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1 ISSUED FOR TENDER June 12, 2018 description date RÉVISION

**BUILDING A** 

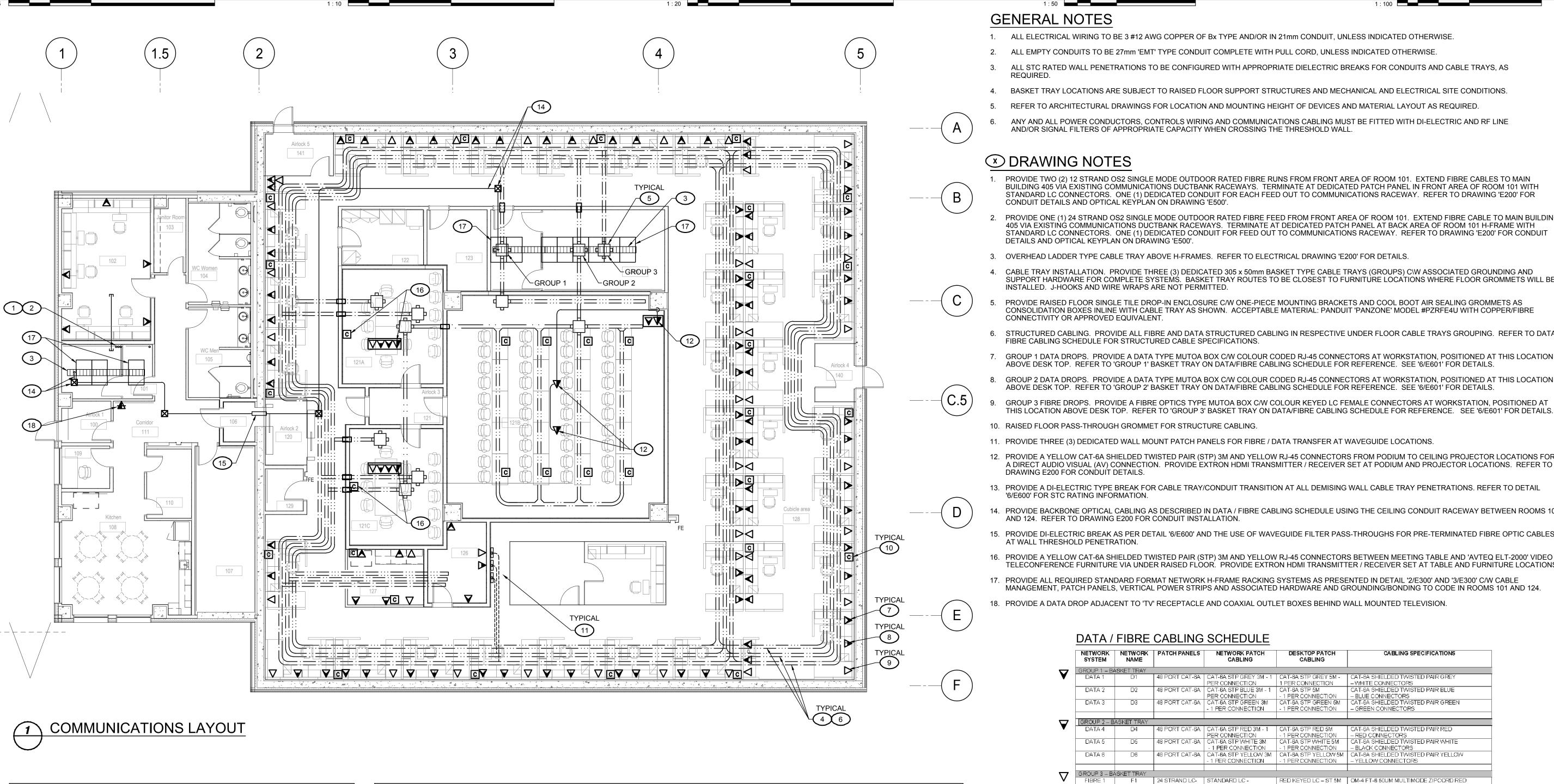
**PROJECT** 

GROUND FLOOR PLAN **POWER AND** FIRE ALARM SYSTEM

conception no. dossier project no A000566B CAD file drawn fichier DAO Y. Farmer approved dossier client 7207528 AS NOTED February 2, 2018 sheet number

E200

THIS DRAWING IS NOT TO SCALE IF THIS RULER DOES NOT MEASURE



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D4 - D6 RACKS (GROUP 2)

