

Panel Wiring Schedule (3-phase)																
Panelboard "MDP"			Voltage 277/480		Phase 3		Wire 4									
Panel Type WESCO			Mains 200A MCB		Mains Rating 400 A		A/C Rating 65,000									
NEMA Type Enclosure 1			Mounting IFS		Options											
Ckt. No.	Zone/ Note	Load Description	Equip #	Brkr Opts	Brkr Size*	Actual KW	Phase	Actual KW	Brkr Size*	Brkr Opts	Equip #	Load Description	Zone/ Note	Ckt. No.		
1		AHU-1		H	35/3	8.540 A	0.000	8.540 B	0.000	----	----	SPACE		2		
						8.540 C	0.000	3.408 A	----	----	----					
3		FPVAV-1		H	15/3	3.408 B	----	3.408 C	----	----	----	SPACE		4		
						3.408 A	----	----	----	----	----					
5		SPACE		----	----	----	A 16.132	----	----	125/3	L	XFMR		6		
						----	B 15.792	----	----							
						----	C 15.268	----	----							
Notes																
* All circuit breakers to be 20-Amp, 1-Pole unless otherwise noted.																
Actual Load Totals:												Breaker Options				
Ph. A 28.980 kw 101.3 A												L - Handle lock-on device				
Ph. B 27.740 kw 100.1 A												H - Heating, A/C & Refrigeration				
Ph. C 27.216 kw 98.2 A												G - Ground Fault Circuit Interrupter				
Total 83.036 kw 99.9 A																
(All Phases to be balanced to within 7% using Actual Load Totals.)												Zone/Note		Zone - Lighting Control Zones		
Notes - IG = Isolated Ground Circuit																

Panel Wiring Schedule (3-phase)																		
Panelboard			"A"		Voltage		120/208		Phase		3		Wire		4			
Panel Type			WESCO		Mains		125A MCB		Mains Rating		225 A		A/C Rating		65,000			
NEMA Type Enclosure			1		Mounting		IFS		Options				A/C Rating					
Ckt. No.	Zone/ Note	Load Description			Equip #	Brkr Opts	Brkr Size*	Actual KW	Phase	Actual KW	Brkr Size*	Brkr Opts	Equip #	Load Description			Zone/ Note	Ckt. No.
1		STORE N/EM LIGHTS					20/1	0.956	A	1.216	20/1	L		STOCKROOM LIGHTS				2
3	A	STORE FRONT LIGHTS				----	20/1	0.220	B	0.468	20/1	----		CASH WRAP LIGHTS				C 4
5	A	LIGHT BOX & PED. PLAQUE					20/1	0.400	C	0.774	20/1	----		SALES AREA LIGHTS				D 6
7	A	STOREFRONT SIGN					20/1	1.200	A	0.702	20/1	----		SALES AREA LIGHTS				C 8
9	C	CABINET LIGHTS				----	20/1	0.650	B	0.000	20/1	----		SPARE				C 10
11	C	CABINET LIGHTS				----	20/1	0.750	C	0.684	20/1	----		SALES AREA LIGHTS				D 12
13	C	CABINET LIGHTS				----	20/1	0.550	A	0.702	20/1	----		SALES AREA LIGHTS				D 14
15	C	CABINET LIGHTS				----	20/1	0.600	B	0.756	20/1	----		SALES AREA LIGHTS				C 16
17	C	CABINET LIGHTS				----	20/1	0.650	C	0.576	20/1	----		SALES AREA LIGHTS				D 18
19	C	CABINET LIGHTS				----	20/1	0.650	A	0.576	20/1	----		SALES AREA LIGHTS				D 20
21	C	CABINET LIGHTS				----	20/1	0.650	B	0.408	20/1	----		SALES AREA LIGHTS				D 22
23	D	FLOORBOX				----	20/1	0.540	C	0.774	20/1	----		SALES AREA LIGHTS				C 24
25	D	FLOORBOX				----	20/1	0.540	A	0.000	20/1	----		SPARE				A 26
27	D	FLOORBOX				----	20/1	0.720	B	1.200	----	----		LED GINGHAM				A 28
29	D	FLOORBOX				----	20/1	0.540	C	----	----	----		SPARE				C 30
31	D	FLOORBOX				----	20/1	0.540	A	----	----	----		SPARE				C 32
33	D	TV BACKWRAP				----	20/1	0.600	B	----	----	----		SPARE				D 34
35	D	TV BACKWRAP				----	20/1	0.600	C	----	----	----		SPARE				D 36
37	D	SPARE				----	20/1	0.000	A	----	----	----		SPARE				A 38
39	A	STOREFRONT SIGN				----	20/1	1.200	B	----	----	----		SPARE				A 40
41	A	LED GINGHAM				----	20/1	1.200	C	----	----	----		SPARE				A 42
Notes																		
* All circuit breakers to be 20-Amp, 1-Pole unless otherwise noted.																		
Actual Load Totals: Ph. A 7.632 kw 63.6 A																		
Ph. B 7.472 kw 62.2 A																		
Ph. C 7.488 kw 62.4 A																		
Total 22.592 kw 62.7 A																		
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Zone/Note																		
Zone - Lighting Control Zones																		
Notes - IG = Isolated Ground Circuit																		

