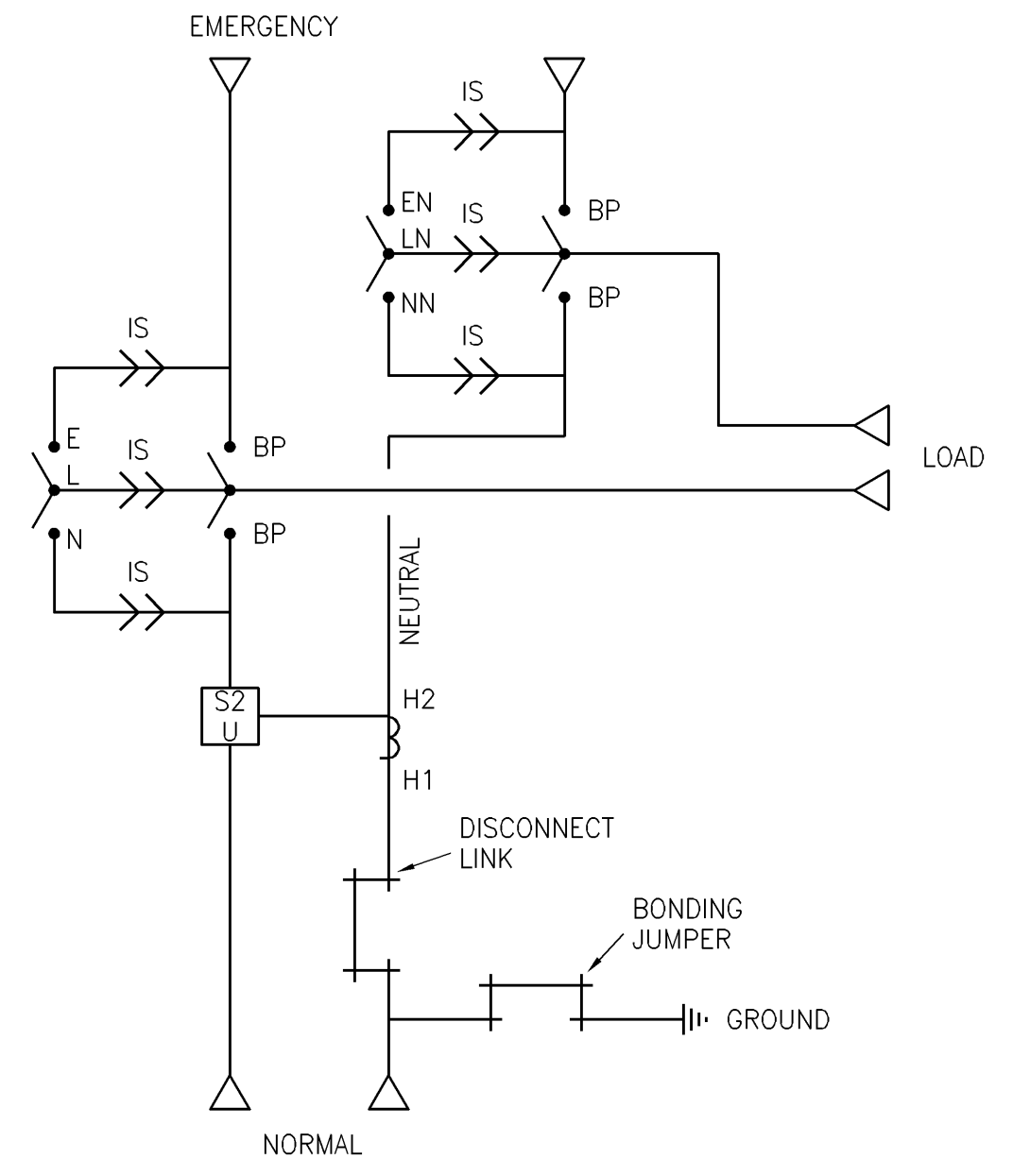
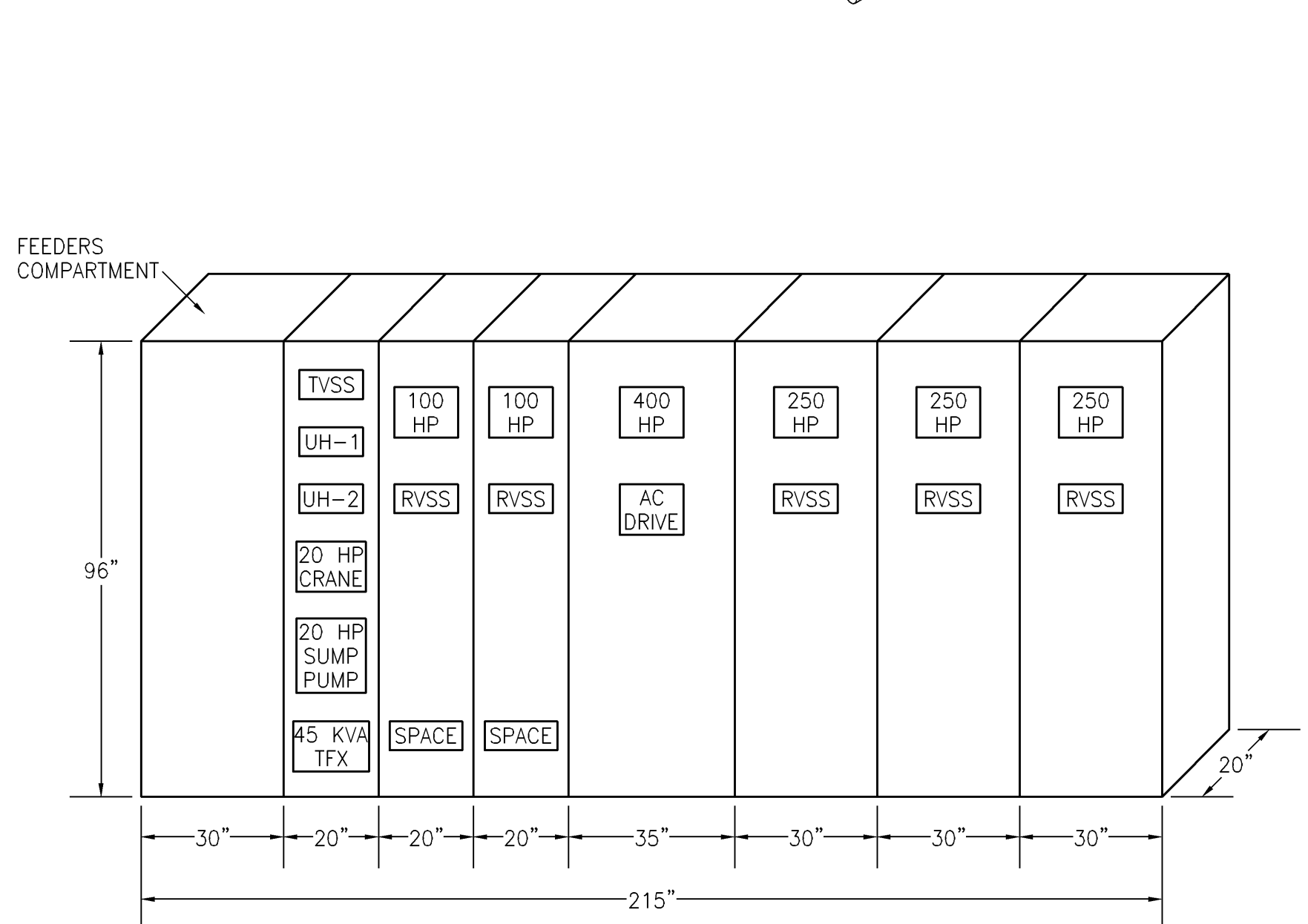
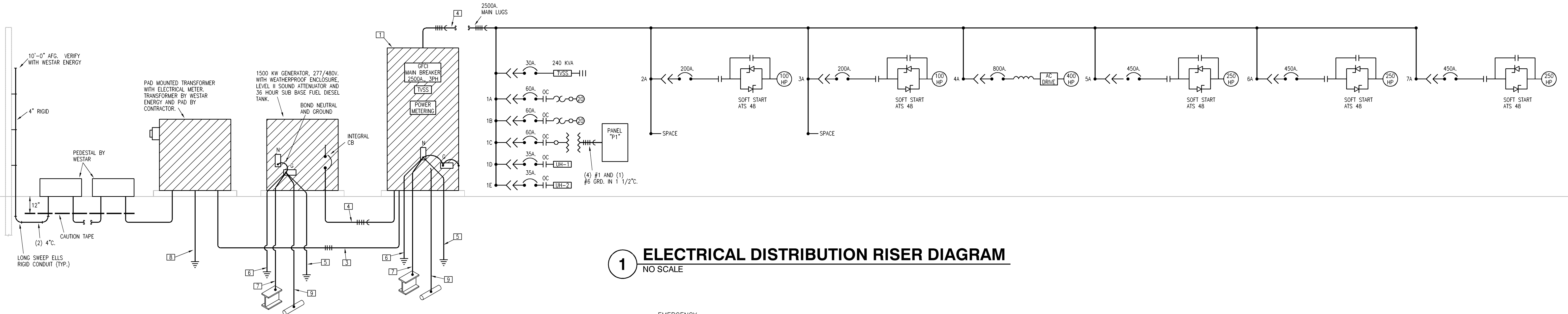