6x CABLE TRAY/SPACERS

6x 2U PATCH PANELS

0 50 100

D1 - D3 RACKS

2 TYPICAL NETWORK RACK DETAIL - ROOM 101

2x 2U PATCH PANELS

NOT TO SCALE

4x FIBRE PATCH PANELS

4x CABLE TRAY/SPACERS

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2x 2U PATCH PANELS

2x FIBRE PATCH PANELS

1x CABLE TRAY/SPACER

## **GENERAL NOTES**

- 1. ALL ELECTRICAL WIRING TO BE 3 #12 AWG COPPER OF Bx TYPE AND/OR IN 21mm CONDUIT, UNLESS INDICATED OTHERWISE.
- 2. ALL EMPTY CONDUITS TO BE 27mm 'EMT' TYPE CONDUIT COMPLETE WITH PULL CORD, UNLESS INDICATED OTHERWISE
- ALL STC RATED WALL PENETRATIONS TO BE CONFIGURED WITH APPROPRIATE DIELECTRIC BREAKS FOR CONDUITS AND CABLE TRAYS, AS
- 4. BASKET TRAY LOCATIONS ARE SUBJECT TO RAISED FLOOR SUPPORT STRUCTURES AND MECHANICAL AND ELECTRICAL SITE CONDITIONS.
- REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION AND MOUNTING HEIGHT OF DEVICES AND MATERIAL LAYOUT AS REQUIRED.
- ANY AND ALL POWER CONDUCTORS, CONTROLS WIRING AND COMMUNICATIONS CABLING MUST BE FITTED WITH DI-ELECTRIC AND RF LINE AND/OR SIGNAL FILTERS OF APPROPRIATE CAPACITY WHEN CROSSING THE THRESHOLD WALL.

