NOTES
.1 GENERAL

.1 THE CONTRACTOR MUST VISIT THE SITE BEFORE RETURNING HIS TENDER. NO RECLAMATION CAUSED BY IGNORANCE OF THE LOCAL CONDITIONS WILL BE RECOGNIZED BY THE OWNER.

.2 WORK DEFINITION

2.1 THE WORKS INCLUDE, WITHOUT LIMITING TO, PROVIDE, INSTALL AND START THE ELECTRICAL EQUIPMENT AND ALL THE ACCESSORIES.
2.2 SCOPE OF WORK CAN BE SUMMARIZED AS FOLLOWING:

2.2.1 PROVIDE AND INSTALL 600V ALIMENTATION, 3 PHASES FOR EACH VENTILATION UNIT.

2.2.2 PROVIDE AND INSTALL GAS DETECTION SYSTEM REQUIREMENTS FOR THE GAS DETECTION SYSTEM.

2.2.3 PROVIDE AND INSTALL LIGHTING AND SMOKE DETECTOR FOR PASSENGER ELEVATOR N°1.

2.2.4 DISMANTLE ELECTRICAL LIGHTING.

2.3 THIS DESCRIPTION APPEARS ONLY TO GIVE AN OVERVIEW OF THE SCOPE OF WORK, ALL ITEMS NECESSARY FOR PROPER OPERATION OF THE STATION AND NOT SPECIFICALLY MENTIONED IN THIS LIST MUST BE CONSIDERED AS BEING INTEGRAL TO THE PRESENT SECTION.

.3 THE WORKS MUST BE EXECUTED WITH THE LEAST POSSIBLE DISRUPTION TO OCCUPANTS AND THE NEIGHBOR PUBLIC. ALL SERVICE INTERRUPTION MUST BE APPROVED BY THE OWNER AND REDUCED AT THEIR MINIMUM.

.4 THE WORD "PROVIDE" INCLUDES THE INSTALLATION AND CONNECTION. ALL THE APPARELS WILL BE, UNLESS OTHERWISE INDICATED, INSTALLED, CONNECTED AND SET UP IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION.

.5 PROVIDE MATERIALS, EQUIPMENT AND SETS OF NEW CONCEPTION AND RECOGNIZED QUALITY OF RECENT MODELS, WHOSE SPECS ARE CATALOGED AND THE SPARE PARTS AVAILABLE UPON REQUEST. THE APPARELS MUST BE APPROVED BY ONE OF THOSE ORGANISMS: CSA, ULC, ARI, AMCA, ASME OR ALL OTHER ORGANISM HAVING JURISDICTION IN THE CONCERNED DOMAIN.

.6 THE SPECIFICATIONS MUST MATCH THE MOST DEMANDING REQUIREMENTS OF THE PRESENT SECTION AND THE OTHER SECTIONS.

.7 UNLESS OTHERWISE INDICATED, REALIZE THE WORKS IN ACCORDANCE TO THE MOST RECENT EDITIONS OF THE CONSTRUCTION CODE OF QUEBEC, CHAPTER V, ELECTRICITY (ACNOR C22.10) AND THE PERTINENT CODES AND RULES ISSUED BY THE MUNICIPAL AND PROVINCIAL AGENCIES. IN EACH PARTICULAR CASE, THE ORDINANCE, THE LAW, THE NORM, THE CODE OR THE RULE, THE MOST STRINGENT SHALL PREVAIL.

.8 SUPPLEMENTARY DETAILS

THE PLANS ARE SHOWED IN A SCHEMATIC WAY. THEY INDICATE THE APPROXIMATED LOCATION FOR THE APPARELS AND THE CONNECTIONS. THE CONTRACTOR MUST DO HIS INSTALLATION CONSIDERING THE EXISTING AND THE NEW INSTALLATIONS AND IN ACCORDANCE WITH THE PHYSICAL PROPERTIES OF THE EXISTING BUILDING. THE CONTRACTOR MUST CONSULT THE MANUFACTURER'S DRAWINGS OF THE APPARELS BEFORE TO PROCEED WITH THE WORKS AND MUST PROVIDE ALL THE ACCESSORIES, SUPPORTS AND FITTING TO INSTALL THE APPARELS. THE CABLE TRAYS ARE NOT SHOWN ON THE PLANS. THOSE REPRESENTED ARE UNDER SCHEMATIC FORM. PROVIDE ALL THE CABLE TRAYS NETWORKS INDICATED ON THE PLANS OR SPECIFIED IN QUOTATION.

.9 CONTRADICTIONS

IN CASE OF CONTRADICTION BETWEEN THE PLANS AND THE QUOTATION OR CLAUSES IN QUOTATION REGARDING MATERIALS TO PROVIDE (QUANTITIES, QUALITY, ETC.), THE CONTRACTOR MUST BASE HIS TENDER ON THE MOST EXPENSIVE QUANTITY OR QUALITY, UNTIL OTHERWISE IS WRITTEN INDICATED BY THE MINISTRY REPRESENTATIVE.

