ADDENDUM
NUMBER ONE

for

Re-Bid for New Field House

at

Williams Field with Modifications to the Specifications

for the

Elizabeth School District

Elizabeth, New Jersey

USA Project No. R2024.0093.00

Dated: October 28, 2026

USA ARCHITECTS, PLANNERS and INTERIOR DESIGNERS, Ltd
20 N. Doughty Avenue
Somerville, NJ 08876

This Addendum is issued for the purpose of amending certain requirements of the Bidding Documents and is hereby made an integral part of the Contract Documents for this project. Statements made herein shall amend, supersede, and take precedence over any conflicting and contrary information contained in previously issued documents including previously issued addenda, if any. Bidders shall acknowledge receipt of this addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

CHANGES TO PRIOR ADDENDA:

None

CHANGES TO PROCUREMENT AND CONTRACTING REQUIREMENTS (DIVISION 00):

Item 01: DELETE Section 00 11 13 "Advertisement for Bids" in its entirety and REPLACE with the attached Section 01 11 13 "Advertisement for Bids". The Bid Opening has been changed to November 10, 2026 at 11:00 a.m.

CHANGES TO CONDITIONS OF THE CONTRACT:

None

CHANGES TO GENERAL REQUIREMENTS (DIVISION 01):

Item 01: In Section 01 11 00 "Summary of Work" DELETE Article 1.2.A.3 in its entirety and REPLACE with the following:
"1.2.A.3 : Structural System: Pre-engineered metal building over a slab-on-grade on ground improvement piers."

CHANGES TO SPECIFICATIONS:

Item 01: In Division 09, DELETE Section 09 65 66 "Resilient Athletic Floor" and REPLACE with the attached Section 09 65 66 "Resilient Athletic Flooring".

Item 02: In Division 28, DELETE Section 28 13 30 "Access Control System" and REPLACE with the attached Section 28 13 30 "Access Control System". The Basis of Design has been updated to LenelS2 OnGuard to align with existing Districtwide continuing standards.

Basis of Design Contact:
Rob Sheridan
Open Systems Integrators
rsheridan@sciensusa.com
732.792.2112 x1120

CHANGES TO DRAWINGS:

Item 01: DELETE Drawing A-801 "First Floor Finish Plan" in its entirety and REPLACE with the attached Drawing A-801 "First Floor Finish Plan".

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Item 02: In Drawing E-001 "General Notes & Symbol List" DELETE Article Fire Alarm.4 in its entirety and REPLACE with the following:
Fire Alarm Products and supervision shall be provided by one of the following:
A. Notifier
B. Approved Equal

Basis of Design Contact:
Rob Sheridan
Open Systems Integrators
rsheridan@sciensusa.com
732.792.2112 x1120

CONTRACTOR QUESTIONS

Q01: Please provide a plan showing a staging area and an area where a crane can be set up for the installation of the steel for the PEMB.

A01: Final crane locations shall be determined by the Contractor. Access from the adjacent parking area (north of project area) and practice field (south of the project area) can be coordinated with the Owner. Street access on Clarkson Avenue can be coordinated with the City of Elizabeth.

Q02: In the Original Bid, the resilient flooring and lockers were to be provided by the Owner. Please confirm that Resilient Floorig and Lockers are part of this contract.

A02: Confirmed; resilient flooring and lockers are part of this contract.

Q03: Is this project subject to a PLA Agreement?

A03: No, this project is not subject to a PLA Agreement.

Q04: Is there a scheduled pre-bid site visit?

A04: No, there is no scheduled pre-bid site visit.

Q05: Do all previously answered RFIs from the September 2025 bid phase apply to the October 2026 bid phase for the pre-engineered metal building?

A05: This project and it's construction documents should be bid independently of any previous bid documents.

Q06: Specification section 13 34 19, 2.6. Width of foam-core insulated metal wall panels is not defined. Drawings (A-300) mid-wall panel width scales to 30"-wide. Please confirm 30"-wide wall panels are the basis-of-design. Or can Metl-Span's standard 36"-wide CF

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Architectural insulated metal wall panels be substituted? (Panels at eave and above block will cut in-field to fit.)

A06: The basis-of-design is a 30" wide panel as indicated on the Exterior Material Legend on A-300. Substitutions shall be considered during the submittal phase.

Q07: Please provide or confirm the following loading for the pre-engineered metal building. (Provided on drawing S0.1, IBC 2021 and Live Load 20-PSF)

a. Wind Speed: 115-mph.
b. Exposure: C.
c. Risk: II
d. Ss .281
e. S1 .059
f. Site Class: D.
g. Ground Snow Load: 25-PSF.
h. Collateral Load: 5-PSF.

A07: Confirmed.

Q08: September 2025, Addendum No. 1, Q/A response #7, refer to specification section 133419 and drawing A-140. Specification section 133419, 2.7.A Canopies, dialogue details a sloped below-eave style PEMB canopy. Drawing detail F/A-140 and drawing A-300 elevations show a rod-style canopy (Mapes or similar). Please confirm the style/type of canopy required for the PEMB. If rod-style canopy is selected, please provide a canopy specification section.

A08: Canopies shall be provided by the pre-engineered building manufacturer.

Q09: Architectural drawing A-300, elevations show horizontal insulated metal wall panels. Architectural drawing A-400, section details do not show hat channel framing for horizontal wall IMP installation. The pre-engineered metal building will require the installation of vertical (1-1/2") hat channel framing over wall-girts for horizontal wall IMP installation. This may change the overall dimensions of the building or wall-girts will need to be inset/semi-flush. PEMB column locations will change if wall-girts are not inset/semi-flush. Please confirm the design of PEMB.

A09: The exterior insulated metal wall panels shall remain in a horizontal installation as indicated on drawing A-300. The wall girts are proposed outboard of the primary frame and supplemental framing over the wall girts shall be provided as needed for a horizontal wall panel layout.

Q10: Is there a Geotechnical Report available for this project ?

- The first time, the foundation of the building was designed with 8" DIA Composite piles. Since there aren't any piles now, is there any other soil improvement method proposed ?

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A10: The Geotechnical Report is provided in Project Manual Volume 3. Additionally, ground improvement has been provided in Specification Section 31 62 23.

Q11: Please confirm whether this project falls under Buy America act or not.

A11: This project is not subject to the Buy America Act.

Q12: Kindly advise if prevailing wage requirements are applicable to this project.

A12: Yes, Prevailing Wage Rate Requirements are applicable to this project.

Q13: Please confirm whether union labor rates should be considered.

A13: Union based prevailing wage rates should be considered.

Q14: Clarify whether sales tax is to be included in our pricing

A14: This project is exempt from sales tax. Documentation shall be provided by the Owner to the awarded Contractor.

Q15: Please provide the hard completion date for the project.

A15: As indicated in Section 01 11 05 Time of Completion, Final Completion shall be on or before January 31, 2028.

Q16: Scope of "Opening": Does this package cover all of Division 08, or only aluminum-framed storefronts and glazing (Sections 08 43 13 and 08 80 00)? In particular, please confirm whether it also includes hollow metal doors and frames (08 11 13), aluminum/FRP doors (08 11 16), overhead coiling doors (08 33 23), door hardware (08 71 00), service windows (08 56 19), and mirrors (08 83 00).

A16: All elements of Division 08, Openings, are to be included in the base bid of this package.

Q17: Supply-only option: The specifications are written as furnish-and-install. Would you accept a supply-only quote from us for the storefront systems and glass, with installation by others under your contract, or do you require a full furnish-and-install price from us?

A17: No, the Contractor is responsible for furnishing and installing all elements of the storefront system as indicated; and, the lump sum bid should reflect both the furnishing and installation of said system.

Q18: a. Bonding / named sub: Are subcontractors required to provide a subcontractor bond or Consent of Surety?
b. Also, would Nordic and Norden LLC be listed as a named subcontractor on your bid, requiring a NJ Department of Treasury Notice of Classification?

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A18: a. Only the General Contractor is required to provide Consent of Surety.
b. The subcontractors required to be listed are indicated on the Form of Proposal, Specification Section 00 42 00.

