

FITNESS STUDIO  
SUMMIT FAIR  
910 NW BLUE PARKWAY  
LEE'S SUMMIT, MO 64086  
FIRE ALARM SYSTEM

1. ABBREVIATIONS:

- 1.1 F.A.C. – Marmic Partner Fire Alarm Contractor  
1.2 E.C. – Electrical Installing Contractor

2. GENERAL ELECTRICAL SPECIFICATIONS & INSTALLATION NOTES

- 2.1 All wiring shall be in compliance with applicable codes, primarily Article 760, OSHA, NFPA 72 and installed to the satisfaction of the authority having jurisdiction.
- 2.2 Do not energize control panels until specific instruction has been issued to do so. Generally, control panel will not be energized until wiring has been checked out by F.A.C.
- 2.3 All wire shall be continuous (without splicing) from beginning terminal point to ending terminal point.
- 2.4 The use of Brady-type tags on all wiring is required.
- 2.5 Color coding of all pairs is required to maintain proper polarity.
- 2.6 The use of Sta-Kon terminals is required at all screw terminal connections unless compression type lugs are being used. Where pigtail connections are to be made, the use of wire nuts is permitted.
- 2.7 All wire, conduit, junction boxes, etc. to be supplied and installed by E.C.
- 2.8 E.C. is responsible for mounting and making all final connections to all supplied detectors, control panels, signal devices, manual alarm stations, etc.
- 2.9 E.C. to supply one set of "as built" electrical drawings, showing termination's, number of wires and conduit runs. A "red" mark-up is sufficient. Provide numbering assigned to wiring and cables.
- 2.10 All wiring to be in protective metallic conduit (EMT, rigid, or Flexible) as conditions require. All Terminations on EMT shall be set screw. Plenum rated cable is acceptable where approved in writing.
- 2.11 Audible circuits are parallel circuits, utilizing an end-of-line resistor. These circuits shall be wired as shown, no branching permitted.
- 2.12 All signaling and initiation device wires shall be shielded from all other wires not related to these functions. 120 VAC run independent of 24 VDC. Input functions independent of output functions.

- 2.13 Wiring specified as shielded by description or by  shall utilize shield multi-conductor cable. This shielded cable shall be – minimum #18 AWG – stranded one or two pair. Total number of conductors within the outer jacket shall be shielded as one bundle. This shielding shall be aluminum foil wrapped or equivalent and each cable shall carry a continuous bare ground conductor. At junctions or breaks, ground conductors shall be spliced for continuity to following cable run. In the event where the bare ground wire is exposed in junction boxes, etc., care shall be take to insulate this bare ground conductor from any adjacent bare terminal strips, etc. This insulation shall be accomplished by wrapping with tape or by the use of spaghetti insulation.

- 2.14 Supply a two wire power supply – 120 VAC single phase 20 amp dedicated circuit to main control panel. Mark breaker –FIRE CONTROL SYSTEM – lock on.

- 2.15 All resistors and diodes shown on final electrical schematic shall be supplied by F.A.C.

- 2.16 E.C. shall provide personnel to assist and witness all checkout of electrical wiring prior to energizing control panels and devices.

3. WIRE SPECIFICATIONS

- 3.1 Power Wiring to Control Panel:  
120 VAC: Dedicated Circuit 12 AWG Stranded Type THHN, Black, White & Green.
- 3.2 Field Wiring to Detectors and Manual Alarm Stations:  
18 AWG Solid, 2 Conductor, Non-shielded, Type FPLP.
- 3.3 Field Wiring to Audible/Visual Alarms:  
14 AWG Solid, 2 conductor, Non-shielded, Type FPLP.
- 3.4 Internal Panel Wiring:  
16 AWG stranded, Belden 8521, non-shielded.
- 3.5 All Other Wiring Not Specified:  
As indicated on Devices Layouts.

