



Project Manual for

Sunny Hill Nursing Home Of Will County – Maintenance Work

Joliet, Illinois

November 4th, 2016

ENGINEERS
ARCHITECTS
SURVEYORS
SCIENTISTS



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| Division | Section Title | Pages |
|---|---|-------|
| SERIES 0 BIDDING REQUIREMENTS AND CONTRACT FORMS | | |
| 00020 | INVITATION TO BID | 2 |
| 00100 | INSTRUCTIONS TO BIDDERS | 5 |
| 00200 | INFORMATION AVAILABLE TO BIDDERS | 1 |
| 00240 | SUBSTITUTION REQUEST FORM (PRE-BID) | 2 |
| 00300 | BID FORM FOR STIPULATED SUM PROPOSAL | 3 |
| 00500 | AGREEMENT FORMS | 1 |
| 00600 | BONDS AND CERTIFICATES..... | 1 |
| 00700 | GENERAL CONDITIONS..... | 1 |
| 00800 | SUPPLEMENTARY CONDITIONS | 13 |
| 00800A | WILL COUNTY PREVAILING WAGE – JULY 2015 | 11 |
| 008500 | DRAWING INDEX..... | 1 |
| DIVISION 1 - GENERAL REQUIREMENTS | | |
| 01100 | SUMMARY OF WORK..... | 6 |
| 01210 | ALLOWANCES | 2 |
| 01250 | CONTRACT MODIFICATION PROCEDURES..... | 3 |
| 01290 | PAYMENT PROCEDURES | 4 |
| 01320 | CONSTRUCTION PROGRESS DOCUMENTATION | 6 |
| 01330 | SUBMITTAL PROCEDURES..... | 8 |
| 01400 | QUALITY REQUIREMENTS | 6 |
| 01420 | REFERENCES..... | 17 |
| 01500 | TEMPORARY FACILITIES AND CONTROLS..... | 3 |
| 01600 | PRODUCT REQUIREMENTS | 6 |
| 01700 | EXECUTION REQUIREMENTS | 5 |
| 01732 | SELECTIVE DEMOLITION | 4 |
| 01770 | CLOSEOUT PROCEDURES..... | 5 |
| 01781 | PROJECT RECORD DOCUMENTS..... | 3 |
| 01782 | OPERATION AND MAINTENANCE DATA | 6 |
| 01820 | DEMONSTRATION AND TRAINING | 3 |
| DIVISION 07 THERMAL AND MOISTURE PROTECTION | | |
| 07620 | TOPICAL MOISTURE VAPOR MITIGATION SYSTEM..... | 4 |
| DIVISION 09 FINISHES | | |
| 09651 | RESILIENT TILE FLOORING..... | 9 |
| 09653 | RESILIENT BASE AND ACCESSORIES | 8 |

SECTION 00020 - INVITATION TO BID

1 General

A. The “**County of Will**” herein referred to as “**Owner**” is inviting sealed Bid Proposals from interested parties for the “**Sunny Hill Nursing Home of Will County Renovations – Maintenance Work**” herein referred to as “**Project**”.

Project is located at **421 Doris Avenue, Joliet, IL. 60433**

B. The Work consists of the following:

All labor, tools, and accessories required for the full and complete removal of the existing flooring and existing wall base of the areas indicated. All labor, tools, and accessories required for the full and complete installation of new flooring and new wall base of the areas indicated. The application of a moisture mitigation product capable of sealing the existing concrete slab where moisture content is > 99% RH. All work, tools, and accessories required for the full and complete preparation of existing floors as necessary to install new flooring. And any other work as noted in the drawings and specifications.

C. The work shall include all labor, supervision, materials, supplies, transportation, equipment, fees, licenses, permits, and services necessary for the complete performance of all requirements for such work in accordance with the entirety of the project documents and their intent. Bidders must self perform the work of the Bid Package(s) on which they are the successful bidder.

D. There will be a **mandatory pre-bid meeting** at the project site for all Bidders on **November 10th 2016 at 2:00 pm.**

E. **Sealed** bids will be received in the Purchasing Department, 2nd floor, Will County Office Building, 302 N. Chicago Street, Joliet, IL. 60432, not later than **10:00 A.M., Friday, November 18, 2016.**

G. Bidding Documents

1. The Bidding Documents may be examined at the following locations:

- a. Will County Website
www.willcountyillinois.com
and
www.DemandStar.com

- b. Farnsworth Group FTP Site (download PDF format)

<ftp.f-w.com>

User name: Sunny Hill Maintenance
Password: FGIFTP

- c. Contractors Association of Will & Grundy Counties
INVITATION TO BID

233 Springfield Avenue,
Joliet, IL 60435(815) 741-1455

H. **“The County of Will”** reserves the right to accept or reject any and all Bids and to waive any informality in the Bidding. After receipt of Bids and completion of the review process, the **“The County of Will”** may award a contract to the lowest, responsible, responsive Bidder.

I. Successful bidders shall be required to observe the Fair Employment Practices Commission Rules pertaining to Equal Employment Opportunity and comply with the Illinois Prevailing Wage Act, 820 IL CS section 130/0.01 et seq., in accordance with the Will County Prevailing Wage as determined by the Illinois Department of Labor, Conciliation, and Mediation Division for July 2015 or the most recent determination as of the bid date. These wages will remain in effect until superseded by a new determination.

END OF SECTION 00020

SECTION 00100 - INSTRUCTIONS TO BIDDERS

1. General

A. The Bidder is required to meet the following criteria in order to be considered a responsible bidder by the Owner.

1. Bidder shall have a minimum of five (5) continuous years in business prior to this projects bid date.
2. Bidder shall have been contracted for at least two (2) healthcare facility construction, addition or renovation projects of similar scope, complexity and size in the State of Illinois, each substantially completed on time within the last five (5) years.
3. Insurance rating shall be 1.0 or less.

B. All the responsibilities or work described in the General Specifications, Division 1 – General Requirements, and the General Conditions are applicable to the work of this project.

C. Type of Bid

1. Bids on Bid Packages shall be on a stipulated sum basis.

D. Time and Location for Opening of Bids

1. See Section 00020 - Invitation to Bid.

E. Examination and Procurement of Documents

1. See Section 00020 - Invitation to Bid.

F. Bid Security

1. Bid Security in the amount of ten percent (10%) of the Bid must accompany each Bid. Bid Security must be in the form of a Cashier's Check, Certified Check or Bid Bond. Made payable to the Will County Treasurer. Bids without a bid bond will not be considered.

G. Interpretations of Addenda

1. No oral interpretation will be made to any Bidder as to the meaning of the Bidding Documents or any part thereof.
2. Requests for interpretations shall be made in writing via email to Rita Weiss at RWeiss@willcountyillinois.com and will be answered via an addendum.
3. Inquiries received seven (7) or more days prior to the date fixed for opening of bids will be given consideration.

INSTRUCTIONS TO BIDDERS

00100 - 1

4. Changes to the Bidding Documents will be in the form of an Addendum to the Bidding Documents, and when issued, will be on file in the office of the Architect at least four (4) days before Bids are opened.
5. Addenda will be emailed to each bona fide bidding Contractor holding Bidding Documents, but it shall be the Bidders' responsibility to make inquiry as to the Addenda issued and provide distribution of Addenda to all Subcontractors and Suppliers.
6. Addenda shall become part of the Contract and all Bidders shall be bound by such Addenda, whether or not received by the Bidders.

H. Inspection of Site and Documents

1. Bidder shall visit the site of the proposed work and fully acquaint himself with the existing conditions there relating to construction and labor, and should fully inform himself as to the facilities involved, the difficulties and restrictions attending the performance of the Contract.
2. The Bidder shall thoroughly examine and familiarize himself with the Drawings, Technical Specifications and all other Bidding Documents.
3. The Contractor by the execution of the Contract acknowledges that he shall in no way be relieved of any obligation under it due to his failure to receive or examine any form or legal instrument or to visit the site and acquaint himself with the existing conditions, and the Owner will be justified in rejecting any claim based on facts regarding which the contractor should have noticed as a result thereof. Before submitting a bid, the bidder is required to carefully examine the entirety of the Contract Documents, visit the site, and note existing facilities conditions and
4. Limitations affecting the work to be performed under his Contract and include all costs for same. By submitting a bid, the bidder agrees he has examined the entirety of the Contract Documents, has visited the site, noted all conditions and limitations affecting the work and fully understands the nature of the work, general and local conditions, and accepts the agreement forms as stated in Section 00500 – Agreement Forms. By submitting a bid, the bidder agrees that he will not make any claim for damages or additional compensation because of lack of information, or because of any misunderstanding, or because of any misinterpretation of the requirements of the Contract
5. Site visits will not be permitted, as we are holding a MANDATORY PRE-BID Meeting.

A MANDATORY Pre-bid Meeting will be held on **November 10th 2016 at 2:00 pm** at the Sunny Hill Nursing Home: 421 Doris Avenue; Joliet, Illinois 60433 in the lower level classroom.

6. The site will be visited at this time and questions will be fielded. No oral interpretation of the bidding documents will be given at this time. All questions asked will be recorded and answered issued to all attendees by the Architect.

I. Bids

INSTRUCTIONS TO BIDDERS

1. Bids must be submitted on forms supplied by the Owner and follow the requirements set forth in the "NOTICE TO BIDDERS". All proposals shall be properly signed and seal affixed. Bids must be regular in every respect and no interlineations, excisions, qualifications or special conditions shall be made or included in the Bid Form by the Bidder except as stated below.
2. The Owner may consider as irregular any Bid on which there is an alteration of or departure from the Bid Form provided herein, and at his option may reject same.
3. Corrections, erasures or other changes in the Bid Proposal Documents must be explained or noted over the signature of the Bidder.

J. Substitutions

1. Each Bidder represents that his Bid is based upon the materials and equipment described in the Bidding Documents.
2. No Substitution will be considered unless request has been submitted to the Architect for approval at least seven (7) days prior to the date of receipt of Bids. Substitution requests shall be written and accompanied by adequate technical and cost data.
3. Requests shall include a complete description of the proposed Substitution, name of the material or equipment for which it is to be substituted, drawings, cuts, performance and test data, and any other data or information necessary for a complete evaluation by the Architect.
4. If the Architect approves any proposed Substitution, such approval will be set forth in an Addendum not less than five (5) days prior to the date for receipt of Bids.

K. Award of Contract: Rejection of Bids

1. The Contract, if awarded, will be awarded to the responsible and responsive contractor submitting the lowest responsible bid complying with the conditions of the Bidding Documents, within the Owner's Budget.
2. The Contract shall be deemed to have been awarded when notice of an award shall have been given to the Bidder by some officer or agent of the Owner. The Bidder to whom the awards are made will be notified at the earliest possible date, likely within one month of the opening.
3. The Owner, however, reserves the right to reject any and all Bids and to waive any informality in Bids received whenever such rejection to waiver is in his interest.

L. Bids plus any acceptable Alternates, if applicable, will be held good for a period of sixty (60) days subsequent to the opening of Bids.

M. Use and Clarification of Drawings and Specifications

1. All Drawings and Specifications for the work are the property of Owner and are intended solely for use in the work contemplated in such Drawings and Specifications.
2. If there are any discrepancies in, or omissions from, the Drawings or

Specifications, or if the Bidder is in doubt as to the true meaning of any part of the Bidding Documents, he shall request clarification from the Owner, by way of the Purchasing Director in writing at rweiss@willcountyillinois.com. Any assumptions made by the bidder without clarification shall be at the bidder's own risk.

3. Such request must be in writing and shall be made not less than five (5) working days prior to the time scheduled for the termination of Bidding. Interpretations in response to inquiries from any Bidder, or any clarification or corrections issued, will be Emailed to each Bidder. If the Bidder fails to request clarification regarding methods of performing work or the material required, his proposal shall be deemed to include the method requiring the greater quantity of work or material or upon the material of greatest cost indicated.
4. It is understood that for all intents and purposes the terms Contractor, Trade Contractor and Multiple Trade Contractor are all interchangeable and considered on and the same.

N. Execution of Agreement and Performance and Payment Bonds

1. Subsequent to the award and within seven (7) days after the prescribed forms are prepared and presented for signature by the Owner, the successful Contractor shall execute and return to the Owner, an Agreement in the form referenced in the Contract Documents in such number of copies as the Owner may require. The submittal shall include required insurance forms.
2. Trade Contractor will furnish Performance and Payment Bonds in penal sum equal to 100 % of the contract sum within five (5) days of the execution of the Agreement between Owner and Contractor. The bond premium is to be included in the Stipulated Sum Bid. Contractor represents that this Proposal does include all costs of such bonds.
3. Bidders should note that this Project Manual consists of all pages listed in the Table of Contents. Upon notification, the Owner will furnish any pages missing from the Project Manual, or from the Drawings as printed.
4. If the Bidder to whom the award is made shall fail to enter into a contract for the performance of the Work or furnish the Performance and Payment Bonds and the required certificates within ten (10) days, he shall forfeit his claim to the Work and the amount represented by the Bid Security accompanying his Proposal shall become the property of the Owner as the agreed and liquidated amount of damages caused by such failure.

O. Pre-Construction Conference

A "Pre-Construction" Conference will be scheduled shortly after the issuance of the "Notice to Proceed", to establish lines of communication, review schedules, and establish guidelines for execution of the work. This meeting is to be attended by the Trade Contractor, any Subcontractors, the Owner and the Architect.

P. Bidder's Responsibility for Condition of Work

1. The Bidder shall, before submitting his Proposal, be held to have examined the premises, so as to compare them with the Drawings and Specifications, and to have satisfied himself as to the existing conditions of the premises and limitations under which the work will have to be executed. No allowance shall subsequently be made on behalf of the Bidder by reason of any

error or neglect on his part for having failed to follow the instruction here given.

2. The Bidder shall be held to have carefully read the Instructions to Bidders, the General Conditions, the Specifications for his work and other branches of the work to the end that he may be fully informed not only as to the work he is to perform, but also know about the work that will be required to be done by all Subcontractors.

Q. Sales Tax

1. **Owner is a tax exempt organization and Contractor will be permitted to use Owner's tax exempt number for this project.**

R. Building Permits

1. Not required for this project.

S. Payment

1. Owner will make partial payments as the work progresses and is found satisfactory by Owner. Contractor may submit to the Owner, not more than once a month, a partial payment invoice, using the form designated in Section 00600, setting forth the value, based on the prices in this Proposal, of labor, materials and supplies furnished and incorporated in the work to the satisfaction of Owner and of materials suitably stored on the site at the date of such submission.

T. Wage Rates

1. See Section 00800.

U. Equal Employment Opportunity

1. See Section 00800.

END OF SECTION 00100

SECTION 00200 - INFORMATION AVAILABLE TO BIDDERS

1.1 General

- A. This section contains: Substitution request form.

SECTION 00240 – SUBSTITUTION REQUEST FORM (PRE-BID)

TO: Farnsworth Group Inc.

Project: **Sunny Hill Nursing Home of Will County – Maintenance Work**

Note: Substitution requests with complete product documentation shall be made at least 7 work days prior to receipt of bids. Substitution requests include specific product requests when comparable manufacturers for Basis-of-Design specifications are listed without products in Specification Divisions 02 through 33 and in specifications on Drawings.

We hereby submit for your consideration the following product instead of the specified item for the above project:

| <u>Section</u> | <u>Paragraph</u> | <u>Specified Item</u> |
|----------------|------------------|-----------------------|
|----------------|------------------|-----------------------|

| | | |
|---------------------------|-------|--|
| Proposed Substitution: | _____ | |
|---------------------------|-------|--|

- Attach complete technical data including laboratory tests if applicable.
- Include complete information changes to Drawings and/or Specifications which proposed substitution require for proper installation.
- Fill in Blanks Below, use additional sheets if necessary:

A. Does the substitution affect dimensions shown on Drawings?

B. Will the undersigned pay for changes to building design, including engineering and detailing costs caused by substitution, if any?

C. What effect does substitution have on other trades?

D. Differences between proposed substitution and specified item?

E. Manufacturer's guarantees of proposed and specified items are:

_____ Same _____ Different (explain on attachment)

The undersigned states that the function, appearance and quality are equivalent or superior to the specified item.

Submitted by:

(Printed Name + Signature)

(Firm)

(2 Address Lines)

For use by Design Consultant:

Accepted Accepted as Noted Firm

Not Accepted Received Too Late

By: _____

Date: _____

Phone: _____

Remarks: _____

SECTION 00300 - BID FORM FOR STIPULATED SUM PROPOSAL

TO: County of Will 302 N. Chicago Street. Joliet, IL. 60432

The Undersigned, having fully and completely examined the Bidding Documents titled, "**Sunny Hill Nursing Home of Will County Maintenance Work**", and having visited the site and examined the existing conditions affecting the cost of the Work, including applicable codes, regulations and statutes and having full knowledge of the conditions and requirements thereof, hereby proposes and agrees to furnish all labor, materials, equipment, bond costs, appliances, and any other incidentals related to the completion of the Work, and to perform all operations necessary to complete the **Work** required by said Bidding Documents in full compliance with the conditions and requirements of the bidding documents as follows:

BASE BID: Provide all labor, materials, equipment, bond costs, appliances, and all other items required and incidentals related to the completion of the Work as required for all work as set forth in the Bidding Documents for **Sunny Hill Nursing Home of Will County Maintenance Work**, for the Stipulated Sum of:

Bid Breakdown:

- A. Base Bid - DOLLARS (\$))
- B. Allowance – Include in the **BASE BID** the lump sum of **\$15,000** for the rework or correction of unknown and \ or concealed conditions.
- C. Addendum Receipt: Receipt of the following addenda to the bidding documents and attachments is hereby acknowledged
- a. No _____, dated _____
- b. No _____, dated _____
- c. No _____, dated _____
- D. TOTAL STIPULATED SUM **DOLLARS (\$**) (Total of lines A & B)

Bid Security: Bid security, in the amount of ten percent (10%) of the base bid amount, in the form of _____ (bid bond, certified check, or cashier's check), as required by the bidding documents, is submitted herewith, with each bid.

Prime Contractor Certifications: A completed prime contractor certification (Form 720ILCS 5/33E), as required by the bidding documents, is submitted with this bid.

The certification herein are a material part of the project. Failure to make such certification or falsely making certification will lead to the rejection of that bid.

It is understood and agreed that, if selected, should the undersigned fail to enter into a contract with the Owner or furnish acceptable contract security, (Performance and Payment Bonds acceptable to the owner), within the specified time and manner, the bid deposit that be retained by the owner as liquidated damages but not as a penalty. As it impossible to determine precisely the exact amount of damages the Owner will sustain in such instance, it is agreed that the bid deposit is a fair and equitable estimate of such damages.

The Undersigned acknowledges, understands and agrees to comply with and be bound by the Instructions to Bidders issued for this Work, and all Division 00 Bidding Requirements and Contract Forms issued for this Work.

The undersigned agrees to observe the Fair Employment Practices Commission Rules pertaining to Equal Employment Opportunity and comply with the Illinois Prevailing Wage Act, 820 IL CS 130/1 et seq. and use the current Wage Determination as determined by the Illinois Department of Labor, Conciliation, and Mediation Division. These wages will remain in effect until superseded by a new determination.

Sub-Contractors: If awarded a Contract for the Work proposed herein, and any modifications thereof, the Undersigned proposes to employ the following Sub-Contractors for performance of portions of the Work other than that to be performed by his own forces:

| Description of Work | I.Name | I.Address |
|---------------------|--------|-----------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

Certification: The Undersigned Bidder certifies that it has not been convicted of bribery or attempting to bribe an officer or employee of the State of Illinois, or any unit of government in the State of Illinois, nor has the Bidder made an admission of guilt of such conduct which is a matter of record, nor has an official, agent, or employee of the Bidder committed bribery or attempted bribery on behalf of the Bidder and pursuant to the direction or authorization of a responsible official of the Bidder. The Undersigned Bidder further certifies that it is not barred from bidding on this contract as a result of a conviction for the violation of state laws prohibiting bid-rigging or bid-rotating.

Bidder Identification and Signature:

IF THE BIDDER IS AN INDIVIDUAL

Name of Bidder: _____
Signature of Bidder: _____
Business Address: _____

Phone Number: _____

IF THE BIDDER IS A PARTNERSHIP

Firm Name: _____
Signature of General Partner: _____
Business Address: _____

Phone Number: _____

SEAL:

IF THE BIDDER IS A CORPORATION

Corporation Name: _____
Signature (must be an officer other than
Secretary): _____
Business Address: _____

Phone Number: _____
President: _____
Secretary: _____
Treasurer: _____

CORPORATE SEAL:

END OF SECTION 00300

SECTION 00500 - AGREEMENT FORMS

1.1 GENERAL

- A. Owner - Contractor Agreement: The form of Contract shall be the "Standard Form of Agreement between Owner and Contractor " the American Institute of Architects Document A101, 2007 Edition as amended.
- B. The General Conditions shall be the "General Conditions of the Contract for Construction" the American Institute of Architects Document A201, 2007 Edition as amended.

END OF SECTION 00500

SECTION 00600 - BONDS AND CERTIFICATES

1.1 GENERAL

- A. Performance/Payment Bonds: The forms of Bonds shall be "Performance Bond & Labor and Material Payment Bond", The American Institute of Architects Document A312, 2010.
- B. Certificate of Insurance: The form of the certificate shall be "Certificate of Insurance", the American Institute of Architects Document G715, November, 1991 Edition or the standard form of insurance as provided by the Contractor's insurance agent.
- C. Substantial Completion: The form of the certificate shall be "Certificate of Substantial Completion", the American Institute of Architects Document G704 2000 Edition.
- D. Bid Bond: The form of Bid Bond may be the American Institute of Architects documents A310, February, 1970 Edition, or the Bonding Company Standard Form.
- E. Application for Payment: The form shall be "Application and Certificate for Payment", American Institute of Architects Document G702- 1992 and Continuation Sheets G703, 1992 Edition.

END OF SECTION 00600

SECTION 00700 - GENERAL CONDITIONS

1.1 GENERAL

- A. The General Conditions shall be the American Institute of Architects Document A201, "General Conditions of the Contract for Construction", 2007 Edition, as amended here after and as amended by the Supplementary Conditions in Section 00800.

END OF SECTION 00700

SECTION 00800 - SUPPLEMENTARY CONDITIONS

- A. The following supplements modify the "General Conditions of the Contract for Construction" AIA Document A201 – 2007 Edition (see Section 00700). Where a portion of the General Conditions is modified or deleted by these Supplementary Conditions, the unaltered portions of the General Conditions shall remain in effect.

ARTICLE 1: General Provisions

Delete the word "not" in the last sentence of Subparagraph 1.1.1.

- 1.1.3 Add the following at the end of paragraph:

The Work shall also include labor, materials, equipment and services provided or to be provided by Subcontractors, Sub-sub-contractors, material suppliers or any other entity for whom the Contractor is responsible under or pursuant to the Contract Documents. The Contractor acknowledges and agrees that at the time of attachment hereto of incorporation herein each Contract Document is adequate and sufficient to provide for the completion of the Work described therein, and includes all work, whether or not shown or described, which reasonable may be inferred to be required or useful for the completion of the Work described therein in accordance with all applicable laws, rule, ordinances, codes and professional standards.

- 1.5.1 Insert "as between Architect and Contractor" between "retain" and "all" in the first sentence. Insert "Or Owner's" between "consultants" and "reserved rights."

ARTICLE 2: OWNER

2.2 Information and Services Required of the Owner

- 2.2.3 Add to end of paragraph:

The Contractor shall review such information furnished by the Owner and compare such information with observable physical conditions and the Contract Documents and shall promptly report to Owner and Architect in writing any conflicts, errors or omissions that it recognized. The Contractor shall also be responsible for any such conflicts, errors or omissions that it should have recognized exercising the standard of care provided in Subparagraph 3.1.2. The Contractor represents that it has inspected the location of the Work and has satisfied itself as to the condition thereof, including, without limitation, all structural, surface and subsurface conditions based upon the soil and subsurface engineering and investigative reports (including any environmental site assessments), if any, provided by the Owner and such site investigations and other appropriate due diligence investigations as a prudent contractor for a Project of this size, scope and quality would undertake. The Contractor shall undertake such further investigations and studies as may be necessary or useful to determine surface, subsurface and existing conditions. Based upon the foregoing inspection, understandings, agreements and acknowledgments, the Contractor agrees and acknowledged (i) that the Contract Sum is just and reasonable compensation for all the Work, including all reasonable unforeseen, foreseen and foreseeable risks, hazards and difficulties in connection therewith and (ii) that the Contract Time is adequate for the performance of the Work.

Delete Subparagraph 2.2.5 and substitute the following:

2.2.5 Trade Contractors will be furnished free of charge two (2) copies of Drawings and Project

Manuals. Additional sets will be furnished at the cost of reproduction, postage and handling.

2.3 Revise as follows:

OWNERS RIGHT TO STOP THE WORK

If the Contractor fails to correct Work that is not in accordance with the requirements of the Contract Documents as required by Section 12.2 or repeatedly fails to carry out Work in accordance with the Contract Documents, or fails or refuses to provide a sufficient amount of properly supervised and coordinated labor, materials or equipment so as to be able to complete the Work within the Contract Time or fails to remove and discharge (within ten days) any lien filed upon the Owner's property or project designated funds by anyone claiming by, through or under the Contract, or disregards the instructions of the Architect or the Owner, the Owner may issue a written order to the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, the right of the Owner to stop the Work shall not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity, except to the extent required by Section 6.1.3. These rights shall be in addition to, and not a restriction of, any other rights of the Owner under this Contract. This right shall be in addition to, and not in restriction or in derogation of Owner's rights under Article 14. The Owner's right to stop the work shall not relieve the Contractor from his sole and exclusive responsibility for site safety. The Owner's exercise of the right to stop the work shall be solely for Contractor's failure to complete the work in accordance with the Contract Documents and shall in no way be construed as placing the Owner in charge of the work or in any way responsible for site safety.

