

TRANSMITTAL LETTER

MONARCH ENGINEERING, INC.

TELEPHONE (502) 839-1310 FAX (502) 839-1373

TO: Linda Faulkner, Public Service Commission

RECEIVED

FROM: Dave

FEB 12 2016

RE: Case #2014 -00020

Public Service
Commission

Record Drawings

COLUMBIA / ADAIR UTILITIES DISTRICT DOWNTOWN WATER SYSTEM REPLACEMENTS PHASE 2 - SECTION 1 ADAIR COUNTY, KENTUCKY

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COLUMBIA/ADAIR UTILITIES DISTRICT BOARD MEMBERS:

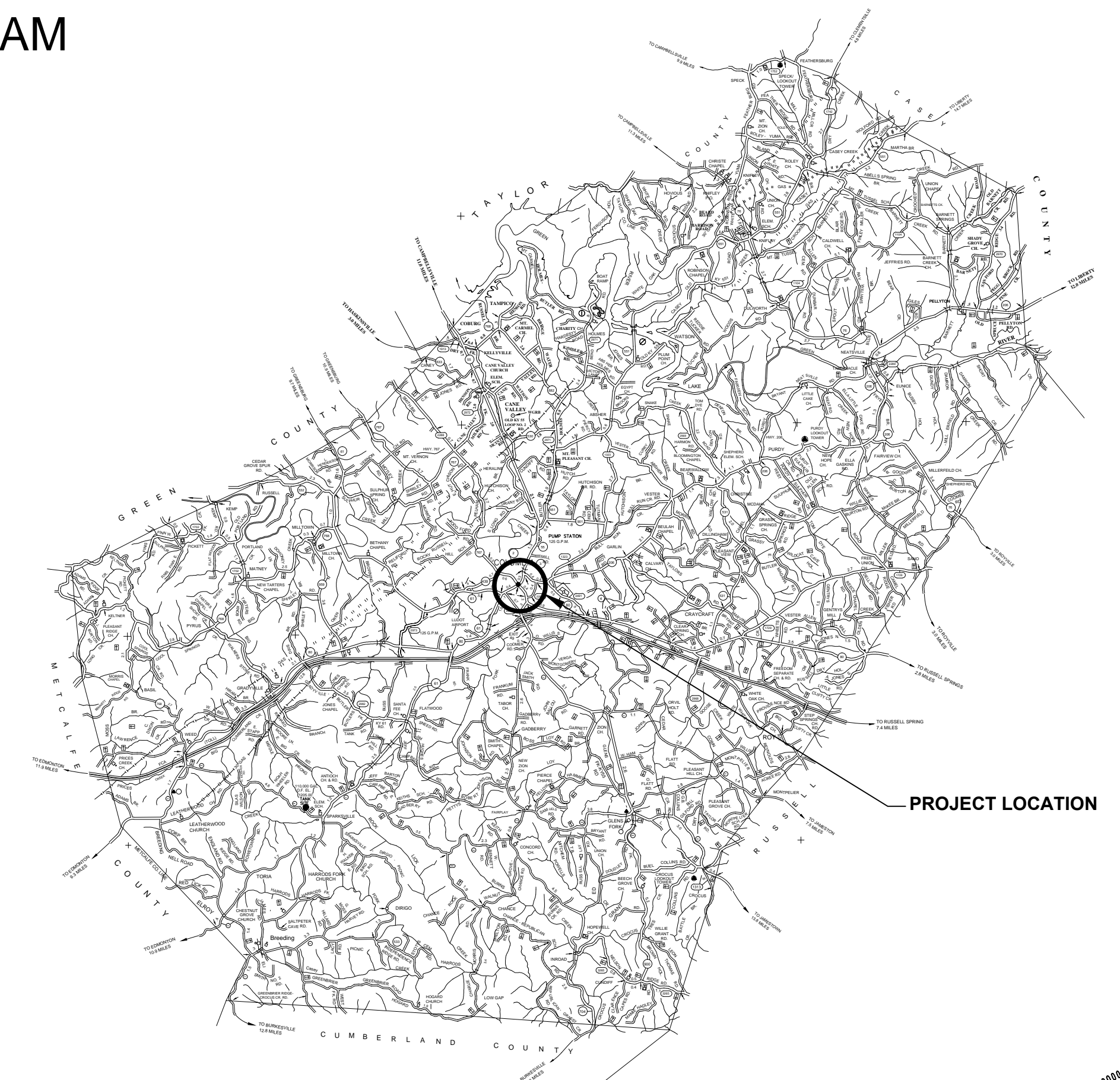
DANNY DOWNEY, CHAIRMAN	
RABON BURTON	ROBERT FLOWERS
LARRY LEGG	RUDY HIGGINBOTHAM

MANAGER
LENNON STONE

ATTORNEY
MARSHALL LOY

NOVEMBER 2011

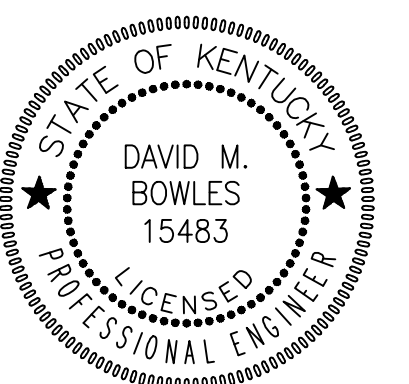
LOCATION MAP

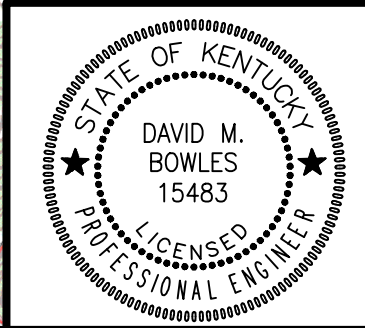
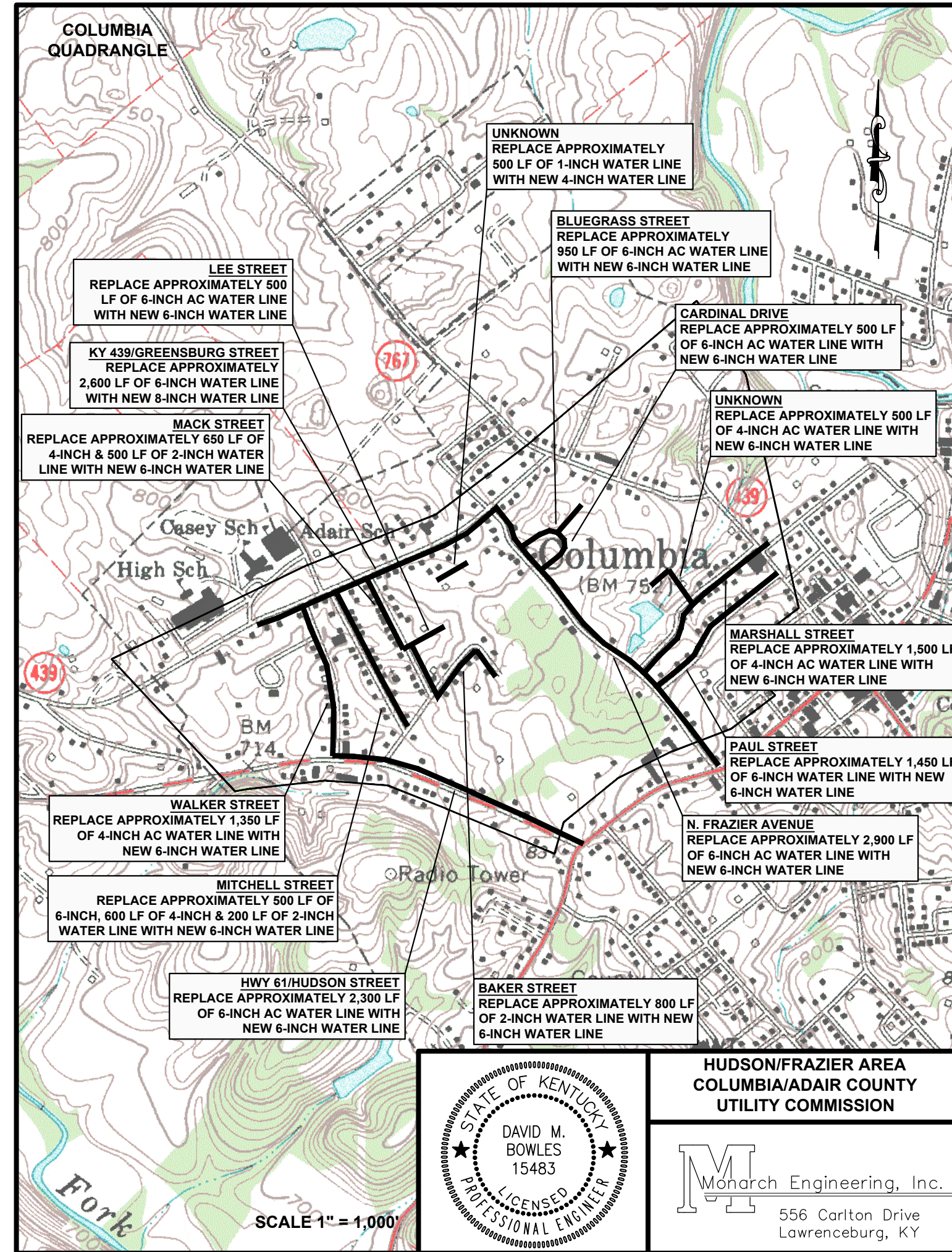


M
Monarch Engineering, Inc.

556 CARLTON DRIVE
LAWRENCEBURG, KY 40342

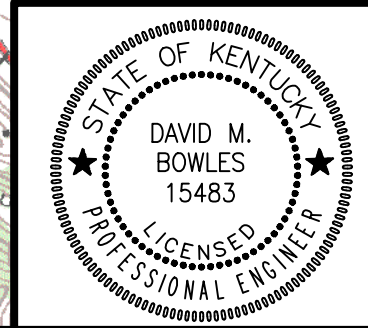
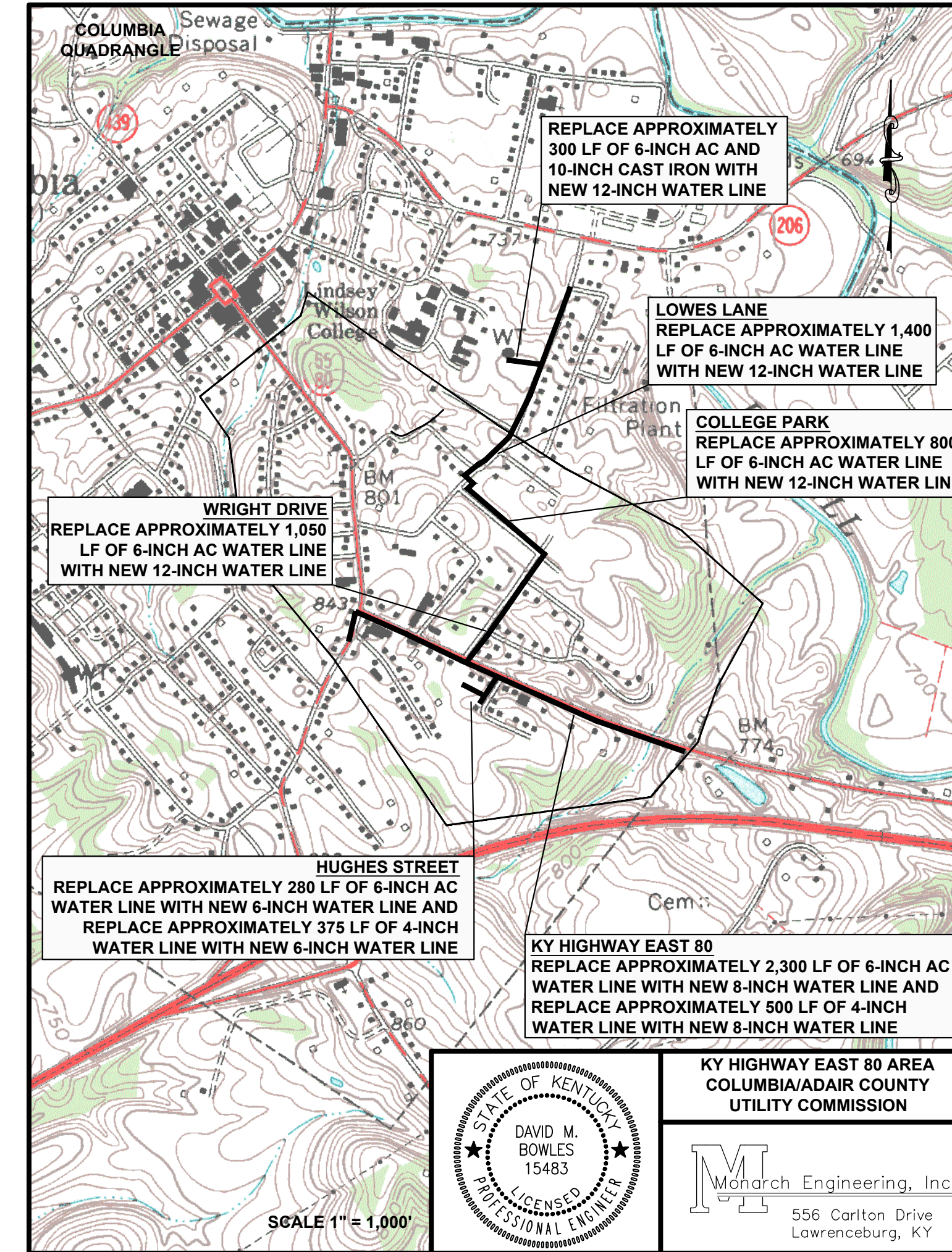
RECORD DRAWINGS





HUDSON/FRAZIER AREA
COLUMBIA/ADAIR COUNTY
UTILITY COMMISSION

Monarch Engineering, Inc.
556 Carlton Drive
Lawrenceburg, KY



KY HIGHWAY EAST 80 AREA
COLUMBIA/ADAIR COUNTY
UTILITY COMMISSION

Monarch Engineering, Inc.
556 Carlton Drive
Lawrenceburg, KY

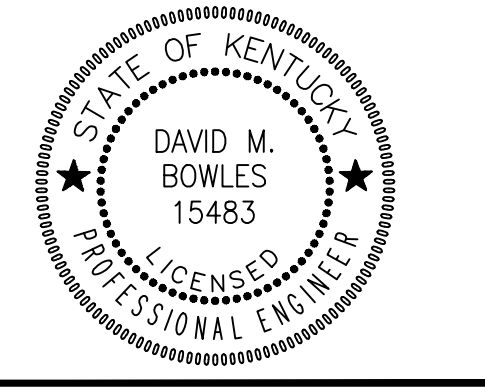
Monarch Engineering, Inc.
556 CARLTON DRIVE
LAWRENCEBURG, KY 40342

DESCRIPTION:
**DOWNTOWN WATER SYSTEM REPLACEMENT
PHASE 2 - SECTION 1**

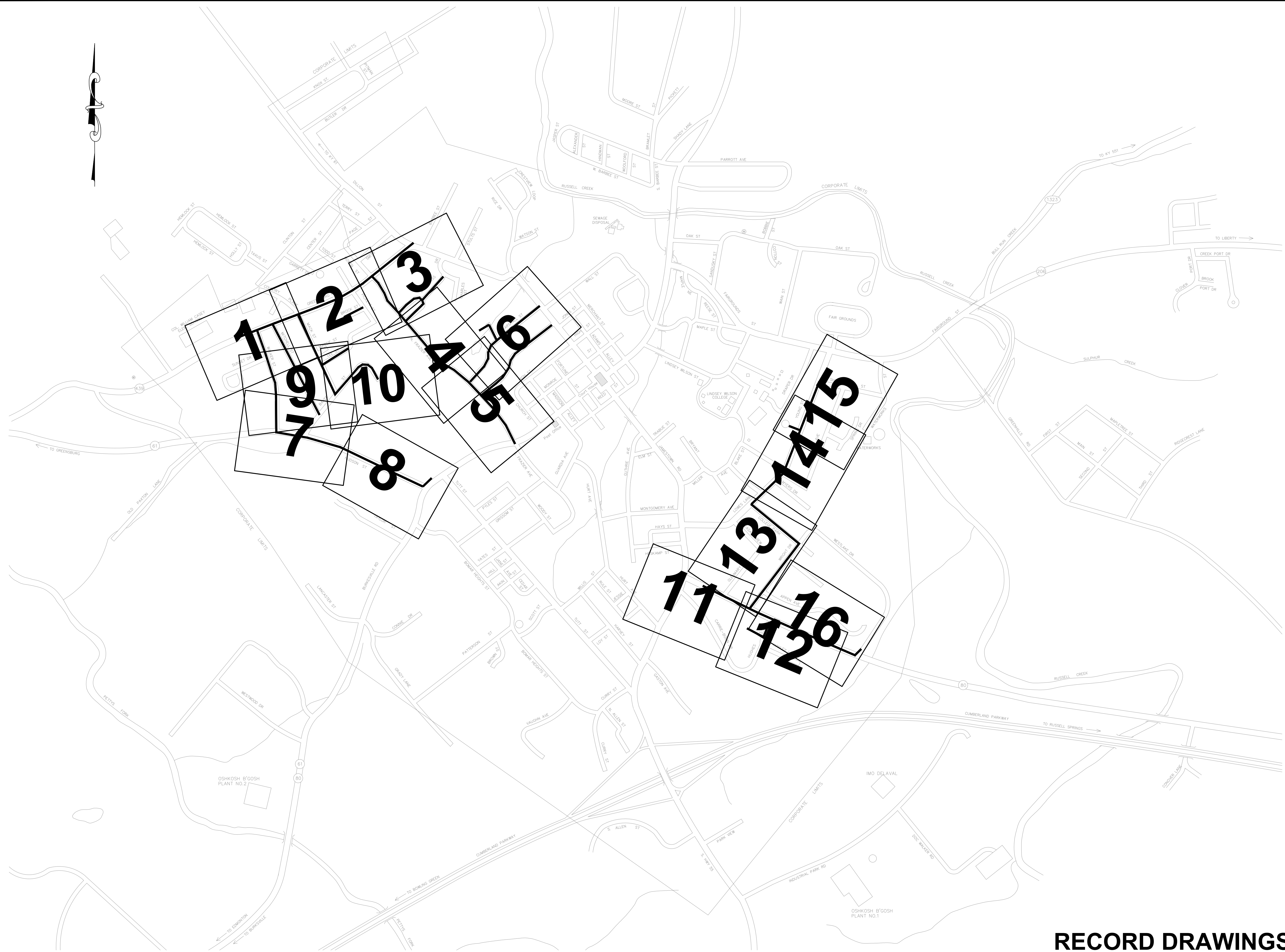
CUSTOMER:
**COLUMBIA-ADAIR UTILITIES DISTRICT
ADAIR COUNTY, KENTUCKY**

PROJECT NO. 1102
DATE: NOV 2011
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CHECKED BY: DSB
CHECKED BY: DMB
SCALE: N.T.S.

SHEET:
TM-1



RECORD DRAWINGS



M Monarch Engineering, Inc.

556 CARLTON DRIVE
LAWRENCEBURG, KY 40342

DESCRIPTION:
**DOWNTOWN WATER SYSTEM REPLACEMENT
PHASE 2 - SECTION 1**

CUSTOMER:
**COLUMBIA-ADAIR UTILITIES DISTRICT
ADAIR COUNTY, KENTUCKY**

PROJECT NO. 1102

DATE: NOV 2011

DRAWN BY: JRC

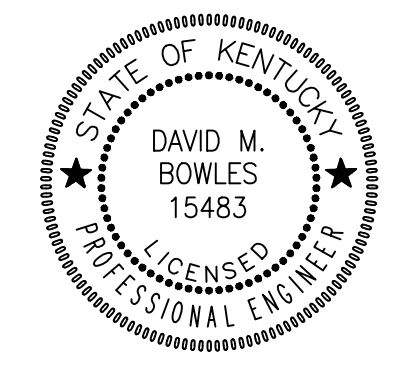
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SCALE: N.T.S.

SHEET:

LM-1



RECORD DRAWINGS



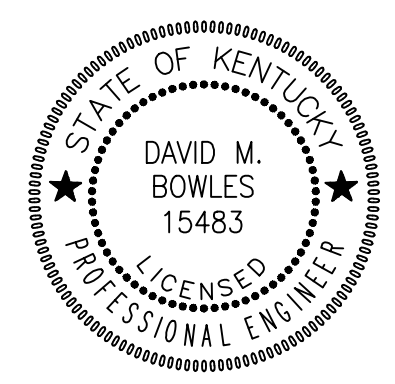
NOTE:
 ALL WATER LINES INSTALLED ON KENTUCKY STATE HIGHWAY RIGHT-OF-WAY SHALL BE LOCATED BEHIND DITCH LINE UNLESS OTHERWISE NOTED.

