Specifications for:

Hallmark Meridian CCTV System

714 Plymouth Avenue
59 Central Avenue
Dayton, OH 45410

Prepared for:
Greater Dayton Premier Management
400 Wayne Avenue
Dayton, Ohio 45410
937.910.7500

Website posting at www.gdpm.org

Prepared by:

RDA GROUP ARCHITECTS
7662 PARAGON ROAD | DAYTON, OH 45459 | 937.610.3440

Bid Set
July 8, 2024

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TECHNICAL SPECIFICATIONS

DRAWINGS

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SECTION 01 10 00 - SUMMARY

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Summary:
   1. Contract description.
   2. Scope of Work.
   3. Contractor's use of premises.
   4. Specification conventions.

B. Contractor / General Requirements

C. Administrative Requirements:

D. Execution Requirements:

1.2 CONTRACT DESCRIPTION

A.	Project Identification:	Hallmark-Meridian CCTV System
B.	Project Location:	714 Plymouth Avenue & 59 Central Avenue Dayton, OH 45406
C.	Owner:	Greater Dayton Premier Management 400 Wayne Avenue Dayton, Ohio 45410 937.910.7500 phone
D.	Architect:	RDA Group Architects, LLC 7662 Paragon Road Dayton, OH 45459 937.610.3440 phone

1.3 SCOPE OF WORK

A. Work of the Project includes the installation of a CCTV system in the Hallmark-Meridian Apartments buildings.
   1. Installation of a complete, functioning CCTV system as indicated on the drawings. Work includes installation of head end equipment, network cabling, conduits / wiremold, camera equipment, server, and network video recorder as specified. Work includes all means and methods to execute the work, including final determination of routing of cabling, exact placement of cameras, and all ancillary requirements.
   2. Installation of an access control system at selected building entry locations.
   3. Installation of a Resident Call Station at selected building entry locations.
   4. All specific scope items shall be coordinated and reviewed on the drawings and specifications as applicable. Refer to Basis of Design Specifications and outline requirements.
      a. Work includes all proper training, programming, and setup of the respective systems.

B. Provide all materials and labor for work as noted herein for a complete project.
   1. IMPORTANT: Field verify all existing conditions, and coordinate all applicable requirements as related to the scope of the work.
   2. Drawings indicate general diagrammatic areas/extent of work, but in no way indicate the intricate nature of the work required for the successful completion of the project.
   3. Conditions will vary throughout the building / facilities. Verify all conditions.

C. Provide any and all ancillary work related to the above work scope including repair of any Contractor damaged or impacted finishes within the work area.

D. Provide appropriate coordination with GDPM.

1.4 CONTRACTOR'S USE OF SITE

A. This housing site will be OCCUPIED for the duration of the project. Anticipate and schedule for this work to be accomplished in [1] phase of work.

B. Perform all work between the hours of 8 AM and 5 PM Monday through Friday, unless work outside these hours and days is requested and granted by the Owner.

1.5 TIME FOR COMPLETION

A. Contract Period
   1. Supply a work start date within [7] calendar days upon issuance of a contract from the Owner.
   2. Coordinate project start date and completion date with Owner. Obtain Owner acceptance.
   3. Owner will issue notice to proceed with the agreed upon dates..
   4. Consideration of material lead-times will be given for establishing the NTP dates as applicable.
   5. Notify the Architect, in writing, upon determination of any delay in material delivery.

B. The time for completion of this contract work is **Ninety [90]** calendar days from the date of the Notice to Proceed.
   1. Coordinate construction schedule and any related phasing.

C. Notify GDPM in writing seven [7] days prior to substantial completion of the project.

D. Notify GDPM in writing fourteen [14] days prior to the Contract Completion date if an extension of contract time is necessary with a request for the extension and the reasoning for such request.
   1. Failure to comply may result in enforcement of liquidated damages, cancellation of the contract, and possible disablement from future bidding opportunities.

E. It is anticipated that the work of this contract will begin Summer 2024.
   1. Contractor is responsible to expedite submittals process and order materials to accommodate the construction schedule.

F. Failure to complete work in the specified contract period will be cause for enforcement of liquidated damages per GDPM requirements.

1.6 SPECIFICATION CONVENTIONS

A. These specifications are written in imperative mood and streamlined form. This imperative language is directed to the Contractor, unless specifically noted otherwise. The words “shall be” are included by inference where a colon (:) is used within sentences or phrases.

1.7 CONTRACTOR / GENERAL REQUIREMENTS

A. Visit the project sites to verify general and pertinent conditions and take measurements necessary for bidding purposes. Arrangements to visit the site may be made by contacting Kevin Arnold at GDPM, karnold@gdpm.org.

B. Pay for all building permits, trade permits, ROW permits, and any other required permits and inspections necessary to complete all work related to these specifications. Comply with Federal, State, and Local Codes. All work shall comply with HUD General Conditions of the Contract for Construction [HUD Form 5370]

C. Taxes: Pay all applicable taxes, including applicable sales and use taxes, and other taxes as required by governing law.
   1. GDPM is a tax-exempt entity.
   2. GDPM will provide tax exempt forms upon request.

D. Provide dumpsters or trash containers needed. Do not use Owner dumpsters or trash containers at any time for removal of materials, trash, or debris related to the Contractor's work. Remove debris from the site regularly and be placed within appropriate trash receptacles. Keep all work areas neat at all times. Trash shall not be permitted to be left around the site. Take all considerations for resident safety. Do not leave trash or debris on the ground / around the project site.

E. Furnish workers with potable drinking water and portable toilets for the workers during the project. Use of Owner facilities and property is prohibited unless explicitly approved.

F. Utilize existing utilities on the site. Supplement as required to facilitate work. Do not use resident electricity.

G. A Contractor, working under a contractual agreement with **GDPM, MUST BE IN COMPLIANCE WITH OSHA STANDARDS 1926 – REGULATIONS FOR CONSTRUCTION.** Any and all sub-contractors, doing work on this project, **MUST ALSO BE IN COMPLIANCE WITH OSHA STANDARDS**. Non-compliance shall be a basis for making a bid non-responsive. And, if a Contractor or sub-contractor is found to be in **VIOLATION (NON-COMPLIANCE) AT ANY TIME**, this could be a basis for termination of the purchase order/contract.

H. IMPORTANT: Failure to show or mention petty details shall not be warranted for the omission of anything necessary for the proper completion of the work.

I. The plans and specifications are intended to depict the general scope, layout and quality of workmanship required. The documents are not an "instruction manual" to execute the work nor are they intended to show or describe in detail every item necessary for the proper installation of the work. The means and methods required to execute the work described is the sole responsibility of the Contractor. The Contractor shall include the ancillary work required, whether explicitly stated or not, for the proper completion of the work as intended. The Contractor is required to meet or exceed building code requirements, applicable industry standards, ASTM standards, and/or manufacturer installation requirements as they relate to the work.

J. The plans and specifications represent a single complete design package indicating the intended scope of the project in its entirety. As such, the project is structured to be awarded to a single Prime Contractor. The documents do not delineate bid packages or assign responsibilities to any subsequent subcontractors, dictate construction sequencing, nor provide coordination between any "trades". Such activities are the responsibility of the holder of the construction contract. In the event of a discrepancy within the drawings or between the drawings and the specifications, the more stringent requirement represented in the documents shall prevail.

K. Do not take advantage of any clerical errors, omissions, contradictions, or conflicts that may develop in plans, specifications, or details. Such errors, ambiguities and discrepancies shall be reported to the Architect immediately for clarification, revision, or correction prior to the submission of bids. If no notification is given, it shall be assumed that all specifications and conditions will be met.

L. Submission of a bid shall be considered the Contractor's Certification that the bid is based upon equipment and/or materials that meet or exceed the standards set forth by specification or equipment and/or materials identification. Should a Contractor's product be determined not equal to that specified, the Contractor shall be required to provide and install a product acceptable as equal by the Architect at no additional cost to the Owner.

M. The submission of a bid shall indicate that the Contractor has visited the project site and is familiar with the conditions as they exist, and the modifications that may be necessary to provide a complete and professional finished project.

N. There is a strict **NO SMOKING** policy for all work. Any worker found smoking on the jobsite will be subject to removal from the project. No exceptions. Habitual offenders may be subject to a fine in the amount of $500 per occurrence.

O. Security: Contractor's Liability for Vandalism
   1. Contractor shall be responsible at the Contractor's cost and expense, for the securing and protection of the project which is under the control of the Contractor, and for the repair and replacement of the work until that portion of the work is accepted as completed by the Owner. The Contractor shall take the measures necessary to provide such security.
   2. Contractor shall be liable for and shall promptly repair or otherwise remedy any and all damages to said portion of the project and of the accepted construction work caused by vandalism up to $5,000.00 per incident. Contractor shall indemnify and hold the Owner harmless from and against all damages, liabilities, costs and expenses, including, without limitation, reasonable attorney fees, which may be imposed upon or incurred by the Owner as a result of the Contractor's failure to comply with the requirements of this section.

P. Insurance: **Refer to GDPM Terms and Conditions.**
   1. Contractor to provide copy of Certificate of Insurance to GDPM.
   2. Contractor to submit evidence of Worker's Compensation insurance coverage and builder's risk insurance.

Q. Damages: Any and all damages to Housing Authority Property or resident property shall be repaired equivalent to the existing by the Contractor at no cost to the Authority. NO EXCEPTIONS.

R. Safety: The work will be accomplished within a high traffic area and the Contractor is responsible for taking all safety precautions necessary or directed to ensure public safety.
   1. Neither RDA nor Owner are safety consultants. Any and all safety provisions shall be managed and coordinated by the Contractor.

S. Provide appropriate notification of Residents, if applicable, prior to starting work.

1.8 CONTRACTOR QUALIFICATIONS

A. Contractor and/or Sub-contractors must establish their qualifications with Owner for their ability to complete this type of work. Qualifications may be established by:
   1. Provide references of similar projects, past performance, financial disclosures, etc. in the interest of selection of the lowest and best bidder for the project.
   2. Providing a letter of approval for the installation of the products from the manufacturer.
      a. Contractor must be properly trained and approved by the manufacturer for the installation of the products.
   3. Providing a recommendation from the supplier of the products.
   4. Demonstrating to Owner the capability to do the work. The Contractor will have a minimum of five years documented experience in similar work.

B. Contractor is responsible for all work performed by the Sub-contractors.

1.9 RESPONSIBILITIES OF THE CONTRACTOR

A. Protect all finishes and equipment scheduled to remain.

B. Commence and complete work as noted in the contract.

C. Furnish labor, materials, equipment, and management required to complete the project.

D. Furnish all required logistics required to accomplish the work – including lifts, scaffolding, ladders, trash chutes, safety equipment, etc.
   1. All contractor staging areas and layout areas, etc. shall be coordinated and approved by the Owner prior to the start of the project.

E. Visit the site to become thoroughly familiar with all working conditions, check and verify all dimensions, and site conditions. Any dimensions given or referred to in the specification or drawing is to be used purely as approximate and not as a basis for exact amounts for bidding. Promptly advise the Architect of any discrepancies, errors with the specifications and drawings before bidding the work.

F. Provide a valid Certificate of Insurance, follow all Workman's Compensation requirements and regulations, and conduct all work according to OSHA recognized safe work practices.

G. Provide all bonds, payment schedule, insurance as noted in the contract documents.

H. Provide Safety Data Sheets [SDS] on all products used.
   1. Submit directly to Owner. RDA does not review nor approve SDS.

1.10 REFERENCES

A. Conform to reference standards by date of issue current as of date of Contract Documents.

B. When specified reference standard conflict with Contract Documents, request clarification from Architect/Engineer before proceeding.

1.11 APPLICABLE REFERENCES, CODES, AND PERMITS

A. References will be found in each section that applies to that section.

B. Comply with Ohio Building Code requirements as they relate to the work.

C. Procure, at Contractor's expense all necessary permits from municipal or other agencies and give all notices required. Fines levied due to non-compliance shall be paid by the Contractor.

1.12 WARRANTIES AND GUARANTEES

A. General: The warranty and guarantee provisions of the General Conditions apply to all work of the contract, including but not limited to the following specific categories related to individual units of work specified in various sections of these specifications:
   1. Refer to GDPM Contract Requirements / Terms and Conditions for additional information / requirements.
   2. Special Project Warranty (Guarantee): A warranty specifically written and signed by the Contractor for a defined portion of the work, and, where required, countersigned by sub-contractor, installer, manufacturer, or other entity engaged by the Contractor.
   3. Specified Product Warranty: A warranty which is required by the contract documents, to be provided for a manufactured product incorporated in the Work, regardless of whether manufacturer has published a similar warranty without regard for specific incorporation into the work, or has written and executed a special project warranty as a direct result of contract document requirements.
   4. Coincidental Product Warranty: A warranty which is not specifically required by the Contract Documents (other than as specified in this Section); but which is available on a product incorporated into the work, by virtue of the fact that the manufacturer of the product has published a warranty in connection with purchases and users of the product without regard for specific applications except as otherwise limited by terms of the warranty.

1.13 SPECIFICATION CONVENTIONS

A. These specifications are written in imperative mood and streamlined form. This imperative language is directed to the Contractor, unless specifically noted otherwise. The words "shall be" are included by inference where a colon (:) is used within sentences or phrases.

PART 2 GENERAL REQUIREMENTS

A. Follow all applicable requirements of the Owner's Terms and Conditions. Should there be a conflict between the Owner Requirements and those herein, the higher standard shall apply.

B. Required Inspections by Owner
   1. Contact Owner to:
      a. Inform Owner when the job is actually going to start to allow resident notification.
      b. Mockup inspections.
      c. Inspection at random or when problems / field conditions arise.
      d. Final Inspection.
      e. Punchlist requirements.
      f. Acceptance of the project by Owner.

PART 3 EXECUTION

3.1 CONTRACT ADMINISTRATION

A. Architect is providing contract administration services for this project to the Owner. Contractor and Owner are responsible to coordinate the proposed work, schedules, installations, permits, inspections, etc. as Architect is not on-site every day.

B. Contact Architect for clarification should there be questions regarding the interpretation or intent of the documents, field discovery, etc. that would impact or affect the work as proposed. Architect is not liable for deviations, field changes, and Owner changes during construction.

C. Field confirm all existing conditions, proposed installations and how they interface to ensure the systems can be installed per the intent of the documents and to meet applicable building and zoning codes, local requirements, Owner requirements, provide a watertight detail, meet aesthetic requirements, etc.

D. Meet all applicable building and zoning codes requirements whether specifically noted herein or not. Building codes represent the minimum acceptable standard.

E. Install all products, materials, installations, and the like in accordance with applicable industry standards, applicable manufacturer's details and instructions, in accordance with best practices, and building code provisions. The manufacturer details / requirements are the minimum acceptable standard, Architect's drawings may require additional work.