2.4 Owner's Right to Carry Out the Work.

Add "as well as testing, engineering, accounting, consulting services and attorney's fees and expenses" to the end of the second sentence.

ARTICLE 3: CONTRACTOR

3.1.3. Add at end of first sentence: "and Contractor shall at all times perform its services under this Agreement exercising the degree of professional care and skill and due diligence in a manner equivalent to other highly reputable Contractors performing similar services for large hospital and health care project."

3.2.1 Add the following:

Site Investigation: By executing the Contract, the Contractor acknowledges that he has satisfied himself as to the nature and location of the work, the general and local conditions, including those bearing upon access (including partial or total restriction in access), transportation, disposal, staging, handling and storage of materials, availability of labor, water, electric power, roads and uncertainties of weather, ground water table or similar physical conditions of the ground, the character, quality and quantity of surface and sub-surface materials to be encountered, the character of equipment and facilities need prior to and during the prosecution of the work and all other matters which can in any way effect the work or the cost thereof under this Contract. Any failure by the Contractor to acquaint himself with all the available information concerning these conditions will not relieve him from any obligations with respect to his Contract.

3.2.2. Delete from paragraph:

~~These obligations are for the purpose of facilitating coordination and construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents, however,~~

Add new paragraphs:

- 3.2.5 If any of the Work is required to be inspected or approved by any government authority, the Contractor shall cause such inspection or approval to be performed. No inspection performed or failed to be performed by the Owner hereunder shall be a waiver of any of the Contractor's obligations hereunder or be construed as an approval or acceptance of the Work or any part hereof.
- 3.2.6 The Contractor acknowledges that it is the Contractor's responsibility to hire all personnel for the proper and diligent prosecution of the Work and the Contractor shall use its best efforts to maintain labor peace for the duration of the Project. In the event of a labor dispute, the Contractor shall not be entitled to any increase in the Contract Sum.
- 3.3.4 The Contractor has the responsibility to ensure that all material suppliers and Subcontractors, their agents, and employees adhere to the Contract Documents, and that they order materials on time, taking into account the current market and delivery conditions and that they provide materials on time. The Contractor shall coordinate its Work with that of all others on the Project, including deliveries, storage, installations, and construction utilities. The Contractor shall be responsible for the space requirements, locations, and routing of its equipment. In areas and locations where the proper and most effective space requirements, locations, and routing cannot be made as indicated, the Contractor shall meet with all others involved, before installation, to plan the most effective method of overall installation.

3.4 Labor and Materials

Add the following Subparagraphs 3.4.4 and 3.4.5 to 3.4:

3.4.4 After the Contract has been executed, the Owner and the Architect will consider a formal request for the substitution of products in place of those specified only under the conditions set forth in the General Requirements (Division 1 of the Specifications).

3.4.5 By making requests for substitutions based on Subparagraph 3.4.3 above, the Trade Contractor:

represents that the Trade Contractor has personally investigated the proposed substitute product and determined that it is equal or superior in all respects to that specified;

represents that the Trade Contractor will provide the same warranty for the substitution that the Contractor would for that specified;

certifies that the cost data presented is complete and includes all related costs under this Contract except the Architect's redesign costs, and waives all claims for additional costs related to the substitution which subsequently become apparent; and

will coordinate the installation of the accepted substitute, making such changes as may be required for the Work to be complete in all respects.

3.6 Taxes

Delete paragraph 3.6 and substitute the following:

3.6 Owner is a tax exempt organization and Trade Contractor will be permitted to use Owner's tax exempt number for this project.

3.9.1 Add to end of paragraph:

“Important communications shall be confirmed in writing. Other communications shall be similarly confirmed on written request in each case. The superintendent shall be approved by the Owner and shall not be replaced without the prior written consent of the Owner. Notwithstanding the foregoing, the Owner shall have the right to require that the Contractor replace the superintendent if his/her performance is not satisfactory to the Owner.

3.10.1 Contractor’s Construction Schedule: Between “intervals” and “as” add “established by the C”

Add new paragraph: 3.10.4

Should the Contractor fail to adhere to the Construction Schedule, the Contractor shall furnish such additional labor and/or services, or work sufficient overtime as may be necessary to make progress conform to the Construction Schedule at no additional cost to Owner. Failure to adhere to the Construction Schedule, or failure to take steps to regain the Construction Schedule shall constitute a cause for termination and a declaration of default under the terms of the Agreement.

Add new paragraph: 3.13.3

Contractor agrees that it will take reasonable steps to minimize the impact of the Work on Owner’s business, and on nearby and adjacent properties whether owned by the Owner or other persons or entities. In that regard, prior to the start of construction at the Site the Contractor shall submit to the Architect for the Owner’s approval a “Site Access and Control Plan”; which upon approval by the Owner shall constitute a Contract Document. The Site Access and Control Plan shall designate all means of ingress and egress to the Site, parking areas, storage areas and temporary facilities and such other matters as the Architect and the Owner or any governmental authority deems relevant and shall be consistent with the other Contract Documents and permit the construction of the Work and execution of the Project as otherwise required hereby. The Contractor shall cause all persons at the Site to comply with the Site Access and Control Plan unless directed otherwise by the Architect, and the Owner or any governmental authority, provided however, that notification or direction from a governmental authority in contradiction of the Site Access and Control Plan shall not become a basis for any claim of Change Order for any additional time or cost under the contract.

Add new paragraph: 3.14.3

Costs resulting from ill-timed cutting and patching shall be borne by the party responsible and shall not be the basis for claims for compensation in excess of the Contract Sum.

3.15.2 Revise sentence to read:

If the Contractor fails to clean up as provided in the Contract Documents, the Owner may do so without notice as required by 15.1.2 to Contractor and the Owner shall be entitled to reimbursement from the Contractor.

ARTICLE 5: SUBCONTRACTORS

Add new paragraph: 5.2.5

Upon request, the Contractor shall provide subcontracts, purchase orders and other agreements relating to the Work.

ARTICLE 6: CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

6.3.3 Add to end of sentence:

“Notice pursuant to Article 15 to allocate the cost of waste and rubbish removal to the Multiple Prime is not required.”

ARTICLE 7: CHANGES IN THE WORK

7.1.3 Add at the end of sentence:

Any substitution for specified or previously approved materials, equipment, systems or procedures proposed by or through the Contractor shall be effective only upon issuance of a Change Order. The Contractor shall notify the Architect and Owner immediately upon becoming aware of the unavailability or improper nature of any previously approved materials, equipment, systems or procedures.

7.2 Change Orders

Add the following Subparagraph:

7.2.3 To the actual cost involved for changes in the work, the trade contractor is entitled to add a fee of ten percent (10%) thereof for the costs of overhead, and a fee of five percent (5%) thereof for profit, for changes resulting in additional work. For deductive changes, the cost shall be net regardless of the Trade Contractor or Subcontractor performing the work.

7.3 Construction Change Directives

Paragraph 7.3, CONSTRUCTION CHANGE DIRECTIVES. Delete Sub-Subparagraphs 7.3.7.4 and 7.3.7.5 in their entirety.

Add the following Subparagraphs 7.3.11. and 7.3.12. In Subparagraph 7.3.7, the allowance for the combined overhead and profit included in the total cost to the Owner shall be based on the following schedule:

Cost to which overhead and profit is to be applied shall be determined in accordance with Subparagraph 7.3.7.

In order to facilitate checking of quotations for extras or credits, all proposals, except those so minor that their propriety can be seen by inspection, shall be accompanied by a complete itemization of costs including labor, materials and Subcontractors. Labor and materials shall be itemized in the manner prescribed above. Where major cost items are subcontracts, they shall be itemized. In no case will a charge involving over \$200.00 be approved without such itemization.

For deleted work the credit shall be the net cost.

7.3.12. The overhead and profit charges referred to in the preceding paragraphs above shall constitute full reimbursement for all costs of supervision, engineering, field and main office expense, premiums on insurance and bonds, small tools, incidental job burdens, etc.

ARTICLE 8: TIME

8.3.3 Add to end of sentence:

Any claims for an increase of the Contract Time or Price shall be made in writing to the Architect within seven (7) days of the cause of delay. Written notice as required herein is a condition precedent to recovery for any extension of the contract term or increase in the Contract Sum.

ARTICLE 9: PAYMENTS AND COMPLETION

9.2 Schedule of Values

Delete in its entirety and insert as follows:

As a condition precedent to payment, the Contractor shall submit to the Architect and Owner, before the first Application for Payment, a verified and notarized schedule of values identifying the names and address of all parties furnishing labor, services, material, fixtures, apparatus or machinery, forms or form work and the amounts due or to become due to each in accordance with the Illinois Mechanics Lien Act, 770 ILCS 60/5. and shall allocate the entire Contract Sum to the various portions of the Work by subcontractor prepared in such form and supported by such data to substantiate its accuracy as the Owner may require. This schedule, unless objected to by the Owner or Architect, shall be used as a basis for reviewing the Contractor's Applications for Payment.

9.3 Applications for Payment

9.3.1 Add the following sentence to Subparagraph 9.3.1:

The form of Application for Payment shall be a notarized "Application and Certificate for Payment", American Institute of Architects Document G732 - 2009 and Continuation Sheets G703, 1992 Edition.

Each Application and Certificate for Payment, American Institute of Architects Document G732 - 2009 shall list the name and address of the contractor in column two. With each pay application, the contractor shall submit the following notarized statement:

The undersigned [officer of the Multiple Prime Contractor] being first sworn on oath deposes that he/she is [an officer] of [Multiple Prime Contractor] that has a contract with WCPBC, Owner for the Sunny Hill Nursing Home Project and that the persons listed in the Application and Certificate for Payment", American Institute of Architects Document G732 - 2009 constitute a full and complete listing of all persons and entities with their current accurate address which have been contracted with and have furnished, or are furnishing and preparing materials for and have done or are doing labor on said improvement. That there is due them respectively, the amounts set opposite their names for materials or labor as stated. By submitting this verified Application for payment Contractor represents that it has paid all subcontractors for which it has previously received payment and that the attached statement is a full, true and complete statement of all such persons, the amounts paid and the amounts due or to become due to each.

Officer's signature

Subscribed and sworn to before me this ___ day of _____, 20__.

Notary's Signature Notary Public Seal

9.3 Applications for Payment

Add the following Clause 9.3.1.3 to 9.3.1:

9.3.1.3 Until Substantial Completion, the Owner shall pay ninety (90) percent of the amount due the Contractor on account of progress payments.

9.3.3 Add to end of paragraph:

This paragraph shall not be construed as relieving the Contractor from the sole responsibility for all materials and work upon which payments have been made, or the restoration of any damaged or improperly placed Work or as a waiver of the right of the Owner to require the fulfillment of all the terms of the Contract.

Add new paragraph 9.3.4:

The first payment request shall be accompanied by the Contractor's Partial Waiver of lien only, for the full amount of the payment. Each subsequent monthly payment request shall be accompanied by the Contractor's Partial Waiver for the full amount of the payment, and by the partial Waivers of Subcontractors and Suppliers who were included in the immediately preceding payment request, to the extent of that payment. The above waivers requirements shall not affect duty of the Contractor to promptly pay each Subcontractor each month the amount to which he is entitled. Final payment shall be made only upon receipt of Final Waivers of Lien from the Contractor, all Subcontractors and Suppliers of material who have not previously furnished such final waivers. Final waivers shall be for the full amount of the contract.

9.8 Substantial Completion

9.8.1 Insert "Owner approved" between "or" and "designated".

9.8.5 Add the following sentence: The payment shall be sufficient to increase the total payments to 95 percent of the Contract Sum, less such amounts as the Architect and Owner shall determine for incomplete Work and unsettled claims.

Delete 9.10.4 in its entirety.

ARTICLE 10: PROTECTION OF PERSONS AND PROPERTY

10.1 Add to end of paragraph:

Neither the Owner nor the Architect is responsible for safety precautions and programs in connection with the performance of the Contract.

10.2.2 Add to end of paragraph:

If the Contractor fails to give such notices, or fails to comply with such laws, ordinances, rules, regulations and lawful orders, it shall be liable for and shall indemnify and hold harmless the Indemnitees as provided in Subparagraph 3.18.

Add new paragraph 10.2.9:

The Contractor shall protect property not part of the Work and adjoining property and shall provide barricades, temporary fences, and covered walkways or other devices required to protect the safety of passers-by, as required by prudent construction practices, local building codes, ordinances, or other laws, or the Contract Documents.

Add new paragraph 10.2.10:

The Contractor shall maintain Work, materials and apparatus free from injury or damage from flood, rain, wind, storms, frost, cold or heat. If adverse weather makes it impossible to continue operations safely in spite of weather precautions, the Contractor shall cease the Work and notify the Owner and

Architect of such cessation. The Contractor shall not permit open fires on the Project Site. In addition, the Contractor shall, at its sole cost and expense promptly repair any disturbance to walls, utilities, sidewalks, curbs, roadways, and the property of third parties (including municipalities) resulting from the performance of the Work, whether by it or by its Subcontractors at any tier. The Contractor shall maintain streets in good repair and traversable and clean condition.

10.3.7 The trade contractor shall not use asbestos or any material which contains asbestos in his work. If requested by Architect or Owner Trade Contractor shall submit a signed statement insuring that no asbestos has been used on this project.

ARTICLE 11: INSURANCE AND BONDS

6. 11.1 Contractor's Liability Insurance

Delete the semicolon at the end of Clause 11.1.1.1 and add: , including private entities performing Work at the site and exempt from the coverage on account of number of employees or occupation, which entities shall maintain voluntary compensation coverage at the same limits specified for mandatory coverage for the duration of the project;”

11.1 Contractor's Liability Insurance

11.1.1.2 Delete the semicolon at the end of Clause 11.1.1.2 and add: or persons or entities excluded by statute from the requirements of Clause 11.1.1.1 but required by Contract Documents to provide the insurance required by that clause;

11.1 Contractor's Liability Insurance

Add the following Subparagraph 11.1.1.8 to 11.1.1:

11.1.1.8 Commercial General Liability Insurance shall be occurrence type and shall include as additional insureds, the Owner, the Architect and each of their officers, agents and employees.

11.1 Contractor's Liability Insurance

Add the following Subparagraphs 11.1.1.9 and 11.1.1.10 to 11.1.1:

11.1.1.9 Liability Insurance shall include all major divisions of coverage and be on a comprehensive basis including:

- a. Premises Operations (including X, C and U coverages as applicable).
- b. Independent Contractors' Protective.
- c. Products and Completed Operations.
- d. Personal Injury Liability with Employment Exclusion deleted.
- e. Contractual, including specified provision for Contractor's obligation under Paragraph 3.18.
- f. Owned, non-owned and hired motor vehicles.
- g. Broad Form Property Damage including Completed Operations.

11.1.1.10 If the General Liability coverages are provided by a Commercial General Liability Policy on a claims-made basis, the policy date or Retroactive Date shall predate the Contract; the termination date of the policy or applicable extended reported period shall be no earlier than the termination date of coverages required to be maintained after final payment, certified in accordance with Subparagraph 9.10.2.

11.1 Contractor's Liability Insurance

Add the following sentence to Subparagraph 11.1.3:

If this insurance is written on the Comprehensive General Liability policy form, the Certificates shall be AIA Document G705, Certificate of Insurance. If this insurance is written on a Commercial General Liability policy form, ACORD form 25s will be acceptable.

11.1 Contractor's Liability Insurance

Add the following Subparagraph 11.1.5 as set forth below:

11.1.5 The Contractor's Liability Insurance required by Subparagraph 11.1.1 shall be in amounts no less than:

1. Worker's compensation insurance. The Bidder shall procure worker's compensation insurance as required by applicable state law for all of his employees who would be engaged in work on the project. In case any class of employees engaged in any work on the project under this Contract is not protected under the worker's compensation statute, the Contractor shall provide adequate employer's liability insurance for the protection of such of his employees as are not otherwise protected. In addition, the Contractor will provide employer's liability (coverage B) in the amount of \$500,000.00.
2. Comprehensive General Liability and Property Damage Insurance. Bidder's Comprehensive General and Property Damage Insurance shall be in an amount not less than \$500,000.00 for injuries including accidental death to any one person and not less than \$500,000.00 on account of any one occurrences and property damage insurance including completed operations broad form in an amount not less than \$100,000.00 or \$500,000.00 combined single limit bodily injury and property damage.
3. Motor Vehicle Insurance. The Bidder shall furnish and maintain at his own expense, comprehensive motor vehicle liability insurance covering the use of all owned, non-owned or hired motor vehicles and that the limits on said policy for bodily injury including death resulting therefrom shall be not less than \$250,000.00 for each person and \$500,000.00 for each occurrence and property damage coverage of not less than \$100,000.00.
4. Owner's Protective Liability Insurance. The Bidder shall protect the County or its assignee, if any, from contingent responsibility arising from the work performed under this Contract by adding these parties as named insured as a rider to the specified Comprehensive General Liability and Property Damage Insurance Policy in an amount not less than \$500,000.00 per occurrence. The named insured in this Comprehensive General Liability and Property Damage Insurance Policy shall be: County of Will, 302 N. Chicago St., Joliet, IL. 60432.

- E. Additional Insureds: The General Liability Policy shall contain an endorsement showing the County of Will and all officials, employees, and consultants thereof, the firm of Farnsworth Group Inc. and all officials, employees, and consultants thereof, and the firm of Poulos Inc. and all officials, employees, and consultants thereof, as Additional Insureds.
- F. The Contractor shall require each of his Subcontractors to procure and to maintain during the life of his Sub-contract, Workmen's Compensation, Subcontractors' Comprehensive General Liability, Automobile Liability and Property Damage Liability Insurance of the type and in the same amounts as specified in this subparagraph.

11.2 Owner's Liability Insurance

11.2.1 Delete the last two sentences of Subparagraph 11.2.1 and substitute the following:

The Trade Contractor shall purchase and maintain insurance covering the Owner's contingent liability for claims which may arise from operations under the Contract.

11.4 Performance Bond and Payment Bond

Delete Subparagraph 11.4.1 and substitute the following:

11.4.1 The Contractor shall furnish bonds covering faithful performance of the Contract and payment of obligations arising thereunder. Bonds may be obtained through the Trade Contractor's usual source and the cost thereof shall be included in the Contract Sum. The amount of each bond shall be equal to 100 percent of the Contract Sum.

11.4.1.1 The Trade Contractor shall deliver the required bonds to the Owner not later than three days following the date of the Agreement is entered into, or if the Work is to be commenced prior thereto in response to a letter of intent, the Trade Contractor shall, prior to the commencement of the Work, submit evidence satisfactory to the Owner that such bonds will be furnished.

11.4.1.2 The Trade Contractor shall require the attorney-in-fact who executes the required bonds on behalf of the surety to affix thereto a certified and current copy of the power of attorney.

ARTICLE 13; MISCELLANEOUS PROVISIONS

13.7 Modify to read as follows:

The owner and Contractor shall commence all claims and causes of action, whether in contract, tort, breach of warranty or otherwise, against the other arising out of or related to the Contract in accordance with the requirements of the final dispute resolution method selected in the Agreement within the time period specified by applicable law, ~~but in any case not more than 10 years after the date of Substantial Completion of the Work. The Owner and Contractor waive all claims and causes of action not commenced in accordance with this Section 13.7.~~

Add the following Paragraph 13.8 to Article 13:

13.8 Wage Rates

13.8.1 The Trade Contractor shall comply in all respects with "An Act Regulating Wages of Laborers and Mechanics and other Workmen Employed under Contracts for Public Works" enacted by the 62nd General Assembly, approved on June 26, 1941.

The Owner has determined the prevailing rates of wages in accordance with the schedule following this section.

13.8.1.2 In case it shall become necessary for the Trade Contractor or any Subcontractor to employ in the Work under this Contract any person in a trade or occupation (except executive, administrative or supervisory workers) for which no wage rates are specified, except in classes of work for which the prevailing rate of wages has been found by the Owner not to be ascertainable, the Trade Contractor shall immediately notify the Owner which will attempt to ascertain and to furnish the Contractor with the general prevailing rate for such trade or occupation. The rate thus furnished shall be applicable for such trade or occupation from the time of initial employment of persons affected and during the continuance of such employment.

13.8.1.3 Prospective Bidders should make an investigation of existing labor conditions and any negotiated labor agreements which may exist or are contemplated at this time.

Add the following Paragraph 13.9 to Article 13:

13.9 Equal Opportunity

13.9.1 Equal Employment Opportunity Clause: Contractor shall conform in all respects to the rules of the Illinois Human Rights Commission.

13.9.1.1 In the event of the Contractor's noncompliance with any provision of this Equal Employment Opportunity Clause, the Illinois Fair Employment Practices Act or the Illinois Human Rights Commission's Rules and Regulations for Public Contracts, the Contractor may be declared non-responsible and, therefore, ineligible for future contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations, and the contract may be canceled or voided in whole or in part, and such other sanctions or penalties may be imposed or remedies invoked as provided by statute or regulation.

13.9.2 During the performance of this contract, the Contractor agrees as follows:

13.9.2.1 That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin or ancestry; and further, that it will examine all job classifications to determine if minority persons or women are under-utilized and will take appropriate affirmative action to rectify any such under utilization.

13.9.2.2 That if it hires additional employees in order to perform this contract, or any portion thereof, it will determine the availability (in accordance with the Commission's Rules and Regulations for Public Contracts) of minorities and women in the area(s) from which it may reasonably recruit and it will hire for each job classification for which employees are hired in such a way that minorities and women are not under-utilized.

13.9.2.3 That in all solicitations or advertisements for employees placed by or on its behalf, will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, national origin or ancestry.

13.9.2.4 That it will send to each labor organization or representative of workers with which it has or is bound by a collective bargaining or other agreement or understanding, a notice advising such labor organization or representative of the Contractor's obligations under the Illinois Fair Employment Practices Act and the Commission's Rules and Regulations for Public Contracts. If any such labor organization or representative fails or refuses to cooperate with the Contractor in its efforts to comply with such Act and Rules and Regulations, the Contractor will promptly so notify the Illinois Human Rights Commission and the contracting agency and will recruit employees from other sources when necessary to fulfill its obligations thereunder.

13.9.2.5 That it will submit reports as required by the Illinois Fair Employment practices Commission's Rules and Regulations for Public Contracts, furnish all relevant information as may from time to time be requested by the Commission or the contracting agency, and in all respects comply with the Illinois Fair Employment Practices Act and the Commission's Rules and Regulations for Public Contracts.

13.9.2.6 That it will permit access to all relevant books, records, accounts and worksites by personnel of the contracting agency and the Illinois Fair Employment Practices Commission for the purpose of investigation to ascertain compliance with the Illinois Fair Employment Practices Act and the Commission's Rules and Regulations for Public Contracts.

13.9.2.7 That it will include verbatim or by reference the provisions of Sub-Clauses 13.9.2.1 through 13.9.2.7 of this clause and every performance subcontract as defined in Section 2.10(b) of the Commission's Rules and Regulations for Public Contracts so that such provisions will be binding upon every such subcontractor; and that it will also include the provisions of Sub-Clauses 13.9.2.1, 13.9.2.5, 13.9.2.6 and 13.9.2.7 in every supply subcontract as defined in Section 2.10(a) of the Commission's Rules and Regulations for Public Contracts so that such provisions will be binding upon every such Subcontractor. In the same manner as with other provisions of this contract, the Contractor will be liable for compliance with applicable provisions of this clause by all its Subcontractors; and further, it will promptly notify the contracting agency and the Illinois Fair Employment Practices Commission in the event any Subcontractor fails or refuses to comply thereof. In addition, no Contractor will utilize any Subcontractor declared by the Commission to be non-responsible and, therefore, ineligible for contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations.

13.9.3 With respect to the two types of subcontracts referred to under Sub-Clause 13.9.2.7, the following is an excerpt of Section 2 of the FEPC's Rules and Regulations for Public Contracts:

13.9.3.1 Section 2.10: The term "Subcontract" means any agreement, arrangement or understanding, written or otherwise, between a contractor and any person (in which the parties do not stand in the relationship of an employer and an employee):
for the furnishing of supplies or services or for the use of real or personal property, including lease arrangements which, in whole or in part, are utilized in the performance of any one or more contracts; or, under which any portion of the contractor's obligation under any one or more contracts is performed, undertaken or assumed.

Add: 13.10 NOT BARRED

The Contractor by submitting its bid certifies that the Contractor is not barred from bidding on the contract as a result of a conviction for either bid-rigging or bid rotating. 720ILCS 5/33/E-11.

Add: 13.11 DRUG FREE WORKPLACE

The Contractor by submitting its bid certifies that it will provide a drug free workplace and that it is in compliance with the requirements of the Drug Free Workplace Act. 30 ILCS 580.1 et seq.

