

UT. XFRM FAULT CALC		916276 LOAD.xlsm	
SERVICE ENTRANCE CALCULATION			
VOLTAGE (L-L):	480V	I-FLA=[RATED KVA * 1000]	
PHASE (PH):	3	[N-LL/SQRT(PHASE)]	
AMP(S):	860A		
FULL LOAD KVA:	228KVA	I-FLA=271A	
TRANSFORMER:	225KVA	M=100% \times 83.3	
IMPEDANCE (R):	1.252	I-SC=C \times FLA \times M=23 KA	
CALCULATION IS BASED ON ACTUAL TRANSFORMER SIZE WITH 1/2 FROM BUSSMANN SPD. CONTRACTOR SHALL CONTACT UTILITY AND VERIFY I-SC AVAILABLE AT SECONDARY OF TRANSFORMER. CONTACT ENGINEER FOR RE-CALCULATION IF LARGER THAN CALCULATED.			

MOTOR LOAD FAULT CALC		916276 LOAD.xlsm	
SERVICE ENTRANCE CALCULATION			
STARTING I-SC:	23 KA		
MOTOR LOAD (KVA):	113KVA	I-SC(M)=LFL * 114A	
MOTOR LOAD (A):	138A	I-SC=I-SC(M)*M=23 KA	

WIREWAY FEEDER FAULT CALC		916276 LOAD.xlsm	
SERVICE ENTRANCE CALCULATION			
STARTING I-SC:	23 KA		
VOLTAGE (L-L):	480V		
PHASE (PH):	3		
FEEDER SIZE:	400		
FEEDER MATERIAL:	CU		
PARALLEL SETS (Q):	3 SETS		
FEEDER LENGTH (L):	20FT		
FEET PER OHMS (C):	24.297 FT/OHMS		

TOYS R US FEEDER FAULT CALC		916276 LOAD.xlsm	
SERVICE ENTRANCE CALCULATION			
STARTING I-SC:	23 KA		
VOLTAGE (L-L):	480V		
PHASE (PH):	3		
FEEDER SIZE:	350		
FEEDER MATERIAL:	CU		
PARALLEL SETS (Q):	2 SETS		
FEEDER LENGTH (L):	10FT		
FEET PER OHMS (C):	22.737 FT/OHMS		

BRU FEEDER FAULT CALC		916276 LOAD.xlsm	
SERVICE ENTRANCE CALCULATION			
STARTING I-SC:	23 KA		
VOLTAGE (L-L):	480V		
PHASE (PH):	3		
FEEDER SIZE:	300		
FEEDER MATERIAL:	CU		
PARALLEL SETS (Q):	2 SETS		
FEEDER LENGTH (L):	2400FT		
FEET PER OHMS (C):	13.923 FT/OHMS		

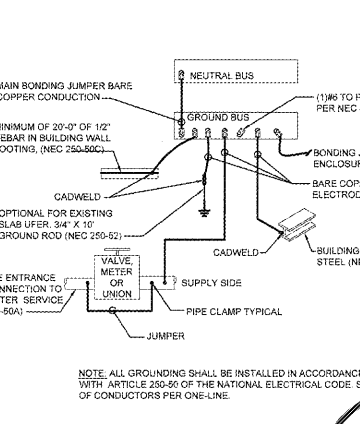
STEP-DOWN XFRM FAULT CALC		916276 LOAD.xlsm	
SERVICE ENTRANCE CALCULATION			
STARTING I-SC:	23 KA		
VOLTAGE (L-L):	480V		
PHASE (PH):	3PHASE		
KVA TRANSFORMER:	75KVA		
% TRANSFORMER:	5.50%		

EQUIPMENT SCHEDULE		916276 LOAD.xlsm	
PLAN MARK	EQUIPMENT	LOAD	REMARKS
RTU T1	ROOF TOP UNIT	35.7KVA	EXISTING
RTU T2	ROOF TOP UNIT	35.7KVA	EXISTING
RTU T3	ROOF TOP UNIT	27.44KVA	NEW UNIT
RTU T4	ROOF TOP UNIT	13.38KVA	NEW UNIT
EF T1	EXHAUST FAN	0.66KVA	
EWH 1	INSTANT WATER HTR	3.98KVA	

