



THE CITY OF WINNIPEG

BID OPPORTUNITY

BID OPPORTUNITY NO. 813-2010

**INSTALL CCTV, CARD ACCESS, AND DOOR STATUS MONITORING SYSTEMS
AT 421 OSBORNE STREET**

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

- B1.1 INSTALL CCTV, CARD ACCESS, AND DOOR STATUS MONITORING SYSTEMS AT 421 OSBORNE STREET

B2. SUBMISSION DEADLINE

- B2.1 The Submission Deadline is 4:00 p.m. Winnipeg time, October 22, 2010.
- B2.2 Bids determined by the Manager of Materials to have been received later than the Submission Deadline will not be accepted and will be returned upon request.
- B2.3 The Contract Administrator or the Manager of Materials may extend the Submission Deadline by issuing an addendum at any time prior to the time and date specified in B2.1.

B3. SITE INVESTIGATION

- B3.1 Further to C3.1, the Contract Administrator or an authorized representative will be available at the Site at 9:00 A.M. on Tuesday, October 19, 2010 to provide Bidders access to the Site. **Attendance is strongly recommended.**
- B3.2 The Bidder shall not be entitled to rely on any information or interpretation received at the Site investigation unless that information or interpretation is the Bidder's direct observation, or is provided by the Contract Administrator in writing.

B4. ENQUIRIES

- B4.1 All enquiries shall be directed to the Contract Administrator identified in D3.1.
- B4.2 If the Bidder finds errors, discrepancies or omissions in the Bid Opportunity, or is unsure of the meaning or intent of any provision therein, the Bidder shall notify the Contract Administrator of the error, discrepancy or omission, or request a clarification as to the meaning or intent of the provision at least five (5) Business Days prior to the Submission Deadline.
- B4.3 Responses to enquiries which, in the sole judgment of the Contract Administrator, require a correction to or a clarification of the Bid Opportunity will be provided by the Contract Administrator to all Bidders by issuing an addendum.
- B4.4 Responses to enquiries which, in the sole judgment of the Contract Administrator, do not require a correction to or a clarification of the Bid Opportunity will be provided by the Contract Administrator only to the Bidder who made the enquiry.
- B4.5 The Bidder shall not be entitled to rely on any response or interpretation received pursuant to B4 unless that response or interpretation is provided by the Contract Administrator in writing.

B5. ADDENDA

- B5.1 The Contract Administrator may, at any time prior to the Submission Deadline, issue addenda correcting errors, discrepancies or omissions in the Bid Opportunity, or clarifying the meaning or intent of any provision therein.
- B5.2 The Contract Administrator will issue each addendum at least two (2) Business Days prior to the Submission Deadline, or provide at least two (2) Business Days by extending the Submission Deadline.
- B5.2.1 Addenda will be available on the Bid Opportunities page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt>

- B5.2.2 The Bidder is responsible for ensuring that he has received all addenda and is advised to check the Materials Management Division website for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.
- B5.2.3 The Bidder shall acknowledge receipt of each addendum in Paragraph 8 of Form A: Bid. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.

B6. SUBSTITUTES

- B6.1 The Work is based on the Plant, Materials and methods specified in the Bid Opportunity.
- B6.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.
- B6.3 Requests for approval of a substitute will not be considered unless received in writing by the Contract Administrator at least five (5) Business Days prior to the Submission Deadline.
- B6.4 The Bidder shall ensure that any and all requests for approval of a substitute:
- (a) provide sufficient information and details to enable the Contract Administrator to determine the acceptability of the Plant, Material or method as either an approved equal or alternative;
 - (b) identify any and all changes required in the applicable Work, and all changes to any other Work, which would become necessary to accommodate the substitute;
 - (c) identify any anticipated cost or time savings that may be associated with the substitute;
 - (d) certify that, in the case of a request for approval as an approved equal, the substitute will fully perform the functions called for by the general design, be of equal or superior substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance;
 - (e) certify that, in the case of a request for approval as an approved alternative, the substitute will adequately perform the functions called for by the general design, be similar in substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance.
- B6.5 The Contract Administrator, after assessing the request for approval of a substitute, may in his sole discretion grant approval for the use of a substitute as an "approved equal" or as an "approved alternative", or may refuse to grant approval of the substitute.
- B6.6 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, only to the Bidder who requested approval of the substitute.
- B6.6.1 The Bidder requesting and obtaining the approval of a substitute shall be entirely responsible for disseminating information regarding the approval to any person or persons he wishes to inform.
- B6.7 If the Contract Administrator approves a substitute as an "approved equal", any Bidder may use the approved equal in place of the specified item.
- B6.8 If the Contract Administrator approves a substitute as an "approved alternative", any Bidder bidding that approved alternative may base his Total Bid Price upon the specified item but may also indicate an alternative price based upon the approved alternative. Such alternatives will be evaluated in accordance with B14.
- B6.9 No later claim by the Contractor for an addition to the Total Bid Price because of any other changes in the Work necessitated by the use of an approved equal or an approved alternative will be considered.

B6.10 Notwithstanding B6.2 to B6.9, and in accordance with B7.7, deviations inconsistent with the Bid Opportunity document shall be evaluated in accordance with B14.1(a).

B7. BID COMPONENTS

B7.1 The Bid shall consist of the following components:

- (a) Form A: Bid;
- (b) Form B: Prices;

B7.2 Further to B7.1, the Bidder should include the written correspondence from the Contract Administrator approving a substitute in accordance with B6.

B7.3 All components of the Bid shall be fully completed or provided, and submitted by the Bidder no later than the Submission Deadline, with all required entries made clearly and completely, to constitute a responsive Bid.

B7.4 The Bid Submission may be submitted by mail, courier or personal delivery, or by facsimile transmission.

B7.5 If the Bid Submission is submitted by mail, courier or personal delivery, it shall be enclosed and sealed in an envelope clearly marked with the Bid Opportunity number and the Bidder's name and address, and shall be submitted to:

The City of Winnipeg
Corporate Finance Department
Materials Management Division
185 King Street, Main Floor
Winnipeg, MB R3B 1J1

B7.5.1 Samples or other components of the Bid Submission which cannot reasonably be enclosed in the envelope may be packaged separately, but shall be clearly marked with the Bid Opportunity number, the Bidder's name and address, and an indication that the contents are part of the Bidder's Bid Submission.

B7.6 Bidders are advised not to include any information/literature except as requested in accordance with B7.1.

B7.7 Bidders are advised that inclusion of terms and conditions inconsistent with the Bid Opportunity document, including the General Conditions, will be evaluated in accordance with B14.1(a).

B7.8 If the Bid Submission is submitted by facsimile transmission, it shall be submitted to (204) 949-1178.

B7.8.1 The Bidder is advised that the City cannot take responsibility for the availability of the facsimile machine at any time.

B7.8.2 Bids submitted by internet electronic mail (e-mail) will not be accepted.

B8. BID

B8.1 The Bidder shall complete Form A: Bid, making all required entries.

B8.2 Paragraph 2 of Form A: Bid shall be completed in accordance with the following requirements:

- (a) if the Bidder is a sole proprietor carrying on business in his own name, his name shall be inserted;
- (b) if the Bidder is a partnership, the full name of the partnership shall be inserted;
- (c) if the Bidder is a corporation, the full name of the corporation shall be inserted;

- (d) if the Bidder is carrying on business under a name other than his own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.