Add: 13.12 SEXUAL HARASSMENT POLICY

The Contractor by submitting its bid certifies that it has a written sexual harassment policy which include (i) the illegality of sexual harassment; (ii) a definition of sexual harassment (iii) a description of sexual harassment, utilizing examples; (iv) an internal complaint process including penalties; (v) the legal recourse, investigative and complaint process through the Illinois Department of Human Rights; (vi) directions on how to contact the Department and Commission; and (vii) protection against retaliation for exercising rights under the policy in accordance with 775 ILCS 5/2-105(A)(4).

ARTICLE 14: TERMINATION OR SUSPENSION OF THE CONTRACT

14.4.3 Delete the word “not” from the sentence.

ARTICLE 15 CLAIMS AND DISPUTES DURING CONSTRUCTION [ADD]

15.1.1 Add at the end of the first sentence:
“during the course of construction.”

15.1.4 Add in the first sentence “during construction” between “Claims” and “by”.

15.1.5.1 Add in the first sentence “during construction” between “Claims” and “by”.

15.2.1 Revise: Claims during construction,

15.3 Mediation

15.3.1 Delete

15.3.2 Delete

15.3.3 Revise the first sentence to read: If the parties agree to mediate, the parties shall share the mediator’s fee and any filing fees equally.

15.4 Delete SECTION 15.4 IN ITS ENTIRETY

County of Will does not participate in arbitration.

END OF SECTION 00800

Will County Prevailing Wage for July 2015

(See explanation of column headings at bottom of wages)

| Trade Name Trng | RG | TYP | C | Base | FRMAN | M-F>8 | OSA | OSH | H/W | Pensn | Vac |
|-------------------------------|----|-----|---|--------|--------|-------|-----|-----|-------|-------|-------|
| ===== | == | === | = | ===== | ===== | ===== | === | === | ===== | ===== | ===== |
| ASBESTOS ABT-GEN 0.500 | | ALL | | 39.400 | 39.950 | 1.5 | 1.5 | 2.0 | 13.98 | 10.72 | 0.000 |
| ASBESTOS ABT-MEC 0.720 | | BLD | | 36.340 | 38.840 | 1.5 | 1.5 | 2.0 | 11.47 | 10.96 | 0.000 |
| BOILERMAKER 0.400 | | BLD | | 47.070 | 51.300 | 2.0 | 2.0 | 2.0 | 6.970 | 18.13 | 0.000 |
| BRICK MASON 1.030 | | BLD | | 43.780 | 48.160 | 1.5 | 1.5 | 2.0 | 10.05 | 14.43 | 0.000 |
| CARPENTER 0.630 | | ALL | | 44.350 | 48.790 | 2.0 | 2.0 | 2.0 | 11.99 | 18.47 | 0.000 |
| CEMENT MASON 0.500 | | ALL | | 41.000 | 43.000 | 2.0 | 1.5 | 2.0 | 10.00 | 20.39 | 0.000 |
| CERAMIC TILE FNSHER 0.770 | | BLD | | 36.810 | 0.000 | 1.5 | 1.5 | 2.0 | 10.55 | 9.230 | 0.000 |
| COMMUNICATION TECH 0.720 | | BLD | | 33.000 | 34.500 | 1.5 | 1.5 | 2.0 | 13.92 | 11.69 | 1.410 |
| ELECTRIC PWR EQMT OP 0.460 | | ALL | | 46.100 | 51.100 | 1.5 | 1.5 | 2.0 | 10.76 | 14.87 | 0.000 |
| ELECTRIC PWR GRNDMAN 0.370 | | ALL | | 37.050 | 52.500 | 1.5 | 2.0 | 2.0 | 8.630 | 12.28 | 0.000 |
| ELECTRIC PWR LINEMAN 0.460 | | ALL | | 47.500 | 52.500 | 1.5 | 2.0 | 1.5 | 10.76 | 14.87 | 0.000 |
| ELECTRICIAN 1.200 | | BLD | | 40.000 | 43.600 | 1.5 | 1.5 | 2.0 | 14.77 | 16.39 | 0.000 |
| ELEVATOR CONSTRUCTOR 0.600 | | BLD | | 50.800 | 57.150 | 2.0 | 2.0 | 2.0 | 13.57 | 14.21 | 4.060 |
| GLAZIER 0.940 | | BLD | | 40.500 | 42.000 | 1.5 | 2.0 | 2.0 | 13.14 | 16.99 | 0.000 |
| HT/FROST INSULATOR 0.720 | | BLD | | 48.450 | 50.950 | 1.5 | 1.5 | 2.0 | 11.47 | 12.16 | 0.000 |
| IRON WORKER 0.780 | | ALL | | 41.000 | 42.000 | 2.0 | 2.0 | 2.0 | 10.04 | 21.41 | 0.000 |
| LABORER 0.500 | | ALL | | 39.200 | 39.950 | 1.5 | 1.5 | 2.0 | 13.98 | 10.72 | 0.000 |
| LATHER 0.630 | | ALL | | 43.350 | 47.690 | 2.0 | 2.0 | 2.0 | 11.85 | 17.47 | 0.000 |
| MACHINIST 0.000 | | BLD | | 45.350 | 47.850 | 1.5 | 1.5 | 2.0 | 7.260 | 8.950 | 1.850 |
| MARBLE FINISHERS 0.620 | | ALL | | 32.400 | 34.320 | 1.5 | 1.5 | 2.0 | 10.05 | 13.75 | 0.000 |
| MARBLE MASON 0.780 | | BLD | | 43.030 | 47.330 | 1.5 | 1.5 | 2.0 | 10.05 | 14.10 | 0.000 |
| MATERIAL TESTER I 0.500 | | ALL | | 29.200 | 0.000 | 1.5 | 1.5 | 2.0 | 13.98 | 10.72 | 0.000 |
| MATERIALS TESTER II | | ALL | | 34.200 | 0.000 | 1.5 | 1.5 | 2.0 | 13.98 | 10.72 | 0.000 |

SUNNY HILL NURSING HOME OF WILL COUNTY
 MAINTENANCE WORK

No. 0120691.06

| | | | | | | | | | | |
|--------------------|-------|--------|--------|-----|-----|-----|-------|-------|-------|--|
| 0.500 | | | | | | | | | | |
| MILLWRIGHT | ALL | 44.350 | 48.790 | 2.0 | 2.0 | 2.0 | 11.99 | 18.47 | 0.000 | |
| 0.630 | | | | | | | | | | |
| OPERATING ENGINEER | BLD 1 | 48.100 | 52.100 | 2.0 | 2.0 | 2.0 | 17.55 | 12.65 | 1.900 | |
| 1.250 | | | | | | | | | | |
| OPERATING ENGINEER | BLD 2 | 46.800 | 52.100 | 2.0 | 2.0 | 2.0 | 17.55 | 12.65 | 1.900 | |
| 1.250 | | | | | | | | | | |
| OPERATING ENGINEER | BLD 3 | 44.250 | 52.100 | 2.0 | 2.0 | 2.0 | 17.55 | 12.65 | 1.900 | |
| 1.250 | | | | | | | | | | |
| OPERATING ENGINEER | BLD 4 | 42.500 | 52.100 | 2.0 | 2.0 | 2.0 | 17.55 | 12.65 | 1.900 | |
| 1.250 | | | | | | | | | | |
| OPERATING ENGINEER | BLD 5 | 51.850 | 52.100 | 2.0 | 2.0 | 2.0 | 17.55 | 12.65 | 1.900 | |
| 1.250 | | | | | | | | | | |
| OPERATING ENGINEER | BLD 6 | 49.100 | 52.100 | 2.0 | 2.0 | 2.0 | 17.55 | 12.65 | 1.900 | |
| 1.250 | | | | | | | | | | |
| OPERATING ENGINEER | BLD 7 | 51.100 | 52.100 | 2.0 | 2.0 | 2.0 | 17.55 | 12.65 | 1.900 | |
| 1.250 | | | | | | | | | | |
| OPERATING ENGINEER | FLT 1 | 53.600 | 53.600 | 1.5 | 1.5 | 2.0 | 17.10 | 11.80 | 1.900 | |
| 1.250 | | | | | | | | | | |
| OPERATING ENGINEER | FLT 2 | 52.100 | 53.600 | 1.5 | 1.5 | 2.0 | 17.10 | 11.80 | 1.900 | |
| 1.250 | | | | | | | | | | |
| OPERATING ENGINEER | FLT 3 | 46.400 | 53.600 | 1.5 | 1.5 | 2.0 | 17.10 | 11.80 | 1.900 | |
| 1.250 | | | | | | | | | | |
| OPERATING ENGINEER | FLT 4 | 38.550 | 53.600 | 1.5 | 1.5 | 2.0 | 17.10 | 11.80 | 1.900 | |
| 1.250 | | | | | | | | | | |
| OPERATING ENGINEER | FLT 5 | 55.100 | 53.600 | 1.5 | 1.5 | 2.0 | 17.10 | 11.80 | 1.900 | |
| 1.250 | | | | | | | | | | |
| OPERATING ENGINEER | FLT 6 | 35.000 | 35.000 | 1.5 | 1.5 | 2.0 | 16.60 | 11.05 | 1.900 | |
| 1.250 | | | | | | | | | | |
| OPERATING ENGINEER | HWY 1 | 46.300 | 50.300 | 1.5 | 1.5 | 2.0 | 17.55 | 12.65 | 1.900 | |
| 1.250 | | | | | | | | | | |
| OPERATING ENGINEER | HWY 2 | 45.750 | 50.300 | 1.5 | 1.5 | 2.0 | 17.55 | 12.65 | 1.900 | |
| 1.250 | | | | | | | | | | |
| OPERATING ENGINEER | HWY 3 | 43.700 | 50.300 | 1.5 | 1.5 | 2.0 | 17.55 | 12.65 | 1.900 | |
| 1.250 | | | | | | | | | | |
| OPERATING ENGINEER | HWY 4 | 42.300 | 50.300 | 1.5 | 1.5 | 2.0 | 17.55 | 12.65 | 1.900 | |
| 1.250 | | | | | | | | | | |
| OPERATING ENGINEER | HWY 5 | 41.100 | 50.300 | 1.5 | 1.5 | 2.0 | 17.55 | 12.65 | 1.900 | |
| 1.250 | | | | | | | | | | |
| OPERATING ENGINEER | HWY 6 | 49.300 | 50.300 | 1.5 | 1.5 | 2.0 | 17.55 | 12.65 | 1.900 | |
| 1.250 | | | | | | | | | | |
| OPERATING ENGINEER | HWY 7 | 47.300 | 50.300 | 1.5 | 1.5 | 2.0 | 17.55 | 12.65 | 1.900 | |
| 1.250 | | | | | | | | | | |
| PAINTER | ALL | 41.750 | 46.500 | 1.5 | 1.5 | 1.5 | 11.50 | 11.10 | 0.000 | |
| 0.770 | | | | | | | | | | |
| PAINTER SIGNS | BLD | 33.920 | 38.090 | 1.5 | 1.5 | 1.5 | 2.600 | 2.710 | 0.000 | |
| 0.000 | | | | | | | | | | |
| PILEDRIIVER | ALL | 44.350 | 48.790 | 2.0 | 2.0 | 2.0 | 11.99 | 18.47 | 0.000 | |
| 0.630 | | | | | | | | | | |
| PIPEFITTER | BLD | 46.000 | 49.000 | 1.5 | 1.5 | 2.0 | 9.000 | 15.85 | 0.000 | |
| 1.780 | | | | | | | | | | |
| PLASTERER | BLD | 43.430 | 46.040 | 1.5 | 1.5 | 2.0 | 13.05 | 14.43 | 0.000 | |
| 1.020 | | | | | | | | | | |
| PLUMBER | BLD | 46.650 | 48.650 | 1.5 | 1.5 | 2.0 | 13.18 | 11.46 | 0.000 | |

SUNNY HILL NURSING HOME OF WILL COUNTY
 MAINTENANCE WORK

No. 0120691.06

| | | | | | | | | | | | | | |
|--------------------------|-------|--------|--------|-------|-----|-----|-------|-------|-------|--|--|--|--|
| 0.880 | | | | | | | | | | | | | |
| ROOFER | BLD | 41.000 | 44.000 | 1.5 | 1.5 | 2.0 | 8.280 | 10.54 | 0.000 | | | | |
| 0.530 | | | | | | | | | | | | | |
| SHEETMETAL WORKER | BLD | 44.720 | 46.720 | 1.5 | 1.5 | 2.0 | 10.65 | 13.31 | 0.000 | | | | |
| 0.820 | | | | | | | | | | | | | |
| SPRINKLER FITTER | BLD | 49.200 | 51.200 | 1.5 | 1.5 | 2.0 | 11.75 | 9.650 | 0.000 | | | | |
| 0.550 | | | | | | | | | | | | | |
| STONE MASON | BLD | 43.780 | 48.160 | 1.5 | 1.5 | 2.0 | 10.05 | 14.43 | 0.000 | | | | |
| 1.030 | | | | | | | | | | | | | |
| SURVEY WORKER | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| 12.97 | | 9.930 | 0.000 | 0.500 | | | | | | | | | |
| TERRAZZO FINISHER | BLD | 38.040 | 0.000 | 1.5 | 1.5 | 2.0 | 10.55 | 11.22 | 0.000 | | | | |
| 0.720 | | | | | | | | | | | | | |
| TERRAZZO MASON | BLD | 41.880 | 44.880 | 1.5 | 1.5 | 2.0 | 10.55 | 12.51 | 0.000 | | | | |
| 0.940 | | | | | | | | | | | | | |
| TILE MASON | BLD | 43.840 | 47.840 | 1.5 | 1.5 | 2.0 | 10.55 | 11.40 | 0.000 | | | | |
| 0.990 | | | | | | | | | | | | | |
| TRAFFIC SAFETY WRKR | HWY | 32.750 | 34.350 | 1.5 | 1.5 | 2.0 | 6.550 | 6.450 | 0.000 | | | | |
| 0.500 | | | | | | | | | | | | | |
| TRUCK DRIVER | ALL 1 | 35.650 | 36.200 | 1.5 | 1.5 | 2.0 | 7.250 | 6.319 | 0.000 | | | | |
| 0.250 | | | | | | | | | | | | | |
| TRUCK DRIVER | ALL 2 | 35.800 | 36.200 | 1.5 | 1.5 | 2.0 | 7.250 | 6.319 | 0.000 | | | | |
| 0.250 | | | | | | | | | | | | | |
| TRUCK DRIVER | ALL 3 | 36.000 | 36.200 | 1.5 | 1.5 | 2.0 | 7.250 | 6.319 | 0.000 | | | | |
| 0.250 | | | | | | | | | | | | | |
| TRUCK DRIVER | ALL 4 | 36.200 | 36.200 | 1.5 | 1.5 | 2.0 | 7.250 | 6.319 | 0.000 | | | | |
| 0.250 | | | | | | | | | | | | | |
| TUCKPOINTER | BLD | 43.800 | 44.800 | 1.5 | 1.5 | 2.0 | 8.280 | 13.49 | 0.000 | | | | |
| 0.670 | | | | | | | | | | | | | |

Legend: RG (Region)
 TYP (Trade Type - All,Highway,Building,Floating,Oil & Chip,Rivers)
 C (Class)
 Base (Base Wage Rate)
 FRMAN (Foreman Rate)
 M-F>8 (OT required for any hour greater than 8 worked each day, Mon through Fri.)
 OSA (Overtime (OT) is required for every hour worked on Saturday)
 OSH (Overtime is required for every hour worked on Sunday and Holidays)
 H/W (Health & Welfare Insurance)
 Pensn (Pension)
 Vac (Vacation)
 Trng (Training)

Explanations

WILL COUNTY

The following list is considered as those days for which holiday rates of wages for work performed apply: New Years Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, Christmas Day and Veterans Day in some classifications/counties. Generally, any of these holidays which fall on a Sunday is celebrated on the following Monday. This then makes work performed on that Monday payable at the appropriate overtime rate for holiday pay. Common practice in a given local may alter certain days of celebration. If in doubt, please check with IDOL.

EXPLANATION OF CLASSES

ASBESTOS - GENERAL - removal of asbestos material/mold and hazardous materials from any place in a building, including mechanical systems where those mechanical systems are to be removed. This includes the removal of asbestos materials/mold and hazardous materials from ductwork or pipes in a building when the building is to be demolished

at the time or at some close future date.

ASBESTOS - MECHANICAL - removal of asbestos material from mechanical systems, such as pipes, ducts, and boilers, where the mechanical systems are to remain.

CERAMIC TILE FINISHER

The grouting, cleaning, and polishing of all classes of tile, whether for interior or exterior purposes, all burned, glazed or unglazed products; all composition materials, granite tiles, warning detectable tiles, cement tiles, epoxy composite materials, pavers, glass, mosaics, fiberglass, and all substitute materials, for tile made in tile-like units; all mixtures in tile like form of cement, metals, and other materials that are for and intended for use as a finished floor surface, stair treads, promenade roofs, walks, walls, ceilings, swimming pools, and all other places where tile is to form a finished interior or exterior. The mixing of all setting mortars including but not limited to thin-set mortars, epoxies, wall mud, and any other sand and cement mixtures or adhesives when used in the preparation, installation, repair, or maintenance of tile and/or similar materials. The handling and unloading of all sand, cement, lime, tile, fixtures, equipment, adhesives, or any other materials to be used in the preparation, installation, repair, or maintenance of tile and/or similar materials. Ceramic Tile Finishers shall fill all joints and voids regardless of method on all tile work, particularly and especially after installation of said tile work. Application of any and all protective coverings to all types of tile installations including, but not be limited to, all soap compounds, paper products, tapes, and all polyethylene coverings, plywood, masonite, cardboard, and any new type of products that may be used to protect tile installations, Blastrac equipment, and all floor scarifying equipment used in preparing floors to receive tile. The clean up and removal of all waste and materials. All demolition of existing tile floors and walls to be re-tiled.

COMMUNICATIONS TECHNICIAN

Installation, operation, inspection, maintenance, repair and service of radio, television, recording, voice, sound and vision production and reproduction, telephone and telephone interconnect, facsimile, equipment and appliances used for domestic, commercial, educational and entertainment purposes, pulling of wire through conduit but not the installation of conduit.

MARBLE FINISHER

Loading and unloading trucks, distribution of all materials (all stone, sand, etc.), stocking of floors with material, performing all rigging for heavy work, the handling of all material that may be needed for the installation of such materials, building of scaffolding, polishing if needed, patching, waxing of material if damaged, pointing up, caulking, grouting and cleaning of marble, holding water on diamond or Carborundum blade or saw for setters

cutting, use of tub saw or any other saw needed for preparation of material, drilling of holes for wires that anchor material set by setters, mixing up of molding plaster for installation of material, mixing up thin set for the installation of material, mixing up of sand to cement for the installation of material and such other work as may be required in helping a Marble Setter in the handling of all material in the erection or installation of interior marble, slate, travertine, art marble, serpentine, alberene stone, blue stone, granite and other stones (meaning as to stone any foreign or domestic materials as are specified and used in building interiors and exteriors and customarily known as stone in the trade), carrara, sanionyx, vitrolite and similar opaque glass and the laying of all marble tile, terrazzo tile, slate tile and precast tile, steps, risers treads, base, or any other materials that may be used as substitutes for any of the aforementioned materials and which are used on interior and exterior which are installed in a similar manner.

MATERIAL TESTER I: Hand coring and drilling for testing of materials; field inspection of uncured concrete and asphalt.

MATERIAL TESTER II: Field inspection of welds, structural steel, fireproofing, masonry, soil, facade, reinforcing steel, formwork, cured concrete, and concrete and asphalt batch plants; adjusting proportions of bituminous mixtures.

OPERATING ENGINEER - BUILDING

Class 1. Asphalt Plant; Asphalt Spreader; Autograde; Backhoes with Caisson Attachment; Batch Plant; Benoto (requires Two Engineers); Boiler and Throttle Valve; Caisson Rigs; Central Redi-Mix Plant; Combination Back Hoe Front End-loader Machine; Compressor and Throttle Valve; Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Conveyor (Truck Mounted); Concrete Paver Over 27E cu. ft; Concrete Paver 27E cu. ft. and Under; Concrete Placer; Concrete Placing Boom; Concrete Pump (Truck Mounted); Concrete Tower; Cranes, All; Cranes, Hammerhead; Cranes, (GCI and similar Type); Creter Crane; Spider Crane; Crusher, Stone, etc.; Derricks, All; Derricks, Traveling; Formless Curb and Gutter Machine; Grader, Elevating; Grouting Machines; Heavy Duty Self-Propelled Transporter or Prime Mover; Highlift Shovels or Front Endloader 2-1/4 yd. and over; Hoists, Elevators, outside type rack and pinion and similar machines; Hoists, One, Two and Three Drum; Hoists, Two Tugger One Floor; Hydraulic Backhoes; Hydraulic Boom Trucks; Hydro Vac (and similar equipment); Locomotives, All; Motor Patrol; Lubrication Technician; Manipulators; Pile Drivers and Skid Rig; Post Hole Digger; Pre-Stress Machine; Pump Cretes Dual Ram; Pump Cretes: Squeeze Cretes-Screw Type Pumps; Gypsum Bulker and Pump; Raised and Blind Hole Drill; Roto Mill Grinder; Scoops - Tractor Drawn; Slip-Form Paver; Straddle Buggies; Operation of Tie Back Machine; Tournapull; Tractor with Boom and Side Boom; Trenching Machines.

Class 2. Boilers; Broom, All Power Propelled; Bulldozers; Concrete Mixer (Two Bag and Over); Conveyor, Portable; Forklift Trucks; Highlift Shovels or Front Endloaders under 2-1/4 yd.; Hoists,

Automatic; Hoists, Inside Elevators; Hoists, Sewer Dragging Machine; Hoists, Tugger Single Drum; Laser Screed; Rock Drill (Self-Propelled); Rock Drill (Truck Mounted); Rollers, All; Steam Generators; Tractors, All; Tractor Drawn Vibratory Roller; Winch Trucks with "A" Frame.

Class 3. Air Compressor; Combination Small Equipment Operator; Generators; Heaters, Mechanical; Hoists, Inside Elevators (remodeling or renovation work); Hydraulic Power Units (Pile Driving, Extracting, and Drilling); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Low Boys; Pumps, Well Points; Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 4. Bobcats and/or other Skid Steer Loaders; Oilers; and Brick Forklift.

Class 5. Assistant Craft Foreman.

Class 6. Gradall.

Class 7. Mechanics; Welders.

OPERATING ENGINEERS - HIGHWAY CONSTRUCTION

Class 1. Asphalt Plant; Asphalt Heater and Planer Combination; Asphalt Heater Scarfire; Asphalt Spreader; Autograder/GOMACO or other similar type machines: ABG Paver; Backhoes with Caisson Attachment; Ballast Regulator; Belt Loader; Caisson Rigs; Car Dumper; Central Redi-Mix Plant; Combination Backhoe Front Endloader Machine, (1 cu. yd. Backhoe Bucket or over or with attachments); Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Paver over 27E cu. ft.; Concrete Placer; Concrete Tube Float; Cranes, all attachments; Cranes, Tower Cranes of all types: Creter Crane: Spider Crane; Crusher, Stone, etc.; Derricks, All; Derrick Boats; Derricks, Traveling; Dredges; Elevators, Outside type Rack & Pinion and Similar Machines; Formless Curb and Gutter Machine; Grader, Elevating; Grader, Motor Grader, Motor Patrol, Auto Patrol, Form Grader, Pull Grader, Subgrader; Guard Rail Post Driver Truck Mounted; Hoists, One, Two and Three Drum; Heavy Duty Self-Propelled Transporter or Prime Mover; Hydraulic Backhoes; Backhoes with shear attachments up to 40' of boom reach; Lubrication Technician; Manipulators; Mucking Machine; Pile Drivers and Skid Rig; Pre-Stress Machine; Pump Cretes Dual Ram; Rock Drill - Crawler or Skid Rig; Rock Drill - Truck Mounted; Rock/Track Tamper; Roto Mill Grinder; Slip-Form Paver; Snow Melters; Soil Test Drill Rig (Truck Mounted); Straddle Buggies; Hydraulic Telescoping Form (Tunnel); Operation of Tieback Machine; Tractor Drawn Belt Loader; Tractor Drawn Belt Loader (with attached pusher - two engineers); Tractor with Boom; Tractaire with Attachments; Traffic Barrier Transfer Machine; Trenching; Truck Mounted Concrete Pump with Boom; Raised or Blind Hole Drills (Tunnel Shaft); Underground Boring and/or Mining Machines 5 ft. in diameter and over tunnel, etc; Underground Boring and/or Mining Machines under 5 ft. in diameter; Wheel Excavator; Widener (APSCO).

Class 2. Batch Plant; Bituminous Mixer; Boiler and Throttle Valve;

Bulldozers; Car Loader Trailing Conveyors; Combination Backhoe Front Endloader Machine (Less than 1 cu. yd. Backhoe Bucket or over or with attachments); Compressor and Throttle Valve; Compressor, Common Receiver (3); Concrete Breaker or Hydro Hammer; Concrete Grinding Machine; Concrete Mixer or Paver 7S Series to and including 27 cu. ft.; Concrete Spreader; Concrete Curing Machine, Burlap Machine, Belting Machine and Sealing Machine; Concrete Wheel Saw; Conveyor Muck Cars (Haglund or Similar Type); Drills, All; Finishing Machine - Concrete; Highlift Shovels or Front Endloader; Hoist - Sewer Dragging Machine; Hydraulic Boom Trucks (All Attachments); Hydro-Blaster; Hydro Excavating (excluding hose work); Laser Screed; All Locomotives, Dinky; Off-Road Hauling Units (including articulating) Non Self-Loading Ejection Dump; Pump Cretes: Squeeze Cretes - Screw Type Pumps, Gypsum Bulker and Pump; Roller, Asphalt; Rotary Snow Plows; Rototiller, Seaman, etc., self-propelled; Self-Propelled Compactor; Spreader - Chip - Stone, etc.; Scraper - Single/Twin Engine/Push and Pull; Scraper - Prime Mover in Tandem (Regardless of Size); Tractors pulling attachments, Sheeps Foot, Disc, Compactor, etc.; Tug Boats.

