

BATTERY CALCULATION FACP BUILDING "X"				
DEVICE	DESCRIPTION	QUANTITY	LOAD	TOTAL
STAND-BY CONDITION DURING POWER FAILURE FOR 24 HOURS				
NSF-640	FACP	1	0.385	0.3850
FPC-951	PHOTO/CO DETECTOR	32	0.0002	0.0064
FST-751	HEAT DETECTOR	11	0.0002	0.0022
FCM-1	CONTROL MODULE	2	0.0003	0.0006
FMM-1	MONITOR MODULE	6	0.0002	0.0012
			TOTAL	0.3954
			X 24 HOURS	9.4896
ALARM CONDITION DURING POWER FAILURE FOR 15 MINUTES (.25 HOUR)				
NSF-640	FACP	1	0.714	0.7140
FPC-951	PHOTO/CO DETECTOR	32	0.0002	0.0064
FST-751	HEAT DETECTOR	11	0.0002	0.0022
FCM-1	CONTROL MODULE	2	0.0003	0.0006
FMM-1	MONITOR MODULE	6	0.0002	0.0012
SR	INTERIOR STROBE 15cd	3	0.041	0.1230
SR	INTERIOR STROBE 30cd	0	0.063	0.0000
SR	INTERIOR STROBE 75cd	1	0.11	0.1100
SPRK	SPEAKER (1 WATT)	10	0.042	0.4200
			TOTAL	1.3774
			X 15 MINUTES	0.3444

TOTAL 9.8340
X 1.25 12.2924
BATTERY REQ'D 12.2829 AH
PROVIDE 26 AH

BATTERY CALCULATION DA-A BUILDING "V"				
DEVICE	DESCRIPTION	QUANTITY	LOAD	TOTAL
STAND-BY CONDITION DURING POWER FAILURE FOR 24 HOURS				
DA-A	AUDIO AMPLIFIER	1	0.4	0.4000
			TOTAL	0.4000
			X 24 HOURS	9.6000
ALARM CONDITION DURING POWER FAILURE FOR 15 MINUTES (.25 HOUR)				
DA-A	AUDIO AMPLIFIER	1	0.4	0.4000
SPEAKER	VOICE EVACUATION SPEAKER	12	0.042	0.5040
			TOTAL	0.9040
			X 15 MINUTES	0.2260

TOTAL 9.8260
X 1.25 12.2825
BATTERY REQ'D 12.2825 AH
PROVIDE 24 AH

BATTERY CALCULATION PSE-10 BUILDING "V"				
DEVICE	DESCRIPTION	QUANTITY	LOAD	TOTAL
STAND-BY CONDITION DURING POWER FAILURE FOR 24 HOURS				
FCM-1	CONTROL MODULE	1	0.0003	0.0003
FMM-1	MONITOR MODULE	2	0.0002	0.0004
PSE-10	POWER SUPPLY	1	0.09	0.0900
			TOTAL	0.0907
			X 24 HOURS	2.1768
ALARM CONDITION DURING POWER FAILURE FOR 15 MINUTES (.25 HOUR)				
PSE-10	POWER SUPPLY	1	0.09	0.0900
FCM-1	CONTROL MODULE	1	0.0003	0.0003
FMM-1	MONITOR MODULE	2	0.0002	0.0004
SR	INTERIOR STROBE 15cd	3	0.041	0.1230
SR	INTERIOR STROBE 30cd	1	0.063	0.0630
SR	INTERIOR STROBE 75cd	3	0.11	0.3300
SSM-24	WATER FLOW BELL	1	0.031	0.0310
			TOTAL	0.6377
			X 15 MINUTES	0.1594

TOTAL 2.3362
X 1.25 2.9203
BATTERY REQ'D 2.9203 AH
PROVIDE 7 AH

BATTERY CALCULATION DA-A BUILDING "W"				
DEVICE	DESCRIPTION	QUANTITY	LOAD	TOTAL
STAND-BY CONDITION DURING POWER FAILURE FOR 24 HOURS				
DA-A	AUDIO AMPLIFIER	1	0.4	0.4000
			TOTAL	0.4000
			X 24 HOURS	9.6000
ALARM CONDITION DURING POWER FAILURE FOR 15 MINUTES (.25 HOUR)				
DA-A	AUDIO AMPLIFIER	1	0.4	0.4000
SPEAKER	VOICE EVACUATION SPEAKER	8	0.042	0.3360
			TOTAL	0.7360
			X 15 MINUTES	0.1840

