

CONDUIT FILL RATE DIAMETERS FOR EMT (NO BENDS)										
CABLE OUTSIDE DIAMETER	MAXIMUM NUMBER OF CABLES									
	16mm (1/2") C	21mm (3/4") C	27mm (1") C	35mm (1-1/4") C	41mm (1-1/2") C	53mm (2") C	63mm (2-1/2") C	78mm (3") C	104mm (4") C	
4.6mm (0.18")	4	8	13	23	32	52	75	116	200	
5.0mm (0.20")	3	6	11	19	25	42	60	94	162	
6.0mm (0.24")	2	4	7	13	18	29	42	65	112	
7.0mm (0.28")	1	3	5	9	13	21	31	48	82	
8.0mm (0.31")	1	2	4	7	10	17	25	39	67	
9.0mm (0.35")	1	2	4	7	10	17	25	39	67	

CONDUIT FILL RATE DIAMETERS FOR EMT (ONE BEND)										
CABLE OUTSIDE DIAMETER	MAXIMUM NUMBER OF CABLES									
	16mm (1/2") C	21mm (3/4") C	27mm (1") C	35mm (1-1/4") C	41mm (1-1/2") C	53mm (2") C	63mm (2-1/2") C	78mm (3") C	104mm (4") C	
4.6mm (0.18")	4	7	11	19	27	44	63	98	170	
5.0mm (0.20")	3	5	9	16	22	36	51	80	137	
6.0mm (0.24")	2	4	6	11	15	25	35	55	95	
7.0mm (0.28")	1	2	4	8	11	18	26	40	70	
8.0mm (0.31")	1	2	3	6	9	15	21	33	57	
9.0mm (0.35")	1	1	3	5	7	11	16	26	44	

CONDUIT FILL RATE DIAMETERS FOR EMT (TWO BENDS)										
CABLE OUTSIDE DIAMETER	MAXIMUM NUMBER OF CABLES									
	16mm (1/2") C	21mm (3/4") C	27mm (1") C	35mm (1-1/4") C	41mm (1-1/2") C	53mm (2") C	63mm (2-1/2") C	78mm (3") C	104mm (4") C	
4.6mm (0.18")	3	5	9	16	22	36	52	81	140	
5.0mm (0.20")	2	4	7	13	18	29	42	65	113	
6.0mm (0.24")	1	3	5	9	12	20	29	45	78	
7.0mm (0.28")	1	2	3	6	9	15	21	33	57	
8.0mm (0.31")	1	1	3	5	7	12	17	27	47	
9.0mm (0.35")	0	1	2	4	5	9	13	21	37	

NOTE: NOT ALL SYMBOLS AND ABBREVIATIONS APPLY. REFER TO DRAWINGS.

ABBREVIATIONS			
ACS	ACCESS CONTROL SYSTEM	MTR	MAIN TELECOMMUNICATIONS ROOM
AFC	ABOVE FINISHED CEILING	N/A	NOT APPLICABLE
AFF	ABOVE FLOOR FINISH	NC	NORMALLY CLOSED
AHU	AIR HANDLING UNIT	NIC	NOT IN CONTRACT
ATS	AUTOMATIC TRANSFER SWITCH	NO	NORMALLY OPEN
AV	AUDIO VIDEO / AUDIO VISUAL	N.T.S	NOT TO SCALE
AWG	AMERICAN WIRE GAUGE	OC	OVER COUNTER / 1200MM AFF
BFC	BELOW FINISHED CEILING	OD	OUTSIDE DIAMETER
BMS	BUILDING MANAGEMENT SYSTEM	OR	OUTDOOR RATED
C	CONDUIT	OSP	OUTSIDE PLANT
CAT	CATEGORY	PB	PULL BOX
CM	CEILING MOUNTED	PBB	PRIMARY BONDING BUS BAR (PREVIOUSLY TMGB)
CPP	COPPER PATCH PANEL	PDU	POWER DISTRIBUTION UNIT
CR	COMPUTER ROOM	PT	POKE THROUGH
CRAC	COMPUTER ROOM AIR CONDITIONER	PWR	POWER
CW	COMES WITH / COMPLETE WITH	R	REMOVE
DAS	DISTRIBUTED ANTENNA SYSTEM	RE	REMOVE EXISTING DEVICE
DEMARC	DEMARICATION POINT	RF	RADIO FREQUENCY
DWG	DRAWING	RL	DEVICE IN ITS RELOCATED LOCATION
E	EXISTING DEVICE TO REMAIN	RM	ROOM
EC	EMPTY CONDUIT	RU	RACK UNIT
EF	ENTRANCE FACILITY	SBB	SECONDARY BONDING BUSBAR (PREVIOUSLY TGB)
EMT	ELECTRICAL METALLIC TUBING	SCS	STRUCTURED CABLING SYSTEM
EVC	ELECTRIC VEHICLE CHARGING STATION	SEC	SECURITY
F	FUTURE	SM	SINGLE-MODE
FAP	FIRE ALARM PANEL	SPEC	SPECIFICATION
FAS	FIRE ALARM SYSTEM	STP	SHIELDED TWISTED PAIR
FO	FIBRE OPTIC	TBD	TO BE DETERMINED
FOPP	FIBRE OPTIC PATCH PANEL	TGB	REPLACED BY SBB
FR	FURNITURE	TMGB	REPLACED BY PBB
HWM	HORIZONTAL WIRE MANAGER	TR	TELECOMMUNICATIONS ROOM
IDS	INTRUSION DETECTION SYSTEM	TV	TELEVISION
LAN	LOCAL AREA NETWORK	TYP	TYPICAL
MAX	MAXIMUM	UG	UNDERGROUND
MB	MOTORIZED BLINDS	UCN	UNLESS OTHERWISE NOTED
MCR	MAIN COMMUNICATIONS ROOM	UPS	UNINTERRUPTIBLE POWER SUPPLY
MER	MAIN EQUIPMENT ROOM	UTP	UNSHIELDED TWISTED PAIR
MGAP	MEDICAL GAS ALARM PANEL	VR	VANDAL RESISTANT
MH	MOUNTING HEIGHT	VSS	VIDEO SURVEILLANCE SYSTEM
MIN	MINIMUM	VMM	VERTICAL WIRE MANAGER
MM	MULTI-MODE	WAN	WIDE AREA NETWORK
mm	MILLIMETERS	WAP	WIRELESS ACCESS POINT
MTD	MOUNTED	WP	WEATHERPROOF/WALL PHONE (CONTEXT)