3.2 EXAMINATION

A. Verify existing site conditions and substrate surfaces are acceptable for subsequent Work. **Beginning new Work means acceptance of existing/job-site conditions.**

B. Verify utility services are available, of correct characteristics, and in correct location.

C. Contact utility protection a minimum of 48 hours prior to beginning work to verify location of existing utilities, coordinate requirements as applicable.
   1. Contact private utility locating services as required by the conditions. It is the Contractor's responsibility to locate all public and private utilities that may be impacted by the work.

3.3 PROTECTION

A. Accomplish all work in accordance with the provision of Federal, State American Standard Safety Code for Building Construction and OHSA safety requirements.
   1. Provide protective railings and guards, tie-offs, fall protection, and other safety measures as required by OSHA, even if not specified. Fall protection is required. Architect is not a safety consultant and as such does not direct the means and methods of compliance with safety regulations.

B. Protect and maintain all building entrances, interior contents, building exterior and grounds.
   1. Return all surfaces to their original condition after all work is complete.

C. In the event of damages of any kind caused by improper protection. The contractor shall replace/repair the damages [including interior or exterior equipment] at no expense to the Owner.

D. Comply with all regulations of the Local Fire Department and the Owner's requirement regarding storage and handling of flammable materials, etc. Comply with the safety provisions of the National Fire Codes pertaining to such work. Contractor shall be responsible for all damage or fines resulting from failure to so comply.

3.4 PREPARATION

A. Clean substrate surfaces prior to applying next material or substance.

B. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying new material or substance in contact or bond.

3.5 JOB SUPERINTENDENT/EMPLOYEES

A. Maintain a qualified foreman on the project at all times when work is being accomplished.

B. Refrain from fraternization with building occupants.

C. Furnish the Owner with a list of personnel with phone numbers that will be working on the project and emergency contacts names and numbers that has the authority to handle emergencies on 24 hour/seven days a week.

3.6 SAFETY PROGRAM

A. Maintain a written safety program for all operations / work performed on this project. The documents must be at the job site and be made available to the Owner or RDA when requested.

B. Assume all responsibility for project safety, ways, and means and methods of constructing the project.

C. In addition, the Owner may require special safety requirements to be performed by the Contractor, these requirements will be provided prior to commencement of work.

3.7 REMOVALS AND CLEANUP

A. Contractor shall be responsible for the removal, dismantling of items that are required for proper completion of the work as applicable in each section. All debris resulting from the work not designated for reuse becomes the property of the contractor unless stated otherwise.

B. At the completion of each day, the Contractor shall maintain the work area clean of all debris to the satisfactory of the Owner, including all the subcontractors work area.

C. Provide dumpsters or trash containers needed for the proper removal of project materials, trash, or debris related to the work. Keep all work areas and project sites neat and free of trash and clutter at all times.
   1. No Debris, materials, etc. may be left unprotected on the grounds.
   2. All exterior staging / dumpster areas shall be fenced / protected.

3.8 SPECIAL PROCEDURES

A. Materials: As specified in product sections; match existing with new products for patching and extending work.

B. Employ skilled and experienced installer to perform alteration work.

C. Cut, move, or remove items as necessary for access to alterations and renovation Work. Replace and restore at completion.

D. Remove unsuitable material not marked for salvage, including rotted wood, corroded metals, and deteriorated masonry and concrete. Replace materials as specified for finished Work.

E. Remove debris and abandoned items from area and from concealed spaces.

F. Prepare surface and remove surface finishes to permit installation of new work and finishes.

G. Remove, cut, and patch Work in manner to minimize damage and to permit restoring products and finishes to original or specified condition.

H. Refinish existing visible surfaces to remain in renovated rooms and spaces, to renewed condition for each material, with neat transition to adjacent finishes.

I. Where new Work abuts or aligns with existing, provide smooth and even transition. Patch Work to match existing adjacent Work in texture and appearance.

J. When finished surfaces are cut so that smooth transition with new Work is not possible, terminate existing surface along straight line at natural line of division and submit recommendation to Architect for review.

K. Patch or replace portions of existing surfaces which are damaged, lifted, discolored, or showing other imperfections.

L. Finish surfaces as specified in individual product sections.

3.9 GENERAL PROJECT REQUIREMENTS

A. Locate all private and public underground utilities prior to starting job. Call 811 before you dig. Provide Owner with confirmation number upon request.

B. Safety is paramount and all personnel on site must wear appropriate personal protection equipment [PPE]. The Contractor is responsible for means and methods to ensure that proper PPE is provided. Failure to comply may result in dismissal from site.

C. Barricade work area with appropriate construction grade barriers to establish boundaries of work area and assure safety for all workers and general public. All work areas must be properly barricaded from the general public prior to starting any work.

D. Barricades will also protect newly installed materials from damage by traffic, weather, or other forces until suitable for traffic. All barricades are to be removed from site within one working day following completion or curing of phase.

E. Job sites will be maintained in an orderly and neat fashion at all times.

F. All buildings, steps, sidewalks, and surrounding landscaping shall be protected. Any damage to the above mentioned will be repaired at the contractor's expense.

G. Pre-determine work phases with Owner to minimize disruption of business operations.

END OF SECTION

SECTION 01 20 00 - PRICE AND PAYMENT PROCEDURES

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Schedule of values.

B. Applications for payment.

C. Change procedures.

D. Defect assessment.

E. Unit prices.

F. Alternates.

G. Project Allowances.

1.2 PREVAILING WAGE REQUIREMENTS

A. The work of this project is subject to Davis-Bacon Prevailing Wages.

B. Include in the bid amount all applicable prevailing wages.

C. Provide payroll reports indicating compliance to the Owner on a monthly basis.
   1. Pay Applications will not be processed without approved payroll reports submitted to the Owner.

1.3 TAXES

A. Owner is tax exempt. Tax Exempt Certificates will be provided upon request.

B. Owner will not compensate the Contractor for any taxes paid on the project.

1.4 SCHEDULE OF VALUES

A. Submit schedule on AIA G702 / G703 or other approved HUD forms.

B. Submit Schedule of Values in duplicate three days prior to the Pre-Construction meeting for approval by Architect and Owner.

C. Approved Schedule of Values will be signed at the Pre-Construction meeting.

D. Format: Utilize Table of Contents of this Project Manual. Identify each line item with number and title of major specification Section. Identify site mobilization/general conditions, bonds and insurance.
   1. Schedule of values should be broken down by building and also by division / work scope for each building.

E. Revise schedule to list approved Change Orders, with each Application for Payment.

1.5 APPLICATIONS FOR PAYMENT

A. Submit **three** copies of each pay application on AIA G702/G703 or HUD forms.

B. Submit “pencil copy” one week prior to application for review and approval by Architect and Owner. Submit electronically.

C. Content and Format: Utilize Schedule of Values for listing items in Application for Payment.

D. Payment Period: Monthly.

E. Submit updated construction schedule with each Application for Payment as applicable to the work. Failure to submit the updated construction schedule can delay the processing of the Application for Payment.

F. Submit all required waivers of lien/partial release of lien, payroll reports as required by Owner, etc. Failure to submit required paperwork can delay the processing of the Application for Payment

1.6 RETAINAGE

A. Refer to Owner's Terms and Conditions.

1.7 CHANGE PROCEDURES

A. Proposal Request / Construction Bulletin: Architect / Owner may issue a Proposal Request / Construction Bulletin including a detailed description of proposed change with supplementary or revised Drawings and specifications. Prepare and submit estimate within 7 days.

B. Stipulated Sum/Price Change Order: Based on Proposal Request / Construction Bulletin and Contractor's fixed price quotation.

C. On Owner's approval of a proposal from Contractor, Architect will issue a Change Order for all changes to Contract Sum and for all changes to the Contract Time.

D. Unit Price Change Order: For contract unit prices and quantities, the Change Order must be executed prior to beginning any work. The Order will be based on fixed unit price basis provided in the Bid Form.

E. Construction Change Order: Architect may issue directive, on AIA / HUD Forms signed by Owner, instructing Contractor to proceed with changes in the Work. Document will describe changes in the Work, and designate method of determining any change in Contract Sum/Price or Contract Time. Promptly execute change.

F. Change Order Forms: AIA / HUD Approved Forms with all required backup documentation.

G. Correlation Of Contractor Submittals:
   1. Promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as separate line item and adjust Contract Sum/Price.
   2. Promptly revise progress schedules to reflect change in Contract Time, revise sub-schedules to adjust times for other items of work affected by the change, and resubmit.
   3. Promptly enter changes in Project Record Documents.

H. Architect will advise of minor changes in the Work not involving adjustment to Contract Sum/Price or Contract Time by issuing supplemental instructions on Architect's approved forms.

I. Important: All change orders must be fully executed prior to beginning any work. Failure to comply will result in contractor request being denied and completed at no cost to Owner.

1.8 DEFECT ASSESSMENT

A. Replace the Work, or portions of the Work, not conforming to specified requirements.

B. If, in the opinion of the Architect/Owner, it is not practical to remove and replace the Work, the Architect/Owner will direct appropriate remedy.

C. Authority of Architect/Owner to assess defects and identify payment adjustments is final.

D. Non-Payment For Rejected Products: Payment will not be made for rejected products.

1.9 UNIT PRICES

A. Contractor is responsible to document unit price quantities. Architect / Owner will confirm quantities as required. Contractor may not be paid for unit cost work without documentation of the work accomplished.

B. Unit Price Includes: Full compensation for required labor, products, tools, equipment, plant and facilities, transportation, services and incidentals; erection, application or installation of item of the Work; overhead and profit.

C. Final payment for Work governed by unit prices will be made on basis of actual measurements and quantities accepted by Architect / Owner multiplied by unit price for Work incorporated in or made necessary by the Work.

D. Unit Price Schedule:
   1. None

1.10 ALTERNATES

A. Alternates listed on Bid Form will be reviewed and accepted or rejected at Owner's option. Accepted Alternates will be identified in Owner-Contractor Agreement.

B. Coordinate related work and modify surrounding work.

C. Schedule of Alternates
   1. None

1.11 PROJECT ALLOWANCES

A. Building & Systems / Unforeseen Conditions Allowance:
   1. Provide in bid a draw down allowance in the amount of **$25,000 [twenty five thousand dollars]** for Building & Systems / Unforeseen Conditions to address existing building / site / systems conditions as they interface with the project.

B. Contractor’s costs for Products, delivery, installation, labor, insurance, payroll, taxes, bonding, equipment rental, overhead and profit are included in Change Orders authorizing expenditure of funds from this project allowance.

C. Any expenditure from this allowance shall be reviewed and approved by Architect and Owner prior to executing the work.

D. Any unused amounts will be credited back to Owner at the completion of the project by a change order.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

END OF SECTION

SECTION 01 25 00 – SUBSTITUTION PROCEDURES

PART 1 GENERAL

1.1 WORK INCLUDES

A. Includes administration and procedural requirement for Substitutions.
   1. Substitutions' for Cause: Changes due to project conditions, such as unavailable of product.
   2. Substitutions' for Convenience: Changes that may offer advantages to the Owner.

1.2 PRODUCT OPTIONS

A. Products Specified by Reference Standards or by Description Only: Any Product meeting those standards or description.

B. Products Specified by Naming One or More Manufacturers: Products of manufacturers named and meeting specifications, no options or substitutions allowed.

C. Products Specified by Naming One or More Manufacturers with Provision for Substitutions / Approved Equal: Submit request for substitution as outlined in this section for manufacturers not named.
   1. Architect / Owner is the decision maker if the proposed "approved equal" is in fact equal and approved. Any decision rendered is final.
   2. Any Contractor, Sub-contractor, or Supplier who makes their own judgement as to "approved equal" and includes within their bid without a formal approval is doing so at their own risk.

1.3 SUBSTITUTIONS PROCEDURES

A. Architect will consider requests for Substitutions by the Bidder only [not materials suppliers, etc].

B. Document each request with complete data substantiating compliance of proposed Substitution with Contract Documents.

C. A request constitutes a representation that the Bidder:
   1. Has investigated proposed product and determined that it meets or exceeds quality level of specified product.
   2. Will provide same warranty for Substitution as for specified product.
   3. Will coordinate installation and make changes to other Work which may be required for the Work to be complete with no additional cost to Owner.
   4. Waives claims for additional costs or time extension which may subsequently become apparent.

D. Substitution Procedure
   1. **Submit copy of request for Substitution for consideration to Architect no later than [10] days before bid opening date**.
   2. Submit shop drawings, product data, and applicable certified test results attesting to proposed product equivalence. Burden on proof is on proposer.
   3. Architect will notify Contractor in writing of decision to accept or reject request within 5 days of receipt of request or request additional information or documentation for evaluation.

E. Substitutions will not be considered when they are indicated or implied on Submittals, without written request or when acceptance will require revision to the Contract Documents.

F. If the Substitution will require modifications to the Contract / Bidding Documents, the cost for updating the documents shall be paid by the Contractor making the request.

G. Substitutions will not be considered after award of the project without justification.

H. Approved substitutions will be identified by Addenda.
   1. Bidders shall not rely upon approvals made in any other manner.

END OF SECTION

SECTION 01 30 00 - ADMINISTRATIVE REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Coordination and project conditions.

B. Project Schedule.

C. Preconstruction meeting.

D. Progress meetings.

E. Pre-installation meetings.

F. Daily Job Logs.

G. Cutting and patching.

H. Special procedures.

1.2 COORDINATION AND PROJECT CONDITIONS

A. Coordinate scheduling, submittals, and Work of various sections of Project Manual / Specifications to ensure efficient and orderly sequence of installation of interdependent construction elements.

B. Verify utility requirements and characteristics of operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, operating equipment.

C. Coordinate space requirements, supports, and installation of mechanical and electrical Work indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.

D. In finished areas, conceal pipes, ducts, and wiring within construction. Coordinate locations of fixtures and outlets with finish elements. Coordinate rough in locations for accessibility, clearances, maneuvering, etc.

E. Coordinate completion and clean-up of Work of separate sections in preparation for Substantial Completion.

F. After Owner occupancy of premises, coordinate access to site for correction of defective Work and Work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

1.3 FIELD VERIFICATION

A. Prior to ordering materials, verify the actual dimensions of existing conditions and assume responsibility for workable solutions for all new work. Verification that new work and items are workable for existing conditions while providing adequate clearances is the responsibility of the Contractor.

1.4 CONSTRUCTION PROGRESS SCHEDULES

A. Submit initial progress schedule in duplicate within 5 days after date of Owner-Contractor Agreement for Architect review.

B. Submit revised schedules as appropriate throughout the duration of the project.

C. Submit implementation plan indicating planned process, sequencing, and order of operations.

1.5 PRECONSTRUCTION MEETING

A. Owner will schedule preconstruction meeting after Notice of Award for affected parties.

B. Agenda:
   1. Execution of Owner-Contractor Agreement.
   2. Submission of executed bonds and insurance certificates.
   3. Distribution of Contract Documents.
   4. Submission of list of Subcontractors, list of products, schedule of values, and progress schedule.
   5. Designation of personnel representing parties in Contract, and Architect.
   6. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
   7. Scheduling.
   8. Use of premises by Owner and Contractor.
   9. Owner requirements for procedures and inspections
   10. Construction facilities and controls provided by Owner.
   11. Security and housekeeping procedures.
   12. Application for payment procedures.
   13. Procedures for maintaining record documents.
   14. Requirements for start-up of equipment.
   15. Inspection and acceptance of equipment put into service during construction period.

