



**Connecticut Lottery  
Corporation**  
270 John Downey Drive  
New Britain, CT 06051  
860-348-4001 (voice)  
860-348-4015 (facsimile)

## Request for Proposals

**RFP Number:** CLC200721

**RFP Description:** Security System Installation Services

**Issue Date:** October 16, 2007

**Response Due:** November 16, 2007

**NOTE:** Proposals cannot be accepted after the specified response date and time. Sealed Proposals may be submitted via U.S. Postal Service, commercial delivery service or hand delivered; electronic or facsimile versions will not be accepted.

**RETURN SEALED PROPOSALS TO:**

**Purchasing Services Officer  
Connecticut Lottery Corporation  
270 John Downey Drive  
New Britain, CT 06051**

**Reference: RFP # CLC200721**



RFP # CLC200721

**BIDDER'S CHECKLIST**

***It is suggested that you review and check off each action as you complete it.***

1.  **Read the entire document.** Note critical items such as mandatory requirements, required services, date to submit, number of copies required, terms and conditions of the Contract.
2.  **Note the procurement officer's name, address, phone numbers and email address.** This is the only person who is allowed to communicate with Vendors regarding this solicitation.
3.  **Attend the pre-proposal conference, if one is offered.** These conferences provide an opportunity to ask clarifying questions, obtain a better understanding of the project, or to notify the CLC of any ambiguities, inconsistencies or errors in the solicitation.
4.  **Take advantage of the Question and Answer period.** Submit your questions to the procurement officer by the due date listed in the Schedule of Events and view the answers given in the formal addenda issued for the solicitation. All addenda issued for a solicitation are posted on the CLC website and will be distributed to vendors registered to receive bid opportunity notices via the State of Connecticut, Department of Administrative Services Procurement Portal. Addenda will include all questions asked and answers provided for this solicitation.
5.  **Follow the format required in the solicitation when preparing your response.** Provide point-by-point responses to all sections in a clear and concise manner.
6.  **Provide complete answers/descriptions.** Read and answer all questions and requirements. Do not assume the CLC or the Evaluation Committee will know what your capabilities are or what services you can provide even if you have previously contracted with the CLC. The proposals are evaluated based solely on the information and materials provided in your response.
7.  **Use the forms provided** (i.e. cover page, pricing form, release forms, affidavit, etc.)
8.  **Check the CLC's website for RFP addenda.** Before submitting your proposal, check the CLC's website at [www.ctlottery.org](http://www.ctlottery.org) or the State of Connecticut, Department of Administrative Services Procurement Portal to see whether any addenda were issued for the solicitation.
9.  **Review and read the solicitation document more than once to make sure that you have addressed all requirements.** Your original response and the requested copies must be identical and complete. The copies are provided to the Evaluation Committee and will be used to score your response.
10.  **Submit your original response and FIVE exact duplicate copies of your response no later than the date and time specified.** Note all the dates and times listed in the Schedule of Events and within the document, and be sure to submit all required items on time. Late proposal responses are *never* accepted.

This checklist is provided for assistance only and should not be submitted with the Vendor's Proposal.

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## Part I STANDARD TERMS AND CONDITIONS

**All solicitations issued by the Connecticut Lottery Corporation (CLC) will bind Bidders to the terms and conditions listed below, unless specified otherwise in any individual Invitation to Bid (ITB) or Request for Proposals (RFP).**

### Solicitation Responses

1. Forms specified and provided by the CLC in this solicitation must be submitted with the Bid (ITB) or Request for Proposals (RFP) response. Telephone, electronic or facsimile bid responses will not be accepted.
2. The time and date that the ITB or RFP responses are due is clearly stated on each solicitation issued. Bids received after the specified time and date may not be considered. Response envelopes must clearly indicate the bid number and title of the solicitation. The name and address of the Bidder should appear in the upper left hand corner of the envelope.
3. Incomplete forms may result in the rejection of the ITB or RFP response. Amendments to Bids received by the CLC after the time specified shall not be considered. An original and five copies of the proposal shall be returned to the CLC. Bids or RFP responses shall be computer prepared, typewritten or hand written in ink. All bids shall be signed by a person duly authorized to sign bids or RFP responses on behalf of the bidder. Unsigned bids or RFP responses may be rejected. The person signing the bid proposal must initial errors, alterations or corrections on both the original and copies of the proposal.
4. Conditional bids are subject to rejection in whole or in part. A conditional bid is defined as one that limits, modifies, expands or supplements any of the terms and conditions and/or specifications of an ITB.
5. Alternate bids will not be considered. An alternate bid is defined as one that is submitted in addition to the bidders primary response to the ITB.
6. Prices should be extended in decimal, not fraction, to be net, and shall include transportation and delivery charges fully prepaid by the Vendor to the destination specified in the Bid or RFP, and subject only to cash discount.
7. Pursuant to Section 12-816 of the Connecticut General Statutes, the Connecticut Lottery Corporation is exempt from any form of Federal or State taxation. Such taxes must not be included in bid prices.
8. In the event of a discrepancy between the unit price and the extension, the unit price shall govern.
9. Failure to furnish all information requested or to follow the format requested in this ITB may disqualify the bid. The CLC, in its sole discretion, may waive informalities and nonmaterial deviations in the bid. Any waiver of informalities or nonmaterial deviations shall not modify the original ITB or relieve the Vendor from full compliance with the contract requirements, if awarded.
10. All Vendors certify to the CLC that their Bids are made without collusion or fraud and that they have not offered or received any kickbacks or inducements from any other Vendor, supplier, manufacturer or subcontractor in connection with their Bid, and that they have not conferred on any public employee having official responsibility for this procurement transaction, any payment, loan, subscription, advance, deposit of money, service or anything of more than nominal value, present or promised, to or from any such public employee unless consideration of substantially equal or greater value was exchanged and such consideration was not related to and was not intended to influence any decision regarding this ITB.
11. By submitting their Bids, Vendors certify that they are not currently debarred from submitting Bids on contracts by any agency of the State of Connecticut, or any other state within the United States, nor are they an agent of any person or entity that is currently debarred from submitting bids on contracts by any agency of the State of Connecticut or other state within the United States.
12. It is the policy of the CLC to contribute to the establishment, preservation and strengthening of small businesses and businesses owned by women and minorities in our procurement activities. Toward that end, the CLC encourages firms to provide for the participation of Connecticut small businesses and Connecticut businesses owned by women and minorities through partnerships, joint ventures, subcontracts, and other contractual opportunities. This solicitation, however, is NOT restricted to Connecticut businesses nor those designated as small and/or minority owned businesses. Vendors that are certified through the Connecticut Department of Administrative Services (DAS), Business CONNections as a small, minority, women, or disabled owned business are requested to provide a copy of their current certification of eligibility issued by DAS with their bid.

### Guaranty or Surety

13. Bid and or performance bonds may be required. Bonds must meet the following requirement: Corporation – must be signed by an official of the corporation above their official title and the corporate seal must be affixed over the signature; Firm or Partnership – must be signed by all the partners and indicate they are “doing business as”;

Individual – must be signed by the owner and indicated as "Owner". The surety company executing the bond or countersigning must be licensed in Connecticut and an official of the surety company must sign the bond; a corporate seal must be affixed over their signature. Signatures of two witnesses for both the principal and the surety must appear on the bond. Power of attorney for the official signing the bond for the surety company must be submitted with the bond.

## Samples

14. Accepted bid samples do not supersede specifications for quality unless sample is superior in quality. All deliveries shall have at least the same quality as the accepted bid sample.
15. Samples are furnished free of charge. Bidder must indicate their return is desired, provided they have not been made useless by test. Samples may be held for comparison with deliveries.

## Award

16. The Lottery is not subject to the provisions of Connecticut Public Procurement General Statutes. However, the Lottery's choice of a firm for this purchase will be based on competitive principles and in accordance with Procedures established by the Lottery's Board of Directors. Bids or RFP's will be evaluated on quality of the article or services to be supplied, their conformance with specifications, delivery terms, price, administrative costs, past performance, financial responsibility and any other criteria specified in the solicitation. The CLC shall award a Contract to the Vendor whose Bid/RFP is deemed to be in the best interests of the Lottery. The Contract will not be in effect until the Vendor receives a fully executed and signed purchase order in addition to a copy of the bid or a fully executed Memorandum of Understanding signed by the President and CEO of the CLC. The CLC reserves the right to conduct any test it may deem advisable and to make all evaluations.
17. The CLC may reject any bidder in default of any prior contract or guilty of misrepresentation or any bidder with a member of its firm in default or guilty of misrepresentation.
18. The CLC may correct inaccurate awards resulting from clerical or administrative errors

## Contract

19. The Vendor shall not assign or otherwise dispose of their contract or their right, title or interest, of their power to execute such contract to any other person, firm or corporation without the prior written consent of the CLC.
20. Failure of a Vendor to deliver commodities or perform services as specified will constitute authority for the CLC to purchase these commodities or services on the open market. The Vendor agrees to promptly reimburse the CLC for excess cost of these purchases. The purchases will be deducted from the contracted quantities.
21. Vendor agrees to: guarantee their products against defective material or workmanship; repair damages of any kind, for which they are responsible to the premises or equipment, to their own work or to the work of other Vendors; obtain and pay for all licenses, permits, fees etc. and to give all notices and comply with all requirements of city or town in which the service is to be provided and to the CLC.
22. The Vendor shall indemnify and hold harmless the CLC, its directors, officers, agents, employees, Lottery vendors, Lottery retailers and the State of Connecticut against liability for any suits, actions, claims, losses, injuries, damages, awards, judgments and expenses of any character arising from or relating to the performance of the Vendor under this Contract, or actions by the Vendor during the preparation, submission and evaluation of the Bid/RFP and during the period of time prior to the execution of the Contract. This indemnification shall survive the term of this Contract.
23. Any Contract resulting from this solicitation shall be governed in all respects by the laws of the State of Connecticut, and any litigation with respect thereto shall be brought in the courts of the State of Connecticut. The Vendor shall comply with applicable federal, state and local laws and regulations. Notwithstanding any provision or language in this contract to the contrary, the CLC may, at its sole discretion, terminate, clarify, modify, amend, alter or withdraw the specifications, terms and conditions of this ITB/RFP and any Contract Award as a result of this ITB/RFP whenever it is determined to be in the best interest of the CLC. Any such action shall be effected by delivery to the Vendor of a written notice of action. Any notice of termination shall be sent by registered mail to the Vendor address furnished to the CLC for the purposes of correspondence or by hand delivery. Upon receipt of such termination notice, the Vendor shall both immediately discontinue all services affected (unless the notice directs otherwise) and deliver to the CLC all data, drawings, specifications, reports, estimates, summaries and such other information and materials as may have been accumulated by the Vendor in performing his duties under this contract, whether completed or in progress. All such documents, information, and materials shall become the property of the CLC. In the event of such termination, the Vendor shall be entitled to reasonable compensation as determined by the CLC, however, no compensation for lost profits shall be allowed.

## Delivery

24. All products and equipment delivered must be new unless otherwise stated in the bid specifications.
25. All products offered for purchase and installation shall meet all OSHA safety standards as required.
26. Delivery shall be FOB Destination. All fees, freight charges, labor and equipment shall be included unless otherwise noted.
27. Delivery will be onto the CLC's loading docks by the Vendor unless otherwise stated in the bid specifications.
28. Payment terms are net 30 days after receipt of goods or invoice, whichever is later, unless otherwise specified.

## Force Majeure

29. The Vendor shall not be in default by reason of any failure in performance of this contract in accordance with its terms (including any failure by the Vendor to make progress in the prosecution of the work hereunder which endangers such performance) if such failure arises out of causes beyond the control and without the fault or negligence of the Vendor. Such causes may include, but are not restricted to, acts of God or of public enemy, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather, but in every case the failure to perform must be beyond the control and without the fault or negligence of the Vendor. If the failure in performance of the Contract is caused by the failure of a subcontractor to perform or otherwise results from an act of the subcontractor, or if such failure arises out of causes beyond the control of both the Vendor and subcontractor, and without fault or negligence of either of them, the Vendor shall not be deemed to be in default unless (a) the supplies or services to be furnished by the subcontractor were obtainable from other sources, (b) the Lottery ordered the Vendor in writing to procure such supplies or services from such other sources, and (c) the Vendor failed to comply reasonably with such order. Upon request of the Vendor, the Lottery's Contracting Officer shall ascertain the facts and extent of such failure and, if it is determined that any failure to perform was occasioned by any one or more of the said causes, the delivery schedule shall be revised accordingly, subject to the rights of the Lottery under the clause hereof entitled "Termination for Default". (As used in this clause, the term "subcontractor(s)" means subcontractor(s) of any tier.)

## Advertising

30. The Vendor agrees not to use either directly or implicitly, the CLC or its logo, or make any other reference to the Lottery in any advertisement, brochure or other material as a means to induce business or otherwise, without the Lottery's prior written consent.

## Rights

31. The CLC has sole and exclusive right and title to all printed materials produced for the CLC and the Vendor shall not copyright the printed matter produced under the contract.
32. The Vendor assigns to the CLC all rights title and interests in and to all causes of action it may have under Section 4 of the Clayton Act, 15 USC 15, or under Chapter 624 of the general statutes. This assignment occurs when the Vendor is awarded the contract.
33. Vendor agrees that it is in compliance with all applicable federal, state and local laws and regulations, including but not limited to Connecticut General Statutes Sections 4a-60 and 4a-60a. The Vendor also agrees that it will hold the CLC harmless and Indemnify the CLC from any action that may arise out of any act by the Vendor concerning lack of compliance with these laws and regulations.
34. All Purchases will be in compliance with Section 22a-194 to Section 22a-194g of the Connecticut General Statutes related to product packaging. The contract is subject to the provisions of Executive Order No. Three of Governor Thomas J. Meskill promulgated June 16, 1971, the provisions of Executive Order No. Seventeen of Governor Thomas J. Meskill promulgated February 15, 1973 and section 16 of P.A. 91-58 nondiscrimination regarding sexual orientation, and the provisions of Executive Order No Sixteen of Governor John G. Rowland promulgated August 4, 1999 regarding Violence in the Workplace Prevention Policy.
35. No portion of the work shall be subcontracted to any firm, other than those reflected in the Vendor's Bid, without prior consent of the Lottery. In the event that the Vendor desires to subcontract some part of the work specified herein, the Vendor shall furnish the Lottery the names, qualifications and experience of their proposed subcontractor(s). The Vendor shall, however, remain fully liable and responsible for the work to be done by its subcontractor(s) and shall assure compliance with all requirements of the contract. The Vendor agrees that it is as fully responsible to the Lottery for the acts and omissions of its subcontractors and of persons whether directly

or indirectly employed by the subcontractor(s), as he or she is for acts and omissions of persons directly employed by the Vendor.