B8.2.1 If a Bid is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B8.2.

B8.3 In Paragraph 3 of Form A: Bid, the Bidder shall identify a contact person who is authorized to represent the Bidder for purposes of the Bid.

B8.4 Paragraph 10 of Form A: Bid shall be signed in accordance with the following requirements:

- (a) if the Bidder is a sole proprietor carrying on business in his own name, it shall be signed by the Bidder;
- (b) if the Bidder is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;
- (c) if the Bidder is a corporation, it shall be signed by its duly authorized officer or officers;
- (d) if the Bidder is carrying on business under a name other than his own, it shall be signed by the registered owner of the business name, or by the registered owner's authorized officials if the owner is a partnership or a corporation.

B8.4.1 The name and official capacity of all individuals signing Form A: Bid should be printed below such signatures.

B8.4.2 All signatures shall be original.

B8.5 If a Bid is submitted jointly by two or more persons, the word "Bidder" shall mean each and all such persons, and the undertakings, covenants and obligations of such joint Bidders in the Bid and the Contract, when awarded, shall be both joint and several.

B9. PRICES

B9.1 The Bidder shall state the lump sum price in Canadian funds for the Work on Form B: Prices.

B9.1.1 Notwithstanding C12.2.3(c), the price on Form B: Prices shall not include the Manitoba Retail Sales Tax (MRST, also known as PST), which shall be extra where applicable.

B9.2 Payments to Non-Resident Contractors are subject to Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).

B10. QUALIFICATION

B10.1 The Bidder shall:

- (a) undertake to be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba; and
- (b) be financially capable of carrying out the terms of the Contract; and
- (c) have all the necessary experience, capital, organization, and equipment to perform the Work in strict accordance with the terms and provisions of the Contract.

B10.2 The Bidder and any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

- (a) be responsible and not be suspended, debarred or in default of any obligations to the City. A list of suspended or debarred individuals and companies is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/debar.stm>

B10.3 The Bidder and/or any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

- (a) have successfully carried out work similar in nature, scope and value to the Work; and
- (b) be fully capable of performing the Work required to be in strict accordance with the terms and provisions of the Contract;
- (c) have a written workplace safety and health program if required pursuant to The Workplace Safety and Health Act (Manitoba);
- (d) be a registered Panasonic Dealer in Canada;
- (e) be a certified iPro Panasonic installer and be able to service the equipment on site without avoiding manufactures warranty; and
- (f) supply equipment, which is SCA approved and serviceable in Canada.

B10.4 Further to B10.3(c), the Bidder shall, within five (5) Business Days of a request by the Contract Administrator, provide proof satisfactory to the Contract Administrator that the Bidder/Subcontractors has a workplace safety and health program meeting the requirements of The Workplace Safety and Health Act (Manitoba), by providing:

- (a) a valid COR certification number under the Certificate of Recognition (COR) Program administered by the Manitoba Construction Safety Association or by the Manitoba Heavy Construction Association's Safety, Health and Environment Program; or
- (b) a report or letter to that effect from an independent reviewer acceptable to the City. (A list of acceptable reviewers and the review template are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt>)

B10.5 The Bidder shall submit, within three (3) Business Days of a request by the Contract Administrator, proof satisfactory to the Contract Administrator of the qualifications of the Bidder and of any proposed Subcontractor.

B10.6 The Bidder shall provide, on the request of the Contract Administrator, full access to any of the Bidder's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Bidder's equipment and facilities are adequate to perform the Work.

B11. OPENING OF BIDS AND RELEASE OF INFORMATION

B11.1 Bids will not be opened publicly.

B11.2 Following the submission deadline, the names of the Bidders and their Total Bid Prices (unevaluated, and pending review and verification of conformance with requirements) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/bidopp.asp>

B11.3 After award of Contract, the name(s) of the successful Bidder(s) and the Contract Amount(s) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt>

B11.4 The Bidder is advised that any information contained in any Bid may be released if required by City policy or procedures, by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law.

B12. IRREVOCABLE BID

B12.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 9 of Form A: Bid.

B12.2 The acceptance by the City of any Bid shall not release the Bids of the next two lowest evaluated responsive Bidders and these Bidders shall be bound by their Bids on such Work for the time period specified in Paragraph 9 of Form A: Bid.

B13. WITHDRAWAL OF BIDS

- B13.1 A Bidder may withdraw his Bid without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.
- B13.1.1 Notwithstanding C23.3, the time and date of receipt of any notice withdrawing a Bid shall be the time and date of receipt as determined by the Manager of Materials.
- B13.1.2 The City will assume that any one of the contact persons named in Paragraph 3 of Form A: Bid or the Bidder's authorized representatives named in Paragraph 10 of Form A: Bid, and only such person, has authority to give notice of withdrawal.
- B13.1.3 If a Bidder gives notice of withdrawal prior to the Submission Deadline, the Manager of Materials will:
- (a) retain the Bid until after the Submission Deadline has elapsed;
 - (b) open the Bid to identify the contact person named in Paragraph 3 of Form A: Bid and the Bidder's authorized representatives named in Paragraph 10 of Form A: Bid; and
 - (c) if the notice has been given by any one of the persons specified in B13.1.3(b), declare the Bid withdrawn.
- B13.2 A Bidder who withdraws his Bid after the Submission Deadline but before his Bid has been released or has lapsed as provided for in B12.2 shall be liable for such damages as are imposed upon the Bidder by law and subject to such sanctions as the Chief Administrative Officer considers appropriate in the circumstances. The City, in such event, shall be entitled to all rights and remedies available to it at law.

B14. EVALUATION OF BIDS

- B14.1 Award of the Contract shall be based on the following bid evaluation criteria:
- (a) compliance by the Bidder with the requirements of the Bid Opportunity or acceptable deviation there from (pass/fail);
 - (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B10 (pass/fail);
 - (c) Total Bid Price;
 - (d) economic analysis of any approved alternative pursuant to B6.
- B14.2 Further to B14.1(a), the Award Authority may reject a Bid as being non-responsive if the Bid is incomplete, obscure or conditional, or contains additions, deletions, alterations or other irregularities. The Award Authority may reject all or any part of any Bid, or waive technical requirements or minor informalities or irregularities, if the interests of the City so require.
- B14.3 Further to B14.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in his Bid or in other information required to be submitted, that he is responsible and qualified.
- B14.4 Further to B14.1(c), the Total Bid Price shall be the lump sum price shown on Form B: Prices.

B15. AWARD OF CONTRACT

- B15.1 The City will give notice of the award of the Contract or will give notice that no award will be made.
- B15.2 The City will have no obligation to award a Contract to a Bidder, even though one or all of the Bidders are determined to be responsible and qualified, and the Bids are determined to be responsive.
- B15.2.1 Without limiting the generality of B15.2, the City will have no obligation to award a Contract where:
- (a) the prices exceed the available City funds for the Work;

- (b) the prices are materially in excess of the prices received for similar work in the past;
- (c) the prices are materially in excess of the City's cost to perform the Work, or a significant portion thereof, with its own forces;
- (d) only one Bid is received; or
- (e) in the judgment of the Award Authority, the interests of the City would best be served by not awarding a Contract.