SERVICE LINE CROSSING LOCATIONS	
METER NO.	MILEPOINT
1	KY HWY 439 M.P. 0.787

SHEET 1 QUANTITIES		
ITEM	QUANTITY	
8-INCH PVC SDR 21 WATER LINE	575	LF
6-INCH PVC SDR 21 WATER LINE	1050	LF
4-INCH PVC SDR 21 WATER LINE	40	LF
BORE & CASE FOR 8-INCH WATER LINE	60	LF
CREEK CROSSING FOR 6-INCH WATER LINE	20	LF
6-INCH x 8-INCH CONNECTION	1	EA
4-INCH x 8-INCH CONNECTION	1	EA
4-INCH x 6-INCH CONNECTION	1	EA
8-INCH GATE VALVE	1	EA
6-INCH GATE VALVE	3	EA
4-INCH GATE VALVE	3	EA
3-WAY FLUSH HYDRANT	2	EA
METER SETTING	15	EA
1-INCH METER SETTING	1	EA
3/4-INCH P.E. SERVICE TUBING	375	LF

DOWNTOWN WATER SYSTEM REPLACEMENT - PHASE 2 - SECTION 1
COLUMBIA-ADAIR UTILITIES DISTRICT
ADAIR COUNTY, KENTUCKY

HUDSON/FRAZIER AREA WATER LINE REPLACEMENT

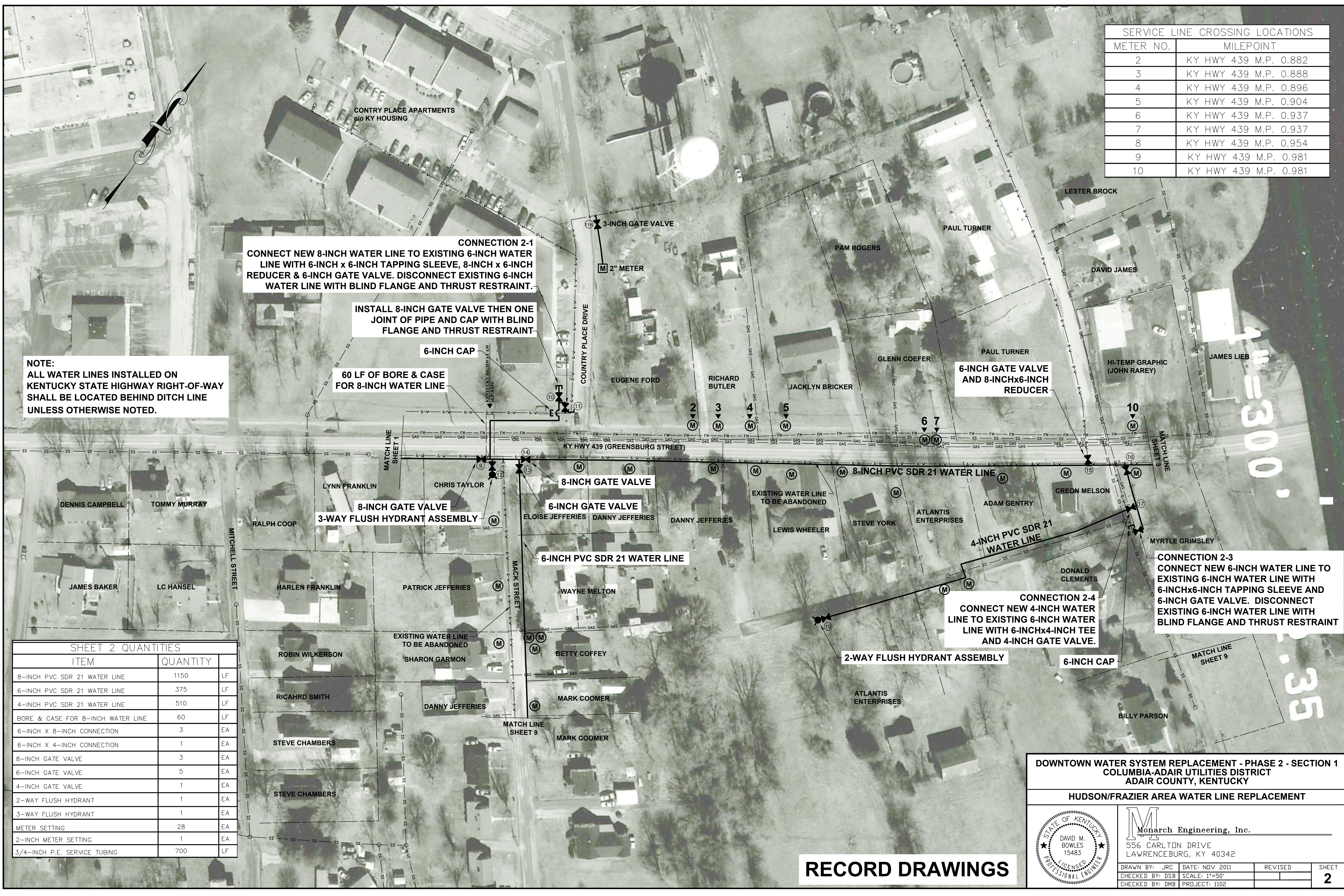


Monarch Engineering, Inc.
 556 CARLTON DRIVE
 LAWRENCEBURG, KY 40342

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CHECKED BY: DMB	PROJECT: 1102		

RECORD DRAWINGS

SERVICE LINE CROSSING LOCATIONS	
METER NO.	MILEPOINT
2	KY HWY 439 M.P. 0.882
3	KY HWY 439 M.P. 0.888
4	KY HWY 439 M.P. 0.896
5	KY HWY 439 M.P. 0.904
6	KY HWY 439 M.P. 0.937
7	KY HWY 439 M.P. 0.937
8	KY HWY 439 M.P. 0.954
9	KY HWY 439 M.P. 0.981
10	KY HWY 439 M.P. 0.981



CONNECTION 2-1
CONNECT NEW 8-INCH WATER LINE TO EXISTING 6-INCH WATER LINE WITH 6-INCH x 6-INCH TAPPING SLEEVE, 8-INCH x 6-INCH REDUCER & 6-INCH GATE VALVE. DISCONNECT EXISTING 6-INCH WATER LINE WITH BLIND FLANGE AND THRUST RESTRAINT.

INSTALL 8-INCH GATE VALVE THEN ONE JOINT OF PIPE AND CAP WITH BLIND FLANGE AND THRUST RESTRAINT

6-INCH CAP
60 LF OF BORE & CASE FOR 8-INCH WATER LINE

NOTE:
ALL WATER LINES INSTALLED ON KENTUCKY STATE HIGHWAY RIGHT-OF-WAY SHALL BE LOCATED BEHIND DITCH LINE UNLESS OTHERWISE NOTED.

CONNECTION 2-3
CONNECT NEW 6-INCH WATER LINE TO EXISTING 6-INCH WATER LINE WITH 6-INCHx6-INCH TAPPING SLEEVE AND 6-INCH GATE VALVE. DISCONNECT EXISTING 6-INCH WATER LINE WITH BLIND FLANGE AND THRUST RESTRAINT

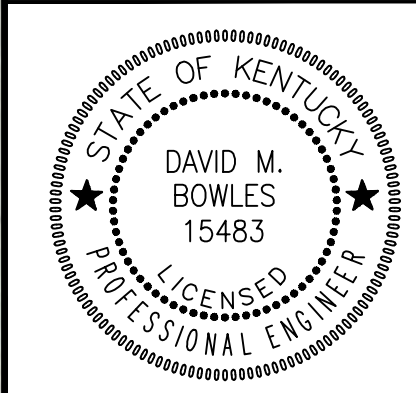
CONNECTION 2-4
CONNECT NEW 4-INCH WATER LINE TO EXISTING 6-INCH WATER LINE WITH 6-INCHx4-INCH TEE AND 4-INCH GATE VALVE.

SHEET 2 QUANTITIES		
ITEM	QUANTITY	UNIT
8-INCH PVC SDR 21 WATER LINE	1150	LF
6-INCH PVC SDR 21 WATER LINE	375	LF
4-INCH PVC SDR 21 WATER LINE	510	LF
BORE & CASE FOR 8-INCH WATER LINE	60	LF
6-INCH X 8-INCH CONNECTION	3	EA
6-INCH X 4-INCH CONNECTION	1	EA
8-INCH GATE VALVE	3	EA
6-INCH GATE VALVE	5	EA
4-INCH GATE VALVE	1	EA
2-WAY FLUSH HYDRANT	1	EA
3-WAY FLUSH HYDRANT	1	EA
METER SETTING	28	EA
2-INCH METER SETTING	1	EA
3/4-INCH P.E. SERVICE TUBING	700	LF

RECORD DRAWINGS

DOWNTOWN WATER SYSTEM REPLACEMENT - PHASE 2 - SECTION 1
COLUMBIA-ADAIR UTILITIES DISTRICT
ADAIR COUNTY, KENTUCKY

HUDSON/FRAZIER AREA WATER LINE REPLACEMENT



Monarch Engineering, Inc.
556 CARLTON DRIVE
LAWRENCEBURG, KY 40342

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CHECKED BY: DSB	SCALE: 1"=50'		2
CHECKED BY: DMB	PROJECT: 1102		



CONNECTION 3-1
CONNECT NEW 8-INCH WATER LINE TO EXISTING 8-INCH WATER LINE WITH 8-INCH x 8-INCH TAPPING SLEEVE & 8-INCH GATE VALVE.

DISCONNECT EXISTING 8-INCH WATER LINE WITH BLIND FLANGE AND THRUST RESTRAINT

SERVICE LINE CROSSING LOCATIONS	
METER NO.	MILEPOINT
11	KY HWY 439 M.P. 1.026
12	KY HWY 439 M.P. 1.054
13	KY HWY 439 M.P. 1.098
14	KY HWY 439 M.P. 1.107
15	KY HWY 439 M.P. 1.121
16	KY HWY 439 M.P. 1.151

NOTE:
ALL WATER LINES INSTALLED ON KENTUCKY STATE HIGHWAY RIGHT-OF-WAY SHALL BE LOCATED BEHIND DITCH LINE UNLESS OTHERWISE NOTED.

CONNECTION 3-2
CONNECT NEW 6-INCH WATER LINE TO EXISTING 4-INCH WATER LINE WITH 4-INCHx4-INCH TAPPING SLEEVE AND 4-INCH GATE VALVE AND 6-INCHx4-INCH REDUCER AND 4-INCH CAP.

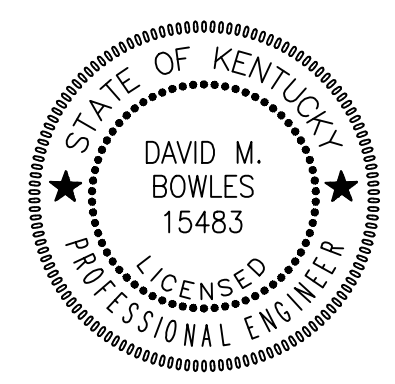
INSTALL WATER LINE IN CENTER OF TRAFFIC LANES WITH FULL WIDTH PAVEMENT REPLACEMENT AS DIRECTED BY ENGINEER

RECORD DRAWINGS

SHEET 3 QUANTITIES		
ITEM	QUANTITY	
8-INCH PVC SDR 21 WATER LINE	1,180	LF
6-INCH PVC SDR 21 WATER LINE	2,500	LF
4-INCH PVC SDR 21 WATER LINE	40	LF
BORE & CASE FOR 8-INCH WATER LINE	70	LF
8-INCH x 8-INCH CONNECTION	1	EA
4-INCH x 6-INCH CONNECTION	2	EA
8-INCH GATE VALVE	1	EA
6-INCH GATE VALVE	4	EA
4-INCH GATE VALVE	2	EA
3-WAY FLUSH HYDRANT	3	EA
METER SETTING	38	EA
3/4-INCH P.E. SERVICE TUBING	950	LF
FULL WIDTH PAVEMENT REPLACEMENT	1550	LF

DOWNTOWN WATER SYSTEM REPLACEMENT - PHASE 2 - SECTION 1
COLUMBIA-ADAIR UTILITIES DISTRICT
ADAIR COUNTY, KENTUCKY

HUDSON/FRAZIER AREA WATER LINE REPLACEMENT



Monarch Engineering, Inc.
556 CARLTON DRIVE
LAWRENCEBURG, KY 40342

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RECORD DRAWINGS

SHEET 4 QUANTITIES		
ITEM	QUANTITY	
6-INCH PVC SDR 21 WATER LINE	1,660	LF
6-INCH GATE VALVE	2	EA
3-WAY FLUSH HYDRANT	2	EA
METER SETTING	14	EA
3/4-INCH P.E. SERVICE TUBING	350	LF
FULL WIDTH PAVEMENT REPLACEMENT	215	LF

DOWNTOWN WATER SYSTEM REPLACEMENT - PHASE 2 - SECTION 1
COLUMBIA-ADAIR UTILITIES DISTRICT
ADAIR COUNTY, KENTUCKY

HUDSON/FRAZIER AREA WATER LINE REPLACEMENT

	Monarch Engineering, Inc. 556 CARLTON DRIVE LAWRENCEBURG, KY 40342		
	DRAWN BY: JRC CHECKED BY: DSB CHECKED BY: DMB	DATE: NOV 2011 SCALE: 1"=50' PROJECT: 1102	REVISED
	SHEET 4		

NOTE:
 ALL WATER LINES INSTALLED ON KENTUCKY STATE
 HIGHWAY RIGHT-OF-WAY SHALL BE LOCATED
 BEHIND DITCH LINE UNLESS OTHERWISE NOTED.



CONNECT TWO METERS TO
 WATER LINE ON CHURCH STREET.
 DISCONNECT EXISTING 4-INCH
 WATER LINE WITH BLIND FLANGE
 AND THRUST RESTRAINT.

6-INCH TAPPING VALVE

3-WAY FLUSH
 HYDRANT ASSEMBLY

WATER LINE
 TO BE ABANDONED

WATER LINE TO
 BE ABANDONED

6-INCH PVC SDR 21
 WATER LINE

2-INCH GATE VALVE

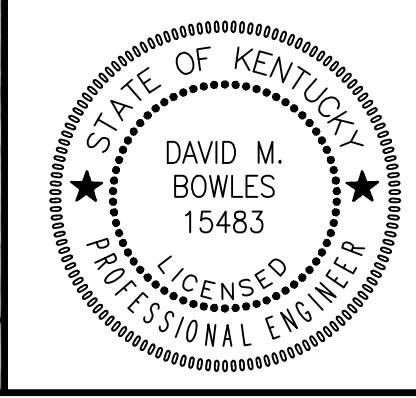
INSTALL GATE VALVE THEN ONE
 JOINT OF PIPE AND CAP WITH BLIND
 FLANGE AND THRUST RESTRAINT

3-WAY FLUSH
 HYDRANT ASSEMBLY

SHEET 5 QUANTITIES		
ITEM	QUANTITY	
6-INCH PVC SDR 21 WATER LINE	730	LF
6-INCH GATE VALVE	1	EA
3-WAY FLUSH HYDRANT	1	EA
METER SETTING	14	EA
2-INCH METER SETTING	1	EA
3/4-INCH P.E. SERVICE TUBING	350	LF

DOWNTOWN WATER SYSTEM REPLACEMENT - PHASE 2 - SECTION 1
COLUMBIA-ADAIR UTILITIES DISTRICT
ADAIR COUNTY, KENTUCKY

HUDSON/FRAZIER AREA WATER LINE REPLACEMENT



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 LAWRENCEBURG, KY 40342

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**3-WAY FLUSH
HYDRANT ASSEMBLY**

**6-INCH
GATE VALVE**

**3-WAY FLUSH
HYDRANT ASSEMBLY**

**60 LF OF BORE & CASE
FOR 6-INCH WATER LINE**

**CONNECTION 6-1
CONNECT NEW 6-INCH WATER
LINE TO EXISTING 8-INCH
WATER LINE WITH
8-INCHx6-INCH TAPPING
SLEEVE AND 6-INCH GATE
VALVE. DISCONNECT
EXISTING WATER LINE WITH
BLIND FLANGE AND THRUST
RESTRAINT.**

**CONNECTION 6-2
CONNECT NEW 6-INCH
WATER LINE TO EXISTING
8-INCH WATER LINE WITH
8-INCHx6-INCH TAPPING
SLEEVE AND 6-INCH
GATE VALVE.**

**60 LF OF BORE & CASE
FOR 6-INCH WATER LINE**

**WATER LINE INSTALLED IN CENTER OF
NORTHBOUND LANE, WITH FULL
WIDTH PAVEMENT REPLACEMENT**

**INSTALL WATER LINE IN
CENTER OF TRAFFIC LANES,
AS DIRECTED BY ENGINEER**

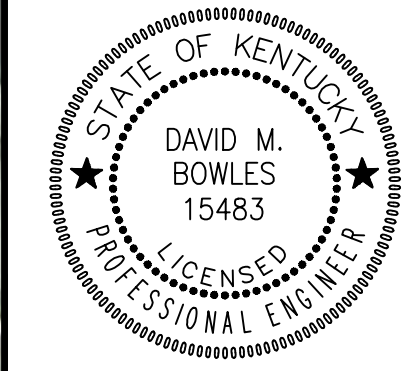
**NOTE:
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HIGHWAY RIGHT-OF-WAY SHALL BE LOCATED
BEHIND DITCH LINE UNLESS OTHERWISE NOTED.**

SHEET 6 QUANTITIES		
ITEM	QUANTITY	
6-INCH PVC SDR 21 WATER LINE	3,105	LF
BORE & CASE FOR 6-INCH WATER LINE	120	LF
8-INCH x 6-INCH CONNECTION	2	EA
6-INCH GATE VALVE	3	EA
3-WAY FLUSH HYDRANT	3	EA
METER SETTING	73	EA
3/4-INCH P.E. SERVICE TUBING	1825	LF
FULL WIDTH PAVEMENT REPLACEMENT	2250	LF

RECORD DRAWINGS

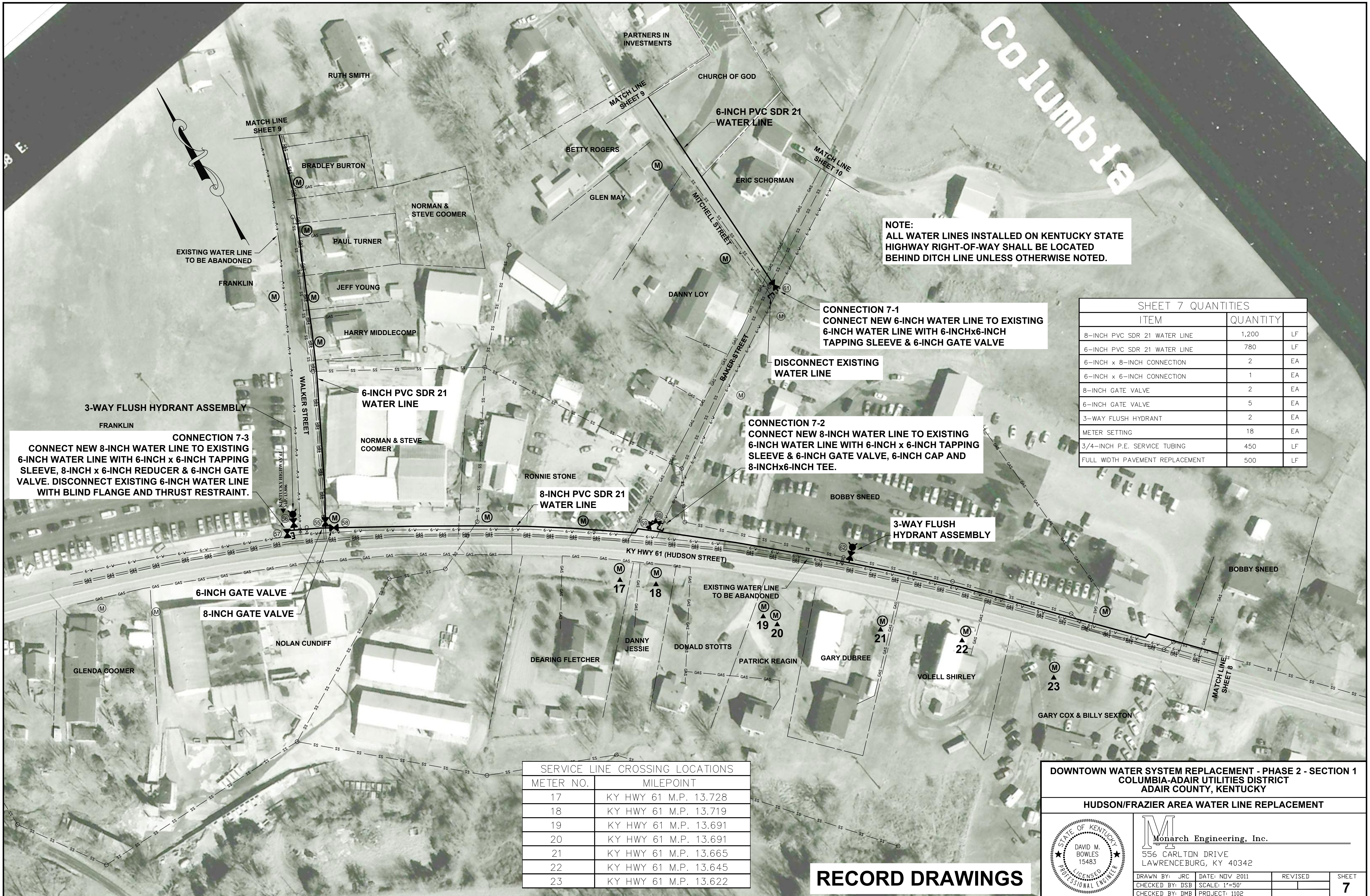
**DOWNTOWN WATER SYSTEM REPLACEMENT - PHASE 2 - SECTION 1
COLUMBIA-ADAIR UTILITIES DISTRICT
ADAIR COUNTY, KENTUCKY**

HUDSON/FRAZIER AREA WATER LINE REPLACEMENT



Monarch Engineering, Inc.
556 CARLTON DRIVE
LAWRENCEBURG, KY 40342

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NOTE:
ALL WATER LINES INSTALLED ON KENTUCKY STATE HIGHWAY RIGHT-OF-WAY SHALL BE LOCATED BEHIND DITCH LINE UNLESS OTHERWISE NOTED.

CONNECTION 7-3
CONNECT NEW 8-INCH WATER LINE TO EXISTING 6-INCH WATER LINE WITH 6-INCH x 6-INCH TAPPING SLEEVE, 8-INCH x 6-INCH REDUCER & 6-INCH GATE VALVE. DISCONNECT EXISTING 6-INCH WATER LINE WITH BLIND FLANGE AND THRUST RESTRAINT.

CONNECTION 7-2
CONNECT NEW 8-INCH WATER LINE TO EXISTING 6-INCH WATER LINE WITH 6-INCH x 6-INCH TAPPING SLEEVE & 6-INCH GATE VALVE, 6-INCH CAP AND 8-INCHx6-INCH TEE.

