

APPENDIX A – DRAWINGS

EAST KENTUCKY POWER COOPERATIVE

CCR & ELG Compliance Project Drawings

General Arrangements

DRAWING NUMBER	TITLE
KEYPLAN	KEYPLAN
GA1000	GENERAL ARRANGEMENT
GA1001	GENERAL ARRANGEMENT
GA1002	GENERAL ARRANGEMENT
GA1003	GENERAL ARRANGEMENT
GA1004	GENERAL ARRANGEMENT
GA1005	GENERAL ARRANGEMENT
GA1006	GENERAL ARRANGEMENT
GA1007	GENERAL ARRANGEMENT
GA1008	GENERAL ARRANGEMENT
GA1009	GENERAL ARRANGEMENT
GA1010	GENERAL ARRANGEMENT
GA1011	GENERAL ARRANGEMENT
GA1001-WWT	WASTEWATER TREATMENT BUILDING

Piping and Instrumentation Diagram Drawings

DRAWING NUMBER	TITLE	DRAWING NUMBER	TITLE	DRAWING NUMBER	TITLE
AAA-01	LEGEND	WW-01	FGD WASTEWATER FORWARDING PUMPS	WW-23	ANTI-FOAM AND SCALE INHIBITOR CHEM FEED
AAA-02	LEGEND	WW-02	FGD WASTEWATER STORAGE/EQUALIZATION TANKS/PUMPS	WW-24	SULFURIC ACID CHEM FEED
FW-01	FIREWATER FOR WASTEWATER TREATMENT AREA	WW-03	SOFTENING REACTOR TANK A	WW-25	POLYMER AND COAGULANT CHEM FEED
IA-01	INSTRUMENT AIR DISTRIBUTION	WW-04	SOFTENING REACTOR TANK B	WW-26	DISTILLATE STORAGE TANK
IA-02	INSTRUMENT AIR DISTRIBUTION	WW-05	FGD WASTEWATER CLARIFIER A	WW-27	SLUDGE HOLDING TANK AND FILTER PRESS FEED PUMPS
LH-01	HYDRATED LIME SYSTEM	WW-06	FGD WASTEWATER CLARIFIER B	WW-28	FILTER PRESSES
MM0AHB-01	UNIT 1 & 2 DRY BOTTOM ASH PNEUMATIC ASH SYSTEM	WW-07	CLARIFIED WASTEWATER STORAGE AND DISTRIBUTION	WW-29	DISTILLATE DISCHARGE AND RE-USE
MM0AHB-02	UNIT 1 & 2 DRY BOTTOM ASH PNEUMATIC ASH SYSTEM	WW-08	EVAPORATOR FEED TANKS	WW-30	WASTEWATER DRAINS AND SUMPS
MM0AHB-03	DRY BOTTOM ASH PNEUMATIC ASH SYSTEM	WW-09	EVAPORATOR FEED FILTERS	WW-31	WWT/WASTEWATER ELIMINATION AND WMB POND DRAINS
MM0AHB-04	DRY BOTTOM ASH PNEUMATIC ASH SYSTEM	WW-10	EVAPORATOR FEED HEAT EXCHANGERS		
MM0AHF-01	UNIT 1 FLY ASH VACUUM/PRESSURE TRANSFER SYSTEM	WW-11	EVAPORATOR A		
MM0AHF-02	UNIT 2 FLY ASH VACUUM/PRESSURE TRANSFER SYSTEM	WW-12	VAPOR COMPRESSOR A		
MM0AHF-03	UNIT 2 FLY ASH VACUUM/PRESSURE TRANSFER SYSTEM	WW-13	TRAIN A DISTILLATE TANK AND PUMPS		
PC-01	WATER MASS BALANCE (WMB) POND CHEMICAL FEED	WW-14	HYDROCYCLONE A		
PC-02	WATER MASS BALANCE (WMB) POND	WW-15	EVAPORATOR B		
PC-03	WATER MASS BALANCE (WMB) POND HYDRATED LIME SYSTEM	WW-16	VAPOR COMPRESSOR B		
PW-01	POTABLE WATER	WW-17	TRAIN B DISTILLATE TANK AND PUMPS		
SD-01	SANITARY DRAINS	WW-18	HYDROCYCLONE B		
SS-01	AUXILIARY BOILER SYSTEM	WW-19	BLOWDOWN TANK		
WE-01	WASTEWATER ELIMINATION DISTRIBUTION	WW-20	BLOWDOWN HEAT EXCHANGERS AND BRINE TANKS		
WS-01	SERVICE WATER	WW-21	SEED TANK		
WTR-01	LAGOON DISCHARGE	WW-22	CIP SKID		

Pipe Rack Sections

DRAWING NUMBER	TITLE
MA1000	PIPE RACK ELEVATIONS
MA1001	PIPE RACK ELEVATIONS

Civil Drawings

DRAWING NUMBER	TITLE
SKC001	CIVIL LAYOUT WWT AREA
SKC002	CIVIL LAYOUT BA/FA AREA
SKC003	CIVIL LAYOUT WMB/CHEM FEED AREA
SKC004	SITE PLAN
SA2004	17 ACRE LINED POND IN EAST END

Mechanical Drawings

DRAWING NUMBER	TITLE
WMB-01	FUTURE WATER MASS BALANCE

Electrical Drawings

DRAWING NUMBER	TITLE
EE-1-0008	ONE-LINE DIAGRAM

I & C Drawings

DRAWING NUMBER	TITLE
DCS-CSA	ONE-LINE DIAGRAM

PRELIMINARY - NOT FOR CONSTRUCTION

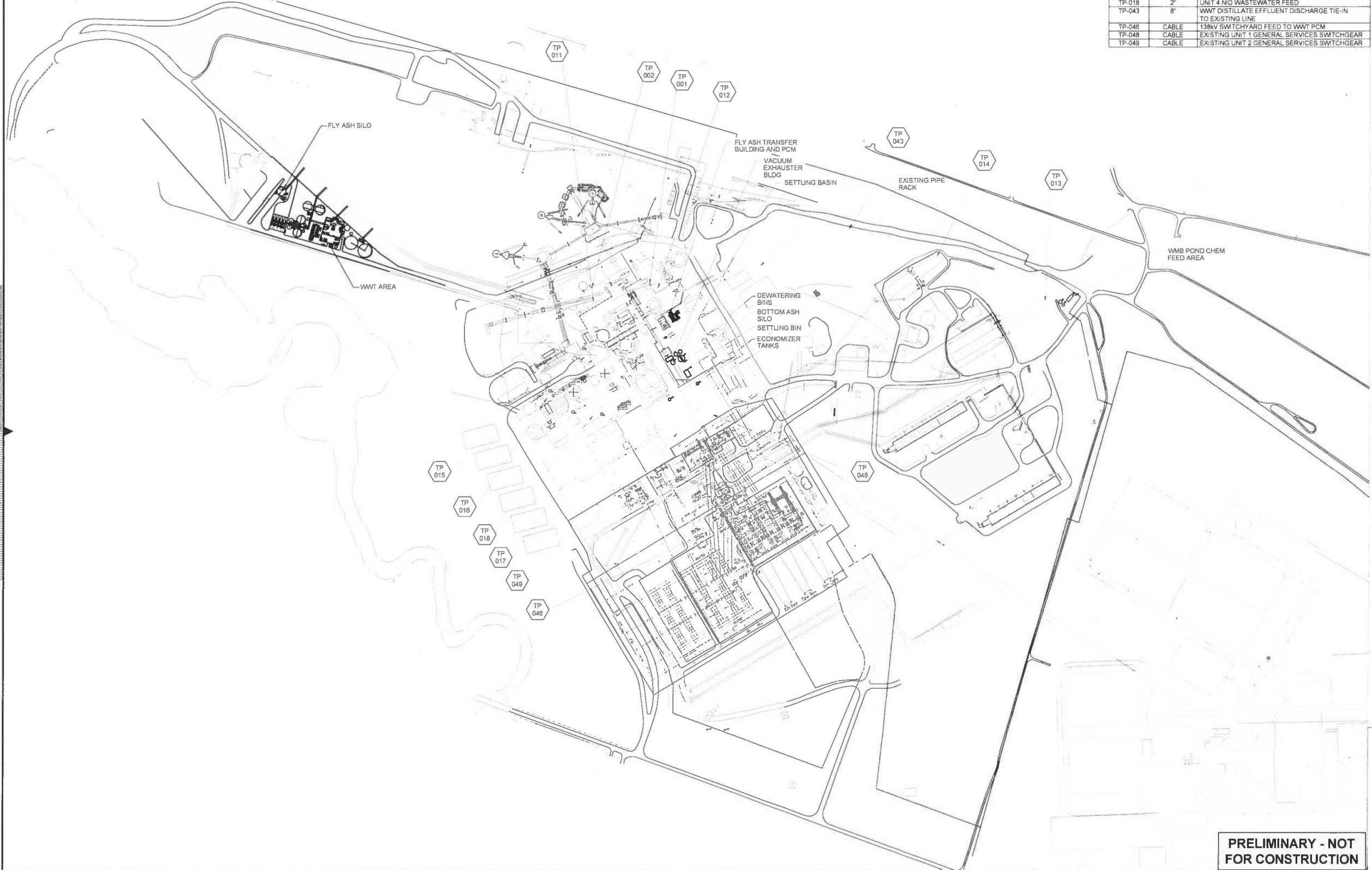
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B	01/31/17	PTB	RTR	ISSUED FOR OWNER REVIEW
C	03/30/17	PTB	RTR	ISSUED FOR OWNER REVIEW



**EAST KENTUCKY
POWER
COOPERATIVE
PROJECT NO. 89810**

Cover-Index

TIE POINT LIST		
TIE POINT NUMBER	CONNECTION SIZE	DESCRIPTION NEW SITE EQUIPMENT
TP-001	3"	UNIT 1 FGD PURGE TANK
TP-002	3"	UNIT 2 FGD PURGE TANK
TP-011	2"	UNIT 2 FGD AUXILIARY SERVICE WATER
TP-012	2"	UNIT 1 FGD AUXILIARY SERVICE WATER
TP-013	2"	UNIT 2 COOLING TOWER AUXILIARY MAKEUP
TP-014	2"	UNIT 1 COOLING TOWER AUXILIARY MAKEUP
TP-015	2"	UNIT 3/4 ASH SILO 1 MIX WATER
TP-016	2"	UNIT 3/4 ASH SILO 2 MIX WATER
TP-017	2"	UNIT 3 NID WASTEWATER FEED
TP-018	2"	UNIT 4 NID WASTEWATER FEED
TP-043	8"	WWT DISTILLATE EFFLUENT DISCHARGE TIE-IN TO EXISTING LINE
TP-046	CABLE	138KV SWITCHYARD FEED TO WWT PCM
TP-048	CABLE	EXISTING UNIT 1 GENERAL SERVICES SWMCHGEAR
TP-049	CABLE	EXISTING UNIT 2 GENERAL SERVICES SWMCHGEAR



PRELIMINARY - NOT FOR CONSTRUCTION

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B	01/31/17	PTB	RTR	ISSUED FOR OWNER REVIEW
A	11/22/16	PTB	KLK	ISSUED FOR OWNER REVIEW

EAST KENTUCKY POWER COOPERATIVE
SPURLLOCK STATION
MASON COUNTY, KENTUCKY

BURNS MEDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 43

designed: N. GALARNEAU
detailed: S. CHURCHILL

NORTH

SCALE IN FEET

EKPC SPURLLOCK STATION
CCR & ELG COMPLIANCE PROJECT
GENERAL ARRANGEMENT

project: 89810 contract: _____
drawing: _____ rev: _____
GA1000 - C
sheet 1 of 1 sheets
file 89810GA1000-T.dwg



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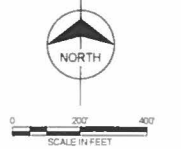
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designed: T. ROBERTSON
detailed: S. CHURCHILL



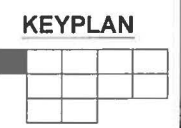
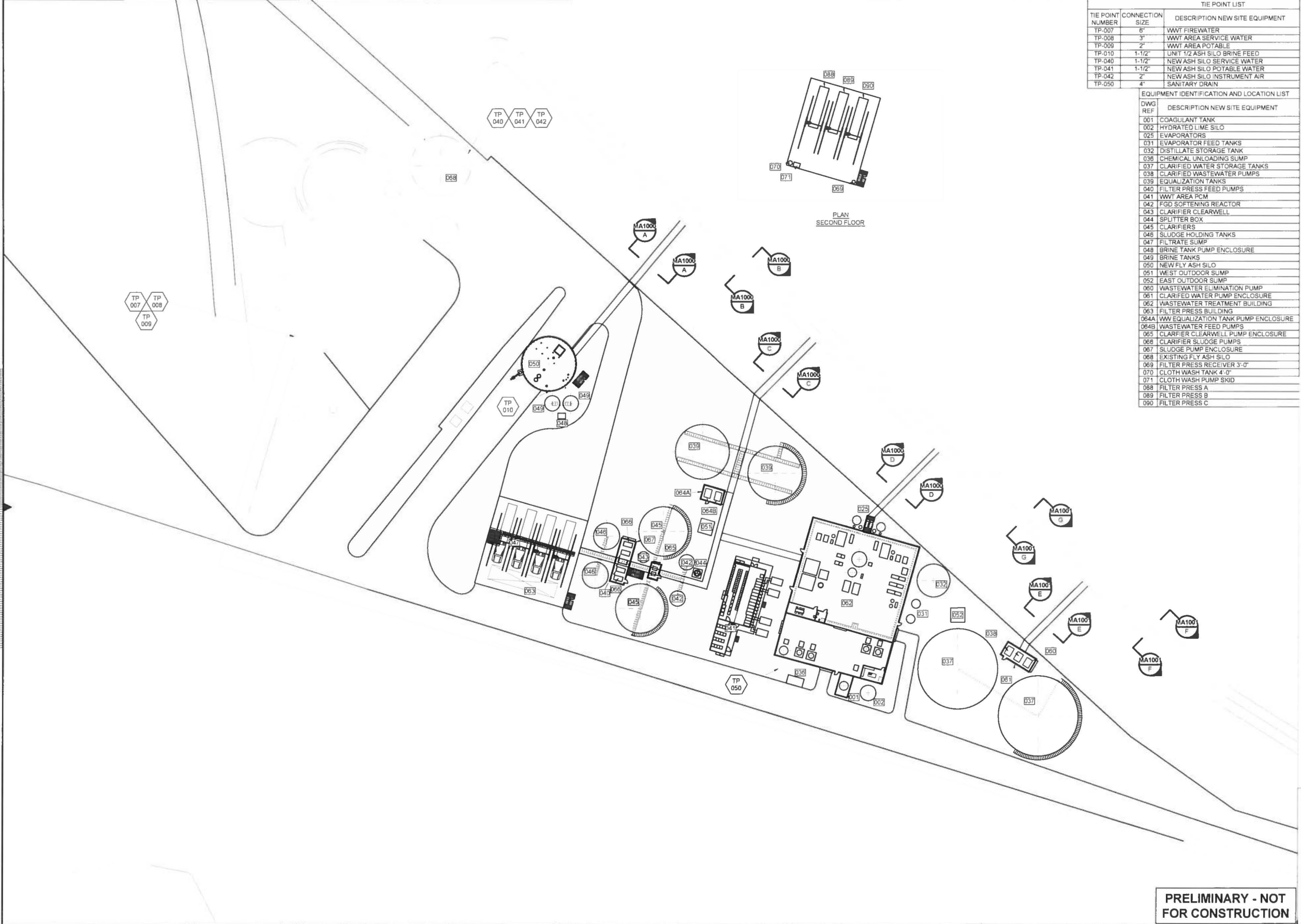
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EKPC SPURLOCK STATION
CCR & ELG COMPLIANCE PROJECT
KEYPLAN

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drawing: _____ rev: _____
KEYPLAN - C
sheet 1 of 1 sheets
file: 89810GA1000-T.dwg

TIE POINT LIST		
TIE POINT NUMBER	CONNECTION SIZE	DESCRIPTION NEW SITE EQUIPMENT
TP-007	6"	WWT FIREWATER
TP-008	3"	WWT AREA SERVICE WATER
TP-009	2"	WWT AREA POTABLE
TP-010	1-1/2"	UNIT 1/2 ASH SILO BRINE FEED
TP-040	1-1/2"	NEW ASH SILO SERVICE WATER
TP-041	1-1/2"	NEW ASH SILO POTABLE WATER
TP-042	2"	NEW ASH SILO INSTRUMENT AIR
TP-050	4"	SANITARY DRAIN

EQUIPMENT IDENTIFICATION AND LOCATION LIST	
DWG REF	DESCRIPTION NEW SITE EQUIPMENT
001	COAGULANT TANK
002	HYDRATED LIME SILO
025	EVAPORATORS
031	EVAPORATOR FEED TANKS
032	DISTILLATE STORAGE TANK
036	CHEMICAL UNLOADING SUMP
037	CLARIFIED WATER STORAGE TANKS
038	CLARIFIED WASTEWATER PUMPS
039	EQUALIZATION TANKS
040	FILTER PRESS FEED PUMPS
041	WWT AREA PCM
042	FGD SOFTENING REACTOR
043	CLARIFIER CLEARWELL
044	SPLITTER BOX
045	CLARIFIERS
046	SLUDGE HOLDING TANKS
047	FILTRATE SUMP
048	BRINE TANK PUMP ENCLOSURE
049	BRINE TANKS
050	NEW FLY ASH SILO
051	WEST OUTDOOR SUMP
052	EAST OUTDOOR SUMP
060	WASTEWATER ELIMINATION PUMP
061	CLARIFIED WATER PUMP ENCLOSURE
062	WASTEWATER TREATMENT BUILDING
063	FILTER PRESS BUILDING
064A	WW EQUALIZATION TANK PUMP ENCLOSURE
064B	WASTEWATER FEED PUMPS
065	CLARIFIER CLEARWELL PUMP ENCLOSURE
066	CLARIFIER SLUDGE PUMPS
067	SLUDGE PUMP ENCLOSURE
068	EXISTING FLY ASH SILO
069	FILTER PRESS RECEIVER 3'-0"
070	CLOTH WASH TANK 4'-0"
071	CLOTH WASH PUMP SKID
088	FILTER PRESS A
089	FILTER PRESS B
090	FILTER PRESS C



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EAST KENTUCKY POWER COOPERATIVE
SPURLOCK STATION
MASON COUNTY, KENTUCKY

BURNS & MCDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 43

designed: T. ROBERTSON
detailed: S. CHURCHILL

NORTH

0 15' 30' 45'

SCALE IN FEET

EKPC SPURLOCK STATION
CCR & ELO COMPLIANCE PROJECT
GENERAL ARRANGEMENT

project: 89810 contract: _____

drawing: GA1001 rev: C

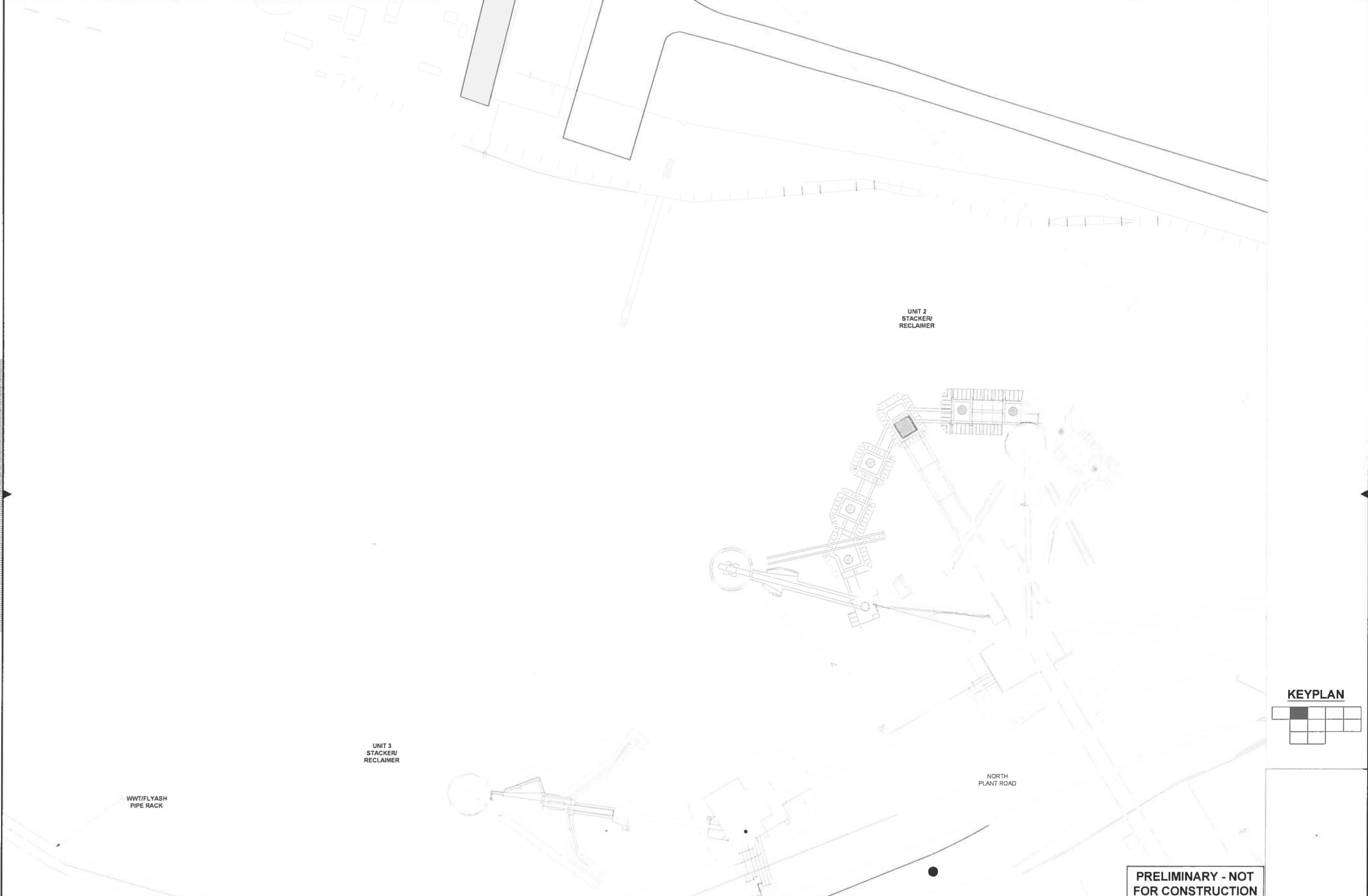
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Scale for Horizontal
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 Scale for Vertical
 Feet
 BURNS & MCDONNELL ENGINEERING COMPANY, INC.



PRELIMINARY - NOT FOR CONSTRUCTION

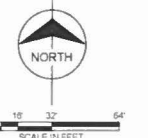
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EAST KENTUCKY POWER COOPERATIVE
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 MASON COUNTY, KENTUCKY

BURNS & MCDONNELL
 9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-9400
 FIRM LICENSE NO. 43

designed: T. ROBERTSON
 detailed: S. CHURCHILL



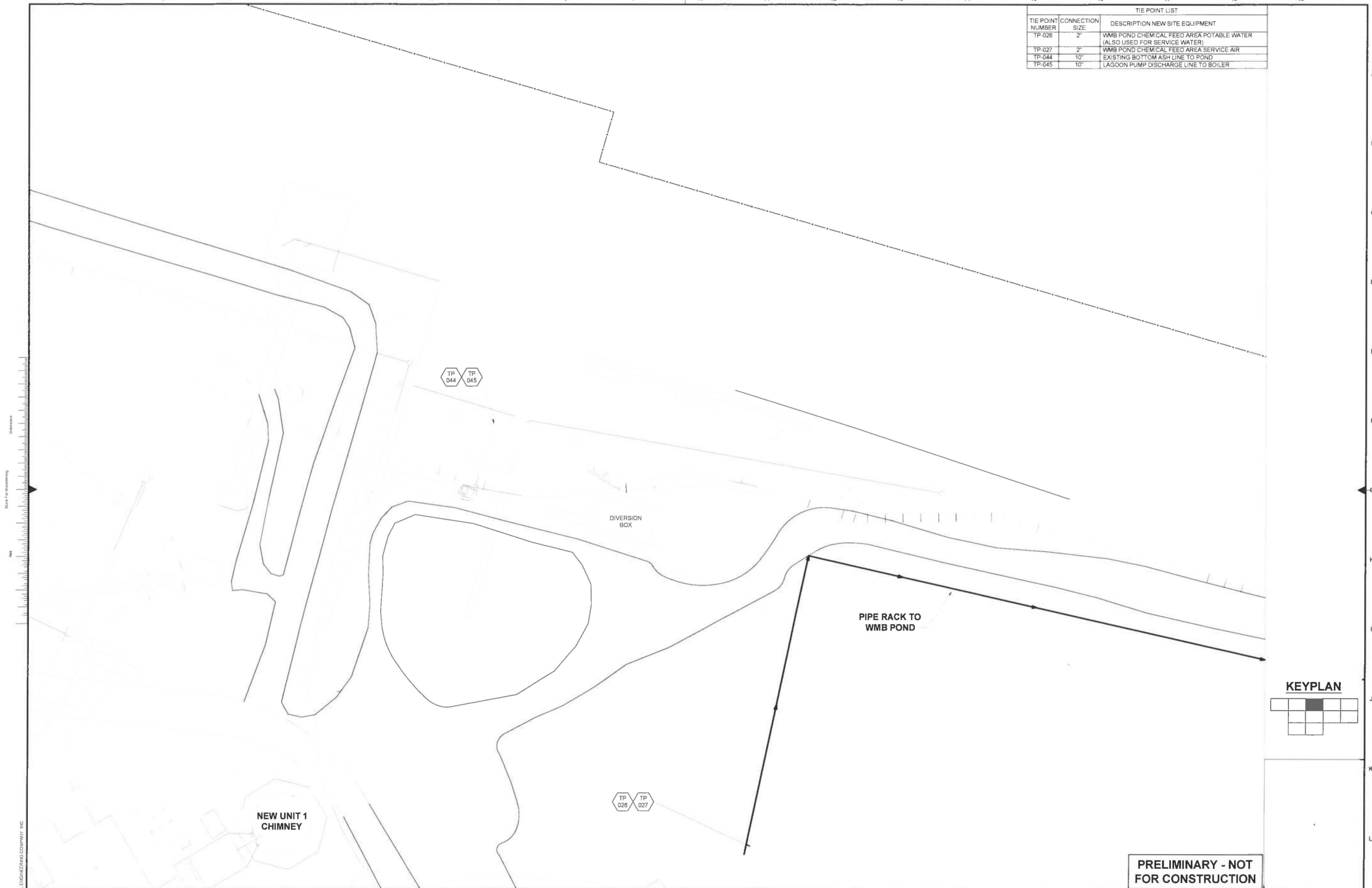
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EKPC SPURLOCK STATION
 CCR & ELG COMPLIANCE PROJECT
 GENERAL ARRANGEMENT

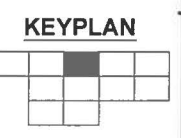
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TIE POINT LIST		
TIE POINT NUMBER	CONNECTION SIZE	DESCRIPTION NEW SITE EQUIPMENT
TP-026	2"	WMB POND CHEMICAL FEED AREA POTABLE WATER (ALSO USED FOR SERVICE WATER)
TP-027	2"	WMB POND CHEMICAL FEED AREA SERVICE AIR
TP-044	10"	EXISTING BOTTOM ASH LINE TO POND
TP-045	10"	LAGOON PUMP DISCHARGE LINE TO BOILER



Scale for Accounting
1/8" = 1'-0"



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NORTH

EKPC SPURLOCK STATION
CCR & ELG COMPLIANCE PROJECT
GENERAL ARRANGEMENT

project: 89810 contract: _____
drawing: **GA1003 - C** rev: _____
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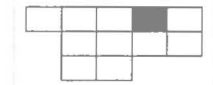
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PIPE RACK TO
WMB POND

KEYPLAN



PRELIMINARY - NOT
FOR CONSTRUCTION

BURNS & MEDONNELL ENGINEERING COMPANY, INC.

no	date	by	ckd	description	no	date	by	ckd	description
C	03/30/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
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A	11/22/16	PTB	KLK	ISSUED FOR OWNER REVIEW					

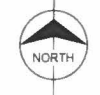


**EAST KENTUCKY
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SPURLOCK STATION
MASON COUNTY, KENTUCKY



**BURNS
MEDONNELL**
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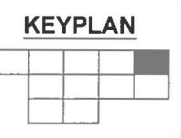
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EKPC SPURLOCK STATION
CCR & ELG COMPLIANCE PROJECT
GENERAL ARRANGEMENT

project: 89810 contract: _____
drawing: GA1004 - C rev: _____
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PRELIMINARY - NOT FOR CONSTRUCTION

BURNS & MCDONNELL ENGINEERING COMPANY, INC.

no	date	by	ckd	description	no	date	by	ckd	description
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MASON COUNTY, KENTUCKY

BURNS & MCDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 43

designed: T. ROBERTSON detailed: S. CHURCHILL



NORTH

EKPC SPURLOCK STATION
CCR & ELO COMPLIANCE PROJECT
GENERAL ARRANGEMENT

project: 89810 contract: _____
drawing: _____ rev: _____

GA1005 - C

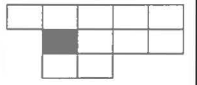
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TIE POINT LIST		
TIE POINT NUMBER	CONNECTION SIZE	DESCRIPTION NEW SITE EQUIPMENT
TP-002	3"	UNIT 2 FGD PURGE TANK
TP-004	1"	UNIT 2 WW FORWARDING PUMP FLUSH WATER
TP-006	1"	UNIT 2 WW FORWARDING PUMP INSTRUMENT AIR
TP-011	2"	UNIT 2 FGD AUXILIARY SERVICE WATER
TP-015	2"	UNIT 3/4 ASH SILO 1 MIX WATER
TP-016	2"	UNIT 3/4 ASH SILO 2 MIX WATER
TP-017	2"	UNIT 3 NID WASTEWATER FEED
TP-019	1/2"	ASH SILO 1 INSTRUMENT AIR
TP-020	1/2"	ASH SILO 2 INSTRUMENT AIR

EQUIPMENT IDENTIFICATION AND LOCATION LIST	
REF	DESCRIPTION NEW SITE EQUIPMENT
072	EXISTING UNIT 2 PURGE TANK
073	UNIT 3/4 ASH SILO 1 WASTEWATER TANK
074	UNIT 3/4 ASH SILO 1 WASTEWATER PUMP SKID
075	UNIT 3/4 ASH SILO 2 WASTEWATER TANK
076	UNIT 3/4 ASH SILO 2 WASTEWATER PUMP SKID
077	UNIT 3 NID WASTEWATER TANK
078	UNIT 3 NID WASTEWATER PUMP SKID
079	UNIT 4 NID WASTEWATER TANK
080	UNIT 4 NID WASTEWATER PUMP SKID

KEYPLAN



PRELIMINARY - NOT FOR CONSTRUCTION

no	date	by	ckd	description
C	03/30/17	PTB	RTR	ISSUED FOR OWNER REVIEW
B	01/31/17	PTB	RTR	ISSUED FOR OWNER REVIEW
A	11/22/16	PTB	KLK	ISSUED FOR OWNER REVIEW

EAST KENTUCKY POWER COOPERATIVE
SPURLUCK STATION
MASON COUNTY, KENTUCKY

BURNS & MCDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 43

designed: T. ROBERTSON
detailed: S. CHURCHILL

NORTH
SCALE IN FEET

EKPC SPURLUCK STATION
CCR & ELG COMPLIANCE PROJECT
GENERAL ARRANGEMENT

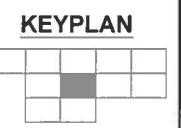
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SCALE FOR RECORDING

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TIE POINT LIST		
TIE POINT NUMBER	CONNECTION SIZE	DESCRIPTION NEW SITE EQUIPMENT
TP-001	3"	UNIT 1 FGD PURGE TANK
TP-003	1"	UNIT 1 WW FORWARDING PUMP FLUSH WATER
TP-005	1"	UNIT 1 WW FORWARDING PUMP INSTRUMENT AIR
TP-011	2"	UNIT 2 FGD AUXILIARY SERVICE WATER
TP-012	2"	UNIT 1 FGD AUXILIARY SERVICE WATER
TP-028	N/A	UNIT 1 BOTTOM ASH HOPPER
TP-029	N/A	UNIT 2 BOTTOM ASH HOPPER
TP-030	2"	BOTTOM ASH INSTRUMENT AIR
TP-031	2"	BOTTOM ASH SILO INSTRUMENT AIR
TP-032	2"	BOTTOM ASH SILO SERVICE WATER
TP-033	1-1/2"	BOTTOM ASH SILO/FLY ASH TRANSFER POTABLE WATER
TP-034	6"	UNIT 1 PYRITES SLUICE
TP-035	6"	UNIT 2 PYRITES SLUICE
TP-036	8"	UNIT 1 FLY ASH TIE-IN LOOP 1
TP-037	8"	UNIT 1 FLY ASH TIE-IN LOOP 2
TP-038	8"	UNIT 2 FLY ASH TIE-IN LOOP 1
TP-039	8"	UNIT 2 FLY ASH TIE-IN LOOP 2
TP-043	8"	WWT DISTILLATE EFFLUENT DISCHARGE TIE-IN TO EXISTING LINE

EQUIPMENT IDENTIFICATION AND LOCATION LIST	
DWG REF	DESCRIPTION NEW SITE EQUIPMENT
080	UNIT 1 PURGE TANK
081	FLY ASH TRANSFER PCM
082	FLY ASH TRANSFER BUILDING
083	DEWATERING BIN
084	BOTTOM ASH SILO
085	SETTLING BIN
086	ECONOMIZER HEAD TANK
087	BOTTOM ASH EXHAUSTER ENCLOSURE



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MASON COUNTY, KENTUCKY

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9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 43

designed: T. ROBERTSON
detailed: S. CHURCHILL

NORTH
SCALE IN FEET
0 16 32 64

EKPC SPURLOCK STATION
CCR & ELG COMPLIANCE PROJECT
GENERAL ARRANGEMENT

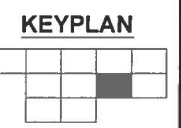
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EQUIPMENT IDENTIFICATION AND LOCATION LIST	
DWG REF	DESCRIPTION NEW SITE EQUIPMENT
057	WMB POND CHEMICAL FEED AREA SUMP
058	WMB POND HYDRATED LIME SLURRY TANK
059	WMB POND HYDRATED LIME SILO
060	WMB POND REACTION TANK



1/8" = 1' (Scale for Manufacturing)
 1/4" = 1' (Scale for Plotting)
 1/2" = 1' (Scale for Construction)



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A	11/22/16	PTB	KLK	ISSUED FOR OWNER REVIEW

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 9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-3400
 FIRM LICENSE NO. 43

designed: T. ROBERTSON
 detailed: S. CHURCHILL

NORTH

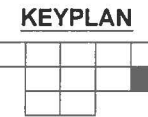
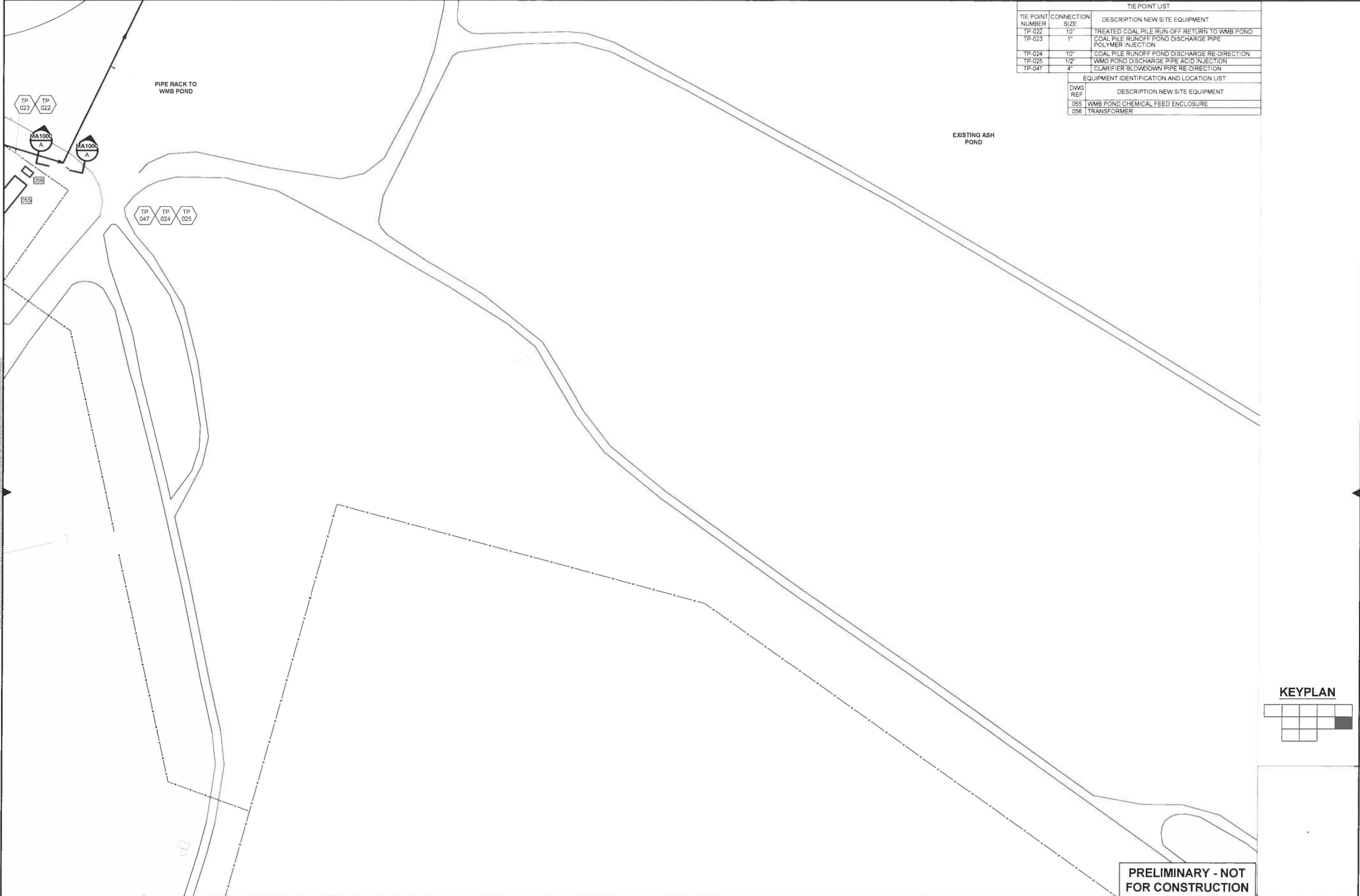
EKPC SPURLOCK STATION
 CCR & ELG COMPLIANCE PROJECT
 GENERAL ARRANGEMENT

project: 89810 contract:
 drawing: GA1008 - C rev:
 sheet 1 of 1 sheets
 file: 89810GA1000-T.dwg

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

TIE POINT LIST		
TIE POINT NUMBER	CONNECTION SIZE	DESCRIPTION NEW SITE EQUIPMENT
TP-022	10"	TREATED COAL PILE RUN-OFF RETURN TO WMB POND
TP-023	1"	COAL PILE RUNOFF POND DISCHARGE PIPE POLYMER INJECTION
TP-024	10"	COAL PILE RUNOFF POND DISCHARGE RE-DIRECTION
TP-025	1/2"	WMD POND DISCHARGE PIPE ACID INJECTION
TP-047	4"	CLARIFIER BLOWDOWN PIPE RE-DIRECTION

EQUIPMENT IDENTIFICATION AND LOCATION LIST	
DWG REF	DESCRIPTION NEW SITE EQUIPMENT
055	WMB POND CHEMICAL FEED ENCLOSURE
056	TRANSFORMER



PRELIMINARY - NOT FOR CONSTRUCTION

BURNS & MCDONNELL ENGINEERING COMPANY, INC.

no	date	by	ckd	description
C	03/20/17	PTB	RTR	ISSUED FOR OWNER REVIEW
B	01/31/17	PTB	RTR	ISSUED FOR OWNER REVIEW
A	11/22/16	PTB	KLK	ISSUED FOR OWNER REVIEW

EAST KENTUCKY POWER COOPERATIVE
 SPURLOCK STATION
 MASON COUNTY, KENTUCKY

BURNS & MCDONNELL
 9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-9400
 FIRM LICENSE NO. 43

designed: T. ROBERTSON
 detailed: S. CHURCHILL

NORTH

EKPC SPURLOCK STATION
 CCR & ELG COMPLIANCE PROJECT
 GENERAL ARRANGEMENT

project: 89810 contract: _____
 drawing: GA1009 rev: C
 sheet 1 of 1 sheets
 file: 89810GA1000-T.dwg

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

TIE POINT LIST		
TIE POINT NUMBER	CONNECTION SIZE	DESCRIPTION OF NEW SITE EQUIPMENT
TP-018	2"	UNIT 4 NID WASTEWATER FEED
TP-021	1"	UNIT 3 AND 4 NID INSTRUMENT AIR

EXISTING WAREHOUSE (TYP)

TRAINING BUILDING

KEYPLAN



PRELIMINARY - NOT FOR CONSTRUCTION


no	date	by	ckd	description
C	03/30/17	PTB	RTR	ISSUED FOR OWNER REVIEW
B	01/31/17	PTB	RTR	ISSUED FOR OWNER REVIEW
A	11/22/16	PTB	KLK	ISSUED FOR OWNER REVIEW



EAST KENTUCKY POWER COOPERATIVE
SPURLOCK STATION
MASON COUNTY, KENTUCKY

BURNS MEDONNELL
8400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 43

designed: T. ROBERTSON
detailed: S. CHURCHILL



NORTH

EKPC SPURLOCK STATION
CCR & ELG COMPLIANCE PROJECT
GENERAL ARRANGEMENT

Project: 89810 Contract: _____
Drawing: GA1010 Rev: C
Sheet 1 of 1 sheets
File: 89810GA1000-T.dwg

BURNS & MEDONNELL ENGINEERING COMPANY, INC.