B15.3 Where an award of Contract is made by the City, the award shall be made to the responsible and qualified Bidder submitting the lowest evaluated responsive Bid, in accordance with B14.

B15.3.1 Following the award of contract, a Bidder will be provided with information related to the evaluation of his Bid upon written request to the Contract Administrator.

B15.4 Notwithstanding C4, the City will issue a Purchase Order to the successful Bidder in lieu of the execution of a Contract.

B15.5 The Contract, as defined in C1.1, in its entirety shall be deemed to be incorporated in and to form a part of the Purchase Order notwithstanding that it is not necessarily attached to or accompany said Purchase Order.

PART C - GENERAL CONDITIONS

C0. GENERAL CONDITIONS

- C0.1 The *General Conditions for Construction* (Revision 2006 12 15) are applicable to the Work of the Contract.
- C0.1.1 The *General Conditions for Construction* are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at http://www.winnipeg.ca/matmgt/gen_cond.stm
- C0.2 A reference in the Bid Opportunity to a section, clause or subclause with the prefix “**C**” designates a section, clause or subclause in the *General Conditions for Construction*.

PART D - SUPPLEMENTAL CONDITIONS

GENERAL

D1. GENERAL CONDITIONS

D1.1 In addition to the *General Conditions for Construction*, these Supplemental Conditions are applicable to the Work of the Contract.

D2. SCOPE OF WORK

D2.1 The Work to be done under the Contract shall consist of Installation and Integration of CCTV, Card Access, and Door Status Monitoring Systems at 421 Osborne Street.

D2.2 The major components of the Work are as follows:

- (a) Installation of the electronic controllers, network signal enhancement components, and power supplies listed in the specifications;
- (b) Installation of the cabling infrastructure connecting the above listed components;
- (c) Installation, and integration of field controllers, sensors, and cameras; and
- (d) Integration, adjustment, programming, and testing the integrated systems.

D2.3 Contractor shall be responsible for the safe and secure storage of this equipment:

- (a) Johnson Controls card access enclosures and controllers
- (b) HID iClass card readers
- (c) CCTV monitor for the Treasury Blister Office

D3. CONTRACT ADMINISTRATOR

D3.1 The Contract Administrator is:

Michael Kupchin
Electronic Technologist
Planning, Property & Development
Telephone No. (204) 803-3891

D3.2 At the pre-construction meeting, the Contract Administrator will identify additional personnel representing the Contract Administrator and their respective roles and responsibilities for the Work.

D4. CONTRACTOR'S SUPERVISOR

D4.1 At the pre-construction meeting, the Contractor shall identify his designated supervisor and any additional personnel representing the Contractor and their respective roles and responsibilities for the Work.

D5. NOTICES

D5.1 Except as provided for in C23.2.2, all notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the Contractor shall be sent to the address or facsimile number identified by the Contractor in Paragraph 2 of Form A: Bid.

D5.2 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the City, except as expressly otherwise required in D5.3,

D5.4 or elsewhere in the Contract, shall be sent to the attention of the Contract Administrator at the address or facsimile number identified in D3.1.

D5.3 Notwithstanding C21., all notices of appeal to the Chief Administrative Officer shall be sent to the attention of the Chief Financial Officer at the following facsimile number:

The City of Winnipeg
Chief Financial Officer

Facsimile No.: (204) 949-1174

D5.4 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications required to be submitted or returned to the City Solicitor shall be sent to the following address or facsimile number:

The City of Winnipeg
Legal Services Department
Attn: City Solicitor
185 King Street, 3rd Floor
Winnipeg MB R3B 1J1

Facsimile No.: (204) 947-9155

SUBMISSIONS

D6. AUTHORITY TO CARRY ON BUSINESS

D6.1 The Contractor shall be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba, or if the Contractor does not carry on business in Manitoba, in the jurisdiction where the Contractor does carry on business, throughout the term of the Contract, and shall provide the Contract Administrator with evidence thereof upon request.

D7. SAFE WORK PLAN

D7.1 The Contractor shall provide the Contract Administrator with a Safe Work Plan at least five (5) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.

D7.2 The Safe Work Plan should be prepared and submitted in the format shown in the City's template which is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/Safety/default.stm>

D8. INSURANCE

D8.1 The Contractor shall provide and maintain the following insurance coverage:

- (a) commercial general liability insurance, in the amount of at least two million dollars (\$2,000,000.00) inclusive, with The City of Winnipeg added as an additional insured, with a cross-liability clause, such liability policy to also contain contractual liability, unlicensed motor vehicle liability, non-owned automobile liability and products and completed operations, to remain in place at all times during the performance of the Work and throughout the warranty period;
- (b) automobile liability insurance for owned automobiles used for or in connection with the Work in the amount of at least two million dollars (\$2,000,000.00) at all times during the performance of the Work and until the date of Total Performance;

D8.2 Deductibles shall be borne by the Contractor.

D8.3 The Contractor shall provide the Contract Administrator with a certificate(s) of insurance, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Work but in no event later than seven (7) Calendar Days from notification of the award of Contract by Purchase Order.

D8.4 The Contractor shall not cancel, materially alter, or cause each policy to lapse without providing at least thirty (30) Calendar Days prior written notice to the Contract Administrator.

D9. PERFORMANCE SECURITY

D9.1 If the Contract Price exceeds twenty-five thousand dollars (\$25,000.00), the Contractor shall provide and maintain performance security until the expiration of the warranty period in the form of:

- (a) a performance bond of a company registered to conduct the business of a surety in Manitoba, in the form attached to these Supplemental Conditions (Form H1: Performance Bond), in the amount of fifty percent (50%) of the Contract Price; or
- (b) an irrevocable standby letter of credit issued by a bank or other financial institution registered to conduct business in Manitoba and drawn on a branch located in Winnipeg, in the form attached to these Supplemental Conditions (Form H2: Irrevocable Standby Letter of Credit), in the amount of fifty percent (50%) of the Contract Price; or
- (c) a certified cheque or draft payable to "The City of Winnipeg", drawn on a bank or other financial institution registered to conduct business in Manitoba, in the amount of fifty percent (50%) of the Contract Price.

D9.1.1 Where the performance security is in the form of a certified cheque or draft, it will be deposited by the City. The City will not pay any interest on certified cheques or drafts furnished as performance security.

D9.2 The Contractor shall provide the City Solicitor with the required performance security within seven (7) Calendar Days of notification of the award of the Contract by way of Purchase Order and prior to the commencement of any Work on the Site.

SCHEDULE OF WORK

D10. COMMENCEMENT

D10.1 The Contractor shall not commence any Work until he is in receipt of a Purchase Order from the Award Authority authorizing the commencement of the Work.

D10.2 The Contractor shall not commence any Work on the Site until:

- (a) the Contract Administrator has confirmed receipt and approval of:
 - (i) evidence of authority to carry on business specified in D6;
 - (ii) evidence of the workers compensation coverage specified in C6.15;
 - (iii) the Safe Work Plan specified in D7;
 - (iv) evidence of the insurance specified in D8;
 - (v) the performance security specified in D9;
- (b) the Contractor has attended a pre-construction meeting with the Contract Administrator, or the Contract Administrator has waived the requirement for a pre-construction meeting.