CONNECTION 7-1
CONNECT NEW 6-INCH WATER LINE TO EXISTING 6-INCH WATER LINE WITH 6-INCHx6-INCH TAPPING SLEEVE & 6-INCH GATE VALVE

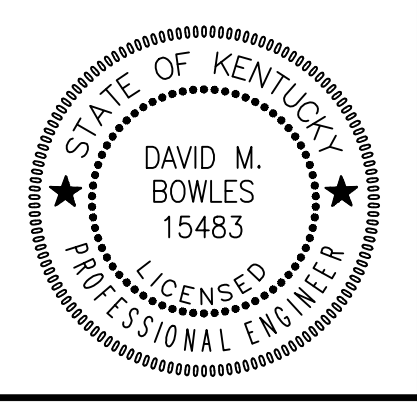
DISCONNECT EXISTING WATER LINE

SHEET 7 QUANTITIES		
ITEM	QUANTITY	
8-INCH PVC SDR 21 WATER LINE	1,200	LF
6-INCH PVC SDR 21 WATER LINE	780	LF
6-INCH x 8-INCH CONNECTION	2	EA
6-INCH x 6-INCH CONNECTION	1	EA
8-INCH GATE VALVE	2	EA
6-INCH GATE VALVE	5	EA
3-WAY FLUSH HYDRANT	2	EA
METER SETTING	18	EA
3/4-INCH P.E. SERVICE TUBING	450	LF
FULL WIDTH PAVEMENT REPLACEMENT	500	LF

SERVICE LINE CROSSING LOCATIONS	
METER NO.	MILEPOINT
17	KY HWY 61 M.P. 13.728
18	KY HWY 61 M.P. 13.719
19	KY HWY 61 M.P. 13.691
20	KY HWY 61 M.P. 13.691
21	KY HWY 61 M.P. 13.665
22	KY HWY 61 M.P. 13.645
23	KY HWY 61 M.P. 13.622

DOWNTOWN WATER SYSTEM REPLACEMENT - PHASE 2 - SECTION 1
COLUMBIA-ADAIR UTILITIES DISTRICT
ADAIR COUNTY, KENTUCKY

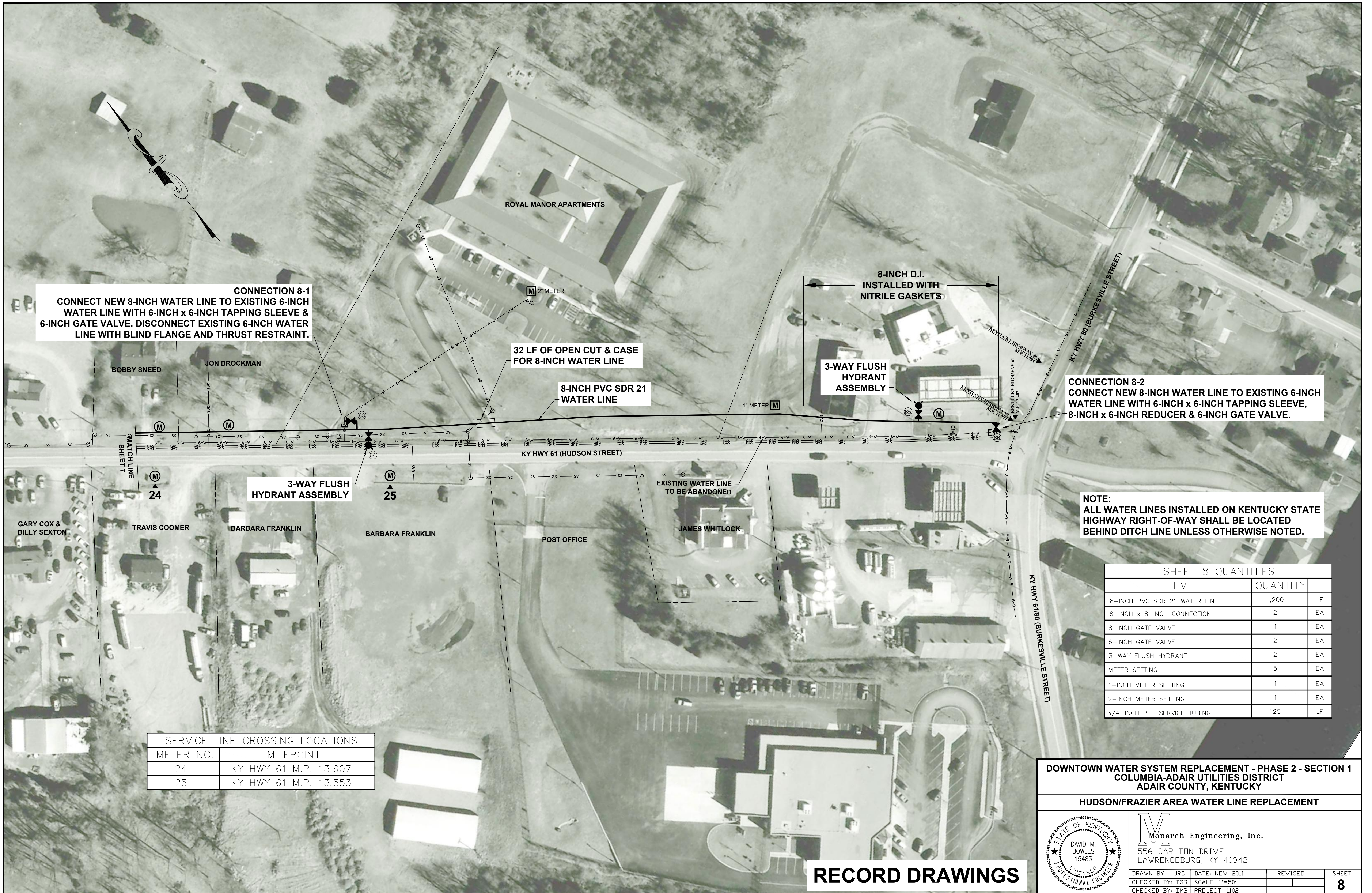
HUDSON/FRAZIER AREA WATER LINE REPLACEMENT



Monarch Engineering, Inc.
556 CARLTON DRIVE
LAWRENCEBURG, KY 40342

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RECORD DRAWINGS



CONNECTION 8-1
 CONNECT NEW 8-INCH WATER LINE TO EXISTING 6-INCH WATER LINE WITH 6-INCH x 6-INCH TAPPING SLEEVE & 6-INCH GATE VALVE. DISCONNECT EXISTING 6-INCH WATER LINE WITH BLIND FLANGE AND THRUST RESTRAINT.

32 LF OF OPEN CUT & CASE FOR 8-INCH WATER LINE

8-INCH D.I. INSTALLED WITH NITRILE GASKETS

CONNECTION 8-2
 CONNECT NEW 8-INCH WATER LINE TO EXISTING 6-INCH WATER LINE WITH 6-INCH x 6-INCH TAPPING SLEEVE, 8-INCH x 6-INCH REDUCER & 6-INCH GATE VALVE.

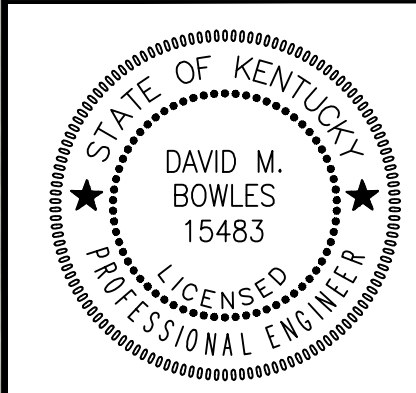
NOTE:
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SERVICE LINE CROSSING LOCATIONS	
METER NO.	MILEPOINT
24	KY HWY 61 M.P. 13.607
25	KY HWY 61 M.P. 13.553

SHEET 8 QUANTITIES		
ITEM	QUANTITY	
8-INCH PVC SDR 21 WATER LINE	1,200	LF
6-INCH x 8-INCH CONNECTION	2	EA
8-INCH GATE VALVE	1	EA
6-INCH GATE VALVE	2	EA
3-WAY FLUSH HYDRANT	2	EA
METER SETTING	5	EA
1-INCH METER SETTING	1	EA
2-INCH METER SETTING	1	EA
3/4-INCH P.E. SERVICE TUBING	125	LF

DOWNTOWN WATER SYSTEM REPLACEMENT - PHASE 2 - SECTION 1
COLUMBIA-ADAIR UTILITIES DISTRICT
ADAIR COUNTY, KENTUCKY

HUDSON/FRAZIER AREA WATER LINE REPLACEMENT



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 LAWRENCEBURG, KY 40342

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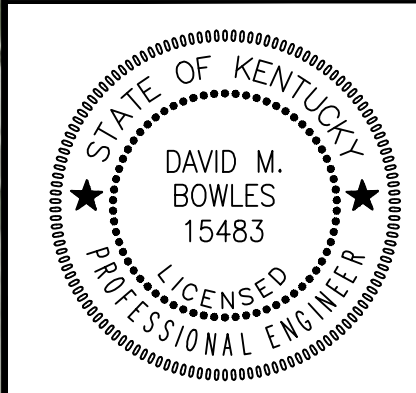
RECORD DRAWINGS



SHEET 9 QUANTITIES		
ITEM	QUANTITY	
6-INCH PVC SDR 21 WATER LINE	2,120	LF
6-INCH x 6-INCH CONNECTION	1	EA
6-INCH GATE VALVE	3	EA
3-WAY FLUSH HYDRANT	1	EA
METER SETTING	43	EA
3/4-INCH P.E. SERVICE TUBING	1175	LF
FULL WIDTH PAVEMENT REPLACEMENT	600	LF

DOWNTOWN WATER SYSTEM REPLACEMENT - PHASE 2 - SECTION 1
COLUMBIA-ADAIR UTILITIES DISTRICT
ADAIR COUNTY, KENTUCKY

HUDSON/FRAZIER AREA WATER LINE REPLACEMENT



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RECORD DRAWINGS



DISCONNECT EXISTING 2-INCH WATER LINE WITH BLIND FLANGE AND THRUST RESTRAINT

6-INCH PVC SDR 21 WATER LINE

4-INCH PVC SDR 21 WATER LINE

4-INCH GATE VALVE

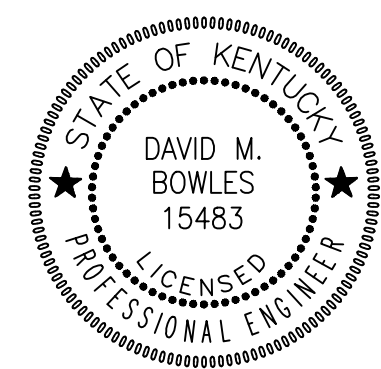
2-WAY FLUSH HYDRANT ASSEMBLY

SHEET 10 QUANTITIES		
ITEM	QUANTITY	
6-INCH PVC SDR 21 WATER LINE	125	LF
4-INCH PVC SDR 21 WATER LINE	825	LF
6-INCH x 6-INCH CONNECTION	1	EA
6-INCH GATE VALVE	1	EA
4-INCH GATE VALVE	1	EA
2-WAY FLUSH HYDRANT	1	EA
METER SETTING	13	EA
3/4-INCH P.E. SERVICE TUBING	325	LF

RECORD DRAWINGS

**DOWNTOWN WATER SYSTEM REPLACEMENT - PHASE 2 - SECTION 1
COLUMBIA-ADAIR UTILITIES DISTRICT
ADAIR COUNTY, KENTUCKY**

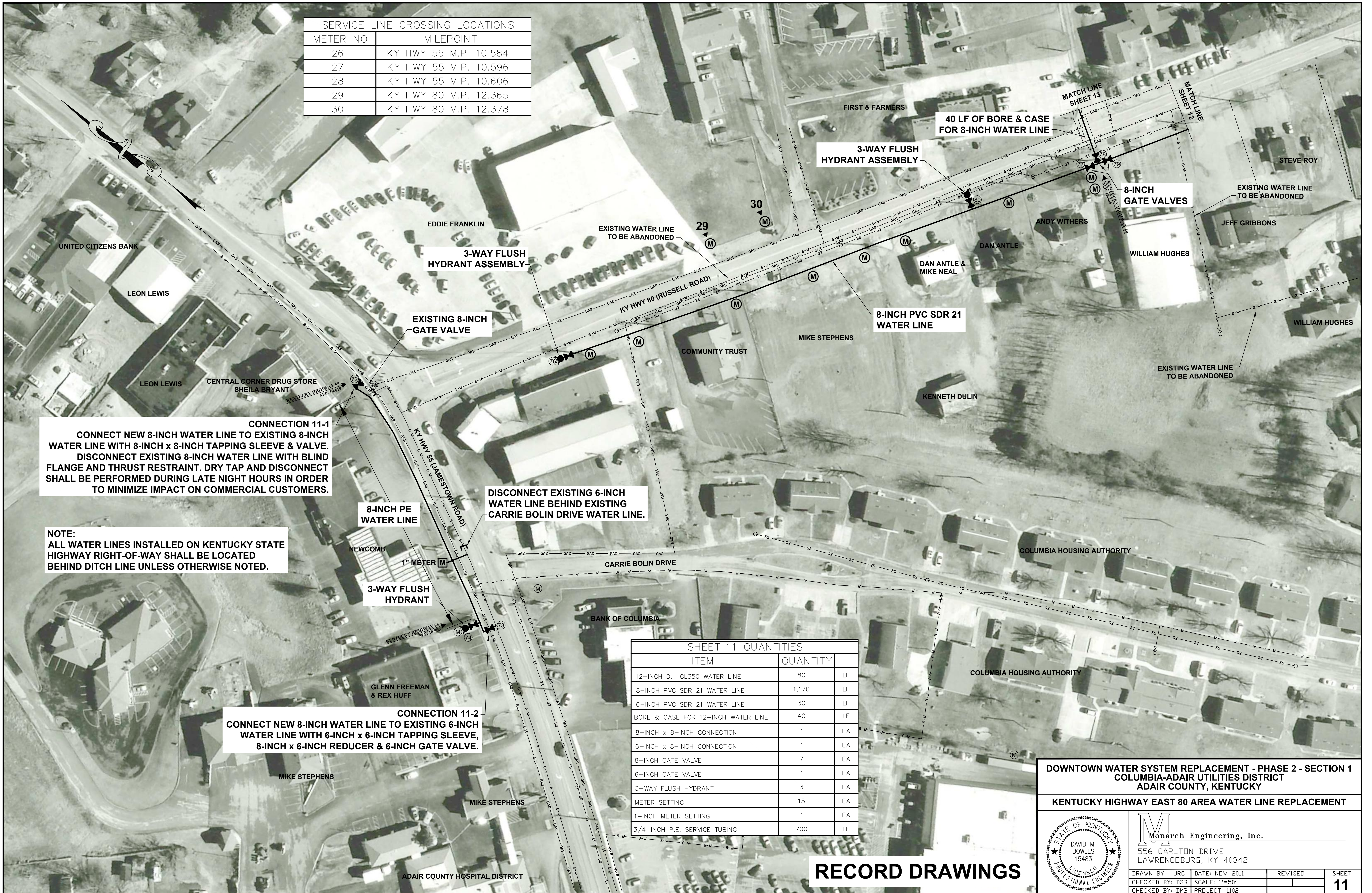
HUDSON/FRAZIER AREA WATER LINE REPLACEMENT



Monarch Engineering, Inc.
556 CARLTON DRIVE
LAWRENCEBURG, KY 40342

DRAWN BY: JRC	DATE: NOV 2011	REVISED	SHEET
CHECKED BY: DSB	SCALE: 1"=50'		10
CHECKED BY: DMB	PROJECT: 1102		

SERVICE LINE CROSSING LOCATIONS	
METER NO.	MILEPOINT
26	KY HWY 55 M.P. 10.584
27	KY HWY 55 M.P. 10.596
28	KY HWY 55 M.P. 10.606
29	KY HWY 80 M.P. 12.365
30	KY HWY 80 M.P. 12.378



CONNECTION 11-1
 CONNECT NEW 8-INCH WATER LINE WITH 8-INCH x 8-INCH TAPPING SLEEVE & VALVE. DISCONNECT EXISTING 8-INCH WATER LINE WITH BLIND FLANGE AND THRUST RESTRAINT. DRY TAP AND DISCONNECT SHALL BE PERFORMED DURING LATE NIGHT HOURS IN ORDER TO MINIMIZE IMPACT ON COMMERCIAL CUSTOMERS.

NOTE:
 ALL WATER LINES INSTALLED ON KENTUCKY STATE HIGHWAY RIGHT-OF-WAY SHALL BE LOCATED BEHIND DITCH LINE UNLESS OTHERWISE NOTED.

DISCONNECT EXISTING 6-INCH WATER LINE BEHIND EXISTING CARRIE BOLIN DRIVE WATER LINE.

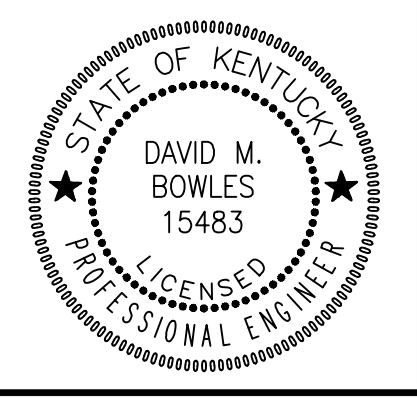
CONNECTION 11-2
 CONNECT NEW 8-INCH WATER LINE TO EXISTING 6-INCH WATER LINE WITH 6-INCH x 6-INCH TAPPING SLEEVE, 8-INCH x 6-INCH REDUCER & 6-INCH GATE VALVE.

SHEET 11 QUANTITIES		
ITEM	QUANTITY	
12-INCH D.I. CL350 WATER LINE	80	LF
8-INCH PVC SDR 21 WATER LINE	1,170	LF
6-INCH PVC SDR 21 WATER LINE	30	LF
BORE & CASE FOR 12-INCH WATER LINE	40	LF
8-INCH x 8-INCH CONNECTION	1	EA
6-INCH x 8-INCH CONNECTION	1	EA
8-INCH GATE VALVE	7	EA
6-INCH GATE VALVE	1	EA
3-WAY FLUSH HYDRANT	3	EA
METER SETTING	15	EA
1-INCH METER SETTING	1	EA
3/4-INCH P.E. SERVICE TUBING	700	LF

RECORD DRAWINGS

DOWNTOWN WATER SYSTEM REPLACEMENT - PHASE 2 - SECTION 1
COLUMBIA-ADAIR UTILITIES DISTRICT
ADAIR COUNTY, KENTUCKY

KENTUCKY HIGHWAY EAST 80 AREA WATER LINE REPLACEMENT



Monarch Engineering, Inc.
 556 CARLTON DRIVE
 LAWRENCEBURG, KY 40342

DRAWN BY: JRC	DATE: NOV 2011	REVISED	SHEET
CHECKED BY: DSB	SCALE: 1"=50'		11
CHECKED BY: DMB	PROJECT: 1102		



ALL 10 METERS IN ONE PE BOX

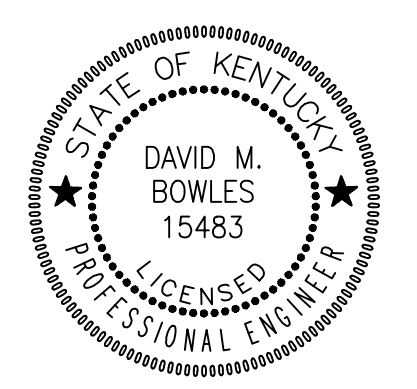
INSTALL 6-INCH GATE VALVE THEN ONE JOINT OF PIPE AND CAP WITH BLIND FLANGE AND THRUST RESTRAINT

NOTE:
ALL WATER LINES INSTALLED ON KENTUCKY STATE HIGHWAY RIGHT-OF-WAY SHALL BE LOCATED BEHIND DITCH LINE UNLESS OTHERWISE NOTED.

SHEET 12 QUANTITIES		
ITEM	QUANTITY	
8-INCH PVC SDR 21 WATER LINE	1,100	LF
6-INCH PVC SDR 21 WATER LINE	500	LF
3-INCH PVC SDR 21 WATER LINE	150	LF
BORE & CASE FOR 8-INCH WATER LINE	120	LF
BORE & CASE FOR 3-INCH WATER LINE	40	LF
8-INCH GATE VALVE	2	EA
6-INCH GATE VALVE	3	EA
3-INCH GATE VALVE	1	EA
3-WAY FLUSH HYDRANT	2	EA
BLOWOFF ASSEMBLY	1	EA
METER SETTING	30	EA
1-INCH METER SETTING	1	EA
3/4-INCH P.E. SERVICE TUBING	725	LF

DOWNTOWN WATER SYSTEM REPLACEMENT - PHASE 2 - SECTION 1
COLUMBIA-ADAIR UTILITIES DISTRICT
ADAIR COUNTY, KENTUCKY

KENTUCKY HIGHWAY EAST 80 AREA WATER LINE REPLACEMENT



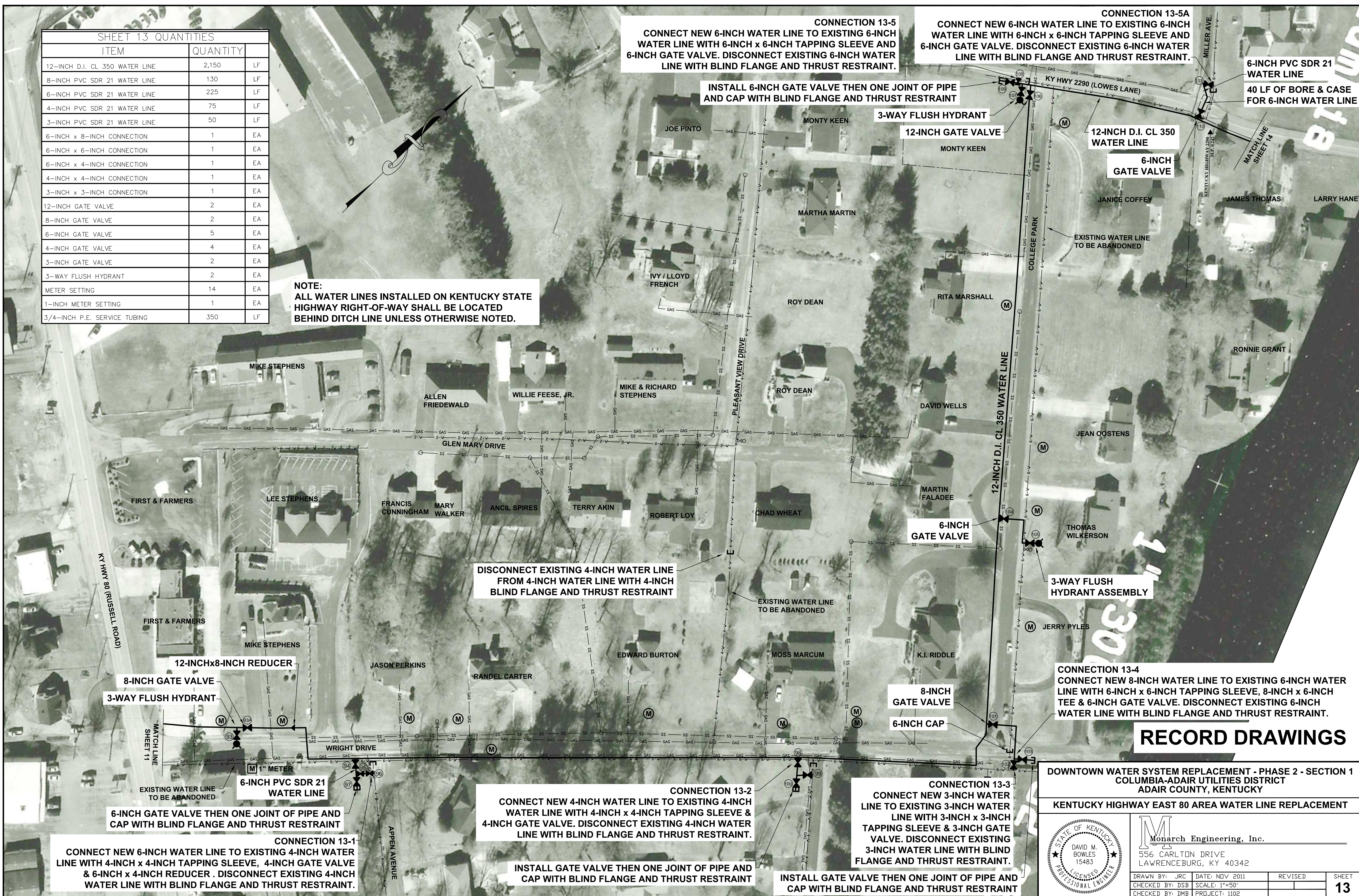
Monarch Engineering, Inc.
556 CARLTON DRIVE
LAWRENCEBURG, KY 40342

DRAWN BY: JRC	DATE: NOV 2011	REVISED	SHEET
CHECKED BY: DSB	SCALE: 1"=50'		12
CHECKED BY: DMB	PROJECT: 1102		

RECORD DRAWINGS

SHEET 13 QUANTITIES		
ITEM	QUANTITY	
12-INCH D.I. CL 350 WATER LINE	2,150	LF
8-INCH PVC SDR 21 WATER LINE	130	LF
6-INCH PVC SDR 21 WATER LINE	225	LF
4-INCH PVC SDR 21 WATER LINE	75	LF
3-INCH PVC SDR 21 WATER LINE	50	LF
6-INCH x 8-INCH CONNECTION	1	EA
6-INCH x 6-INCH CONNECTION	1	EA
6-INCH x 4-INCH CONNECTION	1	EA
4-INCH x 4-INCH CONNECTION	1	EA
3-INCH x 3-INCH CONNECTION	1	EA
12-INCH GATE VALVE	2	EA
8-INCH GATE VALVE	2	EA
6-INCH GATE VALVE	5	EA
4-INCH GATE VALVE	4	EA
3-INCH GATE VALVE	2	EA
3-WAY FLUSH HYDRANT	2	EA
METER SETTING	14	EA
1-INCH METER SETTING	1	EA
3/4-INCH P.E. SERVICE TUBING	350	LF

NOTE:
ALL WATER LINES INSTALLED ON KENTUCKY STATE HIGHWAY RIGHT-OF-WAY SHALL BE LOCATED BEHIND DITCH LINE UNLESS OTHERWISE NOTED.