DRAWING LIST	
DWG No.	SHEET NAME
T1.0	TELECOMMUNICATIONS LEGEND AND DRAWING LIST
T2.0	TELECOMMUNICATIONS SPECIFICATIONS
T3.0	TELECOMMUNICATIONS PLAN - 2ND FLOOR
T4.0	COMMUNICATIONS DETAILS 1 OF 2
T4.1	COMMUNICATIONS DETAILS 2 OF 2

COMMUNICATIONS LEGEND	
SYMBOL	DESCRIPTION
	WALL MOUNTED COMMUNICATIONS OUTLET. PROVIDE BACK BOX AND CONDUIT TO AN ACCESSIBLE CEILING SPACE. CONDUIT C/W PULL STRINGS. PROVIDE QUANTITY OF CATEGORY 6 HORIZONTAL CABLES AS INDICATED ON THE DRAWINGS.
	CEILING MOUNTED DATA OUTLET. PROVIDE BACK BOX AND CONDUIT TO AN ACCESSIBLE CEILING SPACE. CONDUIT C/W PULL STRINGS. PROVIDE QUANTITY OF CATEGORY 6 HORIZONTAL CABLES AS INDICATED ON THE DRAWINGS.
	FLOOR BOX MOUNTED COMMUNICATIONS DROPS C/W CONDUIT TO NEAREST (SAME FLOOR) TELECOM ROOM. PROVIDE QUANTITY OF CATEGORY 6 HORIZONTAL CABLES AS INDICATED ON THE DRAWINGS.
	WIRELESS ACCESS POINT. PROVIDE BACK BOX AND CONDUIT TO AN ACCESSIBLE CEILING LOCATION. INSTALL CONDUIT C/W PULL STRINGS. PROVIDE TWO (2) CATEGORY 6 HORIZONTAL CABLES PER LOCATION AS INDICATED ON THE DRAWINGS.
	SYSTEMS FURNITURE/RACKWAY CORES TO BE PROVIDED BY ELECTRICAL. REFER TO ELECTRICAL DRAWINGS. COMMUNICATION CONTRACTOR TO PULL CABLE THROUGH TRENCH/RACEWAYS/PAC POLES/CORING. COMMUNICATION CONTRACTOR TO COORDINATE WITH SYSTEMS FURNITURE CONTRACTOR AND ELECTRICAL CONTRACTOR PRIOR TO TERMINATION.

GENERAL NOTES	
1.	ALL DRAWINGS SHALL BE READ IN CONJUNCTION WITH OTHER CONSULTANT DRAWINGS AND SPECIFICATIONS INCLUDING, BUT NOT LIMITED TO, ARCHITECTURAL, ELECTRICAL AND MECHANICAL.
2.	CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR PROCEEDING WITH ANY WORK PRIOR TO RECEIVING APPROVAL. ALL COSTS TO RECTIFY ANY PORTION OF THE WORK DONE WITHOUT THIS APPROVAL SHALL BE AT THE CONTRACTOR'S EXPENSE.
3.	WORK IN ALL AREAS, INCLUDING FINAL LOCATIONS OF DEVICES, SHALL BE COORDINATED WITH THE OWNER'S DESIGNATED REPRESENTATIVE AND WITH THE ARCHITECT.
4.	REFER TO ARCHITECTURAL DRAWINGS FOR FINAL COORDINATED DIMENSIONS AND MOUNTING HEIGHT REQUIREMENTS, AND FOR EXACT LOCATIONS OF DATA OUTLETS AND OTHER COMMUNICATIONS DEVICES. IF DIMENSIONS ARE NOT SHOWN, THE CONTRACTOR SHALL VERIFY EXACT MOUNTING HEIGHT AND LOCATION OF ALL DATA OUTLETS AND DEVICES PRIOR TO ROUGH-IN.
5.	COORDINATE WORK WITH OTHER TRADES PRIOR TO THE ROUGH-IN OF ANY DEVICE INCLUDING COORDINATION WITH FURNITURE AND EQUIPMENT SUPPLIER.
6.	ALL NEW DEVICES BEING INSTALLED ON EXISTING WALLS SHALL BE RECESSED MOUNTED. SURFACE MOUNTED INSTALLATION IN WIREMOLD IS PERMITTED WHERE SHOWN ON DRAWINGS. ALL NEW DEVICES BEING INSTALLED IN NEW PARTITIONS SHALL BE RECESSED MOUNTED AND INSTALLED IN THE WALL.
7.	PROVIDE CUTTING, PAINTING AND PATCHING, AS REQUIRED, TO FACILITATE THE INSTALLATION OF NEW SERVICES.
8.	PROVIDE ULC LISTED FIRESTOPPING WHERE EXISTING AND NEW CONDUITS PENETRATE FIRE SEPARATION WALL AND/OR FLOOR.
9.	FIRESTOP AND CLOSE ANY OPENINGS IN WALLS OR CEILING THAT OCCUR DUE TO THE REMOVAL OF EXISTING SERVICES OR DUE TO INSTALLATION OF NEW SERVICES. FINISH TO MATCH EXISTING.
10.	WHERE CORE DRILLING IS REQUIRED, PROVIDE SUITABLE SLEEVES AND CONCRETE CURBS FOR THE GENERATED OPENINGS; SEAL WITH FIRESTOPPING AND SEAL WATER TIGHT.
11.	CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES TO SURFACES, FINISHES AND MATERIALS DUE TO WORK UNDER THIS CONTRACT AND SHALL INCUR ALL COSTS TO RECTIFY, REPAIR AND REPLACE SAME TO CONSULTANT'S SATISFACTION.