Panel Wiring Schedule (3-phase)														
Panelboard		"B"		Voltage	120/208		Phase	3		Wire	4			
Panel Type		WESCO		Mains	125A MCB		Mains Rating	225 A		A/C Rating	65,000			
NEMA Type Enclosure		1		Mounting	IFS		Options			Note	ISOLATED GROUND BAR			
Ckt. No.	Zone/ Note	Load Description	Equip #	Brkr Opts	Brkr Size*	Actual KW	Phase	Actual KW	Brkr Size*	Brkr Opts	Equip #	Load Description	Zone/ Note	Ckt. No.
1		SPARE		----	20/1	0.000	A	2.100	20/2	----	1	DEMO WATER HEATER/ WH-1		2
3		MANAGER'S RECEPTACLE		----	20/1	0.360	B	2.100	20/2	----		SALES AREA RECEPTACLE		4
5	IG	MANAGER'S IG RECEPTACLE		L	20/1	0.540	C	0.540	20/1	----		SALES AREA RECEPTACLE		6
7		BACKWRAP RECEPTACLE		----	20/1	0.360	A	0.000	20/1	----		SPARE		8
9		WALKIE TALKIE		----	20/1	0.360	B	0.540	20/1	----		SALES AREA RECEPTACLE		10
11		MUSIC/ROUND SYSTEM		----	20/1	0.500	C	0.500	20/1	L		IP CAMERA POWER		12
13		(VWR) TEMP. CONTROLS		L	20/1	0.500	A	0.500	20/1	L		SECURITY PANEL/MONITOR		14
15	IG	CASHWRAP IG		L	20/1	0.900	B	0.500	20/1	L		BURGLAR ALARM		16
17		CASHWRAP RECEPTACLE		L	20/1	0.720	C	1.500	20/2	----		SPARE		18
19		NONSALES RECEPTACLE		----	20/1	1.080	A	1.500	20/2	----	4	DEMO WATER HEATER/ WH-2		20
21		SPARE		----	20/1	0.000	B	0.600	20/1	----		DRINKING FOUNTAIN		22
23		MICROWAVE		----	20/1	1.200	C	0.000	20/1	----		SPARE		24
25		SPARE		----	20/1	0.000	A	0.360	20/1	----		HVAC RECEPTACLE		26
27		(VWR) TELEPHONE BOARD		L	20/1	0.360	B	0.000	20/1	----		SPARE		28
29		A.L.L. SYSTEM		L	20/1	0.180	C	2.100	20/2	----	1	DEMO WATER HEATER/ WH-1		30
31		SPARE		----	20/1	0.000	A	2.100	20/2	----		PUMP		32
33		REFRIGERATOR		----	20/1	1.000	B	1.600	20/1	----		SPARE		34
35		SPARE		----	20/1	0.000	C	0.000	20/1	----		SPARE		36
37		SPARE		----	20/1	0.000	A	0.000	20/1	----		SPARE		38
39		SPARE		----	20/1	0.000	B	0.000	20/1	----		SPARE		40
41		SPARE		----	20/1	0.000	C	0.000	20/1	----		SPARE		42
Notes														
* All circuit breakers to be 20-Amp, 1-Pole unless otherwise noted.														
Actual Load Totals:    Ph. A    8.500 kw    70.8 A														
Ph. B    8.320 kw    69.3 A														
Ph. C    7.780 kw    64.8 A														
Total    24.600 kw    68.3 A														
Zone/Note														
Zone - Lighting Control Zones														
Notes - IG = Isolated Ground Circuit														