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## Part II GENERAL REQUIREMENTS

### 2.02 Issuing Office

This Request for Proposals (RFP) is issued by and is for the exclusive use of the CLC. The current mailing address for the Corporate Headquarters is as follows:

Connecticut Lottery Corporation  
270 John Downey Drive  
New Britain, CT 06051

Corporate Website [www.ctlottery.org](http://www.ctlottery.org)

### 2.03 Purchasing Officer

The Purchasing Officer, acting on the CLC's behalf, is the sole point of contact with regard to all procurement and contractual matters related to this solicitation.

All communications concerning this procurement shall be addressed in writing to the Purchasing Officer:

Janice Beckner, Purchasing Services Officer 2  
Connecticut Lottery Corporation  
270 John Downey Drive  
New Britain, CT 06051  
Voice Telephone 860.348.4123  
Facsimile Number 860.348.4071  
Email address: [janice.beckner@po.state.ct.us](mailto:janice.beckner@po.state.ct.us)

Any changes to this RFP made as a result of written inquiries, questions or requests will be communicated by published addenda distributed via the State of Connecticut, Department of Administrative Services Purchasing Portal, Bidder Notification System and the CLC's website at [www.ctlottery.org/open-bids.htm](http://www.ctlottery.org/open-bids.htm). If minor revisions become necessary after the closing date for submitting Proposals, the Lottery will also publish and distribute addenda to all recipients of the original RFP.

### 2.04 Date and Time of Bid Submission

All Proposals pursuant to this RFP shall be submitted to the CLC at its offices on 270 John Downey Drive in New Britain, CT 06051 by 2:00 p.m. Eastern time on November 16, 2007. Vendors are solely responsible for ensuring timely delivery. Proposals received after that time and date shall be rejected by the CLC and result in the Proposal being returned unopened to the Vendor.

## 2.05 Anticipated Project Schedule

<b>Project Task</b>	<b>Date</b>
Request for Proposals Issued	October 16, 2007
Pre-proposal Conference	October 23, 2007
Conference Questions and Answers Distributed	October 26, 2007
Written Questions and Answers Due	October 29, 2007
Responses to Vendors Due	October 31, 2007
Proposals Due to the Lottery	November 16, 2007
Successful Vendor Announced	November 26, 2007
Anticipated Installation	Commence January 2007

## 2.06 Drawing Package, Pre-Proposal Conference, Vendor Questions and Inquiries

A single mandatory pre-proposal conference and walk through shall occur on October 23, 2007 at 1:00 pm at the current CLC headquarters, 270 John Downy Drive, New Britain, CT 06051. Vendors are required to attend the pre-proposal conference in order to bid on the project. In order to receive a hard copy of the drawing package for review prior to the pre-proposal conference, Vendors must pre-register for the conference by presenting a signed copy of Appendix A, Notice of Intent to Bid and Confidentiality Statement at CLC headquarters. The drawing package will only be provided in hard copy format for pick-up in person; electronic copies will not be distributed.

Questions presented during the pre-proposal conference and the associated verbal responses shall be distributed in writing via electronic message to all attendees no later than October 26, 2007. Additional questions shall be addressed only to the Purchasing Officer and received at CLC Headquarters no later than close of business at 4:30 ET on October 29, 2007. Questions must be sent by the preferred method of electronic mail. Vendors will receive an electronic response from the Purchasing Officer confirming receipt of the questions. Submission of questions via telephone will not be allowed, however, the Purchasing Officer will accept inquiries to confirm receipt of Vendor's questions in the event that an electronic confirmation is absent. All written questions, inquiries and comments will be answered in writing via electronic messaging. Vendors will be sent a complete list of all questions and answers, but the origin of the questions will not be identified.

## 2.07 Qualifications of the Vendor

Vendor shall submit with the proposal a list of three references from projects of similar size and scope; include company name, a description of the project, project leader contact name, address, telephone, email address and website if applicable.

Vendor shall provide detailed qualifications of the technical staff to be assigned to this contract.

The Lottery may make any investigations as deemed proper and necessary to determine the ability of the Vendor in providing the goods specified herein. Such investigations may include but not be limited to, financial and criminal background investigations on those individuals who, in the Lottery's sole determination, are key employees directly involved in the fulfillment of this contract.

## 2.08 Evaluation Criteria

Firms will be evaluated on the basis of their written responses to this Request for Proposal, additional written information requested by the CLC, if any, against the following criteria:

- Proposed equipment - 30%
- Technical staffing expertise - 20%
- Capabilities and ability to perform the full scope of the project – 25%
- References – 5%
- Fee Structure – 20%

**Pricing sheets MUST be submitted in a separately sealed envelope. No reference to pricing may be mentioned in any other section of the Vendor's proposal. Failure to submit pricing in a separate envelope is likely to result in the proposal being disqualified for further consideration.**

## 2.09 Performance Bond

The contracting Vendor will be required to submit, at the time of Contract execution, a Performance Bond in the amount equal to the total contract price. A company authorized to conduct business in the State of Connecticut must execute the Bond. The bond shall be maintained in full force for the life of the Contract. An irrevocable Letter Of Credit drawn on an acceptable financial institution may be substituted.

If Vendor defaults in the performance of its contractual obligations or if CLC incurs damages due to the willful or negligent performance of Vendor duties, the Performance Bond will be forfeited to the CLC in whole or in part. The Performance Bond will also secure damages.

## 2.10 Restrictions on Communications with CLC Staff

Bidders and their agents and representatives are to make no unsolicited contact with any CLC personnel, Division of Special Revenue personnel, members of the CLC Board of Directors, or any agency designee. Vendors who are currently doing business with CLC may continue to do so, however, any communication regarding this RFP is prohibited. Extraordinary requests for exceptions to this prohibition against contact with CLC personnel may be directed to the Contracting Officer. Any Bidder causing or attempting to cause a violation or circumvention of this ethical standard may, in the sole discretion of CLC, be disqualified from further consideration.

## 2.11 Background Investigations During Evaluation (Appendix B)

Subsequent to submitting a Proposal, or at anytime during the term of the Contract, CLC and the Division of Special revenue (DOSR), the Lottery's State oversight agency, may conduct investigations into the backgrounds of a Bidder and individuals or entities related to any officers, directors, members, principals, investors, owners, subcontractors, employees, or any other individuals or entities related to a Bidder as deemed appropriate. Such background investigations may include fingerprint identification by the Connecticut State Police and the Federal Bureau of Investigation, and shall require the provision of information specified in this RFP. CLC may reject a Proposal based upon the results of background checks. Bidder is advised that any person who knowingly provides false or intentionally misleading information in connection with any investigation by CLC or DOSR may cause a Proposal to be rejected, or subsequent Contract to be canceled. A Contract Award is contingent upon such investigations, as is issuance of a license as a vendor in the State of Connecticut. A Bidder must consent to such investigations, to cooperate with such investigations, and to instruct its employees to cooperate. CLC may terminate a Contract based upon results of background checks.

## 2.12 Approval of Staffing

CLC reserves the right to review and if perceived necessary, disapprove any Vendor employee who is assigned to a CLC Contract, either at Contract inception or during the term. In particular, DOSR will license Vendor's employees as vendors in the State of Connecticut. Failure for an employee to qualify for a license granted by DOSR should not be interpreted by Vendor as grounds for dismissal of an otherwise productive employee, however the employee will be prohibited from performing services under a Contract with CLC. In addition, CLC may require Vendor to provide minimum levels of staffing or service to meet requirements as set out in a Contract.

## 2.13 Subcontract Approval (Appendix C)

Any proposed subcontracts shall be subject to prior written approval of CLC. Sub-contractors are subject to background checks of personnel and principals, and may also require vendor licensing, as described elsewhere in this RFP.

## 2.14 Insurance

The Successful Vendor shall purchase and maintain insurance for claims set forth below which may arise out of or result from the Successful Vendor's operations under the Contract, whether such operations are by the Successful Vendor or by any subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

- Claims under workers' disability compensation, disability benefit and other similar employee benefits acts.
- Claims for damages because of bodily injury, occupational sickness or disease, or death of the Successful Vendor's employees, or any person other than Successful Vendor employees.
- Claims for damages because of injury to or destruction of tangible property, including any resulting loss of use.

## 2.15 Insurance Coverage and Limits

Specific coverage requirements are listed below. The defined dollar amounts are minimum limits. The Successful Vendor must provide these or as otherwise designated by Connecticut Statutes during the course of the Contract. Statement of self-insurance to cover these obligations will be considered non-responsive.

- A. Property Insurance. Insurance on all equipment provided or used in providing the System or service must be maintained in the amount of actual replacement cost thereof. This policy must insure personal property including contents, equipment, and mobile items against fire, collision, flood, etc. until such time as the contract is completed.
- B. General Liability Insurance. Comprehensive General Liability and Property Damages Insurance with limits not less than \$1,000,000 for any one person and \$2,000,000 for any one occurrence for personal injury, and \$2,000,000 for any one occurrence for property damages.
- C. Automobile Bodily Injury Liability Insurance. Insurance with a combined single limit not less than \$1,000,000.
- D. Worker's Compensation Insurance. To cover all of Vendor's employees during the term of the Contract in accordance with Connecticut Statutes, or other applicable worker's compensation laws.

All other insurances covered by this Section must be effective when performance commences under the Contract and continue through the term of the Contract or any extension thereof. The Lottery must receive thirty (30) days' advance written notice of cancellation, termination or failure to renew any policy.

## 2.16 Certificates of Insurance

Certificates of insurance and any renewals thereof must be furnished to the Lottery Contracting Officer on the date of Contract execution. The Lottery will be named as an additional insured on all Certificates of Insurance as allowable.

## 2.17 Independent Price Determination

By submission of a Proposal, the Bidder certifies that in connection with a Proposal that:

- a. The prices in the Proposal have been arrived at independently, without consultation, communication, or agreement, for the purpose of restricting competition as to any matter relating to such prices with any other Bidder or with any competitor.
- b. Unless otherwise required by law, the prices that are quoted in this Proposal have not been knowingly disclosed by the Bidder and will not knowingly be disclosed by the Bidder prior to Contract Award directly or indirectly to any other Bidder or to any competitor.
- c. No attempt has been made or will be made by the Bidder to induce any other person or firm to submit or not submit a Proposal for the purpose of restricting competition.

## 2.18 Contract Elements and Execution of Contract

The Contract negotiated between CLC and a successful Bidder shall include as integral parts thereof:

- Amendments to this RFP;
- Bidder's Proposal;
- Amendments to the Proposal.

In the event of a conflict in language between any of the above-mentioned documents, the provisions and requirements set forth or referenced in this RFP and its amendments shall govern. In the event that an issue is addressed in the Proposal that is not addressed in this RFP, no conflict in language shall be deemed to occur. In the event of a conflict in language between any of the above-mentioned documents and the Contract, the provisions and requirements set forth or referenced in the Contract shall govern. In the event that an issue is not addressed in the Contract, no conflict in language shall be deemed to occur. Any alterations, variations, changes, modifications or waivers of, or to, provisions of the Contract shall only be valid when they have been reduced to writing and duly executed and approved by each of the parties.

If Bidder refuses to accept in writing a Contract awarded by CLC within ten (10) days of said notice, and enter into a written agreement within thirty (30) days of said notice, such Contract may be awarded to the next most qualified bidder, and so on, until such Contract is awarded and accepted.

CLC is in no way obligated to offer a Contract Award based solely upon lowest-priced bid.

## 2.19 Termination of Contract

CLC may immediately terminate any Contract issued as a result of this RFP for any of the following reasons by providing written notice:

- a. If Vendor furnished any statement, representation, warranty, or certification in connection with this RFP or the resultant Contract which is materially false, incorrect, or incomplete.
- b. If Vendor fails to perform any material requirement of a Contract or is in violation of a specific provision.
- c. If Vendor or Vendor's subcontractor commits a fraudulent act or other criminal act in its contractual performance of a Contract during the term of its Contract with CLC.

d. If any officer or employee of Vendor or of any Vendor subcontractor purchases a Connecticut Lottery ticket or attempts to claim a prize in any Connecticut Lottery game during the term of the Contract.

The State of Connecticut and CLC will not be liable for any costs incurred if termination is for any of the causes stated above.

## 2.20 Termination of Contract without Cause

A Contract shall be terminable by CLC without cause, at the sole discretion of CLC, upon fifteen (15) days written notice. When it has been determined that a Contract shall be terminated without cause, the President or his/her designee, although not required to, shall be authorized to negotiate a settlement with Vendor. Compensation to Vendor for a Contract terminated without cause shall be limited to reasonable expenses for products, materials, and supplies, and for services rendered, and not yet, or not fully compensated. CLC will make no payments for finished work, work in progress, or raw materials acquired unnecessarily in advance or in excess of CLC's delivery requirements. Vendor shall receive reimbursement for the cost of any materials, services, other expenses reasonably and actually incurred by Vendor upon receipt of cancellation notification. Upon notification, a Contract shall be null and void as of that date, and each party shall be relieved of any obligation or liability to the other, except with respect to any clauses specifically stated in a Contract to survive termination. Upon receipt of termination notice, Vendor shall take all steps necessary to mitigate damages payable under this Section. Vendor shall surrender to the CLC all materials deemed confidential by CLC. Vendor shall keep the President of CLC fully informed as to all matters in this connection and act on his instructions, if any, but nothing herein shall require the President to issue such instructions. Payment for expenses approved by CLC will be processed within sixty (60) days of submission of satisfactory supporting documentation as to the total amount thereof.

## 2.21 Default

In the case of default by Vendor, CLC may cancel a Contract immediately and procure articles and/or services from other sources and hold Vendor responsible for any excess costs or lost revenue occasioned thereby. In the event of a material breach not cured within ten (10) days after Vendor's receipt of CLC's written notice identifying such breach, CLC will have the right to terminate its Contract and Vendor will remain liable for the damages. CLC reserves the right to cancel a Contract and to pursue any and all legal remedies provided at law, in equity, in this RFP or in a Contract for breach or nonperformance of a Contract or other infractions, whether or not such default results in the cancellation of a Contract executed pursuant to this RFP. In addition to the remedy of Contract cancellation and all other remedies available to CLC hereunder, in a Contract, at law or in equity, CLC may at its sole discretion accept partial, incomplete or otherwise non-complying performance, and may deduct from the price to be paid under a Contract a sum which in CLC's determination reasonably reflects the difference in value between a Contract as it was to have been performed and as it was actually performed. CLC shall be entitled to collection costs incurred as the result of any breach, including court costs and reasonable attorney's fees.