.10 THE FOLLOWING SHOP DRAWINGS MUST BE PROVIDED TO THE MINISTRY REPRESENTATIVE IN PDF FORMAT FOR APPROVAL (NON–LIMITATIVE LIST):

.1 DISTRIBUTION EQUIPMENT
.2 LIGHTING
.3 WIRING SET
.4 FIRE PROTECTION SYSTEM (SMOKE DETECTOR)

.11 PROVIDE 3 COPIES OF THE EXPLOITATION AND MAINTENANCE DATA FILE AND INCLUDE THE FOLLOWING INFORMATION:

.1 DETAILED INSTRUCTIONS REGARDING THE CONSTRUCTION SPECIFICATIONS
.2 WIRING AND PRINCIPLE DIAGRAMS
.3 NAME AND ADDRESS OF THE RETAILERS
.4 A COMPLETE LOT OF ALL THE APPROVED SHOP DRAWINGS.

.12 AT OCCASIONS AGREED WITH THE OWNER, TEACH THE FUNCTION AND THE MAINTENANCE OF THE INSTALLATION. PROVIDE THIS SERVICE FOR A DETERMINED PERIOD AND FOR A NUMBER OF VISITS NECESSARY TO INSURE THAT THE EXPLOITATION PERSONNEL IS FAMILIAR WITH ALL THE ASPECTS OF MAINTENANCE AND OF THE GOOD FUNCTION OF THE EQUIPMENT.

THE CONTRACTOR MUST INCLUDE, IN HIS TENDER, ALL THE COSTS RELATED TO THE RELOCATION AND THE FORMATION TIME OF THE SPECIALIZED AND MANUFACTURER'S ACCREDITED TECHNICIAN.

.13 CONFIDE TO A QUALIFIED PERSON THE CHARGE OF LEADING AND CONSTANTLY WATCHING ALL THE FIELD WORK OF THE PRESENT CONTRACT.

.14 PLAN THE WORKS EXECUTION WITH THOSE OF OTHER DIVISIONS. ALL MATERIALS IMPROPERLY INSTALLED DUE TO A LACK OF COORDINATION WILL BE REMOVED AND REINSTALLED WITHOUT INCREASING THE VALUE OF THE CURRENT CONTRACT.

.15 THE MANUFACTURER'S NAMES, CATALOG REFERENCES AND TRADEMARKS THAT CAN APPEAR ON THE PLANS OR QUOTATION ARE USED TO SHOW ACCURATELY THE SORT AND QUALITY OF THE EQUIPMENT, THE MERCHANDISES AND THE REQUIRED MATERIALS. THE TENDER MUST BE BASED ON THE PRODUCTS INDICATED TO THE QUOTATION.

.16 THE CONTRACTOR AND HIS SUB–CONTRACTORS WANTING TO USE MERCHANDISES, EQUIPMENT OR MATERIALS CONSIDERED BY HIM AS EQUIVALENT TO THOSE DESCRIBED MUST PROVIDE HIS REQUEST WITH HIS TENDER, WHILE INDICATING THE PRICE DIFFERENCE (IN PLUS OR IN MINUS) RELATIVE IF THE EQUIVALENT IS ACCEPTED. WITHOUT SPECIFICATION, ALL THE ELECTRICAL PARTS ARE OF AN EQUIVALENT TYPE AS WHAT EXISTING.

.17 ALL MATERIAL OR PRODUCT PROPOSED AS EQUIVALENCE WILL BE CONSIDERED AS NON–EQUIVALENT UNTIL EQUIVALENCE CERTIFICATE HAS BEEN ISSUED BY THE OWNER.

.18 IDENTIFY ALL THE FOLLOWING MATERIAL WITH NAME PLATES OF INDICATED FORMAT:

.1 DISCONNECT: FORMAT 4
.2 MANUAL STARTER: FORMAT 1
.3 MAGNETIC STARTER: FORMAT 2 OR 3
.4 DISTRIBUTION PANEL: FORMAT 4
.5 TRANSFORMER: FORMAT 7

.19 USE NAME PLATES IN LAMINATED PHENOLIC PLASTIC, MECHANICALLY FIXED WITH 2 SCREWS, WITH WHITE LETTERS ON BLACK FONT FOR THE "NORMAL" NETWORK AND ON RED FONT FOR THE "EMERGENCY" NETWORK. THOSE PLATES ARE MACHINE ENGRAVED.

METRICAL

.1 FORMAT 1: 10X50 MM, 1 LINE, 2.5 MM.
.2 FORMAT 2: 13 X 70 MM, 1 LINE, 5.0 MM.
.3 FORMAT 3: 13X70MM, 2 LINES, 2.5 MM
.4 FORMAT 4 : 20X90 MM, 1 LINE, 7.5 MM.
.5 FORMAT 7: 25X 100 MM, 2 LINES, 6,0 MM.

.20 THE WORDS TO BE WRITTEN ON THE PLATE MUST BE APPROVED BY THE MINISTRY REPRESENTATIVE BEFORE THE FABRICATION.

