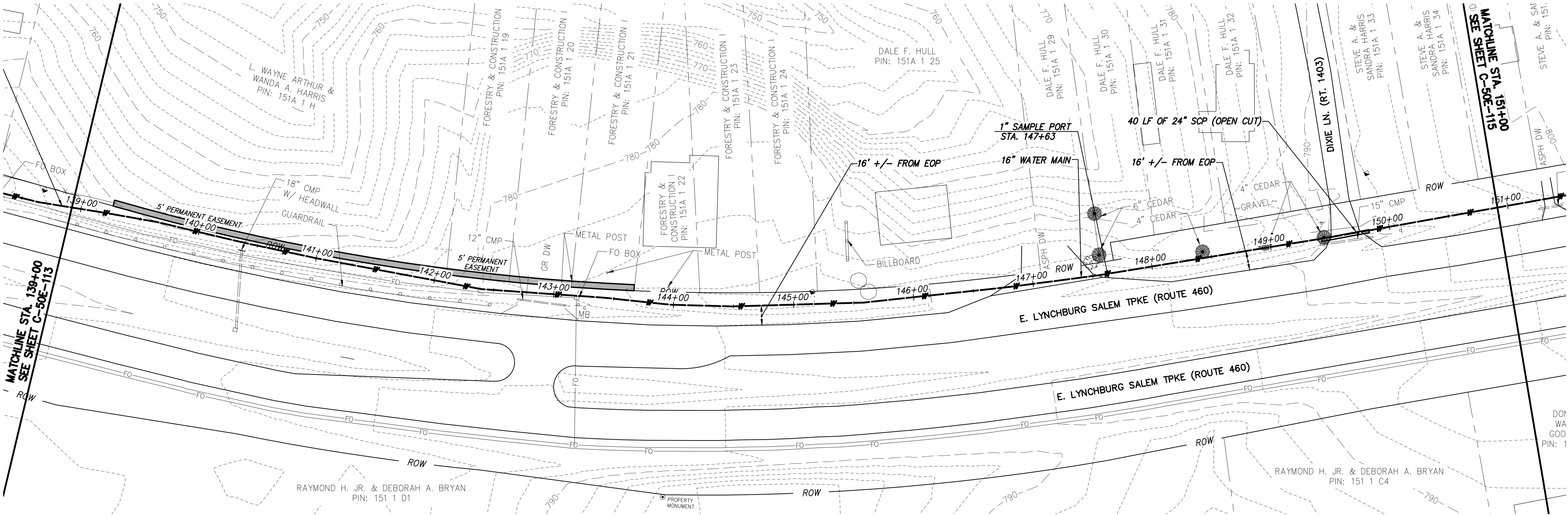
BEDFORD REGIONAL WATER AUTHORITY
SMITH MOUNTAIN LAKE WTP &
LAKES TO FOREST WATER LINE EXTENSION

CONTRACT E WATER MAIN - PLAN & PROFILE

DESIGNED: JRM
DETAILED: SNP
CHECKED: BSR
APPROVED: SMS
DATE: 04-2016

0 1/2 1
IF THIS BAR DOES NOT
MEASURE 1" THEN DRAWING IS
NOT TO FULL SCALE

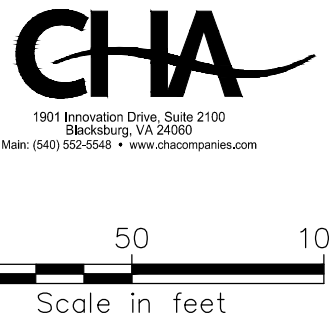
C-50E-113
SHEET
OF



WATER MAIN PLAN

- GENERAL NOTES:**
- A. 16-IN WATER MAIN:
1. PIPING:
a. PVC: PRESSURE CLASS 165-DR25, 200-DR21, AND 235-DR18 AS NOTED.
b. DIP (INCLUDES ALL RJ): PRESSURE CLASS 250 AND 350 AS NOTED
2. VALVES: RATED FOR WORKING PRESSURE OF 250 PSI
3. TEST PRESSURES WILL VARY BASED ON OPERATING CONDITIONS, ELEVATION CHANGES AND PIPE PRESSURE CLASSES. PC165 WILL BE TESTED AT 150 PSI, PC200 AT 200 PSI, PC235 AT 225 PSI, AND DIP AT RIVER CROSSINGS WILL BE TESTED AT MIN. 250 PSI UNLESS NOTED OTHERWISE.
- B. VALVES, BLOW-OFFS AND AIR RELEASE VALVES LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS ARE TO BE FIELD DETERMINED.
- C. CONTRACTOR MAY PROVIDE TEMPORARY BLOW-OFFS, AIR RELEASE VALVES AND TEST PORTS AS NEEDED FOR TESTING AND FLUSHING.