EQUIPMENT IDENTIFICATION AND LOCATION LIST

DWG REF	DESCRIPTION NEW SITE EQUIPMENT
001	138 kV TO 13.8 kV TRANSFORMERS
002	138 kV BREAKERS
003	13.8 kV BREAKERS
004	EXISTING SWITCHYARD CONTROL BUILDING

TIE POINT LIST		
TIE POINT NUMBER	CONNECTION SIZE	DESCRIPTION NEW SITE EQUIPMENT
TP-051	138kV	SWITCHYARD ELECTRICAL TIE-IN



no	date	by	ckd	description
A	03/30/17	PTB	RTR	ISSUED FOR OWNER REVIEW

EAST KENTUCKY POWER COOPERATIVE
 SPURLUCK STATION
 MASON COUNTY, KENTUCKY

BURNS & McDONNELL
 9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-3400
 FIRM LICENSE NO. 43

designed: T. ROBERTSON
 detailed: S. CHURCHILL

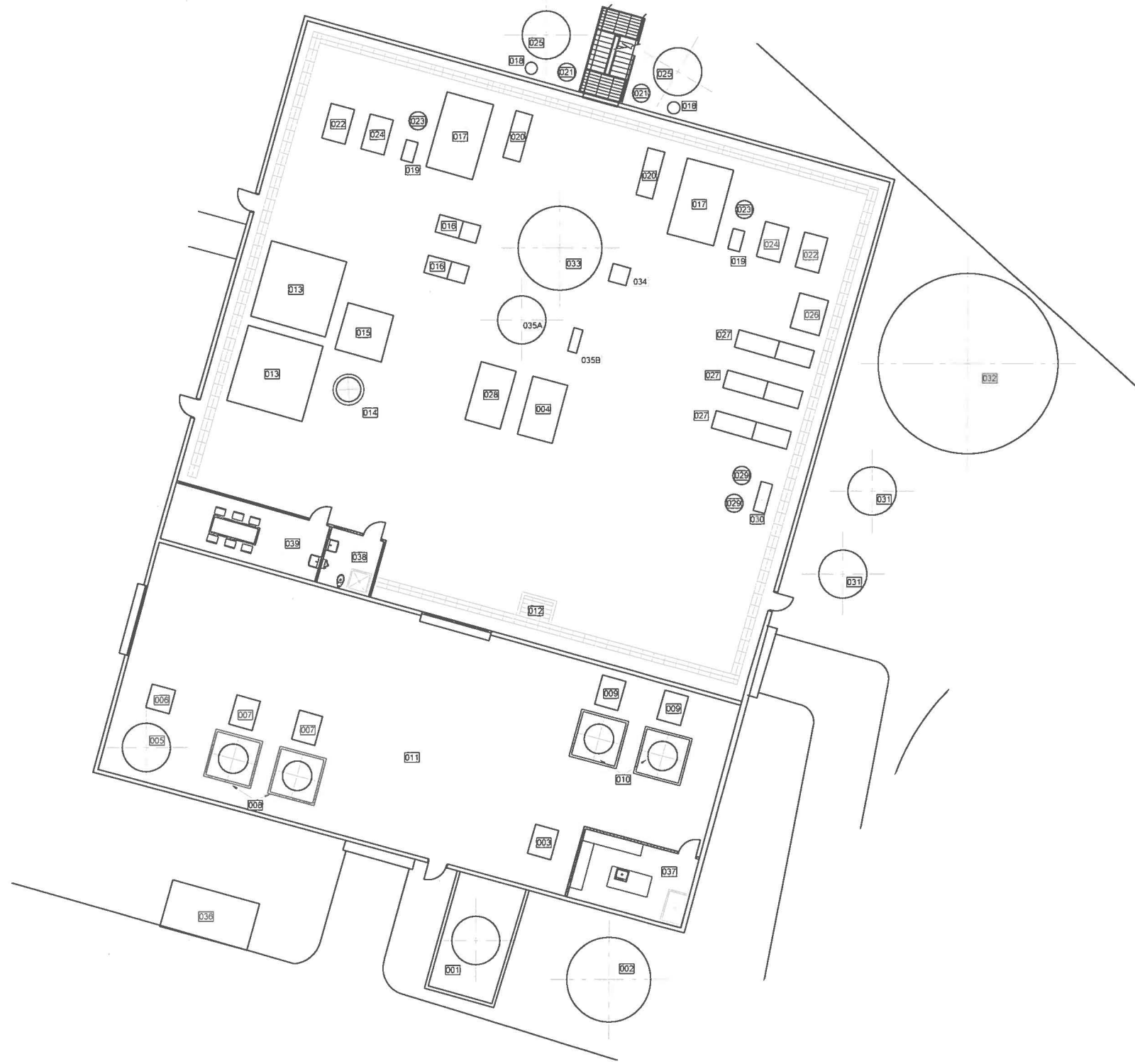
PRELIMINARY - NOT FOR CONSTRUCTION

NORTH

EKPC SPURLUCK STATION
 CCR & ELG COMPLIANCE PROJECT
 GENERAL ARRANGEMENT

project: 89810 contract: _____
 drawing: GA1011 rev: A
 sheet 1 of 1 sheets
 file 89810GA1000-T.dwg

DWG REF	DESCRIPTION NEW SITE EQUIPMENT
001	COAGULANT TANK
002	HYDRATED LIME SILO
003	COAGULANT CHEMICAL FEED PUMP SKID
004	CIP SKID TANK
005	POLYMER TOTE
006	POLYMER PUMP SKID
007	ANTI-FOAM CHEMICAL FEED PUMP SKID
008	ANTI-FOAM TOTES
009	SCALE INHIBITOR CHEMICAL FEED PUMP SKID
010	SCALE INHIBITOR TOTES
011	CHEMICAL FEED ROOM
012	WWT BUILDING SUMP
013	AIR COMPRESSORS
014	AIR RECEIVER
015	AIR DRYERS
016	BLOWDOWN HEAT EXCHANGERS
017	VAPOR COMPRESSORS
018	DEARATORS
019	LUBE OIL SKID
020	RECIRCULATION PUMP
021	DISTILLATE TANK
022	DISTILLATE PUMP SKID
023	HYDROCYCLONE
024	HYDROCYCLONE PUMP SKID
025	EVAPORATORS
026	DISTILLATE FORWARDING PUMP
027	EVAPORATOR FEED HEAT EXCHANGERS
028	AUXILIARY BOILER SKID
029	EVAPORATOR FEED FILTERS
030	EVAPORATOR FEED PUMP SKID
031	EVAPORATOR FEED TANKS
032	DISTILLATE STORAGE TANK
033	BLOWDOWN TANK
034	BLOWDOWN PUMP SKID
035A	SEED TANK
035B	SEED PUMP
036	CHEMICAL UNLOADING SUMP
037	LABORATORY
038	RESTROOM WITH SHOWER
039	BREAKROOM



PRELIMINARY - NOT FOR CONSTRUCTION

no	date	by	ckd	description
C	03/00/17	PTB	RTR	ISSUED FOR OWNER REVIEW
B	01/31/17	PTB	RTR	ISSUED FOR OWNER REVIEW
A	11/22/16	PTB	KLK	ISSUED FOR OWNER REVIEW

EAST KENTUCKY POWER COOPERATIVE
SPURLOCK STATION
MASON COUNTY, KENTUCKY

BURNS & MCDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 43

designed: T. ROBERTSON
detailed: S. CHURCHILL

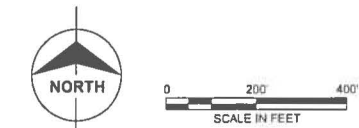
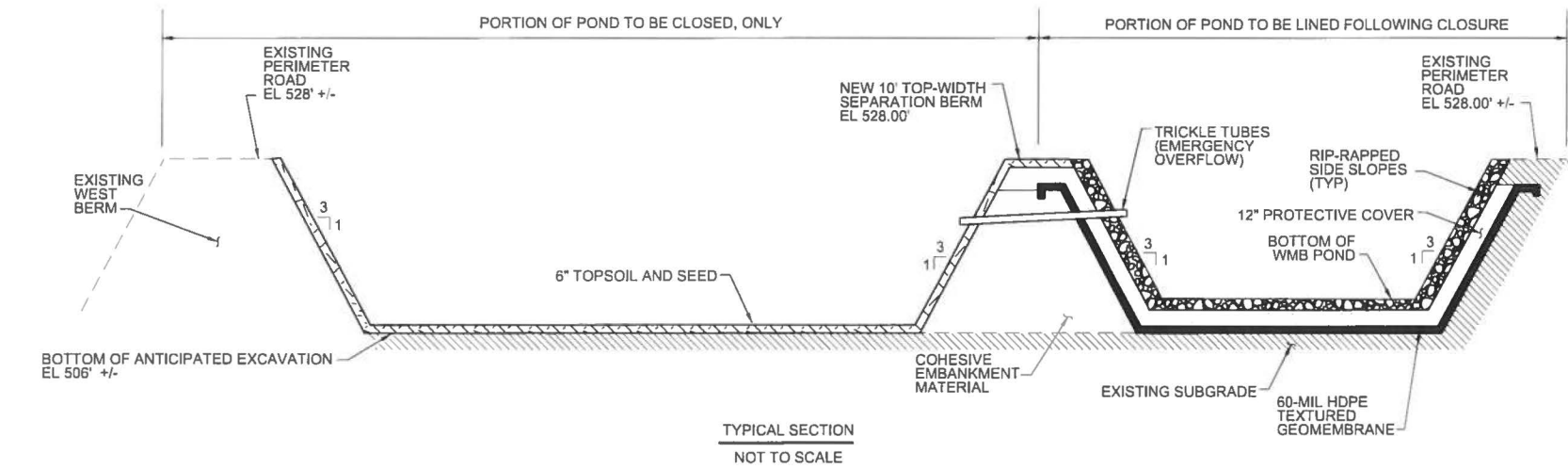
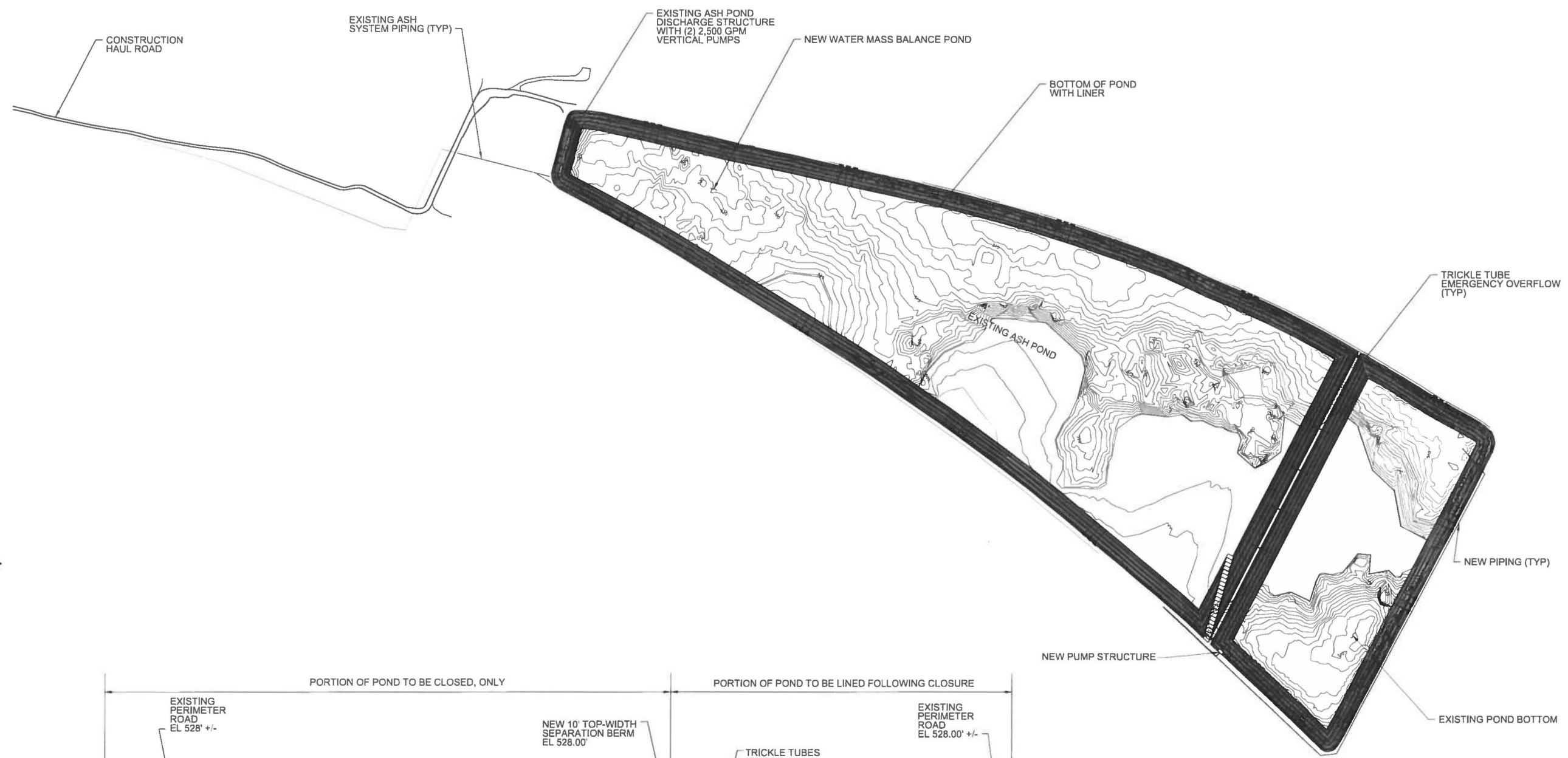
NORTH
SCALE IN FEET

EKPC SPURLOCK STATION
CCR & ELG COMPLIANCE PROJECT
WASTEWATER TREATMENT BUILDING

project: 89810 contract: _____
drawing: _____ rev: _____
WWT BUILDING - C
sheet 1 of 1 sheets
file: 89810GA1000-T.dwg

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

A
B
C
D
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J
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M



PRELIMINARY - NOT FOR CONSTRUCTION

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no.	date	by	ckd	description	no.	date	by	ckd	description
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A	3/15/2017	KEW		INITIAL ISSUE					

EAST KENTUCKY POWER COOPERATIVE
SPURLOCK STATION
MASON COUNTY, KENTUCKY

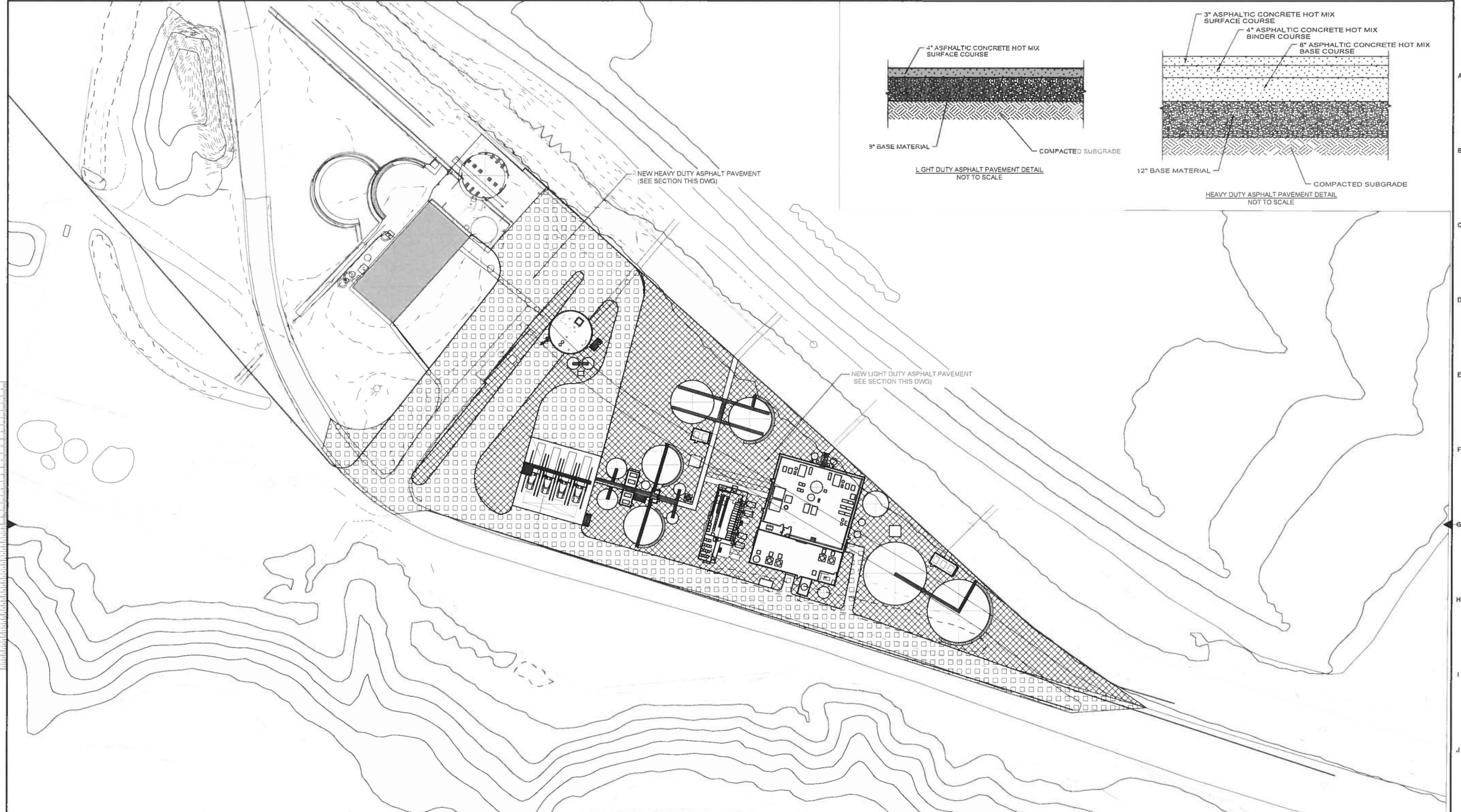
BURNS & MCDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 43

designed K. WYLAM detailed K. WYLAM

EKPc SPURLOCK STATION EXISTING ASH POND MODIFICATIONS 17 ACRE LINED POND IN EAST END	
project 89810	contract
drawing SA2004	rev. B
sheet of	sheet
file 89810SA2004.dgn	

3/30/2017

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NOTES
 1 ALL DISTURBED AREAS SHALL BE PAVED WITH LIGHT DUTY ASPHALT PAVEMENT PER DETAIL ON SKC001

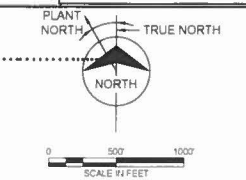
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B	01/31/17	NGL	KEW	ISSUED FOR OWNER REVIEW					
A	10/28/16	CLB	KEW	ISSUED FOR CCR / ELG PSR					

EAST KENTUCKY POWER COOPERATIVE
 SPURLOCK STATION
 MASON COUNTY, KENTUCKY

BURNS & MCDONNELL
 9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-9400
 FIRM LICENSE NO. 43

designed: K WYLAM
 detailed: C BARNES



EKPC SPURLOCK STATION
 CCR & ELG COMPLIANCE PROJECT
 CIVIL LAYOUT WWF AREA

project	contract
89810	
drawing	rev
SKC001	C
sheet 1 of 2	sheets
file 89810SKC001.dwg	

BURNS & MCDONNELL ENGINEERING COMPANY, INC.



- NOTES
- 1 ALL DISTURBED AREAS SHALL BE PAVED WITH LIGHT DUTY ASPHALT PAVEMENT PER DETAIL ON SKC001
 - 2 SEE DETAIL ON SKC001 FOR INFORMATION ON HEAVY DUTY ASPHALT PAVEMENT

PRELIMINARY - NOT FOR CONSTRUCTION

no	date	by	ckd	description	no	date	by	ckd	description
C	03/20/17	MCC	KW	ISSUED FOR OWNER REVIEW					
B	01/31/17	NGL	KW	ISSUED FOR OWNER REVIEW					
A	10/28/16	CLB	KW	ISSUED FOR CCR / ELG PSR					



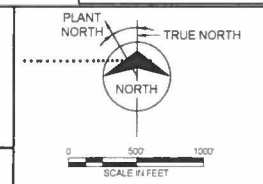
EAST KENTUCKY POWER COOPERATIVE
SPURLOCK STATION
MASON COUNTY, KENTUCKY



BURNS & MCDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 43

designed: K WYLAM
detailed: C BARNES

PLANT NORTH
TRUE NORTH



SCALE: 1" = 100'

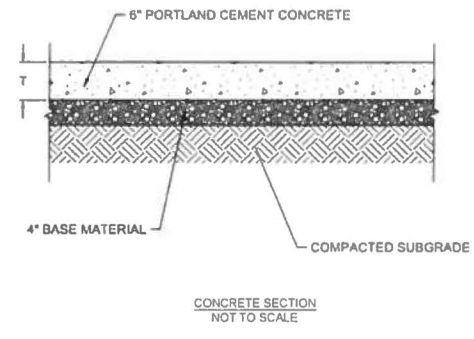
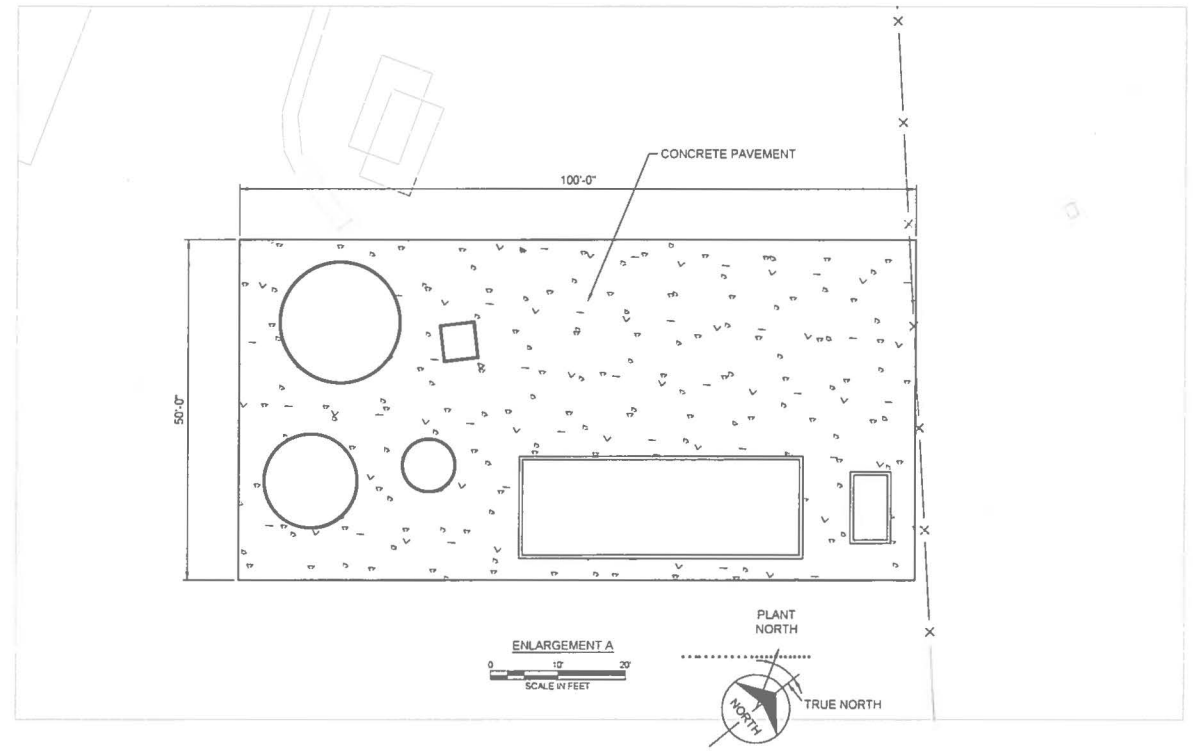
EKPC SPURLOCK STATION
CCR & ELG COMPLIANCE PROJECT
CIVIL LAYOUT BA/FA AREA

project: 89810 contract: _____
drawing: SKC002 - C rev: _____
sheet 2 of 2 sheets
file: 89810SKC002.dwg

BURNS & MCDONNELL ENGINEERING COMPANY, INC.



NOTE
 1 SEE DETAIL ON SKC001 FOR INFORMATION ON HEAVY DUTY ASPHALT PAVEMENT



PRELIMINARY - NOT FOR CONSTRUCTION

no	date	by	ckd	description	no	date	by	ckd	description
C	03/20/17	MCC	KEW	ISSUED FOR OWNER REVIEW					
B	01/31/17	NGL	KW	ISSUED FOR OWNER REVIEW					
A	10/28/16	CLB	KW	ISSUED FOR CCR / ELG PSR					

EAST KENTUCKY POWER COOPERATIVE
 SPURLOCK STATION
 MASON COUNTY, KENTUCKY

BURNS & McDONNELL
 9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-9400
 FIRM LICENSE NO. 43

designed: K WYLAM
 detailed: C BARNES

EKPC SPURLOCK STATION
 CCR & ELG COMPLIANCE PROJECT
 CIVIL LAYOUT WMB / CHEM FEED AREA

project: 89810 contract: _____
 drawing: SKC003 - C rev: _____
 sheet 1 of 1 sheets
 file 89810SKC003.dwg



PLANT NORTH
 NORTH TRUE NORTH

SCALE IN FEET
 0 300 600

PRELIMINARY - NOT FOR CONSTRUCTION

no	date	by	ckd	description	no	date	by	ckd	description
C	03/20/17	MCC	KEW	ISSUED FOR OWNER REVIEW					
B	01/31/17	NGL	KW	ISSUED FOR OWNER REVIEW					
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EAST KENTUCKY POWER COOPERATIVE
 SPURLOCK STATION
 MASON COUNTY, KENTUCKY

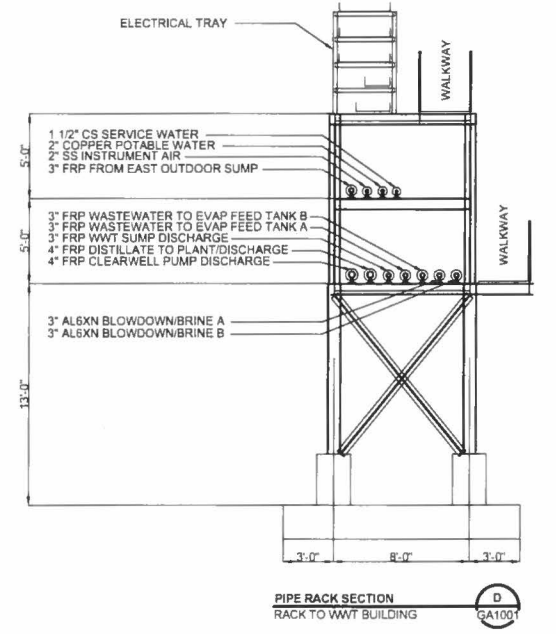
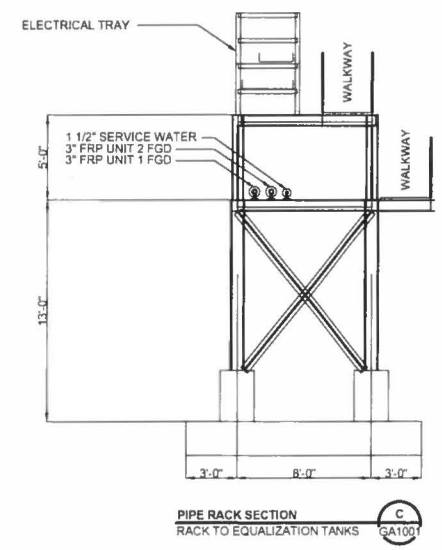
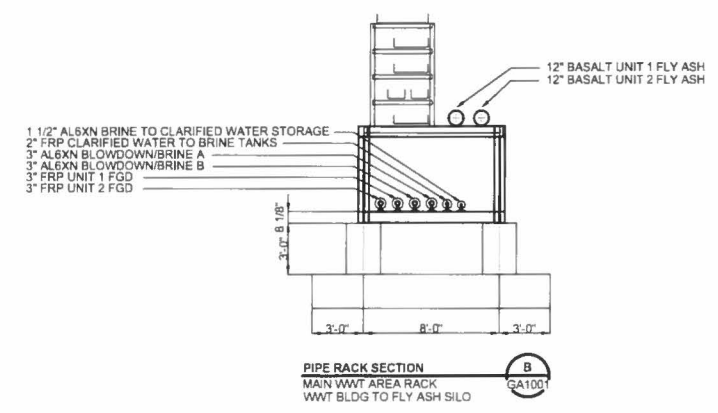
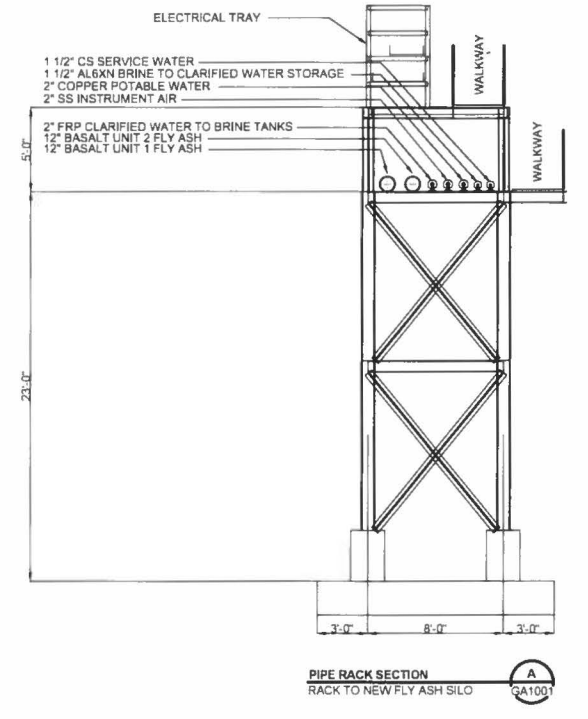
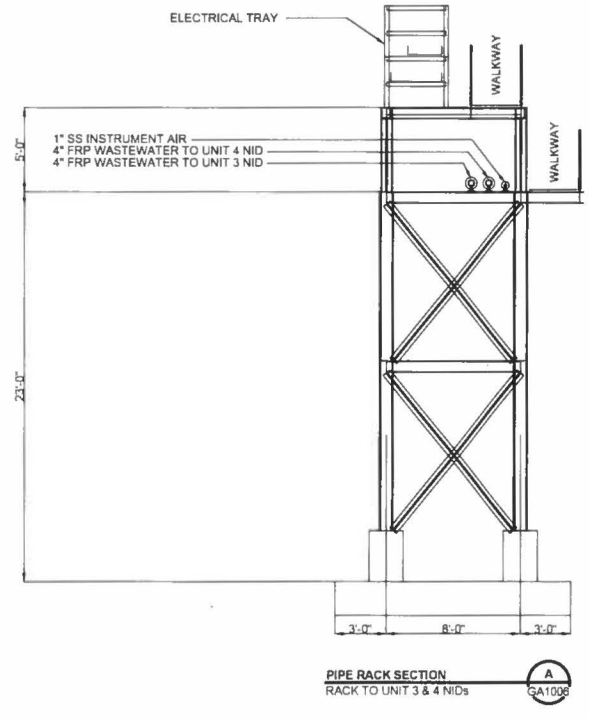
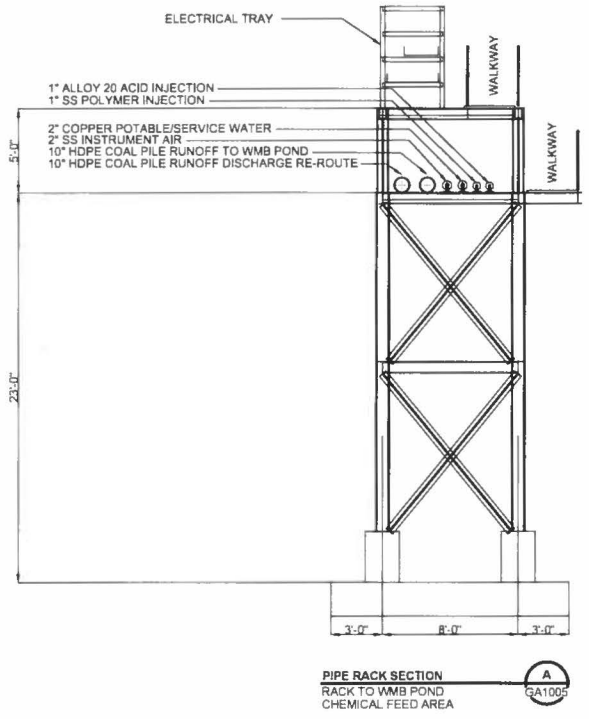
BURNS & McDONNELL
 9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-9400
 FIRM LICENSE NO. 43

designed: K WYLAM
 detailed: C BARNES

EKPC SPURLOCK STATION
 CCR & ELG COMPLIANCE PROJECT
 SITE PLAN

project	89810	contract	
drawing	SKC004		rev C
sheet	1	of	1
file	89810SKC004.dwg		

BURNS & McDONNELL ENGINEERING COMPANY, INC.



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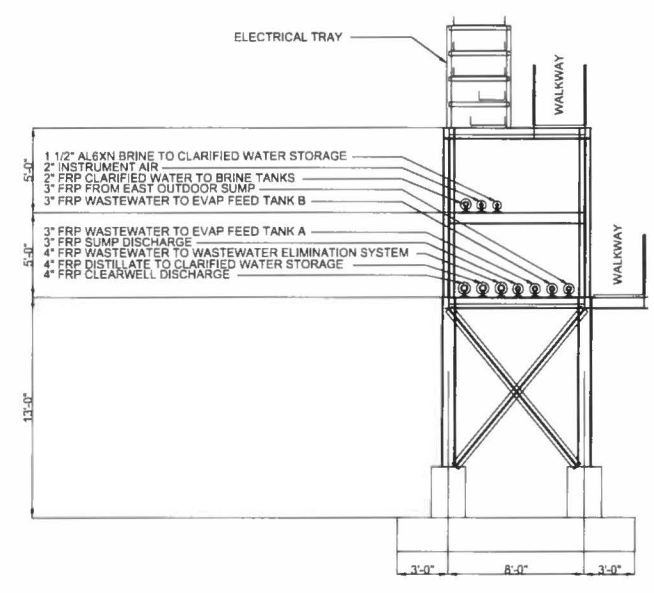
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A	11/04/16	PAS	PTB	ISSUED FOR OWNER REVIEW					



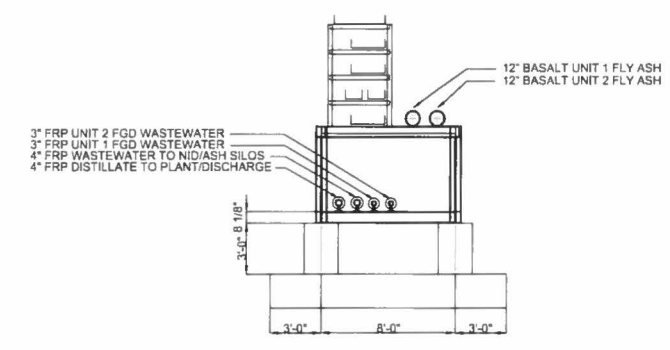
BURNS & MCDONNELL
 9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-9400
 FIRM LICENSE NO. 43

designed: P BRANDT
 detailed: P SOETAERT

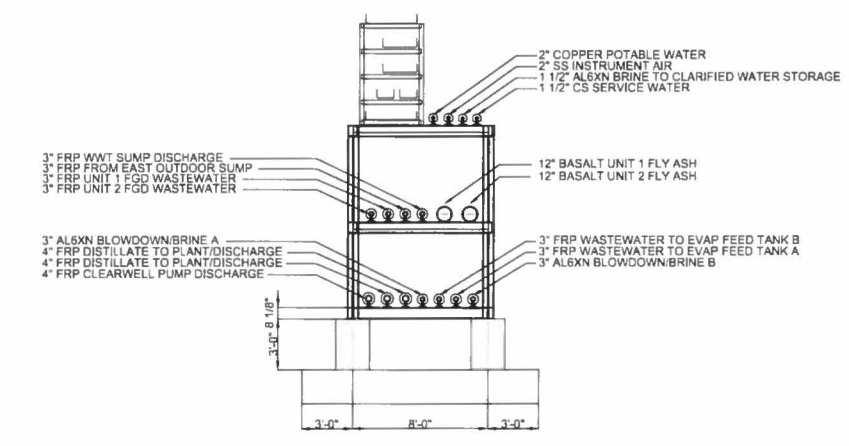
EKPC SPURLOCK STATION CCR & ELG COMPLIANCE PROJECT PIPE RACK ELEVATIONS	
project: 89810	contract:
drawing: MA1000	rev: B
sheet: 1	of 1 sheets
file: 89810MA1000.dwg	



PIPE RACK SECTION
RACK TO CLARIFIED WATER
STORAGE TANKS
E
GA1001




PIPE RACK SECTION
MAIN WWT AREA RACK
PLANT TO WWT BUILDING
F
GA1001




PIPE RACK SECTION
MAIN WWT AREA RACK
WWT BLDG TO CLARIFIED
WATER STORAGE TANKS
G
GA1001

**PRELIMINARY - NOT
FOR CONSTRUCTION**

no	date	by	ckd	description	no	date	by	ckd	description
B	01/31/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
A	11/04/16	PAS	PTB	ISSUED FOR OWNER REVIEW					



**EAST KENTUCKY
POWER COOPERATIVE**
SPURLOCK STATION
MASON COUNTY, KENTUCKY



**BURNS
& MCDONNELL**
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO 43

designed: P. BRANDT
detailed: P. SOETAERT

EKPC SPURLOCK STATION CLG & ELG COMPLIANCE PROJECT PIPE RACK ELEVATIONS	
project: 89810	contract:
drawing: MA1001	rev: B
sheet 1 of 1	sheets
file: 89810MA1001.dwg	

VALVE SYMBOLS

- GATE VALVE
- 3-WAY VALVE
- EXTENDED BODY GATE VALVE
- CONDUIT GATE VALVE
- BLANK GATE VALVE
- BUTTERFLY VALVE
- GLOBE VALVE
- 3-WAY GLOBE VALVE
- ANGLE GLOBE VALVE
- Y-GLOBE VALVE
- BALL VALVE
- 3-WAY BALL VALVE
- SLIDE VALVE
- 3-WAY SLIDE VALVE
- NEEDLE VALVE
- PLUG VALVE
- 3-WAY PLUG VALVE
- 4-WAY PLUG VALVE
- CHECK VALVE
- WAFER CHECK VALVE
- ANGLE CHECK VALVE
- STOP CHECK VALVE

VALVE SYMBOLS

- ANGLE STOP CHECK VALVE
- Y-STOP CHECK VALVE
- PINCH VALVE
- HOSE VALVE
- DIAPHRAGM VALVE
- DELUGE VALVE
- KNIFE GATE VALVE
- ANGLE BLOWDOWN VALVE
- Y-BLOWDOWN VALVE
- ANGLE HOSE VALVE
- FOOT VALVE
- ANGLE VALVE DESUPERHEATER COMBINATION

PRESSURE REGULATING SYMBOLS

- SELF CONTAINED BACK PRESSURE REGULATING VALVE
- SELF CONTAINED PRESSURE REGULATING VALVE
- BACK PRESSURE/PRESSURE CONTROL VALVE WITH REMOTE TAP

CONTROL & ACTUATED VALVE ACTUATOR SYMBOLS

- DIAPHRAGM
- CYLINDER
- HANDWHEEL ACCESSORY (MANUAL)
- ELECTRIC MOTOR
- SOLENOID
- POST INDICATOR

PIPING SYMBOLS

- INSULATING FLANGE
- CONCENTRIC REDUCER
- ECCENTRIC REDUCER
- PIPE CAP
- PIPE END
- CLEANOUT
- PLUG
- HOSE CONNECTION
- RESTRICTING ORIFICE (RO)
- MULTI-STAGE BREAKDOWN ORIFICE / DIFFUSER
- EXPANSION JOINT
- REMOVABLE SPOOL
- FLEXIBLE HOSE
- SINGLE BASKET STRAINER
- DUPLEX BASKET STRAINER
- "T" STRAINER
- "Y" STRAINER
- CONE STRAINER
- SUMP STRAINER
- SAMPLE CONNECTION
- STEAM TRAP
- INVERTED BUCKET TRAP
- DRIP PAN ELBOW

PIPING SYMBOLS

- SPRAY NOZZLE
- SWING ELBOW
- HUB DRAIN
- AUTOMATIC RECIRCULATION VALVE
- BACKFLOW PREVENTER VALVE
- PRESSURE SAFETY RELIEF VALVE
- VACUUM RELIEF VALVE
- EXCESS FLOW CHECK VALVE
- DESUPERHEATER
- SIGHT GLASS INDICATOR
- HINGED EXPANSION JOINT
- HOSE REEL
- HOSE RACK
- SPRAY/SPRINKLER
- FLAME ARRESTOR
- AIR COCK
- PRESSURE RELIEF RUPTURE DISK
- PRESSURE RELIEF VACUUM RUPTURE DISK
- FILTER
- INJECTION QUILL

PIPING SYMBOLS

- FIRE HYDRANT
- FIRE PUMP TEST HEAD
- SWIVEL JOINT
- MECHANICAL COUPLING
- PULSATION DAMPENERS
- VENT TO ATMOSPHERE
- VENT WITH SCREEN
- VENT SILENCER
- IN-LINE SILENCER
- EYE WASH
- SAFETY SHOWER WITH EYEWASH
- AUTOMATIC DRAIN VALVE
- AUTOMATIC AIR VENT
- PRESSURE AND VACUUM RELIEF VALVE
- WALL PENETRATION

PIPELINE PROPERTY BREAKS

- PIPE LINE IDENTIFICATION BREAK* (EXCEPT INSULATION PURPOSE)
- DIAMETER BREAK
- MAX DESIGN PRESSURE/TEMPERATURE BREAK
- SLOPE BREAK
- CONSTRUCTION STATUS BREAK (NEW/EXISTING)
- ALTERNATE DESIGN PRESS/TEMP BREAK
- SUPPLY RESPONSIBILITY BREAK
- CONSTRUCTION RESP. BREAK
- PIPE SPECIFICATION BREAK
- INSULATION REQUIREMENTS BREAK

* THE FOLLOWING PROPERTIES ARE INCLUDED IN THE PIPE LINE IDENTIFICATION BREAK UNIT NUMBER, SYSTEM IDENTIFIER, PIPE LINE SEQ. NO., PIPE SIZE, PIPE SPECIFICATION

PIPING SYMBOLS

- NEW PRIMARY PIPING
- EXISTING/VENDOR PRIMARY PIPING
- FUTURE PRIMARY PIPING
- PIPING WITH HEAT TRACE

PRELIMINARY - NOT FOR CONSTRUCTION

Scale For Microfilming
Millimeters
Inches

89810-BURNS & McDONNELL ENGINEERING COMPANY, INC.

no	date	by	ckd	description
B	01/31/17	PTB	RTR	ISSUED FOR OWNER REVIEW
A	11/22/16	PTB	KLK	ISSUED FOR OWNER REVIEW

BURNS & McDONNELL
 9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-9400
 FIRM LICENSE NO. 43

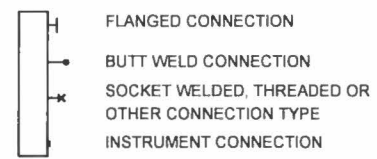
designed: P BRANDT
 detailed: S CHURCHILL

EAST KENTUCKY POWER COOPERATIVE
 MASON COUNTY, KENTUCKY

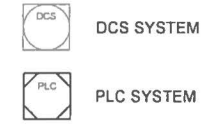
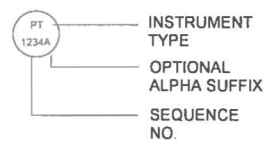
PIPING & INSTRUMENTATION DIAGRAM LEGEND

project	contract
89810	
drawing	rev.
AAA-01	B
sheet 1 of 1 sheets	
file 89810-AAA-01.DWG	

EQUIPMENT TO PIPING CONNECTORS

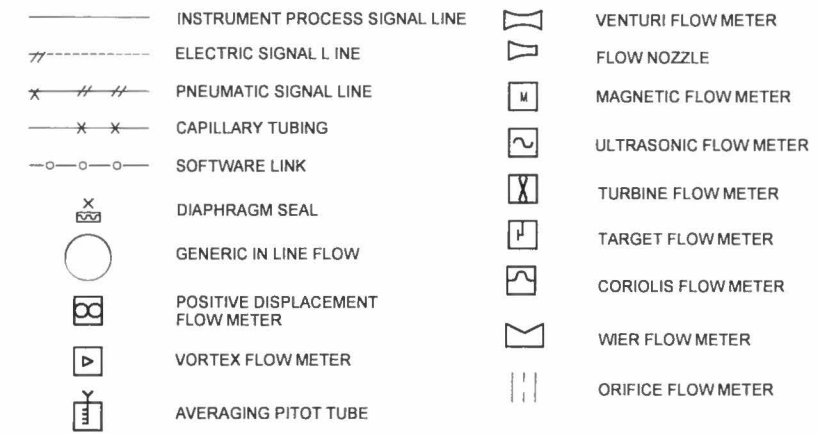


INSTRUMENT IDENTIFICATION
AS SHOWN ON P&ID

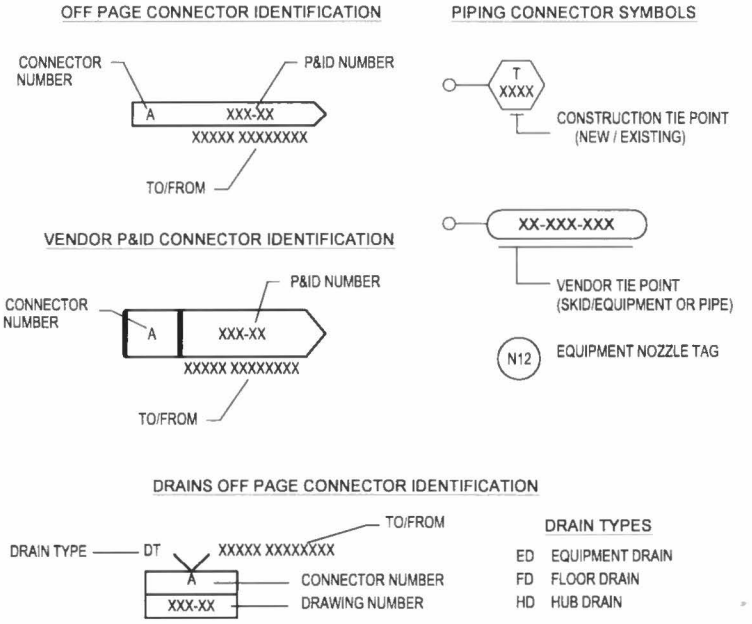


NOTE: UNIT NUMBER & SYSTEM CODE ARE THE SAME AS THE LINE NUMBER IN WHICH THEY OCCUR BUT ARE NOT SHOWN ON THE P&ID BUT IN THE INSTRUMENT LIST

INSTRUMENT SYMBOLS



CONNECTOR SYMBOLS



INSTRUMENT FUNCTION DESIGNATION

AE	ANALYSIS SENSING ELEMENT	PRV	PRESSURE OPERATED RELIEF VALVE / PRESSURE REDUCING VALVE
AI	ANALYSIS INDICATOR	PS	PRESSURE SWITCH
AIT	ANALYSIS INDICATING TRANSMITTER	PSH	PRESSURE SWITCH HIGH
AT	ANALYZER TRANSMITTER	PSHH	PRESSURE SWITCH HIGH HIGH
AV	ANALYZER CONTROL VALVE	PSL	PRESSURE SWITCH LOW
AY	ANALYZER TRANSDUCER	PSLL	PRESSURE SWITCH LOW LOW
CD	CONTROL DRIVE	PT	PRESSURE TRANSMITTER
DT	DENSITY TRANSMITTER	PV	PRESSURE CONTROL VALVE
FBV	FLOW BLOCK VALVE	PY	PRESSURE TRANSDUCER
FC	FLOW CONTROLLER	SRV	SAFETY OR RELIEF VALVE
FE	FLOW ELEMENT	ST	SPEED TRANSMITTER
FI	FLOW INDICATOR	SV	SOLENOID VALVE
FIT	FLOW INDICATING TRANSMITTER	SY	SPEED TRANSDUCER
FS	FLOW SWITCH	TBV	TEMPERATURE BLOCK VALVE
FSH	FLOW SWITCH HIGH	TC	TEMPERATURE CONTROLLER
FSL	FLOW SWITCH LOW	TE	TEMPERATURE ELEMENT
FT	FLOW TRANSMITTER	TI	TEMPERATURE INDICATOR
FQI	FLOW TOTALIZING INDICATOR	TIS	TEMPERATURE INDICATING SWITCH
FV	FLOW CONTROL VALVE	TIT	TEMPERATURE INDICATING TRANSMITTER
FY	FLOW TRANSDUCER	TPV	TRIP VALVE
LBV	LEVEL BLOCK VALVE	TS	TEMPERATURE SWITCH
LC	LEVEL CONTROLLER	TSH	TEMPERATURE SWITCH HIGH
LCS	LEVEL CONTROL STATION	TSHH	TEMPERATURE SWITCH HIGH HIGH
LE	LEVEL ELEMENT	TSL	TEMPERATURE SWITCH LOW
LG	LEVEL GLASS	TSLL	TEMPERATURE SWITCH LOW LOW
LI	LEVEL INDICATOR	TT	TEMPERATURE TRANSMITTER
LIT	LEVEL INDICATING TRANSMITTER	TV	TEMPERATURE CONTROL VALVE
LS	LEVEL SWITCH	TW	THERMOWELL
LSH	LEVEL SWITCH HIGH	TY	TEMPERATURE TRANSDUCER
LSHH	LEVEL SWITCH HIGH HIGH	VE	VIBRATION ELEMENT
LSL	LEVEL SWITCH LOW	VS	VIBRATION SWITCH
LSLL	LEVEL SWITCH LOW LOW	VT	VIBRATION TRANSMITTER
LSM	LEVEL SWITCH MEDIUM	ZI	POSITION INDICATOR
LT	LEVEL TRANSMITTER	ZIC	POSITION INTERMEDIATE OR CLOSED
LV	LEVEL CONTROL VALVE	ZIO	POSITION INTERMEDIATE OR OPENED
LY	LEVEL TRANSDUCER	ZIT	POSITION INDICATING TRANSMITTER
MOV	MOTOR OPERATED VALVE	ZS	POSITION SWITCH
PBV	PRESSURE BLOCK VALVE	ZSC	POSITION SWITCH CLOSED
PC	PRESSURE CONTROLLER	ZSH	POSITION SWITCH HIGH
PDI	PRESSURE DIFFERENTIAL INDICATOR	ZSL	POSITION SWITCH LOW
PDIS	PRESSURE DIFFERENTIAL INDICATING SWITCH	ZSO	POSITION SWITCH OPENED
PDS	PRESSURE DIFFERENTIAL SWITCH	ZST	POSITION SWITCH TRANSMITTER
PDT	PRESSURE DIFFERENTIAL TRANSMITTER	ZT	POSITION TRANSMITTER
PI	PRESSURE INDICATOR	ZY	POSITION TRANSDUCER
PIS	PRESSURE INDICATING SWITCH		
PIT	PRESSURE INDICATING TRANSMITTER		

PRELIMINARY - NOT FOR CONSTRUCTION

Scale For Microfilming
Millimeters
Inches

BURNS & MCDONNELL ENGINEERING COMPANY, INC.