Class 3. Boilers; Brooms, All Power Propelled; Cement Supply Tender; Compressor, Common Receiver (2); Concrete Mixer (Two Bag and Over); Conveyor, Portable; Farm-Type Tractors Used for Mowing, Seeding, etc.; Forklift Trucks; Grouting Machine; Hoists, Automatic; Hoists, All Elevators; Hoists, Tugger Single Drum; Jeep Diggers; Low Boys; Pipe Jacking Machines; Post-Hole Digger; Power Saw, Concrete Power Driven; Pug Mills; Rollers, other than Asphalt; Seed and Straw Blower; Steam Generators; Stump Machine; Winch Trucks with "A" Frame; Work Boats; Tamper-Form-Motor Driven.

Class 4. Air Compressor; Combination - Small Equipment Operator; Directional Boring Machine; Generators; Heaters, Mechanical; Hydraulic Power Unit (Pile Driving, Extracting, or Drilling); Light Plants, All (1 through 5); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Pumps, Well Points; Vacuum Trucks (excluding hose work); Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 5. SkidSteer Loader (all); Brick Forklifts; Oilers.

Class 6. Field Mechanics and Field Welders

Class 7. Dowell Machine with Air Compressor; Gradall and machines of like nature.

OPERATING ENGINEER - FLOATING

Class 1. Craft Foreman; Master Mechanic; Diver/Wet Tender; Engineer; Engineer (Hydraulic Dredge).

Class 2. Crane/Backhoe Operator; Boat Operator with towing endorsement; Mechanic/Welder; Assistant Engineer (Hydraulic Dredge); Leverman (Hydraulic Dredge); Diver Tender.

Class 3. Deck Equipment Operator, Machineryman, Maintenance of Crane (over 50 ton capacity) or Backhoe (115,000 lbs. or more); Tug/Launch

Operator; Loader/Dozer and like equipment on Barge, Breakwater Wall, Slip/Dock, or Scow, Deck Machinery, etc.

Class 4. Deck Equipment Operator, Machineryman/Fireman (4 Equipment Units or More); Off Road Trucks; Deck Hand, Tug Engineer, Crane Maintenance (50 Ton Capacity and Under) or Backhoe Weighing (115,000 pounds or less); Assistant Tug Operator.

Class 5. Friction or Lattice Boom Cranes.

Class 6. ROV Pilot, ROV Tender

SURVEY WORKER - Operated survey equipment including data collectors, G.P.S. and robotic instruments, as well as conventional levels and transits.

TRAFFIC SAFETY - work associated with barricades, horses and drums used to reduce lane usage on highway work, the installation and removal of temporary lane markings, and the installation and removal of temporary road signs.

TRUCK DRIVER - BUILDING, HEAVY AND HIGHWAY CONSTRUCTION

Class 1. Two or three Axle Trucks. A-frame Truck when used for transportation purposes; Air Compressors and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry-alls; Fork Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors 2-man operation; Pavement Breakers; Pole Trailer, up to 40 feet; Power Mower Tractors; Self-propelled Chip Spreader; Skipman; Slurry Trucks, 2-man operation; Slurry Truck Conveyor Operation, 2 or 3 man; Teamsters; Unskilled Dumpman; and Truck Drivers hauling warning lights, barricades, and portable toilets on the job site.

Class 2. Four axle trucks; Dump Crets and Adgetors under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-mix Plant Hopper Operator, and Winch Trucks, 2 Axles.

Class 3. Five axle trucks; Dump Crets and Adgetors 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnatrailers or turnapulls when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, 1-man operation; Pole Trailer, over 40 feet; Pole and Expandable Trailers hauling material over 50 feet long; Slurry trucks, 1-man operation; Winch trucks, 3 axles or more; Mechanic--Truck Welder and Truck Painter.

Class 4. Six axle trucks; Dual-purpose vehicles, such as mounted crane trucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front.

TERRAZZO FINISHER

The handling of sand, cement, marble chips, and all other materials that may be used by the Mosaic Terrazzo Mechanic, and the mixing, grinding, grouting, cleaning and sealing of all Marble, Mosaic, and Terrazzo work, floors, base, stairs, and wainscoting by hand or machine, and in addition, assisting and aiding Marble, Masonic, and Terrazzo Mechanics.

Other Classifications of Work:

For definitions of classifications not otherwise set out, the Department generally has on file such definitions which are available. If a task to be performed is not subject to one of the classifications of pay set out, the Department will upon being contacted state which neighboring county has such a classification and provide such rate, such rate being deemed to exist by reference in this document. If no neighboring county rate applies to the task, the Department shall undertake a special determination, such special determination being then deemed to have existed under this determination. If a project requires these, or any classification not listed, please contact IDOL at 217-782-1710 for wage rates or clarifications.

LANDSCAPING

Landscaping work falls under the existing classifications for laborer, operating engineer and truck driver. The work performed by landscape plantsman and landscape laborer is covered by the existing classification of laborer. The work performed by landscape operators (regardless of equipment used or its size) is covered by the classifications of operating engineer. The work performed by landscape truck drivers (regardless of size of truck driven) is covered by the classifications of truck driver.

MATERIAL TESTER & MATERIAL TESTER/INSPECTOR I AND II

Notwithstanding the difference in the classification title, the classification entitled "Material Tester I" involves the same job duties as the classification entitled "Material Tester/Inspector I". Likewise, the classification entitled "Material Tester II" involves the same job duties as the classification entitled "Material Tester/Inspector II".

SECTION 00 8500 - DRAWING INDEX

GENERAL INFORMATION

G1.0 SYMBOLS, ABBREVIATIONS, AND NOTES

ARCHITECTURAL

AD1.1.0 OVERALL LOWER LEVEL DEMOLITION FLOOR PLAN
AD1.1.1 PARTIAL LOWER LEVEL DEMOLITION FLOOR PLAN - 1ST AVENUE
AD1.2.0 OVERALL UPPER LEVEL DEMOLITION FLOOR PLAN
AD1.2.1 PARTIAL UPPER LEVEL DEMOLITION FLOOR PLAN - 3RD AVENUE
AD1.2.2 PARTIAL UPPER LEVEL DEMOLITION FLOOR PLAN - 2ND AVENUE
A1.1.0 OVERALL LOWER LEVEL FLOOR PLAN
A1.1.1 PARTIAL LOWER LEVEL FLOOR PLAN - 1ST AVENUE
A1.2.0 OVERALL UPPER LEVEL FLOOR PLAN
A1.2.1 PARTIAL UPPER LEVEL FLOOR PLAN - 3RD AVENUE
A1.2.2 PARTIAL UPPER LEVEL FLOOR PLAN - 2ND AVENUE

INTERIORS

I1.1.0 OVERALL LOWER LEVEL INTERIOR FINISH PLAN AND PRODUCT FINISH SCHEDULE
I1.1.1 PARTIAL LOWER LEVEL INTERIOR FINISH PLAN - 1ST AVENUE
I1.2.0 OVERALL UPPER LEVEL INTERIOR FINISH PLAN
I1.2.2 PARTIAL UPPER LEVEL INTERIOR FINISH PLAN - 3RD AVENUE
I1.2.3 PARTIAL UPPER LEVEL INTERIOR FINISH PLAN - 2ND AVENUE

END OF SECTION 00 8500

SECTION 01100 - SUMMARY OF WORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

Drawings and general provisions of the Contract, including general and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 GENERAL NOTE

The following requirements are a component part of all contract divisions and form a part of each specification section insofar as they may be in any way applicable thereto.

1.3 SUMMARY

- A. This Section includes the following:
1. Work covered by the Contract Documents.
 2. Type of the Contract.
 3. Work phases.
 4. Products ordered in advance.
 5. Use of premises.
 6. Owner's occupancy requirements.
 7. Work restrictions.
 8. Specification formats and conventions.
 9. Miscellaneous provisions.

1.4 WORK COVERED BY CONTRACT DOCUMENTS

- A. The schedule of drawings "SECTION 00850 - DRAWING INDEX" is incorporated in its entirety hereinto. The drawings form a component part of the contract documents for this project.
- B. Project Identification: Sunny Hill Nursing Home of Will County
1. Project Location:
421 Doris Avenue
Joliet, Illinois 60433
- C. Owner: County of Will
1. Owner's Representative: **Mike Miglorini** – Office of the County Executive Lawrence Walsh – 302 North Chicago St. Joliet, IL. 60432
 2. Architect: **Farnsworth Group Inc.** – 1144 W. Jefferson Street, Suite 300; Shorewood, Illinois 60404
- D. The project is to be constructed under a single prime contract arrangement. The Scope of Work is to fully provide all labor, tools, and accessories required for the full and complete removal of the existing flooring and existing wall base of the areas indicated. All labor, tools, and accessories required for the full and complete installation of new flooring and new wall base of the areas

indicated. The application of a moisture mitigation product capable of sealing the existing concrete slab where moisture content is > 99% RH. Contractor is solely responsible for verifying the compatibility of chosen moisture mitigation product and the specified flooring and adhesive. All work, tools, and accessories required for the full and complete preparation of existing floors as necessary to install new flooring. And any other work as noted in the drawings and specifications.

E. Phasing:

1. 1st avenue will be completed in two phases:
 - a. Phase 1: The owner will relocate the staff and residents from the unit for the contractor remove the existing flooring, apply moisture mitigation product and prepare the existing slab as necessary to accept the new flooring. This work will consist of the corridors, day room, activity room, public toilet and 3 resident rooms (and toilet rooms) of the owner's choosing. The contractor will be responsible for moving, protecting, and returning all furniture that is in the areas noted. The furniture that will remain will be all the day room furniture and select items in the residents' rooms.
 - b. Phase 2: The owner will reoccupy the space and vacate 2 pairs of rooms (4 rooms and adjoining toilets total) at a time, for the removal and replacement of the flooring and base. The owner will remove all furniture from the residents' rooms. All work must be complete and accepted prior to moving onto the next set of rooms
2. 2nd and 3rd Avenues
 - a. These avenues will remain occupied throughout construction. Contractor is to leave half of the corridor free from obstructions for the entire duration of the project. Work in the resident rooms will occur in 1 pair (2 resident rooms) and the adjoining bathroom at a time, as directed by the owner. All work must be completed and accepted by the owner, prior to moving onto the next pair or rooms. All furniture moving for 2nd and 3rd avenues will be by owner.

- E. The Project will be constructed under a single prime contract with the Owner. The form of the contract that the successful Bidder is required to execute shall be "Standard Form of Agreement between Owner and Contractor", the American Institute of Architects Document A101 -2007.

1.5 USE OF PREMISES

- A. General: Contractor shall have limited use of premises for construction operations.
- B. Use of Site: Limit use of premises to work in areas indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
 1. Owner Occupancy: Allow for Owner occupancy of Project site and use by the public.
 2. Driveways and Entrances: Keep driveways loading areas, and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
 - a. Schedule deliveries to minimize use of driveways and entrances.

1. NUMBER ONE PRIORITY is to maintain the physical safety and the mental health of the residents.
 - a. No work shall be performed when a resident is within an area that he/she may be at risk due to the type of demolition or construction being performed at the time. The contractor shall barricade construction areas using non-combustible materials so as to prevent residents from entering the work zone. Contractor shall stop construction and notify the Owner immediately of any resident who comes within the work area.
 - 1) The Contractor shall NOT attempt to remove the resident on his or her own.
 - 2) Where construction is in corridors that cannot be fully blocked due to the Owner's need to maintain the exit or travel through the contractor shall not block more than ½ of the corridor width.
 - a) The Contractor shall coordinate such construction with the Owner not less than 1 week in advance of construction.
 - b) The Contractor shall provide temporary barriers capable of being removed after working hours to allow full use of the corridor.
 - c) The Contractor will not store materials in the corridor except in the working area and only as much as is need for the current work for the day.
 - d) The Contractor shall keep all tools and demolished items picked up the best extent possible.
 - e) The Contractor will clean up at the end of each working day removing all tools, rubbish, materials and barriers and sweeping the floor of any excessive dust liable to be tracked through the building or cause a slipping hazard.
2. Coordinate use of building elevators with Owner and provide adequate protection for the elevator and its finishes when materials and/or debris is being transported in the elevator.
 - a. Contractor shall keep the elevator free of all dust and debris.
3. Contractor shall not store material, tools or equipment outside of the construction area without prior permission of the Owner.
4. Contractor shall not block or interfere with any exit corridors, doors or stairs outside of the construction area.
 - a. Where construction is not confined to a wing or an area that can be completely closed down the Contractor shall maintain exit pathways open and free of construction equipment in case of an emergency that would require the Owner to evacuate residents through the area.

5. Contractor will cease all noisy or otherwise disturbing work immediately when directed by the Owner.
 - a. Contractor will redirect his/her forces to other non-disturbing work until such time as can be worked out with the Owner for the resumption of the stopped work.
 - b. Contractor will not be held responsible for any delays in the schedule caused by such stoppages.
 6. There is absolutely no smoking within the entire facility and facility property including the area under construction, parking lots, and perimeter drives. Failure to comply may result in the offending person(s) being removed immediately from the project.
 7. All persons employed during the construction shall wear clothing appropriate for the type of work and such clothing shall entirely cover their torso. Clothing will not have any offensive wording or illustrations as judged by the Owner. Persons who fail to comply, based solely on the judgment of the Owner, will be removed immediately from the project until adequately clothed.
- C. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or Others unless permitted under the following conditions and then only after arranging to provide Temporary utility services according to requirements indicated:
1. Notify Owner not less than five days in advance of proposed utility Interruptions.
 2. Do not proceed with utility interruptions without the Owner's written permission.

1.8 SPECIFICATION FORMATS AND CONVENTIONS

- A. Specification Format: The Specifications are organized into Divisions and Sections using the 2004 division format and CSI/CSC's "Master Format" numbering system.
1. Section Identification: The Specifications use Section numbers and titles to help cross-referencing in the Contract Documents. Sections in the Project Manual are in numeric sequence; however, the sequence is incomplete because all available Section numbers are not used. Consult the table of contents at the beginning of the Project Manual to determine numbers and names of Sections in the Contract Documents.
 2. Division 1: Sections in Division 1 govern the execution of the Work of all Sections in the Specifications.
- B. 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. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as the sense requires. Singular words shall be interpreted as plural, and plural words shall be interpreted as singular where applicable as the context of the Contract Documents indicates.

2. Imperative mood and streamlined language are generally used in the Specifications. Requirements expressed in the imperative mood are to be performed by Contractor. Occasionally, the indicative or subjunctive mood may be used in the Section Text for clarity to describe responsibilities that must be fulfilled indirectly by Contractor or by others when so noted.
 - a. 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.

1.9 MEETINGS AND MISCELLANEOUS PROVISIONS

- A. There will be weekly construction progress meetings at a time and day specified by the Owner prior to the start of construction. The Owner will also schedule pre-construction meetings, progress/payment meetings, safety meetings and any additional special meetings as determined by the Owner to be required throughout the progress of the Work. Representatives of the Contractors, subcontractors and suppliers appropriate to the agenda of the meeting shall attend these meetings. The representative shall be qualified and authorized to act on behalf of the entity each represents.
- B. Each Contractor shall be responsible for the scheduling and administration of weekly safety "Tool Box" meetings required throughout the progress of the work. The Contractor shall prepare the agenda for the meetings, record and distribute both the minutes and attendance to the Owner. The minutes shall include all complaints and suggestions relating to safety. Each Contractor shall ensure the attendance of all employees, including subcontractors and suppliers affected under his contract. The Owner may at his option attend these meetings and the attendance of the Architect shall not be limited.
- C. Strict compliance with all applicable OSHA regulations is required. All Contractors and Subcontractors of any tier will be required to comply with the provisions of the "Construction Safety Act" and the "Occupational Safety and Health Act of 1970, as well as all other applicable Federal, State, and local requirements. Employees or persons on the site that commit a serious safety violation or who willfully commit a safety violation or repeatedly fail to follow applicable OSHA regulations will be immediately removed from the site. Upon the first violation of a safety rule employees will be given a written warning and the Contractor shall be fined \$100.00. A second violation will result in a written violation notice and subsequent fine of \$200.00. The violator will also be permanently removed from the site.

PART 3 - EXECUTION (Not Used)

END OF SECTION 01100

SECTION 01210 - ALLOWANCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

1. This Section includes administrative and procedural requirements governing allowances.
 - a. Certain items are specified in the Contract Documents by allowances. Allowances have been established in lieu of additional requirements or to defer selection of actual materials and equipment to a later date when additional information is available for evaluation. If necessary, additional requirements will be issued by Change Order.
2. Types of allowances include the following:
 - a. Miscellaneous cost allowances.
3. Related Sections include the following:
 - a. Division 1 Section "Contract Modification Procedures" for procedures for submitting and handling Change Orders for allowances.

1.3 SELECTION AND PURCHASE

- A. At the earliest practical date after award of the Contract, advise Architect of the date when final selection and purchase of each product or system described by an allowance must be completed to avoid delaying the Work.
- B. At Architect's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.
- C. Purchase products and systems selected by Architect from the designated supplier.

1.4 SUBMITTALS

- A. Submit proposals for purchase of products or systems included in allowances, in the form specified for Change Orders.
- B. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

1.5 COORDINATION

Coordinate allowance items with other portions of the Work. Furnish templates as required to coordinate installation.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

3.2 PREPARATION

Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

3.3 SCHEDULE OF ALLOWANCES

- A. Include in the Base Bid amount the sum of **fifteen thousand dollars (\$15,000.00)** for miscellaneous work to be completed at the direction of the Owner and for unforeseen circumstances encountered during the work.

END OF SECTION 01210

SECTION 01250 - CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for handling and processing Contract modifications.
- B. Related Sections include the following:
 - 1. Division 1 Section "Allowances" for procedural requirements for handling and processing allowances.
 - 2. Division 1 Section "Product Requirements" for administrative procedures for handling requests for substitutions made after Contract award.

1.3 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, "Architect's Supplemental Instructions" or similar document.

1.4 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. Proposal Requests issued by Architect are for information only. Contractor shall not consider them instructions either to stop work in progress or to execute the proposed change.
 - 2. Within 5 days 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 unforeseen conditions require modifications to the Contract, Contractor may propose changes by submitting a request for a change to the Owner.
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 Division 1 Section "Product Requirements" if the proposed change requires substitution of one product or system for product or system specified.
- C. Proposal Request Form: Use AIA Document G709 or similar document for Proposal Requests.

1.5 CHANGE ORDER PROCEDURES

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

1.6 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.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01250

SECTION 01290 - PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements necessary to prepare and process Applications for Payment.
- B. Related Sections include the following:
 - 1. Division 1 Section "Contract Modification Procedures" for administrative procedures for handling changes to the Contract.
 - 2. Division 1 Section "Construction Progress Documentation" for administrative requirements governing preparation and submittal of Contractor's Construction Schedule and Submittals Schedule.

1.3 DEFINITIONS

- A. Schedule of Values: A statement furnished by Contractor allocating portions of the Contract Sum to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

1.4 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the Schedule of Values with preparation of Contractor's Construction Schedule.
 - 1. Correlate line items in the Schedule of Values with other required administrative forms and schedules, including the following:
 - a. Application for Payment forms with Continuation Sheets.
 - b. Submittals Schedule.
 - c. 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.

3. Subschedules: Since the Work is separated into phases requiring separately phased payments, provide subschedules showing values correlated with each phase of payment.
- B. Format and Content: Use the 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. Identification: Include the following Project identification on the Schedule of Values:
 - a. Project name and location.
 - b. Name of Architect.
 - c. Architect's project number.
 - d. Contractor's name and address.
 - e. Date of submittal.
 2. Submit draft of AIA Document G703 Continuation Sheets.
 3. Arrange the Schedule of Values in tabular form with separate columns to indicate the following for each item listed:
 - a. Description of the Work.
 - b. Name of subcontractor.
 - c. Name of manufacturer or fabricator.
 - d. Name of supplier.
 - e. Change Orders (numbers) that affect value.
 - f. Dollar value.
 - 1) Percentage of the Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent.
 4. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Project Manual table of contents. Provide several line items for principal subcontract amounts, where appropriate.
 5. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
 6. 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. Include evidence of insurance or bonded warehousing.
 7. Provide separate line items in the Schedule of Values for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
 8. Schedule Updating: Update and resubmit the Schedule of Values before the next Applications for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.

1.5 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as certified by Architect and Owner and paid for by Owner.
 - 1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.
- 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 Forms: The forms shall be "Application and Certificate for Payment", American Institute of Architects Document G732 - 2009 and Continuation Sheets G703, 1992 Edition.
- D. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Owner 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 of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
- E. Transmittal: Submit 3 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.
- F. Waivers of Mechanic's Lien: With each Application for Payment, submit waivers of mechanic's liens 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 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 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 waivers of lien on forms, executed in a manner acceptable to Owner.
- G. 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. List of major suppliers over \$5,000.00.

3. Schedule of Values.
 4. Contractor's Construction Schedule (preliminary if not final).
 5. Submittals Schedule (preliminary if not final).
 6. List of Contractor's staff assignments.
 7. Copies of building permits.
 8. Report of preconstruction conference.
 9. Certificates of insurance and insurance policies.
 10. Performance and payment bonds.
 11. Trade Contractors safety plan and Hazcom Plan including MSDS sheets.
- H. Application for Payment at Substantial Completion: After issuing 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 Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
- I. Final Payment Application: 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, "Contractor's Affidavit of Payment of Debts and Claims."
 5. AIA Document G706A, "Contractor's Affidavit of Release of Liens."
 6. AIA Document G707, "Consent of Surety to Final Payment."
 7. Evidence that claims have been settled.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01290

SECTION 01320 - CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
 - 1. Preliminary Construction Schedule.
 - 2. Trade Contractor's Construction Schedule.
 - 3. Submittals Schedule.
- B. Related Sections include the following:
 - 1. Division 1 Section "Payment Procedures" for submitting the Schedule of Values.
 - 2. Division 1 Section "Submittal Procedures" for submitting schedules and reports.
 - 3. Division 1 Section "Quality Requirements" for submitting a schedule of tests and inspections.

1.3 SUBMITTALS

- A. Submittals Schedule: Submit three copies of schedule. Arrange the following information in a tabular format:
 - 1. Scheduled date for first submittal.
 - 2. Specification Section number and title.
 - 3. Submittal category (action or informational).
 - 4. Name of subcontractor.
 - 5. Description of the Work covered.
 - 6. Scheduled date for Architect's final release or approval.
- B. Preliminary Construction Schedule: Submit 4 opaque copies.
 - 1. Approval of cost-loaded preliminary construction schedule will not constitute approval of Schedule of Values for cost-loaded activities.
- C. Trade Contractor's Construction Schedule: Submit 4 opaque copies of initial schedule, large enough to show entire schedule for entire construction period to the Owner for approval.

1.4 COORDINATION

- A. Coordinate preparation and processing of schedules and reports with performance of construction activities and with scheduling and reporting of separate contractors.
- B. Coordinate Trade Contractor's Construction Schedule with the Schedule of Values, list of subcontracts, Submittals Schedule, progress reports, payment requests, and other required schedules and reports.
 - 1. Secure time commitments for performing critical elements of the Work from parties involved.
 - 2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

PART 2 - PRODUCTS

2.1 SUBMITTALS SCHEDULE

- A. Preparation: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule to the Owner for approval. Include time required for review, resubmittal, ordering, manufacturing, fabrication, and delivery when establishing dates.
 - 1. Coordinate Submittals Schedule with list of subcontracts, the Schedule of Values, and Trade Contractor's Construction Schedule.
 - 2. Initial Submittal: Submit concurrently with preliminary bar-chart schedule. Include submittals required during the first 60 days of construction. List those required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.
 - 3. Final Submittal: Submit concurrently with the first complete submittal of Trade Contractor's Construction Schedule.

2.2 TRADE CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL

- A. Procedures: Comply with procedures contained in AGC's "Construction Planning & Scheduling."
- B. Time Frame: Extend schedule from date established for commencement of the Work to date of Substantial Completion.
 - 1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.
- C. Activities: Treat each story or separate area as a separate numbered activity for each principal element of the Work. Comply with the following:
 - 1. Activity Duration: Define activities so no activity is longer than 40 days, unless specifically allowed by the Owner and Architect.
 - 2. Procurement Activities: Include procurement process activities for long lead items and major items, requiring a cycle of more than 60 days, as separate activities in schedule.

Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery:

3. Submittal Review Time: Include review and resubmittal times indicated in Division 1 Section "Submittal Procedures" in schedule. Coordinate submittal review times in Trade Contractor's Construction Schedule with Submittals Schedule.
 4. Startup and Testing Time: Include not less than 14 days for startup and testing.
 5. Substantial Completion: Indicate completion in advance of date established for Substantial Completion, and allow a minimum of 30 days time for Architect's and Illinois Department of Public Health's administrative procedures necessary for certification of Substantial Completion. No delay of the Work due to any action or failure to act on the part of the Illinois Department of Public Health shall be a cause for an increase in the contract sum. Each contractor shall allow sufficient time for Illinois Department of Public Health certification.
- D. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule, and show how the sequence of the Work is affected.
1. Phasing: Arrange list of activities on schedule by phase.
 2. Work Restrictions: Show the effect of the following items on the schedule:
 - a. Limitations of continued occupancies.
 - b. Uninterruptible services.
 - c. Partial occupancy before Substantial Completion.
 3. Area Separations: Identify each major area of construction for each major portion of the Work. Indicate where each construction activity within a major area must be sequenced or integrated with other construction activities to provide for the following:
 - a. Completion of mechanical installation.
 - b. Completion of electrical installation.
 - c. Completion of kitchen equipment installation.
- E. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Substantial Completion, and Final Completion and the following interim milestones:
1. Owner Occupancy

2.3 PRELIMINARY CONSTRUCTION SCHEDULE

- A. Bar-Chart Schedule: Submit preliminary horizontal bar-chart-type construction schedule within seven days of date established for commencement of the Work to the Owner for approval.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line. Outline significant construction activities for first 60 days of construction. Include skeleton diagram for the remainder of the Work.

2.4 CONTRACTOR'S CONSTRUCTION SCHEDULE (GANTT CHART)

- A. Gantt-Chart Schedule: Submit a comprehensive, fully developed, horizontal Gantt-chart-type, Contractor's Construction Schedule within 30 days of date established for commencement of the Work. Base schedule on the Preliminary Construction Schedule and whatever updating and feedback was received since the start of Project.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line.
1. Submit schedule that indicates the following milestones
 - a. 1st avenue
 - 1) Phase one duration and completion
 - 2) Phase two duration and completion
 - a) Duration for work in each pair of rooms
 - b. 2nd avenue
 - 1) Duration for corridor work
 - 2) Duration for resident room work
 - a) Duration for work in each pair of rooms.
 - c. 3rd avenue
 - 1) Duration for corridor work
 - 2) Duration for resident room work
 - a) Duration for work in each pair of rooms.
 2. Work on separate avenues may occur concurrently, as scheduled with owner.

2.5 REPORTS

- A. Without limiting the reports required, the following reports shall be submitted to the Owner:
1. Daily Force and Activity Reports shall be prepared and submitted by each Trade Contractor including manpower by classification, activities performed, information on material deliveries, tests performed, accidents, and other significant events. Daily reports shall be submitted to the Owner no later than 9:00 a.m. the next succeeding business day. Failure to submit timely daily reports will result in the monthly payment requisition being reduced by 10%.
 2. Weekly Toolbox Safety Meeting minutes including an attendance list of those personnel present and the topics discussed.
 3. Accident Reports shall be submitted to the Owner within 24 hours of any accident or safety incident. Additional information, including doctors reports and witness statements shall be submitted as soon as practicable thereafter. Verbal notification of all accidents must be made immediately to the Owner.
 4. Schedule reports shall be submitted to the Owner weekly or as otherwise required by the Owner. Schedule reports shall include an updated construction schedule and narrative. A short interval schedule (SIS) shall be submitted to the Owner on forms provided and in the format required by the Owner when requested.
 5. Submittal reports shall be submitted to the Owner weekly and include an updated report on the status of all submittals made or required.

- B. Weekly Construction Reports: Prepare a weekly construction report recording the following information concerning events at Project site:
1. List of subcontractors at Project site and accurate count of personnel at Project site.
 2. Work completed during the week.
 3. Photos of work progress, etc.
 4. Material and equipment deliveries.
 5. High and low temperatures and general weather conditions, including presence of rain or snow.
 6. Unusual events (see special reports) and accidents.
 7. Meetings and significant decisions.
 8. Stoppages, delays, shortages, and losses.
 9. Meter readings and similar recordings.
 10. Emergency procedures.
 11. Orders and requests of authorities having jurisdiction.
 12. Change Orders and Construction Work Change Directives received and implemented.
 13. Services connected and disconnected.
 14. Equipment or system tests and startups.
 15. Partial completions and occupancies.
 16. Substantial Completions authorized.
 17. Work scheduled for the next week.
- C. Material Location Reports: At monthly intervals, prepare and submit a comprehensive list of materials delivered to and stored at Project site. List shall be cumulative, showing materials previously reported plus items recently delivered. Include with list a statement of progress on and delivery dates for materials or items of equipment fabricated or stored away from Project site. Indicate the following categories for stored materials:
1. Material stored prior to previous report and remaining in storage.
 2. Material stored prior to previous report and since removed from storage and installed.
 3. Material stored following previous report and remaining in storage.
- D. Site Condition Reports: Immediately on discovery of a difference between site conditions and the Contract Documents, prepare and submit a detailed report to the Owner. Submit with a Request for Information. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

2.6 SPECIAL REPORTS

- A. General: Submit special reports to the Owner within one day of an occurrence. Distribute copies of report to parties affected by the occurrence.
- B. Reporting Unusual Events: When an event of an unusual and significant nature occurs at Project site, whether or not related directly to the Work, prepare and submit a special report. List chain of events, persons participating, and response by Trade Contractor's personnel, evaluation of results or effects, and similar pertinent information. Advise Owner in advance when these events are known or predictable.

PART 3 - EXECUTION

3.1 TRADE CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Trade Contractor's Construction Schedule Updating: At 14 day intervals, update schedule to reflect actual construction progress and activities. Provide schedule weekly before each regularly scheduled progress meeting to the Owner for approval.
 - 1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
 - 2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
 - 3. As the Work progresses, indicate Actual Completion percentage for each activity.

- B. Distribution: Distribute copies of approved schedule to Owner. Distribute copies of approved schedule to separate contractors, testing and inspecting agencies, and other parties identified by Trade Contractor with a need-to-know schedule responsibility.
 - 1. Post copies in Project meeting rooms and temporary field offices.
 - 2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

END OF SECTION 01320

SECTION 01330 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.
- B. Related Sections include the following:
 - 1. Division 1 Section "Payment Procedures" for submitting Applications for Payment and the Schedule of Values.
 - 2. Division 1 Section "Construction Progress Documentation" for submitting schedules and reports, including Contractor's Construction Schedule and the Submittals Schedule.
 - 3. Division 1 Section "Quality Requirements" for submitting test and inspection reports.
 - 4. Division 1 Section "Closeout Procedures" for submitting warranties.
 - 5. Division 1 Section "Project Record Documents" for submitting Record Drawings, Record Specifications, and Record Product Data.
 - 6. Division 1 Section "Operation and Maintenance Data" for submitting operation and maintenance manuals.
 - 7. Division 1 Section "Demonstration and Training" for submitting videotapes of demonstration of equipment and training of Owner's personnel.
 - 8. All other Sections for specific requirements for submittals in those Sections.

1.3 DEFINITIONS

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

1.4 SUBMITTAL PROCEDURES

- A. General: Electronic copies of CAD Drawings of the Contract Drawings will be provided by Architect for Contractor's use in preparing submittals upon signing Architect's "Cadd Waiver of Liability".
- 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. Submittals Schedule: Comply with requirements in Division 1 Section "Construction Progress Documentation" for list of submittals and time requirements for scheduled performance of related construction activities.
- D. Processing Time: Allow enough time for submittal review, including time for resubmittals, as follows. Time for review shall commence on the 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 10 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 10 days for review of each resubmittal.
- E. Identification: Place a permanent label or title block on each submittal for identification.
1. Indicate name of firm or entity that prepared each submittal on label or title block.
 2. Provide a space approximately 3 by 5 inches on label or beside title block to record Contractor's review and approval markings and action taken by Owner and Architect.
 3. Include the following information on label for processing and recording action taken:
 - a. Project name.
 - b. Date.
 - c. Name and address of Owner
 - d. Name and address of Architect.
 - e. Name and address of Contractor.
 - f. Name and address of subcontractor.
 - g. Name and address of supplier.
 - h. Name of manufacturer.
 - i. Submittal number or other unique identifier, including revision identifier.
 - 1) Submittal number shall use Specification Section number followed by a decimal point and then a sequential number (e.g., 06100.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., 06100.01.A).
 - j. Number and title of appropriate Specification Section.
 - k. Drawing number and detail references, as appropriate.
 - l. Location(s) where product is to be installed, as appropriate.
 - m. Other necessary identification.
- F. Deviations: Highlight, encircle, or otherwise specifically identify deviations from the Contract Documents on submittals.

- G. Additional Copies: Unless additional copies are required for final submittal, and unless Architect observes noncompliance with provisions in the Contract Documents, initial submittal may serve as final submittal.
1. Submit submittals in digital format via email to the Architect. Where digital copies are not applicable submit 4 hard copies to the Architect.
 2. Additional copies submitted for maintenance manuals will be marked with action taken and will be returned.
- H. Transmittal: Package each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Architect will return submittals, without review, received from sources other than Contractor.
1. Transmittal Form: Use AIA Document G810.
 2. On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Architect on previous submittals, and deviations from requirements in the Contract Documents, including minor variations and limitations. Include same label information as related submittal.
- I. 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:
 - a. " No Exceptions Taken" or "Furnish as Corrected"
- J. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, other Trade Contractors as required for coordination, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
1. Use for Construction: Use only final submittals with mark indicating:
 - a. " No Exceptions Taken" or "Furnish as Corrected":
 - 1) "This review is for general conformance with the design concept and general compliance with the information given in the contract documents. Corrections or comments made on this submittal do not relieve the contractor from compliance with requirements of the drawings and specifications. The contractor is responsible for confirming and correlating all quantities and dimensions; techniques of construction and coordination of all work."

1.5 CONTRACTOR'S USE OF ARCHITECT'S CAD FILES

- A. General: At Contractor's written request, copies of Architect's CAD files will be provided to Contractor for Contractor's use in connection with Project, subject to the following conditions:

1. Contractor/subcontractors signs Architect's "CADD Waiver of Liability".

PART 2 - PRODUCTS

2.1 ACTION SUBMITTALS

- A. General: Prepare and submit to the Architect Action Submittals required by individual Specification Sections.
- 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 printed 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 written recommendations.
 - b. Manufacturer's product specifications.
 - c. Manufacturer's installation instructions.
 - d. Standard color charts.
 - e. Manufacturer's catalog cuts.
 - f. Wiring diagrams showing factory-installed wiring.
 - g. Printed performance curves.
 - h. Operational range diagrams.
 - i. Compliance with specified referenced standards.
 - j. Testing by recognized testing agency.
 - k. Notation of coordination requirements.
 4. Submit Product Data before or concurrent with Samples.
 5. Number of Copies: Submit copy of Product Data digitally via email, unless otherwise indicated. Architect will return 1 digital copy. Mark up and retain one returned copy as a Project Record Document.
- 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, unless submittal of Architect's CAD Drawings are otherwise permitted.
 1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
 - a. Dimensions.
 - b. Identification of products.
 - c. Fabrication and installation drawings.
 - d. Roughing-in and setting diagrams.
 - e. Wiring diagrams showing field-installed wiring, including power, signal, and control wiring.
 - f. Templates and patterns.
 - g. Design calculations.
 - h. Compliance with specified standards.
 - i. Notation of coordination requirements.

- j. Relationship to adjoining construction clearly indicated.
 - k. Seal and signature of professional engineer if specified.
 - l. Wiring Diagrams: Differentiate between manufacturer-installed and field-installed wiring.
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 but no larger than 24 by 36 inches .
 3. Number of Copies: Submit Shop drawings digitally via email wherever possible. Otherwise submit 4 opaque copies of each submittal. Architect will retain two copies; Owner will retain two copies; remainder will be returned. Contractor will mark up and retain one returned copy as a Project Record Drawing.
- 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 appropriate Specification Section.
 - e. Flame spread rating data
 3. 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.
 4. 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 3 full set(s) 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.
 5. 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 four sets of Samples. Architect will retain 1 Sample sets; remainder will be returned.
 - 1) Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.

- 2) 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 or List: 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. Type of product. Include unique identifier for each product.
 2. Number and name of room or space.
 3. Location within room or space.
 4. Number of Copies: Submit 4 copies of product schedule or list, unless otherwise indicated. Architect will return two copies.
 - a. Mark up and retain one returned copy as a Project Record Document.
- F. Application for Payment: Comply with requirements specified in Division 1 Section "Payment Procedures."
- G. Schedule of Values: Comply with requirements specified in Division 1 Section "Payment Procedures."
- H. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information in tabular form:
1. Name, address, and telephone number of entity performing subcontract or supplying products.
 2. Number and title of related Specification Section(s) covered by subcontract.
 3. Drawing number and detail references, as appropriate, covered by subcontract.
 4. Number of Copies: Submit 4 copies of subcontractor list, unless otherwise indicated. Architect will return two copies.

2.2 INFORMATIONAL SUBMITTALS

- A. General: Prepare and submit Informational Submittals required by other Specification Sections.
1. Number of Copies: Submit digitally via email wherever possible. Otherwise, submit two copies of each submittal, unless otherwise indicated. Architect will not return copies.
 2. Certificates and Certifications: Provide a notarized 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.
 3. Test and Inspection Reports: Comply with requirements specified in Division 1 Section "Quality Requirements."
- B. Product Certificates: Prepare written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.

- C. Material Certificates: Prepare written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
- D. Material Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
- E. Product Test Reports: Prepare written reports indicating 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.
- F. Field Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
- G. Maintenance Data: Prepare written and graphic instructions and procedures for operation and normal maintenance of products and equipment. Comply with requirements specified in Division 1 Section "Operation and Maintenance Data."
- H. Insurance Certificates and Bonds: Prepare written information indicating current status of insurance or bonding coverage. Include name of entity covered by insurance or bond, limits of coverage, amounts of deductibles, if any, and term of the coverage.
- I. Material Safety Data Sheets (MSDSs): Submit information directly to Owner; do not submit to Architect.
 - 1. Architect will not review submittals that include MSDSs and will return the entire submittal for resubmittal.
 - 2. Submit MSDS sheets directly to Owner.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. Prior to transmittal to Architect, 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. 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 completed approval stamp and will return them without action.

- B. Action Submittals: Architect will review each submittal, make marks to indicate corrections or modifications required, and return it. Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action taken, as follows:
 - 1. No Exceptions Taken: Furnish as Corrected: Revise & Resubmit: Rejected
 - a. This review is for general conformance with the design concept and general compliance with the information given in the contract documents. Corrections or comments made on this submittal do not relieve the contractor from compliance with requirements of the drawings and specifications. The contractor is responsible for confirming and correlating all quantities and dimensions; techniques of construction and coordination of all work.
- 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. Partial submittals are not acceptable, will be considered nonresponsive, and will be returned without review.
- E. Submittals not required by the Contract Documents will not be reviewed and will be returned.

END OF SECTION 01330

SECTION 01400 - QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
 - 1. Specific quality-assurance and -control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
 - 2. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and -control procedures that facilitate compliance with the Contract Document requirements.
 - 3. Requirements for Contractor to provide quality-assurance and -control services required by Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.
- C. Related Sections include the following:
 - 1. Division 1 Section "Construction Progress Documentation" for developing a schedule of required tests and inspections.
 - 2. Divisions 2 through 16 Sections for specific test and inspection requirements.

1.3 DEFINITIONS

- A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.
- B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Services do not include contract enforcement activities performed by Architect.

- C. Source Quality-Control Testing: Tests and inspections that are performed at the source, i.e., plant, mill, factory, or shop.
- D. Field Quality-Control Testing: Tests and inspections that are performed on-site for installation of the Work and for completed Work.
- E. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.
- F. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.
 - 1. Using a term such as "carpentry" does not imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as "carpenter." It also does not imply that requirements specified apply exclusively to tradespeople of the corresponding generic name.
- G. Experienced: When used with an entity, "experienced" means having successfully completed a minimum of five previous projects similar in size and scope to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.

1.4 CONFLICTING REQUIREMENTS

- A. General: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer uncertainties and requirements that are different, but apparently equal, to Architect for a decision before proceeding.
- B. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Architect for a decision before proceeding.

1.5 SUBMITTALS

- A. Reports: Prepare and submit certified written reports that include the following:
 - 1. Date of issue.
 - 2. Project title and number.
 - 3. Name, address, and telephone number of testing agency.
 - 4. Dates and locations of samples and tests or inspections.
 - 5. Names of individuals making tests and inspections.
 - 6. Description of the Work and test and inspection method.
 - 7. Identification of product and Specification Section.
 - 8. Complete test or inspection data.

9. Test and inspection results and an interpretation of test results.
10. Record of temperature and weather conditions at time of sample taking and testing and inspecting.
11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
12. Name and signature of laboratory inspector.
13. Recommendations on retesting and reinspecting.

- B. Permits, Licenses, and Certificates: For Owner's and Architect's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.

1.6 QUALITY ASSURANCE

- A. General: Qualifications paragraphs in this Article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.
- B. Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
- C. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- D. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- E. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar to those indicated for this Project in material, design, and extent.
- F. Testing Agency Qualifications: An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspecting indicated, as documented according to ASTM E 548; and with additional qualifications specified in individual Sections; and where required by authorities having jurisdiction, that is acceptable to authorities.
1. NRTL: A nationally recognized testing laboratory according to 29 CFR 1910.7.
 2. NVLAP: A testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program.
- G. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.

1.7 QUALITY CONTROL

- A. Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, the Contractor will engage a qualified testing agency to perform these services.
1. Architect will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspecting they are engaged to perform.
 2. Costs for retesting and reinspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor, and the Contract Sum will be adjusted by Change Order.
- B. Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Unless otherwise indicated, provide quality-control services specified and those required by authorities having jurisdiction. Perform quality-control services required of Contractor by authorities having jurisdiction, whether specified or not.
1. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these quality-control services.
 - a. Contractor shall not employ same entity engaged by Contractor, unless agreed to in writing by Owner.
 2. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspecting will be performed.
 3. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
 4. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
 5. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- C. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Division 1 Section "Submittal Procedures."
- D. Retesting/Reinspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that replaced Work that failed to comply with the Contract Documents.
- E. Testing Agency Responsibilities: Cooperate with Architect, Owner, and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
1. Notify Architect and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
 2. Determine the location from which test samples will be taken and in which in-situ tests are conducted.
 3. Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.

4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
 5. Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
 6. Do not perform any duties of Contractor.
- F. Associated Services: Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:
1. Access to the Work.
 2. Incidental labor and facilities necessary to facilitate tests and inspections.
 3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
 4. Facilities for storage and field curing of test samples.
 5. Delivery of samples to testing agencies.
 6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
 7. Security and protection for samples and for testing and inspecting equipment at Project site.
- G. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and -control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.
1. Schedule times for tests, inspections, obtaining samples, and similar activities.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 TEST AND INSPECTION LOG

- A. Prepare a record of tests and inspections. Include the following:
1. Date test or inspection was conducted.
 2. Description of the Work tested or inspected.
 3. Date test or inspection results were transmitted to Owner.
 4. Identification of testing agency or special inspector conducting test or inspection.
- B. Maintain log at Project site. Post changes and modifications as they occur. Provide access to test and inspection log for Architect's and Owners reference during normal working hours.

3.2 REPAIR AND PROTECTION

- A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.

1. Provide materials and comply with installation requirements specified in other Specification Sections. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible.
 2. Comply with the Contract Document requirements for Division 1 Section "Cutting and Patching."
- B. Protect construction exposed by or for quality-control service activities.
- C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION 01400

SECTION 01420 - REFERENCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. Refer to documents noted in paragraph above for additional references not included in this listing.

1.2 DEFINITIONS

- A. General: Basic Contract definitions are included in the Conditions of the Contract.
- B. "Approved": When used to convey Architect's action on Contractor's submittals, applications, and requests, "approved" is limited to Architect's duties and responsibilities as stated in the Conditions of the Contract.
- C. "Approved Comparable Product or Substitution": Basis-of-Design product/manufacture shall be installed in the Project unless a comparable product from an "additional manufacturer" listed in the specification section or complete substitution submittal is approved by Architect prior to receipt of bids.
- D. "Directed": A command or instruction by Architect. Other terms including "requested," "authorized," "selected," "required," and "permitted" have the same meaning as "directed."
- E. "Indicated": Requirements expressed by graphic representations or in written form on Drawings, in Specifications, and in other Contract Documents. Other terms including "shown," "noted," "scheduled," and "specified" have the same meaning as "indicated."
- F. "Regulations": Laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, and rules, conventions, and agreements within the construction industry that control performance of the Work.
- G. "Furnish": Supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.
- H. "Install": Operations at Project site including unloading, temporarily storing, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.
- I. "Provide": Furnish and install, complete and ready for the intended use.
- J. "Project Site": Space available for performing construction activities. The extent of Project site is shown on Drawings and may or may not be identical with the description of the land on which Project is to be built.
- K. "Substitution" Refer to Division 01 Section "Substitution Procedures".

1.3 INDUSTRY STANDARDS

- A. Applicability of Standards: Unless the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.
- B. Publication Dates: Comply with standards in effect as of date of the Contract Documents unless otherwise indicated.
- C. Copies of Standards: Each entity engaged in construction on Project should be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.
 - 1. Where copies of standards are needed to perform a required construction activity, obtain copies directly from publication source.

1.4 ABBREVIATIONS AND ACRONYMS

- A. Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Names, telephone numbers, and Web sites are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

| | | |
|--------|--|----------------|
| AA | Aluminum Association, Inc. (The) www.aluminum.org | (703) 358-2960 |
| AAADM | American Association of Automatic Door Manufacturers www.aaadm.com | (216) 241-7333 |
| AABC | Associated Air Balance Council www.aabchq.com | (202) 737-0202 |
| AAMA | American Architectural Manufacturers Association www.aamanet.org | (847) 303-5664 |
| AASHTO | American Association of State Highway and Transportation Officials www.transportation.org | (202) 624-5800 |
| AATCC | American Association of Textile Chemists and Colorists www.aatcc.org | (919) 549-8141 |
| ABAA | Air Barrier Association of America www.airbarrier.org | (866) 956-5888 |
| ABMA | American Bearing Manufacturers Association www.abma-dc.org | (202) 367-1155 |
| ACI | American Concrete Institute www.concrete.org | (248) 848-3700 |
| ACPA | American Concrete Pipe Association www.concrete-pipe.org | (972) 506-7216 |

| | | |
|---------|---|----------------------------------|
| AEIC | Association of Edison Illuminating Companies, Inc. (The) www.aeic.org | (205) 257-2530 |
| AF&PA | American Forest & Paper Association www.afandpa.org | (800) 878-8878 (202) 463-2700 |
| AGA | American Gas Association www.aga.org | (202) 824-7000 |
| AGC | Associated General Contractors of America (The) www.agc.org | (703) 548-3118 |
| AHA | American Hardboard Association (Now part of CPA) | |
| AHAM | Association of Home Appliance Manufacturers www.aham.org | (202) 872-5955 |
| AI | Asphalt Institute www.asphaltinstitute.org | (859) 288-4960 |
| AIA | American Institute of Architects (The) www.aia.org | (800) 242-3837 (202) 626-7300 |
| AISC | American Institute of Steel Construction www.aisc.org | (800) 644-2400 (312) 670-2400 |
| AISI | American Iron and Steel Institute www.steel.org | (202) 452-7100 |
| AITC | American Institute of Timber Construction www.aitc-glulam.org | (303) 792-9559 |
| ALCA | Associated Landscape Contractors of America (Now PLANET - Professional Landcare Network) | |
| ALSC | American Lumber Standard Committee, Incorporated www.alsc.org | (301) 972-1700 |
| AMCA | Air Movement and Control Association International, Inc. www.amca.org | (847) 394-0150 |
| ANSI | American National Standards Institute www.ansi.org | (202) 293-8020 |
| AOSA | Association of Official Seed Analysts, Inc. www.aosaseed.com | (405) 780-7372 |
| APA | Architectural Precast Association www.archprecast.org | (239) 454-6989 |
| APA | APA - The Engineered Wood Association www.apawood.org | (253) 565-6600 |
| APA EWS | APA - The Engineered Wood Association; Engineered Wood Systems (See APA - The Engineered Wood Association) | |

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| API | American Petroleum Institute www.api.org | (202) 682-8000 |
| ARI | Air-Conditioning & Refrigeration Institute www.ari.org | (703) 524-8800 |
| ARMA | Asphalt Roofing Manufacturers Association www.asphaltroofing.org | (202) 207-0917 |
| ASCE | American Society of Civil Engineers www.asce.org | (800) 548-2723 (703) 295-6300 |
| ASCE/SEI | American Society of Civil Engineers/Structural Engineering Institute (See ASCE) | |
| ASHRAE | American Society of Heating, Refrigerating and Air-Conditioning Engineers www.ashrae.org | (800) 527-4723 (404) 636-8400 |
| ASME | ASME International (American Society of Mechanical Engineers International) www.asme.org | (800) 843-2763 (973) 882-1170 |
| ASSE | American Society of Sanitary Engineering www.asse-plumbing.org | (440) 835-3040 |
| ASTM | ASTM International (American Society for Testing and Materials International) www.astm.org | (610) 832-9500 |
| AWCI | Association of the Wall and Ceiling Industry www.awci.org | (703) 534-8300 |
| AWCMA | American Window Covering Manufacturers Association (Now WCMA) | |
| AWI | Architectural Woodwork Institute www.awinet.org | (571) 323-3636 |
| AWPA | American Wood Protection Association (Formerly: American Wood Preservers' Association) www.awpa.com | (205) 733-4077 |
| AWS | American Welding Society www.aws.org | (800) 443-9353 (305) 443-9353 |
| AWWA | American Water Works Association www.awwa.org | (800) 926-7337 (303) 794-7711 |
| BHMA | Builders Hardware Manufacturers Association www.buildershardware.com | (212) 297-2122 |
| BIA | Brick Industry Association (The) www.bia.org | (703) 620-0010 |

