

## **MASTERSPEC® TABLE OF CONTENTS**

The following listed documents comprise the Project Manual for the project listed above. Where numerical sequence of Sections is interrupted, such interruptions are intentional. The complete Project Manual for this project consists of this entire volume, which must not be separated for any reason. The Architect, Consultants, and Owner disclaim any responsibility for any assumptions made by a Bidder who does not receive a complete Project Manual, including all Sections listed in the Table of Contents.

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BID OFFER FORM

RPS Project No 2210  
IFB # 22-46 Electronic Messaging Ground Signs Project at Seven School Site locations

BID SUBMITTED BY: \_\_\_\_\_  
Date: \_\_\_\_\_

The undersigned, having become familiar with the local conditions affecting cost of work and with the Bidding Documents, including the advertisement of the Invitation for Bid, the Instructions and Supplementary Instructions to Bidders, this Bid Offer Form, the General and Supplementary Conditions, the Drawings and Specifications, and Addenda issued thereto, as prepared and issued by the Board of Education of Rockford School District No. 205, Winnebago and Boone Counties, Illinois hereby agrees to furnish all labor, material and equipment necessary to do the Work required for the project and IFB identified above, for the amount shown below:

**Note:** Contractor to write "No Bid" in the dollar amount section for any line items not bid.

BASE BID:

TOTAL: \_\_\_\_\_ DOLLARS (\$\_\_\_\_\_)

**NOTE:** *The Following School Site breakdown must be listed, or bid will be disqualified.*

- Fairview Early Childhood Center:**  
Amount included in Base Bid: \$ \_\_\_\_\_
- Froberg Elementary School:**  
Amount included in Base Bid: \$ \_\_\_\_\_
- Haskell STEAM Academy:**  
Amount included in Base Bid: \$ \_\_\_\_\_
- Hillman Elementary:**  
Amount included in Base Bid: \$ \_\_\_\_\_
- Marshall Campus:**  
Amount included in Base Bid: \$ \_\_\_\_\_
- Marsh Montessori:**  
Amount included in Base Bid: \$ \_\_\_\_\_
- Nashold Early Childhood Center:**  
Amount included in Base Bid: \$ \_\_\_\_\_

ADDENDA RECEIVED

The undersigned acknowledges receipt of Addenda \_\_\_\_ to \_\_\_\_ inclusive.

**PRE-BID MEETING ATTENDANCE**

A Bidder representative attended the Pre-Bid Meeting? YES\_\_\_\_OR No\_\_\_\_

**SITE VISIT**

Existing premises and conditions were checked by an on-site inspection on (date) \_\_\_\_\_

**CONTRACTOR'S QUALIFICATION STATEMENT**

A fully completed AIA Document A305-1986 Contractor's Qualification Statement is **required** AND MUST BE SUBMITTED WITH THE BID. Include at least three references from projects completed in the past five (5) years with phone number, date of completion, description of work, and project architect (or engineer) contact name with phone number. Projects must be similar to the scope of this bid, and the bidder must have acted in the capacity of prime or general contractor.

Contractor has adequate equipment to perform the work properly and expeditiously: YES\_\_\_\_OR No\_\_\_\_

**COMMENCEMENT AND COMPLETION OF CONTRACT**

The undersigned agrees, if awarded the Contract, to commence the contract work within five (5) days of receipt of Order to Proceed or if required, upon execution of a formal written contract and to complete said Work within the specified completion time. The undersigned further agrees to execute the Contract, furnish satisfactory performance and payment bond as well as insurance coverage, as specified in strict accordance with the Contract Documents.

Date of Commencement of Construction: \_\_\_\_\_

Date of Substantial Completion: \_\_\_\_\_

Date of Final Completion: \_\_\_\_\_

BIDDER: \_\_\_\_\_

(Corporation) (Partnership) (Individual) Circle One

Address \_\_\_\_\_

Street

City

State

Zip Code

Phone No. \_\_\_\_\_

Email address \_\_\_\_\_

BIDDER FEIN/SSN NO. \_\_\_\_\_

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

Bidder or Authorized Agent Signature

Print name

Title: \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

Notary Public

My commission expires: \_\_\_\_\_

## **BID DEPOSIT CERTIFICATION**

A Bid Deposit is required in the amount of 5% of the total Bid including Alternate Bids. This Bid Deposit is to be a Bid Bond, Bank Draft or Certified Check made payable to the "Rockford School District No. 205", as a guarantee that if awarded all or part of the Bid, the firm will enter into a contract to perform with the Board of Education.

Amount of Total Bid \$\_\_\_\_\_

Amount of Bank draft or Certified Check \$ \_\_\_\_\_

BIDDER: \_\_\_\_\_

Signature of Bidder or Authorized Agent

SUBCONTRACTOR LISTING

Pursuant to bidding requirements for the Work:

The Bidder, for portions of the Work equaling or exceeding ½ of 1% of the total Contract Sum, proposes to use the following Subcontractors. The Bidder proposes to perform all other portions of the Work with its own forces. The District reserves the right to qualify all Subcontractors. COPY AND ATTACH ADDITIONAL SHEETS AS NECESSARY.

<u>Portion of the Work</u>	<u>Subcontractor Name and Address</u>
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Bidder:

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By: 

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Bidder or Authorized Agent Signature

END OF BID OFFER FORM

SECTION 011000 - SUMMARY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Project information.
2. Work covered by Contract Documents.
3. Contractor's use of site and premises.
4. Work restrictions.
5. Specification and Drawing conventions.

B. Related Requirements:

1. See also Owners Information for limitations and procedures governing temporary use of Owner's facilities, working hours and any site restrictions.

1.2 PROJECT INFORMATION- see also "Section 01 1001 Project Description"

A. Project Identification: REPLACEMENT OF EXISTING SIGNS / INSTALLATION OF NEW ELECTRONIC MESSAGE BOARDS

Locations of Work

1. Fairview Early Childhood Center - 512 Fairview Avenue
2. Froberg Elementary School - 4555 20<sup>th</sup> Street
3. Haskell - STEAM Academy - 515 Maple Street
4. Hillman Elementary School - 3701 Greendale Drive
5. Marshall Campus for Elementary and Middle Schools - 4664 N. Rockton Avenue
6. Marsh - Montessori Program - 2021 Hawthorne Drive
7. Nashold Early Childhood Center - 3303 20<sup>th</sup> Street

B. Owner: Rockford Public School District 205

C. Architect: Hagney Architects, LLC; 4615 E. State St., Suite 206, Rockford, IL 61108.

1. Architect's Representative: Frank St. Angel
2. Tel. 815-397-3330
3. E-mail: FrankS@HagneyArchitects.com

D. Architect's Consultants: Architect has retained the following design professionals, who have prepared designated portions of the Contract Documents:

1. Electrical Engineering: Legacy Designs, Inc.

1.3 WORK COVERED BY CONTRACT DOCUMENTS

A. The Work of Project is defined by the Contract Documents and consists of the following:

1. Removal of existing ground signage and installation of new electronic message board/ground signs at (7) seven school locations.
2. Installation of new site “wayfinding” signage at one school location (Marshall Campus)

B. Type of Contract:

1. Project will be constructed under a single prime contract.

1.4 PERMITS

- A. General Building Permit will be obtained from by the Owner.

1.5 TESTING

- A. Special Inspections required by Authority Having Jurisdiction will be provided and paid for by General Contractor.
- B. Additional ancillary testing shall be provided and paid for by the contractor as indicated in specification.

1.6 CONTRACTOR'S USE OF SITE AND PREMISES

- A. Use of Site: See Owners Information
- B. Condition of Existing Grounds: Maintain portions of existing grounds, landscaping, and hardscaping affected by construction operations throughout construction period. Repair damage caused by construction operations.

1.7 WORK RESTRICTIONS

- A. Comply with restrictions on construction operations.
1. Comply with limitations on use of public streets, work on public streets, rights of way, and other requirements of authorities having jurisdiction.
- B. Smoking and Controlled Substance Restrictions: Use of tobacco products, alcoholic beverages, and other controlled substances on Project site is not permitted.
- C. Employee Screening: Comply with Owner's requirements for drug and background screening of Contractor personnel working on Project site.
1. See Owners Information and requirements
  2. Maintain list of approved screened personnel with Owner's representative.

1.8 SPECIFICATION AND DRAWING CONVENTIONS

- A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
  - 1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
  - 2. Text Color: Text used in the Specifications, including units of measure, manufacturer and product names, and other text may appear in multiple colors or underlined as part of a hyperlink; no emphasis is implied by text with these characteristics.
  - 3. Hypertext: Text used in the Specifications may contain hyperlinks. Hyperlinks may allow for access to linked information that is not residing in the Specifications. Unless otherwise indicated, linked information is not part of the Contract Documents.
  - 4. Specification requirements are to be performed by Contractor unless specifically stated otherwise.
- B. Division 00 Contracting Requirements: General provisions of the Contract, including General and Supplementary Conditions, apply to all Sections of the Specifications.
- C. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 011000



Section 01 1001 Project Description

**A. INSTALLATION OF SITE “WAYFINDING” SIGNAGE AT (1) SCHOOL CAMPUS**

**1. SCOPE OF WORK**

These detailed Specifications are for the installation of new site “wayfinding”/directional signage at the Marshall site campus. Site of Marshall Elementary and Marshall Middle.