4. EQUIPMENT BACK BOX AND ELEVATION

- 4.1 Control Panel:  
Top of cabinet 5'–9" above finished floor.
- 4.2 Manual Fire Alarm Station:  
Single gang handy box, 4'–0" Above finished floor.
- 4.3 Alarm Horn/Strobe:  
Deep 4" square box, 6'–8" to bottom above finished floor or on ceiling.

DRAWING INDEX

| SHEET NO. | DESCRIPTION                                 |
|-----------|---------------------------------------------|
| 1.        | COVER SHEET & GENERAL SPECIFICATIONS        |
| 2.        | FLOOR PLAN                                  |
| 3.        | POWER CALC. / FA RISER / BOM / CABLE LEGEND |
| 4.        | FA MATRIX / TYPICAL DEVICE HEIGHT           |

SCOPE OF WORK

INSTALLATION OF NEW FIRE ALARM OCCUPANT NOTIFICATION DEVICES INTO EXISTING FIRE ALARM SYSTEM INSIDE OF TENANT SUITE AS-NOTED.

APPLICABLE BUILDING CODES:

2018 INTERNATIONAL FIRE CODE  
2022 NFPA 72  
2020 NFPA 70

BUILDING INFO:

OCCUPANCY GROUP: B - BUSINESS

SQUARE FOOTAGE: 2,368

SPRINKLER PROTECTION: BUILDING IS SPRINKLED

DURING A FIRE EMERGENCY OR OTHER ABNORMAL CONDITION PRIOR TO OR UPON OPERATION OF THIS SYSTEM(S) PROTECTED AREA(S) LIGHTING MAY BE AFFECTED. RELIABLE EMERGENCY LIGHTING FOR EVACUATION AND/OR RESCUE OF PERSONNEL MUST BE PROVIDED. UNLESS SPECIFICALLY NOTED AND SHOWN ON THESE DRAWINGS AND/OR STATED IN THE SPECIFICATIONS, THE MARMIC PARTNER FIRE ALARM CONTRACTOR IS NOT RESPONSIBLE FOR PROVIDING ANY AREA EMERGENCY LIGHTING.



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JOB # - 42932006

Filename: FITNESS STUDIO



FITNESS STUDIO / SUMMIT FAIR  
910 NW BLUE PARKWAY  
LEE'S SUMMIT, MO 64086  
FIRE ALARM SYSTEM  
COVER SHEET / GENERAL SPECIFICATION

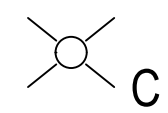
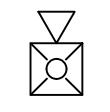
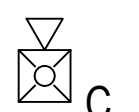
JOB NAME