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B	01/31/17	PTB	RTR	ISSUED FOR OWNER REVIEW
A	11/22/16	PTB	KLK	ISSUED FOR OWNER REVIEW

BURNS MCDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 43

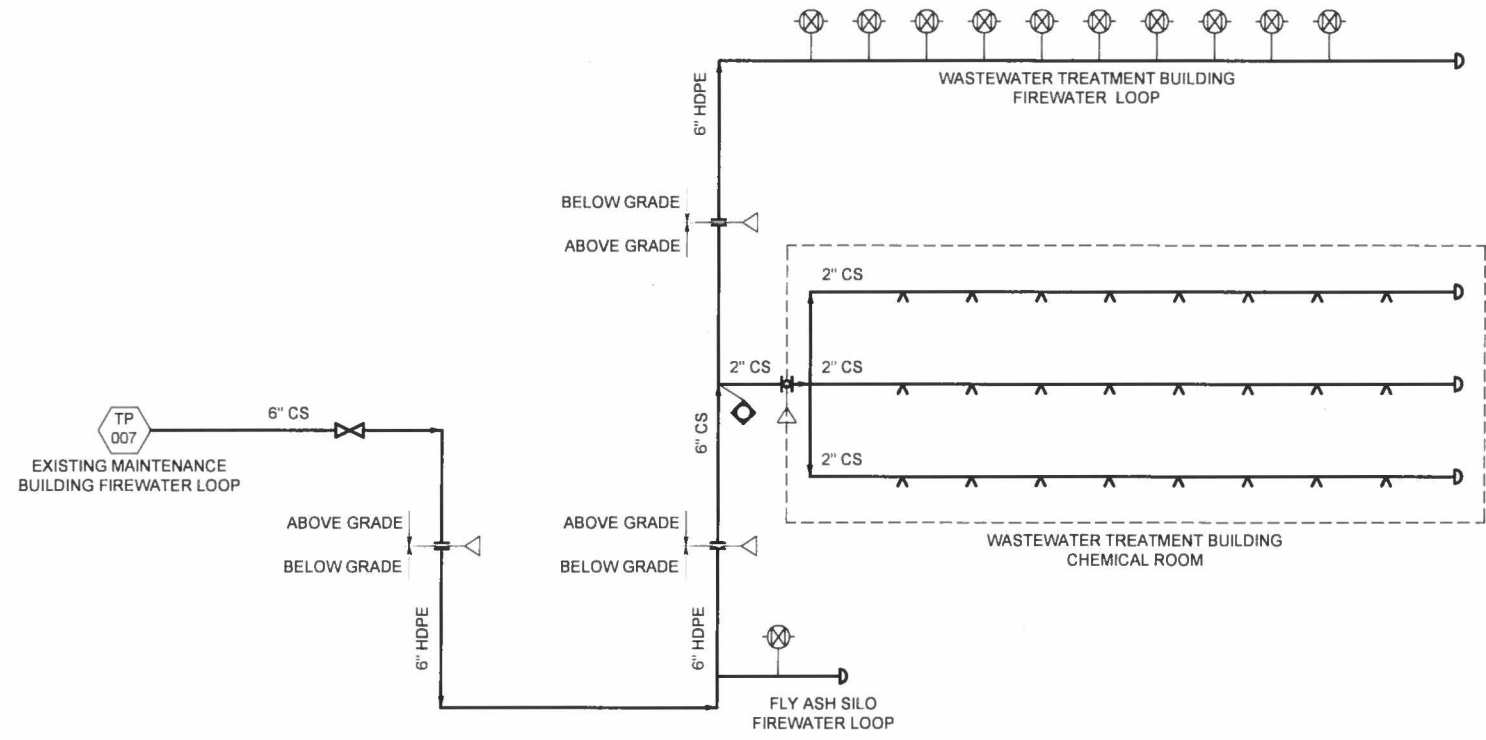
designed: P. BRANDT
detailed: S. CHURCHILL

EAST KENTUCKY POWER COOPERATIVE
MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM LEGEND

project	contract
89810	
drawing	rev
AAA-02	B
sheet 1 of 1 sheets	
file 89810-AAA-02.DWG	

Scale For Microfilming
Millimeters
Inches



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**BURNS
McDONNELL**

9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 43

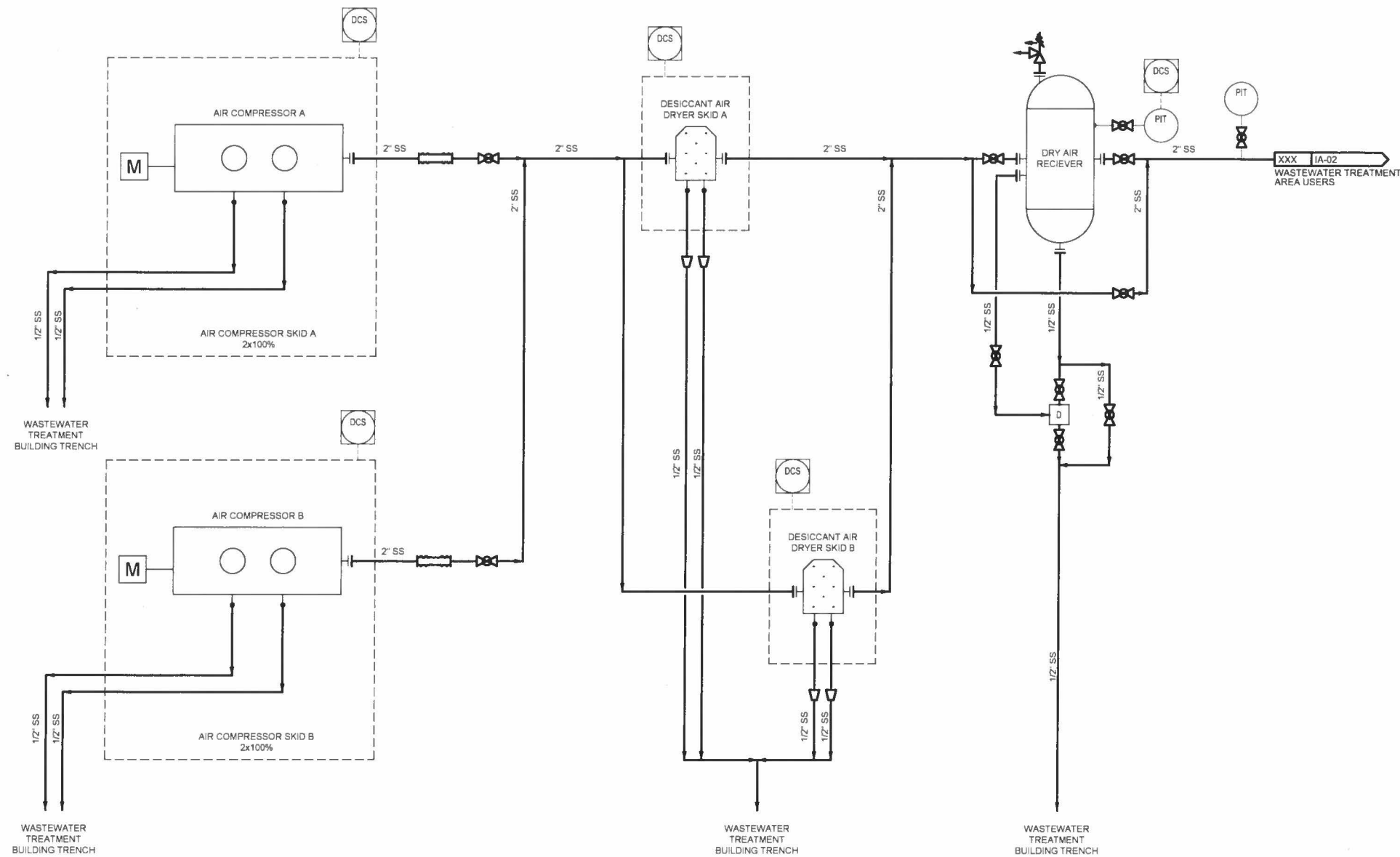
designed
P. BRANDT

detailed
K. MATTHEWS

EAST KENTUCKY
POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM FIREWATER FOR WASTEWATER TREATMENT AREA	
project 89810	contract
drawing FW-01	rev. B
sheet 1 of 1 sheets	file 89810-FW-01.DWG



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A	11/22/16	PTB	KLG	ISSUED FOR OWNER REVIEW					

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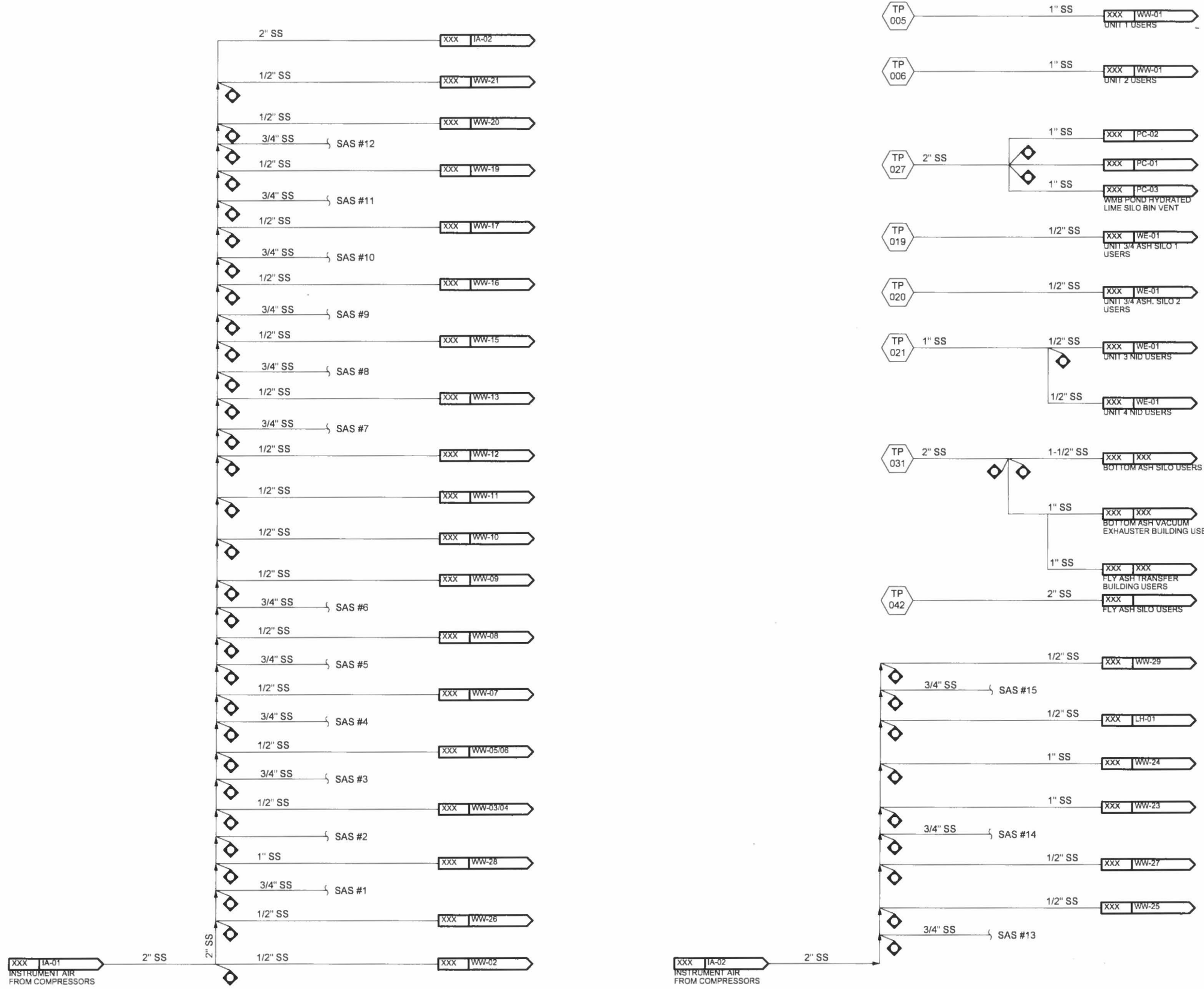
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 43

designed: P. BRANDT
detailed: K. MATTHEWS

EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM INSTRUMENT AIR DISTRIBUTION	
project 89810	contract
drawing IA-01	rev. C
sheet 1 of 1	sheets
file 89810-IA-01.DWG	



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no.	date	by	ckd	description	no.	date	by	ckd	description
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A	11/22/16	PTB	KLK	ISSUED FOR OWNER REVIEW					

BURNS MCDONNELL

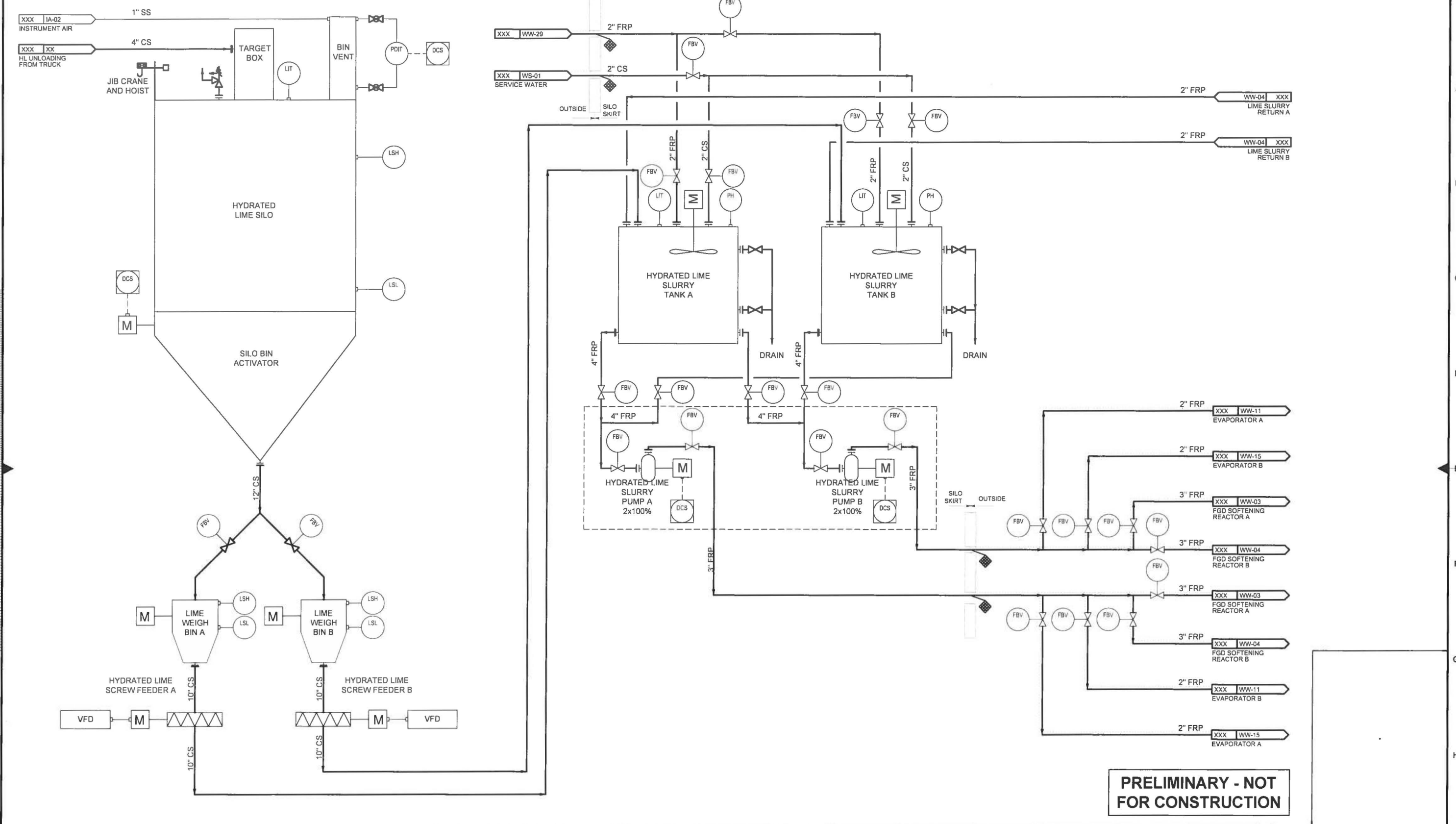
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 43

designed: P. BRANDT
detailed: K. MATTHEWS

EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM INSTRUMENT AIR DISTRIBUTION	
project 89810	contract
drawing IA-02	rev B
sheet 1 of 1	sheets
file 89810-IA-02.DWG	



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B	01/31/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
A	11/22/16	PTB	KLK	ISSUED FOR OWNER REVIEW					

BURNS & MCDONNELL

9400 WARD PARKWAY
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FIRM LICENSE NO. 43

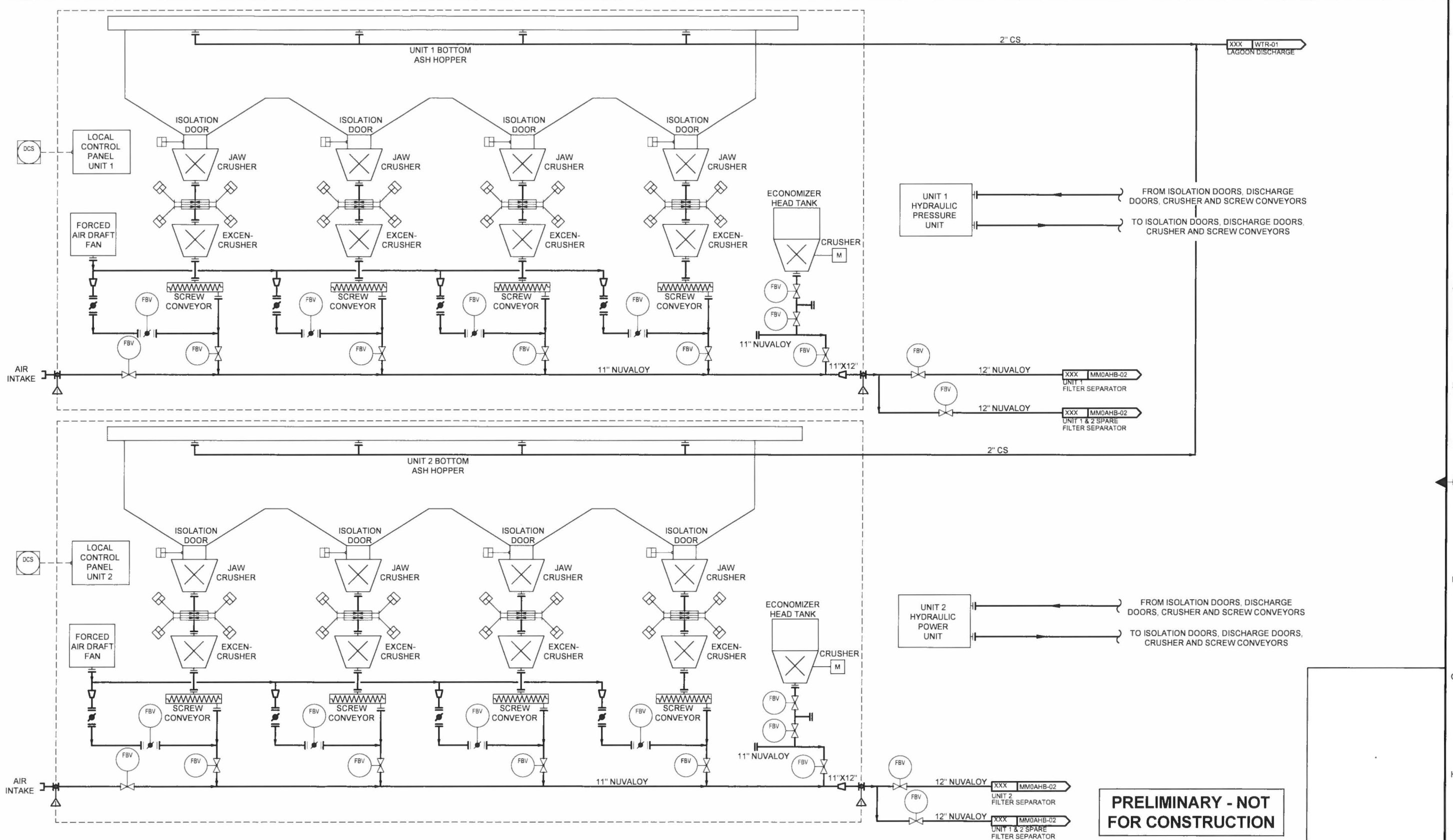
designed: P BRANDT
detailed: T EARLEY

EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM
HYDRATED LIME SYSTEM

project	contract
89810	
drawing	rev.
LH-01	C
sheet 1 of 1	sheets
file 89810-LH-01.DWG	



PRELIMINARY - NOT FOR CONSTRUCTION

Burns & McDonnell Engineering Company, Inc.

no.	date	by	ckd	description	no.	date	by	ckd	description
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B	01/31/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
A	11/22/16	PTB	KLK	ISSUED FOR OWNER REVIEW					

BURNS & McDONNELL

9400 WARD PARKWAY
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FIRM LICENSE NO. 43

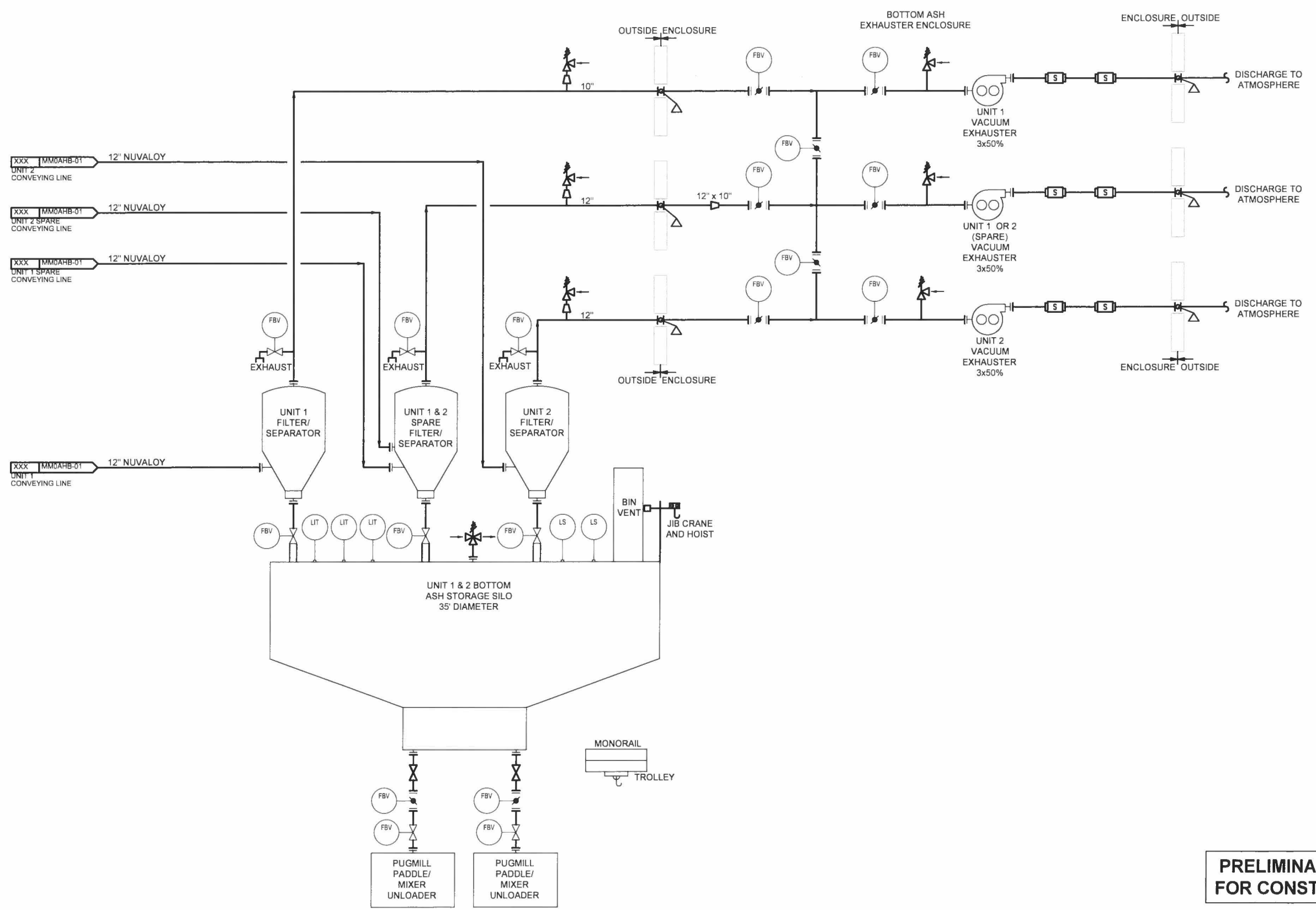
designed: T. ROBERTSON
detailed: S. CHURCHILL

EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM UNIT 1 & 2 DRY BOTTOM ASH PNEUMATIC ASH SYSTEM	
project 89810	contract
drawing MM0AHB-01-	rev C
sheet 1 of 1	sheets
file 89810MM0AHB-01.dwg	

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PRELIMINARY - NOT FOR CONSTRUCTION

BURNS & McDONNELL ENGINEERING COMPANY, INC.

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BURNS & McDONNELL

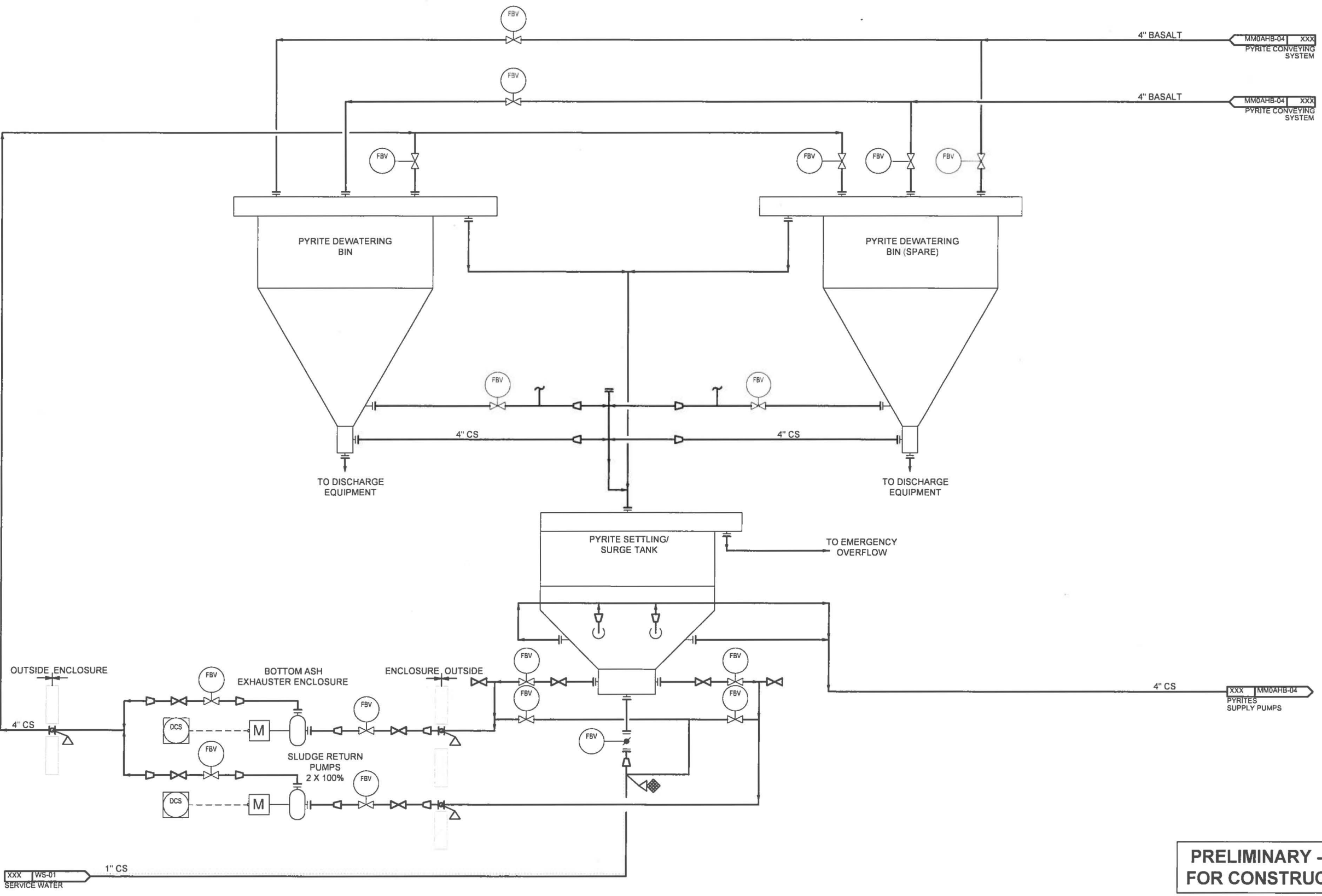
9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-9400
 FIRM LICENSE NO. 43

designed: T. ROBERTSON
 detailed: S. CHURCHILL

EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM UNIT 1 & 2 DRY BOTTOM ASH PNEUMATIC ASH SYSTEM	
project 89810	contract
drawing MM0AHB-02	rev. C
sheet 1 of 1	sheets
file 89810MM0AHB-02.dwg	



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BURNS & MCDONNELL ENGINEERING COMPANY, INC.

no	date	by	ckd	description	no	date	by	ckd	description
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A	11/22/16	PTB	KLK	ISSUED FOR OWNER REVIEW					

BURNS MCDONNELL

9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-9400
 FIRM LICENSE NO. 43

designed: T. ROBERTSON
 detailed: S. CHURCHILL

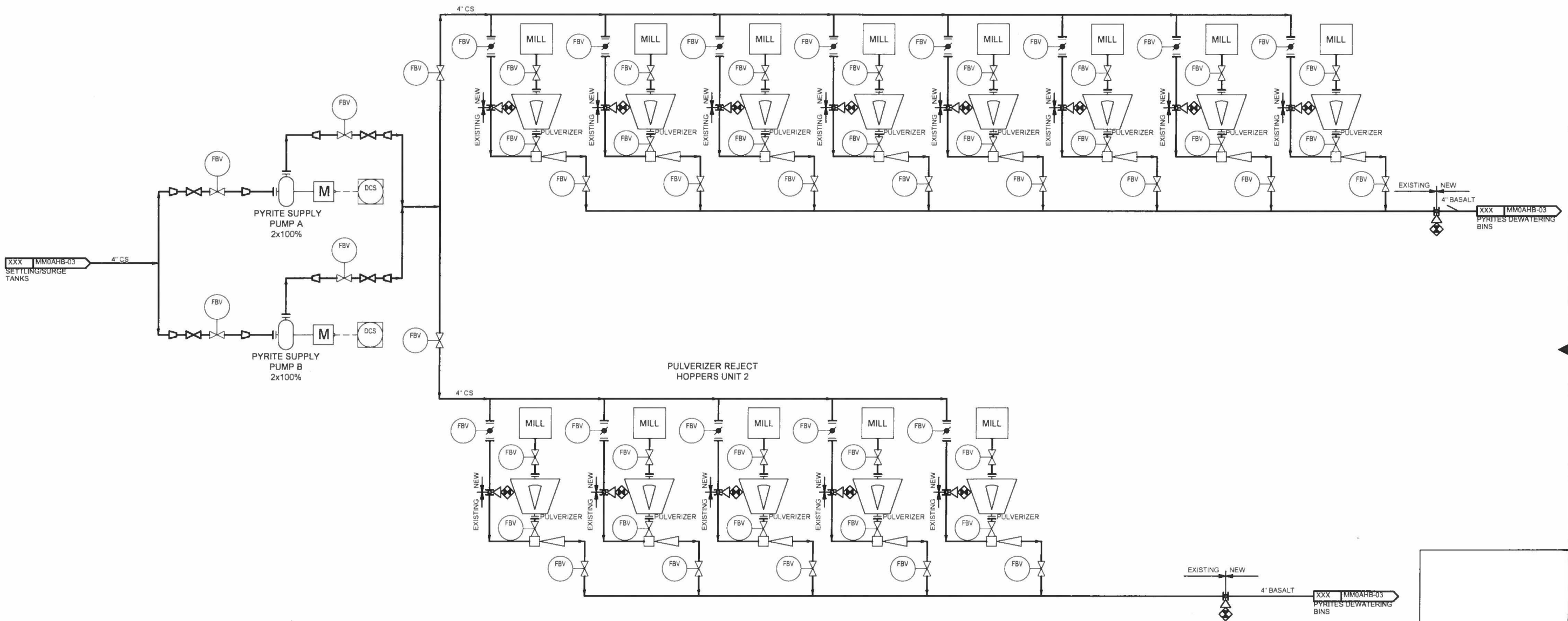
EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM DRY BOTTOM ASH PNEUMATIC ASH SYSTEM	
project: 89810	contract:
drawing: MM0AHB-03	rev: C
sheet 1 of 1	sheets
file 89810MM0AHB-03.dwg	

PULVERIZER REJECT HOPPERS UNIT 1

PULVERIZER REJECT HOPPERS UNIT 2



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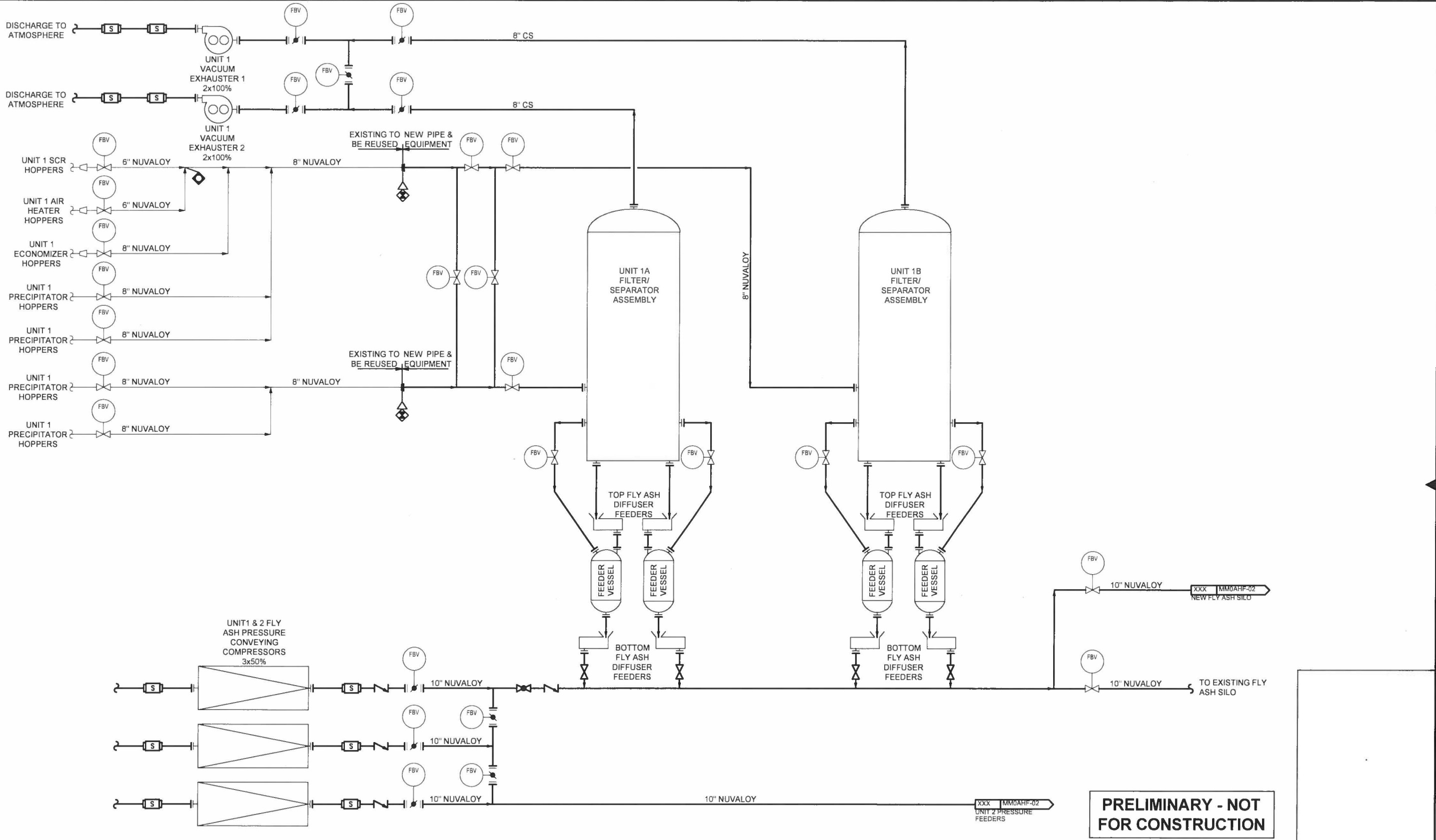
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 43

designed: T. ROBERTSON
detailed: S. CHURCHILL

EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM DRY BOTTOM ASH PNEUMATIC ASH SYSTEM	
project 89810	contract
drawing MM0AHB-04	rev. C
sheet 1 of 1	sheets
file 89810MM0AHB-04.dwg	



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BURNS & MCDONNELL

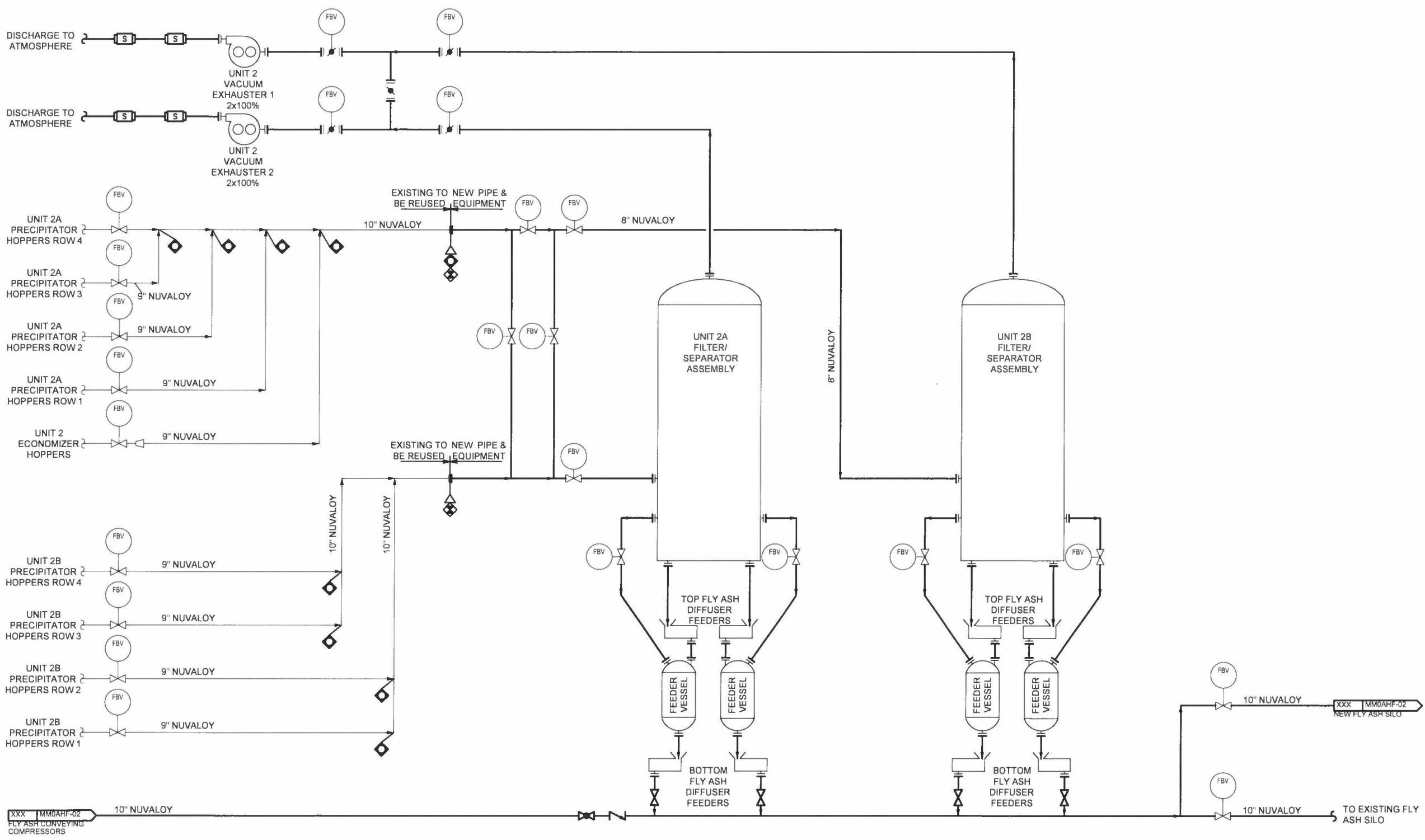
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 43

designed: T. ROBERTSON
detailed: S. CHURCHILL

EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM UNIT 1 FLY ASH VACUUM/PRESSURE TRANSFER SYSTEM	
project 89810	contract
drawing MM0AHF-01	rev. C
sheet 1 of 1 sheets	file 89810MM0AHF-01.dwg



PRELIMINARY - NOT FOR CONSTRUCTION

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BURNS & MCDONNELL

9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 43

designed T. ROBERTSON
detailed S. CHURCHILL

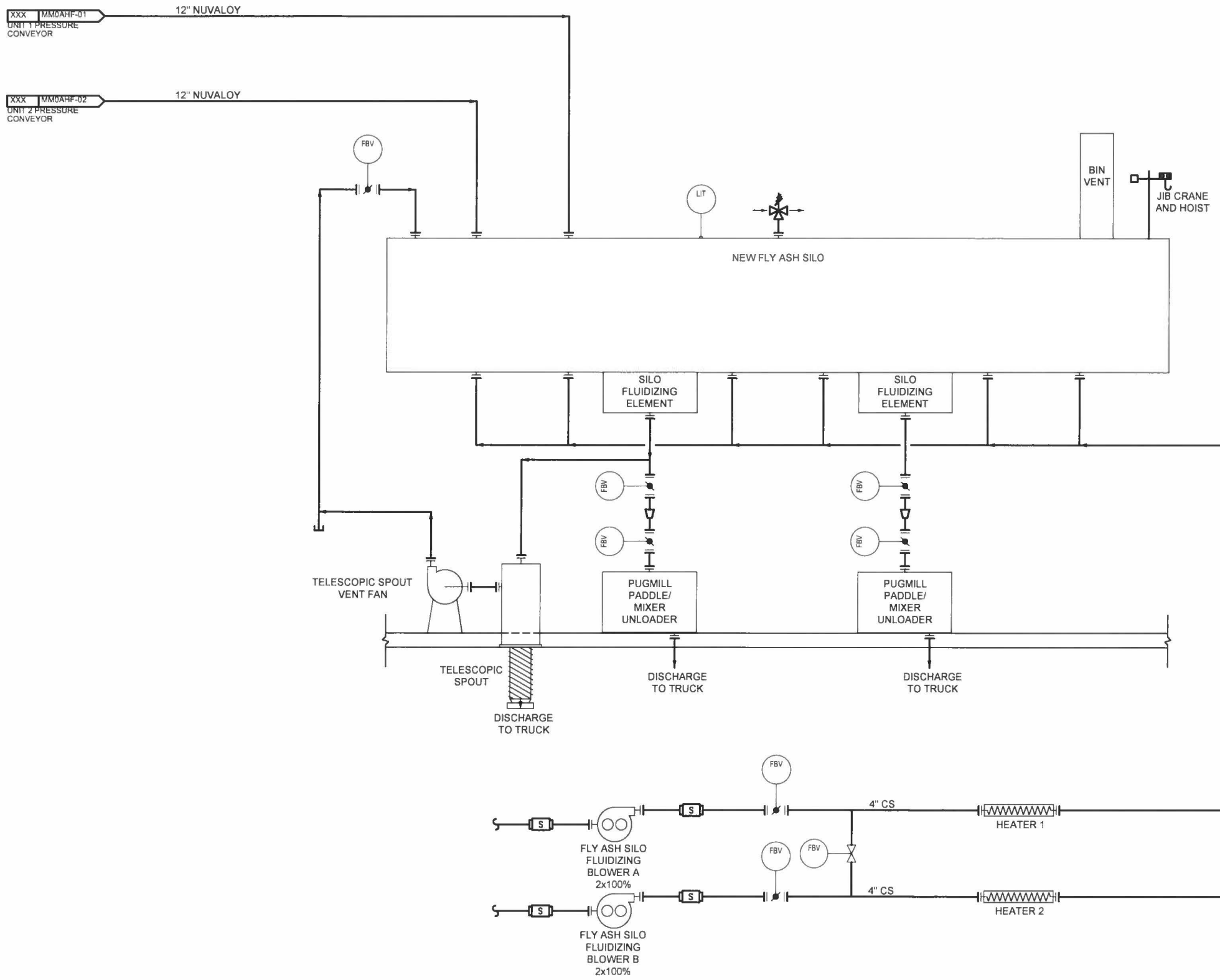
EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM
UNIT 2 FLY ASH VACUUM/PRESSURE TRANSFER SYSTEM

project	contract
B9810	
drawing	rev.
MM0AHF-02	C
sheet 1 of 1 sheets	
file B9810MM0AHF-02.dwg	

Scale For Microfitting
 Millimeters
 Inches
 BURNS & MCDONNELL ENGINEERING COMPANY, INC.
 CLIENTS: ENRRE KPC\B9810_SPUREL GCCRPSRUE SIGMECH\CA\DP&IDS\B9810MM0AHF-02.DWG 3/28/2017 2:29 PM RENECHANDLER



PRELIMINARY - NOT FOR CONSTRUCTION

Scale For Microfilming
Meters
Inches
BURNS & MCDONNELL ENGINEERING COMPANY, INC.

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BURNS & MCDONNELL

9400 WARD PARKWAY
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816-333-9400
FIRM LICENSE NO. 43

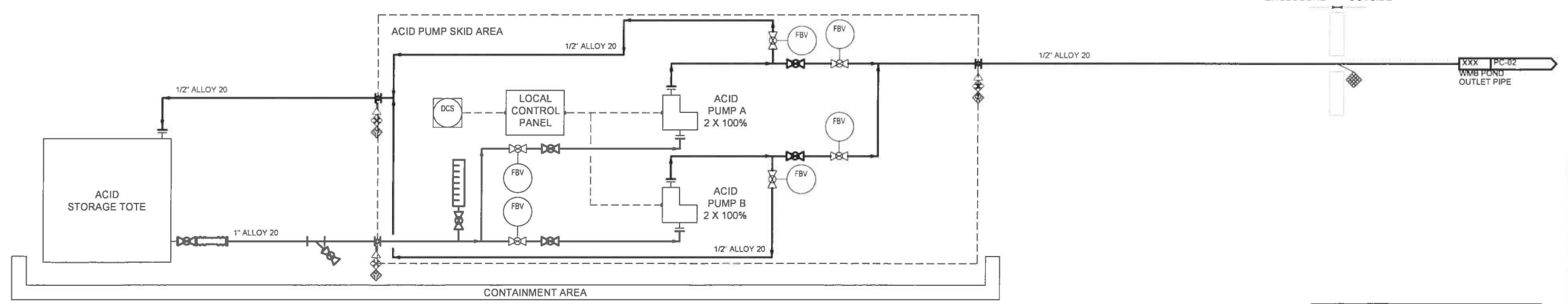
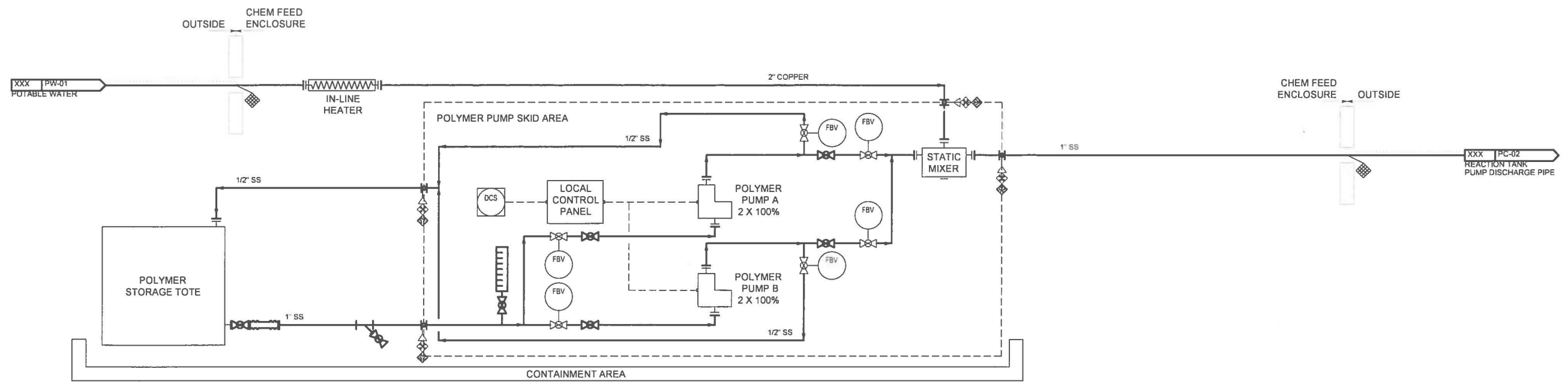
designed: T. ROBERTSON
detailed: S. CHURCHILL

EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM UNIT 2 FLY ASH VACUUM/PRESSURE TRANSFER SYSTEM	
project 89810	contract
drawing MM0AHF-03	rev. C
sheet 1 of 1 sheets	file 89810MM0AHF-03.dwg

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PRELIMINARY - NOT FOR CONSTRUCTION

BURNS & MCDONNELL ENGINEERING COMPANY, INC.