D10.3 The Contractor shall commence the Work on the Site within seven (7) Working Days of receipt of the Purchase Order.

D11. TOTAL PERFORMANCE

D11.1 The Contractor shall achieve Total Performance by December 27, 2010.

- D11.2 When the Contractor or the Contract Administrator considers the Work to be totally performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Total Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be reinspected.
- D11.3 The date on which the Work has been certified by the Contract Administrator as being totally performed to the requirements of the Contract through the issue of a certificate of Total Performance is the date on which Total Performance has been achieved.

CONTROL OF WORK

D12. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)

- D12.1 Further to C6.24, the Contractor shall be the Prime Contractor and shall serve as, and have the duties of the Prime Contractor in accordance with The Workplace Safety and Health Act (Manitoba).

D13. RESPONSIBILITY FOR PLANT AND MATERIALS

- D13.1 The following equipment will be supplied by others, and is expected to arrive at the Work Site on October 29, 2010:
- (a) Johnson Controls card access enclosures and controllers
 - (b) HID Card Readers
 - (c) CCTV monitor for the Treasury Blister Office
- D13.2 Contractor shall be responsible to off-load the equipment detailed in D2.2(b)(i) from the supplier's truck(s).
- D13.3 Contractor shall be responsible for the safe and secure storage of all equipment in connection with this Contract, including the equipment supplied by others
- D13.4 The Contractor shall be liable to the City for any loss of or damage to Plant or Material that is supplied to or placed in the care, custody and control of the Contractor by the City in connection with the Contract, whether or not that loss or damage is attributable to causes beyond the Contractor's control, from the commencement of the Work until:
- (a) Material is incorporated into the Work; or
 - (b) Plant or Material is returned, in its original condition, to the City.

MEASUREMENT AND PAYMENT

D14. INVOICES

- D14.1 Further to C12, the Contractor shall submit an invoice for each order delivered to:
- The City of Winnipeg
Corporate Finance - Accounts Payable
4th Floor, Administration Building, 510 Main Street
Winnipeg MB R3B 1B9
- Facsimile No.: (204) 949-0864
Email: CityWpgAP@winnipeg.ca
- D14.2 Invoices must clearly indicate, as a minimum:
- (a) the City's purchase order number;
 - (b) date of delivery;

- (c) delivery address;
- (d) type and quantity of goods delivered;
- (e) the amount payable with GST and MRST shown as separate amounts; and
- (f) the Contractor's GST registration number.

D14.3 The City will bear no responsibility for delays in approval of invoices which are improperly submitted.

D14.4 Bids Submissions must be submitted to the address in B7.5.

D15. PAYMENT

D15.1 Further to C12, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

WARRANTY

D16. WARRANTY

D16.1 Warranty is as stated in C13.

FORM H1: PERFORMANCE BOND
(See D9)

KNOW ALL MEN BY THESE PRESENTS THAT

_____ ,
(hereinafter called the "Principal"), and

_____ ,
(hereinafter called the "Surety"), are held and firmly bound unto **THE CITY OF WINNIPEG** (hereinafter called the "Obligee"), in the sum of

_____ dollars (\$_____)

of lawful money of Canada to be paid to the Obligee, or its successors or assigns, for the payment of which sum the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS the Principal has entered into a written contract with the Obligee for

BID OPPORTUNITY NO. 813-2010

INSTALL CCTV, CARD ACCESS, AND DOOR STATUS MONITORING SYSTEMS
AT 421 OSBORNE STREET

which is by reference made part hereof and is hereinafter referred to as the "Contract".

NOW THEREFORE the condition of the above obligation is such that if the Principal shall:

- (a) carry out and perform the Contract and every part thereof in the manner and within the times set forth in the Contract and in accordance with the terms and conditions specified in the Contract;
- (b) perform the Work in a good, proper, workmanlike manner;
- (c) make all the payments whether to the Obligee or to others as therein provided;
- (d) in every other respect comply with the conditions and perform the covenants contained in the Contract; and
- (e) indemnify and save harmless the Obligee against and from all loss, costs, damages, claims, and demands of every description as set forth in the Contract, and from all penalties, assessments, claims, actions for loss, damages or compensation whether arising under "The Workers Compensation Act", or any other Act or otherwise arising out of or in any way connected with the performance or non-performance of the Contract or any part thereof during the term of the Contract and the warranty period provided for therein;

THEN THIS OBLIGATION SHALL BE VOID, but otherwise shall remain in full force and effect. The Surety shall not, however, be liable for a greater sum than the sum specified above.

AND IT IS HEREBY DECLARED AND AGREED that the Surety shall be liable as Principal, and that nothing of any kind or matter whatsoever that will not discharge the Principal shall operate as a discharge or release of liability of the Surety, any law or usage relating to the liability of Sureties to the contrary notwithstanding.

IN WITNESS WHEREOF the Principal and Surety have signed and sealed this bond the

_____ day of _____, 20____.

SIGNED AND SEALED
in the presence of:

(Witness as to Principal if no seal)

(Name of Principal)

Per: _____ (Seal)

Per: _____

(Name of Surety)

By: _____ (Seal)
(Attorney-in-Fact)

**FORM H2: IRREVOCABLE STANDBY LETTER OF CREDIT
(PERFORMANCE SECURITY)
(See D9)**

(Date)

The City of Winnipeg
Legal Services Department
185 King Street, 3rd Floor
Winnipeg MB R3B 1J1

RE: PERFORMANCE SECURITY - BID OPPORTUNITY NO. 813-2010

**INSTALL CCTV, CARD ACCESS, AND DOOR STATUS MONITORING
SYSTEMS
AT 421 OSBORNE STREET**

Pursuant to the request of and for the account of our customer,

(Name of Contractor)

(Address of Contractor)

WE HEREBY ESTABLISH in your favour our irrevocable Standby Letter of Credit for a sum not exceeding in the aggregate

_____ Canadian dollars.

This Standby Letter of Credit may be drawn on by you at any time and from time to time upon written demand for payment made upon us by you. It is understood that we are obligated under this Standby Letter of Credit for the payment of monies only and we hereby agree that we shall honour your demand for payment without inquiring whether you have a right as between yourself and our customer to make such demand and without recognizing any claim of our customer or objection by the customer to payment by us.

The amount of this Standby Letter of Credit may be reduced from time to time only by amounts drawn upon it by you or by formal notice in writing given to us by you if you desire such reduction or are willing that it be made.

Partial drawings are permitted.

We engage with you that all demands for payment made within the terms and currency of this Standby Letter of Credit will be duly honoured if presented to us at:

(Address)

and we confirm and hereby undertake to ensure that all demands for payment will be duly honoured by us.

All demands for payment shall specifically state that they are drawn under this Standby Letter of Credit.

Subject to the condition hereinafter set forth, this Standby Letter of Credit will expire on

(Date)

It is a condition of this Standby Letter of Credit that it shall be deemed to be automatically extended from year to year without amendment from the present or any future expiry date, unless at least 30 days prior to the present or any future expiry date, we notify you in writing that we elect not to consider this Standby Letter of Credit to be renewable for any additional period.