C. Architect will record minutes and distribute copies via email within two days after meeting to participants and those affected by decisions made.

1.6 PROGRESS MEETINGS

A. RDA will be providing periodic observation of the work. RDA will issue field reports at each site visit. RDA will be observing the work for compliance with the specifications and will not be responsible for the ways, means and methods of constructing the project or managing the day to day operations.

B. Schedule and administer meetings throughout progress of the Work at bi-weekly intervals.

C. Architect will make arrangements for meetings, prepare agenda with copies for participants, and preside at meetings.

D. Attendance Required: Job superintendent, major subcontractors and suppliers, Architect, Owner, as appropriate to agenda topics for each meeting.

E. Agenda:
   1. Review minutes of previous meetings.
   2. Review of Work progress.
   3. Field observations, problems, and decisions.
   4. Identification of problems impeding planned progress.
   5. Review of submittals schedule and status of submittals.
   6. Review of off-site fabrication and delivery schedules.
   7. Maintenance of progress schedule.
   8. Corrective measures to regain projected schedules.
   9. Planned progress during succeeding work period.
   10. Coordination of projected progress.
   11. Maintenance of quality and work standards.
   12. Effect of proposed changes on progress schedule and coordination.
   13. Other business relating to Work.

F. Architect will record minutes and distribute copies via email within two days after meeting to participants and those affected by decisions made.

1.7 PRE-INSTALLATION MEETINGS

A. Determine any and all requirements for pre-installation meetings and schedule the same.

B. When required in individual specification sections, convene pre-installation meetings at Project site prior to commencing work of specific section.

C. Require attendance of parties directly affecting, or affected by, Work of specific section.

D. Notify Architect / Owner one week in advance of meeting date.

E. Prepare agenda and preside at meeting.

F. Review conditions of installation, preparation and installation procedures.

G. Review coordination with related work.

H. Record minutes and distribute to participants after meeting, and those affected by decisions made.

1.8 DAILY JOB LOGS

A. Maintain a daily job log that indicates the personnel on-site and activities performed (including all sub-contractors)

B. Indicate any safety concerns and incidents.

C. Indicate weather conditions.

D. Indicate any visitors or other personnel visiting the project site.

E. Job log shall be accessible to Architect / Owner upon request.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.1 CUTTING AND PATCHING

A. Employ skilled and experienced installer to perform cutting and patching; restore work with new products as applicable.

B. Submit written request in advance of cutting or altering elements affecting:
   1. Structural integrity of element.
   2. Integrity of weather-exposed or moisture-resistant elements.
   3. Efficiency, maintenance, or safety of element.
   4. Visual qualities of sight exposed elements.
   5. Work of Owner or separate contractor.

C. Execute cutting, fitting, and patching to complete Work, and to:
   1. Fit the several parts together, to integrate with other Work.
   2. Uncover Work to install or correct ill-timed Work.
   3. Remove and replace defective and non-conforming Work.
   4. Remove samples of installed Work for testing.
   5. Provide openings in elements of Work for penetrations of mechanical and electrical Work.

D. Execute work by methods to avoid damage to other Work, and to provide proper surfaces to receive patching and finishing.

E. Cut masonry and concrete materials using masonry saw or core drill.

F. Restore Work with new products in accordance with requirements of Contract Documents.

G. Fit Work tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.

H. Maintain integrity of wall, ceiling, or floor construction; completely seal voids.

I. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material, to full thickness of penetrated element.

J. Refinish surfaces to match adjacent finishes. For continuous surfaces, refinish to nearest intersection; for assembly, refinish entire unit. For painted surfaces, paint entire wall from corner to corner, floor to ceiling.

K. Identify hazardous substances or conditions exposed during the Work to Architect for decision or remedy.

3.2 DEFECT ASSESSMENT

A. Replace the Work, or portions of the Work, not conforming to specified requirements.

B. If, in the opinion of the Architect/Owner, it is not practical to remove and replace the Work, the Architect/Owner will direct appropriate remedy.

C. Authority of Architect/Owner to assess defects and identify payment adjustments is final.

D. Non-Payment For Rejected Products: Payment will not be made for rejected products.

3.3 SPECIAL PROCEDURES

A. Materials: As specified in product sections; match existing with new products for patching and extending work.

B. Employ skilled and experienced installer to perform alteration work.

C. Cut, move, or remove items as necessary for access to alterations and renovation Work. Replace and restore at completion.

D. Remove unsuitable material not marked for salvage, including rotted wood, corroded metals, and deteriorated masonry and concrete. Replace materials as specified for finished Work.

E. Remove debris and abandoned items from area and from concealed spaces.

F. Prepare surface and remove surface finishes to permit installation of new work and finishes.

G. Remove, cut, and patch Work in manner to minimize damage and to permit restoring products and finishes to original or specified condition.

H. Refinish existing visible surfaces to remain in renovated rooms and spaces, to renewed condition for each material, with neat transition to adjacent finishes.

I. Where new Work abuts or aligns with existing, provide smooth and even transition. Patch Work to match existing adjacent Work in texture and appearance.

J. When finished surfaces are cut so that smooth transition with new Work is not possible, terminate existing surface along straight line at natural line of division and submit recommendation to Architect for review.

K. Patch or replace portions of existing surfaces which are damaged, lifted, discolored, or showing other imperfections.

L. Finish surfaces as specified in individual product sections.

END OF SECTION

SECTION 01 33 00 – SUBMITTALS

PART 1 GENERAL

1.1 WORK INCLUDES

A. Review of shop drawings and product data by Owner/RDA.

1.2 SUBMITTAL PROCEDURES

A. Submit product data and shop drawings for all applicable components of the project. Refer to individual sections for additional requirements.
   1. Provide a submittal log at the beginning of the project for review by Architect / Owner. Identify proposed submittals by Specification Section.
   2. Architect / Owner review of the submittals will be general in nature and does not relieve the Contractor in any way of the responsibility in compliance with the contract requirements, manufacturer requirements, and/or applicable codes.

B. Accomplish submittals in a digital [PDF] format. Any hard copies received will be scanned and returned electronically. Provide those submittals required to maintain orderly progress of the work and those required for early lead time for manufacturer fabrication.
   1. Any hard copies received will be scanned and returned electronically.
   2. Provide those submittals required to maintain orderly progress of the work and those required for early lead time for manufacturer fabrication.
   3. Mark each component to identify applicable products, models, options, and other data. Supplement manufacturer's standard data to provide information unique to this project. Non-identified submittals will be rejected.

C. Provide Submittal form / cover sheet to identify Project, Contractor, subcontractor or supplier; and pertinent Contract Document references.

D. Apply Contractor's stamp, signed or initialed, certifying that review, verification of Products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with requirements of the Work and Contract Documents.

E. Identify variations from Contract Documents and Product or system limitations which may be detrimental to successful performance of completed Work.

F. Revise and resubmit submittals as required; identify changes made since previous submittal.

G. Accomplish submittals at the beginning of the project to allow the proper ordering of materials for the project.
   1. Failure by the Contractor to provide submittals in a timely fashion does not change the project start date nor contract period.

H. Any materials on the job site that have not been reviewed as part of the submittal process are subject to rejection / removal from the job-site. Any work undertaken without review of the submittal data is at the Contractor's risk and subject to rejection or replacement at no cost to the Owner if submittals are not in conformance with the project documents.

I. Allow 7 days for review of submittal items.

J. Allow space on submittals for Contractor and Architect review stamps.

K. When revised for resubmission, identify changes made since previous submission.

L. Distribute copies of reviewed submittals as appropriate (electronically as appropriate). Instruct parties to promptly report inability to comply with requirements.

M. All submittals shall be completed within the first 30 days of the project.

1.3 SUBMITTALS/PRODUCT DATA / SHOP DRAWINGS

General: Submitted to Architect / Owner for review for limited purpose of checking for conformance with information given information expressed in the Contract Documents.

A. Product Data/Shop Drawings:
   1. Submitted to Architect for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
   2. All shop drawings shall be to scale, submit drawings on sheets no larger than 24-inch x 36 inch, all other product data can be on 8 ½ x 11-inch sheets.

B. Samples for Review:
   1. Submitted to Architect for review and selection for aesthetic, color, or finish.
   2. Submit samples of finishes from full range of manufacturer's standard colors, textures, and patterns for Owner's selection.
   3. Submit samples to illustrate functional and aesthetic characteristics of Product.

C. Personnel/Other Contractors
   1. Submit a list of all subcontractors and on-site personnel with the list of lead contact and associated phone numbers.
   2. Submit emergency contact sheet with contacts for an emergency – 24/7 call list.

D. Contract Items:
   1. Submit Certificate of Insurance, Worker's Comp Certificates as required by Owner.
   2. Submit bonds if applicable to the contract.
   3. Submit a written Construction Schedule / Implementation and Sequencing Plan outlining starting points and length of time to complete work in each section.

E. Safety Data Sheets: Submit Safety Data Sheets [SDS] on all products to the Owner.
   1. Owner shall be responsible to provide to employees as applicable.
   2. Architect does not review / approve any SDS sheets.

F. Site Specific Safety Plan
   1. Provide to Owner for their Review.

G. Site Logistics Plan
   1. Provide to Owner for their Review.

1.4 SAMPLES

A. Physical Samples: Submit to Architect for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
   1. Physical samples are required to allow Architect to make selections for color and finish. Electronic images of colors/finishes, etc. are not sufficient.

B. Samples For Selection as Specified in Product Sections:
   1. Submit to Architect for aesthetic, color, or finish selection.
   2. Submit samples of finishes from full range of manufacturers' standard colors, textures, and patterns for Architect selection.

C. Submit samples to illustrate functional and aesthetic characteristics of Products, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.

D. Include identification on each sample, with full Project information.

E. Submit 2 copies of each sample, Architect will retain 1 copy.

F. Reviewed samples which may be used in the Work are indicated in individual specification sections.

1.5 PROPOSED PRODUCTS LIST

A. Within 5 days after date of Notice to Proceed, submit list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.

B. All products for the project shall be ordered in the first 30 days of the contract. Contractors' failure to order materials is not a reason for a time extension or selection of an alternate material. This is imperative to allow work as scheduled.

C. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards.

1.6 MANUFACTURER'S INSTRUCTIONS

A. When specified in individual specification sections, submit manufacturer printed instructions for delivery, storage, assembly, installation, [start-up,] adjusting, and finishing, in quantities specified for Product Data.

1.7 MANUFACTURER'S CERTIFICATES

A. When specified in individual specification sections, submit certifications by manufacturer to Owner, in quantities specified for Product Data.

B. Indicate material or Product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.

1.8 CONSTRUCTION PHOTOGRAPHS

A. Provide digital photographs of construction throughout progress of Work as taken by project superintendent as applicable to document the existing conditions, work in progress, completed work, project wrap up, etc. It is in the best interest of the contractor to document the conditions as this is an occupied unit project.

B. Deliver photographs to Architect/Owner upon request on CD. Catalog and index in chronological sequence with date indexed.

END OF SECTION

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SECTION 01 40 00 - QUALITY REQUIREMENTS/PROJECT INSPECTION

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Quality control and control of installation.

B. Owner Construction Inspection Procedures

C. Tolerances

D. References.

E. Mock-up requirements.

F. Examination & Inspection.

1.2 QUALITY CONTROL AND CONTROL OF INSTALLATION

A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.

B. Comply with manufacturers' instructions, including each step in sequence.

C. When manufacturers' instructions conflict with Contract Documents, request clarification from Architect/Owner before proceeding.

D. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.

E. Perform Work by persons qualified to produce required and specified quality.

F. Verify field measurements are as indicated on Shop Drawings or as instructed by manufacturer.

G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.

1.3 OWNER CONSTRUCTION INSPECTION PROCEDURES

A. Owner has clear goals with regard to the importance of thorough construction inspection that ensures compliance with the bid documents.

B. Owner will appoint a Project Manager and an Architect representative to routinely monitor the Contractor’s work and progress on all projects.

C. Contractor is responsible for quality control of the project. Provide full cooperation with all inspection steps through the construction process and include such coordination in the base bid of the project.

D. Arrange access to the work. Provide any necessary ladders, scaffolding, hoisting, etc in order to make all areas of the work available to the Owner / Architect. Provide manpower as necessary to facilitate inspections.

E. Acceptance of Conditions:
   1. Owner / Architect will not allow work to proceed when there is a construction deficiency document in place that has not been cleared.
   2. Owner / Architect will not allow work to proceed that requires mock-ups until such mock up is acceptable. Subsequent work in like kind shall be equal to or better than the mock-up.

F. Inspect all work prior to final completion. Address / correct any remaining work and/or deficiencies and provide to the Owner / Architect a document that all of the contracted for work has been completed within the scope of the contract and request "final inspection" by the Owner / Architect.

G. The final inspection will result in either complete acceptance or generation of a punch list that is to be corrected in a timely manner and back punched by Owner / Architect.

H. If work that is clearly not complete, the Punchlist will be suspended until such time that it is evident that the Contractor has completed and reviewed/inspected their own work.

I. The warranty blanketing the contract will not be allowed to commence until all work under the contract is completed and accepted for beneficial use by Owner.

J. Owner / Architect will schedule a warranty inspection approximately 10 months after project completion.

1.4 TOLERANCES

A. Monitor fabrication and installation tolerance control of installed Products over suppliers, manufacturers, Products, site conditions, and workmanship, to produce acceptable Work. Do not permit tolerances to accumulate.

B. Comply with manufacturers' tolerances. When manufacturers' tolerances conflict with Contract Documents, request clarification from Architect before proceeding.

C. Adjust products to appropriate dimensions; position before securing products in place.

1.5 REFERENCES

A. For products or workmanship specified by association, trade, or other consensus standards, comply with requirements of standard, except when more rigid requirements are specified or are required by applicable codes.

B. Conform to reference standard by date of issue current on date of Contract Documents, except where specific date is established by code.

C. Obtain copies of standards where required by product specification sections.

D. When specified reference standards conflict with Contract Documents, request clarification from Architect before proceeding.

E. Neither contractual relationships, duties, nor responsibilities of parties in Contract nor those of Architect shall be altered from Contract Documents by mention or inference otherwise in reference documents.

1.6 MOCK-UP REQUIREMENTS

A. Provide mockups of the work as directed / required by the Architect / Owner.

B. Assemble and erect specified items with specified attachment and anchorage devices, flashings, seals, and finishes.

C. Accepted mock-ups shall be comparison standard for remaining Work follow requirements of individual sections.

D. Where mock-up has been accepted by Architect and is specified in product specification sections to be removed; remove mock-up and clear area when directed to do so.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify existing site conditions and substrate surfaces are acceptable for subsequent Work. **Beginning new Work means acceptance of existing/job-site conditions.**

B. Verify utility services are available, of correct characteristics, and in correct location.

C. Verify existing substrate is capable of structural support or attachment of new Work being applied or attached.

D. Contact utility protection a minimum of 48 hours prior to beginning work to verify location of existing utilities, coordinate requirements as applicable.
   1. Contact private utility locating services as required by the conditions. It is the Contractor's responsibility to locate all public and private utilities that may be impacted by the work.

