



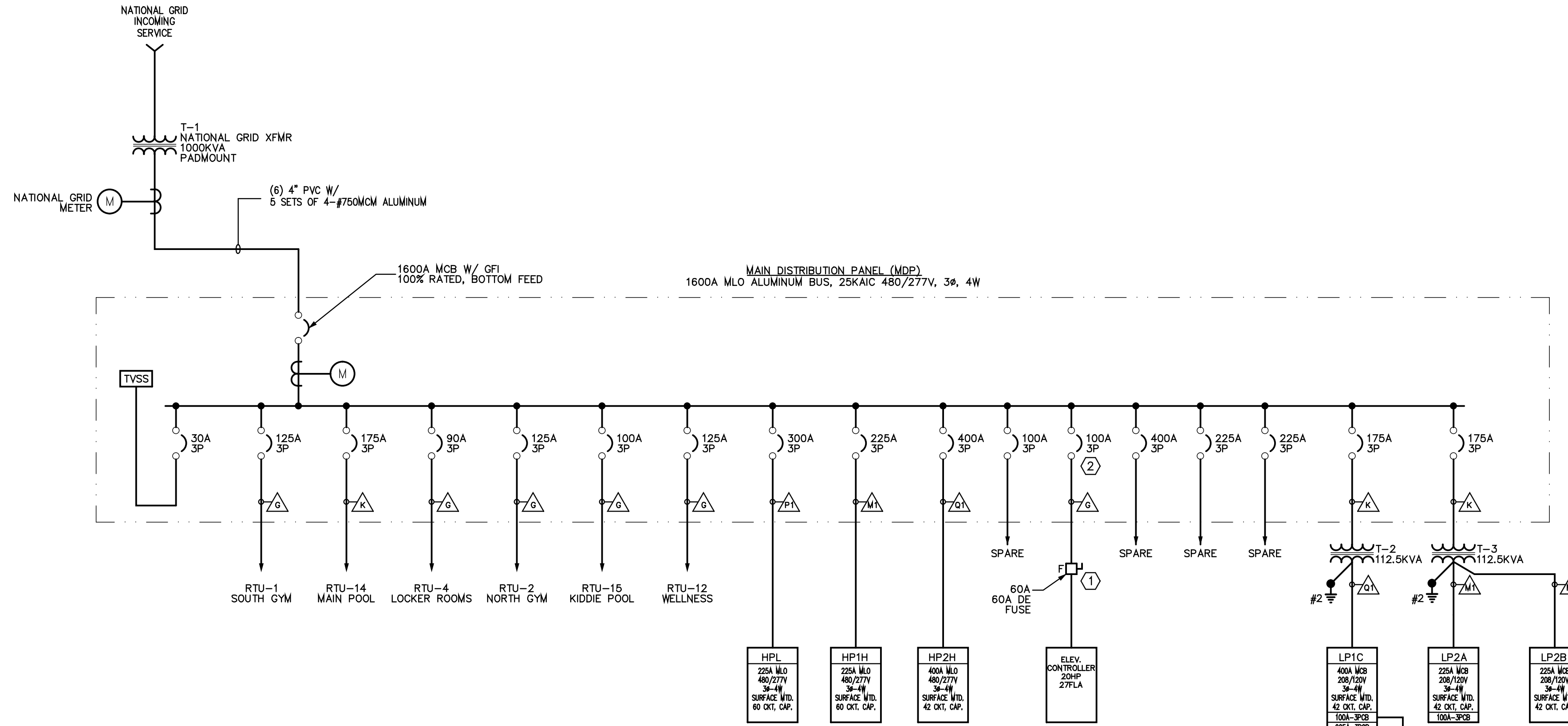
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