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| BICSI | BICSI, Inc. www.bicsi.org | (800) 242-7405 (813) 979-1991 |
| BIFMA | BIFMA International (Business and Institutional Furniture Manufacturer's Association International) www.bifma.com | (616) 285-3963 |
| BISSC | Baking Industry Sanitation Standards Committee www.bissc.org | (866) 342-4772 |
| BWF | Badminton World Federation (Formerly: IBF - International Badminton Federation) www.internationalbadminton.org | 6-03-9283 7155 |
| CCC | Carpet Cushion Council www.carpetcushion.org | (610) 527-3880 |
| CDA | Copper Development Association www.copper.org | (800) 232-3282 (212) 251-7200 |
| CEA | Canadian Electricity Association www.canelect.ca | (613) 230-9263 |
| CEA | Consumer Electronics Association www.ce.org | (866) 858-1555 (703) 907-7600 |
| CFFA | Chemical Fabrics & Film Association, Inc. www.chemicalfabricsandfilm.com | (216) 241-7333 |
| CGA | Compressed Gas Association www.cganet.com | (703) 788-2700 |
| CIMA | Cellulose Insulation Manufacturers Association www.cellulose.org | (888) 881-2462 (937) 222-2462 |
| CISCA | Ceilings & Interior Systems Construction Association www.cisca.org | (630) 584-1919 |
| CISPI | Cast Iron Soil Pipe Institute www.cispi.org | (423) 892-0137 |
| CLFMI | Chain Link Fence Manufacturers Institute www.chainlinkinfo.org | (301) 596-2583 |
| CRRC | Cool Roof Rating Council www.coolroofs.org | (866) 465-2523 (510) 485-7175 |
| CPA | Composite Panel Association www.pbmdf.com | (301) 670-0604 |
| CPPA | Corrugated Polyethylene Pipe Association www.cppa-info.org | (800) 510-2772 (202) 462-9607 |
| CRI | Carpet and Rug Institute (The) www.carpet-rug.com | (800) 882-8846 (706) 278-3176 |

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| CRSI | Concrete Reinforcing Steel Institute www.crsi.org | (847) 517-1200 |
| CSA | Canadian Standards Association | (800) 463-6727 (416) 747-4000 |
| CSA | CSA International (Formerly: IAS - International Approval Services) www.csa-international.org | (866) 797-4272 (416) 747-4000 |
| CSI | Cast Stone Institute www.caststone.org | (717) 272-3744 |
| CSI | Construction Specifications Institute (The) www.csinet.org | (800) 689-2900 (703) 684-0300 |
| CSSB | Cedar Shake & Shingle Bureau www.cedarbureau.org | (604) 820-7700 |
| CTI | Cooling Technology Institute (Formerly: Cooling Tower Institute) www.cti.org | (281) 583-4087 |
| DHI | Door and Hardware Institute www.dhi.org | (703) 222-2010 |
| EIA | Electronic Industries Alliance www.eia.org | (703) 907-7500 |
| EIMA | EIFS Industry Members Association www.eima.com | (800) 294-3462 (770) 968-7945 |
| EJCDC | Engineers Joint Contract Documents Committee www.ejdc.org | (703) 295-5000 |
| EJMA | Expansion Joint Manufacturers Association, Inc. www.ejma.org | (914) 332-0040 |
| ESD | ESD Association (Electrostatic Discharge Association) www.esda.org | (315) 339-6937 |
| ETL SEMCO | Intertek ETL SEMCO (Formerly: ITS - Intertek Testing Service NA) www.intertek.com | (800) 967-5352 |
| FIBA | Federation Internationale de Basketball (The International Basketball Federation) www.fiba.com | 41 22 545 00 00 |
| FIVB | Federation Internationale de Volleyball (The International Volleyball Federation) www.fivb.ch | 41 21 345 35 35 |
| FM Approvals | FM Approvals LLC | (781) 762-4300 |

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| | www.fmglobal.com | |
| FM Global | FM Global (Formerly: FMG - FM Global) www.fmglobal.com | (401) 275-3000 |
| FMRC | Factory Mutual Research (Now FM Global) | |
| FRSA | Florida Roofing, Sheet Metal & Air Conditioning Contractors Association, Inc. www.floridarooft.com | (407) 671-3772 |
| FSA | Fluid Sealing Association www.fluidsealing.com | (610) 971-4850 |
| FSC | Forest Stewardship Council www.fsc.org | 49 228 367 66 0 |
| GA | Gypsum Association www.gypsum.org | (202) 289-5440 |
| GANA | Glass Association of North America www.glasswebsite.com | (785) 271-0208 |
| GRI | (Part of GSI) | |
| GS | Green Seal www.greenseal.org | (202) 872-6400 |
| GSI | Geosynthetic Institute www.geosynthetic-institute.org | (610) 522-8440 |
| HI | Hydraulic Institute www.pumps.org | (973) 267-9700 |
| HI | Hydronics Institute www.gamanet.org | (908) 464-8200 |
| HMMA | Hollow Metal Manufacturers Association (Part of NAAMM) | |
| HPVA | Hardwood Plywood & Veneer Association www.hpva.org | (703) 435-2900 |
| HPW | H. P. White Laboratory, Inc. www.hpwhite.com | (410) 838-6550 |
| IAS | International Approval Services (Now CSA International) | |
| IBF | International Badminton Federation (Now BWF) | |
| ICEA | Insulated Cable Engineers Association, Inc. www.icea.net | (770) 830-0369 |

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| ICRI | International Concrete Repair Institute, Inc. www.icri.org | (847) 827-0830 |
| IEC | International Electrotechnical Commission www.iec.ch | 41 22 919 02 11 |
| IEEE | Institute of Electrical and Electronics Engineers, Inc. (The) www.ieee.org | (212) 419-7900 |
| IESNA | Illuminating Engineering Society of North America www.iesna.org | (212) 248-5000 |
| IEST | Institute of Environmental Sciences and Technology www.iest.org | (847) 255-1561 |
| IGCC | Insulating Glass Certification Council www.igcc.org | (315) 646-2234 |
| IGMA | Insulating Glass Manufacturers Alliance www.igmaonline.org | (613) 233-1510 |
| ILI | Indiana Limestone Institute of America, Inc. www.iliai.com | (812) 275-4426 |
| ISO | International Organization for Standardization www.iso.ch | 41 22 749 01 11 |
| | Available from ANSI www.ansi.org | (202) 293-8020 |
| ISSFA | International Solid Surface Fabricators Association www.issfa.net | (877) 464-7732 (702) 567-8150 |
| ITS | Intertek Testing Service NA (Now ETL SEMCO) | |
| ITU | International Telecommunication Union www.itu.int/home | 41 22 730 51 11 |
| KCMA | Kitchen Cabinet Manufacturers Association www.kcma.org | (703) 264-1690 |
| LMA | Laminating Materials Association (Now part of CPA) | |
| LPI | Lightning Protection Institute www.lightning.org | (800) 488-6864 |
| MBMA | Metal Building Manufacturers Association www.mbma.com | (216) 241-7333 |
| MFMA | Maple Flooring Manufacturers Association, Inc. www.maplefloor.org | (888) 480-9138 |

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| MFMA | Metal Framing Manufacturers Association, Inc. www.metalframingmfg.org | (312) 644-6610 |
| MH | Material Handling (Now MHIA) | |
| MHIA | Material Handling Industry of America www.mhia.org | (800) 345-1815 (704) 676-1190 |
| MIA | Marble Institute of America www.marble-institute.com | (440) 250-9222 |
| MPI | Master Painters Institute www.paintinfo.com | (888) 674-8937 (604) 298-7578 |
| MSS | Manufacturers Standardization Society of The Valve and Fittings Industry Inc. www.mss-hq.com | (703) 281-6613 |
| NAAMM | National Association of Architectural Metal Manufacturers www.naamm.org | (630) 942-6591 |
| NACE | NACE International (National Association of Corrosion Engineers International) www.nace.org | (800) 797-6623 (281) 228-6200 |
| NADCA | National Air Duct Cleaners Association www.nadca.com | (202) 737-2926 |
| NAGWS | National Association for Girls and Women in Sport www.aahperd.org/nagws/ | (800) 213-7193, ext. 453 |
| NAIMA | North American Insulation Manufacturers Association www.naima.org | (703) 684-0084 |
| NBGQA | National Building Granite Quarries Association, Inc. www.nbgqa.com | (800) 557-2848 |
| NCAA | National Collegiate Athletic Association (The) www.ncaa.org | (317) 917-6222 |
| NCMA | National Concrete Masonry Association www.ncma.org | (703) 713-1900 |
| NCPI | National Clay Pipe Institute www.ncpi.org | (262) 248-9094 |
| NCTA | National Cable & Telecommunications Association www.ncta.com | (202) 775-2300 |
| NEBB | National Environmental Balancing Bureau www.nebb.org | (301) 977-3698 |
| NECA | National Electrical Contractors Association www.necanet.org | (301) 657-3110 |

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| NeLMA | Northeastern Lumber Manufacturers' Association www.nelma.org | (207) 829-6901 |
| NEMA | National Electrical Manufacturers Association www.nema.org | (703) 841-3200 |
| NETA | InterNational Electrical Testing Association www.netaworld.org | (888) 300-6382 (269) 488-6382 |
| NFHS | National Federation of State High School Associations www.nfhs.org | (317) 972-6900 |
| NFPA | NFPA (National Fire Protection Association) www.nfpa.org | (800) 344-3555 (617) 770-3000 |
| NFRC | National Fenestration Rating Council www.nfrc.org | (301) 589-1776 |
| NGA | National Glass Association www.glass.org | (866) 342-5642 (703) 442-4890 |
| NHLA | National Hardwood Lumber Association www.natlhardwood.org | (800) 933-0318 (901) 377-1818 |
| NLGA | National Lumber Grades Authority www.nlga.org | (604) 524-2393 |
| NOFMA | NOFMA: The Wood Flooring Manufacturers Association (Formerly: National Oak Flooring Manufacturers Association) www.nofma.com | (901) 526-5016 |
| NOMMA | National Ornamental & Miscellaneous Metals Association www.nomma.org | (888) 516-8585 |
| NRCA | National Roofing Contractors Association www.nrca.net | (800) 323-9545 (847) 299-9070 |
| NRMCA | National Ready Mixed Concrete Association www.nrmca.org | (888) 846-7622 (301) 587-1400 |
| NSF | NSF International (National Sanitation Foundation International) www.nsf.org | (800) 673-6275 (734) 769-8010 |
| NSSGA | National Stone, Sand & Gravel Association www.nssga.org | (800) 342-1415 (703) 525-8788 |
| NTMA | National Terrazzo & Mosaic Association, Inc. (The) www.ntma.com | (800) 323-9736 (540) 751-0930 |
| NTRMA | National Tile Roofing Manufacturers Association (Now TRI) | |
| NWWDA | National Wood Window and Door Association | |

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| | (Now WDMA) | |
| OPL | Omega Point Laboratories, Inc. (Now ITS) | |
| PCI | Precast/Prestressed Concrete Institute www.pci.org | (312) 786-0300 |
| PDCA | Painting & Decorating Contractors of America www.pdca.com | (800) 332-7322 (314) 514-7322 |
| PDI | Plumbing & Drainage Institute www.pdionline.org | (800) 589-8956 (978) 557-0720 |
| PGI | PVC Geomembrane Institute http://pgi-tp.ce.uiuc.edu | (217) 333-3929 |
| PLANET | Professional Landcare Network (Formerly: ACLA - Associated Landscape Contractors of America) www.landcarenetwork.org | (800) 395-2522 (703) 736-9666 |
| PTI | Post-Tensioning Institute www.post-tensioning.org | (602) 870-7540 |
| RCSC | Research Council on Structural Connections www.boltcouncil.org | |
| RFCI | Resilient Floor Covering Institute www.rfci.com | (301) 340-8580 |
| RIS | Redwood Inspection Service www.redwoodinspection.com | (888) 225-7339 (415) 382-0662 |
| SAE | SAE International www.sae.org | (877) 606-7323 (724) 776-4841 |
| SDI | Steel Deck Institute www.sdi.org | (847) 458-4647 |
| SDI | Steel Door Institute www.steeldoor.org | (440) 899-0010 |
| SEFA | Scientific Equipment and Furniture Association www.sefalabs.com | (877) 294-5424 (516) 294-5424 |
| SEI/ASCE | Structural Engineering Institute/American Society of Civil Engineers (See ASCE) | |
| SGCC | Safety Glazing Certification Council www.sgcc.org | (315) 646-2234 |
| SIA | Security Industry Association www.siaonline.org | (866) 817-8888 (703) 683-2075 |
| SIGMA | Sealed Insulating Glass Manufacturers Association (Now IGMA) | |

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| SJI | Steel Joist Institute www.steeljoist.org | (843) 626-1995 |
| SMA | Screen Manufacturers Association www.smacentral.org | (561) 533-0991 |
| SMACNA | Sheet Metal and Air Conditioning Contractors' National Association www.smacna.org | (703) 803-2980 |
| SMPTE | Society of Motion Picture and Television Engineers www.smpte.org | (914) 761-1100 |
| SPFA | Spray Polyurethane Foam Alliance (Formerly: SPI/SPFD - The Society of the Plastics Industry, Inc.; Spray Polyurethane Foam Division) www.sprayfoam.org | (800) 523-6154 |
| SPIB | Southern Pine Inspection Bureau (The) www.spib.org | (850) 434-2611 |
| SPRI | Single Ply Roofing Industry www.spri.org | (781) 647-7026 |
| SSINA | Specialty Steel Industry of North America www.ssina.com | (800) 982-0355 (202) 342-8630 |
| SSPC | SSPC: The Society for Protective Coatings www.sspc.org | (877) 281-7772 (412) 281-2331 |
| STI | Steel Tank Institute www.steeltank.com | (847) 438-8265 |
| SWI | Steel Window Institute www.steelwindows.com | (216) 241-7333 |
| SWRI | Sealant, Waterproofing, & Restoration Institute www.swrionline.org | (816) 472-7974 |
| TCA | Tile Council of America, Inc. (Now TCNA) | |
| TCNA | Tile Council of North America, Inc. www.tileusa.com | (864) 646-8453 |
| TIA/EIA | Telecommunications Industry Association/Electronic Industries Alliance www.tiaonline.org | (703) 907-7700 |
| TMS | The Masonry Society www.masonrysociety.org | (303) 939-9700 |
| TPI | Truss Plate Institute, Inc. www.tpinst.org | (703) 683-1010 |

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| TPI | Turfgrass Producers International www.turfgrassod.org | (800) 405-8873 (847) 649-5555 |
| TRI | Tile Roofing Institute www.tilerroofing.org | (312) 670-4177 |
| UL | Underwriters Laboratories Inc. www.ul.com | (877) 854-3577 (847) 272-8800 |
| UNI | Uni-Bell PVC Pipe Association www.uni-bell.org | (972) 243-3902 |
| USAV | USA Volleyball www.usavolleyball.org | (888) 786-5539 (719) 228-6800 |
| USGBC | U.S. Green Building Council www.usgbc.org | (800) 795-1747 |
| USITT | United States Institute for Theatre Technology, Inc. www.usitt.org | (800) 938-7488 (315) 463-6463 |
| WASTEC | Waste Equipment Technology Association www.wastec.org | (800) 424-2869 (202) 244-4700 |
| WCLIB | West Coast Lumber Inspection Bureau www.wclib.org | (800) 283-1486 (503) 639-0651 |
| WCMA | Window Covering Manufacturers Association www.wcmanet.org | (212) 297-2122 |
| WCSC | Window Covering Safety Council (Formerly: WCMA - Window Covering Manufacturers Association) www.windowcoverings.org | (800) 506-4636 (212) 297-2109 |
| WDMA | Window & Door Manufacturers Association (Formerly: NWWDA - National Wood Window and Door Association) www.wdma.com | (800) 223-2301 (847) 299-5200 |
| WI | Woodwork Institute (Formerly: WIC - Woodwork Institute of California) www.wicnet.org | (916) 372-9943 |
| WIC | Woodwork Institute of California (Now WI) | |
| WMMPA | Wood Moulding & Millwork Producers Association www.wmmpa.com | (800) 550-7889 (530) 661-9591 |
| WSRCA | Western States Roofing Contractors Association www.wsrca.com | (800) 725-0333 (650) 570-5441 |
| WWPA | Western Wood Products Association www.wwpa.org | (503) 224-3930 |

B. Code Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Names, telephone

numbers, and Web sites are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

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| IAPMO | International Association of Plumbing and Mechanical Officials www.iapmo.org | (909) 472-4100 |
| ICC | International Code Council www.iccsafe.org | (888) 422-7233 |
| ICC-ES | ICC Evaluation Service, Inc. www.icc-es.org | (800) 423-6587 (562) 699-0543 |
| UBC | Uniform Building Code (See ICC) | |

C. Federal Government Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Names, telephone numbers, and Web sites are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

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| CE | Army Corps of Engineers www.usace.army.mil | (202) 761-0011 |
| CPSC | Consumer Product Safety Commission www.cpsc.gov | (800) 638-2772 (301) 504-7923 |
| DOC | Department of Commerce www.commerce.gov | (202) 482-2000 |
| DOD | Department of Defense http://.dodssp.daps.dla.mil | (215) 697-6257 |
| DOE | Department of Energy www.energy.gov | (202) 586-9220 |
| EPA | Environmental Protection Agency www.epa.gov | (202) 272-0167 |
| FAA | Federal Aviation Administration www.faa.gov | (866) 835-5322 |
| FCC | Federal Communications Commission www.fcc.gov | (888) 225-5322 |
| FDA | Food and Drug Administration www.fda.gov | (888) 463-6332 |
| GSA | General Services Administration www.gsa.gov | (800) 488-3111 |
| HUD | Department of Housing and Urban Development www.hud.gov | (202) 708-1112 |
| LBL | Lawrence Berkeley National Laboratory | (510) 486-4000 |

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| | www.lbl.gov | |
| NCHRP | National Cooperative Highway Research Program (See TRB) | |
| NIST | National Institute of Standards and Technology www.nist.gov | (301) 975-6478 |
| OSHA | Occupational Safety & Health Administration www.osha.gov | (800) 321-6742 (202) 693-1999 |
| PBS | Public Buildings Service (See GSA) | |
| PHS | Office of Public Health and Science www.osophs.dhhs.gov/ophs | (202) 690-7694 |
| RUS | Rural Utilities Service (See USDA) | (202) 720-9540 |
| SD | State Department www.state.gov | (202) 647-4000 |
| TRB | Transportation Research Board http://gulliver.trb.org | (202) 334-2934 |
| USDA | Department of Agriculture www.usda.gov | (202) 720-2791 |
| USPS | Postal Service www.usps.com | (202) 268-2000 |
| D. | Standards and Regulations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the standards and regulations in the following list. Names, telephone numbers, and Web sites are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents. | |
| ADAAG | Americans with Disabilities Act (ADA) Architectural Barriers Act (ABA) Accessibility Guidelines for Buildings and Facilities Available from U.S. Access Board www.access-board.gov | (800) 872-2253 (202) 272-0080 |
| CFR | Code of Federal Regulations Available from Government Printing Office www.gpoaccess.gov/cfr/index.html | (866) 512-1800 (202) 512-1800 |
| DOD | Department of Defense Military Specifications and Standards Available from Department of Defense Single Stock Point http://dodssp.daps.dla.mil | (215) 697-2664 |
| DSCC | Defense Supply Center Columbus (See FS) | |
| FED-STD | Federal Standard (See FS) | |

SECTION 01500 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes general requirements and Trade Contractor specific requirements for temporary utilities, support facilities, and security and protection facilities.

1.3 USE CHARGES

- A. General: Cost or use charges for temporary facilities shall be included in the Contract Sum. Allow other entities to use temporary services and facilities without cost, including, but not limited to, Owner, Owners agents, Owner's construction forces, Architect, testing agencies, and authorities having jurisdiction.
- B. Sewer Service: Owner will provide at no cost to the Contractors.
- C. Water Service: Water from Owner's existing water system is available for use without metering and without payment of use charges.
- D. Electric Power Service: Electric power from Owner's existing system is available for use without metering and without payment of use charges. If needed, insert use-charge requirements for other utilities needed for construction operations.

1.4 QUALITY ASSURANCE

- A. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.

1.5 PROJECT CONDITIONS

- A. Temporary Use of Permanent Facilities: Installer of each permanent service shall assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.

PART 2 - PRODUCTS

2.1 TEMPORARY STORAGE FACILITIES

- A. Storage Trailers: Provide Trailers sized, furnished, and equipped to accommodate materials and equipment for construction operations.
 - 1. Space will be limited so the number of trailers to parked on the site will be restricted. Do not place Storage Trailers on site without the permission of the Owner
 - a. The contractor shall coordinate deliveries to coincide with their installation to reduce the amount of materials stored on site either in trailer or in the building.
 - 2. Store combustible materials apart from building.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work at the direction of the Owner.
- B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.2 TEMPORARY UTILITY INSTALLATION

- A. General: Install temporary service or connect to existing service.
 - 1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.
- B. Water Service: Use of Owner's existing water service facilities will be permitted, as long as facilities are cleaned and maintained in a condition acceptable to Owner. At Substantial Completion, restore these facilities to condition existing before initial use.
 - 1. Where installations below an outlet might be damaged by spillage or leakage, provide a drip pan of suitable size to minimize water damage. Drain accumulated water promptly from pans.
 - 2. Toilets: Use of Owner's existing toilet facilities (within the construction area and not being used by the Owner or the Public) will be permitted, as long as facilities are cleaned and maintained in a condition acceptable to Owner. At Substantial Completion, restore these facilities to condition existing before initial use.
- C. Electric Power Service: Use of Owner's existing electric power service will be permitted, as long as equipment is maintained in a condition acceptable to Owner.
- D. Telephone Service: Each Trade Contractor shall provide temporary telephone service for their own construction personnel and use. With posted numbers of the below. Cellular phone use is permitted.

- a. Police and fire departments.
 - b. Ambulance service.
 - c. Contractor's home office.
 - d. Architect's office.
 - e. Engineers' offices.
 - f. Owner's office.
 - g. Principal subcontractors' field and home offices.
2. Provide superintendent with cellular telephone for use when away from field office.
- E. Electronic Communication Service: Provide temporary electronic communication service, including electronic mail.

3.3 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Temporary barricades. Where necessary provide temporary, highly visible ropes or tape to prevent access to areas or work. Never block any exit or access to a resident room.

3.4 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Maintenance: Maintain facilities in good operating condition until removal.

END OF SECTION 01500

SECTION 01600 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This 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; product substitutions; and comparable products.
- B. Related Sections include the following:
 - 1. Division 1 Section "Closeout Procedures" for submitting warranties for Contract closeout.
 - 2. Divisions 2 through 16 Sections for specific requirements for warranties on products and installations specified to be warranted.

1.3 DEFINITIONS

- A. Products: Items purchased 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, except that products consisting of recycled-content materials are allowed, unless explicitly stated otherwise. 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.
- B. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
- C. Basis-of-Design Product Specification: A specification in which a specific manufacturer's product is named and accompanied by the words "basis-of-design product," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other

characteristics for purposes of evaluating comparable products of additional manufacturers named in the specification.

1.4 SUBMITTALS

- A. Substitution Requests: Submit digital copy via email of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
1. Substitution Request Form: Use form provided by Architect.
 2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
 - a. Statement indicating why specified material or product cannot be provided.
 - b. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by Owner and separate contractors, that will be necessary to accommodate proposed substitution.
 - c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
 - d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
 - e. Samples, where applicable or requested.
 - f. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
 - g. Research/evaluation reports evidencing compliance with building code in effect for Project, from a model code organization acceptable to authorities having jurisdiction.
 - h. Detailed comparison of Contractor's Construction Schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating lack of availability or delays in delivery.
 - i. Cost information, including a proposal of change, if any, in the Contract Sum.
 - j. Contractor's certification that proposed substitution complies with requirements in the Contract Documents and is appropriate for applications indicated.
 - k. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
 3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within 7 days of receipt of a request for substitution. Architect will notify Contractor of acceptance or rejection of proposed substitution within 15 days of receipt of request, or 7 days of receipt of additional information or documentation, whichever is later.
 - a. Form of Acceptance: Substitution Form.

1.5 QUALITY ASSURANCE

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

1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products using Owner approved means and methods that will prevent damage, deterioration, and loss, including theft. 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. Inform Owner of all deliveries as far in advance as possible, and in no circumstances less than 72 hours in advance of all substantial deliveries.
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 ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.

- C. Storage:

1. Store materials in a manner that will not endanger Project structure or Occupants.
2. Store materials and products only with the approval of the Owner.
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. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
5. Protect stored products from damage and liquids from freezing.
6. Store products to allow for inspection and measurement of quantity or counting of units.
7. Store materials in a manner that will not endanger Project structure.
8. Store products that are subject to damage by the elements, under cover in a weather-tight enclosure above ground, with ventilation adequate to prevent condensation.
9. Protect foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
10. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
11. Protect stored products from damage and liquids from freezing.
12. Provide a secure location and enclosure at Project site for storage of materials and equipment by Owner's construction forces. Coordinate location with Owner.

