

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				
FCPS 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
FCPS	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)				
FCPS	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

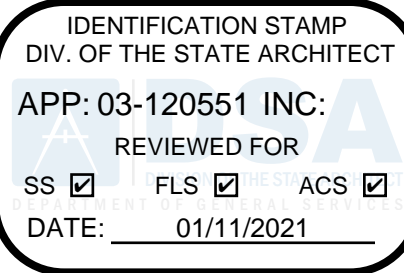
TOTAL 9.7840
X 1.25 12.2300
BATTERY REQ'D 12.2300 AH
PROVIDE 24 AH

BATTERY CALCULATION				
FCPS 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
FCPS	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)				
FCPS	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

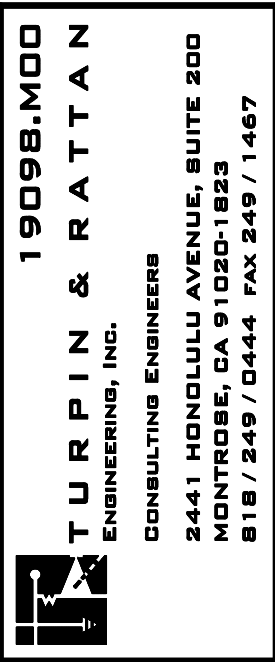
TOTAL 2.5182
X 1.25 3.1478
BATTERY REQ'D 3.1478 AH
PROVIDE 7 AH

WORST CASE VOLTAGE DROP CALCULATION												
POWER SUPPLY #	LOCATION	CIRCUIT	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	%
DA-A	BUILDING "V"	A1	8	-	-	-	25	0.336	12	2.01	255	4.76
FCPS	BUILDING "V"	V1	-	2	1	3	24	0.434	12	2.01	180	1.07
DA-A	BUILDING "W"	A2	8	-	-	-	25	0.336	12	2.01	255	4.76
FCPS	BUILDING "W"	V2	-	1	1	3	24	0.434	12	2.01	180	1.07
DA-A	BUILDING "U"	A3	3	-	-	-	25	0.526	12	2.01	270	1.89
FCPS	BUILDING "U"	V3	-	1	0	0	24	0.041	12	2.01	295	0.17
FACP	BUILDING "X"	A4	4	-	-	-	25	0.168	12	2.01	120	1.12
FACP	BUILDING "X"	V4	-	0	0	1	24	0.110	12	2.01	25	0.03
DA-A	PRESSBOX	A5	6	-	-	-	25	0.120	12	2.01	130	0.87
FCPS	PRESSBOX	V5	-	0	3	0	24	0.189	12	2.01	110	0.29
FCPS	BUILDING "V"	A6	1 BELL				25	0.031	12	2.01	40	0.07
FCPS	BUILDING "W"	A7	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.



REVISIONS



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 12/10/2020

DSA BACKCHECK
SUBMISSION

FIRE ALARM
CALCULATIONS

E4.02