TRANSFORMER SUMMARY					120/208V SYSTEM
DESCRIPTION	ACTUAL CONNECTED KW/KVA	N.E.C. CONNECTED KW/KVA	N.E.C. DEMAND FACTOR	N.E.C. DEMAND KW/KVA	
LIGHTING	18.512	18.512	1.25	23.140	
TRACK LIGHTING ***	0.000	0.000	0 Amps x 120V	0.000	
SHOW WINDOW LIGHTING **	0.000	0.000	0" x 200w / FT	0.000	
RECEPTACLES	8.640	8.640	1.0 x 10 KW + 0.5 REMAINING KW	8.640	
ELECTRIC WATER HEATER	11.400	11.400	1.0	11.400	
MISCELLANEOUS	7.040	7.040	1.0	7.040	
MOTORS	1.600	1.600	1.0	1.600	
FIXED ELECTRIC HEATING	0.000	0.000	1.0	0.000	
HVAC SYSTEM	0.000	0.000	125% OF LARGEST	0.000	
TOTAL	47.192	47.192	<b>CALCULATED PER 2011 NEC</b>	51.820	
NOTES * USE GREATER LOAD OF THE TWO CATEGORIES ** NEC ARTICLE 220-43 REQUIREMENT (200VA / FT OR ACTUAL CONNECTED) *** NEC ARTICLE 220-43(B) EXCEPTION-TOTAL OF ALL CURRENT LIMITING DEVICES **** 125% OF THE LARGEST MOTOR OR COMPRESSOR ALREADY INCLUDED IN ACTUAL, & NEC CONNECTED KW/KVA TOTAL					
N.E.C. DEMAND KVA x 1000 SYSTEM VOLTAGE x y 3 = MINIMUM FEEDER AMPERAGE 51.820 x 1000 208 x 1.73 144.0 AMPS					

ELECTRICAL LOAD SUMMARY					277/480V SYSTEM
DESCRIPTION	ACTUAL CONNECTED KW/KVA	N.E.C. CONNECTED KW/KVA	N.E.C. DEMAND FACTOR	N.E.C. DEMAND KW/KVA	
LIGHTING	18.512	18.512	1.25	23.140	
TRACK LIGHTING ***	0.000	0.000	0 Amps x 120V	0.000	
SHOW WINDOW LIGHTING **	0.000	0.000	0" x 200w / FT	0.000	
RECEPTACLES	8.640	8.640	1.0 x 10 KW + 0.5 REMAINING KW	8.640	
ELECTRIC WATER HEATER	11.400	11.400	1.0	11.400	
MISCELLANEOUS	7.040	7.040	1.0	7.040	
MOTORS	1.600	1.600	1.0	1.600	
FIXED ELECTRIC HEATING	35.844	35.844	1.0	35.844	
HVAC SYSTEM	0.000	0.000	125% OF LARGEST	0.000	
TOTAL	83.036	83.036	<b>CALCULATED PER 2011 NEC</b>	87.684	
NOTES * USE GREATER LOAD OF THE TWO CATEGORIES ** NEC ARTICLE 220-43 REQUIREMENT (200VA / FT OR ACTUAL CONNECTED) *** NEC ARTICLE 220-43(B) EXCEPTION-TOTAL OF ALL CURRENT LIMITING DEVICES **** 125% OF THE LARGEST MOTOR OR COMPRESSOR ALREADY INCLUDED IN ACTUAL, & NEC CONNECTED KW/KVA TOTAL					
N.E.C. DEMAND KVA x 1000 SYSTEM VOLTAGE x y 3 = MINIMUM FEEDER AMPERAGE 87.684 x 1000 480 x 1.73 105.6 AMPS					

