






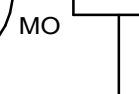

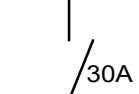


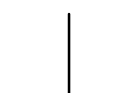
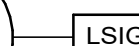
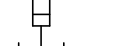


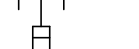





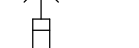
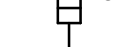
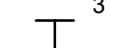
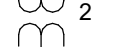



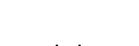



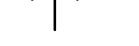
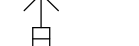

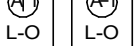
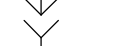

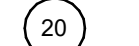
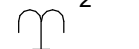


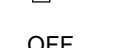


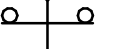


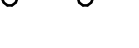


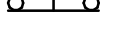


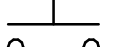

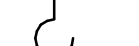

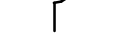
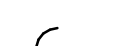
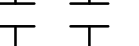


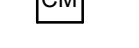







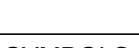











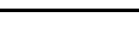



SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION		ABBREVIATIONS		ABBREVIATIONS
	SINGLE LINE		DRAWOUT LOW VOLTAGE CIRCUIT BREAKER		METERING AND PROTECTION DEVICES	AFF	ABOVE FINISHED FLOOR	MCC	MOTOR CONTROL CENTRE
	POWER TRANSFORMER		LOW VOLTAGE CIRCUIT BREAKER WITH SOLID STATE TRIP UNIT		CONTROL TRANSFORMER	BIX	BIX TYPE PUNCH DOWN IDC TERMINATION	MCOV	MAXIMUM CIRCUIT OPERATING VOLTAGE
	TRANSFORMER		AF - BREAKER FRAME UNIT AT - TRIP RATING MO - MANUALLY OPERATED EO - ELECTRICALLY OPERATED L - LONG TIME TRIP FUNCTION S - SHORT TIME TRIP FUNCTION I - INSTANTANEOUS A - GROUND FAULT ALARM G - GROUND FAULT TRIP FUNCTION		CURRENT TRANSFORMER, NUMBERS DENOTE QUANTITY AND RATIO	BLDG	BUILDING	MECH	MECHANICAL
	LOW VOLTAGE DISCONNECT SWITCH (NUMBER DENOTES AMPERE RATING)		600AF		ZERO SEQUENCE CURRENT TRANSFORMER	BLR	BOILER	mm	MILLIMETER
	LOW VOLTAGE FUSED DISCONNECT SWITCH (NUMBER DENOTES AMPERE RATING)		LSIG		FIXED FUSE AND FIXED POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	BOT	BOTTOM OF TRAY	mmC	TRADE SIZE CONDUIT IN MILLIMETERS
	FUSE (NUMBER DENOTES AMPERE RATING)		MO		WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	BR	BRIDGE	MO	MANUALLY OPERATED
	CIRCUIT BREAKER		3		WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	CC	CONCENTRATOR COMPLEX	MW	MICROWAVE
	NORMALLY OPEN CONTACTS		GENERATOR		WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	CD	CANDELA	MTD	MOUNTED
	NORMALLY CLOSED CONTACTS		POWER FACTOR CORRECTION CAPACITOR		WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	CP	CONTROL PANEL	NC	NORMALLY CLOSED
	RELAY COIL		KEY INTERLOCKS		WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	CTL	CONTROL	NGR	NEUTRAL GROUNDING RESISTOR
	DRAWOUT OR PLUG-IN CONNECTION		MOTOR - NUMBER DENOTES SIZE (HP)		WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	CW	COMPLETE WITH	NIC	NOT IN CONTRACT
	MEDIUM VOLTAGE LOAD INTERRUPTER SWITCH - NUMBER DENOTES SWITCH RATING		NEON LIGHT VOLTAGE INDICATOR		WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	CAT6	CATEGORY 6 CABLE	NO	NORMALLY OPEN
	GROUND CONNECTION		MANUAL MOTOR STARTER		WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	COMMS	COMMUNICATIONS	O/H	OVER HEAD
	LIGHTNING ARRESTER OR SURGE DIVERTER NUMBER DENOTES QUANTITY		MAGNETIC MOTOR STARTER		WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	CP	CONTROL PANEL	OC	ON CENTRE
	STRESS CONE		TWO-SPEED MAGNETIC MOTOR STARTER		WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	DISC	DISCONNECT	OESC	ONTARIO ELECTRICAL SAFETY CODE
