SECTION ( )

GUIDE MASTER SECTION

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Provide and maintain a field office comprised of mobile or relocatable office units, furniture, and equipment for the sole use of the Director's Representative and staff. Include temporary services and accessories necessary for use of the items specified.

1.02 PRODUCTS FURNISHED BUT NOT INSTALLED UNDER THIS SECTION

A. Deliver the following item to the Electrical Contractor for installation and connection to power wiring:
   1. Motor Controllers.

B. Deliver the following item(s) to the (CONTRACT DESIGNATION) Contractor for installation and connection:
   1. ( ).
   2. ( ).

1.03 PRODUCTS INSTALLED BUT NOT FURNISHED UNDER THIS SECTION

A. The following items will be furnished under related contracts for installation under this Contract:
   1. Motor Controllers.
   2. Line Voltage Thermostats.

B. The following item(s) will be furnished under related contracts for installation under this contract:
   1. ( ).
   2. ( ).

1.04 RELATED WORK SPECIFIED ELSEWHERE

A. Roof Insulation: Section 075100.

B. (ITEM/SYSTEM NOMENCLATURE): Section (CSI #).

C. ( ): Section ( ).

1.05 ALLOWANCES

A. An allowance for Work of this Section is specified in Section 012100.

1.06 ALLOWANCES

A. An allowance for the following portions of Work in this Section is included in Section 012100.
   1. Services of the Company Field Advisor as described in QUALITY ASSURANCE.
   2. All items listed in SUBMITTALS.
   3. Engineering and reprogramming associated with the installation of the new equipment and updating existing information.
   4. Spare parts listed in Part 1 of this Section.
   5. All products listed in PART 2 of this Section except:
      a. Vandal guards.
      b. Wiring.
      c. Signs, labels, markers and nameplates.
      d. Labor for the installation of the products is not included in the allowance and shall be included in the Contract Sum.
   6. All products listed in PART 2 of this Section except:
      a. ( ).
      b. ( ).
      c. Labor for the installation of the products is not included in the allowance and shall be included in the Contract Sum.

1.07 UNIT PRICES FOR ADDED OR DEDUCTED WORK

A. Do not exceed the quantities of Work indicated by numeric units on the Drawing(s), except by Order on Contract. In order to avoid delay, notify the Director's Representative when the amount of completed Work approaches the quantity indicated.

B. If the installed quantity of Work is greater than the numeric units of Work indicated on the Drawings, the contract sum will be adjusted by an Order on Contract. If the installed quantity of Work is less than the numeric units of Work indicated on the Drawings, the contract sum will be adjusted via a Supplemental Agreement (BDC 134) at the time of substantial completion payment. Reduction will be taken on Schedule 5 and reflected in the contract amount earned-Schedule 2. Unit prices will be adjusted as follows:
   1. Repointing Brick Joints:
      a. Added repointing @ $1.00 per linear foot.
      b. Deducted repointing @ $ .75 per linear foot.
   2. Replacing Bricks:
      a. Added bricks @ $10.00 per brick.
      b. Deducted bricks @ $7.50 per brick.
   3. (ITEM/SYSTEM):
      a. Added ( ) @ (PRICE) per (UNIT/UNIT OF MEASURE).
      b. Deducted ( ) @ ( ) per ( ).
   4. Replacing (ITEM/SYSTEM):
      a. Added ( ) @ (PRICE) per (UNIT/UNIT OF MEASURE).
      b. Deducted ( ) @ ( ) per ( ).

C. During the course of installation and/or testing it may be determined that additional (ITEM/MATERIAL) are required. Provide the additional (ITEM/MATERIAL) and related materials in accordance with the applicable Sections of this Specification.

D. The foregoing unit prices include overhead, profit and all other expenses incidental to the Work. Include in the Bid Sum all additional costs in connection with quantity changes that are not compensated for at the given unit prices.

E. Quantities of Work shown on the Drawing in numeric units are in addition to any other similar Work required under the Contract. Unit prices for additions and deductions are applicable only to the quantities of Work indicated in numeric units.

F. If the total amount of a change exceeds 20 percent of the aforementioned quantity indicated on the Drawings, the adjustment of the Contract Sum for the quantity in excess of 20 percent will be made in accordance with the General Conditions.

1.08 UNIT PRICES FOR ADDED WORK

A. During the course of installing and testing the system it may be determined that, in some locations, more (ITEM/MATERIAL) are required than those shown in the drawings.