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NO.	DATE	DESCRIPTION
03	24/08/23	ISSUED FOR PERMITTENDER
02	24/08/16	ISSUED FOR 100% COORDINATION
01	24/08/08	ISSUED FOR 90% REVIEW
ISSUE	△ YYMMDD	DESCRIPTION



354 Davenport Road, Suite 200
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Client Name: City of Pickering

Project Name: CoP Interior Fit-Out

Project Address: 2460 Brock Road
Pickering, ON L1X 0J1

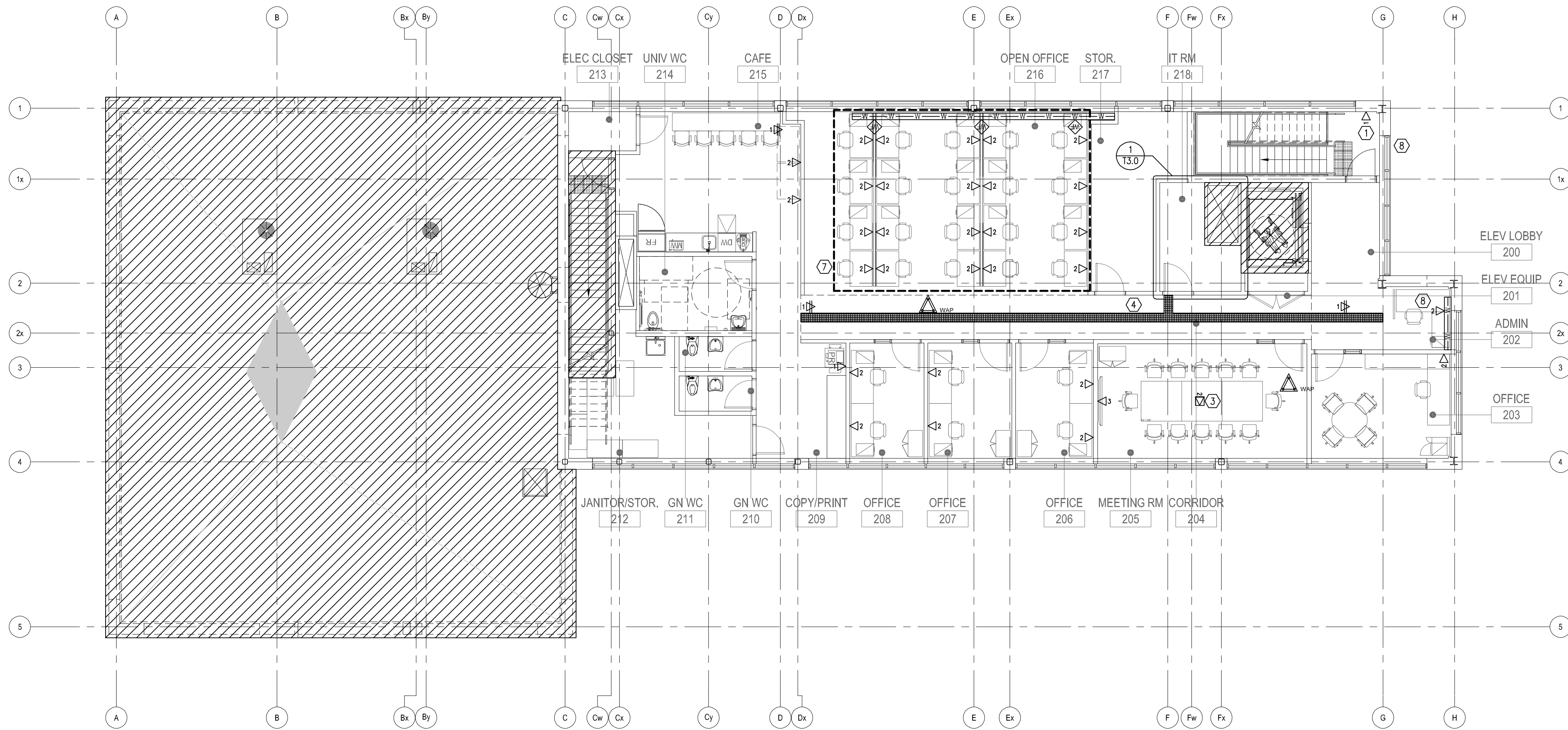
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Drawing Title: **TELECOMMUNICATIONS LEGEND AND DRAWING LIST**

Drawing Scale: **NO SCALE**

Drawing Number:

T1.0



GENERAL NOTES:

1. ALL DATA OUTLET LOCATIONS TO BE RUN IN CONDUIT FROM WORK AREA OUTLET LOCATION TO CABLE TRAY. J-HOOK SUPPORTS OR FREE-AIRING OF CABLES NOT PERMITTED.
2. ALL DATA OUTLET LOCATIONS TO BE RUN IN CONDUIT FROM WORK AREA OUTLET LOCATION TO CABLE TRAY. J-HOOK SUPPORTS OR FREE-AIRING OF CABLES NOT PERMITTED.

