COMMUNICATIONS SYMBOL LIST

VOICE/DATA SYMBOLS

- VOICE OUTLET - FLUSH WALL MOUNT
- DATA OUTLET - FLUSH WALL MOUNT
- VOICE/DATA OUTLET - FLUSH WALL MOUNT
- VOICE OUTLET - FURNITURE MOUNT
- DATA OUTLET - FURNITURE MOUNT
- VOICE/DATA OUTLET - FURNITURE MOUNT
- DATA OUTLET FOR CLINICAL ENGINEERING - FLUSH WALL MOUNT
- DATA OUTLET - FLUSH FLOOR MOUNT
- VOICE/DATA OUTLET - FLUSH FLOOR MOUNT
- VOICE OUTLET - FLOOR BOX MOUNT
- DATA OUTLET - FLOOR BOX MOUNT
- VOICE/DATA OUTLET - FLOOR BOX MOUNT
- VOICE OUTLET - FLUSH CEILING MOUNT
- DATA OUTLET - FLUSH CEILING MOUNT
- VOICE/DATA OUTLET - FLUSH CEILING MOUNT

  X = # OF CABLES TO INSTALL, IF MORE THAN ONE.
  IF NO 'X', DATA = 1 CABLE.
  VOICE = 1 CABLE.
  VOICE/DATA = 1 VOICE AND 1 DATA CABLE

- ANALOG OUTLET - FLUSH WALL MOUNT
- WALLPHONE CAT 6 VOICE ONLY
- WALLPHONE CAT 6 DATA ONLY
- WAP / S — WIRELESS ACCESS POINT (AP) & SENSOR (S) OUTLET
- DAS — DAS ANTENNA(S) OUTLET
- CATV OUTLET - TERMINATED ON F-TYPE CONNECTOR
- CEILING SPEAKER
- SLEEVE
- CORE DRILL
- LADDER RACKING SYSTEM
- CT — CABLE TRAY / RACEWAY SYSTEM
- J — J-HOOK CABLE ROUTE
- TELEPHONE TERMINAL CABINET - SURFACE MOUNT
- TELEPHONE TERMINAL CABINET - FLUSH MOUNT
- EQUIPMENT RACK - FLOOR MOUNT
- EQUIPMENT RACK - WALL MOUNT

VOICE/DATA CABLE DESIGNATIONS

IDF CLOSET (ex: 6W) — PATCH PANEL NUMBER
BUILDING ID — PATCH PANEL PORT
BLDG#-XX - # - ##

VOICE/DATA FACEPLATE DESIGNATIONS

A ### — SEQUENTIAL 3 DIGIT NUMBER
DESIGNATED AS JACK "A" & 1ST CABLE

MMC BUILDING DESIGNATION

(SEE OVERALL KEY PLAN)