B. The additional speakers will be requested by Order on Contract. The contract sum will be adjusted at the following unit prices:
1. Surface mounted speakers @ $130.00 each.
2. Recessed speakers @ $120.00 each.
3. Speaker wire and cable @ $ .50 per linear ft.
4. Rigid conduit, 3/4 inch @ $2.90 per linear ft.
5. IMC conduit, 3/4 inch @ $2.50 per linear ft.
6. Cutting, patching and finishing wall for concealing 3/4 inch conduit @ $20.00 per linear ft.
7. Core drilling floor for 3/4 inch conduit including patching and finishing @ $6.25 per inch.
8. Core drilling wall for 3/4 inch conduit including patching and finishing @ $7.00 per inch.

C. The additional (ITEM/MATERIAL) will be requested by Order on Contract. The contract sum will be adjusted at the following unit prices:
1. ( ) @ (PRICE) each.
2. ( ) @ (PRICE) per (UNIT/UNIT OF MEASURE).

D. The forgoing unit prices include overhead, profit and all other expenses incidental to the Work. Include in the bid sum all additional costs in connection with quality changes that are not compensated for at the given unit prices.

E. Provide the additional (ITEM/MATERIAL) and related (ITEM/MATERIAL) in accordance with the applicable sections of this Specification.

1.09 ALTERNATES

A. The Work in this Section is part of Alternate No. ( ) as described in Section 012300.

1.10 REFERENCES

A. ACI 301-89 - Specifications for Structural Concrete for Buildings.

B. (INDUSTRY STANDARD # AND SUBJECT TITLE).

C. ( ).

1.11 DEFINITIONS

A. Company Field Advisor: An employee of the company which markets the primary components of the system under their name who is certified in writing by the Company to be technically qualified in the design, installation and servicing of the required products or an employee of an organization certified by the foregoing Company to be technically qualified in design, installation and servicing of the required products.

B. ( ): ( ).

1.12 SYSTEM DESCRIPTION

A. ( ).

1.13 DESIGN REQUIREMENTS

A. Safety Factor: 4.

B. Maximum Deflection: 1/240 of span.

C. ( ).

D. ( ).

1.14 PERFORMANCE REQUIREMENTS

A. Wind Load Resistance: Maximum deflection of 1/120 of the opening width at a sustained pressure of 20 psf.

B. ( ).

1.15 SUBMITTALS

A. Waiver of Submittals: The “Waiver of Certain Submittal Requirements” in Section 013000 does not apply to this Section.

B. Waiver of Submittals: The “Waiver of Certain Submittal Requirements” in Section 013000 does not apply to the following products specified in this Section:
1. (ITEM/SYSTEM).
2. ( ).

C. Submittals Package: Submit the Shop Drawings, Product Data, Samples and Quality Control Submittals specified below at the same time as a package.

D. Shop Drawings: Show fabrication details and connection to adjacent Work.

E. Shop Drawings: Show fabrication details, location, size and spacing of beams. Also show details for installation of bridging, anchors, and connections required for the support of other Work.

F. Shop Drawings:
1. System architecture showing all digital devices.
2. Sketches of all graphics.
3. Graphic penetration tree showing all graphics and all points.
4. Flow diagram of pneumatic portion of the system as proposed to be installed (standard diagrams will not be acceptable).
5. Composite wiring and/or schematic diagrams of the complete system as proposed to be installed (standard diagrams will not be acceptable).
6. Scaled floor plan and elevation drawings showing location of all major components associated with the system.
7. Scaled drawings of the primary operators station (POS) showing layout of, and indicating the function of each switch, button, lamp and accessory.
    a. Show front view and plan view of primary operators station console, including overall dimensions, and detail of each console section.
    b. Show scale drawing (plan view and elevation) of primary operators station console layout in its site location.
8. Interconnection details between new system and existing system.

G. Product Data: Catalog sheets, specifications and installation instructions for each type of fixture specified.

H. Product Data: Catalog sheets, specifications and installation instructions for each item specified.

I. Product Data:
1. Catalog sheets, specifications and installation instructions for each item specified.
2. Bill of materials.
3. Detailed description of system operation. Format similar to SYSTEM DESCRIPTION.
4. Name, address and telephone number of the nearest fully equipped service organization.

J. Product Data: Catalog sheets, specifications and installation instructions for the following item(s):
1. ( ).
2. ( ).

K. Samples:

1. One of each product if different from Company/Manufacturer or catalog number specified. Samples will be returned and, if approved, may be used in the work.