The bid shall include all labor, supervision, supplies, tools, equipment and other means necessary or proper for performing and completing the work. The bid shall include cleaning up of the job site, repair or restore all property that may be damaged or disturbed during performance of the work to the satisfaction of the District.

**2. LOCATION OF WORK**

- 1) Marshall Campus for Elementary and Middle Schools - 4664 N. Rockton Avenue

**3. COMMENCEMENT OF WORK**

See Owners Information

**4. NOTIFICATION FOR UTILITY LOCATION SERVICES (PUBLIC AND PRIVATE)**

The Sign Contractor will submit areas to J.U.L.I.E. and to GPRS to be located prior to sign removal and placement of new. The Sign Contractor must otherwise comply with all J.U.L.I.E. and GPRS requirements. Notify the RPS PM and Architect after the underground route has been marked at least three (3) working days prior to the commencement of work to be performed. (JULIE call 811 or 800-892-0123; GPRS call 815-218-1122 or [midwestinfor@gprsinc.com](mailto:midwestinfor@gprsinc.com))

**5. NOTIFICATION BY CONTRACTOR**

The Sign Contractor shall notify the District or representative when all locations have cleared J.U.L.I.E. / GPRS and prior to beginning work each day on this contract. The District Project Manager must be provided with a list of work to ensure any private lines, not located by J.U.L.I.E. / GPRS can be marked by the maintenance department. All utilities must be located in the field prior to work. The District bears no responsibility for damage done to existing utilities during the process. The District Project Manager shall be notified immediately if any underground utility damage occurs. Any damage to underground utilities of any kind shall be immediately repaired at the contractor's expense.

**6. LAWN RESTORATION**

All adjacent disturbed areas and areas where backfill material was installed shall be seeded. Seed shall be used that matches existing grass species on the property. It shall be the contractor's responsibility to ensure that grass grows in the newly seeded area. Any reseeded or other work needed to ensure the area is properly repaired will be performed at no additional charge to the District. Repair and restore existing landscape if disturbed.

**7. LANDSCAPE RESTORATION**

Where indicated on the drawings, remove vegetation and soil, cut edge, provide and install hardwood mulch 8" deep. If existing area is mulched, restore after sign removal and new sign has been installed.

## **B. REPLACEMENT OF EXISTING SIGNS / INSTALLATION OF NEW ELECTRONIC MESSAGE BOARDS**

### **1. SCOPE OF WORK**

These detailed Specifications are for the installation of new electronic message boards at (7) seven school locations. The bid shall also include the removal **and disposal** of existing signs where identified in the drawings. The contract and work shall be carried out in conformance with the Ordinances of the City of Rockford and these detailed specifications, in effect on the date of invitation for bids.

The bid shall include all labor, supervision, supplies, tools, equipment and other means necessary or proper for performing and completing the work. The bid shall include cleaning up of the job site, repair or restore all property that may be damaged or disturbed during performance of the work to the satisfaction of the District.

### **2. LOCATION OF WORK**

- 1) Fairview Early Childhood Center - 512 Fairview Avenue
- 2) Froberg Elementary School - 4555 20<sup>th</sup> Street
- 3) Haskell - STEAM Academy - 515 Maple Street
- 4) Hillman Elementary School - 3701 Greendale Drive
- 5) Marshall Campus for Elementary and Middle Schools - 4664 N. Rockton Avenue
- 6) Marsh - Montessori Program - 2021 Hawthorne Drive
- 7) Nashold Early Childhood Center - 3303 20<sup>th</sup> Street

### **3. COMMENCEMENT OF WORK**

SEE OWNERS INFORMATION

### **4. NOTIFICATION FOR UTILITY LATION SERVICES (PUBLIC AND PRIVATE)**

The Sign Contractor will submit areas to J.U.L.I.E. and to GPRS to be located prior to sign removal and placement of new. The Sign Contractor must otherwise comply with all J.U.L.I.E. and GPRS requirements. Notify the RPS PM and Architect after the underground route has been marked at least three (3) working days prior to the commencement of work to be performed. (JULIE call 811 or 800-892-0123; GPRS call 815-218-1122 or [midwestinfor@gprsinc.com](mailto:midwestinfor@gprsinc.com))

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## **7. LANDSCAPE RESTORATION**

Where indicated on the drawings, remove vegetation and soil, cut edge, provide and install hardwood mulch 8" deep. If existing area is mulched, restore after sign removal and new sign has been installed.

## **B. GENERAL DETAILS**

### **1. TRAFFIC CONTROL AND PROTECTION**

Traffic control and protection - the successful Bidder's manner of executing the work or revisions in the phasing of operations may require temporary traffic control devices to be installed. In such cases, all but not limited to, signs, signals, markings, traffic codes, barricades, warning lights, flagmen and other traffic control devices must conform to all provisions of the appropriate standards. The District shall be the sole judge as to the acceptability of placement and maintenance of the traffic control devices prescribed in the appropriate standards. Said temporary traffic control devices shall be considered incidental to the contract and no compensation will be allowed.

### **2. SAFETY PRECAUTIONS**

The Safety of District students, staff and the general public shall be the number one priority of the successful Bidder at all times. No site shall be left unattended or in a condition where injury could occur at any time. The District reserves the right to stop work at any time, for any reason. Work shall not be performed when students or staff is in the vicinity of the work area. The successful Bidder shall not be awarded any additional compensation for work that needs to be completed when sites are unoccupied. The Sign Contractor shall ensure that all its employees or agents shall abide by all safety rules or regulations set by the District as well as by general regulations and standards of the industry and in accordance with all applicable federal, state, and local regulations.

### **3. PROTECTION OF EXISTING FACILITIES**

Existing facilities, including grounds, structures, landscaping, and so forth, shall be protected by the Sign Contractor. Any damage to existing facilities shall be reported to the District and shall be repaired, at the Sign Contractor's expense, promptly by the Sign Contractor when ordered to do so by the District. All repairs of damage to existing facilities shall be made to the satisfaction of the District. Failure to repair damage shall be just cause for withholding payment for work that becomes due. \*\*When installing fiber runs inside of the buildings, follow path to conceal above ceilings, within walls, basements, tunnels (if it is determined during construction that concealed locations are not feasible or available, submit alternate routes to RPS Project Manager (PM) for approval prior to installation); all penetrations shall be sealed, penetrations through fire walls shall be sleeved and firestopped; independently support from building construction (not ceiling system) as required, comply with NFPA 70 - National Electrical Code (NEC) 2014 Edition per IBC 2015. **\*\*Provide submittal indicating UL Rated Assembly types prior to any wall penetrations.**

#### **4. MEETING BEFORE WORK BEGINS**

It is mandatory that the Sign Contractor meets with the District Project Manager and Architect prior to the start of work to review the contract specifications, designate the appropriate project contacts, and discuss the manner in which work will be proceeding, among other items. **\*\*Provide submittal of plan for interior routing of systems.**

#### **5. EXAMINATION OF SITE**

Bidders shall inform themselves of all the conditions under which the work is to be performed concerning the site of the work, the obstacles that may be encountered, and all other relevant matters concerning the work to be performed under this contract. The Sign Contractor to whom a contract is awarded will not be allowed any extra compensation by reason of any such matters of things concerning which the Sign Contractor did not inform himself prior to bidding. The Sign Contractor must employ, so far as reasonably possible as determined by the District, such methods and means in the carrying out of his work as will not cause any interruption or interference with any other contractor.

#### **6. ACCESSIBILITY OF CONTRACTOR**

Sign Contractor shall supply cell phone numbers, daytime office numbers, fax numbers, and email addresses of supervisors handling this contract. The Sign Contractor shall return all calls or emails within one hour of the District placing the call. On- site response time for complaints must be made within 24 hours of the initial call being made by the District. If a safety concern is identified the Sign Contractor must respond and rectify the problem within one hour of being notified. The Sign Contractor shall update the District Project Manager and Architect on work progress no less than once per week. Failure to comply with the accessibility requirements shall be deemed as substandard work and will be subject to the same penalties.

#### **7. WORKERS**

The bidder shall employ competent laborers and shall replace, at the request of the District, any incompetent, unfaithful, abusive or disorderly workers in their employ. Only workers expert in their respective branches of work shall be employed where special skill is required. The bidder is reminded that his employees are an extension of the District's workforce and they are to work in a courteous and respectful manner. Inappropriate behavior or examples of unproductive work effort will not be tolerated. The District has the right to require a bidder's employee to be immediately removed from the work crew if the above behavior is exhibited.

#### **8. SUBLETTING CONTRACT**

It is mutually understood and agreed that the Sign Contractor shall not assign, transfer, convey, sublet, or otherwise dispose of this contract or his right, title, or interest therein, or his power to execute such contract, to any other person, firm, or corporation, without the previous written consent of an authorized representative of the District; but in no case shall consent relieve the Contractor from his obligations or change the terms of the contract.

#### **9. SITE CONDITION AND CLEAN-UP**

The successful Bidder shall store materials and equipment where directed by the District and shall move same, if and when it becomes necessary at his/her own expense. The successful Bidder shall have control over his/her employees' parking of automobiles on the site, and shall provide receptacles for depositing waste paper and garbage. The

successful Bidder shall keep the site neat and shall clean up any debris when directed to do so by the District. Upon completion of the improvement, the site shall be left in a condition acceptable to the District. Failure to keep the site neat or clean-up debris when directed shall be just cause for withholding payment due the successful Bidder and final acceptance will not be made until the site is in a condition acceptable to the District.