## 2.22 Response Format

The Vendor shall supply one (1) original and five (5) copies. All costs and expenses associated with the preparation and submission of the RFP shall be the sole responsibility of the Vendor.

- A. Bid proposals shall be delivered to the CLC's headquarters either in person or by a certified delivery service no later than 2:00pm on November 16, 2007.
- B. Proposals must be CLEARLY marked and must be sealed in an envelope marked "SECURITY INSTALLATION PROPOSAL #CLC200721".

Security System Installation Services for 777 Brook St. Rocky Hill, CT

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- C. Proposals received after the due date and time will be returned and marked “late” and not considered.
- D. Bid Proposals shall be prepared in accordance with the requirements stated herein. All exhibits and attachments take precedence over the specifications.
- E. Proposals provided in a format other than stated below shall be marked “unresponsive”, returned, and not considered. The following must be submitted:
1. Section 1 Scope of Proposed Work
    - a. The Security Contractor shall submit a detailed description of the proposed scope of work to demonstrate their understanding of the project requirements, and their proposed approach to the envisioned work.
  2. Section 2 Line Item Listing of Products and Quantities
    - a. The Security Contractor shall provide a complete list of products to be used on this project and their respective cut-sheets including manufacturer, model number and quantity to be provided.
  3. Section 3 Pricing
    - a. The Security Contractor shall complete and submit the attached bid pricing sheets. These sheets shall identify all equipment (Card Readers, Intercom Devices, cameras, racks, DVR’s etc.) and all direct labor, sub-contracted labor, as required to fulfill the scope of work envisioned by this RFP.
    - b. **All pricing sheets must be submitted in a separately sealed envelope.**
  4. Section 4 Alternates
    - a. The Security Contractor shall use this section of the proposal to describe voluntary or mandatory requested alternates. Each alternate shall be provided with a detailed explanation of functionality, benefits and project impact or reduction. Pricing for alternates shall appear in the pricing section and must be listed separately.
  5. Section 5 Schedule
    - a. The Security Contractor shall submit an installation, testing, commissioning and close-out schedule demonstrating their understanding of project requirements and the overall schedule envisioned by the Security Contractor.
  6. Section 6 Required Forms

Appendix A, *Notice of Intent to Bid and Confidentiality Statement*

Appendix B, *Background Investigation Authorizations*

Appendix C, *Subcontractor Approval*

Appendix D, *Vendor Information Form*

Appendix E, *Confidentiality Agreement*

Appendix F, *Form 5 Consulting Agreement Affidavit*

Vendor’s are hereby notified that Appendix G, *Gift and Campaign Contribution Certification* will be required only of the successful vendor at the time of contract

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execution in addition to insurance certifications and performance bond.



## Part III SPECIFICATIONS

Specifications Prepared by:

Schirmer Engineering Corporation  
707 Lake Cook Road  
Deerfield, Illinois 60015  
Project # 1807114-000

### 3.01 INTRODUCTION

The Connecticut lottery corporation hereafter shall be referred to as the client/owner. The client requests the following systems for the new headquarters building, hereafter referred to as the site located at 777 Brook Street, Rocky Hill, Connecticut. The systems envisioned under the scope of work include:

- F. Installation of new Closed Circuit Television (CCTV) system.
- G. Installation of new Access Control and Alarm Monitoring (ACMS) System
- H. Installation of head-end Consol Operations Center (COC) equipment.

### 3.02 SCOPE OF WORK

The security contractor's scope of work will be in accordance with all facets of this RFP including the section entitled requirements.

- I. CCTV System
  - 1. Furnish and install one (1) switcher keyboard within the control center as shown on the drawings.
  - 2.
    - a. Furnish and install eight (8) LCD Monitors/Screens in the following locations:
    - b.
      - 1) One (1) integrated keyboard-mouse A/B switch with folding 15" LCD monitor within equipment rack located in the equipment rack located in the control center. Provide necessary rack mounting hardware as required.
      - 2) Two (2) 19" Monitors with stands within the COC.
      - 3) One (1) 19" Monitor with stand at the Public Reception Desk.
      - 4) Five (5) 7" Monitors with stand at each executive reception desk.
    - c. Furnish and install equipment rack and associated devices within the security control center, which shall include, but not limited to:
      - 1) Fan ventilated and lockable louvered equipment rack.
      - 2) CCTV switcher

- 3) CCTV Multiplexer
- 4) Digital Video Recorder (DVR's) to record all video signals.

J. ACMS

1. Furnish and install ACMS Server, equipped with a Redundant Array of Independent Disks (RAID) level 5 within the equipment rack located in the security control center, equipment rack.
2. Furnish and install ACMS and server in the security control center. Workstation
3. Furnish and install fully functional ACMS Badge system within the ID Room.
4. Furnish and install all proximity card readers as indicated on the drawings.
5. Provide 500 proximity cards.
6. Incorporate ACMS control for all overhead doors.
7. Provide fire alarm interface for all access control doors and the Owner installed Rapor door system.
8. Furnish and install motion detection devices as indicated on the drawings.
9. Furnish and install door position switches in accordance with the specification and as indicated on the drawings.
10. Furnish and install local alarm devices (sounders) in accordance with the specification and as indicated on the drawings.

### 3.03 PRODUCTS

#### 1.1 Uninterruptible Power Supply (UPS)

A. General

1. A UPS shall be provided within the Console Operation Center to provide no less 5 minutes of uninterrupted power in the event of a momentary power loss.
2. The UPS shall be connected to an emergency power source, which shall be fed by the emergency generator.
3. The UPS shall be responsible for providing power to the following
4. Digital Video Recorder(s)

5. The Security Contractor shall be responsible for providing electrical load calculations for the UPS.
  6. The electrical load placed on the UPS shall not exceed 75% of the manufacturers maximum rated output.
- B. The UPS shall be manufactured by Powerware, APC, or Owner approved equivalent.

## **1.2 Access Control Management System(ACMS)**

### **A. General**

1. ACMS software shall be menu driven and on-screen icons shall be controlled via a graphical user interface (GUI). Various system functions and sub-programs shall be selectable from a hierarchy of logically organized menu displays (may be pull down, pop-up type) or on-screen control icons. A specific function within a menu display shall be launched via shortcut key(s) entered at the workstation keyboard or by selecting a command control button on the dialogue box on screen with a mouse or other pointing devices. Alternatively, double clicking on a selected icon with a mouse can launch specific system operations.
2. The Contractor shall provide interfaces to third party not-in-contract work, which includes, but is not limited to fire alarm door unlocking.
  - a. Request-to-exit interfaces:
    - 1) In some instances the Security Contractor shall be required to interface to third party or separate request-to-exit functionality. Examples include: door operators, latch bolt monitoring switches, bond sensors, request-to-exit micro switch's, etc.
  - b. Miscellaneous interfaces:
    - 1) In some instances the Security Contractor shall be required to provide an interface for specialized access functionality. Examples include: Handicapped operators, magnetic and delayed egress locking and interfaces to door operators, sliding doors and the Rapor door. The Security Contractor shall facilitate control and monitoring of third party monitoring systems, where required.
  - c. Fire interfaces:
    - 1) The contractor shall provide fire interface(s), in accordance with prevailing code. The fire interface upon fire alarm activation shall deactivate any locking hardware that would impede egress from the facility.

- d. ACMS/Burglar Alarm Panel Interface
  - 1) The Security Contractor shall provide a burglar alarm panel that shall be addressable, controllable through the ACMS system.
  
- e. Card Holder Database:
  - 1) The ACMS security panel capabilities shall hold up to 80,000 unique card records and manage 5,000 alarm events and shall have a means to assigning rights to each badge.
  - 2) The ACMS shall support a minimum of 100 readers and 3,000 inputs.
  - 3) Security panels shall be addressable via a RS-485 loop and shall not be networked via Ethernet. The security panels shall support full diagnostic capabilities as well as three-state supervision with the use of end of line resistors for all inputs.
  - 4) Levels of access shall be assigned that dictate a time and locations where a particular access card can be used. The system shall allow exclusions to this requirement in which a card holder may be assigned group rights, but an additional right as required.
  - 5) Cardholder name, input name, and alarm designations shall each be a minimum of sixteen (16) characters long in field length.
  - 6) Access level shall define a users specific access rights. Access levels are defined according to a time a door and the level of access required. Multiple access grouping shall be assignable to an individual cardholder.
  - 7) Activation/Deactivation dates shall define when an access card was issued and how long it is valid for. Typically, this function is utilized for temporary employees.
  - 8) Digital image shall be provided to compare the physical attributes of person requesting access with the stored image of the employee the access control card was issued to. Acceptable digital formats shall be JPEG (.jpg) and GIF (.gif). Storing images as Bitmaps (.bmp) or equivalent shall not be acceptable.
  - 9) The ACMS shall support image ghosting, where a transparent image is overlaid on top of another

image, preventing duplication as well as ISO bar code labeling.

- 10) Previous Activity - A continuously and automatically updated field, which indicates the most recent, access activities by an individual cardholder. The information shall include reader, date and time.
- 11) A badge status shall denote the card status. Statuses shall be described as lost, stolen, valid and invalid.
- 12) Optional Card Holder Data Fields - In addition to the fields as defined above, a minimum of four (4) user customizable alpha-numeric information fields shall be provided.

f. Card Reader Database:

- 1) The initial ACMS card reader database shall serve to define the unique attributes, which are associated with up to 100 individual card readers. At a minimum, the following fields shall be provided to define each system card reader:
- 2) A reader ID, similar to a card ID shall uniquely identify and address an individual reader. Additionally, associated to a reader ID a reader name shall have a minimum of sixteen (16) characters and be specified for rapid identification of an area or door the reader is associated to. Additionally, additional fields shall be provided to specifically identify a particular reader.
- 3) The ACMS shall support a field for denoting proximity and PIN pad access with a minimum of four (4) characters. PIN pad access may be used as a stand alone unit or in combination with a Wiegand compatible reader.
- 4) Inputs associated to access control doors shall serve to denote the position of the door: opened, closed, or propped. Additionally, a shunt time shall be specified for each door that shall have second and minute time increment customizability.
- 5) Readers shall also have anti-pass back selection, in which a user must present is access card to enter and exit the facility. If a user present an access card for access, but not egress or vice versa than upon the next occurrence the user attempts to gain entry, either he shall be disallowed access and a report generated or allowed access and a report generated for further review.

g. ACMS Operation:

- 1) Access Authorized: Upon confirmation that a request for access is valid, a "door open" command shall be generated by the security panel and shall subsequently cause release of the associated electric locking mechanism for a predetermined interval and shall shunt the associated monitor devices for a user defined period of time. All information pertaining to valid access transactions shall be stored on the ACMS hard disk.
- 2) Access Denied: In the event that an access request is not valid, no "door open" command shall be transmitted and the alarm monitor devices shall not be shunted. All information pertaining to invalid access requests shall be stored on the ACMS hard disk and break through alarm as well as an audible alarm shall sound at the selected operator workstations.
- 3) Reader Override: The ACMS software shall provide for override of card reader operations and door unlock via manually initiated keyboard commands at an operator workstation or by an automatically executed time schedule which has been pre-programmed by the user in the ACMS database. All such override events shall be stored on the ACMS hard disk.
- 4) Overhead Door Controls: The ACMS software shall provide control to open and close the exterior overhead doors via manually initiated keyboard commands at the operator workstation. This control shall be facilitated through the overhead door opener momentary contacts to support. Opening and closing functionality. The safety features of all overhead doors such as photoelectric sensors and safety strips shall not be modified and shall remain 100% functional when the overhead doors are controlled by the ACMS.

h. Breakthrough Alarms:

- 1) The ACMS software shall provide for the display of "breakthrough" alarm messages or graphics at selected operator workstations such that operators will be alerted to an active alarm condition during periods when other than the standard ACMS display is presented on the operator workstations. Breakthrough alarms shall cause activation of the audible sounder and for the on screen icon to illuminate to graphically depict where the alarm is occurring at the selected operator workstations.

- 2) Alarm annunciation shall be user configurable on an individually input point basis to display an alarm window, automatically call-up associated maps to select workstations or group of workstations, requiring operator acknowledgment, generate reports and/or send to CCTV for alarm call-up.
- 3) For alarm events requiring operator acknowledgement, a data input dialogue window containing user programmable information, list box and data input screen shall be provided for operator to acknowledge, record actions taken or enter comments.
- 4) The protection function shall also provide for alarm handling such that alarm transactions can be vectored to one, several or all operator workstations. This function shall be assignable on a point-by-point basis.

i. Graphical User Interface (GUI):

- 1) The ACMS software shall provide a graphical map software module for the design and display of graphic alarm maps using graphical objects and icon buttons. The graphics shall be user programmable without additional software or hardware at a workstation. The software shall provide for a minimum of three (3) graphic screens or floor plans per alarm device. The alarm graphics shall operate automatically, such that the initiation of an alarm shall cause the appropriate graphic screen with embedded icon objects and description to appear without user intervention. Activation of the graphic alarm screen function shall be programmable on a point-by-point basis. Alarm graphics shall be based on architectural background computer aided design files and shall incorporate the following characteristics:
  - 2) Capability to import a .DXF or .DWG file to produce a current site drawing overlay on the system. The Contractor shall furnish the latest drawing for incorporation into the system.
  - 3) The system shall support system icons that shall be a direct link to the event.
  - 4) Alarms and access-controlled door shall both be depicted by icons overlaid on the .DXF or .DWG site drawing and shall be selectable.
  - 5) The GUI shall be interfaced to the closed circuit television and shall incorporate on screen

programming to facilitate emulated camera operation.

- 6) The Contractor shall furnish either the manufacturers or third party software to provide a full functional graphical user interface (GUI).

j. Report Management:

- 1) The ACMS software shall provide for the generation of standard or user defined reports which consist of either ACMS database information/database reports, system log, or historical data/journal reports. The report manager shall provide for routing of reports to any of the printers in the security system. Operator access to the report manager shall be password controlled and shall be initiated at the operator workstations.
- 2) The ACMS software shall allow operators to request reports from a series of pre-configured templates which can be further sorted or customized. The report generated can be displayed, printed or saved to files for later review for printing.
- 3) The ACMS software shall allow operators to create custom reports, lists and labels using selected data from the ACMS database. The user shall be able to define selection criteria, sorting orders and manipulate the data and display based on user defined rules, logics and/or formulas.
- 4) The ACMS software shall provide for an audit trail feature which is designed to record all changes or modifications to the ACMS database. The time at which a record was last changed and which system operator made the change shall be recorded. Audit trail information shall be automatically stored on the ACMS hard disk. Additionally, all additions, deletions or modifications to the ACMS database shall be routed to a workstation printer in order to provide a permanent record of such changes.
- 5) Operator access to various functions and operations related to the intrusion detection sub-system shall be password controlled.
- 6) The ACMS software shall support an independent database which is specifically designed to define the various attributes associated with intrusion detection devices.

