ELECTRICAL SPECIFICATION

Electrical installation shall be in accordance with the current edition of The Canadian Electrical Code, Provincial, Municipal and other codes, rules and regulations.

The contract shall include the furnishing of labor, new material, equipment and services necessary and reasonably implied and/or incidental to the complete installation of the electrical work as shown on the plans and or specified. Supply and install all devices required for the complete approved system, operating to the complete satisfaction of the responsible professional Engineer.

Prepare and submit to the proper authorities all necessary permits and pay all fees. Provide responsible professional engineer a PDF copy of all electrical permits.

Upon completion and before final payment is made, present to Engineer a Certificate of Approval for all electrical work from the inspection department having jurisdiction.

Electrical work shall be completed in conformance with, and subject to, all cautionary notes available to the reader including those available on the websites of the manufacturers and consultants.

Electrical installation including electrical equipment supplied, installed or connected shall be tested in the presence of the Owner on completion of the work.

The Electrical Contractor shall visit the site and ascertain that all work indicated can be carried out without additional cost to the Owner.

The Electrical Contractor shall guarantee the satisfactory operation of all work and apparatus included and installed under this section of the specification for a period of twelve (12) calendar months after the final acceptance of the complete building.

The Electrical Contractor shall be responsible for any damage caused the Owners or their contractors by improperly carrying out this contract.

The Electrical Contractor shall carefully examine all drawings and specifications relating to the work to be certain that the work under this contract can be satisfactorily carried out and prior to the submission of his tender, report at once to the Consultant any defect, discrepancy, omission or interference affecting the work of this section or the guarantee of same.

Submit one set of "as-built" prints or PDF documents to the engineer.

Grounding shall be in accordance with the latest edition of The Canadian Electrical Code.

Panelboards, motor starters, disconnect switches, etc., shall be properly identified by means of engraved lamacoid nameplates.

Conduits shall be electric metallic tubing unless otherwise noted on drawings or unless prohibited by regulations. Conduits in direct contact with earth or in concrete shall be rigid PVC. Conduits shall be concealed unless otherwise noted on the drawings. Conduits shall not be exposed in any area where concealed work is required without prior written approval.

Outlet, junction and switch boxes shall be galvanized pressed steel of size and type to suit the requirements of each outlet. Outlet boxes shall be accessible.

All wiring shall be in conduit.

Wire and cable shall be copper of standard AWG sizes with 600V (90 Degree C) insulation. Insulation shall be X-Link Polyethylene unless otherwise noted on drawings or prohibited by regulations. Aluminum conductors will not be accepted, unless otherwise indicated. Minimum wire size shall be # 12 AWG.

Circuit breakers shall be bolt-in, moulded-case, thermal and magnetic trip, and match existing manufacturer and type. Trip values as shown on drawing. Two or three pole breakers shall have common trip units. Mount a typewritten directory behind a plastic shield on the inside of panelboard doors. Update existing directories indicating all additions/deletions. Minimum fault rating of circuit breakers shall match existing.

Duplex receptacles shall be specification grade 15A, 125VAC, parallel slot, U-ground, white, side and back wiring.

Cover plates shall be weather-proof.

Any cutting and patching in existing walls or floors required for the addition or relocation of electrical equipment shall be the responsibility of the Electrical Contractor.

Existing Work:

The Electrical Contractor shall take into account items which he is responsible for due to the changes and alterations to the existing building/site and allow for such items that may occur in his tendered price.

The Electrical Contractor is to notify the supply utility of all load increases to existing service.

Existing conduits, wire and outlets which are in good repair and sized to meet all code requirements, may be reused. All equipment to be reused must be approved by the local inspection department and the engineer.

The electrical contractor shall relocate outlets at no additional charge if requested prior to roughing in. The electrical contractor shall relocate outlets at no additional charge if requested by the local authority having jurisdiction.

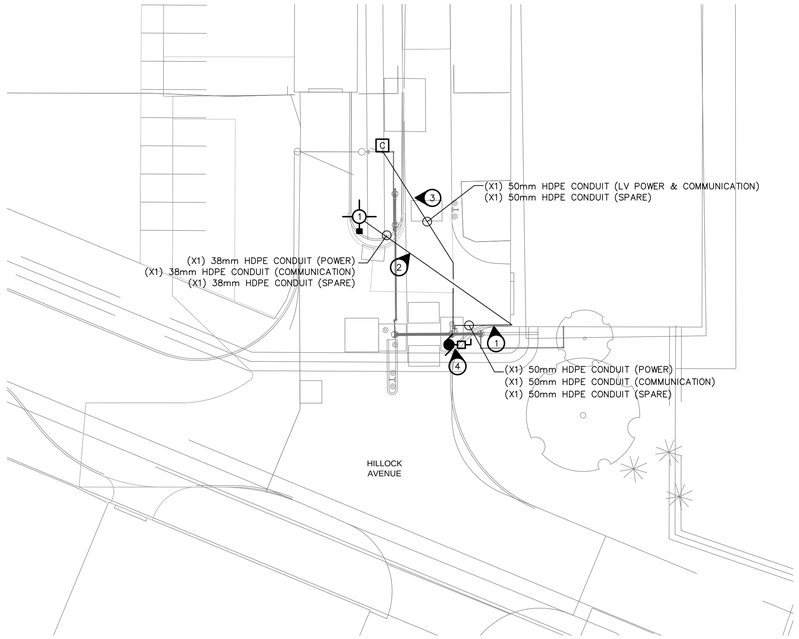
Equipment and material shall be installed as specified. Requests for equal status shall be submitted to Engineer 7 days prior to tender submission. No requests will be accepted past the 7 day deadline. Only one request will be considered from each supplier. If rejected for any reason, no substitutes from the same supplier will be reviewed.