L. Samples:
1. Expansion joint filler: 6 inches long, full section.
2. Waterstop: 12 inches long, full section with bonded joint.
3. Emery Aggregate: 1 pint.

M. Samples:
1. (ITEM/SYSTEM).
2. ( ).

N. Quality Control Submittals:
1. Design Data: ( ).
2. Test Report: Existing (NAME OF SYSTEM TEST).
3. Certificates: Affidavit required under QUALITY ASSURANCE Article.
4. Manufacturer's Field Reports: Verification of existing conditions.
5. Installer's Qualifications Data:
   a. Name of each person who will be performing the Work and their employer's name, business address and telephone number.
   b. Names and addresses of 3 similar projects that each person has worked on during the past 5 years.
6. Company Field Advisor Data:
   a. Name, business address and telephone number of Company Field Advisor secured for the required services.
   b. Certified statement from the Company listing the qualifications of the Company Field Advisor.
   c. Services and each product for which authorization is given by the Company, listed specifically for this project.
   d. Copy of NICET Letter of Approval indicating Level III or higher Fire Alarm Systems certification.

O. Contract Closeout Submittals:
1. Project Record Documents: Maintain, at the job site, 2 sets of the Contract drawings for recording as-built conditions. Mark (in red) locations of grout holes, depth of holes, amount of grout, composition of grout, pressures used, flow rate of grout, and strength of grout. Upon completion of the Work, turn over the 2 marked up sets of prints to the Director's Representative along with invoices of all material used.
2. Operation and Maintenance Data: Deliver 2 copies, covering the installed products, to the Director's Representative.
3. Warranty: Copy of specified Warranty.
4. Test Reports:
   a. (ITEM/SYSTEM) Acceptance Test Report.
   b. ( ) Performance Test Report.
5. Photographs:
   a. Employ a professional photographer to take color photographs of the completed Work of this Section, as follows:
      1) 3 of (ITEM/SYSTEM) from different positions.
      2) 1 overall view of (ITEM/SYSTEM/LOCATION).

3) 2 of (ITEM/SYSTEM/SUB-SYSTEM/COMPONENT) (one from each side).

b. Use a medium format camera (2-1/4 x 3-1/4 inches negative size or larger). Use wide angle lens for overall view. Use electronic flash capable of supplying sufficient light to evenly illuminate the overall subject.

c. Make photographs 7-1/2 x 9-1/2 inches. Mount photographs on linen with 1-1/2 inch wide margin on the left side for binding (11 inches long overall).

d. Deliver photographs flat, not rolled. Include date pictures were taken, name of Contractor, project number and title.

6. Department of Labor Certification of Inspection:

a. Deliver to the Director's Representative 2 copies of the NYS Department of Labor certificate of inspection.

1.16 QUALITY ASSURANCE

A. Equipment Qualifications For Products Other Than Those Specified:

1. At the time of submission provide written notice to the Director of the intent to propose an "or equal" for products other than those specified. Make the "or equal" submission in a timely manner to allow the Director sufficient time to review the proposed product, perform inspections and witness test demonstrations.

2. If products other than those specified are proposed for use furnish the name, address, and telephone numbers of at least 5 comparable installations that can prove the proposed products have performed satisfactorily for 3 years. Certify in writing that the owners of the 5 comparable installations will allow inspection of their installation by the Director's Representative and the Company Field Advisor.

a. Make arrangements with the owners of 2 installations (selected by the Director) for inspection of the installations by the Director's Representative. Also obtain the services of the Company Field Advisor for the proposed products to be present. Notify the Director a minimum of 3 weeks prior to the availability of the installations for the inspection, and provide at least one alternative date for each inspection.

b. Only references from the actual owner or owner's representative (Security Supervisor, Maintenance Supervisor, etc.) will be accepted. References from dealers, system installers or others, who are not the actual owners of the proposed products, are not acceptable.

1) Verify the accuracy of all references submitted prior to submission and certify in writing that the accuracy of the information has been confirmed.

3. The product manufacturer shall have test facilities available that can demonstrate that the proposed products meet the contract requirements.

a. Make arrangements with the test facility for the Director's Representative to witness test demonstrations. Also obtain the services of the Company Field Advisor for the proposed product to be present at the test facility. Notify the Director a minimum of

3 weeks prior to the availability of the test facility, and provide at least one alternative date for the testing.

4. Provide written certification from the manufacturer that the proposed products are compatible for use with all other equipment proposed for use for this system and meet all contract requirements.

