

THE MOTLEY TELECOM			2023/06/25 FOR REVIEW JE / VA	2023/07/07 CLIENT REVISION VA	2023/09/05 CLIENT REVISION VA	2023/09/25 CLIENT REVISION VA							
#	SHEET NUMBER	SHEET NAME	REV 0	REV 1	REV 2	REV 3	REV 4	REV 5	REV 6	REV 7	REV 8	REV 9	REV 10
1	T0.01	TELECOM COVER PAGE	○	○	○	○							
2	T1.LL4	TELECOM LOWER LEVEL 4 FLOOR PLAN	○	△	○	○							
3	T1.LL3	TELECOM LOWER LEVEL 3 FLOOR PLAN	○	△	○	○							
4	T1.LL2	TELECOM LOWER LEVEL 2 FLOOR PLAN	○	△	○	△							
5	T1.LL1	TELECOM LOWER LEVEL 1 FLOOR PLAN	○	○	○	△							
6	T1.01	TELECOM LEVEL 01 FLOOR PLAN	○	△	○	△							
7	T1.02	TELECOM LEVEL 02 FLOOR PLAN	○	△	○	△							
8	T1.03	TELECOM LEVEL 03 FLOOR PLAN	○	△	○	△							
9	T1.04	TELECOM LEVEL 04 FLOOR PLAN	○	△	○	△							
10	T1.05	TELECOM LEVEL 05 FLOOR PLAN	○	△	○	△							
11	T1.19	TELECOM LEVEL 06-25 FLOOR PLAN	○	△	○	△							
12	T1.26	TELECOM LEVEL 26 FLOOR PLAN	○	△	○	△							
13	T1.27	TELECOM MECHANICAL FLOOR PLAN	○	○	○	△							
14	T1.28	TELECOM MECHANICAL PENTHOUSE FLOOR PLAN	○	○	○	△							
15	T5.01	TELECOM RISER DIAGRAM SHEET 1 OF 4	○	△	○	△							
16	T5.02	TELECOM RISER DIAGRAM SHEET 2 OF 4	○	△	○	△							
17	T5.03	TELECOM RISER DIAGRAM SHEET 3 OF 4	○	△	○	△							
18	T5.04	TELECOM RISER DIAGRAM SHEET 4 OF 4	○	△	△	○							
19	T5.10	TELECOM EQUIPMENT HEAT LOAD ESTIMATE	○	○	○	○							

LEGEND:

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LEGEND:  
○ CURRENT  
△ REVISED  
△ NEW  
○ OMITTED

DESIGN ASSUMPTIONS
TV: ASSUMED IPTV WITH DATA (CAT6 CABLE)
UTILITY MEDIA CABINET
WIFI: WIRELESS MODE
GENERAL NOTES
1. VERIFY ALL FINAL OUTLET LOCATIONS AND QUANTITIES WITH ARCHITECTURAL AND INTERIOR DESIGN DRAWINGS.
2. ALL CABLES FROM UMC HOMERUN TO DESIGNATED IDF ROOM. SEE CORRESPONDING OVERALL PLANS AND/OR CABLING RISER DIAGRAM FOR ZONING INFORMATION.
3. (1) CAT 6 HOME RUN TO EACH UNIT FROM IDF FURNISHED AND INSTALLED BY OWNER/GC.
4. (1) FIBER CABLE HOME RUN TO EACH UNIT FROM IDF LOOPED THROUGH MEDIA PANEL (NOT TERMINATED) AND ROUTED TO WIRELESS ACCESS POINT LOCATION ON THE UNIT CEILING BY SERVICE PROVIDER.
5. WIRELESS ACCESS POINT ROUGHED INTO A SINGLE GAGE CEILING BOX. THE BOX SHALL BE FLUSH WITH THE DRYWALL TERMINATED WITH AND RJ45 MODULAR PLUG BY THE LOW VOLTAGE CONTRACTOR.

CONDUIT NOTES
1. CONDUIT RUNS SHALL CONTAIN NO MORE THAN TWO (2) 90 DEGREE BENDS AND HAVE AN AGGREGATE BEND OF NO MORE THAT 180 DEGREES WITHOUT A PULL BOX. PULL BOXES SHALL BE INSTALLED IN STRAIGHT CONDUIT SECTIONS ONLY.
2. ALL CONDUITS STUBS FOR OUTLET BOXES SHALL STUB TO ACCESSIBLE CEILING SPACE CONTIGUOUS TO DESTINATION CLOSET.
3. ALL BELOW GRADE CONDUITS SHALL BE SCHEDULE 40 PVC.
4. ALL CONDUITS SHALL BE ROUTED OVERHEAD, NOT UNDERGROUND OR BELOW GROUND FLOOR SLAB - EXCEPT FOR INCOMING SERVICE CONDUITS AND DEMARC EXTENSION. LABEL ALL CONDUIT ENDS WITH DESTINATION.
5.
GENERAL NOTES
1. ALL CONDUIT RUNS SHALL CONTAIN A PULL BOX FOR EVERY 180 DEGREE OF BENDS. ALL SWEEPS SHALL BE 48" RGS DOUBLE WRAPPED WITH 10 MIL TAPE FOR UNDERGROUND INSTALLATION.
2. ALL CONDUITS STUBS FOR OUTLET BOXES SHALL STUB TO ACCESSIBLE CEILING SPACE CONTIGUOUS TO DESTINATION CLOSET.
3. ALL BELOW GRADE CONDUITS SHALL BE SCHEDULE 40 PVC.
4. INCOMING SERVICE AND OTHER BELOW GRADE CONDUITS SHALL HAVE 4" SEPARATION FROM ADJACENT CONDUITS AND SHALL STUB 4" A.F.F.

WALL  
DATA

FLOOR  
DATA

CEILING  
DATA

XX

XX REFERS TO TYPES  
LISTED BELOW

NO. OF DATA DROPS

NO. OF DATA DROPS

NO. OF DATA DROPS

XX REFERS TO TYPES  
LISTED BELOW

XX

TV

= ASSUMED IPTV WITH DATA  
(CAT6 CABLE)

W

= WALL DATA

WAP

= WIRELESS ACCES POINT

CAM

= CAMERA

PANEL LABEL:

LOW VOLTAGE  
PANEL

DEVICE TYPE

ROOM NAME  
AND NO

XX-XX XXX

LV

LV

= LOW VOLTAGE PANEL /  
UNIT MEDIA CENTER

A

LOWER LEVEL 4 FLOOR PLAN  
TELECOM FLOOR PLAN

SCALE:

3/32" = 1'-0"

WALL DATA

FLOOR DATA

CEILING DATA

XX

XX REFERS TO TYPES LISTED BELOW

NO. OF DATA DROPS

NO. OF DATA DROPS

NO. OF DATA DROPS

XX

XX REFERS TO TYPES LISTED BELOW

SYMBOLS TYPES:

TV = ASSUMED IPTV WITH DATA (CAT6 CABLE)

W = WALL DATA

WAP = WIRELESS ACCES POINT

CAM = CAMERA

PANEL LABEL:

LOW VOLTAGE PANEL

DEVICE TYPE

ROOM NAME AND NO

LV

XX-XX XXX

DEVICE TYPES:

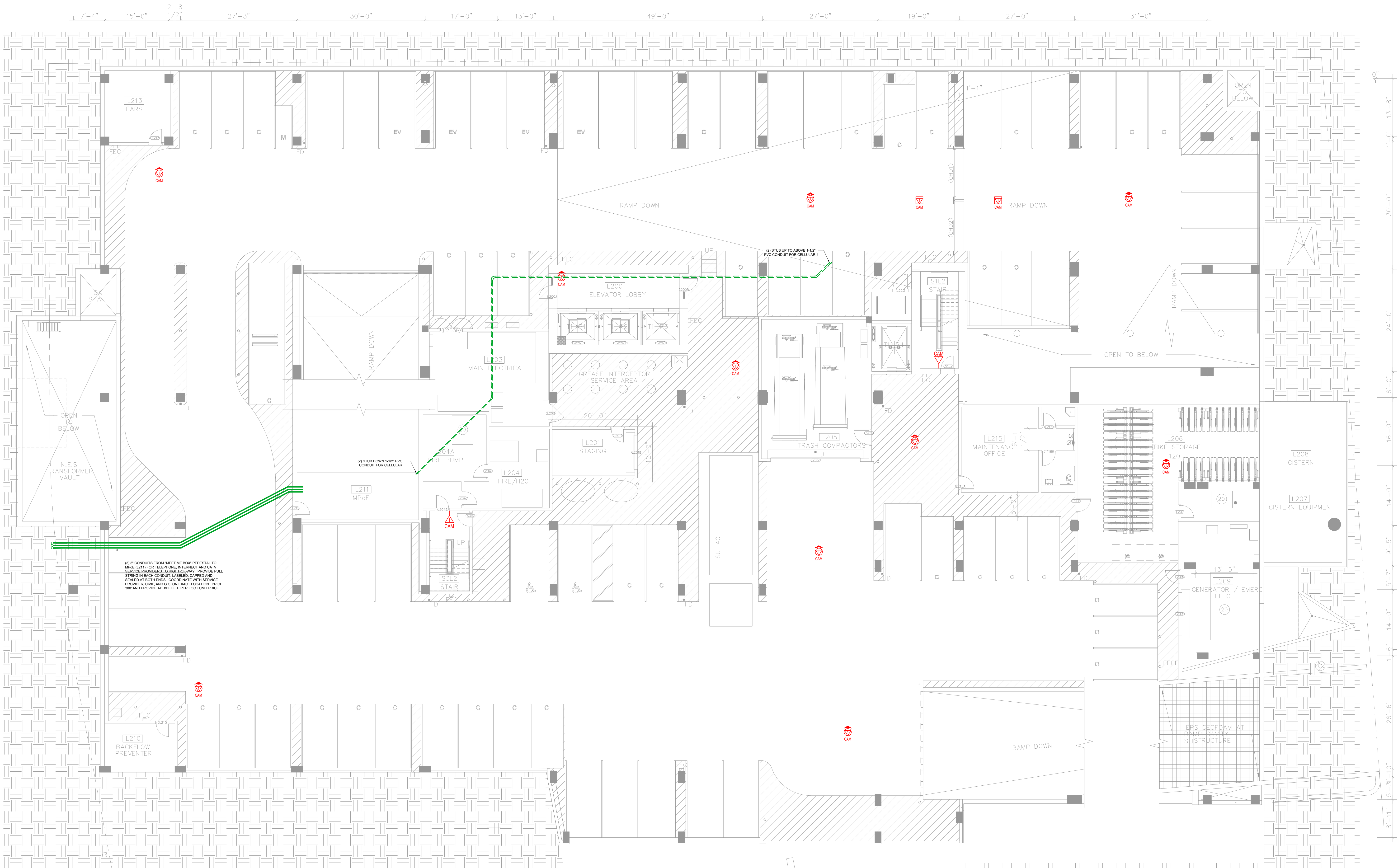
LV = LOW VOLTAGE PANEL / UNIT MEDIA CENTER

The diagram is a detailed floor plan of the lower level 3 telecom floor. It features a central 'ELEVATOR LOBBY' (L300) with multiple elevators (EV) and stairs. To the left, there is a 'TENANT STORAGE' area (L312) and a 'FAN ROOM' (L305). A 'NES VAULT' (L304) is also located on the left side. The plan includes numerous data points, represented by symbols like 'TV', 'W', 'WAP', and 'CAM', and is annotated with dimensions and room numbers. The layout is complex, with various rooms and corridors, and is surrounded by a hatched area representing the building's exterior or other levels.

A

LOWER LEVEL 3 FLOOR PLAN  
TELECOM FLOOR PLAN

SCALE:  
3/32" = 1'-0"



**SYMBOLS LEGEND:**

WALL DATA	FLOOR DATA	CEILING DATA

**SYMBOLS TYPES:**

TV = ASSUMED IPTV WITH DATA (CAT6 CABLE)

W = WALL DATA

WAP = WIRELESS ACCES POINT

CAM = CAMERA

**PANEL LABEL:**

LOW VOLTAGE PANEL

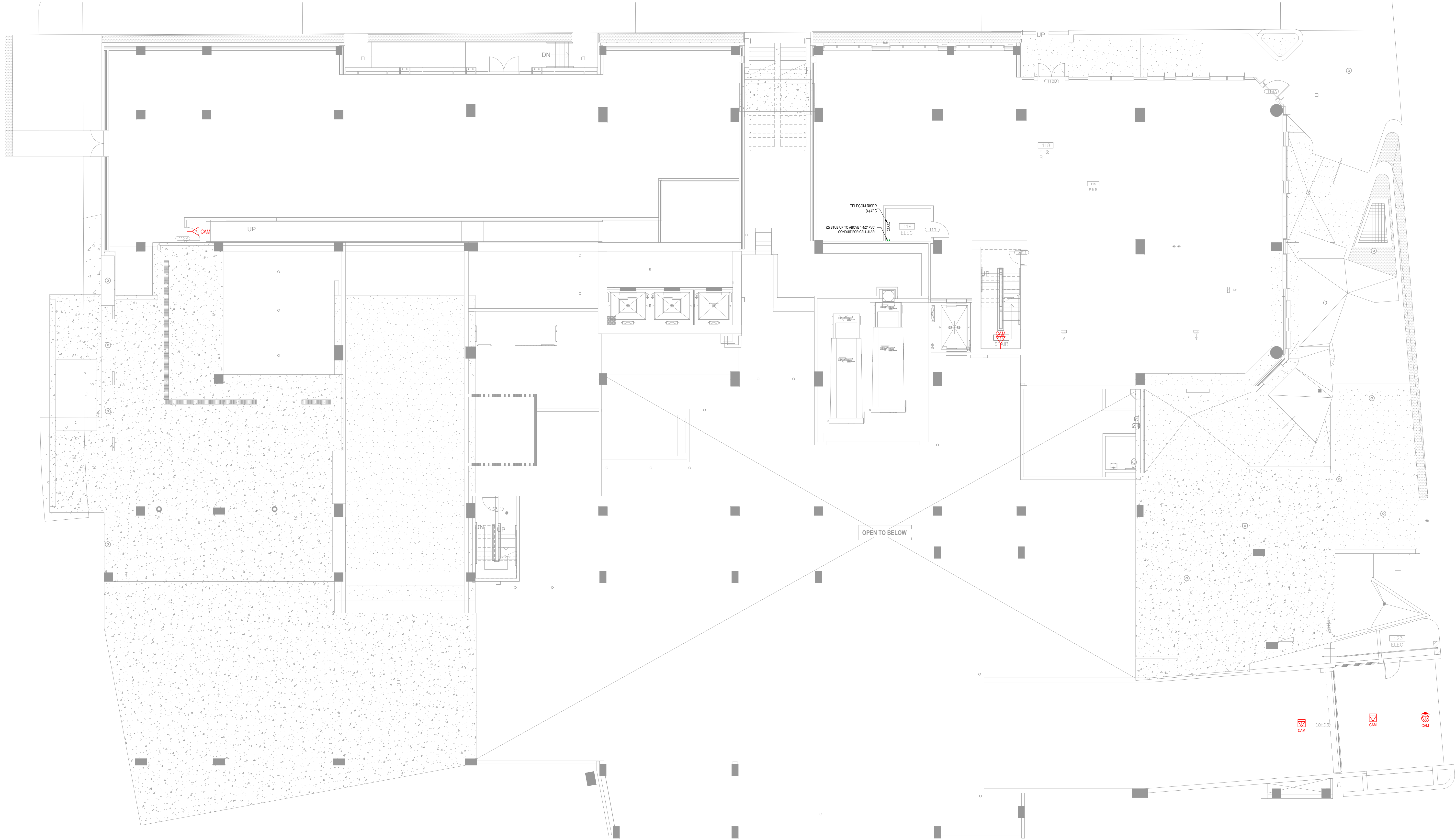
DEVICE TYPE

ROOM NAME AND NO

**DEVICE TYPES:**

LV = LOW VOLTAGE PANEL / UNIT MEDIA CENTER





WALL  
DATA

FLOOR  
DATA

CEILING  
DATA

XX

XX REFERS TO TYPES LISTED BELOW

NO. OF DATA DROPS

NO. OF DATA DROPS

NO. OF DATA DROPS

XX REFERS TO TYPES LISTED BELOW

TV

TV = ASSUMED IPTV WITH DATA (CAT6 CABLE)

W

W = WALL DATA

WAP

WAP = WIRELESS ACCES POINT

CAM

CAM = CAMERA

LOW VOLTAGE  
PANEL

DEVICE TYPE

XX-XX XXX

ROOM NAME AND NO

LV

LV = LOW VOLTAGE PANEL / UNIT MEDIA CENTER

A

LOWER LEVEL 1 FLOOR PLAN  
TELECOM FLOOR PLAN

SCALE:

3/32" = 1'-0"

WALL DATA

FLOOR DATA

CEILING DATA

XX

XX REFERS TO TYPES LISTED BELOW

NO. OF DATA DROPS

NO. OF DATA DROPS

NO. OF DATA DROPS

XX REFERS TO TYPES LISTED BELOW

XX

SYMBOLS TYPES:

TV = ASSUMED IPTV WITH DATA (CAT6 CABLE)