This Standby Letter of Credit may not be revoked or amended without your prior written approval.

This credit is subject to the Uniform Customs and Practice for Documentary Credit (1993 Revision), International Chamber of Commerce Publication Number 500.

(Name of bank or financial institution)

Per: _____
(Authorized Signing Officer)

Per: _____
(Authorized Signing Officer)

PART E - SPECIFICATIONS

GENERAL

E1. APPLICABLE SPECIFICATIONS AND DRAWINGS

- E1.1 These Specifications shall apply to the Work.
- E1.2 *The City of Winnipeg Standard Construction Specifications* in its entirety, whether or not specifically listed on Form B: Prices, shall apply to the Work.
- E1.2.1 *The City of Winnipeg Standard Construction Specifications* is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/Spec/Default.stm>
- E1.2.2 The version in effect three (3) Business Days before the Submission Deadline shall apply.
- E1.2.3 Further to C2.4(d), Specifications included in the Bid Opportunity shall govern over *The City of Winnipeg Standard Construction Specifications*.
- E1.2.4 Electronic security installation requirements rev.3
- E1.3 The following are applicable to the Work:

Drawing No. Drawing Name/Title

Floor Plan: Building A
Floor Plan: Building B
Floor Plan: Administration Building Basement

E2. HAZARDOUS MATERIALS

- E2.1 If asbestos or other hazardous materials are encountered during the Work of the Contract, the Contractor shall stop all work and notify the Contract Administrator immediately. Removal of hazardous materials shall be dealt with by the City and the Contractor shall await further instruction by the Contract Administrator.

E3. WORK

- E3.1 The installation includes the following independent components:
- (a) Card Access
 - (b) CCTV
 - (c) Door status monitoring

E4. CARD ACCESS.

- E4.1 The following actions are performed by the Contractor:
- E4.1.1 Main card access panel (location 25)
- 1. Supply and attach to the wall painted plywood background for controller enclosures installation at the specified by the City location
 - 2. Install supplied by the City 32"x40" JCI Cardkey controller enclosure on the plywood background
 - 3. Supply and install an Altronix AL600ULXPD16 power supply enclosure on the plywood background
 - 4. Interlock the enclosures using conduit or PVC wire trays to conceal the cables travelling between the enclosures

5. Supply a 120V AC power source to the enclosures, installed through a central disconnect switch from a dedicated circuit. Central disconnect switch should have padlock brackets for locking the switch in "ON" position. Padlock brackets should be attached to the electrical box cover with an industrial adhesive.
6. Supply and install the following Belden control cables to the card access controlled doors 1, 2, 2A, 3, 4, 4A, 5 and 6:
 - a. 18AWG – 2c door electric strike
 - b. 22AWG – 6c card reader
 - c. 22AWG – 4c door position switch
 - d. 22AWG – 4c request to exit motion detector
7. Supply and install 22AWG – 4c cable to the door at location 2, 4, and 4A to provide for comfort key access functionality
8. Supply the power to all locking devices from the Altronix power supply
9. Supply, connect, and wire ENE Genesis NP7-12 backup batteries to the JCI and Altronix enclosures
10. Relocate a CK721 network controller from supplied by the City 24"x30" JCI Cardkey enclosure, mount it and power up in parallel with the originally installed CK721 controller.
11. Label CK721 controllers as "CK25" and "CK26"
12. Install and terminate two network CAT5e cables from dedicated ports on the network switch (to be identified by the City of Winnipeg) to CK721 network controllers
13. Verify that all RDR2SA door controllers are connected with RS485 bus to CK25 network controller
14. Address the door controllers as 0, 1, 2 and 3
15. Terminate the cables travelling from the doors at the RDR2SA door controllers according to the JCI installation manual and instructions of the City as follows:
 - a. CK25, RDR2SA address 0, Terminal 1 – Door 1
 - b. CK25, RDR2SA address 0, Terminal 2 – Door 2
 - c. CK25, RDR2SA address 1, Terminal 1 – Door 2A
 - d. CK25, RDR2SA address 1, Terminal 2 – Door 3
 - e. CK25, RDR2SA address 2, Terminal 1 – Door 4
 - f. CK25, RDR2SA address 2, Terminal 2 – Door 4A
 - g. CK25, RDR2SA address 3, Terminal 1 – Door 5
 - h. CK25, RDR2SA address 3, Terminal 2 – Door 6
16. Label the terminal as follows:
 - a. CK25-T01
 - b. CK25-T02
 - c. CK25-T03
 - d. CK25-T04
 - e. CK25-T05
 - f. CK25-T06
 - g. CK25-T07
 - h. CK25-T08

E4.1.2 Sub-panel A (location 26)

1. Supply and attach to the wall painted plywood background for controller enclosures installation at the specified by the City location
2. Install supplied by the City 24"x30" JCI Cardkey controller enclosure on the plywood background
3. Supply and install an Altronix AL600ULXPD16 power supply enclosure on the plywood background
4. Interlock the enclosures using conduit or PVC wire trays to conceal the cables travelling between the enclosures
5. Supply a 120V AC power source to the enclosures, installed through a central disconnect switch from a dedicated circuit. Central disconnect switch should have padlock brackets for locking the switch in "ON" position. Padlock brackets should be attached to the electrical box cover with an industrial adhesive.
6. Supply and install Belden 18AWG-4c shielded cable from main card access panel (location 25) and use it as a backbone communication bus for the door controllers

7. Mount supplied by the City RDR2SA door controller inside the enclosure, and power it up in parallel with the originally installed four RDR2SA controllers. Do not connect more than three (3) door controllers to one power supply
8. Connect all five (5) RDR2SA door controllers to the network controller CK26 located at the main enclosure using the installation instructions
9. Supply and install the following Belden control cables to the card access controlled doors 11, 12, 13, and 14:
 - i. 18AWG – 2c door electric strike
 - j. 22AWG – 6c card reader
 - k. 22AWG – 4c door position switch
 - l. 22AWG – 4c request to exit motion detector
10. Supply and install the following Belden control cables to the card access controlled doors 7, 8, 17, 18, and 19:
 - m. 14AWG – 2c door electric strike
 - n. 22AWG – 6c card reader
 - o. 22AWG – 4c door position switch
 - p. 22AWG – 6c request to exit motion detector
11. Supply and install 22AWG – 4c cable to the door at location 8 to provide for comfort key access functionality
12. Supply the power to all locking devices from the Altronix power supply
13. Supply, connect, and wire ENE Genesis NP7-12 backup batteries to the JCI and Altronix enclosures
14. Address the door controllers as 0, 1, 2, 3, and 4
15. Terminate the cables travelling from the doors at the RDR2SA door controllers according to the JCI installation manual and instructions of the City as follows:
 - q. CK26, RDR2SA address 0, Terminal 1 – Door 11
 - r. CK26, RDR2SA address 0, Terminal 2 – Door 12
 - s. CK26, RDR2SA address 1, Terminal 1 – Door 13
 - t. CK26, RDR2SA address 1, Terminal 2 – Door 14
 - u. CK26, RDR2SA address 2, Terminal 1 – Door 7
 - v. CK26, RDR2SA address 2, Terminal 2 – Door 8
 - w. CK26, RDR2SA address 3, Terminal 1 – Door 17
 - x. CK26, RDR2SA address 3, Terminal 2 – Door 18
 - y. CK26, RDR2SA address 4, Terminal 1 – Door 19
16. Label the terminal as follows:
 - z. CK26-T01
 - aa. CK26-T02
 - bb. CK26-T03
 - cc. CK26-T04
 - dd. CK26-T05
 - ee. CK26-T06
 - ff. CK26-T07
 - gg. CK26-T08
 - hh. CK26-T09