CONGRESS ST = BLDG #2

VISITOR GARAGE = BLDG #3

EAST TOWER = BLDG #4

HEALTHCARE SYMBOLS

WALL MOUNT	CEILING MOUNT	
MS	MS	NURSE CALL MASTER STATION
MS R		MASTER STATION - RECEPTACLE ONLY. (FOR FUTURE CONNECTION) - SIGNET TO FURNISH & INSTALL RECEPTACLE WALLPLATE. - ITC TO FURNISH & INSTALL (1) CAT5E HOMERUN FROM RECEPTACLE TO NURSE CALL PANEL/CABINET IN DESIGNATED IDF. (PROVIDE 5'-0" SLACK & LOOP CABLE NEAR PANEL MOUNTED ON WALL)
P1	P1	NURSE CALL PATIENT STATION (1 BED)
P2	P2	NURSE CALL PATIENT STATION (2 BED)
E	E	NURSE CALL EMERGENCY STATION
L A	L A	NURSE CALL LAVATORY STATION A = WITH AUDIO
D	D	NURSE CALL DUTY STATION
S XX	S XX	NURSE CALL STAFF STATION SS = STANDARD STAFF STATION ST = VOIP STAFF TERMINAL CB = WITH CODE STATION
B	B 1	NURSE CALL CODE BLUE STATION
NC F	NC	NURSE CALL EQUIPMENT CABINET-SURFACE MOUNTED F = FLUSH WALL MOUNTED
CL 1	CL 1	NURSE CALL CORRIDOR LAMP # = NUMBER OF LAMP SECTIONS
ZL 1	ZL M	NURSE CALL ZONE LAMP. WALL MOUNTED, NUMBER OF LAMP SECTIONS EQUAL TO NUMBER OF COLORS IN ASSOCIATED CORRIDOR LAMPS. # = ZONE NUMBER
IC F	IC	INTERCOM CENTRAL EQUIPMENT SURFACE MOUNTED F = FLUSH WALL MOUNTED
IC M	IC	INTERCOM STATION M = MASTER STATION
MJ		TWO PORT MEDICAL ALARM JACK
FB		FEATURE BED SIDE-COM RECEPTACLE
DW		DUAL 1/4" FAM DEVICE
DP		DUAL PUSHBUTTON
PM		PHYSIOLOGICAL MONITORING - COMBINATION POWER/SIGNAL 2 GANG PARTITIONED WALLBOX WITH A DUPLEX RECEPTACLE AND 3/4"C (1.5"C AT NURSE'S STATION) TERMINATED IN A 90° BEND 6" INTO ACCESSIBLE CEILING FM = FETAL MONITOR
LIM		LINE ISOLATION MONITOR-SEPARATELY MOUNTED
PMO		PATIENT MONITOR OUTLET
RI		REMOTE INDICATOR FOR LINE ISOLATION MONITOR 6 = SIX INDICATORS FOR SIX MONITORS XR = X-RAY
PG		PATIENT GROUND POINT
RG		ROOM GROUND POINT
RP		REFERENCE GROUND POINT
IG		REMOTE GROUND JACK
XRA		ISOLATED X-RAY OUTLET AND ALARM INDICATOR
IPC		ISOLATED POWER CENTER
SC		SURGICAL COLUMN