CONNECTION 13-5
CONNECT NEW 6-INCH WATER LINE TO EXISTING 6-INCH WATER LINE WITH 6-INCH x 6-INCH TAPPING SLEEVE AND 6-INCH GATE VALVE. DISCONNECT EXISTING 6-INCH WATER LINE WITH BLIND FLANGE AND THRUST RESTRAINT.

CONNECTION 13-5A
CONNECT NEW 6-INCH WATER LINE TO EXISTING 6-INCH WATER LINE WITH 6-INCH x 6-INCH TAPPING SLEEVE AND 6-INCH GATE VALVE. DISCONNECT EXISTING 6-INCH WATER LINE WITH BLIND FLANGE AND THRUST RESTRAINT.

6-INCH PVC SDR 21 WATER LINE
40 LF OF BORE & CASE FOR 6-INCH WATER LINE

INSTALL 6-INCH GATE VALVE THEN ONE JOINT OF PIPE AND CAP WITH BLIND FLANGE AND THRUST RESTRAINT

3-WAY FLUSH HYDRANT

12-INCH GATE VALVE

12-INCH D.I. CL 350 WATER LINE

6-INCH GATE VALVE

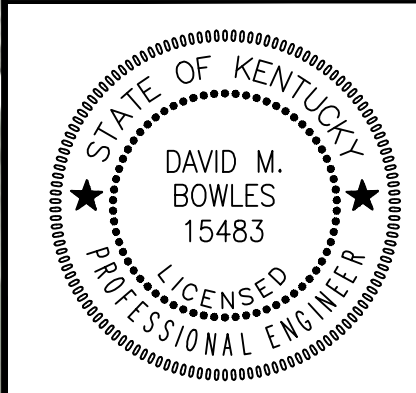
DISCONNECT EXISTING 4-INCH WATER LINE FROM 4-INCH WATER LINE WITH 4-INCH BLIND FLANGE AND THRUST RESTRAINT

CONNECTION 13-4
CONNECT NEW 8-INCH WATER LINE TO EXISTING 6-INCH WATER LINE WITH 6-INCH x 6-INCH TAPPING SLEEVE, 8-INCH x 6-INCH TEE & 6-INCH GATE VALVE. DISCONNECT EXISTING 6-INCH WATER LINE WITH BLIND FLANGE AND THRUST RESTRAINT.

RECORD DRAWINGS

DOWNTOWN WATER SYSTEM REPLACEMENT - PHASE 2 - SECTION 1
COLUMBIA-ADAIR UTILITIES DISTRICT
ADAIR COUNTY, KENTUCKY

KENTUCKY HIGHWAY EAST 80 AREA WATER LINE REPLACEMENT



Monarch Engineering, Inc.
556 CARLTON DRIVE
LAWRENCEBURG, KY 40342

DRAWN BY: JRC	DATE: NOV 2011	REVISED	SHEET
CHECKED BY: DSB	SCALE: 1"=50'		13
CHECKED BY: DMB	PROJECT: 1102		

CONNECTION 13-1
CONNECT NEW 6-INCH WATER LINE TO EXISTING 4-INCH WATER LINE WITH 4-INCH x 4-INCH TAPPING SLEEVE, 4-INCH GATE VALVE & 6-INCH x 4-INCH REDUCER. DISCONNECT EXISTING 4-INCH WATER LINE WITH BLIND FLANGE AND THRUST RESTRAINT.

CONNECTION 13-2
CONNECT NEW 4-INCH WATER LINE TO EXISTING 4-INCH WATER LINE WITH 4-INCH x 4-INCH TAPPING SLEEVE & 4-INCH GATE VALVE. DISCONNECT EXISTING 4-INCH WATER LINE WITH BLIND FLANGE AND THRUST RESTRAINT.

INSTALL GATE VALVE THEN ONE JOINT OF PIPE AND CAP WITH BLIND FLANGE AND THRUST RESTRAINT

CONNECTION 13-3
CONNECT NEW 3-INCH WATER LINE TO EXISTING 3-INCH WATER LINE WITH 3-INCH x 3-INCH TAPPING SLEEVE & 3-INCH GATE VALVE. DISCONNECT EXISTING 3-INCH WATER LINE WITH BLIND FLANGE AND THRUST RESTRAINT.

INSTALL GATE VALVE THEN ONE JOINT OF PIPE AND CAP WITH BLIND FLANGE AND THRUST RESTRAINT



CONNECTION 14-1
 CONNECT NEW 12-INCH WATER LINE TO EXISTING 8-INCH WATER LINE WITH 8-INCH x 8-INCH TAPPING SLEEVE AND VALVE AND A 8-INCH X 12-INCH REDUCER.

12-INCH D.I. CL 350 WATER LINE

30 LF OF BORE & CASE FOR 12-INCH WATER LINE

12-INCH D.I. CL 350 WATER LINE

12-INCH D.I. CL 350 WATER LINE

2-12-INCH GATE VALVES

6-INCH GATE VALVE THEN ONE JOINT OF PIPE AND CAP WITH BLIND FLANGE AND THRUST RESTRAINT

40 LF OF BORE & CASE FOR 6-INCH WATER LINE

CONNECTION 14-2
 CONNECT NEW 6-INCH WATER LINE TO EXISTING 8-INCH WATER LINE WITH 8-INCH x 6-INCH TAPPING SLEEVE AND 6-INCH GATE VALVE. DISCONNECT EXISTING 8-INCH WATER LINE WITH BLIND FLANGE AND THRUST RESTRAINT.

12-INCH WATER LINE INSTALLED IN BACK OF DITCH

3-WAY FLUSH HYDRANT ASSEMBLY

12-INCH D.I. CL 350 WATER LINE

CONNECTION 14-3
 CONNECT NEW 12-INCH WATER LINE TO EXISTING 6-INCH WATER LINE WITH 6-INCH x 6-INCH TAPPING SLEEVE & 6-INCH GATE VALVE.

SERVICE LINE CROSSING LOCATIONS	
METER NO.	MILEPOINT
31	KY HWY 2290 M.P. 0.303

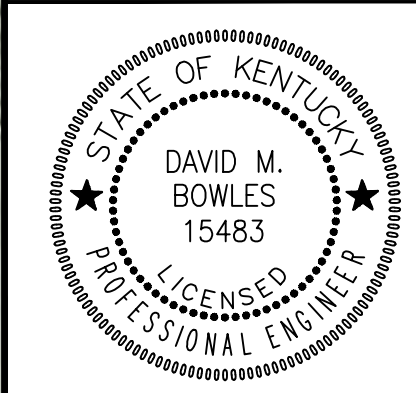
NOTE:
 ALL WATER LINES INSTALLED ON KENTUCKY STATE HIGHWAY RIGHT-OF-WAY SHALL BE LOCATED BEHIND DITCH LINE UNLESS OTHERWISE NOTED.

SHEET 14 QUANTITIES		
ITEM	QUANTITY	
12-INCH D.I. CL 350 WATER LINE	1620	LF
6-INCH PVC SDR 21 WATER LINE	150	LF
BORE & CASE FOR 12-INCH WATER LINE	30	LF
BORE & CASE FOR 6-INCH WATER LINE	30	LF
10-INCH x 12-INCH CONNECTION	1	EA
8-INCH x 6-INCH CONNECTION	1	EA
6-INCH x 12-INCH CONNECTION	1	EA
6-INCH x 6-INCH CONNECTION	1	EA
12-INCH GATE VALVE	3	EA
10-INCH GATE VALVE	1	EA
6-INCH GATE VALVE	6	EA
3-WAY FLUSH HYDRANT	1	EA
METER SETTING	11	EA
3/4-INCH P.E. SERVICE TUBING	275	LF

RECORD DRAWINGS

DOWNTOWN WATER SYSTEM REPLACEMENT - PHASE 2 - SECTION 1
COLUMBIA-ADAIR UTILITIES DISTRICT
ADAIR COUNTY, KENTUCKY

KENTUCKY HIGHWAY EAST 80 AREA WATER LINE REPLACEMENT



Monarch Engineering, Inc.
 556 CARLTON DRIVE
 LAWRENCEBURG, KY 40342

DRAWN BY: JRC	DATE: NOV 2011	REVISED	SHEET
CHECKED BY: DSB	SCALE: 1"=50'		14
CHECKED BY: DMB	PROJECT: 1102		



SERVICE LINE CROSSING LOCATIONS	
METER NO.	MILEPOINT
32	KY HWY 2290 M.P. 0.489
33	KY HWY 2290 M.P. 0.528

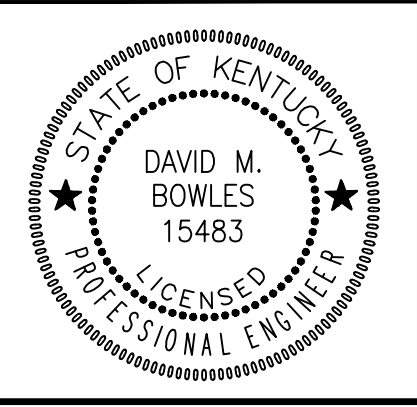
NOTE:
 ALL WATER LINES INSTALLED ON KENTUCKY STATE HIGHWAY RIGHT-OF-WAY SHALL BE LOCATED BEHIND DITCH LINE UNLESS OTHERWISE NOTED.

SHEET 15 QUANTITIES		
ITEM	QUANTITY	
12-INCH D.I. CL 350 WATER LINE	450	LF
12-INCH x 12-INCH CONNECTION	1	EA
12-INCH GATE VALVE	1	EA
METER SETTING	3	EA
2-INCH METER SETTING	2	EA
3/4-INCH P.E. SERVICE TUBING	45	LF

RECORD DRAWINGS

**DOWNTOWN WATER SYSTEM REPLACEMENT - PHASE 2 - SECTION 1
 COLUMBIA-ADAIR UTILITIES DISTRICT
 ADAIR COUNTY, KENTUCKY**

LINDSEY WILSON AREA WATER LINE REPLACEMENT



Monarch Engineering, Inc.
 556 CARLTON DRIVE
 LAWRENCEBURG, KY 40342

DRAWN BY: JRC	DATE: NOV 2011	REVISED	SHEET
CHECKED BY: DSB	SCALE: 1"=50'		15
CHECKED BY: DMB	PROJECT: 1102		



NOTE:
 ALL WATER LINES INSTALLED ON KENTUCKY STATE
 HIGHWAY RIGHT-OF-WAY SHALL BE LOCATED
 BEHIND DITCH LINE UNLESS OTHERWISE NOTED.

CONNECTION 16-1
 CONNECT NEW 8-INCH WATER LINE TO EXISTING
 8-INCH WATER LINE WITH 8-INCH x 8-INCH TEE AND
 8-INCH GATE VALVE. INSTALL TWO (2) 8-INCH
 GATE VALVES ON EXISTING LINE AS SHOWN

8-INCHx6-INCH REDUCER

NEW WATER LINE
 INSTALLED UNDER
 EXISTING CASING

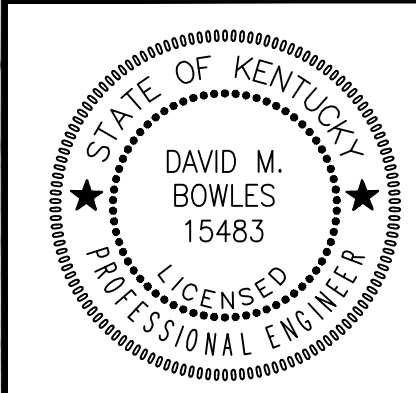
FIRE HYDRANT
 WITH GATE VALVE

SHEET 16 QUANTITIES			
ITEM	QUANTITY		
8-INCH PVC SDR 21 WATER LINE	400	LF	
8-INCH x 8-INCH CONNECTION	1	EA	
8-INCH GATE VALVE	3	EA	
METER SETTING	1	EA	
3/4-INCH P.E. SERVICE TUBING	50	LF	

RECORD DRAWINGS

DOWNTOWN WATER SYSTEM REPLACEMENT - PHASE 2 - SECTION 1
COLUMBIA-ADAIR UTILITIES DISTRICT
ADAIR COUNTY, KENTUCKY

KENTUCKY HIGHWAY EAST 80 AREA WATER LINE REPLACEMENT

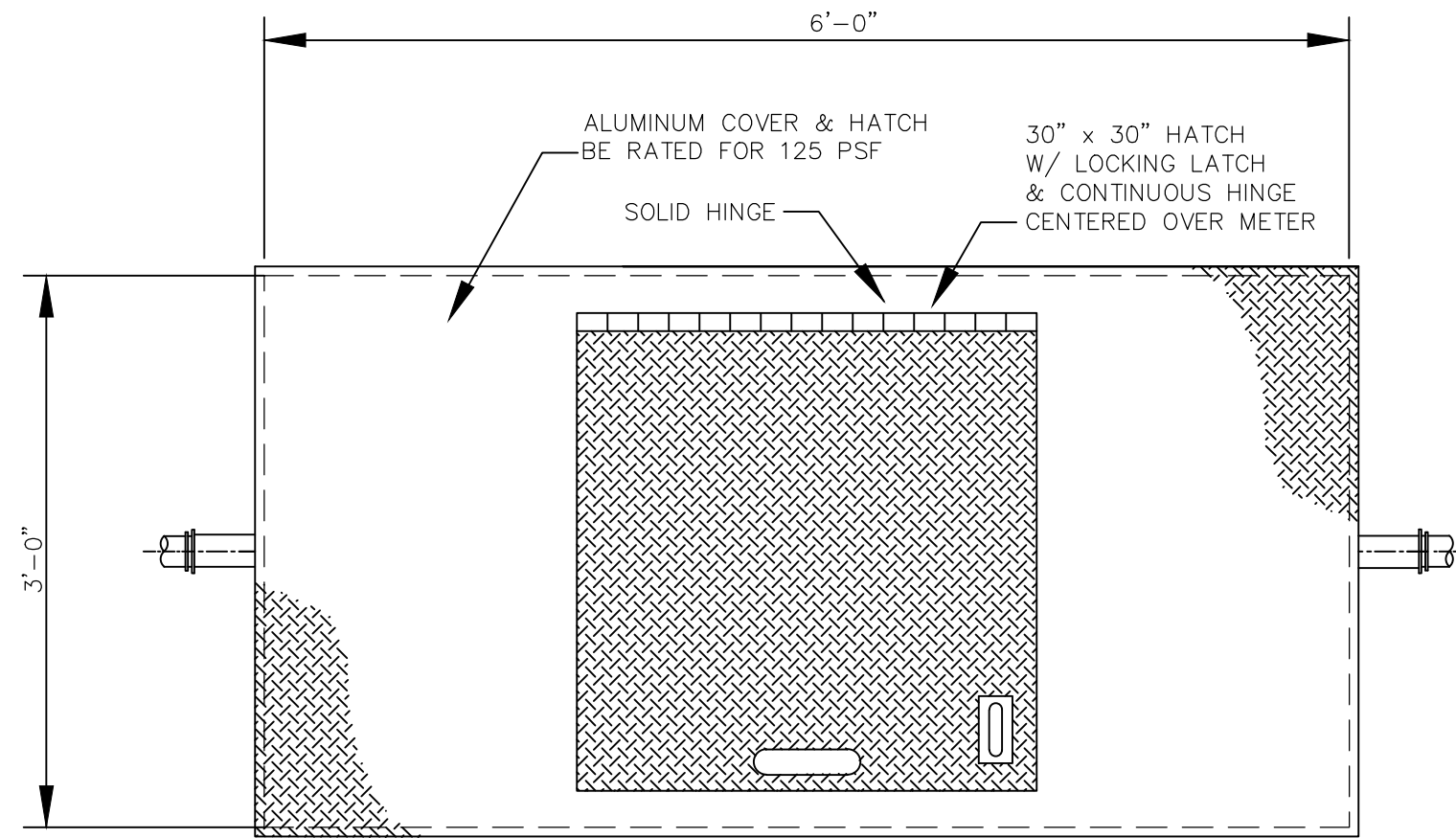


Monarch Engineering, Inc.
 556 CARLTON DRIVE
 LAWRENCEBURG, KY 40342

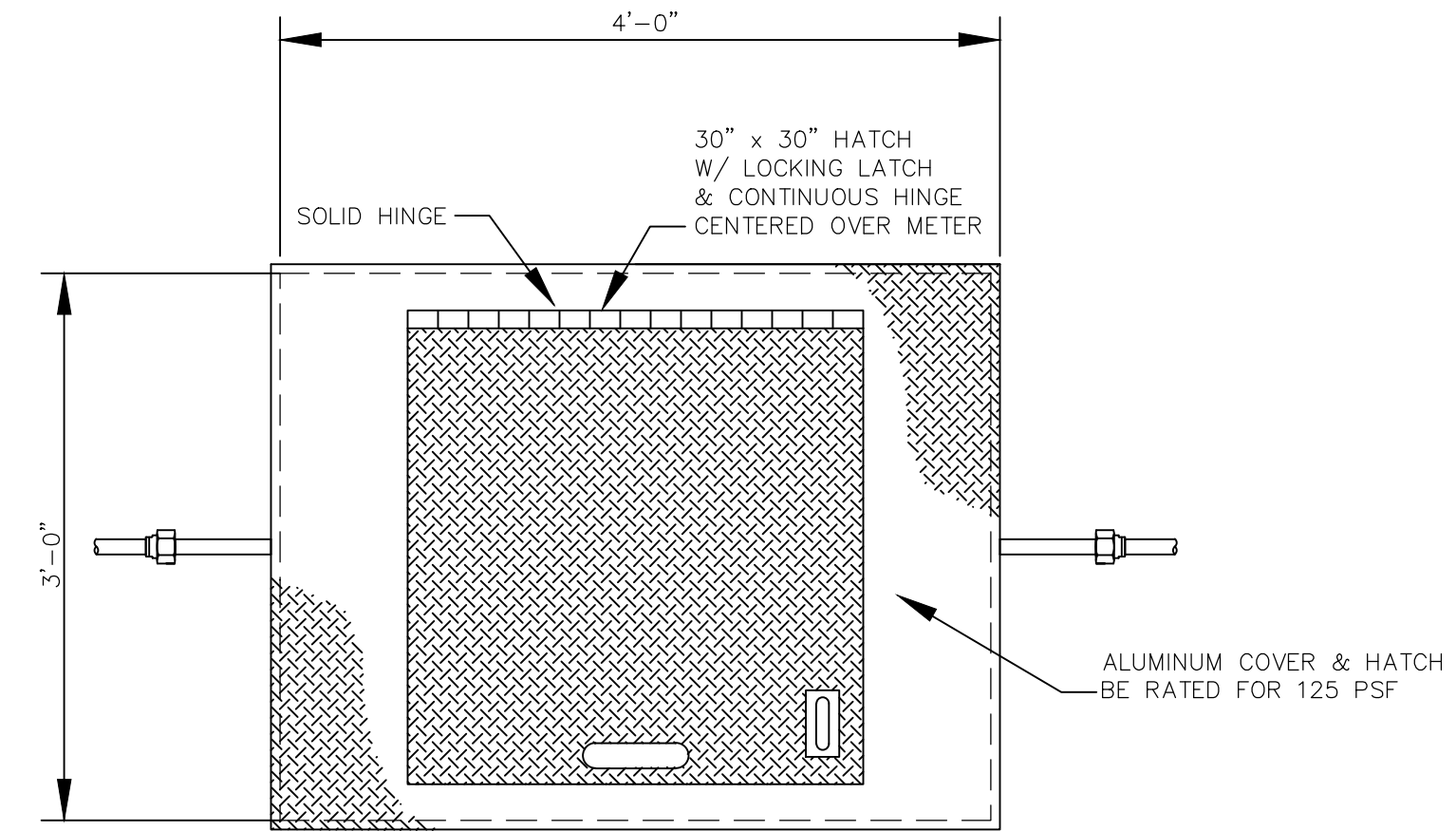
DRAWN BY: JRC	DATE: NOV 2011	REVISED	SHEET
CHECKED BY: DSB	SCALE: 1"=50'		16
CHECKED BY: DMB	PROJECT: 1102		

NOTES: ALL 1-INCH & 2-INCH METER SETTINGS SHALL BE ENTIRELY PRE-FABRICATED AS DEPICTED IN THE DRAWINGS HEREIN. THE COMPLETED ASSEMBLY INCLUDING ALL COMPONENTS SHALL BE AS SUPPLIED BY THE C.I. THORNBURG CO. OR APPROVED EQUAL.

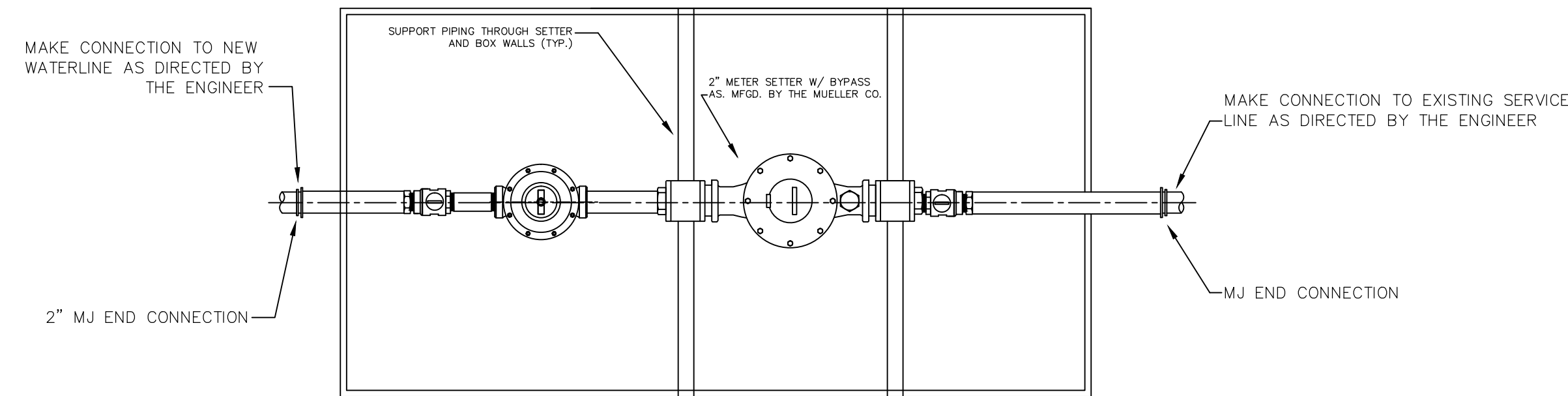
SERVICE TUBING SHALL BE THE APPROPRIATE SIZE PVC, POLYETHYLENE, OR TYPE K COPPER TUBING WITH A MINIMUM PRESSURE RATING OF 250 PSI. FOR ALL METERS 1-INCH AND LARGER, SERVICE TUBING MATERIAL AND INSTALLATION, REGARDLESS OF LENGTH, SHALL BE INCLUDED IN THE RESPECTIVE UNIT BID PRICE FOR THOSE METERS. SEE SPECIFICATIONS FOR FURTHER EXPLANATION.