SPECIFIC NOTES
① —



RECORD DRAWING INFORMATION PROVIDED TO CHA BY ACRES OF VIRGINIA, INC. CHA DID NOT PERFORM AN ACTUAL FIELD SURVEY IN PREPARATION OF THESE RECORD DRAWINGS

RECORD DRAWING 12-11-17

BEDFORD REGIONAL WATER AUTHORITY
SMITH MOUNTAIN LAKE WTP &
LAKES TO FOREST WATER LINE EXTENSION

CONTRACT E WATER MAIN - PLAN & PROFILE

DESIGNED: JRM
DETAILED: SNP
CHECKED: BSR
APPROVED: SMS
DATE: 04-2016

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

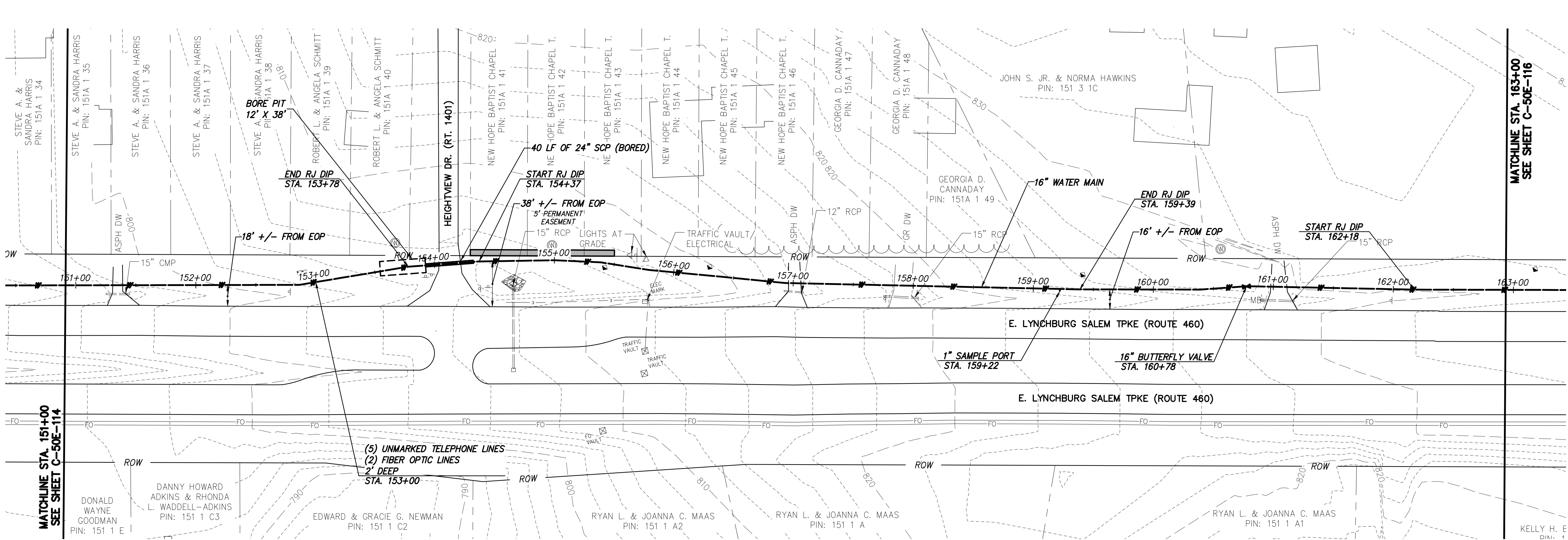
PROJECT NO.
27872

C-50E-114
SHEET
OF

BLACK & VEATCH
Building a world of difference™

Black & Veatch Corporation
Kansas City, Missouri

12/11/2017	RECORD DRAWINGS	-	KWM BSR SMS
04/07/2016	VOID SUBMITTAL	-	SNP JRM SMS
DATE	REVISIONS AND RECORD OF ISSUE	NO.	BY CK APP
SAVED:	XREF1:		
PLOTTED:	XREF2:		
USER:	XREF3:		
	XREF4:		
	DWG VER:		