#### **10. TRESPASS ON LAND**

The successful Bidder shall confine his/her operations and storage of materials and equipment to District property. The successful Bidder shall exercise extreme caution so as not to trespass upon property of third parties not involved in the contract. In the event that the successful Bidder is to enter upon the property of third parties in the execution of the work, he/she shall obtain written permission prior to doing so, and submit evidence of said written permission to the District.

#### **11. PROTECTION OF PUBLIC**

The Bidder shall erect and maintain sufficient signs, barricades, lights and fences and shall employ competent flagmen and watchmen to warn and guard the public against the hazards created by the sign installation process. The Bidder shall not allow hazardous conditions to remain without affording adequate protection to the public. If, in the opinion of the District, a hazardous condition exists and the Bidder fails to correct the condition, or to protect the public, the District may order the necessary precautions to safeguard the public, the cost of which will be deducted from payments due the Bidder. Flagrant disregard for the safety of the public shall constitute just reason for the District to order cessation of work.

#### **12. GUARANTEE / WARRANTY**

All work and materials furnished under this contract shall be guaranteed by the Bidder against defects, failure, improper performance and non-compliance with the contract documents for a period of one (1) year after completion and acceptance of the work under this contract. During the guarantee period, the Bidder shall repair and replace, at his/her own expense, when so ordered by the District, all work that develops defects whether these defects may be inherent in the functioning of the piece of operating equipment, materials furnished or workmanship performed. Any equipment or material that is repaired or replaced shall have the guarantee period extended one (1) year from the date of the last repair or replacement.

Electronic message center shall have a five (5) year warranty.

### **C. PRODUCT INFORMATION**

#### **1. ACTION SUBMITTALS**

- A. Product Data: For each type of product.
- B. Shop Drawings: For panel signage.
  - 1. Include fabrication and installation details and attachments to other work.
  - 2. Show sign mounting heights, locations of supplementary supports to be provided by others, and accessories.
  - 3. Show message list, typestyles, graphic elements, and layout for each sign at least half size.
  - 4. Show locations of electrical service connections.
  - 5. Include diagrams for power, signal, and control wiring.

## **2. SITE SIGNAGE AND INTERNALLY ILLUMINATED LED PANEL SIGNS**

- A. See Specification Section 101426- Post and Panel/Monument Signage

**D. Manufacturer's Warranty: 5-years on-site parts and labor.**

**E. See drawings for additional information. Vector (.eps) format files will be provided to the sign contractor for the logo graphics.**

## **3. GENERAL FINISH REQUIREMENTS**

- A. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- B. Appearance of Finished Work: Noticeable variations in same piece are not acceptable.
- C. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.
- D. Anodic and Chemically Produced Finishes: Apply to formed metal after fabrication but before applying contrasting polished finishes on raised features unless otherwise indicated.

## **4. ALUMINUM FINISHES**

- A. Clear Anodic Finish: AAMA 611, Class I, 0.018 mm or thicker.

## **5. INSTALLATION**

- A. General: Install signs using installation methods indicated and according to manufacturer's written instructions.
  - 1. Install signs level, plumb, and at locations and heights indicated, with sign surfaces free of distortion and other defects in appearance.
  - 2. Install signs so they do not protrude or obstruct according to accessibility standard.
  - 3. Before installation, verify that sign components are clean and free of materials or debris that would impair installation.
  - 4. Corrosion Protection: Coat concealed surfaces of exterior aluminum in contact with grout, concrete, masonry, wood, or dissimilar metals, with a heavy coat of bituminous paint.

## **6. ADJUSTING AND CLEANING**

- A. Remove and replace damaged or deformed signs and signs that do not comply with specified requirements. Replace signs with damaged or deteriorated finishes or components that cannot be successfully repaired by finish touchup or similar minor repair procedures.
- B. Remove temporary protective coverings and strippable films as signs are installed.
- C. On completion of installation, clean exposed surfaces of signs according to manufacturer's written instructions and touch up minor nicks and abrasions in finish. Maintain signs in a clean condition during construction and protect from damage until acceptance by District.

## **7. CLOSEOUT SUBMITTALS**

- A. Maintenance Data: For signs to include in maintenance manuals.
- B. Include as-built drawings indicating new utility locations (site plans and building plans).

**8. FIELD CONDITIONS**

- A. Field Measurements: Verify locations of embedded in permanent construction by other installers by field measurements before fabrication, and indicate measurements on Shop Drawings.

**End of Project Description.**

SECTION 011100 – MISC. PROVISIONS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
  - 1. Indemnification.
  - 2. Execution, Correlation, and Intent.
  - 3. Miscellaneous Provisions.
- B. Related Requirements:
  - 1. AIA Document A201 - 2017 "General Conditions of the Contract for Construction".
  - 2. See Owner's Information

1.2 INDEMNIFICATION

- A. To the fullest extent permitted by law, Contractor shall indemnify and hold harmless Architect, Owner, and its affiliated companies, their partners, joint ventures, representatives, members, designees, officers, directors, shareholders, employees, successors, and assigns from and against all claims, damages, losses and expenses, including but not limited to reasonable attorney's fees, arising out of or resulting from Contractor's performance of its Work under the Agreement, and indemnifies and agrees to defend and hold harmless Architect and Owner against any all losses, claims, damages and expenses arising from the Work performed hereunder of the erection, construction, placement or operation of any scaffold, hoist, crane, stay, ladder, support or other mechanical contrivance in connection with such Work.
- B. Contractor agrees that it is solely responsible for compliance with all safety laws applicable to the Work performed hereunder, including but not limited to the Occupational Safety and Health Act of 1970 and the Construction Safety Act of 1960 and all standards and regulations which have been or shall be promulgated by the agencies which administer the Acts.
- C. Under no circumstances shall contractor, its subcontractors, agents, and employees, be required to indemnify Owner for the Owner's own negligence.

1.3 EXECUTION, CORRELATION, AND INTENT

- A. In the event of conflicts or discrepancies among the Contract Documents, interpretations will be based on the following priorities:
  - 1. The Agreement.
  - 2. Addenda; with those of later date having precedence over those of earlier date.
  - 3. The Supplementary Conditions.
  - 4. General Conditions of the Contract for Construction.
  - 5. Drawings and Specifications.



- B. In case of inconsistency between Drawings and Specifications or within either Document not clarified by Addendum, the better quality or greater quantity of Work shall be provided in accordance with the Architect's interpretation.
- C. In case of inconsistency between the Contract Documents and applicable standards, codes and ordinances, the Contractor shall provide the better quality or greater quantity of the Work or comply with the more stringent requirement.
- D. Before ordering any materials or doing any Work, the Contractor shall verify measurements at the Project site and shall be responsible for the correctness of such measurements. Any difference which may be found shall be submitted to the Architect for interpretation before proceeding with the Work as a condition precedent to any claim for an increase in the Contract Sum or GMP.
- E. In the event that Work is called for by the drawings but not the specifications, or by the specifications but not by the drawings, the Contractor shall be responsible for such Work.
- F. When noticeable discrepancies among or between the Contract Documents and apparent or observable conditions exist, the Contractor shall request an interpretation in writing from the Architect before proceeding with the Work. If the Contractor fails to request such an interpretation from the Architect, it is presumed that the more stringent, better quality requirement is included in the Work. The Contractor shall be responsible for the cost and installation of such requirement at no additional cost to Owner. The Contractor shall not be entitled to a change order in connection with implementing such requirements.
- G. In all cases of interconnection of its Work with existing or other work, the Contractor shall verify at the site dimensions relating to such existing or other work. Any errors due to the Contractor's failure to so verify all such grades, elevations, locations, dimensions, field measurements or field conditions, shall be promptly rectified by the Contractor at no cost to the Owner.

#### 1.4 ELECTRONIC MEDIA

- A. In accepting and utilizing any drawings or other data on any form of electronic media generated and provided by Hagney Architects, LLC, the recipient agrees that all such drawings and data are instruments of service of Hagney Architects, LLC, who shall be deemed the author of the drawings and data, and shall retain all common law, statutory and other rights, including copyrights. Any inconsistencies the recipient discovers will be reported to Hagney Architects, LLC, and will be corrected by Hagney Architects, LLC.
- B. In accepting and utilizing any drawings or other data on any form of electronic media generated and provided by Hagney Architects, LLC, the recipient agrees not to use these drawings and data, in whole or in part, for any purpose or project other than the project which is the subject of these documents. The recipient agrees to waive all claims against Hagney Architects, LLC, resulting in any way from any unauthorized changes or reuse of the drawings and data for any other project by anyone other than Hagney Architects, LLC. In addition, the recipient agrees, to the fullest extent permitted by law, to indemnify and hold Hagney Architects, LLC, harmless from any damage, liability or costs, including reasonable attorney fees and costs of defense,

arising from any changes made by anyone other than Hagney Architects, LLC, or from any reuse of the drawings and data without the prior written consent of Hagney Architects, LLC.