E. Examine and verify specific conditions described in individual specification sections.

3.2 PREPARATION

A. Clean substrate surfaces prior to applying next material or substance.

B. Seal cracks or openings of substrate prior to applying next material or substance.

C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying new material or substance in contact or bond.

END OF SECTION

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SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Temporary Utilities

B. Construction Facilities

C. Temporary Controls

D. Removal of utilities, facilities, and controls

1.2 SITE CONTROL

A. Coordinate site control and access with Owner.

B. Owner will maintain site control while work is accomplished.

C. Maintain existing building security during the course of the work.

1.3 TEMPORARY UTILITIES

A. Refer to Owner's Terms and Conditions

1.4 TEMPORARY LIGHTING FOR CONSTRUCTION PURPOSES

A. Not Applicable.

1.5 TEMPORARY HEATING/COOLING

A. Not Applicable.

1.6 TEMPORARY VENTILATION

A. Not Applicable.

1.7 TELEPHONE SERVICE

A. Provide, maintain, and pay for cellular telephone service for project superintendant.

1.8 EMAIL

A. Provide email service for project superintendant. **Email communication will be an important tool for all information and communication on this project.**

1.9 TEMPORARY WATER SERVICE

A. Not Applicable.

1.10 TEMPORARY SANITARY FACILITIES

A. Utilize existing common area toilet facilities as applicable for the work.
   1. Do not use resident toilet facilities for temporary facilities.

B. Provide potable drinking water for workers.

1.11 FIELD OFFICES AND SHEDS

A. Provide securable on-site space for storage as required by the contractor. Coordinate with Owner for approved location of such storage space. Obtain required right of way permits, etc. if storage is placed in street.

B. Provide location where field drawings and related documents can be safely stored on-site out of weather to prevent damage.

C. Provide field office for construction operations as deemed necessary by Contractor. Contractor shall pay for field offices and related expenses. One of the units to be modernized may be used.

1.12 VEHICULAR ACCESS

A. Utilize existing street parking / driveways / parking areas for construction activities. Contractor shall not block or prohibit vehicular access to adjacent buildings / parking areas. Do not allow driving/parking in turf areas.

B. Provide unimpeded access for emergency vehicles. Maintain 20 feet wide driveways with turning space between and around combustible materials.

C. Provide and maintain access to fire hydrants and control valves free of obstructions.

1.13 PARKING

A. Park Contractor vehicles in areas designated by the Owner.

1.14 PROGRESS CLEANING AND WASTE REMOVAL

A. Collect and maintain areas free of waste materials, debris, and rubbish. Maintain site in clean and orderly condition to the satisfaction of the Owner. Accomplish cleanup on a daily basis.

B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing spaces.

C. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.

D. Collect and remove waste materials, debris, and rubbish from site daily and dispose off-site. Sort and recycle as applicable.

E. Provide dumpsters or trash containers needed for the proper removal of project materials, trash, or debris related to the work. Keep all work areas and project sites neat and free of trash and clutter at all times. Project site consists of occupied apartment units. Do not leave trash around the project site. Take all considerations necessary for safety.

1.15 PROTECTION OF INSTALLED WORK

A. Protect installed Work and provide special protection where specified in individual specification sections.

B. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.

C. Protect finished pavement, concrete, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.

D. Prohibit traffic or storage upon waterproofed or roofed surfaces. When traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer and provide all required protection as determined necessary. Any damage caused shall be repaired to like new condition.

E. Prohibit traffic from landscaped areas.

1.16 FIRE PREVENTION FACILITIES

A. Prohibit smoking within building or on site under construction. **NO SMOKING IS PERMITTED ON SITE [INTERIOR OR EXTERIOR]. NO EXCEPTIONS.**

B. Establish fire watch for cutting and welding and other hazardous operations capable of starting fires. Maintain fire watch before, during, and after hazardous operations until threat of fire does not exist.

C. Portable Fire Extinguishers: NFPA 10; 10 pound capacity, 4A-60B: C UL rating.
   1. Provide one fire extinguisher at each building under construction.
   2. Provide minimum one fire extinguisher in storage shed.

1.17 BARRIERS

A. Provide barriers to prevent unauthorized entry to construction areas.

B. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

C. Protect Work existing premises from theft, vandalism, and unauthorized entry.

1.18 SECURITY

A. Security Program:
   1. Protect Work and existing premises from theft, vandalism, and unauthorized entry.
   2. Maintain program throughout construction period until Owner occupancy

B. Entry Control:
   1. Restrict entrance of persons into Project site.
   2. Allow entrance only to authorized persons with proper identification.
   3. Maintain log of workers and visitors, make available to Owner on request.

1.19 DUST CONTROL

A. Execute Work by methods to minimize raising dust from construction operations.

B. Provide positive means to prevent air-borne dust from dispersing into atmosphere and to other areas of the building.

C. Provide temporary visqueen (or similar) dust control measures to minimize the spread of dust and debris. Provide drop cloths, protective coverings as necessary.

D. Provide protection of existing HVAC / distribution systems.

1.20 POLLUTION AND ENVIRONMENTAL CONTROL

A. Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations.

B. Provide dust control, erosion and sediment control, etc. to allow for proper execution of the Work.

C. Provide protective coverings, etc. as necessary to protect work.

1.21 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

A. Remove existing utilities, connections, finishes, etc. as applicable to the work. Remove back to the nearest termination, junction box, etc. as applicable to the work. Coordinate with requirements on the drawings.

B. Remove temporary utilities, equipment, facilities, materials, prior to Substantial Completion inspection.

C. Clean and repair damage caused by installation or use of temporary work.

D. Restore existing and permanent facilities used during construction to original condition. Restore permanent facilities used during construction to specified condition.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

SECTION 01 60 00 - PRODUCT REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Product requirements.

B. Product options and substitution procedures.

C. Equipment electrical characteristics and components.

1.2 MANUFACTURED PRODUCTS

A. Where a particular system, product, or material is specified by name it shall be considered a standard and most satisfactory for its particular purpose. Any other product or material considered equal or better in all respects must be approved by the Architect prior to bidding.

B. All products used on this project shall be new, unless otherwise noted on the drawings or as specified herein.

1.3 PRODUCTS

A. Products: Means new material, machinery, components, equipment, fixtures, and systems forming the Work, but does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work. Products may also include existing materials or components specifically identified for reuse.

B. Do not use materials and equipment removed from existing premises, except as specifically identified or allowed by the Contract Documents.

C. Provide interchangeable components of same manufacturer for components being replaced.

D. Furnish products of qualified manufacturers suitable for intended use. Furnish products of each type by single manufacturer unless specified otherwise.

E. Do not use materials and equipment removed from existing premises, except as specifically permitted by Contract Documents.

F. Furnish interchangeable components from same manufacturer for components being replaced.

G. **Products shall be ordered in the first 30 days of the contract**. **Provide documentation of orders upon request.**

H. **It shall be solely the Contractor's responsibility to order products to allow timely delivery for installation. The failure to order materials early in the project shall not be a reason for a contract time extension or additional costs related to expedited shipping and/or delivery. Nor shall this be a reason for a product substitution.**

1.4 LABELING

A. Attach label from agency approved by authority having jurisdiction for products, assemblies, and systems required to be labeled by applicable code.

B. Label Information: Include manufacturer's or fabricator's identification, approved agency identification, and the following information, as applicable, on each label.
   1. Model number.
   2. Serial number.
   3. Performance characteristics.

1.5 PRODUCT DELIVERY REQUIREMENTS

A. Transport and handle products in accordance with manufacturer's instructions.

B. Promptly inspect shipments to ensure products comply with requirements, quantities are correct, and products are undamaged.

C. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.

D. Coordinate material delivery to avoid Owner involvement.

1.6 PRODUCT STORAGE AND HANDLING REQUIREMENTS

A. Store and protect products in accordance with manufacturers' instructions.

B. Store with seals and labels intact and legible.

C. Store sensitive products in weather tight, climate controlled, enclosures in an environment favorable to product.

D. For exterior storage of fabricated products, place on sloped supports above ground.
   1. Obtain Owner approval for locations of storage / laydown areas.

E. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.

F. Secure materials to prevent blow off / blow over during weather events, wind, etc.

G. Store loose granular materials on solid flat surfaces in well-drained area. Prevent mixing with foreign matter.

H. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.

I. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

J. Be responsible for all aspects of storage and safekeeping of all materials and products.

K. Remove all damaged materials from the project site.

1.7 PRODUCT OPTIONS

A. Products Specified by Reference Standards or by Description Only:
   1. Any product meeting those standards or description.

B. Products Specified by Naming One or More Manufacturers with NO Provision for “Approved Equal”:
   1. Products of one of the manufacturers named and meeting specifications, NO options or substitutions allowed.

C. Products Specified by Naming One or More Manufacturers with Provision for “Equal / Approved Equal” Substitutions :
   1. Products of one of manufacturers named and meeting specifications.
   2. Submit request for substitution [Approved Equal] for any manufacturer not named in accordance with “Product Substitution Procedures”.

1.8 PRODUCT SUBSTITUTION PROCEDURES – REFER TO SECTION 01 25 00

PART 2 PRODUCTS

2.1 EQUIPMENT ELECTRICAL CHARACTERISTICS AND COMPONENTS

A. Wiring Terminations:Furnish terminal lugs to match branch circuit conductor quantities, sizes, and materials indicated. Include lugs for terminal box.

B. Cord and Plug: Furnish minimum 6 foot cord and plug including grounding connector for connection to electric wiring system. Cord of longer length is specified in individual specification sections.

2.2 TOLERANCES

A. Monitor fabrication and installation tolerance control of installed Products over suppliers, manufacturers, Products, site conditions, and workmanship, to produce acceptable Work. Do not permit tolerances to accumulate.

B. Comply fully with manufacturer's tolerances.

2.3 EXTRA MATERIALS

A. Not Applicable

PART 3 EXECUTION

3.1 FIELD VERIFICATION

A. Verify the actual dimensions of existing conditions and assume responsibility for workable solutions for all new work, prior to ordering materials / products. Verification that the new work and items are workable for existing conditions while providing adequate clearances is the responsibility of the Contractor.

END OF SECTION

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SECTION 01 70 00 - EXECUTION AND CLOSEOUT REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Close-out of the actual work, including warranties, project record documents and operations / maintenance manuals, and final cleaning. Close-out of all contract obligations.

1.2 CLOSEOUT PROCEDURES

A. Notify Owner [7] days prior to the work being complete to establish the desired inspection date. Owner / Architect will either proceed with the inspection or notify Contractor of unfulfilled requirements.
   1. Submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for punch list inspection.

B. Owner / Architect shall inspect the completed project and notify the Contractor of any deficiencies. Deficiencies will form 'punch list' for final acceptance.

C. Provide submittals to Owner required by authorities having jurisdiction.

D. Submit final Application for Payment identifying total adjusted Contract Sum, previous payments, and sum remaining due.

1.3 PUNCHLIST REQUIREMENTS

A. Review and inspect all work prior to notifying the Owner for a Punchlist inspection of the work. Provide written documentation certifying review along with documentation of Contractor generated Punchlist.

B. If work is clearly not complete, the Punchlist will be suspended until such time that it is evident that the Contractor has completed and reviewed/inspected their own work.
   1. Architect anticipates [1] punchlist inspection and [1] back-punch / final inspection as part of our services to the Owner.
   2. Failures by the Contractor to complete the work, complete punchlists, etc. may result in a backcharge to the Contractor for the additional time to closeout the project.

C. Review and provide the noted repairs and corrective work necessary at each of the Punchlist inspections to allow project close out.
   1. Back-punch walk through may result in additional punchlist items which need to be addressed by the Contractor.

D. Provide adequate time in the construction schedule to accomplish punchout work within the overall contract period indicated within the bid documents.

E. The failure to identify any punchlist item during a walk through / inspection does not release the Contractor from contractual responsibility to address any item during the warranty period.

1.4 SUBSTANTIAL COMPLETION

A. Certificate of Substantial Completion will be issued upon completion of all the work.

1.5 PREREQUISITIES TO FINAL ACCEPTANCE AND PAYMENT

A. Prior to acceptance and final payment, all claims or disputes must have been resolved and the Contractor must have provided the following items to the Owner:
   1. Notarized affidavit of waiver of liens [contractor of record], sub-contractors and material suppliers
   2. Certificates of release from authorities having jurisdiction over permitting.
   3. Final statement of charges [100% application for payment].

a. Submit a final Application for Payment according to Section 01 29 00, Payment Procedures.
4. Documented evidence of completing 'punch list' as applicable.
5. Manufacturer's original warranties [copy to RDA].
6. Evidence that claims have been settled.
7. O+M Manuals including Manufacturer's maintenance and repair instructions.
8. Manufacturer's maintenance and repair instructions.
9. Record Drawings.
10. Final cleaning of all work areas:
11. Restore all work staging and lay-out areas to pre-construction conditions, including but not limited to, removal of debris, temporary facilities, grading and grass seeding and cleaning or repair of impacted structures.

1.6 PHOTOGRAPHIC DOCUMENTATION

A. When requested by the Owner, photos of the completed punch list along with any supporting documentation can be submitted, in lieu of a final walkthrough.

1.7 PROJECT RECORD DOCUMENTS

A. Maintain on site one set of the following record documents; record actual revisions to the Work:
1. Drawings.
2. Specifications.
3. Addenda.
4. Change Directives/Orders and other modifications to the Contract.
5. Reviewed Shop Drawings, Product Data, and Samples.
6. Manufacturer's instruction for assembly, installation, and adjusting.

B. Record actual revisions to the Work. Record information concurrent with construction progress.

C. Ensure entries are complete and accurate, enabling future reference by Owner.

D. Store record documents separate from documents used for construction.

E. Record information concurrent with construction progress, not less than weekly.

F. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
1. Manufacturer's name and product model and number.
2. Product substitutions or alternates utilized.
3. Changes made by Addenda and modifications.

G. Submit documents to Architect.

1.8 PROJECT WARRANTIES

A. General: Original warranties are required to be provided to the Owner prior to final payment.

B. Submit two sets prior to final inspection or when available, bound in 8-1/2 x 11-inch text pages, binder covers.

C. Prepare binder cover with printed title "WARRANTIES" and title of project.

D. Bind warranties in a heavy duty three ring loose leaf binder. Provide a typed description of the product under warranty and phone number of the installer.

E. General: The warranty and guarantee provisions of the General Conditions apply to all work of the contract, including but not limited to the following specific categories related to individual units of work specified in various sections of these specifications:
1. Refer to GDPM Contract Requirements / Terms and Conditions for additional information / requirements.