ATTACHMENTS:
Advertisement for Bids
Section 09 65 66 “Resilient Athletic Flooring”
Section 28 13 30 “Access Control System”
Drawing A-801

END OF ADDENDUM NUMBER ONE

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00 11 13 – ADVERTISEMENT FOR BIDS

ELIZABETH BOARD OF EDUCATION

1. Notice is hereby given that sealed bids will be received by the Elizabeth Board of Education Attn: Mario L. Rodrigues, Purchasing Agent, located at 500 North Broad Street, Elizabeth, NJ, 07208 for the Re-Bid for New Field House at Williams Field with modifications to the specifications for the Elizabeth School District.
2. Sealed bids will be received for the following contracts:
   a. Overall Single Prime (all of the work, Lump Sum, All Trades, All Inclusive)
3. Bids for the abovementioned Contracts should be received at the Elizabeth Board of Education Office Attn: Mario L. Rodrigues, Purchasing Agent, located at 500 North Broad Street, Elizabeth, NJ, 07208 until 11:00 a.m., November 10, 2026 and will be publicly opened and read aloud immediately thereafter.
4. Bidding Documents may be examined online by visiting www.usaplanroom.com. Project R2024.0093.00 located in "Public Jobs". This will take you directly to the project for viewing or ordering. Bid Documents may be purchased or ordered for pick-up online for the non-refundable fee of $175.00 for each paper set or $25.00 for each digital set. The Online system will accept payment by major credit cards (MasterCard, Visa, American Express), or COD for pick-up. Documents may be sent prepaid through Federal Express or UPS. Bid Documents will be made available after 2:00 P.M. on October 6, 2026. Documents will also be made available at FLM Reprographics, 741 Alexander Road, Princeton, New Jersey 08540, 609-987-0666, Contacts: Jeff Zanin, Ryan Morrisey. Bidders SHOULD call 24 hours in advance to ensure Bid Documents will be available.
5. Bids must be submitted on the proposal forms in the manner designated, enclosed in a SEALED envelope bearing the name and address of Bidder and Project, and must be accompanied by certified check, cashier's check or Bid Bond drawn to the Order of the "Elizabeth Board of Education", for not less than ten percent (10%) of the amount of the bid, but in no case in excess of twenty thousand dollars ($20,000); and must be delivered to the Business Administrator at the above place, by the hour named. The Board and the Board's Architect or Engineer assume no responsibility for bids mismailed or misdirected.
6. Each bidder shall submit with its bid, a Certificate of Consent of Surety as pre N.J.S.A. 18A:18A-25 from a Surety company stating that it will provide the bidder and all subcontractors, if successful, with a performance/payment bond in the full amount of the contract.
7. No bidder may withdraw his bid within (60) sixty days after the actual date of the opening thereof, 18A:-18A-36a. The Owner reserves the right to extend this date as negotiated with the potential low bidder.
8. The owner reserves the right to reject any or all bids or to waive informality in the bidding if it is in the best interest of the Owner to do so and to award contracts only to those whose proposal is deemed by the Owner to be most advantageous to the interest of the public.
9. Attention of Bidders is particularly called to the requirements of employment to be observed and minimum wage rates to be paid under the Contracts pursuant to N.J.S.A. 34:11-56.25 et seq.

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10. Bidders are required to comply with the requirements of N.J.S.A. 10:5-31 et. seq. and N.J.A.C. 17:27.
11. In accordance with the provisions of N.J.S.A. 10:5-33, all Bidders are placed on notice that they are required to comply with the requirements of P.L. 1975, Chapter 127. (NJAC 17:27.).
12. If the bid exceeds $20,000.00, all bidders shall pre-qualify as required by the State of New Jersey, Department of the Treasury, Division of Building and Construction, and each bid shall be accompanied by an affidavit so certifying pursuant to N.J.S.A. 18A:18-27 through 18A:18-33 as amended and revised. All inquiries concerning prequalification should be directed to Division of Building and Construction, Taxation Building, 8th Floor, West State and Willow Streets, Trenton, New Jersey 08625.
    a. Bidders shall be prequalified in Category C008.
13. Bidding shall be in conformance with the applicable requirements of N.J.S.A. 18A:18A-1 et seq concerning Public School Contracts Law.
14. Pursuant to the "Public Works Contractor Registration Act" (P.L. 1999, c238), bidders and their subcontractors are required to be registered with the New Jersey Department of Labor and to possess a current certificate by said Department indicating compliance with the Act. Bidders are notified of this requirement of their compliance. If, at the time of the contract, the certificate from the department has not been received by the bidder, proof of application along with the cancelled check for the application fee shall be provided to the Board of Education in lieu of such certificate. Once the certificate is received, a copy of same shall be delivered forthwith to the Board of Education.

BY ORDER OF THE ELIZABETH BOARD OF EDUCATION
Elizabeth, New Jersey

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SECTION 09 65 66 - RESILIENT ATHLETIC FLOORING

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Rubber tile flooring, adhesively installed.

B. Turf

1.2 RELATED REQUIREMENTS

A. Section 03 30 00 - Cast-in-Place Concrete: Restrictions on curing compounds for concrete slabs and floors to receive adhesive-applied flooring.

B. Section 09 65 00 - Resilient Flooring.

1.3 REFERENCE STANDARDS

A. ASTM F710 - Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring; 2022.

B. ASTM F2772 - Standard Specification for Athletic Performance Properties of Indoor Sports Floor Systems; 2011 (Reapproved 2019).

C. DIN EN 14904 - Surfaces for Sports Areas – Indoor Surfaces for Multi-Sports Use – Specification; 2006.

1.4 SUBMITTALS

A. Product Data: Manufacturer's printed data sheets for products specified.

B. Shop Drawings: Fabrication and installation details, and layout, colors, and widths of game lines and equipment locations.

C. Verification Samples: Actual flooring material specified, not less than 12 inch square, mounted on solid backing.

D. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
1. Extra Flooring Material: Quantity equivalent to 5 percent of each type and color.

E. Concrete Subfloor Test Report: Submit a copy of the moisture and alkalinity (pH) test reports.

F. Manufacturer's Instructions: Indicate standard and special installation procedures.

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G. Installer's qualification statement.

H. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
1. Extra Flooring Material: 10 square yards matching installed flooring.

1.5 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with at least three years of documented experience.

B. Installer Qualifications: Company specializing in performing work of the type specified and with at least three years of documented experience.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to project site in unopened containers clearly labeled with manufacturer's name and identification of contents.

B. Store materials in dry and clean location until needed for installation. During installation, handle in a manner that will prevent marring and soiling of finished surfaces.

1.7 FIELD CONDITIONS

A. Maintain temperature in spaces to receive adhesively installed resilient flooring within range of 70 to 95 degrees F for not less than 48 hours before the beginning of installation and for not less than 48 hours after installation has been completed. Subsequently, do not allow temperature in installed spaces to drop below 50 degrees F or to go above 100 degrees F.

PART 2 PRODUCTS

2.1 PREFORMED ATHLETIC FLOORING

A. Rubber Flooring: Vulcanized rubber.
1. Thickness: 18 mm
2. Size: 60cm x 120 cm tile
3. Smoke Density: less than 450
4. Shock Absorption: Passes Class 2
5. Color: As indicated on drawings.
6. Products:
a. Mondo, Valor S Strength, Basis of Design, Basis of Design
b. Approved equal.

B. Turf Flooring: Polyethylene slit film and texturized nylon artificial turf.
1. Pile Weight: 40 oz. per sq. yard.
2. Pile Height: 3/4 inch.
3. Tuft Gauge: 1/4 inch.

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4. Primary Backing: dual layered woven polypropylene material
5. Primary Backing System Weight: 7.0 oz. per sq. yard
6. Color: As indicated on drawings.
7. Products:
   a. Thor; Thunder 40, Basis of Design
   b. Approved equal.

2.2 ACCESSORIES

A. Leveling Compound: Latex-modified cement formulation as recommended by flooring manufacturer for substrate conditions.

B. Flooring Adhesive: Waterproof; types recommended by flooring manufacturer.

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine substrates for conditions detrimental to installation of athletic flooring. Proceed with installation only after unsatisfactory conditions have been corrected.

B. Verify that surfaces are flat to tolerances acceptable to flooring manufacturer, free of cracks that might telegraph through flooring, clean, dry, and free of curing compounds, surface hardeners, and other chemicals that might interfere with bonding of athletic flooring to substrate.

C. Cementitious Subfloor Surfaces: Verify that substrates are ready for resilient flooring installation by testing for moisture and alkalinity (pH).
   1. Obtain instructions if test results are not within limits recommended by resilient flooring manufacturer and adhesive materials manufacturer.

3.2 PREPARATION

A. Prepare floor substrates as recommended by flooring and adhesive manufacturers.

B. Concrete: Use leveling compound as necessary to achieve substrate flatness of plus or minus 1/8 inch within 10 ft radius.

C. Remove coatings that are incompatible with flooring adhesives, using methods recommended by flooring manufacturer.

D. Broom clean areas to receive athletic flooring immediately before beginning installation.

3.3 INSTALLATION

A. Starting installation constitutes acceptance of subfloor conditions.

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B. Install in accordance with manufacturer's written instructions.

C. Rubber Tile Flooring:
1. Install flooring as per manufacturer's guidlines.
2. Mix adhesive thoroughly and apply to substrate with notched trowel. Roll flooring into fresh adhesive, overlapping end seams and double cutting, butting factory edges and compression fitting.
3. Roll entire flooring surface with steel roller to assure adhesion to substrate and eliminate air bubbles.
4. Immediately remove any adhesive from flooring surface, using chemical recommended by flooring manufacturer.
5. Weld seams using techniques and equipment recommended by manufacturer.

3.4 CLEANING

A. Clean flooring using methods recommended by manufacturer.

3.5 PROTECTION

A. Protect finished athletic flooring from construction traffic to ensure that it is without damage upon Date of Substantial Completion.