- C. Because of the possibility that the Electronic Instruments of Services, and other information and data delivered in machine readable form may be subject to alteration, deterioration, incompatibility, translation or readability issues, whether inadvertently or otherwise, Contractor acknowledges and agrees that Architect shall have no responsibility or liability out of or in connection with the completeness or accuracy of the Electronic Instruments of Service, information and data, and any use by the Contractor of same is at Contractor's sole risk and responsibility. The use of Hagney Architects, LLC, drawings, and information does not alleviate the responsibility of the recipient to field verify all dimensions and information, as related to the scope of work.

#### 1.5 MISCELLANEOUS

- A. The Contractor shall be responsible for inspection of portions of Work already performed to determine that such portions are in proper condition to receive subsequent Work. If for any reason the Work in place does not comply with the Contract Documents, the Contractor shall correct the Work before proceeding.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 011000



## SUBSTITUTION REQUEST

Project: \_\_\_\_\_ Substitution Request Number: \_\_\_\_\_  
\_\_\_\_\_  
From: \_\_\_\_\_  
To: \_\_\_\_\_ Date: \_\_\_\_\_  
\_\_\_\_\_  
A/E Project Number: \_\_\_\_\_  
Re: \_\_\_\_\_ Contract For: \_\_\_\_\_

Specification Title: \_\_\_\_\_ Description: \_\_\_\_\_  
Section: \_\_\_\_\_ Page: \_\_\_\_\_ Article/Paragraph: \_\_\_\_\_

Proposed Substitution: \_\_\_\_\_  
Manufacturer: \_\_\_\_\_ Address: \_\_\_\_\_ Phone: \_\_\_\_\_  
Trade Name: \_\_\_\_\_ Model No.: \_\_\_\_\_  
Installer: \_\_\_\_\_ Address: \_\_\_\_\_ Phone: \_\_\_\_\_  
History: ☐ New product ☐ 2-5 years old ☐ 5-10 yrs old ☐ More than 10 years old  
Differences between proposed substitution and specified product: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

☐ Point-by-point comparative data attached - REQUIRED BY A/E

Reason for not providing specified item: \_\_\_\_\_  
\_\_\_\_\_

Similar Installation:

Project: \_\_\_\_\_ Architect: \_\_\_\_\_  
Address: \_\_\_\_\_ Owner: \_\_\_\_\_  
\_\_\_\_\_ Date Installed: \_\_\_\_\_

Proposed substitution affects other parts of Work: ☐ No ☐ Yes; explain \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Savings to Owner for accepting substitution: \_\_\_\_\_ (\$ \_\_\_\_\_).

Proposed substitution changes Contract Time: ☐ No ☐ Yes [Add] [Deduct] \_\_\_\_\_ days.

Supporting Data Attached: ☐ Drawings ☐ Product Data ☐ Samples ☐ Tests ☐ Reports ☐ \_\_\_\_\_

# SUBSTITUTION REQUEST (Continued)

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Cost data as stated above is complete. Claims for additional costs related to accepted substitution which may subsequently become apparent are to be waived.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.
- Coordination, installation, and changes in the Work as necessary for accepted substitution will be complete in all respects.

Submitted by: \_\_\_\_\_

Signed by: \_\_\_\_\_

Firm: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

Attachments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## A/E's REVIEW AND ACTION

- ☐ Substitution approved - Make submittals in accordance with Specification Section 01330.  
☐ Substitution approved as noted - Make submittals in accordance with Specification Section 01330.  
☐ Substitution rejected - Use specified materials.  
☐ Substitution Request received too late - Use specified materials.

Signed by: \_\_\_\_\_

Date: \_\_\_\_\_

Additional Comments: ☐ Contractor ☐ Subcontractor ☐ Supplier ☐ Manufacturer ☐ A/E ☐ \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## SECTION 012600 - CONTRACT MODIFICATION PROCEDURES

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes administrative and procedural requirements for handling and processing Contract modifications.

#### 1.2 MINOR CHANGES IN THE WORK

- A. Architect will issue supplemental instructions authorizing minor changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, on AIA Document G710.
  - 1. Work Change Proposal Requests issued by Architect are not instructions either to stop work in progress or to execute the proposed change.

#### 1.3 PROPOSAL REQUESTS

- A. Owner-Initiated Proposal Requests: Architect will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
  - 1. Work Change Proposal Requests issued by Architect are not instructions either to stop work in progress or to execute the proposed change.
  - 2. Within time specified in Proposal Request after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
    - a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
    - b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
    - c. Include costs of labor and supervision directly attributable to the change.
    - d. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
- B. Contractor-Initiated Proposals: If latent or changed conditions require modifications to the Contract, Contractor may initiate a claim by submitting a request for a change to Architect.
  - 1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.

2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
4. Include costs of labor and supervision directly attributable to the change.
5. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
6. Comply with requirements in Section 012500 "Substitution Procedures" if the proposed change requires substitution of one product or system for product or system specified.

#### 1.4 CHANGE ORDER PROCEDURES

- A. On Owner's approval of a Work Change Proposal Request, Architect will issue a Change Order for signatures of Owner and Contractor on AIA Document G701.

#### 1.5 CONSTRUCTION CHANGE DIRECTIVE

- A. Construction Change Directive: Architect may issue a Construction Change Directive on AIA Document G714. Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
  1. Construction Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.
- B. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.
  1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

#### 1.6 WORK CHANGE DIRECTIVE

- A. Work Change Directive: Architect may issue a Work Change Directive. Work Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
  1. Work Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.
- B. Documentation: Maintain detailed records on a time and material basis of work required by the Work Change Directive.
  1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012600

## SECTION 012900 - PAYMENT PROCEDURES

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes administrative and procedural requirements necessary to prepare and process Applications for Payment.
- B. See Owners Information regarding payment.

#### 1.2 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the schedule of values with preparation of Contractor's construction schedule.
  - 1. Coordinate line items in the schedule of values with items required to be indicated as separate activities in Contractor's construction schedule.
  - 2. Submit the schedule of values to Architect at earliest possible date, but no later than seven days before the date scheduled for submittal of initial Applications for Payment.
- B. Format and Content: Use Project Manual table of contents as a guide to establish line items for the schedule of values. Provide at least one line item for each Specification Section.
  - 1. Arrange schedule of values consistent with format of AIA Document G703.
  - 2. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Provide multiple line items for principal subcontract amounts in excess of five percent of the Contract Sum.
  - 3. Provide a separate line item in the schedule of values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
    - a. Differentiate between items stored on-site and items stored off-site.
  - 4. Allowances: Provide a separate line item in the schedule of values for each allowance. Show line-item value of unit-cost allowances, as a product of the unit cost, multiplied by measured quantity. Use information indicated in the Contract Documents to determine quantities.
  - 5. Overhead Costs: Include total cost and proportionate share of general overhead and profit for each line item.
  - 6. Overhead Costs: Show cost of temporary facilities and other major cost items that are not direct cost of actual work-in-place as separate line items.
  - 7. Closeout Costs. Include separate line items under Contractor and principal subcontracts for Project closeout requirements in an amount totaling five percent of the Contract Sum and subcontract amount.
  - 8. Schedule of Values Revisions: Revise the schedule of values when Change Orders or Construction Change Directives result in a change in the Contract Sum. Include at least one separate line item for each Change Order and Construction Change Directive.



1.3 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment following the initial Application for Payment shall be consistent with previous applications and payments as certified by Architect and paid for by Owner.
- B. Payment Application Times: The date for each progress payment is indicated in the Agreement between Owner and Contractor. The period of construction work covered by each Application for Payment is the period indicated in the Agreement.
- C. Payment Application Times: Submit Application for Payment to Architect by the tenth of the month. The period covered by each Application for Payment is one month, ending on the last day of the month.
  - 1. Submit draft copy of Application for Payment seven days prior to due date for review by Architect.
- D. Application for Payment Forms: Use AIA Document G702 and AIA Document G703 as form for Applications for Payment.
- E. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Architect will return incomplete applications without action.
  - 1. Entries shall match data on the schedule of values and Contractor's construction schedule. Use updated schedules if revisions were made.
  - 2. Include amounts for work completed following previous Application for Payment, whether or not payment has been received. Include only amounts for work completed at time of Application for Payment.
  - 3. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
- F. Transmittal: Submit three signed and notarized original copies of each Application for Payment to Architect by a method ensuring receipt within 24 hours. One copy shall include waivers of lien and similar attachments if required.
  - 1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.
- G. Waivers of Mechanic's Lien: With each Application for Payment, submit waivers of mechanic's lien from subcontractors, sub-subcontractors, and suppliers for construction period covered by the previous application.
  - 1. Submit partial waivers on each item for amount requested in previous application, after deduction for retainage, on each item.
  - 2. When an application shows completion of an item, submit conditional final or full waivers.
  - 3. Owner reserves the right to designate which entities involved in the Work must submit waivers.
  - 4. Submit final Application for Payment with or preceded by conditional final waivers from every entity involved with performance of the Work covered by the application who is lawfully entitled to a lien.
  - 5. Waiver Forms: Submit executed waivers of lien on forms acceptable to Owner.