.21 FOR THE JUNCTION BOXES AND/OR DRAWING, PROVIDE AN INDICATION WITH WHITE TAPE AND BLACK LETTERS INDICATING THE CIRCUIT, PANEL OR SERVICE (TELEPHONE, INTRUSION ETC.)

.22 IDENTIFY EACH ELECTRICAL OUTLET INSIDE THE BOXES (LATERAL WALL OF THE BOX) AND THE COVER PLATES (OUTLETS AND SWITCHES) IN FRONT AS FOLLOWING: USE A SELF–ADHESIVE TAPE AND A P–TOUCH PRINTER. WRITE THE CIRCUIT NUMBER WITH THE PANEL NUMBER. THIS NOTE ALSO APPLIES TO THE WIRE CULVERTS. PROVIDE A SAMPLE TO THE MINISTRY REPRESENTATIVE. FOR SPECIFIC OUTLETS, ADD MENTIONS (FOR EXAMPLE "CLEANING") IN THE BOTTOM OF THE PLATE (CLEAR TAPE WITH BLACK LETTERS).

.23 SET A COLOR CODE TO THE CONDUCTS AND T THE CABLES UNDER METALLIC SHEATH. USE PLASTIC TAPE 25 MM LARGE AS COLOR SAMPLE ON THE CABLES OR THE DUCTS EACH 15 M AND AT THE WALL, FLOOR AND CEILING CROSSING POINTS, AS FOLLOWING:

.1 YELLOW FOR THE NETWORK UP TO 250 V
.2 YELLOW AND GREEN FOR THE NETWORK UNTIL 600V
.3 GREEN FOR THE COMMUNICATION NETWORK
.4 RED FOR THE FIRE PROTECTION

.24 IDENTIFY WITH PERMANENT AND INDELIBLE, WITH PLASTIC TAPES, NUMBERED OR COLORED, BOTH CONDUCTOR EXTREMITIES.

.25 THE MINISTRY REPRESENTATIVE CAN MODIFY THE INDICATED OUTLET LOCATION, WITHOUT ADDITIONAL FEES OR CREDIT, UNDER RESERVE THAT THE DISPLACEMENT IS LOCATED WITHIN 5 M OF THE ORIGINAL POSITION, THAT THE INFORMATION IS GIVEN BEFORE THE MOUNTING AND THAT THE MONTAGE IS POSSIBLE.

.26 THE MONTAGE HEIGHT IS GIVEN FROM THE FINISHED FLOOR SURFACE UP TO THE AXIS OF THE APPAREL. THE EXACT MONTAGE HEIGHT NON–INDICATED MUST BE VERIFIED WITH THE MINISTRY REPRESENTATIVE BEFORE THE INSTALLATION.

.27 UNLESS OTHERWISE INDICATED, INSTALL THE ELECTRICAL MATERIAL AT THE HEIGHT INDICATED HEREAFTER:

.1 WALL OUTLET

.1 GENERAL OUTLET: 450 MM OR 200MM ABOVE AN ELECTRICAL BASEBOARD HEATING

.2 TOP OF ELECTRICAL PANELS: 1850 MM.

.3 THERMOSTAT: 1500MM

.28 EACH MOTOR AND TRANSFORMER MUST BE CONNECTED WITH A SECTION OF FLEXIBLE CABLE PVC SHEATHED, WATERPROOF AND AT LEAST 450 MM LONG. THE TRANSFORMERS BUILT ON FLOOR ARE PROVIDED WITH ANTI–VIBRATION CUSHIONS.

.29 OPENING, HOLES AND SLEEVES

.1 THE CONTRACTOR MUST DO ALL THE OPENINGS BIGGER THAN 150MM, INCLUDING REPARATIONS AND PLACES REHABILITATION. THE SUB–CONTRACTORS MUST, HENCE, INDICATE THE GENERAL ENTREPRENEUR, ON A DRAWING OR ALL OTHER PERTINENT WAY, THOSE OPENINGS AND MUST PRECISE THE DIMENSIONS AND THE EXACT LOCATION.

.2 EXCEPTION IS DONE FOR THE CONDUCT OPENINGS DONE WITH INDIVIDUAL SLEEVES AND THE CONDUCT DIRECTLY INSTALLED IN CONCRETE, WHOSE ARE UNDER CONCERNED SUB–CONTRACTOR'S CHARGE.

.3 WHEN PASSING THROUGH FIRE PROTECTION DIVISIONS (WALL, CEILINGS AND FLOOR), ALL THE CONDUCTS WITH DIAMETER BIGGER THAN 19MM WILL BE RIGID GALVANIZED AND WITH A LENGTH EXCEEDING THE FIRE–PROTECTION DIVISION OF 150 MM. ALL THE WIRES WITH DIAMETER BIGGER THAN 19 MM MUST BE INSTALLED INSIDE THE SLEEVES WITH APPROPRIATE DIAMETER. THE SPACE BETWEEN THE DUCTS, BETWEEN CABLES AND SLEEVE AND THE FIRE–PROTECTION DIVISION MUST BE SEALED WITH A FLAME SEAL TYPE SEALING MATERIAL, ACCORDING TO THE NORM ONGC–19–GP–PM. THE SEALING IS AT THE CHARGE OF THE SUB–CONTRACTOR.