- k. The ACMS shall be manufactured by AMAG, Nexwatch, Lenel, Software House, or Owner approved equivalent.



3. Electrified Hardware Power Supplies

a. General:

- 1) The Security contractor shall furnish individually fused power supplies for electrified hardware, as shown on the security drawings.

4. Equipment Requirements:

- a. Power supplies shall be furnished to provide 120% of the current requirements for all associated locking devices.
- b. Power supplies shall be equipped with a minimum of a (4) four-hour backup battery for continued electrified lockset operation after a power failure.
- c. Power supplies shall be equipped with an off-board 24V power relay or manufacturer specified module to indicate when main power has dropped.
- d. Further, all power supply enclosures shall be wall mounted in the security closets as shown on the security drawings and shall be key lockable and equipped with a tamper switch.
- e. The Security Contractor shall provide any additional inputs, as required, to facilitate a low battery warning to the ACMS system.
- f. The Security Contractor shall ensure that the above specifics are provided. It is the Security Contractor's responsibility to coordinate and possibly furnish and install the above items if not provided.

5. Power supplies shall be Altronix, AlarmSaf, SDC or Owner approved equivalent.

B. Video Caption Workstation (Badge Workstation)

1. General:

- a. Provide a networked computer to support an integrated ACMS video capture workstation as shown on the security drawings. The Security Contractor shall coordinate with the Owner the badge layout and develop three sample badges for the Owner to approve.
- b. The Security Contractor shall provide a computer to support the badge workstation software and hardware.
- c. The badge workstation shall be compatible with the host/server and shall be from the same manufacturer.

- d. The Badge station shall communicate to a badge printer via a USB/USB2.0 cable for higher data throughputs. The software shall be compatible with the operating system and the badging software as well as the ACMS system. Stand alone badge station software shall not be acceptable.
- e. The badging station shall support ISO bar code imprinting, image ghosting and holographic overlays.
- f. Digital camera, tripod and any and all miscellaneous software, firmware shall be provided to facilitate complete system operation.

C. Badge Printer

1. General:

- a. Printer resolution shall be no less than 300 dpi, the printer shall produce up to 16.7 million/256 shades per pixel edge to edge and print one single sided card within forty (40) seconds.
- b. The Security Contractor shall be responsible to provide one (1) color dye sublimation printers as shown on the drawings. The dye sublimation printers shall have the following characteristics:
  - 1) The printer shall have a card width range of 2.125" a card length range of 3.375" and shall accept cards .03"-.06" in thickness.
  - 2) Printer shall support Universal Serial Bus (USB) for faster data throughputs.
  - 3) The printer shall accept PVC cards and support a four panel ribbon with integrated resin panels.
  - 4) Shall support automatic card cleaning to remove/reduce dust particles on the card immediately before printing to the card.
  - 5) The software drivers shall be compatible with windows 95/98/XP/2000.
  - 6) The printer shall support holographic and clear overlay varnishes.
- c. Badge printer shall be compatible with the access control system and shall be manufactured by Zebra/Eltron, Fargo or Owner approved equivalent.

D. Access Control Reader – Proximity Type

1. General

- a. Access control readers shall be provided as shown on the security drawings. Mullion mounted readers shall not be allowed unless otherwise indicated.
- b. When entering a door equipped with an access control reader, a card shall be presented and the unique ID code associated to the card shall be compared and analyzed from a security panel or database, which shall associate the rights to an individual. Upon access granted the security panel shall temporarily shunt or activate power to the electrified hardware, as well as internally shunt the associated door position switch or switches for a predetermined amount of time.
- c. The reader shall output industry standard Wiegand outputs or equivalent.
- d. Card readers shall be a sealed, single package weatherproof unit and shall be constructed of high impact ABS plastic. The color of the card readers shall be coordinated with the Owner prior to ordering.
- e. Access control readers shall derive their power from the security panel; therefore, the Security Contractor shall adhere to the manufacturer's guidelines for maximum distance from the reader to the security panel.
- f. Access control readers shall incorporate a dual means of notification of door operation. Specifically, the access control reader shall supply an audible tone for access granted, access denied, out of service and door propped conditions. Additionally, the reader shall also supply a visual means of notification for the above events. Each of these notifications shall be selectable by the host ACMS system.
- g. Card readers shall be UL-294 certified for indoor and outdoor applications, with an excitation frequency of 125 KHz and 12 to 62.5 KHz return to provide Weigand coded output.
- h. Accidental or intentional transmission of radio frequency signals into the reader shall not compromise the system.
- i. Standard card readers and mullion card readers shall provide for read ranges up to 4".
- j. Typical access control readers shall be provided on a single gang backbox in accordance with the manufacturer guidelines. The Security Contractor shall take care in mounting the access control reader providing necessary spacers to prevent radio interference. Standard card readers requiring a special back box shall not be acceptable.

- k. Typical single gang and access control readers shall be manufactured by HID.

E. Door Position Switches

1. General:

- a. Door Position switches shall be provided as shown on the security drawings, and will indicate the position of the associated door, either open, closed, held or forced open.
- b. Balanced surface mounted door position switches shall be provided in instances that recessed mounting is not practical or possible (i.e. loading dock doors)
- c. The Contractor shall supply necessary equipment for preventing a voltage surge to prevent damage to any panels or to the device itself.
- d. Balanced door position switch(s) shall be supplied with armored cabling, properly supported to a junction box above 10', then run open cable back to the nearest security panel.
- e. Door position switches shall be concealed/flush mounted whenever applicable. The Security Contractor shall coordinate with the Owner and the hollow metal contractor of their exact needs whenever possible.
- f. The door position switch shall consist of a two part hermetically sealed assembly and will be designed for either metal or wood frame installations.
- g. Door positions switches shall be a single pole double throw type. The Security Contractor shall be responsible for providing end of line resistors, wire, mounting hardware and necessary field modifications to hollow or metal frame doors. Resistors for end of line supervision shall be provided at the end of line device location. Resistors placed at the panel and not at the device shall not be accepted.
- h. Door position switches shall be made from rugged construction, self-locking, if applicable. Switches shall be designed so that separation of the door from the frame shall be no more than  $\frac{3}{4}$ " in which it shall cause the door position switch to change state and signal an alarm.
- i. The Security Contractor shall coordinate with the hollow frame contractor to determine the location for dust boxes in fire labeled doors. Under no circumstance may the Security Contractor modify a fire rated/ labeled door. It is the Security Contractor's responsibility to verify that either cable pulls by them or other contractors are properly fire stopped where required.

- j. Each door position switch shall be a logical point unless otherwise noted on the drawings.
    - k. The Security Contractor shall supply only magnetic types of door monitoring. Mechanical types of door monitoring shall not be acceptable.
    - l. Door position switches shall be provided in accordance with the drawings, details, and specifications.
  - 2. Door position switches shall be manufactured by Sentrol or Owner approved equivalent.
- F. Proximity Access Control Cards
  - 1. General:
    - a. The Contractor shall provide 500 proximity access control cards to the Owner.
    - b. Access control cards shall be a format compatible format output to the card readers and shall be utilized in conjunction with a security panel to associate the access level associated to the user of the card.
    - c. Proximity cards shall be compatible with the badge printer.
    - d. Proximity access control cards shall also allow either a horizontal or vertical punch slot. Coordinate the punch slot with the Owner.
    - e. Each access card shall be uniquely encoded by the card manufacturer and shall transmit a compatible format output to the card readers.
    - f. Proximity Access Control Cards shall be provided to match the existing facility code for the Owner. This shall be coordinated with the Owner.
  - 2. Proximity access control cards shall be manufactured by HID Corporation, Model 1386 – ISO Prox II, or Owner approved equivalent.
- G. Computer Hardware
  - 1. General:
    - a. Computers shall be manufactured by DELL, Micron, Gateway, or other approved manufacturer that offer warranty coverage and telephone support. Clone computers built by the Contractor shall not be acceptable.
  - 2. Computers shall be fully compatible and endorsed by the ACMS manufacturer and will have the following characteristics:
  - 3. Host server:

- a. Requirements
- 1) 2.0 GHz Pentium 4 processor with 1GB of RAM.
  - 2) Two (2) serial ports.
  - 3) 100MBPS Ethernet NIC.
  - 4) 3 ½" diskette drive.
  - 5) CD-ROM drive.
  - 6) Eighty (80) GB Hard Drive(s).
  - 7) Integrated Ultra-2/LVD SCSI Adaptec® AIC-7890.
  - 8) Integrated RAID Controller Single Channel.
  - 9) 21" .26 dot pitch monitor.
  - 10) Mouse.
  - 11) Full function keyboard.
  - 12) Audio sound card and speakers.
  - 13) License agreement for all applicable software.
  - 14) Laser Report Text & Image Printer.
  - 15) Server Redundancy
- b. The ACMS server shall support a fault tolerant hard drive and redundant database architecture through the utilization of a Redundant Array of Independent Disks (RAID). It shall allow for normal operations with minimal downtime to occur in the event that the database server fails.
- c. The Contractor shall furnish and install a level 5 SCSI RAID, hot swappable, equal to the data being stored with an additional 300% capacity than what is required. The RAID unit shall provide data striping at the byte level and also stripe error correction information with excellent performance and good fault tolerance. The Contractor shall supply hard drives where required via SCSI format.
- d. The system shall support a redundant array of multiple independent hard disk drives RAID that provide high performance and fault tolerance. The RAID array shall appear to the host computer as a single storage unit.
- e. RAID level 5 includes disk striping at the block level and parity. The administrator shall be able to replace the failed drive without taking the security system down. The array software shall rebuild the lost data from parity information stored on the other drives in the array.
- f. Provide RAID management software for physical and logical supervision of the RAID Subsystem. The RAID management software shall, at a minimum, report: Logical disk errors, Physical disk errors, Power supply failures, Over temperature, SCSI interface failure.
- g. Operator Work Station / Badge Station
- 1) 2 GHz Pentium III processor with 512MB of RAM.
  - 2) Two (2) serial ports.

- 3) 100MBPS Ethernet Network Interface.
- 4) One-hundred-sixty (160) GB hard disk.
- 5) 3 ½" diskette drive.
- 6) CD-ROM drive
- 7) 19" .23 dot pitch monitor.
- 8) Mouse.
- 9) Full function keyboard.
- 10) Audio sound card and speakers.
- 11) License agreement for all applicable software.
- 12) Laser Report Text & Image Printer.

## H. Motion Detectors-Surface Mounted (Radar Type)

### 1. General

- a. Motion Detectors shall be furnished and installed as shown on the security drawings and shall serve to protect a given area by the means of microwave and radar sensors. The Security Contractor shall furnish and install all necessary power supplies and transformers as required for the device to function properly. Additionally, the Security Contractor shall provide their own engineering calculations for voltage drop and line resistance.
2. Modifications to motion detector shall not be made, unless approved in prior by the manufacturer. Modifications include painting the detector.
3. Motion detector shall be surface mounted and provided with a swivel base.
4. The unit shall be false alarm immune and shall be placed overhead trafficked areas. Additionally, the unit shall be provided with a radar sensor. Upon power up, the sensors shall calibrate itself to the room and shall refer to this data for comparison during an alarm.
5. The detector shall provide for selectable dual technology, radar modes and shall be installed in radar mode for higher security applications as shown on the security drawings. When Radar mode is selected the Contractor must ensure that the detector is not in the path of water, steam pipes, etc.
6. A LED diode shall be utilized for set up and testing and disabled via a jumper upon systems turn over. Additionally, the unit shall provide a integral tamper switch.
7. Motion detectors shall derive their power from the security panels, as shown on the Security Drawings
8. The detector shall have an 88 degree, 35 ft detection pattern with both sensors activated.
9. Radar type motion detectors shall be Sentrol, Model no AR435 or equivalent.



I. Motion Detectors-Surface Mounted (Long Range Microwave/PIR Type)

1. General

- a. Long Range Motion Detectors shall be furnished and installed as shown on the security drawings and shall serve to protect a given area by the means of microwave and passive infrared sensors. The Security Contractor shall furnish and install all necessary power supplies and transformers as required for the device to function properly. Additionally, the Security Contractor shall provide their own engineering calculations for voltage drop and line resistance.
2. Modifications to motion detector shall not be made, unless approved in prior by the manufacturer. Modifications include painting the detector.
3. Motion detector shall have a tamper resistant housing.
4. Motion detector shall be surface mounted and provided with a swivel base.
5. The unit shall be false alarm immune and shall be placed overhead trafficked areas.
6. A LED diode shall be utilized for set up and testing and disabled via a jumper upon systems turn over. Additionally, the unit shall provide a integral tamper switch.
7. The device shall be equipped with anti-masking features and shall cause a trouble alarm if the device field of view is impeded or masked.
8. Motion detectors shall derive their power from the security panels, as shown on the Security Drawings
9. The detector shall have a 200 ft long and 15 foot wide detection pattern with both sensors activated.
10. Long range motion detectors shall be GE, Honeywell, or Owner approved equivalent.

J. Motion Detectors Surface Mounted– 360 Degree Type

1. General

- a. Motion Detectors shall be furnished and installed as shown on the security drawings and shall serve to protect a given area by the means of a dual technology processing array. The sensor shall utilize two (2) types of sensing technology, which may be PIR, microwave, radar micro-phonics or other type of volumetric dual sensing technology. The Contractor shall furnish and install all necessary power supplies and transformers as required for the device to function properly.

- b. Modifications to motion detector(s) shall not be made, unless approved in prior by the manufacturer or Owner. Modifications include painting the detector.
- c. A LED diode shall be utilized for set up and testing and disabled via a jumper upon systems turn over. Additionally, the unit shall provide an integral tamper switch.
- d. Motion detectors shall derive their power from a security closet, as shown on the security drawings
- e. The detector shall have a 360 degree, 20 ft detection pattern with two (2) detection sensors active.
- f. Motion detectors shall be manufactured by Rokonet, Visonic or Owner approved equivalent.

K. Wireless Transceivers

1. General

- a. The Security Contractor shall provide wireless duress buttons as shown on the security drawings.
- b. Wireless receivers shall be installed at the locations described in the contract documents. The wireless receiver shall be capable of receiving signals from up to 12 fully supervised wireless Alarm Transmitters utilizing 900 MHz Spread Spectrum Transmissions Techniques and zoned to any of the receivers 16 Form C Alarm relay outputs. The wireless Alarm Receiver shall contain 17 Form C relays on board, each rated at 2 AMPS, 28 Volts (Resistive), or 2 AMPS 120 VAC.
- c. The wireless receivers shall be wired to assigned supervised inputs on the ACMS panel.
- d. Supplementary relay outputs shall report global trouble for receiver and low battery transmitter notification. The wireless alarm receiver shall be powered from the security back-up power supplies located adjacent to the security panel.
- e. The wireless receiver shall be housed in a plastic housing with a hinged door.
- f. The wireless alarm receiver shall incorporate LED Displays to indicate the status of each transmitter. The units are to be mounted 54" above finished floor to center of LED display unless noted otherwise.