MOTOR CONTROL CENTER															
UNIT NO.	DESIGNATION	VOLTAGE	LOAD			UNIT TYPE	CONTROL SOURCE	SW AMPS	FUSE AMPS	FRAME AMPS	TRIP AMPS	SIZE	SETS	FEEDERS	REMARKS
			HP	FLA	KVA										
1A	CRANE	480V.	20	27	22.4	FVNR	CONTROL TRANSFORMER	-	-	HL150	60	NEMA 2	1	(3) #6 & (1) #8 GRD. IN 3/4".	DIRECT CONNECT AT UNIT
1B	SUMP PUMP	480V.	25	34	28.2	FVNR	CONTROL TRANSFORMER	-	-	HL150	60	NEMA 2	1	(3) #6 & (1) #8 GRD. IN 3/4".	DIRECT CONNECT AT UNIT
1C	TRANSFORMER	480/120/208V.	-	-	45	CB	-	-	-	HL150	60	-	1	(3) #6 & (1) #8 GRD. IN 3/4".	DIRECT CONNECT AT UNIT
1D	UH-1	480V.	-	24.1	20	CB	-	-	-	HL150	35	-	1	(3) #8 & (1) #10 GRD. IN 3/4".	DIRECT CONNECT AT UNIT
1E	UH-2	480V.	-	24.1	20	CB	-	-	-	HL150	35	-	1	(3) #8 & (1) #10 GRD. IN 3/4".	DIRECT CONNECT AT UNIT
2A	PUMP-1	480V.	100	124	103	SSRV	CONTROL TRANSFORMER	-	-	250	200	C14	1	(3) 3/0 KCMIL & (1) #6 GRD. IN 2 1/2".	DIRECT CONNECT AT UNIT
3A	PUMP-2	480V.	100	124	103	SSRV	CONTROL TRANSFORMER	-	-	250	200	C14	1	(3) 3/0 KCMIL & (1) #6 GRD. IN 2 1/2".	DIRECT CONNECT AT UNIT
4A	PUMP-3	480V.	400	477	396.3	AC DRIVE	CONTROL TRANSFORMER	-	800	PL1200	800	C25	2	(3) #500 KCMIL & (1) #1/0 GRD. IN 4".	DIRECT CONNECT AT UNIT
5A	PUMP-4	480V.	250	302	250.9	SSRV	CONTROL TRANSFORMER	-	-	600	450	C32	2	(3) #4/0 KCMIL & (1) #2 GRD. IN 2 1/2".	DIRECT CONNECT AT UNIT
6A	PUMP-5	480V.	250	302	250.9	SSRV	CONTROL TRANSFORMER	-	-	600	450	C32	2	(3) #4/0 KCMIL & (1) #2 GRD. IN 2 1/2".	DIRECT CONNECT AT UNIT
7A	PUMP-6	480V.	250	302	250.9	SSRV	CONTROL TRANSFORMER	-	-	600	450	C32	2	(3) #4/0 KCMIL & (1) #2 GRD. IN 2 1/2".	DIRECT CONNECT AT UNIT