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BURNS MCDONNELL

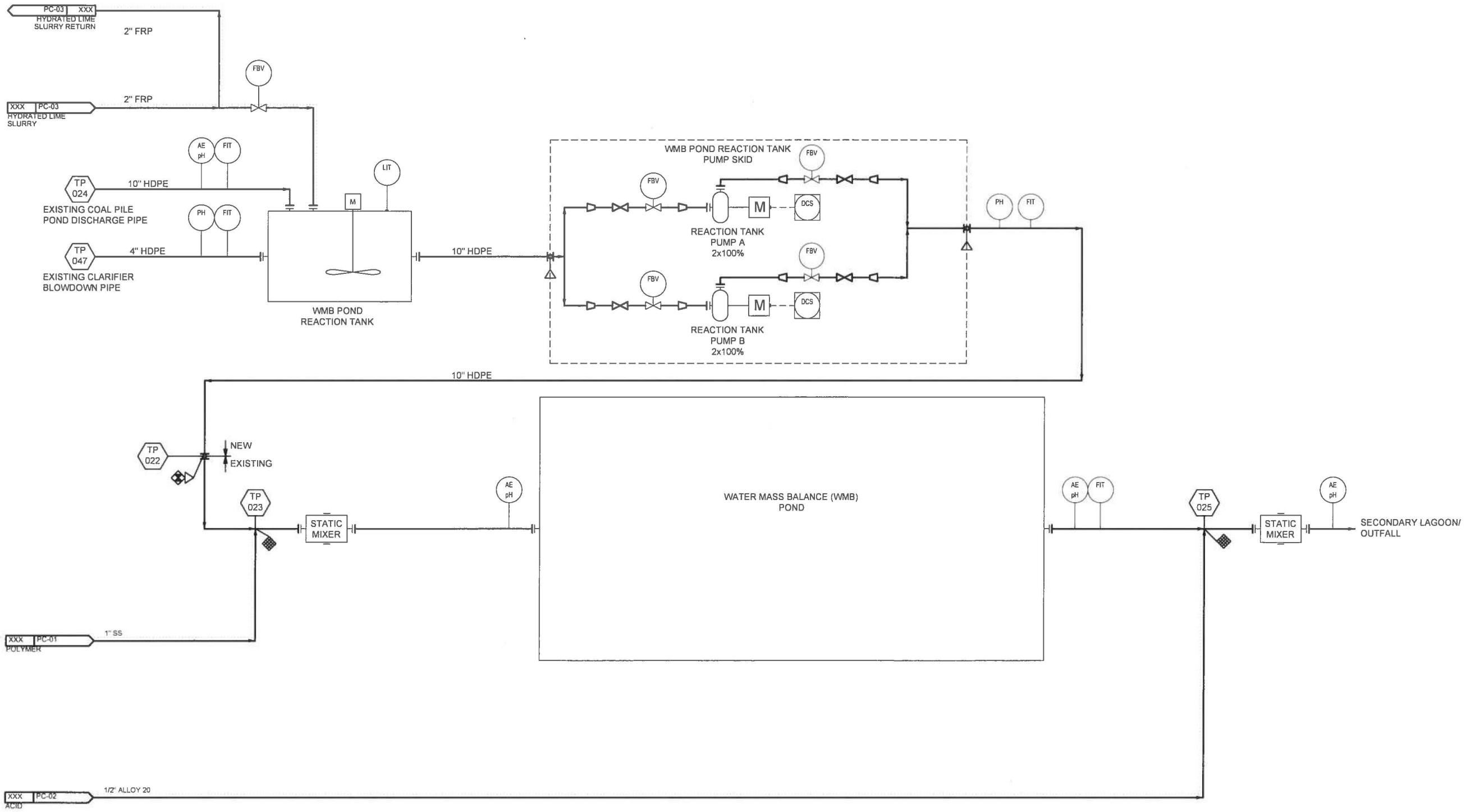
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 43

designed: P. BRANDT detailed: T. EARLEY

EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM WAER MASS BALANCE (WMB) CHEMICAL FEED	
project 89810	contract
drawing PC-01	rev B
sheet 1 of 1	sheets
file 89810-PC-01.DWG	



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BURNS & MCDONNELL ENGINEERING COMPANY, INC.

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BURNS MCDONNELL

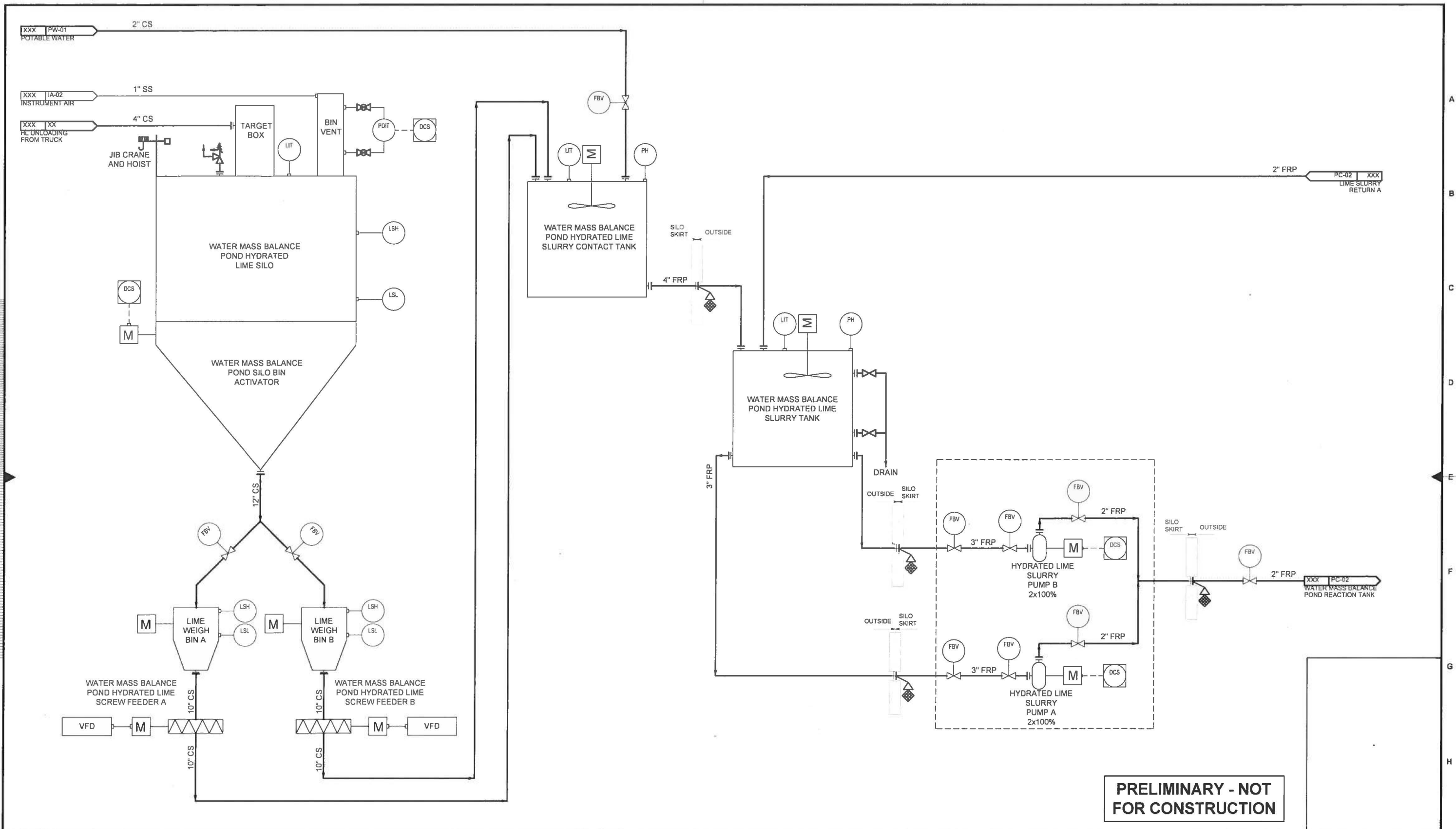
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO 43

designed P. BRANDT detailed K. MATTHEWS

EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM WATER MASS BALANCE (WMB) POND	
project 89810	contract
drawing	rev
PC-02 - C	
sheet 1 of 1	sheets
file 89810-PC-02 DWG	



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BURNS & MCDONNELL ENGINEERING COMPANY, INC.

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BURNS & MCDONNELL

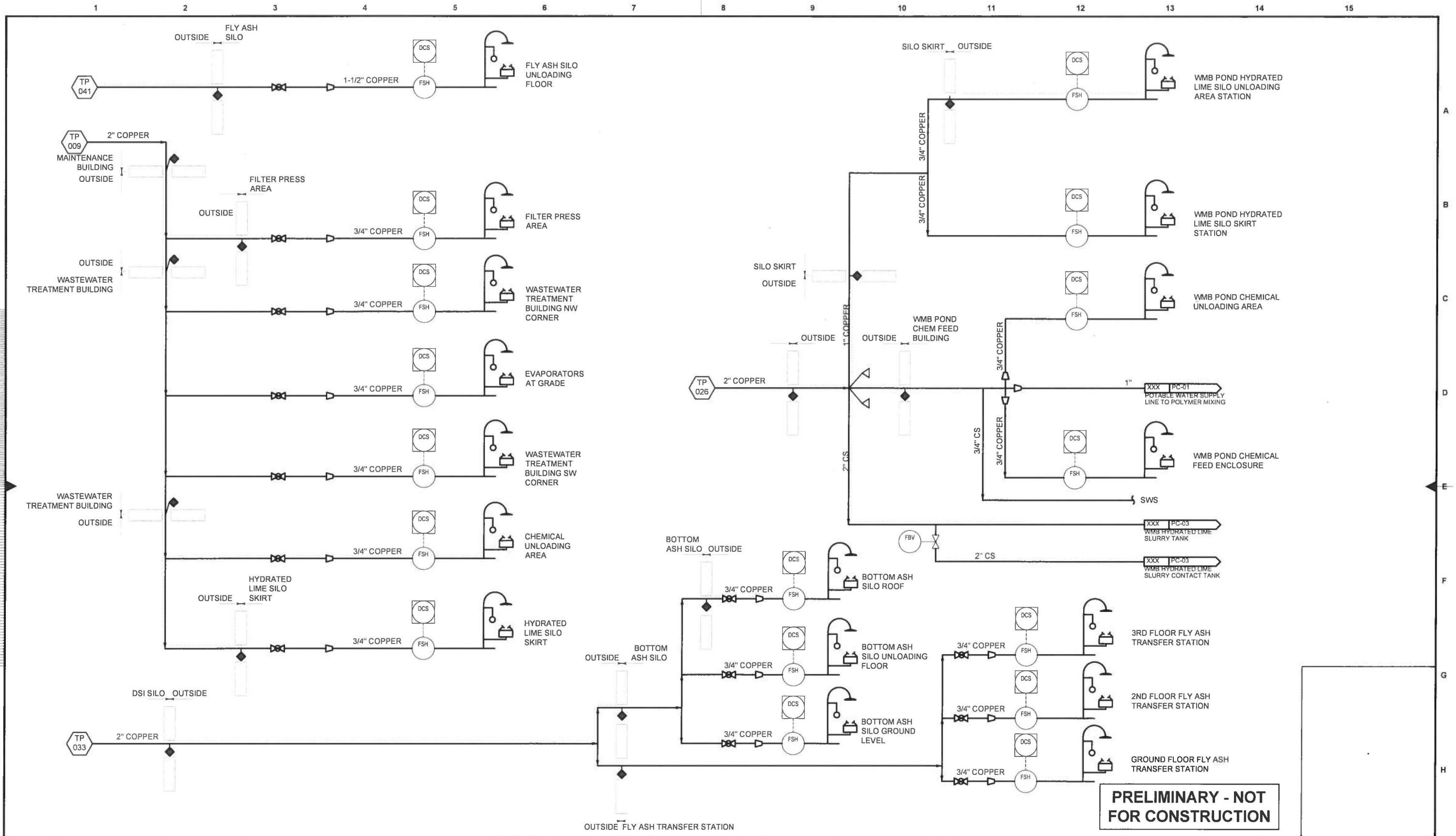
9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-9400
 FIRM LICENSE NO 43

designed P. BRANDT detailed T. EARLEY

EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM	
WATER MASS BALANCE POND (WMB) HYDRATED LIME SYSTEM	
project 89810	contract
drawing PC-03	rev. C
sheet 1 of 1	sheets
file 89810-PC-03.DWG	



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B	01/31/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
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BURNS & MCDONNELL

9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 43

designed: P. BRANDT
detailed: K. MATTHEWS

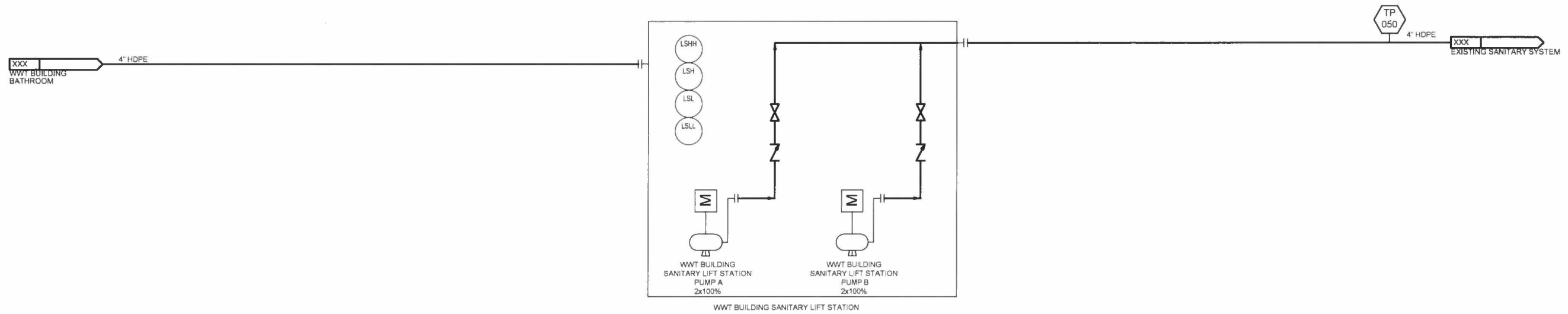
EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM POTABLE WATER	
project 89810	contract
drawing PW-01	rev. C
sheet 1 of 1 sheets	file 89810-PW-01.dwg

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

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BURNS & MCDONNELL ENGINEERING COMPANY, INC.

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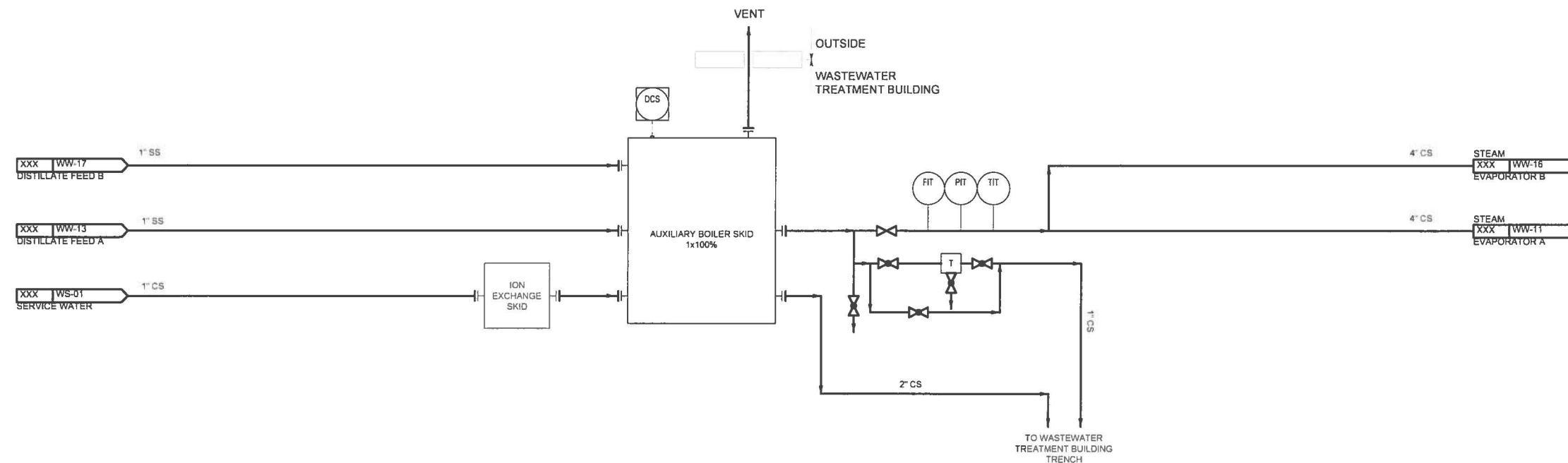
BURNS & MCDONNELL
 9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-9400
 FIRM LICENSE NO. 43

designed: P BRANDT
 detailed: R CHANDLER

EAST KENTUCKY POWER COOPERATIVE
 MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM
 SANITARY DRAINS

project	contract
89810	
drawing	rev.
SD-01	A
sheet 1 of 1 sheets	
file 89810-SD-01.DWG	



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BURNS & MCDONNELL ENGINEERING COMPANY, INC.

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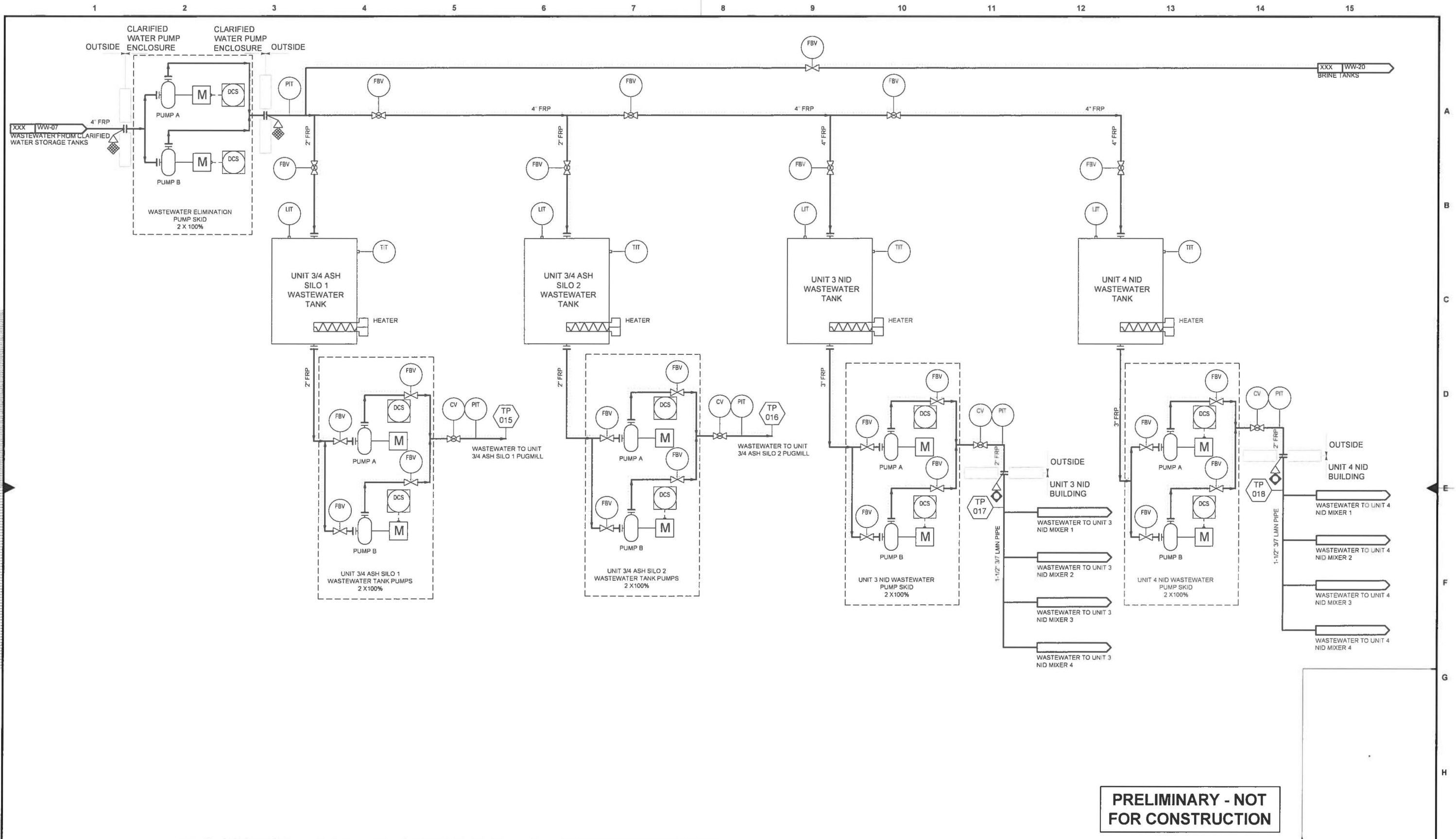
BURNS & MCDONNELL
 9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-9400
 FIRM LICENSE NO. 43

designed: P. BRANDT
 detailed: K. MATTHEWS

EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM AUXILIARY BOILER SYSTEM	
project 89810	contract
drawing SS-01	rev C
sheet 1 of 1 sheets	file 89810-SS-01.DWG



PRELIMINARY - NOT FOR CONSTRUCTION

no	date	by	ckd	description	no	date	by	ckd	description
B	01/31/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
A	11/22/16	PTB	KLK	ISSUED FOR OWNER REVIEW					

BURNS & MCDONNELL

9400 WARD PARKWAY
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 816-333-9400
 FIRM LICENSE NO. 43

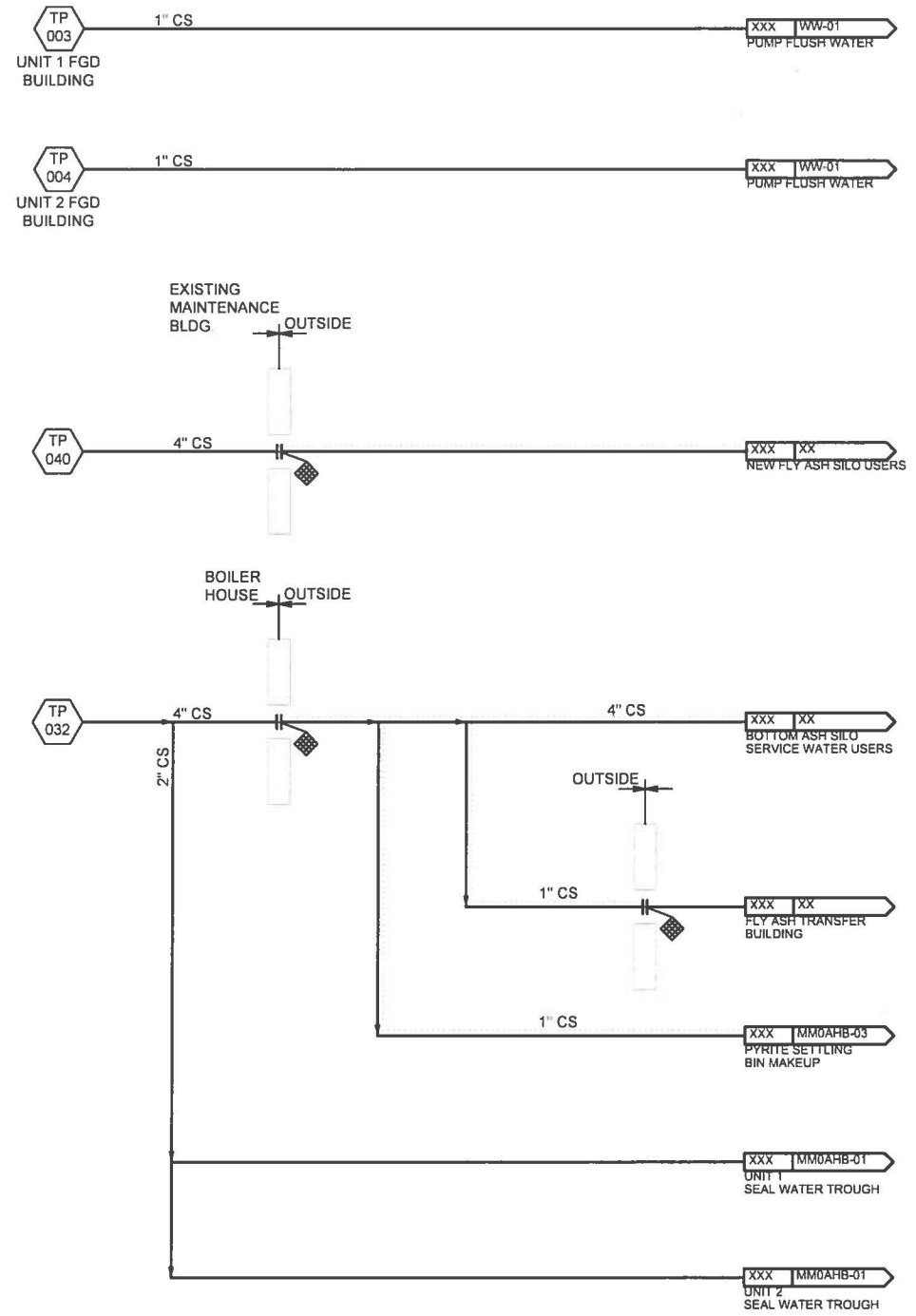
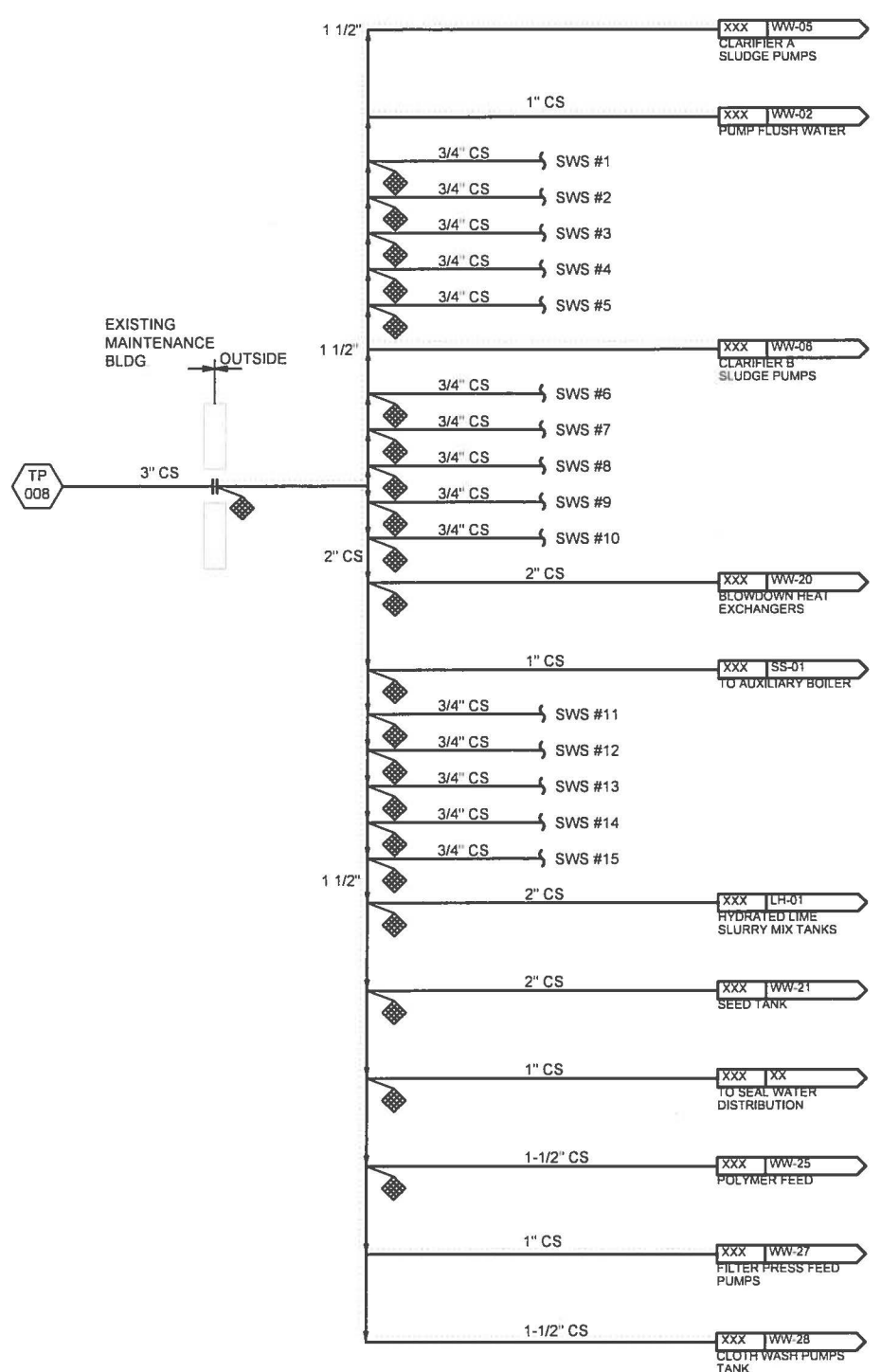
designed: P. BRANDT
 detailed: K. MATTHEWS

EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM
 WASTEWATER ELIMINATION DISTRIBUTION

project	contract
89810	
drawing	rev.
WE-01	B
sheet 1 of 1	sheets
file 89810-WE-01.DWG	



PRELIMINARY - NOT FOR CONSTRUCTION

Millimeters
 Scale For Microfilming
 Inches

BURNS & MCDONNELL ENGINEERING COMPANY, INC.

no.	date	by	ckd	description	no.	date	by	ckd	description
C	03/30/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
B	01/31/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
A	11/22/16	PTB	KLK	ISSUED FOR OWNER REVIEW					

BURNS & MCDONNELL

9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-9400
 FIRM LICENSE NO. 43

designed P. BRANDT detailed T. EARLEY

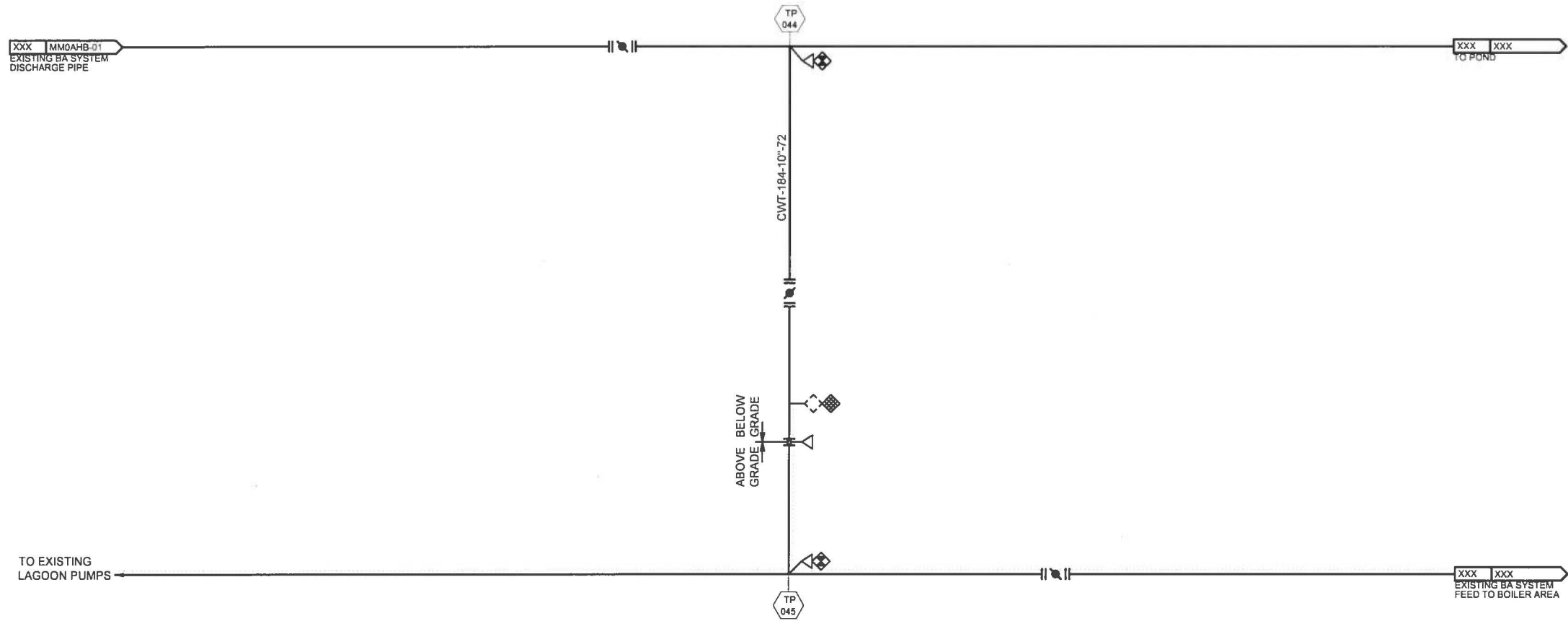
EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM SERVICE WATER	
project 89810	contract
drawing WS-01 rev C	
sheet 1 of 1	sheets
file 89810-WS-01.dwg	

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

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Scale For Microfilming
Millimeters
Inches

PRELIMINARY - NOT FOR CONSTRUCTION

BURNS & McDONNELL ENGINEERING COMPANY, INC.

no.	date	by	ckd	description	no.	date	by	ckd	description
C	03/30/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
B	01/31/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
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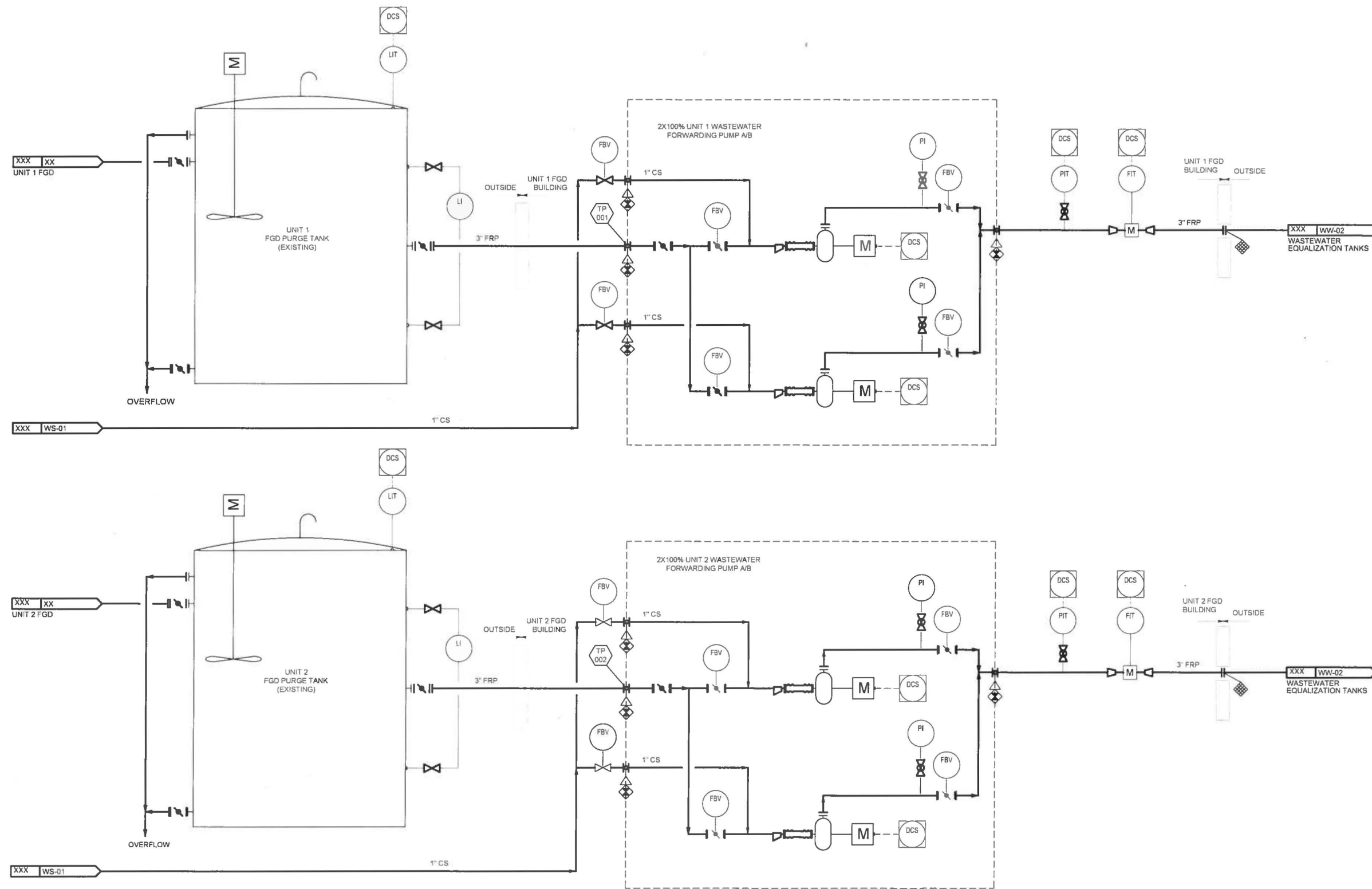
BURNS & McDONNELL
 9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-9400
 FIRM LICENSE NO 43

designed: P. BRANDT
 detailed: K. MATTHEWS

EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM LAGOON DISCHARGE	
project 89810	contract
drawing WTR-01	rev C
sheet 1 of 1 sheets	file 89810-WTR-01 DWG



PRELIMINARY - NOT FOR CONSTRUCTION

898-BURNS & McDONNELL ENGINEERING COMPANY, INC.

no.	date	by	ckd	description	no.	date	by	ckd	description
B	01/31/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
A	11/22/16	PTB	KLK	ISSUED FOR OWNER REVIEW					

BURNS & McDONNELL

9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 43

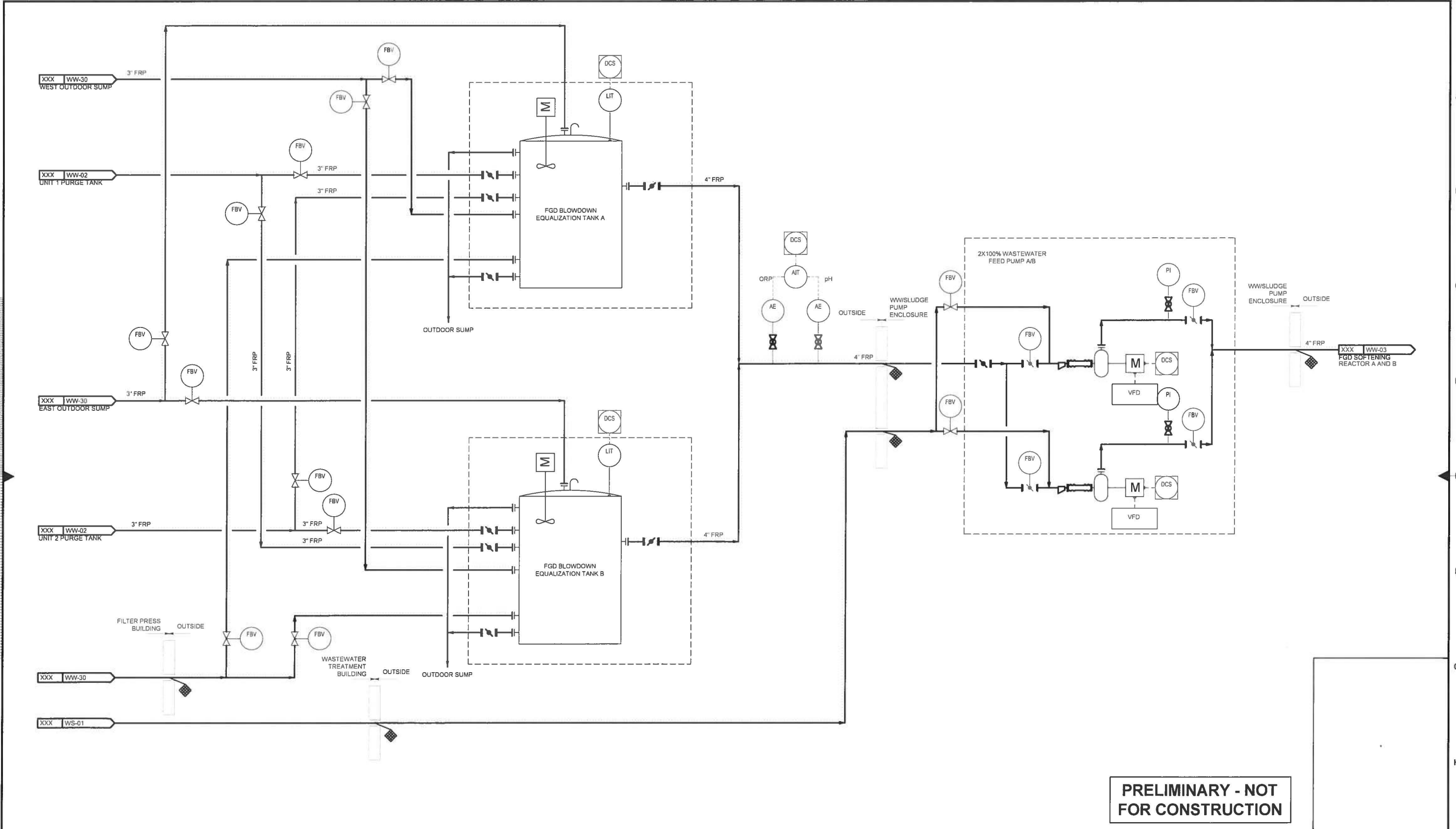
designed: P. BRANDT
detailed: K. MATTHEWS

EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM
FGD WASTEWATER FORWARDING PUMPS

project: 89810 contract: _____
drawing: **WW-01 - B** rev: _____
sheet 1 of 1 sheets
file: 89810-WW-01 DWG



PRELIMINARY - NOT FOR CONSTRUCTION

Scale For Microfitting
 Meters
 Inches
 BURNS & McDONNELL ENGINEERING COMPANY, INC.

no	date	by	ckd	description	no	date	by	ckd	description
C	03/30/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
B	01/31/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
A	11/22/16	PTB	KLK	ISSUED FOR OWNER REVIEW					

BURNS & McDONNELL

9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-9400
 FIRM LICENSE NO. 43

designed P. BRANDT detailed K. MATTHEWS

EAST KENTUCKY POWER COOPERATIVE

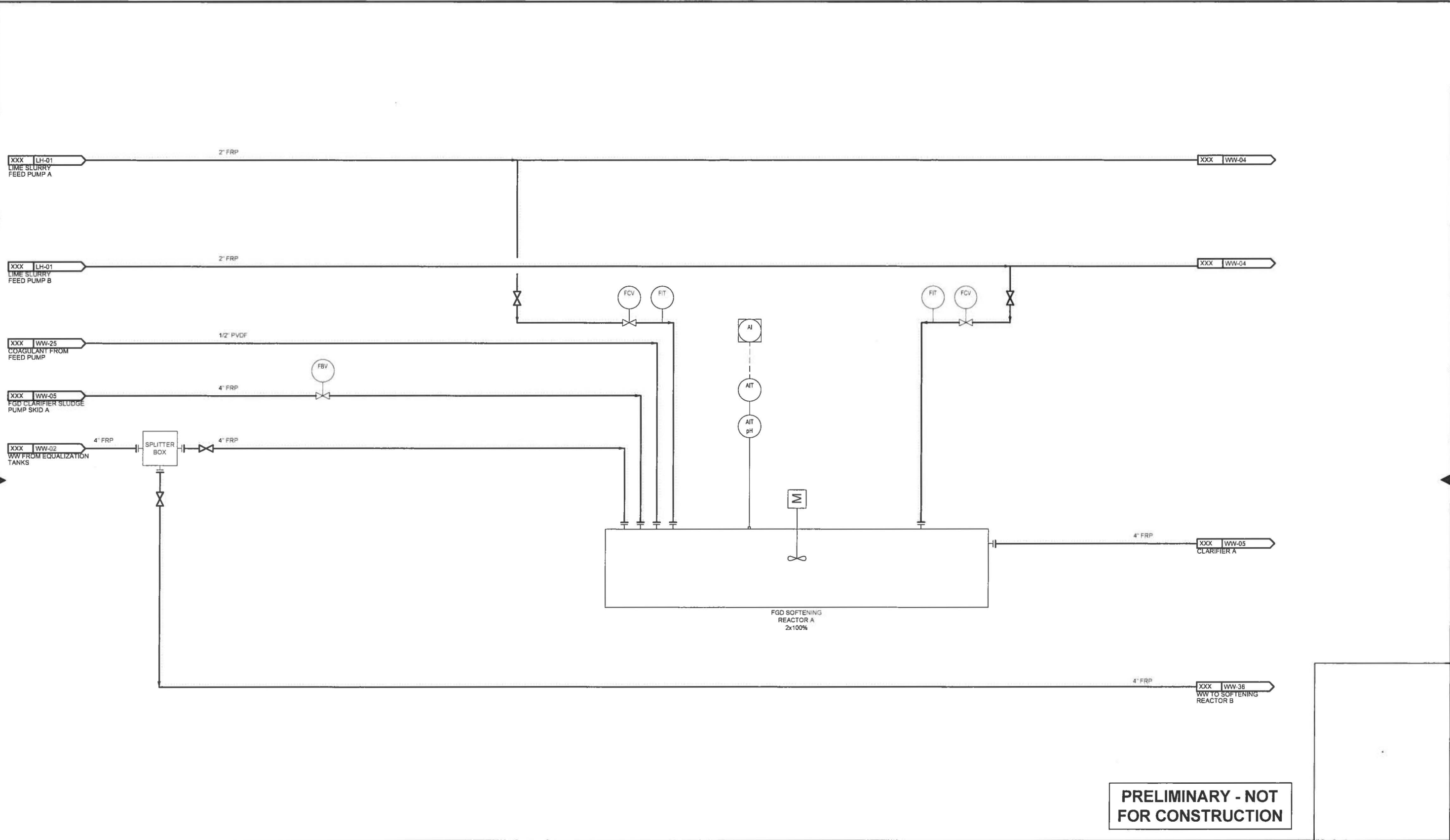
MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM
 FGD WASTEWATER STORAGE/
 EQUALIZATION TANKS/PUMPS

project 89810	contract
drawing	rev. C
sheet 1 of 1	sheets
file 89810-WW-02.DWG	

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

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PRELIMINARY - NOT FOR CONSTRUCTION

no	date	by	ckd	description	no	date	by	ckd	description
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B	01/31/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
A	11/22/16	PTB	KLK	ISSUED FOR OWNER REVIEW					