2. Special Project Warranty (Guarantee): A warranty specifically written and signed by the Contractor for a defined portion of the work, and, where required, countersigned by sub-contractor, installer, manufacturer, or other entity engaged by the Contractor.
3. Specified Product Warranty: A warranty which is required by the contract documents, to be provided for a manufactured product incorporated in the Work, regardless of whether manufacturer has published a similar warranty without regard for specific incorporation into the work, or has written and executed a special project warranty as a direct result of contract document requirements.
4. Coincidental Product Warranty: A warranty which is not specifically required by the Contract Documents (other than as specified in this Section); but which is available on a product incorporated into the work, by virtue of the fact that the manufacturer of the product has published a warranty in connection with purchases and users of the product without regard for specific applications except as otherwise limited by terms of the warranty.

F. All work undertaken as part of the project shall be warranted for a period of not less than [1] year. Individual sections / products may have specific additional warranty requirements.

G. Provide notarized copies of warranty documents to the Owner.
1. Execute and assemble transferable warranty documents from subcontractors, suppliers, and manufacturers.

H. Original warranties are required to be provided to the Owner prior to final payment.

1.9 OPERATION AND MAINTENANCE DATA

A. Submit TWO sets prior to final inspection, bound in 8-1/2 x 11 inch text pages, three D side ring binders with durable plastic covers.
1. **Submit one copy for review by the Architect/Owner, electronic submission preferred**. Submit at 75% of overall gross contract completion. Failure to submit O+M at this point will delay Applications for Payment.
2. Prepare one final copy upon approval and correction of any missing or deficient items by the Architect/Owner.
3. Provide (2) CDs of the O+M Manual in PDF format that is formatted and organized to match the hard copy.

B. Prepare binder cover with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS" and title of project. Label on the front and spine of the binder.

C. Internally subdivide binder contents with permanent page dividers, logically organized, with tab titles legibly printed under reinforced laminated plastic tabs.

D. Contents:
1. Part 1: Directory, listing names, addresses, and telephone numbers of Architect/Engineer, Contractor, subcontractors, and major equipment suppliers.
2. Part 2: Permit and Inspection Information
3. Part 3: Project submittals, organized by CSI division
4. Part 4: Operation and maintenance instructions, arranged by system.
    a. Building Products, Equipment, Applied Materials, and Finishes: Include product data, with catalog number, size, composition, and color and texture designations.
    b. Each Item of Equipment and Each System: Include description of unit or system, and component parts. Identify function, normal operating characteristics, and limiting conditions. Include performance curves, with engineering data and tests, and complete nomenclature and model number of replaceable parts.
    c. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and special operating instructions.

d. Instructions for Care and Maintenance: Include manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
e. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and trouble shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
f. Include original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
g. Include original shop drawing submittals, fold larger submittals to fit into binder.

5. Part 5: Project documents and certificates.
   a. Obtain warranties and bonds executed in duplicate by responsible subcontractors, suppliers, and manufacturers.
6. Part 6: Colors / finishes / samples
7. Part 7: Other documentation required.

1.10 FINAL CLEANING

A. Execute final cleaning prior to final inspection.
   1. Clean interior and exterior surfaces exposed to view.
   2. Remove manufacturer or temporary labels, stains, and foreign substances from surfaces.
   3. Polish transparent and glossy surfaces.
   4. Vacuum carpeted and soft surfaces.
   5. Clean interiors of all cabinetry.
   6. Clean all fixtures and finishes.
   7. Replace filters of operating equipment.
   8. Clean equipment and fixtures to sanitary condition with cleaning materials appropriate to surface and material being cleaned.
   9. Clean site; sweep paved areas, rake clean landscaped surfaces.
   10. Remove waste and surplus materials, rubbish, and construction facilities from site.

B. Restore all work staging and lay-out areas to pre-construction conditions, including but not limited to, removal of debris, temporary facilities, grading and grass seeding and cleaning or repair of impacted structures.

1.11 STARTING OF SYSTEMS

A. Coordinate schedule for start-up of various equipment and systems.

B. Notify Architect / Owner [7] days prior to start-up of each item.

C. Ensure each piece of equipment or system is ready for operation. Verify each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, and for conditions which may cause damage.

D. Verify tests, meter readings, and specified electrical characteristics agree with those required by equipment or system manufacturer.

E. Verify wiring and support components for equipment are complete and tested.

F. Execute start-up under supervision of applicable Contractor’s personnel in accordance with manufacturer’s instructions.

G. Submit written report stating equipment or system has been properly installed and is functioning correctly.

1.12 DEMONSTRATION AND INSTRUCTIONS

A. Demonstrate operation and maintenance of Products to Owner's personnel prior to date of Substantial Completion.

B. For equipment or systems requiring seasonal operation, perform demonstration for other season within six months.

C. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at scheduled times, at Project Site location.

D. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with Owner's personnel in detail to explain all aspects of operation and maintenance.

E. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at scheduled time at equipment location/project site.

F. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.

1.13 TESTING, ADJUSTING AND BALANCING

A. Adjust operating products and equipment to ensure smooth and unhindered operation.

B. Retain services of an independent firm to perform testing, adjusting, and balancing if outlined in specific specifications. Include cost for these services in the bid amount.

C. Reports will be submitted by independent firm to Architect / Owner indicating observations and results of tests and indicating compliance or non-compliance with specified requirements and with requirements of Contract Documents.

D. Cooperate with independent firm; furnish assistance as requested.

E. Re-testing required because of non-conformance to specified requirements will be the responsibility of the Contractor.

1.14 PROTECTING INSTALLED CONSTRUCTION

A. Protect installed Work and provide special protection where specified in individual specification sections.

B. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.

C. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.

D. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.

E. Prohibit traffic from landscaped areas.

1.15 SPARE PARTS AND MAINTENANCE PRODUCTS

A. Furnish spare parts, maintenance, and extra products in quantities specified in individual specification sections.

B. Deliver to Owner and place in location as directed; obtain receipt prior to final payment. Items shall be boxed and labeled with contents.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

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SECTION 02 41 16 - SELECTIVE DEMOLITION

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Demolishing designated building equipment and fixtures.
   2. Demolishing designated construction.
   3. Cutting and alterations for completion of the Work.
   4. Removing designated items for salvage by Owner.
   5. Protecting items designated to remain.
   6. Removing demolished materials.

1.2 CLOSEOUT SUBMITTALS

A. Project Record Documents: Record actual locations of capped utilities, concealed utilities discovered during demolition and any subsurface obstructions or conditions that require noting.

1.3 QUALITY ASSURANCE

A. Conform to applicable code for demolition work, dust control, protection, products requiring electrical disconnection and re-connection

1.4 SCHEDULING

A. Schedule Work to coincide with improvements of the unit.

B. Coordinate utility and building service interruptions with Owner.

C. Do not disable or disrupt site fire or life safety systems without three days prior written notice to Owner.

D. Schedule tie-ins to existing systems to minimize disruption.

1.5 PROJECT CONDITIONS

A. Cease operations immediately if structure appears to be in danger and notify Architect. Do not resume operations until directed.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.1 PREPARATION

A. Notify affected utility companies before starting work and comply with their requirements.

B. Call Local Utility Line Information service not less than three working days before performing Work.
   1. Request underground utilities to be located and marked within and surrounding construction areas. Supplement with private locator company as is applicable and required to fully locate and identify existing underground utilities, including both public and private.

C. Mark location and termination of utilities.

D. Erect, and maintain temporary barriers and security devices including warning signs and lights, and similar measures, for protection of the public, Owner, and existing improvements indicated to remain.

E. Erect and maintain weatherproof closures for exterior openings as applicable to work/scope.

F. Erect and maintain temporary partitions.

G. Prevent movement of structure; provide temporary bracing and shoring as required.

H. Provide appropriate temporary signage.

I. Do not close or obstruct building egress path.

J. Do not disable or disrupt building fire or life safety systems without **three** days prior written notice to Owner. Coordinate with Fire Department / Building Official.

K. Protect existing structure / items to remain.

3.2 SALVAGE REQUIREMENTS

A. Coordinate with Owner to identify building components and equipment required to be removed and delivered to Owner.

B. Tag components and equipment Owner designates for salvage.

C. Protect designated salvage items from demolition operations until items can be removed.

D. Carefully remove building components and equipment indicated to be salvaged.

E. Disassemble as required to permit removal from building.

F. Package small and loose parts to avoid loss.

G. Mark equipment and packaged parts to permit identification and consolidation of components of each salvaged item.

H. Prepare assembly instructions consistent with disassembled parts. Package assembly instructions in protective envelope and securely attach to each disassembled salvaged item.

I. Deliver salvaged items to location identified by GDPM. Obtain signed receipt from GDPM.

3.3 RECYCLING AND WASTE REDUCTION

A. Implement measures to reduce waste going to Landfills by creating a recycling and waste reduction plan for all demolition activities.

B. Sort demolition debris as applicable to separate different salvageable and recyclable materials.

C. Provide necessary hauling and coordination to such facilities.

D. Identify materials to be recycled as part of the project and submit an itemized list to the Architect/Owner along with the location. Submit proposed documentation prior to the start of work.

E. Continuous recycling and waste reduction throughout the course of construction.

F. Provide area designated for sorting of materials in an effort to maximize the potential recycling efforts.

G. Maintain a log of waste refuse by type/weight/volume and of recycling efforts by the same.

3.4 DEMOLITION

A. Provide all demolition and removals necessary for the proposed work. Field coordinate all conditions with the design intend on the drawings.
   1. Drawings are diagrammatic and may not reflect the full extent of demolition / removals required to accomplish the proposed scope of work.

2. The Contractor shall coordinate design intent and verify that all demolition work and restoration / repair work required is included in the scope of the project, regardless of specifically being noted on the drawings.
3. Work includes abandoned furnishings, equipment, building components that are required to be removed to render rent ready.
4. Confirm with GDPM personnel prior to demolition to verify any items to be salvaged and turned over to GDPM.

B. Provide abatement of hazardous materials from the buildings as applicable for the completion of the work. Refer to the requirements of the report by Mac Paran Consulting.

C. Conduct demolition to minimize interference with adjacent and occupied buildings/units.

D. Maintain protected egress from and access to adjacent existing buildings/units at all times.

E. Cease operations immediately when structure appears to be in danger and notify Architect/Engineer.

F. Disconnect and remove utilities within demolition areas, refer to Drawings.

G. Cap and identify abandoned utilities at termination points when utility is not completely removed.

H. Do not close or obstruct roadways or sidewalks without permits.

I. Demolish in orderly and careful manner. Protect existing improvements.

J. Carefully remove building components indicated to be reused.

K. See drawings for items to be salvaged and turned over to Owner.

L. Disassemble components as required to permit removal.

M. Box and label contents for all items scheduled to salvage. Obtain sign off.

N. Remove demolished materials from site except where specifically noted otherwise. Do not burn or bury materials on site.

O. Remove materials as Work progresses. Upon completion of Work, leave areas in clean condition.

P. Remove temporary Work.

3.5 CLEAN UP

A. Remove demolished materials from site as work progresses.

B. Leave areas of work in clean condition.

END OF SECTION

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SECTION 08 71 00 - DOOR HARDWARE

PART 1 GENERAL

1.1 SUMMARY

A. This Section includes commercial door hardware as required for the installation of new access control devices at selected openings where indicated on the drawings. Work also includes installation of a Resident Call Station [Enterphone]

B. Locate network controller above the door at new access controlled doors, however conditions and architecture may vary by facility / opening and are subject to field verification and coordination by the contractor.
   1. In conditions where openings are in close proximity to each other or a technology closet, it is permissible to utilize a multi-door controller and power supply.
   2. A single database shall maintain credentials for all doors within the scope of this project.
   3. Individual door controllers shall maintain a local database to permit baseline operations in the event of a WAN failure.
   4. For door openings which do not currently have electronic access control, provide and install the materials and components, including labor, for integration with the access control system.

C. The existing conditions and existing door hardware vary by location. Verify existing conditions at each opening and provide hardware modifications necessary to achieve operation of the door intended.

D. Hardware shall “fail safe” in the event of a disruption of power.

E. Door hardware includes, but is not necessarily limited to, the following:
   1. Mechanical door hardware.
   2. Electromechanical door hardware.

F. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.
   1. ANSI A117.1 - Accessible and Usable Buildings and Facilities.
   2. ICC/IBC - International Building Code.
   3. NFPA 70 - National Electrical Code.
   4. NFPA 80 - Fire Doors and Windows.
   5. NFPA 101 - Life Safety Code.
   6. NFPA 105 - Installation of Smoke Door Assemblies.
   7. UL/ULC and CSA C22.2 - Standards for Automatic Door Operators Used on Fire and Smoke Barrier Doors and Systems of Doors.
   8. State Building Codes, Local Amendments.

G. Standards: All hardware specified herein shall comply with the following industry standards as applicable. Any undated reference to a standard shall be interpreted as referring to the latest edition of that standard:
   1. ANSI/BHMA Certified Product Standards - A156 Series.
   2. UL10C - Positive Pressure Fire Tests of Door Assemblies.
   3. ANSI/UL 294 - Access Control System Units.
   4. UL 305 - Panic Hardware.
   5. ANSI/UL 437- Key Locks.

1.2 SUBMITTALS

A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions and finishes.

B. System Operational Descriptions: Complete system operational narratives for the integrated access controlled openings defining the owner's prescribed requirements for the opening functionality. Narratives include, but are not limited to, the following situations: normal secured/unsecured state of door; authorized access; authorized egress; unauthorized access; unauthorized egress; fire alarm and loss of power conditions, and interfaces with other building control systems.

C. Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing fabrication and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.
   1. Format: Comply with scheduling sequence and vertical format in DHI's "Sequence and Format for the Hardware Schedule."
   2. Organization: Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening. Organize door hardware sets in same order as in the Door Hardware Sets at the end of Part 3. Submittals that do not follow the same format and order as the Door Hardware Sets will be rejected and subject to resubmission.
   3. Content: Include the following information:
      a. Type, style, function, size, label, hand, and finish of each door hardware item.
      b. Manufacturer of each item.
      c. Fastenings and other pertinent information.
      d. Location of door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.
      e. Explanation of abbreviations, symbols, and codes contained in schedule.
      f. Mounting locations for door hardware.
      g. Door and frame sizes and materials.
      h. Warranty information for each product.
   4. Submittal Sequence: Submit the final Door Hardware Schedule at earliest possible date, particularly where approval of the Door Hardware Schedule must precede fabrication of other work that is critical in the Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the Door Hardware Schedule.

D. Shop Drawings: Details of electrified access control hardware indicating the following:
   1. Wiring Diagrams: Upon receipt of approved schedules, submit detailed system wiring diagrams for power, signaling, monitoring, communication, and control of the access control system electrified hardware. Differentiate between manufacturer-installed and field-installed wiring. Include the following:
      a. Elevation diagram of each unique access controlled opening showing location and interconnection of major system components with respect to their placement in the respective door openings.
      b. Complete (risers, point-to-point) access control system block wiring diagrams.
      c. Wiring instructions for each electronic component scheduled herein.
   2. Electrical Coordination: Coordinate with related sections the voltages and wiring details required at electrically controlled and operated hardware openings.