2. Wireless transceivers shall be manufactured by Inovonics or Owner approved equivalent.

L. Wireless Alarm Duress Transmitter

1. General

- a. The Contractor shall provide wireless transmitters as shown on the security riser diagram. Each wireless Alarm Transmitter shall be powered by an internal 3.0V lithium battery with an exposed life of 5 years. Wireless Alarm Transmitters shall be fully supervised and allow programming to define check-in at 60 seconds or 5 min. intervals.
- b. The Contractor shall provide 5 additional spare duress transmitters.
- c. Coordinate location of duress transmitter in field with Owner
- d. Securely affix duress transmitter to location. Do not use velcro, double stick tape and etc.

2. Wireless transmitters shall be manufactured by Inovonics or Owner approved equivalent.

M. Wireless Repeater

1. General

- a. As required, the Security Contractor shall provide a wireless repeater that shall increase the range of any wireless transmitter. The repeater shall receive a signal, verify it and then amplify the signal back to peak power. The repeater shall be housed in an outdoor NEMA 4 plastic enclosure that can also be supervised. The repeater shall be power from the security closet device power supply and be provided for 8 hours operation. 120V DC Power shall be connected to the battery power terminals of the repeater. Provide tamper switch for repeater cabinet door and connect to supervision input on the repeater.

2. Wireless repeaters shall be manufactured by Inovonics or Owner approved equivalent.

N. U.L LISTED COMMERCIAL BURGLAR ALARM PANEL

1. General

a. Alarm Panel

- 1) The Security Contractor shall be responsible for coordinating dedicated POTS telephone cabling to support alarm transmission.
- 2) The alarm panel shall have a minimum of four (4) fully configurable separate alarm partitions. These partitions shall be filed verified and coordinated with the Owner.
- 3) The alarm panel shall be a fully end of line supervised module capable of handling 100 zones and 15 bit map-able, zoned outputs. The panel shall communicate digitally to a central station monitoring service via contact ID:
- 4) Provide redundant communication, including (2) two standard POTS lines and an integrated cellular back-up dialer.
- 5) The panel shall hold UL designations for security and central station monitoring. These include, but are not limited to:
  - a) UL 609 - Local Burglar Alarm Units.
  - b) UL 634 - Connectors and Switches for Use with Burglar-Alarm Systems.
  - c) UL 639 - Intrusion Detection Devices.
  - d) UL 681 - Installation and Classification of Mercantile and Bank Burglar-Alarm Systems.
  - e) UL 1023 - Household Burglar-Alarm Systems.
  - f) UL 1076 - Proprietary Burglar Alarm Units and Systems.
- 6) The alarm panel shall have separate and distinct alphanumeric wording for each alarm location and condition.
- 7) The panel shall have three (3) group alarming commands. Alarm command one shall be "away" and the second command "evening" shall be utilized to arm perimeter doors and windows only. The third arming command "night" shall arm all perimeter

devices with the exception of entry areas with heavy traffic. These areas shall have a programmable delay before annunciating an alarm.

- 8) The panel shall have the ability to signal a duress signal while disarming the system. The only notification that a duress signal has been sent will be an alphanumeric message being depicted on the keypad "Welcome Home".
- 9) The panel shall allow for four (4) authority levels, giving user rights to arm and disarm certain group alarm commands only.
- 10) The system shall have the ability to connect five (5) individual supervised keypads.
- 11) The alarm panel shall perform an automatic reset on all security devices before annunciating an alarm to the central station monitoring service.
- 12) Digital communication from the alarm panel shall be by contact ID.
- 13) The Security Contractor as part of their work shall provide any and all bell supervision units, relays, communication interfaces, programming, and or any other device necessary for the operation of the alarm panel.
- 14) The Security Contractor shall coordinate with the telephone company the provision of two (2) RJ31X telephone jack's. This jack shall be used exclusively for transmitting alarm data signals.

b. Alphanumeric Keypad

- 1) Keypads shall be utilized to disarm individual multiple or all zones based on user rights.
- 2) Keypad shall be white with a 64 alphanumeric character red backlit display.
- 3) The key pad shall also offer the following technical characteristics:
- 4) Four (4) panic buttons including, medical, fire and security emergency. The last button shall be user customizable per the Owners direction.
- 5) Shall provide an audible buzzer to annunciate all alarm conditions with the exception of a duress situation at the keypad.

- 6) The keypad shall have a feature to turn off the display when one of the buttons has been depressed and a separate chime feature to notify Owner of someone entering from the main entrance.
- 7) Keypads shall be fully compatible with the alarm system being supplied.

O. Alarm Horn

1. General

- a. Provide four (4) - 110 decibel horn powered by control panel with battery backup.
- b. One horn shall be located on the exterior of the building in an inconspicuous location.
- c. Located near a HVAC return duct.
- d. Shall be field verified.
- e. All horn locations shall be coordinated with Owner, prior to rough-in.

P. Cellular Backup

1. General

- a. Provide a cellular backup transmitter, located within the Tel/Comm Room.
- b. The transmission antenna shall be located at the roof height of the facility and shall be independently supported per manufacturer specifications.

c. Features

- 1) Have at minimum a 9" dipole antenna.
- 2) Shall be enclosed within a key-lockable and tamper resistant case. Case shall be equipped with a tamper-switch.
- 3) Battery backup shall be provided to support eight (8) hours of stand-by operation.
- 4) Unit shall be equipped with on board display (LEDs) to indicated system status and cellular signal strength.
- 5) 128bit AES (Advanced Encryption Standard) or equivalent shall be utilized for alarm signal authentication and security.

d. Function

- 1) Shall be capable of transmit power of 1.0W-2.0W.
- 2) Shall have built in phone line monitor.
- 3) Shall have the ability to transmit on Dual Band cellular and PCS at GSM 850MHz and GSM 1900MHz.
- 4) Shall have the ability to self-test daily, weekly, or monthly, as required by the Owner.

e. Certification and Listings

- 1) The cellular backup shall be listed and certified as follows:
  - 2) UL 365
  - 3) UL 1610
  - 4) UL 1635
  - 5) UL 864
  - 6) UL 1641

- f. Cellular backup shall be Telular, Model: Telguard Digital, or Owner approved equivalent.

Q. Duress Button – Desk Mounted

1. General

- a. Duress buttons shall be furnished and installed as shown on the drawings to indicate a potential emergency to the security panel by depressing a button or switch. Duress buttons shall be fully supervised and shall be double pole, double throw type. Further, the Contractor shall install duress buttons with care avoiding areas where the button could be depressed accidentally.
- b. Duress buttons shall be a latching output and shall require a special tool or key to bypass once activated and shall be tamper proof.
- c. Duress buttons shall be mounted to the underside of the cabinet in a discreet, yet functional location to be coordinated with Owner.

2. Duress alarm buttons shall be United Security Products, Inc. model HUB-2 Series or Sentrol model 3040 series, or Owner approved equivalent.

R. Remote Door Lock

1. General

- a. A remote momentary latching door lock button shall be furnished and installed that upon being depressed shall signal the access control alarm panel which will lock associated doors by energizing or de-energizing electrified hardware associated to the door(s) to be controlled.
- b. The remote door lock shall be located in a discreet location to be coordinated with the Owner.
- c. The Security Contractor may install the remote door lock on the same circuit associated to the access control door request-to-exit input, which it is controlling.

- 2. Door lock buttons shall be Locknetics Model no.660-PB or Owner approved equivalent.

S. Local Alarm Device (LAD)

1. General

- a. Local alarm devices shall serve as an audible local deterrent to staff and the public of a propped door or unauthorized exit through "Emergency Only" exit doors.
- b. The local alarm will provide local indication of a door that has been popped open or an unauthorized exit condition at locations indicated on the security drawings. LAD units will be reset locally by a key switch or card reader mounted in close proximity to the door. The LAD system will serve as an audible deterrent to patients, staff and visitors attempting unauthorized, routine exit through doors equipped with local alarm devices. Alarms will be rated at 94 decibels (dB) from a distance of three (3) feet and will signal via a SPDT door position switch from the associated door.
- c. The LAD will be a flush mounted.
- d. The LAD will produce a minimum of 92 dB local signal when measured at ten (10) feet from the device.
- e. The Security Contractor will coordinate with the vendor for a single key for bypass/reset of all LAD's.
- f. Local alarms shall be supervisable and shall be equipped with tamper resistant screws as well as a tamper alarm.
- g. Multiple inputs to a common local enunciator device shall not be permitted, unless denoted otherwise.
- h. Door monitoring shall be wired independently from the access control system and the local enunciator device. In



2. The LAD will be Designed Security, Inc. Model ES-430-K2 Exit Alarm with key reset switch, or Owner approved equivalent.

### 1.3 Closed Circuit Television Systems (CCTV)

#### A. Cross Point Camera Matrix CCTV System Switcher

##### 1. General

- a. The CCTV system switcher shall be rack mounted in a lockable equipment rack(s) that shall be provided by the Security Contractor.
- b. Inputs from the CCTV system switcher shall be looped through the Digital Video Recorders (DVR's) and terminate on the CCTV system switcher.
- c. The switcher shall be populated to support these minimal requirements:
  - 1) Camera inputs: 64
  - 2) Monitor outputs: 48
- d. The switcher shall be a CPU based system with an Intel or proprietary based processor unit. The switcher shall provide a means of loading setup information, software patches and maintenance updates.
- e. The switcher shall house and support all components necessary for transmitting and controlling video signals to a specific monitor recording or monitoring device. These components, including, but are not limited to the following:
- f. Keyboards, input/output bays, card cages, monitors and network connecting devices.
- g. The switcher shall be capable of providing communications through a common industry standard data interface such as TCP/IP, RS-422, RS-232 or RS-485. These protocols shall be used to communicate to integral speed domes, matrix components, keyboards, card cages, DVR's and third party software.
- h. The switcher shall meet or exceed the following design and performance specifications:
- i. The switcher shall have a maximum operating temperate of 122 degrees Fahrenheit. The CPU shall be intelligent and go into standby mode and signal an alarm to the operator of

- j. The switcher shall provide for additional media storage for backing up settings and camera definitions.
- k. The switcher shall allow the manufacturer to write custom programs that can be initiated by the Client.
- l. The switcher and all associated components shall be rack mountable in a standard 19" rack that shall be furnished and installed by the Security Contractor.
- m. The switcher shall provide sufficient data input/output ports to facilitate communication to all devices associated to the switcher.
- n. The switcher will have the following capabilities:
- o. Keyboard to monitor access.
- p. Monitor to camera access.
- q. Keyboard to camera access.
- r. Keyboard to speed dome camera access (restricting angles of view).
- s. Camera to keyboard call up from any keyboard, automatic camera call via external systems, salvo/zoned switching for surrounding camera views during an alarm event. System resident propositioning for integral speed dome(s).
- t. Ability to run individual monitor and system wide tours
- u. The switcher shall be capable of running individual monitor and universal system-wide camera tours with the following capabilities:
  - 1) Sixteen (16) universal tours, thirty (30) camera entries per tour, fifteen (15) programmable times within a week period. Variable speed control for pan/tilt cameras as well as integral speed domes, individual camera dwell times before sequence, auto hold, salvo/zone selection, keyboard lock and running separate alarm call up patterns.
  - 2) The switcher shall provide an on-screen-alphanumeric display for the purpose of camera identification
  - 3) The switcher shall provide the ability to automatically call cameras to monitors from alarm inputs. Multiple display modes and clearance methods for system monitors may be programmed simultaneously. The

system shall provide the ability to accept one alarm input for each camera input and will have as a minimum five (5) display modes; sequence, hold, sequence and display, block sequence and block hold, and three (3) clearance methods; acknowledge, auto clear and instant auto clear.

- 4) The Security Contractor shall coordinate camera titling for all cameras with the Owner.
- 5) The Security Contractor shall provide dry contact closure or data interface for alarm call-up functionality from Intercom Devices and Door Position Switches.

2. CCTV system switcher shall be manufactured by Pelco, American Dynamics, Bosch, Panasonic or Owner approved equivalent.

## B. Control Keyboard

### 1. General

- a. The Security Contractor shall be responsible to furnish and install all cabling and components within the security control center
- b. Keyboards shall have the following requirements:
  - 1) Control keyboards shall not be run longer distances than recommended by manufacturer guidelines.
  - 2) Control keyboard daisy chaining is not acceptable. All keyboards shall be configured in a star configuration.
  - 3) Control Keyboards shall provide zoom, focus and 180 degree rotation of speed dome cameras and shall provide spare keys for custom batch program initiation.
  - 4) The CCTV keyboard camera shall be furnished and installed at waste level within the equipment rack. The CCTV keyboard shall be furnished on a sliding tray and shall be pushed in flush with the equipment rack when not used.
- c. Keyboards shall be fully compatible with the switcher being supplied.

## C. Video Multiplexer(s)

### 1. General

- a. The Security Contractor shall provide video multiplexer(s) as required per the drawings.

2. Function

- a. Video multiplexers shall be fully compatible with the CCTV Matrix Switcher and shall be utilized to display multiple camera monitor outputs onto a large format screen.
  - b. Sixteen separate monitor outputs shall be provided and routed from the CCTV switcher to the video multiplexer.
  - c. Video multiplexers shall allow the viewing of sixteen (16) analog video sources on a single monitor/screen.
  - d. The video multiplexer shall allow for viewing of various video display sizes, and video arrangements on a single monitor/screen.
  - e. The video multiplexer shall have component inputs and component and s-video outputs.
  - f. The video multiplexer shall be controllable through the CCTV switcher and keyboard.
  - g. The Video multiplexer shall support S-VHS (S-video) cable output.
3. Video Multiplexers shall be Pelco, Panasonic, Bosch, or Owner approved equivalent.

D. Video Scaler(s)

1. General

- a. A video scaler shall be utilized to upscale (covert) video output from the multiplexer(s) prior to transmission to a large format display. Video scaler(s) shall be rack mounted and provided as shown on the drawings.