B. UL Listing: The system shall be listed in the UL Fire Protection Equipment Directory under product category "Control Units System (UOJZ)".

C. Tests, Inspections: The Company Producing the system shall have test facilities which can demonstrate that the proposed system meets Contract Requirements.

D. Verification of Performance: For products other than those specifically named in the specifications, employ the service of an independent testing laboratory to certify that the (ITEM/SYSTEM) meets or exceeds the physical properties specified.

E. Qualifications: The person(s) installing the sprinkler system and their Supervisor shall be personally experienced in sprinkler work and shall have been regularly employed by a Company installing sprinkler systems for a minimum of 5 years.

F. Qualifications: The person(s) installing the (ITEM/SYSTEM) and their Supervisor shall be personally experienced in (RELATED TRADE) and shall have been regularly employed by a Company installing (ITEM/SYSTEM) for a minimum of 5 years.

G. Regulatory Requirements: Unless otherwise specified, comply with OSHA and EPA requirements pertaining to asbestos removal and disposal and for air monitoring during performance of the work.

H. Regulatory Requirements:
1. Boiler shall be designed, constructed and tested in accordance with the ASME Boiler Code, Section IV, Heating Boilers.
2. Installation of boilers shall comply with the requirements of Part 4 of Title 12, Rules and Regulations of the State of New York Industrial Code Rule No. 4 (12NYCRR4).

I. Regulatory Requirements: Unless otherwise specified, comply with OSHA and EPA requirements pertaining to (RELATED ENVIRONMENTAL/SAFETY HAZARDS).

J. Certification: Affidavit by the Company Field Advisor, certifying that the (ITEM/SYSTEM) meets the contract requirements and is operating properly.

K. Field Examples: Prior to installation of brick masonry, construct a wall panel at the site. When approved, the panel will be the standard of workmanship required for all masonry built of the same materials.
1. Make panel 4 feet long by 3 feet high by full wall thickness, showing the specific color range, texture, bond, mortar joints, reinforcement, back-up masonry and workmanship.
2. Construct a separate example for each type of brick and mortar joint.

3. Do not start brick masonry until the Director's Representative has approved the sample panel.
4. Maintain approved example panel intact until all brick masonry has been installed and approved; then remove panel from site.

L. Field Examples: Prior to installation of (ITEM/SYSTEM), construct an example at the site. When approved, the example will be the standard of workmanship required for all (ITEM/SYSTEM) built of the same (MATERIAL/ COMPONENTS).
1. Construct an example showing the specified requirements.
2. Construct a separate example for each type of materials used.
3. Do not start Work until the Director's Representative has approved the example.
4. Maintain approved example intact until all related Site Work has been inspected and approved; then remove example from site.

M. Mock-up: Erect a full size assembly of the Work of this Section. Upon completion and approval, the mock-up will be used to establish the standard of quality and performance by which the work will be judged.

N. Pre-installation Conference: Before the (ITEM/SYSTEM) Work is scheduled to commence, a conference will be held by the Director's Representative at the Site for the purpose of reviewing the Contract Documents and discussing requirements for the Work. The conference shall be attended by the Contractor, the authorized (ITEM/SYSTEM)(INSTALLERS/APPLICATORS), and the Company Field Advisor.

O. Company Field Advisor: Secure the services of a Company Field Advisor for a minimum of 60 working hours for the following:
1. Render advice regarding installation and final adjustment of the system.
2. Assist in initial programming of the system.
3. Render advice on the suitability of each monitor and control device for its particular application.
4. Witness final system test, then certify with an affidavit that the system is installed in accordance with the Contract Documents and is operating properly.
5. Train facility maintenance personnel on the operation, programming and routine maintenance of the system.
    a. Provide the services of competent instructors to instruct designated personnel in the adjustment, operation and maintenance, including pertinent safety requirements, of the equipment and system specified. The training shall be oriented toward the installed system rather than being a general (canned) training course. Each instructor shall be thoroughly familiar with all aspects of the subject matter they are to teach. The number of man days of instruction furnished shall be as specified below. All equipment and material required for classroom training shall be provided.
    b. Training Program: A training day is defined as 8 hours of instruction including two 15 minute breaks and excluding lunch time.