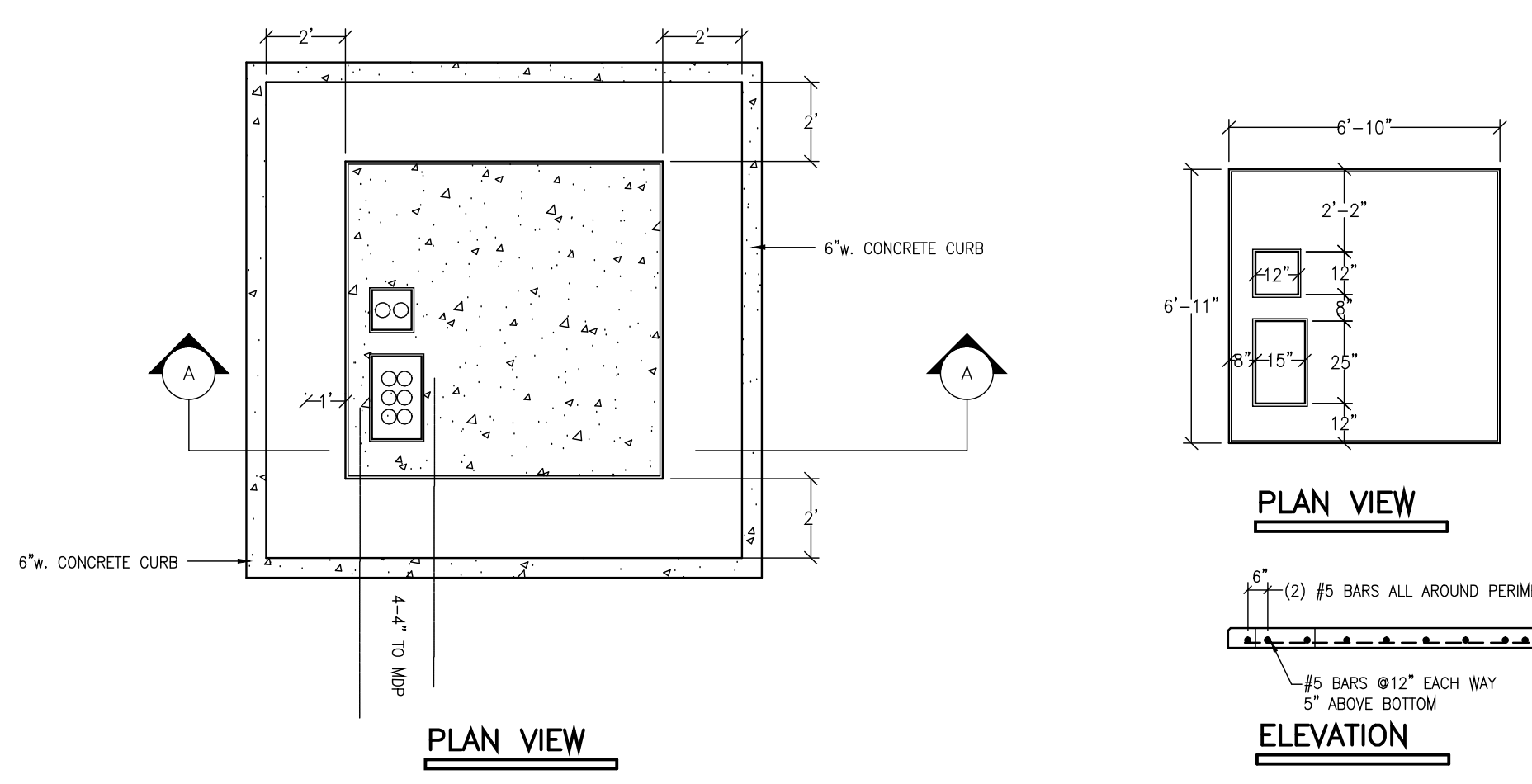
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GENERAL NOTES:

- 1) PROVIDE HEAVY DUTY FUSED DISCONNECT SWITCH WITH AUX. CONTACTS.
- 2) PROVIDE SHUNT TRIP CIRCUIT BREAKER.
- 3) NOT USED.
- 4) NATIONAL GRID WILL SUPPLY AND MOUNT CUSTOMER METER ON LOW VOLTAGE SIDE OF TRANSFORMER ENCLOSURE.
- 5) E.C. TO PROVIDE 4" HIGH HOUSEKEEPING PAD UNDER MDP & T-2.

1 ELECTRICAL ONE LINE DIAGRAM
SCALE: NTS

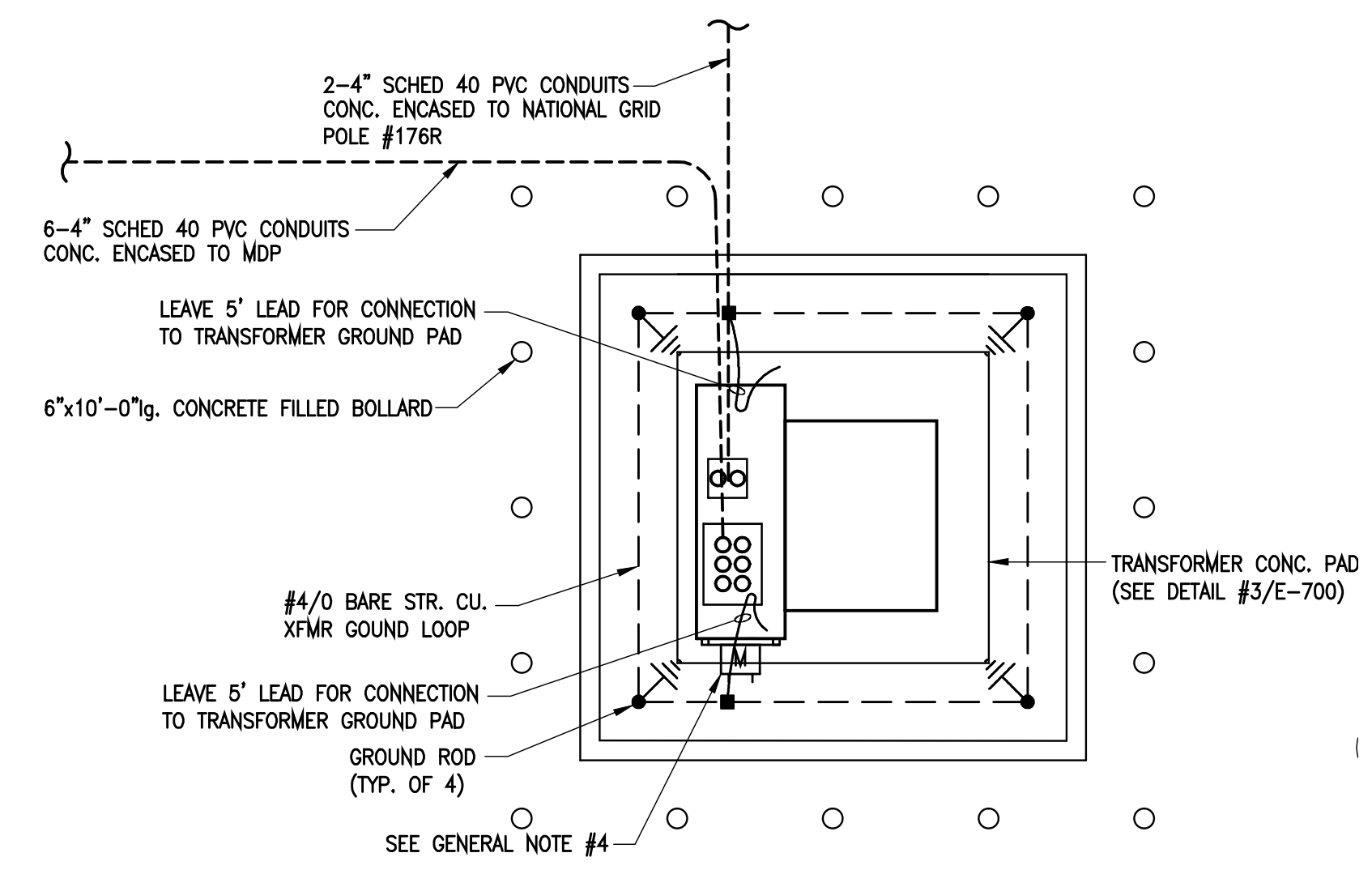


3 Transformer Pad Details
E-700 SCALE: NTS

CONCRETE NOTES:

- 1. ALL EXPOSED EDGES OF CONCRETE PADS TO HAVE 3/4" CHAMFER ALL AROUND.
- 2. ALL BACKFILL SHALL BE PLACED IN 6" TAMPED LAYERS. EACH LAYER SHALL BE THOROUGHLY TAMPED FROM AND SOLE WITH APPROVED MECHANICAL TAMPER.
- 3. ALL CONCRETE SHALL BE 3500 PSI AT 28 DAYS.
- 4. ALL STEEL REINFORCING SHALL BE #5 BARS AT 12" O.C. EACH WAY, A.S.T.M. 4160, GRADE 60.
- 5. CONCRETE PAD SHALL HAVE 24" OF #2 CRUSHED STONE UNDERNEATH AND 12" AROUND EDGE OF PAD. IN 6" WELL-TAMPED LAYERS. STONE BASE AFTER COMPACTING SUB-GRADE TO SEEK OPTIMAL DENSITY.
- 6. TOP SURFACE OF CONCRETE PAD TO BE TROWEL FINISHED.
- 7. ALL CONDUIT ELBOWS ENTERING CONCRETE PAD SHALL BE GALVANIZED RIGID STEEL.