END OF SECTION

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SECTION 28 31 30 – ACCESS CONTROLS

PART 1 GENERAL

1.1 SUMMARY

A. The Security Management System (SMS) shall be the key central component for managing physical security. The system shall provide a variety of integrated functions including access control, alarm monitoring, intrusion detection, visitor management and video

1.2 RELATED REQUIREMENTS

A. Section 08 11 13 Hollow Metal Doors and Frames

B. Section 08 11 16 Aluminum Doors and Frames

C. Section 08 43 13 Aluminum Framed Storefronts

D. Section 08 71 00 Door Hardware

1.3 REFERENCES

A. Abbreviations
1. ACS: Access Control System
2. ADRC: Advanced Dual Reader Controller
3. AES: Advanced Electronic Encryption
4. API: Application Programming Interface
5. AUC: Advanced Unified Client
6. DAS: Direct Attached Storage
7. DHCP: Dynamic Host Configuration Protocol
8. DPS: Door Position Sensor
9. DRI: Dual Reader Interface
10. FASC: Federal Agency Smart Credential
11. FASC-N: Federal Agency Smart Credential Number
12. FICAM: Federal Identity, Credential, Access Management
13. FIPS: Federal Information Processing Standard
14. ICM: Input Control Module

IP: Internet Protocol

15. ISC: Intelligent System Controller
16. IDRC: Intelligent Dual Reader Controller
17. ISDC: Intelligent Single Door Controller
18. LAN: Local Area Network
19. LDAP: Lightweight Directory Access Protocol
20. NAS: Network Attached Storage
21. NFC: Near Field Communications

22. NVR: Network Video Recorder
23. OCM: Output Control Module
24. ODBC: Open Database Connectivity
25. OPC: OLE for Process Control
26. OSDP: Open Supervised Device Protocol
27. PACS: Physical Access Control System
28. PIV: Personal Identity Verification
29. POE: Power-Over-Ethernet
30. RAM: Random Access Memory
31. REST: Representational State Transfer
32. REX: Request to Exit
33. RFID: Radio Frequency Identification
34. RIM: Reader Interface Module
35. SAN: Storage Area Network
36. SIA: Security Industry Association
37. SMS: Security Management System
38. SQL: Structured Query Language
39. SRI: Single Reader Interface
40. SSL: Secure Sockets Layer
41. TCP: Transport Control Protocol
42. TDE: Transparent Data Encryption
43. TWIC: Transportation Worker Identity Card
44. UPS: Uninterruptible Power Supply
45. VMS: Video Management System

B. Definitions
1. Alarm aggregation: A mechanism of combining several alarms into a single item (group) based on certain criteria.
2. Credential: Data assigned to an entity and used to identify that entity.
3. Designated One Person Control: Requires that a designated cardholder is present before anyone else is allowed to access a certain area.
4. Devices Global Hard Anti-passback: Once access has been granted via a valid badge presentation, (1) a cardholder cannot present their badge to another entry card reader within the same area without first presenting it to the area's exit card reader, and (2) any attempt to use any card reader in the same area other than exit card reader shall result in access denied and an alarm report.
5. First Card Unlock: Function where a pre-determined time zone activated unlock command is suppressed until a valid credential has been presented and granted access to the portal.
6. Global Soft Anti-passback: As defined in Devices Global Hard Anti-passback with the exception that the cardholder shall be allowed access to a new area for which he is authorized.
7. Interlock group readers: Configuration for local, but not global, anti-passback whereby only one door may be opened at a time within the area and an alarm is generated for any denied access.

8. Pass-Through: The ability assigned to a person's credential that allows them to access a door even if in lockdown state.
9. Occupancy Limit: Restricts the number of cardholders that shall be present in an area at any given time.
10. Region: A separate instance of the distributed database.
11. Representational State Transfer (REST): A software architecture style consisting of guidelines and best practices for creating scalable web services.
12. RESTful API's (Application Programming Interfaces): Term given to Web services using the REST architecture.
13. Runaway detection: A situation when there are more than a specified number of alarms coming from a given device within a specified time interval.
14. Tailgate Control: Triggered when a person receives an access granted, an output will be fired momentarily for a single person or twice for two people, for a maximum duration of one second.
15. Timed Anti-passback: Configurable wait time between an initial badge swipe and the time at which the same badge will be accepted again at the same card reader.
16. Time zones: Time-based periods, encompassing time of day, day of the week and holidays, which are stored on the ISC and control hardware behavior, cardholder access, online mode of the readers, activation of outputs, masking of inputs, and logging events to the database.

C. Reference Standards
1. Underwriters Laboratories
    a. UL 294 - Standard for Access Control System Units
    b. UL 2610 - Standard for Commercial Premises Security Alarm Units and Systems
2. ISO/IEC 14443-3:2011 – Identification Cards
3. ADA – Americans with Disabilities Act
4. National Fire Protection Association
    a. NFPA 70 National Electric Code
    b. NFPA 101 – Life Safety Code
    c. NFPA 731 - Standard for the Installation of Electronic Premises Security Systems
5. Institute of Electrical and Electronic Engineers
    a. IEEE 802.3 Ethernet Standards
6. National Institute of Standards and Technology (NIST)
    a. Federal Information Processing Standard Publication 140-2 – Security Requirements for Cryptographic Modules
    b. Federal Information Processing Standard Publication 197 – Advanced Encryption Standard
    c. Federal Information Processing Standard Publication 201 – Personal Identity Verification
    d. SP 800-116 A Recommendation for the Use of PIV Credentials
7. Security Industry Association
    a. Open Supervised Device Protocol (OSDP)
8. Video
    a. ISO / IEC 10918 – JPEG

b. ISO / IEC 14496 –10, MPEG-4 Part 10 (ITU H.264)

D. Submittals
1. Informational Submittals
a. Product Data
b. Manufacturer product data sheets
c. Manufacturer product instructions, and installation and operating manuals
d. Shop Drawings
1) Complete set of proposed drawings, identifying equipment locations, types of cabling, numbers of conductors, raceway locations, and termination points of each conductor.
2) Complete listing of proposed devices, indicating interconnection equipment locations and specifying terminal/connecter termination locations.
3) Operational narrative of each component/system.
2. Closeout Submittals
a. Warranty Documentation:
1) Manufacturer warranty statements for all system components and applicable equipment.
3. Cybersecurity Hardening Documentation
a. The Manufacturer shall make available a cybersecurity hardening guide for the SMS. The steps taken in this cybersecurity guide shall be followed to meet IT hardening requirements of the project as needed.
4. Record Documentation:
5. Maintenance Material Submissions:
a. Listing of spare parts required to maintain the system.
6. Closeout Submittals
a. Final listing of doors, locations, and normal status in MS Excel format.
b. Complete set of supplier's operating instructions, installation instructions, and troubleshooting guide, to include but not be limited to instructions for:
c. Schematic drawings depicting type and location of interface equipment/components, 1. number of cables and conductors, raceway locations, types of connectors, circuit requirements and type and dimensions of enclosures.

1.4 QUALITY ASSURANCE

A. Contractor qualifications:
1. Company with a minimum of 2 (two) years system design, engineering supervision, and installation experience in the access control industry.
2. Contractor must be a current, authorized reseller for the SMS product and manufacturer, and provide evidence thereof.

B. Manufacturer Qualifications
1. The SMS Hardware and software manufacturer(s) shall have delivered security management products for at least 10 (ten) years, and shall have a sufficiently large and diverse installed base to ensure competence in delivering, deploying, and supporting systems of this type and scale throughout their expected service life.

1.5 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Acceptance: Upon delivery to the site, Contractor shall inspect all products and materials for any damage.

1.6 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results.

1.7 MANUFACTURER CAPABILITIES

A. Advanced Services - The SMS Manufacturer shall have an in-house Advanced Services group available to contract for:
   1. 1. Professional engineering services to include on-site or remote advanced support, enterprise planning and advanced deployments, system design, supporting software tools, database migrations and conversions, emergency service, system assessments.
   2. 2. Remote Management and Embedded Services to include project management and coordination, contract management, VAR coordination, and Manufacturer resource coordination
   3. 3. Custom applications and reports.

B. 3rd Party Product Certification Program
   1. The SMS Manufacturer shall have a Partner Program that allows other products to develop interfaces to the Security Platform based on a RESTful Web Services API.
      a. Third-party integrations shall have been certified by SMS Manufacturer personnel.
      b. Each new revision or version of the third-party system shall be subject to recertification.
   2. Interfaces developed shall be tested and certified by the SMS Manufacturer for each new version of product released. The Certification Program shall have integrations which include, as a minimum, Command and Control, Key Management, Fire Detection, Intrusion, Elevator and Critical Communication products, and the capability to integrate with other security and non-security products, as desired by the customer.

C. Global Support Capability
   1. The SMS Manufacturer shall have dedicated global support mechanisms in place to provide local support to any installation covered by this specification, regardless of location throughout the world.
   2. The SMS Manufacturer shall have multiple independent Value-Added Reseller (VAR) options to support customers in each market.
   3. The SMS Manufacturer shall have a proven and demonstrable history of deploying Enterprise-scale solutions to Global customers.