## **X** DRAWING NOTES

- PROVIDE TWO (2) 12 STRAND OS2 SINGLE MODE OUTDOOR RATED FIBRE RUNS FROM FRONT AREA OF ROOM 101. EXTEND FIBRE CABLES TO MAIN BUILDING 405 VIA EXISTING COMMUNICATIONS DUCTBANK RACEWAYS. TERMINATE AT DEDICATED PATCH PANEL IN FRONT AREA OF ROOM 101 WITH STANDARD LC CONNECTORS. ONE (1) DEDICATED CONDUIT FOR EACH FEED OUT TO COMMUNICATIONS RACEWAY. REFER TO DRAWING 'E200' FOR CONDUIT DETAILS AND OPTICAL KEYPLAN ON DRAWING 'E500'.
- PROVIDE ONE (1) 24 STRAND OS2 SINGLE MODE OUTDOOR RATED FIBRE FEED FROM FRONT AREA OF ROOM 101. EXTEND FIBRE CABLE TO MAIN BUILDING 405 VIA EXISTING COMMUNICATIONS DUCTBANK RACEWAYS. TERMINATE AT DEDICATED PATCH PANEL AT BACK AREA OF ROOM 101 H-FRAME WITH STANDARD LC CONNECTORS. ONE (1) DEDICATED CONDUIT FOR FEED OUT TO COMMUNICATIONS RACEWAY. REFER TO DRAWING 'E200' FOR CONDUIT DETAILS AND OPTICAL KEYPLAN ON DRAWING 'E500'.
- 3. OVERHEAD LADDER TYPE CABLE TRAY ABOVE H-FRAMES. REFER TO ELECTRICAL DRAWING 'E200' FOR DETAILS.
- 4. CABLE TRAY INSTALLATION. PROVIDE THREE (3) DEDICATED 305 x 50mm BASKET TYPE CABLE TRAYS (GROUPS) C\W ASSOCIATED GROUNDING AND SUPPORT HARDWARE FOR COMPLETE SYSTEMS. BASKET TRAY ROUTES TO BE CLOSEST TO FURNITURE LOCATIONS WHERE FLOOR GROMMETS WILL BE INSTALLED. J-HOOKS AND WIRE WRAPS ARE NOT PERMITTED.
- PROVIDE RAISED FLOOR SINGLE TILE DROP-IN ENCLOSURE C/W ONE-PIECE MOUNTING BRACKETS AND COOL BOOT AIR SEALING GROMMETS AS CONSOLIDATION BOXES INLINE WITH CABLE TRAY AS SHOWN. ACCEPTABLE MATERIAL: PANDUIT 'PANZONE' MODEL #PZRFE4U WITH COPPER/FIBRE
- 6. STRUCTURED CABLING. PROVIDE ALL FIBRE AND DATA STRUCTURED CABLING IN RESPECTIVE UNDER FLOOR CABLE TRAYS GROUPING. REFER TO DATA / FIBRE CABLING SCHEDULE FOR STRUCTURED CABLE SPECIFICATIONS.
- 7. GROUP 1 DATA DROPS. PROVIDE A DATA TYPE MUTOA BOX C/W COLOUR CODED RJ-45 CONNECTORS AT WORKSTATION, POSITIONED AT THIS LOCATION ABOVE DESK TOP. REFER TO 'GROUP 1' BASKET TRAY ON DATA/FIBRE CABLING SCHEDULE FOR REFERENCE. SEE '6/E601' FOR DETAILS.
- 8. GROUP 2 DATA DROPS. PROVIDE A DATA TYPE MUTOA BOX C/W COLOUR CODED RJ-45 CONNECTORS AT WORKSTATION, POSITIONED AT THIS LOCATION ABOVE DESK TOP. REFER TO 'GROUP 2' BASKET TRAY ON DATA/FIBRE CABLING SCHEDULE FOR REFERENCE. SEE '6/E601' FOR DETAILS.
- GROUP 3 FIBRE DROPS. PROVIDE A FIBRE OPTICS TYPE MUTOA BOX C/W COLOUR KEYED LC FEMALE CONNECTORS AT WORKSTATION, POSITIONED AT
- 10. RAISED FLOOR PASS-THROUGH GROMMET FOR STRUCTURE CABLING.
- 11. PROVIDE THREE (3) DEDICATED WALL MOUNT PATCH PANELS FOR FIBRE / DATA TRANSFER AT WAVEGUIDE LOCATIONS.
- 12. PROVIDE A YELLOW CAT-6A SHIELDED TWISTED PAIR (STP) 3M AND YELLOW RJ-45 CONNECTORS FROM PODIUM TO CEILING PROJECTOR LOCATIONS FOR A DIRECT AUDIO VISUAL (AV) CONNECTION. PROVIDE EXTRON HDMI TRANSMITTER / RECEIVER SET AT PODIUM AND PROJECTOR LOCATIONS. REFER TO DRAWING E200 FOR CONDUIT DETAILS.
- 13. PROVIDE A DI-ELECTRIC TYPE BREAK FOR CABLE TRAY/CONDUIT TRANSITION AT ALL DEMISING WALL CABLE TRAY PENETRATIONS. REFER TO DETAIL
- 14. PROVIDE BACKBONE OPTICAL CABLING AS DESCRIBED IN DATA / FIBRE CABLING SCHEDULE USING THE CEILING CONDUIT RACEWAY BETWEEN ROOMS 101 AND 124. REFER TO DRAWING E200 FOR CONDUIT INSTALLATION.
- 15. PROVIDE DI-ELECTRIC BREAK AS PER DETAIL '6/E600' AND THE USE OF WAVEGUIDE FILTER PASS-THROUGHS FOR PRE-TERMINATED FIBRE OPTIC CABLES AT WALL THRESHOLD PENETRATION.
- 16. PROVIDE A YELLOW CAT-6A SHIELDED TWISTED PAIR (STP) 3M AND YELLOW RJ-45 CONNECTORS BETWEEN MEETING TABLE AND 'AVTEQ ELT-2000' VIDEO TELECONFERENCE FURNITURE VIA UNDER RAISED FLOOR. PROVIDE EXTRON HDMI TRANSMITTER / RECEIVER SET AT TABLE AND FURNITURE LOCATIONS.
- 17. PROVIDE ALL REQUIRED STANDARD FORMAT NETWORK H-FRAME RACKING SYSTEMS AS PRESENTED IN DETAIL '2/E300' AND '3/E300' C/W CABLE MANAGEMENT, PATCH PANELS, VERTICAL POWER STRIPS AND ASSOCIATED HARDWARE AND GROUNDING/BONDING TO CODE IN ROOMS 101 AND 124.
- 18. PROVIDE A DATA DROP ADJACENT TO 'TV' RECEPTACLE AND COAXIAL OUTLET BOXES BEHIND WALL MOUNTED TELEVISION.

## DATA / FIBRE CABLING SCHEDULE

PANEL, NON-ARMOURED SHEATH )