E4.1.3 Sub-panel B (location 27)

1. Supply and attach to the wall painted plywood background for controller enclosures installation at the specified by the City location
2. Install supplied by the City 16"x16" JCI Cardkey controller enclosure on the plywood background
3. Supply and install an Altronix AL400ULPD8CB power supply enclosure on the plywood background
4. Interlock the enclosures using conduit or PVC wire trays to conceal the cables travelling between the enclosures
5. Supply a 120V AC power source to the enclosures, installed through a central disconnect switch from a dedicated circuit. Central disconnect switch should have padlock brackets for locking the switch in "ON" position. Padlock brackets should be attached to the electrical box cover with an industrial adhesive.

6. Supply and install Belden 18AWG-4c shielded cable from main card access panel (location 25) and use it as a backbone communication bus for the door controllers
7. Connect pre-mounted RDR2SA door controller to the network controller CK25 located at the main enclosure using the installation instructions
8. Supply and install the following Belden control cables to the card access controlled doors 23 and 24:
 - ii. 18AWG – 2c door electric strike
 - jj. 22AWG – 6c card reader
 - kk. 22AWG – 4c door position switch
 - ll. 22AWG – 4c request to exit motion detector
9. Supply the power to all locking devices from the Altronix power supply
10. Supply, connect, and wire ENE Genesis NP7-12 backup batteries to the JCI and Altronix enclosures
11. Address the door controllers as 5
12. Terminate the cables travelling from the doors at the RDR2SA door controllers according to the JCI installation manual and instructions of the City as follows:
 - mm. CK26, RDR2SA address 5, Terminal 1 – Door 9
 - nn. CK26, RDR2SA address 5, Terminal 2 – Door 10
13. Label the terminal as follows:
 - oo. CK26-T11
 - pp. CK26-T12

E4.1.4 Sub-panel C (location 28)

1. Supply and attach to the wall painted plywood background for controller enclosures installation at the specified by the City location
2. Install supplied by the City 16"x16" JCI Cardkey controller enclosure on the plywood background
3. Supply and install an Altronix AL400ULPD8CB power supply enclosure on the plywood background
4. Interlock the enclosures using conduit or PVC wire trays to conceal the cables travelling between the enclosures
5. Supply a 120V AC power source to the enclosures, installed through a central disconnect switch from a dedicated circuit. Central disconnect switch should have padlock brackets for locking the switch in "ON" position. Padlock brackets should be attached to the electrical box cover with an industrial adhesive.
6. Supply and install Belden 18AWG-4c shielded cable from sub-panel A (location 26) and use it as a backbone communication bus for the door controllers
7. Connect pre-mounted RDR2SA door controller to the network controller CK25 located at the main enclosure using the installation instructions
8. Supply and install the following Belden control cables to the card access controlled doors 9 and 10:
 - qq. 18AWG – 2c door electric strike
 - rr. 22AWG – 6c card reader
 - ss. 22AWG – 4c door position switch
 - tt. 22AWG – 4c request to exit motion detector
 - uu. 22AWG – 4c comfort station access
9. Supply the power to all locking devices from the Altronix power supply
10. Supply, connect, and wire ENE Genesis NP7-12 backup batteries to the JCI and Altronix enclosures
11. Address the door controllers as 4
12. Terminate the cables travelling from the doors at the RDR2SA door controllers according to the JCI installation manual and instructions of the City as follows:
 - vv. CK25, RDR2SA address 4, Terminal 1 – Door 23
 - ww. CK25, RDR2SA address 4, Terminal 2 – Door 24
13. Label the terminal as follows:
 - xx. CK25-T09
 - yy. CK25-T10

E4.1.5 Sub-panel D (location 29)

1. Supply and attach to the wall painted plywood background for controller enclosures installation at the specified by the City location
2. Install supplied by the City 16"x16" JCI Cardkey controller enclosure on the plywood background
3. Supply and install an Altronix AL400ULPD8CB power supply enclosure on the plywood background
4. Interlock the enclosures using conduit or PVC wire trays to conceal the cables travelling between the enclosures
5. Supply a 120V AC power source to the enclosures, installed through a central disconnect switch from a dedicated circuit. Central disconnect switch should have padlock brackets for locking the switch in "ON" position. Padlock brackets should be attached to the electrical box cover with an industrial adhesive.
6. Supply and install Belden 18AWG-4c shielded cable from sub-panel C (location 28) and use it as a backbone communication bus for the door controllers
7. Connect pre-mounted RDR2SA door controller to the network controller CK25 located at the main enclosure using the installation instructions
8. Supply and install the following Belden control cables to the card access controlled doors 20:
 - zz. 18AWG – 2c door electric strike
 - aaa. 22AWG – 6c card reader
 - bbb. 22AWG – 4c door position switch
 - ccc. 22AWG – 4c request to exit motion detector
 - ddd. 22AWG – 4c comfort station access
9. Supply the power to all locking devices from the Altronix power supply
10. Supply, connect, and wire ENE Genesis NP7-12 backup batteries to the JCI and Altronix enclosures
11. Address the door controllers as 5
12. Terminate the cables travelling from the doors at the RDR2SA door controllers according to the JCI installation manual and instructions of the City as follows:
 - eee. CK25, RDR2SA address 5, Terminal 1 – Door 20
13. Label the terminal as follows:
 - fff. CK25-T11

E4.1.6 Doors and field devices

1. Install supplied by the City HID mullion mounted R10 card readers (model #6100CKT07C0) at 36" from the floor on the doors 1, 2, 2A, 4A, 5, 7, 8, 9, 10, 12, 13, 17, 18, 20, 23, and 24. Confirm exact locations with the Contract Administrator.
2. Install supplied by the City HID wall mounted R40 card readers (model 6120CKT07C0) at 36" from the floor on the doors 3, 4, 6, 11, 14, and 19. Confirm exact locations with the Contract Administrator.
3. Supply and install GE Security 1076D-N 1" DPDT door position switches and door magnets on doors at locations 7, 8, 9, 10, 17, 18, 19, and 20. Terminate one poll terminal using 2.1K Ohm resistors connected for DEOL monitoring
4. Supply and install GE Security 1076-N 1" door position switches and door magnets on doors at locations 1, 2, 2A, 3, 4, 4A, 5, 6, 11, 12, 13, 14, 23, and 24. Terminate using 2.1K Ohm resistors connected for DEOL monitoring
5. Supply and install Kantech KAN-TREX XL BLK Request to exit motion detectors on all doors monitored by the card access system. Verify the locations of the REX sensors with the Contract Administrator. Engage the tamper circuit and terminate using 2.1K Ohm resistors connected for DEOL monitoring. On doors 7, 8, 17, 18, and 19 use two pairs of 22AWG – 6c cable for supplying +24V DC and two pairs for -24V DC
6. Connect and terminate the pre-installed by others electric locking devices to the card access controllers and power supplies using MOV protection supplied by the City of Winnipeg
7. Interlock any automated door operators with the card access system to allow for the synchronized operation as follows:
 - ggg. Electric locking device is in locked state – door operator buttons are disabled
 - hhh. Electric locking device is in access state – door operator buttons are enabled

8. Supply and install a switch 48" from the floor level by the door at location 24. Interrupt one of the Request-to-Exit signal cables on the switch to provide for a local bypass. Confirm the switch location and type with the Contract Administrator.
9. Install and terminate supplied by others momentary key switch 36" from the floor level by the doors at locations 2, 4, 4A, 8, 9, 10, and 20. Confirm the installation method and location with the Contract Administrator.
10. Terminate the cables described in clause 80 on the other side of the run to unused input terminals of RDR2SA controllers according to installation manual and instructions of the City.