W = WALL DATA

WAP = WIRELESS ACCES POINT

CAM = CAMERA

PANEL LABEL:

LOW VOLTAGE PANEL

DEVICE TYPE

ROOM NAME AND NO

DEVICE TYPES:

LV = LOW VOLTAGE PANEL / UNIT MEDIA CENTER

LV

XX-XX XXX

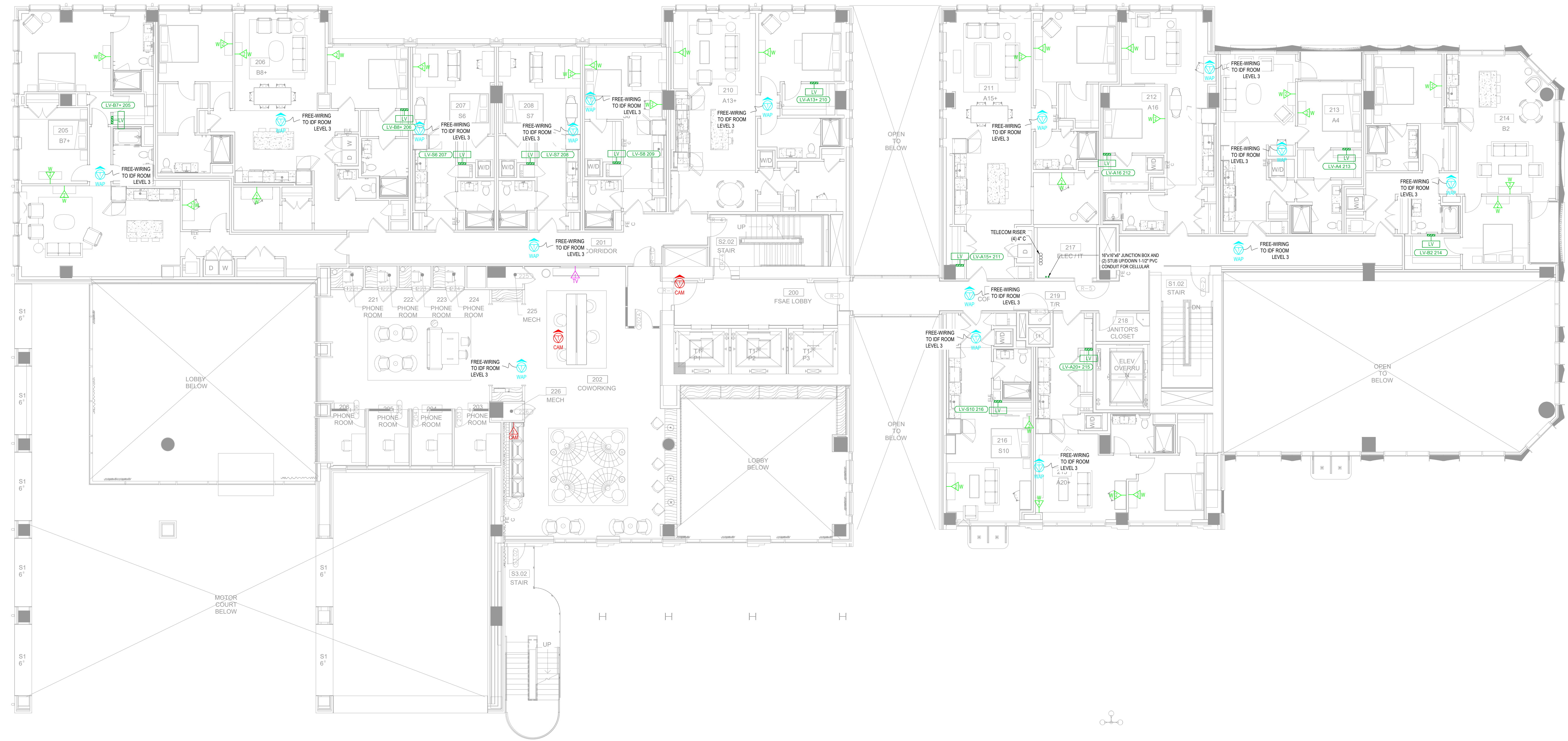
A

LEVEL 01 FLOOR PLAN  
TELECOM FLOOR PLAN

SCALE:

1/8" = 1'-0"





WALL DATA

FLOOR DATA

CEILING DATA

XX

XX REFERS TO TYPES LISTED BELOW

NO. OF DATA DROPS

NO. OF DATA DROPS

NO. OF DATA DROPS

XX

XX REFERS TO TYPES LISTED BELOW

TV

TV = ASSUMED IPTV WITH DATA (CAT6 CABLE)

W

W = WALL DATA

WAP

WAP = WIRELESS ACCES POINT

CAM

CAM = CAMERA

PANEL LABEL:

LOW VOLTAGE PANEL

DEVICE TYPE

ROOM NAME AND NO

LV

XX-XX XXX

LV

LV = LOW VOLTAGE PANEL / UNIT MEDIA CENTER

A

LEVEL 02 FLOOR PLAN  
TELECOM FLOOR PLAN

SCALE:

1/8" = 1'-0"



WALL DATA

FLOOR DATA

CEILING DATA

XX

XX REFERS TO TYPES LISTED BELOW

NO. OF DATA DROPS

NO. OF DATA DROPS

NO. OF DATA DROPS

XX

XX REFERS TO TYPES LISTED BELOW

SYMBOLS TYPES:

TV = ASSUMED IPTV WITH DATA (CAT6 CABLE)

W = WALL DATA

WAP = WIRELESS ACCES POINT

CAM = CAMERA

PANEL LABEL:

LOW VOLTAGE PANEL

DEVICE TYPE

ROOM NAME AND NO

DEVICE TYPES:

LV = LOW VOLTAGE PANEL / UNIT MEDIA CENTER

IDF ROOM LEVEL 3	
FLOOR LEVEL	WAP QTY
1	5
2	16
3	28
TOTAL	49

A

LEVEL 03 FLOOR PLAN  
TELECOM FLOOR PLAN

SCALE:

1/8" = 1'-0"

B

LEVEL 03 - IDF / IT ROOM  
TELECOM FLOOR PLAN

SCALE:

1/4" = 1'-0"



WALL

DATA

FLOOR

DATA

CEILING

DATA

XX

XX

XX REFERS TO TYPES LISTED BELOW

NO. OF DATA DROPS

NO. OF DATA DROPS

NO. OF DATA DROPS

XX REFERS TO TYPES LISTED BELOW

TV

= ASSUMED IPTV WITH DATA (CAT6 CABLE)

W

= WALL DATA

WAP

= WIRELESS ACCES POINT

CAM

= CAMERA

PANEL LABEL:

LOW VOLTAGE

PANEL

DEVICE TYPE

ROOM NAME AND NO

DEVICE TYPES:

LV

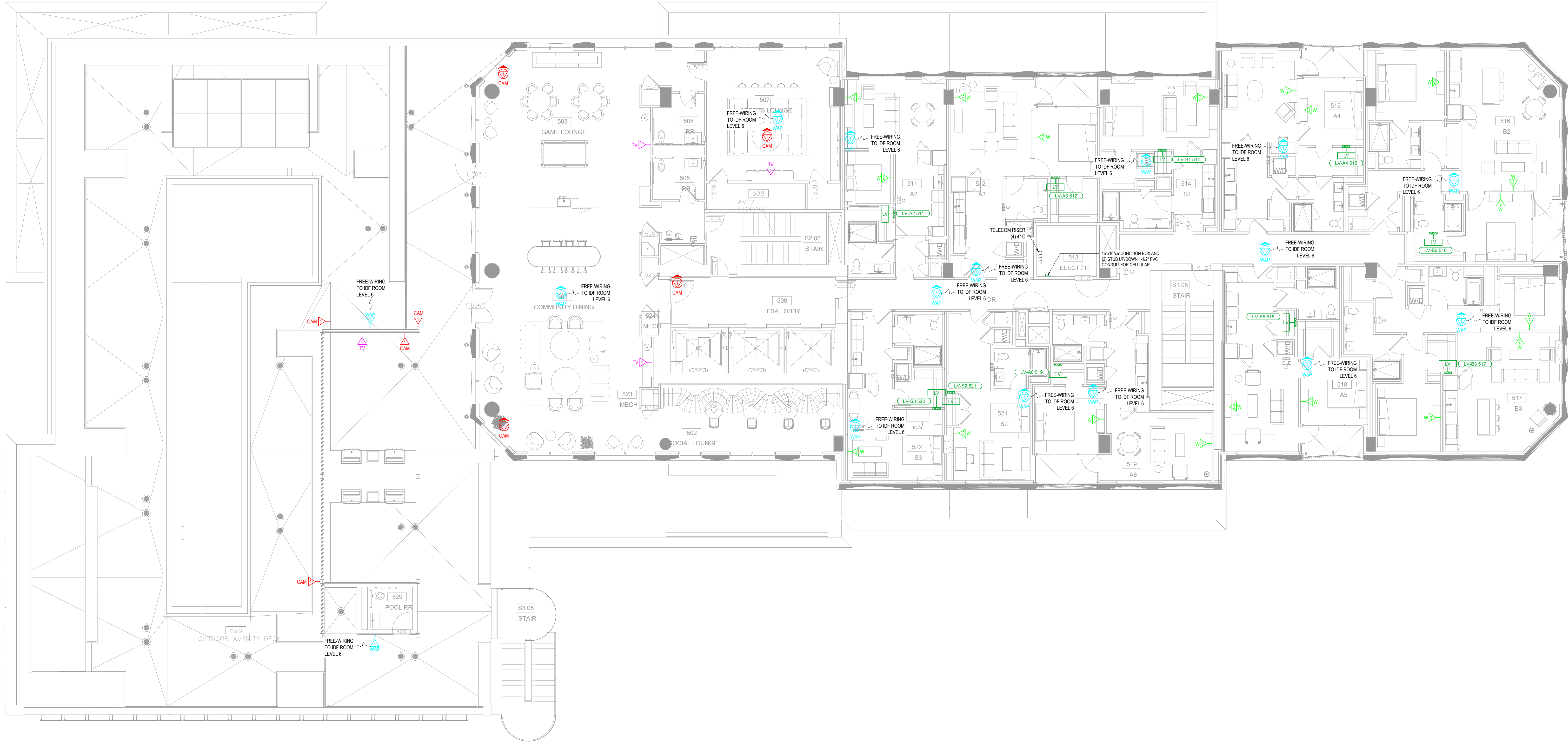
= LOW VOLTAGE PANEL / UNIT MEDIA CENTER

A

LEVEL 04 FLOOR PLAN  
TELECOM FLOOR PLAN

SCALE:

1/8" = 1'-0"



WALL DATA

FLOOR DATA

CEILING DATA

XX

XX REFERS TO TYPES LISTED BELOW

NO. OF DATA DROPS

NO. OF DATA DROPS

NO. OF DATA DROPS

XX REFERS TO TYPES LISTED BELOW

XX

SYMBOLS TYPES:

TV = ASSUMED IPTV WITH DATA (CAT6 CABLE)

W = WALL DATA

WAP = WIRELESS ACCES POINT

CAM = CAMERA

PANEL LABEL:

LOW VOLTAGE PANEL

DEVICE TYPE

ROOM NAME AND NO

DEVICE TYPES:

LV = LOW VOLTAGE PANEL / UNIT MEDIA CENTER

A

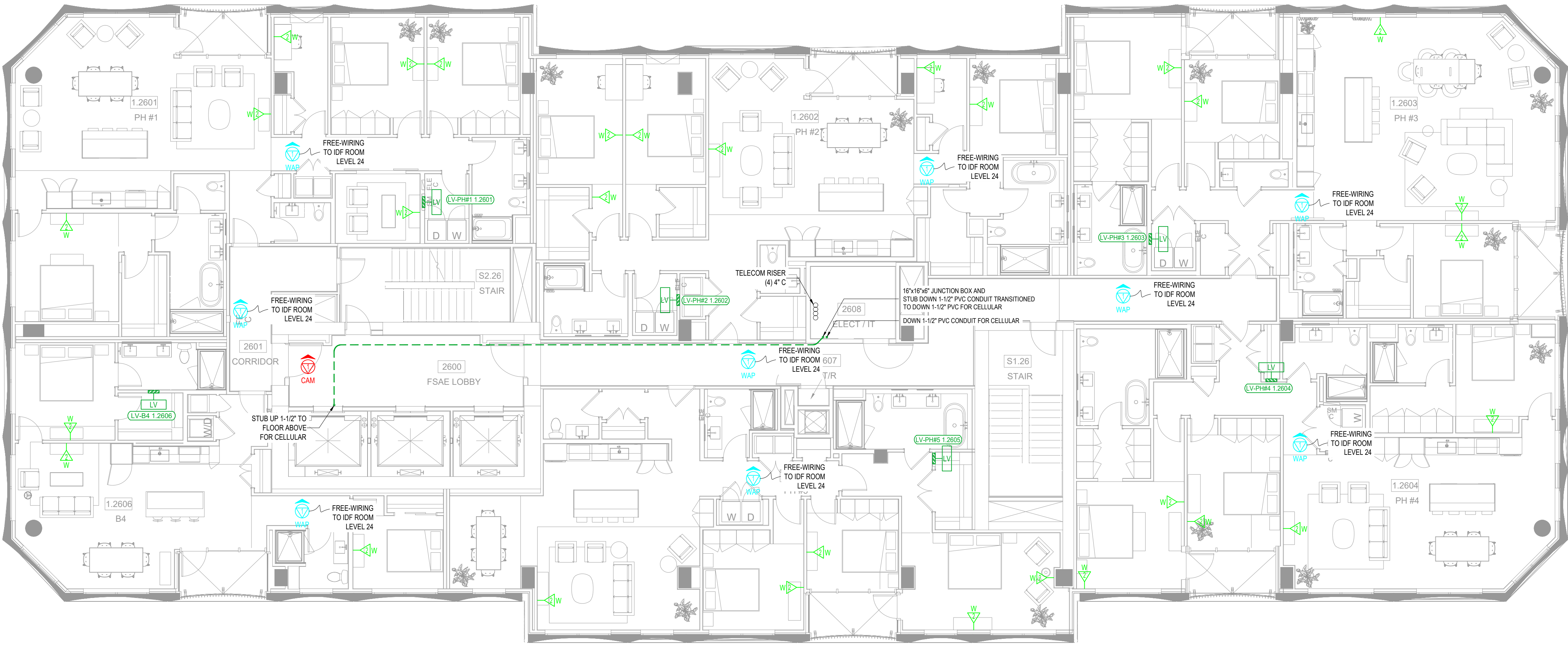
LEVEL 05 FLOOR PLAN  
TELECOM FLOOR PLAN

SCALE:

1/8" = 1'-0"







WALL DATA

FLOOR DATA

CEILING DATA

XX

XX REFERS TO TYPES LISTED BELOW

NO. OF DATA DROPS

NO. OF DATA DROPS

NO. OF DATA DROPS

XX

XX REFERS TO TYPES LISTED BELOW

SYMBOLS TYPES:

TV = ASSUMED IPTV WITH DATA (CAT6 CABLE)

W = WALL DATA

WAP = WIRELESS ACCES POINT

CAM = CAMERA

PANEL LABEL:

LOW VOLTAGE PANEL

DEVICE TYPE

ROOM NAME AND NO

DEVICE TYPES:

LV = LOW VOLTAGE PANEL / UNIT MEDIA CENTER

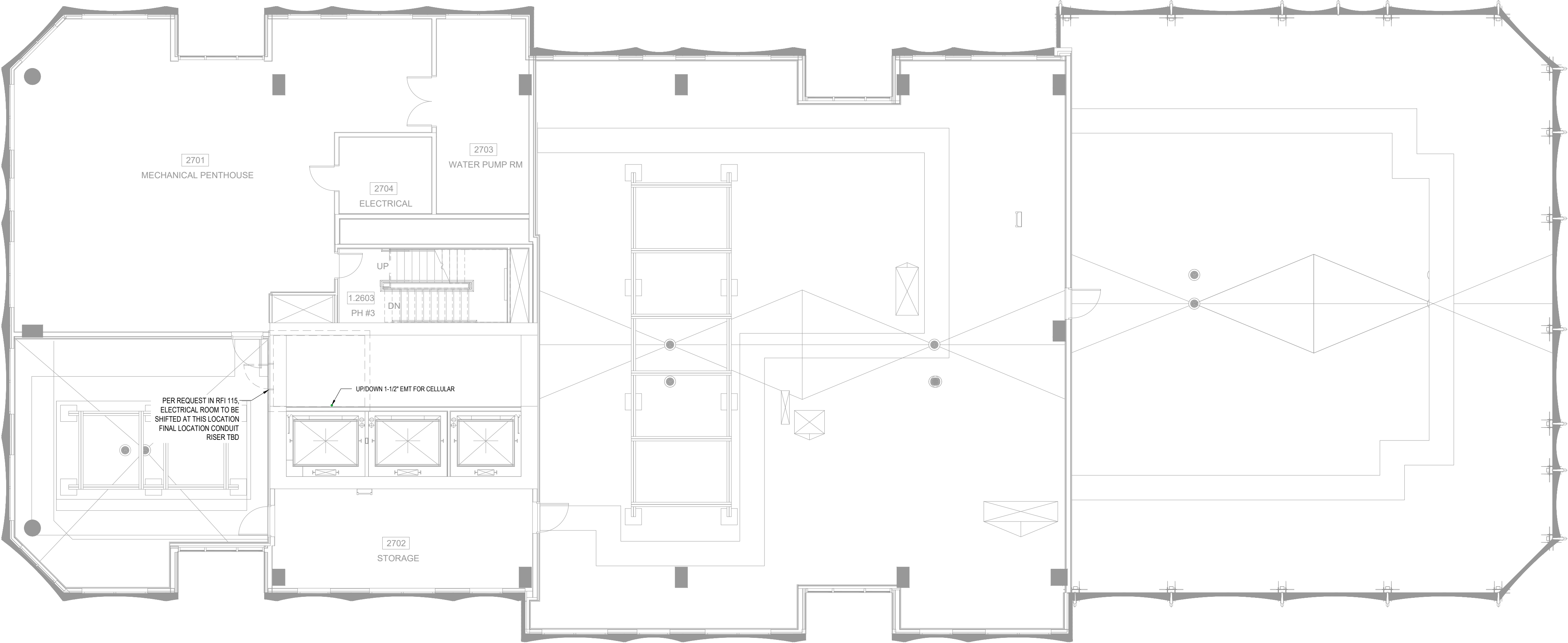
A

LEVEL 26 FLOOR PLAN  
TELECOM FLOOR PLAN

SCALE:

1/8" = 1'-0"





WALL DATA

FLOOR DATA

CEILING DATA

XX

XX REFERS TO TYPES LISTED BELOW

NO. OF DATA DROPS

NO. OF DATA DROPS

NO. OF DATA DROPS

XX

XX REFERS TO TYPES LISTED BELOW

SYMBOLS TYPES:

TV = ASSUMED IPTV WITH DATA (CAT6 CABLE)

W = WALL DATA

WAP = WIRELESS ACCES POINT

CAM = CAMERA

PANEL LABEL:

LOW VOLTAGE PANEL

DEVICE TYPE

ROOM NAME AND NO

LV

XX-XX XXX

DEVICE TYPES:

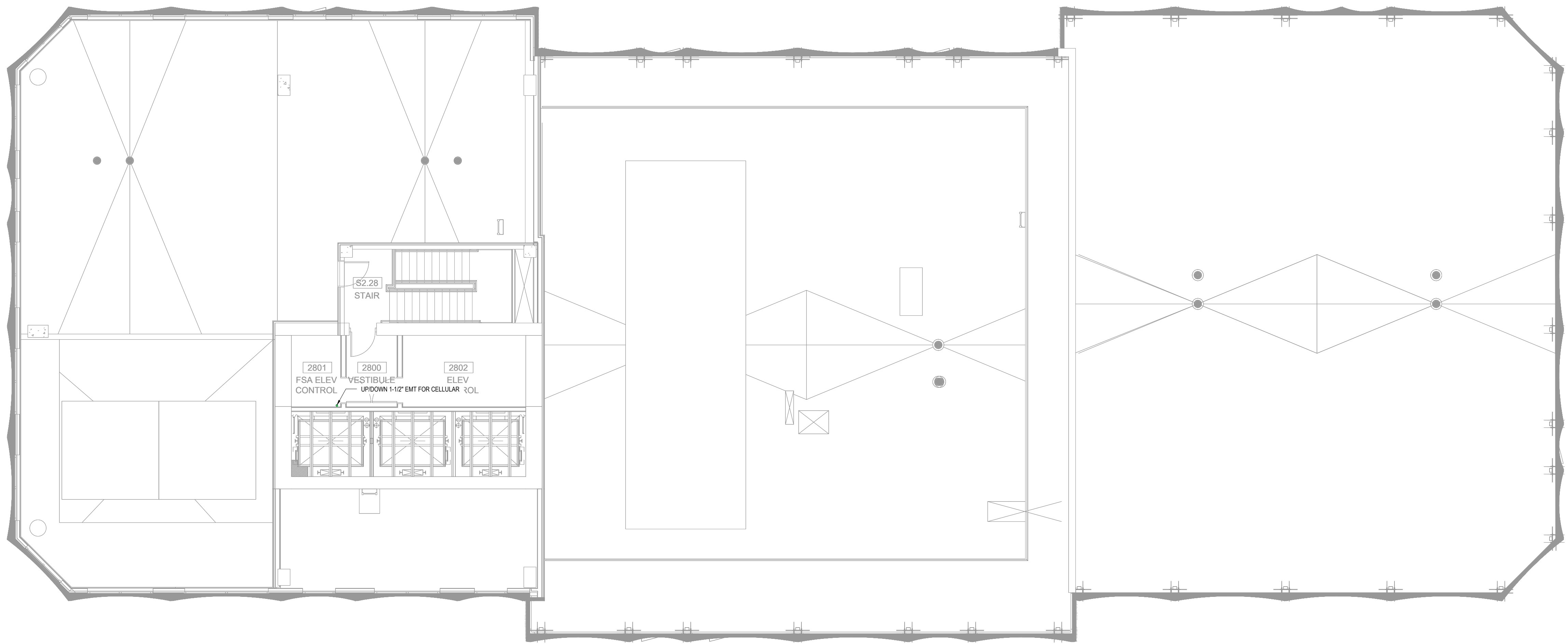
LV = LOW VOLTAGE PANEL / UNIT MEDIA CENTER

A

MECHANICAL FLOOR PLAN  
TELECOM FLOOR PLAN

SCALE:

1/8" = 1'-0"



WALL DATA

FLOOR DATA

CEILING DATA

XX

XX REFERS TO TYPES LISTED BELOW

NO. OF DATA DROPS

NO. OF DATA DROPS

NO. OF DATA DROPS

XX

XX REFERS TO TYPES LISTED BELOW

SYMBOLS TYPES:

TV = ASSUMED IPTV WITH DATA (CAT6 CABLE)

W = WALL DATA

WAP = WIRELESS ACCES POINT

CAM = CAMERA

PANEL LABEL:

LOW VOLTAGE PANEL

DEVICE TYPE

ROOM NAME AND NO

LV

XX-XX XXX

DEVICE TYPES:

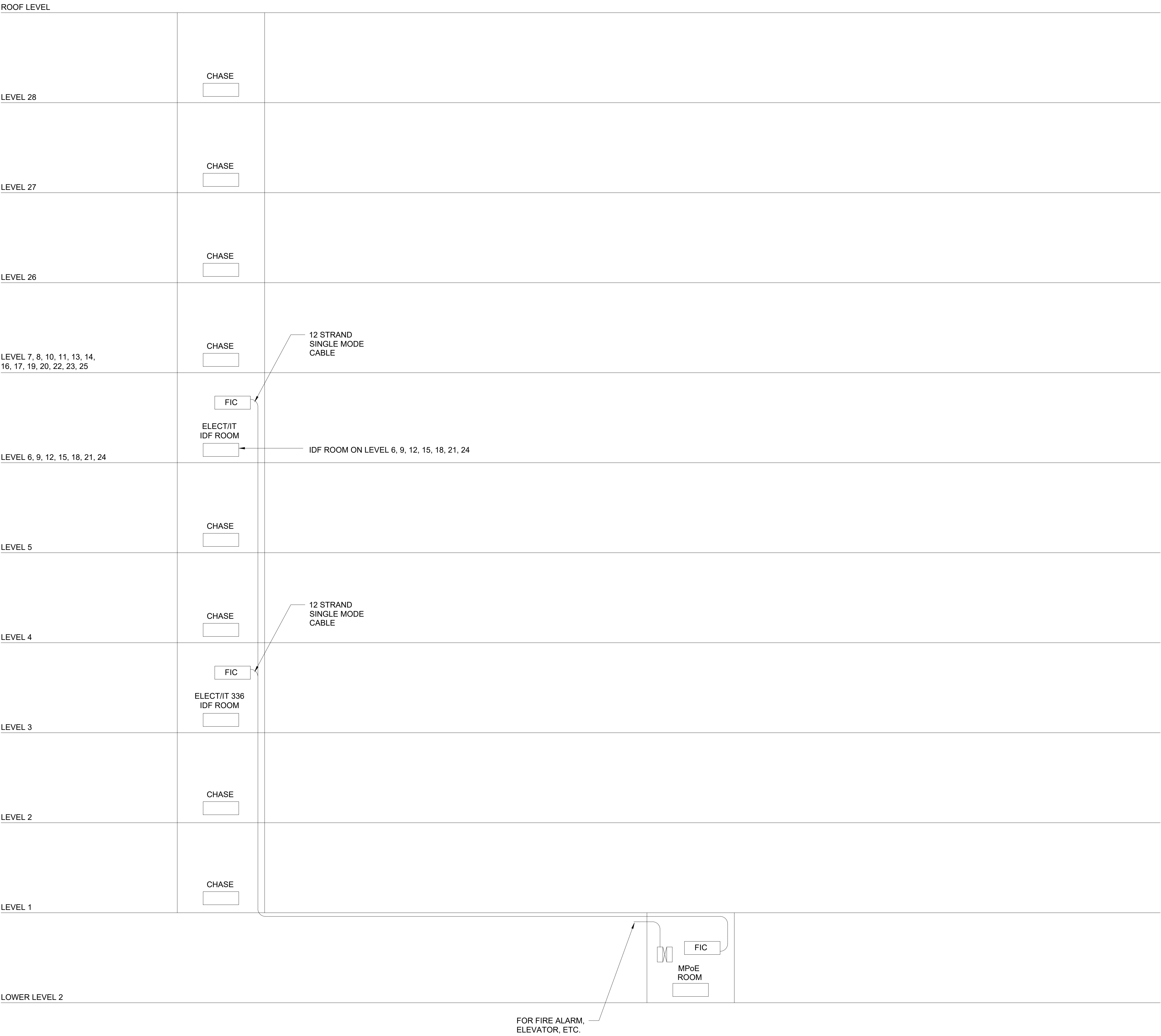
LV = LOW VOLTAGE PANEL / UNIT MEDIA CENTER