2. Features

- a. Video scalers shall have the following capabilities and features:

1) Capable of scaling video to the following resolutions:

- 640x480@50/60Hz
- 800x600@50/60Hz
- 484x480@50/60Hz
- 852x480@50/60Hz
- 1024x768@50/60Hz
- 1280x768@50/60Hz
- 1368x768@50/60Hz
- 1366x768@50/60Hz

2) Input/Output impedance of 75Ω

- 3) Capable of Processing up to 16 million colors

3. Function

a. Video scalers shall have the following:

- 1) 4-pin mini DIN female S-VHS (S-Video) Input
- 2) 15-pin SVGA output
- 3) On-device screen and selection/configuration switches.
- 4) Shall operate on 100 VAC to 240 VAC, 50/60 Hz, 30 watts, internal, auto-switchable.
- 5) Shall be rack mountable within a standard 19" rack with the use of additional mounting hardware/shelves.

4. Video Scalers shall be Extron, Model IN1502 or Owner approved equivalent.

E. Digital Video Recorder(s)

1. General

- a. The Digital Video Recorder's (DVR)'s shall be capable of storage and playback of images from 1 to 16 camera looping inputs capable of between thirty (30) images per second per camera. The unit shall have duplex operation (record and play back simultaneously) Encryption shall be provided to prevent and/or detect manipulation of recorded images The DVR shall be capable of Group of Pictures (GOP) recording.
- b. The system shall maintain all recorded video for a minimum of thirty (30) days. All recorded video shall be stored on hard drive(s) to allow immediate access to viewing during this period and shall be First In First Out (FIFO).
- c. The Security Contractor shall provide DVR(s) sized appropriately to accommodate all existing and new camera inputs.
- d. The digital recorder shall meet or exceed the following design and performance specifications:
- e. The digital recorder shall record images via continuous recording. The recorder shall store video images onto a hard drive appropriately sized for the above requirements.
- f. The digital recorder shall provide NTSC/PAL signal format with a resolution of 640 x 480 pixels.

- g. The digital recorder shall provide 16 video camera inputs at a recording rate of a minimum of 3.75 frames per second per camera (NTSC). Actual recording rates shall be coordinated with the Owner per camera; but shall not exceed thirty (30) frames per second.
- h. The digital recorder shall provide live and instantaneous playback viewing at any viewing station connected to the network without stopping the recording process of any video input.
- i. The digital recorder shall provide one SVGA output for each unit and shall allow all networked viewing stations simultaneous control of any image without interrupting the recording process or influencing the operation of any viewing station. Each SVGA input shall be connected to an LCD A/B switch with a keyboard and integral mouse that will allow independent control.
- j. The system shall also provide two 6-pin mini-DIN connectors for a PS/2 mouse and keyboard, and a 15-pin D-type port for a PC monitor connection.
- k. The Security Contractor shall furnish and install a rack mountable 1U A/B switch and integrated 19" LCD monitor and mouse that will allow management of multiple DVR(s) with a single keyboard and mouse.
- l. All DVR(s) shall be rack mounted and shall be adequately spaced for ventilation purposes.
- m. The DVR(s) shall be equipped with an off board recording device such as a DVD-R or equivalent. Off board storage devices such as USB, JAZZ and ZIP drives shall be allowed, but only for temporary storage during for transportation between computers that are not connected to the LAN only.
- n. It is preferred by the Client that the Security Contractor utilizes a DVR with an embedded operating system.
- o. DVR shall be manufactured by Pelco, Bosch, Panasonic, or Owner approved equivalent.

F. Integrated LCD, Keyboard and Mouse A/B Switch

1. General

- a. The Security Contractor shall furnish and install a 1U integrated LCD monitor and A/B switch to support multiple DVR(s) control and programming from a common key board and mouse.

- b. The LCD A/B switch shall have a 15" viewable area, measured diagonally and shall provide for multiple source selection.

## 2. Features

- a. A single LCD console drawer with built-in KVM switch with controls up to five (5) DVR's directly.
- b. A five (5) port KVM switch, keyboard, 17-19" LCD display, and touchpad all combined into a neatly arranged, 1U high rack-mountable drawer.
- c. The unit shall be "plug-n-play" requiring no software.
- d. Convenient computer selection via intuitive mouse-driven On Screen Display (OSD) menus or Hot Key combinations.
- e. 15" RGB analog LCD display supporting high XGA resolutions of up to 1024 x 768.
- f. Firmware upgradeable through flash ROM.
- g. 110-220V auto-sensing power supply.
- h. Integrated CPU shall conform to the above requirements and shall be Altussen or Owner approved equivalent.

## G. LCD Monitors

### 1. General

- a. The Security Contractor shall furnish and install LCD monitors with appropriate desk mounting hardware or stands as shown on the drawings.
- 1) Mounting for LCDs shall be coordinated with the owner, prior to rough-in.
- b. The LCD screen shall have an appropriate interface (BNC, VGA connection) for displaying CCTV images.
  - c. The LCD screen resolution shall conform to these standards:
    - 1) Maximum 1024 x 768 at 75Hz
    - 2) Factory Pre-set 640 x 480 at 60/66.6/75Hz
    - 3) 720 x 400 at 70Hz
    - 4) 800 x 600 at 60/75Hz
    - 5) 1024 x 768 at 60/70/75Hz

- 6) The Power Source shall be a Universal 100 - 240 VAC, Imbedded AC Unit

#### H. Camera Power Supplies

##### 1. General

- a. This section pertains to cameras that shall be powered from central location(s) and shall operate from a 24VAC-power source unless otherwise specified. Power supplies shall also have these characteristics.
- b. Support eight (8) individually fused outputs. Fused outputs shall allow the Security Contractor to conduct maintenance on any given camera that is connected to the power supply without dropping power to the remaining seven (7) cameras.
- c. Power supply components shall be furnished in a lockable enclosure constructed for wall mounting and shall be hardwired to a local 110-volt circuit that shall be provided, if required, by the Security Contractor.
- d. Exact locations for power supplies shall be coordinated in the field with the Owner prior to rough in.
- e. Power supplies shall be manufactured by Altronix, Pelco, Black Box, or Owner approved equivalent.

#### I. Indoor Fixed Color CCTV Cameras

##### 1. General

- a. The Security Contractor shall provide new fixed color cameras. The general location of these cameras shall be in accordance with the security drawings.
- b. Cameras shall have the additional following characteristics: Color cameras shall be furnished and installed by the Security Contractor as shown on the security drawings. The Camera shall be a half, third or quarter inch format and shall be designed to operate on 24 VAC 60Hz power sources.
- c. Color cameras shall be a solid-state design and shall incorporate an intensified, interline CCD, HAD or Hyper HAD chip with a minimum lighting for usable image usable image 1.0 LUX. The f-stop rating shall be 1.2/1.4 at 70% reflectance. For this section a usable image shall be where object and colors within the cameras view are readably discernable.
- d. Camera shall transmit a 1-volt peak-to-peak video signal and terminate at 75 ohms with compression or friction connectors only. Cameras shall not require sync and shall



be AC line locked with phase adjustment, unless otherwise noted.

- e. Cameras shall derive their power from individually fused power supply; location to be coordinated in the field. Cameras shall be equipped with self-locking terminal switches or screw power terminals.
  - f. In general auto iris lenses shall be provided for all conditions where variable lighting conditions exist. Electronic shutter shall be utilized in conditions where distortion could occur. Where applicable, cameras shall be equipped with an electronic shutter with selections from 1/50 to 1/100,000.
  - g. In some conditions the Security Contractor shall be required to provide a backlight compensating camera, which exceeds the specification. Specifically, in instances where a backlight condition may exist, the Security Contractor shall provide the necessary camera that will have the functionality to provide a useable video signal in a variety of altering and ambient lighting conditions.
  - h. The Security Contractor shall coordinate the view of each camera, prior to final rough in, as denoted on the security drawings. The Security Contractor shall utilize varifocal lenses for all new camera installations
  - i. In addition indoor cameras shall have the following technical characteristics:
    - 1) Horizontal minimum resolution: 400 TVL.
    - 2) Signal-to-noise: 50-dB minimum with automatic gain control off.
  - j. Camera housings shall be supplied with tamper resistant screws to prevent unauthorized tampering.
  - k. Camera mounting shall be prepared in accordance to an environment where vandalism could occur. The camera mounting shall be sufficient to prevent the mount from being pried from the mounting surface.
  - l. The Security Contractor shall supply necessary specialty tools to remove tamper resistant screws to the Owner.
  - m. Weatherized and rated for interior or exterior housings shall be provided where applicable.
2. The color closed circuit television cameras shall be Panasonic, Pelco, Bosch or Owner approved equivalent.

#### J. Lens Optics

1. General

- a. Provide high quality CCTV lenses sized according to the intended area of coverage as shown on the drawings with the following minimum specifications:
  - 1) Fixed cameras shall be provided with varifocal length lens optics. Lenses provided for fixed cameras will be varifocal length type and shall include provisions for automatic iris adjustment and standard "CS" or "C" mounting, unless integral to the camera. Adapter rings shall be provided for all "C" mount lenses, varifocal lenses will also be compatible with a CCD camera imager. Exact focal lengths of the lenses will be coordinated with the Owner based on the scene to be viewed.
  - 2) The Security Contractor shall supply aplanatic, automatic iris lenses at locations where light levels vary. The average video level sampled from the camera will determine automatic iris operation. Iris control signals and operating voltage will be obtained from the camera and the lens will include a pre-wired (factory assembled) plug assembly compatible with the cameras being provided.
  - 3) Lens optics shall be high quality precision ground glass. All optics shall be fully coated and will be color corrected to provide accurate color scene reproduction.
- b. CCTV lenses will be Computar, Rainbow, Panasonic, or Owner approved equivalent.

K. Indoor/Outdoor Integral Speed Dome Cameras

1. General

- a. The Security Contractor shall coordinate with the Owner the level of opaqueness that is required by the Owner. If Chrome, silver or dark tint is requested, the Security Contractor shall verify that existing lighting conditions and camera optics are sufficient for a usable picture.
- b. Ceiling mount applications shall be properly supported with external chains to guard against the device pulling away from the ceiling tile or dry wall. Further, where required the security Contractor shall furnish a plenum back box with conduit terminating at a junction box furnished and installed by the Security Contractor.
- c. Control for speed domes shall be wired in a star configuration. Speed domes wired in series without some type of redundancy shall not be acceptable. Control derived by sub-phase frequency modulation via a standard coax

cable, also known as “up the coax” control shall not be acceptable.

- d. Pendant mounts shall be selected on the basis of their weight dispersal and shall be properly secured.
- e. Power supplies, if not integral with mounting hardware shall be furnished and installed by the Security Contractor.
- f. 120 VAC power shall be furnished and installed by others as required to power heater/blower and low temperature kits for outdoor units.
- g. The Security Contractor shall supply all components for the speed domes operation, maintaining temperature, deflecting rain and etc.
- h. Integral speed domes shall be unobtrusive, paintable and shall have a maximum dome width of 8.5” Domes larger than this shall not be acceptable.
- i. Speed domes shall incorporate a minimum of a 16X (between 4mm-80mm maximum) optical and 5X digital zoom lens.
- j. Maximum pre-positioning pan speeds shall be a minimum of 250 degrees/second and tilt speed minimum of 90 degrees/second. Accuracy for prepositions shall not exceed 10 degrees.
- k. The unit shall have a minimum of sixty (60) auto preset positions with accuracy no greater than 10 degrees from the intended target.
- l. Speed domes shall comply with NTSC standards.
- m. Speed domes shall be completely integral units with exception to mounting hardware. The Security Contractor shall order speed domes to meet the environmental requirements needed. It is the Security Contractors responsibility to coordinate this work.
- n. All cameras shall be designed for Day/Night/Low Light functionality. The Camera shall be a half, third or quarter inch format and shall be designed to operate on either 110 VAC or 24 VAC 60Hz power sources. 110 VAC power supplies shall have uniform phasing for all cameras and head end equipment. Cameras shall support day/night support in which the camera shall operate as a color camera when sufficient light is present to support useable video, in color mode. When insufficient light is present for useable video the camera shall digitally or mechanically switch to black and white to obtain useable video.

- o. Color cameras shall be a solid-state design and shall incorporate an intensified, interline CCD chip. The f-stop rating shall be 1.2/1.4 at 70% reflectance for color cameras with a minimum useable video in color mode of 0.8 LUX and useable video in black/white mode of 0.5 LUX. For this section a usable image shall be where object and colors within the cameras view are readably discernable.
  - p. The unit shall utilize AC line lock for transmitting video signals.
  - q. Additionally, speed domes shall provide automatic gain control, selectable, back light control and enclosed in a tamper proof housing.
  - r. Cameras shall transmit a 1-volt peak-to-peak video signal and terminate at 75 ohms with compression or friction connectors only. Cameras shall not require sync and shall be AC line locked with phase adjustment, unless otherwise noted. Exterior cameras shall be routed back via single mode, multi-mode fiber optic cable.
    - 1) Pole mounted speed domes shall be mounted at a height to be coordinated with the Owner in the field before rough-in. All power and data connectivity shall pass from a NEMA 4 enclosure through the pole and shall be concealed or encapsulated in conduit.
  - s. Integral speed domes mounted on the roof shall be mounted on a parapet/cantilever mount. The parapet mount shall be designed to allow the camera to be moved closer to the building for servicing.
  - t. Integral speed domes shall be 100% compatible with the CCTV switcher provided.
- 2. Acceptable manufacturers for integral speed domes shall be Bosch, Pelco, Panasonic or Owner approved equivalent.
- L. LCD Monitors
- 1. General
    - a. The Security Contractor shall furnish and install LCD monitors with appropriate desk mounting hardware or stands at the following locations. The LCD monitor shall have multiple source selection and be capable of displaying incoming CCTV images.
    - b. Three (3) 19" Monitors with stands within the security control center.
    - c. One (1) 19" Monitor with stand at the Public Reception Desk.

- d. Five (5) 7" LCD Monitors with stands or mounting hardware at each Executive Reception Desk.
- e. The LCD screen shall have an appropriate interface (BNC, VGA connection) for displaying CCTV images.
- f. The LCD screen resolution shall conform to these standards:
  - 1) Maximum 1024 x 768 @ 75Hz
  - 2) Factory Pre-set 640 x 480 @ 60/66.6/75Hz
  - 3) 720 x 400 @ 70Hz
  - 4) 800 x 600 @ 60/75Hz
  - 5) 1024 x 768 @ 60/70/75Hz
  - 6) The Power Source shall be a Universal 100 - 240 VAC, Imbedded AC Unit
  - 7) The LCD screen shall at minimum have the following front panel controls:
    - a) Brightness
    - b) Contrast
    - c) Power Switch
    - d) Functions Contrast
    - e) Focus
    - f) H-Position
    - g) V-Position
    - h) Reset
    - i) Exit
  - 8) The LCD screen shall have the following regulatory compliances.
- g. LCD monitors shall be Tote Vision, DELL, Pelco (400 series), Owner approved equivalent.