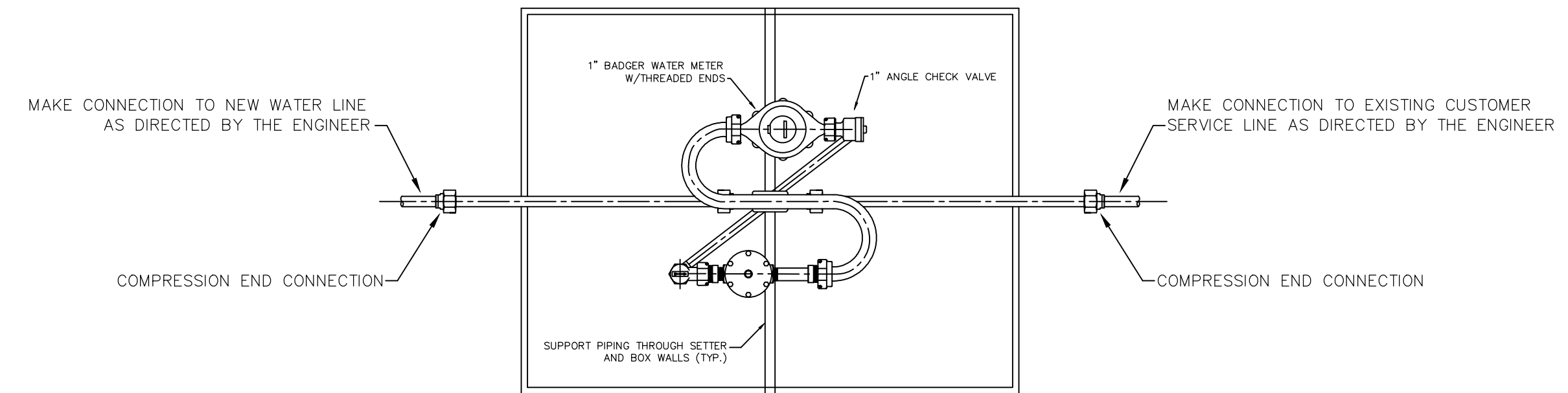
2" METER VAULT COVER/HATCH PLAN



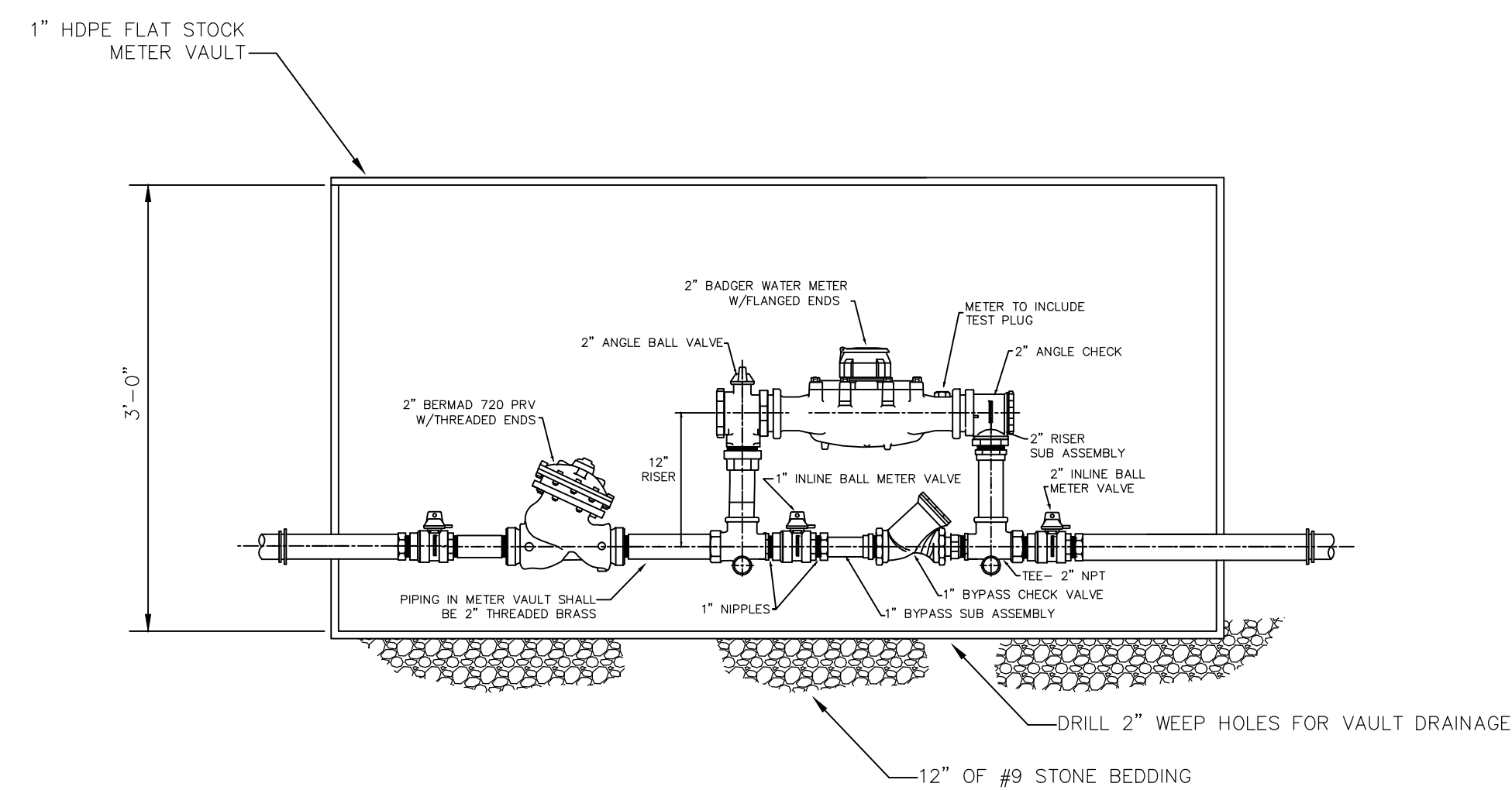
1" METER VAULT COVER/HATCH PLAN



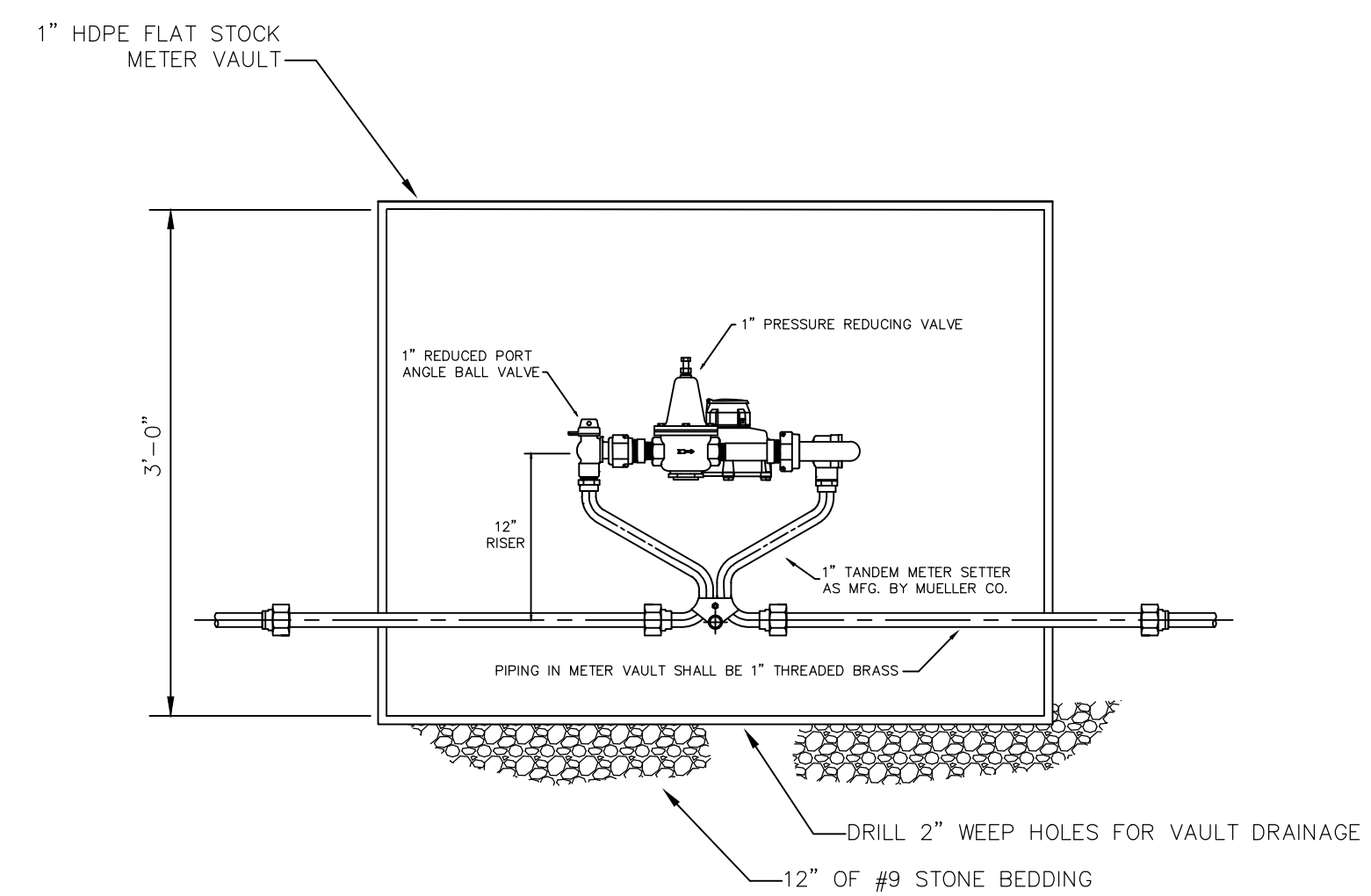
2" METER VAULT PLAN



1" METER VAULT PLAN



2" METER VAULT SECTION



1" METER VAULT SECTION

RECORD DRAWINGS

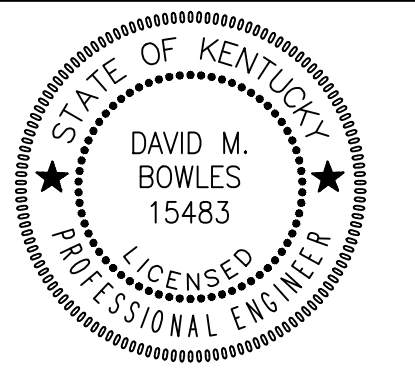
Monarch Engineering, Inc.
556 CARLTON DRIVE
LAWRENCEBURG, KY 40342

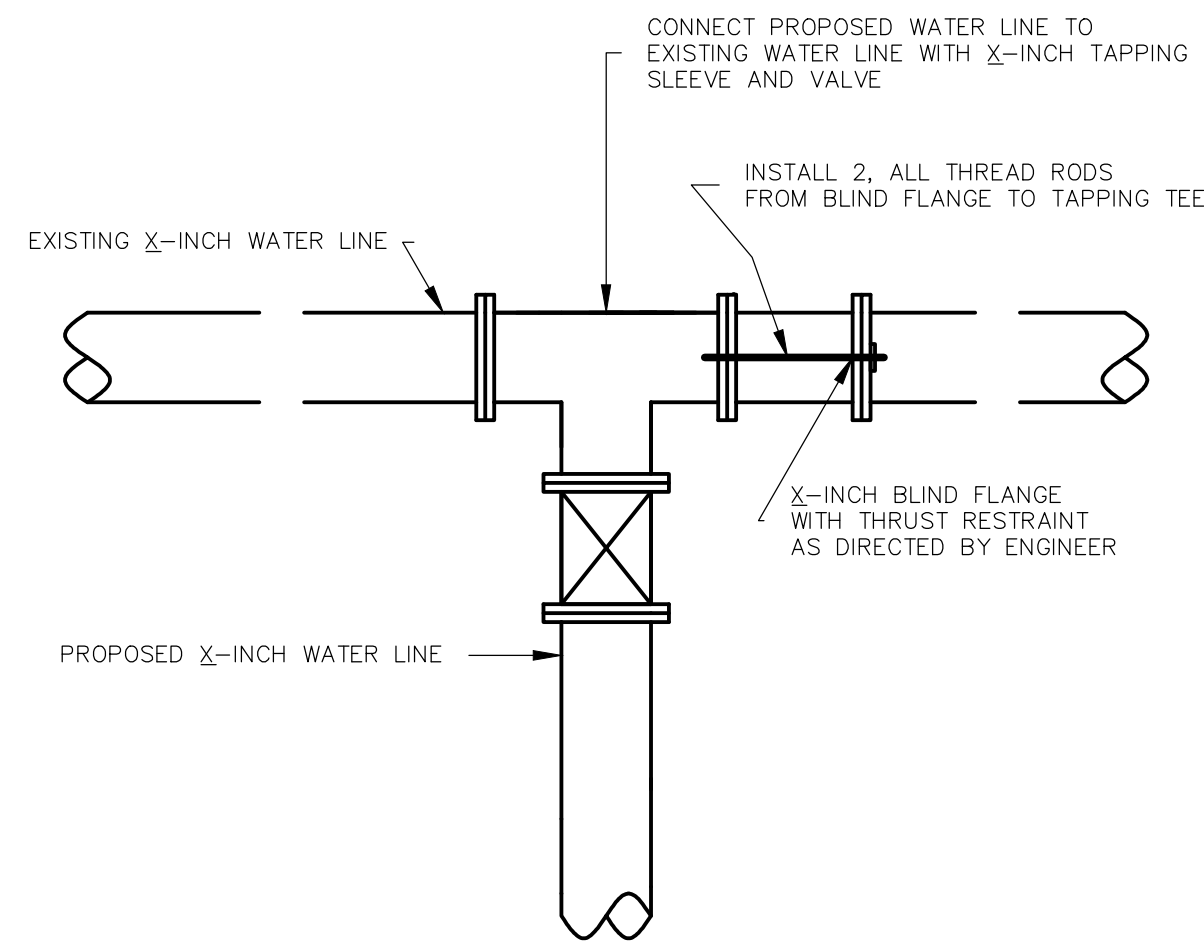
DESCRIPTION:
1-INCH AND 2-INCH METER SETTING DETAIL

CUSTOMER:
**COLUMBIA/ADAIR UTILITIES DISTRICT
ADAIR COUNTY, KENTUCKY**

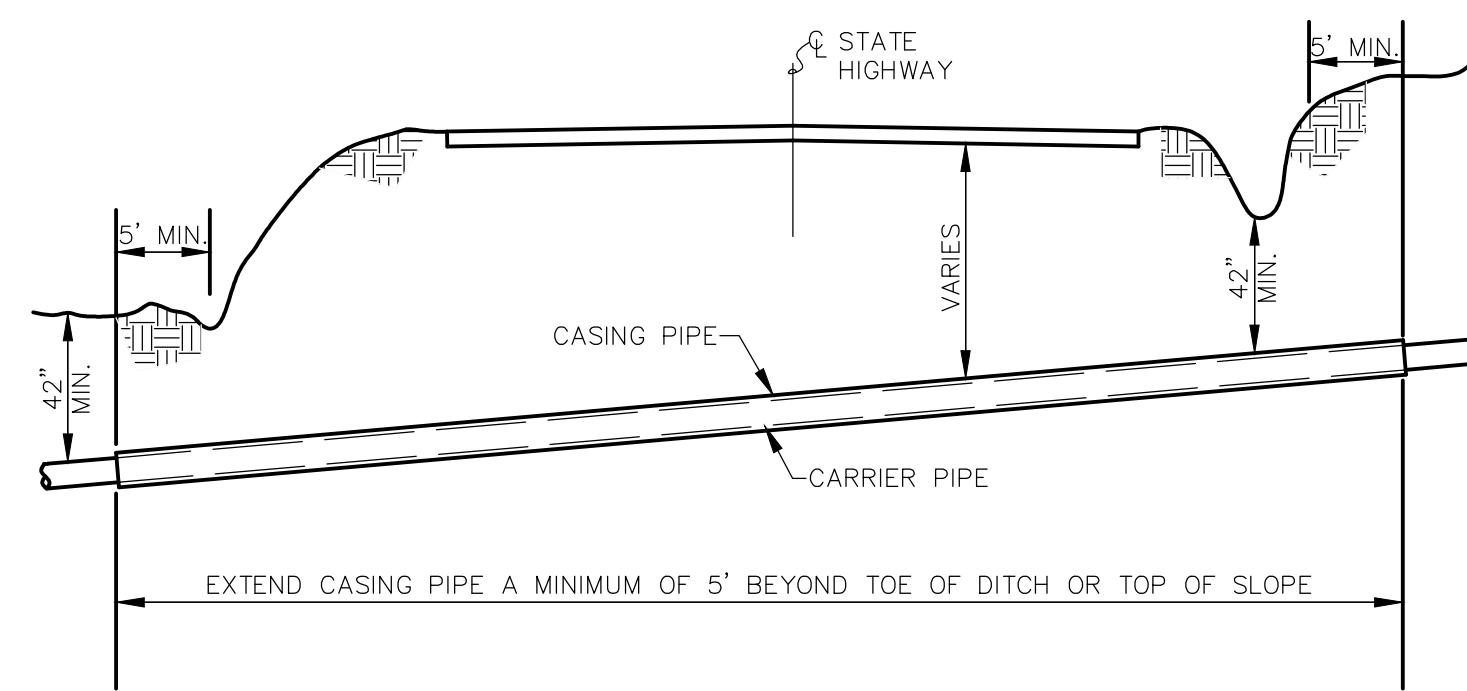
PROJECT NO. 1102
DATE: NOV 2011
DRAWN BY: JLM
CHECKED BY: DSB
CHECKED BY: DMB
SCALE: N.T.S.