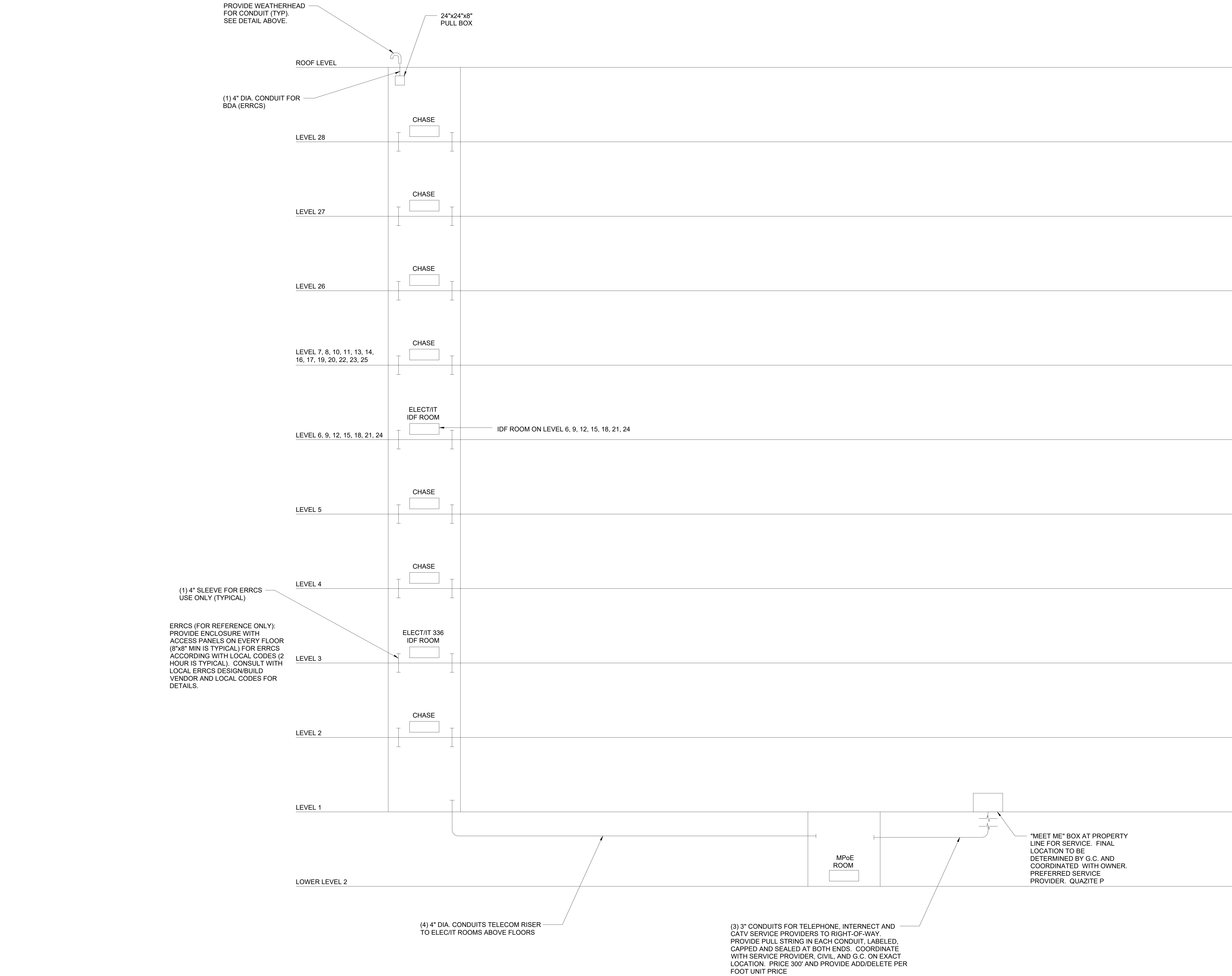
A

MECHANICAL PENTHOUSE FLOOR PLAN  
TELECOM FLOOR PLAN

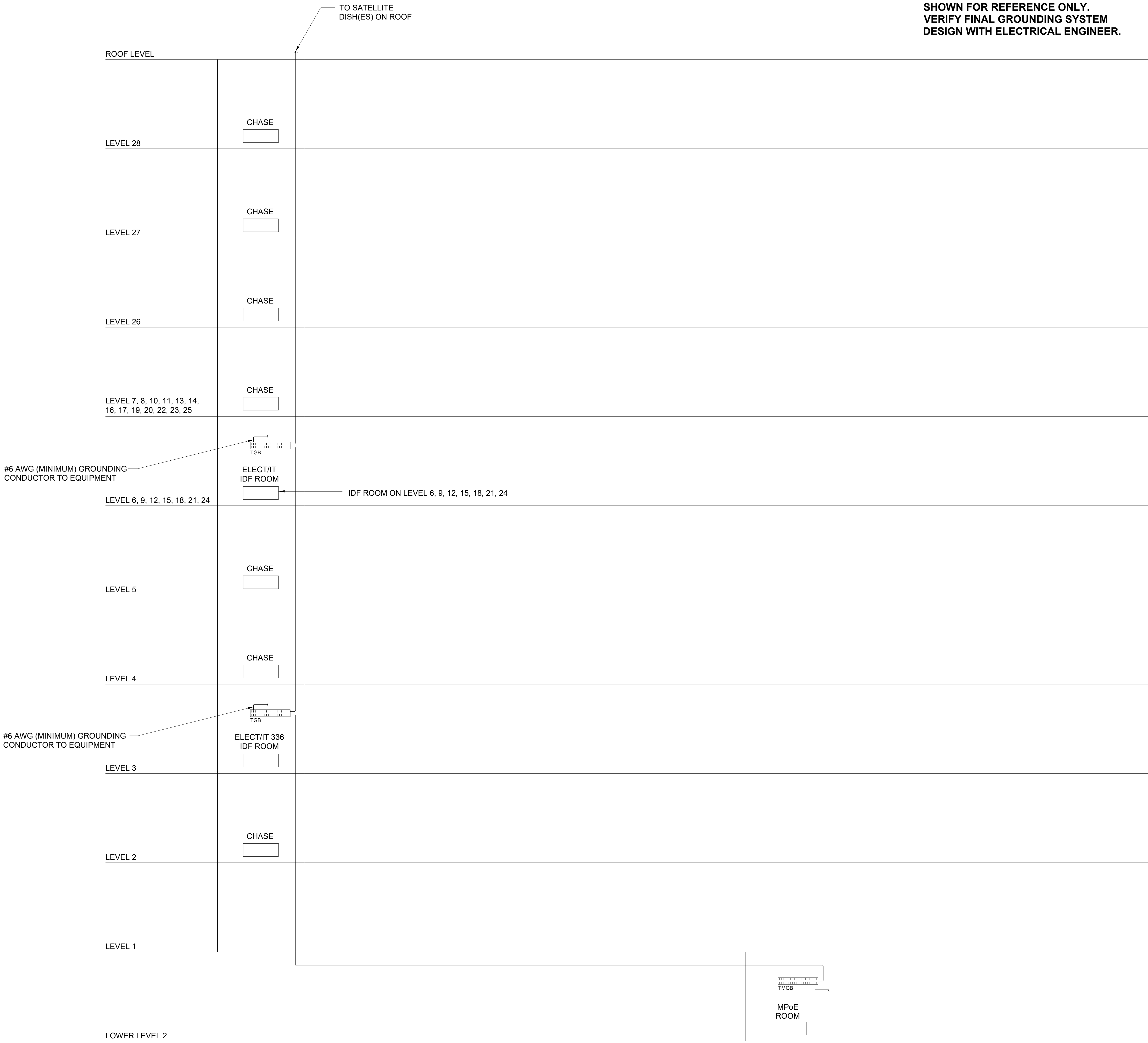
SCALE:

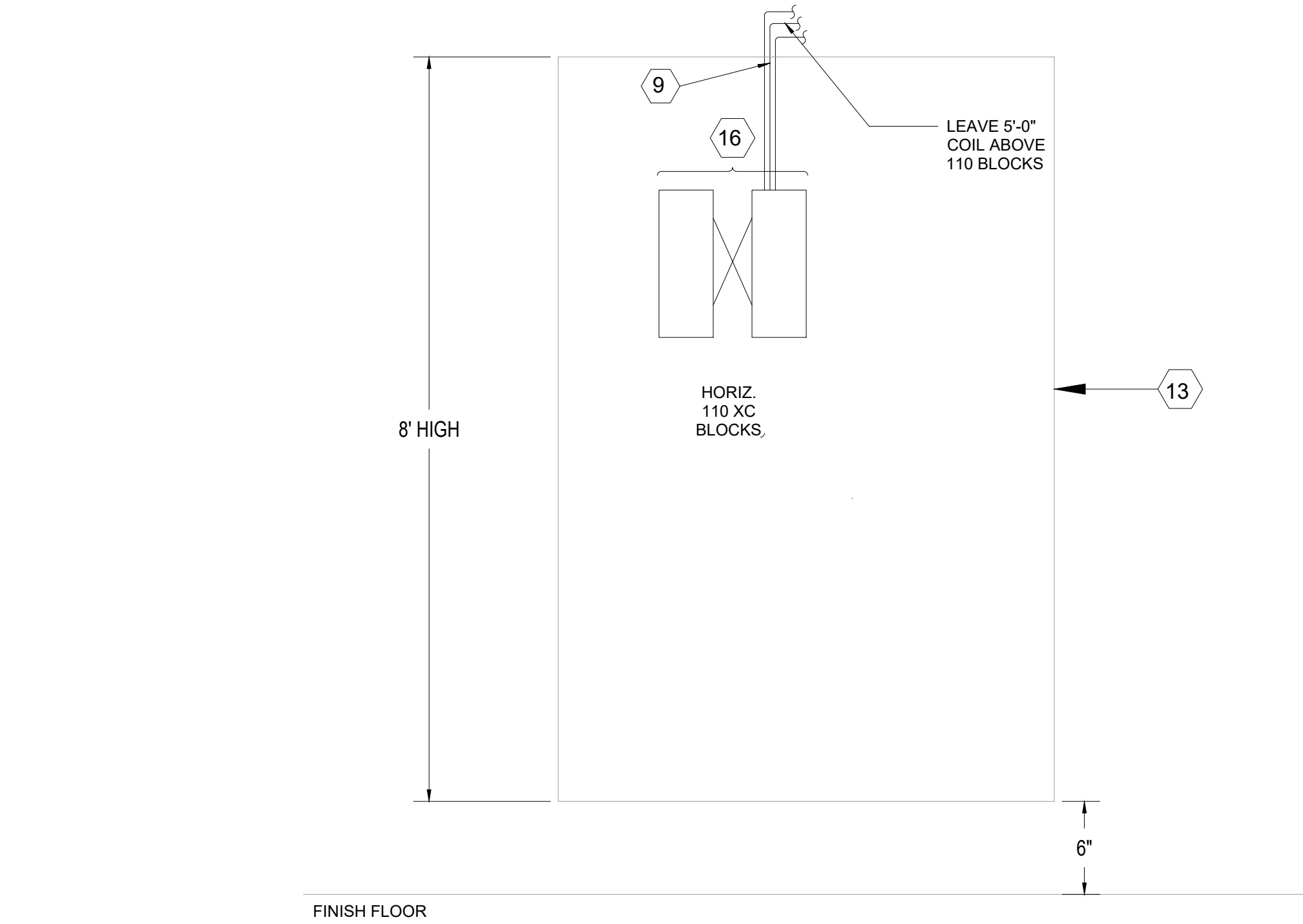
1/8" = 1'-0"