- H. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
  - 1. List of subcontractors.
  - 2. Schedule of values.
  - 3. Contractor's construction schedule (preliminary if not final).
  - 4. Products list (preliminary if not final).
  - 5. Schedule of unit prices.
  - 6. Submittal schedule (preliminary if not final).
  - 7. List of Contractor's staff assignments.
  - 8. List of Contractor's principal consultants.
  - 9. Copies of building permits.
  - 10. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
  - 11. Initial progress report.
  - 12. Report of preconstruction conference.
  - 13. Certificates of insurance and insurance policies.
  - 14. Performance and payment bonds.
  - 15. Data needed to acquire Owner's insurance.
- I. Application for Payment at Substantial Completion: After Architect issues the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.
  - 1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
  - 2. This application shall reflect Certificate(s) of Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
- J. Final Payment Application: After completing Project closeout requirements, submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited to, the following:
  - 1. Evidence of completion of Project closeout requirements.
  - 2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
  - 3. Updated final statement, accounting for final changes to the Contract Sum.
  - 4. AIA Document G706.
  - 5. AIA Document G706A.
  - 6. AIA Document G707.
  - 7. Evidence that claims have been settled.
  - 8. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.
  - 9. Final liquidated damages settlement statement.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012900

## SECTION 013300 - SUBMITTAL PROCEDURES

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes requirements for the submittal schedule and administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.
- B. Related Requirements:
  - 1. Division 01 Section "Construction Progress Documentation" for submitting schedules and reports, including Contractor's construction schedule.
  - 2. Division 01 Section "Operation and Maintenance Data" for submitting operation and maintenance manuals.
  - 3. Division 01 Section "Project Record Documents" for submitting record Drawings, record Specifications, and record Product Data.
  - 4. Division 01 Section "Demonstration and Training" for submitting video recordings of demonstration of equipment and training of Owner's personnel.

#### 1.2 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Architect's responsive action.
- B. Informational Submittals: Written and graphic information and physical samples that do not require Architect's responsive action. Submittals may be rejected for not complying with requirements.

#### 1.3 ACTION SUBMITTALS

- A. Submittal Schedule: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or revisions to submittals noted by Architect and additional time for handling and reviewing submittals required by those corrections.

#### 1.4 SUBMITTAL ADMINISTRATIVE REQUIREMENTS

- A. Architect's Digital Data Files: Electronic copies of digital data files of the Contract Drawings will be provided by Architect for Contractor's use in preparing submittals, once a signed waiver is received by Architect.
- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
  - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
  - 2. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.

- a. Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- C. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
1. Initial Review: Allow 21 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
  2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
  3. Resubmittal Review: Allow 15 days for review of each resubmittal.
- D. Electronic Submittals: Identify and incorporate information in each electronic submittal file as follows:
1. Assemble complete submittal package into a single indexed file incorporating submittal requirements of a single Specification Section and transmittal form with links enabling navigation to each item.
  2. Name file with submittal number or other unique identifier, including revision identifier.
    - a. File name shall use project identifier and Specification Section number followed by a decimal point and then a sequential number (e.g., LNHS-061000.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., LNHS-061000.01.A).
  3. Provide means for insertion to permanently record Contractor's review and approval markings and action taken by Architect.
  4. Transmittal Form for Electronic Submittals: Use electronic form acceptable to Owner, containing the following information:
    - a. Project name.
    - b. Date.
    - c. Name and address of Architect.
    - d. Name of Construction Manager.
    - e. Name of Contractor.
    - f. Name of firm or entity that prepared submittal.
    - g. Names of subcontractor, manufacturer, and supplier.
    - h. Category and type of submittal.
    - i. Submittal purpose and description.
    - j. Specification Section number and title.
    - k. Specification paragraph number or drawing designation and generic name for each of multiple items.
    - l. Drawing number and detail references, as appropriate.
    - m. Location(s) where product is to be installed, as appropriate.
    - n. Related physical samples submitted directly.
    - o. Indication of full or partial submittal.
    - p. Transmittal number, numbered consecutively.
    - q. Submittal and transmittal distribution record.
    - r. Other necessary identification.
    - s. Remarks.
  5. Metadata: Include the following information as keywords in the electronic submittal file metadata:

- a. Project name.
  - b. Number and title of appropriate Specification Section.
  - c. Manufacturer name.
  - d. Product name.
- E. Options: Identify options requiring selection by Architect.
- F. Deviations: Identify deviations from the Contract Documents on submittals.
- G. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
  - 1. Note date and content of previous submittal.
  - 2. Note date and content of revision in label or title block and clearly indicate extent of revision.
  - 3. Resubmit submittals until they are marked with approval notation from Architect's action stamp.
- H. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- I. Use for Construction: Retain complete copies of submittals on Project site. Use only final action submittals that are marked with approval notation from Architect's action stamp.

## PART 2 - PRODUCTS

### 2.1 SUBMITTAL PROCEDURES

- A. General Submittal Procedure Requirements:
  - 1. Submit electronic submittals via email as PDF electronic files.
    - a. Architect will return annotated file. Annotate and retain one copy of file as an electronic Project record document file.
  - 2. Certificates and Certifications Submittals: Provide a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
    - a. Provide a digital signature with digital certificate on electronically-submitted certificates and certifications where indicated.
    - b. Provide a notarized statement on original paper copy certificates and certifications where indicated.
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
  - 1. If information must be specially prepared for submittal because standard published data are not suitable for use, submit as Shop Drawings, not as Product Data.
  - 2. Mark each copy of each submittal to show which products and options are applicable.
  - 3. Include the following information, as applicable:

- a. Manufacturer's catalog cuts.
    - b. Manufacturer's product specifications.
    - c. Standard color charts.
    - d. Statement of compliance with specified referenced standards.
    - e. Testing by recognized testing agency.
    - f. Application of testing agency labels and seals.
    - g. Notation of coordination requirements.
    - h. Availability and delivery time information.
  4. For equipment, include the following in addition to the above, as applicable:
    - a. Wiring diagrams showing factory-installed wiring.
    - b. Printed performance curves.
    - c. Operational range diagrams.
    - d. Clearances required to other construction, if not indicated on accompanying Shop Drawings.
  5. Submit Product Data before or concurrent with Samples.
  6. Submit Product Data in the following format:
    - a. PDF electronic file.
    - b. Three paper copies of Product Data unless otherwise indicated. Architect will return two copies.
- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
    - a. Identification of products.
    - b. Schedules.
    - c. Compliance with specified standards.
    - d. Notation of coordination requirements.
    - e. Notation of dimensions established by field measurement.
    - f. Relationship and attachment to adjoining construction clearly indicated.
    - g. Seal and signature of professional engineer if specified.
  2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches (215 by 280 mm), but no larger than 30 by 42 inches (750 by 1067 mm).
  3. Submit Shop Drawings in the following format:
    - a. PDF electronic file.
- D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.
1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
  2. Identification: Attach label on unexposed side of Samples that includes the following:
    - a. Generic description of Sample.
    - b. Product name and name of manufacturer.
    - c. Sample source.
    - d. Number and title of applicable Specification Section.

3. For projects where electronic submittals are required, provide corresponding electronic submittal of Sample transmittal, digital image file illustrating Sample characteristics, and identification information for record.
4. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
  - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
  - b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
5. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
  - a. Number of Samples: Submit one full set of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect will return submittal with options selected.
6. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
  - a. Number of Samples: Submit three sets of Samples. Architect will retain two Sample sets; remainder will be returned. Mark up and retain one returned Sample set as a project record sample.
    - 1) If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least three sets of paired units that show approximate limits of variations.
- E. Product Schedule: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:
  1. Submit product schedule in the following format:
    - a. PDF electronic file.
- F. Coordination Drawings Submittals: Comply with requirements specified in Division 01 Section "Project Management and Coordination."
- G. Contractor's Construction Schedule: Comply with requirements specified in Division 01 Section "Construction Progress Documentation."
- H. Application for Payment and Schedule of Values: Comply with requirements specified in Division 01 Section "Payment Procedures."
- I. Closeout Submittals and Maintenance Material Submittals: Comply with requirements specified in Division 01 Section "Closeout Procedures."

- J. Maintenance Data: Comply with requirements specified in Division 01 Section "Operation and Maintenance Data."
- K. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of architects and owners, and other information specified.
- L. Installer Certificates: Submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
- M. Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
- N. Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
- O. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
- P. Product Test Reports: Submit written reports indicating that current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
- Q. Design Data: Prepare and submit written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.

## 2.2 DELEGATED-DESIGN SERVICES

- A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
  - 1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Architect.
- B. Delegated-Design Services Certification: In addition to Shop Drawings, Product Data, and other required submittals, submit digitally signed PDF electronic file or three paper copies of certificate, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.
  - 1. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.



PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. Action and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.
- B. Project Closeout and Maintenance Material Submittals: See requirements in Division 01 Section "Closeout Procedures."
- C. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 ARCHITECT'S ACTION

- A. General: Architect will not review submittals that do not bear Contractor's approval stamp and will return them without action.
- B. Action Submittals: Architect will review each submittal, make marks to indicate corrections or revisions required, and return it. Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action, as follows:
  - 1. REVIEWED without Comment.
  - 2. REVIEWED as Noted.
  - 3. REJECTED.
  - 4. REVISE and Resubmit.
- C. Informational Submittals: Architect will review each submittal and will not return it, or will return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.
- D. Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review.
- E. Submittals not required by the Contract Documents may not be reviewed and may be discarded.
- F. **Architect's review is for design intent and general compliance with Contract Documents ONLY. No responsibility is assumed for correctness of dimensions, quantities, details or deviations from the Contract Documents.**

END OF SECTION 013300

## SECTION 016000 - PRODUCT REQUIREMENTS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and comparable products.
- B. Related Requirements:
  - 1. Division 01 Section "Substitution Procedures" for requests for substitutions.