	DELTA/WYE TRANSFORMER CONNECTION WITH WYE POINT RESISTANCE GROUNDED		SURGE SUPPRESSOR		WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	DIV	DIVISION	OVP	OVER VOLTAGE PROTECTION
	DELTA/WYE TRANSFORMER CONNECTION WITH WYE POINT GROUNDED		SELECTOR SWITCH - HAND-OFF-AUTO		WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	DSP	GROUND FAULT PROTECTION SYSTEM	PLATF	PLATFORM
	WYE/WYE TRANSFORMER CONNECTION		STOP		WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	DSP-CA	CABLE ADAPTER MODULE	PPT	PATCH PANEL TERMINATION
	DELTA/DELTA TRANSFORMER CONNECTION		START		WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	DSP-CAS	CABLE ADAPTER MODULE	R	REMOVE
	AUTOMATIC TRANSFER SWITCH		PILOT LIGHT		WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	DSP-DFM	DSP FEEDER MODULE	RCT	RECEPTACLE
			OVERLOAD		WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	E	EXISTING TO REMAIN	RJ	U/UTP RJ45 CONNECTION
			DIGITAL CIRCUIT MONITOR		WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	EL	ELEVATION	RM	ROOM
			VARIABLE FREQUENCY DRIVE		WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	ELEV	ELEVATOR	RR	REMOVE AND RELOCATE
					WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	EMS	ENERGY MANAGEMENT SYSTEM	SC	SHORT CIRCUIT
					WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	EO	ELECTRICALLY OPERATED BREAKER	SLD	SINGLE LINE DIAGRAM
					WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	ETSP	ELECTRONIC TRAP SEAL PRIMER	SP	SPARE
					WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	EX	EXISTING	SRP	SUPPRESSION RELEASE PERIPHERAL
					WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	FB#1	FEEDER CIRCUIT BREAKER (#1 DENOTES NUMBER)	ST	SHUNT TRIP
					WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	FEPO	FIREMAN EMERGENCY POWER OFF	STN	STATION
					WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	GFR	GROUND FAULT RELAY	STP	SHIELDED TWISTED PAIR CABLE
					WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	GND	GROUND	STS	STATIC TRANSFER SWITCH
					WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	HT	HEAT TRACING	SW	SWITCH
					WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	HTR	HEATER	SWBD	SWITCH BOARD
					WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	HOA	HAND-OFF-AUTO	SWGR	SWITCH GEAR
					WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	HVAC	HEATING - VENTILATION AND AIR CONDITIONING	TB	TIE CIRCUIT BREAKER
					WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	IAM	INDIVIDUAL ADDRESSABLE MODULE	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
					WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	LAV	LAVATORY	TYP	TYPICAL
					WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	LCD	LIQUID CRYSTAL DISPLAY	U/G	UNDER GROUND
					WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	LED	LIGHT EMITTING DIODE	UON	UNLESS OTHERWISE NOTED
					WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	LSIA	LONG TIME TRIP; SHORT TIME TRIP; INSTANTANEOUS TRIP; GROUND FAULT ALARM	VFD	VARIABLE FREQUENCY DRIVE
					WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	LSIG	LONG TIME TRIP; SHORT TIME TRIP; INSTANTANEOUS TRIP; GROUND FAULT TRIP	WP	WEATHER PROOF
					WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	LVL	LEVEL	XP	EXPLOSION PROOF
					WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	LVR	LAYOVER	*	REFER TO A-002 FOR ABBREVIATIONS NOT INCLUDED IN THIS LIST
					WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	MB	MAIN CIRCUIT BREAKER		
					WITHDRAWABLE FUSE AND WITHDRAWABLE POTENTIAL TRANSFORMER (PT) NUMBER DENOTES QUANTITY	MBPS	UPS - MAINTENANCE BY-PASS SWITCH - EXTERNAL		
SYMBOLS AND LEGEND AS APPLICABLE		SYMBOLS AND LEGEND AS APPLICABLE		SYMBOLS AND LEGEND AS APPLICABLE		SYMBOLS AND LEGEND AS APPLICABLE		SYMBOLS AND LEGEND AS APPLICABLE	