BURNS & MCDONNELL

9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 43

designed: P. BRANDT
detailed: K. MATTHEWS

EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

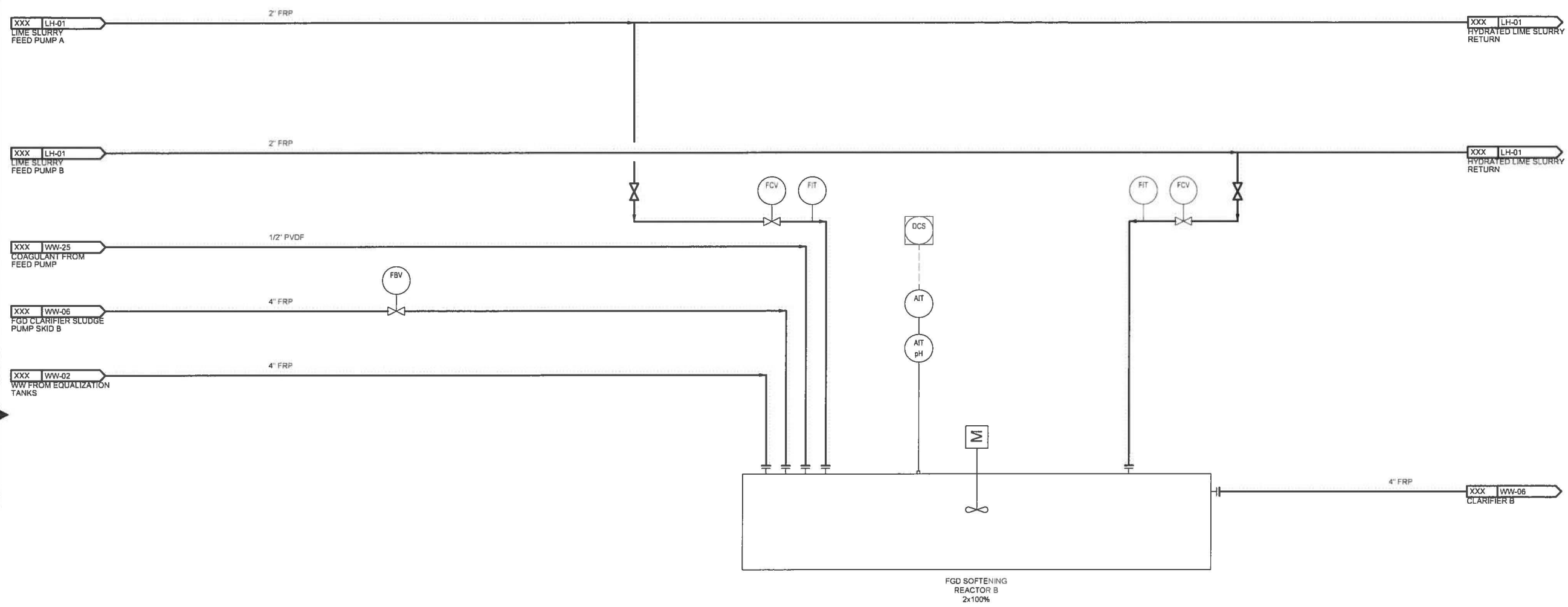
PIPING & INSTRUMENTATION DIAGRAM
SOFTENING REACTOR TANK A

project: 89810 contract: _____
drawing: **WW-03** rev: **C**
sheet 1 of 1 sheets
file 89810-WW-03.DWG

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

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Scale For Microfitting
Millimeters
Inches



PRELIMINARY - NOT FOR CONSTRUCTION

no	date	by	ckd	description	no	date	by	ckd	description
C	03/30/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
B	01/31/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
A	11/22/16	PTB	KLK	ISSUED FOR OWNER REVIEW					

BURNS & MCDONNELL

9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 43

designed: P. BRANDT
detailed: K. MATTHEWS

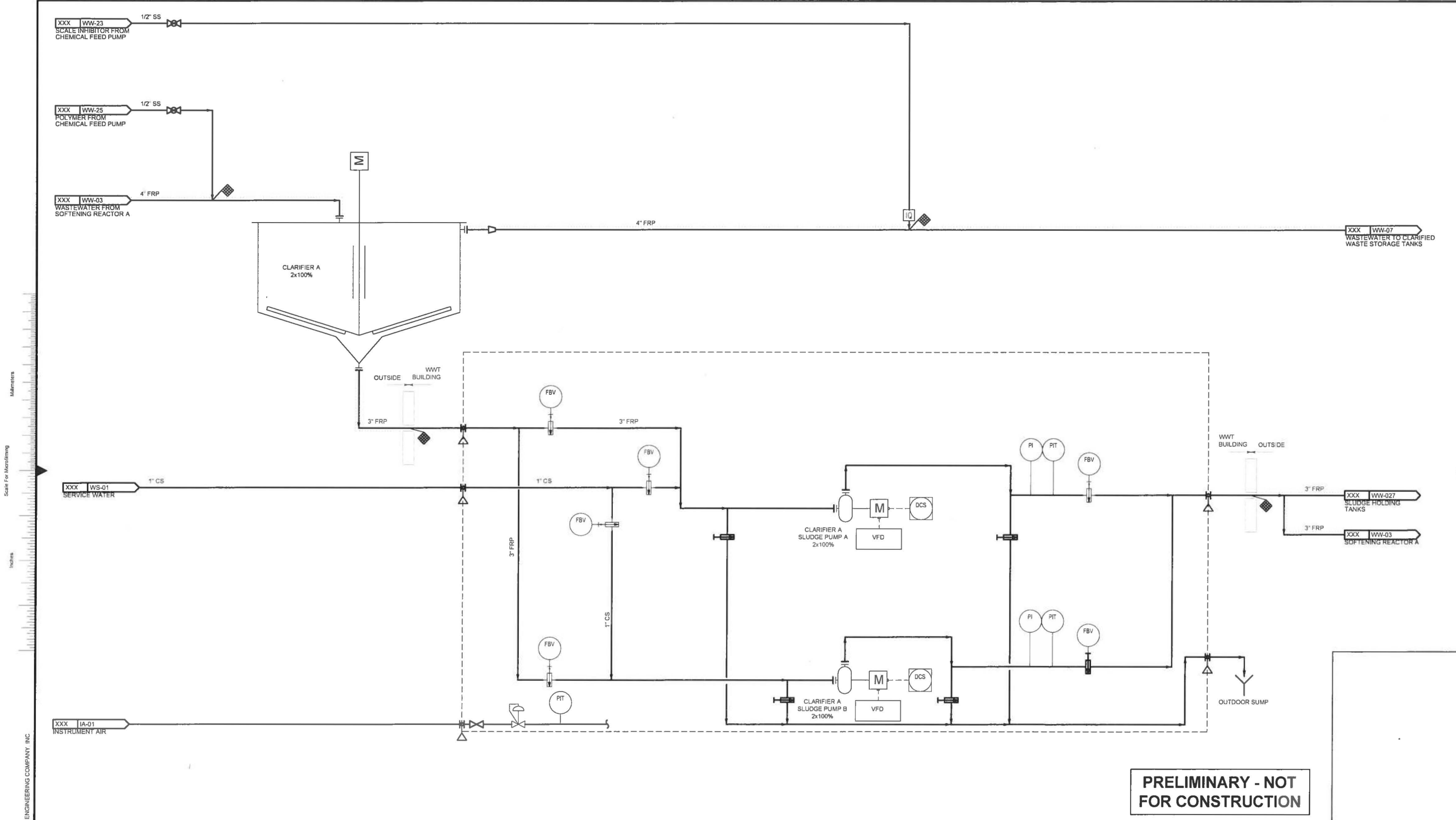
EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM SOFTENING REACTOR TANK B	
project 89810	contract
drawing WW-04	rev. C
sheet 1 of 1 sheets	file 89810-WW-04 DWG

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

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PRELIMINARY - NOT FOR CONSTRUCTION

BURNS & MCDONNELL ENGINEERING COMPANY, INC.

no.	date	by	ckd	description	no.	date	by	ckd	description
C	03/30/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
B	01/31/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
A	11/22/16	PTB	KLK	ISSUED FOR OWNER REVIEW					

BURNS MCDONNELL

9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 43

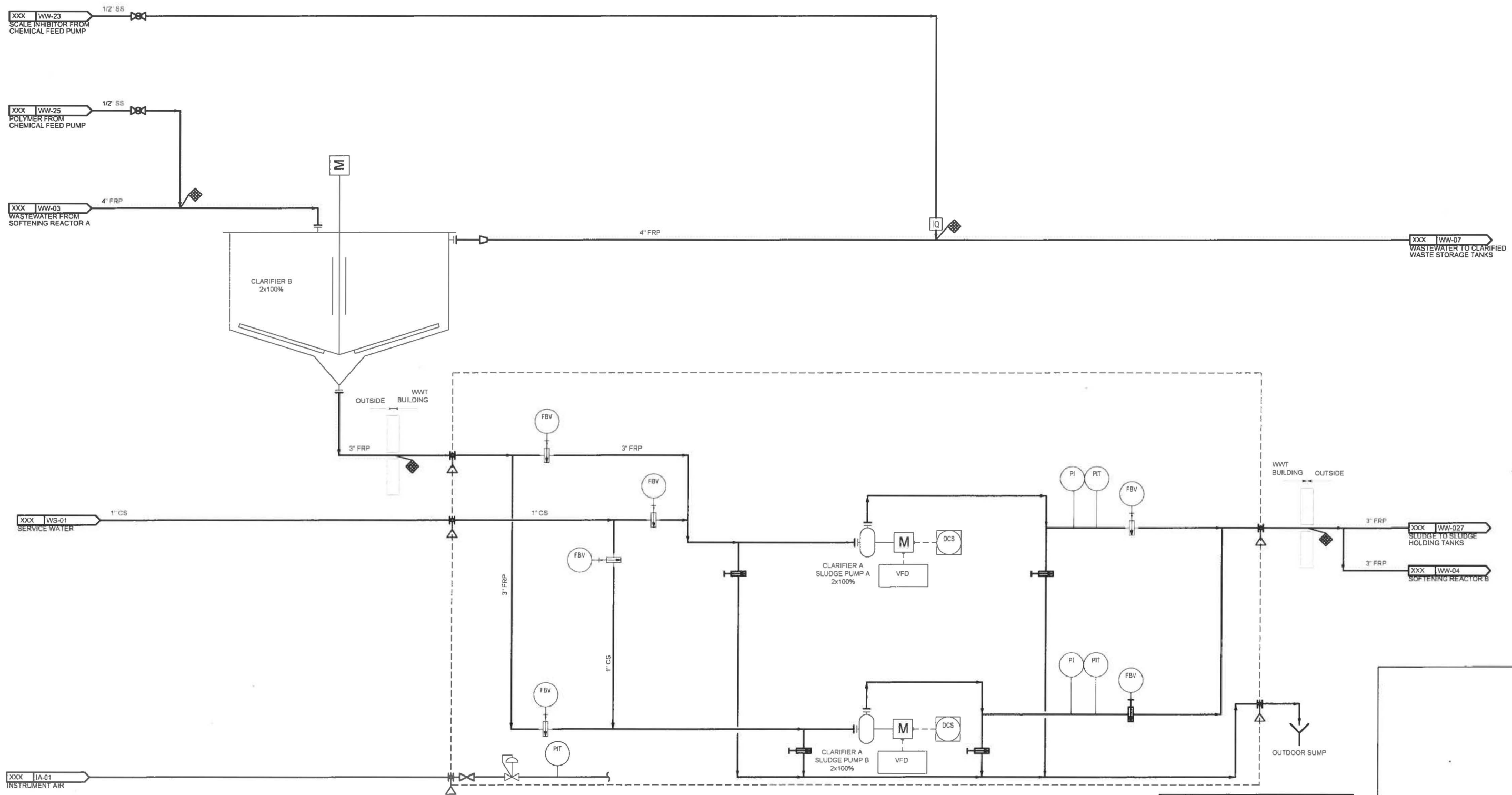
designed P. BRANDT detailed K. MATTHEWS

EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM FGD WASTEWATER CLARIFIER A	
project 89810	contract
drawing WW-05	rev. C
sheet 1 of 1	sheets
file 89810-WW-05 DWG	

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15



PRELIMINARY - NOT FOR CONSTRUCTION

Scale For Microfilming
 Millimeters
 Inches
 BURNS & MCDONNELL ENGINEERING COMPANY, INC.

no.	date	by	ckd	description	no.	date	by	ckd	description
C	03/30/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
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BURNS & MCDONNELL

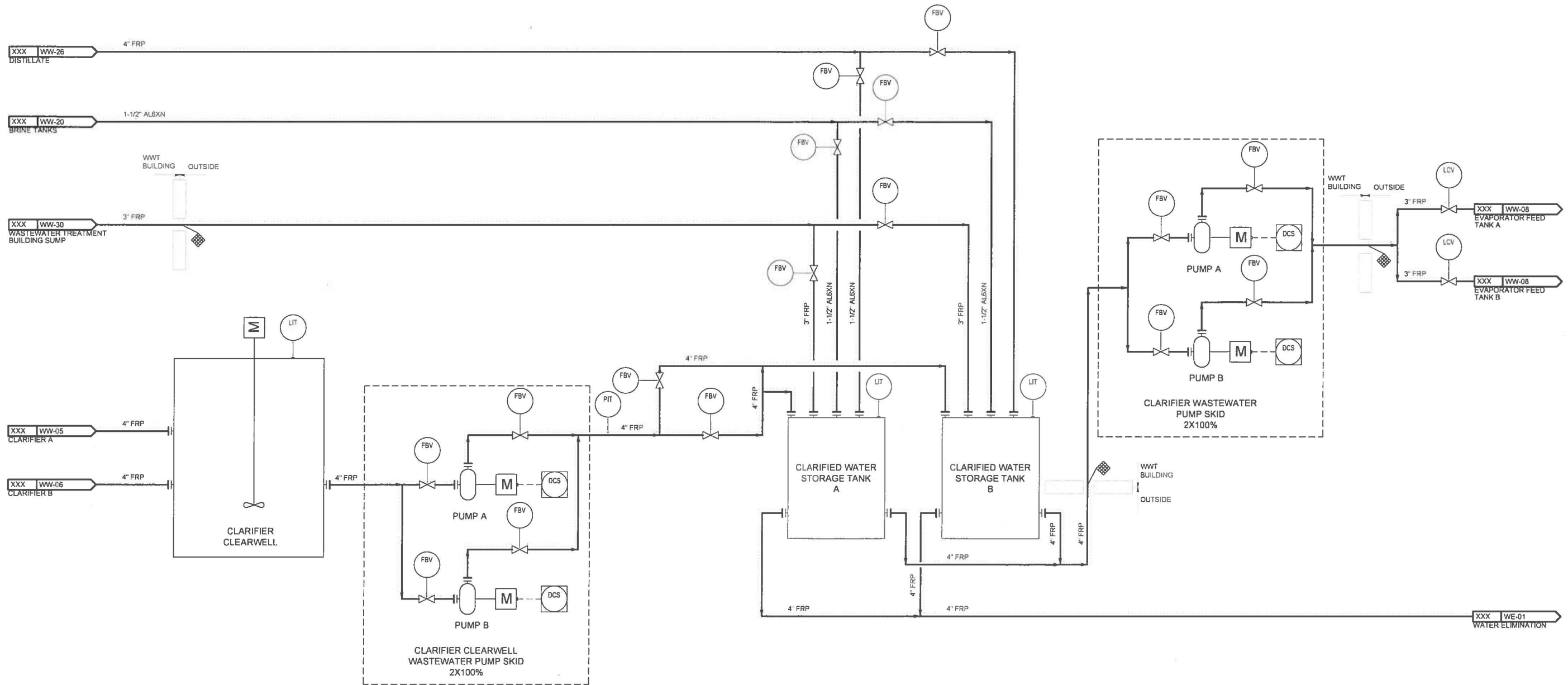
9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-9400
 FIRM LICENSE NO. 43

designed: P. BRANDT
 detailed: K. MATTHEWS

EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM FGD WASTEWATER CLARIFIER B	
project 89810	contract
drawing WW-06	rev. C
sheet 1	of 1 sheets
file 89810-WW-06 DWG	



PRELIMINARY - NOT FOR CONSTRUCTION

89810-BURNS & MCDONNELL ENGINEERING COMPANY, INC.

no	date	by	ckd	description	no	date	by	ckd	description
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A	11/22/16	PTB	KLK	ISSUED FOR OWNER REVIEW					

BURNS & MCDONNELL

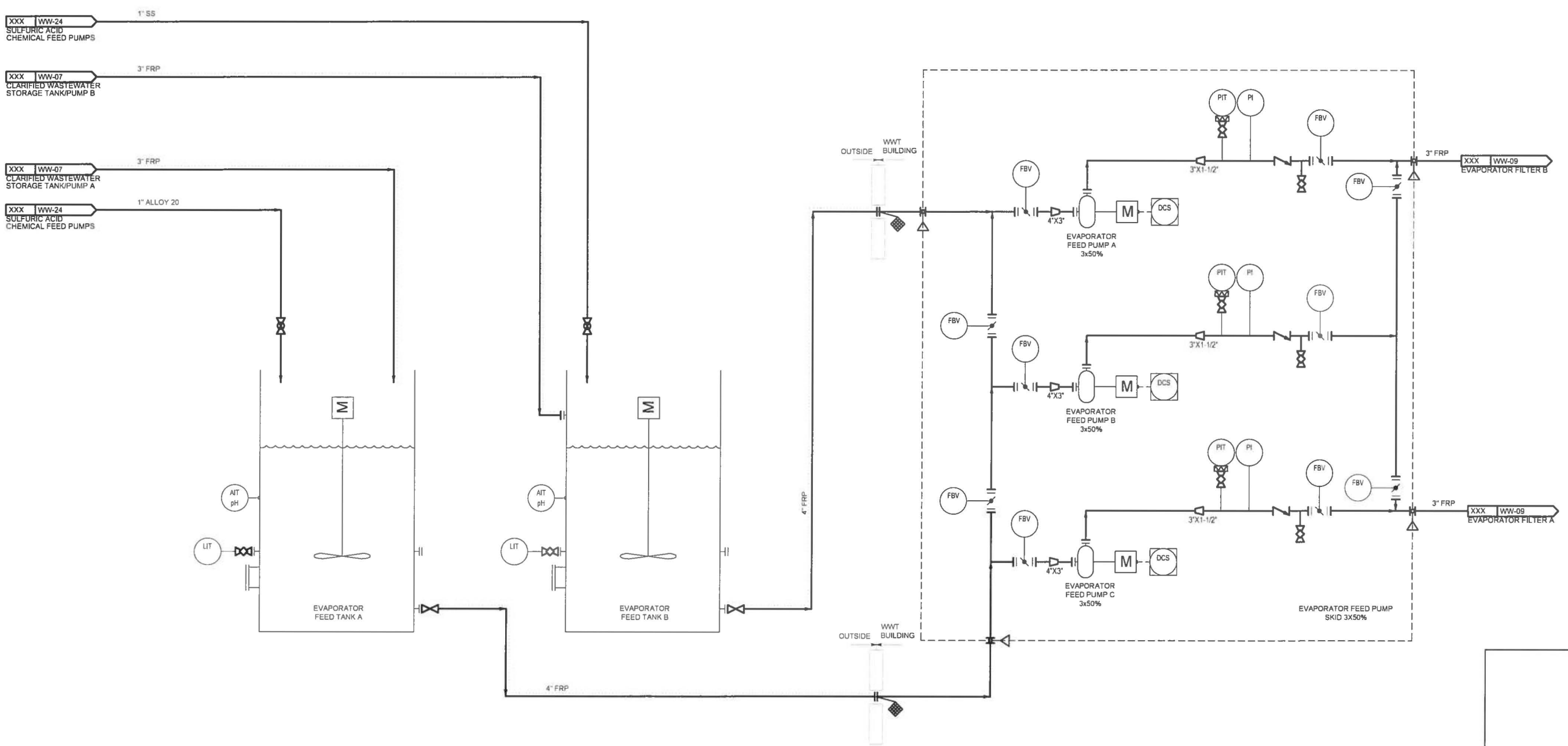
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 43

designed: P BRANDT
detailed: K MATTHEWS

EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM CLARIFIED WASTEWATER STORAGE AND DISTRIBUTION	
project 89810	contract
drawing WW-07 - B rev.	
sheet 1 of 1 sheets	file 89810-VV-07 DWG



PRELIMINARY - NOT FOR CONSTRUCTION

BURNS & MCDONNELL ENGINEERING COMPANY, INC.

no	date	by	ckd	description	no	date	by	ckd	description
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B	01/31/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
A	11/22/16	PTB	KLK	ISSUED FOR OWNER REVIEW					

BURNS & MCDONNELL

9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 43

designed: P. BRANDT
detailed: K. MATTHEWS

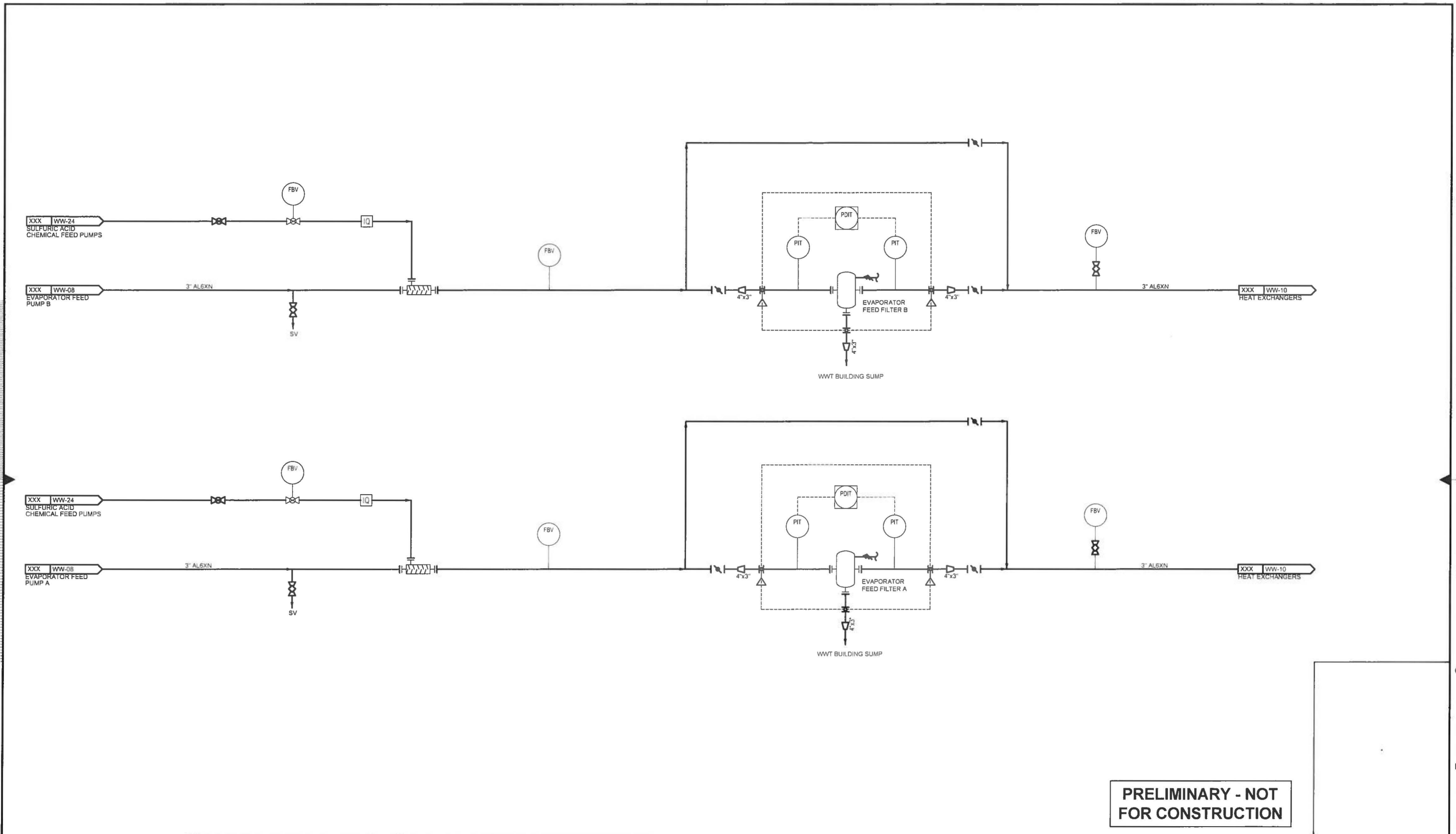
EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM
EVAPORATOR FEED TANKS

project	89810	contract	
drawing	WW-08	rev	C
sheet	1	of	1
file	89810-VVW-08.DWG		

Scale For Microlining
Millimeters
Inches



PRELIMINARY - NOT FOR CONSTRUCTION

no	date	by	ckd	description	no	date	by	ckd	description
C	03/30/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
B	01/31/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
A	11/22/16	PTB	KLK	ISSUED FOR OWNER REVIEW					

BURNS & MCDONNELL

9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 43

designed: P. BRANDT
detailed: K. MATTHEWS

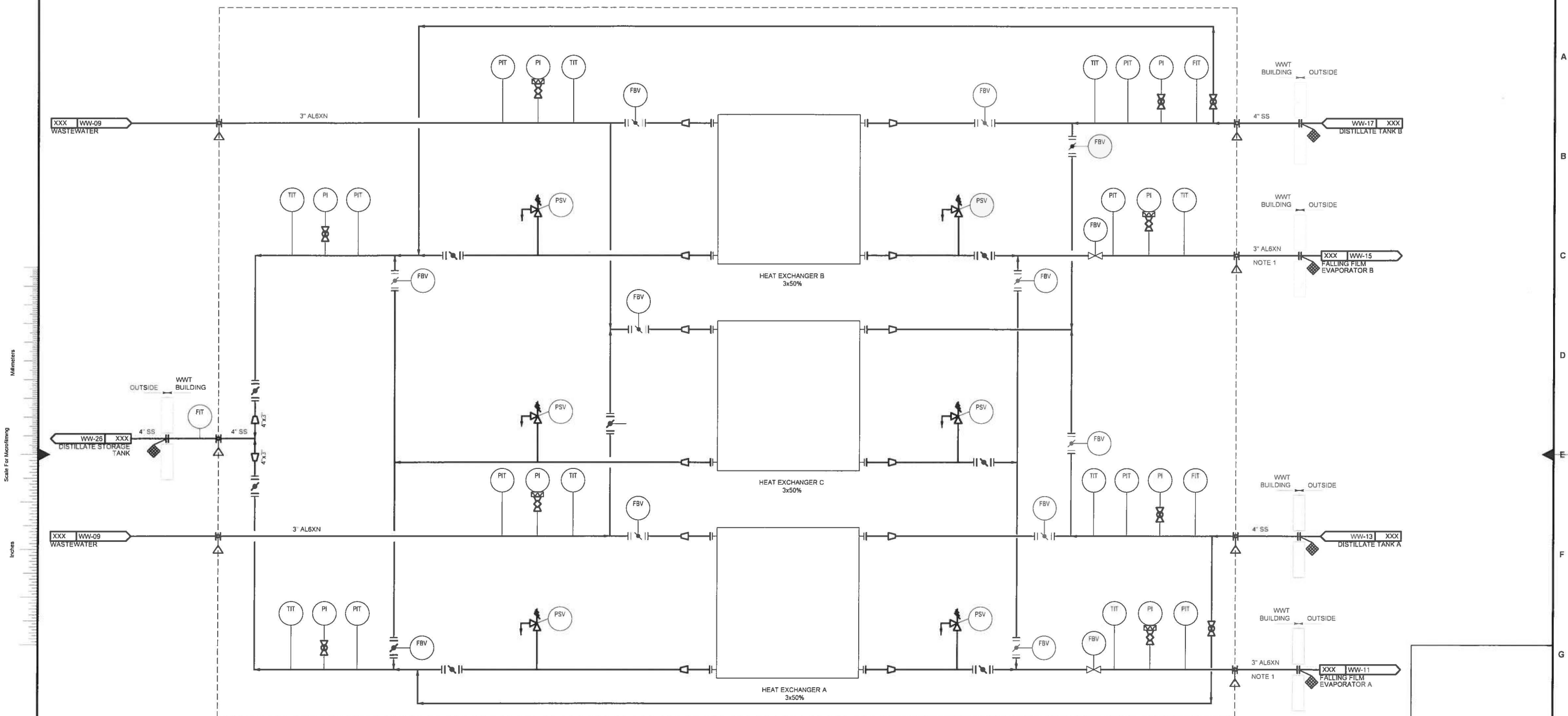
EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM
EVAPORATOR FEED FILTERS

project	contract
89810	
drawing	rev.
WW-09	C
sheet 1 of 1	sheets
file 89810-WW-09.DWG	

NOTES:
1. LINE TO HAVE 2" OF INSULATION



PRELIMINARY - NOT FOR CONSTRUCTION

BURNS & MCDONNELL ENGINEERING COMPANY, INC.

no.	date	by	ckd	description	no.	date	by	ckd	description
C	03/30/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
B	01/31/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
A	11/22/16	PTB	KLK	ISSUED FOR OWNER REVIEW					

BURNS & MCDONNELL

9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 43

designed: P. BRANDT
detailed: K. MATTHEWS

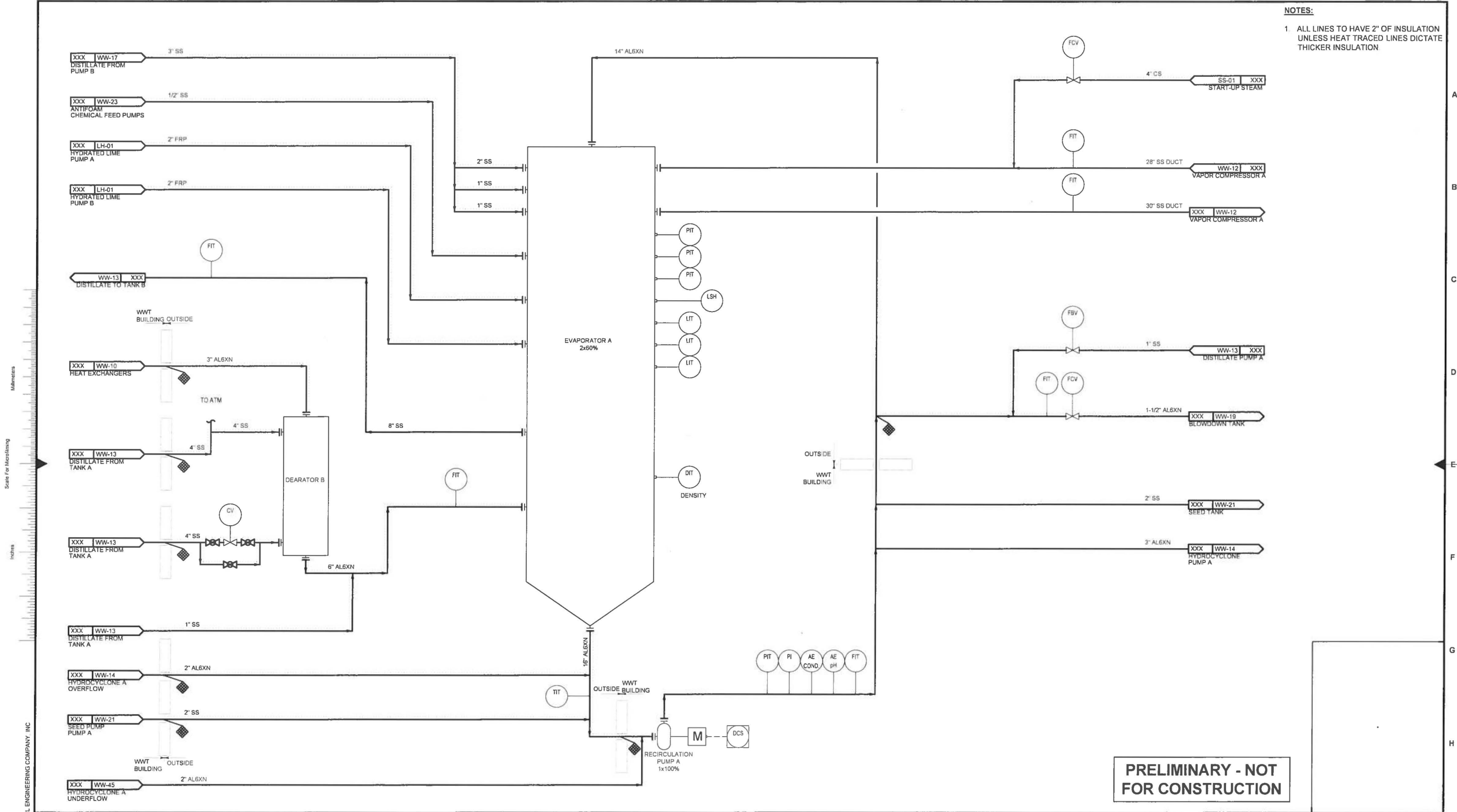
EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM
EVAPORATOR FEED HEAT EXCHANGERS

project	89810	contract	
drawing	WW-10	rev	C
sheet	1	of	1
file	89810-WW-10 DWG		

NOTES:
 1. ALL LINES TO HAVE 2" OF INSULATION UNLESS HEAT TRACED LINES DICTATE THICKER INSULATION



PRELIMINARY - NOT FOR CONSTRUCTION

no	date	by	ckd	description	no	date	by	ckd	description
C	03/30/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
B	01/31/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
A	11/22/16	PTB	KLG	ISSUED FOR OWNER REVIEW					

BURNS & MCDONNELL
 9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-9400
 FIRM LICENSE NO 43

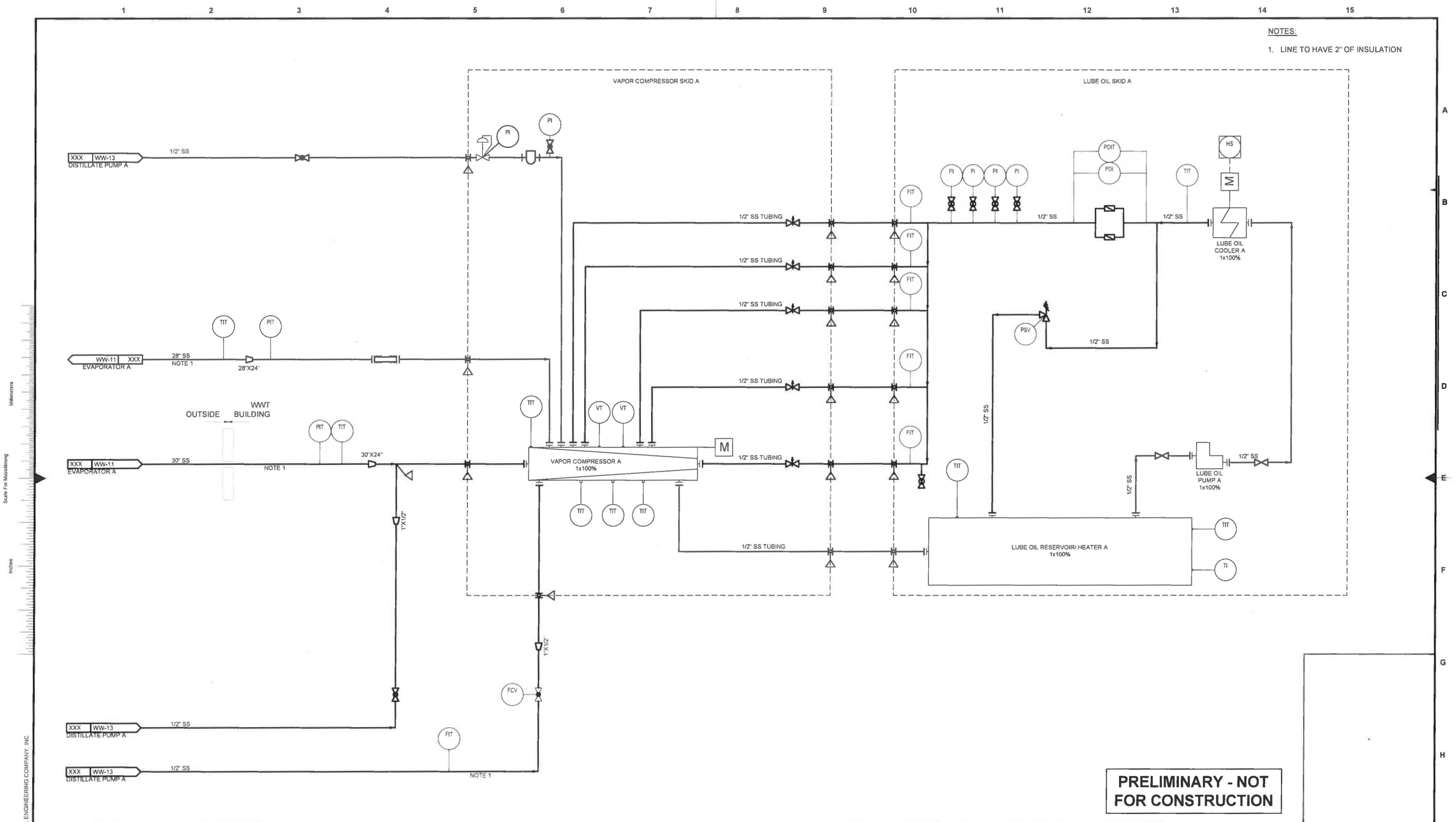
designed: P. BRANDT
 detailed: K. MATTHEWS

EAST KENTUCKY POWER COOPERATIVE
 MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM
 EVAPORATOR A

project	89810	contract	
drawing	WW-11	rev	C
sheet	1	of	1
file	89810-WW-11 DWG		

NOTES:
1. LINE TO HAVE 2" OF INSULATION



PRELIMINARY - NOT FOR CONSTRUCTION

no.	date	by	ckd	description	no.	date	by	ckd	description
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B	01/31/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
A	11/22/16	PTB	KLK	ISSUED FOR OWNER REVIEW					

BURNS MEDONNELL

9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 43

designed: P. BRANDT
detailed: K. MATTHEWS

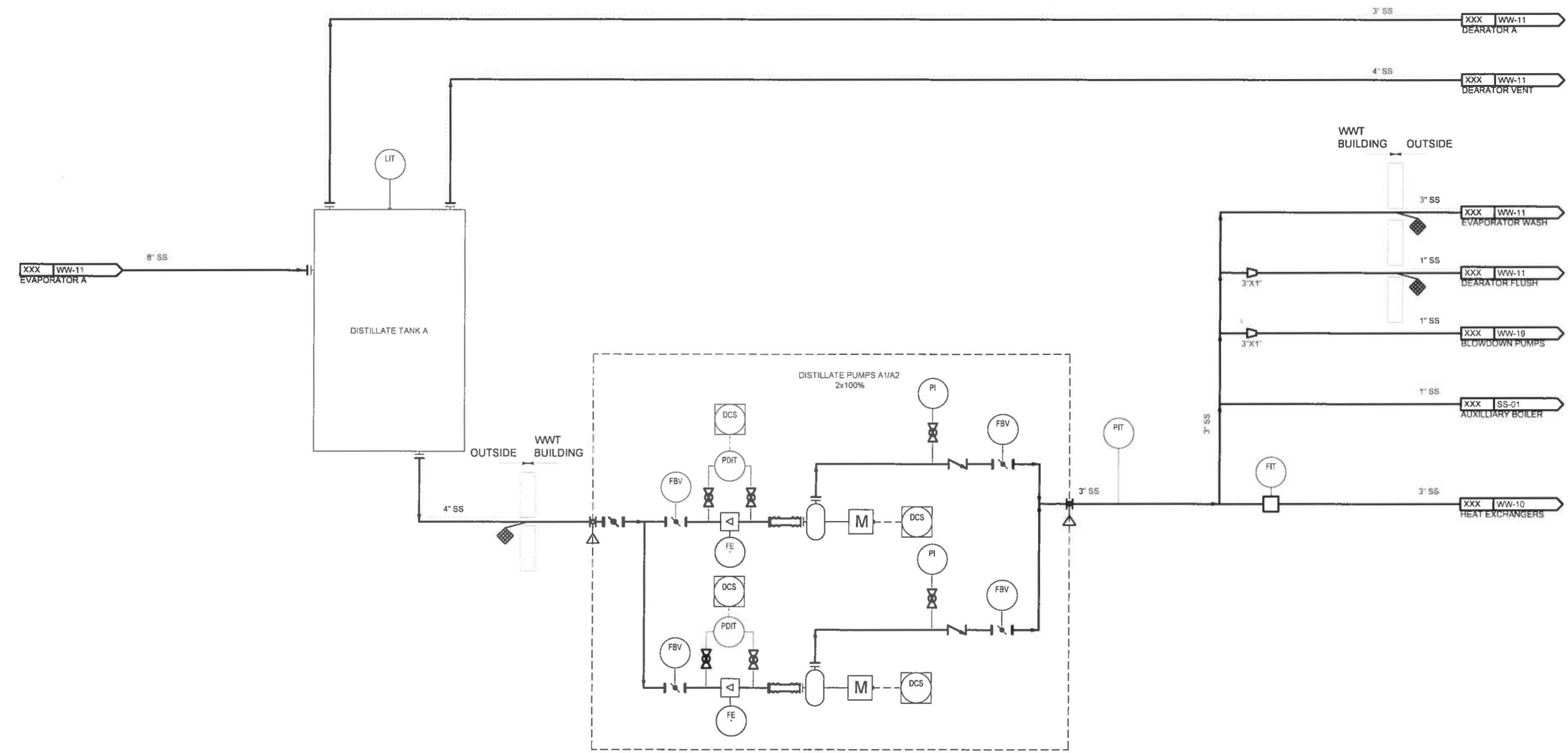
EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM
VAPOR COMPRESSOR A

project	contract
89810	
drawing	rev.
WW-12	C
sheet 1 of 1	sheets
file 89810-WW-12.DWG	

NOTES:
 1 ALL LINES TO HAVE 2" OF INSULATION UNLESS HEAT TRACED LINES DICTATE THICKER INSULATION



PRELIMINARY - NOT FOR CONSTRUCTION

BURNS & MCDONNELL ENGINEERING COMPANY, INC.

no	date	by	ckd	description	no	date	by	ckd	description
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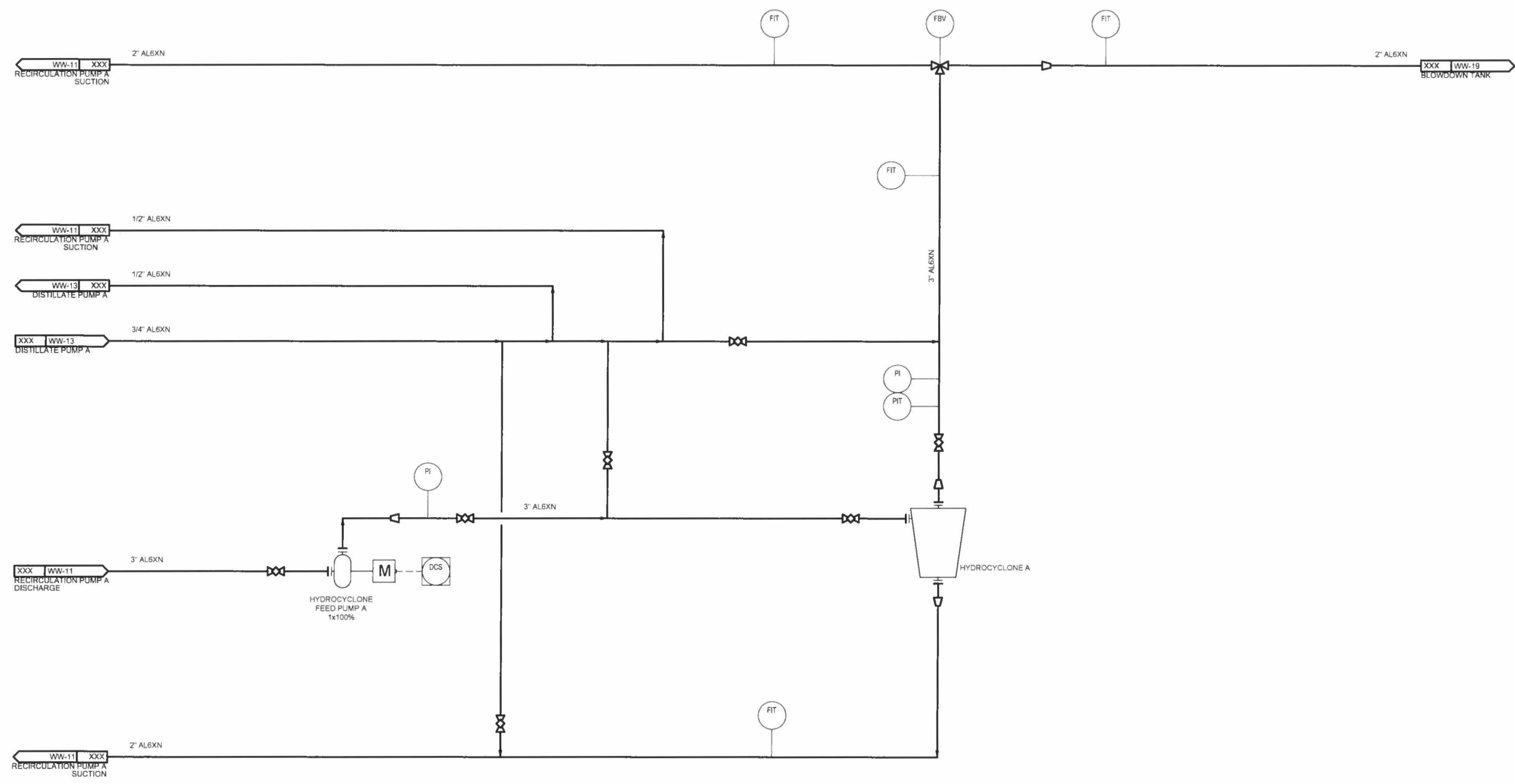
BURNS & MCDONNELL
 9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-9400
 FIRM LICENSE NO. 43

designed: P. BRANDT
 detailed: K. MATTHEWS

EAST KENTUCKY POWER COOPERATIVE
 MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM TRAIN A DISTILLATE TANK AND PUMPS	
project 89810	contract
drawing WW-13	rev C
sheet 1 of 1 sheets	file 89810-WW-13 DWG

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15



PRELIMINARY - NOT FOR CONSTRUCTION

BURNS & McDONNELL ENGINEERING COMPANY, INC.

no.	date	by	ckd	description	no.	date	by	ckd	description
C	03/30/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
B	01/31/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
A	11/22/16	PTB	KLK	ISSUED FOR OWNER REVIEW					

BURNS & McDONNELL

9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 43

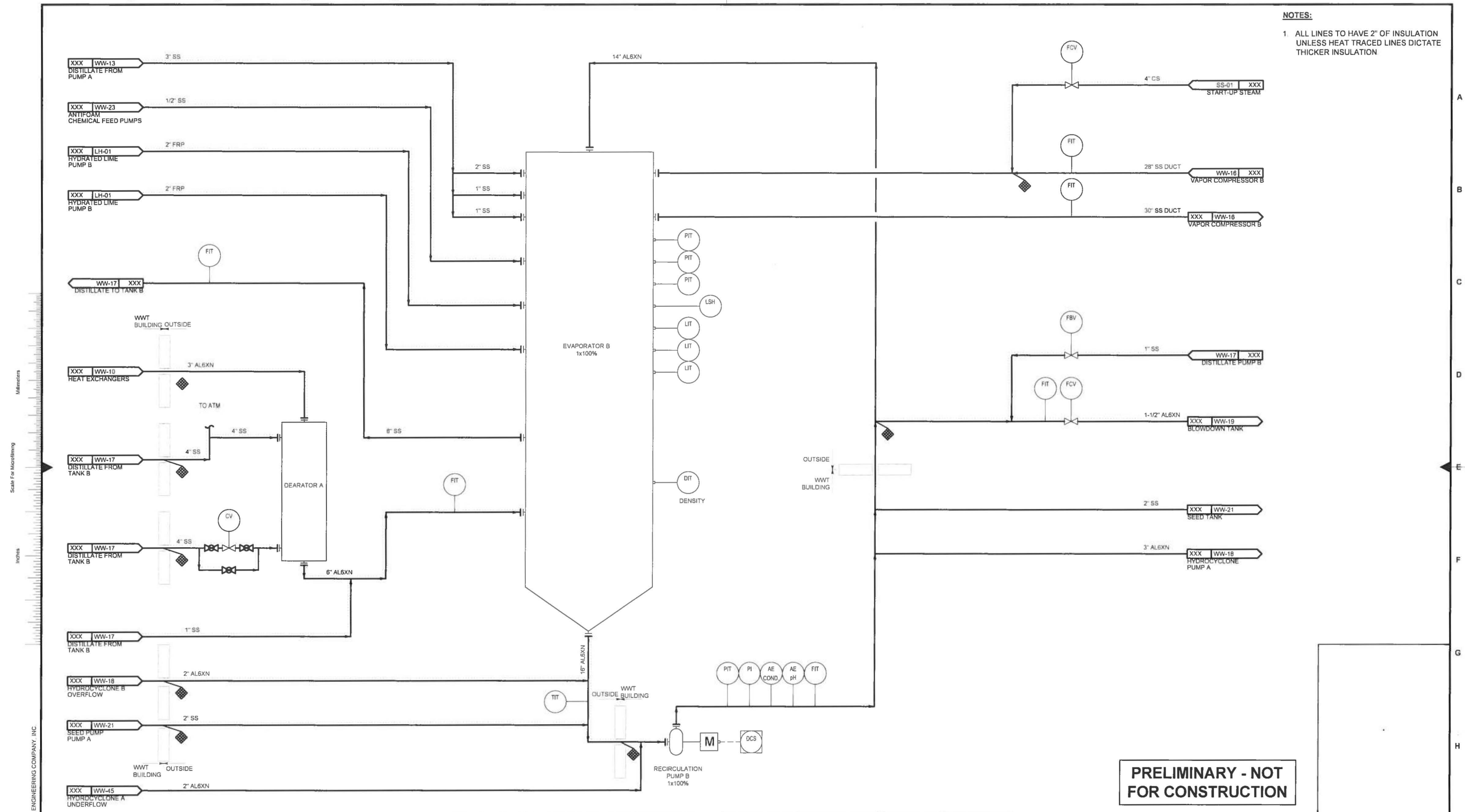
designed: P BRANDT
detailed: K MATTHEWS

EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM HYDROCYCLONE A	
project 89810	contract
drawing WW-14 - C rev.	
sheet 1 of 1	sheets
file 89810-WW-14.DWG	

NOTES:
 1. ALL LINES TO HAVE 2" OF INSULATION UNLESS HEAT TRACED LINES DICTATE THICKER INSULATION



PRELIMINARY - NOT FOR CONSTRUCTION

no	date	by	ckd	description	no	date	by	ckd	description
C	03/30/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
B	01/31/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
A	11/22/16	PTB	KLK	ISSUED FOR OWNER REVIEW					

BURNS & MCDONNELL
 9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-9400
 FIRM LICENSE NO. 43

designed: P. BRANDT
 detailed: K. MATTHEWS

EAST KENTUCKY POWER COOPERATIVE

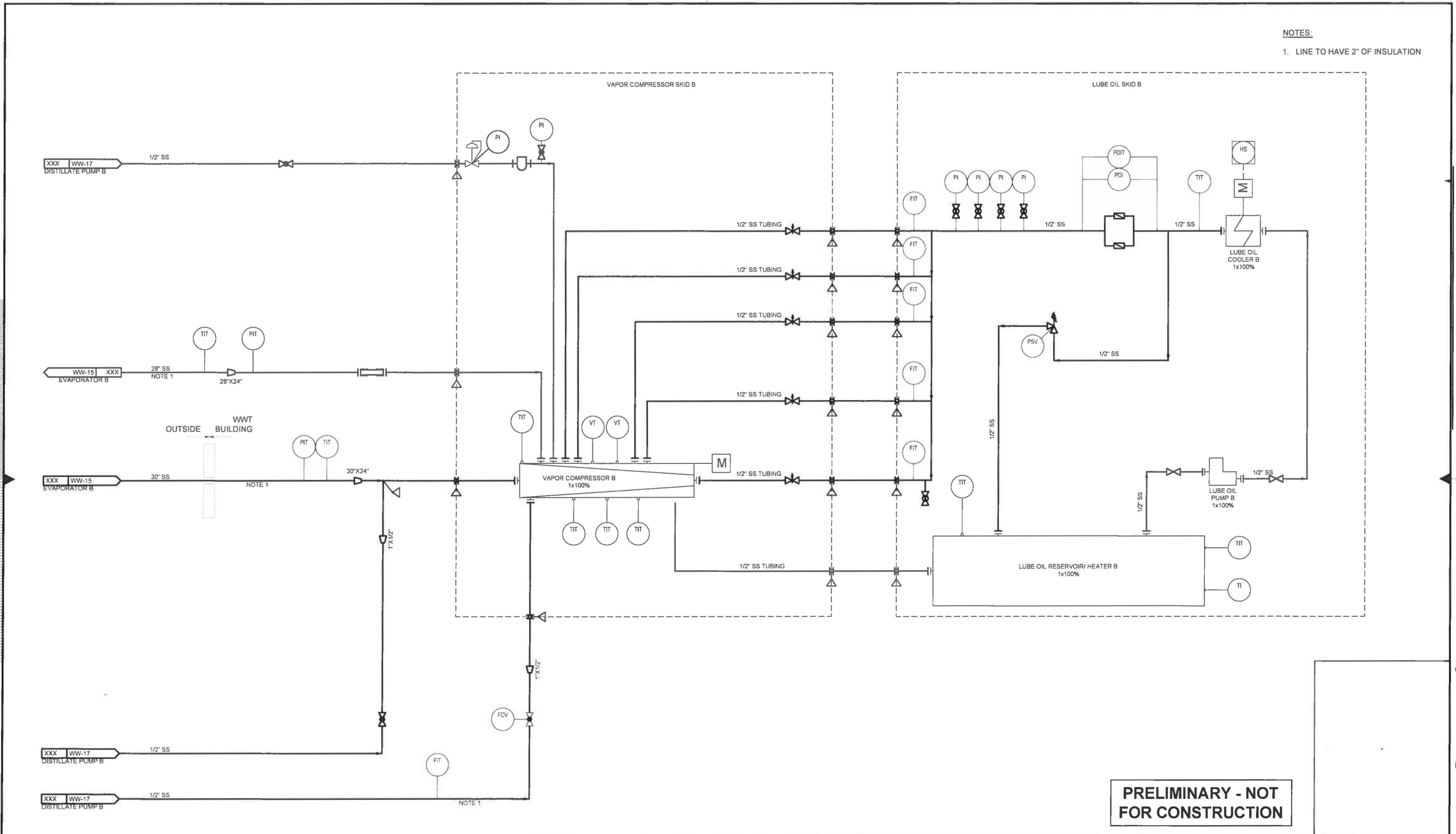
MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM
 EVAPORATOR B

project	contract
89810	
drawing	rev
WW-15	C
sheet 1 of 1 sheets	
file 89810-WW-15 DWG	

NOTES:
1. LINE TO HAVE 2" OF INSULATION.