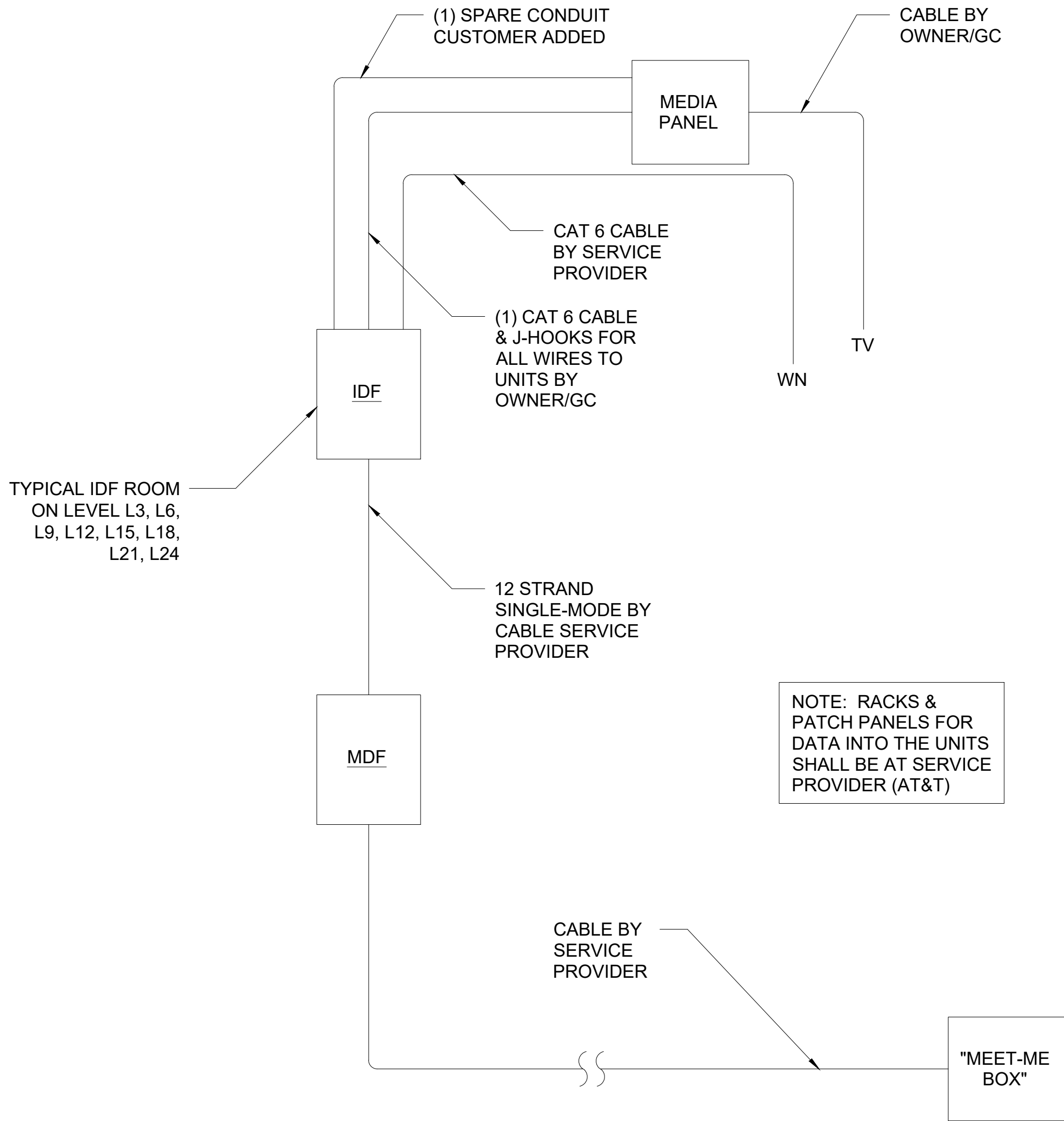








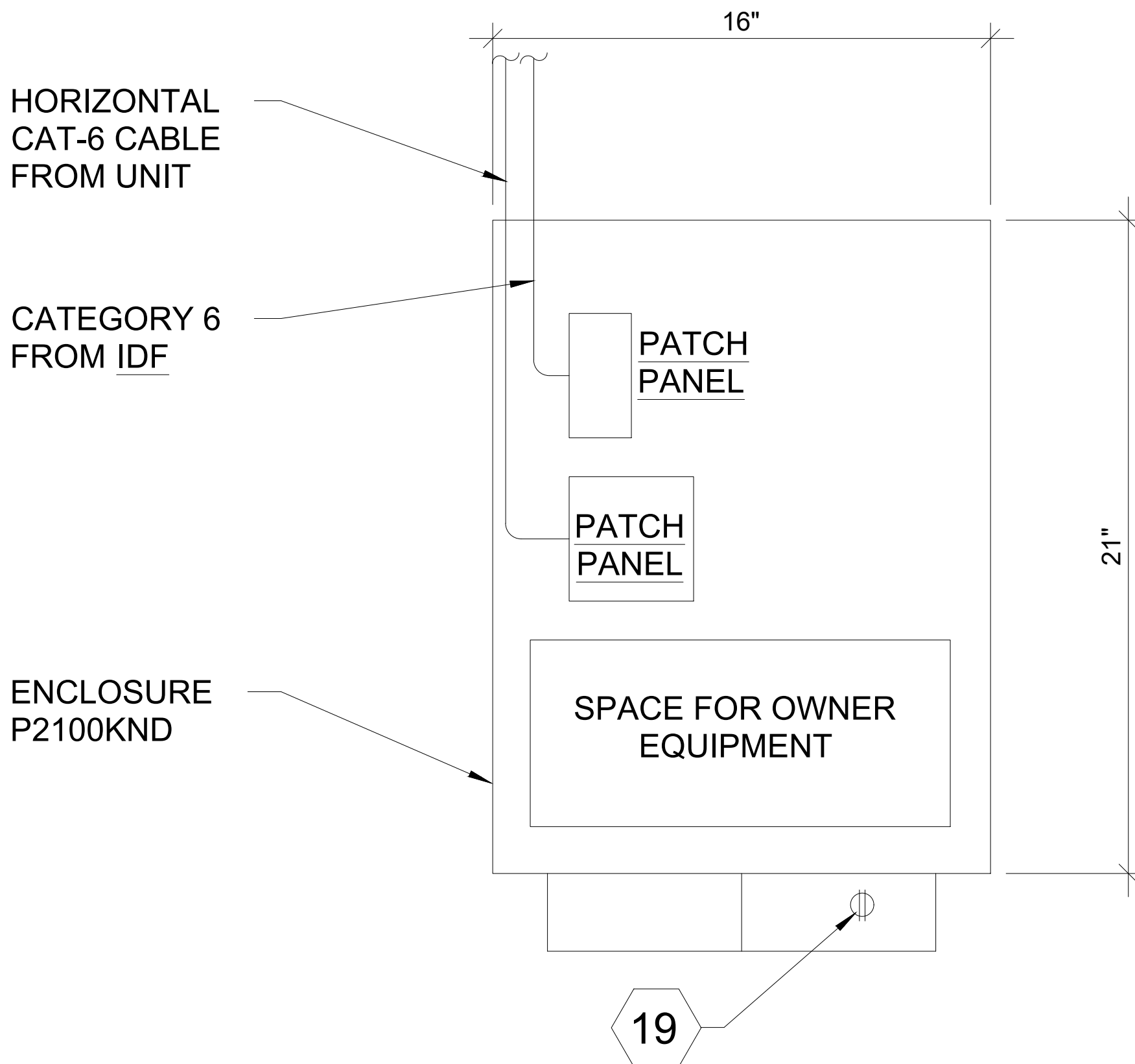
A 110 BLOCK ELEVATION ELEVATION DETAIL SCALE: NTS



B TYPICAL IDF ROOM ON LEVEL L3, L6, L9, L12, L15, L18, L21, L24 UNIT CABLE DIAGRAM SCALE: NTS

KEYED NOTES

- 1 12" WIDE LADDER RACK. MOUNT ABOVE EQUIPMENT RACKS. INSTALLED BY CABLING CONTRACTOR. CPI OR EQUIVALENT.
- 2 FLOOR MOUNTED EQUIPMENT RELAY TRACK, 7' (H) x 19" (W) BLACK, (CPI # 46353-703) OR APPROVED EQUIVALENT.
- 3 RACK MOUNT FIBER ENCLOSURE LOADED WITH 'SC' MULTIMODE BULKHEADS - SUPPLY AS NEEDED TO TERMINATE ALL INCOMING/OUTGOING FIBER CABLES.
- 4 48 PORT CAT-6 DATA PATCH PANEL RACK MOUNTED. SUPPLY AS NEEDED TO TERMINATE ALL INCOMING HORIZONTAL DATA CABLES AND DATA RISER CABLES. (CAT-3 RATED PANELS MAY BE USED FOR "TELEPHONE TRUNK PANELS").
- 5 120V AC/20A NEMA 5-20R QUAD RECEPTACLE ON DEDICATED EMERGENCY POWER. SUPPLY ONE OUTLET ON DEDICATED CIRCUIT PER PACK. COORDINATED INSTALLATION WITH ELECTRICAL CONTRACTOR.
- 6 VERTICAL CABLE MANAGER (CPI #11729-703) WITH COVER (CPI #12188-001) OR APPROVED EQUIVALENT.
- 7 2 UNIT HORIZONTAL CABLE MANAGER, 3.5" HIGH RACK MOUNTED.
- 8 GROUND BUS BAR FOR COMMUNICATIONS EQUIPMENT GROUND.
- 9 INCOMING 4 PAIR, CAT-6, HORIZONTAL CABLES.
- 10 INCOMING FIBER CABLES. SEE CABLING RISER DIAGRAM FOR EXACT REQUIREMENTS.
- 11 TELEPHONE TRUNK PANEL. SUPPLY AS NEEDED TO ACCOMMODATE ALL ANALOG CABLES.
- 12 20A RATED 66" POWER STRIP (CPI #12848-758) WITH FACTORY INSTALLED 20A PLUG AND WITH 6.5" STAND OFF BRACKETS. SEE DETAIL.
- 13 3/4" AC GRADE PLYWOOD (MOUNT WITH BOTTOM 6" OFF THE FLOOR). 8 FEET HIGH, FIRE RATED OR TREATED ON ALL SIDES WITH TWO COATS OF FIRE RESISTANT PAINT, TYPICAL TO ALL WALLS.
- 14 20 AMP 120VAC QUAD RECEPTACLE ON DEDICATED CIRCUIT.
- 15 20 AMP 120VAC QUAD RECEPTACLE ON DEDICATED CIRCUIT. COORDINATE FINAL REQUIREMENTS WITH MATV SERVICE PROVIDER.
- 16 COORDINATE WITH AV DRAWINGS.
- 17 BDA PANEL REQUIRES A 4'x4' SPACE ON THE WALL AND A 3'x3' CLEARANCE IN FRONT OF EQUIPMENT.
- 18 WALL MOUNTED EQUIPMENT RACK, 72" H x 25" D. CPI PART NUMBER 11792-725 (OR EQUIVALENT).
- 19 PROVIDE DUPLEX POWER OUTLET.



NOTE:  
ALL COMPONENTS AS  
MANUFACTURED BY PRIMEX

DRAWING NOTE:

- 1. TYPICAL UMC SHALL BE PRIMEX P2100KND OR APPROVED EQUIVALENT

C UNIT MEDIA CENTER (UMC) ELEVATION ELEVATION DETAIL SCALE: NTS

Equipment Type	Qty	Power (W)	Heat Load (BTU/hr)	Notes
48-Port PoE Switch	3	450	1535	Max draw, full PoE load
UPS (1500VA)	2	180	615	Power backup, split load
Media Converters	2	75	256	Fiber or copper transition
Patch Panels and Accessories	-	75	256	Rack infrastructure
Total (Per IDF)	-	780	2662	Worst-case load per room

A	IDF ROOM (TYPICAL FOR LEVEL 3, 6, 9, 12, 15, 18, 21, 24) EQUIPMENT HEAT LOAD ESTIMATE	SCALE: NTS
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Equipment Type	Qty	Power (W)	Heat Load (BTU/hr)	Notes
Core Network Switches	4	500	1700	Aggregation and PoE
Firewall and Router	2	180	615	Redundant connections
Garage Wi-Fi Mesh Points	8	75	256	Full mesh deployment
UPS (3000VA)	2	300	1024	Power backup redundancy
Server (NVR/Logging)	1	450	1365	High-performance server
Patch Panels and Accessories	-	150	512	Rack infrastructure
Total (MDF)	-	1655	5472	Worst-case MDF scenario

B	MPoE ROOM EQUIPMENT HEAT LOAD ESTIMATE	SCALE: NTS
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