COMMUNICATIONS ABBREVIATIONS

+	SPECIAL MOUNTING HEIGHT. COORDINATE LOCATION WITH ARCHITECTURAL ELEVATIONS
1P	SINGLE POLE
2P	TWO POLE
3P	THREE POLE
A	AMPERE
AC	ABOVE COUNTER
ACB	AIR CIRCUIT BREAKER
AFF	ABOVE FINISHED FLOOR
AIC	AMPERE INTERRUPTING CAPACITY
AL	ALUMINUM
ALM	ALARM
AMM	AMMETER
AQST	AQUASTAT
ARF	ABOVE RAISED FLOOR
ASYM	ASYMMETRICAL
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AV	AUDIO VISUAL
AWG	AMERICAN WIRE GAUGE
BG	BREAK GLASS SWITCH
BIL	BASIC IMPULSE LEVEL
BLDG	BUILDING
C	CONDUIT
CAB	CABINET
CAT	CATALOG
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CKT	CIRCUIT
CL	CENTER LINE
CLG	CEILING
CLOS	CLOSET
CNTL	CONTROL
CO	CONDUIT ONLY
COMM	COMMUNICATION
CONN	CONNECTED
CONT	CONTINUATION
CT	CURRENT TRANSFORMER
CU	COPPER
CUH	CABINET UNIT HEATER
DB	DECIBEL
DE	DOUBLE ENDED SUBSTATION
DEG	DEGREE
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DISC	DISCONNECT
DIV	DIVISION
DN	DOWN
DP	DISTRIBUTION PANEL BOARD
DT	DUST TIGHT
DWG	DRAWING
°C	DEGREE CELSIUS
°F	DEGREE FAHRENHEIT
(E)	EXISTING TO REMAIN
(ER)	EXISTING TO BE REMOVED
(ERR)	EXISTING TO BE REMOVED & RELOCATED
EA	EACH
EC	ELECTRICAL CONTRACTOR
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR
EMER, EM	EMERGENCY
EQUIP	EQUIPMENT
ERC	ELECTRIC REHEAT COIL
EWC	ELECTRIC WATER COOLER
EXIST, EX	EXISTING
EXT	EXTERIOR
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FAP	FIRE ALARM ANNUNCIATOR PANEL
FBO	FURNISHED BY OTHER DIVISION OF WORK
FCU	FAN COIL UNIT
FDR	FEEDER
FDS	FUSED DISCONNECT SWITCH
FIXT	FIXTURE
FL	FLOOR
FLA	FULL LOAD AMPERES
FLEX	FLEXIBLE
FLUOR	FLUORESCENT
FM	FLOOR MACHINE
FRZ	FREEZER
FSP	FAN SHUTDOWN PANEL
FT	FEET OR FOOT
G	GROUND
GEN	GENERATOR
GFI	GROUND FAULT INTERRUPTER
HC	HUNG CEILING
HH	HAND HOLE
HID	HIGH INTENSITY DISCHARGE
HN	HALF NEUTRAL
HP	HORSE POWER
HV	HIGH VOLTAGE
HZ	HERTZ
IC	INTERRUPTING CAPACITY
ID	INSIDE DIAMETER
INCAND	INCANDESCENT
INST	INSTRUMENT
IPC	ISOLATED POWER CENTER
IPX	ISOLATED POWER CENTER-X-RAY
JB	JUNCTION BOX
KCMIL	THOUSAND CIRCULAR MILS