.30 THE CONTRACTOR MUST DO THE TESTS AND ASSUME THE EXECUTION FEES RELATIVE TO THE FOLLOWING ITEMS:

.1 DERIVATION CIRCUITS COMING FROM THE DISTRIBUTION PANELS.
.2 THE ELECTRICAL GENERATOR GROUP
.3 MOTORS, HEATING APPARELS AND RELATED COMMAND MATERIAL, INCLUDING THE INSTALLATION SEQUENTIAL OPERATION, IF NEEDED.
.4 THIS LIST IS NOT LIMITATIVE.
.5 GET FROM THE MANUFACTURER A CERTIFICATE OR A LETTER CONFIRMING THAT EACH NETWORK OF THE WHOLE INSTALLATION HAS BEEN PLACED CORRECTLY.
.6 WARN THE MINISTRY REPRESENTATIVE BEFORE EACH TRY SO THAT HE CAN PRESENT, IF NECESSARY.
.7 PROVIDE WRITTEN RESULT REPORT TO THE MINISTRY REPRESENTATIVE.

IF THE WORKS LET SET SOME MALFUNCTIONS, THE CONTRACTOR MUST RELIEVE THE SITUATION AT HIS OWN EXPENSES.

.31 MEASURE THE DIELECTRICALLY VALUE OF THE CIRCUITS, ALIMENTATION CABLE AND MATERIAL WITH MAXIMAL TENSION OF 350 V WITH A MEGOHMMETER OF 500V, BETWEEN 350 AND 600V WITH A MEGOHMMETER OF 1000V. IN BOTH CASE, MAKE SURE THAT THE GROUND VALUES ARE NOT LOWER THAN CODES REQUIREMENT.

.32 MAKE SURE THAT THE CIRCUIT OVERLOAD PROTECTION AS DISCONNECT, OVERLOAD RELAY AN FUSES ARE INSTALLED IN ACCORDANCE WITH THE WANTED CAPACITY AND SET–UP TO THE PRESCRIBED VALUES IN ORDER TO INSURE THE COORDINATE WANTED PROTECTION.

.33 FREE THE WIRE, THE WALL PLATES, OUTLETS, ENCLOSURES AND SWITCH BOXES, BOWLS ETC. OF ALL CONSTRUCTION MATERIAL. AT THE END CLEANING, CLEAN THE REFLECTORS, THE DIFFUSERS AND THE OTHER ARTICLES EXPOSED TO DUST AND DIRT DURING THE WORKS.

.34 WRITE IN RED ON A PLAN COPY (GIVEN BY THE MINISTRY REPRESENTATIVE) ALL CHANGES BROUGHT FOLLOWING THE MODIFICATION IN BUILDING PHASE. SUBMIT THE PLANS TO THE MINISTRY REPRESENTATIVE TO ADD IT IN PROJECT POST–CONSTRUCTION FILE.

.35 A PLAN ILLUSTRATING THE EXISTING INSTALLATION IS PROVIDED AS INFORMATION TO THE CONTRACTOR TO HELP HIM TO EVALUATE THE EXISTING EQUIPMENT AND THE DISMANTLING TO PREPARE HIS TENDER. THE CONTRACTOR MUST DO HIS OWN STATEMENT AND CONSULT ARCHITECTURAL PLANS BECAUSE NO RECLAMATION ON THIS TOPIC WILL BE ACCEPTED. THE CONTRACTOR MUST INSURE THE MECHANICAL, ELECTRICAL AND THE CONTROL CONTINUITY OF ALL THE CONNECTIONS AFFECTED BY THE DEMOLITION WORK AND THAT WOULD BE NECESSARY TO THE GOOD FUNCTION OF THE NON–AFFECTED PART OF THE BUILDING. ALL DISMANTLED EQUIPMENT INCLUDES HIS ELECTRICAL ALIMENTATION (CONDUCT OR CONDUCTOR). ALL THE REMOVED MATERIAL REMAINS PROPERTY OF THE CONTRACTOR, EXCEPT FOR THE MATERIAL THAT THE OWNER WANTS TO KEEP. IF MATERIAL CONTAINING BPC WERE DISMANTLED, THE CONTRACTOR SHALL ACCUMULATE THEM, IN ACCORDANCE WITH THE MDDEFP REQUIREMENT, IN BARRELS PROVIDED BY THE OWNER. THE OWNER WILL DISPOSE OF THOSE BARRELS ON HIS CHARGE AND IN ACCORDANCE WITH MDDEFP RULES.

.36 THE ELECTRICAL CONTRACTOR CAN DO CHANGES TO THE INSTALLATION SHOWN ON PLANS, BUT ONLY ON BEFOREHAND APPROVAL OF THE ENGINEERS. FOR EXAMPLE, THE ALIMENTATION CIRCUITS SET UP OF THE LIGHTING CIRCUIT COULD BE MODIFIED TO REUSE THE EXISTING WIRING.