1) For a period of three 3 days prior to the acceptance test period at a time mutually agreeable between the Contractor and the State. Operating personnel will be trained in the functional operations of the installed system, the procedures employed for system operation and the maintenance of DDC equipment. The first two 2 days of training shall include:
   a) General System Architecture.
   b) Operation of Computer and Peripherals.
   c) Command Line Mnemonics.
   d) Report Generation.
   e) Operation Control Functions.
   f) Graphics Generation.
2) The third day of training shall include:
   a) General Equipment Layout.
   b) Troubleshooting of DDC Components.
   c) Preventive Maintenance of DDC Components.
   d) Sensor Maintenance and Calibration.
3) Three neatly bound vinyl notebooks shall be provided containing a summary of each topic discussed during the 3 phases of training.

6. Explain available service programs to facility supervisory personnel for their consideration.

P. Company Field Advisor (Existing Campus System): Secure the services of a Company Field Advisor from the Company of the existing State Office Building Campus system for a minimum of 16 working hours for the following:
1. Render advice and witness test of existing Campus system.
2. Render advice on the interconnection of the existing Campus system with the new system.
3. Witness the final test of the combined new system and existing Campus system.

Q. Company Field Advisor: Secure the services of a Company Field Advisor for a minimum of ( ) working hours for the following:
1. Render advice regarding installation and final (ADJUSTMENT/ALIGNMENT) of the (ITEM/SYSTEM).
2. Render advice on the suitability of each (ITEM/SYSTEM) for this particular application.
3. Witness final (SYSTEM/ACCEPTANCE) test, then certify with an affidavit that the (ITEM/SYSTEM) is installed in accordance with the Contract Documents and is (OPERATING/CONSTRUCTED) properly.
4. Train facility personnel on the operation and or maintenance of the (ITEM/SYSTEM) (Minimum of two ( ) hour sessions).
5. Explain available service programs to facility supervisory personnel for their consideration.

1.17 DELIVERY, STORAGE AND HANDLING

A. Packing and Shipping: Deliver factory finished doors in factory applied heavy paper protective cartons marked with sufficient identification for proper door location.

B. Acceptance at Site: No insulated conductor more than one year old when delivered to the site will be accepted.

C. Storage and Protection: Provide supplemental heating devices such as incandescent lamps or low wattage heaters within the enclosure or under a protective cover to control dampness. Maintain this protection from the time the equipment is manufactured until it is energized at the Site.

1.18 PROJECT CONDITIONS

A. Environmental Requirements:
1. Comply with manufacturer's printed recommendations regarding environmental conditions under which coatings and coating systems can be applied.
2. Do not apply finishes in areas where dust may be generated while the finish is drying.

B. Environmental Requirements:
1. Comply with manufacturer's printed recommendations regarding environmental conditions under which (ITEM/SYSTEM) can be (APPLIED/ CONSTRUCTED/OPERATED).
2. Do not apply (ITEM) in areas where (DUST/DIRT/WATER/OTHER CONTAMINANTS) may be generated while (ITEM) is (DRYING/CURING/ SETTING).

C. Environmental Requirements - Safety Precautions:
1. In locations where flammable vapors may be present, take positive action to prevent fire by eliminating or controlling sources of ignition. Sources of ignition may include open flames, lightning, smoking, cutting and welding, hot surfaces, friction heat, sparks (static, electrical and mechanical), spontaneous ignition, chemical and physical chemical reactions, and radiant heat.

D. Environmental Requirements - Safety Precautions:
1. In locations where hazardous conditions exist or may occur, provide (POSITIVE VENTILATION/DEWATERING/OIL OR CHEMICAL SPILL CONTAINMENT) equipment capable of controlling or eliminating sources of (FLAMMABLE OR TOXIC VAPORS AND GASES/FLOODING/OIL OR CHEMICAL SPILLS) and eliminate any contributory conditions such as (OPEN FLAMES/SMOKING/ RADIANT HEAT/ELECTRICAL POWER/FAULTY OR INOPERABLE VALVES AND CONTROLS).

E. Existing Conditions: The existing (VENTILATION/DEWATERING/CONTAINMENT) equipment must remain in operation during performance of the Work. Maintain access to the equipment for maintenance by Facility personnel.

1.19 SEQUENCING AND SCHEDULING

A. Scheduling: Do not perform the Work of this Section until all removals, cutting and patching is completed.

B. Planting Season:
   1. Plant deciduous, woody plants between October 1 and May 15 whenever temperature is above 32 degrees F. and soil is in workable condition.
   2. Plant evergreens between August 15 and September 15 or during April or May before start of new growth.

C. Scheduling: Do not perform the Work of this Section until (REQUIRED PREPARATION) is completed.

1.20 WARRANTY

A. Special Warranty: The one year period required by paragraph 9.8 of the General Conditions is extended to ( ) years for the Work of this Section. Refer to Supplementary Conditions.