KV	KILOVOLT
KVA	KILOVOLT AMPERE
KW	KILOWATT
KWH	KILOWATT HOUR
LCP	LOCAL CONTROL PANEL
LIM	LINE ISOLATION MONITOR
LTG	LIGHTING
MAP	MECHANICAL ALARM PANEL
MAX	MAXIMUM
MCA	MINIMUM CIRCUIT AMPERES
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MDP	MAIN DISTRIBUTION PANEL
MECH	MECHANICAL
MER	MECHANICAL EQUIPMENT ROOM
MFS	MAIN FUSED SWITCH
MH	MANHOLE
MIC	MICROPHONE
MIN	MINIMUM
MLO	MAIN LUG ONLY
MOPD,MOCP	MAXIMUM OVERCURRENT PROTECTION
MTD	MOUNTED
MTG	MOUNTING
MTS	MANUAL TRANSFER SWITCH
MUFS	MAIN UNFUSED SWITCH
N	NEUTRAL
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NP	NETWORK PROTECTOR
NTS	NOT TO SCALE
OC	ON CENTER
OCB	OIL CIRCUIT BREAKER
OD	OUTSIDE DIAMETER
P	POLE
PA	PUBLIC ADDRESS
PAP	PLUMBING ALARM PANEL
PB	PULL BOX
PBS	PUSH BUTTON SWITCH
PHC	PIPE HEATING CABLE
PNL	PANEL
PR	PRINTER
PS	PRESSURE SWITCH
PT	POTENTIAL TRANSFORMER
PWR	POWER
ø	PHASE
(RE)	RELOCATED EXISTING
(RRO)	EXISTING TO BE REMOVED AND RETURN TO OWNER
RCS	REMOTE CONTROL SWITCH
RDCP	REMOTE DATA COLLECTION PANEL
RECEPT, REC	RECEPTACLE
REF	REFRIGERATOR
REQ	REQUIRED
RFL	RAISED FLOOR
RG	ROOM GROUND POINT
RM	ROOM
RO	RACEWAY ONLY
RP	REFERENCE GROUND POINT
SAP	SPRINKLER ALARM PANEL
SBST	SUBSTATION
SCH	SCHEDULE
SD	SMOKE DETECTOR
SDP	SMOKE DETECTION PANEL
SE	SINGLE ENDED SUBSTATION
SECT	SECTION
SIG	SIGNAL
SN	SOLID NEUTRAL
SP	SINGLE POLE
SPEC	SPECIFICATION
SPKLR	SPRINKLER
SPKR	SPEAKER
SV	SOLENOID VALVE
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
SYM	SYMMETRICAL
SYS	SYSTEMS
TB	TROUBLE BELL
TBD	TO BE DETERMINED
TEL	TELEPHONE
TEMP	TEMPERATURE
THERM	THERMOSTAT
TLBD	TERMINAL BOARD
TP	TAMPER PROOF
TRANSF, XFMR	TRANSFORMER
TS	TAMPER SWITCH
TV	TELEVISION
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
TYP	TYPICAL
UFD	UNDERFLOOR DUCT
UH	UNIT HEATER
UNF	UNFUSED
UON	UNLESS OTHERWISE NOTED
V	VOLT OR VOLTAGE
VA	VOLT AMPERE
VFD	VARIABLE FREQUENCY DRIVE
VM	VOLTMETER
VP	VAPORPROOF
W	WATT
WFS	WATER FLOW SWITCH
WHM	WATT HOUR METER
WP	WEATHERPROOF
WT	WATERTIGHT
XP	EXPLOSION PROOF