DRAWING NOTES:

1. PROVIDE ONE (1) CATEGORY 6 HORIZONTAL CABLE FROM IT ROOM 218 TO FIRST FLOOR ENTRY AREA FOR A SURVEILLANCE CAMERA. PROVIDE ALL REQUIRED PATHWAYS AND BACKBOXES. CONFIRM FINAL POSITIONING WITH DIVISION 28 SECURITY CONTRACTOR.
2. SECURITY ACCESS CONTROL PANEL LOCATION. PROVIDE ONE (1) CATEGORY 6 HORIZONTAL CABLE TO LOCATION. COORDINATE FINAL LOCATION WITH DIVISION 28 SECURITY CONTRACTOR.
3. COMBINED ELECTRICAL/DATA/AV FLOORBOX LOCATION. REFER TO ELECTRICAL DRAWING E4.0 FOR DETAILS.
4. PROVIDE 300mm X 100mm WIRE MESH CABLE TRAY COMPLETE WITH ALL MOUNTING HARDWARE, INCLUDING DROP-OUTS/WATERFALLS. ALL COMPONENTS TO BE FROM THE SAME MANUFACTURER AS THE CABLE TRAY. STANDARD OF ACCEPTANCE: LEGRAND CABOFL, COOPER B-LINE, CER. CABLE TRAY SYSTEM TO BE INSTALLED AS PER MANUFACTURER'S REQUIREMENTS.
5. PROVIDE TWO (2) 103mm EMT CONDUITS WITH PENETRATIONS FROM IT ROOM 218 TO CORRIDOR.
6. PROVIDE 300mm X 100mm VERTICAL CABLE TRAY FROM HORIZONTAL CABLE TRAY TO ABOVE CABINET FOR CABLE SUPPORT. PROVIDE DROP-OUTS/WATERFALLS AS REQUIRED.
7. MODULAR FURNITURE AREA. WIRE CATEGORY 6 HORIZONTAL CABLING DIRECTLY FROM WALL RACEWAY SYSTEM TO FINAL DESK TERMINATION LOCATION VIA MODULAR FURNITURE DATA CABLING CHANNELS/RACEWAYS.
8. CONTRACTOR TO PROVIDE OPTIONAL PRICE FOR SUPPLY AND INSTALLATION OF ONE (1) CATEGORY 6 HORIZONTAL CABLE AT LOWER ENTRY DOOR AND ONE (1) CATEGORY 6 HORIZONTAL CABLE AT ADMIN 202 FOR INTERCOM SYSTEM. CABLES TO BE TERMINATED IN CABINET IN IT ROOM 218. REFER TO DRAWING NOTE #5 ON ELECTRICAL DRAWING E3.0.

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Client Name
City of Pickering

Project Name
CoP Interior Fit-Out

Project Address
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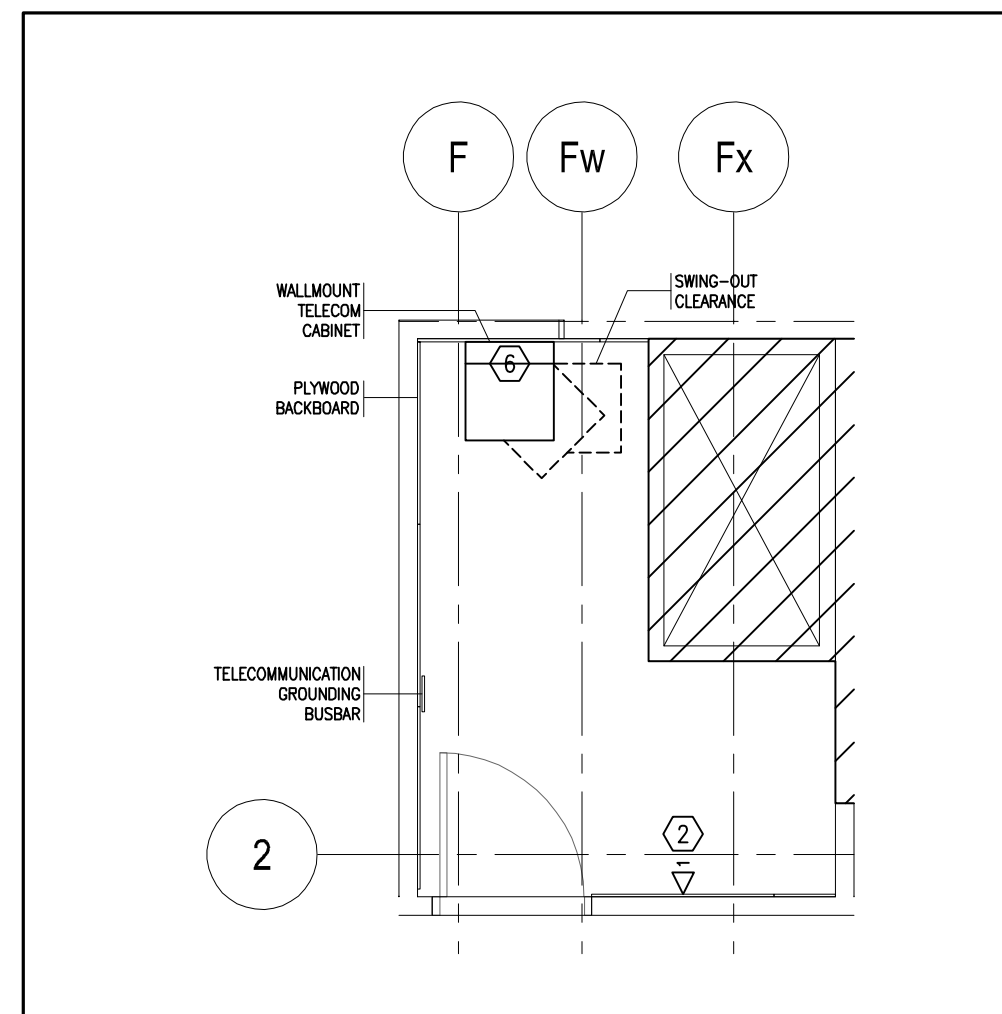
Project number
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Drawing Title
TELECOMMUNICATIONS PLAN - 2ND FLOOR