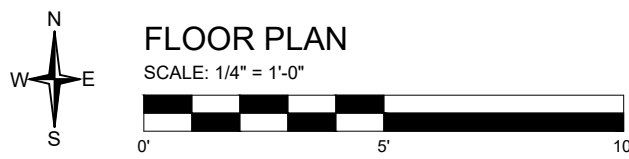
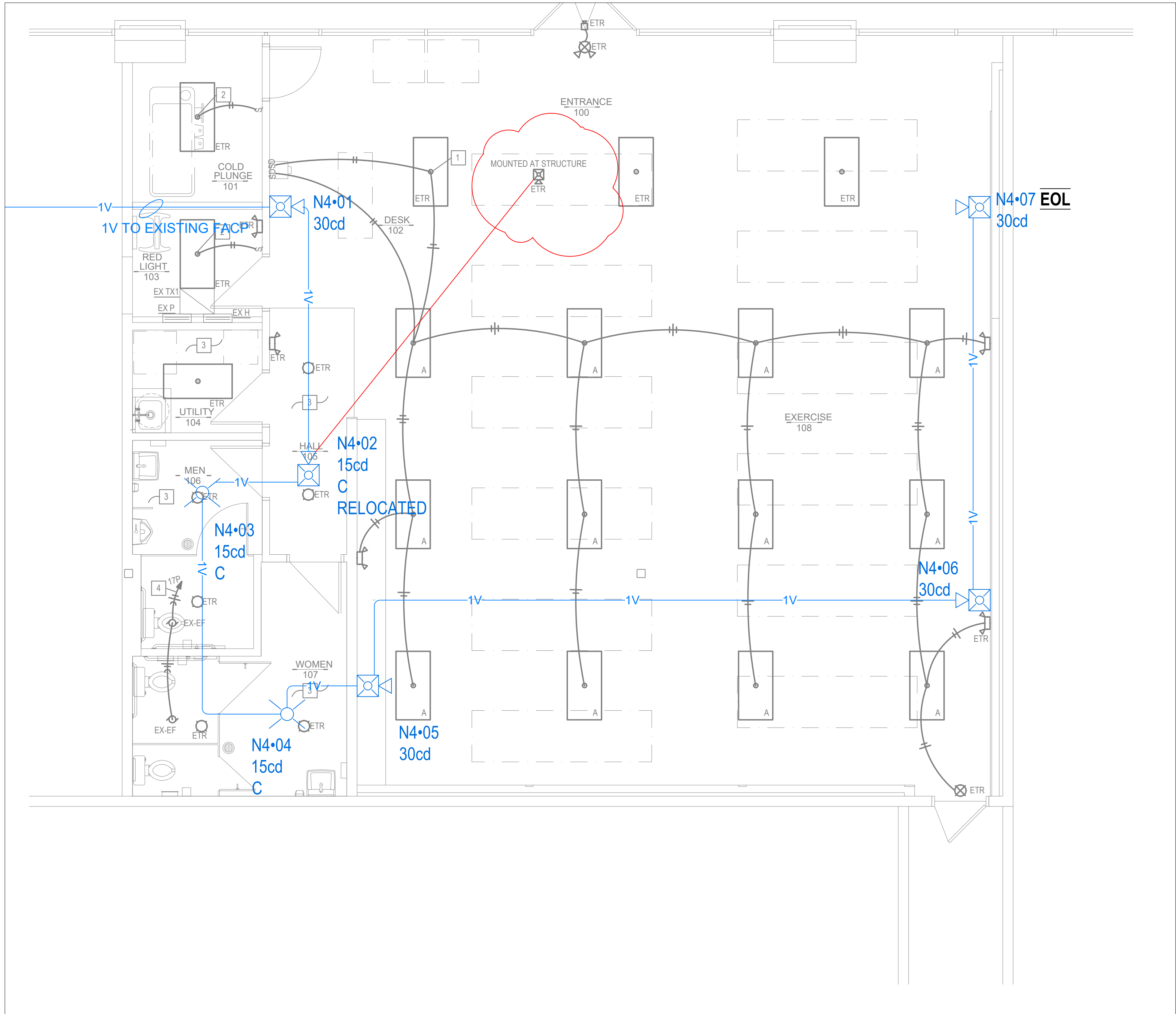
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|           |          |
|-----------|----------|
| DRAWN BY  | D. FLINT |
| DATE      | 8/22/25  |
| DESIGN BY | D. FLINT |
| SCALE     | NIS      |
| JOB NO.   | 42932006 |

SHEET NUMBER  
1 of 4



| DEVICE LEGEND                                                                         |               |         |
|---------------------------------------------------------------------------------------|---------------|---------|
| SYMBOL                                                                                | MANUFACTURER  | PART NO |
|  C | SYSTEM SENSOR | SCRLED  |
|    | SYSTEM SENSOR | P2RLED  |
|  C | SYSTEM SENSOR | PC2RLED |



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FITNESS STUDIO / SUMMIT FAIR  
910 NW BLUE PARKWAY  
LEE'S SUMMIT, MO 64086  
FIRE ALARM SYSTEM  
FLOOR PLAN

|              |            |
|--------------|------------|
| JOB NAME     |            |
| DRAWN        | D. FLUNT   |
| DATE         | 8/22/25    |
| DESIGN BY    | D. FLUNT   |
| SCALE        | 1/4"=1'-0" |
| JOB NO.      | 42932006   |
| SHEET NUMBER |            |
| 2            | of 4       |