COMMUNICATION GENERAL NOTES

1. ALL WORK SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE, NFPA, UL, ADA AND ALL OTHER GOVERNING AGENCIES HAVING JURISDICTION.
2. GENERAL NOTES, SYMBOL LIST AND DETAILS ARE APPLICABLE TO ALL COMMUNICATIONS DRAWINGS.
3. ALL WORK IS NEW UNLESS OTHERWISE NOTED.
4. DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF SYSTEMS AND WORK. FOLLOW DRAWINGS IN LAYING OUT WORK AND CHECK DRAWINGS OF OTHER TRADES TO VERIFY SPACE CONDITIONS. MAINTAIN HEADROOM AND SPACE CONDITIONS.
5. VERIFY LOCATIONS OF OUTLETS IN FINISHED ROOMS WITH ARCHITECTURAL DRAWINGS OF INTERIOR DETAILS AND FINISH.
6. HOMERUN ALL VOICE, DATA AND VIDEO OUTLET CABLES VIA CONDUIT STUB-UPS, DRYWALLS AND ACCESSIBLE CEILINGS DIRECTLY TO THE IDF ROOMS AS INDICATED ON THE DRAWINGS.
7. INSTALL NEW WORK AND CONNECT TO EXISTING WORK, WHEN APPLICABLY, WITH MINIMUM INTERFERENCE TO EXISTING FACILITIES. TEMPORARY SHUTDOWNS: ONLY WITH WRITTEN CONSENT OF OWNER. MAINTAIN CONTINUOUS OPERATION OF EXISTING FACILITIES. ALARM AND EMERGENCY SYSTEMS ARE NOT TO BE INTERRUPTED.
8. FIRESTOPPING SHALL BE INSTALLED WHENEVER WIRING OR RACEWAYS CROSS FIRE RATED CONSTRUCTION.
9. ANY DAMAGE TO PARTITIONS, FLOORS, CEILINGS OR ANY PART OF THE BUILDING OR EQUIPMENT CAUSED BY THE WORK OF THE CONTRACTOR SHALL BE MADE GOOD AT NO ADDITIONAL EXPENSE TO THE OWNER.
10. ALL CUTTING AND PATCHING SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR.
11. UPON COMPLETION OF THE WORK, THREE MARKED-UP SETS OF "AS-BUILT" DRAWINGS SHALL BE SUBMITTED TO THE OWNER AND TWO SETS TO THE BUILDING MANAGER.
12. COMMUNICATIONS CONTRACTOR SHALL VISIT AND EXAMINE CAREFULLY THE EXISTING AREAS AFFECTED BY THIS WORK AND BECOME FAMILIAR WITH EXISTING CONDITIONS. CONTRACTOR SHALL PERFORM THIS PRIOR TO SUBMITTING HIS PROPOSAL. SUBMISSION OF A PROPOSAL SHALL BE CONSTRUED AS EVIDENCE THAT SUCH AN EXAMINATION HAS BEEN MADE AND LATER CLAIMS WILL NOT BE RECOGNIZED FOR EXTRA LABOR, EQUIPMENT OR MATERIALS REQUIRED BECAUSE OF DIFFICULTIES ENCOUNTERED WHICH COULD HAVE BEEN FORESEEN HAD SUCH AN EXAMINATION BEEN MADE.
13. CONTRACTOR, BEFORE INSTALLING ANY OF THE WORK, SHALL SEE THAT IT DOES NOT INTERFERE WITH CLEARANCES REQUIRED FOR FINISHED COLUMNS, HUNG CEILINGS, PLASTER, PARTITIONS, WALLS, ETC., AS SHOWN IN THE ARCHITECTURAL DRAWINGS AND DETAILS. IF ANY WORK IS SO INSTALLED AND IT LATER DEVELOPS THAT SUCH DETAILS OR DESIGN CANNOT BE FOLLOWED, CONTRACTOR AT HIS OWN EXPENSE SHALL MAKE SUCH CHANGES IN THE WORK AS DIRECTED BY THE ARCHITECT, AS WELL AS TO PERMIT THE INSTALLATION OF THE ARCHITECTURAL WORK AS SHOWN ON THE PLANS AND DETAILS.
14. FINAL ACCEPTANCE IS TO BE MADE AFTER THE CONTRACTOR HAS DEMONSTRATED THAT THE WORK FULFILLS THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS.
15. ANY BLOCK WALLS WITHOUT EXISTING PENETRATION MUST BE CORED/DRILLED BY CONTRACTOR BASED ON FIELD COORDINATION.
16. ALL WORK SUBJECT TO FULL FIELD COORDINATION BY CONTRACTOR.
17. ALL LATERAL CABLING TO BE RUN TO WORK STATIONS VIA METAL SURFACE RACEWAY.
18. COORDINATE INSTALLATION OF CONDUITS, CABLE TRAYS AND J-HOOKS WITH ALL OTHER COMPONENTS AND/OR TRADES WITHIN THE CEILING SPACE.
19. COORDINATE WITH ELECTRICAL CONTRACTOR FOR THE ROUTING OF ALL STUB-UPS AND/OR RACEWAYS TO EACH TELECOM OUTLET BOX. STUB-UPS AND RACEWAYS SHALL BE RUN TO THE NEAREST ACCESSIBLE CEILING SPACE.
20. STANDARD OUTLET MOUNTING HEIGHT SHALL BE THE SAME AS ELECTRICAL HEIGHT, UNLESS OTHERWISE NOTED. EXACT LOCATION OF OUTLETS SHALL BE AS INDICATED ON THE ARCHITECTURAL DRAWINGS.
21. PROVIDE FIRESTOPPING FOR ALL SLEEVE AND CONDUIT PENETRATIONS THROUGH RATED PARTITIONS OR FLOORS IN ACCORDANCE WITH THE SPECIFICATIONS.
22. LABEL ALL RACKS, FRAMES, CABINETS, BLOCKS, CABLES, CABLE SUPPORTS, ETC. IN ACCORDANCE WITH EIA/TIA 606.
23. OUTLET IDENTIFICATION NUMBERING SHALL BE AS DIRECTED BY OWNERS MIS DEPARTMENT. INSTALLATION SHALL COMPLY WITH SPECIFICATIONS. EACH CABLING SHALL BE TAGGED AT ALL TERMINATION POINTS.