B. Manufacturer's Warranty: Twenty year warranty for the fuel storage tank.

C. Manufacturer's Warranty: (TIME FRAME) warranty for the (ITEM/SYSTEM).

1.21 MAINTENANCE

A. Service Availability: A fully equipped authorized service organization capable of guaranteeing response within 8 hours to service calls shall be available 24 hours a day, 7 days a week to service the completed Work.
   1. Service organization personnel shall include service technicians who are National Institute for Certification in Engineering Technologies (NICET) certified as Level II or higher Fire Alarm Protection/Fire Alarm System Engineering Technician.

B. Extra Materials: Furnish 2 extra boxes of tile for each 3000 square feet (or fraction there of) of each type of tile installed. Furnish extra tile from the same run and lot number as the installed tile.

C. Extra Materials: Furnish ( ) extra (UNITS OF ITEM) for each (MEASURED AMOUNT OF WORK) (or fraction there of) of each type of (ITEM) installed. Furnish extra (ITEM) from the same run and lot number as the installed (ITEM).

D. Spare Parts:
   1. Two sets of gaskets for routine engine maintenance.
   2. Two spare heating elements for water jacket heater.
   3. Set of fan belts.
   4. Set of oil filter elements.
   5. Set of fuel filter elements.
   6. Set of air cleaner elements.
   7. Hydrometer for testing anti-freeze solution.

8. Test kit for checking chemical condition of coolant.
9. One year supply of coolant conditioner.

E. Spare Parts:
1. ( )
2. ( )

F. Special Tools:
1. One extractor wrench for each type check valve or extractable fitting.
2. One stick gage for each fuel tank.

G. Special Tools:
1. ( ) for each type (ITEM/APPLICATION).
2. ( ) for each ( ).

PART 2 PRODUCTS

2.01 MANUFACTURERS/COMPANIES

A. Bigelow Carpet, Kennesaw, GA 30144, (800) 554-6637, www.bigelowcommercial.com

B. ( ).

2.02 MATERIALS

A. Subbase or Fill: Sound, durable, sand, gravel, stone or blends of these materials, free from organic or other deleterious materials.

B. Cement: ASTM C 150, Type II.

C. Compressive Strength: 3000 psi at the end of 28 days.

D. (ITEM): (TYPE/REQUIREMENTS).

E. ( ): ( ).

2.03 MANUFACTURED UNITS/ITEMS

A. Arc Proofing Tape: 3M's Scotch 7700, Plymouth Rubber Co.'s Plyarc, or Quelcor Inc.'s Quelpyre.

B. Smoke Detector, Photoelectric Type: Gamewell's 40600/67395 or 4161/67940, Pyrotronics' DS-2, or Simplex's 4259-15 or 4259-35.

C. Half Dome Mirrors: Model HDO-18 by Campus Crafts, Inc., Rochester, NY 14606, (800) 733-6780, www.campuscrafts.com, or Model 18-BDH by Bell Glass and Mirror Co., Brooklyn, NY 11218, (718) 633-4000.

D. (ITEM): (TYPE AND/OR BRAND X).

E. ( ): ( ).

2.04 WATER CLOSET AND FITTINGS

A. Fixture: Water-saving vitreous china elongated siphon jet closet; Kohler Co.'s Wellworth Water-guard K-3500-EB.

B. Seat: Solid plastic open front seat with cover; Kohler Co.'s Lustra K-4652.

C. Supply: 3/8 inch angle supply with stop and annealed vertical tube; Kohler Co.'s K-7638.

D. Fixture: Kohler Co.'s Wellworth Water-guard K-3500-BB.

E. Seat: Kohler Co.'s Lustran K-4652.

F. Supply: Kohler Co.'s K-7638.

2.05 EQUIPMENT

A. ( ).

B. ( ).

2.06 COMPONENTS

A. ( ).

B. ( ).

2.07 ACCESSORIES

A. ( ).

B. ( ).

2.08 MIXES

A. Batch concrete at the plant and transport it to the site in a truck mixer.

B. Add water and mix the concrete completely at the site.

2.09 FABRICATION

A. Shop Assembly:
   1. Perform shop fabrication from "Approved" or "Approved as Noted" detailed drawings only.
   2. Mill column ends at base plates and splices to a common plane by use of a milling machine.