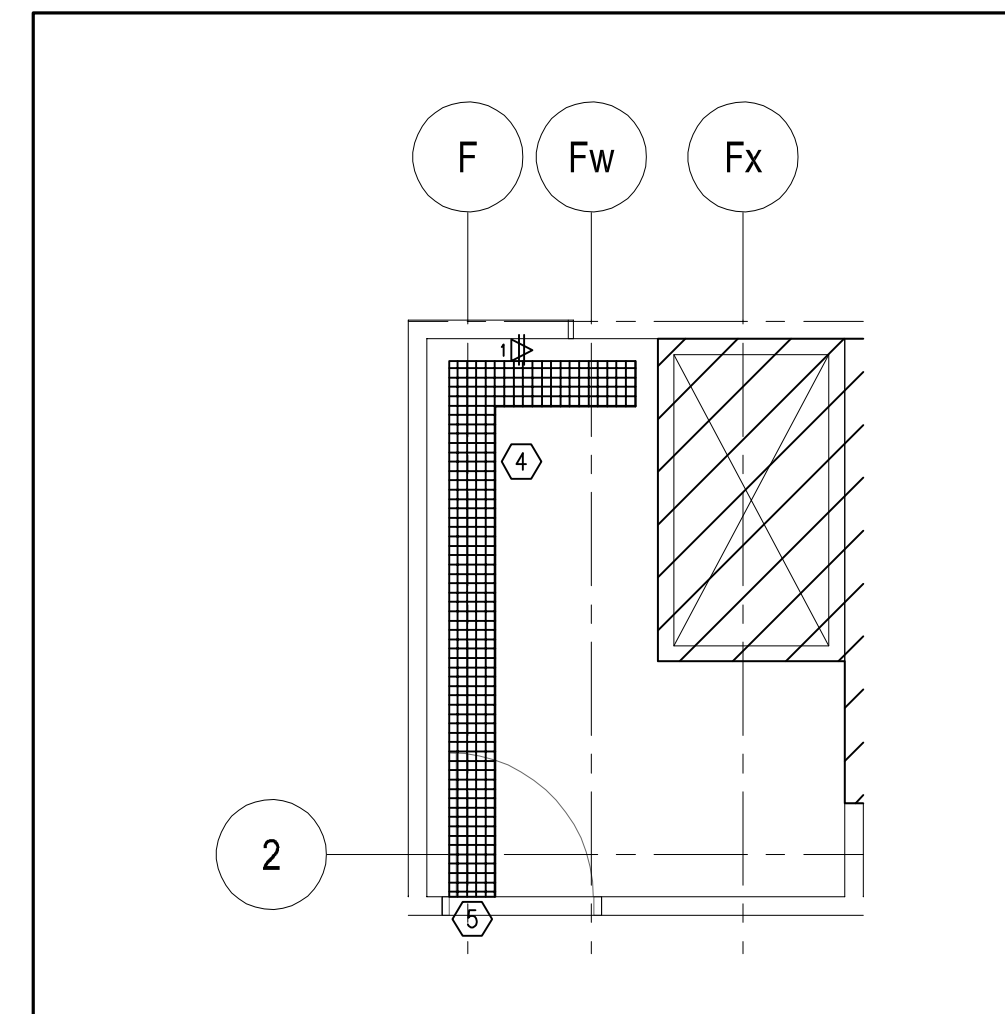
Drawing Scale **1:100**

Drawing Number
T3.0

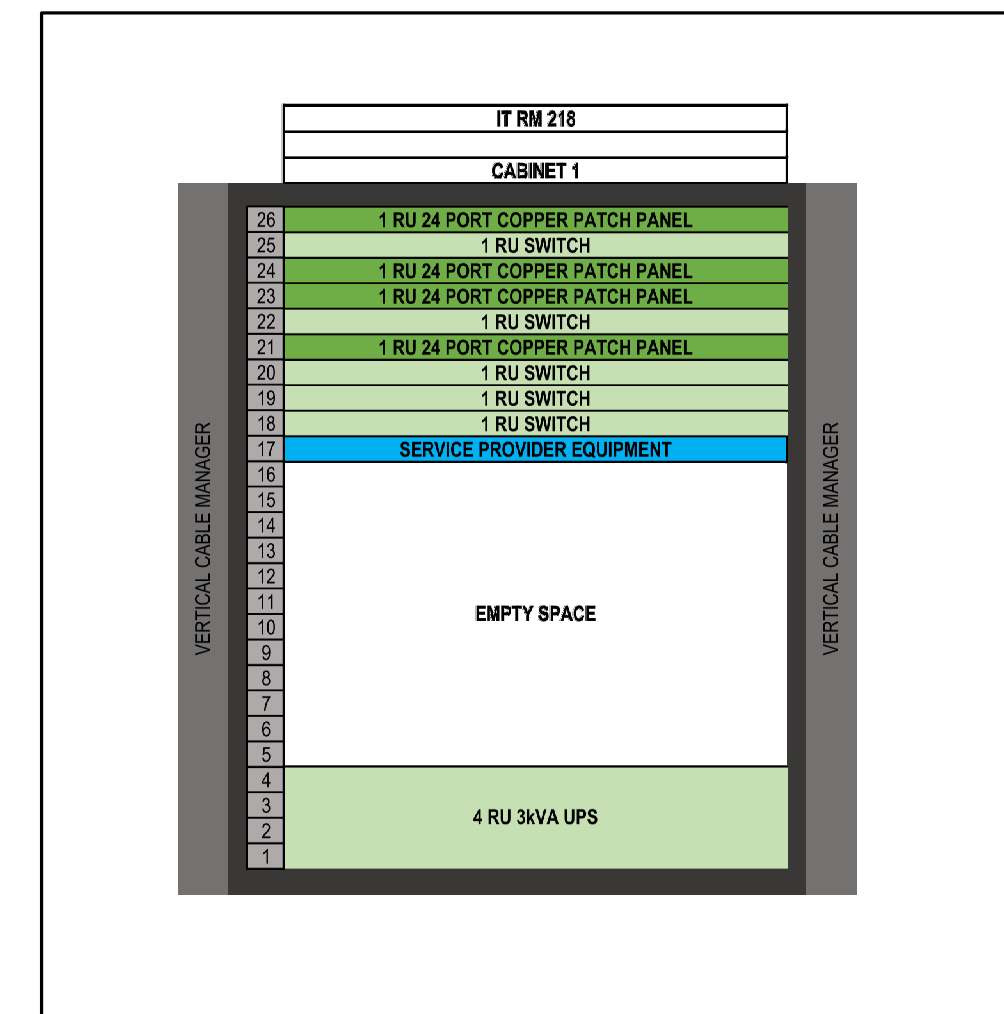