DRAWING PLAN NOTES

1. DRAWINGS ARE SCHEMATIC AND INDICATE GENERAL ARRANGEMENT OF TELECOM SYSTEMS AND WORK. FOLLOW DRAWINGS IN LAYING OUT NEW WORK AND CHECK DRAWINGS OF OTHER TRADES TO VERIFY SPACE CONDITIONS. MAINTAIN HEADROOM AND SPACE CONDITIONS AS NEEDED.
2. VERIFY EXACT LOCATIONS OF TELECOM OUTLETS WITH ARCHITECTURAL DRAWINGS DETAILS PRIOR TO INSTALLING.
3. COORDINATE WITH ELECTRICIAN FOR ALL NEW TELECOM OUTLETS / J-BOX LOCATIONS. MINIMUM 1-1/4" STUB-UP CONDUITS WITH DRAG LINES IS RECOMMENDED.
4. TERMINATE ALL TELECOM CABLE PULLS IN TELECOM "IDF" ROOM.
5. FURNISH & INSTALL (2) 4" CONDUITS WITH END TO END BUSHING. PROVIDE DRAG LINE FOR BOTH.
6. DAS ANTENNA AND CABLING BY DAS CONTRACTOR

GROUNDING & BONDING NOTES

1. GROUNDING SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL AUTHORITIES, AND SUBJECT TO THE APPROVAL OF THE ELECTRICAL ENGINEER.
2. ALL GROUND WIRES AND BONDING JUMPERS SHALL BE GREEN INSULATED, COPPER. ALL GROUND WIRES SHALL BE WITHOUT JOINTS AND SPLICES OVER THE ENTIRE LENGTH.
3. WHERE IT IS NECESSARY TO PLACE BONDING CONDUCTORS IN FERROUS METAL CONDUIT THAT EXCEEDS 3' IN LENGTH, THE CONDUCTORS SHALL BE BONDED TO EACH END OF THE CONDUIT. OBTAIN WRITTEN AUTHORIZATION FROM ENGINEER PRIOR TO UTILIZING FERROUS METAL CONDUITS FOR GROUNDING CONDUCTORS.
4. INSTALL BONDING AND GROUNDING CONDUCTORS IN DIRECT, STRAIGHT PATHS WITH NO "SLACK" COPPER LOOPS OR EXTRA LENGTHS. BENDS SHALL BE KEPT TO A MINIMUM, AND SHALL HAVE A RADIUS OF 4", MINIMUM.
5. PROVIDE AN INSULATED, STRANDED UNINTERRUPTED BONDING CONDUCTOR BETWEEN THE TMGB AND THE NEAREST BUILDING STEEL COLUMN, IF APPLICABLE. THE BONDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE BUILDING COLUMN AND MECHANICALLY BONDED TO THE TMGB WITH A TWO HOLE LUG THAT IS HYDRAULICALLY CRIMPED ONTO THE CONDUCTOR.
6. PROVIDE AN INSULATED, STRANDED UNINTERRUPTED BONDING CONDUCTOR BETWEEN THE TMGB AND THE MAIN ELECTRICAL PANEL ALTERNATING CURRENT EQUIPMENT GROUND THAT IS SERVING THE BUILDING. THE BONDING CONDUCTOR SHALL BE MECHANICALLY BONDED TO BOTH THE TMGB AND THE GROUND BAR IN THE ELECTRICAL PANEL WITH TWO HOLE LUGS THAT ARE HYDRAULICALLY CRIMPED ONTO EACH END OF THE BONDING CONDUCTOR.
7. PROVIDE AN INSULATED, UNINTERRUPTED TELECOMMUNICATIONS BONDING BACKBONE (TBB) CONDUCTOR BETWEEN THE TMGB AND ALL THE TGBS INDICATED ON THE DRAWINGS. MECHANICALLY BOND THE TBB TO THE TMGB WITH A TWO-HOLE LUG THAT IS HYDRAULICALLY CRIMPED ONTO THE END OF THE TBB. BOND EACH TGB TO THE TBB WITH AN INSULATED, STRANDED, UNINTERRUPTED BONDING CONDUCTOR. THE BONDING CONDUCTOR SHALL BE MECHANICALLY BONDED TO BOTH THE TGB AND THE TBB. AT THE TGB, UTILIZE A TWO-HOLE LUG THAT IS HYDRAULICALLY CRIMPED ONTO THE END OF THE BONDING CONDUCTOR. AT THE TBB, UTILIZE A HYDRAULICALLY CRIMPED BONDING LUG. REMOVE ONLY AS MUCH INSULATION FROM THE TBB AS IS NECESSARY AND PRACTICAL TO COMPLETE THE BOND.
8. PROVIDE AN INSULATED, UNINTERRUPTED GROUNDING CONDUCTOR FROM EACH TGB TO THE NEAREST ACCESSIBLE STEEL BUILDING COLUMN, IF APPLICABLE. THE BONDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE BUILDING COLUMN AND MECHANICALLY BONDED TO THE TGB WITH A TWO-HOLE LUG THAT IS HYDRAULICALLY CRIMPED ONTO THE CONDUCTOR.
9. PROVIDE AN INSULATED, UNINTERRUPTED GROUNDING CONDUCTOR FROM EACH TGB TO GROUND BAR IN THE ELECTRICAL DISTRIBUTION PANEL SERVING THE TELECOMMUNICATIONS LOADS IN THAT ROOM. THE BONDING CONDUCTOR SHALL BE MECHANICALLY BONDED TO BOTH THE TGB AND THE GROUND BAR IN THE ELECTRICAL PANEL WITH TWO HOLE LUGS THAT ARE HYDRAULICALLY CRIMPED ONTO EACH END OF THE BONDING CONDUCTOR.

COMMUNICATION DRAWING...