WATER MAIN PLAN



19811 Woodcrest Drive, Suite 2100
Buckhamsburg, VA 22603
Phone (540) 524-0400 • www.chaengineering.com



0 50 100
Scale in feet

GENERAL NOTES:

A. 16-IN WATER MAIN:
1. PIPING:
a. PVC: PRESSURE CLASS 165-DR25, 200-DR21, AND 235-DR18 AS NOTED.
b. DIP (INCLUDES ALL RJ): PRESSURE CLASS 250 AND 350 AS NOTED
2. VALVES: RATED FOR WORKING PRESSURE OF 250 PSI
3. TEST PRESSURES WILL VARY BASED ON OPERATING CONDITIONS, ELEVATION CHANGES AND PIPE PRESSURE CLASSES. PC165 WILL BE TESTED AT 150 PSI, PC200 AT 200 PSI, PC235 AT 225 PSI, AND DIP AT RIVER CROSSINGS WILL BE TESTED AT MIN. 250 PSI UNLESS NOTED OTHERWISE.

B. VALVES, BLOW-OFFS AND AIR RELEASE VALVES LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS ARE TO BE FIELD DETERMINED.

C. CONTRACTOR MAY PROVIDE TEMPORARY BLOW-OFFS, AIR RELEASE VALVES AND TEST PORTS AS NEEDED FOR TESTING AND FLUSHING.

SPECIFIC NOTES

① —

RECORD DRAWING

12-11-17

RECORD DRAWING INFORMATION PROVIDED TO CHA BY ACRES OF VIRGINIA, INC. CHA DID NOT PERFORM AN ACTUAL FIELD SURVEY IN PREPARATION OF THESE RECORD DRAWINGS

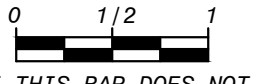
DESIGNED: JRM

DETAILED: SNP

CHECKED: BSR

APPROVED: SMS

DATE: 04-2016



0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

PROJECT NO.
27872

C-50E-115
SHEET
OF

BLACK & VEATCH
Building a world of difference®

Black & Veatch Corporation
Kansas City, Missouri

BEDFORD REGIONAL WATER AUTHORITY
SMITH MOUNTAIN LAKE WTP &
LAKES TO FOREST WATER LINE EXTENSION

CONTRACT E WATER MAIN - PLAN & PROFILE

12/11/2017 RECORD DRAWINGS

04/07/2016 VDOT SUBMITTAL

DATE

REVISIONS AND RECORD OF ISSUE

NO. BY CK APP

XREF1:

XREF2:

XREF3:

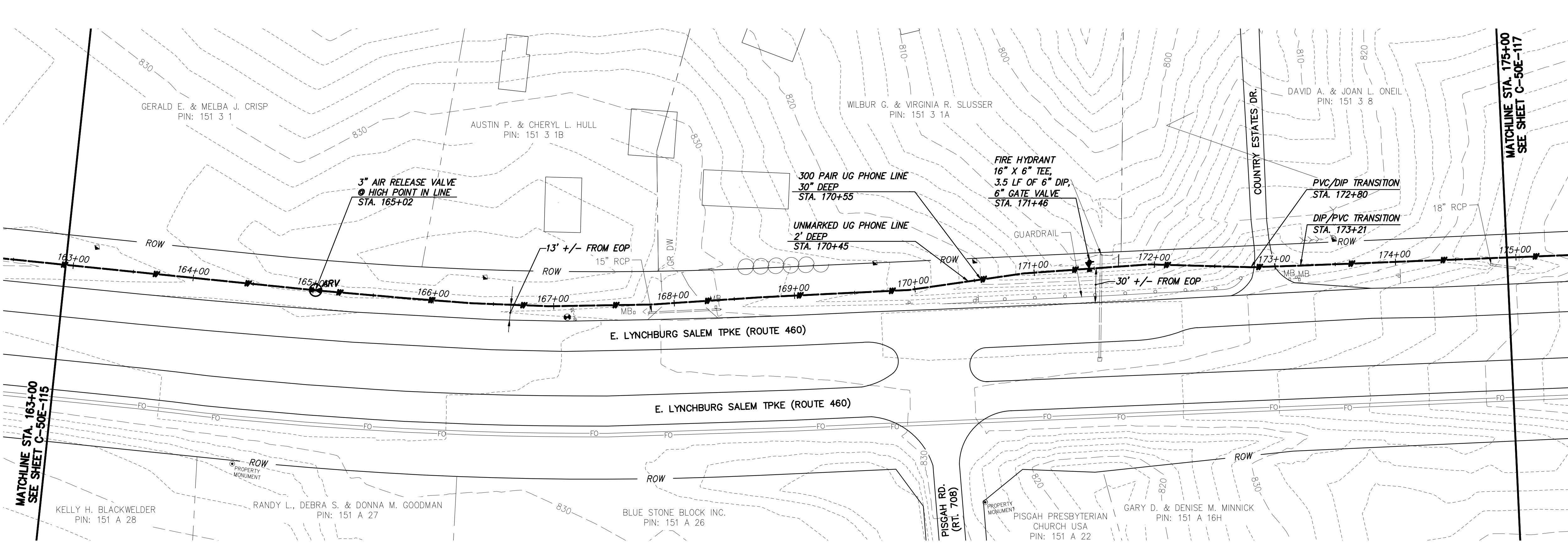
XREF4:

SAVED:

PLOTTED:

USER:

DWG VER:



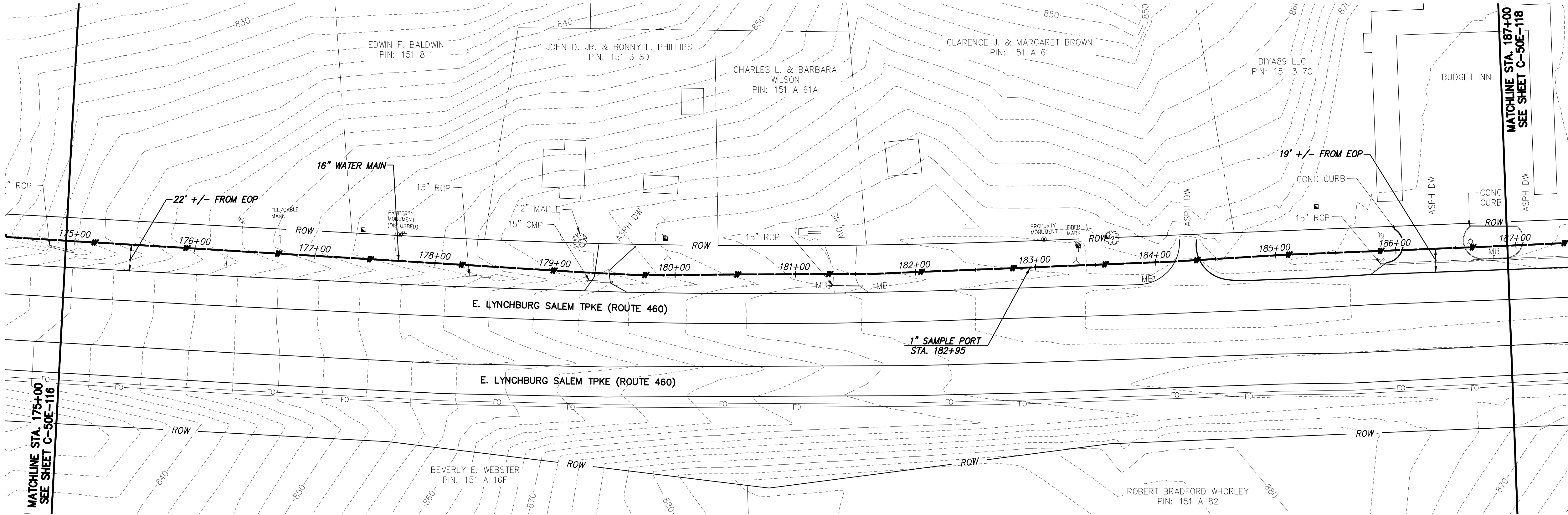
WATER MAIN PLAN

- GENERAL NOTES:**
- A. 16-IN WATER MAIN:
1. PIPING:
a. PVC: PRESSURE CLASS 165-DR25, 200-DR21, AND 235-DR18 AS NOTED.
b. DIP (INCLUDES ALL RJ): PRESSURE CLASS 250 AND 350 AS NOTED
2. VALVES: RATED FOR WORKING PRESSURE OF 250 PSI
3. TEST PRESSURES WILL VARY BASED ON OPERATING CONDITIONS, ELEVATION CHANGES AND PIPE PRESSURE CLASSES. PC165 WILL BE TESTED AT 150 PSI, PC200 AT 200 PSI, PC235 AT 225 PSI, AND DIP AT RIVER CROSSINGS WILL BE TESTED AT MIN. 250 PSI UNLESS NOTED OTHERWISE.
- B. VALVES, BLOW-OFFS AND AIR RELEASE VALVES LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS ARE TO BE FIELD DETERMINED.
- C. CONTRACTOR MAY PROVIDE TEMPORARY BLOW-OFFS, AIR RELEASE VALVES AND TEST PORTS AS NEEDED FOR TESTING AND FLUSHING.

SPECIFIC NOTES
① —



FD7000
File: N:\PROJECTS\ANN\K3\27872\CADD\ACAD\ACAD\120_27872.DWG
Saved: 7/12/2018 3:25:00 PM Plotted: 6/21/2018 11:45:35 PM User: Parks, Sarah LastSavedBy: 4465



WATER MAIN PLAN

GENERAL NOTES:

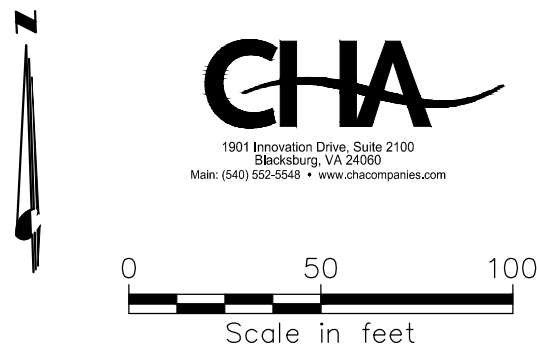
- A. 16-IN WATER MAIN:
1. PIPING:
a. PVC: PRESSURE CLASS 165-DR25, 200-DR21, AND 235-DR18 AS NOTED.
b. DIP (INCLUDES ALL RJ): PRESSURE CLASS 250 AND 350 AS NOTED
2. VALVES: RATED FOR WORKING PRESSURE OF 250 PSI