3. Make adequate provision in the fabrication of structural members to compensate for loss of camber due to welding of shear connectors.
4. Remove existing bars or run-off plates upon the completion and cooling of groove welds. Grind the tops of the welds smooth and flush with the edges of the abutting parts.
5. Remove tack welds and temporary welds not incorporated into the final weld. Grind affected surfaces smooth and flush.

B. Shop/Factory Finish: After fabrication, give items specified in this Section a minimum of 2.0 mil thick coat of paint applied in accordance with the paint manufacturer's printed instructions. Apply an additional coat to surfaces which are inaccessible after assembly or erection.

C. Tolerances: Plus or minus 1/16 inch overall.

2.10 SOURCE QUALITY CONTROL

A. Tests, Inspection: The Company producing the system shall have test facilities available which can demonstrate that the proposed system meets contract requirements.

B. Verification of Performance: For products other than those specifically named in the specifications, employ the services of an independent testing laboratory to certify that the sealer meets or exceeds the physical properties specified.

PART 3 EXECUTION

3.01 EXAMINATION

A. Examine area scheduled to be reconditioned for defects that will adversely affect the execution and quality of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.02 VERIFICATIONS OF CONDITIONS

A. Testing Existing System:
1. Prior to installing new system, make the following tests to ascertain the operating condition of the existing system:
    a. Individually test signal initiating devices (except non-restorable types).
    b. Test each signal initiating circuit.
    c. Test alarm indicating appliances functions.
    d. Test each alarm indicating circuit.
    e. Test alarm transmissions to remote station.
    f. Test all control panel functions.
2. Test shall be witnessed by the Company Field Advisor and the Director's Representative.
3. Conduct test that are disruptive to facility personnel before or after normal working hours as directed.

4. Prepare a typewritten report for the Director's Representative indicating any repairs required to make the existing system function properly.
5. Repairs to the existing system are not included in the Work unless specified by Order on Contract.

B. Testing Existing System:
1. Prior to installing the new system, make the following tests to ascertain the operating condition of the existing system:
   a. Spare zones that will be utilized for the Work.
   b. Test active zones that will be modified.
   c. Test control panel functions associated with the Work.
2. Test shall be witnessed by the Company Field Advisor and the Director's Representative.
3. Conduct tests that are disruptive to facility personnel before or after normal working hours as directed.
4. Prepare a typewritten report for the Director's Representative indicating any repairs required to make the existing system function properly.
5. Repairs to the existing system are not included in the Work unless specified by Order of Contract.

3.03 PREPARATION

A. Protection:
1. Cover or otherwise protect finished work of other trades and surfaces not being painted or not to be painted.
2. Provide "Wet Paint" signs as required to protect newly coated surfaces.

B. Moisture Protection:
1. Cover, seal and otherwise protect the roof and all flashings so that water cannot accumulate on or flow under the covered portions.
2. Provide temporary water cut-offs in accordance with the roofing manufacturer's printed instructions.

C. Surface Preparation:
1. Perform preparation and cleaning procedures in accordance with the paint manufacturer's instructions and as specified for the particular substrate conditions.
2. Prior to surface preparations and painting, apply masking tape or other approved surface protection on all in-place hardware, accessories, plates, lighting fixtures and similar items which are not to be painted, or else remove such items where required to properly complete the painting of the adjacent surfaces.

3.04 ERECTION/INSTALLATION/APPLICATION

A. Special Techniques:
1. ( ).

B. Interface With Other Products:
1. ( ).

C. Tolerances: Maximum variations from plumb in the lines and surfaces of columns and walls shall be 1/4 inch in any 10 feet of length and 1 inch for the entire length

D. Tolerances:
1. ( ).

3.05 INSTALLATION

A. Install the Work of this Section in accordance with the manufacturer's printed instructions.

B. Install the Work of this Section in accordance with the manufacturer's printed instructions, except as follows:
1. Fasten master frames with one No. 8 round head, slotted aluminum screw at each corner.
2. Apply continuous bead of Type 1 Sealant around entire perimeter of master frame. Keep drainage holes free of sealant.

3.06 GYPSUM BOARD INSTALLATION

A. Install gypsum board of maximum lengths to minimize end butt joints. Where end butt joints are unavoidable, locate them as far from center of walls and ceilings as practicable. Stagger butt joints not less than 1' - 0" in alternative gypsum board courses.

B. Extend gypsum board construction to top of partition/wall framing unless otherwise indicated. Stagger vertical joints.

C. Install gypsum board with face side out. Butt boards at edges and ends with not more than 1/16 inch space between boards.
1. Install foil-faced gypsum board with foil face toward supports.