E. Proof of Certification: Upon request provide a copy of manufacturer(s) official certification or accreditation document indicating proof of status as a qualified and authorized provider of the primary access control components.

F. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete access control and site management installation in quantity as required in Division 01, Closeout Submittals. The manual to include the name, address, and telephone number of the supplier/integrator providing the installation and the

nearest service representatives for each item of equipment included in the system. The final copies delivered after completion of the installation test to include "as built" modifications made during installation, checkout, and acceptance.

1. As-Built Drawings: During system installation, the Contractor to maintain a separate hard copy set of drawings, elevation diagrams, and wiring diagrams of the access control system to be used for record drawings. This set to be kept up to date by the Contractor with all changes and additions to the access control system accurately recorded.

G. Warranties and Maintenance: Special warranties and maintenance agreements specified in this Section.

1.3 QUALITY ASSURANCE

A. Manufacturers Qualifications: Engage qualified manufacturers with a minimum 5 years of documented experience in producing hardware and equipment similar to that indicated for this Project and that have a proven record of successful in-service performance.

B. Certified Products: Where specified, products must maintain a current listing in the Builders Hardware Manufacturers Association (BHMA) Certified Products Directory (CPD).

C. Installer Qualifications: A minimum 3 years documented experience installing both standard and electrified door hardware similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.

D. Door Hardware Supplier Qualifications: Experienced commercial door hardware distributors with a minimum 5 years documented experience supplying both mechanical and electromechanical hardware installations comparable in material, design, and extent to that indicated for this Project. Supplier recognized as a factory direct distributor by the manufacturers of the primary materials with a warehousing facility in Project's vicinity.

E. Supplier Qualifications: Supplier/Dealers, verifiably authorized and in good standing with the primary product manufacturers, with a minimum of three (3) years of experience supplying integrated access control systems similar in material, design, and scope to that indicated for this Project and whose work has resulted in construction with a proven record of successful in-service performance.

F. System Integrator Qualifications: Systems Integrators, verifiably factory trained and certified by the primary product manufacturers, with a minimum of three (3) years documented experience installing complete integrated access control systems similar in material, design, and scope to that indicated for this Project and whose work has resulted in construction with a proven record of successful in-service performance.

G. Source Limitations: Obtain each type and variety of door hardware specified in this section from a single source unless otherwise indicated.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.

B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.

C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference".

1.5 COORDINATION

A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing standard and electrified hardware and access control system components. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.

B. Door Hardware and Electrical Connections: Coordinate the layout and installation of scheduled electrified door hardware and related access control equipment with required connections to source power junction boxes, low voltage power supplies, detection and monitoring hardware, and fire and detection alarm systems.

C. Door and Frame Preparation: Doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.

D. Coordinate quantity and arrangement of assemblies with ceiling space configuration and with components occupying ceiling space, including structural members, pipes, air-distribution components, raceways, cable trays, recessed lighting fixtures, and other items.

E. Access Control System Electrical Coordination: Coordinate the layout and installation of scheduled electrified door hardware, and related access control equipment, with required connections to source power junction boxes, power supplies, detection and monitoring hardware and fire alarm system.
   1. Door Hardware Interface: The card key access control system to interface and be connected to electronic door control hardware (electromechanical locks, electric strikes, magnetic locks, door position switches, other monitoring contacts, and related auxiliary control devices) as described under Division 8 "Door Hardware". Coordinate the installation and configuration of specified door hardware being monitored or controlled with the controls, software and access control hardware specified in this Section.

1.6 WARRANTY

A. Warranty Period: Written warranty, executed by manufacturer(s), agreeing to repair or replace components of standard and electrified door hardware that fails in materials or workmanship within specified warranty period after final acceptance by the Owner. Failures include, but are not limited to, the following:
   1. Structural failures including excessive deflection, cracking, or breakage.
   2. Faulty operation of the hardware.
   3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
   4. Electrical component defects and failures within the systems operation.

B. Standard Warranty Period: One year from date of Substantial Completion, unless otherwise indicated.

C. Special Warranty Periods:
   1. Ten years for mortise locks and latches.
   2. Five years for exit hardware.
   3. Twenty five years for manual overhead door closer bodies.
   4. Five years for motorized electric latch retraction exit devices.
   5. Two years for electromechanical door hardware, unless noted otherwise.
   6. Two years for Electrified, Wiegand Output, and IP-Enabled Access Control Door Hardware.

1.7 SCOPE OF WORK

A. On-Line Electronic Access Control System: Furnish and install at the indicated locations the specified electrified and integrated door hardware and access control firmware and software for a completely operational access control and security site management system, Coordinate with Division 28 specifications:

1. Electrified integrated card reader locks and exit hardware, permanent and temporary override cylinders, network control processors, reader controller panels, I/O monitor/control interfaces, door position switches, remote card readers, keypads, and display terminals, access cards and credentials, system application software, special tools, operating manuals, and required cabling and accessories as detailed below and listed in the Access Control Hardware Sets.
    a. Provide the appropriate number of reader controller panels and I/O monitoring/control expansion interfaces as needed to handle the number of card readers, locking devices, door status devices, and identified alarm inputs specified in this section, and as shown on the security drawings.
    b. Provide manufacturer approved integrated card reader locks, exit hardware, and remote mounted card readers, keypads, and display terminals that are functionally compatible with the specified access control equipment interfaces.

1.8 PRE-INSTALLATION MEETING

A. Establish final provisions related to security and key control. Examine hardware items of unusual provisions including special operational features, security devices, UL labels, and similar considerations related to installation.

B. Inspect and discuss preparatory work performed by other trades.

C. Review manufacturer's installation procedures related to the schedule of hardware, doors, and frames. Review the wiring diagrams for related electronic hardware and connection to the security access system and intended function.

D. Inspect and discuss electrical rough-in for electrified door hardware.

E. Review sequence of operation for each type of electrified door hardware.

PART 2 PRODUCTS

2.1 SCHEDULED DOOR HARDWARE

A. General: Provide door hardware for each door to comply with requirements in Door Hardware Sets and each referenced section that products are to be supplied under.

B. Designations: Requirements for quantity, item, size, finish or color, grade, function, and other distinctive qualities of each type of door hardware are indicated in the Door Hardware Sets at the end of Part 3. Products are identified by using door hardware designations, as follows:

2.2 ELECTROMECHANICAL LOCKING DEVICES

A. Electromechanical Mortise Locksets, Grade 1 (Heavy Duty): ANSI/BHMA A156.13, Series 1000, Operational Grade 1 Certified Products Directory (CPD) listed,

B. Field Verify with existing field conditions

C. Electrified Lock Options: provide electrified options including: outside door lock/unlock trim control, latchbolt and lock/unlock status monitoring, deadbolt monitoring, and request-to-exit signaling. Support end-of-line resistors contained within the lock case. Unless otherwise indicated, provide electrified locksets standard as fail secure.

2.3 ELECTRIC STRIKES

A. Standard Electric Strikes: Electric strikes conforming to ANSI/BHMA A156.31, Grade 1, for use on non-rated or fire rated openings. Strikes shall be of stainless steel construction tested to a minimum of 1500 pounds of static strength and 70 foot-pounds of dynamic strength with a minimum endurance of 1 million operating cycles. Provide strikes with 12 or 24 VDC capability,

fail-secure unless otherwise specified. Where specified provide latchbolt and latchbolt strike monitoring indicating both the position of the latchbolt and locked condition of the strike.

2.4 ELECTRONIC ACCESSORIES

A. Door Position Switches: Door position magnetic reed contact switches specifically designed for use in commercial door applications. On recessed models the contact and magnetic housing snap-lock into a 1" diameter hole. Surface mounted models include wide gap distance design complete with armored flex cabling. Provide SPDT, N/O switches with optional Rare Earth Magnet installation on steel doors with flush top channels.

B. Intelligent Switching Power Supplies: Provide power supplies with single, dual or multi-voltage configurations at 12 and/or 24VDC. Power Supply shall have battery backup function with an integrated battery charging circuit. The power supply shall have a standard, integrated Fire Alarm Interface (FAI). The power supply shall provide capability for secondary voltage, power distribution, direct lock control and network monitoring through add on modules. The power supply shall be expandable up to 16 individually protected outputs. Output modules shall provide individually protected, continuous outputs and/or individually protected, relay controlled outputs. Network modules shall provide remote monitoring functions such as status reporting, fault reporting and information logging.

2.5 FABRICATION

A. Fasteners: Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. Provide screws according to manufacturers recognized installation standards for application intended.

2.6 FINISHES

A. Standard: Designations used in the Hardware Sets and elsewhere indicate hardware finishes complying with ANSI/BHMA A156.18, including coordination with traditional U.S. finishes indicated by certain manufacturers for their products.

B. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware

C. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.

B. Examine roughing-in for electrical source power to verify actual locations of wiring connections before electrified and integrated access control door hardware installation.

C. Notify architect of any discrepancies or conflicts between the door schedule, door types, drawings and scheduled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

3.2 INSTALLATION

A. Install each item of mechanical and electromechanical hardware and access control equipment to comply with manufacturer's written instructions and according to specifications.

1. Installers are to be trained and certified by the manufacturer on the proper installation and adjustment of fire, life safety, and security products including: hanging devices; locking devices; closing devices; and seals.

B. Final connect the system control switches (integrated card key locking hardware, remote readers, keypads, display terminals, biometrics), and monitoring, and signaling equipment to the related Controller devices at each opening to properly operate the electrified door and access control hardware according to system operational narratives.

C. Retrofitting: Install door hardware to comply with manufacturer's published templates and written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 9 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.

D. System Application Software: Install, and test application(s) software and databases for the complete and proper operation of systems involved. Assign software license(s) to Owner.

3.3 ADJUSTING

A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

B. Adjust and check each operating item of integrated access control door hardware, and each door opening to ensure proper secured operation and function of every unit. Replace units that cannot be adjusted to operate as intended.

3.4 CLEANING AND PROTECTION

A. Protect all hardware stored on construction site in a covered and dry place. Protect exposed hardware installed on doors during the construction phase. Install any and all hardware at the latest possible time frame.

B. Clean adjacent surfaces soiled by door hardware installation.

C. Clean operating items as necessary to restore proper finish. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of owner occupancy.

3.5 DEMONSTRATION

A. Instruct Owner's maintenance personnel to adjust, operate, and maintain mechanical and electromechanical door hardware.

3.6 DOOR HARDWARE SETS

A. Each door opening to receive the following hardware set [basis of design] – field verify and confirm conditions and adjust as required to suit existing conditions.
   1. [1] uTrust TS Wall mount HF/LF Commercial Wiegand Reader.
   2. [1] Door Contact, GRI 195-12 DTDP. Provide contact for each door leaf at double doors.
   3. [1] Bosch REX DS-DS160 motion sensor.
   4. [1] Identiv MELM 2
   5. [1] HES 7000C-630 Electric Door Strike.
   6. [1] Von Duprin 99 Series Panic Device with surface vertical rods in handle rex, QEL, quiet electric latch retraction, in-jamb power transfer, provide for each door leaf at double doors.

B. Install a DSI ES4200-K1-T1, door management alarm at each door indicated on drawings. If the door does not have access control, a door contact will have to be installed. Install a GRI 180-12-G door contact. If the door has access control use the currently installed door contact.

C. Provide key fobs assigned to Residents for access control credentials.

D. Provide modifications required to existing aluminum doors and frames as required to accommodate hardware specified. Provide all ancillary components for a complete, functional system.

3.7 ENTERPHONE SYSTEM

A. Install the Enterphone 19” Flush mount trim kit FR-46-24-57, at the openings identified.

B. Install a Cat6 cable and a 18/2 cable from each Enterphone to the MDF.

C. Install the Mesh 19” REV B. w/Axess-Mess dialer 50-21-125 in the Flush mount trim kit.

D. Program and commission the system.

END OF SECTION

SECTION 09 90 00 - PAINTING AND COATING

PART 1 GENERAL

1.1 SUMMARY

A. Section includes surface preparation and field application of paints and other coatings.

B. Paint/Stain all exposed surfaces, new and existing, unless otherwise indicated.
   1. Interior Work
      a. Walls and ceilings [where impacted by proposed work]

C. Do not paint prefinished items, finished metal surfaces, operating parts, labels, and materials obviously intended to be left exposed such as brick and tile.

D. Unless otherwise indicated do not paint concealed surfaces.

E. Obtain primers and undercoat materials for each coating system from the same manufacturer as the finish coats. Primer and finish coat shall be factory applied, finish coat shall be field applied.

F. **Extra Materials**: Deliver to Owner **any extra materials**, properly labeled, factory sealed, of each color and type of finish coat paint used on project for each building in contract. Materials shall be signed for by GDPM Construction Inspector.

G. Minimum surface temperature of 50 degrees required for all coating systems.

H. Store all materials in tightly closed containers when not in use, away from heat, electrical equipment, sparks and open flames. Use approved bonding and grounding procedures. Keep out of the reach of children and residents.

I. Transfer materials to approved containers with complete and appropriate labeling.

1.2 APPLICATORS QUALIFICATIONS

A. Engage an experienced applicator with a minimum of five years experience and who has completed painting systems application similar in materials and extend to those indicated for the Project and that have resulted in a construction record of successful in-service performance.

1.3 SUBMITTALS

A. Product Data and Color Samples: Provide product data on each coating system component indicating VOC and environmental requirements. Coordinate coating systems for each material/substrate.

B. Provide draw down samples of each coating for final review and approval by Owner.

1.4 REFERENCES AND REGULATIONS:

A. Standards: Comply with applicable provisions and recommendations of the following, except when otherwise shown or specified:
   1. OSHA Safety Standards for the Construction Industry
   2. SSPC Volume 1, Good Painting Practice,
   3. SSPC Volume 2, Systems and Specifications, Surface Preparation Guide and Paint Application Specifications of the Steel Structures Painting Council.
   4. SSPC and NACE Painter Safety Guidelines, latest editions.

B. Requirements of Regulatory Agencies, conform with the following:
   1. Clean Air Act (CAA)
   2. Clean Water Act (CWA)
   3. Toxic Substances Control Act (TSCA)

1.5 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: Submit maintenance and cleaning instructions.

1.6 QUALITY ASSURANCE

A. Surface Burning Characteristics:
   1. Fire Retardant Finishes: Maximum 25/450 flame spread/smoke developed index when tested in accordance with ASTM E84.

1.7 ENVIRONMENTAL REQUIREMENTS

A. Store and apply materials in environmental conditions required by manufacturer's instructions.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Delivery: Deliver manufacturer's unopened containers to the work site. Packaging shall bear the manufacturer's name, label, and the following list of information:
   1. Product name and type (description)
   2. Application & use instructions
   3. Surface preparation
   4. VOC content
   5. Environmental handling and an SDS
   6. Batch date
   7. Color number

B. Storage: Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction. Store materials in an area that is within the acceptable temperature range, per manufacturer's instructions. Protect from freezing.

C. Handling: Maintain a clean, dry storage area to prevent contamination or damage to the coatings.

1.9 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not apply coatings under environmental conditions outside manufacturer's absolute limits.