2 Transformer Pad Layout
E-700 SCALE: NTS



4 Transformer Pad Grounding
Enlarged Plan
SCALE: 1/4"=1'-0"

3 WIRE FEEDERS				4 WIRE FEEDERS			
FEEDER DESIGNATION	MAX. ALLOWABLE AMPACITY	CONDUIT SIZE(S)	CONDUCTORS & GROUNDING CONDUCTOR(S) SIZES	FEEDER DESIGNATION	MAX. ALLOWABLE AMPACITY	CONDUIT SIZE(S)	CONDUCTORS & GROUNDING CONDUCTOR(S) SIZES
A	25	1/2"	(3) #12 & #12 GND	A1	25	1/2"	(4) #12 & #12 GND
B	35	3/4"	(3) #10 & #10 GND	B1	35	3/4"	(4) #10 & #10 GND
C	50	3/4"	(3) #8 & #10 GND	C1	50	3/4"	(4) #8 & #10 GND
D	65	3/4"	(3) #6 & #8 GND	D1	65	1"	(4) #6 & #8 GND
E	85	1"	(3) #4 & #8 GND	E1	85	1-1/4"	(4) #4 & #8 GND
F	100	1"	(3) #3 & #8 GND	F1	100	1-1/4"	(4) #3 & #8 GND
G	115	1-1/4"	(3) #2 & #8 GND	G1	115	1-1/4"	(4) #2 & #8 GND
H	130	1-1/4"	(3) #1 & #8 GND	H1	130	1-1/2"	(4) #1 & #8 GND
J	150	1-1/2"	(3) #1/0 & #6 GND	J1	150	1-1/2"	(4) #1/0 & #6 GND
K	175	2"	(3) #2/0 & #6 GND	K1	175	2"	(4) #2/0 & #6 GND
L	200	2"	(3) #3/0 & #6 GND	L1	200	2"	(4) #3/0 & #6 GND
M	230	2"	(3) #4/0 & #4 GND	M1	230	2-1/2"	(4) #4/0 & #4 GND
N	285	2"	(3) 250 kcmil & #4 GND	N1	285	2-1/2"	(4) 250 kcmil & #4 GND
P	310	2-1/2"	(3) 350 kcmil & #4 GND	P1	310	3"	(4) 350 kcmil & #4 GND
Q	380	3"	(3) 500 kcmil & #3 GND	Q1	380	3"	(4) 500 kcmil & #3 GND
R	420	3"	(3) 600 kcmil & #2 GND	R1	420	3-1/2"	(4) 600 kcmil & #2 GND
S	460	(2) 2"	2 sets of (3) #4/0 & (2) #2 GND	S1	460	(2) 2-1/2"	2 sets of (4) #4/0 & (2) #2 GND
T	510	(2) 2-1/2"	2 sets of (3) 250 kcmil & (2) #1 GND	T1	510	(2) 2-1/2"	2 sets of (4) 250 kcmil & (2) #1 GND
U	620	(2) 2-1/2"	2 sets of (3) 350 kcmil & (2) #1/0 GND	U1	620	(2) 3"	2 sets of (4) 350 kcmil & (2) #1/0 GND
V	760	(2) 3"	2 sets of (3) 500 kcmil & (2) #1/0 GND	V1	760	(2) 3"	2 sets of (4) 500 kcmil & (2) #1/0 GND
W	840	(2) 3"	2 sets of (3) 600 kcmil & (2) #2/0 GND	W1	840	(2) 3-1/2"	2 sets of (4) 600 kcmil & (2) #2/0 GND
X	930	(3) 2-1/2"	3 sets of (3) 350 kcmil & (3) #2/0 GND	X1	930	(3) 3"	3 sets of (4) 350 kcmil & (3) #2/0 GND
Y	1000	(3) 2-1/2"	4 sets of (3) 250 kcmil & (4) #2/0 GND	Y1	1000	(3) 2-1/2"	4 sets of (4) 250 kcmil & (4) #2/0 GND
Z	1200	(4) 2-1/2"	4 sets of (3) 350 kcmil & (4) #3/0 GND	Z1	1200	(4) 3"	4 sets of (4) 350 kcmil & (4) #3/0 GND
AA	1600	(4) 3"	4 sets of (3) 600 kcmil & (4) #4/0 GND	AA1	1600	(4) 3-1/2"	4 sets of (4) 600 kcmil & (4) #4/0 GND
BB	1860	(6) 2-1/2"	6 sets of (3) 350 kcmil & (6) #250kcmil GND	BB1	1860	(6) 3"	6 sets of (4) 350 kcmil & (6) #250kcmil GND
CC	2000	(6) 3"	6 sets of (3) 600 kcmil & (6) #250kcmil GND	CC1	2000	(6) 3-1/2"	6 sets of (4) 600 kcmil & (6) #250kcmil GND
DD	2280	(6) 3"	6 sets of (3) 500 kcmil & (6) #350kcmil GND	DD1	2280	(6) 3"	6 sets of (4) 500 kcmil & (6) #350kcmil GND
EE	2500	(6) 3"	6 sets of (3) 600 kcmil & (6) #350kcmil GND	EE1	2500	(6) 3-1/2"	6 sets of (4) 600 kcmil & (6) #350kcmil GND
FF	3000	(8) 3-1/2"	8 sets of (3) 500 kcmil & (8) #400kcmil GND	FF1	3000	(8) 3-1/2"	8 sets of (4) 500 kcmil & (8) #400kcmil GND
GG	3360	(8) 3"	8 sets of (3) 600 kcmil & (8) #500kcmil GND	GG1	3360	(8) 3-1/2"	8 sets of (4) 600 kcmil & (8) #500kcmil GND
HH	4200	(10) 3"	10 sets of (3) 600 kcmil & (10) #600kcmil GND	HH1	4200	(10) 3-1/2"	10 sets of (4) 600 kcmil & (10) #600kcmil GND