.37 DERIVATIONS CIRCUITS NON–TOUCHED BY THE NEW SET–UP WILL REMAIN CONNECTED TO THE PANELS. THEY WILL BE SPREAD IN ORDER TO BALANCE THE CHARGES BETWEEN THE PANEL PHASES. MOREOVER, THEY MUST BE PROPERLY IDENTIFIED.

.38 IN THE EXISTING PART OF THE BUILDING, FOR CABLES AND CONDUCTS INSTALLATIONS, THE CONTRACTOR WILL TAKE MEASURE TO LIMITS TO THE MINIMUM THE DAMAGES TO THE WALL, THE CEILING, THE FLOOR, ETC.

.39 THE OWNER RESERVES HIMSELF THE RIGHT TO MAKE EXECUTE, DURING THE CONSTRUCTION PERIOD, BY OTHERS AND TO HIS OWN EXPENSES, WITHOUT COMPENSATION TO THE CONTRACTOR, SELECTED WORKS NON–INCLUDED IN THE CURRENT PROJECT'S TENDER CALL DOCUMENTS. THE CONTRACTOR WILL NOT BE FREED OF THE RESPONSIBILITY REGARDING THE WORK BEING PART OF HIS CONTRACT.

.40 SITE VISIT

THE CONTRACTOR MUST VISIT THE SITE BEFORE TO SUBMIT HIS TENDER. NO EXTRA CAUSED BY OMISSION OR MISTAKES UNDER THE FACT THAT THE CONTRACTOR HAS NOT EXAMINED THE SITE ENOUGH WILL BE ACCEPTED.

.41 ASBESTOS CONTROL

IF THE CONTRACTOR DETECTS ASBESTOS PRESENCE ON THE WORKS SITE, HE MUST ADVISE THE OWNER WHO WILL ESTABLISH THE PROCEDURE WILL BE CONTINUED BY THE OWNER OR NOT.

.2 CABLES INSTALLATION

.1 DO NOT DRAW SPICED WIRES IN THE DUCT.

.2 INSTALL SIMULTANEOUSLY ALL THE CABLES RUNNING IN THE SAME DUCT.

3

.3 DUCTS, ANCHORS AND DUCT JOINTS

.1 ALL THE WIRING TO BE INSTALLED IN EMT CONDUIT OR USE TECK 90 CONDUCTORS.

.4 CABLES AND WIRE (0–600V)

.1 TYPE RW–90, X–LINK IN ALL DUCT ABOVE THE GROUND AND NON–EXPOSED TO HUMIDITY.

.2 TYPE RWU–90 IN ALL DUCTS EXPOSED TO HUMIDITY OR LOCATED IN CONCRETE OR INSIDE UNDERGROUND DUCTS.

.3 ALL WIRES TO BE OF DIFFERENT COLORS FOR EACH PHASE AND THIS COLOR CODE MUST BE KEPT THROUGH ALL THE BUILDING.

.4 IF THE WIRE CONSTRUCTION DOES NOT ALLOW A COLOR CODE, EACH CONDUCTOR WILL BE IDENTIFIED WITH A NUMBER TO EACH EXTREMITY.

.5 ONLY THE COPPER CONDUCTORS ARE ACCEPTABLE.

.6 THE CONDUCTORS DEDICATED TO THE MAIN DISTRIBUTION ARTERIES OF 60A OR MORE CAN BE BUILT IN ALUMINIUM ALLOY (NUAL). ALL THE OTHER CONDUCTORS WILL BE IN COPPER.

.7 INSTALL THE WIRES IN THE IN THE CANALISATIONS. THE DUCTS USED FOR THE COMMAND CABLES RUN MUST ONLY BE USED FOR THIS PURPOSE.

.8 TECK CABLE, INSULATION 0–1000V, REUIRED CALIBER, IN COPPER

.9 CABLE TECK, ISOLATION 0–1000V, ON REQUIRED GAUGE. THE CABLES DEDICATED TO THE DISTRIBUTION ARTERIES OF 60 A OR MORE CAN BE BUILT OF ALUMINIUM ALLOY (NUAL). ALL THE OTHER CABLES WILL BE IN COPPER, WITH THE REQUIRED CALIBER ACCORDING TO THE CONNECTED CHARGE.

.5 OUTPUT BOXES

.1 THE OUTPUT BOXES FOR SURFACE INSTALLATION WILL CONSIST OF A MOLDED BOX WITH THREADED OPENINGS FOR DUCTS, DESIGNED FOR 4 SCREWS PLATES. THE LIGHTING WALL AND CEILING OUTPUT BOXES WILL BE OF TYPE "GRF" AND THE SWITCHES BOXES, THE PLUGS, THE THERMOSTATS,ETC. WILL BE OF TYPE "FS" OR "FD".