True North



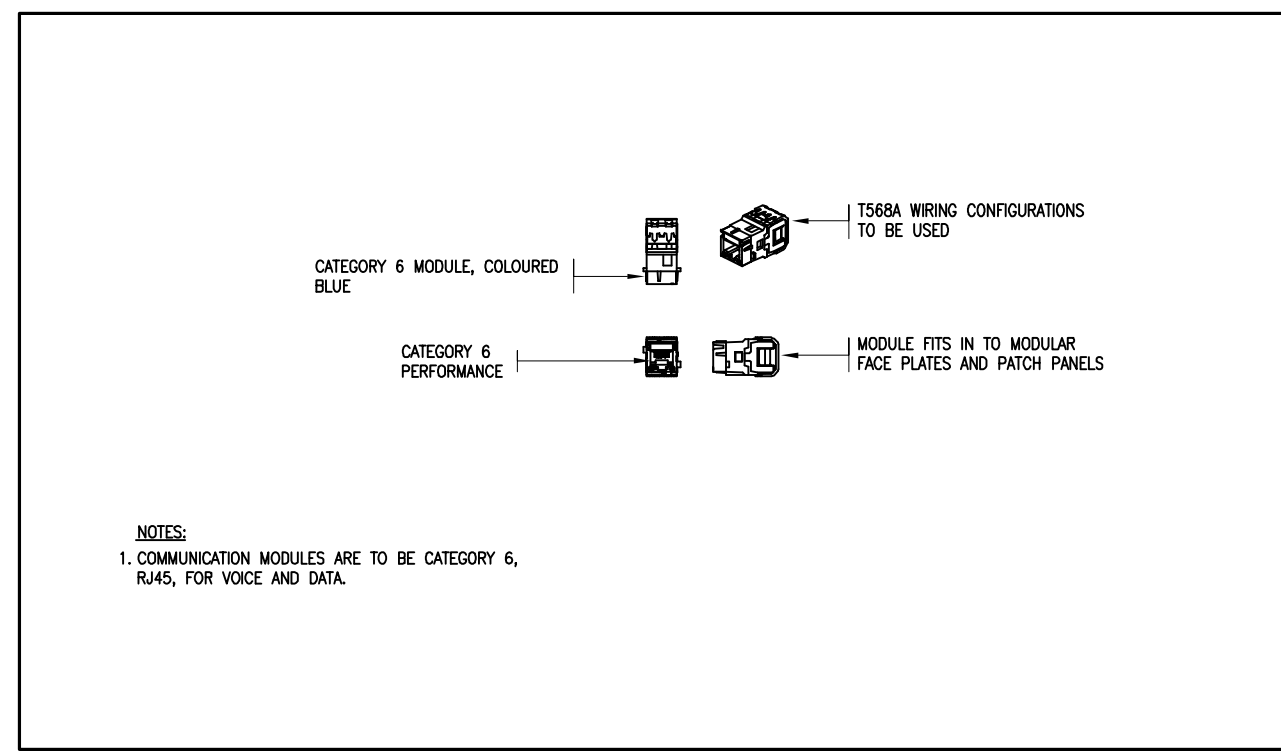
1 2ND FLOOR TELECOMMUNICATIONS ROOM FLOOR PLAN
 T3.0 SYMBOL: 1:50mm