#### 1.2 DEFINITIONS

- A. Products: Items obtained for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
  - 1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature, that is current as of date of the Contract Documents.
  - 2. New Products: Items that have not previously been incorporated into another project or facility. Products salvaged or recycled from other projects are not considered new products.
  - 3. Comparable Product: Product that is demonstrated and approved through submittal process to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.

#### 1.3 ACTION SUBMITTALS

- A. Comparable Product Requests: Submit request for consideration of each comparable product. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
  - 1. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within one week of receipt of a comparable product request. Architect will notify Contractor of approval or rejection of proposed comparable product request within 15 days of receipt of request, or seven days of receipt of additional information or documentation, whichever is later.
    - a. Form of Approval: As specified in Division 01 Section "Submittal Procedures."
    - b. Use product specified if Architect does not issue a decision on use of a comparable product request within time allocated.
    - c. Contractor will assume full responsibility for final verification that product substitution – at minimum – meets original product.

1.4 QUALITY ASSURANCE

- A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, select product compatible with products previously selected, even if previously selected products were also options.

1.5 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft and vandalism. Comply with manufacturer's written instructions.

- B. Delivery and Handling:

- 1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
  - 2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
  - 3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
  - 4. Inspect products on delivery to determine compliance with the Contract Documents and to determine that products are undamaged and properly protected.

- C. Storage:

- 1. Store products to allow for inspection and measurement of quantity or counting of units.
  - 2. Store materials in a manner that will not endanger Project structure.
  - 3. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
  - 4. Protect foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
  - 5. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
  - 6. Protect stored products from damage and liquids from freezing.

1.6 PRODUCT WARRANTIES

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.

- 1. Manufacturer's Warranty: Written warranty furnished by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
  - 2. Special Warranty: Written warranty required by the Contract Documents to provide specific rights for Owner.

- B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution.

1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
  2. Specified Form: When specified forms are included with the Specifications, prepare a written document using indicated form properly executed.
  3. Refer to Divisions 02 through 33. Sections for specific content requirements and particular requirements for submitting special warranties.
- C. Submittal Time: Comply with requirements in Division 01 Section "Closeout Procedures."

## PART 2 - PRODUCTS

### 2.1 PRODUCT SELECTION PROCEDURES

- A. General Product Requirements: Provide products that comply with the Contract Documents, are undamaged and, unless otherwise indicated, are new at time of installation.
1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
  2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
  3. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
  4. Where products are accompanied by the term "as selected," Architect will make selection.
  5. Descriptive, performance, and reference standard requirements in the Specifications establish salient characteristics of products.
- B. Product Selection Procedures:
1. Product: Where Specifications name a single manufacturer and product, provide the named product that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
  2. Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
  3. Products:
    - a. Restricted List: Where Specifications include a list of names of both manufacturers and products, provide one of the products listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
    - b. Nonrestricted List: Where Specifications include a list of names of both available manufacturers and products, provide one of the products listed, or an unnamed product, that complies with requirements. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product.
  4. Manufacturers:
    - a. Restricted List: Where Specifications include a list of manufacturers' names, provide a product by one of the manufacturers listed that complies

- with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
- b. Nonrestricted List: Where Specifications include a list of available manufacturers, provide a product by one of the manufacturers listed, or a product by an unnamed manufacturer, that complies with requirements. Comply with requirements in "Comparable Products" Article for consideration of an unnamed manufacturer's product.
- C. Visual Matching Specification: Where Specifications require "match Architect's sample", provide a product that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches.
- 1. If no product available within specified category matches and complies with other specified requirements, comply with requirements in Division 01 Section "Substitution Procedures" for proposal of product.
- D. Visual Selection Specification: Where Specifications include the phrase "as selected by Architect from manufacturer's full range" or similar phrase, select a product that complies with requirements. Architect will select color, gloss, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

PART 3 - EXECUTION (Not Used)

END OF SECTION 016000

## SECTION 017300 - EXECUTION

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes general administrative and procedural requirements governing execution of the Work, including, but not limited to, the following:
  - 1. Construction layout.
  - 2. Field engineering and surveying.
  - 3. Installation of the Work.
  - 4. Cutting and patching.
  - 5. Coordination of Owner's portion of the Work.
  - 6. Coordination of Owner-installed products.
  - 7. Progress cleaning.
  - 8. Starting and adjusting.
  - 9. Protection of installed construction.
- B. Related Requirements:
  - 1. Section 011000 "Summary" for coordination of Owner-furnished products, Owner's separate contracts, and limits on use of Project site.
  - 2. Section 017700 "Closeout Procedures" for recording of Owner-accepted deviations from indicated lines and levels, replacing defective work, and final cleaning.

#### 1.2 DEFINITIONS

- A. Cutting: Removal of in-place construction necessary to permit installation or performance of subsequent work.
- B. Patching: Fitting and repair work required to restore construction to original conditions after installation of subsequent work.

#### 1.3 INFORMATIONAL SUBMITTALS

- A. Certified Surveys: Submit two copies signed by land surveyor or professional engineer.
- B. Certificates: Submit certificate signed by land surveyor or professional engineer, certifying that location and elevation of improvements comply with requirements.

#### 1.4 QUALITY ASSURANCE

- A. Cutting and Patching: Comply with requirements for and limitations on cutting and patching of construction elements.
  - 1. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as

- intended or that results in increased maintenance or decreased operational life or safety.
2. Other Construction Elements: Do not cut and patch other construction elements or components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety.
  3. Visual Elements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch exposed construction in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.
- B. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturer's written recommendations and instructions for installation of specified products and equipment.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. In-Place Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
1. If identical materials are unavailable or cannot be used, use materials that, when installed, will provide a match acceptable to Architect for the visual and functional performance of in-place materials. Use materials that are not considered hazardous.
- B. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Existing Conditions: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities, and other construction affecting the Work.
1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, gas service piping, and water-service piping; underground electrical services; and other utilities.
  2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.
- B. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator

present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.

1. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
2. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
3. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.

- C. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

### 3.2 PREPARATION

- A. Existing Utility Information: Coordinate with authorities having jurisdiction.
- B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- C. Review of Contract Documents and Field Conditions

### 3.3 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings. If discrepancies are discovered, notify Architect promptly.

### 3.4 INSTALLATION

- A. Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
1. Make vertical work plumb and make horizontal work level.
  2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
  3. Conceal pipes, ducts, and wiring in finished areas unless otherwise indicated.
  4. Maintain minimum headroom clearance or as indicated on documents.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C. Install products at the time and under conditions that will ensure satisfactory results as judged by Architect. Maintain conditions required for product performance until Substantial Completion.
- D. Conduct construction operations, so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy of type expected for Project.



- E. Sequence the Work and allow adequate clearances to accommodate movement of construction items on-site and placement in permanent locations.
- F. Tools and Equipment: Select tools or equipment that minimize production of excessive noise levels.
- G. Templates: Obtain and distribute to the parties involved templates for Work specified to be factory prepared and field installed. Check Shop Drawings of other portions of the Work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- H. Repair or remove and replace damaged, defective, or nonconforming Work.
  - 1. Comply with Section 017700 "Closeout Procedures" for repairing or removing and replacing defective Work.

### 3.5 CUTTING AND PATCHING

- A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
  - 1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during installation or cutting and patching operations, by methods and with materials so as not to void existing warranties.
- C. Temporary Support: Provide temporary support of Work to be cut.
- D. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- E. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
  - 1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots neatly to minimum size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
  - 2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
  - 3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
  - 4. Excavating and Backfilling: Comply with requirements in applicable Sections where required by cutting and patching operations.
  - 5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
  - 6. Proceed with patching after construction operations requiring cutting are complete.

- F. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as practicable, as judged by Architect. Provide materials and comply with installation requirements specified in other Sections, where applicable.
  - 1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate physical integrity of installation.
  - 2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
    - a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
    - b. Restore damaged pipe covering to its original condition.
  - 3. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
  - 4. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition and ensures thermal and moisture integrity of building enclosure.
- G. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

### 3.6 PROGRESS CLEANING

- A. Clean Project site and work areas daily, including common areas. Enforce requirements strictly. Dispose of materials lawfully.
  - 1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
  - 2. Remove waste materials daily
- B. Site: Maintain Project site free of waste materials and debris.
- C. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- D. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- E. Exposed Surfaces: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- F. Limiting Exposures: Supervise construction operations to ensure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

### 3.7 STARTING AND ADJUSTING

- A. Coordinate startup and adjusting of equipment and operating components

- B. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.

### 3.8 PROTECTION AND REPAIR OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B. Repair Work previously completed and subsequently damaged during construction period. Repair to like-new condition.
- C. Protection of Existing Items: Provide protection and ensure that existing items to remain undisturbed by construction are maintained in condition that existed at commencement of the Work.

END OF SECTION 017300

## SECTION 017419 - CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes administrative and procedural requirements for the following:
  - 1. Recycling nonhazardous construction waste.
  - 2. Disposing of nonhazardous construction waste.