Scale For Microlining
Millimeters
Inches



PRELIMINARY - NOT FOR CONSTRUCTION

no	date	by	ckd	description	no	date	by	ckd	description
C	03/30/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
B	01/31/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
A	11/22/16	PTB	KLK	ISSUED FOR OWNER REVIEW					

BURNS MEDONNELL
 9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-9400
 FIRM LICENSE NO 43

designed: P. BRANDT
 detailed: K. MATTHEWS

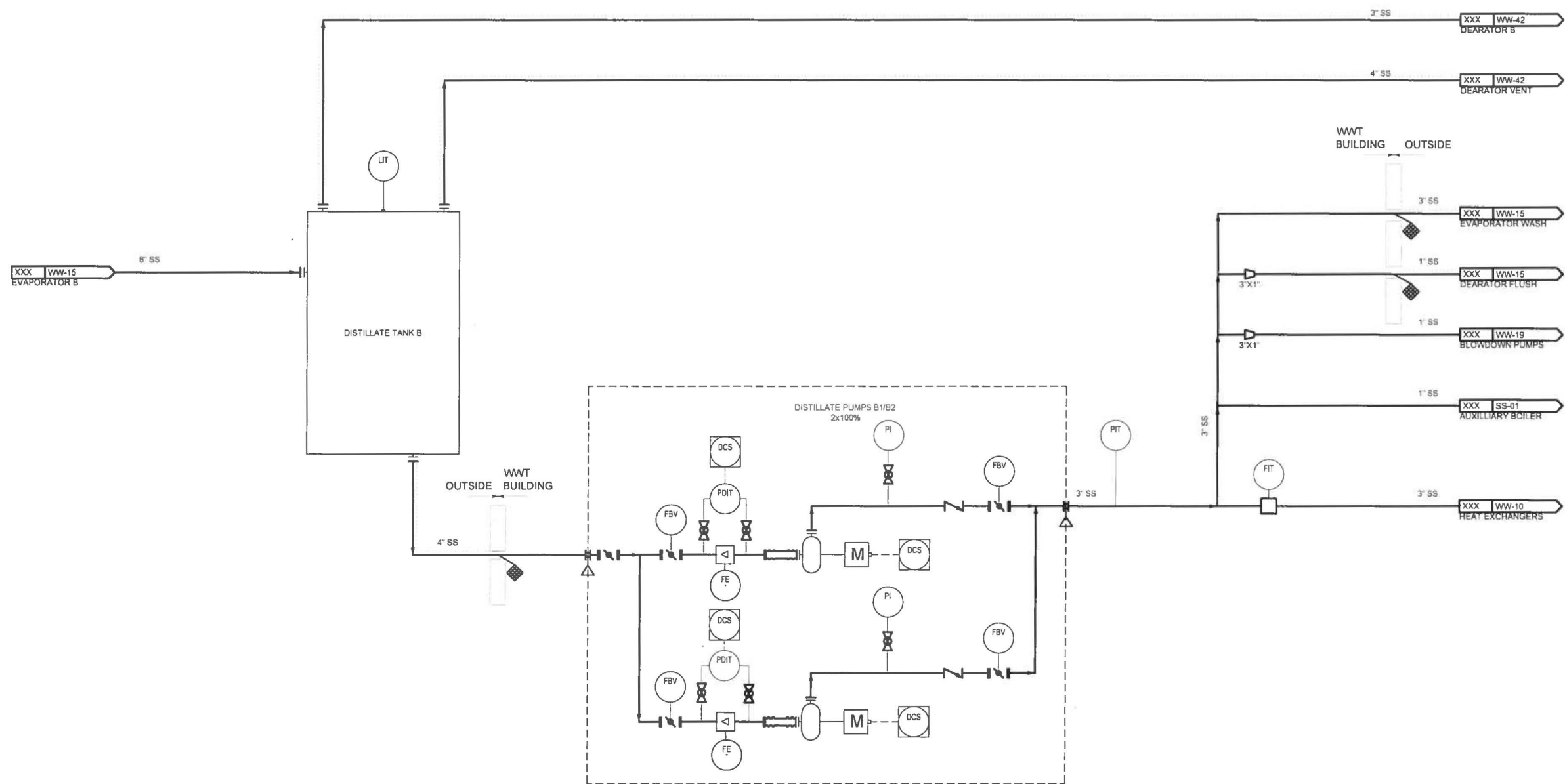
EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM
VAPOR COMPRESSOR B

project	contract
89810	
drawing	rev.
WW-16	C
sheet 1 of 1	sheets
file 89810-WW-16 DWG	

NOTES:
 1. ALL LINES TO HAVE 2" OF INSULATION UNLESS HEAT TRACED LINES DICTATE THICKER INSULATION.



PRELIMINARY - NOT FOR CONSTRUCTION

BURNS & MCDONNELL ENGINEERING COMPANY, INC.

no.	date	by	ckd	description	no.	date	by	ckd	description
C	03/30/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
B	01/31/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
A	11/22/16	PTB	KLK	ISSUED FOR OWNER REVIEW					

BURNS MCDONNELL
 9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-9400
 FIRM LICENSE NO. 43

designed P. BRANDT detailed K. MATTHEWS

EAST KENTUCKY POWER COOPERATIVE

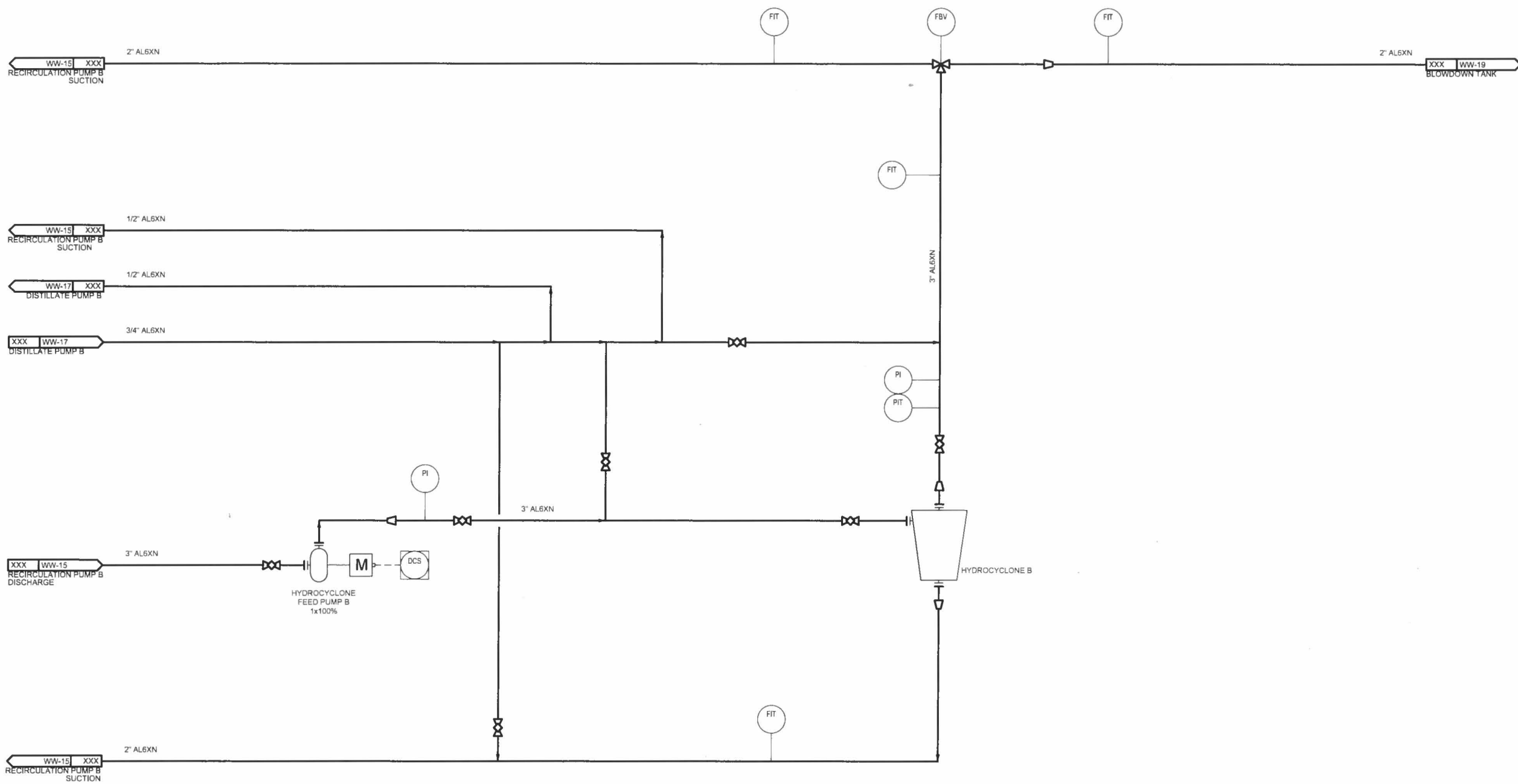
MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM
 TRAIN B DISTILLATE TANK AND PUMPS

project 89810	contract
drawing WW-17	rev. C
sheet 1 of 1	sheets
file 89810-WW-17 DWG	

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

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PRELIMINARY - NOT FOR CONSTRUCTION

BURNS & MCDONNELL ENGINEERING COMPANY, INC.

no.	date	by	ckd	description	no.	date	by	ckd	description
C	03/30/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
B	01/31/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
A	11/22/16	PTB	KLK	ISSUED FOR OWNER REVIEW					

BURNS MCDONNELL

9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 43

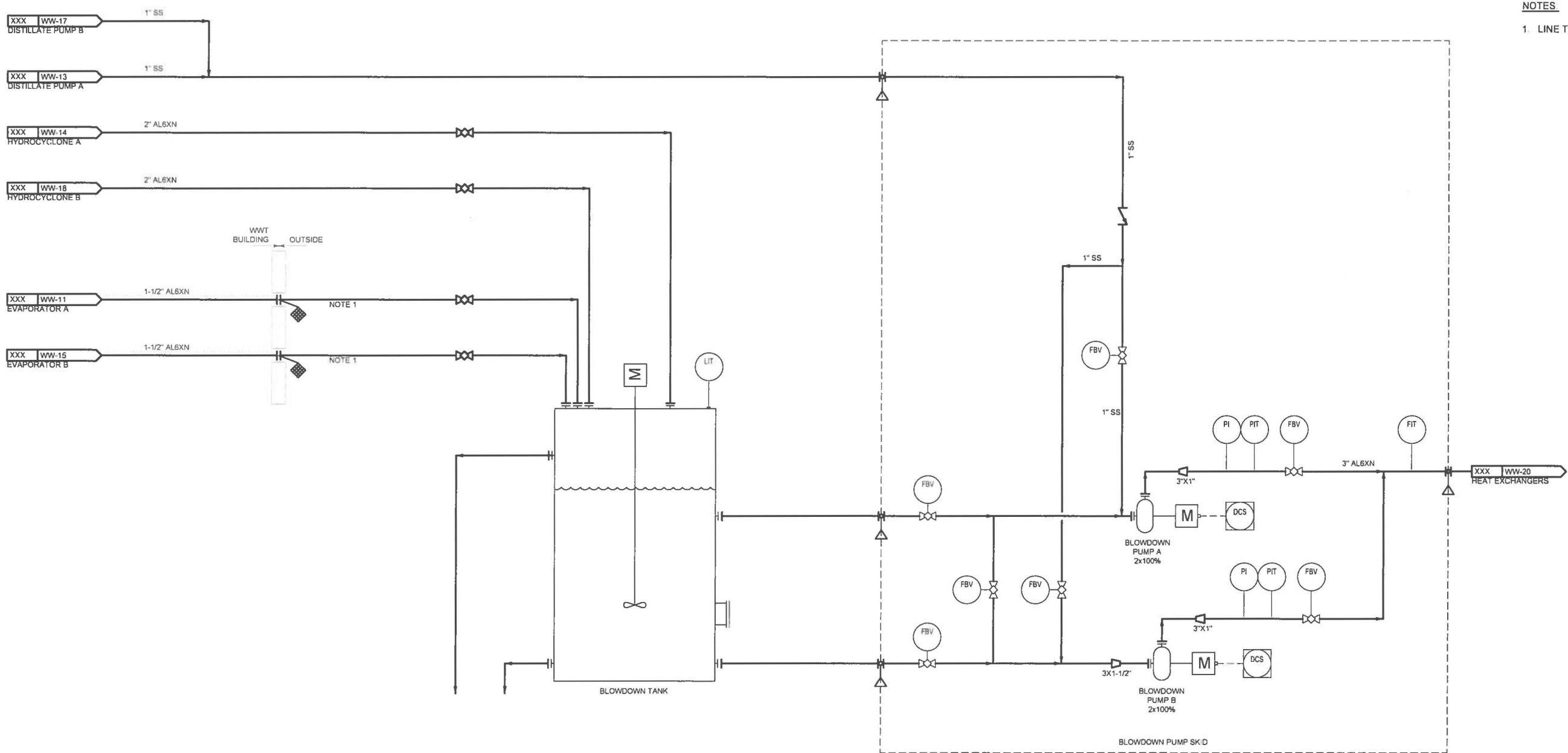
designed: P. BRANDT
detailed: K. MATTHEWS

EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM HYDROCYCLONE B	
project 89810	contract
drawing WW-18 - rev C	
sheet 1 of 1 sheets	file 89810-WW-18.DWG

NOTES
 1. LINE TO HAVE 2" OF INSULATION.



PRELIMINARY - NOT FOR CONSTRUCTION

89949-BURNS & McDONNELL ENGINEERING COMPANY, INC.

no	date	by	ckd	description	no	date	by	ckd	description
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A	11/22/16	PTB	KLK	ISSUED FOR OWNER REVIEW					

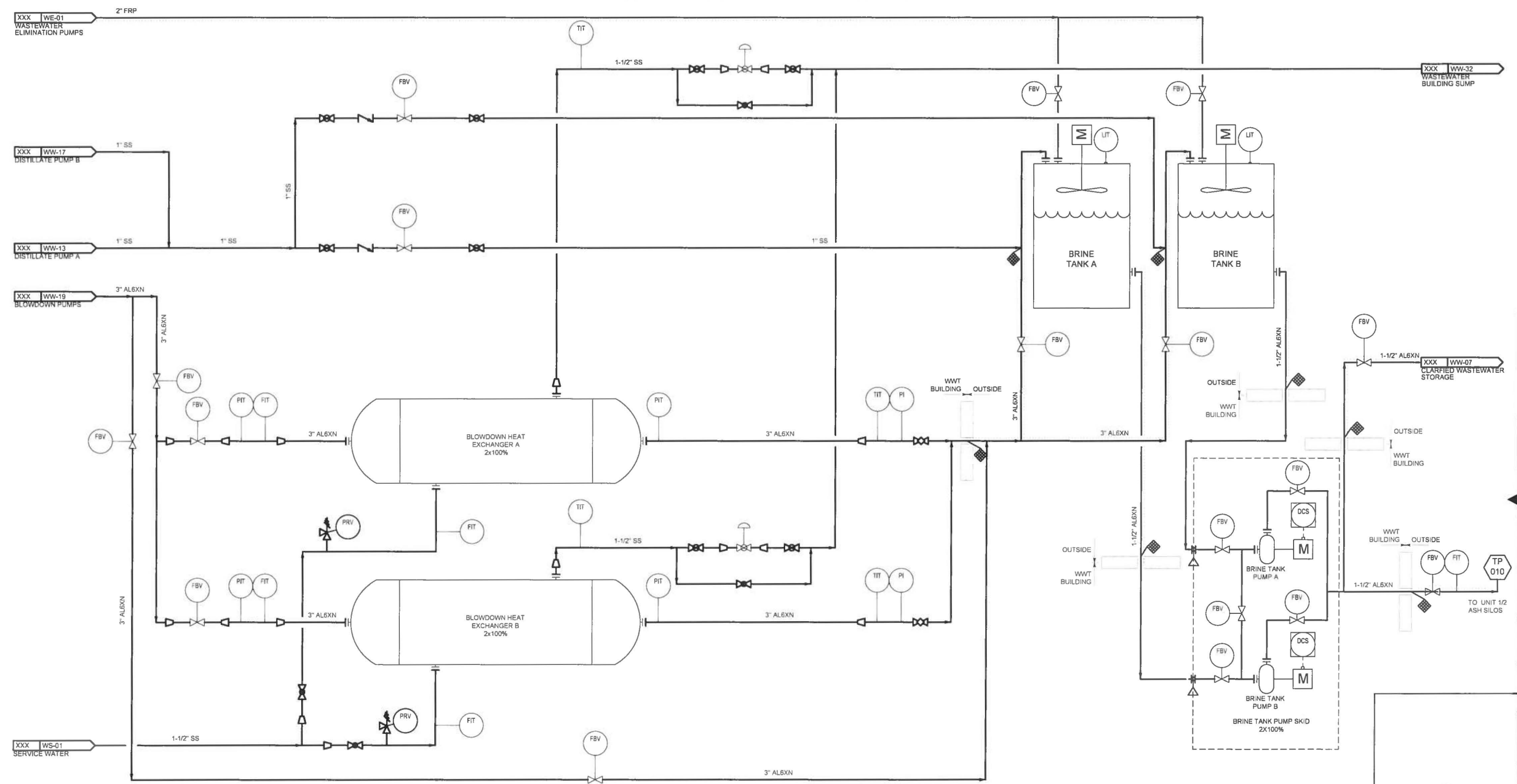
BURNS & McDONNELL
 9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-9400
 FIRM LICENSE NO. 43

designed: P BRANDT
 detailed: K MATTHEWS

EAST KENTUCKY POWER COOPERATIVE
 MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM
 BLOWDOWN TANK

project	contract
89810	
drawing	rev.
WW-19	C
sheet 1 of 1 sheets	file 89810-WW-19 DWG



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B	01/31/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
A	11/22/16	PTB	KLK	ISSUED FOR OWNER REVIEW					

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816-333-9400
FIRM LICENSE NO. 43

designed P. BRANDT detailed K. MATTHEWS

EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM
BLOWDOWN HEAT EXCHANGERS
AND BRINE TANKS

project 89810 contract

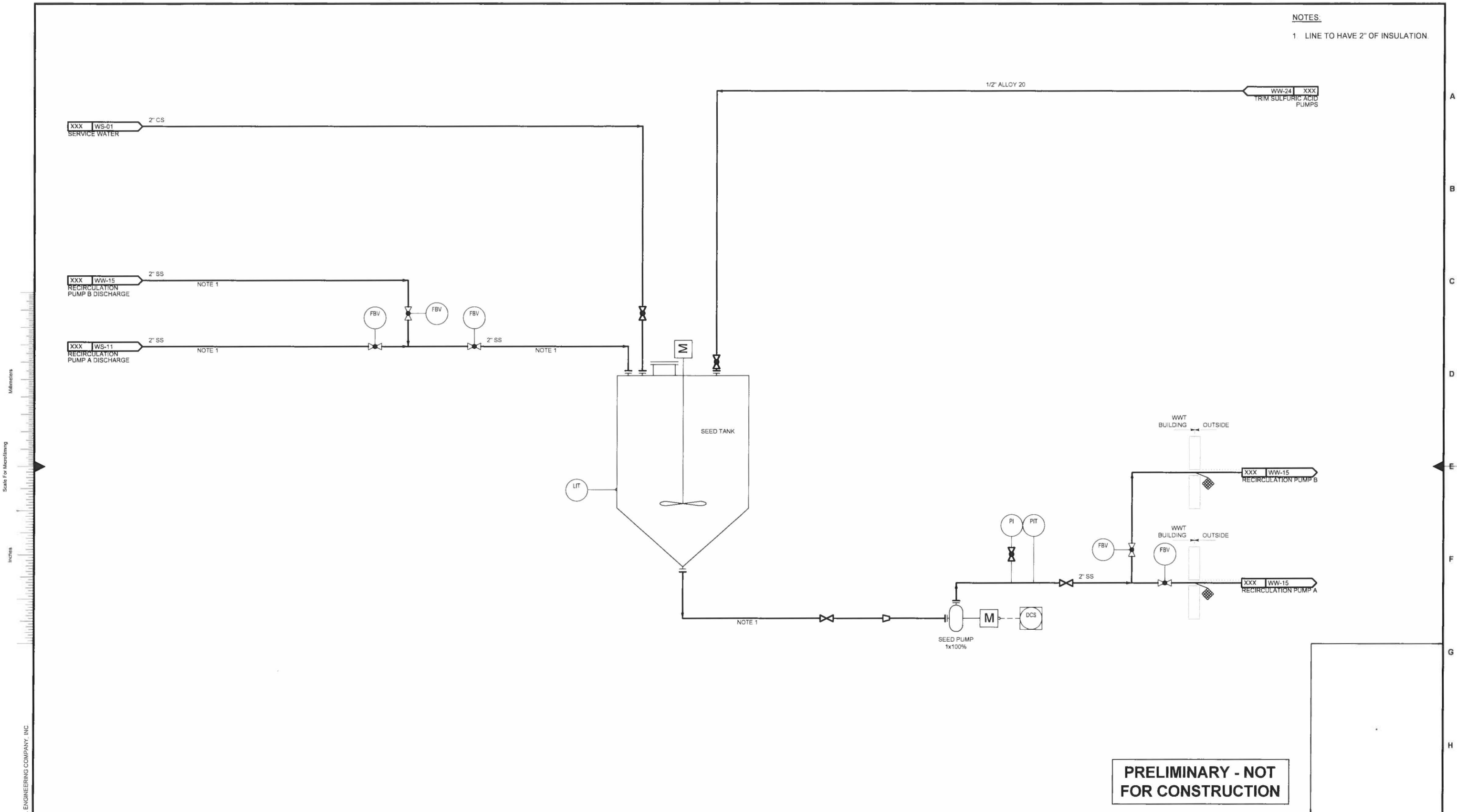
drawing **WW-20** rev. **C**

sheet 1 of 1 sheets

file 89810-WW-20 DWG

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

NOTES:
1 LINE TO HAVE 2" OF INSULATION.



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C	03/30/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
B	01/31/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
A	11/22/16	PTB	KLK	ISSUED FOR OWNER REVIEW					

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816-333-9400
FIRM LICENSE NO. 43

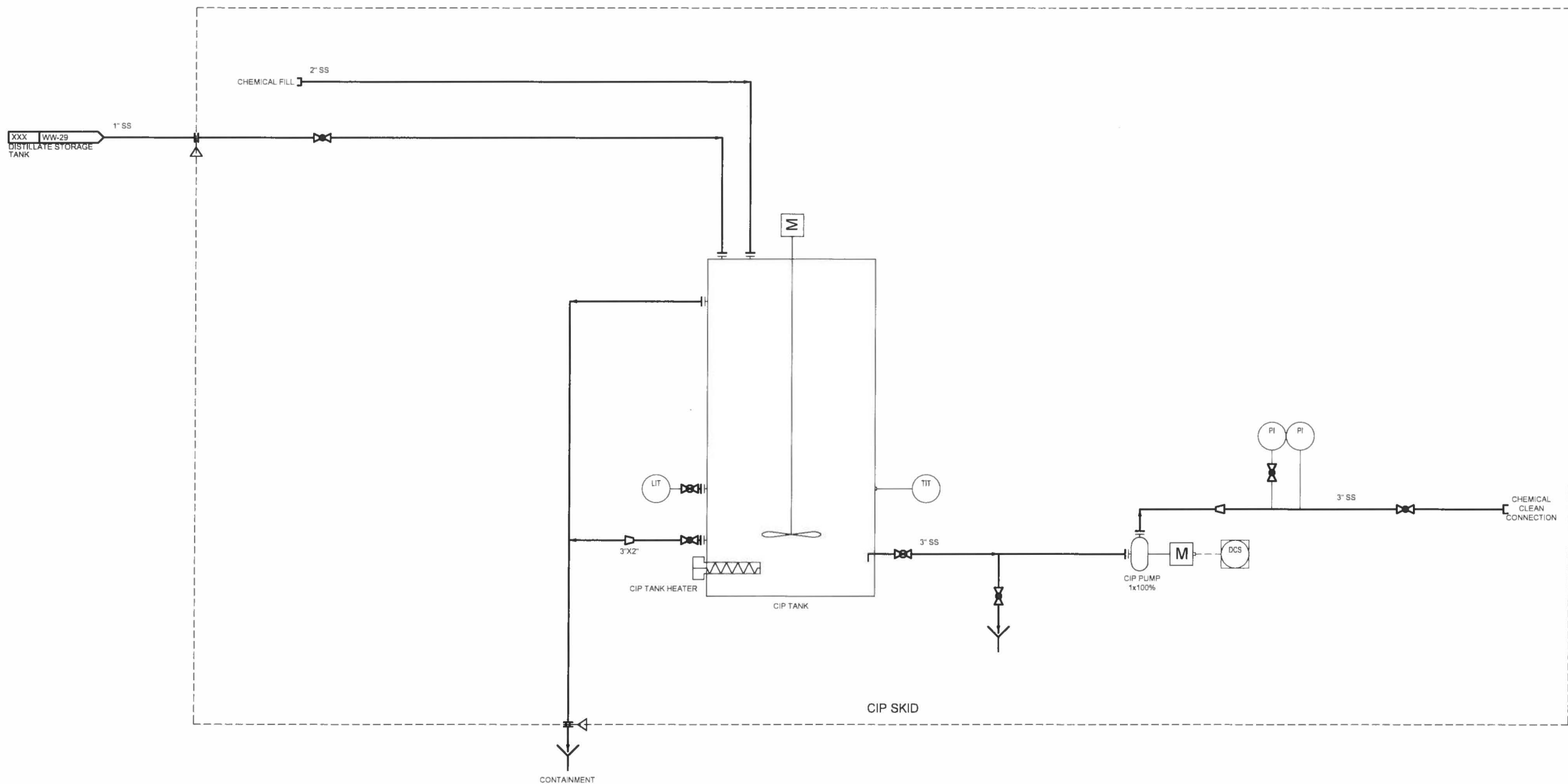
designed: P. BRANDT
detailed: K. MATTHEWS

EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM SEED TANK	
project 89810	contract
drawing WW-21	rev. C
sheet 1 of 1	sheets
file 89810-WW-21 DWG	

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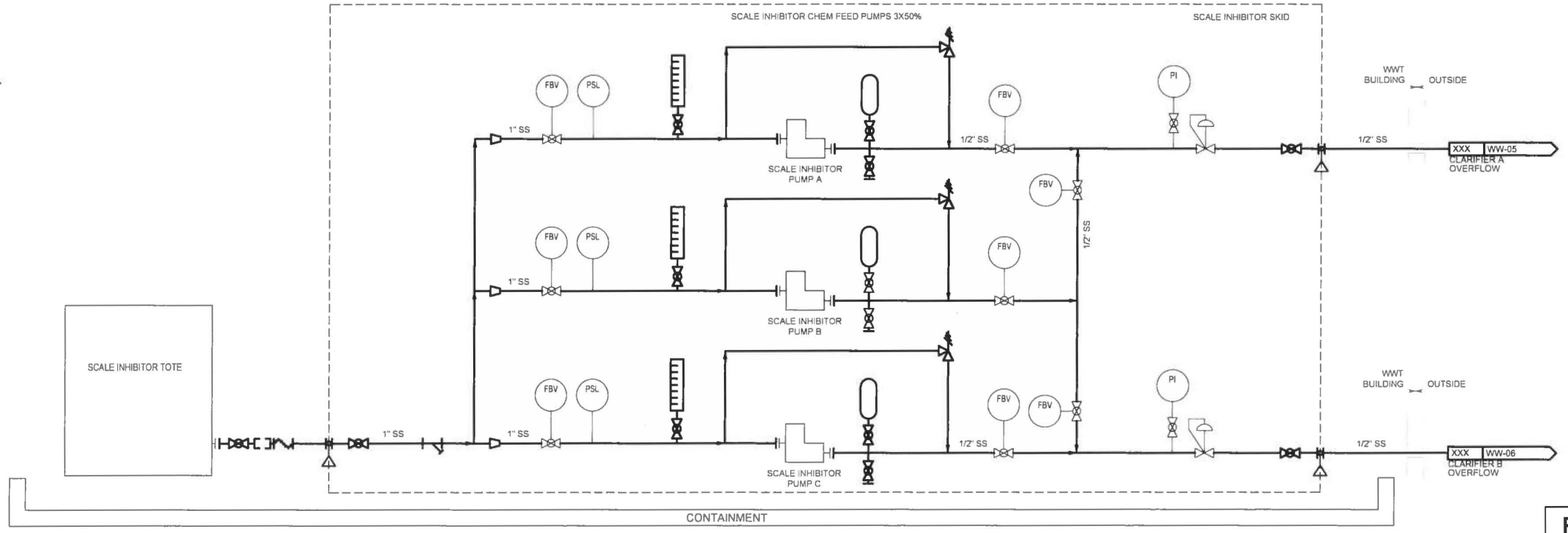
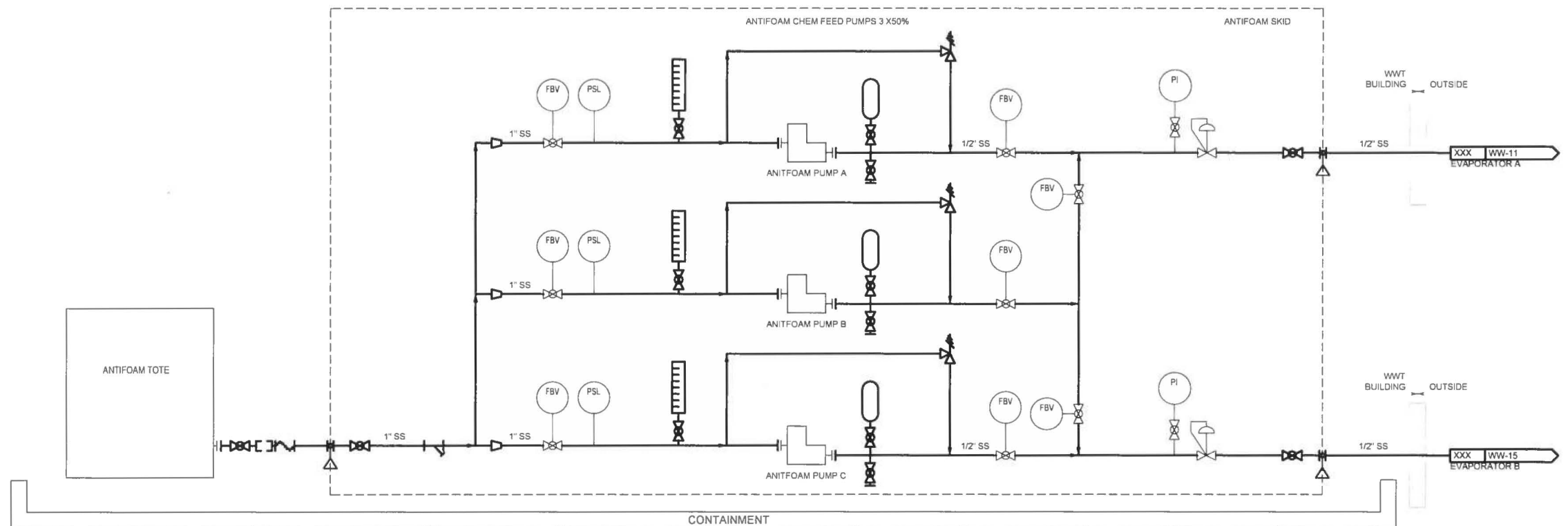
designed: P. BRANDT
detailed: K. MATTHEWS

EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM CIP SKID	
project 89810	contract
drawing WW-22	rev. C
sheet 1 of 1 sheets	file 89810-WW-22 DWG

Meters
Scale For Microlining
Inches



PRELIMINARY - NOT FOR CONSTRUCTION

no	date	by	ckd	description	no	date	by	ckd	description
C	03/30/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
B	01/31/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
A	11/22/16	PTB	KLK	ISSUED FOR OWNER REVIEW					

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FIRM LICENSE NO. 43

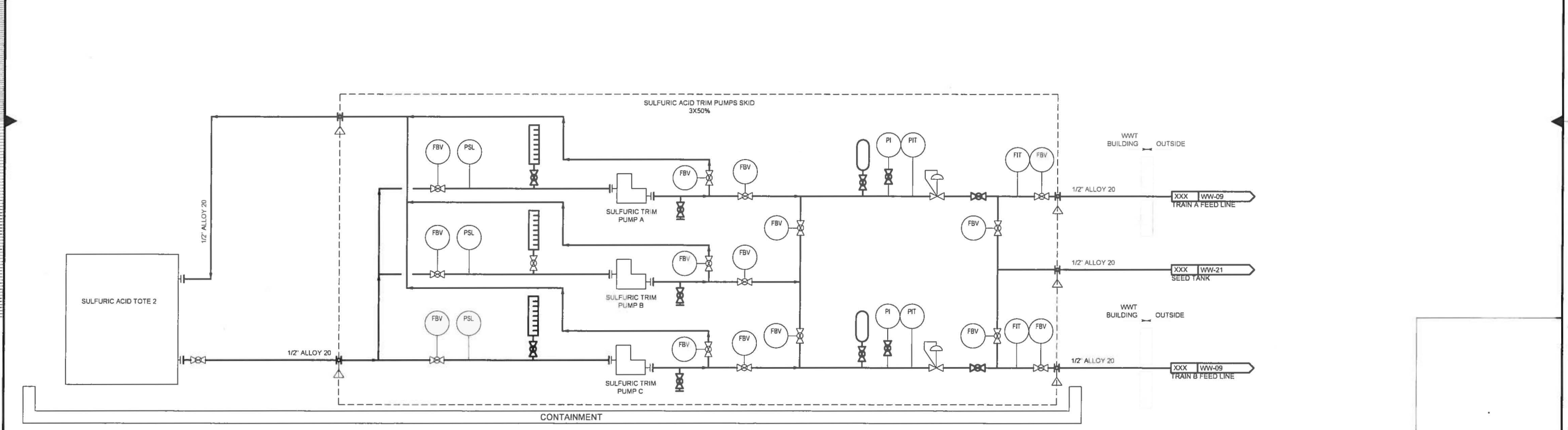
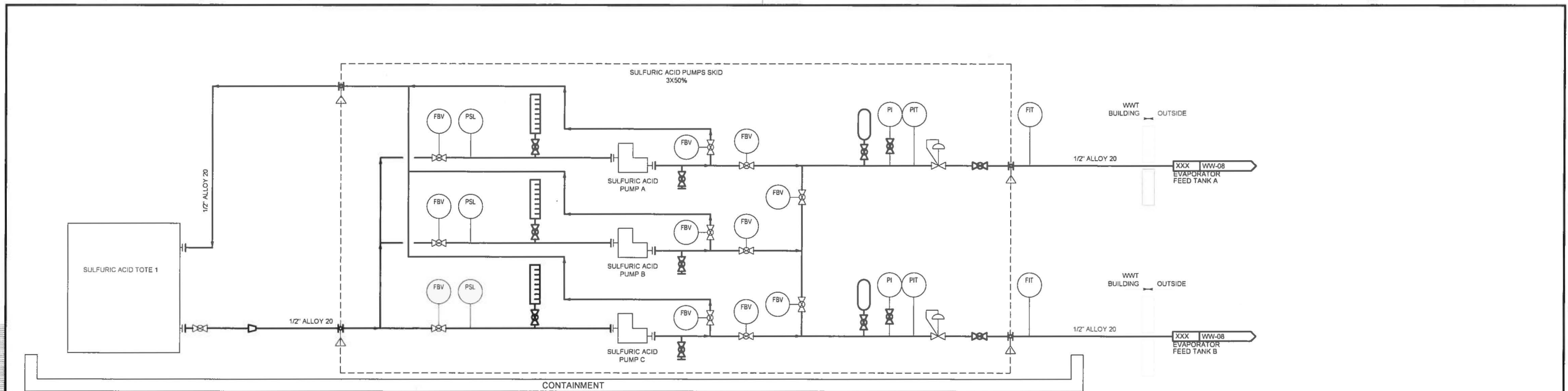
designed P. BRANDT
detailed K. MATTHEWS

EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM
ANTI-FOAM AND SCALE INHIBITOR CHEM FEED

project 89810	contract
drawing	rev. C
sheet 1 of 1	sheets
file 89810-WW-23.DWG	



PRELIMINARY - NOT FOR CONSTRUCTION

Scale For Microfilming
Meters
Inches

BURNS & MCDONNELL ENGINEERING COMPANY, INC.

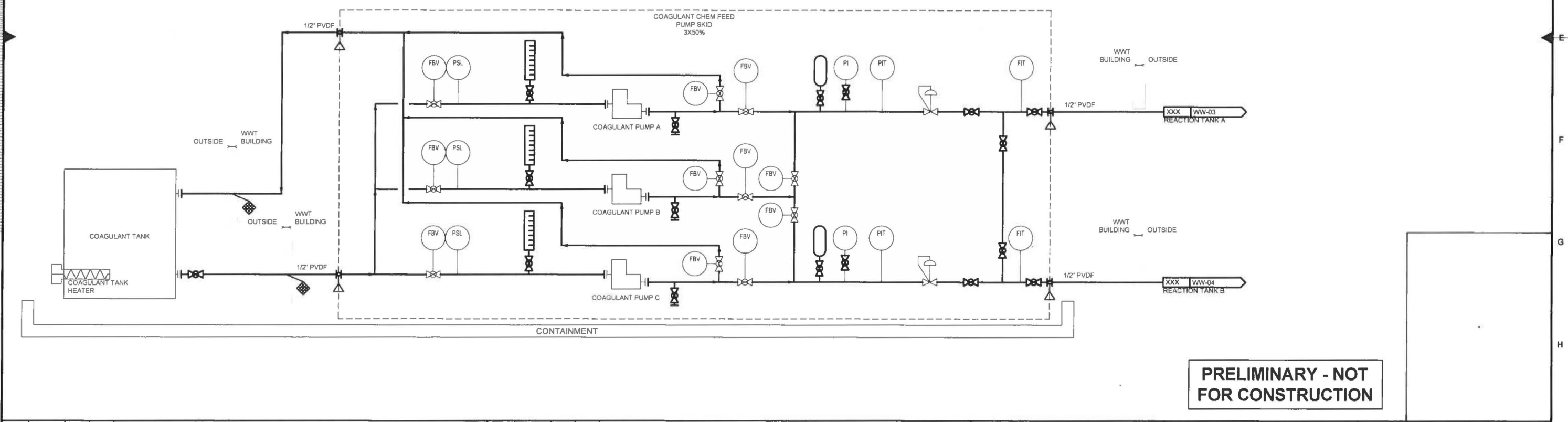
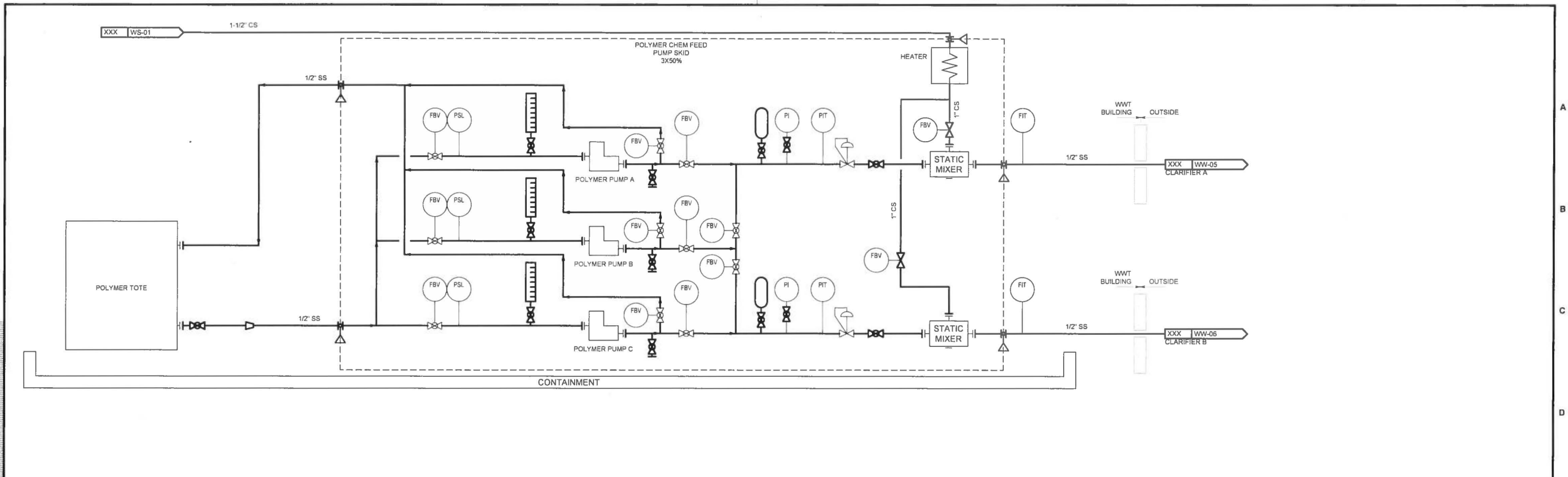
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A	11/22/16	PTB	KLK	ISSUED FOR OWNER REVIEW					

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 FIRM LICENSE NO. 43

designed: P. BRANDT
 detailed: K. MATTHEWS

EAST KENTUCKY POWER COOPERATIVE
 MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM SULFURIC ACID CHEM FEED	
project 89810	contract
drawing WW-24	rev. B
sheet 1 of 1 sheets	file 89810-WW-24 DWG



PRELIMINARY - NOT FOR CONSTRUCTION

BURNS & MCDONNELL ENGINEERING COMPANY, INC.