3. TEST PRESSURES WILL VARY BASED ON OPERATING CONDITIONS, ELEVATION CHANGES AND PIPE PRESSURE CLASSES. PC165 WILL BE TESTED AT 150 PSI, PC200 AT 200 PSI, PC235 AT 225 PSI, AND DIP AT RIVER CROSSINGS WILL BE TESTED AT MIN. 250 PSI UNLESS NOTED OTHERWISE.

B. VALVES, BLOW-OFFS AND AIR RELEASE VALVES LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS ARE TO BE FIELD DETERMINED.

C. CONTRACTOR MAY PROVIDE TEMPORARY BLOW-OFFS, AIR RELEASE VALVES AND TEST PORTS AS NEEDED FOR TESTING AND FLUSHING.

SPECIFIC NOTES

① —



RECORD DRAWING INFORMATION PROVIDED TO CHA BY ACRES OF VIRGINIA, INC. CHA DID NOT PERFORM AN ACTUAL FIELD SURVEY IN PREPARATION OF THESE RECORD DRAWINGS

RECORD DRAWING 12-11-17

12/11/2017	RECORD DRAWINGS	KWM BSR SMS	NO.	BY	CHK	APP
04/07/2016	VOID SUBMITTAL	SNP JRM SMS	NO.	BY	CHK	APP
DATE	REVISIONS AND RECORD OF ISSUE					
SAVED:	XREF1:					
PLOTTED:	XREF2:					
USER:	XREF3:					
	XREF4:					
	DWG VER:					
BEDFORD REGIONAL WATER AUTHORITY SMITH MOUNTAIN LAKE WTP & LAKES TO FOREST WATER LINE EXTENSION						
CONTRACT E WATER MAIN - PLAN & PROFILE						
DESIGNED: JRM						
DETAILED: SNP						
CHECKED: BSR						
APPROVED: SMS						
DATE: 04-2016						
0 1/2 1 IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE						
PROJECT NO. 27872						
C-50E-117 SHEET OF						

BLACK & VEATCH
Building a world of difference.
Black & Veatch Corporation
Kansas City, Missouri