#### 1.2 DEFINITIONS

- A. Construction Waste: Building, structure, and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.
- B. Demolition Waste: Building, structure, and site improvement materials resulting from demolition operations.
- C. Disposal: Removal of demolition or construction waste and subsequent salvage, sale, recycling, or deposit in landfill, incinerator acceptable to authorities having jurisdiction, or designated spoil areas on Owner's property.
- D. Recycle: Recovery of demolition or construction waste for subsequent processing in preparation for reuse.
- E. Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in another facility.
- F. Salvage and Reuse: Recovery of demolition or construction waste and subsequent incorporation into the Work.

### PART 2 - PRODUCTS – NOT USED

### PART 3 - EXECUTION

#### 3.1 PLAN IMPLEMENTATION

- A. General: Implement approved waste management plan. Provide handling, containers, storage, signage, transportation, and other items as required to implement waste management plan during the entire duration of the Contract.

#### 3.2 DISPOSAL OF WASTE

- A. General: Except for items or materials to be salvaged or recycled, remove waste materials from Project site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.

1. Except as otherwise specified, do not allow waste materials that are to be disposed of accumulate on-site.
2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.

B. Burning: Do not burn waste materials.

END OF SECTION 017419

## SECTION 017700 - CLOSEOUT PROCEDURES

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
  - 1. Substantial Completion procedures.
  - 2. Final completion procedures.
  - 3. Warranties.
  - 4. Final cleaning.
  - 5. Repair of the Work.

#### 1.2 ACTION SUBMITTALS

- A. Product Data: For cleaning agents.
- B. Contractor's List of Incomplete Items: Initial submittal at Substantial Completion.
- C. Certified List of Incomplete Items: Final submittal at Final Completion.

#### 1.3 SUBSTANTIAL COMPLETION PROCEDURES

- A. Contractor's List of Incomplete Items: Prepare and submit a list of items to be completed and corrected (Contractor's punch list), indicating the value of each item on the list and reasons why the Work is incomplete.
- B. Submittals Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
  - 1. Certificates of Release: Obtain and submit releases from authorities having jurisdiction permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
  - 2. Submit closeout submittals specified in other Division 01 Sections, including project record documents, operation and maintenance manuals, final completion construction photographic documentation, damage or settlement surveys, property surveys, and similar final record information.
  - 3. Submit closeout submittals specified in individual Divisions 02 through 33 Sections, including specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
  - 4. Submit maintenance material submittals specified in individual Divisions 02 through 33 Sections, including tools, spare parts, extra materials, and similar items, and deliver to location designated by Architect. Label with manufacturer's name and model number where applicable.
    - a. Schedule of Maintenance Material Items: Prepare and submit schedule of maintenance material submittal items, including name and quantity of each item and name and number of related Specification Section. Obtain Architect's signature for receipt of submittals.

5. Submit test/adjust/balance records.
- C. Procedures Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
1. Complete startup and testing of systems and equipment.
  2. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
  3. Complete final cleaning requirements, including touchup painting.
  4. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- D. Inspection: Submit a written request for inspection to determine Substantial Completion a minimum of 10 days prior to date the work will be completed and ready for final inspection and tests. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.
1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
  2. Results of completed inspection will form the basis of requirements for final completion.

#### 1.4 FINAL COMPLETION PROCEDURES

- A. Preliminary Procedures: Before requesting final inspection for determining final completion, complete the following:
1. Submit a final Application for Payment according to Division 01 Section "Payment Procedures."
  2. Certified List of Incomplete Items: Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. Certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
  3. Certificate of Insurance: Submit evidence of final, continuing insurance coverage complying with insurance requirements.
  4. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.
- B. Inspection: Submit a written request for final inspection to determine acceptance. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

1.5 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

- A. Organization of List: Include school name and identification of each incomplete item and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.

1.6 SUBMITTAL OF PROJECT WARRANTIES

- A. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.
  - 1. Bind warranties and bonds in heavy-duty, three-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch (215-by-280-mm) paper.
  - 2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
  - 3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
  - 4. Warranty Electronic File: Scan warranties and bonds and assemble complete warranty and bond submittal package into a single indexed electronic PDF file with links enabling navigation to each item. Provide bookmarked table of contents at beginning of document.
- B. Provide additional copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 - EXECUTION

3.1 FINAL CLEANING

- A. General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
  - 1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a designated portion of Project:



- a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
- b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
- c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
- d. Remove tools, construction equipment, machinery, and surplus material from Project site.
- e. Clean exposed exterior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
- f. Remove labels that are not permanent.
- g. Leave Project clean and ready for occupancy.

### 3.2 REPAIR OF THE WORK

- A. Complete repair and restoration operations before requesting inspection for determination of Substantial Completion.
- B. Repair or remove and replace defective construction. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment. Where damaged or worn items cannot be repaired or restored, provide replacements. Remove and replace operating components that cannot be repaired. Restore damaged construction and permanent facilities used during construction to specified condition.
  1. Remove and replace chipped, scratched, and broken glass, reflective surfaces, and other damaged transparent materials.
  2. Touch up and otherwise repair and restore marred or exposed finishes and surfaces. Replace finishes and surfaces that already show evidence of repair or restoration.
    - a. Do not paint over "UL" and other required labels and identification, including mechanical and electrical nameplates. Remove paint applied to required labels and identification.
  3. Replace parts subject to operating conditions during construction that may impede operation or reduce longevity.
  4. Replace burned-out bulbs, bulbs noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.

END OF SECTION 017700

## SECTION 101426 - POST AND PANEL/MONUMENT SIGNAGE

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section Includes:
  - 1. Nonilluminated post-and-panel signs (site directional signs).
  - 2. Illuminated monument signs w/electronic message displays.

#### 1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: For signage.
  - 1. Include fabrication and installation details and attachments to other work.
  - 2. Show sign mounting heights
  - 3. Show message list, typestyles, graphic elements, and layout for each sign.
  - 4. Show sign type locations
- C. Samples: For each exposed product material and for each color and texture specified.

#### 1.3 INFORMATIONAL SUBMITTALS

- A. Evaluation Reports: For post-installed anchors and power-actuated fasteners, from ICC-ES or other qualified testing agency acceptable to authorities having jurisdiction.
- B. Sample warranty.

#### 1.4 CLOSEOUT SUBMITTALS

- A. Maintenance data.

#### 1.5 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace components of signs that fail in materials or workmanship within specified warranty period.
  - 1. Warranty Period: **Five (5)** years on site parts and labor from date of Substantial Completion.
- B. Sign contractor / vendor warranty.
  - 1. Warranty Period: **Two (2)** years from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Signs and supporting elements shall withstand the effects of gravity and other loads within limits and under conditions indicated.
- B. Thermal Movements: For exterior signs, allow for thermal movements from ambient and surface temperature changes.
- C. Accessibility Standard: Comply with applicable provisions in the USDOJ's "2010 ADA Standards for Accessible Design".

### 2.2 POST-AND-PANEL SIGNS

- A. Post-and-Panel Sign (see drawings for types): Sign of single-panel (front and back graphics) configuration; with smooth, uniform surfaces and support assembly; with message and characters having uniform faces, sharp corners, and precisely formed lines and profiles; and as follows:
  - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following *(or equivalent product meeting requirements in Division 012500 Document "Procurement Substitution Procedures")*:
    - a. ACE Sign Systems, Inc.
    - b. APCO Graphics, Inc.
    - c. ASI Sign Systems, Inc.
    - d. Charleston Industries, Inc.
    - e. Diskey Architectural Signage Inc.
    - f. Nelson-Harkins Industries.
    - g. Parvin-Clauss
    - h. Poblocki Sign Company, LLC.
  - 2. Laminated, Aluminum-Sheet Sign Panels: Aluminum sheet laminated to both sides of phenolic core sheet.
    - a. Surface-Applied Graphics: Applied vinyl film full face of sign
  - 3. Single-Panel Sign Frame - Vertical retainers:
    - a. Material: **Aluminum**.
    - b. Profile: **Square**.
    - c. Corner Condition in Elevation: **Square**.
    - d. Finish and Color: **clear anodized**
  - 4. Posts: **Aluminum**
    - a. Shape: **Square**
    - b. Size: **2 by 2 inches (50 by 50 mm)**
    - c. Installation Method: **Baseplate with cover**
    - d. Finish and Color: **clear anodized**
  - 5. Panel Frame- top and bottom: **Aluminum**
    - a. Shape: **Rectangular**
    - b. Size: **1 by 2 inches (25 by 50 mm)**
    - c. Finish and Color: **clear anodized**

6. Sign-Panel-Face Finish and Applied Graphics:
  - a. Powder-Coat Finish: Manufacturer's standard, **clear anodized**
  - b. Full vinyl film overlay graphics (full face of sign)