1.8 WARRANTY AND SUPPORT

A. Manufacturer shall warrant that the physical media on which the Software is distributed, if applicable, is free from defects in materials and workmanship and that the Software will function in substantial accordance with the Documentation that accompanies the Software for a period of one (1) year from the date of shipment of the Software to the reseller. This limited warranty is void if failure of the Software results from accident, abuse, modification, misapplication, misuse, abnormal use, or a virus.

B. Hardware warranties shall be provided by the original manufacturer of the specific hardware device or component.

C. Manufacturer shall offer a supplemental software support program to include software updates and upgrades.

1.9 LICENSE

A. The SMS shall only require a single license key to be present on the server for the SMS to operate.
   1. A license key on the SMS server shall determine the number of client workstations that shall be able to concurrently connect to the SMS and access its functionality.
      a. The license key shall either be a physical device or a software license key.
      b. License keys shall not be required at the client workstations.
   2. The SMS shall allow the SMS user the ability to activate, return, update, or repair the software license key.
      a. The SMS shall provide specific notification of licensing failure and support a grace period in the software to allow for continued operation while the issue can be addressed.
   3. The software license shall only be used on a physical computer or in a VMware virtual environment.

1.10 LOCALIZATION (LANGUAGE)

A. The SMS (Security Management System) shall provide language support for interface and database by default or by installation of specific localization packages. Support shall be written using Unicode format and have the capability to support both single-byte and double-byte languages, with the list of languages available. Localized versions of documentation may be available.
   1. Required languages: English

PART 2 PRODUCTS

2.1 MANUFACTURER

A. LenelS2
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2. Products
   a. Security Management Software: OnGuard (current revision version of OnGuard is 8.3)
   b. Approved Equal

2.2 GENERAL DESCRIPTION

A. The Security Management System ("SMS") shall be the key central component for managing physical security access control, video, alarm monitoring

B. Scalability
   1. The SMS shall be capable of processing an unlimited number of credential readers, scalable from single site to multiple sites.

C. Database
   1. The SMS shall be based upon one or more independent secure SQL database instances, one of which has been designated as the system master.

D. The SMS shall provide a variety of integrated core functions to include:
   1. regulation of access and egress
   2. provision of identification credentials
   3. video management
   4. monitoring and managing alarms related to both access control and intrusion
   5. visitor management

E. Integrations – The SMS shall employ a RESTful, Web Services API to enable the integration of select third party products and functions with the core functions of the SMS.

F. User Interface
   1. The SMS shall provide access to licensed and installed applications through a common browser-based launcher application that can invoke various components and modules of the SMS from a single location, with users able to customize, rearrange, and retain configurations.

      a. This launcher shall offer Single Sign On and enable launch of both Windows and browser clients.

G. Communication Security
   1. All communication paths within the SMS shall support encryption to provide end-end communication security.

H. User Login and Authentication
   1. The SMS shall offer both a native capability to manage system users, as well as the option to authenticate system users through an external Active Directory, LDAP, or OpenID Connect® (OIDC) system. Solutions that do not support OpenID Connection

authentication of system users shall not be acceptable. System shall also allow for denial of login after a specified number of failed retries.

2. System shall also log the user out of any browser clients after a specified period of inactivity.
3. Customizable login message and ability to link to external websites or documents.

I. The SMS should provide the ability for control of expiration and complexity for the User Account Passwords internal to the system such that system could comply with existing NIST and NERC guidance.

Complexity options to include: Upper/Lower Case, Numeric, Special Characters, Minimum Length, Prohibited List, and Password history

Expiration options to include: Number of days as well as administrator enforced update of password.

J. Operational Efficiencies

1. The SMS shall offer a self-service portal for employees to request access and for area owners to approve, hold or deny requested access. This web portal shall also offer administrator-configurable self-service functions for cardholders such as PIN change, setting up a visitor and visit record, and resending a mobile credential to their mobile device.
2. Transactions shall be reportable within the SMS.
3. The SMS shall offer an expedient means to identify access rights provided in violation of corporate policies and to automatically revoke access rights for these violations.
4. The SMS shall offer a browser-based analysis tool that collects system data for comprehensive system health monitoring and displays it on a customizable, intuitive dashboard.

2.3 ARCHITECTURE

A. Open Architecture - The SMS shall support an ‘open architecture’ allowing for additional support of products outside of the vendor proprietary options.

1. SMS shall support hardware that is non-proprietary such that other vendors could readily offer support for these devices. Access Control Panels that are only supported by a single SMS provider shall not be acceptable.
2. SMS shall support a RESTful Web Services Application Programming Interface (API) that supports the opportunity for 3rd party integration. Access to this API should be managed through a program to ensure that certified integrations utilize this API appropriately.
3. The SMS shall, when possible, leverage open or industry standards for device and system design.

B. System Topology

1. The SMS shall include a central or distributed server component for managing security and any associated integrations.
    a. The SMS server shall function as an application server for connectivity of workstation based or browser-based clients for support of configuration and management.

2. An input or output linkage feature shall allow linking of input points to output control points.
3. Tasks shall be accessible from compatible client workstations on the network utilizing any of the following:
    a. Traditional client-server architecture, using either Windows clients or browser clients for common day-to-day tasks.
    b. Support for federated system architecture (multi-server, multi-database) where the SMS supports the expansion of the system architecture and allows for user deployment based upon their system architectural needs
    c. Centralized distribution (publishing) of applications using Windows Terminal Server and Citrix® on Windows, UNIX, Linux or Apple Macintosh based systems through any compatible internet browsers and/or by means of a mobile computing platform or mobile device.

4. Redundancy - The SMS shall support the following means of fault tolerance and SMS redundancy:
    a. Hot Standby Servers - A Primary Server shall be the main server that is in use when the SMS is operating under normal conditions, and the SMS shall mirror its database information to a Backup/Secondary Server.
        1) Field hardware shall be configured for both the Primary Server and the Backup Server, which shall each recognize the same TCP/IP ISC address on the network.
        2) Upon sensing Primary Server failure, the Backup Server shall automatically initiate itself as the Primary Server and shall begin communication with the Field Hardware.
            a) Frequency of check for Primary Server failure: 5 seconds
            b) Resynchronization time upon Primary Service restoration: 5 minutes maximum
    b. Cluster/Warm Standby - A Primary Server shall be the main server that is in use when the SMS is operating under normal conditions.
        1) Field hardware shall be configured for both the Primary Server and the Backup Server, which shall each recognize the same TCP/IP ISC address on the network.
        2) Upon sensing Primary Server failure, the Backup Server shall bring the necessary services online and shall begin communication with the Field hardware.
        3) Shared media devices, either single or dual, shall be employed to house the hard disk used by both servers.
            a) Resynchronization time upon Primary Service restoration: 5 minutes maximum
    c. Disk Mirroring - This configuration shall allow data to be stored on dual hard disks running simultaneously.
    d. RAID Level 10 - The SMS shall offer a Fault Tolerant Redundant Array of Independent Disks Level 10 (RAID Level 10) with a hot standby disk.

1) Redundant components: disk storage, controller channels, high efficiency power supplies

e. Distributed Intelligence - In the event SMS communications is lost or the database server fails, Intelligent System Controllers shall provide complete control, operation and supervision of the system's monitoring and control points.
   1) Should the downtime exceed the capacity of the Field Hardware buffer and events are overwritten, an alarm shall appear in the Alarm Monitoring Window notifying the System Operator that events were overwritten.

C. Inter-site Communications
   1. The SMS shall support a distributed system (application and database) installation to support geographical or logical separation and management of installations while maintaining a centralized system for reporting.
      a. Each distributed system shall support operation of the local clients and hardware, and provide configuration, event, and transactional events to the central system.
      b. The SMS shall use a message architecture to transfer necessary incremental credential data from one site to another. This architecture shall provide data queuing, guaranteed delivery, and secure transmission of this data.

D. External Interaction of Data
   1. The SMS shall be able to connect to and interface bi-directionally with external data sources utilizing the following methods:
      a. ASCII with support for XML formatted text exchange
      b. Real-time exchange of data via Active Directory or LDAP
      c. Software Application Programming Interface (API)

E. Security
   1. Each page in the cardholder record shall be permission protected.
   2. Each field in the database shall be permission protected.
   3. Communication throughout the SMS shall be AES encrypted, using TLS where practical.
   4. All cardholder PIN codes within the system shall be encrypted.

F. A Network Account Management Module shall integrate SMS cardholders with external user network accounts, allowing System Administrators to perform a set of administrative tasks in Windows domains from the System Administration Module, and to create a link between physical access control and logical domains.

G. The SMS shall allow, through standard API toolkits, System Administrators to expose specific SMS data and events that are relevant to IT information or other third-party systems or to allow, System Administrators to accept and process information exposed from the IT information or other third-party systems.