.6 WIRING APPAREL

.1 OUTLETS:

.1 ROBUST TYPE (SPEC GRADE), ANALOG PLUGS AND WIRING APPAREL, IN ACCORDANCE WITH ACNOR C22.2 N°42, LAST EDITION

.2 SPECIAL OUTLETS:

.1 THE OUTLETS 15A, 120V, DUPLEX, COMBINED WITH A PHONE AND INFORMATICS OUTLET, TO THE FLOOR, COMPLETED WITH A COVER, 2 DUCTS 19MM "EMT" THROUGH THE FLOOR, WILL BE OF MARK "HUBBEL" N° 3SFBSS

.2 THE OUTLETS 15A, 120V, DUPLEX BUILT INTO THE FLOOR WILL BE OF MARK " HUBBELL" N°B2436–S3825

.3 THE OUTLETS 15A, 120 V DUPLEX IN SURFACE TO THE FLOOR WILL BE COMPLETED WITH A 19MM DUCT. THEY WILL BE OF MARK "HUBBELL", FR SERIE.

.4 THE OUTLETS 15 A, 120 V DUPLEX, INSTALLED ON BASE FOR LABORATORY WILL BE COMPLETED WITH COVER. THEY WILL BE WITH A MARK "ELECTROMA", N°1100 FOR SIMPLE MOUNT AND N°1200 FOR DOUBLE MOUNT.

.3 COLORS:

.1 IVORY: IN THE SHOP, SHED, FALSE–ROOF AND STORE–ROOM.

.2 WHITE: IN THE OFFICES, ROOMS AND CORRIDORS.

.3 RED : ON THE NORMAL/EMERGENCY NETWORK.

.4 UNLESS OTHERWISE INDICATED, PROVIDE NYLON COVER PLATE FOR WIRING

.7 ANCHOR AND SUPPORTS

.1 FOR ALL THE PANELS, DISCONNECT OR OTHER DISTRIBUTION EQUIPMENT INSTALLED IN SURFACE, THE CONTRACTOR MUST USE AS SUPPORT, U–PROFILE OF 40 MM X 40 MM X 25 MM COMPLETE WITH ACCESSORIES.

.8 FUSES AND FUSELESS SWITCHES

.1 PROVIDE FUSE AND FUSELESS DISCONNECT, UNDER ACNOR CERTIFIED BOX TYPE 1, FOR ALL DRY AND GENERAL USE AND TYPE 3R FOR EXTERNAL USE.

.2 PROVIDE ON AND OFF POSITION LOCK–SYSTEM.

.3 ALL FUSES OF TYPE "HRC", CLASS J, FORM I, IN ACCORDANCE WITH NORM C.22.2 N° 106–M1985.

.4 PROVIDE 3 SPARE FUSES FOR EACH FUSE TYPE.

.9 SECONDARY GROUND

.1 ALL CONDUCTORS WILL BE IN COPPER AND INSIDE A DUCT ON ALL THEIR LENGTH.

.2 THE EQUIPMENT AND SYSTEM GROUND MUST BE DONE IN ACCORDANCE WITH CONSTRUCTION CODE OF QUEBEC, CHAPTER V, ELECTRICITY, AND TO PROVINCIAL RULES AND MUST SATISFY TO MINISTRY REPRESENTATIVE AND TO THE INSPECTION SERVICE REQUIREMENT.

.3 INSTALL COMPLETE SYSTEM AND PERMANENT ELECTRICAL GROUND, WITH CONDUCTORS, CONNECTORS, ACCESSORIES, IN ORDER TO SATISFY THE MINISTRY REPRESENTATIVE AND THE OTHER LOCAL COMPETENT AUTHORITY.

.10 BREAKERS DISTRIBUTIONS PANEL

.1 ALL THE PANELS WILL BE BUILT WITH A BOLTED BREAKER, FULL DIMENSION. UNLESS OTHERWISE INDICATED, NO PAIRED BREAKER WILL BE ACCEPTED. ALL BREAKERS UNDER 300V ARE OF TYPE HACR.

.2 ALL BREAKERS MUST MEET THE SHORT–CUT CURRENTS INDICATED ON THE DRAWINGS OR 10000 AMPERES SYMMETRICAL (THE BIGGEST AMONG THE 2).

.3 ALL PANELS ARE COMPLETE WITH DOOR, LOCK AND ACCESSORIES.

.4 A TYPED LIST MUST BE APPROVED AND FIXED INSIDE THE EXISTING AND THE NEW PANEL DOORS. THIS LIST INCLUDES THE CHARGE TYPE, ITS LOCATION AND THE AMPERAGE OF THE BREAKER. FOR EXISTING CHARGES, WRITE THE EXISTING DESCRIPTION. AS "SQUARE D" NQOD SERIE, NY1B, SIEMENS, NLAB OR NDP–CDP7 SERIE.

.11 LIGHTING MATERIAL

.1 ALL THE BULBS AND THE TUBE WILL BE IN PLACE AND IN GOOD STATE AT THE PROVISORY ACCEPTANCE DATE.

.2 SEE THE TABLE ON PLAN FOR LIGHTING APPAREL LIST.

.12 FIRE PROTECTION SYSTEM

.1 THE EXISTING FIRE–PROTECTION SYSTEM MUST BE MODIFIED TO ADD THE FOLLOWING ITEMS.

.2 ADD THE ITEMS REQUESTED ON THE PLAN, COMPLETE WITH WIRING. DO THE REQUIRED PROGRAMMING WITH WRITTEN REPORT.