E5. CCTV

E5.1 The following actions are performed by the Contractor:

E5.1.1 Head end (location 30)

1. Supply and install on the network rack specified by the City two Panasonic WJND400 recorders with 9TB storage capacity
2. Supply and install on the network rack specified by the City two Panasonic WJHDE400 expansion bays with 9TB storage capacity
3. Use specified by the City network switches to establish communication with cameras and monitoring software
4. Set up the recorder for 24/7 motion activated recording of all cameras. Do not change the default value of the Administrator's password
5. Supply and install on the network rack specified by the City Altronix R615DC1016CB power supply
6. Supply and install CAT6 cables from the specified CCTV switch to locations 1, 4A, and 31
7. Supply and install I Belden 16AWG – 2c cables from the Altronix power supply to locations 1, 4A, and 31
8. Supply and install CAT6 cable to the monitoring station (location 32)
9. Supply and install CAT6 cable to locations 26 and 35 to establish communication with network enhancement devices. The cable run should not exceed 300 ft.

E5.1.2 Central Monitoring Station (location 32)

1. Supply and install on supplied by the City computer work station ASM100 software with one licence
2. Following the City direction establish communication of ASM100 software, network video recorders, and cameras. Organize monitoring groups and sequences. Develop and populate the facility's map with installed cameras connected to ASM100.

E5.1.3 Treasury Blister Office Monitoring Station (location 28)

1. Supply and install Panasonic decoder WJGXD400P on the wall not further than four (4) feet from supplied by the City monitor
2. Mount supplied by the City monitor on the wall
3. Supply and HDMI interface cable and connect the decoder and the monitor
4. Supply 120V AC power to the decoder and the monitor
5. Establish communication of between the decoder and network video recorders
6. Configure the decoder for simultaneous display of real time footage of cameras at locations 53 (one camera), 48 (one camera), 24, and 52 on the monitor

E5.1.4 Network communication enhancement hub (location 26)

1. Supply and install Terrawave Solutions enclosure V141206LO0H
2. Supply and install Transition Networks 8 port switch SISTM1010-180-LRT with Transition Networks power supply SPS-UA-12DHT
3. Supply 120V AC power from the card access enclosure

4. Supply and install CAT6 cable to location 33 to establish communication with network enhancement devices. The cable run should not exceed 300 ft.

E5.1.5 Network communication enhancement hub (location 35)

1. Supply and install Terrawave Solutions enclosure V141206LO0H
2. Supply and install Transition Networks 8 port switch SISTM1010-180-LRT with Transition Networks power supply SPS-UA-12DHT
3. Supply and install Altronix WPTV244175UL and Labco PS241F power supplies
4. Supply a 120V AC power source to the enclosures, installed through a central disconnect switch from a dedicated circuit (if available). Central disconnect switch should be weather proof and have padlock brackets for locking the switch in "ON" position. Padlock brackets should be attached to the electrical box cover with an industrial adhesive.
5. Supply and install CAT6 cable from the Transition Networks CCTV switch to each of locations 39 and 48
6. Supply and install Belden 16AWG – 2c cable from the Altronix power supply to location 39
7. Supply and install CAT6 cables to locations 36 and 37 to establish communication with network enhancement devices. The cable run should not exceed 300 ft.
8. Supply 120V AC power to location 48 if local 120V AC source is not available at the location.

E5.1.6 Network communication enhancement hub (location 33)

1. Supply and install Terrawave Solutions enclosure V141206LO0H
2. Supply and install Transition Networks 8 port switch SISTM1010-180-LRT with Transition Networks power supply SPS-UA-12DHT
3. Supply and install Altronix WPTV248300ULCB and three (3) Labco PS241F power supplies
4. Supply a 120V AC power source to the enclosures, installed through a central disconnect switch from a dedicated circuit (if available). Central disconnect switch should be weather proof and have padlock brackets for locking the switch in "ON" position. Padlock brackets should be attached to the electrical box cover with an industrial adhesive.
5. Supply and install two CAT6 cables from the Transition Networks CCTV switch to location 40 and one to location 41
6. Supply and install two Belden 16AWG – 2c cables from the Altronix power supply to location 40 and one to location 41
7. Supply and install CAT6 cable to location 27 to establish communication with network enhancement devices. The cable run should not exceed 300 ft.

E5.1.7 Network communication enhancement hub (location 27)

1. Supply and install Terrawave Solutions enclosure V141206LO0H
2. Supply and install Transition Networks 8 port switch SISTM1010-180-LRT with Transition Networks power supply SPS-UA-12DHT
3. Supply and install Altronix WPTV248300ULCB and three (3) Labco PS241F power supplies
4. Supply a 120V AC power source to the enclosures, installed through a central disconnect switch from a dedicated circuit (if available). Central disconnect switch should be weather proof and have padlock brackets for locking the switch in "ON" position. Padlock brackets should be attached to the electrical box cover with an industrial adhesive.
5. Supply and install two CAT6 cables from the Transition Networks CCTV switch to location 42 and one to location 43
6. Supply and install two Belden 16AWG – 2c cables from the Altronix power supply to location 42 and one to location 43
7. Supply and install CAT6 cable to location 34 to establish communication with network enhancement devices. The cable run should not exceed 300 ft.

E5.1.8 Network communication enhancement hub (location 34)

1. Supply and install Terrawave Solutions enclosure V141206LO0H

2. Supply and install Transition Networks 8 port switch SISTM1010-180-LRT with Transition Networks power supply SPS-UA-12DHT
3. Supply and install Altronix WPTV248300ULCB and two (2) Labco PS241F power supplies
4. Supply a 120V AC power source to the enclosures, installed through a central disconnect switch from a dedicated circuit (if available). Central disconnect switch should be weather proof and have padlock brackets for locking the switch in "ON" position. Padlock brackets should be attached to the electrical box cover with an industrial adhesive.
5. Supply and install one CAT6 cable from the Transition Networks CCTV switch to each of locations 44, 45, and 46
6. Supply and install one Belden 16AWG – 2c cable from the Altronix power supply to each of locations 44, 45, and 46
7. Supply and install CAT6 cable to location 19 to establish communication with network enhancement devices. The cable run should not exceed 300 ft.