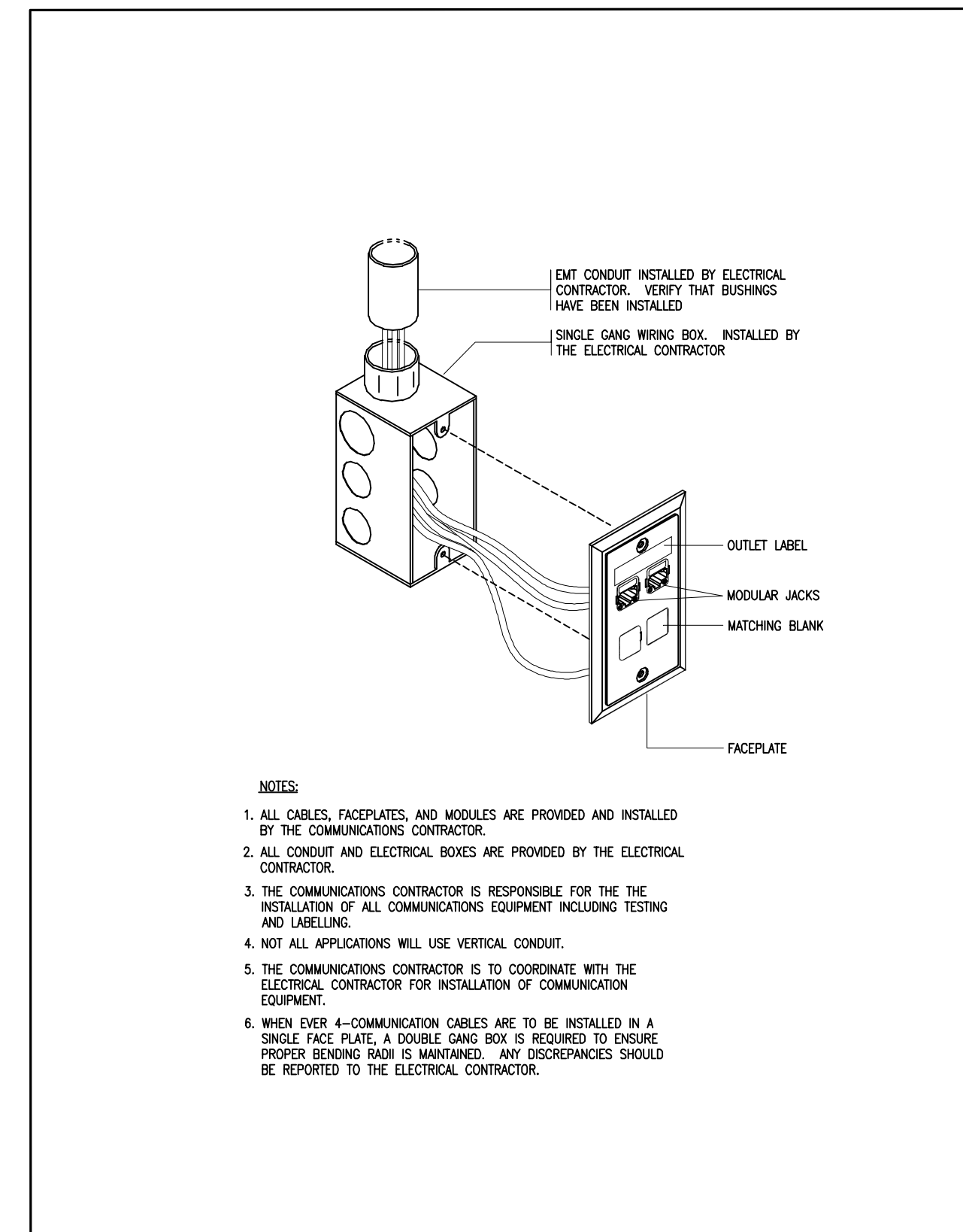
2 2ND FLOOR TELECOMMUNICATIONS ROOM REFLECTED CEILING PLAN
 T3.0 SYMBOL: 1:50mm