3.07 COMPACTION

A. Compact each layer of fill and backfill to the percentage of maximum density specified below. Compact bearing surface material at a moisture content suitable to obtain the required densities, but at not less than 3 percent drier than the optimum content as determined by ASTM D 1557.
1. Structures: 95 percent.
2. Lawn or Unpaved Areas: 90 percent.
3. Pavement and Walkways: 95 percent.

3.08 APPLICATION

A. Interior and Exterior Painting Systems:
1. Shop Primed and Existing Painted Surfaces: Apply either one coat of primer and one finish coat or two finish coats, whichever is recommended by the manufacturer of the finish coat.
2. Unpainted Surfaces: Apply one coat of primer and two finish coats. On concrete masonry units, apply an additional coat of primer (masonry

block filler) if necessary to match the approved samples and provide a finished paint system free of pinholes.

3. Type I-5 System: Apply additional coats as required to meet specified fire ratings.

3.09 FIELD QUALITY CONTROL

A. Soil Compaction Tests: ASTM D 1557, for Moisture-Density Relations of Soils, Using 10 lb. (4.5 kg) Rammer and 18 inch (457 mm) Drop. (Also known as the AASHO No. T180 or Modified Proctor Test).

B. Concrete Compressive Strength Tests: ASTM C 31 Making and Curing Concrete Test Specimens in the Field.

C. Concrete Slump Tests: ASTM C 143, Test for Slump of Portland Cement Concrete.

D. Piping System Leak Test:
1. Test Drainage lines with water at a pressure of not less than 40 psi measured at Basement floor elevation.
2. Duration of Test: 24 hours minimum.
3. Test to be observed by Director's Representative.
4. Repair leaks and repeat test until leakage does not exceed 1 gal/hr.

E. Preliminary System Tests:
1. Preparation: Have the Company Field Advisor adjust the completed system and then operate it long enough to assure that it is performing properly.
2. Run a preliminary test for the purpose of:
   a. Determining whether the system is in a suitable condition to conduct the acceptance test.
   b. Checking the adjusting equipment.
   c. Training Facility personnel.

F. System Acceptance Test:
1. Preparation: Notify the Director's Representative at least 3 working days prior to the test so arrangements can be made to have a Facility Representative witness the test.
2. Make the following tests:
   a. Individually test signal initiating devices (except non restorable types).
   b. Test alarm-indicating appliances.
   c. Test each system function step by step as summarized under SYSTEM DESCRIPTION.
3. Supply equipment necessary for system adjustment and testing.
4. Submit a typewritten report of the test results, signed by the Company Field Advisor and the Director's Representative. Enclose a copy of the report in a metal frame covered with plastic sheet glazing and mount it adjacent to the control panel.

G. Conduct tests that are disruptive to facility personnel after normal working hours as directed.

H. Post Installation Inspection: After the hardware is adjusted for smooth operation a post installation inspection meeting will be held to assure that the hardware is installed and operating properly and to familiarize the Facility Representative with the hardware operation and maintenance. The Contractor, hardware installer, and Company Field Advisor shall attend the meeting. The Director's Representative and a Facility Representative will also attend the meeting.
   1. Notify the Director's Representative at least 3 working days prior to the inspection so arrangements can be made to have a Facility Representative participate in the inspection.
   2. Have Company Field Advisor(s) for door closers, mortise locks and latches, cylinder and bit key deadlocks, electric strikes, magnetic switches, magnetic locks, exit devices, overhead stops and holders, flush bolts, coordinators inspect and certify in writing, that their products are installed and operating properly and that the manufacturer's warranty will be in effect upon physical completion of the Work.

I. (MANUFACTURER'S/COMPANY) Field Service: Have the Company Field Advisor adjust the completed system and operate it long enough to assure that it is working properly.

3.10 ADJUSTING

A. ( ).

3.11 CLEANING

A. After completion of the masonry restoration Work, clean exposed area with cleaning solution:
   1. Protect adjacent surfaces liable to be damaged by the cleaning solution.
   2. Mix and apply cleaning solution in accordance with the manufacturer's printed instructions.

3.12 DEMONSTRATION

A. ( ).

3.13 PROTECTION

A. Apply heavy kraft paper or other heavy protective coating approved by the Director's Representative, masked in place to prevent surface damage.

B. Prohibit traffic on newly tiled areas for 7 days after completion of installation unless otherwise approved by the Director's Representative.

3.14 SCHEDULES

END OF SECTION