2.4 CORE FUNCTIONALITY

A. Access Control - access granted or denied decisions, define access levels, and set time zones and holidays. The SMS shall support features such as area control (two-man control, hard, soft, and timed anti-passback), database segmentation, and time zone or holiday overrides

1. Configuration
    a. Credentials
        1) SMS credential management functionality shall allow:
            a) enrollment of cardholders via traditional thick client and/or by a browser-based credential application for the storage of cardholder records in the database
            b) formatting of cardholder records
            c) capturing of images, biometric data, and signatures
            d) user-defined fields in the cardholder record
            e) issuance / reissuance of traditional plastic badges and/or mobile credentials using information in the cardholder record. It shall be possible to print to a designated, configured badge printer from both browser-based and Windows clients. This mechanism shall be based on a print server architecture supported by the SMS. Solutions requiring a printer directly connected to the device on which the browser client is used shall not be acceptable.
            f) import or export of cardholder data from internal or third-party systems

                1. data delimiter: definable

                2. import-export filters: selectable
            g) assignment and modification of access rights and levels
            h) definition of cardholder escort requirements
            i) cardholder use limits
            j) user definition of extended individual strike and door held open times
            k) deactivation of credential following a period of non-use
            l) furnishing and management of digital certificates for smart cards
            m) searching for records and images based on any fields in the database
        2) Field types: text, date, numeric, drop-down lists
    b. Access Levels shall consist of a combination of readers and timezones.
        1) Minimum number of supported access levels per controller: 32,000
        2) Minimum number of supported access levels per badge: 255
        3) Card readers shall be assignable to any or all access levels.
        4) Each access levels shall have the option for “First Card Unlock”.
        5) Temporary access levels - Within the constraint of number of access levels, the SMS shall have provision for access levels with definable start and end dates.
        6) Precision access levels - Beyond the constraint of number of access levels, the SMS shall be able to assign access levels with unlimited card reader and timezone combinations.
        7) Access Groups - The SMS shall provide for access groups, assignable to an alphanumeric name, containing up to 32 access levels.
        8) Timezones - Pre-defined card reader settings shall have the flexibility to be overridden or modified for locking state and required authentication means.
    c. Holidays shall be assignable via an embedded calendar with an alphanumeric name and to individual timezones.

1) Minimum number of holiday assignments: 255
2) Number of holiday group types: 8
3) Repeat frequency: annual
4) Daylight Savings Time: definable for automatic time conversion
5) Span: configurable for multiple days

d. Timezones
1) The SMS shall be capable of creating timezones, each with intervals assignable to any day of the week.
a) number of timezones: 255 minimum
b) Intervals: 6 minimum
2) Timezones shall be allowed to belong to any or all access levels so that the time zone only has to be defined once.

e. Scheduling - The SMS shall have a scheduling utility to allow System Administrators to schedule actions to occur on a one-time or a recurring basis and to maintain a log of actions executed.

f. Field Hardware
1) The SMS shall allow for a Windows-based configuration of the following types of field devices which participate in the access control function:
a) Intelligent System Controllers (ISC's)
b) Input Control Modules (ICM's)
c) Output Control Modules (OCM's)
d) Access card readers
e) Integrated lock-readers
2) The SMS shall provide a device discovery utility to aid in configuration.
a) Scope: local subnet or multiple subnets
b) Display categories: brand, discovery service, device status, device type
c) Available functions: ping, reboot, default password check, version discovery, launch device web server, save credentials, update IP address
3) When a field hardware device is configured, the device shall appear in a graphical system overview tree and be available in drop down lists which support operator access.
4) The SMS shall have the ability for bulk add, modify, and delete privileges for ISCs and card readers to allow for the ease of addition and maintenance of themes.
5) The System Administrator shall have the ability to group field devices into monitor zones.
6) System status update frequency shall be configurable.

g. Alarm Masking Groups - System Administrators shall be able to create groups of alarm inputs that enable them to mask or unmask multiple Input Control Module inputs and card reader inputs simultaneously.
1) Alarm Masking Groups shall be able to be masked or modified as a group or as individual points.
2) Alarm masking shall support two-man control.

3) Number of Alarm Masking Groups: maximum 64 per ISC
4) Alarm inputs: maximum 128 per Alarm Masking Group

h. Event Linkage - The SMS shall support a global linkage feature whereby any input or output or event shall be linked to any other input or output or event., with the following additional characteristics:
1) Support global I/O function lists, consisting of sequences of up to six actions
2) Association with panel areas

i. Graphical Maps - The SMS shall support graphical maps that display device or group status, function lists and video cameras dynamically in real-time, and support the following:
1) Graphical maps are available via traditional thick client and/or through a browser-based monitoring application
2) Configuration to appear on command or when specified alarms are acknowledged
3) Graphical map creation software that allows the import of map backgrounds from supported file formats
4) *A*ssociate various maps with each area to provide for the creation of a map hierarchy.
5) User-defined text and icons
6) Configuration of map icon shape and color to represent the state of the associated device
7) Pan and zoom capability is supported for Maps when viewing through the browser-based client

2. Ingress and Egress
a. Individual Use
1) Access Cards
a) Physical characteristics
1. 30 mil thickness, ISO compliant
b) Card types supported:
1.Proximity – 125 kHz
a.HID Prox
b.AWID
c.Legacy GE Security ProxLite
2.Magnetic stripe – ABA Track 1, 2, and 3.
3.Smart Cards - contact and contactless, 13.56 MHz
a.MIFARE - 1 kB (8 kb) and 4 kB (32 kb)
b.MIFARE DESFire

c.It must be possible to make the keys for DESFire credentials unique for each card based on the NXP AN10922 diversification algorithm and shall allow customer-specified diversification inputs to be used.

d.HID iCLASS

e.U.S. Government FIPS 201 and HSPD-12 compliant, including TWIC

4.PIV standard formats

5.Mobile Bluetooth Credentials to be installed and used from a smart phone

a.LenelS2 BlueDiamond Credentials

b.Origo HID

6.Mobile NFC Credentials to be installed and used from a smart phone

c) Data formats supported:

1.Magnetic stripe - with card number, facility code, and issue code combinations up to nine-digit card number and two-digit issue code

2.Wiegand - all industry standard variations

3.HID Corporate 1000 - 32 bit and 48 bit

4.200 t BCD FASC-N output of FASC-N readers

5.75-bit Wiegand Binary output of GSA approved FASC-N readers

6.Custom

d) The SMS shall support desktop smart encoding and inline smart encoding for relevant affected reader technologies.

e) The SMS shall support a card reader cipher mode, emulating the presentation of a card credential by manually entering their badge ID.

f) The SMS shall support a configurable denied access attempts counter for each card reader.

g) Extended Held-Open Time - Authorized cardholders shall have the ability on demand to extend the time for which a door is help open after access is granted for up to 30 minutes.

h) An alarm shall be generated upon an attempt to use any badge that is not marked active in the SMS.

2) The SMS shall support the provisioning and usage of Mobile Credentials.

a) Mobile Credentialing shall be configurable from the SMS to include:

1.Name for the credential service

2.URL for issuing credentials

3.Requirements for certificate-based authentication and/or username password to access web portal

b) Supported mobile credentials:

1. LenelS2 - BlueDiamond

2. HID Mobile Access on Origo

3) Request to Exit (REX) - The SMS shall be able to provide an event when a REX is initiated.

4) The SMS provides the ability to alert the System Operator when a cardholder does not present their credential at a required location in a designated period of time.

5) Pre-Alarm - The SMS shall support a card reader pre-alarm feature which sounds a tone prior to a door held open alarm for a configurable period.

a) The SMS shall allow operator response instructions to be specified for each type of alarm and delivered via text and/or audio.

6) For doors with keypad reader, allow door forced open alarms, door held open alarms to be configured for local keypad acknowledgement prior to allowing System Operator to acknowledge and complete alarm processing

b. Keypad Alarm Response

1) The SMS Shall support an acknowledgment process that requires a response to access violations at both the Alarm Monitoring Client level and at the local reader location where alarms can be cleared only after following the required procedure.

c. Badge Override

1) The SMS shall provide an override to allow badge access through a reader, even when set to Locked mode, for designated users (such as for a first responder badge).

3. Lockdown

a. The SMS shall allow for logical grouping of reader devices for the purposes of an emergency security response.

b. The SMS shall support emergency activation through a manual action, or global I/O which will allow lockdown groups to be placed into a locked state.

c. The locked down state shall override any schedules or additional programming that would otherwise allow a door to remain unlocked.

d. Readers identified in the activated group will have their Reader Mode changed to alternative reader mode of LOCKED

e. All schedule / action-based reader mode changes will not be executed, but they will be tracked

f. All manual reader mode changes will not be executed, and will also be tracked

g. When a locked down state is initiated, the SMS shall allow for readers to remain in that state until through manual action, or global I/O has been changed to a normal state.

h. When lockdown is deactivated, readers will return to normal operations; the scheduled reader mode for current time (unless there was manual mode change requested during lockdown)

4. Field Devices

a. Interface

1) The SMS shall be equipped with the access control field hardware required to receive alarms and administer access granted or denied decisions.