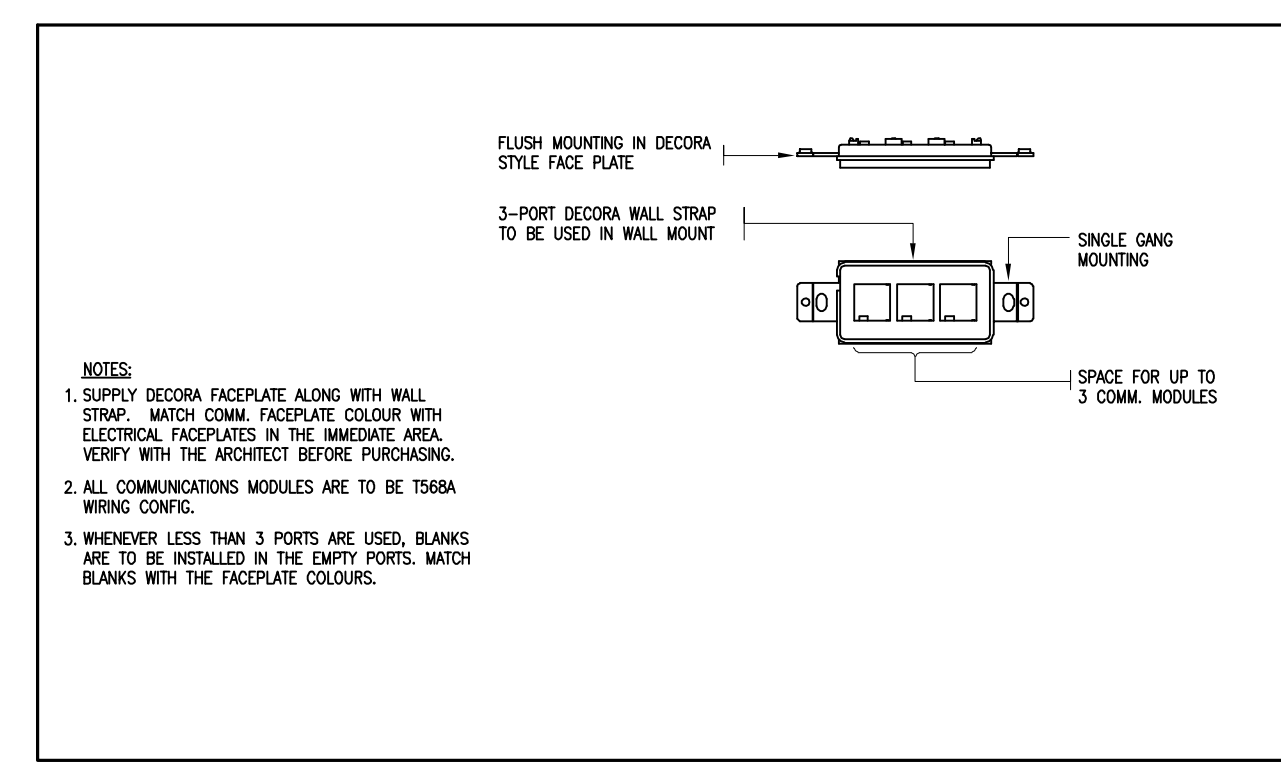
3 WALLMOUNT CABINET ELEVATION
 T3.0 SYMBOL: N.T.S



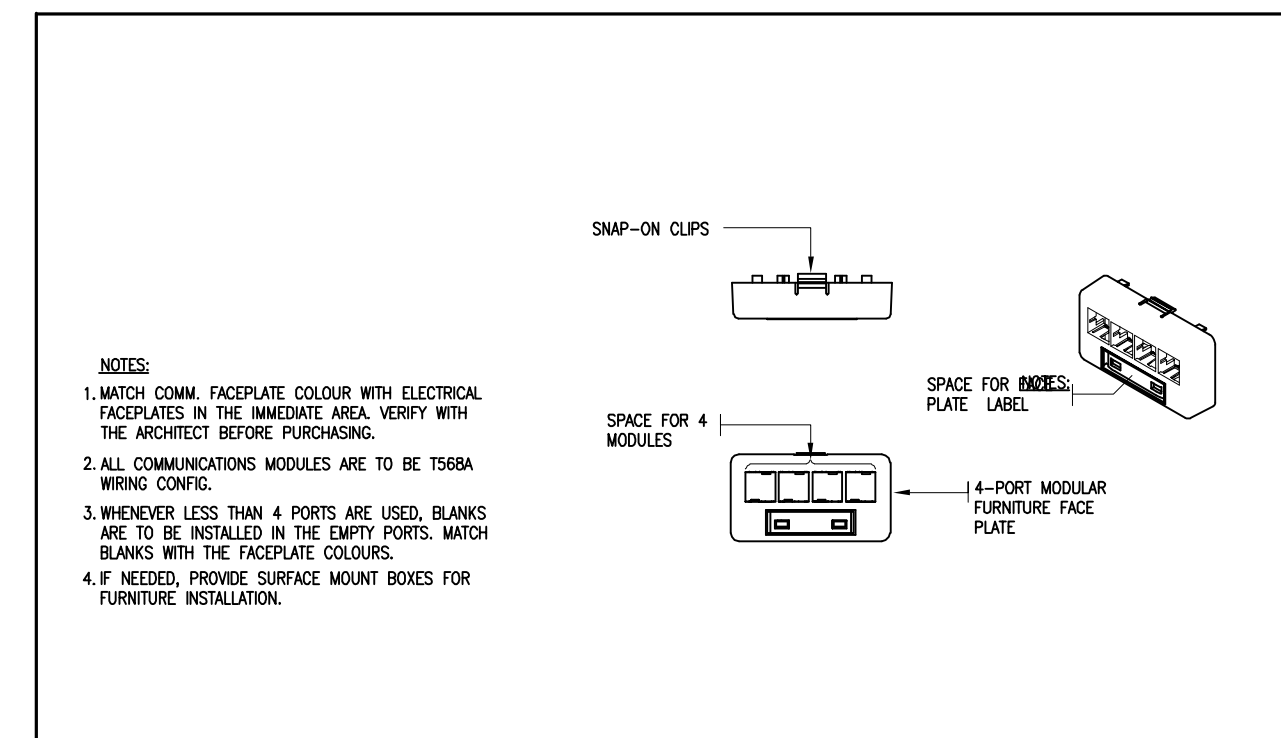
4 CATEGORY 6 MODULAR JACK
T4.1 N.T.S.



1 WALL MOUNTED COMMUNICATIONS OUTLET – TYPICAL
T4.1 N.T.S.



2 3 PORT DECORA OUTLETS FOR COMM. OUTLETS
T4.1 N.T.S.



3 MODULAR FURNITURE OUTLET BOX
T4.1 N.T.S.

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Drawing Title: **TELECOMMUNICATIONS
DETAILS
1 OF 2**
Drawing Scale: **NO SCALE**
Drawing Number:

T4.0