SHEET:
MS-1

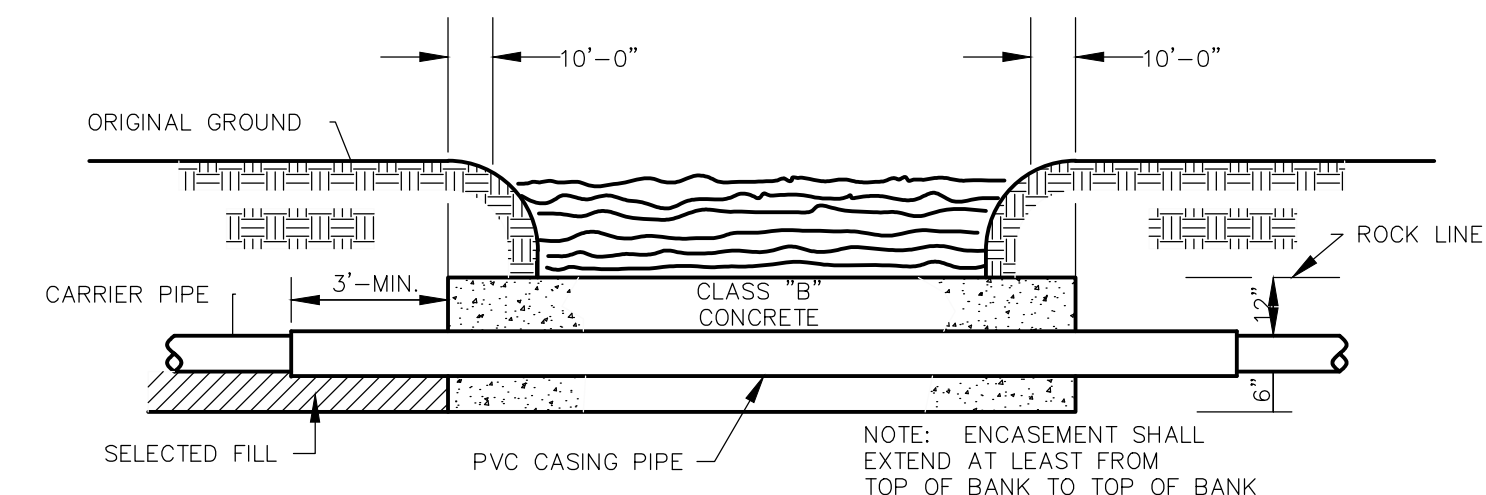




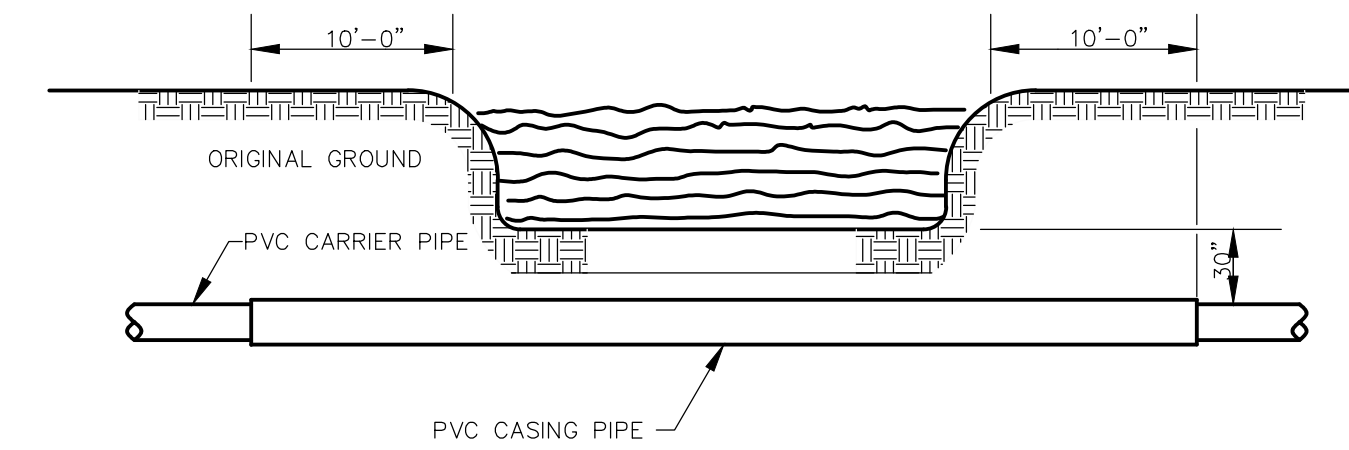
WATER LINE CONNECTION
N.T.S



TYP. STATE HIGHWAY ENCASED BORE CROSSING
N.T.S

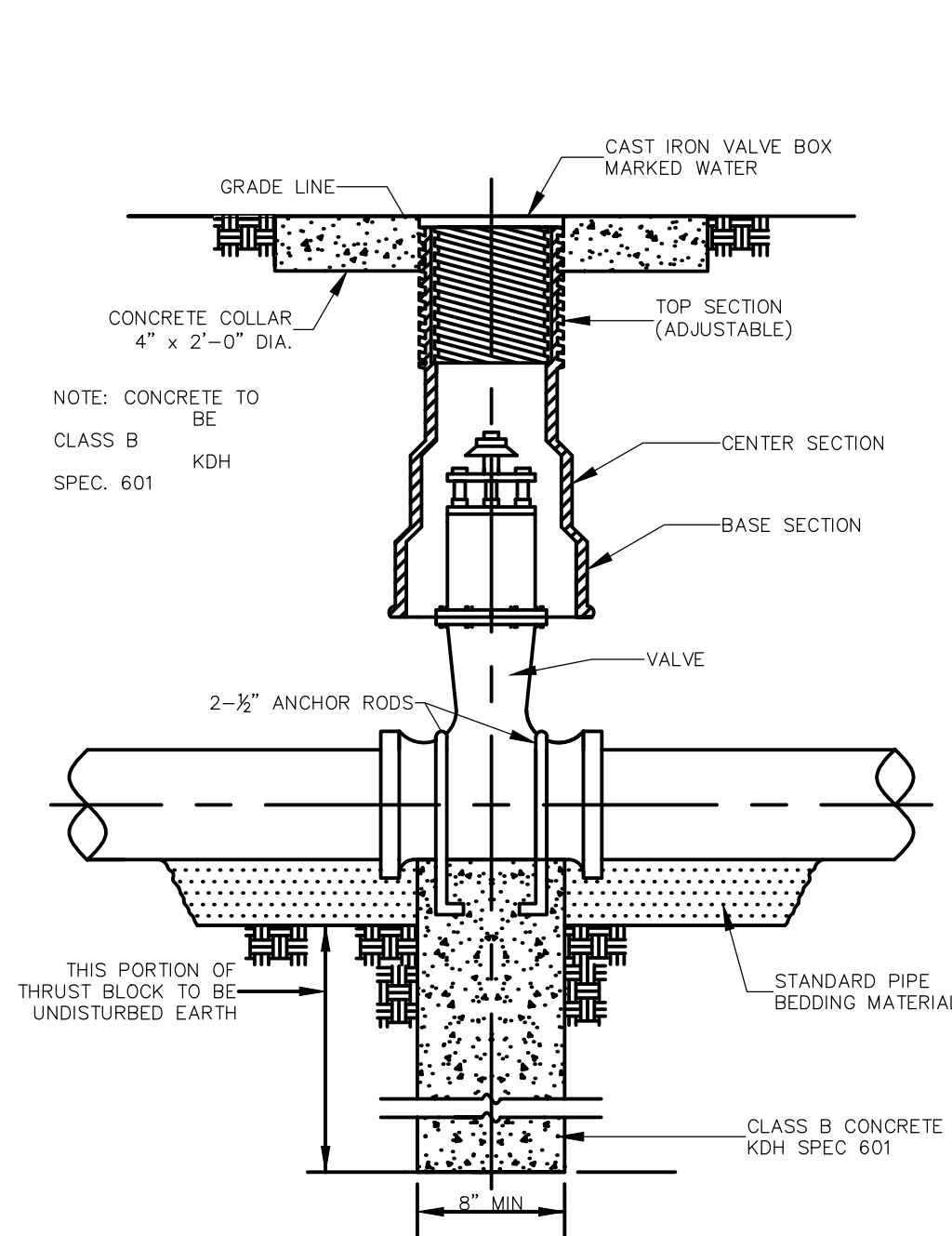


CREEK CROSSING IN ROCK

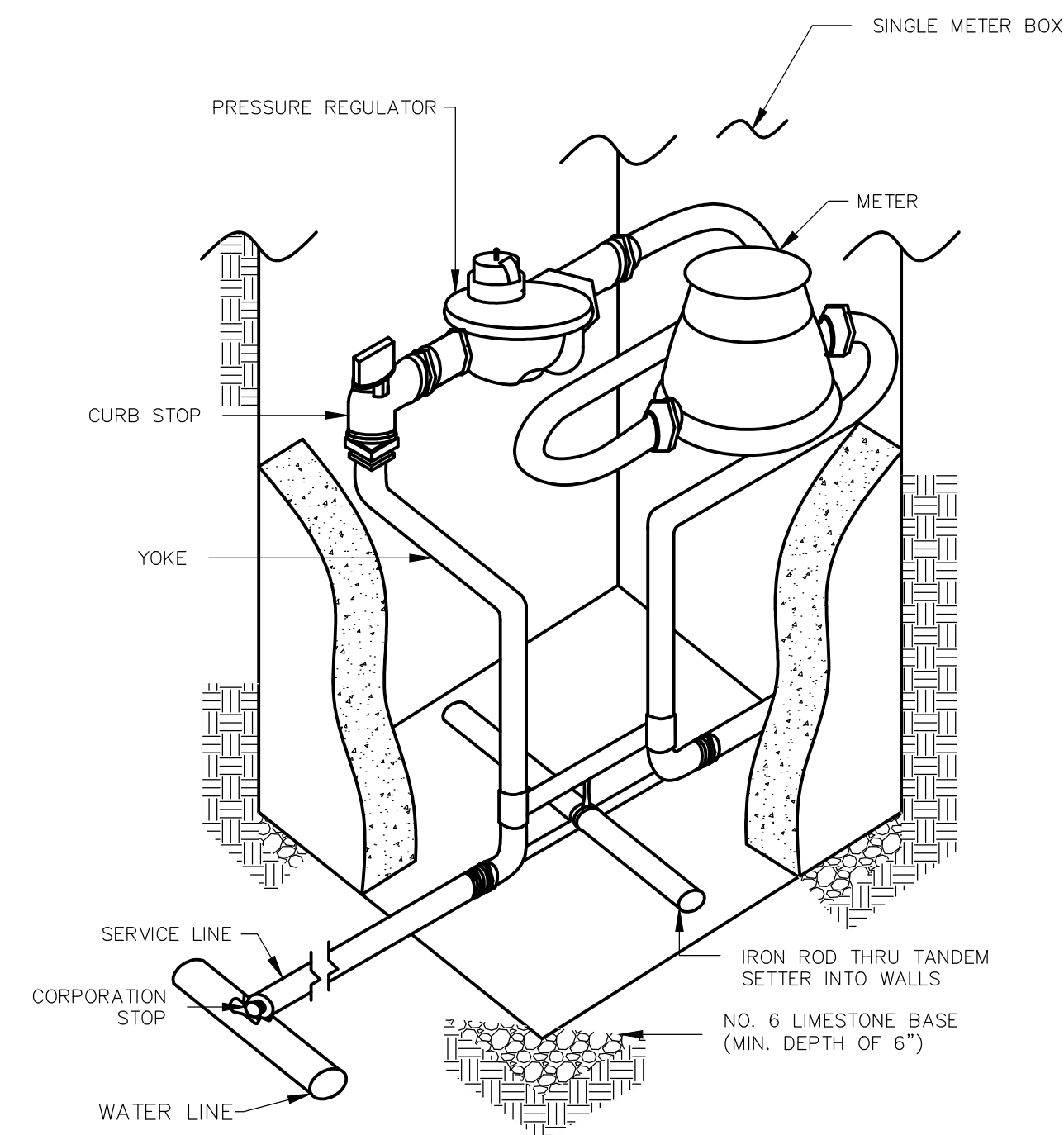


CREEK CROSSING IN SOIL

CREEK CROSSING
N.T.S

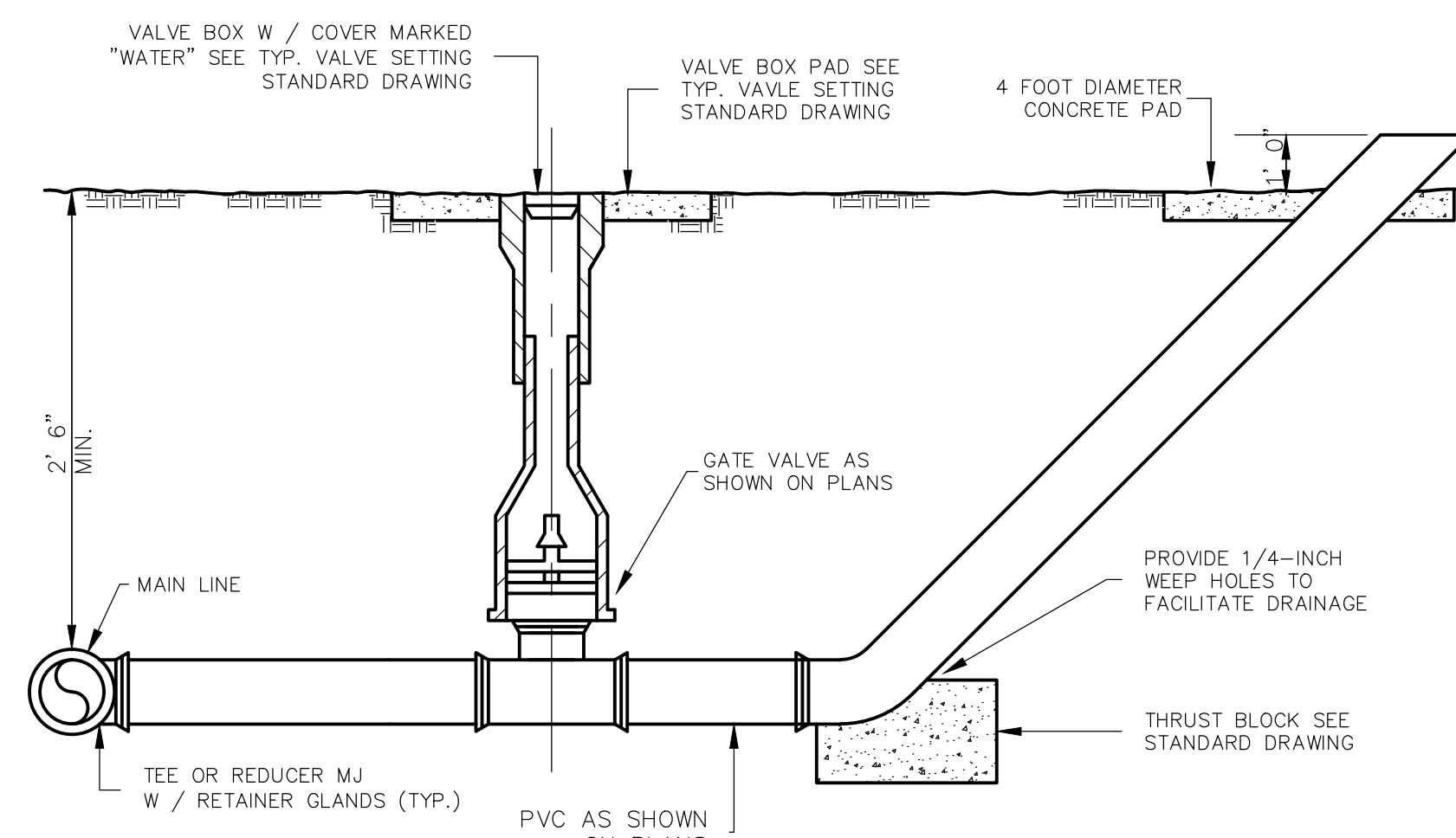


GATE VALVE DETAIL
N.T.S



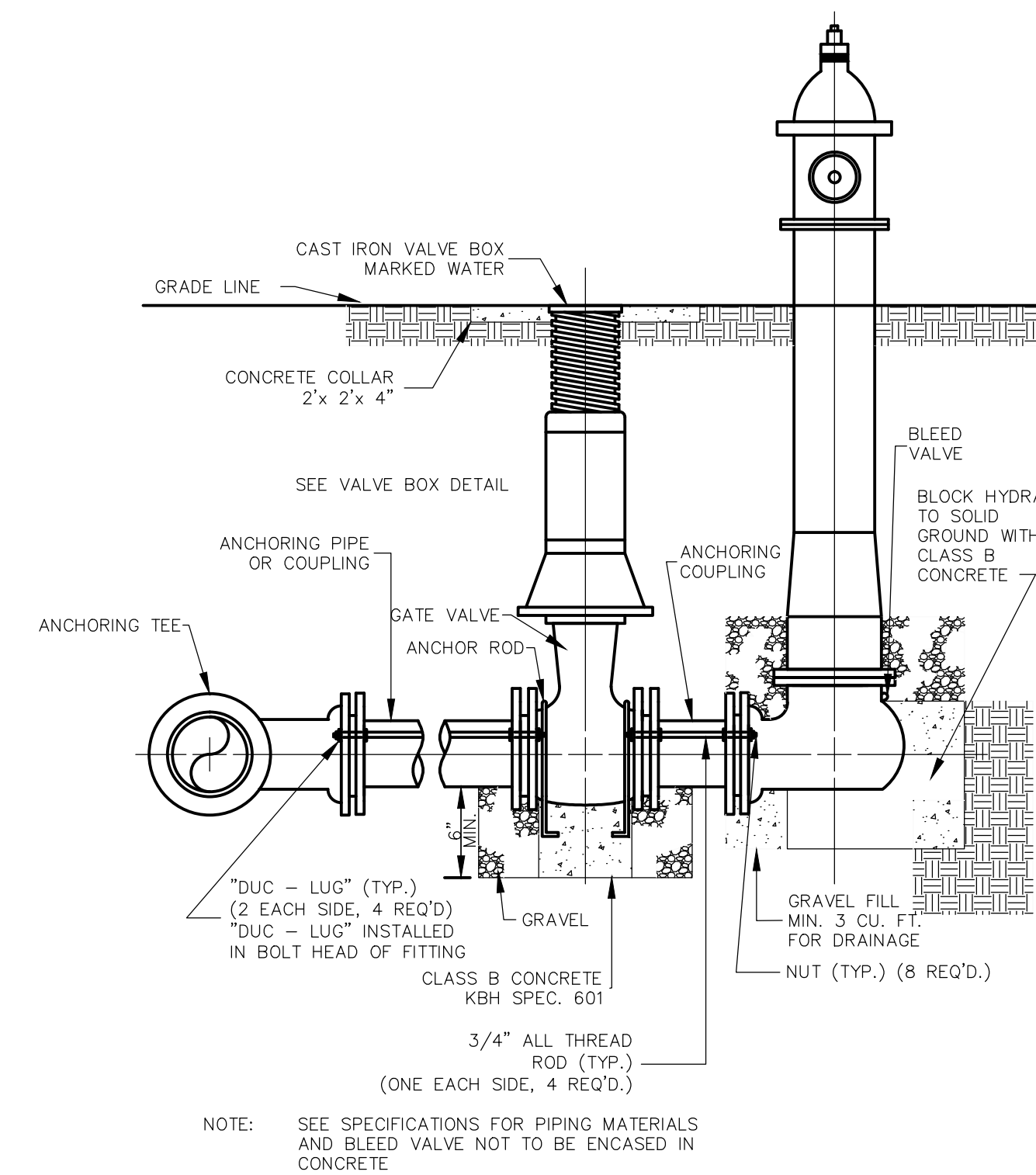
NOTE: METER SETTING SHALL BE PLACED 6" INSIDE PROPERTY LINE UNLESS OTHERWISE DIRECTED BY ENGINEER.

METER SETTING
N.T.S



NOTE: WHERE BLOWOFF ASSEMBLIES ARE REQUIRED AT THE END OF A LINE NO TEE OR REDUCER IS REQUIRED. AT THESE LOCATIONS VALVES AND PIPES ARE TO BE THE SAME SIZE AS THE WATER MAIN.

BLOWOFF ASSEMBLY
N.T.S



NOTE: SEE SPECIFICATIONS FOR PIPING MATERIALS AND BLEED VALVE NOT TO BE ENCASED IN CONCRETE

FLUSH HYDRANT ASSEMBLY
N.T.S

Monarch Engineering, Inc.
556 CARLTON DRIVE
LAWRENCEBURG, KY 40342

STANDARD DRAWINGS

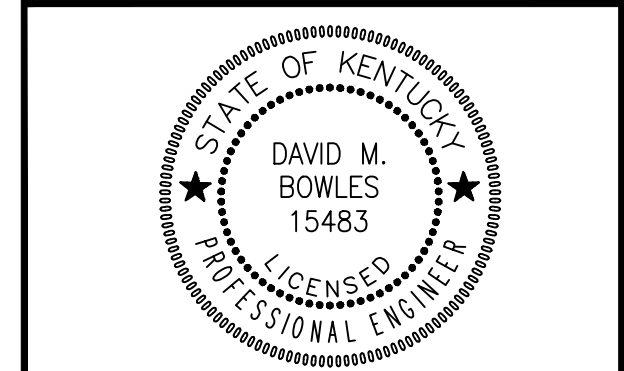
CUSTOMER:
COLUMBIA-ADAIR UTILITIES DISTRICT
ADAIR COUNTY, KENTUCKY

DESCRIPTION:

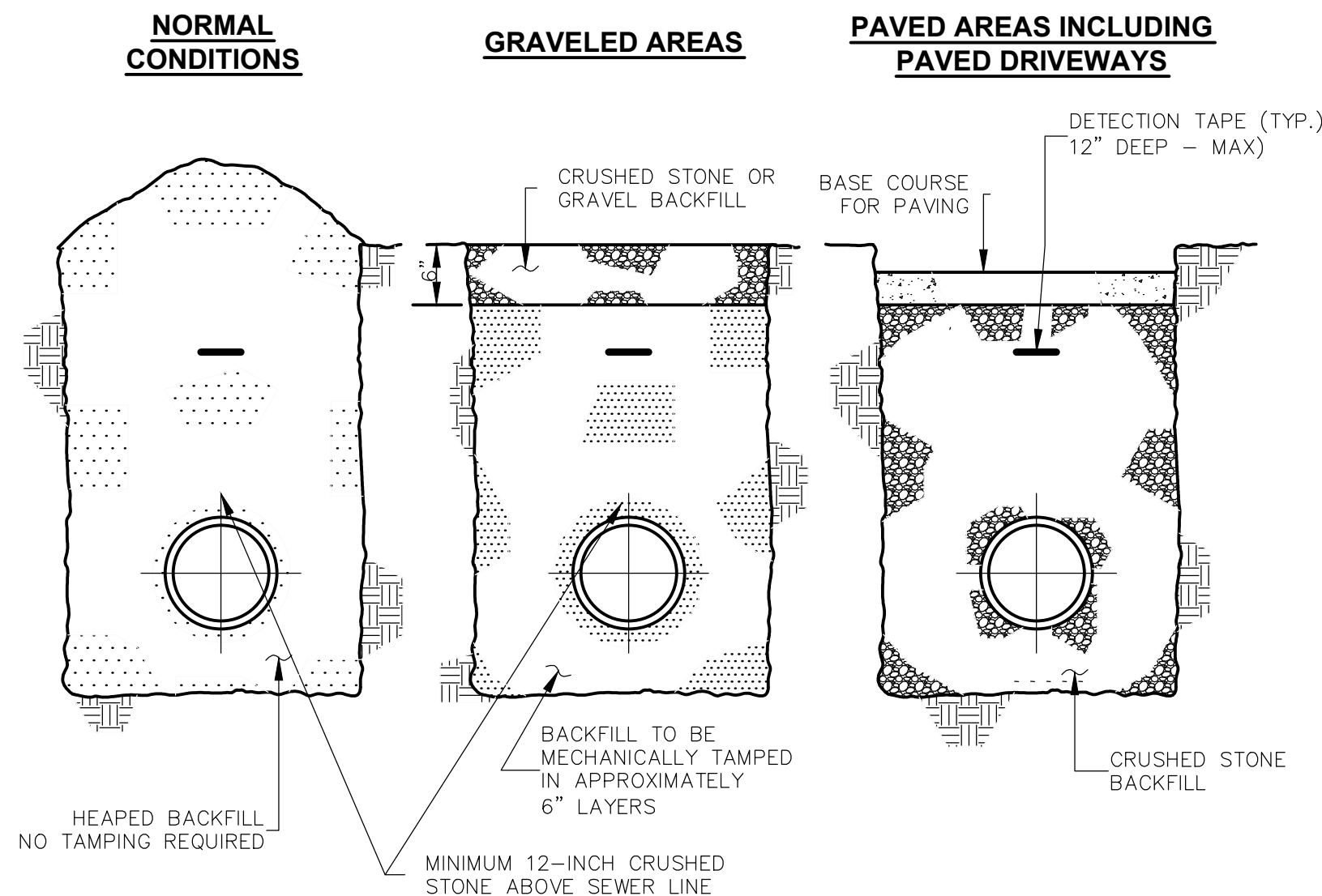
PROJECT NO. 1102
DATE: NOV 2011
DRAWN BY: JRC
CHECKED BY: DSB
CHECKED BY: DMB

SCALE: AS NOTED

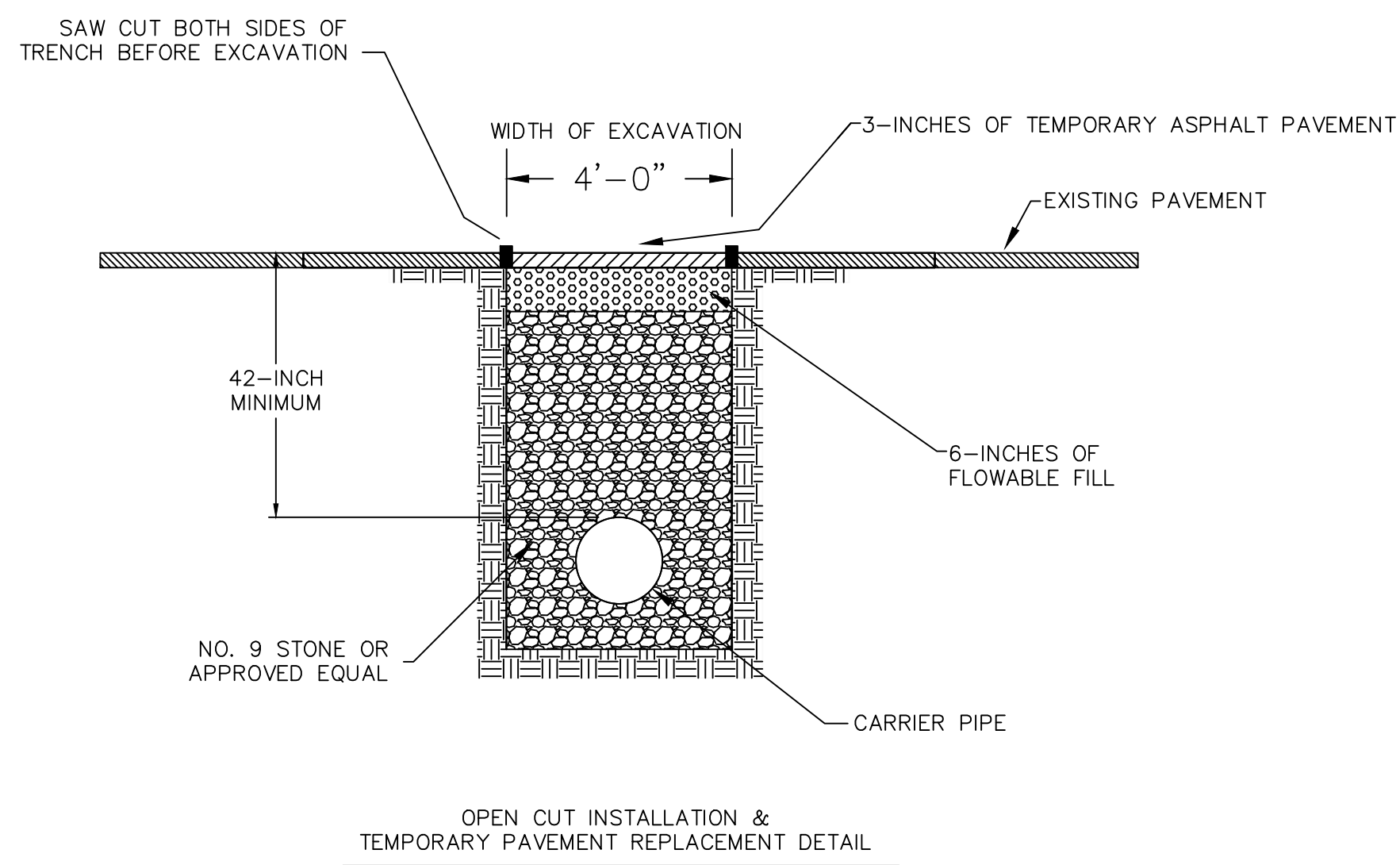
SHEET:
SD-1



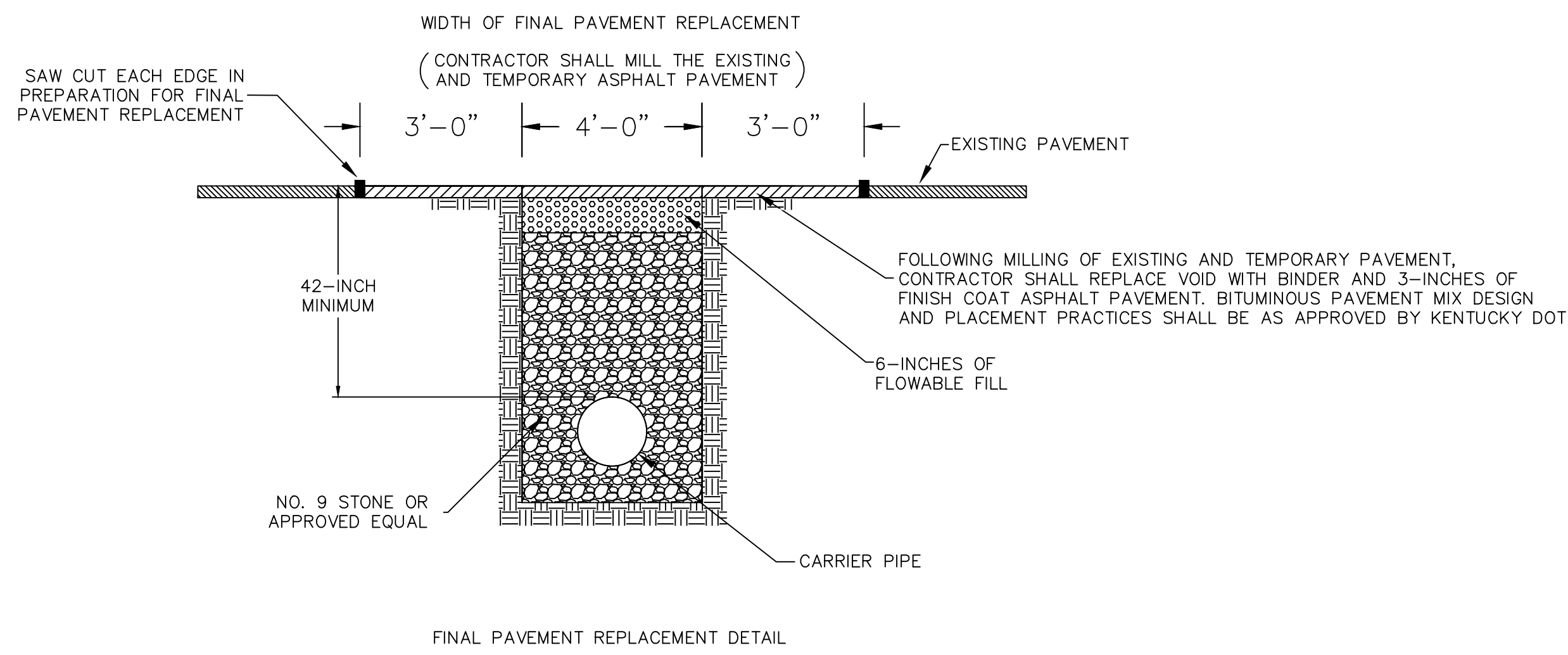
RECORD DRAWINGS



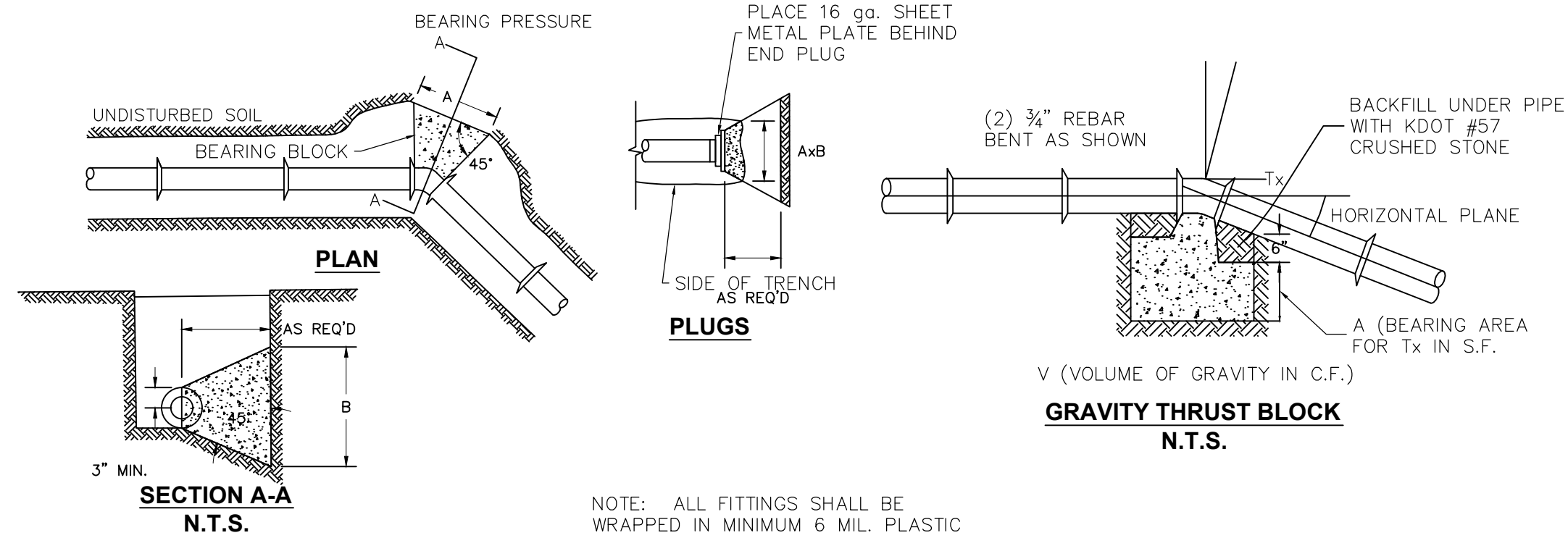
BACKFILLING
N.T.S.



OPEN CUT INSTALLATION & TEMPORARY PAVEMENT REPLACEMENT DETAIL



STATE HIGHWAY
BITUMINOUS PAVEMENT REPLACEMENT
N.T.S.



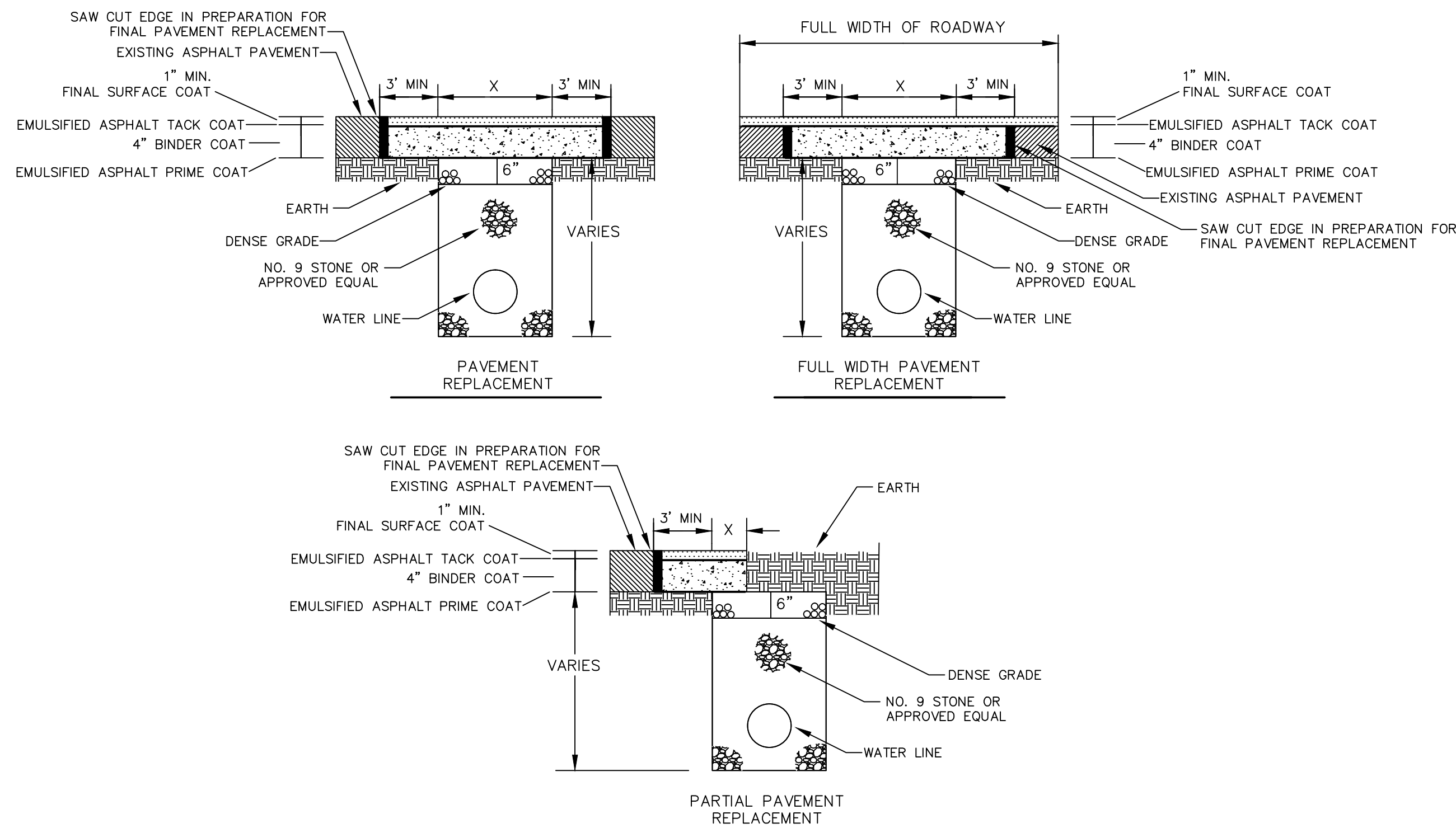
- NOTES:**
- THRUST RESTRAINT TABLE IS BASED ON PIPELINE PRESSURE OF 200 PSI AND EARTH BEARING CAPACITY OF 1500PSF. DURING CONSTRUCTION, THE SPECIFIC SOIL TYPE MAY BE EVALUATED AND CONCRETE THRUST BLOCK SIZE REVISED AT THE DISCRETION OF THE ENGINEER.
 - ON LARGE DIAMETER PIPES WHERE LIMITATIONS OR CONSTRUCTION DIFFICULTIES RENDER CONCRETE THRUST BLOCKS NOT FEASIBLE OR IMPRACTICAL, JOINT SYSTEM MAY BE USED. THIS RESTRAINED JOINT SYSTEM MUST BE APPROVED BY THE ENGINEER.
 - CONCRETE SHALL BE 2500 PSI MINIMUM CONFORMING TO KBH SPECIFICATIONS 601.
 - ACCESSIBILITY TO FITTINGS AND BOLTS MUST BE MAINTAINED.

PIPE SIZE (INCHES)	HORIZONTAL THRUST BLOCK SCHEDULE									
	90° BEND		45° BEND		22 1/2° BEND		11 1/4° BEND		TEE, DEAD END	
	A	B	A	B	A	B	A	B	A	B
4	2'-6"	1'-0"	2'-0"	1'-0"	2'-0"	1'-0"	2'-0"	1'-0"	2'-0"	1'-0"
6	3'-8"	1'-6"	2'-6"	1'-3"	2'-0"	1'-0"	2'-0"	1'-0"	3'-0"	1'-6"
8	4'-4"	2'-3"	3'-3"	1'-8"	2'-4"	1'-2"	2'-0"	1'-0"	4'-0"	2'-0"
10	5'-6"	2'-0"	4'-0"	2'-0"	3'-0"	1'-6"	2'-2"	1'-1"	4'-8"	2'-4"
12	6'-6"	2'-9"	5'-0"	2'-6"	3'-6"	1'-9"	2'-6"	1'-3"	5'-6"	2'-9"
14	7'-8"	3'-10"	6'-8"	2'-10"	4'-2"	2'-1"	3'-0"	1'-6"	6'-5"	3'-3"
16	8'-9"	4'-4"	6'-6"	3'-3"	4'-8"	2'-3"	3'-4"	1'-8"	7'-6"	3'-8"
18	10'-0"	5'-0"	7'-3"	3'-8"	5'-4"	2'-8"	4'-0"	2'-0"	8'-6"	4'-0"
20	11'-0"	5'-6"	8'-0"	4'-0"	6'-0"	3'-0"	4'-4"	2'-2"	9'-2"	4'-7"
24	13'-4"	6'-8"	9'-6"	4'-10"	7'-2"	3'-10"	5'-4"	2'-6"	10'-10"	5'-6"

- NOTES:**
- THRUST RESTRAINT TABLE IS BASED ON PIPELINE PRESSURE OF 200 PSI AND EARTH BEARING CAPACITY OF 1500PSF. DURING CONSTRUCTION, THE SPECIFIC SOIL TYPE MAY BE EVALUATED AND CONCRETE THRUST BLOCK SIZE REVISED AT THE DISCRETION OF THE ENGINEER.
 - ON LARGE DIAMETER PIPES WHERE LIMITATIONS OR CONSTRUCTION DIFFICULTIES RENDER CONCRETE THRUST BLOCKS NOT FEASIBLE OR IMPRACTICAL, JOINT SYSTEM MAY BE USED. THIS RESTRAINED JOINT SYSTEM MUST BE APPROVED BY THE ENGINEER.
 - CONCRETE SHALL BE 2500 PSI MINIMUM CONFORMING TO KBH SPECIFICATIONS 601.
 - ACCESSIBILITY TO FITTINGS AND BOLTS MUST BE MAINTAINED.

PIPE SIZE (INCHES)	VERTICAL THRUST BLOCK SCHEDULE							
	90° BEND		45° BEND		22 1/2° BEND		11 1/4° BEND	
	V	A	V	A	V	A	V	A
4	25	2.5	18	1	10	1	5	1
6	57	5.7	40	1.6	22	1	11	1
8	101	10	71	3	38	1	20	2
10	157	16	111	5	60	1	32	3
12	226	23	161	7	86	2	45	5
14	308	31	219	9	117	2.5	62	6
16	402	40	285	12	153	3	81	8
18	509	51	361	15	194	4	102	10
20	628	63	446	18	239	5	126	13
24	903	90	650	24	341	7	183	18

THRUST BLOCK DETAIL
N.T.S.



ANY TRENCH THAT DISTURBS PAVEMENT SHALL BE BACKFILLED WITH STONE
REPLACE BITUMINOUS PAVEMENT WITH SAME TYPE AND DEPTH AS EXISTING PAVEMENT
ANY PUBLICLY TRAVELED AREA (I.E. CITY STREETS, BUSINESS ENTRANCES, BUSINESS AND PUBLIC PARKING LOTS, ETC.) SHALL BE TEMPORARILY RESTORED AT THE END OF EACH WORK DAY USING AN APPROVED COLD PATCH ASPHALT PAVEMENT

NON STATE HIGHWAY
BITUMINOUS PAVEMENT REPLACEMENT
N.T.S.

RECORD DRAWINGS

Monarch Engineering, Inc.

556 CARLTON DRIVE
LAWRENCEBURG, KY 40342

STANDARD DRAWINGS

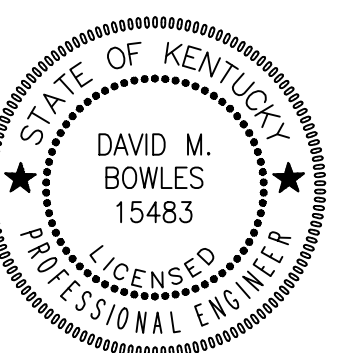
CUSTOMER:
COLUMBI-ADAIR UTILITIES DISTRICT
ADAIR COUNTY, KENTUCKY

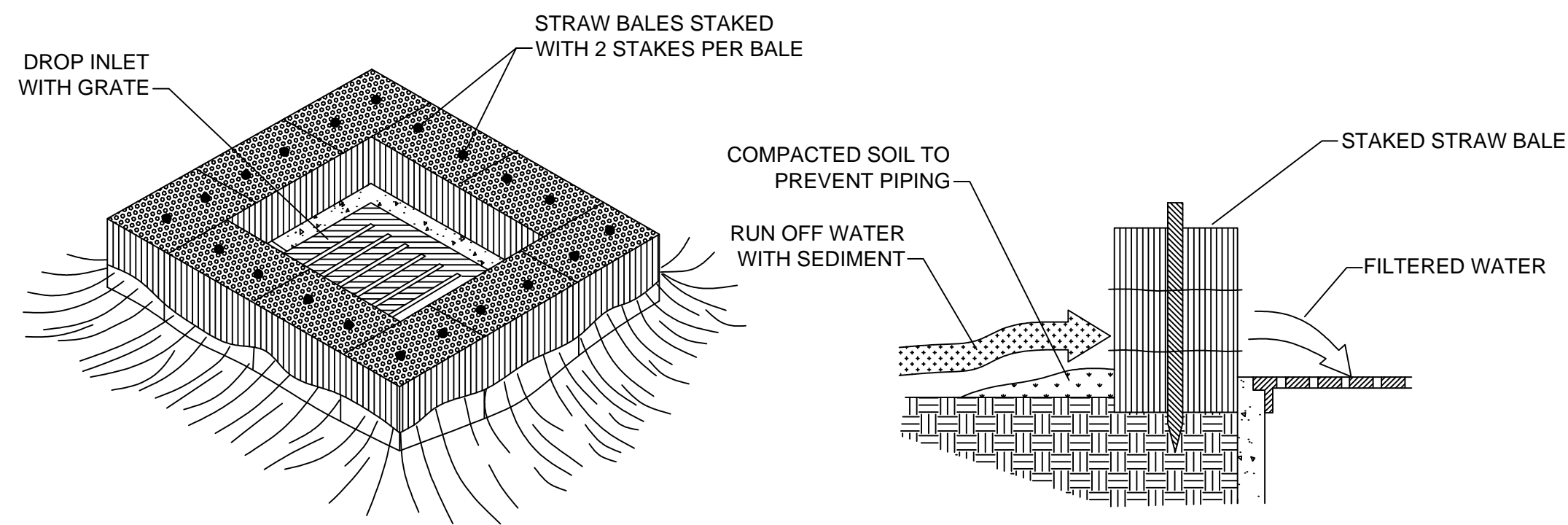
DESCRIPTION:

PROJECT NO. 1102
DATE: NOV 2011
DRAWN BY: JRC
CHECKED BY: DSB
CHECKED BY: DMB
SCALE: AS NOTED

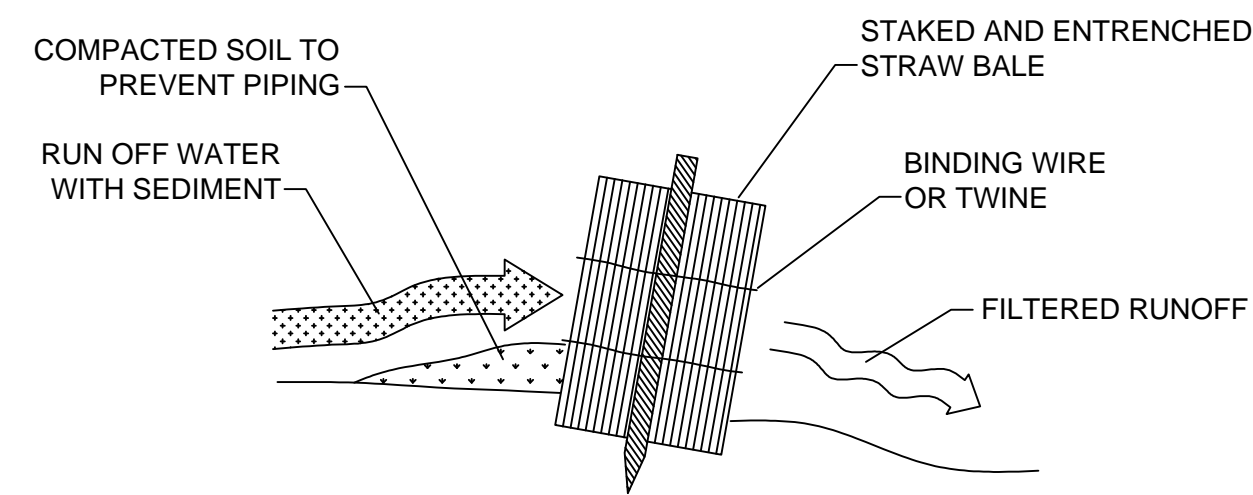
SHEET:

SD-2

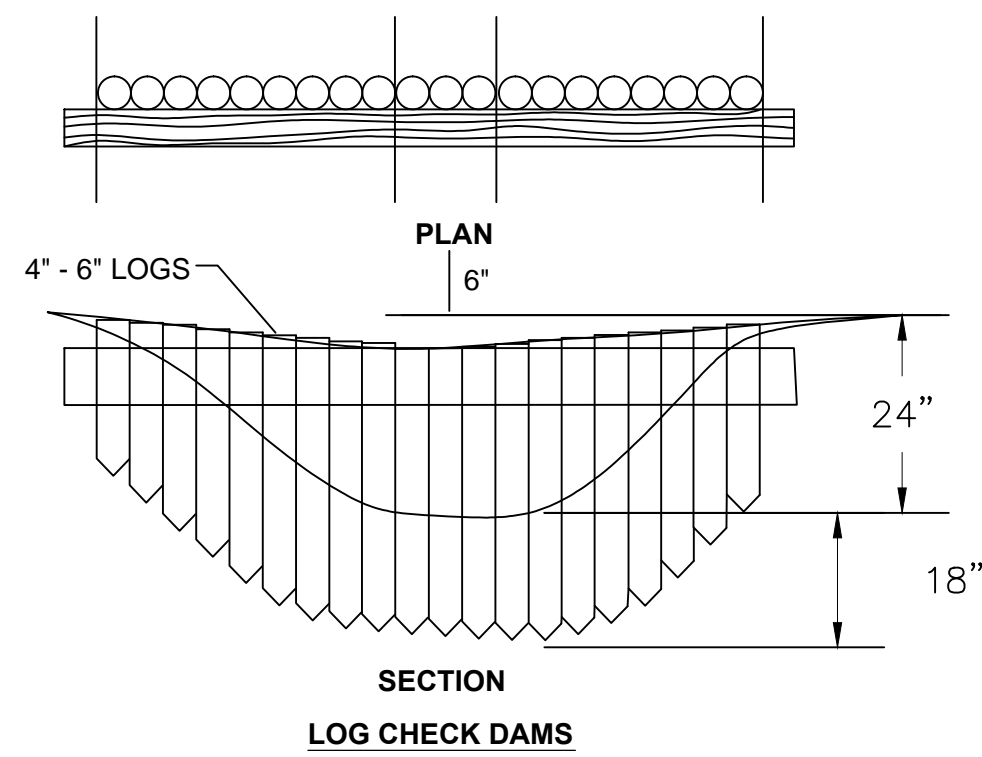




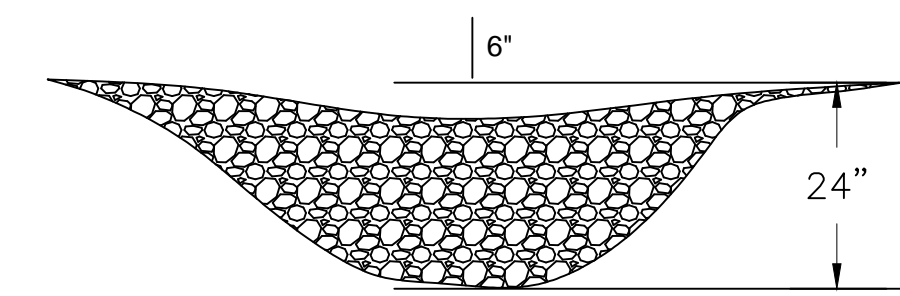
STRAW BALE DROP INLET SEDIMENT FILTER
N.T.S.