1.7 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: Preprinted written warranty published by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
 2. Special Warranty: Written warranty required by or incorporated into the Contract Documents, either to extend time limit provided by manufacturer's warranty or to provide more rights for Owner.
- B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution. Submit a draft for approval before final execution.
1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
 2. Refer to Divisions 2 through 16 Sections for specific content requirements and particular requirements for submitting special warranties.
- C. Submittal Time: Comply with requirements in Division 1 Section "Closeout Procedures."

PART 2 - PRODUCTS

2.1 PRODUCT SUBSTITUTIONS

- A. Timing: Architect will consider requests for substitution if received within 7 days prior to receipt of bids. Requests received after that time may be considered or rejected at discretion of Architect.
- B. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
1. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
 2. Requested substitution does not require extensive revisions to the Contract Documents.
 3. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 4. Substitution request is fully documented and properly submitted.
 5. Requested substitution will not adversely affect Contractor's Construction Schedule.
 6. Requested substitution has received necessary approvals of authorities having jurisdiction.
 7. Requested substitution has been coordinated with other portions of the Work.
 8. Requested substitution provides specified warranty.

2.2 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 all other items and appurtenances whether specifically indicated or not 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.
6. Or Equal: For products specified by name and accompanied by the term "or equal," or "or approved equal," or "or approved," comply with requirements in "Comparable Products" Article to obtain approval for use of an unnamed product.

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/manufacturers 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 unless otherwise indicated.
 - b. Non-restricted List: Where Specifications include a list of names of both available manufacturers and products, provide one of the products listed, or an unnamed product by one of the manufacturers listed, 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 unless otherwise indicated.
 - b. Non-restricted 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.
5. Basis-of-Design Product: Where Specifications name a product, or refer to a product indicated on Drawings, and include a list of manufacturers, provide the specified or indicated product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with requirements in "Comparable

Products" Article for consideration of an unnamed product by one of the other named manufacturers.

- 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.**

2.3 COMPARABLE PRODUCTS

- A. Conditions for Consideration: Architect will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Architect may return requests without action, except to record noncompliance with these requirements:
 - 1. Evidence that the proposed product does not require revisions to the Contract Documents, that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.
 - 2. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
 - 3. Evidence that proposed product provides specified warranty.
 - 4. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.
 - 5. Samples, if requested.

PART 3 - EXECUTION (Not Used)

END OF SECTION 01600

SECTION 01700 - EXECUTION REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes general procedural requirements governing execution of the Work including, but not limited to, the following:
 - 1. General installation of products.
 - 2. Progress cleaning.
 - 3. Starting and adjusting.
 - 4. Protection of installed construction.
 - 5. Correction of the Work.
- B. Related Sections include the following:
 - 1. Division 1 Section "Closeout Procedures" for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, and final cleaning.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Existing Conditions: The existence and location of site improvements, utilities, and other construction indicated as existing are not guaranteed. Before beginning work, investigate and verify the existence and location of mechanical and electrical systems and other construction affecting the Work.
 - 1. Before construction, verify the location and points of connection of utility services.
- B. Existing Utilities: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning site work, investigate and verify the existence and location of underground utilities and other construction affecting the Work.

- C. Acceptance of Conditions: 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. Verify compatibility with and suitability of substrates, including compatibility with
 - 2. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
 - 3. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. 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.
- B. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- C. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents, submit a request for information to the Architect. Include a detailed description of problem encountered, together with recommendations for changing the Contract Documents.

3.3 INSTALLATION

- A. General: 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 of 7'-8" in spaces without a suspended ceiling.
- 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 the best possible results. 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.
- E. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.

- F. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- G. Anchors and Fasteners: Provide anchors and fasteners as required to anchor each component securely in place, accurately located and aligned with other portions of the Work.
 - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
 - 2. Allow for building movement, including thermal expansion and contraction.
 - 3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
- H. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.
- I. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

3.4 PROGRESS CLEANING

- A. General: Contractors shall clean Project site and work areas daily, including common areas. Coordinate progress cleaning with the Owner for joint-use areas where more than one installer has worked. Enforce requirements strictly. Dispose of materials lawfully.
 - 1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
 - 2. Do not hold materials more than 7 days during normal weather or 3 days if the temperature is expected to rise above 80 deg F .
 - 3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
- B. Site: All Trade Contractors shall maintain Project site free of waste materials and debris. It is prohibited to leave unsupervised tools, materials, products, or any other materials where staff and \ or residents may come into contact with and which may obstruct egress.
- C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
 - 1. Remove liquid spills promptly.
 - 2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
 - 3. Remove and store properly all tools, materials, and all other contractor materials.
- D. Exit ways, and all areas not under construction shall be kept clean and free of all tools and materials.

1. Emergency exit access shall be maintained at all times.
 2. At the end of each workday the construction area will be cleaned of all debris, tools, barriers (where feasible) and materials so as to allow free and uninterrupted passage through the area.
- E. 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.
- F. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- G. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- H. Waste Disposal: Burying or burning waste materials on-site will not be permitted. Washing waste materials down sewers or into waterways will not be permitted.
- I. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- J. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- K. Limiting Exposures: Supervise construction operations to assure that no part of the construction completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.5 PROTECTION OF INSTALLED CONSTRUCTION

- A. Contractor shall provide final protection and maintain conditions that ensure their installed Work is without damage or deterioration at time of Substantial Completion.
- B. Comply with manufacturer's written instructions for temperature and relative humidity.

3.6 CORRECTION OF THE WORK

- A. Repair or remove and replace defective construction. Restore damaged substrates and finishes.
 1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.
- B. Restore permanent facilities used during construction to their specified condition.
- C. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.

- D. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.
- E. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

END OF SECTION 01700

SECTION 01732 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Demolition and removal of selected portions of building or structure.
 - 2. Salvage of existing items to be reused or recycled.

1.3 DEFINITIONS

- A. Remove: Detach items from existing construction and legally dispose of them off-site, unless indicated to be removed and salvaged or removed and reinstalled.

1.4 MATERIALS OWNERSHIP

- A. Historic items, relics, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, antiques, and other items of interest or value to Owner that may be encountered during selective demolition remain Owner's property. Carefully remove and salvage each item or object in a manner to prevent damage and deliver promptly to Owner.

1.5 QUALITY ASSURANCE

- A. Demolition Firm Qualifications: An experienced firm that has specialized in demolition work similar in material and extent to that indicated for this Project.
- B. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- C. Standards: Comply with ANSI A10.6 and NFPA 241.

1.6 PROJECT CONDITIONS

- A. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.

1. Comply with requirements specified in Division 1 Section "Summary."
- B. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
 1. Before selective demolition, Owner will remove the following items:
 - a. Furniture, only when noted on the drawings.
 - 1) Some furniture will remain and will be the responsibility of the contractor to temporarily move, protect and return to it's original location after work is complete.
- C. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- D. Hazardous Materials: Hazardous materials are present in construction to be selectively demolished. A report on the presence of hazardous materials is on file for review and use. Examine report to become aware of locations where hazardous materials are present.
 1. Do not disturb hazardous materials or items suspected of containing hazardous materials except under procedures specified elsewhere in the Contract Documents.
- E. Storage or sale of removed items or materials on-site is not permitted.
- F. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
 1. Maintain fire-protection facilities in service during selective demolition operations.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped.
- B. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
- C. Inventory and record the condition of items to be removed and reinstalled and items to be removed and salvaged. Provide a copy of this record to the Owner.
- D. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Architect and Owner.
- E. Survey of Existing Conditions: Record existing conditions by use of measured drawings.

1. Before selective demolition or removal of existing building elements that will be reproduced or duplicated in final Work, make permanent record of measurements, materials, and construction details required to make exact reproduction.
- F. Perform surveys as the Work progresses to detect hazards resulting from selective demolition activities.

3.2 PREPARATION

- A. Temporary Facilities: Provide temporary non-combustible barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
1. Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of building.
 2. Protect walls, ceilings, floors, and other existing finish work that are to remain or that are exposed during selective demolition operations.
 3. Cover and protect furniture, furnishings, and equipment that have not been removed.
 4. Comply with requirements for temporary enclosures, dust control, heating, and cooling specified in Division 1 Section "Temporary Facilities and Controls."

3.3 SELECTIVE DEMOLITION, GENERAL

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
1. Proceed with selective demolition systematically, from higher to lower level. Complete selective demolition operations above each floor or tier before disturbing supporting members on the next lower level.
 2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain.
 3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
 4. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain fire watch and portable fire-suppression devices during flame-cutting operations.
 5. Maintain adequate ventilation when using cutting torches.
 6. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
 7. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.
 8. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
 9. Dispose of demolished items and materials legally and promptly.

3.4 SELECTIVE DEMOLITION PROCEDURES FOR SPECIFIC MATERIALS

- A. Resilient Floor Coverings: Remove floor coverings and adhesive according to recommendations in RFCI-WP and its Addendum. Use methods as recommended by the manufacturer.
 - 1. Remove residual adhesive and prepare substrate for new floor coverings by one of the methods recommended by RFCI.

3.5 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, place demolished materials in dumpsters provided by the Contractor or remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.
 - 1. Do not allow demolished materials to accumulate on-site.
 - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
 - 3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
 - 4. It is the contractor's responsibility to provide dumpsters and schedule the removal and replacement. Schedule and coordinate with owner so as not to disrupt their scheduled deliveries and services.
- B. Burning: Do not burn demolished materials.
- C. Disposal: Place demolished materials in dumpsters provided by the Contractor or transport demolished materials off Owner's property and legally dispose of them.

3.6 CLEANING

- A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION 01732

SECTION 01770 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:

- 1. Inspection procedures.
- 2. Warranties.
- 3. Final cleaning.

- B. Related Sections include the following:

- 1. Division 1 Section "Payment Procedures" for requirements for Applications for Payment for Substantial and Final Completion.
- 2. Division 1 Section "Execution Requirements" for progress cleaning of Project site.
- 3. Division 1 Section "Project Record Documents" for submitting Record Drawings, Record Specifications, and Record Product Data.
- 4. Division 1 Section "Operation and Maintenance Data" for operation and maintenance manual requirements.
- 5. Divisions 2 through 16 Sections for specific closeout and special cleaning requirements for the Work in those Sections.

1.3 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete in request.

- 1. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
- 2. Advise Owner of pending insurance changeover requirements.
- 3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, Record Drawings, and similar documents.
- 4. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
- 5. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.
- 6. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
- 7. Complete final cleaning requirements, including touchup painting.

8. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
 - B. Inspection: Submit a written request for inspection for Substantial Completion to the Owner. On receipt of request, Owner and 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

- A. Preliminary Procedures: Before requesting final inspection for determining date of Final Completion, and as a condition precedent to Final Payment, complete the following:
 1. Submit a final Application for Payment according to Division 1 Section "Payment Procedures."
 2. Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
 3. Prepare and submit final Project Record Documents, Record Drawings, operation and maintenance manuals, Final Completion construction photographs, damage or settlement surveys, property surveys, and similar final record information.
 4. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems. Submit demonstration and training videotapes.
- B. Inspection: Submit a written request for final inspection for acceptance to the Owner. On receipt of request, Owner and 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. Preparation: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.
 1. Organize list of spaces in sequential order, starting with exterior areas first and proceeding from lowest floor to highest floor.
 2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
 3. Include the following information at the top of each page:

- a. Project name.
- b. Date.
- c. Name of Architect.
- d. Name of Contractor.
- e. Page number.

1.6 WARRANTIES

- A. Submittal Time: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.
- B. Partial Occupancy: Submit properly executed warranties within 15 days of completion of designated portions of the Work that are completed and occupied or used by Owner during construction period by separate agreement with Contractor.
- C. 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, 3-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch 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.
- D. 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: Provide 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 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. Remove tools, construction equipment, machinery, and surplus material from Project site.
 - d. Clean exposed exterior and interior 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.
 - e. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
 - f. For vinyl tile and sheet vinyl clean floor of all dirt and remove any protective covers or waxes in accordance with the manufacturer's recommendation.
 - 1) Floor is to be ready for Owner to wax if required.
 - g. Vacuum carpet and similar soft surfaces, removing debris and excess nap; shampoo if visible soil or stains remain.
 - h. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.
 - i. Remove labels that are not permanent.
 - j. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
 - 1) Do not paint over "UL" and similar labels, including mechanical and electrical nameplates.
 - k. Replace parts subject to unusual operating conditions.
 - l. Clean plumbing fixtures to a sanitary condition, free of stains, including stains
 - m. Clean ducts, blowers, and coils of units operated during construction.
 - n. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency. Replace burned-out bulbs, and those noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.
 - o. Leave Project clean and ready for occupancy.
- C. Comply with safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on Owner's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from Project site and dispose of lawfully.

END OF SECTION 01770

SECTION 01781 - PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for Project Record Documents, including the following:
 - 1. Record Drawings.
 - 2. Record Product Data.
- B. Related Sections include the following:
 - 1. Division 1 Section "Closeout Procedures" for general closeout procedures.
 - 2. Division 1 Section "Operation and Maintenance Data" for operation and maintenance manual requirements.
 - 3. Divisions 2 through 16 Sections for specific requirements for Project Record Documents of the Work in those Sections.

1.3 SUBMITTALS

- 1. Number of Copies: Submit two sets of marked-up Record Prints.
 - 2. Certification: Certify to the Owner in writing that the Record Drawings show complete and exact "As-Built" conditions; stating sizes, kind of materials, structural members, piping, conduit, and duct locations and similar matters. Submit written certification with the Record Drawings at substantial completion.
 - 3. If no significant deviations occur from construction contract documents contractor shall submit, in writing, that no significant deviations occur from the construction contract documents as applicable to his work.
- B. Record Product Data: Submit one copy of each Product Data submittal.
 - 1. Where Record Product Data is required as part of operation and maintenance manuals, submit marked-up Product Data as an insert in manual instead of submittal as Record Product Data.

PART 2 - PRODUCTS

2.1 RECORD DRAWINGS

- A. Record Prints: Maintain two sets of blue- or black-line white prints of the Contract Drawings and Shop Drawings.
1. Preparation: Mark Record Prints to show the actual installation where installation varies from that shown originally in red. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to prepare the marked-up Record Prints.
 - a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
 - b. Accurately record information in an understandable drawing technique.
 - c. Record data as soon as possible after obtaining it. Record and check the markup before enclosing concealed installations.
 2. Content: Types of items requiring marking include, but are not limited to, the following:
 - a. Dimensional changes to Drawings.
 - b. Revisions to details shown on Drawings.
 - c. Locations and depths of underground utilities.
 - d. Revisions to routing of piping and conduits.
 - e. Revisions to electrical circuitry.
 - f. Actual equipment locations.
 - g. Duct size and routing.
 - h. Locations of concealed internal utilities.
 - i. Changes made by Change Order or Construction Change Directive.
 - j. Changes made following Architect's written orders.
 - k. Field records for variable and concealed conditions.
 - l. Record information on the Work that is shown only schematically.
 3. Mark the Contract Drawings or Shop Drawings, whichever is most capable of showing actual physical conditions, completely and accurately. If Shop Drawings are marked, show cross-reference on the Contract Drawings.
 4. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
 5. Mark important additional information that was either shown schematically or omitted from original Drawings.
 6. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.
- B. Format: Identify and date each Record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.
1. Record Prints: Organize Record Prints into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
 2. Identification: As follows:
 - a. Project name.
 - b. Date.
 - c. Designation "PROJECT RECORD DRAWINGS."

- d. Name of Architect.
- e. Name of Contractor.

2.2 RECORD PRODUCT DATA

- A. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.
 - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 - 2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
 - 3. Note related Change Orders and Record Drawings where applicable.

2.3 MISCELLANEOUS RECORD SUBMITTALS

- A. Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.

PART 3 - EXECUTION

3.1 RECORDING AND MAINTENANCE

- A. Recording: Maintain two copies of each submittal during the construction period for Project Record Document purposes. Post changes and modifications to Project Record Documents as they occur; do not wait until the end of Project.
- B. Maintenance of Record Documents and Samples: Store Record Documents and Samples in the field office apart from the Contract Documents used for construction. Do not use Project Record Documents for construction purposes. Maintain Record Documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to Project Record Documents for Architect's reference during normal working hours.

END OF SECTION 01781

SECTION 01782 - OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:
 - 1. Operation and maintenance documentation directory.
 - 2. Operation manuals for systems, subsystems, and equipment.
 - 3. Maintenance manuals for the care and maintenance of systems and equipment.
- B. Related Sections include the following:
 - 1. Division 1 Section "Submittal Procedures" for submitting copies of submittals for operation and maintenance manuals.
 - 2. Division 1 Section "Closeout Procedures" for submitting operation and maintenance manuals.
 - 3. Division 1 Section "Project Record Documents" for preparing Record Drawings for operation and maintenance manuals.
 - 4. Divisions 2 through 16 Sections for specific operation and maintenance manual requirements for the Work in those Sections.

1.3 DEFINITIONS

- A. System: An organized collection of parts, equipment, or subsystems united by regular interaction.
- B. Subsystem: A portion of a system with characteristics similar to a system.

1.4 SUBMITTALS

- A. Final Submittal: Submit one copy of each manual in final form at least 15 days before final inspection. Architect will return copy with comments within 15 days after final inspection.
 - 1. Correct or modify each manual to comply with Architect's comments. Submit 3 copies of each corrected manual within 15 days of receipt of Architect's comments.

1.5 COORDINATION

- A. Where operation and maintenance documentation includes information on installations by more than one factory-authorized service representative, assemble and coordinate information furnished by representatives and prepare manuals.

PART 2 - PRODUCTS

2.1 OPERATION AND MAINTENANCE DOCUMENTATION DIRECTORY

- A. Organization: Include a section in the directory for each of the following:
 - 1. List of documents.
 - 2. List of systems.
 - 3. Table of contents.
- B. List of Systems and Subsystems: List systems alphabetically. Include references to operation and maintenance manuals that contain information about each system.
- C. Tables of Contents: Include a table of contents for each emergency, operation, and maintenance manual.
- D. Identification: In the documentation directory and in each operation and maintenance manual, identify each system, subsystem, and piece of equipment with same designation used in the Contract Documents. If no designation exists, assign a designation according to ASHRAE Guideline 4, "Preparation of Operating and Maintenance Documentation for Building Systems."

2.2 MANUALS, GENERAL

- A. Organization: Unless otherwise indicated, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system. Each manual shall contain the following materials, in the order listed:
 - 1. Title page.
 - 2. Table of contents.
 - 3. Manual contents.
- B. Title Page: Enclose title page in transparent plastic sleeve. Include the following information:
 - 1. Subject matter included in manual.
 - 2. Name and address of Project.
 - 3. Name and address of Owner.
 - 4. Name and address of Architect
 - 5. Date of submittal.
 - 6. Name, address, and telephone number of Contractor.
- C. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.

1. If operation or maintenance documentation requires more than one volume to accommodate data, include comprehensive table of contents for all volumes in each volume of the set.
- D. Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment.
1. Binders: Heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, in thickness necessary to accommodate contents, sized to hold 8-1/2-by-11-inch paper; with clear plastic sleeve on spine to hold label describing contents and with pockets inside covers to hold folded oversize sheets.
 - a. If two or more binders are necessary to accommodate data of a system, organize data in each binder into groupings by subsystem and related components. Cross-reference other binders if necessary to provide essential information for proper operation or maintenance of equipment or system.
 - b. Identify each binder on front and spine, with printed title "OPERATION AND MAINTENANCE MANUAL," Project title or name, and subject matter of contents. Indicate volume number for multiple-volume sets.
 2. Dividers: Heavy-paper dividers with plastic-covered tabs for each section. Mark each tab to indicate contents. Include typed list of products and major components of equipment included in the section on each divider, cross-referenced to Specification Section number and title of Project Manual.
 3. Protective Plastic Sleeves: Transparent plastic sleeves designed to enclose diagnostic software discs for computerized electronic equipment.
 4. Supplementary Text: Prepared on 8-1/2-by-11-inch white bond paper.
 5. Drawings: Attach reinforced, punched binder tabs on drawings and bind with text.
 - a. If oversize drawings are necessary, fold drawings to same size as text pages and use as foldouts.
 - b. If drawings are too large to be used as foldouts, fold and place drawings in labeled envelopes and bind envelopes in rear of manual. At appropriate locations in manual, insert typewritten pages indicating drawing titles, descriptions of contents, and drawing locations.

2.3 OPERATION MANUALS

- A. Content: In addition to requirements in this Section, include operation data required in individual Specification Sections and the following information:
1. System Product Description
 2. Cleaning and proper usage
 3. Precautions against improper use.
- B. Descriptions: Include the following:
1. Product name and model number.
 2. Manufacturer's name.

3. Location and contact information of supplier
4. Material function.
5. Characteristics.

2.4 PRODUCT MAINTENANCE MANUAL

- A. Content: Organize manual into a separate section for each product, material, and finish. Include source information, product information, maintenance procedures, repair materials and sources, and warranties and bonds, as described below.
- B. Source Information: List each product included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual.
- C. Product Information: Include the following, as applicable:
 1. Product name and model number.
 2. Manufacturer's name.
 3. Color, pattern, and texture.
- D. Maintenance Procedures: Include manufacturer's written recommendations and the following:
 1. Inspection procedures.
 2. Types of cleaning agents to be used and methods of cleaning.
 3. List of cleaning agents and methods of cleaning detrimental to product.
 4. Schedule for routine cleaning and maintenance.
 5. Repair instructions.
- E. Repair Materials and Sources: Include lists of materials and local sources of materials and related services.
- F. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
 1. Include procedures to follow and required notifications for warranty claims.

2.5 SYSTEMS AND EQUIPMENT MAINTENANCE MANUAL

- A. Content: For each system, subsystem, and piece of equipment not part of a system, include source information, manufacturers' maintenance documentation, maintenance procedures, maintenance and service schedules, spare parts list and source information, maintenance service contracts, and warranty and bond information, as described below.
- B. Source Information: List each system, subsystem, and piece of equipment included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual.

- C. **Manufacturers' Maintenance Documentation:** Manufacturers' maintenance documentation including the following information for each component part or piece of equipment:
 - 1. Standard printed maintenance instructions and bulletins.
 - 2. Drawings, diagrams, and instructions required for maintenance, including disassembly and component removal, replacement, and assembly.
 - 3. Identification and nomenclature of parts and components.
 - 4. List of items recommended to be stocked as spare parts.

- D. **Maintenance Procedures:** Include the following information and items that detail essential maintenance procedures:
 - 1. Test and inspection instructions.
 - 2. Troubleshooting guide.
 - 3. Precautions against improper maintenance.
 - 4. Disassembly; component removal, repair, and replacement; and reassembly instructions.
 - 5. Aligning, adjusting, and checking instructions.
 - 6. Demonstration and training videotape, if available.

- E. **Maintenance and Service Schedules:** Include service and lubrication requirements, list of required lubricants for equipment, and separate schedules for preventive and routine maintenance and service with standard time allotment.
 - 1. **Scheduled Maintenance and Service:** Tabulate actions for daily, weekly, monthly, quarterly, semiannual, and annual frequencies.
 - 2. **Maintenance and Service Record:** Include manufacturers' forms for recording maintenance.

- F. **Spare Parts List and Source Information:** Include lists of replacement and repair parts, with parts identified and cross-referenced to manufacturers' maintenance documentation and local sources of maintenance materials and related services.

- G. **Warranties and Bonds:** Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
 - 1. Include procedures to follow and required notifications for warranty claims.

PART 3 - EXECUTION

3.1 MANUAL PREPARATION

- A. **Operation and Maintenance Documentation Directory:** Prepare a separate manual that provides an organized reference to emergency, operation, and maintenance manuals.

- B. **Product Maintenance Manual:** Assemble a complete set of maintenance data indicating care and maintenance of each product, material, and finish incorporated into the Work.

- C. Operation and Maintenance Manuals: Assemble a complete set of operation and maintenance data indicating operation and maintenance of each system, subsystem, and piece of equipment not part of a system.
 - 1. Prepare a separate manual for each system and subsystem, in the form of an instructional manual for use by Owner's operating personnel.

- D. Manufacturers' Data: Where manuals contain manufacturers' standard printed data, include only sheets pertinent to product or component installed. Mark each sheet to identify each product or component incorporated into the Work. If data includes more than one item in a tabular format, identify each item using appropriate references from the Contract Documents. Identify data applicable to the Work and delete references to information not applicable.
 - 1. Prepare supplementary text if manufacturers' standard printed data are not available and where the information is necessary for proper operation and maintenance of equipment or systems.

- E. Drawings: Prepare drawings supplementing manufacturers' printed data to illustrate the relationship of component parts of equipment and systems and to illustrate control sequence and flow diagrams. Coordinate these drawings with information contained in Record Drawings to ensure correct illustration of completed installation.
 - 1. Do not use original Project Record Documents as part of operation and maintenance manuals.
 - 2. Comply with requirements of newly prepared Record Drawings in Division 1 Section "Project Record Documents."

- F. Comply with Division 1 Section "Closeout Procedures" for schedule for submitting operation and maintenance documentation.

END OF SECTION 01782

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for instructing Owner's personnel, including the following:
 - 1. Cleaning demonstration of installed flooring.
- B. Related Sections include the following:
 - 1. Divisions 2 through 16 Sections for specific requirements for demonstration and training for products in those Sections.