Devices without LenelS2 Part Numbers

a) Intelligent System Controllers (ISC)
b) Intelligent Single Door Controller (ISDC)
c) Intelligent Dual Reader Controller (IDRC)
d) Advanced Dual Reader Controller (ADRC)
e) Input Control Module (ICM)
f) Output Control Module (OCM)
g) Single Reader Interface Module (SRI)
h) Dual Reader Interface Module (DRI)
i) Reader Interface Module (RIM)
j) Access Control Network Door Controllers or Network Controller/Readers
k) Power over Ethernet Plus (PoE+) Enabled Dual Door Interface
l) Network Adapters
m) Communication Star Multiplexer
n) RS-485 Interface Module
o) Network ready power supplies and enclosures

1.On-demand and scheduled testing of system standby battery sets

2.Reports and alert notifications to the SMS and the database

3.UL Listed prewired system enclosures with LenelS2 connectors

4.Compatibility with enclosure wire duct systems for wire protection and integrity

5.Modularity of system power components for expansion and configuration

6. A minimum MTBF of 80,000 hours for reliability

p) Dual Reader Interface (DRI)
q) Intelligent, wireless, and combination locks

Devices with LenelS2 Part Numbers

a) Intelligent System Controllers (ISC)

1.LNL-X3300, LNL-M3300

b) Intelligent Single Door Controller (ISDC)

1.LNL-X2210, LNL-M2210

c) Intelligent Dual Reader Controller (IDRC)

1.LNL-X2220, LNL-M2220

d) Advanced Dual Reader Controller (ADRC)

1.LNL-X4420, LNL-M4420

e) Input Control Module (ICM)

1.LNL-1100-S3

f) Output Control Module (OCM)

1.LNL-1200-S3

g) Single Reader Interface Module (SRI)

1.LNL-1300-S3

h) Dual Reader Interface Module (DRI)

1.LNL-1320-S3

i) Power over Ethernet Plus (PoE+) Enabled Dual Door Interface

1.LNL-1324e

j) Communication Star Multiplexer

1.LNL-8000

k) Network ready power supplies and enclosures shall provide: (reference Appendix E)

1.On-demand and scheduled testing of system standby battery sets

2.Provide reporting of battery life “out of tolerance”

3.Reports and alert notifications to the SMS and the database

4.UL Listed prewired system enclosures with LenelS2 connectors

5.Compatibility with enclosure wire duct systems for wire protection and integrity

6.UL Listed modularity of system power components for expansion and configuration

7.A minimum published MTBF of 80,000 hours for established reliability

l) Intelligent, wireless, and combination locks

2) The SMS must be able to retrieve device serial numbers from field hardware, excluding card readers, biometric readers, and keypads.

3) The SMS must be able to allow authorized users to manage passwords and certificates installed on the field controllers, via the host.

b. Data download

1) The SMS shall provide for the downloading of data to the ISCs. Downloads shall load SMS information (timezones, access levels, alarm configurations, etc.) into the ISC’s first, followed by cardholder information and card reader configurations.

2) Information on cardholder status, badge status, timezones or access levels shall download in real time as they are added, modified, or deleted from the SMS.

c. Permission control - The SMS shall allow System Administrators to set permission control for individual devices within a monitoring zone for command override.
d. Device grouping - The SMS shall support device grouping for uniform command and control of groups of devices within the system.
e. Card readers
    1) Options to include:
        a) User commands
        b) Door strike, REX and DPS functionality
        c) Duress actions
        d) Alarm masking
        e) Logging requirements
        f) Selection as “In” or “Out” reader
        g) Use limits
    2) The SMS shall provide connectivity to, proximity/mobile ready, Smart Card and smart card/mobile ready readers which provide continuous supervision and monitoring of reader processor and wiring integrity by means of a non-proprietary communications protocol standard.
    3) The SMS shall support encrypted reader to panel communications using the SIA OSDP Secure Channel protocol.
        a) OSDP File Transfer capabilities shall be supported
        b) Flexible support for OSDP manufacturer specific commands shall be provided. It shall be possible to send commands based on a schedule or manually.
f. Input Control Modules (ICM’s) options to include:
    1) Alarm masking
    2) Local linkage of inputs and outputs
    3) Output activation rules
    4) Input configuration for Guard Tour
    5) Entry (latched, not latched) and Exit delay modes
g. Intelligent System Controller (ISC) capabilities shall include:
    1) Administrator functions to group, add, modify or delete ISC’s in the system
    2) Ability to update firmware or replace hardware while maintaining complete hardware and data configuration settings
    3) A distributed intelligence redundancy mode, whereby the ISC, configured with a UPS battery to maintain the unit for 24 hours, participates with other ISC's to provide complete control, operation and supervision of the system’s monitoring and control points in the event of SMS server failure.
        a) cardholder capacity: configurable up to 1,000,000
        b) event capacity: configurable up to 50,000
h. A system Operator shall have the option to manually control the output points or input points connected to the SMS.
i. The SMS shall support a real-time graphical system status tree or list window that graphically depicts configured field hardware devices.
    1) The SMS shall support a low status mode to simplify operation or minimize network traffic and memory utilization.

2) The SMS shall support a jump-to-device feature to allow a user to right click on any alarm and then jump to a refreshed status for the associated device.

B. Alarm Monitoring - The SMS will provide the ability to monitor system and device Alarms/Events, Field Hardware Command and Control and Status Monitoring and system support functions, for the use of the operators of the system.
   1. The SMS shall provide monitoring options through workstations installed or browser-based clients.
   2. An Alarm Monitoring window shall provide System Operators information about the time, location, and priority of an alarm and provide the ability to sort pending and new alarms based on event detail.
      a. Detail shall include at a minimum: Date/Time, Description, Priority, Controller, Device, and person.
   3. Alternate alarm view windows shall be available to support: Alarm or Badge Activity Monitoring, Event Tracing (Live/Historical), and Alarms Pending Response
      a. Operators shall be able to acknowledge alarms from any alarm view window.
   4. Monitor support shall include the ability to view live and recorded surveillance video and link video to alarm events.
   5. Monitor support shall include options for comparison of the in-person cardholder to their stored image either in person or via live video. Cardholder Verification and Video Verification.
   6. The SMS shall allow a System Operator to:
      a. monitor alarms in their assigned monitor zone and to perform field device control actions on specified devices in that zone from either thick client, web client or mobile client platform
      b. delete the alarm from the alarm monitoring window without acknowledging the alarm
      c. enter and edit an Acknowledgement note detailing the cause of specified alarms and the actions taken, along with a prescribed selection of user-defined response fields
      d. activate, deactivate, or pulse outputs configured and associated with a card reader
      e. mask or unmask each individual card reader door forced open alarms, door held open alarms, and associated auxiliary alarm inputs
      f. display a cardholder record with the stored cardholder’s image
      g. verify that a person using a credential matches their stored photo
      h. open multiple cardholder verification windows to cover multiple readers at the same time
      i. initiate several traces of cardholders, assets, and/or field hardware devices while monitoring alarms
      j. initiate an historical trace for a device, specifying a date and time range
      k. filter alarms from the trace window to include access granted, access denied, system, duress, and area control alarms and by alarm source
      l. perform a trace on any ISC, ICM, Alarm Input, Credential, Intrusion Detection Device, Monitor Zone, or card reader
      m. manually override card readers, alarm points, and relay outputs
      n. combine, enable, or disable alarms for aggregation

o. acknowledge or delete a group of aggregated alarms
p. view runaway devices

7. System Administrators capabilities shall include:
   a. set permission control for individual devices within a monitoring zone for command override
   b. assign default monitor zones to monitoring workstations
   c. option to define monitor zones to include sub devices of an ISC
   d. configure how the SMS handles the annunciation of alarms on an individual alarm or event basis
   e. set display parameters for unacknowledged alarms
8. Notifications - Upon alarm, the SMS shall allow for:
   a. automated sending of texts or e-mail messages
   b. forwarding alarms to another location
9. Annunciation - The System Administrator shall have the ability to configure how the SMS handles the annunciation of alarms on an individual basis.
   a. These attributes and actions shall be assignable on a 'global' basis to all devices that share an alarm description.
10. System Administrators shall be able to route and re-route device alarms and events to defined monitoring client workstations on the network, regardless of where the alarm is generated in the field.
11. A real-time graphical system status tree on the screen shall indicate the status of devices to reflect secured, unsecured, in alarm, or offline and provide command and control functions for authorized users.
12. Output control operations shall be available to lock, unlock or pulse control points.
13. An automatic cardholder call-up feature shall allow the quick search and display of images in the database.
14. Logging
   a. All alarms and events in the SMS shall, by default, always be recorded in the database.
      1) System Administrators shall have the ability to select on a time zone basis, the times required for the SMS to log specific events to the database.
      2) System Administrators shall have the option for Alarm or Events to be set to log or not to log particular alarms or events by individual reader or input.
   b. A System Operator journal shall be available to log important daily events.
15. A trace function shall be available for System Operators to locate and track activity on specific cardholders, assets, video cameras, or card readers. An image comparison feature must be provided for use in conjunction with a CCTV interface.
16. The SMS shall support a Test Mode for Alarm Inputs, Door Forced Open, and Access Grants to verify that all inputs within the group are operational.
17. The Alarm Monitoring interface shall support a Dark Mode feature to reduce eye strain in low light environments.

C. Intrusion Detection

1. The intrusion detection function shall employ keypad used in conjunction with a card reader, both supplied from the Manufacturer.