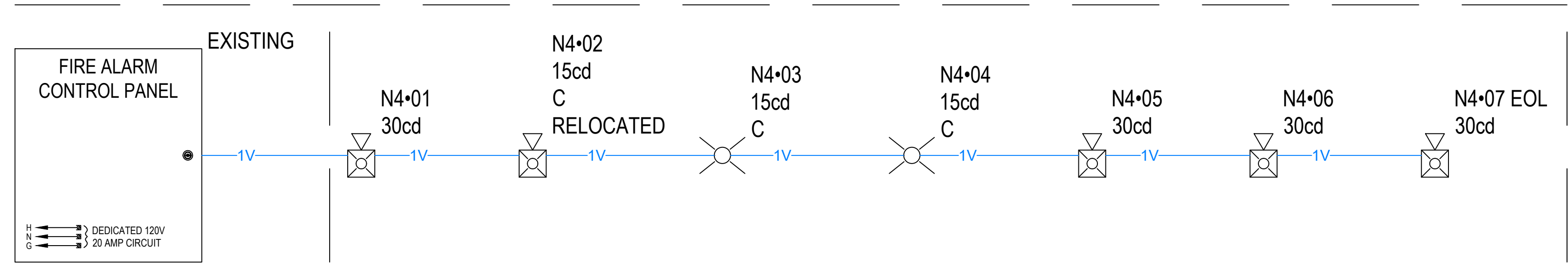


| PANEL EXISTING SLP REDS BATTERY CALCULATION                                   |               |                |                                                                                        |                   |           |                         |                                        |                   |                 |       |
|-------------------------------------------------------------------------------|---------------|----------------|----------------------------------------------------------------------------------------|-------------------|-----------|-------------------------|----------------------------------------|-------------------|-----------------|-------|
| SECONDARY POWER SOURCE REQUIREMENTS                                           |               |                |                                                                                        |                   |           |                         |                                        |                   |                 |       |
|                                                                               |               |                |                                                                                        | STANDBY CURRENT   |           | SECONDARY ALARM CURRENT |                                        |                   |                 |       |
|                                                                               | QTY           | PART NO.       | DESCRIPTION                                                                            | CURRENT DRAIN (A) | TOTAL (A) | CURRENT DRAIN (A)       | TOTAL (A)                              |                   |                 |       |
| PANEL COMPONENTS                                                              | 1             | SLP-RED        | 51 STEREO PANEL W/BACKBOX, DACT-EL, RPT-ES-UTP, SLC-PM, LCD SLP AND 7.0 A POWER SUPPLY | 0                 | 0         | 0                       | 0                                      |                   |                 |       |
|                                                                               | 1             | DACT-E3        | DIGITAL ALARM COMMUNICATOR TRANSMITTER                                                 | 0.018             | 0.018     | 0.018                   | 0.018                                  |                   |                 |       |
|                                                                               | 1             | FLPST-48B      | 7 AMP POWER SUPPLY                                                                     | 0                 | 0         | 0                       | 0                                      |                   |                 |       |
|                                                                               | 1             | RPT-E3-UTP     | REPEATER                                                                               | 0.016             | 0.016     | 0.017                   | 0.017                                  |                   |                 |       |
|                                                                               | 1             | SLC-PM         | MODULE-TESTED PANE, SLC-PM (POWER SUPPLY SECOND LOOP)                                  | 0.014             | 0.014     | 0.014                   | 0.014                                  |                   |                 |       |
|                                                                               | 1             | SLP-E3         | INTER-ACE MAIN BOARD                                                                   | 0.1               | 0.1       | 0.18                    | 0.18                                   |                   |                 |       |
| CIRCUIT                                                                       | MAX CARD AMPS | USED CARD AMPS | SPARE CARD AMPS                                                                        | SYMBOL            | QTY       | PART NO.                | DESCRIPTION                            | CURRENT DRAIN (A) | TOTAL (A)       |       |
| EXISTING#N/A                                                                  | N/A           | 0.223000       |                                                                                        |                   | 4         | P2RLED                  | 2-WIRE, HORN STROBE, RED 30CD          | 0                 | 0.038           |       |
|                                                                               |               |                |                                                                                        |                   | 1         | PCRLED                  | 2-WIRE, HORN STROBE, CEILING, RED 15CD | 0                 | 0.035           |       |
|                                                                               |               |                |                                                                                        |                   | 2         | SCRLED                  | STROBE, CEILING, RED 15CD              | 0                 | 0.036           |       |
|                                                                               |               |                |                                                                                        |                   |           |                         |                                        |                   |                 |       |
| TOTAL STANDBY (A)                                                             |               |                |                                                                                        |                   |           |                         |                                        | 0.148             | TOTAL ALARM (A) | 0.452 |
| REQUIRED STANDBY TIME (HOURS)                                                 |               |                |                                                                                        |                   |           |                         |                                        | 1                 | 24              |       |
| REQUIRED STANDBY TIME (MINUTES)                                               |               |                |                                                                                        |                   |           |                         |                                        | 1                 | 0.75            |       |
| SECONDARY STANDBY LOAD (A)                                                    |               |                |                                                                                        |                   |           |                         |                                        | 0.148             | 0.55            |       |
| SECONDARY ALARM LOAD (A)                                                      |               |                |                                                                                        |                   |           |                         |                                        | 0.452             | 1.08            |       |
| STANDBY AND ALARM SUBTOTAL (AMP HOURS)                                        |               |                |                                                                                        |                   |           |                         |                                        | 0.83              | 3.59            |       |
| OPERATING FACTOR                                                              |               |                |                                                                                        |                   |           |                         |                                        |                   | 1.25            |       |
| SECONDARY LOAD REQUIREMENT (AMP HOURS)                                        |               |                |                                                                                        |                   |           |                         |                                        |                   | 4.49            |       |
| RECOMMENDED BATTERY SIZES NOT SPECIFIED. REFER TO MANUFACTURER DOCUMENTATION. |               |                |                                                                                        |                   |           |                         |                                        |                   |                 |       |
| BATTERY BOX SIZE CAPACITY NOT SPECIFIED. REFER TO MANUFACTURER DOCUMENTATION. |               |                |                                                                                        |                   |           |                         |                                        |                   |                 |       |