M. Fiber Optic Transmitters/Receivers (Transceivers)

1. General

- a. The Security Contractor will furnish and install single mode/multi-mode fiber optic cabling and associated fiber optic transceivers for all exterior cameras
  - b. The Security Contractor shall be responsible for furnishing and installing power, as required, supporting the video transceivers.
  - c. Fiber optic transceivers shall be mounted within a key lockable enclosure.
  - d. Integral Speed dome video/control fiber transmitters shall be used in conjunction with exterior installation. Speed dome video/control fiber transceivers shall have the same characteristics as fixed camera transceivers.
  - e. Mini transmitters, if utilized, shall derive their power from the cameras power source.
  - f. Where proprietary data connectivity is apparent and must be utilized the Security Contractor shall furnish and install the necessary converter or fiber optic receiver required.
  - g. The Security Contractor shall furnish and install a rack mounted fiber optic receiver distribution card frame.
2. Integral speed dome camera video transceivers shall be IFS, Fiber Options, or Owner approved equivalent.

N. Optical Fiber

1. General

- a. If optical fiber is utilized two (2) cables must be pulled for connectivity at each location. This will provide a back-up cable in the event of damage to the fiber optic filament.
- b. Multimode optical fiber shall have the following requirements:
  - 1) Transmission Windows: 850nm/1300nm
  - 2) Core Diameter: 62.5 microns  $\pm$  3 microns
  - 3) Cladding Diameter: 125 microns  $\pm$  2 microns
  - 4) Coating Diameter: 245 microns  $\pm$  5 microns
- c. Single Mode optical fiber shall have the following requirements:
  - 1) Transmission Window: 1310nm/1550nm
  - 2) Core Diameter: 8.3 microns
  - 3) Cladding Diameter: 125 microns  $\pm$  2 microns
  - 4) Coating Diameter: 245 microns  $\pm$  5 microns
- d. All Fiber optic cable shall meet the following requirements:
  - 1) Be dielectric materials (no conductive materials)
  - 2) Incorporate water-blocking tape
  - 3) Be suitable for outdoor installation in underground conduit and in inner-duct
  - 4) Buffer Type: Loose Tube gel-filled buffer
  - 5) Jacket Material: PVC
  - 6) Jacket Color: Blue
  - 7) Cable Rating: OFNR
  - 8) Strength Member: Aramid Yarn, fiberglass
  - 9) Operating and Storage Temperature:  $-40^{\circ}$  to  $+70^{\circ}$ C (no irreversible change in attenuation)
  - 10) Humidity Range: 0 to 100%
  - 11) Maximum Tensile Loading: During Installation - 2700 N (no irreversible change in attenuation)

12) Bending Radius: During Installation - 20 times cable diameter

e. Acceptable manufacturers of optical fiber shall be Corning, Belden, West Penn, Draka, Optical Cable Corporation, Alcatel-Lucent or Owner approved equivalent.

O. Fiber optic Connectors

1. General

a. Fiber optic connector type shall be coordinated in the field and shall serve to minimize optical loss measured in dB. Generally, optical connectors shall have a maximum loss per connector of 1dB and shall be classified as high performance. Additionally, connectors shall hold these requirements:

b. Physically small of rugged construction and with good thermal characteristics.

c. Qualified experienced technicians shall install fiber optic connectors. The Security Contractor shall guard against the following, which is not limited to:

1) Lateral displacement.

2) End separation.

3) Angular misalignment.

4) Surface roughness.

2. Connectors

a. Strain Relief

1) Connector assembly shall include a rubber or plastic boot from strain relief.

2) Insertion Loss

a) Connector insertion loss shall not exceed 0.4dB for single mode and 0.5dB for multi-mode fibers.



3. Environmental Protection
  - a. Connector assembly shall protect against dust, sand and dirt and permit cleaning when disconnected.
4. Repeatability
  - a. Connector attenuation shall not exceed 0.2dB of change for 1000 reconnections.
5. Strength:
  - a. The pull out strength shall be greater than 25 pounds.
6. Termination
  - a. Fiber connectors shall be terminated using fusing or similar techniques for the least amount of decibel loss or equivalent.

## **1.4 Intercom System**

### **A. Telephone Intercom Unit**

1. General
  - a. The Security Contractor will furnish and install commercial grade analog intercom units as depicted on the drawings.
  - b. Intercom shall utilize phone circuitry and the Owner's VoIP system to transmit audio signals. Owner will utilize Avaya S8300 Media Server and G700 gateway equipment. The backplane is VoIP. The signal is routed from analog to IP then back to analog.
    - 1) The Security Contractor shall sub-contract the connection of the intercom with the Owner's VoIP system operator.
  - c. The Intercom shall have the capability to remotely de-energize associated locking hardware.
    - 1) Hardware de-energized by the intercom shall also shunt the associated door position switch.
  - d. The intercom shall signal the ACMS upon activation for CCTV call-up.
2. Environment
  - a. Intercom units shall be specifically selected for the installed environment and shall be weatherized and resist contamination where required.

- b. All units shall be enclosed within tamper-resistant enclosures.
  - c. Interior units shall meet the following requirements:
    - 1) Temperature rating of -26Degrees Celsius to 54Degrees Celsius.
    - 2) Withstand 5% to 95% humidity, non-condensing.
  - d. Exterior units shall meet the following requirements
    - 1) Temperature rating of -26Degrees Celsius to 54Degrees Celsius.
    - 2) Withstand 100% condensing humidity.
3. Function
- a. Communication shall be duplex.
  - b. Intercom units shall have a single speaker and a single “call button”
  - c. Call button shall automatically dial when pressed and shall have automatic hang up functionality.
  - d. Each unit shall dial a preprogrammed phone number.
  - e. Each intercom unit shall be capable of supporting roll-over functionality for up to three additional phone numbers.
  - f. Speaker and microphone volume shall be independently adjustable.
  - g. Programming shall be done through on-device jumper pins, dip switches, or through a phone line connection. Phone line connection programming shall be password protected.
  - h. Shall utilize telephone line power of a minimum of 18VDC/20mA.
4. Installation
- a. Shall be installed flush with the installed wall.
  - b. Shall meet ADA accessibility requirements.
  - c. Intercom unit shall not require rough-in box larger than 4x4x2.
5. Shall be manufactured by Viking, or Owner approved equivalent.
- B. Intercom Phone Controller
- 1. General

- a. Intercom Phone Controllers shall be installed as necessary to provide a fully functional, fully addressable intercom system with remote unlocking capabilities for access controlled doors.
- b. Intercom phone controllers may allow multiple phones to utilize a single phone line. No more than four (4) intercom units may share a single telephone line on a single intercom phone controller. Phone controllers cannot be connected in series and cannot share the same phone line.
- c. Shall be powered from a local low voltage power source.

2. Function

- a. Intercom phone controllers shall permit remote unlocking of electronic locking hardware through touch-tone interfaces from any connected phone.
- b. Intercom phone controllers shall only permit momentary unlocking. Continuous unlocking functions shall be disabled.

3. Installation

- a. Intercom phone controllers shall be installed within a locked and tamper resistant enclosure.

**1.5 Racking**

A. Equipment Rack(s)

1. General

- a. The Security Contractor shall provide equipment racks as required for all security equipment whether specifically stated herein or not for a complete equipment rack including bracing, equipment mounting hardware kits, casters and filler panels. All equipment racks shall be procured from one (1) manufacturer. It is acceptable to use other manufacturer's monitor and equipment rack mounting kits as required.
- b. The Security Contractor shall ensure that there are no openings and that filler panels are utilized where appropriate.
- c. Racks shall be of steel construction, with EIA 19" standard equipment rack mount requirements.
- d. Electrical power for all rack mounted equipment will be provided within the racks by outlet strips designed for the racks. The Security Contractor will provide the final connection of the outlet strips within the racks.

- e. The Security Contractor will provide all wire, cable, conduit, boxes, sealtight, etc. for complete connection of 120 VAC power to the rack system.
- f. The Security Contractor will provide equipment racks with factory applied color finishes in matte black. Factory finishes will be baked enamel and touch-up finishes will be applied in accordance with the manufacturer's recommended process.
- g. The Security Contractor will provide continuous one piece blank panels as required to fill all empty locations in the equipment rack system.
- h. The Security Contractor will provide an appropriate number of fans within the equipment racks to adequately dissipate heat build up. Each fan will have a maximum noise level of 47dB and 260 SCFM. Fans will be continuous duty.
- i. Equipment racks shall be rear and front key lockable with a clear polycarbonate front door. In addition, rear and side metal paneling shall be perforated for adequate cooling.
- j. Equipment racks shall be equipped with rollers or casters to allow the rack to be moved for service and installation purposes.
- k. All cabling entering the equipment rack shall be extended to create a service loop, allowing the equipment rack to be moved for service and installation purposes.

2. Equipment Requirements

- a. The following list represents the major components of the equipment rack. The list is not intended to show every detail and is to be utilized as a guide only. It is the Security Contractor's responsibility to perform all the engineering calculations necessary for the assembly of the racks and hardware required to complete the system. The major components of the equipment racks include, but are not limited to:
  - b. Main Security Equipment Rack(s)
    - 1) Vertical Frame
    - 2) One (1) perforated key lockable rear door
    - 3) Two (2) perforated side panel(s)
    - 4) LOT as required filler panels
    - 5) LOT as required Casters/Levels
    - 6) LOT as required fans
    - 7) LOT plug mold(s) and power strips

- 3. Equipment racks shall be Middle Atlantic, Stantron, Winstead or Owner approved equivalent.

**1.6 Raceway**

A. General:

1. The Security Contractor shall furnish and install plenum rated cable that is either concealed or encapsulated in conduit, which shall be in accordance with applicable code. Where required, by any prevailing code or building standard. The Security Contractor shall adhere to the rules governing their portion of work and installation methodologies.
2. The Security Contractor shall not damage the shield, cable or outer jacket. Cables shall be pulled in accordance with manufacturer guidelines to prevent damage to cable.
3. Do not exceed load ratings specified by manufacturer.
4. Follow manufacturer's recommendations for allowable fill capacity for each size cable rings/J-hooks cable support.
5. All Cables shall be plenum rated.
6. Cables shall be run in accordance to the requirements of the Authority Having Jurisdiction and NFPA 70.
7. Cables shall be tagged and referenced on the as-built drawings.
8. Cable shall not be run near light ballasts.
9. The Security Contractor shall adequately support and neatly strap and label all cabling with a code that will be reflected in the Security shop and As-built drawings. The code shall refer to the end of line device as well as the type and gauge.
10. Firewall penetrations, if required shall be accomplished by a sleeved piece of conduit sized 100% larger than what is required to meet future cabling requirements. Conduit shall be properly fire stopped according to NFPA guidelines where required.
11. Roof camera cables shall not penetrate the roof. All cables shall be run through the elevator penthouse. Cables run at the roof height shall be encased and shall be routed along the roof to reduce trip hazards.

B. Coaxial Connectors

1. General

- a. The Security Contractor shall furnish and install a single piece, RFI Tight Compression, or friction connector for all video terminations. Three (3) piece soldered, F, UHF and screw connectors shall not be an acceptable means of terminated coax cable.
- b. Splices are not acceptable, the Security Contractor shall provide a maximum of two connectors for each coaxial cable run, unless otherwise noted.

C. Coaxial Cable

1. General

- a. The Security Contractor shall furnish the cable according to the project requirements, which shall include plenum cabling as required by the prevailing code or jurisdiction.
- b. The dielectric of the coaxial cable shall be rated at 75 ohms, the center core and shield (braided) shall be 100% copper with or without reversible foil. Cabling with aluminum core or shield either wholly or partially shall not be acceptable.
- c. Where large amounts of RF interference are apparent, such as in unshielded transformer rooms, switch gear rooms the Security Contractor shall run triaxial cable, attaching the outer shield to a ground provided by the Security Contractor, allowing RF interference to drain from the cable.
- d. The Security Contractor shall furnish and install coaxial cable for the following minimum distances:
  - 1) RG-59 coaxial cable for a maximum runs that shall not exceed of 700'.
  - 2) RG-6 coaxial cable for a maximum runs that shall not exceed 1400'.
  - 3) RG-11 coaxial cable for a maximum runs that shall not exceed 2000'.

- 2. Acceptable manufacturers for coaxial based cabling shall be Belden, West Penn or equivalent.

D. Wire and Cable

1. General

- a. Cabling utilized for the interconnection of field items specified herein shall comply with or exceed the recommendations of the component manufacturers.
- b. Cabling where required shall be plenum. Further, cabling shall conform to all local and prevailing jurisdiction requirements.
- c. Independent of manufacturer's recommendations, cables utilized for data shall incorporate stranded conductors, no less than 22 AWG. Conductors shall be upsized as required.
- d. Independent of manufacturer's recommendations, cables utilized for low voltage power circuits shall incorporate stranded conductors of not less than 18 AWG. Conductors' sizes shall be increased as required to accommodate specific applications.

- 2. Wire and cable shall be Belden Corporation or Owner approved equivalent.

### 3.04 Requirements

#### 1.1 Installation Requirements

- A. Security Contractor shall furnish and install the following, but not limited to cabling, connectors, rack kits, interrupted power supplies, power strips, fans, cameras, lenses, power supplies, and exterior raceway and hand holes for fully a functional system.
- B. The Security Contractor's responsibilities for this project are turn-key. The successful Contractor shall provide the specified work complete and ready for use.
- C. All components of the CCTV, ACMS, and Intercom systems shall be furnished and installed as explained in accordance with the request for proposal.
- D. System Components: shall be warranted for a period of one (1) year and shall begin upon systems turnover and Owner sign off.
- E. Installation shall include the delivery, storage, setting in place, fastening to the structure, interconnection of the system components, alignment, adjustment and all other work whether or not expressly described herein which is necessary to result in a tested and operational system.
  - 1. All installation practices shall be in accordance with, but not limited to, these specifications. Installation shall be performed in accordance with the applicable standards, requirements and

recommendations of the current National Electrical Code (NFPA 70), local codes, and any additional authorities having jurisdiction.