1.10 MOCKUP

A. Apply benchmark samples of each paint system indicated and each color and finish selected to verify preliminary selections and demonstrate aesthetic effects and set quality standards for materials and execution.

PART 2 PRODUCTS

2.1 PAINT AND COATINGS

A. Manufacturer
   1. Sherwin-Williams (SW) – Basis of Design
   2. PPG Porter
   3. Benjamin Moore

B. Paints and Coatings - General:
   1. Unless otherwise indicated, provide factory-mixed coatings. When required, mix coatings to correct consistency in accordance with manufacturer's instructions before application. Do not reduce, thin, or dilute coatings or add materials to coatings unless such a procedure is specifically described in manufacturer's product instructions. VOCs need to be confirmed by using the products EDS sheets.

C. Primers:

1. Where the manufacturer offers options on primers for a particular substrate, use primer categorized as "best" by the manufacturer.

D. Coating Application Accessories:
   1. Provide all primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials required per manufacturer's specifications.

E. Colors: As selected from a full range of manufacturer's offerings, including premium colors.

F. Color Pigments: Pure, non-fading, applicable types to suit substrates and service indicated.

G. Color Pigments: Pure, non-fading, applicable types to suit substrates and service indicated.
   1. Lead: Measurable lead content in either the pigment or binder will not be permitted.
   2. The finish coats shall match colors selected.

H. Finish Quality:
   1. Finishes shall exhibit a high quality, commercial grade appearance of uniform thickness.
   2. Finishes shall be free of runs, sags, drips, waves, orange peel, festoons, dry spray, cloudiness, spotting, ropiness, brush marks, roller marks, fish eyes or other surface imperfections, voids, discontinuities, pinholes, holidays and overspray.
   3. Final coat shall be uniform in texture, color and gloss, and shall provide an acceptable match with the approved drawdown sample sheet.

I. Contractor shall provide for a minimum of the following:
   1. Interior Finishes: 4 colors – ceiling, walls, accent wall, and trim

2.2 INTERIOR PAINT APPLICATION SCHEDULE

A. Metals - Ferrous: [Semi-Gloss Finish]
   1. 1st Coat: S-W Pro Industrial™ Pro-Cryl® Universal Primer, B66-1300 Series
   2. 2nd Coat: S-W Pro Industrial™ Semi-Gloss Acrylic, B66-650 Series
   3. 3rd Coat: S-W Pro Industrial™ Semi-Gloss Acrylic, B66-650 Series

B. Metals – Aluminum / Galvanized: [Semi-Gloss Finish]
   1. 1st Coat: S-W Pro Industrial™ Pro-Cryl® Universal Primer, B66-1300 Series
   2. 2nd Coat: S-W Pro Industrial™ Semi-Gloss Acrylic, B66-650
   3. 3rd Coat: S-W Pro Industrial™ Semi-Gloss Acrylic, B66-650

C. Painted Wood Trim, Trim Components, Doors, and Frames: [Semi-Gloss Finish]
   1. 1st Coat: S-W Premium Wall & Wood Latex Primer, B28W8111
   2. 2nd Coat: S-W ProMar® HP 200 Zero VOC Latex Semi-Gloss, B31-1900 Series
   3. 3rd Coat: S-W ProMar® HP 200 Zero VOC Latex Semi-Gloss, B31-1900 Series

D. Wood: [Eg-Shel/Satin Finish]
   1. 1st Coat: S-W Premium Wall & Wood Latex Primer, B28W8111
   2. 2nd Coat: S-W ProMar® 200 HP Zero VOC Latex Eg-Shel, B20-1900 Series
   3. 3rd Coat: S-W ProMar® 200 HP Zero VOC Latex Eg-Shel, B20-1900 Series

E. Gypsum Board Walls: [Eg-Shel/Satin Finish]
   1. 1st Coat: S-W ProMar® 200 Zero VOC Latex Primer, B28W2600
   2. 2nd Coat: S-W ProMar® 200 HP Zero VOC Latex Eg-Shel, B20-1900
   3. 3rd Coat: S-W ProMar® 200 HP Zero VOC Latex Eg-Shel, B20-1900

F. Gypsum Board Ceilings: [Flat Finish]
   1. 1st Coat: S-W ProMar® 200 Zero VOC Latex Primer, B28W2600
   2. 2nd Coat: S-W ProMar® 200 Zero VOC Latex Flat, B30-12600 Series
   3. 3rd Coat: S-W ProMar® 200 Zero VOC Latex Flat, B30-12600 Series

2.3 PRE-CLEANING AND SURFACE PREPARATION PRODUCTS

A. Pre-cleaning Agents

1. SW No Rinse Prepaint Cleaner
2. Krud Kutter
3. Potable water

B. Pre-cleaning (Power Wash) Equipment
   1. Capacity to continuously deliver 3-5 gpm at 2,500 psig of 180-200 degree F hot water.
   2. Cleaning system shall affect the 32-ounce per gallon dilution.
   3. Manufacturer: Alkota, Model 565T with model 520 water heater or approved equal.
   4. Power wash with 15 degree tip capable of delivering hot water at 2500 psig.

C. Power Tool Surface Preparation Media:
   1. Scotch Brite No. 07451 by 3 M Corporation, Surface Conditioning disc.
      a. Properties
      b. Texture: A Medium
      c. Maximum Speed: 18,000 RPM
   2. Clean 'N" Strip Disco No CSD2 by 3 M Corporation
      a. Texture: Course
      b. Maximum Speed: 8,000 RPM
      c. Or approved equal.

PART 3 EXECUTION

3.1 EXAMINATION

A. Do not begin application of coatings until substrates have been properly examined and prepared. Notify Architect of unsatisfactory conditions before proceeding.

B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

C. Proceed with work only after conditions have been corrected, and approved by all parties, otherwise application of coatings will be considered as an acceptance of surface conditions.

D. Previously Painted Surfaces: Verify that existing painted surfaces do not contain lead based paints, notify Architect immediately if lead based paints are encountered.

3.2 SURFACE PREPARATION

A. Comply with paint manufacturer's written instructions for surface preparation, environmental and substrate conditions, product mixing, and application.

B. Perform all surface preparation in accordance with SSPC specifications, guidelines and good painting practices.

C. Proper product selection, surface preparation, and application affect coating performance. Coating integrity and service life will be reduced because of improperly prepared surfaces. Selection and implementation of proper surface preparation ensures coating adhesion to the substrate and prolongs the service life of the coating system.

D. Selection of the proper method of surface preparation depends on the substrate, the environment, and the expected service life of the coating system. Economics, surface contamination, and the effect on the substrate will also influence the selection of surface preparation methods.

E. The surface must be dry and in sound condition. Remove oil, dust, dirt, loose rust, peeling paint or other contamination to ensure good adhesion. Recognize that any surface preparation short of total removal of the old coating may compromise the service length of the system.

F. Prior to attempting to remove mildew, it is always recommended to test any cleaner on a small, inconspicuous area prior to use. Bleach and bleaching type cleaners may damage or discolor existing paint films. Bleach alternative cleaning solutions may be advised.

G. Mildew may be removed before painting by washing with a solution of 1 part liquid bleach and 3 parts water. Apply the solution and scrub the mildewed area. Allow the solution to remain on the surface for 10 minutes. Rinse thoroughly with water and allow the surface to dry before painting. Wear protective eyewear, waterproof gloves, and protective clothing. Quickly wash off any of the mixture that comes in contact with your skin. Do not add detergents or ammonia to the bleach/water solution.

H. No exterior painting should be done immediately after a rain, during foggy weather, when rain is predicted, or when the temperature is below 50°F, unless products are designed specifically for these conditions. On large expanses of metal siding, the air, surface and material temperatures must be 50°F or higher to use low temperature products.

I. Methods:
   1. Aluminum: Remove all oil, grease, dirt, oxide and other foreign material by cleaning per SSPC-SP1, Solvent Cleaning.
   2. Block (Cinder and Concrete): Remove all loose mortar and foreign material. Surface must be free of laitance, concrete dust, dirt, form release agents, moisture curing membranes, loose cement, and hardeners. Concrete and mortar must be cured at least 30 days at 75°F unless the manufacturer's products are designed for application prior to the 30-day period. The pH of the surface should be between 6 and 9 unless the products are designed to be used in high pH environments. On tilt-up and poured-in-place concrete, commercial detergents and abrasive blasting may be necessary to prepare the surface. Fill bug holes, air pockets, and other voids with a cement patching compound.
   3. Concrete, SSPC-SP13 or NACE 6: This standard gives requirements for surface preparation of concrete by mechanical, chemical, or thermal methods prior to the application of bonded protective coating or lining systems. The requirements of this standard are applicable to all types of cementitious surfaces including cast-in-place concrete floors and walls, precast slabs, masonry walls, and shotcrete surfaces. An acceptable prepared concrete surface should be free of contaminants, laitance, loosely adhering concrete, and dust, and should provide a sound, uniform substrate suitable for the application of protective coating or lining systems.
   4. Cement Composition Siding/Panels: Remove all surface contamination by washing with an appropriate cleaner, rinse thoroughly and allow to dry. Existing peeled or checked paint should be scraped and sanded to a sound surface. Pressure clean, if needed, with a minimum of 2100 psi pressure to remove all dirt, dust, grease, oil, loose particles, laitance, foreign material, and peeling or defective coatings. Allow the surface to dry thoroughly. The pH of the surface should be between 6 and 9, unless the products are designed to be used in high pH environments.
   5. Drywall—Exterior: Must be clean and dry. All nail heads must be set and spackled. Joints must be taped and covered with a joint compound. Spackled nail heads and tape joints must be sanded smooth and all dust removed prior to painting. Exterior surfaces must be spackled with exterior grade compounds.
   6. Exterior Composition Board (Hardboard): Some composition boards may exude a waxy material that must be removed with a solvent prior to coating. Whether factory primed or unprimed, exterior composition board siding (hardboard) must be cleaned thoroughly and primed with an alkyd primer.
   7. Galvanized Metal: Clean per SSPC-SP1 using detergent and water or a degreasing cleaner to remove greases and oils. Apply a test area, priming as required. Allow the coating to dry at least one week before testing. If adhesion is poor, Brush Blast per SSPC-SP16 is necessary to remove these treatments.
   8. Steel: Structural, Plate, etc.: Should be cleaned by one or more of the surface preparations described below. These methods are used throughout the world for describing methods for cleaning structural steel. Visual standards are available through the Society of Protective Coatings. A brief description of these standards together with numbers by which they can be specified follow.

9. Solvent Cleaning, SSPC-SP1: Solvent cleaning is a method for removing all visible oil, grease, soil, drawing and cutting compounds, and other soluble contaminants. Solvent cleaning does not remove rust or mill scale. Change rags and cleaning solution frequently so that deposits of oil and grease are not spread over additional areas in the cleaning process. Be sure to allow adequate ventilation.
10. Hand Tool Cleaning, SSPC-SP2: Hand Tool Cleaning removes all loose mill scale, loose rust, and other detrimental foreign matter. It is not intended that adherent mill scale, rust, and paint be removed by this process. Before Hand Tool Cleaning, remove visible oil, grease, soluble welding residues, and salts by the methods outlined in SSPC-SP1.
11. Power Tool Cleaning, SSPC-SP3: Power Tool Cleaning removes all loose mill scale, loose rust, and other detrimental foreign matter. It is not intended that adherent mill scale, rust, and paint be removed by this process. Before Power Tool Cleaning, remove visible oil, grease, soluble welding residues, and salts by the methods outlined in SSPC-SP1.
12. White Metal Blast Cleaning, SSPC-SP5 or NACE 1: A White Metal Blast Cleaned surface, when viewed without magnification, shall be free of all visible oil, grease, dirt, dust, mill scale, rust, paint, oxides, corrosion products, and other foreign matter. Before blast cleaning, visible deposits of oil or grease shall be removed by any of the methods specified in SSPC-SP1 or other agreed upon methods.
13. Commercial Blast Cleaning, SSPC-SP6 or NACE 3: A Commercial Blast Cleaned surface, when viewed without magnification, shall be free of all visible oil, grease, dirt, dust, mill scale, rust, paint, oxides, corrosion products, and other foreign matter, except for staining. Staining shall be limited to no more than 33 percent of each square inch of surface area and may consist of light shadows, slight streaks, or minor discoloration caused by stains of rust, stains of mill scale, or stains of previously applied paint. Before blast cleaning, visible deposits of oil or grease shall be removed by any of the methods specified in SSPC-SP1 or other agreed upon methods.
14. Brush-Off Blast Cleaning, SSPC-SP7 or NACE 4: A Brush-Off Blast Cleaned surface, when viewed without magnification, shall be free of all visible oil, grease, dirt, dust, loose mill scale, loose rust, and loose paint. Tightly adherent mill scale, rust, and paint may remain on the surface. Before blast cleaning, visible deposits of oil or grease shall be removed by any of the methods specified in SSPC-SP 1 or other agreed upon methods.
15. Brush-Off Blast Cleaning of Coated and Uncoated Galvanized Steel, Stainless Steels, and Non-Ferrous Metals, SSPC-SP16: This standard covers the requirements for brush-off blast cleaning of uncoated or coated metal surfaces other than carbon steel by the use of abrasives. These requirements include visual verification of the end condition of the surface and materials and procedures necessary to achieve and verify the end condition. A brush-off blast cleaned non-ferrous metal surface, when viewed without magnification, shall be free of all visible oil, grease, dirt, dust, metal oxides (corrosion products), and other foreign matter. Intact, tightly adherent coating is permitted to remain. A coating is considered tightly adherent if it cannot be removed by lifting with a dull putty knife.
16. Power Tool Cleaning to Bare Metal, SSPC-SP11: Metallic surfaces that are prepared according to this specification, when viewed without magnification, shall be free of all visible oil, grease, dirt, dust, mill scale, rust, paint, oxide corrosion products, and other foreign matter. Slight residues of rust and paint may be left in the lower portions of pits if the original surface is pitted. Prior to power tool surface preparation, remove visible deposits of oil or grease by any of the methods specified in SSPC-SP1, Solvent Cleaning, or other agreed upon methods.
17. Near-White Blast Cleaning, SSPC-SP10 or NACE 2: A Near White Blast Cleaned surface, when viewed without magnification, shall be free of all visible oil, grease, dirt, dust, mill scale, rust, paint, oxides, corrosion products, and other foreign matter, except for staining. Staining shall be limited to no more than 5 percent of each square inch of surface area and may consist of light shadows, slight streaks, or minor discoloration caused by stains of rust, stains of mill scale, or stains of previously applied paint. Before blast cleaning, visible deposits of oil or grease shall be removed by any of the methods specified in SSPC-SP1 or other agreed upon methods.