E5.1.9 Network communication enhancement hub (location 19)

1. Supply and install Terrawave Solutions enclosure V141206LO0H
2. Supply and install Transition Networks 8 port switch SISTM1010-180-LRT with Transition Networks power supply SPS-UA-12DHT
3. Supply and install Altronix WPTV248300ULCB and two (2) Labco PS241F power supplies
4. Supply a 120V AC power source to the enclosures, installed through a central disconnect switch from a dedicated circuit (if available). Central disconnect switch should be weather proof and have padlock brackets for locking the switch in "ON" position. Padlock brackets should be attached to the electrical box cover with an industrial adhesive.
5. Supply and install two CAT6 cables from the Transition Networks CCTV switch to location 47
6. Supply and install two Belden 16AWG – 2c cable from the Altronix power supply to location 47

E5.1.10 Network communication enhancement hub (location 36)

1. Supply and install Terrawave Solutions enclosure V141206LO0H
2. Supply and install Transition Networks 8 port switch SISTM1010-180-LRT with Transition Networks power supply SPS-UA-12DHT
3. Supply a 120V AC power source to the enclosures, installed through a central disconnect switch from a dedicated circuit (if available). Central disconnect switch should be weather proof and have padlock brackets for locking the switch in "ON" position. Padlock brackets should be attached to the electrical box cover with an industrial adhesive.
4. Supply and install CAT6 cable to each of locations 49, 50, and 51 to establish communication with network enhancement devices. The cable run should not exceed 300 ft.
5. Supply 120V AC power to location 49, 50, and 51 if local 120V AC source is not available at the locations.

E5.1.11 Network communication enhancement hub (location 37)

1. Supply and install Terrawave Solutions enclosure V141206LO0H
2. Supply and install Transition Networks 8 port switch SISTM1010-180-LRT with Transition Networks power supply SPS-UA-12DHT
3. Supply and install Altronix WPTV244175UL and two (2) Labco PS241F power supplies
4. Supply a 120V AC power source to the enclosures, installed through a central disconnect switch from a dedicated circuit (if available). Central disconnect switch should be weather proof and have padlock brackets for locking the switch in "ON" position. Padlock brackets should be attached to the electrical box cover with an industrial adhesive.
5. Supply and install one CAT6 cable from the Transition Networks CCTV switch to each of locations 24, 28 (Panasonic decoder WJGXD400P), and 52
6. Supply and install one Belden 16AWG – 2c cable from the Altronix power supply to each of locations 24, 28 (Panasonic decoder WJGXD400P), and 52

7. Supply and install CAT6 cable to location 38 to establish communication with network enhancement devices. The cable run should not exceed 300 ft.

E5.1.12 Network communication enhancement hub (location 38)

1. Supply and install Terrawave Solutions enclosure V141206LO0H
2. Supply and install Transition Networks 8 port switch SISTM1010-180-LRT with Transition Networks power supply SPS-UA-12DHT
3. Supply a 120V AC power source to the enclosures, installed through a central disconnect switch from a dedicated circuit (if available). Central disconnect switch should be weather proof and have padlock brackets for locking the switch in "ON" position. Padlock brackets should be attached to the electrical box cover with an industrial adhesive.
4. Supply and install CAT6 cable to each of locations 53, 54, and 55 to establish communication with network enhancement devices. The cable run should not exceed 300 ft.
5. Supply 120V AC power to location 53, 54, and 55 if local 120V AC source is not available at the locations.

E5.1.13 Camera integration

1. Supply, install, program, and adjust according to the City requirements Panasonic WVNW504 cameras at locations 1, 24, and 52
2. Supply, install, program, and adjust according to the City requirements Panasonic WVMP502 cameras at locations 4A, 31, 40 (two units), 41, 42 (two units), 43, 44, 46, 47 (two units), 39, 48 (four units), 49 (four units), 50 (four units), 51 (two units), 53 (two units), 54 (two units), and 55 (two units)
3. Install all WVMP502 cameras in Panasonic POH1500HP enclosure and use Panasonic PWM800 mount
4. Use Panasonic WVLZA62/2S lenses with all WVMP502 cameras except for cameras at location 51
5. Use Panasonic PLZMP15-50 lenses with WVMP502 cameras at location 51
6. Supply and install Panasonic PTZ WVNW964 camera at location 45. Use Panasonic PWM20G5 and PACA2 mounts if necessary.
7. Setup cameras at location 51 to clearly record licence plates of the vehicles entering and leaving the premises. Supply and install two Bosch UFLED20-9BD infrared illuminators to compensate for insufficient light conditions
8. Supply and install Terrawave Solutions enclosure V141206LO0H, Transition Networks 8 port switch SISTM1010-180-LRT with Transition Networks power supply SPS-UA-12DHT, Altronix WPTV244175UL power supply, and one Labco PS241F for each WVMP502 camera power supply at each of locations 48, 49, 50, 51, 53, 54, 55
9. Confirm each camera location and coverage with the Contract Administrator

E6. DOOR STATUS MONITORING

1. Supply and install Belden 22AWG – 4c cable from door at location 7 to building automation control box at location 57. Terminate unused GE Security 1076D-N 1" DPDT door position switch. Leave 3 feet of cable in the control box for future termination
2. Supply and install Belden 22AWG – 4c cable from door at location 8 to building automation control box at location 57. Terminate unused GE Security 1076D-N 1" DPDT door position switch. Leave 3 feet of cable in the control box for future termination
3. Supply and install Belden 22AWG – 4c cable from door at location 9 to building automation control box at location 56. Terminate unused GE Security 1076D-N 1" DPDT door position switch. Leave 3 feet of cable in the control box for future termination
4. Supply and install Belden 22AWG – 4c cable from door at location 10 to building automation control box at location 56. Terminate unused GE Security 1076D-N 1" DPDT door position switch. Leave 3 feet of cable in the control box for future termination

5. Supply and install Belden 22AWG – 4c cable from door at location 17 to building automation control box at location 58. Terminate unused GE Security 1076D-N 1” DPDT door position switch. Leave 3 feet of cable in the control box for future termination
6. Supply and install Belden 22AWG – 4c cable from door at location 18 to building automation control box at location 58. Terminate unused GE Security 1076D-N 1” DPDT door position switch. Leave 3 feet of cable in the control box for future termination
7. Supply and install Belden 22AWG – 4c cable from door at location 19 to building automation control box at location 58. Terminate unused GE Security 1076D-N 1” DPDT door position switch. Leave 3 feet of cable in the control box for future termination
8. Supply and install Belden 22AWG – 4c cable from door at location 20 to building automation control box at location 59. Terminate unused GE Security 1076D-N 1” DPDT door position switch. Leave 3 feet of cable in the control box for future termination
9. Supply and install Belden 22AWG – 4c cable from door at location 21 to building automation control box at location 60. Leave 3 feet of cable in the control box for future termination
10. Supply and install Belden 22AWG – 4c cable from door at location 22 to building automation control box at location 61. Leave 3 feet of cable in the control box for future termination
11. Supply, install, and terminate GE Security 1076-N 1” door position switches and door magnets on doors at locations 21, and 22

E6.1 Post installation damages

1. The Contractor is responsible for any damage to the building structure or elements of interior design occurred during the installation.