   The LNL-CK keypad with LCD display is required.
2. The Alarm Monitoring interface shall be able to control the intrusion detection function.
3. Intrusion zone point types:
   a. 24-hour point
   b. Interior point
   c. Perimeter point
4. Arming options:
   a. Exit delay
   b. Entry delay
   c. Forced
5. Actions under User command:
   a. Disarmed
   b. Disarmed Fault
   c. Armed Away
   d. Armed Stay
   e. Armed Instant
   f. Forced Armed Away
   g. Force Armed Stay
   h. Force Armed Instant
   i. Entry Delay
   j. Exit Delay
   k. Alarm
   l. After Alarm
   m. Chime
   n. Silence
6. System Administrators shall have the ability to define Alarm Mask Groups for sets of points to be treated as an intrusion area.
   a. Indication of events from these points shall be masked (disarmed) or unmasked (armed).
7. The SMS shall support Intrusion Mask Groups to contain individually configured intrusion points and to have the capability reporting of arming mode and state for the group.
   a. Within the configuration of the Intrusion Mask Group, the initial power up state of the Intrusion Mask Group shall be definable as one of the following states:
      1) Disarmed
      2) Armed Away
      3) Armed Stay
      4) Armed Stay Instant
8. Alarms shall be reported for the intrusion mask group by the SMS based on the current arming mode and state of the intrusion mask group.

D. Video
   1. Integrated Video Management System (VMS)

a. An integral VMS shall provide video response options upon alarm events to include:
   1) auto-launch
   2) change camera resolution and/or frame rate
   3) activation and positioning of PTZ camera
   4) event monitoring
   5) display of alarm location on multimedia graphical maps
   6) event investigation
   7) automatic archive of event video for selected alarm types
   8) instant replay of up to 5 (five) minutes of video must be provided
   9) to protect privacy, role-based restrictions shall be provided on the ability of an operator to search recorded video beyond a specified age

b. Windows Client capabilities:
   1) export of security evidence clips in industry standard formats
   2) switching between live and recorded video
   3) 2-way audio support
   4) search recorded video by specific badge or alarm point
   5) operation using same user SMS authenticated credentials
   6) shall provide instant rewind capability

c. Browser video viewing capabilities:
   1) browser clients shall not require additional software or plug-in installation
   2) view live and recorded video
   3) automatic display of event linked video in a 2x2 matrix format, including playback controls and event handling
   4) calendar-based recorded video search
   5) operation using same user SMS authenticated credentials
   6) ability to organize multiple camera tiles into multiple layouts for convenient monitoring, such as 2 x 2, 3 x 3, 1 + 5, 1 + 8
   7) control for PTZ cameras and client presets
   8) step-through recorded video in forward or reverse, with speed control
   9) display interactive hardware tree with device status
   10) support for monitor zones and user permissions
   11) digital pan and zoom
   12) audio support
   13) snapshot capture and save
   14) video clip export

2. Integrated Network Video Recorder
   a. Supported resolutions: QVGA (320 x 240) to 20 Megapixel (5472x3648)
   b. Recording modes: continuous, time-lapse, event-driven, synchronized audio and video
   c. Storage options: Direct Attached Storage (DAS), Network Attached Storage (NAS), and Storage Area Networks (SAN).

2.5 HARDWARE REQUIREMENTS

A. The Manufacturer shall publish a summary of recommended server hardware to accommodate the performance requirements of the SMS server software.

B. The SMS server software shall be capable of running in a virtual or cloud environment.

PART 3 EXECUTION

3.1 INSTALLERS

A. Contractor installation personnel shall be trained and certified by the SMS manufacturer and have a valid, current certification at the time of installation.

B. Contractor installation personnel shall comply with all applicable state and local licensing requirements.

3.2 PREPARATION

A. The network design and configuration shall be verified for compatibility and performance with the SMS.

B. The network configuration shall be tested and qualified by the Contractor prior to system installation.

C. Server performance parameters shall be compared with Manufacturer requirements for the SMS.

3.3 INSTALLATION

A. Contractor shall follow manufacturer published installation and configuration instructions and guidelines.

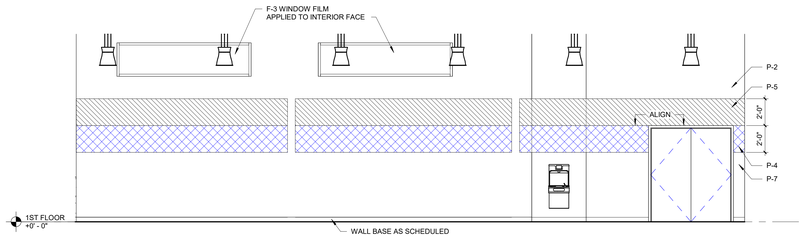
B. System shall be configured in accordance with manufacturer-supplied hardening guide. SMS systems for which the manufacturer does not provide a hardened installation option shall not be acceptable.

C. Systems installed in a cloud environment shall be configured in accordance with manufacturer-supplied guidelines outlined in a cloud deployment guide. SMS systems for which the manufacturer does not provide a cloud deployment option shall not be acceptable.

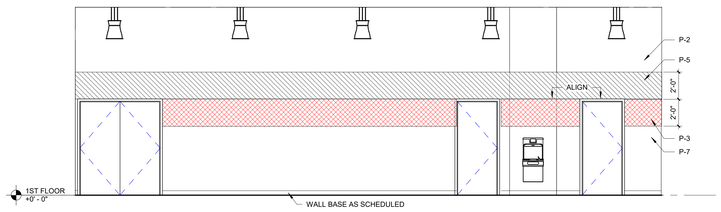
3.4 STORAGE

A. Server and system hardware devices and components shall be stored in an environment where temperature and humidity are in the range specified by the Manufacturer.

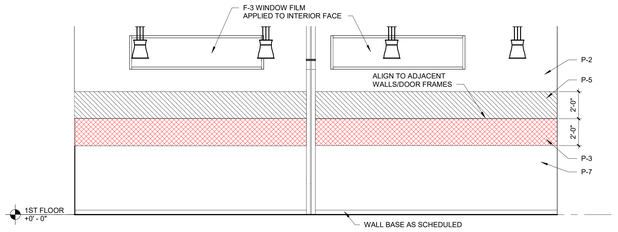
END OF SECTION



2 AWAY LOCKER ROOM ACCENT WALL
SCALE: 1/4" = 1'-0"



3 HOME LOCKER ROOM ACCENT WALL
SCALE: 1/4" = 1'-0"



4 HOME LOCKER ROOM ACCENT WALL
SCALE: 1/4" = 1'-0"

FINISH MATERIAL LEGEND

TAG	FINISH	MANUFACTURER	STYLE	COLOR	SIZE	COMMENTS
	PAINT					
P-1	PAINT	SHERWIN WILLIAMS	REFER TO SPECIFICATIONS	GRIZZLY GRAY SW7068	--	TRIM COLOR + DOOR COLOR
P-2	PAINT	SHERWIN WILLIAMS	REFER TO SPECIFICATIONS	SNOWBOUND SW7004	--	GENERAL COLOR
P-3	PAINT	SHERWIN WILLIAMS	REFER TO SPECIFICATIONS	REAL RED SW6868	--	WALL ACCENT + EXPOSED CEILING
P-4	PAINT	SHERWIN WILLIAMS	REFER TO SPECIFICATIONS	AZURE TIDE 9684	--	WALL ACCENT
P-5	PAINT	SHERWIN WILLIAMS	REFER TO SPECIFICATIONS	TRICORN BLACK SW6258	--	WALL ACCENT + EXPOSED CEILING
P-6	PAINT	SHERWIN WILLIAMS	REFER TO SPECIFICATIONS	HIGH REFLECTIVE WHITE SW7757	--	GYP CEILINGS
P-7	PAINT	SHERWIN WILLIAMS	REFER TO SPECIFICATIONS	ONLINE SW7072	--	WALL ACCENT
	CARPET					
C-1	CARPET - WALK-OFF	MILLIKEN	OBEX LOOP/STACK	DARK GREY	24"x24"	INSTALLED: ASHLAR
C-2	CARPET	J+J FLOORING	STRATA	VOLCANIC 1853	18"x36"	INSTALLED: ASHLAR
	RESILIENT FLOORING					
LVT-1	LUXURY VINYL TILE	MANNINGTON COMMERCIAL	COLOR ANCHOR STRIDE	LAVA ROCK C163	18"x18"	INSTALLED: QUARTER TURN
SDT-1	STATIC DISSIPATIVE TILE	ARMSTRONG	EXCELON SDT	COAL 51959	12"x12"	INSTALLED: QUARTER TURN
STR-1	STAIR TREAD	ROPPE	RUBBER STAIR TREAD/RAISED DISC	CHARCOAL AS123	12"x12"	
	RESINOUS FLOORING					
FAF-1	FLUID APPLIED FLOORING	PROTECTIVE INDUSTRIAL POLYMERS	QUARTZ CAST, T-GRADE 1/4" FLAKE	MATCH ARCHITECTS SAMPLE	--	
FAF-2	FLUID APPLIED FLOORING	PROTECTIVE INDUSTRIAL POLYMERS	QUARTZ CAST, S-GRADE 1/8" FLAKE	MATCH ARCHITECTS SAMPLE	--	
	ATHLETIC FLOORING					
RB	RUBBER FLOOR	MONDO	VALOR S STRENGTH	VS 008 BLACK, 18mm	60CM X 120CM	
TR	ARTIFICIAL TURF	THOR	THUNDER 40	RED, 3/4" PILE HEIGHT	12'-0" WIDE ROLL	
	WALL BASE					
B-1	RESILIENT COVE BASE	ROPPE	PINNACLE COVE BASE	CHARCOAL 123	4" H	
	TILE					
T-1	TILE - WALL	DALTILE	COLOR WHEEL LINEAR	ARCTIC WHITE 0190	4"x12"	GROUT: LATICRETE 09 FROSTY
T-2	TILE - WALL	DALTILE	COLOR WHEEL LINEAR	CURRANT SH17	4"x12"	GROUT: LATICRETE 45 RAVEN
T-3	TILE - WALL	DALTILE	COLOR WHEEL LINEAR	BLACK K117	4"x12"	GROUT: LATICRETE 45 RAVEN
T-4	TILE - WALL	DALTILE	COLOR WHEEL LINEAR	SEA BREEZE 1174	4"x12"	GROUT: LATICRETE 45 RAVEN
T-5	TILE - WALL	DALTILE	COLOR WHEEL LINEAR	DESERT GRAY X114	4"x12"	GROUT: LATICRETE 45 RAVEN
	MILLWORK					
PL-1	PLASTIC LAMINATE	WILSONART	STANDARD LAMINATE - FINE VELVET FINISH	HANDSPUN DOVE 5034-38	--	
SS-1	SOLID SURFACE	WILSONART	SOLID SURFACE RESIN	BASALT CONCRETE 9254SS	--	
	MISCELLANEOUS					
F-3	WINDOW FILM	ASTEK	WINDOW ILLUSIONS VIII	ASK920	--	
TP-1	TOILET PARTITIONS	SCRANTON PRODUCTS	HINY HIDERS	CHARCOAL GREY- ORANGE PEEL	--	
WP-1	WALL PANEL	ALTRO	PURAGUARD	SALT	4'x8'	
WT-1	WINDOW TREATMENT	MECHO SHADE	REFER TO SPECIFICATIONS	EUROTWILL, 3% OPEN, GRAPHITE 6461	--	