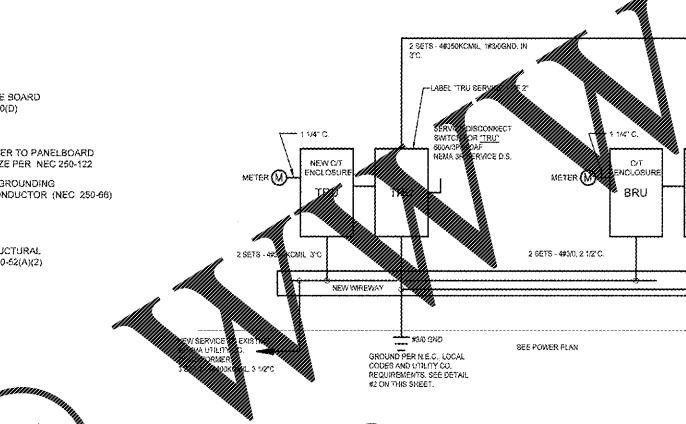
PHASE BALANCE		916276 LOAD.xlsm	
PHASE	LOAD	%	RECEPTACLE
A	48.3 KVA	32%	112.8 KVA
B	48.3 KVA	32%	112.8 KVA
C	44.1 KVA	32%	107.2 KVA

MOUNT: SURFACE		277/480		3-PHASE, 4W		EX PANEL		H1		CAPACITY: 400A		INT CAP: 14KA					
LOCATION:	BRU CORRIDOR	LUGS:	MLO	DEMAND LOAD:	164A	AV. FAULT:	13KA										
DKT	LTG	REC	HVAC	MISC	NP	DESCRIPTION	AMP	POLE	AMP	POLE	DESCRIPTION	LTG	REC	HVAC	MISC	NP	DKT
1						RTU T1	50	3	50	3	EXISTING RTU 1						2
3						SALES LIGHTING	20	1	A	20	1	SALES LIGHTING	3.1				8
7	2.1					SALES LIGHTING	20	1	B	20	1	SALES LIGHTING	1.4				4

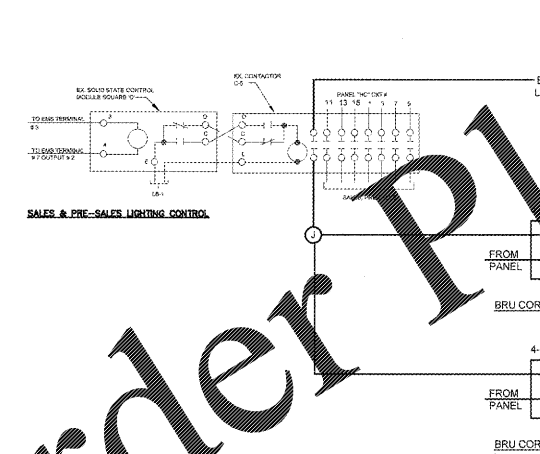
MOUNT: SURFACE		120/208		3-PHASE, 4W		EX PANEL		L1		CAPACITY: 225A		INT CAP: 10KA					
LOCATION:	FUTURE TENANT CORRIDOR	LUGS:	MCB	DEMAND LOAD:	83A	AV. FAULT:	4KA										
DKT	LTG	REC	HVAC	MISC	NP	DESCRIPTION	AMP	POLE	AMP	POLE	DESCRIPTION	LTG	REC	HVAC	MISC	NP	DKT
B3	0.9					L-BABY REG.CUST	20	1	A	20	1	RTU RECEPTABLES	0.4				2
B3	0.9					EXT LYS SIGN	20	1	B	20	1	EXT LYS SIGN	1.3				4