.3 THE WIRE WILL BE INSTALLED IN CANALISATION EMT, FOLLOWING MANUFACTURER'S RECOMMENDATIONS.

.4 IDENTIFICATION

EACH COMPONENT OF THE SYSTEM WILL BE CLEARLY IDENTIFIED WITH TAPE OF TYPE P–TOUCH.

.5 VERIFICATION

AFTER INSTALLATION OF THE MATERIAL, THE MANUFACTURER OR HIS AGENT AUTHORIZED DISTRIBUTER MUST DO THE START–UP AND THE VERIFICATION OF THE ZONES IMPLIED BY THE WORKS, IN ACCORDANCE WITH THE NORM ULC–S537–1997 AND PROVIDE A CERTIFICATE OF GOOD OPERATION.

.13 PARASISMIC SYSTEM AND APPAREL

.1 GENERAL

.1 THE PRESENT SECTION IS FOR THE CALCULATION, THE FURNITURE AND INSTALLATION OF APPARELS AND PARASISMICAL SYSTEM FOR THE WHOLE TECHNICAL STATIC MATERIAL, AND OF THE VIBRATION INSULATED MATERIAL NEEDED FOR THE PRESENT WORKS, INCLUDING THE COMMAND AND REGULATION SYSTEM OF MECHANICAL AND ELECTRICAL BUILDINGS, THE ELECTRICAL LIGHTING APPARELS, THE TRANSFORMERS, THE MOTORS COMMUNICATION CENTERS, THE UNINTERRUPTIBLE ALIMENTATION SYSTEM, THE DIESEL EMERGENCY POWER SUPPLY AND THE TELECOMMUNICATION SYSTEMS.

.2 TYPICAL GENERAL INSTALLATION

.1 ALL LUMINAIRES, SPEAKERS AND OTHER EQUIPMENT EMBEDDED AND SUPPORTED BY THE CEILING JOIST OF A SUSPENDED ROOF MUST BE FIXED. THE ANCHORS, A MINIMUM OF 2 PER APPAREL, MUST HAVE ENOUGH CAPACITY TO SUPPORT THE TOTAL ACTIONS IN ALL THE DIRECTIONS.

.2 THE APPARELS SURFACE MOUNTED AND SUPPORTED BY THE SUSPENDED CEILINGS CHORDS MUST BE FIXED WITH SUPPORTS USING THE WHOLE SURFACE OF THE INVERSED T. THE SUPPORT MUST BE ATTACHED TO THE STRUCTURE.

.3 THE SUSPENDED APPARELS MUST BE SUPPORTED BY CABLES OF A MINIMUM 9 CALIBER, FIXED TO THE STRUCTURE.

.4 IN ADDITION TO THE REQUIRED SUPPORTS IN 2.16.1 AND 2.16.3, CABLES WITH 12 GAUGE FIXED TO THE STRUCTURE ME BE INSTALLED FOR APPARELS LESS THAN 25.3 KG. FOR THOSE MORE THE 25.3 KG, PROVIDE THE APPROPRIATE SUPPORTS.

.14 GAS DETECTION SYSTEM

.1 WORK DEFINITION

THE WORK INCLUDES, WITHOUT LIMITING TO:

.1 PROVIDE THE DETECTOR, PROBES, WARNINGS AND ALL ACCESSORIES REQUIRED BY THE SYSTEM.

.2 INSTALLATION AND CONNECTION OF ALL THE COMPONENTS, THEIR POWER SUPPLY AND THE LINK TO THE VENTILATION UNIT CONTROL PANEL.

.3 CALIBRATION, TESTING AND START–UP OF ALL SYSTEM PROBES. ISSUE CERTIFICATES OF CONFORMITY IN ACCORDANCE WITH THE CURRENT REGULATION.

.4 CONFIGURATION AND PROGRAMMING OF THE DETECTOR AND THE WARNING IN ORDER TO SATISFY ALL THE SYSTEM FUNCTIONALITIES, INCLUDING TESTS AND REQUIRED SAFETY CERTIFICATES.

.5 THE WHOLE GAS DETECTION SYSTEM MUST BE HOMOGENEOUS WITH COMPONENTS OF THE SAME MARK.

.6 THE LIGHT CONTROLS INDICATE GAS PRESENCE, THEIR ACTIVATION MUST BE VERIFIED WITH THE SYSTEMS TESTING. 3

.2 SYSTEM COMPONENTS

THE SYSTEM MUST INCLUDE THE FOLLOWING COMPONENT, WITHOUT LIMITING TO:

.1 TOXIC GAS AND FUEL DETECTOR, HONEYWELL TYPE E3–POINT, AUTONOMOUS PLATFORM, 24 VCC POWER SUPPLY, WITH DISPLAY, PIEZO 85 DBA, 2 RELAYS DPDT AND 1 OUTLET 4–20MA (E3SA)

.2 CARBON MONOXIDE (CO) PROBES PLUGGABLE, HONEYWELL, 0–250 PPM, RESOLUTION OF 1 PPM (E3SCO)

.3 NITROGEN DIOXIDE (NO2) GAS PROBES, HONEYWELL E3–POINT TYPE REMOTE PROBES, 0–100% LIE, TO BE INSTALLED IN AN ELECTRICAL BOX (E3SRMNO2)

.4 TRANSFORMER WITH A BOX, TYPE HONEYWELL, FOR EACH COMPONENT POWER SUPPLY (VA201TA50)

.5 LIMIT SWITCHES, TYPE HONEWELL, HDLS STANDARD SERIES, NEMA 3, WITH ADJUSTABLE ARM AND CONTACT NO AND NC SPDT.