FINISH LEGEND

ROOM FINISH TAG

Room name

Room #	Base
Floor	Wall

DIRECTION OF LINEAR MATERIAL PATTERN

LOCATION OF ACCENT FLOORING

SELECTIVE NOTE [#]

MATERIAL CHANGE

GENERAL FINISH NOTES

1. REFER TO REFLECTED CEILING PLAN FOR CEILING TYPES, HEIGHTS, AND FINISHES.
2. ALL SOFFITS AND CEILINGS WHICH ARE NOT WOOD OR ACOUSTIC PANELS SHALL BE PAINTED.
3. EXPOSED CEILINGS SHALL BE PAINTED, INCLUDING DECK, STRUCTURE, DUCTWORK, CONDUIT, PIPING, ETC.
4. ALL UNFINISHED MATERIALS, GRILLES, REGISTERS, COLUMNS ETC., SHALL BE PAINTED TO MATCH ADJACENT WALLS. MATERIALS WITH NATURAL FINISH (I.E. ANODIZED ALUMINUM, CHROME, BRASS, ETC.) SHALL BE LEFT IN THE NATURAL FINISH, UNLESS OTHERWISE NOTED.
5. UNLESS FACTORY FINISHED, OR OTHERWISE SPECIFICALLY NOTED ON THE CONSTRUCTION DOCUMENTS, ALL EXPOSED SURFACES (BOTH INTERIOR & EXTERIOR OF THE BUILDING) SHALL BE PAINTED/COATED IN COLORS AND TEXTURES AS SELECTED BY THE ARCHITECT/OWNER. NO SURFACES ARE TO BE LEFT UNFINISHED UNLESS SPECIFICALLY NOTED ON THE CONTRACT DOCUMENTS.

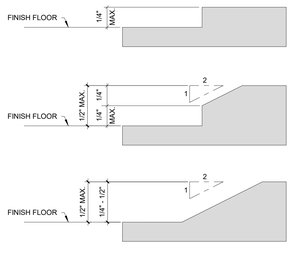
5A. IN ALL CASES, IF ANY FINISH TAG IS LEFT BLANK, CONTRACTOR SHALL CONTACT ARCHITECT FOR COLOR/FINISH SELECTION.

6. UNLESS NOTED OTHERWISE PAINT FINISHES SHALL BE AS FOLLOWS:
   - A. EXPOSED CEILINGS + STRUCTURE = FLAT FINISH
   - B. GYPSUM BOARD CEILINGS + SOFFITS = FLAT FINISH
   - C. GYPSUM BOARD WALLS = EGGSHELL FINISH
   - D. CMU/CONCRETE = SEMI-GLOSS FINISH
   - E. WOOD = SEMI-GLOSS FINISH
   - F. METAL = SEMI-GLOSS FINISH
7. WINDOW TREATMENTS SHALL BE FULL HEIGHT AND WIDTH OF OPENING WHERE INDICATED ON REFLECTED CEILING PLANS.
8. WINDOW SILLS SHALL BE SOLID SURFACE MATERIAL, SS-1
9. CLOSETS AND STORAGE ROOMS SHALL RECEIVE SAME FINISHES AS ADJACENT ROOM UNLESS OTHERWISE NOTED.
10. ALL EXPOSED COLUMNS, DOORS AND DOOR FRAMES TO BE PAINTED P-1, SEMI-GLOSS FINISH UNLESS OTHERWISE NOTED.
11. ACCENT WALL COLORS SHALL RUN FROM INSIDE CORNER TO INSIDE CORNER WHERE INDICATED ON FINISH PLANS. PAINT REMAINING WALLS AS INDICATED BY ROOM FINISH TAG.

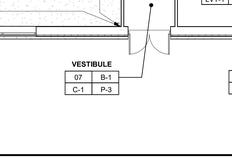
SELECTIVE FINISH PLAN NOTES

1. REFER TO TOILET ROOM ELEVATIONS FOR TILE PATTERN. PROVIDE SCHLUTER JOLLY EDGE TRIM, OR EQUAL, AT ALL OUTSIDE CORNERS.
2. REFER TO INTERIOR ELEVATIONS FOR PAINTED ACCENT WALL PATTERN.
3. PROVIDE WP-1 4'-0"W x 8'-0"H. REFER TO ELEVATIONS.

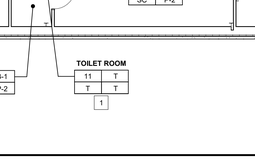
CHANGES IN FLOOR LEVEL



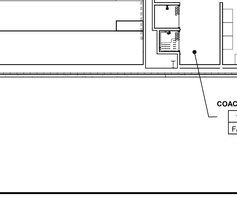
GENERAL NOTE:
LEVEL CHANGES IN EXCESS OF 1/2" SHALL MEET SLOPE REQUIREMENTS FOR A RAMP



A TILE OUTSIDE CORNER
SCALE: 3" = 1'-0"

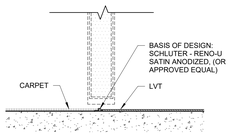


B FAF TO WALL PROTECTION
SCALE: 3" = 1'-0"



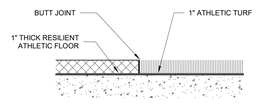
NOTE: CHANGE IN FLOOR LEVELS NOT TO EXCEED 1/4"

C FLUID APPLIED TO RESILIENT/CARPET TILE
SCALE: 3" = 1'-0"



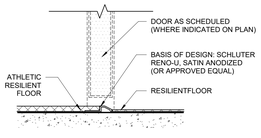
NOTE: CHANGE IN FLOOR LEVELS NOT TO EXCEED 1/4"

D CARPET TO RESILIENT
SCALE: 3" = 1'-0"



NOTE: CHANGE IN FLOOR LEVELS NOT TO EXCEED 1/4"

E ATHLETIC TURF TO ATHLETIC RUBBER
SCALE: 3" = 1'-0"



NOTE: CHANGE IN FLOOR LEVELS NOT TO EXCEED 1/4"

F ATHLETIC TO RESILIENT
SCALE: 3" = 1'-0"

1 FIRST FLOOR FINISH PLAN
SCALE: 1/8" = 1'-0"

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RE-BID FOR NEW FIELD HOUSE
AT
WILLIAMS FIELD
FOR THE
ELIZABETH SCHOOL DISTRICT
499 CLARKSON AVENUE
ELIZABETH, NJ 07202

No.	Date	Issue or Revision
2	10.28.26	ADDENDUM #1
1	10.06.26	ISSUED FOR BID

Drawing Title
FIRST FLOOR FINISH PLAN

Scale: AS NOTED	USA Project No. R2024.0093
Drawing Date: 10.06.2026	Drawing No. A-801
Drawn By: CW/DH	Checked By: JM