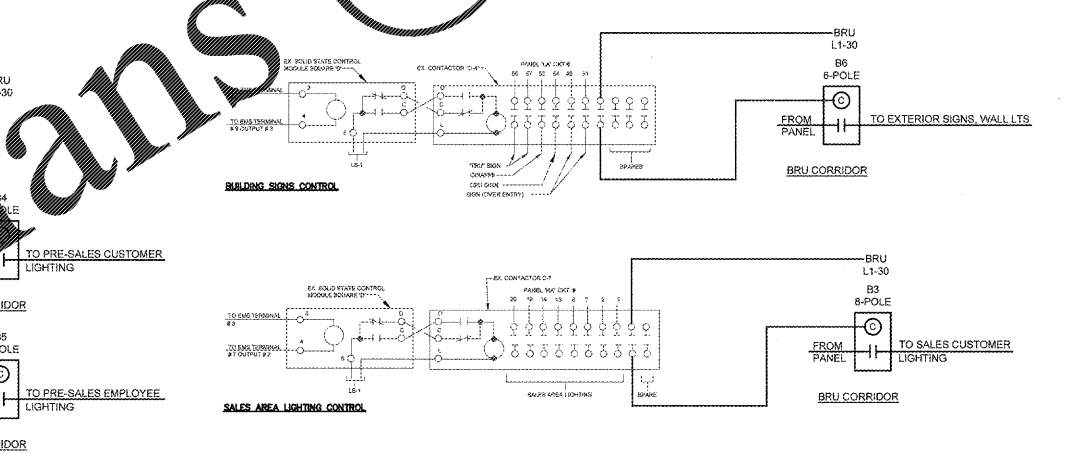
2 GROUNDING DETAIL
E303 SCALE = NTS



1 ONE-LINE DIAGRAM
E303 SCALE = NTS



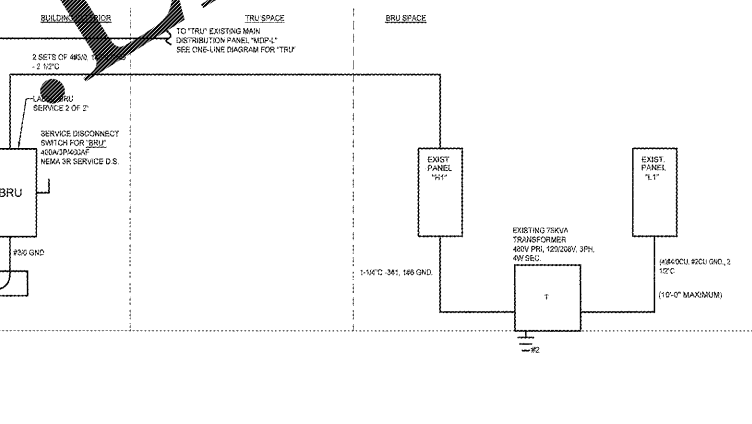
3 LIGHTING CONTROL DIAGRAM
E301 SCALE = NOT TO SCALE



3 LIGHTING CONTROL DIAGRAM
E301 SCALE = NOT TO SCALE

MOUNT: SURFACE		120/208		3-PHASE, 4W		EX PANEL		L1		CAPACITY: 225A		INT CAP: 10KA					
LOCATION:	FUTURE TENANT CORRIDOR	LUGS:	MCB	DEMAND LOAD:	83A	AV. FAULT:	4KA										
DKT	LTG	REC	HVAC	MISC	NP	DESCRIPTION	AMP	POLE	AMP	POLE	DESCRIPTION	LTG	REC	HVAC	MISC	NP	DKT
B3	0.9					L-BABY REG.CUST	20	1	A	20	1	RTU RECEPTABLES	0.4				2
B3	0.9					EXT LYS SIGN	20	1	B	20	1	EXT LYS SIGN	1.3				4

MOUNT: SURFACE		120/208		3-PHASE, 4W		EX PANEL		L1		CAPACITY: 225A		INT CAP: 10KA					
LOCATION:	FUTURE TENANT CORRIDOR	LUGS:	MCB	DEMAND LOAD:	83A	AV. FAULT:	4KA										
DKT	LTG	REC	HVAC	MISC	NP	DESCRIPTION	AMP	POLE	AMP	POLE	DESCRIPTION	LTG	REC	HVAC	MISC	NP	DKT
B3	0.9					L-BABY REG.CUST	20	1	A	20	1	RTU RECEPTABLES	0.4				2
B3	0.9					EXT LYS SIGN	20	1	B	20	1	EXT LYS SIGN	1.3				4



3 LIGHTING CONTROL DIAGRAM
E301 SCALE = NOT TO SCALE

REVISIONS

No	Date	Description
1	11/29/18	30% OWNER REVIEW
2	11/29/18	ISSUED FOR PERMIT/SD

NO SUBSTITUTIONS SHALL BE ALLOWED UNLESS OTHERWISE NOTED (REFER TO SPECIFICATIONS)

DESIGNED FOR: FLORIDA BUILDING CODE, 6TH EDITION (2017).

CASCO
Architecture + Engineering
10877 WATSON ROAD
SAINT LOUIS, MO 63127
TEL: (314) 821-1100

BD DATE: 11/29/18 PROJECT NO: 918219
CAD NAME: JSC PROJECT NO: 918219
DRAWN BY: SA CHECKED BY: JSC
PROTOTYPE

CASCO PROFESSIONAL SERVICES LLC
LICENSED PROFESSIONAL ENGINEER
STATE OF MISSOURI
NO. 00151088
PROFESSIONAL SEAL NUMBER
JOSEPH A. CARTER, LIC. NO. 68874
EXP. DATE 02/28/19

BABIES'R US

GLOBAL RESOURCE CENTER
ONE GEOFFREY WAY
WAYNE, NJ 07470
(973) 617-3500

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Location
LAKELAND, FLORIDA
3770 US HIGHWAY 98 NORTH 33809

Drawing Title
ONE-LINE & SCHEDULES

Scale: NOT TO SCALE Date: 1/29/18
Sheet No. **E301**