- F. If, in the opinion of the Security Contractor, and as noted in the proposal, an installation practice is desired, or required, which is contrary to the specification or drawings, such installation shall not commence until written request for modification has been approved by the Owner and the consultant.
- G. During the installation and up to the date of final acceptance, the Security Contractor shall be under obligation to protect his finished and unfinished work against damage or loss. In the event of such damage or loss, he shall replace or repair such work at no cost to the Owner.
- H. Mounting techniques, appearance and finishes of all equipment or devices shall be approved by the Owner and consultant prior to the Security Contractor installing such equipment. Furthermore the Owner, prior to rough in, shall review camera angles and functionality. The Security Contractor shall submit equipment specifications and equipment cut-sheets for Owner approval prior to installation.
- I. Due to the condition that parts of this job site are finished spaces including paint, trim, wall covering, floor treatments, lighting and building mechanical systems, the Security Contractor shall perform the work specified herein such that at the completion of his work, all finished space is restored to the original condition existing prior to the commencement of work. During the course of performing the work specified herein, if the Security Contractor should encounter any damaged finish in any area where the Contractor's work is to be performed, the Security Contractor shall notify the Owner in writing prior to performing work in that area. Only after receiving written confirmation that the existing conditions have been documented and that authorization has been given to proceed, shall the Security Contractor proceed with the work in these areas.
- J. All equipment shall be firmly secured in place unless requirements of portability dictate otherwise.
- K. Conduit, where required by code or building standard, shall be provided in all instances where new cameras and associated cabling shall be installed. All junction boxes, equipment, etc., shall be mounted plumb and square., were applicable
- L. In the installation of equipment and cables, consideration shall be given not only to operational efficiency, but also to overall aesthetic factors.
- M. Electrical Requirements
  - 1. General
    - a. The Security Contractor shall provide any and all high voltage and low voltage electrical requirements for this project and the envisioned security systems, which includes, but is not limited to intercom, ACMS, CCTV and peripheral distributed security infrastructure.



- b. Provide engineering calculations, such as voltage drop, electrical load calculations, etc. as it relates to devices.
- c. Provide power ratings, and submit a report of their calculations. The report should identify the:
  - 1) Minimum load
  - 2) Input Voltage
  - 3) Output Voltage
- d. Where applicable, interior and exterior integral speed dome cameras shall be provided with 120v power for heater / blower functionality.
- e. The Security Contractor shall be responsible for the coordination, facilitation, and power provision for the project.
- f. The Security Contractor shall provide electrical connectivity in accordance with all applicable codes, ordinances and in the accordance with the means and methods of the trade.
- g. All electrical cabling shall be run in accordance to the requirements of the Authority Having Jurisdiction and NFPA 70.

N. Testing and Commissioning

- 1. The Security Contractor shall schedule, coordinate, and perform a complete and thorough test of all systems.
- 2. The Security Contractor shall submit a comprehensive test plan to the Owner prior to commencement of any system tests. The test plan shall indicate each component to be tested and a proposed strategy for performing the tests.
- 3. Testing shall facilitate commissioning of the CCTV and ACMS systems for use by the Owner. The warranty period shall commence after testing, commissioning, and written acceptance of all work by the Owner.

O. Operation and Maintenance Training

- 1. During the course of the installation, two (2) persons shall be designated by the Owner to receive operational training via a four (4) hour hands on operation review. The Security Contractor shall train these individuals in the proper operation of the system.

P. Execution

- 1. The system shall be installed according to the manufacturer's specification and designed as described in the installation manuals and specifications.

2. The system shall be installed according to the best practices of the trade and follow all applicable codes.

Q. Documentation Standards

1. Operation Manuals

- a. Operation manuals shall contain all instructions required for operation of the system. Step-by-step instructions for system start-up, execution of all system functions and restorations shall be provided. Each operation manual shall consist of the following:

- 1) Step-by-step procedures, as necessary, for all routine system operations.
- 2) Cautions regarding conflicts and/or problems, which may arise as a result of certain system operations.
- 3) Detailed instruction for all user-performed system maintenance activities, including inspection, periodic preventive maintenance, fault diagnosis and repair or replacement of all system modules, controls, sub-assemblies, or hardware.

- b. Operation manuals shall contain all instructions required for operation of the system.

2. Maintenance Manuals

- a. Maintenance manuals shall contain all information required for maintenance of the system. Each maintenance manual shall consist of the following:

- 1) The names, addresses, and telephone numbers for the manufacturer, local manufacturer's representative and subcontractor who has performed work or furnished materials for the system.
- 2) Wiring diagram, details, accurate cable pathway, power schedules, and fold out drawings as well as related information shall be provided.

3. Manufacturer's service manuals

- a. Provide one (1) year warranty letter for parts and labor under the basic services.

4. Record Drawings

- a. Provide updated drawings, denoting all changes to the construction documents and the date at which the change took place.

- b. Panel power schedules, denoting circuits dedicated for security use.
- c. Wire and cable run sheets including cable identification numbers and terminal strip designations.
- d. Legends, which indicate device types, symbols, abbreviations and manufacturer's model numbers.
- e. Functional block diagrams for all subsystems and schematic diagrams for all custom circuitry.
- f. Locations of all equipment and/or riser closets, which show the exact configuration and physical installation of related equipment, interface panels, power supplies, junction boxes and equipment cabinetry as well as installed devices.

R. System Warranty

1. General

- a. The completed work as specified herein, including all materials and labor shall be warranted by the Security Contractor for a period of not less than one (1) year, to be free from defects in design, workmanship and materials.
- b. The one year warranty period shall begin upon final acceptance of the completed work.
- c. For purposes of warranty consideration, final acceptance shall be defined as the date on which the Owner formally acknowledges acceptance of the completed work in writing.
- d. The warranty shall include full preventive maintenance and service on all equipment, components, and systems, if required or recommended by the manufacturer.
- e. During the warranty period, the Security Contractor shall, upon receipt of a request for services from the Owner, respond within four (4) hours and correct all equipment hardware and software problems within sixteen (16) hours. This response shall be in effect 24 hours per day, 7 days per week including holidays.
- f. Unless otherwise requested by the Owner, warranty service shall be performed during normal business hours (8:30 AM to 4:30 PM). In the event that the Owner requests warranty service to be performed during other than normal business hours during the first thirty (30) days after system acceptance, the Security Contractor shall not be compensated for such services. In the event that the Owner requests warranty service to be performed during other than normal business hours thirty (30) days after system acceptance, the Security Contractor shall be compensated for such service at fifty percent (50%) of his normally overtime hourly service rates.

- g. Immediately following the completion of the warranty repair or service call, the Security Contractor's service personnel shall submit a written report to the Owner which details the service work performed, the cause of the trouble and any outstanding work which is required to restore complete and normal operation. The Owner must sign off on all repair or service calls to verify completion of work.

**END OF SPECIFICATION**

# APPENDIX A - NOTICE OF INTENT TO BID AND CONFIDENTIALITY STATEMENT

Subject: **RFP # CLC200721 Security System Installation**

It is the intent of this Bidder to submit a Proposal for furnishing security equipment and installation for the Connecticut Lottery Corporation facility located at 777 Brook St. in Rocky Hill, CT. This includes all services and other matters described herein. Bidder further agrees that by the submission of a Proposal, it agrees to be bound by all terms and conditions set forth in the RFP.

## CONFIDENTIALITY STATEMENT

VENDOR NAME: \_\_\_\_\_  
Address \_\_\_\_\_  
\_\_\_\_\_  
Telephone \_\_\_\_\_  
E-mail Address \_\_\_\_\_

As an authorized representative and/or corporate officer of the company named above, I warrant my company and its employees will not disclose any documents, diagrams, and relative information, made available to us by the Connecticut Lottery Corporation (the "CLC") for the purpose of responding to this Request for Proposal or in conjunction with any contract arising therefrom. I warrant that only those employees who are authorized and required to use such material will have access to them.

I further warrant that all materials provided by the CLC will be returned promptly after use, and that all copies or derivations of the materials will be physically and/or electronically destroyed. I will include with the returned materials, a letter attesting to the complete return of materials and documenting the destruction of copies and derivations. Failure to comply will subject this company to liability, both criminal and civil, including all damages to the CLC and third parties. I authorize the CLC, or its representative, to inspect and verify the above.

I further warrant that if my company is awarded the contract, it will not enter into any agreements or discussions with a third party concerning such materials prior to receiving written confirmation from the CLC that such third party has an agreement with the CLC similar in nature to this one.

\_\_\_\_\_  
(Signature of Representative) (Date)

\_\_\_\_\_  
(Type Name of Representative)

\_\_\_\_\_  
(Type Name of Company)

**Fax to the attention of CLC Purchasing Officer at 860-348-4071. Upon receipt of registration a copy of facility layout and plans will be sent electronically.**

**APPENDIX B - AUTHORIZATION FOR RELEASE OF INFORMATION and AUTHORIZATION FOR BACKGROUND INVESTIGATION (Page 1 of 3)**

(Individual)

I, \_\_\_\_\_, hereby authorize the State of Connecticut Division of Special Revenue and the Connecticut State Police to investigate my background to ascertain any and all information concerning my personal and financial character, whether same is of record or not. I hereby release all organizations, individuals, agencies and their employees and agents from any liability resulting from the furnishing of such information about my past record and character.

\_\_\_\_\_  
Signature Date

\_\_\_\_\_  
Printed Name Social Security Number

\_\_\_\_\_  
Home Address Date of Birth

\_\_\_\_\_  
City, State, Zip Code

\_\_\_\_\_  
Telephone Number

Sworn and subscribed to before me on this \_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_.

\_\_\_\_\_  
Notary Public

Commission Expiration Date

Seal

APPENDIX B (Page 2 of 3)

AUTHORIZATION TO RELEASE INFORMATION  
**(Business)**

To all Courts, Probation Departments, Selective Service Boards, Employers, Educational Institutions, Banks, Financial and other Institutions, and all Governmental Agencies - Federal, State and Local, without exception both foreign and domestic.

On behalf of \_\_\_\_\_  
(Name of firm)

I, \_\_\_\_\_ have  
(Name of President, CEO, Partner, Sole Owner or other authorized official of the business)

authorized the Connecticut Division of Special Revenue and the Connecticut State Police to conduct an investigation into the background of the said business entity.

Therefore, you are hereby authorized to release any and all information pertaining to the said business entity, documentary or otherwise, as requested by any appropriate employee, agent or representative of the Connecticut Division of Special Revenue or the Connecticut State Police. This authorization shall supersede and countermand any prior request or authorization to the contrary.

A photostatic copy of this authorization will be considered as effective and valid as the original.

\_\_\_\_\_  
(signature)

Sworn and subscribed to before me on this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_

Notary Public

Commission Expiration Date  
Seal

APPENDIX B (Page 3 of 3)

AUTHORIZATION FOR BACKGROUND INVESTIGATION

I, \_\_\_\_\_, hereby authorize the State of Connecticut Division of Special Revenue and the Connecticut State Police to perform background checks on me. This authorization shall include, but not be limited to: criminal record checks, tax records, credit and financial checks, previous employment references, and personal character reference checks. I agree to indemnify and hold harmless anyone who releases this information from any action arising out of its release.

NAME: \_\_\_\_\_

TITLE: \_\_\_\_\_

HOME ADDRESS: \_\_\_\_\_

CITY, STATE, ZIP: \_\_\_\_\_

SOCIAL SECURITY NUMBER: \_\_\_\_\_

DATE OF BIRTH: \_\_\_\_\_

Have you ever been convicted of a criminal offense other than a minor traffic violation?

( ) YES ( ) NO

If your answer is YES, please provide a detailed written explanation for each occurrence detailing the court case number, charge, date, place, and disposition.

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
Signature

Sworn and subscribed to before me on this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Notary Public

Commission Expiration Date

Seal



**APPENDIX C**

**SUBCONTRACTOR APPROVAL LIST**

Name of Subcontractor \_\_\_\_\_

Address \_\_\_\_\_

(Check this box if subcontractor is a qualified minority or female-owned business enterprise.)

Services Provided \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_


Sub-contractual Arrangements \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

May be locally reproduced as needed.

## APPENDIX D - VENDOR INFORMATION FORM

**IMPORTANT: ALL parts of this form must be completed, signed and returned by the Vendor.**

Vendor Legal Business Name	Taxpayer ID/FEIN #
Business Name, Trade Name, Doing Business As Name (if different from above)	
Business Entity: Corporation ___ LLC Corporation ___ LLC Partnership ___ LLC Single Member Entity ___ Non-Profit ___ Partnership ___ Individual/Sole Proprietor ___	
NOTES: If your business is a Corporation, in which State are you Incorporated? _____ If individual/sole proprietor, individual's name (as owner) must appear in the legal business name block above. If your business is a Partnership, you must attach the names and titles of all partners to your bid submission.	
Vendor Address	
City	State
Zip Code	
Business Telephone	Business Fax
Contact Person	Telephone
Fax	
E-Mail Address:	
Remittance Address if different from above	
Remittance City	State
Zip Code	
SIGNATURE OF PERSON AUTHORIZED TO SIGN BIDS ON BEHALF OF THE ABOVE NAMED VENDOR	
	
Date Executed	
Type or Print Name of Authorized Person	Title of Authorized Person
Is Your Business Minority Business Enterprise? Yes ___ No ___ Is your business CURRENTLY registered as a <u>DAS Certified</u> Small or Minority Business Enterprise? Yes ___ Attach Copy of Certificate No ___	

## APPENDIX E – CONFIDENTIALITY AGREEMENT

### To be submitted by the successful Vendor upon contract award.

This AGREEMENT, effective upon execution by both parties, between CONNECTICUT LOTTERY CORPORATION and \_\_\_\_\_:

WHEREAS, the parties, for their mutual benefit, desire that proprietary information be disclosed to each other relating to \_\_\_\_\_'s agreement to provide security system equipment and installation services.

IT IS THEREFORE HEREBY AGREED THAT:

Proprietary Information means all written information disclosed hereunder (including orally disclosed information that is promptly reduced to writing) and stated by the disclosing party in writing to be considered as Proprietary Information, except that any such information that (a) was in the possession of the receiving party before receiving it from the disclosing party, or (b) is or becomes part of the public knowledge or literature by acts other than those of the receiving party after receiving it, or (c) is or becomes available to the receiving party from a source other than the disclosing party, or (d) is or becomes available to a third party without restriction from the disclosing party, or (e) is developed independently by an employee of the receiving party with an access to the received information.

A party receiving Proprietary Information from the other shall treat it as confidential for a period of five (5) years from the effective date hereof, and shall handle it with the same degree of care that it uses with its own proprietary information. In particular, during this period, the receiving party shall not, without the prior written consent of the disclosing party, (a) divulge any such information to any party or (b) make any commercial use thereof.

No other rights or obligations are implied by this Agreement. In particular, no license is granted or implied hereunder any patent that may not or hereafter be licensable by either party.

Signed and sealed this \_\_\_\_\_ day of \_\_\_\_\_, 200\_\_.

\_\_\_\_\_

CONNECTICUT LOTTERY CORPORATION

By: \_\_\_\_\_

By: \_\_\_\_\_

Its  
Duly Authorized

Its  
Duly Authorized