1.3 SUBMITTALS

- A. Attendance Record: For each training module, submit list of participants and length of instruction time.

1.4 QUALITY ASSURANCE

- A. Instructor Qualifications: A factory-authorized service representative, complying with requirements in Division 1 Section "Quality Requirements," experienced in operation and maintenance procedures and training.

1.5 COORDINATION

- A. Coordinate instruction schedule with Owner's operations. Adjust schedule as required to minimize disrupting Owner's operations.
- B. Coordinate instructors, including providing notification of dates, times, length of instruction time, and course content.
- C. Coordinate content of training modules with content of approved emergency, operation, and maintenance manuals. Do not submit instruction program until operation and maintenance data has been reviewed and approved by Architect.

PART 2 - PRODUCTS

- A. Training Modules: Develop a learning objective and teaching outline for each module. Include a description of specific skills and knowledge that participant is expected to master. For each module, include instruction for the following:
 - 1. Maintenance: Include the following:
 - a. Inspection procedures.
 - b. Types of cleaning agents to be used and methods of cleaning.
 - c. List of cleaning agents and methods of cleaning detrimental to product.
 - d. Procedures for routine cleaning
 - e. Procedures for preventive maintenance.
 - f. Procedures for routine maintenance.
 - g. Instruction on use of special tools.
 - 2. Repairs: Include the following:
 - a. Diagnosis instructions.
 - b. Repair instructions.
 - c. Disassembly; component removal, repair, and replacement; and reassembly instructions.
 - d. Instructions for identifying parts and components.
 - e. Review of spare parts needed for operation and maintenance.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Assemble educational materials necessary for instruction, including documentation and training module. Assemble training modules into a combined training manual.
- B. Set up instructional equipment at instruction location.

3.2 INSTRUCTION

- A. Engage qualified instructors to instruct Owner's personnel to adjust, operate, and maintain systems, subsystems, and equipment not part of a system.
 - 1. Owner will furnish Contractor with names and positions of participants.
- B. Scheduling: Provide instruction at mutually agreed on times. For equipment that requires seasonal operation, provide similar instruction at start of each season.
 - 1. Schedule training with Owner with at least seven days' advance notice.
- C. Cleanup: Collect used and leftover educational materials and give to Owner. Remove instructional equipment. Restore systems and equipment to condition existing before initial training use.

END OF SECTION 01820

GENERAL

1.1 SECTION INCLUDES

- A. Moisture reduction barriers.
- B. Primers.

1.2 RELATED SECTIONS

- A. Section 09653 - Resilient Base and Accessories.
- B. Section 09651 – Resilient Tile Flooring

1.3 REFERENCES

- A. ASTM F 2170 - Standard test method for determining relative humidity in concrete floor slabs using in situ probes.
- B. ASTM F 710 - Standard practice for preparing concrete floors to receive resilient flooring.
- C. ASTM E96 -Standard Test Methods for Water Vapor Transmission of Materials

1.4 SUBMITTALS

- A. Submit under provisions of Section 01330 - Administrative Requirements.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
 - 4. Moisture vapor emission test reports
 - 5. Verification of compatibility with specified flooring and adhesive.
- C. Manufacturer's Certificates: Certify products meet or exceed specified requirements.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products of this section with minimum ten years documented experience.
- B. Installer Qualifications: Company specializing in performing the work of this section with minimum five years documented experience.
- C. Obtain products from one manufacturer.
- D. Pre-Application Meeting:
 - 1. Convene a pre-application meeting two weeks before the start of application of floor coating system.
 - 2. Require attendance of parties directly affecting work of this section, including the Contractor, finished floor applicators, moisture vapor control applicator and respective Manufacturer's Representatives.
 - 3. Review the surface preparation, application, cleaning, protection and coordination with other work.
- E. Product used must be capable of sealing an existing concrete slab with a moisture content measured up to 99% RH.

- F. Test the moisture vapor emission rate of the concrete per flooring manufacturer's recommendations and industry standards. Submit copies of suitable tests results prior to application of finished flooring specified in Division 9 of this specification.
 - 1. Testing of the 1st Avenue Corridor has already occurred.
 - 2. Provide 1 test for each resident room in 1st avenue per testing standard regulations.
 - 3. Schedule testing with ample time prior to installation of finish floor so as not to delay schedule.
 - 4. Test is a discreet area of the room whereas not to disrupt residents' activities.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store packaged materials in original containers with seals unbroken and labels intact until time of use. Comply with requirements of ANSI A137.1 for labeling sealed tile packages.
- B. Prevent damage or contamination to materials by water, freezing, foreign matter and other causes.
- C. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.
- D. Store materials, in accordance with requirements of manufacturer's written instructions.

1.7 SEQUENCING

- A. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.

1.8 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.
- B. Safety: Observe the manufacturer's safety instructions including those pertaining to ventilation.

WARRANTY

- A. Products shall be provided with the manufacturer's standard warranty.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturers
 - 1. Wakol
 - a. <http://www.wakol-usa.com/>
 - 2. Ardex
 - a. www.ardexamericas.com
 - 3. Tec
 - a. <http://www.tecspecialty.com/>
 - 4. Owner Approved Equal

2.2 MOISTURE VAPOR EMISSION CONTROL MATERIALS

- A. Moisture Barrier Coating: Liquid-applied water vapor emission system, 100% solids epoxy moisture management system formulated to suppress excessive moisture vapor emissions

in new or existing concrete slabs.

- B. Moisture Barrier Coating: Liquid-applied water vapor emission system, polyurethane resin.
- C. Primers: For use in conjunction with moisture vapor retarders, to permit the installation of hydraulic cement self-leveling underlayment and patches.

2.3 EQUIPMENT (IF REQUIRED)

- A. Shot Blasting Equipment: Equipped with vacuum to capture and prevent concrete dust from escaping into interior spaces, and as instructed by manufacturer.
- B. Grinding Equipment: Equipped with vacuum to capture and prevent concrete dust from escaping into interior spaces, and as instructed by manufacturer.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine surfaces, which are to receive new flooring.
- B. Do not proceed with work until defects or conditions which would adversely affect quality, execution and permanence of finished tile work are corrected.

3.2 PREPARATION

- A. Prepare surfaces in accordance with ASTM F 710 using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- B. Verify compatibility with specified flooring, adhesive used, and any floor preparation products.
- C. Clean surfaces thoroughly prior to installation. Surfaces must be clean and free of dust, oil, grease paint, tar, wax, curing compound, primer, sealer, form release agent, laitance, loosely bonded topping, loose particles or any deleterious substance and debris which may prevent or reduce adhesion.
- D. Most uncoated concrete floors will only require sweeping and priming. Pre-coated or contaminated floors must be mechanically abraded to completely remove all paint, loosely bonded topping, loose particles and construction debris. Surface profile should achieve ICRI CSP #3. Surface should be vacuumed to remove loose debris.
- E. Take proper precautions so as not to allow vapor emissions, scents and odors into the occupied portions of the building.
- F. Before work commences examine the areas to be covered and report any flaw or adverse condition in writing to the Architect and Contractor.

3.3 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Coordinate with finish floor installation, cover with suitable underlayment or finished floor as soon as possible.
- C. After application test the moisture vapor emission rate of the concrete per flooring manufacturer's recommendations and industry standards.

3.4 PROTECTION

- A. Protect installed products until completion of project.
- B. Leave installations clean and premises free from residue and debris from work of this Section.
- C. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

SECTION 09651 - RESILIENT TILE FLOORING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

- 1. Luxury vinyl floor tile.

- B. Related Sections:

- 1. Division 09 Section "Resilient Base and Accessories" for resilient base, reducer strips, and other accessories installed with resilient floor coverings.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.

- B. Shop Drawings: For each type of floor tile. Include floor tile layouts, edges, columns, doorways, enclosing partitions, built-in furniture, cabinets, and cutouts.

- 1. Show details of special patterns.

- C. Samples for Verification: Full-size units of each color and pattern of floor tile required.

- 1. For heat-welding bead, manufacturer's standard-size Samples, but not less than 9 inches long, of each color required.

- D. Seam Samples: For seamless-installation technique indicated and for each flooring product, color, and pattern required; with seam running lengthwise and in center of 6-by-9-inch Sample applied to a rigid backing and prepared by Installer for this Project.

- E. Product Schedule: Use same designations indicated on Drawings.

1.4 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For qualified Installer.

1.5 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For each type of floor tile to include in maintenance manuals.

1.6 MATERIALS MAINTENANCE SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Floor Tile: Furnish 1 box for every 50 boxes or fraction thereof, of each type, color, and pattern of floor tile installed.

1.7 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified installer who employs workers for this Project who are competent in techniques required by manufacturer for floor tile installation and seaming method indicated.
 - 1. Engage an installer who employs workers for this Project who are trained or certified by manufacturer for installation techniques required.
- B. Fire-Test-Response Characteristics: As determined by testing identical products according to ASTM E 648 or NFPA 253 by a qualified testing agency.
 - 1. Critical Radiant Flux Classification: Class I, not less than 0.45 W/sq. cm.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Store floor tile and installation materials in dry spaces protected from the weather, with ambient temperatures maintained within range recommended by manufacturer, but not less than 50 deg F or more than 90 deg F. Store floor tiles on flat surfaces.

1.9 PROJECT CONDITIONS

- A. Maintain ambient temperatures within range recommended by manufacturer, but not less than 70 deg F or more than 95 deg F, in spaces to receive floor tile during the following time periods:
 - 1. 48 hours before installation.
 - 2. During installation.
 - 3. 48 hours after installation.
- B. Until Substantial Completion, maintain ambient temperatures within range recommended by manufacturer, but not less than 55 deg F or more than 95 deg F.
- C. Close spaces to traffic during floor tile installation.
- D. Close spaces to traffic for 48 hours after floor tile installation.
- E. Install floor tile after other finishing operations, including painting, have been completed.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. FloorScore Compliance: Resilient tile flooring shall comply with requirements of FloorScore Standard.

- B. Low-Emitting Materials: Flooring system shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

2.2 LUXURY VINYL FLOOR TILE (LVT-1)

- A. Products: Subject to compliance with requirements, provide the following Basis-of-Design product:
 - 1. Basis of Design: Armstrong, Natural Creations ArborArt.
- B. Tile Standard: ASTM F 1700.
 - 1. Class: Class III, printed film vinyl tile.
 - 2. Type: Type B, embossed surface.
- C. Thickness: 0.125 inch.
- D. Wear Layer: .020 inch clear, rigid high density PVC.
- E. Size: 4 by 36 inch plank.
- F. Edge: Square.
- G. Seaming Method: Standard.
- H. Colors and Patterns: As shown on Product Finish Schedule.

2.3 LUXURY VINYL FLOOR TILE (LVT-2)

- A. Products: Subject to compliance with requirements, provide the following Basis-of-Design product:
 - 1. Basis of Design: Armstrong, Natural Creations ArborArt.
- B. Tile Standard: ASTM F 1700.
 - 1. Class: Class III, printed film vinyl tile.
 - 2. Type: Type B, embossed surface.
- C. Thickness: 0.125 inch.
- D. Wear Layer: .020 inch clear, rigid high density PVC.
- E. Size: 6 by 36 inch plank.
- F. Edge: Square.
- G. Seaming Method: Standard.
- H. Colors and Patterns: As shown on Product Finish Schedule.

2.4 LUXURY VINYL FLOOR TILE (LVT-3)

- A. Products: Subject to compliance with requirements, provide the following Basis-of-Design product:
 - 1. Basis of Design: Armstrong, Natural Creations ArborArt.
- B. Tile Standard: ASTM F 1700.
 - 1. Class: Class III, printed film vinyl tile.
 - 2. Type: Type B, embossed surface.
- C. Thickness: 0.125 inch.
- D. Wear Layer: .020 inch clear, rigid high density PVC.
- E. Size: 12 by 24 inch tile.
- F. Edge: Square.
- G. Seaming Method: Standard.
- H. Colors and Patterns: As shown on Product Finish Schedule.

2.5 INSTALLATION MATERIALS

- A. Trowelable Leveling and Patching Compounds: Latex-modified, Portland cement based or blended hydraulic-cement-based formulation provided or approved by manufacturer for applications indicated.
- B. Adhesives: As recommended by manufacturer to suit floor tile and substrate conditions indicated for use on surfaces that have been treated for moisture mitigation and/or abatement.
 - 1. Basis of Design product: Armstrong S-761 Spray Adhesive.
 - 2. Adhesives shall comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24):
 - a. VCT and Asphalt Tile Adhesives: Not more than 50 g/L.
 - 3. Adhesives shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
- C. Seamless-Installation Accessories:
 - 1. Heat-Welding Bead: Manufacturer's solid-strand product for heat welding seams.
 - a. Color: As recommended by manufacturer.
 - 2. Chemical-Bonding Compound: Manufacturer's product for chemically bonding seams.
 - a. Chemical-bonding compound shall have a VOC content of 350 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
 - b. Chemical-bonding compound shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

- D. Floor Polish: Provide protective liquid floor polish products as recommended by manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, with Installer present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
- B. Verify that finishes of substrates comply with tolerances and other requirements specified in other Sections and that substrates are free of cracks, ridges, depressions, scale, and foreign deposits that might interfere with adhesion of floor tile.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Prepare substrates according to manufacturer's written instructions to ensure adhesion of resilient products.
- B. Concrete Substrates: Prepare according to ASTM F 710.
 - 1. Verify that substrates are dry and free of curing compounds, sealers, and hardeners.
 - 2. Remove substrate coatings and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, using mechanical methods recommended by manufacturer. Do not use solvents.
 - 3. Alkalinity and Adhesion Testing: Perform tests recommended by manufacturer. Proceed with installation only after substrates pass testing.
 - 4. Moisture Testing: Perform tests recommended by manufacturer and as follows. Proceed with installation only after substrates pass testing.
 - a. Perform relative humidity test using in situ probes, ASTM F 2170. Proceed with installation only after substrates have a maximum 75% relative humidity level measurement.
- C. Access Flooring Panels: Remove protective film of oil or other coating using method recommended by access flooring manufacturer.
- D. Fill cracks, holes, and depressions in substrates with trowelable leveling and patching compound and remove bumps and ridges to produce a uniform and smooth substrate.
- E. Do not install floor tiles until they are same temperature as space where they are to be installed.
 - 1. Move resilient products and installation materials into spaces where they will be installed at least 48 hours in advance of installation.
- F. Sweep and vacuum clean substrates to be covered by resilient products immediately before installation.

3.3 FLOOR TILE INSTALLATION

- A. Comply with manufacturer's written instructions for installing floor tile.

- B. Lay out floor tiles from center marks established with principal walls, discounting minor offsets, so tiles at opposite edges of room are of equal width. Adjust as necessary to avoid using cut widths that equal less than one-half tile at perimeter.
 - 1. Lay tiles in pattern indicated on Interior Finish Drawings.
- C. Match floor tiles for color and pattern by selecting tiles from cartons in the same sequence as manufactured and packaged, if so numbered. Discard broken, cracked, chipped, or deformed tiles.
 - 1. Lay tiles with grain running in one direction.
- D. Scribe, cut, and fit floor tiles to butt neatly and tightly to vertical surfaces and permanent fixtures including built-in furniture, cabinets, pipes, outlets, and door frames.
- E. Extend floor tiles into toe spaces, door reveals, closets, and similar openings. Extend floor tiles to center of door openings.
- F. Maintain reference markers, holes, and openings that are in place or marked for future cutting by repeating on floor tiles as marked on substrates. Use chalk or other nonpermanent, non-staining marking device.
- G. Install floor tiles on covers for telephone and electrical ducts, building expansion-joint covers, and similar items in finished floor areas. Maintain overall continuity of color and pattern between pieces of tile installed on covers and adjoining tiles. Tightly adhere tile edges to substrates that abut covers and to cover perimeters.
- H. Adhere floor tiles to flooring substrates using a full spread of adhesive applied to substrate to produce a completed installation without open cracks, voids, raising and puckering at joints, telegraphing of adhesive spreader marks, and other surface imperfections.
- I. Seamless Installation:
 - 1. Heat-Welded Seams: Comply with ASTM F 1516. Rout joints and heat weld with welding bead to permanently fuse sections into a seamless floor covering. Prepare, weld, and finish seams to produce surfaces flush with adjoining floor covering surfaces.
 - 2. Chemically Bonded Seams: Bond seams with chemical-bonding compound to permanently fuse sections into a seamless floor covering. Prepare seams and apply compound to produce tightly fitted seams without gaps, overlays, or excess bonding compound on floor covering surfaces.

3.4 CLEANING AND PROTECTION

- A. Comply with manufacturer's written instructions for cleaning and protection of floor tile.
- B. Perform the following operations immediately after completing floor tile installation:
 - 1. Remove adhesive and other blemishes from exposed surfaces.
 - 2. Sweep and vacuum surfaces thoroughly.
 - 3. Damp-mop surfaces to remove marks and soil.
- C. Protect floor tile products from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period.
- D. Sealers and Finish Coats: Remove soil, visible adhesive, and surface blemishes from resilient floor tile surfaces before applying liquid cleaners, sealers, and finish products.

1. Sealer: Apply two base coats of liquid sealer.
 2. Finish: Apply two coats of liquid floor finish.
- E. Cover floor tile until Substantial Completion.

END OF SECTION 09651

SECTION 09653 - RESILIENT BASE AND ACCESSORIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

- 1. Resilient base.
- 2. Resilient molding accessories.

B. Related Sections:

- 1. Division 09 Section "Resilient Sheet Flooring" for resilient sheet floor coverings.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples for Verification: For each type of product indicated, in manufacturer's standard-size Samples but not less than 12 inches long, of each resilient product color, texture, and pattern required.
- C. Product Schedule: For resilient products. Use same designations indicated on Drawings.

1.4 MATERIALS MAINTENANCE SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Furnish not less than 10 linear feet for every 500 linear feet or fraction thereof, of each type, color, pattern, and size of resilient product installed.

1.5 QUALITY ASSURANCE

- A. Fire-Test-Response Characteristics: As determined by testing identical products according to ASTM E 648 or NFPA 253 by a qualified testing agency.
 - 1. Critical Radiant Flux Classification: Class I, not less than 0.45 W/sq. cm.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store resilient products and installation materials in dry spaces protected from the weather, with ambient temperatures maintained within range recommended by manufacturer, but not less than 50 deg F or more than 90 deg F.

1.7 PROJECT CONDITIONS

- A. Maintain ambient temperatures within range recommended by manufacturer, but not less than 70 deg F or more than 95 deg F, in spaces to receive resilient products during the following time periods:
 - 1. 48 hours before installation.
 - 2. During installation.
 - 3. 48 hours after installation.
- B. Until Substantial Completion, maintain ambient temperatures within range recommended by manufacturer, but not less than 55 deg F or more than 95 deg F.
- C. Install resilient products after other finishing operations, including painting, have been completed.

PART 2 - PRODUCTS

2.1 RESILIENT BASE (MWB-1):

- A. Manufacturers:
 - 1. Subject to compliance with requirements, provide products by one of the following:
 - a. Burke Mercer Flooring Products; Division of Burke Industries, Inc.
 - b. Flexco, Inc.
 - c. Johnsonite.
 - d. Roppe Corporation, USA.
 - 2. Basis of Design: Subject to compliance with requirements, provide the following:
 - a. Johnsonite, Millwork Wall Base.
- B. Resilient Base Standard: ASTM F 1861.
 - 1. Material Requirement: Type TP (rubber, thermoplastic).
 - 2. Manufacturing Method: Group I (solid, homogeneous).
 - 3. Style: Contour Resilient Wall Base:
 - a. Profile: Silhouette, MW-XX-J.
- C. Thickness: 1/2 inch.
- D. Height: 4 inches.
- E. Lengths: Cut lengths, 96 inches long.
- F. Outside Corners: Job formed, mitered.
- G. Inside Corners: Job formed, mitered.

H. Colors and Patterns: As shown on Product Finish Schedule.

2.2 RESILIENT BASE (RES-1):

A. Manufacturers:

1. Subject to compliance with requirements, provide products by one of the following:
 - a. Burke Mercer Flooring Products; Division of Burke Industries, Inc.
 - b. Flexco, Inc.
 - c. Johnsonite.
 - d. Roppe Corporation, USA.
2. Basis of Design: Subject to compliance with requirements, provide the following:
 - a. Johnsonite.

B. Resilient Base Standard: ASTM F 1861.

1. Material Requirement: Type TP (rubber, thermoplastic).
2. Manufacturing Method: Group I (solid, homogeneous).
3. Style: Cove (base with toe).

C. Minimum Thickness: 1/8 inch.

D. Height: 4 inches.

E. Lengths: Coils in manufacturer's standard length.

F. Outside Corners: Preformed.

G. Inside Corners: Preformed.

H. Colors and Patterns: As shown on Product Finish Schedule.

2.3 RESILIENT MOLDING ACCESSORY (RA-1)

A. Manufacturers:

1. Subject to compliance with requirements, provide products by one of the following:
 - a. Burke Mercer Flooring Products; Division of Burke Industries, Inc.
 - b. Flexco, Inc.
 - c. Johnsonite.
 - d. Roppe Corporation, USA.

B. Resilient Molding Accessory:

1. Basis of Design: Subject to compliance with requirements, provide product listed below:
 - a. Johnsonite.

C. Description: Reducer between:

1. Luxury Vinyl Tile to Sealed Concrete

- D. Material: Rubber.
- E. Profile and Dimensions: SSR-XX-B.
- F. Color: As selected by Architect from manufacturer's full range of colors.

2.4 INSTALLATION MATERIALS

- A. Trowelable Leveling and Patching Compounds: Latex-modified, Portland cement based or blended hydraulic-cement-based formulation provided or approved by manufacturer for applications indicated.
- B. Adhesives: Water-resistant type recommended by manufacturer to suit resilient products and substrate conditions indicated.
 - 1. Adhesives shall have a VOC content of 50 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
 - 2. Adhesives shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
 - a. Cove Base Adhesives: Not more than 50 g/L.
 - b. Rubber Floor Adhesives: Not more than 60 g/L.
- C. Metal Edge Strips: Extruded aluminum with mill finish of width shown, of height required to protect exposed edges of tiles, and in maximum available lengths to minimize running joints.
- D. Floor Polish: Provide protective liquid floor polish products as recommended by resilient stair tread manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, with Installer present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
- B. Verify that finishes of substrates comply with tolerances and other requirements specified in other Sections and that substrates are free of cracks, ridges, depressions, scale, and foreign deposits that might interfere with adhesion of resilient products.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Prepare substrates according to manufacturer's written instructions to ensure adhesion of resilient products.
- B. Concrete Substrates for Resilient Stair Treads and Accessories: Prepare according to ASTM F 710.
 - 1. Verify that substrates are dry and free of curing compounds, sealers, and hardeners.

2. Remove substrate coatings and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, using mechanical methods recommended by manufacturer. Do not use solvents.
 3. Alkalinity and Adhesion Testing: Perform tests recommended by manufacturer.
 4. Moisture Testing: Perform tests recommended by manufacturer and as follows. Proceed with installation only after substrates pass testing.
 - a. Perform relative humidity test using in situ probes, ASTM F 2170. Proceed with installation only after substrates have maximum 75 percent relative humidity level measurement.
- C. Fill cracks, holes, and depressions in substrates with trowelable leveling and patching compound and remove bumps and ridges to produce a uniform and smooth substrate.
- D. Do not install resilient products until they are same temperature as the space where they are to be installed.
1. Move resilient products and installation materials into spaces where they will be installed at least 48 hours in advance of installation.
- E. Sweep and vacuum clean substrates to be covered by resilient products immediately before installation.

3.3 RESILIENT BASE INSTALLATION

- A. Comply with manufacturer's written instructions for installing resilient base.
- B. Apply resilient base to walls, columns, pilasters, casework and cabinets in toe spaces, and other permanent fixtures in rooms and areas where base is required.
- C. Install resilient base in lengths as long as practicable without gaps at seams and with tops of adjacent pieces aligned.
- D. Tightly adhere resilient base to substrate throughout length of each piece, with base in continuous contact with horizontal and vertical substrates.
- E. Do not stretch resilient base during installation.
- F. On masonry surfaces or other similar irregular substrates, fill voids along top edge of resilient base with manufacturer's recommended adhesive filler material.
- G. Preformed Corners: Install preformed corners before installing straight pieces.
- H. Job-Formed Corners:
 1. Outside Corners: Use straight pieces of maximum lengths possible. Form without producing discoloration (whitening) at bends.
 2. Inside Corners: Use straight pieces of maximum lengths possible.

3.4 RESILIENT ACCESSORY INSTALLATION

- A. Comply with manufacturer's written instructions for installing resilient accessories.
- B. Resilient Molding Accessories: Butt to adjacent materials and tightly adhere to substrates throughout length of each piece. Install reducer strips at edges of carpet and resilient floor covering that would otherwise be exposed.

3.5 CLEANING AND PROTECTION

- A. Comply with manufacturer's written instructions for cleaning and protection of resilient products.
- B. Perform the following operations immediately after completing resilient product installation:
 - 1. Remove adhesive and other blemishes from exposed surfaces.
 - 2. Sweep and vacuum surfaces thoroughly.
 - 3. Damp-mop surfaces to remove marks and soil.
- C. Protect resilient products from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period.
- D. Cover resilient products until Substantial Completion.

END OF SECTION 09653