ELECTRICAL LANDLORD'S COMMENTS:  
 PRIOR TO BID, TENANT IS REQUIRED TO VERIFY THAT THE LANDLORD'S EXISTING AVAILABLE ELECTRICAL SERVICE MEETS THE TENANT'S TOTAL CONNECTED LOAD.  
 COORDINATE ALL NEW ROUTING OF CONDUIT, FEEDER CABLES AND CONNECTIONS TO LANDLORDS MAIN ELECTRICAL GEAR WITH MALL OPERATIONS.  
 TENANT'S GC TO SURVEY ALL EXISTING ELECTRICAL EQUIPMENT AND VERIFY ANY ADDITIONAL WORK TO BE COMPLETED.  
 ANY AND ALL UPGRADES TO EXISTING EQUIPMENT SHALL BE BY TENANT'S GC AT TENANTS EXPENSE.  
 MOUNT ALL PANELS SURFACE MOUNTED ON PLYWOOD BACKERS. DO NOT MOUNT RECESSED WITHIN LANDLORD'S DEMISING WALL.  
 TENANT'S GC TO SURVEY ALL EXISTING ELECTRICAL EQUIPMENT AND VERIFY THAT THEY ARE IN GOOD WORKING CONSTRUCTION, MEETS ALL CODES AND MATCHED THE CAPACITIES AND CHARACTERISTICS OF THE EQUIPMENT INDICATED ON THESE DRAWINGS AND SPECIFICATIONS.  
 MAXIMUM SIZE OF TRANSFORMER SUSPENDED FORM STRUCTURE SHALL BE 30KVA.  
 TRANSFORMER TO BE:  
 1. FLOOR SUPPORTED.  
 2. BUILT UP ON A PLATFORM SUPPORTED BY TENANT INTERIOR WALLS, NOT ATTACHED TO THE LANDLORDS DEMISING WALL.  
 3. PROVIDED STRUCTURAL DRAWINGS APPROVED BY A STRUCTURAL ENGINEER TO SUPPORT FROM CEILING.

LIGHTING TIME CONTROL LEGEND:  
 A1 - EXTERIOR SIGNAGE BLADE SIGN INTERNALLY ILLUMINATED TRANSOMS STOREFRONT DOWNLIGHTING  
 A - MARKETING LEVEL LIGHTING SHOW WINDOW LIGHTS SHOW WINDOW RECEPTACLES  
 B - STOCKING STOCKROOM (NON-SALES) LIGHTING  
 C - TASK LEVEL 1/2 SALES FLOOR LIGHTING EVENLY DISTRIBUTED (BBW, PINK & BEN) - INCLUDING CABINET LIGHTING GENERAL SALES FLOOR RECEPTACLES DISPLAY CABINET LIGHTING RECEPTACLES  
 D - SALES LEVEL LIGHTING BALANCE OF SALES FLOOR LIGHTING INTERIOR DISPLAY LIGHTING (CHANDELIERS, NEON, ETC)  
 NOTE:  
 ALL LIGHTING CIRCUITS CONNECTED TO LIGHTING ZONES ARE CONNECTED AND CONTROLLED AUTOMATICALLY THROUGH THE H.V.A.C BUILDING CONTROL TIME CLOCK. REFER TO ELECTRICAL POWER GENERAL NOTE #13 ON THIS SHEET.

ELECTRICAL EQUIPMENT DATA												
SYM.	ITEM	VOLTAGE	HP.	KW.	M.C.A.	FEEDERS		TYPE OF CONN.	BRANCH BREAKER	DISC. SW.	BUS/ FUSES	REMARKS
						WIRE	COND.					
①	WATER HEATER WH-1	208V, 1ø	--	4.2	--	2#12 THHN 1#12 G	1/2"	'AC' TOGGLE SWITCH	20A-2P	---	---	SEE NOTE NO. 1 BELOW
②	FPVAV-1 (WITH HEATING)	277/480V, 3ø,4W	1/2	6.0 ELEC. HEAT	12.3	4#12 THHN 1#12 G	3/4"	THRU UNIT DISC. SW.	15A-3P	---	---	SEE NOTE NO. 2 BELOW
③	AHU-1	480V, 3ø	5	15.0 ELEC. HEAT	30.83	3ø8 THHN 1#10 G	3/4"	THRU UNIT DISC. SW.	35A-3P	---	---	SEE NOTE NO. 2 BELOW
④	WATER HEATER WH-2	208V, 1ø	--	3.0	--	2#12 THHN 1#12 G	1/2"	'AC' TOGGLE SWITCH	20A-2P	---	---	SEE NOTE NO. 1 BELOW
NOTE: 1. 'AC' TOGGLE SWITCH TO BE FURNISHED BY LSD&C AND INSTALLED BY ELECTRICAL CONTRACTOR. 2. DISCONNECT SWITCH TO BE FURNISHED AND INSTALLED BY MECHANICAL SUPPLIER.												