| CURRENT SUMMARY                                                                                |          |          |                                   |         | POWER SUMMARY                   |                   |  |  |  |
|------------------------------------------------------------------------------------------------|----------|----------|-----------------------------------|---------|---------------------------------|-------------------|--|--|--|
| MAX CIRCUIT CURRENT (A)                                                                        |          |          |                                   |         | STARTING CALC. VOLTAGE          |                   |  |  |  |
| TOTAL CIRCUIT CURRENT (A)                                                                      |          |          |                                   |         | MAX VOLTAGE DROP                |                   |  |  |  |
| SPARE CIRCUIT CURRENT (A)                                                                      |          |          |                                   |         | VOLTAGE DROP %                  |                   |  |  |  |
| SPARE CIRCUIT CURRENT %                                                                        |          |          |                                   |         | MIN OPERATIONAL VOLTAGE         |                   |  |  |  |
| MAX CARD CURRENT (A)                                                                           |          |          |                                   |         | END OF LINE VOLTAGE             |                   |  |  |  |
| MAX CARD CURRENT %                                                                             |          |          |                                   |         | WIRE RESISTANCE (OHMS)          |                   |  |  |  |
| TOTAL CIRCUIT LENGTH (FT)                                                                      |          |          |                                   |         | TOTAL CIRCUIT RESISTANCE (OHMS) |                   |  |  |  |
| SPARE CARD CURRENT (A)                                                                         |          |          |                                   |         | TOTAL CIRCUIT RESISTANCE (OHMS) |                   |  |  |  |
| SPARE CARD CURRENT %                                                                           |          |          |                                   |         |                                 |                   |  |  |  |
| CIRCUIT WIRING PROPERTIES: 16/2 FPLP/NAC 18 AWG, 2 COND. SOLID COPPER FPLP/R ANALOG UNSHIELDED |          |          |                                   |         |                                 |                   |  |  |  |
| DISTANCE MEASURED (USING DRAWING REQUIREMENT) LENGTH WITH 100% ADDITIONAL LENGTH CALCULATED    |          |          |                                   |         |                                 |                   |  |  |  |
| SYMBOL                                                                                         | QUANTITY | PART NO. | DESCRIPTION                       | CANDELS | ALARM CURRENT (A)               | TOTAL CURRENT (A) |  |  |  |
|             | 4        | P2RLED   | 2-WIRE, HORN STROBE, RED          | 30CD    | 0.038                           | 0.152             |  |  |  |
|             | 1        | PCRLED   | 2-WIRE, HORN STROBE, CEILING, RED | 15CD    | 0.035                           | 0.035             |  |  |  |
|             | 2        | SCRLED   | STROBE, CEILING, RED              | 15CD    | 0.038                           | 0.038             |  |  |  |
| CALCULATION METHODS:                                                                           |          |          |                                   |         |                                 |                   |  |  |  |
| TOTAL RESISTANCE (OHMS) = WIRE RESISTANCE (OHMS) X 2 X TOTAL CIRCUIT LENGTH (FT)               |          |          |                                   |         |                                 |                   |  |  |  |
| TOTAL VOLTAGE DROP = TOTAL RESISTANCE (OHMS) X TOTAL CIRCUIT CURRENT (A)                       |          |          |                                   |         |                                 |                   |  |  |  |