TRANSFORMER SCHEDULE									
NAME	KVA	PRIMARY VOLTAGE	PRIMARY PHASES	SECONDARY VOLTAGE	SECONDARY PHASES	MOUNTING	LOCATION	GROUND WIRE	REMARKS
T-1	1000	13.2 KV	3	480/277V	3	4	OUTDOOR	PAD MTD.	#4/0 AWG Cu. BY NATIONAL GRID
T-2	112.5	480V DELTA	3	208Y/120V	3	4	FLOOR	MECH EQUIP RM B116	#2 AWG Cu. K-1, DRIP PROOF ENCLOSURE
T-3	112.5	480V DELTA	3	208Y/120V	3	4	FLOOR	ELEC RM A213	#2 AWG Cu. K-1, DRIP PROOF ENCLOSURE

PANELBOARD SCHEDULE														
PANEL NAME	TYPE	NO. OF SECTIONS	MAIN CIRCUIT BKR.	NO. OF MAIN CIRCUIT BKR.	NO. OF SUB-FEED BUSSES	NO. OF FEED THRU BUSSES	NO. OF BRANCH CIRCUIT BREAKERS	SPACE ONLY	REMARKS					
MDP	B116	1	S 25K 1600	1	1	1	1	1	1) FIXED MOUNTED MOLDED CASE CB'S 2) FRONT AND REAR ACCESSIBLE 3) DRAW OUT AIR CIRCUIT BREAKER 4) FRONT ACCESSIBLE ONLY 5) DRIP PROOF ENCLOSURE 6. NEMA SR, 60 CKT PNLL					
HP1H	B116	1	S 25K 400	1	1	1	1	1	6, 60 CKT PNL					
HP2H	A213	1	S 25K 225	1	1	1	1	1	6, NEMA SR, 60 CKT PNLL					
LP1A	A159	1	S 10K 225	1	1	1	1	1	4, 5, INTEGRAL POWER LOGIC METER AND TVSS					
LP1B	A159	1	S 10K 225	1	1	1	1	1	6, 60 CKT PNL					
LP1C	B116	1	S 10K 400	1	1	1	1	1	6, NEMA SR					
LP1D	B116	1	S 10K 100	1	1	1	1	1	6, NEMA SR					
LP2A	A213	1	S 10K 225	1	1	1	1	1	6					
LP2B	A213	1	S 10K 225	1	1	1	1	1	6					

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PROJECT IDENTIFICATION:
NEW FACILITY FOR:
**NORTHTOWNS
Y.M.C.A.**
TECH DRIVE
AMHERST, NY
OWNER:
**BUFFALO NIAGARA
YMCA**
301 CAYUGA ROAD, SUITE 1100
BUFFALO, NY 14225

NO.	DATE	REVISION
2	1/11/12	REVISED FOR CONST.
1	6/01/11	FOR CONSTRUCTION

ISSUE DATE:
FILE NAME:
PROJECT NUMBER: AS SHOWN
SCALE: AS SHOWN
DRAWN BY: JDS
CHECKED BY: ATD

SHEET TITLE:
**ONE LINE
DIAGRAM
& ELECTRICAL
DETAILS**

DRAWING NO:
E-700