NETWORK SYSTEM	NETWORK NAME	PATCH PANELS	NETWORK PATCH CABLING	DESKTOP PATCH CABLING	CABLING SPECIFICATIONS
	BASKET TRAY				
DATA 1	D1	48 PORT CAT-8A	CAT-6A STP GREY 3M - 1	CAT-6A STP GREY 5M -	CAT-6A SHIELDED TWISTED PAIR GREY
DATA 2	D2	48 PORT CAT-6A	PER CONNECTION  CAT-6A STP BLUE 3M - 1  PER CONNECTION	CAT-6A STP 5M - 1 PER CONNECTION	- WHITE CONNECTORS  CAT-6A SHIELDED TWISTED PAIR BLUE  - BLUE CONNECTORS
DATA 3	D3	48 PORT CAT-6A	CAT-6A STP GREEN 3M - 1 PER CONNECTION	CAT-6A STP GREEN 5M - 1 PER CONNECTION	CAT-6A SHIELDED TWISTED PAIR GREEN  - GREEN CONNECTORS
I CD CUD 3	DACKET TOAK				
DATA 4	BASKET TRAY D4	48 PORT CAT-6A	CAT-6A STP RED 3M - 1	CAT-6A STP RED 5M	CAT-6A SHIELDED TWISTED PAIR RED
DAIN I		101 OKT OKT OK	PER CONNECTION	- 1 PER CONNECTION	- RED CONNECTORS
DATA 5	D5	48 PORT CAT-6A	- 1 PER CONNECTION	CAT-6A STP WHITE 5M - 1 PER CONNECTION	CAT-6A SHIELDED TWISTED PAIR WHITE  - BLACK CONNECTORS
DATA 8	D6	48 PORT CAT-6A	CAT-BA STP YELLOW 3M - 1 PER CONNECTION	CAT-6A STP YELLOW 5M - 1 PER CONNECTION	CAT-8A SHIELDED TWISTED PAIR YELLOW - YELLOW CONNECTORS
GROUP 3 =	_   BASKET TRAY				
FIBRE 1	F1	24 STRAND LC-	STANDARD LC -	RED KEYED LC - ST 5M	OM-4 FT-6 50UM MULTIMODE ZIPCORD RED
		LC OM4 MM	STANDARD LC RED JACKET - 3M - 1 PER CONNECTION	- 1 PER CONNECTION	JACKET - TERMINATE WITH STANDARD LC FEMALE CONNECTORS AT RACK UNIT PATCH PANEL AND BELDEN RED KEYED LC FEMALE CONNECTORS DESKTOP
FIBRE 2	F2	24 STRAND LC- LC OM4 MM	STANDARD LC - STANDARD LC BLUE JACKET - 3M - 1 PER CONNECTION	BLUE KEYED LC - ST 5M - 1 PER CONNECTION	OM-4 FT-6 50UM MULTIMODE ZIPCORD BLUE JACKET - TERMINATE WITH STANDARD LC FEMALE CONNECTORS AT RACK UNIT PATCH PANEL AND BELDEN BLUE KEYED LC FEMALE CONNECTORS DESKTOP
FIBRE 3	F3	24 STRAND LC- LC OM4 MM	STANDARD LC - STANDARD LC BLACK JACKET - 3M - 1 PER CONNECTION	BLACK KEYED LC - ST 5M - 1 PER CONNECTION	OM-4 FT-6 50UM MULTIMODE ZIPCORD BLACK JACKET - TERMINATE WITH STANDARD LC FEMALE CONNECTORS AT RACK UNIT PATCH PANEL AND BELDEN BLACK KEYED LC FEMALE CONNECTORS DESKTOP
FIBRE 4	F4	24 STRAND LC- LC OM4 MM	STANDARD LC - STANDARD LC GREEN JACKET - 3M - 1 PER CONNECTION	GREEN KEYED LC- ST 5M - 1 PER CONNECTION	OM-4 FT-6 50UM MULTIMODE ZIPCORD GREEN JACKET - TERMINATE WITH STANDARD LC FEMALE CONNECTORS AT RACK UNIT PATCH PANEL AND BELDEN GREEN KEYED LC FEMALE CONNECTORS DESKTOP
FIBRE 5	F5	24 STRAND LC- LC OM4 MM	STANDARD LC - STANDARD LC ROSE JACKET - 3M - 1 PER CONNECTION	ROSE KEYED LC- ST 5M - 1 PER CONNECTION	OM-4 FT-6 50UM MULTIMODE ZIPCORD ROSE JACKET - TERMINATE WITH STANDARD LC FEMALE CONNECTORS AT RACK UNIT PATCH PANEL AND BELDEN ROSE KEYED LC FEMALE CONNECTORS DESKTOP
FIBRE 6	F6	24 STRAND LC-	STANDARD LC -	ORANGE KEYED LC: ST	OM-4 FT-6 50UM MULTIMODE ZIPCORD ORANGE
		LC OM4 MM	STANDARD LC ORANGE JACKET - 3M - 1 PER CONNECTION	5M - 1 PER CONNECTION	JACKET - TERMINATE WITH STANDARD LC FEMALE CONNECTORS AT RACK UNIT PATCH PANEL AND BELDEN ORANGE KEYED LC FEMALE CONNECTORS DESKTOP
BACKBONE	OPTICAL CABLII	NG			
FIBRE 0	FO	24 STRAND LC- LC OM4 MM	STANDARD LC - STANDARD LC 3M - 2 PER CONNECTION	STANDARD LC - STANDARD LC 3M - 2 PER CONNECTION	24 STRAND OM4-FT6 50/125UM VIOLET MULTIMODI ZIPCORD ( NON-ARMOURED SHEATH ) TERMINATE WITH STANDARD LC CONNECTORS AT BOTH PATCH PANELS FIBRE CEILING CONDUIT PATHWAY - FROM ROOM 101 TO ROOM 124 RACK 1 - F0 / D1
SINGLE 1	S1	24 STRAND LC- LC OS2 SM	STANDARD LC - STANDARD LC N/A	STANDARD LC - STANDARD LC N/A	OM4 OS2 OM4 OUTDOOR RATED FIBRE BACKBONE CABLING - 24 STRAND LC-LC (BUILDING 405 - ROOM 1310 TO ROOM 101 TOP PATCH PANEL)
SINGLE 1R	SIR	24 STRAND LC- LC OS2 SM	STANDARD LC - STANDARD LC	N/A	OM4 OS2 OM4 OUTDOOR RATED FIBRE BACKBONI CABLING - 24 STRAND LC-LC (TPOF REDUNDANT FIBRE FEED - SERVICE PROVISIONING LOCATION TBD TO ROOM 101 PATCH PANEL)
SINGLE 2	S2	24 STRAND LC- LC OS2 SM	STANDARD LC - STANDARD LC	N/A	OM4 OS2 OM4 OUTDOOR RATED FIBRE BACKBONE CABLING – 24 STRAND LC-LC ( ETR BELL PANEL FROM BUILDING 405 )
SINGLE 2A	S2A	12 STRAND LC- LC OS2 SM	STANDARD LC - STANDARD LC	N/A	OM4 OS2 OM4 INDOOR RATED FIBRE CABLING - 1 STRAND LC-LC ( 101 PATCH PANEL TO 124 PATCH PANEL, NON-ARMOURED SHEATH )
SINGLE 3	SA3	24 STRAND LC- LC OS2SM	STANDARD LC - STANDARD LC	N/A	OM4 OS2 OM4 OUTDOOR RATED FIBRE BACKBONI CABLING - 24 STRAND LC-LC (ETR ROGERS PANE FROM BUILDING 405)
SINGLE 3A	S3A	12 STRAND LC- LC OS2 SM	STANDARD LC - STANDARD LC	N/A	OM4 OS2 OM4 INDOOR RATED FIBRE CABLING - 1 STRAND LC-LC ( 101 PATCH PANEL TO 124 PATCH PANEL NON-ARMOURED SHEATH )