3 INSTALLATION

.1 INSTALL AND CONNECT ALL THE PROBES IN ACCORDANCE WITH THE INTEGRAL MANUFACTURER'S INSTRUCTION

.2 RESPECT THE MONTAGE HEIGHT IDENTIFIED ON THE PLANS ACCORDING TO THE PROBE TYPE.

.3 INSTALL THE PROBES IN LOCATIONS WHERE THE AIR CIRCULATION IS NOT RESTRICTED WITH OBSTACLES, AVOID PROXIMITY OF AERATION GRID.

.4 IDENTIFY EACH COMPONENT.

.4 CONFIGURATION

.1 CONFIGURE AND PROGRAM THE SYSTEM TO SATISFY ALL THE INTRINSIC FUNCTIONALITIES AND THOSE SPECIFIC TO THE CURRENT PROJECT.

.2 EACH PROBE IS PROVIDED PRE–CALIBRATED WITH THRESHOLD INDICATED FOR THE RELAYS.

.3 DOCUMENT THE SYSTEM CONFIGURATION DATA AND THE CONNECTION DIAGRAM FOR EACH MODULE.

.5 SYSTEM FUNCTIONALITY

.1 IN ADDITION TO MEETING THE INTRINSIC PROPERTIES, PROCEED WITH THE SYSTEM PROGRAMMING TO MATCH THE CUSTOMER NEEDS.

.2 CONFIGURE THE OUTLET RELAYS OF THE DIFFERENT PROBES.

.6 TEST, CALIBRATION AND CERTIFICATION

.1 THE SYSTEM TESTS, CALIBRATION AND CERTIFICATION MUST BE DONE BY A TECHNICIAN SPECIALIZED WITH THE SYSTEM AND AUTHORIZED BY THE MANUFACTURER.

.2 DO ALL THE TESTS FOR EACH PROBE INDIVIDUALLY AND THEN FOR THE WHOLE SYSTEM.

.3 VALIDATE THE PROBES CALIBRATION WITH THE APPLICABLE NORMS.

.4 PROVIDE ALL CONFORMITY CERTIFICATES REQUIRED BY THE CURRENT RULES.

.7 FORMATION

THE GAS SYSTEM PROVIDER WILL GIVE A FORMATION TO THE OWNER PERSONNEL. THE FORMATION MUST COVER THE OPERATION AND THE MAINTENANCE OF THE SYSTEM.

EN CAS DE DISCORDANCE ENTRE LA VERSION FRANÇAIS ET ANGLAISE DES PLANS, LA VERSION FRANÇAISE PRÉVAUT. / IN CASE OF DISCREPANCIES BETWEEN THE ENGLISH AND THE FRENCH VERSION OF THE PLANS, THE FRENCH VERSION SHALL PREVAIL.

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Direction générale des biens immobiliers | Real Property branch
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INGÉNIEURE · ENGINEER Micheline Roby 112246 QUÉBEC
2014-06-20

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POUR SOUMISSION
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2014–03–26

3	ADDENDA AE–1/AE–1 ADDENDUM	14–06–20
2	POUR SOUMISSION RÉVISÉE/FOR REVISED TENDER	2014–03–26
1	POUR SOUMISSION/FOR TENDER	2013–12–18
0	POUR SOUMISSION	2013–12–06
révisions *revisions*		date

A no. du détail *detail no.*
B no.de la feuille–où détail exigé *sheet no. – where detail required*
C no. de la feuille–où détaillé *sheet no. – where detailed*

Projet *Project*

AÉROGARE DE SEPT-ÎLES
SEPT-ÎLES AIRPORT
QUÉBEC

MISES AUX NORMES DE L'AÉROGARE DE SEPT-ÎLES
UPGRADING TO STANDARDS OF SEPT-ÎLES AIRPORT

Dessin *Drawing*

ÉLECTRICITÉ
ELECTRICITY

NOTES (ANGLAIS)

NOTES (ENGLISH)

Conçu par *Designed by*	
I. BRODEUR, ing.	2013-11-25 Date
Dessiné par *Drawn by*	
L. TESSIER	2013-11-25 Date
Approuvé par *Approved by*	
J-C. BOISVERT, ing.	2013-12-18 Date
Soumission *Tender*	Gestionnaire de projet TPSGC *PWGSC Project Manager*
No de projet *Project number* TPSGC *PWGSC*	No de projet *Project number* R.055092.001 Client *Client*
Nom du fichier *File name* Q161Q604E024	No de classement *File no*
No de plan ou dessin *File name*	No feuille *Sheet no* E024/24