TOTAL 9.7840
X 1.25 12.2300
BATTERY REQ'D 12.2300 AH
PROVIDE 24 AH

BATTERY CALCULATION PSE-10 BUILDING "W"				
DEVICE	DESCRIPTION	QUANTITY	LOAD	TOTAL
STAND-BY CONDITION DURING POWER FAILURE FOR 24 HOURS				
FCM-1	CONTROL MODULE	1	0.0003	0.0003
FMM-1	MONITOR MODULE	2	0.0002	0.0004
PSE-10	POWER SUPPLY	1	0.09	0.0900
			TOTAL	0.0907
			X 24 HOURS	2.1768
ALARM CONDITION DURING POWER FAILURE FOR 15 MINUTES (.25 HOUR)				
PSE-10	POWER SUPPLY	1	0.9	0.9000
FCM-1	CONTROL MODULE	1	0.0003	0.0003
FMM-1	MONITOR MODULE	2	0.0002	0.0004
SR	INTERIOR STROBE 15cd	1	0.041	0.0410
SR	INTERIOR STROBE 30cd	1	0.063	0.0630
SR	INTERIOR STROBE 75cd	3	0.11	0.3300
SSM-24	WATER FLOW BELL	1	0.031	0.0310
			TOTAL	1.3657
			X 15 MINUTES	0.3414

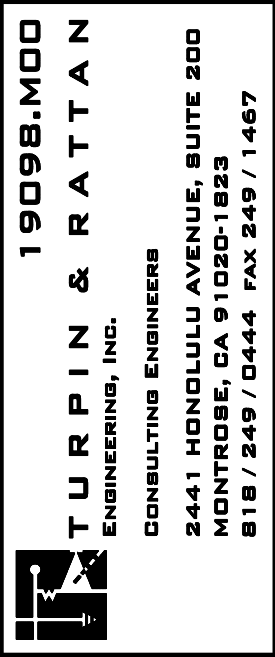
TOTAL 2.5182
X 1.25 3.1478
BATTERY REQ'D 3.1478 AH
PROVIDE 7 AH

WORST CASE VOLTAGE DROP CALCULATION												
SPEAKER	STROBE			SUPPLY VOLTAGE	TOTAL ALARM CURRENT	WIRE SIZE	DC RESISTANCE Rdc	TOTAL LOOP RUN	VOLTAGE DROP			
	15cd	30cd	75cd									
0.042	0.0410	0.0630	0.1100	VOLTS	AMPS	AWG	OHMS/1000FT	FEET	%			
8	—	—	—	25	0.336	12	2.01	255	4.76			
—	2	1	3	24	0.434	12	2.01	180	1.07			
8	—	—	—	25	0.336	12	2.01	255	4.76			
—	1	1	3	24	0.434	12	2.01	180	1.07			
3	—	—	—	25	0.526	12	2.01	270	1.89			
—	1	0	0	24	0.041	12	2.01	295	0.17			
4	—	—	—	25	0.168	12	2.01	120	1.12			
—	0	0	1	24	0.110	12	2.01	25	0.03			
6	—	—	—	25	0.120	12	2.01	130	0.87			
—	0	3	0	24	0.189	12	2.01	110	0.29			
1 BELL				25	0.031	12	2.01	40	0.07			
1 BELL				24	0.031	12	2.01	40	0.07			

NOTE:
ALL BATTERIES SHALL HAVE THE
MANUFACTURE DATE AND INSTALLATION
DATE INDICATED ON THE BATTERY.

THIS APPROVAL IS FOR ITEMS WITHIN CLOUDED
AREAS ONLY. FOR OTHER INFORMATION NOT
CONTAINED WITHIN CLOUDED AREAS, REFER TO
ORIGINAL DSA APPROVED PLANS.

DO NOT USE THESE PLANS AS SUBSTITUTE FOR THE
ORIGINAL DSA APPROVED PLANS



NORWALK LA MIRADA UNIFIED SCHOOL DISTRICT
**LA MIRADA HIGH SCHOOL NEW FOOTBALL
STADIUM PROJECT**
13520 ADELEA DRIVE, LA MIRADA, CA 90638

DSA # 03-120551

NAC
ARCHITECTURE

NAC NO. 161-19015
DATE 02/01/2022

ADDENDUM 1

FIRE ALARM
CALCULATIONS

E4.02