| DEVICE LEGEND |          |               |         |                          |
|---------------|----------|---------------|---------|--------------------------|
| SYMBOL        | QUANTITY | MANUFACTURER  | PART NO | DESCRIPTION              |
|               | 2        | SYSTEM SENSOR | SCRLED  | STROBE, CEILING, RED     |
|               | 4        | SYSTEM SENSOR | P2RLED  | 2-WIRE, HORN STROBE, RED |

| CABLE AND WIRE LEGEND |             |             |                |     |                                               |
|-----------------------|-------------|-------------|----------------|-----|-----------------------------------------------|
| LABEL                 | PART NO     | APPLICATION | RESISTANCE MFT | AWG | DESCRIPTION                                   |
| V                     | 16/2 FPLP/R | NAC         | 4.89           | 16  | 2 COND. SOLID COPPER FPLP/R ANALOG UNSHIELDED |



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FIRE ALARM SYSTEM  
POWER CALC / FA RISER / BOM / CABLE LEGEND

|           |            |
|-----------|------------|
| DRAWN     | D. FLINT   |
| DATE      | 8/22/25    |
| DESIGN BY | D. FLINT   |
| SCALE     | 1/8"=1'-0" |
| JOB NO.   | 42932006   |

SHEET NUMBER  
3 of 4

Filename: FITNESS STUDIO



FIRE ALARM SYSTEM  
INPUT/OUTPUT MATRIX

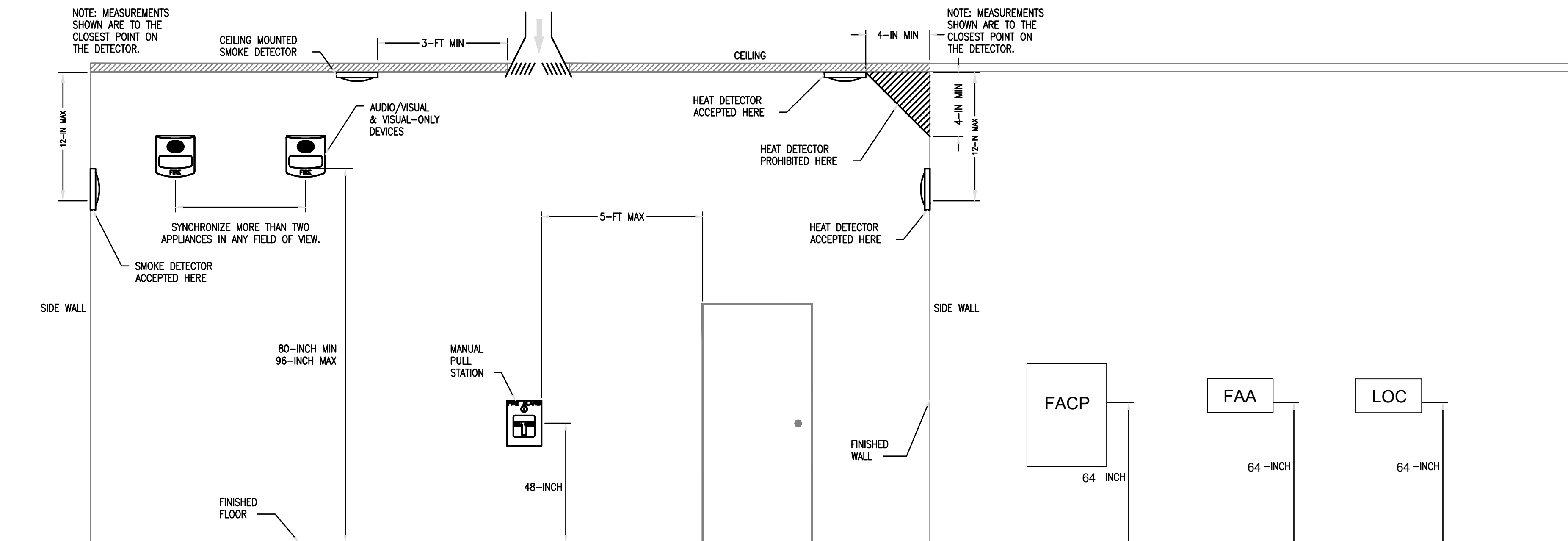
SYSTEM OUTPUTS

FACP ANNUNCIATION      NOTIFICATION      REQUIRED FIRE SAFETY CONTROL

ACTIVATE COMMON ALARM SIGNAL INDICATOR  
ACTIVATE AUDIBLE ALARM SIGNAL  
ACTIVATE AUDIBLE SUPERVISORY SIGNAL  
ACTIVATE AUDIBLE TROUBLE SIGNAL  
ACTIVATE COMMON TROUBLE SIGNAL INDICATOR  
ACTIVATE ZONE OR DEVICE ADDRESS ALARM INDICATOR  
DISPLAY CHANGE OF STATUS  
TRANSMIT FIRE ALARM SIGNAL TO CENTRAL STATION  
TRANSMIT SUPERVISORY SIGNAL TO CENTRAL STATION  
RELEASE MAGNETICALLY HELD DOORS  
SHUT DOWN OF WAREHOUSE FANS  
SHUT DOWN RESPECTIVE AIR HANDLING EQUIPMENT

SYSTEM INPUTS

|    | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y |    |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| 1  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| 2  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |
| 3  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3  |
| 4  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4  |
| 5  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 5  |
| 6  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 6  |
| 7  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 7  |
| 8  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 8  |
| 9  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 9  |
| 10 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 10 |
| 11 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 11 |
| 12 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 12 |
| 13 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 13 |
| 14 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 14 |
| 15 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 15 |
| 16 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 16 |
| 17 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 17 |
| 18 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 18 |
| 19 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 19 |
| 20 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 20 |
| 21 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 21 |
| 22 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 22 |
| 23 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 23 |
| 24 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 24 |
| 25 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 25 |
| 26 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 26 |
| 27 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 27 |
|    | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y |    |



TYPICAL DEVICE MOUNTING HEIGHTS

SCALE: NONE



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FA MATRIX / TYPICAL DEVICE HEIGHT

JOB NAME

|                                                                                                                                                                                                               |                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
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| DRAWN                                                                                                                                                                                                         | D. FLINT           |
| DATE                                                                                                                                                                                                          | 8/22/25            |
| DESIGN BY                                                                                                                                                                                                     | D. FLINT<br>121007 |
| SCALE                                                                                                                                                                                                         | NTS                |
| JOB NO.                                                                                                                                                                                                       | 42932006           |

Filename: FITNESS STUDIO