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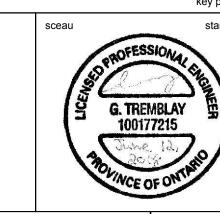
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1 ISSUED FOR TENDER June 12, 2018 description date RÉVISION

**BUILDING A** 

**PROJECT** 

## GROUND FLOOR COMMUNICATIONS LAYOUT

conception	conception	no. dossier	project no.				
S. Lavoie		A000566B					
dessiné	drawn	fichier DAO	CAD file				
Y. Farmer		A000566B-	E300				
approuvé	approved	dossier client	client file				
S. Lavoie		7207528					
échelle	scale	imprimé	plot date				
1 : 100		February 2, 2018					
no. page		sheet number	rev				
E300							

 PROVIDE TWO (2) VERTICAL POWER STRIPS PER H-FRAME RACK. TYPICAL FOR BOTH ROOMS. TYPICAL NETWORK RACK DETAIL - ROOM 124 NOT TO SCALE

- CONNECT RACK UNITS TO DEDICATED UNDER RAISED FLOOR RACEWAYS FOR STRUCTURED CABLE DISTRIBUTION.

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F3 – F6 Rack

000000 000000

F2 Rack

F1 - F6 RACKS (GROUP 3)

11x FIBRE PATCH PANELS

6x CABLE TRAY/SPACERS

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F1 Rack

CE DESSIN N'EST PAS À L'ÉCHELLE SI LES MARQUEURS NE SONT PAS ALIGNÉS AVEC LA RÈGLE THIS DRAWING IS NOT TO SCALE IF THIS RULER DOES NOT MEASURE

S3A III SE III SE

D1 - D3 RACKS (GROUP 1)

4x FIBRE PATCH PANELS

4x CABLE TRAY/SPACERS

6x PATCH PANELS

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