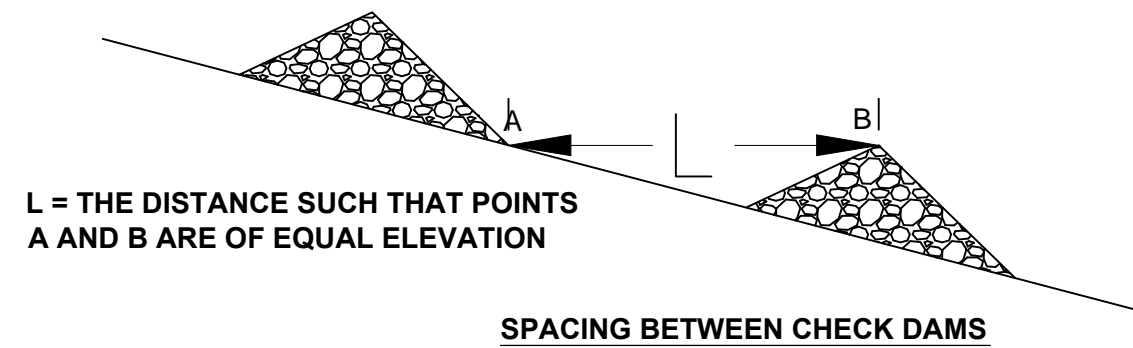
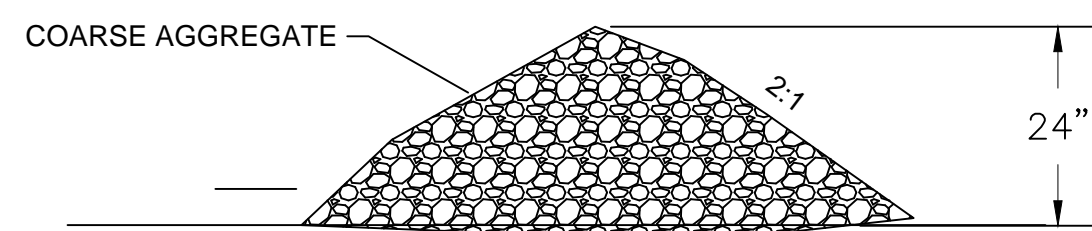
STRAW BALE INSTALLATION PROCEDURES
N.T.S.



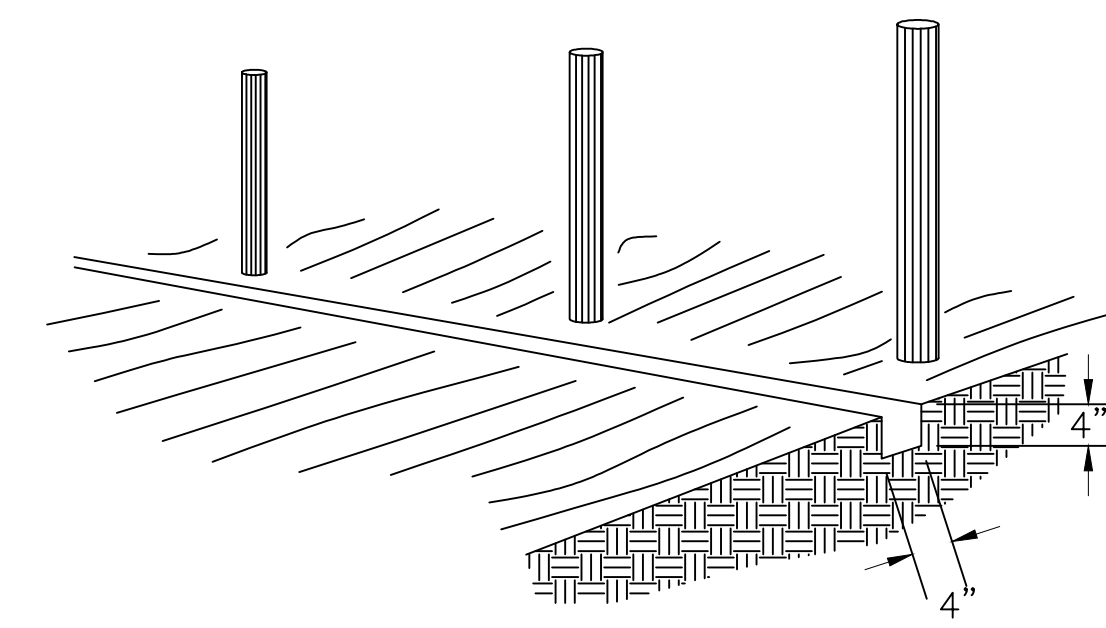
LOG CHECK DAMS



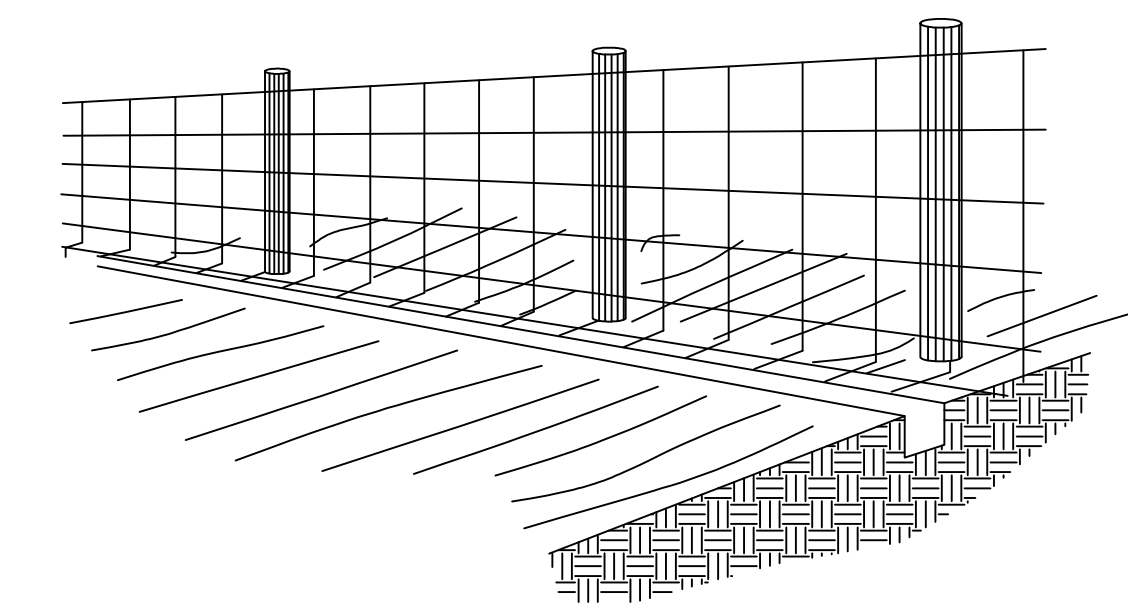
ROCK CHECK DAMS



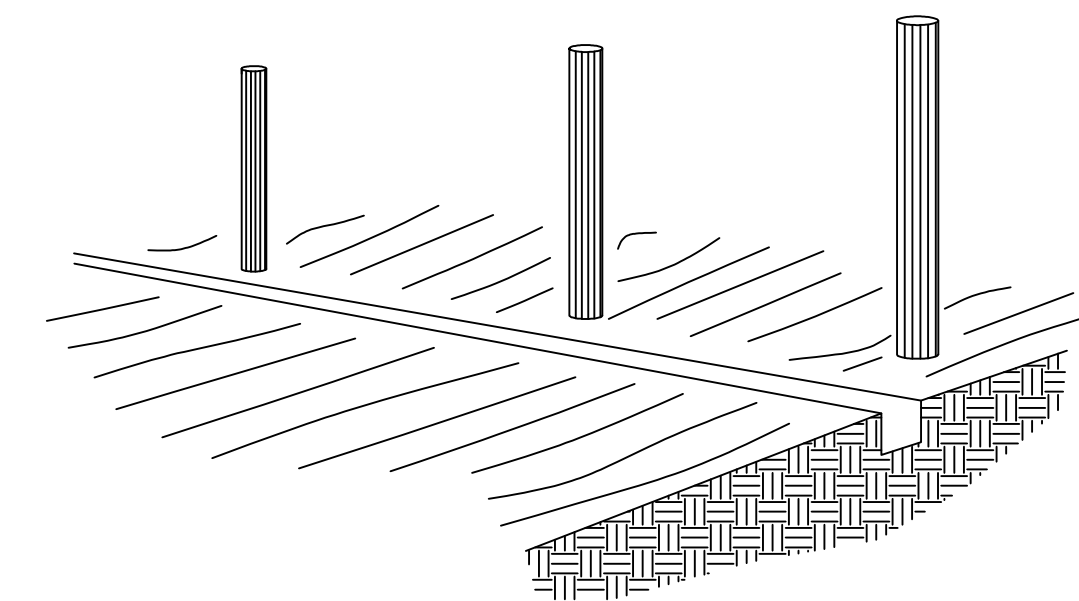
CHECK DAM DETAILS
N.T.S.



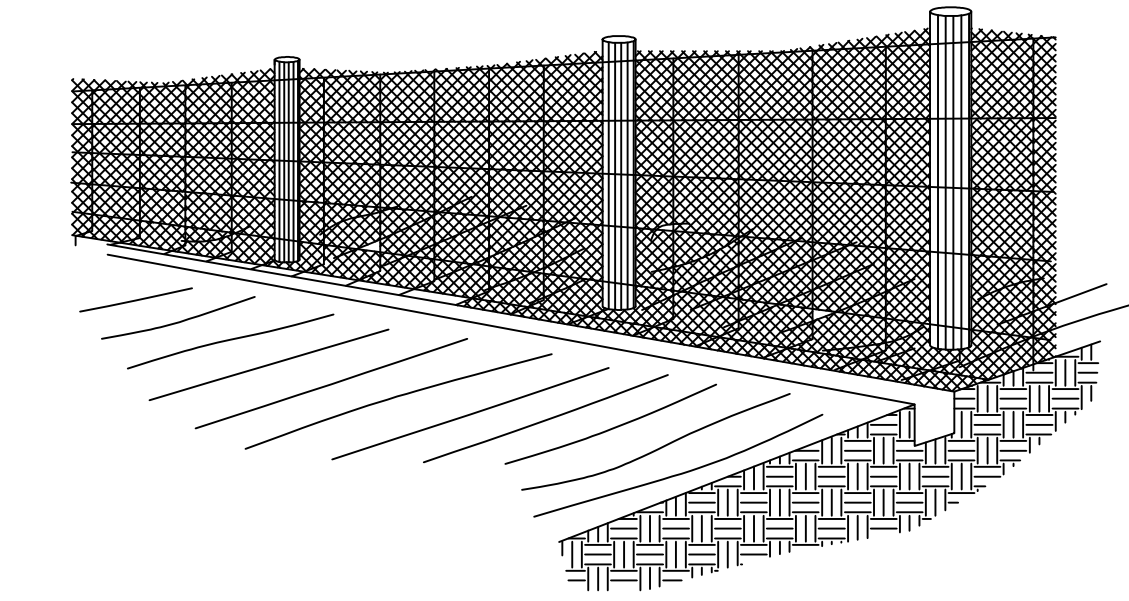
1. SET POSTS AND EXCAVATE A 4" x 4" TRENCH UPSLOPE ALONG THE LINE OF POSTS



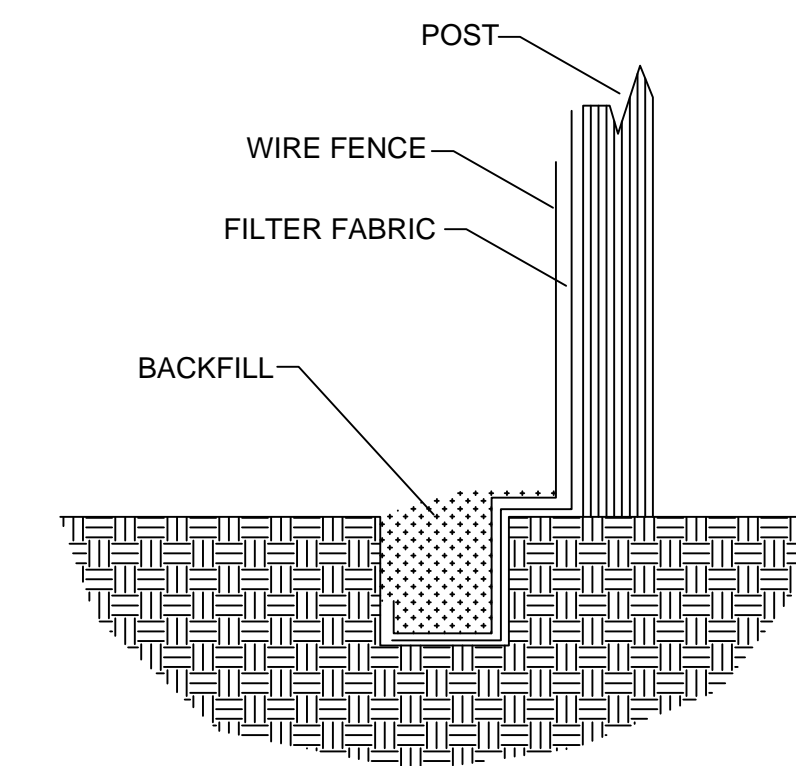
2. STAPLE WIRE FENCING TO POSTS



3. ATTACH THE FILTER FABRIC TO THE WIRE FENCE AND EXTEND IT INTO THE TRENCH

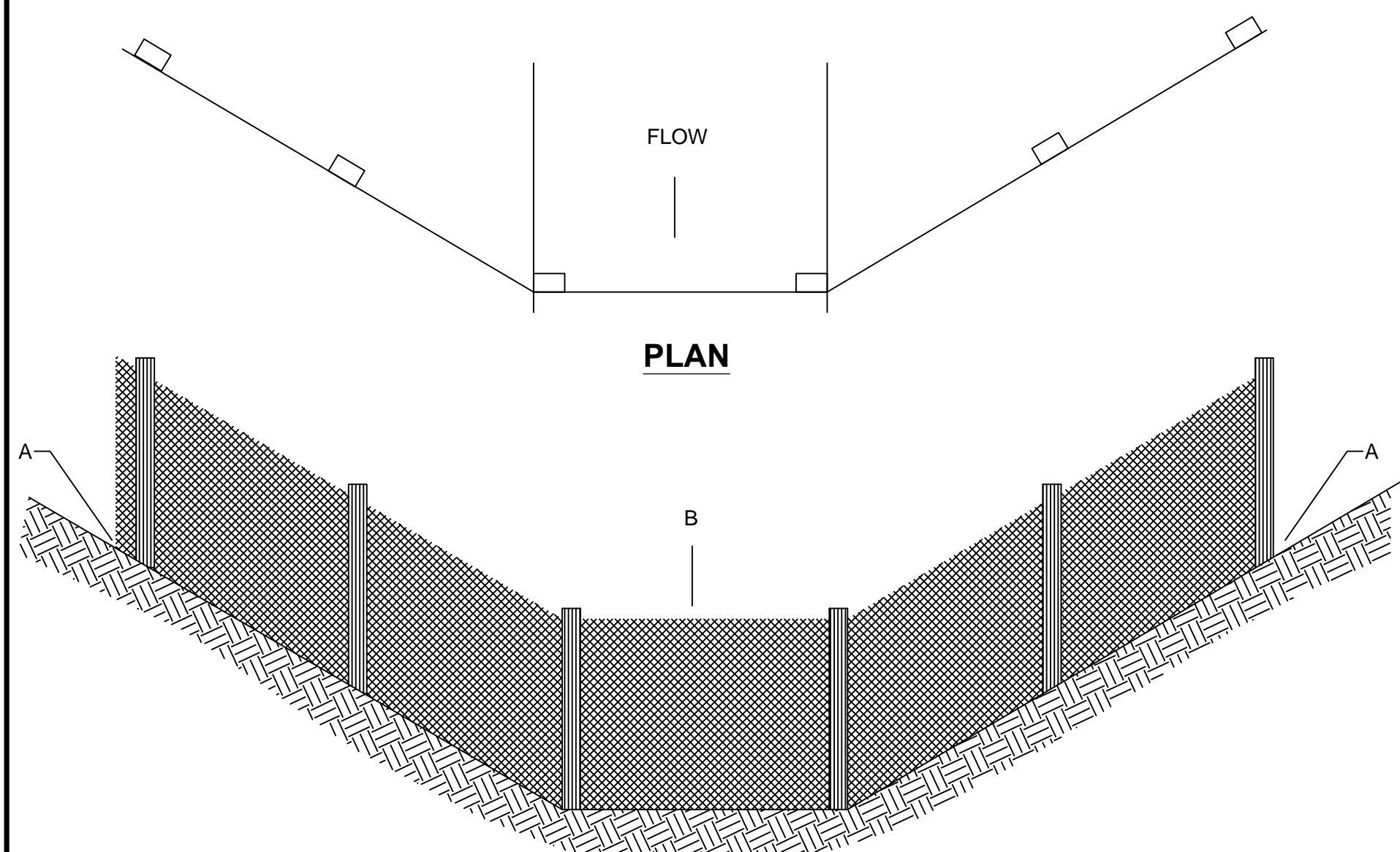


4. BACKFILL AND COMPACT THE EXCAVATED SOIL



EXTENSION OF FABRIC AND WIRE INTO THE TRENCH

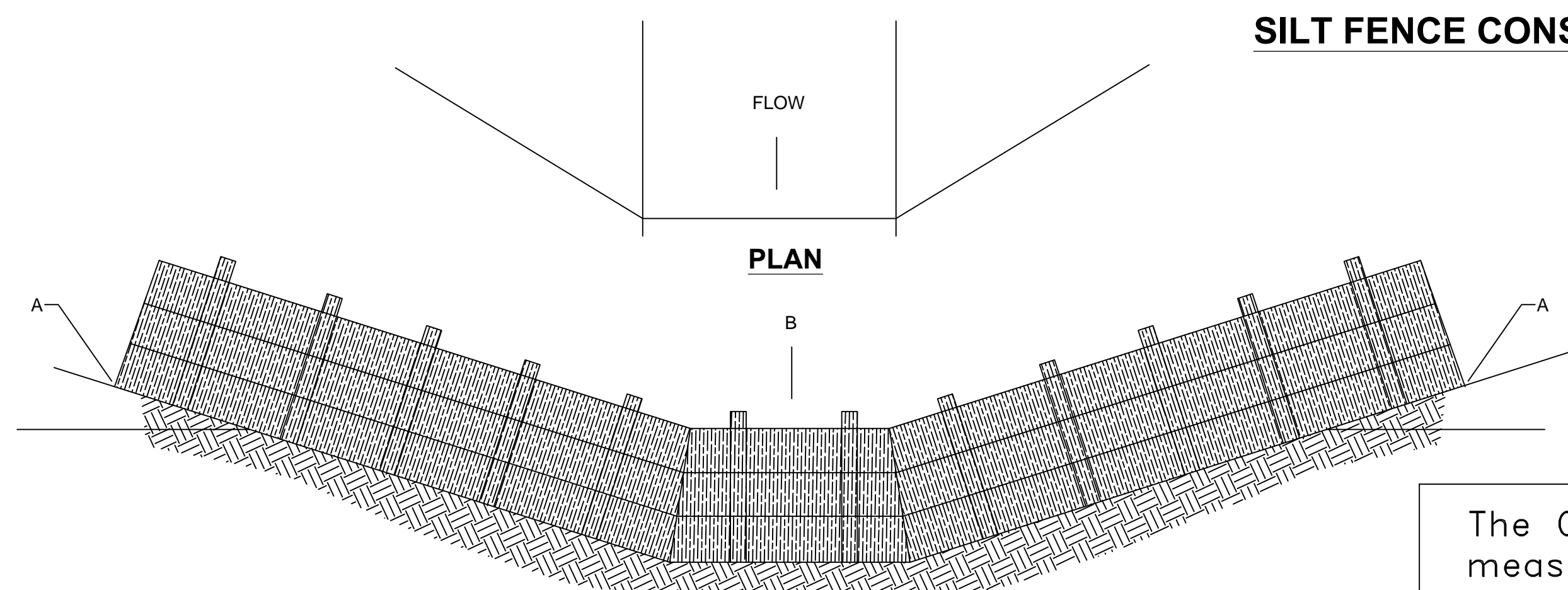
SILT FENCE CONSTRUCTION PROCEDURES
N.T.S.



ELEVATION

POINT A SHOULD BE HIGHER THAN POINT B

PLACEMENT OF FILTER BARRIER
N.T.S.



ELEVATION

POINT A SHOULD BE HIGHER THAN POINT B

PLACEMENT OF STRAW BALE BARRIER
N.T.S.

EROSION CONTROL DETAILS
N.T.S.

The Contractor shall do all work and take all measures necessary to control soil erosion resulting from construction operations, and shall prevent the flow of sediment from the construction site, and shall contain construction materials (including excavation and backfill) within their protected working area so as to prevent damage to the adjacent wetlands and water courses. The Contractor shall use any of the acceptable methods necessary to control soil erosion and prevent the flow of sediment to the maximum extent possible. These methods shall include, but not be limited to, the use of water diversion structures, diversion ditches, and settling basins.

RECORD DRAWINGS

Monarch Engineering, Inc.
556 CARLTON DRIVE
LAWRENCEBURG, KY 40342

EROSION CONTROL DETAILS

COLUMBIA/ADAIR UTILITIES DISTRICT
ADAIR COUNTY, KENTUCKY

DESCRIPTION:

CUSTOMER:

PROJECT NO. 1102

DATE: NOV 2011

DRAWN BY: JRC

CHECKED BY: DSB

CHECKED BY: DMB

SCALE: AS NOTED

SHEET:

EC-1

