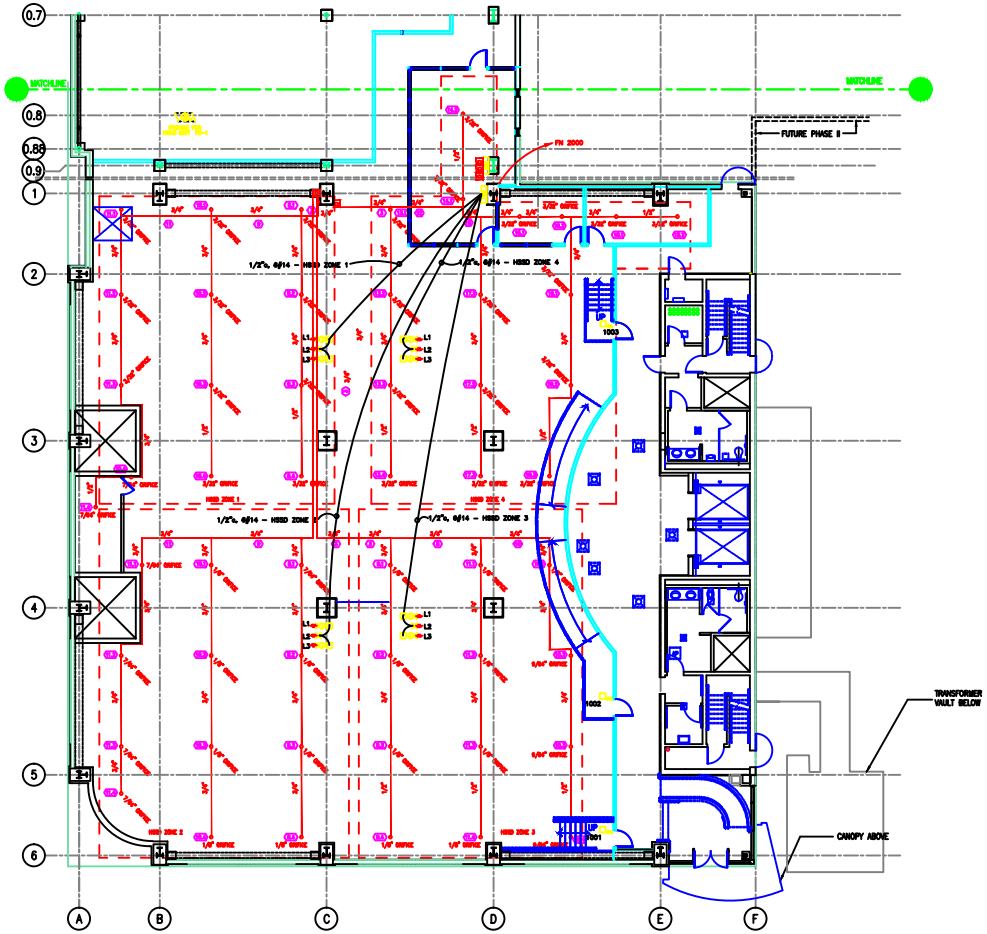


1 PARTIAL FIRST FLOOR PLAN (CEILING NORTH) – PREACTION
SCALE 1/8" = 1'-0"

NOTE:
1. ALL DEVICES ARE NEW.
2. THE AREA SMOKE DETECTORS SHALL NOT BE LOCATED WITHIN 3 FEET OF HVAC SUPPLY AIR DIFFUSERS.

LEGEND:

FACP	FIRE ALARM CONTROL PANEL
DT	DIGITAL TRANSMITTER
RSCP	REMOTE SIGNAL CONTROL PANEL
FAT	FIRE ALARM TERMINAL CABINET
PCP	PREACTION CONTROL PANEL
DD	DUCT DETECTOR
MFS	MANUAL PULL STATION
HSD	HSSD DISPLAY CONTROL UNIT
HSD	HIGH SENSITIVITY SMOKE DETECTOR
L1	HSSD LEVEL 1 ALARM, BLUE STROBE
L2	HSSD LEVEL 2 ALARM, YELLOW STROBE
L3	HSSD LEVEL 3 ALARM, RED STROBE
L1	HSSD LEVEL 1 ALARM, TEMPORAL TONE
L3	HSSD LEVEL 3 ALARM, CONTINUOUS TONE
	HSSD SAMPLING PIPING
	HSSD SAMPLING POINT
PV	PV SWITCH (BY OTHERS)
	PRESSURE SWITCH – PREACTION (BY OTHERS)
	LOW AIR SWITCH – PREACTION (BY OTHERS)
	TAMPER SWITCH (BY OTHERS)
	WATERFLOW SWITCH (BY OTHERS)
	SPRINKLER RISER
	JUNCTION BOX
WP	WEATHERPROOF

VOLTAGE DROP CALCULATIONS – (WORST CASE)

PCP PANEL: HSSD ZONE 2 LEVEL 3 NOTIFICATION CIRCUIT

1 BRANCHE – 0.090 AMPS DRAW PER RED STROBE
1 BRANCHE – 0.013 AMPS DRAW PER CONTINOUS TONE HORN

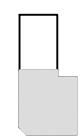
VOLTAGE DROP = CURRENT X RESISTANCE
#14 GAUGE WIRE = 0.325 OHMS PER 100 FEET OF WIRE

180 FEET OF WIRE TO BRANCH 1
.103 AMPS x .1989 OHMS = .020 VDC DROP

5 FEET OF WIRE FROM BRANCH 1 TO 2
.090 AMPS x .163 OHMS = .001 VDC DROP

.062 VDC DROP (TOTAL)

$\frac{.062\ VDC}{24\ V} \times 100 = 0.26\%$ VOLTAGE DROP



KEY PLAN

G:\Eng\AutoCAD\Support Files\GREY.tif

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TYPE OF SYSTEM
PREACTION DETECTION AND CONTROL SYSTEM

1	4-24-2020	FOR REVIEW	RCA
2	4-28-2020	FOR SUBMITTAL	RCA
3	6-2-2020	REV. PER PLAN CHECK CORRECTIONS	RCA
4	6-23-2020	REV. PER CHANGE ORDER #1 & #2	RCA
5	6-25-2020	REV. PER PLAN CHECK CORR. #2	RCA
6	8-19-2020	AS BUILT PERMIT	RCA
7	10-10-20	AS BUILT	RA

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PARTIAL FIRST FLOOR NORTH
CEILING

STATE OF CALIFORNIA CORPORATION LICENSE
EXP. 04/30/2020

AL-00204
AL-0023416.HSD
BY
HSD
RCA
1/8" = 1'-0"

6111P

FP 4.0

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