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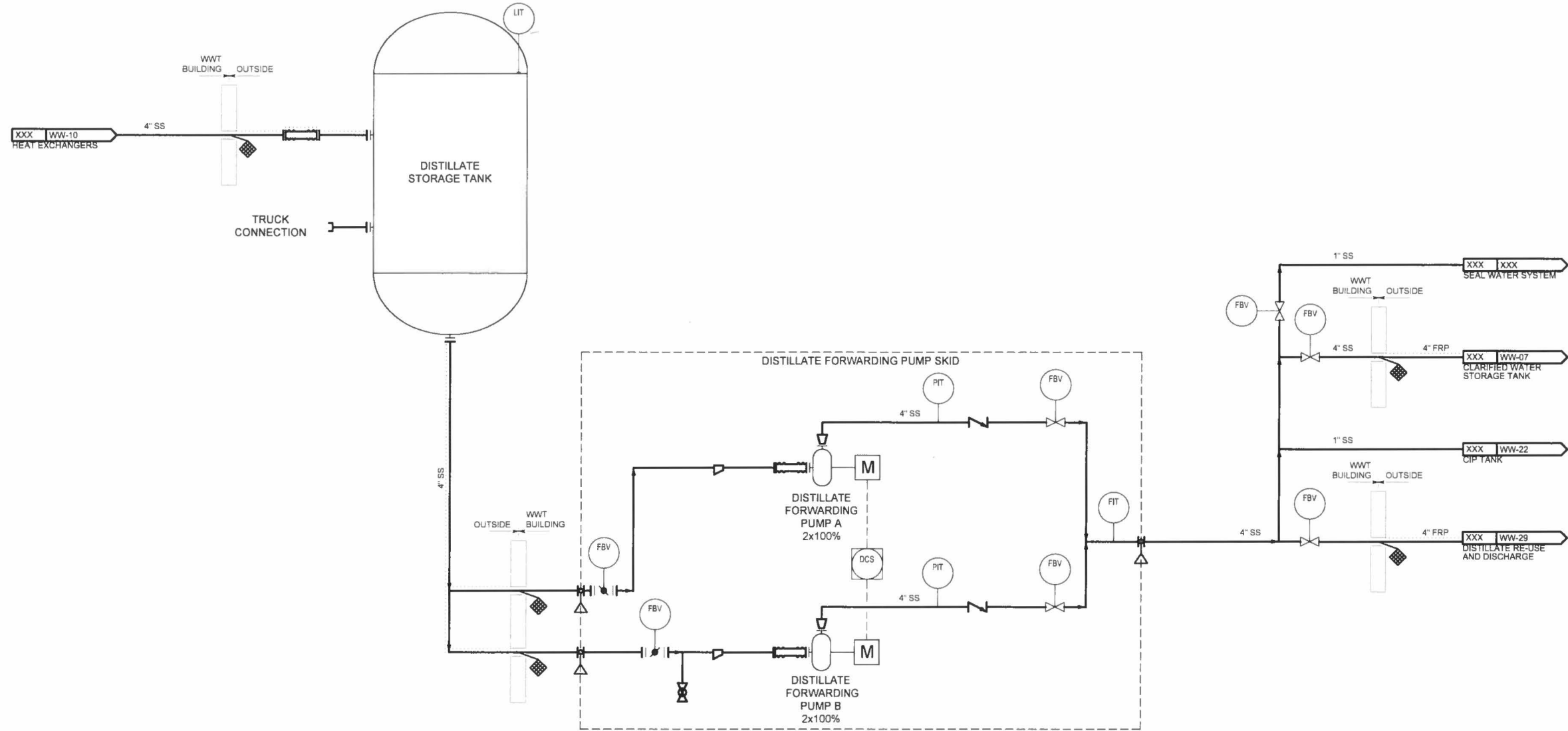
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 43

designed: P. BRANDT
detailed: K. MATTHEWS

EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM POLYMER AND COAGULANT CHEM FEED	
project 89810	contract
drawing WW-25 rev C	
sheet 1 of 1	sheets
file 89810-WW-25 DWG	



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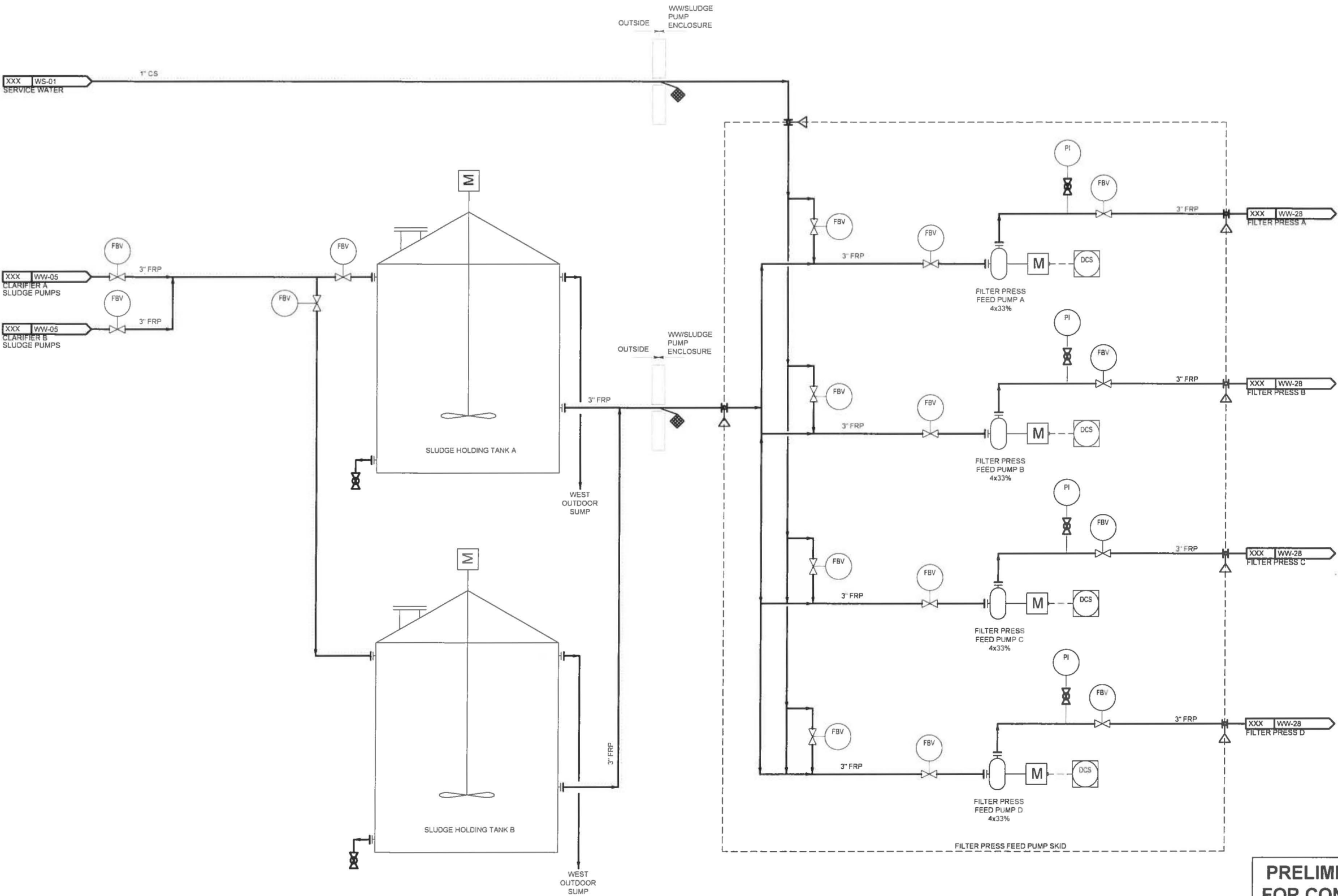
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 43

designed: P. BRANDT
detailed: K. MATTHEWS

EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM DISTILLATE STORAGE TANK	
project 89810	contract
drawing WW-26	rev C
sheet 1 of 1 sheets	file 89810-WW-26.DWG



PRELIMINARY - NOT FOR CONSTRUCTION

8984-BURNS & McDONNELL ENGINEERING COMPANY, INC.

no	date	by	ckd	description	no	date	by	ckd	description
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BURNS & McDONNELL

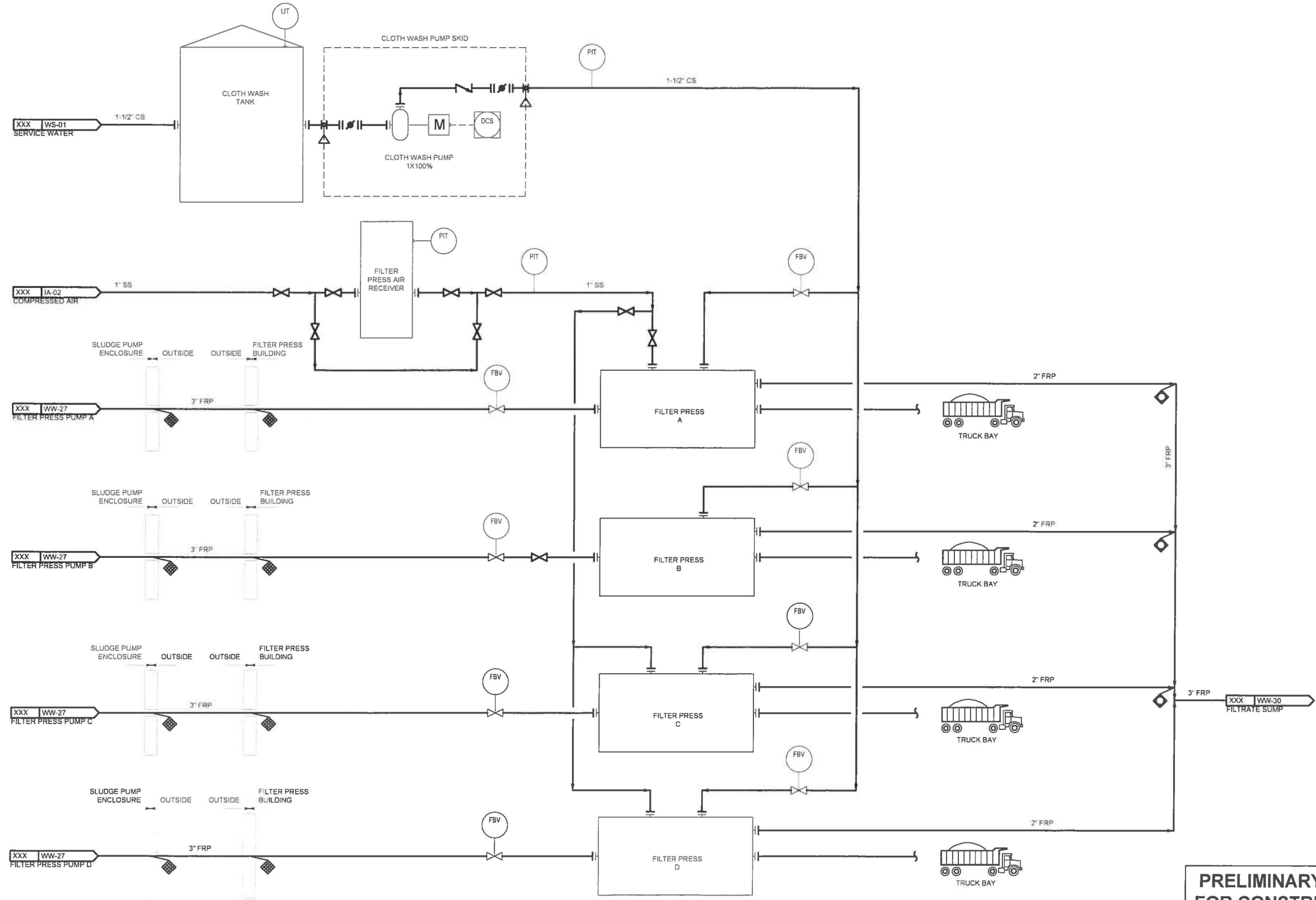
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 43

designed: P. BRANDT
detailed: K. MATTHEWS

EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM SLUDGE HOLDING TANK AND FILTER PRESS FEED PUMPS	
project 89810	contract
drawing WW-27 - C rev	
sheet 1 of 1	sheets
file 89810-WW-27.DWG	



PRELIMINARY - NOT FOR CONSTRUCTION

8996-BURNS & McDONNELL ENGINEERING COMPANY, INC

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BURNS & McDONNELL

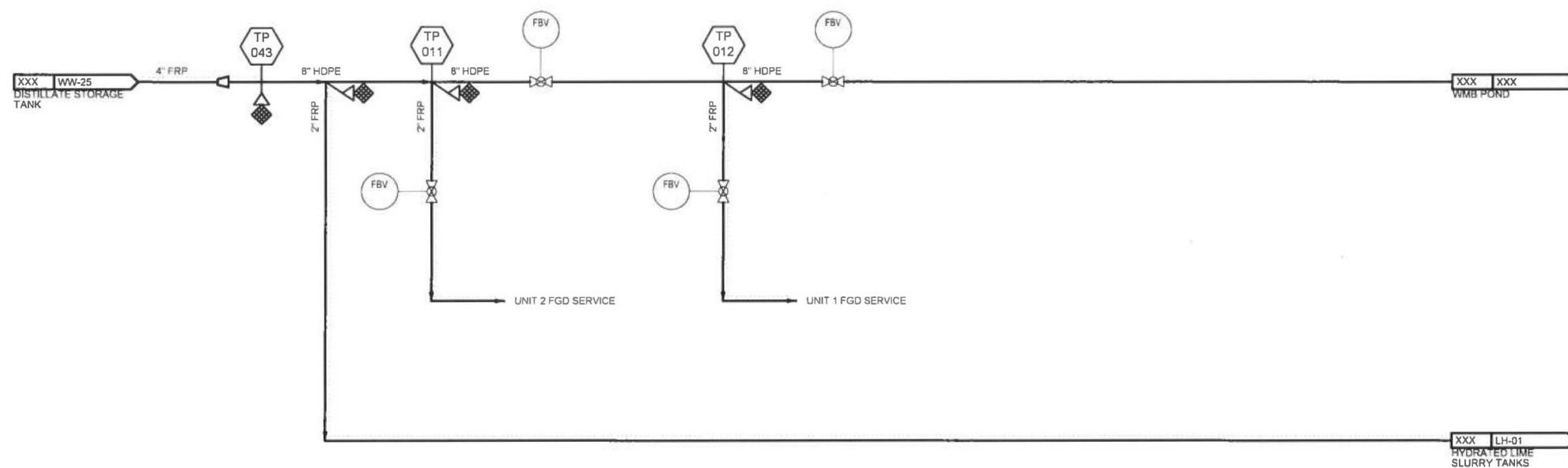
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 43

designed: P. BRANDT
detailed: K. MATTHEWS

EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM FILTER PRESSES	
project 89810	contract
drawing WW-28	rev. C
sheet 1 of 1	sheets
file: 89810-WW-28.DWG	



PRELIMINARY - NOT FOR CONSTRUCTION

BURNS & MCDONNELL ENGINEERING COMPANY, INC.

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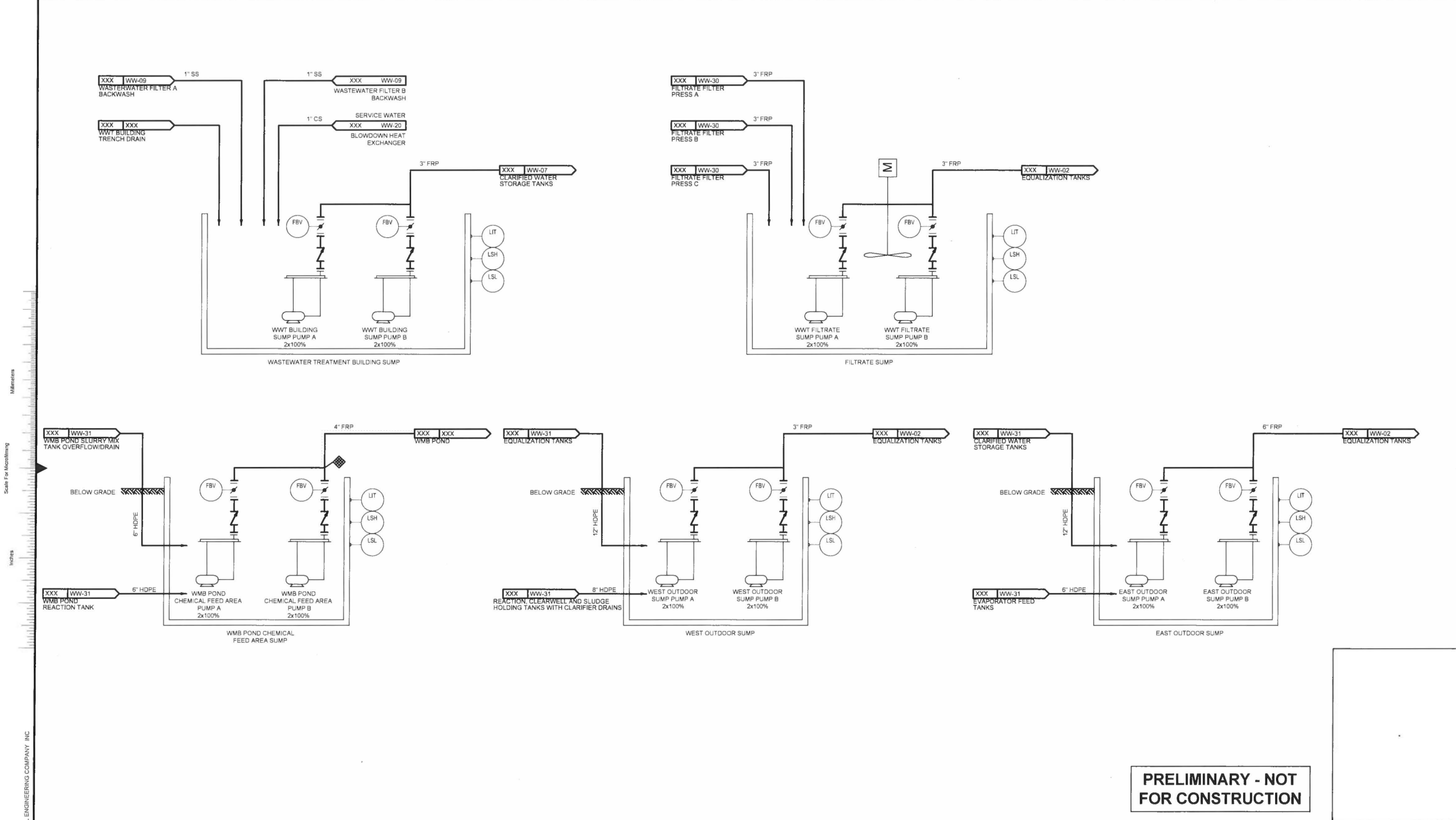
BURNS MCDONNELL
 9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-9400
 FIRM LICENSE NO. 43

designed: P. BRANDT
 detailed: K. MATTHEWS



EAST KENTUCKY POWER COOPERATIVE
 MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM DISTILLATE DISCHARGE AND RE-USE	
project 89810	contract
drawing WW-29	rev C
sheet 1 of 1 sheets	file 89810-WW-29 DWG



PRELIMINARY - NOT FOR CONSTRUCTION

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A	11/22/16	PTB	KLK	ISSUED FOR OWNER REVIEW					

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 9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-9400
 FIRM LICENSE NO. 43

designed: P. BRANDT
 detailed: K. MATTHEWS

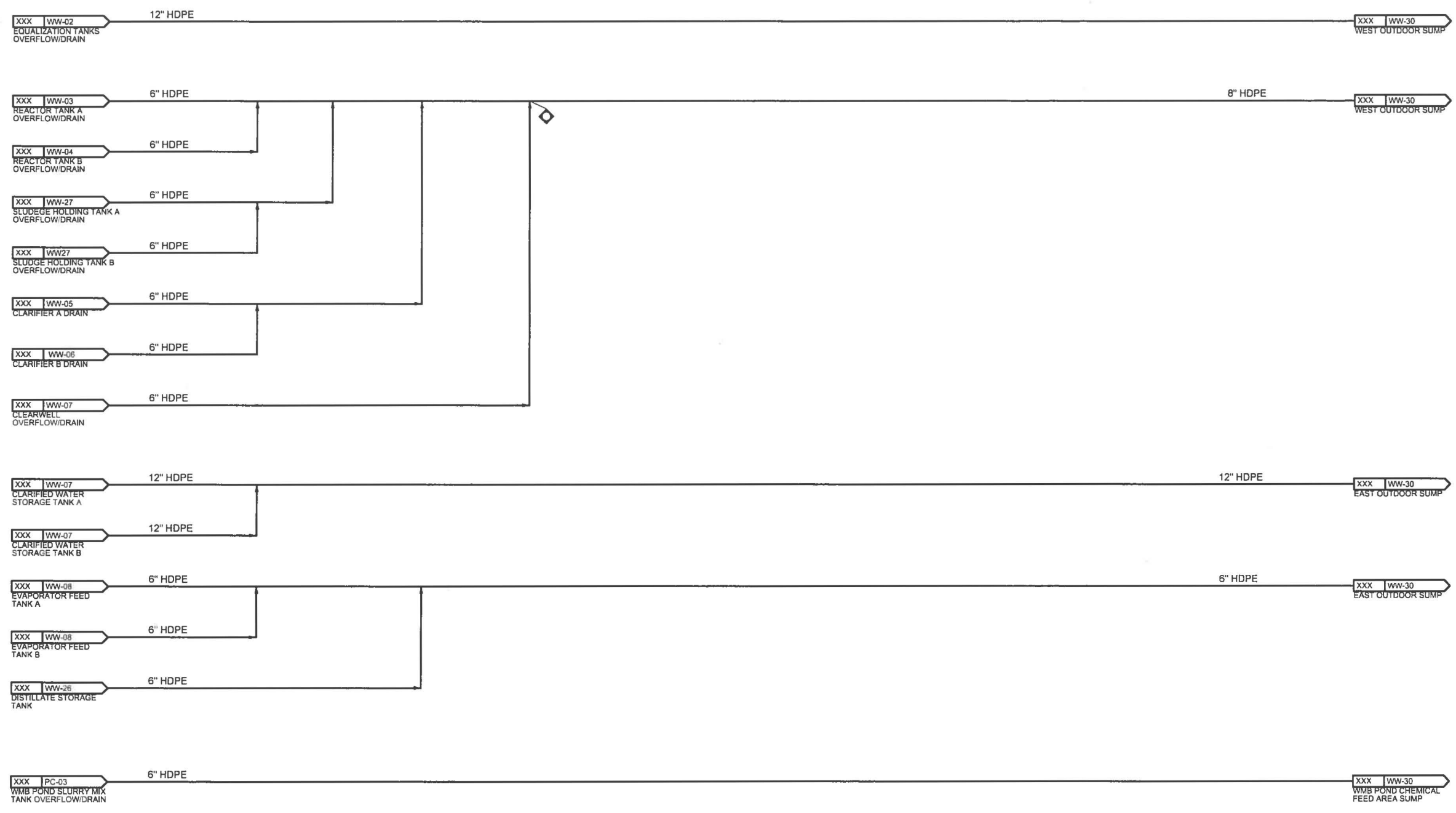
EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM
 WASTEWATER DRAINS AND SUMPS

project: 89810 | contract: _____
 drawing: **WW-30** - **C** | rev: _____
 sheet 1 of 1 sheets
 file: 89810-WW-30.DWG

NOTES:
 1. ALL PIPING THIS P&ID IS BELOW GRADE



Scale For Microlinings
 Millimeters
 Inches

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no	date	by	ckd	description	no	date	by	ckd	description
B	01/31/17	PTB	RTR	ISSUED FOR OWNER REVIEW					
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 9400 WARD PARKWAY
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 816-333-9400
 FIRM LICENSE NO. 43

designed: P. BRANDT
 detailed: K. MATTHEWS

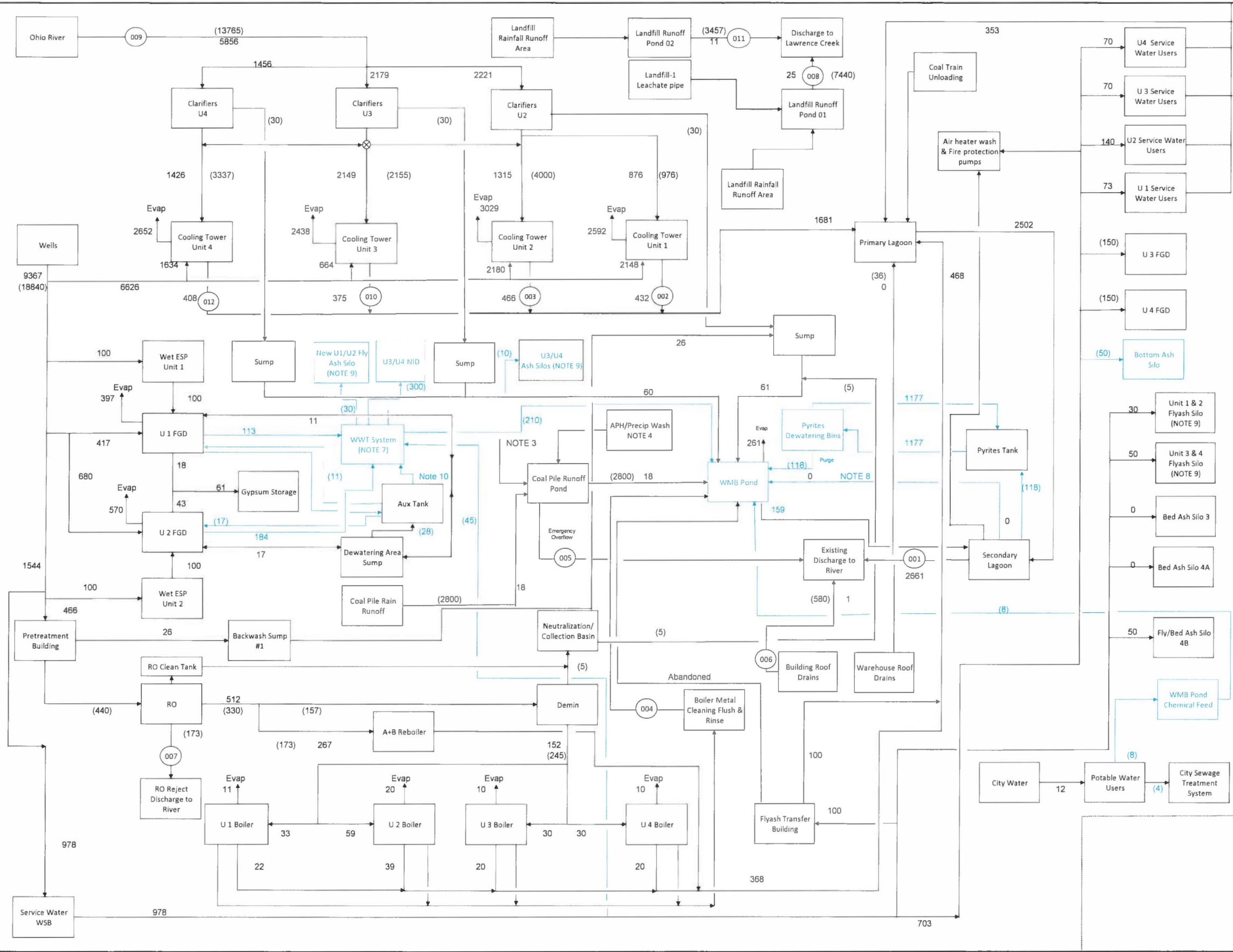
EAST KENTUCKY POWER COOPERATIVE

MASON COUNTY, KENTUCKY

PIPING & INSTRUMENTATION DIAGRAM
 WW/WASTEWATER ELIMINATION AND WMB POND DRAINS

project	89810	contract	
drawing	WW-31 - B		rev
sheet	1	of	1
file	89810-WW-31 DWG		

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no	date	by	ckd	description
0	7/28/2017	SJT	DG	Issued for Permitting

- NOTES:**
- 1 FLOWS ARE SHOWN IN GALLONS PER MINUTE ROUNDED TO THE NEAREST GPM
 - 2 FLOW DESIGNATIONS () - DESIGN FLOW NON-BRACKETED VALUES ARE AVERAGE FLOWS
 - 3 FIVE SOURCES ENTER BY SEPARATE LINES
 - CRUSHER BUILDING SUMP 900 GPM*
 - LIMESTONE FEEDER SUMP 220 GPM*
 - 5A FEEDER SUMP 720 GPM*
 - COAL YARD MAINTENANCE BUILDING SUMP 120 GPM*
 - PLANT STORMWATER RUNOFF
 - *CAPACITY OF PUMPS
 - 4 APH AND PRECIPITATOR WASH ONLY UTILIZED DURING UNIT OUTAGES
 - 5 FGD EVAPORATION DOES NOT ACCOUNT FOR FLUE GAS MOISTURE
 - 6 PRECIPITATION CALCULATED BY USING SCS CURVE NUMBER METHOD FOR THE DIFFERENT RUNOFF AREAS AVERAGE FLOW IS ANNUAL RAINFALL AVERAGED OVER A YEARLY PERIOD
 - 7 ASSUMES MECHANICAL VAPOR COMPRESSION (MVC) OPERATING AT 240 GPM DESIGN FLOW AND EITHER UNIT 3 OR 4 ONLINE
 - 8 LINE EXISTS BUT NO LONGER BOTTOM ASH SLUICE ONLY UTILIZED ON AN AS NEEDED BASIS
 - 9 FLY ASH SILO BOXES REFER TO THE SAME DESTINATION SEPARATED FOR DRAWING CLARITY
 - 10 AUXILIARY TANK ONLY FLOWS TO WWT DURING OUTAGES
 - 11 BLUE() ARE "PRELIMINARY" DESIGN FLOWS

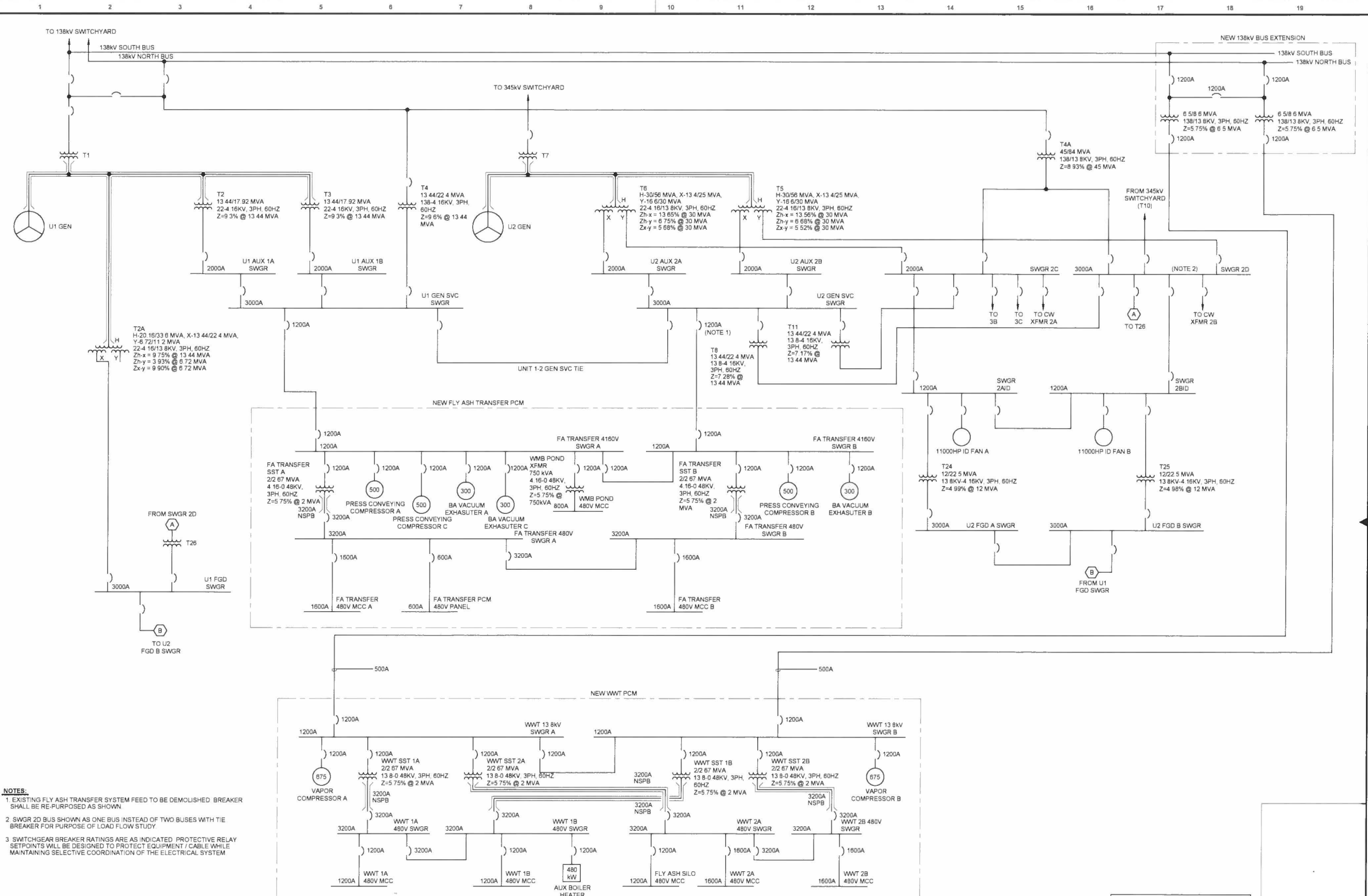


date	5/10/2017	detailed	S. TEWELL
designed	S. TEWELL	checked	K. BLAND



**FUTURE WATER MASS BALANCE
SPURLUCK STATION
EAST KENTUCKY POWER COOPERATIVE**

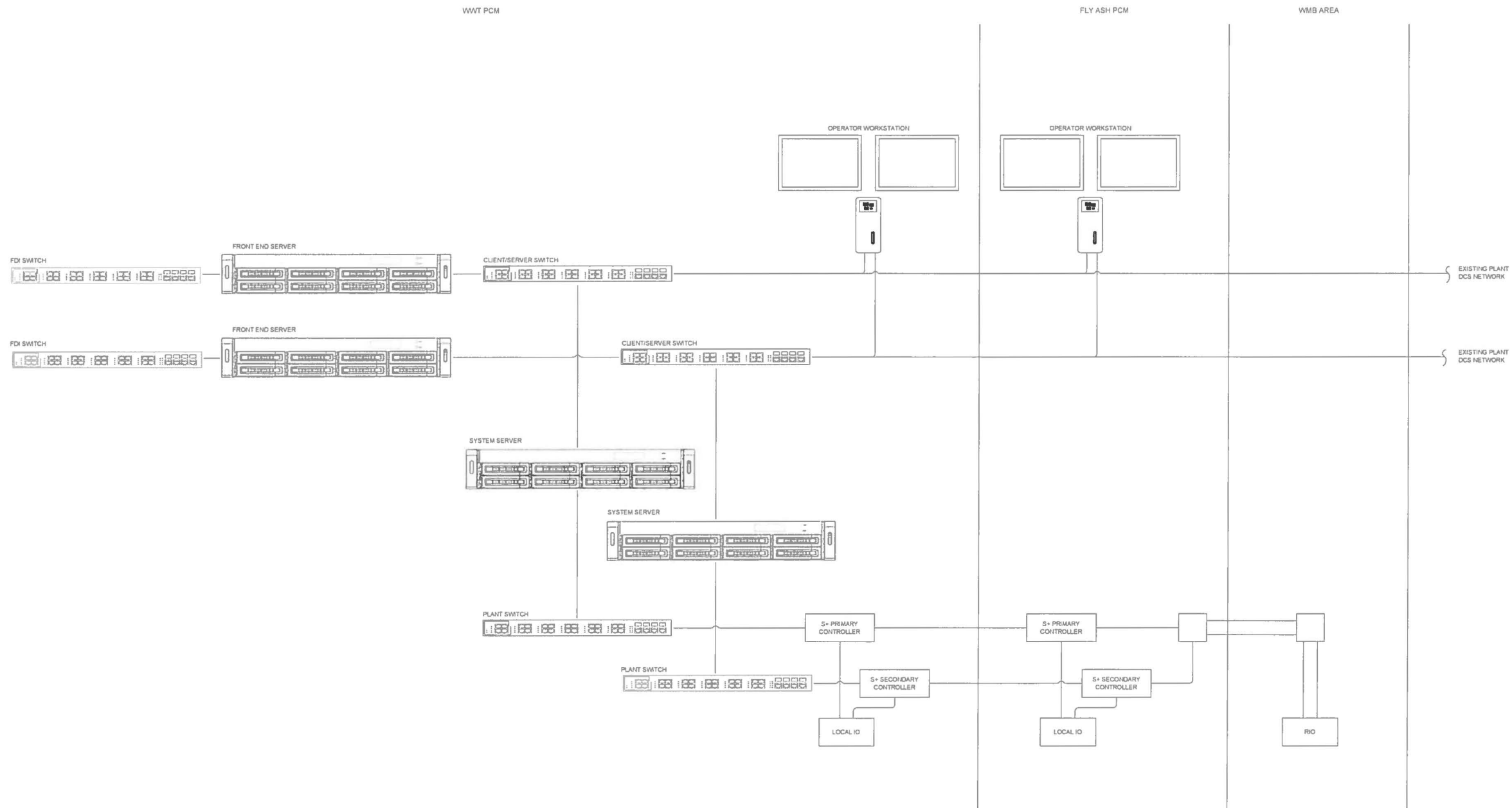
project	89810	contract	
drawing	WMB-01	rev	0
sheet	1	of	1
file		sheets	



- NOTES:**
- EXISTING FLY ASH TRANSFER SYSTEM FEED TO BE DEMOLISHED. BREAKER SHALL BE RE-PURPOSED AS SHOWN.
 - SWGR 2D BUS SHOWN AS ONE BUS INSTEAD OF TWO BUSES WITH TIE BREAKER FOR PURPOSE OF LOAD FLOW STUDY.
 - SWITCHGEAR BREAKER RATINGS ARE AS INDICATED. PROTECTIVE RELAY SETPOINTS WILL BE DESIGNED TO PROTECT EQUIPMENT / CABLE WHILE MAINTAINING SELECTIVE COORDINATION OF THE ELECTRICAL SYSTEM.

PRELIMINARY - NOT FOR CONSTRUCTION

<table border="1"> <tr> <td>B</td> <td>03/30/17</td> <td>JMJ</td> <td>ERP</td> <td>ISSUED FOR OWNER REVIEW</td> </tr> <tr> <td>A</td> <td>11/30/16</td> <td>JMJ</td> <td>ERP</td> <td>ISSUED FOR OWNER REVIEW</td> </tr> </table>				B	03/30/17	JMJ	ERP	ISSUED FOR OWNER REVIEW	A	11/30/16	JMJ	ERP	ISSUED FOR OWNER REVIEW	<table border="1"> <thead> <tr> <th>no</th> <th>date</th> <th>by</th> <th>ckd</th> <th>description</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>				no	date	by	ckd	description											<p>EAST KENTUCKY POWER COOPERATIVE SPURLOCK STATION MASON COUNTY, KENTUCKY</p>				<p>BURNS & MCDONNELL 9400 WARD PARKWAY KANSAS CITY, MO 64114 816-333-9400</p>				<p>EKPC SPURLOCK STATION OVERALL UNIT 1 & 2 LOAD FLOW SCENS 19-21 ONE-LINE DIAGRAM</p> <table border="1"> <tr> <td>project</td> <td>contract</td> </tr> <tr> <td>89810</td> <td> </td> </tr> <tr> <td>drawing</td> <td>rev</td> </tr> <tr> <td>EE-1-0008</td> <td>B</td> </tr> <tr> <td>sheet 1 of 1</td> <td>sheets</td> </tr> <tr> <td>file 89810-EE-1-0008.dwg</td> <td> </td> </tr> </table>				project	contract	89810		drawing	rev	EE-1-0008	B	sheet 1 of 1	sheets	file 89810-EE-1-0008.dwg	
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file 89810-EE-1-0008.dwg																																																								



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KANSAS CITY, MO 64114
816-333-9400

designed: D. VISNICH
detailed: D. VISNICH

EKPCC SPURLUCK STATION SYSTEM ARCHITECTURE ONE-LINE DIAGRAM	
project: 89810	contract:
drawing: DCS-CSA	rev: A
sheet: 1	of: 1 sheets
file: 89810.DCS-CSA.dwg	

APPENDIX B – EQUIPMENT LIST

Equipment List - Spurlock CCR / ELG Compliance Project

East Kentucky Power Cooperative

Spurlock Station

Project Number: 89810

Rev. 0

PRELIMINARY - NOT FOR CONSTRUCTION



System	Equipment Name	P&ID Number	Equipment Type	Capacity	Dimensions	Motor Rating / Rated Load	Rating Units	Fabrication	Designed By	Supplied By	Installed By
BOTTOM ASH	UNIT 1 BOTTOM ASH HOPPER DISCHARGE DOOR 2	MM0AHB-01	DOOR			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 1 BOTTOM ASH HOPPER DISCHARGE DOOR 3	MM0AHB-01	DOOR			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 1 BOTTOM ASH HOPPER DISCHARGE DOOR 4	MM0AHB-01	DOOR			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 1 BOTTOM ASH HOPPER DISCHARGE DOOR 5	MM0AHB-01	DOOR			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 1 BOTTOM ASH HOPPER DISCHARGE DOOR 6	MM0AHB-01	DOOR			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 1 BOTTOM ASH HOPPER DISCHARGE DOOR 7	MM0AHB-01	DOOR			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 1 BOTTOM ASH HOPPER DISCHARGE DOOR 8	MM0AHB-01	DOOR			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 1 BOTTOM ASH HOPPER DISCHARGE DOOR 9	MM0AHB-01	DOOR			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 1 BOTTOM ASH HOPPER DISCHARGE DOOR 10	MM0AHB-01	DOOR			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 1 BOTTOM ASH HOPPER DISCHARGE DOOR 11	MM0AHB-01	DOOR			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 1 BOTTOM ASH HOPPER DISCHARGE DOOR 12	MM0AHB-01	DOOR			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 1 BOTTOM ASH HOPPER DISCHARGE DOOR 13	MM0AHB-01	DOOR			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 1 BOTTOM ASH HOPPER DISCHARGE DOOR 14	MM0AHB-01	DOOR			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 1 BOTTOM ASH HOPPER DISCHARGE DOOR 15	MM0AHB-01	DOOR			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 1 BOTTOM ASH HOPPER DISCHARGE DOOR 16	MM0AHB-01	DOOR			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 1 JAW CRUSHER 1	MM0AHB-01	CRUSHER			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 1 JAW CRUSHER 2	MM0AHB-01	CRUSHER			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 1 JAW CRUSHER 3	MM0AHB-01	CRUSHER			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 1 JAW CRUSHER 4	MM0AHB-01	CRUSHER			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 1 SCREW CONVEYOR 1	MM0AHB-01	FEEDER			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 1 SCREW CONVEYOR 2	MM0AHB-01	FEEDER			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 1 SCREW CONVEYOR 3	MM0AHB-01	FEEDER			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 1 SCREW CONVEYOR 4	MM0AHB-01	FEEDER			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 BOTTOM ASH HOPPER	MM0AHB-01	HOPPER			N/A		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 BOTTOM ASH ISOLATION HOPPER DOOR 1	MM0AHB-01	DOOR			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 BOTTOM ASH ISOLATION HOPPER DOOR 2	MM0AHB-01	DOOR			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 BOTTOM ASH ISOLATION HOPPER DOOR 3	MM0AHB-01	DOOR			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 BOTTOM ASH ISOLATION HOPPER DOOR 4	MM0AHB-01	DOOR			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 BOTTOM ASH HOPPER DISCHARGE DOOR 1	MM0AHB-01	DOOR			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 BOTTOM ASH HOPPER DISCHARGE DOOR 2	MM0AHB-01	DOOR			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 BOTTOM ASH HOPPER DISCHARGE DOOR 3	MM0AHB-01	DOOR			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 BOTTOM ASH HOPPER DISCHARGE DOOR 4	MM0AHB-01	DOOR			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 BOTTOM ASH HOPPER DISCHARGE DOOR 5	MM0AHB-01	DOOR			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 BOTTOM ASH HOPPER DISCHARGE DOOR 6	MM0AHB-01	DOOR			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 BOTTOM ASH HOPPER DISCHARGE DOOR 7	MM0AHB-01	DOOR			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 BOTTOM ASH HOPPER DISCHARGE DOOR 8	MM0AHB-01	DOOR			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 BOTTOM ASH HOPPER DISCHARGE DOOR 9	MM0AHB-01	DOOR			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 BOTTOM ASH HOPPER DISCHARGE DOOR 10	MM0AHB-01	DOOR			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 BOTTOM ASH HOPPER DISCHARGE DOOR 11	MM0AHB-01	DOOR			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 BOTTOM ASH HOPPER DISCHARGE DOOR 12	MM0AHB-01	DOOR			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 BOTTOM ASH HOPPER DISCHARGE DOOR 13	MM0AHB-01	DOOR			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 BOTTOM ASH HOPPER DISCHARGE DOOR 14	MM0AHB-01	DOOR			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 BOTTOM ASH HOPPER DISCHARGE DOOR 15	MM0AHB-01	DOOR			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 BOTTOM ASH HOPPER DISCHARGE DOOR 16	MM0AHB-01	DOOR			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 JAW CRUSHER 1	MM0AHB-01	CRUSHER			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 JAW CRUSHER 2	MM0AHB-01	CRUSHER			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 JAW CRUSHER 3	MM0AHB-01	CRUSHER			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 JAW CRUSHER 4	MM0AHB-01	CRUSHER			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 SCREW CONVEYOR 1	MM0AHB-01	FEEDER			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 SCREW CONVEYOR 2	MM0AHB-01	FEEDER			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 SCREW CONVEYOR 3	MM0AHB-01	FEEDER			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 SCREW CONVEYOR 4	MM0AHB-01	FEEDER			HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 1 EXCEN-CRUSHER 1	MM0AHB-01	CRUSHER		53" x 43"	HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 1 EXCEN-CRUSHER 2	MM0AHB-01	CRUSHER		53" x 43"	HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 1 EXCEN-CRUSHER 3	MM0AHB-01	CRUSHER		53" x 43"	HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 1 EXCEN-CRUSHER 4	MM0AHB-01	CRUSHER		53" x 43"	HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 EXCEN-CRUSHER 1	MM0AHB-01	CRUSHER		53" x 43"	HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 EXCEN-CRUSHER 2	MM0AHB-01	CRUSHER		53" x 43"	HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 EXCEN-CRUSHER 3	MM0AHB-01	CRUSHER		53" x 43"	HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 EXCEN-CRUSHER 4	MM0AHB-01	CRUSHER		53" x 43"	HYDRAULIC		SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 1 HYDRAULIC PRESSURE UNIT A	MM0AHB-01	OTHER			150	HP	SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 HYDRAULIC PRESSURE UNIT B	MM0AHB-01	OTHER			150	HP	SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 1 FILTER/SEPARATOR	MM0AHB-02	TANK	9' D				SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 FILTER/SEPARATOR	MM0AHB-02	TANK	9' D				SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 1/2 SPARE FILTER/SEPARATOR	MM0AHB-02	TANK	9' D				SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	BOTTOM ASH SILO	MM0AHB-02	SILO	1250 TON	35' D			FIELD	5.2631	5.2631	5.8320
BOTTOM ASH	BOTTOM ASH SILO JIB CRANE	MM0AHB-02	CRANE	1 TON		2	HP	SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	BOTTOM ASH SILO BIN VENT	MM0AHB-02	DUST COLLECTOR					SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	BOTTOM ASH SILO PUGMILL PADDLE MIXER A	MM0AHB-02	MIXER			60	HP	SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	BOTTOM ASH SILO PUGMILL PADDLE MIXER B	MM0AHB-02	MIXER			60	HP	SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 1 VACUUM EXHAUSTER A	MM0AHB-02	BLOWER			300	HP	SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 1 VACUUM EXHAUSTER B	MM0AHB-02	BLOWER			300	HP	SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 VACUUM EXHAUSTER A	MM0AHB-02	BLOWER			300	HP	SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 VACUUM EXHAUSTER B	MM0AHB-02	BLOWER			300	HP	SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	SETTLING BIN	MM0AHB-03	TANK		24'D x 16' H			FIELD	5.2631	5.2631	5.2970
BOTTOM ASH	DEWATERING BIN A	MM0AHB-03	TANK		10'D x 10' H			SHOP	5.2631	5.2631	5.8320