CLIENT

CITY OF TORONTO

Corporate Real Estate Management
Project Management Office
Metro Hall Toronto, ON
MSV 3C6

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ISSUES

No.	DESCRIPTION	DATE
A	50% SUBMISSION	2021-09-23
B	90% SUBMISSION	2022-01-04
C	ISSUED FOR PERMIT	2022-01-04
D	ISSUED FOR TENDER	2022-11-01

CONSULTANTS

SEAL

PRIME CONSULTANT

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PROJECT TITLE

CITY OF TORONTO
ACCESSIBILITY UPGRADES

PROJECT ADDRESS

PROJECT NO:
9119- 19- 0162 / IBI 122260

DRAWN BY:
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CHECKED BY:
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PROJECT MGR:
F. BOLOURIAN

APPROVED BY:
P. WILLIAMS

SHEET TITLE
ELECTRICAL LEGEND 2

SHEET NUMBER
G28-GAL-G4002

ISSUE
D

MOUNTING HEIGHTS SCHEDULE	
MOUNTING HEIGHTS TO TOP OF DEVICE.	
ALL DIMENSIONS ARE ABOVE FINISHED FLOOR (AFF) UNLESS NOTED OTHERWISE.	
LIGHT SWITCH	1050mm
RECEPTACLE - FINISHED AREAS	460mm
RECEPTACLE - UNFINISHED AREAS	1050mm
RECEPTACLE - ABOVE COUNTER	300mm
DATA OUTLET - FINISHED AREA	460mm
DATA OUTLET - UNFINISHED AREA	1050mm
FIRE ALARM MANUAL PULL STATION	1200mm
FIRE ALARM HORN/STROBE	2460mm
FIRE ALARM STROBE	2460mm
FIRE ALARM END OF LINE DEVICE	1500mm
FIRE ALARM HEAT DETECTOR	CEILING
FIRE ALARM SMOKE DETECTOR	CEILING
FIRE ALARM REMOTE ANNUNCIATOR	2000mm
PANEL	2000mm
CONTROL PANEL	2000mm
MOTOR STARTER	1800mm
DISCONNECT SWITCH	1800mm
PUSH BUTTON STATION	1050mm
DOOR ACCESS CONTROL CARD READER	1050mm
VIDEO INTERCOM	AS PER MANUF. INSTRUCTION
DOOR BY-PASS KEYED SWITCH	1050mm
BATTERY OPERATED EMERGENCY LIGHT	2700mm
EMERGENCY LIGHT BATTERY UNIT	2700mm
THERMOSTAT	1200mm
MOUNTING HEIGHTS AS APPLICABLE	

1. PROVIDE 1-#6 GND WIRE FOR ALL UNDERGROUND EMPTY CONDUITS AND COMMUNICATIONS CONDUITS WITHOUT METAL WIRING/CABLES TO FACILITATE FUTURE DETECTION.
2. NO SPLICES ARE ALLOWED FOR COMMUNICATION CABLES.
3. NO SPLICES ARE ALLOWED BELOW GRADE FOR POWER WIRE AND CABLE.
4. THERE MUST BE A BREAK IN ALL UNDERGROUND CONDUITS OUTSIDE THE BUILDING/TOWERS/ELECTRICAL/COMMUNICATIONS/BOILER ROOM TO ALLOW DRAINAGE OF RACEWAY BEFORE ENTERING THE ROOMS.
5. PROVIDE LAYOUT (WITH DIMENSIONS) OF ALL UNDERGROUND PULL POINTS INCLUDING HAND HOLES, MAN HOLES AND CONCRETE PULL BOXES TO THE CONSULTANT FOR APPROVAL PRIOR TO INSTALLATION.
6. INSTALL HAND HOLES AWAY FROM MAJOR TRAFFIC AREAS (TYPICAL).
7. PROVIDE HEAT TRACING PROTECTION FOR WATER PIPES, STORM PIPES AND SANITARY PIPES AS SHOWN ON ELECTRICAL DRAWINGS. REFER TO MECHANICAL DRAWINGS FOR PIPING LAYOUT. HEAT TRACING SHALL BE RAYCHEM MODEL 48XL-TRACE, 208V, 1PH, SELF REGULATING TRACING CABLE OR APPROVED EQUIVALENT, C/W POWER SUPPLY MODULE, THERMOSTAT AND ALL ACCESSORIES FOR A COMPLETE AND FUNCTIONING SYSTEM. STARTUP TEMPERATURE -29°C (-20°F).
8. WHERE CONDUITS ARE INSTALLED ACROSS EXPANSION JOINTS, PROVIDE CONDUITS WITH EXPANSION/CONTRACTION FITTINGS.
9. ELEVATOR FIRE ALARM AUTOMATIC RECALL:
ELEVATOR LOBBY MOUNTED FIRE DETECTORS AND SECURITY PANEL TO RECALL ELEVATORS TO DESIGNATED LEVEL UPON FIRE ALARM. SHOULD DETECTOR AT DESIGNATED LEVEL ELEVATOR LOBBY MOUNTED FIRE, ELEVATOR FIRE, OR DETECTOR NOT BE RECALLED TO ALTERNATE LEVEL, REFER TO ELEVATOR AUTOMATIC FIRE RECALL SCHEDULE. ELEVATOR CONTRACTOR TO COORDINATE WITH TSSA AND CONFIRM DESIGNATED/ALTERNATE LEVELS.
10. SMOKE DETECTOR AT TOP OF ELEVATOR SHAFT TO BE AIR SAMPLING SMOKE DETECTOR TYPE. INSTALL CONTROL UNIT IN A TAMPER PROOF ENCLOSURE (NEMA 4X) OUTSIDE OF ELEVATOR CLOSET. AIR SAMPLING SMOKE DETECTOR TO BE EST READY SET BY EDWARDS OR APPROVED EQUAL.
11. SITE PLAN DRAWINGS INDICATE UNDERGROUND POWER CONDUITS AND CORRESPONDING PULL POINTS (CONCRETE PULL BOXES, HAND HOLES OR MAN HOLES). WHERE OEC REQUIRES ADDITIONAL PULL POINTS FOR WIRING SEPARATION, PROVIDE ADDITIONAL CONCRETE PULL BOX (OR HAND HOLE) AS REQUIRED. IF AN ADDITIONAL MAN HOLE IS REQUIRED, IT IS PREFERRED TO PROVIDE AN ADDITIONAL HAND HOLE OR CONCRETE PULL BOX IF POSSIBLE.

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G28-GAL-G4003