DRAWING No.	DRAWING TITLE
T00-01	COMMUNICATIONS GENERAL NOTES, SYMBOLS AND ABBREVIATIONS
T00-21	COMMUNICATIONS DETAILS
T00-22	COMMUNICATIONS DETAILS
T00-23	COMMUNICATIONS DETAILS
T11-61	COMMUNICATION LEVEL 6 FLOOR PLAN - SECTOR 1
T11-62	COMMUNICATION LEVEL 6 FLOOR PLAN - SECTOR 2
T11-71	COMMUNICATION LEVEL 7 FLOOR PLAN - SECTOR 1
T11-72	COMMUNICATION LEVEL 7 FLOOR PLAN - SECTOR 2
T11-81	COMMUNICATION ROOF PLAN - SECTOR 1
T11-82	COMMUNICATION ROOF PLAN - SECTOR 2
T11-91	COMMUNICATION PENTHOUSE PLAN - SECTOR 1
T11-92	COMMUNICATION PENTHOUSE PLAN - SECTOR 2
T14-01	COMMUNICATION PART PLAN AND ELEVATION
T20-01	COMMUNICATIONS RISER DIAGRAM
T30-01	COMMUNICATIONS MMC EAST TOWER SITE PLAN – GROUND FLOOR

COMMUNICATIONS PATHWAY NOTES

1. CONDUITS AND SLEEVES ARE SHOWN DIAGRAMMATICALLY AS COMMUNICATION PATHWAY REQUIREMENTS. EXACT ROUTING, BENDS, PULL-BOX LOCATIONS, ETC. ARE SUBJECT TO FIELD CONDITIONS AND SHALL BE COORDINATED WITH ELECTRICAL ENGINEER. REFER TO ELECTRICAL DRAWINGS FOR DETAILS.
2. COMMUNICATIONS CONDUIT RUNS SHALL BE INSTALLED WITH:
   2.1. NO BEND IN EXCESS OF 90-DEGREES.
   2.2. NO AGGREGATE OF BENDS GREATER THAN 180-DEGREES BETWEEN PULL BOXES OR PULL POINTS.
   2.3. NO CONTINUOUS SECTION IN EXCESS OF 100'.
   2.4. NO BENDS OCCURRING WITHIN PULL BOXES.
3. COMMUNICATIONS CONDUIT BENDS SHALL BE INSTALLED WITH:
   3.1. A BEND RADIUS OF 6-TIMES THE CONDUIT'S INNER DIAMETER FOR CONDUITS 2 TRADE SIZE OR SMALLER.
   3.2. A BEND RADIUS OF 10-TIMES THE CONDUIT'S INNER DIAMETER FOR CONDUITS GREATER THAN 2 TRADE SIZE.
4. COMMUNICATIONS CONDUIT SYSTEM SHALL BE PROPERLY BONDED IN ACCORDANCE WITH ALL NATIONAL OR LOCAL REQUIREMENTS.
5. ELECTRICAL CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF FIELD-COORDINATED TELECOM PATHWAYS TO ELECTRICAL ENGINEER AND TELECOM ENGINEER FOR REVIEW AND APPROVAL.

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CONSULTANTS

CIVIL / LANDSCAPE ARCHITECT
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STRUCTURAL ENG/ BUILDING ENVELOPE CONSULTANT
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MEP/FP ENGINEER/ CODE
AKF Group LLC
99 Bedford Street, 2nd Floor, Boston MA 02111

CONSTRUCTION MANAGER
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ELEVATOR CONSULTANT
VDA (Van Deusen & Associates)
101 Summer Street, 4th Floor, Boston MA 02110

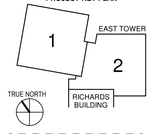
COST ESTIMATOR
D. G. Jones International
3 Baldwin Green Common,Suite 202, Woburn, MA 01801

PROJECT TITLE

East Tower 6 & 7 Addition
22 Bramhall Street
Portland, ME 04102

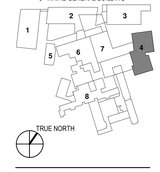
KEY PLANS

PROJECT KEY PLAN



OVERALL KEY PLAN

1 - GILMAN GARAGE
2 - CONGRESS STREET
3 - VISITOR GARAGE
4 - EAST TOWER
5 - CENTRAL UTILITY PLANT
6 - BEAN BUILDING
7 - RICHARDS BUILDING
8 - MAINE GENERAL BUILDING



CONSTRUCTION DOCUMENTS
JANUARY 26, 2018

NO	ISSUE	DATE

Job Number	B150312-000
Drawn	EL
Checked	BN
Approved	BN

TITLE

COMMUNICATIONS GENERAL NOTES, SYMBOLS AND ABBREVIATIONS

SHEET NUMBER

T00-01