18. Water Blasting, NACE Standard RP-01-72: Removal of oil grease dirt, loose rust, loose mill scale, and loose paint by water at pressures of 2,000 to 2,500 psi at a flow of 4 to 14 gallons per minute.
19. Stucco: Must be clean and free of any loose stucco. If recommended procedures for applying stucco are followed, and normal drying conditions prevail, the surface may be painted in 30 days. The pH of the surface should be between 6 and 9, unless the products are designed to be used in high pH environments such as Loxon.
20. Wood—Exterior: Must be clean and dry. Knots and pitch streaks must be scraped, sanded, and spot primed before a full priming coat is applied. Patch all nail holes and imperfections with a wood filler or putty and sand smooth.
21. Vinyl Siding, Architectural Plastics & Fiberglass or other PVC, plastic building products. Clean the surface thoroughly by scrubbing with warm, soapy water. Rinse thoroughly, prime with appropriate white primer. Do not paint vinyl with any color darker than the original color. Do not paint vinyl with a color having a Light Reflective Value (LRV) of less than 56 unless VinylSafe® Colors are used. If VinylSafe® Colors are not used and darker colors lower than an LRV of 56 are, the vinyl may warp. Follow all painting guidelines of the vinyl manufacturer when painting. Only paint properly installed vinyl siding. Deviating from the manufacturer's painting guidelines may cause the warranty to be voided.

3.3 APPLICATION

A. Examination and Verification of Condition: Contractor shall verify the areas and conditions under which the work is to be performed and notify the Owner in writing of conditions detrimental to the proper and timely completion of the Work. Do not proceed with the Work until satisfactory conditions have been corrected. Do not coat over chalk, dirt, scale, moisture, oil, surface contaminants, coatings that have exceeded the manufacturer’s re-coat guidelines, or conditions otherwise detrimental to the formation of a durable high quality coating system.

B. Comply with manufacturer’s instructions and SSPC Good Paint Practices Volumes 1 and 2.

C. Comply with OSHA regulations, State of Ohio and Federal laws, ordinances, and guidelines.

D. Follow manufacturer’s requirements for temperature and humidity at time of application.

E. Refer to SDS sheets before using any product.

F. All surfaces must be thoroughly dry before coating applications. Do not apply to wet or damp surfaces.
   1. Wait at least 30 days before applying to new concrete or masonry or follow manufacturer’s procedures to apply appropriate coatings prior to 30 days.
   2. Test new concrete for moisture content.
   3. Wait until wood is fully dry after rain or morning fog or dew.

G. Apply coatings using brush or roller only.

H. Apply all coatings and materials with the manufacturer’s specifications in mind. Mix and thin coatings according to manufacturer’s recommendation.

I. Apply coatings using methods recommended by manufacturer.

J. Uniformly apply coatings without runs, drips, or sags, without brush marks, and with consistent sheen.

K. Apply coatings at spreading rate required to achieve the manufacturer’s recommended dry film thickness.

L. Regardless of number of coats specified, apply as many coats as necessary for complete hide.

M. Exterior Woodwork: If final painting must be delayed more than 2 weeks after installation of woodwork, apply primer within 2 weeks and final coating within 2 weeks.

N. Inspection: The coated surface must be inspected and approved by the Architect or Engineer just prior to the application of each coat.

3.4 CLEAN UP

A. Clean site and remove debris and empty cans daily. Remove all paint from adjacent surfaces. Clean spills and splatters immediately.

B. Clean hands and tools immediately after use with soap and water for water based products and with mineral spirits for oil based products.

C. Follow manufacturer’s safety recommendations when using mineral spirits.

3.5 ENVIRONMENTAL REQUIREMENTS

A. Store and apply materials in environmental conditions required by manufacturer's instructions.

END OF SECTION

SECTION 28 23 00 – VIDEO SECURITY SURVEILLANCE

PART 1 GENERAL

1.1 SUMMARY

A. Installation of a complete new fully functioning CCTV system complete with all required components, head end equipment, cameras, network video recorder, and network cabling.
   1. The documents indicate a Basis of Design for the CCTV System. Any deviations or substitution requests for alternate manufacturers, equipment, etc. shall be accomplished in accordance with Section 01 25 00.

B. Building plans indicating doors, camera placement, and areas of interest are attached as part of the bid documents.

C. Close-out of the actual work, including programming, training, warranties, maintenance manuals and final cleaning. Close-out of all contract obligations.

1.2 PROJECT REQUIREMENTS

A. Work includes, but is not limited to, providing and installing all network switches, power-over-ethernet injectors, cabling, miscellaneous parts, and all required labor to provide a complete, turn-key project to the Owner.

1.3 SUBMITTALS

A. System Design / Narrative: Provide complete system design including all required ancillary / accessory components which indicate compliance with or exceed the basis of design specifications in this Section to provide a complete Turn-Key operational system.

B. Product Data: Provide complete manufacturer’s data sheets for all components and products included in the project; preparation instructions; storage and handling requirements; installation methods; warranty documentation.

C. Shop Drawings: Installation drawings, including connection diagrams for interfacing equipment, a list of connected equipment, and locations for major equipment components. Indicate surrounding construction as provided for the Project.

D. Project Record Drawings: Indicate the location of equipment and wiring on project record drawings.

E. Operation and Maintenance Data: Customized to system installed. Include operator manuals.

F. Field Tests: Results of field testing of every device, including date, testing personnel, retesting date (if applicable), and confirmation every device passed field testing.

1.4 QUALITY ASSURANCE

A. Manufacturer Qualifications: 5 years' experience producing specified equipment and software outlined in these specifications.

B. Installer Qualifications: Trained and authorized by Manufacturer to install, integrate, test, commission, and provide ongoing support with a minimum of 5 years’ experience.

1.5 PRE-INSTALLATION MEETINGS

A. Schedule a pre-installation meeting prior to the start of work at each of the facilities to review and outline the scope or work, field conditions, logistics, etc.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Packing and Shipping: Deliver products in the manufacturer's labeled packages.

B. Deliver cameras and equipment in the manufacturer's original, unopened and undamaged container with identification labels intact.

C. Storage and Protection: Store and handle products in accordance with the manufacturer's requirements in the facility where environmental conditions are within recommended limits.

1.7 PROJECT CONDITIONS

A. Environmental Requirements: Comply with environmental requirements and recommendations of the manufacturer for proper installation of products.

1.8 WARRANTY

A. Provide equipment warranties as outlined in the various product specifications in this Section.

PART 2 PRODUCTS

General: the following components as outlined herein are the “Basis of Design” for the project.

2.1 RACK ENCLOSURE / COMPONENTS

A. Basis of Design: Tripp-Lite SR42UBMD 42U Rack Enclosure, secured to the floor.

B. Leviton Fiber Tray 5R1Um-S03 in the 42U Rack Enclosure.
   1. Leviton 5F100-2EL Fiber Adapter Plate Duplex LC in the Fiber Tray.
   2. All strands of fiber must be terminated and tested.

C. [2] Leviton 24 PORT Cat6 patch panel P-Panel 695886 in the 40U Rack Enclosure.

D. [2] *Lantronix SM24TAT4XB* PoE Switch 24 Port 4 SFM Ports (10G SFM Port) in the 42U Rack Enclosure.
   1. Install 3- Lantronix SFP 10G Modules *TN-SFP-10G-SR*, install one in a PoE Switch SFM port. Install two in the second PoE Switch
   2. Patch the two PoE switches together with a OM3 LC to LC fiber patch cable, connecting to the SFP Modules.
   3. Patch the PoE switch with the second SFP Module with an OM3 LC to LC fiber patch cable to the Fiber Adapter Plate, that connects to the IDF.

2.2 VIDEO MANAGEMENT SYSTEM

A. Basis of Design: Digital Watch Digital-Watchdog Blackjack server, IPVMS, (IP Video Management System) that’s powered by DW Spectrum.
   1. DW server *DW- BJP2U100T* has 100 TB of storage to provide over 30 days of recordings. DW Spectrum has a highly refined GUI interface for ease of use while working with the search tools and camera Analytics (IVA). DW Spectrum is networkable to allow remote access and control from your phone or tablet. The server is scalable if additional cameras are added later. Additional features of the DW Spectrum, has “failover” to prevent loss of video, system updates are free of charge, no service license are required. The system maintains log files, an audit trail, storage status and the ability to send email alerts on specified events. The Server has a 5-year warranty, and NDAA/TAA compliant.

2.3 UPS

A. Basis of Design: Tripp-Lite Smart UPS 3000RM2UL, locate in the bottom of the Rack Enclosure.

2.4 CAMERAS

A. Refer to Drawings for specific design basis models per the location installed.
   1. Install a Cat6 network cable from the Patch Panel to each camera. At no time, the Cat6 cable will be exposed (except in the MDF and IDF room) the cable will be above the drop ceiling, hard deck or in conduit when necessary.

2. Follow industry standards and best practices outlined in ANSI American National Standards Institute and the NEC National Electrical Code in the installation of the cable runs, cable management and installation of devices.

B. *Camera Type 'A' - DWC MPV85WiATW [Basis of Design]* 5MP Color Dome Camera, low-profile vandal dome, 2.7 – 13.5 mm vari-focal length, motorized zoom and auto focus lens. 30fps, simultaneous H.265/H264 codec, IK-10 impact resistant, corridor mode for viewing hallways, Star-Light Plus™ color in near-total darkness technology. Intelligent Video Analytics, to include intrusion, line crossing, loitering, enter, exit and tamper. IVA aids in play back search and real time event alarm notification. This camera has a 5-year warranty and NDAA compliant.

C. *Camera Type 'B' - DWC MPV82WiATW [Basis of Design]* 2.1MP Color Dome Camera, low-profile vandal dome, 2.8 – 12mm vari-focal length, motorized zoom and auto focus lens. 30fps, simultaneous H.265/H264 codec, IK-10 impact resistant, corridor mode for viewing hallways, Star-Light Plus™ color in near-total darkness technology. Intelligent Video Analytics, to include intrusion, line crossing, loitering, enter, exit and tamper. IVA aids in play back search and real time event alarm notification. This camera has a 5-year warranty and NDAA compliant.
1. Optional Accessories for mounting the *DWC MPV85WiATW* and *DWC MPV82WiATW* cameras, include *DWC-VFJUNCW* Junction Box and *DWC-VFWMW* Wall mount bracket location noted in the attached addendum.

D. *Camera Type 'C' - DWC-MV72Wi28 [Basis of Design]* 2.1MP Color Dome Camera, low-profile vandal dome 30fps, 2.8mm fixed lens, simultaneous H.265/H264 codec, IK-10 impact resistant, Star-Light Plus™ color in near-total darkness technology. Intelligent Video Analytics, to include intrusion, line crossing, loitering, enter, exit and tamper. IVA aids in play back search and real time event alarm notification. This camera has a 5-year warranty and NDAA compliant.
1. Optional Accessories for mounting the *DWC-MV72Wi28* camera includes the *DWC-V&JUNCW* Junction box.

E. *Camera Type 'D' - DWC-PVF9DI2TW [Basis of Design]* 9MP Color Fisheye Camera, 360° View, low-profile 30fps, 2.1mm fixed lens, simultaneous H.265/H264 codec, IK-10 impact resistant, Star-Light Plus™ color in near-total darkness technology. Intelligent Video Analytics, to include intrusion, line crossing, loitering, enter, exit and tamper. IVA aids in play back search and real time event alarm notification. The camera is optimized to work with the DW Spectrum IPVMS instant dewarping feature. This camera has a 5-year warranty and NDAA compliant.

2.5 ACCESS CONTROL SYSTEM

A. Basis of Design: Identiv Primis

B. 100% browser based access control.

C. AES 256 and TLS 1.2 encryption technology to eradicate security vulnerabilities on a Linux OS.

D. Command and control via any web browser from any device.

E. Primis is designed to operate with Enterphone [Resident Call Station System]

2.6 IDF REQUIREMENTS

A. Tripp-Lite *SRW9U* wall mount cabinet.

B. Leviton Fiber Tray *5R1Um-S03* in the Tripp-Lite *SRW9U* wall mount cabinet.
1. Install a Leviton *5F100-2EL* Fiber Adapter Plate Duplex LC in the Fiber Tray.
2. All strands of fiber must be terminated and tested.

C. [2] Leviton P-Panel 695886 24 Port Cat6 patch panel in the wall mount cabinet.
   1. Install Cat6 cabling from the IDF to the cameras as indicated.

D. [2] *Lantronix SM24TAT4XB* PoE Switch 24 Port 4 SFM Ports (10G SFM Port) in the wall mount cabinet.
   1. [3] Lantronix SFP 10G Modules *TN-SFP-10G-SR*, install one in a PoE Switch SFM port. Install two in the second PoE Switch.
   2. Patch the two PoE switches together with an OM3 LC to LC fiber patch cable, connecting to the SFP Modules.
   3. Patch the PoE switch with the second SFP Module with an OM3 LC to LC fiber patch cable to the Fiber Adapter Plate, connecting to the MDF.

E. Install a *Trip-Lite UPS Smart 1500LCD* in the wall mount cabinet in the IDF.

2.7 NETWORK AND IP CABLING

General: Field coordinate with existing conditions as is applicable.

A. Category 6 Cables: Unshielded twisted copper pairs, dielectric spline between pairs: UL 13, UL 444, NEC Articles 800 and 725, verified to TIA/EIA-568-C.2 Cat 6:
   1. Riser Rated: Polypropylene Insulation, PVC Jacket: CMR, CL2R, FT4, Sunlight resistant listed. Part No: 5193, Cat 6 (500 MHz.).
   2. Plenum Rated: FEP insulation, low-smoke PVC jacket: CMP, CL2P, FT6 listed. Part No: 5393, Cat 6 (500 MHz.).

B. Install a six strand OM3 fiber optic cable between the MDF and the IDF located noted on the drawing. Note; The location of the IDF has not been determined. Terminate the fiber at the MDF in the Leviton fiber tray as noted. Follow industry standards and best practices outlined in FOTP, Fiber Optic Testing Procedures.

PART 3 EXECUTION

3.1 EXAMINATION

A. Notify Architect / Owner if substrates are unsatisfactory for the installation as proposed.

3.2 PREPARATION

A. Clean surfaces thoroughly prior to installation.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

A. Install in accordance with manufacturer's instructions approved submittals and in proper relationship with adjacent construction.

B. Video management system shall be installed, programmed, and tested in accordance with manufacturer’s installation instructions.
   1. Coordinate interfaces with Owner where appropriate.
   2. Provide backboxes, racks, connectors, supports, conduit, cable, and wire for a complete and reliable installation. Obtain Owner's approval for exact location of all boxes, conduit, and wiring runs prior to installation.
   3. Install conduit, cable, and wire parallel and square with building lines. Do not exceed forty percent (40 percent) fill in conduits. Gather wires and tie to create an orderly installation.

3.4 FIELD QUALITY CONTROL

A. Field Inspection: Coordinate field inspection with appropriate sections in Division 01.

3.5 TRAINING

A. Conduct on-site system administrator and security/surveillance operator training, with number and length of sessions as recommended by manufacturer. Include administration, provisioning, configuration, operation, and diagnostics.

3.6 CLEANING AND PROTECTION

A. Clean products in accordance with the manufacturer's recommendations.

B. Touch-up, repair, or replace damaged products before Substantial Completion.

END OF SECTION

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