## 2.3 MONUMENT SIGNS

- A. Monument Sign with smooth, uniform surfaces and support assembly, with electronic message display (see drawings); with uniform faces, sharp corners, and precisely formed lines and profiles; and as follows:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following (or equivalent product meeting requirements in Division 012500 Document "Procurement Substitution Procedures"):
  - a. ACE Sign Systems, Inc.
  - b. APCO Graphics, Inc.
  - c. ASI Sign Systems, Inc.
  - d. Charleston Industries, Inc.
  - e. Diskey Architectural Signage Inc.
  - f. Nelson-Harkins Industries.
  - g. Parvin-Clauss
  - h. Poblocki Sign Company, LLC.
2. Illuminated Sign (double sided): Edgelighted construction with LED lighting including transformers, insulators, and other accessories for operability, with provision for servicing and concealing connections to building electrical system. Use tight or sealed joint construction to prevent unintentional light leakage. Space lamps apart from each other and away from sign surfaces as needed to illuminate evenly.
  - a. Power: As indicated on electrical Drawings
3. Solid-Sheet Sign Panels- front and back: Polycarbonate sheet with finish specified in "Sign-Panel-Face Finish and Applied Graphics" Subparagraph and as follows:
  - a. Surface-Applied Graphics: Applied vinyl film with school name and graphic logo (full sign panel coverage)
4. Single-Panel Sign Frame: Entire perimeter
  - a. Material: Aluminum
  - b. Profile: Square
  - c. Corner Condition in Elevation: Square
  - d. Finish and Color: powder coat- white
5. Construct sign with electronic message display (two sign faces)- see drawings
6. Structure: Internal frame.
  - a. As designed by signage contractor- see drawings for intent

## B. INTERNALLY ILLUMINATED LED PANEL SIGNS

1. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated or comparable product by one of the following or Owner approved equal.
2. Acceptable manufacturers, subject to compliance with requirements (model shall meet or exceed Basis-of-Design specifications), for illuminated sign may be products by one of the following:
  - a. Electro-Matic Visual, Inc.

- b. Daktronics
  - c. Watchfire
  - d. Prismview
  - e. Vantage
3. Electronic Panel Sign: Sign of two-sided master/slave configuration; with smooth, uniform surfaces and support assembly; with message and characters having uniform faces, sharp corners, and precisely formed lines and profiles; and as follows:
- a. Basis-of-Design Product: **16 mm 36 x 144 display** Fusion Series Full Color LED Display by Electro-Matic Visual, Inc. (FUS-B-16D-036X0144-F1-OSS5) or Owner Approved Equal
  - b. Illuminated Sign Description: 2'3" Tall by 8'1" Wide and 5" Deep, with capability of mounting back to back with total depth of 16", **16 mm** from center of pixel to center of pixel, pixel matrix: 36x144, full color (RGB) display capable of displaying 262.2 trillion shades of full color, pixel shall have only one Red, one Green, one Blue diode per pixel. Heat sink shall be included for each major component.
  - c. Physical Pixel Pitch: Must be true 16mm from center pixel to center of pixel. LED Type: DIP (Direct Inline Package) –Pixel features RGB Lens' with independent lens for Red, Green, & Blue.
  - d. See Electrical drawings for power and fiber communication information.
  - e. Full Cabinet Design: The Display shall have an overall cabinet to house all components. The Design shall have a heat sink for each major component. Featuring honeycomb ventilation for the LED tiles. Front intake & exhaust vent, **service and access**. Mount two panels back to back.
  - f. Construction: Aluminum Extrusion based cabinet with front ventilation.
  - g. Graphics Capability: Text, graphics, video files utilizing AVI, SWF, WMV, GIF, MPG, and MP4 formats supported (May require installation of free-ware video codecs), logos, multiple font styles and sizes utilizing standard fonts and Windows True Fonts, jpeg and bitmap picture files and optional live video capability. Video files up to 60 frames per second. Video controller: Non-computer based, dedicated microprocessor based video controller.
  - h. LED Specifications:
    - i. Brightness: 7,000-10,000 cd/m2 (NITS)
    - ii. Dimming: **Photo sensor**, auto-dimming, manual, scheduled.
    - iii. LED Life: Estimated 100,000 hours.
    - iv. Nichia brand LEDs (basis of design)
    - v. 36 x 36 Pixel Matrix for the full size tile and 18 x 36 for ½ size tile, Solid State Module requiring no external cooling fans, Horizontal protective louvers. Must be 15.75" square on the full tile & 7.875" x 15.75" rectangular on the ½ size tile.
    - vi. Temperature probe (16' cable)
  - i. Technical Support: Lifetime 24/7/365 direct factory tech support.
  - j. Programming: Software included with sign at no extra cost. Graphic overlay with movable text frames capable of showing standard and imported Windows fonts, time, temperature, counter function up/down in hours/minutes/seconds, message scheduling by day/date/time, edit play list order without re-transmitting files. RSS feeds built in at no extra cost to operate. Unlimited seats, no copy protections and lifetime updates. Unlimited access to free video or webinar training and access to EMV graphics library. Lifetime. Coordinate with RPS IT representative for software installation.

Schedule software training for RPS staff after completion. Show sample text on electronic message board (e.g. "Welcome Back").

- k. Certification: UL listed for United States and Canada conforms to UL Standard 48 and Canada CSA Standard C22.2 No. 207, IP67. ISO 9001-2015 Certified Manufacturer.
- l. Diagnostic Capabilities: Software enabled automatic pixel failure detection, power supply voltage monitoring.
- m. Weeps: Provide weep holes to drain water at lowest part of exterior signs.
- n. Pair of Single Mode Fiber Optic Converters

## 2.4 MATERIALS

- A. Polycarbonate Sheet: Coated, mar-resistant, UV-stabilized polycarbonate, with coating on both sides.
- B. Vinyl Film: UV-resistant vinyl film, with pressure-sensitive, permanent adhesive on back; images as indicated on Drawings and suitable for exterior applications.

## 2.5 ACCESSORIES

- A. Fasteners and Anchors: Manufacturer's standard as required for secure anchorage of signs, noncorrosive and compatible with each material joined, and complying with the following unless otherwise indicated:
  - 1. Use concealed fasteners and anchors unless indicated to be exposed.
  - 2. For exterior exposure, furnish stainless-steel devices unless otherwise indicated.
  - 3. Exposed Metal-Fastener Components, General:
    - a. Fabricated from same basic metal and finish of fastened metal unless otherwise indicated.
- B. Post-Installed Anchors: Fastener systems with bolts of same basic metal as fastened metal, if visible, unless otherwise indicated; with working capacity greater than or equal to the design load, according to an evaluation report acceptable to authorities having jurisdiction, as appropriate for the substrate.
  - 1. Uses: Securing signs with imposed loads to structure.
  - 2. Type: Torque-controlled, expansion anchor
- C. Power-Actuated Anchors: Fastener systems with working capacity greater than or equal to the design load, according to an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC70.
- D. Bituminous Paint: Cold-applied asphalt emulsion complying with ASTM D1187/D1187M.
- E. Anchoring Materials:
  - 1. Nonshrink, Nonmetallic Grout: Factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C1107/C1107M. Provide grout specifically recommended by manufacturer for interior and exterior applications.
  - 2. Anchoring Cement: Factory-packaged, nonshrink, nonstaining, hydraulic-controlled expansion cement formulation for mixing with water at Project site to create pourable anchoring, patching, and grouting compound.

- a. Water-Resistant Product: At exterior locations, provide formulation that is resistant to erosion from water exposure without needing protection by a sealer or waterproof coating and that is recommended by manufacturer for exterior use.

## 2.6 FABRICATION

- A. General: Provide manufacturer's standard sign assemblies according to requirements indicated.
  1. Mill joints to tight, hairline fit. Form assemblies and joints exposed to weather to resist water penetration and retention.
  2. Provide welds and brazes behind finished surfaces without distorting or discoloring exposed side. Clean exposed welded and brazed joints of flux, and dress exposed and contact surfaces.
  3. Conceal fasteners and anchors unless indicated to be exposed; locate exposed fasteners where they will be inconspicuous.
  4. Internally brace signs for stability, to meet structural performance loading without oil-canning or other surface deformation, and for securing fasteners.
- B. Post Fabrication: Fabricate posts designed for structural performance indicated and of lengths required for installation method indicated for each sign.
  1. Steel Posts: Fabricate from minimum **0.25-inch** thick, steel tubing unless otherwise indicated.
    - a. Hot-dip galvanize post assemblies after fabrication according to ASTM A123/A123M.
  2. Direct Burial: Fabricate posts 48 inches longer than height of sign to permit direct embedment in concrete foundations.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. General: Install signs using installation methods indicated and according to manufacturer's written instructions.
  1. Install signs level, plumb, and at locations and heights indicated, with sign surfaces free of distortion and other defects in appearance.
  2. Install signs so they do not protrude or obstruct according to the accessibility standard.
  3. Before installation, verify that sign components are clean and free of materials or debris that would impair installation.
  4. Corrosion Protection: Coat concealed surfaces of exterior aluminum in contact with grout, concrete, masonry, wood, or dissimilar metals, with a heavy coat of bituminous paint.

### 3.2 INSTALLING POSTS

- A. Direct-Burial Method (monument sign/electronic display):

1. Setting in Cast-in-Place Concrete: Set post in position, support to prevent movement, and place concrete for concrete foundation as indicated on Drawings.
- B. Baseplate Method (site directional signage):
  1. Drilled-in-Place Anchor Bolts: Set post baseplate in position over concrete foundation, locate and drill anchor holes, shim and support post to prevent movement, place washers and anchor bolts, and tighten. Fill shim space with nonshrink, nonmetallic grout, mixed and placed to comply with manufacturer's written instructions.

END OF SECTION 101426