Equipment List - Spurlock CCR / ELG Compliance Project

East Kentucky Power Cooperative

Spurlock Station

Project Number: 89810

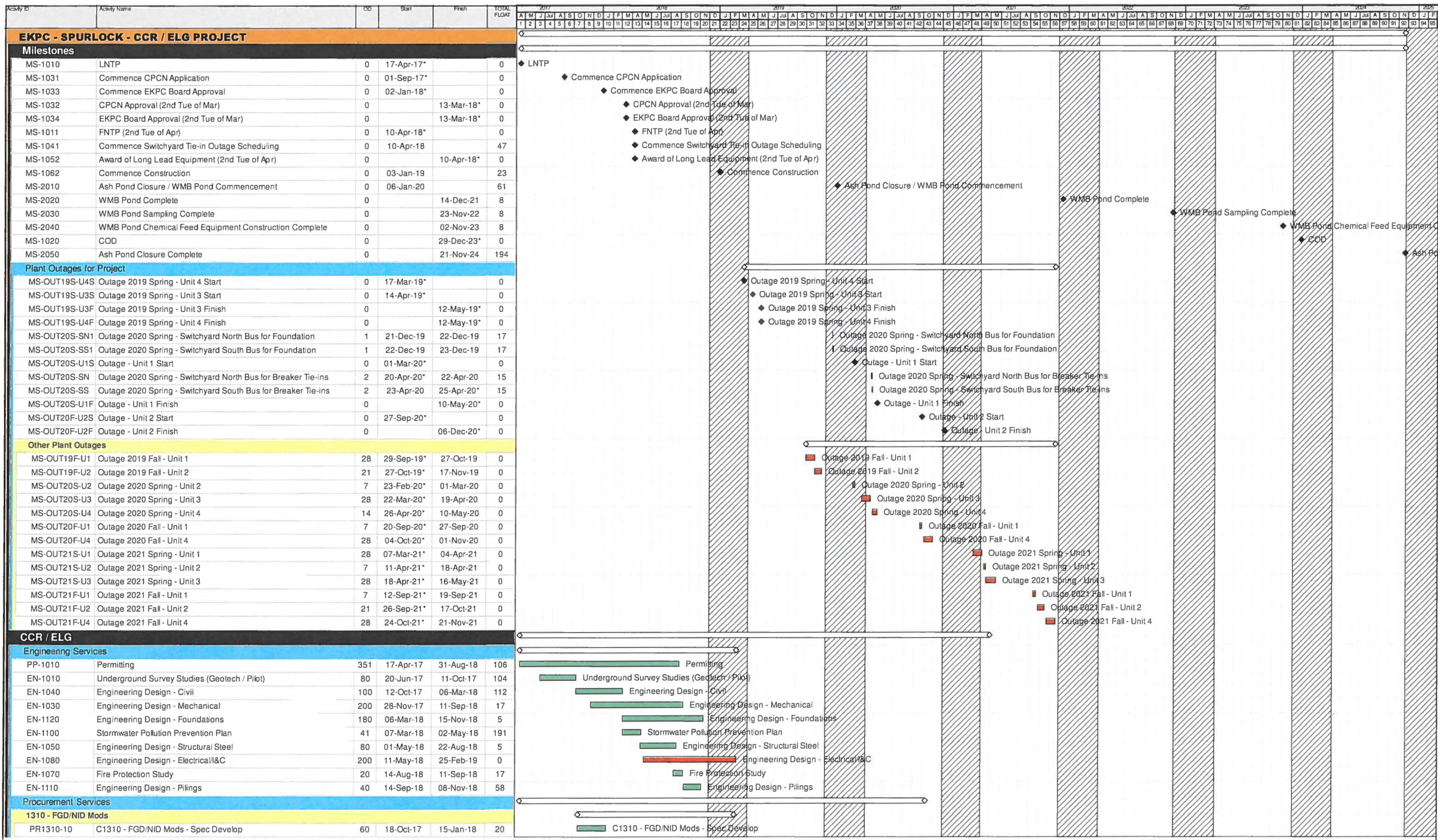
Rev: 0

PRELIMINARY - NOT FOR CONSTRUCTION



System	Equipment Name	P&ID Number	Equipment Type	Capacity	Dimensions	Motor Rating / Rated Load	Rating Units	Fabrication	Designed By	Supplied By	Installed By
BOTTOM ASH	DEWATERING BIN B	MM0A8B-03	TANK		10' D x 10' H			SHOP	5.2631	5.2631	5.8320
BOTTOM ASH/BOP	PYRITE SLUICE PUMP A	MM0A8B-04	PUMP & MOTOR			200	HP	SHOP	5.2631	5.2631	5.8320
BOTTOM ASH/BOP	PYRITE SLUICE PUMP B	MM0A8B-04	PUMP & MOTOR			200	HP	SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	PYRITE SLUDGE RETURN PUMP SKID	MM0A8B-03	SKID		6' X 6'			SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	PYRITE SLUDGE RETURN PUMP A	MM0A8B-03	PUMP & MOTOR			15	HP	SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	PYRITE SLUDGE RETURN PUMP B	MM0A8B-03	PUMP & MOTOR			15	HP	SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 1 ECONOMIZER HEAD TANK	MM0A8B-01	TANK		10' D X 12' H			SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 1 ECONOMIZER HEAD TANK DISCHARGE CRUSHER	MM0A8B-01	CRUSHER		10' D X 12' H	2	HP	SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 ECONOMIZER HEAD TANK	MM0A8B-01	TANK		10' D X 12' H			SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 ECONOMIZER HEAD TANK DISCHARGE CRUSHER	MM0A8B-01	CRUSHER		10' D X 12' H	2	HP	SHOP	5.2631	5.2631	5.8320
BOP	BOTTOM ASH SILO UNLOADING FLOOR SHOWER/EYEWASH STATION	PW-01	OTHER					SHOP	5.8320	5.8320	5.8320
BOP	BOTTOM ASH SILO ROOF SHOWER/EYEWASH STATION	PW-01	OTHER					SHOP	5.8320	5.8320	5.8320
BOP	BOTTOM ASH SILO GROUND FLOOR SHOWER/EYEWASH STATION	PW-01	OTHER					SHOP	5.8320	5.8320	5.8320
BOTTOM ASH	BOTTOM ASH EXHAUSTER BUILDING	N/A	ENCLOSURE		40' X 20'			FIELD	5.4520	5.4520	5.8320
BOTTOM ASH	BOTTOM ASH EXHAUSTER BUILDING EXHAUST FAN	N/A	FAN & MOTOR			5	HP	SHOP	5.3418	5.3418	5.8320
BOTTOM ASH	BOTTOM ASH EXHAUSTER BUILDING UNIT HEATER 1	N/A	HEATER			20	KW	SHOP	5.3418	5.3418	5.8320
BOTTOM ASH	BOTTOM ASH EXHAUSTER BUILDING UNIT HEATER 2	N/A	HEATER			20	KW	SHOP	5.3418	5.3418	5.8320
BOTTOM ASH	BOTTOM ASH SILO UNLOADING FLOOR EXHAUST FAN 1	N/A	FAN			1	HP	SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	BOTTOM ASH SILO UNLOADING FLOOR EXHAUST FAN 2	N/A	FAN			1	HP	SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	BOTTOM ASH SILO UNLOADING FLOOR UNIT HEATER 1	N/A	HEATER			15	KW	SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	BOTTOM ASH SILO UNLOADING FLOOR UNIT HEATER 2	N/A	HEATER			15	KW	SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	BOTTOM ASH SILO DRY UNLOADING FLOOR EXHAUST FAN	N/A	FAN & MOTOR			1	HP	SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	BOTTOM ASH SILO DRY UNLOADING VENT FAN	N/A	FAN & MOTOR			8	HP	SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	BOTTOM ASH SILO PUGMILL ROTARY FEEDER 1	MM0A8B-02	FEEDER			15	HP	SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	BOTTOM ASH SILO PUGMILL ROTARY FEEDER 2	MM0A8B-02	FEEDER			15	HP	SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 1 BOTTOM ASH BOILER DRY SEAL	N/A	EXPANSION JOINT					SHOP	5.2631	5.2631	5.8320
BOTTOM ASH	UNIT 2 BOTTOM ASH BOILER DRY SEAL	N/A	EXPANSION JOINT					SHOP	5.2631	5.2631	5.8320
FLY ASH											
FLY ASH	EXISTING FLY ASH TRANSFER STATION BUILDING (DEMOLITION)	N/A	BUILDING					FIELD	5.8320	5.8320	5.8320
FLY ASH	FLY ASH TRANSFER BUILDING JIB CRANE	MM0A8F-03	CRANE	1 TON		3	HP	SHOP	5.2630	5.2630	5.8320
FLY ASH	FLY ASH TRANSFER BUILDING HOIST	MM0A8F-03	CRANE			1.5	HP	SHOP	5.2630	5.2630	5.8320
FLY ASH	FLY ASH TRANSFER BUILDING MONORAIL	MM0A8F-03	CRANE	2 TON		5	HP	SHOP	5.2630	5.2630	5.8320
FLY ASH	FLY ASH SILO	MM0A8F-03	SILO	4,000 TONS	55' D			FIELD	5.2660	5.2660	5.2660
FLY ASH	UNIT 1 VACUUM EXHAUSTER 1	MM0A8F-01	BLOWER		8' X 6'	150	HP	SHOP	5.2630	5.2630	5.8320
FLY ASH	UNIT 1 VACUUM EXHAUSTER 2	MM0A8F-01	BLOWER		8' X 6'	200	HP	SHOP	5.2630	5.2630	5.8320
FLY ASH	UNIT 2 VACUUM EXHAUSTER 1	MM0A8F-02	BLOWER		8' X 6'	150	HP	SHOP	5.2630	5.2630	5.8320
FLY ASH	UNIT 2 VACUUM EXHAUSTER 2	MM0A8F-02	BLOWER		8' X 6'	200	HP	SHOP	5.2630	5.2630	5.8320
FLY ASH	PRESSURE CONVEYING COMPRESSOR 1	MM0A8F-01	COMPRESSOR		10' X 6'	500	HP	SHOP	5.2630	5.2630	5.8320
FLY ASH	PRESSURE CONVEYING COMPRESSOR 2	MM0A8F-01	COMPRESSOR		10' X 6'	500	HP	SHOP	5.2630	5.2630	5.8320
FLY ASH	PRESSURE CONVEYING COMPRESSOR 3	MM0A8F-01	COMPRESSOR		10' X 6'	500	HP	SHOP	5.2630	5.2630	5.8320
FLY ASH	FLY ASH SILO UNLOADING FLOOR EXHAUST FAN 1	N/A	FAN			1	HP	SHOP	5.2630	5.2630	5.8320
FLY ASH	FLY ASH SILO UNLOADING FLOOR EXHAUST FAN 2	N/A	FAN			1	HP	SHOP	5.2630	5.2630	5.8320
FLY ASH	FLY ASH SILO UNLOADING FLOOR UNIT HEATER 1	N/A	HEATER			15	KW	SHOP	5.2630	5.2630	5.8320
FLY ASH	FLY ASH SILO UNLOADING FLOOR UNIT HEATER 2	N/A	HEATER			15	KW	SHOP	5.2630	5.2630	5.8320
FLY ASH	FLY ASH SILO FLUIDIZING AIR BLOWER 1	MM0A8F-03	BLOWER			100	HP	SHOP	5.2630	5.2630	5.8320
FLY ASH	FLY ASH SILO FLUIDIZING AIR BLOWER 2	MM0A8F-03	BLOWER			100	HP	SHOP	5.2630	5.2630	5.8320
FLY ASH	FLY ASH SILO FLUIDIZING AIR HEATER 1	MM0A8F-03	HEATER			80	KW	SHOP	5.2630	5.2630	5.8320
FLY ASH	FLY ASH SILO FLUIDIZING AIR HEATER 2	MM0A8F-03	HEATER			80	KW	SHOP	5.2630	5.2630	5.8320
FLY ASH	FLY ASH SILO PUGMILL WET CONDITIONING UNLOADER 1	MM0A8F-03	MIXER			75	HP	SHOP	5.2630	5.2630	5.8320
FLY ASH	FLY ASH SILO PUGMILL WET CONDITIONING UNLOADER 2	MM0A8F-03	MIXER			75	HP	SHOP	5.2630	5.2630	5.8320
FLY ASH	FLY ASH SILO PUGMILL ROTARY FEEDER 1	MM0A8F-03	FEEDER			15	HP	SHOP	5.2630	5.2630	5.8320
FLY ASH	FLY ASH SILO PUGMILL ROTARY FEEDER 2	MM0A8F-03	FEEDER			15	HP	SHOP	5.2630	5.2630	5.8320
FLY ASH	FLY ASH SILO DRY UNLOADING SPOUT	MM0A8F-03	OTHER			1	HP	SHOP	5.2630	5.2630	5.8320
FLY ASH	FLY ASH SILO DRY UNLOADING VENT FAN	N/A	FAN & MOTOR			8	HP	SHOP	5.2630	5.2630	5.8320
FLY ASH	FLY ASH SILO BIN VENT	N/A	DUST COLLECTOR					SHOP	5.2630	5.2630	5.8320
BOP	FLY ASH SILO TRANSFER STATION GROUND FLOOR SHOWER/EYEWASH STATION	PW-01	OTHER					SHOP	5.8320	5.8320	5.8320
BOP	FLY ASH SILO TRANSFER STATION SECOND FLOOR SHOWER/EYEWASH STATION	PW-01	OTHER					SHOP	5.8320	5.8320	5.8320
BOP	FLY ASH SILO TRANSFER STATION THIRD FLOOR SHOWER/EYEWASH STATION	PW-01	OTHER					SHOP	5.8320	5.8320	5.8320
BOP	FLY ASH SILO UNLOADING FLOOR SHOWER/EYEWASH STATION	PW-01	OTHER					SHOP	5.8320	5.8320	5.8320

APPENDIX E – SCHEDULE

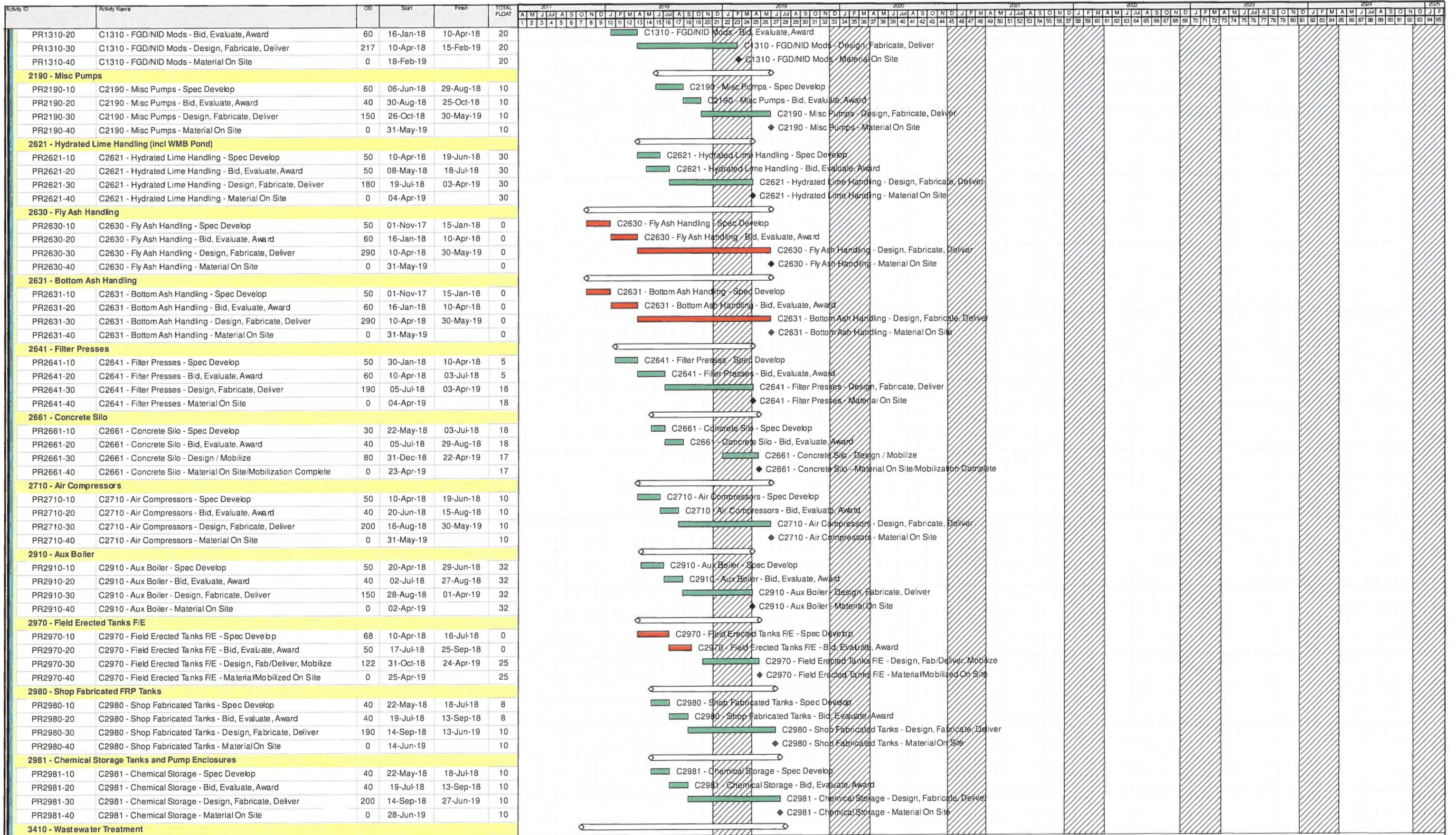


EKPC SPURLOCK - CCR / ELG PROJECT
 PSR SCHEDULE
 WBS Layout
 Page 1 of 5



Start Date 17-Apr-17
 Finish Date 21-Nov-24
 Data Date 05-Oct-16
 Run Date 30-Mar-17

Date	Revision	Checked	Approved
22-Nov-16	A - IFOR	SY	TR
31-Jan-17	B - IFOR	SY	TR
30-Mar-17	C - IFOR	SY	TR



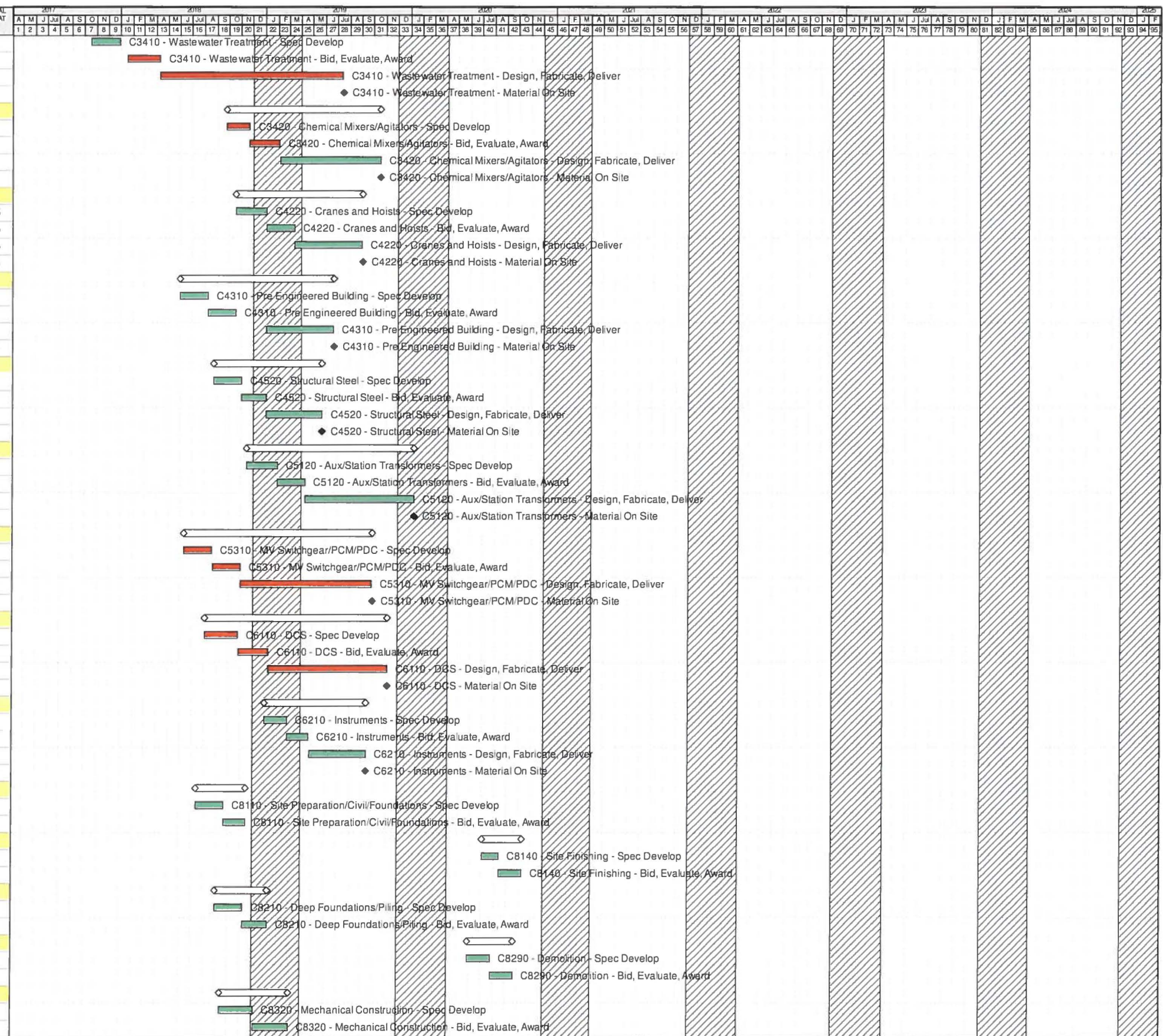
Start Date	17-Apr-17
Finish Date	21-Nov-24
Data Date	05-Oct-16
Run Date	30-Mar-17



EKPC SPURLOCK - CCR / ELG PROJECT
 PSR SCHEDULE
 WBS Layout
 Page 2 of 5

Date	Revision	Checked	Approved
22-Nov-16	A - IFOR	SY	TR
31-Jan-17	B - IFOR	SY	TR
30-Mar-17	C - IFOR	SY	TR

Activity ID	Activity Name	OD	Start	Finish	TOTAL FLOAT
PR3410-10	C3410 - Waste water Treatment - Spec Develop	50	18-Oct-17	29-Dec-17	5
PR3410-20	C3410 - Waste water Treatment - Bid, Evaluate, Award	60	16-Jan-18	10-Apr-18	0
PR3410-30	C3410 - Waste water Treatment - Design, Fabricate, Deliver	320	10-Apr-18	12-Jul-19	0
PR3410-40	C3410 - Waste water Treatment - Material On Site	0	15-Jul-19		0
3420 - Chemical Mixers/Agitators					
PR3420-10	C3420 - Chemical Mixers/Agitators - Spec Develop	40	26-Sep-18	20-Nov-18	0
PR3420-20	C3420 - Chemical Mixers/Agitators - Bid, Evaluate, Award	50	21-Nov-18	04-Feb-19	0
PR3420-30	C3420 - Chemical Mixers/Agitators - Design, Fabricate, Deliver	180	05-Feb-19	17-Oct-19	2
PR3420-40	C3420 - Chemical Mixers/Agitators - Material On Site	0	18-Oct-19		2
4220 - Cranes and Hoists					
PR4220-10	C4220 - Cranes and Hoists - Spec Develop	50	19-Oct-18	02-Jan-19	75
PR4220-20	C4220 - Cranes and Hoists - Bid, Evaluate, Award	50	03-Jan-19	13-Mar-19	75
PR4220-30	C4220 - Cranes and Hoists - Design, Fabricate, Deliver	120	14-Mar-19	30-Aug-19	75
PR4220-40	C4220 - Cranes and Hoists - Material On Site	0	03-Sep-19		75
4310 - Pre Engineered Building					
PR4310-10	C4310 - Pre Engineered Building - Spec Develop	50	30-May-18	08-Aug-18	5
PR4310-20	C4310 - Pre Engineered Building - Bid, Evaluate, Award	50	09-Aug-18	18-Oct-18	5
PR4310-30	C4310 - Pre Engineered Building - Design, Fabricate, Deliver	120	03-Jan-19	20-Jun-19	45
PR4310-40	C4310 - Pre Engineered Building - Material On Site	0	21-Jun-19		45
4520 - Structural Steel					
PR4520-10	C4520 - Structural Steel - Spec Develop	50	23-Aug-18	01-Nov-18	5
PR4520-20	C4520 - Structural Steel - Bid, Evaluate, Award	40	02-Nov-18	02-Jan-19	5
PR4520-30	C4520 - Structural Steel - Design, Fabricate, Deliver	100	03-Jan-19	22-May-19	5
PR4520-40	C4520 - Structural Steel - Material On Site	0	23-May-19		5
5120 - Aux/Station Transformers					
PR5120-10	C5120 - Aux/Station Transformers - Spec Develop	50	15-Nov-18	30-Jan-19	11
PR5120-20	C5120 - Aux/Station Transformers - Bid, Evaluate, Award	50	30-Jan-19	10-Apr-19	11
PR5120-30	C5120 - Aux/Station Transformers - Design, Fabricate, Deliver	190	10-Apr-19	10-Jan-20	11
PR5120-40	C5120 - Aux/Station Transformers - Material On Site	0	10-Jan-20		11
5310 - MV Switchgear/PCM/PDC					
PR5310-10	C5310 - MV Switchgear/PCM/PDC - Spec Develop	50	11-Jun-18	20-Aug-18	0
PR5310-20	C5310 - MV Switchgear/PCM/PDC - Bid, Evaluate, Award	50	21-Aug-18	30-Oct-18	0
PR5310-30	C5310 - MV Switchgear/PCM/PDC - Design, Fabricate, Deliver	230	31-Oct-18	26-Sep-19	0
PR5310-40	C5310 - MV Switchgear/PCM/PDC - Material On Site	0	27-Sep-19		0
6110 - Distributed Control System (DCS)					
PR6110-10	C6110 - DCS - Spec Develop	60	02-Aug-18	25-Oct-18	0
PR6110-20	C6110 - DCS - Bid, Evaluate, Award	50	26-Oct-18	09-Jan-19	0
PR6110-30	C6110 - DCS - Design, Fabricate, Deliver	210	10-Jan-19	04-Nov-19	0
PR6110-40	C6110 - DCS - Material On Site	0	05-Nov-19		0
6210 - Instruments					
PR6210-10	C6210 - Instruments - Spec Develop	40	31-Dec-18	25-Feb-19	67
PR6210-20	C6210 - Instruments - Bid, Evaluate, Award	40	26-Feb-19	22-Apr-19	67
PR6210-30	C6210 - Instruments - Design, Fabricate, Deliver	100	23-Apr-19	12-Sep-19	67
PR6210-40	C6210 - Instruments - Material On Site	0	13-Sep-19		67
8110 - Site Preparation/Civil/Foundations					
PR8110-10	C8110 - Site Preparation/Civil/Foundations - Spec Develop	50	12-Jul-18	20-Sep-18	23
PR8110-20	C8110 - Site Preparation/Civil/Foundations - Bid, Evaluate, Award	40	21-Sep-18	15-Nov-18	23
8140 - Site Finishing					
PR8140-10	C8140 - Site Finishing - Spec Develop	30	02-Jul-20	13-Aug-20	385
PR8140-20	C8140 - Site Finishing - Bid, Evaluate, Award	40	14-Aug-20	09-Oct-20	385
8210 - Deep Foundations/Piling					
PR8210-10	C8210 - Deep Foundations/Piling - Spec Develop	50	30-Aug-18	08-Nov-18	58
PR8210-20	C8210 - Deep Foundations/Piling - Bid, Evaluate, Award	40	09-Nov-18	09-Jan-19	58
8290 - Demolition					
PR8290-10	C8290 - Demolition - Spec Develop	40	28-May-20	23-Jul-20	4
PR8290-20	C8290 - Demolition - Bid, Evaluate, Award	40	24-Jul-20	18-Sep-20	4
8320 - Mechanical Construction					
PR8320-10	C8320 - Mechanical Construction - Spec Develop	60	12-Sep-18	05-Dec-18	17
PR8320-20	C8320 - Mechanical Construction - Bid, Evaluate, Award	60	06-Dec-18	04-Mar-19	17



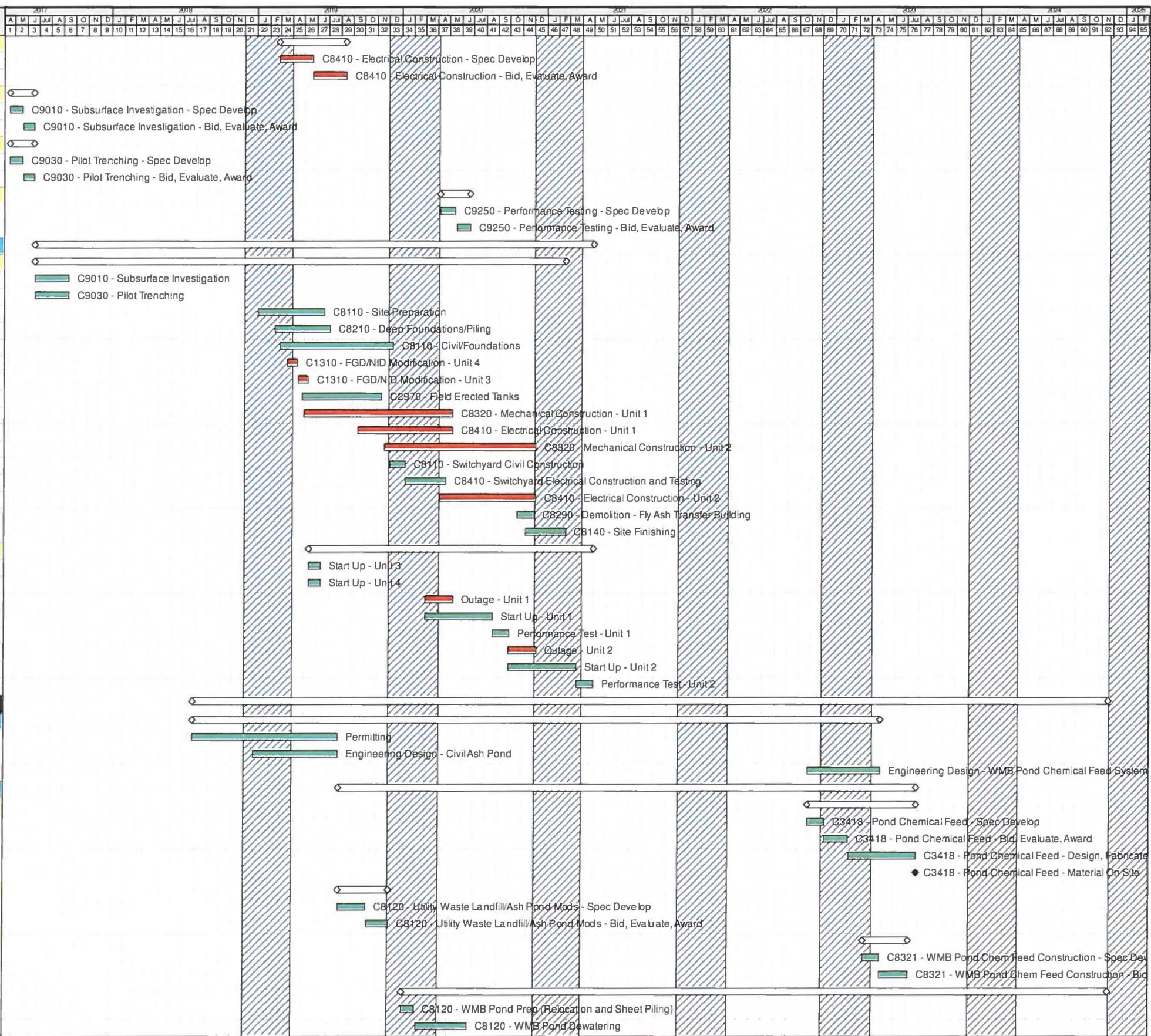
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Activity ID	Activity Name	DO	Start	Finish	TOTAL FLOAT
8410 - Electrical Construction					
PR8410-10	C8410 - Electrical Construction - Spec Develop	60	26-Feb-19	20-May-19	0
PR8410-20	C8410 - Electrical Construction - Bid, Evaluate, Award	60	21-May-19	14-Aug-19	0
9010 - Subsurface Investigation					
PR9010-10	C9010 - Subsurface Investigation - Spec Develop	25	17-Apr-17	19-May-17	104
PR9010-20	C9010 - Subsurface Investigation - Bid, Evaluate, Award	20	22-May-17	19-Jun-17	104
9030 - Pilot Trenching					
PR9030-10	C9030 - Pilot Trenching - Spec Develop	25	17-Apr-17	19-May-17	104
PR9030-20	C9030 - Pilot Trenching - Bid, Evaluate, Award	20	22-May-17	19-Jun-17	104
9250 - Performance Testing					
PR9250-10	C9250 - Performance Testing - Spec Develop	30	06-Apr-20	15-May-20	532
PR9250-20	C9250 - Performance Testing - Bid, Evaluate, Award	25	18-May-20	22-Jun-20	532
Construction					
CCR/ELG					
CN9010	C9010 - Subsurface Investigation	60	20-Jun-17	13-Sep-17	104
CN9030	C9030 - Pilot Trenching	60	20-Jun-17	13-Sep-17	104
CN8110-1	C8110 - Site Preparation	120	03-Jan-19	20-Jun-19	23
CN8210	C8210 - Deep Foundations/Piling	100	14-Feb-19	05-Jul-19	53
CN8110-2	C8110 - Civil Foundations	200	28-Feb-19	10-Dec-19	23
CN1310-2	C1310 - FGD/NID Modification - Unit 4	20	18-Mar-19	12-Apr-19	0
CN1310-1	C1310 - FGD/NID Modification - Unit 3	20	15-Apr-19	10-May-19	0
CN2970	C2970 - Field Erected Tanks	140	25-Apr-19	11-Nov-19	25
CN8320-1	C8320 - Mechanical Construction - Unit 1	262	30-Apr-19	08-May-20	0
CN8410-1	C8410 - Electrical Construction - Unit 1	167	13-Sep-19	08-May-20	0
CN8320-2	C8320 - Mechanical Construction - Unit 2	265	20-Nov-19	04-Dec-20	0
CN8110-S	C8110 - Switchyard Civil Construction	26	02-Dec-19	10-Jan-20	11
CN8410-S	C8410 - Switchyard Electrical Construction and Testing	71	10-Jan-20	20-Apr-20	11
CN8410-2	C8410 - Electrical Construction - Unit 2	170	07-Apr-20	04-Dec-20	0
CN8290	C8290 - Demolition - Fly Ash Transfer Building	30	19-Oct-20	30-Nov-20	4
CN8140	C8140 - Site Finishing	70	09-Nov-20	18-Feb-21	385
CCR/ELG Start Up					
SU1000-3	Start Up - Unit 3	20	13-May-19	10-Jun-19	1580
SU1000-4	Start Up - Unit 4	20	13-May-19	10-Jun-19	1580
MS-OUT1	Outage - Unit 1	70	01-Mar-20	10-May-20	0
SU1000-1	Start Up - Unit 1	120	02-Mar-20	18-Aug-20	532
SU2000-1	Performance Test - Unit 1	30	19-Aug-20	30-Sep-20	532
MS-OUT2	Outage - Unit 2	70	27-Sep-20	06-Dec-20	0
SU1000-2	Start Up - Unit 2	120	28-Sep-20	18-Mar-21	385
SU2000-2	Performance Test - Unit 2	30	19-Mar-21	29-Apr-21	385
Ash Pond					
Engineering Services					
PP-2010	Permitting	255	26-Jul-18	26-Jul-19	61
EN-2090	Engineering Design - Civil Ash Pond	150	26-Dec-18	26-Jul-19	61
EN-2010	Engineering Design - WMB Pond Chemical Feed System	127	25-Oct-22	25-Apr-23	8
Procurement Services					
3418 - Pond Chemical Feed Equipment					
PR3418-10	C3418 - Pond Chemical Feed - Spec Develop	30	25-Oct-22	06-Dec-22	8
PR3418-20	C3418 - Pond Chemical Feed - Bid, Evaluate, Award	40	07-Dec-22	03-Feb-23	8
PR3418-30	C3418 - Pond Chemical Feed - Design, Fabricate, Deliver	121	06-Feb-23	26-Jul-23	8
PR3418-40	C3418 - Pond Chemical Feed - Material On Site	0	27-Jul-23		8
8120 - Utility Waste Landfill/Ash Pond Modifications					
PR8120-10	C8120 - Utility Waste Landfill/Ash Pond Mods - Spec Develop	50	29-Jul-19	07-Oct-19	61
PR8120-20	C8120 - Utility Waste Landfill/Ash Pond Mods - Bid, Evaluate, Award	40	08-Oct-19	03-Dec-19	61
8321 - WMB Pond Chem Feed Construction					
PR8321-10	C8321 - WMB Pond Chem Feed Construction - Spec Develop	30	15-Mar-23	25-Apr-23	12
PR8321-20	C8321 - WMB Pond Chem Feed Construction - Bid, Evaluate, Award	50	26-Apr-23	06-Jul-23	12
Construction					
CN8120-1A	C8120 - WMB Pond Prep (Relocation and Sheet Piling)	25	06-Jan-20*	07-Feb-20	61
CN8120-1B	C8120 - WMB Pond Dewatering	94	10-Feb-20	19-Jun-20	61

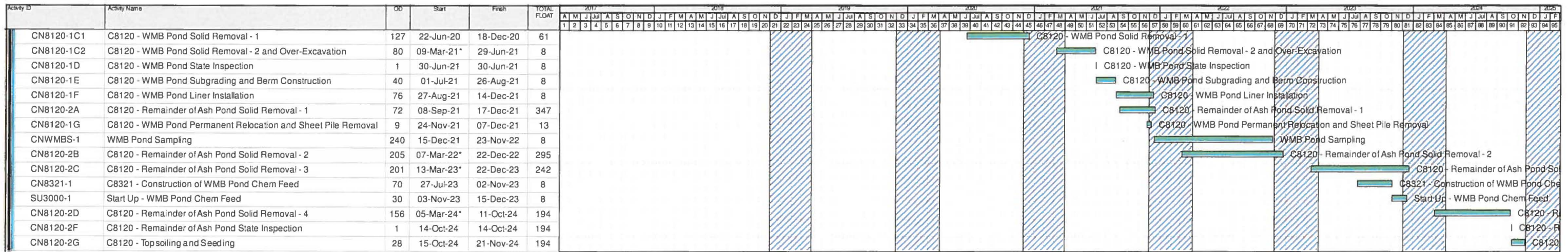


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APPENDIX H – PERMITTING MATRIX

Item No.	Permit/Clearance	Regulatory Agency	Details	When Required	Anticipated Agency Review Time	Associated Fees	Comments
Federal							
1	Clean Water Act - Section 404 Permit	U.S. Army Corps of Engineers, Louisville District	Required to dredge or place fill in a jurisdictional water, including wetlands Nationwide Permit (NWP): Less an or equal to 0.5 acre of wetland or stream impacts Individual Permit: Greater than 0.5 acre of wetland or stream impacts An ash pond is classified as a non-jurisdictional water feature. Waste treatment systems are excluded from Section 404 review.	Prior to construction	Up to 120 days for a NWP, if a pre-construction notification is required; 12 to 24 months for an Individual Permit	No application or mitigation fees	A wetland and stream delineation will be required to determine the extent of wetland and stream impacts associated with site construction. Jurisdictional waters or wetlands are not anticipated based on the Project's proposed equipment and work locations. If the project qualifies for a NWP 39 (Commercial and Institutional Developments), NWP 12 (Utility Activities), NWP 14 (Roads), or a NWP 18 (Minor Discharges), a pre-construction notification may be required depending on the extent of wetland/stream impacts.
2	Section 7 Threatened and Endangered Species Consultation and Clearance	U.S. Fish & Wildlife Service (FWS), Ecological Services	If the project will potentially impact protected species or their respective habitat, or if a Section 404 and/or NPDES permit is required, then the FWS must be contacted. The FWS will determine the level of effort needed for the project to proceed (e.g., habitat assessment, species surveys, avian impact studies, etc.).	Prior to construction	30 days for initial response, additional 30 days for determination of field survey results (if required)	No fees unless tree clearing is required that could affect bat habitat.	Formal consultation likely not required if construction will take place in an already developed area and no Section 404 Permit is required. Due to the nature of this site, impacts to endangered species are not likely, provided no trees are impacted, and there are no direct effects to the Ohio River (mussels).
3	Migratory Bird Treaty Act / Bald and Golden Eagle Protection Act Compliance	U.S. Fish & Wildlife Service (FWS), Ecological Services	Required when construction or operation of a proposed facility could impact migratory birds, their nests, and especially threatened or endangered species	Prior to construction	30 days for data request, 30 days for report review	No fees	Formal consultation likely not required if construction will take place in an already developed area and no Section 404 Permit is required. Due to the nature of this site, impacts to migratory birds is not likely.
4	Notice of Proposed Construction	Federal Aviation Administration (FAA)	Required for the construction of structures 200 feet tall or within the distance to height ratio from the nearest point of a FAA airport runway. Also required for construction equipment reaching heights over 200 feet.	Prior to construction	45+ days	No fees	Notifying the FAA includes completing Form 7460-1 for all required structures and providing a site layout map depicting structure locations. No temporary construction equipment or permanent structures will be over 200 feet tall.
5	Spill Prevention, Control, and Countermeasure Plan Amendment	U.S. Environmental Protection Agency (EPA)	An amendment to the facility's SPCC Plan will be required to address operational changes.	Prior to operation	Not required to submit the SPCC Plan to the EPA for review, unless requested.	No fees	Required to be updated based on new operational changes. This will not be required to be submitted to EPA, unless they request it.
State - Kentucky							
6	Certificate of Public Convenience and Necessity (CPCN)	Kentucky Public Service Commission	Required for the construction of electric generating facilities	Prior to construction	120 to 180 days after the submission of a complete application	Project specific	A CPCN is required for the CCR/ELG modifications.
7	National Environmental Policy Act (NEPA) Review	USDA Rural Utilities Service	Facility modifications to meet CCR/ELG requirements will require NEPA review due to EKPC request for financing from the USDA Rural Utilities Service (RUS). Project could qualify for a RUS categorical exclusion because it will take place on a disturbed site. If archaeology, T&E species, water, or floodplains will be impacted during construction, an RUS Environmental Report or Environmental Assessment could be required.	Prior to construction	Categorical Exclusion - up to 6 months Environmental Report - 6 to 9 months Environmental Assessment - up to 2 years for approval	No fees	The level of NEPA review is dependent on the extent of impacts.
8	Air Quality Construction/Operating Permit (PSD)/Title V	Kentucky Department of Environmental Protection Division for Air Quality	Required for new major stationary sources of air emissions or increased air emissions, including the silo(s)/baghouses and any increased truck traffic.	Prior to construction	1 year from application submittal	No fees	There will be multiple new air emission sources including: WWT hydrated lime silo bin vent filter, WMB pond chemical feed area hydrated lime silo bin vent filter, bottom ash silo bin vent filter, fly ash silo bin vent filter, fly ash exhausters, bottom ash exhausters, economizer ash tank vent.

Item No.	Permit/Clearance	Regulatory Agency	Details	When Required	Anticipated Agency Review Time	Associated Fees	Comments
9	Permit to Construct Across or Along a Stream	Kentucky Department of Environmental Protection Division of Water	In addition to authorizing stream crossings, this permit also provides floodplain construction approval. Project should not impact any streams.	Prior to construction	20 business days for floodplain impact approval	No fees	Much of the proposed equipment will be in the 100-year floodplain of the Ohio River; therefore, a new floodplain approval will be required. The permit application must be reviewed and signed by the local county floodplain coordinator(s) prior to submitting the application to the State.
10	Section 401 Water Quality Certification (WQC)	Kentucky Department of Environmental Protection Division of Water	The purpose of the WQC is to confirm that the discharge of fill materials (Section 404 Permit) will be in compliance with the State's applicable water quality standards.	Prior to construction	If wetland/stream impacts are authorized under a Section 404 Nationwide Permit, then WQC approval is issued concurrently in 45 to 90 days. If a Section 404 Individual Permit is required, then separate WQC approval from the State could take 12 months.	Stream impact greater than 500 linear feet and less than 1,000 feet -- \$1,000 Stream impact 1,000 to 5,000 linear feet -- \$2,500 Stream impact greater than 5,000 linear feet -- \$5,000 Wetland impacts -- \$500 per acre, not to exceed \$5,000	Assumes automatic Water Quality Certification authorization through the Corps' Nationwide Program. If the project will require a Section 404 Individual Permit from the Corps, then the Kentucky Department of Environmental Protection must issue an Individual Section 401 WQC.
11	One-Time/Temporary Discharge Request for Off-Permit Authorization	Kentucky Department of Environmental Protection Division of Water	Required for temporary discharges of wastewater outside of permitted discharges. Can be used for hydrostatic testing of pipelines and/or tanks.	Prior to testing	30 days	No fees	This can also be used for one time discharges from the Ash Pond to the Ohio River while it is being dewatered. One time discharges can also be used for hydrostatic testing discharges from piping and tanks.
12	Best Management Practices (BMP) Plan	Kentucky Department of Environmental Protection Division of Water	Because the facility has an existing KPDES Operational Discharge Permit (see Item 13), the facility is not required to obtain a General Permit for Stormwater Discharges Associated with Construction Activities for construction activities which will disturb 1 or more total acres of land. However, the facility must develop a project-specific BMP Plan prior to the start of construction.	Prior to construction	No State approval required.	No fees	
13	KPDES Operational Discharge Permit Modification	Kentucky Department of Environmental Protection Division of Water	The facility will be required to modify its existing KPDES Operational Discharge Permit (KY0022250) to address operational changes related to the discharge of wastewaters.	Prior to operation	180 days prior to operational changes	\$7,000	If the existing permit requires an operational Stormwater Pollution Prevention Plan (SWPPP), this plan must be updated to address operational changes/modified stormwater flows.
14	Special Waste Landfill Permit	Kentucky Department of Environmental Protection Division of Waste Management	Required prior to construction of a landfill for the disposal of utility waste.	Prior to construction	Not seeking a modification to the existing landfill	No fees	The project will move 1.75 million cubic yards of material from the ash pond to the existing landfill. Following completion of the mechanical portion of the project, additional bottom ash, pyrites, fly ash, and filter press solids will be disposed of in the landfill.
15	National Historic Preservation Act – Section 106 Clearance	Kentucky Heritage Council - State Historic Preservation Office (SHPO)	Under Section 106 of the National Historic Preservation Act, Federal agencies must work with the State Historic Preservation Office to address historic preservation issues when planning projects or issuing funds or permits that may affect historic properties and archaeological resources listed in or determined eligible for the National Register of Historic Places.	Prior to construction	45 Days	\$40 for Preliminary Site Check through SHPO database	Section 106 requirements would be addressed through the RUS NEPA review process and Section 404 permitting, if required.
County							
16	Building Permit Application for Non-Residential Structures	Mason County Joint Planning Commission	Required for projects with new buildings that are non-residential, including utility structures. Buildings must meet Kentucky Building Codes.	Prior to construction		Approximately \$1000 based on \$0.04/square foot and approximately 23,000 square feet of building space for fly ash transfer building, WWT building, bottom ash exhauster building and filter press building	Formal consultation likely not required based on application document.