Electrical contractor shall submit shop drawings to Engineer for review prior to ordering equipment. At the request of the engineer, the successful electrical contractor shall submit a completed C-1 form (form available from Engineer).

Supply and install, wire and connect all luminaires (to be complete with lamps) as indicated.

All owners equipment is to be wired and connected. Refer to equipment name plate rating for electrical characteristics prior to rough-in. Adjust wiring and/or circuit breaker as required.

Final electrical installation shall conform to electrical contractors contractual obligations with respect to this project. Responsible professional engineer is to be notified of any deviations contemplated to the design.



1 / E1.0 ELECTRICAL HILLOCK ACCESS
SCALE: 1:250

SYMBOL SCHEDULE

- Post light.
- Motor.
- Disconnect switch to suit application. By electrical contractor.
- C — Security system card access (by others). Provide pathways only.

GENERAL ELECTRICAL NOTES

1. IDENTIFY ALL UNDERGROUND UTILITIES IN AREAS OF WORK. REPAIR ANY DAMAGE CAUSED BY THIS PROJECT.
2. PROVIDE DIRECTIONAL DRILLING, TRENCHING, BACKFILLING AND RETURN ALL SURFACES TO THEIR ORIGINAL CONDITION AS REQUIRED.

SPECIFIC ELECTRICAL NOTES

1. RUN THREE (x3) 50mm HDPE CONDUIT C/W PULLSTRING BELOW GRADE FROM KINETIC GATE OPERATOR TO INSIDE BUILDING (SOUTHWEST CORNER). REFER TO GATE MANUFACTURERS SPECIFICATIONS AND RUN ALL REQUIRED UNDERGROUND HDPE CONDUITS C/W PULLSTRINGS TO CONTROL PEDESTALS, VEHICLE DETECTION LOOPS AND PHOTOEYES. ELECTRICAL CONNECTIONS BY OTHERS.
2. RUN THREE (x3) 38mm HDPE CONDUITS C/W PULLSTRINGS BELOW GRADE FROM BASE OF LIGHT POLE TO INSIDE BUILDING (SOUTHWEST CORNER). ELECTRICAL CONNECTIONS BY OTHERS.
3. RUN TWO (x2) 50mm HDPE CONDUITS C/W PULLSTRINGS BELOW GRADE FROM CARD READER AT MAN GATE TO KINETIC GATE OPERATOR. ELECTRICAL CONNECTIONS BY OTHERS.
4. REFER TO GATE MANUFACTURERS SPECIFICATIONS AND RUN THE FOLLOWING REQUIRED UNDERGROUND HDPE CONDUITS C/W PULLSTRINGS FROM KINETIC GATE OPERATOR TO;

   1) PHOTOEYES = 13mm HDPE
   2) VEHICLE DETECTION LOOPS = 25mm HDPE
   3) ACCESS CONTROL PEDESTALS = 25mm HDPE

   CONFIRM EXACT REQUIREMENTS

LUMINAIRE SCHEDULE

TYPE	DESCRIPTION	MOUNTING	CATALOG NUMBER	LAMPS
1	POST MOUNTED AREA LIGHT MTD. ON 6000mm POLE C/W PHOTOCELL	POST MTD.	LUMINIARE; LITHONIA DSX2 LED 100C 700 40K T5M 120V RPA POLE; HAPCO RTA 20C7B4	188W LED

LUMINAIRE SCHEDULE NOTES:
1. PROVIDE PHOTOCELL CONTROL FOR ALL OUTDOOR LUMINAIRES.

BID OPPORTUNITY No. 588-2015

NOVA 3 ENGINEERING LTD.
CONSULTING ENGINEERS
201-120 FORT STREET TEL.: (204) 943-6142
WINNIPEG, MANITOBA R3C 1C7 FAX.: (204) 942-1276
WWW.NOVA3.CA JN.: 35262e

LOCATION APPROVED
UNDERGROUND STRUCTURES

SUPR. U/G STRUCTURES COMMITTEE _____ DATE _____

NOTE:
LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.

BM
ELEV

No.	REVISIONS	YY/MM/DD	BY
B	ISSUED FOR 100% REVIEW	16/02/12	MZ
A	ISSUED FOR CLIENT REVIEW	15/11/20	MZ

DESIGNED BY	MZ	CHECKED BY	___
DRAWN BY	JLB	APPROVED BY	VLT
HOR SCALE	AS SHOWN	RELEASED FOR CONSTRUCTION	
VERT SCALE	AS SHOWN		
DATE	11/16/2015	DATE	

PROFESSIONAL'S SEAL

CONSULTANT DRAWING No.
35262E.DWG

Winnipeg

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
ENGINEERING DIVISION

AUTOMATED SECURITY GATES & PAVEMENT WORKS - McPHILLIPS PUMPING STATION & PLINGUET YARD

HILLOCK ACCESS ELECTRICAL

SHEET 10 OF 13

CITY DRAWING NUMBER
D-14179