TRANSFORMER SCHEDULE					
MARK	MANUFACTURER	MODEL NUMBER	PRIMARY VOLTAGE	SECONDARY VOLTAGE	KVA
TFX-1	SQUARE D	EE45T3H	480V., 3PH., 3W. DELTA	208/120V., 3PH., 4W. WYE	45

- LEGEND:**
- SERVICE RATED ATS, ASCO #7000 WITH GFI CIRCUIT BREAKER, 2500A., 277/480V., 3 PH., 4W. PROVIDE 4 POLE ATS WITH SWITCHED NEUTRAL.
  - SQUARE D MODEL 6 LOW VOLTAGE MOTOR CONTROL CENTER.
  - (8) SETS OF 500 KCMIL IN 3". EACH SET.
  - (8) SETS OF 500 KCMIL AND #3/0 GRD. IN 4". EACH SET.
  - #3/0 COPPER TO MIN. (3) 3/4"x10'-0" LONG GROUND RODS SPACED MIN. 6'-0" O.C.
  - #3/0 COPPER TO MIN. 20'-0" LONG #3/0 BARE COPPER ENCASED IN CONCRETE FOOTING NEAR BOTTOM WITH MINIMUM 2" CONCRETE COVER.
  - #3/0 COPPER GROUND TO BUILDING STEEL.
  - SINGLE 5/8"x10'-0" GROUND ROD WITH #3/0 GROUNDING STRIP.
  - #3/0 COPPER TO EFFECTIVELY GROUNDED WATER PIPE, MAXIMUM 5'-0" FROM BUILDING ENTRANCE.



ELECTRICAL LOAD CALCULATION			
WICHITA PUMP STATION #11			
	HP	FLA @ 480V.	KW
PUMP 1	100	124	103
PUMP 2	100	124	103
PUMP 3	250	302	250.9
PUMP 4	250	302	250.9
PUMP 5	250	302	250.9
PUMP 6	400	477	396.3
SUMP PUMP	25	34	28.2
CRANE	20	27	22.4
MISCELLANEOUS			50
TOTAL			≈ 1430.6 KW
AMPERAGE @ 277/480V. SERVICE			≈ 1721.5 AMP
			2500 AMP



CITY OF WICHITA, KANSAS  
PUMP STATION NO. 11

MECHANICAL  
ELECTRICAL DETAILS AND SCHEDULES

